Introduction
• Global antibiotic consumption has been increasing in both LMICs and HICs
• The overuse and misuse of antibiotics contributes to the increasing number of resistant pathogenic bacteria

Objective of the Study
The aim of this research project is to identify the drivers of global antibiotic consumption.
➔ Health Expenditure per capita
➔ Hospital Beds per 1,000
➔ Literacy Rate
➔ % of the Population Over 65 years
➔ % of the Population Practicing Open Defecation
➔ % of the Population Using Basic Sanitation Facilities
➔ Corruptions Perceptions Index
➔ Education Level

Methods
• The CDDEP provided me with global antibiotic consumption data from 2000 to 2015
• I collected data on each of the variables from the World Bank
• Using R I ran fixed-effects regression models

Results
• Regression results depicted in Figure 2 show that age, % of the population practicing open defecation, education level, and income have a statistically significant effect on antibiotic consumption.
• Additionally, (not pictured) antibiotic consumption is increasingly correlated with the year.
• I plan to further study differences in antibiotic consumption by class

Discussion
• Understanding the variables that drive antibiotic consumption can help inform policy-makers to target specific populations
• Decreasing antibiotic consumption can combat global antimicrobial resistance

Questions
• Are there other variables that may contribute to antibiotic consumption?
• How does global antibiotic consumption differ by antibiotic class over time?

Conclusion
• Many socioeconomic, cultural, and demographic factors contribute to global antibiotic consumption, especially age, defecation rates, education level, and income

Acknowledgements
I would like to thank the CDDEP, Eili Klien, and my advisors: Ramanan Laxminaryan and Simon Levin. Additionally, I would like to acknowledge CHW, Health Grand Challenge, and the EEB department for this opportunity.