



**PATHWAYS TO RECOVERY**  
IN THE AFTERMATH OF DISASTER

# Loose Ships Sink Bridges

Maryland DOH health/medical response to the Key Bridge Collapse

#PrepSummit25

San Antonio, TX  
April 29-May 2, 2025





# Background

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# Francis Scott Key Bridge



- Named after the writer of the U.S. national anthem
- Opened in March 1977 as a part of the Baltimore Beltway
- Part of a network of three Baltimore Harbor crossings and the only one that is not a tunnel
- Estimated 31,500 vehicles each day and 11.3 million vehicles each year





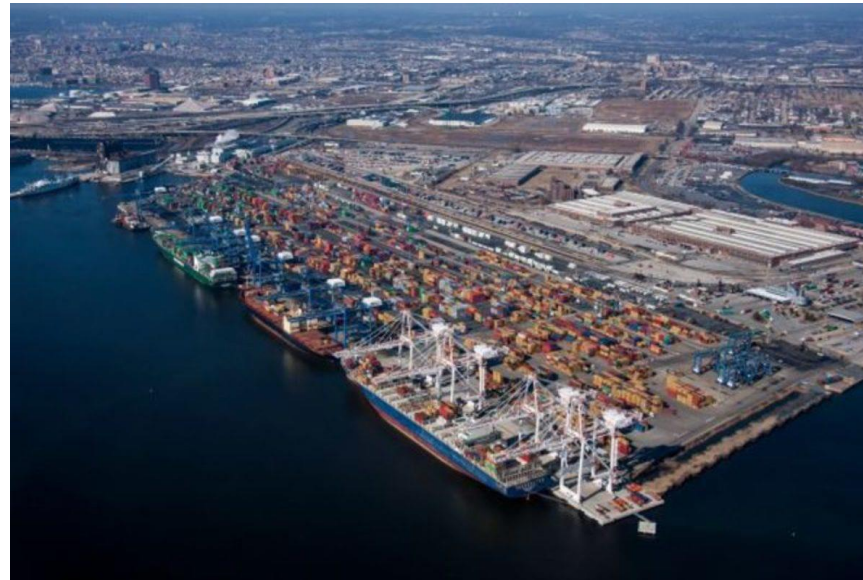
# M/V Dali

- Container ship sailing under the flag of Singapore
- Built in 2015
- Capacity 10,000 standard shipping containers
  - Carrying 4,700 containers at time of incident



# Port of Baltimore

- Ranked first in the U.S. in handling automobiles, light trucks, farm and construction machinery, as well as imported sugar and gypsum
- Ranked second in the U.S. for exporting coal
- Passenger cruise terminal for Norwegian, Carnival, and Royal Caribbean
- 15,300 direct jobs and 140,000 jobs connected to Port work
- Generates more than \$395 million in taxes and \$2.6 billion in business income



# Maryland Department of Health

- Departmental agency of the Executive Branch
- Consists of five administrations:
  - Behavioral Health
  - Developmental Disabilities
  - Medicaid/Health Care Financing
  - Public Health Services
  - Operations
- Also includes Health Commissions and Health Occupation Boards







# Incident

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# 26 MARCH 2024

- During the early morning of Tuesday March 26, 2024, a cargo ship, M/V Dali, collided with the Francis Scott Key Bridge, collapsing the center span of the bridge into the Patapsco River
- 8 construction workers on the bridge at the time of the incident
- No other vehicles crossing the bridge
- Port of Baltimore closed to all maritime activities
- I-695 (Baltimore Beltway) closed on both sides of the bridge





# Immediate Impact of Incident

- State of Maryland, Baltimore City, and Baltimore County all declared state of emergencies
- Two workers survived and six died
- M/V Dali crew to remain on ship until further notice
  - One crew member injured during collision. Treated at a local hospital and released back to the M/V Dali
- On-Board Hazardous Material Containers: 56 total, 14 damaged
- Sheen from M/V Dali's bow: Additional boom was placed, samples tested



# Immediate Impact of Incident (continued)

- Port of Baltimore closed:
  - 7 ships stranded at the Port of Baltimore (not including the Dali)
    - 136 non-U.S. visa bearing Mariners
  - Baltimore port workers not working
  - Cruise ships rerouted to other ports
  - Top vehicle port in U.S. closed
    - Automobiles
    - Farm and construction machinery





# Governor's Priorities

1. Focus on Recovery
2. Clear Channel and Port
3. Take care of people affected by the crisis
4. Rebuild the Bridge



# Why is an Epidemiologist involved???

- Biosurveillance Manager overseeing syndromic surveillance
  - Not exactly your typical emergency responder
- Occurred during the 2024 Preparedness Summit
- Worked in tandem with the Operations Program Manager







# Public Health and Medical Response

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# Preparedness and Response

- Coordinated Emergency Support Function (ESF) 8: Public Health and Medical Response
- Participated in State Emergency Operation Center calls to provide and receive updates
- Provided regular updates to M.D.H. leadership and internal / partner coordination
- Coordinated with M.D.H. Laboratories Administration in case of CBRN detections when the President of the United States visited the site





# Fatality Management

- Office of the Chief Medical Examiner initially deployed one medical examiner and one investigator to the site with a transport vehicle and van
- Decision made to not operate an offsite morgue
- On “stand-by”, pending recovery of victims by the Maryland State Police divers
- Recovery process spanned two months
  - First victim recovered 27 MARCH
  - Final victim recovered 7 MAY
- Received and processed all recovered decedents



# Fatality Management (continued)

- Collaborated with F.B.I. for on-scene identification using electronic fingerprint comparison
- Cold water temperatures delayed postmortem changes with final victim exhibiting moderate decompositional changes
- Six total victims certified as Multiple Injuries/Accident
- Released victims remains to family representatives for burial



# Healthcare Assessment

- Medicaid, Behavioral Health and Development Disabilities Administrations assessed providers and services in a nine zip code area to determine community impact:
  - Emergency Medical Services
  - Hospitals
  - Behavioral Health Services
  - Developmental Disability Services
  - Primary Care and other Somatic Care Services
  - Medicaid Transport Services





# Community Support Services

- Issued Temporary Policy from March 27 thru April 15, 2024
- Policy enables Anne Arundel County Health Department, Baltimore City Health Department, and Baltimore County Health Department to access transport providers from other jurisdictions if primary transport providers unable to meet on-time access to Medicaid covered services



# Behavioral Health

- Behavioral Health Administration coordinated behavioral health response with three impacted jurisdictions (Baltimore City, Baltimore County, Anne Arundel County)
- Crisis Response Team deployed to the location to assist with first responder support and family support post notification
- 988 Crisis Line / Materials made available
- Family Assistance Centers support
- Longer-term support to the impacted community during the recovery period



# Local Health

- Initial response:
  - Local Behavioral Health
  - Preparedness and Response
- Within a few days:
  - Local health departments de-escalated to daily operations





# Hospital Systems

- No issues with hospital supply chain but monitored closely
- Four Baltimore-area Trauma Centers on alert
- University of Maryland Medical Center designated for Hazardous Material & Decompression Therapy transports
- Lifebridge Health System offered grief counseling, job placement support for economic victims of incident and community health services, if needed.



# Emergency Medical Services

- Reported no impact on emergency medical services transport operations
- Medical Transport: Baltimore County Fire Department (Advanced Life Support / Basic Life Support)



# Disaster Centers / Insurance

- Opened Virtual Disaster Centers for insurance-related issues and questions
- Coordinated with health insurers to allow hardship exceptions
- Anyone who loses coverage due to job loss is eligible for coverage through the Maryland Health Connection.
- Maryland Department of Labor and Maryland Health Connection provided information advising eligibility for coverage in the event of coverage loss due to loss of employment





# Environmental Impact

- Monitored river dredging and debris removal for toxic sediment associated with decades-long industrial activity
- Conducted water sampling. Results indicated no contamination upriver or downstream.
- No change to consumption advisories for recreationally caught fish, crabs, and shellfish.
- Lengthy process to remove 50 tons of fermenting soybean cargo on M/V Dali - potential hazardous gas build-up



# International Crew Members

- The Baltimore International Seafarers Center is a non-profit organization serving seafarers calling on the Port of Baltimore
- Facilitate the well-being of crew members
  - Offer transportation ashore
  - Advocate for the rights as seafarers and humans
  - Provide hospitality while they are in Baltimore
- On call to assist with the 136 non-U.S. seafarers on the seven ships stranded at the Port of Baltimore







# Lessons Learned

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# Lessons Learned

- No matter your role in the organization, be prepared to take a lead in a response
- Identify and engage partners early and often and rely on the expertise of your partners to get the job done
- Ensure culturally informed practices and services are deployed to provide support to communities
- Community providers know the community best and will be around long after the response is done - bring them in early!





# Questions?

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Thank you!

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