

Aligning Systems for Equitable Vaccination Access: The National Aging and Disability Vaccination Collaborative

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Meet The Team

UC Berkeley

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Collaborators/ Funders

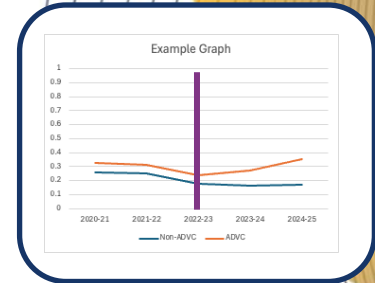
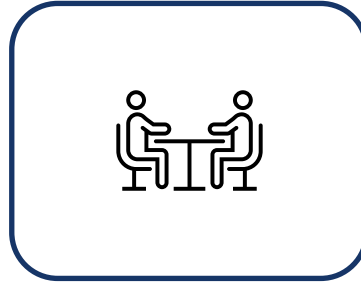


- Jennifer Hammer
- Sara Maloney
- Deborah Stone-Walls
- Traci Wilson

Systems for Action

Systems and Services Research to Build a Culture of Health

3 research approaches for learning from ADVC:



1. Cross-sectional analyses of how ADVC events reached minoritized racial/ethnic populations with vaccinations.

2. Qualitative analysis Interviews with CBOs and meeting observations to document strategies challenges, adaptations.

3. Quasi-experimental study with IQVIA data on all influenza & COVID-19 vaccinations nationally (2021-25) to test effects on vaccination rates/ equity.

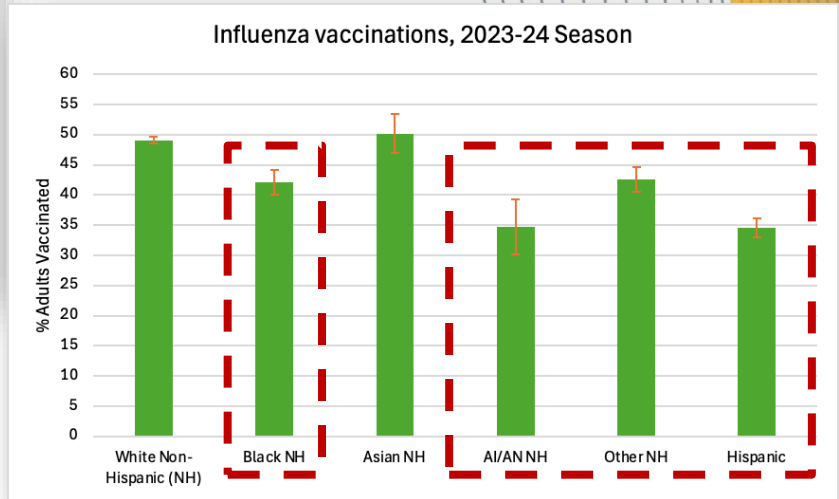
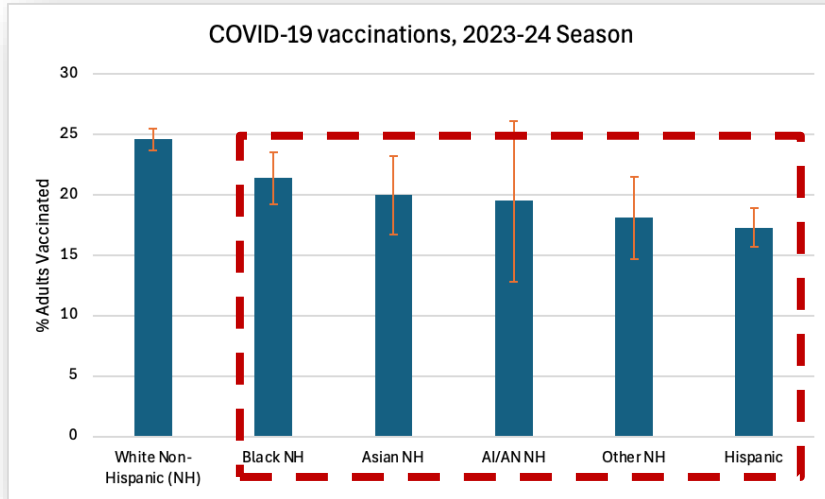
Agenda

1. Recap on Aging and Disability Vaccination Collaborative (ADVC) and prior findings
2. New results from analysis in progress: difference-in-difference study of ADVC impacts on COVID-19 vaccination rates, using IQVIA vaccine data

Importance of seasonal vaccination

- Seasonal vaccination reduces severe illness, hospitalization, and mortality from viruses like **influenza and COVID-19**.
- **Older adults & people with disabilities** face high risk.
 - 28,000 influenza deaths (~70% older adults) in 2023-24
 - 76,446 COVID-19 deaths (~90% older adults) in 2023-24
- Still, many do not get these important vaccinations
 - ~30% of older adults **failed to get** updated flu shot and
 - ~50% **failed to get** updated COVID-19 shot in most recent year

Inequities in COVID-19 and influenza vaccination rates



Mechanisms behind disparities by race/ ethnicity

Intent to pursue
vaccination

Access to
vaccination

Getting
vaccinated

Targeted misinformation,
insufficient health information in
patients' preferred languages,
discrimination, mistrust based on
past racism

Racialized distribution of
economic and practical barriers
to access (e.g., pharmacy
locations farther away, time
scarcity, financial barriers, etc.)

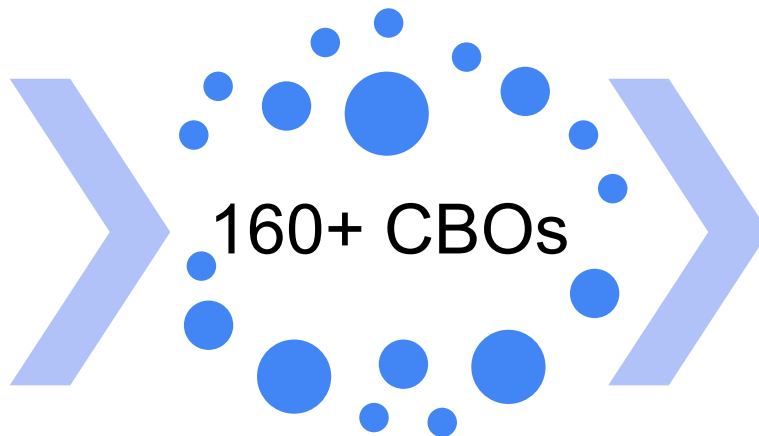


Intervention: Aging and Disability Vaccination Collaborative

- **Federal initiative** ran 2023-2025
- **Purpose:** increase vaccine access through partnerships between social service, public health, and healthcare organizations.
- Intended to **prioritize reaching people who faced additional barriers**, including aspects of identity such as:
 - Race/ ethnicity, LGBTQ+, Low income, Limited English proficiency



ADVC supported many local CBO initiatives



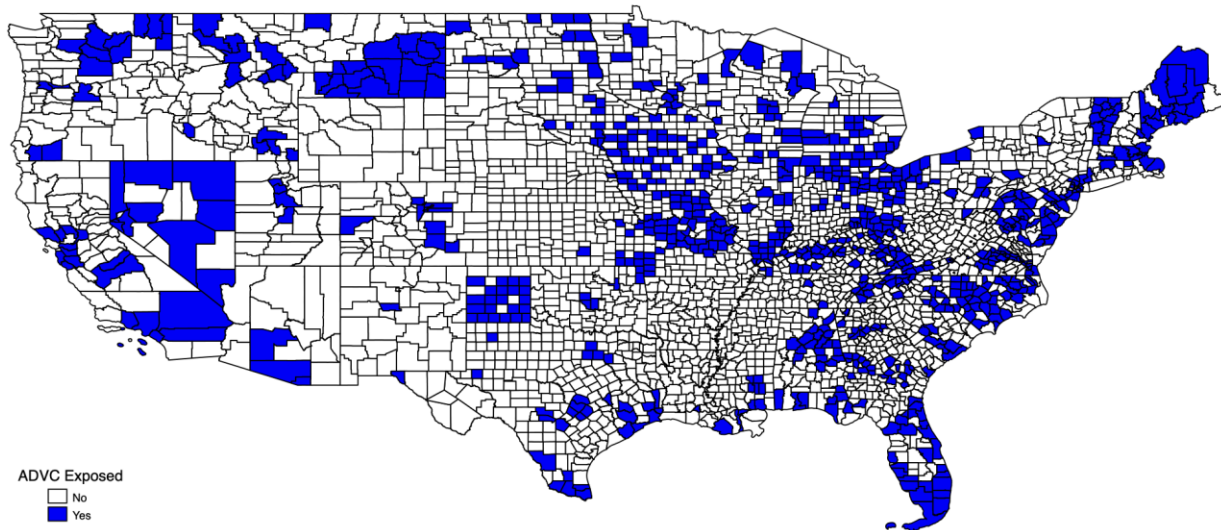
\$75M federal initiative (begins 2023)

Area Agencies on Aging, Centers for Independent Living, other nonprofits

Vaccination events, support & education (2023-25)

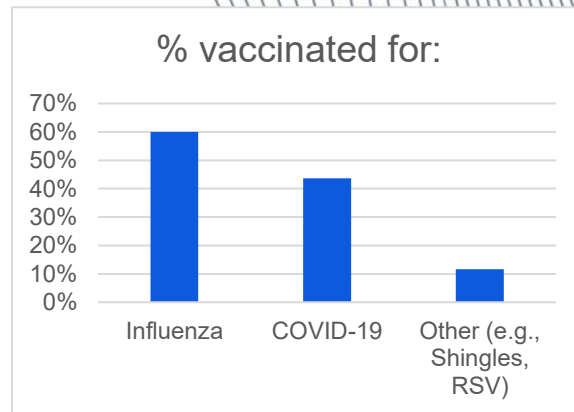
ADVC vaccination events widespread nationally

Counties Exposed to ADVC (Locations of Grantees or Vaccination Events)



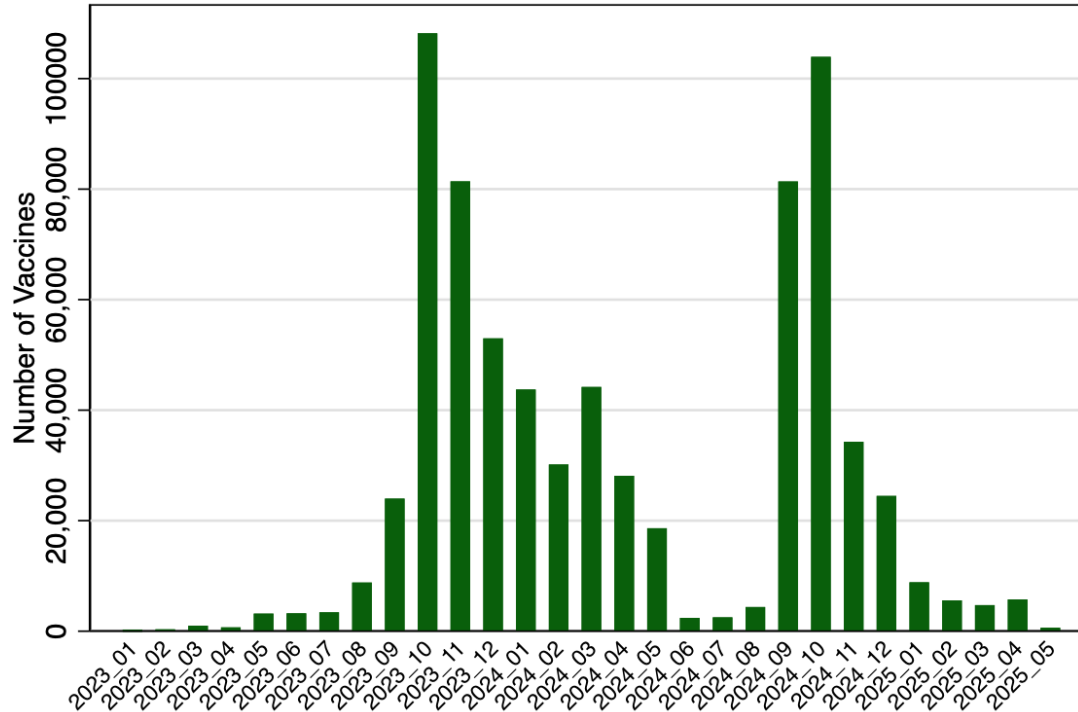
Total of:

- **781,209** vaccinations distributed
- **9,285** community vaccination events



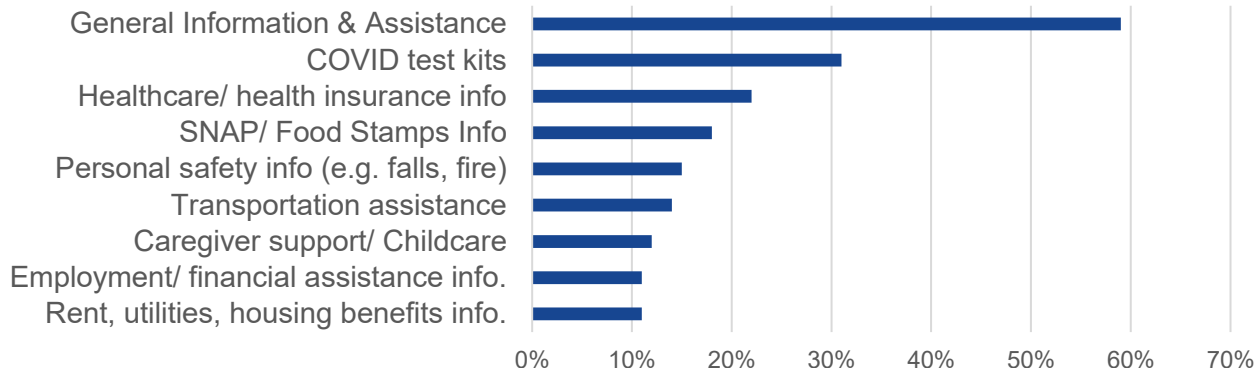
ADVC active in 2023-24 and 2024-25 vaccination seasons

Vaccines Distributed at ADVC Events per Month

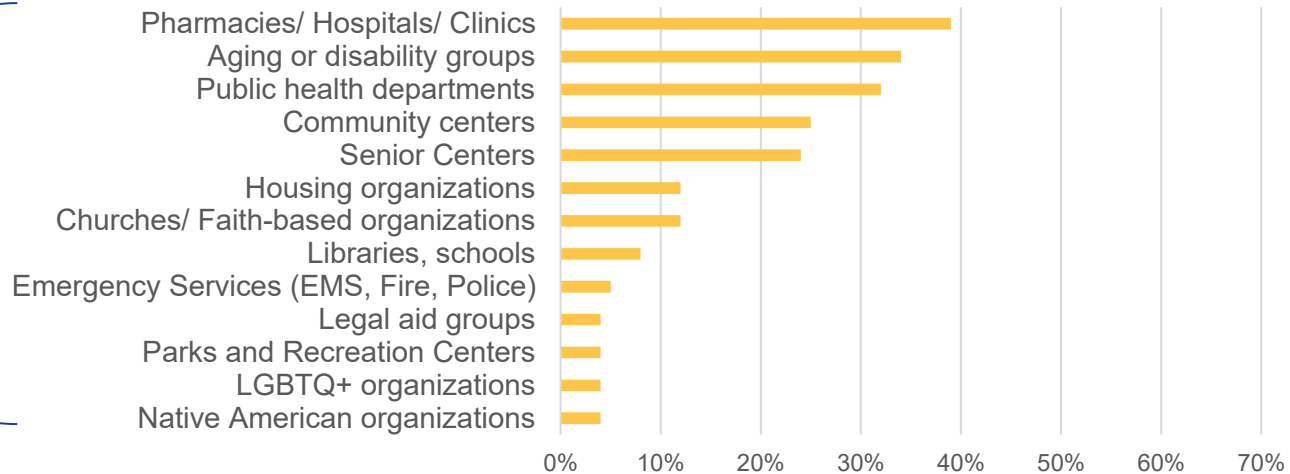


These CBO-led vaccination events also...

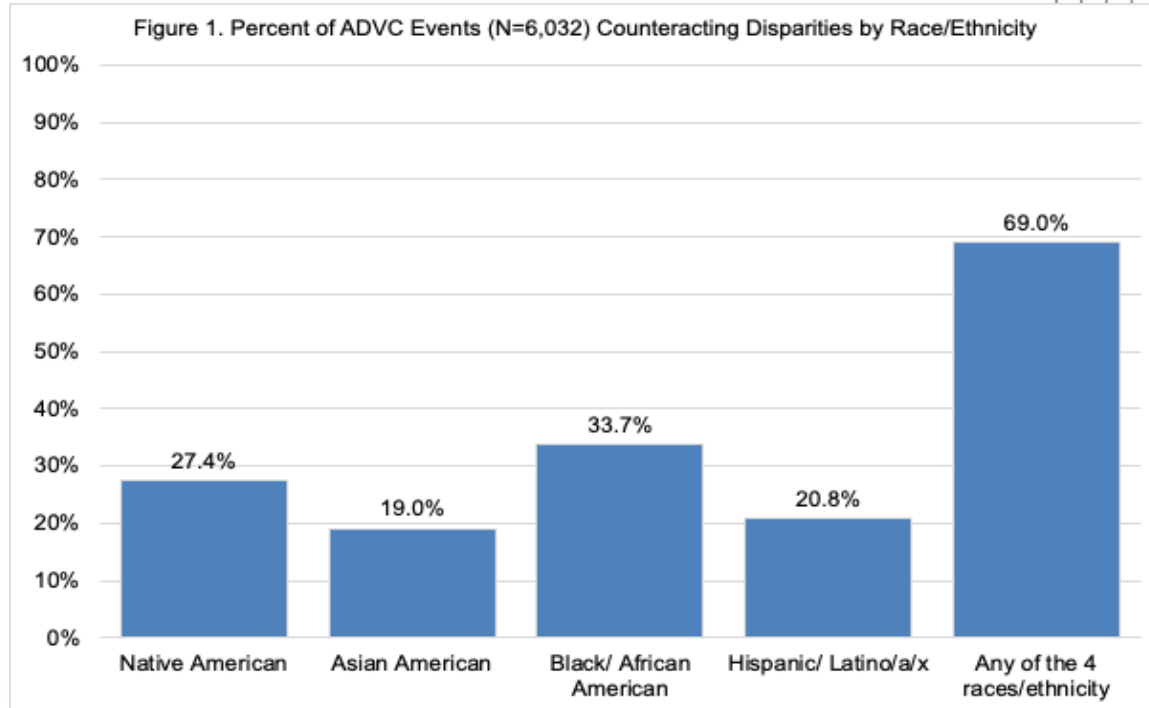
Combined vaccination with additional services to support multiple determinants of health



Were organized in partnership with a range of other community organizations



Of ADVC events (6,032), 69.0% counteracted disparities for one or more of the focus populations



Interviews: CBO strategies for reaching race/ethnicity populations that had faced disparities in vaccination rates:

Integrating vaccine efforts with existing partnerships and events

“We, through kind of trial and error, found out that if there was already an event happening and people were in one place, the vaccinations were more plentiful, and things went more smoothly – if there was already a group of people meeting for a reason” (CIL #3).

Collaborating with other locally-embedded organizations

“[A predominantly African American church in the area] traditionally has a hard time giving out vaccines, so we gave them part of our funding to reach their congregation. They were able to reach, I think, 200 shots in a few months.” (Nonprofit #17)

Conclusions from phases 1/2

Examine whether ADVOC model counteracted disparities

- 69% of ADVOC events over-represented at least one race/ethnicity population that typically experiences lower vaccination rates nationally

Analyze event strategies

- Offering resources for social needs and targeted events to focus populations was correlated with counteracting disparities for specific populations

Use qualitative interviews to interpret

- Local partnerships supported access

Phase 3: Assessing impacts on population-level COVID-19 vaccination – now in progress

- Understand if ADVC increased vaccinations or supported vaccinations that would have happened anyway. Capture effects of communications campaign/ education.
- Examine potential differential impacts by race/ethnicity by leveraging zip/code level residential segregation.
- Dynamic difference-in-difference design, examining whether places exposed to ADVC experienced greater change in vaccination rates over time, compared with non-exposed places.

Data Source

- Data: IQVIA LRx pharmacy dispensing data 2020-2025
- Covers ~90% of U.S. COVID-19 vaccinations
- Allows us to calculate vaccination rates for specific areas, over time
- We also have LRx dispensing data on influenza vaccines, but it has lower coverage of influenza vaccines (~60%).

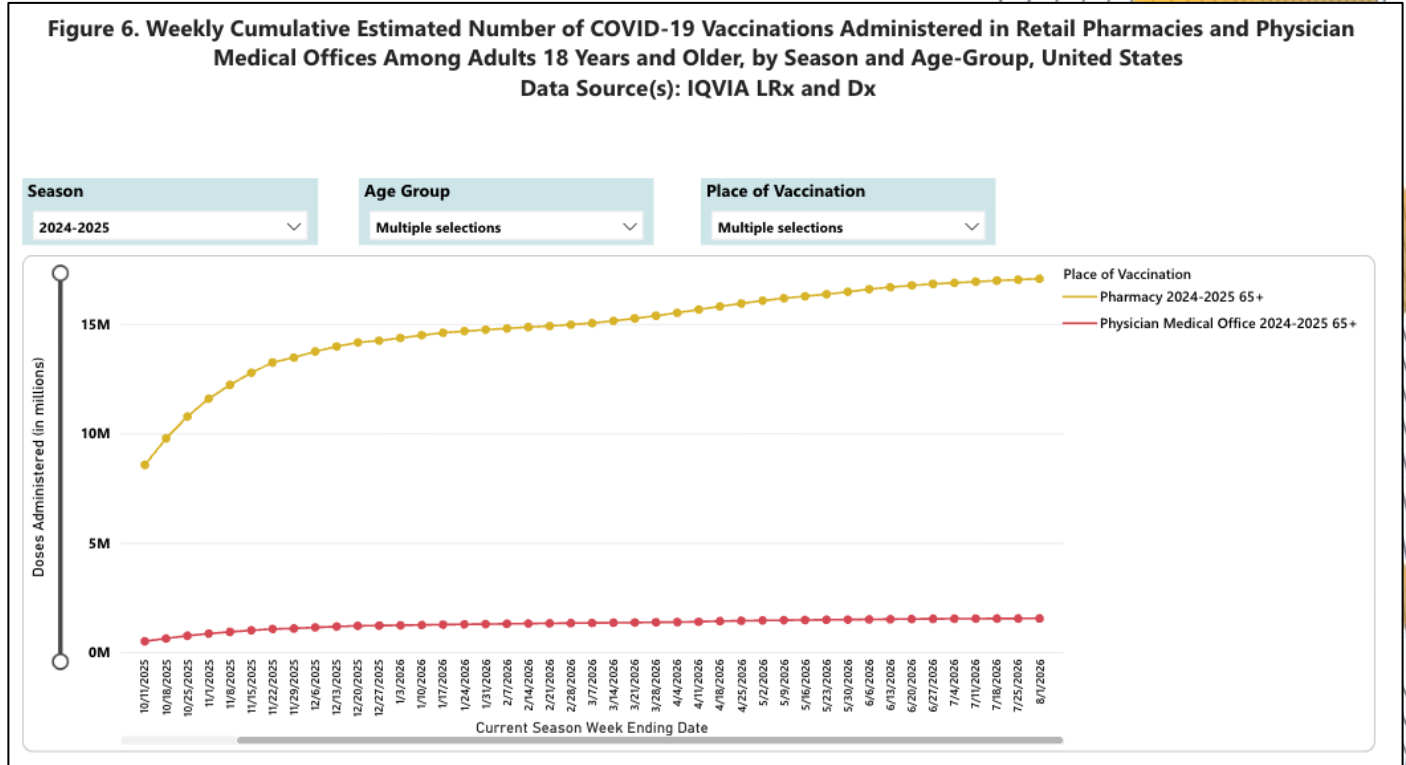
Same data used by CDC for national estimates

Top/yellow line:

LRx pharmacy
COVID vax (what we
have)

Bottom/red line:

Dx Physician Medical
Office COVID vax
(what we don't have)



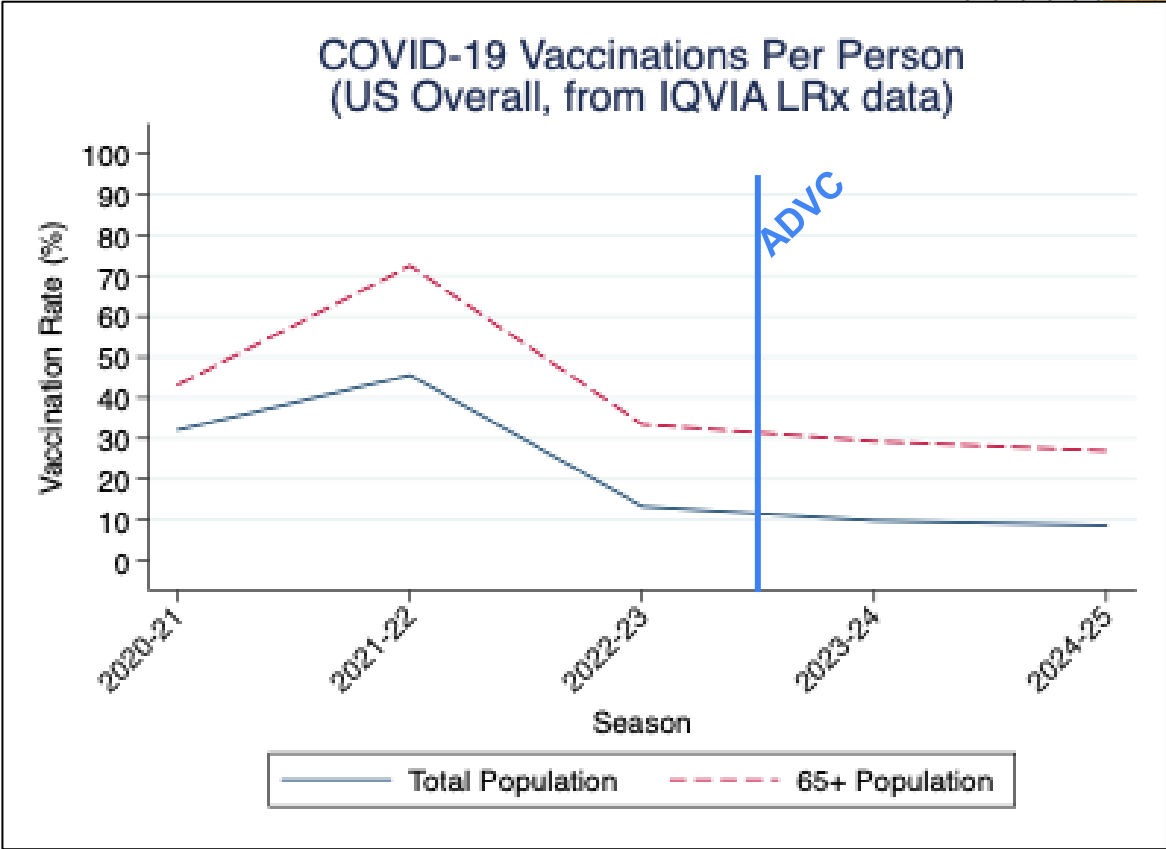
IQVIA estimates broadly aligns with other sources

- LRx estimates similar vaccination coverage as Medicare
- Self-reported survey estimates for COVID-19 vaccination among adults 65+ (CDC National Immunization Surveys) are higher than both administrative data sources, likely due to:
 - Unmet goals
 - Desirability bias
 - Unrecorded vaccinations

Descriptive Trends from our LRx Data

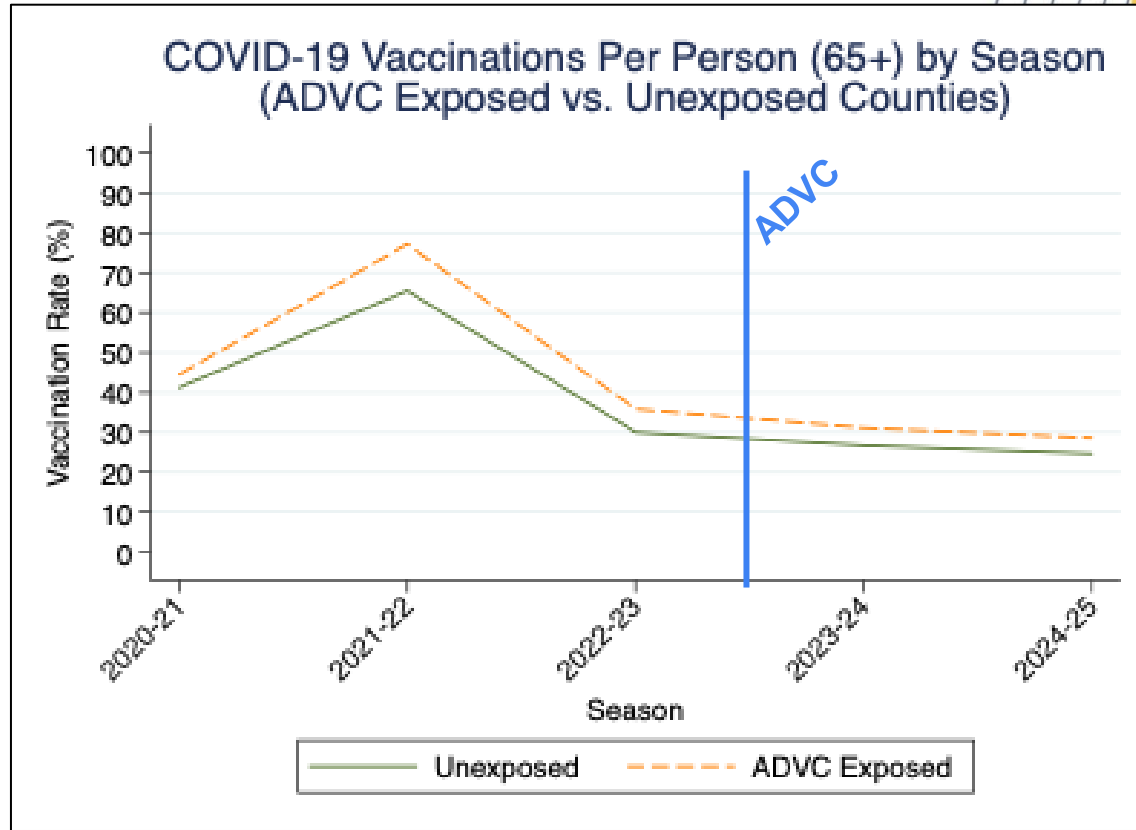
- We acquired data from 2020-2025
- Annualize to vaccination seasons (August to July)
- 5 vaccination seasons
 - 2020-21
 - 2021-22
 - 2022-23
 - 2023-24
 - 2024-25

Descriptive trends: nationwide



Descriptive trends: adults 65+, by ADVC exposure

ADVC Exposure:
Counties where
ADVC grantees or
events were located



Difference-in-difference design

- The main specification will examine zip code level vaccination rates.
 - Vaccination data does not have race/ethnicity, but 5-digit zip codes are small enough that substantial segregation exists by race and ethnicity across US.
 - We do have 5-digit zip code of each vaccination, matched to Census demographics.
- Analysis will examine vaccination trends specifically in zip codes with highest shares of 4 populations with seasonal vaccination disparities:
 - Asian American; Black/ African American; Hispanic/Latino; Native American
- Test if ADVC improved vaccination rates in those places.

Preliminary analyses: county-level

- While preparing zip code-level data, have examined county-level.
 - Scale: there are about 3,000 counties, about 30,000 zip codes
- Examines within-county change in vaccination rates over time (fixed effects for county)
- Adjusts for time-varying characteristics that might impact trends in vaccination within county (population, lagged COVID-19 mortality, unemployment rate)
- SE clustered by county

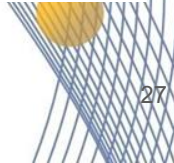
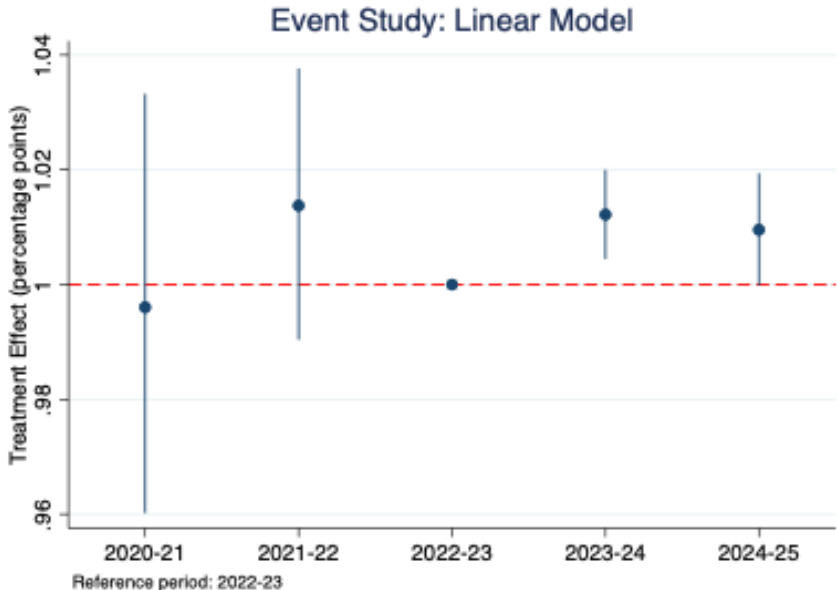
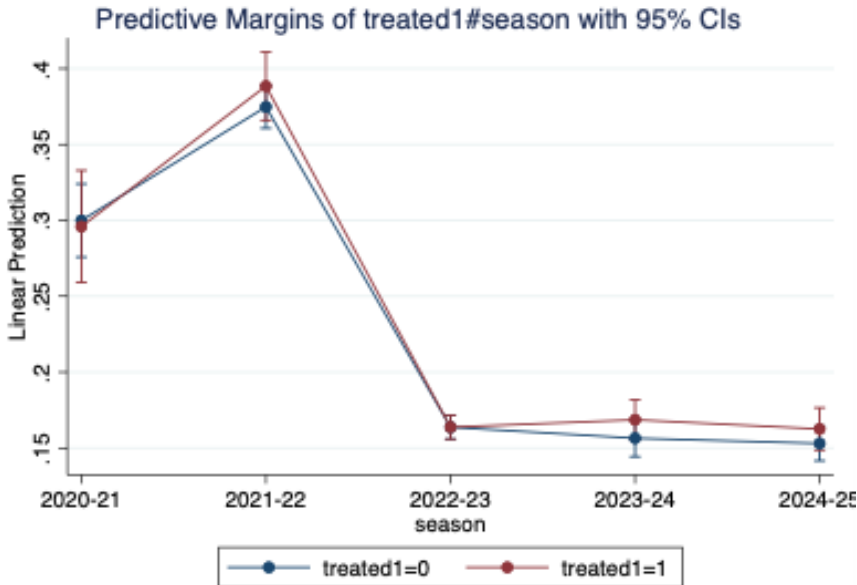
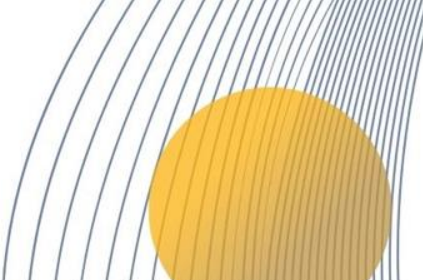
Preliminary Results: All counties

- Examined impact of ADVC exposure on county-level vaccination rates for adults age 65+
- Non-parallel pre-trends in the full sample of 2,670 counties
 - Also significant effects and interactions with county size
 - Population of counties in sample ranged widely in size:
 - 2,000 – 10 million people
- ADVC dose was the same in all grants... (~\$250,000)
- Makes sense to focus on smaller counties

Preliminary Results: Small counties

- Divided sample in half to look at smaller counties (<31,000 people)
- Now do see pre-trends parallel
- And see positive impact of ADVC exposure on vaccination rates for older adults 65+

Preliminary results: Small counties

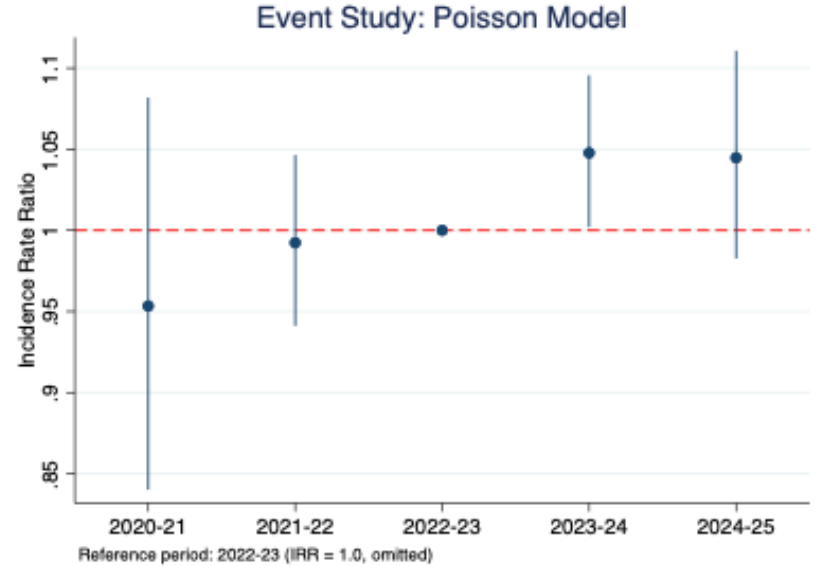
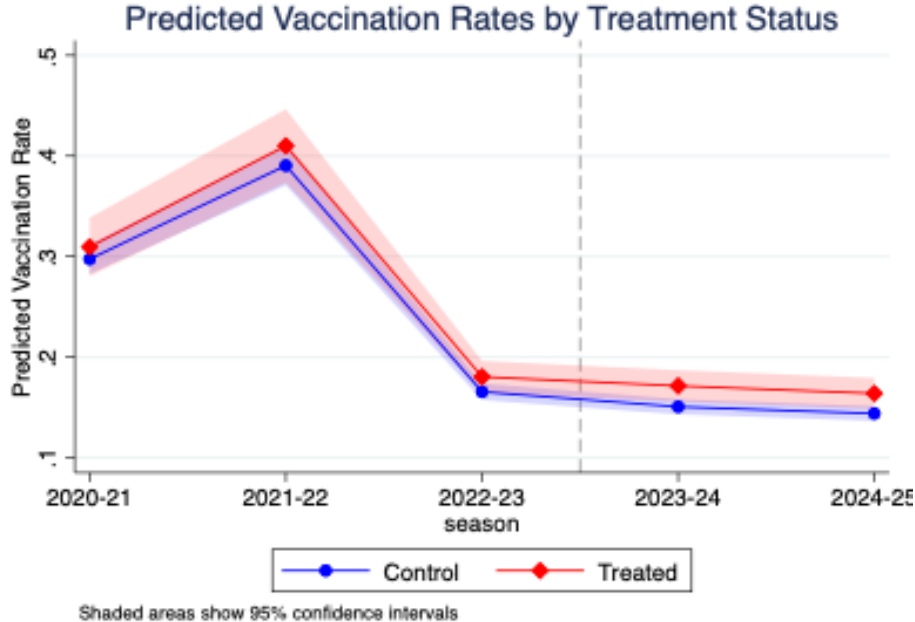


Preliminary Results: Small counties

Linear Fixed Effects Regression of Age 65+ Vaccination Rates, Small Counties		
	Vaccination Rate adults 65+	
	b	p
ADVC exposed # 2020-21	-0.004	0.832
ADVC exposed # 2021-22	0.014	0.251
ADVC exposed # 2022-23	0.000	.
ADVC exposed # 2023-24	0.012	0.002
ADVC exposed # 2024-25	0.010	0.055
Log county population	0.534	0.006
Lagged COVID-19 mortality rate	0.000	0.009
Unemployment Rate (%)	-0.022	0.957
Observations	5874	
R^2	0.384	
Adjusted R^2	0.383	

Reference period: 2022-23. P-values in parentheses.

Preliminary results: Small counties – poisson specification



Take aways so far

- Study design using IQVIA data continues to look feasible
- Population-level impacts of ADVC are evident in smaller sized counties, for COVID-19 vaccination rates age 65+
 - ~8% increase in 2023-24
 - ~6% increase in 2024-25
- Next step: complete checks on zip code-level datasets, run 4 separate analyses

Perspective from ADVC implementation team

Sara Maloney, MPA, MA

Director of the Aging and Disability Vaccination Collaborative (ADVC), the Center for Dementia Respite Innovation (CDRI) and Caregiver Navigation Services



Thank you!

Questions and feedback?

