



# Immunizations Update

Michelle Fiscus, MD FAAP

Medical Director | TN VPD and Immunization Program

# VPD and Immunizations Program

- Vaccines For Children Program
  - Entitlement program providing vaccines to under/uninsured children <19yo
- Tennessee Immunization Information System (TennIIS)
  - Statewide immunization registry
- Vaccine-Preventable Diseases Program
  - Investigates and mitigates vaccine-preventable disease outbreaks
  - Pandemic preparedness
- Pandemic Vaccine Allocation and Distribution
  - COVID-19 vaccine for ~6.8M Tennesseans (twice)



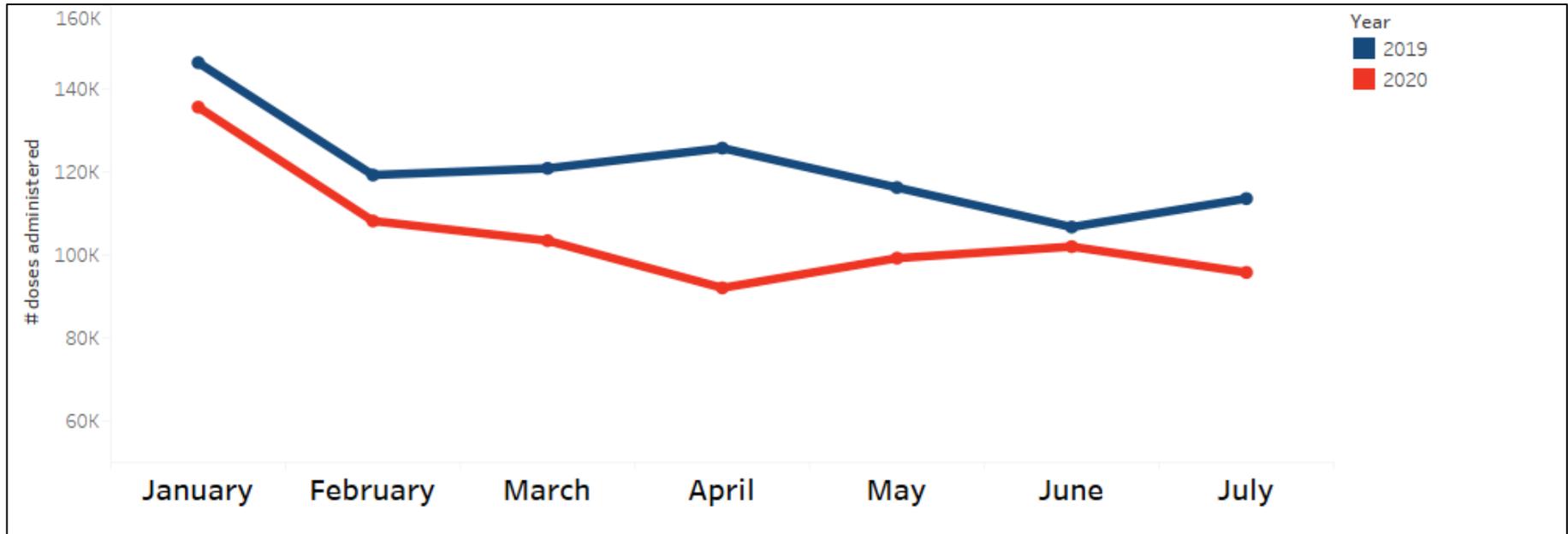
# COVID-19 Impact on Vaccinations, 0-18yo

Total number of childhood vaccine doses administered to 0-18 year olds in 2019 compared to 2020, by month, as reported in TennIIS



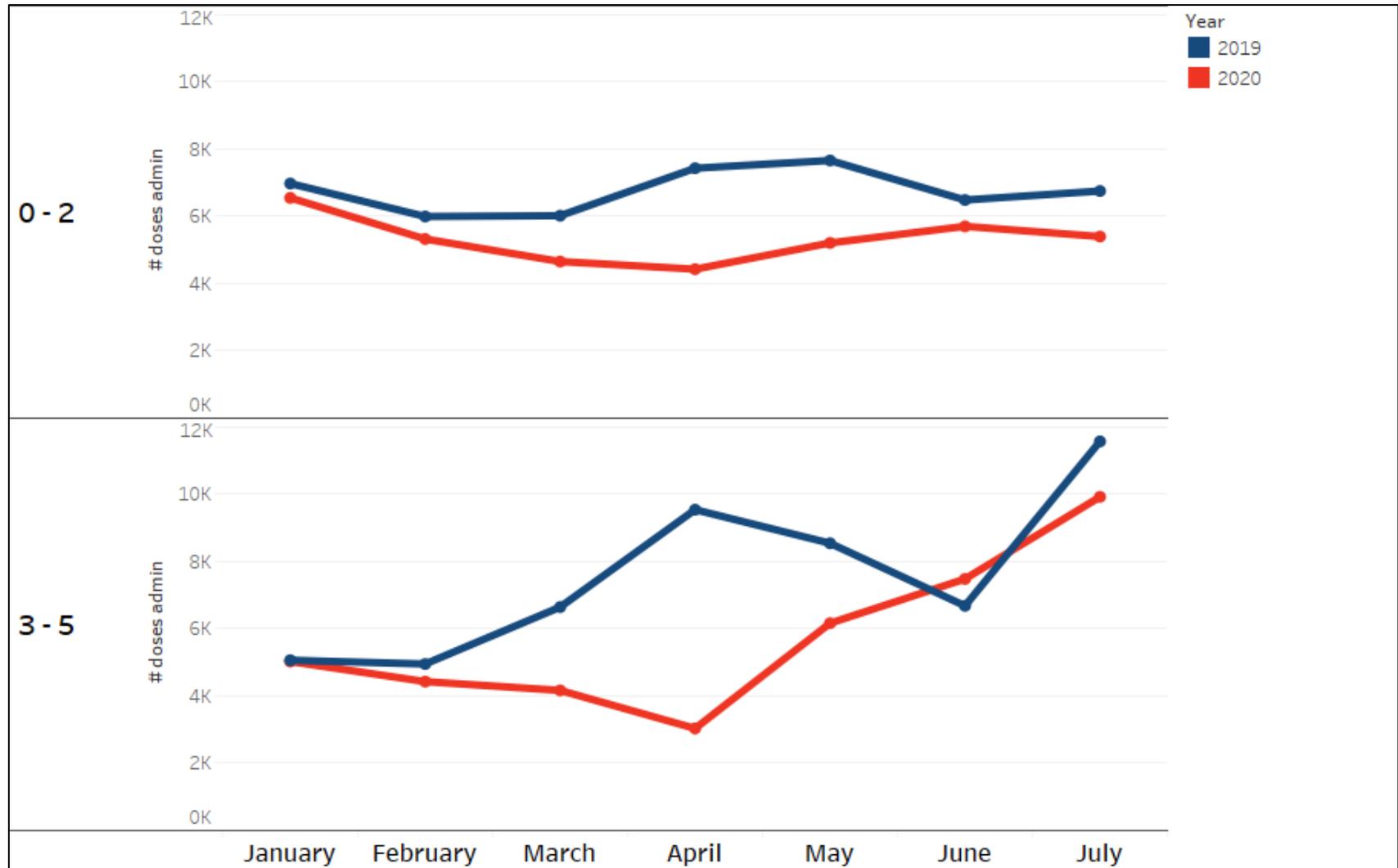
Month	% Difference between 2019 and 2020
January	-4.2%
February	-8.3%
March	-21.1%
April	-41.9%
May	-23.7%
June	-4.3%
July	-21.8%

# COVID-19 Impact on Vaccinations, ≤2yo

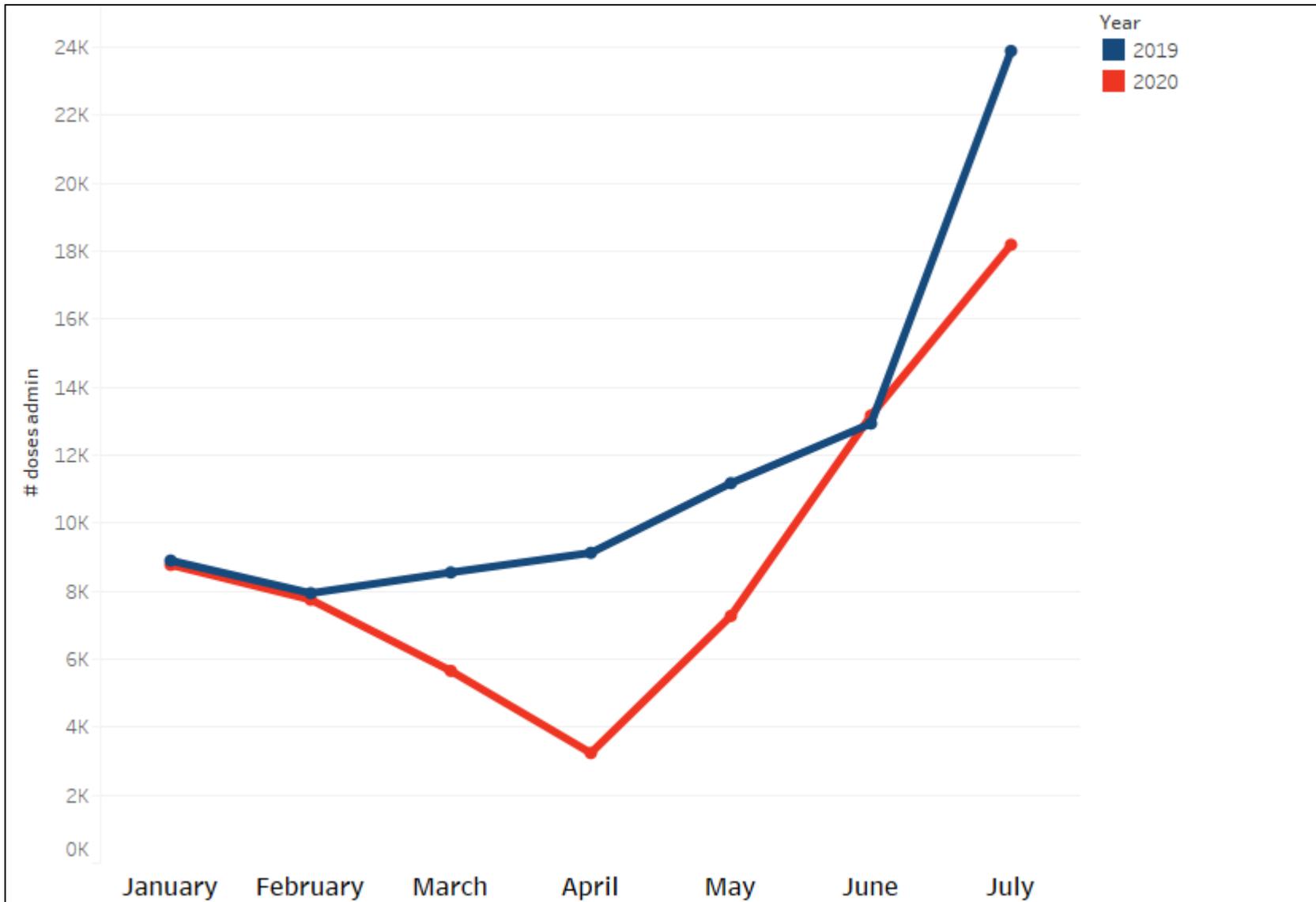


Month	% change
January	-7%
February	-9%
March	-14%
April	-27%
May	-15%
June	-4%
July	-16%

# COVID-19 Impact on Vaccinations, MMR



# COVID-19 Impact on HPV Vaccinations, 6-17yo



# Annual Survey of 24mo Immunization Status



Disease(s)
Diphtheria, Tetanus, Pertussis
Poliomyelitis
Measles, Mumps, Rubella
<i>Haemophilus influenzae</i> type B
Hepatitis B
Varicella (chickenpox)
Pneumococcus (certain strains)
Hepatitis A
Influenza
Rotavirus

# Annual Survey of 24mo Immunization Status

Table 3. Demographics of 2019 sample population, excluding oversampled black children (n=1468)

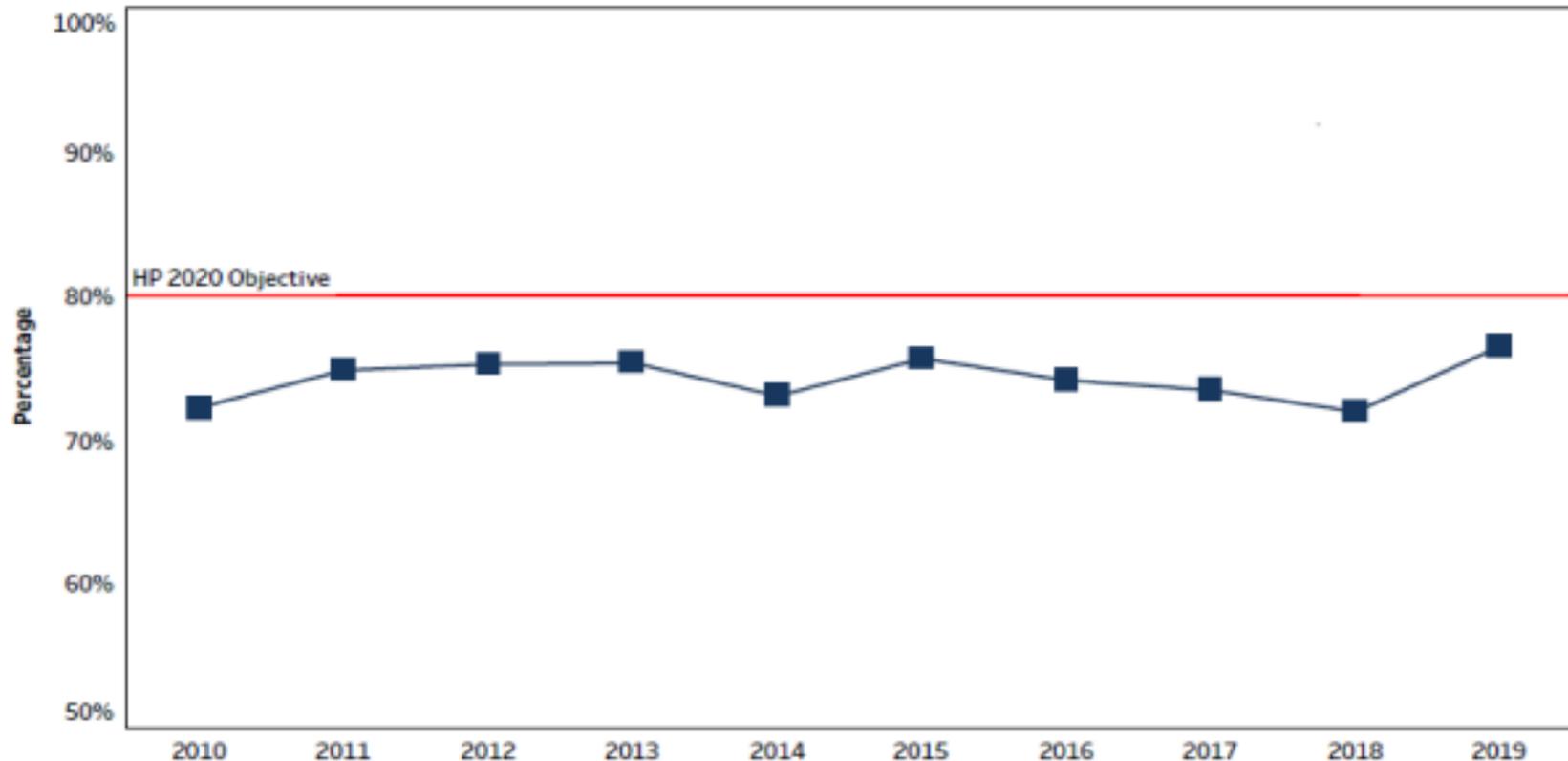
Race			Vaccination Source		
	N	%		N	%
Black	245	16.7	Private Provider	1138	81.9
White	1194	81.3	Health Department	51	3.7
Other	29	2.0	Both	200	14.4
Hispanic*	125	8.4			
Siblings			Program Enrollment		
	N	%		N	%
0	573	39.0	WIC	830	56.5
1	493	33.6	TennCare	949	64.6
2+	402	27.4	Both	766	52.2
Maternal Education			Paternal Education		
	N	%		N	%
< High School Diploma/ GED	214	14.8	< High School Diploma/ GED	408	28.0
High School Diploma/ GED	437	29.6	High School Diploma/ GED	444	30.0
> High School Diploma/ GED	817	55.6	> High School Diploma/ GED	616	42.0

\*This survey does not distinguish between Hispanic whites and non-Hispanic whites.

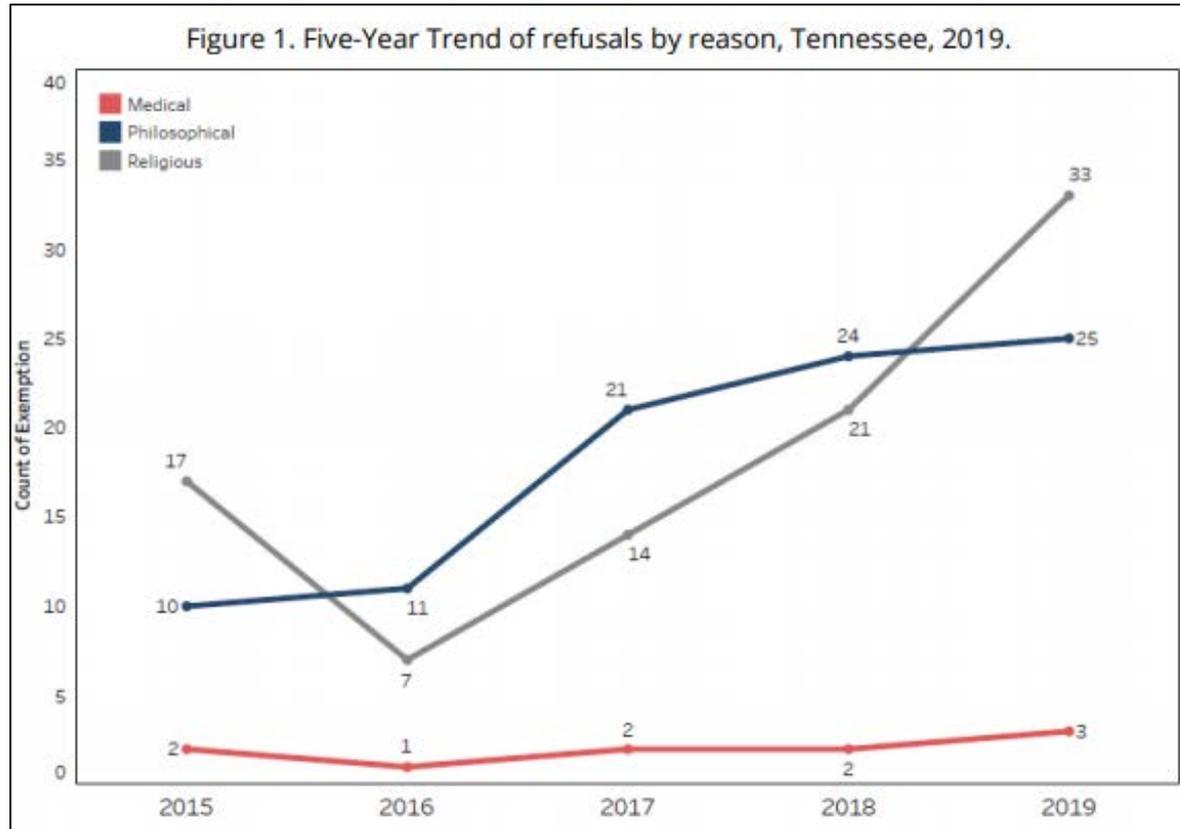
<https://www.tn.gov/content/dam/tn/health/documents/cedep-weeklyreports/2019-24-Month-Old-Survey.pdf>

# Annual Survey of 24mo Immunization Status

Figure 5. Statewide Trend of Complete 4:3:1:FS:3:1:FS Series, Tennessee, 2010-2019



# Annual Survey of 24mo Immunization Status



Religious 2.2%

Philosophical 1.7%

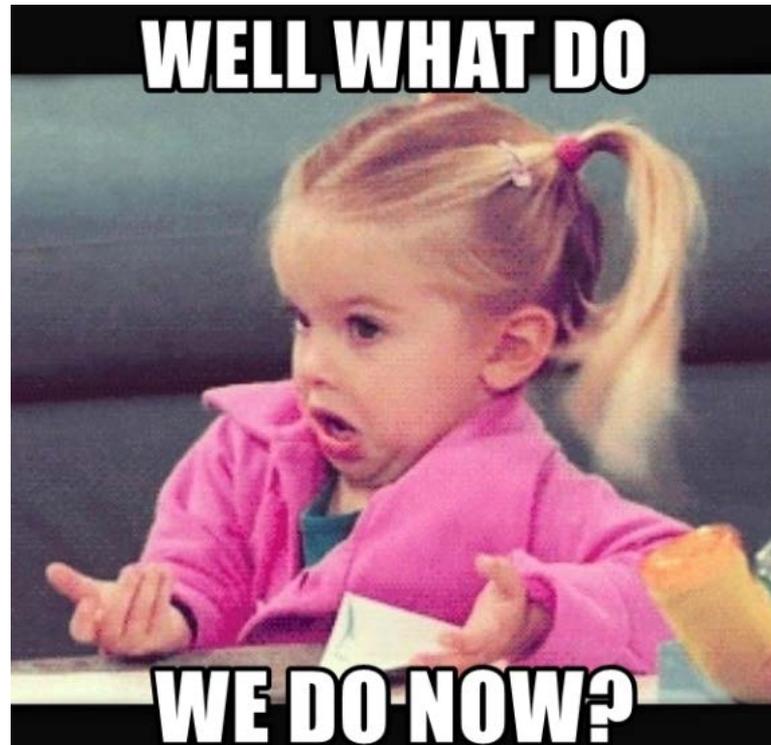
Medical 0.2%

# Annual Survey of 24mo Immunization Status

Figure 4. Comparison of Healthy People 2020 objectives to Vaccination Completion Rates for 24 Month Old Children in Tennessee, 2019 (point estimate and 95% CI, n=1468)



Soooo.....



# FY2021 Initiatives

- Overdue DTaP reports
- Centralized reminder/recall
- Quarterly VFC report cards
- Provider education
  - First annual Tennessee Immunization Summit
  - Quarterly webinars
  - Monthly TennIIS newsletters
  - Quarterly program newsletters
- Community Partnerships
  - Drive-through immunization clinics

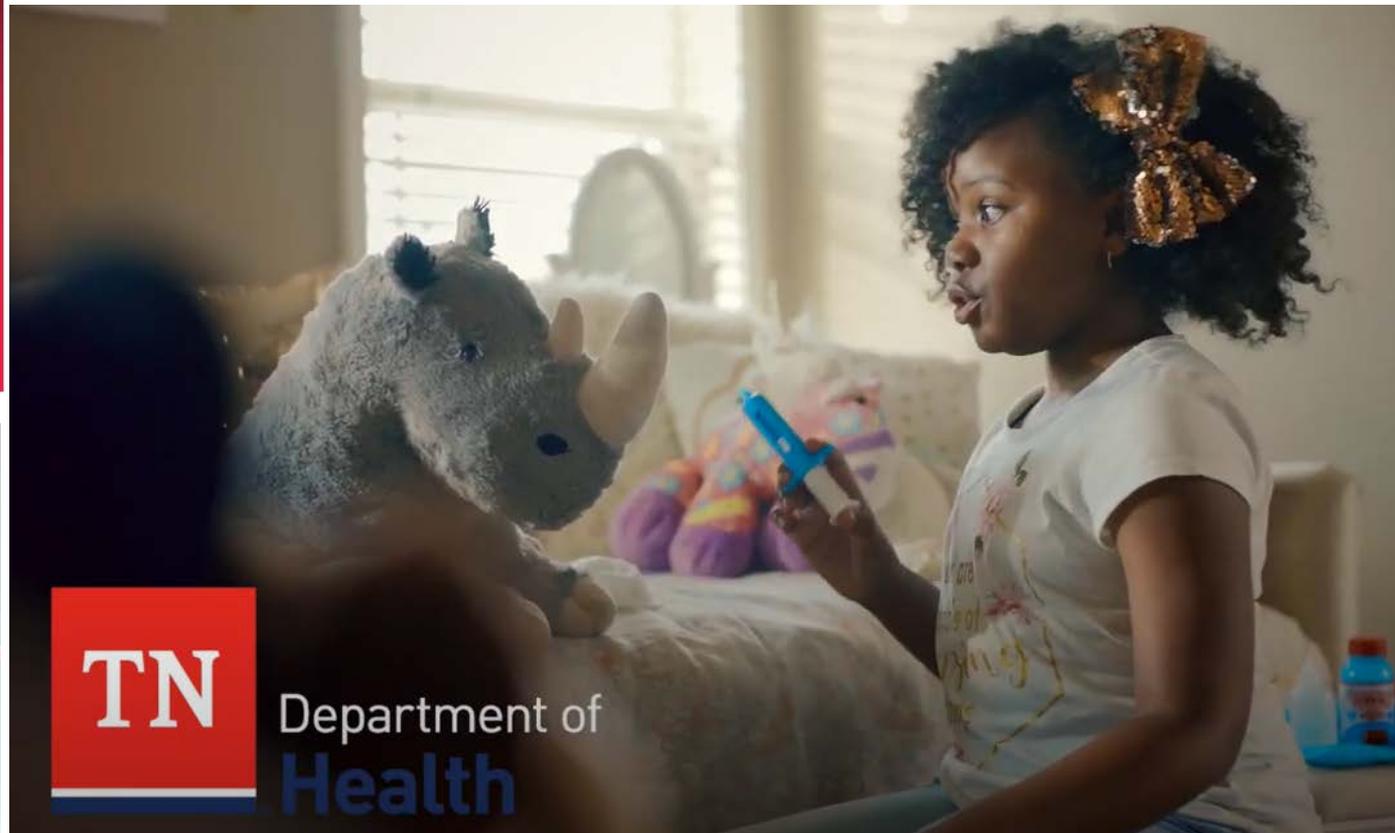


# Media!

**I'M THE FLU, AND EACH YEAR I KILL THOUSANDS.  
I INVENTED GOING VIRAL!**



**WE'RE BACK!  
YEAH, IT'S GOING TO BE SICK.**



**TN**

Department of  
**Health**

**TN**

# 2019-2020 Kindergarten Survey



## Tennessee Kindergarten Immunization Compliance Assessment Results

2019-2020 School Year

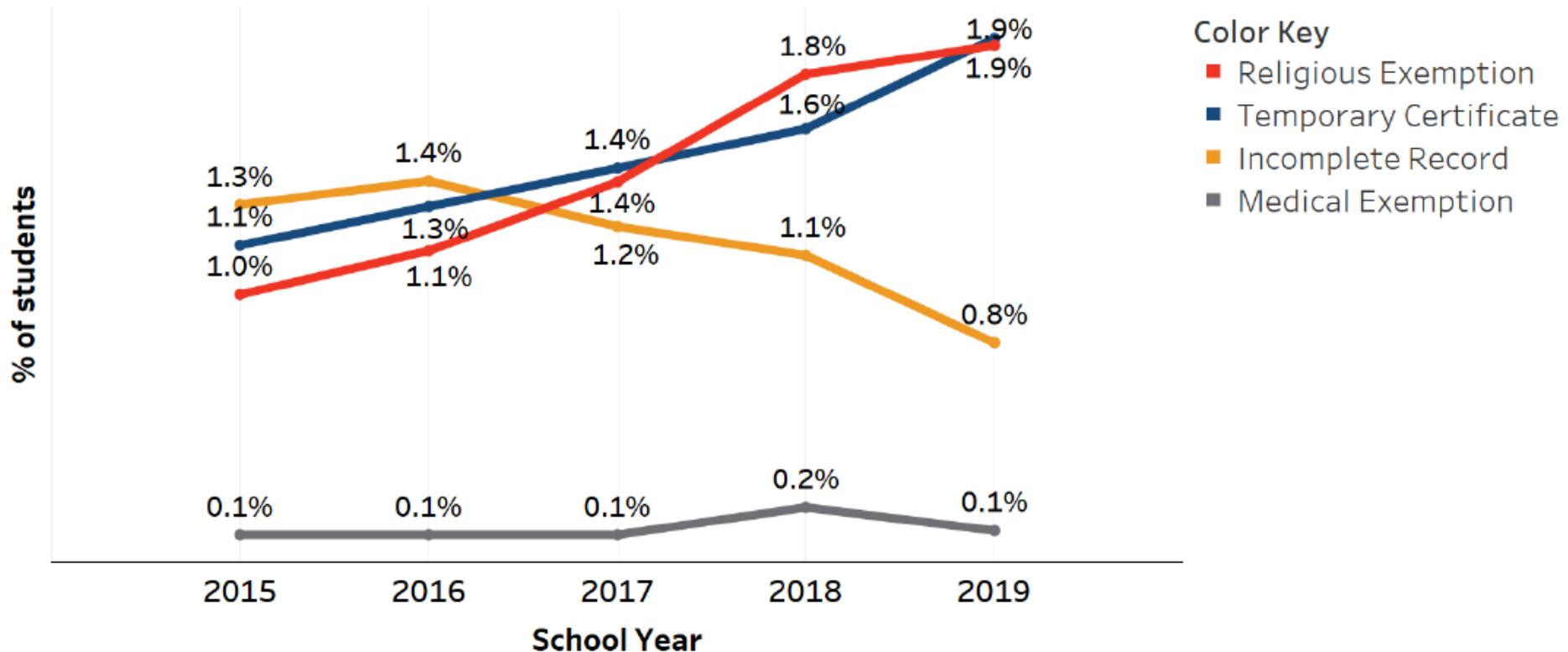
# 2019-2020 Kindergarten Survey

- Annual census survey of immunization status of Tennessee kindergarten students
  - Public school participation is required
  - Private school participation is optional but encouraged
- Required immunizations
  - Hepatitis A and B
  - Diphtheria/Tetanus/Pertussis (or Diphtheria/Tetanus Toxoid, if indicated)
  - Polio
  - Measles/Mumps/Rubella
  - Varicella (or credible history of disease)
- 2019-2020
  - >76,500 public school kindergarten students
  - ~4,000 private school kindergarten students
  - Overall, 95.0% of kindergarten students in Tennessee were fully immunized



# 2019-2020 Kindergarten Survey

Figure 3. Percentage of all TN kindergarten students not fully immunized, by category, over time





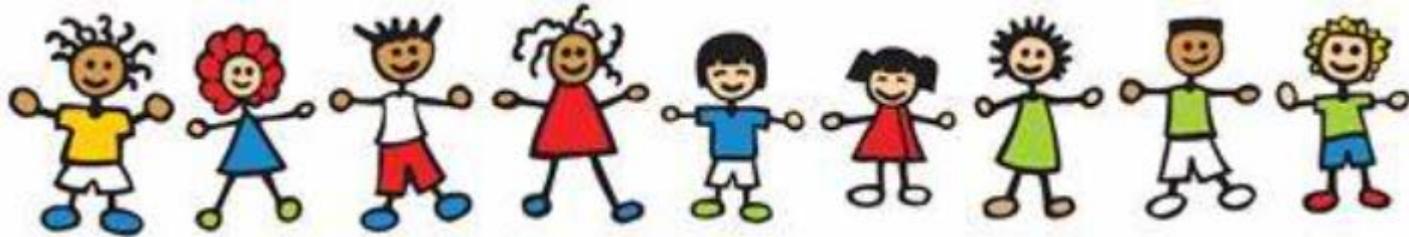
# Border State Immunization Coverage

2018-2019	MMR x 2	DTaP x 5/4	Varicella x 2
Mississippi	≥99.2	≥99.2	≥99.2
<b>TENNESSEE</b>	<b>96.5</b>	<b>96.2</b>	<b>96.2</b>
Virginia	95.0	98.0	93.6
Missouri	94.8	94.8	94.5
Georgia	≥93.6	≥93.6	≥93.6
Arkansas	94.2	93.4	93.8
Kentucky	93.4	94.1	92.8
N. Carolina	93.2	93.2	93.1
Alabama	≥90.6	≥90.6	≥90.6

<https://stacks.cdc.gov/view/cdc/81811>

# Know the Immunization Laws

- **Every** new, kindergarten and 7<sup>th</sup> grade student must have an immunization form or valid exemption on file with the school
- The **school district** is responsible for enforcing the requirement
- **Immunization requirements protect students, staff, and families from disease**



# TN Immunization Requirements

- **TCA 49-6-5001**
  - a) **Children must be immunized**
  - c)(1) **Children can't go to school if they're not**
  - d) **Children who attend school without proof of immunization will not be counted in daily averages for state funding**



# TN Immunization Requirements

- Exceptions to school immunization requirements
  - 49-6-5001
    - (b)(2) **conflict with the parent's or guardian's religious tenets and practices**, affirmed under the penalties of perjury.
    - (c)(2) **medical exemption**
    - (c)(3) **homeless**



# Kindergarten Immunization Coverage

- **SHOULD** be >99%
  - Only exemption being medical (0.1%)
- School districts need to ensure complete immunization as required by TCA
- Temporary certificates should be followed-up to ensure completion
  - Increases coverage by 1.9%
- Children should not be enrolled with incomplete records
  - Increases coverage by 0.8%
- Religious exemption in lieu of philosophical
  - Increases coverage by 1.9%

# Medical Exemptions

- Medical conditions that would exempt a child from ALL vaccines would be exceedingly rare/non-existent
- Medical exemptions may only be signed by an MD/DO, APRN, or public health RN



# FY2021

- New Medical Exemption form
- School vaccination clinics
- Reminder/recall
- TennIS functionality
- Media (especially flu)
- Provider education
- Stakeholder education
- Novel approaches
  - Drive-through
  - Incentives



# Medical Exemption Form



Communicable and Environmental Diseases and Emergency Preparedness  
Vaccine-Preventable Diseases and Immunization Program (VPDIP)

## MEDICAL EXEMPTION FROM IMMUNIZATION

This form must be completed by a physician (MD/DO) or Tennessee Department of Health Public Health Nurse (PHN) licensed in the State of Tennessee to document a true medical contraindication/precaution to an immunization(s). This document may be accepted by agencies that require proof of medical exemption.

Tenn. Comp. Rules following reasons: contraindication p condition and history comply with Immun 68-5-106(b) states t

Patient Name (please print)  
Parent/Guardian Name  
Patient/Parent Address  
Child Care/School/University

Medical contraindication (ACIP), available at:  
A contraindication is a precaution in a community. Under

- Vaccine
- Diphtheria, Tetanus, Pertussis (DTaP)
  - Tetanus, Diphtheria, Pertussis (Td)
  - Tetanus, Diphtheria (DT, Td)
  - Measles, Mumps, Rubella (MMR)

Varicella (Var)

Contraindications

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.
- Known severe immunodeficiency (e.g., congenital immunodeficiency, malignancy, chemotherapy, long-term immunosuppressive therapy (e.g., a 2 weeks of daily receipt of  $\geq 20$  mg or 2 mg/kg body weight of prednisone or equivalent) or human immunodeficiency virus (HIV) infection with CD4+ T-lymphocyte count  $< 15\%$ ).
- Pregnancy.
- Those published contraindications are not true for this patient, but it is my best professional judgment that based upon the individual's medical condition and history, the risk of medical harm from the vaccine outweighs the potential benefit.

Precautions

751-6222 (Rev. 04/2020)

Page 1 of 2

RDA 130



Communicable and Environmental Diseases and Emergency Preparedness  
Vaccine-Preventable Diseases and Immunization Program (VPDIP)

## MEDICAL EXEMPTION FROM IMMUNIZATION

This form must be completed by a physician (MD/DO) or Tennessee Department of Health Public Health Nurse (PHN) licensed in the State of Tennessee to document a true medical contraindication/precaution to an immunization(s). This document may be accepted by agencies that require proof of medical exemption.

*Tenn. Comp. Rules and Regs. 1200-14-01-.29(18)(a)* provides for an exemption where a determination is made that a particular vaccine is contraindicated for one of the following reasons: 1. The individual meets the criteria for contraindication set forth in the manufacturer's vaccine package insert; or 2. The individual meets the criteria for contraindication published by the U.S. Centers for Disease Control or the ACIP; 3. In the best professional judgment of the physician, based upon the individual's medical condition and history, the risk of medical harm from the vaccine outweighs the potential benefit. An individual who has been exempt from a particular vaccination must comply with immunization requirements for any vaccine from which he/she has not been exempt. See *Tenn. Comp. Rules and Regs. 1200-14-1-.29-(18)(b)*, *T.C.A. Section 68-5-106(b)* states that **any physician fraudulently giving a certificate of sickness or of vaccination to prevent vaccination commits a Class C misdemeanor.**

Patient Name (please print): \_\_\_\_\_ DOB: \_\_\_\_/\_\_\_\_/\_\_\_\_

Parent/Guardian Name: \_\_\_\_\_ Parent/Guardian Phone: (\_\_\_\_) \_\_\_\_-\_\_\_\_

Patient/Parent Address: \_\_\_\_\_ County: \_\_\_\_\_

Child Care/School/College/University: \_\_\_\_\_



# County Infographics



## Vaccines Matter to Blount County



### Vaccines in Blount County

**655** providers reported **96,987** vaccines to the Tennessee Immunization Information System (TennIIS) between July 1, 2018 and June 30, 2019.

#### Why is this Important?

A Vaccine-Preventable Disease (VPD) outbreak (e.g., measles) may occur when community members are inadequately vaccinated against disease.

### Blount County Kindergarten Immunization Compliance Assessment (2018-19)

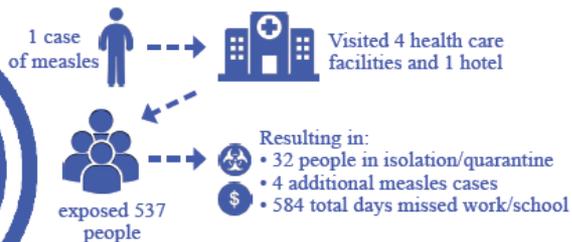
School District	% Immunized
Alcoa School District	95.3 %
Blount County School District	<b>94.1 %</b>
Maryville School District	95.4 %

#### Blount County's Risk of a VPD Outbreak

- Over 95% immunized and at low-risk for an outbreak
- 90% - 95% immunized and at risk for an outbreak
- Less than 90% immunized and at increased risk for an outbreak

Overall, **94.6 %** of 2018-2019 Blount County kindergarten students were fully immunized at enrollment. To remain at low risk for a VPD outbreak, this rate should remain above 95%.

### Impact of One Case of Measles in TN April 2019



*Measles outbreaks can be avoided 93% of the time when the community is properly vaccinated*

## Facts Matter:

- 1** The United States has the safest vaccine supply in its history. Vaccines do not cause autism. Source: <https://tinyurl.com/>
- 2** Vaccines protect children from 16 diseases, including 2 that are known to cause cancer. Source: <https://tinyurl.com/y5qlm546>
- 3** CDC estimates vaccines will prevent more than 21 million hospitalizations and 732,000 deaths among children born in the last 20 years. Source: <https://tinyurl.com/y7ep84dc>
- 4** Jewish, Muslim, Hindu, Sikh, Buddhist, and most Christian faiths (including Catholic and Baptist) have no tenets in opposition to vaccines. Source: <https://tinyurl.com/y5jv489p>
- 5** 13 childhood vaccines are manufactured without the need of human cell culture. Fetuses are not aborted to create vaccines. There are no fetal cells in vaccines. Source: <https://tinyurl.com/y2h9veee>



### LEARN MORE!

The annual TN Kindergarten Immunization Compliance Assessment is a census of the immunization status of every kindergarten student enrolled in public school in Tennessee --more than 75,000 students! Check out the full report, by school!



<https://tinyurl.com/t9pbop>

### Reliable Resources

- [www.tn.gov/health/cedep/immunization-program.html](http://www.tn.gov/health/cedep/immunization-program.html)
- [www.chop.edu/centers-programs/vaccine-education-center](http://www.chop.edu/centers-programs/vaccine-education-center)
- [www.healthychildren.org](http://www.healthychildren.org)
- [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines)

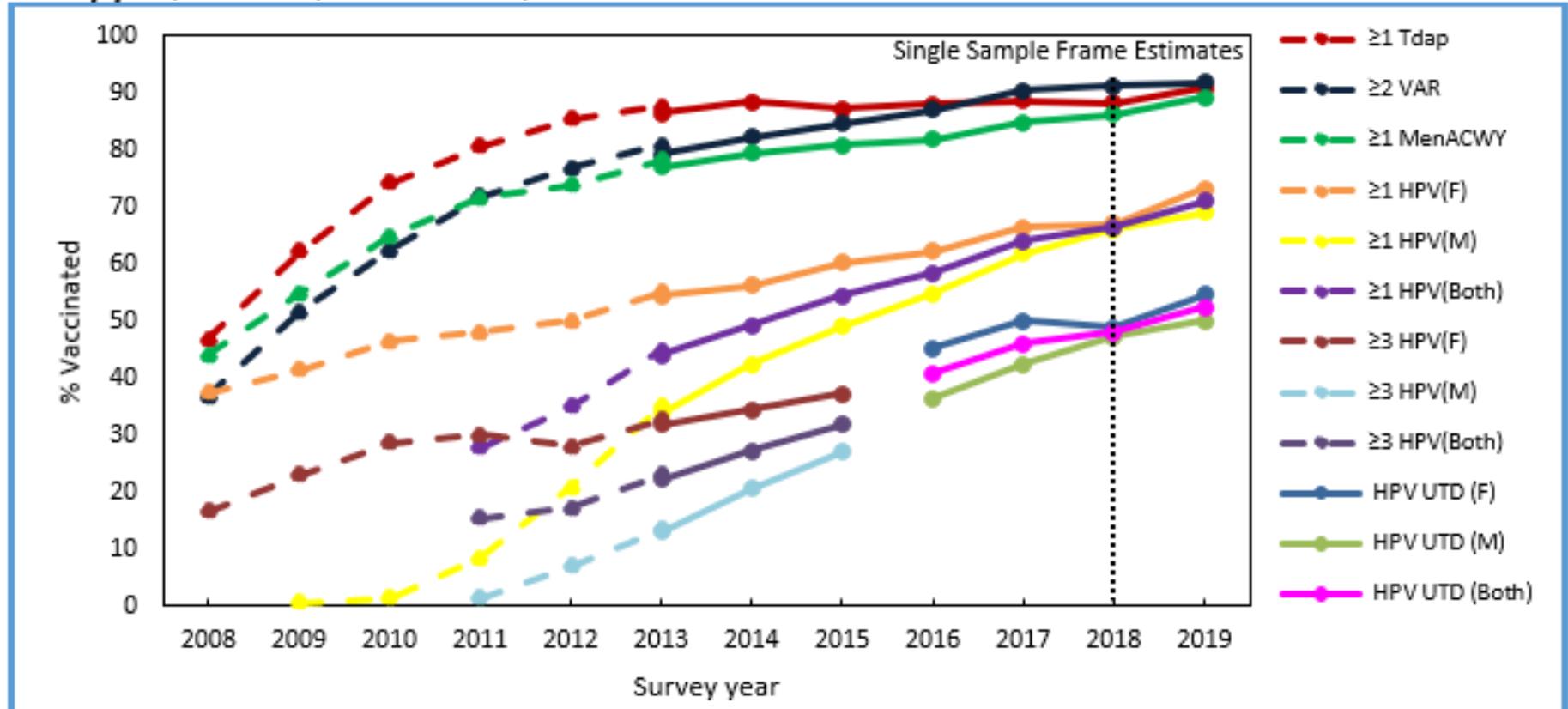
FY2021

# Improve HPV Coverage Rates



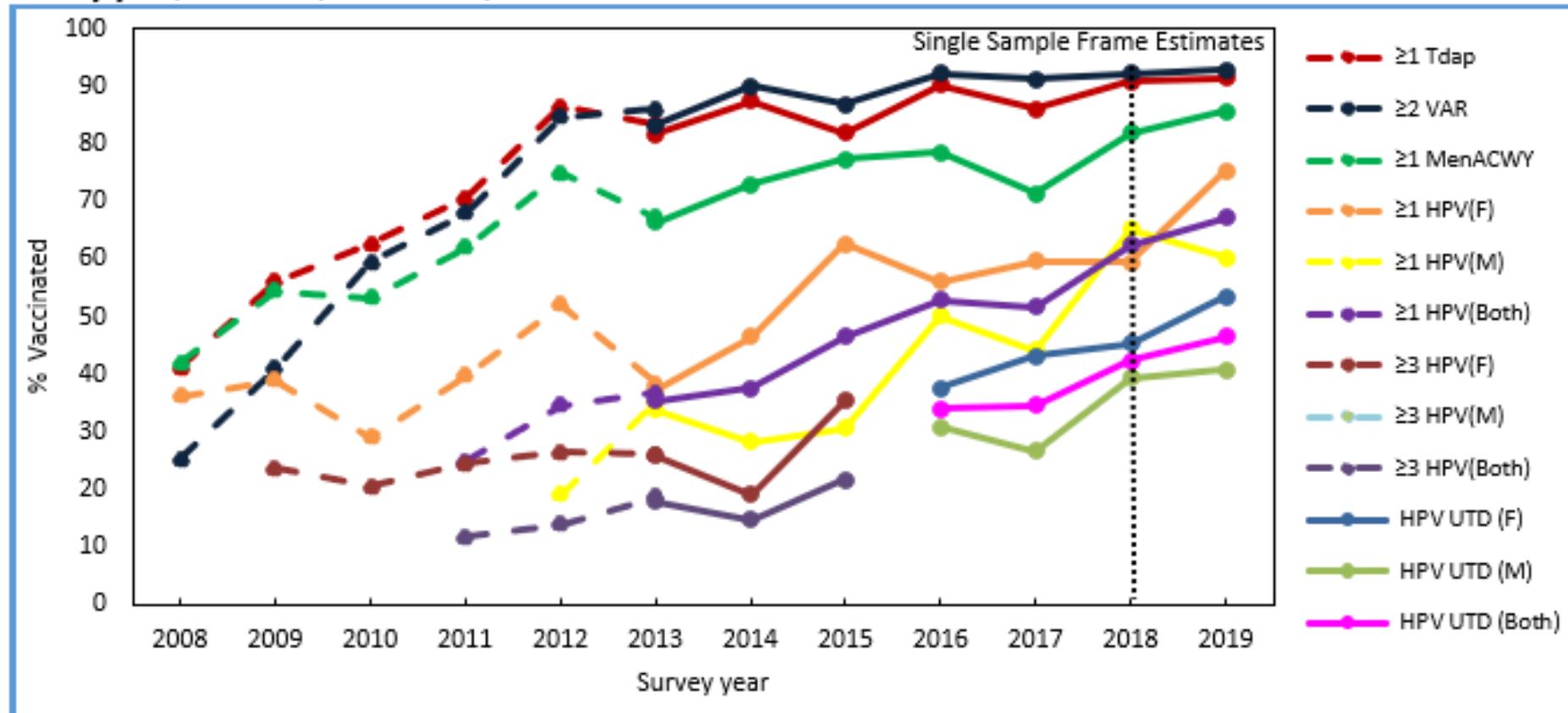
# US HPV Coverage

Estimated vaccination coverage with selected vaccines and doses among adolescents aged 13-15 years, by survey year, NIS-Teen, United States, 2008-2019



# TN HPV Coverage

Estimated vaccination coverage with selected vaccines and doses among adolescents aged 13-15 years, by survey year, NIS-Teen, Tennessee, 2008-2019

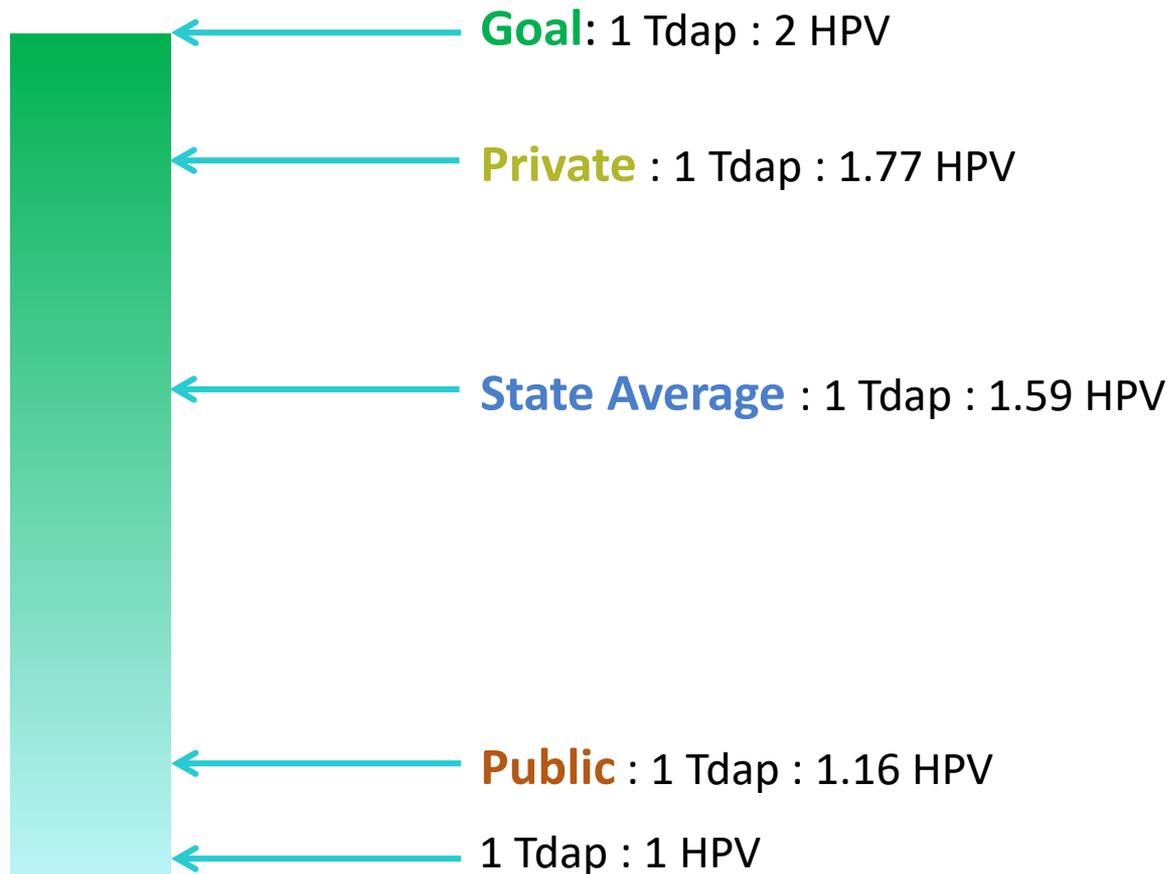


# 2018-2019 HPV Coverage 13-15yo

<b>US 2018</b>	88.2	66.9	65.9	66.4	48.9	47.1	48.0
<b>US 2019</b>	90.8	73.1	69.0	71.0	54.6	50.0	52.3
	<b>≥1 Tdap</b>	<b>≥1 HPV (F)</b>	<b>≥1 HPV (M)</b>	<b>≥1 HPV (Both)</b>	<b>HPV UTD (F)</b>	<b>HPV UTD (M)</b>	<b>HPV UTD (Both)</b>
<b>TN 2018</b>	90.8	59.6	65.3	62.5	45.4	39.4	42.3
<b>TN 2019</b>	<b>91.5</b>	<b>75.3</b>	<b>60.3</b>	<b>67.3</b>	<b>53.4</b>	<b>40.7</b>	<b>46.6</b>

# Tdap : HPV

Tdap : HPV between 11-19 years should be approx 1:2



# FY 2021

- Reminder/Recall
- Merck Patient Assistance Program
  - Free vaccine for pts who qualify (19-45yo)
- Messaging matters
  - “You/your child are/is due for HPV vaccine today.”



# Adult Immunizations

## Adult Shots



**SHOTS**  
*are not just for kids.*

*Shots aren't just for kids...  
Adults need shots, too!*

*Protect yourself  
and those you love!*

- Improve flu and pneumococcal vaccine uptake in LTCF
- Increase awareness
- Work with partners
- Improve access to flu vaccine
  - Student health
  - Health departments
  - Community Health Centers
- Merck Patient Assistance Program
  - HPV vaccine for 26-45yo who qualify
- Immunizations and pregnancy
- COVID-19 vaccine

# VPDIP Reports

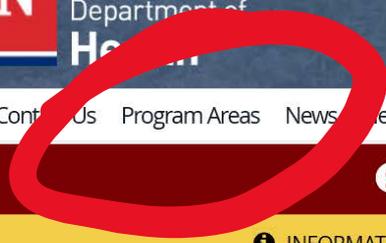


Department of Health

Go to TN.gov

Search Health

Contact Us Program Areas News Health Professionals Parents Individuals Statistical Data Career Opportunities



## FIND COVID-19 INFORMATION AND RESOURCES

INFORMATION FROM TN DEPT OF HEALTH ABOUT THE ONGOING NOVEL CORONAVIRUS OUTBREAK



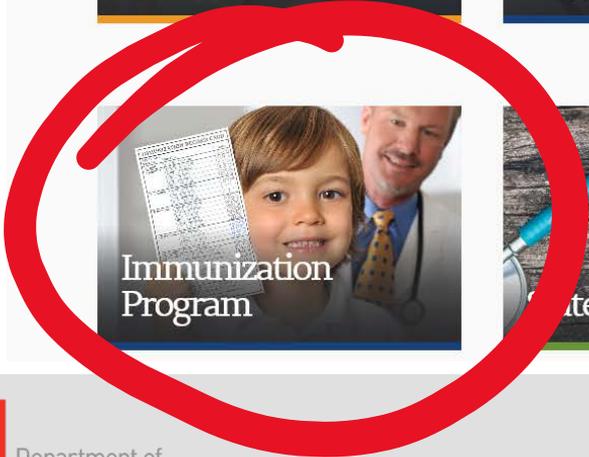
Contact Us Program Areas News Health Professionals Parents Individuals Statistical Data Career Opportunities

Office of Minority Health

Emergency Preparedness

With Special Health Care Needs

Diabetes



Immunization Program

State Health Plan

Division of Health Planning

Tennessee's Vital Signs

# VPDIP Reports

TN

Home Contact Us Program Areas News Health Professionals Parents Individuals Statistical Data Career Opportunities

## Immunization Statistics and Reports

CDC Vaccination Coverage Rates and Data

TN 24-Month-Old Immunization Status

Kindergarten Immunization Compliance

County Immunization Status

## CEDEP Weekly Reports

Preliminary Data for CEDEP

Preliminary Data for Animal Rabies

Preliminary Data for STD

Interactive Disease Data

## Travelers Safety

Travelers' Health CDC Page

Yellow Fever Vaccination Clinics in Tennessee

## Flu in Tennessee

CDC Current & Past Flu Seasons

Flu View - Flu Activity & Surveillance (CDC Page)

Flu Vaccine Information

Influenza Immunization

TN

Department of Health

# ImmunizeTN!



Interested in joining vaccine advocates across Tennessee working for a state free from Vaccine-Preventable diseases?

Joining the Coalition means:

- Participating in three annual meetings
  - Engaging on social media
- Joining one of four sub-committees!

contact [ImmunizeTN@gmail.com](mailto:ImmunizeTN@gmail.com)  
for a committee form

## SAVE THE DATE ImmunizeTN Day on the Hill

Join us in a conversation with legislators to ensure all Tennesseans benefit from the protections provided by immunizations.

Tuesday, February 25, 2019  
8-11am ImmunizeTN meeting  
11am-3pm Visits with Legislators

Register at :

<https://immunizetnfeb25.eventbrite.com>

Location information will be sent to registered attendees closer to the date



[immunizetn@gmail.com](mailto:immunizetn@gmail.com)

TN

Department of  
Health

**VACCINES  
CAUSE  
ADULTS**

**TN**

**#ImmunizeTN  
Thanks!**