

COVID-19 PANDEMIC: IMPACTS AND FUTURE IMPLICATIONS ON PERSONAL TRAVEL BEHAVIOR IN THE STATE OF QATAR

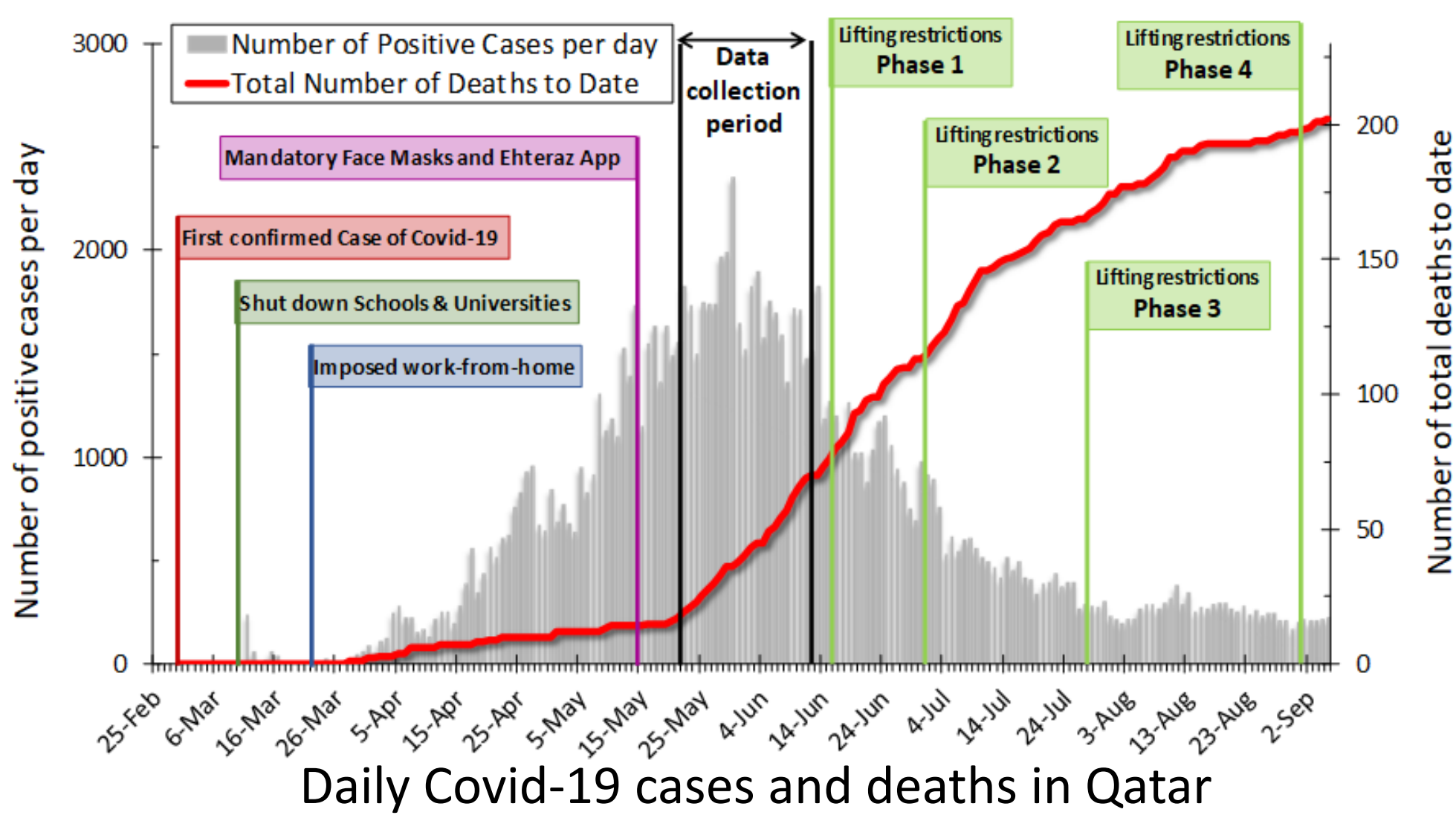
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Background

- Outbreak of a novel and contiguous coronavirus (Covid-19) in China in December 2019
- Infections of more than 32 million people and around 1 million deaths worldwide in the first 9 months
- More than 120 thousand cases and more than 210 deaths in Qatar
- Certain restrictions and policies by the governments

- Suspension of schools
- Work form home
- Limiting shopping activities
- Limiting physical activities

- Strong impacts on individual travel behavior



Objectives

- Impacts of the Covid-19 on individual's daily work/education, shopping and physical travel patterns
- Individuals' preferences and expectations concerning their daily travel activity in the future

INTRODUCTION

Main findings

2. Shopping Activity

- Shopping trips ↓
- Bulk shopping ↑
- Online shopping ↑
- Family with Children ↓
- Female ↓
- Online shopping: Westerners ↑

1. Work/Education Activity

- Travel activities ↓
- Travel time ↓
- Mode shift to CAR ↑
- Public Transport ↓
- Solo Driving ↑

3. Physical Activity

- Overall activity frequency ↓ For Westerners ↑
- For those working from home ↓
- Stopped activity 40% Started activity 4.5%

Recommendations

- Flexible work/business facilities for the post-pandemic situation
 - To reduce overall traveling activities and congestion
 - To reduce indirect costs for businesses
- To smartly handle future outbreaks or the expected second wave of Covid-19

CONCLUSION



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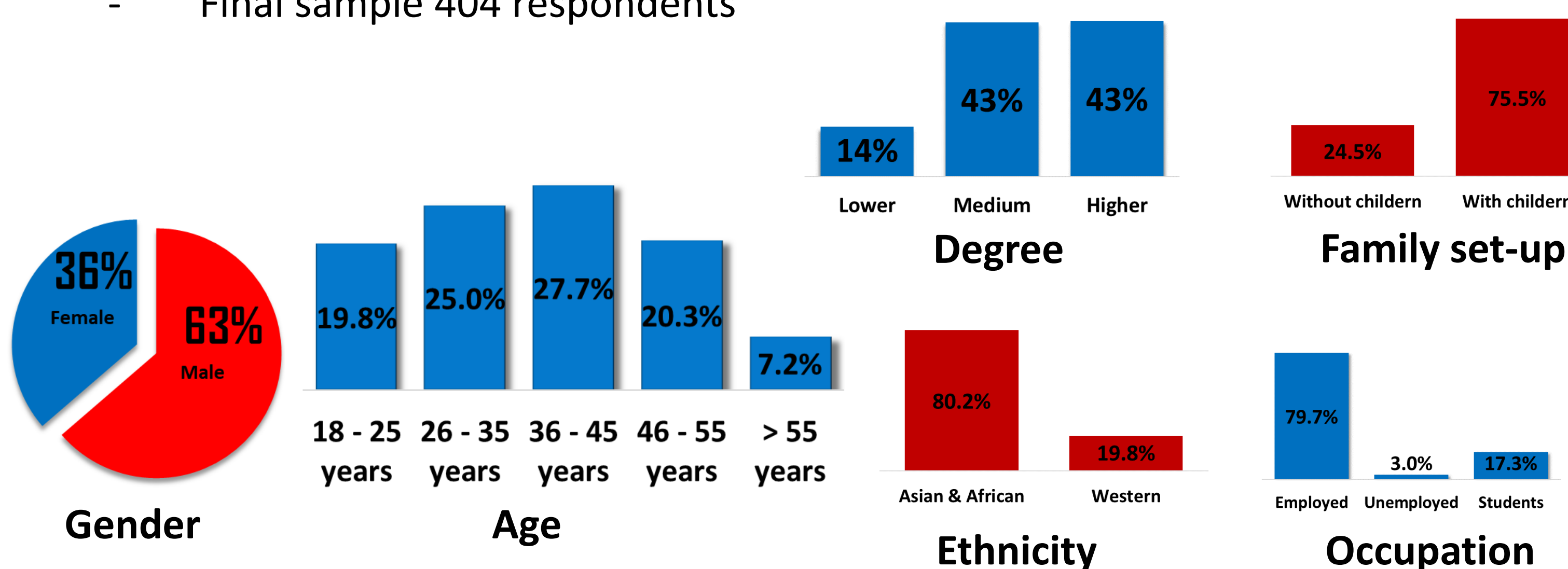
STUDY DESIGN

Questionnaire development

- The questionnaire comprised three different sections:
 1. Socio-demographic characteristics
 2. Household activity-travel routine
 - work/education
 - shopping
 - physical activities frequencies
 3. Individual preferences for future travel activities

Data Collection

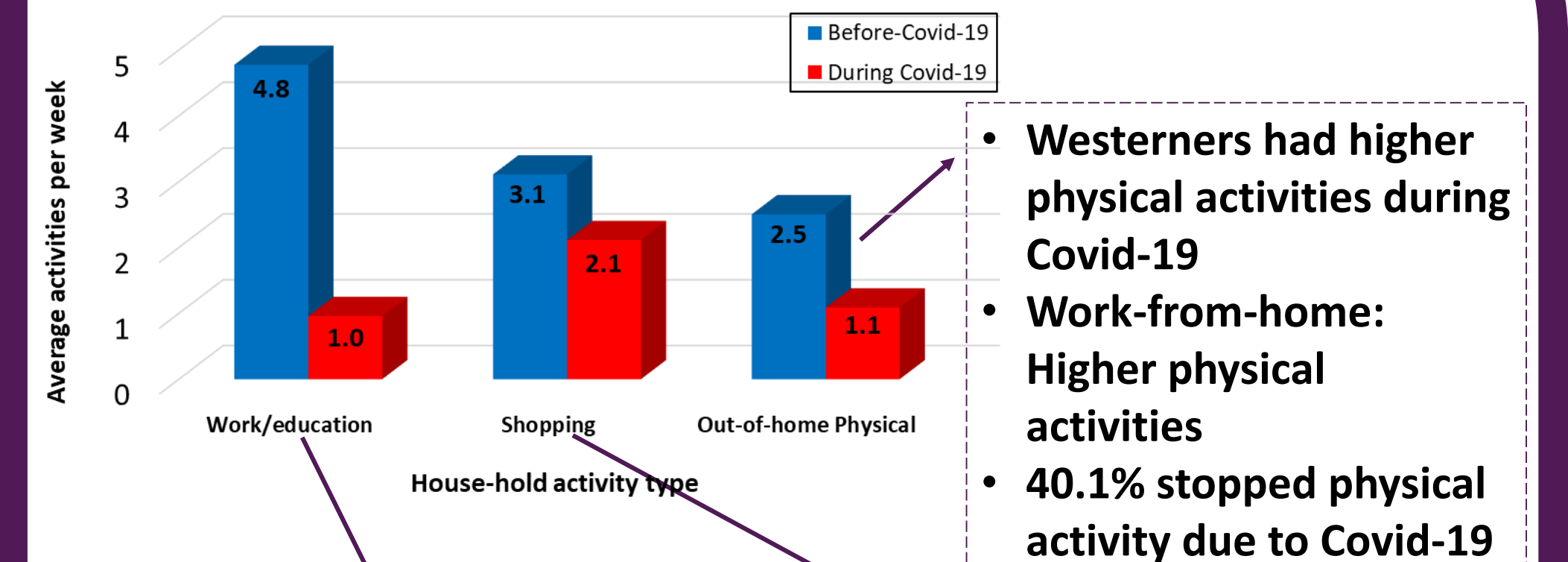
- Total 505 respondents (261 filled it out in Arabic while 244 filled it out in English)
- 101 were excluded: did not possess driving license or not Qatari residents
- Final sample 404 respondents



RESULTS

Descriptive analyses

1. Reduction in Household activities

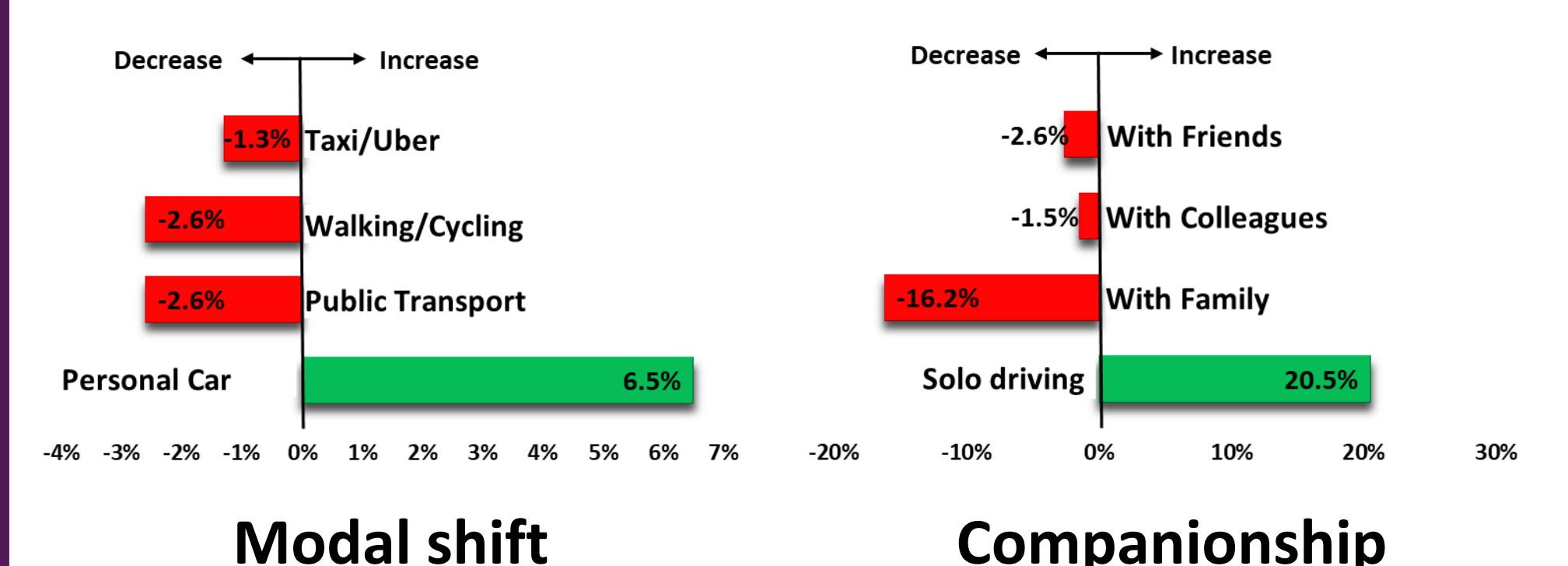


- Westerners had higher physical activities during Covid-19
- Work-from-home: Higher physical activities
- 40.1% stopped physical activity due to Covid-19

- 73.3% started work from home
- Females performed less work/education travel activities
- Reduction in travel time
- Travel time and work from home were positively correlated

- 40% changed their shopping locations due to Covid-19
- Family with children performed fewer shopping
- Females performed fewer shopping

2. Modal shift and Companionship



Individual Preferences

Binary Logit Models

1. Work-from-home/Online Education

- ☐ Higher education levels prefer work-from-home
- ☐ Individuals who experienced work-from-home during Covid-19 prefer to continue this behavior
- ☐ Students living far away prefer to continue online education

2. Online/Bulk shopping

- ☐ Older individuals tend to have a lower preference for bulk shopping
- ☐ Westerners prefer to do more online shopping in the Post-pandemic situations