



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> <b>Shreya Banerjee</b>	<b>Project Number</b>  31328
<b>Project Title</b> <b>Hand Hygiene</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of my project was to find which brand of hand soap/sanitizer will kill the most bacteria. My hypothesis was that Dial soap would be the best and Bath &amp; Body Works hand sanitizer would be the worst.</p> <p><b>Methods/Materials</b> First, I created a culture medium for bacterial growth. From a commonly touched surface around the office, I transferred the possible bacteria to the culture medium using my fingertips. I repeated the process, but before inoculation, I clean my hands with either hand sanitizer or hand soap. Then, I observed bacterial growth for five days. I did not touch the culture medium during this period.</p> <p><b>Results</b> The sample where the most bacteria grew was the Up &amp; Up Hand Sanitizer and the sample where the least bacteria grew was Dial Soap. The hand soaps were generally better than the hand sanitizers.</p> <p><b>Conclusions/Discussion</b> The hand soaps were generally better than the hand sanitizers. Dial brand handsoap was the best of all the tested brands. Hand washing with soap is extremely important in preventing the spread of disease. If soap is not available use hand sanitizer.</p>	
<b>Summary Statement</b> I tested different hand soaps and hand sanitizers to determine which one was the most effective in killing bacteria and therefore protecting health.	
<b>Help Received</b> My parents helped me by editing my work, and Dr. Anupom Ganguli was the qualified scientist who supervised the project.	