

Putting the **HE** into HEHA

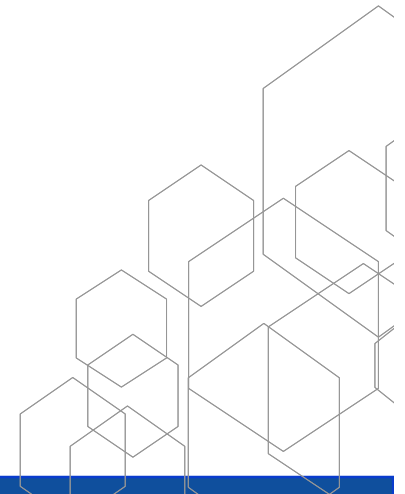
Ralph Maddison





Outline

- Physical activity and obesity
- The benefits of physical activity
- Physical activity in NZ
- Our research on enhancing PA
- Where to from here





CLINICAL TRIALS
RESEARCH UNIT

JUNE 7, 2004

SPECIAL ISSUE

TIME

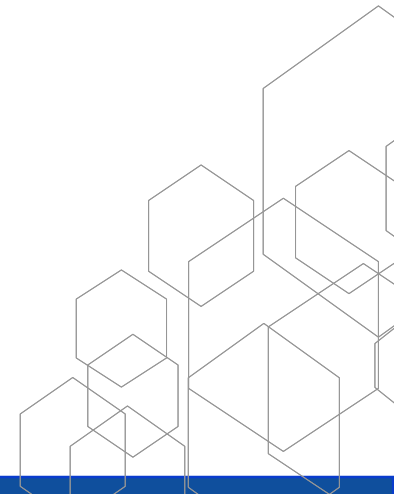
OVERCOMING

OBESITY

IN AMERICA

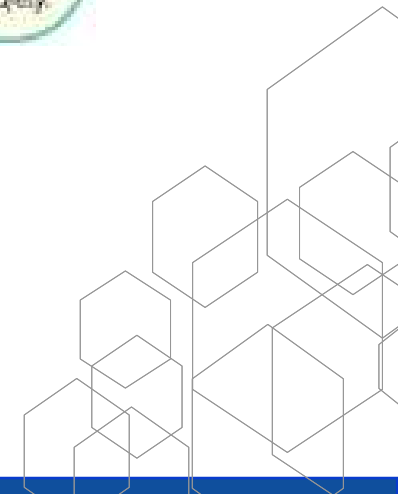
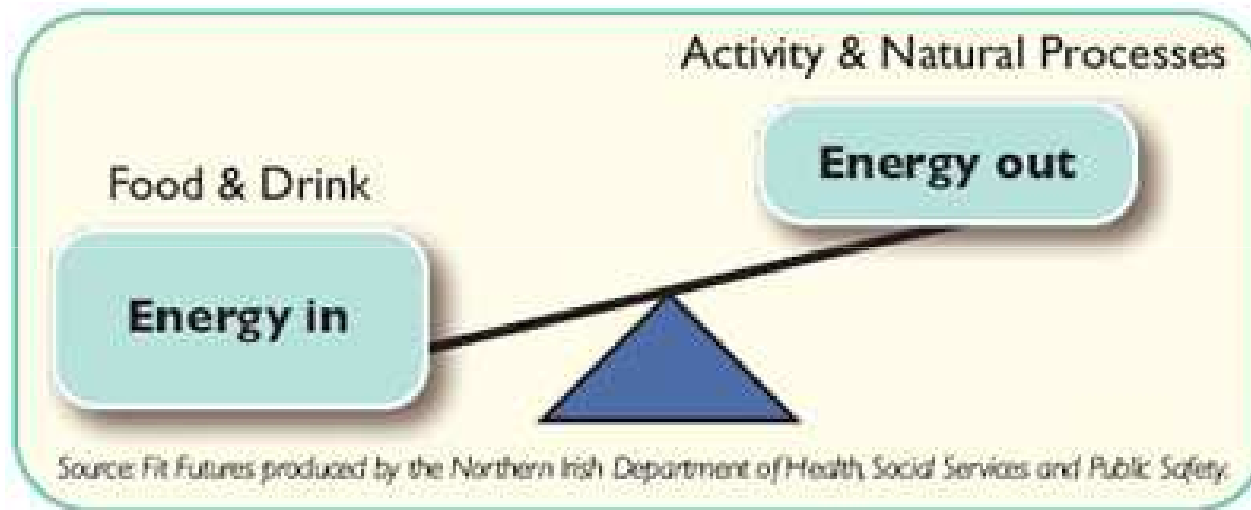
- WHY WE EAT SO MUCH
- THE ANTI-FAT CRUSADERS
- WEIGHT-LOSS HEROES
- WHAT TO TELL YOUR KIDS
- A GUIDE TO DIET BOOKS

www.time.com AOL Keyword: TIME





Energy imbalance





Contribution of physical activity

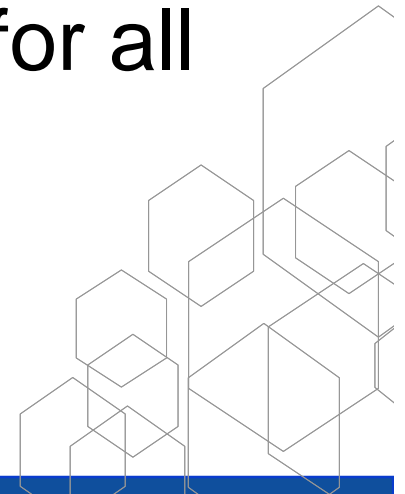
- "today's generation of children will be the first for over a century for whom life expectancy falls."
- Today's environment enforces an inactive lifestyle that promotes a positive energy balance
- Habitual physical activity established during the early years may provide the greatest likelihood of impact on mortality and longevity





Contribution of physical activity

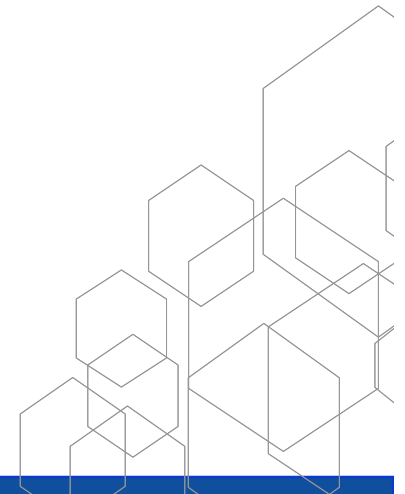
- Environmental factors need to change if physical activity strategies are to have a significant impact on increasing habitual physical activity levels in children and adolescents
- Efforts should be concentrated on facilitating an active lifestyle for all (children particularly)





Value of physical activity

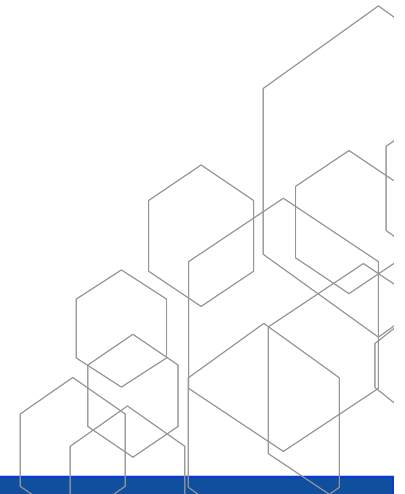
- Essential component of healthy life
 - Mental and physical health
 - ADLs
 - Growth and development
 - Social cohesion





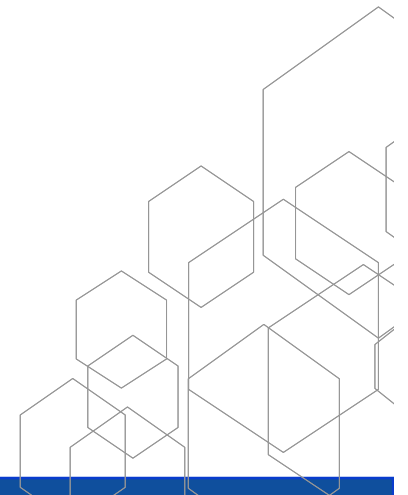
- ‘concept that humans have an evolutionary derived and genetically-primed need for regular physical activity to maintain optimal metabolic function and to prevent chronic disease’

Hills et al., 2007, 37(6) Sports Medicine





What is it?

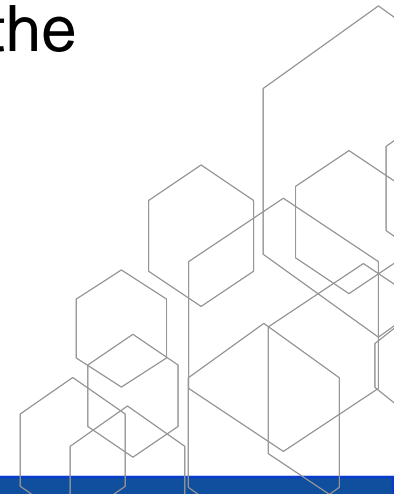




Definitions

- Physical Activity - Any bodily movement produced by skeletal muscles that results in energy expenditure
- Exercise - Planned, structured and repetitive bodily movement done to improve or maintain one or more components of physical fitness
- Physical Fitness - A set of attributes that people have or achieve that relates to the ability to perform physical activity

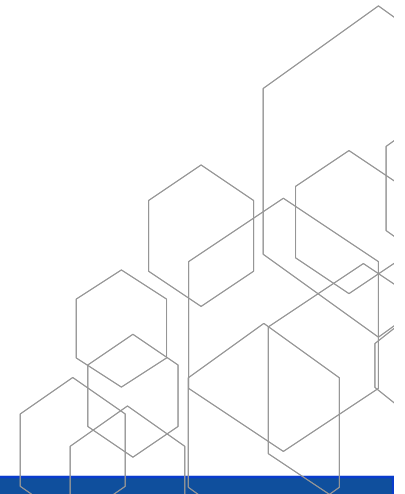
Caspersen, CJ & Stephens, T (1994) The demography of physical activity. In Physical Activity Fitness and Health, Human Kinetics





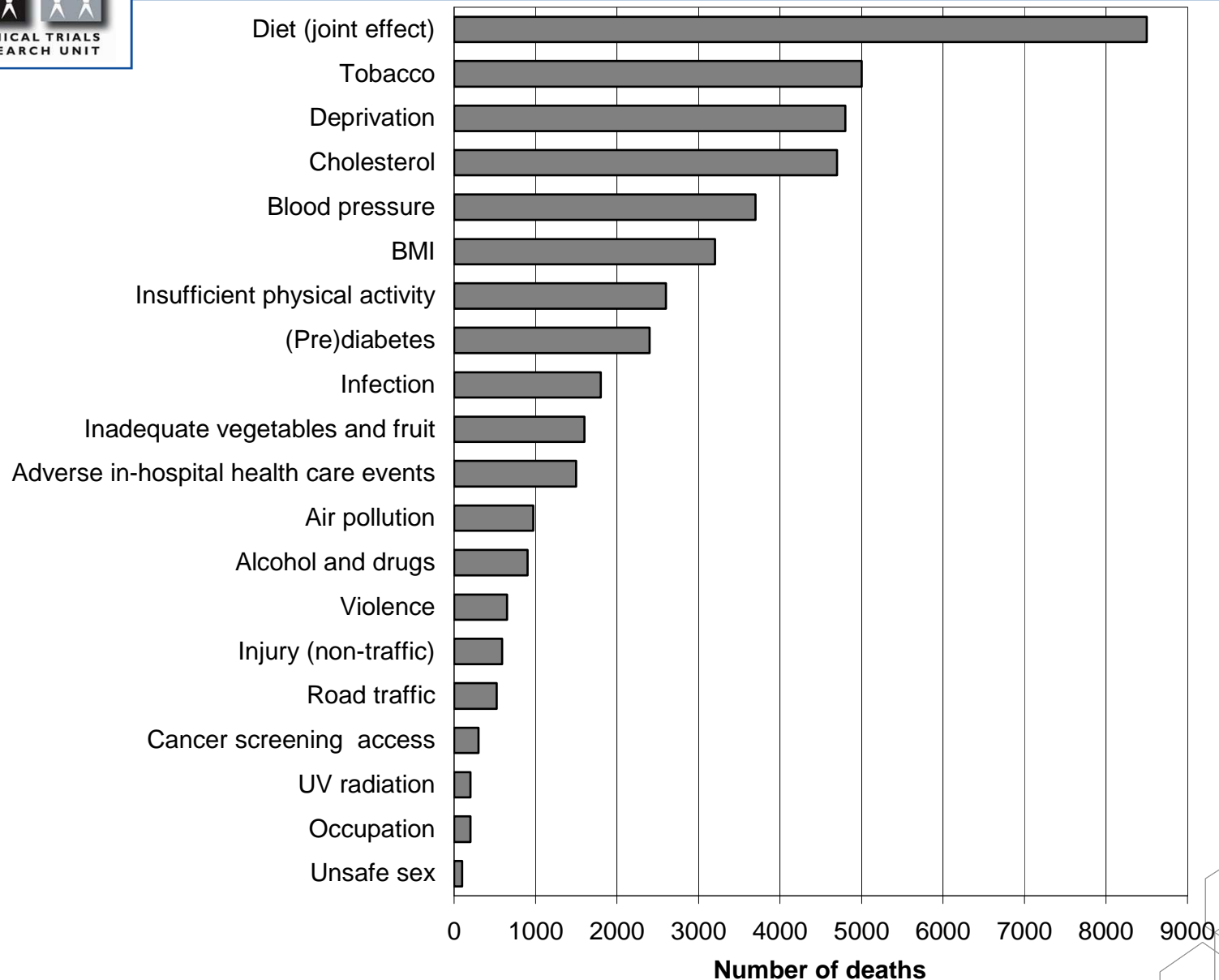
PA recommendations

- Adults to participate in 30 minutes of moderate to vigorous activity most days of the week (at least 5)
- Youth to participate in 60 minutes of moderate to vigorous activity most days of the week





Top 20 causes of death, by risk factor, New Zealand, 1997

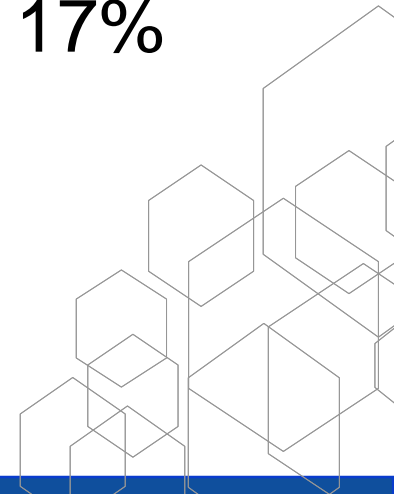




Global estimate

- Global estimate for the proportion of the population undertaking *insufficient levels of activity* (< 150 minutes moderate or < 60 minutes of vigorous activity per week) is 40%
- Global estimate for *inactivity* (doing no or very little PA at work, at home, for transport or in discretionary time) is 17%

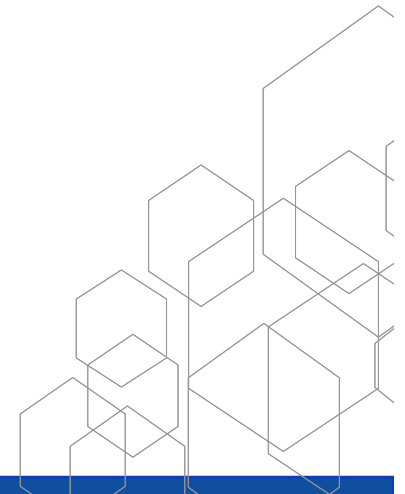
Bull et al. Comparative Quantification of Health Risks. Global and Regional Burden of Disease Attributable to Selected Major Risk Factors. 2004.





Need for intervention!

- Physical activity change is a complex issue
- Needs to be addressed at multiple levels





Current research

- Enhancing food security and physical activity for Māori, Pacific and low income whānau/families
- Aim to understand environmental influences
 - Literature review
 - Focus groups
 - Identification of contributing factors and points of intervention
 - Defining opportunities for intervention
 - Evaluation of potential interventions
 - Portfolio of policies, programmes and actions

Funded by Ministry of Health and Health Research Council



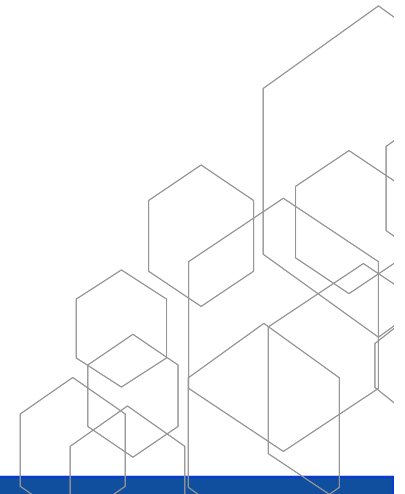
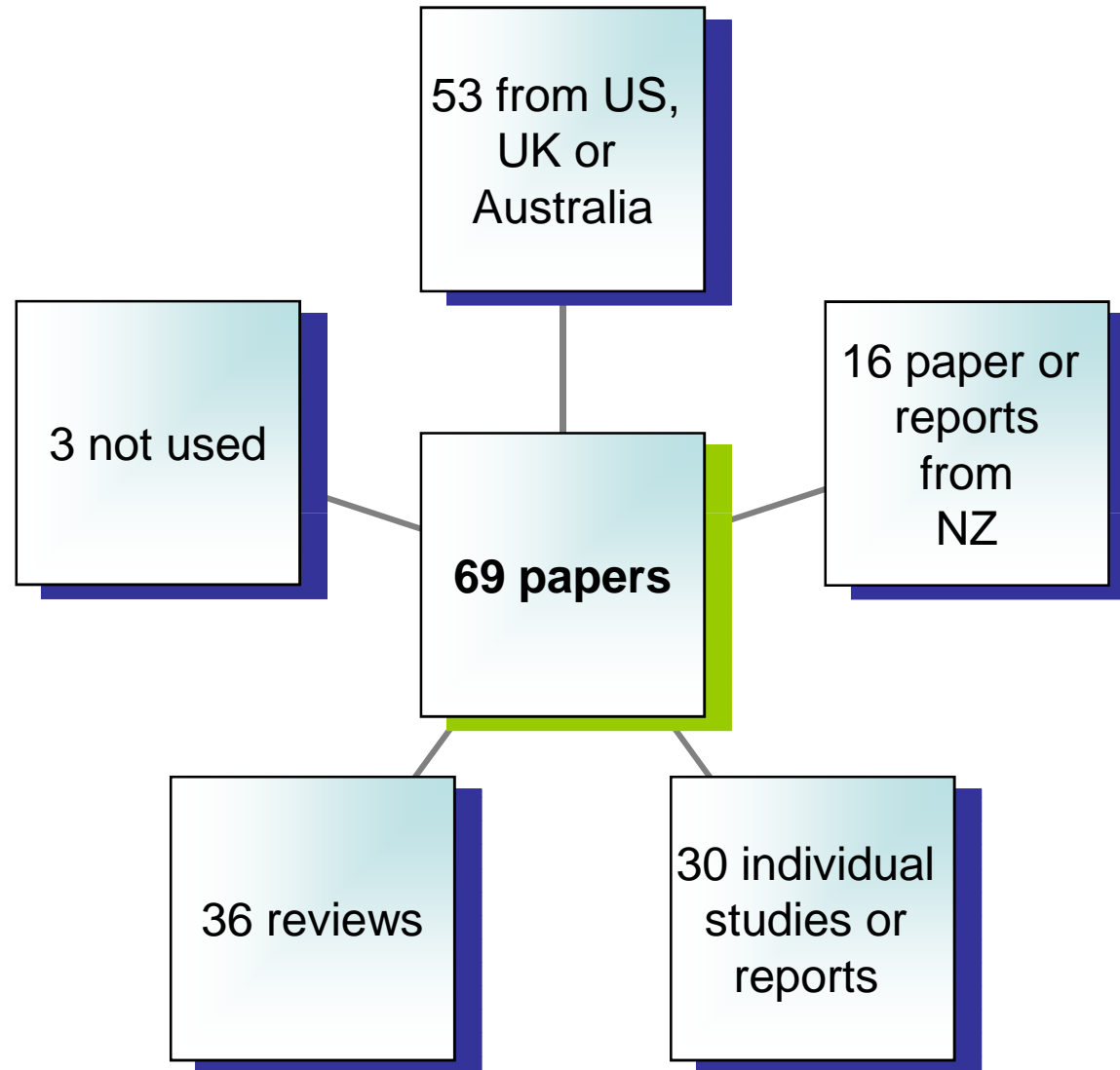
Literature review

- Literature published up to and including 29 Oct 2007
 - 10 electronic databases
 - Google
 - Relevant websites
 - Hand searching
 - Grey literature
 - Key informants
- Results classified as physical, economic, socio-cultural, and political environments



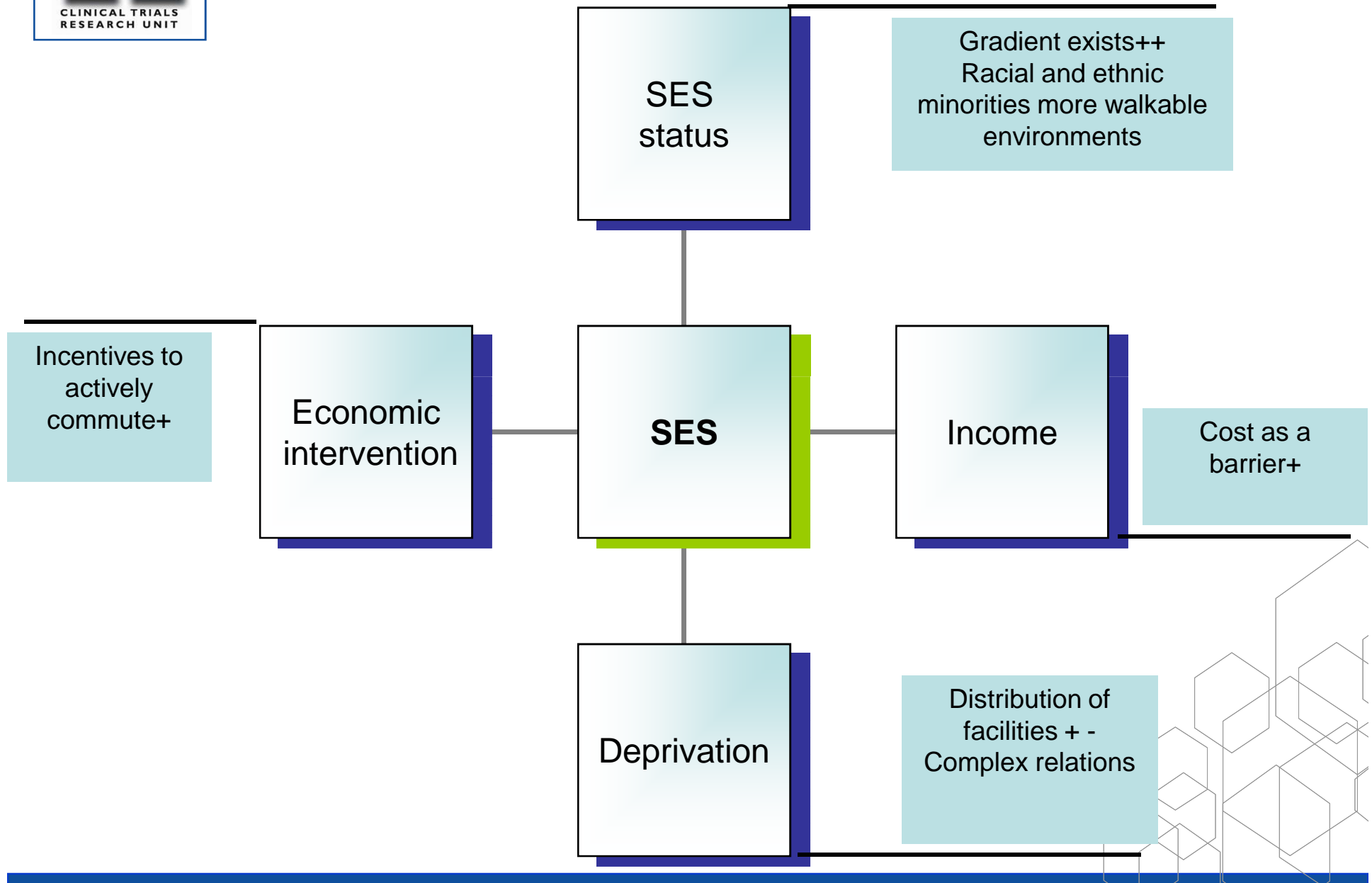


Review findings



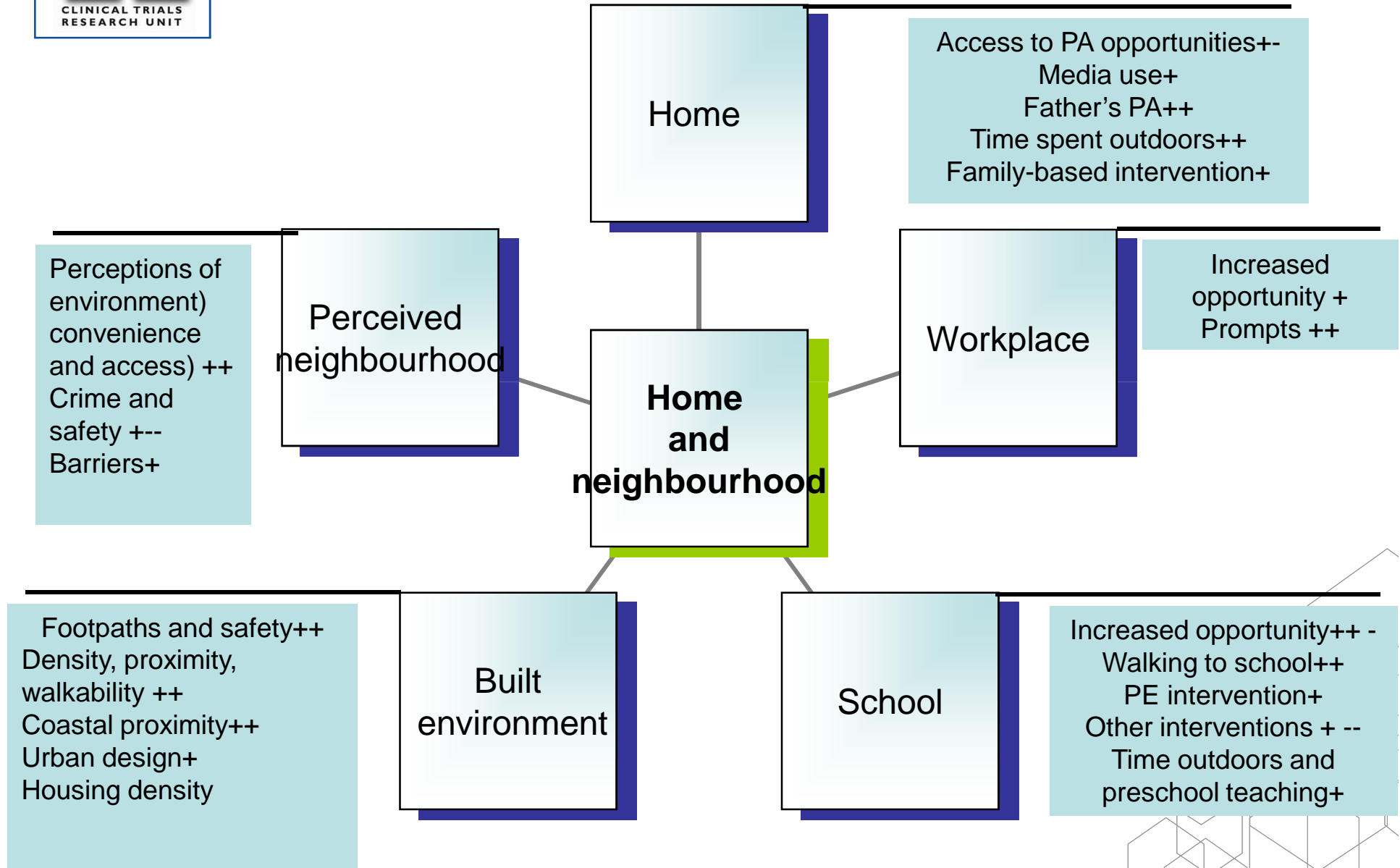


Economic environment



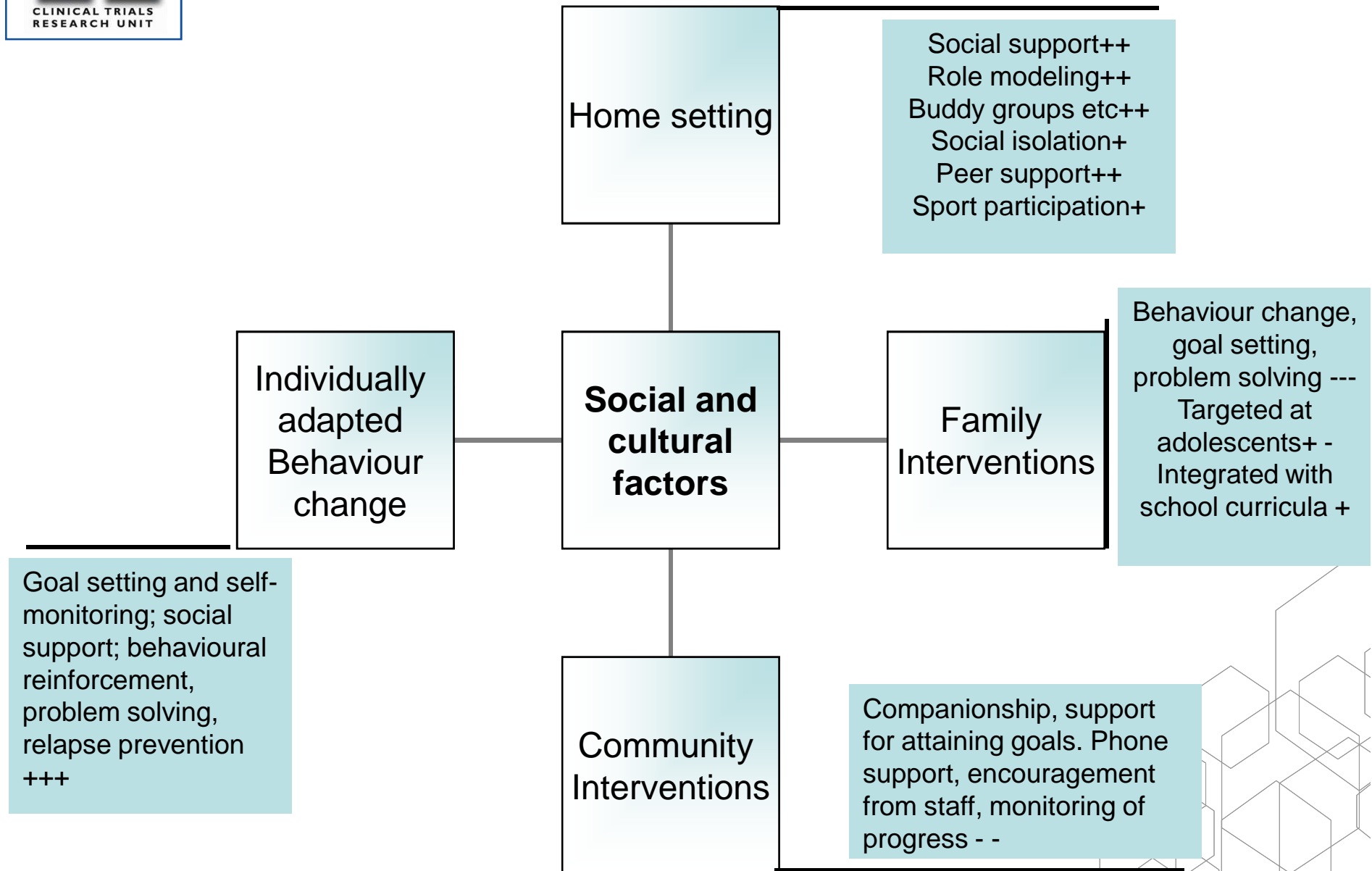


Physical environment



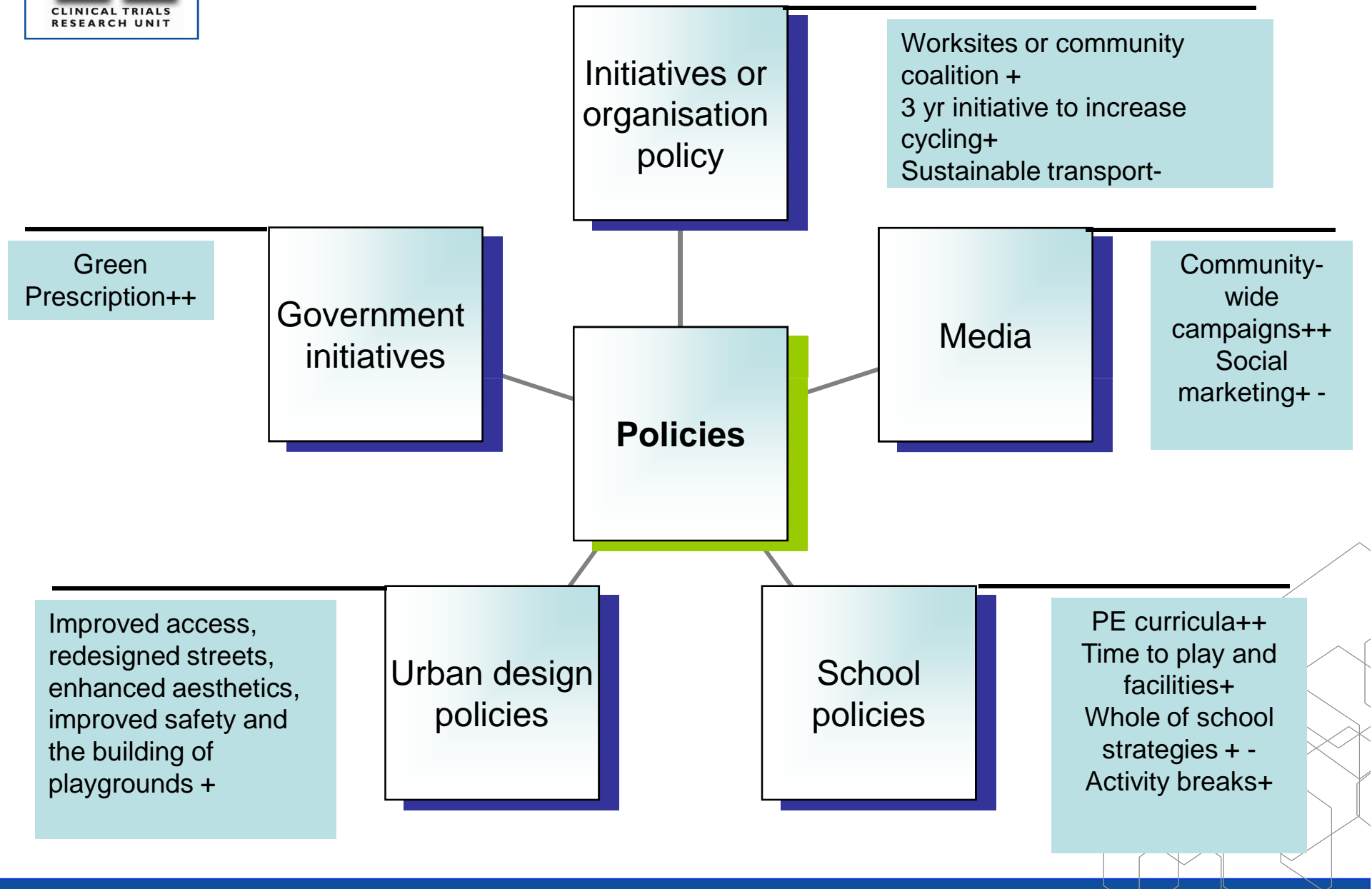


Socio-cultural environment





Political environment





Focus groups

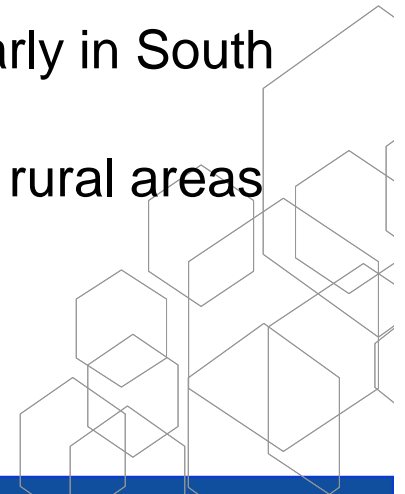
- 9 focus groups
- Both urban and rural locations
- 3 with Māori, 3 with Pacific and 3 with low-income people
- 87 participants in the study
- A semi-structured interview schedule was developed based on available literature
- Led by Māori and Pacific researchers





Findings

- At least half the participants in this study regarded themselves as physically inactive
- Nearly all expressed the desire to be more active in order to live healthier lives
- Key barriers
 - Lack of motivation
 - Lack of time
 - Lack of money to access facilities
 - Lack of money to afford the transport to get to them
 - Lack of safety in neighbourhoods, particularly in South AKL and WELN
 - Lack of facilities, especially in provincial or rural areas





Strategies

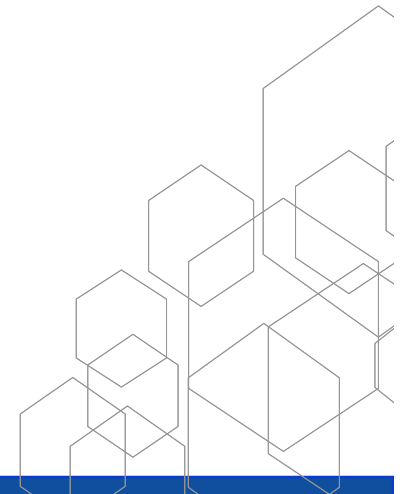
- Suggested supports that would assist them to be physically active
 - Marae, community and church-based activity programmes
 - Support from whānau, friends and doctors
 - Health education particularly when run in the community by community health promoters from the particular communities
 - More facilities with cheaper access and cheaper, or free, transport to them





Summary

- Environments (micro and macro) provide barriers to PA and so solutions need to be found at both levels
- These need to include physical, economic, political and socioeconomic





Next steps

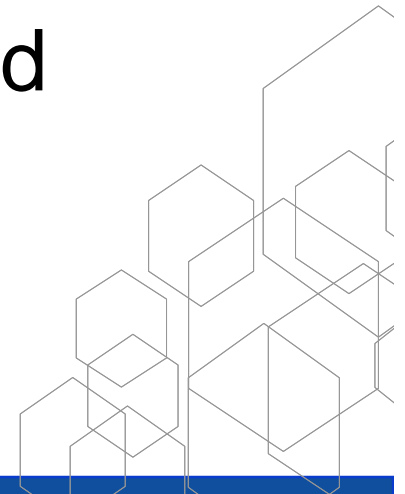
- Enhancing food security and physical activity for Maori, Pacific and low income whanau/families
 - Literature review
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 - Identification of contributing factors and points of intervention
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Complexity Theory

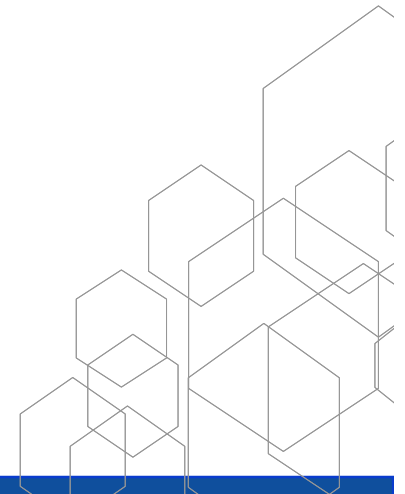
- Focuses on the study of complex systems, where a 'system can be any collection of objects or processes deemed to be of interest'
- PA occurs within a complex social system
- Multiple interventions required





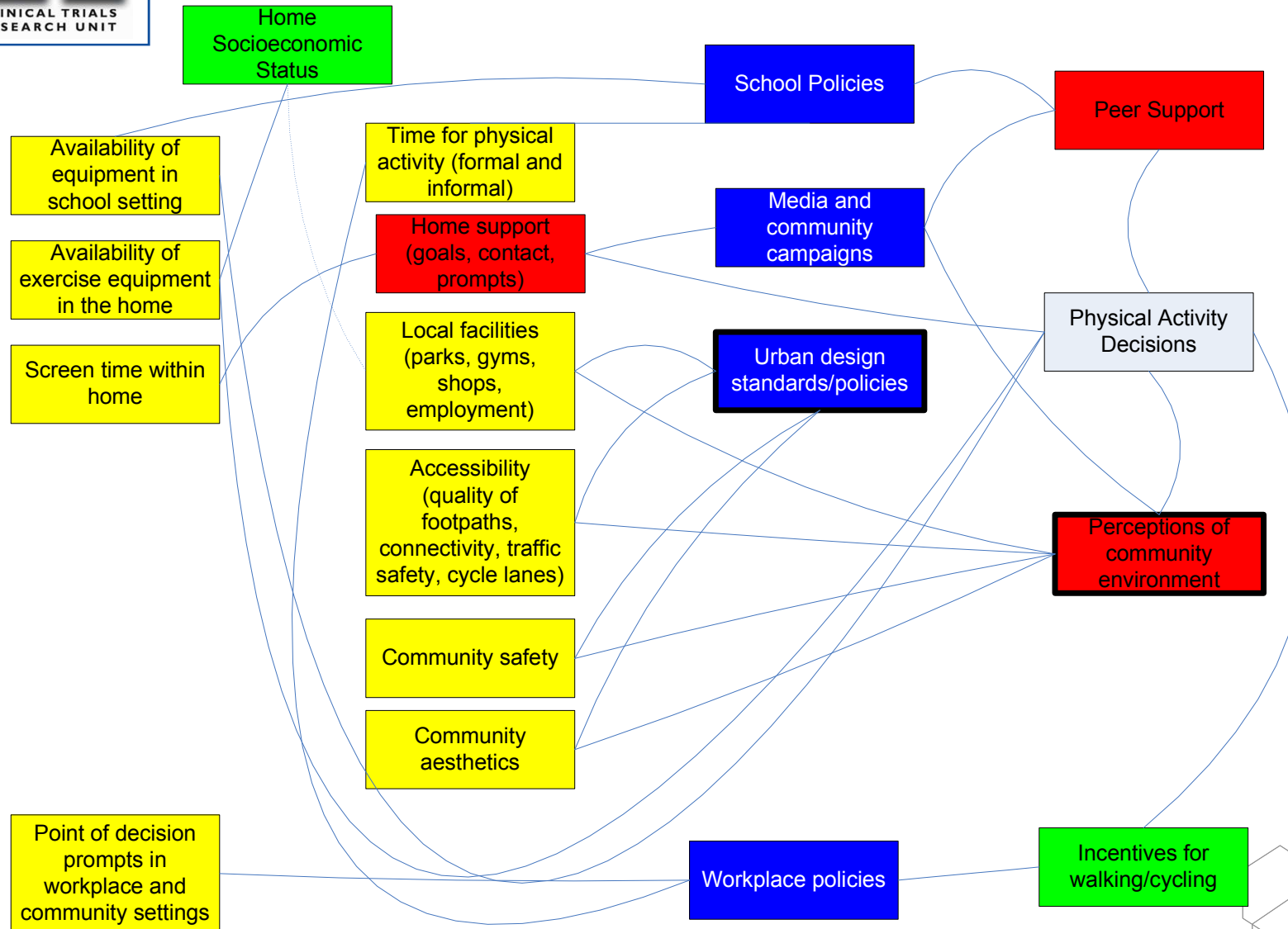
Control parameters

- To identify key leverage points or key factors



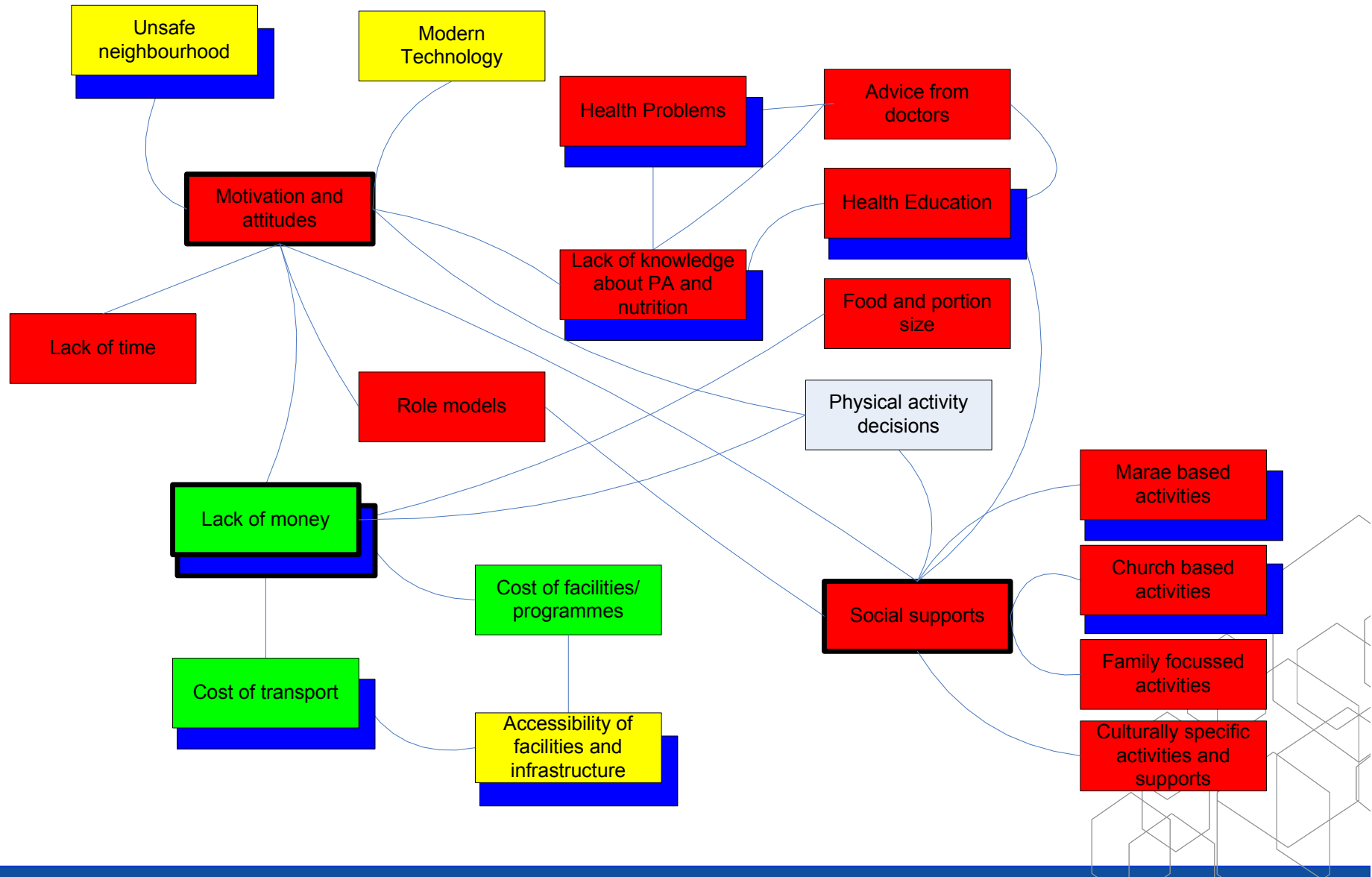


Physical Activity Policy System Map LR





Physical Activity Policy System Map FGs





Interventions likely to positively impact PA

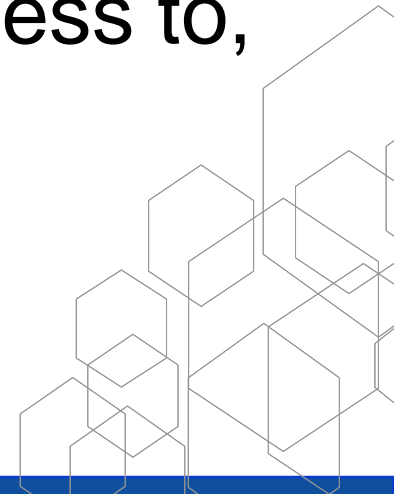
- Environmental and policy changes to increase physical activity opportunities at school and worksites
- Increasing the number of hours of physical education/physical activity in schools
- Combined school and family- or community-based interventions
- Increasing social support





Interventions likely to positively impact PA

- Individually-adapted health behaviour change programs
- Point of decision prompts (stair walking)
- Community wide campaigns (including media campaigns)
- Creation of, or enhanced access to, places for physical activity combined with informational outreach activities





Possible interventions

- Environmental and policy changes to urban design to facilitate active environments
- Infrastructure and policy changes to transportation systems to facilitate active transport
- Where possible retro-fitting existing built environments to facilitate activity (improve lighting, safety, footpaths etc)





Possible interventions

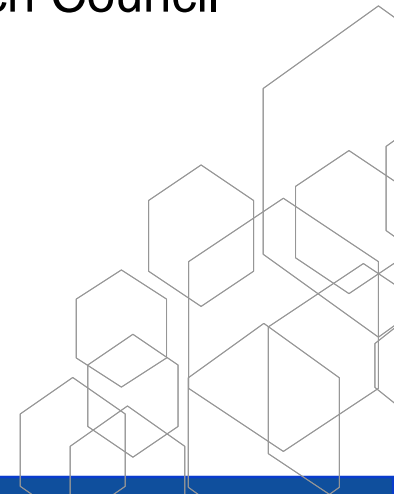
- Enhanced informational approaches
- Development of worksite interventions which (including policies to promote PA and incentives to actively commute etc)
- Development of primary care sites to promote activity, such as PHOs to deliver or encourage PA programmes
- Improved family and or community based approaches





Research team

- **University of Auckland**
 - Cliona Ni Mhurchu
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- **University of Canterbury**
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- **University of Otago**
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 - Mat Walton
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 - Tolotea Lanumata
 - Ausaga Fa'asalele
- **Te Hotu Manawa Maori**
 - Christina McKerchar
 - Craig Heta
- **Fellowship**
 - National Heart Foundation
- **Project funding**
 - Ministry of Health
 - Health Research Council





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