

Great Lakes Consortium
Fish Consumption Guidelines Outreach Project

Talk about Fish and Way of Eating Fish: Evaluation of a Community Health Education Video

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Note: The authors wish to acknowledge funding support from the U.S. Environmental Protection Agency (EPA) and the U.S. Agency for Toxic Substances and Disease Registry (ATSDR)

Background

In 2009, the Minnesota Department of Health (MDH) received funding from the Great Lakes Consortium to develop a new fish consumption outreach product. MDH staff and partners developed 1) a novel survey method to assess fish consumption preference and frequency for use with limited English proficiency populations, and 2) *Talk about Eating Fish and Way of Eating Fish*, a video about mercury in fish narrated in the Hmong language.

The DVD discusses the presence of mercury in water, how fish accumulate mercury, which fish have higher levels of mercury, and describes MDH safe-eating fish consumption guidelines for the general population, and for women of childbearing age and small children. Staff also developed a six-question test about topics in the video for participants to complete before and after viewing the DVD. Specific aims of the pre- and post-testing were to assess the efficacy of the video as an educational tool and to assist MDH in tailoring future outreach about fish consumption for the Hmong community. These projects and activities are described in an earlier report¹.

After completing the video, MDH planned additional evaluation to determine whether adjustments should be made to the video script or graphics before mass-producing DVDs for distribution. This evaluation was conducted in two parts.

First, MDH asked Hmong and other professional agencies and organizations to 1) review the video, 2) recommend community groups who could assist with the evaluation, and 3) to suggest best ways to distribute DVDs in the community. Agencies that were consulted during this phase of the project included administrators and staff from the Association for the Advancement of Hmong Women (AAHW), Hmong Health Care Professionals Coalition (HHPC), Lao Family Services, and St. Paul-Ramsey County Department of Public Health (SPRCPH) (Appendix 1).

Based on recommendations from these contacts, MDH planned video-viewing events with youth from the Community Design Center of Minnesota, students from the University of Minnesota Hmong Student Association, families from the Association for the Advancement of Hmong Women, and elders from the Neighborhood House of St. Paul (Appendix 2). Participants at these events watched the video, provided feedback in guided discussions, suggested DVD distribution channels, and completed the pre- and post-tests.

¹ Eshenaur, McCann, Berglund, 2009. "Building on Existing Knowledge: Updating Minnesota's Fish Consumption Education Outreach for the Hmong Community." Minnesota Department of Health, Environmental Health Division, Environmental Surveillance and Assessment Section. <http://www.health.state.mn.us/divs/eh/fish/nonenglish/index.html>

Findings

Comments from agency staff and community members:

In general, community organizations and community members liked the video. In particular, community organization staff commented that the video format and Hmong narration would work well with this community in which most speak English as a second language, many elders do not speak English, and in which many do not read or write Hmong or English and recommended MDH mass produce and distribute the DVD At community events, participants commented that the DVD was very positive, informational, and would be a good resource for the community. Notably, viewers liked the illustrations of fish accumulating mercury by eating other fish. Both cohorts recommended mass-producing and distributing the video.

Pre-and post-test results and trends:

MDH developed a 6-question pre- and post-test for participants to complete as part of the video evaluation (Appendix 5). Test questions included the following (correct answer in bold):

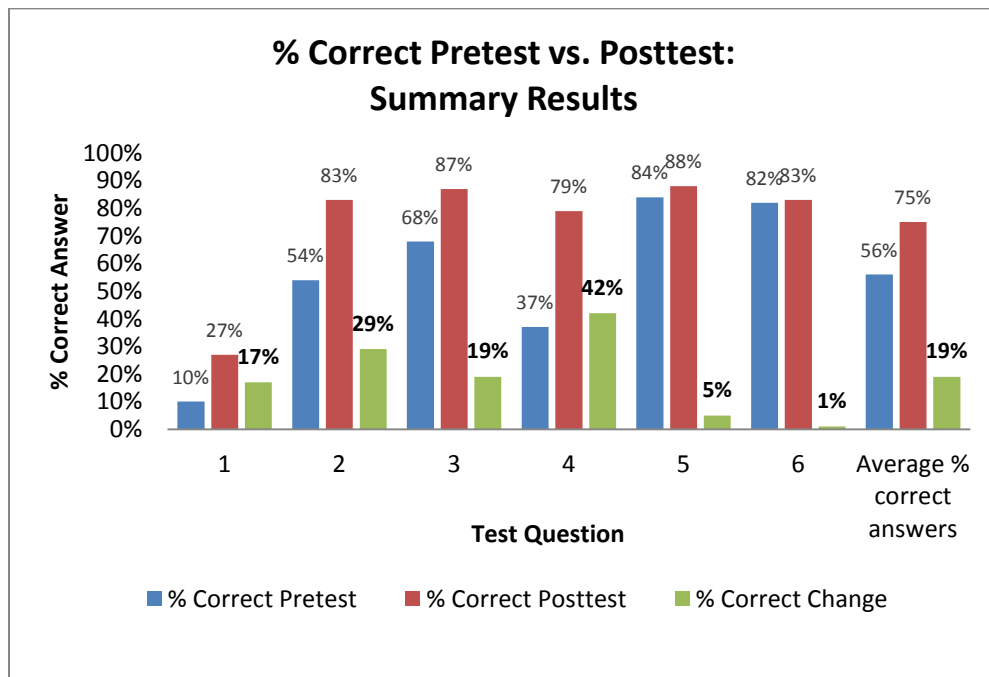
1. Do fish from city lakes have more mercury than fish from country lakes? *Yes or **No***
2. Which fish have more mercury? ***Largemouth bass** or Sunfish*
3. Which fish has more mercury? *14 inch walleye or **21 in walleye***
4. We can safely eat some fish more often than other fish. Which fish can we eat more often? *White bass or **Crappie***
5. Some people need to be more careful than other people about the kinds of fish they eat and how often they eat fish. Who needs to be more careful? ***Pregnant women and kids** or Men*
6. Eating fish can be good for your health? ***True** or False*

A total of 138 participants at community events completed the pre- and post-tests. This number included 47 university students, 80 elders, and 11 mixed-age group attendees. Overall, test scores improved by 19 percent from pre- to post-test (Table 1, Figure 1). Scores improved the most for questions about the amount of mercury in fish by species, size, and consumption frequency (Q2, Q3, and Q4). The majority of participants knew the correct answers for the questions about at-risk populations (Q5) and fish as a healthy food choice (Q6) prior to watching the video. The question about mercury in city versus country lakes (Q1) had the lowest number of correct responses for the post-test, suggesting some lingering confusion about this point.

Table 1: Combined group test results

Question	Pre-test # Correct (%)	Post-test # Correct (%)	% Change
1	15 (10%)	37 (27%)	17%
2	79 (54%)	114 (83%)	29%
3	100 (68%)	120 (87%)	19%
4	55 (37%)	109 (79%)	42%
5	123 (84%)	122 (88%)	5%
6	121 (82%)	115 (83%)	1%
Average % Correct Answers	56%	75%	19%

Figure 1: Summary Test Results



Distribution suggestions

MDH asked agency staff and community members to suggest methods and venues for distributing the DVD. Agency staff suggested distributing the DVD at major Hmong festivals, large markets, local Asian-American newspapers, health care clinics, Hmong radio and TV media, and at bait and tackle shops (Appendix 3). Community group participants also suggested a number of particular community festivals and events, media sources, schools, retail, and medical outlets (Appendix 4).

Limitations

Group participation and language were challenges at each event. MDH depended on the outreach and recruitment efforts of the collaborating organizations and agencies. Several events had lower than anticipated attendance. MDH staff used semi-structured discussions to gather verbal feedback about the video after participants watched it. Some degree of language interpretation was necessary during each of the events; language difficulties may have hampered communication with some participants. However, information gathered at each event encouraged MDH to mass-produce the video. Participant's comments and reactions to the video were consistently positive; there were few practical suggestions for changes to the video.

There were also several challenges to evaluating the pre- and post-test results. Some participants answered questions by circling two answers or did not select an answer, and some completed the pre-test but did not the post-test. However, results from each question indicate that participants improved their understanding of the issues regarding mercury in fish and fish consumption guidelines. These findings support the decision to mass-produce and distribute the DVD.

Conclusions and future outreach efforts

Test results paired with qualitative evaluations support the video as a strong educational tool for Hmong audiences. Based on evaluation results, MDH decided to mass-produce the video. MDH will provide copies to stakeholders and community groups who will distribute the video among their clients. MDH and partners will also distribute DVDs during major public events in the community.

Pre- and post-test results and comments from viewing events provided MDH with information to guide future outreach efforts. These indicated that some concepts are more difficult to communicate than others are. For example, the idea that the fish in an urban or cloudy lake are not necessarily more contaminated than those in a clear, rural lake is a difficult one to convey among this and other populations. Feedback obtained from this and other evaluations will help MDH to improve its outreach materials for the Hmong and broader communities.

DVD Distribution and Feedback

In 2012, MDH staff mass-produced 7,000 copies of the DVD. More than 6,000 of these have been distributed to a variety of agencies and organizations, and at community events. For example, more than 800 DVDs were distributed to participants at a major summer sporting event where MDH paired with Hmong agencies at a health information booth.

During the summer of 2012, MDH staff attended a number of events at state parks organized by the Association for the Advancement of Hmong Women and the Minnesota Department of Natural Resources (DNR). Audiences of all ages were interested in the video, participated in discussions, and asked relevant questions about the material. Some participants and agency staff attended all or several of these events and watched the video several times. These audience members and staff noted that they learned something new each time they watched the video. Lively post-video discussions support these comments. Feedback from video events reinforces the video evaluation and support MDH's decision to mass-produce and distribute DVDs among the community.

Appendix

Appendix 1: Community-Based Agencies

Association for the Advancement of Hmong Women (AAHW), St. Paul: AAHWM's mission is to strengthen Hmong families through education and leadership development for women, girls, and families. With a family-centered approach, AAHWM works to provide education, support, and advocacy to Hmong parents and children, to provide programs that maintain Hmong culture, heritage, and language, to create leadership roles, self-esteem, and self-confidence in Hmong women and girls and to develop a more effective organization that is known for being responsive to community needs.

Hmong Health Care Professionals Coalition (HHPC), Twin Cities Metro Area: The HHPC is a group of doctors, health educators, nurses, health interpreters, social workers, program directors, and coordinators who form a collaborative partnership invested in improving the health and well-being of the Hmong community by providing education, advocacy, and supporting health research.

Lao Family Services, St. Paul: a grassroots organization offering bilingual and bicultural programs that strive to empower the Hmong to meet challenges of living in America within a context that honors and preserves their traditions, values, and heritage. Their mission is to facilitate and promote the success of Hmong Americans in Minnesota, while also recognizing and supporting other immigrant and refugee populations.

St. Paul-Ramsey County Department of Public Health (SPRCPH), St. Paul: county public health organization providing a diverse range of services to improve, protect and promote public health – and a partner in the development of the *Talk about Fish and Way of Eating Fish* video.

Appendix 2: Community Member DVD Discussion and Evaluation Groups

University of Minnesota Hmong Student Association, Minneapolis: The Hmong Student Association exists to promote, preserve, and maintain the Hmong culture and heritage at the University of Minnesota. It helps its members develop cultural, social, leadership and communication skills, and strives to educate the University community, as well as outside communities, about the Hmong culture, language, history, and heritage.

The Association for the Advancement of Hmong Women - Farming Program Elders, St. Paul: The farming program offers elders, family's referral to free, and low cost classes on farm management, legal issues, standards for sustainable farming and organic farming methods.

Neighborhood House, St. Paul: an organization offering immigrant, refugee, and long-time resident's family education and leadership programs that provide skills needed to pursue higher education goals, gain employment, and become self-sufficient, thriving members of diverse communities. Their programs and services include a food shelf, adult education literacy and life skills classes, family support and education, school readiness, youth leadership, cultural proficiency workshops and community building opportunities.

Community Design Center, St. Paul: The Community Design Center of Minnesota offers food and ecology projects on the East Side of St. Paul. The project engages children, youth, and families in community development through education, internships, and leadership development, providing opportunities for children and youth to learn basic work skills and habits, expand knowledge of career opportunities, develop leadership skills, improve academic performance, increase knowledge of the local environment, improve personal and community health, and develop an ethic of community service. Community Design Center projects reach low-income children, youth, and families.

Appendix 3: Hmong Agency Distribution Suggestions

Sector	Distribution Suggestions
Hmong Community Festivals	4 th July fishing tournament April 4 th Hmong Village event Hmong Resource Fair Dragon Festival at Lake Phalen Mass produce the DVD: 2,000-3,000 copies, hand out at Hmong Village community events – include ½ sheet of instructions in English and Hmong Reach youth where they gather: market place, soccer tournaments, festivals
Medical	Series of trainings w/ HMO's, medical residents Create a continuous loop DVD to show at medical clinics Work w/ Blue Cross/Blue Shield and their Healthy Eating initiatives, they work w/ Asian groups Diabetes education at Westside Clinic Meet face-to-face with Hmong medical doctors to establish a relationship & encourage Dr.'s to share fish consumption advisory information Distribute through Hmong Health Care Coalition Professionals McDonough Clinic, Xee Xiong, diabetes education RN Open Cities Clinic, talk to Hmong nurses Northpoint Health & Wellness: Panhia Thao Phalen Village Clinic CUHC Clinic Dr. Bobby K. Yang, Medical Clinic, Hmong expert Agape Clinic: Chong Lee
Media Media cont'd.	Newspaper Write articles for recycling coordinators, newspapers Contract w/ Hmong Times for a series of articles Articles in Hmong Pages and Asian American Press Hmong Today article Dr. Steve Mouacheupao, Coon Rapids Allina Clinic, has written for Hmong Today Radio/TV Radio PSA's Twin Cities public TV 15- second PSA's ECHO – Lillian McDonald Hmong radio (good for individuals who do not read), offer series of informational features re

	<p>FCA 91.1 Hmong radio – need a special radio for this channel Longcheng Radio: have on agenda for a Conference call Kong Sue Xiong: Hmong MN radio Peter Xiong, Radio KPNP Lee Pao Xiong, Hmong Radio KFAI: 50+ and elders listen to KFAI radio</p>
Electronic Media	<p>Social media: Twitter, Facebook, Blog, email blasts Listservs,</p>
Educational Venues	<p>Put together another studio event for recording with the Household Hazardous Waste Advisory Group Show DVD at Lao Family Citizenship and English as a Second Language classes DVDs available at the Hub Center, 1030 University Ave, and LEAP Center Show DVD to young families at the Roosevelt Housing ECFE classes, Mount Airy (behind capitol) Hmong American Partnership Put information in a newsletter using visuals as much as possible, not much writing Schools High School Health Clinics Distribute at Hmong Charter Schools, Hmong College Prep School</p>
Churches, Community Venues	<p>Distribute in the faith community – Hmong Baptist Hmong Food Shelves Senior Adult Day Care Centers Farmers Market Lao Family Services community programs Hmong Community Arts Group Train key leaders to spread the word at community meetings</p>
Retail	<p>DVDs available where buy fishing license, ie Joe’s Bait Shop on Rice</p>
Government	<p>Distribute through the DNR, Tong Vang & Conservation Officers Show DVD to Kao Thao, Naturalist @ Ft. Snelling, distribute through parks Distribute at WIC sites and through public health nurses</p>
Create New Materials	<p>Keep materials short and easy to read Bookmarks Refrigerator magnets w/ women’s guidelines on one side, men’s on the other Create a calendar w/ the guidelines, Hmong love calendars Anything you hand out to Hmong people has value Link up w/ UCare’s healthy plate and distribute w/ them</p>

Appendix 4: Community Member Distribution Suggestions

Sector	Distribution Suggestions
Community Festivals/Events	<p>Distribute at Hmong July 4th celebration, flea markets, Hmong Village, Dragon Festival</p> <p>Attend Hmong Flea Markets to give out DVD</p> <p>Reach adults through churches or religious festivals</p> <p>Farmers Market sites</p> <p>Hmong food shelves</p> <p>Senior Hmong adult day care centers</p> <p>Distribute copies of DVD at Hmong American Meeting at Neighborhood House</p>
Medical/HMO's	<p>Play the DVD continuously in clinics, other public settings</p> <p>Meet with doctors</p> <p>DVD available at WIC, public health nurse sites</p>
Media	<p>Put information about DVD on Facebook</p> <p>Radio is good – the Hmong are a tight knit community w/ lots of gossip. Put information on the Hmong conference calls</p> <p>ECHO</p> <p>Create a message than can easily be communicated in 2 minutes or less and use to promote</p> <p>91.1 FM Hmong radio, ask Tong Vang to make the announcements</p> <p>KFAI radio to target younger audience</p> <p>Cable channels</p>
Schools/Educational Venues	<p>Schools would be a great place to distribute to youth – to kids who will take the DVD home to their parents. Prepare a lesson plan for the teachers to accompany the DVD. Good information for parents.</p> <p>List a link about the DVD on school websites</p> <p>Show DVD at the two Lao Family classes: citizenship and ESL</p> <p>LEAP Center</p> <p>Distribute at Hmong Charter Schools, Hmong College Prep School</p>
Retail, Outdoor Venues	<p>Distribute DVD at Hmong stores, i.e., Golden Harvest</p> <p>Provide to outdoor/nature groups, give each person a fishing lure as incentive</p> <p>Distribute through DNR, Tong Vang, Conservation Officers</p>
Create New Materials	<p>Put information on a bookmark (20 inch walleye yes, 30 inch walleye no)</p> <p>Create a simple magnet and translate it into 4 languages</p> <p>Create a magnet with FCA guidelines on it, Women/children one side – Men, non-childbearing women on the other side</p> <p>Put guidelines on a calendar and distribute – Hmong love calendars</p>

Appendix 5: Pre and Posttest Form



2. Do fish from city lakes have more mercury than fish from country lakes? Yes No

3. Which fish has more mercury?



Largemouth bass



Sunfish

4. Which fish has more mercury?

14 inch walleye



[-----14-----]

21 inch walleye



[-----21-----]

5. We can safely eat some fish more often than other fish. Which fish is safer to eat more often?



White bass



Crappie

6. Some people need to be more careful than other people about the kinds of fish they eat, and how often they eat fish. Who needs to be more careful? Pregnant women and kids or Men

7. Eating fish can be good for your health. Circle One

True

False