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New Study Shows Communities Can Reduce the Effects of Adverse Childhood Experiences

Research Finds Evidence of Impact on Individual Outcomes and Differences in Community Capacity

SEATTLE, WASHINGTON, August 9, 2016— A new study shows that local community networks in Washington State have succeeded in reducing the effects of adverse childhood experiences (ACEs) such as child abuse and neglect, domestic violence, household substance use, and parent mental illness. The three-year study released by the [ACEs Public-Private Initiative \(APPI\)](#), along with its evaluation partners [Mathematica Policy Research](#) and [Community Science](#), revealed that community efforts led to increased graduation rates, decreased smoking and alcohol use among pregnant women, and a drop in teen drinking, among other results.

Research shows that [ACEs](#) trigger a stress response that can impact a child's developing brain. This, in turn, can impair decision making, reduce impulse control, increase risky behavior, and

weaken the immune system. It can also lead to increased risk of social, emotional, and health problems in later life, ranging from suicide and substance abuse to diabetes, heart disease, and cancer. ACEs are common and tend to occur together, and the risk of health and social problems increases with the number of ACEs.

The study also found no one best strategy for change in a community. Approaches need to be tailored to community needs, strengths, and other resources.

About the Evaluation

APPI—a collaborative of public, private, and community organizations—undertook the evaluation to contribute to the understanding of what strategies work to prevent ACEs and reduce their negative effects.

In 2013, APPI selected community networks and coalitions on the basis of their history of collaboration and innovative strategies for preventing, reducing, and minimizing the impacts of ACEs. The five community networks are: [The Coalition for Children & Families of North Central WA](#); [Okanogan County Community Coalition](#); [Skagit County Child & Family Consortium](#); [Walla Walla County Community Network/Children’s Resilience Initiative](#); and [Whatcom Family & Community Network](#). (See Figure 1 and Appendix A.)

APPI then selected Mathematica through a competitive bidding process that considered experience evaluating community-level work, including initiatives targeting ACE reduction and family support programs. Mathematica in turn subcontracted with Community Science to perform the community capacity survey work. The evaluation team, led by Natalya Verbitsky-Savitz and Margaret Hargreaves, included national experts on assessing systems change, community capacity building, ACEs, and measurement.

Figure 1. Map of APPI sites



Source: Verbitsky-Savitz, Natalya, Margaret B. Hargreaves, Samantha Penoyer, Norberto Morales, Brandon Coffee-Borden, and Emily Whitesell (2016). *Preventing and Mitigating the Effects of ACEs by Building Community Capacity and Resilience*. Washington, DC: Mathematica Policy Research. This report is available at <http://www.appi-wa.org/> or <http://www.mathematica-mpr.com>

Evaluation Results

Collective Community Capacity:

The APPI sites sought to develop community involvement and ability to make a difference in four major areas: (1) creating sustainable network or coalition leadership and other infrastructures; (2) facilitating cross-sector partnerships targeting ACEs, such as those that involve the business, faith-based, education, and social services sectors; (3) using evidence-based community problem-solving processes supported by past research; and (4) implementing strategies at sufficient scale to achieve a communitywide impact. Key findings in these areas include:

- The community capacity of APPI sites varied across areas. It was highest in areas such as cross-sector partnerships, evidence-based problem solving, and shared goals. It was

moderate in areas such as developing sustainable infrastructure and mobilizing residents. It was lowest in the area of achieving communitywide change.

- The study team and community sites built a new measurement tool --the ACEs and Resilience Collective Community Capacity (ARC³) survey—that performed well in terms of assessing key areas and differentiating communities.

Impact Evaluation

When communities come together to address ACE and build resilience, they can succeed. The study evaluated 11 APPI site strategies by synthesizing findings from qualitative data collected through stakeholder interviews and document reviews and by analyzing quantitative outcome data from a variety of existing administrative and survey data sources.

The study team found evidence of positive changes for six strategies:

- 1. *The ACEs and Resilience Awareness Campaign*** increased awareness of ACE concepts among Walla Walla residents. Forty percent were aware of ACE concepts in 2014.¹ almost all network members and partners reported being largely or extremely familiar with ACEs and resilience concepts (97 and 90 percent, respectively). In addition, the Walla Walla network has the highest level of awareness and use of ACEs and resilience concepts among the five APPI networks.
- 2. *The Commitment to Community initiative*** in Walla Walla resulted in a variety of neighborhood improvement projects, including the building of a series of community parks and park amenities such as benches and playgrounds, by community residents and local businesses. In addition, a non-randomly selected group of residents in Walla Walla reported positive attitudes toward their neighborhood and the Commitment to Community efforts.
- 3. *The Lincoln High School initiative*** in Walla Walla achieved consistent improvement in discipline and graduation indicators over a three- to five-year period. For example, the number of students referred to the office for discipline problems decreased by 23 percentage points from 2007 to 2010.

The number of out-of-school suspension days per student decreased by 2.3 days between 2007 and 2010, and another .25 day between 2010 and 2012. Graduation rates increased by 13 percentage points between 2008 and 2010, and another 20 percentage points between 2010 and 2013.

¹ The 2014 ACEs Awareness survey was distributed at community events and may not be representative of the general Walla Walla adult population.

4. **The Nurse-Family Partnership (NFP)** in Skagit County reduced prenatal smoking and alcohol use among mothers. This program also helped reduce incidence of low birthweight or very low birthweight infants. The Skagit County program results were similar to or better than the outcomes of the Washington State and national NFP programs.
5. **The Omak Community Truancy Board** in Okanogan is currently in its second year of implementation. In the first year, the truancy board helped improve attendance for 15 (out of 20) referred students.
6. **The Positive Social Norms Campaign** in Okanogan decreased alcohol use among youth by 10 percentage points.

(See Appendix B for more details about each of the six strategies.)

An executive summary and a full report with the detailed findings can be found at [Evaluation Reports – APPI](#) or <https://www.mathematica-mpr.com/our-publications-and-findings/projects/community-based-family-support-networks-to-reduce-adverse-childhood-experiences>

“This work is an important demonstration of the kinds of progress and positive results that can be generated from cost-effective public-private partnerships in the community,” said Greg Williamson, an assistant director at the Washington Department of Early Learning, an APPI member. “It is helping create a picture of how to improve well-being for children and families.”

Current APPI Priorities

1. In partnership with Mathematica, Community Science, and the APPI communities, disseminate the results of the evaluation to document and understand what structures and approaches help prevent and mitigate ACEs;
2. Facilitate learning and dialogue among APPI members, evaluation sites and the broader community regarding ACEs and resilience.
3. Identify and implement policies and programs to prevent and mitigate ACEs.

Also see:

- *Advancing the Measurement of Collective Community Capacity to Address Adverse Childhood Experiences and Resilience*, by M. B. Hargreaves, N. Verbitsky-Savitz, B. Coffee-Borden, L. Perreras, P. J. Pecora, C. Roller White, G. B. Morgan, T. Barila, A. Ervin, L. Case, R. Hunter, & K. Adams. Gaithersburg, MD: Community Science. 2016. See: <http://www.appi-wa.org/evaluation/evaluation-reports>

- *APPI Cross-Site Evaluation: Interim Report*, by M. B. Hargreaves, N. Verbitsky-Savitz, S. Penoyer, M. Vine, L. Ruttner, & A. Davidoff-Gore. Cambridge, MA: Mathematica Policy Research. 2015. See: <https://www.mathematica-mpr.com/our-publications-and-findings/projects/community-based-family-support-networks-to-reduce-adverse-childhood-experiences>

About the ACEs Public-Private Initiative and the Evaluators

APPI is an innovative collaboration of 20 public, private and community organizations, including the Bill & Melinda Gates Foundation, Casey Family Programs, Empire Health Foundation, the Thomas V Giddens Jr Foundation, and the Washington State Department of Social and Health Services, that seeks to understand and share the policies, programs and approaches that help prevent and mitigate that effects of ACEs on families. Learn more at www.appi-wa.org.

Mathematica Policy Research, a nonpartisan research firm, conducts policy research and surveys for federal and state governments, foundations, and private-sector and international clients. Its mission is to improve public well-being by bringing the highest standards of quality, objectivity, and excellence to bear on the provision of information collection and analysis to its clients. Learn more at www.mathematica-mpr.com

Community Science is an award winning research and development organization that works with governments, foundations, and non-profit organizations on solutions to social problems through community and other systems changes. Using state-of-the-art qualitative and quantitative methods, Community Science’s goal is to strengthen the science and practice of community change in order to build *healthy, just and equitable communities*. The organization’s services include research and evaluation services, capacity-building products and services, and initiative management and support. Learn more at <http://www.communityscience.com/about.php>

Appendix A: The APPI Community Networks and Coalitions

The Coalition for Children & Families of North Central WA

The Coalition for Children & Families of North Central Washington has been active since 2006. Its mission is to work together to promote an environment that enhances, develops, and implements a network of services that will support all children and families.

Okanogan County Community Coalition

Okanogan County Community Coalition’s mission is to effectively address the problems of youth substance abuse and violence by promoting collaboration, cooperation, communication, commitment, and cultural competency. The coalition’s volunteer members have worked together in Okanogan County for more than a decade to prevent youth substance abuse and violence.

Skagit County Child & Family Consortium

The mission of the Skagit County Child and Family Consortium (SCCFC) is to promote and strengthen a seamless continuum of support and services to foster safe and healthy children and families within the Skagit County Community. The consortium was named a Washington State Family Policy Council Health and Safety Network in 2008 and received nonprofit 501(c)(3) status in 2009.

Walla Walla County Community Network/Children's Resilience Initiative

Walla Walla County Community Network (WWCCN) has represented the children and families of Walla Walla County for 15 years. Acting as catalyst, convener, coach and cheerleader, WWCCN has an established record of developing—with its many partners—a high capacity community, responsive to the health and well-being of its children. WWCCN is recognized for its leadership role in focusing on systems dynamics and collective community response to pursue a coordinated, multi-strategy, science-informed approach with a focus on building thriving families. The Children's Resilience Initiative, created in 2008, is an intentional, structured community response to ACEs through building resilience.

Whatcom Family & Community Network

The Whatcom Family & Community Network was founded in 1990 as a community-based nonprofit focusing on community engagement and community capacity building to support healthy families. Since 1990, the Whatcom County Family & Community Network has piloted and developed numerous major planning and strategy initiatives, including collective impact partnerships around education, foster care, health care reform, domestic violence prevention and substance abuse and violence prevention.

Appendix B. Summary of Outcome Evaluation Findings for Key Strategies

Activity name (site name)	Activity type	Summary of findings
Some evidence of impact (positive, statistically significant changes)		
Nurse-Family Partnership (NFP) (Skagit)	Targeted prevention strategy	<ul style="list-style-type: none"> • This evidence-based program has been documented to (1) reduce child abuse and neglect, (2) reduce the likelihood of mothers giving birth to additional children while in their late teens and early twenties, (3) reduce prenatal smoking among mothers who smoke, and (4) improve cognitive and/or academic outcomes for children born to mothers with low psychological resources. • Improvements in prenatal smoking and alcohol use among mothers and low birthweight or very low birthweight infants in Skagit were similar or better than in the Washington State and national NFP programs.
Positive Social Norms Campaign (Okanogan)	General prevention strategy	<ul style="list-style-type: none"> • Decreased alcohol use among youth by 10 percentage points, with 77 percent of Omak high school students reporting not using alcohol before the campaign began and 87 percent of students reporting no alcohol use after the campaign was implemented.
Omak Community Truancy Board (Okanogan)	Trauma-informed practice	<ul style="list-style-type: none"> • This is a promising intervention that is currently in its second year of implementation. In the first year, the truancy board helped improve attendance of 15 (out of 20) referred students. • More years of data are needed, however, to determine whether this magnitude of change is sustainable.
ACEs and Resilience Awareness Campaign (Walla Walla)	Community awareness	<ul style="list-style-type: none"> • 40 percent of residents report awareness of ACEs concepts. • The Walla Walla network has the highest level of awareness and use of ACEs and resilience concepts among the five APPI sites. Almost all network members and partners report being largely or extremely familiar with ACEs and resilience concepts (97 and 90 percent, respectively). • Pre-intervention data (or data from other communities that are not raising awareness of ACEs) are needed to estimate the magnitude of the impact of this activity. • Also, data were not available to determine whether improved awareness of ACEs and resilience concept leads to corresponding changes in behavior among residents.

Activity name (site name)	Activity type	Summary of findings
Commitment to Community (Walla Walla)	Trauma-informed practice	<ul style="list-style-type: none"> Residents reported positive attitudes toward their neighborhood and the Commitment to Community efforts after program. However, these findings are based on relatively small samples. No pre-intervention data are available on the same outcomes.
Lincoln High School (Walla Walla)	Trauma-informed practice	<p>Consistent improvement in discipline and graduation indicators over three- to five-year period, including:</p> <ul style="list-style-type: none"> The number of students referred to the office for discipline problems decreased by 23 percentage points from 2007 to 2010. The number of office referrals per student decreased by 2.8 referrals between 2007 and 2010 and by another 0.3 referrals between 2010 and 2012. Number of out-of-school suspension days per student decreased by 2.3 days between 2007 and 2010 and by another .25 day between 2010 and 2012. Emergency expulsions also decreased in both phases but by smaller amounts. Graduation rates increased by 13 percentage points between 2008 and 2010 and by another 20 percentage points between 2010 and 2013. <p>However, due to data limitations, we cannot say how much of this improvement is attributable to the changes in school's policies, practices, and climate and how much is due to other factors, such as possible changing in student population over time. Pre-intervention longitudinal data and a matched comparison group would improve the rigor of the analysis and allow us to be more confident in the magnitude of the impacts.</p>
No evidence of impact (mixed results or limited or no outcome data available)		
ACEs Awareness Campaign (NCW)	Community awareness	<ul style="list-style-type: none"> This a low-intensity activity using traditional means of dissemination such as distribution of a brochure and community presentations. NCW is planning to administer an ACEs awareness survey later in 2016; however, no outcomes data were available for this evaluation.
Westside High School (NCW)	Trauma-informed practice	<ul style="list-style-type: none"> This activity is in the initial stage of implementation and no outcomes data were available for this evaluation.

Activity name (site name)	Activity type	Summary of findings
Community Navigator Program (Whatcom)	Trauma-informed practice	<ul style="list-style-type: none"> • A small group of surveyed program participants expressed satisfaction with the program. Positive differences in outcomes related to timely family reunification were found between a small group of the program participants and a comparison group. These differences were not statistically significant. • Due to the differences in characteristics between participants and the comparison group and other data limitations, we were unable to rigorously evaluate this program. Appropriate data on a large representative group of Community Navigator families and a matched comparison group are needed.
Shuksan Middle School (Whatcom)	Trauma-informed practice	<ul style="list-style-type: none"> • Found mixed (positive and no change) results across a variety of related indicators, including disciplinary, perceptions of school climate, substance use, and Hispanic student proficiency outcomes. Results were inconsistent across grades.
Prevention/Intervention Specialists (Skagit)	Targeted prevention strategy	<ul style="list-style-type: none"> • Need outcomes data for students who received services. County-level data that we examined lack sensitivity to detect any potential impacts of the program (if they exist).

NOTE: This table reports statistically significant changes in outcomes, unless noted otherwise.

Source: Verbitsky-Savitz, Natalya, Margaret B. Hargreaves, Samantha Penoyer, Norberto Morales, Brandon Coffee-Borden, and Emily Whitesell (2016). *Preventing and Mitigating the Effects of ACEs by Building Community Capacity and Resilience*. Washington, DC: Mathematica Policy Research. This report is available at <http://www.appi-wa.org/evaluation/evaluation-reports> or <https://www.mathematica-mpr.com/our-publications-and-findings/projects/community-based-family-support-networks-to-reduce-adverse-childhood-experiences>