

**University of California-Irvine Family Medicine Residency****PATIENT & RESIDENT EDUCATION PAVING WAY TO HIGHER VACCINATION RATES**

We've all heard the adage, "Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime." This was very much on Dr. Hau Do's mind as he pondered a focal point for a planned Senior Immunization Grant application to the American Academy of Family Physicians (AAFP) Foundation. The 2015 grant awards supported quality improvement and/or community-based projects aimed at increasing influenza and pneumococcal vaccination rates in patients age 65 and older.

Dr. Do, then a second-year Family Medicine resident at the University of California-Irvine (UCI), was completing his geriatric rotation when he learned of the grant opportunity. "It caught my attention because I was getting the strong impression that our immunization rates at the clinic were not great. Sure enough, once I ran the numbers, the statistics backed me up."

Located in the heart of Santa Ana, CA, the Family Medicine clinic at UCI Santa Ana serves a largely Hispanic, underserved population. Language is a persistent barrier and health literacy is low. Dr. Do's decision to put patient and staff education at the heart of his project came easily.

Patient outreach began with the prominent display of eye-catching posters stressing the importance of flu and pneumonia vaccinations. In addition, clinic volunteers worked from a prepared script to personally call 750 patients, urging them to come in for their flu shots. "We

found that having them come in and talk directly with their provider was by far the most effective strategy in getting patients to accept vaccinations," said Dr. Do.

It was well into the flu season, however, before the scripts could be developed/approved and contact lists finalized. A mass mailing of vaccination reminder postcards (in English and Spanish) targeted for October 2015 also became mired in the red tape characteristic of large institutions. The time required for English-to-Spanish translation, UCI administrative approval, printing, labeling and mailing resulted in significant delays to the intended schedule. "We were finally able to mail off the postcards in February 2016," lamented Dr. Do. "Starting early was definitely one of the 'lessons learned' from both of these experiences."

UCI's 30 Family Medicine residents and two Medical Assistants (MA) staff stood to benefit from the targeted training and all agreed to participate. Dr. Do spearheaded the creation of a new PowerPoint presentation to support educational sessions that were integrated into resident meetings and covered such topics as who and when to vaccinate, contraindications, vaccine benefit and risk communication, and vaccination record maintenance and accessibility. Clinic huddles, clinic team meetings, resident clinic morning reports and e-mail messaging also became opportunities to further instruct and focus attention on achieving the

project's aggressive goal: vaccinating between 65% (508) and 90% (714) of patients age 65+.

Dr. Do said, "The project helped us gain valuable insight into the clinic flow and to identify and implement new measures." MA's adopted the consistent practice of inquiring about vaccination status as they roomed each patient, updating the Electronic Medical Record (EMR) accordingly. If the patient needed and agreed to the vaccine, the MA would immediately enter the vaccination order for approval by the resident physician. When a patient said "no" to the vaccine, MA's were encouraged to turn the refusal into an opportunity to educate and explain. Finally, the MA would inform the resident physician if the patient had lingering concerns so s/he could also follow-up.

Despite best efforts, outcomes fell short of goals during the project's initial year of implementation, with 42.36% of UCI's senior patients overall receiving the influenza vaccine and 25.58% the pneumococcal vaccine. Dr. Do admits that keeping patient vaccinations front and center will likely remain a challenge in a busy clinic where vaccination discussions can easily become buried in more acute concerns. Nevertheless, he affirms that UCI is now well-positioned to significantly increase its flu and pneumonia immunization rates in the future.

Topping Dr. Do's "project impact" list is a renewed appreciation for the power of good communication in boosting immunization rates—especially when combined with a dose of patience and persistence. "The project reinforced the unique position of physicians and nurses in communicating credibly and changing patients' minds about the benefits and risks of vaccinations."

He went on to describe a fairly typical encounter: "Having heard that a flu shot could make her sick, one of my patients initially declined my offer of the flu vaccine. She insisted that she had never been sick with a cold in the winter and didn't want to take any risks."

Dr. Do reassured her that there was no evidence that that flu vaccine causes the flu, pointing out, "Look, you're over the age of 65 and although you don't smoke, you have uncontrolled diabetes and hypertension—both serious health risk factors." After further discussion, he gave her some informational pamphlets, encouraging her to "think about it." "During her next appointment with me, I raised the subject again. This time, she agreed. I think just the fact that I kept talking to her about it reinforced how critical to her health I thought this was."

As a result of the project's focus on education, Dr. Do feels that he, along with other UCI Family Medicine residents and nursing staff, are doing a better job of advising patients about the importance of vaccinations and in addressing their questions and concerns. "The materials and scripts developed to support both patient and staff education are now approved and ready for use from day one of the next flu season."

Now, a patient's refusal is not the end, but often just the beginning of an important discussion. Dr. Do summed it up this way, "I've done my research; I have specific facts, so now I'm now much more proactive about talking to patients about immunization matters in general, whether it's flu, shingles, diphtheria/tetanus, pertussis or pneumonia." This added proficiency is a valuable skill all UCI Family Medicine residents will carry into their future practices.