Birmingham Primary Schools: Active Travel and Childhood Obesity

Presentation to Childhood Obesity Steering Group

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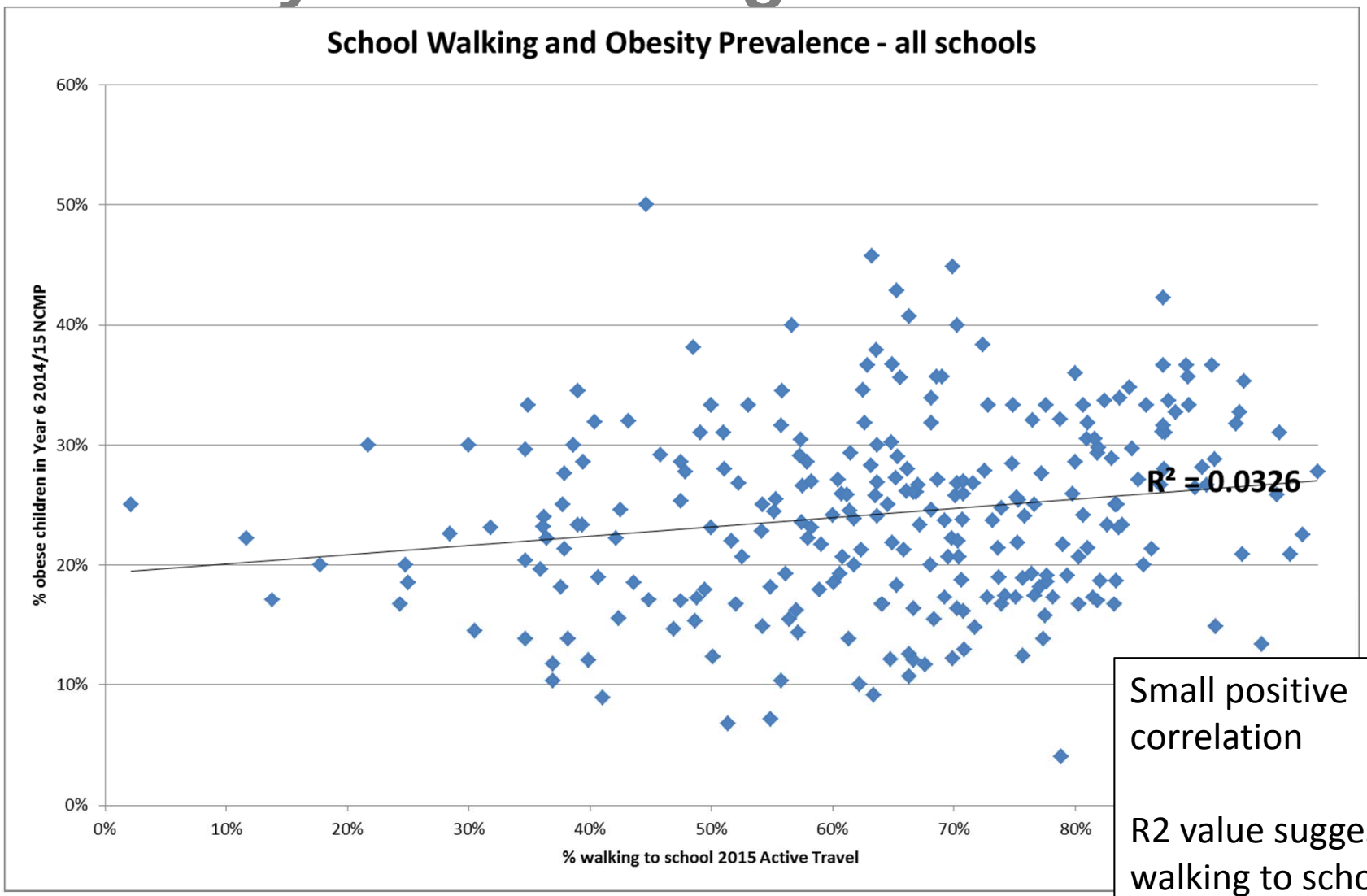
September 2016

Birmingham City Council

Background

- Investigating relationship between childhood obesity and method of travel to school
- Active Travel survey data
- NCMP school level obesity
- Examining trends in walking and cycling to school.

Obesity and walking correlation



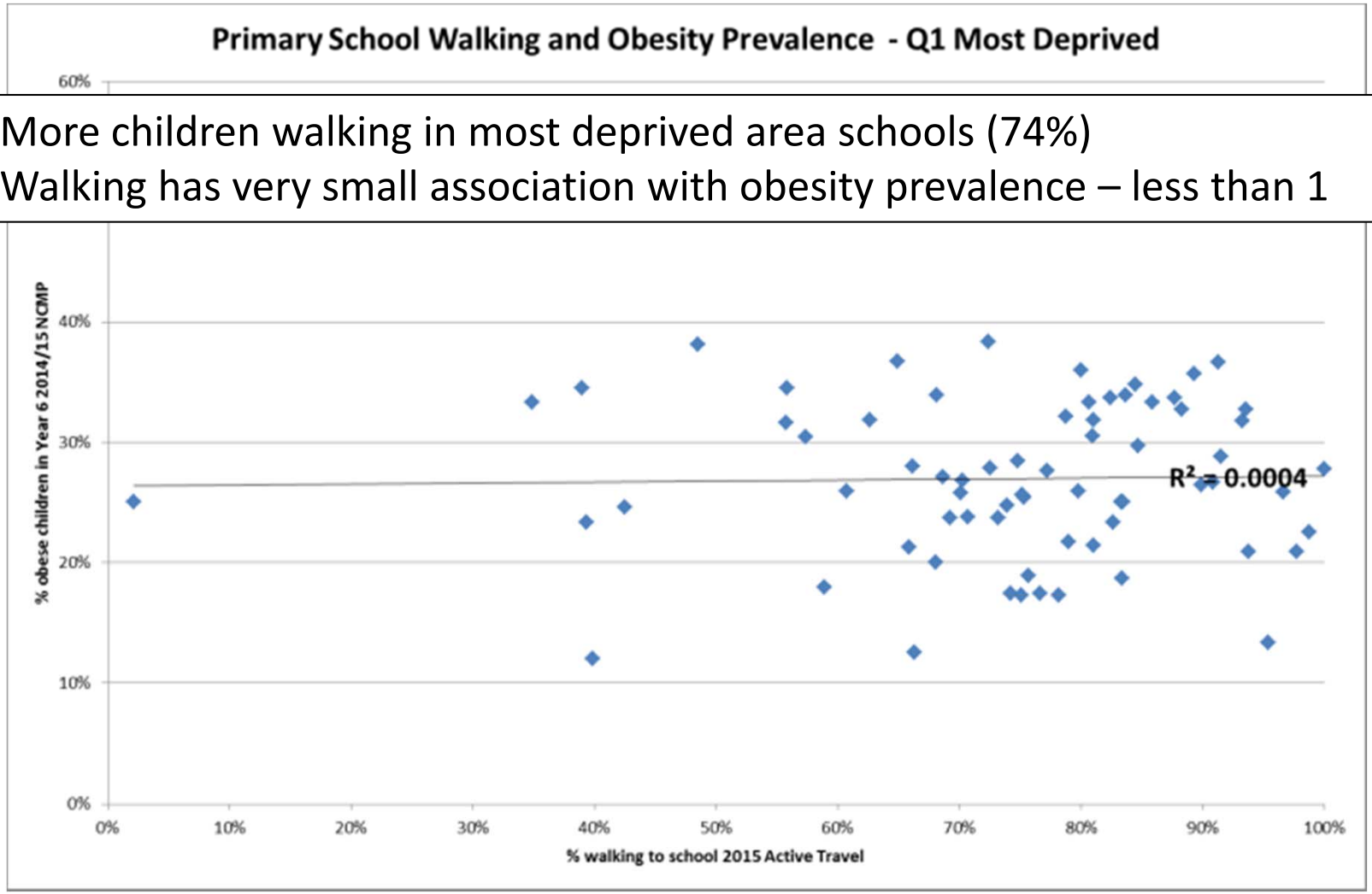
Small positive correlation

R2 value suggests walking to school only accounts for 3% of obesity prevalence

MAKE A POSITIVE DIFFERENCE EVERY DAY TO PEOPLE'S LIVES

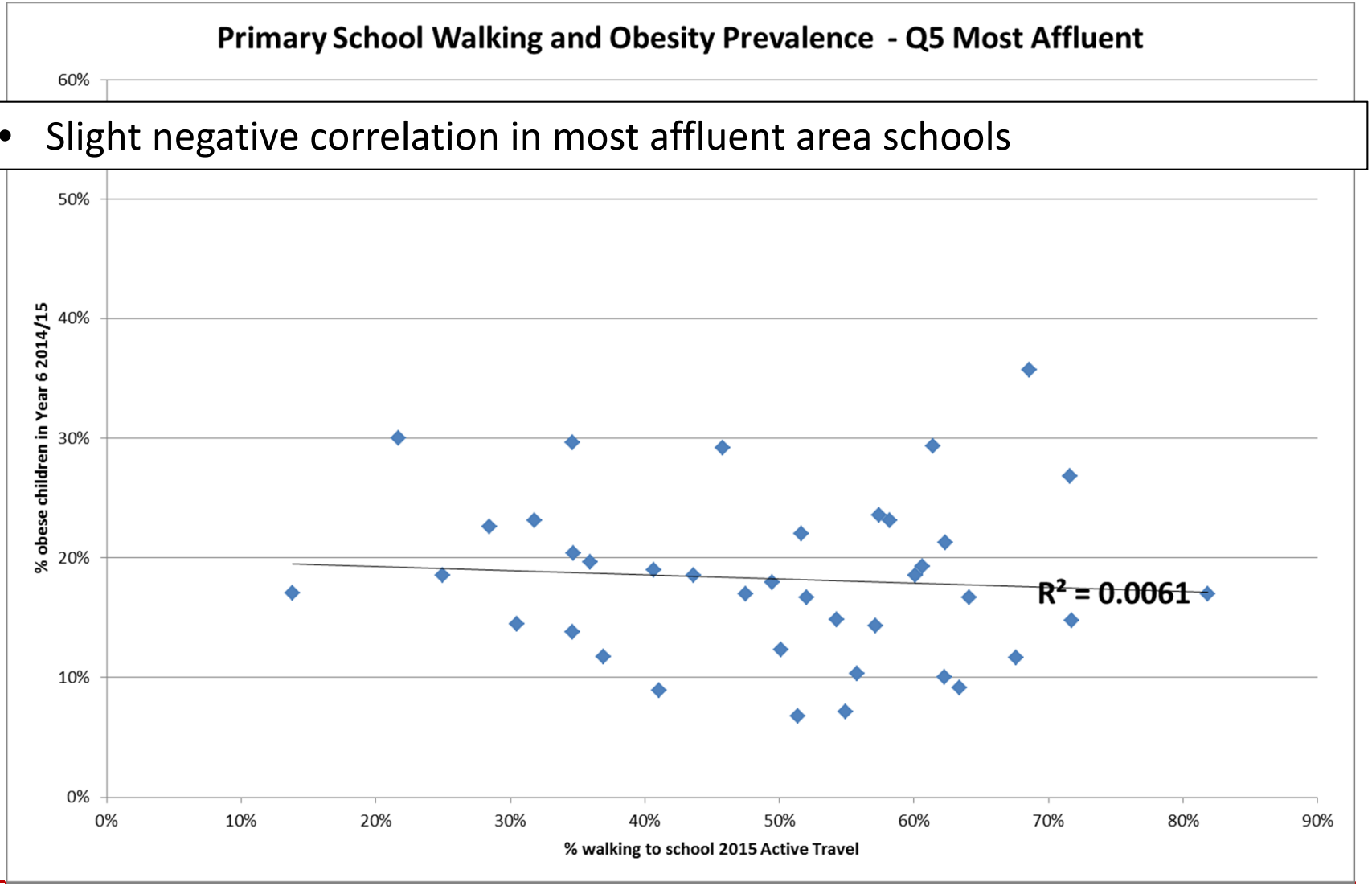
Obesity and walking correlation

- More children walking in most deprived area schools (74%)
- Walking has very small association with obesity prevalence – less than 1

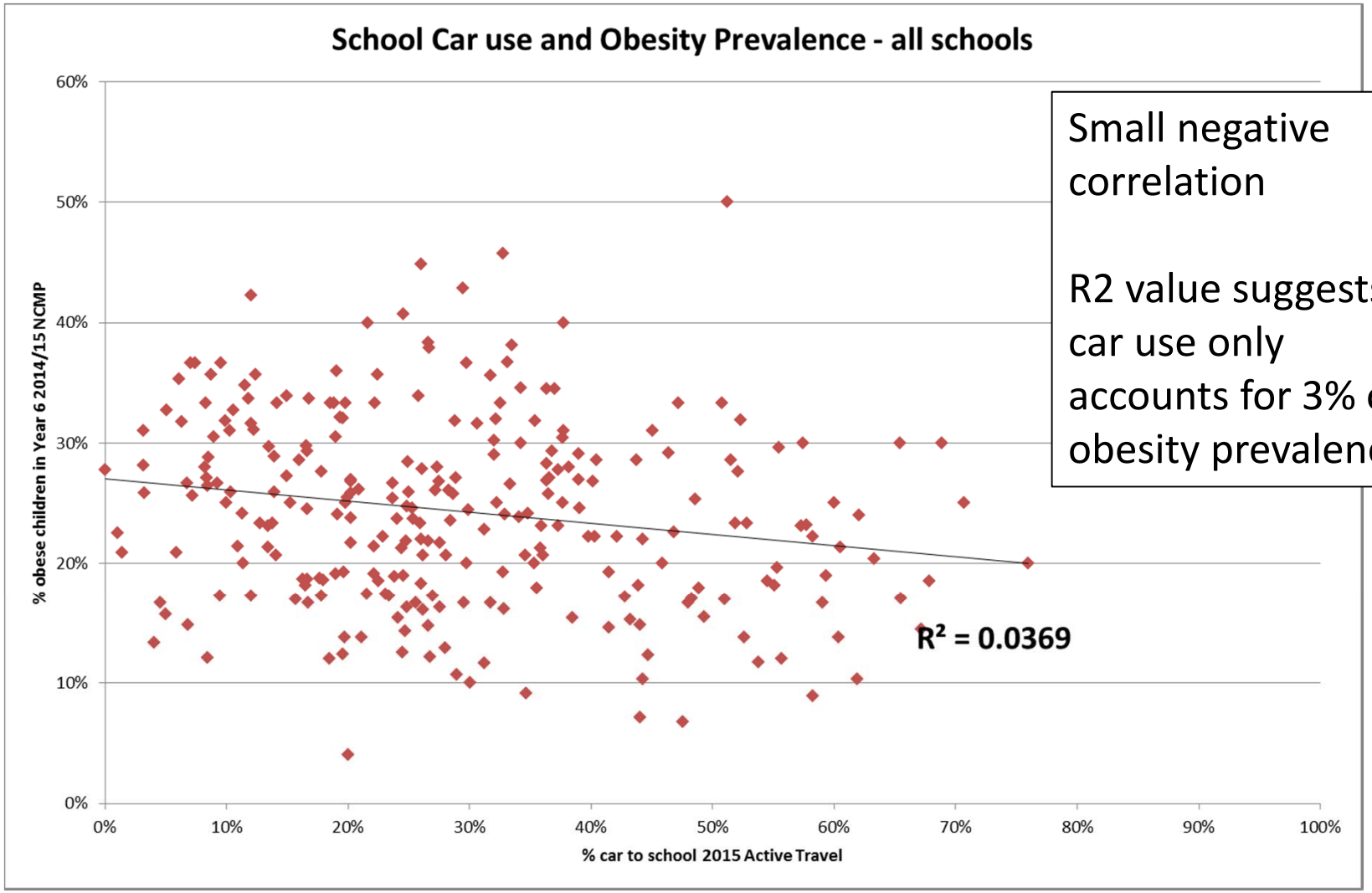


Obesity and walking correlation

- Slight negative correlation in most affluent area schools



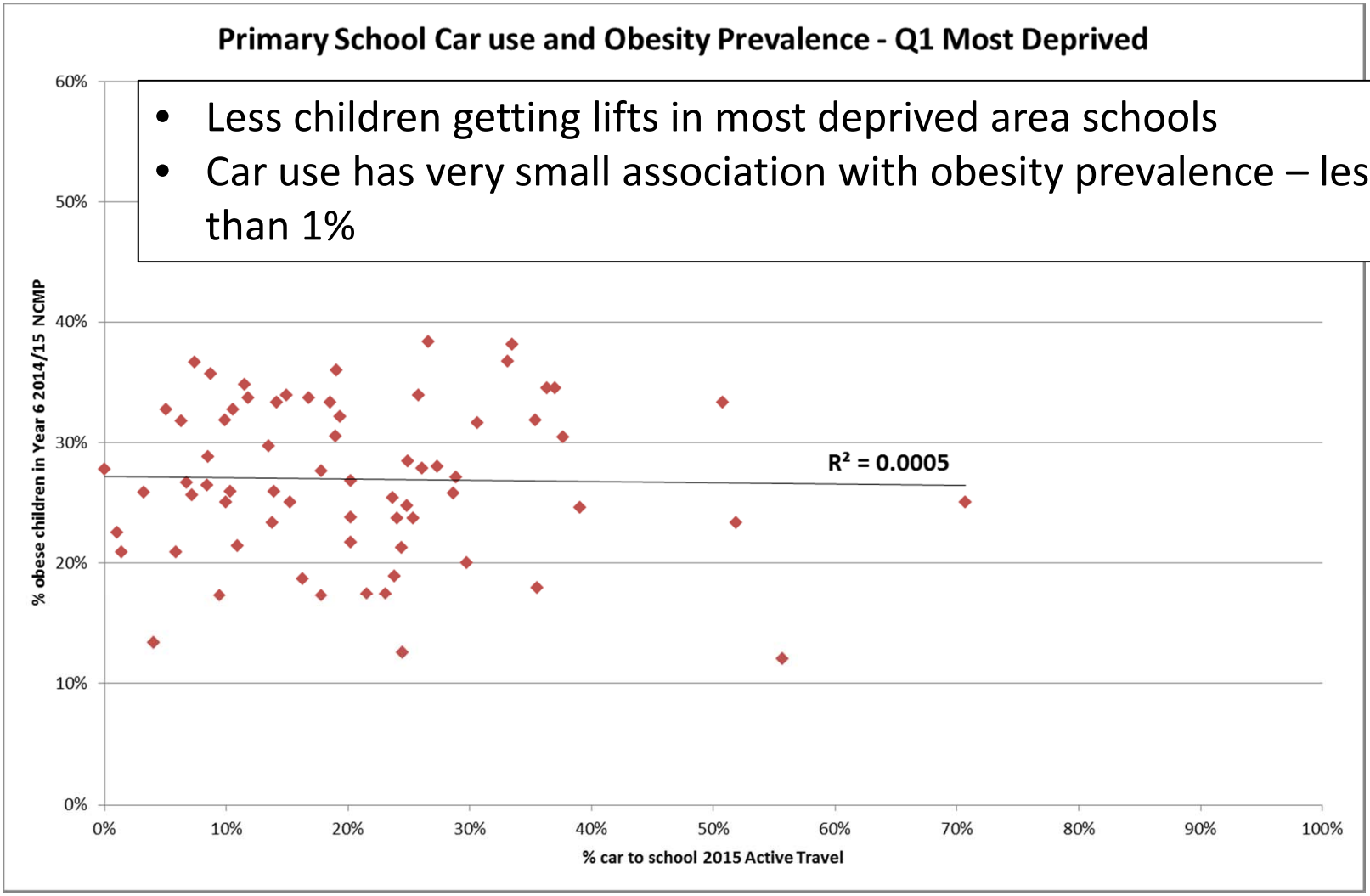
Obesity and car use correlation



Small negative correlation

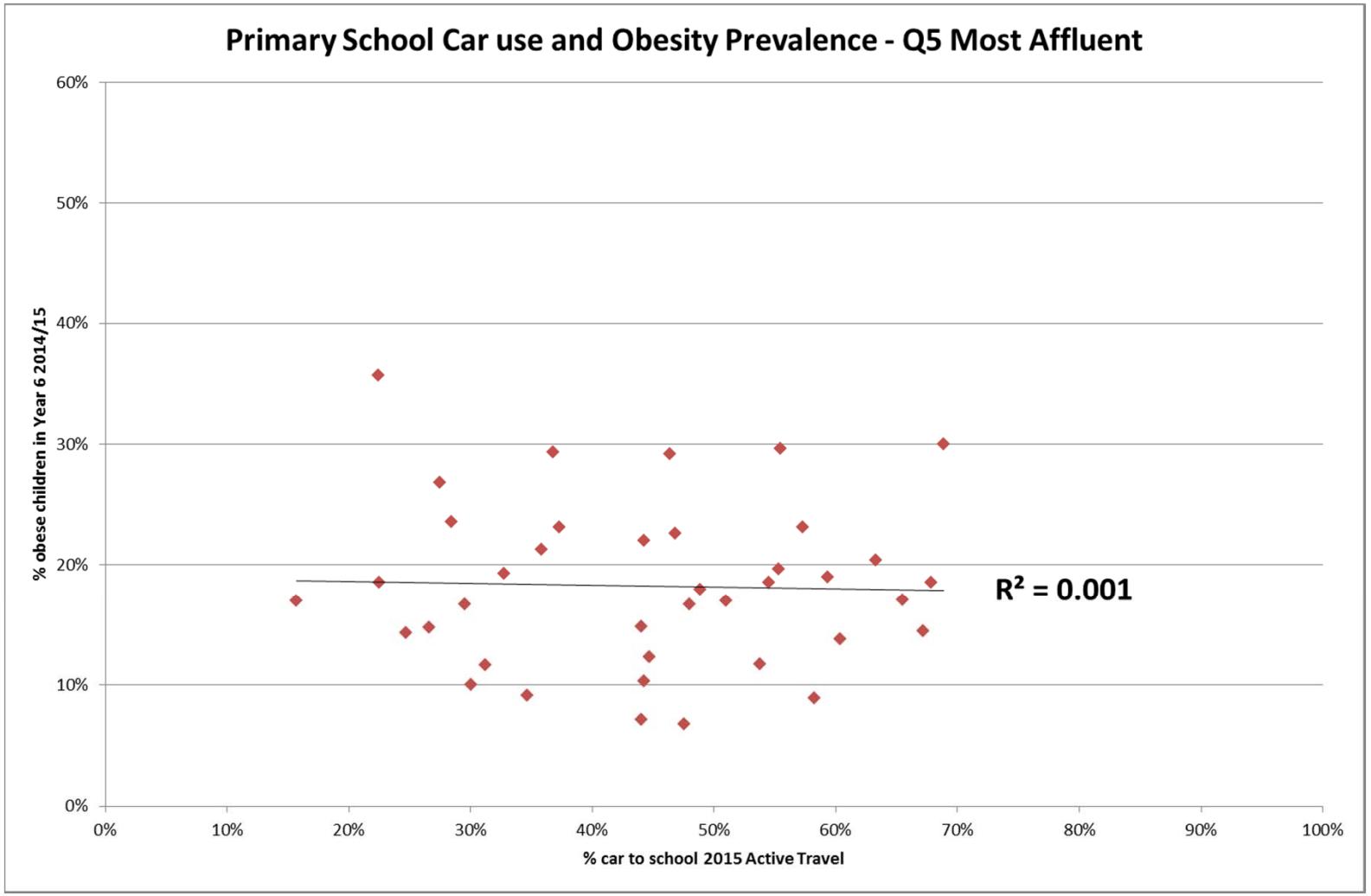
R2 value suggests car use only accounts for 3% of obesity prevalence

Obesity and car use correlation



- Less children getting lifts in most deprived area schools
- Car use has very small association with obesity prevalence – less than 1%

Obesity and car use correlation



Summary of correlation

- Method of travel to school appears to have very little or no effect on obesity prevalence
- Children at schools in most deprived areas are more likely to walk to school than those in most affluent
- In affluent areas walking has a small correlation with reduced obesity
- % based on small size groups therefore lack of precision and certainty.

Walking trends

Biggest increases by school 2012-2015: impact on obesity prevalence

Primary School	Change in walking to school 2012-2015	Change in obesity 2012-2015
Moseley Church of England Primary School	29% ↑	0% ←
St Chad's Catholic Primary School	25% ↑	10% ↑
St Clare's Catholic Primary School	18% ↑	-3% ↓
Marlborough Junior School	17% ↑	0% ←
Corpus Christi Catholic Primary School	16% ↑	0% ←
Woodcock Hill Primary School	16% ↑	12% ↑
Oasis Academy Short Heath	15% ↑	-3% ↓

Cycling trends

Biggest increases by school 2012-2015: impact on obesity prevalence

Primary School	Change in cycling to school 2012-2015	Change in obesity 2012-2015
Walmley Junior School	16% ↑	4% ↑
Bournville Junior School	5% ↑	-5% ↓
Reaside Academy	3% ↑	18% ↑
Abbey RC Junior and Infant School (The)	2% ↑	0% ←
St Joseph's Catholic Primary School - B30	2% ↑	-1% ↓

Obesity trends (Year 6 – ages 10-11)

Biggest decreases by School 2012-2015

Primary School	Change in obesity 2012-2015	Change in walking to school 2012-2015	Change in cycling to school 2012-2015
Cotteridge Junior and Infant School	-26% ↓	4% ↑	0% ←
Redhill Junior and Infant School	-25% ↓	2% ↑	0% ←
Kitwell Primary School and Nursery Class	-24% ↓	3% ↑	0% ←
Chad Vale Primary School	-21% ↓	-3% ↓	0% ←
Town Junior School	-21% ↓	9% ↑	-1% ↓
The Oaklands Primary School	-20% ↓	3% ↑	0% ←
Lea Forest Academy	-20% ↓	4% ↑	0% ←
St Vincent's Catholic Primary School	-20% ↓	12% ↑	0% ←
Tiverton Academy	-19% ↓	4% ↑	-1% ↓

Limitations

- Cross-sectional, ecological study
- Not tracking individual activity with weight status
- Small group size so difficult to show precise results.

Conclusions

- No strong evidence of association of walking/cycling to school with reduced obesity prevalence in primary schools
- Other factors stronger association i.e. deprivation, ethnicity and gender
- Walking to school does show positive impact in most affluent areas. This effect possibly disguised by more dominant impact of deprivation.

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