Mission Not Yet Accomplished on Vaccines

By Nicholas Staropoli — August 28, 2015

2015 has been a good year for vaccines.

We are inching closer to polio eradication [1]. A study [2] from the University of Michigan showed that many people who previously were uneasy about vaccines have changed their mind. Several research groups have announced that they are very close to a universal, effective flu [3] vaccine. An Ebola vaccine seems imminent too. [4] One of the biggest public health victories this decade was scored recently when California eliminated the non-medical exemptions [5] for kids attending public schools and they aren't alone, as several other states are considering such measures. Plus there are several popular celebrities who openly endorse the science behind vaccines.

Good point "@Cyn190 [6]: @MotherJones [7] I can't send my kids 2 public school with peanut butter, BUT parents can send kids that aren't immunized."

Kristen Bell (@IMKristenBell) February 3, 2015 [8]

Here's some more good news: a report from the CDC [9] released today shows that vaccine coverage rates among kindergardeners across America for three vital vaccines are pretty good. Of the 49 states plus DC surveyed, median vaccination coverage was 94 percent for both doses of MMR, 94.2 percent for local requirements of DTaP and 93.6 percent for both doses of varicella. Furthermore, the state median level for vaccine exemptions was 1.7 percent. Most importantly all these numbers are hovering around their herd immunity thresholds [10] (the percentage of people needed to be vaccinated to protect those who are not immune).

But let's hold off on borrowing George W. Bush's "Mission Accomplished [11]" banner; there is still a
lot of work to be done.

First of all, these data are reported in "medians" which means that half of the states are above and half are below, so while it's great that half of states surveyed exceed 94 percent for MMR (like Mississippi which has a coverage rate of over 99.2 percent), it also means that half the states are below this number. In fact seven states have vaccination coverage rates less than 90 percent for MMR, including Colorado where the rate is 88.6 percent (herd immunity threshold for measles is 95 percent). Furthermore, 11 states have vaccinate exemption rates exceeding 4 percent, this number is just plain unacceptable.

But the work to be done is not just with these three vaccines. A CDC study [12] from earlier this year found that in 2013 only 37 percent of girls and 14 percent of boys received the HPV vaccine a vaccine that can prevent cancer. More can also be done on the development front as most infectious diseases do not have an associated vaccine. A report this week [13] suggests we are closing in on a vaccine for strep throat, but vaccine development is lagging for other important diseases like HIV and HCV.

However, the biggest reason for concern is the possibility that an anti-vaxer will be in the White House in 2016:

Healthy young child goes to doctor, gets pumped with massive shots of many vaccines, doesn't feel good and changes - AUTISM. Many such cases!