

COVID-19 pandemic shines light on future of e-learning in global health volunteering

HVO volunteers turn to Zoom to teach at Nepali dental school

BY MARY BETH VERSACI

The COVID-19 pandemic has not stopped volunteers with Health Volunteers Overseas from connecting with students and faculty at the dental school at Dhulikhel Hospital in Nepal.

Although eight mission trips to the dental school were canceled this year, HVO has filled that in-person void the way many others have during the pandemic: with Zoom.

"When the pandemic struck, we had to suspend all of our projects and pivot to expanding our e-learning opportunities," said Nancy Kelly, HVO executive director. "I have been so impressed with how creative and adaptable both the volunteers and our colleagues overseas have been as we made this change. While we all look forward to the day when volunteers can once again go to projects, I think we will find that there will continue to be a role for e-volunteering."

HVO is a nonprofit organization that seeks to improve the availability and quality of health care through the education, training and professional development of the health workforce in resource-scarce countries. It has programs in several medical fields, including oral health, and the American Dental Association sponsors the oral health care projects, including the one in Nepal.

When the pandemic struck, Dr. Brian Hollander, co-director of the HVO project in Nepal, reached out to past volunteers to see who would be interested in volunteering virtually.

"I sent out an email to former volunteers in the spring, telling them about the situation in Nepal and that the school is closed down right now, except they're doing their teaching by Zoom," he said.

Answering the call

Dr. John Kanyusik, who volunteered at the Nepal site in 2015, was one of those who answered the call to help during the unusual circumstances created by the pandemic. He taught six orthodontic lectures via Zoom for the dental school.

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The technology was not completely new to him, as he was already using e-learning in his role as an adjunct associate professor in the department of orthodontics at the University of Minnesota School of Dentistry.

"We started using remote teaching technology at the University of Minnesota because of the COVID-19 lockdown in March," Dr. Kanyusik said. "In addition to prepared presentations, the current technology allows for remote interactive consultations about patient diagnosis, treatment planning, treatment progress and outcome assessments in remote locations such as Nepal."

Zoom has worked well for his work with HVO, giving him the chance to share his lec-



Working together: Dr. John Kanyusik (center, back) volunteers with Dr. Dashrath Kafle (fifth from left) and his staff in the department of orthodontics at Dhulikhel Hospital in Nepal during an HVO mission trip in 2015. Dr. Kanyusik has taught six orthodontic lectures via Zoom for Dhulikhel Dental School during the pandemic.

tures virtually and interact with participants.

"I look forward to a continued volunteer teaching and consulting relationship with the program in Nepal," Dr. Kanyusik said. "HVO is a wonderful educational opportunity for all involved — the dental students, the collaborating host faculty and the volunteers."

He is in the process of recruiting others from the University of Minnesota to volunteer virtually with the Nepal project, including two colleagues who are presenting lectures on prosthodontics and tele-dentistry.

Dr. Karl Woodmansey, who was scheduled to volunteer at the dental school in September, also led a Zoom lecture on extreme interventions in endodontics when he could no longer go to Nepal in person.

A clinical associate professor of endodontics at Texas A&M University College of Dentistry, Dr. Woodmansey began using Zoom in March to lecture to endodontic residents at Texas A&M, as well as students and residents at other schools.

His HVO lecture went well and led to a nice surprise: at least 30 Facebook friend requests from the participants in Nepal. Although his trip had to be canceled this year, he hopes to go next year instead.

"I enjoy teaching — whenever, wherever, however," Dr. Woodmansey said. "I do hope to visit Nepal at some point to experience the culture firsthand."

Lasting benefits

HVO launched its project in Nepal in 2015. Since then, several volunteers have traveled to the dental school to present lectures related to their specialties, helping to create graduates with skills in clinical dentistry and knowledge of academic theory, said Dr. Dashrath Kafle, onsite coordinator for the Nepal project and head of the department of orthodontics at Dhulikhel Hospital.

"Nepal is one of the developing countries in the world. The quality of dental education needs to be improved in different aspects, and Dhulikhel Dental School is one of the leading institutes in Nepal," he said. "With the help

of HVO, we are able to produce world-class dentists from Dhulikhel."

The work of HVO also creates lasting relationships between the volunteers and students.

"On this mission, many dentists associated with HVO have done a rewarding job by teaching our students," Dr. Kafle said. "They have inspired a number of students. They have changed the lives of a number of graduates, and they have been tremendously loved and respected by our students. Many of the dentists from HVO are now mentors for young graduates."

Beyond the classroom

Besides helping to fill the gap created by canceled mission trips to Nepal, technology has proved useful in other ways during the pandemic as well.

Anju Adhikary, a dental hygienist, dental assistant and oral hygiene instructor in the department of orthodontics at Dhulikhel Hospital, was supposed to travel to Southcentral Foundation in Anchorage, Alaska, in August to observe the dental assisting program there in order to help establish a similar program in Nepal.

Royann Royer, co-director of the HVO Nepal project and director of the assisting program at Southcentral, met Ms. Adhikary while training dental assistants at Dhulikhel Dental School during a volunteer trip in November 2018 with Dr. Hollander, who also works as a dentist at the foundation, which seeks to improve the health and social conditions of Alaska Natives.

Ms. Adhikary stood out to Ms. Royer immediately. Her leadership made her a good candidate to participate in the program at Southcentral and become a trainer for her fellow assistants in Nepal, Ms. Royer said.

"Dental assistants in Nepal do not have chairside skills like in the U.S. — as an example, four-handed dentistry is not utilized. Didactic information regarding professional knowledge and skills is not presented to dental assistants as taught in U.S. dental assisting training programs," Ms. Royer said. "We

hope to initiate a program that would be similar to a Commission on Dental Accreditation-accredited dental assisting program in the U.S."

Because of the pandemic, Ms. Adhikary was no longer able to travel to Alaska to participate in Ms. Royer's program in person, so she instead joined virtually twice a week for two months beginning in March. Because of the time difference, she was in class from 10 p.m.-4 a.m., but she was still attentive and active, Ms. Royer said.

"I found myself so privileged for this great opportunity," Ms. Adhikary said. "I learned so many modern assisting techniques and skills. Those classes were really informative."

She is again participating virtually when she can in classes that began in August. She still hopes to travel to Alaska when conditions are better to participate in the Southcentral program in person, but with her current knowledge, she may be able to initiate the program in Nepal and collaborate virtually with faculty in Alaska for assistance, Ms. Royer said.

What's next

Dr. Elizabeth Shick, a pediatric dentist and member of the steering committee for HVO's oral health program, is working with two other pediatric dentists — Dr. David Ciesla, an assistant clinical professor in the division of pediatric dentistry at the University of Oklahoma College of Dentistry, and Dr. Michael Suh, an assistant clinical professor in the division of pediatric dentistry at the University of California San Francisco School of Dentistry — to offer a virtual six-lecture series focused on pediatric dentistry for the students in Nepal.

She and Dr. Kanyusik are also developing a survey to evaluate the HVO courses being taught virtually to inform the future use of a remote learning model in volunteer dentistry.

"I am very excited to be able to help out with this new model of teaching," Dr. Shick said. "I think given the circumstances, it is a very appropriate way to explore a new model for global health volunteering."

Dr. Shick is no stranger to international volunteering. As director of global health initiatives at the University of Colorado School of Dental Medicine, she started a dental clinic at a community health center in rural Guatemala where dental students and faculty travel to provide preventive care and basic treatment.

While the trips focus on offering direct care, she said the dental and medical professions are starting to look more at training local health care workers at volunteer sites, similar to HVO's approach. E-learning could play an important role in that.

"I think this new model could work well and continue regardless of a health pandemic like COVID-19," Dr. Shick said. "I hope we have good results with this, and the Nepali dental students benefit. If the goal is to improve dental care in countries who request volunteers from the U.S., this sure is a great new way to do it."

General dentists and dental specialists interested in remote teaching opportunities should contact HVO Volunteer Placement Coordinator Lauren Franklin at l.franklin@hvousa.org or 1-202-296-0928, ext. 119. ■

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