

Reducing Vaccine-Preventable Disease in Texas: Strategies to Increase Vaccine Coverage Levels

As Required By Texas Health and Safety Code, Sections 161.0074 and 161.00706

September 2024

Table of Contents

Executive Summary	1
Background	3
Immunization Coverage Rates	
National Immunization Survey-Child State and National 2023 NIS-Child Data	4
Regional 2023 NIS-Child Data	6
National Immunization Survey-Teen State and National 2023 NIS-Teen Data	
Regional 2023 NIS-Teen Data	7
Immunization Exemptions	9
Approaches to Increase Immunization Access	
Vaccine Programs Educational Outreach	. 11
Stakeholder Engagement	
Efforts To Increase Access in Underserved Areas	
Contractors and Performance Measures	.15
ImmTrac2, the Texas Immunization Registry	.16

Executive Summary

Texas Health and Safety Code (HSC), Sections <u>161.0074</u> and <u>161.00706</u>, require the Texas Department of State Health Services (DSHS) to report on immunization data and efforts to enhance immunization rates not later than September 30 of each even-numbered year. The report must cover certain topics, including:

- Immunization coverage rates data by region, including a focus on regions below the state average for preschool children;
- Data on the number and type of vaccine exemptions in the past year;
- Information on approaches to increase rates in underserved areas;
- Information on services provided by contractors and related performance measures;
- Inclusion of any complaints DSHS received related to the immunization registry, including complaints related to first responders in the registry; and
- Efforts to increase provider participation in the registry.

Texas data on immunization coverage rates is primarily provided by the Centers for Disease Control and Prevention (CDC), which administers annual cellular phonebased surveys with parents or guardians on behalf of their households. The most recent surveys, the 2023 National Immunization Surveys (NIS), provide the following data for Texas:

- 66.8 percent of Texas children up to 24 months of age received the recommended vaccine series, similar to the national average of 66.9 percent.
- For teens 13 17 years old, vaccine coverage estimates in Texas increased across all vaccines in 2023, except for ≥1 dose of tetanus, diphtheria, acellular pertussis (Tdap), ≥1 dose of meningococcal conjugate (MenACWY), HPV up-to-date (HPV UTD), and HPV UTD among females.

DSHS collects aggregate data related to exemptions for the required childhood vaccines for daycares and schools. DSHS provides immunization exemption affidavits upon request for parents and guardians to complete and submit to their child's daycare or school. The affidavits are for conscientious exemptions, including due to religious belief. In 2023, DSHS received 78,508 affidavit requests for 136,003 individuals. DSHS also receives aggregate school-reported data related to

medical exemptions for kindergartners and seventh graders. In 2023, DSHS received reports of medical exemptions for 747 kindergarteners and 814 seventh graders.

To ensure access to immunizations, DSHS operates the Texas Vaccines for Children (TVFC) and Adult Safety Net (ASN) programs, providing free vaccines to eligible children and low-cost vaccines to eligible adults. DSHS contracts with 50 local health departments (LHDs) to help administer the programs. Additionally, DSHS supports educational initiatives, including media campaigns and participation in regional and state conferences. To reach underserved populations, DSHS integrates federally qualified health centers (FQHCs) and rural health clinics (RHCs) into its programs.

ImmTrac2 is an opt-in immunization registry, securely housing over 230 million immunization records for more than 19.3 million individuals. Over 37,000 medical professionals actively use ImmTrac2 to support their patients. DSHS works through professional organizations to recruit additional providers into using the registry. DSHS has not received any complaints related to the registry in the past year.

DSHS is dedicated to increasing vaccine access through educational outreach, stakeholder engagement, and the efficient use of state and federal resources. DSHS aims to address gaps and increase vaccine access to reduce the incidence of vaccine-preventable diseases.

Background

Texas Health and Safety Code, <u>Chapter 161</u>, outlines the department's responsibilities related to immunization programs, the immunization registry, and immunization awareness. DSHS uses state and federal resources to carry out these responsibilities, including public education about immunizations, data analysis, provider outreach and education, and the distribution of free and low-cost immunizations through the TVFC and ASN programs.

Vaccine-preventable diseases include rotavirus, meningitis, flu, shingles, human papillomavirus (HPV), and hepatitis B (HepB). Increased vaccination rates reduce the incidence of these diseases. DSHS collaborates with a diverse stakeholder group, including schools, healthcare providers, insurance companies, and private sector entities, to improve vaccine accessibility. HSC Chapter 161 also charges DSHS to operate the state's opt-in immunization registry.

DSHS partners with 50 LHDs statewide, approximately 3,000 TVFC providers, and over 600 ASN providers to achieve key goals:

- Increase the number of fully vaccinated children, teenagers, and adults by ensuring access to educational resources and vaccine administration; and
- Promote reliable vaccine management and delivery methods to enhance TVFC and ASN program effectiveness.

Immunization Coverage Rates

Texas data on immunization coverage rates is primarily provided by the CDC, which administers annual cellular phone-based surveys with parents or guardians on behalf of their households. The NIS survey focuses on gathering data about vaccines recommended by the CDC Advisory Committee on Immunization Practices (ACIP), a national panel that makes recommendations about vaccine use. NIS provides national estimates, comprehensive statewide data, and targeted data for select municipalities and counties. NIS focuses on two groups: NIS-Child, which covers data for children up to 24 or 35 months, and NIS-Teen, which covers data for children between 13 and 17 years. The CDC provides vaccination coverage estimates organized in two ways: birth year and two-year birth cohort. The most recent completed surveys are the 2023 National Immunization Surveys.

National Immunization Survey-Child

NIS-Child assesses vaccine coverage among children up to 24 or 35 months of age. The 2023 report shows coverage rate data for the standard childhood immunization schedule, known as the seven-vaccine series. The vaccines in the seven-vaccine series provide immunity for children against:

- Diphtheria, tetanus, and pertussis;
- Polio;
- Measles, mumps, and rubella (MMR);
- Haemophilus influenza type b;
- Hepatitis B;
- Varicella; and
- Pneumococcal disease.

State and National 2023 NIS-Child Data

For children born between 2018 and 2019, the coverage rate for this vaccine series in Texas was 68.3 percent, slightly below the national average of 70.1 percent. For children born between 2019 and 2020, the coverage rate in Texas declined to 65.4 percent, while the national average decreased to 69.1 percent. For children born between 2020 and 2021, the coverage rate in Texas increased to 66.8 percent, slightly below the national average of 66.9 percent. See Table 1. The full dataset is accessible at the <u>CDC ChildVaxView</u> interactive dashboard.

or Age, birth conort, Ni				
Vaccine	U.S. Children Born 2020-2021 ^b	Texas Children Born 2018- 2019	Texas Children Born 2020- 2021 ^b	Texas Percentage Point Difference
≥4 Doses Diphtheria, Tetanus, Acellular Pertussis (4+DTaP)	79.3%			
≥3 Doses Inactivated Poliovirus (3+Polio)	91.9%			
≥1 Dose Measles, Mumps, Rubella (1+MMR)	90.3%	90.5%	92.8%	2.3%
Haemophilus Influenzae Full Series (Hib-FS) ^c	76.8%			
1 Dose Hepatitis B in First 3 Days of Life (HepB Birth Dose)	79.5%	82.4%		
≥3 Doses Hepatitis B (3+HepB)	91.1%	89.9%	91.3%	1.4%
≥1 Dose Varicella (1+Var)	89.9%	90.7%	92.3%	1.6%
≥4 Doses Pneumococcal Conjugate (4+PCV)	80.7%	82.8%		
≥ 1 Dose Hepatitis A (1+HepA)	86.5%	89.9%	91.8%	2.0%
Rotavirus Series by 8 Months of Age (Rota) ^d	75.1%	78.0%		-1.6%
≥2 Doses Influenza (2+Flu)º	55.6%			
Seven-Vaccine Series (4:3:1:3 ^c :3:1:4) ^f	66.9%			

Table 1. Vaccination Coverage Estimates in Texas and U.S. by 24 Months^a of Age, Birth Cohort, NIS-Child 2019-2023^b

^a Coverage estimates are at 24 months unless otherwise noted (i.e., rotavirus vaccine coverage assessed at 8 months).

^b Data for the 2018 birth year are from survey years 2019, 2020 and 2021; data for the 2019 birth year are from survey years 2020, 2021 and 2022; data for the 2020 birth year are from survey years 2021, 2022, and 2023; data for the 2021 birth year are considered preliminary and come from survey years 2022 and 2023 (data from survey year 2024 are not yet available).

^c Full series (FS) of either 3 or 4 doses of *Hib* conjugate vaccine, depending on vaccine type.

^d Either ≥ 2 or ≥ 3 doses of rotavirus vaccine, depending on product used. ^e Doses must be at least 24 days apart (four weeks, with a four-day grace period). ^f 4:3:1:3:3:1:4 includes 4+ DTaP, 3+polio, 1+MMR, 3 or 4 doses Hib, depending on vaccine type, 3+HepB, 1+varicella, and 4+PCV.

Regional 2023 NIS-Child Data

NIS data provides limited regional data for Texas, in addition to overall state numbers. Current NIS data only includes regional information for Bexar County, City of Houston, and the rest of the state. Figure 1 shows the 2023 NIS-Child coverage estimates for the seven-vaccine series for these populations. Coverage for the seven-vaccine series was lower in Bexar County and City of Houston when compared to statewide rates.

Figure 1. Vaccination Coverage Estimates in U.S, Texas, Bexar County, and City of Houston for the 4:3:1:3^c:3:1:4^d Series by 24 Months^a of Age by Birth Year^b, NIS-Child 2023



^a Coverage estimates are at 24 months unless otherwise noted (i.e., rotavirus vaccine coverage assessed at 8 months).

^b Data for the 2021 birth year are considered preliminary and come from survey years 2022 and 2023.
^c Full series (FS) of either 3 or 4 doses of *Hib* conjugate vaccine, depending on vaccine type.
^d 4:3:1:3:3:1:4 includes 4+ DTaP, 3+polio, 1+MMR, or 4 doses Hib, depending on vaccine type,

3+HepB, 1+varicella, and 4+PCV

National Immunization Survey-Teen

NIS-Teen measures immunization coverage among adolescents ages 13 to 17 years. Table 2 below features national and Texas-specific vaccine coverage rates for adolescents who received vaccines for various vaccine preventable diseases. The full data set is accessible at the <u>CDC TeenVaxView</u> interactive dashboard.

Vaccination coverage estimates in Texas increased across all vaccines in 2023, except for ≥ 1 dose of Tdap, ≥ 1 dose of meningococcal conjugate (MenACWY), HPV UTD, and HPV UTD among females.

State and National 2023 NIS-Teen Data

Table 2. Vaccination Coverage Estimates in Texas and the U.S., 2023 NIS-Teen Survey

Vaccine	U.S. 2023	Texas 2022	Texas 2023	Texas Percentage Point Difference
≥1 Dose Tdap	89.0%	85.0%	82.9%	-2.1%
≥1 Dose MenACWY	88.4%	86.5%	85.5%	-1.0%
≥1 Dose HPV	76.8%	70.3%	76.0%	5.7%
HPV UTD ^a	61.4%	58.5%	57.5%	-1.0%
≥1 Dose HPV, Females	78.5%	77.8%	78.5%	0.7%
HPV UTD ^a , Females	64.0%	63.5%	61.2%	-2.3%
≥1 HPV, Males	75.1%	63.0%	73.6%	10.6%
HPV UTD ^a , Males	59.0%	53.7%	53.9%	0.2%
≥2 doses MMR	91.3%	80.9%	85.0%	4.1%
≥2 Doses Varicella	90.8%	80.4%	84.5%	4.1%
≥2 Doses Hepatitis A (HepA)	86.9%	80.6%	86.0%	5.4%

^a HPV UTD reflects full vaccination coverage regardless of whether a teen followed a 2-dose (started series before age 15) or 3-dose HPV vaccine series (started series after age 15).

Regional 2023 NIS-Teen Data

NIS data provides limited regional data for Texas, in addition to overall state numbers. NIS regularly includes data for Bexar County, City of Houston, and the rest of the state. Table 3 shows the 2023 NIS-Teen coverage estimates for Bexar County and City of Houston.

Bexar County and the City of Houston had similar or higher coverage rates than the statewide rate estimates. City of Houston had two coverage rates that were

significantly higher than the United States, including the coverage rate for one or more doses of HPV and for one or more doses of HPV in females. City of Houston, similar to Texas, was significantly lower than the United States in coverage rates for teens with two or more doses of MMR.

Areas, 2023 NIS-Teen Survey							
Vaccine	U.S.	Texas	City of Houston	Bexar County			
Tdap	89.0%						
MenACWY	88.4%	85.5%	91.2%	87.4%			
≥1 HPV	76.8%	76.0%	84.9% ^b	77.6%			
HPV UTD ^a	61.4%	57.5%	70.5%	57.6%			
≥1 HPV, Female	78.5%	78.5%	90.1% ^b	78.3%			
HPV UTD ^a , Female	64.0%	61.2%	72.5%	62.7%			
≥1 HPV, Male	75.1%	73.6%	79.6%	76.8%			
HPV UTD ^a , Male	59.0%	53.9%	68.3%	52.6%			
≥2 Doses MMR	91.3%	85.0%	82.8%	85.1%			

Table 3. Vaccination Coverage Estimates for the U.S and Select Texas Areas, 2023 NIS-Teen Survey

^a HPV UTD reflects full vaccination coverage regardless of whether a teen followed a 2-dose (started series before age 15) or 3-dose HPV vaccine series (started series after age 15).

90.8%

83.9%

≥2 Doses Varicella

≥2 Doses HepA

84.5%

86.0%

85.5%

82.8%

84.6%

83.8%

Immunization Exemptions

Texas Education Code, <u>Chapter 38</u>, requires all students to be fully immunized against diphtheria, rubeola, rubella, mumps, tetanus, and poliomyelitis, except as provided by Subsection (c) of Texas Education Code, <u>Section 38.001</u>. Subsection (c) authorizes exclusions from required immunizations on an individual basis for medical contraindications, for reasons of conscience, including religious belief, and for individuals on active duty with the armed forces. Children and students in these categories must submit evidence for exclusion as specified in HSC, Sections <u>161.004 (d)</u> and <u>161.0041</u>, Education Code, Chapters <u>38</u> and <u>51</u>, and Human Resources Code, <u>Chapter 42</u>.

HSC, <u>Section 161.0041</u>, states that a person claiming an exemption from a required immunization based on reasons of conscience, including a religious belief, must complete an affidavit on a form provided by DSHS. DSHS must maintain a record of the total number of affidavit forms sent out each year and to report that information to the legislature annually. DSHS maintains the following aggregate data points shown in Table 4. Additional data is available at the Texas Health Data <u>Vaccine-Conscientious Exemption Request</u> dashboard.

- **Requests**: Number of written requests for immunization exemption affidavits received by DSHS.
- **Individuals**: Number of individuals included in requests (a single request can be made for multiple individuals).
- **Affidavits**: Number of affidavits distributed by DSHS (up to five affidavits per individual may be requested at one time).

Table 4. Requests, Individuals Included in Requests, and AffidavitsDistributed for Immunization Exemptions in Texas, FY 2019-2023

	2019	2020	2021	2022	2023
Requests	45,349	42,588	59,245	77,354	78,508
Individuals	77,329	76,839	111,747	139,228	136,003
Affidavits	194,404	196,878	290,336	343,881	322,911

Individuals may also be exempt from requirements if they have a medical exemption. A medical exemption is an affidavit or a certificate signed by a physician

who is duly registered and licensed to practice medicine in the United States. Public and private schools report aggregate medical exemption counts to DSHS for both kindergarteners and seventh graders. DSHS provides the percentage of medical exemptions by vaccine type in the <u>Annual Reports of Immunization Status (ARIS)</u>. DSHS also reports aggregate medical exemptions numbers for kindergartners to the CDC to fulfill federal grant requirements. The CDC provides this national and statelevel medical exemption data at its <u>SchoolVaxView</u> interactive dashboard.

	2019	2020	2021	2022	2023
Kindergarten	924	690	839	824	747
Seventh	765	835	919	847	814

Table 5. Medical Exemptions by Grade, FY 2019-2023

Approaches to Increase Immunization Access

DSHS uses several strategies to increase vaccine access. These strategies focus on programs to provide no and low-cost vaccines, educational outreach, and stakeholder engagement. In addition, DSHS undertakes efforts geared towards underserved areas.

Vaccine Programs

DSHS, in coordination with over 3,000 participating providers, administers vaccine programs for both children and adults. The TVFC program provides all ACIP-recommended vaccines at no cost to healthcare providers for administration to eligible children ages birth through 18 years. Eligibility criteria include:

- Enrollment in Medicaid or the Children's Health Insurance Plan (CHIP);
- Uninsured or underinsured; or
- American Indian or Alaska Native.

In fiscal year (FY) 2023, the TVFC program reported 15,007,261 doses administered and in FY 2024 reported 14,480,024 doses administered.

To expand the reach of the TVFC program, DSHS continuously recruits providers. DSHS regularly works with professional organizations to promote participation. In FY 2025, DSHS is working to recruit providers who are enrolled in ImmTrac2 but are not enrolled as TVFC providers. Provider types include:

- Medicaid and CHIP providers;
- Private providers;
- FQHCs;
- RHCs;
- Tribal nations; and
- Regional DSHS sites.

DSHS also administers the ASN program, which assists adults without health insurance in getting vaccinated, expanding access to comprehensive immunization services. In FY 2023, the ASN program reported 405,756 doses administered and in FY 2024 reported 385,477 doses administered. Currently, over 600 providers participate in the ASN program.

The ASN formulary is based on available funding. As of September 2024, the formulary includes the following vaccines:

- HepA;
- HepB;
- Combination HepA-HepB;
- MMR;
- MenACWY;
- Tdap; and
- Tetanus-diphtheria (Td).

The TVFC and ASN programs continue to offer guidance and education to healthcare providers, LHDs, and stakeholders to ensure comprehensive immunization services. ASN and TVFC program providers undergo compliance site visits at least biannually, focusing on adherence to program policies, provider documentation, patient eligibility screening, and proper vaccine storage and handling. These quality assurance measures establish effective vaccine administration for eligible children and adults.

Educational Outreach

DSHS implements initiatives to educate the public through collaboration with LHDs and schools. This allows for educational outreach activities to connect at the local level. Together, DSHS and LHDs create media campaigns, including a <u>flu campaign</u>, <u>childhood campaign</u>, <u>teen campaign</u>, and a <u>pediatric (moms with kids 0-4 years)</u> <u>campaign</u>, which cumulatively had over 455,000,000 media impressions between July 2023 and June 2024. DSHS distributes educational resources encouraging schools to share these materials with parents.

DSHS conducts webinars on vaccine-preventable diseases, providing immunization updates and training for providers. DSHS hosted over 120 webinars for healthcare professionals from January 2023 through September 2024, including medical providers, clinical staff, and school nurses. During this same time period, DSHS also distributed over 6.5 million educational print materials to LHDs, medical providers, and other stakeholders.

Between May 2023 and June 2024, DSHS presented immunization materials at 16 regional and statewide conferences designed to either train providers or engage the

public. DSHS recently conducted training to enhance communication and understanding of how immunization programs operate. Over 350 participants with diverse public health roles, including many from LHDs, attended this training. The training covered programmatic updates, strategies for improving vaccine access, and opportunities to discuss successes and challenges.

DSHS maintains a print catalogue of educational materials providers can order at no cost. Materials are designed to educate providers and the public about vaccines. \$2,515,904 in federal funds supported this effort in FY 2023 and 2024.

Stakeholder Engagement

DSHS engages with immunization stakeholders primarily through the Texas Immunization Stakeholder Working Group (TISWG), which includes representatives from state health and human service agencies and professional healthcare associations. The TISWG provides a platform for stakeholders to discuss needs and achievements. TISWG has created various educational materials and conducted a back-to-school education campaign.

The Immunization Coalition Communication Coordinators (ICCC) forum includes school nurses, LHDs, DSHS Public Health Regions (PHRs), universities, community colleges, and TVFC providers. Monthly ICCC meetings focus on enhancing outreach and education efforts. DSHS also partners with non-profit entities to expand outreach for unique populations, promoting vaccine awareness through joint presentations and other initiatives.

Efforts To Increase Access in Underserved Areas

Children who are uninsured, underinsured, lack a medical home, or live in rural areas or along the Texas-Mexico border have less access to medical services compared to others. DSHS remains committed to ensuring access to necessary vaccines for these underserved populations.

To address underserved communities, DSHS actively integrates FQHCs and RHCs into the TVFC and ASN programs. These entities play a crucial role in overcoming healthcare access barriers by providing immunization services beyond standard clinic hours and catering to populations that face challenges due to financial or

geographical constraints. In the border areas, healthcare providers participating in the TVFC program administer over a million vaccine doses annually.

LHDs implement immunization programs for children, adolescents, and adults with the goal of eliminating barriers to immunizing children on schedule, expanding access to vaccines, and establishing uniform immunization policies. DSHS hosts a monthly call with LHDs focusing on improving vaccination access through outreach and education, including underserved communities. DSHS invites internal and external speakers to present at this meeting to ensure LHDs receive appropriate technical assistance and are equipped with best practices to reach underserved communities.

In FY 2023 and 2024, DSHS hosted a call with low-coverage jurisdictions to discuss implementing initiatives to improve access within their community. Some of the initiatives discussed were social media campaigns for parents, provider education on the immunization registry, ImmTrac2, ways to build strong relationships with school nurses, and other ways to promote ACIP-recommended vaccines.

DSHS also targets underserved populations with outreach and education media purchases across radio, television, internet, and streaming services. For FY 2023 and 2024, DSHS spent \$11,058,685 in federal funds on media purchases to educate the public and expand immunization access.

Contractors and Performance Measures

DSHS contracts with 50 LHDs, which provide oversight to approximately 3,000 TVFC providers and over 600 ASN providers. For FY 2023 and 2024, DSHS executed \$15.17 million in contracts annually with LHDs.

To ensure accountability, DSHS staff monitor contract performance and resolves performance and compliance issues as needed. Each invoice is reviewed to confirm allowability and accuracy. The accounting system includes matching invoices with purchase orders and verification of receipt of goods and services. Additionally, DSHS staff perform targeted financial compliance reviews and provide consultative services and technical assistance on fiscal management of contracts. DSHS uses an automated contract management system to document contractor information, contract management activities, and monitor reports.

ImmTrac2, the Texas Immunization Registry

Health and Safety Code, <u>Section 161.007</u>, requires DSHS to maintain an opt-in immunization registry, known as ImmTrac2. It serves as a centralized, secure information system for accurate and up-to-date immunization records. This registry enables healthcare providers to evaluate current vaccine coverage and project future immunization needs.

ImmTrac2 securely holds approximately 230 million immunization records for over 19.3 million individuals. More than 37,000 medical professionals actively use the registry.

Statute prescribes ImmTrac2 as an opt-in registry. HSC, <u>Section 161.00706</u>, allows a person whose immunization records are included in ImmTrac2 to request that DSHS remove their information from the registry. DSHS must remove the person's immunization records from ImmTrac2 no later than the tenth day after receiving the request. DSHS has not received any reports of incidents of discrimination from an individual requesting exclusion from the registry.

DSHS uses several strategic approaches to enhance provider engagement with ImmTrac2:

- Highlight the value of the registry for healthcare providers and insurance payers;
- Expand efforts in marketing, promotion, and educational outreach concerning the registry;
- Boost support services for registry users;
- Integrate electronic data seamlessly across registered providers; and
- Build partnerships with vendors of electronic health records to secure better connectivity.

The program also has developed several efforts targeted to improve provider use and understanding of the ImmTrac2 system. These include:

- Developing and sharing 13 eLearning modules on how to use ImmTrac2;
- Creating and sharing provider reports that show missed opportunities related to core childhood vaccines including: DTaP, HepB, Hib, MMR, Polio, PCV, and varicella.

• Developing an easy-to-read two-page document on "Best Practices to Raise Coverage Rates" with topics like parental consent, client reminders when immunizations are due, and checks for due immunizations at each patient visit.

Conclusion

Texas Health and Safety Code (HSC), Sections <u>161.0074</u> and <u>161.00706</u>, require the Texas Department of State Health Services (DSHS) to report on immunization data and efforts to enhance immunization rates not later than September 30 of each even-numbered year. DSHS uses a comprehensive, collaborative approach with local, state, and federal partners to enhance vaccine access. This approach focuses on eliminating barriers to vaccination and maximizing the use of available resources. DSHS identifies gaps in the immunization system and implements necessary changes. By bringing stakeholders together, DSHS facilitates discussions on the needs and successes within the immunization system.

Continually assessing the effectiveness of existing public health strategies, DSHS remains committed to implementing policies that increase vaccination access and reduce the incidence of vaccine-preventable diseases.