

Vaccine effectiveness should have been the end of the story

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The dramatic reduction of human suffering and premature death by vaccines represents one of the greatest achievements of medical science and public health over the past century. The effectiveness of mass vaccination campaigns also underscore the pivotal roles that have been played by all levels of government in improving both the quantity and quality of life in our society.

That should be the end of the story – unfortunately, recent infectious disease outbreaks and the current uproar over measles vaccination are reminders that it's not.

For decades, Americans placed their trust in public health authorities charged with ensuring the safety, efficacy, and delivery of vaccines against an expanding range of infectious diseases. While the erosion of that trust is implicated in recent outbreaks, there is no dispute that science-based vaccination efforts have resulted in the virtual elimination of once-common diseases, including diphtheria, tetanus, poliomyelitis, smallpox, measles, mumps, and rubella, and the effective control of other lethal threats, such as influenza and tuberculosis.

It bears noting that these victories have been extended into the first decade of the twenty-first century. New vaccines and targeted public health measures have yielded additional progress in controlling new and emerging infectious diseases, not to mention significant reductions in the burden of treating vaccine-preventable disease and disability.

The Centers for Disease Control and Prevention currently recommend vaccination for 21 diseases. Recent additions to that list include CDC-recommended vaccinations and boosters to protect against Tdap (tetanus, diphtheria, and whooping cough), meningococcal disease, and human papillomavirus or HPV for all pre-teen boys and girls.

HPV is the most common sexually transmitted infection in Nevada and research indicates that the vaccine is most effective if given before a person becomes sexually active. Moreover, the evidence-base indicates that current vaccines are highly effective against HPV types that cause most cervical cancers.

Heidi Parker from Immunize Nevada notes, “We vaccinate so that children have the best protection possible long before they are exposed to an infection, as is the case with measles and other recommended childhood vaccines. I ask parents, ‘If there were a vaccine to prevent cancer, would you get it for your children? Of course you would.’ The HPV vaccine is cancer prevention.”

Fear, mistrust, and opposition to vaccines are enduring themes in the history of immunization policy in the US. In the case of measles vaccination, current opposition is a reflection of widespread scientific illiteracy and, to be blunt, an ignorant misreading of the scientific evidence on vaccine safety and efficacy – trends compounded by reckless comments made by politicians.

Countering today’s vocal minority of anti-vaxxers and the internet myth machine will require the continued vigilance of public health and medical professionals. We should, however, demand more of policymakers charged with promoting and protecting the public’s health.

It is paramount that elected officials develop and defend vaccination policy grounded in the latest science and evidence-based best practices. Anything less will only fuel the deadly comeback of diseases once thought eradicated.

To learn more about the vaccine-preventable diseases and the HPV Free NV campaign, visit www.immunizenevada.org.

John Packham, PhD is Director of Health Policy Research at the University of Nevada School of Medicine