



Energy Efficiency in Public Infrastructure ANTHC Rural Energy Initiative

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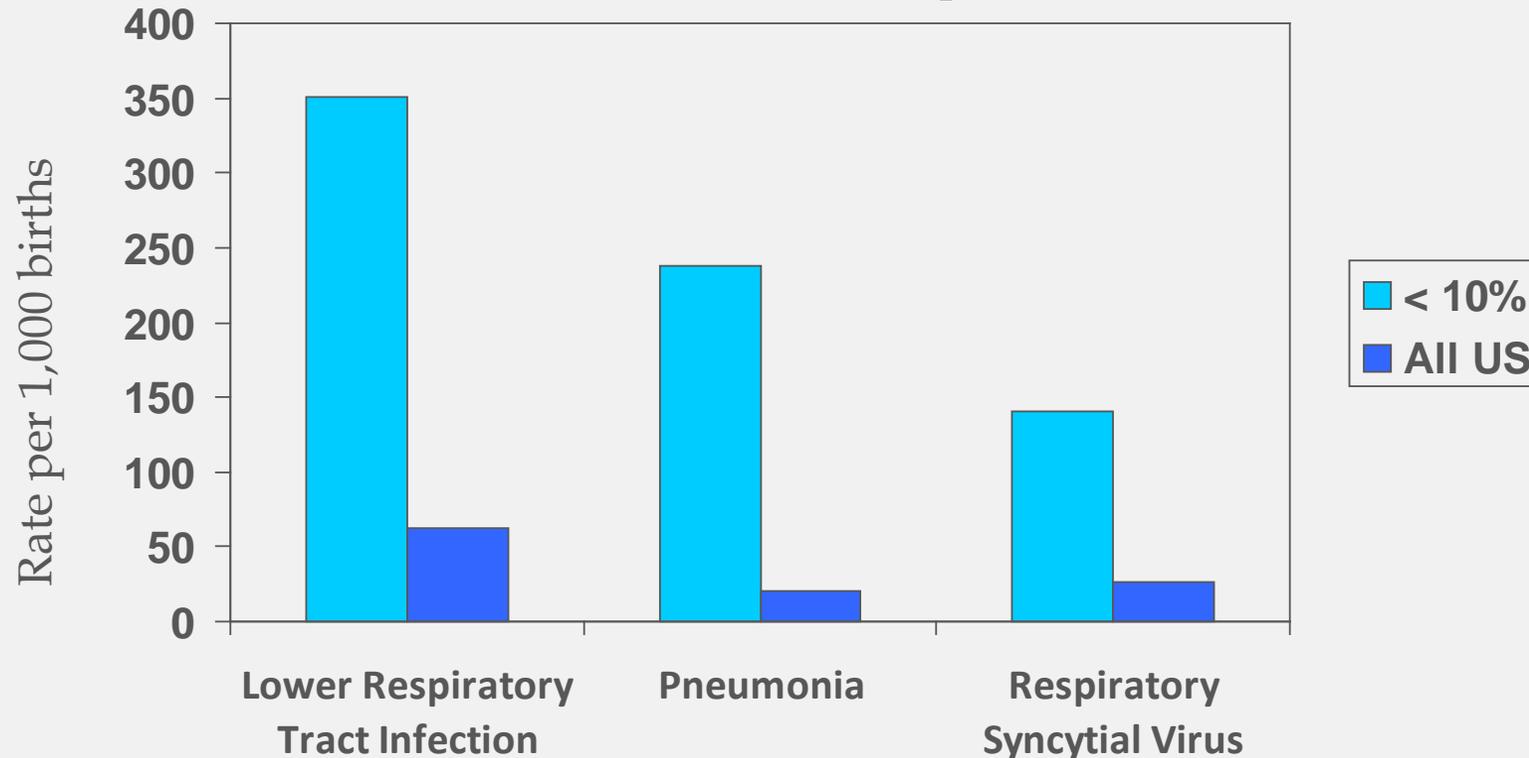
Overview

- Why Public Infrastructure is Different
- Process for Evaluation and Implementation of Energy Efficiency Retrofits in Kongiginak
- Importance of Local Capacity and Appropriate Technology
- Benefits beyond Savings

Energy Efficiency in Public Infrastructure

- Less “Self Interest” motivation
- Value of Services
- Limited Local Capacity
 - Financial
 - Technical

Infant Hospitalization Rates in Villages with <10% of Homes with Water Service* Compared with U.S. Infants**



Kongiginak Assessment

- Energy Audit 2011
 - Total Savings Identified: \$10,000
 - Total Implementation Cost :\$30,000
- Community Implementation: Limited
- Funded for Implementation: 2014
 - Revised Cost Estimate \$80,000
 - Expanded Scope
 - Focus on Training
 - Operational Solutions
 - Disregard Subsidies
 - Improved Savings : \$15,000



Planning for Implementation

- Training and Retrofits Plan
 - More detail than energy audit
 - Identify and solve root cause of inefficiency
 - Coordinate with Partners/Community
- Non-Savings Solutions
 - Glycol pressurization (
 - Fuel Supply + Metering
 - Organization of Facility
 - Provide Tools



Mr. John Phillips Jr., Primary Water Treatment Plant Utility Operator

Mr. James Tikiun, Alternate Water Treatment Plant Utility Operator

Implementation: Training Focus

- Improve Confidence and Knowledge
- Improves Likelihood of Future Savings
- Install Hand in Hand
- Labeling
- Establish contact reference



Implementation: Appropriate Technology

- Visual feedback to inform operator behavior
- Ultra Efficiency / High-Tech versus Low-Tech
- Low O /M Technologies
- Focus on Local Best not on “Energy Best”



Additional Benefits: Improved Health

- Faster/More Effective Drying



- Reduced Moisture/Mold



Additional Benefits: Expanded Local Capacity

- Expanded Knowledge
- Improved Job Satisfaction
- Local Ownership



Additional Benefits: Comfort

- Improved Heat Balancing
- More Regular Hot Water for Showers



Additional Benefits: Safety

- Better Lighting
- Reduced Fire Danger



Closeout

- Coordinate with Partners
 - YKHC (Technical Support)
 - RUBA (Financial Support)
 - AVCP (Future Projects)
- Track Savings
 - Fuel Meter
 - Waste Heat Utilization





Thank You

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