

Child Adversity, Anxiety, and Resilience, an Example of a Population Data Approach: Urban, Rural & Vermont

LAURIN KASEHAGEN, MA, PHD

SENIOR EPIDEMIOLOGIST / CENTERS FOR DISEASE CONTROL AND PREVENTION
ASSIGNEE TO VERMONT DEPARTMENTS OF HEALTH & MENTAL HEALTH

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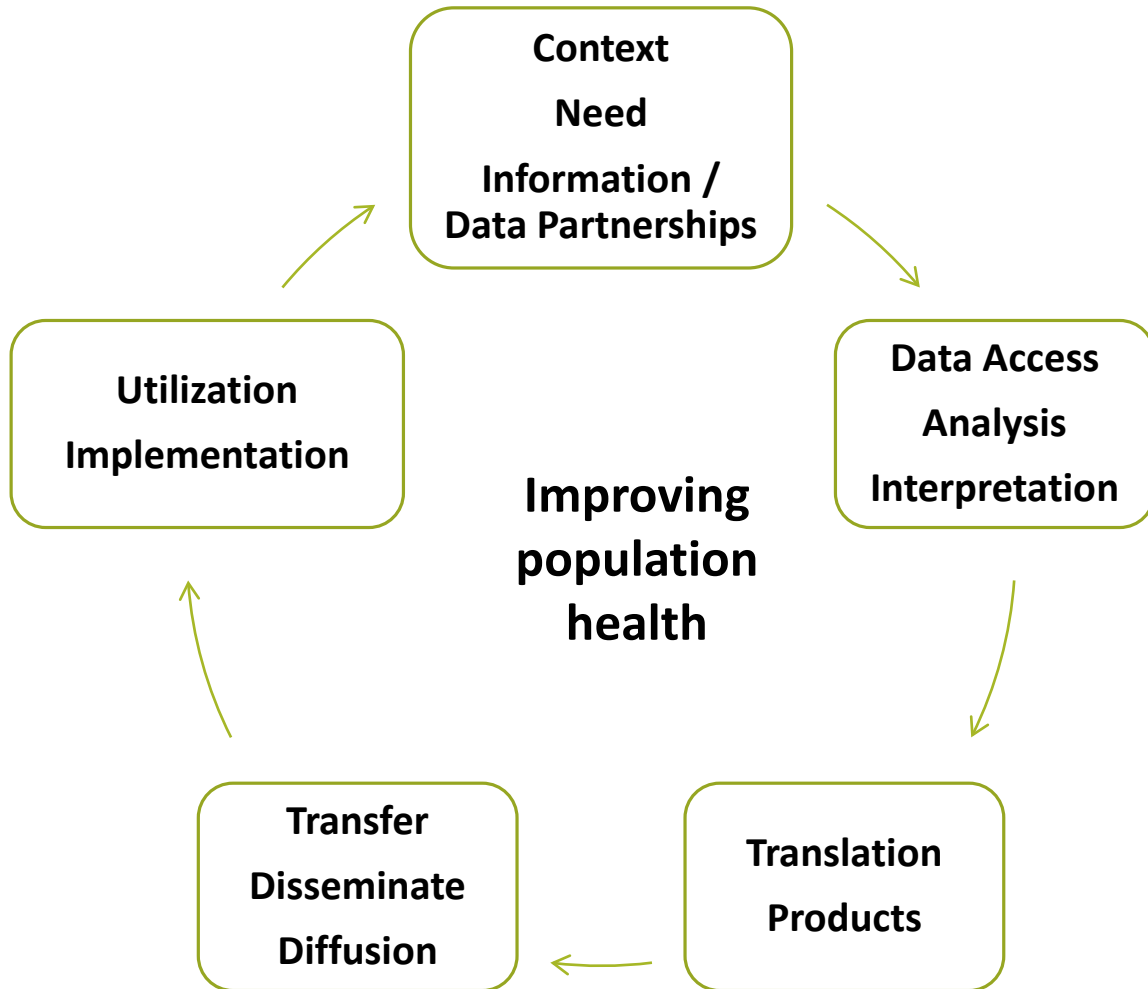
- Maternal and Child Health Epidemiology Program
 - Located within CDC / ONDIEH / NCCDPHP / DRH / FSB
 - 14 assignees and about 6 fellows in the field, including Vermont
- Assignment first of its kind
 - VT, CDC, NCBDDD, SAMHSA, HRSA / MCHB
 - Primary focus on child and family behavioral, emotional, and mental health and wellness
 - Significant investment
 - VT selected for its innovation, collaboration, and size

Places with MCHEP Supported Public Health Staff, January 2017



<http://www.cdc.gov/reproductivehealth/mchepi/assignees.htm>

Implementation of Population Health in Vermont's Department of Mental Health Children's Unit



- Adverse childhood experiences and resilience
- Suicide, suicidal ideation, and non-suicidal self-harm
- Anxiety, depression, conduct disorders
- ADHD
 - School performance
 - Impact of inattention
 - Use of Individualized Education Programs (IEPs) and 504 Plans
 - Use of psychotropic prescription medications
- Behavioral, emotional and mental health and wellness indicators
- Neonatal abstinence syndrome



What is the population health approach and evidence-based public health?

Population Health is an approach that

- focuses on **interrelated conditions and factors that influence the health of populations over the life course**,
- identifies **systematic variations in their patterns of occurrence**, and
- **applies the resulting knowledge to develop and implement policies and actions** to improve the health and well-being of those populations.

Evidence-based public health is the mechanism by which population health information is used for the

- ...development, implementation, and evaluation of effective programs and policies in public health through application of principles of scientific reasoning, including systematic uses of data and information systems, and appropriate use of behavioral science theory and program planning models.

Sources: D Kindig and G Stoddart, What is population health? *Am J Public Health*, 2003; 93(3):380-383;

Brownson, Ross C., Elizabeth A. Baker, Terry L. Leet, and Kathleen N. Gillespie, Editors. *Evidence-Based Public Health*. New York: Oxford University Press, 2003

Sources of Data for Adverse Experiences

ADVERSE CHILDHOOD EXPERIENCES

2011 Vermont Behavioral Risk Factor Surveillance System (BRFSS)

Samples 1 in 100 Vermont adults

Respondents recall their own childhood

ADVERSE EXPERIENCES BEFORE BIRTH

2012-2015 Pregnancy Risk Assessment Monitoring System (PRAMS)

Samples 1 in 5 Vermont births

Respondents recall their own experiences before and during pregnancy

ADVERSE FAMILY EXPERIENCES

2016 National Survey of Children's Health (NSCH)

Samples 1 in 106 Vermont children

Parents / guardians respond for child

All 3 of these surveillance systems

- Are designed and data collected in a manner that allow **valid state-to-state, regional, and national comparisons**
- **Yield weighted data prevalence estimates** for comparable non-institutionalized populations **in each state and nationally**

Which adverse experiences are measured?

Adult & Child Questions

Live with anyone (parent / guardian) who ...

- Was **depressed, mentally ill, or suicidal**?
- Was a **problem drinker or alcoholic**?
- Used **illegal street drugs / abused prescription medications**?
- Served time / was sentenced to **serve time in a prison, jail or other correctional facility**?
- Got **separated or divorced**?

See / hear **parents or adults in your home ever slap, hit, kick, punch or beat each other up?**

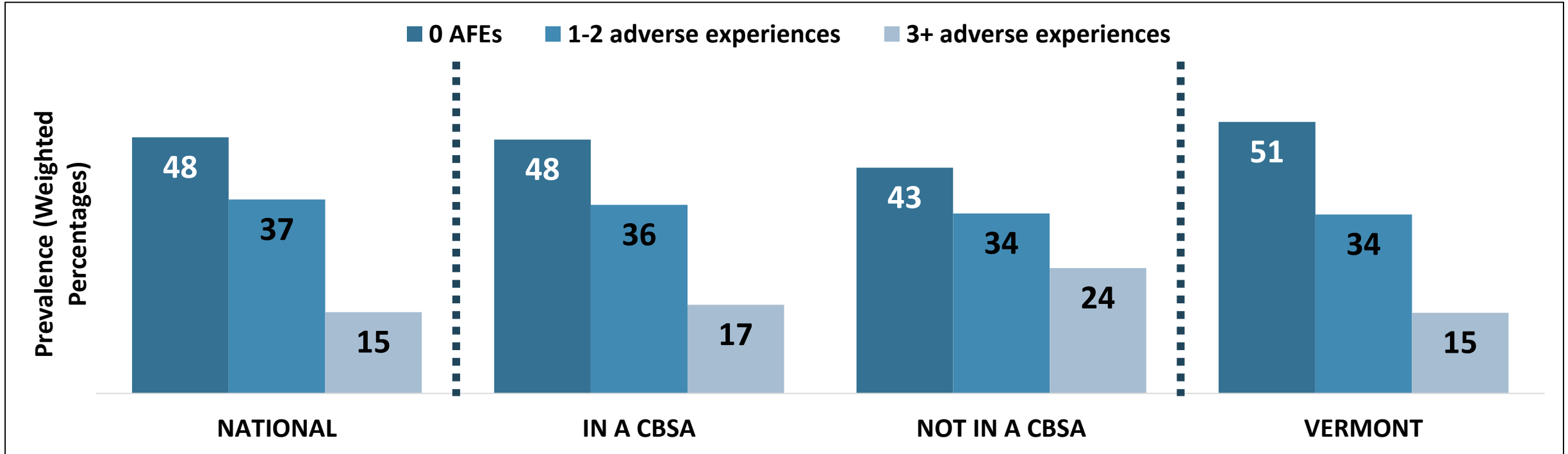
Adult Questions

- Did a parent or adult in your home ever
 - Hit, beat, kick, or physically hurt you in anyway (does not include spanking)?
 - Swear at you, insult you, or put you down?
- Did anyone at least 5 years older than you or an adult
 - Touch you sexually?
 - Try to make you touch them sexually?
 - Force you to have sex?

Child Questions

- Ever the victim or violence / witness **neighborhood violence**?
- Ever **treated / judged unfairly** because of race or ethnic group?
- Live in a **household where it was hard to cover basics like food or housing**?
- Live with a parent/ guardian who **died**?
- Moved more than 4 times since birth**

Prevalence of Adverse Family Experiences among Children and Youth 3-17 years: National, Core-based Statistical Areas & Vermont



Data source: 2016 National Survey of Children's Health

Core-Based Statistical Areas (CBSAs) are defined as a county or counties with at least one urbanized area or urban cluster (a core) of at least 10,000 population, plus adjacent counties that have a high degree of social and economic integration with the core (as measured through commuting ties). There are two types of CBSAs: Metropolitan Statistical Areas (MSAs) and Micropolitan Statistical Areas (μ SAs).

9 Domains of Resilience

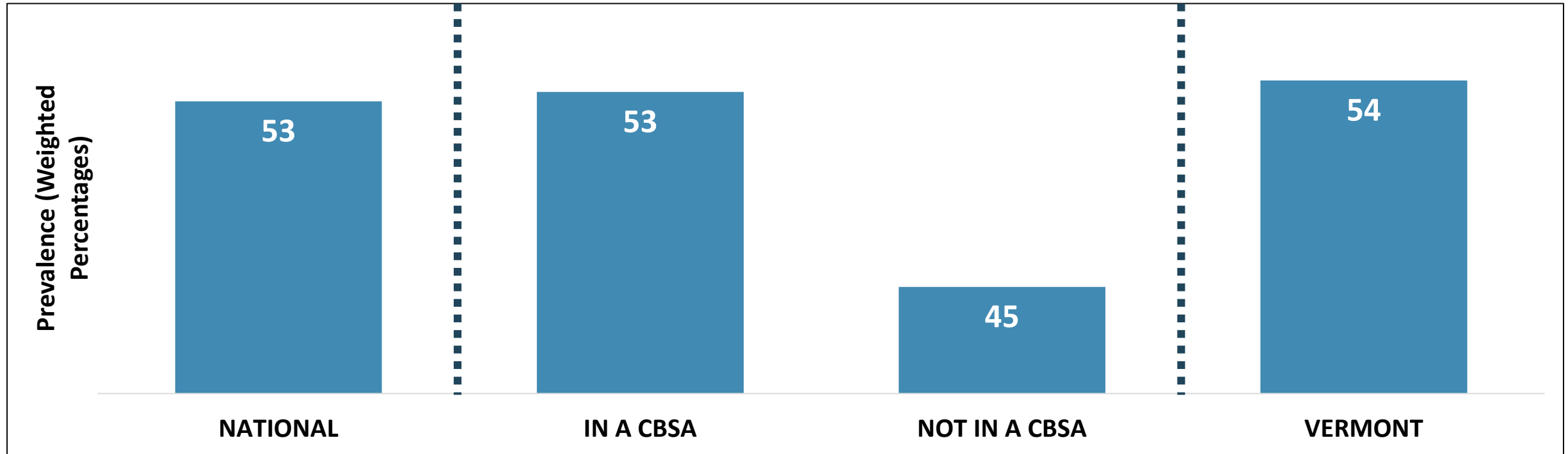
- Parent-child connections
- Structure
- Consequences
- Rights and responsibilities
- Safety and support
- Strong / key relationships
- A powerful identity
- A sense of control
- A sense of belonging and purpose

Source: Resilience Research Centre, 2014

Ungar M and Liebenberg L. Assessing resilience across cultures using mixed-methods: Construction of the Child and Youth Resilience Measure-28. *Journal of Mixed Methods Research* 2011; 5(2):126-149.

Liebenberg L, Ungar M, Van de Vijver FRR. Validation of the Child and Youth Resilience Measure-28 (CYRM-28) Among Canadian Youth with Complex Needs. *Research on Social Work Practice* 2012; 22(2), 219-226.

What buffers adversity? Prevalence of **Resilience** among Children and Youth 3-17 years: National, Core-based Statistical Areas & Vermont

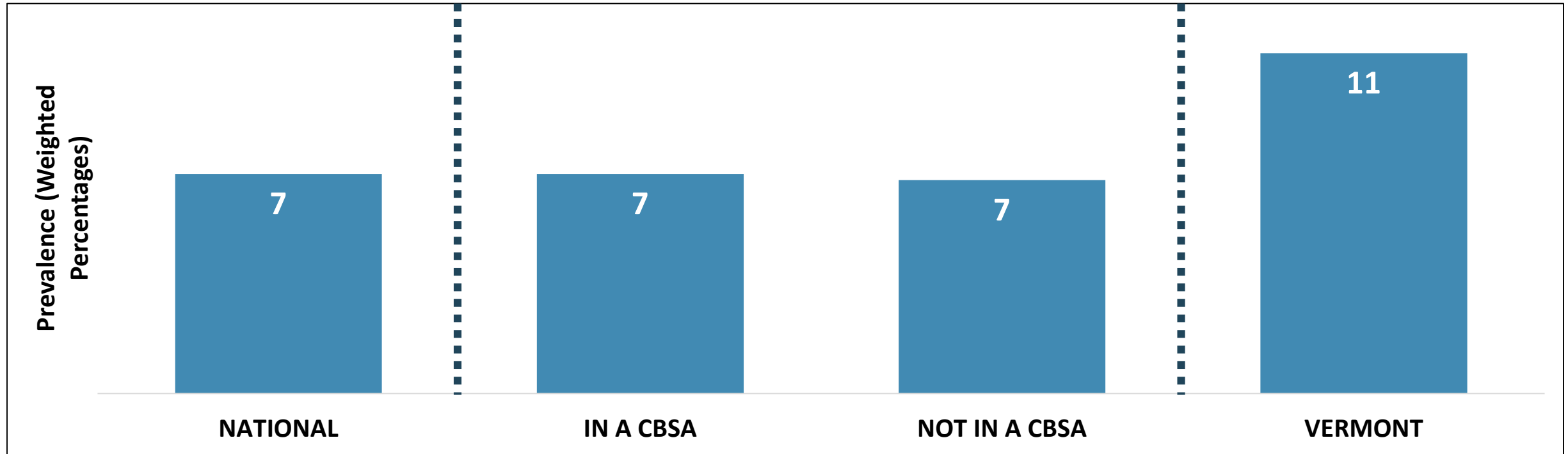


Data source: 2016 National Survey of Children’s Health

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How common is **anxiety** among this population?

Prevalence of Anxiety among Children and Youth 3-17 years: National, Core-based Statistical Areas & Vermont

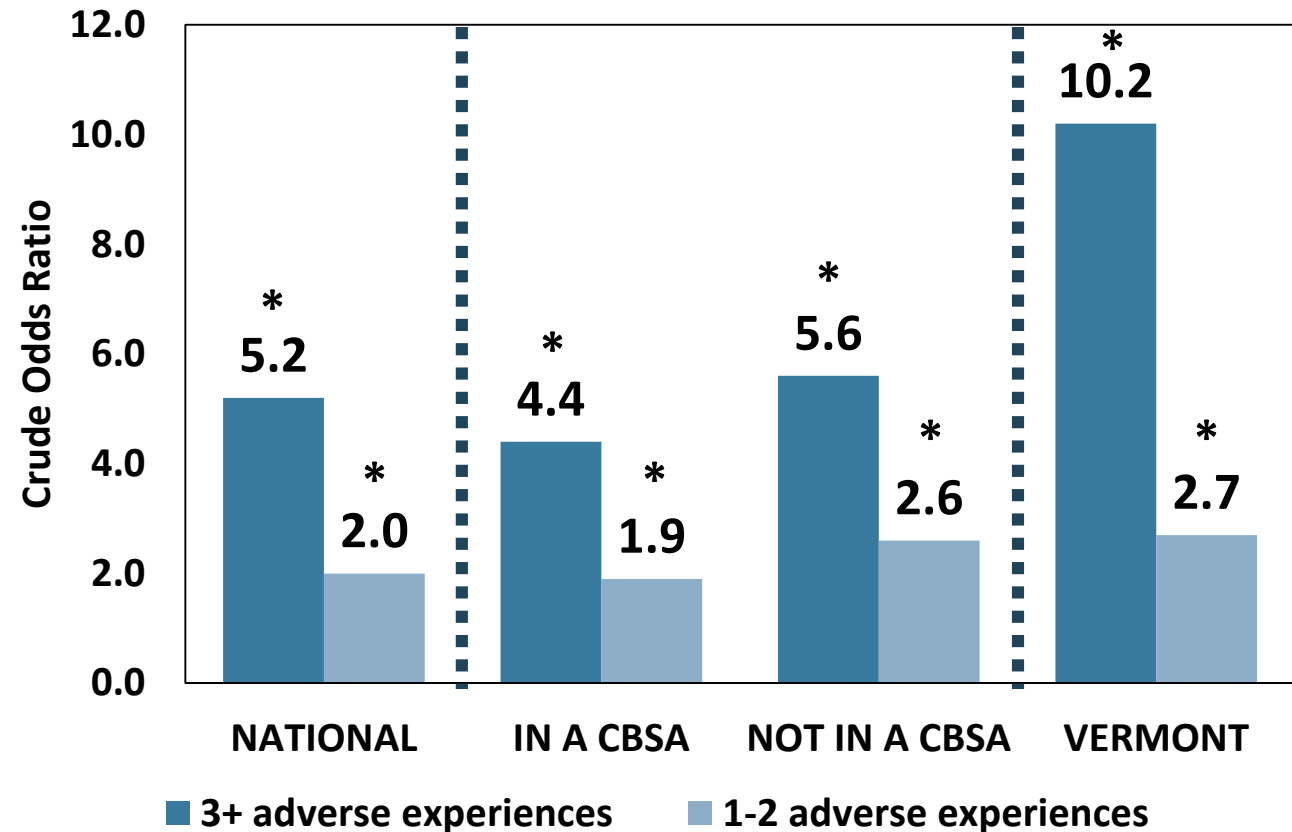


Data source: 2016 National Survey of Children's Health

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Are children and youth 3-17 years with adverse experiences at higher odds of having anxiety compared to those with no adverse experiences?

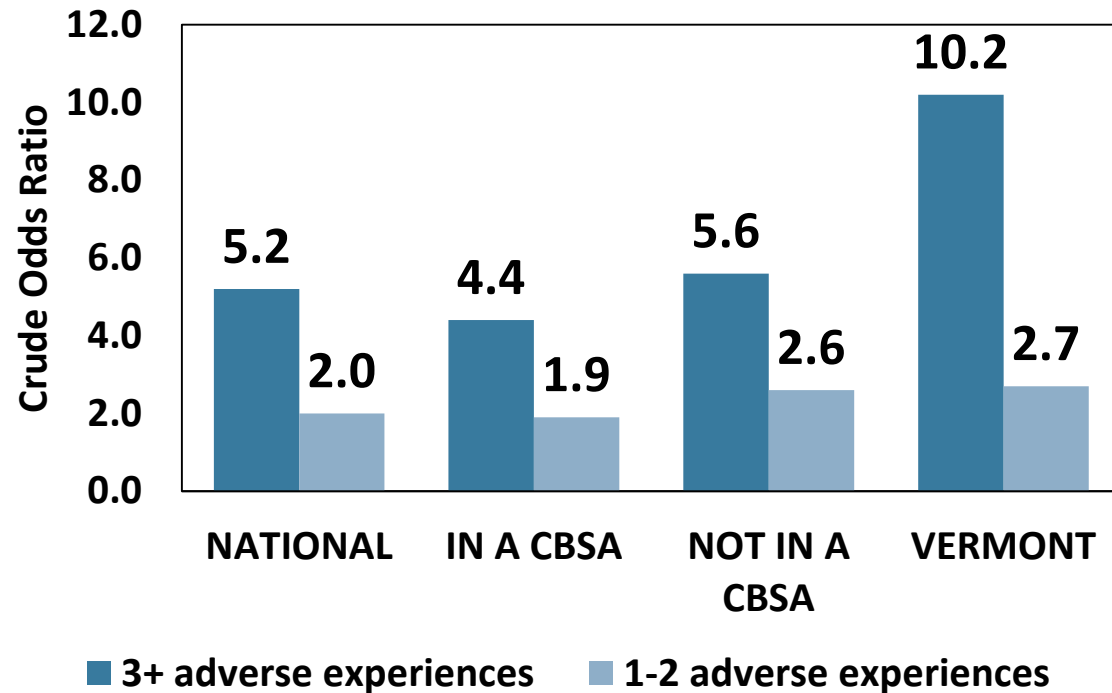
Behavioral, emotional, mental health conditions – like anxiety – and learning disorders are significantly associated with adverse experiences, particularly when there are 3 or more adverse experiences present.



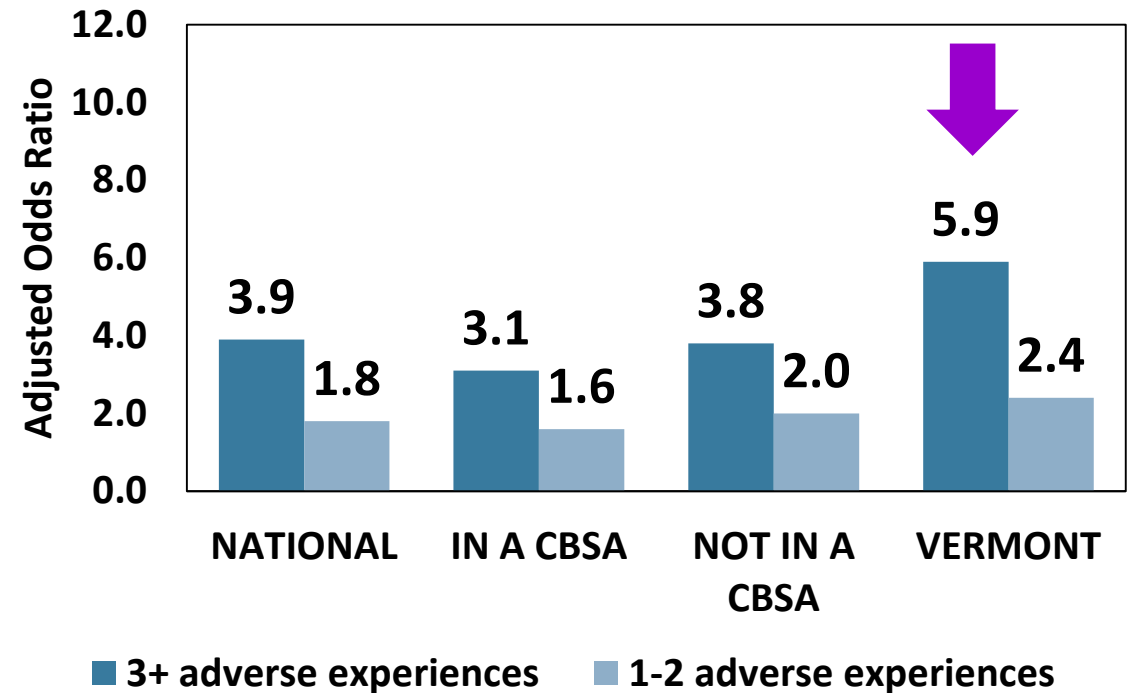
Data Source: 2016 NSCH; * denotes statistical significance

If resilience buffers adverse experiences, would it have an effect on anxiety among children and youth 3-17 years?

NOT TAKING INTO ACCOUNT RESILIENCE



TAKING INTO ACCOUNT RESILIENCE

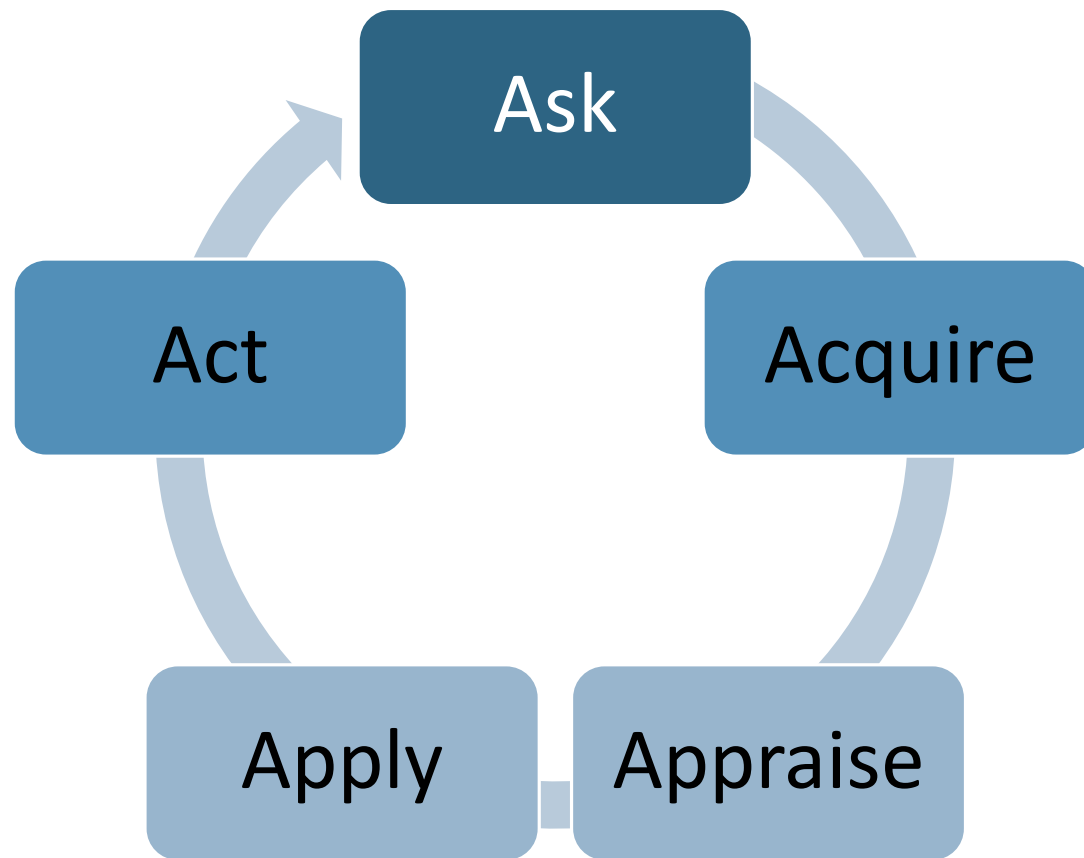


Data Source: 2016 NSCH; Note: all of the statistical associations are significant



Relevance of a Population Approach & Findings

- ❑ A population approach allows us to look at the prevalence of conditions or characteristics of everyone in the population. We also can estimate the burden of disease for the whole population and, in some cases, better understand severity, “hot spots”, potential areas of service gaps, and disparities.
- ❑ This approach allows us to quantify the prevalence and statistical associations of adverse experiences, co-morbidities, school engagement, and buffering factors that moderate or mediate those associations.
- ❑ Our findings help the Vermont Department of Mental Health and Department of Health to explore opportunities for collaborative work among public health, mental health and
 - ❑ Families
 - ❑ School systems
 - ❑ School-based mental health clinicians and school nurses
 - ❑ Substance use / mental health counselors
 - ❑ Early childhood systems
 - ❑ Communitiesparticularly in building skills in resilience, coping, emotional regulation, and using community supports and services.



Evidence based practice

What works? Where can the greatest impact be achieved?



What works? An example from the Technical Package on Preventing Child Abuse and Neglect

Strategy	Approach
Strengthen economic supports to families	<ul style="list-style-type: none">▪ Strengthening household financial security▪ Family-friendly work policies
Change social norms to support parents and positive parenting	<ul style="list-style-type: none">▪ Public engagement and education campaigns▪ Legislative approaches to reduce corporal punishment
Provide quality care and education early in life	<ul style="list-style-type: none">▪ Preschool enrichment with family engagement▪ Improved quality of child care through licensing and accreditation
Enhance parenting skills to promote healthy child development	<ul style="list-style-type: none">▪ Early childhood home visitation▪ Parenting skill and family relationship approaches
Intervene to lessen harms and prevent future risk	<ul style="list-style-type: none">▪ Enhanced primary care▪ Behavioral parent training programs▪ Treatment to lessen harms of abuse and neglect exposure▪ Treatment to prevent problem behavior and later involvement in violence

Source: Fortson, B. L., Klevens, J., Merrick, M. T., Gilbert, L. K., & Alexander, S. P. (2016). *Preventing child abuse and neglect: A technical package for policy, norm, and programmatic activities*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

What does success look like? An example from the Technical Package on Preventing Child Abuse and Neglect

Strategy

Potential Outcomes

Strengthen economic supports to families

- Improvements in children’s health, development and health insurance coverage
- Reductions in physical abuse of children and child neglect
- Reductions in maternal depression and parental stress
- Reductions in adolescent risky health behaviors
- Reductions in chronic disease among adults and the leading causes of death

Change social norms to support parents and positive parenting

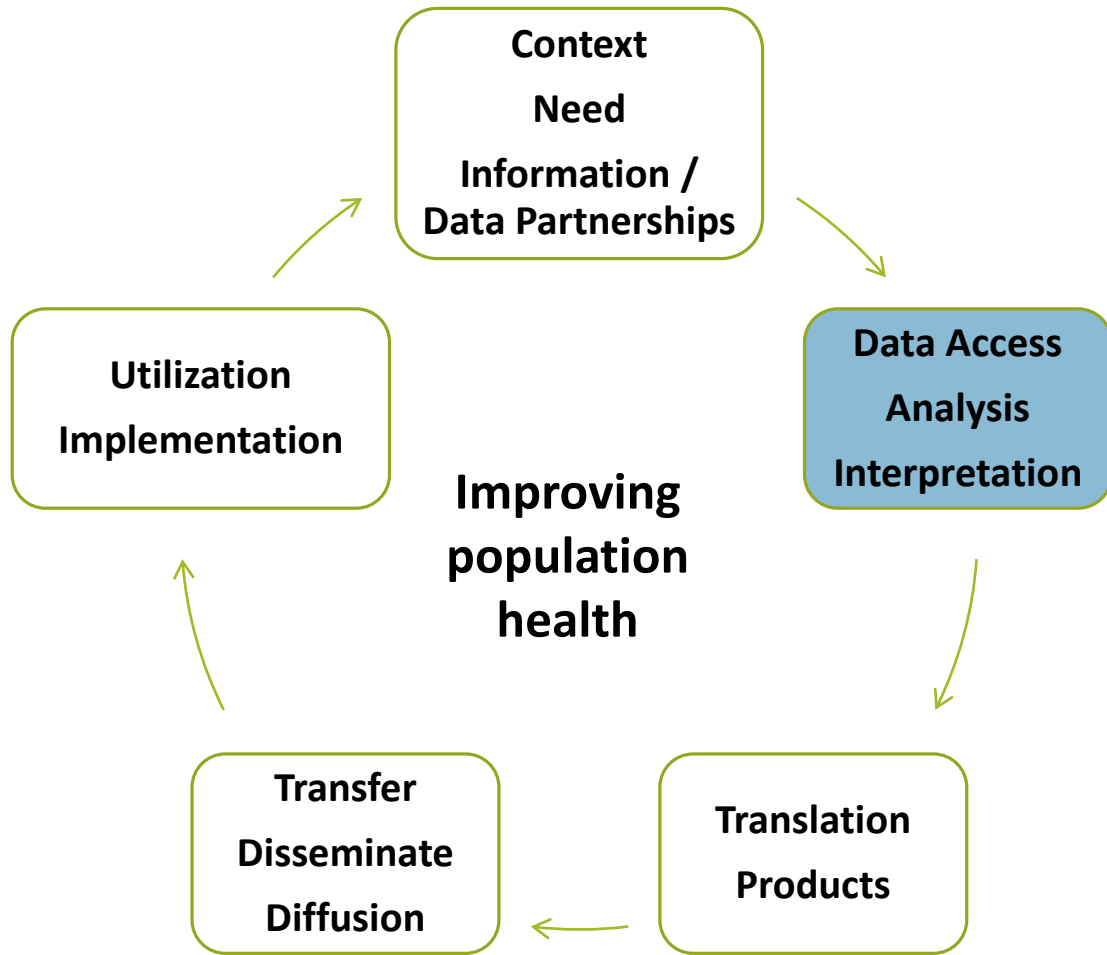
- Shift in perceived responsibility for children – from personal to shared
- Increase in public support for policies supportive of children and families
- Increase in seeking help for parenting

Provide quality care and education early in life

- Reduced encounters with child welfare services
- Lower rates of out of home placement, juvenile arrests / incarceration, grade retention and special education services, and disability

Source: Fortson, B. L., Klevens, J., Merrick, M. T., Gilbert, L. K., & Alexander, S. P. (2016). *Preventing child abuse and neglect: A technical package for policy, norm, and programmatic activities*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Translating Data into Action: What Does it Take?



Need

- Identify needs, gaps, potential stakeholders

Partnerships, Analysis & Interpretation

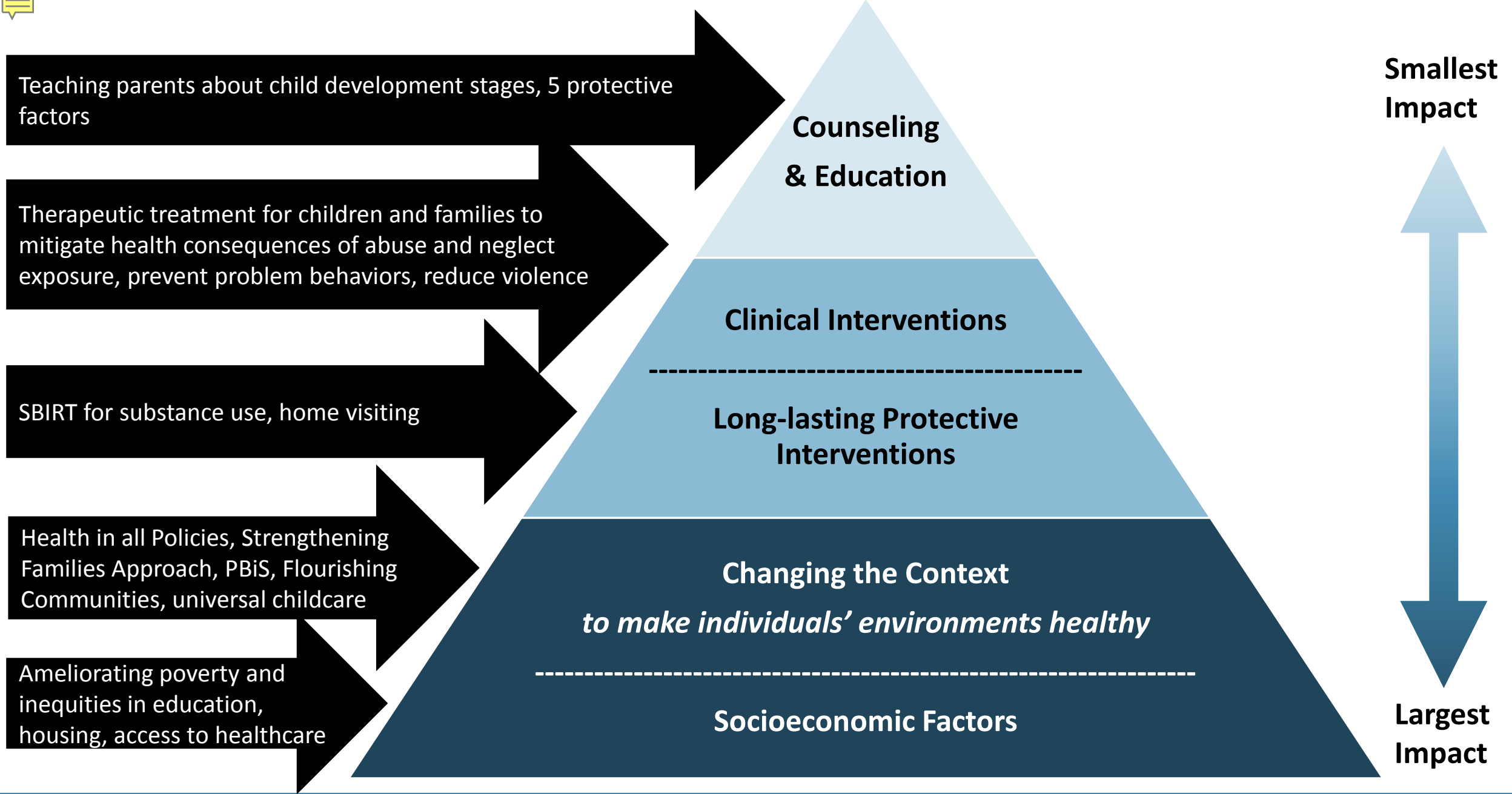
- Build trust and partnerships across the State
- Analyze, interpret, synthesize data from multiple sources

Translation & Dissemination

- Present data to State and federal stakeholders
- Testify to State legislative workgroups
- Engage stakeholders in the use of and talking about the data
- Create products for disseminating the data for consumption of multiple stakeholder types

Utilization & Implementation

- Use data in performance measurement and evaluation, on scorecards, in grant applications
- Use data to support and justify trauma-informed work in the State – communities, pediatric practices, schools, health departments, prisons



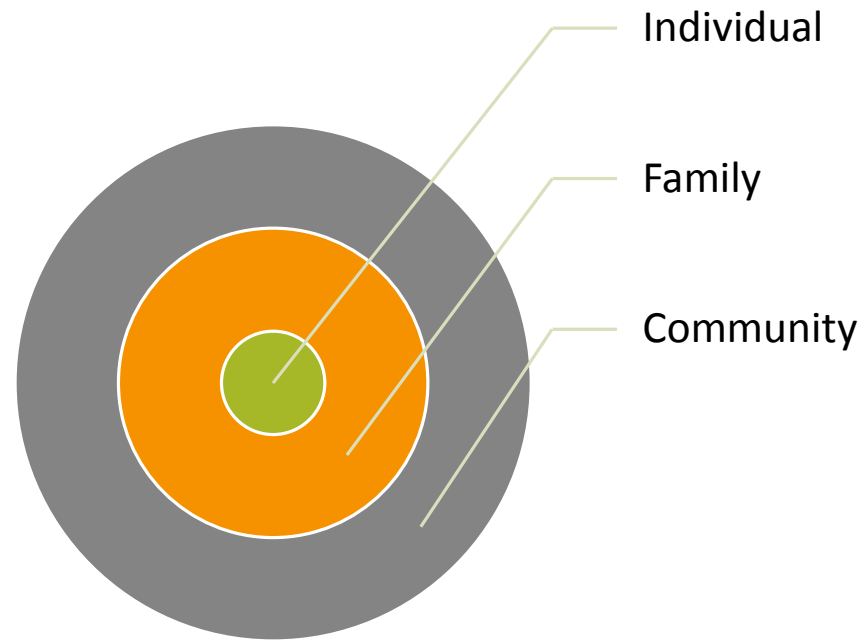
Discussion & Questions

LAURIN KASEHAGEN, MA, PHD

LAURIN.KASEHAGEN@PARTNER.VERMONT.GOV

802-863-7288

Additional Slides Highlighting Other NSCH Questions that Tap into Resilience

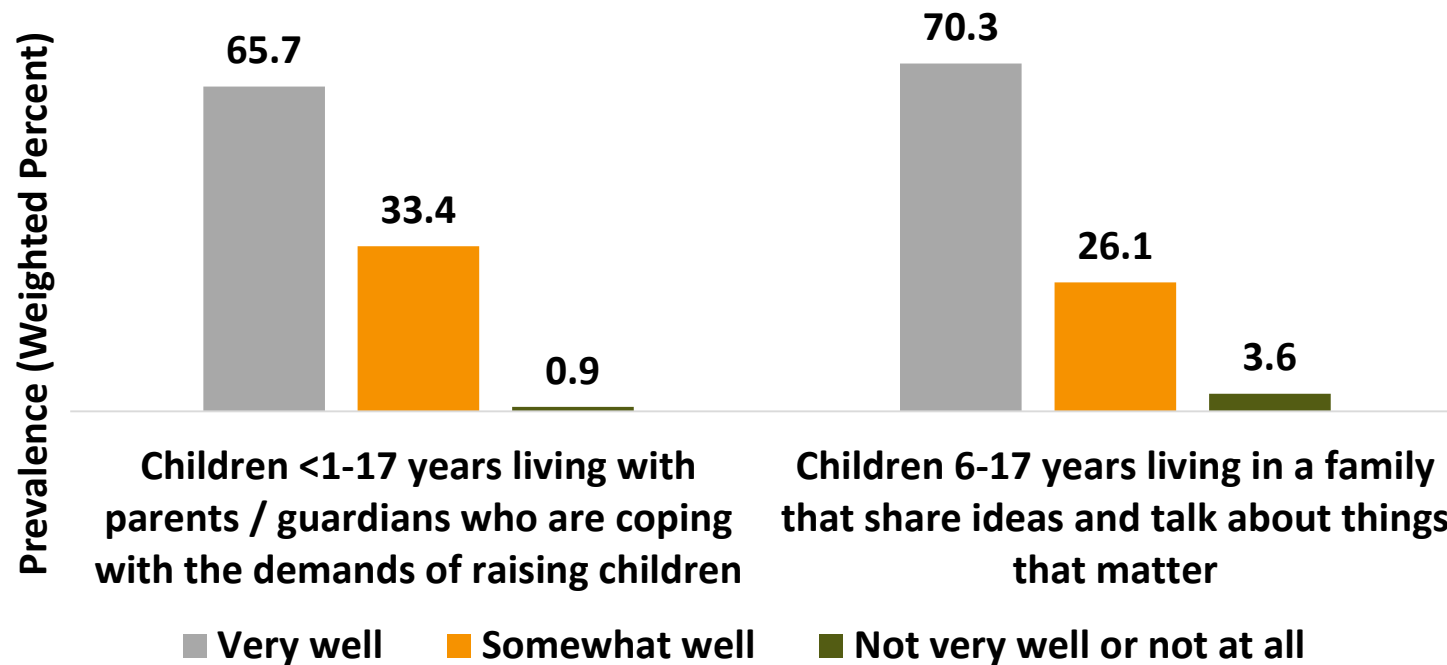


FAMILY STRENGTHS & RESILIENCE

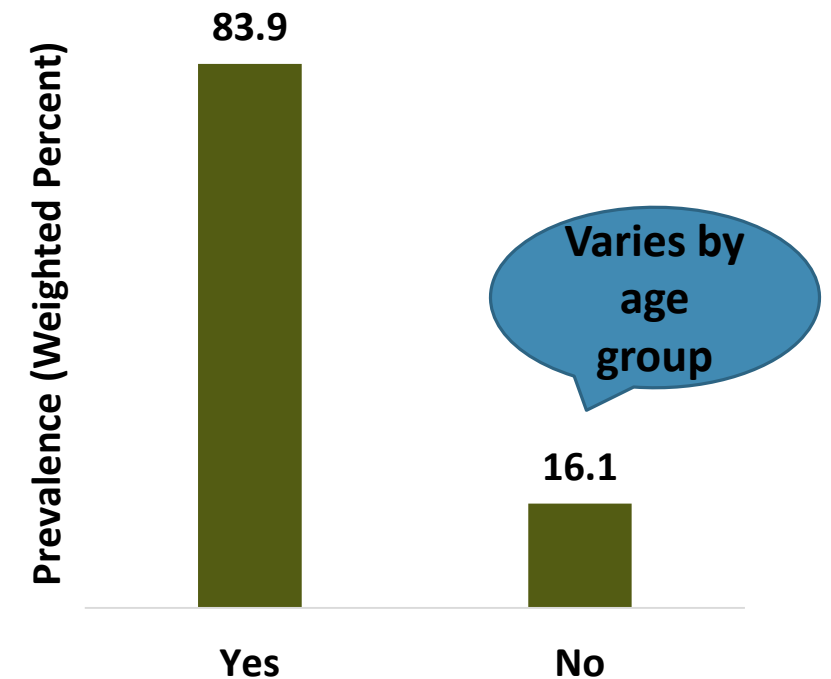
Data Source for next section: 2016 National Survey of Children's Health

Family Coping & Emotional Support among Vermont Children 17 years and Younger

COPING WITH THE DEMANDS OF RAISING CHILDREN & SHARING IDEAS / TALKING ABOUT THINGS THAT MATTER



CHILDREN AGES 0-17 LIVING WITH PARENTS WHO HAVE SOMEONE TO TURN TO FOR EMOTIONAL SUPPORT



Data Source: 2016 National Survey of Children's Health

Family Resilience among Vermont Children 17 Years and Younger

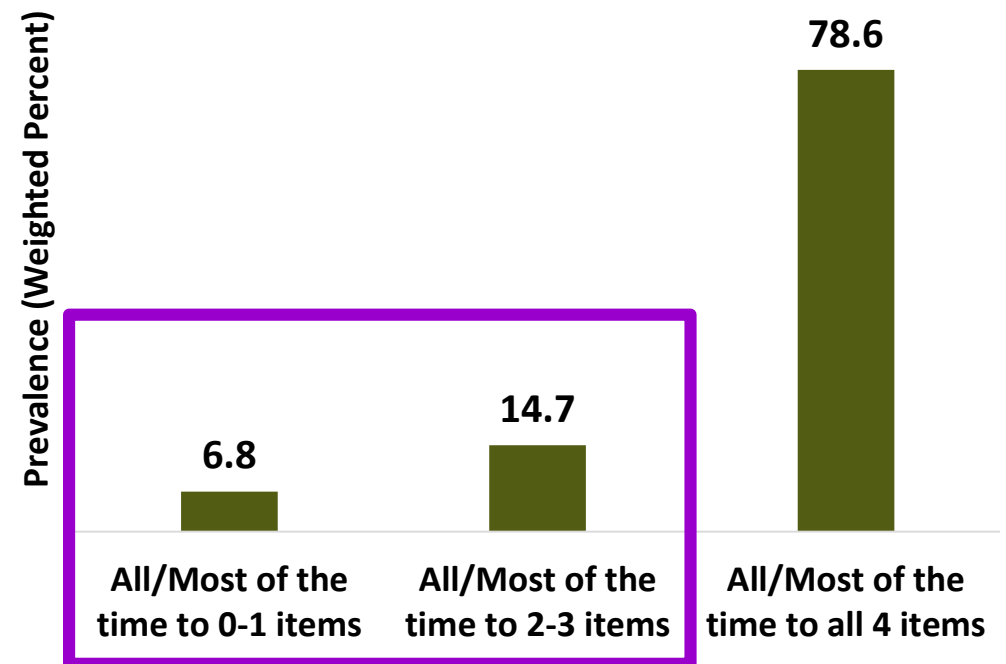
FAMILY RESILIENCE

Does family know where to go for help in their community?

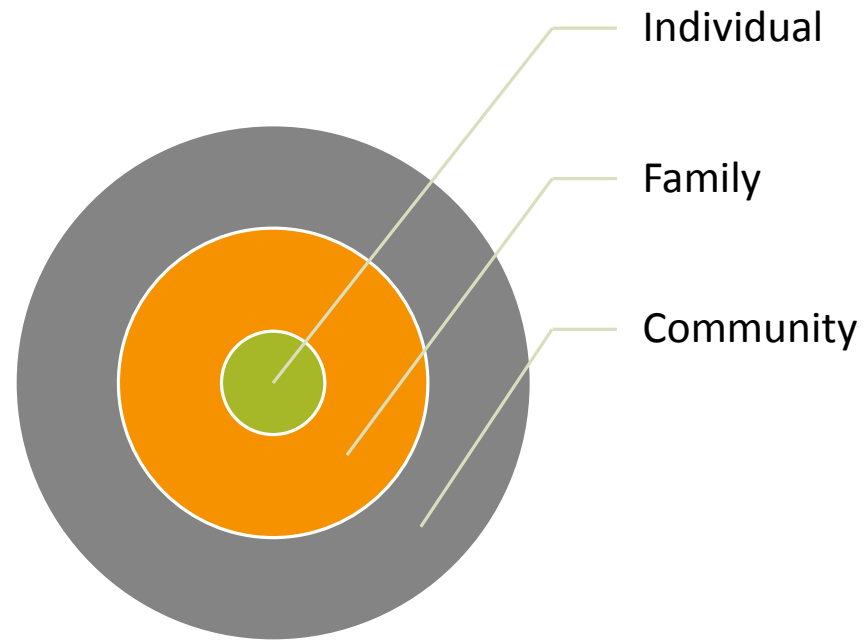
When your family faces problems, how often are you likely to do each of the following?

- Talk together about what to do
- Work together to solve our problems
- Know we have strengths to draw on
- Stay hopeful even in difficult times

FAMILY RESILIENCE SCORE



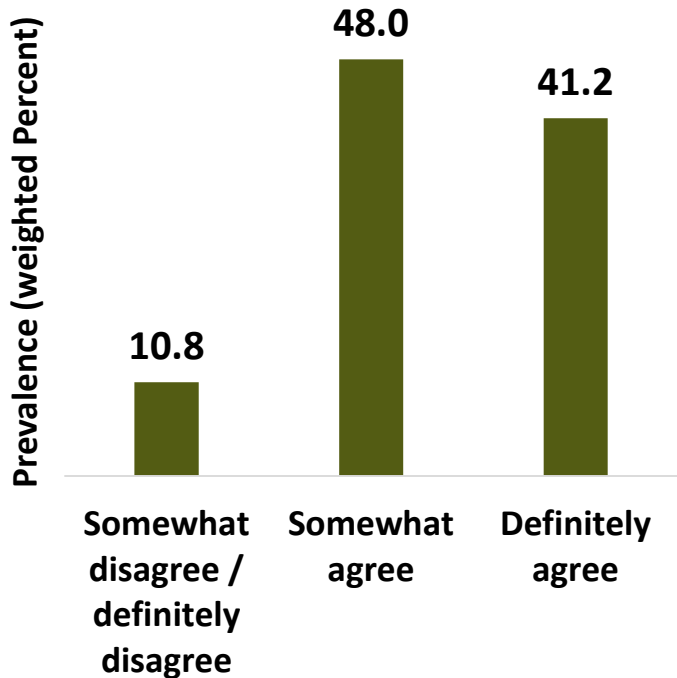
Data Source: 2016 National Survey of Children's Health



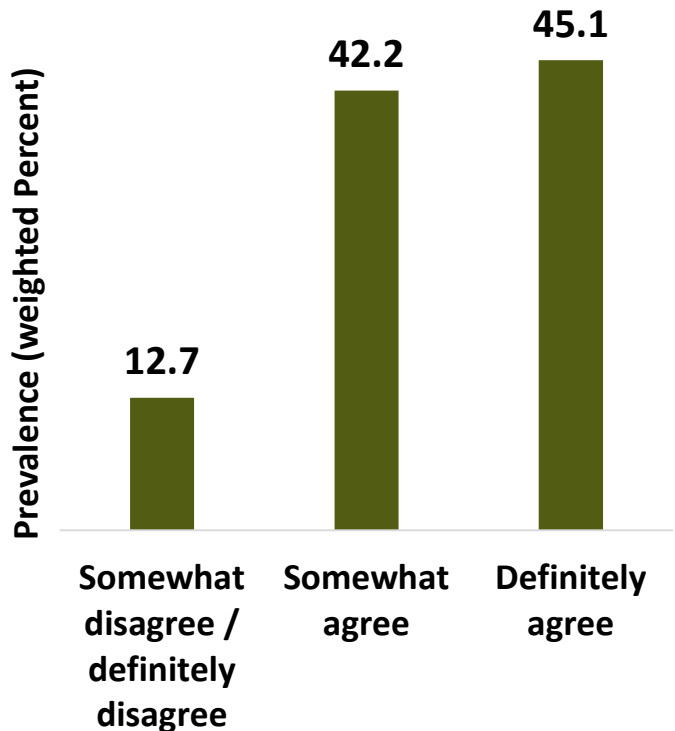
COMMUNITY STRENGTHS & RESILIENCE

Neighborhood / Community Attributes among Vermont Children, <1-17 years: Supportive Neighborhoods

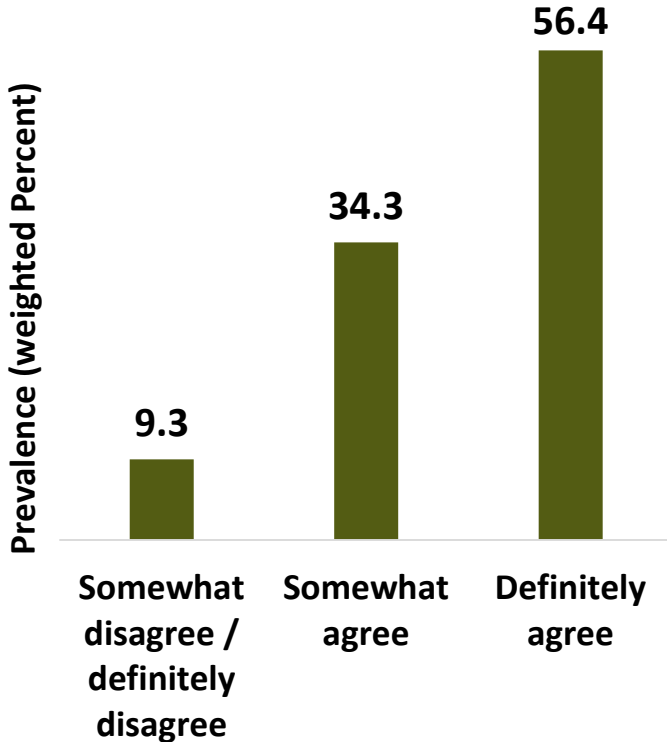
PEOPLE HELP EACH OTHER OUT



PEOPLE WATCH OUT FOR OTHER'S CHILDREN



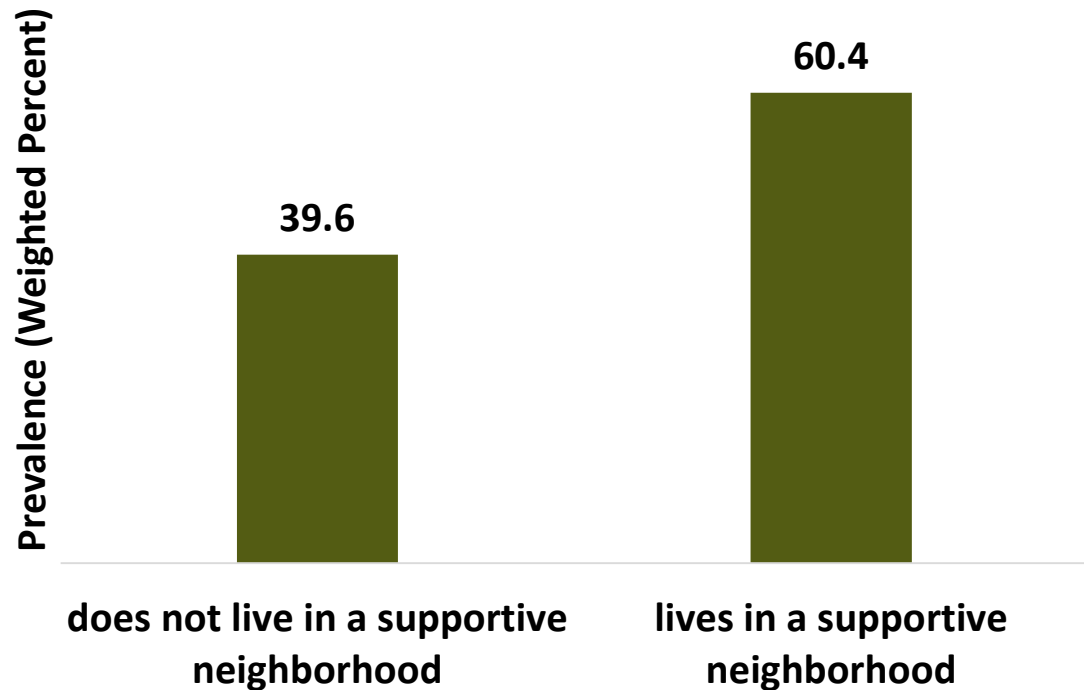
KNOW WHERE TO GO FOR HELP



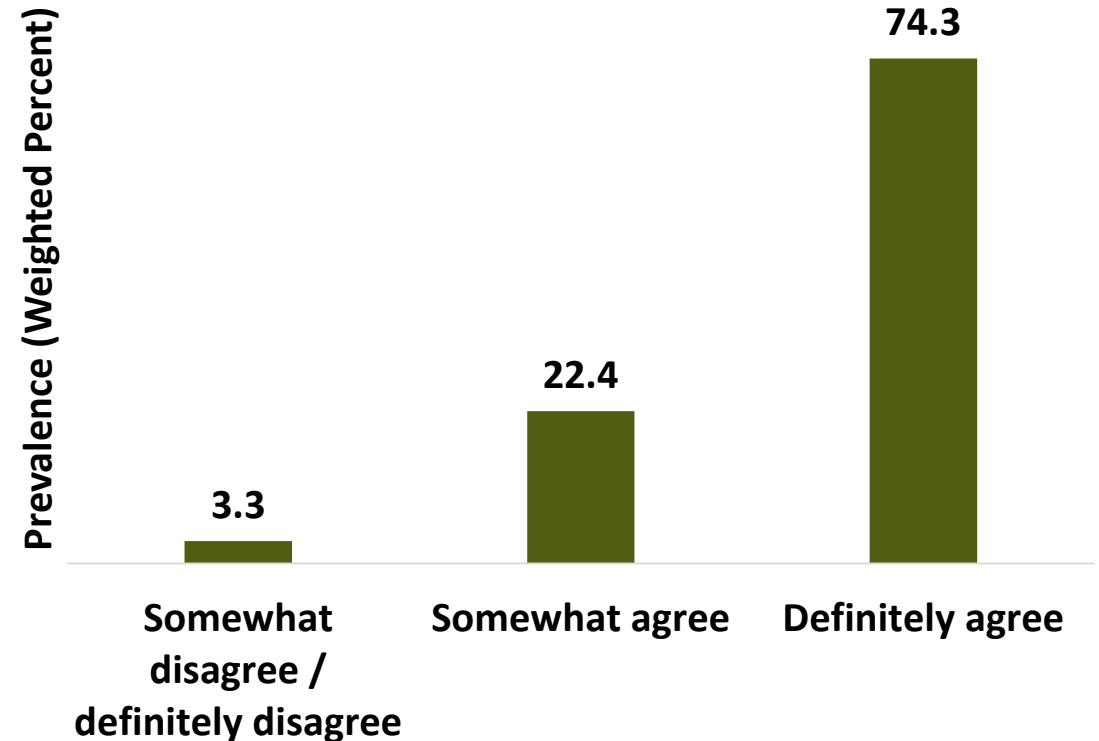
Data Source: 2016 National Survey of Children's Health

Neighborhood / Community Attributes among Vermont Children, <1-17 years: Supportive Neighborhoods, continued

CHILDREN WHO LIVE IN A SUPPORTIVE NEIGHBORHOOD



CHILDREN WHO LIVE IN A SAFE NEIGHBORHOOD



Data Source: 2016 National Survey of Children's Health