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An oral health needs assessment of vulnerable groups in Camden and Islington

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1. Introduction

This report describes the oral health needs of five vulnerable groups in Camden and Islington. These are older adults, adults with learning disabilities, adults with serious mental illness, adults with drugs and alcohol abuse and homeless people. Vulnerable groups of society often experience poorer oral health and can have more difficulty in gaining access to primary care dental services.

An oral health needs assessment is a pragmatic approach to determine the priorities for a population through a structured process. Local Authorities need to regularly review the oral health needs of their populations to enable them to plan preventive and treatment services that will improve oral health and reduce inequalities in oral health. An oral health needs assessment will enable commissioners to allocate resources and prioritise investments.

This oral health needs assessment considers conditions and factors that might have a significant impact on oral health and function. These included tooth decay, gum diseases other oral diseases such as mouth cancer as well as dental service availability and use. It describes the effective interventions for improving oral health in these vulnerable groups.

In 2013 NHS England took over responsibility for the commissioning of clinical services for this group of vulnerable people. At the same time the London Boroughs of Camden and Islington took over responsibility for the commissioning of their health improvement programmes.

The purpose of this needs assessment is to identify the specific oral health needs and service provision for these groups. The report is intended to inform decisions about the commissioning of dental services for these groups of vulnerable adults.

1.1 Methods

The needs assessment was developed using a variety of methods and data sources including the following:

- a review of the literature
- Camden and Islington Joint Strategic Needs Assessments
- description of current dental clinical and health improvements services

1.2 Policy context

A number of key documents have been produced to support the commissioning and delivery of evidence based oral health improvement and the delivery of high quality accessible and appropriate dental services. These include:

- Public Health England (2014) Delivering Better Oral Health- an evidence based toolkit for prevention
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/319471/DBOHv3JUNE2014.pdf
- Public Health England (2014). Smokefree and smiling- helping dental patients quit tobacco
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/288835/SmokeFree_Smiling_110314_FINALjw.pdf
- Department of Health (2013) Securing Excellence in Commissioning NHS Dental services – guidance on commissioning dental services that are cost and clinically effective, offer patients a positive experience and improve health outcomes
<http://www.england.nhs.uk/wp-content/uploads/2013/02/commissioning-dental.pdf>
- The NHS Outcomes Framework 2013 -2014 acts as a catalyst for driving up quality throughout the NHS by encouraging a change in culture and behaviour. It is aligned with the Public Health Outcomes Framework to encourage collaboration and integration.
- Statutory Instrument 2012 No. 3094 : Dental Public Health functions (Section 4) - Local authorities have a responsibility to 'provide, or make arrangements to secure the provision' of oral health surveys and oral health promotion and oral health improvement as part of overall population health improvement
<http://www.legislation.gov.uk/uksi/2012/3094/contents/made>
- Department of Health (2007) Valuing People's oral health – a good practice guide for improving the oral health of disabled children and adults
- The NHS Operating Framework for Dentistry sets out the Department of Health's commitment to improving dental services. The three themes in the Operating Framework are:
 - Prevention –commission services with an emphasis in prevention
 - Access –improve access to dental services
 - Quality –ensure that dental service are safe and are of high quality

1.3 Factors affecting oral health

Good oral health is integral to general health as it contributes to general well-being and allows people to eat, speak, and socialise without active disease, discomfort or embarrassment. Oral diseases may cause individuals to experience pain, which may result in reduced social interaction, inability to self-care or carry out basic tasks either for themselves or others, disruption of family life and could lead to days off work or school. The long term consequence of oral diseases is tooth loss which could result in increased loss of function and have implications for diet and social interaction.

Oral health varies by gender, age, socio-economic status and ethnic group and there is a well-established association between poor oral health and socio-economic deprivation. It is therefore an important public health issue for Camden and Islington, as an ethnically diverse and deprived part of London.

2. Oral health and older adults (65 and above)

2.1 Introduction

Dramatic improvements in oral health over the past 50 years in most industrialised countries now mean that more people retain their natural teeth into older age. The preference for keeping teeth is socially entrenched even among older people. Good oral health improves quality of life and is an integral part of active ageing. Alterations in dental status or both physical and biological change associated with age can impact on oral disease and function. Poor oral health in older adults can have a range of impacts including the ability to eat, type of diet, speech, appearance and social interaction as well as pain and discomfort.¹

2.2 Summary profile of older adults in Camden and Islington

2.2.1 Camden

- people aged 65 and over estimated to be 25,300 (11%) of total population
- population for this group expected to rise by 15.7% in 2023 but for people aged 75 and above the rise is estimated at 30%
- 57% are female and 43% male
- 16% of people aged 65 and above are from a BME Group
- there is wide variation in the proportion of older adults affected by income deprivation ranging from 0% in Highgate to 76% in an area of Regent's Park

2.2.2 Islington

- people aged 65 and over estimated to be 18,036 (8.5%) of total population
- population for this group expected to rise by 7.5% in 2020 but for people aged 75 and above the rise is estimated at 9%
- 58% are female and 42% male

2.3. Older adults and additional risk of oral diseases

Older adults are at additional risk of developing oral diseases due to:

- retaining teeth
- poor nutrition

- oral health not given a priority
- low perception of need
- effects of dementia
- decreased salivary flow
- problems with dexterity

2.4 Oral health of older adults

People are not only living longer but also retaining their natural teeth for longer into old age. Changes that can occur over time in the gum tissues expose vulnerable root surfaces to the oral environment and thus, potentially to the decay process. Therefore while older people are still at risk of dental decay, gum disease and tooth wear, they are also at increased risk of developing root decay and oral cancer. The treatment needs of older people can be complex with systemic disease and medication compounding oral risk factors, such as dry mouth to make oral hygiene and treatment more difficult.

2.4.1 Tooth loss and functional dentition

Older adults have fewer teeth than the general adult population. Although complete tooth loss is declining incremental tooth loss continues and is an important determinant of oral health related quality of life.^{2,3} This has both nutritional and social consequences and studies have found that people with no teeth have poor nutritional status and infrequent use of dental services.^{3,4} Older people living in the most deprived areas have fewer teeth than those living the least deprived areas.⁵ A functional dentition is defined as retaining 21 or more natural teeth which is seen as a threshold for sufficient oral function for a healthy diet without the need for dentures. In a London study 81% of people aged 65 and above had a functional dentition compared to 90% for the whole adult population. Within the older adult population in London there is marked variation with 83% of older adults aged 65-74 having a functional dentition compared to 67% for people aged 85 and over.⁶

2.4.2 Dental caries

Older people are a caries active group experiencing new disease at a rate which is at least as great as adolescents⁵. Some studies have found that decay in older people is likely to be in the form of decay around fillings rather than new cavities. Other studies have found that older adults with dementia have higher rates of tooth decay.⁷

Root decay is a problem that is relatively unique to older people and is found in increasing proportions in men with poor social backgrounds, people with poor dental attendance and people living in long stay care. Another risk factor for tooth decay in older people is the use of medicines which are acidic or contain sugars as a flavouring/preservative.⁸

In a study of older adults in three London boroughs 25% had one or more untreated decayed tooth. Fewer older adults aged 65-74 years and 75-84 years in these boroughs had one or more untreated decayed tooth compared to older adults aged 65-74 years and 75-84 years living in the UK in 2009. In contrast, a higher percentage of older adults aged 85 years and above in these boroughs had untreated decayed teeth compared to older adults aged 85 years and over living in the UK.⁶

2.4.3 Gum disease

The prevalence of gum diseases increases with age and in older adults is more commonly seen in females. People aged 75 and above and people with dementia are at increased risk of gum disease because of poor oral hygiene and the inability to maintain self-care. A high prevalence of gum disease in older adults should be of concern because it directly increases the patient's risk of developing root decay, as well as tooth loss with resulting deficient masticatory ability, nutrition and speech, which can worsen the patient's quality of life. Many patients with mobile teeth as a result of gum disease avoid crunchy or stringy foods, which often eliminates meat, bread and vegetables from their diets. Insufficient intake of nutritious foods can lead to malnutrition, with resulting unintentional weight loss, fatigue and poor general health.^{8,9}

In a study of older adults in three London boroughs 47% had bleeding gums, 58% had moderate gum diseases and 25% severe gum disease.⁶

2.4.4 Toothwear

Toothwear is the gradual loss of tooth substance due to repetitive physical contacts or chemical solution. With people retaining natural teeth into old age toothwear is an increasingly common presentation. Toothwear increases with age and is a reflection of lifetime's dental experience.¹⁰

2.4.5 Oral cancer and pre-cancer

There is an increasing number of older people presenting with and surviving oral cancer. Oral cancer is more common in men but rates in women are increasing. Alcohol consumption and smoking are both risk factors for oral cancer and these risks are multiplied together when both behaviours are present. Chewing tobacco which is a social habit in parts of the Asian community is also known to lead to oral cancer. Studies have shown that the Human Papilloma Virus (HPV) is also a risk factor for oral cancer. Older people with oral cancer appear to cope and adjust well to treatment as reflected in their oral health related quality of life scores compared to younger people with oral cancer.^{11,12}

2.4.6 Dry mouth

Dry mouth occurs in a substantial proportion of older people affecting their oral health related quality through effects on enjoyment and ingestion of food, speaking and wearing of dentures. The most important risk factor for dry mouth is the use of medication particularly anti-depressants, respiratory agents and some cardiac and analgesic drugs. Older adults can also have low salivary flow due to salivary gland hypofunction. People with low salivary flow may be at risk of dental decay because of reduced buffering action and people with dry mouth may take measures to relieve their symptoms by frequent sucking of sweets which could promote dental decay.¹³

2.4.7 Oral health related quality of life

A study carried out in older adults in three London boroughs assessed the relationship between oral health related quality of life (OHRQoL) and dentist–patient relationships related to perceived unmet dental needs; shared decision-making; time spent discussing oral health problems; respect and confidence and trust. The study concluded that older people with unmet dental needs and those who expressed a lack of trust and confidence in their dentist were more likely to experience poor OHRQoL reinforcing the importance of the dental patient experience in healthy ageing and well-being.^{6,13}

The impact of dry mouth, tooth loss, dental decay and oral cancer on the quality of life of older people has already been discussed.

2.5. Barriers to the provision of oral care to older adults ^{14,15,16}

There are several barriers to the provision of oral care to older adults. These include user/carer barriers, professional service barriers and physical barriers

2.5.1 User /carer barriers

- low perception of need – a number of older people do not access oral health services because they feel that there is nothing wrong with their teeth and therefore do not need to go. This is also a feature of people with no teeth however regular check-ups will ensure that dentures are properly fitted and that there are no suspicious soft tissue lesions
- self perceived barriers – a typical example of self perceived barriers was ‘fear of cost’ where older adults do not access care because of cost when in fact they are exempt from dental charges
- fear of dentists mainly as a result of a previous bad experience
- living alone
- income
- gender
- problems with mobility
- lack of education
- cultural barriers
- barriers to practising self-care – these include vision and manual dexterity

2.5.2 Professional service barriers

- lack of adequate skills of dentists particularly in treating frail elderly and people with dementia
- lack of adequate equipment in care home and no area for treatment
- lack of adequate remuneration to carry out domiciliary work

2.5.3 Physical barriers

The main physical barriers relate to disability access and difficulties with ambulance transfer or Taxi's.

2.6. Effective interventions for improving oral health in older adults ^{17,18,19,20,21}

- encourage dental teams to give dietary advice in dental practice as this promotes good oral health

- develop oral health promotion programmes combined with skills training for carers as this can benefit older adults
- encourage the use of high concentration fluoride toothpaste (2800ppm) and fluoride varnish as this can prevent or reverse tooth decay in older adults. Depending on the product the fluoride can be delivered by the individual, their carer or by a dental professional. Delivering Better Oral Health: an evidence based toolkit for prevention provides guidance on fluoride interventions for the prevention of dental decay in older adults.
- where appropriate encourage dentists to use the atraumatic restorative technique (ART) as this is an effective method of treating root caries in older adults
- encourage dentists to carry out opportunistic screening for oral cancer for adults who are at high risk
- encourage dental professionals to deliver tobacco cessation interventions as they may be effective in helping tobacco users to quit

2.7 Examples of resources for improving oral health of older people

Oral health improvement programmes and resources for older people/ people in residential care			
Title	Location	Information	link
Caring for smiles	Scotland	A comprehensive pdf guideline/booklet aimed at carers/ care home managers	http://www.nhs.uk/media/2603965/caring_for_smiles_guide_for_care_homes.pdf
Best Practice Statement ~ May 2005 Working with Dependent Older People to achieve Good Oral Health	Scotland	Information for nurses midwives and supporting staff. Information on how to care for dependent older people and maintain good oral health	http://www.gonurse.com/en/best-practice-statements/bps/oral-health/bps.pdf
Oral Health and Nutrition	Scotland	Information on nutrition suitable	http://www.google.co.uk/url

<p>Guidance for Professionals</p>		<p>foods and how to amend diet for nutritionally vulnerable older people</p>	<p>?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=12&ved=0CEcQFjABoAo&url=http%3A%2F%2Fwww.scottishdental.org%2Findex.aspx%3Fo%3D7421&ei=76SSVPmMFY38aMPpgaAL&usg=AFQjCNGCm_TxmT-vHaVzHUI2dnVG9vL7jg</p>
<p>Mouth care without a battle</p>	<p>US</p>	<p>Resources and training DVD for delivering mouth care to dependant persons</p>	<p>http://www.mouthcarewithoutabattle.org/</p>
<p>Caring for teeth Video</p>	<p>UK</p>	<p>An entertaining & informative documentary that looks at the challenges of achieving good oral care within care homes.</p>	<p>http://www.jumpcuts.org.uk/shop/shop/films/caring_for_teeth/</p>
<p>Elder Loving Care – Oral Hygiene Caregiver Training</p>	<p>US</p>	<p>Training DVD available to purchase</p>	<p>http://terranovala.org/film-catalog/elder-loving-care-oral-hygiene-caregiver-training/</p>

British Society for Gerontology (BSG) DVD	UK	DVD on oral care for older people	
BSG resource list		List of resources found by the BSG OH group	http://www.wales.nhs.uk/documents/BSG_OH_Resource_March2011.pdf
Brushing up on mouth care	Canada	Resources and information on the website	http://www.ahprc.dal.ca/projects/oral-care/
UOI Factsheet	Iowa	Factsheet- (refers to the use of mouth swabs)	http://www.healthcare.uiowa.edu/igec/publications/info-connect/assets/oral_hygiene_palliative.pdf
BDA	UK	leaflet	https://www.bda.org/dentists/policy-campaigns/research/patient-care/Documents/caring_for_older_people%27s_teeth_Leaflet.pdf
Mobile clinic	Bedford	Mobile clinic visiting homes for a fee- any charges are reinvested back into the CDS service	http://communitydentalservices.co.uk/news/mobile-clinic-delivers-dental-care-to-residential-

			homes
Training programme	The Netherlands	TNO has developed a training and instruction package: 'Mondzorg in kaart' ('Oral Health on the Cards'). The package includes instruction cards and a short film. Each resident is given two cards: one for the upper jaw and one for the lower jaw. Carers are then aware of the person's dental health and how to care for the teeth and gums. There is a strong demand for these cards within the health sector.	https://www.tno.nl/en/focus-area/healthy-living/prevention-work-health/oral-care/oral-care-for-the-elderly/
Promoting older people's oral health	RCN UK	Guide for nurses and care staff on oral health for older people	http://rcnpublishing.com/us/erimages/ContentEditor/1373368451935/Promoting-older-peoples-oral-health.pdf
Oral health training	UK	Oral health training by nurse and OHP practitioner-private charge	http://www.juliestarestoothfaury.co.uk/?q=node/4

2.8 Oral health improvement programmes in Camden and Islington

2.8.1 Islington

An oral health needs assessment of older people living in nursing and residential homes in Islington was carried out in 2009. As a result of this survey a number of recommendations were made and are being implemented. These include training of health personnel, collaboration between all parties involved in the care of older people and delivering preventive programmes in nursing and residential homes.

A high concentration fluoride toothpaste programme is being piloted in nursing homes in Islington. The aim of the programme is to improve the oral health of older adults by delivering evidence based interventions of high strength fluoride toothpaste, training of staff and ensuring that the oral health care standards are met. The programme was jointly developed by the Islington public health team and Whittington Health Community Dental Service.

Table 1 shows oral health promotion activity in nursing and residential homes in the borough of Islington.

Table 1. Oral health promotion activity in Islington

Nursing / residential homes (ISL)	2012/2013	2013/2014
Number of nursing homes included in the OHP programme	9	12
Number of people included in the OHP programme	452	539
Care staff trained in OHP (contacts)	246	293
Health Promotion events attended (e.g. stalls, stakeholder days)	8	4

2.8.2 Camden

Camden did not have an OHP programme for this care group in the years 2012/13 and 2013/14. An OHP programme was commissioned in 2014/15.

2.9. Uptake of dental services

The challenges to obtaining and maintain good oral health are compounded by low uptake of dental care amongst older adults. Dental uptake amongst older adults is strongly associated with having some natural teeth and higher social class. Improving access to care involves actions at individual, societal and system level. This includes appropriate management of older people by health promotion teams and clinicians who are able to provide clear information on dental charges, exemption categories and how to access services.^{14,15}

The proportion of people aged 65 and above who accessed dental services as at March 2014 was 33% in Camden and 43% in Islington²².

Other studies of older adults in London boroughs showed that:

- 46% visited a dentist in response to a problem rather than regular or occasional check-up
- 83% receive NHS dental care of which 40% do not have to pay NHS dental charge

2.10 Recommended actions

The following are recommended for improving the oral health of older adults in Camden and Islington

- strategies for improving the health of older adults should have an oral health component
- a guide for good practice for better oral health in nursing and residential homes should be implemented
- an oral health risk assessment should be available for older adults, in particular people in residential homes and older adults should be offered an oral health care plan
- training on promoting good oral health and the provision of appropriate dental services for older people should be available for dental teams, other health teams, professional and personal carers.
- the provision of high strength fluoride toothpaste to older adults in nursing and residential homes should be continued

- strategies should be developed to minimise the barriers to oral care including accessing dental services and ensuring that oral health care reflects the beliefs and practices of a culturally diverse elderly population
- evidence based resources including 'Delivering Better Oral Health' and 'Caring for Smiles' should be used to develop oral health programmes for older people.
- the London Boroughs of Camden and Islington should work with NHSE to integrate oral health provision for older people into other services such as General Medical Practice, Pharmacy, Chiropody and social services

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3. Oral health and adults with learning disabilities

3.1 Introduction

A learning disability (LD) is defined as the presence of ‘a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence) with a reduced ability to cope independently (impaired social functioning); which started before adulthood, with lasting effect on development’.¹

People with Learning Disabilities tend to follow the same trends in oral disease as the general population; however they have poorer oral hygiene. Some people also have associated conditions that have oral health implications. A key example of this is patients with Downs Syndrome; these people have an increased risk of periodontal disease and tend to breathe through their mouth instead of their nose, which consequently affects their oral hygiene.

3.2 Prevalence of adults with LD

The number of adults with learning disabilities in Camden and Islington is shown in Table 1. There are 513 adults in Camden and 788 in Islington.^{2,3}

Table1: Adults with learning disabilities in Camden & Islington 2013/14

	Prevalence (%)	Number
Camden	0.24%	513
Islington	0.41%	788
London	0.36%	25,302
England	0.48%	214,352

3.3 Overview of health in people with learning disability

The health needs of adults with learning disabilities in Camden and Islington can be summarised as follows.^{4,5}

- people with learning disabilities have greater need for healthcare than the general population, yet have worse access to the care that they need and poorer health outcomes

- people with learning disabilities suffer disproportionately from specific health issues including; epilepsy, sensory impairments, respiratory disease, coronary heart disease and mental illness
- the learning disabled population in Camden is increasing due in part to the rising numbers of young people with complex needs surviving into adulthood. The rate of increase is estimated nationally to range from 1.2% to 5.1% (average 3.2%) per year, and local projections are that each year for the next 3 years 20 young people with learning disabilities will reach 18 years of age, in keeping with this average

3.4 Learning disabilities and additional risk of oral diseases

People with learning disabilities are at additional risk of developing oral diseases⁶

- many people with Down's syndrome are likely to breath more through the mouth which can compromise mouth hygiene and people with cerebral palsy are subject to dental abrasion from gastro-oesophageal reflux
- people with severe LD are frequently prescribed medication in syrup
- carers may have difficulty in meeting the nutritional needs of people with multiple disabilities
- oral hygiene tends not to be given a high priority
- the inability of many people with LD to complain of dental pain

3.5 Oral health status

Several studies have investigated the oral health of adults with learning disabilities. The findings can be summarised as follows.^{7,6,9}

- a lower proportion of adults with learning disabilities have a functional dentition of 21 or more natural teeth when compared to the general adult population suggesting more extractions as a form of treatment
- adults with LD have poorer oral hygiene than the general population
- adults with LD have a greater prevalence and severity of gum disease than the general population
- in contrast dental decay rates for people with LD are either the same as the general population or lower
- levels of untreated decay are consistently higher in adults with LD
- however, adults with mild learning disabilities are more likely to have filled teeth, fewer extractions and better oral hygiene than adults with profound disabilities
- a lower proportion claim to brush their teeth twice a day

3.6 Dental service

- adults with LD are less likely to have regular contact with dental services
- the dental care received appears to be related to the individual's ability to comprehend or cooperate with treatment.⁸
- fewer dentures are provided for adults with LD despite their higher levels of extractions.⁸

3.7 Knowledge and attitudes of the dental team to the provision of care for people with LD

A study carried out to explore the attitudes of the dental team to the provision of care for people with LD found that while dentists were concerned about the effectiveness of treatment and stress related with treating these patients, dental auxiliaries appeared to be more concerned with the human rights of people with LD and how they fit into society.¹⁰

Another study investigating UK dentists' knowledge and practice of behaviour management principles found that dental teams need more training in the theory and practice of behaviour management principles which might lead to a clinical experience that is more respectful of the dignity and independence of adults with LD.¹¹

3.8 Barriers to oral care

The barriers to oral health that people with LD experience depend on the level of disability, age, parental, carer or social support received. They include user/carer, provider, physical and cultural barriers.⁹

3.8.1 User/carer barriers

- lack of perceived need, inability to express need and lack of ability for self care
- patient's willingness to attend a general dental practice. A major contributor to a patient with LD attending a dental practice is dictated by the parent/carer. Many carers fail to take the patient to the dentist unless they are in pain, with many claiming they felt less need to attend when patients have few teeth
- challenges faced by parents and carers in providing healthy and nutritional diets for people with eating or drinking difficulties
- poor verbal skills of people with LD which restrict their ability to communicate their needs
- lack of knowledge and skills of carers

- high staff turnover in supported accommodation

3.8.2 Professional service provider barriers

- practitioner reluctance to accept and treat patients with any complication in their medical history mainly due to inadequate training and experience
- time required to provide full and understood explanations to permit informed consent

3.8.3 Physical barriers

- mobility problems and physical access to dental premises
- difficulties with ambulance transfer or taxis
- costs in terms of physical and emotional efforts and financial costs

3.8.4 Cultural barriers

- cultural barriers with negative stigma attached to adults with learning disabilities
- language
- different attitudes and beliefs about oral health matters

3.9 Current dental service provision

3.9.1 Treatment services

The community dental service provided by Whittington Health and commissioned by NHS England is the main provider of clinical services for adults with learning disabilities in Camden and Islington. Clinical service activity for Camden and Islington is shown in Table 2.

Table 2 Clinical activity for adults with LD in Camden and Islington

	2012/13	2013/14
Adults with learning disabilities	696	746

3.9.2 Oral health promotion (OHP)

The vast majority of adults with learning disabilities live either independently or with family who are in the role of carer. Care homes for adults with LD are usually small Supported Living Units housing less than 6 people: in these situations almost all the residents receive their dental treatment, and preventive care plans, through the treatment service provide by the community dental service.

Islington

Care homes for adults with learning disabilities (ISL)	2012/2013	2013/2014
Number of care homes included in the OHP programme	2	2
Number of people included in the OHP programme	15	15
Care staff trained in OHP	25	27

Camden

Care homes for adults with learning disabilities (CAM)	2014/2015
Number of care homes included in the OHP programme	7
Number of people included in the OHP programme	33
Care staff trained in OHP	15

For adults with LD who are independent living or live with family/informal carers the providers have had an annual programme of engagement with local authority and

voluntary groups working with adults with LD. This covers access to dental care, training of carers and self-care.

3.10 Maintenance of oral health in people with LD

The British Society of Disability and Oral Health and the Royal College of Surgeons in England have produced guidelines for the oral health care of people with LD.⁹ The guidelines provide integrated care pathways for children, adults and older people, practical information for service users, parents and carers and advice on commissioning oral health service for people with LD. The role of education and training for dental teams, other health professionals and carers is highlighted. Well performed preventive programmes can prevent the progression of gum disease in people with downs syndrome.⁹

3.11 Recommended actions

- to ensure an oral health input into the Camden Joint Commissioning Plan for adults with Learning Disabilities
- to ensure an oral health input into the Islington Learning Disabilities Partnership
- to ensure that the guidelines for oral health care for people with LD produced by the British Society of Disability and Oral Health are implemented
- to develop an appropriate training programme for parents and carers to improve knowledge, improve skills and support the concept of good oral care
- to consider training of community staff to deliver oral health messages
- to consider using people with learning disabilities to deliver some of the oral health training
- to ensure that all adults with learning disabilities have oral health care plans
- to ensure that carers understand how to access dental services and to work with carers and social care to ensure increased uptake of dental services for this group
- to address the main barriers to accessing dental service notably transportation, carer issues and waiting times
- to ensure that people with learning disabilities are seen in the service appropriate to the complexity of their disability and that general dental practice providers have the necessary skills and confidence to see these patients

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4. Oral health and people with serious mental illness

4.1 Introduction

It is a well-known fact that people with serious mental illness (MI) have poorer lifestyle habits, poorer dietary choices and a high prevalence of smoking all being risk factors for oral diseases. Poor oral health has a serious impact on quality of life, everyday functioning, social inclusion and self-esteem but oral health is not usually seen as a priority in people suffering with serious mental illness.

4.2 Prevalence of serious mental illness in Camden and Islington

There are higher rates of people with a serious mental illness in Camden and Islington compared to London (Table1).

Table 1: Prevalence of serious mental illness in Camden & Islington 2013/14

	Prevalence (%)	Number
Camden	1.40%	3477
Islington	1.48%	3385
London	1.05%	94,969
England	0.86%	483,933

Source: Health and Social Care Information Centre, <http://www.hscic.gov.uk/gof>

4.3 Oral health

Several papers have shown that that people with serious mental illness suffer from poorer dental health than the general population. A systematic review of oral health and serious mental illness concluded that psychiatric patients have not shared in the improving oral health of the general population¹. The oral health of people with serious mental illness when compared to adults without serious MI can be summarised as follows.^{1,2,3,4,5}

- higher rates of tooth loss than people without a mental illness
- higher rates of dental decay
- poor mouth hygiene
- higher rates of gum disease
- widespread dental neglect

- dry mouth/Burning mouth mainly due to the medication with psychopharmacological drugs
- abnormal taste
- more dental treatment needs

Reported oral health related quality of life is worse in the population with serious mental illness and in one study 80% of adults with serious MI reported having one or more dental impacts compared to 39% from the general population the most frequently reported impact being pain in the mouth. Fear and anxiety, in conjunction with the added issues of dental teams reluctant in treating patients with mental illness, has resulted in high levels of mentally ill people failing to seek a dental practitioner. Fear and anxiety of attending the dentist may have significant quality of life consequences, especially on an individual who is already coping with mental illness.²

A study investigating the disparity in oral cancer survival among people with serious MI found that they were less likely to undergo surgery with or without adjuvant therapy and had a poorer prognosis compared to those without MI.⁶

4.4 Dental access

Despite a greater need for dental treatment these patients receive half as much dental care as the general population and are less likely to receive routine dental care.⁷ As they can be anxious and uncooperative and mostly present with complex needs extraction is sometimes seen as the best option resulting in higher levels of tooth loss. There is a complex relationship between mental illness, socioeconomic status and dental treatment. These factors limit self-care and access to dental services.⁸ Poor oral health has a greater impact on people with mental illness treated in a community setting.²

Dental teams are frustrated with patients with a mental illness not attending appointments or following through with a recommend course of treatment.⁹

4.5. Current service provision

4.5.1 Treatment services

The community dental service provided by Whittington Health and commissioned by NHS England is the main provider of clinical services for people with serious mental illness in Camden and Islington. Clinical service activity for Camden and Islington is shown in Table 2.

Table 2: Dental activity for adults with serious MI in Camden and Islington

	Contacts 2012/13	Contacts 2013/14
Adults with serious mental illness	518	414

4.5.2 Oral health promotion

Camden did not have an OHP programme for adults with serious MI in the years 2012/13 and 2013/14. An OHP programme was commissioned in 2014/15 but as yet there is no data for this care group.

Activity data for Islington is shown in Table 3.

Table 3 Islington oral health promotion activity

Care homes for adults with mental health problems	2012/2013	2013/2014
Number of care homes included in the OHP programme	5	5
Number of people included in the OHP programme	73	73
Care staff trained in OHP	28	30

4.6. Maintenance of oral health

Several studies have attempted to identify strategies to improve oral health in people with serious mental illness. A study reviewing of the literature of hospitalised patients found that people with serious MI do not routinely get an oral health assessment and recommended that protocols are developed to provide guidance for the medical teams responsible for these patients. Other studies have recommended that the oral health

assessment should use standard checklists that can be completed by non-dental personnel.¹⁰ It has been suggested that timely and efficient access to preventive and treatment oral health services through developing a partnership between patients, community mental health teams and dental teams.⁹

Other studies have identified the role of motivational interviewing in promoting good oral health in people with serious MI. they conclude that motivational interviewing is effective at enhancing oral health behaviour change for people with serious MI.¹¹

4.7 Recommended actions

- ensure an oral health input into the Camden and Islington Mental Health Strategies and in particular ensure that the oral health promotion programme is linked to the mental health promotion programme
- developing a partnership between people with serious MI, community mental health teams and dental teams to ensure timely access to oral health services
- developing a care pathway to enable people with serious MI to be referred to the appropriate oral health services
- ensuring that people with serious MI have an oral health assessment
- consider the use of motivational interviewing to enhance oral behavioural change to promote self care

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5. Oral health and the homeless

5.1 Introduction

Being homeless encompasses a range of situations and there is lack of definitive definition of what it means. Causes of homelessness can often be complex such as domestic violence, poverty, addiction and substance misuse, mental health illness, unemployment and breakdown of relationships. Children can also be affected and leave home after disputes with parents/step-parents.¹

There are different degrees of homelessness. This includes:

- rough sleepers: Those who have no roof over their heads. They have difficulty meeting criteria and not legally entitled for housing through local authorities
- hidden homelessness: Those placed in temporary accommodation and are not legally entitled to have housing accommodation from local authorities
- statutory homelessness: Those who are homeless however legally entitled to having housing provided by government if meet requirements set by the housing authority
- single homelessness: Those without children are excluded from statutory right to be housed
- concealed households: Households who are sharing accommodation rather than living independently

Based on papers looking at the dental services available for the homeless, the vulnerable group were categorised within three groups; Rough sleepers, rehoused individuals and hostel and night shelter dwellers.^{2,3}

Being homeless can be stressful and is highly associated with poor mental and physical health as well as oral health. Alcohol or drug misuses are factors that are implicated with homelessness. Research has shown that there is a slight correlation between homeless people and a decreased oral health related quality of life.⁴

5.2. Prevalence of homeless adults in Camden and Islington

The number of homeless adults in Camden and Islington is shown in Table 1. There are no reliable data sources on the number of people who are hidden homelessness as this is a difficult number to count.

Table 1 Prevalence of Homeless adults living in Camden and Islington^{5,6}

	Population of area ^{7,8}	Statutory Homeless (% of population homeless)	Rough Sleepers (% of population rough sleepers)
Year	Mid 2011	2011/12	2013
Camden	220,087	136 (0.06%)	4 (0.002%)
Islington	206,285	413 (0.20%)	19 (0.009%)
London	8,204,407	12,720 (0.16%)	543 (0.007%)
England	56,170,900	50,290 (0.09%)	2,414 (0.004%)

5.3. Local Profile

5.3.1 Camden

Rough sleeping within the borough is kept low due to housing options available to the homeless. In autumn 2012, the number of rough sleepers was five with a history of 59 rough sleepers in 2000.

Over the years, there has been a decrease in the number of households that are living in temporary accommodation and the number remains stable. Welfare reforms have affected many households in Camden, encouraging residents to move to smaller homes leading to overcrowding in those homes with larger families. These levels of overcrowding in Camden are among the highest levels of overcrowding in the country. Camden has worked to help reduce the number of rough sleepers and homelessness by introducing various pathways of obtaining housing as well as a Safer Streets Team to work with those rough sleepers who should have access to accommodation, as well as other services such as substance abuse and mental health teams.⁹

5.3.2 Islington

The population of the borough of Islington has increased by 17% since the 2001 census. While the number of people homeless in Islington borough is almost double the value than the average England value.¹⁰

3,869 of households on the register are living in overcrowded accommodation. The number of homeless individuals and families has significantly increased from 200 to 400 over the past two years. There has also been an increase in the number of people in temporary accommodation.¹¹

Issues that Islington face are that the number of statutory homelessness acceptances are increasing and with welfare reforms being made, again having an impact on those who are able to afford housing within the area. Outreach services have been set up and work to encourage those to move away from rough sleeping and preventative options, advice and support to gain tenancy.¹²

5.4 Overview of health in people who are homeless

5.4.1 General health

- homeless people are at an increased risk of illness. Poor health is potentiated by substance abuse, self-neglect, mental illness, or lack of money. Stress, lack of adequate hygiene, poor nutrition and diet, danger of violence, accidents and prolonged exposure to extreme weathers all influence health
- risk of illnesses is further increased when living in overcrowded spaces that may have poor conditions such as sanitation
- they are at risk of infections of the gastro and genitourinary systems, upper respiratory infections such as tuberculosis, blood borne viruses, eye/visual problems, musculoskeletal conditions and dental disease¹
- much research indicates the correlation between poor physical and mental health and homelessness exists²

5.4.2 Oral Health

- a lot of research has been carried out with the outcome that there is a high correlation between poor oral health and homelessness³
- extensive research has been carried out on the oral health of single homeless people with a lack of research based on the health of homeless families
- NICE guidelines recognise the key risk factors for poor oral health are hygiene, alcohol use, smoking, diet, trauma and stress, all which a homeless person may face¹³

5.5 Barriers to accessing dental care

Barriers that homeless people encounter have been explored vastly and the BDA document on Dental care for Homeless People categorised these in three key groups. Barriers may be further implicated if those who are homeless are alcohol and substance misusers. These barriers are summarised below.^{1, 4,14}

5.5.1 Patient related factors that are barriers to care

- experience anxiety, embarrassment or low self-esteem
- lack of awareness of services available, persons are unaware that they require help or do not want help
- the homeless maintain an unstable, chaotic lifestyle and attending these services may not be a priority. Not having a static address make it difficult to register with GPs
- do not want to be involved with healthcare professionals, fear and avoidance of this as it may lead to contact with social services
- for those who also are alcohol or drug abusers, receiving dental care is a low priority when under influence of drugs and/or alcohol, concerned more with avoiding withdrawal. Analgesic effects of these substances may mask dental pain and the failure to recognise the problem is furthered by prolonged bingeing
- cost to attend, financial difficulties services may stop one from attending this, even though exemptions and support exists. However, proof of exemptions may be difficult to obtain
- told practice list was full or that they were not entitled to NHS treatment
- associated emotions of getting a dentist to treat them, as many were placed at the end of the day
- language barriers

5.5.2 Health profession-related factors

- lack of flexibility of services, does not fit into lifestyle of the homeless
- inadequate training of staff or available workforce resources
- negative attitudes of the dental team and stigmatisation associated with this particular population, such as poor attendance of patients, challenging behaviour experienced during appointment, infection control risk although universal precautions are mandatory
- compliance of treatment is low either to substance misuse or lack of basic amenities
- fear of impact of treating homeless persons will impact existing and growing client base
- professionals may be insensitive or not understand the challenges they face, their attitudes and need

5.5.3 Governmental, political and societal factors

- lack of investment and inadequate clinical training in staff, research and health care facilities
- lack of understanding of the problems this vulnerable group may face

Oral health care can be accessed through the general dental services, community dental services, personal dental services, emergency dental services and charitable care. Different models of delivery of service to this group have been thought through. This includes adaptations of mainstream services in primary care or dedicated services or having a fixed-site or mobile outreach. For example, having a fixed site provision with dedicated location, integrated within a multidisciplinary clinic that the homeless may be able to access health care services, providing services under one building.¹ Another study has reported that a mobile clinic that is staffed and resourced appropriately may provide a better model for promoting and continuing care within the homeless community.²

However results of a study assessing the oral health needs in homeless people across four areas in the UK, 45% of the homeless people would prefer treatment from general dental services which may indicate their desire to reduce segregation from society.¹⁵

5.6 Current dental service provision

5.6.1 Treatment services

The community dental service provided by Whittington Health and commissioned by NHS England to provide clinical services for the homeless people in Camden and Islington. Homelessness and drugs/alcohol misuse significantly overlaps and to some extent does with and is included in the clinical service activity in Camden and Islington that is shown in Table 2.

Table 2: Dental activity for the homeless and substance misusers in Camden and Islington

	Contacts 2012/13	Contacts 2013/14
Adults social exclusion including; <ul style="list-style-type: none"> • Homeless • Substance misuse categories 	299	302

5.6.2 Oral health promotion

Camden did not have an oral health programme for the homeless or substance misusers in 201/13 and 2013/14. In Islington, further structures interventions, as well as events held in drop-in centres are shown in Table 3.

Table 3 Islington's oral health promotion activity

	Care Group	Numbers of people	Programme content	Time period
St Mungos Housing Association (ISL)	Homeless, substance misuse including alcohol	29	OHP sessions with residents. Informal sessions with carers.	2012/13, 2013/14
New North Rd (ISL)	Homeless, substance misuse including alcohol	18	OHP sessions with residents. Informal sessions with carers.	2012/13, 2013/14
Wilton Villas (ISL)	Homeless, substance misuse including alcohol	28	OHP sessions with residents. Informal sessions with carers.	2012/13, 2013/14

Looking at figures in table 1 of this subsection of homelessness and table 1 in drugs and alcohol misuse, there is a large number of people who are being missed within this vulnerable group; The statistics mainly combined figures of drugs/alcohol misuse therefore unclear of the number of each individual group who are accessing needs.

5.7 Maintenance of oral health in people who are homeless^{16,17,18}

Maintaining oral health in people who are homeless can be a challenge and are at high risk of developing oral disease. This is due to the instability and unpredictable lifestyle they may lead, which can be influenced through use of alcohol and drugs.

A study was carried out in East London to review dental services and to find an appropriate and relevant way that can improve access and services to this high-risk group. It highlighted that there is a significant need for services providing oral healthcare and being involved within the social and local health networks would help to increase and promote uptake of dental services.³

5.8 Recommended actions

- commissioning of the Safer Streets Team in Camden and Outreach services to the homeless in Islington, such as those provided by the Pillion Trust and CARIS for the winter resilience programme – to include oral health when providing information on the services available such as physical, mental health and substance misuse; oral health should be included within this advice
- including oral health in care plans and safeguarding policies when put together by social workers; this could include an assessment of the oral health that is based on whether the person is in pain, not able to eat properly and aesthetics that can be carried out by community workers and then appropriately refer individuals to the appropriate pathway
- increase awareness of services available, how access these services, what cost may be involved and improved awareness of entitlements
- services that offer preventative advice should educate homeless people on the link between diet and oral health and also tobacco and alcohol in developing oral cancer
- ensuring staff who come in contact with the homeless are well trained to deliver key oral health messages
- working with current dental practitioners to increase education and training of staff to have contact with this group of people and address the dentists related and other barriers to accessing dental care

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6. Oral health and drugs / alcohol misusers

6.1 Introduction

Addiction (drug or alcohol) is defined by the World Health Organization as “Repeated use of a psychoactive substance(s) to the extent that the user is periodically or chronically intoxicated, shows a compulsion to take the proffered substance(s) with great difficulty in voluntarily ceasing or modifying the use, exhibits determination to obtain psychoactive substance by almost any means.”¹

Both misuse of alcohol and drugs can have an impact on the general health and wellbeing of an individual, and an impact on society through alcohol related disorder, domestic violence and crimes. Particularly in the UK, excess alcohol is a major issue and the government and local authorities are working together to reduce the prevalence of this.^{2,3}

In the year 2010, around 400,000 people that claimed benefits in England were dependent on drugs and alcohol. This can cost the government around £1.6 billion annually.⁴

Much research has and continues to be carried out regarding the correlation of misuse of alcohol and drugs with poor oral health. Poor oral health is heightened when factors such as smoking and drugs is also misused, increasing the risk of poor general, physical and mental health of an individual.

The UK has one of the highest recorded illegal drug use in the western world, particularly of crack cocaine and heroin. Younger generations are using stimulants and cannabis, which when used is often combined with alcohol.¹ Other substances that are used include hallucinogens, ecstasy, amphetamine and ketamine.

6.2 General and oral health of substance and alcohol misusers

Misuse of drugs and alcohol is associated more often with social deprivation, which in its self is associated with poor general health. For example, this particular group may be at higher risk of having the following health problems.

- Blood borne viruses: Hepatitis B, Hepatitis C and HIV.
- Liver disease
- Immunosuppression
- Nutritional deficiency

The side effects of drugs can cause many oral conditions. Some examples are listed below.^{2,6}

- Dry mouth
- Bruxism
- Increased sugar cravings

- High rate of caries (decay) and periodontal disease (gum) , due to lifestyle, drug use, poor oral hygiene, nutritional deficiency such as Vitamin C
- Analgesic effects that may mask dental pain

Other dental diseases that alcohol and drug misusers may face include;

- Oral ulceration
- Traumatized teeth
- Periodontal disease
- Oral cancers
- Temporomandibular joint discomfort

6.3 Risk of oral disease of substance and alcohol misuser

Research shows that the association of heavy drinking, use of tobacco and the increased risk of developing oral cancers is well documented and on the rise. Causes of trauma (including facial injury), violence, road traffic accidents and non-carious tooth surface loss and periodontal disease can be linked to increased alcohol intake.^{2,7}

In drug users, there is a high rate of caries that corresponds to the opioid effects of dry mouth and craving for sweet foods combined with poor oral hygiene often due to an unstable life pattern.⁸

Heroin users undergoing treatment for addiction are prescribed Methadone. This comes as syrup that can contain a lot of sugar, the combination of this as well as a dry mouth, increased craving and diet of sugary foods, reduced/lack of oral hygiene and use of fluoride toothpaste increases the risk to developing caries.⁹

A study that investigated tooth decay in alcohol abusers compared to that of alcohol and drug abusers, showed the difference in caries experience of the two groups. This study was carried out over a five-year period using the decay experience index (DMFT score) within substance misusers. 388 subjects who abused alcohol and 305 who abused both alcohol and drugs took part in the study. This found that overall the levels of decay in alcoholics was lower than that of that misused both substances, however more teeth were missing in the alcohol only group, who also had an overall higher decay experience score. Overall they are a high-risk group to developing dental disease.¹⁰

6.4 Prevalence of persons with excess intake of drugs and alcohol

Table 1 shows the details of the number of people who are receiving treatment for drugs or alcohol misuse. In addition to this, there are an estimated 29,700 binge drinkers and 12,100 high-risk drinkers in Camden. An estimated 15,000 residents use drugs, 6,000 being a Class A drug. This can be further broken down to 2,350 people using opiate/crack and 640 injecting drug users.¹¹ In Islington there is around 2,300 residents

on crack and 570 who are injecting. Cannabis and powder cocaine are the most prevalent drug in this borough.¹²

Table 1: Number of people receiving treatment for Drug and alcohol misuse ^{13,14,15,16}

	Population of area (2013) ⁱ	Number of people in treatment for Drugs misuse (% of population)	Number of people in treatment for Alcohol misuse (% of population)	Deaths relating to Alcohol (% of alcohol using population)	Deaths relating to Drugs (% of Drug using population)
Camden	229,719	1,685 (0.73%)	738 (0.32%)	18 (2.44%)	2 (0.27%)
Islington	211,047	1,350 (0.64%)	730 (0.35%)	16 (2.19%)	5 (0.68%)
London	8,416,535	N/A	N/A	N/A	N/A
England	53,865,800	193,575 (0.36%)	109,683 (0.20%)	8,367 (0.02%)	2,955(0.005%)

In England, the number of people in treatment is higher for those who are on drugs than alcohol. However, the number of people who have completed treatment for drugs is 29,025 which is significantly less than those who are completed alcohol treatment which was 40,908. When comparing this value to the number of people in treatment, the completion rate of treatment in drug users is significantly less than those in of Alcohol misusers.

6.5 Barriers to dental accessing care

Drugs and alcohol misuse is commonly seen in the homeless population. Barriers experienced by homeless people have been well documented. These barriers fit into three groups as summarised below. Further research and discussion with patients also explained the barriers that they face.^{6,8,19}

6.5.1 Patient related factors that are barriers to care

- anxiety or low self-esteem
- unaware of available services
- do not want to be involved with healthcare professionals- fear and avoidance of this as it may lead to contact with social services

- receiving dental care is a low priority when under influence of drugs and/or alcohol, concerned more with avoiding withdrawal
- the effects of these substances often mask symptoms such as pain. This can be further prolonged through bingeing
- maintaining an unstable, chaotic lifestyle and attending these services may not be a priority
- finance, cost of services may stop one from attending this
- associated emotions of getting a dentist to treat them, as many were placed at the end of the day

6.5.2 Health profession-related factors

- inadequate training of staff or available workforce resources
- lack of flexibility of services - does not fit into lifestyle
- stigmatism associated with this particular population, such as poor attendance of patients, challenging behaviour experienced during appointment, infection control risk although universal precautions in place
- compliance of treatment is low either to substance misuse or lack of basic amenities
- professionals may be insensitive or not understand the challenges they face, their attitudes and need

6.5.3 Governmental, political and societal factors

- lack of investment and Inadequate clinical training in staff, research and health care facilities
- lack of understanding of the problems this vulnerable group may face

Oral health care can be accessed through the general dental services, community dental services, personal dental services, emergency dental services and charitable care. Different models of delivery of service to this group have been thought through. This includes adaptations of mainstream services in primary care or dedicated services or having a fixed-site or mobile outreach. For example, having a fixed site provision with dedicated location, integrated within a multidisciplinary clinic that the homeless may be able to access health care services, providing services under one building.¹

However results of a study assessing the oral health needs in homeless people (who are often substance misusers) across four areas in the UK, 45% of the homeless people would prefer treatment for general dental service which may indicate their desire to reduce segregation from society.²⁰

6.6 Current dental service provision

6.6.1 Treatment services

The community dental service provided by Whittington Health, commissioned by NHS England is the main provider of clinical services for substance misusers and homeless people in Camden and Islington. Homelessness and drugs/alcohol misuse significantly overlaps and to some extent does with and is included in the clinical service activity in Camden and Islington which is shown in Table 2.

Table 2: Dental activity for the homeless and substance misusers in Camden and Islington

	Contacts 2012/13	Contacts 2013/14
Adults social exclusion including; <ul style="list-style-type: none"> • homeless • substance misuse categories 	299	302

6.6.2 Oral health promotion

Camden did not have an oral health programme for the homeless or substance misusers in 2012/13 and 2013/14. In Islington, further structures interventions, as well as events held in drop-in centres are shown in Table 3.

Table 3. Islington's oral health promotion activity

	Care Group	Numbers of people	Programme content	Time period
St Mungos Housing Association (ISL)	Homeless, substance misuse including alcohol	29	OHP sessions with residents. Informal sessions with carers.	2012/13, 2013/14

New North Rd (ISL)	Homeless, substance misuse including alcohol	18	OHP sessions with residents. Informal sessions with carers.	2012/13, 2013/14
Wilton Villas (ISL)	Homeless, substance misuse including alcohol	28	OHP sessions with residents. Informal sessions with carers.	2012/13, 2013/14

There is a large number of residents who are being missed within this vulnerable group. The above information is combined figures of drugs/alcohol misuse therefore the number of each individual group who are accessing care is unclear.

6.7 Maintaining good oral health

Maintaining the oral health of alcohol and/or drug misusers can be a challenge. Until a user is in a safe environment such as a rehabilitation centre, it may be difficult to take control of their lives. Having the access to support, this group of people should also have an easier access to dental treatment.

6.8 Recommended actions

- increase awareness of available services, how to access them and what cost may be involved
- to continue to provide services that offer preventative advice that educates people on the relationship between oral health, tobacco and alcohol in developing oral cancer
- commissioning of the Safer Streets Team in Camden and Outreach services to the homeless in Islington, such as those provided by the Pillion Trust and CARIS for the winter resilience programme- to include oral health when providing information on the services available such as physical, mental health and substance misuse; oral health should be included within this advice
- including oral health in care plans and safeguarding policies when put together by social workers; this could include an assessment of the oral health that is based on whether the person is in pain, not able to eat properly, and aesthetics, which can be carried out by community, works and then appropriately refer individuals to the appropriate pathway

- patients who are currently in rehabilitation should have access to dental care to help with reconstructing their life and career pathway; by providing this particular group of people with the required information and access to improve their health and support their behaviour change, towards a more positive lifestyle.
- dentists should be participating as part of the drug and alcohol rehabilitation process if and whenever invited, to help reduce the inequalities of the system; this would be in line with the government's strategy for reducing inequalities
- working with current dental practitioners to increase education and training of staff to have contact with this group of people; this way staff can have the confidence to provide oral hygiene advice and on ways of maintain this and importance diet

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