

Hello. And welcome to Module 4, social risks and determinants, co-authored by Jennifer Kasper and Karen Sokal-Gutierrez. Module four is designed to be presented in approximately one hour. This module continues to build from our prior modules. But it can also be taught as a standalone. The module supplement form includes three recommended pre-readings for your students to complete prior to the module session.

The supplement also includes recommended metrics for evaluating whether students demonstrate the learning objectives or not after your delivery of the module and six multiple choice example assessment questions that correspond to this module.

These assessment questions can be administered at the end of the module or, if you're teaching the entire series, the assessment questions from each individual module can be combined and administered as a single assessment at the end. You may, of course, use the evaluation metrics as a guide to develop your own assessment.

To keep the session engaging, this module contains thought questions in the teaching notes that you can post to your students along the way as well as a warm up activity and in class video. This learning experience is meant to be an introduction only, hence the name starter kit. And while there are numerous resources and references available about the topics covered, for the purpose of this module, we have curated a sample of high quality resources to support the learning outcomes with dental students in mind.

We encourage your students, and you if you wish, to explore the literature further beyond what is contained in this module. To extend the learning experience, optional in class activities have been inserted along the way. And these learning activities allow for approximately one additional hour of active learning during the module session.

This module is related to seven competencies from the global oral health competency matrix. 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. We have also included four measurable learning objectives written specifically for this module.

So I like to begin the module with a simple question for students. What causes a cavity? Your students are likely familiar with the classic formula for a cavity-- bacteria, plus sugar, plus a susceptible tooth, plus time equals a cavity. In the classic definition, a susceptible tooth is defined as a tooth without any protective factors in place or a tooth with a poorly contoured restoration or open margins, for example.

In this module, we're going to expand how we define a susceptible tooth and work to answer this question, what

causes a cavity? And what is a susceptible tooth? In module two, we started with a warm up activity where we met Dr. Tooth. During this interactive activity, we explored the six main categories. and the components of a well functioning health system needed for Dr. Tooth to be able to practice dentistry and treat the patients who need care.

In this module, we begin with another interactive warm up activity. Meet Joe, who is a person from the community. Joe can be anyone, any gender, any age, any income level, living anywhere in the world. The way your students think about Joe will impact the exercise, so challenge them to consider characteristics they may not mention initially.

This warm up activity is based on the article about the three delays. When examining maternal mortality in Haiti, the three delays are as followed. Delay number one, deciding to seek appropriate care. Delay number two, reaching an appropriate facility. And delay three, receiving appropriate, adequate care.

So ask the question, Joe has a toothache, a susceptible tooth. What should Joe do? And on one end of the board, draw Joe. So most of the time the first things students will say is go to the dentist. Although this is true, we need to back up and get the students thinking about all the things that must be in place and overcome for Joe to be able to go to the dentist.

As you go through the activity, fill in the board in three chronological sections, one for each delay. So imagine this is a timeline by Joe. And I place going to the dentist near the end of this imaginary timeline. As you encourage the students to brainstorm further, and when a student gives you an answer, place their idea in the corresponding area for the delay it belongs to. I'll walk you through this a bit more.

So first, before anything else can happen, Joe needs to decide to go to the dentist. And it's not even that simple. Get your students' thinking about how Joe makes this decision and what factors influence this decision. So this is delay number one, deciding to seek appropriate care.

Guide your students toward answers such as this happens based on Joe's culture and cultural beliefs, his health literacy, and his oral health literacy, his ability to take time off to go. So even if Joe wants to go see the dentist, he may decide not to if he can't get the time off work or can't afford to lose that income. Joe's ability to recognize that he needs to go to a dentist for a toothache, or perhaps there are other pressing priorities that Joe's grappling either with his own health or maybe with the health of a family member.

So then we imagine Joe has overcome these potential challenges and has successfully made the decision to go. Then ask your students, now what? Joe needs to be able to reach an appropriate facility, like Dr. Tooth's office, for example. So what impacts Joe's ability to do this? And this is delay number two, reaching an appropriate

facility.

So now you can guide your students toward answers such as maybe Joe lives in a rural area and there's no facility nearby, or maybe there are inadequate roads and Joe can't actually get to town. Perhaps there is no transportation, or Joe can't afford bus fare, or can't afford to have a car, or maybe there's bad weather or it's flood season and the roads are flooded right now. So these are the kinds of things that students might think of that belong with delay number two.

Here's a photo of me doing this exercise with my own students. And you'll see that I've placed Joe in the upper corner of the board and the dental office in the lower opposite corner. And as the students brainstorm, I'll fill in Joe's journey through each of these three delays. And I think that drawing as the students brainstorm is an engaging way to keep them talking. And it validates their answers as you go through the exercise. So as with all our warm up activities in the global health starter kit module series, there are no right or wrong answers for the purpose of this exercise. It's meant to get the students thinking about all the factors at play for Joe and his susceptible tooth.

OK. So let's say Joe overcame all the barriers in place that affect making the decision to seek care. Then Joe overcame all the challenges in reaching a place to get treatment. So now here we are at the dental office. And there are still many factors that influence Joe's ability to receive appropriate quality care. This is delay number three, receiving appropriate care. So finally, guide your students toward answers such as no providers available, or there is lack of a competent or adequately trained provider once Joe reaches the facility. What if there are language barriers in place so the provider that's there doesn't speak the same language as Joe and so they can't communicate with one another, or perhaps the facility is inadequately supplied or lacks equipment for what Joe needs, or maybe it's just that once Joe realizes what kind of care he needs, he simply can't afford it. So all of these things impact Joe's ability to overcome the delay number three.

Even though the three delays model is not actually about oral health care, the themes and determinants described in it certainly apply to us as dental providers and our patients. So you can encourage your students to learn more about the three delays on their own after this module. What I find so compelling about the three delays is they describe barriers to care that are out of Joe's control, barriers that have nothing to do with Joe's own behaviors necessarily. Many are just plain due to bad luck or the circumstances Joe was born into. This lays a foundation for the rest of the module.

And here you can see I filled in the board as students gave me ideas, placing their ideas according to whether they fit best within delay 1, 2, or 3. I would identify each delay as we went, ultimately describing the three delays model through the students' own answers. This warm up concludes when you explain all these factors affecting

Joe are best known as the social determinants of health.

The module then goes on to discuss the social gradient for health and the important role poverty plays as a determinant for disease, including oral diseases. We cover the concept of the bottom billion. So of the roughly 6 and 1/2 billion people in the world at the time the millennium development goals were established, most were experiencing at least some benefit of global progress, except for the poorest billion people in the world.

The module details particular vulnerabilities of women and children globally through some examples and points to other vulnerable groups that experienced disparities and their negative effects disproportionately. It then builds from the social determinants of health to further describe the sociocultural model for health and how this can conflict with the predominant model of health in medicine, including dentistry, the biomedical model.

The module then ties everything together by revisiting the formula we started with and with a very much expanded view on what makes a person and their teeth susceptible to disease. We conclude by tying together what we've learned from both Dr. Tooth and Joe, all the factors that must be in place for Dr. Tooth to practice in a well functioning health system and all the potential delays and obstacles to care that Joe faces.

This module is intended to be a strong lesson for students about the patient provider relationship and that we can never take an encounter with a patient for granted. When a patient and provider come together and successfully manage illness as a team, or even better prevent illness from occurring, health becomes possible for all.

So I usually wrap up this module by reminding my students that, as dental providers, we must embrace our role in the health of our patients and our communities beyond our dental chairs. Many people will never make it that far along the three delays timeline. I then leave my students with a question to think about from this day forward. How will you reach those who can't reach you?

I hope you enjoy teaching module 4. I think it might be one of my favorites. To continue your students' learning experience, please consider teaching our other available modules. Thank you so much and happy teaching.