

JANUARY 29, 2026



THE ECONOMIC TOLL OF INFLUENZA ON U.S. ADULTS AND THE IMPORTANCE OF VACCINATION

Seasonal influenza imposes a significant and often overlooked economic burden on the U.S. healthcare system and workforce. This white paper synthesizes recent economic modeling and historical influenza data to quantify that burden and examine how adult vaccination rates influence hospitalizations, mortality, and overall costs. It offers evidence-based policy considerations grounded in a comprehensive analysis of influenza trends across multiple seasons.

Robert Popovian, PharmD, MS

Executive Summary

Influenza remains one of the most underestimated threats to the U.S. workforce and economy. Highlighting this can motivate policymakers and stakeholders to recognize their role in addressing the issue and to take proactive measures.

Introduction: Influenza as an Ongoing Economic Threat

The general population often underestimates influenza, but its impact extends far beyond a few days of serious illness. For employers, healthcare systems, and communities, influenza represents a recurring economic liability. Adults, especially working-age individuals and older Americans, experience significant illness, hospitalizations, and premature deaths each year. Despite the availability of safe and effective vaccines, adult vaccination rates remain inconsistent and far below optimal targets for adult populations that would benefit most.

The Scale of the Problem: Influenza's Economic Burden

Using CDC burden estimates and current healthcare and labor market data, researchers, Drs. Popovian and Winegarden estimate that **influenza imposed \$29 billion in total economic losses** among U.S. adults during the 2023–24 season. Of this, **\$16 billion reflects direct medical costs**, including outpatient visits, emergency care, hospitalizations, and antiviral medications. Another **\$13 billion stems from productivity losses**, including missed workdays, caregiving responsibilities, and premature mortality. Adults over 50 experience higher rates of complications, while working-age adults (18–49) drive the majority of productivity losses.



Why Vaccination Matters: Evidence from 14 Flu Seasons

A central contribution of the study is its analysis of how adult vaccination rates influence health outcomes. Emphasizing this can reinforce healthcare professionals' confidence in their capacity to make a meaningful difference and motivate their engagement.



Why Vaccination Rates Remain Low

Despite the proven benefits, vaccination rates remain low across all adult age groups. Studies and surveys identify barriers such as limited access during working hours, misconceptions about vaccine effectiveness, and underestimation of influenza severity. Addressing these barriers through policy initiatives and community engagement is essential to enhancing adult vaccination rates and strengthening the economic resilience of the U.S. workforce.

What Could Have Been: Scenario Modeling

Scenario modeling demonstrates that if adult vaccination rates in 2023–24 had matched the recent peak in 2021–22, over 8,000 deaths could have been prevented and approximately \$3 billion in economic losses avoided. These findings highlight the significant economic and health benefits achievable through targeted efforts to boost vaccination coverage during each flu season.

Policy Recommendations

There are several practical approaches that the health care system and employers should consider adopting. The ongoing challenges to strong and consistent influenza vaccination uptake among working and older adults demand attention and action from health care systems, plans, and providers, as well as employers and community leaders.

Support Health Systems

I.Education and Training

- Provide ongoing training for healthcare professionals on vaccine science, evidence, best practices, and communication strategies.
- Educate providers on flu vaccine types and population-specific recommendations.
- Empower healthcare professionals and community leaders to serve as immunization champions through the use of proven education and training programs.
- Utilize community health workers to extend vaccine education and outreach into rural and underserved communities.

II.Vaccine information and clinical decision support tools

- Incorporate vaccines into clinical workflows for specialty providers and during routine patient visits.
- Embed vaccination workflows for older adults and high-risk individuals into clinical standards of care in ambulatory, long-term, and congregate care settings.
- Integrate electronic health records (EHR) with Immunization Information Systems to ensure accurate vaccination histories.
- Leverage EHR clinical decision support tools and prompts to support timely vaccination recommendation discussions.

Empower Employers

I.Policy

- Adopt supportive vaccination policies that emphasize voluntary participation.
- Invite local healthcare professionals to discuss immunization with employees.
- Provide accurate information on how vaccination reduces workplace disruptions and financial strain.
- Conduct leadership-driven communication campaigns, which also promote multiple vaccination access point opportunities to boost interest and engagement.

II.Accessibility

- Increase convenience through on-site vaccination clinics, mobile units, or pharmacy partnerships.

Encourage Health Plans and Public Programs

- Review and update reimbursement rates for vaccination services across public sector health insurance programs such as Medicaid, Medicare, and VA programs.
- Include transparent quality indicators to support sustainable vaccine delivery and outreach.
- Incorporate vaccination performance metrics into quality improvement programs.
- Align nationally recognized standards with health plan reporting, public program quality frameworks, and value-based care models.
- Mandate that insurers and pharmacy benefit management companies provide clear and accessible information regarding plan vaccine coverage.

Increase Public Awareness

- Partner with business and employer groups to develop and widely disseminate evidence-based education campaigns.
- Offer vaccination materials and messages that are simple, consistent, culturally responsive, and multilingual.
- Integrate vaccine education into all patient touchpoints, including primary care, specialty care, telehealth, pharmacies, community events, and employer clinics.
- Use digital tools such as patient portals and SMS reminders to reinforce vaccination information.

Conclusion: A High-Value Public Health Investment

Influenza remains a major public health and economic challenge in the United States. The evidence is clear: influenza imposes tens of billions of dollars in annual costs. Adult vaccination reduces deaths and hospitalizations, and improving vaccination rates could save thousands of lives and billions of dollars each year. Increasing adult vaccination coverage is a high-value public health investment with substantial economic and societal benefits.

References

1. Popovian, R., & Winegarden, W. (2025). *Influenza's Economic Burden and the Impact of Adult Vaccination*. medRxiv. <https://doi.org/10.64898/2025.12.23.25342685>
2. Centers for Disease Control and Prevention. *Seasonal Influenza Burden Estimates*.
3. U.S. Bureau of Labor Statistics. *Employment and Wage Data*.