



Environmental Health & Justice in Norton Sound, Alaska:
Bringing Together Isolated Communities to Reduce Harmful
Environmental Exposures

Vi Waghiyi

Environmental Health and Justice Coordinator
Alaska Community Action on Toxics

*Our mission: to assure justice by advocating for environmental and
community health.*

*We believe everyone has a right to clean air, clean water
and toxics-free food.*

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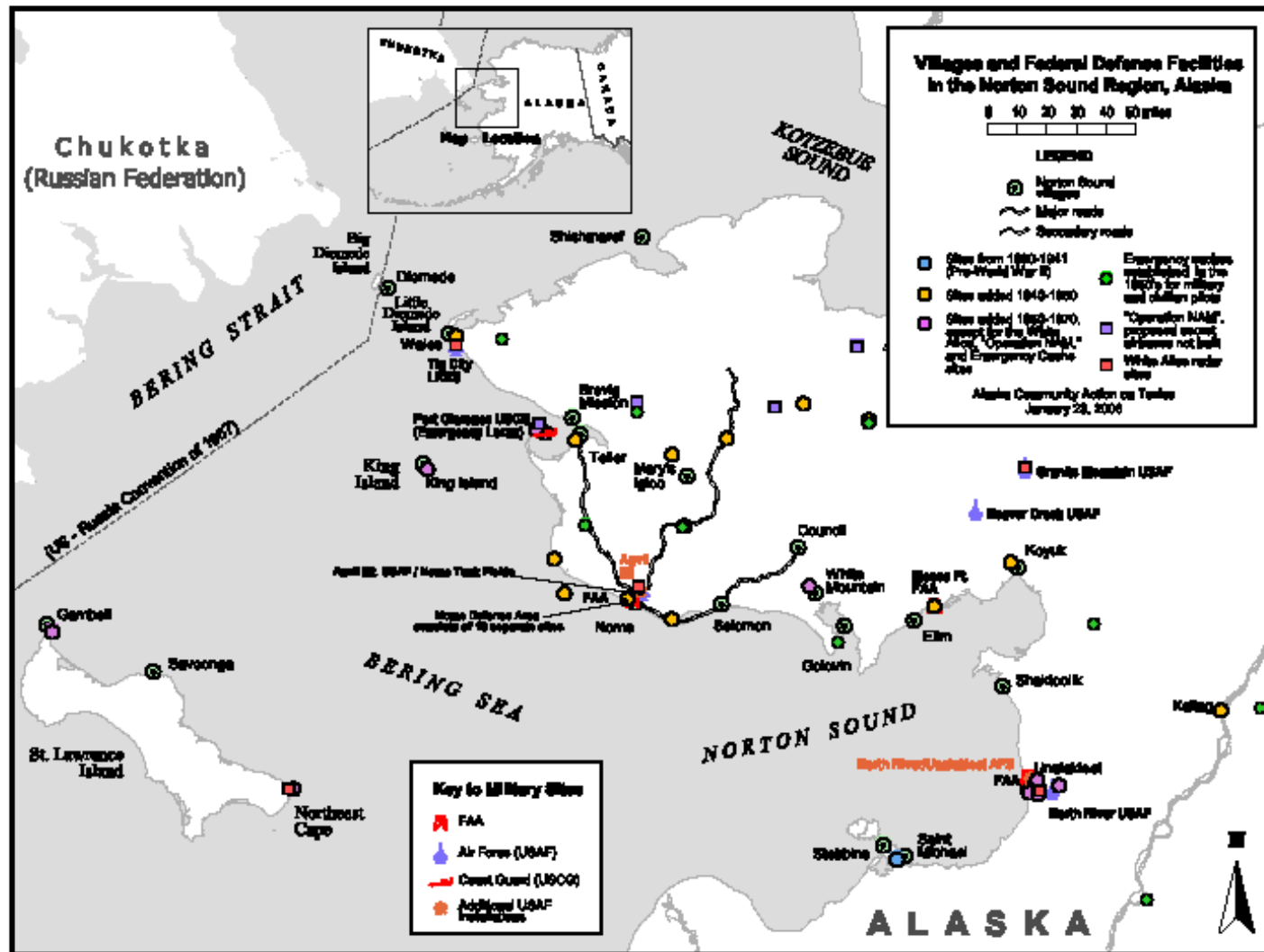
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Formerly Used Defense Site on Saint Lawrence Island, Alaska; and Elder, Annie Alowa



Formerly Used Defense Sites in Norton Sound, Alaska



**Research and Communications Partnerships
National Institute of Environmental Health Sciences Project
Environmental Health and Justice for Norton Sound, Alaska**

- **15 Villages in Norton Sound Region**
- **State University of New York**
- **Alaska Community Action on Toxics**
- **Norton Sound Health Corporation**
- **Other researchers, including—Clarkson University, St. Lawrence University, Environment Canada, Health Canada, University of Alaska, National Marine Fisheries Service, and University of CA**



Specific Aims

for Environmental Health and Justice Project for Norton Sound, Alaska

- Identify sources of contaminants, including those from military and long-range, atmospheric sources
- Describe past and current health problems
- Work toward responsible cleanup of contaminated sites and prevent new sources of contaminants

Environmental Health Training programs

- Training for community health and field researchers
- Training for health care professionals
- Environmental Health Care Curriculum and Village Health Aide Training
- Alaska Collaborative on Health and the Environment

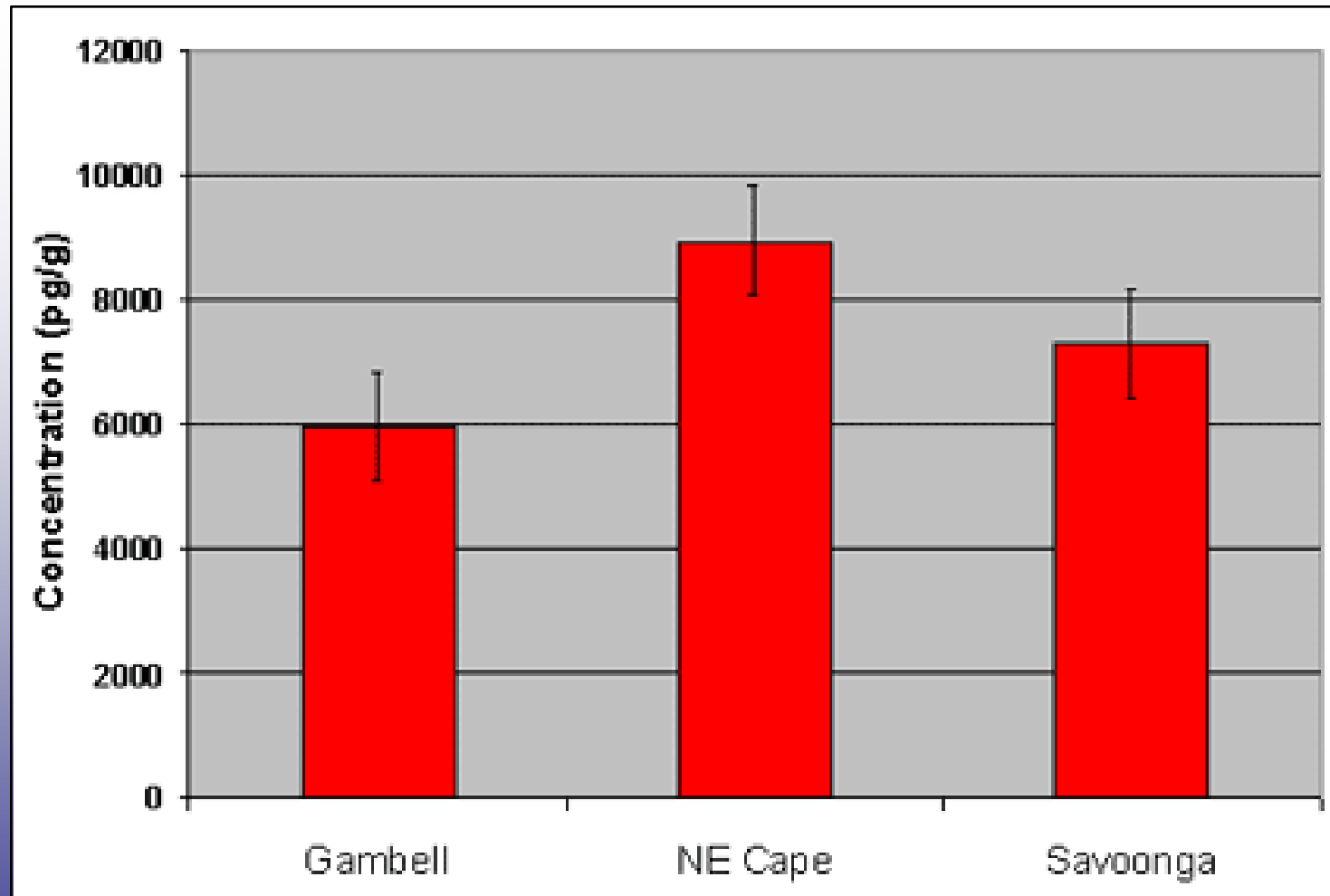


Aimee Boulanger with the Institute of Children's Environmental Health, leading one of the quarterly seminars at Norton Sound Health Corporation in June 2007.

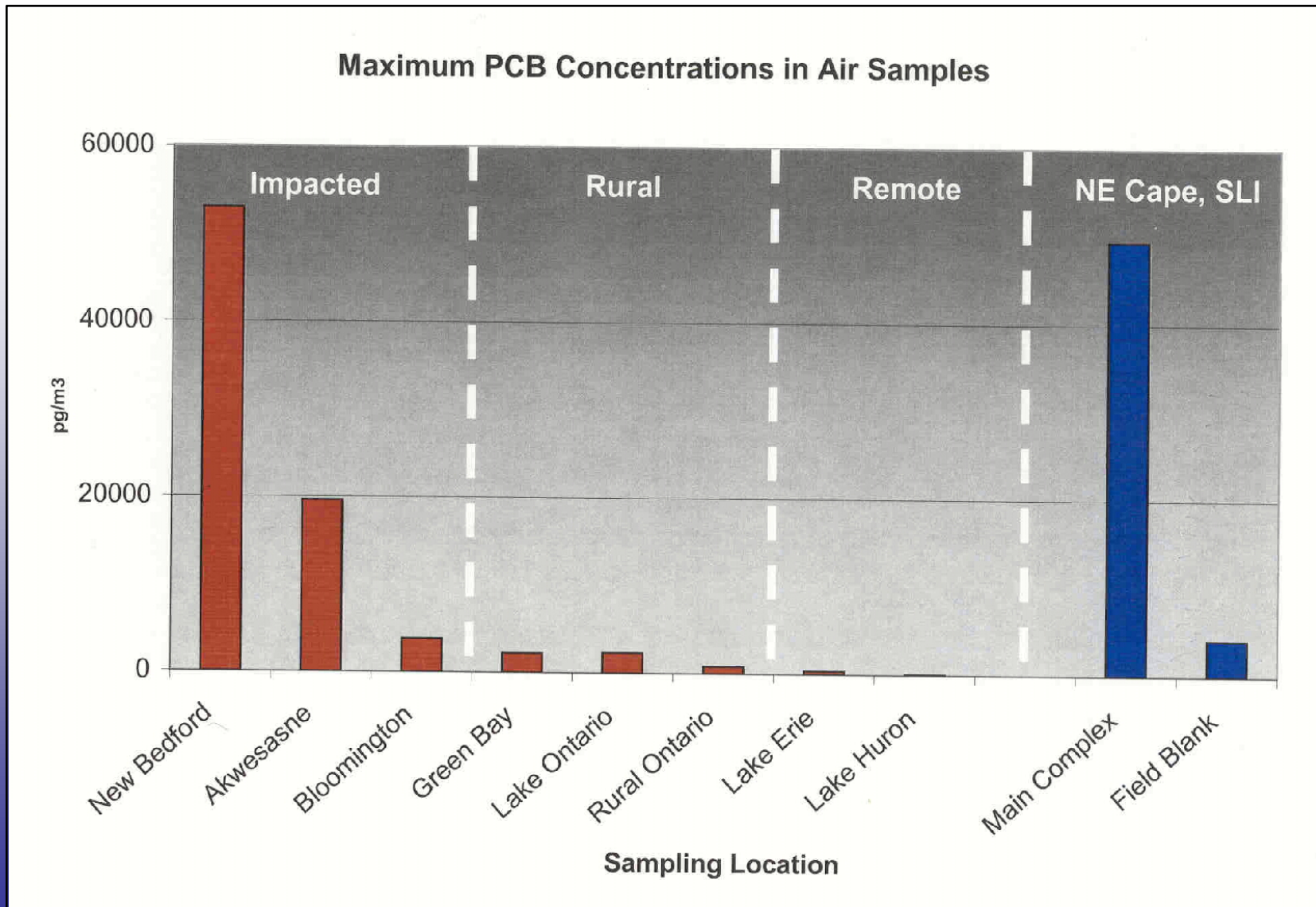
Morgan Apatiki, Community Health Researcher from Gambell, Alaska, collecting food samples for our Traditional Food Study



PCB Levels in Blood Serum of St. Lawrence Island Yupik People

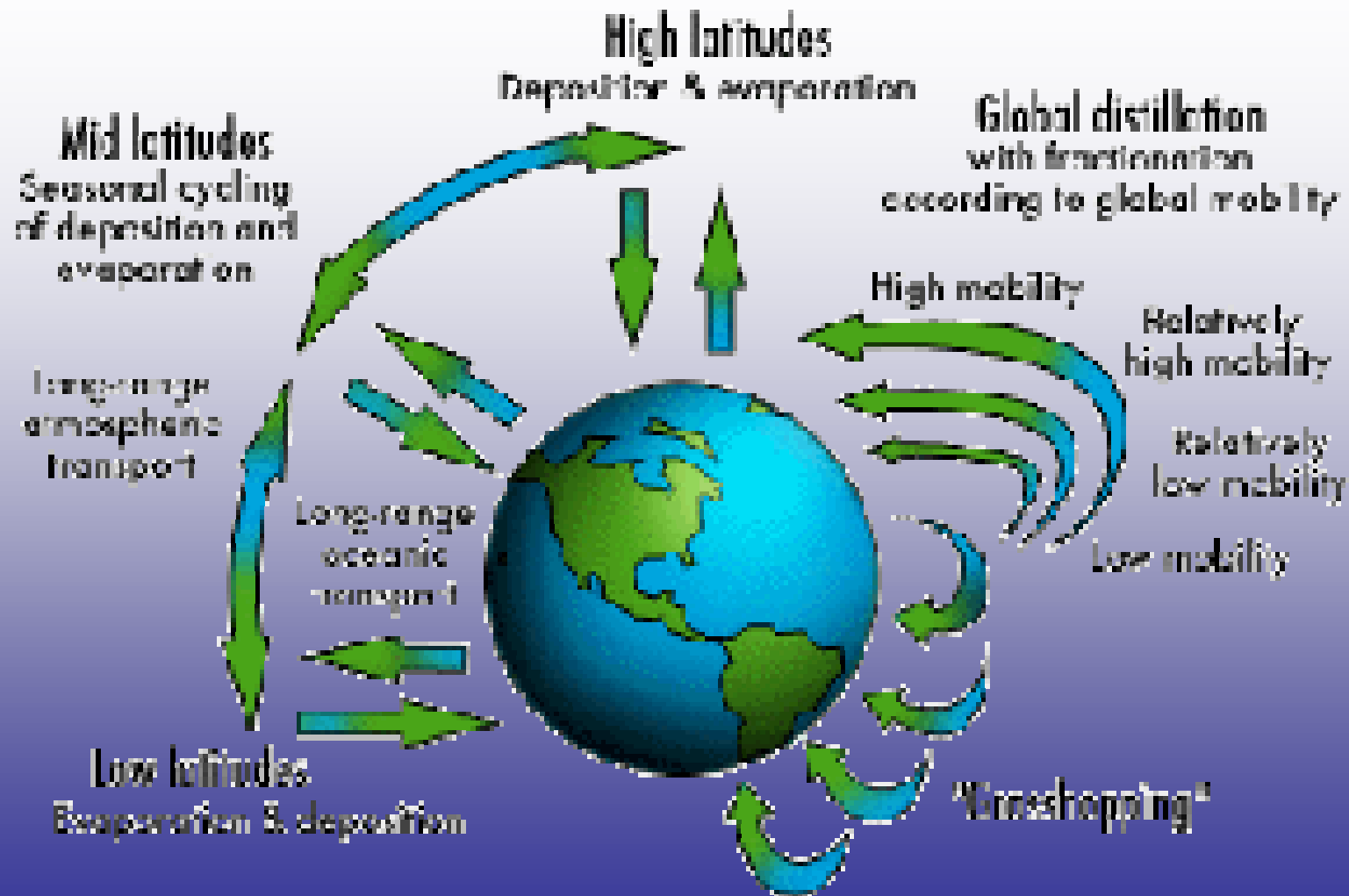


PCBs in Air Samples—Comparisons Among Industrial Sites and St. Lawrence Island, Alaska



The Arctic marine environment is a hemispheric sink for persistent bioaccumulative toxics

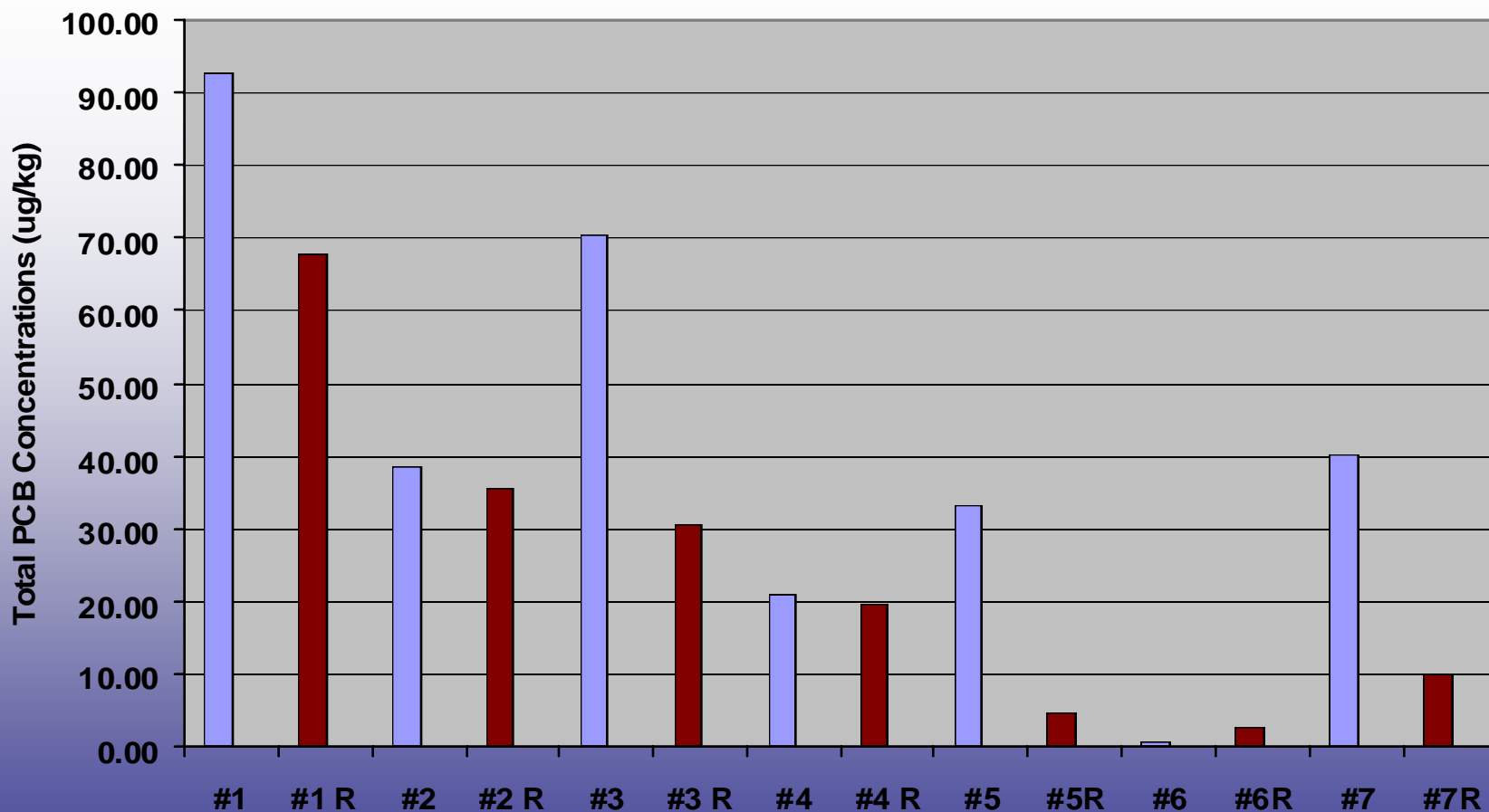
POP Migration processes



Range of Sediment Core PCB Concentrations

Locations	Total PCB (ug/Kg)
<u>NEC:</u>	
Main Comp.	5-550
Site 7	5-19
Suqi Estuary	5-33
<u>SLI Remote:</u>	
Atuk Vol. (Savoonga)	<5
Collier Lag. (Savoonga)	<5
<u>Norton Sound:</u>	
Elim	<15
Unalakleet	<15
Wales	<5

Unwashed and Washed Plant Samples PCB Concentrations Northeast Cape, St. Lawrence Island



- Restoration Advisory Board (RAB)
- Independent Research through NIEHS project
- Empowers Community Involvement in Decision-making



Implications for Public Health



- **Independent research is informing clean-up decisions**
- **Proper diagnoses and treatment of environmental health effects**
- **Better oversight and hold military accountable for clean up to protect public health**
- **Influence public health policy to prevent exposures from this and other formerly used defense sites and long-range transport**

Disease Patterns

- Cancers
- Thyroid disease
- Diabetes
- Heart Disease
- Low birth weight babies, premature births, still births, miscarriages
- Other reproductive health problems

Project Staff

- **Jane Kava**, Community Health Researcher, Savoonga
- **Morgan Apatiki**, Community Field Researcher
- **Viola Waghiyi**, ACAT, Project Coordinator
- **Aluki Brower**, ACAT, Project Organizer
- **Pamela Miller**, ACAT–Director
- **Dr. Ronald Scudato**, SUNY Oswego, Environmental Research Center– Principal Investigator
- **Dr. David Carpenter**, State University of New York School of Public Health– Health Coordinator
- **Dr. Jeff Chiarenzelli**, SUNY Potsdam
- **Kevin Zweifel**, Director, Office of Environmental Health, Norton Sound Health Corporation



**Thank you.
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