

# First Aid and Safety Training for Commercial Fishermen: Implementation and Evaluation

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- BACKGROUND**
- Commercial fishing is one of the most dangerous occupations in the US.
  - Dungeness crab fishermen view preparation as an important element of staying safe while fishing.
  - Fishermen reported that community first aid classes were not relevant for emergencies at sea, and requested fishing-specific first aid training.

**METHODS**

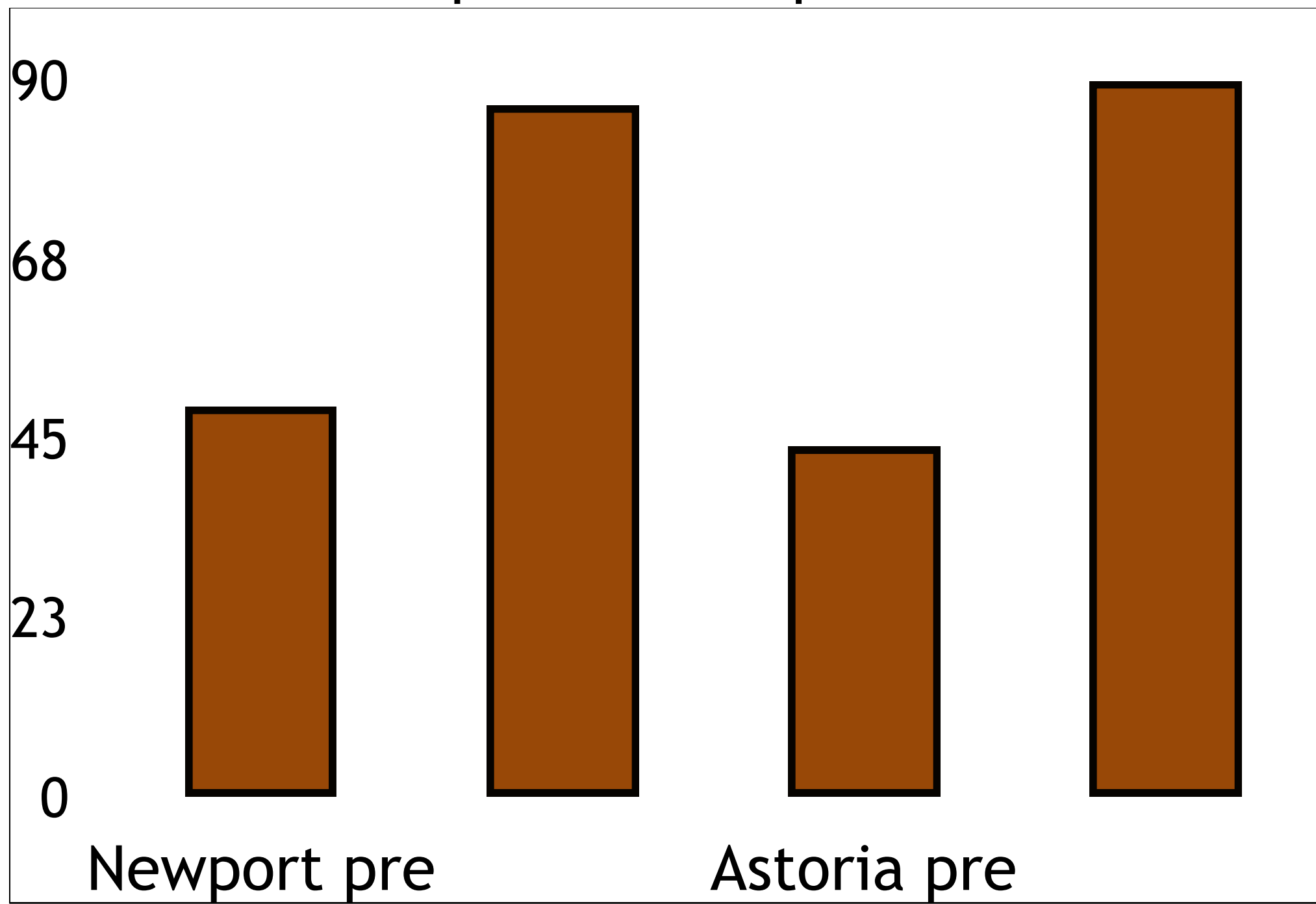
- First Aid and Safety Training (FAST)
  - In **Newport and Astoria, Oregon**
  - Dungeness crab fishermen
  - Before 2016/17 crab season
  - Conducted by a senior instructor in wilderness medicine
  - Trainings limited to 20 fishermen
- Topic areas: CPR, injury prevention, assessment, wounds and burns, orthopedic injuries, altered mental status, environmental injuries/illnesses, drowning, cardiorespiratory emergencies, and patient handling
- Integrated commercial crab fishermen-specific scenarios for hands-on training
- Participants completed a Pre- and Post first aid knowledge questionnaire
- Participants evaluated training, including: whether they would recommend the training, usefulness and effectiveness, suggestions for future

- RESULTS**
- Complete data on pre- and post-class knowledge was provided by **20 Astoria** fishermen and **17 Newport** fishermen
    - Average participant age: 38±13 years
    - Average number of years fishing for Dungeness crab: 11±9 years
    - Crew position frequency
      - Deckhand: 16
      - Captain: 11
      - Owner: 4
      - Other: 6
  - First aid knowledge increased (see figure) substantially in both groups after training
    - Newport:** mean pre-class knowledge percentage correct was 49%, and rose to 87% post-class
    - Astoria:** mean pre-class knowledge percentage correct was 44%, and rose to 90% post-class.
  - On a 1-4 scale (1=very useful, 4=not at all useful), fishermen reported finding the material useful (see figure). Mean usefulness scores were 1.5 for Newport and 1.4 for Astoria.

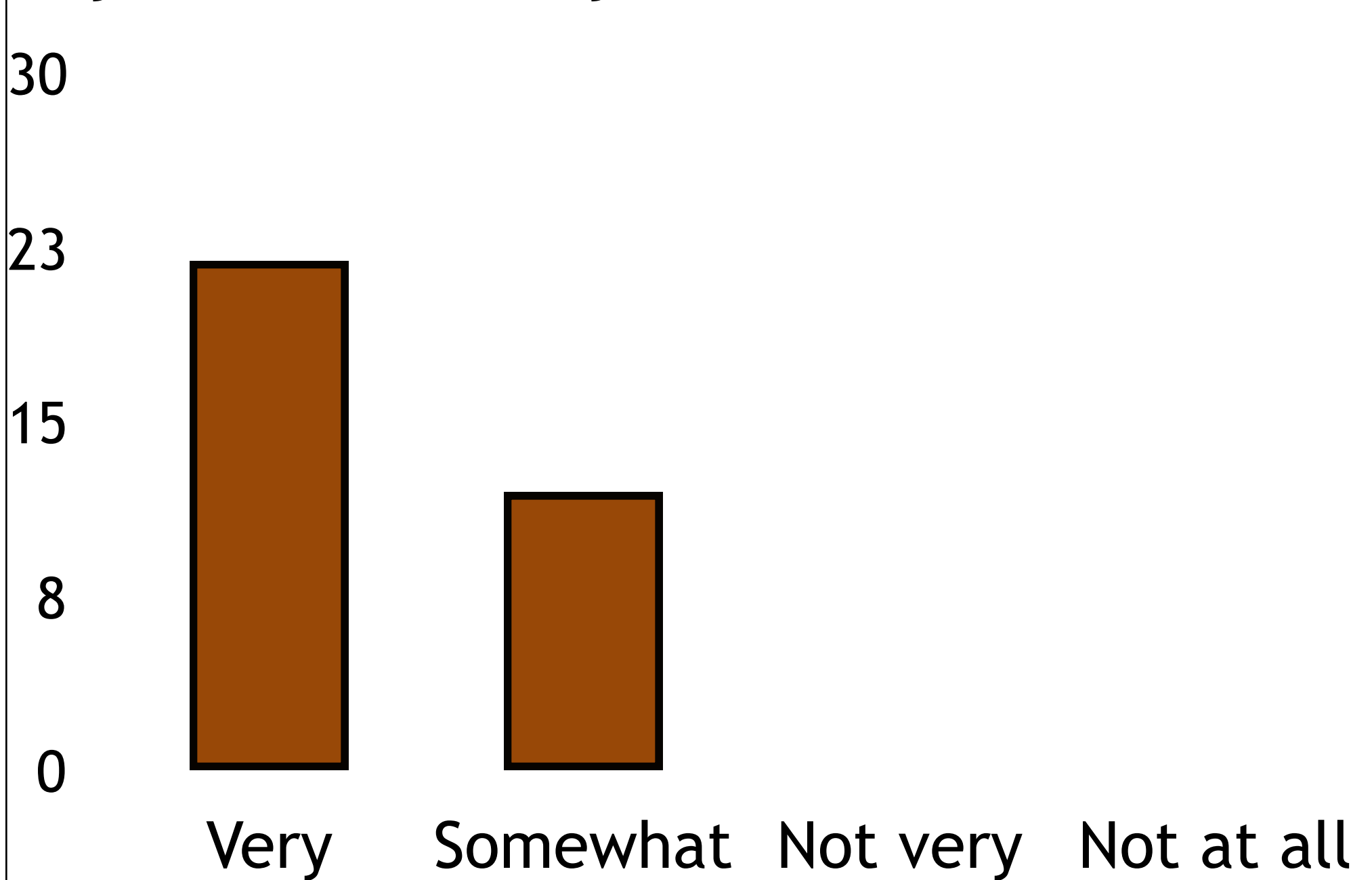


FAST in the Classroom

Pre- to post-training changes in first aid knowledge: Percentage correct answers to first aid and prevention questions



Responses to post-training survey: “How useful for your work will the information you learned today be?”



Built Kits with Cost	Brand/Name	Price	Picture	Hyperlink	Description/Items included
Cheap \$104.66	Orion Coastal First Aid Kit	\$35.00		<a href="https://www.amazon.com/Orion-Safety-Products-Coastal-First-Aid-Kit/dp/B01F0E9F44">https://www.amazon.com/Orion-Safety-Products-Coastal-First-Aid-Kit/dp/B01F0E9F44</a>	126 piece kit also contains daily emergencies including butterfly closures, eye cold pack, scissors, tweezers, sunscreen, etc.
	Recon Medical Tourniquet	\$16.97		<a href="https://www.amazon.com/Recon-Medical-Tourniquet-Application-Lightweight-Hemorrhage-Regulation/dp/B01F0E9F44">https://www.amazon.com/Recon-Medical-Tourniquet-Application-Lightweight-Hemorrhage-Regulation/dp/B01F0E9F44</a>	
	Laerdal Adjustable Collar	\$8.99		<a href="https://www.amazon.com/Laerdal-Adjustable-Collar-Select-Adjustable-Collar/dp/B01F0E9F44">https://www.amazon.com/Laerdal-Adjustable-Collar-Select-Adjustable-Collar/dp/B01F0E9F44</a>	
	Quick-dry Towel	\$13.79		<a href="https://www.amazon.com/Reefree-Microfibre-Outdoors-Antibacterial-Quick-dry-Towel/dp/B01F0E9F44">https://www.amazon.com/Reefree-Microfibre-Outdoors-Antibacterial-Quick-dry-Towel/dp/B01F0E9F44</a>	
	WATERPROOF SOAP NOTE (RITE-IN-THE-RAIN)	\$9.99		<a href="http://www.reefreeyourkit.com/Waterproof-SOAP-Note/p/210-5907.htm">http://www.reefreeyourkit.com/Waterproof-SOAP-Note/p/210-5907.htm</a>	
	Elephant Brand Bandanas	\$14.99		<a href="https://www.amazon.com/Elephant-Brand-Bandanas-cotton-skin/dp/B01F0E9F44">https://www.amazon.com/Elephant-Brand-Bandanas-cotton-skin/dp/B01F0E9F44</a>	

Fishing-Specific First Aid Kit Recommendations



FAST Hands-On Scenarios

**Conclusion**

- First aid training specifically tailored to fishermen was well received and perceived to be very useful
- These pilot classes have led to further development of the course, including:
  - More scenario-based training
  - Greater emphasis on prevention and safety
  - Refinement of presentations to emphasize fishing-specific examples
- Participants provided suggestions for improving safety beyond first aid training (e.g. recommending first aid kits - see figure)

**Support**

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