

Why Assess a State's Social Determinants of Health?

Data-driven Collective Impact in the 100% New Mexico Initiative

Research Brief 1



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Summary: Families and community residents across the United States lack equitable access to vital services important for health, well-being, and flourishing. To close these gaps, it is critical to assess adverse social determinants of health and build community infrastructure to address barriers to service access. This brief reviews literature on social determinants of health and describes the theory anchoring the 100% New Mexico Initiative that uses data-driven collective impact to strengthen community capacity to address adversity.

SOCIAL DETERMINANTS OF HEALTH: CHALLENGE AND OPPORTUNITY

Strengthening family and community health and well-being involves more than just healthcare access and quality. Recognizing that health is influenced by other factors—like education, economic stability, and neighborhood infrastructure and resources (and vice versa)—efforts in the United States and globally are increasingly applying the lens of social determinants of health (SDOH) to service systems and community initiatives.¹ Defined by the federal government's publication, *Healthy People 2030*, SDOH are the "conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of life-risks and outcomes."² Ample research demonstrates that adverse conditions in these areas contribute to systematic disadvantage and unmet material and social needs for individuals and families that are necessary for surviving, including food, housing, and child care.³

Adverse SDOH can have negative impacts on children that result in intractable social issues that have costs not only to their individual well-being but in the form of remedial services in health care, education, behavioral health, and public safety.⁴ Adverse SDOH can hinder population prosperity by influencing developmental and health trajectories.⁵ The impact has been shown to have a biological base; Adverse Childhood Experiences (ACEs) and psychosocial stress are associated with reduced volume of the prefrontal cortex, greater activation of our body's stress response, and elevated inflammation levels in children and adults.^{6,7} These changes help explain how cumulative stress that outweighs positive experiences can influence multiple health and well-being outcomes.⁸

Social Determinants of Health (SDOH)

The "conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of life risks and outcomes." – Healthy People 2030

The ability of communities to promote positive SDH and reduce disadvantages relies on **understanding how services are connected and addressing barriers to access that families experience.**

Community Solutions to Address Adversity

Sources of social adversity are diverse and involve multiple factors, requiring solutions that are similarly complex.⁹ The vital services that communities provide are an interconnected, interdependent ecosystem. A shortage or limitation in one area can influence another's effectiveness. For example, children do not benefit as fully from public early childhood education if they are chronically absent due to lack of parental support or homelessness.¹⁰ Effective job training and youth mentor programs prepare individuals for gainful employment, education, and social success, but are less effective if participants have untreated mental health problems.¹¹ When parents lack transportation, children are less likely to receive preventive health care.¹² The ability of communities to promote positive SDOH and reduce disadvantages relies on understanding how services are connected, testing and addressing barriers to access that families experience, and codifying successes into policy.

Many communities, while having multiple assets to draw on, lack the capacity to implement a comprehensive, collective strategy that will bridge diverse sectors and address adverse SDOH at a population level. There is a pressing need to assess the community infrastructure necessary to advance cross-sector coordination to address SDOH. Advancing family access to vital services also requires reaching beyond county lines, signaling the important role of state leadership in transforming SDOH at the population level.

HOW TO ASSESS AND ADDRESS ADVERSE SDOH: DESIGN OF THE 100% COMMUNITY MODEL

The 100% Community Model was developed to support counties transforming adverse SDOH, represented by a lack of access to vital services, to positive SDOH. This starts with assessing each county's SDOH and creating action teams to address service barriers through collective impact. The 100% Community Model is informed by socioecological theory. The theory states that human development is shaped by multiple levels of the environment, including those closest to a child (such as family) as well as the immediate and broader social, political, and economic conditions encountered.¹³ The ten service sectors that 100% Community Action Teams focus on stem from research on SDOH and definitions of SDOH developed by the CDC and WHO, among others. The 100% New Mexico Initiative to transform adverse SDOH by scaling 100% Community statewide was funded by the New Mexico State Legislature in 2019.

Data-driven Collective Impact

Data-driven collective impact (CI) is the primary strategy for implementing the 100% New Mexico Initiative. The collective impact approach was designed specifically for complex social conditions and is "a network of community members, organizations, and institutions that advance equity by learning together, aligning, and integrating their actions to achieve population- and systems-level change."¹⁴ It is described as distinct from other multisector collaborations because of its centralized infrastructure, dedicated staff, and structured process that is mutually reinforcing by aligning, rerouting, or reinvesting resources or scaling what already works using a continuous quality improvement (CQI) framework.

Action Teams

Using CI, county-based 100% New Mexico initiatives create and engage a local coalition and identify a backbone organization to begin the work to resolve barriers to the ten vital services. Ten action teams form the local coalition to address: (1) surviving services: food, housing, medical and dental care, behavioral health, and transportation; and (2) thriving services: early childhood learning, parent supports, job training, youth mentors, and community schools.¹⁵

Figure 1: 100% New Mexico's 10 Vital Services

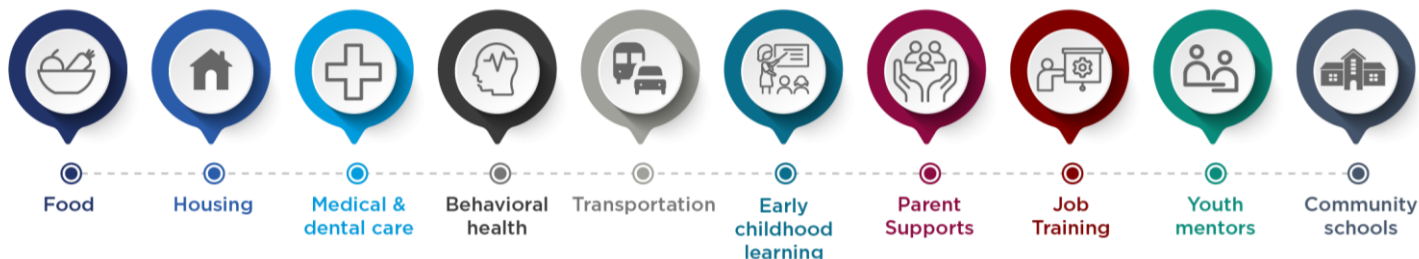


Table 1. Ten Action Teams centered on resolving barriers to Surviving and Thriving Services

Action Team	Purpose
Food¹⁶	Address hunger and food insecurity through access to fully supported food programs by harnessing technology, aligning supply and demand
Housing¹⁷	Ensure housing that is accessible, affordable, and safe by enhancing current housing programs and supporting shelters and housing innovations
Medical and dental care¹⁸	Strengthen access to a countywide family-friendly medical and dental health care system by harnessing technology, aligning supply and demand, and addressing workforce shortages
Behavioral health¹⁹	Strengthen access to a countywide family-friendly behavioral health care system by harnessing technology, aligning supply and demand, and addressing workforce shortages
Transportation²⁰	Support residents to get to where they need to be through a public transportation system that is efficient, accessible, affordable, and safe for children, youth and families
Early childhood learning²¹	Ensure access to enriching, positive environments through quality early childhood education programs and addressing workforce recruitment and retention
Parent supports²²	Support safe and successful childhoods through a seamless system of support, including home visitation, childcare, and parent empowerment/education programs
Job training²³	Ensure residents can achieve success with jobs, steady incomes, and opportunities for advancement through job training aligned with workforce needs
Youth mentors²⁴	Ensure all young people have a trusted, caring, and committed mentor through a countywide family-friendly youth mentor system offered in schools, communities and online
Community schools²⁵	Create learning environments that support all young people to succeed by implementing the four components of the community schools model (a full-time director, health care and other services, schools as neighborhood hubs, and social engagement)

Figure 2 The 100% New Mexico Model



Seven-Step Process

Counties engage in a seven-step process (see Figure 2) starting with the staff at the state entity (such as a University) sponsoring the initiative and building a relationship with local stakeholders who are interested in exploring the model. The CI process is key in organizing each local coalition, creating shared vision and goals, shared understanding of data use, shared understanding of the interrelated activities of the initiative, shared understanding of communication strategies, and a solid institutional base from which to operate. This process focuses on addressing community-identified gaps using solution experiments anchored in CQI.

This seven-step process is not always linear and can be customized to meet the unique needs and capacities of local stakeholders. The

process is iterative, always evolving based on feedback and evaluation. Evaluation of early adopter counties in 2021–2022 found that buy-in and building the teams and starting the survey took only months, while in other counties, buy-in took much longer.²⁶ Activities such as public education, mural project events, family-focused fairs, and book clubs support the creation of buy-in among community members, including elected officials.

Anna, Age Eight Institute to Support the 100% New Mexico Initiative

The Anna, Age Eight Institute (AAEI) in the College of Agricultural, Consumer, and Environmental Sciences at New Mexico State University is the backbone organization and developer of the 100% Community Model and the 100% New Mexico Initiative. The AAEI mission is to promote positive SDOH and reduce adversity among 100% of New Mexicans. Founded by Dr. Katherine Ortega Courtney and Dominic Cappello, the AAEI provides multiple levels of support for counties to implement the 100% Community Model (see Table 2).

Table 2. Support Provided by the AAEI to Counties Implementing the 100% Community Model

AAEI Core Components of Implementation Support	Description
<p>100% Community coalition development</p>	<ul style="list-style-type: none"> • Power Hours: Live 4-part online group learning webinar series about the CI process, facilitated quarterly • Financial support and consultation: Resources to counties to support local administration and management • 100% Mural Projects: Consultation to develop a mural project event and increase public and stakeholders’ awareness of the local initiative • County and Regional 100% Community summits • Facilitated meetings to support the coalition to coalesce around a common vision, interpret data, and identify strategies for county transformation; facilitated by county leaders and AAEI • 100% Video and Anna, Age Eight; 100% Community; and David, Age 14 Books

AAEI Core Components of Implementation Support	Description
Conduct county-wide survey	Technical assistance to support 100% Community Survey data collection, data analysis, comprehensive report development, and report dissemination (including web platform)
Create directory to services	Implementation support and webpage hosting for counties to update, enhance, or produce service directories
Identify how to end service barriers	Consultation with AAEI to support development of Community Schools and Family Center keystones
Evaluation of 100% Community implementation and outcomes	Reports, briefs, and longitudinal external evaluation of the 100% New Mexico Initiative conducted by Chapin Hall at the University of Chicago

CONCLUSION

The 100% Community Model and 100% New Mexico Initiative seeks to support an entire state in implementing the policies and programs required to transform adverse SDOH into positive ones. It represents an experimental and an iterative process that is guided by research and designed to help generate new evidence that can inform state and local legislative priorities.

Focusing specifically on service access and barriers to meeting the concrete and social needs that affect people’s well-being is a promising application. Many definitions of SDOH use terms like “context” and “conditions,” which makes it difficult to operationalize and measure SDOH in practice. Clearly defining outcome measures and a data-driven approach are vital steps for understanding the impact of investments to address negative SDOH and benefit families and communities. This approach will be described in subsequent briefs. This evidence is also critical to adapting evidence-based solutions to respond to local needs and strengthen pathways to service access.

There is also opportunity to align with and build on promising models that counties may already have in place. This includes community schools, community health navigators, family resource centers, and local referral networks focused on early childhood or essential community services.

Finally, it is critical to leverage and evaluate the impact of a model, such as collective impact, that is specifically designed to solve complex, urgent problems. Collective impact is a relatively new approach, developed in 2011 and adopted internationally in various contexts to address a range of health issues. The research conducted as part of evaluating the 100% New Mexico Initiative will determine collective impact’s relevance and ability to influence outcomes in SDOH, which in its root definition is preventive and involves the contribution of multiple service sectors and government actors. The study of collective impact to address SDOH is a growing research area that is currently mostly developmental but will likely increase in rigor as emerging models, including the 100% Community Model, are sustained and scaled.²⁷

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- ¹ WHO Commission on Social Determinants of Health, & World Health Organization. (2008). *Closing the gap in a generation: health equity through action on the social determinants of health: Commission on Social Determinants of Health final report*. World Health Organization.
- ² Office of Disease Prevention and Health Promotion, US Department of Health and Human Services. (n.d.). *Healthy People 2030*. health.gov. <https://health.gov/healthypeople>.
- ³ Alcaraz, K. I., Wiedt, T. L., Daniels, E. C., Yabroff, K. R., Guerra, C. E., & Wender, R. C. (2020). Understanding and addressing social determinants to advance cancer health equity in the United States: A blueprint for practice, research, and policy. *CA: A Cancer Journal for Clinicians*, *70*, 31–46. doi: 10.3322/caac.21586; Kreuter, M. W., Thompson, T., McQueen, A., & Garg, R. (2021). Addressing social needs in health care settings: Evidence, challenges, and opportunities for public health. *Annual Review of Public Health*, *42*, 329–44. doi: 10.1146/annurev-publhealth-090419-102204.
- ⁴ Franke, H. A. (2014). Toxic stress: Effects, prevention and treatment. *Children*, *1*(3), 390–402. doi.org/10.3390/children1030390; Steptoe, A., & Feldman, P. J. (2001). Neighborhood problems as sources of chronic stress: Development of a measure of neighborhood problems, and associations with socioeconomic status and health. *Annals of Behavioral Medicine*, *23*(3), 177–185. doi.org/10.1207/S15324796ABM2303_5
- ⁵ Storrie, C. L., Kitissou, K., & Messina, A. (2022). The effects of severe childhood physical and sexual abuse on adult socioeconomic prosperity. *Journal of Child & Adolescent Trauma*, *16*, 55–68. doi.org/10.1007/s40653-022-00499-6; Tilahun, N., Persky, J., Shin, J., & Zellner, M. (2021). Place prosperity and the intergenerational transmission of poverty. *The Review of Regional Studies*, *51*, 208–220. doi.org/10.52324/001c.27974.
- ⁶ Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology & Behavior*, *106*(1), 29–39. doi.org/10.1016/j.physbeh.2011.08.019.
- ⁷ Lupien, S., McEwen, B., Gunnar, M., & Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews Neuroscience*, *10*, 434–445. doi.org/10.1038/nrn2639.
- ⁸ Ranu, J., Kalebic, N., Melendez-Torres, G. J., & Taylor, P. J. (2022). Association between adverse childhood experiences and a combination of psychosis and violence among adults: A systematic review and meta-analysis. *Trauma, Violence, & Abuse*. doi.org/10.1177/15248380221122818. Epub ahead of print. PMID: 36117458; Yu, J., Patel, R. A., Haynie, D. L., Vidal-Ribas, P., Govender, T., Sundaram, R., & Gilman, S. E. (2022). Adverse childhood experiences and premature mortality through mid-adulthood: A five-decade prospective study. *The Lancet Regional Health - Americas*, *15*, 100349. doi.org/10.1016/j.lana.2022.100349
- ⁹ McCrae, J. S., Robinson, J. A. L., Spain, A. K., Byers, K., & Axelrod, J. L. (2021). The Mitigating Toxic Stress study design: Approaches to developmental evaluation of pediatric health care innovations addressing social determinants of health and toxic stress. *BMC Health Services Research*, *21*, 1–14. doi.org/10.1186/s12913-021-06057-4
- ¹⁰ Ansari, A., & Purtell, K. M. (2018). Absenteeism in Head Start and children's academic learning. *Child Development*, *89*(4), 1088–1098. doi.org/10.1111/cdev.12800; Hubbs-Tait, L., Culp, A. M., Culp, R. E., & Miller, C. E. (2002). Relation of maternal cognitive stimulation, emotional support, and intrusive behavior during Head Start to children's kindergarten cognitive abilities. *Child Development*, *73*(1), 110–13. doi.org/10.1111/1467-8624.00395; Wright, T., Ochrach, C., Blaydes, M., & Fetter, A. (2020). Pursuing the promise of preschool: An exploratory investigation of the perceptions of parents experiencing homelessness. *Early Childhood Education Journal*, *49*, 1021–1030. doi.org/10.1007/s10643-020-01109-6.
- ¹¹ Axford, N., Bjornstad, G., Matthews, J., Heilmann, S., Raja, A., Ukoumunne, O. C., Berry, V., Wilkinson, T., Timmons, L., Hobbs, T., Eames, T., Kallitsoglou, A., Blower, S., & Warner, G. (2020). The effectiveness of a therapeutic parenting program for children aged 6–11 years with behavioral or emotional difficulties: results from a randomized controlled trial. *Children and Youth Services Review*, *117*, 105245. doi.org/10.1016/j.childyouth.2020.105245
- ¹² Wolf, E. R., Donahue, E., Sabo, R. T., Nelson, B. B., & Krist, A. H. (2021). Barriers to attendance of prenatal and well-child visits. *Academic Pediatrics*, *21*(6), 955–960. doi.org/10.1016/j.acap.2020.11.025
- ¹³ Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of childhood. *Child Development*, *45*(1), 1–5.
- ¹⁴ Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, *32*(7), 513.

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- ¹⁵ Courtney, K.O., & Cappello, D. (2019). *100% Community: ensuring trauma-free and thriving children, students, and families*. CreateSpace Independent Publishing Platform.
- ¹⁶ Hawkins, M., & Panzera, A. (2021). Food insecurity: A key determinant of health. *Archives of Psychiatric Nursing*, 35(1), 113–117. doi.org/10.1016/j.apnu.2020.10.011
- ¹⁷ Koeman, J., & Mehdipanah, R. (2021). Prescribing housing: A scoping review of health system efforts to address housing as a social determinant of health. *Population Health Management*, 24(3), 316–321. doi.org/10.1089/pop.2020.0154
- ¹⁸ Adler, N. E., Cutler, D. M., Fielding, J. E., Galea, S., Glymour, M. M., Koh, H. K., & Satcher, D. (2016). Addressing social determinants of health and health disparities: A vital direction for health and health care. *NAM Perspectives*. doi:10.31478/201609t
- ¹⁹ Shim, R. S., & Compton, M. T. (2018). Addressing the social determinants of mental health: if not now, when? If not us, who? *Psychiatric Services*, 69(8), 844–846. doi.org/10.1176/appi.ps.201800060; Sterling, S., Chi, F., Weisner, C., Grant, R., Pruzansky, A., Bui, S., Madvig, P., & Pearl, R. (2018). Association of behavioral health factors and social determinants of health with high and persistently high healthcare costs. *Preventive Medicine Reports*, 11, 154–159. doi.org/10.1016/j.pmedr.2018.06.017
- ²⁰ Mirza, N. A., & Hulko, W. (2022). The complex nature of transportation as a key determinant of health in primary and community care restructuring initiatives in rural Canada. *Journal of Aging Studies*, 60, 101002. doi.org/10.1016/j.jaging.2022.101002
- ²¹ Moore, T. G., McDonald, M., Carlon, L., & O'Rourke, K. (2015). Early childhood development and the social determinants of health inequities. *Health Promotion International*, 30(suppl_2), ii102–ii115. doi.org/10.1093/heapro/dav031
- ²² Walker, D. K. (2021). Parenting and social determinants of health. *Archives of Psychiatric Nursing*, 35(1), 134–136. doi.org/10.1016/j.apnu.2020.10.016
- ²³ Hergenrather, K. C., Zeglin, R. J., McGuire-Kuletz, M., & Rhodes, S. D. (2015). Employment as a social determinant of health: A review of longitudinal studies exploring the relationship between employment status and mental health. *Rehabilitation Research, Policy, and Education*, 29(3), 261–290. doi.org/10.1891/2168-6653.29.3.261
- ²⁴ Austin, L. J., Parnes, M. F., Jarjoura, G. R., Keller, T. E., Herrera, C., Tanyu, M., & Schwartz, S. E. (2020). Connecting youth: The role of mentoring approach. *Journal of Youth and Adolescence*, 49(12), 2409–2428. doi.org/10.1007/s10964-020-01320-z
- ²⁵ Wong, M. D., Quartz, K. H., Saunders, M., Meza, B. P., Childress, S., Seeman, T. E., & Dudovitz, R. N. (2022). Turning vicious cycles into virtuous ones: the potential for schools to improve the life course. *Pediatrics*, 149(Supplement 5). doi.org/10.1542/peds.2021-053509M.
- ²⁶ McCrae, J. S., & Spain, A. K. (2023). Advancing positive social determinants of health through collective impact and the 100% New Mexico Model. *Archives of Public Health*, 81(109). doi.org/10.1186/s13690-023-01120-4
- ²⁷ John, J. C., Kaleemullah, T., McPherson, H., Mahata, K., Morrow, R.B., Bujnowski, D., Johnston, A., Danho, M., Siddiqui, N., Walsh, M. T., Jr., Haley, S. A., Sirajuddin, A. M., Schauer, T., Wu, M-J., Rechis, R., Galvan, E., Correa, N., Browning, N., Ganelin, D., Gonzalez, J., Lofton, S., Banerjee, D., & Sharma, S.V. (2021). Building and advancing coalition capacity to promote health equity: Insights from the Health Equity Collective's approach to addressing social determinants of health. *Health Equity*, 5(1), 872–878. doi.org/10.1089/heq.2021.0012

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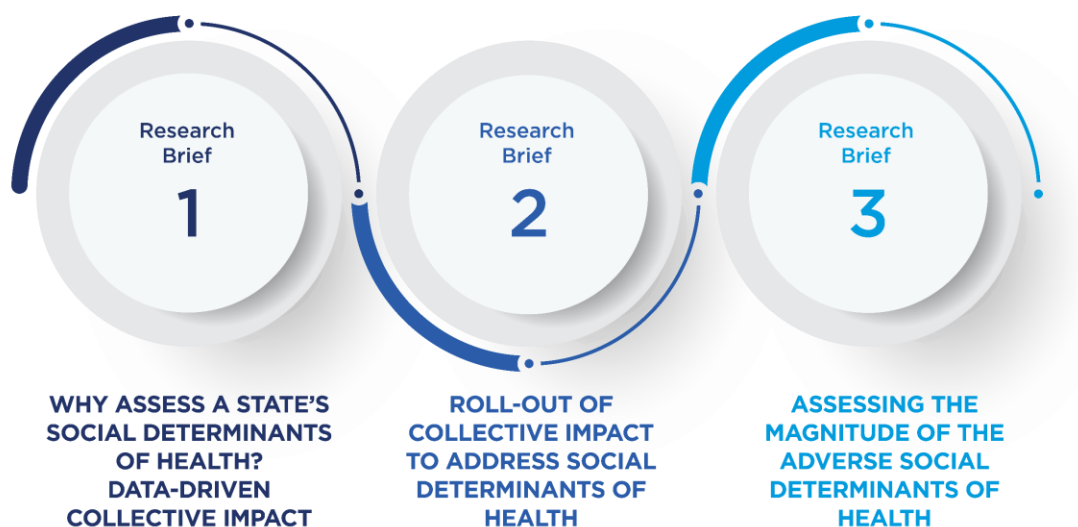
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