ACP's *I Raise the Rates* Initiative provides important resources as well as vaccine information to help physicians increase adult immunization in their practices.

Adults seem to fear vaccines more than the disease

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Patients are declining vaccines because they are more worried about the side effects of the vaccine than the disease it aims to prevent, according to a new study.

The study, published in the *Journal of Refugee and Global Health*, investigated reasons adult patients declined recommended vaccines at a small travel clinic. Timothy Wiemken, PhD, MPH, associate professor in the Saint Louis University Center for Health Outcomes Research and lead author of the report, said the study was small but offers food for thought for general practice.

“I think maybe this is just another piece of the puzzle vaccine providers are dealing with in our current environment,” Wiemken said. “Ensuring patients get the best and safest care possible is critical. Doing this while providing education from a trusted source is probably equally important.”

Vaccine acceptance is an important part of infection prevention, since many vaccines are not mandated. Particularly for adults, the study notes, understanding why patients accept or refuse vaccines is critical to moving forward with evidence-based messages and interventions that are tailored to helping increase patient uptake of vaccines.

“The public—and therefore patients—still need a lot of education with respect to vaccine safety,” Wiemken said. “I fear people are having a more difficult time differentiating what is real science versus false information, particularly on social media.”

In this study, researchers studied vaccine acceptance at the University of Louisville Vaccine and International Travel Clinic. Vaccines in many cases are completely optional and left to the discretion of the patient, but can help avoid diseases endemic to the travel area. For the study, patients needing only booster vaccines were eliminated, and the remainder were offered vaccines based on their medical history and intended travel after an evaluation by a healthcare provider. Vaccines that were recommended to patients in the study included Hepatitis A and B, the influenza vaccine, Japanese encephalitis, measles/mumps/rubella, meningococcal, polio, pneumococcal, rabies, tetanus/diphtheria, pertussis, typhoid, varicella, and zoster. When patients declined a recommended vaccine, the reason was recorded for the study.

Nearly 250 patients were included in the study, and the most common vaccine suggested to patients was injectable typhoid, offered to 84 percent of patients. The least common vaccine offered was shingles to 1.6 percent of patients. According to the report, 100 percent of patients declined the
pneumococcal conjugate vaccine (PCV-13), 91.9 percent declined the rabies vaccine, and 86.4 percent declined the varicella vaccine.

The most common reason for declining a vaccine was the perceived risks of the vaccine itself, according to the report, with more than a third of patients declining vaccinations for this reason.

Data for the study was collected from a smaller, international travel clinic, so Wiemken said it’s difficult to generalize how s primary care practice in the U.S. might be able to use this information.

Still, Wiemken said in a clinic with health individuals—compared to a hospital where vaccines may be provided for post-exposure or post-illness—reasons for declining vaccinations may actually be similar.

“I have a feeling declination due to perceived risks is becoming more and more of an issue,” he said, adding that costs are also a factor to consider. “Since this clinic is out-of-pocket and focused on travelers, the socioeconomic position of the individuals seeking care here is certainly not representative of primary care clinics, or probably most other places individuals can receive vaccines. Therefore, the fact that costs were not as much as a factor as risks may very well be flipped in areas where individuals are more deprived of economic and social capital.”

Wiemken said he was surprised to find that costs really didn’t factor into reasons patients declined vaccines in this study.

“I think we were all assuming that costs were the major factor, even in our clinic, with respect to declination, particularly since some of the vaccines are relatively expensive,” Wiemken said. “However, given the cost of travel to many of the locations individuals were seeking, the vaccine cost was probably negligible in comparison.”

Perhaps even more surprising, he said, was that patients declined for perceived risk, even after what he would rate as highly effective education from providers.

“Maybe the most surprising thing for me was that the providers in this clinic are internationally recognized for their expertise in vaccines and provide a great deal of wonderful education to the patients,” he said. “Even after this, perceived risks were abundant. This isn’t to say that there is zero risk in vaccination, but the real issues are difficult to tease out.”

For example, Wiemken said, many of the patients in this study were visiting clinics before planned travel. A small risk, such as a fever for a day or two after an immunization, was deemed to be too much of a risk for some patients to accept.

“After all, if you are going on vacation and spending a lot of money, time, taking days off of work, you want to ensure you feel perfect,” Wiemken said. “Unfortunately, we all deal with the pesky psychology of making this decision—do you accept a vaccine that has a low probability of making you feel bad for a couple of days, but is safe or risk getting the actual disease and potentially dying? Unfortunately it is mentally easier to reject the vaccine and risk the disease, even though it is a very poor gamble to make.”