

# Innovator's Guide to the National Health Security Preparedness Index



May 2017

**Tips for Coalition-builders,  
Catalysts & Entrepreneurs**

**H**ealth security is produced through the combined efforts of government, business, and society to keep people safe and healthy when threatened by catastrophic events. Disease outbreaks, natural disasters, infrastructure failures, and other emergencies are unpredictable as to their location, timing, intensity, and geographic reach. No single agency or actor has responsibility for all dimensions of health security. Success depends upon the ability to communicate, plan, cooperate, and adapt across sectors.

Health security too often is invisible and poorly understood by the public, rarely receiving attention and priority in resource allocation except during immediate crisis. Even seasoned professionals face difficulties in understanding the health security system as a whole and in using the techniques of systems analysis and systems thinking to activate protections that lie outside their immediate control.

The National Health Security Preparedness Index provides a tool for assessing the strength of the health security system in each U.S. state and for the nation as a whole. Aggregating large volumes of data from national household surveys, medical records, safety inspection results, and surveys of health agencies and facilities, the Index offers a broad, multi-sector view of health security. The Index reveals strengths as well as vulnerabilities in the protections needed to keep people safe and healthy in the face of emergencies, and it tracks how these protections vary across the U.S. and change over time.

## Who Should Use the Index?

The Index stands ready as a communication, convening, and mobilization tool for use by any organization or individual interested in playing a role in strengthening health security. The Index can be used to call attention to risks and threats, educate stakeholders and the public, identify problems and opportunities, develop and test solutions, and forge collaborations to strengthen health security. By harnessing the power of comparative information, a single individual can use the Index just as effectively as a large government bureaucracy or a multi-sector coalition. Index users may include program directors, coalition leaders, grant writers, planners, advocacy organizations, policy analysts, communication specialists, education and training professionals, students, consultants, journalists, evaluators, researchers, data scientists, and application developers.

Users may work in any one of numerous sectors that contribute to health security, including public health, medical care, emergency management, public safety, social services, education, housing, transportation, finance and insurance, environment, utilities and infrastructure, business and technology, and many others. The Index measures health security at both state and national levels, so users who work on statewide, regional, or national health security issues can readily incorporate the Index into their work. For users who work on local health security issues, the Index offers a valuable lens on the statewide resources and capabilities that can be called down for local use.

### Rising Threats to Health Security

Health security is a state in which the nation and its people are prepared for, protected from, and resilient to events that can adversely impact health status.<sup>1</sup> Hazardous events are unpredictable as to their location, timing, intensity, and geographic reach. For this reason, protections need to be available ‘everywhere’ to prevent disease and injury ‘anywhere.’ Many health security threats are increasing in frequency and intensity in the U.S. and globally due to a combination of factors:<sup>2</sup>

- Newly emerging and resurgent infectious diseases like Zika, MERS, and Ebola
- Growing antibiotic resistance among infectious agents.
- Incomplete vaccination coverage
- Globalization in travel and trade patterns
- Political instability, violence and terrorism risks
- Aging infrastructure for transportation, housing, food, water, and energy systems
- Extreme weather events including storms, fires, floods, droughts, and temperature extremes
- Cyber-security vulnerabilities

# What Can You Do With the Index?

The Index provides a launch pad for many different actions and applications, including:

- Organizing press conferences to call attention to health security issues
- Developing blogs, op-eds, policy briefs, white papers, newsletters, journal articles, and other media based on your analysis and interpretation of Index results
- Writing grant applications to secure resources for health security improvements
- Organizing legislative and executive briefing sessions to educate public officials about health security needs and issues
- Convening meetings of stakeholders to prioritize needs and develop strategic plans for improvement
- Building and expanding multi-sector coalitions to implement collaborative activities
- Conducting education and training sessions for health professionals, community leaders, students, and others
- Revising and updating policies, protocols, and plans for how to prepare for, respond to, and recover from emergencies
- Monitoring progress and evaluating the impact of actions to improve health security
- Developing and implementing research projects designed to enhance knowledge about health security components, determinants, contributors, and outcomes.

## What the Index Measures

The Index includes 139 measures grouped into six broad domains of health security:

- **Health security surveillance:** detecting and monitoring health threats, and identifying where hazards start and spread so that they can be contained rapidly
- **Community planning and engagement:** maintaining supportive relationships among government agencies, community organizations, and individual households; and developing shared plans for responding to hazards
- **Information and incident management:** deploying people, supplies, money and information to the locations where they are most effective in protecting health and safety
- **Healthcare delivery:** ensuring access to high-quality medical services across the continuum of care during and after emergencies
- **Countermeasure management:** storing and deploying medical and pharmaceutical products that protect against diseases and toxic agents, including vaccines, prescription drugs, masks, gloves, and medical equipment
- **Environmental and occupational health:** maintaining the security and safety of water and food supplies, testing for hazards and contaminants in the environment, and protecting workers and emergency responders from hazards while on the job

## Steps for Using the Index

Users can follow a step-by-step approach to access, review, and act upon the information contained in the Index.

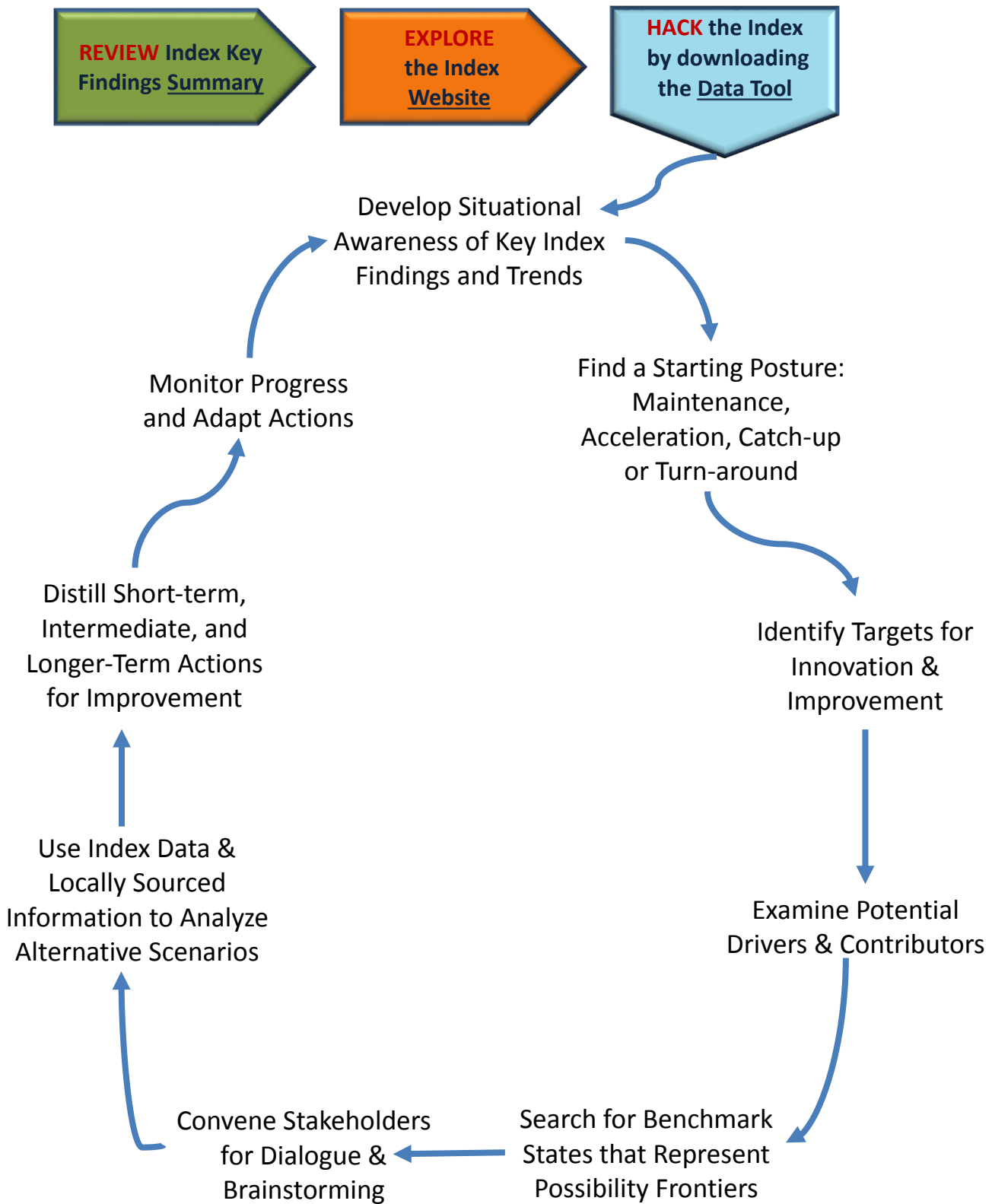


**Develop Situational Awareness:** Start by reviewing the [2017 Index Summary of Key Findings](#) document, which provides an overview of national and state trends, patterns of variation, and key drivers. Next, navigate through the online data displays found on the Index [website](#) for the states, domains,

and years of interest to you. Finally, download the [2017 Index Data Tool](#) that contains data for all measures, states and

years. This tool allows you to compare Index results over time and across states of your choosing, and to drill down from domains to subdomains to all 139 individual measures.

**Figure 1: Key Steps in Using the Index for Health Security Innovation and Improvement**





**Find a Starting Posture:** Start by assessing your state’s overall health security position relative to the US as a whole. Are you leading, trailing, or in line with the national average? Are you improving faster or slower than the nation as a whole, or declining? This information suggests your **starting posture** for Index use: Will you use the Index to maintain strength and momentum as a national leader? Will you use the Index to accelerate and catch up to the nation as a whole, or to move ahead? Will you use the Index to turn around stagnant or declining health security?



**Identify Targets:** Next, drill down to the health security domains. Focus on areas where your state lags the nation, and areas where your state is not making progress over time or may be declining. These are potential **target areas** in which to focus attention.



**Examine Potential Drivers:** Focusing on the target areas identified above, drill down to the subdomains and individual measures to determine potential **drivers** and contributing factors to lagging or stagnant health security. Keep in mind that individual measures are not perfect indicators for the subdomains and domains of interest, and they may be subject to measurement errors, inaccuracies, and sources of bias that need to be considered.



**Search for Possibility Frontiers:** With your potential drivers in mind, use the Index to identify benchmark states and regions that are doing significantly better than your state in the target areas of interest. This allows you to identify **possibility frontiers** in each target area, comprising peer states or regions that may offer clues to improvement strategies. Try to identify states at or near the possibility frontier that are similar to your state in terms of contextual factors that may be important (e.g. demographic, economic, environmental, political characteristics).



**Convene Stakeholders:** Use your preliminary insights about **posture, targets, drivers, and frontiers** to convene a group of interested stakeholders to take a closer look at Index data and begin working to craft change strategies and actions. Leverage existing coalitions and networks to get diverse perspectives to the table. Your group should consider what else is known about health security in the target areas of interest, beyond what is directly measured in the Index. The group should help to further distinguish signal from noise in the Index measures and trends, using what is known about existing data limitations and alternative local sources of data. The group should take a closer look at frontier states and benchmarks, and initiate conversations with colleagues in these other states about improvement opportunities and strategies. As these conversations progress, the group should conduct stakeholder analyses to consider what other sectors and stakeholders are not yet engaged in the conversation but need to be.



**Analyze Scenarios:** Use the Index data, along with locally-sourced data and information, to develop and test alternative scenarios for improving health security in target areas. How much gain in security can be achieved by improving selected drivers, measures, and subdomains to the levels achieved in frontier states? Use **systems thinking** principles in devising and analyzing your scenarios, paying close attention to multiple pathways of influence, feedback loops, mediating and moderating factors, and self-reinforcing patterns of interaction. These scenarios can stimulate additional ideas and innovations through discussion with stakeholders.

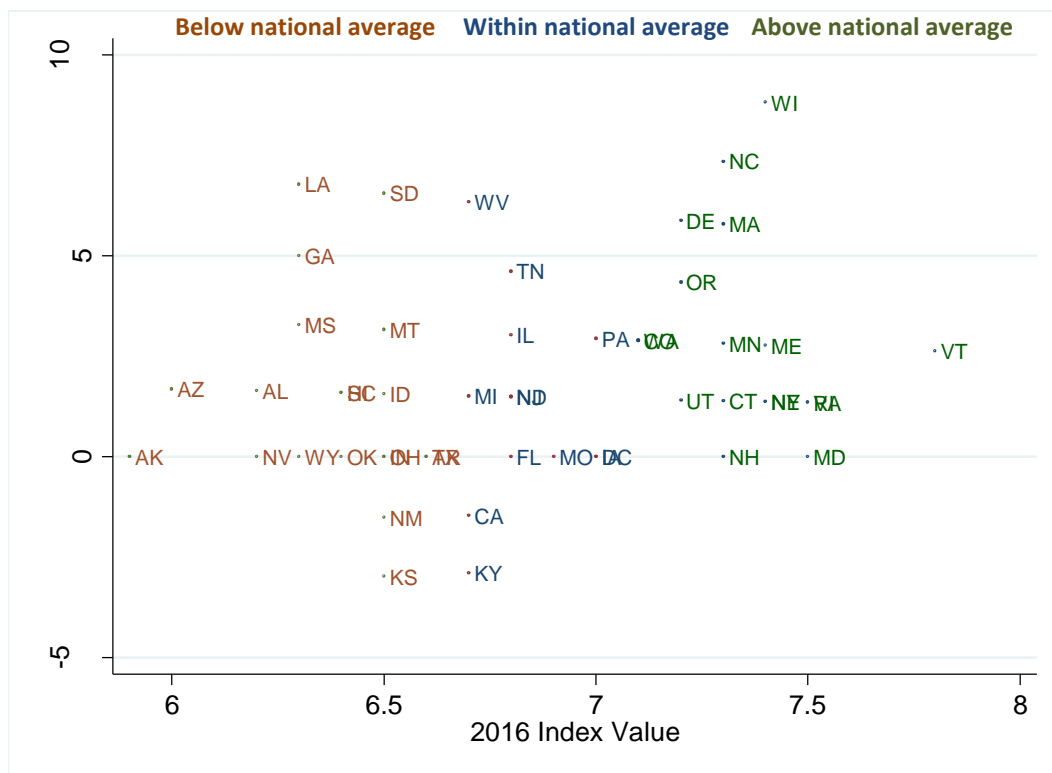


**Distill Actions:** During the course of analysis and discussion, stakeholders should begin to distill actions that can be taken in the short, medium, and longer-terms to strengthen health security in target areas. Using the **theory of small wins**, short-term actions may focus on building awareness and interest in health security improvement by disseminating key findings and insights from the stakeholder convenings. Longer-term actions may involve new approaches to planning, protocols and operations, policy development and advocacy, and resource deployment. Identifying early actions as a group will establish momentum, strengthen cohesiveness, and avoid the paralysis of analysis. Monitor the progress of these actions over time, and adapt them based on feedback.

## Share Your Experiences with Index Use

The Index is a shared resource for the health security community, and its value will increase as additional knowledge accumulates about both successes and failures in using the Index. Make sure to share your progress and experiences broadly with colleagues and collaborators during meetings, conferences and other convenings. The Index team hosts monthly virtual meetings of the Stakeholder Communications and Engagement Workgroup, where you can provide feedback and ask questions of other Index users. As you encounter ideas for ways of improving the Index measures, methodology, and display features, please make sure to share these thoughts with the Index team. Finally, we invite you to join the [Index Innovator Challenge](#) by submitting your experiences with innovative Index use.

**Figure 2. Improvements in health security occurred throughout the U.S., including in states that both lead and trail the national average. However, some trailing states continued to lose ground.**



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Murmurations of starlings at dusk. iStock photo ID:480975963

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