



NIOSH
ALASKA PACIFIC
REGIONAL OFFICE

20
YEARS
1991
2011



Commercial Fishing Safety Research & Design Program Update



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November 14, 2011



Overview

- NIOSH fishing program
- 2010 commercial fishing fatalities
- Current NIOSH projects:
 - Surveillance
 - PFD Study
 - Safety engineering





The Mission of NIOSH

“To provide leadership in research to prevent work-related illness, injury, disability and death.”





**Department of
Labor**



**Occupational
Safety and Health
Administration
OSHA**

**Department of
Health and Human Services**



**Centers for Disease
Control and Prevention
(CDC)**



**National Institute for
Occupational
Safety and Health
NIOSH**

Regulation/Enforcement

**Research, Training, and
Prevention Recommendations**





A Catalyst for Change

- Provide scientific assessment
- Identify
 - workers at risk
 - high priority problems
- Support the development of interventions
- Evaluate interventions





2010 Commercial Fishing Fatalities

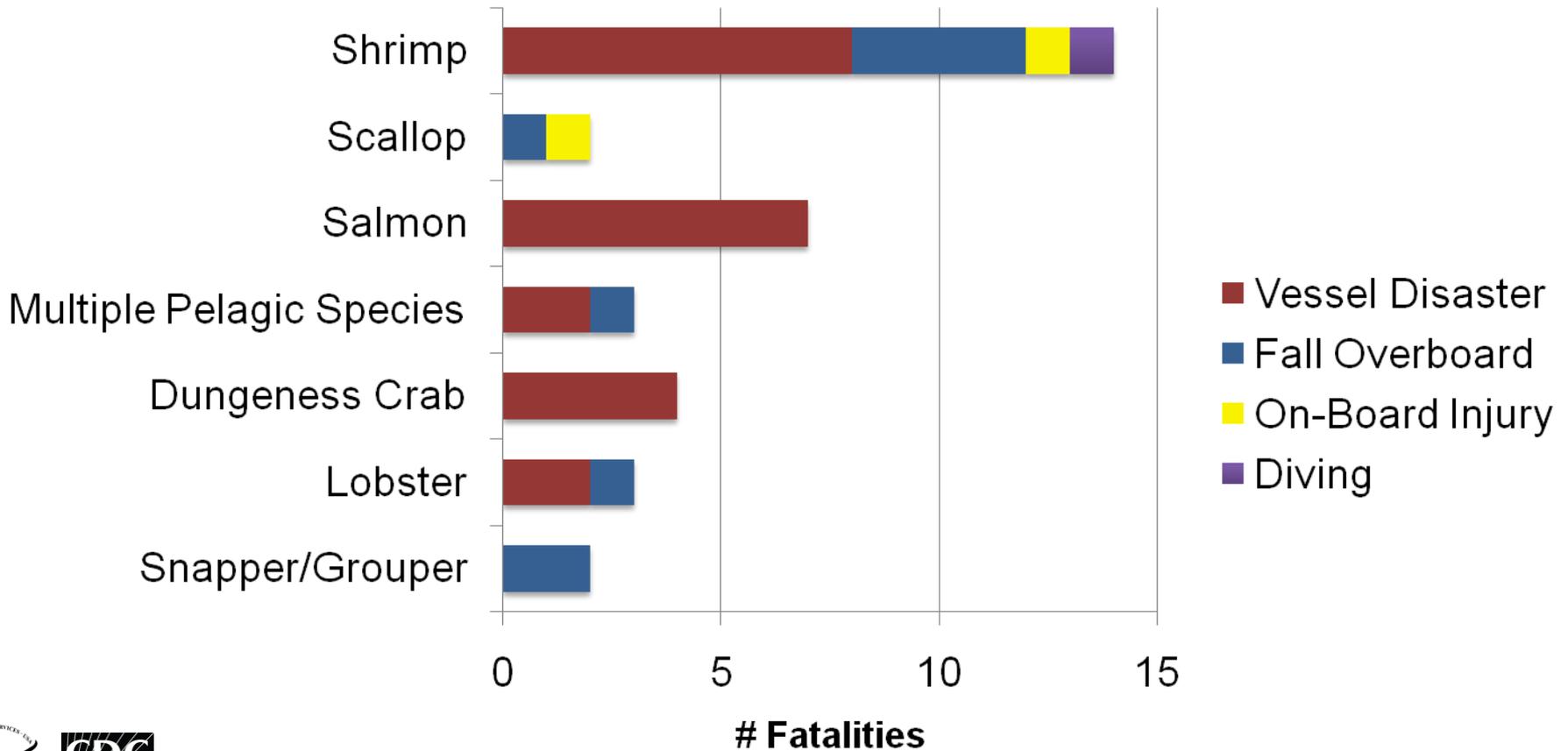
- 38 fatalities
- Average of 49 fatalities, 2000-2010
- Lower than average but no overall increase/decrease



- Year to year fluctuations are expected
 - AK as case in point: Only 3 fatalities in 2010



2010 US Commercial Fishing Fatalities, by Fishery with >2 Fatalities (n=38*)

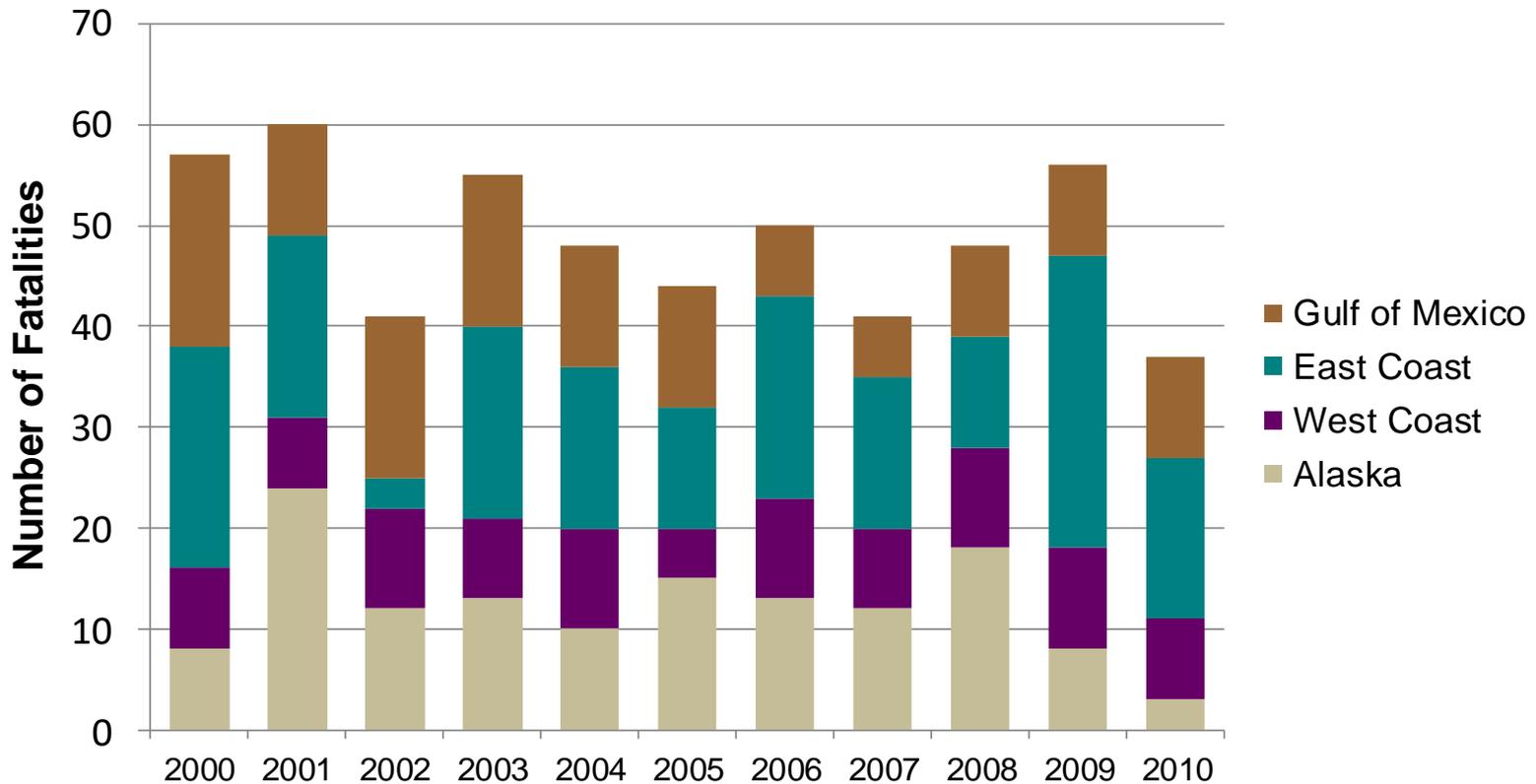


Fatalities

*Chart excludes 3 fatalities in fisheries with ≤1 fatality or were unknown



U.S. Commercial Fishing Fatalities by Year and Region, 2000-2010 (545* total)

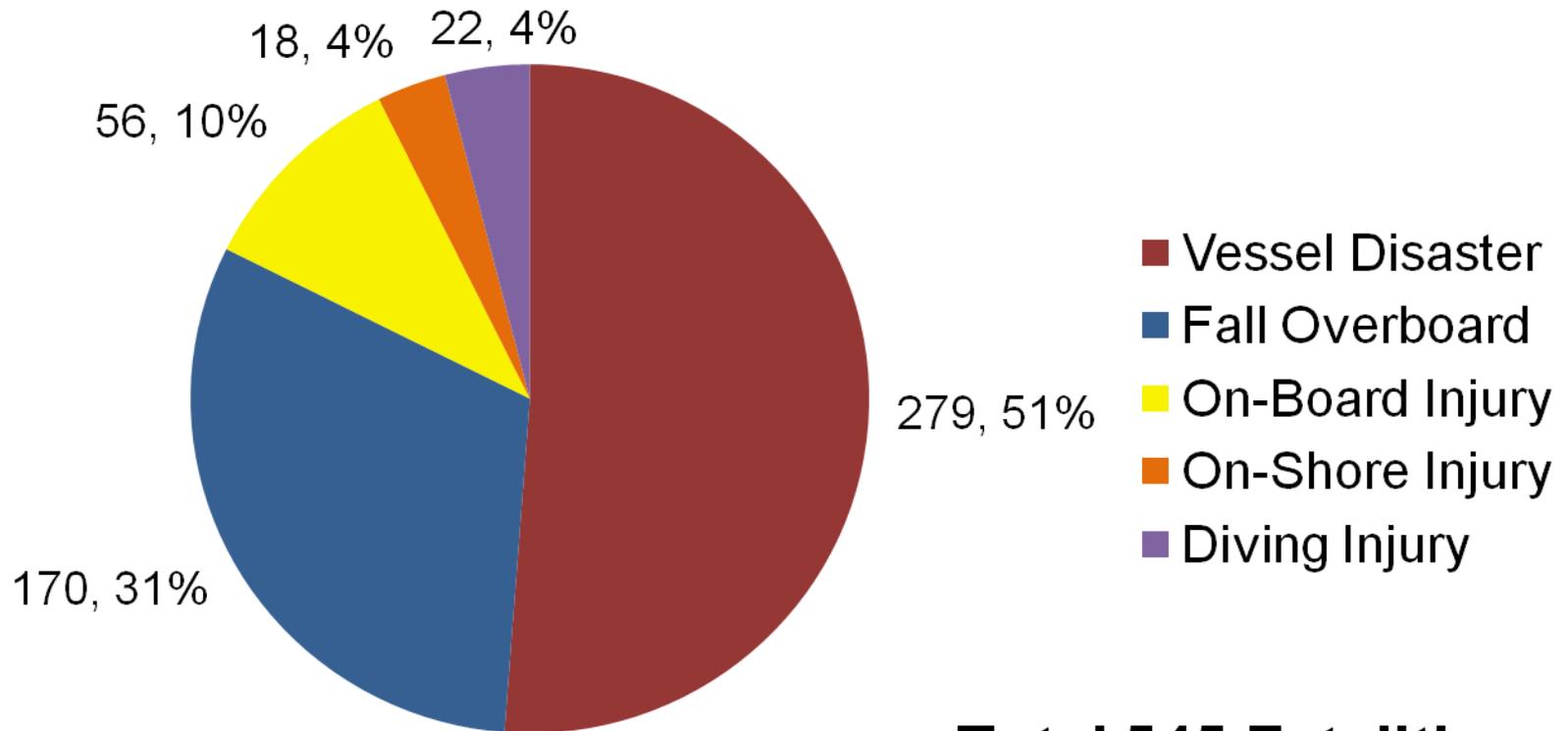


*Chart excludes 6 deaths in Hawaii, 1 in Canadian waters during transit to AK, 1 in Great Lakes region



Fatality Types (2000-2010)

- Vessel disasters and falls overboard continue to be the leading cause of death



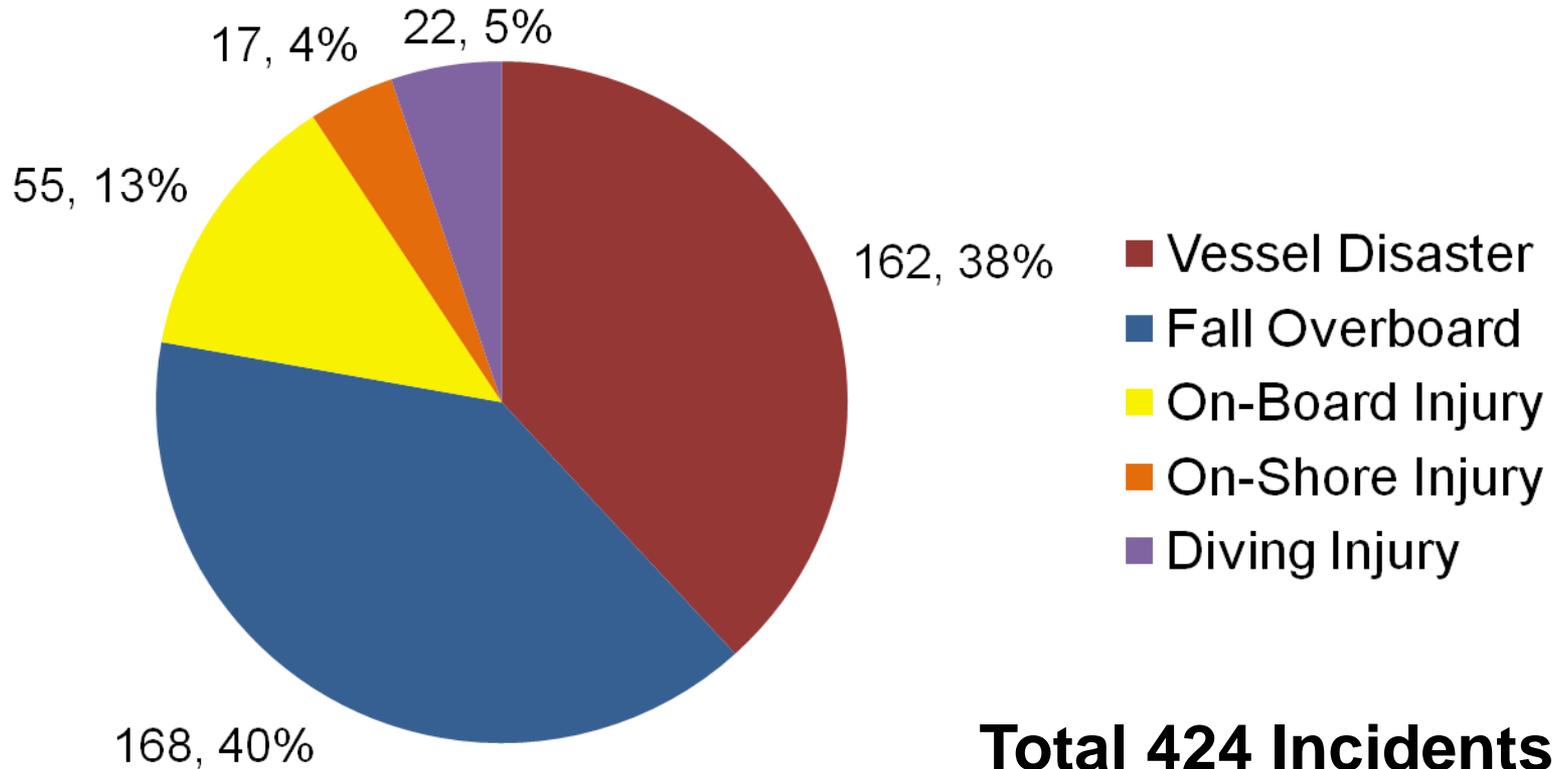
Total 545 Fatalities





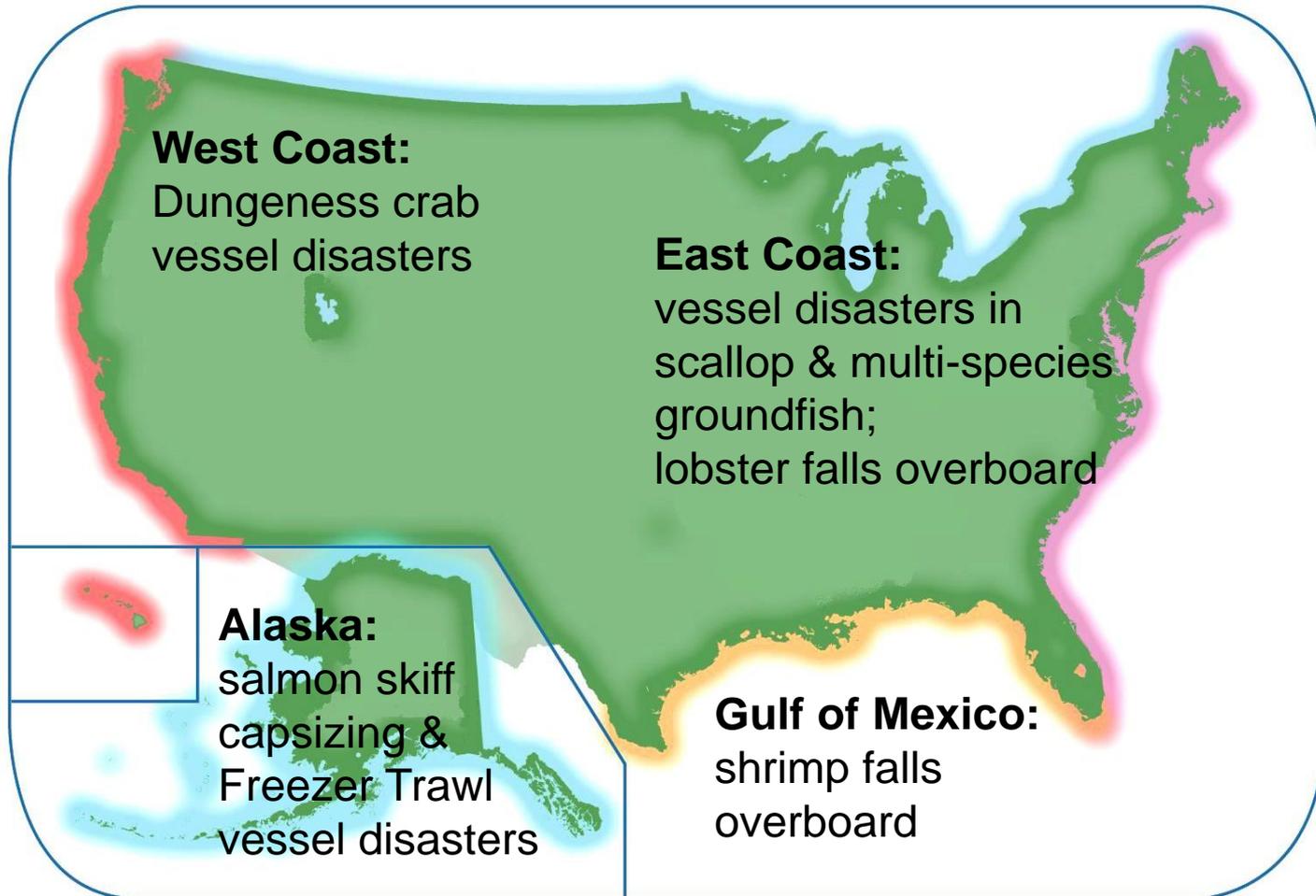
Incident Types (2000-2010)

- Fall Overboard Events are more frequent than fatal vessel disasters





Most Hazardous Fisheries & Events





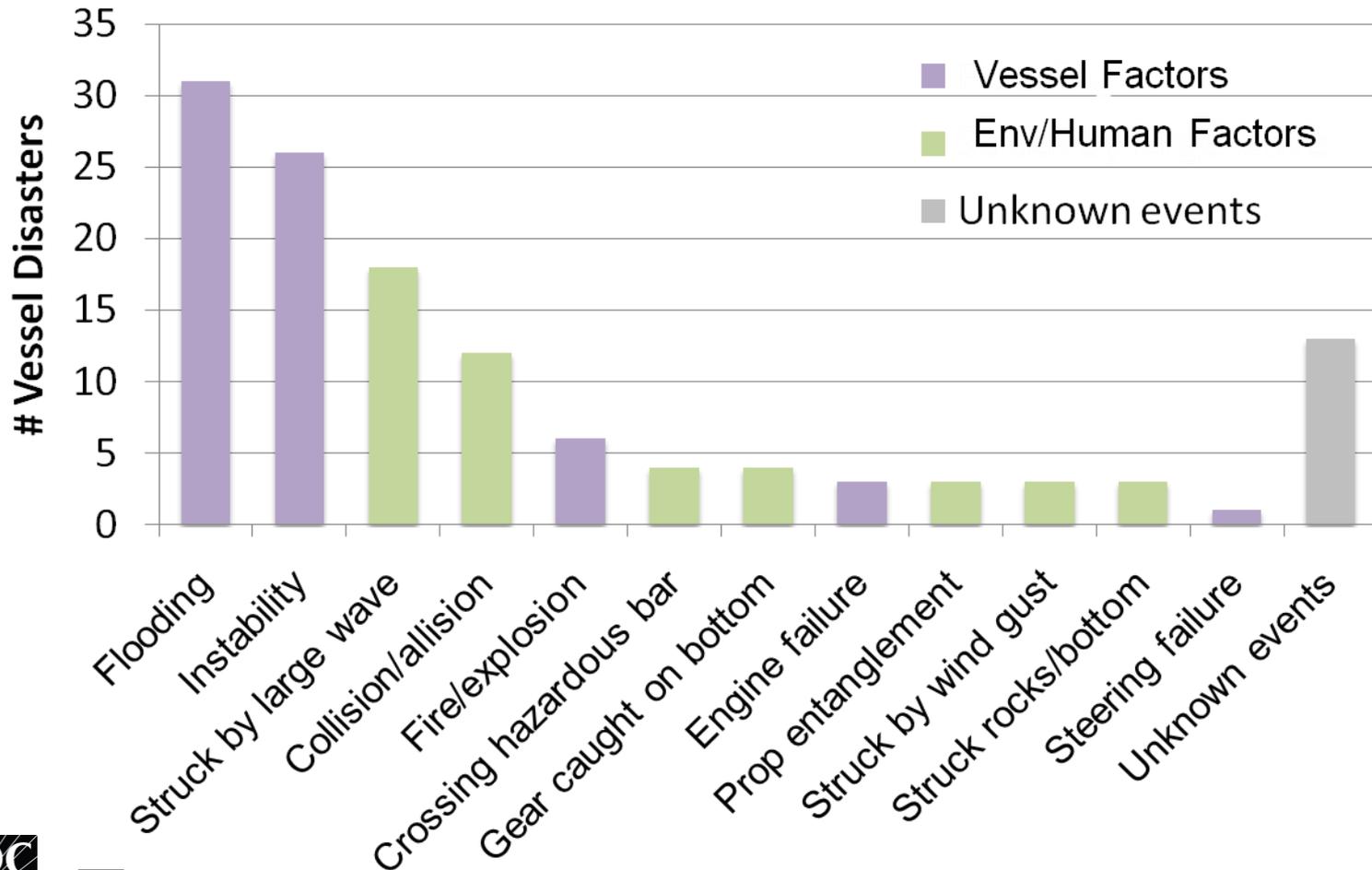
Surveillance

- Surveillance continues to be the cornerstone
- NIOSH thanks the USCG and their collaboration to collect and improve data in MISLE
- NIOSH maintains the Commercial Fishing Incident Database (CFID) and responds to numerous data requests from stakeholders





Initiating Events in Fatal Vessel Losses, 2000-2010

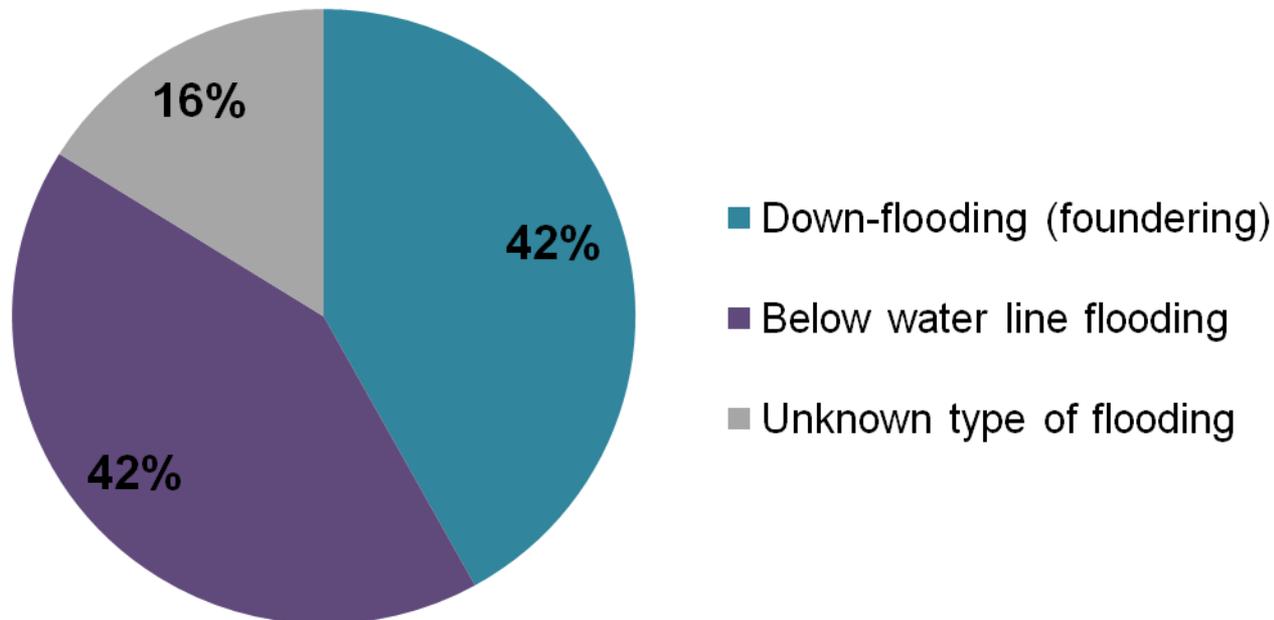




Flooding as Initiating Event

- Flooding was the initiating event in 31 (24%) of fatal vessel disasters

Type of Initiating Flooding

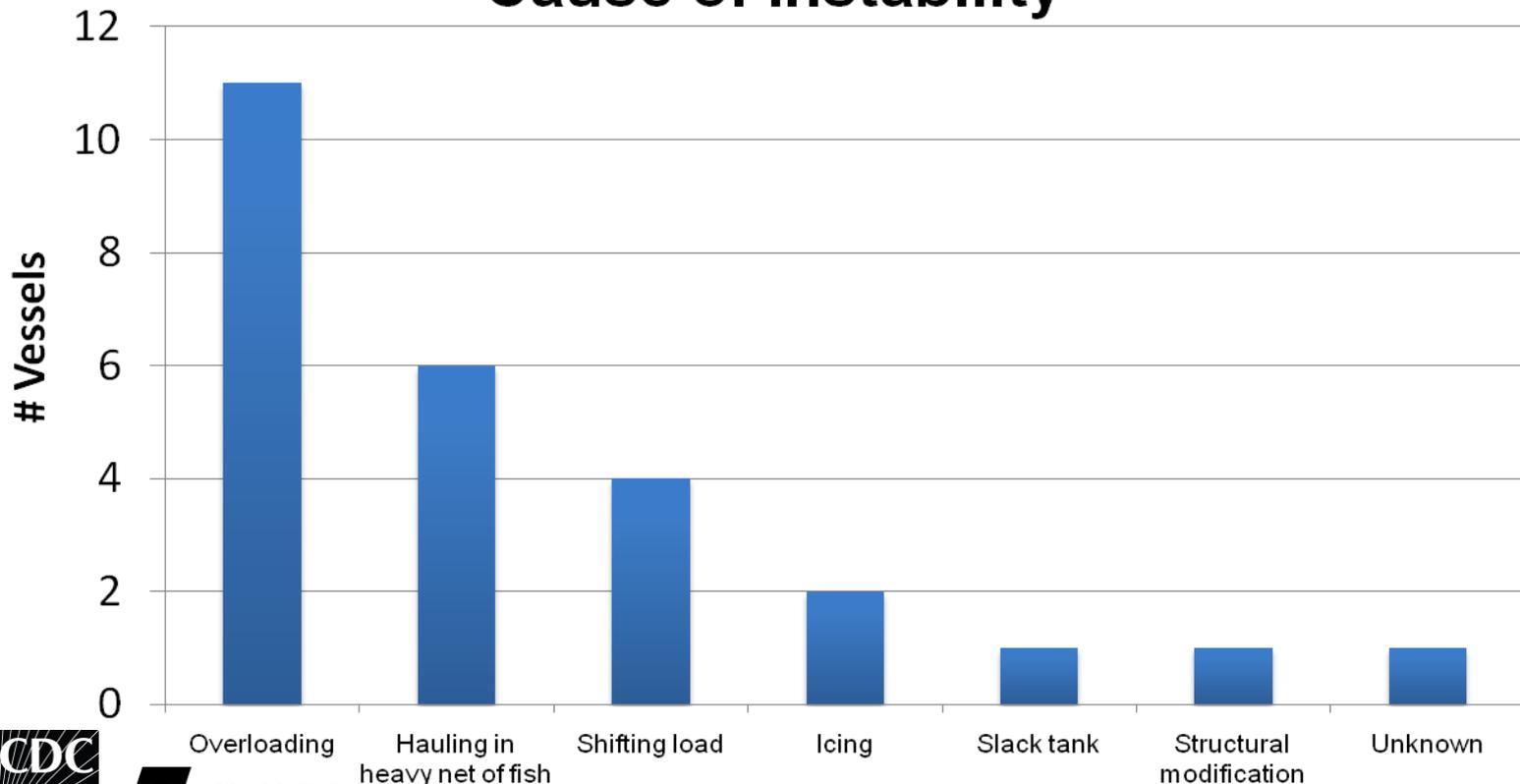




Instability as Initiating Event

- Instability was the initiating event in 26 (20%) vessel disasters

Cause of Instability





USCG Personnel at NIOSH

- NIOSH hosted LT Laura Springer, USCG
 - 6 week placement, basic epi training
- Non-fatal injury research project
- Development of a non-fatal incident surveillance database
- Take-away message
 - IO's and proper MISLE entry
 - Continue work with NIOSH
 - Input to HQ for MISLE 5.0
 - The importance of concise and accurate investigations





NIOSH PFD Study Update



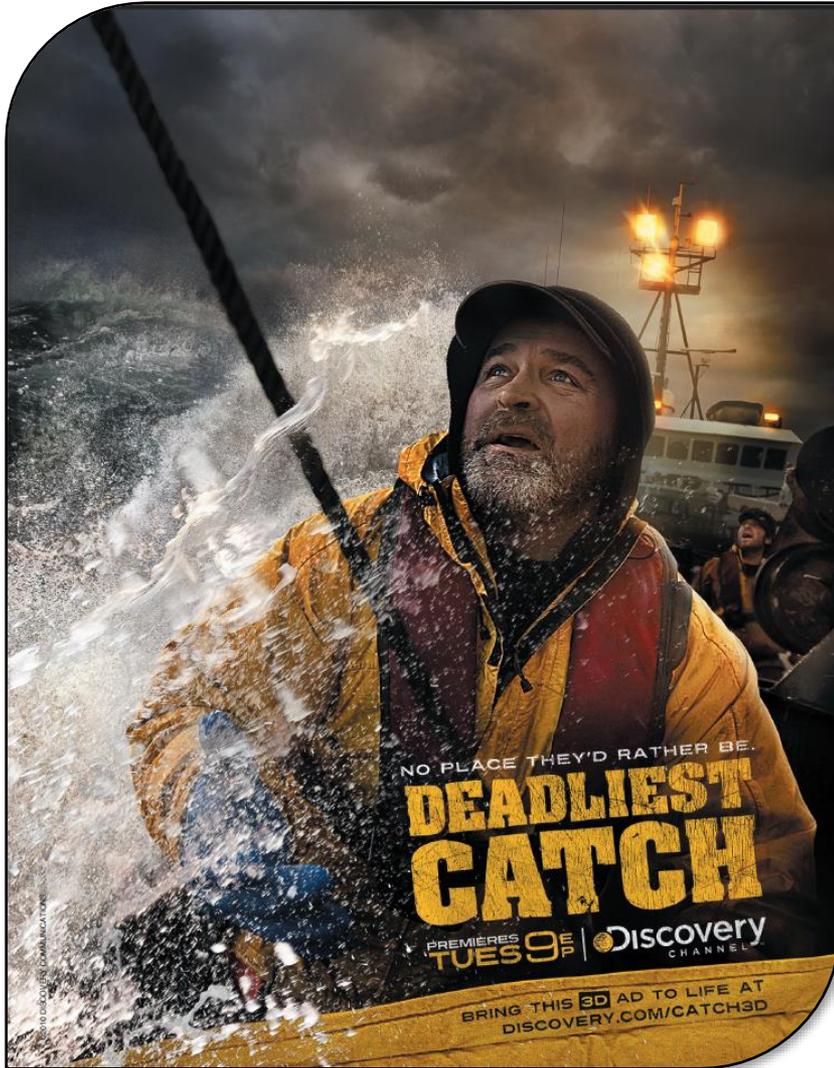


The F/V Bristol Mariner and F/V Aleutian Mariner participated in the NIOSH PFD study.



The Mariner fleet of crab fishing vessels (8 vessels in total) has instituted a PFD policy and purchased PFDs for all crewmembers to wear while working on deck.





The F/V Wizard, from the *Deadliest Catch*, participated in the NIOSH PFD study.

The F/V Wizard has instituted a 100% mandatory PFD requirement while on deck.





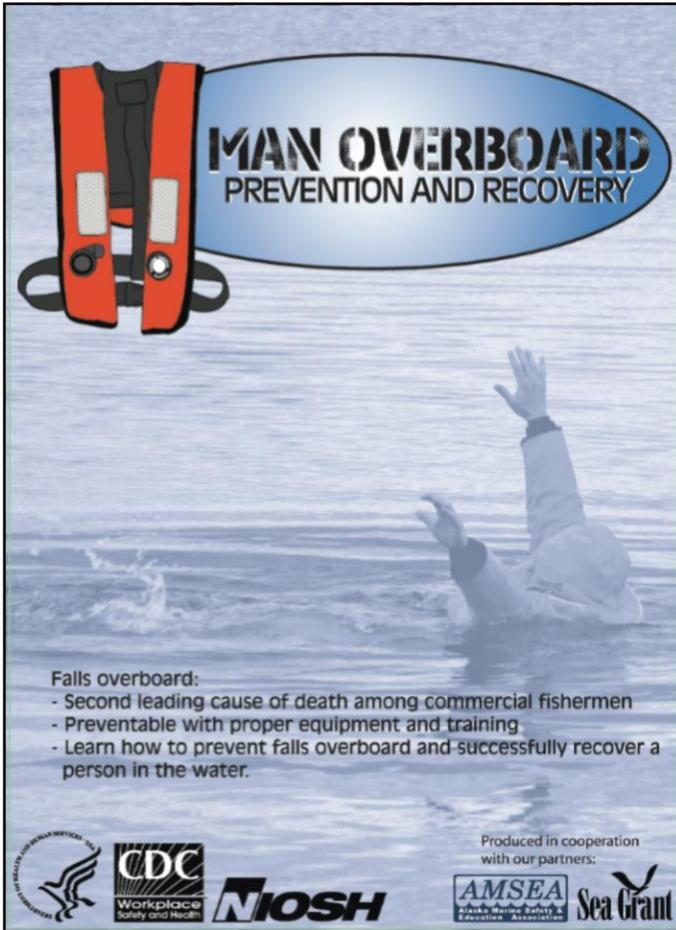
Publications and More Evaluations

- Research findings are being published in *Applied Ergonomics* scientific journal
- The research study was replicated on the West Coast with Dungeness Crab fishermen





Man Overboard DVD



Focus this year is on preventing fatalities due to falls overboard

What is your PFD Policy?

Have you found a PFD that works for you?

Do you have a MOB Alarm?





The Alaska Scallop Association has established a 100% PFD policy for its member boats

Seeing more PFDs in use!



Photograph by M. Melford, National Geographic





NIOSH Safety Engineering Design

- E-stop
- Hatch & Door Monitoring System
- Tank Monitor
- Flood Rate Monitor System



NIOSH @ Booth 810





Emergency Stop System for Deck Winch





Hatch and Door Monitoring System

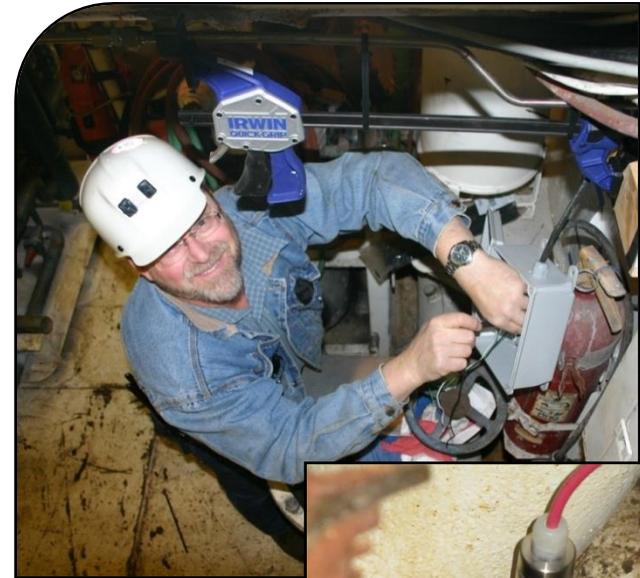
- Monitor variety of hatches and doors
- “Green Board” open, closed, locked
- New Licensing agreement with manufacturer





Tank Monitor & Flood Rate Monitor

- Installed 2 systems in 2011
- Monitor status of tanks
- Slack or pressed
- Can eventually lead to a flood rate monitor
- Measure rate of flooding





Quick Review

- NIOSH fishing program
- 2010 commercial fishing fatalities
- Current NIOSH projects:
 - Surveillance
 - PFD Study
 - Safety engineering





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