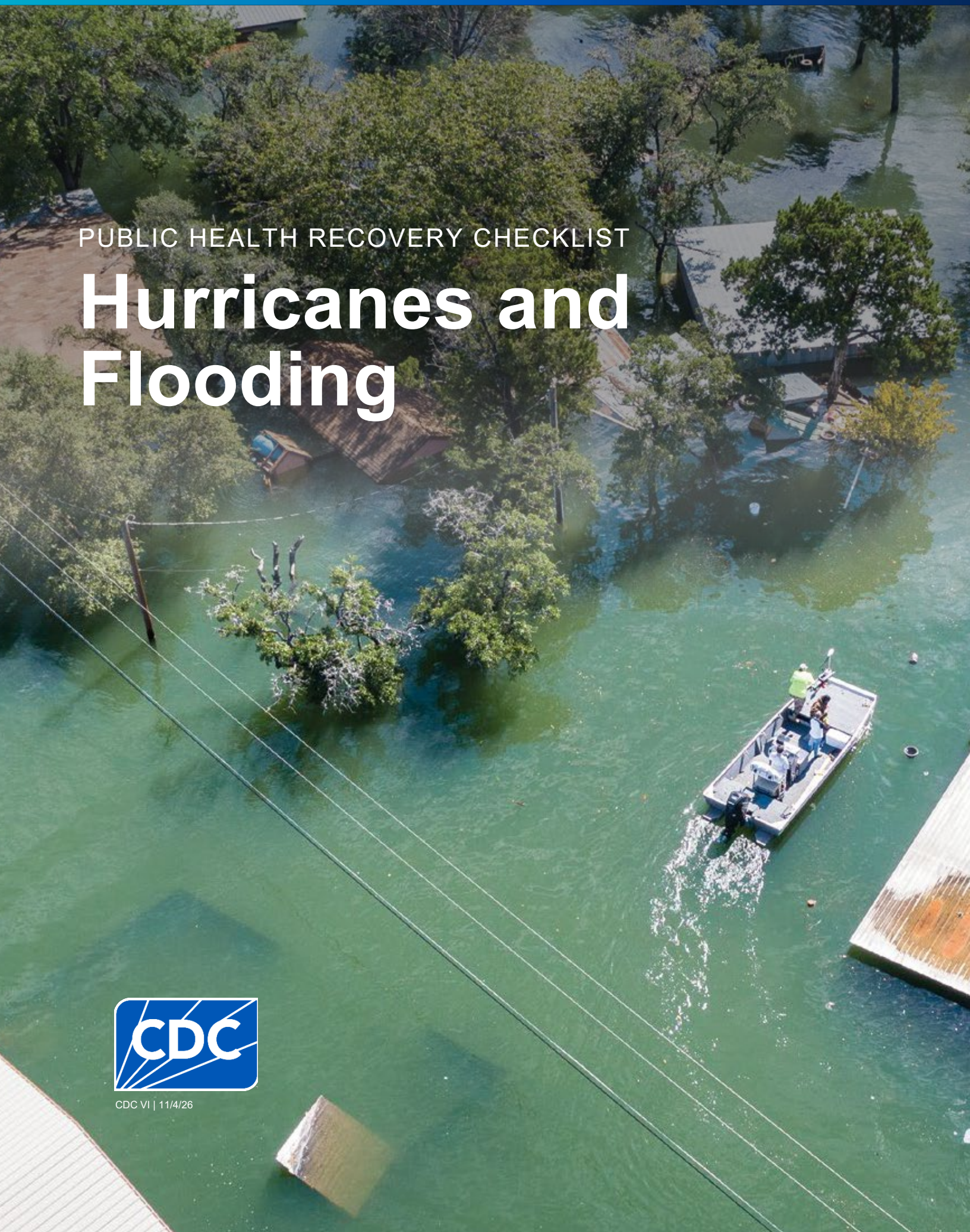


PUBLIC HEALTH RECOVERY CHECKLIST

Hurricanes and Flooding

CDC VI | 11/4/26

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Introduction

The Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR), in collaboration with state, tribal, local and territorial (STLT) health departments and the Administration for Strategic Preparedness and Response (ASPR), is developing a series of checklists to support public health recovery efforts after incidents or emergencies. Each checklist focuses on a specific type of hazard and provides practical steps and resources that communities and public health agencies can use to guide recovery planning and operations.

Throughout this publication, ”hurricane” is used to represent similar types of tropical storm events including typhoons, cyclones, and monsoons.

This first checklist focuses on public health recovery actions related to hurricanes and flooding hazards. The checklist aligns with the Public Health Emergency Preparedness and Response (PHEP) Capabilities and supports activities across all five phases of emergency management: prevention, preparedness, mitigation, response, and recovery. The design of the checklist allows for its use at all levels and PHEP recipients should consider how to modify the checklist to fit their governance structure.

Background

Public health recovery is complex and requires strong coordination and partnership among STLT and federal agencies and community partners and organizations. Partners must work together seamlessly across all phases of emergency management to ensure an effective and resilient recovery. Once immediate lifesaving and life-sustaining response efforts are complete, recovery becomes the focus for affected communities and may be complicated by cascading disasters. During recovery, communities should assess how the hazard affected infrastructure, systems, and populations and use those findings to develop and implement strategies that reduce vulnerabilities and help prevent or mitigate future impacts.

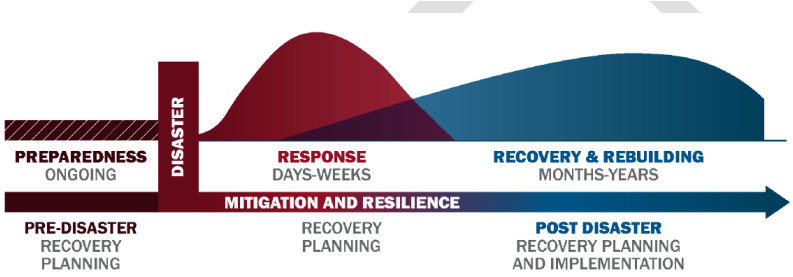
CDC’s PHEP capabilities define community recovery as a community’s ability to identify and prioritize the restoration of critical assets, facilities, and services. These include systems across public health, health care, and emergency management that are essential to returning the community to normal—or stronger—conditions.

The Federal Emergency Management Agency (FEMA) National Disaster Recovery Framework (NDRF) provides national guidance for how federal agencies support STLT recovery efforts. Successfully carrying out the NDRF depends on strong coordination among all levels of government, as well as partnerships with the private sector and community organizations. This collaboration is essential for ensuring effective recovery and in building community resilience as outlined in the NDRF.

In the event of a major disaster, ASPR may be called on to coordinate the Health, Education, and Human Services Recovery Support Function in cooperation with other agencies including CDC and the US Department of Education. ASPR supports public health recovery by connecting communities with federal programs and resources to restore and improve services after incidents or emergencies.

Preparing for Recovery

The NDRF emphasizes that recovery is a fluid continuum (see figure below) that builds on response accomplishments to restore health, social, and environmental systems while strengthening community resilience and incorporating measures to prevent or mitigate impacts from hazards. During the response phase, once the priority of life safety and property protection is nearly complete, staff can begin to focus on recovery. This encompasses the transition to longer-term activities aimed at restoring and strengthening public health and healthcare systems, infrastructure, and community health programs. Recovery generally occurs across short-, intermediate-, and long-term phases that can span days, months, years, or longer, and may overlap and evolve depending on the severity and impacts of the incident. Rather than following a strictly linear path, disaster recovery is cyclical and adapts to the changing needs, priorities, and capacities of affected communities.



FEMA National Disaster Recovery Framework 2024 Third Edition

During the response phase, the Incident Management System (IMS) objectives focus on:

- Early response, which centers on life safety/rescue, with immediate actions to move people from danger to safety and provide urgent medical attention.
- Next is immediate basic needs, providing essential services like clean water, food, and emergency shelter.
- Intermediate response is when incident stabilization occurs, preventing the situation from worsening and mitigating damage to property and the environment.

Transitioning from response to recovery, IMS objectives focus on:

- Short term recovery objectives, which focus on stabilizing population health and restoring essential public health functions in early recovery.
- Intermediate recovery is characterized by restoring and strengthening public health systems while addressing emerging health impacts.
- Long-term recovery emerges when the focus shifts to building a more resilient public health system to reduce future risk, which is on the cusp of mitigation/preparedness.

Public health impacts shift from acute threats to secondary and delayed health effects. Mission emphasis shifts from emergency operations and surge staffing to steady state and programmatic activities.

Key Elements of the Checklist

This checklist is intended to assist STLT public health departments and communities with planning for and implementing recovery activities across all phases in the emergency management cycle: prevention, preparedness, mitigation, response, and recovery. Ideally, staff in a jurisdiction would begin using the checklist in the preparedness phase, but staff can also pick up the checklist during the response phase and start taking actions that can help shorten the recovery phase. Because of this, some actions in a phase are duplicative of those in other phases. Because governance structures, authorities, and resources vary, jurisdictions should adapt the checklist to their specific needs and context. If capacity gaps exist, jurisdictions should identify strategies to address them before, during, and after events such as hurricanes and floods. While many agencies use the NDRF to guide recovery efforts, implementation varies across jurisdictions based on factors such as emergency activation processes, public health authorities, and operational flexibility.

10 Functional Areas

1. Emergency Preparedness and Operations
2. Partnerships
3. Communication
4. Recovery Priorities and Risk Assessment
5. Administrative and Budget Preparedness
6. Workforce
7. Training and Education
8. Environmental Health and Safety
9. Disease Control and Epidemiology
10. Public Health and Health Care

The layout and key points to understand when using the checklist:

- The “Phase” refers to the phase in the emergency management cycle.
- Each checklist is just one section of the publication and the endnotes for that section contain the PHEP capabilities and additional areas that relate to an action. This information is provided to:
  - Facilitate the identification of PHEP capabilities that support an action.
  - Assist exercise planners who will incorporate the capability functions and tasks in exercises to aid in evaluating the ability to complete the actions.
  - Aid in identifying capabilities that support Notice of Funding Opportunity and grant requirements.
- Headers relate to the material covered in each column, which include:
  - **Functional Areas:** Serve as a method to bundle similar actions to facilitate coordination with partners and the assigning of roles and responsibilities.[1]
  - **Actions:** Steps staff at the community level should take to improve recovery and resilience. Supporting agencies and organizations should review how they plan to support the actions.

[1] These functional areas are adapted from the National Association of County and City Health Officials Local-Public-Health-Recovery_September_2018.pdf (Login Required).

- **Resources:** Includes websites, publications, and other information that supports the accomplishment of the actions.
- **Responsible Party *(left blank)*:** User can add who is responsible for completing the action.
- **Date Completed *(left blank)*:** User can add the date completed.

- Embedded bookmarks are links a user can click on to proceed directly to the area in this publication that relates to the action.
- Embedded links are those links that a user can click on to proceed directly to a resource that supports the action and may even go directly to the pertinent section of the resource.

Principles that Guided Checklist Development

The workgroup that developed this checklist identified the following principles to guide its use:

- **Focus on local action.** Because disaster impacts and recovery needs are experienced locally, the checklist emphasizes actions that should occur at the local level.
- **Coordinate across jurisdictions.** Local jurisdictions may not have the capacity or capabilities to complete every action independently. They should coordinate with neighboring jurisdictions, regional partners, states, and other organizations to obtain needed resources and support.
- **Clarify state support.** States may tailor the checklist to identify the resources, services, and technical assistance they will provide to local jurisdictions.
- **Use the checklist throughout the disaster cycle.** Ideally, recovery personnel will begin using the checklist during the preparedness phase. However, personnel assigned during the response or recovery phase may begin with the actions most relevant to their current responsibilities.
- **Engage public health expertise.** Staff using the checklist may not have a public health background. They should have access to public health professionals who can provide guidance on the action steps.

The checklist is provided in an editable format so jurisdictions can adapt it to their needs, capabilities, resources, and organizational structures.

Before a Hurricane or Flooding: Preparedness and Pre-disaster Planning Phase

Before a hurricane or flood, public health agencies identify risks to health systems, infrastructure, and populations, including power outages, water contamination, displacement, and service disruptions. They work with emergency management, healthcare partners, and community organizations to develop response and recovery plans, define roles and responsibilities, establish partnerships and mutual aid agreements, and strengthen workforce readiness, training, and communications. These efforts help ensure a coordinated public health response and timely public information before, during, and after an event.

Preparedness and Pre-disaster Planning Phase

(Associated PHEP Capabilities located in the footnotes following each table.)

Emergency Preparedness and Operations

Recovery Actions	Resources	Responsible Party	Date Completed
■ Convene and engage a whole community, recovery focused collaborative planning team.[1] ■ Develop or update incident-specific annexes or playbooks to clearly define public health recovery roles and coordination structures across STLT and federal partners.[2] ■ Integrate recovery considerations into Emergency Operations Plans (EOPs), Continuity of Operations Plans (COOPs), Hazard Mitigation Plans, and Health Improvement Plans to ensure alignment across planning frameworks.[3] ■ Define a formal transition framework from response to recovery, including decision authorities, triggers, timelines, and documentation (e.g., Incident Action Plan shift, Recovery Support Function activation).[4] ■ Establish procedures to activate and operationalize a Recovery Coordination structure (e.g., Recovery Task Force, Recovery Support Functions (RSFs)-aligned groups) within or alongside the Emergency Operations Center (EOC).[5] ■ Develop pre-scripted recovery objectives and initial actions for the first operational periods following hurricane or flood impact. Establish planning assumptions and procedures for prolonged and cascading impacts, such as extended power outages, displacement, infrastructure damage, and supply chain disruption. ■ Establish processes to track and share recovery priorities, progress, and outcomes through situational awareness and reporting systems.	CDC Technical Assistance Services: Public Health Recovery Planning Fact Sheet Maryland Dept of Emergency Management Recovery Support Function Annex Template Centralina Recovery Plan Template Planning for a Resilient Recovery Before a Disaster Strikes Public Health Emergency Playbook - National Governors Association		

Recovery Actions	Resources	Responsible Party	Date Completed
■ Develop procedures for scaling operations up or down during recovery, including transition from response-focused Incident Command System (ICS) structures to recovery-oriented coordination models. ■ Establish protocols for integration of volunteer and donated resources into recovery operations, including coordination with Volunteer Organizations Active in Disasters (VOADs). ■ Identify requirements and processes for requesting, receiving, and managing external assistance, including Emergency Management Assistance Compact (EMAC), federal resources, and non-governmental organization support. ■ Develop procedures to capture, document, and integrate lessons learned and after-action findings into recovery operations and future preparedness planning. ■ Identify procedures for public health input into housing, land use, and redevelopment decisions that impact long-term community health outcomes. ■ Collaborate with emergency preparedness partners to create training and exercises based on jurisdictional risks.[6]			

[1] Capabilities 1, 2, 4, 6, and Administrative and Budget Preparedness
[2] Capabilities 1, 2, 3, and 6
[3] Capabilities 1, 2, and 3
[4] Capabilities 1, 2, 3, and 6
[5] Capabilities 1, 2, and 3
[6] Capabilities 1, 2, 3, 6, 13, 14, 15, Administrative and Budget Preparedness, and Environmental Health

Partnerships

Recovery Actions	Resources	Responsible Party	Date Completed
■ Identify partners across key sectors (e.g., healthcare, behavioral health, housing, emergency management, private sector, and community organizations). ■ Categorize partners by roles, responsibilities, authorities, populations served, geography, and capabilities. Identify the services and resources they can provide and define expectations before an incident. ■ Develop and maintain a centralized inventory of partner assets, including personnel, facilities, services, equipment, and subject matter expertise. ■ Develop partnerships and mutual aid agreements with STLT agencies, community organizations, healthcare coalitions, and voluntary organizations active in hurricane and flood recovery.[1] ■ Integrate key partners into emergency planning, documenting how partners are activated and convened, as well as how to set priorities and resolve conflicts. ■ Engage community leaders and partners to define a shared vision to guide response and recovery priorities. (See the Health and Social Services section of the NDRF for potential objectives). ■ Establish formal mechanisms for timely, secure, and routine information sharing among partners, including data-sharing agreements as appropriate. ■ Develop real-time situation awareness and coordinated decision-making by defining information to share, by whom, how often, and through which systems (e.g., situation reports, dashboards, WebEOC). Ensure procedures support partner coordination and comply with privacy and security requirements. ■ Pre-identify partner legal counsel and policy contacts for expedited review of emergency agreements, waivers, and data sharing. ■ Maintain active partnerships through regular meetings, joint training, and exercises that incorporate recovery-focused scenarios. ■ Collaborate with partners to conduct a community health assessment (CHA) to evaluate pre-disaster population health, resilience, and risks related to storm surge, flooding, and displacement.[2]	FEMA Building Private Public Partnerships FEMA Restoration and Recovery: Guide for Private-Public Partnerships FEMA Engaging Faith-Based and Community Organizations FEMA Pre-Disaster Recovery Planning Guide for States FEMA Pre-Disaster Recovery Planning Guide for Local Governments FEMA Information Sharing Guide for Private-Public Partnerships Memorandums of understanding (MOUs) from National Environmental Health Association (NEHA) Minnesota MOU Templates FEMA Comprehensive Preparedness Guides 101: Developing and Maintaining Emergency Operations Plans FEMA Comprehensive Preparedness Guides 201: Threat and Hazard Identification and Risk Assessment and Stakeholder Preparedness Review Guide		

[1] Capabilities 1, 2, 3, 6, and Administrative and Budget Preparedness

[2] Capabilities 1, 2, 6, and 13

Communication

Recovery Actions	Resources	Responsible Party	Date Completed
■ Establish a clear phase-based communication plan for disseminating information before, during, and after the event, including how messaging will evolve over time.[1] ■ Ensure communications leadership is involved in planning and strategy coordination with Incident Management leadership. ■ Identify media relations and interdepartmental coordination channels and include them in the plan or an SOP.[2] Identify spokespeople and any media training needed. ■ Develop preparedness and recovery communication strategies that are multilingually and culturally appropriate for all affected populations. ■ Pre-identify communication methods for prolonged outages affecting power, internet, cellular service, or transportation access. ■ Develop messaging for reentry, safe return home, cleanup safety, water safety, food safety, and accessing health and social services after flooding. ■ Establish a process for collecting and incorporating community feedback into recovery messaging and outreach. ■ Identify outreach and communication methods for at-risk individuals with access and functional needs including low-technology and community-based channels.[3] ■ Pre-identify triggers for transitioning messaging from response to recovery (e.g., power restoration, shelter closure).[4]	CDC Public Information Officer Handbook for Natural Disasters CDC Preparedness and Safety Messaging for Hurricanes, Flooding, and Similar Disasters FEMA Flood Risk Communication Toolkit for Community Officials American Redi Cross Preparing for Disaster for People with Disabilities and other Special Needs CDC Communication Resources for Natural Disasters CDC Planning for an Emergency: Strategies for Identifying and Engaging At-Risk Groups		

[1] Capabilities 1, 2, 4, and 6
[2] Capabilities 1, 2, 4, and 6
[3] Capabilities 1, 2, 4, 6, and Administrative and Budget Preparedness
[4] Capabilities 1, 2, 4, and Administrative and Budget Preparedness

Recovery Priorities and Risk Assessment

Recovery Actions	Resources	Responsible Party	Date Completed
■ Identify populations, critical assets, facilities, and services vulnerable to recurring or prolonged impacts from storm surge and flooding, prioritizing those with limited capacity to evacuate, respond, or recover.[1] ■ Integrate findings from the Threat and Hazard Identification and Risk Assessment (THIRA), public health focused risk assessment (RA), hazard mitigation plans, floodplain mapping, and historical disaster data to identify populations, facilities, systems, and geographic areas at greatest risk of prolonged recovery impacts. ■ Assess public health impacts of displacement, prolonged utility outages, transportation disruptions, and interruptions in medical care, particularly for populations dependent on electricity, medical equipment, medications, dialysis, home health, or behavioral health services. ■ Establish a baseline for recovery incorporating elements of the CHA, Community Health Improvement Plan, Social Vulnerability Index, and other local data sources and aligning with plan priorities.[2] ■ Define recovery priorities and decision criteria for allocating limited resources based on public health risk, equity, service disruption, and community-defined needs. ■ Establish measurable recovery indicators and thresholds to monitor unmet needs, restoration of essential services, and progress toward recovery objectives over time. ■ Develop recovery-focused data and metrics to support decision-making.	FEMA Resilience Analysis and Planning Tool FEMA Pre-Disaster Recovery Planning ASPR Technical Resources, Assistance Center, and Information Exchange (TRACIE) Recovery Planning CDC learns from Katrina, plans for pandemic The Influence of Social Determinants of Health on Hurricanes, Typhoons, and Other Tropical Cyclones | EH Nexus | CDC CDC Hurricane Dashboard | Tracking | NCEH | CDC NACCHO Addressing the Needs of People with Disabilities Rural Information Hub Preparedness and Response Toolkit		

[1] Capabilities 1, 2, 6, and 13
[2] Capabilities 1, 2, and 13

Administrative and Budget Preparedness

Recovery Actions	Resources	Responsible Party	Date Completed
■ Establish standardized disaster cost tracking and documentation procedures aligned with FEMA Public Assistance and Section 319 Public Health Emergency (PHE) authorities. ■ Ensure funding, procurement, contracting, governance, and hiring authorities are incorporated into preparedness, response, and recovery activities.[1] ■ Plan with budget staff for methods to support funding for recovery operations. Identify and pre-establish emergency procurement mechanisms, including expedited contracting, sole-source justification, and vendor prequalification for recovery services (e.g., laboratory testing, temporary staffing). Develop procedures for rapid budget modification and reallocation to support emergent recovery priorities.[2] ■ Pre-identify allowable funding streams and flexibilities (e.g., FEMA, CDC, HRSA) and define processes for accessing and managing recovery funding. ■ Identify and plan for non-federal funding sources (e.g., state funds, philanthropy) to address unmet needs. ■ Explore partnerships with companies or universities for assistance in staffing and funding.[3] ■ Define processes for budget reallocation and financial decision-making to support evolving recovery priorities. ■ Establish systems to track expenditures across multiple funding sources and prevent duplication of benefits. ■ Define roles and coordination between finance, procurement, grants management, and program staff during recovery operations. ■ Coordinate with Emergency Management (and possibly political leadership) to ensure that decision making authority is granted to whomever is designated as recovery leadership. ■ Establish protocols for records retention, audit readiness, and grant reporting. ■ Plan for scaling administrative and financial capacity (e.g., surge staffing, contractor support) during prolonged recovery. ■ Review and establish MOUs and EMACs with other jurisdictions. Develop procedures for financial oversight of mutual aid and EMAC deployments, including reimbursement tracking and documentation.[4] ■ Maintain an updated inventory of resources, including staff, equipment, and supplies, to facilitate quick mobilization.[5]	Virginia Department of Health Sample Mutual Aid Agreements EMAC: Public Health and Medical Mission Ready Packages FEMA Disaster Management Guide 2 CFR 200.306: Cost Sharing or Matching		

* Additional funding and procurement:

- The U.S. General Services Administration (GSA): GSA Disaster Recovery Purchasing Program can aid in procuring supplies and services
- FEMA: Community Recovery Management Toolkit provides information on how to organize local emergency management for recovery and includes recommendations for funding.
- USDA Emergency Community Water Assistance Grants: Emergency Community Water Assistance Grants | Rural Development
- National Center for Healthy Housing: Financing and Funding Resources in conversation with the local housing authority.
- Center for Disaster Philanthropy: The Disaster Recovery Fund coordinates grants from various donors to support equitable recovery.
- American Planning Association Disaster Recovery Programs includes organizations that support funding for recovery efforts.
- Collaborate with Companies or Universities: Explore partnerships for assistance, such as the Carolina Center for Public Service's.

[1] Capabilities 1, 2, 3, and Administrative and Budget Preparedness
[2] Capabilities 1, 2, 3, and Administrative and Budget Preparedness
[3] Capabilities 1, 2, and Administrative and Budget Preparedness
[4] Capabilities 1, 2, 14, 15, and Administrative and Budget Preparedness
[5] Capabilities 1, 2, 3, 6, 14, 15, and Administrative and Budget Preparedness

Workforce

Recovery Actions	Resources	Responsible Party	Date Completed
■ Identify staff scheduling, redeployment, and surge capacity workflows.[1] ■ Identify training, credentialing, and onboarding procedures for staff and volunteers.[2] ■ Identify staff shortages, response staffing needs, availability of surge staff [e.g., Medical Reserve Corps (MRC), federal teams, local volunteers, EMAC] and potential burnout risks.[3] ■ Define leadership and support roles for recovery and identify necessary skills to ensure effective operational coordination.[4] Confirm staff availability to assume these roles.[5] ■ Develop continuity plans for the public health staff impacted by the disaster, including family care, housing loss, transportation disruption, and mental health needs. ■ Identify staff support systems for stress, trauma, fatigue, and behavioral health during extended recovery periods. ■ Establish procedures for demobilization and transition from response staffing structures to recovery staffing structures.	FEMA – Organize and Lead Your Community Through Recovery FEMA Pre-Disaster Recovery Planning Guide for Local Governments EMAC: Public Health and Medical Mission Ready Packages NACCHO MRC Deployment Readiness Resources (Login Required)		

[1] Capabilities 1, 2, 3, 14, 15, Administrative and Budget Preparedness, and Environmental Health
[2] Capabilities 1, 2, 3, 10, 15, and Administrative and Budget Preparedness
[3] Capabilities 1, 2, 14, 15, and Administrative and Budget Preparedness
[4] Capabilities 1, 2, and 3
[5] Capabilities 1, 2, 3, and 13

Training and Education

Recovery Actions	Resources	Responsible Party	Date Completed
■ Identify training and exercises for public health staff and volunteers to support recovery objectives related to hurricanes and flooding.[1] ■ Provide training for community members on recovery processes and impacts during hurricane and flooding events.[2] ■ Identify training for businesses and health professionals that aid them in preparing for and recovering from events.[3] ■ Provide training on documentation requirements needed to support reimbursement, cost recovery, and grant applications. ■ Establish just-in-time staffing strategies for prolonged recovery, including rotation schedules and cross-training for recovery-specific functions.	FEMA Course | IS-2900.A: National Disaster Recovery Framework FEMA Hurricane Exercise Starter - Preparedness Toolkit CDC Crisis and Emergency Risk Communication (CERC) CDC Preparedness and Safety Messaging for Hurricanes and Flooding Preparedness and Safety Messaging for Hurricanes, Floods, and Similar Disasters Virtual Training (Web on Demand) – CDC TRAIN Environmental Health Training in Emergency Response (EHTER) FEMA IS-328.A: Plan Review for Local Mitigation Plans FEMA -IS-2905: Coordinating Health and Social Services Recovery FEMA IS-111.A: Livestock in Disasters		

[1] Capabilities 1, 2, 3, 10, 14, and 15
[2] Capabilities 1, 2, 3, 14, and 15
[3] Capabilities 1, 2, 3, 14, and 15

Environmental Health and Safety

Recovery Actions	Resources	Responsible Party	Date Completed
■ Develop recovery plans for safe building reoccupation; post-flood environmental health assessments (drinking water, wastewater, private wells, solid waste, and debris sites); inspections of childcare, education, shelters, healthcare, and food service facilities; safe debris management; vector surveillance and control; and mold assessment. ■ Establish procedures for monitoring and communicating boil water advisories, do-not-use orders, and water system recovery status. ■ Define roles and coordination with building inspection, zoning, housing, and environmental protection agencies for unified recovery operations. ■ Develop messaging on indoor environment hazards, carbon monoxide, and mold.[1] Disseminate, as needed to homes and businesses.[2] ■ Review safety and injury prevention protocols for responders, including PPE guidance, heat stress, fatigue management, and exposure monitoring.[3] ■ Develop guidance and operational plans for household hazardous waste management (e.g., chemicals, fuels, cleaning agents) following flooding. ■ Establish procedures for environmental monitoring, sampling, and laboratory testing (e.g., water quality, soil contamination, indoor air quality) to support recovery decision-making. ■ Develop plans for public health oversight of temporary housing and shelters, including sanitation, water, waste, and safety.	NEHA Environmental Health Capability Assessment * [4] NIOSH Hurricane and Flood Key Messages NIH Worker Training Program Occupational Safety and Health Administration (OSHA) Keeping Workers Safe during Flood Cleanup OSHA Training Resources Homeowners and Renters Guide to Mold Cleanup After Disasters | Mold | CDC/EPA/FEMA/HUD/ NIH.		

[1] Capabilities 1, 2, 4, 7, 13, and Environmental Health
[2] Capabilities 1, 2, 4, 7, 13, and Environmental Health
[3] Capabilities 1, 2, 3, 10, 14, and Environmental Health
[4] CDC NCEH staff have noted that for Function 9,of the NEHA publication, environmental sampling is not recommended for mold after major flood events.

Disease Control and Epidemiology

Recovery Actions	Resources	Responsible Party	Date Completed
■ Review and exercise plans, procedures and systems for epidemiological response and surveillance activities to capture adverse health consequences and associated post-exposure health risks in shelters and affected communities.[1] ■ Include existing epidemiological threats in baseline CHA.[2] ■ Develop post-event surveillance strategies for waterborne, foodborne, vector-borne, respiratory, and wound-related illnesses monitoring. ■ Define procedures for monitoring health trends among displaced populations and those in temporary housing. ■ Establish thresholds or triggers for intensified surveillance, public advisories, or targeted interventions during recovery.	CDC Disaster Shelter Assessment CDC Public Health Surveillance During a Disaster University of Colorado: Monitoring Diverse Populations During Disaster Community Health Assessment		

[1] Capabilities 1, 2, 7, and 13
[2] Capabilities 1, 2, 7, and 13

Public Health & Health Care Services

Recovery Actions	Resources	Responsible Party	Date Completed
■ Develop restoration and reconstitution plans for essential public health services (e.g., immunization, WIC, STD/HIV, TB, maternal-child health), including prioritization, phased resumption timelines, and alternate service delivery strategies. ■ Identify minimum service levels and benchmarks for restoring routine public health programs and establish processes for rapid program adaptation, including changes to eligibility, service delivery, and documentation requirements. ■ Establish procedures to transition from emergency response services back to routine program operations, including criteria, timelines, and decision points. ■ Review federal funding flexibilities, waivers, reporting adjustments, and expanded authorities, and coordinate with legal, policy, and grants staff for allowable funding uses (e.g., CDC cooperative agreements, HRSA programs, ASPR) for recovery and program restoration. ■ Partner with essential health and human services organizations to enable early service delivery during response and recovery.[1] ■ Identify key partners and service providers (e.g., health centers, pharmacies, community-based organizations, home health agencies) and define their roles in restoring public health and healthcare services. Develop strategies to resume disrupted preventive services and reconnect communities with essential services through outreach. ■ Develop plans to support continuity of care for people with chronic conditions and access/functional needs during prolonged recovery. ■ Coordinate restoration of healthcare services and continuity of care, including access to essential services, medications, vaccines, and supplies through alternate dispensing, cold chain recovery, and mobile or decentralized delivery. ■ Review partner plans showing public health support for continuity of health and human services, including vaccination, dispensing, and alternative service delivery in disrupted areas (e.g., mobile care, telehealth and temporary clinics).[2] ■ Establish coordination mechanisms with behavioral health and social service providers to support integrated recovery of health and human services. ■ Establish documentation and reporting procedures required for reimbursement, grant compliance, and continuation of federally funded programs during recovery.	ASPR Behavioral Health Site CMS Emergency Response Resources		

[1] Capabilities 1, 2, 6, and 7
[2] Capabilities 1, 2, 6, 7, and 8

During the Hurricane or Flooding: Response Phase

During hurricanes or flooding events, public health personnel collaborate with emergency management and healthcare partners to monitor health impacts and support response operations. Implementing actions that support recovery during this phase can aid in shortening the time needed for recovery and can aid in conducting early needs assessments and in gathering resources. Activities include assessing the continuity of public health services, tracking injuries and illnesses, identifying unmet needs, and helping communities access essential health and human services. Providing clear and timely communication helps to inform the public about health risks and safety measures. Coordination across STLT systems ensures that public health actions align with the broader emergency response and helps in coordinating the transition of services from the responsible Emergency Support Functions (ESFs) to the RSFs.

Response Phase

Short-term Recovery (Service Stabilization)

Emergency Preparedness and Operations

Recovery Actions *(May overlap with response)*	**Resources**	**Responsible Party**	**Date Completed**
■ Define and activate a Recovery Task Force structure within ICS, ensuring alignment with Operations and Planning Sections. ■ Establish recovery-specific incident objectives, priorities, actions, owners, and dependencies and integrate them into the Incident Action Plan (IAP). ■ Ensure recovery planning is embedded in daily operational briefings and planning cycles. ■ Coordinate directly with emergency management to align jurisdiction-wide recovery structures (e.g., RSFs) and facilitate the exchange of information. ■ Activate emergency response plans that include recovery components to promote a smooth transition to recovery efforts.[1] ■ Engage with local and state emergency management to identify unmet needs.[2]	Maryland Dept of Emergency Management Recovery Support Function Annex Template Centralina Recovery Plan Template		

[1] Capabilities 2, 3, and Environmental Health
[2] Capabilities 2, 3, and Environmental Health

Partnerships

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Collect and share updated information from partners regarding changes in capabilities and mitigation efforts.[1] ■ Align partner support to recovery issue identification, service stabilization, service restoration, and transition planning. ■ Conduct regular cross-sector coordination (e.g., healthcare coalitions, VOADs, utilities, community organizations) to identify emerging recovery issues, challenges, and opportunities. ■ Establish/support disaster case management mission. Coordinate unmet needs and cross-sector dependencies (e.g., housing, transportation, utilities) with partners to maximize disaster case management. ■ Support formation of Long-term Recovery Groups.	FEMA Restoration and Recovery: Guide for Private-Public Partnerships Programs to Support Your Recovery | FEMA.gov Long-term Recovery Groups - Center for Disaster Philanthropy		

[1] Capabilities 1, 2, 3, 4, 6, and 13

Communication

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Coordinate messaging that integrates response and early recovery priorities across agencies, including reentry considerations, ongoing risks, and changes affecting healthcare and public health programs. ■ Establish feedback loops with partners and communities to identify information gaps and unmet needs while ensuring accurate health information and use those findings to align messaging and support a consistent transition to recovery-focused communication. ■ Communicate actionable prevention, mitigation, and recovery guidance to partners and the public — including safe return, cleanup precautions, and other early recovery actions — using pre-developed, adaptable message templates. ■ Provide regular public updates on health risks, the operational status of essential services (including healthcare and public health programs), and available recovery resources related to flooding and storm impacts.[1] ■ Support dissemination of messaging on indoor environment hazards, carbon monoxide, mold, and mold elimination through every available channel to meet needs of different audiences.[2] ■ Adjust messaging based on evolving conditions and surveillance data (e.g., injuries, infectious disease risks).[3]	CDC Preparedness and Safety Messaging for Hurricanes and Flooding CDC Communication Resources for Natural Disasters NIOSH Hurricane and Flood Key Messages for Employers, Workers, and Volunteers		

[1] Capabilities 1, 2, 3, 4, and Environmental Health
[2] Capabilities 2, 3, 4, 7, 13, and Environmental Health
[3] Capabilities 1, 2, 3, 4, 6, 13, and Environmental Health

Recovery Priorities and Risk Assessment

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Create and maintain a recovery issue tracker (ticketing or dashboard) with fields for issue, location, population impacted, severity, dependencies, owner, and status. Incorporate inputs from damage assessments, surveillance, partner reports, and field teams each operational period. ■ Produce a daily recovery snapshot (e.g., top issues, trends, gaps) for command & general staff. ■ Develop and maintain an initial recovery priorities list. Apply a prioritization rubric (e.g., life safety, equity, service disruption, scale) to rank issues and feed top priorities. ■ Review damages assessments and impacts to determine impacts on public health services and infrastructure following hurricanes or flooding.[1] ■ Conduct rapid needs assessments [e.g., Community Assessment for Public Health Emergency Response (CASPER)] in priority areas to identify unmet health, behavioral health, environmental, and social service needs and update priorities based on findings. [2] ■ Develop recovery interventions to address needs based on risk, equity, service disruption, and population impact.	CDC CASPER CDC Comprehensive Disaster Assessment and Readiness Tools NC Hurricane Helene Damage and Needs Assessment SAMHSA Disaster Response Needs Assessment Toolkit RHIhub Emergency Preparedness Toolkit		

[1] Capabilities 2, 3, 5, 6,10, 12, and Environmental Health
[2] Capabilities 2, 3, 5, 6,10, 12, and Environmental Health

Administrative and Budget Preparedness

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Identify immediate and anticipated funding needs for recovery stabilization and service restoration. ■ Activate emergency procurement (e.g., pre-approved vendors, expedited processes) for critical recovery needs. ■ Begin compiling documentation packets (e.g., timesheets, contracts, logs) for FEMA Public Assistance and other reimbursement. ■ Coordinate with finance and grants teams to prepare for funding requests, documentation, and reimbursement processes. ■ Identify immediate funding gaps and draft requests (state/federal) with justification tied to tracked issues. ■ Identify administrative barriers (e.g., procurement, hiring) that may impact recovery and develop mitigation strategies. ■ Request additional funding as needed to support service restoration in both the near and long-term. [1]	CDC Hurricane Funding ASPR Public Health Emergency Declaration FEMA Disaster Management Guide		

[1] Capabilities 2, 3, and Environmental Health

Workforce

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Coordinate for public health services that exceed local capabilities through EMACs or other processes.[1] ■ Provide support to staff directly impacted, focusing on injuries and health complications arising from the incident.[2] ■ Assess workforce impacts, including burnout, shortages, and ability to sustain operations into recovery. Implement rotation schedules and enforce rest cycles. ■ Identify and plan for transition of staff from response roles to recovery functions, including surge support needs. ■ Ensure early engagement for recovery-critical roles (e.g., program leads) in planning calls. ■ Coordinate with partners to address staffing gaps in healthcare, behavioral health, and public health programs. ■ Activate employee assistance programs and develop/implement organizational resiliency strategies to prevent staff burnout in recovery.	EMAC: Public Health and Medical Mission Ready Packages NACCHO Emergency Staffing Plan Volunteer Organizations Active in Disaster (VOAD) State Assistance Form VOAD Disaster Emotional Care		

[1] Capabilities 2, 3, 14, 15, and Administrative and Budget Preparedness
[2] Capabilities 2, 3, 10, 14, 15, and Administrative and Budget Preparedness

Training and Education

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Provide staff with mental health training and psychological first aid (PFA) guidance, support and schedule structured end-of-shift debriefs.[1] ■ Provide just-in-time orientation for staff and partners on recovery roles, structures, and expectations within ICS/IMS. ■ Ensure staff understand transition processes from response to recovery operations. ■ Provide guidance to partners and the public on safe re-entry, worker safety, cleanup, and ongoing health risks.	ASPR Behavioral Health Site Environmental Health Training in Emergency Response (EHTER) Psychological First Aid: Addressing Mental Health Distress During Disasters | SAMHSA		

[1] Capabilities 2, 3, 10, 14, and 15

Environmental Health and Safety

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Continue to assess environmental health impacts due to damaged infrastructure including water and drinking water contamination, air quality, hazardous waste exposure, vector-borne disease risks, food safety, wastewater and sanitation systems.[1] ■ Continue to assess disaster shelters environmental health risks related to water, sanitation, food safety, indoor air quality and mold, vector control, overall habitability[2] in impacted areas.[3] ■ Continue to monitor, assess, and evaluate workplace safety. ■ Coordinate environmental health assessments to inform reentry decisions and long-term remediation needs and prioritize high-risk areas. ■ Issue and update public health orders/advisories (e.g., boil water, do-not-use) and track compliance/coverage. ■ Prioritize environmental health issues requiring sustained recovery action (e.g., water system restoration, housing safety) and identify infrastructure issues with public health impacts. Ensure findings are integrated into recovery issue tracking and planning processes.	NEHA Hurricane Response Guide CDC Mold Cleanup Guidelines CDC Disaster Shelter Assessment Well Water Safety | Drinking Water | CDC About Funded Tracking Programs | Tracking Program | CDC EPA Resources for Flood Cleanup and Indoor Air Quality Mold Remediation in Schools and Commercial Buildings OSHA Fungi Hazards and Flood Cleanup NEHA Infection Control for Shelters NIOSH Emergency Responder Health Monitoring and Surveillance National Environmental Public Health Tracking Network		

[1] Capabilities 1, 2, 7, 13, and Environmental Health
[2] Capabilities 1, 2, 7, 13, and Environmental Health
[3] Capabilities 1, 2, 13, and Environmental Health

Disease Control and Epidemiology

Recovery Actions *(May overlap with response)*	Resources	Responsible Party	Date Completed
■ Continue to monitor injuries and illnesses associated with storm and flood conditions using disaster surveillance systems.[1] ■ Conduct comprehensive recovery needs assessments (e.g., FEMA Needs Assessment, CASPER, surveys). ■ Adapt surveillance strategies to account for disrupted reporting systems and population displacement. Coordinate data sharing agreements or interim methods with providers and labs when systems are degraded. ■ Identify and monitor emerging health risks that may extend into recovery (e.g., infectious disease, behavioral health trends). ■ Collect data to inform recovery priorities, resource allocation, and intervention planning. Establish epi summary (key conditions, hotspots, trends) for planning and command.	CDC Disaster Epidemiology Tools and Resources CDC Public Health Surveillance During a Disaster Rapid Response Registry | ATSDR EPI CASE Toolkit | Assessment of Chemical Exposures (ACE) Program | ATSDR		

[1] Capabilities 2, 3, 4, 6, 10, 13, and Environmental Health

Public Health & Health Care Services

Recovery Actions *(May overlap with response)*	**Resources**	**Responsible Party**	**Date Completed**
■ Identify disruptions to public health programs, healthcare services, and supply chains (e.g., durable medical equipment (DME), medications). Maintain a service disruption log (e.g., programs, facilities, pharmacies, DME suppliers) with status and expected restoration timelines. ■ Outline program restoration priorities and sequencing, coordinating with healthcare and human services partners to stabilize service delivery and restore critical services, especially for high-risk populations. ■ Stand up alternate service delivery (e.g., mobile units, pop-ups, telehealth) in impacted areas and publish locations/hours. ■ Draft program restoration sequence (which services first, dependencies, staffing) for transition planning. ■ Plan for a surge of requests for behavioral health support. ■ Coordinate with health care and human services partners to support recovery activities.[1] ■ Promote awareness of and access to public health, healthcare, human services, and behavioral health resources, with a focus on at-risk individuals and those with access and functional needs. [2] ■ Prepare to assist in the coordination of disaster-related research, including development of a science research agenda and approval/oversight of research projects.	Comprehensive Disaster Assessment and Readiness Tools (CDART) | ATSDR Emergency Response ASPR Health Care Coalition Recovery Template ASPR Addressing the Access and Functional Needs of At-Risk Individuals ASPR Behavioral Health Site CMS Emergency Response Resources		

[1] Capabilities 2, 3, 4,6, 10, 13, and 14

[2] Capabilities 2, 3, 4, 6, 10, 13, 14, and Environmental Health

After the Hurricane or Flooding: Recovery Phase

Public health staff support community recovery after a hurricane or flooding by assessing ongoing health needs, restoring essential services, and monitoring health outcomes. Recovery typically progresses from short-term stabilization to longer-term efforts that strengthen community resilience. Public health agencies work with partners to address health risks, support behavioral health needs, and share recovery resources with the public. Through ongoing coordination, surveillance, and improvement planning, public health staff help communities recover and prepare for future disasters.

Certain sections in a response can transition to recovery actions at different times. Triggers for transitioning from response to recovery includes: meeting response objectives, stabilizing community lifelines and critical life-safety threats, and demobilizing response operations as activities shift back to steady-state.

Recovery Phase

Short-term Recovery (Service Stabilization)
Intermediate Recovery (Service Restoration and Capacity Expansion)
Long-term Recovery (Sustainability & Resilience Integration)

Emergency Preparedness and Operations

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Ensure coordination between RSF and ESF leads to smooth operational handoff. See Appendix A for a crosswalk of RSF and ESF functions.[1] **Intermediate:** ■ Coordinate transition from ESF (response) to RSF (recovery) structures to ensure continuity of operations. ■ Develop and implement a comprehensive Recovery Action Plan. ■ Shift planning from operational periods to milestone-based recovery planning. ■ Align with federal, state, and local recovery frameworks and funding requirements. **Long-term:** ■ Integrate recovery outcomes into preparedness, mitigation, and strategic planning frameworks. ■ Update emergency plans, annexes, and policies based on recovery lessons learned. ■ Institutionalize recovery coordination structures within routine governance systems.	Maryland Dept of Emergency Management Recovery Support Function Annex Template Centralina Recovery Plan Template		

[1] Capabilities 2 and 3

Partnerships

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Transition from ICS-based coordination to a recovery coordination group aligned with RSFs or equivalent structures. ■ Collaborate with partners to evaluate the recovery of services and determine when they return to pre-event levels or improve beyond those levels.[1] ■ Identify partners or services unable to fully recover from storm or flooding impacts.[2] ■ Highlight opportunities to build resilience within public health services and mitigate future effects on partners and communities.[3] **Intermediate:** ■ Establish and manage sector-based workgroups (e.g., healthcare, housing, behavioral health, environmental health). ■ Refine and document partner roles, deliverables, and accountability for service restoration and recovery program implementation. ■ Maintain a partner status dashboard tracking service availability, capacity, and recovery timelines. ■ Conduct regular cross-sector coordination meetings to address interdependencies (e.g., housing, healthcare, transportation). ■ Identify partners and services unable to fully recover and escalate gaps for resource allocation or long-term planning. **Long-term:** ■ Transition leadership to program owners, community coalitions, and long-term recovery groups (LTRGs). ■ Sustain multi-sector recovery councils with defined governance and decision-making authority, ensuring strong pivot to mitigation and preparedness. ■ Institutionalize coordination mechanisms best practice (e.g., MOUs, standing committees, shared data systems) to improve preparedness for future disasters. ■ Cultivate long-term public–private partnerships to support investments in infrastructure, workforce, and service resilience to improve public health. ■ Integrate public health into community redevelopment, resilience, and mitigation initiatives.	Organize and Lead Your Community Through Recovery | FEMA.gov Long-term Recovery Groups - Center for Disaster Philanthropy		

[1] Capabilities 1, 2, and 3
[2] Capabilities 1, 2, and 3
[3] Capabilities 1, 2, and 3

Communication

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Maintain communication with the public regarding health services available and recovery resources.[1] ■ Adjust messaging cadence and tone to reflect transition from response to recovery (urgent → informational).[2] ■ Provide clear, actionable guidance on recovery-related health risks (e.g., mold, water safety, debris cleanup, vector control).[3] ■ Promote continuity of care and preventive services (e.g., medication access, vaccinations).[4] ■ Incorporate behavioral health messaging and normalize recovery-related stress responses.[5] ■ Engage communities through trusted partners to support broad recovery communication.[6] ■ Document and evaluate communication strategies to inform future preparedness.[7] **Intermediate:** ■ Establish a regular communication cadence (e.g., weekly updates on service restoration, risks, and available resources). ■ Shift messaging to service navigation (e.g., how to access care, housing, behavioral health, and assistance programs). ■ Provide clear, actionable guidance on ongoing risks (e.g., mold, water safety, air quality, debris cleanup). ■ Promote continuity of care and preventive services (e.g., medications, vaccinations, chronic disease care). ■ Integrate behavioral health messaging and normalize recovery-related stress and trauma. ■ Deliver targeted outreach to priority populations using accessible and culturally appropriate channels. ■ Maintain rumor control and misinformation management, especially around services and eligibility. ■ Establish two-way communication mechanisms (e.g., hotlines, community meetings, partner feedback loops). **Long-term:** ■ Transition to risk communication and resilience messaging, focusing on preparedness, mitigation, and long-term health impacts.	Preparedness and Safety Messaging for Hurricanes, Flooding, and Similar Disasters Coping with a Disaster or Traumatic Event Factsheet | Natural Disasters | CDC Finding a New Normal: Life After a Natural Disaster | Natural Disasters | CDC Homeowners and Renters Guide to Mold Cleanup After Disasters | Mold | CDC/EPA/FEMA/HUD/ NIH		

Recovery Actions	Resources	Responsible Party	Date Completed
■ Communicate findings from recovery assessments, including health trends, disparities, and system improvements, in transparent and accessible ways. ■ Support community trust-building efforts through sustained engagement, transparency, and culturally appropriate communication. ■ Institutionalize community engagement mechanisms (e.g., advisory boards, listening sessions, partnerships with trusted messengers). ■ Develop communication strategies to support policy changes, infrastructure investments, and mitigation efforts. ■ Share lessons learned and best practices with partners to support future preparedness and resilience. ■ Maintain communication strategies that address long-term behavioral health, chronic disease, and environmental risks.			

[1] Capabilities 2, 3, 4, and 10
[2] Capabilities 1, 2, 3, 4, and 6
[3] Capabilities 1, 2, 3, 4, 6, and Environmental Health
[4] Capabilities 2, 4, 6, and 8
[5] Capabilities 2, 3, 4, 6, 14, and 15
[6] Capabilities 2, 3, 4, and 6
[7] Capabilities 2, 3, 4, and 6

Recovery Priorities and Needs Assessment

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Collaborate with federal, state, tribal, and local partners to conduct needs assessments to identify the health needs of the population and prioritize recovery efforts.[1] ■ Inform leadership about ongoing long-term recovery programs within the jurisdiction.[2] ■ Collect feedback for system and plan improvements to incorporate in the after-action report (AAR) and improvement plan.[3] **Intermediate:** ■ Identify and prioritize secondary and emerging health impacts (e.g., behavioral health, chronic disease disruption, environmental exposures). ■ Perform gap analyses of public health and healthcare capacity. ■ Maintain a data-driven prioritization process using equity, risk, and service disruption criteria. ■ Provide regular recovery status briefings to leadership (e.g., needs, trends, unmet gaps). ■ Collect input from partners and community members to inform completion of the AAR. ■ Update recovery action plans based on evolving data and conditions. **Long-term:** ■ Evaluate recovery effectiveness using performance metrics and outcome indicators. ■ Integrate findings into mitigation planning, policy development, and system improvements. ■ Maintain systems for ongoing community health assessment and surveillance integration.	FEMA FL Hurricane Ian Needs Assessment ASPR Recovery Planning Overview of CASPER | CASPER | CDC RHIhub - Assess Impact and Damage Post-Emergency RHIHub- Evaluate the Response of Emergency Preparedness Efforts		

[1] Capabilities 1, 2, 3, 6, and 10
[2] Capabilities 1 and 2
[3] Capabilities 1 and 2

Administrative and Budget Preparedness

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Mobilize MRC and other volunteer teams, as needed.[1] ■ Coordinate with local agencies and voluntary organizations involved in recovery efforts.[2] ■ Determine the transition point for recovery operations to regular health department functions,[3] identify monitoring items, once returned to steady state.[4] **Intermediate:** ■ Transition staff from response roles to programmatic recovery functions (e.g., service restoration, outreach, monitoring). ■ Identify critical staffing gaps and coordinate with partners to supplement workforce capacity (e.g., volunteers, contractors). ■ Develop and implement demobilization and transition plans to routine operations **Long-term:** ■ Implement workforce development, retention, and cross-training strategies. ■ Strengthen workforce resilience through policy, training, and organizational changes. ■ Review AARs and institutionalize staffing models that support future disaster response and recovery.	RHI Hub: Tracking Expenditures for Emergency Preparedness and Response		

[1] Capabilities 2, 3, 10, and 15
[2] Capabilities 2, 3, and 15
[3] Capabilities 2 and 3
[4] Capabilities 2 and 3

Workforce

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Mobilize MRC and other volunteer teams, as needed.[1] ■ Coordinate with local agencies and voluntary organizations involved in recovery efforts.[2] ■ Determine the transition point for recovery operations to regular health department functions[3]; identify monitoring items, once returned to steady state.[4] ■ Engage in worker/occupational surveillance according to CDC NIOSH best practice recommendations (e.g. Emergency Responder Health Monitoring and Surveillance (ERHMS)). **Intermediate:** ■ Transition staff from response roles to programmatic recovery functions (e.g., service restoration, outreach, monitoring). ■ Identify critical staffing gaps and coordinate with partners to supplement workforce capacity (e.g., volunteers, contractors). ■ Develop and implement demobilization and transition plans to routine operations. **Long-term:** ■ Implement workforce development, retention, and cross-training strategies. ■ Strengthen workforce resilience through policy, training, and organizational changes. ■ Review AARs and institutionalize staffing models that support future disaster response and recovery.	FEMA IS-288.A: The Role of Voluntary Organizations in Emergency Management Public Health Workforce Resilience Resource Library (login req.) NIOSH ERHMS		

[1] Capabilities 2, 3, 10, and 15
[2] Capabilities 2, 3, and 15
[3] Capabilities 2 and 3
[4] Capabilities 2 and 3

Training and Education

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Engage with government, community, volunteer organizations and other partners to address recovery-phase training needs, including mold elimination, PFA, and long-term behavioral health considerations.[1] **Intermediate:** ■ Deliver training on recovery-specific topics (e.g., environmental hazards, mold remediation, behavioral health). ■ Provide community education on safe recovery practices and ongoing health risks. ■ Expand training in PFA and trauma-informed approaches to capacity building. **Long-term:** ■ Integrate recovery lessons into standard training curricula and preparedness exercises. ■ Institutionalize training on resilience, mitigation, and long-term recovery operations. ■ Develop sustained community education programs on preparedness and risk reduction.	ASPR Behavioral Health Site Environmental Health Training in Emergency Response (EHTER) Psychological First Aid: Addressing Mental Health Distress During Disasters | SAMHSA		

[1] Capabilities 2, 3, 6, and Environmental Health

Environmental Health and Safety

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Perform evaluations for safe building/structure re-entry and reoccupation; post-flood environmental health assessments (municipal drinking water, private wells, public sewer and wastewater septic systems, solid waste, and debris sites); inspections of childcare, education, shelters, hospitals/healthcare, nursing homes, food service, hotels/resorts, and government buildings; safe debris management; vector surveillance and control; and mold assessment.[1] ■ Establish worker health monitoring to track health outcomes and issues.[2] **Intermediate:** ■ Conduct ongoing monitoring, and track long-term environmental hazards (e.g., mold, lead, chemical exposures). ■ Coordinate remediation with housing, utilities, and environmental agencies. ■ Maintain environmental health risk communication with the public. ■ Continue to monitor worker health and safety programs. **Long-term:** ■ Integrate environmental health into infrastructure rebuilding and land-use planning. ■ Strengthen environmental monitoring and surveillance systems. ■ Use an AAR, to help inform policy changes to reduce future environmental health risks (e.g., zoning, flood mitigation).	CDC National Center for Environmental Health Resources to Support Recovery NEHA Environmental Health Capability Assessment NIOSH Emergency Responder Health Monitoring and Surveillance NIOSH Total Worker Health Toolkit		

[1] Capabilities 2, 3, 13, and Environmental Health
[2] Capabilities 2, 3, 13, and 14

Disease Control and Epidemiology

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Continue surveillance health monitoring to track health outcomes and address any emerging public health issues.[1] **Intermediate:** ■ Restore and stabilize routine surveillance systems and reporting. ■ Monitor secondary and delayed health outcomes (e.g., mental health, chronic disease, environmental exposure). ■ Address data gaps, especially among displaced populations. ■ Share epidemiologic findings to guide recovery interventions. **Long-term:** ■ Conduct longitudinal epidemiologic studies and surveillance enhancements. ■ Integrate disaster-related improvements into routine public health surveillance systems. ■ Use data and AARs to inform policy, mitigation, and resilience strategies.	CDC Disaster Epidemiology Tools and Resources CDC Public Health Surveillance During a Disaster		

[1] Capabilities 2, 3, 13, and 14

Public Health & Health Care Services

Recovery Actions	Resources	Responsible Party	Date Completed
Short-term: ■ Monitor the restoration of routine public health services (e.g., substance use treatment, worksite health programs) and healthcare systems.[1] ■ Identify resources to help assist those with access and functional needs.[2] ■ Implement mental health recovery programs to address trauma and stress experienced by the community.[3] **Intermediate:** ■ Ensure continuity of medications, DME, and critical services (e.g., dialysis). ■ Implement behavioral health recovery programs addressing trauma and substance use. ■ Identify and address service gaps for priority populations. **Long-term:** ■ Fully restore and enhance public health programs with resilience-focused improvements. ■ Address long-term chronic disease and behavioral health impacts. ■ Establish monitoring systems and registries for exposure-related and chronic conditions. ■ Strengthen healthcare system capacity and continuity planning.	ASPR Addressing the Access and Functional Needs of At-Risk Individuals SAMHSA Hurricane resources CMS Emergency Response Resources		

[1] Capabilities 1 and 2
[2] Capabilities 1 and 2
[3] Capabilities 1 and 2

Appendix A: Crosswalk of Recovery Support Functions and Emergency Support Functions

Associated PHEP Capabilities in the Endnotes

Purpose

This section illustrates how the ESFs are aligned with the goals and responsibilities of the Health, Education, and Human Services (HEHS) RSF across the response and recovery phases of the emergency management cycle. It also identifies the PHEP capabilities that support both the ESFs and the HEHS RSF.

Concept

Actions that support recovery occur throughout the emergency management cycle, especially during the preparedness, response, and recovery phases. To strengthen recovery and resilience, public health staff should integrate recovery principles into each phase. Key points to consider when reviewing this resource:

- The ESFs are part of the National Response Framework (NRF), but RSFs are organized under the NDRF. This may lead staff to not think about recovery until after they see the response phase end.
- Actions taken in the response phase can affect recovery and often carry over into the recovery phase. For example, conducting environmental health assessments to identify hazards after a hurricane typically begins in the response phase, but the recommendations and interventions to remove the hazards are typically done in the recovery phase.
- While jurisdictions may use different organizational structures, they should assign the roles and responsibilities for actions the ESFs and RSFs support and ensure the identified recovery leadership has the authority to make decisions. Jurisdictions can enhance their recovery operations by improving the flow of information between ESF and RSF staff and partners.
- The ESFs include footnotes which highlight the PHEP capabilities that support accomplishing functions and tasks. Jurisdictions can review how the capabilities support recovery and determine how to include them when forming objectives for exercises. Recommendations from an ASPR Recovery Lead, “[Use] Blue Sky time to coordinate with the ESF leads about their response decisions and gaming them out during response-to-recovery transition tabletops can create innovative solutions.”
- FEMA uses Mission Areas and Core Capabilities to aid in planning. Like the PHEP capabilities, communities can incorporate eleven of the core capabilities into recovery exercises:

HEHS RSF Goal and Corresponding ESF and Recovery Phase

HEHS RSF Goal	Response Phase (ESFs)	Recovery Phase
Restore essential public health operations and core services	6/8 – Human Services: Coordinating disaster case management, crisis counseling, and behavioral/spiritual care.[1]	Short, Intermediate
	8 – Mental Health Services: Providing behavioral health and crisis counseling to survivors and responders.[2]	Short, Intermediate, Long-term
	8 – Food Safety and Security: Ensuring food safety, potable water, and managing worker health and safety.[3]	Short, Intermediate, Long-term
	8/11 – Agriculture and Natural Resources: Ensure the health, safety, and security of food-producing animals, animal feed, and therapeutics. Inspecting food processing/distribution sites, handling contaminated products, and conducting laboratory analysis.[4]	Short
Conduct timely recovery needs assessments and implement interventions to prevent cascading hazards	6/8 – Mass Care: Establishing shelters (congregate or non-congregate).[5]	Short
	6/8 – Human Services: Coordinating disaster case management, crisis counseling, and behavioral/spiritual care.[6]	Short, Intermediate
	8 – Public Health and Medical Needs Assessment: Determining the impact on the community, evaluating medical and health needs.[7]	Short
	11 – Inspection & Control: Inspecting food processing/distribution sites, handling contaminated products, and conducting laboratory analysis.[8]	Short
Maintain continuity of prevention and protective services for high-risk groups	6 – Mass Care: Establishing shelters (congregate or non-congregate).[9]	Short
	6 – Emergency Assistance: Implementing family reunification services, identifying individuals with functional needs, and establishing disaster assistance centers.[10]	Short
	6/8 – Human Services: Coordinating disaster case management, crisis counseling, and behavioral/spiritual care.[11]	Short, Intermediate
	8 – Mental Health Services: Providing behavioral health and crisis counseling to survivors and responders.[12]	Short, Intermediate, Long-term
	8 – Public Health and Medical Needs Assessment: Determining the impact on the community, evaluating medical, and health needs.[13]	Short, Intermediate, Long-term

HEHS RSF Goal	Response Phase (ESFs)	Recovery Phase
Strengthen risk communication, community engagement, and trust during recovery	5 – Information and Planning: Risk-based response management, planning, and information.	Short
	6 – Emergency Assistance: Implementing family reunification services, change identifying individuals with functional needs, and establishing disaster assistance centers.[14]	Short
	6/8 – Human Services: Coordinating disaster case management, crisis counseling, and behavioral/spiritual care.[15]	Short, Intermediate, Long-term
	8 – Surveillance: Monitoring for potential disease outbreaks and public health threats.[16]	Short, Intermediate, Long-term
	8 – Vector Control & Safety: Ensuring food safety, potable water, and managing worker health and safety.[17]	Short, Intermediate, Long-term
	11 – Manage Animal/Agricultural Emergency Response: Implement measure to prevent the loss of livestock and disposing of animal carcasses.	Short
	8 – Surveillance: Monitoring for potential disease outbreaks and public health threats.[18]	Short, Intermediate, Long-term
	8 – Vector Control & Safety: Ensuring food safety, potable water, and managing worker health and safety.[19]	Short, Intermediate, Long-term
Build more resilient and sustainable public health systems	6/8 – Human Services: Coordinating disaster case management, crisis counseling, and behavioral/spiritual care.[20]	Short, Intermediate, Long-term
	8 – Surveillance: Monitoring for potential disease outbreaks and public health threats.[21]	Short, Intermediate, Long-term
	8 – Vector Control & Safety: Ensuring food safety, potable water, and managing worker health and safety.[22]	Short, Intermediate, Long-term
Crosscutting Action: Coordinate, manage, or monitor legal, budget, and administrative aspects of recovery operations	6 – Coordination: Working with NGOs and government agencies to distribute supplies, manage donations, and track expenditures.[23]	Short, Intermediate, Long-term
	7 – Procurement & Contracting: Utilizing emergency procurement procedures, contracts, and MOUs to secure services, and tracking expenditures.[24]	Short, Intermediate, Long-term
	7 – Transportation & Tracking: Coordinating the transportation of goods and tracking resources from requisition to deployment.[25]	Short, Intermediate, Long-term
	6/7 – Donations & Volunteers: Supporting the management of incoming donations and volunteers to ensure efficient distribution.[26]	Short, Intermediate, Long-term

[1] Human Services: 2, 3, 6, 10, 14, 15, and Administrative and Budget Preparedness.
[2] Mental Health Services: 2, 3, 4, 6, 7, 10, 14, 15, and Administrative and Budget Preparedness.
[3] Vector Control and Safety: 2, 3, 6, 11, 13, 14, 15, Environmental Health and Administrative and Budget Preparedness.
[4] Inspection and Control: 2, 3, 4, 6, 12, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[5] Shelter operations: 3, 4, 6, 7, 8, 11, 13, 15, and Administrative and Budget Preparedness.
[6] Human Services: 2, 3, 6, 10, 14, 15, and Administrative and Budget Preparedness.
[7] Public Health and Medical Needs: 2, 3, 5, 6, 7, 10, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[8] Inspection and Control: 2, 3, 4, 6, 12, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[9] Shelter operations: 3, 4, 6, 7, 8, 11, 13, 15, and Administrative and Budget Preparedness.
[10] Emergency Assistance: 2, 3, 4, 6, 7, 15, and Administrative and Budget Preparedness.
[11] Human Services: 2, 3, 6, 10, 14, 15, and Administrative and Budget Preparedness.
[12] Mental Health Services: 2, 3, 4, 6, 7, 10, 14, 15, and Administrative and Budget Preparedness.
[13] Public Health and Medical Needs: 2, 3, 5, 6, 7, 10, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[14] Emergency Assistance: 2, 3, 4, 6, 7, 15, and Administrative and Budget Preparedness.
[15] Human Services: 2, 3, 6, 10, 14, 15, and Administrative and Budget Preparedness.
[16] Surveillance: 3, 4, 6, 12, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[17] Vector Control and Safety: 2, 3, 6, 11, 13, 14, 15, Environmental Health and Administrative and Budget Preparedness.
[18] Surveillance: 3, 4, 6, 12, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[19] Vector Control and Safety: 2, 3, 6, 11, 13, 14, 15, Environmental Health and Administrative and Budget Preparedness.
[20] Human Services: 2, 3, 6, 10, 14, 15, and Administrative and Budget Preparedness.
[21] Surveillance: 3, 4, 6, 12, 13, 15, Environmental Health and Administrative and Budget Preparedness.
[22] Vector Control and Safety: 2, 3, 6, 11, 13, 14, 15, Environmental Health and Administrative and Budget Preparedness.
[23] Coordination: 3, 6, 15, and Administrative and Budget Preparedness.
[24] Procurement and Contraction: 2, 3, 6, 15, and Administrative and Budget Preparedness.
[25] Transportation and Tracking: 2, 3, 6, 15, and Administrative and Budget Preparedness.
[26] Donations and Volunteers: 2, 3, 6, 15, and Administrative and Budget Preparedness.

Appendix B: Promising Practices

This section includes promising practices and recovery concepts from jurisdictions across the nation. Those wishing to highlight best practices from their experience should send their name, contact details, and an outline of the promising practice to preparedness@cdc.gov and the team will consider sharing the practice in the next iteration of the checklist.

- Western North Carolina Resource Hub – A comprehensive resource hub to help North Carolina communities recover from Hurricane Helene. Contains: Recovery Resource Hub | Governor's Recovery Office for Western NC

- North Central TX Recovery Toolkit: NCTCOG - Local Disaster Recovery Framework and Toolkit

Community Assessments: Leveraging Processes and Partners for Recovery and Improved Resilience

This section contains recommendations from the Division of State and Local Readiness (DSLR) subject matter experts and supported using Artificial Intelligence to analyze processes and trends. Final analysis and content were reviewed by DSLR staff.

Communities can conduct various assessments with multiple partners to include emergency management, public health, healthcare, environmental health, and behavioral health. Each phase of the emergency management cycle can include an assessment to inform people about current and future actions. Here are assessments that include partners in recovery and recommendations on how they can improve operations:

- The Community Health Assessment process provides partners the opportunity to collaborate to understand the community's current health status, needs, and issues and to help develop the plan to address issues. Benefits include:
  - Establishes the baseline health status that the community can set to exceed during recovery.
  - The needs and issues may affect the susceptibility scores for certain hazards when conducting the hazard risk assessment.
  - Working on the needs and issues can improve resilience and hasten recovery efforts.

- The Risk Assessment[1] process helps the community understand the risks from natural, technological, and human-caused threats and focus on ways to manage them. Benefits include:
  - Partners can better understand the risk various hazards pose to their infrastructure and capabilities.
  - Partners can share data and collaborate on plans to minimize risks and share resources in the event of an incident or emergency.
  - Planners can use the process to prioritize response and recovery efforts to aid in shortening the time needed for the community to fully recover.
  - Communities could incorporate advanced planning for measures to improve resilience or mitigation into the funding for response and recovery operations.

[1] Which can include the Threat and Hazard Identification and Risk Assessment (THIRA), Hazard Vulnerability Assessment (HVA), or a public health focused risk assessment.

- Emergency managers are generally familiar with the Preliminary Damage Assessment (PAD) process. Through this process responders collect data on damages to property and public works for possible submission to support a disaster declaration. The benefits of having partners who understand this process include:
  - Having the data readily available immediately after an incident can help speed up the declaration process and shorten the time needed for funds to become available.
  - The data collected on impacts to public health and healthcare infrastructure and services can help in prioritizing response and recovery efforts.
  - Understanding which populations, partners, infrastructure, and services are impacted helps in identifying who needs to participate in the recovery needs assessment.

- The recovery needs assessment is a structured process conducted during the early recovery phase. Some data needed for the recovery needs assessment is already collected during the PDA, though it is important to update the information with partners. Templates for this process differ, but jurisdictions can conduct their own recovery needs assessment by using the various assessment tools needed to help determine recovery needs.[2] The benefits of conducting a recovery needs assessment focused on HEHS include:
  - Ensuring coordination across recovery sectors where public health, behavioral health and environmental health needs have indirect benefits associated with other recovery sectors.
  - Evaluate disaster impacts on public health infrastructure, healthcare systems, environmental health services, and the status of population mental health.
  - Identify public health, behavioral health, and environmental health needs.
  - Prioritize short-, intermediate, and long-term recovery projects.
  - Inform STLT and federal planning for recovery resources and investments.

- Tools available to assist in conducting assessments include:
  - Communities can conduct the CASPER to aid in preparedness, response, and recovery.
  - The CDC Comprehensive Disaster Assessment and Readiness Tools (CDART) team can provide guidance to help a community conduct assessments focused on recovery. See the article below for details on the use of CDART in Puerto Rico with the understanding that improvements have been made to the tool which expands capabilities for its use.

[2] The CDC website that consolidates environmental health assessments is found at Conducting Assessments | Environmental Health Response and Recovery | CDC.

Public Health Recovery in Puerto Rico Following Hurricane Maria

Following Hurricane Maria in 2017, Puerto Rico implemented a public health recovery approach that emphasized long-term system restoration, cross-sector coordination, and addressing pre-existing vulnerabilities amplified by the disaster.

- **Integrated Public Health into Whole-of-Government Recovery**
  Public health recovery was closely tied to restoring power, water, transportation, and housing, underscoring the need for cross-sector coordination and alignment with broader recovery planning under the NDRF.

- **Addressed Pre-existing Vulnerabilities**
  Recovery efforts prioritized populations disproportionately affected by the disaster, including older adults, people with chronic conditions or disabilities, and low-income or rural communities to reduce long-term health impacts and improve equitable access to services.

- **Prioritized Environmental and Public Health Hazards**
  Sustained attention to environmental risks, such as unsafe water, wastewater issues, mold, and vector-borne disease, required ongoing surveillance, risk communication, and interagency coordination beyond the response phase.

- **Supported Behavioral Health and Community Resilience**
  Recovery planning incorporated mental and behavioral health services, including crisis counseling and long-term support, while leveraging community networks to promote healing and resilience.

- **Strengthen Public Health Infrastructure and Workforce**
  Investments focused on rebuilding more resilient health systems, ensuring continuity of operations, and supporting workforce training, wellness, and surge capacity

- **Data to Guide Recovery Priorities**
  Damage and needs assessments, surveillance, and data sharing informed recovery decisions, helped track progress, and supported continuous improvement over time.

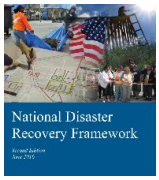
References:

CDC Comprehensive Disaster Assessment and Readiness Tools (CDART) in Puerto Rico

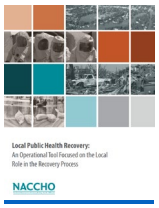
Health and Social Services in Puerto Rico Before and After Hurricane Maria (RAND) Transformation and Innovation in the Wake of Devastation (PreventionWeb)

Appendix C: Resources for Recovery Planning

Below is a list of recovery resource links to support your jurisdiction's recovery activities.



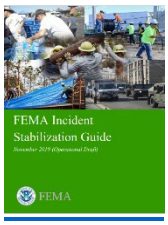
National Disaster Recovery Framework
The NDRF enables effective recovery support to disaster-impacted states, tribes, territorial and local jurisdictions. It provides a flexible structure that enables disaster recovery managers to operate in a unified and collaborative manner. The NDRF focuses on how best to restore, redevelop, and revitalize the health, social, economic, natural, and environmental fabric of the community and build a more resilient nation.



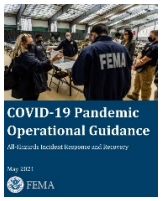
National Association of County and City Health Officials (NACCHO) Local Public Health Recovery Tool
The NACCHO operational recovery tool is a practical resource designed to help local health departments strengthen and plan their roles across all phases of disaster recovery. It outlines recovery objectives, checklists, and actions for pre-disaster planning through long-term recovery, emphasizing collaboration with partners and restoration of health and social services.



FEMA Pre-disaster Recovery Planning Guide for Local Governments
The guide is designed to help local jurisdictions develop recovery plans before disasters occur, improving community resilience and coordination for post-event recovery. It outlines processes and best practices for identifying recovery priorities, engaging partners, and integrating recovery planning into broader emergency management efforts to reduce disruption and expedite restoration of essential services and infrastructure.

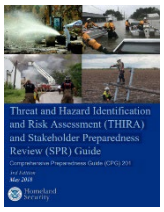


FEMA Incident Stabilization Guide (Operational Draft)
The NRF, 4th Edition, introduces community lifelines (referred to as lifelines) in national level doctrine. The FEMA Incident Stabilization Guide (ISG) describes how FEMA implements lifelines and guides how FEMA applies these concepts to disaster operations. Chapter 4 of this draft publication focuses on transitioning lifelines with recovery outcomes and includes FEMA's vision for how community partners will work together to improve recovery outcomes. The publication also includes recommendations for improving interactions with healthcare entities in a community. This is not the final form of the publication and jurisdictions should look for updates.

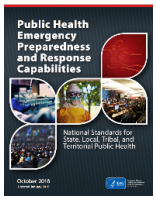


COVID-19 Pandemic Operation Guidance: All-Hazards Incident Response and Recovery
This resource provides actionable guidance for STLT officials to prepare for response and recovery operations amidst the COVID-19 pandemic. This document highlights how FEMA has adapted to operating in the COVID-19 pandemic environment, but to the greatest extent possible, the foundational emergency management concepts remain unchanged. The document also includes an extensive list of recovery resources.

Community Recovery Management Toolkit
This toolkit is designed to help communities manage recovery. It guides you through a three-step process of organizing, planning, and managing recovery, while also giving you resources from other recovery support functions.



Threat and Hazard Identification and Risk Assessment and Stakeholder Preparedness Review (SPR) Guide: Comprehensive Preparedness Guide (CPG) 201 3rd Edition
The Comprehensive Preparedness Guide 201 provides guidance for conducting a THIRA and Stakeholder Preparedness Review (SPR). The THIRA includes standardized language to describe threat and hazard impacts and capability targets. This allows communities to collect more specific, quantitative information while also providing important context. Through the updated SPR process, communities collect more detailed and actionable data on their current capabilities and identified capability gaps.



Public Health Emergency Preparedness and Response Capabilities
In 2011, CDC established the PHEP Capabilities, a set of 15 distinct, yet interrelated, capability standards designed to advance the emergency preparedness and response capacity of state and local public health systems.

Homeland Security Digital Library
The Homeland Security Digital Library (HSDL) is the nation's premier collection of documents related to homeland security policy, strategy, and organizational management. The HSDL includes a COVID-19 resource archive. Most of the resources within the HSDL are public access requiring no registration or password for download.

Technical Resources, Assistance Center, and Information Exchange
HHS ASPR, created TRACIE to meet the information and technical assistance needs of various entities. These include regional ASPR staff, healthcare coalitions, healthcare entities, healthcare providers, emergency managers, public health practitioners, and others. One tool available through TRACIE is the Healthcare Coalition Recovery Plan Template, which provides one possible template for recovery plans and planning considerations. *Registration is required.*

Disaster Recovery: How ASPR Helps Communities Rebuild Stronger
This site describes ASPR coordinates the federal Health and Social Services Recovery Support Function (HSS RSF) and can assist jurisdictions in planning for and executing recovery operations. The site also includes links to sites related to Health and Social Services Recovery.