

Flu Vaccination Rate Disparities: Using Rhode Island as a Model for Promoting Flu Vaccination

Aashish Batheja, MPH, Rajesh Balkrishnan, Ph.D.

Background:

Influenza viruses



"Flu"

Cough, fever, fatigue, death, etc.¹

- Flu vaccine recommended at 6 months or older (CDC)

Reduced risk of contracting flu by up to 60%²

Reduced severity of flu illness²

- Flu vaccine is highly effective but LESS THAN HALF the adults in the United States received flu coverage in the 2021-2022 influenza season³

- Immense annual economic burden⁴

Direct costs

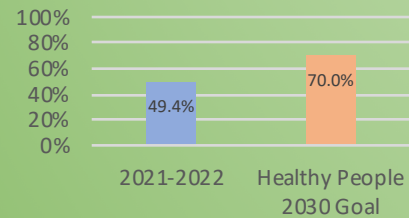
> \$3 billion

Indirect costs

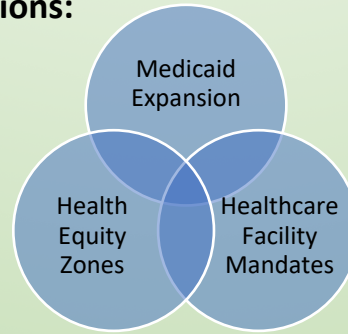
~ \$8 billion

\$8000-\$39000 (US \$2015)/QALY saved^{*5}

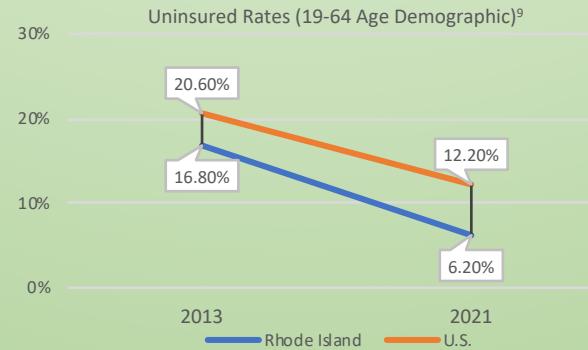
*for 18-64 age demographic



Interventions:



Medicaid Expansion



- Insurance status = predictor of flu vaccination status
- Flu vaccination increased more in states with Medicaid expansion compared to states without Medicaid expansion in the 2012-2017 timeframe⁸
 - Rhode Island was classified as an immediate post-expansion state beginning expansion in 2014⁸
- Many potential confounders and limitations

Health Equity Zones

- Leverage pre-existing infrastructure such as schools, nursing homes, and community clinics distribute the flu vaccine on the community level¹
- Rhode Island Department of Health demonstrated a strong commitment to increase healthcare access and convenience
 - Support underserved populations

Healthcare Facility Mandate

- As of 2020, Rhode Island has implemented state mandates for their healthcare facilities to offer the flu vaccine to their employees¹⁰
- Healthcare workers are important to vaccinate:
 - Increased proximity to flu patients relative to the general population
 - Hospitalized patients with compromised immune systems
- Mandate unifies the state government and healthcare system under a common public health goal

Conclusions:

- Rhode Island boasts the highest adult flu vaccination rate in the U.S. at 64.4%³
 - Top position for adult flu vaccination rates since the 2017-2018 season⁷
 - Since then, Rhode Island has increased its adult flu vaccination rate by over 20%, compared to a national increase in that same time from of 12.3%⁷

Table 1. Adult Flu Vaccination Rates By Year⁷

Year	Rhode Island	U.S. National Average
2017-2018*	43.8%	37.1%
2018-2019	56.3%	45.3%
2019-2020	56.8%	48.4%
2020-2021	64.0%	50.2%
2021-2022	64.4%	49.4%

*Rhode Island ranked 5th in adult flu vaccination rate in this year

- Increasing flu vaccination rates is a major public health goal that needs to be further prioritized if the U.S. wants to reach the 70% benchmark set by Healthy People 2030³
- Examining state initiatives provides valuable insights into strategies that may promote flu vaccination

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Disparities in Flu Vaccination Rates

Racial⁶

- White, non-Hispanic: 53.9%
- Other, non-Hispanic: 47.9%
- Black, non-Hispanic: 42.0%
- Hispanic: 37.9%

Socioeconomic⁶

- "Need to delay medical care due to cost" = 0.7x probability of being vaccinated against flu
- No health insurance → half as likely to obtain flu vaccine

Geographic³

- Range from 64.4% (Rhode Island) to 37.8% (Mississippi)