

## **Risk of Environmental Exposure to Methicillin Resistant *Staphylococcus Aureus* in Healthcare Programs**

**Grace Leu Burke MSCLS, MT(ASCP)**

Rachel Sanders

Dong Won Yu

University of Alaska Anchorage

Anchorage, AK

The opportunity for disease transmission increases with potential pathogen exposure.

Environmental exposure provides an avenue for not only active infection, but also for bacterial colonization. Of the various bacteria that exhibit regular colonization in humans, methicillin resistant *Staphylococcus aureus* (MRSA) is of particular interest in healthcare. To determine the potential for MRSA transmission from public restrooms we cultured 72 sites within nine buildings on the University of Alaska Anchorage (UAA) campus. *Staphylococcus aureus* was isolated in five of the nine buildings but was not significant for exposure risk ( $p= 0.07$ ).

However, MRSA was isolated in the Health Science Building and was determined to be an independent risk factor for pathogen transmission ( $p < 0.05$ ). The discovery of MRSA in a building dedicated to health care professional education and absent from all other public restrooms on the UAA campus suggests a subpopulation of colonized students and faculty.

Because students and faculty in healthcare-related programs have close proximity to patients, a screening process for MRSA carrier status should be implemented to determine potential transmission risk during clinical rotations.