Aligning Community Capacity, Networks, and Solutions to Address Adverse Childhood Experiences and Increase Resilience

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IN 2012, THE Adverse Childhood Experiences Public–Private Initiative (APPI), a Washington State consortium of public agencies, private foundations, and local networks, was formed to study interventions to prevent and mitigate adverse childhood experiences (ACEs) and facilitate statewide learning on these topics.[1] In 2013, APPI funded a 3-year evaluation to study the efforts of 5 communities in Washington State that were working to address ACEs and increase resilience. The APPI evaluation assessed the extent to which the sites had the capacity to achieve their goals, and examined the relationship of the sites' capacity to successfully complete certain strategies, including their impact on ACEs-related outcomes. When no valid and reliable measures of collective community capacity to address ACEs and resilience were found through an extensive literature review, the evaluation team created the ACEs and Resilience Collective Community Capacity (ARC^3) survey to fill that measurement gap.

ARC^3 Survey Design

The ARC^3 survey was designed to gather data at 4 nested levels of capacity: 1) core team or coalition capacity to develop and sustain strong leadership, infrastructure and communications; 2) network capacity to work collectively across sectors on community change; 3) capacity to address ACEs and resilience through community problem solving processes, focusing on equity and informed by data; and 4) capacity to engage and empower the entire community to work at sufficient scale (breadth) and scope (depth) to achieve community-wide results. These 4 levels of capacity map onto 11 ARC^3 measurement domains (Table).

Reliability and Validity of ARC^3 Measures

In 2015, a pilot version of the survey was administered to members and community partners of 3 (non-APPI) community coalitions in Washington State. An analysis of the pilot survey results showed that the 10 domains in the ARC^3 index ranged from "acceptable" to "excellent" for internal consistency. The pilot survey's Cronbach's alpha coefficients ranged from 0.69 (Community Problem-Solving Process) to 0.91 (Scale of Work) across the 10 subscales. An initial principal components factor analysis with Varimax rotation was conducted, specifying 10 factors (one for each subscale). The 10 factors explained 79.7% of the variance.[2]

The pilot survey was revised, and the final survey was administered to the 5 APPI sites in February and March 2016. The overall survey response rate was 84.4%. The final survey's site-specific response rates ranged from 74.7% (North Central Washington) to 90.8% (Walla Walla). Analysis of the final survey's results showed that the internal consistency of the 10 domains of the ARC^3 index ranged from "acceptable" to "good." The final survey's Cronbach's alpha scores ranged between 0.76 (for the Leadership and Infrastructure and Community Problem-Solving process domains) and 0.85 (Multilevel Strategies) across the 10 index domains. The survey's capacity scores also reflected the sites' capacities described in the interim and final APPI evaluation reports.[3] This corroborative evidence supports the validity of the survey's results.

ARC^3 Survey Findings

The APPI evaluation found that 2 APPI sites (Okanogan and Skagit) with the highest ARC^3 index scores, on average, were among the 3 top sites with demonstrated evidence of effectiveness.[4] These 2 sites focused most on evidence-based, universal prevention programs (such as a community positive norms campaign and a home visiting program) and were supported by dense partner networks. However, their community capacities, community change strategies, and network characteristics were quite different than those of the other top 3 site (Walla Walla). Walla Walla operated more like an entrepreneurial business, and it created a larger, less dense network structure to work with a more diverse set of community partners on a wider range of community awareness efforts and more experimental pilot projects, such as creating a children's

Table. The 2016 ARC^3 Survey Capacity Levels and Measurement Domains

Capacity Levels	Measurement Domains
Coalition capacity	Leadership and infrastructure. Communications.
Network capacity	Goal-directed networks. Community cross-sector partnerships. Shared goals.
Community-based solutions	Community problem-solving process. Focus on equity. Data use for improvement and accountability.
Community-wide impact	Multilevel strategies. Diverse engagement and empowerment. Scale of work.

Ten of the ARC^3 domains are measured using the ARC^3 index in Part 2 of the ARC^3 survey. The 11th domain—goal-directed networks—is measured using the Extent of Collaboration questions in Part 3 of the survey.

resilience initiative, transforming an alternative high school, and organizing high-risk neighborhoods. The final 2 sites (Whatcom and North Central Washington) did not have sufficient data to determine the effectiveness of their community projects.

This finding suggests that to prevent ACEs and increase resilience on a population scale, it is important to identify effective community change strategies to achieve that goal, and to align the community's network structure and collective capacity to support those strategies. Thus, there is no single best network structure, set of community-based interventions, or type of coalition capacity to address ACEs and increase resilience in communities. Rather, these factors need to be aligned to achieve community impact.

Building Collective Community Capacity to Address ACEs

Many community strategies are needed to address the causes and developmental consequences of ACEs (including child maltreatment, domestic violence, and impaired caregiving) and other childhood adversities (such as income, housing, and food insecurity). These strategies span the prevention continuum: promoting positive parenting and healthy child development; using 2-generation models to address family stressors and parent and child needs and strengths; and integrating the services of pediatricians, mental health providers, case managers, and others. Such efforts require the collaboration of many different community partners, including community-based advocates, government policy makers, public health planners, family physicians, child welfare workers, early education teachers, home visitors, mental health providers, school counselors, local law enforcement, and juvenile justice administrators. But, these collaborative networks require sustained coordination, leadership, infrastructure, and communication support to work at the scope and scale necessary to have community-wide impact. Tools such as the ARC^3 survey can help communities measure, improve, and align their collective capacity to engage successfully in this important work.

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