

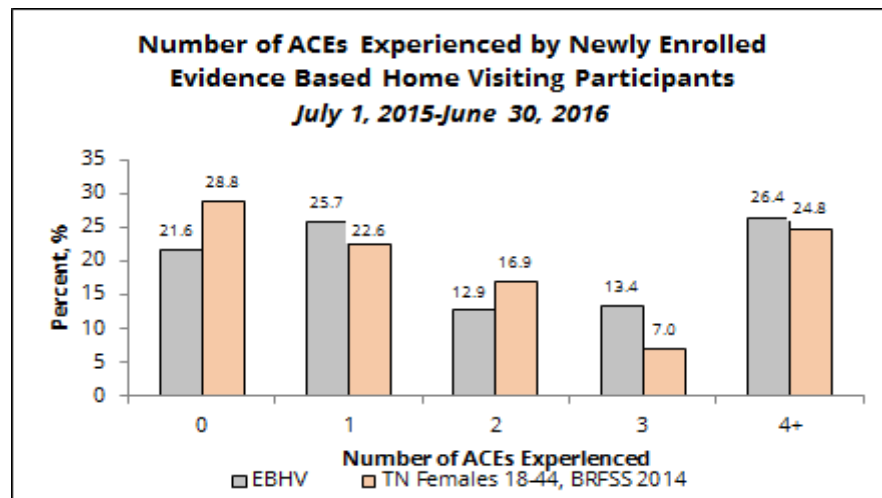
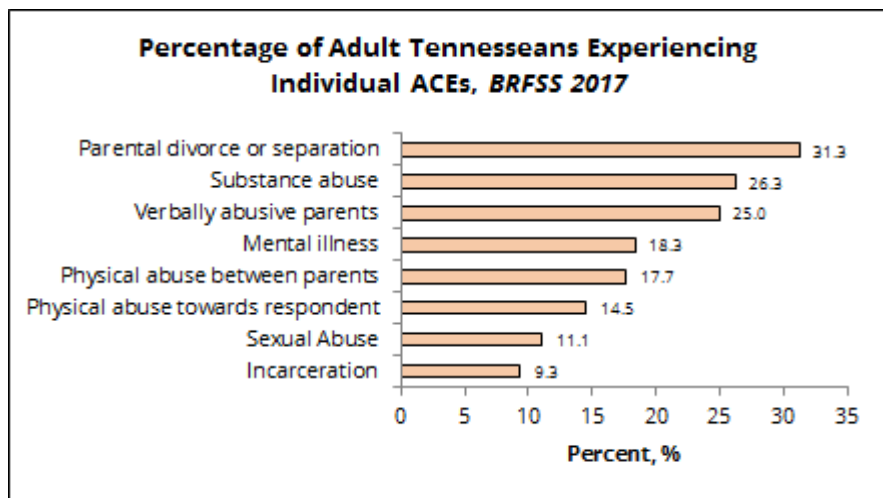
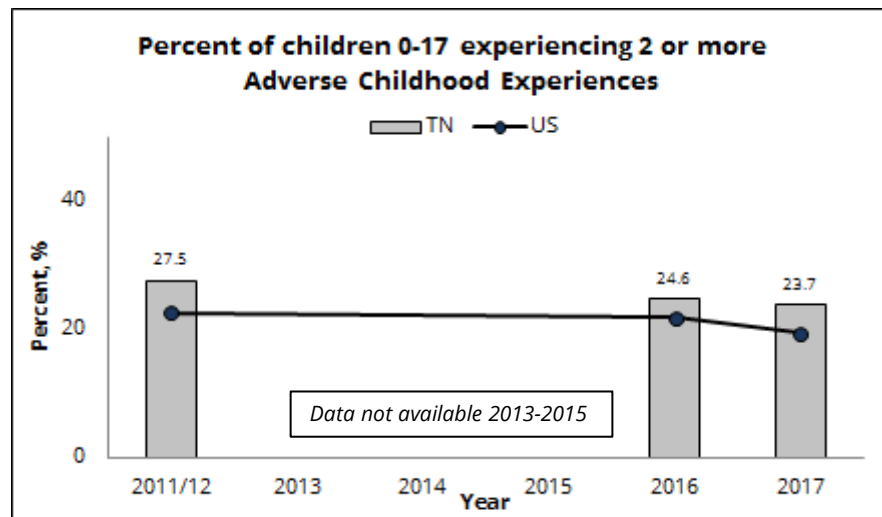


# Needs Assessment

## Child Health

# Adverse Childhood Experiences (ACEs)

- TN children aged 0-17 years were more likely to have experienced 2 or more ACEs when compared to US children in 2017
  - The 2017 percentage decreasing compared to 2016, but there is insufficient data to establish statistical trend
- Among adults, parental separation or divorce was the most common ACE (31.2%), followed by verbal abuse (29.0%), living with an alcoholic (22.6%) or someone with mental illness (18.3%)
- On average, newly enrolled evidence-based home visiting participants have higher ACE scores than the general population



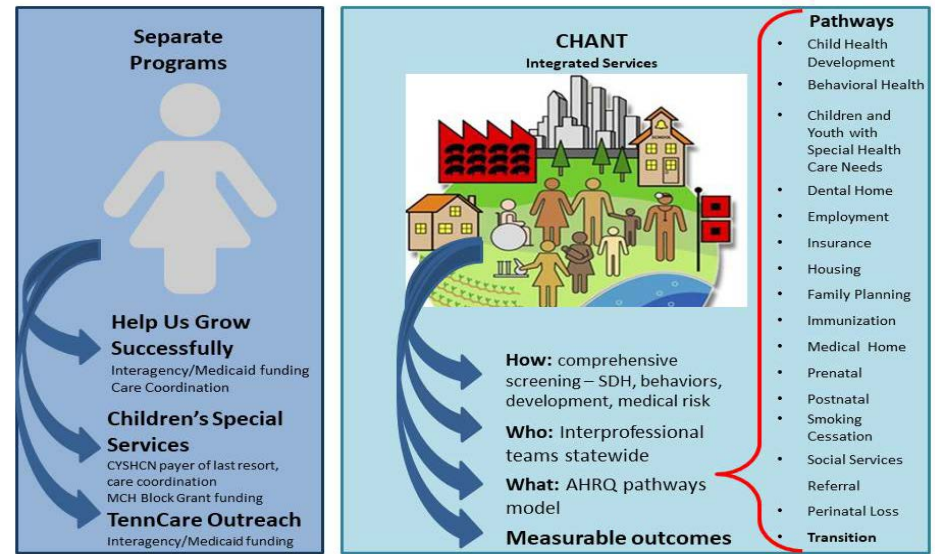
**Data sources:** 1) National Survey for Children's Health.

<https://www.childhealthdata.org/browse/survey/results?q=6760&r=1&r2=44> Accessed March 8, 2019; 2) Tennessee Department of Health, Division of Population Health Assessment, Office of Population Health Surveillance [.https://www.tn.gov/content/dam/tn/health/documents/brfss/2017\\_State\\_Added\\_Report.pdf](https://www.tn.gov/content/dam/tn/health/documents/brfss/2017_State_Added_Report.pdf) Accessed 4/8/2019

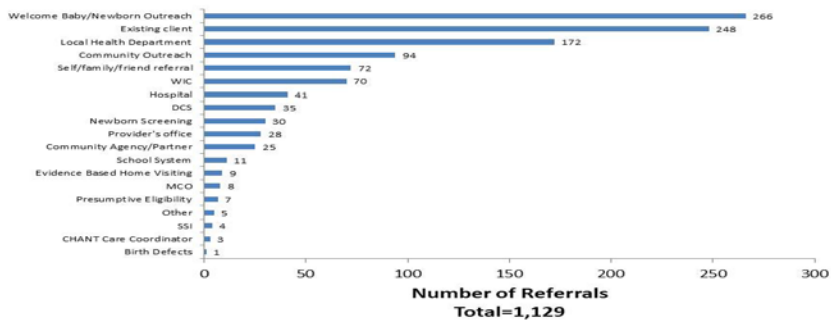
# Community Health and Navigation in Tennessee (CHANT)

## Community Health and Navigation in Tennessee (CHANT)

- Strategic initiative to reduce infant and child mortality
- Developed using the evidence-based AHRQ Pathways Community HUB model as a guide.
- Includes comprehensive screening, assessment and navigation of needed services
- Integrates call center and risk algorithm for infant mortality
- Includes screening for social and medical needs, connecting to resources and coordinating services for children and families

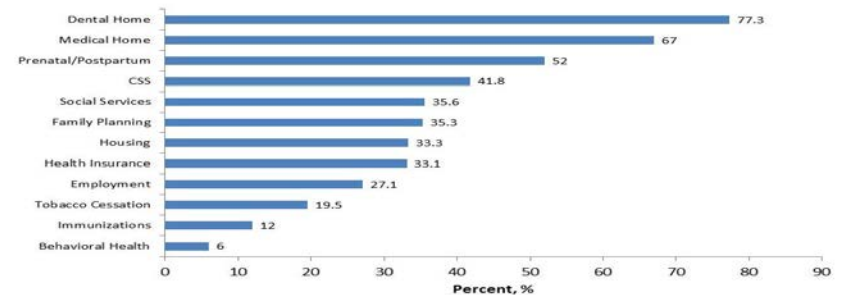


## CHANT: Incoming Family Referrals



Pilot Counties, July 2018-March 2019

## CHANT: Distribution of Pathways

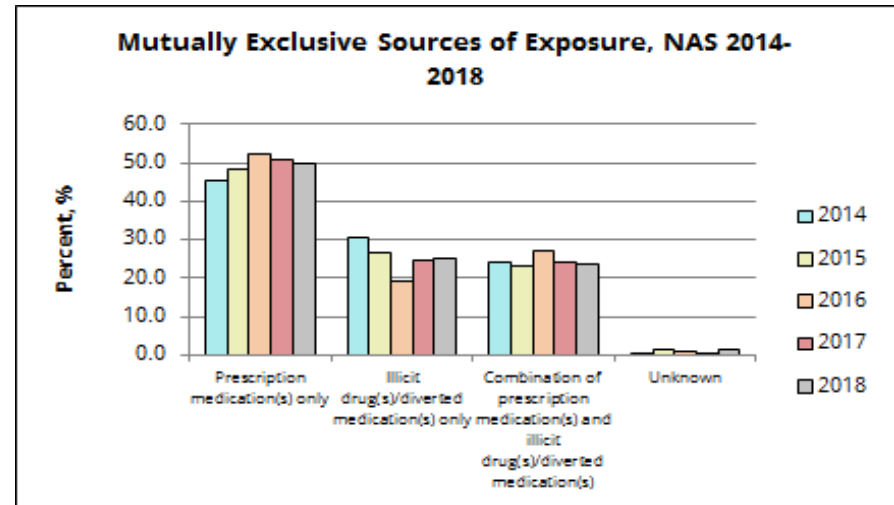
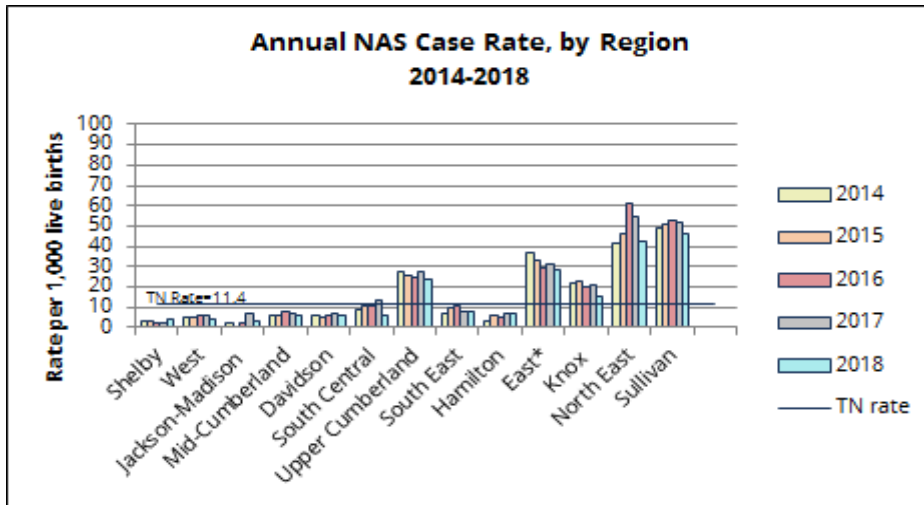
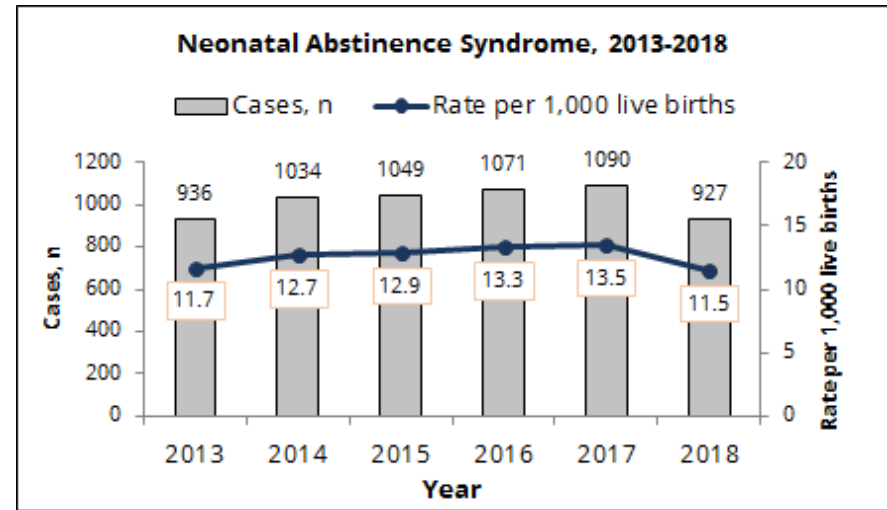


Pilot Counties, July 2018-March 2019

**Data sources:** Community Access and Navigation in Tennessee RedCap System, Tennessee Department of Health.

# Neonatal Abstinence Syndrome (NAS)

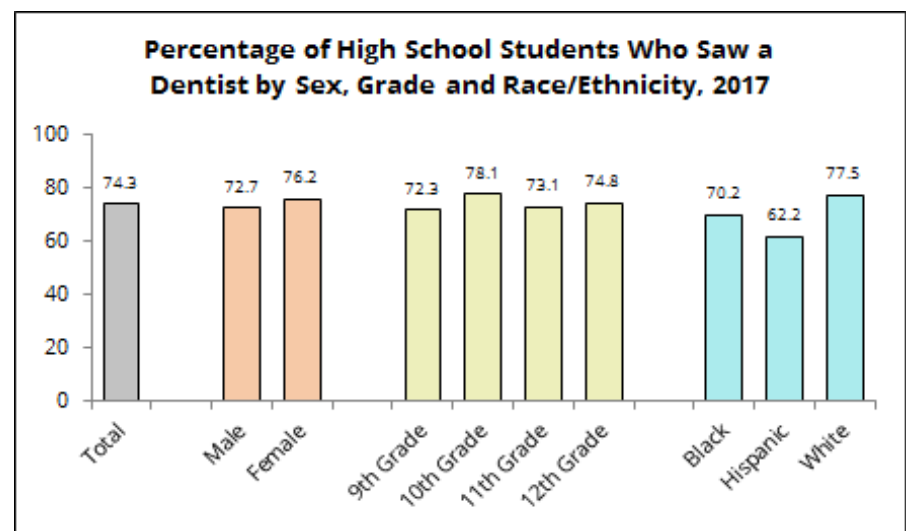
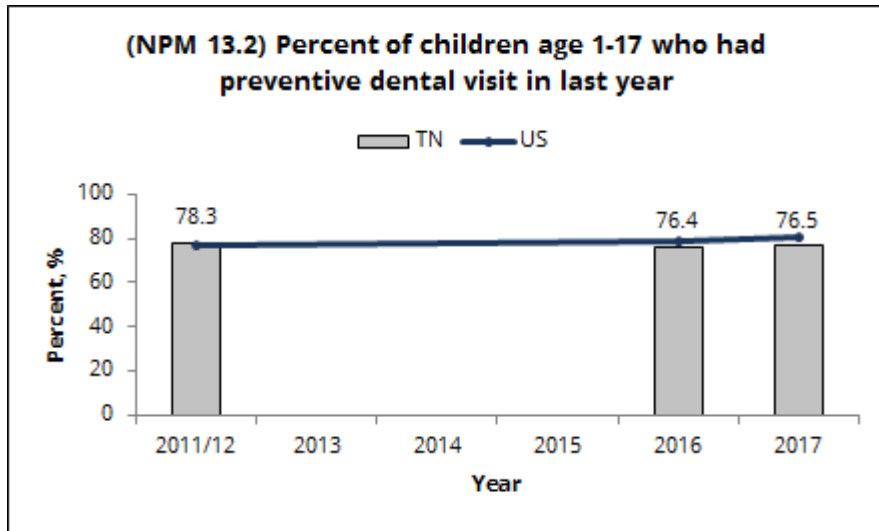
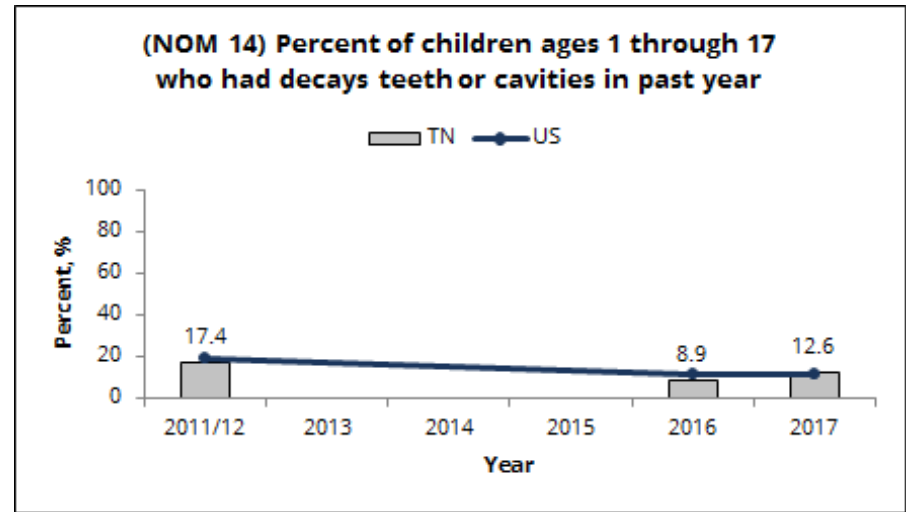
- Since 2013, both case rate (surveillance) and rate of hospitalizations (HDDS) have been stable.
- CY2018 saw the first decrease in NAS since surveillance began in 2013, at 927 cases (11.5 per 1,000 live births).
- Rural areas have NAS rates that are approximately 2x higher than urban areas
- Race/ethnic disparity data unavailable



Data sources: Neonatal Abstinence Syndrome Surveillance System, Tennessee Department of Health.

# Dental Health

- Tooth decay is one of the most common chronic conditions in the United States; can be passed from person-to-person.
- By age 34, more than 80% of people have had at least one cavity.
- In 2017, 76.5% of TN children 1-17 had a preventive dental visit in past year, similar to previous years, but somewhat lower than US.
- 12.6% of children 1-17 had tooth decay or cavities in past year, less than US value of 18.7%
- Insufficient data to establish trends over time or disparities



**Data source: 1)** National Survey of Children's Health. <https://www.childhealthdata.org/browse/survey/results?q=6697&r=44&r2=1>  
<https://www.childhealthdata.org/browse/survey/results?q=6700&r=1> Accessed March 8, 2019; **2)** Youth Risk Behavior Surveillance System. [https://www.tn.gov/content/dam/tn/education/csh/yrbs\\_hs\\_results\\_2017.pdf](https://www.tn.gov/content/dam/tn/education/csh/yrbs_hs_results_2017.pdf) Accessed April 8, 2019.

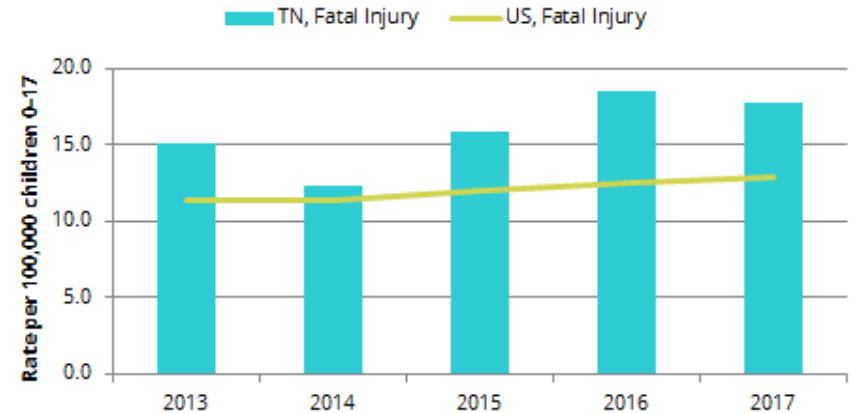


# Injury

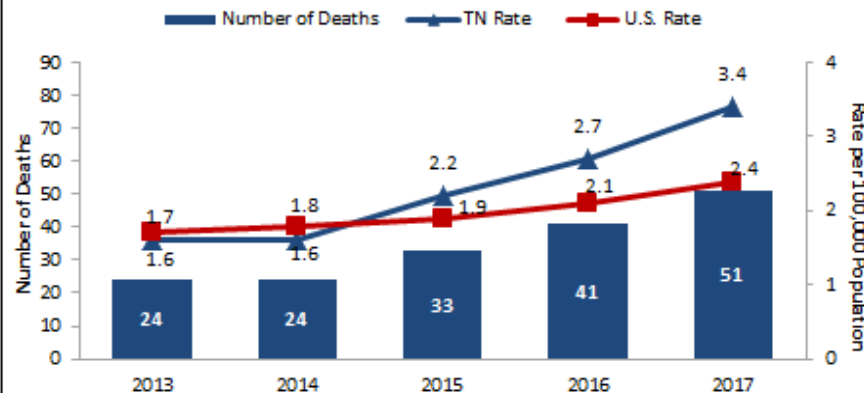
## Data Summary

- Talk about
  - Rates of fatal injury have shown non-statistically significant increase from 2013-2017
  - Leading causes of injury related death in 2017 were due to firearms (4.7 per 100,000), motor vehicles (4.3 per 100,000), homicide (3.7 per 100,000) and suicide (3.4 per 100,000)
  - In 2017, there were 51 suicide deaths in children 0-17. This was 42% higher than national rate.

## Rates of Fatal Injury, 2013-2017



## Suicide in Children <18, 2013-2017



## External Cause of Death by Age Group, 2017

Injuries	Total	Percent of Reviewed Deaths	Age Group				
			<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15-17 yrs
Assault, weapon, or person's body part	102	11.4%	9	11	1	26	55
Motor vehicle or other transport	65	7.3%	2	18	6	14	25
Unintentional Asphyxia	51	5.7%	43	4	3	1	0
Drowning	19	2.1%	0	10	3	4	2
Fire, burn, or electrocution	14	1.6%	0	5	5	2	2
Other	14	1.6%	2	3	2	3	4
Poisoning, overdose or acute intoxication	5	0.6%	1	1	0	1	2
Fall or crush	3	0.3%	1	0	0	1	1
Undetermined	0	0.0%	0	0	0	0	0
<b>Total</b>	<b>273</b>	<b>31%</b>	<b>58</b>	<b>52</b>	<b>20</b>	<b>52</b>	<b>91</b>

**Data sources:** Tennessee Department of Health, Office of Vital Records and Statistics, Death Statistical File and population estimates based on interpolated data from the U.S. Census's Annual Estimates of the Resident Population.

# Lead Exposure

- In 2017, 1.4% of children screened had elevated blood lead levels (EBLL)  $\geq 10$  mg/dL
  - Percent of children with EBLL  $\geq 10$  mg/dL has decreased significantly since 2007
- Disparity data not available

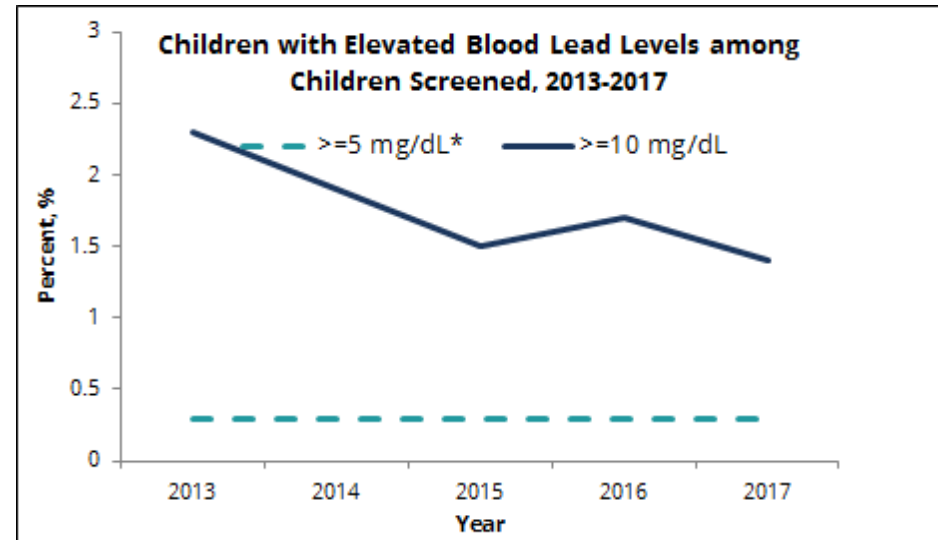
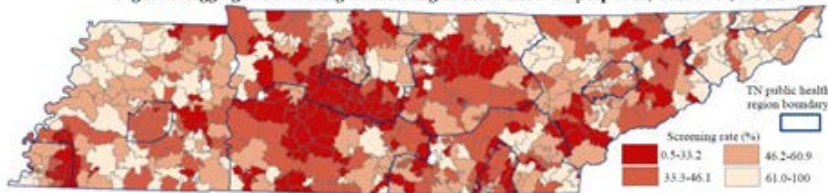


Figure 1: Aggregated screening rates among children under 6 by zip code, Tennessee, 2012-2017



Number of children with EBLL and confirmed EBLL by age Tennessee, 2017

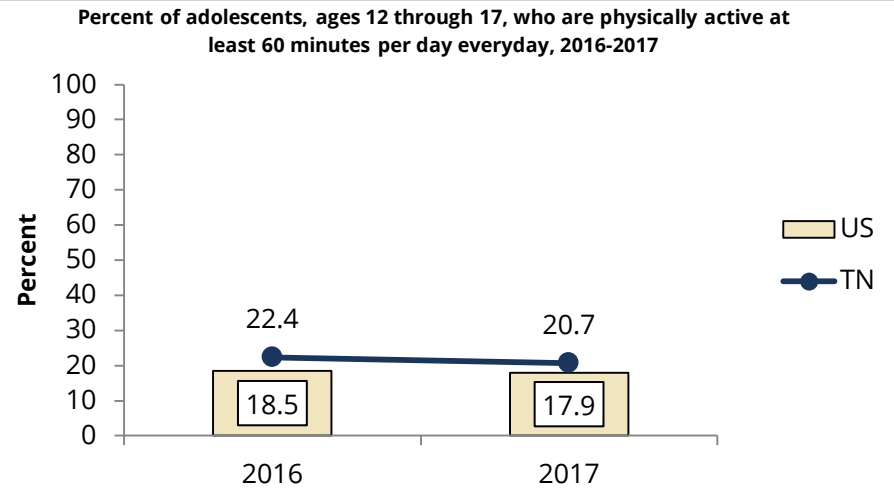
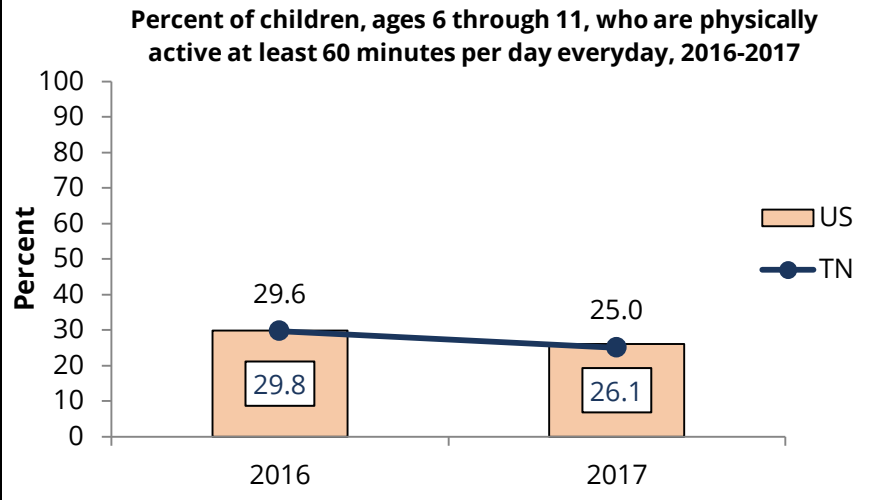
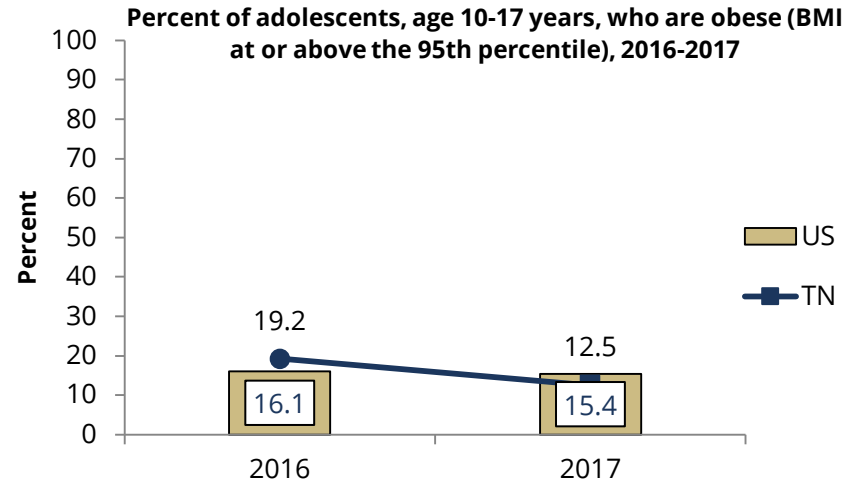
Age (year)	# of children screened	# of children with EBLL ( $\mu\text{g}/\text{dL}$ )		# of children with confirmed EBLL ( $\mu\text{g}/\text{dL}$ )	
		$\geq 5$	$\geq 10$	$\geq 5$	$\geq 10$
0-1	41,427	528	130	164	58
2	29,163	417	101	124	34
3-5	16,111	268	57	79	27
Total	86,701	1,213	288	367	119

**Data sources:** Zheng C and Li Y. Lead Poisoning Burden and Screening Among Children Under 6, Tennessee, 2007 - 2017. Tennessee Department of Health; Division of Family Health and Wellness. Nashville, TN, December 2018.



# Childhood Obesity

- Tennessee saw the percentage of adolescents who are obese decrease to 12.5% in 2017 from 19.2% in 2016.
  - Tennessee's percentage of obese adolescents decreased by 6.7 percentage points from 2016 to 2017.
  - Tennessee's percentage of obese adolescents was less than nationwide (US) percentage of obese adolescents in 2017.
- The percentage of children and adolescents in Tennessee who daily perform at least 60 minutes of physical active saw a decline in 2017.
  - Only 1 in 4 Tennessee children are physically active for 60 or more minutes everyday
  - Tennessee adolescents are less physically active with 20.7% of them being physically active for 60 or more minutes
  - The percentage of Tennessee adolescents who are physically active daily is still greater than for other adolescents in the US

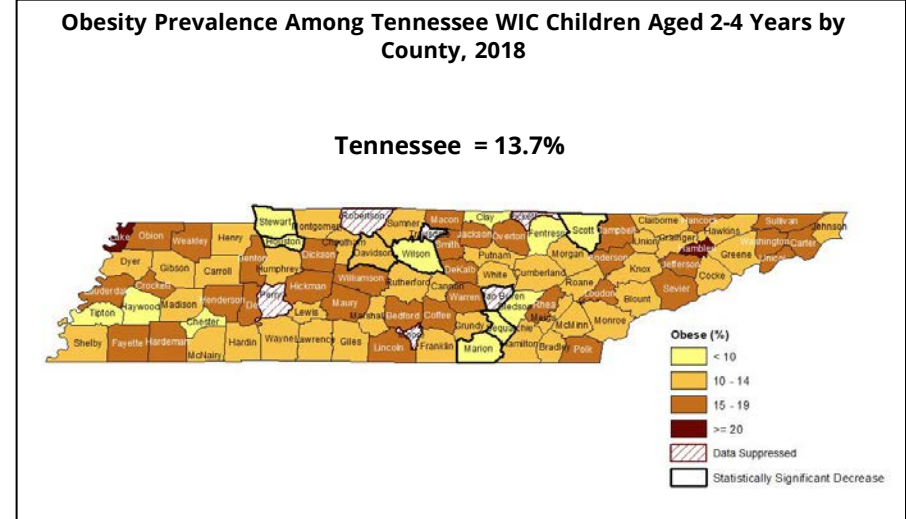
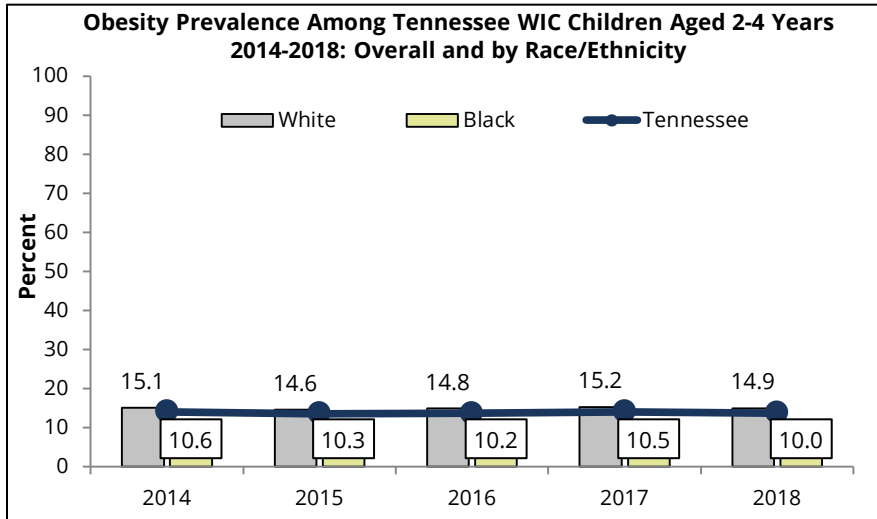
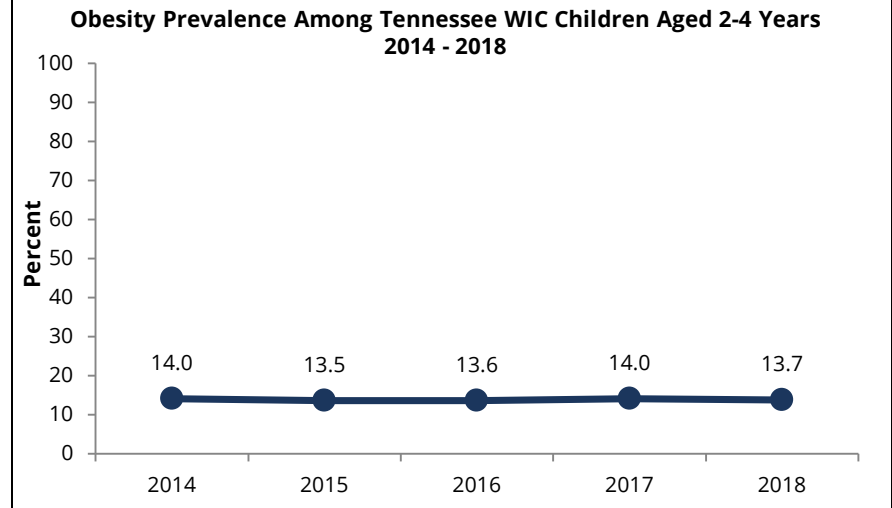


**Data Sources:** Child and Adolescent Health Measurement Initiative. Data Resource Center for Child and Adolescent Health. 2016 National Survey of Children's Health (NSCH) data query. Retrieved 04/01/2019 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org).

Child and Adolescent Health Measurement Initiative. 2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved 04/01/2019 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org).

# WIC Early Childhood Obesity

- In 2018, 13.7% of Tennessee WIC children aged 2 to 4 years have obesity
  - No statistically significant change since 2014
- Among Tennessee WIC children, there are significant disparities by race and place
  - Statistically significant differences among racial groups ( $p < 0.0001$ )
  - Wide variation by county from 2.3% (Sequatchie) to 21.1% (Hamblen)
  - Since 2014, statistically significant decrease in early childhood obesity among WIC children in 9 of 95 counties

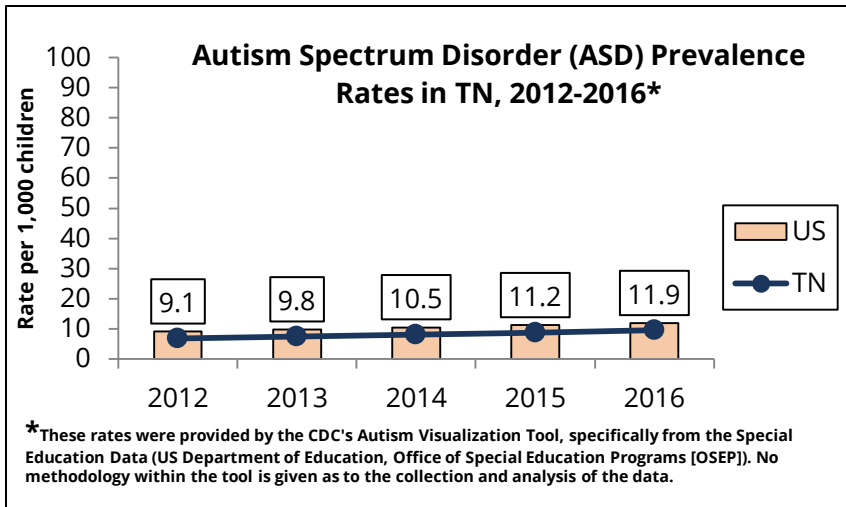
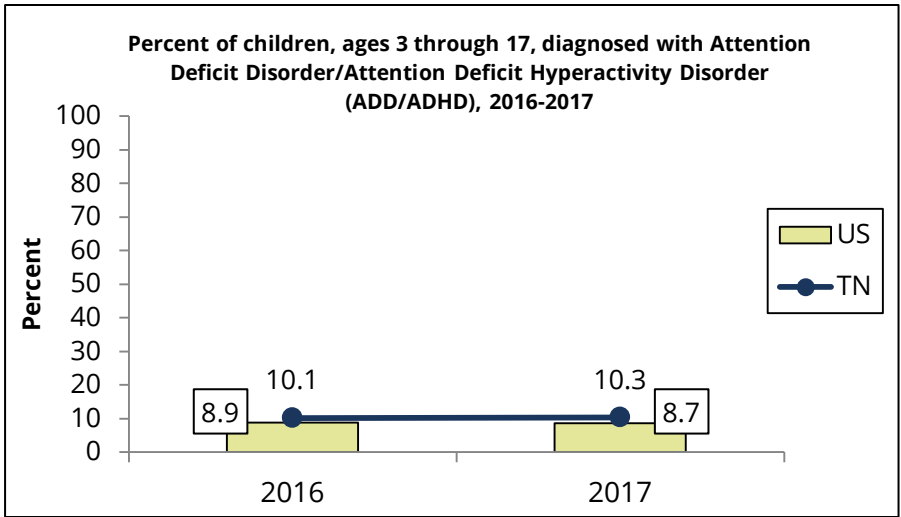


**Data Source:** Tennessee Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Data System; Tennessee Department of Health, Division of Family Health and Wellness. Prepared March 2019.

**Data Notes:** WIC child participants with most recent valid weight and height measurements for each child during that calendar year. Body mass index is defined as individual's body mass in kilograms divided by the square of their height in meters. Obesity is defined as BMI greater than or equal to the 95th percentile for children of the same age and sex.

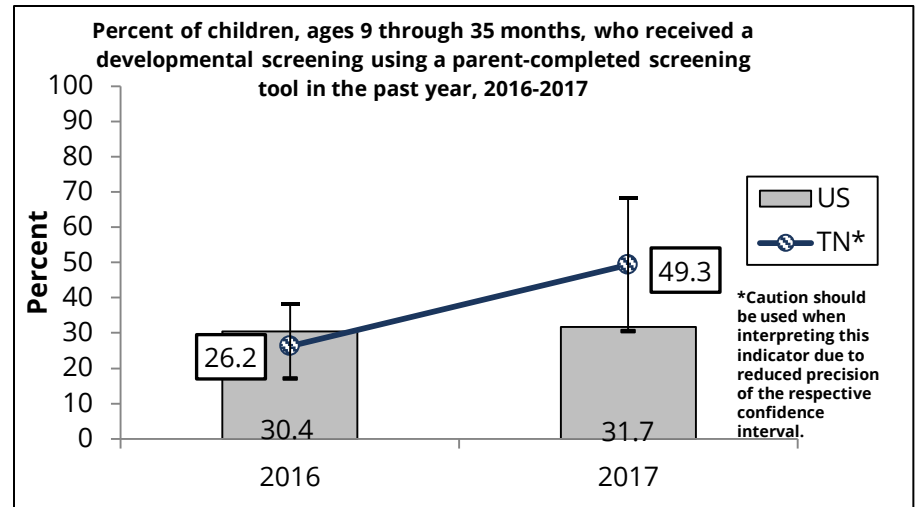
# Developmental Screening

- In 2017, 10.3% of Tennessee children were diagnosed with ADD/ADHD
  - Tennessee continued to see similar ADD/ADHD diagnosis rates in 2016 and 2017
- Tennessee rates of ADD/ADHD continued to exceed the national average in 2017
- From 2012-2016, Tennessee saw small increases in the prevalence of autism spectrum disorders



**Data Sources:**

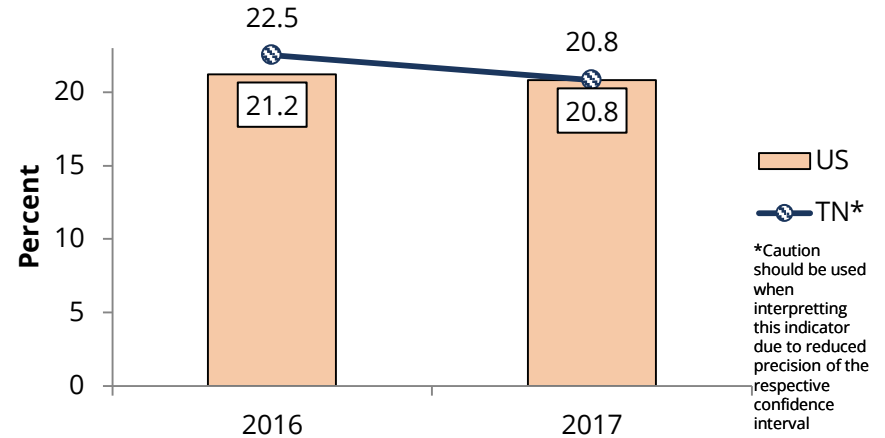
1) Child and Adolescent Health Measurement Initiative. Data Resource Center for Child and Adolescent Health. 2016 National Survey of Children's Health (NSCH) data query. Retrieved 04/01/2019 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org). 2) Child and Adolescent Health Measurement Initiative. 2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved 04/01/2019 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org). 3) CDC's Autism Visualization Tool. <https://www.cdc.gov/ncbddd/autism/data/index.html#explore>. Accessed 4/9/2019. 4) CDC's Autism Visualization Tool. <https://www.cdc.gov/ncbddd/autism/data/index.html#explore>. Accessed 4/9/2019.



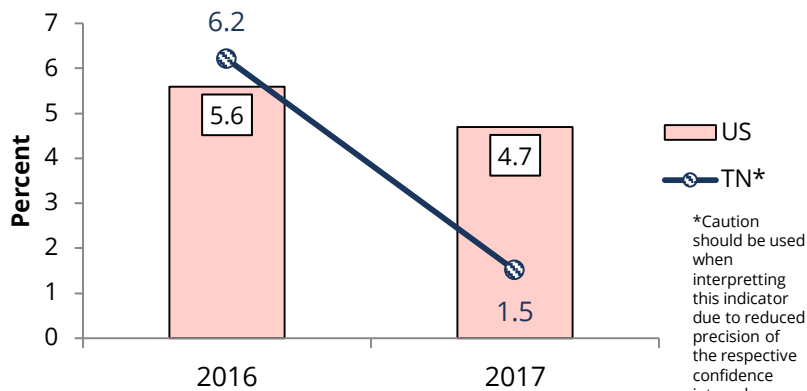
# Bullying

- The percentage of adolescents in Tennessee who are bullied declined in 2017 to 20.8%
  - In Tennessee and nationwide, the percentage of adolescents who were bullied was the same in 2017
  - Data is not available by race

**Percent of adolescents, ages 12 through 17, who are somewhat or definitely bullied, 2016-2017**



**Percent of adolescents, age 12-17 years, who somewhat or definitely bully others, 2016-2017**



**Data Sources:** 1) Child and Adolescent Health Measurement Initiative. Data Resource Center for Child and Adolescent Health. 2016 National Survey of Children's Health (NSCH) data query. Retrieved 04/01/2019 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org). 2) Child and Adolescent Health Measurement Initiative. 2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved 04/01/2019 from [www.childhealthdata.org](http://www.childhealthdata.org). CAHMI: [www.cahmi.org](http://www.cahmi.org).