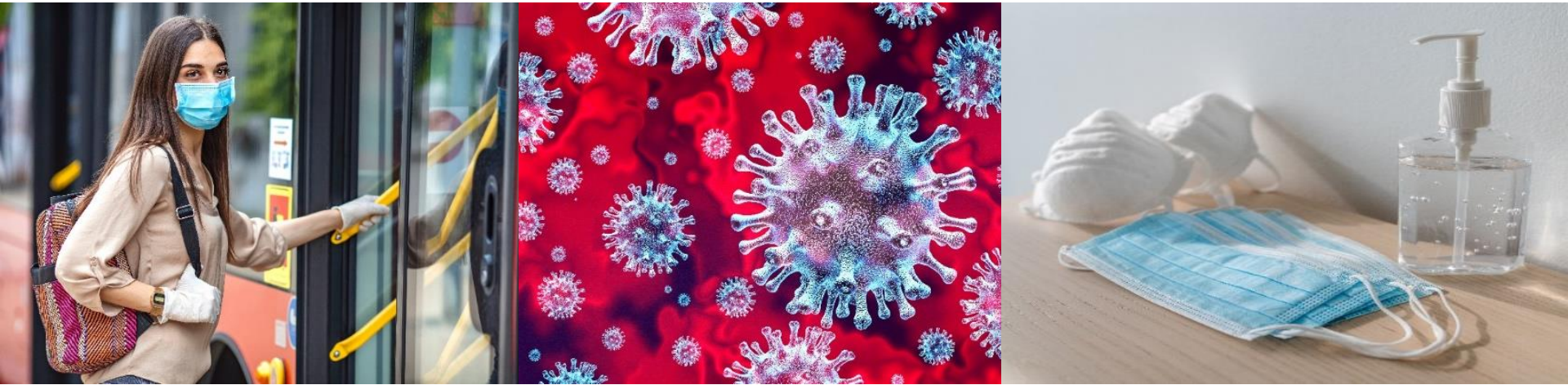


# The Impact of COVID-19 on Transport Choices in Scotland

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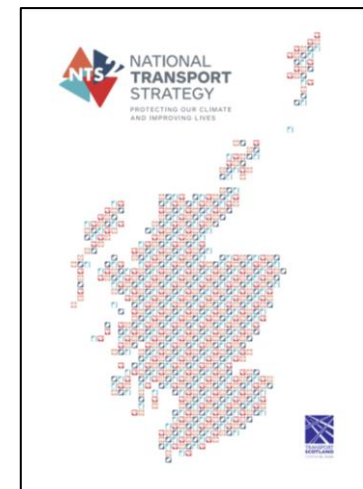
## An Online Survey of Scottish Residents

Lucy Downey, Achille Fonzone, Greg Fountas, Torran Semple



# Background

- ✚ March 2020 lockdown<sup>1</sup>
  - ❑ Bus (-85%) & rail (-92%) patronage decreased
  - ❑ Volume of car traffic fell 75%
- ✚ Transport Scotland<sup>2</sup> (May 2021)
  - ❑ 67% concerned about contracting the virus while using PT
  - ❑ 60% concerned about people having enough space to observe physical distancing on PT
  - ❑ 41% “I will avoid PT and use my car more than I did before when restrictions on transport are lifted”
  - ❑ 61% “I will walk or cycle more’
- ✚ Climate Change Plan 2018 – 2032
  - ❑ Greenhouse gas emissions net-zero by 2045
  - ❑ Reduce car kms on Scottish roads 20% by 2030



<sup>1</sup>Transport Scotland (2021) COVID-19: Scotland’s transport and travel trends during the first six months of the pandemic

<sup>2</sup>Transport Scotland (2021) COVID-19 Public attitudes survey data: Wave 17

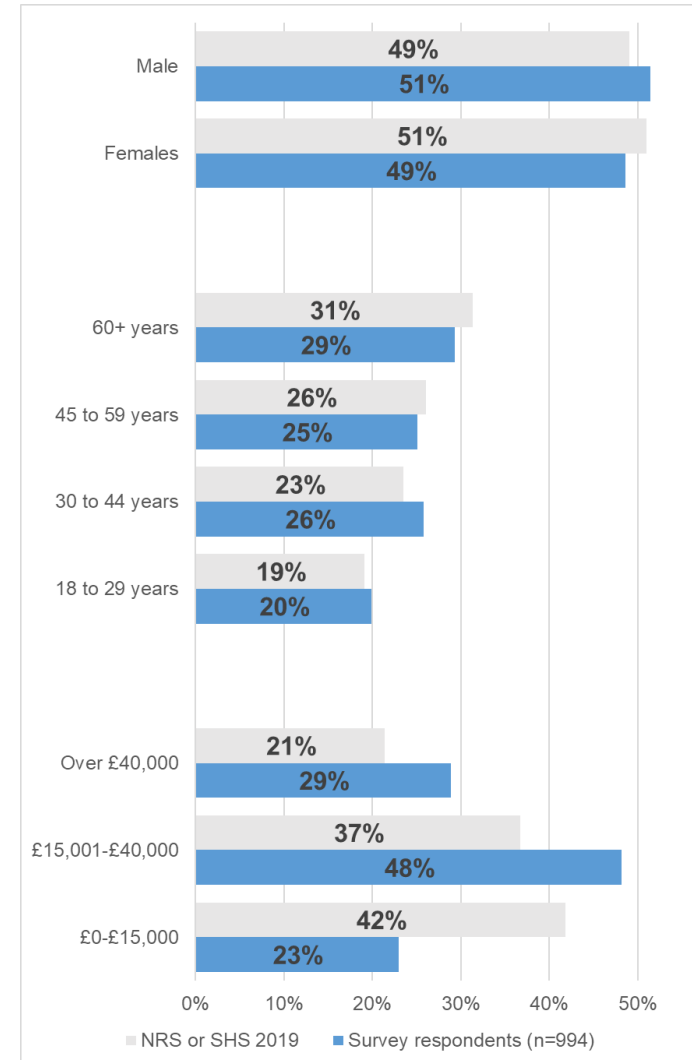
# Methodology

## Online Qualtrics Survey

- ❑ Response panel (quota set for age, gender, income)
- ❑ 3<sup>rd</sup> to 17<sup>th</sup> February 2021
- ❑ 994 responses







## Survey topics

- ❑ Perceptions of COVID-19
- ❑ Mode choice
- ❑ Travel related activities (WFH)
- ❑ Effectiveness of PT measures
- ❑ Socio-demographics

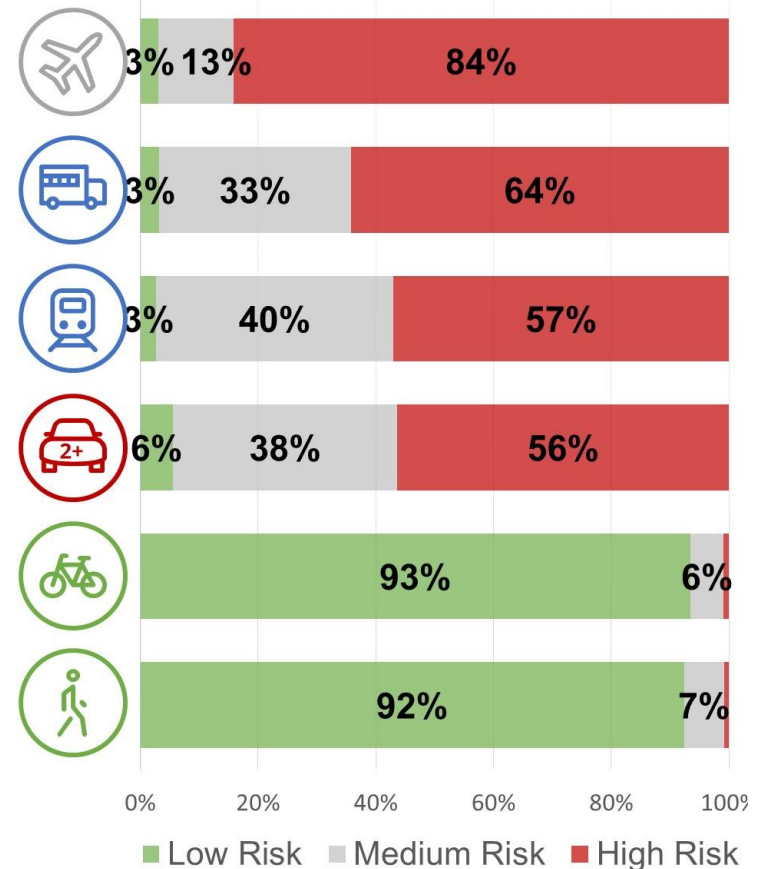


# Travel Modes and Risk Perception

Percentage of respondents travelling at least once a week by mode

Mode	Pre-covid	lockdown
 Bus	27%	9%
 Train	12%	4%
 Car	69%	55%
 Share	15%	5%
 Bike	13%	13%
 Walk	75%	81%

Perceived risk of different types of transport in terms of contracting/spreading the virus



# Anticipated Future Mode Use

- Thinking ahead, some 12 to 18 months from now, how often will you travel using the following types of transport compared to what you did before the COVID-19 pandemic?

Scottish transport trends by mode 2014 to 2019<sup>1</sup>



Car traffic increased 8%



Train passengers increased 13%



Bus passengers decreased 10%

Transport Mode	Less	Same	More	Diff
Walk	5%	50%	45%	40%
Bike	14%	58%	39%	15%
Driving HH car	13%	63%	25%	12%
Passenger in HH car	14%	67%	19%	4%
Passenger other car	25%	56%	18%	-7%
Train	34%	47%	19%	-15%
Plane	42%	35%	23%	-19%
Taxi	33%	54%	13%	-20%
Bus	36%	49%	15%	-21%

<sup>1</sup>Transport Scotland (2019) Scottish Transport Statistics No 38

# Reduced Public Transport Use

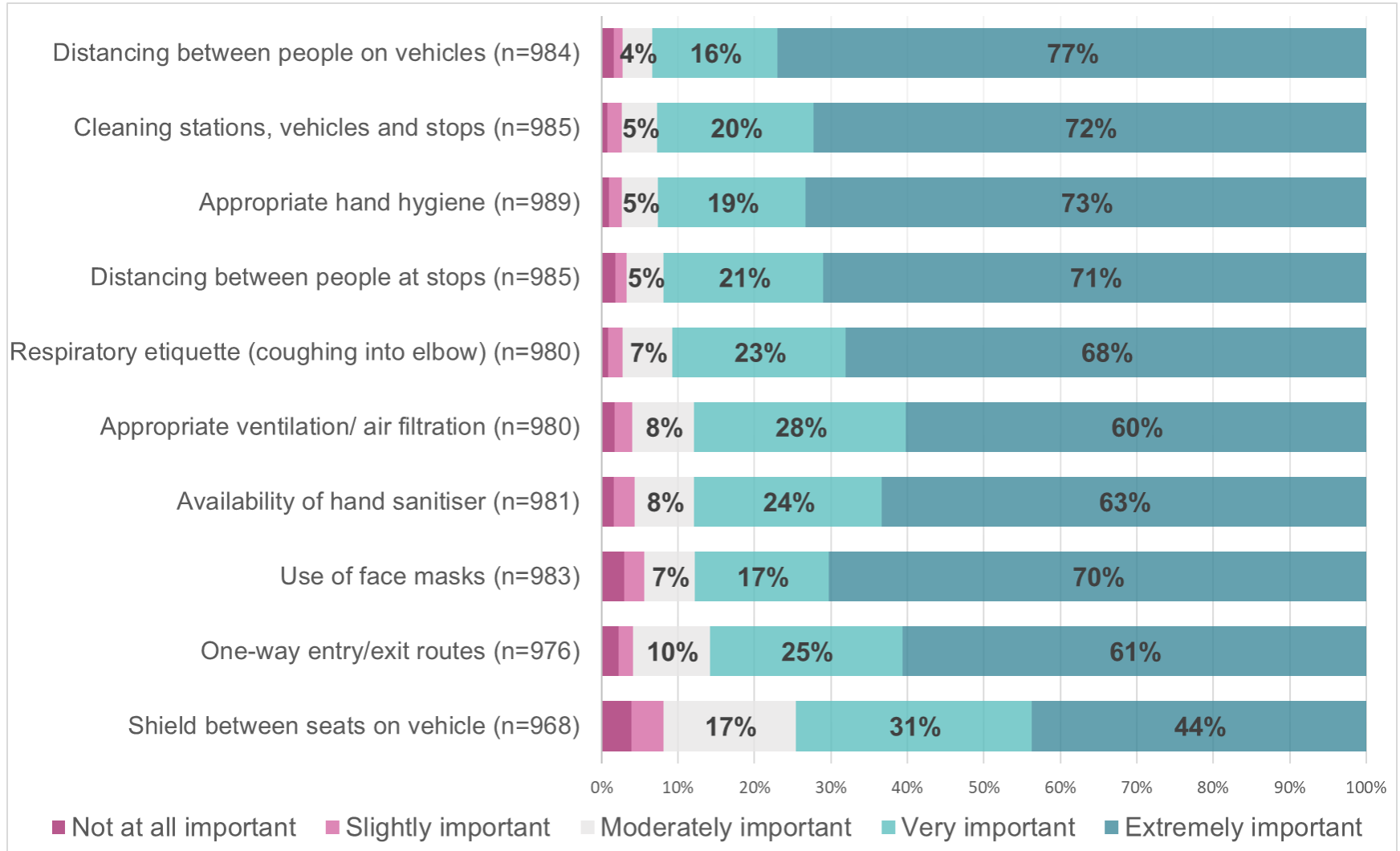
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- ✚ Thinking ahead, some 12 to 18 months from now, why do you intend to use public transport (buses and/or trains) less often than before the COVID-19 pandemic? (Multiple Response n=333)
    - ❑ Possibility of getting COVID-19 (63%)
    - ❑ Lack of cleanliness on board PT (49%) PT is too crowded (45%)
    - ❑ PT too infrequent, slow, unreliable or starts too late/finishes too early (41%)

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  - ✚ Statistical modelling (Random Parameters Bivariate Probit method)
  - ✚ Significantly more likely to travel **less by bus**
    - ❑ Travelled by car 3+ days a week (pre-covid)
    - ❑ Perceived bus travel as a 'high-risk' activity
  - ✚ Significantly more likely to **'the same'** or **'more'** by bus
    - ❑ Unable to work (long-term illness and/or with a disability)
    - ❑ Lothian residents
  - ✚ Significantly more likely to travel **less by train**
    - ❑ Travelled by car 3+ days a week (pre-covid)
    - ❑ Perceived train travel as a 'high-risk' activity
    - ❑ Smaller households (less than 3 people)
-

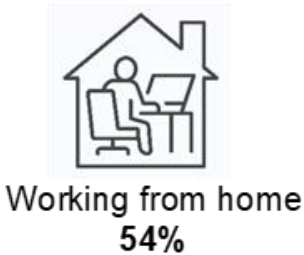
# Public Transport Measures



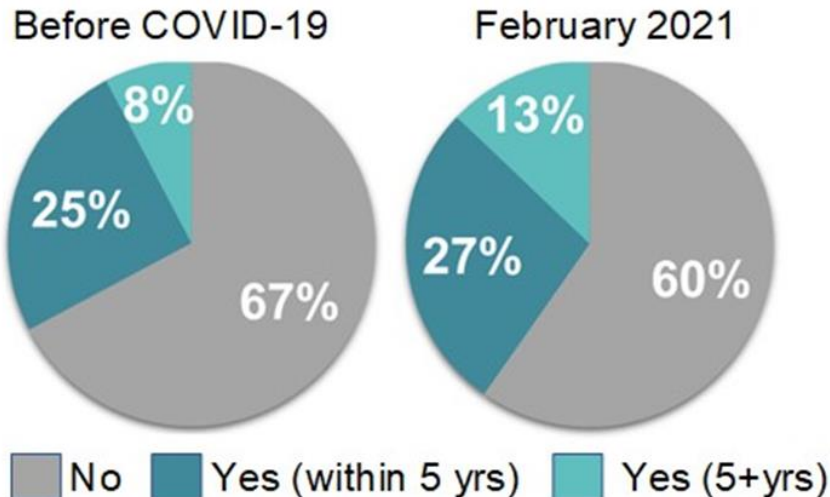


# Future Transport Related Activities

✚ % who say they will do **more** of these activities than before the pandemic



## Residential Relocation



✚ Circumstancing influencing wanting to move from current accommodation (Multiple Responses n=366)

- ❑ Want a different lifestyle (42%)
- ❑ Change in household/family circumstances (36%)
- ❑ Working from home (17%)
- ❑ Change in employment situation (17%)
- ❑ The COVID-19 pandemic (11%)



# Conclusions

✚ % who say they'll be doing **more** of these things than before the pandemic



Car Driving  
25%



Cycling  
29%



Walking  
45%



WFH  
54%



Shopping  
online  
36%

✚ % who say they'll be doing **less** of these things than before the pandemic



Bus  
36%



Train  
34%



Flying  
42%

✚ If car use can be discouraged, the pandemic presents an opportunity to alter travel patterns which were detrimental to health, physical activity, road traffic incidents and climate change (Laverty et al 2020)

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