

# Introducing oral health screening within an inpatient intellectual disability service

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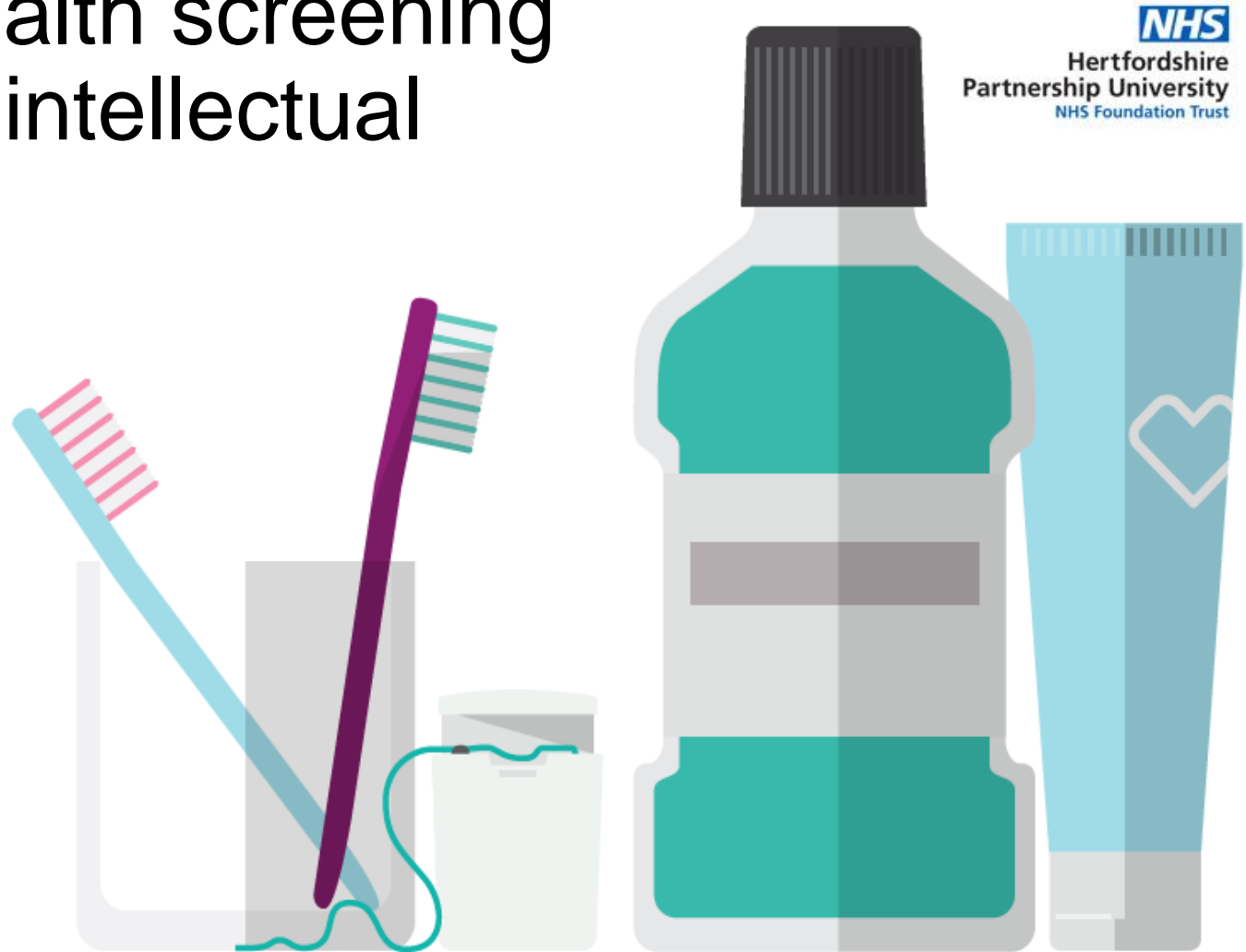
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# Overview

- **Background**
- **Methods**
- **Results**
- **Discussion**
- **Conclusions**



# Background





# What is oral health?

- The health of the **mouth, teeth, and orofacial structures**.
- Enables individuals to perform **essential functions** such as breathing, eating and speaking.
- Encompasses psychosocial dimensions such as **self-confidence, well-being** and the **ability to communicate, socialise,** and **work** without pain, discomfort and embarrassment

*World Health Organisation (WHO)*

# Oral health in people with Learning Disabilities

People with LD:

- Have **poorer oral health** than the general population
- Experience more problems in **accessing dental services** and access less preventative dentistry
- May need **additional help** with their oral care because of cognitive, physical and behavioural factors

*Public Health England, 2025*

# Oral health in people with Neuro- developmental conditions

People with neurodevelopmental conditions:  
(e.g. Autism, ADHD, dyspraxia)

- Have increased risk of **dental issues**
- May have communication, behavioural, and physical challenges that **complicate routine oral and dental care**
- Can have **heightened sensitivity** to sensory stimuli, which can make oral care / dental visits particularly stressful e.g. sounds of dental equipment, bright lights, and the sensation of dental tools

*NHS England, 2023*

# Impact of Dental Disease

## Dental Disease

Dental Caries  
Periodontal Disease  
Tooth surface loss:  
- Erosion  
- Attrition  
- Abrasion  
Trauma

=

## Impact

Pain  
↓  
Infection  
↓  
Tooth Loss  
↓ ↓  
Function      Aesthetics  
Nutrition      Social Isolation  
Aspiration    Anxiety  
Risk            Depression

# Oral health problems faced by people with LD & neuro-developmental conditions

- More prone to tooth misalignment 'malocclusion'
- More like to have oral malformation e.g. delayed eruption / crowding
- Higher levels of gum (periodontal) disease
- Greater gingival inflammation
- Higher rates of tooth decay
- More dental extractions
- Higher numbers of missing teeth
- Increased rates of toothlessness (edentulism)
- Higher plaque levels
- Hypersalivation / dry mouth more likely
- More prone to oral thrush
- More likely to develop oral cancer

# Why is oral health so poor in this population?

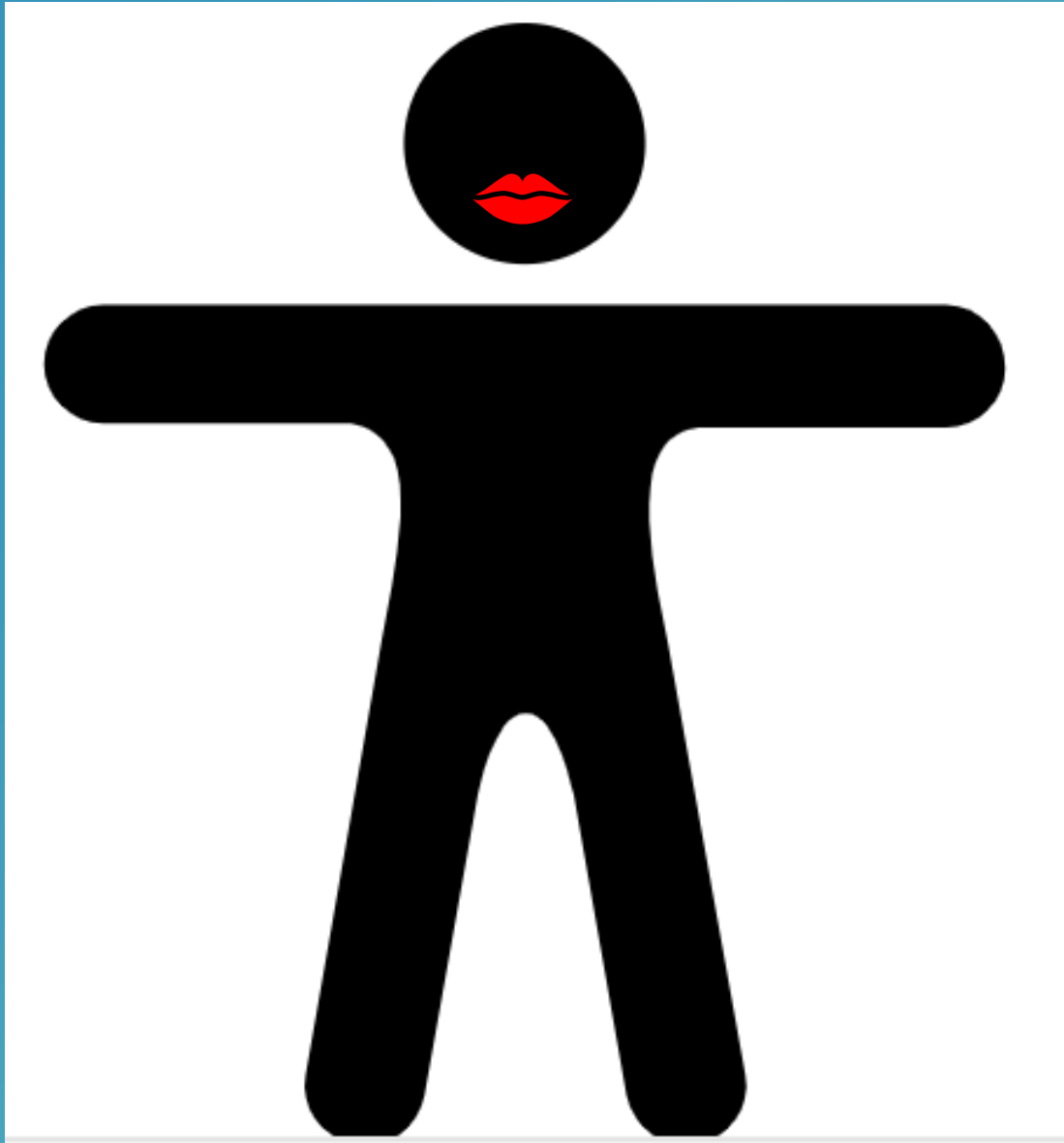
## Clinical

- Cognition
- Physical health
- Mental health
- Health behaviors
- Presence of dysphagia
- Communicative ability
- Sensory needs

## Treatment

- Consent and capacity
- Access to equipment (security, logistics & finance)
- Provision of general interventions
- Access to specialist interventions
- Nutrition & hydration
- Medication regime
- Carer / staff knowledge, skills and involvement

*Wilson et al., 2025*



# Considering oral health in a wider system

**Cardiovascular disease** – linked to chronic gum inflammation.

**Respiratory infections** – aspiration of bacteria can lead to pneumonia.

**Diabetes management** – periodontal disease

# What are the implications

## Rachel Johnston: 'She was a young woman and her life was taken away'

© 15 February 2021



| Diana Johnston and partner Mick speaking to the BBC

**Rebecca Woods**

BBC News, West Midlands

**The mother of a disabled woman who lay "slowly dying" while nursing staff failed to raise the alarm says she hopes her death was not in vain.**

Rachel Johnston, 49, fell seriously ill after having an operation to remove all her teeth due to severe decay.

A coroner found neglect by nurses at Pirton Grange Care Home, near Worcester, contributed to her death.

"She had a wonderful little life and it was taken away from her," said Diana Johnston.

Miss Johnston, who suffered brain damage after contracting meningitis when six weeks old, lived at Pirton Grange from 2013 where she should have been able to have 24-hour medical care.



# Oral health and forensic/inpatient services

- **Background & Literature**
- Most research conducted in general little focus on psychiatric inpatient hospitals.
- Very limited literature on oral health in intellectual disability inpatient services.
- **Barriers in Forensic Settings**
- Low awareness of personal oral hygiene (Buunk-Werkhoven et al., 2012).
- Long waiting times for dental appointments (Booth et al., 2023).
- Additional risk factors: alcohol/drug misuse, smoking (Chester et al., 2011; Plant et al., 2011).
- **Existing Evidence**
- One case study in mainstream forensic psychiatry (Buunk-Werkhoven et al., 2012).
- 37-year-old inpatient: challenges included halitosis & poor oral health-related quality of life.
- Tailored oral hygiene intervention plan was implemented was reported as successful.

# Aims

Describe the **oral health clinical and treatment variables** of adults with Intellectual Disabilities within inpatient ID & Forensic services in one UK NHS Trust.



Based on the above, make **recommendations** for future clinical practice.

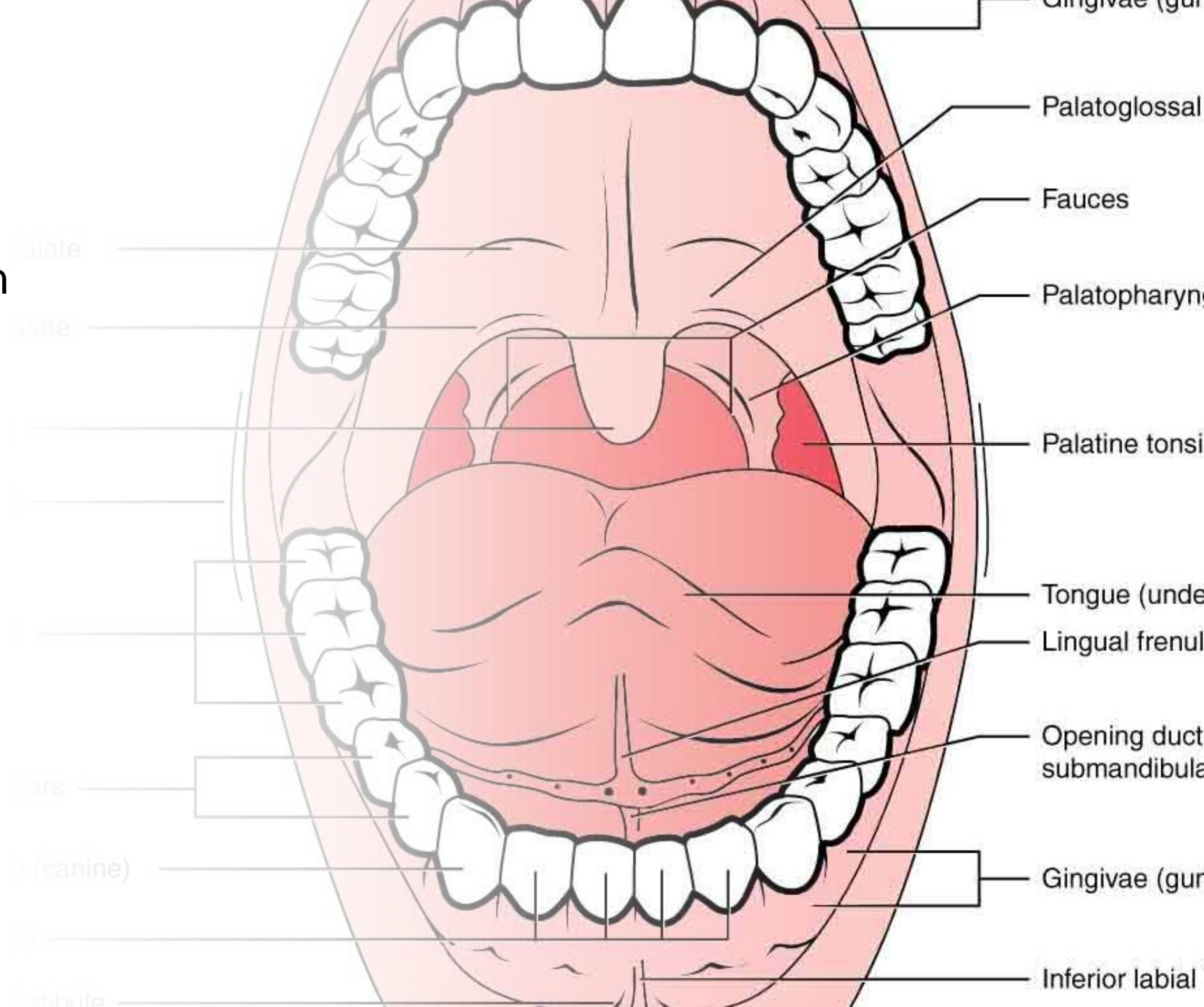
# Method



# Methods: Audit & Service Evaluation

Medium secure ID & Forensic  
service in Norfolk (18 patients)

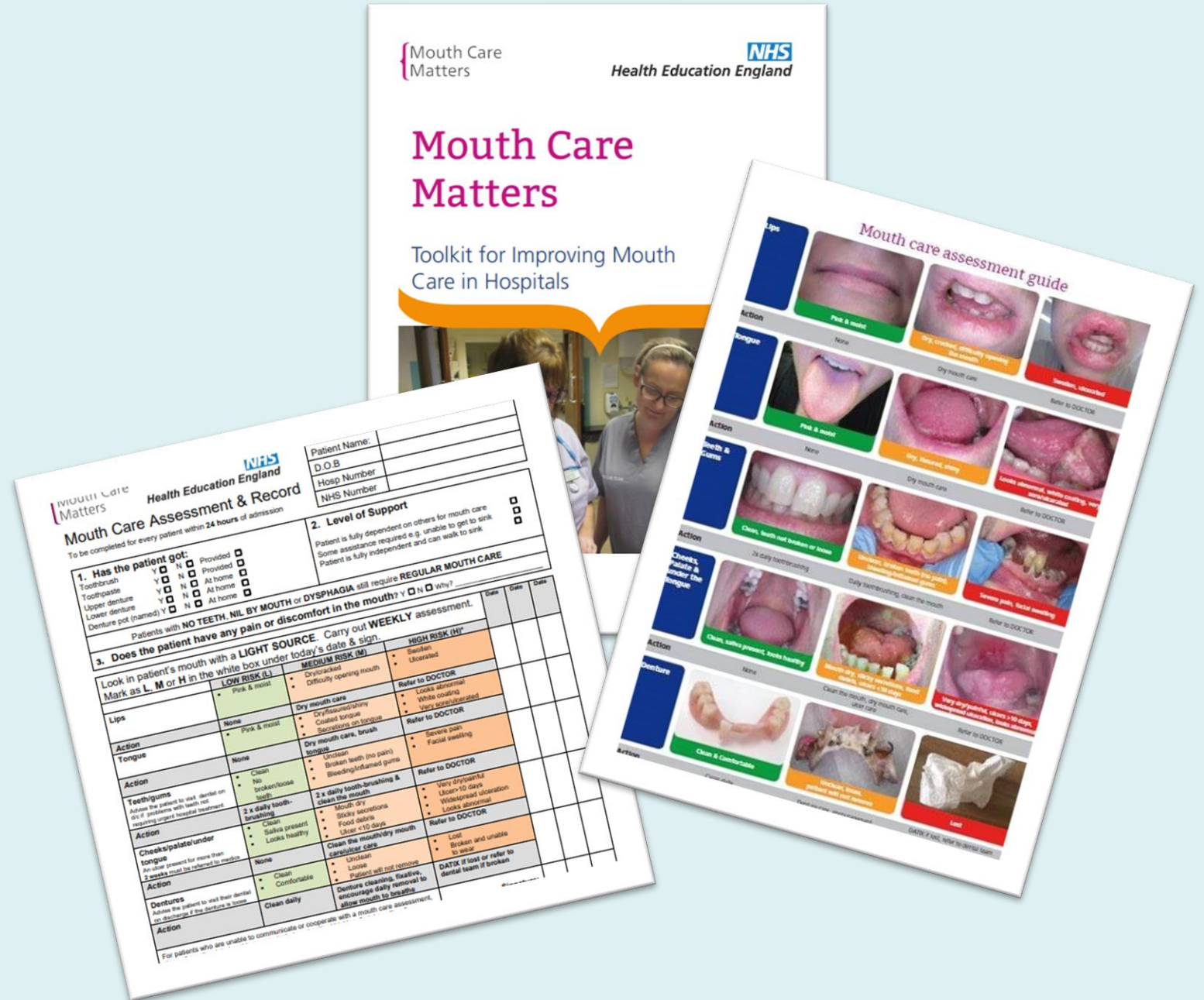
- Observation of standard practice
- Staff survey
- Audit of quarterly oral health screening outcomes



# Audit

**Mouthcare Matters** tools were used to assess oral health and record findings across four parameters:

- 1) Lips
- 2) Tongue
- 3) Teeth & gums
- 4) Cheeks, palate & under tongue



## Assessment Guide (Mouth Care Matters)

<b>Lips</b>	Low Risk) Pink and moist Medium Risk) Dry and cracked High Risk) Swollen and ulcerated
<b>Tongue</b>	Low Risk) Pink and moist Medium Risk) Dry and fissured High Risk) Abnormal – white coating/very ulcerated/abnormal mucosa
<b>Teeth &amp; gums</b>	Low Risk) Clean Medium Risk) Unclean / bleeding/inflamed gums High Risk) Facial swelling and pain
<b>Cheeks, palate &amp; under tongue</b>	Low Risk) Clean, saliva present, healthy colour Medium Risk) Dry mouth / sticky secretions / food debris / ulcers >10 days High Risk) Very dry / painful / ulcers >10 days / abnormal mucosa

# Lip health



Pink & moist



Dry, cracked, difficulty opening  
the mouth



Swollen, ulcerated

# Tongue health



Pink & moist



Dry, fissured, shiny



Looks abnormal, white coating, very sore/ulcerated

# Dental health



Clean, teeth not broken or loose



Unclean, broken teeth (no pain),  
bleeding/inflamed gums



Severe pain, facial swelling

# Tissue health



Clean, saliva present, looks healthy



Mouth dry, sticky secretions, food debris, ulcers <10 days



Very dry/painful, ulcers >10 days, widespread ulceration, looks abnormal



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# Observation of practice

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Interventions observed included:

- Education sessions
- Sensory support
- Routine establishment
- Dental care tool reviews
- Medication reviews
- Secretion management
- 3-monthly oral examination



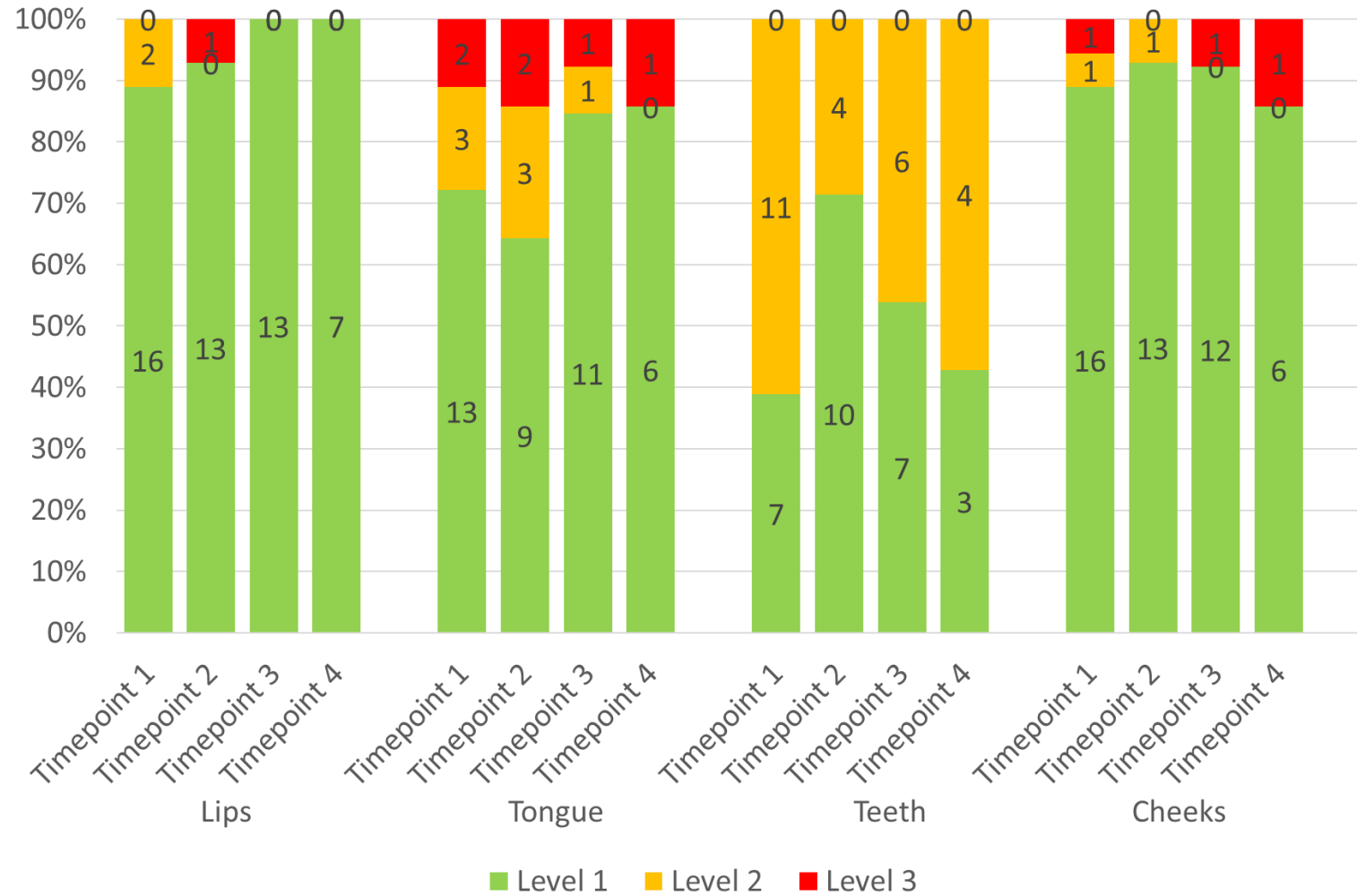
# Survey

- The MCM Mouthcare Survey was converted into a digital format using SurveyMonkey and was circulated amongst all relevant staff via email
- Data from this survey were analysed and are presented descriptively

# Results



# Audit results



Timepoint	Interventions documented
Timepoint 1-2	<ul style="list-style-type: none"> <li>• Group education session on Oral Health</li> <li>• Prescription of dry mouth spray</li> <li>• Prescription of Nystatin for oral thrush</li> <li>• Topical mouth ulcer gel sourced</li> <li>• Lip balm sourced</li> <li>• Medications reviewed</li> <li>• Behavioural advice (fluids encouraged, tooth brushing encouraged, reducing caffeine intake, and fluid washes post-food suggested)</li> </ul>
Timepoint 2-3	<ul style="list-style-type: none"> <li>• Group education session on Oral Health</li> <li>• Prescription of Nystatin for oral thrush</li> <li>• Oral care added to visual timetable</li> <li>• Toothbrushing sequencing chart provided</li> <li>• Dry mouth gel sourced</li> <li>• Dental implement sourced (360' toothbrush)</li> <li>• Lip balm sourced</li> <li>• Medical review initiated</li> <li>• Medications reviewed</li> <li>• Behavioural advice (fluids encouraged, tooth brushing encouraged, reducing caffeine intake, and fluid washes post-food suggested)</li> </ul>
Timepoint 3-4	<ul style="list-style-type: none"> <li>• Dental implement sourced (toothbrush, toothpaste, mouthwash)</li> <li>• Sensory review and dental implement sourced (flavoured toothpaste)</li> <li>• Medications reviewed</li> <li>• Oral care added to visual timetable</li> <li>• Behavioural advice (fluids encouraged, tooth brushing encouraged, reducing caffeine intake, and fluid washes post-food suggested)</li> <li>• Dry mouth toothpaste sourced</li> <li>• Oral health integrated within staff training package on dysphagia</li> </ul>

# Questionnaire results: staff knowledge (20 respondents, 2023)

30% had received relevant training

Perceived barriers:  
behaviours of concern, lack of staff training, time pressures, lack of appropriate tools available, staff aversion

100% of staff supported tooth brushing, less than 50% considered tongue, gums & dentures

Only 5% consistently recorded oral health observations in medical notes, 45% never document these

80% felt confident in providing general support, <25% felt confident providing specialist support

Only 10% felt confident that they would recognise signs of oral cancer

100% felt that they would benefit from additional training

# Discussion



# Findings

- Oral health screening was **feasible** to deliver and **acceptable** to patients
- The **introduction of education sessions correlated with varying results** in the condition of the lips, teeth & gums, and cheeks, palate & under tongue, however deteriorated again without regular education input.
- **Scores across 3/4 parameters were improved** at the end of the audit, however it is not possible to establish the reason(s) for this due to the **complex interplay between clinical and treatment variables**.



# What can we do to improve oral health?

- Education sessions
- Sensory support
- Routine establishment
- Dental care tool reviews
- Medication reviews
- Secretion management
- **Routine oral examination**



We can ALL use Mouthcare Matters tools to check the health of the:

- 1) Lips
- 2) Tongue
- 3) Teeth & gums
- 4) Cheeks, palate & under tongue

Mouth Care Matters Health Education England NHS Health Education England

## Mouth Care Matters

Toolkit for Improving Mouth Care in Hospitals

**Mouth Care Assessment & Record**

To be completed for every patient within 24 hours of admission

1. Has the patient got:

Provided	<input type="checkbox"/>
At home	<input type="checkbox"/>
At home	<input type="checkbox"/>
At home	<input type="checkbox"/>

2. Level of Support

Patient is fully dependent on others for mouth care  
Some assistance required e.g. unable to get to sink  
Patient is fully independent and can walk to sink

Patients with **NO TEETH, NIL BY MOUTH or DYSPHAGIA** still require **REGULAR MOUTH CARE**

3. Does the patient have any pain or discomfort in the mouth?  N  Y  why?

Area	LOW RISK (L)	MEDIUM RISK (M)	HIGH RISK (H)	Date	Date	Date
Lips	• Pink & moist	• Dry mouth care	• Swollen • Ulcerated			
Tongue	• None	• Dry mouth care, brush tongue	• Refer to DOCTOR			
Teeth/gums	• Clean • No broken/loose teeth	• 2 x daily tooth-brushing • Sticky secretions • Food debris • Ulcer <10 days	• Refer to DOCTOR			
Cheeks/palate/under tongue	• Clean • Saliva present • Looks healthy	• Clean the mouth/dry mouth care	• Refer to DOCTOR			
Dentures	• Clean daily	• Denture cleaning, fixative, encourage daily removal to allow mouth to breathe	• Refer to DOCTOR			

For patients who are unable to communicate or cooperate with a mouth care assessment.

**Mouth care assessment guide**

**Lips**

- None: Pink & moist
- Low risk: Dry mouth care
- High risk: Swollen, ulcerated. Refer to DOCTOR

**Tongue**

- None: Pink & moist
- Low risk: Dry mouth care
- High risk: Looks abnormal, white coating, sticky secretions/ulcerated. Refer to DOCTOR

**Teeth & Gums**

- None: Clean, teeth not broken or loose
- Low risk: Dry mouth care, brush tongue
- High risk: Swollen, ulcerated, severe pain, facial swelling. Refer to DOCTOR

**Cheeks, Palate & Under the tongue**

- None: In daily brushing
- Low risk: Daily brushing, clean the mouth
- High risk: Very dry/ulcerated, loose >10 days, widespread ulceration, looks abnormal. Refer to DOCTOR

**Denture**

- None: Clean the night, dry mouth care, wear dent
- Low risk: Clean & comfortable
- High risk: Very dry/ulcerated, loose >10 days, widespread ulceration, looks abnormal. Refer to DOCTOR

# Strengths and limitations

One of few studies to focus on oral health in this population.

**Impact:** Screening identified previously unrecognised health needs, enabling targeted interventions.

## Limitations

- Fluctuating sample size due to discharges and consent variation.
- Restricted scope: one service type, one geographical area.
- No control of variables; interventions not consistently delivered.
- MCM assessment tool not validated or psychometrically tested.
- Single clinician conducted assessments - no inter-rater reliability, risk of measurement bias.
- Results may lack robustness, generalisability, and interpretive confidence.

# Conclusions



# Recommendations

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Oral health screening and monitoring for inpatients with ID may improve oral hygiene and subsequent general health and wellbeing



Staff training on oral and dental hygiene may improve knowledge, skills, and confidence



Providers should ensure that oral and dental health information and services are accessible to people with ID



Oral hygiene patient education may result in positive behaviour change and is recommended for ID inpatients

# Next steps

**Introducing oral health screening within an inpatient Intellectual Disability service**  
Hollyanna Wilson  
Advanced Speech, Hearing and Language Therapist  
Elizabeth Patteril, Verity Chester  
Research Associates

**BACKGROUND**  
Oral health is the condition of the mouth, teeth, and orofacial structures. Oral health enables essential functions such as breathing, swallowing, and speaking. Poor oral health can result in various health complications including infections, pneumonia, diabetes, heart disease, and dementia.  
People with Intellectual Disabilities (ID) experience many health inequalities, one of which is poorer oral health outcomes. Supportive interventions in inpatient settings may aid people with ID to maintain good oral hygiene, which is crucial for their general health and wellbeing.

**AIMS**  
1) To raise the oral health awareness of staff and service users and to ensure that the oral health of people with ID is monitored and supported.  
2) To raise the oral health awareness of staff and service users and to ensure that the oral health of people with ID is monitored and supported.  
3) To raise the oral health awareness of staff and service users and to ensure that the oral health of people with ID is monitored and supported.

**IMPACT**  
1) Staff training  
2) Changes in service provision  
3) A range of services and support (including telehealth)  
4) Staff training and support  
5) Changes in service provision  
6) A range of services and support (including telehealth)

**CLINICAL VARIABLES**  
• Cognition  
• Physical health comorbidities  
• Mental health comorbidities  
• Health behaviors  
• Presence of hygienic  
• Nutrition & hydration  
• Communicative skills  
• Sensory needs

**RESULTS**  
1) Oral health awareness of staff and service users is significantly improved.  
2) Staff training and support is significantly improved.  
3) Changes in service provision are significantly improved.  
4) A range of services and support (including telehealth) is significantly improved.  
5) Staff training and support is significantly improved.  
6) Changes in service provision are significantly improved.  
7) A range of services and support (including telehealth) is significantly improved.

**TREATMENT VARIABLES**  
• Consent and capacity  
• Access to equipment (security, hygiene & hygiene)  
• Provision of general interventions  
• Access to specialist interventions  
• Medication regime  
• Staff knowledge, skills and understanding

**RECOMMENDATIONS**  
• Oral health screening for patients  
• Patient education sessions  
• Accessible information  
• Staff training

**MOUTHCARE**  
High risk  
Medium risk  
Low risk

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## Physical Health Issues In People with Intellectual Disability and Mental Health or Behavioural Difficulties



The completion of this module awards 1 hour's CPD

ENTER MODULE



MODULE 7: ORAL HEALTH

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# Final thoughts

- Oral health as an integral part of overall health and well-being.
- People with LD should be offered targeted support to maximise and maintain their oral health to reduce preventable healthcare complications and improve quality of life.



The background features a repeating pattern of light blue icons related to dental hygiene. These include various styles of toothbrushes, a tube of toothpaste, a bottle of mouthwash, a dental chair, a dental X-ray, a dental tray, and a dental cup. The icons are semi-transparent and scattered across the white background.

**Thank you for  
your time**

**hollyanna.wilson@nhs.net**

**X** *@HollyannaMarler*