

Mitchell R. Goldstein
MD, MBA, CML, FAAP
President

President's Message

The Loss of Measles Elimination in the United States: When Personal Decisions Have Public Consequences

By Mitchell R. Goldstein, MD, MBA, CML, FAAP

On November 17, 2026, the Centers for Disease Control and Prevention (CDC) issued a joint statement acknowledging the loss of measles elimination status in the United States. After more than a quarter-century of enjoying one of the most consequential achievements in modern public health, we now confront a disease that an entire generation of pediatricians and neonatologists had little reason to expect to encounter in clinical practice.

This is not simply the loss of an international designation. It represents the erosion of a protective environment that generations of healthcare professionals, public health officials, and American families worked diligently to establish. Perhaps the most troubling aspect of this development is that many who will suffer its consequences never had the opportunity to decide about vaccination.

The Erosion of a Public Health Achievement

The elimination of endemic measles transmission in the United States in 2000 was not an accident. It culminated decades of scientific advancement, public health investment, effective vaccination programs, and a collective understanding that protecting ourselves also meant protecting one another.

According to the CDC's November 17 statement, measles, mumps, and rubella (MMR) vaccination coverage among American kindergartners declined from 95.2% during the 2019–2020 school year to 92.7% during the 2023–2024 school year. Moreover, declining vaccination coverage was identified in 78% of the counties evaluated in a large multistate study cited in the statement.[1]

Although a decline of approximately 2.5 percentage points may appear relatively inconsequential, the epidemiological implications are profound. Measles is among the most contagious infectious diseases known to medicine. Even relatively small reductions in population immunity can create opportunities for sustained transmission, particularly when susceptible individuals are geographically concentrated.

National averages also obscure the magnitude of the problem. A community with exceptionally high vaccination rates cannot necessarily compensate for another community in which substantial numbers of children remain susceptible. The virus exploits these geographically concentrated vulnerabilities, creating opportunities for outbreaks that subsequently extend beyond their communities of origin. We are now witnessing the consequences of allowing those vulnerabilities to accumulate.

Those Who Cannot Choose Vaccination

Much of the contemporary discussion surrounding vaccination has focused on individual autonomy, parental rights, informed consent, and personal choice. Although these considerations have an important place in medicine, the discussion frequently overlooks individuals for whom vaccination is not a viable option.

Consider the child with severe combined immunodeficiency, the patient undergoing chemotherapy for leukemia, the infant with a congenital disorder of immune function, or the recipient of an organ transplant receiving significant immunosuppressive therapy. For some of these patients, administration of a live attenuated vaccine is contraindicated. Others may be unable to generate or sustain a protective immune response even when vaccination is medically appropriate.

These individuals depend on the immunity of those around them. Their protection is not solely a function of the sophistication of contemporary medicine, the availability of subspecialty expertise, or the vigilance of their families. It also depends on whether measles is circulating within their communities.

For the parents of an immunocompromised child, the decision to visit a grocery store, attend a religious service, participate in a family gathering, or bring their child to a medical appointment once again becomes an exercise in risk assessment. Families already burdened by serious medical conditions must now contend with an additional threat that is largely preventable. When we discuss the freedom to decline vaccination, we must also consider the freedom of these children to participate in society without being exposed to an otherwise preventable, potentially fatal infection.

Too Young to Be Vaccinated

As neonatologists and pediatricians, we have a particular responsibility to advocate for those who enter the world without the benefit of an established adaptive immune response to measles.

Routine measles vaccination generally begins at 12 to 15 months of age. Under certain circumstances, including outbreaks and international travel, infants between 6 and 11 months may receive an additional early dose. However, even this strategy leaves the youngest infants without the opportunity for direct vaccine-induced protection.

Although maternal antibodies may provide some degree of passive immunity, this protection is neither universal nor enduring. It is particularly problematic for premature infants, who may have missed much of the transplacental transfer of maternal immunoglobulin that occurs during the third trimester of pregnancy. The extremely premature infant who has spent several months in a neonatal intensive care unit may survive respiratory failure, sepsis, necrotizing enterocolitis, and numerous other complications associated with prematurity, only to return home to a community in which measles is circulating.

What options do we offer these families? Should they remain isolated until their infant is old enough to receive a vaccine? Should siblings be removed from school? Should parents avoid employment settings where exposure could occur? Should families indefinitely postpone the gatherings that celebrate the survival of their medically fragile infant?

These are not reasonable expectations. The responsibility for preventing exposure cannot be placed solely on the shoulders of those least able to protect themselves.

Vaccination Is Highly Effective, but It Is Not Infallible

Another frequently overlooked population consists of individuals who have received appropriate vaccination but have nevertheless failed to develop adequate protective immunity.

Two doses of MMR vaccine are approximately 97% effective at preventing measles. This represents extraordinary efficacy, particularly given the virus's transmissibility. Nevertheless, it also means that vaccination does not guarantee protection for every individual. Some individuals experience primary vaccine failure, in which an adequate immune response never develops. Others may lose protection as a consequence of subsequent illness, immunosuppressive treatment, or other circumstances affecting immune function.

These individuals have fulfilled their responsibility to themselves and their communities. They have followed medical recommendations, received appropriate immunizations, and reasonably expected that their risk of contracting measles would remain exceptionally low.

Nevertheless, their protection also depends on the absence of sustained viral transmission. This is precisely why the argument that vaccinated individuals should have nothing to fear from unvaccinated individuals is scientifically incomplete. Vaccination substantially reduces individual risk, but population immunity provides an additional and indispensable layer of protection.

Herd immunity is not an abstract epidemiological construct. It is a mechanism through which individuals who cannot adequately protect themselves derive protection from their community's collective immunity.

When Measles Claims a Life Before Birth

Perhaps the most devastating development in the current resurgence of measles is the emergence of documented adverse fetal outcomes associated with maternal infection, including pregnancy loss and stillbirth.

The consequences of measles can begin before an infant takes its first breath. Maternal measles infection is associated with an increased risk of severe maternal illness, pneumonia, pregnancy loss, premature delivery, and low birth weight. In some circumstances, the virus may be transmitted to the fetus, resulting in congenital measles.

Recent reports of pregnancy loss and stillbirth occurring in association with maternal measles infection should fundamentally change the tenor of our national discussion. We are no longer speaking exclusively about children developing fever, rash, pneumonia, or encephalitis after exposure to an infected individual. We are also confronting the loss of pregnancies and the deaths of babies who have never had the opportunity to exist independently of their mothers.

An unborn child cannot consent to an immunization. A fetus cannot avoid exposure to an infectious individual. A pregnant woman who lacks immunity cannot receive the live

attenuated MMR vaccine during pregnancy. Once again, the protection of these individuals depends substantially on immunity established before pregnancy and on the immunity of those around them.

For neonatologists, pediatricians, and obstetricians, the resurgence of congenital measles is especially troubling. Beyond the immediate risk of morbidity and mortality, survivors of congenital or early infantile measles may face the devastating possibility of subacute sclerosing panencephalitis, a progressive and ultimately fatal neurological disorder.

We must also recognize that an infant who dies in utero following maternal measles infection may not be reflected in conventional tallies of measles-related deaths. The true burden of disease may therefore extend beyond the mortality statistics that dominate public discussion. From a perinatal perspective, these losses are particularly painful because they occur against the backdrop of a healthcare system that has invested extraordinary resources in preventing fetal death, reducing prematurity, and improving neonatal survival.

We expend enormous effort developing fetal interventions, refining neonatal resuscitation, advancing respiratory support, and improving the survival of infants born at the limits of viability. However, we are now confronting fetal and neonatal morbidity and mortality associated with a disease for which an effective preventive intervention has existed for more than six decades. This is an extraordinary contradiction in contemporary medicine.

The Limitations of Personal Choice

The CDC's joint statement acknowledges that some Americans decline vaccination because of personal or religious convictions, whereas others cannot receive vaccination for medical reasons.[1] These populations, however, must not be considered epidemiologically or ethically equivalent. One population may have the opportunity to choose vaccination. The other does not.

Although respect for individual autonomy remains a foundational principle of medical ethics, autonomy exists alongside beneficence, nonmaleficence, and justice. The exercise of individual autonomy becomes ethically more complicated when the consequences extend beyond the individual making the decision.

An immunocompromised child has not chosen to have an immunodeficiency. A premature infant has not chosen to be born before acquiring adequate maternal antibodies. A vaccine nonresponder has not chosen to remain susceptible despite appropriate immunization. An unborn child has not chosen to be exposed to measles through maternal infection. Nevertheless, each may suffer the consequences of decisions made by others.

Respecting personal autonomy does not require us to disregard the foreseeable harm that declining vaccination may impose on vulnerable individuals. Neither does acknowledging the societal consequences of declining vaccination require us to abandon compassion for families who have questions or concerns about immunization.

We must engage those families respectfully, provide accurate information, and recognize that vaccine hesitancy and barriers to vaccine access are not necessarily the

same problem. Nevertheless, our commitment to maintaining trust cannot come at the expense of our obligation to communicate the consequences of declining population immunity.

The Economic and Healthcare Consequences of Going Backward

The resurgence of measles also imposes a substantial burden on a healthcare system already challenged by workforce shortages, financial constraints, and competing clinical priorities.

Every measles exposure in a hospital can trigger an extensive public health investigation. Exposed patients and healthcare personnel must be identified, immune status assessed, and appropriate infection prevention measures implemented. Susceptible individuals may require postexposure prophylaxis, monitoring, quarantine, or exclusion from clinical duties.

For neonatal intensive care units, pediatric oncology programs, transplant centers, and labor and delivery units, the implications are particularly significant. A single exposure can place numerous medically vulnerable individuals at risk and require the diversion of resources from other essential services.

The CDC reports that approximately $100 million in additional funding has been allocated to state and local public health efforts to address measles and other vaccine-preventable diseases through much of 2027. This investment includes strengthening surveillance, laboratory capacity, access to vaccines, and outbreak response.[1]

Although these expenditures are necessary, they also represent an opportunity cost. Resources that might otherwise have been directed toward improving maternal health, addressing infant mortality, reducing healthcare disparities, or confronting diseases for which effective preventive measures do not yet exist must now be redirected toward controlling a disease that we had previously eliminated.

The cost of losing measles elimination status is therefore measured not only in infections, hospitalizations, and deaths, but also in opportunities lost elsewhere in medicine.

A Call to Action for Pediatricians and Neonatologists

Regaining measles elimination status will require more than an official declaration of intent. It will require sustained leadership, measurable improvements in vaccination coverage, restoration of public trust, and recognition that the protection of vulnerable populations is a collective responsibility.

As pediatricians and neonatologists, we must:

- Discuss measles vaccination proactively with families, emphasizing both its individual and societal benefits.
- Encourage assessment of measles immunity before pregnancy and appropriate postpartum vaccination for susceptible mothers.
- Reinforce the importance of appropriate immunization among household members and caregivers of premature infants and immunocompromised children.

- Partner with obstetricians, maternal-fetal medicine specialists, and public health officials to improve recognition and management of maternal and congenital measles.
- Support equitable access to vaccination, particularly in underserved communities where logistical, financial, and geographic barriers may contribute to inadequate coverage.
- Advocate for evidence-based immunization policies that recognize the legitimate medical needs of individuals who cannot receive vaccines.
- Ensure that surveillance efforts adequately characterize fetal, neonatal, and maternal morbidity and mortality associated with measles infection.
- Address misinformation directly, respectfully, and consistently without creating a false equivalence between established scientific evidence and unsupported assertions.

Our advocacy must extend beyond the walls of the hospital. We must recognize that the work we do in the neonatal intensive care unit can be undermined by decisions made in school districts, legislative chambers, public health agencies, and communities nationwide.

Elimination Was an Achievement; Maintaining It Was a Responsibility

CDC Director Dr. Erica Schwartz appropriately emphasized in the November 17 statement that vaccination, not the elimination designation itself, protects Americans.[1] Nevertheless, the designation was meaningful. It reflected our collective success in creating an environment in which a highly contagious and potentially fatal infectious disease could no longer sustain endemic transmission.

We should not accept the return of endemic measles as an inevitable consequence of changing societal attitudes. Nor should we become accustomed to reports of children dying from measles, pregnant women losing their babies, or immunocompromised individuals being forced into isolation because their communities can no longer provide adequate protection.

The measure of an advanced healthcare system is not simply its ability to provide sophisticated interventions when disease occurs. It is also its ability to prevent disease, protect the most vulnerable, and preserve the accomplishments of previous generations.

We owe that protection to the child who cannot be vaccinated because of an immunodeficiency. We owe it to the premature infant who is too young to receive a vaccine. We owe it to the individual whose immune system has failed to respond despite appropriate vaccination. And we owe it to the unborn child whose survival should not be compromised by the resurgence of a vaccine-preventable disease.

The loss of measles elimination status is a public health failure. Allowing endemic measles to become an accepted feature of American life would represent something far worse: a failure of collective responsibility.

We have the scientific knowledge, the technology, and the experience necessary to eliminate measles again. What remains to be demonstrated is whether we have the collective resolve to do so. For those who cannot protect themselves, there is no substitute for our willingness to protect them.

References

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