Solving the pediatric obesity problem in rural communities

November 4 2013

This map shows HEALTH COP clinics. Credit: UC Regents

Using telemedicine to unite clinicians and provide health education for them—and by extension, their patients —is an effective way to manage childhood obesity in remote areas. For these communities, which often have limited access to pediatric subspecialists, having a HEALTH-COP can make all the difference.

UC Davis research published in the *American Journal of Medical Quality* has found that HEALTH-COP—the Healthy Eating Active Living TeleHealth Community of Practice—improved health in rural communities throughout California.

Children in small communities are at an increased risk of obesity because they often lack access to healthy foods and a wide range of activities. In turn, obesity puts these kids at risk for diabetes, hypertension, depression and other conditions.

"Obesity prevention and management can be particularly challenging in rural areas," said Ulfat Shaikh, lead researcher, pediatrician and director of Healthcare Quality at the UC Davis School of Medicine. "Families don't have as much access to walking paths, play facilities and places to buy healthy food. There may be only one grocery in town."

To make matters worse, primary care physicians have their own access issues, lacking the peer support that often can lead to better care. Shaikh notes that earlier studies found that access to continuing medical education and peer support were a high priority for doctors in rural communities.

This is Ulfat Shaikh, director of healthcare quality at the UC Davis School of Medicine, with a patient. Credit: UC Regents

To provide these and other resources, Shaikh and her collaborators created HEALTH-COP, a virtual learning and quality improvement network that reached out to seven clinics throughout rural California. Clinics were located in a variety of settings and served diverse patient populations. For example, one was located in Imperial County, on the California-Mexico border; another was located in Humboldt County nearly the California Oregon border.

Through video conferencing and other methods, rural clinicians learned how to better assess patients' weight; provide counseling on nutrition and physical activity; reorganize clinics to provide better care; screen for risk factors; and implement strategies to effectively discuss body weight.

"Sometimes families broach the issue, but other times they are in

denial," said Shaikh. "We provided instruction on motivational interviewing to help change lifestyle behavior. Teams were taught to assess where the family is and help them with their decision making."

The combination of clinical materials, education and peer support had a major impact on care. The Davis team looked at clinical practices, both before and after the program was implemented, and scored clinicians on their abilities to document their patient's BMI and other weight measures, counsel patients and families and provide family-centered care. Over the course of the study, the mean score increased from 3.5 to 4.6 on a zero-to-five scale.

Next the researchers examined family perceptions. The team surveyed parents within a few of the children's visits. The survey asked whether they had been counseled on a number of issues related to diet, screen time and physical activity. The results showed clinicians increased the number of topics they covered. In particular, they expanded their counseling on television, sugary drinks, family meals and eating fruits and vegetables.

Three months later, the team followed up again, this time looking at whether the improved counseling had any behavioral impact. It had, as children had improved their diets and increased their physical activity.

The clinics were given lists of community resources, such as affordable foods, after-school programs and support services, to point families in the right direction. They also received charts, posters, BMI wheels and other materials. In addition, the network provided access to the latest care guidelines from the American Academy of Pediatrics and other resources.

Perhaps the most useful innovation was the connectivity between clinics. Peer support amongst rural clinicians allowed them to share experiences

and knowledge, customize materials, such as parent education handouts, and find creative ways to improve access for their patients.

"As an urban pediatrician, if I can't figure out a problem, all I have to do is find a colleague in the building and get their impressions," Shaikh said. "By setting up this network, we made it easier for rural clinicians to do the same. Regardless of where they were in California, they all face similar problems. Now they can share solutions."

Provided by UC Davis