



March 23, 2016

## Summary of Recommendations for the Consumption of Shellfish, Seaweed, and Harbor Seal from Hawk Inlet, dated February 29, 2016

### Introduction

The Alaska Department of Health and Social Services (DHSS) received data on metal contaminants in shellfish (crab, shrimp, clam, cockle, and mussel), seaweed, and liver, kidney, muscle, and fat from a seal harvested from Hawk Inlet in southeast Alaska. Upon request from the Angoon Community Association and the Mayor of Angoon, the DHSS Alaska Division of Public Health, Environmental Public Health Program (EPHP) assessed the potential exposure and health effects associated with consuming these foods for Angoon residents. This assessment was limited to the contaminants found in shellfish, seaweed, and seal as reported by the Angoon community to DHSS.

In this assessment, EPHP considered the most recent annual harvest data for Angoon from the Alaska Department of Fish and Game. EPHP used the data for shellfish and seaweed to estimate how much of these foods people eat. EPHP also considered the potential health effects of seal tissue consumption for children, women who are pregnant or plan to become pregnant, and the rest of the population.

### Conclusions

#### *Shellfish and seaweed*

The concentrations of metals found in shellfish and seaweed are not expected to harm people's health (adults or children).

- The reason for this is that a frequent consumer of these foods would not ingest enough of the metals in these foods to reach a level that causes an appreciable health risk.

#### *Seal*

The concentrations of contaminants, particularly mercury, that tend to be found in high levels in older adult seals could harm the health of those who consume them. Those most susceptible to these health effects are children, and women who are pregnant or plan to become pregnant.

The reasons for this are:

- Unborn babies and children have developing nervous systems and are more susceptible than adults to the bad health effects of mercury
- Some of the mercury ingested by a pregnant woman is transferred to the unborn baby

- Mercury can affect the brain development of children and unborn babies and result in brain damage that can lower IQ or delay development
- Older seals tend to have higher levels of mercury than younger seals in all tissues
- Seal liver has a lot more mercury than seal meat (muscle)
- Seal kidney, meat, and fat have lower metal levels than liver
- Seal fat, especially from older seals, while low in metals, can be high in persistent organic pollutants that were not measured in the seal from Hawk Inlet, which likely accumulated persistent pollutants throughout its life

## **Recommendations**

*Children, and women who are pregnant or plan to become pregnant are encouraged to:*

- Continue to consume shellfish and seaweed from Hawk Inlet
- Replace older seal tissue in the diet with that from younger seals and eat those in moderation, when possible
- Avoid eating liver from older adult seals
- Avoid or only eat small amounts of fat from older seals
- Not consume more than one 6-ounce serving (the size of a regular can of tuna) of the older seal kidney per week
- Not consume more than one 4-ounce serving (the size of a deck of cards) of the older seal meat per week

*Other adults are encouraged to:*

- Continue to consume shellfish and seaweed from Hawk Inlet
- Replace older seal tissue in the diet with that from younger seals and eat those in moderation, when possible
- Avoid eating or eat only small amounts of liver from older adult seals
- Avoid or only eat small amounts of fat from older seals
- Consume kidney and meat from older adult seals as they usually do

A simple hair mercury test, available free of charge to Alaskans, can tell if someone is exposed to too much mercury from food. We encourage everyone in Angoon and surrounding areas to donate hair samples for analysis. Contact the Environmental Public Health Program at (907) 269-8000 and ask for a hair mercury testing kit.

## **For more information**

- Contact Ali Hamade, Environmental Public Health Program Manager at (907) 269-8000
- Find the DHSS and Department of Environmental Conservation response to Angoon stakeholders at: [http://dhss.alaska.gov/dph/Epi/eph/Documents/DHSS\\_DEC\\_2016-02-29\\_Angoon%20Response.pdf](http://dhss.alaska.gov/dph/Epi/eph/Documents/DHSS_DEC_2016-02-29_Angoon%20Response.pdf)