

Complex Pathways to Child Outcomes:

Implications for Research, Policy and Practice


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Outline

1. Early experiences influence health throughout life
2. Social influences are pervasive and powerful predictors of health outcomes
3. Modernity's Paradox
4. Implications for research policy & practice



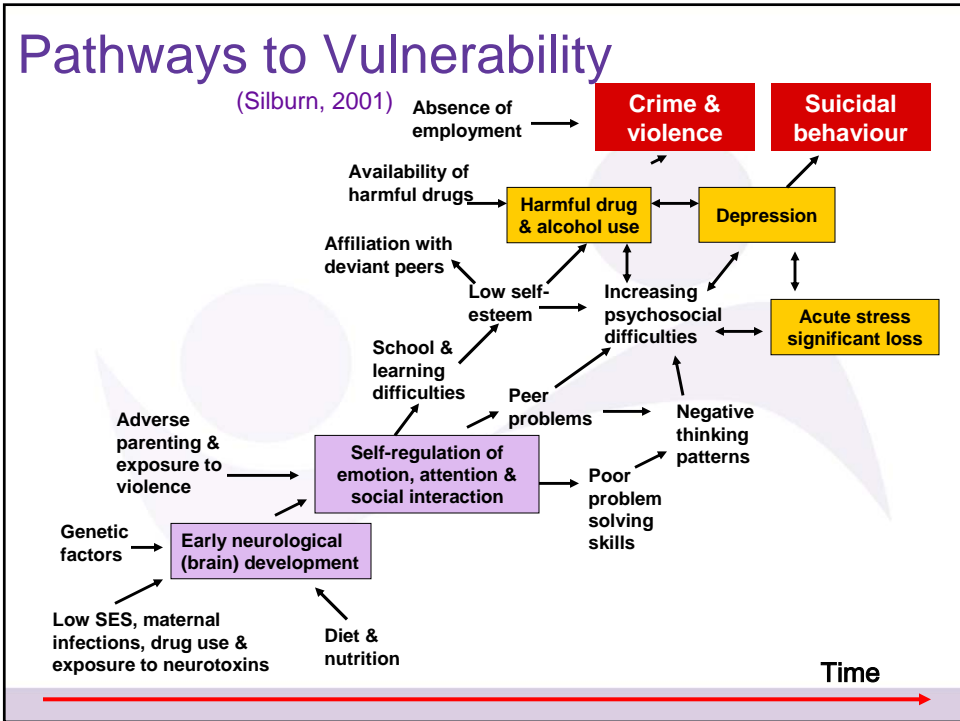
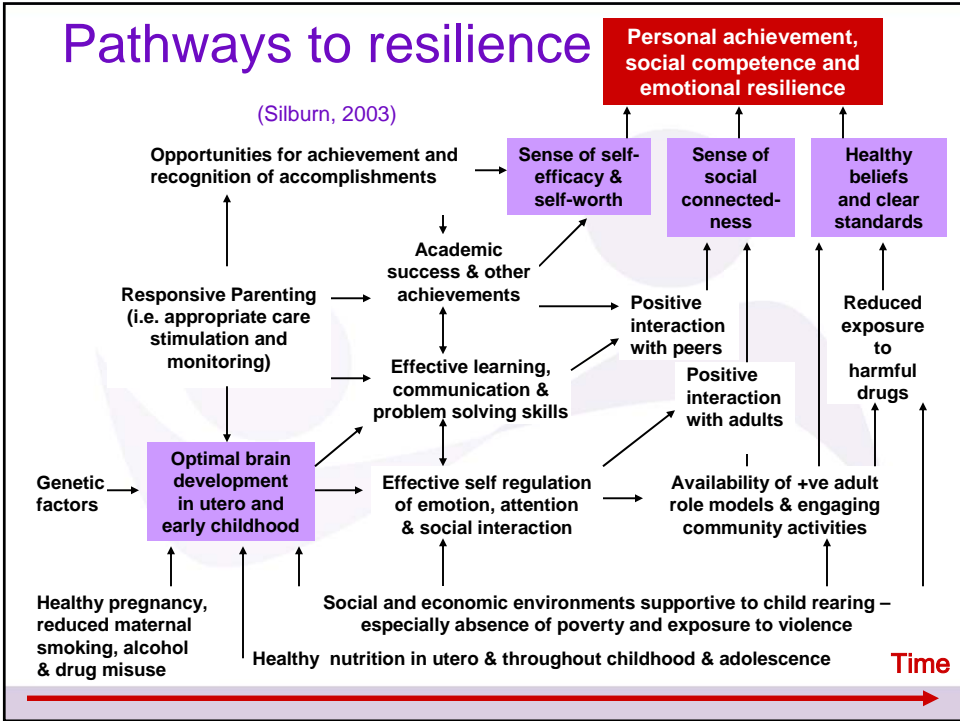
1. Early experiences influence health throughout life

British Births Survey 1970

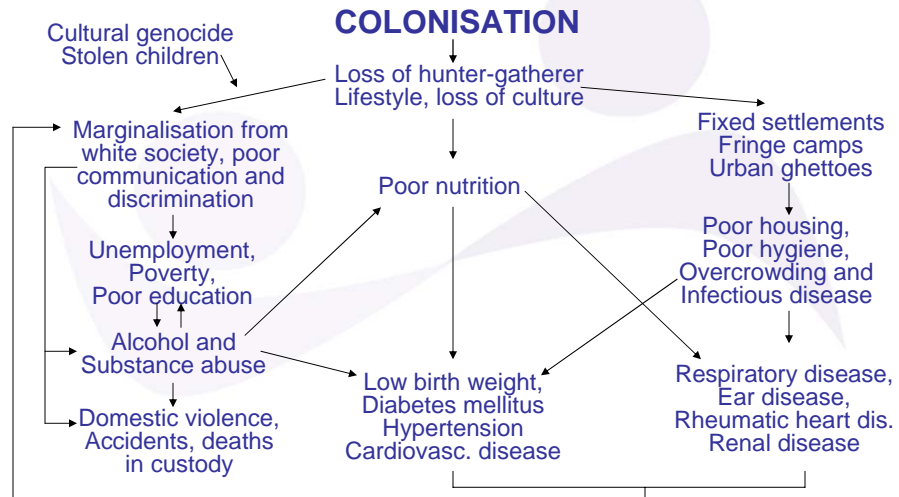
Powerful early factors affecting Health Status at 35 years

- Birth weight
- Height at 7yrs as a % of adult height
- Mother reading 0-2 years
- Ready for school

Source: Goldstein, 1997



Impact of white colonisation on Aboriginal health today



Source: Matthews, 1997

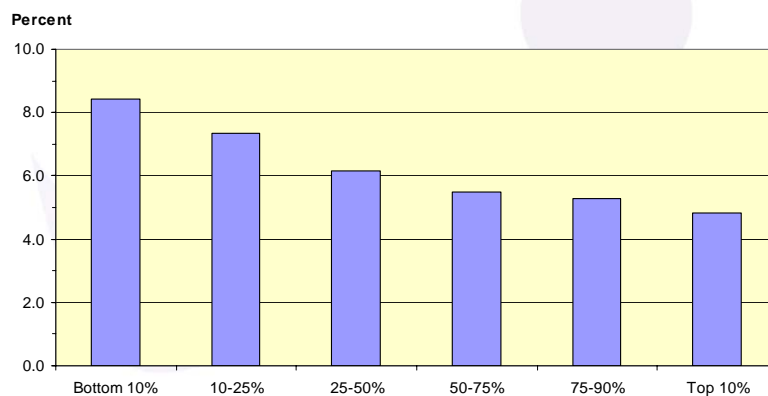
Health Problems Related to Early Life

- Coronary Heart Disease
- Non-insulin Dependent Diabetes
- Obesity
- Blood Pressure
- Aging and Memory Loss
- Mental Health (depression)

Source: Canadian Institutes of Advanced Research, 2004

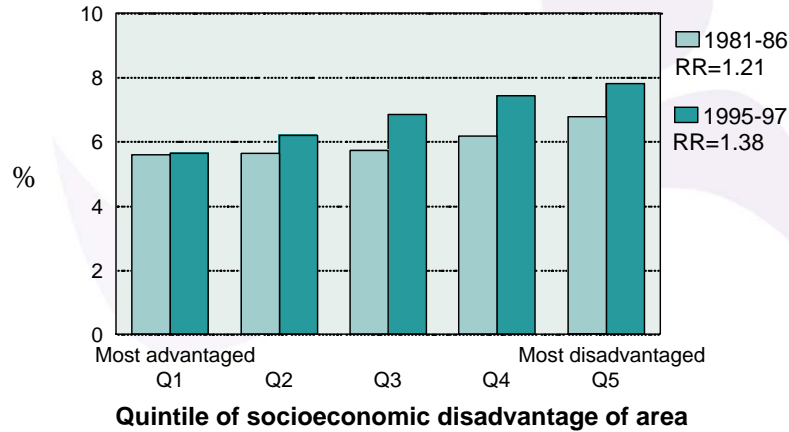
2. Social influences are pervasive and powerful predictors of health outcomes

Proportion babies born at a low birthweight by SEIFA indices for WA, 1996–98



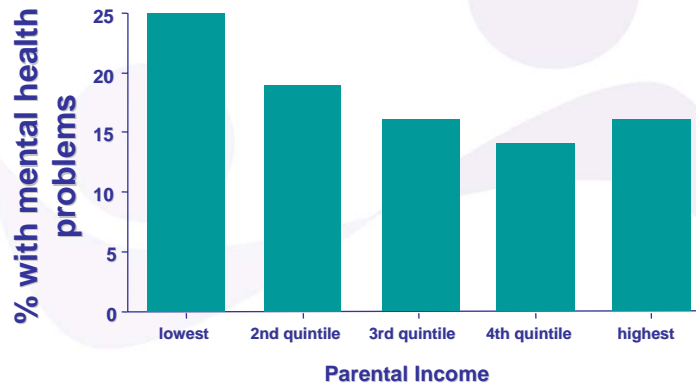
Source: d'Espaignet and Stanley (unpublished data)

Low birthweight babies, South Australia, 1981-86 and 1995-97



Source: Glover, PHIDU, Adelaide University (unpublished data)

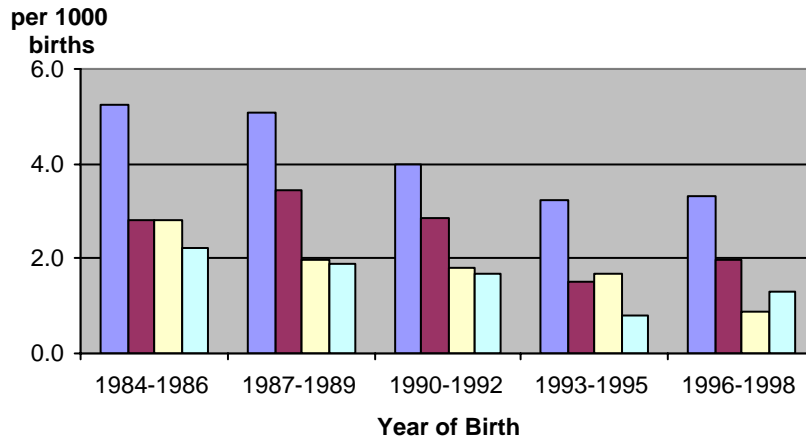
Parental income and mental health problems in 4-16 year old children WA Child Health Survey



*each quintile represents 20% income distribution across families

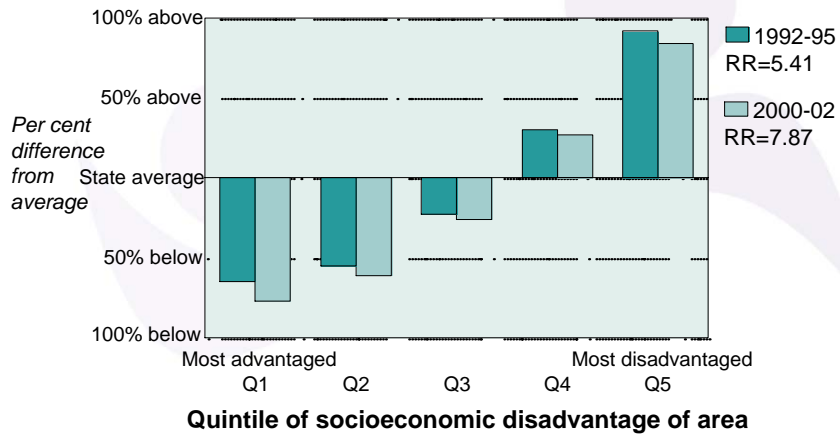
Source: Zubrick et al, 1996

Post Neonatal Deaths in WA 1984-1998, by SEIFA Quartiles



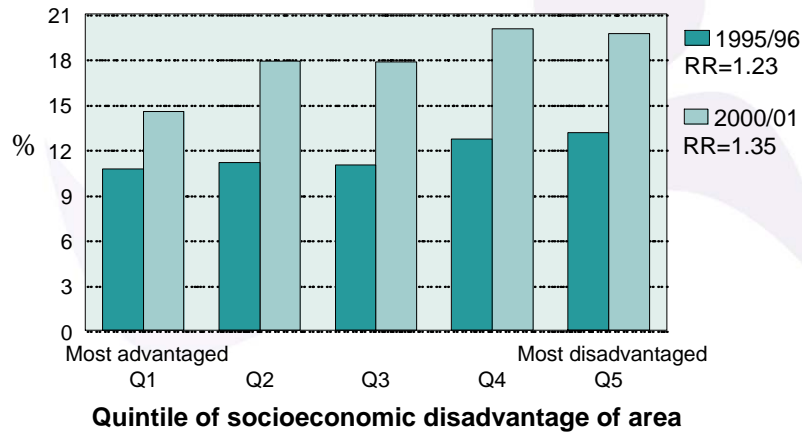
Source: d'Espaignet, Colvin and Stanley (unpublished data)

Child abuse & neglect (0 to 19 years) Adelaide, 1992-95, 2000-02



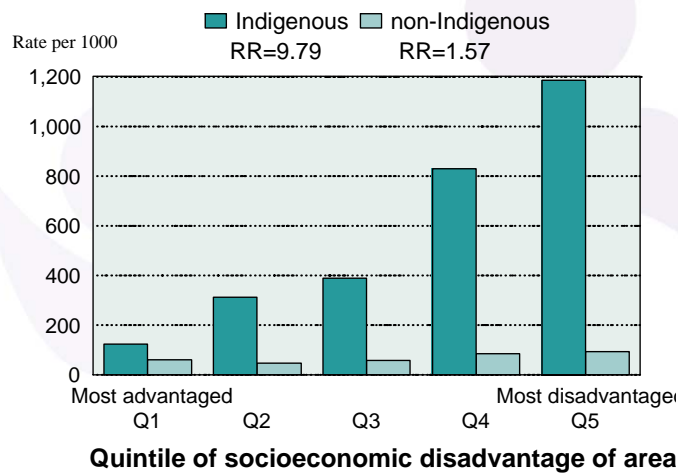
Source: Glover, PHIDU, Adelaide University (unpublished data)

Overweight and obese 4 year old children, South Australia, 1995-96 and 2000-01



Source: Glover, PHIDU, Adelaide University (unpublished data)

Offences involving apprehension, country South Australia, 2002/03



Source: Glover, PHIDU, Adelaide University (unpublished data)

Socio-economic gradients in health status

(death, disease, disability, health)

- Pervasive, powerful
- Paradoxically stronger in wealthier countries than in poor countries
- Unchanged over 100 years in spite of changes in diseases

Causal explanations of socio-economic gradients

- Individual lifestyle
- Physical environment
- Social, economic, psychosocial conditions during development
- Differential access to services

Evidence for Early Stress Influences on Child Health & Development

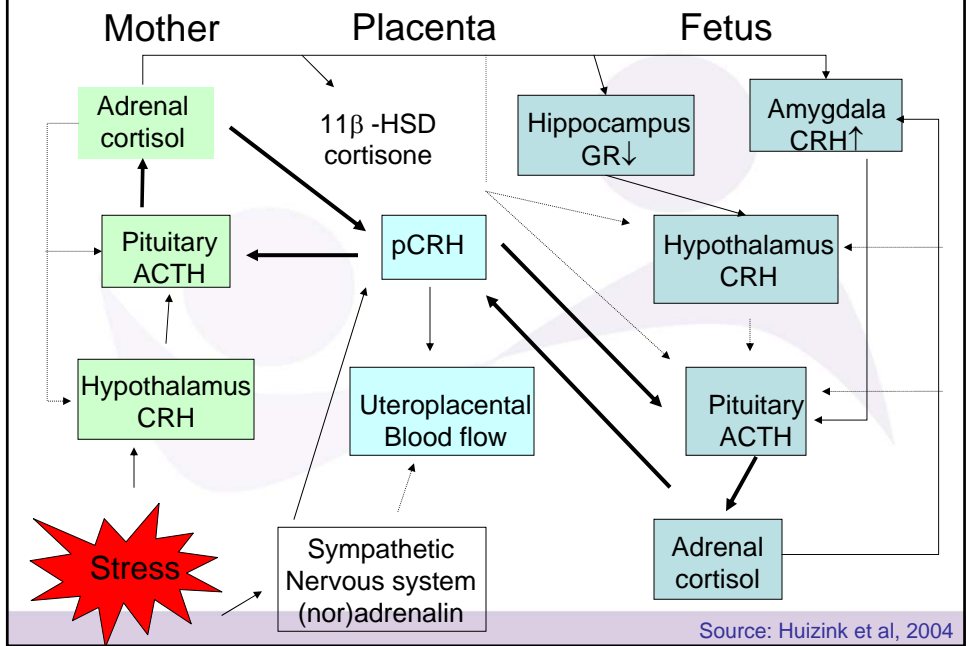
1. Animal / non - Human Primate research stress (prenatal and infant exposures)
 - Delayed neuromotor development
 - Increased emotional problems
 - Abnormal behaviours

Explained by a range of physiological (eg reduced placental blood flow) and hormonal /endocrine responses

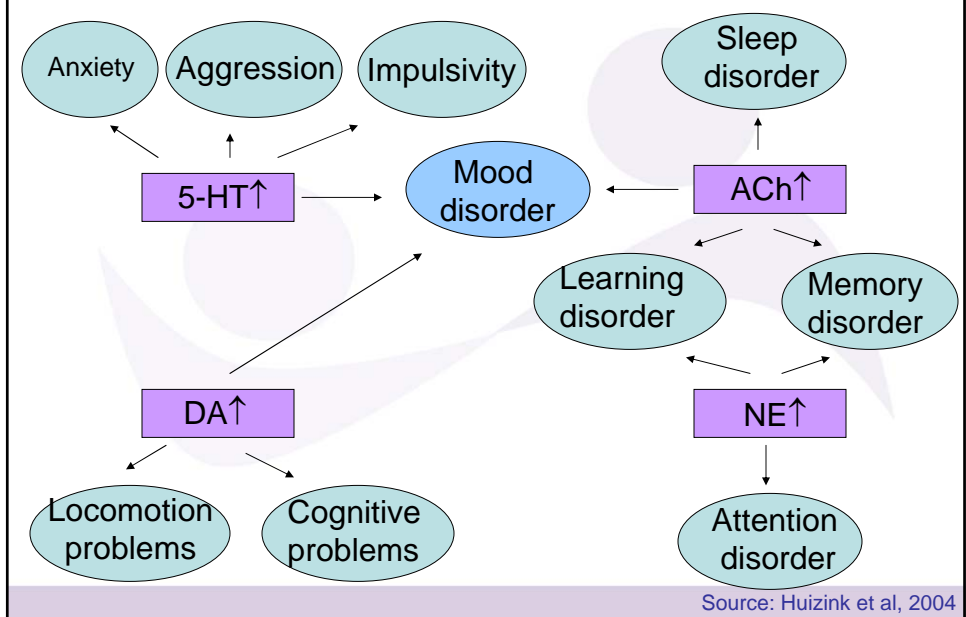
Evidence for Early Stress Influences on Child Health Development cont.

2. Human data more scanty but accumulating
 - Stress exerts effects on various systems
 - Non-specific programming HPA and other pathways
 - Protective effect of positive parenting and social environment

Effects of Maternal Stress of Uterine Blood Flow



Fetal Brain Neurotransmitter System Alterations

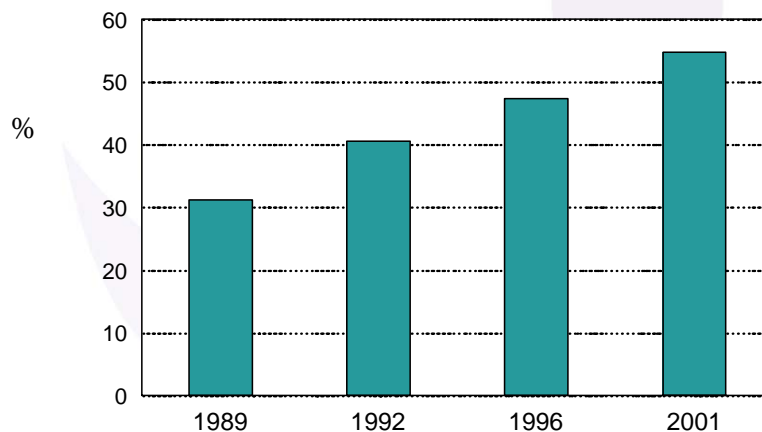


Changes in Australian Society Families, Children, Neighbourhoods

- Divorce, single parents, blended families
- Conflict, violence, isolation, homelessness
- Smaller families, contraction of the extended family
- Mothers working, childcare
- Hours of work, work stress, work mobility
- Children needing fostering
- Child abuse and neglect
- Insecure neighbourhoods, decreased connections
- Decreased social capital (trust, cooperation, civic engagements & reciprocity)

Source: ABS Millennium Year Book

Children living in low income families, South Australia



Source: Glover, PHIDU, Adelaide University (unpublished data)



3. Modernity's paradox



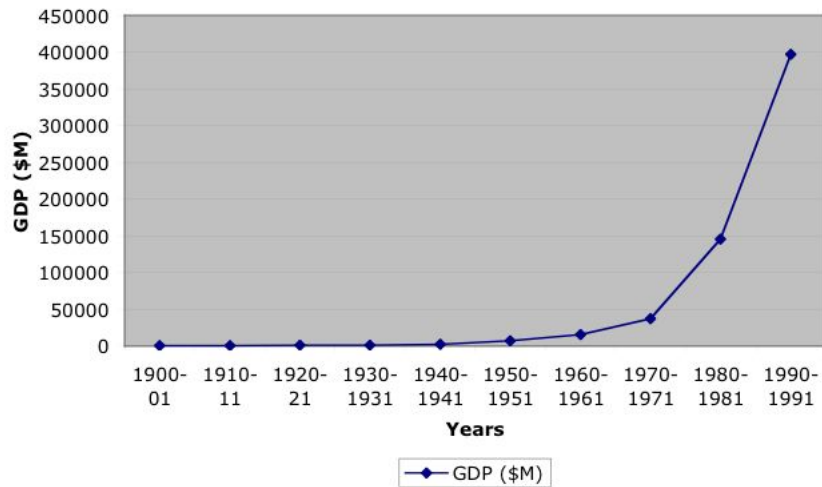
Modernity's Paradox¹

In spite of economic prosperity:

- Increases in health (& other) problems in children & youth
- No improvement in social gradients

Source: ¹ Keating & Hertzman 1999

Australia's GDP at Current Prices



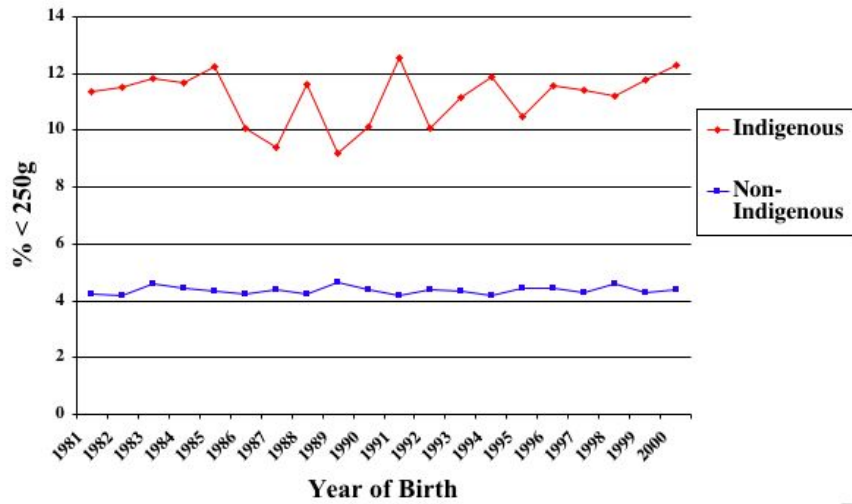
Source: ABS Year Book, 2001

Indicators of Poor Developmental Health which are Increasing in Australian Children and Youth

- **Health Outcomes**
 - Low birth weight
 - Complex diseases (asthma, diabetes, obesity)
 - Mental Health problems, suicide
- **Lifestyle risk factors**
 - Child abuse/neglect/domestic violence
 - Behavioural problems, substance abuse
- **Others**
 - Juvenile crime
 - Learning disorders
 - Disabilities (intellectual, physical)

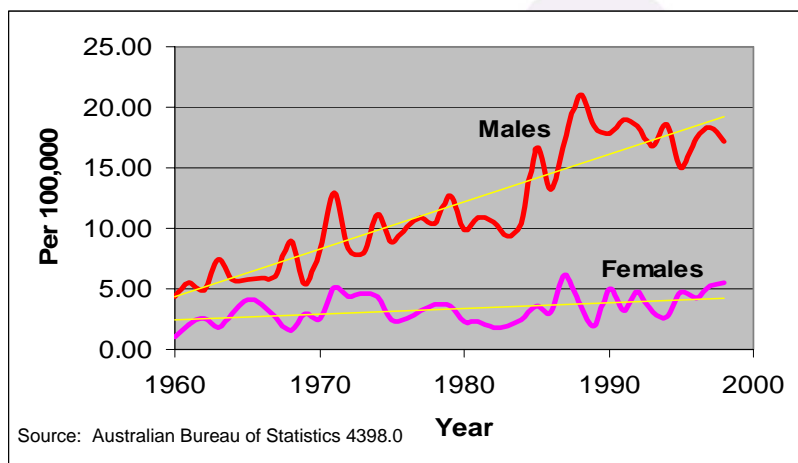
Source: Stanley, ABS Millennium Year Book

Low birthweight Western Australia 1981-2001



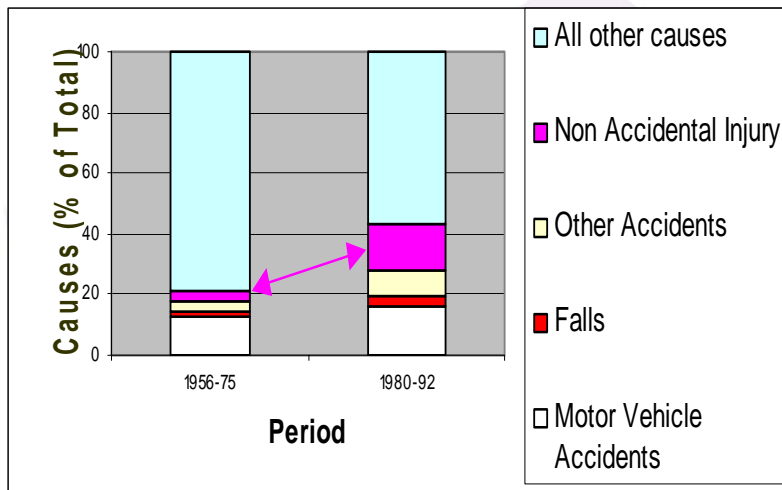
Source: Freemantle, 2003 WA MCHRDB (unpublished data)

Suicides: 15-19 Year Olds 1960 - 1998

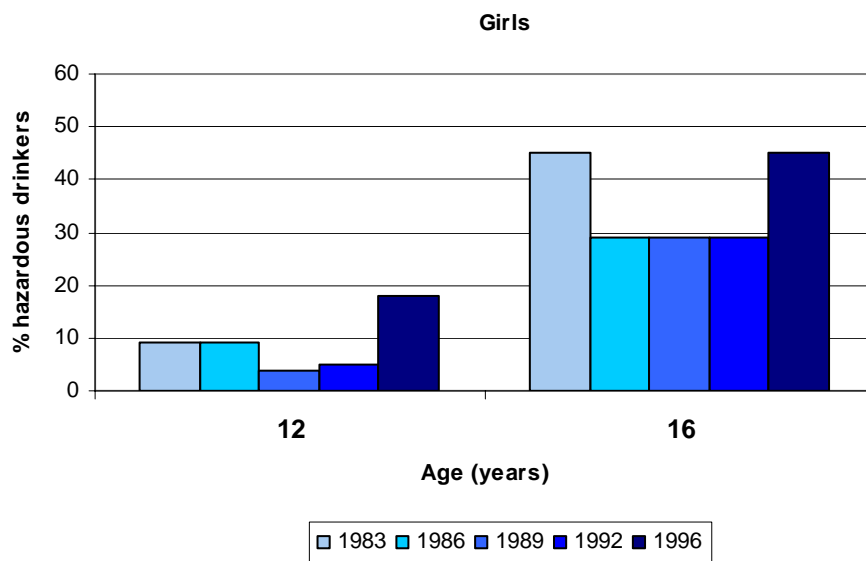


Source: Australian Bureau of Statistics 4398.0

Increase in Child Abuse Causes of Child Cerebral Palsy in WA



Alcohol Use - Girls



Source: Hill 1998

Juvenile Crime - Violent Assaults

Males

1973-74

1993-94

Adult : juvenile arrests

2.1 : 1

1.2 : 1

Females

1973-74

1993-94

Adult : juvenile arrests

3.4 : 1

1 : 1.9

Juvenile

1973-74

1993-94

Boys : girls arrested

24 : 1

4.4 : 1

Source: Homel pc 2001

4. Implications for research policy and practice

Characteristics of Child & Youth Problems

- Younger ages and Girls = Boys
- Associated with disadvantage
- Social gradients increasing however most affected children & youth in middle income groups
- Costly or unable to treat/manage
- Creating crisis in health, mental health, education, family services and justice
- No indication of improvements
- Complex causes but share common antecedents

Trends in Problems Affecting Children & Youth in Today's World

- Many are increasing in incidence
- Rise in complex problems (eg mental health, obesity)
- Demand complex information to monitor, study & prevent them
- Inadequately researched
- Research is fragmented, done in separate silos and does not inform solutions

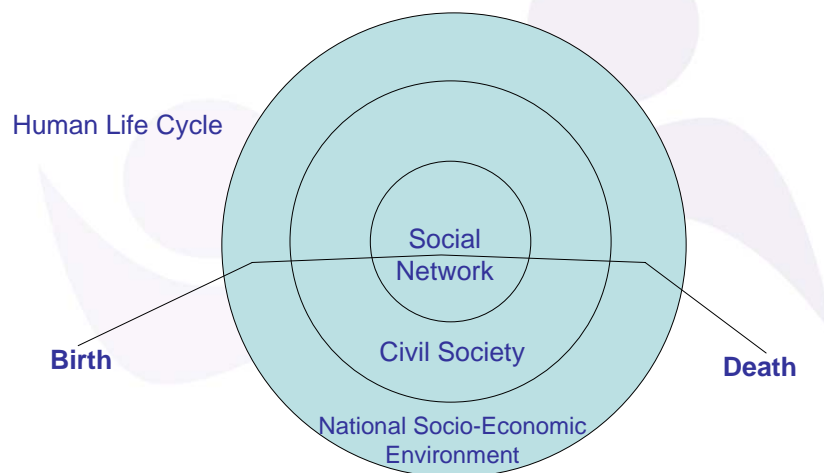
Implications for Research, Policy & Practice

- Focus on Early Childhood Development
- Unpack Social Gradients
- Effective strategies may be outside specific portfolios
- Influence 'big picture' SES effects

Bad Parenting....



Framework for human development and the social determinants of health



Source: Keating & Hertzman, 1999

NHMRC Aboriginal Road Map

1. Descriptive research which outlines patterns of health risk, disease and death
2. A research focus on the factors and processes that promote resilience and well being from pregnancy to adolescence and form the basis for good health throughout the lifespan
3. A focus on health services which describes the optimum means of delivering preventative, diagnostic and treatment based health services and interventions

Source: NMHRC Road Map Strategy

NHMRC Aboriginal Road Map (cont)

4. A focus on the associations between health status and health gain and policy and programs that lie outside the direct influence of the health sector
5. A focus on engaging with research and action in previously under-researched A&TSI populations and communities
6. Development of the nation's A&TSI health research capacity and health research practice

Source: NMHRC Road Map Strategy

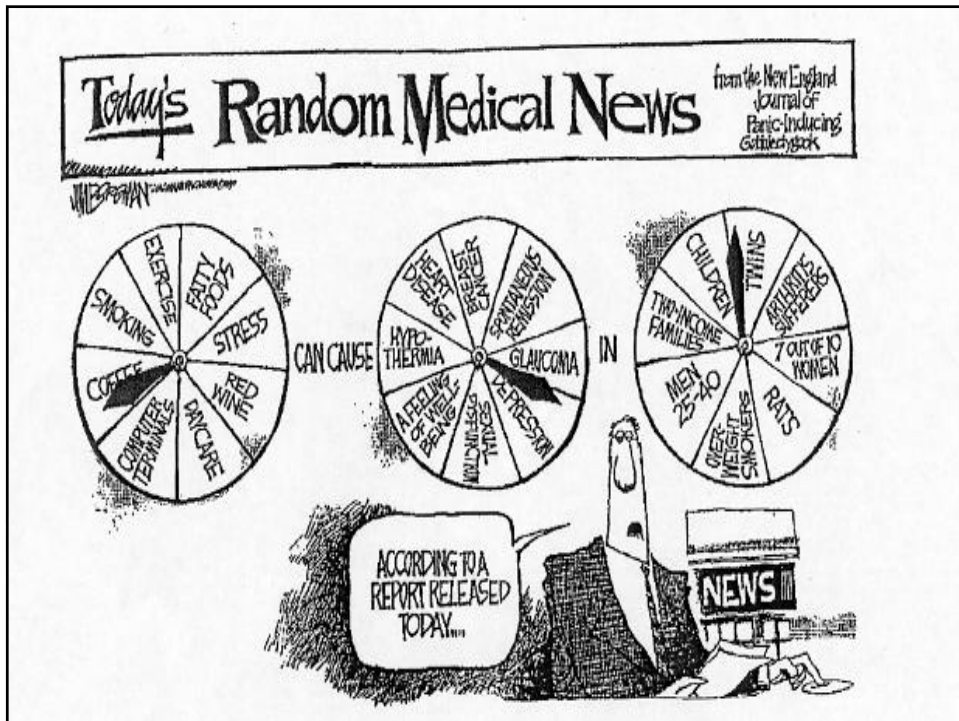
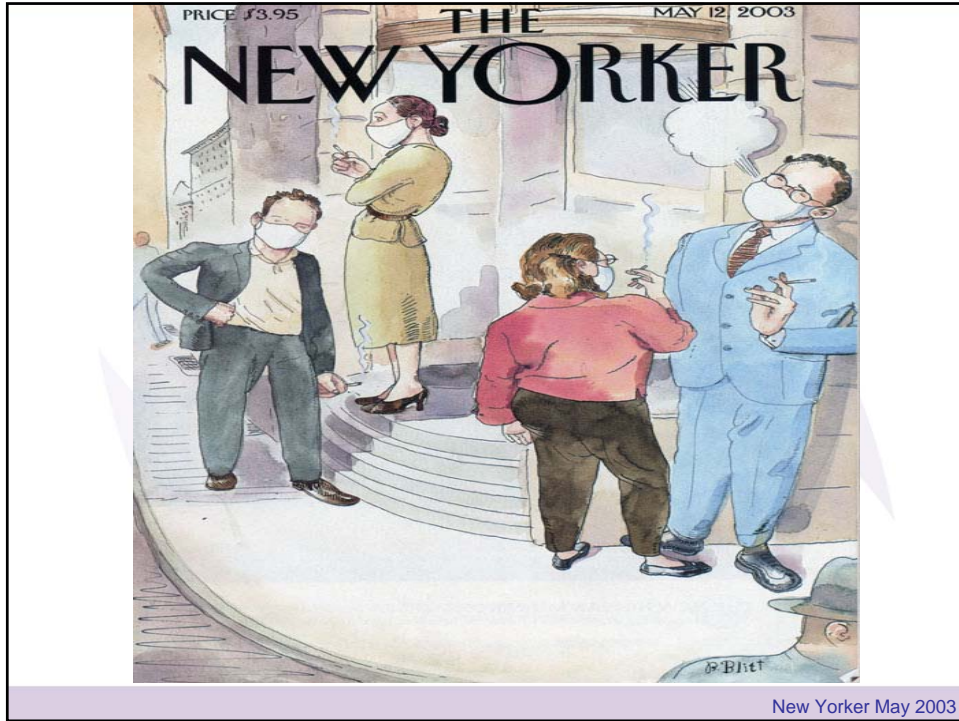
The Future of Population Health Research

The tale of 3 tails

Explaining disappointments in public health preoccupation with 3 tails i.e.

1. The tail of the distribution
2. The tail end of causality
3. The endless pursuit of our own tails

Source: McKinlay and Marceau, 1999



The Future of Population Health Research (cont)

- Investigate why income distribution influences health so profoundly
- Cross disciplinary – biology, genetics, psychology, social sciences
- Genetic/molecular epidemiology AND social epidemiology (avoid “them and us”)
- Integrate results from different levels of analysis (within and between populations; individual and ecological)

The Future of Population Health Research (cont)

- Very large total population data bases with family linkage and linkage to exposures
- Adequate legislation to protect population data and record linkage **without consent** for public good research
- Contexts in which risk factors arise: social, economic, societal, global to inform effective intervention
- Partnerships with those influencing economic, family and other policies – evaluate health and developmental effects

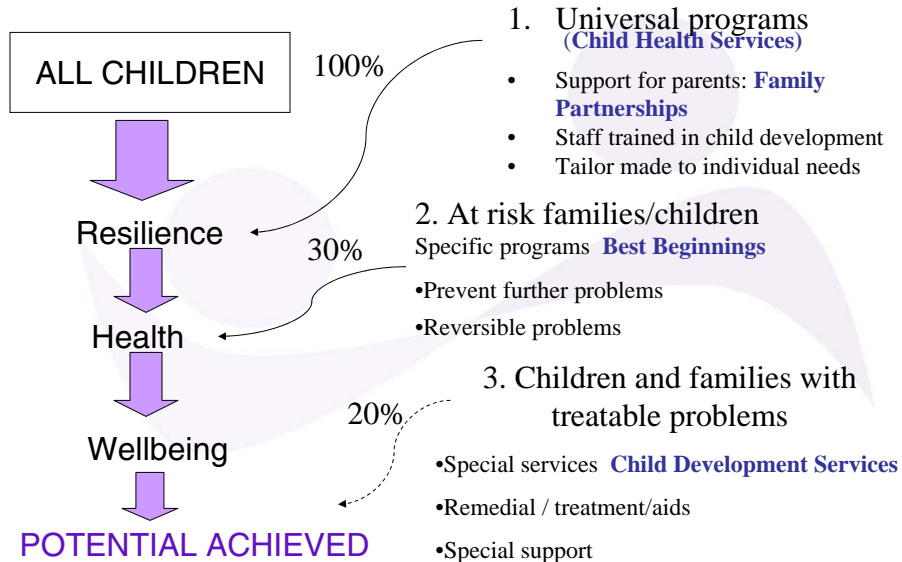
Policy & Practice

Universal and Targeted Approaches

A **universal** service to all with a **targeted** approach to those in need

- What should be part of a universal service?
- How do we identify vulnerable children and families?
 - understanding risk and protective factors
 - using this information in a practical way
- What should we do when they have been identified?
 - What are appropriate referral pathways?
 - The deficit model vs strengths model
 - How to provide sustainable supports?

A Population Approach to Child Development and Wellbeing (Enhancing pathways to resilience)



Future Directions

What areas need attention?

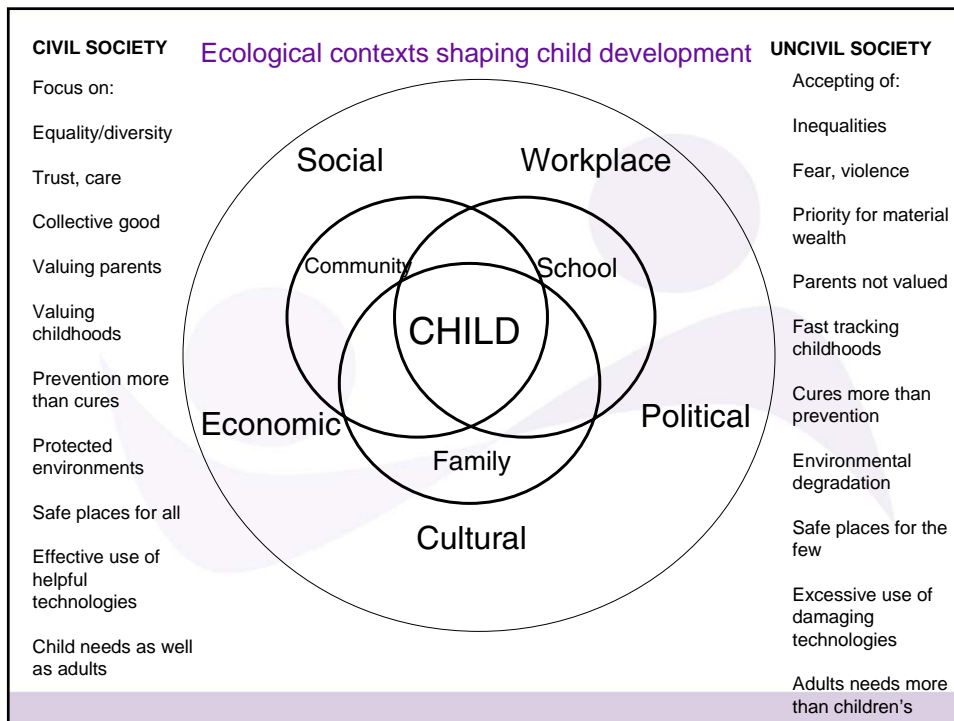
- **Maternal health in pregnancy and after birth**
 - Nutrition, substance use, infections, pre and postnatal depression
 - Groups at particular risk (Aboriginal women, older women)
- **Support for parents/carers**
 - Information and education
 - Promoting attachment, sensitive parenting
 - Social support networks
- **Protecting children**
 - reducing injury, violence, abuse and neglect
- **Promoting mental health and wellbeing**
- **Support for healthy behaviour**
 - Nutrition, physical activity
- ***Different approaches for those in most need, esp. Aboriginal families***

How Can They be Addressed?

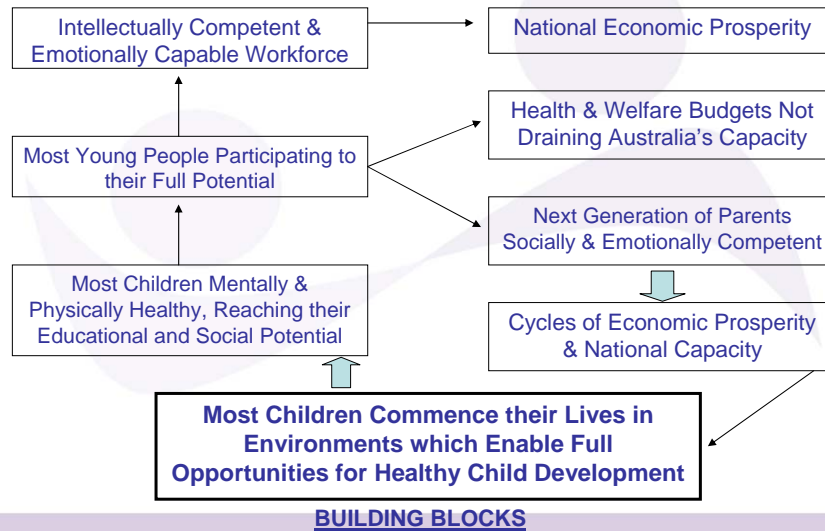
- **New ways of working – collaborative approach**
 - With clients
 - Across disciplines
 - With other agencies (govt, NGO, private)
 - Across sectors (health, education, childcare)
 - Across levels of government
- **Community focus**
 - Reaching children and families in the settings where they are
 - Connecting services at local level
 - Building and maintaining social support networks

Policy & Practice Translating the Research Evidence into Action

- What is the evidence about risk and protective factors?
- How do we translate this evidence into effective interventions and programs?
- What should staff actually do?



Why is Child Health & Development Crucial for Australia's Future?



“We need to place social and environmental sustainability and population health ahead of economic growth as a national goal, and develop social policies that enhance equity, social stability and trust. Our response must extend beyond conventional frameworks for social and economic policy.”

Source: Butler, Douglas & McMichael, 2001

Acknowledgements

TICHR

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