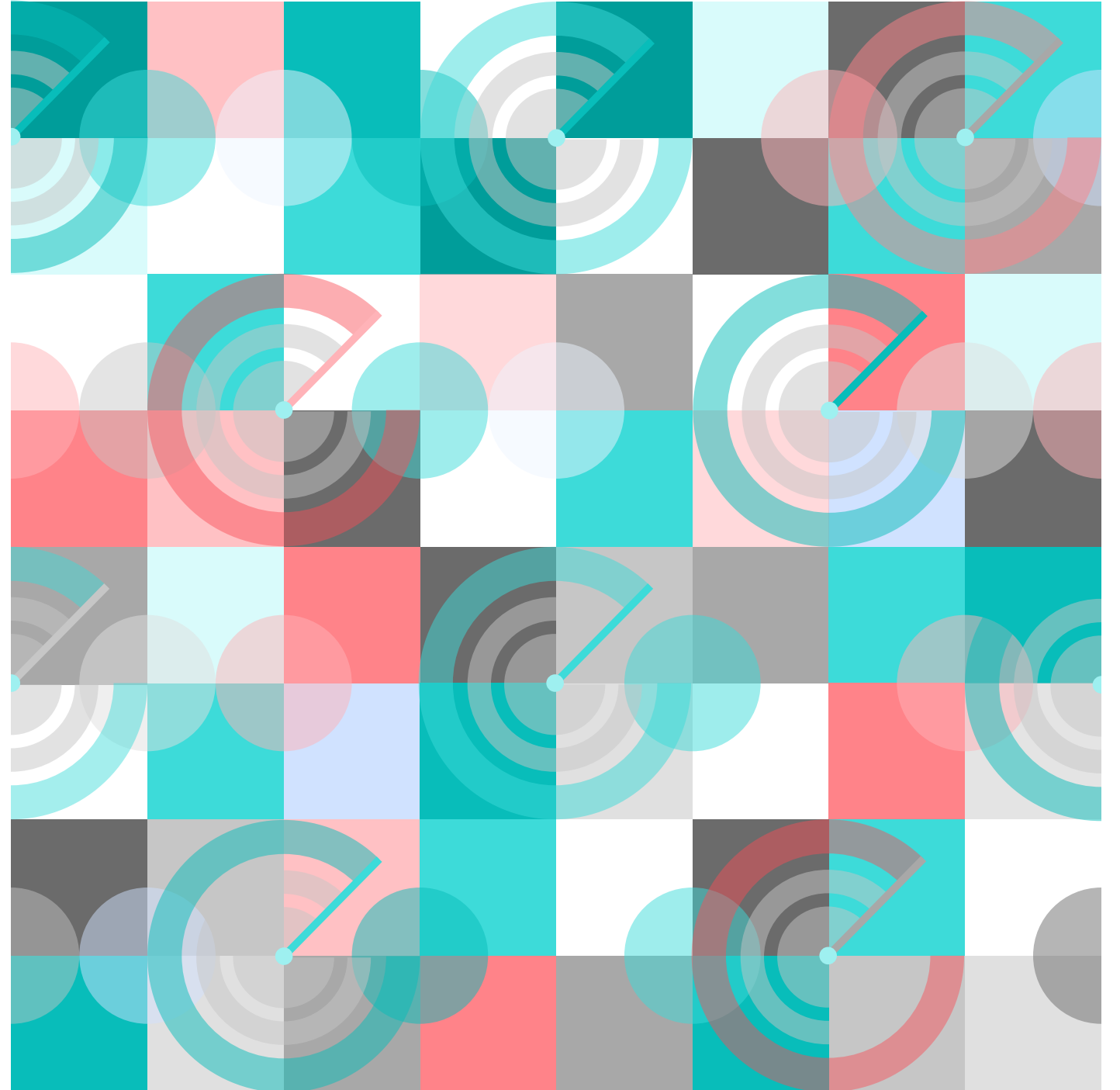


Partnering for resilience

*A practical approach
to emergency preparedness*

In collaboration with



Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Foreword

Government leaders increasingly agree that “rare unexpected events” are now neither rare nor unexpected. Indeed, they are shocks—more frequent and more destabilizing. One now follows closely on the heels of another, and multiple events occur at the same time. For example, the pandemic continued as the Russian invasion of Ukraine began. Various climate challenges arose such as severe flooding in France, drought and bushfires in Australia, water shortages in California, and extreme heat in China.¹ Now the economic fallout from the pandemic and the war has the World Bank and others concerned about a period of stagflation.²

While governments were exposed to a host of mostly unforeseen challenges from the global pandemic, they have captured valuable lessons. Leaders understand where they need to concentrate their readiness efforts for “future shocks,” carrying the momentum from rapid, pandemic-driven innovation into their preparation. IBM, working through the IBM Center for The Business of Government and the IBM Institute for Business Value, and in partnership with the National Academy of Public Administration (the Academy) and a range of other partners, has launched an initiative to help government leaders further identify those core capabilities critical to building resilience.

Collaborative action to address anticipated threats requires focus and cooperation across a broad ecosystem of partners and stakeholders. Each step forward helps build progress toward addressing major national and international priorities, including the Grand Challenges in Public Administration put forth by the Academy.³

Over the coming months, we are convening a series of international roundtable discussions with global leaders from across the public, private, academic, and nonprofit sectors to capture lessons across six key domain areas:

- Emergency preparedness and response
- Cybersecurity
- Supply chain
- Sustainability
- Workforce skills
- International cooperation.

In each of these domains, insights from the roundtables will be used to identify strategies and solutions for governments to address the challenges that lie ahead. We plan to leverage previous work that captures wisdom from past experiences, such as the IBM Center for The Business of Government report published in 2021 on lessons learned from COVID-19.⁴ And then we will critically apply this knowledge to the future by identifying a set of practical and specific recommendations for near-term implementation.

“...every major crisis or event or a disaster becomes an exercise in applied civics.”⁵

Admiral Thad Allen

The roundtable series began with emergency preparedness and response just as Hurricane Ian was forming in the Atlantic Ocean. In fact, some of our guests could not attend the roundtable and instead were leading preparation for the hurricane’s landfall. The destruction from Hurricane Ian and the other disasters of the past few years underscores the criticality of renewed investment in national and subnational resilience to help governments cope with the increased frequency of regional and global rapid-onset events. Emergency preparedness and response can—and must—be improved to withstand the threats of today’s world.

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Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Introduction


Following an unprecedented number of catastrophic events over the past three years, the field of emergency management has been thrust into the spotlight.

From the continuing global COVID-19 pandemic, to weather extremes such as deadly heat waves, “100-year” floods, and raging wildfires, to debilitating cyberattacks and more, together these shocks have stressed governments, businesses, communities, and individuals while raising fundamental questions about what is needed to prepare for and respond to future crises.

Disasters are complex and cross-cutting by nature. They have no respect for geographic, jurisdictional, political, or organizational boundaries. Emergency management should follow suit. Preparedness and response cannot be the sole responsibility of one sector, one program, one agency, or one level of government. Rather, the key to success—and the root cause of many failures when absent—is the strength of the network before, during, and after a disaster through partnerships established between sectors, levels of government, and agencies. Simply put, radical horizontal and vertical problems cannot be solved in silos.

What specific and practical steps can governments take in the near term to better prepare and respond? In search of concrete answers, the IBM Center for The Business of Government and IBM Institute for Business Value teamed with the National Academy of Public Administration to convene a roundtable of government leaders and emergency management experts. Participants included leaders from the US Federal Emergency Management Agency (FEMA), the Organisation for Economic Co-operation and Development (OECD), the International Association of Emergency Managers, the former Governor of Maryland and former Commandant of the Coast Guard, and a cross-section of experts from key stakeholder groups. The following six pragmatic and actionable steps emerged from the discussion.

These steps do not constitute an exhaustive list of actions, but rather reflect suggestions made by these experts.



The key to success is the strength of the network before, during, and after a disaster—built through partnerships between sectors, levels of government, and agencies.

Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Step #1:

Strengthen the emergency preparedness and response network

As the adage goes, the middle of a crisis is not the time to be exchanging business cards. Networks with clearly defined roles, responsibilities, leadership, and accountability must be built well before an event takes place.

FEMA offers one example of a network philosophy for emergency response. The agency strives to adopt a whole community approach that “attempts to engage the full capacity of the private and nonprofit sectors—including businesses, faith-based and disability organizations, and the American public—in conjunction with the participation of state, local, tribal, territorial, and federal governmental partners.”⁶

But this complex approach can be difficult to execute. As participants noted, the nature of the US intergovernmental system can create tension between the federal government and the states. Relationships can also be strained among states and their cities and localities.

While structural issues are unlikely to ever be fully resolved, leaders need to untangle differing authorities, priorities, and demands to limit misunderstandings and confusion during a crisis. Using Memoranda of Agreement (MOAs), continuous

training, and tabletop exercises, agencies can define and reinforce roles, responsibilities, and working relationships among the levels of government and tribal governments. Ultimately, successful emergency response networks result from pre-existing organizational and—at least as important—personal relationships.

In building the network, planners should also recognize that private and nonprofit involvement is not just helpful or additive—it can determine the success of the response. These organizations collectively bring resources, community relationships, capacities, and agility that governments lack. They need to be involved as central partners in preparedness planning.

The participants also observed that strengthening the emergency preparedness and response network requires a cultural change for many organizations. Working across sectors with differing values, attitudes, operating models, and accountability mechanisms is not easy. Organizations are typically more comfortable operating within existing programmatic boundaries than working within a broader network as one participant among many and not directing efforts or being in full control. As an example, several participants suggested that FEMA and the Department of Housing and Urban Development could transfer responsibilities more smoothly as emergency response transitions into the longer-term recovery phase. Recognizing and pursuing the value that can be delivered through partnerships is critical to the strength of the network.

Key takeaways

- Clearly define the roles and responsibilities of organizations within the emergency response network.
- Tap into private and nonprofit resources as part of preparedness planning.
- Evaluate organizational culture for openness to working with partners.

Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Step #2:

Build local capacity

Local governments and agencies sit on the front line of most crises, facing unique threats, economic and social context, and capacity to respond, as noted by roundtable participants.

They identified several specific ways local governments can position themselves to respond better, including conducting risk-based, all-hazard preparedness planning, working with the private sector, and accessing and managing intergovernmental assistance—especially when receiving recovery funds, the point when local governments assume even greater responsibility in the aftermath of a disaster.

Jointly coordinated capacity development among localities, mutual aid agreements, regional compacts, and financial incentives for localities to build their capacity can also facilitate the abilities of local governments to respond. Additionally, they can use online learning environments to share experiences and identify and exchange successful practices. Finally, as Baby Boomers continue to exit the workforce, local governments can recruit and retain the public-spirited Millennial and Gen Z generations.

Key takeaways

- Build partnerships with the private sector to expand response capacity.
- Extend reach with regional partnerships.
- Evaluate emergency management plans to determine if they apply to a wide range of disasters.



Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Step #3:

Put community engagement and meeting diverse needs at the center of preparedness efforts

With distrust the default emotion in nearly 60% of people surveyed by Edelman in their annual trust barometer, building trust with constituents becomes even more critical to effective emergency response.⁷

This begins with recognizing that different parts of a community have vastly dissimilar needs and capabilities during an emergency. For example, physical or financial barriers, pressing medical needs, disabilities, and fears of relocating are among the reasons people may not evacuate from harm's way. Roundtable participants noted that the emergency preparedness and response network must understand the diverse needs and abilities of all segments of a community well before a disaster occurs, and tailor planning and response efforts accordingly.

Emergency planners can leverage robust and inclusive public participation programs to create informed planning and response strategies that reflect the needs of the local community. These programs also help to ensure public understanding and acceptance of the resulting decisions.

Communication strategies must also be adapted to reach the different populations, considering what information is communicated, how it is communicated, and by whom. This entails identifying and working closely with trusted voices in the community to establish confidence and understanding. As seen with the COVID-19 pandemic response and evacuation orders for impending weather disasters, it can be difficult to convince some individuals to act, even given clear and imminent danger. Trusted voices from the community can help overcome this challenge.



Key takeaways

- Establish programs to involve the public in response planning.
- Identify the factors that affect the ability of people within a community—particularly hard-to-reach communities—to react to significant events.
- Identify the voices that constituents trust and ways to partner with them to share key messages.



Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Step #4:

Dedicate sufficient and flexible resources

The most devastating aspect of disasters involves harm inflicted on people and communities, including injuries and loss of life. But disaster response and recovery are also exceedingly expensive.

Since 1980 for the US alone, the cumulative costs of disasters, where damages reached or exceeded \$1 billion in cost, is well over \$2 trillion.⁸ However, as one participant astutely observed, “If you think responding to a disaster is costly, try doing that without up-front preparation.” While certainly correct, most governments face competing priorities for funding, with insufficient attention given to events considered rare and not entirely predictable—even though it appears they are growing more frequent and more catastrophic.

As the nature and prevalence of emergencies increase—especially those related to climate change—the operational and response burden on agencies at each level of government has grown significantly as well. Simultaneous disasters strain budgets and stress organizations and staff.

For the short-term, roundtable participants suggested two actions. First, establish flexibility in funding streams within each level of government and across levels of government, so that funds can move quickly across organizations to respond to a crisis. Political leaders have an understandable desire for spending transparency and accountability. The puzzle is how to achieve those important values while also rapidly and seamlessly assisting people in need, and minimizing administrative burdens resulting from funding silos and assistance requirements.

Second, the participants suggested exploring ways to align a greater understanding of risks to budget processes. The Biden Administration has acted in this regard with a directive to quantify climate-change-driven risks to the federal budget.⁹ Participants suggested this initiative could be expanded to different levels of government.

Key takeaways

- Identify and remove the barriers that are blocking smooth transfers of funds among response organizations within the network.
- Initiate risk quantification within budget processes.
- Identify ways technology can facilitate more cost-effective emergency response.



Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

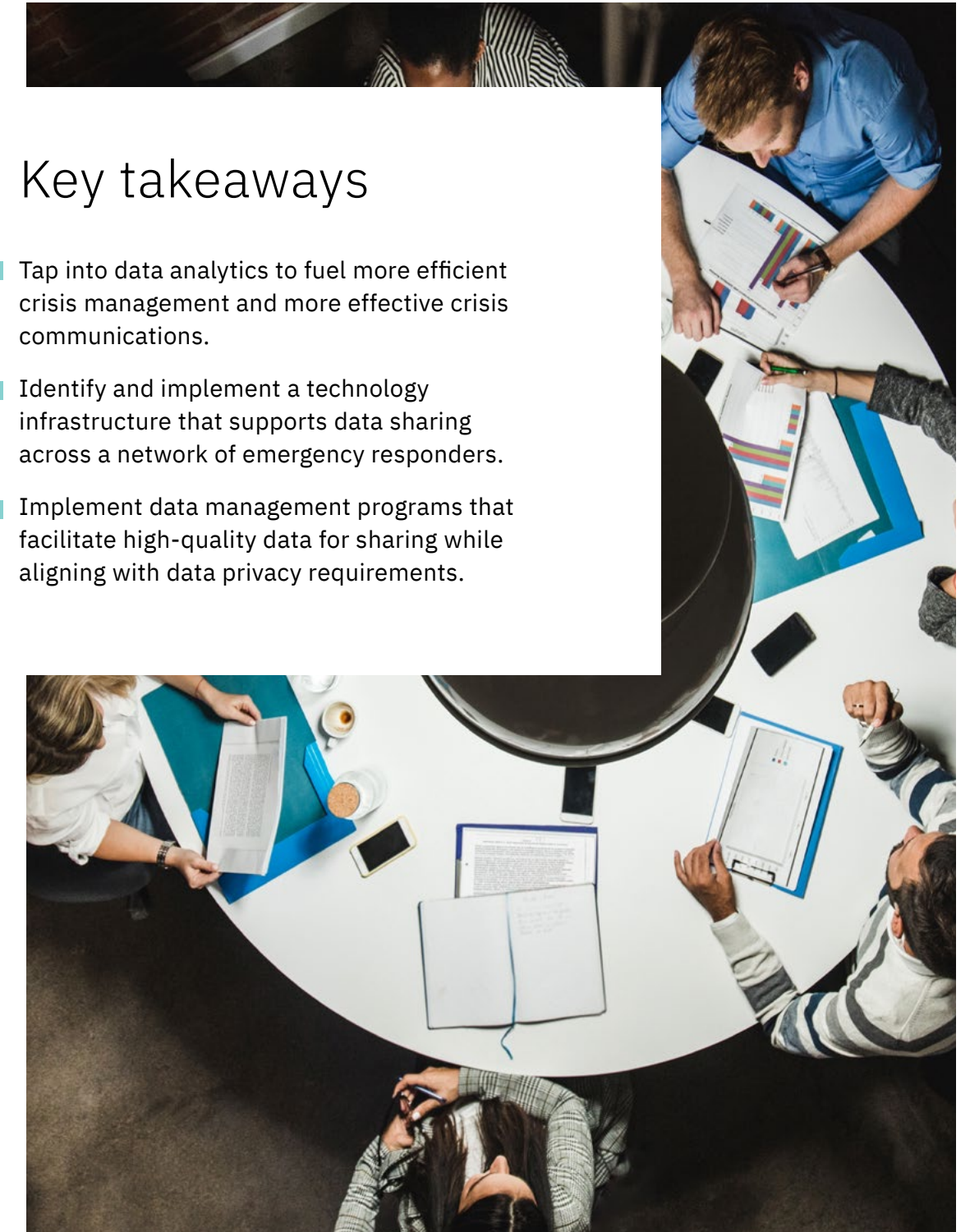
Step #5:

Establish the data strategy well before disaster strikes

Decision makers across governments, businesses, and the public require high quality and credible data to guide organizational and personal decisions.

In fact, data feeds the effective communication techniques discussed earlier. Both clarity of message based on evidence and rapid response to disinformation are essential in crisis communications. Unfortunately, the complex nature of most emergencies and the plethora of communications channels typically result in multiple “sources of truth,” leading to confusion, a lack of trust, and disjointed decision-making.

Emergency preparedness and response networks should agree on key data elements well before an emergency occurs. For example, they can define data elements consistently across the network, agree on data needed in real time and how it will be collected, and identify how to make data available to those who need it in formats they can readily use. The network’s data strategy also should include an assessment of the technology needed to gather and report data in real time as well as initiatives to fill any technology gaps, such as distributed analytics built on hybrid cloud networks and the use of artificial intelligence to rationalize large data stores rapidly.



Key takeaways

- Tap into data analytics to fuel more efficient crisis management and more effective crisis communications.
- Identify and implement a technology infrastructure that supports data sharing across a network of emergency responders.
- Implement data management programs that facilitate high-quality data for sharing while aligning with data privacy requirements.

Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Step #6:

Establish workforce strategies to meet current, surge, and future needs

US state and local governments have lost more than 600,000 workers between the start of the pandemic and June 2022, affecting their ability to maintain basic services as well as respond to critical situations.¹⁰

Roundtable participants noted that challenges in acquiring and retaining mission-critical skills can be particularly acute for agencies involved in emergency preparedness and response. The diversity of the skill sets required, the need for surge capacity during emergencies, and the evolving missions of organizations to accommodate the overlapping nature of emergencies create additional staffing problems for preparedness and response across all levels of government.

Important work on how to tackle the talent deficit can offer some direction. For example, the Academy's "No Time to Wait" reports provide a roadmap focused on changing the human capital culture from one of compliance to a "promise of performance."¹¹ The panel of Academy Fellows recommended the establishment of a competency-based talent management model that:

1. Identifies the core competencies of occupational and professional groups
2. Trains employees in the competencies they will need, and certifies them (with credentials or "badges") for the skills they bring

3. Creates flexible teams that match the competencies needed with the teams' missions
4. Establishes communities of practice among occupations and professional groups to foster continuous learning about the skills employees need
5. Devises a plan for reskilling the government's workforce to match mission requirements with employees' skills
6. Helps ensure that employees' skills keep up with hyper-fast changes in mission.

Agencies don't just need more people with specific skills. For community engagement and equity to reside at the center of response efforts, governments need to make sure their employees reflect the diversity of the communities they serve. A diverse and inclusive staff recruitment, hiring, and development program is vital to achieving this.

The overwhelming stress faced by frontline workers and first responders—who in many cases are themselves survivors of the disaster—underscores the importance of attention to burnout as well as the physical and mental health and well-being of staff. Numerous reports from hospital nurses and other frontline medical workers during COVID-19 vividly illustrated the enormous emotional toll from being at the center of a long-term emergency response.¹² While awareness is important, action to address the welfare of employees is an imperative. Participants suggested developing rapid assistance networks for the well-being of first responders, as well as discussions to develop an understanding of accessible mental health services.

Key takeaways

- Identify opportunities to streamline or automate processes using technology.
- Establish training programs to retrain and reskill current workers, aligning skills with mission requirements.
- Work with experts to cultivate a culture focused on employee well-being.

Foreword

Introduction

Strengthen the emergency preparedness and response network

Build local capacity

Put community engagement and meeting diverse needs at the center of preparedness efforts

Dedicate sufficient and flexible resources

Establish the data strategy well before disaster strikes

Establish workforce strategies to meet current, surge, and future needs

Building resilience for the future

Building resilience for the future

As evidenced by the past few years, response to crisis events requires collaboration—within communities, and across federal, state, local, and country jurisdictions.

From building the response and community networks, to defining communication and data sharing strategies, to addressing budget and workforce challenges, these suggestions from the expert roundtable offer a starting point—a valuable set of practical and actionable ideas that governments can employ to better support their citizens and employees confronting more frequent and more destructive disasters.



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Through research stipends and events, the IBM Center for The Business of Government stimulates research and facilitates discussion of new approaches to improving the effectiveness of government at the federal, state, local, and international levels. For more information, visit <https://www.businessofgovernment.org>

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