

Hello and welcome to Module 2 of the Global Health Starter Kit: Global Goals, co-authored with John McDonough.

This module introduces a few of the major milestones in global health and development, including the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), and the growing movement toward Universal Health Coverage, and how they relate to your role as dental providers, as well as the oral health of your patients.

While there are numerous resources and references available about these topics, for the purpose of this module, we have curated a small sample of high quality resources to support the learning outcomes. We encourage you to explore the literature further, beyond what is contained in this module. I also encourage you to visit the project website so you can see the full citations and graphic sources as well as references and additional resources that support this module.



# Competencies:

- 2.1.2. Understand and apply health promotion and risk reduction strategies (such as healthy eating, cessation of tobacco, and reduction of harmful alcohol use).
- 2.2.2. Understand and be familiar with the health care system in the community/country.
- 2.2.3. Identify barriers to access and use of health and oral health services (e.g., affordability, lack of insurance or providers, cultural and geographic issues); facilitate solutions to overcome them.
- 2.3.1. Advocate for relevant strategies to prevent and reduce risk factors based on an advocacy strategy to identify, mobilize, and connect relevant stakeholders/actors.
- 2.3.3. Understand and utilize political processes as well as roles/functions of national/international stakeholders (e.g., use global and national policy frameworks to guide local action).
- 3.1.1. Demonstrate an interdisciplinary, team-oriented, integrated, and multilevel approach to patient-centered health and oral health care.

This module is related to the above competencies. While these competencies cannot be met through a single teaching module, this module is working toward competency-based best practices in global health for dental education.

#### From:

Benzian, H., Greenspan, J.S., Barrow, J., Hutter, J.W., Loomer, P.M., Stauf, N. and Perry, D.A., 2015. A competency matrix for global oral health. Journal of dental education, 79(4), pp.353-361

Seymour B, Shick E, Chaffee B, Benzian H. Going global: toward competency-based best practices for global health in dental education. J. Dent. Educ. 2017;18(6):707-15.

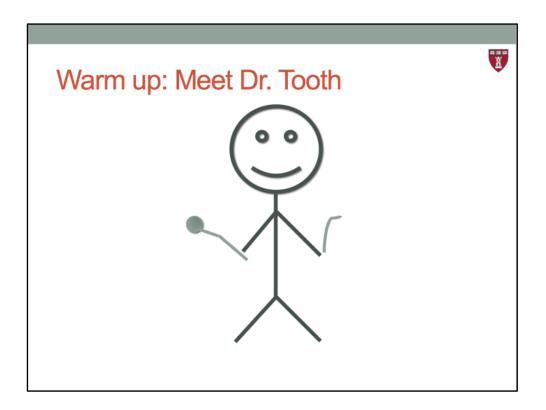


# **Learning Objectives**

By the end of this module, students should be able to do the following:

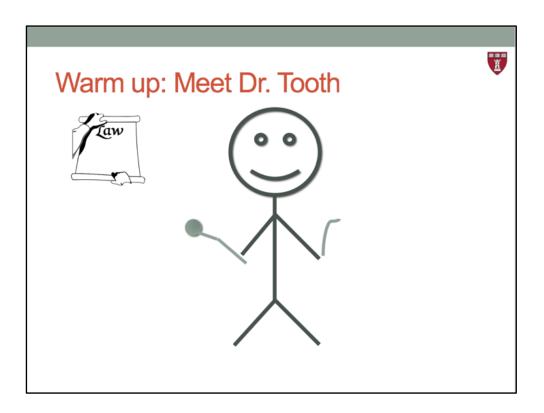
- Explain the Millennium Development Goals (MDGs),
  Sustainable Development Goals (SDGs), and their origins
- Discuss both the critiques and importance of the MDGs and SDGs and how oral health integrates with them
- Describe how the SDGs might affect oral health as a global priority in the future
- Define universal health coverage

We aim to meet the following learning objectives for this module:

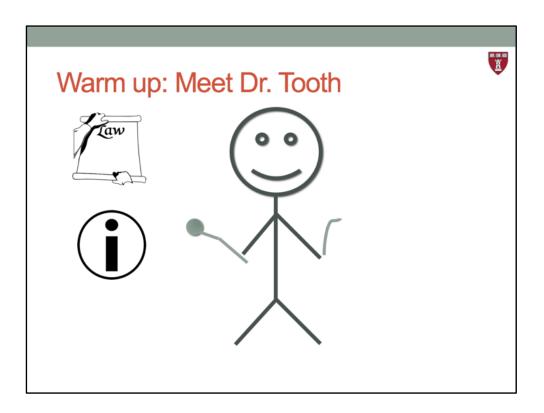


Let's being with a warm-up exercise to get you thinking...

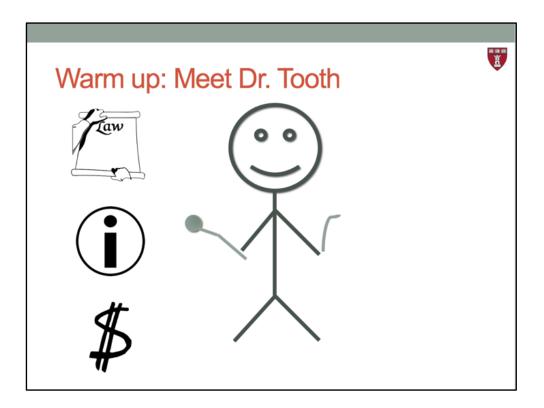
This is Dr. Tooth. Dr. Tooth is a dentist. What now? Most students say something like, "Practice dentistry," or "Treat patients." So, let's brainstorm, what does Dr. Tooth need to practice?



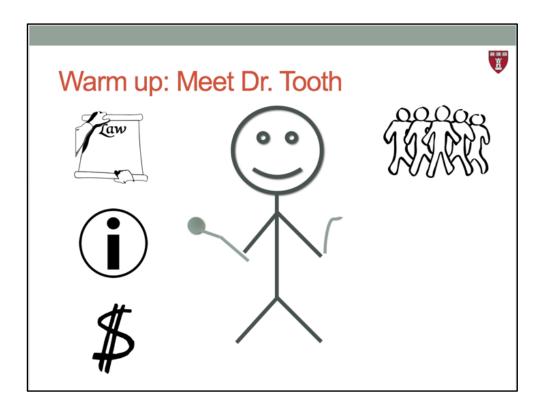
- Leadership and governance
  - Regulation, licensure, scope of practice, oral health policies (e.g. not just anyone can provide dental care, but Dr. Tooth can under a legal license to practice)



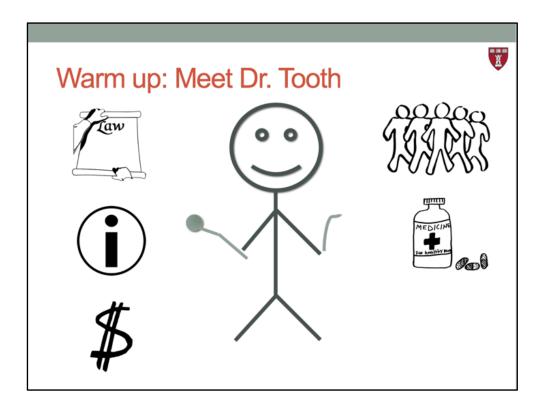
- Health information
  - Disease burden and health needs
  - Patient/provider ratios
  - Health information technology



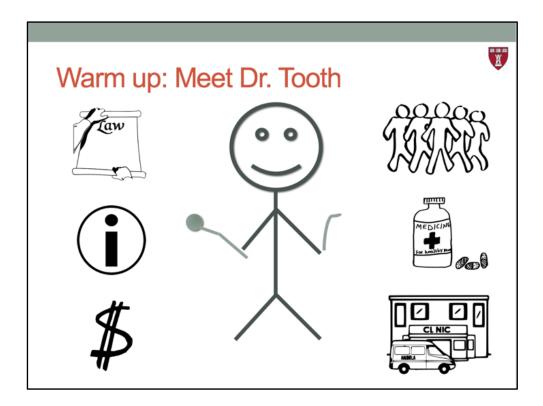
- Health financing and payment
  - Funding for provider education and training
  - Funding for health care services, supplies, and equipment
  - Insurance for citizens, including financing
  - Payment for health care services, supplies, and equipment



- Health care workforce
  - Providers and staff, adequately trained
  - Norms and values for delivering care
  - Coordination between providers, payers, and patients

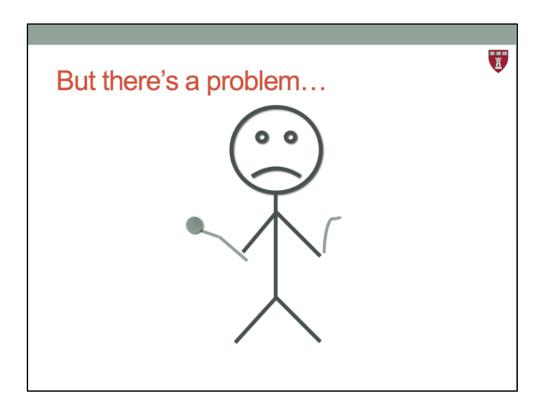


- Supplies, equipment, and technology
  - Dental supplies and equipment
  - Office/clinic space
  - Dental records
  - Supply delivery system
  - Prescription medicines



- Service delivery
  - Patient access to care
  - Quality of care, ethical care

Keep these components in mind as we move through the rest of the module.



In an ideal scenario, health services are provided within a well-functioning health system that includes all of the components from our warm up exercise. In reality, half the people in the world don't have access to essential health services, including dental care. And those who can get care too often fall into poverty trying to pay for it. Strikingly, about 100 million people fall into extreme poverty each year, defined as living on \$1.90 per day or less, due to health care costs.

There are people in the U.S. living in extreme poverty as well; health care costs are the leading reason for bankruptcy in the United States. Cost of care is the number one reason people avoid going to the dentist in the U.S.

We will spend the rest of this module laying the ground work to answer the question of what is being done so Dr. Tooth can provide appropriate, high quality care to all people who need it. The rest of this module series will continue to answer this question more deeply.

# References:

Tracking universal health coverage: 2017 global monitoring report. World Health Organization and International Bank for Reconstruction and Development / The

World Bank; 2017. Licence: CC BY-NC-SA 3.0 IGO

Accessed on January 22, 2018 at:

http://www.who.int/healthinfo/universal health coverage/report/2017 global mon

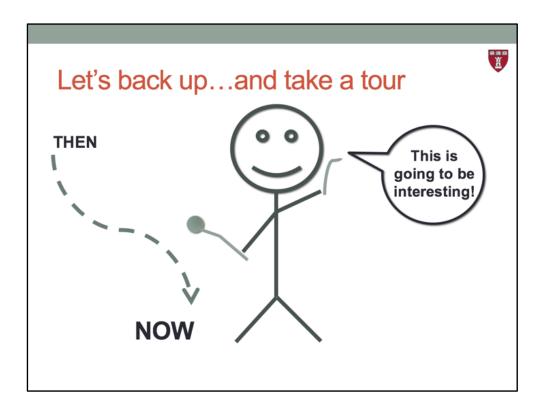
itoring\_report.pdf?ua=1

Oral Health and Well-Being in the United States. Health Policy Institute, American Dental Association. 2015.

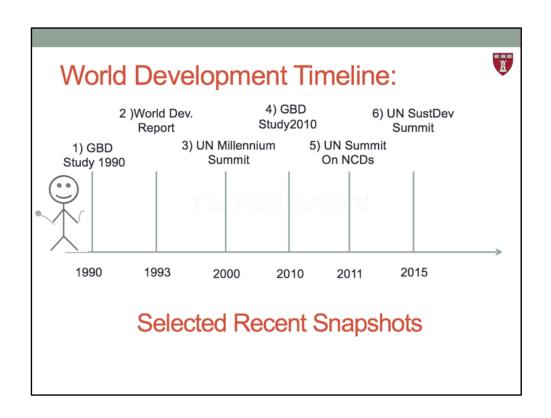
Accessed on January 22, 2018 at:

http://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/OralHealthWell-Being-StateFacts/US-Oral-Health-Well-Being.pdf?la=en

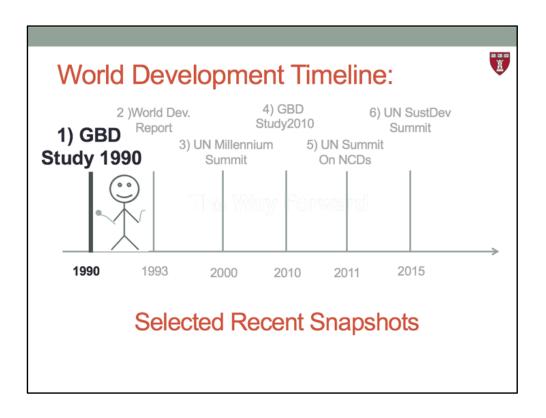
Edin, K., & Shaefer, H. L. \$2.00 a day: Living on almost nothing in America. Boston: Houghton Mifflin Harcourt, 2015.



Let's back up and take a quick tour of global development's recent history. We'll discuss why these moments in history matter to health, and how they are assisting in cultivating Dr. Tooth's role in the world today.



Let's review some major milestones in global health and development and explore what they mean for oral health and oral health care. This will help us to begin to understand what's in motion to assist Dr. Tooth in providing affordable, high quality care to all patients who need it, particularly those who can least afford it.



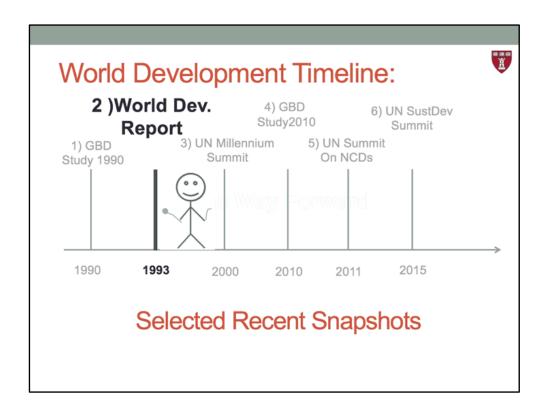
The first global burden of disease (GBD) data dates back to 1990, when data about the risks and determinants of morbidity and mortality were systematically collected across 8 regions of the world through 1990. This was the most comprehensive effort to date and introduced highly influential new disease measurements. It allowed international comparisons of morbidity and mortality rates and causes in ways that were never possible before. Data collected included oral diseases and conditions. (This topic is covered further in Module 1.)

#### References:

World Health Organization Health Statistics and Information Systems. About the Global Burden of Disease Study. ©WHO 2018.

http://www.who.int/healthinfo/global burden disease/about/en/

Institute for Health Metrics and Evaluation. GBD History. Accessed on January 22, 2018 at: http://www.healthdata.org/gbd/about/history

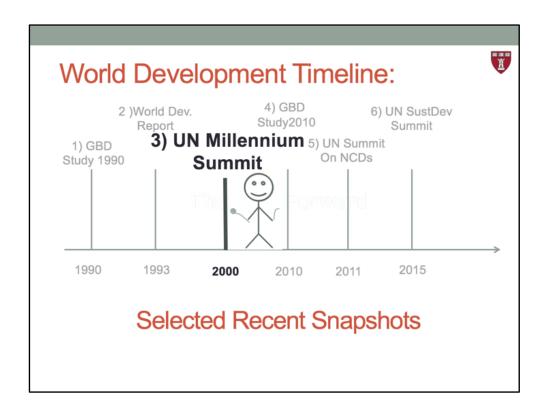


Each year, the World Bank releases the World Development Report (WRD), a summary of the economic, social, and developmental status of the globe. The findings from the GBD 1990 Study were released in the 1993 report. The 1993 WDR has become highly influential because it was among the early data and evidence linking an investment in health to improved economic outcomes, and introduced new methods for measuring the burden of disease. It was the first WRD with such a strong focus on health.

#### References:

World Bank. 1993. World Development Report 1993: Investing in Health. New York: Oxford University Press. © World Bank.

https://openknowledge.worldbank.org/handle/10986/5976 License: CC BY 3.0 IGO



In September 2000, world leaders convened for the United Nations Millennium Summit at the UN headquarters in New York City. The resulting document, the Millennium Declaration, resolved that leading into the new millennium, a major challenge for global development was the needs of developing countries and emerging economies. It declared that we have a collective responsibility to uphold human dignity, equity, and equality. The declaration set forth concrete measurable objectives for achieving those outcomes. These became the Millennium Development Goals.

#### References:

United Nations. Past conference. Millennium Summit (6-8 September 2000). Accessed on January 22, 2018 at:

http://www.un.org/en/events/pastevents/millennium summit.shtml

United Nations General Assembly. United Nations Millennium Declaration. Resolution A/RES/55/2. New York: United Nations, September 8, 2000.

Accessed on January 22, 2018 at:

http://www.un.org/en/ga/search/view\_doc.asp?symbol=A/RES/55/2



The MDGs were instrumental in unifying the world in setting, implementing, and monitoring shared goals for poverty reduction. Several of these goals were directly related to health, and the rest certainly had an indirect relationship to health. They included targeted measurable, specific outcomes that allowed for feasibility of monitoring over the fifteen year period during which they were set (2000-2015).

They were also critiqued for a number of reasons. Many felt they were not written with adequate transparency or inclusion of various stakeholders. This resulted in a relatively narrow set of goals that did not include other important issues such as non-communicable diseases. They focused largely on mortality and many felt they did not adequately target conditions with significant morbidity. Nonetheless, all UN member states agreed to the MDGs, and they have had a significant impact both on health globally as well as political collaboration for poverty reduction worldwide.

### References:

United Nations. Past conference. Millennium Summit (6-8 September 2000). Accessed on January 22, 2018 at:

http://www.un.org/en/events/pastevents/millennium summit.shtml

United Nations General Assembly. United Nations Millennium Declaration. Resolution A/RES/55/2. New York: United Nations, September 8, 2000. Accessed on January 22, 2018 at:

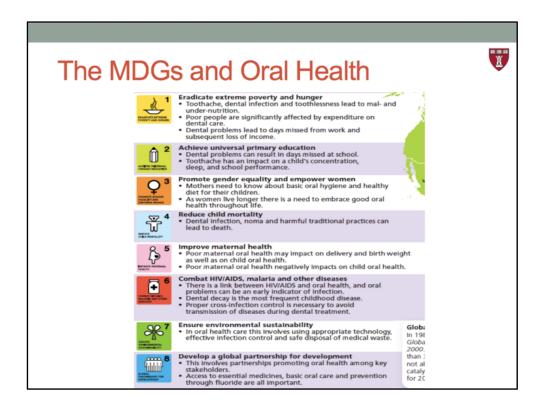
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The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva: FDI World Dental Federation; 2015.

Accessed January 28, 2018 at: http://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015.

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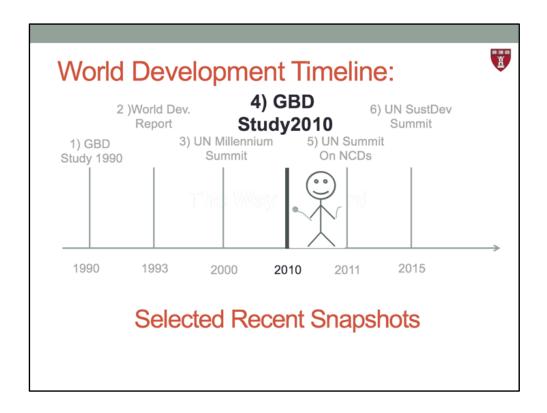
Green, D. Have the MDGs affected developing country policies and spending? Findings of new 50 country study. World Bank- Public Sphere blog. August 20, 2015. Accessed on January 22, 2018 at: https://blogs.worldbank.org/publicsphere/have-mdgs-affected-developing-country-policies-and-spending-findings-new-50-country-study.



Although none of the goals, targets, or indicators specifically addressed the burden of oral diseases, all 8 of the MDGs had links to oral health. The MDGs provided valuable opportunities to the global oral health community regarding the importance of identifying common linkages between oral health and the global health and development agenda, even when not explicitly recognized by global leadership charged with setting the MDG agenda at the time.

# **Graphic Source:**

The Oral Health Atlas- Mapping a neglected global health issue. Geneva: FDI World Dental Federation; 2009.



In 2010, the Institute for Health Metrics and Evaluation and other academic partners collaborated on a follow up global burden of disease study. Researchers could now compare disease rates over the years and measure trends, as discussed Module 1, aptly named Global Trends. Data have continued to be collected and updated, and include oral diseases and conditions. Untreated dental caries was found to be the most prevalent disease, of all 291 diseases and conditions measured in the study. 2016 data maintains this trend, with caries still leading in prevalence, out of over 300 diseases and conditions that have continued to be monitored.

#### References:

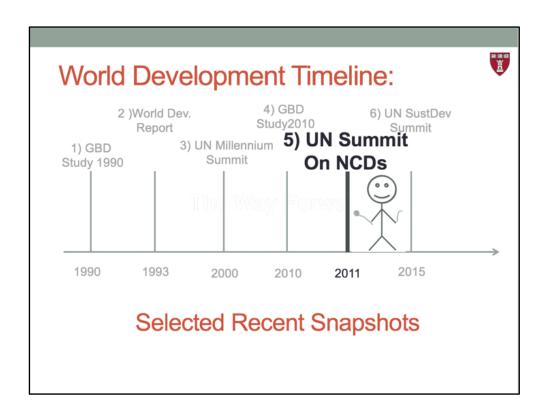
World Health Organization Health Statistics and Information Systems. About the Global Burden of Disease Study. ©WHO 2018.

http://www.who.int/healthinfo/global burden disease/about/en/

Institute for Health Metrics and Evaluation. GBD History. Accessed on January 22, 2018 at: <a href="http://www.healthdata.org/gbd/about/history">http://www.healthdata.org/gbd/about/history</a>

Kassebaum NJ, Smith AGC, Bernabe E, Fleming TD, Reynolds AE, Vos T, Abyu GY, Alsharif U, Asayesh H, Benzian H, Dandona L, Dandona R, Kasaeian A, Khader YS, Khang YH, Kokubo Y, Kotsakis GA, Lalloo R, Misganaw A, Montero P, Nourzadeh M, Pinho C, Qorbani M, Rios Blancas MJ, Sawhney M, Steiner C, Traebert J, Tyrovolas S, Ukwaja KN, Vollset SE, Yonemoto N, Murray CJL, Marcenes W. Global, regional, and

national prevalence, incidence, and disability-adjusted life years for oral conditions for 195 countries, 1990–2015: a systematic analysis for the Global Burden of Diseases, Injuries, and Risk Factors. *Journal of Dental Research*. 2017 Apr;96(4):380–387.



As evidence continued to mount from the GBD study, among other sources, global leaders began to recognize that NCDs required more attention and a place on the global stage. The UN High-Level Summit for Non-communicable Diseases was held in September 2011 at the headquarters in NYC. UN Secretary General Ban Ki-Moon declared, "The summit in September in New York is our chance to broker an international commitment that puts non-communicable diseases high on the development agenda, where they belong."

Learning from the progress, and challenges, from the MDGs and turn of events since the Millennium Summit, leaders in global oral health organized a side session at the 2011 summit devoted to oral health. These efforts resulted in the UN summit declaration stating that oral diseases are a major global problem.

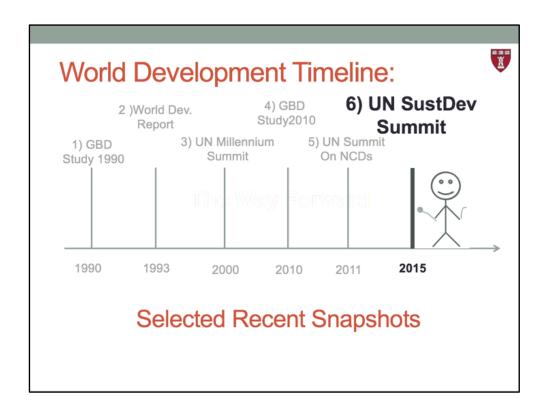
This landmark achievement was the first time oral disease were formally recognized by a UN political declaration.

#### References:

UN events press release. "Leaders Gather at UN Headquarters for a High-Level Meeting on Non-communicable Diseases (NCDs)." Not dated. Accessed on January 28, 2018 at: http://www.un.org/en/ga/ncdmeeting2011/.

FDI World Dental Federation. Oral health and the United Nations political declaration on NCDs: A guide to advocacy. Accessed on January 28, 2018 at:

 $https://www.fdiworlddental.org/sites/default/files/media/images/oral\_health\_and\_u\\ n\_political\_dec\_on\_ncds.pdf$ 



In September, 2015, world leaders convened at the UN headquarters in New York City for the UN Sustainable Development Summit. This year marked the conclusion of the MDG era (2000-2015). Here, they adopted the 2030 Agenda for Sustainable Development. This resolution agenda stated that all countries and stakeholders will work together in collaboration toward continued progress for the eradication of poverty, with a focus on people, planet, and prosperity.

A new set of global goals emerged, designed to carry forward the global development agenda as it moved from the MDG era into the sustainability era (2015-2030). These are known as the Sustainable Development Goals.

#### References:

UN New Centre. Sustainable Development Goals kick off with start of the new year. News, Secretary-General, Sustainable Development Agenda. Published December 30, 2015.

Accessed January 23, 2018 at:

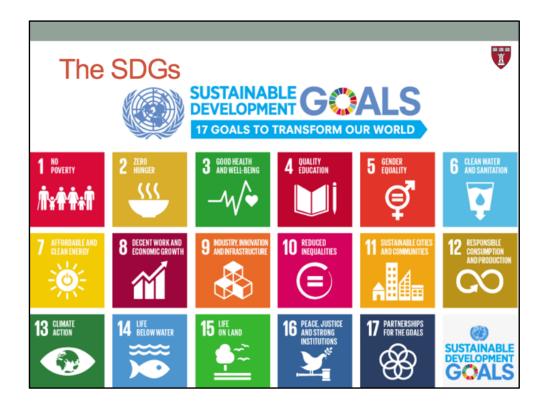
http://www.un.org/sustainabledevelopment/blog/2015/12/sustainabledevelopment-goals-kick-off-with-start-of-new-year/

United Nations General Assembly. Political declaration of the high-level meeting of the General Assembly on the adoption of the outcome document of the United Nations summit of the post-2015 development agenda: Transforming our world: the

2030 Agenda for Sustainable Development. Resolution A/RES/70/1. New York: United Nations, September 25, 2015.

Accessed on January 22, 2018 at:

http://www.un.org/ga/search/view\_doc.asp?symbol=A/RES/70/1&Lang=E



Now, the goals have expanded from 8 MDGs to 17 SDGs. Though there are more goals, there are fewer directly related to health this time, with only Goal #3 explicitly written about good health and well-being.

# Graphic source:

UN New Centre. Sustainable Development Goals kick off with start of the new year. News, Secretary-General, Sustainable Development Agenda. Published December 30, 2015.

Accessed January 23, 2018 at:

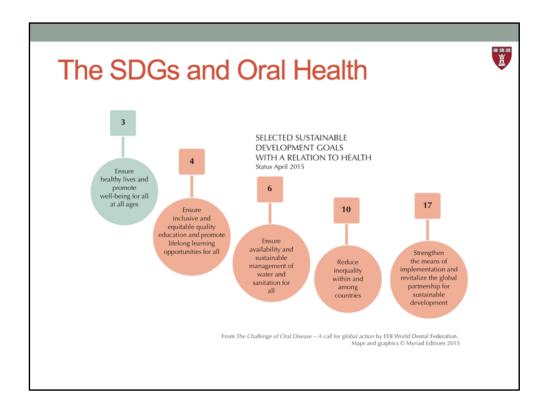
http://www.un.org/sustainabledevelopment/blog/2015/12/sustainabledevelopment-goals-kick-off-with-start-of-new-year/

#### Reference:

United Nations General Assembly. Political declaration of the high-level meeting of the General Assembly on the adoption of the outcome document of the United Nations summit of the post-2015 development agenda: Transforming our world: the 2030 Agenda for Sustainable Development. Resolution A/RES/70/1. New York: United Nations, September 25, 2015.

Accessed on January 22, 2018 at:

http://www.un.org/ga/search/view\_doc.asp?symbol=A/RES/70/1&Lang=E



As with the MDGs, oral health is not explicitly addressed in the SDGs. Global oral health leaders continue to draw links in their political and advocacy efforts. This work to integrate the MDGs, SDGs, and oral health is paving the way for recognition and improved political prioritization of oral health at the global level.

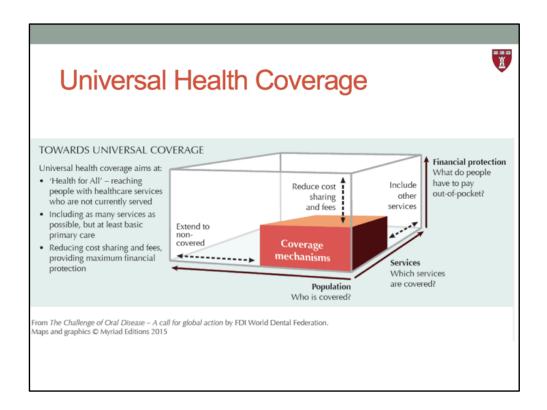
Statistical Commission- 2030 Agenda for Sustainable Development. Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development.

https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework\_A.RES.71. 313%20Annex.pdf. Last accessed on January 18, 2018.

#### Reference:

The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva: FDI World Dental Federation; 2015.

Accessed January 28, 2018 at: http://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015.



SDG Goal 3, target 8 states: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines, and vaccines for all.

Universal health coverage (UHC) is defined by the WHO as all people having the ability to access health care services without incurring financial hardship. Universal coverage consists of three main pillars.

#### 3 dimensions of Universal Health Care

- 1. Who is covered? (Percentage of population covered)
- 2. Which services are covered? (Percentage of services/treatments covered by prepaid costs)
- 3. What do people pay out of pocket for services? (Percentage of costs that are prepaid/covered and percentage that are not)

The overall aim of universal coverage is to reach as many people as possible with essential health services, particular people who otherwise do not have access, to include coverage for as many services as possible, and to cover as much of those services as possible. These aims overall will assist to reduce out-of-pocket spending on health care by individuals, especially those who can least afford it.

#### References:

Statistical Commission- 2030 Agenda for Sustainable Development. Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development.

https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework\_A.RES.71. 313%20Annex.pdf. Last accessed on January 18, 2018.

The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva: FDI World Dental Federation; 2015 .

Accessed January 28, 2018 at: <a href="http://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015">http://www.fdiworlddental.org/resources/oral-health-atlas-2015</a>.

<u>Jamison DT</u>, <u>Summers LH</u>, <u>Alleyne G</u>, <u>Arrow KJ</u>, <u>Berkley S</u>, <u>Binagwaho A</u>, et al. Global health 2035: a world converging within a generation. Lancet. 2013 Dec 7;382(9908):1898-955

"Best Buys"	
Essential Package of Population-Based Interventions	Essential Package of Clinical Interventions
Taxation and Subsidies (e.g. sugar tax, tobacco tax)	Basic Cardiovascular Package
Laws and Regulations (bans on sugary food advertising to children)	Basic Pulmonary Package
Information and Communication (e.g. public awareness of healthy diet, menu labels)	Basic Mental Health and Neurological Package
Improved built environment (e.g. school and workplace programs that incentivize behavior change)	Basic Cancer Package

To achieve UHC, the World Health Organization has identified essential packages of population-based and clinical interventions, nicknamed 'best buys' due to their cost-effectiveness, effect on health, feasibility, and low implementation costs. The population-based best buys aim to tackle the main common risk factors for multiple diseases and conditions; these risk factors include sugar/poor diet, tobacco, alcohol, and physical inactivity.

The clinical package targets common NCDs in the current global health agenda: cancer, mental health, cardiovascular disease, and pulmonary disease, as well as some preventive measures for infectious diseases, such as the Hepatitis B vaccine. More detailed understanding of the current clinical package reveals that oral health clinical preventive interventions (e.g. fluorides) or treatments are not part of the basic package of services. One could argue that resources could be allocated to oral health care under the expanded packages that address more complex needs, including the hospital platform surgical package. It could also be justified that oral health services must be included in the clinical interventions because of oral disease associations with common NCDs and caries remains the most prevalent disease worldwide.

Key Message: Oral disease share common risk factors with other NCDs, including those risk factors targeted through the population-based package. Integrating oral health efforts into the essential package of recommended population-based

interventions follows ongoing efforts and the common risk factor approach to prevention of NCDs, including oral diseases, and for health promotion. While efforts to include oral health in the clinical package should continue, a successful focus on oral disease prevention and oral health promotion will assist in minimizing costs to governments and individuals within UHC system models. We will discuss more specific strategies related to prevention and health promotion in Module 3: Back to Basics- Primary Care.

# Reference:

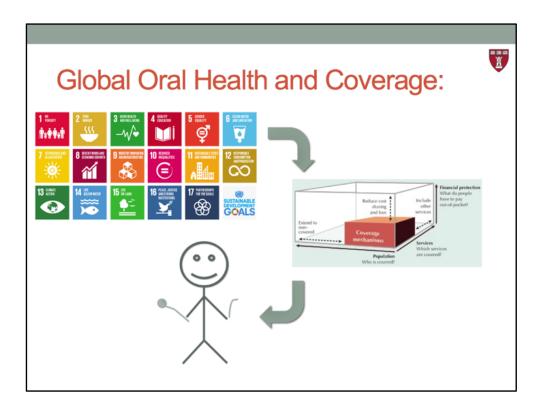
<u>Jamison DT</u>, <u>Summers LH</u>, <u>Alleyne G</u>, <u>Arrow KJ</u>, <u>Berkley S</u>, <u>Binagwaho A</u>, et al. Global health 2035: a world converging within a generation. Lancet. 2013 Dec 7;382(9908):1898-955

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Global Oral Health Institutions	
IADR-GOHIRA	
FDI	
WHO-Oral Health Division	
IFDEA/ADEA	
NIDCR	
ADA Foundation	
CUGH-GOHIG	

There are a number of organizations and sub-organizations collaborating to implement not only the SDG agenda but to ensure that oral health is integrated into an interdisciplinary effort. Collectively, these and many other groups, are focusing on access to care, quality improvement, and controlling risk factors for oral diseases through prevention and health promotion. We've listed a few examples here:

- International Association of Dental Research- Global Oral Health Inequalities: the Research Agenda/Network (GOHIRA/GOHIRN)
- FDI World Dental Federation
- World Health Organization- Oral Health Division
- International Federation of Dental Educators and Associations/American Dental Education Association
- National Institutes for Dental and Craniofacial Research
- American Dental Association Foundation
- Consortium of Universities for Global Health- Global Oral Health Interest Group

I encourage you to explore these global oral health organizations further on your own. Find their websites, read and review their mission, learn about their leadership, and read about examples of their work. Look for opportunities to get involved both now as students and as future oral health professionals.



FDI's Vision 2020 publication underscores many of the themes in this module. The Sustainable Development Era is leading us toward universal health coverage, where priority-setting based on cost-effectiveness and feasibility will be key drivers for who gets which services and how much will be covered. With a continued common risk factor approach for prevention and health promotion, we can minimize the oral health needs that require costly, surgical intervention, and maximize opportunities for those who do need oral care to receive it without incurring personal financial hardship.

Dr. Tooth will be happy to treat the patients that need care!

# Graphic sources:

The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva: FDI World Dental Federation; 2015. Accessed January 28, 2018 at: http://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015.

UN New Centre. Sustainable Development Goals kick off with start of the new year. News, Secretary-General, Sustainable Development Agenda. Published December 30, 2015.

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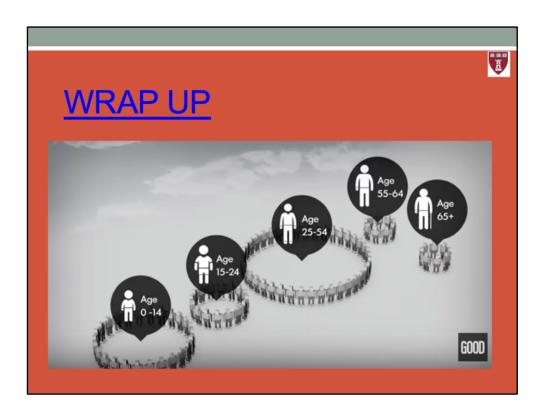
http://www.un.org/sustainabledevelopment/blog/2015/12/sustainabledevelopment-goals-kick-off-with-start-of-new-year/

# References:

The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva: FDI World Dental Federation; 2015. Accessed January 28, 2018 at: http://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015

Glick M, Monteiro da Silva O, Seeberger GK, Xu T, et al. FDI Vision 2020: shaping the future of oral health. Int Dent J. 2012 Dec;62(6):278-91. doi: 10.1111/idj.12009.

<u>Jamison DT</u>, <u>Summers LH</u>, <u>Alleyne G</u>, <u>Arrow KJ</u>, <u>Berkley S</u>, <u>Binagwaho A</u>, et al. Global health 2035: a world converging within a generation. Lancet. 2013 Dec 7;382(9908):1898-955



To wrap up, let's view a video that asks the question: "If the population of the world was only 100 people, what would society look like?

This is a theoretical video visualizing global disparities as if the world were only composed of 100 people. The accuracy of the data and statistics portrayed in the video have been questioned but the overall visual displays and take-home messages are reasonably consistent with global data on average. Nonetheless, this video is intended for entertainment purposes only as a thought provoking conclusion to this module.





# To continue learning, please check out our other modules:

**Module 1: Global Trends** 

Module 3: Back to Basics-Primary Care Module 4: Social Determinants and Risks

**Module 5: Ethics and Sustainability** 

Thank you so much for joining me on a tour of the global health and development agenda. I hope you are able to visual for yourselves the evolving role of the dental profession in today's globalizing world. In Module 1, we discussed the extensive challenge of oral diseases around the world. This Module introduced you to solutions underway to address these challenges, as well as opportunities for new and innovative approaches to managing and even preventing the global oral disease burden. We will continue to discuss strategies for the dental profession in Module....Thanks again and I look forward to seeing you next time.

# Global Health Starter Kit for Dental Education



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