



Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response

Committee on Guidance for Establishing
Standards of Care for Use in Disaster Situations

Joint Preparedness Conference
23 March 2012, Atlanta, GA



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Presentation Objectives

- Discuss disaster planning and the role of Crisis Standards of Care (CSC) in HPP and PHEP Capabilities
- Provide an overview of the 2009 and 2012 IOM Crisis Standards of Care Reports
- Understand the functions and tasks to guide the following entities in developing CSC plans:
 - State and Local Governments,
 - Legal
 - EMS,
 - Hospitals, and
 - Out-of-hospital and Alternate Care Systems
- Discuss the development of a public engagement strategy



GABE RAMIREZ/CNN

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations



Duty to Plan

“Note that in an important ethical sense, entering a crisis standard of care mode is not optional – it is a forced choice, based on the emerging situation. Under such circumstances, failing to make substantive adjustments to care operations – i.e., not to adopt crisis standards of care – is very likely to result in greater death, injury or illness.”



Crisis Standards of Care

A substantial change in usual healthcare operations and the level of care it is possible to deliver, which is made necessary by a pervasive (e.g., pandemic influenza) or catastrophic (e.g., earthquake, hurricane) disaster.



Crisis Standards of Care

This change in the level of care delivered is justified by specific circumstances and is formally declared by a state government, in recognition that crisis operations will be in effect for a sustained period.



Crisis Standards of Care

The formal declaration that crisis standards of care are in operation enables specific legal/regulatory powers and protections for healthcare providers in the necessary tasks of allocating and using scarce medical resources and implementing alternate care facility operations.



THE CONTINUUM OF CARE: CONVENTIONAL, CONTINGENCY AND CRISIS

	Effect on Standard of Care	Resource Constrained	Practicing Outside Experience	Focus of Care
Conventional	No	No	No	<i>Patient</i>
Contingency	Slightly	Slightly	No	<i>Patient</i>
Crisis	Yes	Yes	Yes	<i>Population</i>

INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Recommendations

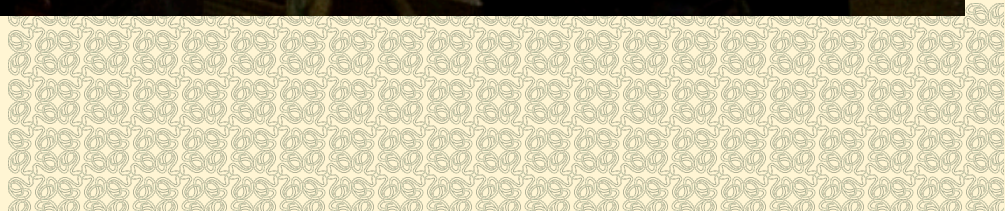
1. Develop Consistent State Crisis Standards of Care Protocols with Five Key Elements
2. Seek Community and Provider Engagement
3. Adhere to Ethical Norms during Crisis Standards of Care
4. Provide Necessary Legal Protections for Healthcare Practitioners and Institutions Implementing Crisis Standards of Care
5. Ensure Consistency in Crisis Standards of Care Implementation
6. Ensure Intrastate and Interstate Consistency Among Neighboring Jurisdictions





INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health





INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health





Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

Introduction and CSC Framework

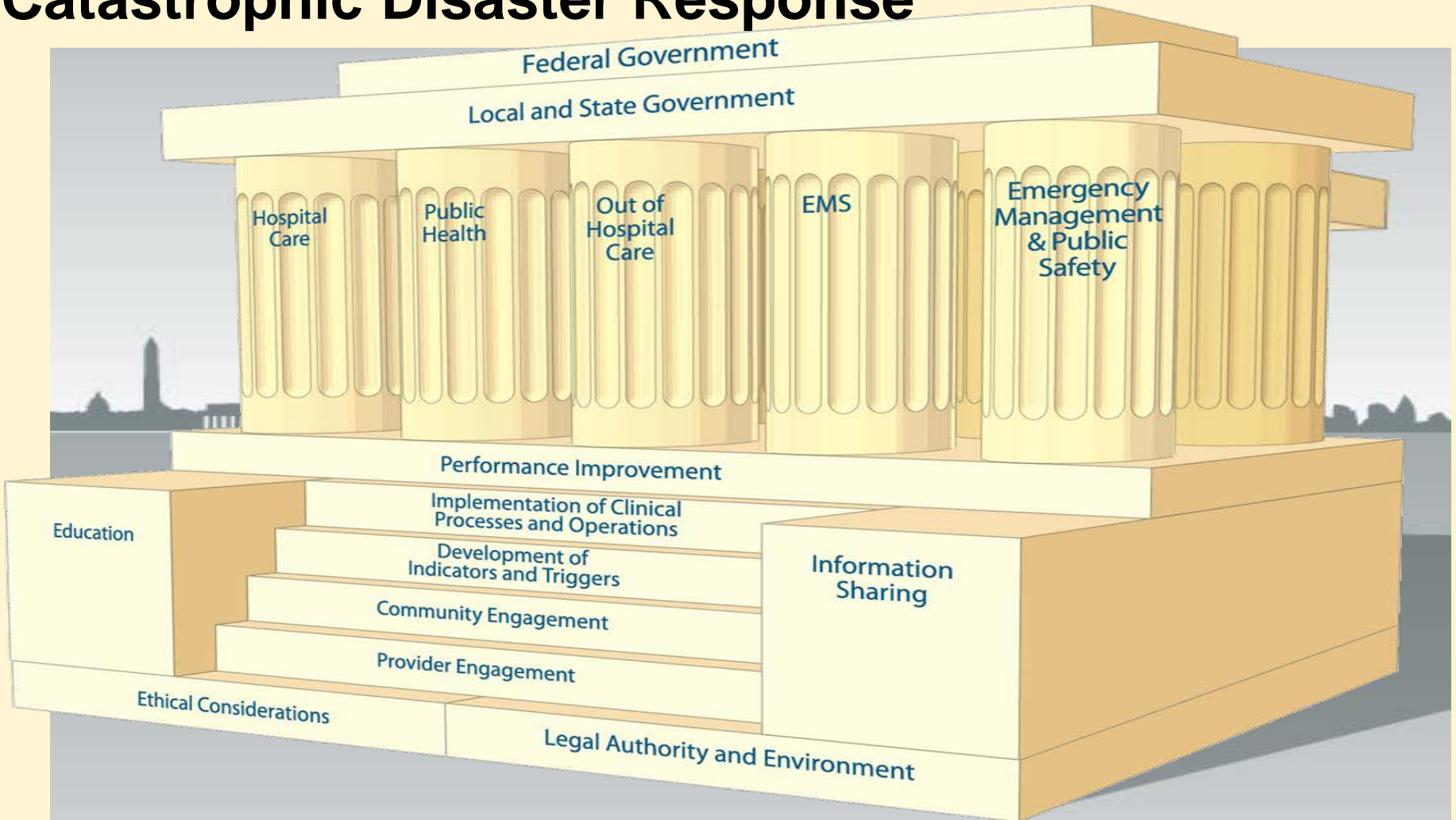
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

CSC Framework and Report Structure

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Conceptualizing a Systems Framework for Catastrophic Disaster Response



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Structure of the Report



Introduction

- Introduction, Framework, Legal Issues, Cross-Cutting Themes (ethics, palliative care, and mental health)

Four discipline-specific volumes

- State and local, EMS, health care facilities, out-of-hospital care
- Includes the roles of each stakeholder, relevant CSC operational considerations, template(s) description, and the template(s) (functions and tasks to develop and implement CSC)



Public Engagement

- The case for and challenges of public engagement
- Public Engagement Toolkit



State & Local Templates

Function 3. Command and Control, Communications, and Coordination

Command and Control

Notes and Resources

Task 1: State EMA (with, as applicable, support of the state health department as the lead state agency for CSC) implements/expands the incident command system (ICS) consistent with event-driven demands and activates the state emergency operations center (EOC) at a level appropriate to the situation. The state EMA makes recommendations, as needed, to local EMAs on activation of local EOCs and response plans (see Chapter 6).

Task 2: State EMA and the state health department ensure that command staff:

- are trained in CSC plan components and response;
- understand their roles, as well as the roles of local, regional, state, and federal stakeholders, in the state CSC response;
- are well versed in incident action planning during longer-term events;
- have access to appropriate resources (e.g., job aids) to guide decision making; and
- understand the role of the SDMAC and any regional medical coordination centers or regional DMACs, as well as the means by which information is received by or communicated to these bodies.

EMS Templates

Function 3. Command	
	Notes and Resources
<p>State and Regional/Local Task 1: State EMS office implements the incident command system (ICS) within affected jurisdictions. Includes:</p> <ul style="list-style-type: none"> • ensuring that command staff are trained in and have exercised the use of alternate care sites, transportation modes, and staffing configurations (and other crisis adaptations) according to local/regional plans; • ensuring that command staff are well versed in incident action planning and how to incorporate appropriate technical experts (such as the SDMAC) into the planning process for long-term incidents; and • ensuring that appropriate resources (job aids) are available to guide capacity expansion decisions as needed. <p>State Task 2: All stakeholders understands the ESF-8 role in a CSC incident and how the chains of command of the state emergency operations center (EOC) and agency internal operations center coordinate the development, communication, and implementation of new CSC strategies in response to incident-specific demands.</p>	<p>Refer to National Incident Management System (NIMS) and CSC plans.</p> <p>Refer to the committee's letter report (IOM, 2009b) for information on the SDMAC.</p> <p>State EMS office works closely with the state EMA to regularly exercise operations of the jurisdictional EOCs.</p>

INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Health Care Facilities Templates

Function 3. Command

Task 1: Hospital incident command system (HICS) (or other National Incident Management System [NIMS]- and community-compliant system) is in place. Includes:

- understanding where technical specialists, the clinical care committee, and the triage team fit into the incident management structure;
- training and exercising with key staff, including those on the clinical care committee and potential triage team members;
- command staff being trained and exercised (at least tabletop) in activation of the full continuum of care, including use of crisis spaces and staffing;
- command staff understanding incident action planning and use of the planning section during longer-term incidents; and
- appropriate resources (job aids) being available to guide capacity expansion.

Notes and Resources

See Appendix B for a sample hospital CSC plan.

See Table 7-2 in Chapter 7 for a sample surge capacity template.

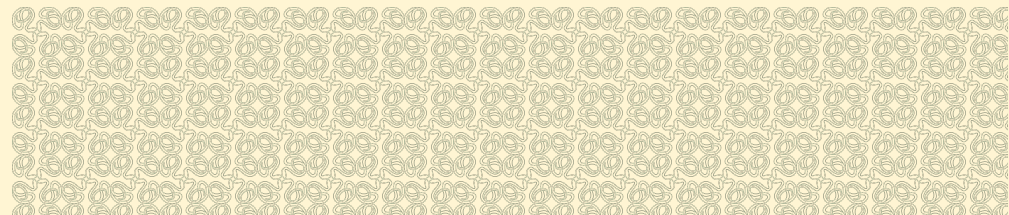
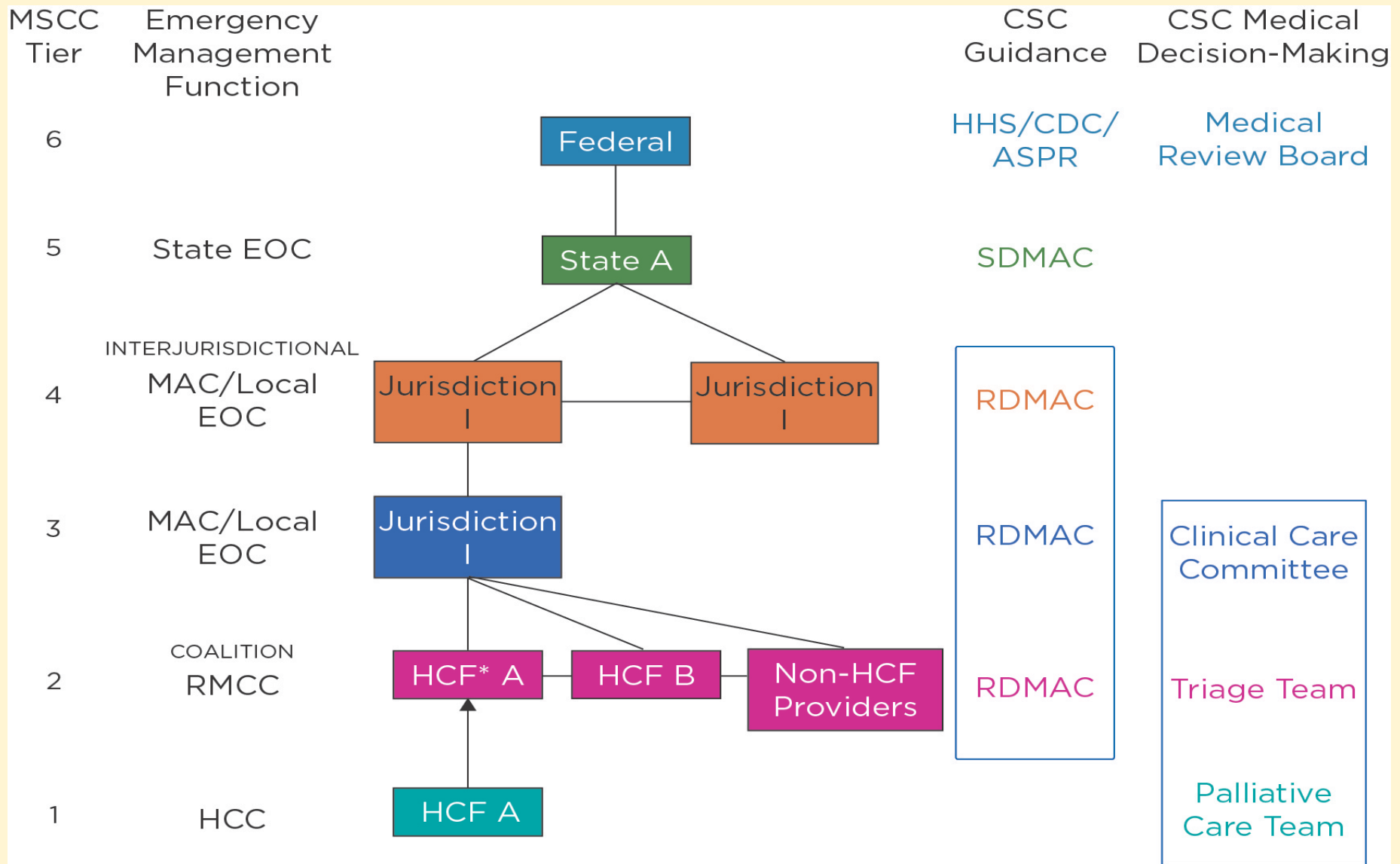
Out-of-Hospital & Alternate Care Systems Templates

Function 3. Command

Notes and Resources

Task 1: A hospital incident command system (HICS) (or other modified National Incident Management System [NIMS]- and community-compliant system) appropriate to the institution's size and role is utilized. Includes:

- understanding how decisions regarding changes to facility policy or clinical practice are implemented during an incident (decisions system- or facility-based?);
- training and exercising with key staff;
- command staff being trained in the full continuum of care, including use of crisis spaces and staffing;
- command staff understanding incident action planning and use of the planning section during longer-term incidents (including the interface with the corporate structure as applicable); and
- appropriate resources (job aids) being available to guide capacity expansion decisions.



RECOMMENDATION:

Federal, state, tribal, and local governments should develop a systems-based framework for catastrophic disaster response, which must be integrated into existing emergency response plans and programs. To facilitate the implementation of this framework, the committee specifically recommends that:

- Each level of government should ensure coordination and consistency in the active engagement of all partners in the emergency response system, including emergency management, public health, emergency medical services, public and private health care providers and entities, and public safety.
- Each level of government should integrate crisis standards of care into surge capacity and capability planning and exercises.

- The HHS/ASPR (e.g., through its regional emergency coordinators) should facilitate crisis standards of care (CSC) planning and response among state and tribal governments within their region;
- In CSC planning and response efforts, states should collaborate with and support local governments.
- Federal disaster preparedness and response grants, contracts, and programs in HHS, DHS, DoD, DoT, and VA—such as the Hospital Preparedness Program, Public Health Emergency Preparedness, Metropolitan Medical Response System, Community Environmental Monitoring Program, and Urban Area Security Initiative—should integrate relevant CSC functions.



Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

State and Local Government

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

State and Local Governments

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Governments at **all levels**
play a crucial role in
leading and coordinating
CSC planning & implementation



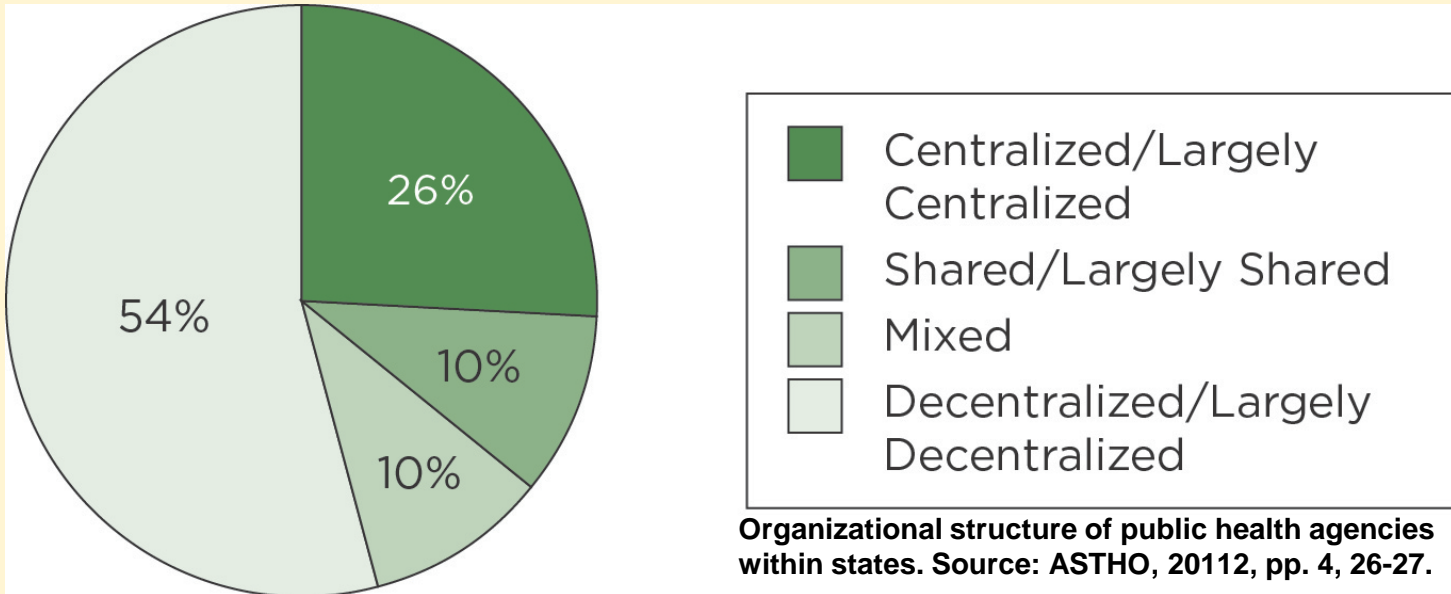
Interplay Between State & Local Government in CSC Planning

- **State** government is ultimately accountable for CSC activities with states having “the political and constitutional mandate to prepare for and coordinate the response to disaster situations throughout their state jurisdictions” (*IOM, 2009*)
- **Local** government is “uniquely positioned in the organizational structure of states to intersect with both state government partners and the communities in their local jurisdiction(s)” (*IOM, 2012*)

State/Local Considerations in CSC Planning & Implementation

- CSC emergencies are expected to be multijurisdictional, statewide or even multistate incidents
- State-level coordination with intra- and interstate as well as federal partners is essential
- Requires comprehensive, all levels (local, regional, state, federal) approach to planning and response
- States vary in organizational structure and in their relationships with local governments (including with respect to public health)

Variations in State/Local Health Department Relationships



CSC planning will need to take into account these varying structures/relationships across different states, for example:

- Centralized structures (e.g., Florida, Missouri)
- Decentralized structures (e.g., California, Texas, Ohio)

Role of State Governments

- Primary role in CSC response is decision-making at the state government level
- Structure, cross-discipline responsibilities and authorities make state health departments best suited to lead CSC planning and response efforts
- State-Federal Interplay: resource support, clinical care guidance, information exchange, etc.
- Regional Coordination:
 - Regional Medical Coordinating Committees (RMCCs)
 - Regional Disaster Medical Advisory Committees (RDMACs)
 - Hospital coalitions

Role of Local Governments

- Plays active role in CSC response to integrate state efforts with local community activities and vice-versa
- Local health departments are the “front line” of public health agencies and fulcrum of local CSC response
 - Serve to integrate the spectrum of local response partners because of community links, including engagement activities
- Local-State Interplay: different models for initiating CSC plan development, but ultimately requires coordination and collaboration
 - Consistency across jurisdictions important to minimize “forum shopping” and perception of inequities
 - Resource support, clinical guidance, information exchange, etc.

States More Actively Engaged in CSC Planning

➤ Planning Stage

- Continue CSC work by engaging collaborative local/regional partner relationships already in process and review overall progress to date
- Local role is active – includes adapting state CSC planning (and resources) to local community efforts and incorporating local community CSC-related perspectives (and activities) into state planning efforts

➤ Implementation Stage

- Ensure intrastate jurisdictional consistency
- Provide two-way communication/situational awareness between state efforts and “on-ground” realities

States Less Actively Engaged in CSC Planning

(consider also when LHDs already further along CSC spectrum)

➤ Planning Stage

- States need to begin CSC work now
- If CSC efforts already begun at local (or regional) level, states should augment and leverage work already started
- Local or regional entities should engage state partners to transition from locally or regionally driven processes to state-led CSC planning activities

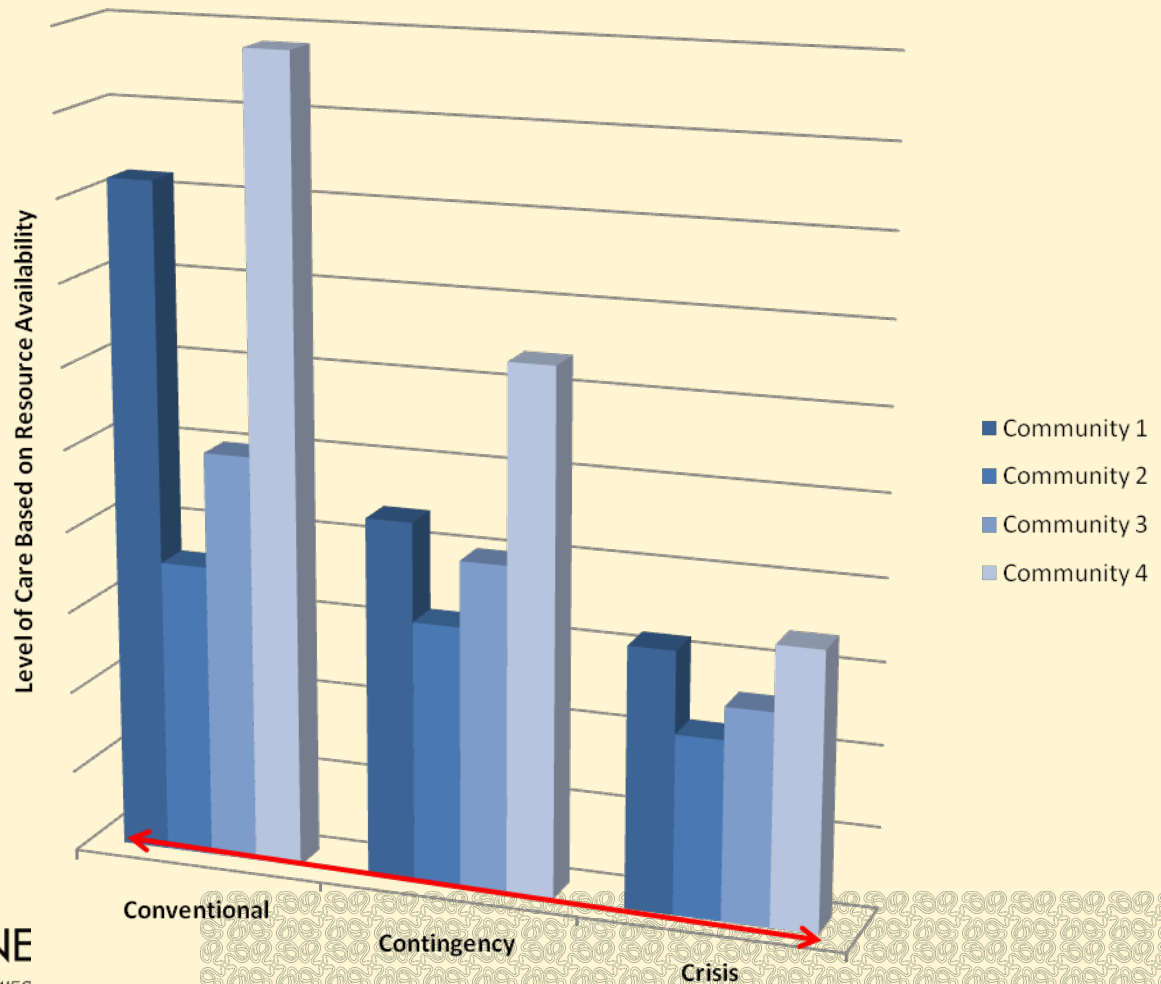
➤ Implementation Stage

- States and locals (including regional partners) working together to ensure CSC implementation is consistent and coordinated

Jurisdictional Consistency in CSC Planning & Implementation

State role essential in promoting consistent planning, response, and recovery activities:

- Some level of local variation will occur (too much can lead to “forum shopping”, disjointed levels of care, etc.)
- Consistency does not necessarily mean the same



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

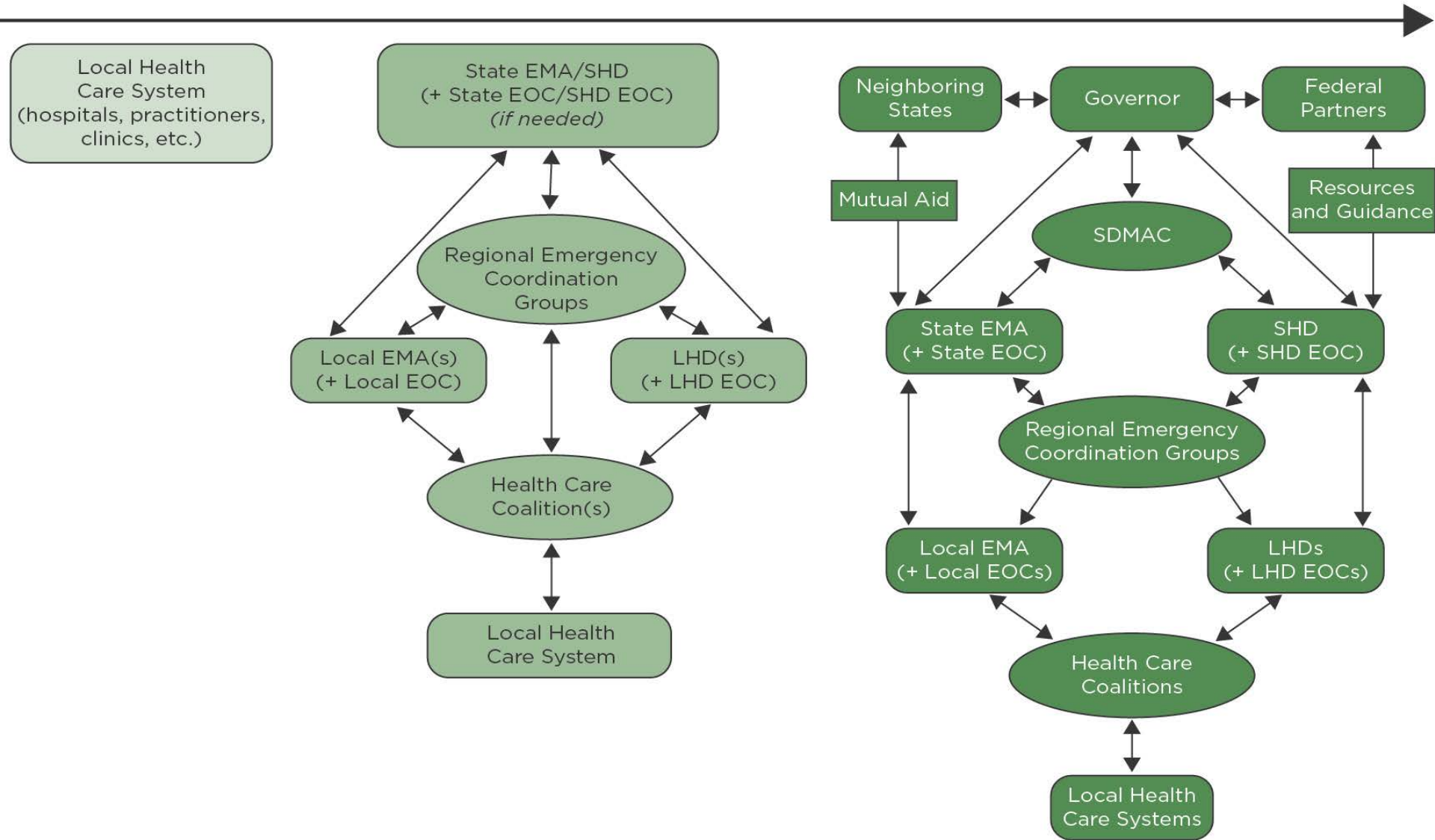
Advising the nation • Improving health

State Response Structure along the Continuum of Care: Conventional to Crisis

CONVENTIONAL

CONTINGENCY

CRISIS



“Walking” it through can get complicated . . .

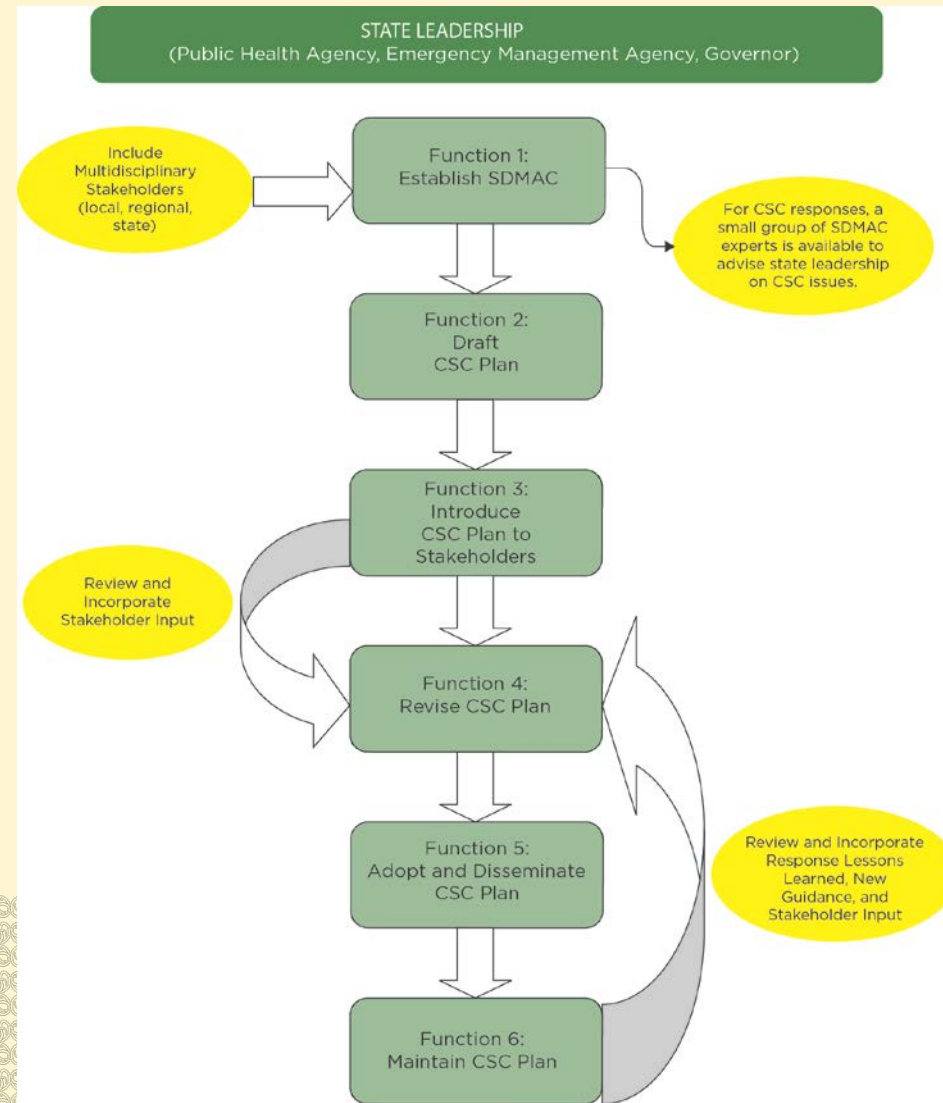
Fortunately, there’s an “app” (I mean **template**) for that!

Template 5.1 – Core Functions for CSC Plan Development (within states)

- Establishment of CSC planning committee
- Plan drafting
- Plan introduction and review – stakeholder and public engagement
- Plan revision
- Plan adoption, notification, and dissemination
- Plan maintenance

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

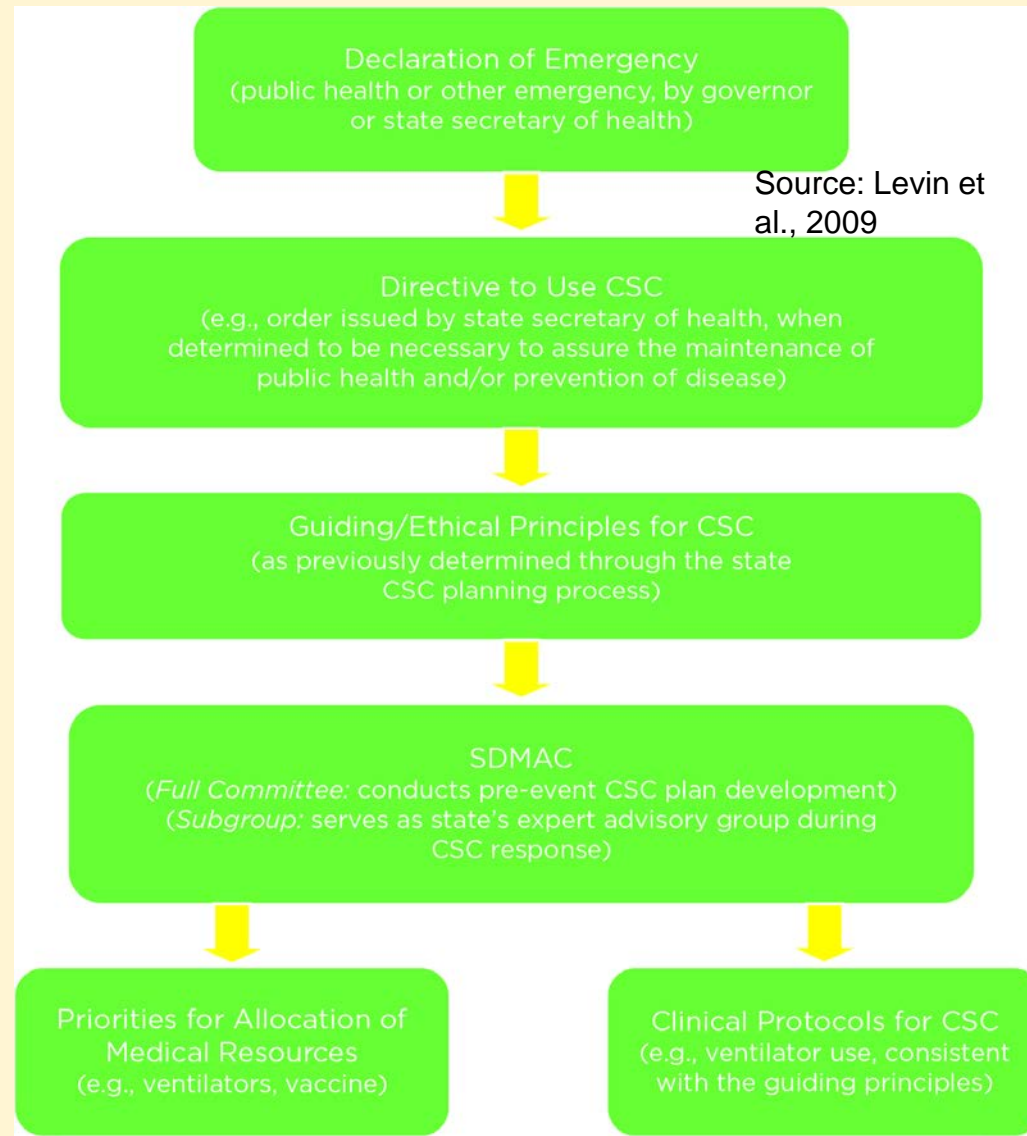


Template 5.2 – Core Functions for CSC Plan Implementation (within states)

- Alerting and activation
- Notification
- Command and control, communications, and coordination
- Public information
- Operations
- Logistics
- Termination, demobilization, recovery and evaluation

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Template 5.1. Core Functions for CSC Plan Development (Within States)

Function 1. Establishment of CSC Planning Committee

Task 1

State public health agency is identified as the lead state agency for CSC planning and implementation.

Task 2

State health department establishes and staffs a state-level, multidisciplinary, and transparent state disaster medical advisory committee (SDMAC) to draft the state CSC plan. During a CSC response, a smaller, technical subgroup of the SDMAC is available to serve as an operational, expert advisory body to inform and advise the state health department, state leadership, and other stakeholders on CSC plan development, implementation, and recovery issues.

Full SDMAC meets as needed. Full SDMAC CSC plan drafting group includes a broad range of stakeholders, such as:

- state health department;
- local health departments and other local government agencies;
- state emergency management agency (EMA);
- state homeland security office;
- health care (including SDMAC members if such a committee already exists, regional medical coordination centers or regional DMACs [RDMACs], health care coalitions, private practitioners, hospitals, health care systems, specialty hospitals, professional boards and associations, and emergency medical services [EMS]);
- medical examiner;
- ethics experts;
- attorneys;
- academics;
- community members;
- representatives of at-risk populations (e.g., pediatric, mental health);
- governor's office;
- National Guard;
- Department of Veterans Affairs (VA) health care facilities (if located within the state);
- Department of Defense (DOD) health care facilities (if located within the state); and
- others as applicable (including federal partners, such as Department of Health and Human Services [HHS] regional emergency coordinators [RECs])

Task 3

SDMAC recommends to the state the CSC response structure that would work best in the state (e.g., based on existing structures).

Notes and Resources

An SDMAC or similar committee may already exist in the state. If so, that existing committee can be adapted to conduct CSC planning, ensuring that its membership includes the appropriate range of stakeholders. After the planning phase, the SDMAC can contract to a smaller, technical subgroup that assumes operational responsibility for advising the state during CSC incidents.

Legal Issues

Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

Introduction and CSC Framework

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Federal Guidance and Grant Requirements

ASPR Health Preparedness Capabilities National Guidance for Healthcare System Preparedness 1/2012

- Capability 10: Medical Surge
- Function 4: Develop CSC Guidance

CDC Public Health Preparedness Capabilities National Standards for State and Local Planning 3/2011

- Capability 10 Medical Surge
- Function 1: Assess the nature and scope of the incident

Changing Legal Environment during a Catastrophic Disaster

Non emergencies

- Existing laws and policies provide guidance
- General consensus on what actors and entities can do with respect to provision of health care and the allocation of medical resources

Emergency situations

- Scarce resources may require health care providers to expand their usual scope of practice and make difficult allocation of care decisions they have not previously had to make
- Emergency declarations provide flexibility to respond to crisis

Changing Legal Environment: Legal Preparation

Law can facilitate or impede response –Emergency legal planning can ensure that law will be an asset not a barrier

IOM Report contains guidance on legal issues to consider in preparation for public health emergency:

I. Legal Authority, including:

- Declaration of Emergency Authority
- Ability/flexibility to take necessary action

II. Patient Interests, including:

- Privacy, informed consent
- Fair/reasonable access to and allocation of medical resources

III. Health Care Providers, including:

- Medical and Legal Standards of Care
- Scope of Practice
- Liability

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Changing Legal Environment and Crisis Standards of Care (CSC)

Emergencies which result in a sustained period of resource constraints will require a change in usual health care operations

“Crisis Standards of Care” is one aspect of broader disaster planning and response effort that provides guidance for those responding in these situations

Goal becomes saving the most lives possible; when necessary, shift from individual care to the max to maximum number of lives saved

Appropriate legal authority and protections are necessary in this environment

Role of States

States have primary, key role in coordinating CSC planning and response efforts

States should:

- Assess legal authority to take or enable actions necessary for response
- Assess legal needs and concerns of health care providers and facilities

Legal Authority

Power to Declare Emergencies

- Federal Authority: Public Health Service Act; Stafford Act
- State Authority
 - Varies state to state
 - Authorizes ER Management agencies to use powers to coordinate ER responses – either civil (state of ER) or public health emergency

States should determine:

- Can ER authority be declared? How is it invoked?
- If there are both civil and public health ER authorities, how/when would each be used/coordinated? Is authority for various governmental agencies to act and coordinate clear?
- Does the authority provide the ability to allow for expanded scope of practice for health care practitioners, waive statutory or regulatory requirements, address liability concerns, allocate resources, including personnel and supplies?

Legal Authority Issues

Report – Table 3-1: Legal Issues of Concern to Health Care Practitioners and Entities Responsible for Legal Preparedness

Table lists issues for consideration which can inform review of sufficiency of state's ER authorization and related authority

Specificity re:

- Organization of Personnel
- Access to Treatment
- Coordination of Health Services
- Patient's Interests
- Allocation of Resources
- Liability
- Reimbursement
- Interjurisdictional Cooperation

Patients' Issues

The two cornerstones for the foundation of the framework for CSC are the *ethical considerations* that govern planning and implementation and *legal authority and legal environment* .within which plans are developed

At the core of emergency-related legal issues is the need to balance individual and communal interests to protect the public's health

Both legal and ethical considerations are important in achieving this balance

Protection of Patients' Interests

- Privacy; Informational Privacy
- Informed Consent
 - Competent patient has right to refuse medical treatment;
 - DNR does not mean patient agrees to forgo care under every circumstance
- Procedural Due Process
 - Review of allocation decisions
 - Flexible concept
- Vulnerable Populations
 - Individuals with mental and physical disabilities
 - Equal protection – will decisions disproportionately affect individuals on the basis of ethnicity, religion, race?

Health Care Providers

Implementation of CSC entails:

- Difficult decisions and intense trade-offs
- Constant assessments of specific courses of action
- Potentially unconventional acts

May be asked to perform in expanded role

- Outside specialty
- Through waiver, additional responsibilities and/or procedures

For many health care providers, these circumstances raise concerns about liability

Liability Concerns

Civil, criminal and constitutional claims

Claims based on:

- Negligence/malpractice
- Discrimination
- Invasion of privacy
- Violation of state and federal statutes
- Failure to plan

Liability and Crisis Standards of Care

CSC provides guidance on the acceptable manner of delivering care in an austere situation with significant resource constraints

The discussion of liability for care rendered during an emergency is related to but separate from the need to develop CSC which is a systems approach to disaster response

Medical Standard of Care

Medical standards of care are dictated by professional norms/requirements and institutional objectives

Routine medical standards of care are flexible in recognizing that circumstances can change the way care is delivered, BUT they usually do not reflect the guidance necessary to assist health care providers in making the decisions necessary in austere situations

Changes in medical standards of care during an emergency may not be reflected in corresponding legal standards of care

Legal Standard of Care

The Legal Standard of Care is defined as the skill a health care provider should exercise in particular circumstances based on what a reasonable and prudent practitioner would do in similar circumstances

The Legal Standard of Care, by definition, recognizes the circumstances as a factor

However, health care providers remain concerned that the provision of reasonable care through medical triage in a crisis may be viewed as insufficient or negligent since it may, by necessity, deviate extensively from normal standards due to scarcity of resources

Addressing Liability Concerns

CSC – consideration and consensus, in advance of an emergency, can provide guidance and clarify the roles and responsibilities of practitioners which will be considered by experts and courts based on what a reasonable practitioner would do under those circumstance

Statutory liability protections for health care and public health actors, especially volunteers, during emergencies

Statutory Liability Protections in Declared Emergencies

No comprehensive national liability protections for health care practitioners or entities in all settings

Array of liability protections at all levels of government – particularly for volunteers

Each jurisdiction should review available protections and determine if additional or different protections are necessary

Options for Statutory Liability Protection

Protections can be triggered by emergency declarations

Immunize or indemnify public health and health care actors or entities from specific claims or monetary damages when acting in good faith and without gross negligence or willful misconduct

Suspend legal requirements or waive sanctions for failure to comply with certain federal or state statutory/regulatory requirements

Table 3-2 – Selected Statutory and Regulatory Health Care Liability Protections in Emergencies

- Examples of Federal Protections, e.g.:
 - Uniform Emergency Volunteer Health Practitioners Act
 - PREP Act – Implementation of covered medical countermeasures
 - FDA issuance of Emergency Use Authorization
- State Protections, e.g.:
 - Emergency Laws/Regulations
 - Tort Claims Acts
 - Emergency Management Assistance Compact (EMAC)
 - Intrastate Mutual Aid Legislation

Summary

Understand legal concerns

Evaluate need for legal or policy changes or clarification

Generate meaningful legal solutions in advance of and during emergencies to facilitate real-time implementation of CSC

What is necessary?

- Are reforms required to provide enhanced liability protection for health care workers, volunteers and entities working to implement CSC?
- Depends on policy objectives and preferences within individual jurisdictions



Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

EMS

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Emergency Medical Services (EMS)

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Advising the nation • Improving health

TABLE 6-1 Potential EMS Response Adaptations under Conventional, Contingency, and Crisis Conditions^a

	Conventional	Contingency	Crisis ^b
Dispatch	<ul style="list-style-type: none"> Consider initial auto-answer during times of high call volume for medical emergencies 	<ul style="list-style-type: none"> Prioritize calls according to potential threat to life; “pend” apparently non-life-threatening calls (note this requires a medically trained dispatcher, not available at many public safety answering points [PSAPs]) 	<ul style="list-style-type: none"> Decline response to calls without evident potential threat to life (also requires a medically trained dispatcher)
Response	<ul style="list-style-type: none"> Modify resource assignments (e.g., only fire/rescue dispatched to motor vehicle crashes unless EMS are clearly required, single-agency EMS responses if fire agencies are overtaxed) Seek mutual-aid assistance from surrounding areas 	<ul style="list-style-type: none"> Modify resource assignments to a greater extent Change EMS assignments to closest available unit rather than advanced life support (ALS)/basic life support (BLS) Consider staffing configuration changes (e.g., from two paramedics to one paramedic plus one emergency medical technician [EMT]-B) Consider requests for disaster assistance 	<ul style="list-style-type: none"> Request EMS units from emergency management (if possible) Consider use of National Guard ambulances or other assets Utilize scheduled BLS providers to answer emergency calls Change staffing to one medical provider, one driver Further modify resource assignments as possible Attempt no resuscitation of cardiac arrests (except ventricular fibrillation [VF] witnessed by EMS)



TABLE 6-1 Potential EMS Response Adaptations under Conventional, Contingency, and Crisis Conditions^a

	Conventional	Contingency	Crisis ^b
Patient assessment	<ul style="list-style-type: none"> • Allow patients with very minor injuries to use their own transportation 	<ul style="list-style-type: none"> • Encourage patients with minor injury/illness to use their own transportation 	<ul style="list-style-type: none"> • Assess patients and decline to transport those without significant injury/illness (according to guidance from EMS medical director)
Transportation	<ul style="list-style-type: none"> • Transport patients to the closest appropriate facility (rather than the facility of the patient's choice) 	<ul style="list-style-type: none"> • Consider batched transports—answer subsequent call(s) before transporting stable patients to the hospital 	<ul style="list-style-type: none"> • Decline transports as above; employ batch transports as needed

INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Hospitals and Acute Care Facilities

Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

Hospital

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



TABLE 7-1 Implications of the Care Capacity Continuum for Resources

	Low Risk, Low Impact	Moderate Risk, Moderate Impact	High Risk, High Impact
Space	<ul style="list-style-type: none">• Expand hours and use procedural spaces for out-of-hospital care (e.g., surgery and procedure center recovery areas) (Chung et al., 2011; Scarfone et al., 2011)• Use postanesthesia care areas for inpatient capacity	<ul style="list-style-type: none">• Use operative spaces for inpatient care• Use alternate care sites to divert outpatients (e.g., “flu centers”) (Cruz et al., 2010) or provide basic nonambulatory care (hospital overflow)	<ul style="list-style-type: none">• Use cot-based care in flat-space areas• Make major changes to admission criteria (e.g., no admission for cardiac rule-outs if no electrocardiogram [ECG] changes and normal troponin)
Staff	<ul style="list-style-type: none">• Change documentation requirements• Delegate nonclinical duties (e.g., meal serving) to administrative or other staff	<ul style="list-style-type: none">• Change staffing patterns, hours, or supervision• Change frequency of clinical assessments (e.g., vital signs based on clinical changes)	<ul style="list-style-type: none">• Provide just-in-time training to staff to allow them to provide lower-impact interventions and overall patient care (e.g., inhaler administration, change of burn dressings) so specialty staff can concentrate on higher-impact interventions (e.g., ventilator management, burn debridements)
Supplies	<ul style="list-style-type: none">• Implement conservation strategies (e.g., restrict oxygen use to those that have hypoxia)• Recommend substitute medication classes where possible	<ul style="list-style-type: none">• Adapt medications or supplies to the incident (e.g., use of BiPAP or selected anesthesia machines as ventilators)• Reuse otherwise disposable products that can easily be cleaned or disinfected (e.g., cervical collars, tourniquets)	<ul style="list-style-type: none">• Reuse products that require high-level disinfection or sterilization (e.g., central lines, ventilator circuits)• Reallocate medications or supplies to those who will derive the greatest benefit and/or make the least demand on resources (duration of use or amount used for outcome)

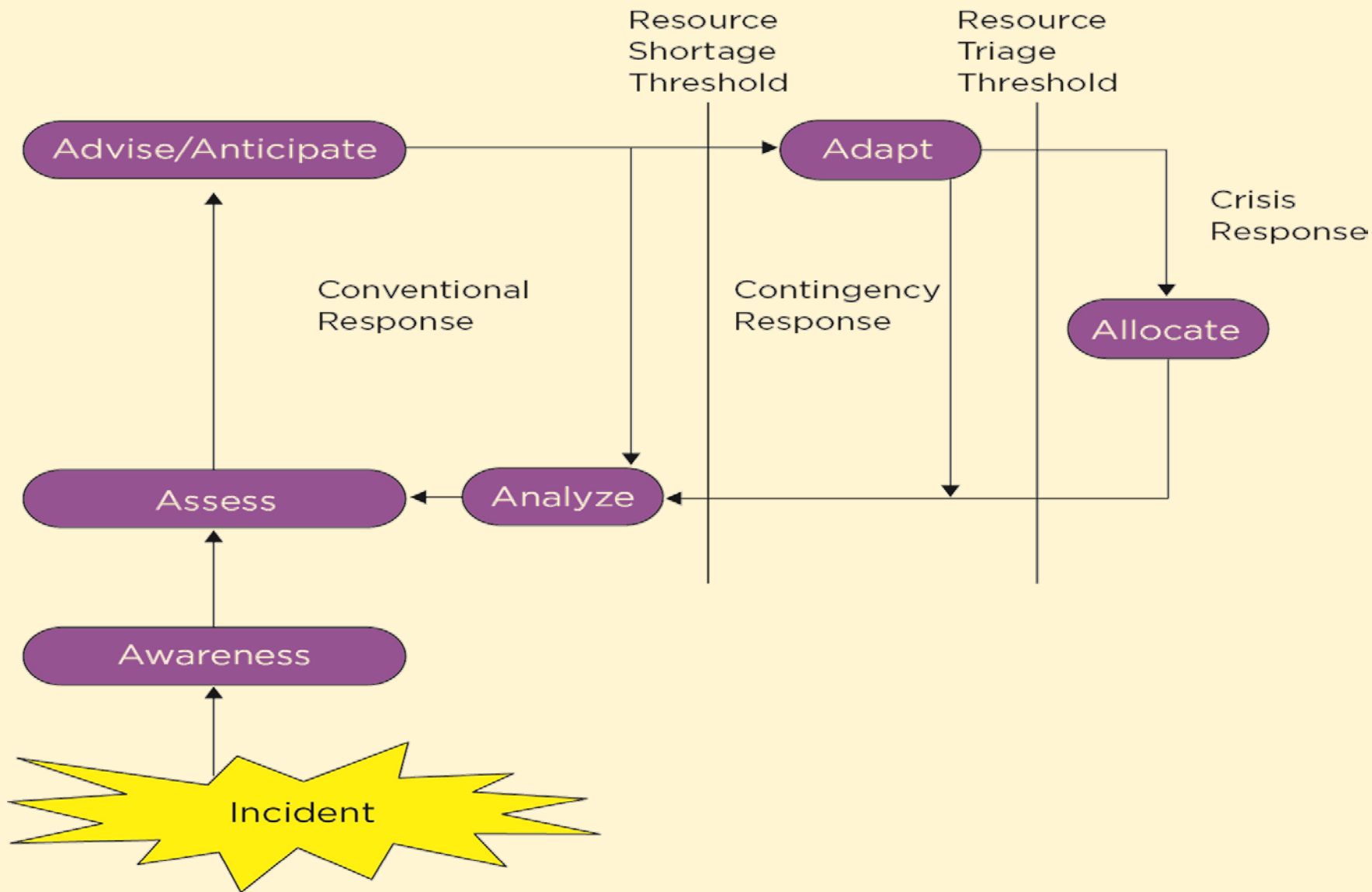
TABLE 7-3 Sample Strategies to Address Resource Shortfalls

	Definition	Example*
Prepare	Plan and train for responses and emergency patient care, anticipate potential resource shortfalls and likely adaptive strategies	Cache equipment and common pharmaceuticals (e.g., narcotic analgesics, burn dressings, ventilators) (24), pre-incident mutual aid agreements with other facilities, and plans for staff and space adaptations in place
Substitute	Functionally equivalent device or supply used	Benzodiazepines substituted for other sedation agents, alternate antibiotics when first-line unavailable
Conserve	Restrictions are placed on the use of therapies or interventions to preserve supply	Oxygen is used only for patients with documented hypoxia
Adapt	Re-purpose a medical device	Saturation monitors with rate alarms used in lieu of full-featured monitors, anesthesia machines used for temporary ventilators
Reuse	Re-use a device with appropriate cleaning, disinfection, or sterilization	Re-use of cervical collars, nasogastric tubes, and other supplies
Re-allocate	Prioritization of therapy to those patients with the best chance of a good outcome, most likely to benefit, or with the least resource investment required	Treatment of subset of patients with vaccine/anti-viral treatments, prioritization of patients to receive mechanical ventilation

INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Implementation of CSC

Example Hospital Emergency Operations Plan Crisis Standard of Care Annex

Process for adopting proactive (structured) Crisis Standard of Care:

1. Incident commander (IC) recognizes that systematic clinical changes will be required over days to allocate scarce resources to those most likely to benefit.
2. Planning chief gathers any guidelines, epidemiologic information, resource information, and regional hospital information and schedules meeting or conference call with IC, Medical Care Branch Director, and designees to clinical care committee.
3. Clinical care committee is convened by IC—membership may vary depending on event (full committee may not be required in some situations—technical specialists may be the only members necessary to resolve specific issues *or* may be added to the committee per IC discretion).

Out-of-Hospital and Alternate Care Systems

Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

Alternate Care System

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

“The value of the outpatient sector – its diversity – is also its challenge.” *(IOM, 2012)*

Out-of-Hospital (Outpatient) Sector in CSC Planning & Implementation

- Nearly 89% of healthcare is delivered in outpatient settings including but not limited to:
 - clinics (public, private, non-profit, etc.)
 - long-term care centers
 - outpatient surgery centers
 - assisted living facilities, group home and congregate environments
 - family-based care, home care

- Disaster outpatient care – especially the use of alternate care systems – has been a gray area where public health and health care responsibilities overlap

Incorporating Outpatient Sector in CSC Planning – a Shared Responsibility

TABLE 8-1 Sample of Responsibilities of the Outpatient and Public Health Sectors during a Disaster

Function	Health Care Sector	Public Health Sector
Overall	Providers, private infrastructure, medical materiel support, medical care and decision making, clinical policy development/technical expertise	Organizational support, situational awareness, liaison to emergency management/emergency operations center (EOC) and state/local government (including legal authorities and regulatory, policy, and logistical support) [e.g., sites for care]
"Electronic care": telephone triage/expanded patient hotlines/web-based assessment and prescribing	Augment and unify telephone advice and prescribing systems; update and modify advice "scripting"	Set up public lines/resources when demand exceeds available augmented resources; provide mechanisms for backup to 911 and other call centers; facilitate phone script coordination; address prescribing and practice regulatory issues
Ambulatory alternate care sites (e.g., "flu centers" or minor trauma care sites)	Augment existing clinics, and open new clinics in other spaces; assist in staffing public health clinics	Set up clinics in high-incidence/impact areas where health care resources are inadequate; provide site and logistics support (and potential staffing from Medical Reserve Corps and other public sources); address prescribing and practice regulatory issues
Nonambulatory alternate care sites (hospital overflow; may include medical shelter for nonambulatory patients)	Provide policy, medical direction, staffing, and special medical materiel support to site	Provide site and logistical support in conjunction with emergency management; legal/regulatory protections
Population-based interventions	Provide vaccinations and prophylaxis in conjunction with public health policy and directives (may include closed points of distribution)	Coordinate overall provision of interventions, including public sites and their staffing

Health Care / Public Health Sectors

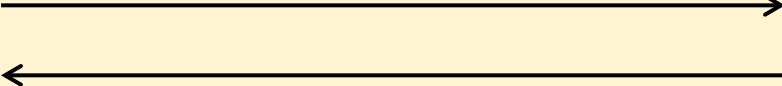
Role of Outpatient Sector

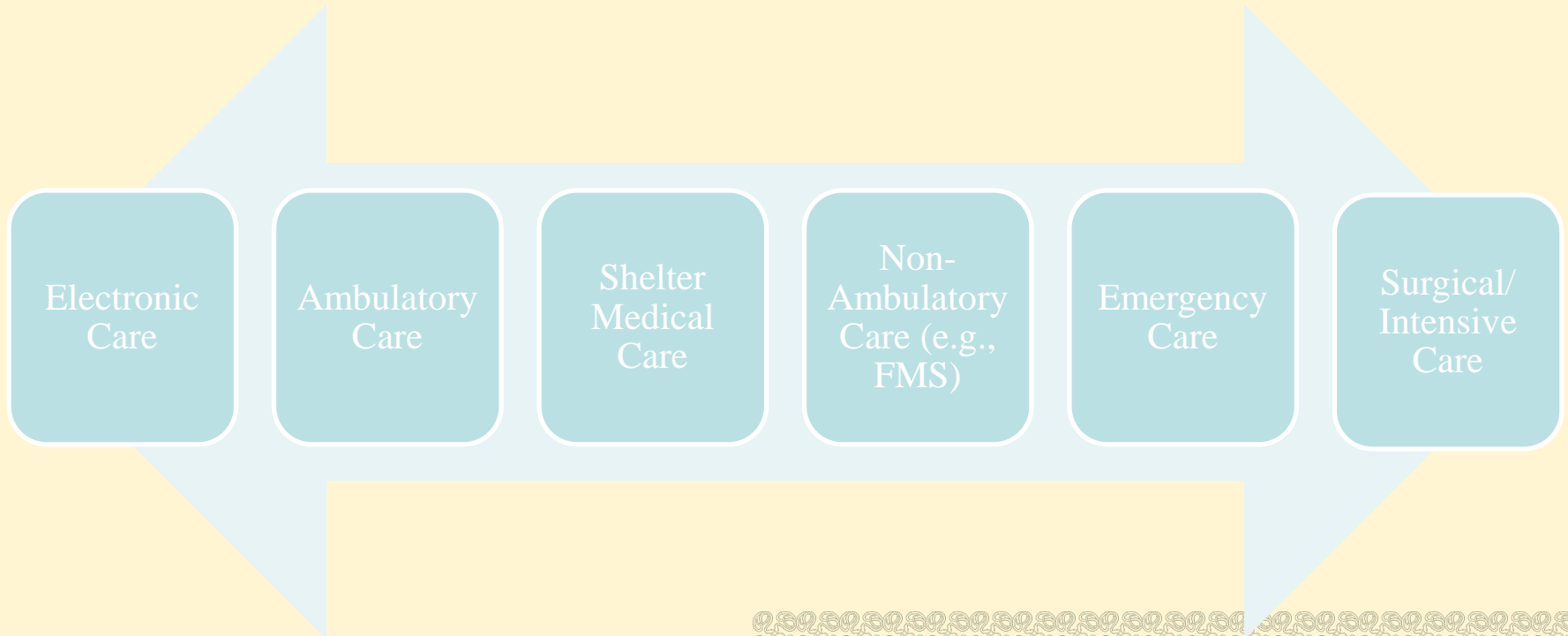
- All outpatient facilities must have their own disaster plan and be able to communicate, contribute, and coordinate with a broader disaster response
- Outpatient providers contribute valuable medical skills and surge infrastructure during a crisis
- Response activities include expanded care and/or repurposed care – all to provide system “surge”
 - Characterized by scalability, flexibility, monitoring/surveillance, communication, and coordination

Outpatient Sector & Alternative Care Systems (ACS)

- When a disaster overwhelms surge capacity of both hospitals and traditional outpatient entities, alternate care systems may be established
- ACS may include: electronic care, ambulatory and non-ambulatory care, shelter-based, emergency or surgical care, inpatient replacement/overflow systems, Federal Medical Stations, mass mortuary, etc.
- Provides flexibility for the response - may take on dual-roles (e.g., mass prophylaxis and vaccination)
- ACS may be publicly, privately, or jointly operated

Relationship Between Types of ACS

Minimal Interventions  Maximal Interventions
Many Patients Benefit Fewer Patients Benefit



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Incorporating Outpatient Care into CSC Planning & Implementation

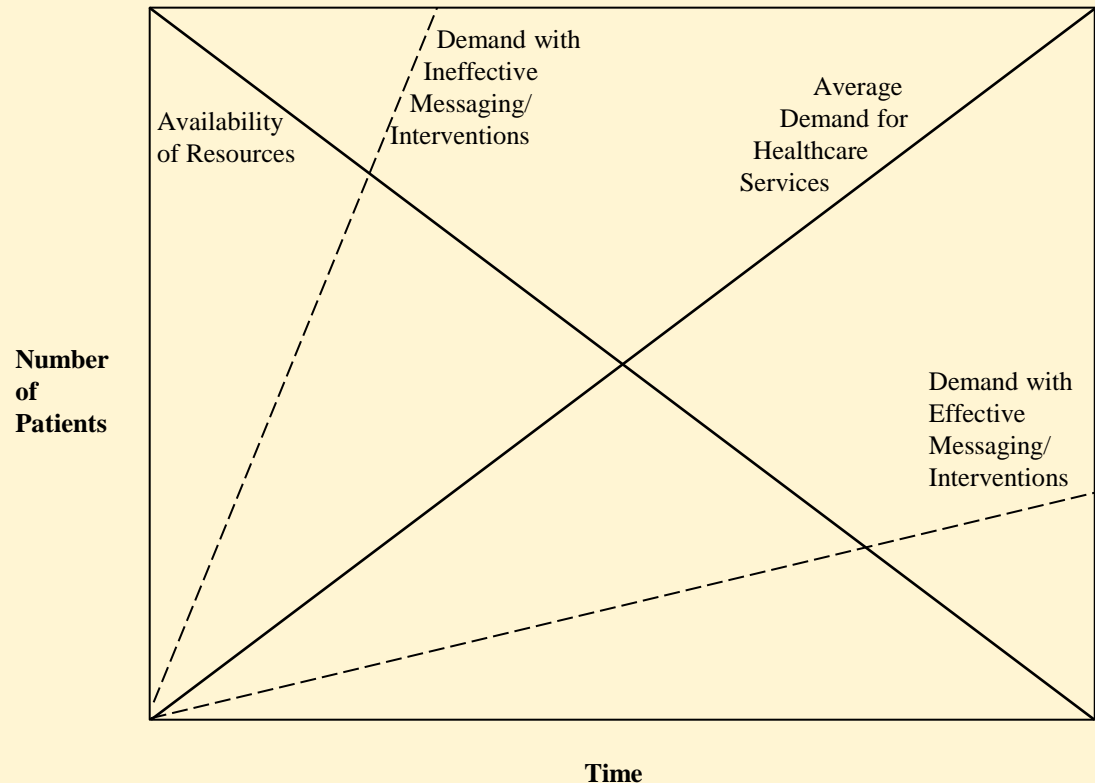
Five elements for “system surge”:

1. Communication and coordination plan
2. Leadership for public alternate care systems
3. Provider engagement
4. Provider mobilization in an emergency
5. Interface for crisis care between local/regional emergency response entities, including public health agencies, medical systems, and the state

Outpatient Care & CSC Planning & Implementation

Operational considerations:

- Expansion of care should be disaster-specific
- Integration with local planning and implementation efforts
- Reimbursement and financing issues
- Public and provider engagement and communication



It can take patience to get through what's “out” there . . .

Fortunately, there's an “app” (I mean **template**) for that!

Template 8.1 Core Functions of the Out-of-Hospital and Alternate Care Systems in CSC Planning and Implementation

Outpatient Care Facilities

Function 1. Alerting

Task 1

Health care facility is able to receive and manage alerts from partner facilities (corporate, health care coalitions, hospital, or other facility partners), public health agencies (health alert network), and the National Weather Service.

Task 2

Emergency response plan provides triggers and process for incident command to activate the CSC plan and indicators (if applicable) to prompt consideration of activation.

Function 2. Notification

Task 1

Institution is able to alert staff within and external to the facility, including:

- medical, administrative, and support staff; and
- command/supervisory staff (especially if part of the larger system).

Notification mechanisms account for redundancy in case a disaster affects usual means of contact/consultation.

Task 2

Facility identifies technical experts that can work with the administration to determine issues/policies related to infection control, infectious diseases, pediatric care, mental health care, and other specialties as required by the role of the facility. (These may be identified regionally.)

Notes and Resources

Institution should at least annually test notification systems and ensure that up-to-date contact information is available.

Function 3. Command

Task 1

A hospital incident command system (HICS) (or other modified National Incident Management System [NIMS]- and community-compliant system) appropriate to the institution's size and role is utilized. Includes

Templates cover following areas:

- Outpatient care facilities
- Long-term care facilities
- Home care/medical equipment vendors
- Alternate care systems
- Out-of-hospital providers



Crisis Standards of Care

A Systems Framework for
Catastrophic Disaster Response

Public Engagement

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Public Engagement on Crisis Standards of Care

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health



Goals of Public Engagement

Inform members of the community about the concept of CSC

Provide policy makers with community perspectives on ethical dilemmas of allocating scarce medical resources

To have CSC guidelines that reflect community values and priorities

Benefits of Public Engagement

Raise awareness about the need to focus on broader goals of disaster preparedness

Guidelines reflective of community values and priorities will be more acceptable when implemented

Understanding and acceptance will help to attain best possible results in the event of catastrophic disaster

Model Resource: Tool Kit

Model Process and set of tools for community conversations based on:

- Experience of various jurisdictions Seattle/King County (Washington), Harris County (Texas) and Minnesota
- Two pilots in Boston and Lawrence, Massachusetts

Developed for state and local jurisdictions to tailor and adapt to their needs.

Essential Principles (1)

Policymakers are committed to considering public input

Participants represent the community's diversity

Participants are provided with information and meaningful opportunity to engage in discussion

Essential Principles (2)

Deliberation is a goal in and of itself

- Consensus is not essential
- Discussion informs development of CSC plans

Input receives consideration in decision making process

- Not a “vote”
- Final policy decisions will be shared
- Basis for differences discussed and explained

Sufficient sponsor support and resources are available

Challenges and Strategies

When to engage the public

- It varies, but somewhere in the middle of the process
- While plan is in development or initial draft is completed

How to engage community partners

- Smaller meetings with representatives of those with unique perspectives: elders, children, people with disabilities, immigrants and refugees, geographically isolated communities
- Informs agenda for public engagement
- Assists in recruitment of diverse community participants

Challenge: How to achieve diverse community participation

Determine demographic makeup of targeted community

Ideally, each session should have a mix of participants so different perspectives can be shared

Alternatively, sessions for different populations

Offer incentives/stipends to compensate for missed work, dependent care, transportation or for giving up free time

- Incentives can yield higher levels of attendance
- (Consider whether funding and/or political will for funding exists for stipends)

More on achieving diverse community participation

Include non-English speaking and difficult to reach groups

- Provide translation and interpreter service
- Conduct sessions in predominant language of non-English speaking group
- Hold sessions close to home

Include people with disabilities and other functional needs

More Strategies and Challenges

Appropriate length of sessions

Presentation of information/issues in understandable format

Recruiting skillful and experienced facilitators

Collection and analyzing data

- Audience Response System: interactive and fun
- Adept note takers are important for useful data

Managing the Message –explaining CSC in a challenging environment

“Research” or “Deliberative Democracy”?

Toolkit for Public Engagement Sessions

- User friendly, practical blue print for organizing and convening community conversations
- Tools to engage the general public on values that underlie the allocation of scarce resources in response to a disaster
- Provides framework for sponsors to modify to incorporate and reflect local issues

Toolkit: Sponsor Guidebook

Sponsor: state, regional and local sponsoring public health agencies

Sponsor Guidebook provides:

- Overarching guidance on organizing and convening these conversations
- Guidance on recruiting participants and key facilitators
- Identification of principles and strategies

Toolkit : Guidebook for Lead Facilitators

Lead Facilitator

- Introduces group to CSC;
- Leads large group discussions and report backs from smaller groups

Guidebook provides:

- Background information on CSC: PowerPoint slides
- Purpose and goals of the community conversation
- Annotated agenda of the activities
- Talking points and specific guidance on use of materials
- Copies of surveys, scenarios, and discussion questions
- Advice on facilitation

Table Facilitators and Note Takers

Table Facilitator:

- Leads small group discussions
- Engages participants in scenario activities
- Guidebook provides CSC background and scripts and questions for leading small-group discussion

Note Takers receive background material and guidance for taking notes

Pilot Community Conversations in Massachusetts

Lead Facilitator: Umair A. Shah, M.D., MPH, IOM
Committee Member

Two public engagement sites:

- Boston: more academic
- Lawrence : more community based

IOM Committee as Sponsor, working with
Harvard Medical School

Followed guidance/used materials provided in
Report

Agenda

Pre Survey

Presentation on CSC with introductory PowerPoint slides; Q&A

Small-group discussions of scenarios

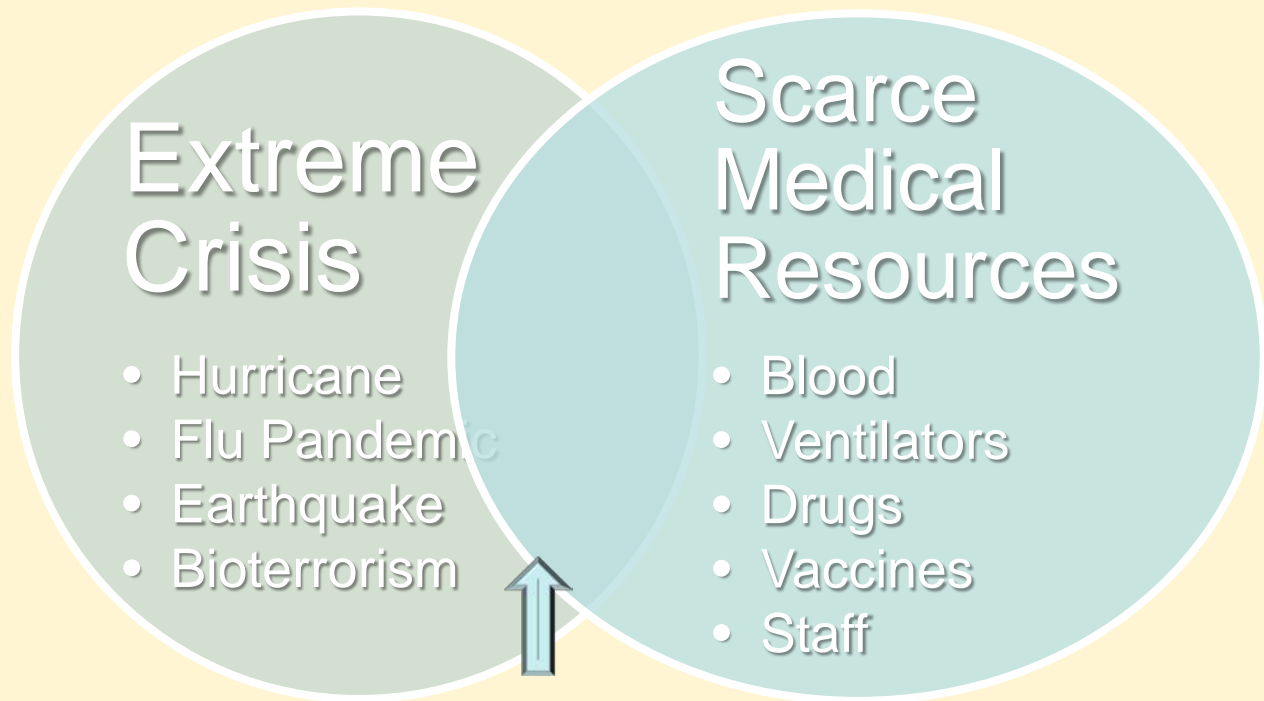
- Longer session (Boston) used two scenarios
- Shorter session (Lawrence) used one scenario

Report back to large group

Post Survey

Discussion and Wrap Up

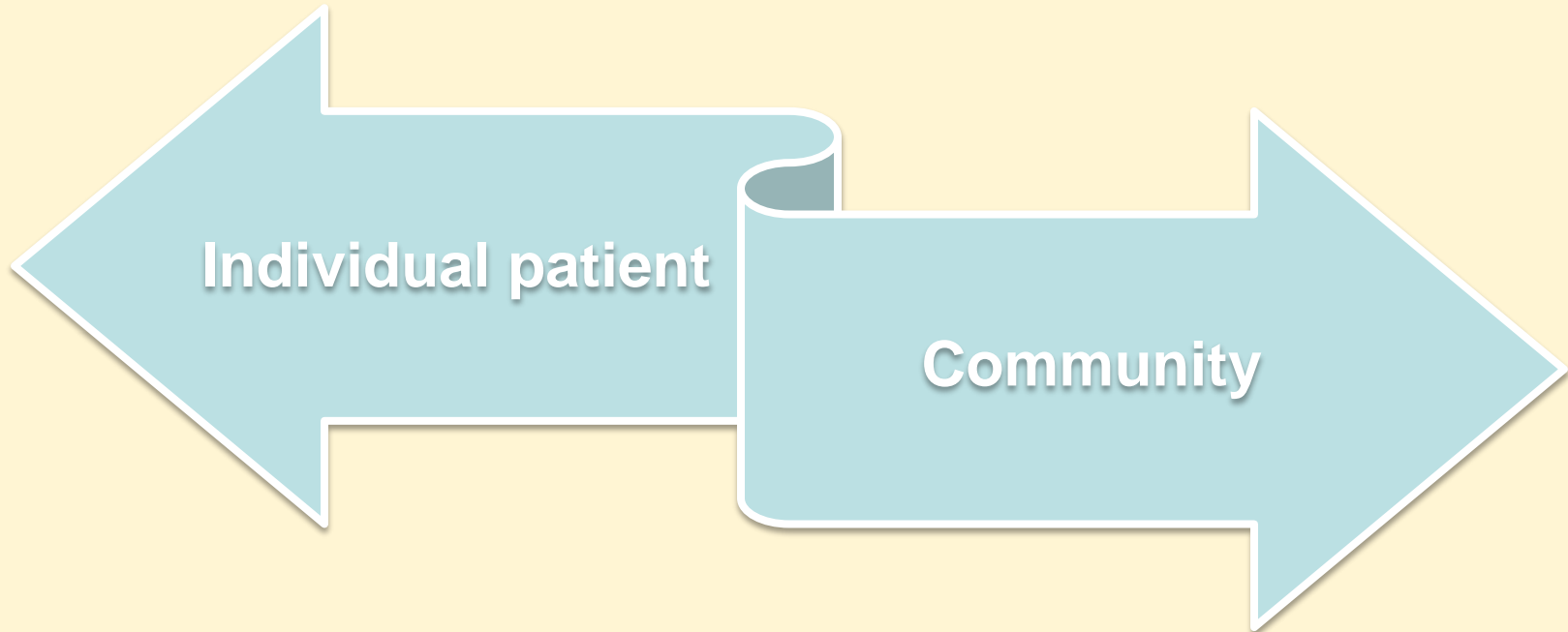
When Might We Need Crisis Standards of Care? (From Toolkit PowerPoint)



How Are Crisis Standards of Care Different?

(From Toolkit PowerPoint)

Focus of *Normal* Care



Focus of *Crisis* Care

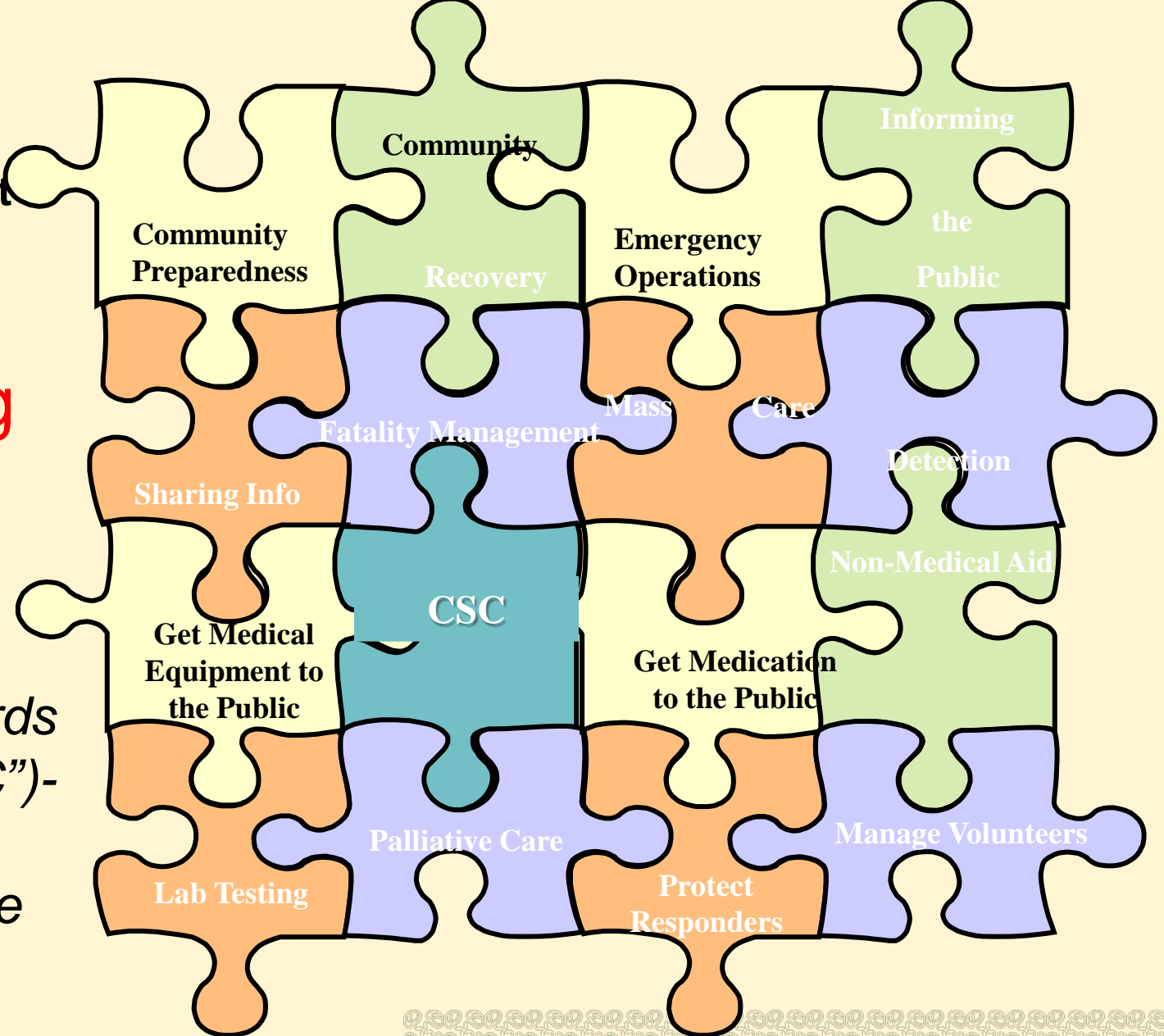
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

(From Toolkit
PowerPoint)

Preparing for Disaster

*Crisis Standards
of Care (“CSC”)-
--
a piece of the
puzzle*



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

Survey

IMAGINE that a major disaster or pandemic has struck. Suddenly, there is not enough medical care to give the normal level of treatment to everyone in need.

Do you agree or disagree with the following statements?

1.	It is better to save the most lives—even if it means that some people won't get all of the medical care they would get under normal conditions.	1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
2.	More medical care should go to save younger patients because they have the most years to live.	1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
3.	Health care providers should be allowed to perform services different from their usual duties if that might save more patients.	1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree
4.	The sick and injured should be treated first-come, first-served—whether or not they are likely to survive.	1 Strongly Agree	2 Agree	3 Disagree	4 Strongly Disagree

Scenario

Scenario 1: Major Earthquake

Early one morning, without warning, a violent earthquake strikes your community. Buildings sway and many crumble to the ground. Water shoots out from broken water main lines, and electric power seems to be out everywhere.

Highways and main streets are blocked by debris, bridges have collapsed into the river, and railroad tracks and airport runways are badly damaged. Phone service, television, radio, and other means of communications are severely disrupted, adding to the anxiety and concern of people in the community. The number of injured and dead is quickly rising.

It is now 12 hours after the earthquake. Your community's only hospital is caring not only for earthquake victims, but for patients with other serious health problems unrelated to the earthquake. Critical medical supplies are starting to run out. The healthcare workers and emergency personnel who were able to report to work are stretched to the limit. Patients are being placed in hallways and cafeterias as space begins to run out. The community is cut off from outside federal and state help and will not be reconnected for some time. The hospital has nowhere to turn.

The hospital has nine critically injured or sick patients, but only enough medical supplies and staff to treat five of them. The four patients who do not receive treatment probably will die before more help arrives—these patients will continue to receive comfort care to minimize their suffering.

Scenario Deliberations

Which of the following patients should receive treatment?

Patients who need immediate treatment			Rank 1 = Treat First 9 = Treat Last
Patient ID	Age	Chance of survival with treatment	
A	2	Low (10-30%)	
B	35	Low (10-30%)	
C	80	Low (10-30%)	
D	11	Medium (40-60%)	
E	55	Medium (40-60%)	
F	75	Medium (40-60%)	
G	8	High (70-90%)	
H	25	High (70-90%)	
I	85	High (70-90%)	

Take Home Message: Public Engagement works and should be embraced, not feared!

- Community participants understood concepts and were thoughtful and engaged
- Discussions provided valuable information for policy development and next steps in drafting CSC Guidelines
- Individuals appreciated the opportunity to hear about and discuss the issues
- IOM Report provides materials necessary for successful public engagement

To download the report,
templates, or public
engagement toolkit,
please visit:

[www.iom.edu/
crisisstandardsframework](http://www.iom.edu/crisisstandardsframework)

For questions, please contact:
Bruce Altevogt, Study Director

baltevogt@nas.edu

202.334.3984

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

