

Reimagining Community Resilience with Health in All Policies

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Why do some communities swiftly rise from the ashes of adversity while others do not? Resilience refers to the sustained capacity of an individual, system, or community¹ to absorb, adapt to, and rebound from sudden shocks and chronic stressors.² Shocks are the sudden adverse events that threaten major loss of life, damage to assets, and societal breakdown.³ Stressors are the slow-moving social, physical, economic, and ecological stressors that accumulate over time, making communities more vulnerable to shocks. A resilient community has the flexibility and resourcefulness to adapt to changing circumstances, meet community needs, and sustain conditions essential for optimal population health.⁴ Its systems are integrated

and aligned to maximize efficiency and co-benefits. Mechanisms for inclusive governance engage stakeholders across government agencies, civil society, the private sector, and vulnerable populations. Policies and systems transform to reflect emerging evidence, feedback, and evolving conditions.

These capacities depend on the strength of several community assets tied to population health, including health care, housing, healthy food, social cohesion, and population health

¹ Although many definitions of a community exist, this article defines community as “a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings.” MacQueen, K. M., McLellan, E., Metzger, D. S., Kegeles, S., Strauss, R. P., Scotti, R., Blanchard, L., Trotter, R. T. (2001, December). What Is Community? An Evidence-Based Definition for Participatory Public Health. *American Journal of Public Health*, 91(21), 1929-1938, 1924.

² RAND Corporation. (n.d.). *Community Resilience*. Retrieved October 25, 2017, from RAND Corporation:

<https://www.rand.org/topics/community-resilience.html?page=9>.

³ Barrett, C.B., & Headey D. (2014, May). *Measuring Resilience in a Volatile World: A Proposal for a Multicounty System of Sentinel Sites*. Paper presented at Building Resilience for Food & Nutrition Security: 2020 Conference, Washington, DC: International Food Policy Research Institute.

⁴ Arup, Inc. (2015). *City Resilience Index*. London, United Kingdom: Arup, Inc. Retrieved October 31, 2017, from <https://www.rockefellerfoundation.org/report/city-resilience-index/>.

status itself.^{5,6,7} Although every community is vulnerable to adversity, those with fewer or weaker assets and resources suffer greater harm.^{8,9,10} Within communities, populations with inadequate access to these assets face greater barriers to overcoming adversities.¹¹ Preexisting states of and inequities in population health are directly correlated with the magnitude of health crises that follow adversities.¹² A resilient community is a healthy community.

With the anticipated acceleration of losses from climate change, population growth, and urbanization, community resilience and population health are of increasing importance to one another. Yet, even the most comprehensive community resilience-building efforts often neglect or inadequately address health. Health in All Policies (HiAP), an organizing framework for policy action on the social and structural determinants of health, can infuse considerations of health equity into community resilience planning and policymaking. Additionally, it can

promote government accountability and legal responsibility for one of the most important dimensions of community resilience.

The Community Resilience Movement

Early government approaches to addressing adversities loitered in the realm of relief and recovery. In the 1970s, the National Governors Association added mitigation, preparedness, and response as essential phases of emergency management and focused on detecting hazards and shoring up infrastructure.¹³

Still, this approach neglected the social, political, and economic dimensions of shocks and stressors. In the 2000s, Hurricane Katrina exposed the prevailing emergency preparedness model as too reactive, fragmented, and costly in government dollars and lives.¹⁴ The interaction between levee system failures, haphazard land use policy, inadequate and siloed disaster planning and response, and preexisting stressors including extreme poverty and structural racism earned

⁵ Frankenberger, T., Mueller, M., Spangler, T., & Alexander, S. (2013). *Community Resilience: Conceptual Framework and Measurement Feed the Future Learning Agenda*. Rockville: Westat.

⁶ Eckersley, R. (2010). Population health – a forgotten dimension of social resilience. In R. Eckersley, & S. Cork (Ed.), *Resilience and Transformation: Preparing Australia for Uncertain Futures* (1-216, 115). 2010, Collingwood: Csiro Publishing.

⁷ Arup, Inc., 2015.

⁸ Cutter, S. L., Ash, K. D., & Emrich, C. T. (2014). The geographies of community disaster resilience. *Global Environmental Change*, 29, 65-77, 68.

⁹ Ferrer, B., & Conley, L. (2015). Boston Strong: The Role of Community Resilience. *Journal of Public Health Management Practice*, 21(1), S34-S37, S35.

¹⁰ Malik, K. (2014). *Human Development Report 2014 Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. Human Development Report Office. New York: United Nations Development Programme.

¹¹ Davis, J., Wilson, S., Brock-Martin, A., & Svendsen, E. R. (2010, March). The Impact of Disasters on Population with Health and Health Care Disparities. *Disaster Medicine and Public Health Preparedness*, 4(1), 30-38, 30-34.

¹² Committee on Post-Disaster Recovery of a Community's Public Health, Medical, and Social Services. (2015). *Healthy, Resilient, and Sustainable Communities After Disasters: Strategies, Opportunities, and Planning for Recovery*. Institute of Medicine. Washington, DC: The National Academies Press.

¹³ McEntire, D., Fuller, C., Johnston, C., & Weber, R. (2002). A Comparison of Disaster Paradigms: The Search for a Holistic Policy Guide. *Public Administration Review*, 62(3), 267-281, 268.

¹⁴ Wharton Risk Management and Decision Process Center and Zurich North American Commercial. (2015). *Beyond Katrina: Lessons in Creating Resilient Communities*. Schaumburg: Zurich Services Corporation.

Hurricane Katrina its reputation as both a natural- and man-made disaster.^{15,16}

¹⁷ Largely preventable devastation created a window of opportunity for a social-ecological preparedness paradigm aimed at fostering resilient communities.

The Rockefeller Foundation's 100 Resilient Cities (100RC)¹⁸ is at the forefront of the global resilience movement, but the holistic theory underlying its efforts does not always translate into practice. With funding support from 100RC, cities in its global network hire Chief Resilience Officers (CROs) to lead local resilience endeavors. CROs work across and beyond government sectors to develop city resilience strategies tailored to community assets and vulnerabilities.¹⁹

Based on Rockefeller's *City Resilience Index*, the strategy should serve as a roadmap for immediate and long-term action and investment on resilience relating to health and well-being; social and financial systems; infrastructure and the environment; and informed, inclusive, and integrated decision-making.²⁰ In practice, the city resilience strategies frequently fail to address how

actions in areas such as city-wide greening, urban water management, and chronic homelessness will purposefully promote population health.^{21,22,23} Health promotion is often cited as an incidental dividend or ignored altogether. Additionally, resilience-building efforts are vulnerable to changes in local leadership, the elimination or expiration of 100RC grant-funding for CRO positions, and insufficient buy-in from critical partners. Well-designed HiAP mechanisms can help remedy these weaknesses.

Health in All Policies

HiAP is premised on the notion that all sectors of society and their corresponding political authorities have roles in shaping population health through public policy.²⁴ In broad terms, it fosters structural or procedural change to address health inequities at the systems-level; supports intersectoral action; creates co-benefits; and empowers and engages stakeholders in vulnerable populations, the private sector, and civil society.^{25,26} As a policy practice, it infuses considerations of health equity into the design, implementation, and evaluation of

¹⁵ Arnold, C.A. (2014) Resilient Cities and Adaptive Law. *Idaho Law Review*, 50, 245-264, 246.

¹⁶ Neuman, S. (2015, August 27). Obama: Katrina A 'Man-Made' Disaster Caused By Government Failure. *NPR*. Retrieved from <https://www.npr.org>.

¹⁷ Elliott, J.R., & Pais J. (2006, April 24). Race, class, and Hurricane Katrina: Social differences in human responses to disaster. *Social Science Research*, 35, 295-321, 317.

¹⁸ 100 Resilient Cities. (2017). About Us. Retrieved November 2, 2017, from 100 Resilient Cities: <http://www.100resilientcities.org/about-us/>.

¹⁹ Lipper, B. (2016, October 3). *How to Develop a Resilience Strategy*. Retrieved from 100 Resilient Cities: <http://www.100resilientcities.org/how-to-develop-a-resilience-strategy/>.

²⁰ Arup, Inc., 2015

²¹ City of Atlanta. (2017). *Resilient Atlanta*. Atlanta: 100 Resilient Cities.

²² Mairie de Paris. (2017). *Stratégie de Résilience de Paris*. Paris: 100 Resilient Cities.

²³ City of Melbourne. (2016). *Resilient Melbourne*. Melbourne: 100 Resilient Cities.

²⁴ Leeuw, E., & Breton, É. (2013). Policy change theories in health-promoting research: a review. In Clavier C., & Leeuw E. (Eds.), *Health Promotion and the Policy Process* (23-42, 25).

²⁵ Health in All Policies International Meeting in Adelaide. (2010, April 15). *Adelaide Statement on Health in All Policies*. Adelaide: World Health Organization and the Government of South Australia.

²⁶ Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). *Health in All Policies: A Guide for State and Local Governments*. Washington, DC and Oakland: American Public Health Association and Public Health Institute.

policies in sectors beyond public health and health care. These elements make it an ideal community resilience solution.

Type	Mechanisms
Systematic	<ul style="list-style-type: none"> • Interdepartmental and interagency committees • Intersectoral action teams
Procedural	<ul style="list-style-type: none"> • Health Impact Assessment (HIA), a systematic analysis of the potential health risks, benefits, and trade-offs of a proposed public policy, plan, or program³¹ • Participatory processes, such as community consultations and Citizens’ Juries, empowering stakeholder engagement and advocacy
Financial	<ul style="list-style-type: none"> • Designating specific funding for HiAP activities • Braiding funding to empower intersectoral action
Legal	<ul style="list-style-type: none"> • Authorizing or mandating structural, procedural, or financial mechanisms • Establishing health-related duties, making policymakers across sectors accountable for the health impacts of their actions

Since its genesis in the World Health Organization (WHO) Alma Alta Declaration of 1978,²⁷ numerous national and subnational governments have adopted HiAP, and best practices have emerged. Table 1 summarizes proven mechanisms for successful HiAP implementation.^{28 29 30}

HiAP efforts in Canterbury, New Zealand demonstrate the utility of structural, procedural, and financial HiAP mechanisms throughout the resilience-building continuum. In 2000, Canterbury launched an interagency HiAP initiative to conduct HIAs

²⁷ International Conference on Primary Health Care. (1978, September 6-12). *Declaration of Alma-Ata*. Geneva: World Health Organization.

²⁸ Health in All Policies International Meeting in Adelaide, 2010.

²⁹ Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L., 2013.

³⁰ St-Pierre, L. (2009). *Governance Tools and Framework for Health in All Policies*. Québec:

National Collaborating Centre for Healthy Public Policy, International Union for Health Promotion, and Education & European Observatory on Health Systems and Policies.

³¹ Hodge, Jr., J. G., Fuse Brown, E. C., Scanlon, M., & Corbett, A. (2012). *Legal Review Concerning the Use of Health Impact Assessments in Non-Health Sectors*. Philadelphia: PEW Health Group.

on urban development strategy.³² In 2010 and 2011, a series of severe earthquakes struck the Canterbury region, killing at least 185, injuring several thousand, and displacing hundreds from their homes^{33,34} Regular aftershocks—over 10,000—complicated physical and social recovery.³⁵ By necessity, HiAP activities shifted from proactive to reactive, embedding considerations of health into local and provincial policy, planning, and project development related to disaster response and recovery.^{36,37} Canterbury's existing interagency HiAP partnership nimbly redirected its focus from planned HIAs to address urgent needs. Special funding from the New Zealand Ministry of Health enabled the Canterbury District Health Board to establish a dedicated HiAP team within its Public Health Unit. The team supported ground-level public health relief and surveillance efforts. During uncertain and changing conditions, these mechanisms helped leverage community assets and strengthen public policy responses, ensuring that health and equity were constant considerations. Years after the initial earthquake, Canterbury was able to re-

expand its HiAP activities to address the chronic stressors that make communities vulnerable during and between shocks.³⁸

Jurisdictions in the United States increasingly utilize legal mechanisms, such as legislation and executive orders, to establish political accountability and legal responsibility for HiAP.^{39,40} HiAP laws can authorize or mandate structural, procedural, or financial HiAP mechanisms and infrastructure.⁴¹ They can also create legally binding duties requiring the government to collaborate or consider the population health and health equity impacts of policy decisions.⁴² Stakeholders can invoke HiAP laws to ensure that health-related duties are realized.

Several successful measures in California illustrate how legal HiAP mechanisms can institutionalize infrastructure and accountability for one of the most essential dimensions of community resilience. In 2009, California passed legislation establishing a Strategic Growth Council (SGC).⁴³ The SGC was charged with enhancing interagency collaboration and

³² Stevenson, A., Humphrey, A., & Brinson, S. (2014, May 9). A Health in All Policies Response to Disaster Recovery. *Perspectives in Public Health*, 134(3), 125-126, 125.

³³ NZ History. (2011, February). Christchurch earthquake kills 185. Retrieved from <https://nzhistory.govt.nz/page/christchurch-earthquake-kills-185>.

³⁴ BBC News (2010, September 6). New Zealand earthquake 'damaged 100,000 homes'. Retrieved from <http://www.bbc.com/news/world-asia-pacific-11191105>.

³⁵ Stevenson, A., Humphrey, A., & Brinson, S., 2014, 125.

³⁶ Canterbury Health in All Policies Partnership. (2015, January). *Impact of the Canterbury earthquakes on the work of CHIAPP*. Retrieved from <https://www.cph.co.nz/wp-content/uploads/chiappinfosheet7.pdf>.

³⁷ Stevenson, A., Humphrey, A., & Brinson, S., 2014, 125.

³⁸ Stevenson, A., Humphrey, A., & Brinson, S., 2014, 126.

³⁹ Pepin, D., Winig, B.D., Carr, D., & Jacobson, P.D. (2017). Collaborating for Health: Health in All Policies and the Law. *Journal of Law, Medicine & Ethics*, 45 S1, 60-64, 61.

⁴⁰ Gakh, M. (2015, January-February). Law, the Health in All Policies Approach, and Cross-Sector Collaboration. *Public Health Reports*, 130, 96-100, 98.

⁴¹ Health in All Policies International Meeting in Adelaide, 2010.

⁴² Gakh, M., 2015, 99.

⁴³ Strategic Growth Council; members; staff, Cal. Pub. Res. Code § 75121 (2009).

recommending policies to develop sustainable communities, strengthen the economy, protect the environment, and promote public health and safety.⁴⁴ The Governor of California issued an executive order creating a HiAP Task Force under the SGC's purview.⁴⁵ The Task Force harnessed its authority to develop an *Action Plan for Violence-Free and Resilient Communities*,⁴⁶ The action plan recognized violence prevention and community resilience promotion as important strategies for public health and equity improvement, and designated action steps toward realizing its vision. In 2014, Richmond, California became one of the first cities in the United States to adopt an ordinance making HiAP law.⁴⁷ The ordinance created an interdepartmental HiAP team to track progress on health equity and mandated the development and execution of a strategy to guide HiAP implementation. It also mandated ongoing community engagement to ensure that stakeholder perspectives were reflected in decisions. Intensive public input

credited persistent racial and socioeconomic health inequities to cumulative toxic stressors, including structural racism, poor air quality, and economic insecurity. Richmond responded by focusing its HiAP strategy on these issues and amending its ordinance to specifically acknowledge the role of toxic stress on health.^{48,49}

HiAP is helping communities around the globe increase their resilience through action on a broad range of sudden shocks and chronic stressors, yet it is largely overlooked as a community resilience solution. The Institute of Medicine (later renamed the National Academy of Medicine in 2015) identified an ethical imperative and acute need for a HiAP approach to disaster recovery, but neglected its utility as a protective resilience-building measure.⁵⁰ Of the 36 100RC member cities that have completed their city resilience strategies, only 3 incorporate HiAP.^{51,52,53,54}

Conclusion

⁴⁴ Duties of Council, Cal. Pub. Res. Code § 75125 (2009).

⁴⁵ Ca. Exec. Order No. S-04-10 (2010, February 23).

⁴⁶ California Health in All Policies Task Force. (2016, April 11). *Action Plan to Promote Violence-Free and Resilient Communities*. Retrieved from http://sgc.ca.gov/pdf/HiAP%20Action%20Plan%20to%20Promote%20Violence-Free%20and%20Resilient%20Communities_%20End....pdf.

⁴⁷ Health in All Policies, Municipal Code of the City of Richmond § 07-14 N.S. (2014).

⁴⁸ Health in All Policies, Municipal Code of the City of Richmond § 027-15 N.S. (2015).

⁴⁹ City of Richmond, California. (2015). Health in All Policies Report. Retrieved from <http://www.ci.richmond.ca.us/DocumentCenter/View/36978>.

⁵⁰ Committee on Post-Disaster Recovery of a Community's Public Health, Medical, and Social Services, 2015.

⁵¹ As of December 4, 2017.

⁵² *Resilient Greater Christchurch* plans to utilize HIAs to strategically examine the opportunities and risks associated with extending their public transportation network and making walking and cycling viable within neighborhoods. This action step builds on previous HiAP efforts, including HIAs, within Christchurch and the greater Canterbury region. Dalziel, L., Bazley, D. M., Coe, K., Ayers, D., & Soloman, T. M. (2016, September 13). *Resilient Greater Christchurch*. Christchurch: 100 Resilient Cities.

⁵³ *Resilient New Orleans* intends to leverage HiAP to address the complex health challenges and inequities facing the city The City of New Orleans.

(2015). *Resilient New Orleans*. New Orleans: 100 Resilient Cities

⁵⁴ *Resilient Boston* highlights HiAP as a “promising practice” for addressing structural racism, a chronic stressor that fuels health inequities. City of Boston. (2017). *Resilient Boston*. Boston: 100 Resilient Cities.

Communities cannot achieve resilience without health equity. Historically entrenched silos between networks promoting community resilience and public health result in missed opportunities that neither can afford. Achievements in Canterbury and California illustrate a strong foundation for action on sudden shocks and chronic stressors through HiAP, particularly given radical accountability for health currently missing from resilience-building efforts, agile structural and procedural mechanisms, and intersectoral action. HiAP warrants more explicit attention as a powerful community resilience solution. More action through HiAP is needed to foster resilient communities.

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