

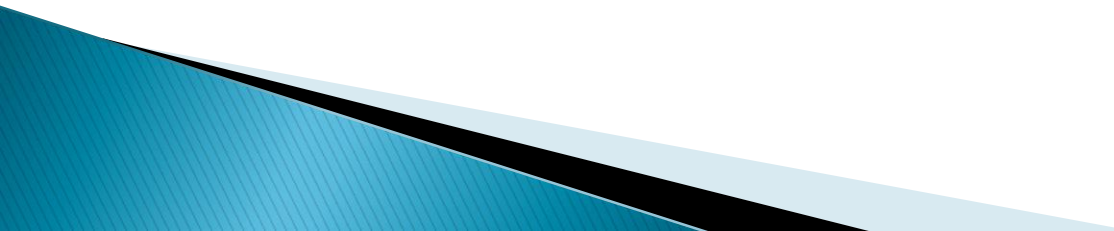
Alaska Tribal Environmental Justice Summit #1 on Solid Waste



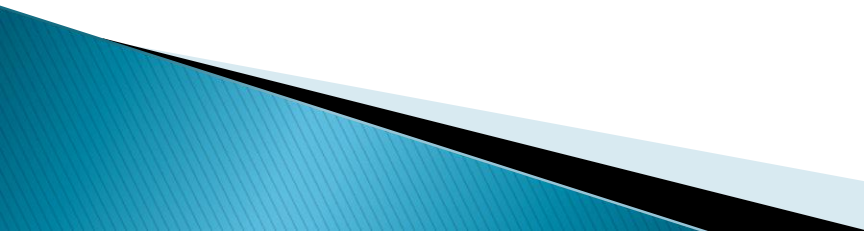
Presenters:
Jacqueline D. Shirley, MPH (Yupik)
Lynn Zender, PhD

BIA Tribal Providers Conference
November 20, 2011

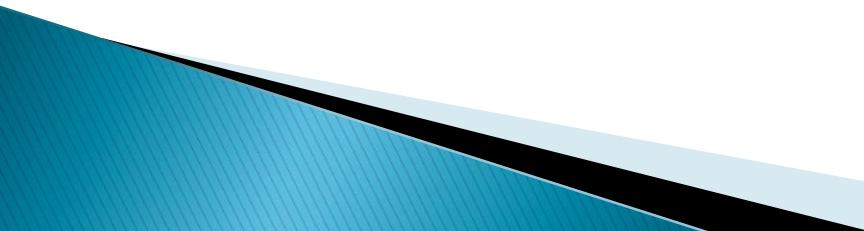
Overview

- Overview of grant purpose, vision, activities
 - What is Environmental Justice (EJ)
 - Health effect due to poor solid waste conditions
 - Conduct CPS Exercise to engage EJ to address our SW/other environmental issues
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Summits Purpose

- ▶ Provide culturally appropriate education sessions on the principles of EJ and how Tribes can engage in EJ process to address solid waste management in their communities;
 - ▶ Provide an opportunity for Alaska Tribes to **voice** their **perception** and **interpretation of EJ** and what it means for their Tribal communities; (OUR TRUTH, OUR FACTS!)
 - ▶ (grant can provide opportunity to translate our truth & facts)
 - ▶ Provide an opportunity for Alaska Tribes to voice, document and prioritize solid waste and environmental justice issues in their communities.
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EJ Project Activities

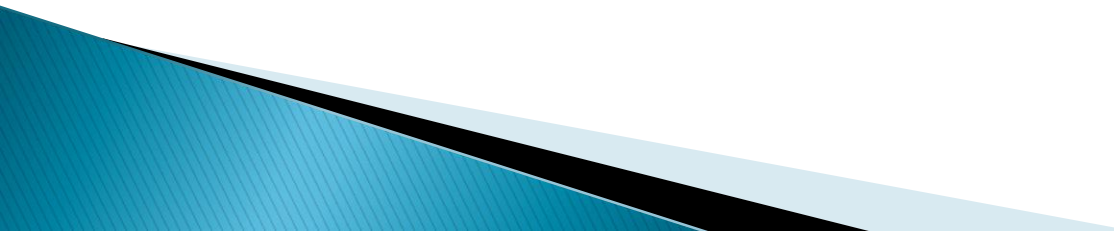
1. Conduct EJ summit at various gatherings
 - Distribute toolbox (1st time BIA Nov. 30)
 - Solicit for working group to develop "roadmap/framework" document
 2. SW EJ Taskforce
 - Meeting on schedule suggested by members
 - Work on drafting roadmap/framework
 3. Framework
 - Distribute framework to federal, state agencies, legislative bodies and congressional leadership
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What is Environmental Justice?



Environmental Justice is the **fair treatment** and **meaningful involvement** of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

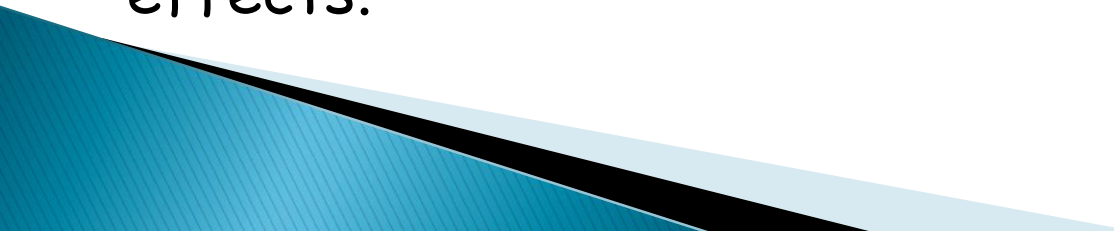
It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and **equal access** to the **decision-making process** to have a healthy environment in which to **live, learn, and work**.



Executive Order 12898

In February 1994, President Clinton issued Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which applied the environmental justice concept to federal agencies.

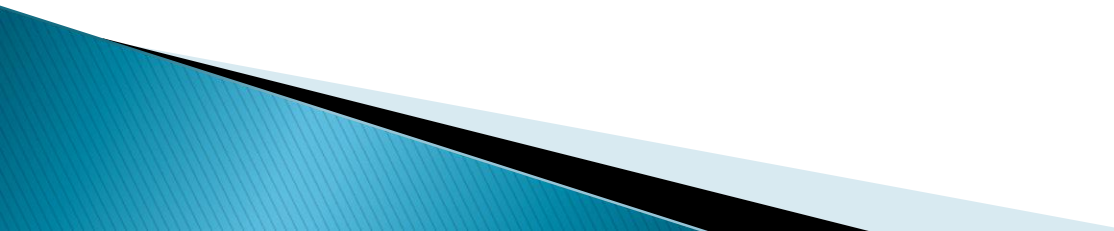
A Presidential Memorandum issued with E.O. 12898 specifically identified Title VI of the Civil Rights Act of 1964 as a means of ensuring that federally assisted programs do not discriminate against minority communities in particular by subjecting them to disproportionately high and adverse environmental effects."



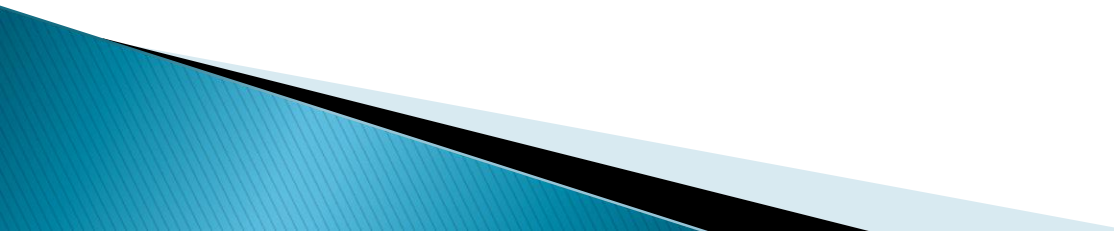
Civil Rights Act of 1964

Administrator Jackson has made improving EPA's civil rights program a priority. As part of this effort, EPA is pursuing long overdue, vigorous, robust, and effective implementation of Title VI of the Civil Rights Act of 1964 and other nondiscrimination statutes.

EPA is committed to protecting people from discrimination based on race, color, or national origin in programs or activities that receive EPA's financial assistance



Some Possible Solid Waste EJ Issues:

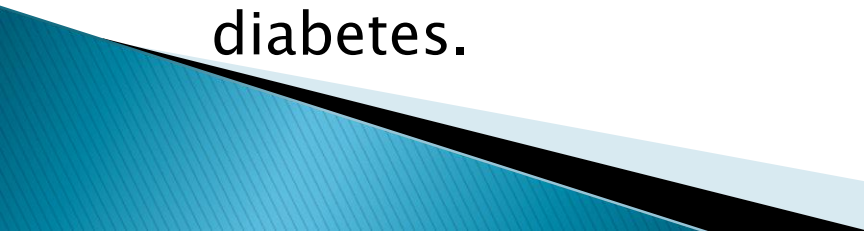
- ▶ Contractor (state, federal and private) activities.
 - ▶ Private Business in communities.
 - ▶ Landfill/Open Dump permitting and inspections process (Native vs. Non-native communities)
 - ▶ Public Health Issue vs. Environmental Regulatory issue?
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Solid Waste Thought

"There is strong evidence that open dumps are unhealthy for people, wildlife, drinking water sources, and the environment in general. However, it is expected and accepted that this is good enough for rural communities in Alaska."

"The general philosophy in the minds of some waste managers is that open dumping is acceptable because "we cannot do anything else." This philosophy is misplaced. The protection of the majority of citizens whose waste is collected and taken away should not be promoted at the expense of the health of a minority (i.e., those people who live near to the open dump.) (Rushbrook & Pugh, 1999 p. 26)."

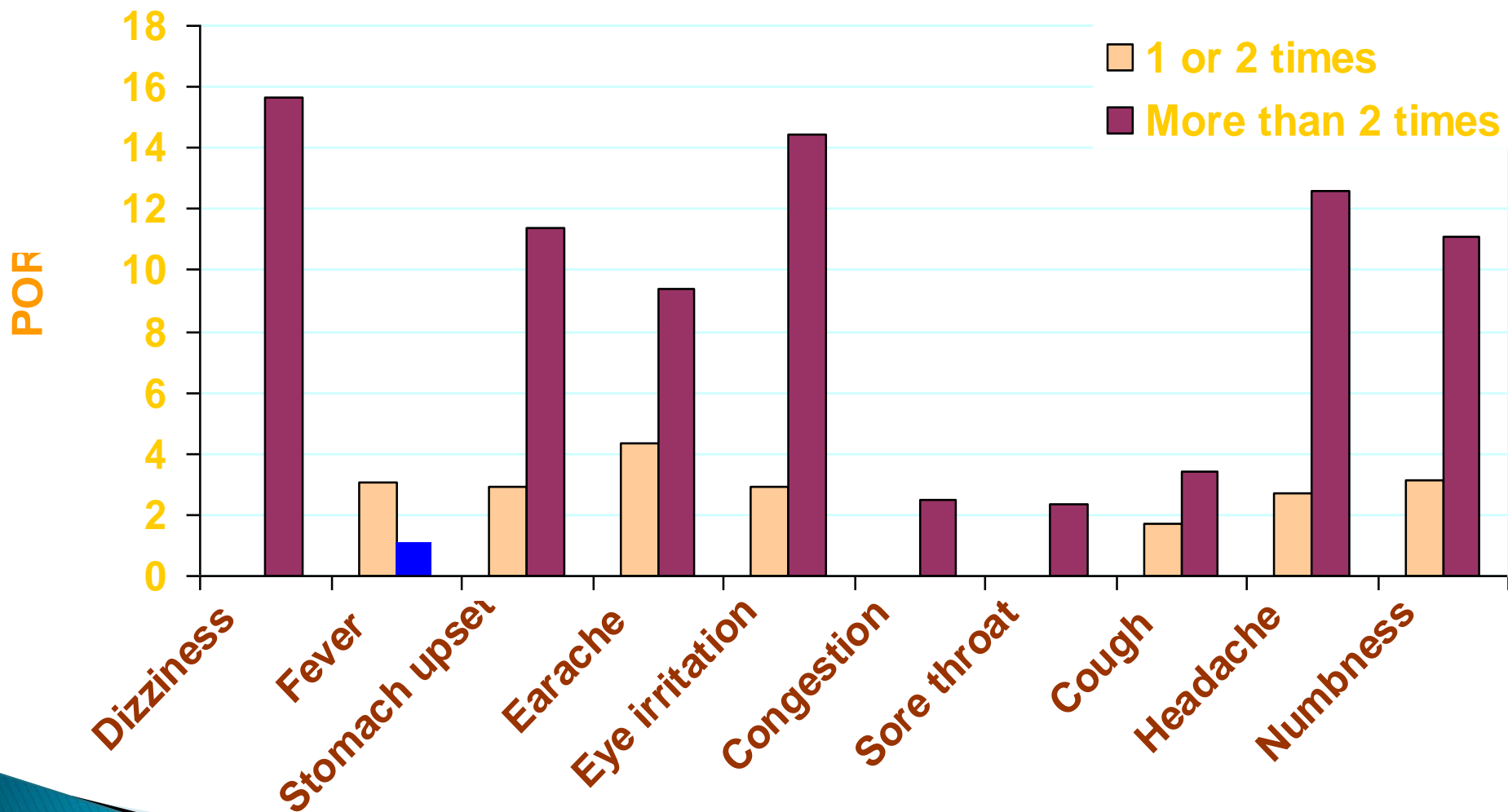
Relative Health Risk Study – Aggregate results of 4 Villages.

- Each had significant results with exception of 1 very small village that did not burn.
 - House to House survey interview, over 95% participation representing 1250 people.
 - Survey designed to National Institute Health Standards, given with trained interviewer and IGAP staff.
 - Asked about each member of household and their short-term health symptoms in the previous 10 days. Information about their disposal habits, relative amount of subsistence diet, age, gender, smoking, tobacco use, diabetes, level of environmental concern, any asthma or diabetes diagnoses.
 - Adjustments made for plumbing, education, environmental concern, gender, age, smoking, (i.e. coughing, congestion), asthma, diabetes.
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Why we are here: Relative risk of symptoms related to waste disposal factors in four Alaska Native Villages, 2001.

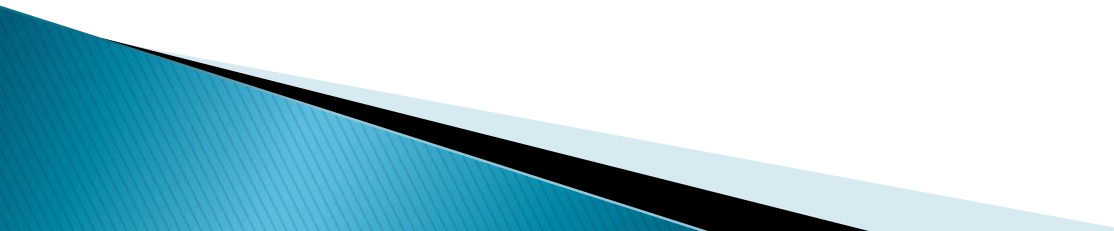
Symptom	% Affected	Live near dump	Dump smoke or odor concerns	Burns near home	Visits dump
Rash	7.2	-----	2.3	29.7	2.9
Faintness	3.6	4	6.3	5.4, 13.2, 17.4 frequency ↗	3.5
Fever	8.7	-----	1.7	2.3	2.0
Stomach pain	10.3	-----	2.2	-----	3.0
Vomiting	2.6	-----	1.6	-----	3.6
Diarrhea	5.2	-----	1.5	-----	-----
Ear irritation	4.4	-----	5.5	-----	2.1
Eye irritation	5.9	18.9	2.3	-----	3.7
Congestion	19.4	-----	1.8	-----	1.4
Sore throat	14.1	-----	1.8	2.0	1.6
Cough	18.4	-----	1.5	1.9	1.7
Headache	14.1	2.9	2.0	-----	3.0
Numbness	3.5	-----	2.6	4.8, 5.2, 10.1 frequency ↗	3.4

Visits to Dumpsites



Subsistence and traditions - at risk from waste?

Our health study found that about **79 percent** of residents in a YK Delta Village were changing their subsistence practices because they were concerned about pollution from dumps and from the litter at camps.



Subsistence was found to protect people from ill health associated with open dumps:

Symptom	Eating subsistence foods most of the time (more than 50% of time) decreased the likelihood of having the symptom by this much:
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fever

2.3 times

**stomach
pain**

1.5 times

vomiting

3.4 times

cough

1.6 times

Birth Outcomes Study

- A study was performed using birth records from 1997 – 2001 from mothers who resided in 197 Villages, together with dumpsite rankings.
- ✓ **Infants weighed on average 36 grams less** when born to mothers from the high exposure group than infants in the intermediate exposure group and **55.4g less** than infants in the low exposure group.
- ✓ On average, **pregnancies lasted 1.2 days less** in mothers from high hazard potential Villages than pregnancies in the intermediate hazard ranked Villages.
- ✓ **Infants** born to mothers residing in Villages with **high hazard dumpsite contents** were **4.3 times more likely to have “other defects”** than other infants.
- ✓ Additionally, **positive odds ratios** for all congenital anomalies, central nervous system anomalies, circulatory and respiratory anomalies, urogenital anomalies, musculoskeletal and integumental anomalies, multiple anomalies were found. The estimates were similar to significant associations found in other birth defect studies on maternal populations living near open dump sites in developing countries, **indicating that associations in Alaska Villages with these birth defect categories could be significant with a higher population size or greater exposure detail.**
- ✓ *See handout for where to find more detailed information on this study.*

EJ Engagement & Group Discussion Questions

1. What does the word “health” mean to you?

When answering this question think about the broad sense of health

2. What does the word “environment” mean to you?

3. What do the words “environmental health” mean to you

4. What are the major environmental health issues affecting your community?

5. Which of the issues listed above needs the most attention?

6. Is there anything that can be done to address these issues?



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