## **Brochure Development**

Four versions of the brochure were developed for each state for the Diary Study. Versions included common core messages to allow all versions to be effective interventions. Core messages were chosen to encourage women of childbearing age to eat fish and to follow fish consumption guidelines. Two experimental contrasts were also incorporated into the brochures. Potentially high-impact strategies found to be effective in other contexts were considered for incorporation into some versions to test whether these strategies increase the persuasiveness of fish consumption messages. A description of six strategies (including reviews of the communication, risk, health, and natural resource literatures to offer guidance on fish advisory messages development) is in Appendix B2, Summary of Potential High Impact Communication Strategies.

The two experimental contrasts chosen for the Diary Study brochure experiment were: (a) narrative versus non-narrative format, and (b) certainty versus uncertainty language for fish consumption advisory recommendations. For example, brochures using language about "safe" fish consumption (indicating more certainty) were contrasted with brochures using language about "healthier choices" and "reduced risk" (indicating more uncertainty).

The first step in the development of the brochures was to identify which messages about safe fish consumption resonated most with the target audience. Messages were pretested to refine the wording and content. Several variants of the messages were developed. Health Partners Institute (HP) then surveyed women of childbearing age to test the receptivity to different statements about fish consumption. Women completed the survey via the internet or by phone. Respondents evaluated two types of statements: reasons for eating fish and reasons for following fish consumption guidelines. Respondents also evaluated sources of information (e.g. physicians, scientists, experts). See Appendix B3, Key Message Testing.

After testing by HP lead to tentative selection of a final set of messages, Essentia Health conducted focus groups to assess response to these messages by women living in northern Minnesota. Women living in this region may have different characteristics than women living elsewhere in Minnesota, and these focus groups helped assess whether the language used in the messages is accessible to a wide range of women. The focus groups: (a) further explored the response of women of childbearing age to the messages tested in the HP survey; and (b) tested response to draft narratives to refine and improve those narratives. See Appendix B4, Focus Groups.

Women of child-bearing age in each of the eight Great Lakes states were randomly assigned to treatment (receiving one of the four versions of the brochure, varying two key characteristics) and control groups (receiving no brochure):

- Narratives vs. Non-narrative Information. Half the versions of the brochure communicated key information in the form of a narrative (story) about an individual in the target audience. The other half of the brochures communicated the same information in a non-narrative format. For this non-narrative format, a question-and-answer format, "Frequently Asked Questions about Eating Fish", was adopted.
- **High Uncertainty vs. Low Uncertainty.** Half the versions of the brochure communicated more uncertainty about the health effects of eating fish and the other half communicated less uncertainty. The amount of uncertainty was varied in two ways: (1) the "high uncertainty"

brochures included 2 additional statements (communicating uncertainty) as part of the core messages that appeared on the back cover; and (2) individual words and phrases were varied throughout the core messages, narratives, and frequently asked questions to reflect more or less uncertainty.

Four variations of the brochure were designed for use in each state: (1) narratives and high uncertainty; (2) narratives and low uncertainty; (3) non-narratives and high uncertainty; and (4) non-narratives and low uncertainty. See brochures below.