

# Examples of Indicators of a Climate Resilient Community

As part of its planning effort, the resilience planning team will develop a set of indicators to assess and track overall community resilience. The team is encouraged to ensure that its community-level measures of resilience include indicators that reflect needs and challenges facing socially vulnerable populations, including underlying root causes of social vulnerabilities. This handout provides four examples of community resilience indicators to help resilience planning teams get started with developing their own sets of community resilience indicators.

## 1. Commonly Used Community Resilience Indicators

| <b>Population-Focused Indicators (11)</b>    | <b>Number of Methodologies in Which the Indicator Is Used</b> |
|--|---|
| Educational Attainment (lack of HS diploma)  | 7   |
| Unemployment Rate                            | 7   |
| Disability                                   | 6   |
| English Language Proficiency                 | 6   |
| Home Ownership                               | 6   |
| Mobility (lack of vehicle)                   | 6   |
| Age  | 5   |
| Household Income                             | 5   |
| Income Inequality                            | 4   |
| Health Insurance                             | 4   |
| Single-Parent Households                     | 3   |
| <b>Community-Focused Indicators (9)</b>      | <b>Number of Methodologies in Which the Indicator Is Used</b> |
| Connection to Civic and Social Organizations | 6   |
| Hospital Capacity                            | 5   |
| Medical Professional Capacity                | 5   |
| Affiliation with a Religion                  | 4   |
| Presence of Mobile Homes                     | 4   |
| Public School Capacity                       | 4   |
| Population Change                            | 4   |
| Hotel/Motel Capacity                         | 3   |
| Rental Property Capacity                     | 3   |

Community Resilience Indicator Analysis: County-Level Analysis of Commonly Used Indicators from Peer Reviewed Research, 2019 Update. U.S. Department of Homeland Security. Argonne National Laboratory. [Download file.](#)

## 2. Climate Change, Health, and Equity: A Guide for Local Health Departments

Public Health Institute and American Public Health Association

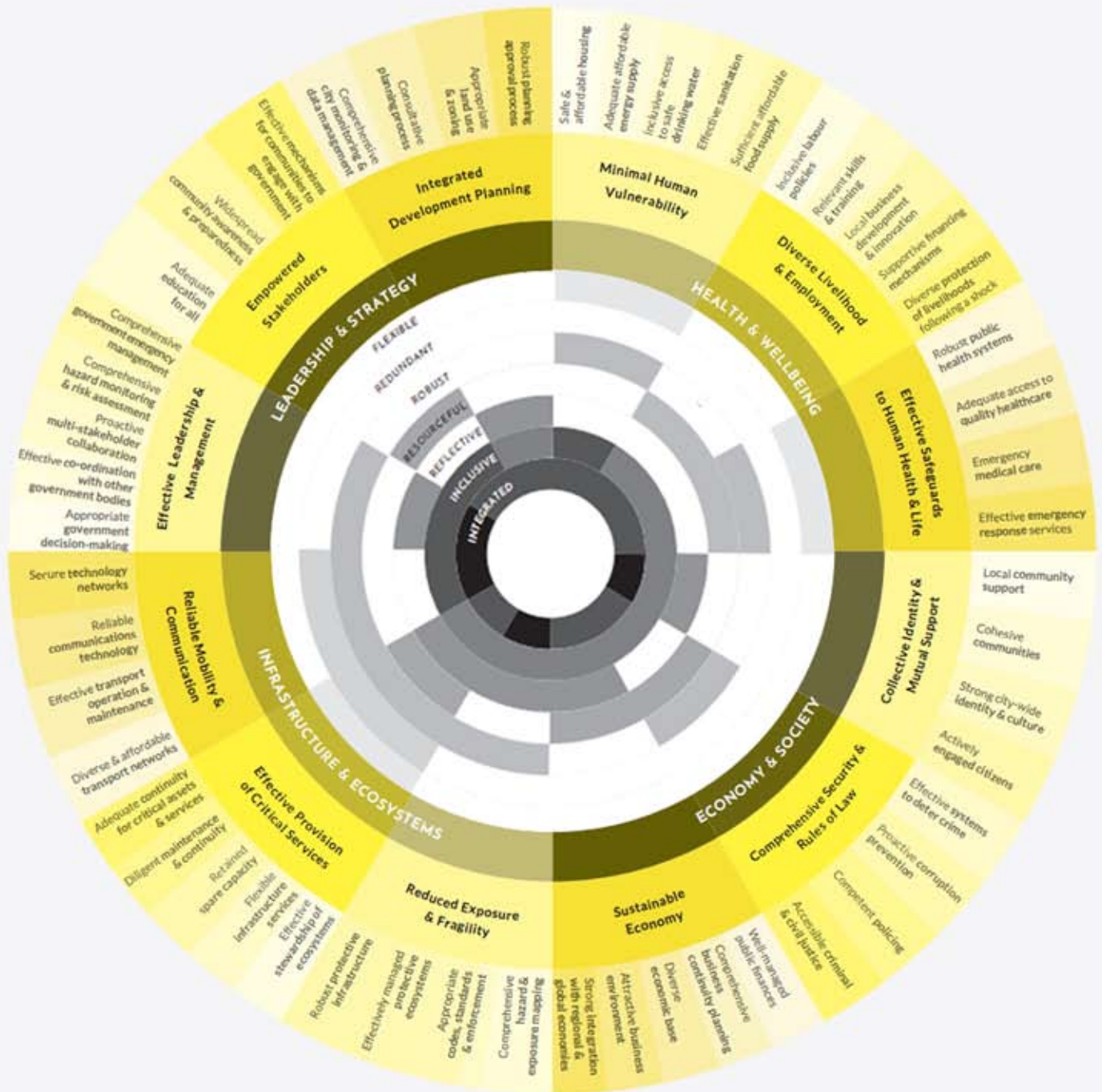
### A climate-resilient community ...

- Is committed to the transformative change required to build a healthy, equitable, and sustainable community.
- Takes action to build individual and collective capacity to respond proactively to and influence social, economic, and environmental change.
- Nurtures diversity, respects the experience and knowledge of all community members, and proactively engages all segments of a community in understanding and responding to change.
- Is organized in a way that provides capacity to recognize and act on problems and to learn from experience.
- Fosters social cohesion and collaboration across networks through bonding, bridging, and linking.
- Builds community capitals including economic, social, built, political, and environmental capitals.
- Supports investment in physical infrastructures and services that meet the needs of all residents.
- Recognizes the value of environmental resources and works to protect, enhance, and maintain them.

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Rudolph, L., Harrison, C., Buckley, L. & North, S. (2018). *Climate Change, Health, and Equity: A Guide for Local Health Departments*. Oakland, CA and Washington D.C., Public Health Institute and American Public Health Association

### 3. City Resilience Index The Rockefeller Foundation/ARUP





#### 4. Baseline Resilience Indicators for Communities (BRIC)

| Category                         | Variable   | Resilience Effect |
|----------------------------------|--|-------------------|
| <b>Social Resilience</b>         |  |                   |
| Educational equity               | Ratio of % of population w/ college education to % population w/ no h.s. diploma | Negative          |
| Age                              | % non-elderly population   | Positive          |
| Transportation access            | % population with a vehicle  | Positive          |
| Communication capacity           | % population with a telephone  | Positive          |
| Language competency              | % population not speaking English as a second language                           | Positive          |
| Special needs                    | % population without a sensory, physical, or mental disability                   | Positive          |
| Health coverage                  | % population with health insurance coverage                                      | Positive          |
| <b>Economic Resilience</b>       |  |                   |
| Housing capital                  | % homeownership  | Positive          |
| Employment                       | % employed   | Positive          |
| Income and equality              | GINI coefficient   | Positive          |
| Single sector employment         | % population not employed in farming, fishing, forestry & extractive industries  | Positive          |
| Employment                       | % Female labor force participation   | Positive          |
| Business size                    | Ratio of large to small businesses   | Positive          |
| Health access                    | Number of physicians per 10,000 population                                       | Positive          |
| <b>Institutional Resilience</b>  |  |                   |
| Mitigation                       | % population covered by a recent hazard mitigation plan                          | Positive          |
| Flood coverage                   | % housing units covered by National Flood Insurance policies                     | Positive          |
| Municipal services               | % municipal expenditures for fire, policies and EMS                              | Positive          |
| Mitigation                       | % population participation in Community Rating System for Flood                  | Positive          |
| Political fragmentation          | Number of governments and special districts                                      | Negative          |
| Previous disaster experience     | Number of paid disaster declarations   | Positive          |
| Mitigation-social connectivity   | % population covered by Citizen Corps programs                                   | Positive          |
| Mitigation                       | % population in Storm Ready communities  | Positive          |
| <b>Infrastructure Resilience</b> |  |                   |
| Housing type                     | % housing units that are not mobile homes  | Positive          |
| Shelter capacity                 | % vacant rental units  | Positive          |
| Medical capacity                 | Number of hospital beds per 10,000 units   |                   |
| Access/evacuation potential      | Principle arterial miles per square mile   | Positive          |
| Housing age                      | % housing units not built before 1970 and after 1994                             | Positive          |
| Sheltering needs                 | Number of hotels/motels per square mile  | Positive          |
| Recovery                         | Number of public schools per square mile   | Positive          |
| <b>Community Capital</b>         |  |                   |
| Place attachment                 | Net international migration  | Negative          |
| Place attachment                 | % population born in a state that still resides in that state                    | Positive          |
| Political engagement             | % voter participation  | Positive          |
| Social capital – religion        | Number of religious adherents per 10,000 population                              | Positive          |
| Social capital – advocacy        | Number of social advocacy organizations per 10,000 population                    | Positive          |
| Innovation                       | % population employed in creative class occupations                              | Positive          |

Cutter, Susan L.; Burton, Christopher G.; and Emrich, Christopher T. (2010) "Disaster Resilience Indicators for Benchmarking Baseline Conditions," Journal of Homeland Security and Emergency Management: Vol. 7: Iss. 1, Article 51.  
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