



## TOWARD COMPETENCY-BASED BEST PRACTICES FOR GLOBAL HEALTH IN DENTAL EDUCATION: A “GLOBAL HEALTH STARTER KIT”

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### **Background:**

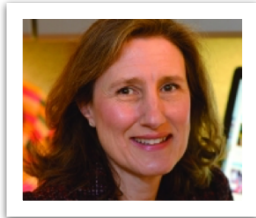
Welcome to the Global Health Starter Kit, a project led by Dr. Brittany Seymour and the Global Oral Health Interest Group of the Consortium of Universities for Global Health (CUGH). CUGH is comprised of approximately 145 academic institutions and other organizations from around the world engaged in addressing global health challenges through education, research, service, and advocacy. In 2013, the first interest group formed within CUGH, the Global Oral Health Interest Group (GOHIG), comprised of health professionals from a variety of disciplines. In response to the Lancet Commission on Education of Health Professionals for the 21st Century calling for transformative learning in health professional education, GOHIG developed an interdisciplinary Competency Matrix for Global Oral Health, which was published in the Journal of Dental Education in 2015. Following a workshop GOHIG members led at the annual American Dental Education Association meeting in 2016, GOHIG published a successive article that outlines competency-based global health education specifically for dental students. Building from these successes, GOHIG is taking the next steps toward consensus building and best practices for global health in dental education. The Global Health Starter Kit aims to provide practical support specifically for dental educators who are working toward unified competency-based standards and equipping the future generation of dental professionals with “starting” tools to address the tremendous burden of oral diseases worldwide and their consequences.

## Acknowledgements:

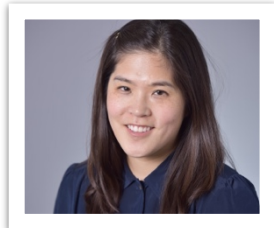
We wish to acknowledge the following for their support of this project:

- Consortium of Universities for Global Health Dr. Thomas Hall Global Health Education Grant
- The International College of Dentists USA Section Foundation
- The CUGH Global Oral Health Interest Group for the Global Oral Health Competency Matrix and for their peer review and edits of the Starter Kit
- Harvard School of Dental Medicine Office of Global and Community Health, Office of Communications, and Department of Oral Health Policy and Epidemiology
- Julia King at the Longwood Video Studio Production Partnership

## Editors:



Ms. Jane Barrow is the associate dean for the Office of Global and Community Health at the Harvard School of Dental Medicine. Ms. Barrow directs school-wide efforts in education, research, and clinical services that further the School's strategic goals for oral public health and the integration of oral health and medicine. She is also the executive director of the HSDM Initiative to Integrate Oral Health and Medicine and is a lecturer in the department of Oral Health Policy and Epidemiology at HSDM. Working with an inter-professional team of faculty and staff, her office strives to identify the burden of oral disease, educate an inter-professional workforce, reduce oral and other non-communicable diseases with shared risk factors, and thereby strengthen health systems and improve the health of communities locally and around the world. She is currently involved in several projects that advance this mission. Ms. Barrow is a graduate of Harvard College and of the Master in Health Policy and Management program at the Harvard T.H. Chan School of Public Health. She has an extensive background in health care systems planning at the community and national levels, as well as experience in institutional strategic planning, finance, and operations.



Janice Geeah Cho, Pharm.D., D.M.D earned her doctorate in pharmacy from the Massachusetts College of Pharmacy and Health Sciences, and earned her dental degree from the University of Louisville School of Dentistry. She also completed a general practice residency in dentistry from the Harvard School of Dental Medicine and the Cambridge Health Alliance. Dr. Cho is concurrently a part time lecturer within the Oral Health Policy and Epidemiology department at the Harvard School of Dental Medicine as well as an associate at a private practice located in Andover, Massachusetts. She also has spent her career practicing both pharmacy and clinical dentistry at Charles River Community Health, a federally qualified health center, located in Brighton, Massachusetts.



Dr. Brittany Seymour is an Assistant Professor at Harvard School of Dental Medicine in the Department of Oral Health Policy and Epidemiology and the Office of Global and Community Health. She earned her DDS from the University of Colorado School of Dental Medicine and completed her MPH from Harvard School of Public Health, concentrating in Global Health and Population. Her research focuses on interdisciplinary approaches for global oral health improvement through prevention and policy-oriented education. She has completed Fellowships at the Harvard Global Health Institute and the Harvard Medical School Academy for Medical Education. She was the Principal Investigator for the Rwanda Human Resources for Health oral health planning period and the Vietnam Health Advancement Initiative: Competency-based

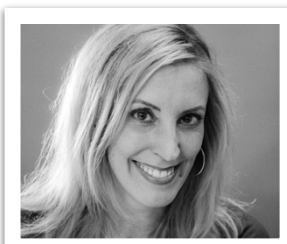
Dental Education program. She has received additional support from numerous foundations for her work in global health curriculum development and best practices and her materials are being adapted for other dental schools' curricula globally. She is Director of CUGH's Global Oral Health Interest Group and was a contributing author to the FDI World Dental Federation's Oral Health Atlas 2nd Edition. Dr. Seymour has won the Award for Community Dentistry and Dental Public Health and the Herschel St. Horowitz scholarship by the American Association of Public Health Dentistry, an Outstanding Achievement in Teaching Award from HSDM, and an Excellence in Mentorship award from Harvard Medical School. She is a national spokesperson for the American Dental Association and serves on the Board of Directors for the American Association of Public Health Dentistry.

## Authors:



Dr. Irene Adyatmaka, born in Papua, finished her dentistry in 1995. She joined the school oral health services of a private foundation, managing more than 10,000 students from 1996 - 2011. She was appointed as a single operator of ART approach by Ministry of Health R&D from 1996-1999. She had done more than 2,000 restorations using Atraumatic Restorative Treatment during the time. She also worked together with Prof. Douglas Bratthall from WHO, and translated the Cariogram Indonesian version. Her research on Carisolv with Mediteam Sweden has been also undertaken

during that time. She took a compulsory field work as a dentist in 2002-2005 in health centre, and chose to work as school oral health personnel managing 22 government schools in the area. Her interest in dental public health made her took a PhD in 2006. Finished in 22 months and 2 days with cum laude, made her the best student and also quickest PhD student and put into Indonesian world record. Now she was appointed as senior researcher at Center for Health Administration and Policy Studies, Faculty of Public Health, Universitas Indonesia. Together with Ministry of Education Republic of Indonesia and Faculty of Public Health UI, she developed her dissertation into school oral health innovative program as a breakthrough of the conventional program. In 2011, the program was accepted as National policy by Ministry of Health. Her passion of teaching and learning also facilitated by her latest position as research methodology lecturer at Universitas Indonesia and Country Manager GC Indonesia. In 2017, together with Dr. Bruce Donoff, Dean of Harvard school of Dental Medicine, she wrapped all the activities and published it into a book called Dental Immunization.

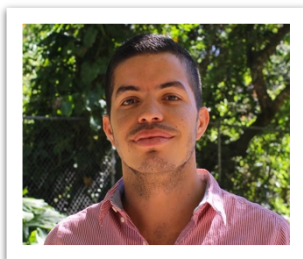


Christy Colburn is Associate Director of Harvard University's Global Health & Health Policy (GHHP) Undergraduate Program. In this role she manages administrative and academic operations, provides academic and career advising, and designs programming for students. She also directs the intellectual, administrative, and financial management of the Harvard Global Health Institute (HGHI) Undergraduate Experiential Learning Programs—including internships and faculty-mentored research projects in the US and abroad, grants for independent research and international travel

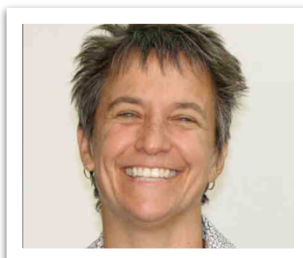
related to global health, and pre-departure and post-experience workshops on campus. Christy holds a master's degree in Intercultural Relations, and has 15 years of university administration and advising experience with both undergraduate and graduate students at Harvard and the Massachusetts Institute of Technology. Her prior work in global health includes positions at the FXB Center for Health and Human Rights, the World Health Organization and UNAIDS in Geneva, and the international development arm of World Learning in Washington, DC. Christy is also a performing artist who currently sings with a world music group in the Boston area.



Dr. Jessica Evert straddles international education and the medical profession. She served as CFHI Medical Director from 2008 to 2013 when she was appointed to the Executive Director role. Dr. Evert is Faculty in the Department of Family and Community Medicine at the University of California, San Francisco, where she instructs in Global Health and community-based underserved care and helped develop, as well as completed, the Global Health Clinical Scholars residency track. Dr. Evert is a graduate of the Ohio State University College of Medicine and is a longtime advocate for health-related international education quality and ethical standards. She is author and editor of multiple chapters, articles and books in global health with a focus on education, ethics, and asset-based engagement, including the seminal texts: 1) [Developing Global Health Programming: A Guidebook for Medical and Professional Schools, 2nd Ed](#) 2) [Global Health Training in Graduate Medical Education, 2nd Ed](#) and 3) [Reflection in Global Health: An Anthology](#). She helped develop the Forum on Education Abroad's Standards for Health-Related Undergraduate Programs. Dr. Evert is a recipient of Global Health Education Consortium's prestigious Christopher Krogh Award for her dedication to underserved populations at home and abroad. Dr. Evert's research and advocacy areas of focus are the ethics of global educational engagement, competency-based international education, health disparities, asset-based programatics and reflection.



Dr. Faerron is the Academic Director for the Organization for Tropical Studies. He began his career as a primary care doctor in a rural area of Costa Rica where he worked closely with migrant and indigenous populations. He co-founded the InterAmerican Center for Global Health (CISG). CISG is the first global health hub in Central America and seeks to redefine the meaning of leadership and global health through innovative educational approaches. Dr. Faerron's work follows a health equity and human rights framework as a guiding principle and firmly believes in progress in health through community empowerment, research and education. Dr. Faerron's areas of research include adolescent pregnancy, gender, intercultural approaches to care, and migration and health. He also has developed and taught courses in the fields of Planetary Health, Global Health, Tropical Diseases, Interculturality, Human Rights, Oral Health, Primary Care, Health Systems among others, for CISG, for the Organization for Tropical Studies and for Harvard University, NYU, University of Southern California and EARTH University. He obtained his medical degree at the University of Costa Rica, and his MSc. in International Health at Queen Mary University in Edinburgh and Vrije Universiteit in Amsterdam. Additional studies include Social Justice at the International Institute for Health and Development in Scotland, and Social Innovation for Health from INCAE Business School. Dr. Faerron is a Fellow of the Central American Healthcare Initiative and adjunct faculty at the Department of Oral Health Policy and Epidemiology at Harvard University.



Dr. Kasper is an Associate Pediatrician at MassGeneral Hospital *for* Children (MGHfC), Assistant Professor of Pediatrics and Global Health&Social Medicine at Harvard Medical School, Chair of the HMS Scholars in Medicine Faculty Advisory Committee on Global Health, primary care pediatrician serving low-income Latino children at MGH Chelsea HealthCare Center, and President's Council of Doctors for Global Health. She received a combined BA/M.D. with honors from Boston University/Boston University School of Medicine and an M.P.H. from Boston University School of Public Health. She practices, "liberation medicine, the conscious and



conscientious use of health to promote human dignity and social justice." Her global health expertise and publications include health service delivery; rural community development; complex humanitarian emergencies; field-based operations research; health system strengthening; capacity building; global health and global health ethics. She is a co-editor of the MGHfC Handbook of Pediatric Global Health. She directs and teaches courses on social medicine, community engagement, and global health professionalism. She was the recipient of the HMS/HSDM Deans' Community Service Lifetime Achievement Award for her work with Doctors for Global Health; a nominee for the HMS Donald O'Hara Faculty Prize for Excellence in Teaching; and a recipient of the Scholars in Medicine Excellence in Student Mentoring Award. "Go with the people. Live with them. Learn from them. Love them. Start with what they know. Build with what they have. But of the best leaders, when the job is done, the task accomplished, the people will all say, we have done this ourselves." (Lao Tse, 700BC)



Dr. Judith N. Lasker is the author of *Hoping to Help; The Promises and Pitfalls of Global Health Volunteering* (Cornell U. Press, 2016), which examines the impact on host communities and on volunteers of short-term international service programs in health. Her book and several related journal articles draw upon surveys and interviews with sending organizations and hosting staff to identify the benefits and problems with such programs and to recommend ways in which such volunteer trips can be more valuable for all involved. She has spoken about her research to

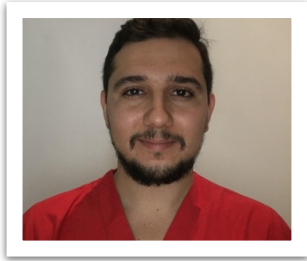
audiences around the U.S. and in several other countries. Dr. Lasker is Professor Emerita of Sociology and Health Medicine and Society, Lehigh University, Bethlehem, PA, USA. She earned her B.A. at Brandeis and her MA and Ph.D. at Harvard. Judith's major areas of interest are in the field of medical sociology, with particular emphasis on women's health issues and international health. She is co-author with Susan Borg of *When Pregnancy Fails; Families Coping with Miscarriage, Ectopic Pregnancy, Stillbirth, and Infant Death* and *In Search of Parenthood; Coping with Infertility and High-Tech Conception*, and with Ed Collom and Corinne Kyriacou of *Equal Time, Equal Value; Community Currencies and Time Banking in the U.S.* She has also published research on social dimensions of autoimmune liver disease and heart disease. In 2014, Judith was awarded the Centennial Medal by the Graduate School of Arts and Sciences at Harvard for "contributions to society as they have emerged from one's graduate education at Harvard."



John E. McDonough, DrPH, MPA is Professor of Public Health Practice in the Department of Health Policy & Management at the Harvard T.H. Chan School of Public Health and Director of the [Center for Executive and Continuing Professional Education](#). In 2010, he was the Joan H. Tisch Distinguished Fellow in Public Health at Hunter College in New York City. Between 2008 and 2010, he served as a Senior Advisor on National Health Reform to the U.S. Senate Committee on Health, Education, Labor and Pensions where he worked on the development and passage of the

Affordable Care Act. Between 2003 and 2008, he served as Executive Director of Health Care for All, Massachusetts' leading consumer health advocacy organization, where he played a key role in passage and implementation of the 2006 Massachusetts health reform law. Between 1998 and 2003, he was an Associate Professor at the Heller School at Brandeis University and a Senior Associate at the Schneider Institute for Health Policy. From 1985 to 1997, he served as a member of the Massachusetts House of Representatives where he co-chaired the Joint Committee on Health Care. His articles have appeared in *Health Affairs*, the *New England Journal of Medicine* and other journals. He has written three books, *Inside National Health Reform*, published in September 2011 by the University of California Press

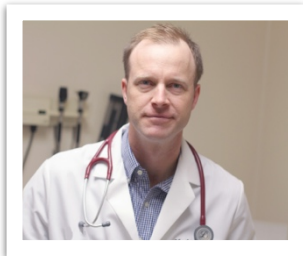
and the Milbank Fund, *Experiencing Politics: A Legislator's Stories of Government and Health Care* by the University of California Press and the Milbank Fund in 2000, and *Interests, Ideas, and Deregulation: The Fate of Hospital Rate Setting* by the University of Michigan Press in 1998. He received a doctorate in public health in 1996 from the School of Public Health at the University of Michigan and a master's in public administration from the John F. Kennedy School of Government at Harvard in 1990.



Dr. Bermúdez Mora has a degree in Dentistry from the University of Costa Rica where he serves as an adjunct faculty member in the Department of Social Dentistry. He is pursuing his Master in Public Health with emphasis in Health Management at the School of Public Health of the University of Costa Rica. He is an active member of the Oral Health National Plan Commission of the Costa Rican Dental Association. He coordinates the "Oral Health Protection Project for the Vulnerable Indigenous Population of Coto Brus" through the non-profit Hands for Health Association in collaboration with the Costa Rican Dental Association. This work won the 2017 Grant of the Oral Health Foundation of the Pierre Fauchard Academy and the 2019 FDI World Dental Development Fund. In March 2018, he was a collaborating professor in a global health extension course for dental students at the Harvard School of Dental Medicine and the InterAmerican Center for Global Health. Dr Bermúdez's main focus of work include intercultural community approach, oral health promotion, dental attention access and indigenous populations.

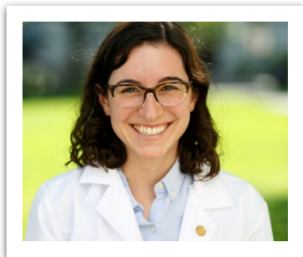


Dr. Brittany Seymour is an Assistant Professor at Harvard School of Dental Medicine in the Department of Oral Health Policy and Epidemiology and the Office of Global and Community Health. She earned her DDS from the University of Colorado School of Dental Medicine and completed her MPH from Harvard School of Public Health, concentrating in Global Health and Population. Her research focuses on interdisciplinary approaches for global oral health improvement through prevention and policy-oriented education. She has completed Fellowships at the Harvard Global Health Institute and the Harvard Medical School Academy for Medical Education. She was the Principal Investigator for the Rwanda Human Resources for Health oral health planning period and the Vietnam Health Advancement Initiative: Competency-based Dental Education program. She has received additional support from numerous foundations for her work in global health curriculum development and best practices and her materials are being adapted for other dental schools' curricula globally. She is Director of CUGH's Global Oral Health Interest Group and was a contributing author to the FDI World Dental Federation's Oral Health Atlas 2nd Edition. Dr. Seymour has won the Award for Community Dentistry and Dental Public Health and the Herschel St. Horowitz scholarship by the American Association of Public Health Dentistry, an Outstanding Achievement in Teaching Award from HSDM, and an Excellence in Mentorship award from Harvard Medical School. She is a national spokesperson for the American Dental Association and serves on the Board of Directors for the American Association of Public Health Dentistry.



Hugh Silk, MD, MPH, FAAFP, is a Professor in the Department of Family Medicine and Community Health at the University of Massachusetts Medical School. He also teaches at the Harvard School of Dental Medicine (HSDM). He is co-author of the award winning national curriculum on oral health for health providers entitled "Smiles for Life" ([www.smilesforlifeoralhealth.org](http://www.smilesforlifeoralhealth.org)). He sits on numerous state and national oral health advocacy committees. He is the recipient of the American Association of Public Health Dentistry's 2016 Public Service Award. When

he is not teaching and seeing patients, Hugh is collaborating with HRSA and HSDM to help create the new Center for Integration of Primary Care and Oral Health -CIPCOH.



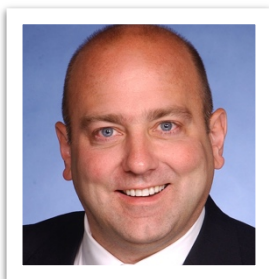
Lisa Simon is a safety-net dentist and Fellow in Oral Health and Medicine Integration at the Harvard School of Dental Medicine. Since joining the faculty at HSDM in 2015, she has helped develop multiple interprofessional community-based educational experiences uniting dental students, health professions students, and vulnerable populations, including low-income communities, recent immigrants, and people experiencing incarceration. She has also assisted in the creation of health policy, leadership, and reflection curricula for dental students at Harvard. She is an advocate for

improved integration of oral health within the healthcare system, and her writing on this topic has been published in the *New England Journal of Medicine*, the *Journal of the American Medical Association*, and the *Journal of the American Dental Association*. In 2020, she will receive her MD from Harvard Medical School and plans to work toward oral health equity as both a dentist and physician.



Dr. Karen Sokal-Gutierrez is a Clinical Professor at the University of California, Berkeley-UCSF Joint Medical Program and School of Public Health where she teaches medical students, public health graduate students and undergraduate students. She is a physician trained in pediatrics, preventive medicine, and public health, with a focus on maternal-child health, and a Fellow of the American Academy of Pediatrics. She has over 30 years of experience working locally and globally as a physician in community health clinics, public health program

administrator, consultant to child care and preschool programs, writer for a parenting website, health care professional educator, researcher, and child health advocate. Over the past 15 years, the focus of her research and advocacy has been early childhood nutrition and oral health in developing countries, including leading research studies in El Salvador, Ecuador, Vietnam, Nepal and India.



Dr. Karl Woodmansey is a native of Montana. He received a B.S. degree in biomedical science from Montana State University in 1986, a D.D.S. degree from Baylor College of Dentistry in 1989 and a M.A. in Educational Administration from the University of the Pacific in 2015. Dr. Woodmansey practiced in Bozeman, Montana before entering full-time academia. After four years in the Texas A&M University Baylor College of Dentistry Department of Endodontics, Dr. Woodmansey served as the Endodontic Program Director for St. Louis University from 2015 through 2017. He presently holds the titles of Adjunct Associate Professor at Saint Louis University and Adjunct Clinical

Professor at Texas A&M University College of Dentistry. Dr. Woodmansey has served as a member of the U.S. Air Force / Air National Guard Dental Corps since 1998. He is presently assigned to the 126th

Aeromedical Group at Scott Air Force Base as a Lieutenant Colonel. Dr. Woodmansey has been an active contributor to the dental profession. He is a “Diplomate” of the American Board of Endodontics and has achieved “Fellowship” in the Academy of General Dentistry, the Academy of Dentistry International, the American College of Dentists, the International College of Dentists and the American College Health Association. Dr. Woodmansey’s research interests are broad, with numerous publications in a wide variety of domains. Most of his research interests explore clinical applications of technology.

### Competency-Based Module Development:

The process of creating and designing each module took place in the following order:

\*Competencies → Learning Objectives → Evaluation Metric → Content → Pedagogy → Evaluation Measure

\*Please see appendix for global oral health competencies for dental education

## Module 1: Global Trends

Module	Themes	Related Competencies	Collaborating Author (with Brittany Seymour- project PI)
1	Global burden of disease; demographic and epidemiologic trends	1.1.1, 1.1.2, 1.1.3, 1.1.4, 2.2.1, 2.3.2	Christy Colburn, MA Associate Director Global Health and Health Policy Undergraduate Program Harvard University

### Related competencies:

- 1.1.1. Explain the global burden of oral diseases with regard to prevalence, distribution, and the relationship among oral disease, population trends, and global disease patterns.
- 1.1.2. Understand the essential facts about the etiology of main oral conditions and their symptoms and signs.
- 1.1.3. Describe the impact of oral diseases on well-being and quality of life, as well as its social and economic impact.
- 1.1.4. Identify and assess relevant oral health information and make sound decisions (oral health literacy).
- 2.2.1. Understand the burden and distribution of oral and associated diseases in specific community and country.
- 2.3.2. Identify and advocate to address specific oral health needs and reduce inequities and health care system deficits.

### Learning objectives:

- Describe major population trends at the global level
- Discuss the relationship between the global burden of infectious/communicable, non-communicable/chronic, and oral diseases
- Predict how current global trends could be affecting oral health across the world
- Explain how the epidemiologic and demographic transition theories assist in understanding the disease patterns (including oral conditions) of and their impact on a community, country, or region

### Evaluation metric:

Pass:

- Student is able to state that the world population is aging and growing on average
- Student is able to describe the basic characteristics of the stages of the epidemiologic and demographic transitions (e.g. shift from communicable to non-communicable disease; as death rates drop and birth rates remain the same, the population grows)
- Student is able to express that the world has changed from more rural to more urban, on average
- Student is able to describe the oral disease burden is increasing on average



- Student is able to make the connection between changing risk factors and differing disease outcomes, should be able to describe at least 2-3 specific examples (e.g. lack of sanitation and higher rates of infectious disease, increasing access to sugar and higher rates of NCDs, etc.)
- Student is able to link evolving risk factors with oral disease patterns, should be able to describe at least 2-3 specific examples (e.g. more urbanization and access to processed foods/refined sugars leads to higher caries rates; sedentary lifestyle increases risk for NCDs such as diabetes and periodontal disease)
- Student is able to describe the impact of a growing burden of oral disease on society, should be able to name at least 3 outcomes (missed school days, missed work days, negative impact on other systemic diseases, pain, decline in self-confidence, lower quality of life, etc.)

*Critical error:*

- Student is not able to state that the world population, on average, is aging, growing, and urbanizing
- Student cannot describe at least three basic characteristics of the demographic transition stages and at least two of the epidemiologic transition
- Student is not able to state that the global burden of oral disease, on average, is increasing
- Student is not able to make the connection between risk factors and resulting disease/demographic trends, cannot name at least two examples (e.g. urbanization leads to greater access to processed/sugary foods and beverages, which is a risk factor for non-communicable disease)
- Student is not able to list at least two examples of global trends and related oral disease outcomes
- Student is not able to list at least three ways oral disease impacts their respective communities (e.g. missed school days)

**Content:** Population trends and risk factors for disease trends, demographic and epidemiologic transitions, global burden of disease, and oral disease

**Pedagogy:**

*Lecture:* Interactive Presentation

*In-class activity:* GapMinder, GBD/IHME interactive data, mapping oral health to the transitions

*Pre-readings:*

- Chapter 2, Chapter 3, and Chapter 7 pgs. 79-83 in: The Challenge of Oral Disease- A call for global action. The Oral Health Atlas. 2<sup>nd</sup> ed. Geneva: FDI World Dental Federation; 2015.  
[http://www.fdiworldental.org/media/77552/complete\\_oh\\_atlas.pdf](http://www.fdiworldental.org/media/77552/complete_oh_atlas.pdf)
- Sheiham A, Williams DM, Weyant RJ, Glick M, Naidoo S, Eiselé JL, Selikowitz HS. Billions with oral disease: A global health crisis- a call to action. J Am Dent Assoc. 2015 Dec;146(12):861-4.  
[https://jada.ada.org/article/S0002-8177\(15\)01036-3/fulltext](https://jada.ada.org/article/S0002-8177(15)01036-3/fulltext)
- Kassebaum NJ, Smith AGC, Bernabe E, Fleming TD, Reynolds AE, Vos T, Abyu GY, Alsharif U, Asayesh H, Benizian 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. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5912207/>

## Module 2: Global Goals

Module	Themes	Related Competencies	Collaborating Author (with Brittany Seymour- project PI)
2	Global health systems, policies, and institutions; MDGs, SDGs	2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.3, 3.1.1	<u>John McDonough, DrPH, MPA</u> Professor of Public Health Practice

			Department of Health Policy & Management Harvard T.H. Chan School of Public Health
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#### Related competencies:

- 2.1.2. Understand and apply health promotion and risk reduction strategies (such as health 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.

#### Learning Objectives:

- Explain the MDGs, 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

#### Evaluation metric:

##### Pass:

- Student is able to describe *very generally* the sequence of events leading to the MDGs and SDGs, including naming at least the 1993 World Development Report, the UN Millennium Summit, and the UN Sustainable Development Summit
- Student is able to specify that there are 8 MDGs and 17 SDGs and that these goals focus on alleviation of extreme poverty
- Student is able to explain at least two strengths of the MDGs (e.g. targeted measurable, specific outcomes that allow for feasibility of monitoring, placed health directly on the global development agenda, allowed for globalized coordination toward common goals) and at least two critiques (e.g. too specific, not enough focus on NCDs, too much focus on mortality)
- Student is able to explain at least two strengths of the SDGs (e.g broad, inclusive goals and targets, stronger focus on NCDs and morbidity, many stakeholders involved and several drafts for input, positions world to continue coordinated progress made due to MDGs) and at least two critiques (e.g. too broad, too few specifics and lack of strong guidance for monitoring progress, not enough direct focus on health)
- Student is able to name at least three opportunities for oral health in the SDG era (e.g. focus on eliminating inequities, promote health and well-being, water and sanitation) and at least three challenges for oral health in the SDG era (lack of focus on health in general, broad focus creates risk for strained resources and cost-cutting, paving the way for 'clinical best buys' that currently do not include oral health services)
- Student can define universal health coverage as the ability to access needed health services without incurring personal financial hardship

##### Critical Error:

- Student is unable to name at least two significant events described in the module that have influenced health at the global level
- Student is unable to state there are two sets of global goals that were agreed upon to eliminate poverty in the world
- Student cannot name at least two strengths and two critiques of the MDGs
- Student cannot name at least two strengths and two critiques of the SDGs

- Student is not able to describe at least three opportunities and three challenges for oral health in the SDG era
- Student does not state that universal health coverage includes access to health care services without incurring personal financial hardship

**Content:** Recent milestones in the global health and development agenda, the 1993 World Development Report, the Millennial Development Goals, the Sustainable Development Goals, universal health coverage, recommended essential packages for population-based and clinical interventions

**Pedagogy:**

*Lecture:* Interactive Presentation

*In-class activity:* Global Oral Health Institutions

*Pre-readings:*

- Chapter 7 pgs. 84-87 in: The Challenge of Oral Disease- A call for global action. The Oral Health Atlas. 2<sup>nd</sup> ed. Geneva: FDI World Dental Federation; 2015.  
[http://www.fdiworldental.org/media/77552/complete\\_oh\\_atlas.pdf](http://www.fdiworldental.org/media/77552/complete_oh_atlas.pdf)
- 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.  
[https://www.fdiworldental.org/sites/default/files/media/resources/idj\\_vision\\_2020\\_final.pdf](https://www.fdiworldental.org/sites/default/files/media/resources/idj_vision_2020_final.pdf)
- Benzan H, Hobdell M. "Seizing political opportunities for oral health." J Am Dent Assoc. 2011 Mar; 142(3): 242-3. [https://jada.ada.org/article/S0002-8177\(14\)62018-3/pdf](https://jada.ada.org/article/S0002-8177(14)62018-3/pdf)
- Fisher J, Selikowitz HS, Mathur M, Varenne B. Strengthening oral health for universal coverage. Lancet. 2018 Sep; 392(10151): 899-901. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)31707-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31707-0/fulltext)

### Module 3: Back to Basics-Primary Care

Module	Themes	Related Competencies	Collaborating Author (with Brittany Seymour- project PI)
3	Oral health, general health, and primary care; Alma Ata revisited	1.2.2, 1.2.3, 2.1.3, 2.1.4, 2.1.6, 2.1.7, 3.3.2	<u>Lisa Simon, DMD</u> Fellow in Oral Health and Medicine Integration Candidate, MD Class of 2020 Harvard Medical School  <u>Carlos Faerron, MD, MSc</u> Founder and Director Inter American Center for Global Health  <u>Hugh Silk, MD</u> Professor Family Medicine and Community Health University of Massachusetts Medical School

**Related competencies:**

- 1.2.2. Identify and describe common (social) determinants of oral disease.
- 1.2.3. Identify and describe reciprocal links among oral disease, systemic diseases, and general health.
- 2.1.3. Promote general oral hygiene knowledge and skills, including tooth brushing twice a day with fluoride toothpaste and cleaning between the teeth.

The Global Health Starter Kit  
<https://hsdm.harvard.edu/global-health-starter-kit>

- 2.1.4. Promote and apply other appropriate fluoride interventions.
- 2.1.6. Promote essential oral health knowledge and skills for expectant mothers and parents to enable appropriate self-care and care for their children,
- 2.1.7. Educate, counsel, recognize, and act on the links between oral health/disease and systemic health/disease.
- 3.3.2 Demonstrate leadership in providing information, education, and planning for oral health to non-dental professionals and community members.

#### **Learning Objectives:**

- Explain why is there a continued interest in primary care since the original Alma Ata\*
- Define how primary care can assist with successful health promotion and disease prevention, including oral diseases
- Describe how primary care can be designed to meet current and emerging global health needs, including through workforce design and development
- Discuss how oral health care and primary care services can be integrated

(\*The Alma Ata was a key international primary care conference in 1978; information on the conference is found in this module)

#### **Evaluation metric:**

##### *Pass:*

- Student is able to explain that universal health coverage is a target of the global goals and describe at least two ways primary care can assist in meeting that target (e.g. reach many people early, reduce costs through prevention and early intervention, focus on risks and determinants of disease and not just curative care, focuses on population needs rather than priority diseases, etc.)
- Student can list at least three main features of primary care (e.g. balances prevention and treatment, treats based on need instead of priority disease, focuses on a long-term patient-provider relationship, considers determinants of disease across the lifecycle, etc.)
- Student can name at least four examples of disease prevention approaches that can be met through primary care services (e.g. diet counseling, smoking cessation support, disease screenings and risk assessments, oral hygiene instruction, fluoride varnish application, oral screenings, etc.)
- Student can generally describe at least two major innovations for oral health integration into primary care services from the module (e.g. the oral health care continuum model, dentists screening for diseases such as cardiovascular disease and diabetes, alternative workforce models such as therapists, nurses, and/or physicians providing services, alternative payment schemes such as medical insurance covering oral health services such as oral screenings and fluoride varnish application by NPs or physicians)

##### *Critical Error:*

- Student is unable to describe a link between the global goals, universal health coverage, and primary care
- Student is unable to list at least two ways primary care helps to meet the objectives of universal health coverage
- Student cannot list at least two main features of primary care
- Student cannot name at least two examples of disease prevention approaches that can be met through primary care, related to oral diseases and/or systemic diseases with which they are associated
- Student cannot describe at least two examples of innovations for oral health integration into primary care services

**Content:** The connection between oral health and overall health, oral and systemic disease associations, the integration of oral health and primary care, workforce and policy implications

#### **Pedagogy:**

*Lecture:* Interactive Presentation

*In-class activity:* Declaration of Alma-Ata, The Oral Health Version



#### Pre-readings:

- Manski RJ, Hoffmann D, Rowthorn V. Increasing Access to Dental and Medical Care by Allowing Greater Flexibility in Scope of Practice. *Am J Public Health*. 2015 Sep;105(9):1755-62.
- Stigler FL, Macinko J, Pettigrew LM, Kumar R, van Weel C. No universal health coverage without primary health care. *Lancet*. 2016 Apr 30;387(10030):1811.
- Donoff B, McDonough JE, Riedy CA. Integrating oral and general health care. *N Engl J Med*. 2014 Dec 11;371(24):2247-9.

## Module 4: Social Determinants of Health

Module	Themes	Related Competencies	Collaborating Author (with Brittany Seymour- project PI)
4	Social determinants for health and disease worldwide	1.2.1, 1.2.2, 2.1.2, 2.1.5, 2.2.3, 2.3.1	<u>Jennifer Kasper, MD, MPH</u> Assistant Professor Department of Social Medicine Harvard Medical School Chair, Global and Community Health Committee HMS Scholars in Medicine Program  <u>Karen Sokal-Gutierrez MD, MPH</u> Clinical Professor Pediatrics UC Berkeley-UCSF Joint Medical Program

#### Related competencies:

- 1.2.1. Identify and describe common risk factors of oral diseases.
- 1.2.2. Identify and describe common (social) determinants of oral disease.
- 2.1.2. Understand and apply health promotion and risk reduction strategies (such as health eating, cessation of tobacco, and reduction of harmful alcohol use).
- 2.1.5. Identify patient populations at increased risk for oral diseases and ensure regular attendance through oral health professionals.
- 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.

#### Learning objectives:

- Define the social determinants of health
- Describe the social gradient in health
- Explain the concept of the 'bottom billion,' their indicators and characteristics
- Define the Biomedical Model and Sociocultural Models for health and discuss the advantages and disadvantages of each

#### Evaluation metric:

##### Pass:

- Student is able to describe the social determinants of health in general terms (e.g. social, political, economic, environmental, and physical conditions into which people are born, live and grow, learn, work, and play that impact their health and quality of life, beyond their individual physiology and behaviors.)
- Student is able to list at least three major social determinants of health (e.g. income, housing, employment, race, gender, etc.)

- Student is able to describe the social gradient in health as an inverse relationship between income level and poor health (e.g. higher income means better health.)
- Student is able to explain who the 'bottom billion' are (e.g. the poorest billion people in the world who are not experiencing the benefits of global development at the same rate as the rest of the world) and list at least two characteristics (e.g. they used to be concentrated primarily in low income countries, today they are mostly in middle income nations, they have poorer health outcomes compared to the global average, including average lower life expectancy, and higher maternal and child mortality and malnutrition rates.)
- Student is able to explain the Biomedical Model for health (e.g. relies on the scientific process and evidence-based practices, provides a physiological understanding of how the body functions, what happens when a viral or bacterial invasion occurs, and how to treat it, isolates cause and effect)
- Student is able to give at least two advantages (e.g. demonstrated success, universal, evidence-based) and at least two disadvantages of the Biomedical Model for health (e.g. does not account for context or human behavior, people are not always receptive)
- Student is able to explain the Sociocultural Model for health (e.g. examines the personal, social, and cultural influences on the experience of illness and care, beyond physiology, considers how people define health and pursue care based on their beliefs, customs, cultural and religious practices, and social networks)
- Student is able to give at least two advantages (e.g. takes into account cultural practices and behaviors) and at least two disadvantages of the Sociocultural Model for health (e.g. not universal, can lead to counterproductive stigma/stereotypes around traditional/alternative medicine)

*Critical error:*

- Student is unable to generally describe the social determinants of health and cannot name at least three examples
- Student is unable to describe the social gradient in health or the relationship between health and income
- Student is unable to explain the basic concept of the 'bottom billion,' (e.g. billion poorest people in the world, are not seeing the same rates of improvement as the rest of the world)
- Student cannot list at least three characteristics and/or indicators of the 'bottom billion'
- Student is unable to describe the Biomedical Model for health and cannot list at least two advantages and disadvantages
- Student is unable to describe the Sociocultural Model for health and cannot list at least two advantages and disadvantages

**Content:** Social and societal determinants of health, vulnerable populations, the Bottom Billion, sociocultural and biomedical models for health

**Pedagogy:**

*Lecture:* Interactive Presentation

*In-class activity:* Meet Joe

*Pre-readings:*

- World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health. COMMISSION ON SOCIAL DETERMINANTS OF HEALTH | FINAL REPORT – EXECUTIVE SUMMARY ONLY. 2008  
[http://apps.who.int/iris/bitstream/10665/43943/1/9789241563703\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/43943/1/9789241563703_eng.pdf)
- Sumner A. Global Poverty and the New Bottom Billion: What if Three-Quarters of the World's Poor Live in Middle-Income Countries? Institute of Developmental Studies. September 2010;1-43. Accessed on February 12, 2018 at:  
[https://www.cgdev.org/sites/default/files/1424922\\_file\\_Sumner\\_brief\\_MIC\\_poor\\_FINAL.pdf](https://www.cgdev.org/sites/default/files/1424922_file_Sumner_brief_MIC_poor_FINAL.pdf).

- Watt RG. Social determinants of oral health inequalities: implications for action. *Community Dent Oral Epidemiol* 2012; 40 (Suppl. 2): 44–48. <https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1600-0528.2012.00719.x>

*Additional optional reading:*

- Barnes-Josiah D, et al. The “Three Delays” as a framework for examining maternal mortality in Haiti. *Soc Sci. Med.* 1998; (46)8; pp. 981-993.
- Haram, L. (1991). Tswana Medicine in Interaction with Biomedicine. *Social Science and Medicine*, 33(2), 167-175.

## Module 5: Ethics and Sustainability

Module	Themes	Related Competencies	Collaborating Author (with Brittany Seymour- project PI)
5	Research and ethics in global health	2.3.4, 2.4.1, 2.4.2, 3.2.1, 3.2.2, 3.3.1	<p><u>Judith Lasker, PhD</u> Distinguished Professor of Sociology Department of Sociology and Anthropology Lehigh University</p> <p><u>Jessica Evert, MD</u> Faculty Department of Family and Community Medicine University of California, San Francisco</p> <p><u>Irene Adyatmaka, DDS, PhD</u> Senior Researcher Faculty of Public Health Universities Indonesia</p> <p><u>Gustavo Bermúdez Mora, DDS</u> Adjunct Faculty Department of Social Dentistry Faculty of Dentistry, University of Costa Rica</p> <p><u>Karl Woodmansey, DDS</u> ADA Committee on International Programs and Development</p>

**Related competencies:**

- 2.3.4. Translate research data into meaningful information tailored for communication and advocacy with specific target audiences.
- 2.4.1. Identify and assess the range of global oral health research questions.
- 2.4.2. Be able to design effective and appropriate survey tools/data collection methods.
- 3.2.1. Demonstrate ethically and culturally competent actions, and show awareness and respect in community settings, customs, differences in values, opinions, and practices, cultural norms, and medical cultures (local perceptions of oral health care, attitudes toward dental health, oral care, and seeking professional care).
- 3.2.2. Demonstrate responsive and respectful communication with patients and families, within the oral health team, and with other health professions colleagues.
- 3.3.1. Demonstrate professionalism, providing service delivery according to appropriate level of training and ability and representing the profession of dentistry in a responsible manner

**Learning objectives:**

- Discuss issues of global health conduct and regulation, including ethical concerns
- Practice performing self-checks in order to recognize one's motivations
- Identify how a volunteer's presence in a community could lead to unintended negative impacts
- Analyze the differences between vertical and horizontal approaches to health, and formulate a combination of the two approaches (a "diagonal" approach) when considering global oral health improvement programs

**Evaluation metric:**

*Pass:*

- Student is able to list at least three unique ethical considerations for each of the following: research, service delivery, and experiential learning.
- Student is able to define the following global health volunteering phenomena: The Weight of Authority (power dynamics impact the volunteer-host relationship in negative ways), The Volunteer Effect (creating dependency and undermining local efforts), and The Burden of Hosting (the costs of hosting volunteers outweigh benefits received).
- The student is able to list and describe at least three motivations in the following categories: volunteer-centric with caution, volunteer-centric acceptable, and community-centric.
- Student is able to describe at least five red flags for volunteer organizations that are at risk for ethical violations.
- Student is able to list three positive qualities in a hosting organization or sponsor (preserves human dignity of community members, demonstrates community-centric motivations, has stories of positive impacts on the community, demonstrates leadership that comes from within the community, etc.)

*Critical error:*

- Student is unable to list at least three unique ethical considerations for each of the following: research, service delivery, and experiential learning.
- Student is unable to define the following global health volunteering phenomena: The Weight of Authority (power dynamics impact the volunteer-host relationship in negative ways), The Volunteer Effect (creating dependency and undermining local efforts), and The Burden of Hosting (the costs of hosting volunteers outweigh benefits received).
- The student is unable to list and describe at least three motivations in the following categories: volunteer-centric with caution, volunteer-centric acceptable, and community-centric.
- Student is unable to describe at least five red flags for volunteer organizations that are at risk for ethical violations.
- Student is unable to list at least three positive qualities in a hosting organization or sponsor (preserves human dignity of community members, demonstrates community-centric motivations, has stories of positive impacts on the community, demonstrates leadership that comes from within the community, etc.)

**Content:** Sustainable and ethical global health programs, including research, service delivery, and training experiences, their potential unintended consequences for communities, motivations for global health.

**Pedagogy:**

*Lecture:* Interactive Presentation

*In-class activity:* Blood Journey

*Pre-readings:*

- Lough BJ, Tiessen R, Lasker JN. Effective practices of international volunteering for health: perspectives from partner organizations. *Global Health*. 2018 Jan 24;14(1):11.  
<https://globalizationandhealth.biomedcentral.com/track/pdf/10.1186/s12992-018-0329-x>



- Holmgren C, Benzian H. Dental volunteering - a time for reflection and a time for change. Br Dent J. 2011 Jun 10;210(11):513-6. <https://www.nature.com/articles/sj.bdj.2011.426.pdf>
- Woodmansey KF, Rowland B, Horne S, Serio FG. International Volunteer Programs for Dental Students: Results of 2009 and 2016 surveys of U.S. dental schools. J Dent Educ. 2017;81(2):135-9. <http://www.jdentaled.org/content/jde/81/2/135.full.pdf>

## APPENDIX: Global oral health competencies relevant for dental students

- 1.1.1. Explain the global burden of oral diseases with regard to prevalence, distribution, and the relationship among oral disease, population trends, and global disease patterns.
- 1.1.2. Understand the essential facts about the etiology of main oral conditions and their symptoms and signs.
- 1.1.3. Describe the impact of oral diseases on well-being and quality of life, as well as its social and economic impact.
- 1.1.4. Identify and assess relevant oral health information and make sound decisions (oral health literacy).
- 1.2.1. Identify and describe common risk factors of oral diseases.
- 1.2.2. Identify and describe common (social) determinants of oral disease.
- 1.2.3. Identify and describe reciprocal links among oral disease, systemic diseases, and general health.
- 2.1.1. Conduct an assessment to define oral health needs of the population.
- 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).
- 2.1.3. Promote general oral hygiene knowledge and skills, including toothbrushing twice a day with fluoride toothpaste and cleaning between the teeth.
- 2.1.4. Promote and apply other appropriate fluoride interventions.
- 2.1.5. Identify patient populations at increased risk for oral diseases and ensure regular attendance through oral health professionals.
- 2.1.6. Promote essential oral health knowledge and skills for expectant mothers and parents to enable appropriate self-care and care for their children.
- 2.1.7. Educate, counsel, recognize, and act on the links between oral health/disease and systemic health/disease.
- 2.2.1. Understand the burden and distribution of oral and associated diseases in specific community and country.
- 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.
- 2.3.2. Identify and advocate to address specific oral health needs and reduce inequities and health care system deficits.
- 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).
- 2.3.4. Translate research data into meaningful information tailored for communication and advocacy with specific target audiences.
- 2.4.1. Identify and assess the range of global oral health research questions.
- 2.4.2. Be able to design effective and appropriate survey tools/data collection methods.
- 2.4.3. Collect, evaluate, translate, and disseminate data.
- 2.4.4. Monitor and evaluate actions taken to ensure transparency, effectiveness, and impact.
- 3.1.1. Demonstrate an interdisciplinary, team-oriented, integrated, and multilevel approach to patient-centered health and oral health care.
- 3.1.2. Recognize the different roles and responsibilities of medical and non-medical professionals in oral health promotion, disease prevention, and, if applicable, treatment, care, and referral.
- 3.1.3. Recognize the areas of specialization in medicine and dentistry.
- 3.2.1. Demonstrate ethically and culturally competent actions, and show awareness and respect in community settings, customs, differences in values, opinions and practices, cultural norms, and medical cultures (local perceptions of oral health care, attitudes toward dental health, oral care, and seeking professional care).
- 3.2.2. Demonstrate responsive and respectful communication with patients and families, within the oral health team and with other health professions colleagues.
- 3.2.3. Identify, evaluate, and use culturally relevant media and technology.
- 3.3.1. Demonstrate professionalism, providing service delivery according to appropriate level of training and ability and representing the profession of dentistry in a responsible manner.
- 3.3.2. Demonstrate leadership in providing information, education, and planning for oral health to non-dental professionals and community members.

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