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# Being Barefoot



## The Prevalence of Barefoot Activity in New Zealand Secondary School Boys

**Peter Francis Grant Schofield Lisa Mackay**

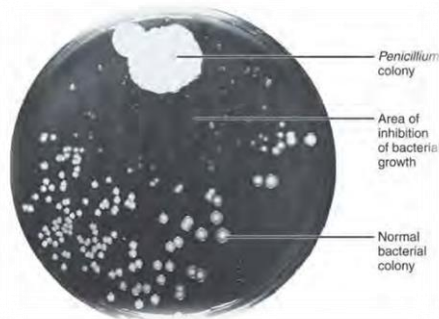
Friday July 6<sup>th</sup> 14:00

ECSS 2018, Liffey Hall 2



# Science...

- *An incremental body of knowledge generated through (chance) observation*



# Science...

- *An incremental body of knowledge generated through (chance) observation*



- I wonder how many of these boys are happy to do this?
- I wonder how many do it over longer distances?
- I wonder what other time they spend barefoot?
- I wonder do they get more or less injuries?

# Science...

- *An incremental body of knowledge generated through (chance) observation*

## **School, sport and around the house**

- 2-points = barefoot most of the time
- 1-point = barefoot half of the time
- 0-point = barefoot none of the time



**South Africa: 90.9% Barefoot**

**Germany: 100% Shod**

# A Study Started from Chance Observations...

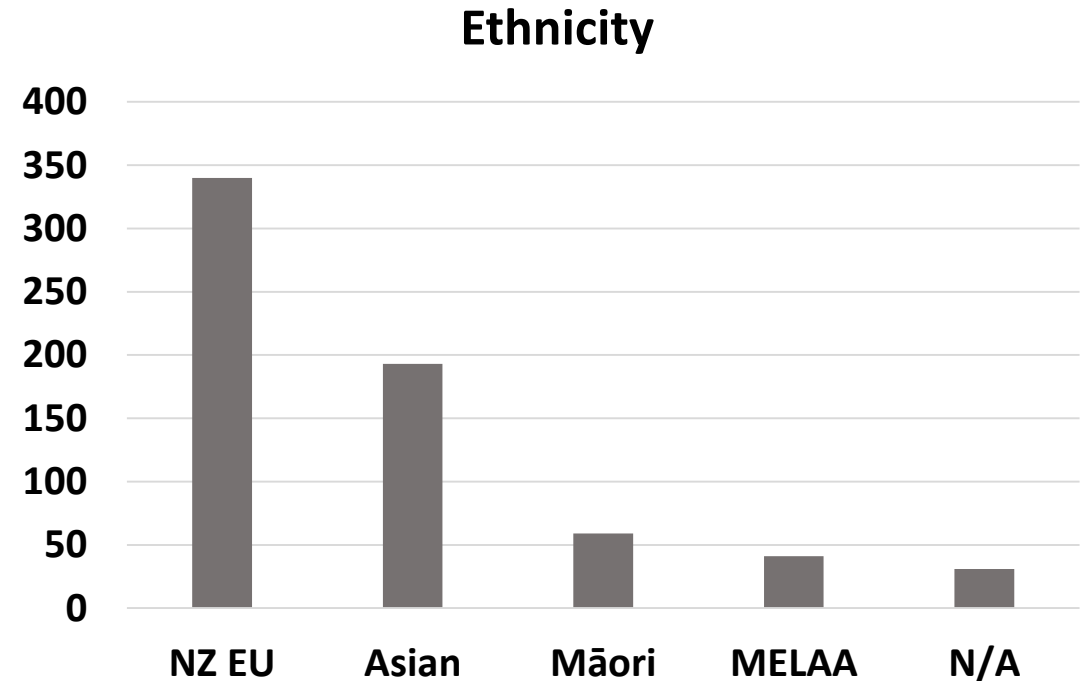
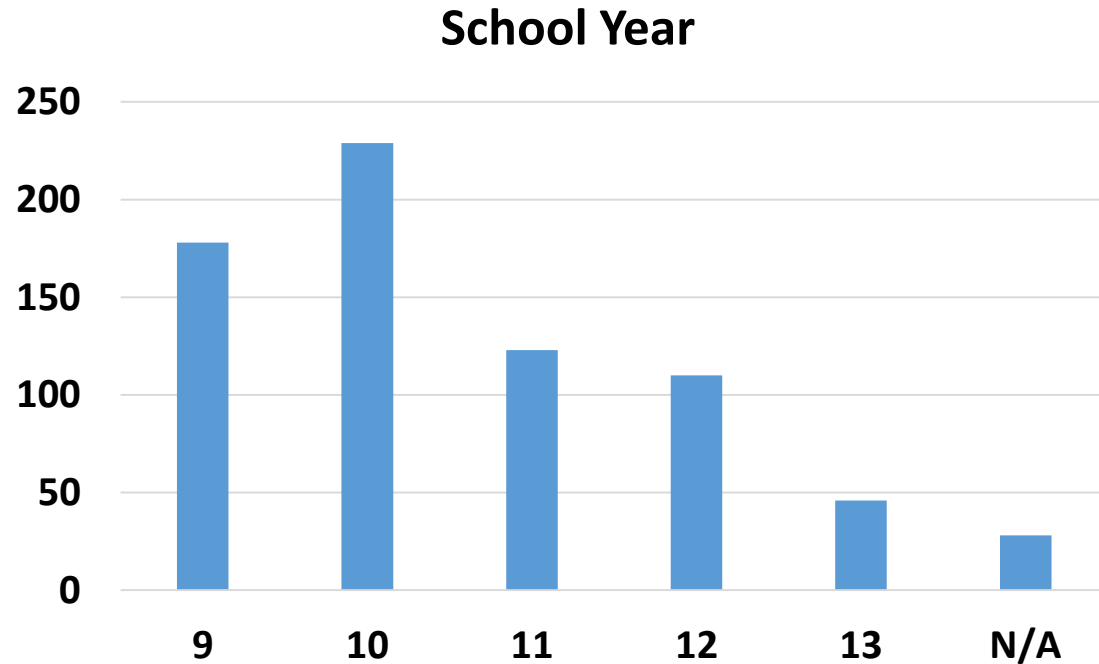
- 11 – question survey (3 demographic, 8 activity related)
- School, Sport, Around the House, **PE, Supermarket & Bus**
- Distance, surface and footwear at most recent schools athletics event
- Exercise related leg pain in the last 12-months



SCIENTIFIC  
REPORTS



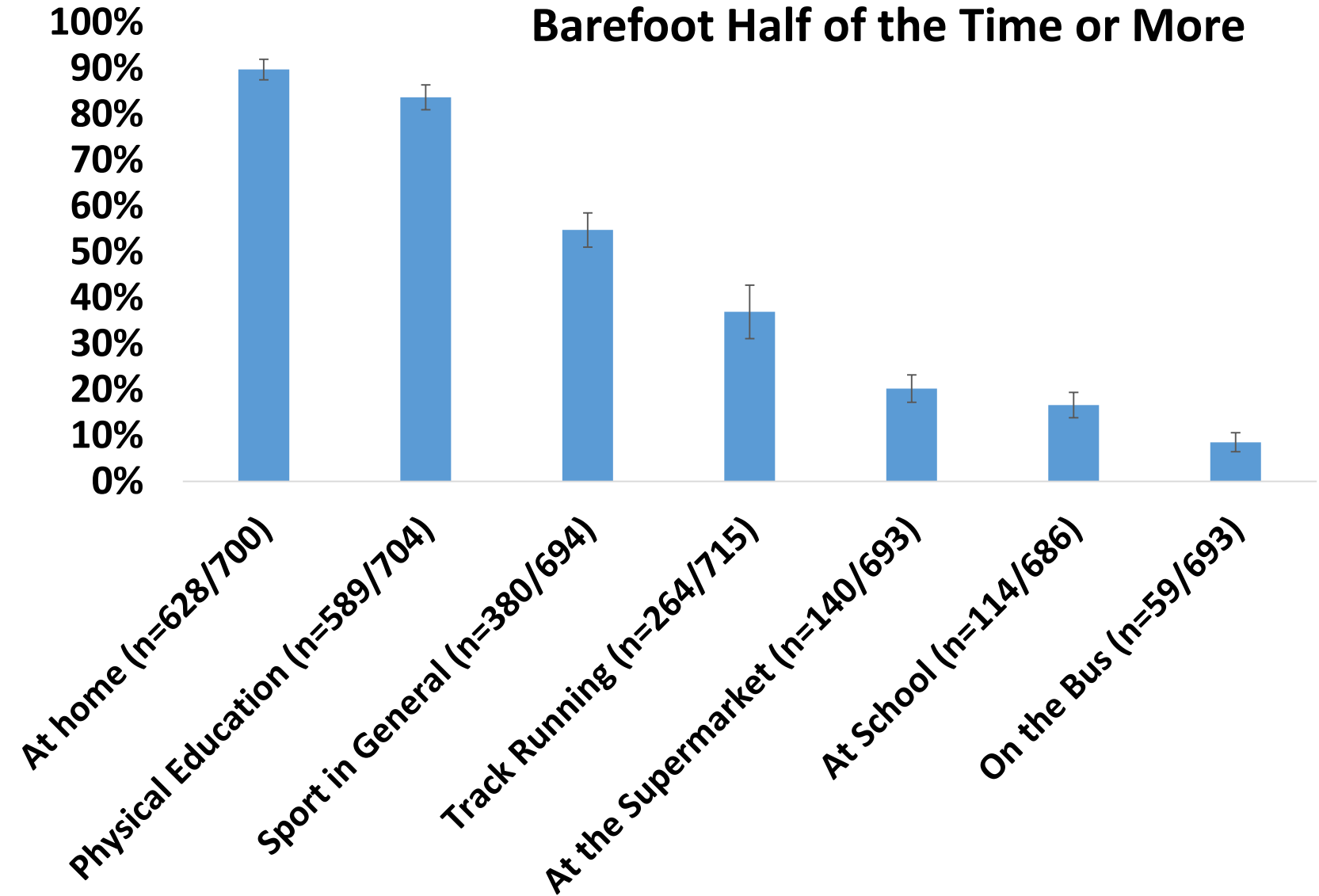
# Results...714 Boys



- A school of high socio economic status (Decile 9/10).
- Representative sample based on the most recent New Zealand census data.

# Results

- 45.3% *habitually barefoot.*

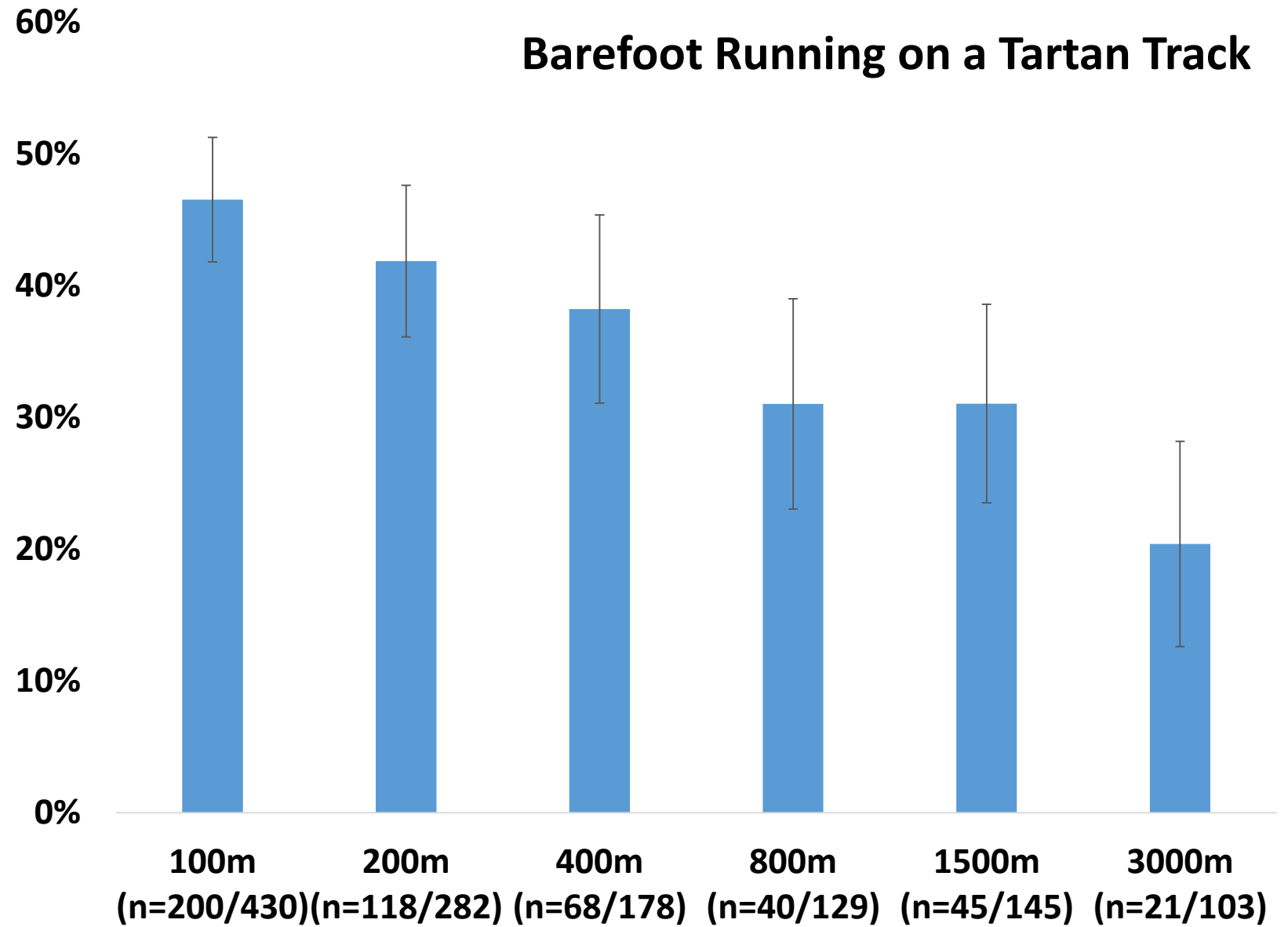




# Results



## Barefoot Running on a Tartan Track



# Results

- The prevalence of exercise related leg pain that stopped boys running in the past 12-months was 23.5% (n=168)
- Prevalence of injury in school based physical activity (USA): 34-38%  
(Aaron and Laporte (1997) *Ex and sport sci rev*, 25(1):391-406).
- Prevalence of leg pain in high school cross-country athletes (USA): 48%  
(Reinking et al. (2010) *J Athl Train* 2010, 45(1):51-57).

# Discussion

## Footwear Habits

- Germany: 100% Shod
- South Africa: 90.9% Barefoot
- New Zealand: 45.3% Barefoot



## Economic Resources

- 19<sup>th</sup>
- 93<sup>rd</sup>
- 35<sup>th</sup>



## Climate

- Temperate
- Arid & Temperate
- Temperate

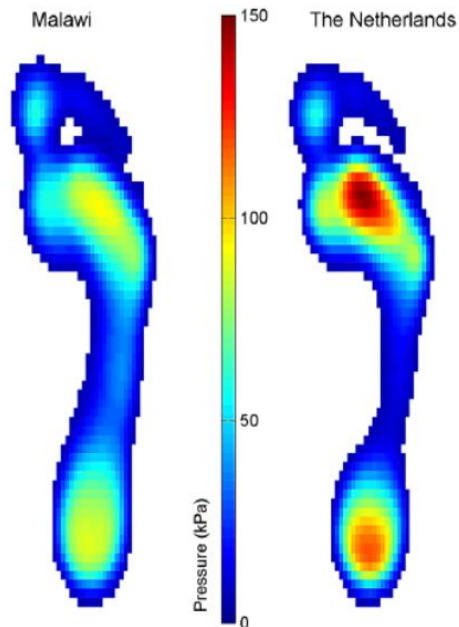


Gregson J (2017) *Global Finance*, February, **13**.

Kottek (2006) *Meteorologische Zeitschrift*, **15**(3):259-263.

# Discussion

- 20 – 47% of boys competed (100m – 3,000m) barefoot on a tartan surface.



- Growing up habitually shod leads to differences in foot morphology

*If they want to do it, should we tell them otherwise?*

*Is this injury prevention?*



# Thank You...or...Kia Kaha. Arohanui.

