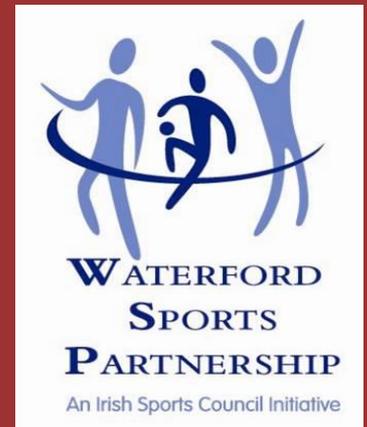


# *The impact of cycling skills training on cycling confidence and behaviour*

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*LSP*



- Children who cycle 15mins a day are fitter, healthier, more active & more alert – better academic performance (BoAnderson et al., 2011; Eglund et al. 2012; Roth et al. 2012)
- Significant health & economic impact (UK All Party Parliamentary Cycling Group, 2013)
- Health benefits far exceed health risks from traffic injuries

Teenagers cycling to school		Secondary school	Walk %	Cycle %	% living < 5km from school
Dungarvan	<b>5%</b>	St Augustine's	<b>4.7</b>	<b>5.3</b>	<b>55.4</b>
Dublin	<b>5%</b>	(mixed)			
Copenhagen	<b>65%</b>	Ard Scoil (all girls)	<b>14.3</b>	<b>1.6</b>	<b>56.3</b>
		CBS (all boys)	<b>20.2</b>	<b>5.3</b>	<b>58.8</b>
Amsterdam	<b>74% (84% ≤ 5km)</b>	Coláiste Cathail Naofa (mixed)	<b>25.7</b>	<b>9</b>	<b>55.5</b>

# Impact of cycle training?

➤ No national standard, no regulation

➤ Limited, recent research

- Off-road, 3 sessions = improved skills (Ducheyne et al., 2013, Netherlands)
  - (Savill et al., 1996, UK; Macarthur, 1998, Canada, van Schagen & Brookhuis, 1994, Netherlands)
  - No impact on cycling to school (Ducheyne et al., 2014)

➤ None has looked at attitudes, confidence re cycling for leisure/transport



# Aim

- To examine the effectiveness of cycle skills training in improving rates of cycling for transport and leisure, cycling skills, cycling confidence, attitudes to cycling and perceived cycling safety

# Skills course

- Peter Jones = syllabus & training
  - Based on Cycling Ireland & UK Bikeability courses
  - 26 tutors trained, 16 delivered; 5:1 ratio
  - 8 cycling skills
  - Dungarvan & Tramore, Co. Waterford

# From yard to road

**Sessions 1 & 2**



**Session 3**

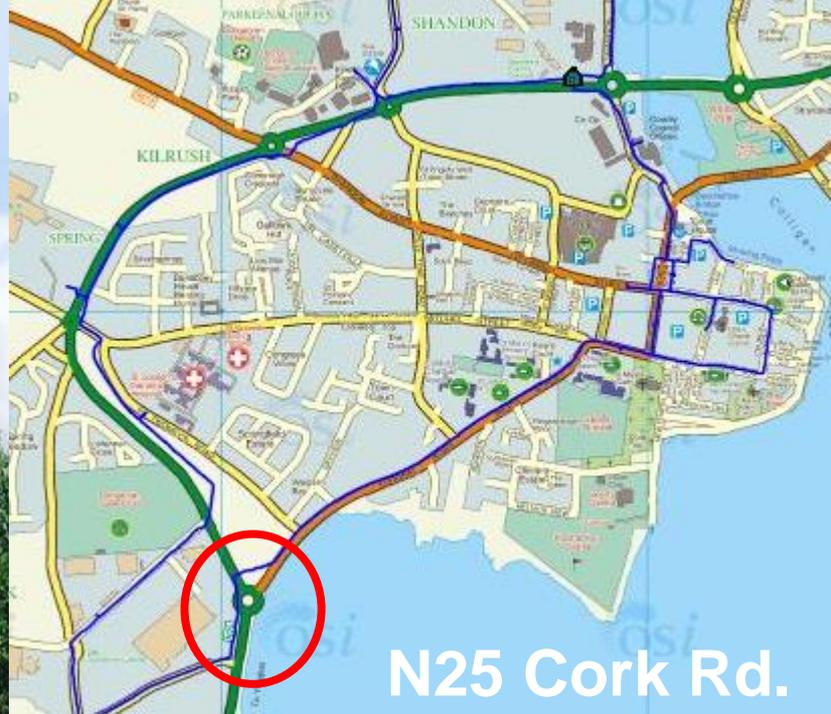


**Sessions 4 & 5**





Bothar Eochail  
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N25 Cork Rd.



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**YOUGHAL ROAD ROUNDABOUT**

Sponsored by  
**GSK Dungarvan**



**Bothar Eochail**  
**ROAD ROUNDABOUT**



# Research methods

- Mixed-method, quasi experimental, follow up study, with intervention & control groups
  - n = 631 students (470 primary, 161 secondary)
  - 14 x 3<sup>rd</sup> & 4<sup>th</sup> classes; 6 x 2<sup>nd</sup> yr classes
  - 3 measures: Questionnaires, skills test & qualitative focus group discussions
  - Data collected 5 times: pre, post and post 1, 6 & 12 month



# 15 Research Questions

- Impact of skills training on...
  - Cycling skills (8)
  - Cycling levels
  - Bike ownership
  - Confidence
  - Attitudes
  - Safety perceptions
- By gender, age, school type, time (5)
- Infrastructure

HOW DO YOU FEEL ABOUT .....					
How do you feel cycling on an off road cycle path e.g. Railway track		I've never done it	Not very confident	I'd feel ok	Really confident
How do you feel cycling on an on road cycle path on a road		I've never done it	Not very confident	I'd feel ok	Really confident
How would you feel cycling near cars		I've never done it	Not very confident	I'd feel ok	Really confident
How do you feel cycling on a big road		I've never done it	Not very confident	I'd feel ok	Really confident
How do you feel cycling through a roundabout		I've never done it	Not very confident	I'd feel ok	Really confident
How do you feel cycling on through a big junction		I've never done it	Not very confident	I'd feel ok	Really confident

\* =  $p < .05$

# Results

Total cycling skills (min8-max40)*		M (95% CI)
Male control	Pre	21.4 (20.7–22.1)
	Post	34.7 (33.8-35.5)
Female control	Pre	21.2 (20.6-21.8)
	Post	33.7 (32.9-34.4)
Male intervention	Pre	19.1 (18.6-19.5)
	Post	31.6 (31.1-32.2)
Female intervention	Pre	18.7 (18.3-19.2)
	Post	31.1 (30-5-31.7)

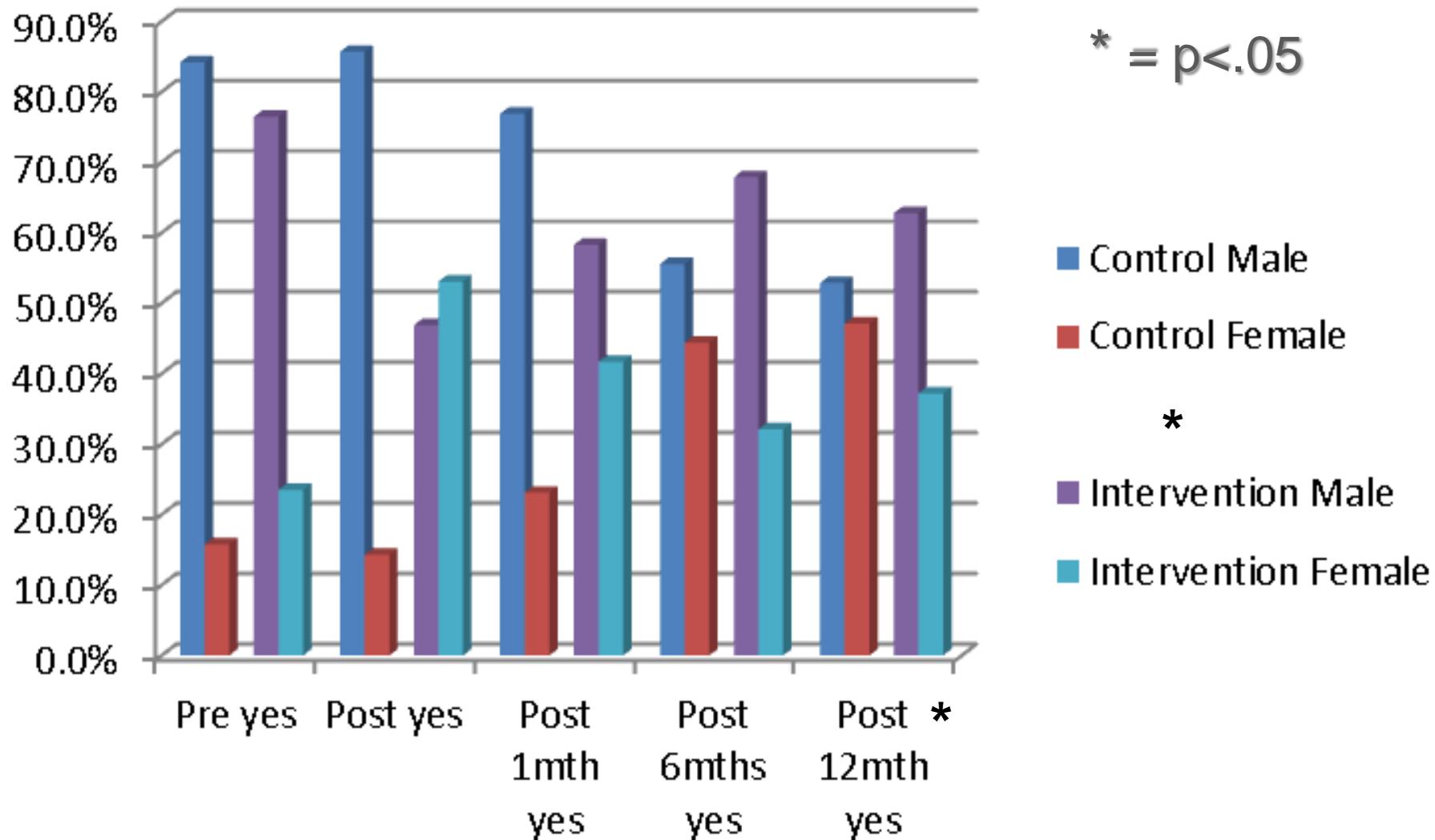
- National school scores (20 to 32.9) significantly higher than Secondary (19.0 to 29.3)
- Signalling, roundabouts & T-junctions were the lowest scores pre and post

% Ever cycled to school?	Pre	Post 6	Post 12*
Male control	49	66	72
Female control	57	59	71
Male intervention	49	77	80
Female intervention	50	66	69

\* =  $p < .05$



# Cycle to school in the last 7 days?



\* =  $p < .05$

# Results

Variable	Pre	Post	Post 12 months
Own Bike	80	87 *	87

- Dungarvan 81.5% to 86.5%
- Tramore 79.5% to 89%
- 'Normally' drive to school: 60% pre, 53% post 12mths.
- 'Normally' cycle to school: 13% pre, 17% post 12mths
- Confidence:  $\uparrow^*$  - greater in younger & females
- Attitudes:  $\uparrow^*$  - greater in intervention & males

\* =  $p < .05$

Attitudes, safety & confidence %	Pre	Post	Post 12
Cycle in any weather	48	54 *	53
Feel safe cycling to school	64	69	72 *
Grown ups don't want me cycling	38	31 *	38
Traffic makes me afraid of cycling	33	23	20 *
Cycle lanes make me feel safer	78	75	63 *
Confidence on big road	41	55	61 *



# Conclusions

- Skills training had a positive effect on skills, confidence, attitudes & behaviour
- Road based cycling skills are generally poor
- Gender: no difference in skills, big difference in cycling levels. *All worst in single sex schools*

## Implications

- Skills training vital for child & parental confidence to ↑ cycling for active transport

## Recommendations

- Deliver progressive skills training
- Begin in primary schools

