

**Good day,**

**Today is World Oral Health Day (WOHD)! The Office of Global and Community Health would like to acknowledge this special day by providing facts about oral health. Also, please join us today for a special tea time at 3:00 PM in the HSDM Main Lobby. We ask faculty, staff, and students to please donate a *new, packaged toothbrush* for global health and community outreach initiatives. We appreciate your participation and support!**



### **What is World Oral Health Day?**

World Oral Health Day (WOHD) is celebrated each year on 20 March and is organized by FDI World Dental Federation. It is the culmination of a year-long campaign dedicated to raising global awareness on the prevention and control of oral disease. WOHD spreads messages about good oral hygiene practices to adults and children alike and demonstrates the importance of optimal oral health in maintaining general health and well-being. It also aims to raise the profile of oral health on the global health and development agenda by highlighting the social and economic impact of oral disease.

### **Who is WOHD for?**

Launched by FDI World Dental Federation in 2007, WOHD is the largest global awareness campaign on oral health. Each year, it focuses on a specific theme and reaches out to the general public, oral health professionals and policymakers, who all have a role to play in helping reduce the burden of oral disease. WOHD inspires them to take action.

### **Why is WOHD important?**

In a world where 90% of the population will suffer from oral disease during their lifetime, WOHD is a key date in the oral health community agenda. It's an occasion when people around the globe unite to put the spotlight on the immense burden caused by oral disease and is an opportunity to remind our political leaders that investment in prevention yields dividends in oral health and general health. It is also a day to salute the hard work of dental practitioners and the dental industry to improve the state of oral health in the world.

### **Oral Disease: 10 key facts**

1. Oral disease affects 3.9 billion people worldwide<sup>1</sup>, with untreated tooth decay (dental caries) impacting almost half of the world's population (44%), making it the most prevalent of all the 291 conditions included in the Global Burden of Disease Study<sup>2</sup>
2. Globally, between 60–90% of schoolchildren and nearly 100% adults have tooth decay, often leading to pain and discomfort<sup>3</sup>

3. Severe periodontal (gum) disease, which may result in tooth loss, is found in 15–20% of middle-aged (35–44 years) adults<sup>3</sup>
4. Severe periodontitis and untreated tooth decay in the primary teeth (milk teeth or baby teeth) are among the top 10 most prevalent of all conditions. Combined, these conditions affect 20% of the global population<sup>4</sup>
5. Globally, about 30% of people aged 65–74 years have no natural teeth<sup>3</sup>, a burden expected to increase in the light of ageing populations
6. Oral conditions are the fourth most expensive to treat. In the United States alone, US\$110 billion are spent yearly on oral healthcare. In the European Union, annual spending on oral healthcare was estimated at €79 billion in the years 2008-2012, which is more than the money invested in the care of cancer or respiratory diseases<sup>1</sup>
7. Risk factors for oral disease include an unhealthy diet – particularly one rich in sugars – tobacco use, harmful alcohol use and poor oral hygiene
8. Oral disease is associated with significant pain and anxiety, as well as disfigurement, acute and chronic infections, eating and sleep disruption, and can result in an impaired quality of life. In developing countries, this is exacerbated due to the lack of pain control and treatment not being readily available<sup>5</sup>
9. Oral disease can impact every aspect of life – from relationships and self-confidence through to school, work, the ability to interact with others. It can also result in social isolation and reduced income<sup>5,6</sup>
10. Oral health is essential to maintaining general health and well-being

### **Live Mouth Smart**

Our campaign theme ‘Live Mouth Smart’ empowers people to take control of their oral health – throughout life – so they can enjoy a healthy, functional mouth from childhood into old age. It conveys the message that by making smart decisions such as adopting good oral hygiene habits, avoiding risk factors and having a regular dental check-up, they can help prevent oral disease. The imagery is positive and focuses on oral health as much more than a nice smile. It highlights how basic oral functions that are core to life – ability to speak, smile, sigh and kiss, smell, taste, touch, chew, swallow and convey a world of emotions through facial expressions – are affected and how this relates to physiological, social and psychological well-being.

The campaign strives to make people understand the broader consequences of oral disease and how poor oral health affects general health and well-being. It stresses the impact of oral disease on various aspects of a person’s social life, which can lead to low self-esteem, diminished social interactions, poor school performance, lack of confidence, and meager employment prospects.

All stakeholders – general public, oral health professionals and policymakers – must work together to address the disease burden and take the necessary action so that populations can Live Mouth Smart. We have therefore developed calls to action together with supporting campaign material in the global fight against oral disease.

## HSDM Participation

Over the past year, HSDM has had faculty and students participate globally in the following countries.



**Ecuador:** Yianni Ellenikiotis (Class of 2017) has been part of this ongoing research project where students partner with an Ecuadorian dental and public health school and reach out to mountainous communities and see children from 6 months to 15 years of age, in which they survey parents, screen for severe childhood caries, provide oral health and nutrition education, and apply fluoride varnish. The direct immersion into the Ecuadorian culture leads to a truly meaningful and enriching experience where students are able to learn from the people and communities they interact with on a daily basis.



**Haiti:** Dr. Brian Swann, instructor in Oral Health Policy & Epidemiology, is travelling to Haiti in 2017 with the National Dental Association as part of ongoing faculty capacity building in collaboration with the Haiti Dental School.



**India:** Hannah Yoo (Class of 2018) is currently conducting her research project on oral and nutritional health of women and children in Mumbai, India.



**Ireland:** During the summer of 2016, Dr. John Ahern joined HSDM as a Fulbright Scholar from Dublin, Ireland. Dr. Ahern received both his dental (2010) and medical (2015) degrees from Trinity College Dublin, and his masters in public health from the London School of Hygiene and Tropical Medicine (2013). As a dual-qualified clinician in both medicine and dentistry, Dr. Ahern's focus is on the integration of oral health with general health. Dr. Ahern returned to Ireland in 2017 but is still collaborating with the Office of Global and Community Health at HSDM on various

international projects related to integration with a particular focus on the diabetic population.



**Jamaica:** Dr. Hend Alqaderi, lecturer in Oral Health Policy & Epidemiology was invited in August 2016 to teach an intensive Evidence Based Dentistry course in Jamaica at the University of West Indies Dental School. This course aimed to provide basic knowledge and skills required for practicing evidence-based dentistry including the concepts, processes, and methodology, from asking the right clinically relevant questions to searching and critical appraisal of existing evidence and applying that information in clinical decision making.

Dr. Alqaderi gave workshops for the dental students there to master the competencies of how to critique articles and metaanalysis, synthesize and apply information from scientific and lay sources to improve the public's oral health. In addition, the course included workshops, short presentations, and teamwork assignments in areas like basic epidemiology, Biostatistics, and proposing research projects.



**Kuwait:** Drs. Mary Tavares (instructor) and Hend Alqaderi (lecturer) of Oral Health Policy & Epidemiology are collaborating on research in Kuwait entitled “The Kuwait Healthy Lifestyle Study.” This is a longitudinal study focusing on data from over 8,000 Kuwaiti children across the six governorates of Kuwait. The study looks at correlation among sugar sweetened drinks, obesity, caries, and sleep patterns.



**Rwanda:**

HSDM is involved in a unique program in global health dentistry collaborating with the University of Maryland School of Dentistry and the University of Rwanda on an innovative project to develop a bachelor of dental surgery program in Rwanda—part of the extensive Rwanda Human Resources for Health Scale Up (HRH) Program. The HRH Program is a novel and potentially transformative health care workforce capacity-building initiative developed by the Government of Rwanda and funded by the US Government. The overarching aim of this eight-year program is to build a comprehensive, high-quality, and

sustainable health care system in Rwanda by strengthening the health workforce education system and promoting the education and career development of the country's health workforce.

HSDM current and past faculty & staff members who have been on rotation and assisted with the project are: Jane Barrow, Ladan Basiripour, Christina Dervishian, Donna Hackley, Thomas Koestler, John Michael Ray, Mohammed Razzaque, Sawsan Salih, Karl Self, Brittany Seymour, Eleana Stoufi, Brian Swann, and Peter Swartberg. HSDM Alum and University of Illinois at Chicago faculty member Dr. Carla Evans has also participated in the project.



Rwanda (cont'd):

HSDM is collaborating with Tufts University and University of Rwanda on the first ever national oral health survey.



In 2016, Dr. Bernard Friedland, assistant professor in Oral Medicine, Infection and Immunity, received \$1.35 million dollar five year National Institutes of Health (NIH) Fogarty International Center Award for his research project, “Development Initiative for Ethical Review and Oversight of Health Research Involving Human Subjects in Rwanda.” Harvard School of Dental Medicine (HSDM) was one of four colleges to receive NIH grants for projects which will foster global health research. HSDM’s Dr. Friedland is leading the project as Principal Investigator to pursue an international collaboration with the University of Rwanda. Through this partnership, the goal is to establish in Rwanda a “self-sustaining, well-functioning national system of ethical review in [health research] within five years,” according to the abstract.



**United Arab Emirates:** Drs. Christine Riedy and Hawazin Elani (HSDM) and Dr. Munzer Ramahi (Mediclinic, UAE) are serving as co-PIs on, “Oral Health and Diabetes in Emirati Adults: A Mixed Methods Study,” funded by the HMS Center for Global Health Delivery-Dubai. The HMS Center for Global Health Delivery-Dubai promotes research optimizing the ‘last mile’ of health care delivery. The Mediclinic/HSDM collaboration will employ a mixed methods design to examine Type 2 diabetes among Emirati adults residing in Dubai, UAE. A quantitative approach will be used to assess the prevalence of periodontitis in diabetic Emirati adults,

examine the association between prevalence of periodontitis and uncontrolled diabetes and assess patient’s treatment compliance/adherence. A qualitative approach will be used to examine the lived

experiences of controlled and uncontrolled diabetics. This knowledge will be used to inform and tailor future targeted behavioral interventions in this population.

In February 2017, Assistant Dean Jane Barrow and Associate Professor Dr. Christine Riedy travelled to Dubai on behalf of HSDM to attend and participate in a 1.5 day workshop to identify and map causal factors and proximal determinants for obesity in the Middle East. Dean Barrow and Dr. Riedy presented at the conference to medical and oral health professionals on oral health's role in systems based approaches to healthcare.

**Other Countries:** HSDM also participates in various levels of collaborations (clinical, social or basic science research or teaching initiative) in the following countries: Austria, Australia, Belgium, Bolivia, Canada, China, Denmark, Finland, France, Germany, India, Italy, Israel, Japan, Korea, Malawi, Mexico, Netherlands, Nigeria, Norway, Peru, Spain, Sweden, Thailand, Uganda, and Vietnam. We would like to thank all of our researchers for the tireless work they contribute globally to science.

**New England Conference on Global and Community Health for Trainees:** Harvard School of Dental Medicine assists with the organization and management of this one day interactive conference for students run by the Massachusetts Medical Society. Presented by New England based medical and oral health care providers, the conference features mini lectures, case studies, keynotes, and hands on workshops that cover a variety of topics from global health issues (Ebola, Tuberculosis in Rwanda, International Radiology Resources) as well as community level topics (Refugee Resettlement Challenges, Dental Emergencies in Resource Poor Settings, Community Mental Health). In 2017, HSDM faculty members Drs. Brittany Seymour, Brian Swann, and Hend Alqaderi as well as DPH resident Anubhuti Shukla and student Morgane Amat (Class of 2019) all contributed to this successful event.

## Let's make WOHD 2017 even better!

### References

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7. White Paper on Dental Caries Prevention and Management. FDI World Dental Federation, 2016 (<http://www.fdiworldental.org/caries-prevention> in press).

