

Effects of living near an urban motorway on travel behaviour, wellbeing and severance in local residents

Natural experimental study

Louise Foley & Amy Nimegeer, on behalf of the M74 study team

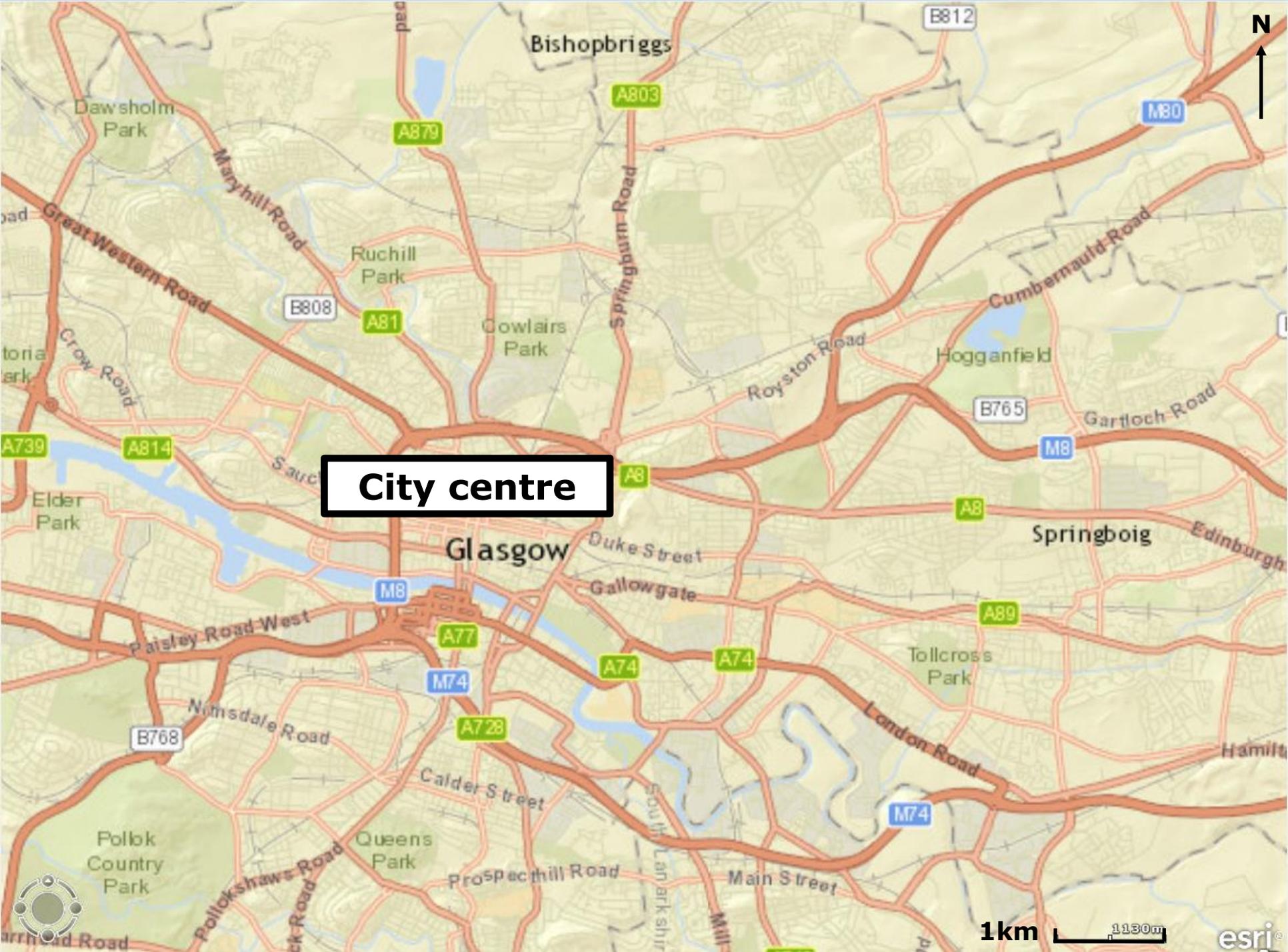
UKCRC Centre for Diet and Activity Research
MRC/CSO Social and Public Health Sciences Unit

March 2017

Reduce congestion
Reduce road traffic accidents
Promote walking, cycling and public transport
Reduce noise and air pollution
Improve overall quality of life in communities

More roads = more traffic
Promote car use and discourage walking and cycling
Increase noise and air pollution
Decrease overall quality of life in communities

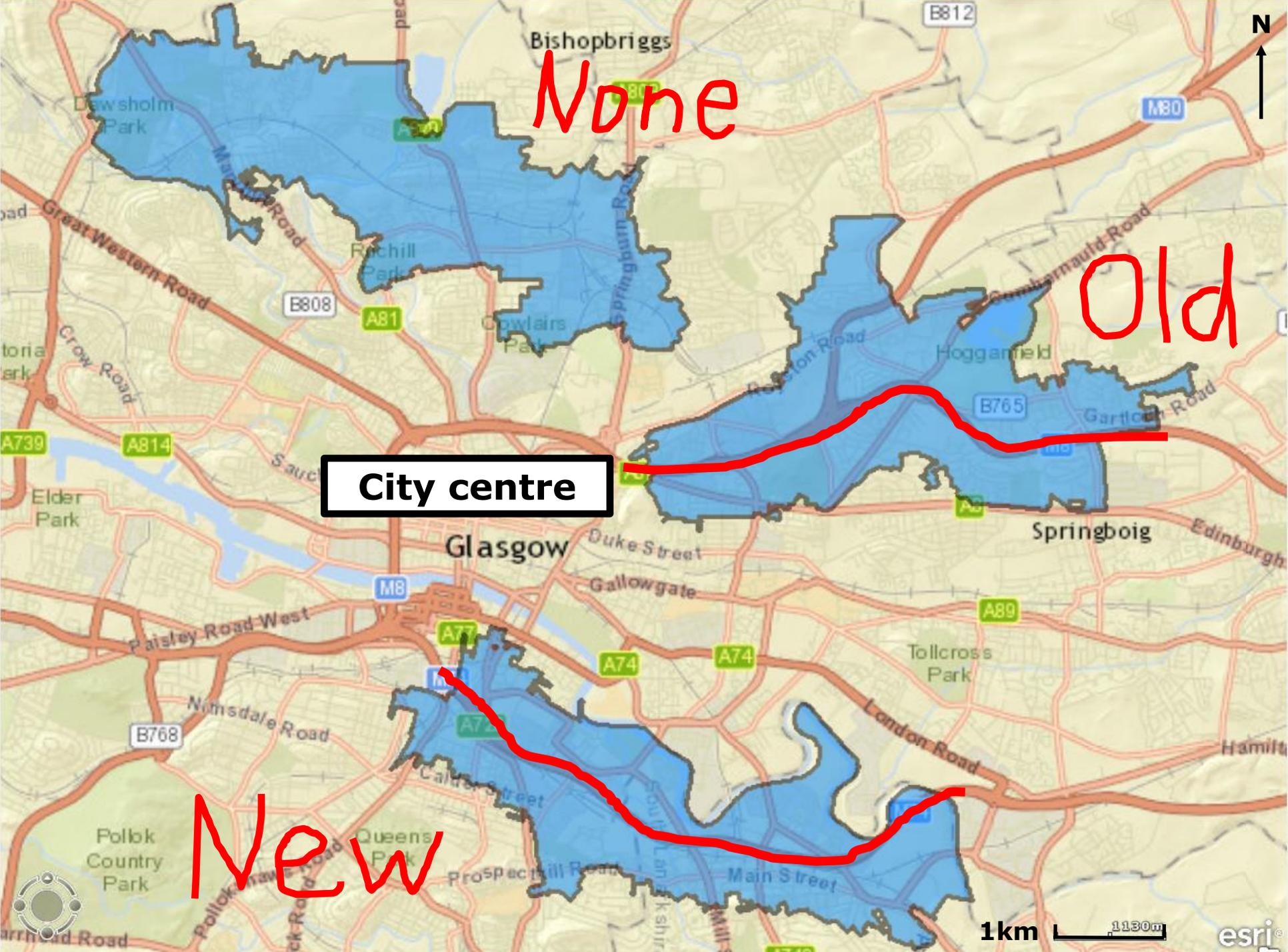




City centre

1km 1130m

esri



None

Old

City centre

New

1km 1130m

esri



Close

Far

0.5km 521m

esri



Traffic and Health in Glasgow Survey

Who should complete this survey?

This survey should be completed by **the person to whom the envelope was addressed**.
Please do not pass it on to another person or household.

Travel

2.2

How many MINUTES did you spend TRAVELLING by each mode of transport on this journey?

Do not count time spent waiting for buses, trains, etc.

What was the purpose of the journey?

		Bus or coach	Train or underground	Car, taxi or van	Motorcycle or moped	Bicycle	Walking	Other
Example	To work	22					15	
Journey 1								
Journey 2								
Journey 3								
Journey 4								
Journey 5								
Journey 6								
Journey 7								
Journey 8								
Journey 9								
Journey 10								
Journey 11								
Journey 12								

2.3 What day of the week was it yesterday? *Tick one only* Mon ₁ Tue ₂ Wed ₃ Thu ₄ Fri ₅ Sat ₆ Sun ₇

2.4 Were you at home any time yesterday? *Tick one only* Yes ₁ No ₂

2.5 Was yesterday a normal working day for you? *Tick one only* Yes ₁ No ₂ Not applicable ₃

Wellbeing

4.10 During the PAST FOUR WEEKS, how much energy did you have? Tick ONE box



Very much

 1

Quite a lot

 2

Some

 3

A little

 4

None

 5

4.11 During the PAST FOUR WEEKS, how much did your physical health or emotional problems limit your usual social activities with family or friends? Tick ONE box



Not at all

 1

Very little

 2

Somewhat

 3

Quite a lot

 4

Could not do
social activities

 5

4.12 During the PAST FOUR WEEKS, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)? Tick ONE box



Not at all

 1

Slightly

 2

Moderately

 3

Quite a lot

 4

Extremely

 5

Physical component score (PCS)
Mental component score (MCS)

	Longitudinal cohort (n=365)		Repeat cross-sectional sample (baseline n=980; follow-up n=978)	
	<i>Baseline (2005)</i>	<i>Follow-up (2013)</i>	<i>Baseline (2005)</i>	<i>Follow-up (2013)</i>
Age (mean, SD)	50.4 (13.6)	58.5 (13.6)	48.8 (18.3)	52.6 (16.5)
% male	43.5	44.4	37.1	42.8
% home owners	61.1	62.5	47.9	49.6
% car owners	58.5	60.5	48.8	53.4
% working	58.5	48.1	48.3	48.3
% with chronic condition	38.9	47.9	39.0	43.9
Years lived in the local area (mean, SD)	18.3 (15.3)	24.9 (16.6)	18.2 (18.0)	19.0 (17.4)

More likely to travel
(OR 4.7, 95% CI 1.1 to 19.7)

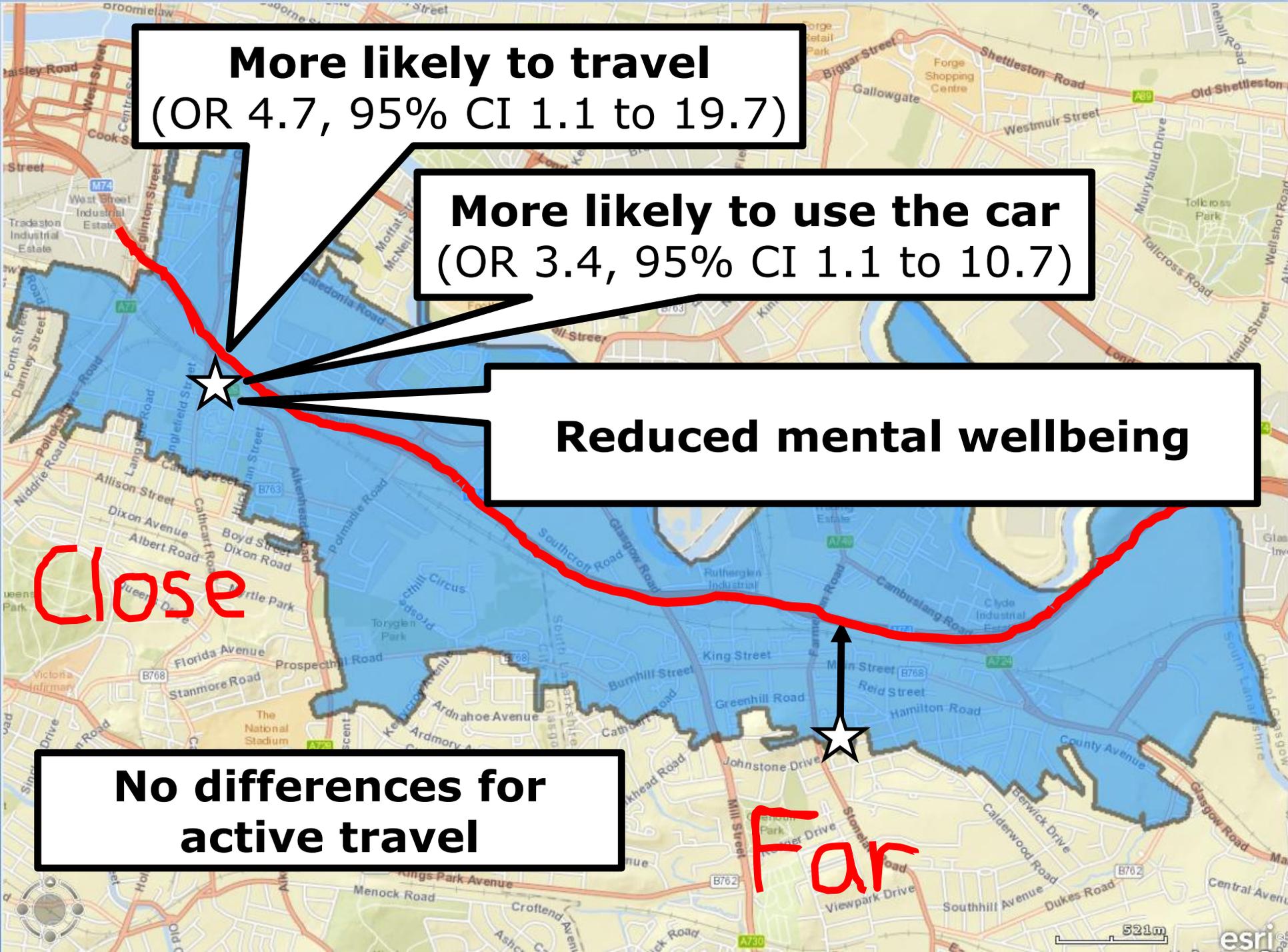
More likely to use the car
(OR 3.4, 95% CI 1.1 to 10.7)

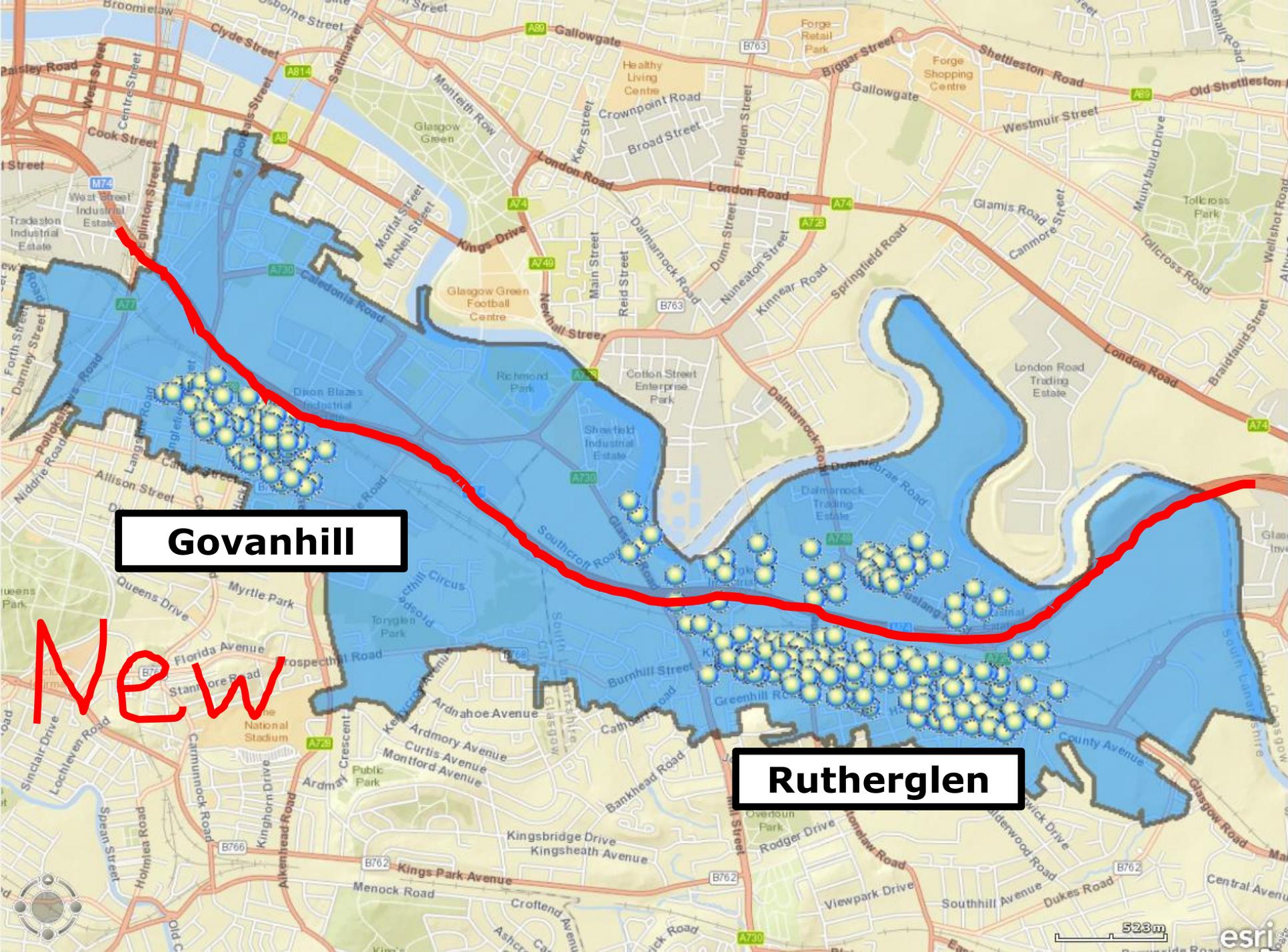
Reduced mental wellbeing

Close

No differences for active travel

Far





Govanhill

New

Rutherglen

Traffic problems



Historical buildings/churchyard

Supermarkets

Town fete



Sporting & leisure facilities

It's a pretty busy road a' [all] the way out that, depending on the time o' day again. But it wouldn't stop me. It wouldn't stop me. Now, going that way, you're going away from it...

So it's more just that it's changed the, sort of, experience of walking?

Yeah, it's really... aye, visually it's, you can see it, you're aware of it more. Although sometimes it's subconsciously, you're no' even thinking about it, but you know it's there. You know it's there.

Man aged 51-65 living in Rutherglen

I think the motorway certainly would've changed the character because we don't get as much through traffic now, as you'll see from that. And that's changed the character, if you like, and it's much easier tae get out and about and crossing roads and things like that. Much, much easier.

Man aged 51-65 living in Rutherglen

M74 and severance

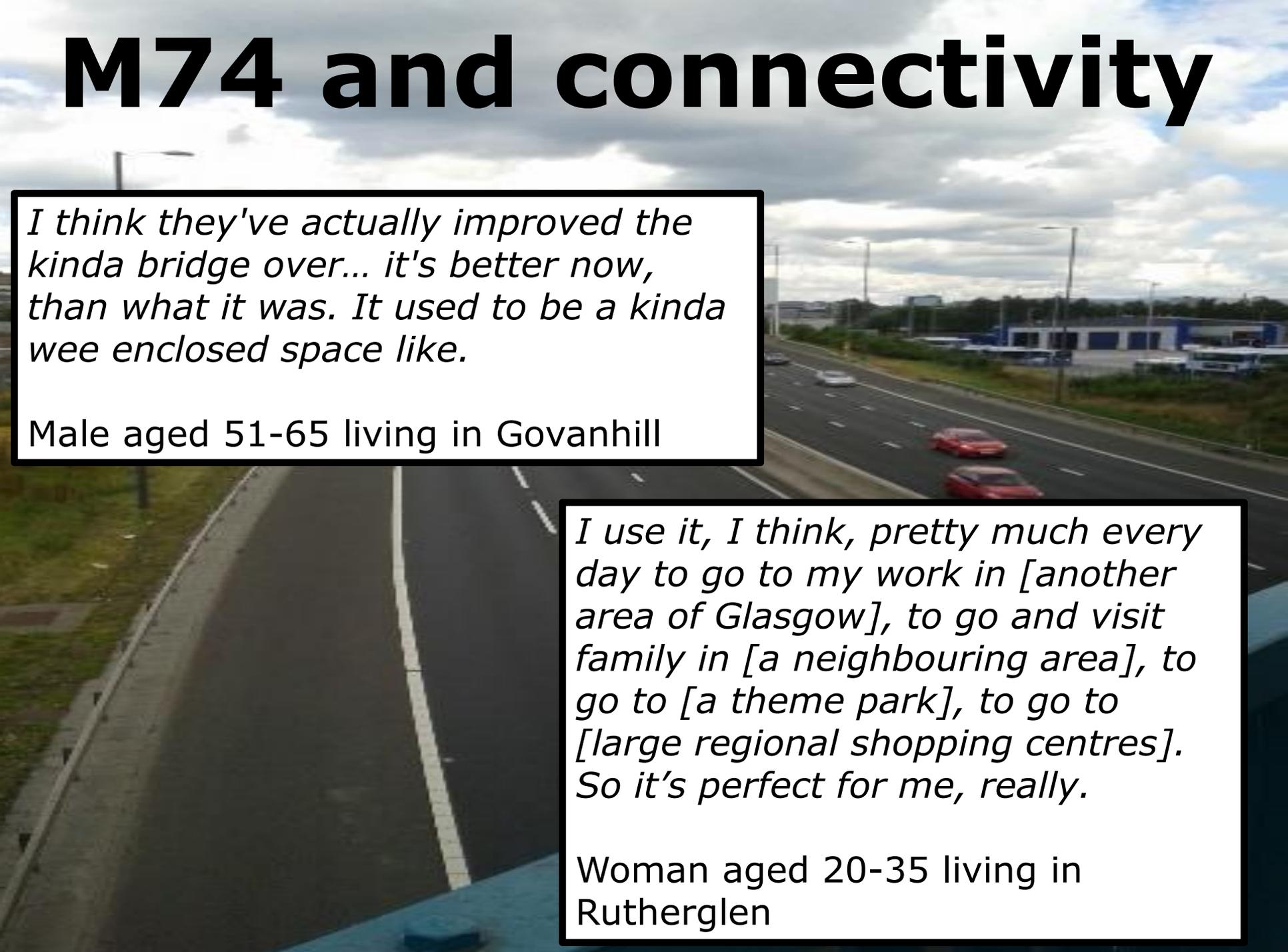
Non-transport severance?

I couldn't exactly say when I did notice that 'cos there's certain, you know, streets I didn't walk down just for the fact I didn't have to walk down thae [those] streets.

And it wasn't because I went 'I'm not walking down there', just because I didn't, you know, to get there I knew well, I can go that way, that's quicker going, you know, cutting down that street...But one time I didn't give it a thought walking down places whereas the last – definitely the last five years I just went 'That's it, I'm going in the car'

Woman aged 36-50 living in Govanhill

M74 and connectivity



I think they've actually improved the kinda bridge over... it's better now, than what it was. It used to be a kinda wee enclosed space like.

Male aged 51-65 living in Govanhill

I use it, I think, pretty much every day to go to my work in [another area of Glasgow], to go and visit family in [a neighbouring area], to go to [a theme park], to go to [large regional shopping centres]. So it's perfect for me, really.

Woman aged 20-35 living in Rutherglen

Third places



Green spaces

I think with the schools [close by] as well, that they are so multi-cultural, there's a lot of multi-cultural mixing in the park as well, so you'll often see not just the kids but the parents as well, so I think that's been great for the community that part.

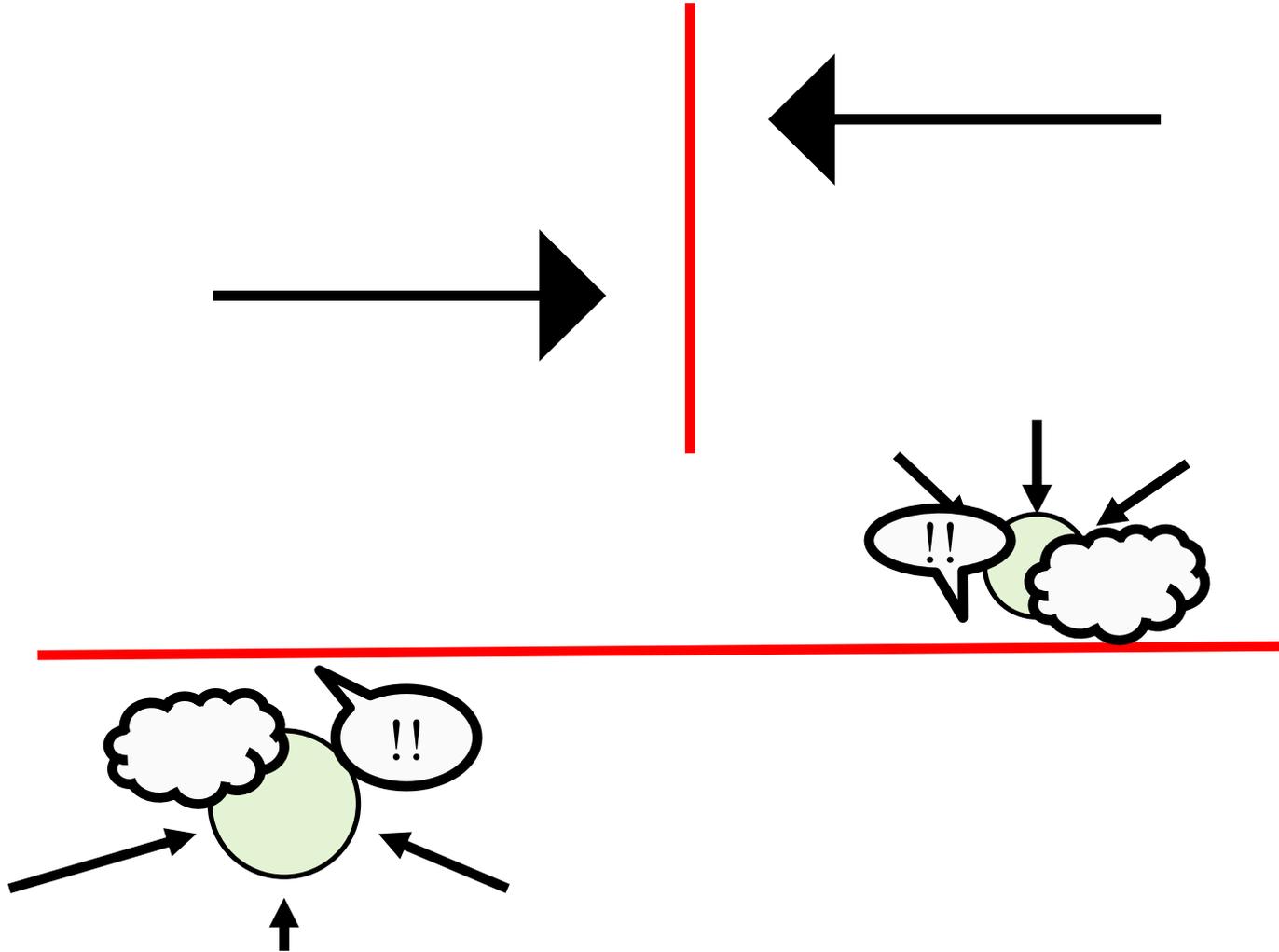
Woman aged 36-50, living in Govanhill.

"[part of our role is] to help use these [woodlands] to improve community cohesion, break down barriers between... you know, social barriers that people have, through the delivery of social programmes and events."

"You know [before the motorway was built this greenspace] was a real tranquil place where you could escape the city without going out to the countryside. Remember the demographic of the area that we're in? We're in a very deprived area."

Key informant, local greenspace organisation

Severance and third places



Extreme cases and community engagement



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Acknowledgement

M74 study team

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MRC/CSO Social and Public Health Sciences Unit survey office

National Institute for Health Research Public Health Research Programme

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