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INTRODUCTION

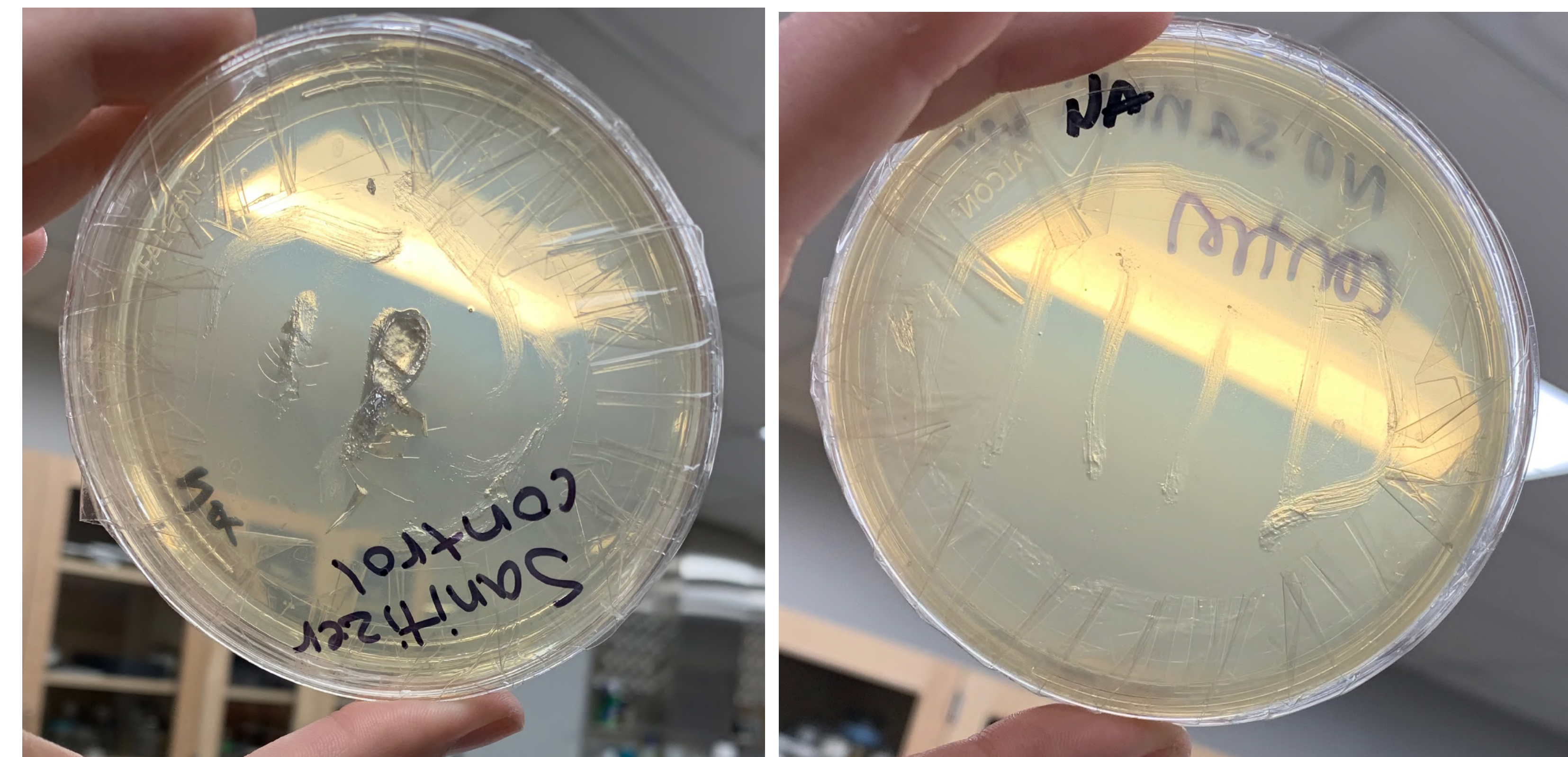
Hand sanitizer is often used to prevent the passing of germs and bacteria. One way germs and bacteria are passed without people thinking about it is through touching door knobs. Using hand sanitizer before touching a door handle helps prevent the spread of germs and bacteria. Another way to help prevent the spread of germs and bacteria is through washing one's hands with soap and water. This study tests the difference of using hand sanitizer, soap and water, and neither on bacteria growth on a door handle.

OBJECTIVES

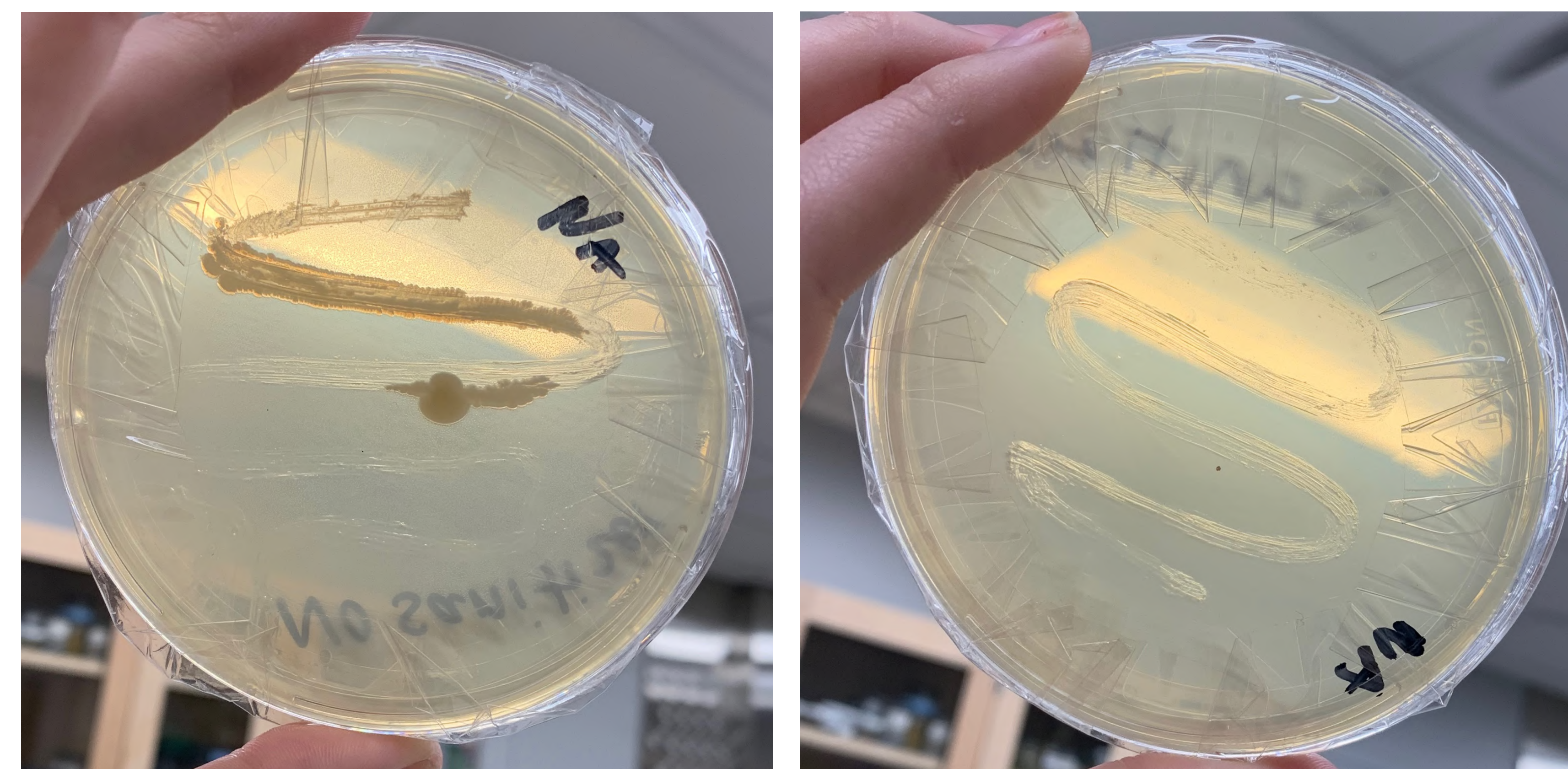
This study tests the effectiveness of hand sanitizer against no hand sanitizer on two sets of doors. The door handle were then tested to see the bacteria growth over the course of a week. Additionally, the effect of hand sanitizer versus soap and water was also tested.

METHODS

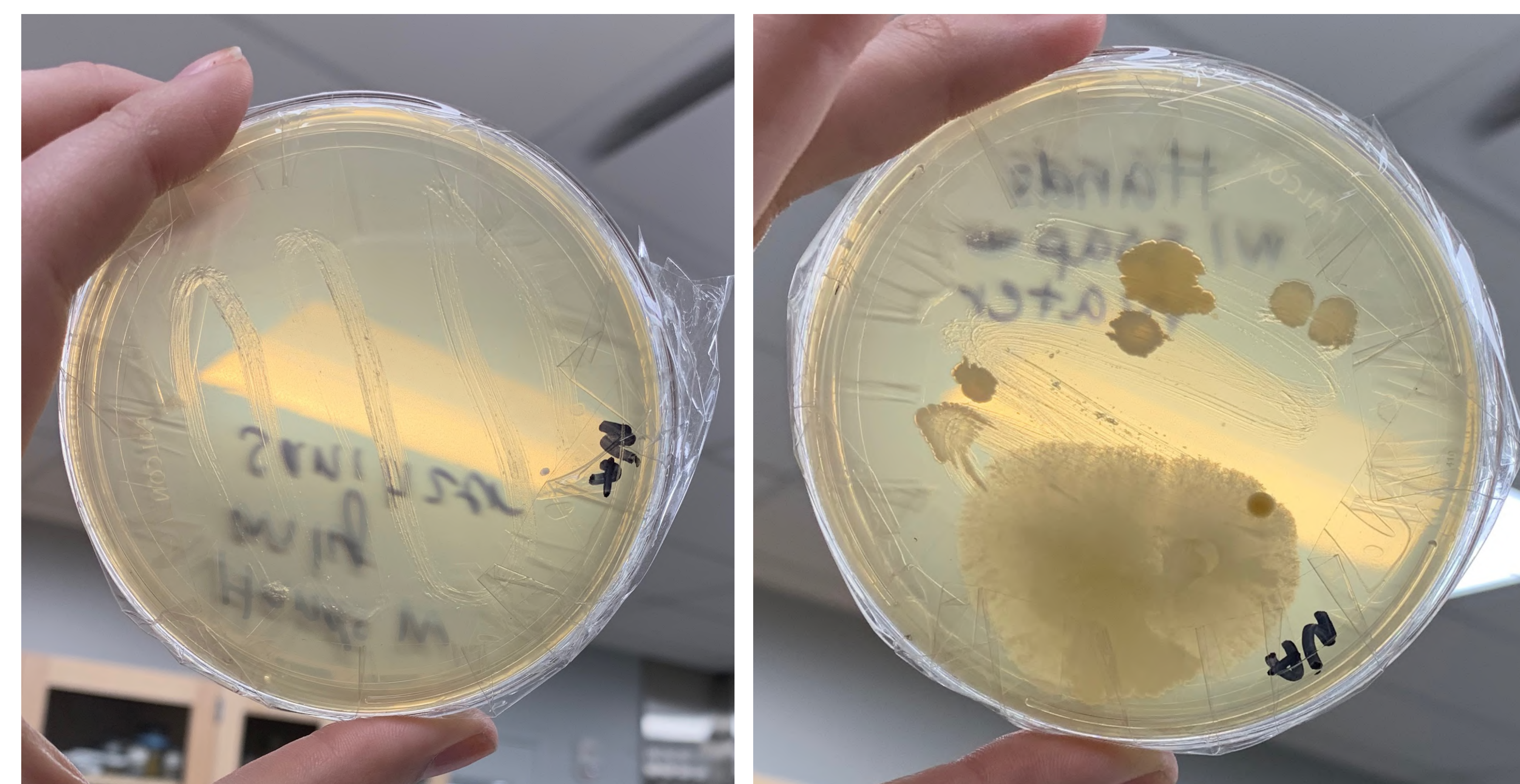
- Each set of doors of BH/MC 201 were sanitized using disinfecting wipes
- After sanitizing, each door handle was swabbed for controls
- A one set of doors, each student was asked to use hand sanitizer before touching the door handle
- After people were done walking into the classroom, each door handle was swabbed again
- Then, we swabbed our hands after using just hand sanitizer or soap and water
- The petri dishes were then set aside for a week for any bacteria to grow



Hand Sanitizer (Left) and No Hand Sanitizer (Right) Controls



No hand sanitizer (left) and hand sanitizer (right) samples after 7 days



Hand sanitizer use only (left) and washing with soap and water (right)

RESULTS

- Controls showed no bacteria growth
- Hand sanitizer showed to limit bacteria growth as opposed to no hand sanitizer
- Soap and water showed to grow the most bacteria

CONCLUSIONS

Hand sanitizer showed to be effective in limiting bacteria growth when compared to no hand sanitizer. This shows that hand sanitizer is effective in limiting the spread of bacteria. However, soap and water showed to not be as effective as hand sanitizer which is the opposite than expected.

FUTURE WORK

Should doctors wash their hands with soap and water before seeing a patient, or is hand sanitizer just as effective?

Acknowledgments

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