6th WORLD CONFERENCE

Injury Prevention and Control

6e CONFÉRENCE MONDIALE

Prévention et contrôle des traumatismes

ABSTRACTS • RÉSUMÉS

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INJURIES, SUICIDE AND VIOLENCE:
Building Knowledge, Policies
and Practices to Promote a Safer World

TRAUMATISMES, SUICIDE ET VIOLENCE :
Construire un savoir, des politiques
et des pratiques pour promouvoir
un monde en sécurité

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EVALUATION OF A COMMUNITY-BASED EMERGENCY TRAINING PROGRAM FOR COMMERCIAL FISHERMEN

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PROBLEM UNDER STUDY: Working conditions in the Alaska commercial fishing industry are very hazardous and factors associated with commercial fishing deaths are complex. Fishing gear type, fatigue, and environmental conditions contribute to the severity and frequency of these incidents. However, from 1990-1999, due to new regulations and concerted efforts by government and industry groups, Alaska experienced a 61% decline in commercial fishing deaths. This has been due largely to reducing deaths after an event has occurred, by fishermen being able to stay afloat and warm using immersion suits and life rafts, and by being able to locate them through electronic position indicating radio beacons (EPIRBs). This emergency gear has been a requirement of the Commercial Fishing Industry Vessel Safety Act (CFIVSA). The CFIVSA also requires that fishermen conduct emergency drills on their boats, and that the person conducting the drill be certified to do so. The Alaska Marine Safety Education Association (AMSEA) provides US Coast Guard (USCG) approved drills training for fishermen. AMSEA's goal is to reduce loss of life and injury due to hypothermia and drowning in cold water environments, through public education and training. To date, more than 4,000 fishermen have participated in the Marine Survival, Equipment, Procedures and Onboard Drills Course. This is a hands-on training course that combines didactic and in-water training to demonstrate this equipment during the course. Topics covered in the course include: life-raft and EPIRB deployment and maintenance, making emergency mayday calls, immersion suit usage and maintenance, conducting emergency drills, and cold water survival skills. In 1995, a study was published examining the effectiveness of this training. The study showed that from 1991-1994 this course had an effect in reducing drowning among commercial fishermen in Alaska ($p=0.034$) (Perkins, 1995). We now have data from 1991-1999 to update this study.

OBJECTIVES: We have two objectives for this study:

1. To determine if AMSEA training is effective in preventing drowning; and
2. To determine if there is an interval at which this training should be repeated.

METHOD OR APPROACH: All USCG casualty reports for vessels either capsizing or sinking were examined and a list made of all victims and survivors of these events. This list was manually compared to the list of AMSEA drills course participants to determine if the individual involved had received AMSEA training and when the training occurred. We then analyzed this information on an incident rather than an individual basis because one AMSEA-trained person could save the entire crew. Only cases in which every person on board the vessel could be identified were included in the final analysis.

RESULTS: There were 660 fishermen involved in 234 separate incidents. Of these, 66 were fatal events and 168 were non-fatal. Eleven of the fatal events had an AMSEA-trained per-

son onboard and 44 of the non-fatal incidents had a trained person onboard. We were able to show that training is effective ($p<0.05$) in saving lives if the event occurs within five years of training. But we could not show an effect if the training to incident time period was greater than five years.

CONCLUSION: Based on the results of this study, more frequent drills training may be needed to maintain training effectiveness.

LIMITS: We could not ascertain the AMSEA training background of all fishermen involved in all fishing casualties that occurred during this time interval. Also we could not determine if perhaps fishermen received safety training through other training centres. We also couldn't factor in how often fishermen conduct drills on their boats to keep these skills fresh.

CONTRIBUTION OF THE PROJECT TO THE FIELD: There hasn't been any other evaluation study published on the effectiveness of marine safety drills training. Drills training is a requirement of the CFIVSA and is an element in other commercial fishing safety programs throughout the world. This study not only further confirms that this training is effective, but also shows that refresher training should be done.