

Welcome to the CHAMP Learning Session!

Sharpening our Focus on ADHD: Using Guidelines and Partnerships to Improve Outcomes

*The University of Vermont Dudley H. Davis Center
Silver Maple Ballroom*

October 8, 2019

(A day late . . .)

Happy Child Health Day, 2019!

Vermont Child Health Improvement Program

- **Mission:** Optimize the health of Vermont's children & families by initiating/supporting measurement-based efforts to enhance private & public child health practice & inform policy
- **CHAMP:** Improving health outcomes for Vermont's children & families through practice-based, data-driven educational and quality improvement activities

Maternal & Child Health, Vermont Department of Health Strategic Plan (2019-2021)

- **Vision:** Strong, healthy families power our world.
- **Mission:** We invest in people, relationships, communities and policies to build a healthier Vermont for future generations.



Situation Update: ADHD in Vermont and Across the U.S.



Objectives

- Understand state/national history and current context for “Sharpening our Focus on ADHD”
- Describe national and Vermont-specific ADD/ADHD data from the National Survey of Children’s Health
- Consider implications for successful practice improvement in caring for children and youth with ADD/ADHD

VCHIP ADHD Practice Improvement 2003 – 2008

“If you don't know where you are going, you'll end up someplace else.” – Yogi Berra

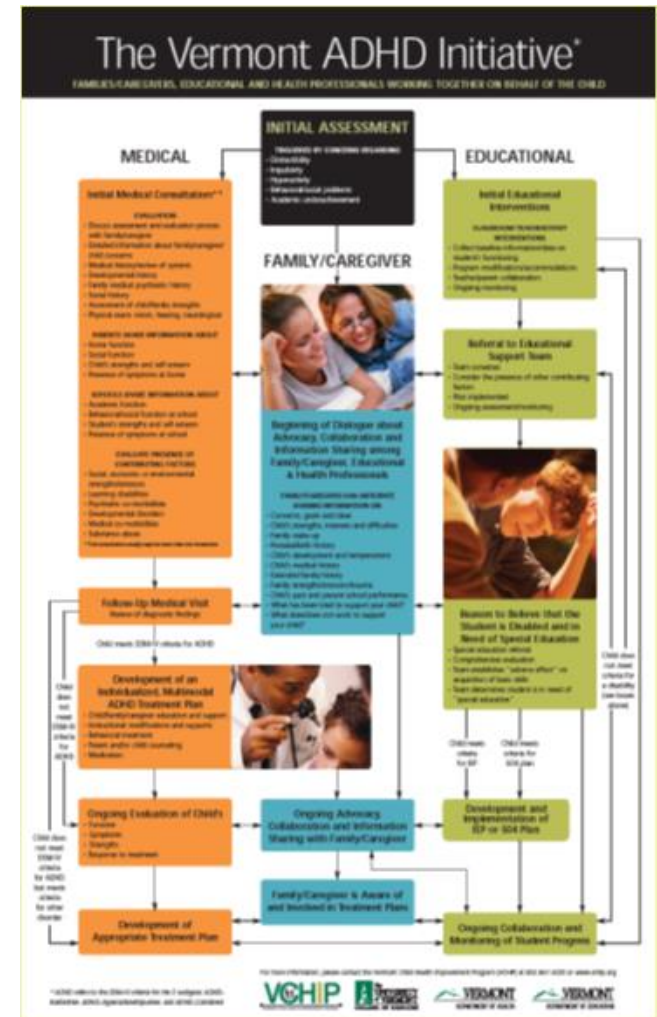
“You can't really know where you are going until you know where you have been.” – Maya Angelou

- **2003:** VCHIP, VT Dept. of Health & VT Dept. (now Agency) of Education convene statewide work group (health & educational professionals; parents)
- **Goal:** Design a coordinated, comprehensive approach to addressing needs of children & youth with symptoms of ADHD

VCHIP ADHD Practice Improvement *(cont'd.)*

Core Concepts:

- ❑ ADHD is a chronic condition.
- ❑ Effective care depends upon collaboration among families, health care and educational professionals.
- ❑ Approach to diagnosis & treatment should reflect national guidelines.
- ❑ Outcomes: process & roles defined in flow chart, booklet.



VCHIP ADHD Practice Improvement (*cont'd.*)

- 2008: VCHIP QI Project
 - ▣ Nine pediatric & family medicine practices (offered to participants in earlier pilot projects)
 - ▣ Interventions, tools and materials: e-mail educational support; access to Achenbach checklists; clinical support via practice site visits; sample chart forms & treatment plans
- Results: modest improvements in symptom assessment across settings, documentation of comorbid conditions, use of symptom-based target outcomes & stimulant Rx recs.

AAP Guidelines

- ❑ 2000: AAP “Clinical Practice Guideline: Diagnosis and Evaluation of the Child With Attention Deficit/Hyperactivity Disorder”
- ❑ 2001: AAP “Treatment of the School-aged Child With Attention Deficit/Hyperactivity Disorder”
- ❑ 2011: AAP “ADHD: Clinical Practice Guideline for the Diagnosis, Evaluation and Treatment of Attention Deficit/Hyperactivity Disorder in Children”
 - ▣ New information/evidence re: diagnosis & treatment
 - ▣ Surveys explored pediatricians’ attitudes and practices
 - ▣ Expanded age range, scope & process-of-care algorithm

AAP Guidelines

Breaking News . . .

- 2019: AAP “Clinical Practice Guideline for the Diagnosis, Evaluation and Treatment of Attention Deficit/Hyperactivity Disorder in Children and Adolescents”
 - ▣ Supplement: Process-of-Care Algorithm
 - ▣ Supplement: Systemic Barriers to the Care of Children and Adolescents with ADHD,

Wolraich ML, Hagan JF, Allen C, et al. AAP Subcommittee on Children and Adolescents with Attention-Deficit/Hyperactivity Disorder. *Pediatrics*. 2019; 144(4):e20192528

AAP: Barriers to High Quality ADHD Care

- Limited access to care, related to inadequate DBP & MH training in pediatric residency & other clinical training programs; consultant specialist & referral resource shortages
- Inadequate payment for services & inadequate coverage for needed medications
- Challenges in practice organization
- Fragmentation of care & resulting communication barriers

AAP ADHD Practice-Based Improvement

- Chapter Quality Network (CQN) QI Project (2015-2016): AR, GA, OH, TX, NY (ch. 1 & 2)
 - Goal: deliver consistent dx, evaluation & treatment
 - Apply evidence-based guidelines (2011)
- Learning Network: CT, ME, IL, LA, ME
 - Participants designed/tested innovative strategies to improve quality of ADHD care
 - Network fostered sharing of barriers and successes
 - Content delivered via in-person session and monthly webinars

<https://www.aap.org/en-us/oprfessional-resources/quality-improvement/quality-improvement-resources-and-tools/Pages/adhd.aspx>

AAP ADHD Practice-Based Improvement

CHECK your e-mail!

CHECK your e-mail

American Academy of Pediatrics | www.aap.org



Issue # 31

Features

QuIN ADHD Project – Seeking Expert Group Members by 10/15/2019

The Quality Improvement Innovation Network (QuIN) is convening an **Expert Group** for its upcoming quality improvement (QI) project and is accepting applications from members of the outpatient pediatrics community.

Brought to you by the Council on Quality Improvement & Patient Safety, **AAP Quality Connections** aims to translate timely information about quality improvement that busy practitioners can

AAP Publishes Updated ADHD Guidelines

On September 30, 2019, the AAP provided advanced access to the 2019 [Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents](#). The guidelines will be published in the October issue of *Pediatrics*. This guidance replaces the 2011 recommendations and includes two supplements:

1. [Implementing the Key Action Statements of the American Academy of Pediatrics' Attention-Deficit/Hyperactivity Disorder \(ADHD\) Clinical Practice Guidelines: An Algorithm and Explanation for Process of Care for the Evaluation, Diagnosis, Treatment, and Monitoring of ADHD in Children and Adolescents](#)
2. [Systemic Barriers to the Care of Children and Adolescents With ADHD](#) (page 29)

The algorithm was revised from the last publication in 2011 and outlines the applicable diagnostic and treatment processes needed to implement the guidelines. The new supplement, *Systemic Barriers to the Care of Children and Adolescents With ADHD* outlines common barriers that impede ADHD and was developed to provide suggested strategies for clinicians, seeking to improve care for children and adolescents with ADHD, to work with other concerned public and private organizations, health care payers, government entities, state insurance regulators, and other stakeholders.

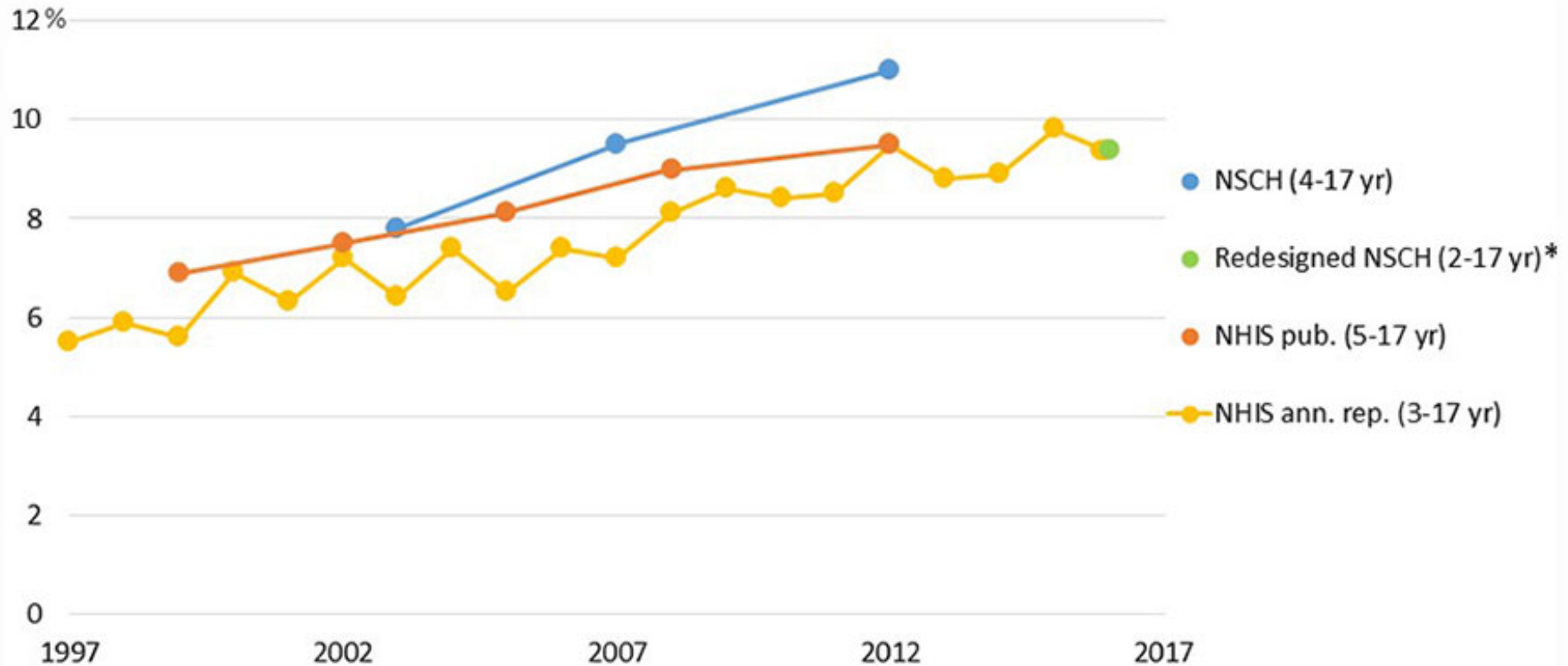
A multitude of additional resources were developed concurrently to assist practitioners at the point of care, as well as parents and caregivers in supporting children and adolescents with ADHD. Click this [link](#)

ADHD & VCHIP's CHAMP MOC Project

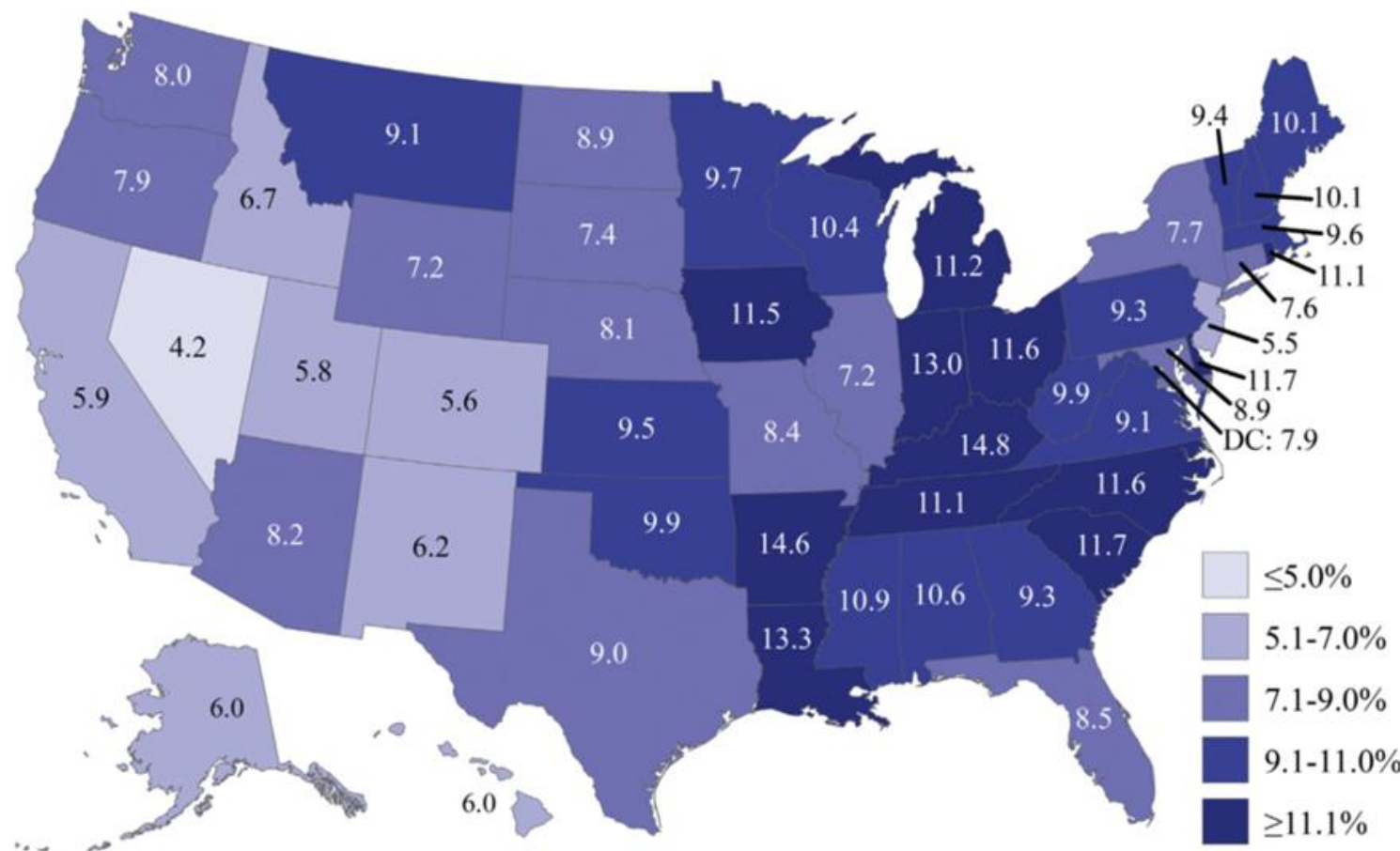
October 2019 – May 2020

- ❑ Statewide practice-based QI: content reflects shared priorities: AAPVT, VAFP, VCHIP, MCH/VDH, **and** feedback from participants (health care professionals/teams)
- ❑ Overarching **aim**: improve knowledge and skills for the evaluation and treatment of Attention Deficit/ Hyperactivity Disorder in Children and Adolescents
 - ▣ Assure documentation of impairment in >1 setting
 - ▣ Include assessment for co-occurring disorders
- ❑ Strengthen connections with school personnel and mental health clinicians to promote collaborative care

ADHD: Estimates from published nationally representative survey data (CDC)

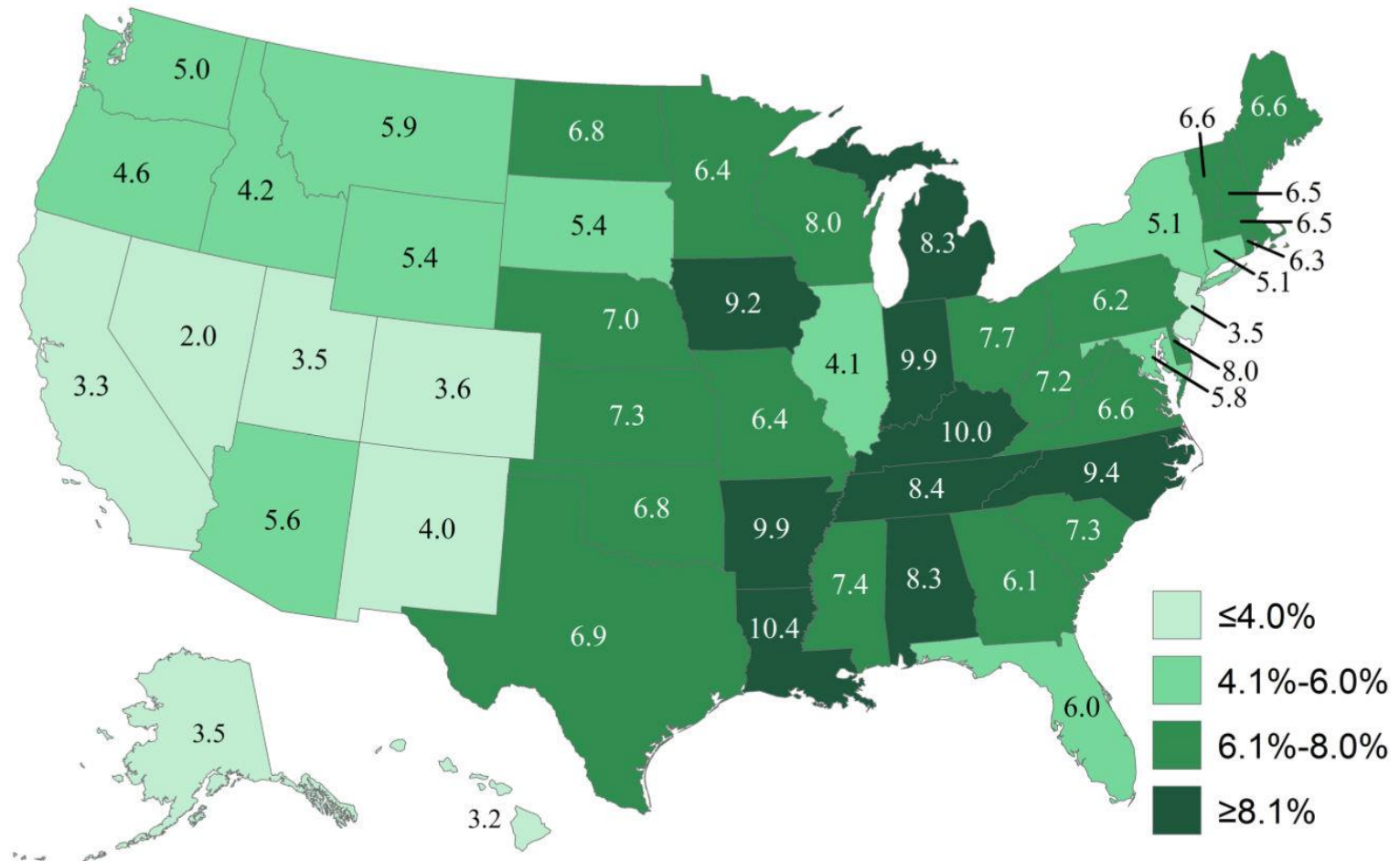


ADHD Prevalence: parent-reported current diagnosis, children 4–17 years by state – United States, 2011



Visser S, et al. Trends in the Parent-report of Health Care Provider Diagnosed and Medicated ADHD: United States, 2003-2011. *J Am Acad Child Adolesc Psychiatry*. 2014; 53(1): 34–46.

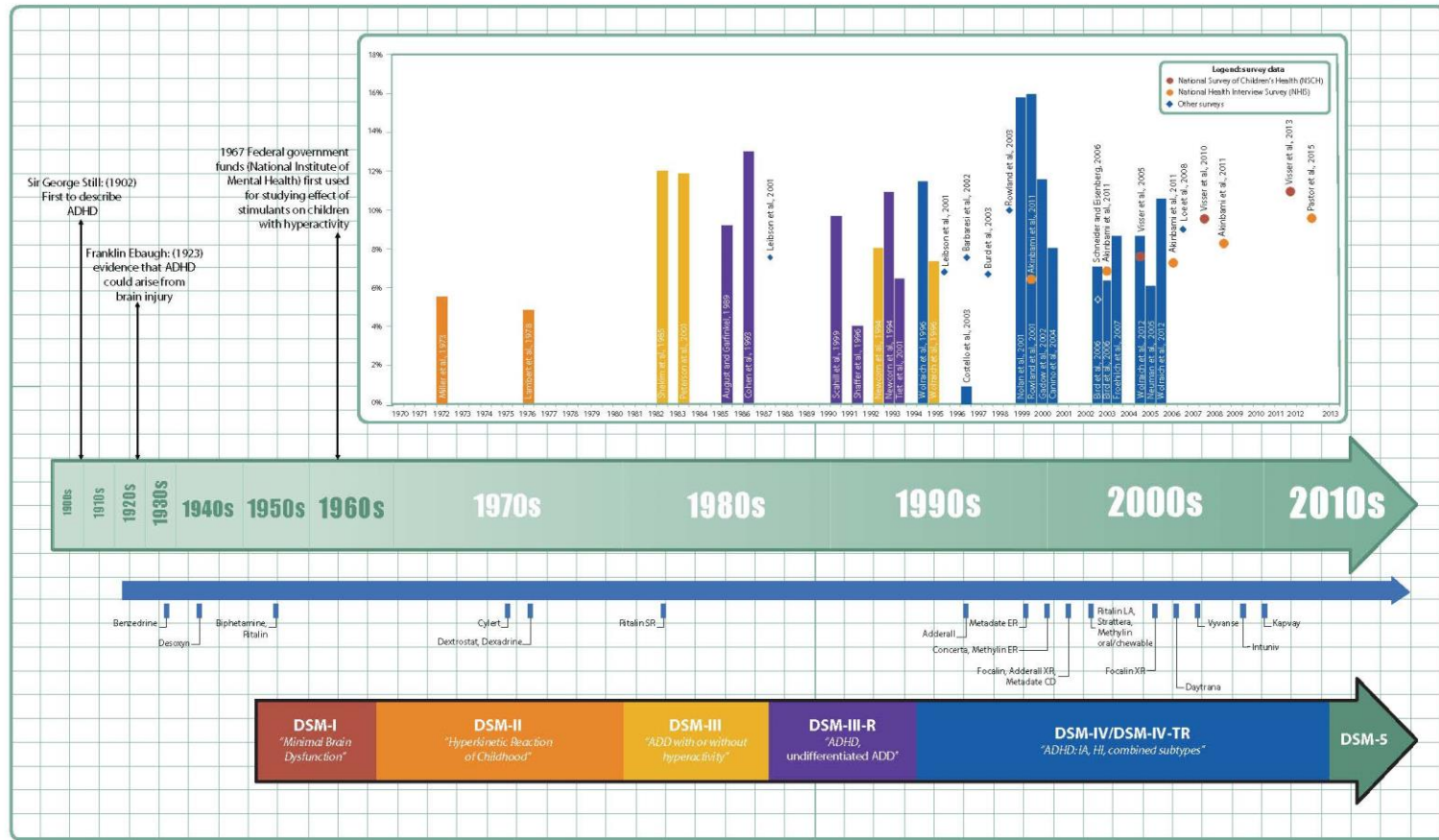
ADHD Prevalence: parent-reported current medication treatment, children 4–17 years by state – U. S., 2011



Visser S, et al. Trends in the Parent-report of Health Care Provider Diagnosed and Medicated ADHD: United States, 2003-2011. *J Am Acad Child Adolesc Psychiatry*. 2014; 53(1): 34–46.

CDC's timeline of ADHD diagnostic criteria, prevalence, and treatment

At 678



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Implications for CHAMP Project

- ADHD is one of the most common neurobehavioral disorders of childhood with significant impact on academic achievement, emotional well-being (child and family), and social interaction
- Opportunities to improve ADHD care persist despite past practice-based efforts
- Updated survey methods, clinical practice guidelines and VT health care professional interest are aligned around this topic!

Overview of Vermont Children aged 6-17 years with ADHD, 2016-2018 NSCH Multi-year Estimates

**Laurin Kasehagen, PhD, MA
Senior Epidemiologist**

**Vermont Departments of Health & Mental Health
UPDATED October 28, 2019**

Disclosure

- I have no relevant financial relationships to disclose or conflicts of interest to resolve.
- I will discuss no unapproved or off-label pharmaceuticals.

National Survey of Children's Health (NSCH)

National survey that provides data on multiple, intersecting aspects of children's health and well-being—including physical and mental health, access to and quality of health care, and the child's family, neighborhood, school, and social context

- Designed to produce national and state-level data on the physical and emotional health of American children <1 - 17 years of age
- Yields weighted data prevalence estimates for comparable non-institutionalized populations in each state and nationally
- Allows for valid state-to-state, regional, and national comparisons
- Estimates are generalizable within the state population
- Parents / guardians respondents
- NSCH conducted annually, starting in 2016

The NSCH provides estimates for several federal and state Title V Maternal and Child Health Services Block Grant National Outcome and Performance Measures and data for each state's Title V needs assessment

This ADHD overview analysis used 3 years of NSCH data, 2016-2018, and limited the subsample to Vermont children, 6-17 years

- NSCH 2016-2018 National Sample
 - US unweighted n = 102,341
 - US weighted n = 73,402,520
- NSCH 2016-2018 Vermont Sample
 - Vermont unweighted n = 2,133
 - Vermont weighted n = 118,306
- NSCH 2016-2018 ADHD analysis subsample (excludes children younger than 6 years)
 - US, excluding Vermont, unweighted n = 71,551
 - US, excluding Vermont, weighted n = 49,658,145
 - Vermont unweighted n = 1,559
 - Vermont weighted n = 79,069
- Data shown in figures are 3-year (multi-year) weighted percentages of
 - Vermont children 6-17 with ADHD
 - United States children 6-17 with ADHD (excluding Vermont)
 - All other Vermont children 6-17 (children in the Vermont subsample aged 6-17 who do not currently have ADHD)
- Data elements of NSCH 2016-2018 for ADHD analysis
 - Age
 - Sex
 - Household poverty level
 - Family structure
 - ADHD prevalence, severity, treatment, concurrent behavioral / emotional conditions, delays
 - Emergency department utilization, hospitalization
 - Adverse family experiences, flourishing (resilience)
 - Making / keeping friends, adult mentors
 - Exercise / physical activity
 - Screentime
 - School engagement, missing school due to injury or illness, school contact, and grade repeat
 - IFSP / IEPs and special services
 - Health provider communications with schools and special education programs
 - Family resilience
 - Parent feelings and emotional support

About small numbers ...

The combined data from 3 years of the NSCH allows Title V programs and researchers to obtain both national and state-level estimates for measures that are not possible with smaller sample sizes from just 1 year or 2 years alone. The increased sample size allows for more precise estimates in some cases and allows for estimates of low prevalence measures (e.g., autism spectrum disorder) or for smaller populations (e.g., American Indian or Alaska Native) that would otherwise not be possible.

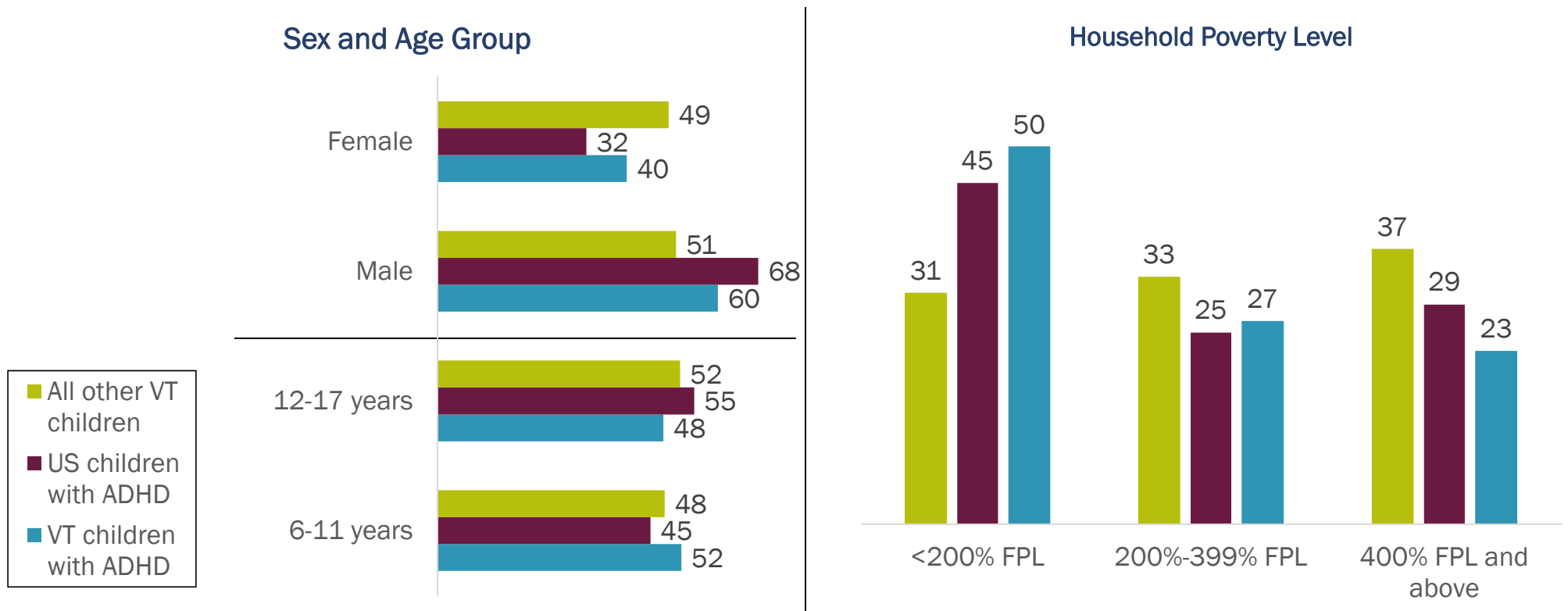
Small sample sizes may produce unstable estimates. To minimize misinterpretation, the Census Bureau and MCHB recommend only presenting statistics with a sample size or unweighted denominator of 30 or more.

All of the data in these slides have an unweighted denominator of at least 30. However, we have noted where the unweighted numerator is less than 30 and recommend that you interpret with caution.

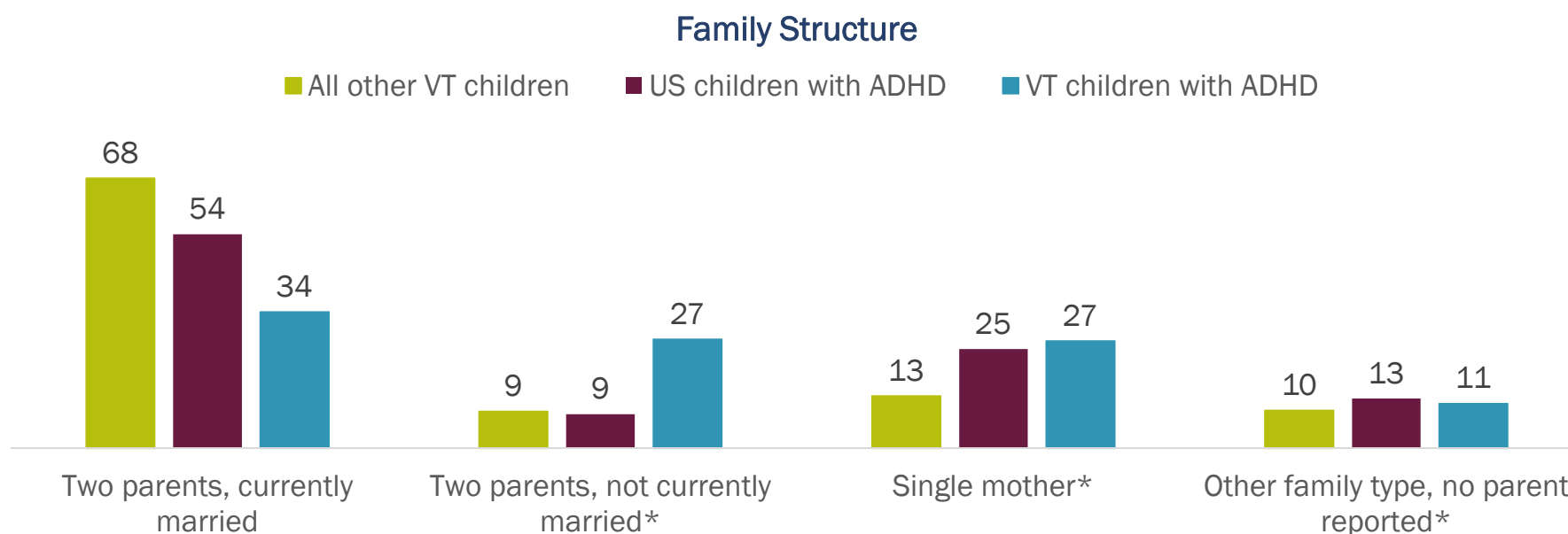
Acronyms

ADHD	Attention Deficit Hyperactivity Disorder
AFE	Adverse Family Experiences
ASD	Autism Spectrum Disorder
MCHB	Maternal and Child Health Bureau of the Health Resources and Services Administration
PDD	Pervasive Developmental Disorder

Vermont children with ADHD tend to be younger, male, and live in households in poverty



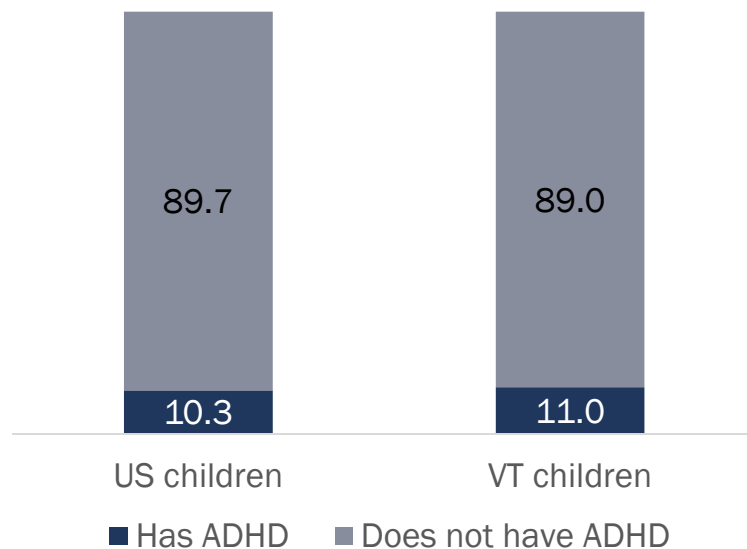
About 1 in 3 Vermont children with ADHD live in a household with 2 parents who are currently married



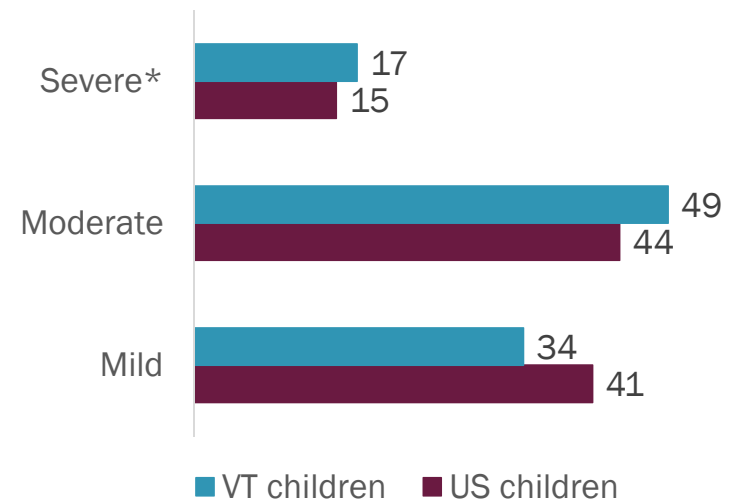
Fewer than 30 VT children with ADHD in categories with an “”. Interpret data with caution.

11% of Vermont children 6-17 years currently have ADHD and about half have a moderate form of ADHD

Prevalence of ADHD



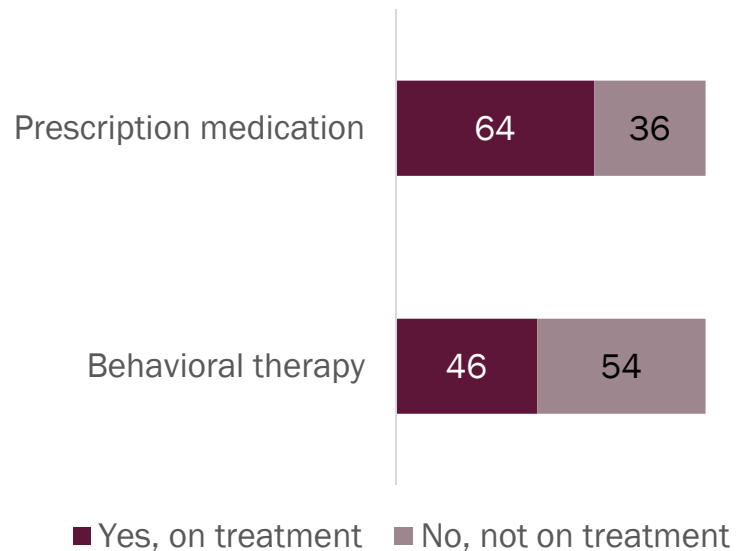
Severity of ADHD



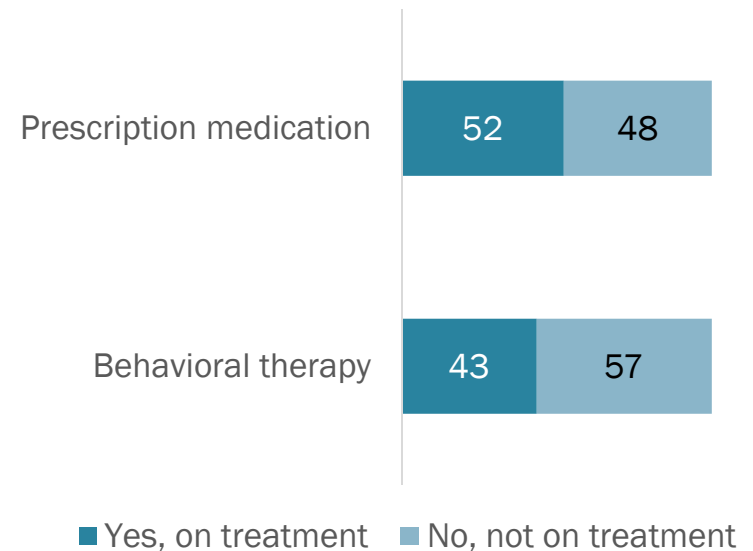
*Fewer than 30 VT children. Interpret data with caution.

About half of Vermont children with ADHD are currently on prescription medications, and about 4 in 10 receive behavioral therapy

Percent of US Children with ADHD on Prescription Medication and / or Behavioral Treatment

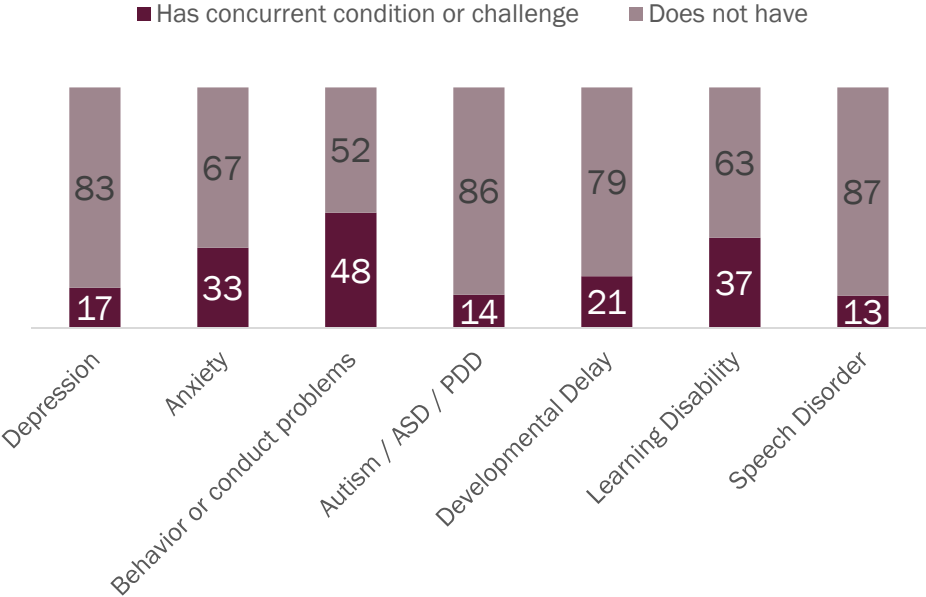


Percent of VT Children with ADHD on Prescription Medication and / or Behavioral Treatment



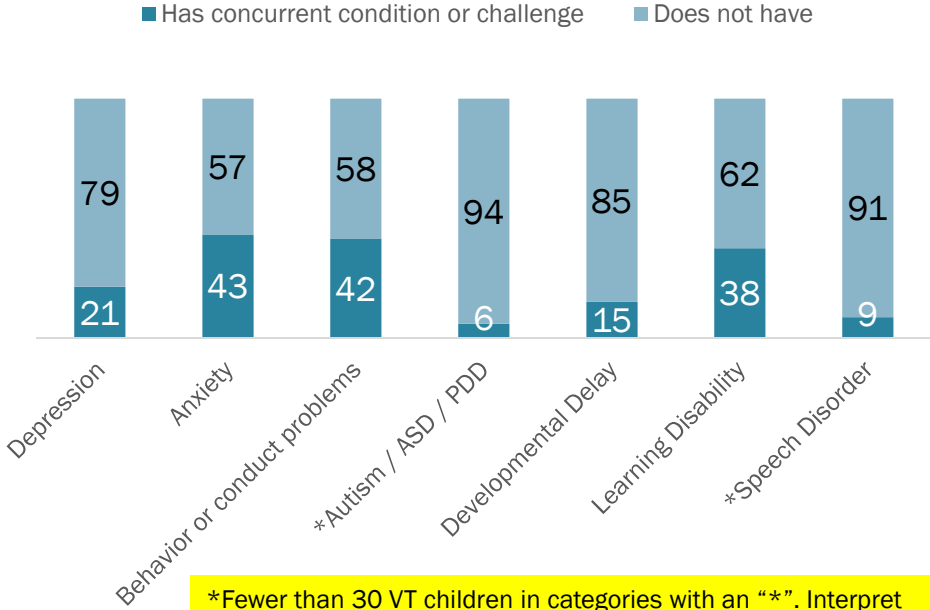
Children with ADHD often have 1 or more emotional or behavioral condition or delay

PERCENT OF US CHILDREN 6-17 YEARS WITH ADHD AND A CONCURRENT CONDITION OR CHALLENGE



Vermont Department of Health

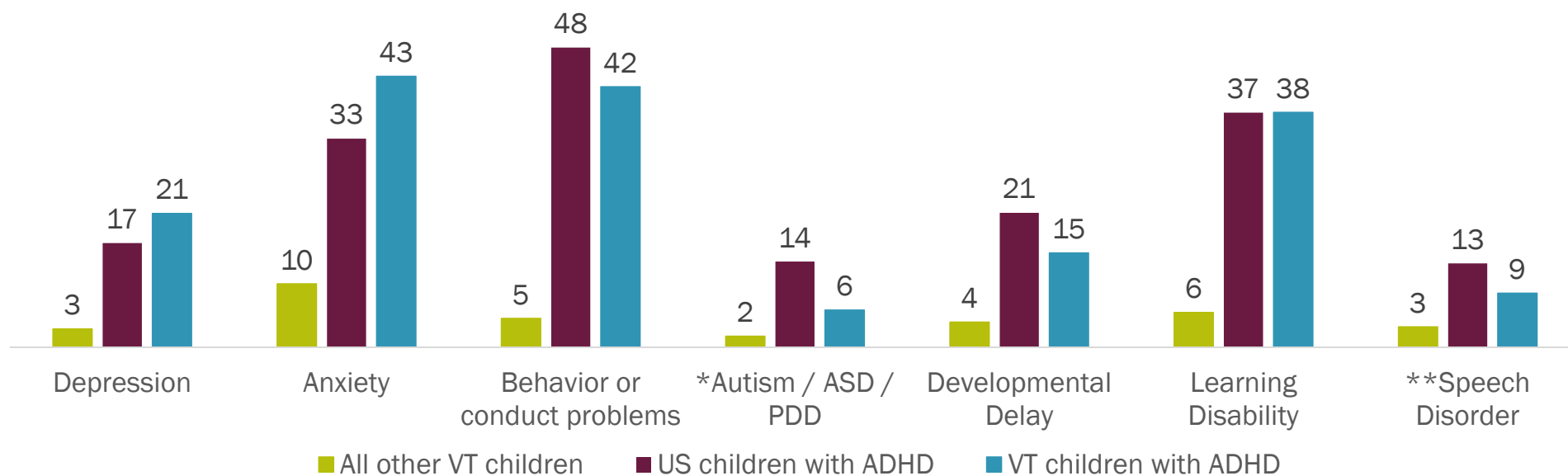
PERCENT OF VT CHILDREN 6-17 YEARS WITH ADHD AND A CONCURRENT CONDITION OR CHALLENGE



Fewer than 30 VT children in categories with an “”. Interpret data with caution.

About 1 in 5 Vermont children with ADHD had depression, 2 in 5 had anxiety and /or a behavior problem, and 1 in 3 had a learning disability

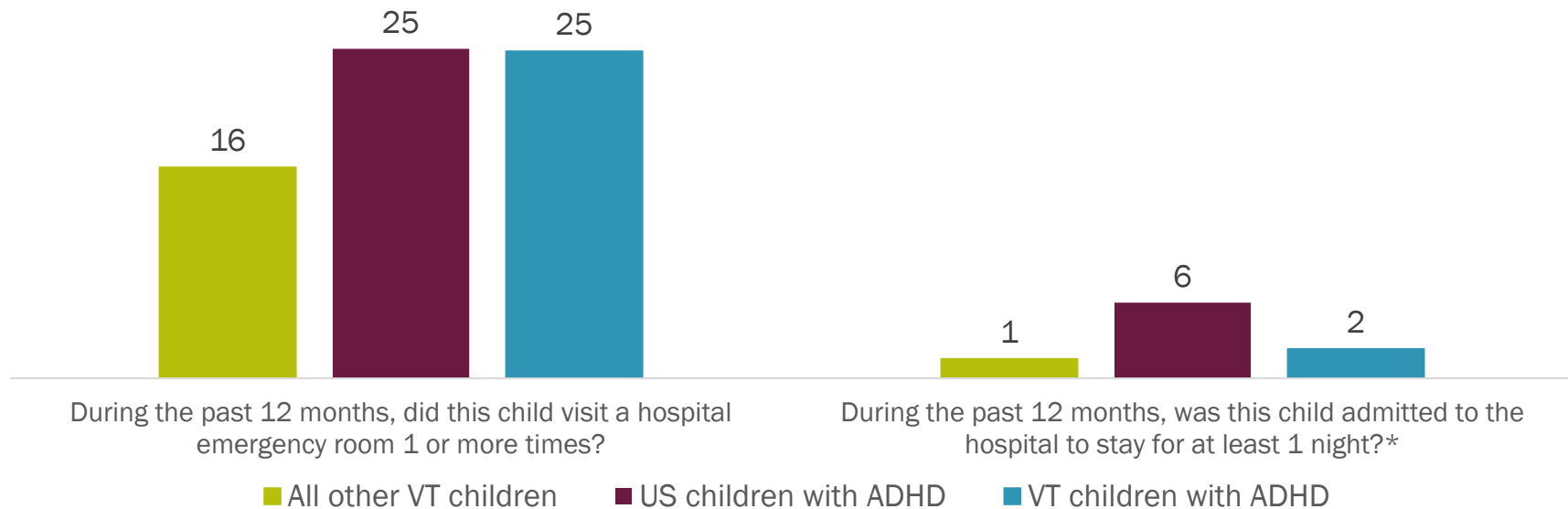
Concurrent Conditions or Challenges



*Fewer than 30 VT children. **Fewer than 30 VT children with ADHD. Interpret data with caution.

25% of Vermont children with ADHD visited a hospital emergency department at least once in the past year and about 2% were hospitalized for at least 1 night

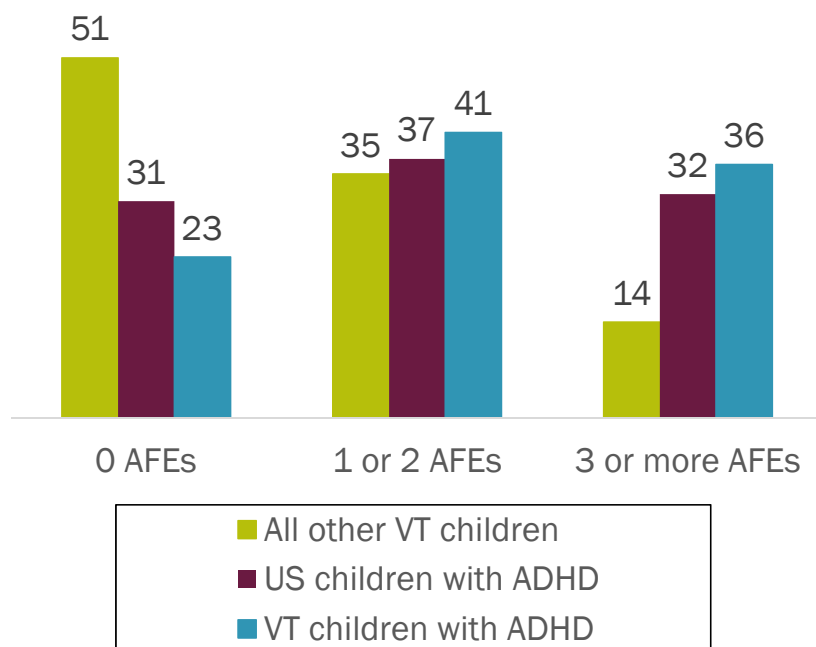
Hospital Emergency Department Visits & Hospitalization**



*Fewer than 30 VT children. Interpret data with caution. **2018 data only.

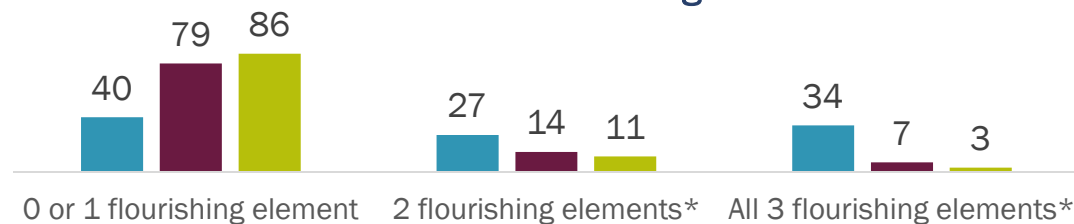
More than 3 in 4 Vermont children with ADHD live in households that currently or in the past faced adversity and may have less of the resilience ‘skills’ necessary to thrive

Number of Adverse Family Experiences (AFEs)

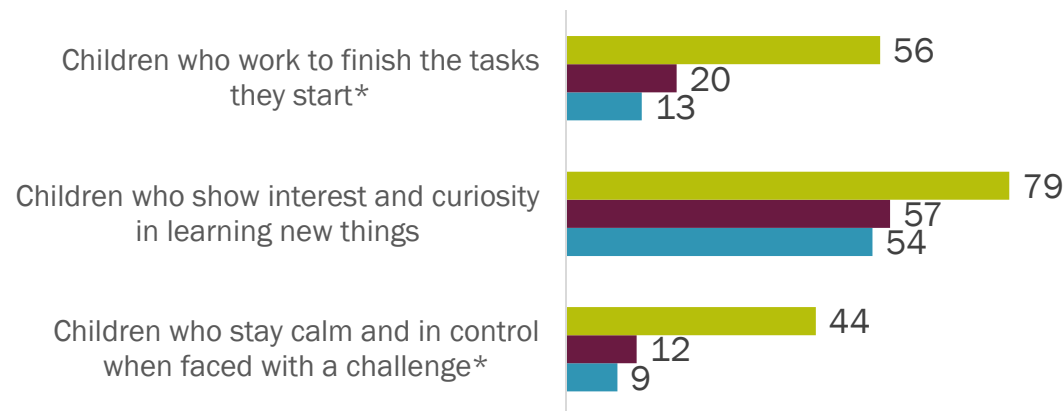


Vermont Department of Health

Overall Flourishing



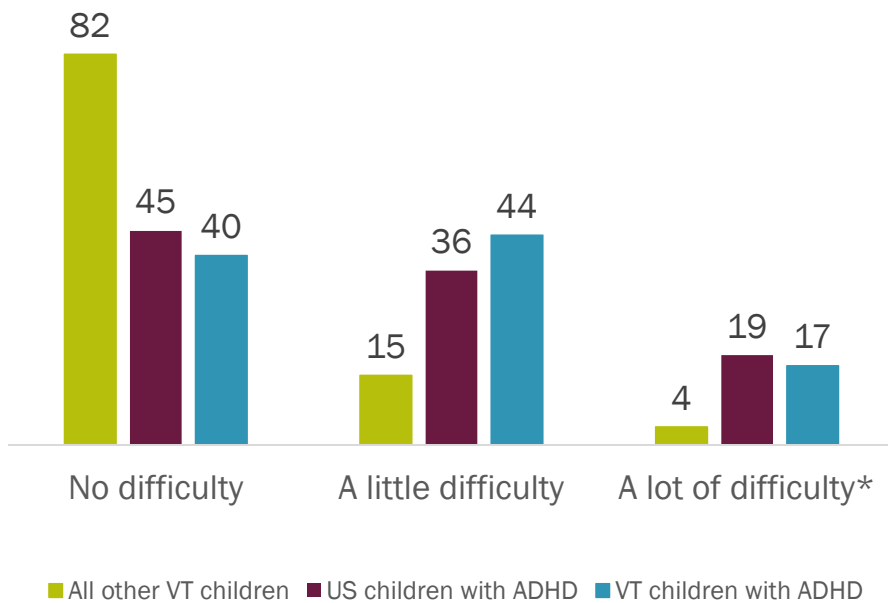
3 Elements of Flourishing



Fewer than 30 VT children with ADHD in categories with an “”. Interpret data with caution.

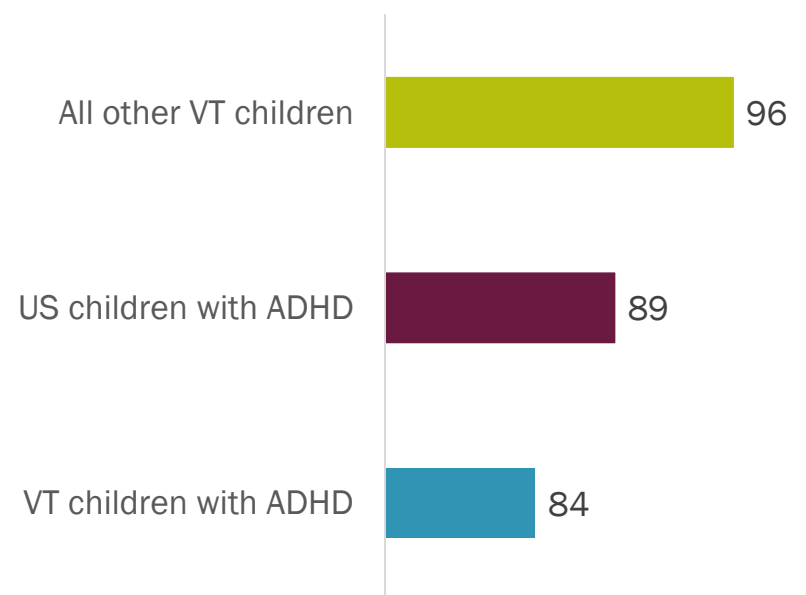
Vermont children with ADHD may have difficulty making or keeping friends and about 1 in 5 did not have an adult they can rely on for advice

Difficulty Making or Keeping Friends



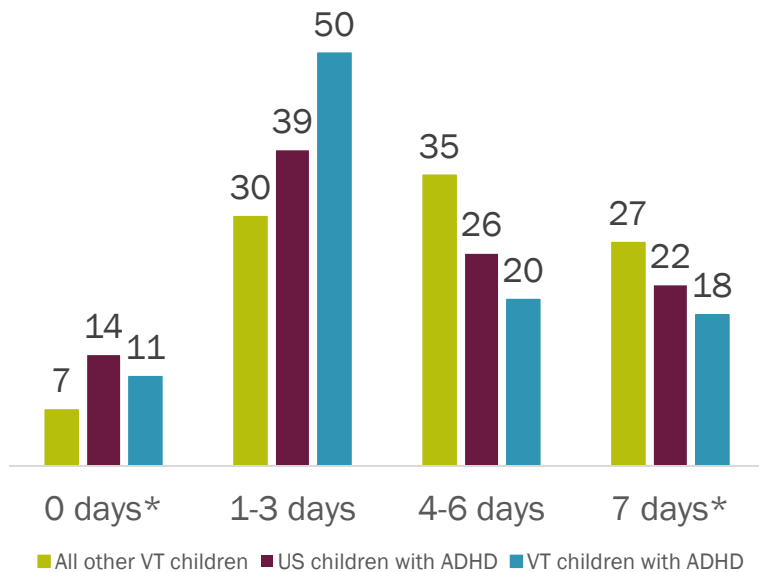
*Fewer than 30 VT children with ADHD. Interpret data with caution.

Adult that They can Rely on for Advice

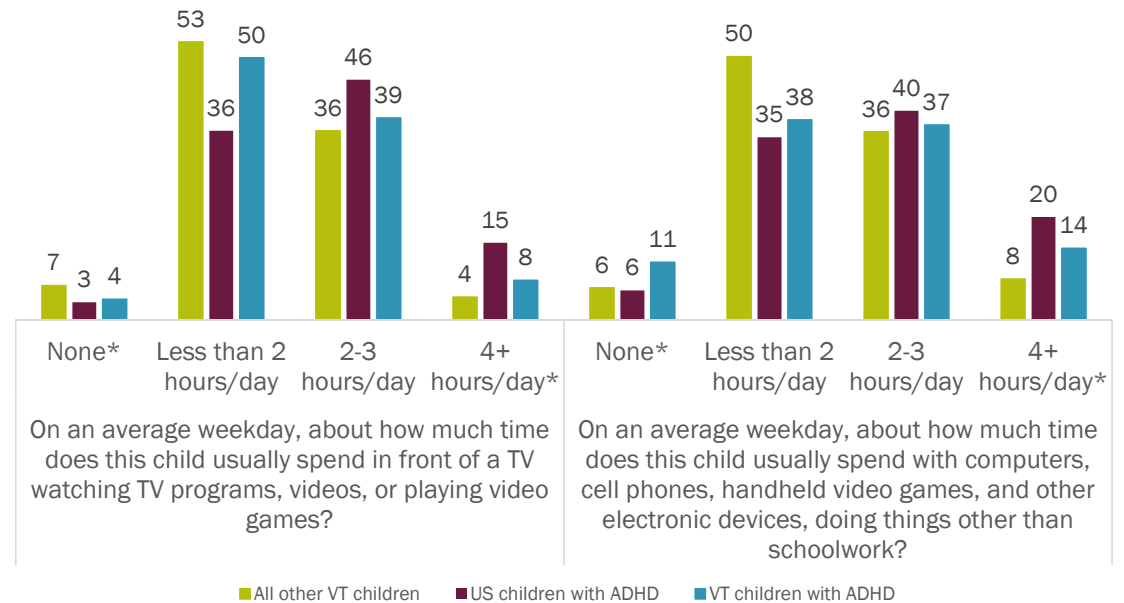


Half of Vermont children with ADHD exercise, play a sport or get physical activity for 60 minutes/day for 1-3 days/week; and, half engage in some sort of screentime 2+ hours/week on weekdays

Exercise, Play Sport, or Physical Activity for 60 Minutes



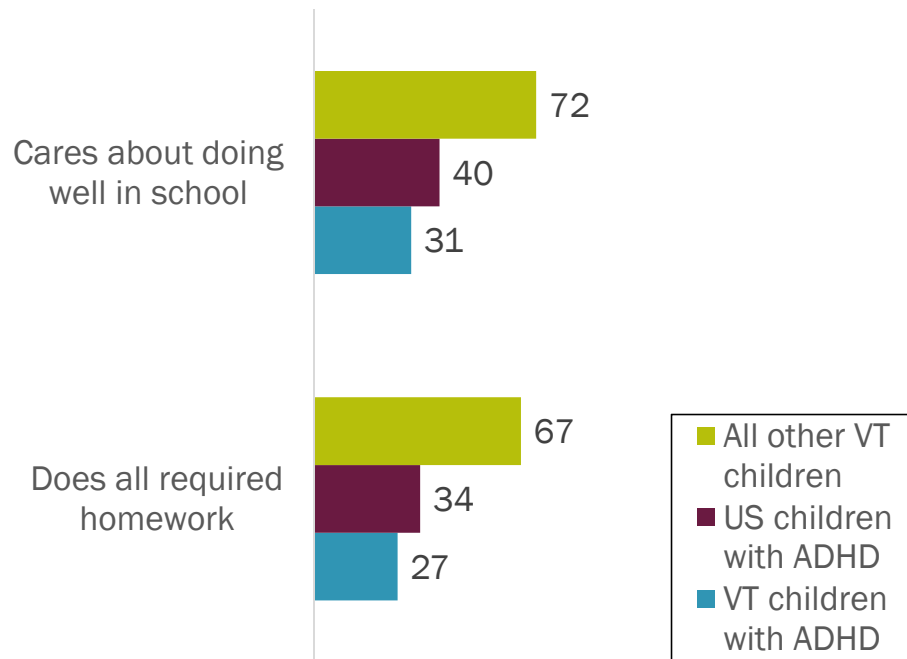
Screentime: Watching Television and Spending Time on Electronic Devices on Weekdays



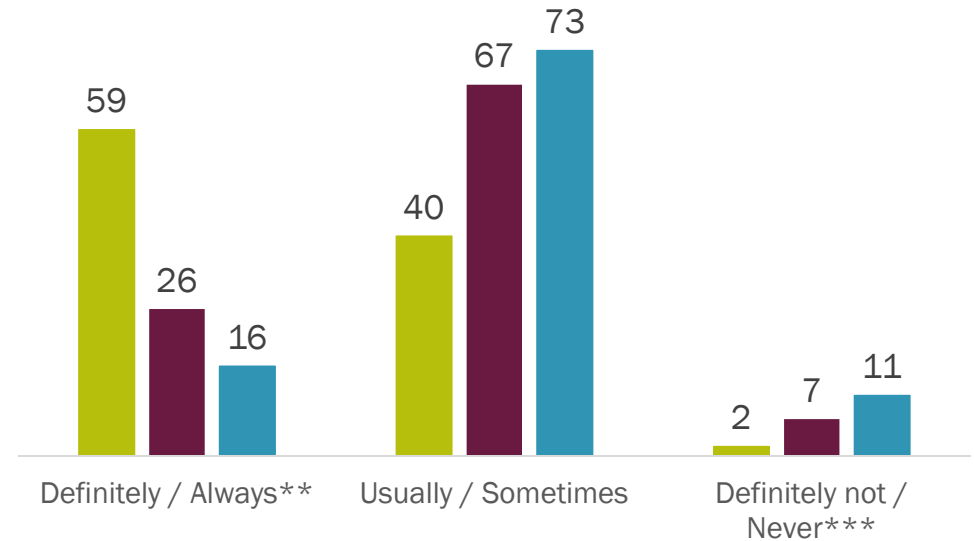
Fewer than 30 VT children with ADHD in response categories with an "". Interpret data with caution.

About 1 in 6 Vermont children with ADHD are fully engaged in school; fewer than 1 in 3 care about doing well in school and/or do all required homework

Elements of School Engagement



Overall School Engagement*

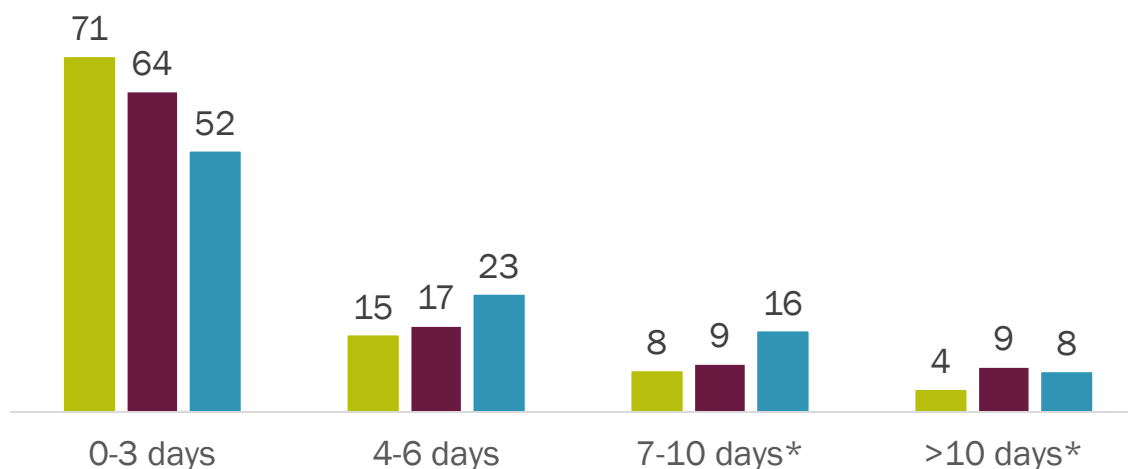


*Response categories for this question changed between 2016-2017 and 2018. **Fewer than 30 VT children with ADHD. *** Fewer than 30 VT children with ADHD and 30 VT children. Interpret data with caution.

3 in 4 Vermont children with ADHD miss fewer than 7 days of school due to illness or injury

How many days was school missed because of an illness or injury?

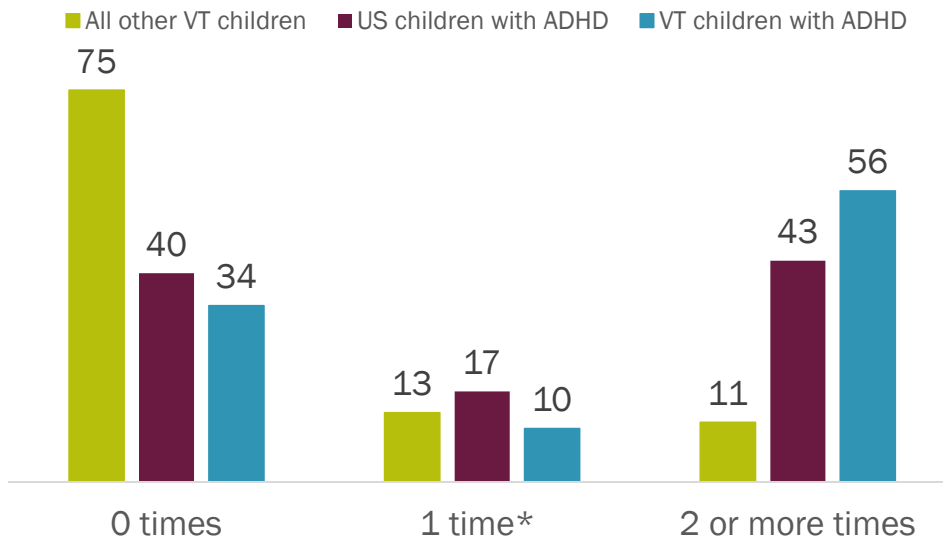
■ All other VT children ■ US children with ADHD ■ VT children with ADHD



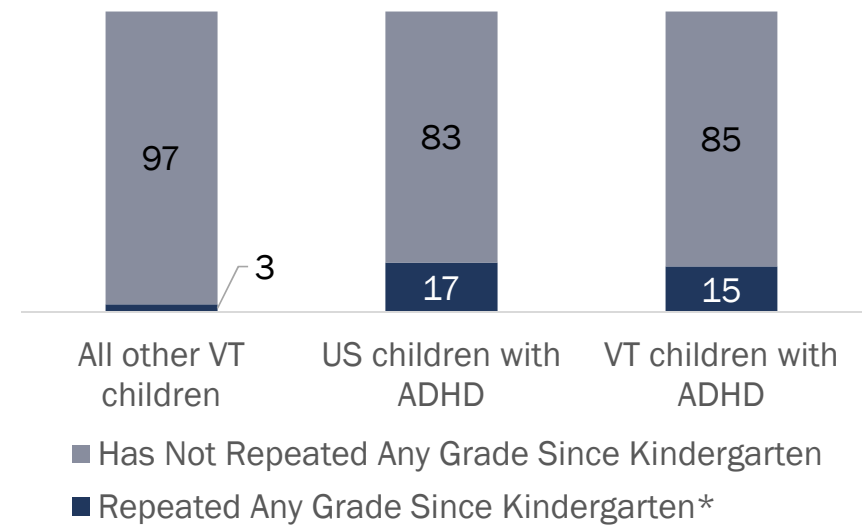
Fewer than 30 VT children with ADHD in categories with an "". Interpret data with caution.

2 in 3 families of Vermont children with ADHD were contacted 1 or more times by their school, and about 1 in 7 Vermont children with ADHD repeated a grade

Number of Times School Contacted Household about Problems with Child

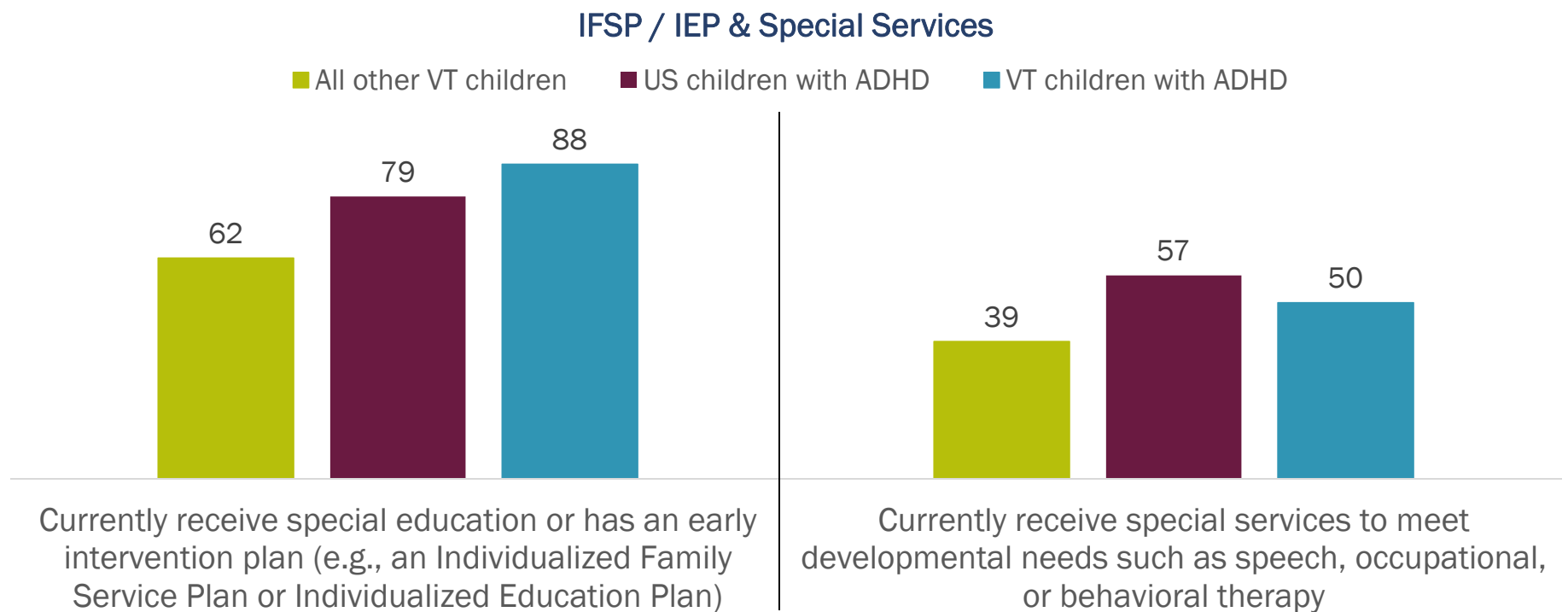


Grade Repeats



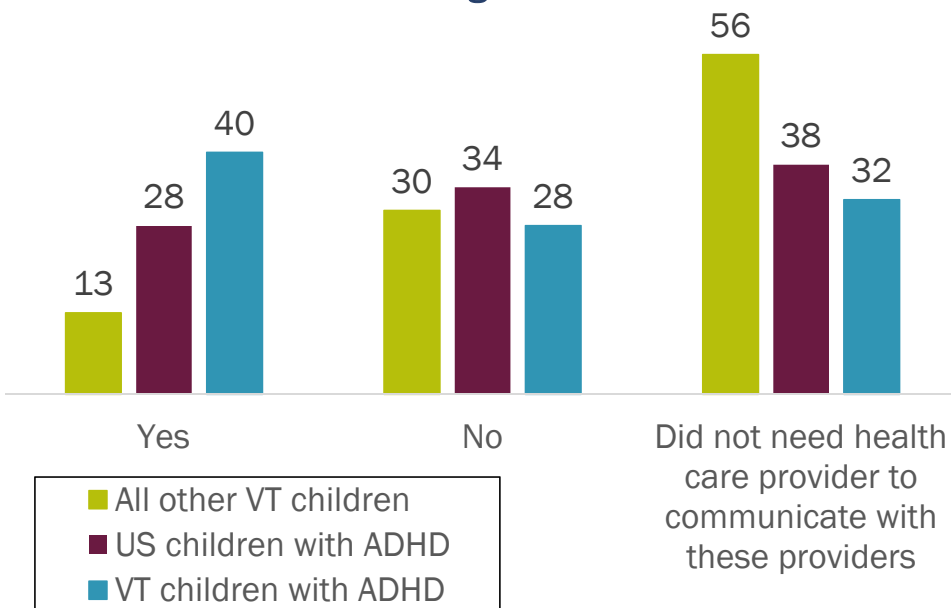
Fewer than 30 VT children with ADHD in categories with an “”. Interpret data with caution.

Families of Vermont children with ADHD report that about 9 in 10 have a special education or early intervention plan and about half receive special services

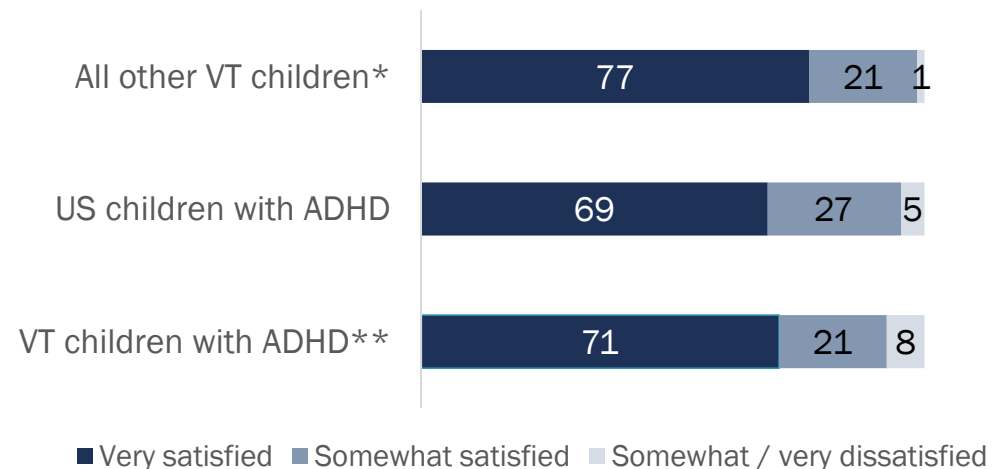


2 in 5 families of Vermont children with ADHD needed the help of a health care provider to communicate with schools, childcare or special education programs, and about 7 of 10 Vermont families were very satisfied with those communications

Health Care Provider Communications with School, Child Care and Special Education Program



Satisfaction of Parents who Needed a Health Care Provider to Communicate with School, Child Care or Special Education Program

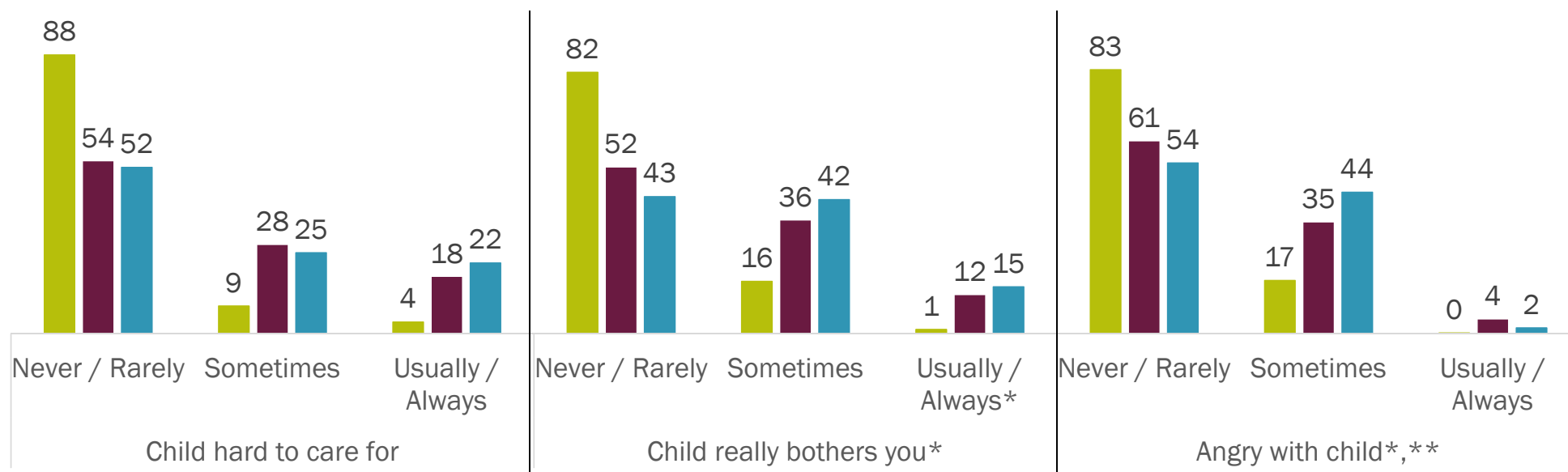


*Fewer than 30 VT children with ADHD. **Fewer than 30 other VT children. Interpret data with caution.

About half of Vermont parents of children with ADHD reported feeling angry, bothered or that their child was hard to care for sometimes or usually/always

Parent Feelings about Child

■ All Other VT Children ■ US Children with ADHD ■ VT Children with ADHD

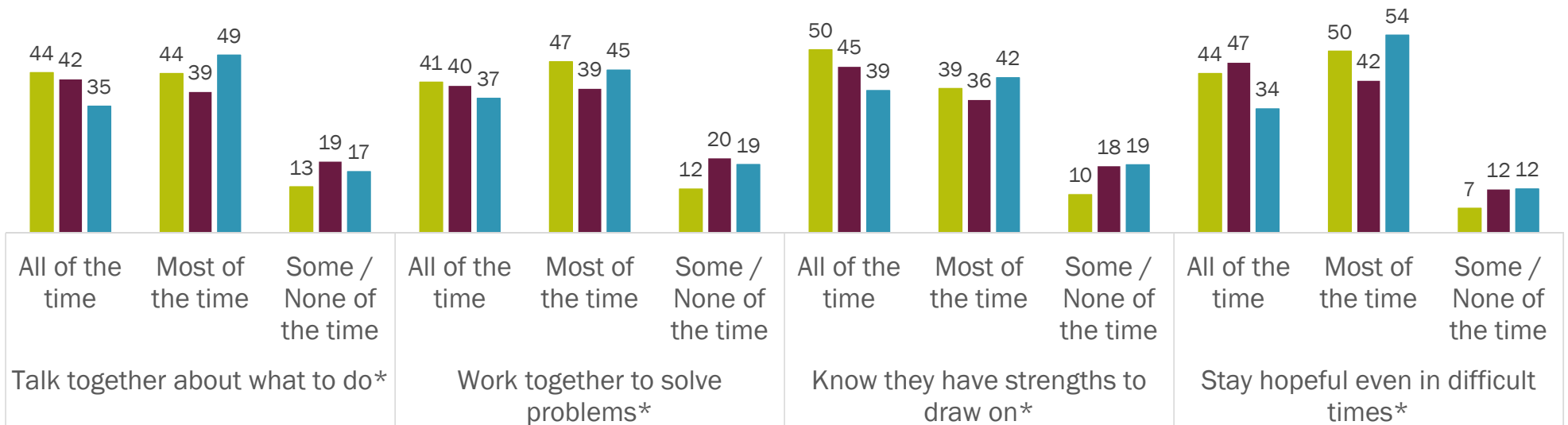


*Fewer than 30 VT children with ADHD in the “usually/ always” category. **Fewer than 30 other VT children in the “usually/ always” category. Interpret data with caution.

At least 4 in 5 families of Vermont children with ADHD show qualities of family resilience

Qualities of Family Resilience

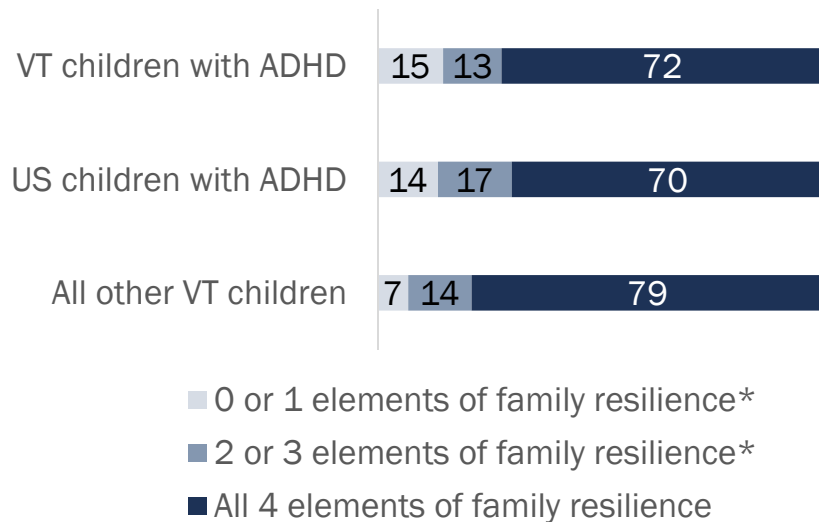
■ All other VT children ■ US children with ADHD ■ VT children with ADHD



Fewer than 30 VT children with ADHD in the “some/none of the time” categories marked with an “”. Interpret data with caution.

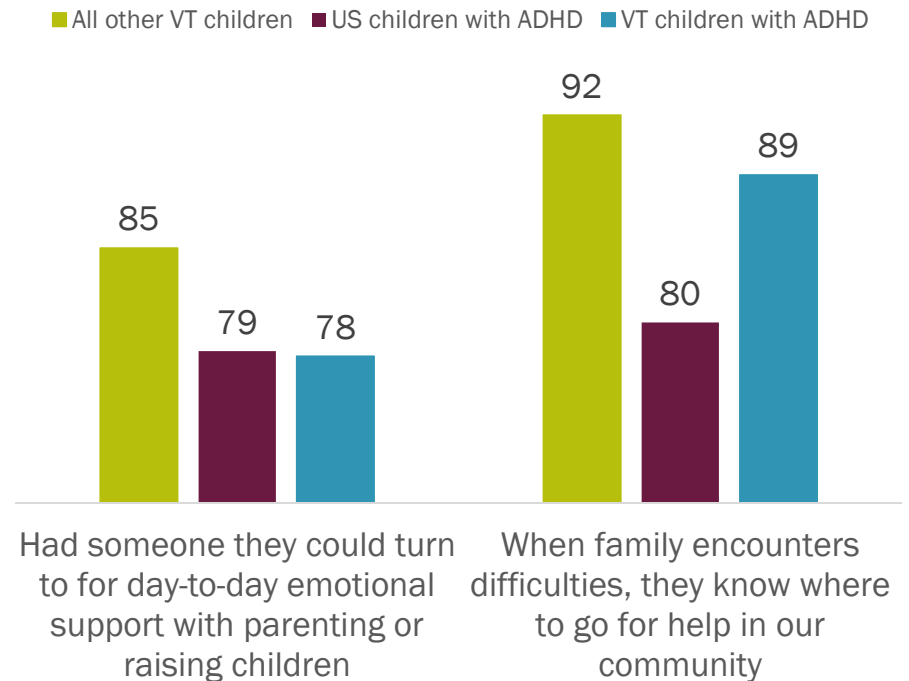
3 in 4 parents of Vermont children with ADHD reported they had all 4 elements of family resilience and emotional support in day-to-day child rearing, but 1 in 10 were not sure of where to go for help in their community

Composite Measure of Family Resilience Qualities



Fewer than 30 VT children with ADHD in the categories marked with an “”. Interpret data with caution.

Parent Support





Thank you!

Let's stay in touch.

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Web: www.healthvermont.gov
Social: [@healthvermont](https://twitter.com/healthvermont)