

# Effectiveness of Peer-Trained Community Health Worker Intervention on Obesity Management in Chinese Adults Living in Informal Houses: A 3-Months Preliminary Investigation

Crystal Ying Chan<sup>1</sup>, Alvin SY Li<sup>1</sup>, Becky Hoi<sup>1</sup>, Flora CW Lam<sup>1</sup>, Joyce HY Chan<sup>1</sup>, Quinn KY Ng<sup>1</sup>, Henry WH Yu<sup>1</sup>, Leticia LT Wong<sup>1</sup>, Henry HF Sin<sup>1</sup>, Edwin SK Chung<sup>1</sup>, Eliza Wong<sup>1</sup>

<sup>1</sup>JC School of Public Health and Primary Care, The Chinese University of Hong Kong, Hong Kong



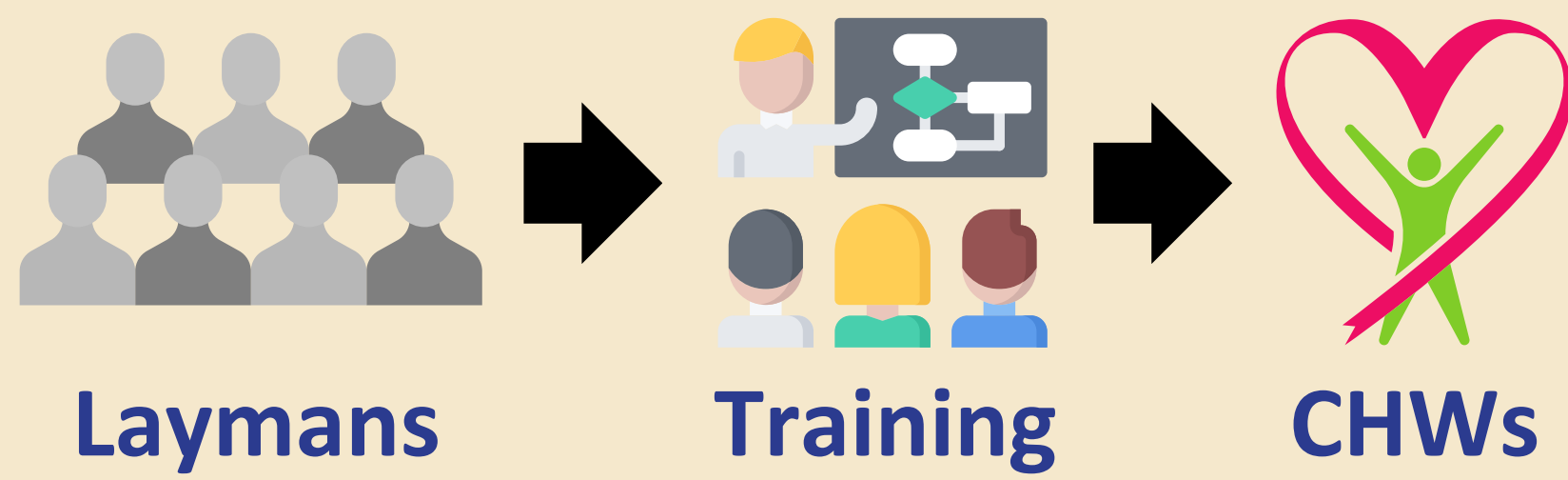
Corresponding Author's Profile

## INTRODUCTION

- Community health workers (CHWs) are trained laymans providing health care without formal clinical education.
- Peer-trained CHWs provide more accessible and culturally-sensible to usual care for their lower cost and higher availability in vulnerable populations



Model:

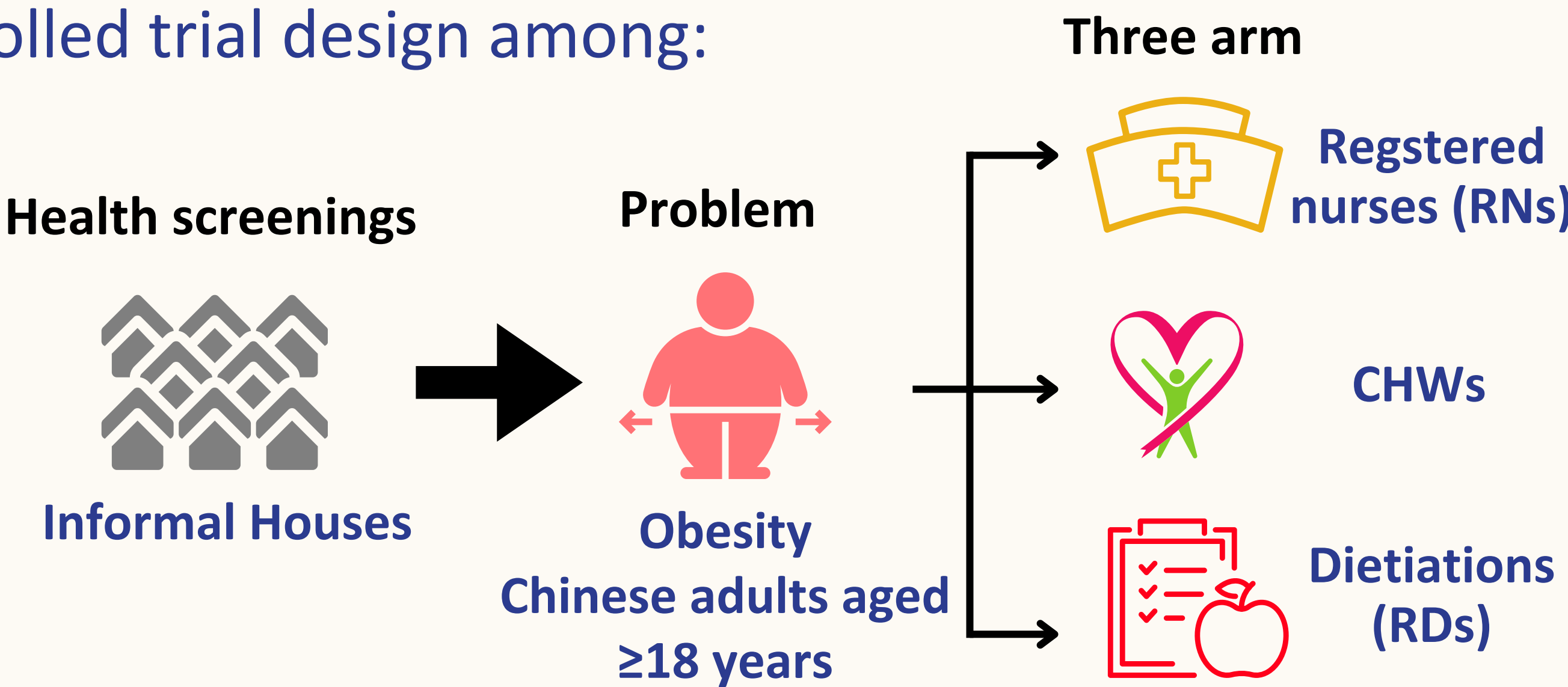


AIM

- Investigate the effectiveness of CHWs habit-based interventions of weight Management in Chinese Adults Living in Informal houses.

## METHODS

- Health screenings were conducted with people living in informal housing.
- Open-label, three-arm, parallel cluster randomized controlled trial design among:
  - RD group and RN group providing:
    - Normal care and
    - Follow-up session every 3 months.
  - CHWs group providing:
    - Habit-based interventions, and
    - Gollow-up sessions every 2 - 4 weeks
- Evaluated the impacts on obesity prognosis using CHWs habit-based interventions in comparing to nursing/dietetics care.
- Administrative data of the trial was reported for feasibility assessment.
  - Number of follow-up sessions conducted
  - Loss-to-follow-up rates
- Waist circumference (WC) and body mass index (BMI) were used to measure obesity.
- Multivariate mixed effect models, using family cluster as fixed effect term, were used to evaluate effectiveness of CHWs intervention.



## RESULTS

- This preliminary investigation included 59 families (62 obese individuals, mean age [SD] = 48.97 [11.543], 80.6% female)
- 744 follow-up sessions** being conducted among **62 individuals**, with **1.6% loss-to-follow-up rates**
- The median cluster size was 1 (mean size is 1.051)
- Most of the families (90.9%) earn less than HKD 24,999 a month, compared to 49.8% of the general population in HK.
- CHWs intervention shows **effectiveness in reducing waist circumference in an interim reporting of three months.**

Table 1: CHWs intervention Outcome measurement

Outcome measurement	ICC	Mean Difference	95% CI
BMI reduction (kg/m2)	0.309	0.486	[0.089, 0.884]
Waist circumference reduction (cm)	0.339	1.334	[-0.478, 3.146]

## CONCLUSION

- CHWs intervention is a feasible and effective healthcare intervention with Chinese, housing vulnerable adults living in Hong Kong.

