

FISH Project Protocol and Procedures Manual

The FISH Project: Fish Are Important for Superior Health

January 2015



Cook County North Shore Hospital
Grand Portage Health Service
Grand Portage Trust Lands
Minnesota Department of Health
Sawtooth Mountain Clinic

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Acronyms

µg/L	micrograms per liter
CCNSH	Cook County North Shore Hospital
COC	chain of custody (form)
EHR/PM	Electronic Health Record/Practice Management
EPA	U.S. Environmental Protection Agency
FAQ	frequently asked questions
FISH	Fish are Important for Superior Health
GLRI	Great Lakes Restoration Initiative
GPHS	Grand Portage Health Services
IATA	International Air Transport Association
MDH PHL	Minnesota Department of Health Public Health Laboratory
MDH	Minnesota Department of Health Fish Consumption Advisory Program
mL	Milliliter
Ppt.	participant
RfD	(EPA) reference dose
SMC	Sawtooth Mountain Clinic

Introduction

Background

The **Fish are Important for Superior Health (FISH) Project** (EPA title, “Reducing Mercury in Great Lakes Fish Consumers in Minnesota”) is an intervention project to reduce mercury exposure in women aged 16 to 50 living in or near Cook County, Minnesota, on the North Shore of Lake Superior. The intervention will be implemented by health care providers at the Sawtooth Mountain Clinic in Grand Marais and the Grand Portage Health Service in Grand Portage, Minnesota, with assistance from laboratory staff at the Cook County North Shore Hospital.

Women who participate in FISH will learn about the risks and benefits of eating fish, and how to enjoy the health benefits of fish consumption while reducing their exposure to mercury. They will also learn their own mercury and fatty acids levels; this will help to inform their future fish choices. The Project will produce an in-clinic mercury screening tool and educational materials for health care providers and their patients. These intervention materials will be available for use in clinics throughout the Great Lakes Basin.

FISH was proposed and funded in response to the EPA-funded 2007-2011 [Mercury in Newborns in the Lake Superior Basin](#) study. Mercury in Newborns was conducted by MDH in collaboration with state newborn screening programs in Minnesota, Wisconsin, and Michigan. To be eligible for the study, the mother of the newborn had to live in one of the three participating states and in the Lake Superior Basin. Mercury in Newborns showed that ten percent of Minnesota newborns (three percent in Wisconsin, none of the Michigan newborns) who were tested had mercury levels above the reference dose for methylmercury (5.8 µg/L) set by U.S. EPA. These data suggest that a significant number of northern Minnesota women were eating more high-mercury fish than was healthy for their babies.

The fetus and young children are most at risk from exposure to mercury, so FISH was designed to intervene with women of childbearing age. Because health care providers are considered a reliable source of health-related information, FISH was designed as an in-clinic intervention. MDH approached the Sawtooth Mountain Clinic and leadership of the Grand Portage Band of Chippewa Indians in Grand Portage. Both the tribe and the clinic agreed to partner with MDH.

Partners in the FISH project are:

- MDH, Division of Environmental Health, Fish Consumption Advisory Program, St. Paul
- Sawtooth Mountain Clinic (SMC), Grand Marais
- Grand Portage Health Services (GPHS), Grand Portage
- Grand Portage Trust Lands, Grand Portage
- Cook County North Shore Hospital (CCNSH), Grand Marais
- MDH Public Health Laboratory (MDH PHL), St. Paul

MDH will develop protocol, forms, and materials with input from partners, support clinic staff in implementing the intervention, analyze data, and write reports. The clinic and hospital will implement the intervention and be responsible for all participant contact and personal data.

FISH is a four-year (November 1, 2012 to September 30, 2016) project funded by a grant to the Minnesota Department of Health (MDH) from the U.S. Environmental Protection Agency (EPA) through the EPA Great Lakes Restoration Initiative.

This Manual provides procedural details of activities related to the FISH Project: staff training; promotion; recruitment and enrollment; clinic intervention visits; data management; and results communication and counseling.

FISH Project Components

Fish Consumption Risks and Benefits Training

In Year One of the Project, physicians and nurses from SMC and GPHS participated in several days of training on risks and benefits of fish consumption. MDH provided training programs developed by three different institutions (University of Illinois at Chicago, Michigan State University, and Stony Brook University). These staff completed the coursework, testing and evaluations for each of the programs, as well as an overall evaluation comparing and contrasting the three programs. The University of Illinois and Michigan State trainings were developed as part of previous Great Lakes Restoration Initiative (GLRI) grants.

A fish consumption risks and benefits refresher course – designed based on the results of those evaluations - will be provided for all participating staff prior to the first patient visits. That course will also be made available to other health care providers.

Visit One

MDH and FISH partners will work together to recruit 500 women to participate in Visit One. Visit One procedures include:

- Eligibility verification
- Informed consent
- Brief (three-question) mercury screening
- Blood draw: Blood to be tested for total mercury and omega-3 fatty acids; methylmercury if total mercury is over the RfD (5.8 µg/L).
- Detailed (Fish Consumption) Questionnaire: Results used to supplement three-question mercury screen, for counseling purposes, and to improve fish consumption education for women of childbearing years.
- Fish consumption education: Participants learn to choose fish that are low in mercury and high in omega-3 fatty acids.

Results Notification and Counseling

Blood samples - identified by Participant IDs - will be analyzed by the MDH PHL. Lab results will be sent to CCNSH and electronically transferred into the joint SMC and GPHS electronic medical record (EMR).

Clinic staff will link Participant IDs with clinic-held personal information and send a result letter to each participant. The letter will explain her results and recommend an appropriate course of action. Participants with mercury over the EPA reference dose (RfD) of 5.8 µg/L will be offered counseling by a clinic nurse or physician trained for this purpose. Counseling will also be available to participants with mercury results below the RfD who request it.

Follow-Up/Visit Two

All participants with mercury values over the RfD will be asked to return for a follow-up visit (Visit Two) in six months. Based on Mercury in Newborn findings (i.e., ten percent of babies tested in Minnesota had mercury over the RfD), it is estimated that approximately 50 women in FISH will fall into this range.

For each of the high-mercury follow-up participants, two women with mercury results under the RfD will also be asked to participate in the follow-up visit. Visit Two will be nearly identical to the first, including the mercury screen, blood draw, detailed questionnaire, and fish consumption education, followed by similar results notification and counseling. Additional information will be collected on participant reaction to the educational materials and the Project overall.

Report to the Community

MDH will analyze FISH data and present the results in a report to the community at the end of the Project. Partners will review and approve the report before it is shared with the community.

Staff Training

Training on risks and benefits of fish consumption was provided for staff in the first year of the Project. All Project staff at Sawtooth Mountain Clinic, Grand Portage Health Services, and the Cook County North Shore Hospital will receive additional training on each aspect of the Project in which they will be involved. In addition, SMC staff are required to follow internal clinical practices and policies (found in Appendix 5).

Each of the trainings listed below will be provided by MDH staff with the exception of the Laboratory Procedures training, which will be provided by Cook County North Shore Hospital laboratory staff.

Refresher Fish Consumption Risk and Benefits Training

This one-to-two hour course will be provided for all staff involved in the Project. It is designed according to clinic staff preferences expressed in evaluations of the previous trainings. This refresher training is intended to provide clinic-ready information for patients in a busy clinic setting.

Protocol, Forms, and Visit One

Staff at SMC and GPHS who will recruit or enroll participants and conduct participant visits will receive FISH Protocol training. Topics include: Project objectives; purpose and value; data privacy; informed consent; incentive procedures; forms and data processing; and conducting Visit One/Two. Each SMC and GPHS staff member will learn how to correctly and uniformly deliver participant education and will practice doing so in the course of this training.

Laboratory Procedures

Venipuncture and lab protocols training will be provided by CCNSH for all SMC and GPHS staff who will be doing blood draws at either Visit One or the Follow-Up. Training will also be provided for those who will be processing or shipping lab samples.

Results Communication and Counseling

SMC and GPHS staff who provide the recommended results counseling for all participants with mercury >5.8 µg/L and respond to low-mercury participant questions and concerns related to their own lab results (“results counselors”) will receive training on topics related to those results (e.g., ‘desirable’ fatty acid and Hg levels; what levels mean; what to do to reduce or increase levels; which fish to eat; what to do if Hg level is high).

Training will take place over a several-month period prior to the activities related to their content. MDH will provide refresher training as needed; new clinic and hospital staff will receive training for any aspect of the Project in which they will be involved.

Project Promotion

Promotion Plan

MDH and project staff will draft promotional materials based on input from Project partners, including Sawtooth Mountain Clinic (SMC), Cook County North Shore Hospital, Grand Portage Health Service (GPHS), Grand Portage Trust Lands (GPTL) and other stakeholders. SMC and GPHS staff will suggest what type of materials are needed; provide input on community standards and values to inform the design and content; and will review and comment on draft materials. MDH, GPHS, and SMC will sign-off on all final versions before they are distributed.

MDH staff will work with Project partners to promote the Project in their communities. Print and other materials will be created to **inform the public** about FISH; its purpose, procedures, and benefits. This group of materials will also serve to **promote participation** in FISH. They will not be designed to provide significant information about safe fish eating guidelines or the risks and benefits of eating fish. Education about fish consumption will be reserved for Project participant education.

In addition to creating promotional print materials for dissemination in North Shore communities, partners will engage a variety of local media and will attend local family and community events to promote the Project and increase participation, as needed. Promotional activities will take place throughout the clinic phase of the Project.

Community Partners

MDH and partners will work to engage and inform local stakeholders about the Project. These will include Grand Portage tribal officials and agency staff; Cook County and Grand Marais public health and other government officials and agencies; business owners and others in both communities whose support will enhance the implementation and success of the Project.

Promotional Venues

Media

Local media resources will be used periodically to promote the Project and increase participation and awareness. A potential list of local media outlets is below. Depending on participation, some media resources may not be used.

Print Media

- Cook County Co-op Newsletter, *Blueberry Jam* (every two months, online)
- *Cook County News Herald* (weekly, Saturday)
- *Duluth News Tribune* (daily, contact: John Meyer)
- Grand Portage Tribal Newsletter, *Moccasin Telegraph* (quarterly, print, contact: Mary Ann Gagnon, 218-475-0111)
- *Grand Portage Trust Lands Newsletter* (periodically, paper, contact: Amy Seitz)

- *North Shore Journal* (print and online, contact: 218-226-3335)
- *Northern Wilds* (monthly, print)
- *North Shore Healthcare Foundation News* (quarterly, online)
- Sawtooth Mountain Clinic News, *The Daily Apple* (quarterly, print and online)
- *Viking Voice*, Cook County Schools (annual online in August; monthly, print)

Radio

- WTIP North Shore Community Radio (90.7 FM)

WTIP is an important local partner. MDH has agreed to communicate regularly with WTIP staff about FISH. WTIP is interested in informing the community about the Project, its objectives, progress, and outcomes. In addition to other activities undertaken in collaboration with WTIP, Grand Portage's Dr. Seth Moore has a regular radio show and will provide updates as appropriate.

Internet

- Boreal Access mailing lists
- CCNSH internet and intranet
- SMC website - The FISH promotional video and other information will be posted here.

Public Events and Locations

Promotional Events and "Special Clinics"

FISH will be promoted - beginning May 2014 - at a variety of public events where names and contact information for women who express an interest in Project participation will be collected (see *Pre-Enrollment* section below).

FISH Partners will also hold special Visit One clinics, in conjunction with scheduled community events or as stand-alone opportunities for participation. Some events for possible FISH tie-ins are:

- SMC women's health event, May 2014
- Grand Portage Mammobus event, May 2014
- North House Chowder Festival, Summer 2014
- Grand Portage Health Fair, Summer 2014
- Grand Portage women's softball, Summer 2014
- Cook County Schools Open House, August 2014
- Blood pressure clinics – throughout enrollment period
- SMC Pappy Hours – throughout enrollment period
- Pizza bake at the Birch Grove Community Center

Public Poster Locations

Project partners have compiled a list of community sites on the North Shore where they will request placement of FISH posters. Posters will initially be placed four to six weeks before the Project begins,

and will be refreshed as FISH progresses. Locations include but are not limited to churches, schools, and the following specific locations:

Grand Marais

- *Arrowhead Center for the Arts*
- *Arrowhead Pharmacy*
- *Cook County Community Center*
- *Cook County Early Childhood Family Education (ECFE)*
- *Cook County Extension*
- *Cook County Family Planning*
- *Cook County North Shore Hospital*
- *Cook County Public Health*
- *Cook County Whole Foods Co-op*
- *Dockside Fish Market*
- *Drury Lane Books*
- *Gene's IGA*
- *Grand Marais Art Colony*
- *Grand Marais Public Library*
- *Java Moose*
- *Johnson's Foods*
- *Lake Superior Trading Post*
- *North House Folk School*
- *North Shore Car Wash & Laundromat*
- *Sawtooth Mountain Clinic*
- *The Garage*
- *U.S. Post Office*

Grand Portage

- *Grand Portage Community Center*
- *Grand Portage Head Start*
- *Grand Portage Health Service*
- *Grand Portage Human Services*
- *Grand Portage RTC*
- *Grand Portage Trading Post*
- *Grand Portage Trust Lands*
- *Oshki Ogimaag Community School*
- *Ryden's Border Store & 66*
- *U.S. Post Office*
- *WIC*

Hovland

- *Chicago Bay Store*

- *U.S. Post Office*

Lutsen

- *Clearview General Store*
- *Heavy Duty Sewing (Clearview)*
- *Lockport Marketplace*
- *Lutsen Resort*
- *Moondance Coffee Shop*
- *U.S. Post Office*

Tofte

- *Birchgrove Community Center (Patty Nordahl)*
- *North Shore Commercial Fishing Museum & Visitor Center*
- *North Shore Market*
- *Sawtooth Outfitters*
- *Tall Tale Yarn Shop*
- *U.S. Post Office*

Other

- *Churches*
- *Schools*

Promotional Materials

Informational and promotional materials will include but are not limited to:

- **Three-fold Promotional Flyer**
 - briefly describes the Project; found in Appendix 1
- Posters for public locations
 - small posters distributed throughout North Shore communities
- Display boards
 - displayed at public events and SMC/ GPHS in between events; intended to introduce the Project and Project partners and to encourage participation
- Announcement letters
 - clinics may decide to send Project information to mailing lists or email lists held by SMC/GPHS
- Promotional video
 - developed by MDH with Project partners to inform the public about FISH and encourage participation; features staff and community members
- **FISH Frequently Asked Questions (FAQs)**
 - provides answers for questions that staff are likely to be asked by media, community members, and prospective participants during the promotion and recruitment phases; found in Appendix 3

Visit One

Eligibility, Pre-Enrollment, Recruitment, and Scheduling

Eligibility Criteria

Women aged 16 to 50 are eligible to participate in FISH if they meet the following conditions:

- Permanent residence must be in Cook County or the surrounding area.
- Live in the area at least nine months of the year; however, women who recently move to the area may also participate if they intend to be full-time residents.
- Must be willing to provide a blood sample to be tested for mercury and Omega-3 fatty acids.
- Able to take part in Visit Two six months after Visit One, if requested.

Pre-Enrollment

Women can indicate their willingness to participate in FISH by completing a **Pre-Enrollment Form** at a public event, FISH special clinic, regular clinic visit, or other venues. The **Pre-Enrollment Form** gives the clinic permission to contact the woman at a later date. The **Pre-Enrollment Form** is found in Appendix 1.

Recruitment

Staff will attempt to enroll women ages 16-50 in the Project area by:

- Checking clinic schedules weekly for eligible women and scheduling FISH visits back-to-back with clinic appointments.
- Promoting the Project through word-of-mouth, promotional materials, community events, social media, etc.
- Organizing special clinics to accommodate women unable to make appointments at the clinic during clinic hours.
- At their discretion, staff may choose to send a letter to encourage potential participants to contact the clinic to schedule a FISH appointment. An example of the **Upcoming Visit Letter** is in Appendix 2.

Other strategies may be explored and implemented (as needed) throughout the recruitment period to increase participation, including active and passive recruitment methods. Some examples are:

- (active recruitment) Staff call the woman prior to her regular clinic visit to ask if she'd like to schedule a FISH appointment for the same day as her regular clinic appointment.
- (passive recruitment) Staff leave a stack of Three-fold Promotional Flyers at a local bank. A woman picks up a flyer and calls the clinic to learn more about the Project.

Once contacted (either through active or passive recruitment), women have the choice to take part in the Project. If the woman is not interested, staff will thank the woman for her time and add a note to

the EHR/PM so that she is not asked again to participate. However, the woman may contact the clinic in the future if she later decides she would like to take part.

If the woman expresses interest in participation, staff will do one or more of the following:

- Determine eligibility
- Enter participant information in the EHR/PM if appointment is scheduled at this time
- Discuss parental consent with minors
- Answer any questions the prospective participant has about the Project
- Proceed to Visit One steps

Scheduling

FISH visits will be scheduled by clinic scheduling staff or FISH Project staff using the **EHR/PM**.

Visit One Preparation

Visit One Folder

Prior to each scheduled Visit One, staff will assemble a **Visit One Folder** for the individual participant. This blue folder will contain the forms and materials for Visit One.

A unique **Participant ID** will be assigned to each participant after informed consent is obtained. This ID will be entered into the **EHR/PM** and a label added to each paper form used for the project. A picture of the **Participant ID label** is below.



PPT ID: F-001

Participant IDs will be assigned to participants as follows:

- Participant IDs **F-001** to **F-649**: regular clinic visits at either SMC or GPHS.
- Participant IDs **F-650** – **F-999**: special clinic visits at any location.

For each visit, FISH staff will use the pre-filled **Visit One Folder**, **Lab Pack**, educational materials, and incentive items. Direct data entry into the **EHR/PM** will occur for some visit steps. When the **EHR/PM** is not available, a paper form for these steps will be added to the participant's folder for data entry at a later time.

The **Visit One Folder** contains the following paper forms:

- **Visit One Checklist**
- Contact Information/**Pre-Enrollment Form** (if **EHR/PM** not available)
- **Eligibility Screening Form**
- **Adult Consent** or **Minor Assent** with **Parent/Guardian Consent**
- **Participant ID labels**
- **Mercury Screening Questions** (if **EHR/PM** not available)
- **Detailed Questionnaire, Part 1** (aka **DQ, Part 1**)

The **Lab Pack** contains:

- Blood collection labels (**Specimen ID labels**)
- Blood collection, processing, and storage supplies
 - Two Purple Top, 2 mL BD Vacutainer (K2 EDTA 3.6 mg) blood tubes (*#367841: Plastic Tube, Hemogard™ Closure, 13mm x 75mm*). One 2 mL Vacutainer will be used for mercury and the other for fatty acids.
 - One Pink Top, 2 mL cryovial for (fatty acid) plasma storage and transfer
- **Lab Checklist**
- **Lab Verification Form**
- **Chain of Custody (COC) Form**

Educational materials include:

- **Three-fold brochure** (SMC or GPHS version)
- **Wallet card**

The incentive items include:

- \$25 Visa gift cards (up to \$50 given to each participant if all visit steps are completed)
- **Incentive Receipt Form**
- **MDH Incentive Log**

These additional items may also be used for Visit One:

- **Participant's Info Sheet** (information about the FISH Project for potential participants)
- **Lab Order** (created through **EHR/PM** if participant consents and will have blood drawn by the lab)
- **Detailed Questionnaire, Part 2** (individual fish forms based on participant's responses to **DQ, Part 1**; aka **DQ, Part 2**)

Visit One Steps

The FISH Visit steps are described in this section and will typically take place at Sawtooth Mountain Clinic (SMC) or Grand Portage Health Services (GPHS).

Electronic Records

The Centricity **EHR/PM** (Electronic Health Record/Practice Management) will be used to store and track appointment status, including no shows and rescheduled appointments. FISH Visit appointment status will be tracked thru the **EHR/PM** documentation and reports.

The **Visit One Checklist** (found in Appendix 1) will be used throughout the appointment to document each step. Staff will complete the paper Checklist form in the **Visit One Folder** and enter it into the **EHR/PM**. A screenshot of the **EHR/PM** is below for both Visit One and Visit Two.

FISH Visit #1 EHR/PM screenshot:

FISH Visit #1

Eligibility Screening Participant ID

Informed Consent Patient Informed Consent Parent/Guardian

Contact Information Verified

Mercury Screening Questions

In the last 2 or 3 months:

How many times a week did you eat any kind of fish?

How many times/month did you eat any of these fish? (Walleye, Northern, Bass or Lake Trout from Lake Superior)

Did you eat either of these fish: Swordfish or Shark? Yes No

Referred to Lab Lab Specimen ID:

Detailed Questionnaire Completed

Education:

Incentive Payment:

Visit 1 Outcome:

Contact again?

Comments:

Prev Form (Ctrl+PgUp) Next Form (Ctrl+PgDn)

FISH Visit #2 EHR/PM screenshot:

+ Order + Medication + Problem

FISH Visit #2

Participant ID Contact Information Verified

Mercury Screening Questions

In the last 2 or 3 months:

How many times a week did you eat any kind of fish?

How many times/month did you eat any of these fish (Walleye, Northern, Bass or Lake Trout from Lake Superior)?

Did you eat either of these fish: Swordfish or Shark? Yes No

Referred to Lab Lab Specimen ID:

Detailed Questionnaire Completed

Education:

Incentive Payment:

Visit 2 Outcome:

Contact again?

Comments:

Prev Form (Ctrl+PgUp) Next Form (Ctrl+PgDn)

Step 1: Introduce Project

When women arrive for their FISH visit, staff will briefly tell them about the Project, ask them to read the **Participant's Info Sheet**, and answer any questions they may have about FISH.

NOTE: Since much of the information in the **Participant's Info Sheet** is also on the consent forms, staff may choose instead to skip Step #1 and go through both the **Participant's Info Sheet** and the consent simultaneously at Step #3.

The **Participant's Info Sheet** is found in Appendix 1.

Step 2: Verify Eligibility

FISH staff will verify each woman meets the eligibility criteria to take part in FISH using the **Eligibility Screening Form**. Women who do not meet the Project's requirements will be informed they cannot take part in FISH and thanked for their time and interest in the Project.

The **Eligibility Screening Form** is found in Appendix 1.

Step 3: Obtain Consent

To take part, each participant must sign an informed consent form. FISH staff will go through the consent with the woman to make sure she understands what she will do as a participant and her rights. After all questions have been answered, the woman will be asked to sign and date the consent if she would like to take part. Her participation is voluntary; she can decide at any time to not continue with the Project.

Two copies of the consent will be completed by the participant and FISH staff. Adult women (ages 18-50) will be asked to sign and date the **Adult Consent**. Women ages 16-17 will sign and date a **Minor Assent** and must have a parent or guardian complete the **Parent/Guardian Consent Form** before the minor can take part. Each parent will also receive a copy of all assents/consents signed by minors. FISH staff will also complete their portion of the consent. The original consent will be scanned and entered into the **EHR/PM** and then kept in the participant's **Visit One Folder**. The second copy of the consent will be filled out and given to each participant for her records.

The **Adult Consent**, **Minor Assent**, and **Parent/Guardian Consent** forms are found in Appendix 1.

Step 4: Assign Participant ID

After the consent is signed, the woman becomes a participant and is assigned a **Participant ID** by FISH staff. This ID (pre-printed labels) will be used on all forms and her blood sample so that her identity will be protected. The **Participant ID** is also entered into the **EHR/PM**.

Step 5: Verify Contact Information

FISH staff will verify and update the contact information in the **EHR/PM** with each participant. Contact information includes: name, address, phone number, birthdate, and best method for future contact. If

the **EHR/PM** is not available (e.g. computer system is down or not available at a special event location), staff will use the **Pre-Enrollment/Contact Info Form** (paper form) to verify contact information. In these cases, the form will be entered into the **EHR/PM** at a later time.

The **Pre-Enrollment/Contact Info Form** is found in Appendix 1.

Step 6: Ask Mercury Screening Questions

Next, FISH staff will ask the participant 3 questions about the fish she has eaten in the past 2-3 months. Her answers to these questions will be compared to the mercury level in her blood.

1. How many times a week did you eat any kind of fish?
2. How many times a month did you eat any of these fish – Walleye, Northern Pike, Bass, or Lake Trout from Lake Superior?
3. Did you eat Shark or Swordfish?

FISH staff will ask the screening questions word-for-word and enter responses directly into the **EHR/PM** (if available) or on the paper form (entered later into the **EHR/PM**).

Answers must be whole numbers. If any response is high (>10 meals per week or >30 meals per month), staff will verify the answer with the participant and make corrections as necessary. If a participant ate fish during the last 2-3 months but ate less than 1 meal per week/month (question 1 and 2 respectively), please enter "<1".

The **Mercury Screening Questions Form** is found in Appendix 1.

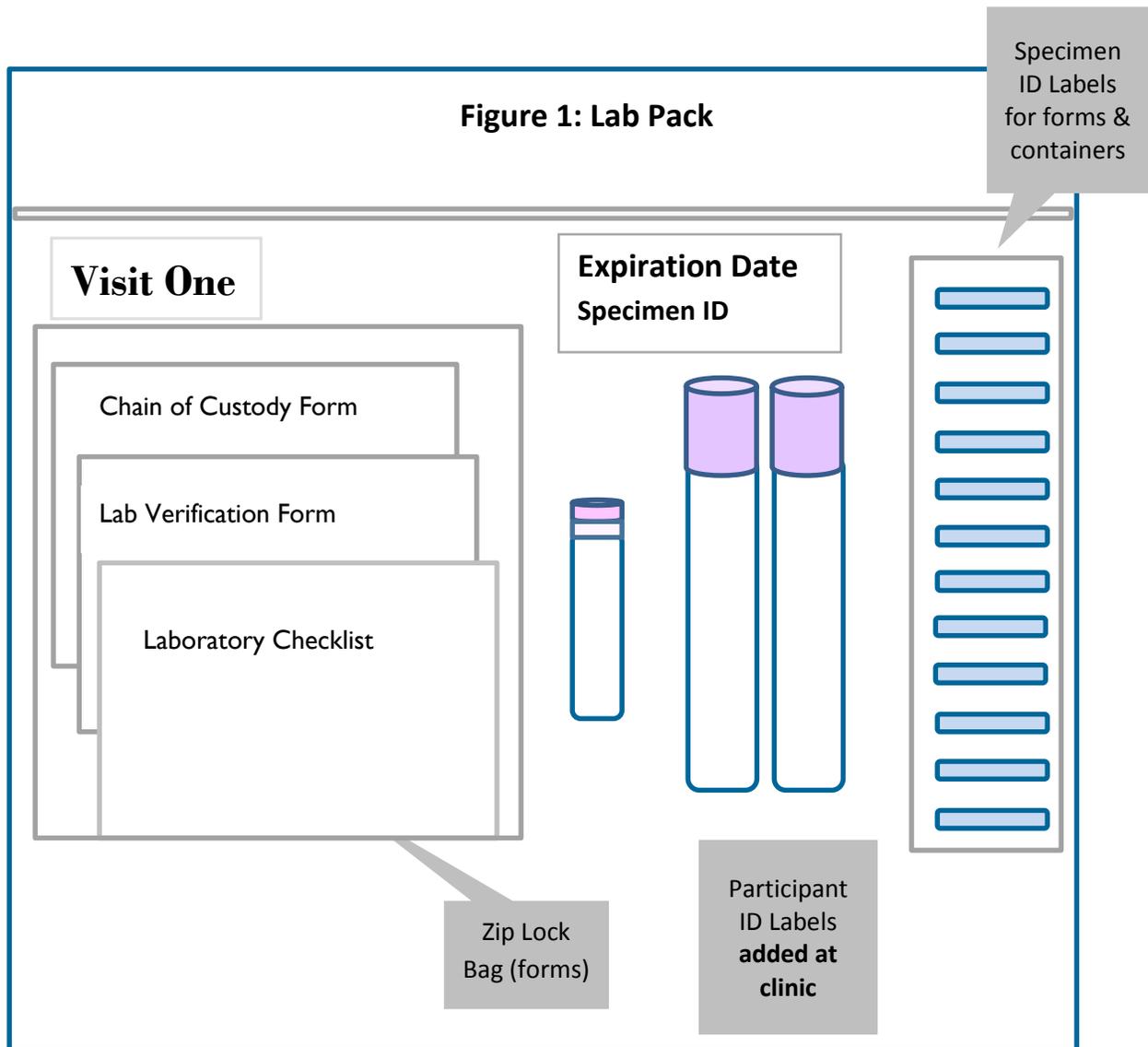
Step 7: Prep for Blood Sample Collection

Preparing for the blood collection includes two key items: printing the lab order and updating the **EHR/PM** with the **Specimen ID**.

Lab Order

The nurse will explain the blood collection and then print a **Lab Visit Standard Order** (aka **Lab Order**), which refers the participant for a blood draw. Once printed, the **Lab Order** will be labeled with a **Participant ID** (from the participant's **Visit One Folder**) and **Specimen ID** (from the **Lab Pack**). The nurse will also add **Participant ID** and **Specimen ID** labels (where indicated) to the rest of the forms in the **Lab Pack: Laboratory Checklist, Lab Verification Form, and Chain of Custody Form** (see Appendix 4 for lab forms).

A figure of the **Lab Pack** is below. Blood collection tubes have an expiration date. The expiration date for each **Lab Pack** will be noted on a sticker placed on the outside of the bag. **Lab Packs** should be used in the order they are received (First In, First Out). Expired **Lab Packs** must be discarded. Please notify MDH (patricia.mccann@state.mn.us, 651-201-4915 or jill.korinek@state.mn.us, 651-201-4913) to request additional **Lab Packs**.



Specimen ID into EHR/PM

Staff will data enter the Specimen ID into the EHR/PM. This links the Participant’s ID with a unique Specimen ID and serves as the key or link for personal identifiers and results. An example of the Specimen ID label is below:

SPECIMEN ID LABELS (FOR FORMS)

MDH PHL will provide printed, adhesive **Specimen ID Labels** in each **Lab Pack** for FISH forms and packing lists. The **Specimen ID** is the bottom number on the label. A multi-digit MDH PHL work order number will be printed on the label above the **Specimen ID** but will not be used by FISH staff.

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Step 8: Collect Blood Sample

The blood collection step includes drawing blood from the participant and completing the appropriate paperwork.

Blood Collection

Blood specimens will be collected to measure fatty acids and mercury in participants' blood. Staff will draw 4 mL of blood from the participant's arm, unless the blood draw is refused, interrupted, or the participant cannot be drawn. **See Appendix 4 for a detailed description of blood collection, processing, storage, and shipping procedures.**

Based on the participant's visit location, blood collection will take place as follows:

SMC: **Lab Packs** will be stored in the clinic. The nurse will insert **Participant ID labels** and label a **Lab Order, Lab Checklist, Lab Verification Form, and Chain of Custody Form** with the **Participant ID** and **Specimen ID**. The **Lab Order** and forms will be placed into the **Lab Pack**. Then participants will take the **Lab Pack** with them to the lab at Cook County North Shore Hospital (CCNSH) for the blood draw. Staff may also choose to send **DQ, Part 1** with the participant to the blood draw or while labeling the lab forms.

GPHS: Participants will have their blood drawn at GPHS by the FISH nurse. **Lab Packs** will be stored in the clinic where both the blood draw and other Visit One procedures will be completed. GPHS staff will label a **Lab Order, Lab Checklist, Lab Verification Form, and Chain of Custody Form** with the **Participant ID** and **Specimen ID** and proceed with the blood draw.

Special Clinics: Participants at special events may either be drawn onsite or referred for a later blood draw at either CCNSH or GPHS.

Complete Lab Paperwork

After the blood draw, Project staff will enter the **Specimen ID** and lab outcome from the **Lab Verification Form** into the **EHR/PM** and then proceed with the rest of the Project steps (for completed blood samples), reschedule anyone who needs to return for a blood draw (no incentive given), or give out a \$25 incentive to those who are unable to give blood. Only women who complete the blood draw are Project participants.

Blood collection/lab forms are found in Appendix 4.

Step 9: Complete Detailed Questionnaire

After completing the blood draw, staff will ask each participant to fill out the **Detailed Questionnaire (DQ)**. The purpose of the **DQ** is to more thoroughly screen participants for exposure to mercury and fatty acids by asking detailed questions about fish eating patterns and behaviors and supplemental sources of fatty acids.

The **DQ** consists of two parts: **DQ, Part 1** and **DQ, Part 2** (both found in Appendix 1). Questions include:

- **DQ, Part 1:** demographics, eating habits and preferences, consumption of Omega-3 supplements or enriched foods, fish species eaten in the past week and past year.

- **DQ, Part 2:** detailed information about consumption frequency, season, and source for each fish species the participant reported eating during the past year in **DQ, Part 1**.

First, staff will ask each participant to complete **DQ, Part 1**. When finished, staff will check **DQ, Part 1** for completeness. Some things to check are:

- Responses are legible.
- When the question directs the participant to “*Check only 1,*” there is only one response checked (e.g., there is only one response checked for the education question, **Q3**)
- When there is no direction to “*Check only 1,*” the question has been answered completely.
- For **Q9**, the number of fish meals per week is a whole number from 00 to 99. Verify any response greater than 10 with the participant before they leave the appointment.

Second, staff will give the participant **DQ, Part 2**. An example page of **DQ, Part 2** will also be provided to the participant to demonstrate how to fill out the questionnaire. When finished, staff will check **DQ, Part 2**. Some things to check are:

- **DQ, Part 2** has been completed for each species the participant reported eating in the past year on **DQ, Part 1, Q9**.
- Either *Yes* or *No* are checked for each of the four seasons.
- For each season, the number of times is reported for *Weeks* or *Months* or *Season*.
- At least one response is checked for the source of the fish.

Staff will be available during the questionnaire to answer questions, read the questionnaire, or assist participants as needed. Staff may also choose to have the participant complete **DQ, Part 1** prior to the blood draw.

Visit Two only: After completing the DQ, Visit Two participants will complete the **Evaluation Form** (Appendix 1) and then continue to Step 10.

Step 10: Fish Consumption Risk and Benefits Education

After completing the **DQ**, the participant will meet with a trained member of the clinic staff to receive the education portion of the Project.

Staff will hand the participant a **Three-fold Brochure**. The **Three-fold Brochure** contains fish consumption information, such as serving size, meal frequency, and risks and benefits of eating fish. Staff will explain the **Three-fold Brochure** and discuss the participant’s **DQ, Part 2** responses to show how the participant’s current fish consumption fits into the **Three-fold Brochure** recommendations. After answering any questions regarding safe eating of fish that the participant may have, clinic staff can also provide additional materials (e.g., site-specific advice and references) that may be available. A **Wallet Card** (smaller version of the **Three-fold Brochure**) will also be given to the participant for easy reference away from home.

The **Three-fold Brochure** and the **Wallet Card** are found in Appendix 1.

Step 11: Incentives

At the end of the Project steps, staff will thank the participant for taking part, give her the appropriate incentive, and ask her to sign the **Incentive Receipt** to acknowledge receipt of the gift card(s). Staff will instruct participants to use the “tips” sheet or instructions provided with the gift cards. The **Incentive Receipt** is found in Appendix 1.

The incentive amount is determined by the participation level and is described in the table below.

Incentive Amount	Visit Steps Completed	Explanation
\$50	<ul style="list-style-type: none"> ▪ Eligibility Screening ▪ Informed Consent ▪ Mercury Screening Questions ▪ Blood draw ▪ Detailed Questionnaire ▪ Fish Consumption Education 	Participants receive two \$25 Visa gift cards (total of \$50) for completing all parts of the visit.
Delayed	<ul style="list-style-type: none"> ▪ Eligibility Screening ▪ Informed Consent ▪ Mercury Screening Questions ▪ Attempted blood draw but no sample; participant will be rescheduled 	Participants whose blood draw will be rescheduled will not receive an incentive until after the blood draw is complete.
\$25	<ul style="list-style-type: none"> ▪ Eligibility Screening ▪ Informed Consent ▪ Mercury Screening Questions ▪ Attempted blood draw but sample could not be drawn 	Participants who attempt the blood draw (poked) but are unable to give enough blood will be given one \$25 gift card.
\$0	<p>One or more steps may be completed:</p> <ul style="list-style-type: none"> ▪ Eligibility Screening ▪ Informed Consent ▪ Mercury Screening Questions <p>However, participant is unwilling to provide a blood sample.</p>	Women who refuse to have their blood drawn are not participants and will not receive an incentive.

Staff will also use the **MDH Incentive Log** (Appendix 1) to document gift card distribution. Staff will track each gift card that is given to participants by recording the date it was given and the **Participant ID** of the person who received it. A copy of the **MDH Incentive Log** will be given to MDH every quarter for financial recording keeping purposes.

When not in use, all incentives must be securely stored in locked cabinets. See Step 12 (page 23) for incentive recordkeeping.

Step 12: Post-Visit Tasks

Checking Forms and Data Entry

At the end of Visit One, staff will check the contents of each **Visit One Folder** and complete data entry into the **EHR/PM**, if needed.

Each **Visit One Folder** will hold the following Visit One forms and materials:

- **Participant ID Labels** remaining
- **Visit One Checklist**
- **Pre-Enrollment/Contact Information Form** (if paper form was used)
- **Eligibility Screening Form**
- Clinic copy, **Adult Consent** or **Minor Assent**
- Clinic copy, **Parent/Guardian Consent**, if applicable
- **Mercury Screening Questions** (if completed on paper)
- **DQ, Part 1 and DQ, Part 2**
- **Lab Verification Form**
- **Lab Checklist** (returned from lab at a later date)
- **Incentive Receipt**

The checklist below describes the post-appointment tasks for each item in the **Visit One Folder**.

Post-Appnt Tasks for Forms	Leftover Participant ID Labels	Visit One Checklist	Pre-Enrollment/Contact Info Form	Eligibility Screening Form	Adult Consent	Minor Assent	Parent/Guardian Consent	Mercury Screening Questions	Lab Verification Form	Lab Checklist	DQ, Part 1 and 2	Incentive Receipt
Store in folder (if paper form is used)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Participant ID (on form, if used)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Specimen ID (on form)		✓						✓	✓			
Lab visit outcome indicated on form		✓						✓	✓			
Verify responses make sense and are complete/legible		✓	✓	✓	✓	✓	✓	✓	✓	✓		
Enter responses/status in EHR/EM		✓	✓	✓	✓	✓	✓	✓	✓			
Update visit status in EMR/PM		✓						✓				
Verify participant age between 16-50				✓								
Check ppt agreed to blood sample and Visit 2				✓	✓	✓						
Sign and date form (participant/staff)				✓	✓	✓						✓
Verify responses are whole numbers or <1							✓					
Prep for MDH transfer (copy or scan)										✓		
Verify correct incentives distributed and last eight digits of card(s) recorded												✓

Visit Two post-visit tasks will be very similar to Visit One. One additional task is to scan and send the **Evaluation Forms** to MDH separately from the Visit Two DQs.

Handling of No Shows, Refusals/Declines, and Possible Mercury-Related Symptoms

No Shows

When a woman does not arrive for a scheduled visit, she should receive a re-scheduling call. If she does not return the phone call after two attempts or reschedules but “no shows” again, she will be considered no longer interested in the Project.

Refusals/Declines at Visit One

If participants arrive at Visit One but decide not to complete the mercury screening questions or the blood draw, the woman should be noted as a refusal/decline in the Visit 1 Outcome of the **EHR/PM**.

NOTE: Skipping one or more individual questions on the **Detailed Questionnaire** is not considered a decline.

Participants Who Report Mercury-Related Symptoms

If a participant reports to clinic staff during her visit that she believes she has symptoms related to mercury exposure, she can continue with the visit. Afterwards, an appointment will be scheduled with a physician. The physician will evaluate whether symptoms are likely related to mercury exposure and, if so, whether it is probable that the mercury is from fish consumption. The physician will provide advice on a case-by-case basis, according to the participant’s reported levels of fish consumption, other potential exposures to mercury, pregnancy status, and other factors. The physician will also decide whether to handle the case personally or to consult with Dr. Beth Baker, FISH consultant and medical toxicologist.

Incentive Record Keeping

MDH will deliver the **MDH Incentive Log** and \$25.00 Visa gift cards to SMC and/or GPHS. SMC and GPHS staff will store incentive materials in locked cabinets when not in use. Each time incentives are needed, the clinic staff will record the appropriate information in the **MDH Incentive Log** and distribute the card(s).

At the end of each day, staff will: (1) check-in any cards removed at the beginning of the day that were not used, (2) verify that the **MDH Incentive Log** matches the **Incentive Receipts** in that day’s participant folders, and (3) store cards and the log in the locked cabinet.

Staff are responsible for keeping an up-to-date inventory of cards and notifying MDH in advance when additional cards are needed. When every card from the **MDH Incentive Log** has been distributed, clinic staff will make one copy of the log sheet for their records. The original **MDH Incentive Log** will be given to MDH every quarter for financial recording keeping purposes.

Data Transfer Procedures

Forms Transfer

The following forms from the FISH visit will be transferred to MDH from staff at SMC, GPHS, or CCNSH:

- **DQ, Part 1 and DQ, Part 2**
- **Evaluation Form** (Visit 2 only)
- **MDH Incentive Log**
- **Chain of Custody (COC) Form**

Transfer of Detailed Questionnaires and Evaluation Forms

Completed **DQs** will be given to MDH staff or scanned and emailed to MDH individually or in batches along with a completed **DQ Batch Log** (found in Appendix 1). Visit 1 **DQs** and Visit Two **DQs** will be scanned and emailed separately to MDH. **Evaluation Forms** will be also scanned and emailed as a separate file.

Project staff at SMC and GPHS will:

1. Place a **Participant ID Label** for each **DQ** included in the batch on the **DQ Batch Log**.
2. Clip the corresponding **DQs** to the **DQ Batch Log**. Complete a separate batch log for Visit One **DQs**, Visit Two **DQs**, and Visit Two **Evaluation Forms**.
3. Fill-in dates and shipping method information before shipping or scanning.
4. Save a copy of each **DQ Batch Log** in a binder kept for that purpose.

Transfer of Incentive Logs

Project staff at SMC and GPHS will send MDH a copy of the **MDH Incentive Log** at the end of each quarter and save the original for their records.

Transfer of Chain of Custody Forms

CCNSH staff will assemble and finalize **Chain of Custody (COC) Forms** from all blood draw locations (CCNSH, GPHS, outside locations for special clinics) and prepare blood specimens for shipment to MDH PHL. Before shipping, lab staff will make one copy of each **Chain of Custody (COC) Form** for each participant.

- The original will be shipped with specimens to MDH PHL.
- The copy will be retained at the CCNSH lab.

EHR/PM Data Transfer

SMC Project staff will transfer the following data for Visit One/Two electronically from the **EHR/PM** to MDH for each participant:

- Participant ID
- Specimen ID
- Age
- Zip Code
- Responses to **Mercury Screening Questions**
- Visit completion date and clinic location

MDH Data Handling Procedures

Laboratory Data

The MDH PHL will analyze blood specimens for total mercury and fatty acid content; specimens with mercury levels greater than 5.8 µg/L will be reanalyzed to speciate mercury. The MDH PHL will provide results to the MDH Fish Consumption Advisory Program. MDH FISH staff will email the results as Excel data to CCNSH for entry into the CCNSH EMR.

Once entered into the CCNSH EMR, results will automatically transfer to the SMC **EHR/PM**, which will be used to generate results letters and document counseling calls as described in the Results Communication Section below.

Detailed Questionnaires

MDH staff will log-in **Detailed Questionnaires** by **Participant ID** and check those IDs against the **EHR/PM** visit outcome. Questionnaire data will be entered into an electronic database. All electronic entries will be checked against the paper or scanned copy.

MDH will analyze questionnaire data with blood mercury and fatty acids results, **Mercury Screening Question** responses, and demographic factors. Results will be used for participant results counseling, to refine **Mercury Screening Questions** (if indicated), and to improve communication materials and health care provider training throughout the Great Lakes Basin.

Results Communication and Counseling

Results Communication

Lab results for each participant will be sent by MDH PHL to CCNSH. CCNSH will enter lab results into the **EHR/PM** where they are accessible to SMC and GPHS staff. Then clinic staff will send a results letter to each participant.

Mercury Results

All participants will receive a mercury results letter from the clinic containing the following information:

- Personal blood mercury results
- Recommendation to follow fish consumption advice discussed at Visit One (eat fish low in mercury)
- Reminder that they MAY be asked to take part in Visit Two (if mercury <5.8 µg/L) or WILL be asked to take part (mercury >5.8 µg/L)
- Fatty acid results will be mailed in a separate letter at a later date

In addition, letters for participants whose mercury results are $>5.8 \mu\text{g/L}$ and ate fish will include:

- Notification that the mercury result is higher than the level of concern
- Recommendation to contact the nurse about their result or the nurse will contact them
- Individualized fish consumption recommendations, based on DQ responses
- On a case-by-case basis, the physician may also decide to contact these participants to discuss the high mercury result, or the letter may ask the participant to make an appointment to discuss the result with the doctor.
- The **FISH Project Meal Planning Infosheet** (see Appendix 2) gives examples of monthly fish meals within the fish consumption recommendations and will accompany each results letter.

Likewise, letters for participants whose mercury results are >2 but did not eat fish will include:

- Recommendation to contact the nurse, who will then refer the participant to MDH to discuss other possible mercury exposures

The **Mercury Result Letter Templates** are found in Appendix 2. MDH will inform clinic staff which template to use.

Fatty Acid Results

All participants will receive a fatty acids results letter and information sheet from the clinic containing the following information:

- Personal fatty acid results
- Meaning of fatty acid results and how this relates to their fish consumption
- Description of which fish are higher in fatty acids and recommendation to follow fish consumption advice discussed at Visit One (eat fish low in mercury)

The **Fatty Acids Result Letter Templates** and **Fatty Acids Info Sheet** are found in Appendix 2.

Results Counseling Materials

MDH will provide individualized counseling recommendations for each participant with high-mercury and/or for each participant with mercury $> 2 \mu\text{g/L}$ who reports eating little or no fish. MDH staff will complete the **Counseling Notes Template** (see Appendix 2) with lab values and fish eating information and provide individualized consumption advice based on all of the information collected at Visit One.

Clinic staff will also use the **Results Counseling Questions and Answers** (see Appendix 3) to assist them in responding to participant questions about their results.

Results Counseling

At least two nurses and one physician at SMC and at least one nurse at GPHS will receive extensive training on topics related to test results and be able to answer questions and provide counseling on a variety of topics.

All participants with **mercury levels > 5.8 µg/L** will have the option to receive results counseling by either a clinic nurse or physician. In addition, participants with **mercury levels >2 µg/L** but reported eating no fish will receive a recommendation to call the FISH Coordinator about their result.

On a case-by-case basis, some participants will receive a call from a nurse or physician or be advised to make an appointment with a physician. Calls and appointments will be documented in the EHR/PM.

The physician will also decide whether to handle the case personally or to do so in consultation with Dr. Beth Baker, FISH Project consultant and medical toxicologist.

Participants who do not respond to a counseling call may be sent a **Counsel Reminder Letter** (see Appendix 2) to encourage them to contact the clinic about their result.

All Participants with Mercury >5.8 µg/L

Counseling advice discussed during the call or appointment will be based on each participant mercury result, Mercury Screening Question responses, and DQ. The table below describes the key messages for participants with **mercury results >5.8 µg/L**.

Mercury >5.8 µg/L and Eats Fish	Mercury >5.8 µg/L and Pregnant/Planning Pregnancy
<ul style="list-style-type: none"> • Your exposure to mercury is higher than most people in the U.S. • Your result does not mean that you are sick or will become sick. • We excrete mercury so the level will come down if changes are made to your diet. • Discuss fish consumption and advice to reduce exposure and how to keep mercury exposure from fish low. • It is important to eat fish low in mercury. • Discuss individualized fish consumption recommendations described in results letter. • Ask if they understand the fish consumption guidelines. • If participant asks or thinks their exposure to mercury could be from other sources, nurse or physician can refer them to MDH to discuss. 	<ul style="list-style-type: none"> • Your result does not mean there will be a health problem with you or your baby. • Reducing mercury exposure is one of the many things you should pay attention to when pregnant. • Provide standard advice about mother and baby care or refer to a source of prenatal care. • If risk adverse, suggest eating only <i>very low</i>-mercury fish; provide list of fish to eat.

Participants with Mercury > 2 µg/L

It is not expected that there will be a large number of participants who have a mercury result >2 µg/L and reported not eating fish, but it is possible. The *most* common way people in the U.S. are exposed to mercury is by eating fish. Unless the participant has misreported their fish consumption for some reason, the source or sources of mercury exposure for participants with levels > 2 µg/L should be investigated.

Participants with mercury results > 2 µg/L and reported eating no fish will be given the recommendation to call the FISH Coordinator. The key messages are:

- (If >2 and ≤ 5.8 µg/L) Your result is below the level of concern but it is higher than expected for someone who reports eating little or no fish.
- (> 5.8 µg/L) The result is above the level of concern and also higher than expected for someone who reports eating little or no fish.
- Your result does not mean that you are sick or will become sick.
- We should try to figure out how you are being exposed to mercury; we recommend that you contact MDH who can help to figure that out.
- Provide MDH referral to Carl Herbrandson (651-201-4906)
- Eat fish low in mercury and high in fatty acids to encourage fish consumption and getting the benefits of eating fish
- Ask if they understand the fish consumption guidelines.

Participants with Mercury ≤ to 5.8 µg/L

Participants with **mercury levels less than or equal to 5.8 µg/L** will not receive the recommendation for counseling. However, any participant who has concerns or questions can discuss them on the telephone with a nurse-counselor, who would go over the results letter, review the advice given at Visit One for eating fish low in mercury, and ask if the participant understands the fish consumption guidelines. The participant may also request an office visit to meet with a clinic physician.

Visit Two

All participants who have a blood mercury levels greater than 5.8 µg/L (Highs) at Visit One will be asked to return for Visit Two about six months after their Visit One date. Based on the *Mercury in Newborns Study*, it is estimated that approximately 50 women in FISH will have blood mercury levels above the EPA RfD of 5.8 µg/L. For every High, two participants from the below-RfD mercury population (Controls) will be chosen and asked to participate.

Selection of Controls

Controls will be roughly matched with Highs, based on the date of Visit One. MDH will provide a **Potential Controls List** (in preferential order) of approximately 15 potential Controls whose Visit One dates were within plus-or-minus two weeks of the High's Visit One date. (Controls are being date-matched with Highs because of seasonal differences in fish consumption.) In cases where multiple Controls make the list based on Visit One date, age will be used to determine the contact order for Visit Two. Out of this list of 15, two Controls will be scheduled for Visit Two.

Notification/Recruitment for Visit Two

Highs were informed they were selected for Visit Two in their Visit One mercury results letter. Staff will call Highs about 5 months after Visit One to schedule Visit Two.

All other participants were informed in their Visit One mercury results letter that they may be selected for Visit Two. Once identified by MDH on the **Potential Controls List**, staff will contact selected Controls to schedule Visit Two.

Scheduling Visit Two

When scheduling, Visit Two should be plus-or-minus 2 weeks of the 6-month mark of each participant's Visit One date. This Visit Two scheduling window will be provided by MDH for all potential Visit Two participants. Visit One location information will also be provided by MDH on the **Potential Controls List**, in case staff wish to contact participants based on location to schedule Visit Two.

Using the list, staff will begin calling each High to schedule Visit Two about 5 months after Visit One. At the same time, staff will call the top two Controls on the list and ask them to schedule Visit Two. Staff will attempt to contact Highs multiple times to schedule Visit Two. Staff will use their discretion for the number of follow-up calls to make to Controls; if they have not responded or scheduled within a reasonable time, they will be crossed off the list and the next Control on the list will be contacted for Visit Two.

Staff will document Visit Two scheduling calls and appointments in the **EHR/PM**.

Visit Two Steps

Visit Two will be very similar to Visit One. All Visit Two participants will:

- Verify current contact information with staff
- Answer the mercury screening questions
- Provide a blood sample to be tested for mercury and omega-3 fatty acids (Specimen IDs are unique to each blood draw so Visit Two participants will have 2 different Specimen IDs corresponding to each visit)
- Complete a detailed questionnaire and some additional evaluation questions
- Meet with staff for fish consumption education
- Receive up to \$50 in Visa gift cards for completing all parts of Visit Two

Visit Two participants will not:

- Sign another consent form (Visit One consent was previously signed and covered both Visit One and Two)
- Be assigned another Participant ID (the Participant ID assigned at Visit One will be used again for Visit Two)

For Visit Two step-by-step instructions, follow Visit One Steps #5 through #12 in the Visit One Steps section (Step #5 begins on page 16). Staff will also assemble and use a yellow **Visit Two Folder** for each returning participant.

Visit Two forms and materials are as follows:

- **Visit Two Checklist**
- **Participant ID labels** (leftover from Visit One or supplied by MDH)
- **Mercury Screening Questions** (if EHR/PM not available)
- **Lab Order**
- **Lab Pack**
- **DQ Part 1** and **DQ Part 2**
- **Evaluation**
- Educational materials
- Incentive items
- **Participant's Info Sheet**

Visit Two forms and materials listed above are the same items used for Visit One, except for the **Visit Two Checklist** and **Evaluation** (found in Appendix 1). Likewise, results communication and counseling for Visit Two are the same as Visit One (see page 25).

Appendices

Appendix 1: FISH Forms and Materials

Appendix 2: Letters and Materials

Appendix 3: FISH Frequently Asked Questions

Appendix 4: CCNSH and GPHS Laboratory and Specimen Procedures

Appendix 5: Sawtooth Mountain Clinic Policies

Appendix 1: FISH Forms and Materials

Three-fold Promotional Flyer
Pre-Enrollment/Contact Information Form
Visit One Checklist
Participant's Infosheet
Eligibility Screening Form
Adult Consent
Minor Assent
Parental/Guardian Consent
Mercury Screening Form
Detailed Questionnaire, Part 1
Detailed Questionnaire, Part 2
Three-fold Brochure
Wallet Card
Incentive Receipt
MDH Incentive Log
DQ Batch Log
Potential Controls List
Visit Two Checklist
Evaluation

Three-fold Promotional Flyer

FISH Project

Helping women and their families enjoy the health benefits of eating fish while lowering their exposure to mercury



YOU can take part in the FISH Project!

For More Information

Please call and ask for a FISH Coordinator at one of our Project locations:

Sawtooth Mountain Clinic
(218) 387-2330



Grand Portage Health Service
(218) 475-2235



Make your appointment between June 2014 and May 2015!

FISH Project

Fish are Important for Superior Health



Project Partners

Sawtooth Mountain Clinic
Grand Portage Health Service
Grand Portage Trust Lands
Cook County North Shore Hospital
Minnesota Department of Health

Fish are Important for Superior Health (FISH) Project

Why are we doing the FISH Project?

A 2010 study showed that 10% of Northeast Minnesota babies tested had mercury in their blood above the level considered safe.

We want women to choose to eat fish that are low in mercury.

That way women and their families can have the health benefits of eating fish while lowering their exposure to mercury.

Who can participate in the FISH Project?

Women age 16 to 50 who live in or near Cook County can take part in FISH.

Why should I participate?

Taking part will give you information to improve your health and the health of your family.

The things we learn from the FISH Project will help your community and other communities where people catch and eat fish.



If I decide to take part, what will I do?

- You will answer questions about the kinds of fish you eat and how often you eat fish.
- You will have some blood drawn from your arm.
- You will learn how to choose locally caught and purchased fish for healthy eating.

We will...

- Test your blood samples for mercury and healthful fatty acids found in fish.
- Send you your blood results and a nurse will be available to discuss them with you.

How long will it take?

The first visit will take about one hour. Women who complete Visit One will receive a \$50 Visa gift card.

We will ask some women to return for a second visit in 6 months. For completing the follow-up visit, women will receive a second \$50 card.

Is my information private?

Yes. Your information will not be shared. Participant names and personal results will only be seen by some Sawtooth Mountain Clinic and Grand Portage Health Service clinic staff.



Why should I eat fish?

Fish are an important part of a healthy diet. Catching and eating fish are part of the history and culture of the Great Lakes region.

- Fish are a great source of low-fat protein.
- Fish contain Omega-3 fatty acids that are important for the developing eyes and brains of a fetus.

Eating fish low in contaminants is good for the health of adults and children.

Pre-Enrollment/Contact Information Form

Participant ID:

F			
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(participants only)

Pre-Enrollment and Contact Information Form

Fish are Important for Superior Health (FISH) Project

To Pre-Enroll in the FISH Project:

Fill out this form if you would like to be contacted about the FISH Project. Your information will only be seen by staff at the Sawtooth Mountain Clinic or the Grand Portage Health Service. They will contact you to make an appointment for the FISH Project. **Only a certain number of appointments are available each week.** Completing this form does not mean you have to take part in the project.

1. Are you currently a patient at the Sawtooth Mountain Clinic or Grand Portage Health Service?

Yes No

2. If you decide to take part in the FISH Project, where would you like to be seen?

Sawtooth Mountain Clinic Grand Portage Health Services

3. What is your full name? *(print, please)*

4. What is your birthdate? _____ / _____ / _____
(month) (day) (year)

Continue to other side.

FISH Nurse

Initials: _____

Date: ____/____/____

Participant ID:

F			
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(participants only)

5. Is it ok to contact you by email?

Yes → What is your email address? _____

No

6. What is your phone number(s)?

Home Phone: _____

Work Phone: _____

Cell Phone: _____ May we text you? Yes No

Other: _____ Describe: _____

When is the best time to call you? Morning Afternoon After 6:00 pm

Which phone number should we call? Home Work Cell Other

Is it ok to leave a recorded message at this number? Yes No

7. What is your mailing address?

Post Office Box: _____ or

Street: _____ Unit: _____

City: _____ State (or Province): _____ ZIP (or Postal) Code: _____

Visit One Checklist

FISH Visit One Checklist

Participant ID:

F			
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Name _____ DOB _____

1. Complete Eligibility Screening

(Open EMR but don't assign Participant ID until after consent)

- Eligible
- Not eligible

2. Informed Consent(s)

- Review participant information sheet
- Sign Adult Consent (2 copies)
- Sign Minor Consent and Parent/Guardian Consent (2 copies each, if used)
- Give copy to patient
- Give copy to medical records to scan into chart

3. Assign Participant ID

- Attach labels to all forms *(Note: participant IDs F650-F999 will be used for special clinics)*

4. Complete Contact Information (can use info from RS03 if in V1 packet)

- Verify or add contact information into EMR

5. Complete Mercury Screening Questions

- Enter into EMR
- Verify extreme values (initial if >30)

7. Assign Lab Specimen ID from Lab Kit assigned

- Enter Specimen ID into EMR
- Attach Specimen and Participant ID labels to Lab Checklist, Lab Verification, and Lab Order forms
- Attach Specimen ID label to COC form
- Put 1 column of PPT ID labels in lab kit

Specimen ID: (attach here)

FISH Visit One Checklist

Participant ID: F

8. Send Participant to Lab (SMC only)

- Remind participant to bring back Lab Verification Form after blood draw
- (optional) Give DQ Part 1 to participant in case there is a wait for blood draw

10. Blood Draw Outcome

- Blood draw complete
- Reschedule blood draw (talk to Patty @printing off a report Q 2wks)
- Ineligible for blood draw; do not reschedule
- Participant declined

11. Complete Detailed Questionnaire

- Check participant answered every question and answers make sense
- Verify Part 2 fish pages match Part 1 Q9 (table)

12. Provide Education

- Discuss and give FISH brochure and wallet card to participant

13. Incentives

- No incentive
- 1st incentive (\$25)
- 2nd incentive (\$25)

14. Visit One Outcome

- Complete
- Closed by lab decision
- Closed by reason of decline

FISH Nurse
Initials: _____
Date: ____/____/____

Participant's Infosheet

Fish Are Important for Superior Health (FISH) Project



FISH Participant Information

May 2014

Who can take part in the FISH Project?

Participants must be women age 16 to 50 and...

- Live in or near Cook County for at least 9 out of the last 12 months or at least 3 months if they recently moved to the area.
- Can come to the Sawtooth Mountain Clinic or the Grand Portage Health Service for a Visit One appointment.
- Are willing to provide a blood sample and, if asked, return for a follow-up visit in 6 months.



If I decide to take part, what will I do?

Visit One will take about 1 hour. You will...

- ✓ Answer 3 short questions about the kinds of fish that you eat and how often you eat fish.
- ✓ Have a blood sample taken from your arm.
- ✓ Fill out a paper questionnaire about fish and Omega-3 fatty acids in your diet.
- ✓ Talk with a nurse about the importance of including fish in your diet – particularly when you are pregnant.
- ✓ Learn how to get the healthy benefits of eating fish while reducing your exposure to mercury.
- ✓ Receive a \$50 Visa gift card.

About 1/3 of participants will be asked to return for a follow-up visit in 6 months.

Will I find out my blood results?

Yes. We will test your blood samples for healthful fatty acids found in fish and for mercury contamination from fish. The clinic will send you a letter with your results and what they mean.

If your mercury level is high or if you have other concerns, a nurse will be available to talk with you. The nurse will also be able to tell you what you can do to lower mercury in your blood and raise your levels of omega-3 fatty acids.

Who will be asked to return for a follow-up visit?

Any woman whose blood sample shows mercury above the level that is considered safe will be asked to return for a follow-up visit 6 months after Visit One.

For each woman with mercury above the safe level, we will also ask 2 women with lower mercury levels to return for a follow-up visit.

The second visit will be very much like the first. Participants will...

- ✓ Have a blood sample taken for mercury to see if the levels change over time.
- ✓ Complete questionnaires about their fish-eating habits
- ✓ Receive another \$50 Visa gift card.

Why should I take part in FISH?

If you take part, you will...

- Find out the amount of mercury and fatty acids in your body.
- Encourage a wider community understanding of the risks and benefits of eating fish.
- Help people in other communities where people catch and eat fish.

Will my information be private?

Yes. All information gathered for the FISH Project will be kept safe and secure according to Minnesota law.

- All staff are trained in privacy laws and procedures.
- Only a few people from Grand Portage Health Service or Sawtooth Mountain Clinic will know your name and results.
- We will label all of your data collection forms and your blood sample with an ID number, not your name.
- We will send information from your questionnaire and blood sample to the Minnesota Department of Health using only your ID.

Who is sponsoring this Project?

The FISH Project partners are:

- Cook County North Shore Hospital
- Grand Portage Health Service
- Grand Portage Trust Lands
- Minnesota Department of Health
- Sawtooth Mountain Clinic

The Project is also supported by the Grand Portage Tribal Council.

Why do FISH partners think the Project is important?

Project partners believe the FISH Project is important because...

- Catching and eating fish are an important part of the history and culture of our communities.
- Mercury levels in Northeastern Minnesota waters are higher than in other parts of the state.
- Partners want families in their communities to continue to eat fish and to learn more about choosing fish that are low in contaminants.

Where can I get more information?

Please call and ask for a FISH Coordinator at one of our Project locations:

[Sawtooth Mountain Clinic](#)
(218) 387-2330

[Grand Portage Health Service](#)
(218) 475-2235



Sawtooth Mountain Clinic



Eligibility Screening Form

Participant F

Eligibility Screening Form

Fish are Important for Superior Health (FISH) Project

First, I have to verify that you are eligible to participate. I will ask you a few questions about how old you are and where you live.

1. Are you currently a patient at (SMC or GPHS)?

Yes

No → Can we register you as a patient at no cost to you? Yes No

2. How old are you? _____ Years

If age is less than 16 years or more than 50 years:

**I'm sorry, but participants must be at least 16 and no older than 50 years old.
Thank you for your time and interest in FISH.**

(If 16 or 17 years):

Do you have or can you get a signed parental consent?

Yes

No → *If parental consent cannot be obtained.*

**I'm sorry, but we have to get a signed parental consent
before we can ask you questions or get a blood sample for
the FISH project. (Reschedule)**

3. What is your home zip code (or Canadian postal code)?

U.S. Zip Code: _____ or Canadian Postal Code: _____ / _____

FISH Nurse

Initials: _____

Date: ____/____/____

4. Have you lived in or near the Cook County area for more than three months?

Yes

No → *Recheck residential history in Project area for last 3 months. If still No...*

I'm sorry. You cannot take part in FISH until you have lived in the area for more than 3 months. Would you like to schedule a visit in a few months?

5. How many months do you (or will you for new residents) live in the area each year? ___Months

If less than 9 months:

I'm sorry. To be in FISH, participants must live in the area more than 9 months a year. Thank you for your time and interest in the Project.

6. Are you willing to give a blood sample to be tested for mercury and omega-3 fatty acids?

Yes

No → **I'm sorry. You cannot take part in FISH unless you are willing to give a blood sample. Thank you for your time and interest in the Project.**

7. Some women will be asked to return for a second clinic visit in 6 months. Are you willing and able to return in 6 months, if asked to do so?

Yes

No → *Recheck response. If still No...*

I'm sorry. You cannot take part in FISH unless you are willing to come for a second visit in 6 months, if asked. Thank you for your time and interest in the Project.

***If eligible:* Thank you. You are eligible for FISH and can take part. Now, we will go through the consent.**

Adult Consent

Participant ID: F

Adult Participant Consent Form

Fish are Important for Superior Health (FISH) Project

The Sawtooth Mountain Clinic (SMC), Grand Portage Health Service (GPHS), and Minnesota Department of Health (MDH) are partners in this Project. Funding is from the U. S. Environmental Protection Agency (EPA).

Purpose: This project will help women of childbearing age to reduce their exposure to mercury in fish.

What we will ask you to do: We will ask you to: (1) answer three questions about the kinds of fish that you eat; (2) have a small amount of blood taken from your arm; (3) complete a longer questionnaire with more details about your fish eating habits; and (4) talk to a nurse about how to get the health benefits of eating fish while lowering your exposure to mercury in fish.

The entire visit will take about one hour.

Steps for Visit One:

- **Screening:** The nurse will ask you 3 questions about fish you have eaten in the last 2-3 months. Your answers will be compared to the mercury level found in your blood sample.
- **Giving blood:** Staff from GPHS or the Cook County North Shore Hospital lab will take a small amount of blood from your arm. The blood will only be tested for mercury and for healthy Omega-3 fatty acids.

All blood will be destroyed at the end of the Project.

- **Questionnaire:** You will complete the questionnaire on your own or have it read to you, if you prefer. This should take about 20 minutes. You will answer questions about: 1) what kinds of fish you eat and at what times of the year you eat them; and 2) foods you eat that might contain Omega-3 fatty acids. We will also ask about your age and education. Your answers will help us to understand mercury exposure in women of childbearing age.
- **Health Education Information:** A nurse will talk to you and give you a brochure about choosing which fish to eat and how often to eat fish.

Participant ID:

F			
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Return Visit: We will ask all of the participants with higher levels of mercury in their blood to return for a second visit in six months. We will also ask some of the participants with low levels of mercury in their blood to return. You should not agree to participate if you are not able to return for a second visit in six months. The return visit will be very similar to Visit One.

Test Results: SMC and GPHS staff will send your results in a letter with information about what they mean and be available to discuss your results with you. A summary of Project results will be shared with the public. Participants will not be identified in this report. This will happen after SMC and GPHS have read and approved the report.

Risks: You might feel a slight sting or "pinch" when we take your blood. You may get a small bruise. A small number of people may feel dizzy or faint.

Benefits: Getting your own test results can be helpful. You will know more about the amount of mercury and fatty acids in your body. This Project will help you to plan healthier meals for yourself and your family. We will use what we learn from the FISH Project to help people in your area and other communities where people catch and eat fish.

Privacy Protection: All information about you is private. Project records will be in locked files or password-protected computers at SMC, GPHS, and MDH. Only Project staff at SMC and GPHS will be able to see information about you. We will share test results and interview answers with EPA. We will not give them any information that could identify you. Personal information will not leave SMC and GPHS.

Costs: The only costs to you are your time and any travel expense. To thank you, we will give you up to \$50 in Visa gift cards at the end of Visit One. If the North Shore Hospital Lab technician or GPHS clinic staff cannot take your blood, you will get a \$25 Visa gift card but cannot participate in the Project. People asked to participate in the Follow-Up visit will receive an additional \$50 Visa gift card.

Taking part is your choice: You can choose to participate or not. You may refuse any part or quit at any time. Your choice will not affect your relationship with or services from SMC, GPHS, MDH, or the federal government.

Questions: For more information or if you have questions about your rights as a participant, you may call the Sawtooth Mountain Clinic at 218-387-2330 or Grand Portage Health Service at 218-475-2235 and ask for a FISH Coordinator. You may also contact the MDH Institutional Review Board at 651-201-5942.

Participant ID: F

Consent Form for Adult Participants

Fish are Important for Superior Health (FISH) Project

By marking the boxes and signing below, you are saying you had a chance to ask questions about the Project and freely choose to take part in it. You are also saying that you will allow Project staff to collect, store, and share your Project information as described above. You may keep a copy of this form.

I have read the consent form (or have had it read to me) and I understand the information.

Yes No

I choose to complete the questionnaires and to give a sample of my blood.

Yes No

I will participate in a second clinic visit in six months, if I am asked to return.

Yes No

Name (print) _____ Birthdate _____
First name Middle Initial Last Name MM/DD/YYYY

Signature _____ Date: _____
First name Middle Initial Last Name

Staff Signature _____
First name Middle Initial Last Name

FISH Nurse
Initials: _____
Date: ____/____/____

Minor Assent

Participant ID:

F			
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Assent Form for Participants under Age 18

Fish are Important for Superior Health (FISH) Project

The Sawtooth Mountain Clinic (SMC), Grand Portage Health Service (GPHS), and Minnesota Department of Health (MDH) are partners in this Project. Funding is from the U. S. Environmental Protection Agency (EPA).

Purpose: This project will help women of childbearing age to reduce their exposure to mercury in fish.

What we will ask you to do: We will ask you to: (1) answer three questions about the kinds of fish that you eat; (2) have a small amount of blood taken from your arm; (3) complete a longer questionnaire with more details about your fish eating habits; and (4) talk to a nurse about how to get the health benefits of eating fish while reducing your exposure to mercury in fish.

The entire visit will take about one hour.

Steps for Visit One:

- **Screening:** The nurse will ask you 3 questions about fish you have eaten in the last 2-3 months. Your answers will be compared to the mercury level found in your blood sample.
- **Giving blood:** Staff from GPHS or the Cook County North Shore Hospital lab will take a small amount of blood from your arm. The blood will only be tested for mercury and for healthy Omega-3 fatty acids.

All blood will be destroyed at the end of the Project.

- **Questionnaire:** You will complete the questionnaire on your own or have it read to you, if you prefer. This should take about 20 minutes. You will answer questions about: 1) what kinds of fish you eat and at what times of the year you eat them; and 2) foods you eat that might contain Omega-3 fatty acids. We will also ask about your age and education. Your answers will help us to understand mercury exposure in women of childbearing age.
- **Health Education Information:** A nurse will talk to you and give you a brochure about choosing which fish to eat and how often to eat fish.

Participant ID:

F			
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Return Visit: We will ask all of the participants with higher levels of mercury in their blood to return for a second visit in six months. We will also ask some of the participants with low levels of mercury in their blood to return. You should not agree to participate if you are not able to return for a second visit in six months. The return visit will be very similar to Visit One.

Test Results: SMC and GPHS staff will send your results in a letter with information about what they mean and be available to discuss your results with you. A summary of Project results will be shared with the public. Participants will not be identified in this report. This will happen after SMC and GPHS have read and approved the report.

Risks: You might feel a slight sting or "pinch" when we take your blood. You may get a small bruise. A small number of people may feel dizzy or faint.

Benefits: Getting your own test results can be helpful. You will know more about the amount of mercury and fatty acids in your body. This Project will help you to plan healthier meals for yourself and your family. We will use what we learn from the FISH Project to help people in your area and other communities where people catch and eat fish.

Privacy Protection: All information about you is private. Project records will be in locked files or password-protected computers at SMC, GPHS, and MDH. Only Project staff at SMC and GPHS will be able to see information about you. We will share test results and interview answers with EPA. We will not give them any information that could identify you. Personal information will not leave SMC and GPHS.

Costs: The only costs to you are your time and any travel expense. To thank you, we will give you up to \$50 in Visa gift cards at the end of Visit One. If the North Shore Hospital Lab technician or GPHS clinic staff cannot take your blood, you will get a \$25 Visa gift card but cannot participate in the Project. People asked to participate in the Follow-Up Visit will receive an additional \$50 Visa gift card.

Taking part is your choice: You can choose to participate or not. You may refuse any part or quit at any time. Your choice will not affect your relationship with or services from SMC, GPHS, MDH, or the federal government.

Questions: For more information or if you have questions about your rights as a participant, you may call the Sawtooth Mountain Clinic at 218-387-2330 or Grand Portage Health Service at 218-475-2235 and ask for a FISH Coordinator. You may also contact the MDH Institutional Review Board at 651-201-5942.

Participant ID: F

Assent Form for Participants under Age 18

Fish are Important for Superior Health (FISH) Project

By marking the boxes and signing below, you are saying you had a chance to ask questions about the Project and freely choose to take part in it. You are saying that you are a minor and that you have received permission from a parent or guardian to participate in the Fish Project. You are also saying that you will allow Project staff to collect, store, and share your Project information as described above. You may keep a copy of this form.

I have read the consent form (or have had it read to me) and I understand the information.

Yes No

I have received permission from a parent or guardian to participate in the Project.

Yes No

I choose to complete the questionnaires and to give a sample of my blood.

Yes No

I will participate in a second clinic visit in six months, if I am asked to return.

Yes No

Name (print) _____ Birthdate _____
First name Middle Initial Last Name MM/DD/YYYY

Signature _____ Date: _____
First name Middle Initial Last Name

Staff Signature _____
First name Middle Initial Last Name

Parental Consent is signed and in participant file. Yes No

<u>FISH Nurse</u>
Initials: _____
Date: ____/____/____

Parental/Guardian Consent

Participant ID: F

Parent/Guardian Consent Form

Fish are Important for Superior Health (FISH) Project

Your daughter is being asked to participate in the Fish Are Important for Superior Health (FISH) Project conducted by the Sawtooth Mountain Clinic and Grand Portage Health Service in collaboration with the Minnesota Department of Health. Funding is from the U. S. Environmental Protection Agency (EPA).

If you decide to allow your daughter to participate in the FISH Project, you will be asked to sign this consent form once all your questions about the Project have been answered to your satisfaction.

Purpose: This project will help women of childbearing age to reduce their exposure to mercury in fish.

What we will ask your daughter to do: We will ask participants to: (1) answer three questions about the kinds of fish that they eat; (2) have a small amount of blood taken from their arm; 3) complete a longer questionnaire with more details about their fish eating habits; and (4) talk to a nurse about how to get the health benefits of eating fish while lowering their exposure to mercury in fish.

The entire visit will take about one hour.

Steps for Visit One:

- **Screening:** The nurse will ask your daughter 3 questions about fish she has eaten in the last 2-3 months. Her answers will be compared to the mercury level found in her blood sample.
- **Giving blood:** Staff from GPHS or the Cook County North Shore Hospital will take a small amount of blood from your daughter's arm. The blood will only be tested for mercury and for healthy Omega-3 fatty acids.

All blood will be destroyed at the end of the Project.

- **Questionnaire:** It will take your daughter about 20 minutes to complete the questionnaire. Questions will be about: 1) what kinds of fish she eats and at what times of the year she eats them; and 2) foods she eats that might contain Omega-3 fatty acids. We will also ask about her age and education. Her answers will help us to understand mercury exposure in women of childbearing age.

Participant ID:

F			
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- **Health Education Information:** A nurse will talk to your daughter and give her a brochure about choosing which fish to eat and how often to eat fish.

Return Visit: We will ask all of the participants with higher levels of mercury in their blood to return for a second visit in six months. We will also ask some of the participants with low levels of mercury in their blood to return. You should not agree to your daughter's participation, if she is not able to return for a second visit in six months. The return visit will be very similar to Visit One.

Test Results: SMC and GPHS staff will send your daughter's results in a letter to you and to her with information about what they mean. Staff will also be available to discuss those results with you and your daughter. A summary of Project results will be shared with the public. Participants will not be identified in this report. This will happen after SMC and GPHS have read and approved the report.

Risks: Your daughter might feel a slight sting or "pinch" when we take her blood. She may get a small bruise. A small number of people who give blood may feel dizzy or faint.

Benefits: Getting your daughter's test results can be helpful. She will know more about the amount of mercury and fatty acids in her body. This Project will help you to plan healthier meals for yourself and your family. We will use what we learn from the FISH Project to help people in your area and other communities where people catch and eat fish.

Privacy Protection: All information about your daughter is private. Project records will be in locked files or password-protected computers at SMC, GPHS, and MDH. Only Project staff at SMC and GPHS will be able to see information about your daughter. We will share test results and interview answers with EPA. We will not give them any information that could identify your daughter. Personal information will not leave SMC and GPHS.

Costs: The only costs to your daughter are her time and any travel expense. To thank her, we will give her up to \$50 in Visa gift cards at the end of Visit One. If the North Shore Hospital Lab technician or GPHS clinic staff cannot take her blood, she will get a \$25 Visa gift card but cannot participate in the Project. People asked to participate in the Follow-Up Visit will receive an additional \$50 Visa gift card.

Taking part is her choice and yours: You can choose to allow your daughter to participate or not. She can refuse any part of the Project or quit at any time. That choice will not affect your relationship or that of your daughter with or services from SMC, GPHS, MDH, or the federal government.

Questions: For more information or if you have questions about your daughter's rights as a participant, you may call the Sawtooth Mountain Clinic at 218-387-2330 or Grand Portage Health Service at 218-475-2235 and ask for a FISH Coordinator. You may also contact the MDH Institutional Review Board at 651-201-5942.

Participant ID:

F			
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Parent/Guardian Consent Form
Fish are Important for Superior Health (FISH) Project

By marking the boxes and signing below, you are saying you had a chance to ask questions about the Project and freely choose to allow your daughter to take part in it. You are saying that you will allow Project staff to collect, store, and share your daughter's Project information as described above. You may keep a copy of this form.

I have read the consent form (or have had it read to me) and I understand the information.

Yes No

My daughter may complete the questionnaires and give a sample of her blood.

Yes No

I agree my daughter may participate in a second clinic visit in six months, if she is asked to return.

Yes No

Minor's Name (print) _____ Birthdate _____
First name Middle Initial Last Name MM/DD/YYYY

Parent Name (print) _____
First name Middle Initial Last Name

Parent Signature _____ Date: _____
First name Middle Initial Last Name

Staff Signature _____
First name Middle Initial Last Name

<u>FISH Nurse</u>
Initials: _____
Date: ____/____/____

Mercury Screening Form

Participant ID:

F			
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Mercury Screening Form

Fish are Important for Superior Health (FISH) Project

Now, I am going to ask you three questions about the fish you have eaten in the past two to three months. We will compare your answers to the mercury level in your blood.

When answering these questions, please keep in mind how much fish you ate, on average, during the last two to three months.

1. How many times a week did you eat any kind of fish?

(Think of all the different kinds of fish you eat. Include canned tuna, fish sticks or patties at home or in a restaurant, fast food fish sandwiches, pickled herring, or canned sardines – any fresh, frozen, or packaged fish at home or away from home.)

Examples: (1) If you have eaten herring or purchased salmon or canned tuna about once a week over the last two or three months, answer one time a week. (2) If you eat canned tuna once every week and herring or shrimp about once a week, answer two times a week.)

_____ times a week

2. How many times a month did you eat any of these fish – Walleye, Northern Pike, Bass, or Lake Trout from Lake Superior?

(Example: if you have eaten walleye about two times and lake trout about three times a month over the last two or three months, answer five times a month.)

_____ times a month

3. Did you eat Shark or Swordfish?

Yes No

FISH Nurse

Initials: _____

Date: ____/____/____

Detailed Questionnaire, Part 1

Fish are Important for Superior Health (FISH) Project

Participant ID: F

The FISH YOU EAT Survey

Please answer the following questions as best as you can. Ask a FISH Project nurse if one of the questions does not make sense to you, or if you are not sure how to answer it.

1. How old are you?

_____ Years

2. What is your home zip code (or Canadian postal code)?

U.S. Zip Code: _____ or Canadian Postal Code: _____ / _____

3. What is the highest level of education you have completed? (Check only 1)

- Some high school
- High school diploma or GED
- Vocational/technical school or some college after high school
- College degree (e.g., Bachelor's or Associate degree)
- Some post-graduate work
- Post-graduate degree (e.g., Master's, PhD, JD, MD, etc.)

4. Have you changed your eating habits because you have learned about contaminants in fish?

- Yes
- No

FISH Nurse

Initials: _____

Date: ____/____/____

5. When you eat locally caught fish, do you know what size fish you are eating? *(Check only 1)*

- Yes
- No, I usually don't know what size fish I am eating

6. How many pieces of fish, the size of the palm of your hand, do you usually eat at one meal? *(Check only 1)*

I usually eat: Less than 1 piece

- 1 piece
- 2 pieces
- 3 pieces
- 4 or more pieces
- I never eat fish



7. On average over the past 3 months, how often have you taken any Omega-3 supplements? *(Check only 1)*

- Never
- Daily (most days of the week)
- Weekly (1-2 times per week)
- Occasionally (less than 1 time per week)

8. On average over the past 3 months, how often have you eaten foods that have Omega-3 fatty acids added to them? *(Check only 1)*

- Never
- Daily (most days of the week)
- Weekly (1-2 times per week)
- Occasionally (less than 1 time per week)

9. Which fish did you eat in the past year, and how many times did you eat those fish in the last week?

Please put a ✓ in front of all the fish you have eaten in the past year. Remember to include all fresh, canned, frozen, smoked, cooked, or pickled fish. If you did not eat a certain fish (e.g. sushi), please leave the box blank.

For each fish you ate in the past week, write the number of times you have eaten that fish. Telling us what fish you ate in the last week will help us and you understand your blood tests.

Check here if you ate this fish in <u>past year</u>	Fish Species	Number of times you ate this fish in the <u>last week</u>
	Lake Herring (Cisco)	
	Whitefish, Menominee	
	Walleye	
	Lake Trout	
	Perch	
	Salmon (canned or not canned)	
	Northern Pike	
	Bass (Smallmouth, Largemouth, Rock)	
	Panfish (Bluegill, Sunfish, Crappie, etc.)	
	Stream Trout (Brook, Splake, Rainbow, Brown)	
	Shrimp and Shellfish (Clams, Mussels, Oysters, Scallops, Crab)	
	Tilapia	
	Tuna (canned)	
	Tuna steak or sushi	
	Cod	
	Halibut	
	Fish sticks or fish sandwiches	
	Other, write species name here: _____	
	Other, write species name here: _____	
	Other, write species name here: _____	
	I did not eat fish in the past year.	

Thank you! Please give the FISH nurse your survey.

Detailed Questionnaire, Part 2

FISH YOU EAT Survey, Part 2

Participant ID:

F			
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1. Fish Species: Lake Herring (Cisco)



Which seasons did you eat <i>Herring</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> Enter either <i>times per week</i> or <i>month</i> or <i>season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p style="text-align: center;">Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Herring</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Herring came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Herring</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Herring came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Herring</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Herring came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Herring</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Herring came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

2. Fish Species: Whitefish, Menominee



Which seasons did you eat <i>Whitefish</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> Enter either <i>times per week</i> or <i>month</i> or <i>season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p style="text-align: center;">Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Whitefish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the <i>Whitefish</i>/<i>Menominee</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Whitefish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the <i>Whitefish</i>/<i>Menominee</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Whitefish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the <i>Whitefish</i>/<i>Menominee</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Whitefish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the <i>Whitefish</i>/<i>Menominee</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

3. Fish Species: Walleye



<p>Which seasons did you eat Walleye during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> Enter either <i>times per week</i> or <i>month</i> or <i>season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Walleye</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Walleye came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Walleye</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Walleye came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Walleye</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Walleye came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Walleye</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Walleye came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

4. Fish Species: Lake Trout



Which seasons did you eat <i>Lake Trout</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> Enter either <i>times per week or month or season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p style="text-align: center;">Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Lake Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Lake Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Lake Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Lake Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Lake Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Lake Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p style="text-align: center;">Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Lake Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Lake Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

5. Fish Species: Perch



Which seasons did you eat <i>Perch</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> Enter either <i>times per week or month or season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p style="text-align: center;">Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Perch</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Perch came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Local inland lake, specify: _____</p> <p>_____ Local inland stream or river, specify: _____</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>
<p style="text-align: center;">Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Perch</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Perch came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Local inland lake, specify: _____</p> <p>_____ Local inland stream or river, specify: _____</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>
<p style="text-align: center;">Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Perch</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Perch came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Local inland lake, specify: _____</p> <p>_____ Local inland stream or river, specify: _____</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>
<p style="text-align: center;">Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Perch</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Perch came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Local inland lake, specify: _____</p> <p>_____ Local inland stream or river, specify: _____</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>

FISH YOU EAT Survey, Part 2

Participant ID: F

6. Fish Species: Salmon (canned or not canned)



Which seasons did you eat <i>Salmon</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> Enter either <i>times per week</i> or <i>month</i> or <i>season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Salmon</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the <i>Salmon</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Salmon</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the <i>Salmon</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Salmon</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the <i>Salmon</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Salmon</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the <i>Salmon</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

7. Fish Species: Northern Pike



<p>Which seasons did you eat <i>Northern</i> during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> • Enter either <i>times per week or month or season</i> – however it is easiest for you. • Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Northern</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Northern came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Northern</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Northern came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Northern</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Northern came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Northern</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p> <p><u>Check all of the places that the Northern came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

FISH YOU EAT Survey, Part 2

Participant ID: F

8. Fish Species: Bass (Smallmouth, Largemouth, Rock)



<p>Which seasons did you eat Bass during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> • Enter either <i>times per week</i> or <i>month</i> or <i>season</i> – however it is easiest for you. • Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate Bass _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Bass came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate Bass _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Bass came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate Bass _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Bass came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate Bass _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Bass came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

9. Fish Species: Panfish (Bluegill, Sunfish, Crappie, etc.)



<p>Which seasons did you eat Panfish during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> • Enter either <i>times per week or month or season</i> – however it is easiest for you. • Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate Panfish _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Panfish came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate Panfish _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Panfish came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate Panfish _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Panfish came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate Panfish _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Panfish came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

10. Fish Species: Stream Trout (Brook, Splake, Rainbow, Brown)



<p>Which seasons did you eat <i>Stream Trout</i> during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> • Enter either <i>times per week or month or season</i> – however it is easiest for you. • Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Stream Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Stream Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Stream Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Stream Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Stream Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Stream Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Stream Trout</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Stream Trout came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

11. Fish Species: Shrimp and shellfish (Clams, Mussels, Oysters, Scallops, Crab)



Which seasons did you eat <i>Shrimp/Shellfish</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> • Enter either <i>times per week or month or season</i> – however it is easiest for you.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Shrimp/Shellfish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Shrimp/Shellfish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Shrimp/Shellfish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Shrimp/Shellfish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>

12. Fish Species: Tilapia



Which seasons did you eat <i>Tilapia</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: • Enter either <i>times per week or month or season</i> – however it is easiest for you.
<p style="text-align: center;">Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Tilapia</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p>
<p style="text-align: center;">Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Tilapia</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p>
<p style="text-align: center;">Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Tilapia</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p>
<p style="text-align: center;">Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Tilapia</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i></p>

FISH YOU EAT Survey, Part 2

Participant ID:

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13. Fish Species: Tuna (canned only)



Which seasons did you eat <i>Canned Tuna</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: • Enter either <i>times per week or month or season</i> – however it is easiest for you.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Canned Tuna</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Canned Tuna</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Canned Tuna</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Canned Tuna</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>

14. Fish Species: Tuna steak or Sushi



<p>Which seasons did you eat <i>Tuna Steak or Sushi</i> during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> Enter either <i>times per week or month or season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Tuna steak or Sushi</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Tuna steak or Sushi came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Tuna steak or Sushi</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Tuna steak or Sushi came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Tuna steak or Sushi</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Tuna steak or Sushi came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Tuna steak or Sushi</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that the Tuna steak or Sushi came from.</u></p> <p>_____ Restaurant, grocery store, or market</p> <p>_____ Non-local waters, specify if possible: _____</p> <p>_____ I don't know where it came from</p>



15. Fish Species: Cod

Which seasons did you eat <i>Cod</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: • Enter either <i>times per week or month or season</i> – however it is easiest for you.
<p style="text-align: center;">Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Cod</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p style="text-align: center;">Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate <i>Cod</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p style="text-align: center;">Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Cod</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p style="text-align: center;">Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Cod</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>

FISH YOU EAT Survey, Part 2

Participant ID:

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16. Fish Species: Halibut



Which seasons did you eat <i>Halibut</i> during the last year? Mark Yes or No.	Do your best to complete the questions in this column: <ul style="list-style-type: none"> Enter either <i>times per week</i> or <i>month</i> or <i>season</i> – however it is easiest for you. Check all of the places that your fish came from that season.
Spring <input type="checkbox"/> Yes <input type="checkbox"/> No	In the Spring, I ate <i>Halibut</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i> <u>Check all of the places that the Halibut came from.</u> _____ Restaurant, grocery store, or market _____ Non-local waters, specify if possible: _____ _____ I don't know where it came from
Summer <input type="checkbox"/> Yes <input type="checkbox"/> No	In the Summer, I ate <i>Halibut</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i> <u>Check all of the places that the Halibut came from.</u> _____ Restaurant, grocery store, or market _____ Non-local waters, specify if possible: _____ _____ I don't know where it came from
Fall <input type="checkbox"/> Yes <input type="checkbox"/> No	In the Fall, I ate <i>Halibut</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i> <u>Check all of the places that the Halibut came from.</u> _____ Restaurant, grocery store, or market _____ Non-local waters, specify if possible: _____ _____ I don't know where it came from
Winter <input type="checkbox"/> Yes <input type="checkbox"/> No	In the Winter, I ate <i>Halibut</i> _____ times each <input type="checkbox"/> <i>Week</i> or <input type="checkbox"/> <i>Month</i> or <input type="checkbox"/> <i>Season</i> <u>Check all of the places that the Halibut came from.</u> _____ Restaurant, grocery store, or market _____ Non-local waters, specify if possible: _____ _____ I don't know where it came from

FISH YOU EAT Survey, Part 2

Participant ID: F

17. Fish Category: Fish sticks or fish sandwiches



<p>Which seasons did you eat <i>Fish sticks or fish sandwiches</i> during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> Enter either <i>times per week or month or season</i> – however it is easiest for you.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate <i>Fish sticks/Sandwiches</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In Summer, I ate <i>Fish sticks/Sandwiches</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate <i>Fish sticks/Sandwiches</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate <i>Fish sticks/Sandwiches</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p>

FISH YOU EAT Survey, Part 2

Participant ID: F

18. Other Fish Species: (Write name here) _____



<p>Which seasons did you eat <i>Other Fish</i> during the last year? Mark Yes or No.</p>	<p>Do your best to complete the questions in this column:</p> <ul style="list-style-type: none"> • Enter either <i>times per week or month or season</i> – however it is easiest for you. • Check all of the places that your fish came from that season.
<p>Spring</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Spring, I ate this <i>Other Fish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that this <i>Other Fish</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Summer</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Summer, I ate this <i>Other Fish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that this <i>Other Fish</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Fall</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Fall, I ate this <i>Other Fish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that this <i>Other Fish</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>
<p>Winter</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>In the Winter, I ate this <i>Other Fish</i> _____ times each <input type="checkbox"/> Week or <input type="checkbox"/> Month or <input type="checkbox"/> Season</p> <p><u>Check all of the places that this <i>Other Fish</i> came from.</u></p> <p>____ Restaurant, grocery store, or market</p> <p>____ Lake Superior</p> <p>____ Local inland lake, specify: _____</p> <p>____ Local inland stream or river, specify: _____</p> <p>____ Non-local waters, specify if possible: _____</p> <p>____ I don't know where it came from</p>

Three-fold Brochure

Brochure used at Grand Portage Health Service only

Things to Consider When Choosing Your Fish

Who You Are
Women who are or may become pregnant, and children under 15 need to be more careful about which fish they eat because mercury has a greater effect on babies and young children.

Women not planning to be pregnant and men face fewer health risks from mercury. For that reason, they are able to eat more kinds of fish (species) more often.

Species
Mercury is in all fish but the amount depends on the species (and size). Some species of fish have higher levels of mercury than others because of what they eat and how long they live.

Size
Generally, smaller fish have less mercury than larger, older fish of the same species. Unlike people, fish don't get rid of mercury. Older, larger fish have had more time for mercury to build up in their bodies.

Source
Inland lakes and rivers, and purchased fish contain mercury, the main contaminant of concern for eating fish. Fish from lakes in northeastern MN generally have higher amounts of mercury than southern and central MN.

Lake Superior fish contain mercury and may also contain PCBs and other contaminants.

How Much Fish Makes a Serving?

The amount of fish in a serving is based on the body weight of the person eating the fish.

Serving size for a 150 pound person is 1/2 pound (8 oz). Eight ounces of uncooked fish is equal to about 6 oz. of cooked fish.

To adjust meal size for a heavier or lighter weight person, add or subtract one ounce of fish for every 20 pounds of body weight. For example the serving size for a 50 pound person is 3 oz.

Note: Mercury is not removed through cleaning or cooking - it gets into the flesh of the fish. However, you can reduce the amount of other contaminants like PCB's by removing the fat when you clean or cook fish.

For More Information

Grand Portage Trust Lands (218) 475-2415
Minnesota Department of Health (800) 657-3908

Guidelines in this brochure are based on analysis of fish throughout the state and Lake Superior. Guidelines for other specific lakes and rivers are available at:

Minnesota Department of Health: www.health.state.mn.us/fish
MN DNR LakeFinder: www.dnr.state.mn.us/lakefind/index.html

Put Fish on Your Plate
A Family Guide to Eating Fish

Benefits outweigh risks if you eat fish low in mercury & other contaminants

Women in Grand Portage think eating fish is more than healthy... *it's essential*

MDH
MINNESOTA DEPARTMENT OF HEALTH
DNR
MINNESOTA DEPARTMENT OF NATURAL RESOURCES

GP Brochure.indd 1

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Benefits — eating fish 1-2 times per week has benefits for people of all ages.

Fish are a source of lean protein, vitamins, minerals and omega-3 fatty acids. EPA and DHA are omega-3 fatty acids found in fish. Our bodies can't make EPA and DHA — eating fish is the primary way to get these fatty acids.

- DHA is a building block of the brain and eyes.
- Pregnant women and breastfeeding moms can eat fish to give DHA to their babies.
- Children of women who ate lower mercury fish every week have been found to do better developmentally.

Eating fish has also been shown to lower the risk of heart disease in adults.

Risks — you can't see, smell, or taste the mercury in fish. Any fish, store-bought or locally-caught, may contain contaminants such as mercury that can harm human health - especially the development of children and fetuses. Too much mercury can affect a child's ability to learn and process information.

Our bodies eliminate mercury over time. By following this guide the mercury in fish won't build up to harmful amounts in your body.



Benefits are maximized with fish higher in EPA and DHA but lower in mercury. Fish from Lake Superior are generally higher in EPA and DHA than fish from inland lakes and rivers. Fatty fish like salmon have the highest levels.



Eating Guidelines for Women who are or may become pregnant and Children under 15

Serving Guideline	Mercury Concentration	Species (Kind of Fish)
2 per week	LOW 0.1 µg/g	Purchased Fish: Salmon (Atlantic and canned), Shrimp, Sardines, Scallops, Tilapia, Crab, Cod, fast food fish sticks and sandwiches Lake Superior Fish: Herring (Cisco), Coho Salmon, Rainbow Trout/Steelhead, Smelt Inland Fish: Rainbow Trout
1 per week	0.2 µg/g	Purchased Fish: Canned Light Tuna Lake Superior Fish: Lake Whitefish, Menominee, Brown Trout, Lake Trout <22", Chinook <32" Inland Fish: Herring (Cisco), Lake Whitefish, Splake, Sunfish, Crappie, Yellow Perch
1 per month	0.4 µg/g	Purchased Fish: Canned White (albacore) Tuna, Tuna (steak/fillet/sushi), Halibut Lake Superior Fish: Lake Trout 22" to 37", Chinook Salmon 32"+, Walleye Inland Fish: Walleye, Northern Pike, Trout (Lake, Brown, Brook)
Avoid	HIGH 1 µg/g	Purchased Fish: Shark, Swordfish Lake Superior Fish: Siscowet Lake Trout > 36"

Bonus: During one month you can eat up to one serving of fish in the "1 per month" group AND eat fish from either the "1 per week" or "2 per week" groups.

Brochure used at Sawtooth Mountain Clinic and other North Shore locations

Things to Consider When Choosing Your Fish

Who You Are

Women who are or may become pregnant, and children under 15 need to be more careful about which fish they eat because mercury has a greater effect on babies and young children.

Women not planning to be pregnant and men face fewer health risks from mercury. For that reason, they are able to eat more kinds of fish (species) more often.

Species

Mercury is in all fish but the amount depends on the species (and size). Some species of fish have higher levels of mercury than others because of what they eat and how long they live.

Size

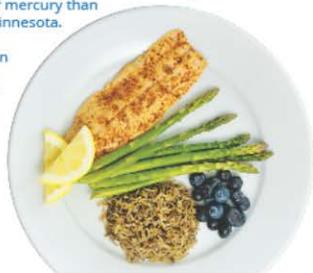
Generally, smaller fish have less mercury than larger, older fish of the same species. Unlike people, fish don't get rid of mercury. Older, larger fish have had more time for mercury to build up in their bodies.

Source

Inland lakes and rivers, and purchased fish contain mercury, the main contaminant of concern for eating fish.

Fish from lakes in northeastern Minnesota generally have higher amounts of mercury than southern and central Minnesota.

Lake Superior fish contain mercury and may also contain PCBs and other contaminants.



MN Fish brochure.indd 1

How Much Fish Makes a Serving?

The amount of fish in a serving is based on the body weight of the person eating the fish.

Serving size for a 150 pound person is ½ pound (8 ounces). Eight ounces of uncooked fish is equal to about six ounces of cooked fish.

To adjust meal size for a heavier or lighter weight person, add or subtract one ounce of fish for every 20 pounds of body weight. For example the serving size for a 50 pound person is 3 oz.

Note: Mercury is not removed through cleaning or cooking – it gets into the flesh of the fish. However, you can reduce the amount of other contaminants like PCBs by removing fat when you clean and cook fish.



For More Information

Minnesota Department of Health (800) 657-3908
Grand Portage Trust Lands (218) 475-2415

Guidelines in this brochure are based on analysis of fish throughout the state and Lake Superior. Guidelines for other specific lakes and rivers are available at:

Minnesota Department of Health: www.health.state.mn.us/fish
MN DNR LakeFinder: www.dnr.state.mn.us/lakefind/index.html

Put Fish on Your Plate

A Family Guide to Eating Fish



Benefits outweigh risks if you eat fish low in mercury & other contaminants

Women on the North Shore think eating fish is more than healthy ... *it's essential*

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Benefits — eating fish 1-2 times per week has benefits for people of all ages.

Fish are a source of lean protein, vitamins, minerals and omega-3 fatty acids. EPA and DHA are omega-3 fatty acids found in fish. Our bodies can't make EPA and DHA — eating fish is the primary way to get these fatty acids.

- DHA is a building block of the brain and eyes.
- Pregnant women and breastfeeding moms can eat fish to give DHA to their babies.
- Children of women who ate lower mercury fish every week have been found to do better developmentally.

Eating fish has also been shown to lower the risk of heart disease in adults.

Risks — you can't see, smell, or taste the mercury in fish. Any fish, store-bought or locally-caught, may contain contaminants such as mercury that can harm human health - especially the development of children and fetuses. Too much mercury can affect a child's ability to learn and process information.

Our bodies eliminate mercury over time. By following this guide the mercury in fish won't build up to harmful amounts in your body.



Benefits are maximized with fish higher in EPA and DHA but lower in mercury. Fish from Lake Superior are generally higher in EPA and DHA than fish from inland lakes and rivers. Fatty fish like salmon have the highest levels.

Eating Guidelines for Women who are or may become pregnant and Children under 15

Serving Guideline	Mercury Concentration	Species (Kind of Fish)
2 per week	LOW 0.1 µg/g	Purchased Fish: Salmon (Atlantic and canned), Shrimp, Sardines, Scallops, Tilapia, Crab, Cod, fast food fish sticks and sandwiches Lake Superior Fish: Herring (Cisco), Coho Salmon, Rainbow Trout/Steelhead, Smelt Inland Fish: Rainbow Trout
1 per week	0.2 µg/g	Purchased Fish: Canned Light Tuna Lake Superior Fish: Lake Whitefish, Menominee, Brown Trout, Lake Trout <22", Chinook <32" Inland Fish: Herring (Cisco), Lake Whitefish, Splake, Sunfish, Crappie, Yellow Perch
1 per month	0.4 µg/g	Purchased Fish: Canned White (albacore) Tuna, Tuna (steak/fillet/sushi), Halibut Lake Superior Fish: Lake Trout 22" to 37", Chinook Salmon 32"+, Walleye Inland Fish: Walleye, Northern Pike, Trout (Lake, Brown, Brook)
Avoid	HIGH 1 µg/g	Purchased Fish: Shark, Swordfish Lake Superior Fish: Siscowet Lake Trout > 36"

Bonus: During one month you can eat up to one serving of fish in the "1 per month" group AND eat fish from either the "1 per week" or "2 per week" groups.

Wallet Card



Avoid Shark and Swordfish

Mercury is the main concern in locally-caught and purchased fish. Fish from Lake Superior may also contain PCB's.

Mercury is NOT removed by trimming fat or cooking. PCB's are reduced if fat is removed by trimming and cooking.

More Information

Grand Portage Trust Lands
www.grandportagelandtrusts.org
 (218) 475-2415

Minnesota Department of Health
www.health.state.mn.us/fish
 (800) 657-3908

Minnesota Department of Natural Resources, LakeFinder
www.dnr.state.mn.us/lakefind






Put Fish on Your Plate

Benefits outweigh risks if you eat fish low in mercury and other contaminants

Women who are or may become pregnant and Children: Use these Guidelines to choose which fish to eat.

Eating Guidelines for Women who are or may become pregnant and Children under 15

2 Servings per Week	1 Serving per Week	1 Serving per Month
<p>Lake Superior fish: Herring (Cisco) Coho Salmon Rainbow Trout/Steelhead Smelt</p> <p>Inland fish: Rainbow Trout</p> <p>Purchased fish: Salmon (Atlantic & canned) Shrimp Sardines Scallops Tilapia Crab Cod</p>	OR	<p>Lake Superior fish: Lake Whitefish Menominee Brown Trout Lake Trout <22" Chinook Salmon <32"</p> <p>Inland fish: Herring (Cisco) Lake Whitefish Splake Sunfish & Crappie Yellow Perch</p> <p>Purchased fish: Canned Light Tuna</p>
	AND	<p>Lake Superior fish: Lake Trout 22" to 37" Chinook Salmon 32"+ Walleye</p> <p>Inland fish: Walleye Northern Pike Trout-Lake, Brown, Brook</p> <p>Purchased fish: Canned White (albacore) Tuna Tuna (steak, fillet, sushi) Halibut</p>

Serving = 8 oz (raw weight) for a 150 lb person. Serving size increases or decreases depending on size of person, 4 oz for a 75 lb person. Different guidelines may apply for eating fish from specific lakes and rivers. See <http://www.health.state.mn.us/fish>

Incentive Receipt

FISH Project Incentive Receipt

Participant ID:

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I have received a gift card or cards in the amount of _____
for my participation in the FISH Project.

This signed receipt will remain in my private patient file.

Print Name: _____

Sign Here: _____

Date: _____

Card #: _____



FISH Project Incentive Receipt

Participant ID:

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I have received a gift card or cards in the amount of _____
for my participation in the FISH Project.

This signed receipt will remain in my private patient file.

Print Name: _____

Sign Here: _____

Date: _____

Card #: _____



MDH Incentive Log

Minnesota Department of Health Incentive Reconciliation Report: Fiscal Year (July 1-June 30) 2014

FISH Project Incentive Log - <insert clinic name>

Batch Number: <insert batch #>, Page Number: <insert page #>

Delivered to <clinic name>: ___ / ___ / _____

Received by Staff Initials: _____

No.	FM Dist. Date	Denom.	Card No.	Card out to:	Card in from:	Date	Card out to:	Card in from:	Date	FISH Dist. Date	Recipient ID
001		\$25.00									
002		\$25.00									
003		\$25.00									
004		\$25.00									
005		\$25.00									
006		\$25.00									
007		\$25.00									
008		\$25.00									
009		\$25.00									
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011		\$25.00									
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020		\$25.00									

DQ Batch Log

FISH Detailed Questionnaire Batch Log

Date Batched: ___/___/___
 month day year

Date Shipped: ___/___/___
 month day year

Shipping method _____

- | | |
|-----------|-----------|
| 1. _____ | 11. _____ |
| 2. _____ | 12. _____ |
| 3. _____ | 13. _____ |
| 4. _____ | 14. _____ |
| 5. _____ | 15. _____ |
| 6. _____ | 16. _____ |
| 7. _____ | 17. _____ |
| 8. _____ | 18. _____ |
| 9. _____ | 19. _____ |
| 10. _____ | 20. _____ |

- (1) Place a Participant ID label for each Detailed Questionnaire to be included in this batch on one of the numbered lines.
- (2) Clip the corresponding Questionnaires to this Batch Log and hold for shipment or scanning.
- (3) Fill-in dates and courier information before shipping (if applicable).
- (4) Save a copy of this Batch Log.
- (5) Incomplete batches (<20) can be shipped if it is convenient to do so.

<i>FISH Nurse</i>
Initials: _____
Date: ___/___/___

Potential Controls List

Example of Potential Controls List

High Mercury Participants with Potential Controls						
Participant ID:	Visit 1 Date	Visit 1 Location	Visit 2 Open Date	Visit 2 Close Date	Visit 2 Appointment	Notes Comments
High Mercury Participant						
X123	5/1/2014	SMC	10/16/2014	11/13/2014		
Generated Potential Controls; 10/27/2014; Listed in order of date difference, age difference.						
Participant ID:	Visit 1 Date	Visit 1 Location	Visit 2 Open Date	Visit 2 Close Date	Visit 2 Appointment	Notes Comments
X234	5/2/2014	SMC	10/17/2014	11/14/2014		
X345	5/2/2014	SMC	10/17/2014	11/14/2014		
SMC = Sawtooth Mountain Clinic; GPHS = Grand Portage Health Services Participant ID: <u> X123 </u> rptHigh_Mercury						

Visit Two Checklist

FISH Visit Two Checklist

Participant ID:

F			
---	--	--	--

Name _____ DOB _____

1. Attach Participant ID

Attach labels to all forms

2. Verify Contact Information

Verify or add contact information into EMR

3. Complete Mercury Screening Questions

Enter into EMR

Verify extreme values (initial if >30)

4. Assign Lab Specimen ID from Lab Kit assigned

Enter Specimen ID into EMR

Specimen ID: (attach here)

Attach Specimen and Participant ID labels to Lab Checklist, Lab Verification, and Lab Order forms

Attach Specimen ID label to COC form

Put 1 column of PPT ID labels in lab kit

5. Send Participant to Lab (SMC only)

Remind participant to bring back Lab Verification Form after blood draw

(optional) Give DQ Part 1 to participant in case there is a wait for blood draw

6. Blood Draw Outcome

Blood draw complete

Reschedule blood draw (talk to Patty @printing off a report Q 2wks)

Ineligible for blood draw; do not reschedule

Participant declined

FISH Visit Two Checklist

Participant ID: F

7. Complete Detailed Questionnaire

- Check participant answered every question and answers make sense
- Verify Part 2 fish pages match Part 1 Q9 (table)

8. Complete Evaluation

- Check participant answered every question

9. Provide Education

- Discuss FISH brochure and wallet card to participant
- Offer copy of FISH brochure and wallet card

10. Incentives

- No incentive
- 1st incentive (\$25)
- 2nd incentive (\$25)

11. Visit One Outcome

- Complete
- Closed by lab decision
- Closed by reason of decline

FISH Nurse

Initials: _____

Date: ____/____/____

Evaluation



Fish are Important for Superior Health: Evaluation of the FISH Study

Participant ID:

F			
---	--	--	--

1. Have you used the Brochure since your first FISH visit? Yes No
2. When you were not at home, did you use the Wallet Card? Yes No
If yes, where did you use it?
3. Can you find information about the recommended amount of fish to eat per week in the Brochure/Wallet Card? Yes No
4. Can you find which fish are low in mercury in the Brochure/Wallet Card? Yes No
5. Did you find the fish consumption advice easier to understand the way it was presented in the Brochure or in the Wallet Card? Brochure
 Wallet Card

6. Was the information below easy to find and to understand in the Brochure?

<input checked="" type="checkbox"/> Please choose one answer for each row.	I saw this and understood it	I saw this but did not understand it	I did not see this in the Brochure
--	------------------------------	--------------------------------------	------------------------------------



Appendix 2: Letters and Materials

Upcoming Visit Letter

FISH Project Meal Planning Infosheet

Mercury Results Letter Templates

Fatty Acids Results Letter Templates

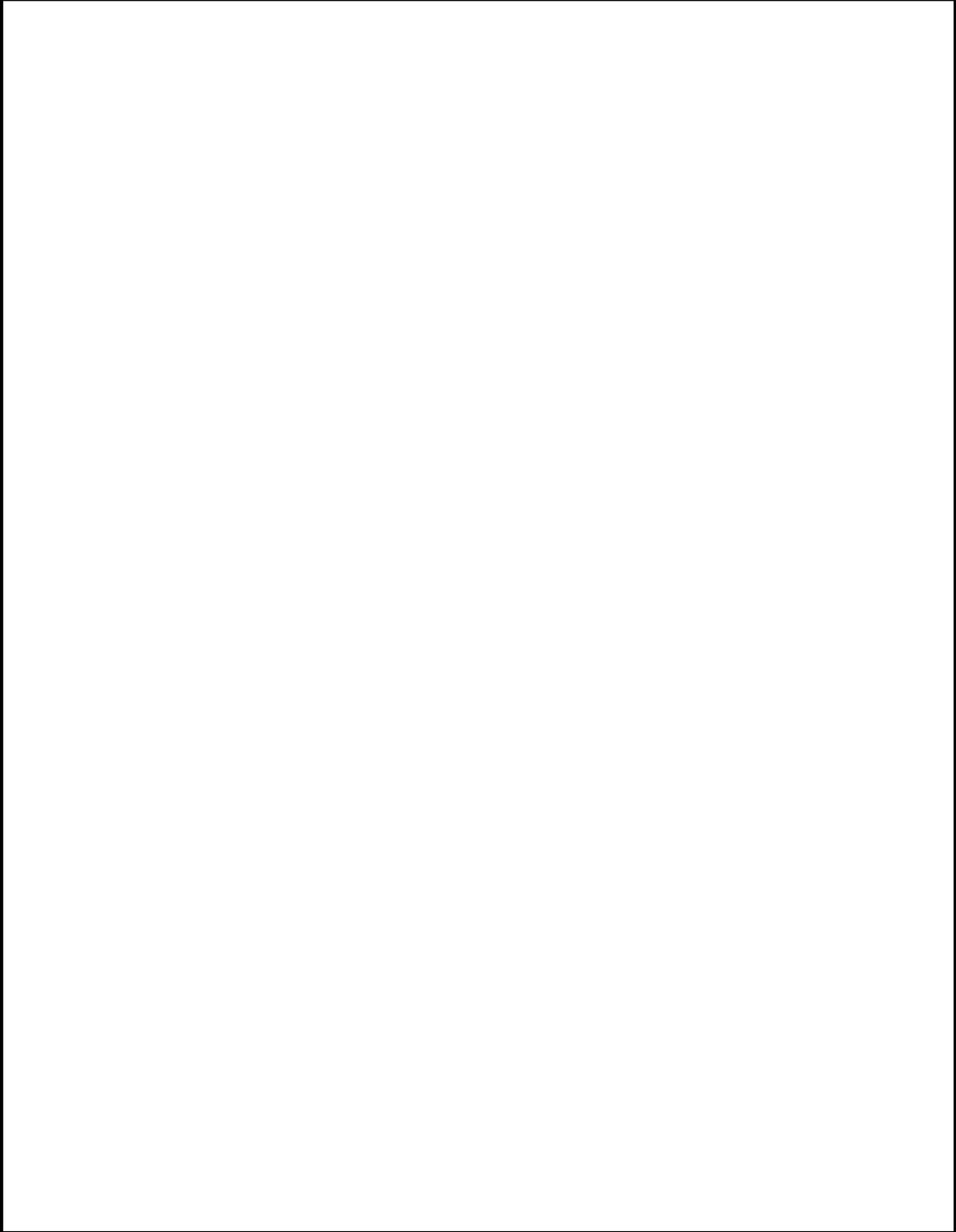
Fatty Acids Infosheet

Counseling Notes Template

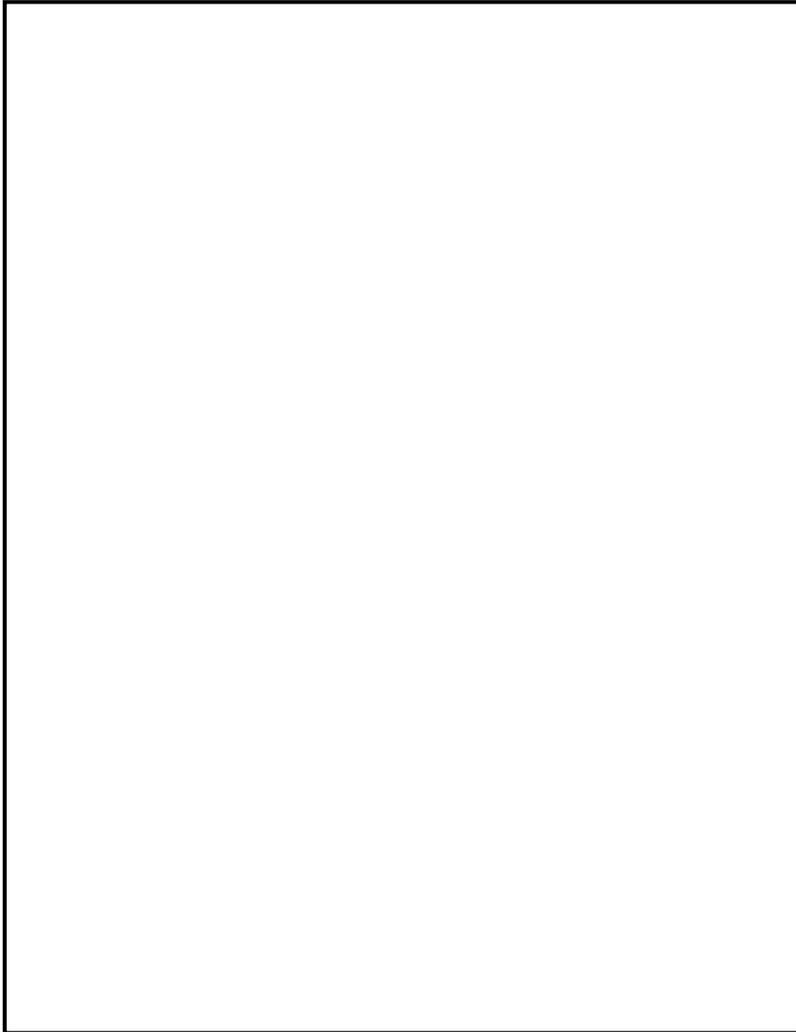
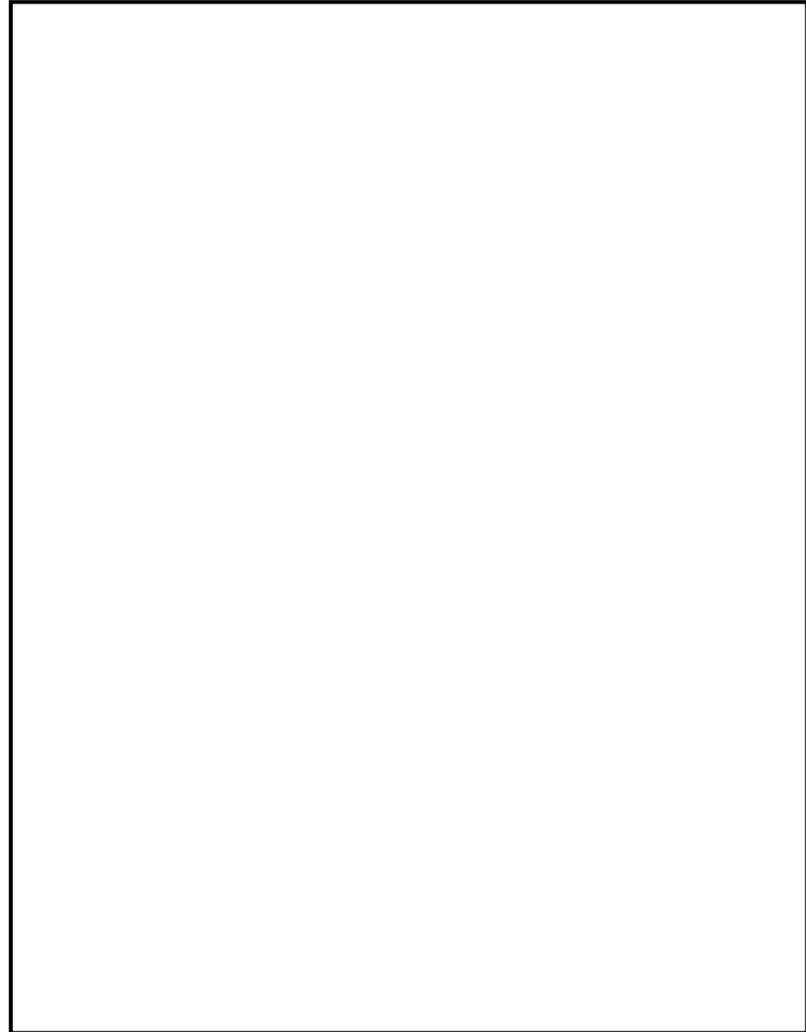
Counsel Reminder Letter Template

Upcoming Visit Letter

Example

A large, empty rectangular box with a thin black border, occupying most of the page below the 'Example' label. It is intended for a user to provide an example of an upcoming visit letter.

FISH Project Meal Planning Infosheet

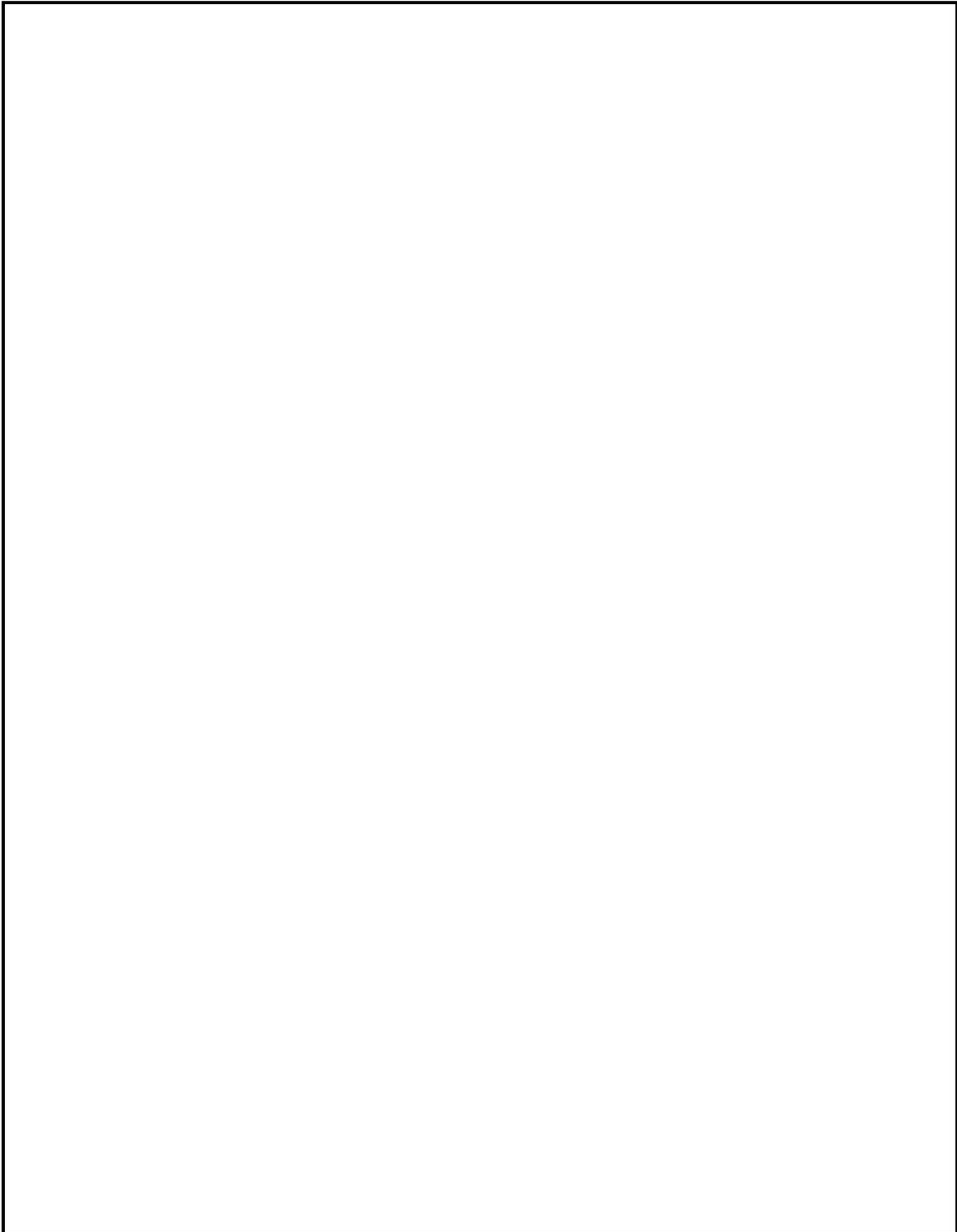
A large, empty rectangular box with a black border, intended for handwritten notes or a meal plan.A second large, empty rectangular box with a black border, identical to the first one, for additional meal planning notes.

Mercury Results Letter Templates

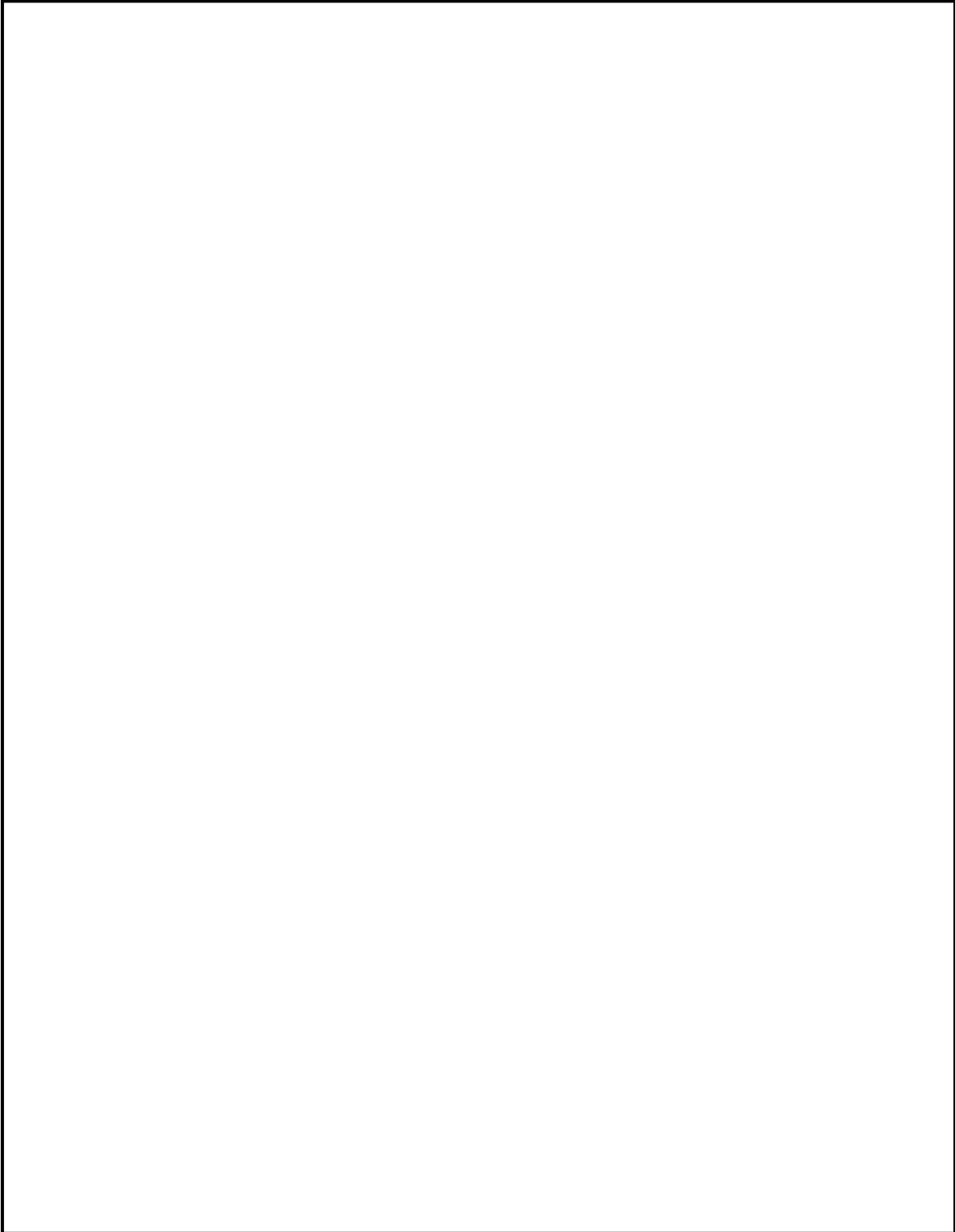
Visit One: Letter for women who reported eating fish and have a mercury result above 17.4 mcg/L

A large, empty rectangular box with a black border, intended for a letter template. The box is currently blank.

Visit One: Letter for women who reported eating fish and have a mercury result above 5.8 mcg/L but less than 17.4 mcg/L



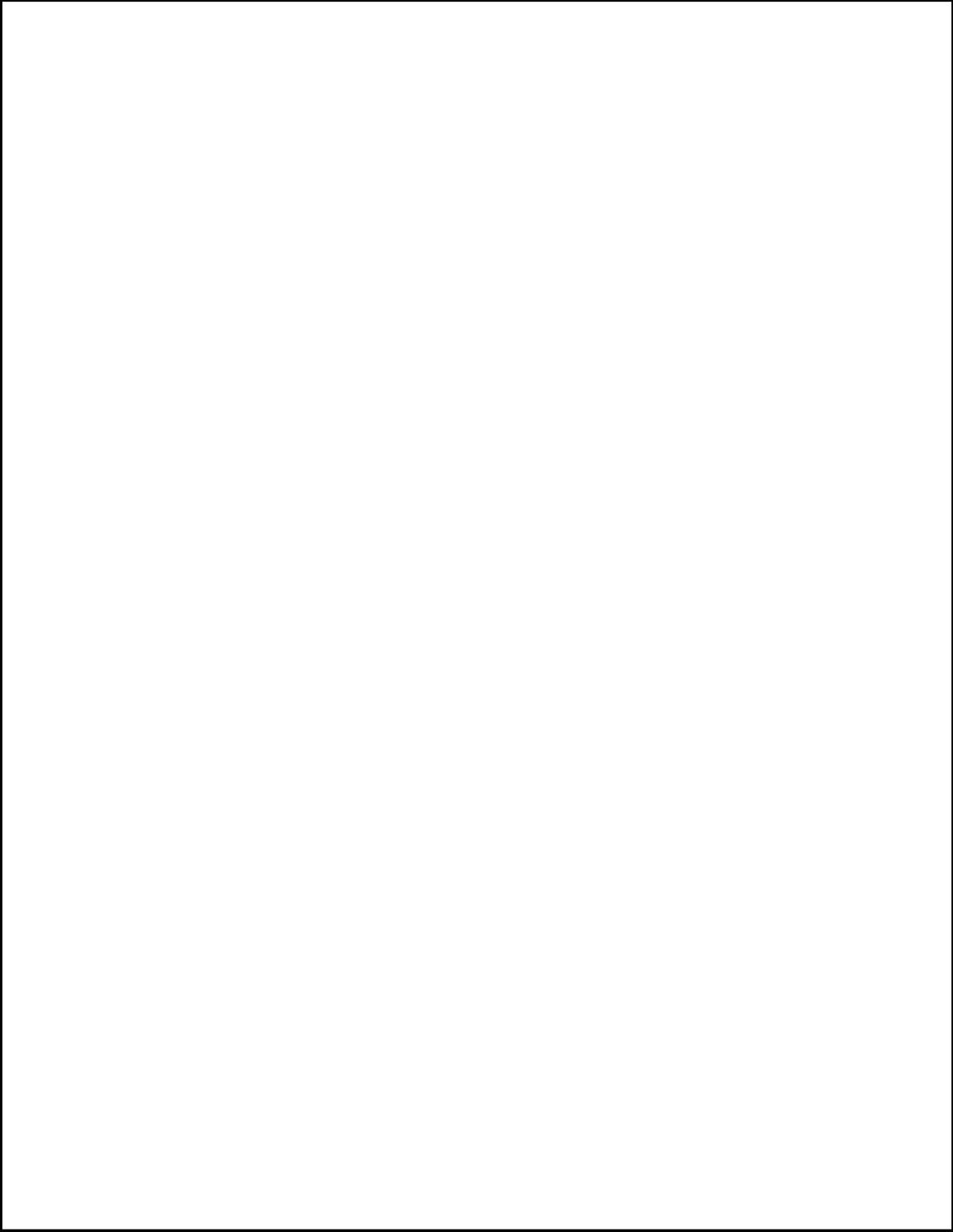
Visit One: Letter for women who reported eating fish and have a mercury result below 5.8 mcg/L



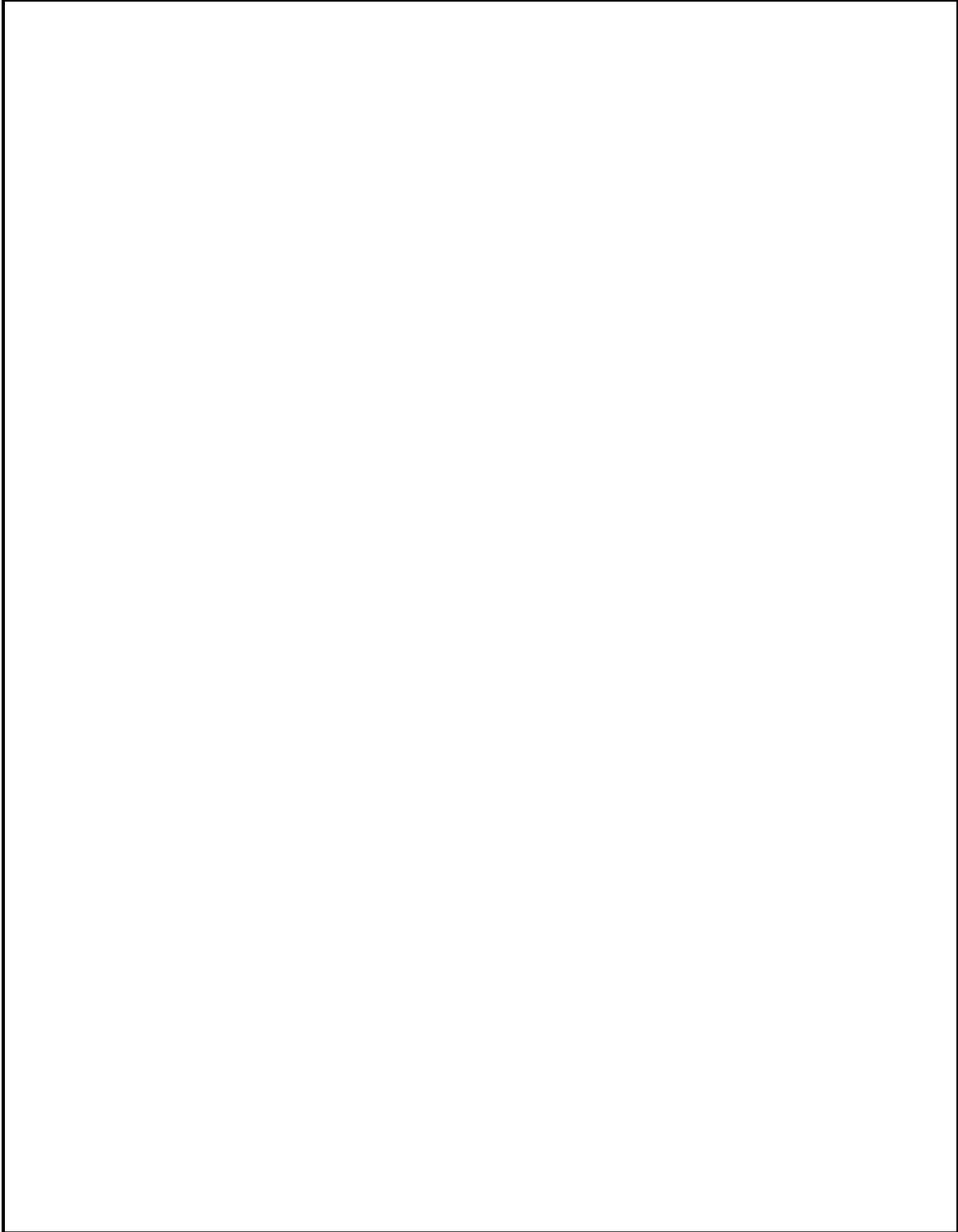
Visit One: Letter for women who reported eating little or no fish and have a mercury result above 5.8 mcg/L



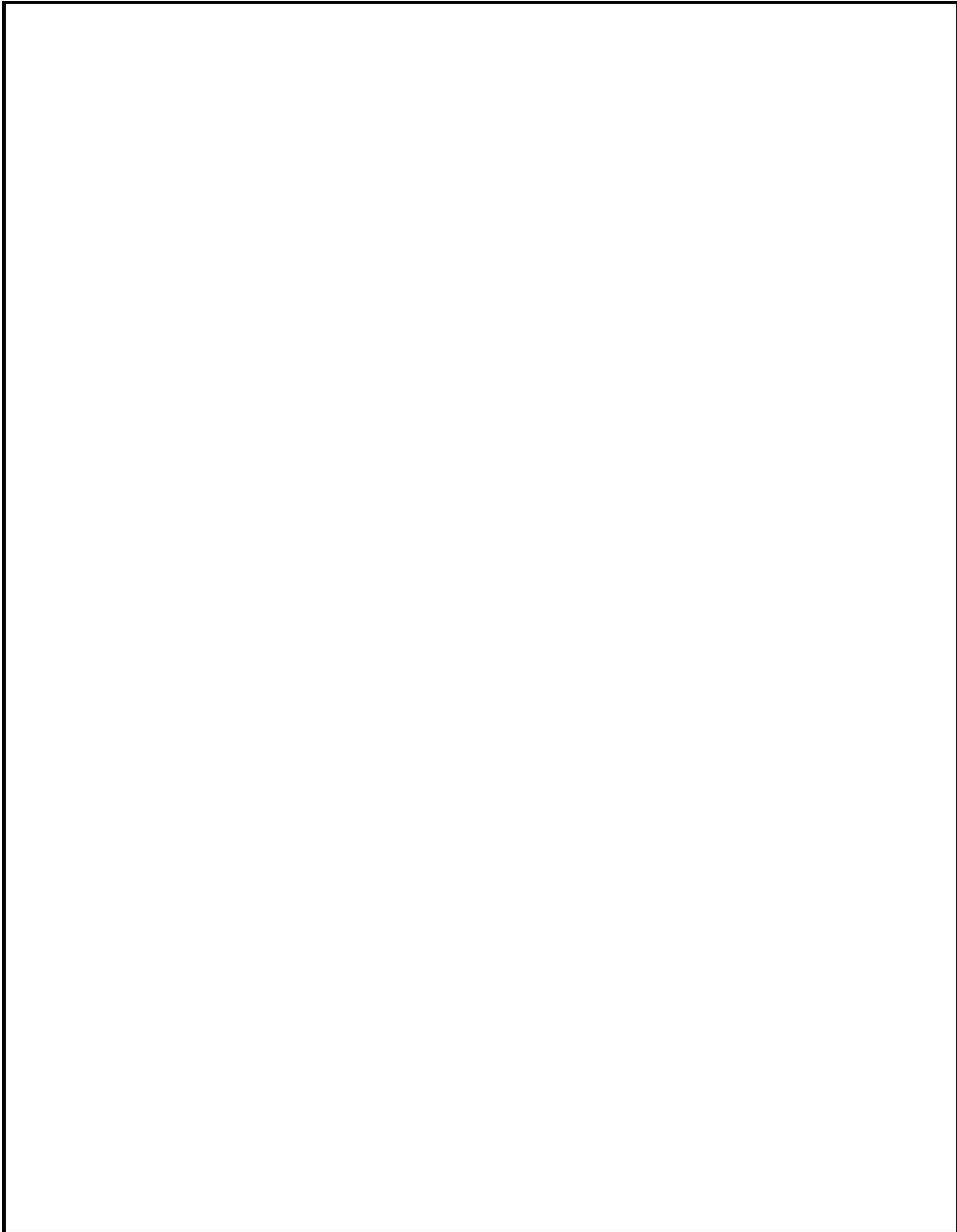
Visit One: Letter for women who reported eating little or no fish and have a mercury result above 2.0 mcg/L



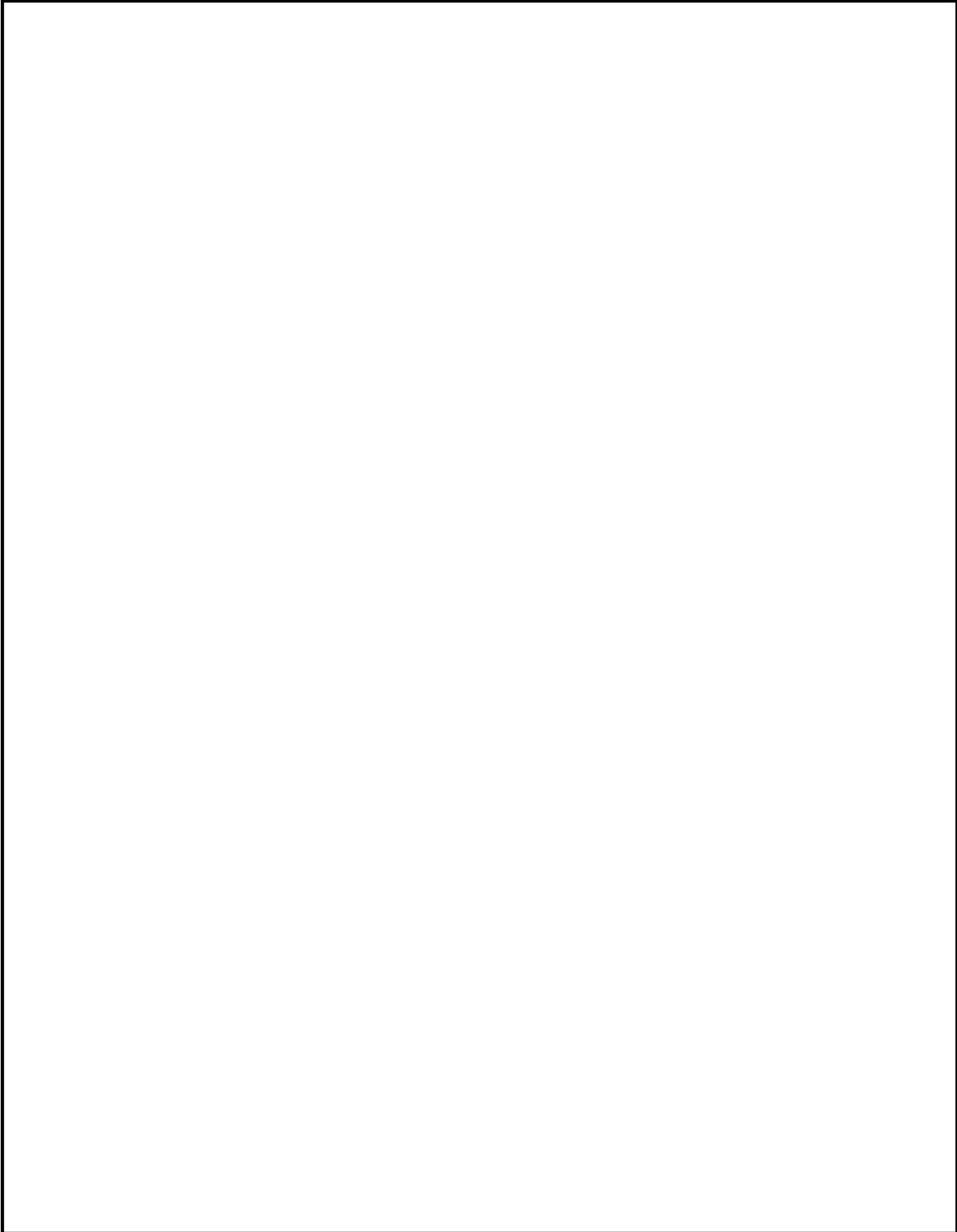
Visit Two: Letter for women who reported eating fish, have a mercury result above 5.8 mcg/L at Visit Two, and a mercury result above 5.8 mcg/L at Visit One; we are concerned in case the woman gets pregnant



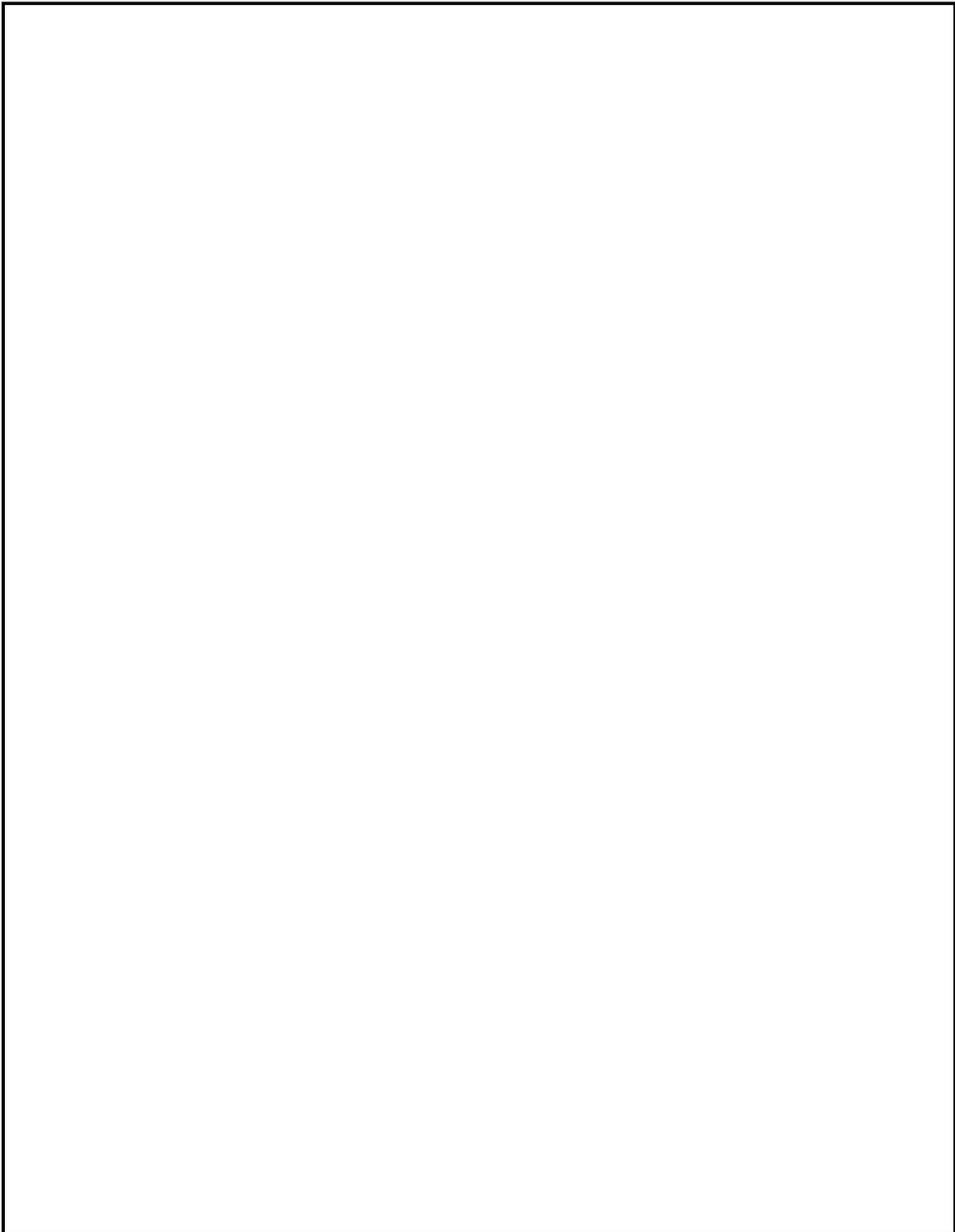
Visit Two: Letter for women who reported eating fish, have a mercury result above 5.8 mcg/L at Visit Two, and a mercury result above 5.8 mcg/L at Visit One; we are not concerned because the women indicated no future pregnancies



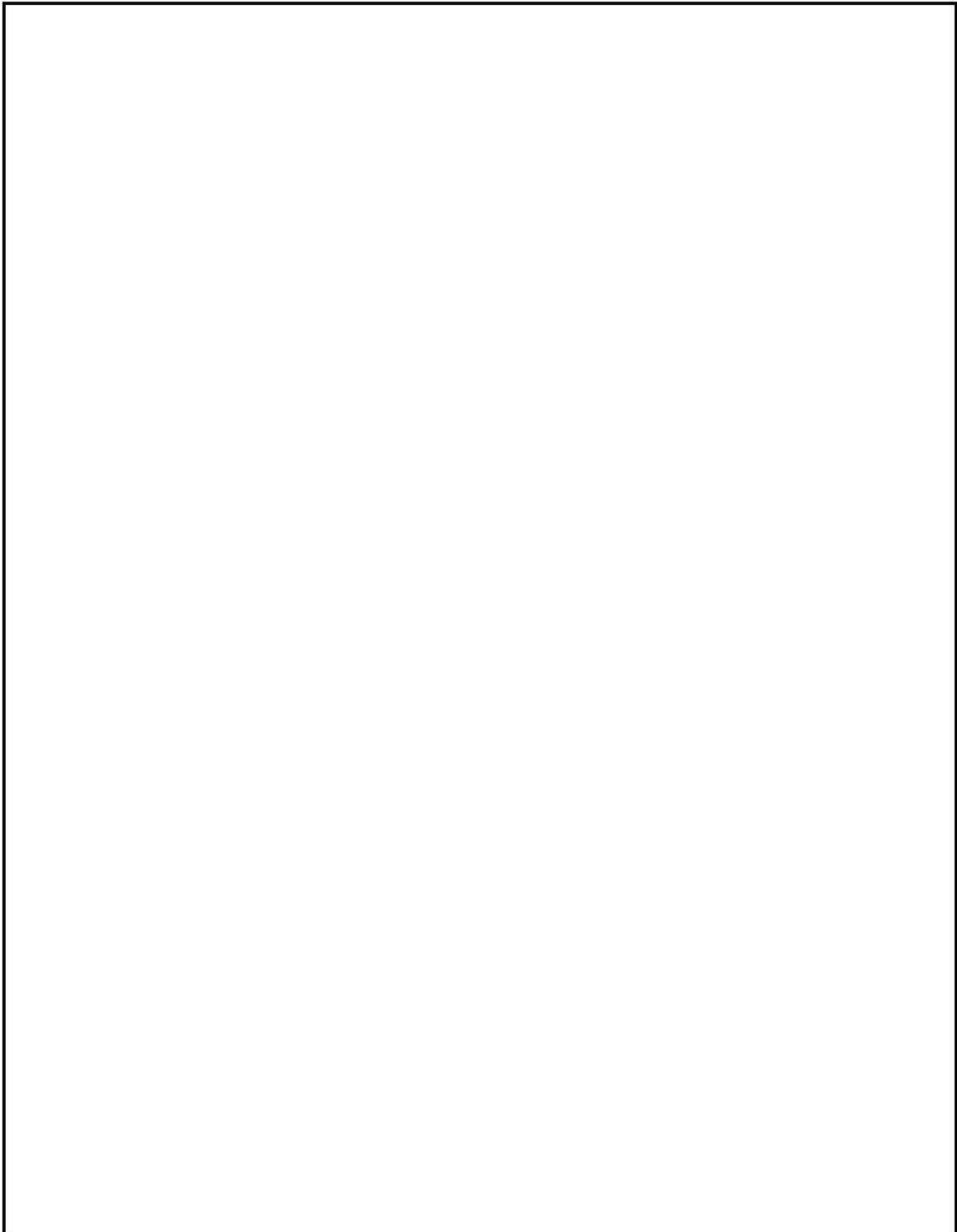
Visit Two: Letter for women who reported eating fish, have a mercury result below 5.8 mcg/L at Visit Two, and a mercury result above 5.8 mcg/L at Visit One



Visit Two: Letter for women who reported eating fish, have a mercury result above 5.8 mcg/L at Visit Two, and a mercury result below 5.8 mcg/L at Visit One

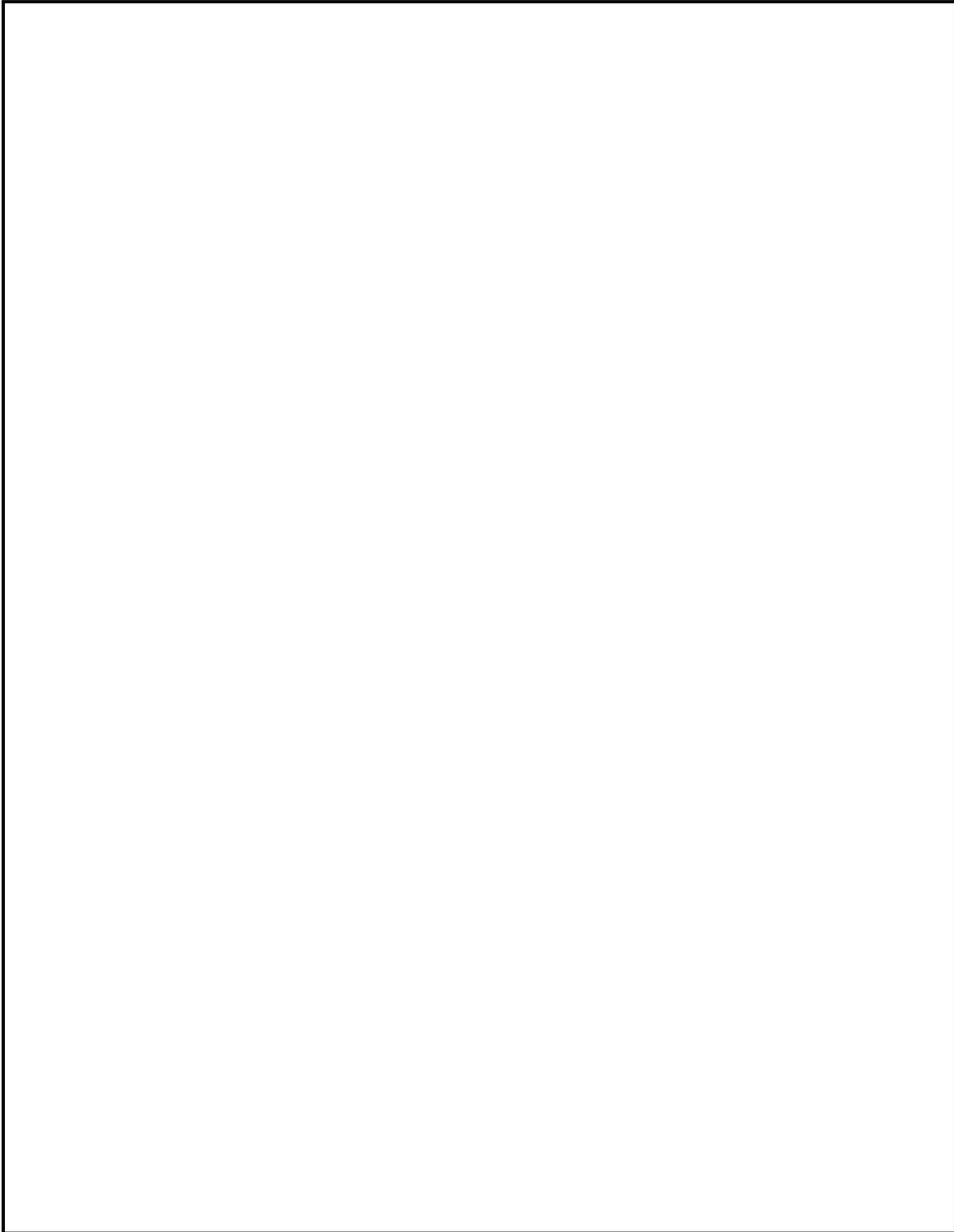


Visit Two: Letter for women who reported eating fish, have a mercury result below 5.8 mcg/L at Visit Two, and a mercury result below 5.8 mcg/L at Visit One

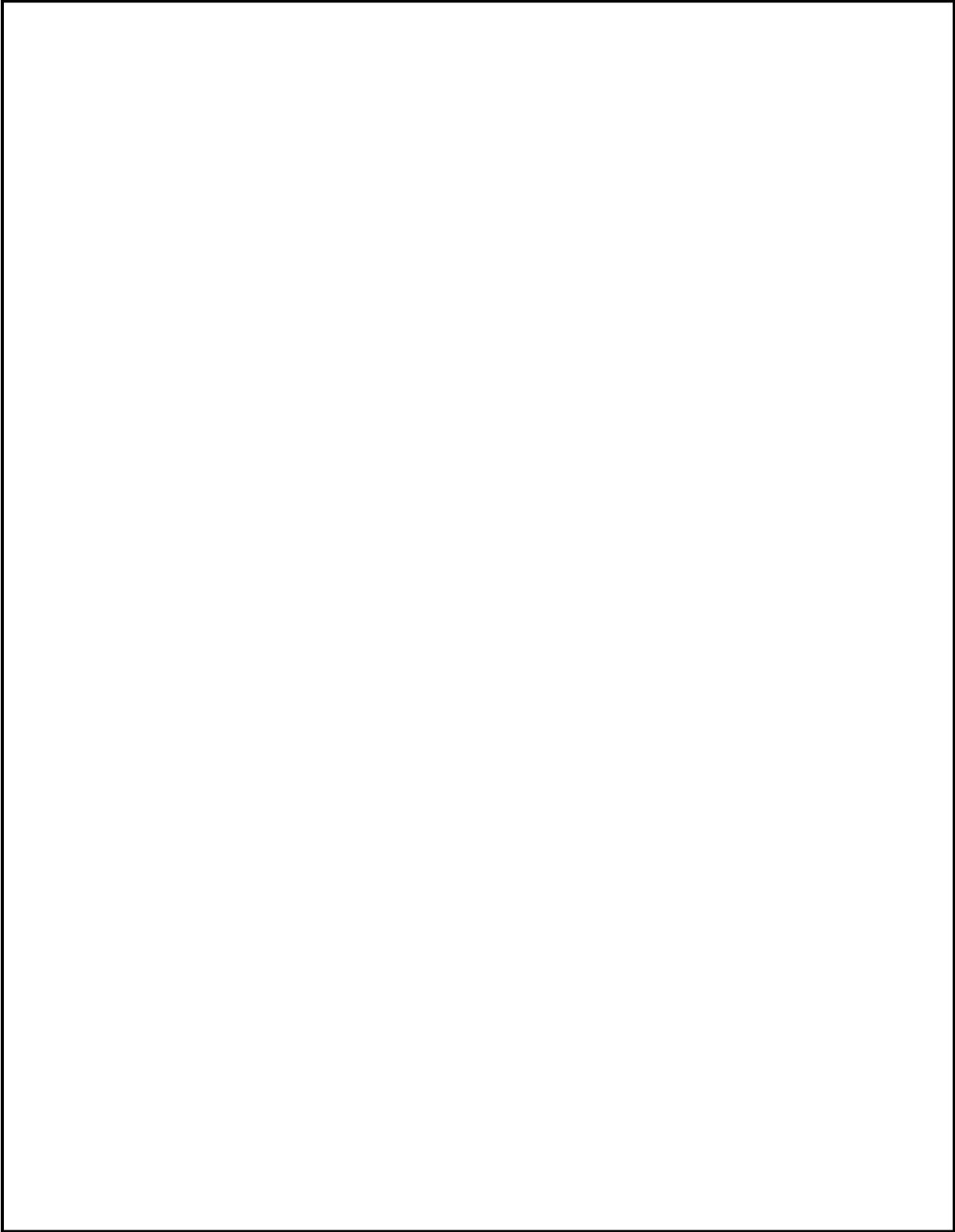


Fatty Acids Results Letter Templates

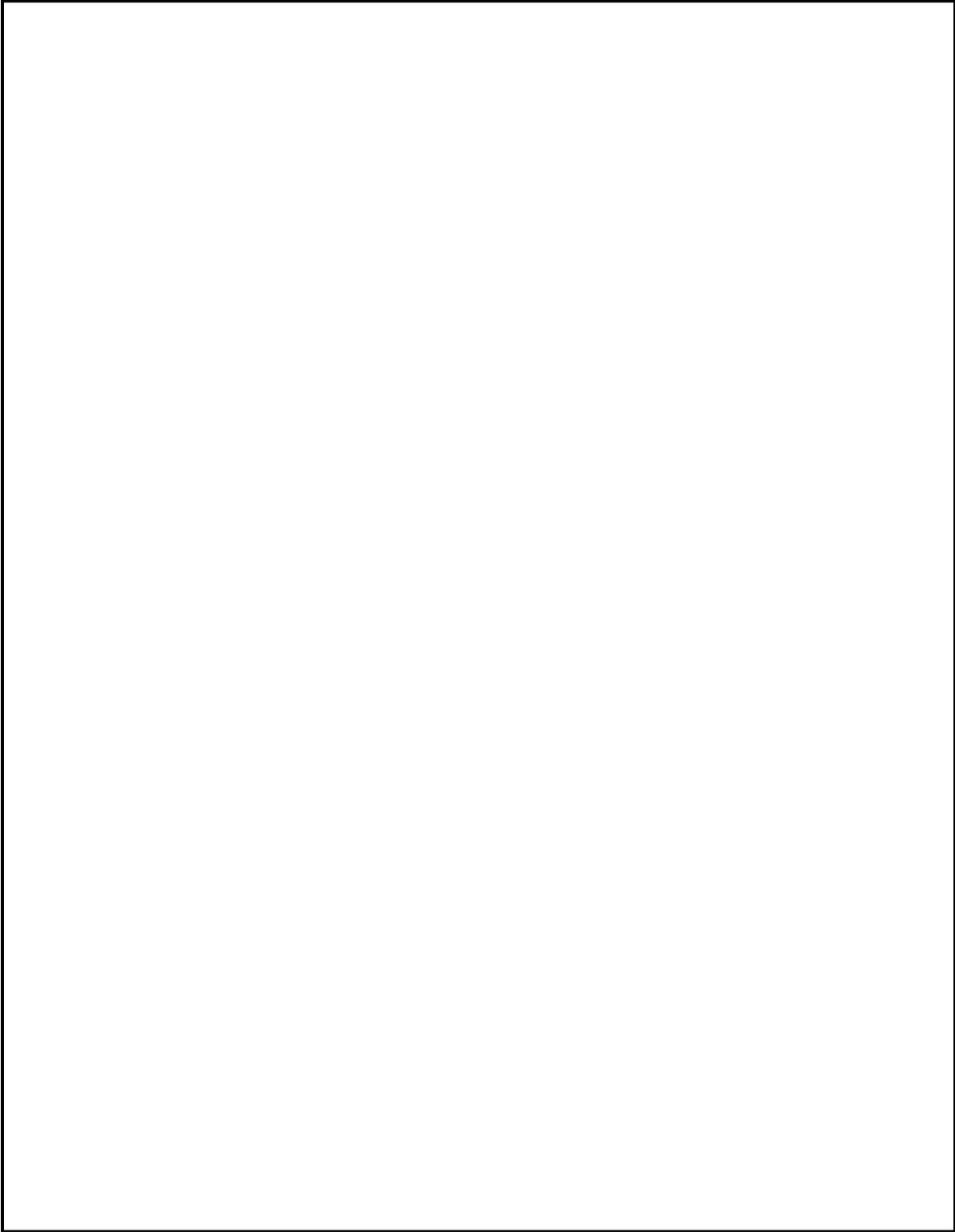
Visit One: Letter for women who reported eating fish

A large, empty rectangular box with a black border, occupying the majority of the page below the text. It is intended for the content of the letter template.

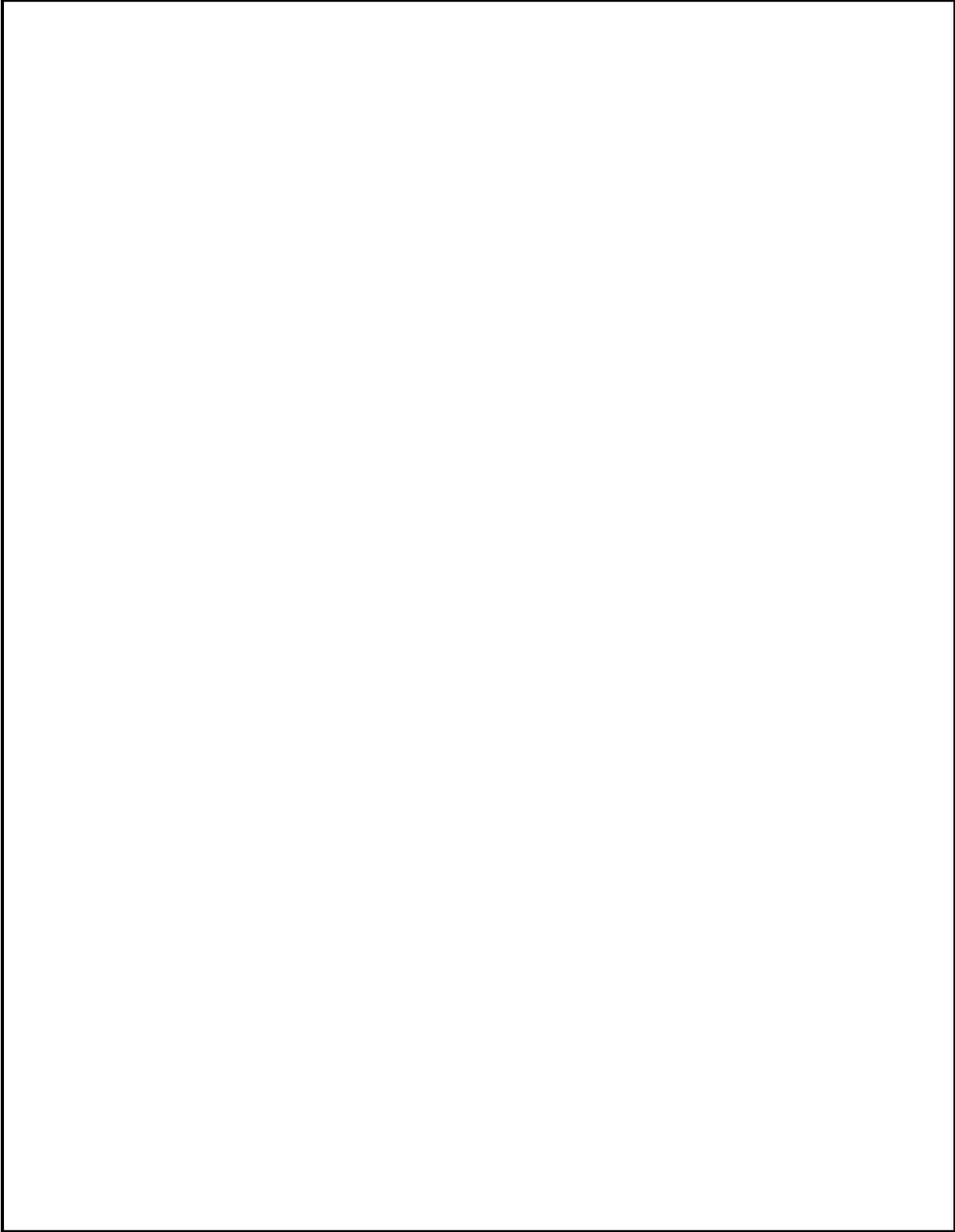
Visit One: Letter for women who reported eating no fish



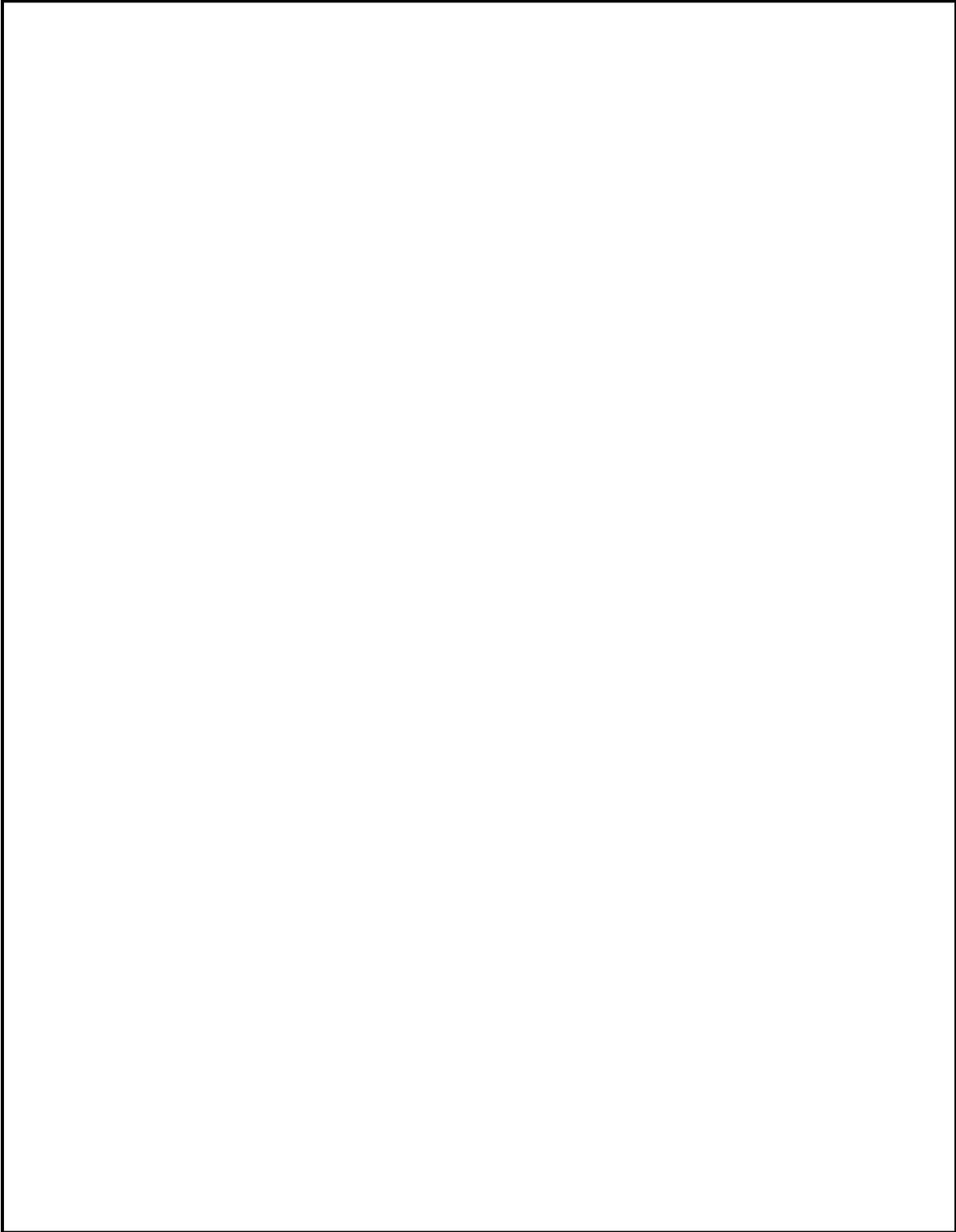
Visit Two: Letter for women who reported eating fish



Visit Two: Letter for women who reported eating no fish



Visit One and Two: Letter for women who do not have fatty acids results



Fatty Acids Infosheet



Counseling Notes Template

Visit One Individualized Counseling Notes for High-Mercury Participants and No-Fish Participants with Mercury Exposure

Fish are Important for Superior Health (FISH) Project

1. **Participant ID:** F _____
2. **Total mercury result:** _____ (Methylmercury result to follow)
3. **DHA result:** _____ Values range found in NHANES survey participants: _____
4. **EPA result:** _____ Values range found in NHANES survey participants: _____
5. **Does the participant report eating fish?** ____ Yes ____ No
6. **Mercury Screening Responses**
 - a. *How many times a week did you eat any kind of fish?* ____
 - b. *How many times a month did you eat any of these fish – walleye, northern, bass, or lake trout from Lake Superior?* ____
 - c. *Did you eat shark or swordfish?* ____ Yes ____ No
7. **Do we suspect that the major sources of mercury are non-fish?** ____ Yes ____ No
8. **Individualized consumption advice based on responses to Mercury Screen and Detailed Questionnaire:**
 - a. **Of the fish she reported eating these are the species to eat more of (to replace high-mercury with low-mercury fish):** _____
 - b. **Species to eat less of (to reduce mercury):** _____
9. **Counseling recommendation:**
 - a. ____ Include in results letter the recommendation for a nurse counseling call or
 - b. ____ Include in results letters the recommendation for counseling by a physician, either on the telephone or at an in-clinic call, at the physician's discretion
10. (MD will also consider additional factors know to them such as participant pregnancy or planning pregnancy; other medical conditions)

Counsel Reminder Letter Template



Sawtooth Mountain Clinic

A 501(c)(3) not-for-profit organization

{DATESTAMP0}

{PATIENT.FIRSTNAME} {PATIENT.LASTNAME}
{PATIENT.ADDRESS1} {PATIENT.ADDRESS2}
{PATIENT.CITY} {PATIENT.STATE} {PATIENT.ZIP}

Dear {PATIENT.FIRSTNAME} {PATIENT.LASTNAME},

We have not been able to reach you since we sent a letter with the results of your *FISH Project* lab tests. We are not sure if you did not receive a letter or if you haven't had time to give us a call. In either case, it is important to discuss your results at a time that works for you. We're happy to have that conversation with you on the telephone or in the clinic.

Please call Grand Portage Health Service (218-475-2235) or Sawtooth Mountain Clinic (218-387-2330) and ask for a *FISH* Coordinator to discuss your results.

Thank you for your participation and interest in the *FISH Project*.

Sincerely,

{USER.REALNAME} {DATETIMESTAMP ()}



Sawtooth Mountain Clinic



Appendix 3: FISH Frequently Asked Questions (FAQs)

FISH Frequently Asked Questions (FAQs)

Results Counseling Questions and Answers (Q & A)

FISH Frequently Asked Questions (FAQs)

General FISH Project FAQs

What is the FISH Project?

Purpose:

- Reduce mercury exposure in women who are or may become pregnant to lower the exposure in babies
- Integrate communication of fish consumption advice into clinical practice
 - Train healthcare providers about the risks and benefits of eating fish
 - Evaluate if 3 mercury screening questions predict a women's exposure to mercury in fish

Key Messages:

- Encourage women who eat fish now to continue eating fish but focus on eating fish low in mercury.
- Encourage women who eat little or no fish to increase their consumption of fish low in mercury.
- Pregnant women: Eating fish is good for developing babies

Who are the Project partners?

- Cook County North Shore Hospital
- Grand Portage Health Service
- Grand Portage Trust Lands
- Minnesota Department of Health
- Sawtooth Mountain Clinic
- Supported by Grand Portage Tribal Council and other local agencies and organizations

Why did Project partners agree to support this Project?

Partners see a need to reduce mercury exposure in some women on the North Shore because....

- A recent study showed that 10% of Northeast Minnesota babies tested had mercury in their blood above the level considered safe.
- The benefits of eating fish outweigh the risks if people eat fish low in mercury and other contaminants.
- People living along the North Shore of Lake Superior may eat more fish than many other people in Minnesota.
- Fish and fishing are an important part of the history and culture of Grand Marais and Grand Portage communities.
- We want people to continue fishing and eating fish... but to be better informed about the fish they choose to eat.

What do Project partners (MDH, clinics, hospital, and tribe) hope to achieve with this Project?

- Educate women on the importance of eating fish low in mercury, particularly during pregnancy.
 - Participants will learn...

- How much mercury and omega-3 fatty acids they have in their blood
 - What they can do to reduce methylmercury and increase omega-3s by eating fish
- Education will have a positive impact on families and friends of participants.
- Impact other communities by implementing healthcare provider *Risks and Benefits Training* and the Project's mercury screening questions in clinics throughout the Great Lakes region.

Eligibility FAQs

Who is eligible?

- Women ages 16 to 50.
- Must live in or near Cook County as full-time residents for at least 9 months of past year. If new to area, must have lived here for at least 3 months.
- Must be willing to provide a blood sample and take part in a follow-up visit 6 months after Visit One, if asked.

Why is participation limited to women of childbearing age— 16 to 50?

- Mercury and other contaminants in fish are most harmful to the developing fetus and small children.

Men eat a lot of fish. Why can't they be tested?

- EPA funded this Project only for women of child-bearing age because of findings from the study, *Mercury in Newborns in the Lake Superior Basin*.
- If future funding becomes available, we may propose a similar project to include other community members (children, men, or older women).

Why did you choose age 50 as the upper limit?

- Our objective is to reach women who are pregnant or who may become pregnant to protect the developing fetus.
- Babies are less likely to be born to women over age 50.

Isn't age 16 young to include with "pregnant women and those who could become pregnant"?

- Women age 16 and 17 may be mothers one day.
- They are old enough to learn about eating wisely during their future/current pregnancies.
- They will learn their fatty acid and mercury levels and whether they need to alter their fish-eating habits to improve and protect their own health.

Do participants have to be US citizens? Do they have to be from Minnesota?

- No, they do not have to be U.S. citizens.

Can I participate if I don't have insurance?

- Yes. Eligible women who are not current patients at Sawtooth Mountain Clinic or the Grand Portage Health Service can take part in this Project at no expense to them.

Participation FAQs

Why should I participate?

You will:

- Get results for mercury and Omega-3 fatty acids in your body
- Receive individual advice from a nurse on how to choose fish low in mercury to improve your health and the health of your family
- Help your community and other communities where people catch and eat fish

Can I participate even if I don't eat fish (or eat very little fish)?

- Yes. All women aged 16-50 are welcome to participate.

I'm not planning to get pregnant. Why should I take part? Why do women who aren't pregnant have to be careful about the fish they eat?

- The Project is open to all women between ages 16 to 50, whether or not you are or plan to become pregnant.
- All participants will receive information about choosing healthy fish to eat. This knowledge enables you to make educated meal choices for you and your family.
- Every pregnancy isn't planned, and impact to the fetus can occur in the early stages of pregnancy before a woman knows she is pregnant.
- Any woman who might become pregnant should follow the fish consumption advice developed for women who are or may become pregnant.

What do I have to do?

You will:

- Answer 3 questions about the kinds of fish you eat and how often you eat fish
- Answer a longer questionnaire about your fish-eating habits
- Have blood drawn from your arm
- Learn how to choose the best locally caught and purchased fish for healthy eating

How long will the visit take?

- Visit One will take about 1 hour.
- Some women will be asked to return for a second visit in 6 months. The second visit will also take about 1 hour.

Why will some women be asked to return for a second visit?

- All women with blood mercury levels above the level considered safe will be asked to return for a second visit. At the second visit, participant's blood will be tested again to find out if the levels of mercury and/or fatty acids changed.

- For every high-mercury participant, 2 participants below the level considered safe will be chosen for the second visit. These participants must have completed Visit One within 2 weeks of a high-mercury participant's Visit One.

Are there any risks to me or my family if I participate?

- No. However, you may feel slight discomfort when we take your blood.
- Everything you tell us is private; there is no risk that your personal information could be made public.

Are there any benefits to me or my family?

- You will know more about the amount of mercury and fatty acids in your body.
- Information about choosing healthy fish will help you plan healthier meals for yourself and your family.
- Your participation will help people in your community and other communities where people catch and eat fish.

Blood Sample and Results FAQs

What will my blood be tested for?

- Your blood will only be tested for mercury and healthful fatty acids found in fish.

Do I get my blood results? When will I get them?

- Yes. You will receive a letter from Sawtooth Mountain Clinic or the Grand Portage Health Service about 2 months after your Visit One. Only members of the clinic staff will see your results.
- A nurse will be available to discuss results with participants.

What if I find out that my mercury level is high? Is there something I can do?

- You will receive personalized advice from clinic staff about what you can do to lower mercury in your body and continue to eat fish safely.
- If you reported eating very little fish on your questionnaire, a clinic physician will work with you to figure out how you may have been exposed to mercury from another source.

I am pregnant. What if I find out that I have high mercury in my blood? Is there something I can do to keep my baby from being harmed?

- A high level of mercury in your blood doesn't mean that your baby will be harmed.
- Changing fish consumption choices will bring your mercury level down.
- If you have a high level of mercury, a clinic physician will tell you what to do to get your mercury level down.

What will happen if I have my blood tested again and I still have too much mercury in my blood?

- If you reported eating high-mercury fish in excess of recommendations, clinic staff will be available again to provide advice to lower the mercury level and plan healthy fish meals.
- If you reported eating very little fish but have a high mercury level, a clinic physician will work with you to figure out how you may have been exposed to mercury from another source.

Data Privacy FAQs

Who will know I am a participant? Will my name or personal information be used?

- Only a few staff at Sawtooth Mountain Clinic or Grand Portage Health Service will know who is in the study.
- Your information will be protected the same way staff protect other private and personal information of clinic patients.
- Only clinic staff have access to your personal information. All Project forms will be labeled with a Participant ID. Records linking participants' names and IDs will be stored in a secure database accessible only to clinic staff.
- Some information and the answers on questionnaires will be sent to the Minnesota Department of Health for data analysis linked only to the Participant ID. No identifying information about you will be shared.

Who will see the results of my blood tests?

- Blood specimen data with a Participant ID (not names) will be seen by staff at...
 - Minnesota Department of Health (MDH) Public Health Laboratory for analysis
 - FISH Project staff at MDH for comparing each participant's blood sample results to her reported fish consumption on the questionnaire
- Blood sample results will be sent to the Sawtooth Mountain Clinic or Grand Portage Health Service. Clinic staff will link results to participant names and send results to each participant.

What will you do with the data?

- We will test the ability of 3 mercury screening questions to predict a women's exposure to mercury in fish.
- Sawtooth Mountain Clinic and Grand Portage Health Service staff will...
 - Educate participants how to wisely choose fish to eat
 - Counsel participants with mercury blood levels above the level considered safe about safe-eating of fish and ways of reducing their exposure to mercury
- MDH FISH Project staff...
 - Measure the impact of the Project on individuals (by participant ID) and on participants as a whole
 - Make some generalizations about the fish-eating habits of women in this age range in these communities

Mercury and Contaminants FAQs

What contaminants are found in fish?

- Mercury is the contaminant in fish that causes the most concern. Mercury is found in all fish including all fish from Minnesota's waters.
 - Most mercury in MN waters comes from the air and is a result of emissions from coal combustion, mining, and other human sources. It can also come from improperly stored wastes, abandoned dumps, or storm water run-off.
 - When mercury enters a lake or river, it can be converted to methylmercury by bacteria. Those bacteria are eaten by plankton and other small animals, which are eaten by small fish and then larger fish. Larger, longer living fish feed on other fish throughout their lives, thereby accumulating the highest levels of methylmercury.
 - People are better at excreting mercury than fish. Fish hardly excrete any at all so mercury continues to build up over their entire life. That is one reason why longer lived fish are higher in mercury.
- Fish in Lake Superior and larger rivers (such as the Mississippi) may contain PCBs.
 - Although PCBs can travel in the air, spills, leaks and improper disposal are the main ways they get into the environment.

Are there contaminants in fish from grocery stores and restaurants?

- Yes. Fish from all waters contain some mercury and may contain PCBs as well as other contaminants.
- You should consider all sources of fish in your diet when making choices about eating any fish.

Do lakes and rivers that look clean and are far from industry have less mercury in their fish?

- No. The location or appearance of a lake or river cannot predict the amount of mercury that is found in its fish.
- Much of the mercury deposited from the air into Minnesota waters comes from other states, and countries as far away as China.
- Fish from wilderness lakes in Northeast Minnesota have higher levels of mercury than other parts of the state including the metro area. Not because there is more mercury entering the lake but because mercury is methylated more easily in lakes in northeastern Minnesota.

Where are mercury and PCBs in fish? How can I get them out?

- Methylmercury:
 - Most is found in the fish fillet (flesh, meat).
 - No cooking or cleaning method will lower the amount of mercury in a fish meal.
 - It is important to choose fish low in mercury and spread out the meals you have of higher mercury fish like walleye.
- PCBs:
 - Accumulate in the fat of fish and in fatty fish like carp and catfish.
 - Cleaning and cooking a fish to remove fat will lower the amount of PCBs.

- Fillet the fish, remove the skin, and trim all fat.
- Cook the fish using a method that allows the fat to drain away, such as broiling and grilling.

Methylmercury and the Human Body

How does methylmercury get into the human body? How long does it stay?

- After eating fish, methylmercury is absorbed from the gastrointestinal tract and into the bloodstream where it becomes distributed to all parts of our bodies.
- About half of the methylmercury from a single meal will be excreted in about 70 days.

Is there any way to get methylmercury out of the body faster?

- No, there is no proven safe method to remove mercury from the body.
- The use of drugs to increase excretion has NOT been shown to speed up elimination and may cause harmful effects.

What are the risks of eating fish? For adults? For children?

- All fish contain at least a small amount of mercury. Fish may also contain other chemicals, such as PCBs. High levels or prolonged exposure to these contaminants may be harmful to your health.
 - Young children and developing fetuses are most at risk from mercury in fish.
 - Small amounts of mercury can damage a brain that is just starting to form or grow.
 - Too much mercury can affect a child's behavior and lead to learning problems later in life.
 - An adult nervous system can be affected at higher levels.
 - Babies exposed to PCBs during pregnancy may have lower birth weight, reduced head size, and delayed physical development.

How is mercury transported from mom to baby?

- Mercury in the mom can cross the placenta to the baby.

Should I breast feed?

- Yes.
 - If you stop nursing, your baby misses out on the proven benefits of nursing.
 - Mercury is present but does not concentrate in breast milk. Breast milk contains omega-3 fatty acids and other nutrients from fish.
 - If you stop eating fish to avoid mercury, your baby may miss out on healthy nutrients from fish for development.
 - Getting enough omega-3 fatty acids in utero and during infancy has a positive effect on a child's vision and cognitive development.

What are the health benefits of eating fish? For adults? For children?

- Fish is a low-fat protein rich in nutrients and an important source of omega-3 fatty acids. These are healthy fats that your heart and brain need to function properly.
- Eating fish has been shown to lower the risk of heart disease in adults.

- Eating fish is *especially* important for pregnant women and women who could become pregnant. This will give their infants the nutrients found in fish that are needed for fetus development. The fatty acids in fish promote healthy brain development and function as well as the development of vision and nerves in a growing fetus.

Can fats really be good?

- Omega-3 fatty acids are a type of polyunsaturated fat that is especially beneficial, particularly during pregnancy.
 - Best sources: fatty fish such as salmon, herring, mackerel, anchovies, or sardines. All of these fish are low in mercury.

What about fish oil capsules? Do they do have the same benefits as eating fish?

- Dietary supplements are intended to supplement the diets of some people, not replace the foods important to a healthy diet.
 - We know more about the benefits of eating fish than the benefits of taking supplements.
 - Fish offer more benefits than just Omega-3 fatty acids. Some of them are known and some may not yet be known.
 - Fish meals are high in protein and generally lower in calories and saturated fat than meals with beef or pork. The benefits of eating fish are greater than just the benefits from omega-3s.
- For most people, eating fish every week is the best way to get the health benefits of omega-3 fatty acids and other nutrients found in fish.
- If you don't eat fish, taking fish oil supplements may be a good idea. As with all supplements, it is recommended that you consult your healthcare provider before taking them.

Fish Consumption Advice FAQs

Why are there different Safe-Eating Guidelines for women who are or may become pregnant?

- The guidelines are more restrictive because the developing fetus and children are more sensitive to contaminants.

What if I eat more than the recommended amount of fish and shellfish in a week?

- If you eat a lot of fish one week, you can cut back for the several weeks.
- Women who are or may become pregnant and children under age 15 should stick to the more restrictive guidelines as closely as possible.

What is the difference between “white” and “light” canned tuna? What about tuna steaks?

- Studies have shown that canned “white” (or albacore) tuna has more mercury than canned “light” tuna. Briefly explain why?
- On average there is 3 times more mercury in the “white” tuna variety. White canned tuna is made from albacore tuna which is a larger, longer lived species than the species in light canned tuna. Bigger, longer lived fish have more time to accumulate mercury.
- Mercury levels in tuna steak is similar to canned “white” tuna.

What if I am age 16-50 but won’t have any/more children, do I need to follow the guidelines for women who are or may become pregnant?

No. You can follow the general population guidelines. (Give them the Eat Fish Often Brochure. Or refer to MDH web site. (<http://www.health.state.mn.us/divs/eh/fish/eating/safeeating.html>))

Results Counseling Questions and Answers (Q & A)

Results Counseling Q&A: Mercury

What does mercury in my blood mean?

- Mercury is an element and metal found in most people's blood.
- Having mercury in your blood does not mean you will get sick.
- The amount of mercury in your blood is a measure of your exposure to mercury over the last several months.
- Your mercury level may vary throughout the year if you eat different kinds of fish during different seasons.

What is an RfD?

- An RfD or reference dose is the U.S. Environmental Protection Agency (EPA) estimate of how much of a toxic substance we can ingest daily without doing harm.

What is the RfD for mercury and what does that mean?

- The current EPA RfD for mercury is 5.8 micrograms (μg) per liter of blood.
- This means 5.8 μg of mercury per liter of blood is considered a "safe level" for humans, including pregnant women and babies.
- Each person is unique. People respond to toxic chemicals in different ways and at different levels. An RfD takes these differences into account.

How was the RfD developed for mercury? Why is it 5.8 μg per liter of blood?

- RfDs are developed from research studies of exposures that resulted in adverse health effects.
- Based on such studies, EPA determined that subtle, sub-clinical health effects may occur in babies at blood mercury levels close to 58 $\mu\text{g}/\text{L}$.
 - The current mercury RfD is that number (58 $\mu\text{g}/\text{L}$) divided by ten to take into account the differences among people's response to mercury exposure.
 - The resulting RfD, 5.8 $\mu\text{g}/\text{L}$, is not an absolute standard or a clearly defined rule; however, scientists feel comfortable in saying that it is a protective number.
 - Therefore, it is unlikely that anyone with a level at or less than 5.8 would have health effects from mercury exposure.

What is the difference between my value (6 $\mu\text{g}/\text{L}$) and my sister's (26 $\mu\text{g}/\text{L}$)?

- In general, the larger the lab value, the greater your exposure to mercury has been over the last few months.
- Your number (6 $\mu\text{g}/\text{L}$) is very close to the RfD (5.8 $\mu\text{g}/\text{L}$). Your sister's number is quite a bit higher. We would offer you the same advice: to eat fish low in mercury.

What if my lab value is just below the RfD or just above it?

- In general, the larger the lab value, the greater your exposure has been over the last few months.

- Having a number above the RfD of 5.8 µg/L means you should think more about your fish choices and eat more fish lower in mercury.
- If your number is below 5.8 µg/L, you can lower your mercury level by choosing to eat fish lower in mercury.

How high is really high? Is there a number at which I am sure to have health problems?

- Really high may be very different for different people.
- EPA developed 5.8 µg/L based on probable effects in the developing nervous system at a level of 58 µg/L.

I am pregnant or planning to become pregnant. Is there a mercury level that would mean my baby is in danger?

- Even if you have a high level of mercury in your blood, that doesn't mean that your baby will be affected.
- Because different people respond differently to chemical exposures, it is better to advise patients individually.
- My advice to you is based on your fish eating history, as reported by you, on your personal lab values and on other information that you give me.
 - We can work together to come up with an eating plan to lower your mercury exposure or keep it low.
 - Changing fish consumption choices will bring your mercury level down and allow you to continue eating fish for your health and the health of the baby.

Won't my levels go down faster if I stop eating fish altogether?

- Fish low in mercury will not add much to the amount of mercury in your body but they still contain beneficial fatty acids and other nutrients.
 - Fish low in mercury are good for you and for your baby (if you are pregnant or planning pregnancy).
 - Fish are particularly good for the developing fetus if they are high in fatty acids and low in mercury.
- It's a much better idea to not eat fish high in mercury than to not eat any fish at all.

I want my mercury level to be zero.

- Mercury is a natural element of the earth. Everyone is exposed to some mercury.
- We all have a small amount of mercury in our bodies. Our bodies excrete mercury daily.

Is there information about what mercury levels are in the general population?

- Yes. The 2009-2010 National Health and Nutrition Examination Survey (NHANES) collected blood mercury levels in women and children from across the U.S.
 - Most of the children under 5 years did not have detectable amounts of mercury in their blood.
 - The mean (average) concentration of total blood mercury was 0.845µg/L in women.

- According to the 1999-2000 NHANES Survey, women who had eaten 3 or more servings of fish in the past 30 days had an average level of 1.94 µg/L compared to 0.51 µg/L in women who ate no fish.
 - Women who were Asian, Pacific Islander, Native American, or multiracial had a higher rate of elevated blood mercury than all other participants.

What are the symptoms of mercury poisoning or exposure?

- Symptoms for mercury exposure in adults are nonspecific, such as:
 - numbness and tingling of hands, feet, or lips
 - fatigue
 - trouble walking
 - trouble concentrating
 - memory loss
 - headaches
 - irritability
 - loss of fine motor skills
 - change in visual spatial skills
 - visual field constriction
 - change in vision
 - Exposure to high levels of mercury can cause a variety of symptoms depending on the person. (List not provided.)
- We expect that most or all women participating in FISH will not have symptoms of mercury exposure.
 - Many symptoms associated with mercury exposure could be caused by a number of other problems.

Should I breast feed?

- Yes.
 - If you stop nursing, your baby misses out on the proven benefits of nursing.
 - Mercury is present but does not concentrate in breast milk. Breast milk contains omega 3-fatty acids and other nutrients from fish.
 - If you stop eating fish to avoid mercury, your baby may miss out on healthy nutrients from fish for development.
 - Getting enough omega-3 fatty acids in utero and during infancy has a positive effect on a child's vision and cognitive development.

Results Counseling Q&A: Fatty Acids

What are Omega-3 Fatty Acids? Why did you test my blood for them?

- Omega-3 fatty acids are polyunsaturated fatty acids that are essential nutrients for health.
 - Our bodies don't make these fatty acids so we need to get them from food.
- There are two fatty acids that come mainly from eating fish: EPA and DHA (eicosapentaenoic acid and docosahexaenoic acid).
 - These are different than omega-3s found in plant foods (ALA-alpha-linolenic acid) such as flax seed, canola oil, and walnuts.
- The main reason we tested your blood for omega-3s is that they indicate whether or not you are eating fish, and to some extent, whether those fish are high in omega-3s.
- For participants who take part in follow-up, we will be able to tell if omega-3s have gone up or down.

What do these fatty-acid levels mean?

We will tell you how the levels in your blood compare to levels in women tested in a national study.

- Fish are a source of fatty acids.
- DHA and EPA are omega-3 fatty acids found in fish.
- Our bodies don't make EPA and DHA so we need to get them from our diet. Eating fish is the primary dietary source of these fatty acids.
- DHA is a building block of the brain and eyes.
- Pregnant women and breastfeeding moms can eat fish to give DHA to their babies.
- Children of women who ate lower mercury fish every week during pregnancy have been found to do better developmentally.

I thought fat was bad for me and made my cholesterol high.

- Omega-3 fatty acids are a type of polyunsaturated fat that is proving to be especially beneficial, particularly during pregnancy.
 - Best sources: fatty fish such as salmon, herring, canned mackerel, anchovies, or sardines. All of these fish are low in mercury.

Should I just take supplements and not eat fish, especially if my levels are high?

- Dietary supplements are intended to supplement the diets of some people, not replace the foods important to a healthy diet.
 - We know more about the benefits of eating fish than the benefits of taking supplements.
 - Fish offer more benefits than just Omega-3 fatty acids. Some of them are known and some may not yet be known.

- Fish meals are high in protein and generally lower in calories and saturated fat than meals with some other sources of protein. The benefits of eating fish are greater than just the benefits from omega-3s.
- For most people, eating fish every week is the best way to get the health benefits of omega-3 fatty acids and other nutrients found in fish.
- If you don't eat fish, taking fish oil supplements may be a good idea. As with all supplements, it is recommended that you consult your healthcare provider before taking them. Then find a high quality supplement to take.

Appendix 4: CCNSH and GPHS Laboratory and Specimen Procedures

Lab Forms

Blood Collection Procedure

Specimen Processing and Storage

Specimen Packaging and Shipping

Lab Forms

Lab Order


Sawtooth Mountain Clinic
a 501(c)(3) not-for-profit organization

513 5th Ave. W, Grand Marais, MN 55604 Phone 218-387-2330 Fax: 218-387-1278

Sandra L. Stover, M.D.	Paul E. Terrill, M.D.
Jennifer L. Delfs, M.D.	Lisa Zallar, RN, CNP
Michael R. Sampson, M.D.	Milan C. Schmidt, M.D.

FISH Project protocol:
FISH Coordinator, RN's are authorized to order and sign off on the required lab tests and to notify participants of the normal lab results. Dr Sampson will be notified of abnormal lab results.

Primary Provider: Michael R Sampson

FISH Project Lab Orders

Diagnosis: Health Screening ICD-9 V70.0; ICD-10 Z13.9

Tests:
Blood Mercury
Fatty acid tests

Ordered Authorized by:  4/16/2014
Michael Sampson MD

Lab Checklist

Participant ID: F

Laboratory Procedures Checklist

Fish are Important for Superior Health (FISH) Project

Verify Participant ID and Specimen IDs applied to: (check all)

- Lab Order
- Laboratory Checklist
- Chain of Custody Form
- Lab Verification Form

Specimen ID: (attach here)

- Check Lab Pack for broken or missing contents**
- Verify Patient identity and lab order**

Draw Outcome (check one)

- Blood draw complete
- Blood draw must be rescheduled. Reason _____
- Ineligible for blood draw. Reason: _____
- Participant declined

Specimen ID Labels

- Fill in: Ppt. ID, collection date and time, and sampler's initials
- Attach labels to proper tube and vial

Collector Initials: _____

Date: ____/____/____

- Complete Lab Verification Form and give to patient to return to clinic**

Processing

- 2 ml purple-top for mercury: Inverted eight times**
Volume: 2 ml <2 ml
- 2 ml purple-top for fatty acid: Inverted eight times, centrifuged; plasma aliquoted to 2 ml cryovial**
Volume: 1 ml <1 ml QNS
- Chain of Custody (COC) completed
- Specimens packed with COC FORM in a bio-hazard bag (GPHS use zip top, CCNSH use seal top bags); then refrigerated at GPHS or frozen at CCNSH

- Staple leftover specimen ID and participant ID labels to this form**

- CCNSH Lab – record specimen in CCNSH Specimen Log**

Processor Initials: _____

Date: ____/____/____

Lab Verification Form

Participant ID: F

Lab Verification Form

Fish are Important for Superior Health (FISH) Project

Lab Visit Date: ____/____/____

Specimen ID: (attach here)

Phlebotomist: Date and initial only one outcome below.

Date	Initials	Lab Visit Outcome
		Blood draw complete
		Reschedule. Reason: <input type="checkbox"/> Venipuncture not attempted <input type="checkbox"/> Insufficient sample <input type="checkbox"/> Other _____
		Ineligible. Reason: <input type="checkbox"/> Insufficient sample and patient unwilling to return <input type="checkbox"/> Other _____
		Participant declines

Notes:

Form must be returned to FISH Coordinator

Chain of Custody Form (COC)

		Chain-of-Custody Form			Minnesota Department of Health Environmental Laboratory 601 Robert St. North St. Paul, MN 55155-2531 651-201-5300 <small>www.health.state.mn.us/dvop/ep/Environmental/index.html</small>		Page	of
		Program Code (2 Letters) Project Name		Client / Agency		Standard Chain of Custody Potential Hazard Yes No Unknown If Yes please add information to Sampler Comments below TAT Standard Priority Emergency		
Site ID		Project Manager Name / Phone		Report to Name		Report to Email		
Sampled by (print)		Affiliation		# of Containers / Preservatives		Matrix Codes DW = Drinking Water WP = Waste OT = Other NW = Non-potable Water AR = Air TS = Tissue SD = Soil/Solid BI = Biological Material		
Sampler Signature		Phone		Unpreserved Hydrochloric Acid Sulfuric Acid Nitric Acid Sodium Hydroxide Sodium Thiosulfate Ascorbic Acid Other		Total # Containers Samples Field Filtered Y / N		
#	MDH # <small>(Lab Use Only)</small>	Location ID <small>(Unique Identifier)</small>	Sample Point	Collection		↓ Analyses ↓		
				Date	Time <small>(24 Hour)</small>			Matrix Code
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
Sampler Comments								
Receiving Comments								
Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation		
(Sampler)								

Revised 2/2012

Blood Collection Procedure

The blood collection steps below are based on CCNSH procedures. Staff will draw 4 mL of blood to measure fatty acids and mercury in participants' blood. SMC participants will be sent to the Cook County North Shore Hospital (CCNSH); Grand Portage Health Service (GPHS) participants will have their blood drawn at GPHS. Participants at special events may either be referred for a later blood draw or may be drawn onsite.

The Laboratory Procedures Checklist (**Lab Checklist**) will be used by all staff who draw, process, or transfer a participant's blood sample to document completion of all forms and procedures related to lab referral, venipuncture, and specimen processing and storage.

Verifying Patient Identification and Lab Pack Contents

Lab staff will verify the following and note them on the **Lab Checklist**.

1. Participant arrived at the lab with a FISH Project **Lab Order** and a **Lab Pack** containing **Lab Checklist, Chain of Custody Form, Lab Verification Form**, specimen tubes, and **Participant ID** and **Specimen ID** labels
2. **Lab Pack** supplies are undamaged.
3. Patient is the individual named on the **Lab Order**.

Assessment for Blood Draw

- The phlebotomist will briefly assess the participant to determine whether there is any reason why they should not give blood at that time (e.g. participant is too ill, or no suitable vein is accessible).

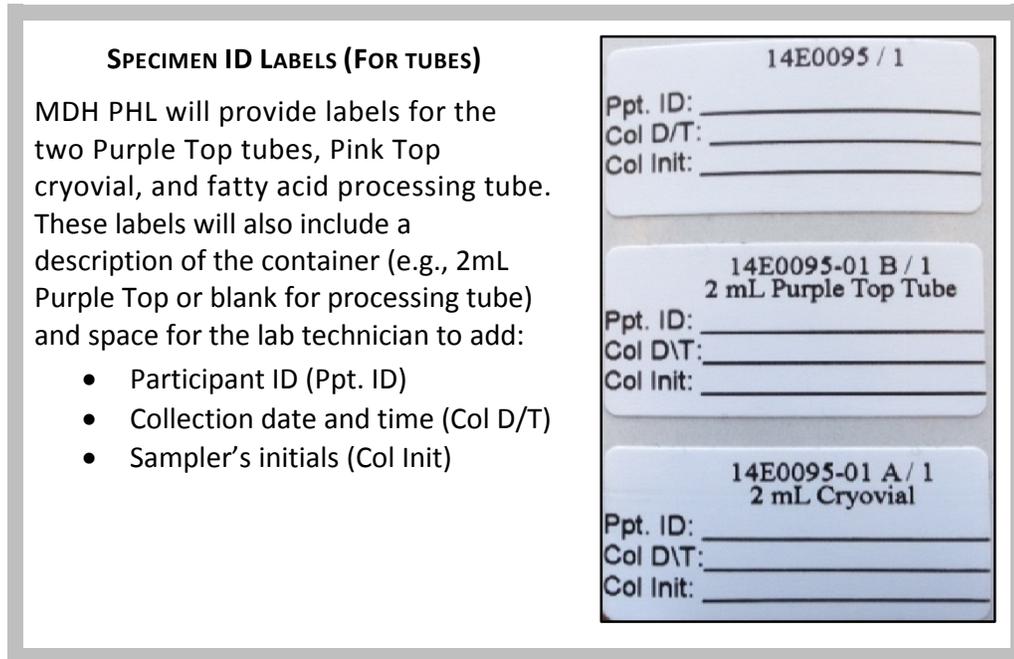
Position

- FISH participants must be drawn in the blood drawing chair with the arm rest in position.
- If it is necessary to draw some participants in unusual places, someone must be in attendance to insure participant safety at these times.

Supplies

- Assemble the following supplies: gloves, collection tubes from FISH **Lab Pack**, needle, Vacutainer holder, tourniquet, alcohol prep pad, cotton ball, and tape or bandages. Gloves must be worn while drawing the patient and disposed in an appropriate container.
- All items that contact blood samples must be pre-screened to prevent the possibility of interference with analyses. Therefore, **only the specimen collection, handling, and storage containers provided by MDH PHL can be used for FISH specimens**. MDH will supply the **Lab Packs** and a supply of extra tubes and vials in case one of the containers in a **Lab Packs** is missing or broken. Routine blood collection supplies (needles, needle holders, blood transfer devices, pipettes, tourniquets, gloves, alcohol swabs, gauze, and bandages) will be supplied by CCNSH and GPHS.

- Each tube in the **Lab Pack** must be labeled with a **Specimen ID** label designated for that container. Before applying the label to the tube or vial, the lab technician will add the **Participant ID**, date and time the sample was collected, and the sampler's initials to the label. Verify that **Specimen IDs** on all forms and containers are the same. All tubes will be labeled using only ID numbers, not names or other identifiers. An example of the tube labels is below:



- **NOTE:** Visit One and Visit Two **Lab Packs** will contain the same tubes and forms for the blood draw. However, the MDH PHL will use different Project Codes (FISH1, FISH 2), work order numbers, and **Chain of Custody Forms (COC)** for Visit One and Visit Two. **Lab Packs** will be clearly labeled as for either Visit One or Visit Two.

Selection of Vein Site

- The larger and fuller median cubital and cephalic veins are the best, but the wrist and hand veins are also acceptable.
- Factors to consider in site selection:
 - Extensive scarring (healed burn areas should be avoided, etc.)
 - Mastectomy patients (because of lymphostasis) should be drawn from the opposite side of the surgery
 - Hematomas should be avoided

Procedure for Vein Selection

- Wrap the tourniquet around the arm 3-4 inches above the site. Apply the tourniquet to help locate the vein. Do not leave the tourniquet on for longer than one minute. To do so may result in hemo-concentration and a variation in blood test values. If the tourniquet is left on longer

than one minute in order to locate the vein, it should be released and reapplied after a wait of 2-5 minutes.

- If the participant has a skin problem, put the tourniquet over the sleeve or some other protective material. Ask the participant to close her hand, if necessary, so that the vein will become more prominent. However, vigorous hand pumping should be avoided.
- Palpate and trace the path of the veins several times with the index finger in order to ensure where to place the needle. If veins are not readily apparent, blood can be forced into the vein by:
 - Massaging the arm from the wrist to the elbow
 - Tapping at the vein site with the pad of a few fingers to cause the vein to dilate
 - Applying moist heat to the site, which will produce the same result

Preparation of the Selected Site

- **Aseptic technique should be maintained throughout the venipuncture.**
- Cleanse the vein with an alcohol prep pad using a circular motion from the center to periphery and allow the area to dry. If the venipuncture is difficult and the vein must be touched again to locate it, cleanse the probing finger with alcohol before touching the site. If the tourniquet can be applied without contaminating the prepped area, prepping first would shorten the length of time the tourniquet is on.

Venipuncture Procedure Using Evacuated Tubes

- The mercury sample will be drawn first. **Collect the mercury sample first using the Vacutainer tube designated for that tube.**
- Thread the appropriate needle into the Vacutainer holder until it is secured, using the needle sheath as a wrench.
- Before use, gently tap all tubes that contain additives (anticoagulants) to ensure that all of the additive is dislodged from the stopper and the wall of the tube. Loosely place the blood collection tube into the holder. Do not push the tube onto the needle as premature loss of vacuum may result
- If possible, make sure that the patient's arm is in a downward position and maintain the tube below the site throughout the procedure. This will ensure that any back flow from the tube will not go into the vein.
- Inspect the needle tip when the cover is removed to be sure it is free of hooks or obstructions in the lumen of the needle.
- Grasp the patient's arm firmly using your thumb and first finger to draw the skin taut. The vein should be fixed or held taut during the puncture. The needle should be in line with the vein and the bevel of the needle in the upward position.
- Push the needle into the vein. A sensation of resistance will be felt, followed by ease of penetration as the vein is entered.
- As soon as you are in the vein, grasp the flange of the needle holder and push the Vacutainer tube forward until the butt end of the needle puncture the stopper, exposing the full lumen of

the needle. Blood will flow immediately into the tube(s). If blood fails to enter the Vacutainer tube, try the following:

- Advance needle a little more - the needle may not have been in far enough.
- Slowly withdraw the needle - you may have gone completely through the vein. Moving the needle back into the lumen of the vein may allow blood to flow into the tube.
- Draw the tubes:
 - **First:** Purple Top, 2 mL BD Vacutainer (K2 EDTA 3.6 mg) tube for mercury
 - **Second:** Purple Top, 2 mL BD Vacutainer (K2 EDTA 3.6 mg) tube for fatty acids
- Remove the tourniquet as soon as the flow of blood has been established, if you are sure the pressure is adequate for the flow to continue. Otherwise, release the tourniquet as soon as the specimens have been collected.
- Maintain constant, but slight forward pressure (in the direction of the needle) on the end of the tube. This prevents release of the shutoff valve and stoppage of blood flow. Do not vary pressure or reintroduce pressure after completion of the draw.
- Allow the tube to fill until the vacuum is exhausted and blood flow ceases in order to insure the correct ratio of anticoagulant to blood. The tube will not necessarily be filled completely (this varies for each type of tube).
- When the blood flow ceases, remove the tube from the holder. If a multi-specimen needle is used, the shutoff valve recovers the butt end of the needle, stopping the flow of blood until the next tube is inserted.
- **After drawing each tube, gently invert the tubes eight times.** To avoid hemolysis, do not vigorously mix any tube.
- To obtain additional specimens, insert the next tube into the holder and repeat the procedure.
- If the total blood draw is < 0.25ml, then send the entire sample uncentrifuged for mercury testing.

Blood Collection Outcomes

After venipuncture is attempted, staff will record one of four outcomes on the **Lab Checklist**:

1. **Outcome: Blood draw complete**

Note tube type and volume on the **Lab Checklist**. Proceed with remaining Visit One/Two procedures.

2. **Outcome: Blood draw must be rescheduled**

Participants whose blood draw must be rescheduled can return to the lab at a later time but will not receive an incentive payment until after the blood draw is complete. **NOTE:** At the discretion of the clinic (and for the convenience of participants who have planned a longer stay at the clinic), **participants whose blood draw must be rescheduled may complete the Detailed Questionnaire (DQ)** at this visit, but **may not** receive the participant education portion of Visit One/Two until after the rescheduled blood draw. In this case, clinic staff will note the completed and incomplete procedures on the **Visit One/Two Checklist** (Appendix 1) and in the **EHR/PM**. The Participant will not receive an incentive until all Visit One/Two procedures are complete.

- SMC: The phlebotomist will note the need to reschedule on the **Lab Checklist**. Participants will be sent back to the clinic with their labeled **Lab Packs** so those supplies can be used when they return for a rescheduled lab. Clinic staff will note the incomplete visit in the **EHR/PM** and reschedule the blood draw.
 - GPHS: The nurse/phlebotomist will note the need to reschedule on the **Lab Checklist**. She will also note the incomplete visit in the **EHR/PM** and reschedule the blood draw. The now-personalized **Lab Pack** will be saved for the participant's return visit.
3. **Outcome: Ineligible for blood draw**
If laboratory staff are unable to or do not attempt a blood draw and determine that a participant is unable to give blood then or later, the woman cannot continue to participate in FISH but will receive a \$25 Visa card. The phlebotomist will note the suspension of the visit on the **Lab Checklist**. Clinic staff will note the closure of participation in the **EHR/PM**.
4. **Outcome: Decline**
Participants who decline to have their blood drawn will be thanked for their time but will not receive an incentive. Staff will indicate the decline on the **Lab Checklist** and in the **EHR/PM**.

Unused or Incomplete Lab Packs

When the blood draw is incomplete because a participant cannot be drawn, declines to be drawn, or an insufficient sample is obtained, the **Lab Verification Form** and **Lab Checklist** will be completed and returned to the **Participant Folder**. Discard **Chain of Custody Forms (COC)** and tubes with **Participant ID** or **Specimen ID** labels.

When the blood draw is incomplete but is rescheduled, replacement tubes can be taken from extras supplied and be labeled using extra labels in the **Lab Pack** but not from another participant's **Lab Pack**.

Complete Lab Verification Form

Regardless of the outcome, the lab technician will complete the **Lab Verification Form**. **This form must be returned to the FISH Coordinator.**

The **Lab Verification Form** serves two purposes:

1. First, it is used to record the outcome of the lab visit. **Lab Verification Forms** for SMC participants will be returned to the clinic by the participant as proof that labs were done, to trigger a reschedule; or to explain the reason for an incomplete blood draw. **Lab Verification Forms** at sites other than SMC must also be completed and placed in the **Participant Folder** after the visit, to provide the same information for staff who are tracking participants' progress.
2. Second, the **Lab Verification Form** triggers payment of one, two, or no incentives.

NOTE: Outcomes recorded on the **Lab Verification Form** include "Draw Outcomes" from the **Lab Checklist**. The reason for this duplication is that the **Lab Verification Form** is placed in the **Participant Folder**, while the **Lab Checklist** remains in the lab until samples are shipped.

Chain of Custody Form

A **Chain of Custody Form (COC)** is used to provide an accurate, written record of the possession and handling of a specimen from the time of collection through reporting of results. The **Chain of Custody Form (COC)** will be labeled with the **Specimen ID** by a member of the SMC or GPHS staff prior to the blood draw.

Information will be added to the **Chain of Custody Form (COC)** by the sampler and shipper as indicated in Figure 1 below.

Figure 1: Completed Chain of Custody Form (COC)

Specimen ID Label

MINNESOTA MDH DEPARTMENT OF HEALTH		Chain-of-Custody Form		Minnesota Department of Health Environmental Laboratory 601 Robert St. North St. Paul, MN 55155-2531 651-201-5300 www.health.state.mn.us/divs/eh/environmental/index.html		Page 1 of 1													
Program Code (2 Letters) GU		Project Name FISH 1		Client / Agency Environmental health															
Site ID CCNSH (Cook Co. North Shore Hosp.)		Project Manager Name / Phone Patricia McCann				<input checked="" type="checkbox"/> Standard Chain of Custody Potential Hazard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes please add information to Sampler Comments below TAT <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Priority <input type="checkbox"/> Emergency													
Report to Name Patricia McCann		Report to Email patricia.mccann@state.mn.us				Matrix Codes DW = Drinking Water WP = Wipe OT = Other NW = Non-potable Water AR = Air TS = Tissue SD = Soil/Solid BL = Biological Material													
Sampled by (print) Dani Reilly		Affiliation GPHS		# of Containers / Preservatives															
Sampler Signature Dani Reilly		Phone 218-475-2154																	
				Unpreserved	Hydrochloric Acid	Sulfuric Acid	Nitric Acid	Sodium Hydroxide	Sodium Thiosulfate	Ascorbic Acid	Other	Total # Containers	Sample Field Filled Y/N	Analyses ↓	Blood Mercury	Fatty Acids in Plasma	Seal Intact Y/N/NA	Lab Temp (°C)	
#	MDH # (Lab Use Only)	Location ID (Unique Identifier)	Sample Point	Collection Date	Time (24 Hour)	Matrix Code													
1		Test 6	F006	5-13-14	1030	BL	0	0	0	0	0	0	0		N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Sampler Comments Whole blood and plasma samples																			
Receiving Comments																			
Relinquished By / Affiliation				Date	Time	Accepted By / Affiliation				Date	Time								
(Sampler) Dani Reilly/GPHS				5-13-14	1400	Jennifer Backstrom				5-13-14	1600								
Jennife Backstrom				5-15-14	0900														

Participant ID

Revised 2/2012

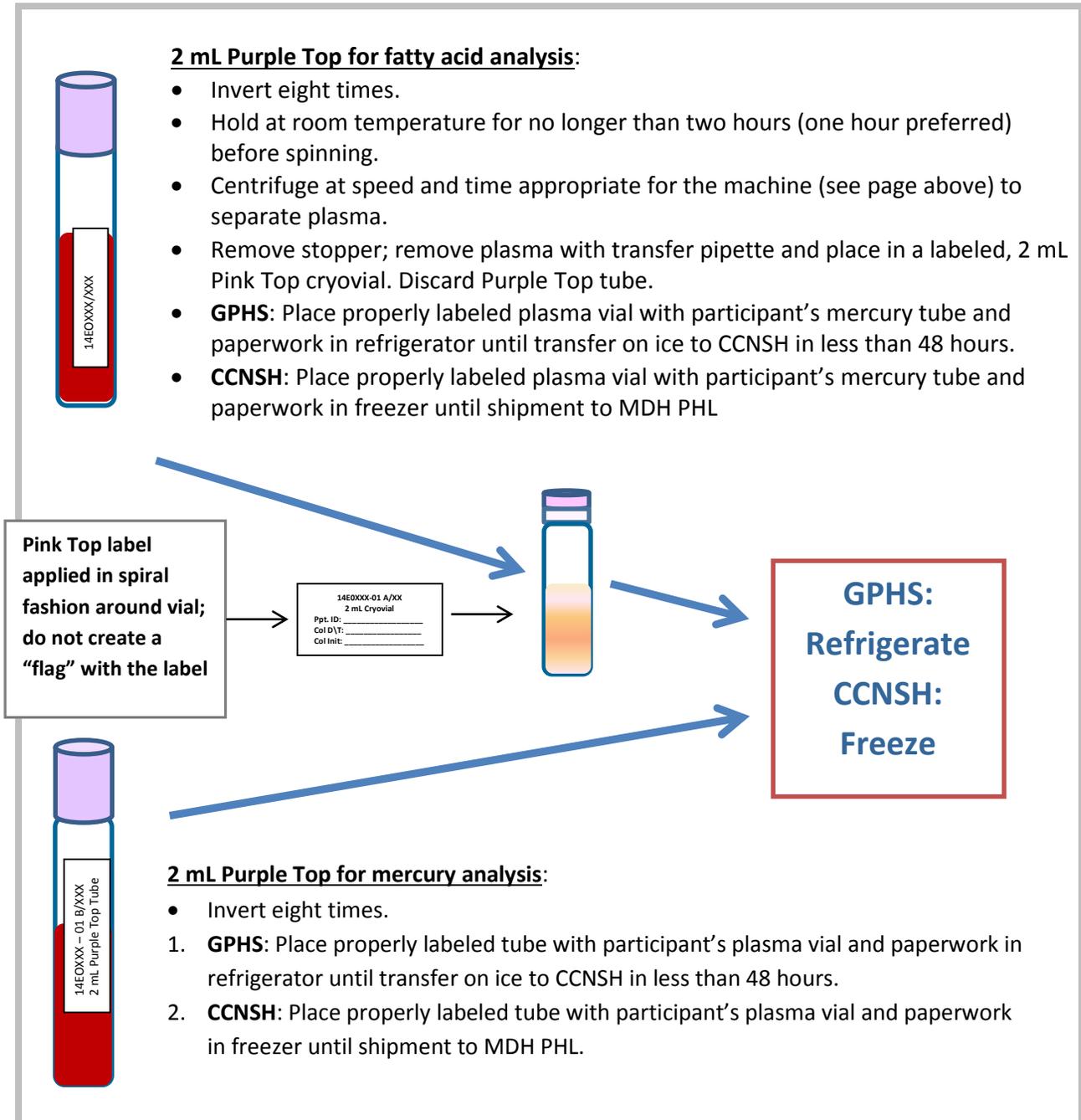
Blue = Text to be filled in

Green = Explanatory text

Specimen Processing and Storage

Specimen processing and storage steps used for FISH are based on Cook County North Shore Hospital (CCNSH) and MDH PHL procedures and illustrated in Figure 2 below.

Figure 2: Specimen Processing and Storage



The integrity of each specimen must be preserved from the time of collection to the time of testing. To that end, carefully follow the reminders and procedure described below for specimen processing and storage.

General Reminders

- Keep stoppers on tubes to prevent contamination, evaporation, and aerosolization.
- Check again to be sure that **Specimen IDs** on all tubes and forms are the same.
- Labeled containers and labels cannot be exchanged with labels or containers from another package. If a labeled tube breaks or must be replaced for any reason, use the extra lab supplies and do not mix tubes from different **Lab Packs**. **Do NOT put patient name or GPHS/CCNSH name labels on any tubes.**
- If needed, add a comment to the **Lab Checklist** and **Chain of Custody Form (COC)** to indicate hemolysis, lipemia, or any other observed irregularity, including missing samples or very small samples.
- Complete the **Lab Checklist** for specimen processing and storage procedures.

Specimen Processing and Storage Procedure Steps

The steps for specimen processing and storage are described below:

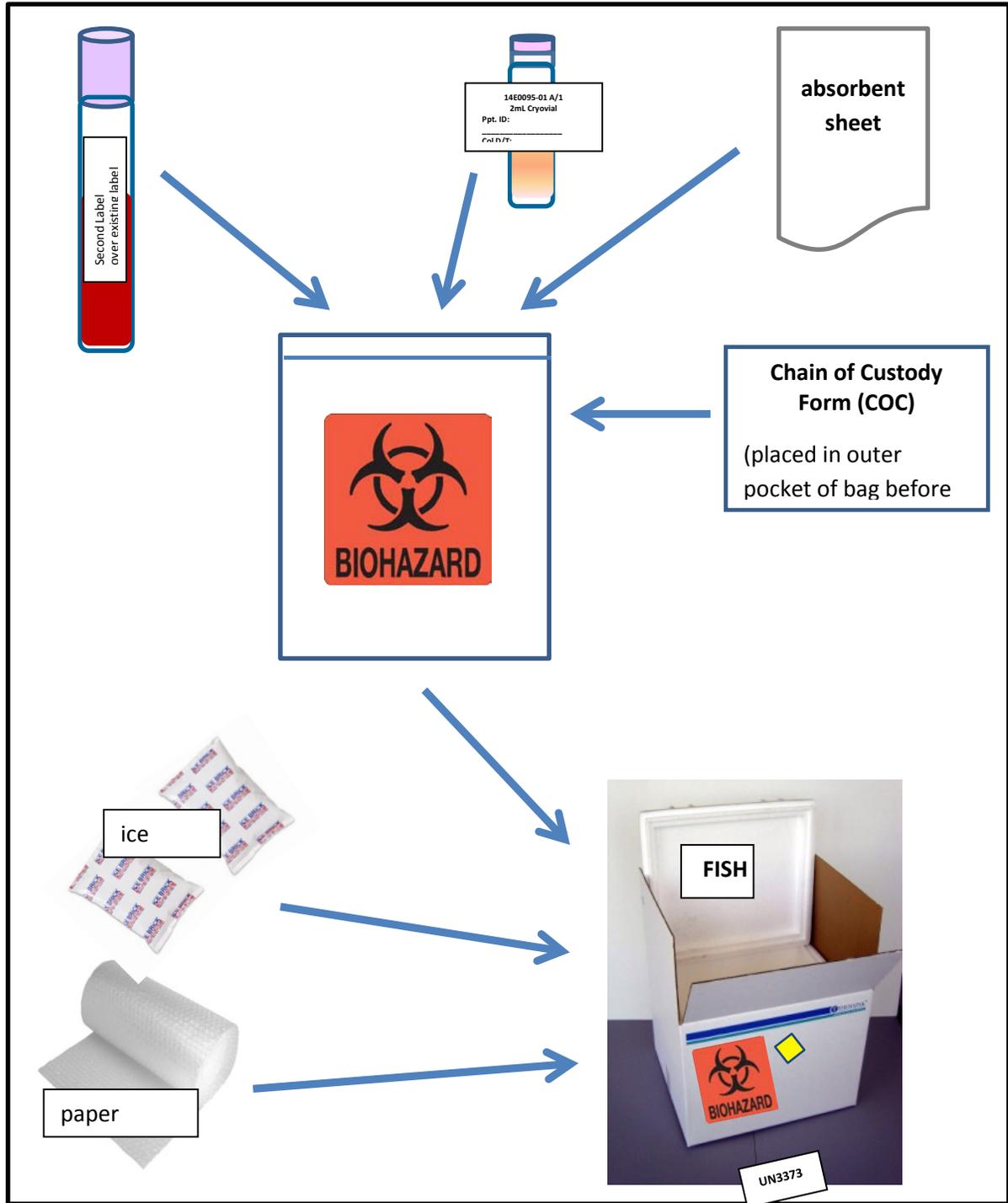
1. 2 mL Purple Top for mercury analysis
 - Invert eight times.
 - **GPHS:** Place properly labeled tube with participant's plasma vial and paperwork in refrigerator until transfer on ice to CCNSH in less than 48 hours.
 - **CCNSH:** Place properly labeled tube with participant's plasma vial and paperwork in freezer until shipment to MDH PHL.
2. 2 mL Purple Top for fatty acid analysis
 - Holding time:
 - **Strongly recommended:** Hold at room temperature for no more than one hour before spinning.
 - **If it cannot be avoided,** samples may be held at room temperature for **up to two hours.**
 - **If it is not possible to centrifuge a sample in less than two hours,** the tubes may be refrigerated until they can be spun. However, it will then be necessary to allow them to warm to room temperature before placing in the centrifuge. MDH PHL recommends that this method be used as seldom as possible.
 - Centrifuge time and speed:
 - **CCNSH** centrifuge (Drucker 642VES): With 75mm tube holders, centrifuge 15 minutes at 3070 rpm.
 - **GPHS** centrifuge (Unico C806, fixed angle): With adaptors, centrifuge 15 minutes at 3400 rpm.

- **Birch Grove/Special Events** Centrifuge (Unico C856): With adaptors, centrifuge 15 minutes at 3400 rpm.
 - **Note:** An even number of samples need to be spun together or a dummy sample should be spun with a single sample, placing them in point symmetry with respect to the axis of rotation. Spin two samples at a time or one sample with a dummy sample (e.g., Vacutainer with 2mL water).
 - Remove stopper and then remove plasma with transfer pipette, placing it in the labeled 2 mL Pink Top cryovial.
 - **GPMS:** Place properly labeled plasma vial with participant's mercury tube and paperwork in refrigerator until transfer on ice to CCNSH in less than 48 hours.
 - **CCNSH:** Place properly labeled plasma vial with participant's mercury tube and paperwork in freezer until shipment to MDH PHL.
- 3. Complete specimen inventory on **Lab Checklist**.
 - 2 mL Purple Top for mercury analysis
 - volume: 2 mL <2 mL
 - 2 mL Pink Top cryovial for (fatty acid) plasma
 - Volume: 1 mL <1 mL QNS
- 4. Check that all required information has been entered on the **Chain of Custody Form (COC)**.
- 5. Wrap each participant's samples in absorbent material and place in a bio-hazard labeled specimen bags with the **Chain of Custody Form (COC)** (completed with phlebotomist, date and time, and sample information) and any remaining Specimen ID labels in the outside pocket of the bag. Refrigerate specimens at $\leq 4^{\circ}$ C until samples are prepared for transfer.

Specimen Packaging and Shipping

Packaging and shipping procedures for blood specimens is illustrated in Figure 3.

Figure 3: Three Layers of Packaging for Shipping Blood Specimens



Supplies for Shipping Blood Specimens

The following supplies will be supplied by MDH for packaging and shipping blood specimens:

GPHS Supplies

- Bio-hazard labeled coolers
- Ice (gel) packs
- Bio-hazard labeled zip top specimen bags with pockets
- Absorbent sheets
- Extra bio-hazard labels

CCNSH Supplies

- Fed-Ex approved, International Air Transport Association (IATA) approved, Category B and UN3373 labeled shipping boxes with Styrofoam cooler inserts, and biohazard labels
 - MDH will purchase, label, and deliver shipping boxes to CCNSH. Periodically, used boxes and ice (gel) packs in suitable condition will be picked up at the MDH PHL and delivered for re-use by CCNSH.
- Pre-printed FedEx labels with MDH expense code addressed to:
 - FISH Project
 - Minnesota Department of Health
 - Environmental Sample Receiving
 - 601 Robert St N
 - St. Paul, MN 55155-2531
- Ice (gel) packs
- Bio-hazard labeled self-sealed specimen bags with pockets
- Absorbent sheets
- Bubble wrap
- Extra bio-hazard labels

Procedure for Packaging and Shipping Blood Specimens

Specimen packaging to prepare for shipment is illustrated in Figure 3 above and described below. **Note:** Specimens collected at GPHS will first be shipped to CCNSH and then combined with CCNSH specimens for shipment to MDH PHL.

Shipment of GPHS Specimens to CCNSH

To package specimens to ship/transfer to CCNSH, GPHS staff will:

1. Remove the **Chain of Custody (COC)** forms for each specimen from the outside pocket of the bag and record shipper/relinquisher info, etc. on the **COC**
2. Prepare a **Blood Sample Shipment Log** for each shipment of samples sent to CCNSH by entering the following information on the log:
 - Date shipped (transferred in this case)
 - Shipper's initials

- Total number of participants for whom samples are being sent
 - For each participant: Ppt. ID, Specimen ID, and the presence of the mercury (Hg) tube and fatty acid (FA) vial.
3. Place bio-hazard labeled specimen bags in a bio-hazard labeled cooler with ice or gel packs, adding bubble wrap or other padding as needed.
 4. Fold and place the **Blood Sample Shipment Log** on top of the samples in the cooler, or hand carry.
 5. Transfer specimens to CCNSH within 48 hours of collection.

On receipt of the shipment, CCNSH staff will:

1. Remove the **Chain of Custody Form (COC)** from the pocket of each participant's specimen sample bag, check the **Blood Sample Shipment Log** against the contents of the cooler, and fill in the "receiver/accepted by information" for each specimen.
2. Check the **Blood Sample Shipment Log** against the contents of the cooler and file the GPHS shipment log. **GPHS** sample information will be added to a new log for shipment to MDH PHL.
3. Enter specimens in CCNSH specimen log.
4. Place in freezer until transfer to MDH PHL.

Shipment of CCNSH and GPHS Specimens to MDH PHL

CCNSH will ship specimens by FedEx to MDH PHL. Specimens can be shipped any day of the week, except Fridays. However, the goal is to ship specimens on Tuesday or Wednesday each week. Shipments picked up at noon are expected to arrive at MDH PHL before close of business the next day.

Shipments will be packaged according to regulations for shipments defined as "Category B" and require triple packaging as described:

- A primary receptacle: In this case, leak-proof plastic specimen tubes wrapped in absorbent sheets (whole blood mercury tubes are not being opened and are considered leak-proof; plasma will be shipped in plastic, screw-cap vials and is also considered sealed/leak-proof).
- Secondary packaging: Fed-Ex and IATA-approved biohazard specimen bag with an outside pocket for the **Chain of Custody Form (COC)**.
- Outer packaging: FedEx and IATA-approved cardboard box with a cooler insert; absorbent material around the ice packs, and cushioning for all of the secondary packages within. In addition to a "FISH Project" sticker, the exterior of the box must be labeled with a bio-hazard label, the text "Biological Substance Category B", and a label with the mark UN3373.

To package specimens to ship to MDH PHL, CCNSH staff will:

1. Verify the number of specimens to be shipped against CCNSH specimen log
 - Remove the **Chain of Custody Form (COC)** from the pocket on the outside of each participant's specimen sample bag and enter the following information: shipper name and agency; date and time shipped.
 - Make a copy of each COC form to be filed/retained by CCNSH

2. Put the **COC** form back in the outside pocket of Self-Seal Biohazard Bag (Category B approved).
3. Prepare a **Blood Sample Shipment Log** for each shipment by entering the following information on the log:
 - Date shipped (transferred in this case)
 - Shipper's initials
 - Total number of participants for whom samples are being sent
 - For each participant: Ppt. ID, Specimen ID, and the presence of the mercury (Hg) tube and fatty acid (FA) vial.
4. Make a copy of the **Blood Sample Shipment Log** to be filed/retained by CCNSH. SMC will collect and transfer copies to MDH as needed.
5. Place Self-Seal bio-hazard labeled specimen bags into the labeled shipping box with Styrofoam insert.
6. Wrap icepacks in absorbent material and add to cooler.
7. Use bubble wrap or other padding as needed around specimen bags.
8. Place the completed **Blood Sample Shipment Log** in an envelope between the Styrofoam inner cooler and cardboard outer container of the shipping container.
9. Ship overnight by FedEx (Tuesday or Wednesday).
10. Notify MDH on the day specimens are shipped. Send an email to patricia.mccann@state.mn.us stating the number of specimens shipped and date.

On receipt of the shipment, MDH PHL staff will:

1. Remove the **Chain of Custody Form (COC)** from the pocket of each participant's specimen sample bag.
2. Check the **Blood Sample Shipment Log** against the contents of the cooler.
3. Fill in the "receiver/accepted by information" for each specimen.
4. Proceed with MDH PHL sample receiving procedures.

MDH PHL will notify MDH of any discrepancy between samples received and the **Blood Sample Shipment Log**. MDH will contact CCNSH to clarify and resolve discrepancies.

Appendix 5: Sawtooth Mountain Clinic Policies

Employee Use of Technology

Protected Health Information, Confidentiality, and Information Access Agreement

Employee Health and Safety

Employee Use of Technology



Policy Number: 700-2
Dept: Information Technology
Coordinator: Rita Plourde
Effective Date: 05/20/2013

SUBJECT: Employee Use of Information Technology

Page 1 of 3

Approved by:
CEO

Date 04/05/2013

Board of Directors

Date 05/20/2013

Policy Review/Revision

Date							
Signature							
Revised							
CC Review							

Policy:

The Sawtooth Mountain Clinic's (SMC) information technology, including but not limited to computer systems, e-mail, voice-mail and internet capabilities are to be used for Clinic related purposes. All communications utilizing the Clinic's information technology is subject to other SMC policies, including the policy regarding harassment and confidentiality. Abuse of the Clinic's information technology may result in disciplinary action up to and including termination.



Policy Number: 700-2
 Dept: Information Technology
 Coordinator: Rita Plourde
 Effective Date: 05/20/2013

SUBJECT: Employee Use of Information Technology

Page 2 of 3

Procedure Version 700-2

Procedure Review/Revision

Date							
Signature							
Revised							
CC Review							

PROCEDURE:

1. No Expectation of Privacy

All information transmitted over any of the Sawtooth Mountain Clinic’s (SMC) information technology systems, including voice-mail, e-mail and the internet, as well as all information stored in the SMC computer systems, is the property of the Clinic. Employees, contractors, and anyone else with access to the Clinic’s information technology do not have an expectation of privacy regarding their use of the system. While it is not the Clinic’s intention to invade the privacy of its employees, the Clinic may access voice-mail, e-mail, documents, and internet usage patterns, at any time, with or without notice.

2. Harassment

Using the SMC information technology and communication systems in a manner that may be considered to be obscene, harassing, racist, sexist, defamatory, libelous or otherwise offensive is a violation of the Clinic’s policy and is strictly prohibited.

3. Voice-mail

Voice-mail is provided for employees’ convenience to allow individuals outside the SMC to contact employees when the Clinic is closed. Voice- mail is not a substitute for accepting phone calls. Employees are expected to answer their phones during normal business hours and to frequently check their voice-mail messages when they are unavailable to answer their phone calls.

4. E-mail

The Sawtooth Mountain Clinic’s e-mail system is intended to be used for business purposes only.

a. *Medical Information.*

Employees are prohibited from sending medical information over the e-mail system (internally or externally).

b. *Solicitation and Distribution.* Employees are prohibited from using the e-mail system to

solicit money or information or distribute information not directly related to the employee’s scope of employment.

SUBJECT: Employee Use of Information Technology

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5. Internet Usage

As with other SMC-supplied technology, access to the internet is granted for business purposes only. Abuse of this privilege is grounds for disciplinary action up to and including termination. Abuse includes but is not limited to:

- Accessing internet sites containing pornographic, sexual, racist, sexist or otherwise offensive material;
- Using the Clinic's information technology to conduct a business concern outside of the employee's scope of employment or for personal financial gain; or
- Using the Sawtooth Mountain Clinic name or otherwise implying in any way that an employee is speaking on behalf of the Clinic.

a. *Monitoring Internet Usage*

In an ongoing attempt to evaluate and improve the SMC internet usage, transmissions to and from the internet, as well as the use of internet tools and facilities, will be monitored from time to time. Monitoring may include tracking internet sites visited, the content of information or messages, the amount of time spent using the internet, and other measures of usage or productivity. While the primary goal of monitoring is to evaluate and determine the best business use of the internet, monitoring will also be used to track compliance with the Clinic's policies and guidelines. Any violations of the Clinic's rules, policies or guidelines discovered in the course of such monitoring may result in disciplinary action.

b. *Downloading Information*

Employees are strictly prohibited from downloading information from the internet or from any other sources onto the SMC network. Employees that believe it may be useful to download specific material must obtain permission from the Clinic's information technology department prior to downloading the information.

c. *Representing the Health Center*

Unless employees are specifically authorized to speak on behalf of the Sawtooth Mountain Clinic they are not authorized to represent the Clinic in communications over the internet or in other settings. Violations of this policy are grounds for disciplinary action, including termination.

Clinic employees will be required to sign a Confidentiality and Protected Health Information Access Agreement. These will be kept on file with the Security Officer.

This policy and procedure shall be periodically reviewed and updated consistent with the requirements and standards established by the Board of Directors and by Sawtooth Mountain Clinic management, Federal and State law and regulations, and applicable accrediting and review organization

Protected Health Information, Confidentiality, and Information Access Agreement



PROTECTED HEALTH INFORMATION, CONFIDENTIALITY AND INFORMATION ACCESS AGREEMENT

Summary

Sawtooth Mountain Clinic (SMC) is dedicated to safeguarding and maintaining the confidentiality, integrity, and availability of our patient, employee, and organizational information (collectively "Confidential Information"). Patient information includes protected health information that is any personal, employment-related, or medical information relating to a patient's treatment, payment, or health care operations of organization as determined through observation, conversation with a patient or other medical staff, and/or information which is created and/or stored in any information system. The confidentiality, integrity, and availability of protected health information must be maintained at all times.

This Confidentiality and Information Access Agreement ("Agreement") is required to be read, signed, and complied with by all users that access any of SMC's information systems as a condition of access to any information system. The information system user signing this Agreement may only access, use, and disclose Confidential Information in any medium as needed to perform his/her job responsibilities as allowed by law, organization policies and procedures, and/or as agreed upon between said user and Sawtooth Mountain Clinic.

1. I understand and agree that I must safeguard and maintain the confidentiality, integrity, and availability of all Confidential Information I use, disclose, and/or access at all times, whether or not I am at work and regardless of how it was accessed.	8. I understand that access to all SMC's Information Systems including Email and Internet are intended for business usage.
2. I will only access, use, and/or disclose the minimum necessary Confidential Information needed to perform my assigned duties and disclose it to other individuals/organizations who need it to perform their assigned duties or as allowed by law. Protected health information is specifically protected, by law, from further disclosures without prior authorization.	9. I will practice secure electronic communications by transmitting Confidential Information only to authorized entities, in accordance with approved privacy and security standards.
3. I will not access my own, or my family's, record in any information system without prior Authorization at SMC (unless required to perform your job responsibilities).	10. I will only access or use the systems or devices that I am being authorized to access and agree not to demonstrate the operation or function of any of SMC's information systems or devices to unauthorized individuals.
4. I will not disclose any Confidential Information with others who do not have a need to know it.	11. I will never use tools or techniques to break/exploit security measures.
5. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any Confidential Information except as properly authorized.	12. I will never connect to unauthorized networks through SMC's systems or devices.
6. I will not download any Confidential Information off SMC's information systems to store or use it on any other system or computer diskettes, compact discs, digital video discs, zip discs, other portable media, etc. or removable storage devices such as removable USB flash discs, except in situations whereby explicit approval to do so has been granted by SMC's Information technology (IT) Department. If I received this approval to download data I will assume sole and absolute responsibility to manage and protect it based upon standards listed in this Agreement and according to the law.	13. I understand that I have neither ownership interest nor expectation of privacy in any information accessed or created by me during my relationship with SMC. SMC may audit, log, access, review, and otherwise utilize information stored on or passing through its systems for many reasons, including to maintain the confidentiality, security, and availability of Confidential Information.
7. I will not download any software program onto SMC equipment without prior approval from the SMC IT Department.	14. I will not use SMC's information systems to transmit, retrieve, nor store any communications consisting of discriminatory, harassing, obscene, solicitation, or criminal information.



15. I understand that my User Login ID(s), password(s) are used to control access to SMC's information systems and an electronic signature(s) is the equivalent to my legal signature. I will not disclose them to anyone nor allow anyone to access any information system using my User Login ID(s) and password(s) for any reason.	19. I will immediately report to SMC EHR support any activity that violates this agreement, Confidential Information laws, or any other incident that could have any adverse impact on Confidential Information.
16. I understand that I will be held accountable for all inquiries, entries, and changes made to any SMC information system using my User Login ID(s) and password(s).	20. Upon completion and/or termination of access to SMC's information systems, the EHR support team will delete Users access to information systems/applications
17. I will only use my officially assigned, personal User Login ID(s) and password(s).	21. I affirm that I will maintain the confidentiality, integrity, and availability of all Confidential Information even after termination, completion, cancellation, expiration, or other conclusion of access to SMC's information systems.
18. I will immediately notify SMC's EHR support if my password has been seen, disclosed, or otherwise compromised.	22. I understand that violation of this Agreement may result in disciplinary action, up to and including termination of employment or business relationship, suspension and loss of privileges, termination of authorization to work within SMC, as well as legal actions.

By signing this Agreement, I agree to comply with its terms and conditions. Failure to read this Agreement is not an excuse for violating it. The IT/EHR support Department may deny access to SMC's information systems if this Agreement is not returned signed and dated.

Signature

Date

Access Agreement Approved by (printed name)

Date

OSHA Blood and Body Fluid Exposure Control Plan



Policy Number: 200-18.0
 Dept: Clinical
 Coordinator: Teresa Borak, RN
 Effective Date: Draft

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

Page 1 of 9

Approved by:	
Clinical Director	Date
CEO	Date
Board of Directors	Date

Policy Review/Revision

Date	Signature	Revised	CC Review				

POLICY

The Sawtooth Mountain Clinic is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP is a key document to assist our clinic in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- * Determination of employee exposure
- * Implementation of various methods of exposure control, including:
 - Universal precautions
 - Engineering and work practice controls
 - Personal protective equipment
 - Housekeeping
- * Hepatitis B vaccination
- * Post-exposure evaluation and follow-up
- * Communication of hazards to employees and training
- * Recordkeeping
- * Procedures for evaluating circumstances surrounding an exposure incident

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

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Procedure Review/Revision

Date							
Signature							
Revised							
CC Review							

PROCEDURE:

- Sawtooth Mountain Clinic’s Exposure Control Coordinator (ECC) is responsible for the implementation of the ECP. The ECC will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.
- Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.
- ECC will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard.
- ECC will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes.
- ECC will be responsible for ensuring that all medical actions required are performed and that appropriate employee health and OSHA records are maintained.
- ECC will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives.

EMPLOYEE EXPOSURE DETERMINATION

The following is a list of all job classifications at our establishment in which all employees have occupational exposure:

JOB TITLE	DEPARTMENT/LOCATION
Physicians/CNP	Clinic Exam Rooms/Nurse’s Station
RN,LPN,CMA	Clinic Exam Rooms/Nurse’s Station
Front Desk staff	Clinic waiting area
Billing/Finance	Clinic Business offices

The following is a list of job classifications in which some employees at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

JOB TITLE	DEPARTMENT/LOCATION	TASK/PROCEDURE
Physicians/CNP/Nurses		Handling Sharps and Regulated Waste
Front Desk staff		Possible handling of regulated waste

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

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Billing/Finance
Housekeeping/Environmental Services

Possible handling of regulated waste
Handling Regulated Waste

METHODS OF IMPLEMENTATION AND CONTROL

Use of universal Precautions
Exposure Control Plan

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts by contacting the ECC. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

ECC is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Engineering Controls and Work Practices

Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below:

- Personal protective equipment.
- Self Sheathing needles
- Sharps containers
- Hand/Eye wash facilities

Sharps disposal containers are inspected and maintained or replaced by housekeeping or nursing staff whenever necessary to prevent overfilling.

This facility identifies the need for changes in engineering control and work practices through review of OSHA records and updates.

We evaluate new procedures or new products regularly by examining the current literature, supplier information and products.

Both front line workers and management officials are involved in this process:
Nursing staff & ECC will ensure effective implementation of these recommendations.

Personal Protective Equipment (PPE)

PPE is provided to our employees at no cost to them. Training is provided by ECC in the use of the appropriate PPE for the tasks or procedures employees will perform.

The types of PPE available to employees are as follows:

Gloves:	Protective Clothing:	Respiratory Protection:	Eye & Face Protec
Latex	Gowns	Face Mask	Safety Glasses

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

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Vinyl
Sterile Surgical
Utility glove

Bouffants
Booties

Face Shield

PPE is located in each providers office & at the nurse's station and exam rooms or may be obtained through the Exposure Control Coordinator.
Fit testing for N95 masks will be provided annually.

All employees using PPE must observe the following precautions:

- * Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
- * Remove PPE after it becomes contaminated, and before leaving the work area.
- * Used PPE may be disposed of in containers for laundering, decontamination, or disposal.
- * Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured, contaminated, or if their ability to function as a barrier is compromised.
- * Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- * Never wash or decontaminate disposable gloves for reuse.
- * Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- * Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

The procedure for handling used PPE is as follows:

Sawtooth Mountain Clinic will utilize the North Shore Hospital's used PPE policy and decontamination equipment for face shields, eye protection and resuscitation equipment as necessary.

Housekeeping

Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see Labels), and closed prior to removal to prevent spillage or protrusion of contents during handling.

The procedure for handling sharps disposal containers is: Transfer of sealed sharps containers to the designated Recycling room where they are regularly picked up and disposed of through the Stericycle waste disposal company.

The procedure for handling other regulated waste is: All solid laundry is placed in a designated bag and transferred to the North Shore Hospital for proper handling.

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and labeled or color coded appropriately. Sharps disposal containers are available in all exam rooms and the nurse's station.

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

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Bins and pails are cleaned and decontaminated as soon as feasible after visible contamination. Broken glassware which may be contaminated is picked up using mechanical means, such as a brush and dust pan.

Laundry

The following requirements for contaminated articles will be laundered by North Shore Hospital.

* handle contaminated laundry as little as possible, with minimal agitation
* Use yellow, leak proof, labeled plastic bags marked with biohazard symbol to transport contaminated laundry.

* wear the following PPE when handling and/or sorting contaminated laundry:

Gloves

Labels

The following labeling method(s) is used in this facility:

EQUIPMENT TO BE LABELED LABEL TYPE (size, color, etc.)

Contaminated laundry: Yellow plastic bag with biohazard label

Specimens: Plastic bag with biohazard label

Exposure control Coordinator will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees are to notify Exposure Control Coordinator if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

HEPATITIS B VACCINATION

Exposure Control Coordinator will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series, 2) antibody testing reveals that the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated.

However, if an employee chooses to decline vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept with the Exposure Control Plan Coordinator.

Vaccination will be provided by the Exposure Control Coordinator at Sawtooth Mountain Clinic.

Following the medical evaluation, a copy of the health care professional's Written Opinion will be obtained and provided to the employee. It will be limited to whether the employee requires the hepatitis vaccine, and whether the vaccine was administered.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

Should an exposure incident occur, contact Exposure Control Coordinator at the Sawtooth Mountain Clinic.

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

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An immediately available confidential medical evaluation and follow-up will be conducted by the provider on call. Following the initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- * Document the routes of exposure and how the exposure occurred.
- * Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- * Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- * If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- * Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- * After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status
- * If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

ADMINISTRATION OF POST-EXPOSURE EVALUATION AND FOLLOW-UP

Exposure Control Coordinator ensures that the healthcare professional involved with the exposure incident will follow the Sawtooth Mountain Clinic's Blood and Body Exposure (Employee) Policy and Procedure 200-10.0.

PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT

Clinical Manager will review the circumstances of all exposure incidents per policy # 200-10.0 to determine:

- * engineering controls in use at the time
- * work practices followed
- * a description of the device being used (including type and brand)
- * protective equipment or clothing that was used at the time of the exposure incident (*gloves, eye shields, etc.*)
- * location of the incident (*O.R., E.R., patient room, etc.*)
- * procedure being performed when the incident occurred

SUBJECT: OSHA Blood and Body Fluid Exposure Control Plan

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* employee's training

ECC will record all percutaneous injuries from contaminated sharps in the Sharps Injury Log.

If it is determined that revisions need to be made, Exposure Control Coordinator will ensure that appropriate changes are made to this ECP.

EMPLOYEE TRAINING

All employees who have occupational exposure to bloodborne pathogens receive training conducted by Exposure Control Coordinator using Stericycle Steri-Safe OSHA compliance program.

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- * a copy and explanation of the standard
- * an explanation of our ECP and how to obtain a copy
- * an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- * an explanation of the use and limitations of engineering controls, work practices, and PPE
- * an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- * an explanation of the basis for PPE selection
- * information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- * information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- * an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- * information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- * an explanation of the signs and labels and/or color coding required by the standard and used at this facility
- * an opportunity for interactive questions and answers with the person conducting the training session.

Training materials for this facility are available through the Stericycle Steri-Safe OSHA compliance program.

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RECORDKEEPING

Training Records

Training records are completed using the Sawtooth Mountain Clinic Employee training Log. These documents will be kept for at least **three years** in the cupboards at the Central Business Office.

The training records include:

- * the dates of the training sessions
- * the names and job titles of all persons attending the training sessions

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to Exposure Control Coordinator.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

Sawtooth Mountain Clinic CEO is responsible for maintenance of the required medical records/Sharp injury log. These confidential records are kept in a locked personel file in the CEO's office for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to Medical Records Department.

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by Sawtooth Mountain Clinic Worker's Comp Coordinator.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in the Sharps Injury Log. All incidences must include at least:

- the date of the injury
- the type and brand of the device involved
- the department or work area where the incident occurred
- an explanation of how the incident occurred.

This log is reviewed at least annually as part of the annual evaluation of the program and is maintained for at least five years following the end of the calendar year that they cover. If a copy is requested by anyone, it must have any personal identifiers removed from the report.

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Sharps Injury Log

Establishment/Facility Name:

Dated filled out:

By:

Time of Injury:

Job title:

Work Area where injury occurred:

Brief description of how the incident occurred:

[i.e., procedure being done, action being performed (disposal, injection, etc.),
body part injured]

Type of Device:

(e.g., syringe, suture needle)

Brand Name of Device:

[i.e., procedure being done, action being performed (disposal, injection, etc.),
body part injured]

29 CFR 1910.1030, OSHA's Bloodborne Pathogens Standard, in paragraph (h)(5), requires an employer to establish and maintain a Sharps Injury Log for recording all percutaneous injuries in a facility occurring from *contaminated* sharps. The purpose of the Log is to aid in the evaluation of devices being used in healthcare and other facilities and to identify problem devices or procedures requiring additional attention or review. This log must be kept in addition to the injury and illness log required by 29 CFR 1904. The Sharps Injury Log should include all sharps injuries occurring in a calendar year. The log must be retained for five years following the end of the year to which it relates. The Log must be kept in a manner that preserves the confidentiality