



Critiquing Indicators of Community Strengths in Community Health Needs Assessments

Craig Talmage¹ · Micaela Mercado² · Grant Yoder² · Kathryn Hamm² · Wendy Wolfersteig²

Received: 15 July 2020 / Accepted: 1 December 2020 / Published online: 12 January 2021
© The Author(s), under exclusive licence to Springer Nature Switzerland AG part of Springer Nature 2021

Abstract

Many scholars and practitioners have heard the call to include asset-based community development (ABCD) approaches in their toolkits to enhance community well-being. This overview article discusses how indicators of community strengths and assets have been included in community health assessments, specifically those focused on exploring community needs. The authors collate a list of common strengths-based indicators (i.e., assets) assessed in the community health and well-being literature. In particular, this overview article addresses how such indicators of community strengths may be limited in their abilities to elucidate meaningful insights when surveying diverse populations of individuals/groups regarding their well-being. Asking, *which indicators of community strengths uniquely contribute to individual and community health when sampling diverse populations*, this article leverages a recent community health needs assessment in Maricopa County, Arizona, USA, to demonstrate the merits and limits of strengths indicators in needs assessments. Moreover, the article concludes by suggesting that strengths indicators as add-ons to needs assessments do not adequately reflect the myriad possibilities for meaningful inferences that can be derived from ABCD approaches, specifically in regard to social determinants of health, individual health, and community well-being.

Keywords Community well-being · Social indicators · Asset based community development · Diverse populations · Community research

Background and Aims

As a field of research and practice, community development contributes to our understandings of community well-being and community health. In particular, asset-based

✉ Craig Talmage
Talmage@hws.edu

community development (ABCD) underscores an explicit focus on strengths-based approaches for examining individual and community health. ABCD challenges antiquated needs-based paradigms of health as problems that need to be fixed, decreased, or mitigated. Conceptually, ABCD is a culturally grounded, holistic, wellness-focused, inclusive, people-oriented, psychosocial, and value-based rather than a needs-based reductionist approach (Brandow, Brandow, & Cave, 2019; de Andrade & Angelova, 2020; Robson, 2015; Pstross, Talmage, & Knopf, 2014). Although ABCD illuminates community health and well-being in meaningful ways, more research is needed to identify valid indicators of community assets and strengths.

This article overviews how strengths-focused indicators have been added-on to needs assessments concerning community health and well-being. Following an introduction highlighting literature relevant to the overview, a summary of previous indicators of community strengths and assets¹ is compiled and presented for discussion. Then, using a recent community health needs assessment, the merits and limitations of indicators used to measure community assets and community strengths are evaluated. This health assessment is particularly unique because of the intentional selection of individuals from diverse backgrounds. This article concludes with a critique of the use of strengths/assets indicators in needs assessments (as currently/apparently practiced) to inform future research, teaching, and practice.

ABCD and Community Health and Well-Being Work

ABCD approaches are expansive for health and well-being scholarship and practice, and this allows community development researchers to comprehensively explore human and social capital underlying community health and well-being (Gobar, 2009). Moreover, ABCD approaches shift the focus from well-being and health deficits to explore resilience among individuals and communities (Brandow, Brandow, & Cave, 2019; Maybery, Pope, Hodgins, Hitchenor, & Shepherd, 2009; Zautra, Hall, & Murray, 2008). ABCD approaches encourage more participatory research approaches to community health and well-being research (Letcher & Perlow, 2009) and provide enhanced community development research through community partnerships (Quinn & Biggs, 2010). In this context, methodological approaches in ABCD, such as self-assessments of needs and well-being as well as social determinants of health assessments and health promotion efforts, complement the work necessary for improving community health and well-being (Cameron & Wasacase, 2017; Ramos et al., 2019; Talmage, Figueroa, & Wolfersteig, 2018c; Talmage, Figueroa, & Wolfersteig, 2018d). ABCD approaches are also additional ways to reach underserved populations and leverage the experiences of individuals to understand the intersectionality of community and social, economic, and health inequalities (de Andrade & Angelova, 2020; Talmage, Figueroa, & Wolfersteig, 2018c; Talmage, Figueroa, & Wolfersteig, 2018d). Finally, ABCD approaches can be leveraged to create cultures of health on small and large scales (Chandra et al., 2017; Talmage, Figueroa, & Wolfersteig, 2018c). As such, ABCD approaches can be useful tools for understanding the unique experiences of

¹ The terms community assets and community strengths will be used interchangeably but in regard to the same phenomena; however, various traditions and fields may house differing interpretations of these terms.

individuals from diverse backgrounds all over the world, and identifying meaningful, community driven, solutions to health challenges.

ABCD is now taught in community development courses and found among well-used course textbooks (e.g., Green & Haines, 2015; Philips & Pittman, 2008) and research handbooks (Page-Reeves, 2019; Philips & Wong, 2016). Thus, ABCD approaches, rooted in established literature (Block, 2008; Kretzman & McKnight, 1993; McKnight & Block, 2010) and frameworks (e.g., Community Capitals: Emery & Flora, 2006), inform the work led by residents, leaders, researchers, and practitioners who focus on community strengths (Burkhart-Kriesel, Weigle, & Hawkins, 2019; Talmage, Kher, & Cooley, 2019a).

Rather than explore critical macro-philosophical questions, such as what are needs, assets, strengths, or communities, areas, in which scholars have already made great headway (e.g., Kramer, Amos, Lazarus, & Seedat, 2012), this article challenges how indicators of community assets and strengths are used as explanatory determinants of health and well-being. This article also encourages thoughtfulness when including community strengths indicators in traditionally needs-based inquiries in order to promote the responsible use of those indicators. Finally, this article specifically interrogates the need for diverse samples to test the utility of asset-based indicators.

First, an overview of asset-based indicators that are tied to community health and well-being is outlined. Second, a community health assessment is presented to illustrate which community indicators (i.e., community strengths) link with community health and well-being and the contribution of these indicators to the existing indicators found in community assessments. These findings are leveraged to inform an adapted framework for critiquing community strengths indicators in future research and practice. In sum, this article examines the research question: *Which indicators of community strengths uniquely contribute to individual and community health when sampling diverse populations?*

Community Strengths Indicators and Community Health Assessments

Community health assessments, especially quantitative evaluations, rely on self-reports of health. These self-assessments have expanded from asking individuals about their health perceptions and deficiencies to include questions about their social, economic, and environmental status and perceptions. These data are then linked to health and well-being. This shift in assessment is now evident among community health and well-being scholars and practitioners in their work on social determinants of health (e.g., Baldwin et al., 2020; Scarbrough, Holt, Hill, & Kafle, 2019; Sung & Phillips, 2018; Talmage et al., 2018a). The social determinants of health (SDH) link health and well-being to social, economic, and environmental factors (Koh, Piotrowski, Kumanyika, & Fielding, 2011). In sum, “the social determinants approach does not look to revolutionize a single individual’s life but rather incorporates the context in which individuals find themselves” (Talmage et al., 2018a, pp. 399–400).

Table 1 illustrates different forms of community capital found in the community well-being, ABCD, and SDH literature. The table clusters by different indicator-types; however, Table 1 does not follow a particular community capitals or indicators framework or content analysis strategy (e.g., Emery & Flora, 2006; Talmage, Pijawka,

Table 1 Community strengths indicators in the ABCD, SDH, and well-being literature

Community capital	Indicator	Example sources
Agriculture and food capital	Community-supported agriculture	Campbell, Carlisle-Cummins, and Feenstra (2013)
	Food choices	Carson, Hamel, Giarrocco, Baylor, and Mathews (2016)
	Food deserts, swamps, security	
	Food donation networks	Talmage, Meyer, and Rath (2020)
	Food distribution systems and waste	
	Healthy and nourishing foods* Nutritional health and cooking programs	
Economic and financial capital	Economic opportunity	Allen and Miller (2010)
	Enterprise	Eagle et al. (2012)
	Income	Talmage, Pijawka, and Hagen (2019b)
	Jobs*	
Educational and recreational capital	After school activities*	Finn-Stevenson (2014)
	Community classes and trainings*	Philbin, Parker, Flaherty, and Hirsch (2019)
	Fitness facilities and programs*	Talmage, Anderson, and Searle (2018a)
	Lifelong learning programs	Talmage, Pijawka, and Hagen (2019b)
	Parks and recreation*	Talmage, Ross, Searle, and Knopf (2018b)
	Public libraries and community centers* Schools (e.g. pre-K, primary, secondary, higher)*	
Health and care capital	Disability and long-term care services	Brown, Ahalt, Steinman, Kruger, and Williams (2014)
	Medical care*	Gallan et al. (2019)
	Mental health services*	Tomita, Moy, Schuler, and Sigler (2018)
	Older adult services*	
	Substance abuse treatment*	
Physical capital	Childcare*	Koh and Rosenberg (2019)
	Crisis and emergency services (e.g., social services, police, fire, EMS, etc.)	Maggi, Roberts, MacLennon, and D'Angiulli (2011)
	Housing*	Sreedhara, Goins, Frisard, Rosal, and Lemon (2019)
	Public transportation*	Stewart and Townley (2020)
	Traffic and roads/streets*	Talmage, Pijawka, and Hagen (2019b)
	Walking and biking routes*	
Psychological, social, and cultural capital	Community leadership*	Farmer and Kilpatrick (2009)
	Citizen participation	Hausman et al. (2009)
	Cultural events and resources*	Kutek, Turnbull, and Fairweather-Schmidt (2011)
	Diversity and inclusion*	Perkins, Hughey, and Speer (2002)
	Sense of community, cohesion, or trust*	Talmage and Knopf (2017)

Table 1 (continued)

Community capital	Indicator	Example sources
	Efficacy and empowerment	Talmage, Peterson, and Knopf (2017)
	Neighbors and neighboring behavior	Talmage, Pijawka, and Hagen (2019b)
	Religious or spiritual events and resources*	Welzel, Inglehart, and Deutsch (2005)
	Self-expression and elite-challenging action	
	Social associations, clubs, and enterprises	
	Support networks (e.g., friends and family)*	
Natural capital	Air and water quality	Allgood, Hofberg, Musikanski, Michelini, and Moser (2019)
	Flora and fauna/wildlife	Talmage, Pijawka, and Hagen (2019b)
	Natural resources	
Well-being perceptions	Crime and safety*	Sirgy, Widgey, Lee, and Yu (2010)
	Individual physical and mental health*	Talmage, Pijawka, and Hagen (2019b)
	Place to raise children*	Talmage, Ross, Searle, and Knopf (2018b)
	Satisfaction, happiness, and joy	

*Indicator was included in the assessment example to follow

& Hagen, 2019b). This list was compiled using a rapid review of peer-reviewed published literature to identify indicators commonly used to assess community strengths. The research team reviewed relevant articles, and information to build Table 1 was extracted and categorized based on team consensus. The clustering found in Table 1 draws on the literature as well as the insights of the study authors' decades of experience conducting community assessments with diverse populations. Lastly, Table 1 is not meant to be inclusive of all sources relating to each form of capital or strengths-based indicator but serves as a starting point for readers.

Conceptually, SDH and ABCD indicators are clearly interlinked. For example, health is inextricably linked to local agriculture/food systems and access to food in communities. Both are related to nutritional health and linked to other indicators such as poverty and economic opportunity. Health is also linked to economic and financial assets, which are needed to attain food resources and community resources such as education, recreational activities, and affordable health care. Individuals' perceptions of community resources, infrastructure, and well-being are also important to health. Finally, the physical infrastructure and natural resources of a community are linked to health. All in all, while these indicators are assessed individually, they are all inextricably linked in various ways; some linkages are explicit, while others are less apparent but still underlie the very fabric of communities.

Table 1 illustrates several examples of SDH and ABCD indicators. Both SDH and ABCD comprise indicators that are sources of *capital*, which can vary across and within communities (Chen, Vargas-Bustamante, Mortensen, & Ortega, 2016; Talmage et al., 2018a, b). Reasons for these variations include demographic and social disparities (Chen et al., 2016). In this context, Table 1 highlights community strengths-based

indicators that can vary for each member based on its accessibility, affordability, *and* quality.

Toward the Assessment Example Data from a community health needs assessment undertaken in Maricopa County, Arizona, were used to illustrate a community strengths indicators framework developed using the SDH approach and the ABCD indicators. This assessment included multiple strengths-based indicators identified from the literature, and the particular indicators are noted in Table 1. In the revisited assessment, the indicators focused mostly on access (discussed later). Overall, the analysis explores how strengths-based indicators amongst diverse populations of community members associate with community health.

Assessment Example

Again, this overview queries, *which indicators of community strengths uniquely contribute to individual and community health when sampling diverse populations?* For context and insights regarding this question, the background for the assessment and descriptive statistics are presented before diving into inferential explorations of the assessment data. The inferential methods are utilized to identify and critique the explanatory power of strengths indicators as add-ons to needs assessments among diverse groups/persons concerning health and well-being.

Background

Data for this assessment were collected in collaboration with the Maricopa County Department of Public Health (MCDPH) Coordinated Community Health Needs Assessment (CCHNA). This needs assessment provided service organizations with up-to-date community health data and aided local providers in designing future community health initiatives and determining priority areas to address. The CCHNA is conducted every 3 years to provide a more comprehensive understanding of the health needs that exist in Maricopa County. Researchers at Arizona State University (ASU) partnered with the MCDPH and local community-based organizations for the past two iterations of the CCHNA to complete a series of focus groups and surveys with medically underserved populations across Maricopa County.

Design

The assessment utilized a cross-sectional mixed methodological design, which consisted of focus groups and surveys. Data were collected over the course of three cycles beginning in August 2018 and ending in December 2019. The assessment participants took part in a focus group discussion, as well as a questionnaire about health resources and needs in their communities. Each focus group consisted of around ten individuals from the population of interest, and participants, with the exception of the five youth focus groups in cycle three, were 18 years of age or older. All participants provided necessary consent and assent prior to participation, in accordance with ASU institutional review board (IRB) standards/protocols.

Recruitment and Sample

Similar to past versions of the CCHNA (e.g., blinded for review), the MCDPH, along with a series of hospital partners, used local epidemiological and hospital data sources to identify those populations targeted for participation in the research study. Purposive sampling was used in this study, recruiting participants from the target populations to maximize heterogeneity across demographics and experiences (see Table 2). Table 2 contains the populations sampled for cycles two and three as well as the language available/used for the focus groups. From those 36 focus groups,² there were 320 participants, the majority of who took part in the survey analyzed.

Participants were recruited with the aid of community partners to ensure adequate participation and representation in the CCHNA. Generally speaking, flyers and in-person recruitment occurred in community locations where there was a larger representation of the target population. Some sample locations included: community centers, libraries, career services centers, and schools. The assessment team leveraged relationships within the target communities to select appropriate venues for the assessment. Efforts were made to ensure all CCHNA locations were conveniently located for participants, with a special focus on accessibility via public transportation. These efforts were employed to minimize potential barriers to participation for the populations of interest and to ensure a sufficient reach throughout Maricopa County. Further, those who took part in the CCHNA were provided a light, healthy meal as an incentive for participation. Participants also received \$45-dollar gift cards for taking part in the CCHNA.

Data Management

The data was organized, cleaned, and subsequently analyzed using SPSS. The cycle two and three datasets were combined to explore associations between community strengths and community health. The dataset also contained information regarding individual demographics, health perceptions (i.e., community, physical, and mental), financial well-being (i.e., essential and health care money), and insurance coverage. Listwise-deletion was used on the combined Cycle 2 and 3 dataset for this overview to analyze only assessment participants ($n = 249$) who answered every question across the selected measures. Descriptive statistics were utilized and presented to show frequencies and distributions across CCHNA measures. Pearson correlations, point-biserial correlations, chi-squares, phi correlations, t-tests, and step-wise linear regression were used when appropriate to *explore* not confirm inferential relationships between the assessment variables and community, physical, and mental health.

Study Measures and Descriptive Statistics

The survey instrument consisted of 22 questions and was designed to take no more than 10 min to complete. These surveys were administered prior to the focus group

² This article explores survey data collected in cycles two and three of the most recent CCHNA. Cycle one was not included due to revisions made to the survey instrument for cycles two and three. Across all three cycles, there were 52 focus groups completed, 36 of which were conducted in cycles two and three.

Table 2 Populations sampled for the example assessment

Category	Subcategory level one	Subcategory level two	Language used/available
Adult populations of any race/gender	New parents	Any gender/sexual identity or racial/ethnic background	English Spanish/English
	New retirees (over 60 years of age)		English
	Parents of children with special health needs		English* Spanish/English
	Residents of rural communities		English
Race/ethnicity-specific adult populations	African Americans	Men	English
		Over 65 years of age	English
		Young adults	English
	Asian Americans	Filipino	English
		South & Southeast Asia	Mandarin/English*
	Hispanic/Latinx	Over 65 years of age	Spanish/English
		Young adults	Spanish/English
	Native American	Any gender	English
Men		English	
Special adult populations	LGBTQ+	Young adults	English
		Any age	English
		Older adults over 60 years of age	English
	Individuals living with special healthcare needs	Young adults	English
		Parents/caregivers	English
	Homeless	Young adults	English
		Men over 60 years of age	English
		Women with children	English
		Veterans	English
	Immigrants/Refugee/Asylum Seekers	Young adults	English
		Congolese	Swahili/English
	Individuals who have been previously incarcerated	Any gender/sexual identity or racial/ethnic background	English
Veterans		Any gender/sexual identity or racial/ethnic background	English
Youth populations (14–18 years of age)	African Americans	Any gender/sexual identity	English
	Hispanic/Latinx		Spanish/English
	Native Americans		English*
	Homeless	Any gender/sexual identity or racial/ethnic background	English*

*Note: An asterisk [*] indicates two groups were conducted with the targeted particular population and language

discussion to ensure maximum participation as some participants left prior to the conclusion of the discussion. The questions covered a wide array of topics but primarily focused on community and personal health, healthcare barriers, community strengths, as well as demographic questions.

Demographics The demographics of the 249 selected participants from cycles two and three are in Table 3. Again, this assessment aimed to maximize heterogeneity in demographics.

Table 4 provides the list of non-strengths-based items and responses available from the CCHNA concerning this overview article. For brevity, this overview article does not explore every item of the CCHNA survey instrument and couples the description of each relevant measure with their respective descriptive statistics.

Table 3 Demographics of cycle two and three participants

Demographics	<i>n</i>	Percentage
Age		
12–17	34	13.7%
18–24	56	22.5%
25–34 (median)	38	15.3%
35–44	31	12.4%
45–54	25	10.0%
55–64	19	7.6%
65–74	29	11.6%
75+	17	6.8%
Gender		
Male	107	44.2%
Female	135	55.8%
Transgender	5	2.0%
Other	2	0.8%
Race		
White	58	23.3%
Asian	26	10.4%
American Indian	54	21.7%
Hispanic or Latino	55	22.1%
Black or African American	53	21.3%
Income		
<\$20,000	91	36.5%
\$20,000 to \$29,000	20	8.0%
\$30,000 to \$49,000 (median)	56	22.5%
\$50,000 to \$74,000	23	9.2%
\$75,000 to \$99,000	14	5.6%
>\$100,000	22	8.8%
Did not answer	23	9.2%

Table 4 List of relevant non-strengths CCHNA items

Topic	Item	Scale
Physical health	In general, how would you rate your physical health?	Poor, Fair, Good, Very Good, Excellent
Mental health	How would you rate your mental health, including your mood, stress level, and your ability to think?	Poor, Fair, Good, Very Good, Excellent
Community health	Which step represents the health of your community?	1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (a ladder was presented with ten rungs to choose from)
Community trust	In your community, do people trust one another and look out for one another?	Never, Sometimes, Always
Financial well-being	On a monthly basis, do you have enough money to pay for essentials such as food, clothing and housing?	Never, Sometimes, Always
	On a monthly basis, do you have enough money to pay for health care expenses (e.g. doctor bills, medications, etc.)?	Never, Sometimes, Always

Physical, Mental, and Community Health Perceptions of physical and mental health responses were distributed from 1 (*poor*) to 5 (*excellent*). The physical health rating mean was 3.03 (SD = 0.99). The mental health item mean rating was 3.09 (SD = 1.17). The responses regarding perceptions of community health were distributed on a scale from 1 (*worst possible*) to 10 (*best possible*). The mean for the community health item was 5.93 (SD = 1.67).

Community Trust The survey instrument provided three response categories regarding community trust (i.e., *never*, *sometimes*, and *always*), and when asked if people in their community look out for one another, the majority of participants ($n = 161$, 64.7%) responded *sometimes* to the question, and 65 participants (26.1%) replied *always* while only 23 participants (9.2%) responded *never*.

Financial Well-Being Questions related to financial well-being had three response categories (i.e., *never*, *sometimes*, and *always*). When asked if they had enough money to buy essentials such as food, clothing, and housing, nearly half of participants replied *always* ($n = 123$, 49.4%) while 99 participants (39.8%) responded *sometimes*, and 27 participants (10.8%) responded that they *never* have enough essentials money. As to having enough money to pay for health care expenses, less than half of participants *always* had enough money to afford health care ($n = 109$, 43.8%), while 93 participants (37.3%) responded *sometimes* and 47 participants (18.9%) responded *never* to the health care money question.

Insurance Coverage Most participants indicated having some type of insurance coverage, with less than a quarter of the participants having no health insurance coverage ($n = 55$, 22.1%); however, almost one-third felt they did not have enough coverage ($n =$

77, 30.9%). This information came from two items asking participants about how they pay for health care and their biggest barriers to healthcare. The full list responses regarding health care payment strategies and barriers are omitted for brevity and lack of relevance to the overview at hand.

Community Strengths Participants were presented with a list of 25 possible indicators of community strengths and asked to check all of those strengths that applied to their community. The average number of strengths checked was 7.49 (SD = 5.28). *Access to parks and recreation sites* and *access to public libraries and community centers* were the two strengths most often cited by participants ($n = 143$, 57.4%). Yet, these were the only two *access* indicators that were selected as community strengths by at least half of the participants. Table 5 notes the strengths items checked and not checked by participants, along with their correlations with community, physical, and mental health. Again, this study only reflects a subset of the aforementioned community capitals outlined in Table 1.

Correlates of Community, Physical, and Mental Health

Community Strengths As seen in Table 5, only 14 out of the 25 community strengths items significantly associated with community, physical, or mental health. Twelve items significantly associated with community well-being. Nine indicators significantly associated with physical health, and ten items significantly associated with mental health. No single item showed a correlation stronger than $r = .300$ ($p < .001$). Community strengths (as a total for each participant) significantly associated with all three dependent variables: Community health ($r = .205$, $p < .01$); physical health ($r = .159$, $p < .05$); and, mental health ($r = .162$, $p < .05$).

Community Trust For the regression analyses, *never* and *sometimes* were collapsed into one dummy-coded category for community trust. This variable was significantly associated with community, physical, and mental health ($r = .266$, $p < .001$; $r = .224$, $p < .001$; $r = .149$, $p < .05$; respectively). The community trust variable also associated with essentials money and health care money ($\phi = .217$, $p < .01$; $\phi = .250$, $p < .001$; respectively).

Health Perceptions, Financial Well-Being, and Insurance Physical and mental health perceptions were associated with community health ($r = .412$, $p < .001$; $r = .290$, $p < .001$; respectively). Physical and mental were positively associated ($r = .522$, $p < .001$). For the regression analyses, *never* and *sometimes* were collapsed into one dummy-coded category for community trust and for essentials money and health care money. The essentials money and health care money variables also associated with community health ($r = .244$, $p < .001$; $r = .260$, $p < .001$; respectively), physical health ($r = .240$, $p < .001$; $r = .204$, $p < .001$; respectively), and mental health ($r = .260$, $p < .001$; $r = .208$, $p < .001$; respectively). The essentials money and health care money correlated ($\phi = .425$, $p < .001$). Having no or not enough health insurance did not associate with community, physical, or mental health.

Table 5 Community strengths indicated (**bold indicates significant associations $p < .10$**)

Strengths item	Yes (<i>n</i> , %)	Community health (<i>r</i>)	Physical health (<i>r</i>)	Mental health (<i>r</i>)
Ability to communicate with city/town leadership and feel that my voice is heard	49 (19.7)	.142, $p < .05$	.139, $p < .05$	.134, $p < .05$
Accepting of diverse residents and cultures	107 (43.0)	.153, $p < .05$	.123, $p < .10$	.091, $p > .10$
Access to affordable after school activities	46 (18.5)	.032, $p > .10$	.028, $p > .10$	.007, $p > .10$
Access to affordable childcare	22 (8.8)	-.004, $p > .10$	-.038, $p > .10$	.036, $p > .10$
Access to affordable healthy foods	69 (27.7)	.177, $p < .01$	.073, $p > .10$	.159, $p < .05$
Access to affordable housing	58 (23.3)	.063, $p > .10$	.042, $p > .10$	.030, $p > .10$
Access to community classes and trainings	73 (29.3)	.005, $p > .10$	-.045, $p > .10$	.017, $p > .10$
Access to cultural events	112 (45.0)	.095, $p > .10$	.105, $p < .10$	.116, $p < .10$
Access to fitness programs	85 (34.1)	.213, $p < .01$	.228, $p < .001$	.292, $p < .001$
Access to good schools	87 (34.9)	.152, $p < .05$	.081, $p > .10$	.058, $p > .10$
Access to jobs & healthy economy	53 (21.3)	.074, $p > .10$	.015, $p > .10$	-.033, $p > .10$
Access to medical care	83 (33.3)	.091, $p > .10$	.083, $p > .10$	.090, $p > .10$
Access to mental health services	56 (22.5)	-.036, $p > .10$	-.035, $p > .10$	-.035, $p > .10$
Access to parks and recreation sites	143 (57.4)	.145, $p < .05$	.181, $p < .01$	.117, $p < .10$
Access to public libraries and community centers	143 (57.4)	.038, $p > .10$	.066, $p > .10$	.054, $p > .10$
Access to public transportation	116 (46.6)	-.015, $p > .10$	-.027, $p > .10$	-.040, $p > .10$
Access to religious or spiritual events	102 (41.0)	.128, $p < .05$	.067, $p > .10$	.123, $p < .10$
Access to safe walking and biking routes	84 (33.7)	.106, $p < .10$	.238, $p < .001$	.111, $p < .10$
Access to services for seniors	59 (23.7)	.102, $p > .10$	.108, $p < .10$	.086, $p > .10$
Access to social services for residents in need or crisis	43 (17.3)	-.039, $p > .10$	-.056, $p > .10$	-.027, $p > .10$
Access to substance abuse treatment services	41 (16.5)	-.086, $p > .10$	-.046, $p > .10$	-.035, $p > .10$
Access to support networks such as neighbors, friends and family	64 (25.7)	.146, $p < .05$	.076, $p > .10$	.127, $p < .05$
Clean environments and streets	71 (28.5)	.235, $p < .001$	.144, $p < .05$	.225, $p < .05$
Good place to raise children	60 (24.1)	.300, $p < .001$	.165, $p < .01$	.133, $p < .05$
Low crime/safe neighborhoods	39 (15.7)	.157, $p < .05$	.088, $p > .10$	.023, $p > .10$

Demographics Gender did not associate with community, physical, or mental health. The age variable was dummy-coded to separate out older adults (aged 55+ = 1) from individuals who are 55 and younger (= 0), which associated with community, physical, and mental health ($r = .211$, $p < .01$; $r = .122$, $p < .1$; $r = .252$, $p < .001$; respectively). The income variable was dummy-coded to separate out individuals making more than \$30,000 (= 1) from making less than \$30,000 annually (= 0), which associated with community, physical, and mental health ($r = .146$, $p < .05$; $r = .176$, $p < .01$; $r = .235$, $p < .001$; respectively). The income variable also associated with essentials money and health care money ($\phi = .505$, $p < .001$; $\phi = .189$, $p < .01$; respectively). Racial or ethnic identification as Asian was positively associated with community and physical

health ($r = .140, p < .05$; $r = .150, p < .05$; respectively). Racial or ethnic identification as American Indian was negatively associated with community and mental health ($r = -.143, p < .05$; $r = -.142, p < .05$; respectively). Identifications with other racial/ethnic identities did not associate with community, physical, or mental health.

Explanatory Capabilities of Strengths Indicators

Exploratory data procedures were used. Three regression models were constructed using stepwise linear regression (enter variables at $\alpha = .10$), which is a suitable analytical procedure for exploratory analyses testing large numbers of variables. Stepwise regression keeps collinearity low to highlight variables with unique explanatory contributions (Field, 2005; Talmage, Lacher, Pstross, Knopf, & Burkhart, 2015). Only community strengths that associated with the selected health items were included in the stepwise regression procedures (again, see Table 5).

As seen in Table 6, four variables significantly explained 26.4% of the variance (25.2% adjusted R^2) in responses to the overall community health item ($F[4, 244] = 21.871, p < .001$). As seen in Table 7, three variables significantly explained 32.1% of the variance (31.3% adjusted R^2) in responses to the individual physical health item ($F[3, 245] = 38.670, p < .001$). As seen in Table 8, three variables significantly explained 32.6% of the variance (31.8% adjusted R^2) in responses to the individual mental health item ($F[3, 245] = 39.499, p < .001$). From these analyses, only three community strengths showed explanatory contributions: (1) *Good place to raise children* (with community health); (2) *Safe walking and biking routes* (with physical health); and, (3) *Fitness programs* (with mental health). Community trust also uniquely contributed to community and physical health. Notably, older adults showed higher ratings of mental health than their younger counterparts. Further, none of the *access* strengths indicators showed a significant relationship to the health items.

Table 6 Explanatory variables of community health

Variables entered	B (SE)	β	t	Confidence interval	Zero-order (r)	Semipartial (r)	Variance inflation factor
(Constant)	3.777 (0.296)	–	12.771***	3.195–4.360			
Physical health	0.542 (0.097)	0.322	5.603***	0.351–0.733	0.412	0.308	1.095
Good place to raise children	0.808 (0.219)	0.208	3.686***	0.376–1.239	0.300	0.202	1.053
Community trust	0.510 (0.219)	0.135	2.328*	0.078–0.941	0.266	0.128	1.110
Health care money	0.424 (0.194)	0.126	2.187*	0.042–0.805	0.260	0.120	1.109

***** $p < .001, p < .01, p < .05$

Table 7 Explanatory variables of physical health

Variables entered	<i>B (SE)</i>	β	<i>t</i>	Confidence interval	Zero-order (<i>r</i>)	Semipartial (<i>r</i>)	Variance inflation factor
(Constant)	1.563 (0.149)	–	10.463***	1.269–1.858			
Mental health	0.411 (0.045)	0.484	9.063***	0.322–0.501	0.477	0.499	1.032
Safe walking and biking routes	0.347 (0.111)	0.166	3.115**	0.128–0.567	0.164	0.181	1.028
Community trust	0.289 (0.121)	0.129	2.401*	0.052–0.527	0.126	0.181	1.038

***** $p < .001$, $p < .01$, $p < .05$

Critiques and Future Directions

Pushing beyond Lip Service to ABCD in Assessment

Researchers and practitioners need to critically examine how ABCD approaches constructively advance the field, particularly in the area of community health needs assessments, in order to answer the question posed at this article's outset: *Which indicators of community strengths uniquely contribute to individual and community health when sampling diverse populations?* In this CCHNA, gaps were apparent between how participants perceived needs and strengths, signifying nuances in how these indicators are defined. Similarly, these findings suggested that access (alone) is an unreliable indicator in the context of perceived community strengths, as shown by the findings with the *access* indicators used in the assessment example. These reasons suggest that ABCD approaches require a shift in how researchers and practitioners apply ABCD in assessment planning and how they contextualize findings from data.

The health needs assessment example highlighted the limitations of community assets and strengths as add-on indicators to assessment methods. Among a diverse set of participants, no strengths/asset showed a correlation stronger than $r = .300$, and when aggregated, community strengths showed low associations with the dependent variables and were not uniquely explanatory in the regression models. Additionally, the example revealed only three strengths indicators that uniquely and significantly

Table 8 Explanatory variables of mental health

Variables entered	<i>B (SE)</i>	β	<i>t</i>	Confidence interval	Zero-order (<i>r</i>)	Semipartial (<i>r</i>)	Variance inflation factor
(Constant)	1.187 (0.197)	–	6.018***	0.798–1.576			
Physical health	0.555 (0.064)	0.471	8.732***	0.430–0.680	0.522	0.458	1.059
Age (<55, 55+)	0.407 (0.145)	0.154	2.805**	0.121–0.693	0.252	0.147	1.093
Fitness programs	0.345 (0.137)	0.141	2.520*	0.075–0.616	0.292	0.132	1.136

***** $p < .001$, $p < .01$, $p < .05$

explained community, physical, and mental health: (1) *Good place to raise children*; (2) *Safe walking and biking routes*; and (3) *Fitness programs*. These three indicators showcase that context is essential when understanding how indicators impact individuals and their place in the community. Indeed, additional structural-related questions are raised: Do individuals have children (or can have/afford them), go for walks or bike-rides (or have leisure time for them), or participate in fitness programs (or can afford them). The two latter indicators may relate to whether or not individuals own or have access to cars or other means of transportation. Diving into the other correlates (see again, Table 5), even more context is needed, especially because the indicators focus on access and quality of community features and the community environment.

This assessment example suggests that features of a community are likely insufficient as assessments of community strengths by themselves. Indicator work around community strengths, even in ABCD approaches, must pay attention to the meaning given to such indicators and context in which individuals encounter those strengths. These notions echo calls for greater consideration of meaning (e.g., Peterson & Knopf, 2016) and attachment (e.g., Trentelman, 2009) when investigating community well-being. Even capital frameworks can be pigeonholed into boxes to be checked for quality or access when they are not intended for such. The assessment example also asked participants to check the greatest strengths of their community; however, it left the participants to define their community in their own way. The survey procedure actually began with the introduction that “community is defined as the areas where you work, live, learn, and/or play.” With this assessment, it was hard to fathom that participants would view the entire county (i.e., 9224 mile² with 24 cities and towns and over 4.4 million people, Maricopa County, n.d.) as being the community with which individuals meaningfully identified or attached themselves. Yet, how participants individually defined community likely differs for each person and makes the results harder to interpret.

The community trust variable showed additional promise as it likely did not require as much context on its face, and it related to the money variables. Around a fourth of individuals indicated high levels of trust in others in their community, which is lower than overall similar averages from Pew Research Center (Gao, 2016). Gao’s (2016) study noted racial/ethnic, age, and income differences in these averages. Unfortunately, the group sizes were not large enough to explore statistically significant inferential differences among demographic groups.

Additionally, this assessment example, drawing on intentionally diverse groups of individuals, suggests that heterogeneity may hinder universality when trying to individually (or as aggregated) tie strengths indicators to health and well-being. Granted, this assessment did not have a large random sample with statistical generalizability. Still, this assessment shows that quantitative data gathering and analytical techniques that couple with purposive samples are good starting points while not sufficiently providing the depth, transferability, and generalizability of the individual or community experience desired by both qualitative and quantitative work. Both qualitative and quantitative work, as well as mixed-method approaches, can seek to uplift the typical response of the population sampled when the atypical experience may be the most insightful (e.g., Pascale, Sternin, & Sternin, 2010).

The assessment example is atypical not just in regard to racial/ethnic diversity; it contained a higher proportion of individuals who did not have health insurance

coverage (22.1%) compared to recent U.S. estimates of 11.1% (Cohen, Terlizzi, & Martinez, 2019). This comparatively large proportion of individuals who have not have insurance coverage considered alongside a similar proportion (18.9%) who *never* have enough money to afford health care can typify many in this sample as health-care insecure. While such descriptions have been highly incorporated into the scholarship regarding SDH, these narratives highlight potential intersections for SDH and ABCD when looking to drive enhancements in well-being. Some scholars have already begun work intersecting SDH and ABCD (e.g., Agdal, Midtgård, & Meidell, 2019; Cameron & Wasacase, 2017), but more research and application are needed to inform scholarship and practice regarding community health and well-being.

Add-Ons Are Not the Answer

This assessment shows that indicators of SDH, assets, and needs in communities cannot be simply combined together in research and practice and assume meaningful results will follow. Although the assessment provides public health and service providers with current data to set priorities and target resources, it does not delineate how participants perceived needs and strengths. The findings showed assets are not necessarily reliable indicators of perceived community strengths. A potential response to the above-named issues is to couple qualitative research efforts with quantitative research in order to dive deeper into the experiences of those surveyed. However, even the qualitative approaches used in the assessment example had similar issues, specifically when defining community and getting participants to converse about community strengths.

Issues Defining Community After completion of the survey instrument, the facilitators of the focus groups reiterated the definition that for the purpose of this discussion, “*Community*” is defined as *where you live, work, and play*. From there, the facilitators asked an initial icebreaker question to put the participants at ease and to create a positive group atmosphere while reducing potential social barriers. In the effort to focus conversations on community strengths and to encourage them to start to hone in on their own community specifically, focus group participants were asked to identify what event, neighborhood celebration, or activity specifically related to their community brings their communities together. Community members had difficulty finding an answer to this question. Even after stressing the definition of community as a place where individuals live, work, and play, participants struggled to identify strengths, much less a common event. Further, the participants continued to struggle with the scale they needed to consider (i.e., block, neighborhood, city, county, etc.); without the scale, participants could not answer the aforementioned question and choose their own definition of community. Throughout the 90-min focus group, participants frequently had to be reminded of what community, in this context, meant. Additionally, the icebreaker question assumed that there might be something readily apparent than does bring community members together.

Problems Are Easier (to Talk About) During the focus groups, talking about strengths was challenging to garner large and enthusiastic participation. Facilitators observed that participants struggled with defining strengths in the context of their communities and

were skeptical of having strengths at all. On the subject of health, participants had difficulty discussing or providing examples of community strengths relative to problematic issues. It was noted that participants were also unsure about how to answer questions regarding community health. When the topic of conversation switched to problems/issues, participants were more readily able to narrate stories concerning their communities and their health.

Partner and Practice Implications The CCHNA is conducted every 3 years to provide a more comprehensive understanding of the health needs that exist in Maricopa County. The Maricopa County CCHNA was conducted in partnership with the Health Improvement Partnership of Maricopa County (HIPMC) and Synapse, a collaborative of four non-profit hospital systems representing 22 hospitals in Maricopa County and two federally qualified community health centers representing 14 clinics in the county. In partnering with MCDPH to complete the focus groups and surveys, the assessment team was constrained to the scope of the survey as approved by HIPMC as well as the prescribed questions to ask of the focus group participants. While the assessment team's charge was to conduct the focus groups and surveys with diverse target populations in order to examine their specific needs and strengths, the CCHNA project overall included the broader distribution of the same survey instrument so that in total, nearly 12,000 people responded to those questions.

Other practice implications include limited time, staff, and resources to recruit and retain participants. The assessment team conducted 52 focus groups in three cycles and utilized a large research staff as well as partnerships with other organizations to meet contract needs and ensure the facilitators represented the participants. Furthermore, this CCHNA focused on identifying core causes related to social, economic, and environmental factors that impact community and individual health, which prioritized impacts on public health in these three domains. With an intended outcome identified, the assessment team could not frame (or reframe) the research to study ABCD as separate from SDH.

The findings from this CCHNA indicated that identifying and applying indicators using ABCD approaches requires intentional work during the planning stages of assessment and research. With intentional planning, the existing disconnect between community health, well-being, and development in scholarship, can be eliminated in applied research and practice. ABCD cannot be an add-on to SDH and needs-focused research just as SDH does not inform ABCD without purposeful intent. In order to assess community strengths, like those seen in Table 1, it is clear and deserves repeating, that we cannot just add such indicators as items to a survey questionnaire. Rather, intentional and additional efforts are needed to better understand community strengths and their interactions. Thus, research and practice must move beyond seeing community strengths as discrete features or simply as access to community amenities.

The implications of this overview and work extend beyond improving community health needs assessments. Looking to the larger field of community well-being work, needs assessments of all kinds are utilized across the world. Additionally, ABCD and SDT continue to be leveraged to improve the health and well-being of communities, including shaping health care systems. Intuitively, changes to health care systems should be data-driven, as well as culturally relevant (and other important qualifiers). Thus, such reconfigurations can be improved by using better data that better comingles

strengths and needs in community health assessments. More critical examinations and retooling of community health assessments are needed in terms of coupling strengths and needs together in future work outside of community health needs assessments. These examinations require both global and local perspectives to better the well-being field.

Conclusion

Which indicators of community strengths uniquely contribute to individual and community health when sampling diverse populations? This overview shows that much more work is necessary to address this question. The impetus of this article is to spur engagement between scholars and practitioners to advance our understanding and expansion of assets underlying communities. How these assets are perceived or realized vary greatly (statistically and qualitatively) across diverse populations. While this study focused exclusively on populations within Arizona, USA, there are meaningful implications for the utilization of the ABCD method alongside SDH and needs-based approaches to improve community well-being for other diverse populations around the world.

Research and practice must move beyond the individual indicators described in Table 1 and used in the assessment example. Assessment indicators, like those noted in this article, are more than a menu of options from which scholars and practitioners select. Scholars, practitioners, and community members together must work to improve the operational definitions of community strengths, especially for efforts engaging diverse populations. This overview offers a critique of intentions and context, which must be at the forefront of future research, evaluation, and assessment efforts. Thoughtfulness and comprehensiveness must undergird well-being work, especially those looking to assess community strengths or intertwine strengths- and needs-assessments. This overview aims to continue the trajectory of critical examination of indicators and methods in the literature to improve how community well-being is defined and measured, so all individuals and communities may see substantial improvements in their everyday lives from using better data and making better interpretations of that data.

Compliance with Ethical Standards

Conflict of Interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

References

- Agdal, R., Midtgård, I. H., & Meidell, V. (2019). Can asset-based community development with children and youth enhance the level of participation in health promotion projects? A qualitative meta-synthesis. *International Journal of Environmental Research and Public Health*, 16(19), 3778.
- Allen, S. F., & Miller, J. (2010). A community initiative to support family financial well-being. *Community, Work & Family*, 13(1), 89–100.

- Allgood, B., Hofberg, M., Musikanski, L., Michelini, L., & Moser, M. (2019). Assessing community-based wildlife conservation programs with the gross national happiness framework. *International Journal of Community Well-Being*, 2(3), 301–337.
- de Andrade, M., & Angelova, N. (2020). Evaluating and evidencing asset-based approaches and co-production in health inequalities: Measuring the unmeasurable? *Critical Public Health*, 30(2), 232–244.
- Baldwin, C., Cave, B., & Rawstorne, P. (2020). Measuring the impact of public understandings of risk from urban and industrial development on community psychosocial well-being: A mixed methods strategy. *International Journal of Community Well-Being*, 3, 57–82. <https://doi.org/10.1007/s42413-019-00041-x>.
- Block, P. (2008). *Community: The structure of belonging*. San Francisco, CA: Berrett-Koehler Publishers, Inc..
- Brandow, C. L., Brandow, J. S., & Cave, C. (2019). A wellness first approach: A lens for improving mental health and well-being. *Ethical Human Psychology and Psychiatry*, 21(1), 39–54.
- Brown, R. T., Ahalt, C., Steinman, M. A., Kruger, K., & Williams, B. A. (2014). Police on the front line of community geriatric health care: Challenges and opportunities. *Journal of the American Geriatrics Society*, 62(11), 2191–2198.
- Burkhart-Kriesel, C., Weigle, J. L., & Hawkins, J. (2019). Engagement to enhance community: An example of extension's land-grant mission in action. *Social Sciences*, 8(1), 27.
- Cameron, C., & Wasacase, T. (2017). Community-driven health impact assessment and asset-based community development: An innovate path to community well-being. In R. Philips & C. Wong (Eds.), *Handbook of community well-being research* (pp. 239–259). Dordrecht: Springer.
- Campbell, D. C., Carlisle-Cummins, I., & Feenstra, G. (2013). Community food systems: Strengthening the research-to-practice continuum. *Journal of Agriculture, Food Systems, and Community Development*, 3(3), 121–138.
- Carson, R. A., Hamel, Z., Giarrocco, K., Baylor, R., & Mathews, L. G. (2016). Buying in: The influence of interactions at farmers' markets. *Agriculture and Human Values*, 33(4), 861–875.
- Chandra, A., Acosta, J., Carman, K. G., Dubowitz, T., Leviton, L., Martin, L. T., et al. (2017). Building a national culture of health: Background, action framework, measures, and next steps. *Rand Health Quarterly*, 6(2), 3.
- Chen, J., Vargas-Bustamante, A., Mortensen, K., & Ortega, A. N. (2016). Racial and ethnic disparities in health care access and utilization under the affordable care act. *Medical Care*, 54(2), 140–146.
- Cohen, R. A., Terlizzi, E. P., & Martinez, M. E. (2019). Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2018. National Center for Health Statistics: National Health Interview Survey Early Release Program. Retrieved 15 June 2020 from <https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201905.pdf>.
- Eagle, T. F., Sheetz, A., Gurm, R., Woodward, A. C., Kline-Rogers, E., Leibowitz, R., et al. (2012). Understanding childhood obesity in America: Linkages between household income, community resources, and children's behaviors. *American Heart Journal*, 163(5), 836–843.
- Emery, M., & Flora, C. (2006). Spiraling-up: Mapping community transformation with community capitals framework. *Community Development*, 37(1), 19–35.
- Farmer, J., & Kilpatrick, S. (2009). Are rural health professionals also social entrepreneurs? *Social Science & Medicine*, 69(11), 1651–1658.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: Sage.
- Finn-Stevenson, M. (2014). Family, school, and community partnerships: Practical strategies for afterschool programs. *New Directions for Youth Development*, 2014(144), 89–103.
- Gallan, A. S., McColl-Kennedy, J. R., Barakshina, T., Figueiredo, B., Jefferies, J. G., Gollnhofer, J., Hibbert, S., Luca, N., Roy, S., Spanjol, J., & Winklhofer, H. (2019). Transforming community well-being through patients' lived experiences. *Journal of Business Research*, 100, 376–391.
- Gao, G. (2016, April 13). Americans divided on how much they trust their neighbors. Pew Research Center. Retrieved 16 June 2020 from <https://www.pewresearch.org/fact-tank/2016/04/13/americans-divided-on-how-much-they-trust-their-neighbors/>.
- Gobar, A. M. (2009). Where asset building and community development converge. *Researcher: An Interdisciplinary Journal*, 22(2), 1–28.
- Green, G. P., & Haines, A. (2015). *Asset building & community development*. London, UK: Sage Publications.
- Hausman, A. J., Hohl, B., Hanlon, A. L., Becker, J., Branas, C. C., Hayden, U. T., Thomas, N., & Fein, J. A. (2009). Translating community-specified indicators of program success into measurable outcomes. *Journal of Public Health Management and Practice*, 15(6), E22–E30.
- Koh, H. K., & Rosenberg, J. T. (2019). Coordinating community planning for transportation and health. *JAMA*, 321(24), 2393–2394.

- Koh, H. K., Piotrowski, J. J., Kumanyika, S., & Fielding, J. E. (2011). Healthy people: A 2020 vision for the social determinants approach. *Health Education & Behavior, 38*(6), 551–557.
- Kramer, S., Amos, T., Lazarus, S., & Seedat, M. (2012). The philosophical assumptions, utility and challenges of asset mapping approaches to community engagement. *Journal of Psychology in Africa, 22*(4), 537–544.
- Kretzman, J. P., & McKnight, J. L. (1993). *Building communities from the inside out: A path toward finding and mobilizing a community's assets*. Chicago: Center for Urban Affairs and Policy Research, Neighborhood Innovations Network, Northwestern University.
- Kutek, S. M., Turnbull, D., & Fairweather-Schmidt, A. K. (2011). Rural men's subjective well-being and the role of social support and sense of community: Evidence for the potential benefit of enhancing informal networks. *Australian Journal of Rural Health, 19*(1), 20–26.
- Letcher, A. S., & Perlow, K. M. (2009). Community-based participatory research shows how a community initiative creates networks to improve well-being. *American Journal of Preventive Medicine, 37*(6), S292–S299.
- Maggi, S., Roberts, W., MacLennan, D., & D'Angiulli, A. (2011). Community resilience, quality childcare, and preschoolers' mental health: A three-city comparison. *Social Science & Medicine, 73*(7), 1080–1087.
- Maricopa County (n.d.). Maricopa County quick facts. Retrieved 13 July 2020 from <https://www.maricopa.gov/3598/County-Quick-Facts>.
- Maybery, D., Pope, R., Hodgins, G., Hitchener, Y., & Shepherd, A. (2009). Resilience and well-being of small inland communities: Community assets as key determinants. *Rural Society, 19*(4), 326–339.
- McKnight, J., & Block, P. (2010). *The abundant community*. San Francisco, CA: Berrett-Koehler Publishers, Inc..
- Page-Reeves, J. (2019). *Well-being as a multidimensional concept: Understanding connections among culture, community, and health*. Lanham, MD: Lexington Books.
- Pascale, R., Sternin, J., & Sternin, M. (2010). *The power of positive deviance: How unlikely innovators solve the world's toughest problems*. Boston, MA: Harvard Business Review Press.
- Perkins, D. D., Hughey, J., & Speer, P. W. (2002). Community psychology perspectives on social capital theory and community development practice. *Community Development, 33*(1), 33–52.
- Peterson, C. B., & Knopf, R. C. (2016). (Re)framing sustainable development: An ecological posture and praxis. *Community Development, 47*(1), 122–135.
- Philbin, M. M., Parker, C. M., Flaherty, M. G., & Hirsch, J. S. (2019). Public libraries: A community-level resource to advance population health. *Journal of Community Health, 44*(1), 192–199.
- Phillips, R., & Pittman, R. (2008). *An introduction to community development*. Routledge.
- Phillips, R., & Wong, C. (Eds.). (2016). *Handbook of community well-being research*. Dordrecht, NE: Springer.
- Pstross, M., Talmage, C. A., & Knopf, R. C. (2014). A story about storytelling: Enhancement of community participation through catalytic storytelling. *Community Development, 45*(5), 525–538.
- Quinn, N., & Biggs, H. (2010). Creating partnerships to improve community mental health and well-being in an area of high deprivation: Lessons from a study with highrise flat residents in East Glasgow. *Journal of Public Mental Health, 9*(4), 16–21.
- Ramos, A. K., Trinidad, N., Bickford, S. H., Bickford, N., Torquati, J., & Mushi, M. (2019). Engaging residents in planning a community garden: A strategy for enhancing participation through relevant messaging. *Collaborations: A Journal of Community-Based Research and Practice, 2*(2), 21. <https://doi.org/10.33596/coll.24>.
- Robson, R. (2015). Rethinking the community of the provincial north: Building communities from the inside out. *Northern Review, 38*(38). Retrieved 8 April 2020 from <https://thenorthernreview.ca/index.php/nr/article/view/326>.
- Scarbrough, A. W., Holt, M. M., Hill, J., & Kafle, R. C. (2019). Is there a relationship between income and infectious disease: Evidence from Cameron County. *International Journal of Community Well-Being, 2*(1), 3–13.
- Sirgy, M. J., Widgery, R. N., Lee, D. J., & Yu, G. B. (2010). Developing a measure of community well-being based on perceptions of impact in various life domains. *Social Indicators Research, 96*(2), 295–311.
- Sreedhara, M., Goins, K. V., Frisard, C., Rosal, M. C., & Lemon, S. C. (2019). Stepping up active transportation in community health improvement plans: Findings from a national probability survey of local health departments. *Journal of Physical Activity and Health, 16*(9), 772–779.
- Stewart, K., & Townley, G. (2020). Community and well-being: A qualitative study of how youth experiencing homelessness define community and its relations to their well-being. *Journal of Community Psychology, 48*(3), 994–1009.

- Sung, H., & Phillips, R. G. (2018). Indicators and community well-being: Exploring a relational framework. *International Journal of Community Well-Being*, 1(1), 63–79.
- Talmage, C., & Knopf, R. C. (2017). Rethinking diversity, inclusion, and inclusiveness: The quest to better understand indicators of community enrichment and well-being. In P. Kraeger, S. Cloutier, & C. A. Talmage (Eds.), *New dimensions in community well-being* (pp. 7–27). Cham: Springer.
- Talmage, C. A., Lacher, R. G., Pstross, M., Knopf, R. C., & Burkhart, K. A. (2015). Captivating lifelong learners in the third age: Lessons learned from a university-based institute. *Adult Education Quarterly*, 65(3), 232–249.
- Talmage, C. A., Peterson, C. B., & Knopf, R. C. (2017). Punk rock wisdom: An emancipative psychological social capital approach to community well-being. In P. Kraeger, S. Cloutier, & C. A. Talmage (Eds.), *Handbook of community well-being research* (pp. 11–38). Dordrecht: Springer.
- Talmage, C. A., Anderson, D. M., & Searle, M. S. (2018a). Whither recreation and parks? Understanding change in public institutions through a theory of adaptive publicness. *Perspectives on Public Management and Governance*, 1(2), 143–158.
- Talmage, C. A., Ross, A., Searle, M. S., & Knopf, R. C. (2018b). The social and cognitive transformation of older adult women: An analysis of community well-being for a university-based lifelong learning community. *International Journal of Community Well-Being*, 1(1), 11–31.
- Talmage, C. A., Figueroa, H. L., & Wolfersteig, W. L. (2018c). Cultivating a culture of health in the southwest: Linking access and social determinants to quality of life amongst diverse communities. *Journal of Health and Human Services Administration*, 40(4), 397–432.
- Talmage, C. A., Figueroa, H. L., & Wolfersteig, W. L. (2018d). Perceptions of expanded shared use of schools: A mixed method examination of pathways and barriers to community well-being. *School Community Journal*, 28(2), 297–320.
- Talmage, C. A., Kher, R., & Cooley, C. (2019a). Placing localized entrepreneurial hubs in the field of community well-being. *International Journal of Community Well-Being*, 2(3–4), 339–357.
- Talmage, C. A., Pijawka, D., & Hagen, B. (2019b). Re-examination of quality of life indicators in US-Mexico border cities: A critical review. *International Journal of Community Well-Being*, 2(2), 135–154.
- Talmage, C. A., Meyer, S. A., & Rath, E. (2020). Measuring the impacts of community innovations: The little free Farmstand in Geneva, New York. *International Journal of Community Well-Being*, 3, 391–415.
- Tomita, M. R., Schuler, E., Moy, H., & Sigler, J. (2018). Effects of free transportation on function, health, and quality of life in community-dwelling older adults. *American Journal of Occupational Therapy*, 72(4_Supplement_1), 7211515229. <https://doi.org/10.5014/ajot.2018.72S1-PO2027>.
- Trentelman, C. K. (2009). Place attachment and community attachment: A primer grounded in the lived experience of a community sociologist. *Society and Natural Resources*, 22(3), 191–210.
- Welzel, C., Inglehart, R., & Deutsch, F. (2005). Social capital, voluntary associations and collective action: Which aspects of social capital have the greatest ‘civic’ payoff? *Journal of Civil Society*, 1(2), 121–146.
- Zautra, A., Hall, J., & Murray, K. (2008). Community development and community resilience: An integrative approach. *Community Development*, 39(3), 130–147.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Affiliations

**Craig Talmage¹ · Micaela Mercado² · Grant Yoder² · Kathryn Hamm² · Wendy
Wolfersteig²**

Micaela Mercado
mfmercad@asu.edu

Grant Yoder
Grant.Yoder@asu.edu

Kathryn Hamm
khamm@asu.edu

Wendy Wolfersteig
Wendy.Wolfersteig@asu.edu

¹ Entrepreneurial Studies, Hobart & William Smith Colleges, 300 Pulteney Street, Geneva,
NY 14456, USA

² Office of Evaluation and Partner Contracts; Southwest Interdisciplinary Research Center, Arizona State
University, Tempe, AZ, USA