

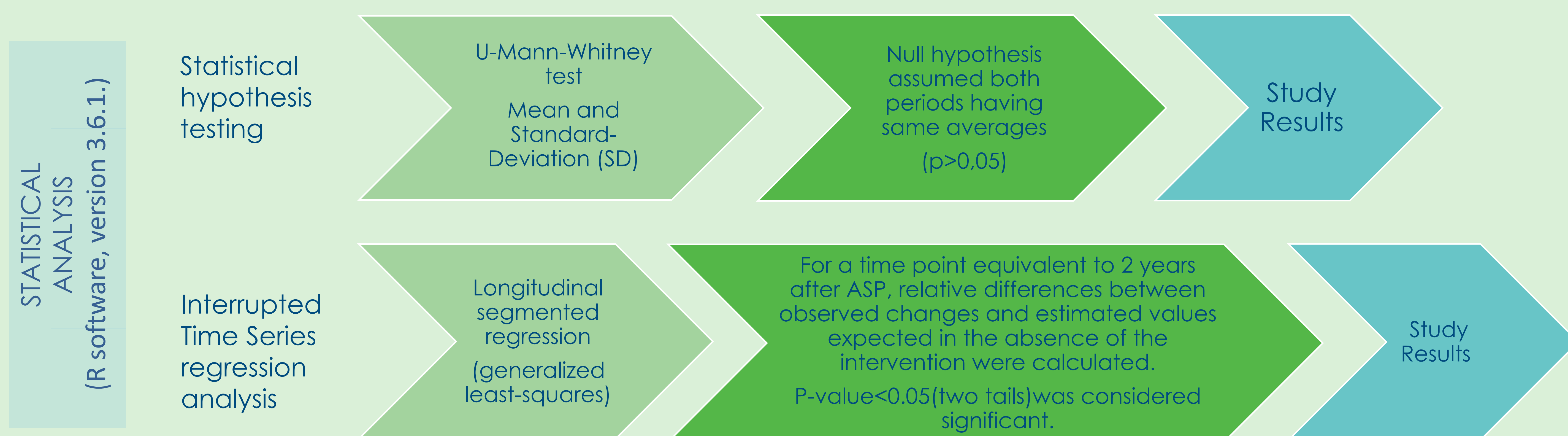
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## Objective

To compare results of an interrupted time series analysis (ITS) versus basic statistical hypothesis testing in a before-and-after study to evaluate the impact of Antimicrobial Stewardship Programmes (ASP) on cephalosporins consumption in a tertiary university hospital.

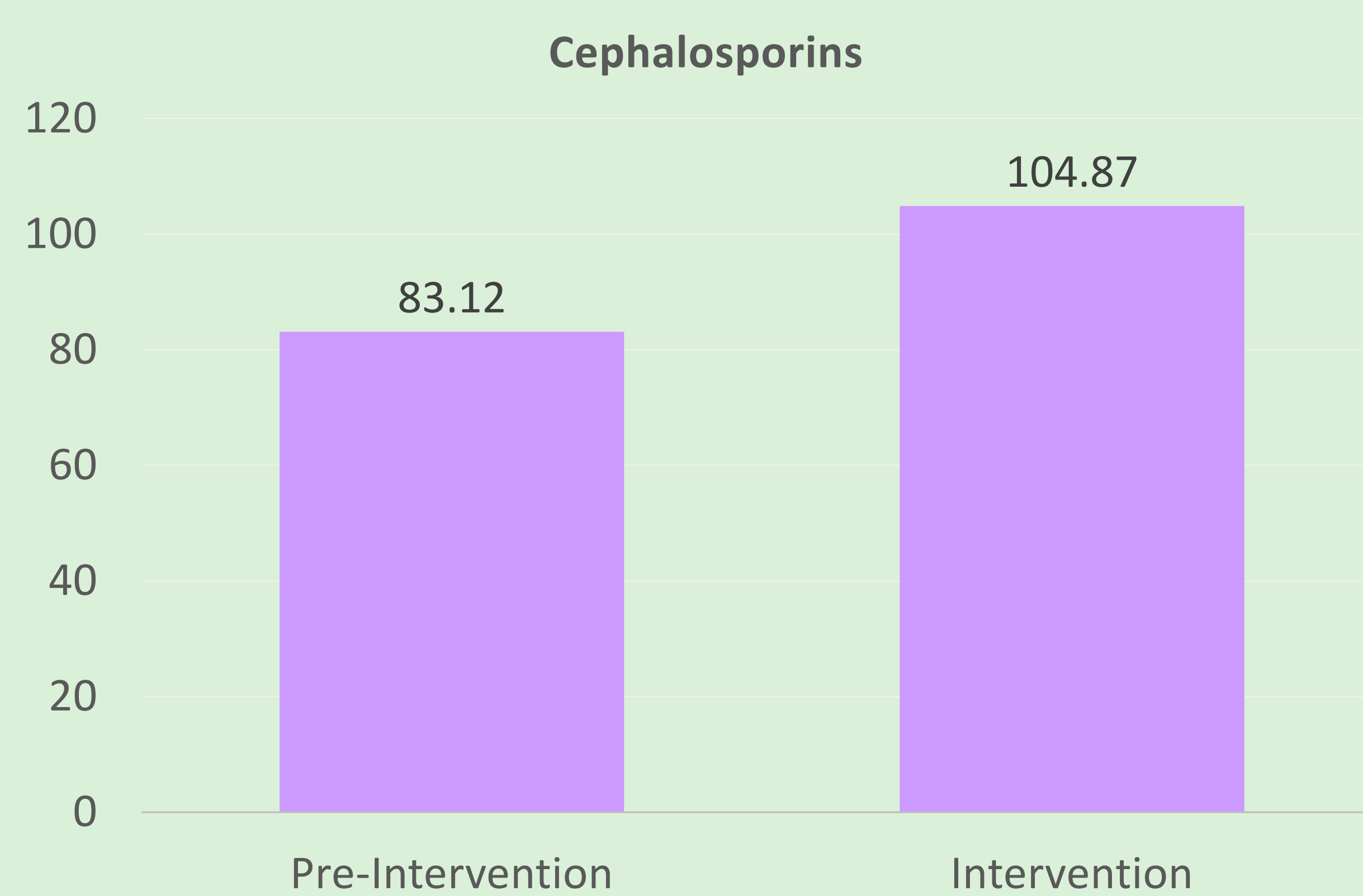
## Quasi-experimental study

## Methods



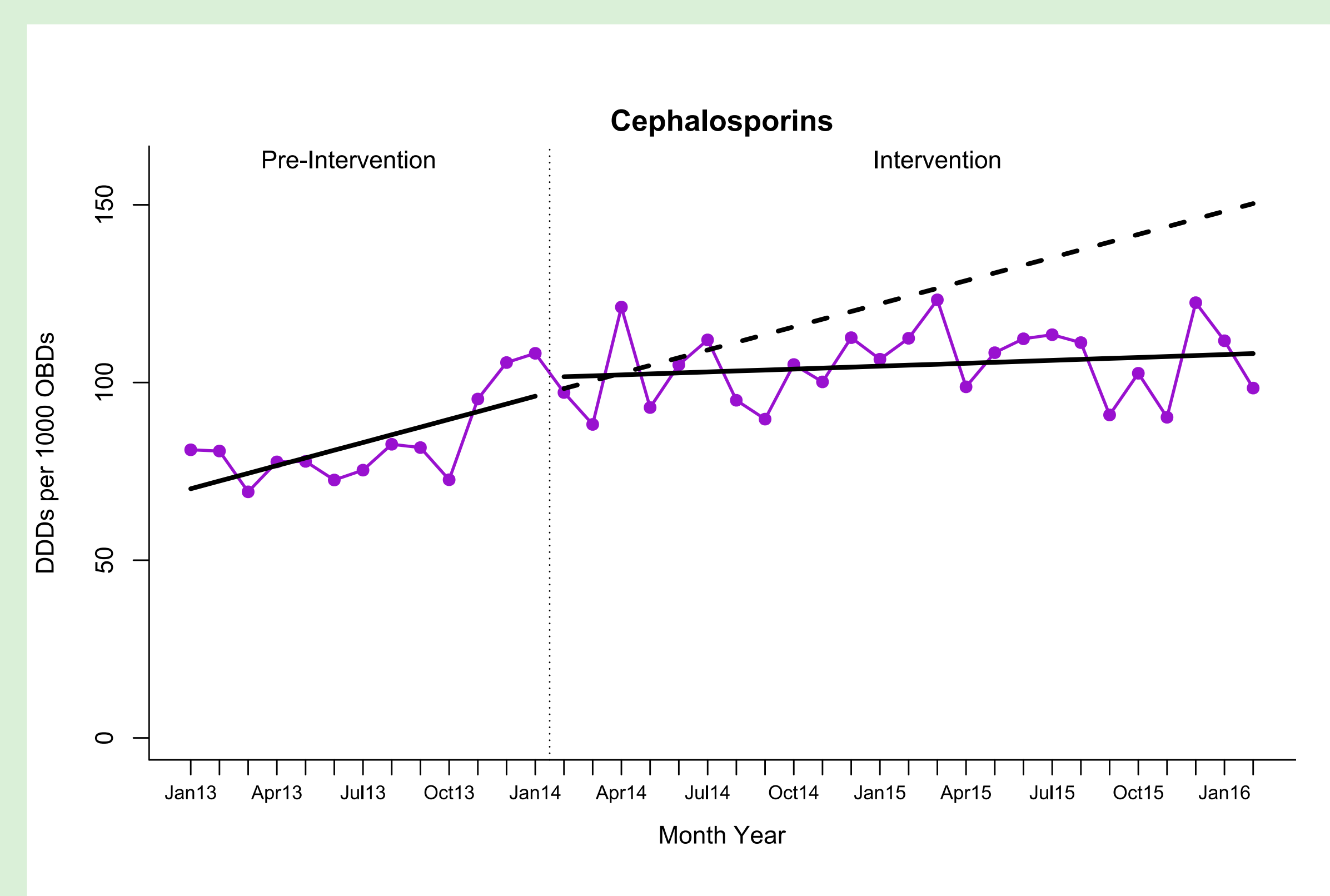
## Results

### STATISTICAL HYPOTHESIS TESTING



A significant increase ( $p < 0.001$ ) in cephalosporins consumption was shown in the intervention period.

### INTERRUPTED TIME SERIES ANALYSIS



Intervention led to a significant change in trend, moving from a pre-intervention upward slope to an almost horizontal slope. 2 years after the ASP, a significant decrease was observed in measured consumption compared to the expected of -28.07%.

## Conclusion

- Although both quasi-experimental designs showed significant changes in cephalosporins consumption after the intervention, the interpretation of results is **contradictory**.
- While **hypothesis testing showed an increase** after the intervention, **ITS analysis** revealed that this consumption **was even less** than expected. This suggests **the programme may have been useful** in reducing the consumption of these antimicrobials.
- A **robust design** is essential in ASP, enabling appropriate interpretation of results.