

2017-18 National Immunization Survey Seasonal Influenza

Background

The Texas Department of State Health Services (DSHS) urges everyone six months and older to get vaccinated against influenza, or “the flu”. It is particularly important for pregnant women, young children, older adults and people with chronic health conditions, because people in those groups are at a greater risk of severe complications if they do get the flu.

In order to reach the Immunization Unit goal of eliminating the spread of vaccine preventable disease, it is crucial to measure coverage rates for vaccines across the state. Two surveys are used to estimate influenza immunization coverage in Texas; the National Immunization Survey (NIS) measures coverage in children, while the Behavioral Risk Factor Surveillance System (BRFSS) collects data on influenza immunization in adults.

National Immunization Survey-Flu (NIS-Flu)

The NIS-Flu combines flu vaccination responses collected from NIS-Child (children 19-35 months), NIS-Teen (adolescents 13-17 years), the National Immunization Survey-Childhood Influenza Module, or NIS-CIM, (children 6-18 months and 3-12 years), and the Behavioral Risk Factor Surveillance System (BRFSS) (non-institutionalized adults 18 years and older). NIS-Flu data are used to estimate annual flu vaccination coverage among children 6 months-17 years and adults 18 years and older at the national level, state level, selected local levels, and in some U.S. territories. These NIS-Flu estimates are based solely on parent or guardian reported data (for children) and self-reported data (for adults), in contrast to other modules of the NIS which are verified by provider data.

Key Findings for Influenza Immunization for 2017-18 Season—Children and Adolescents

- Childhood and adolescent influenza vaccination coverage estimates remained stable between the 2016-17 and 2017-18 seasons except for a significant decrease in coverage among the 6 months-4 years age group from 71.9 percent coverage to 65.4 percent coverage (Table 1). Figure 1 shows coverage estimates from the past five influenza seasons.

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- Over the 2017-2018 influenza season, a similar time trend for all child and adolescent age groups can be observed with vaccination increasing sharply between September and October and leveling out around January (Figure 2).
- Texas childhood influenza immunization coverage did not differ from the national average for any reported age groups (Figures 3-4).
 - Influenza immunization coverage in Bexar County among 13-17 year olds (56.4 percent) was significantly higher than the national average.
 - Influenza immunization coverage in City of Houston among all children and adolescents 6 months to 17 years (65.0 percent) was significantly higher than the national average (57.9 percent) and the average for the state (58.0 percent). This difference was driven by a significantly higher coverage rate among the 6 months-4 years age group (75.0 percent) in City of Houston compared to the US (67.8 percent) and Texas (65.4 percent).
- Texas has not met the Healthy People 2020 (HP2020) goal of 70 percent influenza vaccination coverage for any child or adolescent age group.

Table 1. Difference in Influenza Vaccination Coverage Rates for Child and Adolescent Age Groups from the 2016-2017 Season to the 2017-2018 Season in Texas.

	<i>Age groups</i>	<i>2016-17 Season</i>	<i>2017-18 Season</i>	<i>Percent Change between Seasons</i>
<i>Texas</i>	6 mos–17 yrs	60.3%	58.0%	-2.3%
	6 mos–4 yrs	71.9%	65.4%	-6.5% ^{††}
	5–12 yrs	59.8%	60.9%	1.1%
	13–17 yrs	50.3%	48.1%	-2.2%
<i>Bexar County</i>	6 mos-17 yrs	64.4%	60.6%	-3.8%
	6 mos-4 yrs	70.3%	64.7%	-5.6%
	5-12 yrs	68.2%	61.1%	-7.1%
	13-17 yrs	53.3%	56.4%	3.1%
<i>City of Houston</i>	6 mos-17 yrs	64.9%	65.0%	0.1%
	6 mos-4 yrs	72.8%	75.0%	2.2%
	5-12 yrs	64.2%	65.5%	1.3%
	13-17 yrs	57.8%	53.5%	-4.3%

^{††}Statistically significant decrease in influenza coverage.



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Figure 1. Influenza Vaccination Coverage Estimates for Texas, 2013-14 Season to 2017-18 Season by Age Group.

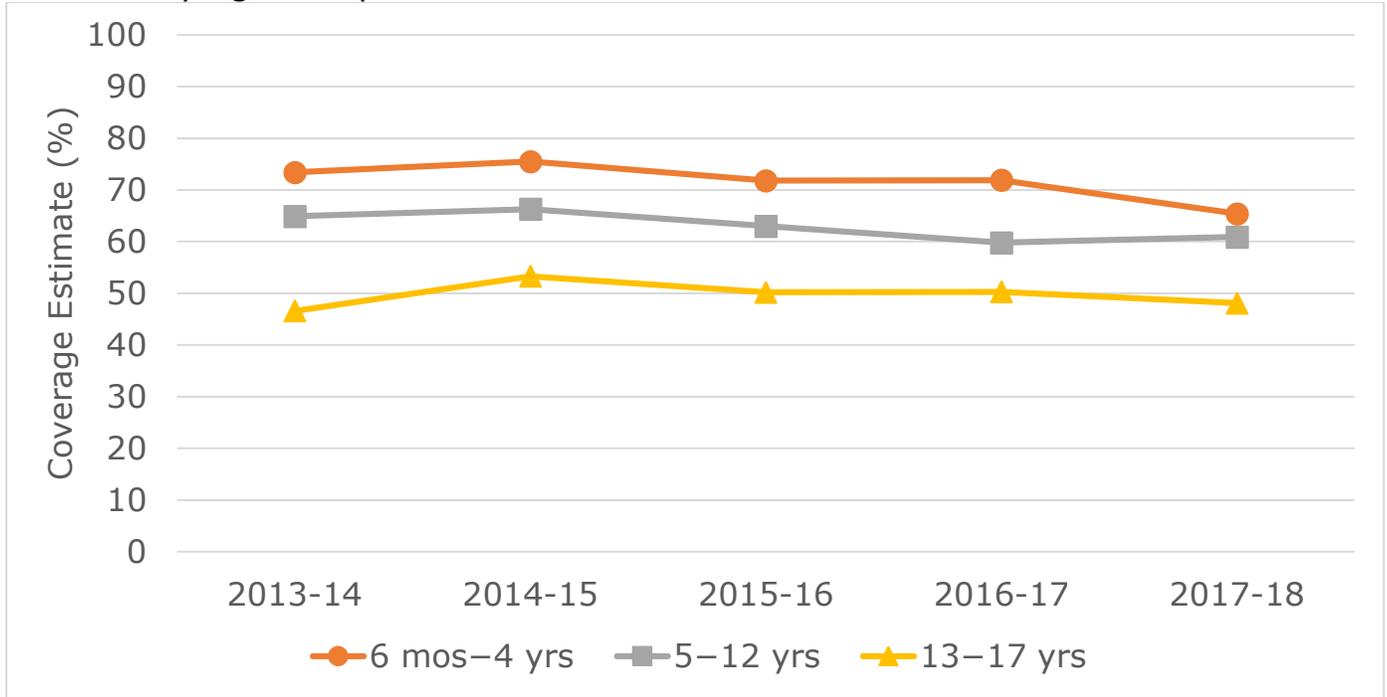
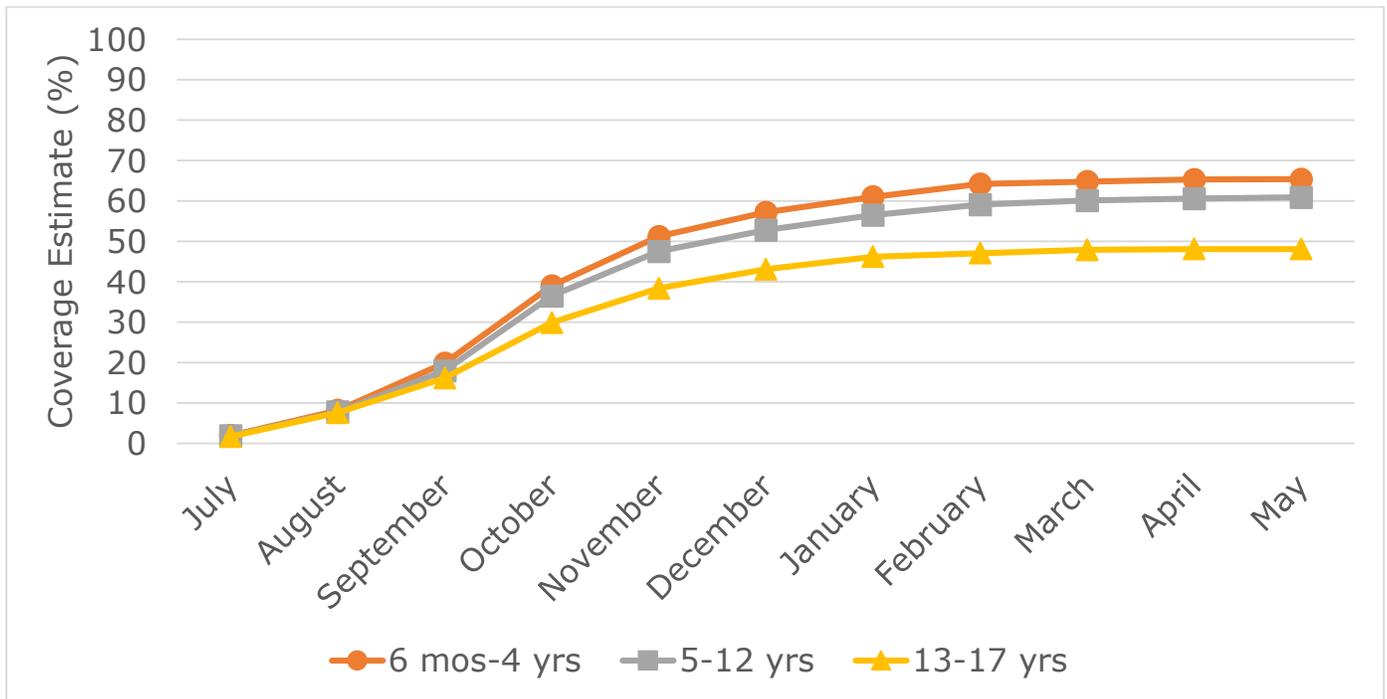


Figure 2. Monthly Time Trend for Influenza Vaccination in Texas by Age Group, 2017-2018 Season.



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Figure 3. Influenza Immunization Coverage Estimates for Children and Adolescents 6 Months-17 Years, US, Texas, and Local Jurisdictions, 2017-2018 Season.

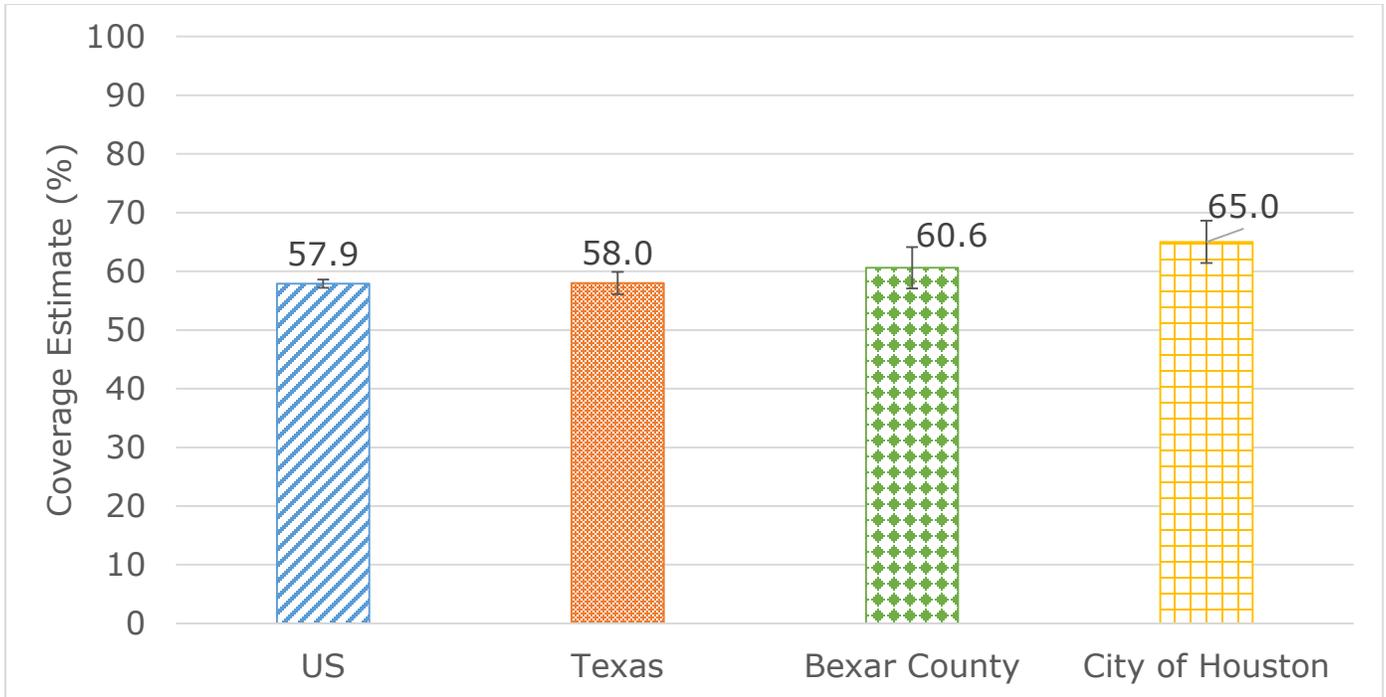
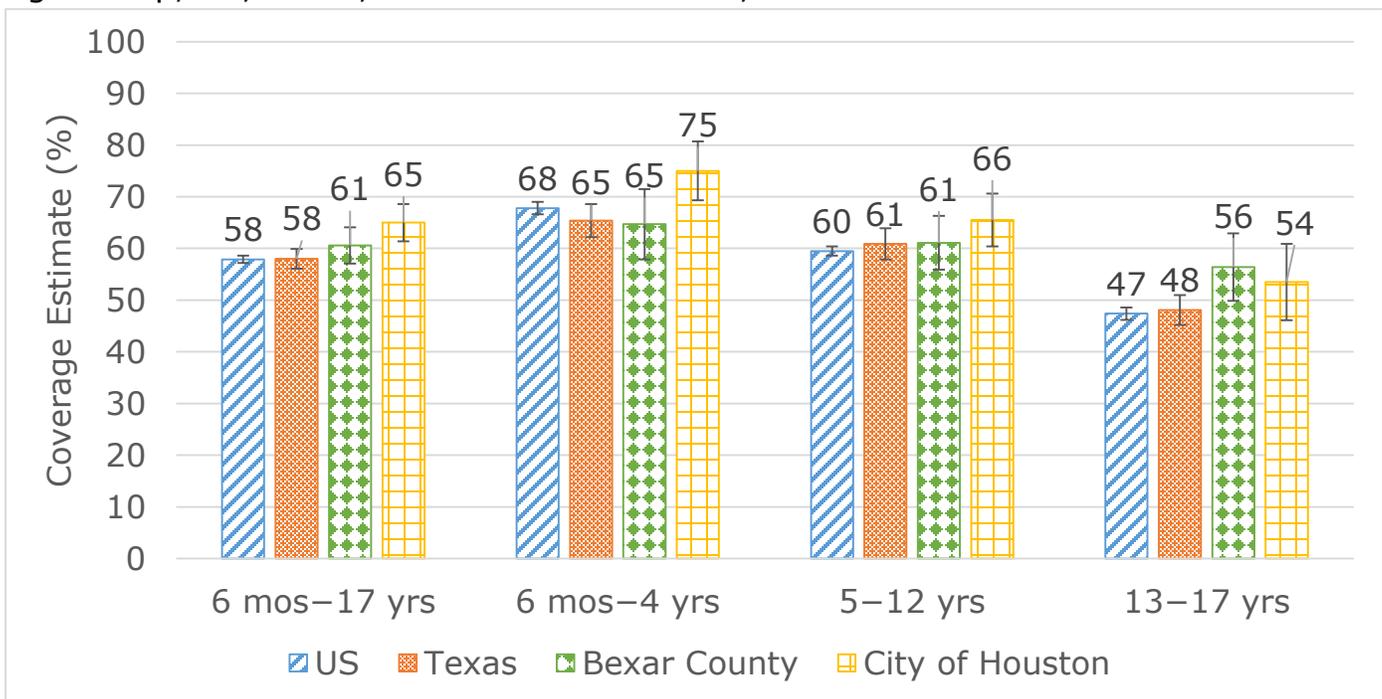


Figure 4. Influenza Immunization Coverage Estimates for Children and Adolescents by Age Group, US, Texas, and Local Jurisdictions, 2017-2018 Season.



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Key Findings for Influenza Immunization for 2017-18 Season—Adults

- Adult influenza coverage among those 18-64 years (26.0 percent) is much lower than coverage rates seen in the pediatric population while the coverage rate among those 65 years older (52.6 percent) is comparable to the rates seen in older children (60.9 percent) and adolescents (48.1 percent) (Figure 5).
- The influenza vaccine coverage estimate for all adults in Texas (30.7 percent) was significantly less than the national estimate of 37.1 percent. Texas' coverage estimates were also significantly less than the national estimates for all adult age and risk category breakdowns except for the 18-49 years high-risk, 18-49 years not high-risk, and 18-64 years high risk breakdowns (Figure 6 and 7).
 - Coverage estimates for Bexar County did not differ significantly from national or state estimates although it is important to note that estimates for these local areas may not be reliable because of wide confidence intervals and/or large standard errors (Table 2).
- High-risk adults tend to have a higher influenza vaccination coverage rate than their peers of the same age who do not fall in the high-risk category in Texas (Figure 7).
- For all adult age groups (except high risk adults between 18-49 years), there was a statistically significant decrease in influenza coverage between the 2016-2017 to the 2017-18 season in Texas (Figures 8 and 9).
- Over the 2017-18 influenza season, a similar time trend for all adult age groups can be observed with vaccination increasing sharply between September and October and leveling out around February (Figure 10).
- There were statistically significant decreases in influenza coverage between the 2016-17 and 2017-18 seasons among those 6 months of age and older who identified as white, non-Hispanic (44.6 percent to 37.8 percent) and Hispanic ethnic groups (44.0 percent to 36.9 percent). The coverage rates for black, non-Hispanic and other ethnic groups remained stable (Figure 11).
- There was no significant difference in influenza vaccination coverage among all persons 6 months of age and older by race/ethnicity during the 2017-18 season.
- Texas has not met the Healthy People 2020 (HP2020) goal of 70 percent influenza vaccination coverage for any adult age group.

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Table 2. Difference in Influenza Vaccination Coverage Rates for Adult Age Groups from the 2016-17 Season to the 2017-18 Season in Texas.

	<i>Age groups</i>	<i>2016-17 Season</i>	<i>2017-18 Season</i>	<i>Percent Change between Seasons</i>
<i>Texas</i>	18+ yrs	37.9%	30.7%	-7.2%
	18-49 yrs	29.2%	23.5%	-5.7%
	18-49 yrs at high risk	36.8%	30.0%	-6.8%
	18-49 yrs not at high risk	27.8%	22.4%	-5.4%
	18-64 yrs	32.9%	26.0%	-6.9%
	18-64 yrs at high risk	41.6%	33.7%	-7.9%
	18-64 yrs not at high risk	30.4%	23.8%	-6.6%
	50-64 yrs	41.9%	32.0%	-9.9%
	65+ yrs	62.1%	52.6%	-9.5%
<i>Bexar County[¶]</i>	18+ yrs	35.2%	34.2%	-1.0%
	18-49 yrs	32.0%	27.3%	-4.7%
	18-49 yrs at high risk	**	**	N/A
	18-49 yrs not at high risk	29.1%	25.8%	-3.3%
	18-64 yrs	30.0%	27.1%	-2.9%
	18-64 yrs at high risk	36.4%	**	N/A
	18-64 yrs not at high risk	27.2%	25.8%	-1.4%
	50-64 yrs	**	26.1%	N/A
	65+ yrs	59.5%	55.9%	-3.6%
<i>City of Houston[¶]</i>	18+ yrs	42.5%	31.3%	-11.2%
	18-49 yrs	36.8%	24.6	-12.2%
	18-49 yrs at high risk	56.1%	48.6	-7.5%
	18-49 yrs not at high risk	34.0%	21.9%	-12.1%
	18-64 yrs	37.2%	25.9%	-11.3%
	18-64 yrs at high risk	56.0%	43.3%	-12.7%
	18-64 yrs not at high risk	32.7%	22.6%	-10.1%
	50-64 yrs	36.3%	28.8%	-7.5%
	65+ yrs	70.3%	58.3%	-12.0%

[¶]Estimates should be interpreted with caution due to small sample size.

**Estimates not reliable.



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Figure 5. Influenza Immunization Coverage Estimates by Age Group, Children and Adults, 2017-18 Season.

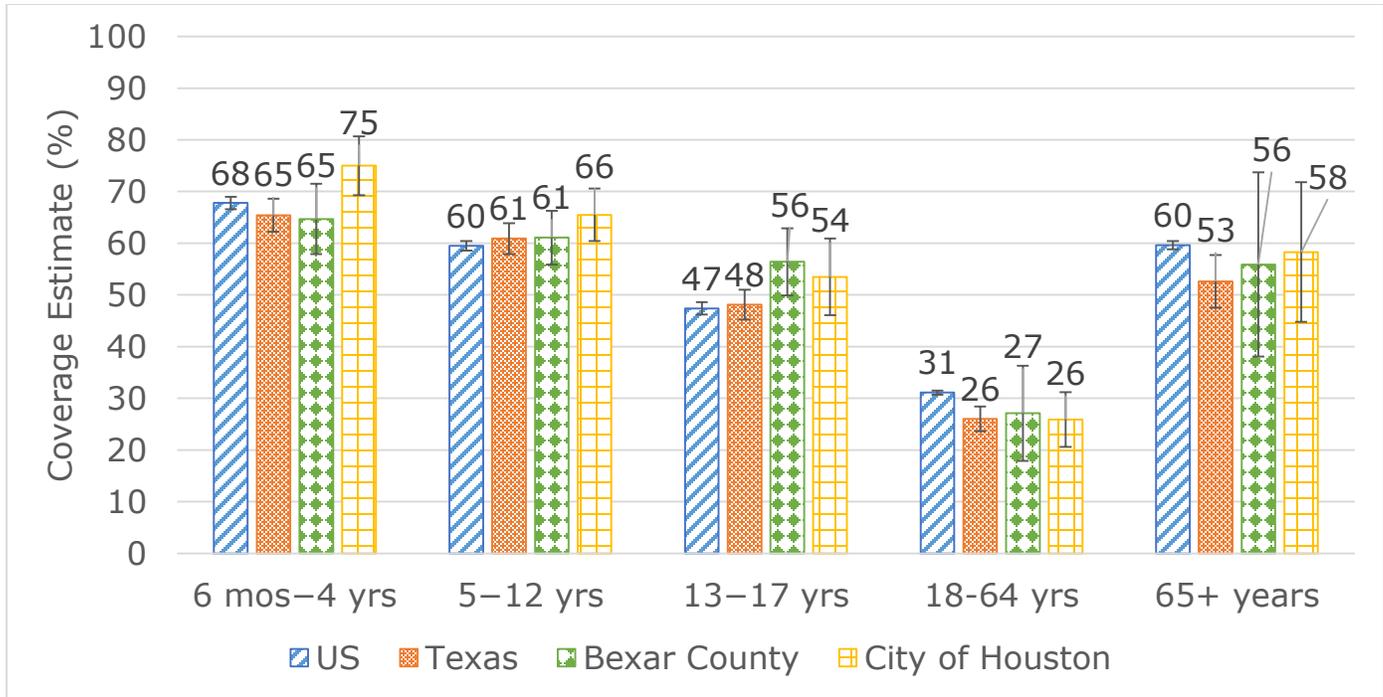
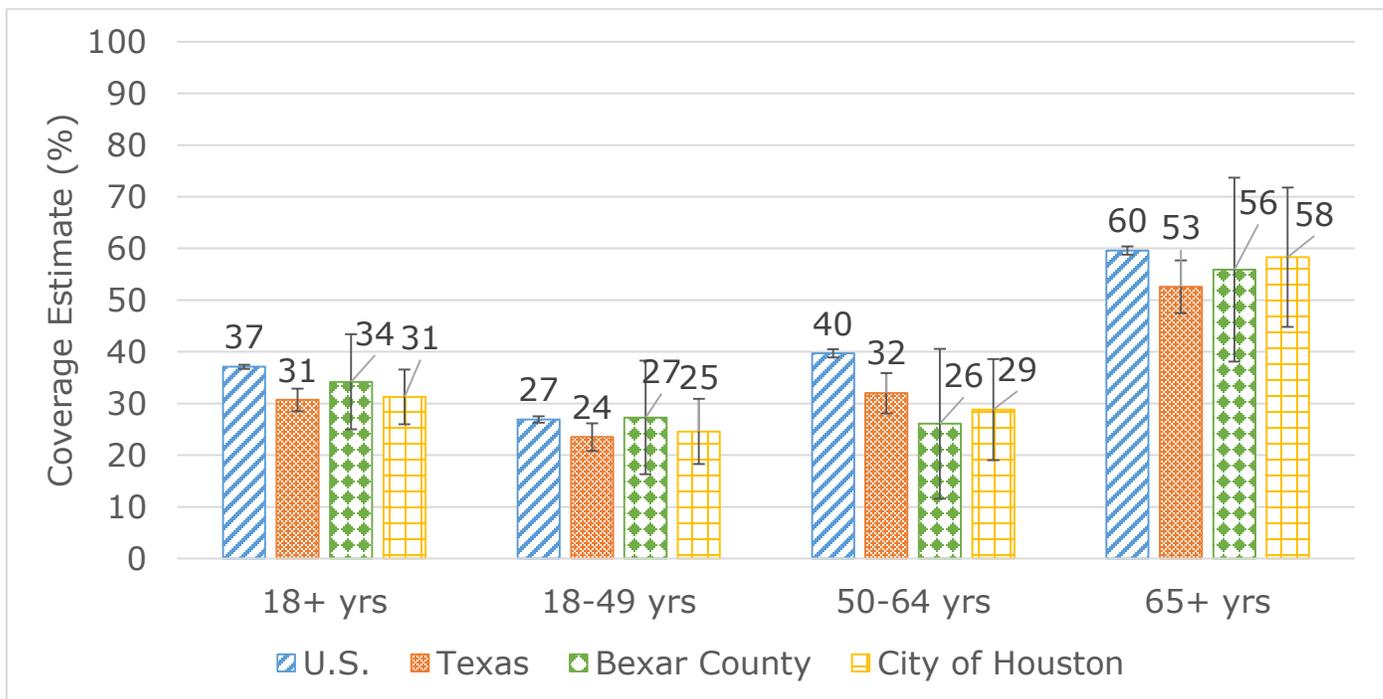


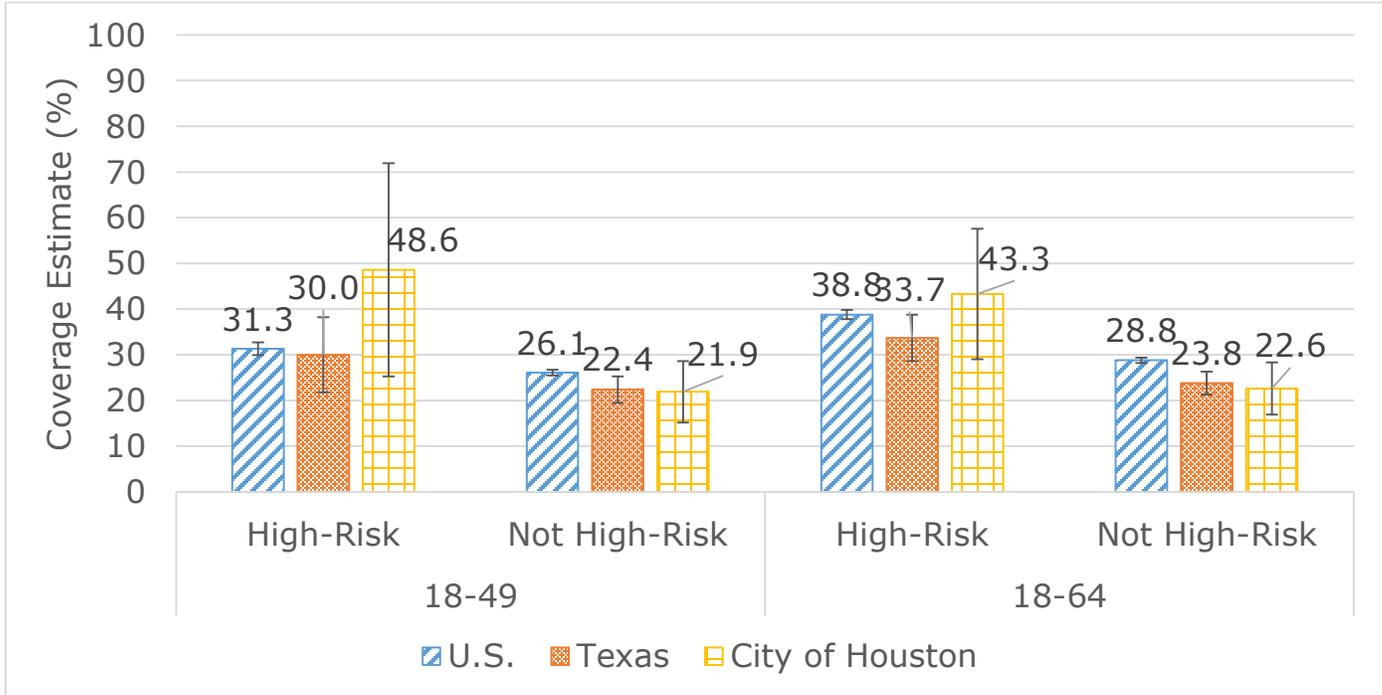
Figure 6. Influenza Immunization Coverage Estimates by Adult Age Group, 2017-18 Season.





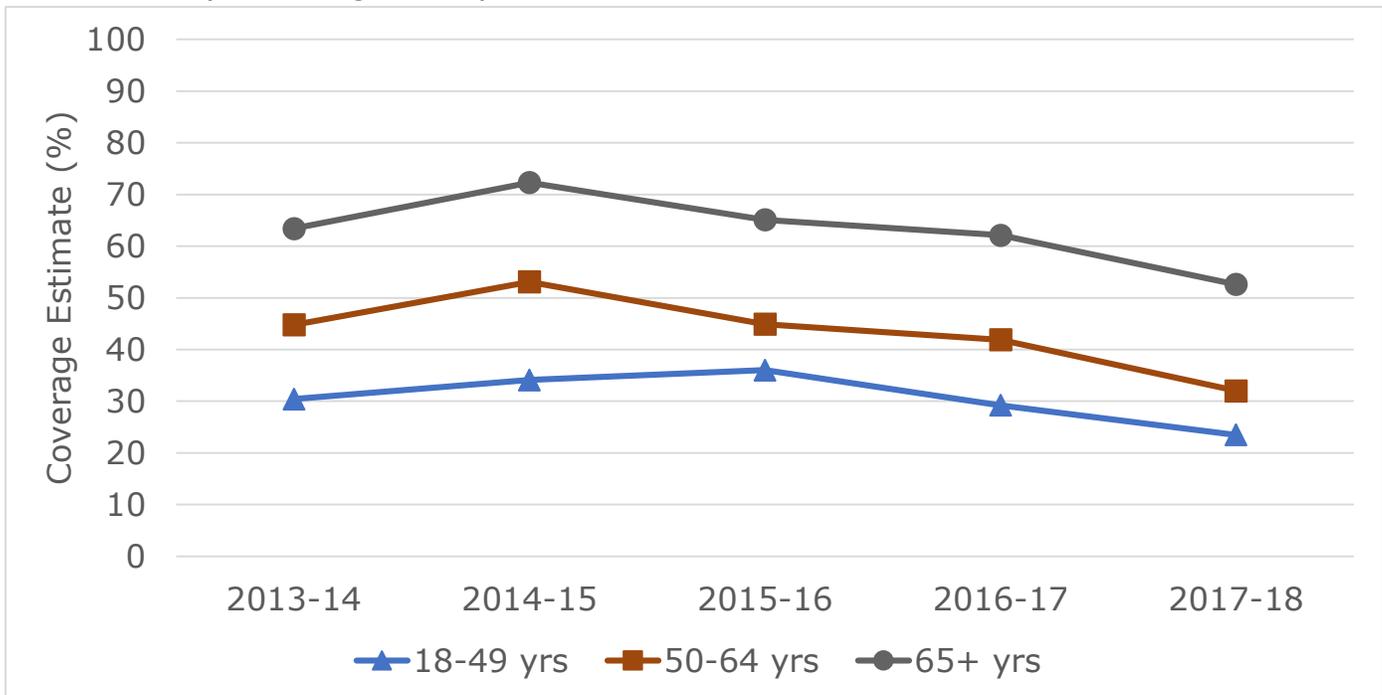
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Figure 7. Influenza Immunization Coverage Estimates by Adult Age Group and Risk Category, 2017-18 Season.



Note: Estimates were not available for Bexar County due to small sample size.

Figure 8: Influenza Vaccination Coverage Estimates for Texas, 2013-14 Season to 2017-18 Season by Adult Age Group.



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Figure 9: Influenza Vaccination Coverage Estimates for Texas, 2013-14 Season to 2017-18 Season by Adult Age Group and Risk Category.

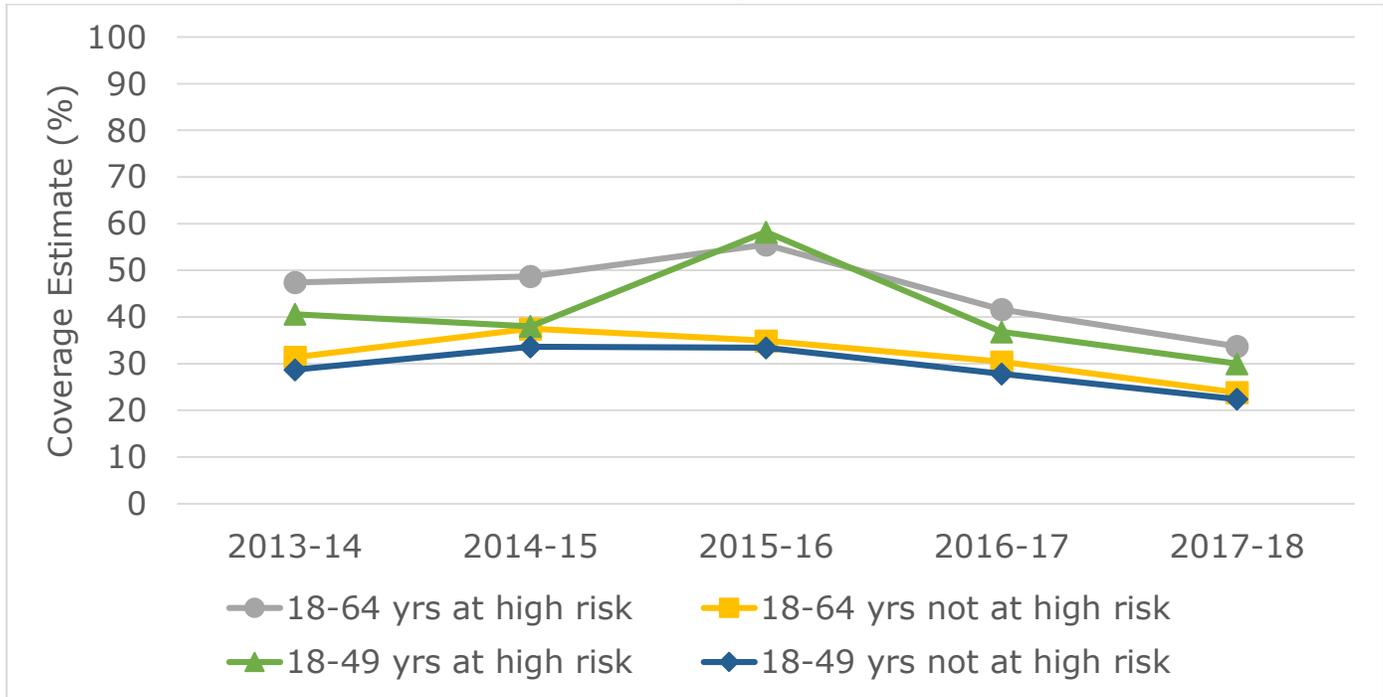
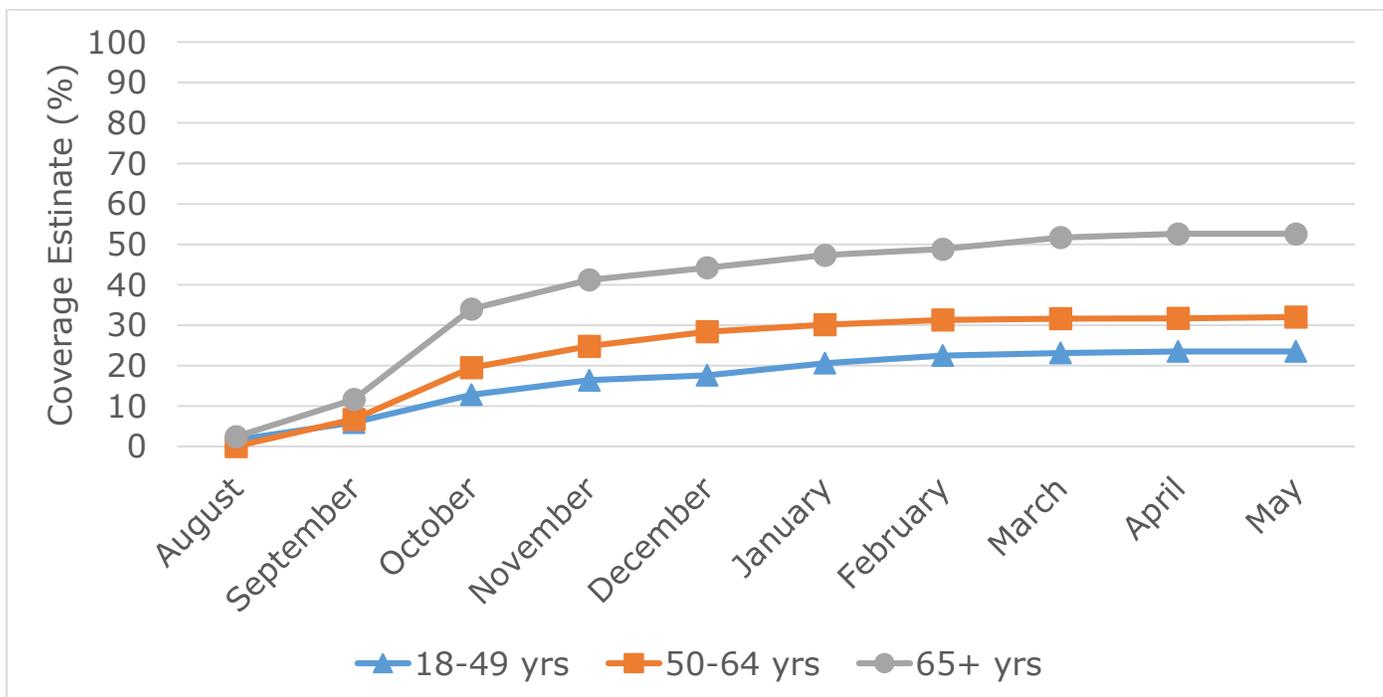


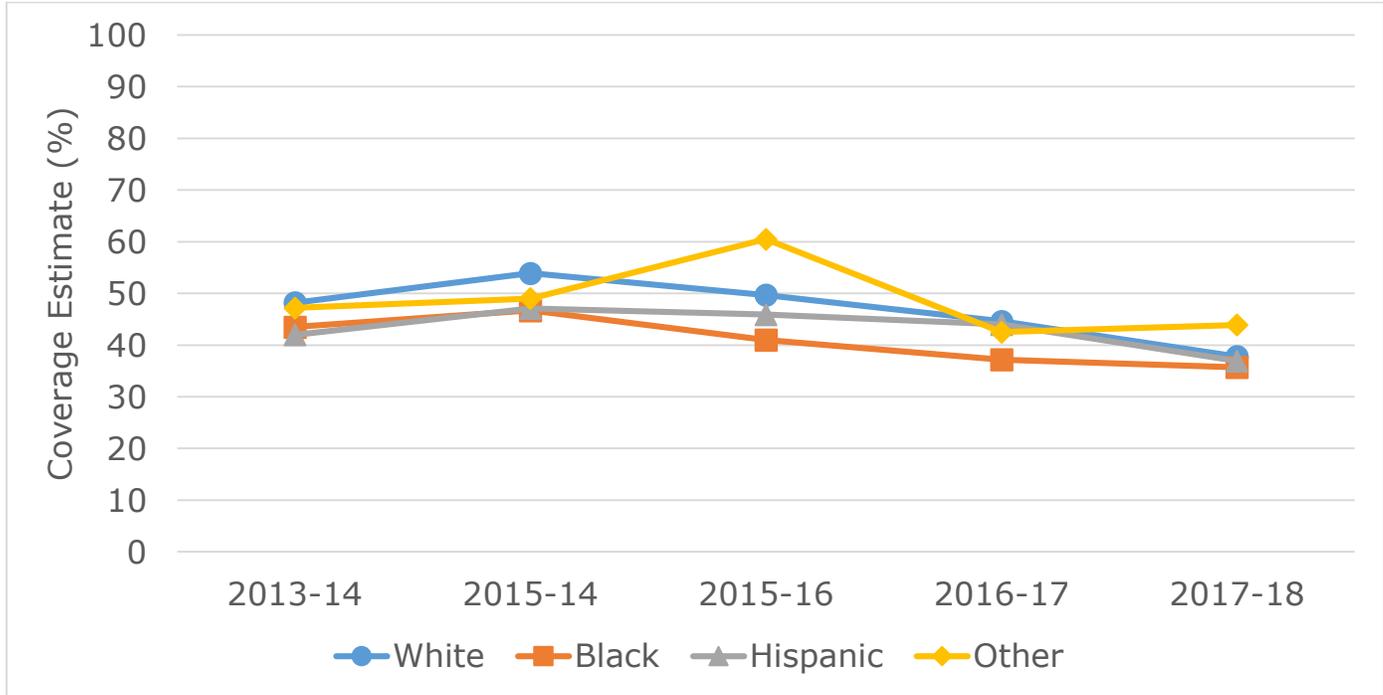
Figure 10. Monthly Time Trend for Influenza Vaccination in Texas by Age Group, 2017-18 Season.





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Figure 11. Influenza Immunization Coverage for Persons 6 Months of Age and Older Estimates in Texas, 2013-14 Season to 2017-18 Season by Race.



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DSHS Immunization Unit Activities for Influenza Immunization

The DSHS Immunization Unit plays an active role in monitoring and improving influenza immunization rates in Texas. The Unit provides educational material related to influenza vaccine, improves access to vaccine, communicates with stakeholders regarding vaccination rates and ways to improve coverage, and runs an immunization registry, ImmTrac2, to provide immunization records for Texans.

Additionally, the Immunization Unit oversees Texas Vaccine for Children (TVFC), a federally and state funded program which offers free vaccine to children 18 years old and younger who meet program qualifications (Medicaid-eligible, CHIP-eligible, uninsured, under insured, American Indian, or Alaska Native). Eligible Texas children are vaccinated through health care providers that participate in the TVFC program. In the 2017-2018 influenza season, the Immunization Unit distributed 1.5 million doses of flu vaccine to TVFC providers throughout the state to protect Texas children from the flu.

Conclusion

Overall, the 2017-18 seasonal influenza immunization coverage in Texas was similar to coverage in 2016-17 among children and adolescents although coverage decreased among adults. Texas falls below the HP2020 goal for 70 percent influenza immunization coverage for all age groups. Efforts by DSHS, have been focused primarily on improving coverage in young children and increasing the use of flu vaccine by TVFC providers. For example, DSHS provides education material on flu to all childcare facilities in the state in September every year. Starting with the 2018-19 flu season, DSHS will be implementing a monthly TVFC provider scorecard that will monitor the influenza vaccination coverage at each provider's practice. The DSHS Immunization Unit continues to promote influenza immunization for everyone ≥ 6 months of age. More information can be found on TexasFlu.org, the [Influenza page](#) of the DSHS Immunization Unit website, or on the [CDC's Influenza Prevention](#) page.