

Where do you find more microorganism? Hands analysis when you arrive to the school

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Introduction

Not long ago Covid-19 was a huge problem for the entire world. A lot of restrictions were made to limit the spread. One of them was to wash our hands more often and to use hand sanitizer, especially after being in crowded places. For that cause we decided it would be interesting to investigate if there is an actual difference when using hand sanitizer in various occasions.

The goal of this analysis was to examine if there is any differences in the number of micro-organisms present in people's hands when using different types of transportation. We compared private transportation (bike, car and walking) and public transportation (bus and train).

Materials and methods

We prepared the agar plate with plate count agar. Before leaving home, we used hand sanitiser. When we then arrived at school, we dragged our fingers inside the agar plate and then closed it and sealed it with paraffin. We took samples four independent days. We left the plates at room temperature for four days before we counted the colonies.



Colonies of micro-organism grown after fingerprints on PCA medium



Plate Count Agar (PCA)
Hand sanitiser

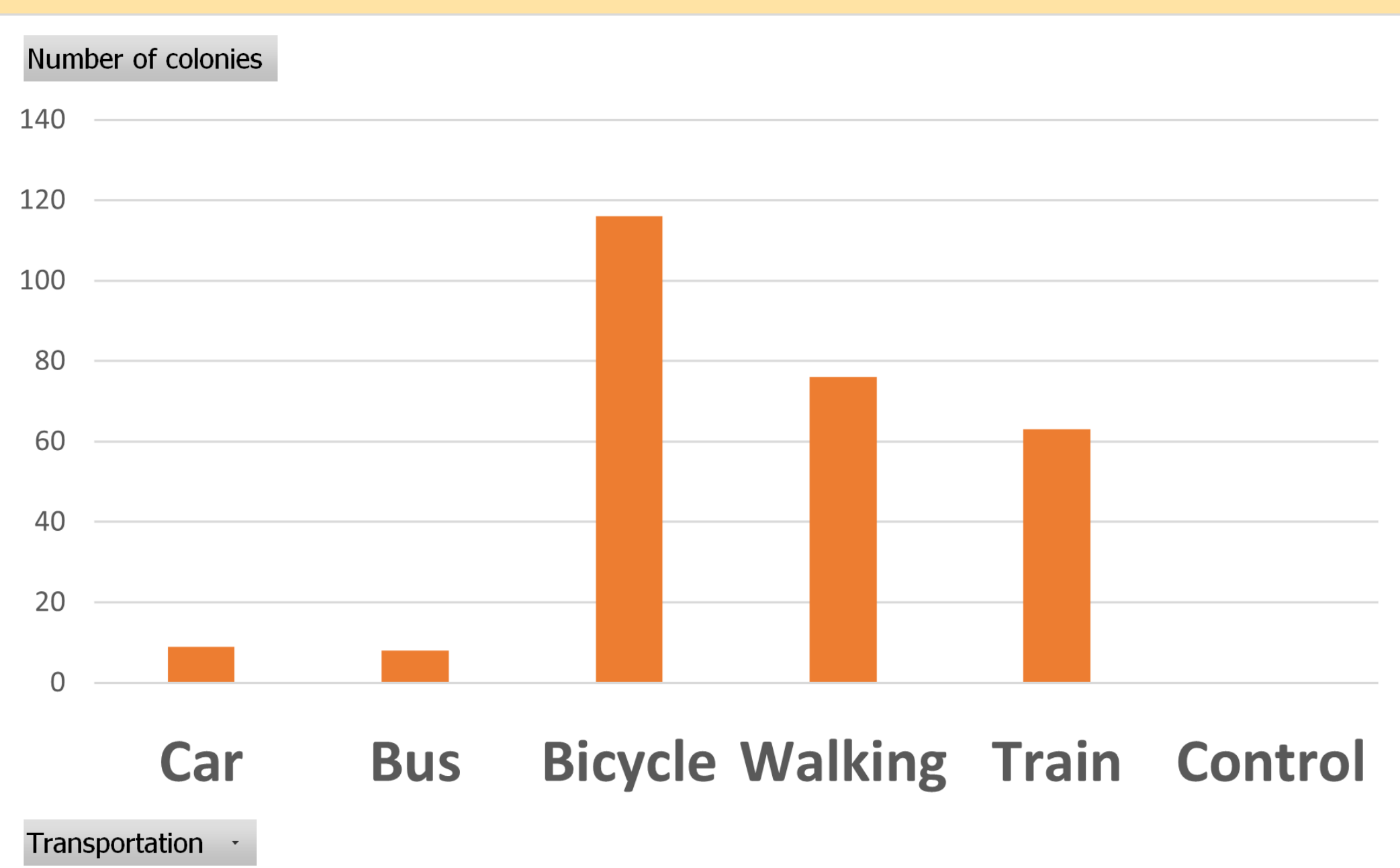


Fig 1. Amount of colonies for every transportation

Results

Our diagram shows the number of colonies that builds for every transportation. We can see that the most colonies are formed when you ride a bicycle, walk and train transportation. If you go by car or bus, we can see that it builds up remarkably less colonies.

Conclusion

We can't see any differences in the number of colonies that builds up between private and public transportation. Since we park our bicycles outside it explains why there are a higher number of micro-organisms in that occasion. When you go by bus or car it takes less time which explains why it build up less micro-organisms.