

Tdap booster vaccine rates triple at family care clinics using automated reminders

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Vaccination rates for a critical booster shot tripled after clinics began using electronic prompts alerting them of patients needing the Tdap vaccine that protects against tetanus, diphtheria, and whooping cough, according to a new study from the University of Michigan Health System.

The electronic prompt-and-reminder system resulted in 76 percent of 31,195 patients ages 19-64 and 85 percent of 3,278 patients aged 11 to 18 being up-to-date on their immunization. That compares to 59 percent of similarly aged adults up-to date on the vaccine during the same time period in clinics within the same health system that did not use the automated prompts.

The results appear in the *American Journal of Public Health*.

"This research shows how technology can be used to dramatically change the way preventive services are delivered and improve preventative health care," says senior author Grant M. Greenberg, M.D., M.H.S.A., M.A., assistant professor and associate chair for information management and quality at the Department of Family Medicine at the U-M Medical School and member of the U-M Institute for Healthcare Policy and Innovation.

The Tdap vaccine protects against serious, life-threatening diseases, including tetanus, diphtheria (which can lead to heart failure, breathing problems, paralysis, and death) and [whooping cough](#) (pertussis).

Guidelines recommend that adolescents and adults ages 11 and up receive a single dose of the Tdap vaccine for booster immunization even if they have had a Td (tetanus and diphtheria) vaccine within the past 10 years.

The electronic prompt-and-reminder system was developed at five U-M family medicine clinics to identify patients 11 to 64 years old who were in need of the Tdap booster vaccine between 2008 and 2011.

Tdap [vaccination rates](#) among patients seen and who had not yet received one increased from roughly 16 to 47 percent within U-M [family medicine](#) clinics that used the system while other clinics saw [vaccine](#) rates increase from 14 to 30 percent.

"Today's primary care environment requires managing complex immunization schedules and meeting the growing demands of caring for a large and often sick patient population," says lead author Cameron G. Shultz, Ph.D., M.S.W., of U-M's Department of Family Medicine.

"We found that when boosters were administered and documented automatically, as a routine part of care, this dramatically changed and improved preventive care services. These types of changes may potentially also help improve outcomes for other health initiatives, including [preventive care](#), disease screening, and chronic disease management."

More information: "A Systems Approach to Improving Tdap Immunization Within 5 Community-Based Family Practice Settings: Working Differently (and Better) by Transforming the Structure and Process of Care," Aug. 13, 2015, *American Journal of Public Health*.

Provided by University of Michigan Health System

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