

An Interview With Vietnamese Fishermen of Louisiana in the Wake of the Oil Spill

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Two other articles in this special issue of the *Journal of Agromedicine* address the important issue of culture related to occupational safety and health in commercial fishing. The population of Vietnamese fishermen who fish the Gulf of Mexico waters make up a substantial portion of the community of commercial fishermen in this region. They have confronted numerous challenges since immigrating from Southeast Asia following the Vietnam conflict, several of which have occurred over the last 5 years. Like many others, they have suffered displacement by and loss from hurricanes, and faced the economic hardship of an increasingly competitive market for their products coinciding with the high price of diesel fuel, one of their major ongoing costs. A shrimp trawler may require more than \$10,000 worth of fuel for a trip into the Gulf. At the same time, they have faced many obstacles surrounding a language barrier, particularly among older fishermen.

In the spring of this year (2010), they have faced one of the biggest challenges to their

livelihoods and their way of life. Following the tragic loss of life in the Deepwater Horizon Platform explosion, the well continuously spewed oil into the depths of the Gulf of Mexico for over 60 days despite several efforts to stem its flow. After 2 months, the escape of significant quantities of crude oil has finally been stopped, leaving in its wake a potential U.S. environmental disaster of unmatched proportion within recent history, even in comparison to an Alaskan oil tanker spill some two decades ago. The scale of this disaster remains uncertain and continues to unfold with many unanswered questions. How much oil will end up in the marshes of the Louisiana coastline and along its shores and the beaches of neighboring coastal states, threatening the delicate ecosystems in these regions? What health implications if any, acute or chronic, are there for residents of this region, young and old, as well as groups of workers including commercial fishermen and those who have and will continue to respond to the clean-up initiative? What will be the significance of the

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dispersants used and of the controlled burning conducted to contain the extent of the damage? Where has the weathered oil gone? How much will make its way to beaches, dissipate in the voluminous Gulf, persist as a vast plume, or sink to the depths of the Gulf's floor? These questions do not even begin to explore the serious regional economic (not to mention political) impact that has occurred. One segment of the community that has experienced this significant economic impact that stands to change life along the coast for years to come is the commercial fishing population.

With the backdrop of the peer-reviewed articles by Levin et al. and Carruth et al. in this issue of the Journal, the authors have attempted to gather recent information about exactly how this disaster has affected the community of Vietnamese fishermen most significantly affected thus far in the Gulf and along the coast of Louisiana near New Orleans. Many efforts have been initiated and are ongoing to assess the implications for response workers in this region including those by the National Institute for Occupational Safety and Health (NIOSH) to conduct Health Hazard Evaluations and to catalogue and collect contact information voluntarily for the many response workers in the region.¹ Additional research to be undertaken through the National Institute of Environmental Health Sciences (NIEHS) may begin as early as this fall. Planning is currently underway for the Gulf Long-Term Follow-Up Study (GuLF) to evaluate 20,000 clean-up workers for a range of health effects.²

This article is based upon an interview of a small group of key informants from southern Louisiana near New Orleans, including representation from the Vietnamese fishing community (dock owner, 1; vessel captains, 2; and agricultural extension, 1) as well as the U.S. Coast Guard (USCG, 1). The interview was conducted during the first week of August of 2010, approximately 2 weeks prior to the projected opening of the Louisiana Gulf waters. The dock owner and vessel captains were advised that their identities would be protected and they were encouraged to speak candidly in their responses. A shrimp fisherman and non-shrimp fisherman participated. One of the authors (Carruth) served as moderator to

conduct a semistructured interview of the group using questions developed in advance and divided into three categories: current issues, sustainability of safety interventions, and use of social media to convey safety messages. The remainder of this article reflects the feedback provided by the group in these three areas in response to the specific questions.

I. Current issues facing the fishermen.

a. How has the oil spill affected you and the fishermen you know? Has the spill affected the desire to shrimp in the future? Where have the fishermen gone? What do you see as barriers to returning to shrimp fishing?

It seemed to be the consensus that few fishermen from Louisiana were presently actively fishing. The major reason was that the Louisiana waters were not anticipated to open for fishing until mid-August. However, many fishermen were especially concerned about reluctance by the fish houses to buy products harvested from the Louisiana Gulf. Simultaneously, the docks were concerned that if the fishermen do not fish, there would be fewer landings to the docks and fish houses, making it difficult for them to meet their overhead costs. The price of shrimp has been driven down and many Louisiana fishermen have migrated to Texas waters where they also make their landings. This has been the case even though the Texas harvest has not been optimal (one report was that daily production of shrimp trawlers was averaging 300 100-lb. boxes, considered to be a marginal amount). Decisions surrounding fishing can be economically risky for fishermen who must balance considerations of fishing location and timing with the cost of operations. They recounted reports of some captains who were fishing too near the "no fish" zone who had been boarded by the USCG and required to "dump" their catch back into the water.

The reluctance to purchase fish products from the fishermen hinges on concerns over the safety of consuming the products. Despite testing by several agencies and entities suggesting the safety of the harvest, the fishermen feel that this information is poorly communicated and subject to change in a dynamic environment

where there is movement of oil and changes in the food chain. The group stated that there was a perception that the fishermen were lazy and simply don't wish to fish despite open waters, when the reluctance hinges on an uncertain market for their product.

Another related concern that was expressed was that fishing currently taking place was being conducted in more shallow waters while awaiting the opening of Gulf waters. A large portion of the boats that operate in Louisiana are smaller boats that fish with small nets in more shallow waters. The shrimp fishermen operating larger boats were concerned that when they go out into the Gulf, they will drag their larger nets at a greater depth and harvest shrimp that may be contaminated. Furthermore, their nets may become contaminated and have to be replaced at a substantial estimated cost of \$1000 to \$1500 each time this occurs. There were some questions raised as to whether or not the sampling of shrimp, performed to declare their safety, had been caught at a depth representative of where many of the fishermen will operate. They reported that independent testing had been performed showing high levels of fish contamination.

The potential costs and risks were considered high, driving the reluctance to fish. The processors are requiring that all the shrimp be checked and cleared. The fishermen reported that this is difficult to do at the docks and the fish houses. Overall, it was felt that there continues to be considerable uncertainty as to how the spill will continue to affect the environment, the Gulf, and fish to be harvested. With a large proportion of marsh land along coastal Louisiana, there could be a significant effect on shrimp larvae in future years. Effective clean-up that does not further alter the environment is difficult in these locations. Catching contaminated shrimp presently could have serious and long-term implications for the industry and the fishermen, making the situation very discouraging. Despite the go ahead given to resume commercial fishing in certain areas, this level of doubt concerning the safety of the fish for food consumption has been reported in the news as a significant impediment.³ Nonetheless, though the issue of seafood contamination seems to be the biggest barrier to returning to fishing, the key informants

in this group seem to have resigned themselves to having to fish for a couple of weeks when the Gulf waters open to see what happens.

b. Why do people continue to work in commercial fishing when it is such hard work and unpredictable?

The informants stated that 75% of the Vietnamese in the coastal region of Louisiana were fishermen. They reported that immigrants from Vietnam after the war could not readily pursue a new trade upon coming to the United States, with language being the predominant barrier. Therefore, they continued fishing. This factor, combined with having performed this trade all their lives and having invested significantly in their boats, makes it difficult to consider alternatives. They are very tied to the boats economically, a piece of equipment that is not easily sold to recoup investment or readily adapted for other purposes, even in commercial fishing. For instance, the fisherman can only have a license for a single type of fishing during the season, different boats are designed for different fishing environments, and vessels are typically equipped for a single type of fishery at a time (e.g., shrimp vessel versus skimmer).

The fishermen see their trade as "a way of life." Though the work is hard, they have much invested, including experience, which makes it difficult to change. Commercial fishing serves as the source of livelihood for themselves and their families extending into adulthood. Although they may fish for 6 to 8 months per year, that work has to produce financial income that can last throughout the year. They expressed that commercial fishing is "in their blood" and serves as a source of great pride and enjoyment to operate their own business. This is not a sentiment shared by the next generation as they become acculturated and find the work difficult and unrewarding. The concern is that fishing is performed by an aging population that may disappear in 10 to 15 years.

c. How is the oil spill the same and different from Katrina or other environmental crises?

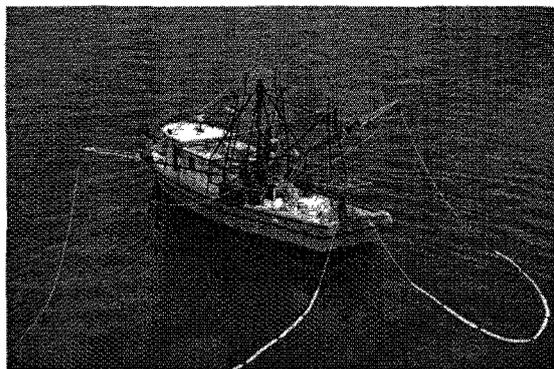
The participants in the interview described hurricanes as being the accepted result of "mother nature." Alternatively, the oil spill was

considered to be a manmade or technical outcome rather than a natural disaster. The fishermen specifically stated that they felt it was a situation over which they had less control. Though Louisiana and New Orleans were significantly affected during Katrina, the fishermen could more readily go out fishing afterward. The overall U.S. economy was in better condition than currently. The situation now seems more dire economically with the fishermen unable to fish and to pay the notes on their boats.

d. Who do you view as helpful in getting fishermen back to work?

Many fishermen have looked toward the response effort in order to get back to work. One fisherman respondent in this group who was a shrimper indicated that he had applied to become an oil spill response worker utilizing his vessel. He did not receive word regarding his application for the first month and a half. He then completed hazardous materials training. He stated that he was required to wear personal protective equipment, and that this was enforced by an external party aboard vessel (see Figure 1). Though respirators were not required, he stated that they were worn on his boat. He may have been voluntarily included on the roster by NIOSH during the training phase, but did not recall. Regarding other preparation,

FIGURE 1. Photograph of a commercial fishing vessel in use during the oil spill response. Note the worker aft wearing personal protective equipment in the form of clothing and boots. *Credit:* Photograph by U.S. Coast Guard Petty Officer First Class Rachel Polish.



he did not recall responding to any health questions or receiving specialized instruction concerning respirator use. Heat stress was emphasized along with frequent rest breaks and fluid replacement. He noted that his work as a commercial fisherman was typically more physically demanding, requiring acclimation to heat.

e. What health concerns do you have as a result of the oil spill? What health checks are fishermen interested in?

The group did not feel that there were significant health concerns associated with the oil spill or clean-up response at this time. However, they did note that bad odors were often detectable, including from burning oil as far away as 40 miles. One fisherman stated this caused him to experience headache and nausea on one occasion. An anecdote was recounted describing a friend working as a response worker who developed a skin complaint. He was reluctant to be seen by the medical community due to language barrier and concern over reporting his condition as work-related, for fear of losing his job. This concern existed despite having been instructed during training to report problems.

The group indicated that, in general, respirators were not in use even while burning oil. One fisherman indicated that lung checks would be of interest to the fishermen participating in the oil spill response. There was also a discussion about monitoring for chemical exposure to agents such as benzene. There were interesting comments regarding the handling of oil waste. The consensus of the group was that the waste was being carried to a landfill, but the nature of the landfill or precautionary measures taken were uncertain.

II. Sustainability of safety interventions.

a. How many Vietnamese fishermen (%) do you think have given up fishing?

The informants reported that this estimate would depend upon the degree to which the buyers are buying. If the perceived threat of contaminated products persists as an impediment to buying, the dock owner estimated as few as 20% of Vietnamese fishermen would

return to the trade at this time. He indicated he felt the remainder would continue to pursue work as part of the oil spill response. One of the fishermen was more optimistic suggesting that greater than half would return to fishing.

The group went on to discuss current obstacles to returning to fishing. One example was peer pressure from other captains filing a personal loss or profit loss claim. The fishermen must attempt to work if the waters are open, which could interfere with those filing a claim. Presently, the fishermen understood that there might be 6 months of advance emergency payment of profit loss based upon prior year averages. Signing a waiver to pursue subsequent claims would not be required. However, the fishermen anticipate that a final settlement agreement will be required.

b. What are the fishermen doing now?

They are waiting for the waters in Louisiana to open. In response to this question, the group spoke at length about how the current circumstances and a range of misinformation were beginning to create mistrust and adversaries in the fishing community. The matters surrounding lawsuits and pending claims were given as an example of peer pressure and adversarial roles for those who wish to fish when the waters open or work in the oil spill response effort.

In the past, fish houses might loan the fishermen resources such as fuel for those who will conduct their landings at that dock. The economic situation and uncertainty has eroded this trust only compounded by the oil spill and the resulting obstacles to fishing and buying. Even reliable fishermen are scarcely able to receive any form of advance from the docks. In turn, it is difficult to hire and pay deckhands who earn a percentage of the profit, approximately 11% per deckhand for shrimp boats and as much as 25% per deckhand for skimmer boats. Charity resources are quite variable location to location.

c. How do you think we can still reach the fishermen to reinforce the safety and health training? How do fishermen get

up-to-date information? Who do they trust?

The participants emphasized the importance of annual safety training for both captains and deckhands, and that it should occur before each fishing season accompanied by safety reminders. Despite the heightened level of mistrust that has arisen, the group still felt that the fishermen “stick together” in multiple venues as through the church. Other trusted sources include the Louisiana Department of Wildlife and Fisheries, USCG, and Sea Grant. It is impractical to go “door-to-door,” but distributing information in English and Vietnamese through the docks was recommended. This could also be accomplished through the newspaper or public media, or something simple like posting a flier on the bulletin board at the dock or having the dock owner distribute and convey the message to the captains and other docks. One fisherman expressed mistrust for the dock owners whereas a second said that information is not always readily available from the dock. It was felt the best means of dissemination is by word-of-mouth.

III. Use of social media to convey safety messages.

a. How do fishermen find out what others are doing? What is the best way to get updated information to the greatest number of community members?

The church or temple was again reiterated as trusted sources. Other recommended venues included placement of a flier on the dock bulletin board, distribute CDs, or one-to-one communication. Checking the Louisiana Department of Wildlife and Fisheries Web site (for those who are computer literate) was considered useful for selective information. Cell phones can be used to convey messages, but have limited reach or value during the active fishing season. Single Side Band (SSB) is farther reaching. Emphasis was placed on messages in Vietnamese and signs in colors, which garner attention. Origin from a trusted source such as an enforcement agency like the USCG was reiterated.

OBSERVATIONS AND CONCLUSIONS

The Deepwater Horizon oil spill has significantly impacted the commercial fishermen of the Gulf Coast, in particular, those from Louisiana. Many of the Vietnamese who reside in this region are fishermen. Given the recognized cultural influences on perceptions of occupational safety and health, the key informants' interviews were undertaken to gain a better understanding of views relative to issues currently faced by the Vietnamese fishermen and how best to reinforce safety messages, which have been the focus of a long-standing NIOSH-supported project involving this group. Though many observations made by the participants have been reported, it is important to re-emphasize some themes that have surfaced:

- The consequences of the oil spill for the environment, for human health, and for the commercial fishing industry of the region are not fully understood and continue to evolve. The Vietnamese fishermen view this disaster differently than natural disasters, expressing much less ability to control their circumstances.
- The most significant barrier to returning to fishing appears to be related to concerns over the safety (or perception of safety) of the food products. If there is no market for the seafood, the economic implications for the fishermen and continuation of fishing are dire.

- Fishing has been a “way of life” with considerable financial investment, not easily changed. The fishermen want to work, but there are many obstacles. Cultural factors for this group are likely to continue to affect the outcome. For instance, pride in their work and trade may lead to further adversarial circumstances in the community. Another example pertains to how language barriers may limit interest in pursuing health care when necessary.
- The perceived health implications of the oil spill (outside of food safety) by the fishermen are limited. Nonetheless, they feel that testing may be warranted related to exposure to chemical agents and the potential effects on the lungs.
- There is growing mistrust within the community. However, safety training and reminders remain priorities, and the Vietnamese fishermen continue to desire messages in their language from trusted sources and opinion leaders.

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