The Ideal Washeteria:
How consumers, operators and utility managers work together to maximize healthy communities

Presentation by the National Tribal Water Center
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2 Characteristics of the Ideal Washeteria

1. Facilitates and encourages consumers to practice the six model healthy water-use behaviors

2. Limits opportunity for washeteria-acquired infections (nosocomial)

#1

The Six Model Healthy Water-Use Behaviors

The Six Model Water-Use Behaviors*

Model Behavior	Respiratory	Skin	Diarrhea
Handwashing	x	x	x
Bathing	x	x	x
Household Cleaning	x	x	x
Laundry	x	x	x
Drinking Treated Water			x
Sewage Disposal			x

*Supporting literature for this table is available upon request

#2

Limit opportunity for washeteria-acquired infections

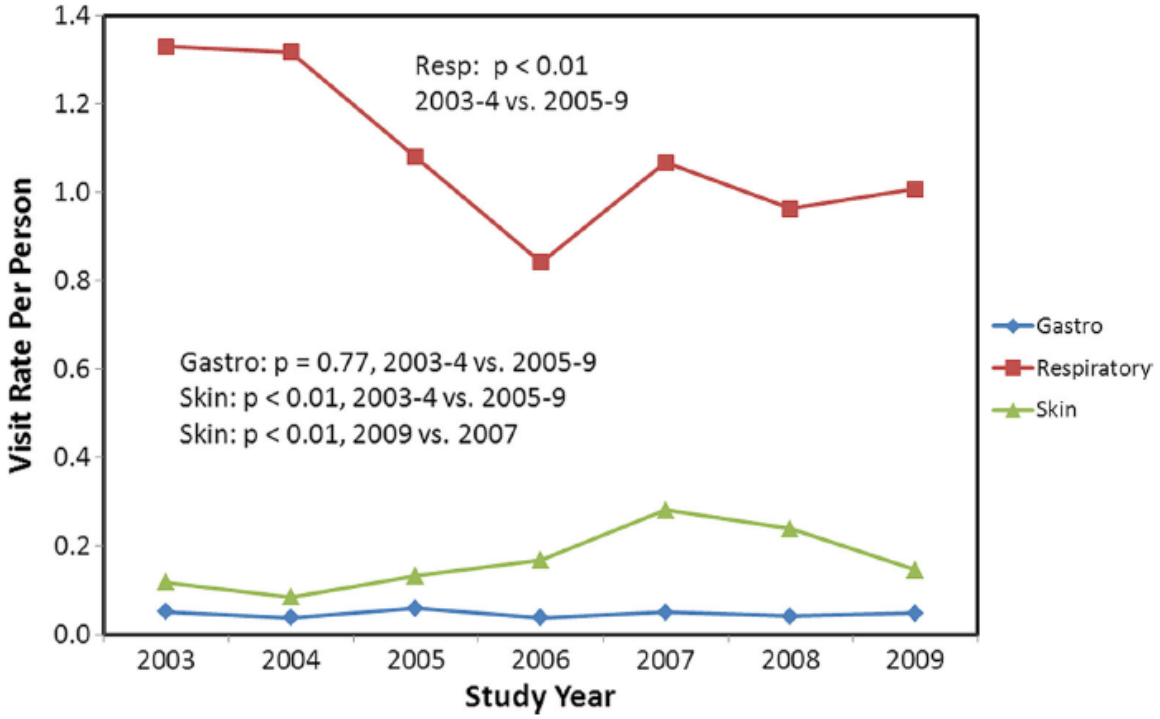


Fig. 2. Rates of gastrointestinal, respiratory and skin infection visits per person for the village of Kivalina by study year for all ages combined.

Thomas, T. K., et al. (2013). "Washeteria closures, infectious disease and community health in rural Alaska: a review of clinical data in Kivalina, Alaska." Int J Circumpolar Health 72.

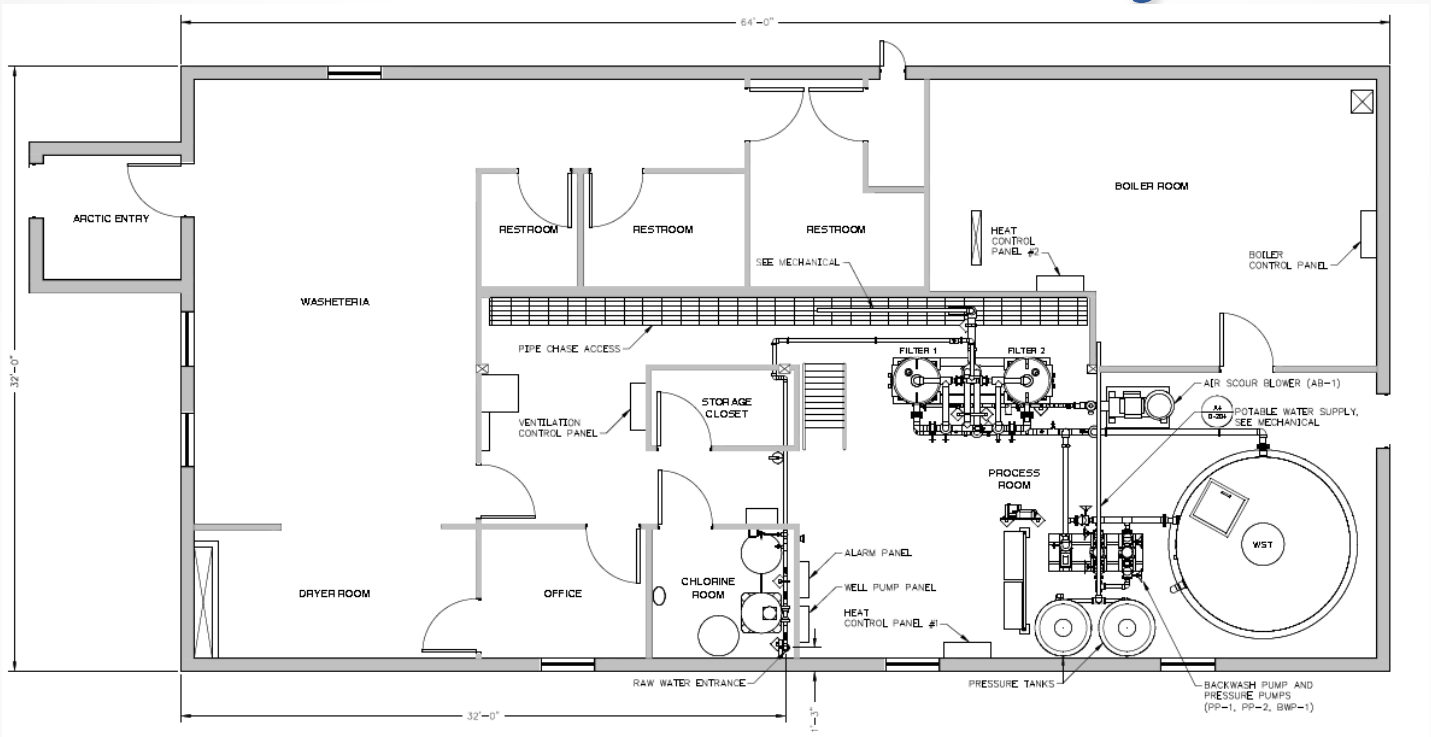
Data Sources

- Anecdotal evidence gathered from ANTHC/DEHE field work
- Lit search supported by CDC Public Health Library and Information Center
  - Database(s):MEDLINE, EMBASE, and Global Health:1946 to 2012
  - 58 lines of criteria included in the search strategy
  - 4219 "hits" being reviewed and categorized (ongoing)
- Personal communications with subject matter experts

The Suspects

Skin Infections	Respiratory	Diarrhea
Staphylococcus spp.	Influenza	Norovirus
Group A Streptococcal	Streptococcus pneumoniae	Clostridium difficile
Scabies, Lice, Bedbugs	Enterovirus	
Pseudomonas aeruginosa	RSV	
Biofilms	Coronavirus	
Fungal Infections (Tinea)		

Where are they?



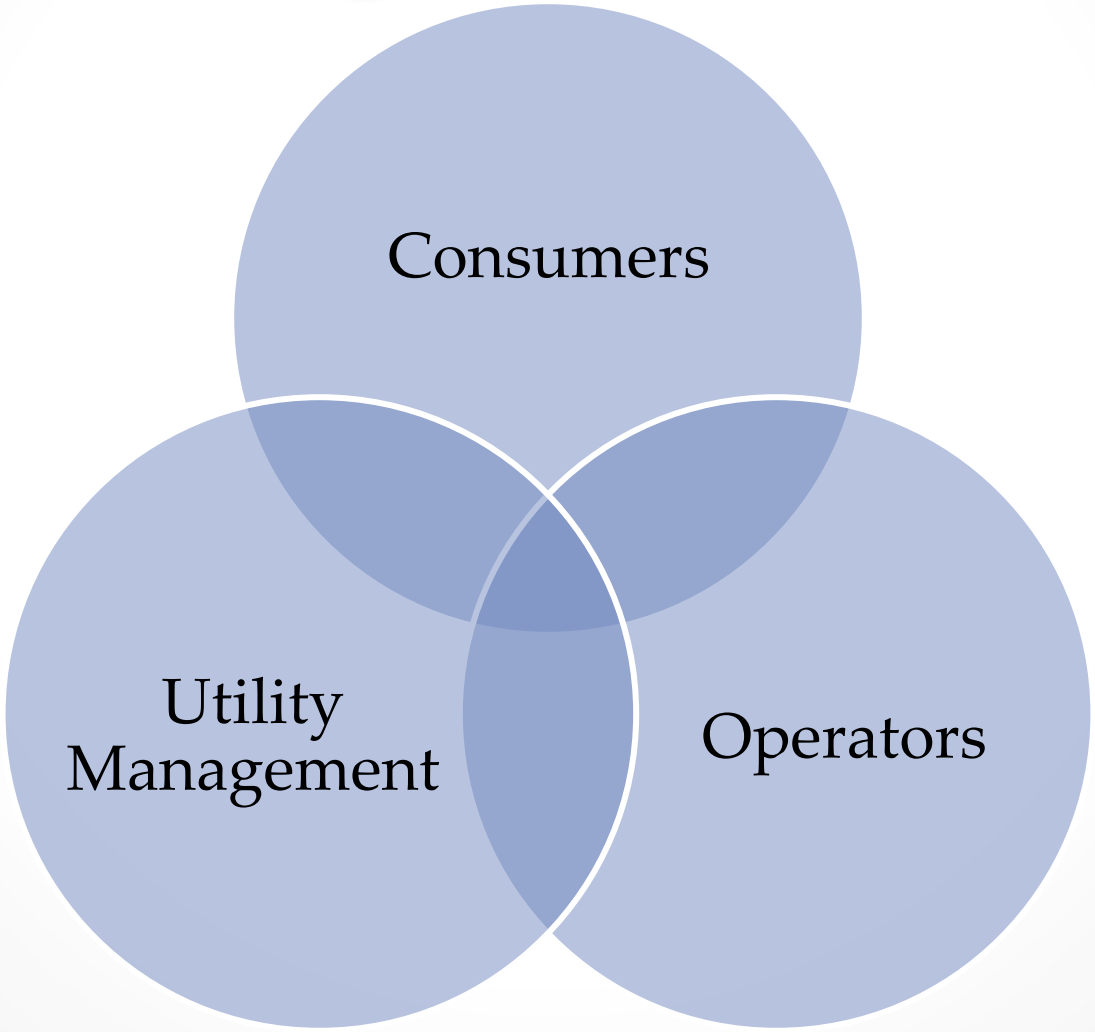
- High traffic areas
- Commonly touched surfaces
- Equipment contamination
- General cleanability
- Fomites, fomites, fomites

Washeteria	Thoroughly clean the community washeteria. Sweep and mop the floors. Clean the bathrooms. Clean the dryer lint filters. Check the dryers' manufacturer's literature for instructions.	
Watering Point	Make sure the watering point is operational. Either see someone use it, or test it yourself. Check for ice build-up on the watering point equipment and on the ground under the hose during freezing weather. Clear the ice if necessary. Collect the money from the coin box.	
School Service	Check and record the circ loop water temperature.	
Fuel System	Check the tank level in the day tank. Fill if less than ¼ full.	
Heating System	Check that the system is functioning properly. Fill out the Hydronics Record Form. Check the boilers for oil and water leaks and for strange noises. Check the temperature of the circulating glycol. Temperature should be in the range of 140°F to 221°F. If the temperature is less than 130°F, there is a problem with the boiler, heat exchanger, or circulating pumps.	
WEEKLY		
Equipment	Make sure that you...	
River Pump	Open wide the valves associated with the cyclone separator and SCD in order to flush out the sediment that can slow the flow rate over time.	
Pressure System	Check the pressure ranges by watching the pressure gauges while the pumps are turning on and off.	
Washeteria	Collect coins from the coin boxes. Clean the cabinet of the washing machines, and remove all traces of soap.	
Watering Point	Record the water meter reading and determine how much water has been used in the previous week.	

Some Knowledge Gaps

What we know	What we don't know	Gap
Washeterias present an environment suitable for pathogen transmission	What pathogens are in Alaska's washeterias? In what quantities?	Environmental Sampling
There are a myriad of cleaning/ disinfecting protocols and research articles (4000+)	What's most appropriate for washeterias in Alaska?	Washeteria housekeeping best practices
Washeteria O&M Manuals provide general housekeeping recommendations	What's actually being done? What frequency? Is it effective?	Behavior

Maximizing Health Through Behaviors



Thank you

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