A STATE-LEVEL LOOK AT FLU VACCINATION RATES AMONG KEY POPULATION SUBGROUPS

SHADAC's analysis of 2017-2019 Behavioral Risk Factor Surveillance System (BRFSS) Data.

Texas

Though there is no consensus on one singular figure needed to achieve what is commonly known as "herd immunity" (i.e., sufficient levels of COVID vaccinations in order to achieve protective population immunity) scientists and researchers have generally agreed on a range of 70-90% of the population being vaccinated. For simplicity, we use the lower end of the target range (70%) as a comparison for these state profiles.

Using data from the U.S. Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) survey, these profiles give a deeper look into flu vaccination rates across the states among U.S adults (age 18 +) as a proxy to identify population subgroups that may be harder to reach with a COVID-19 vaccine.
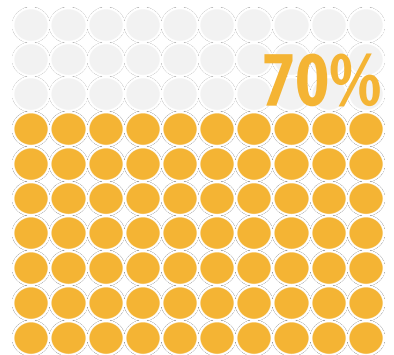
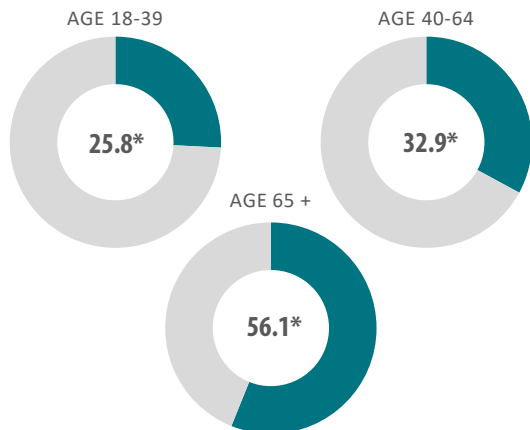## State Flu Vaccination Rate vs. COVID-19 Herd Immunity Threshold
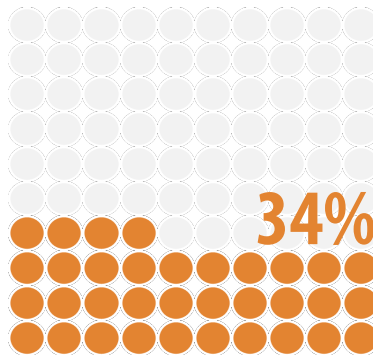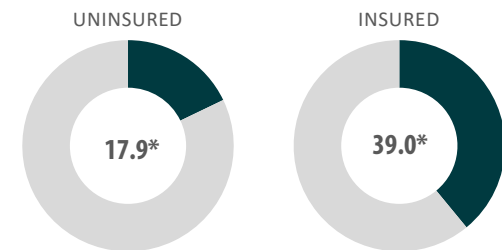
STATE RATE
34%

HERD IMMUNITY THRESHOLD
70%

Flu Vaccination Rates by Age
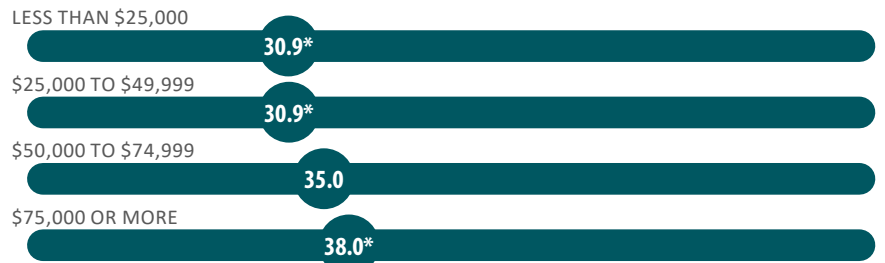
AGE 18-39
25.8*

AGE 40-64
32.9*

AGE 65 +
56.1*

Flu Vaccination Rates by Race/Ethnicity

WHITE	38.4*
BLACK/AFRICAN AM.	30.2*
HISPANIC	29.9*
ASIAN/PACIFIC ISLANDER	36.0
AM. INDIAN/AK NATIVE	27.2
OTHER/MULTIPLE	30.9

Flu Vaccination Rates by Insurance Status

UNINSURED
17.9*

INSURED
39.0*
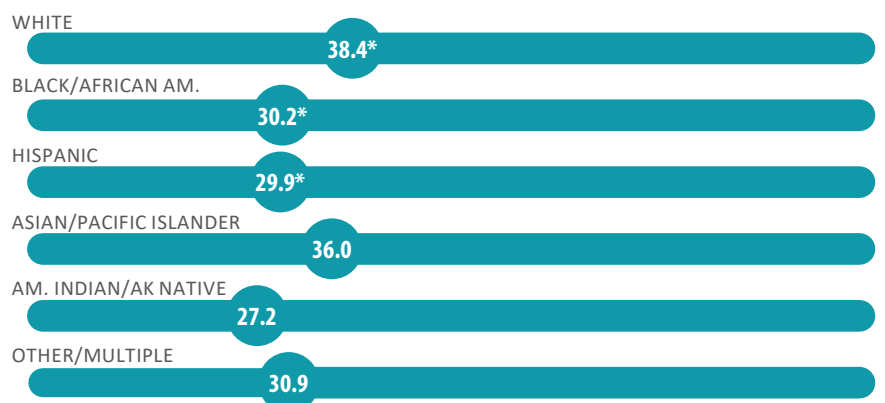
Flu Vaccination Rates by Household Income

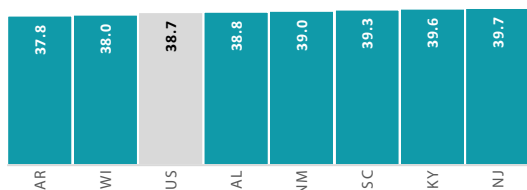|	
LESS THAN $25,000	30.9*
$25,000 TO $49,999	30.9*
$50,000 TO $74,999	35.0
$75,000 OR MORE	38.0*

* Significantly different from the statewide rate (adults age 18+) at 95% confidence level.

State vs. National Adult Flu Vaccination Rates

18 STATES had flu vaccine rates significantly below the U.S. rate.

NV	LA	GA	TX	WY	FL	ID	AK	AZ	IN	TN	MS	IL	OR	MI	UT	NY	CA
32.7	33.1	34.0	34.2	34.6	34.9	35.1	35.3	35.4	35.6	35.6	35.7	36.1	36.5	37.0	37.1	37.7	37.7
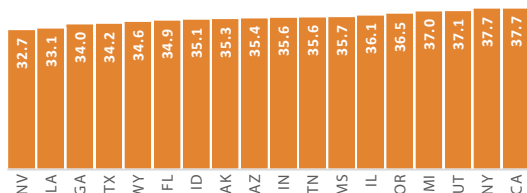
7 STATES had flu vaccine rates that were not significantly different from the U.S. rate.

AR	WI	US	AL	NM	SC	KY	NJ
37.8	38.0	38.7	38.8	39.0	39.3	39.6	39.7

27 STATES and D.C. had flu vaccine rates significantly above the U.S. rate.

OH	MT	KS	HI	ME	NH	MO	OK	VT	CO	DE	ND	CT	MA	WA	MN	VA	SD	DC	WV	PA	RI	IA	NE	MD	NC
39.5	39.7	40.1	40.3	41.0	41.4	41.7	42.1	42.1	42.2	42.3	43.3	43.4	43.6	43.6	43.7	43.8	43.9	44.1	44.2	44.4	44.8	44.9	45.0	45.4	

Legend:
- Significantly below the U.S. rate.
- Significantly above the U.S. rate.
- Not significantly different from the U.S. rate.
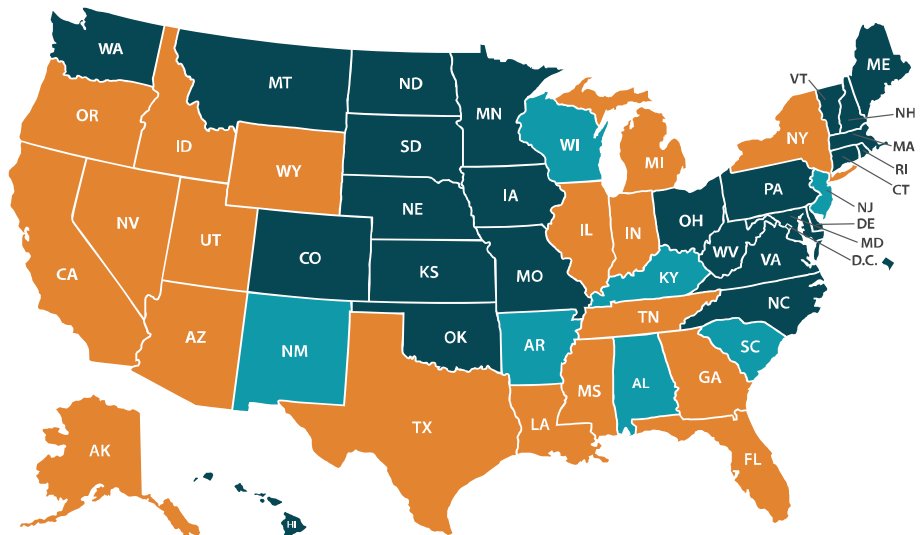
U.S. map with state abbreviations: WA, MT, ND, MN, ME, OR, ID, WY, SD, MN, WI, MI, NY, VT, NH, MA, RI, CT, CA, NV, UT, CO, NE, IA, IL, IN, OH, PA, NJ, DE, MD, D.C., AZ, NM, KS, MO, KY, WV, VA, NC, OK, AR, TN, SC, TX, LA, MS, AL, GA, FL, AK, HI

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Texas	Texas			United States	
	Percent	Diff. from All Adults	Diff. from U.S. rate	Percent	Diff. from All Adults
All Adults Age 18+	34.2		-4.5*	38.7	
Age					
18-39	25.8	-8.4*	-2.7*	28.5	-10.2*
40-64	32.9	-1.2*	-4.3*	37.2	-1.5*
65+	56.1	21.9*	-3.3*	59.4	20.7*
Race/Ethnicity					
White	38.4	4.3*	-3.3*	41.7	3.0*
Black/African American	30.2	-4.0*	-2.6	32.8	-5.9*
Hispanic	29.9	-4.2*	-1.0	30.9	-7.7*
Asian/Pacific Islander	36.0	1.8	-5.4	41.4	2.7*
American Indian/Alaska Native	27.2	-7.0	-6.7	33.9	-4.8*
Other/multiple	30.9	-3.3	-4.0	34.9	-3.8*
Sex					
Male	31.5	-2.7*	-3.9*	35.4	-3.3*
Female	36.7	2.5*	-5.1*	41.8	3.1*
Chronic Condition Status					
No chronic conditions	31.0	-3.1*	-4.4*	35.4	-3.3*
1+ chronic conditions	44.7	10.5*	-4.4*	49.1	10.5*
Health Insurance Coverage					
Uninsured	17.9	-16.3*	0.3	17.6	-21.1*
Insured	39.0	4.9*	-2.6*	41.6	2.9*
Access to Care					
No personal doctor	19.1	-15.1*	-1.0	20.1	-18.6*
Has personal doctor	41.3	7.1*	-2.8*	44.1	5.4*
Educational Attainment (Age 25+)					
All Adults Age 25+	35.3		-4.9*	40.2	
Less than high school	30.7	-4.6*	-3.3*	34.0	-6.1*
High school graduate	29.0	-6.2*	-6.5*	35.6	-4.6*
Some college or associate's degree	35.4	0.1	-3.4*	38.8	-1.4*
Bachelor's degree or higher	43.0	7.7*	-4.9*	47.9	9.2*
Household Income					
Less than $25,000	30.9	-3.3*	-3.9*	34.8	-3.9*
$25,000 to $49,999	30.9	-3.2*	-5.6*	36.5	-2.2*
$50,000 to $74,999	35.0	0.9	-3.5*	38.6	-0.1
$75,000 or more	38.0	3.8*	-4.8*	42.8	4.1*

Notes: Adults defined as 18 years of age and above, except where explicitly noted under the educational attainment. All differences are statistically significant at the 95% confidence level.
Source: SHADAC analysis of the 2017-2019 Behavioral Risk Factor Surveillance System (BRFSS) public use files on statehealthcompare.shadac.org