

Raising Healthy Children

Well Child Symposium
Palmerston North 5th June 2019

Why invest in early childhood?

There are moral, political and economic arguments for investing in children.

- Currently children in New Zealand face significant inter-generational, ethnic and socioeconomic inequity, which is perpetuated by recent politico-social structures.
- A social justice lens, applied to our investment in children, shows clearly the inequitable and unjust distribution of resources, and the consequent disparities in health, social and economic outcomes
- Te Tiriti o Waitangi and the UN Convention on the Rights of the Child require us to do more to address this inequity
- Nobel laureate and economist, James Heckman has shown that programs based on fundamental principles of human growth and development and delivered in the early years offer the best return on investment

The health sector's role in the first 1000 days

1. Use the opportunities we have to anticipate health and social outcomes
2. Prioritise early intervention and the life course approach
3. Promote, support and advocate for:
 1. whānau, parent, infant and child mental health
 2. healthy nutrition, physical activity and sleep
 3. equitable access to health and social services
 4. early childhood education and literacy
 5. safe homes, communities and neighbourhoods
4. Provide
 1. skilled clinical assessment, screening and health surveillance
 2. parenting and relationship support
5. Work with partners to create a social safety net for children
6. Utilise our skills in monitoring and evaluation

Equity and embracing Māori and Pacific models of health/hauora



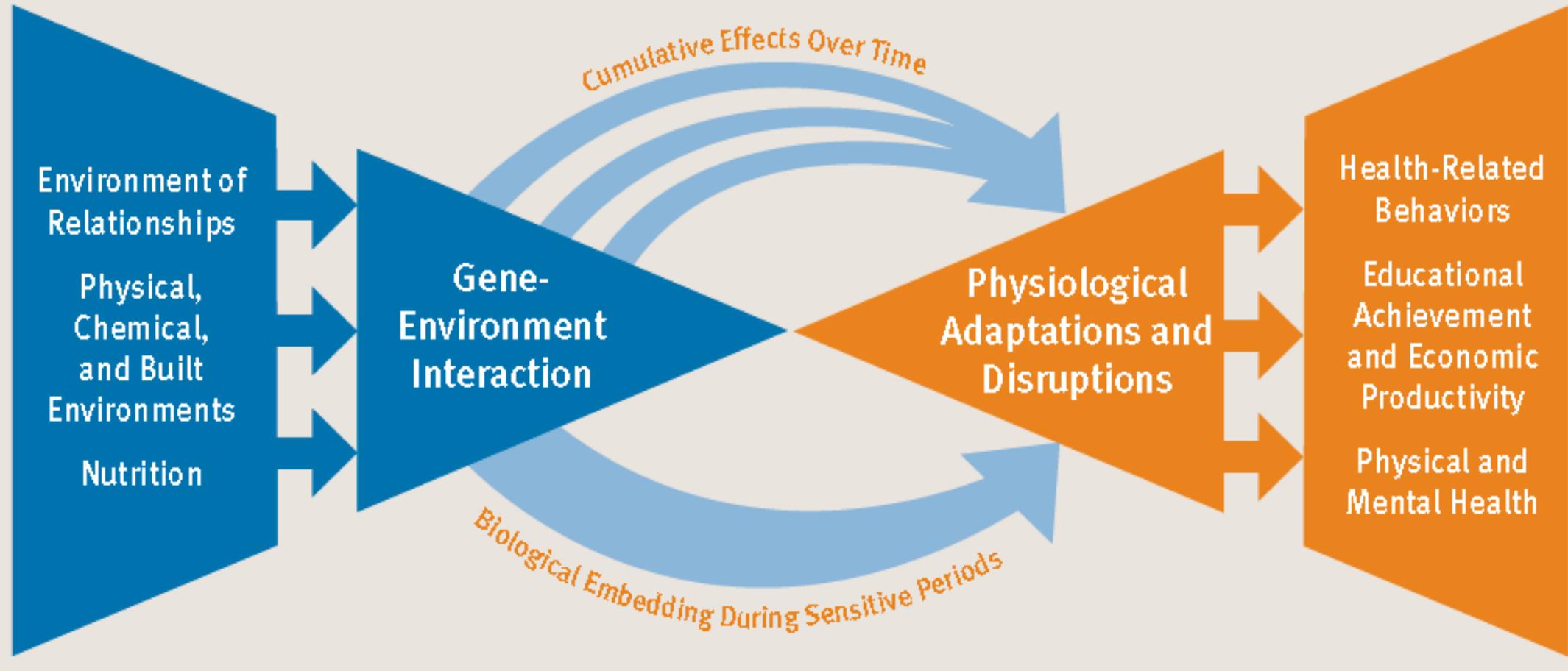
Te Whare Tapa Whā. Mason Durie

Māori child health and Whānau Ora

- Tamariki and rangatahi Māori have historically experienced poorer health and education outcomes than the general NZ population.
- They are over-represented in care and protection, and youth justice statistics.
- The Treaty of Waitangi (Te Tiriti), forms the basis for the expectation that tamariki and rangatahi Māori have the right to equitable health, education, social and employment outcomes, and equitable treatment under the care and protection and justice systems.
- Whānau Ora empowers whānau as a whole rather than focusing separately on individual members and their issues.

Foundations of Healthy Development and Sources of Early Adversity

Lifelong Outcomes



Shonkoff's bio-developmental framework diagram (Source: Shonkoff 2010)

Health and development over the lifecourse

- The developmental life course approach arises from the evidence that early life events have positive or adverse effects, which may persist in later life through modification of life trajectories.
- A developing child's genetic make-up and their environment interact as they develop
- The brain's most dramatic development occurs **during pregnancy and in the first three years after birth**
- During this time, the neural pathways being laid down affect a child's future learning, health and behaviour

Preconception and pregnancy

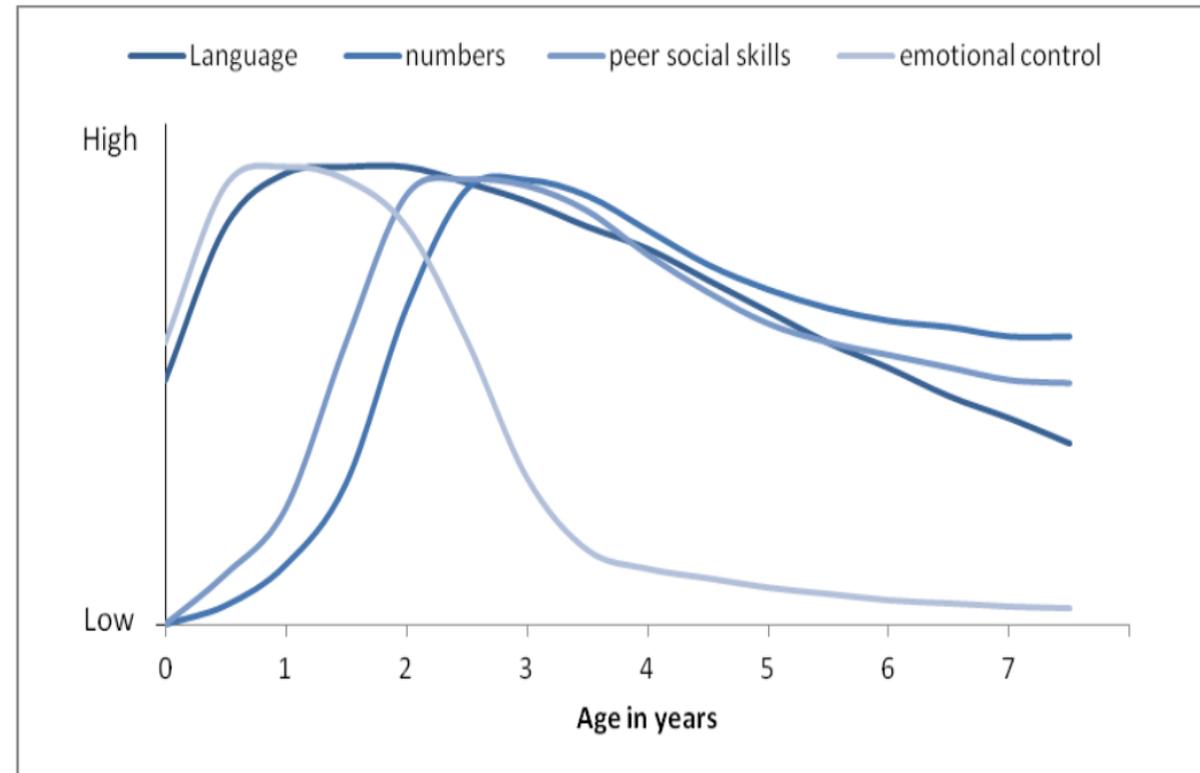
Reduce materno-fetal exposure to stress and toxins

- Malnutrition
- Smoking
- Alcohol and other drug use
- Stress and mental illness
- Environmental toxins (e.g. lead, mercury)
- Prescription drugs (e.g. valproate)
- Infections (e.g. rubella, toxoplasmosis, CMV)



Critical and sensitive periods of brain development

- **Critical periods** mainly affect sensory development (vision and hearing)
- Lack of adequate stimulus during these periods irreversibly affect normal brain development.
- **Sensitive developmental stages** in childhood and adolescence are times when certain key developmental tasks are easier to acquire.

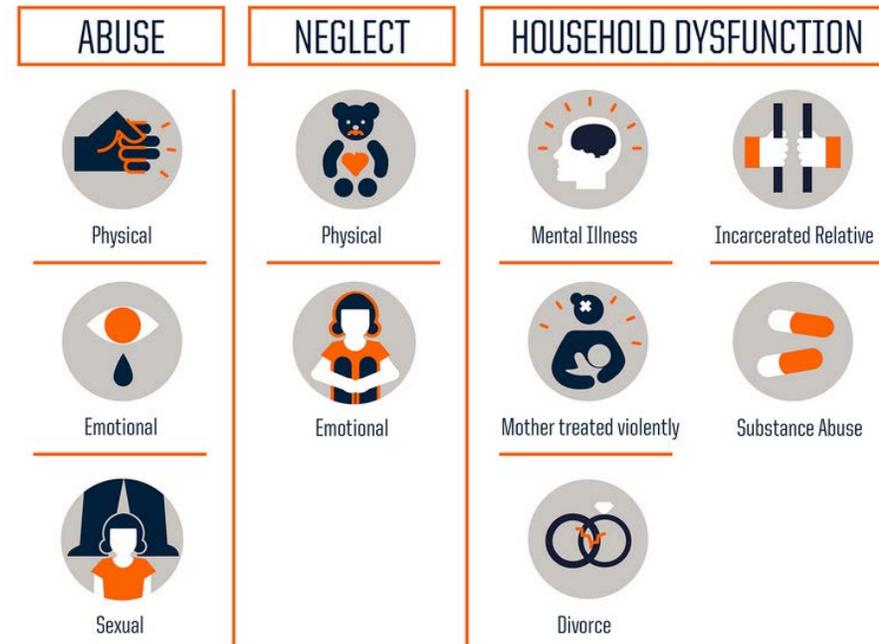


Source: Council for Early childhood Development (2010)

Adverse Childhood Events

- ACEs are a set of early life events with severe and predictable adverse effects on long term life course.
- The long-term consequences of ACEs are not always preventable.

Three Types of ACEs

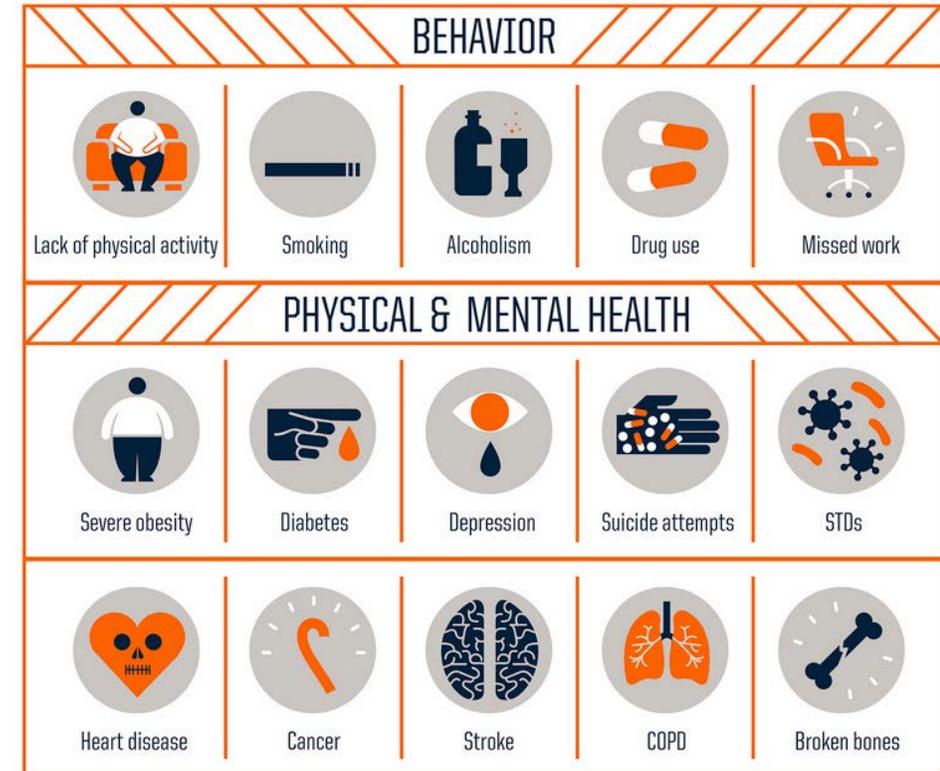


Source: Centers for Disease Control and Prevention
Credit: Robert Wood Johnson Foundation

Adverse childhood events (ACEs) predict poor adult health

Individuals with ≥ 4 ACEs, compared to those with less are:

- **1.4 times** more likely to have an unhealthy weight
- **2.8 times** more likely to smoke tobacco
- **4.2 times** more likely to have a teenage pregnancy
- **4.4 times** more likely to suffer depression
- **5.6 times** more likely to use illicit drugs and **10 times** more likely to have problematic drug use
- **30 times** more likely to attempt suicide



Source: Centers for Disease Control and Prevention
Credit: Robert Wood Johnson Foundation

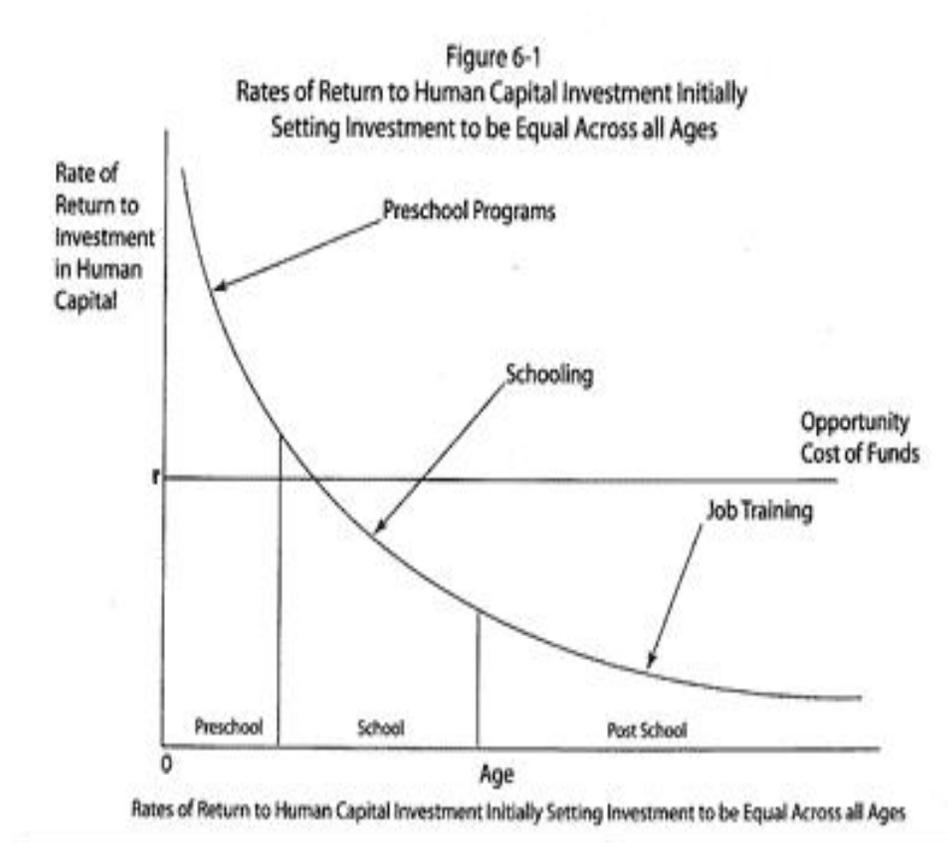
Interventions early in life are more cost-effective

- Programs based on fundamental principles of human growth and development and delivered in the early years offer the best return on investment

James Heckman

- ... the prevention of deaths is only likely to involve net economic advantage if it applies to children or young adults, and beyond the age of about 50 the economic outcome is increasingly negative as applied to preventive measures which extend survival.

Geoffrey Rose,



Health Select Committee report on child health Dec 2013 www.parliament.nz/resource/0002018580

Summary

“We need to enable children to move from one stage of development to another without burden” – Professor Sir Peter Gluckman

1. Pregnancy and early childhood incorporate sensitive and critical periods in the life course which underpin life trajectories
2. Health and wellbeing inequities are the fundamental drivers of most of our current health, education and social problems
3. The WCTO programme has an important role in improving outcomes, but can't do it by itself

The biggest problem we face is not lack of knowledge, but a failure to implement what we know and evaluate our progress