



MRC
Epidemiology
Unit



UNIVERSITY OF
CAMBRIDGE

Online fast-food retail in the UK: research progress and future challenges

Matt Keeble

mgk39@cam.ac.uk

Nutrition and Obesity Policy Research and Evaluation Network

14th December 2021



Acknowledgements

National Institute for Health Research (NIHR) School for Public Health Research

(grant reference number: PD-SPH-2015)

MRC Epidemiology Unit and the Medical Research Council

(grant reference number: MC_UU_12015/6)



When did you last purchase takeaway (fast) food?

“Online food delivery service platforms”

An alternative to *offline* purchasing formats that sell food prepared away from the home (fast food) ¹⁻⁵

Uber Eats

GRUBHUB

SKIP THE DISHES

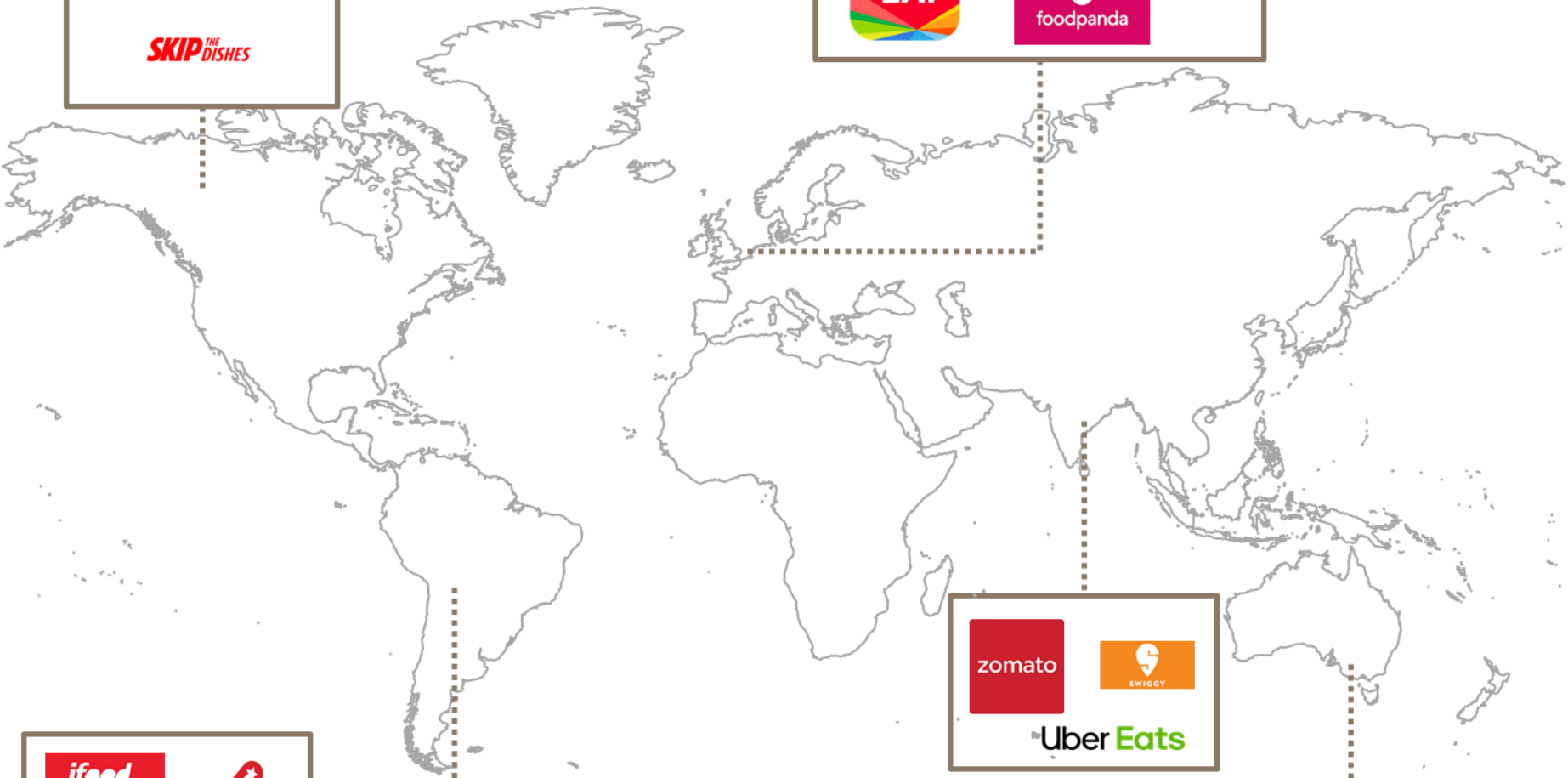
deliveroo

Takeaway.com

JUST EAT

Uber Eats

foodpanda



iFood

Delivery Hero

Uber Eats

zomato

SWIGGY

Uber Eats

MENULOG

Uber Eats

Uber Eats

66 million users



179 million orders processed



deliveroo

5.6 billion (£) valuation



Existing literature

1

How we eat determines what we become: opportunities and challenges brought by food delivery industry in a changing world in China

Article in *European Journal of Clinical Nutrition* · September 2018

DOI: 10.1038/s41430-018-0191-1

2

Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services



Vincent Cheow Sern Yeo, See-Kwong Goh, Sajad Rezaei*

3

Mapping the digital food environment: A systematic scoping review

Sabrina Ionata Granheim¹ | Anne Lene Løvhaug² | Laura Terragni² |
Liv Elin Torheim² | Miranda Thurston¹

Establishing knowledge

CUSTOMERS...

demographics of online food delivery
service users

ACCESS...

variation in online food outlet availability in England

EXPOSURE...

associations between online food outlet access and
online food delivery service use

REASONS...

experiences and perspectives of frequent
customers



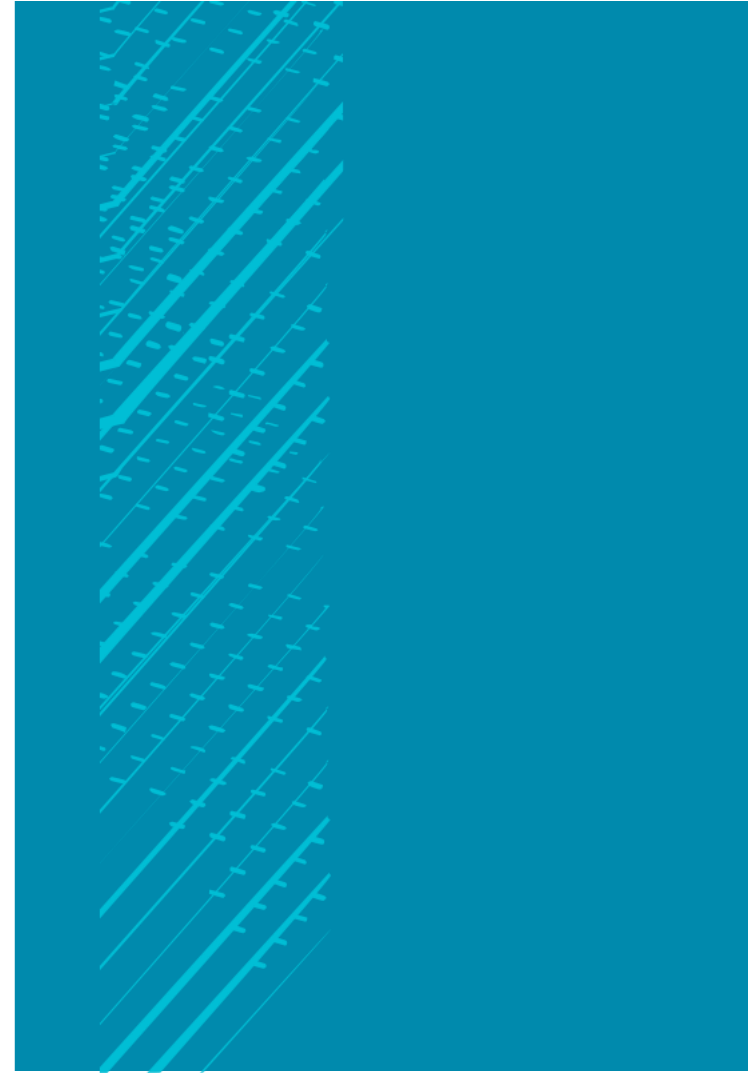
MRC
Epidemiology
Unit



UNIVERSITY OF
CAMBRIDGE

NIHR | School for Public
Health Research

Research progress



CUSTOMERS...

demographics of online food delivery
service users

Methods overview

- Online survey data from adults in Australia, Canada, Mexico, the UK and the USA (*International Food Policy Study*)
- Self-reported demographic information including sex, age, education level, ethnic group identified with and presence of a child at home
- Number of meals purchased:
 - I. away from the home in the past week
 - II. through an online food delivery service
- Adjusted logistic regression models

Online food delivery service use over the past week...

15%

of all respondents (n= 19,378)

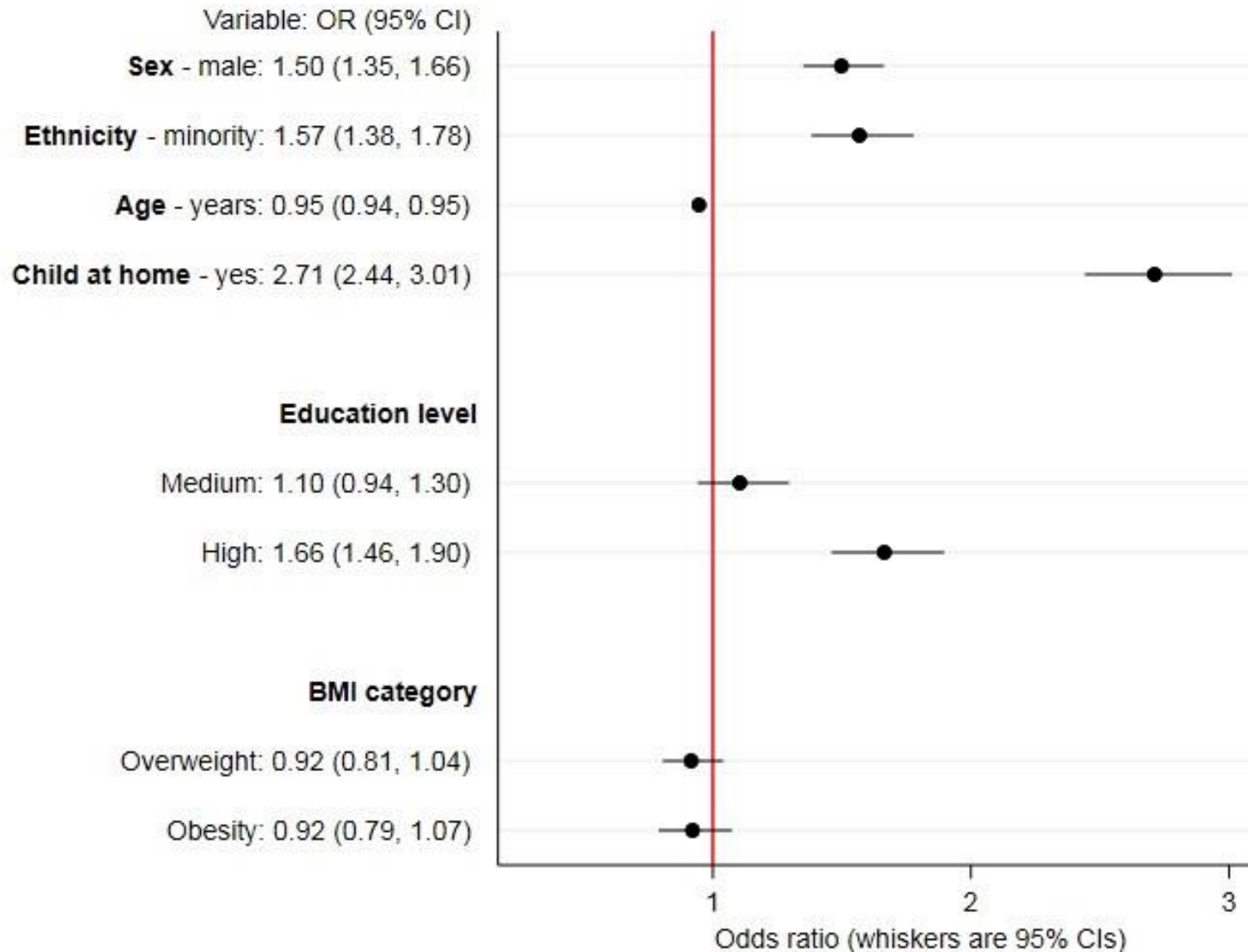
16%

of respondents in the UK

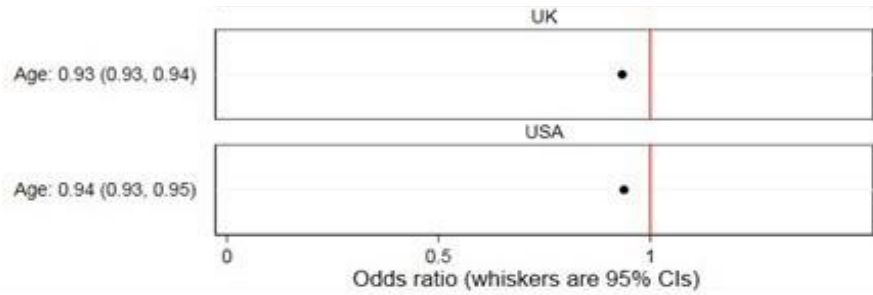
12%

of respondents in the USA

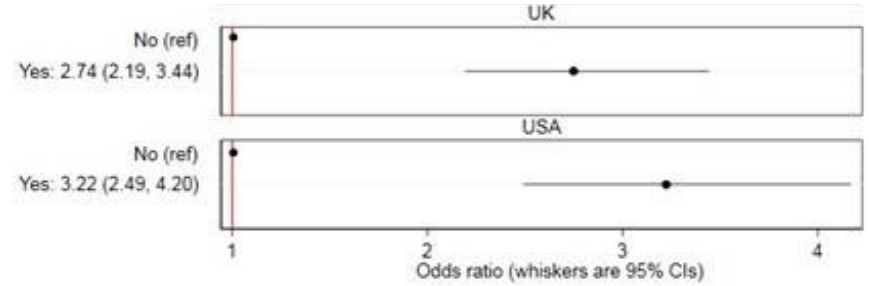
Online food delivery service customer demographics



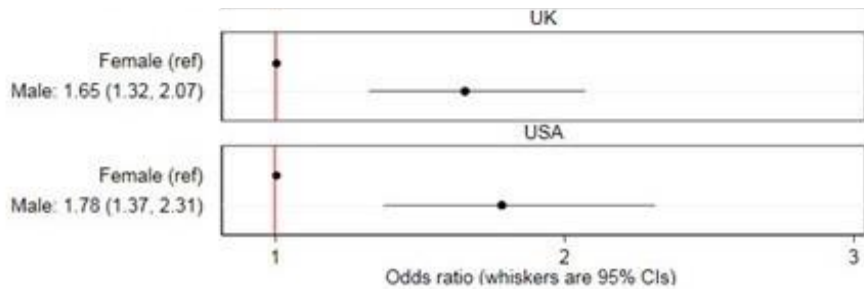
Age



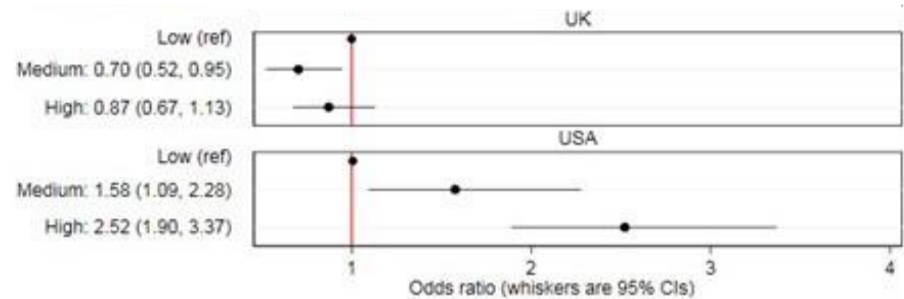
Child at home



Sex



Education level



ACCESS...

variation in online food outlet availability in England

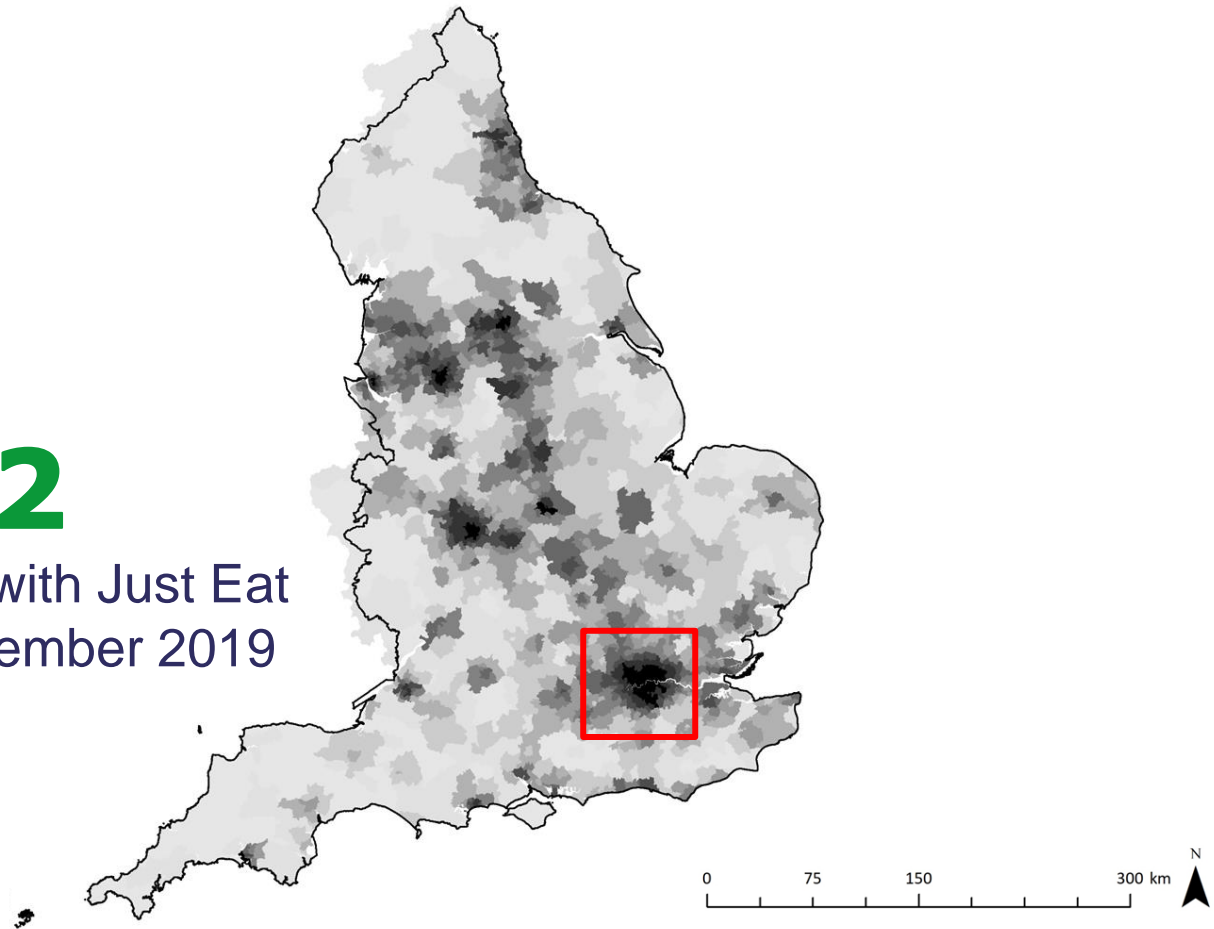
Methods overview

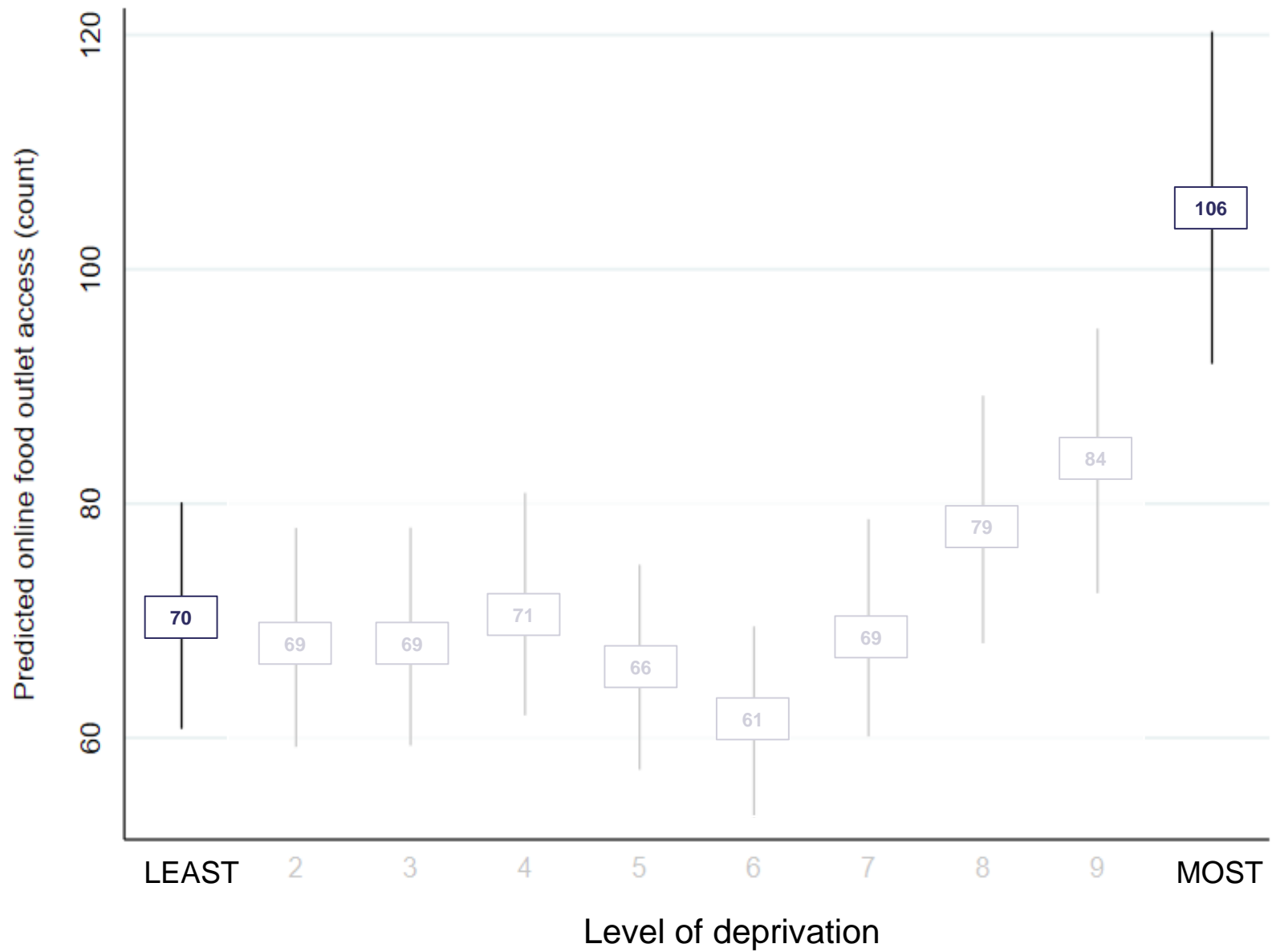
- Data on food outlets registered with market leader (Just Eat) collected through web scraping
 - I. name
 - II. address
 - III. delivery area
- Publicly available data
 - I. '*offline*' food environment
 - II. indices of multiple deprivation
- Negative binomial regression models

Online food outlet access in England

29,232

food outlets registered with Just Eat
across England in November 2019





EXPOSURE...

associations between online food outlet access and
online food delivery service use

Methods overview

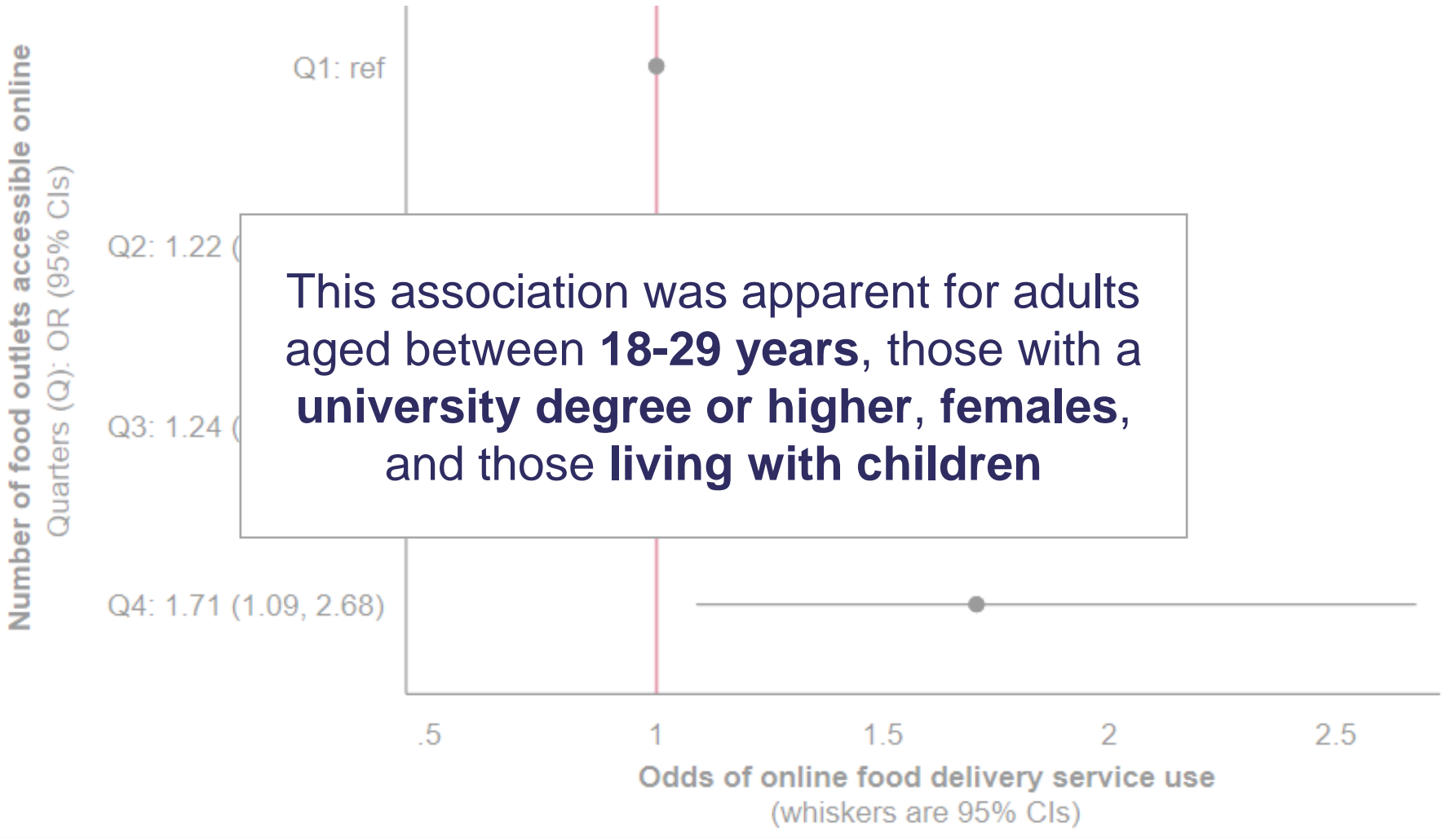
- Combination of data from previous studies
 - I. International Food Policy Study
 - II. Just Eat
 - III. publicly available data
- Individual level analysis

'exposure' to food outlets accessible online



Online food delivery service use

Online food outlet access and online food delivery service use



Established knowledge

CUSTOMERS...

demographics of online food delivery
service users

ACCESS...

variation in online food outlet availability in England

EXPOSURE...

associations between online food outlet access and
online food delivery service use

REASONS...

experiences and perspectives of frequent
customers



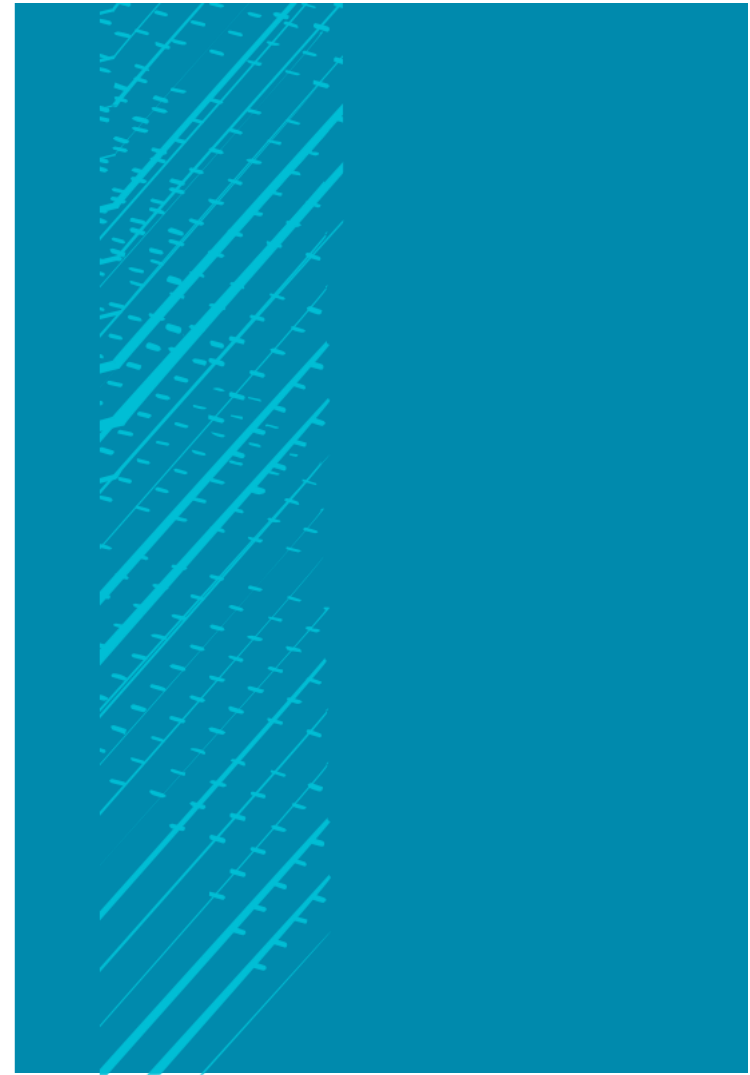
MRC
Epidemiology
Unit



UNIVERSITY OF
CAMBRIDGE

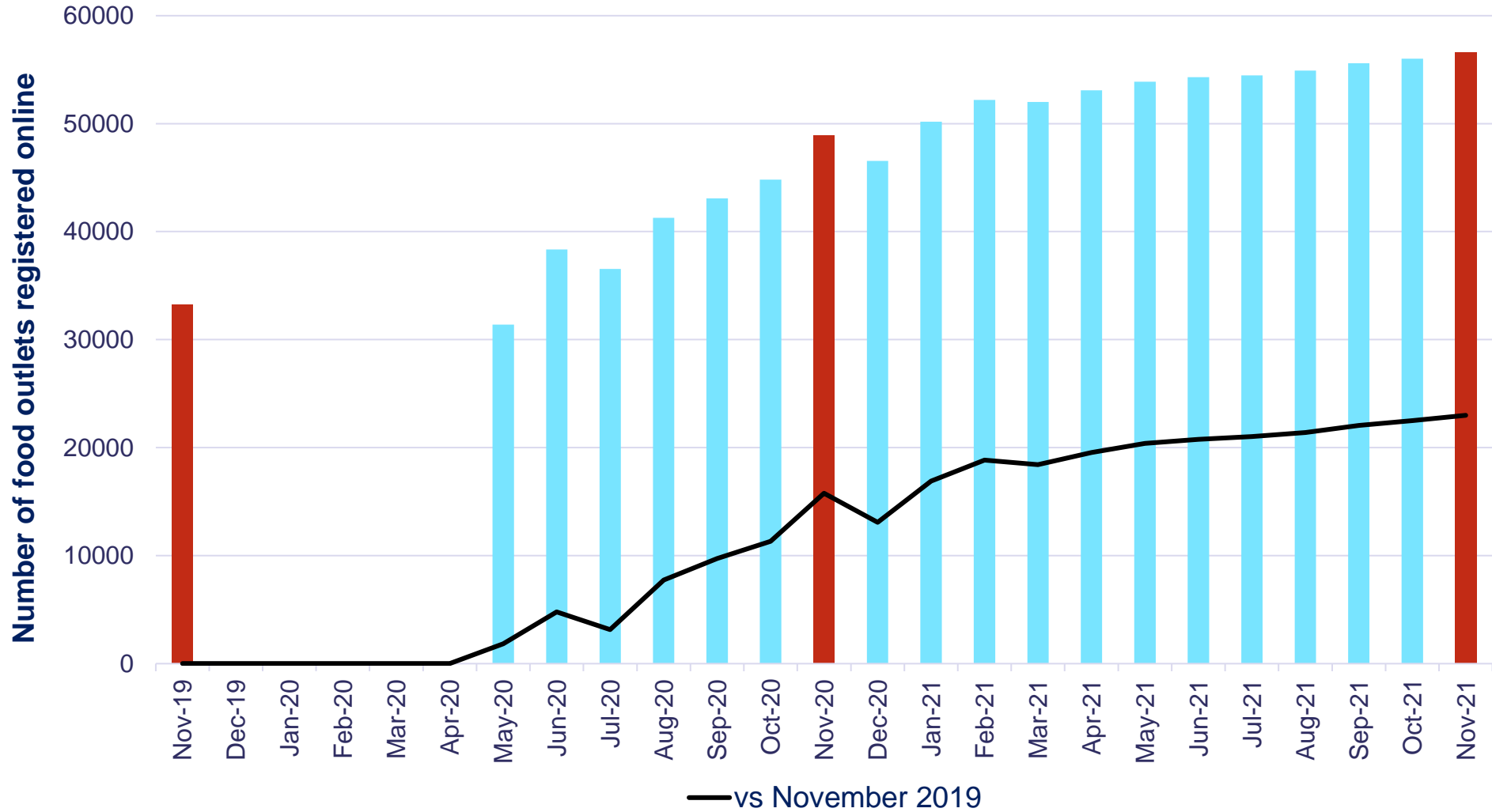
NIHR | School for Public
Health Research

The challenges. The opportunities.
The future.



Challenges [?]

The pandemic...



Challenges^[?]

- I. Public health concerns related to fast food consumption perpetuated
- II. "Dark kitchens"
- III. Multiple modes of order == **"multiple burdens of exposure"**

Opportunities [?]

- I. Leveraging online food delivery services for healthier food access
- II. Online food delivery services as enablers
- III. Changing fast food norms

The future^[?]

- I. Long-term changes in online food delivery service *access and use*
- II. Understand reasons for online food delivery service use, both initially and repeatedly
- III. Changes to neighbourhood food environments, traditional food retail and consumer practices

Final thoughts

- I. Further growth forecast
- II. Supplementing or **substituting**
- III. Beware of diversification
- IV. Consider *possible* online exposure