Overview

- Oral health of children in England
- Impact of poor oral health in the early years
- Importance of systems leadership
- Development of the Child Oral Health Improvement Programme Board (COHIPB)
- Key achievements of COHIPB partners
- How can paediatricians, wider healthcare and early years workforce help
Oral health of 5 year olds in England is improving

Results of dental surveys of five-year-olds in England from National Child Dental Health surveys and PHE Dental Public Health Epidemiology Programme surveys, 1973 to 2015.

Oral health of 5 year olds in England is improving

But inequalities remain.....
By deprivation

Correlation between dmft of 5-year-olds and Index of Multiple Deprivation. Lower tier LAs in England 2015

Amongst three year olds 19% of the prevalence and 25% of the severity was explained by deprivation.

Ethnicity

Average number of dmft among 5-year-olds in England by ethnic group 2015
Oral health inequalities by geography

5 year olds England

- By region 33% of 5 year olds in the North West to 20% in the South East, have tooth decay
- By UTLA Blackburn and Darwin 56% and 14% in south Gloucestershire

Regional differences

Average number of decayed, missing and filled teeth among 5-year-olds in England by region 2015

The importance of boosting oral health amongst the early years population

- Oral health is improving however in England almost a quarter (24.7%) of 5 year olds have tooth decay with on average 3 or 4 teeth affected (PHE 2016)
- 22% of 5 year olds attending special support schools have tooth decay with on average 4 teeth affected and twice as likely as mainstream peers to have had one or more teeth extracted
- For those at risk it happens early - 2014 first survey of 3 year olds- 12% visible decay average of 3 teeth affected
- Stark inequalities exist with some of the most vulnerable, disadvantaged and socially excluded facing significant oral health problems
2. Poor dental health impacts children and families

Poor dental health impacts not just on the individual’s health but also their well-being and that of their family.

Children who have toothache or who need treatment may have pain, infections and difficulty with eating, sleeping and socialising.

A number of children also have tooth decay when they start school. Children who have toothache or who need treatment may need to be absent from school and parents may also have to take time off work to take their children to a dentist or to hospital.

Oral health is therefore an important aspect of overall health, impacting on children’s school readiness.

Research about extractions in children in North West hospitals found that 26% had missed days from school because of dental pain and infection.

An average of 3 days of school were missed due to dental problems.

67% of parents reported their child had been in pain.

38% of children had sleepless nights because of the pain.

Many days of work were potentially lost as 41% of parents/carers were employed.

But dental decay is preventable …..
But dental decay is preventable …..

Dental decay is preventable – it’s not rocket science

- Less sugar
- More Fluoride
What is the policy context?

Manifesto

"[We will]… support NHS dentistry to improve coverage and reform contracts so that we pay for better outcomes, particularly for deprived children”

The Public Health Outcomes Framework (2013-16) Domain 4 includes an indicator related to tooth decay in five year old children

The NHS Outcomes Framework (2014-15) includes indicators related to tooth decay in 5 year olds, patient’s experiences of NHS dental services, access to NHS dental services and GA admissions for under 10s

Strategic links with wider government work

- Obesity- child obesity plan and sugar
- SACN - breast feeding and a healthy diet
- Inequalities – life chances- parental conflict (DWP), troubled families (DHCLG)
- DHSC(dental and children’s leads), DfE (EYSF)
Who is responsible for oral health improvement in England?

Local authority statutory responsibilities: (Health and Social Care Act 2012)

- **Oral health improvement**: Commission or provide oral health improvement programmes to improve health (Statutory Instrument 3094)
- **Oral health surveys**: Commission or provide oral health surveys and to participate in any oral health survey commissioned by the secretary of state (Statutory Instrument 3094)
- **Water fluoridation**: Power to make proposals regarding water fluoridation schemes and duty to conduct public consultations in relation to these (Statutory Instrument 301)
Bringing together system leaders for oral health improvement

- Oral health roundtable was held in July 2015, enabled key leaders across the system with a role with Early Years & CYP to meet, discuss and agree on the next steps.
- Vision or ambition for oral health improvement; What are the drivers; Actions needed to improve oral health

Outcomes from the roundtable

- Agreed a shared ambition
- Need for system leadership – establish the COHIPB
- 5 emerging themes addressing drivers
- PHE agreed that child oral health should be a priority under the Evidence in Action priority Best Start in Life 2015 – 2020.

The Ambition

Our ambition is that every child grows up free from tooth decay as part of every child having the best start in life.

In order to achieve our ambition we aim to improve the oral health of all children and reduce the oral health gap for disadvantaged children.
Membership of the COHIPB

- The group is chaired by the PHE National Lead for Oral Health Improvement and includes members from;
- NHSE dental commissioning lead
- Office of the Chief Dental Officer
- Cross departmental DHSC (dental and children’s policy leads), DfE
- Health Education England (dental and CYP),
- Committee of Post Graduate Dental Deans
- LGA, ADPH
- Institute of health visiting
- HENRY, Best Beginnings
- BDA, Royal College of Surgeons Faculty of Dental Surgery and Faculty of General Dental Practice
- British Society of Paediatric Dentistry
- PHE, dental PH, Centre Directors, CYP lead, Diet and Obesity, Marketing, National lead Maternity and Early Years, Chimat., professional lead community and school nursing
1. Child oral health's on everyone's agenda

Key actions:
- Ongoing development, implementation and evaluation of national oral health programmes for children and young people across the UK, building on existing initiatives, including Childsmile (Scotland) and Designed to Smile (Wales).
- All children in the UK should receive their first check-up as soon as their first teeth come through, and by their first birthday, and have timely access to dental services for preventative advice and early diagnosis of dental caries, with targeted access for vulnerable groups.
- Fluoridation of public water supplies, particularly in areas where there is a high prevalence of tooth decay.
2. The early years and dental workforce have access to evidence based oral health improvement training

- The oral health promotion module of the Healthy Child Programme (HCP) on HEE’s e-learning for Healthcare, has been updated with new content and video. The HCP was originally developed by HEE e-LfH in partnership with RCPCH.
- PHE have updated the oral health session in partnership with RCPCH. The resource is aimed at health visitors, nurses and the child health team.


3. Oral health data and information is used to the best effect by all key stakeholders
4. All stakeholders use the best evidence for oral health improvement

Delivering Better Oral Health - prevention in practice

• first published in 2007
• to support dental teams in a more preventive approach which is evidence based
• Universal with targeted support
• living document always expected to update
## Prevention of dental caries in children aged 0-6 years

<table>
<thead>
<tr>
<th>Advice to be given</th>
<th>EB</th>
<th>Professional intervention</th>
<th>EB</th>
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<tbody>
<tr>
<td><strong>All children aged 0-6 years</strong></td>
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<tr>
<td>• Brush at least twice daily, with a fluoridated toothpaste</td>
<td>I</td>
<td>• Apply fluoride varnish to teeth two times a year (0.2% NaF)</td>
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<tr>
<td>• Brush last thing at night and at least on one other occasion</td>
<td>III</td>
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<td>• Brushing should be supervised by a parent/carer</td>
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<td>• Use fluoridated toothpaste containing more than 1,000ppm fluoride</td>
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<td>• It is good practice to use only a pea sized amount</td>
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<tr>
<td>• Spit out after brushing and do not rinse, to maintain fluoride concentration levels</td>
<td>II</td>
<td></td>
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<tr>
<td>• The frequency and amount of sugary food and drinks should be reduced</td>
<td>III, I</td>
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<tr>
<td>• Sugar-free medicine should be recommended</td>
<td>II</td>
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<tr>
<td><strong>Children aged 3-6 years giving concern to those likely to develop caries, those with special needs</strong></td>
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<td>All advice as above plus</td>
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<tr>
<td>• Use fluoridated toothpaste containing 1,350-1,500ppm fluoride</td>
<td>I</td>
<td>• Apply fluoride varnish to teeth two or more times a year (0.2% NaF)</td>
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<tr>
<td>• It is good practice to use only a smear or pea sized amount</td>
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<tr>
<td>• Where medication is given frequently or long term request that it is sugar free, or used to minimise cariogenic effects</td>
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<tr>
<td>• Reduce recall interval</td>
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<tr>
<td>• Investigate diet and assist to adopt good dietary practices in line with the sealant plaque</td>
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<tr>
<td>• Where medication is given frequently or long term liaison with medical practitioner to ensure it is sugar free, or used to minimise cariogenic effects</td>
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Impacts of DBOH

- Reformulation of children’s toothpaste
- Dental teams incorporating prevention based on DBOH into daily practice
- DCP training to increase skill mix within dental practice to deliver prevention
- Underpins NHS England’s Starting Well programme
- DH dental contract reform underpinned by DBOH

Source: Godson J, et al. Arch Dis Child Month 2017 Vol 103 No 1

Top 3 interventions for preventing tooth decay

1. Reduce the consumption of foods and drinks that contain sugars
2. Brush teeth twice daily with fluoride toothpaste (1350-1500ppm), last thing at night and at least on one other occasion. After brushing, spit don’t rinse
3. Take your child to the dentist when the first tooth erupts, at about 6 months and then on a regular basis

Under 3s should use a smear of toothpaste
3 to 6 year olds should use a pea-sized amount
Parents/carers should brush or supervise tooth brushing until their child is at least 7
Supporting local authorities in their oral health improvement role

Purpose of the toolkit:

- To support local authorities to commission oral health improvement programmes for children and young people (CYP) 0-19 years
- To enable local authorities to review and evaluate existing oral health improvement programmes and consider future commissioning intentions
- To provide an evidence informed approach with examples of good practice

Community based programmes that work (CBOH, PHE 2014)

- Targeted provision of toothbrushes and tooth paste (i.e. postal or through Health Visitors)
- OH training for the wider professional workforce (e.g. health, education)
- Integration of OH into targeted home visits by health/social care workers
- Targeted community-based fluoride varnish programmes
- Supervised tooth brushing in targeted childhood settings
- Healthy food and drink policies in childhood settings
- Fluoridation of public water supplies
- Targeted peer (lay) support groups/peer OH workers
- Influencing local and national government policies
Supervised toothbrushing in early years settings

Fluoridation schemes in England cover some 6 million people

4. Water fluoridation prevents tooth decay

Water fluoridation is the only intervention to improve dental health that does not require behaviour change by individuals. All water contains small amounts of naturally occurring fluoride. Fluoride in water at the optimal concentration (1ppm or 1mg fluoride per litre of water) can help reduce the likelihood of tooth decay and minimise its severity. Where the naturally occurring fluoride level is too low to provide these benefits, a water fluoridation scheme adjusts the level of fluoride to 1ppm.

The return on investment for water fluoridation programmes after 5 years is £0.71 for every £1 spent. After 10 years, this increases to £1.98 for every £1 invested.
Return on investment tool

Aims to support LA decision making regarding investment in oral health programmes.

- Targeted supervised tooth brushing,
- Targeted provision of fluoride varnish,
- Targeted provision of toothbrushes and paste by post and health visitors and
- Community water fluoridation.

Estimates monetised savings to LA and NHS including:

- saved fillings in NHS primary care and tariff costs for dental extractions in NHS secondary care
- reduction in days missing at work for parents/carers accompanying children to the dentist and/or hospital
- In addition the ‘number of days saved at school’

*All targeted programmes modelled on population decayed, missing or filled tooth (DMFT) index of 2, unconditional programmes on DMFT for England of 5.0. The modelling has used the PHIE Return on Investment Tool for oral health interventions (PHIE, 2010). The best available evidence has been used in this tool and where assumptions are made these have been clearly stated.

PHIE Publications gateway number: 805621

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Sugar

SACN (2014) Carbohydrates and health

- SACN (2015) recommends that for all age groups from 2 years upwards the average intake of free sugars should not exceed 5% of total dietary energy intake. Younger children should have even less.
- Recommended intake of free sugars is no more than:
Evidence sugar and dental caries

- Prospective cohort studies, conducted in children and adolescents, indicate that higher consumption (i.e. the amount) of sugars, sugars-containing foods and sugars-sweetened beverages is associated with a greater risk of dental caries in the deciduous and permanent dentitions. There is a lack of evidence to assess the impact of sugars intake on oral health in adults, however the mechanism for the development of dental caries is the same for adults as it is for children.

- A higher frequency of consumption of sugars-containing foods and beverages, but not total sugars, is also associated with greater risk of dental caries in the deciduous and permanent dentitions. The lack of association observed between frequency of sugars intake and dental caries risk may in part be due to methodological problems in the definition and characterisation of eating events in observational studies.

Source: Carbohydrates and Health, SACN 2015

Why food policy is changing and focusing on sugar

- National Diet and Nutrition Survey (2014) showed however that in the UK we are consuming too much sugar with;

  - Teenagers (11 to 18 years) consuming three times the recommended sugar intake with the biggest source being sugary drinks

  - 25% of the sugar in children’s (4 to 10 years) diet coming from sugary drinks.
PHE evidence review of what works to reduce sugar consumption

- Reduce price promotions in all retail outlets
- Reduce marketing and advertising of high sugar foods and drinks
- Clear definition high sugar foods
- Reformulation and reduced portion size
- Sugar tax/levy on high sugar foods and drinks (minimum 10-20%)
- Adopt implement and monitor GBS
- Accredited training in diet and health
- Awareness raising of sugar levels in the diet

Soft drinks industry levy (SDIL) – HM Treasury lead

- The SDIL introduced April 2018 is a **levy to producers or importers of soft drinks which contain added sugars**
- The levy has two rates:
  - a lower rate for drinks with a total sugar content between 5-8g/100ml (18p per litre)
  - a higher rate for drinks with total sugar >8g/100ml (24p per litre)
- **All revenue generated from the SDIL will be invested in programmes for schools to support physical activity and healthy diets.**
- PHE will monitor progress of all drinks; HM Treasury will review progress of milk based drinks in 2020.
- Estimated revenue to be raised revised downwards
Sugar reduction programme

Overall target is to reduce sugar by 20% by 2020 (5% reduction in year 1)

- A broad, structured and transparently monitored sugar reduction programme is being led by PHE to remove sugar from the products children eat most.

- Evidence shows that slowly changing the balance of ingredients in everyday products, or making changes to product size, is a successful way of improving diets. This is because the changes are universal and do not rely on individual behaviour change.

- It applies to all sectors of the food industry i.e. retailers, manufacturers and family restaurants, cafes, takeaways etc. that provide food for consumption on their premises, on the go or in the home.

- 9 categories of food – yogurts, breakfast cereals, cakes, biscuits, puddings, morning goods (e.g. croissants, buns), confectionery (sweet and chocolate), sweet spreads and sauces, ice cream.

5. Child oral health improvement information is communicated effectively

- Red book - PCHR
- NHS Choices
- Best beginnings- baby buddy app
- C4L and Start 4 life
Be Food Smart campaign

Reveal sugar cubes, blobs of saturated fat and salt sachets

TV Advert

PR Film – sugar at breakfast time

Change4 Life
dental toolkit Jan 2018

The toolkit has three key tips for parents:

- Be sugar smart
- Brush your teeth twice a day
- Visit the dentist regularly
Upstream downstream action for oral health improvement

Source: From victim blaming to upstream action: tackling the social determinants of oral health inequalities Watt RG. Community Dent Oral Epidemiol 2007; 35: 1–11
Role of paediatricians and the child health team

- making every contact count: knowledge of the key evidence-based messages and the skills to support behaviour change
- Ask, Advise, Assist
- signposting to local dental services if dental treatment or further support is required
- Act as advocates for oral health improvement,
  - individual patient level
  - and in their wider work influencing the system.
- Share the ambition!

Key messages

- Although child OH in is improving challenges remain
- Oral health is everyone’s business
- Importance of shared and system leadership and a shared ambition
- We can make progress
- Intervening early with what we know works – look to the evidence
- Upstream action to develop healthy public policy and healthy settings key to tackling oral health inequalities
Thankyou

If you want to get in touch please contact me at: jenny.godson@phe.gov.uk
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#COHIPB

Further reading:
Health Matters: Child Dental Health (PHE, 2017)
Child Oral Health: applying all our health