Sanitation in the Residence Hall Bathrooms

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**Recommended Citation**  
Cotter, John; Sauer, Nate; Daly, Camneil; Darling, Connor; and Sarro, Louis, "Sanitation in the Residence Hall Bathrooms" (2012). *Great Problems Seminar Posters*. Book 317.  
Sanitation in the Residence Hall Bathrooms

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Advisor: Professor Jill Rulfs (Biology) and Helen Vassallo (Management)

Abstract

• A common problem on college campuses is the rampant spread of infectious diseases, and illness in the communal residence hall bathrooms.

• Products such as hand sanitizer and anti-bacterial metal finish for bathroom doors, will lower the rate of illness and improve student health.

Introduction

• Students health suffers nationally at college. The heart of this problem is in residence hall bathrooms. The failure to wash one’s hands leads to the harboring of illness in high traffic areas such as bathroom doors.

• Bathroom doors require your hands to exit. This allows transfer of bacteria to those who do wash their hands.

• A secondary source of sanitation, such as Purell or Microban, would improve the health of students.

• Attendance rates, and therefore grades, suffer from poor student health.

Need and Approach

• Need- To address the problems with current sanitary conditions in the residence hall bathrooms that may be contributing to student illness.

• Approach- Investigate current bathroom cleaning policy, implement a survey to find student need, and research an effective and cost efficient way to improve sanitation.

Methods

Survey - To assess student need, we surveyed 439 people, from every grade, and every residence hall.

Bacteria Cultures - We swabbed the doors of each residence hall bathrooms to check for bacteria.

Interview - We contacted Tom Moreau to learn about current cleaning policy.

Research - Looked into possible solutions.

1st Solution - Purell

• Kills 99.99% of most common germs.

• Uses 100% naturally renewable, plant-derived ethanol (Green Product).

2nd Solution - Microban

• After day of application, most bacteria eliminated.

• Better for preservation, not human health.

Results

Survey Results -

• 20% of students report that they DO NOT ALWAYS wash their hands.

• 76% of the bathrooms require you to touch the handle as you exit.

• 52% of students report that the feel they have gotten sicker while living in residence halls.

Cost Results

<table>
<thead>
<tr>
<th>Purell</th>
<th>Microban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost: $18,580 per year</td>
<td>Total Cost: $3.99 per gallon</td>
</tr>
<tr>
<td>Additional $3.21 to tuition</td>
<td>Covers all important surfaces</td>
</tr>
<tr>
<td>Bi-weekly refills</td>
<td>One-time application</td>
</tr>
</tbody>
</table>

Conclusions/Recommendations

• There is currently no problem in the school's sanitation methods.

• The problem lies in the lack of student hand washing.

• As a solution, we recommend the use of Purell.

• More effective than Microban.

• High return on investment.

• Future action.

• Availability in more than just residence halls.

Acknowledgments

• Thank you Professor Rulfs for providing us with the materials to culture bacteria.

• Thank you to Tom Moreau for partnering in an interview informing us on current sanitation policy in residence hall bathrooms.

References


