The recent AAP workforce survey showed that in eight states more than 50% of pediatricians reported the number of specialists who care for children in their area is poor to fair (http://bit.ly/1Sxn7eW). In 10 states, more than 79% of pediatricians reported the lack of pediatric specialists is a barrier to care.

Pediatric rheumatology is no exception. Juvenile idiopathic arthritis (JIA) affects about 300,000 U.S. children, making it one of the most common pediatric chronic conditions. Despite this prevalence, there is a severe shortage of pediatric rheumatologists to care for children with JIA and other rheumatic diseases.

The Academy recently issued a policy statement advocating for the use of telemedicine to address health care access and physician workforce shortages (http://pediatrics.aappublications.org/content/136/1/202). While telemedicine has been implemented successfully in a variety of pediatric subspecialties, including psychiatry, emergency medicine and intensive care, its use in pediatric rheumatology is infrequent.

One example of telemedicine's success is at Children's Mercy Hospital, Kansas City, which launched its first telemedicine clinic in 2012. The hospital now is utilizing telemedicine for three pediatric surgical specialties and 10 pediatric subspecialties, including child abuse and neglect, neurology and genetics. Since 2012, there has been tremendous growth resulting in the training of several telefacilitators and increased health care delivery via telemedicine to children in three regions within the Midwest.

In 2014, a telemedicine rheumatology clinic was developed in Joplin, Mo., which is approximately 160 miles...
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from Kansas City. Another clinic recently was established in St. Joseph, Mo., which is about 60 miles from Kansas City. These locations were selected because the patient population could sustain a monthly telemedicine clinic. Additionally, Children's Mercy developed partnerships with local hospitals, which has allowed for easier access to resources, including lab, radiology and infusion services.

Telemedicine is used to treat children with a variety of rheumatic diseases. Clinic visits occur through a live, interactive audio-visual link. Other peripheral devices used during the exam include a stethoscope, otoscope and a mobile camera that allows for viewing in greater detail and the ability to take digital pictures. A nurse facilitator from the community who has undergone training on the rheumatology physical examination assesses the patient, while the physician in Kansas City observes and directs the exam.

For some patients, this is the primary way they receive their care, while others alternate between being seen via telemedicine and in-person in Kansas City.

After a telemedicine clinic visit, a parent recently commented, "We especially appreciated being able to stay in Joplin for the visit. It is cost-prohibitive for us to travel very often and difficult to schedule … I felt like the nurse did an exam very similar to the initial exam we had in K.C. so I feel good about the level of care we were able to receive via telemedicine. Awesome option."

Preliminary studies confirm that telemedicine can lessen the financial burden for families by eliminating the costs of traveling considerable distances for care, food, lodging and/or child care. Additionally, parents and children miss significantly less time from work and school when seen in a telemedicine clinic.

To move the field forward, continued evidence must demonstrate the effectiveness of telemedicine in providing quality clinical care. Therefore, research is underway in the Missouri clinics regarding the ability to conduct an accurate joint examination, provide quality care and enhance patient satisfaction via telemedicine.

Some considerations when setting up a telemedicine clinic include:

- The facilitator is key to the clinic's success. The facilitator could be a general pediatrician, a local nurse or medical assistant depending on the services provided (e.g. consultative, long-term chronic care) and the depth of the physical exam. It is important for the provider and facilitator to develop a trusting relationship.
- Look for someone local to promote your services and act as a resource. This can be anyone from a general pediatrician with interest in your subspecialty to a community hospital.
- Utilize regional and national telemedicine organizations like the Telehealth Resource Centers and the American Telemedicine Association, which has a Pediatrics Special Interest Group. (See resources.)
- Keep the needs of your patient population at the forefront of your decisions. This can guide your choice of location as well as services offered and help to enhance patient satisfaction.

Dr. Kessler is a member of the AAP Section on Rheumatology.

Resources

- AAP Section on Telehealth Care
- Telehealth Resource Centers
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- American Telemedicine Association