



Crisis Standards of Care

Mass Casualty Incident Management Conference
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SITUATION (FIRES)

Japan's Fire and Disaster Management Agency said fires broke out in 207 locations in 12 prefectures. More than 59 out of 207 fires have been extinguished but 148 still rage out of control. An explosion hit a petrochemical plant in Sendai while a huge fire swept through an oil refinery in Ichihara city in Chiba prefecture. OCHA's Environmental Emergencies Section is monitoring the situation and says it can provide specialized assistance to help mitigate risks.



Thick black smoke continues to rise from burning factory buildings in Sendai.



As night fell across the country, the fires gave the sky an orange glow as they continued to burn among the rubble of destroyed buildings



Two fires glow like molten lava amid the devastated houses in Yamada town



Billowing: A plume of black smoke fills the sky as a huge fire burns at the oil refinery at Chiba City



Flames engulf houses in Sendai, Miyagi, after they were swallowed up by enormous waves that swept through Japan after a massive earthquake this morning

LIKELY SOURCE OF PATIENTS REQUIRING EVACUATION

Known (Average)

- Hospital patients (Med/Surg, ICU, ventilated)
- Nursing Home Patients, Hospice, Long-Term Care Facilities
 - Patients from registered Nursing Homes
 - special needs - medical
 - ambulatory and litter
- Psychiatric Care Facilities
- Prison Patients

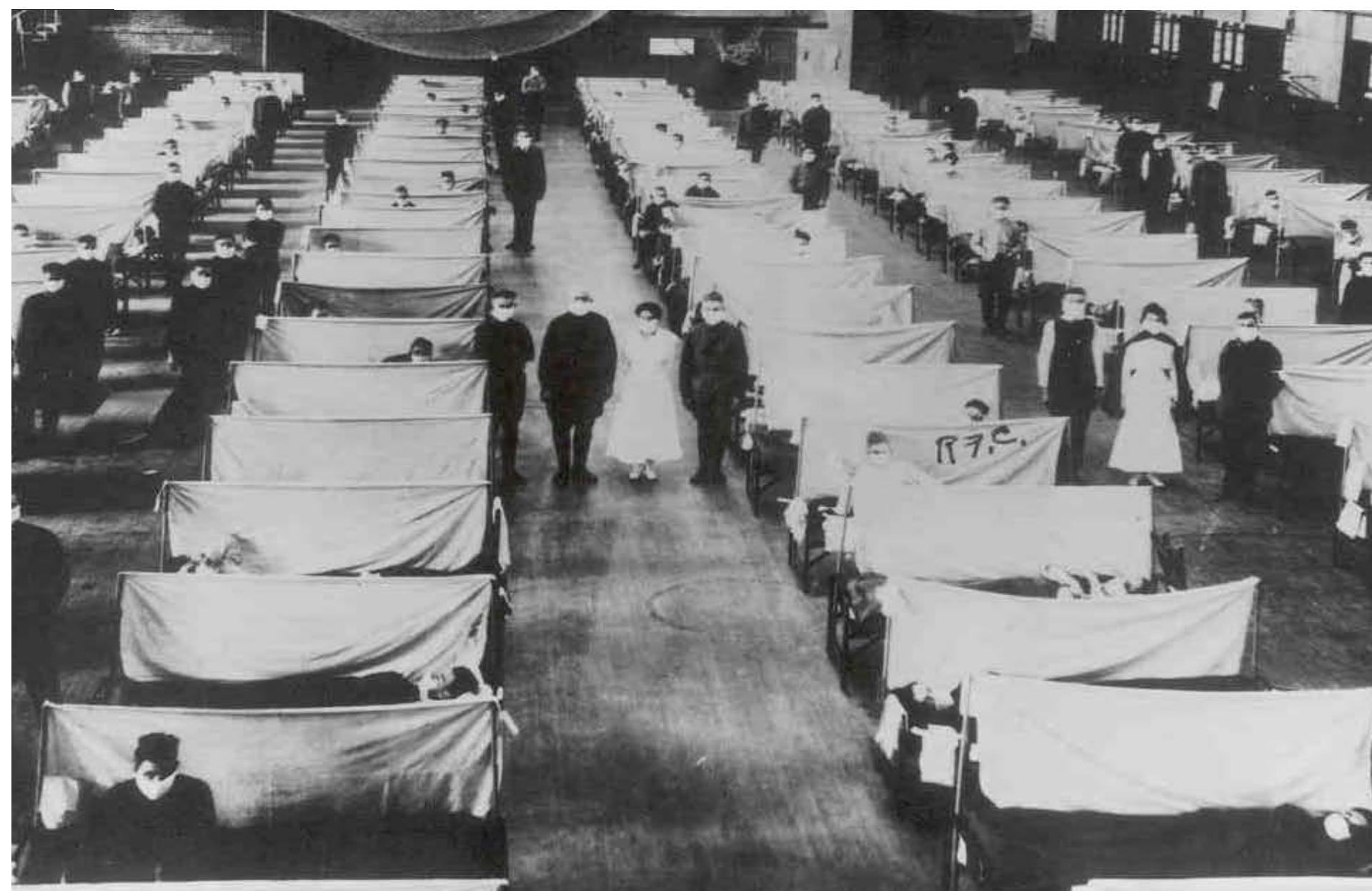
Unknown (Estimate)

- Casualties caused by the incident
 - Rates vary by type of incident and population density
- Homecare/Medically Fragile
 - Generally not registered on a central database
 - Special needs – medical, elderly
 - Ambulatory and litter
 - Will likely be evacuated during SAR (s)

Anticipated Workload

- Incident derived injuries
- Preexisting conditions
 - Chronic conditions
 - Exacerbated problems
- Special populations
 - Very young
 - Very old
 - Mental disabilities
 - Physical disabilities





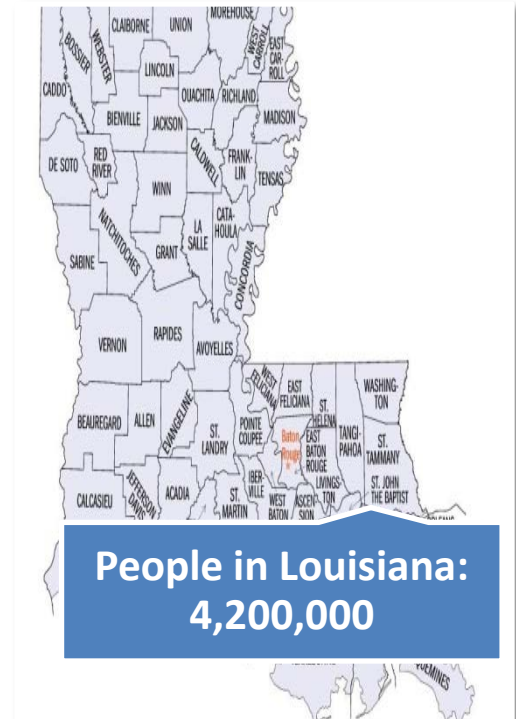
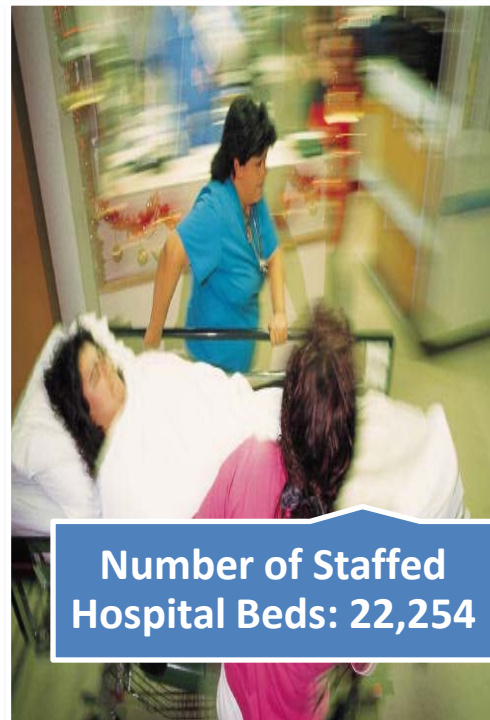
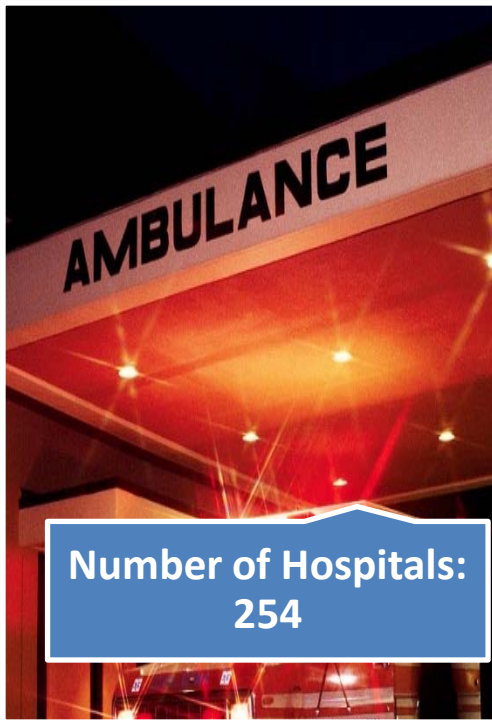
Institute of Medicine's

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

IOM: Levels of Care

- **Conventional** – routine-“business as usual”
- **Contingency** – *functionally equivalent* but adapts space, staff, and supplies in response to a surge demand - **State Hospital Pan Flu Plan**
- **Crisis** – substantial change in level of care - usual safeguards are no longer possible and available resources are insufficient to meet usual care standards – **Altered or Crisis Guidelines**

Louisiana's Population and Hospital Resources



Pandemic Influenza Impact on Louisiana

STATE

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9
Hospital Admission	Weekly admissions	3,380	5,634	8,450	10,704	10,704	8,450	5,634	3,380	
	Peak admissions/day				1,668	1,668				
Hospital Capacity	# of influenza patients in hospital	2,485	4,141	6,212	7,868	8,147	7,161	5,492	3,603	
	% of hospital capacity needed	28%	47%	71%	89%	93%	81%	62%	41%	
ICU Capacity	# of influenza patients in ICU	1,014	2,150	3,302	4,362	4,721	4,592	3,649	2,520	
	% of ICU capacity needed	103%	217%	334%	441%	477%	464%	369%	255%	
Ventilator Capacity	# of influenza patients on ventilators	845	1,792	2,752	3,635	3,934	3,827	3,041	2,100	
	% usage of ventilator	146%	309%	475%	627%	679%	660%	524%	362%	
Deaths	# of deaths from influenza			771	1,286	1,928	2,443	2,443	1,928	1,286
*	# of influenza deaths in hospital			540	900	1,350	1,710	1,710	1,350	900

Crisis Standards of Care Guidelines

- **MUST ensure:**
 - Response offers the best care possible given resources at hand
 - Decisions are fair and transparent
 - Policies and protocols across the state are consistent
 - Citizens and stakeholders are included and heard

Crisis Standard of Care Guidelines

- **Should Include:**
 - Guiding principles – (duty to care, duty to steward resources, duty to plan, distributive justice, transparency)
 - Population – those with influenza and those with other health conditions
 - Implementation plan – limiting need protocols, maximizing surge capacity, **only** on an Executive Order
 - Community Communication Plan – open and ongoing at all levels
 - Termination of Altered Standards of Care – daily assessments of status and collaboration with regional facilities

Guiding Principles

- Ethical considerations
 - First come, first served
 - Violates duty to steward resources, duty to plan and distributive justice
 - Most likely to recover
 - Violates duty to steward resources and duty to plan at the extreme of the most likely to recover
 - Instrumental Value (Multiplier effect)
 - Is not applicable at this point given the utilization of resources and recovery time from critical illness
 - Should be considered within the broader plan for vaccines/prophylaxis

Guiding Principles

- Broad Social Value
 - Impossible to agree of “value” in a morally pluralistic society
- Life Cycle Principle (fair innings)
 - Age becomes the driving force
- Maximizing Net Benefit
 - Similar, but more encompassing than most likely to recover
 - Discouraged by the CDC, but is basis for much of this

Implementation Plan

Statewide Proposal

1. Initiation of national disaster medical system and national mutual aid and resource management
2. Surge capacity fully employed within healthcare facility
3. Attempts at conservation, reutilization, adaptation, and substitution are performed maximally
4. Identification of critically limited resources (e.g., ventilators, antibiotics)
5. Identification of limited infrastructure (e.g., isolation, staff, electrical power)
6. Request for resources and infrastructure made to local and regional health officials
7. Current attempt at regional, state, and federal level for resource or infrastructure allocation
8. Institutional implementation team has requested initiation of CSOC
9. Declared state of emergency or incident of national significance

Institutional Implementation Team Proposal

- The Chief of Staff (or designee)
- The Chief Medical Officer (or designee)
- The Chief Nursing Officer (or designee)
- *The Infection Control and Prevention Nurse (or designee)*
- *The Emergency Department Director (or designee)*

The Plan – EMS Triage

EMS Disaster Triage Tree

Date: / /	Patient Info	Allergies:	DNR or Hospice care does not meet transport criteria.	
Time: AM PM	Age:	Meds:	DNR	Hospice
EMS:	M / F			

Chief Complaint:

1	BP: /	HR:	RR:	O2 sat: %
2	Confirmed Pregnancy	Chemotherapy*	Long Term Steroids**	HIV
	RR > 24 at rest	O2 sat < 92% at rest	Confusion -not baseline	
	None of the above present***			

***Criteria for transportation not met, patient's are to be informed to contact their local physician for further care. Discourage ED visit as they will likely be turned away. If case does not meet criteria but extenuating circumstances are present, contact medical control.

<p>Vasopressor or MV</p> <p>If any of the history or signs in # 2 are present, transport per protocol. If vasopressor support or mechanical ventilation required, transport to LSUHSC, CS-St Mary's, WK-N, WK-P, WK-B only.</p>	<p>Pregnancy</p> <p>If confirmed pregnancy, transport to LSUHSC, CS-ST Mary's, WK-P, WK-B only.</p>	<p>Pediatrics</p> <p>Transport to LSUHSC, Sutton's or WK-P only.</p>
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*Confirmed pregnancy defined as either physical signs of pregnancy, actively following an OB or US confirmation.

**Long-term steroid use means they have been on a steroid for greater than one month.

EMS Triage Plan

- Institutional routing
 - Pediatrics
 - Higher acuity patients routed to intensivist-driven ICU's
 - Would require severity of illness assessment by EMS
 - Critically ill requiring specialized services
 - e.g. ECMO
 - Pregnant patients
- This will require regionally specific plans

Crisis Standards of Care Sample Decision Tree: Pre-Hospital

Patient Arrives at Hospital Emergency Room

Will survive
without
hospital
treatment

Highest
chance to
survive with
hospital
treatment

Moderate
chance to
survive with
hospital
treatment

Almost no
chance to
survive even
with hospital
treatment

CSOC Components

- EMS Triage – patient assessments prior to transport to hospital
- Pre-Hospital Triage – upon arrival at hospital
- ICU Triage – prior to admission to an ICU and daily assessments
- Pediatric Triage – pediatric assessment upon arrival at hospital

Additional Components of the CSOC Plan

- Delivery of care guidelines for essential inpatient nursing care
- Palliative care/alternative care
- Transparency

Conflict Resolution

Decisions regarding a change in the level of care may be appealed by the primary physician or designee to a Central Triage Team which will consist of:

1. The Chief of Staff (or designee)
2. The Chief Medical Officer (or designee)
3. The Director of Nursing (or designee)
4. Two other members appointed by the institution

The Central Triage Team will decide upon the appropriate level of care based upon the above assessment and available resources. The decision shall be made in a timely fashion and communicated to the primary physician, patient and family.

Termination

- As the severity of pandemic subsides, the scarcity of certain resources may be resolved at different times (e.g. critical care beds may be available, but ventilators may remain scarce). Each institution should apply the hospital triage plan based on the availability (or lack thereof) of resources during daily assessments (figure 2).
- When scarce resources are no longer present, termination of Crisis Standards of Care should occur and the Governor's office, the Department of Health and Hospitals, and the other regional hospitals shall be notified by the institution.

Louisiana ESF-8 State Activities

- Development of State Pan Flu Clinical Forum
- Federal grants to “surge up” hospitals
- Development of State Pan Flu Plan and Crisis Standards of Care Plan
- Initiation of CSOC public forums
- Development of a “public version” of the Crisis standards of care plan

Next Steps

- Need to enhance the draft EMS triage plan to be more “all hazards”
- Need to evaluate current EMS rules and regulations to determine what/which can be modified and/or waived during a declared emergency

Next Steps

- Primary Care/Rural Health
- Home Health Care
- Nursing Home Care
- Approval by appropriate boards
- Legislation/liability coverage