



# **Communicating Fish Advisories to the Chinese-Canadian Community**

Maxine Fung, M.Sc.

Tuesday November 3<sup>rd</sup>, 2009

2009 EPA Fish Forum

Portland, Oregon

# Acknowledgements

## Principle Investigator

- **Maxine Fung**
  - University of Guelph
- **Dr. Judy Sheeshka**
  - University of Guelph

## Co-Investigators

- **Dr. Loren Vanderlinden**
  - Toronto Public Health
- **Dr. Barbara Knuth**
  - Cornell University



# Rationale

## Fish Advisory Research

- Need for **correct** & **positive** message
  - Conflicting literature leads to **confusion**
  - Message may lead to **decreased consumption**
- Research targeting **minorities** is needed
  - **Asian** community is at risk



# Research Questions

1. What is the best way to **communicate** Health Canada's mercury advisory for fish to the **Chinese-Canadian** community?
2. How can we communicate this information in a way that will **not** cause people to stop eating fish?
3. **Where** would the Chinese-Canadian community like to receive this information?

# Research Methodology

## Data Collection Method

- 4 **CPNP funded** perinatal programs
  - **N = 34 pregnant mothers**
    - 4 Mandarin focus groups (n = 26)
    - 1 Cantonese focus group (n = 8)
- Conduct **5** small group interviews
  - Tape recorded
  - Moderated

# Research Methodology

## Data Collection Method

- **15** questions
  - Consumption habits
  - Advisory knowledge
  - Opinions
    - **Feedback** on resources
    - Impact of advisories



# Research Methodology

## Data Management and Analysis

1. Transcribed verbatim
  - Mandarin or Cantonese **to Chinese text**
2. Translated
  - Cantonese or Mandarin **to English**
3. Back translated
  - English **to Chinese text**



# Research Methodology

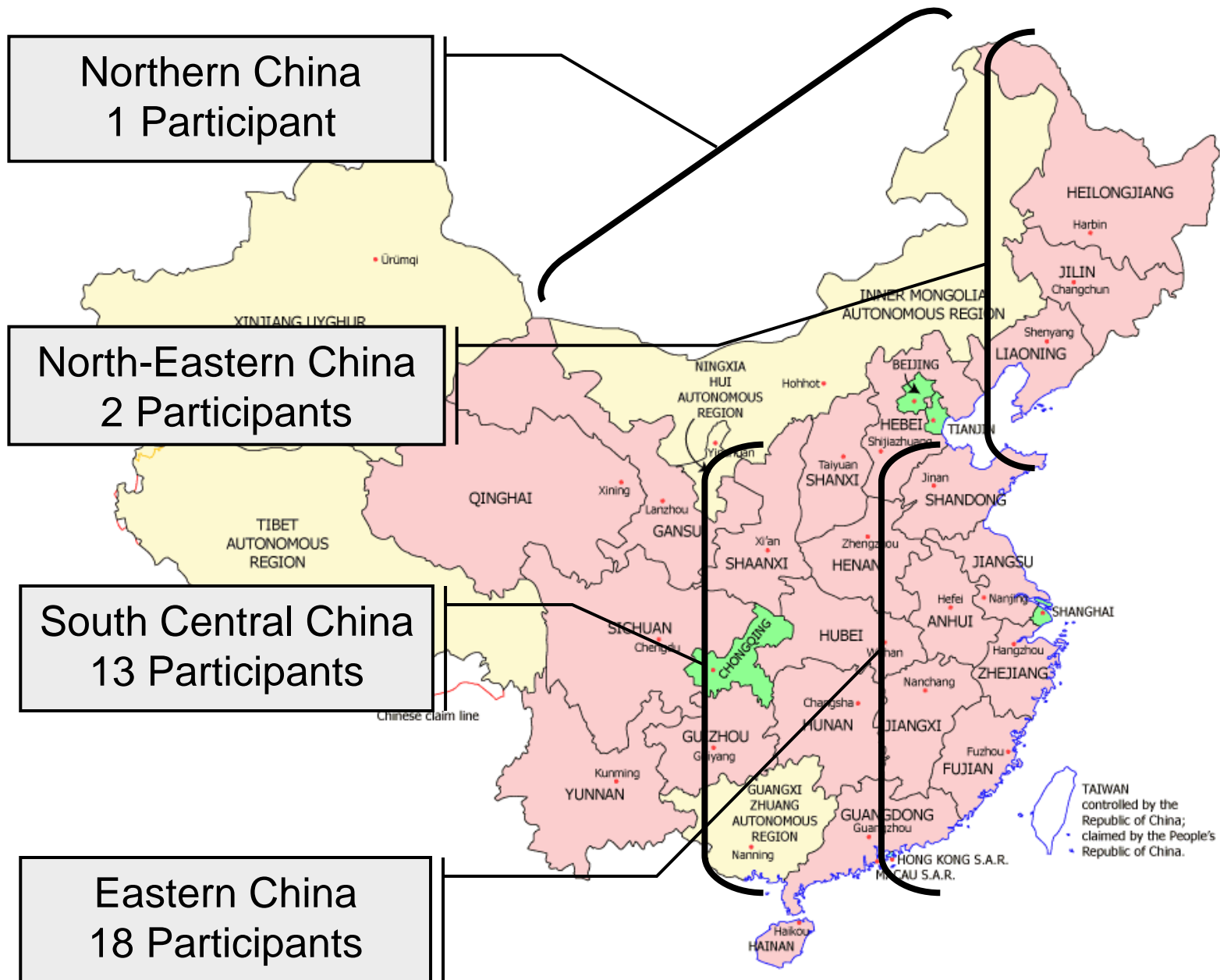
## Thematic Analysis (Braun & Clarke, 2006)

- Method to identify, analyze and report patterns
  - **Semantic** approach
    - Interprets patterns to answer questions

## Accurate Description (Strauss & Corbin, 1990)

- Aim to give **sense of real life** observations





# Participants

## Cultural Habits

*“...I grew up in Fujian province of China...which is close to the sea. I watched my relatives and friends go fishing at sea. I picked up the habit from my parents and believed in eating fresh fish.”*

# Participants

## Language Barriers

*“...Our English is poor. Looking at all these brochures, I can barely understand with so few pictures. Pictures help us to figure out the fish names so please add some more pictures.”*

# Participants

## Internet Savvy

*“I would use the computer to search **Google** or **Baidu**. ...The internet provides the most **up to date** and has **extensive** information.”*



# Participants

## Time Constraints

*“...I have brought some flyers home to read but never could find the time. **Short and simple is the key**. It would be nice if we could bring it home, hang it up and take a quick look at it before going to buy fish.”*

# Thematic Results

## Feeling Vulnerable

- Participants **knew little** about advisories
  - Very few were aware
  - **Low knowledge** of risks of eating fish
    - Species and size differences
    - Consumption recommendations
- **Surprised** they did not know
  - Message did not reach them



# Thematic Results

*“This was the first time I’ve heard it. **It was quite a surprise to me** because I never knew about it before.”*

*“When I was in the hospital for my last pregnancy [in the US], a detailed warning about the risks of eating fish was explained to me ... and a dietitian was coaching us daily. **We don’t have these in Canada.**”*

# Thematic Results

## Being Overwhelmed

- Fish a large part of life and is familiar
  - Part of **cultural identity**
- Recommendations suggest **large changes**
  - Responses: fear to indifference
  - Most **continue** to eat fish with mercury in mind



# Thematic Results

## Being Overwhelmed

*“...It is impossible to uproot a long time habit overnight. **I still like to eat fish**, but I will pick the smaller fish and eat it less frequently.”*



# Thematic Results

## Placing Trust

- Question and scrutinize information
- Trust the Canadian government
  - Public health agencies



# Thematic Results

## Acting for the Future

- Peer and elder influence
  - Choosing fish for believed benefits
  - Improved appearance and intelligence
- Most will change habits for **their children**
  - Follow advisories to some extent

# Thematic Results

## Acting for the Future

*“I think this information was provided just for us. I should trust it very much. Now I am pregnant. For the sake of my baby, I will follow it.”*



# Thematic Results

## Thematic Relationship

- Experiences of being **new immigrants**
  1. Heeding peer/elder advice
  2. **Immigrating** for the future
  3. High **expectations** for Canada
  4. **New environment** increases vulnerability
  5. **Adjusting** to Canada is overwhelming
  6. **Making changes** for the future

# Implications

## Limitations of Research

- **Small sample** size
- **Non-random** sampling
- Limitation to **print** material

## Research Contributions

- **Unique** focus
  1. Women
  2. Pregnancy
  3. Chinese-Canadians
  4. Qualitative nature



# Summary

## Recommendations for Printed Resources

1. **Translate** resources to Chinese
2. List fish **commonly consumed** by Chinese-Canadians
3. Label fish in **English** and **Chinese**



# Summary

## Recommendations for Printed Resources

### 4. Simplify resources

- Short and **concise**
- Use **visuals**

### 5. Establish **accessibility**

- Internet
- Supermarkets, physician's office



# Future Directions

## Areas for Future Investigation

- Risk balancing behaviour when **no data** available
- Message feasibility: **Choose smaller fish**
- **Other routes** of communication
- **Evaluations** of current resources



# Thank You!

Thank you for listening!

Questions and comments?



# Outline

1. Rationale
2. Research Questions
3. Research Methodology
4. Participants
5. Thematic Results
6. Implications
7. Future Directions



# Introduction

## Current Research

– Lacks focus on various areas:

1. At-risk **pregnant women**
2. Fish **consumers**
3. At-risk ethnic **minorities**
4. **Canadian** perspective



# Rationale

## Fish Advisory Research

- **Poor awareness** among consumers (Park & Johnson, 2006; Burger, 2005; Verbeke et al., 2005; Knobeloch et al., 2004)
  - Women of childbearing age
- May result in a **reduction** of fish consumption (Shimshack et al., 2007; Verger et al., 2007; Carrington et al., 2004; Oken et al., 2003)



# Methods

## Preparation

- **6 telephone interviews** to TPH staff
  - Health professionals
  - Worked closely with pregnant Chinese-Canadian women
- Main objectives
  - Group vs. individual interviews
  - Comfort with written consent



# Methods

## Preparation

- **Focus groups** suggested
  - Small groups of 5 to 8
- Clients generally **Mandarin** speaking
  - Mandarin translators and moderators required



# Introduction

## Mercury Fish Advisories

- Consumption advice for fish **high in mercury** (Health Canada, 2007)

Group	Recommendation	Meal size
General Population	4 meals / month	150 g
Specified Women	1 meal / month	150 g
Children (5-11)	1 meal / month	125 g
Children (1-4)	1 meal / month	75 g

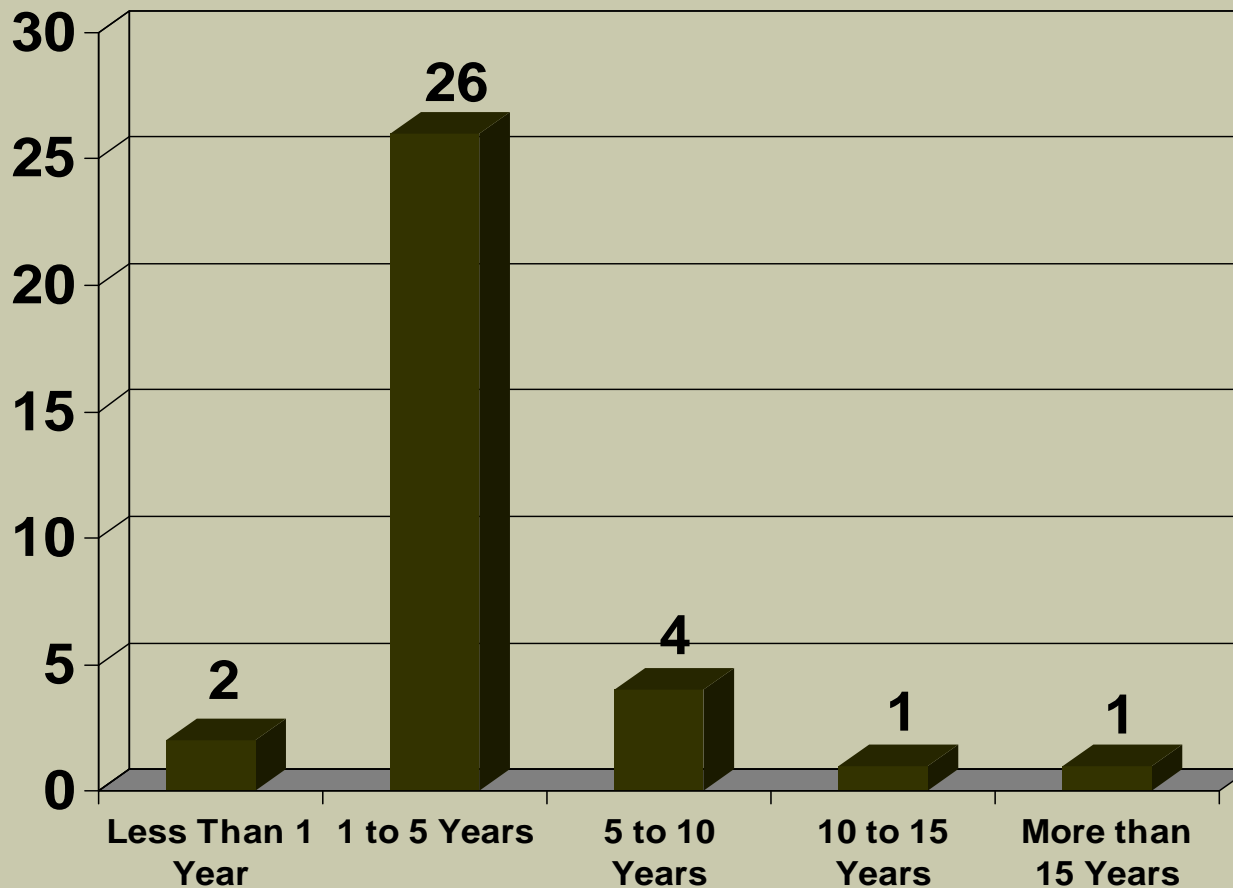
# Methods

## Thematic Analysis

1. Transcribe data
  - Familiarize with interview data
2. Generate initial codes
  - Ordering materials
3. Establish and refine themes
  - Reducing materials
4. Select extracts
  - Reporting with excerpts as support

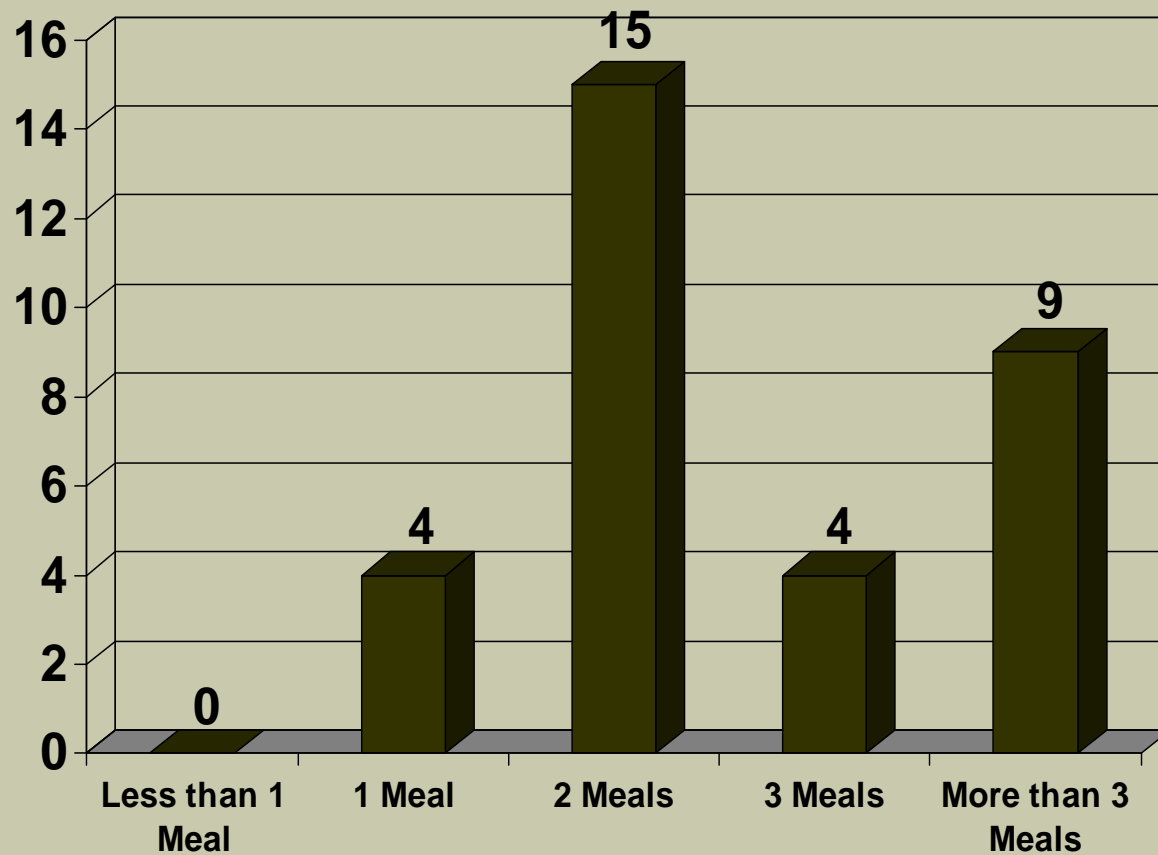
# Participants

## Participants: Years in Canada



# Participants

## Participants: Typical Weekly Fish Consumption



# Participants

## Language Barriers

*“... It doesn’t matter if it doesn’t have pictures or diagrams, but it is **essential to have Chinese descriptions of fish names**. ... We need the Chinese translation to tell us the mercury level of those **common kinds** of fish we normally eat...”*

# Participants

## Culture Shock of New Immigrants

*You know what the major problem is? The food products are too scarce in Canada. If you don't have adequate cooking skills, then your dish choices are limited... If the chefs were more creative, then you won't have to eat fish all the time...*

# Implications

## Recommendations

1. Improve **accessibility**
  - Internet
2. Improve **readability**
  - Language, picture and diagram use
3. Improve **cultural sensitivity**
  - Culturally applicable fish

