

Characterizing Social Determinants of Health of the Population Receiving Respiratory Syncytial Virus Vaccination in a Nationwide Network in the United States

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BACKGROUND

- Respiratory syncytial virus (RSV) can cause severe illness. The Centers for Disease Control (CDC) recommends RSV vaccination for older adults including those at higher risk for severe disease.[1] Most RSV vaccinations in this population are given in retail pharmacies. [2]
- Uptake of routinely recommended vaccines among US adults remains low and socially vulnerable populations experience barriers which may limit their access to vaccination. [3-4]

OBJECTIVE

- This study describes the social vulnerability characteristics of patients receiving RSV vaccination at a national pharmacy network.

METHODS

- RSV vaccination records were identified from a national retail pharmacy immunization database from April 2023 to December 2024.
- CDC Social Vulnerability Index (SVI) [5] is a score that ranges from 0 to 1. The SVI is comprised of 4 constituent themes (Socioeconomic Status, Household Characteristics, Racial & Ethnic Minority Status, Housing Type/Transportation) and 16 factors. Higher values correspond to higher vulnerability.
- SVI was linked to the immunization database by zip code of patient's residence.
- Tests were summarized by quintiles of overall SVI and its 4 constituent themes and 16 factors. The first and fifth quintiles indicate least and most vulnerable communities, respectively.

RESULTS

- Across national retail pharmacy locations, 3,370,867 RSV vaccinations were given in 3,347,578 patients 60 years or older from August 2023 through December 2024.
- Study population characterization: 56.7% of patients were 60-74 years old, 43.3% 75 years or older, and 55.9% were female.
- The 4th and 5th quintiles together accounted for 54.8% of the RSV vaccination population, demonstrating greater social vulnerability than would be expected in the general population.
- The strongest drivers of social vulnerability within the combined 4th and 5th quintiles were:
 - 56.3% Socioeconomic Status - Housing Cost Burden;
 - 66.7% Racial & Ethnic Minority Status;
 - 77.8% Household Characteristics - Limited English Language Proficiency; and
 - 85.4% Housing Type - Multi-Unit Structures.

Table 1. Quintiles of Social Vulnerability Indices

	SVI Quintiles				
	<0.2	≥0.2 - <0.4	≥0.4 - <6.4	≥0.6 - <8.4	≥0.8 - 1
SVI Category	3.6	16.2	25.4	27.2	27.6
Socioeconomic Status	20.6	23.5	19.5	17.7	18.6
Below 150% Poverty	31.3	27.3	18.4	14.5	8.5
Unemployed	2.6	24.3	35.2	26.9	11.1
Housing Cost Burden	4.7	16.0	23.0	29.0	27.3
No High School Diploma	25.5	28.1	20.0	15.1	11.3
No Health Insurance	20.6	26.6	22.1	19.3	11.5
Household Characteristics	3.6	13.9	30.5	31.0	20.9
Ages 65 & Older	19.7	27.7	24.0	18.6	10.0
Ages 17 & Younger	11.9	24.2	27.3	23.4	13.1
Civilian with a Disability	32.0	31.2	20.5	12.3	4.0
Single-Parent Households	1.6	15.8	28.8	31.6	22.1
English Language Proficiency	4.3	-	17.9	37.0	40.8
Racial & Ethnic Minority Status	1.9	9.3	22.1	34.1	32.6
Housing Type/Transportation	1.9	6.7	22.2	34.5	34.7
Multi-Unit Structures	4.8	-	9.8	28.1	57.3
Mobile Homes	39.3	32.7	15.9	7.9	4.3
Crowding	4.6	16.2	30.4	25.8	23.0
No Vehicle	3.5	21.1	27.4	26.5	21.5
Group Quarters	7.6	-	31.5	37.7	23.2

CONCLUSIONS

- A high percentage of the population receiving RSV vaccination at a national retail pharmacy network came from vulnerable communities.
- Community-based immunizations may help address the structural and social barriers to healthcare access that are associated with known inequities in these vulnerable populations.

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