The Lancet: Big Sugar and neglect by global health community fuel oral health crisis

- Oral diseases present a major global public health burden, affecting 3.5 billion people worldwide, yet oral health has been largely ignored by the global health community, according to a new ***Lancet Series* on Oral Health**
- With a treat-over-prevent model, modern dentistry has failed to combat the global challenge of oral diseases, giving rise to calls for the radical reform of dental care
- The burden of oral diseases is on course to rise as more people are exposed to the underlying risk factors of oral diseases, including sugar, tobacco and alcohol
- Emerging evidence of the food, beverage, and sugar industry's influence on dental research and professional bodies raises fresh concern

Oral health has been isolated from traditional healthcare and health policy for too long, despite the major global public health burden of oral diseases, according to a **Lancet Series on Oral Health**, published today in *The Lancet.* Failure of the global health community to prioritise the global burden of oral health has led to calls from *Lancet Series* authors for the radical reform of dental care, tightened regulation of the sugar industry, and greater transparency around conflict of interests in dental research.

Oral diseases, including tooth decay, gum disease and oral cancers, affect almost half of the global population, with untreated dental decay the most common health condition worldwide. Lip and oral cavity cancers are among the top 15 most common cancers in the world.

In Ireland, vulnerable children and adults have more untreated dental disease, missing teeth and total tooth loss compared to the general population in Ireland. Older adults in Ireland with an intellectual disability are twice as likely to be edentulous - have no teeth - compared to the general population.

In addition to lower quality of life, oral diseases have a major economic impact on both individuals and the wider health care system. The treatment of oral diseases cost €90 billion per year across the EU, the third most expensive condition behind diabetes and cardiovascular diseases.

The *Lancet Series* on Oral Health led by University College London (UCL) researchers brought together 13 academic and clinical experts from 10 countries to better understand why oral diseases have persisted globally over the last three decades, despite scientific advancements in the field, and why prevalence has increased in low- and middle- income countries (LMIC), and among socially disadvantaged and vulnerable people, no matter where they live. [1]

A tipping point for global oral health

"Dentistry is in a state of crisis," said Professor Richard Watt, Chair and Honorary Consultant in Dental Public Health at UCL and lead author of the Series. "Current dental care and public health responses have been largely inadequate, inequitable, and costly, leaving billions of people without access to even basic oral health care. While this breakdown in the delivery of oral healthcare is not the fault of individual dental clinicians committed to caring for their patients, a fundamentally different approach is required to effectively tackle to the global burden of oral diseases." [2]

In high-income countries (HIC), dentistry is increasingly technology-focused and trapped in a treatment-over-prevention cycle, failing to tackle the underlying causes of oral diseases. Oral health conditions share many of the same underlying risk factors as non-communicable diseases, such as sugar consumption, tobacco use and harmful alcohol consumption.

Professor Blánaid Daly, Dublin Dental University Hospital & School of Dental Sciences, Trinity College Dublin, and a co-author of the Series said: "While there have been substantial improvements in the population's oral health across Ireland, vulnerable groups, such as the

very young, people with disabilities, frail older people and marginalised groups, continue to experience poor oral health and large gaps in their access to routine dental care."

In middle-income countries the burden of oral diseases is considerable, but oral care systems are often underdeveloped and unaffordable to the majority. In low-income countries the current situation is most bleak, with even basic dental care unavailable and most disease remaining untreated.

Coverage for oral health care in LMIC is vastly lower than in HIC with median estimations ranging from 35% in low-, 60% in lower-middle, 75% in upper middle, and 82% in high income countries.

Professor Blánaid Daly added: "It is essential that the implementation of the new oral health policy 'Smile Agus Slainte' (April 2019) delivers on the goal of enabling vulnerable groups to access oral healthcare and improve their oral health."

Sugar, alcohol and tobacco industries fuel global burden

The burden of oral diseases is on course to rise, as more people are exposed to the main risk factors of oral diseases. Sugar consumption, the primary cause of tooth decay, is rising rapidly across many LMIC. While sugary drinks consumption is highest in HIC, the growth in sales of sugary drinks in many LMIC is substantial. By 2020, Coca-Cola intend to spend US$12 billion on marketing their products across Africa [3] in contrast to WHO's total annual budget of $4.4 billion (2017).

"The use of clinical preventive interventions such as topical fluorides to control tooth decay is proven to be highly effective, yet because it is seen as a 'panacea', it can lead to many losing sight of the fact that sugar consumption remains the primary cause of disease development." said Watt. "We need tighter regulation and legislation to restrict marketing and influence of the sugar, tobacco and alcohol industries, if we are to tackle the root causes of oral conditions."

Writing in a linked commentary, Cristin E Kearns of the University of California and Lisa A Bero of the University of Sydney raise additional concerns with the financial links between dental research organisations and the industries responsible for many of these risk factors.

"Emerging evidence of industry influence on research agendas contributes to the plausibility that major food and beverage brands could view financial relationships with dental research organisations as an opportunity to ensure a focus on commercial applications for dental caries interventions—eg, xylitol, oral hygiene instruction, fluoridated toothpaste, and sugar-free chewing gum—while deflecting attention from harm caused by their sugary products."

Lancet Series authors argue a pressing need exists to develop clearer and more transparent conflict of interest policies and procedures, and to restrict and clarify the influence of the sugar industry on dental research and oral health policy.

Radical reform of dentistry needed

Lancet Series authors have called for wholesale reform of the dental care model in five key areas:

1. Close the divide between dental and general healthcare
2. Educate and train the future dental workforce with an emphasis on prevention
3. Tackle oral health inequalities through a focus on inclusivity and accessibility
4. Take a stronger policy approach to address the underlying causes of oral diseases
5. Redefine the oral health research agenda to address gaps in LMIC knowledge

Dr Jocalyn Clark, an Executive Editor at *The Lancet*, said: "Dentistry is rarely thought of as a mainstream part of healthcare practice and policy, despite the centrality of the mouth and oral cavity to people's well-being and identity. A clear need exists for broader accessibility and

integration of dental services into healthcare systems, especially primary care, and for oral health to have more prominence within universal health coverage commitments. Everyone who cares about global health should advocate to end the neglect of oral health."

NOTES TO EDITORS

[1] Key facts and statistics included in the Series are detailed in an Appendix at the end of this Press Release
[2] Quote direct from author and cannot be found in the text of the Article
[3] REF: Nestle M. Soda politics: taking on Big Soda (and winning). Oxford: Oxford University Press, 2015.

The labels have been added to this press release as part of a project run by the Academy of Medical Sciences seeking to improve the communication of evidence. For more information, please see: http://www.sciencemediacentre.org/wp-content/uploads/2018/01/AMS-press-release-labelling-system-GUIDANCE.pdf if you have any questions or feedback, please contact The Lancet press office pressoffice@lancet.com

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