Pregnant Women Need Whooping Cough Vaccine Booster

By Gil Ross — September 9, 2015

When babies come down with whooping cough, the odds were that mom was the proximate source of the contagious viral illness. Not any more, according to a new study: it is more likely that a sibling is the source, new research reveals. That is the bottom line of a study led by Dr. Tami H. Skoff of the CDC and colleagues, "Sources of Infant Pertussis Infection in the United States."

The current findings, published online Sept. 7 in the journal Pediatrics, are based on more than 1,300 infant whooping cough cases reported to health officials in seven U.S. states. In the new study, the source of an infant's infection was identified only 44 percent of the time. When a source of the infection could be identified, it was usually an immediate family member: a sibling in almost 36 percent of cases, the mother in about 21 percent, and the father in 10 percent.

Cases of whooping cough (pertussis) are on the rise in the United States. In 2012, more than 48,000 cases were reported nationwide the highest number since 1955, the CDC stated. Although commonly thought to be a disease of infants and toddlers, recently older children and teenagers are accounting for a growing proportion of cases. A major reason for this is during the 1990s, U.S. health officials switched from the traditional whooping cough vaccine part of the DPT triad to a newer one known as DTaP, out of concerns over rare adverse effects linked to the older vaccine. But the downside is that DTaP's effects don't last as long.

While the newer vaccine is highly effective over the first several years after vaccination, immunity slowly wanes each year after a child's final dose, which is given around age five (the standard regimen is an initial shot at two months, followed by doses at four-, six-, and 15-18 months, with a final one around five years old). Newborns and infants under two months have too immature an immune system to permit earlier protection which is why maternal vaccination during the latter trimester is so important.

Even if vaccinated, older kids and teens develop the illness, they often do not get very sick. But they can pass it on to young infants, who are at high risk of becoming severely ill. Of babies younger than one year old who get whooping cough, half end up in the hospital, according to the
CDC. So the best way to protect infants is for mothers to have a whooping cough booster shot known as Tdap during the third trimester of pregnancy. That way, infants are born with some of mom's immune system antibodies against the infection, which offers short-term protection.

As of a few years ago, doctors were recommending "cocooning" as protection of newborns: which means making sure that all persons coming in contact with the infant have received a recent vaccination/booster. But this didn't work so well, since infants can contract whooping cough from anyone, not just family members.

Right now, the CDC recommends that all Americans aged 11 and older have one Tdap booster shot. Antibodies against whooping cough do not persist at a high level from one pregnancy to another, which is why women need the Tdap booster during each pregnancy.

"Pregnant women are the only group who are advised to have more than one booster," Skoff told HealthDay [3] journalist Amy Norton. And of course, studies have shown the vaccine to be safe during pregnancy. "The notion that vaccinating during pregnancy will do harm is wrong," she said. "It's exactly the opposite. Vaccinating protects women and their babies."

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