



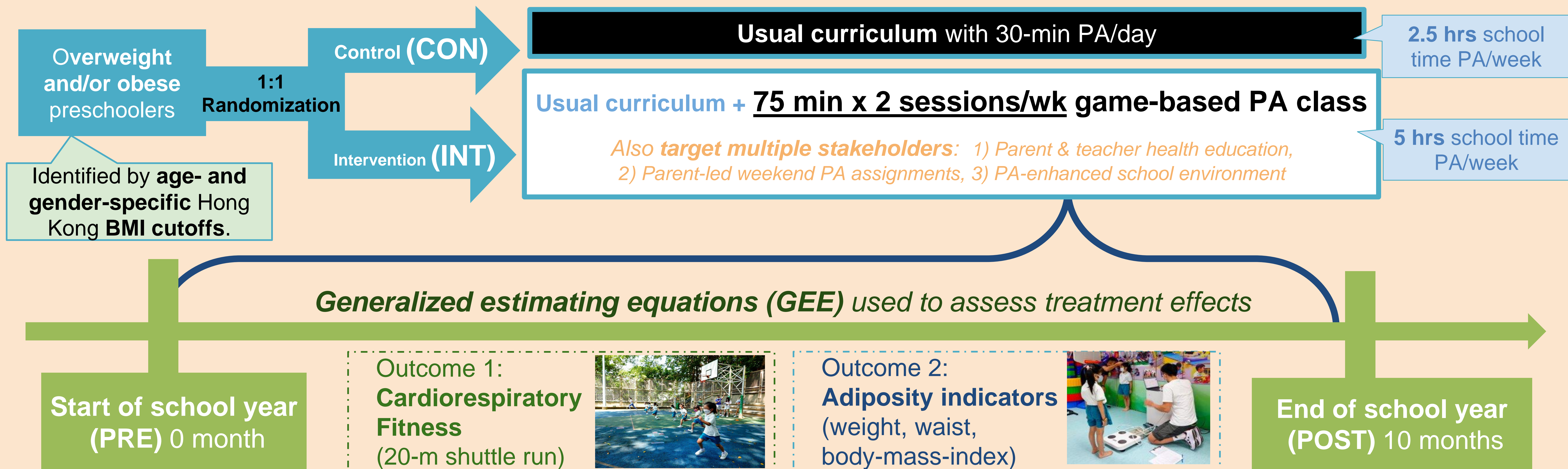
- Introduction -

- **Pediatric obesity prevalence surged** in the past 30 years, affecting **8% children** worldwide.
- While **physical inactivity is a major cause** of childhood obesity,¹ **obese children** also experience **more barriers to engage in adequate physical activity (PA)**,² with **cardiorespiratory fitness** more likely to be **compromised**.³
- **Negative impacts** on obese children's **long-term health** includes elevated risks of cardiometabolic and non-communicable diseases.⁴
- Interventions to **promote PA, reduce adiposity, and improve fitness** in obese preschoolers is crucial, given **80% had obesity manifested before 6 y.o.**⁵
- **PA interventions** might reduce weight and improve fitness in older children and adolescents,⁶ but effectiveness in preschoolers remains to be elucidated.

- Objective -

Investigate the effectiveness of a **preschool-based PA intervention** on **reducing adiposity and improving fitness** in **preschoolers with overweight and/or obesity**

- Methods -



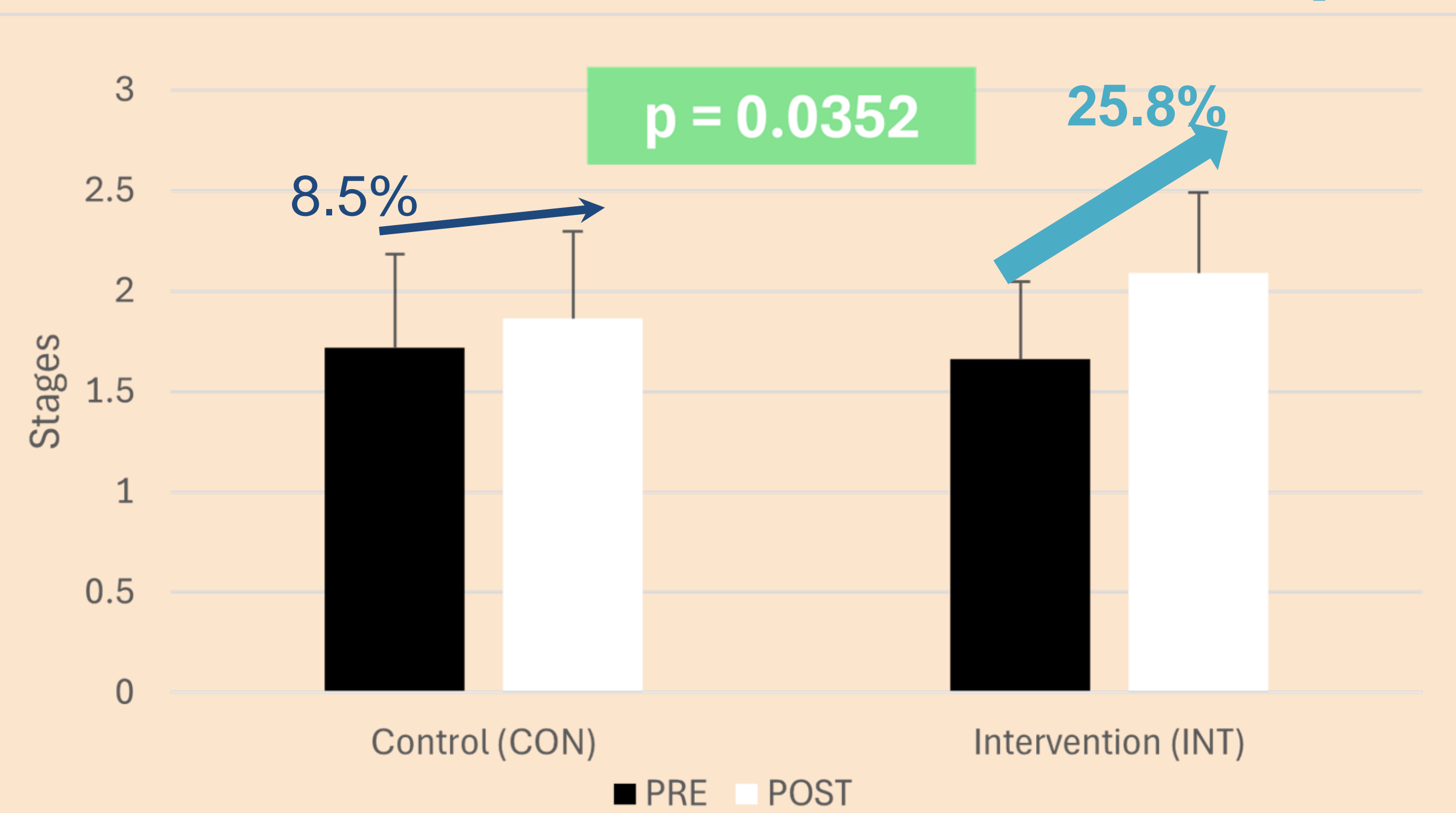
Preliminary Results (First two years)

Significant intervention effect found for **cardiorespiratory fitness**.

Among 967 children, **50 were overweight and/or obese.**

- 25 CON, 25 INT
- Female 34%, Male 66%
- Mean age 5.27 (SD 0.36)
- Mean BMI = 19.45 (SD 1.43)

All analysis were adjusted for baseline values, clustering, age & gender.



No significant effects were found for any adiposity indicators.

PRE-POST % change			
	CON	INT	Group x Time (p-value)
Weight	+5.66%	+7.23%	0.56
Waist	+5.08%	+3.58%	0.41
BMI	-2.01%	-2.34%	0.52

- Conclusion -

- Results suggested that **over 5% of Hong Kong preschoolers were overweight**, with **60% being obese**.
- **Game-based PA interventions** might effectively encourage obese children to participate in PA, thereby improving cardiorespiratory fitness that is beneficial to their **cardiometabolic health**,⁷ and facilitate **continual PA participation**.⁸
- Importance of enjoyable PA experience and potential of school PA interventions to improve long-term health in obese preschoolers is highlighted.
- Results in coming years will substantiate findings and explore potential effects on reducing adiposity with larger sample size.

~ References ~

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