Infant Mental Health: The key to disrupting intergenerational disadvantage

How achieve policy & practice change

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WE MUST DO BETTER

Overview of talk

Evidence informed policy and practice – What evidence?

1. **Causal pathways**
2. **Consequences**
3. **What works**

Change mechanisms

- Redirect funds – State and Commonwealth
- Practice change
  - Organisation level
  - Practitioner level

Evidence to inform policy & practice
1. Understanding causal pathways *into* poor infant mental

Central to disrupting this process

Weight of evidence – *Trauma* is the primary culprit

1. **Early family environment** – incl. in-utero
   - Child abuse and neglect / relational trauma
   - Family-based adversities: extreme poverty, parental mental illness / drug addiction, parental intellectual disability, homelessness, death of family member, parental separation, young parents, parental incarceration, no family/community support
   - Poor nutrition, deprived sleep

IMPACT OF HIGH TRAUMA LOAD – ESPECIALLY RELATIONAL TRAUMA (CHILD MALTREATMENT)

- Poor impulse control - difficulty with emotional regulation
- Low Cognitive functioning
- Poor Ability to focus or plan
- Lack of Compassion - people as object not subject
- Dominance/submissive hierarchy relationship patterning
- Hypervigilance / over-alert to threat / easily triggered
- Poorly developed sense of self, lack of agency,
- Shame-based / low self esteem

Poor mental health / High distress

nal of Trauma & Dissociation, 12:495–509, 2011

: 1529-9732 print/1529-9740 online
: 10.1080/15299732.2011.593259

Routledge
Taylor & Francis Group

Understanding Maltreating Mothers: A Synthesis of Relational Trauma, Attachment Disorganization, Structural Dissociation of the Personality, and Experiential Avoidance

JACKIE AMOS, FRANZCP
Southern Adelaide Health Service, Child and Adolescent Mental Health Service, Adelaide, South Australia, Australia

GARETH FURBER, PhD and LEONIE SEGAL, PhD
Health Economics and Policy Group, University of South Australia, Adelaide, South Australia, Australia

Treatment options are limited for families in which the child has severe and intractable disturbances of emotion and behavior, in which there is suspected or confirmed maltreatment by the mother and in which the mother has her own history of childhood neglect and abuse. This paper proposes a model for understanding maltreatment in mother–child dyads, drawing upon the developmental psychopathology, behavior, and trauma literatures. At the core of this model is the hypothesis that a mother's maltreating behavior arises from unconscious attempts to experientially avoid reemergence of an attachment-related dissociative part of the personality that contains the distress arising from her own experiences of attachment relationships. The implications of this model for therapy are considered.

J Child Fam Stud (2015) 24:1442–1450
DOI 10.1007/s10826-014-9950-3

ORIGINAL PAPER

Entrapped Mother, Entrapped Child: Agonic Mode, Hierarchy and Appeasement in Intergenerational Abuse and Neglect

Jackie Amos · Leonie Segal · Chris Cantor

Published online: 29 March 2014

Abstract Attachment theory, with its root
has provided a powerful, biologically ba
understanding mother infant interactions
influence development across the lifespa
draws on recent additions to other establish
theories of behavior, to propose an evolution
model of psychological processes and behav
distressed relationships between mothers an
(aged 3–12 years) where there is or has bee
of the child by the mother. By exploring obs
for status, dominance and control as evolu
tions to the problem of resource acquisi
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a form of stabilizing interpersonal equilibri
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mothers and their children. The implicati
ing theoretical inconsistencies in the li
developing effective treatments for mal

CHILD DEVELOPMENT

Child Development, January/February 2010, Volume 81, Number 1, Pages 357–367

Building a New Biodevelopmental Framework to Guide the Future of Ea Childhood Policy

Jack P. Shonkoff
Harvard University

Four decades of early childhood policy and program development indicate that evidence-based interventions can improve life outcomes, and dramatic advances in the biological and behavioral sciences now provide an opportunity to augment those impacts. The challenge of reducing the gap between what we know and what we do to promote the healthy development of young children is to view current best practices as a starting point and to leverage scientific concepts to inspire fresh thinking. This article offers an integrated, biodevelopmental framework to promote greater understanding of the antecedents and causal pathways that lead to disparities in health, learning, and behavior in order to inform the development of enhanced theories of change to drive innovation in policies and programs.

Dramatic advances in neuroscience, molecular biology, genomics, and the behavioral and social sciences are deepening our understanding of how healthy development happens, how it can be derailed, and what societies can do to keep it on track. We now know that genes provide the initial blueprint for building brain architecture, environmental influences affect how actually

Decades of research in child development have taught us that families and communities play the central role and bear most of the costs of providing the supportive relationships learning experiences

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

January 2012, VOLUME 129 / ISSUE 1

Shonkoff JP, Garner AS, et al. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics.* 2012;129(1):e232-e246.

American Academy of Pediatrics
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TECHNICAL REPORT

The Lifelong Effects of Early Childhood Adversity and Toxic Stress

abstract

FREE

Advances in fields of inquiry as diverse as neuroscience, molecular biology, genomics, developmental psychology, epidemiology, sociology, and economics are catalyzing an important paradigm shift in our understanding of health and disease across the lifespan. This converging, multidisciplinary science of human development has profound implications for our ability to enhance the life prospects of children and to strengthen the social and economic fabric of society. Drawing on these multiple streams of investigation, this report presents an ecobiodevelopmental framework that illustrates how early experiences and environmental influences can leave a lasting signature on the genetic predispositions that affect emerging brain architecture and long-term health. The report also examines extensive evidence of the disruptive impacts of toxic stress, offering intriguing insights into causal mechanisms that link early adversity to later impairments in learning, behavior, and both physical and mental well-being. The implications of this framework for the practice of medicine, in general, and pediatrics, specifically, are potentially transformational. They suggest that many adult diseases should be viewed as developmental disorders that begin early in life and that persistent health disparities associated with poverty, discrimination, or maltreatment could be reduced by the alleviation of toxic stress in childhood. An ecobiodevelopmental framework also underscores the need for new thinking about the focus and boundaries of pediatric practice. It calls for pediatricians to serve as both front-line guardians of healthy child development and strategically positioned, community leaders to inform new science-based strategies that build strong foundations for educational achievement, economic productivity, responsible citizenship, and lifelong health. *Pediatrics* 2012;129:e232–e246

Jack P. Shonkoff, MD, Andrew S. Garner, MD, PhD, and THE COMMITTEE ON PSYCHOSOCIAL ASPECTS OF CHILD AND FAMILY HEALTH, COMMITTEE ON EARLY CHILDHOOD, ADOPTION, AND DEPENDENT CARE, AND SECTION ON DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS

KEY WORDS
ecobiodevelopmental framework, new morbidity, toxic stress, social inequalities, health disparities, health promotion, disease prevention, advocacy, brain development, human capital development, pediatric basic science

ABBREVIATIONS
ACE—adverse childhood experiences
CRH—corticotropin-releasing hormone
EBD—ecobiodevelopmental
PFC—prefrontal cortex

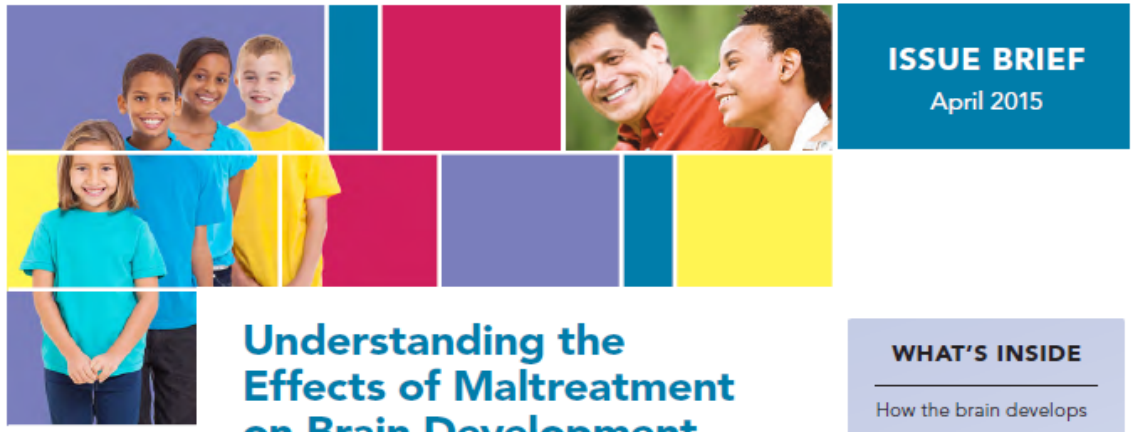
www.pediatrics.org/cgi/doi/10.1542/peds.2011-2663
doi:10.1542/peds.2011-2663
PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

INTRODUCTION

Of a good beginning cometh a good end.
John Heywood, *Proverbs* (1546)

The United States, like all nations of the world, is facing a number of social and economic challenges that must be met to secure a promising future. Central to this task is the need to produce a well-educated and healthy adult population that is sufficiently skilled to participate effectively in a global economy and to become responsible stakeholders in a productive society. As concerns continue to grow about the quality of public education and its capacity to prepare the nation's future workforce, increasing investments are being made in

Child Welfare Information Gateway. *Understanding the effects of maltreatment on brain development*. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau;2015



ISSUE BRIEF
April 2015

Understanding the Effects of Maltreatment on Brain Development

In recent years, there has been a surge of research into early brain development. Neuroimaging technologies, such as magnetic resonance imaging (MRI), provide increased insight about how the brain develops and how early experiences affect that development.

One area that has been receiving increasing research attention involves the effects of abuse and neglect on the developing brain, especially during infancy and early childhood. Much of this research is providing biological explanations for what practitioners have long been describing in psychological, emotional, and behavioral terms. There is now scientific evidence of altered brain functioning as a result of early abuse and neglect. This emerging body of knowledge has many implications for the prevention and treatment of child abuse and neglect.

WHAT'S INSIDE

Child Welfare Information Gateway
Children's Bureau/ACYF/ACF/HHS
800.394.3366 | Email: info@childwelfare.gov | https://www.childwelfare.gov
Children's Bureau

Evidence to inform policy & practice
Understanding causal pathways into poor infant mental

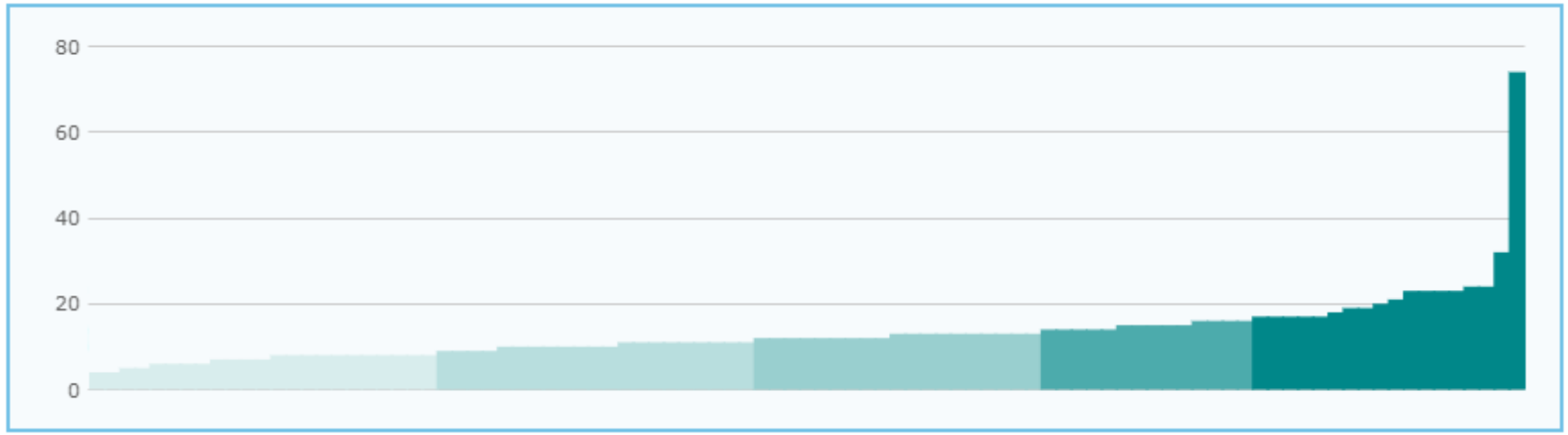
Weight of evidence

2. **Non-supportive or Toxic community environment**
   - Shaming, judging, lack of services, mental health not a priority
   - War, racism, dispossession, community violence, lack of food
3. **Wider Socio-economic determinants**
   - Not evenly distributed

Adversity tends to compound in some families

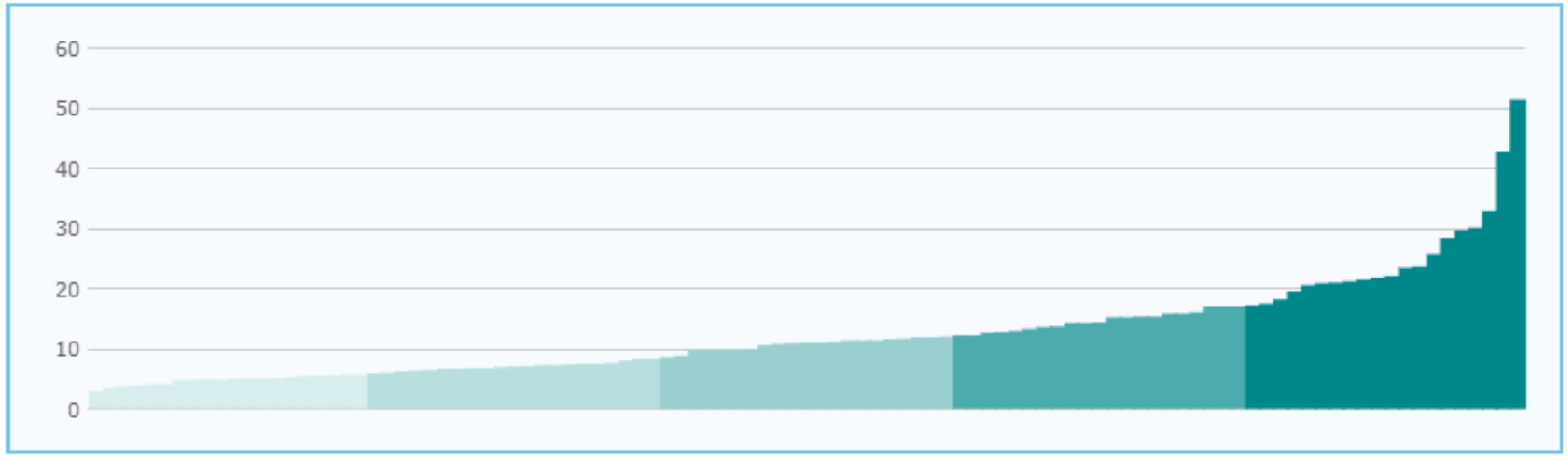
Uneven distribution of vulnerabilities across SA communities

Aust. Early Develop. Census, 2015 % vulnerable 2+ Domains

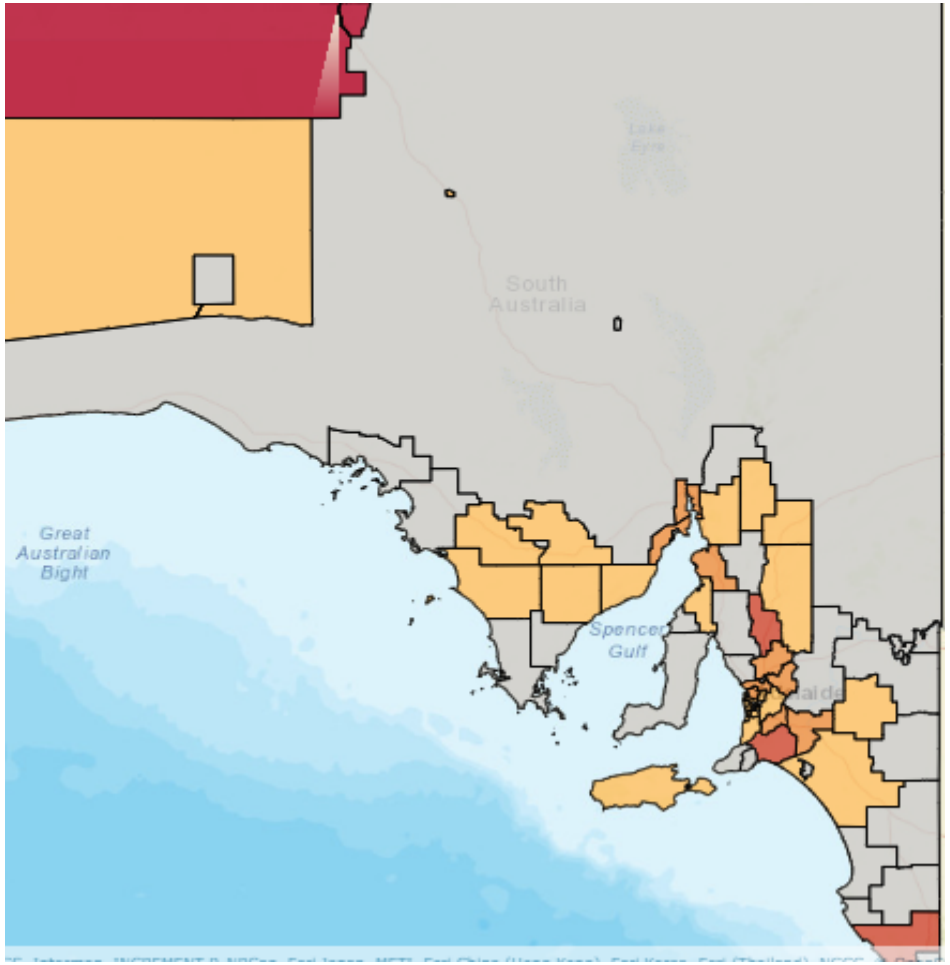


Social Atlas -http://phidu.torrens.edu.au/current/maps/sha-aust/lga-single-map/sa/atlas.html

% Children under 15 years in jobless families



Death of persons 15 to 24 years, 2011 to 2015 – Rate Ratio (100 = Australian mean)



Social Atlas
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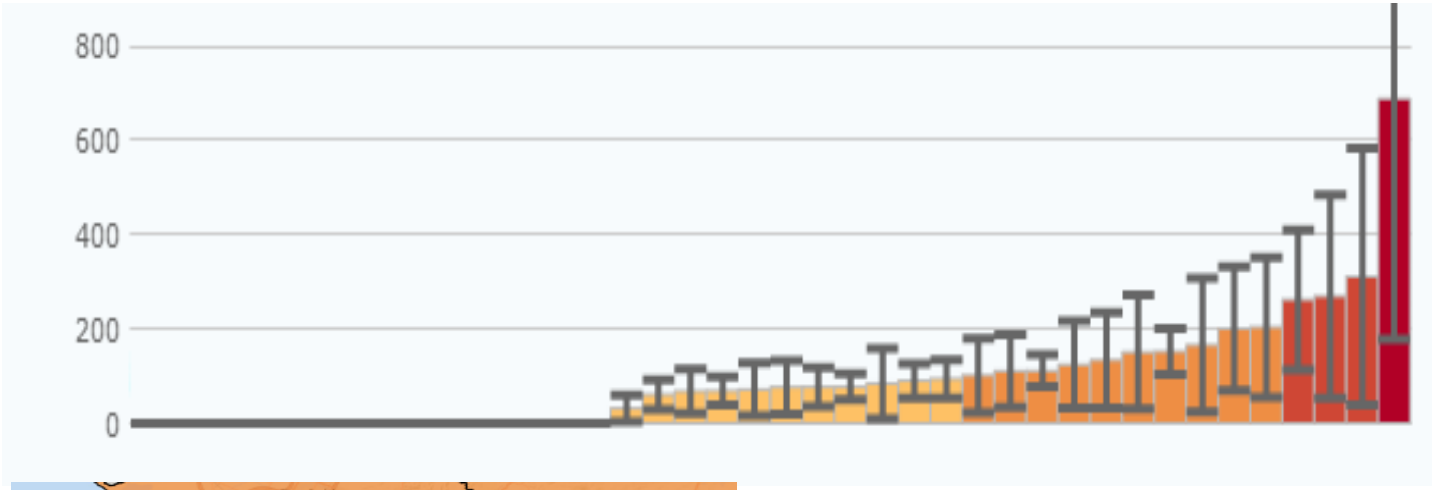
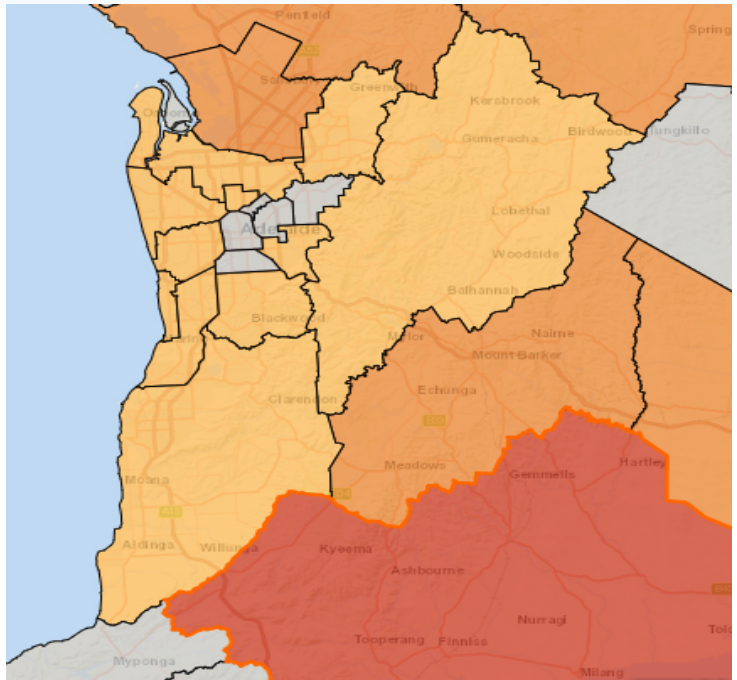
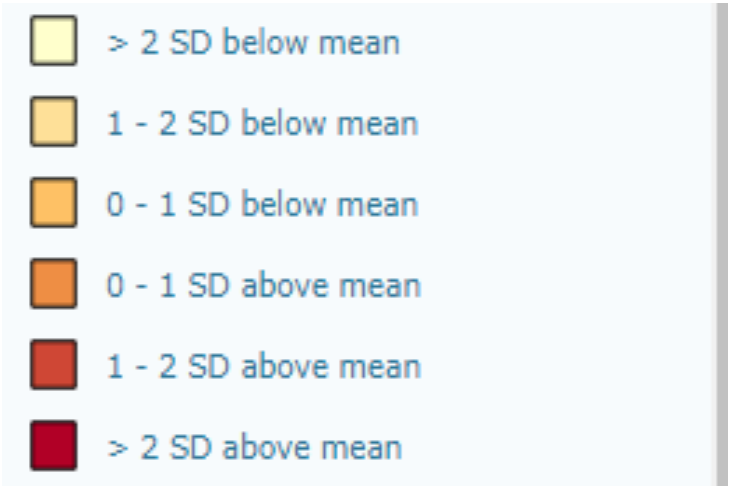
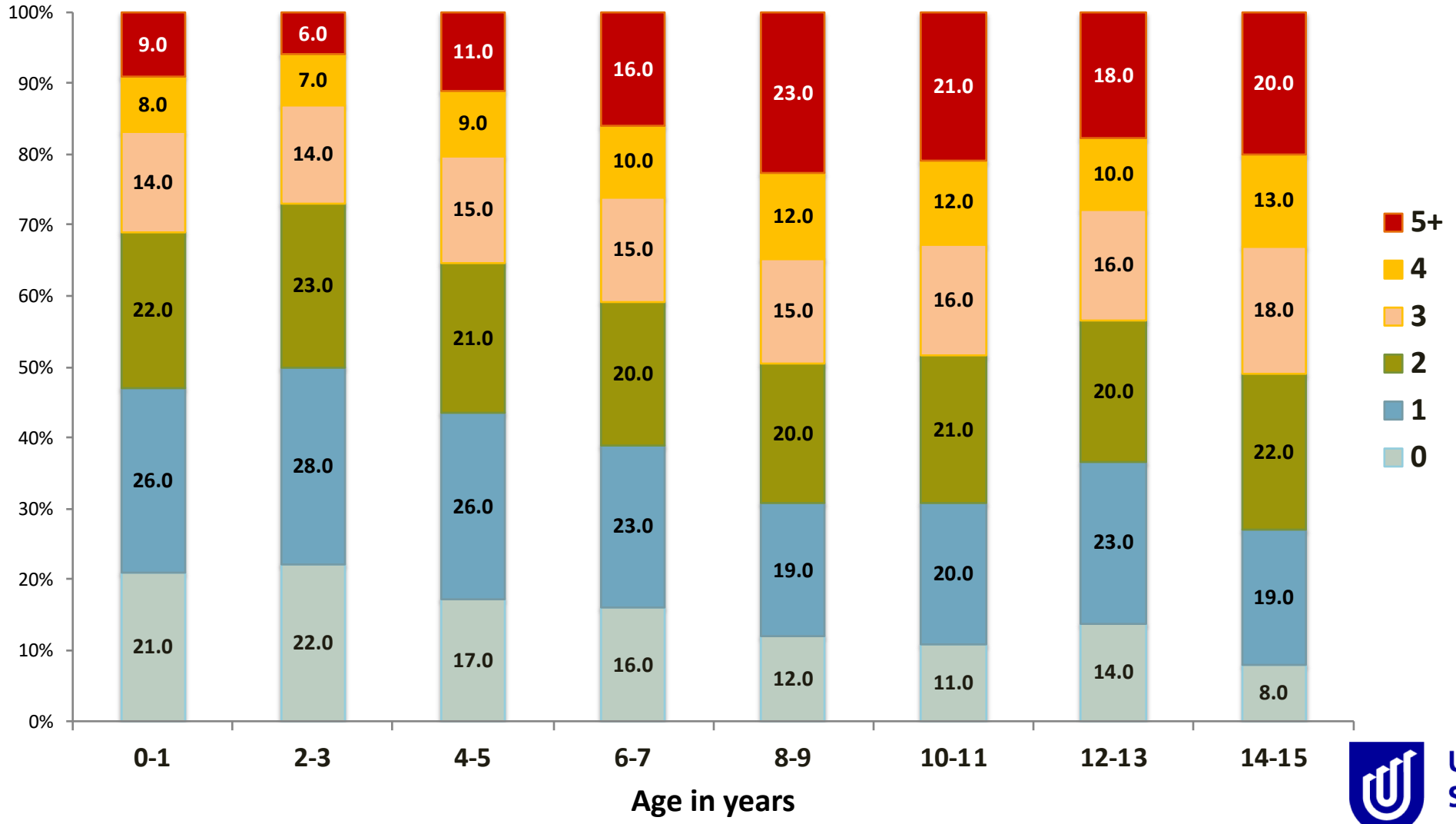




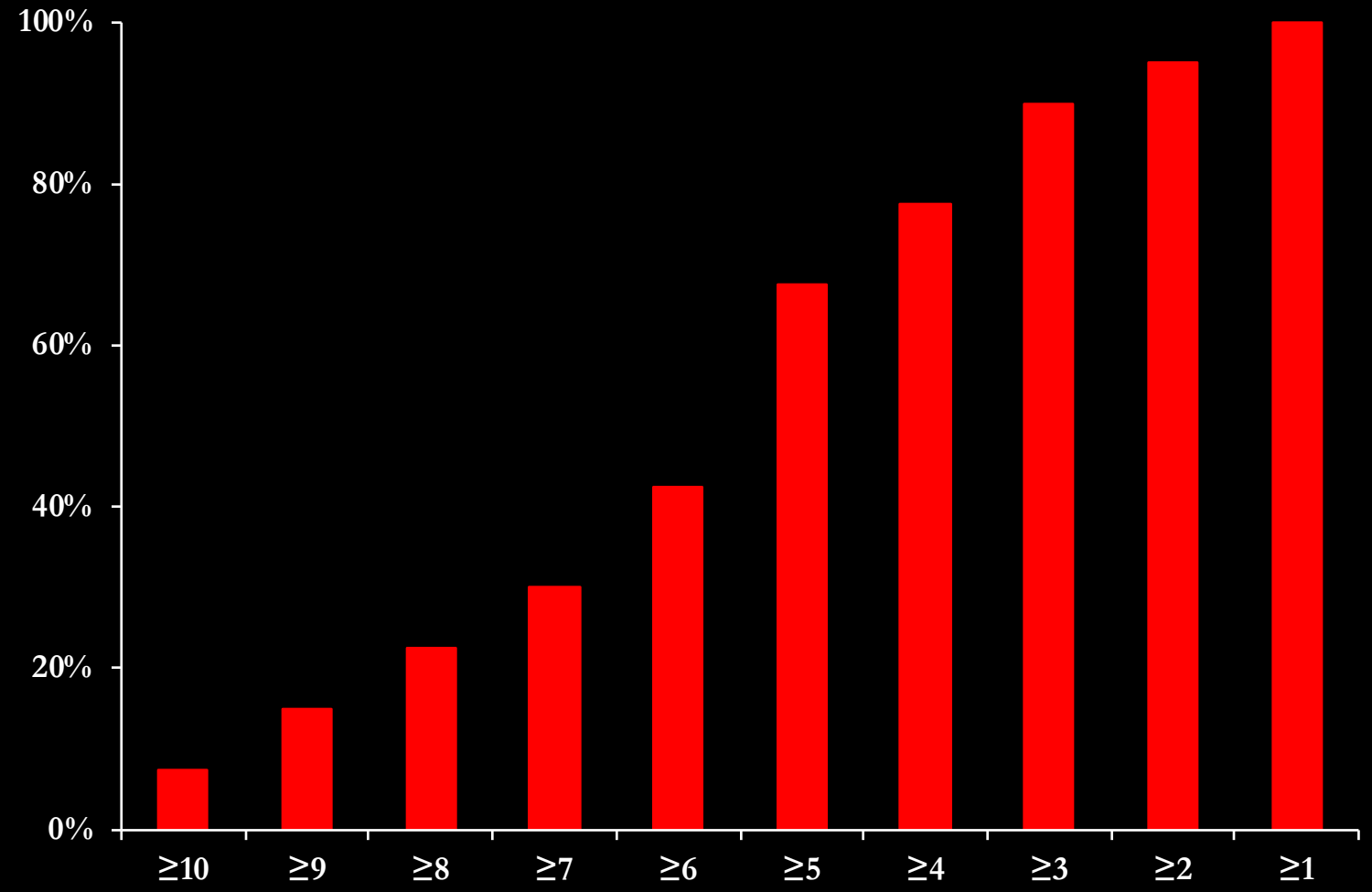


Distribution of Risk factors/Adversities across childhood – Australian children (LSAC) *Guy et al Aust NZ J Psychiatry 2016;50(12):1146–1160*



University of South Australia

Central Aust. Aboriginal Families w. substantiated Neglect n serious child protection concerns 68% ≥5



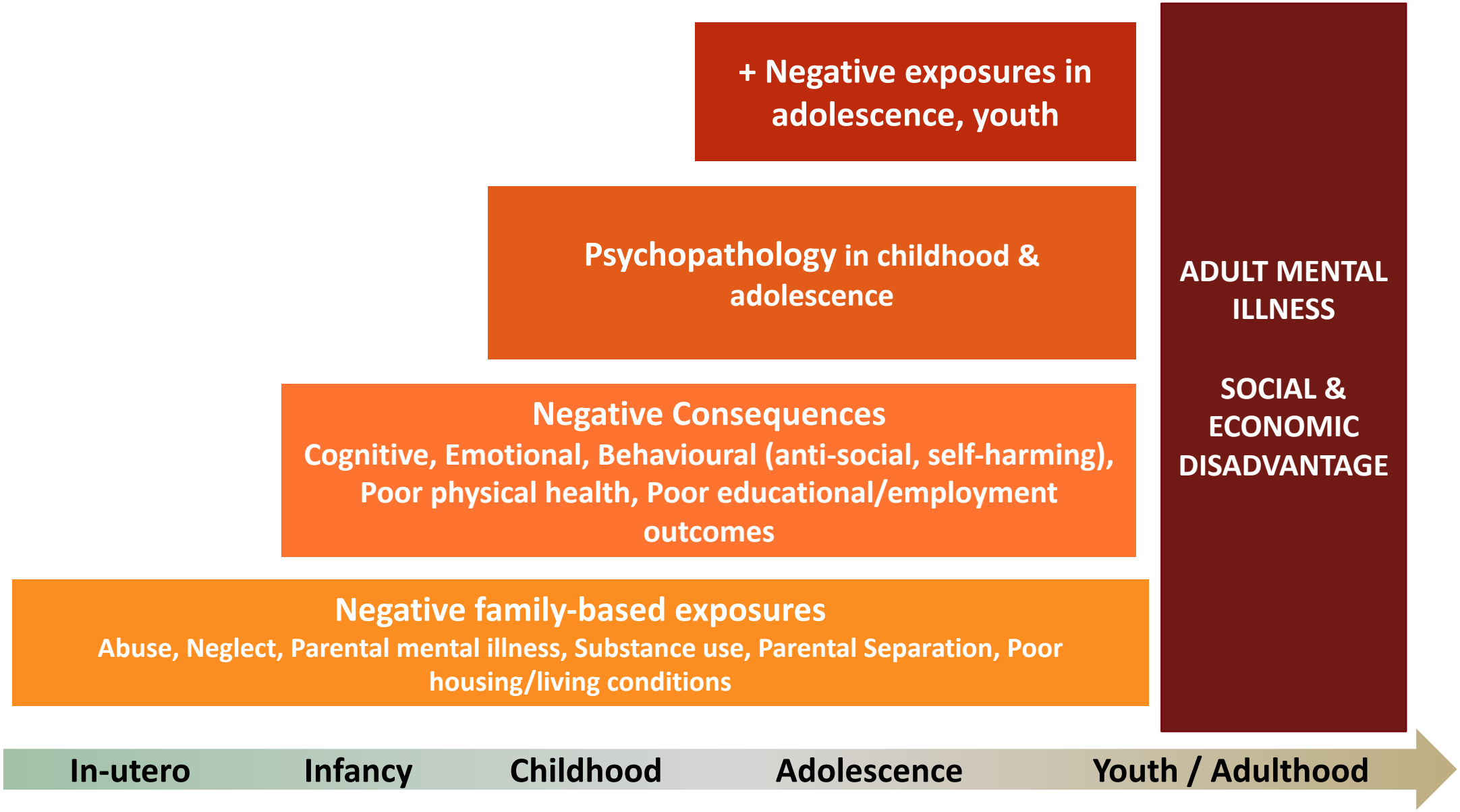
Segal & Nguyen, Report to Central Australian Aboriginal Congress, Evaluation of the Congress Intensive Family Support Service, 2015

Consequences:

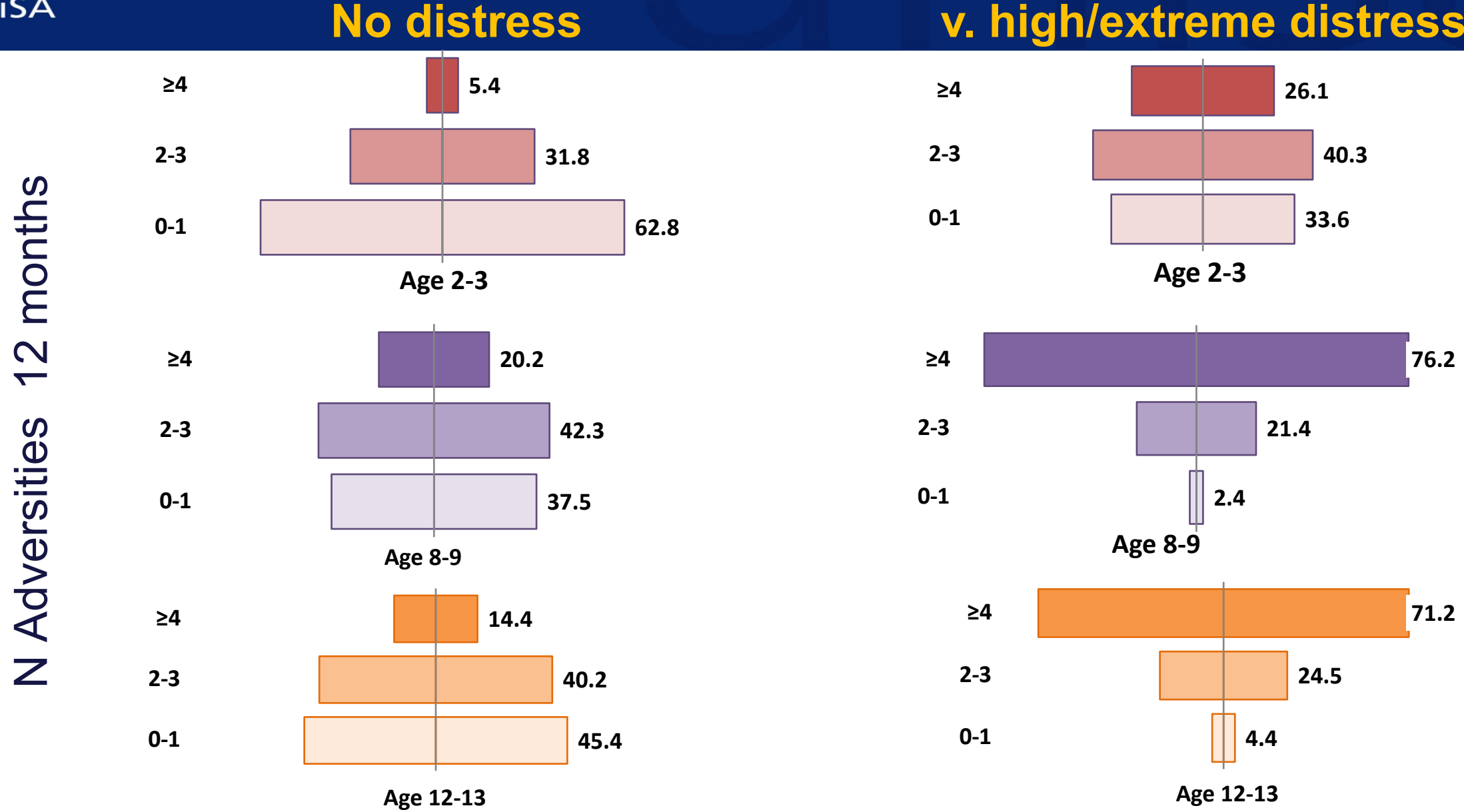
Harms accumulate harms

Adversity Attracts Adversity

Accumulation of harms



Psychological distress + multiple Adversity *(LSAC)*



Implications

- Infant and child distress is almost always accompanied by a highly complex family situation of multiple adversity

➢ An inter-disciplinary and

➢ x-portfolio response is needed

AND

➢ But infant mental distress is preventable / containable

➢ So are the consequences

2. Critical Evidence – Consequences
Highlight the importance

Immediate

- **Behavioural** disruptions /distressed infant, child and parent

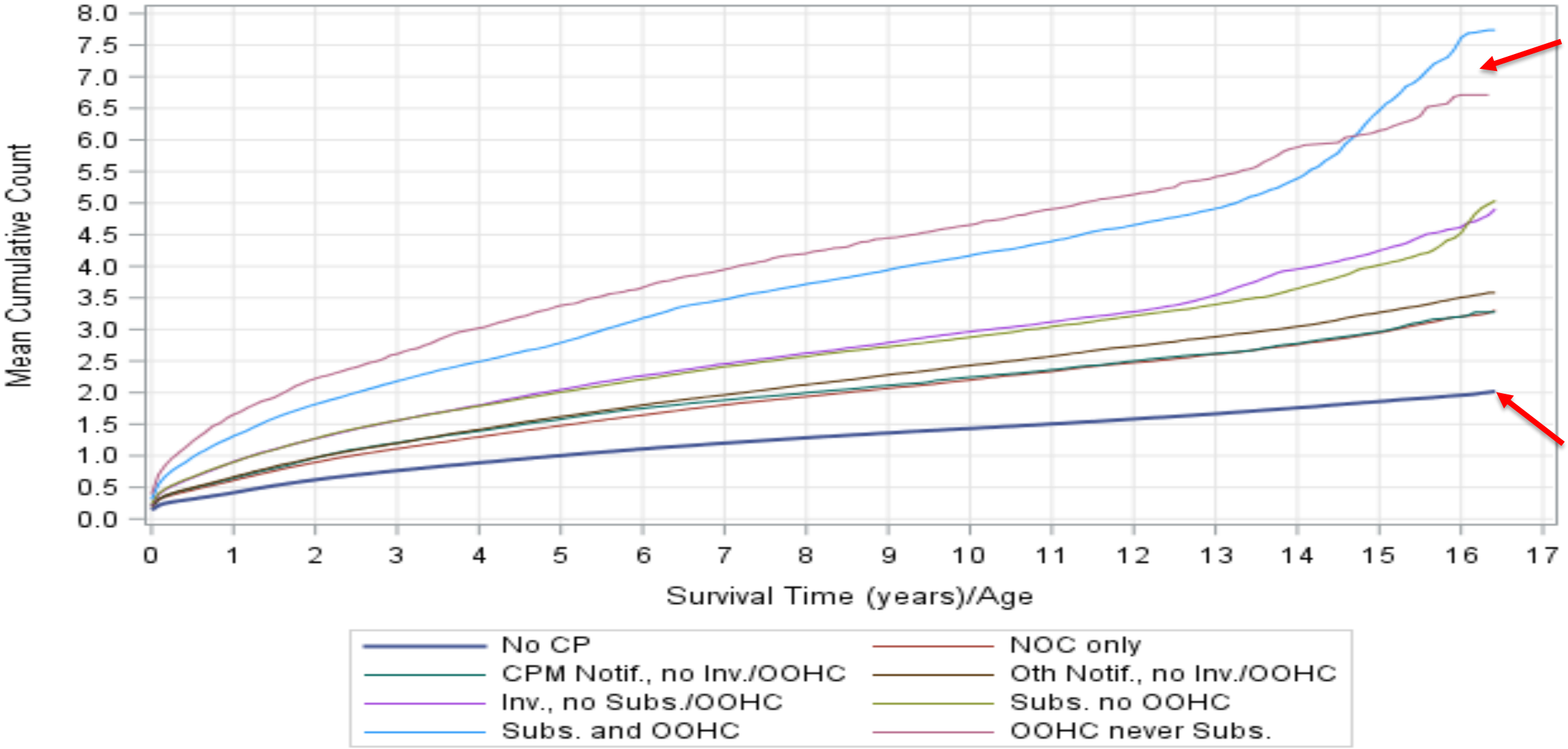
Medium and long term

- **Educational** engagement and outcomes
- **unemployment** / welfare dependency
- Impaired capacity for successful **Relationships** → marriage breakdown
- Child/Adolescent/Adult **Mental illness, Drug/Alcohol** addiction
- **Physical health**
- **Criminal** justice involvement

Mean cumulative count hospital admissions by lifetime child protection system involvement

- Data removed – in submitted manuscript

Mean Cumulative Count of hospital admissions by lifetime child protection system (CPS) involvement



2. Critical Evidence – Consequences
Highlight the importance

- **Intergenerational** Child maltreatment and adversity
- **Impacts others** - individual, family, other members of society, economy

Cost of failure is Huge and on-going

$$$

Wider (clinical) community not acknowledge pathway from adversity in infancy to Adult Mental illness, Social, Economic failure

and

Preventability of many of the serious consequences

so

Downplay early life mental wellbeing

3. What works / What is good value?

Infant home visiting??

Therapeutic family-based trauma work (eg PPACT, Amos et al)√

Protocolised programs √ - Circle of Security, Incredible Years, ABC, PCIT-T, for baby's sake, therapeutic foster care, early childhood education

1. **Understand target population** – high complexity, high distress – know how to target and engage the most vulnerable mums, dads, teens
2. **Get the program logic right**
3. **Family-based – work with parents AND their infants / children**

3. What works / What is good value?

4. **Workforce - highly skilled + well-supported**
   - Deep understanding of trauma work,
   - Ability to deliver compassion-based care
   - Adequate training and supervision
   - Resources to engage for as long as needed
   - Inter-disciplinary team – right skill mix (**eg social work + mental health)**
5. **Delivery Settings** – Accessible & welcoming, Outreach eg Children's Centres, Maternity Services, Prisons, Schools
6. **Likely C-E** - Programs in infancy/early childhood and targeted at high risk

Fund RCTs

The perinatal period/infancy is critical

Segal, Amos, [Why pregnancy and the post-natal period pose an elevated risk of mental illness, but also a unique opportunity to intervene], *Aust. Midwifery News*, 2018(Winter):23–24

Maternal Mental Health

Intergenerational Transmission of Trauma: Why Pregnancy and the Post-Natal Period Pose an Elevated Risk of Mental Illness, But Also a Unique Opportunity to Intervene

Leonie Segal, Chair Health Economics & Social Policy, University of South Australia and Jackie Amos, Senior Child and Adolescent Psychiatrist to the Onkaparinga regional team of Adelaide Health Service CAMHS

Mental illness is very common in Australia and across the globe, affecting an estimated 45% of Australians at some time in their life (Slade, 2007), and with reports that 17.5% are experiencing a current mental illness (ABS, 2015). Unlike other chronic conditions, prevalence peaks in late adolescence/young adulthood (Slade, 2007). An estimated 1 in 5 women will experience post-natal depression before their child's second birthday (AIHW, 2013). It is increasingly understood that the antecedents of mental illness will typically arise in infancy and childhood, or even before birth or conception, and it is thought that, pregnancy and the post-natal period can operate as a powerful trigger potentiating underlying risk or vulnerability.

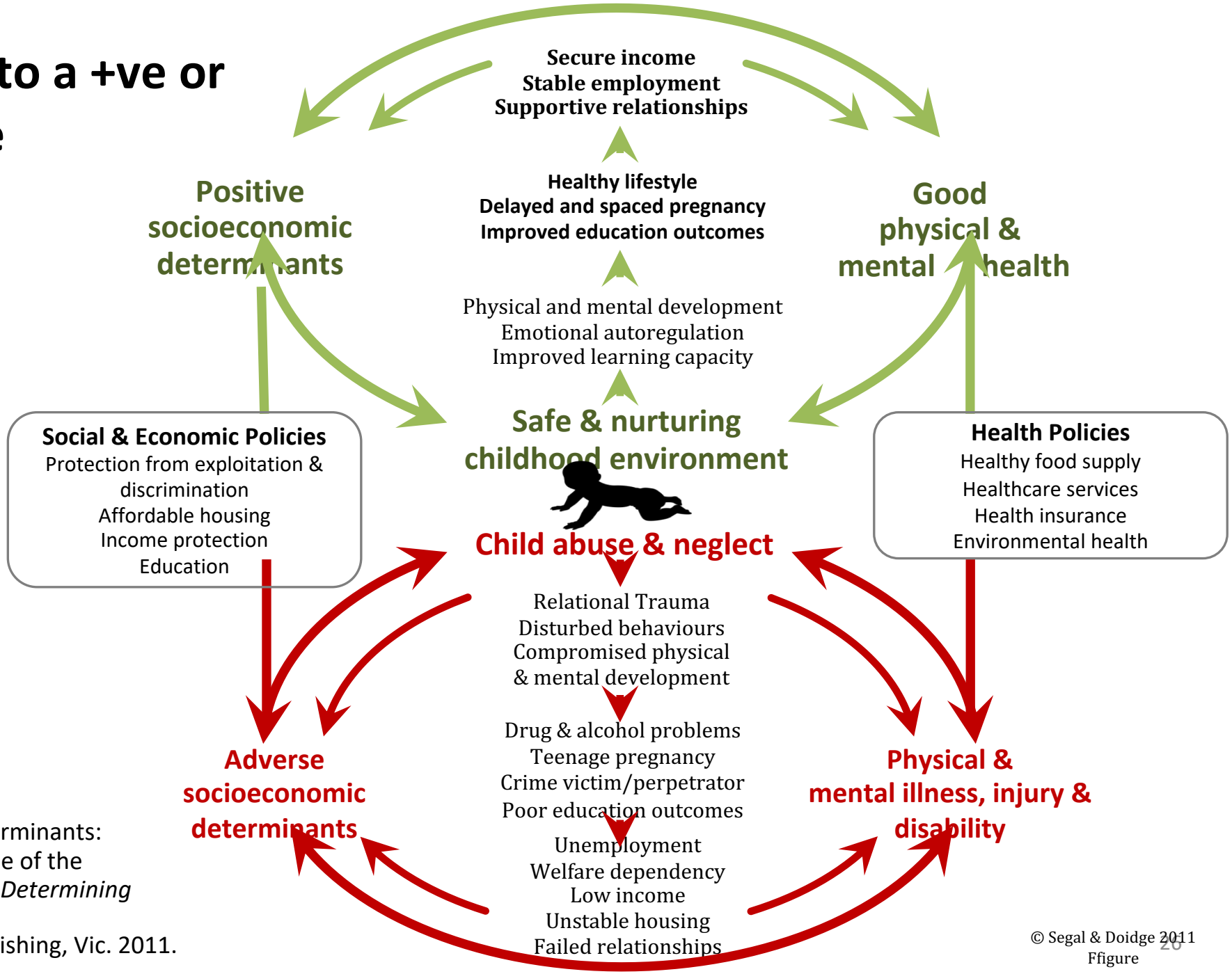
In this article we describe several distinct mechanisms that together create a set of mutually reinforcing intergenerational pathways for trauma and associated mental distress, likely potentiated by parenthood.

The first pathway, widely accepted as the dominant pathway into adult mental illness, draws on the observed alterations in multiple biological systems associated with exposure to chronic adversity (Shonkoff, Boyce & McEwan, 2009; Shonkoff et al, 2012). As more adversity and trauma is loaded onto an individual, their natural resilience will be challenged and ultimately overwhelmed. Exposure to hardship, including the early life trauma of child abuse and neglect, especially in the face of other family adversity (such as extreme poverty, low parental education, parental mental illness, parental separation, insecure housing) can unleash a cascade of disadvantage (Guy, Furber, Leach & Segal, 2016; Twizeyemariya, Guy, Furber & Segal (2017). The abused or neglected child, by virtue of the adaptations that he or she has to make to survive in troubled environments, is likely to attract further adversity (such as school failure, at high risk of having (developing) a serious mental illness, and parental mental illness is a known to lead to challenges in early parenthood and the potential for compromised parenting.

A second pathway through which the developmental adaptations to child abuse and neglect may undermine parenting capacity, can be understood as a novel reinterpretation of classic trauma theory. Amos (2011, 2017), proposed that for women with relational trauma histories in infancy (and often ongoing child abuse and/or neglect), becoming pregnant and having a baby is a potentially powerful trigger for their own childhood trauma history (Amos, Furber & Segal, 2011, Amos, 2017). As this trauma typically commences very early in life, before verbal processing and sits outside conscious awareness, the profound distress that the mother feels is likely to be attributed to the baby growing inside her or her infant, not her own childhood trauma history, which can be a source attribution error. The unmanageable distress triggered by her infant can, it is argued, precipitate a maltreatment response from the mother, in an unconscious effort at re-regulation. This can morph into an on-going highly disturbed and distressing mother-child relationship. The mother may, unwittingly and unintentionally reproduce her own child maltreatment history.

A third pathway hypothesised by Amos (2014) entrenches the intergenerational patterning (Amos, Segal & Cantor, 2014). The theory, drawing on ethology and evolutionary biology (Kortmulder & Robbers, 2005), argues that a child exposed to early relational trauma will in concert with the parent, create an agonic relational system (Price, 1992). A central feature of an agonic mother-child relationship is their reliance on the predictability of an aggressive dominance/submissive hierarchy to stabilise their

The Child as Pivot into a +ve or –ve Entrapping cycle



Segal, Doidge, Amos, 'Determining the determinants: Is child abuse & neglect the underlying cause of the socio-economic gradient in health?' Ch 13, *Determining the Future: A Fair Go & Health for All*, Eds Laverty & Callaghan, Connor Court Publishing, Vic. 2011.

Ffigure

Change mechanisms – redirect monies

Where do we allocate most resources now?

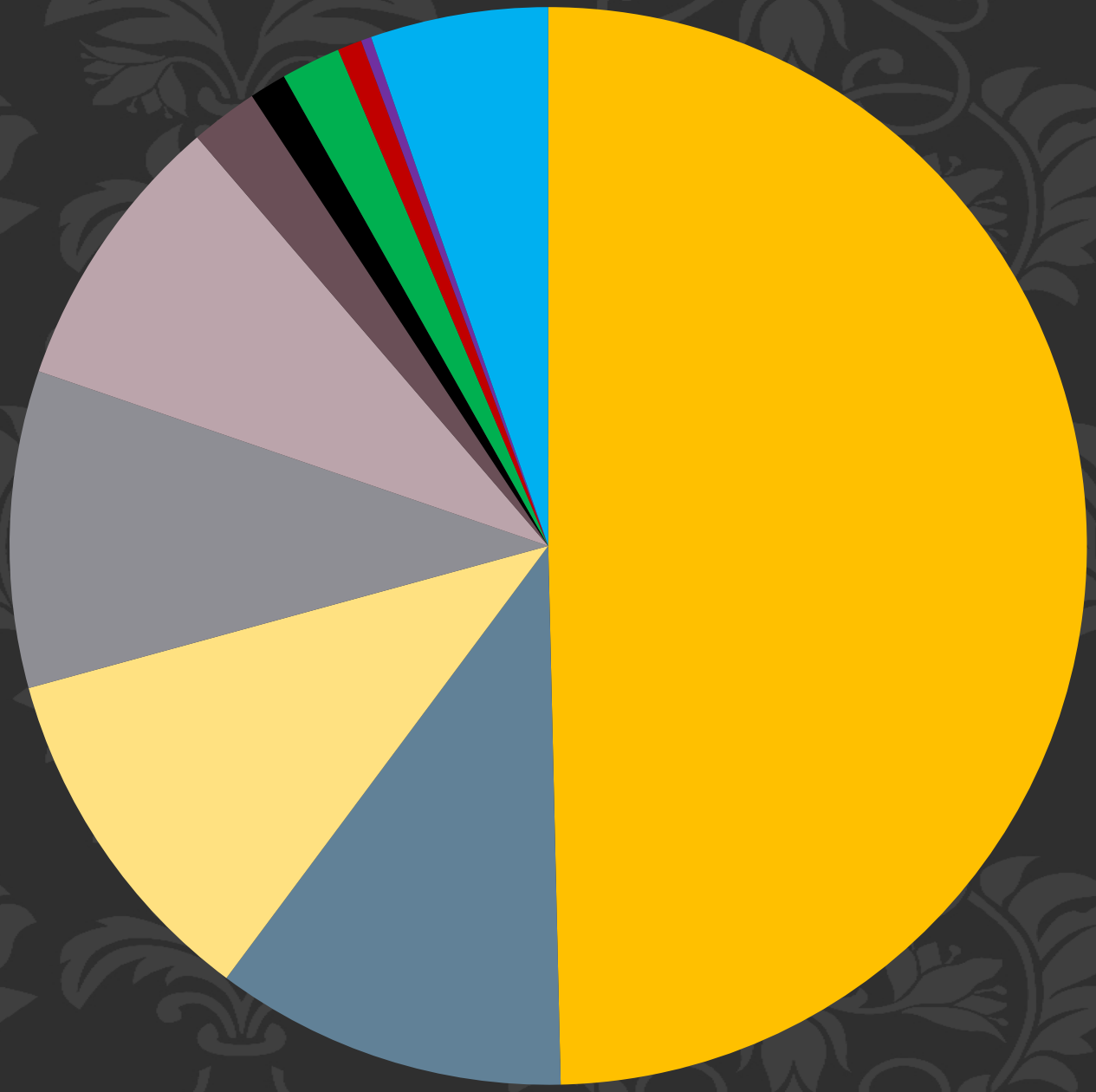
Where are ‘family’ dollars now going – widen the pool

1. **Universal services / income support** (>20billion) – pensions, pre-school, child support payments, Paid Parental Leave
2. **Taxes forgone** eg Negative gearing, Tax avoidance
3. **Picking up the pieces** – Child protection, Criminal justice, Housing, Hospitals

NOT

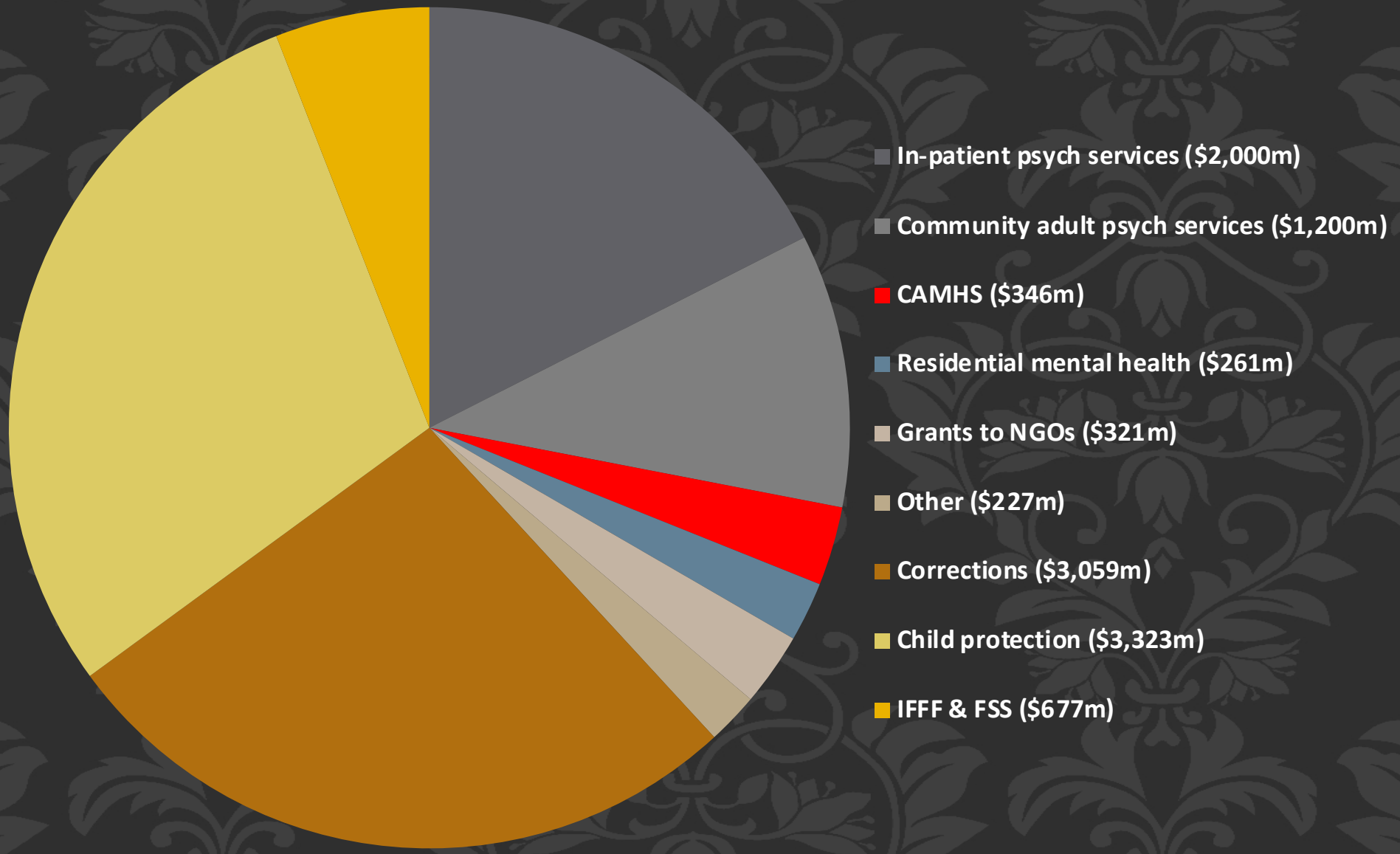
1. **Infant Child and family community mental health**
2. **Family friendly restorative holistic approaches**

Commonwealth mental health payments 2012-13



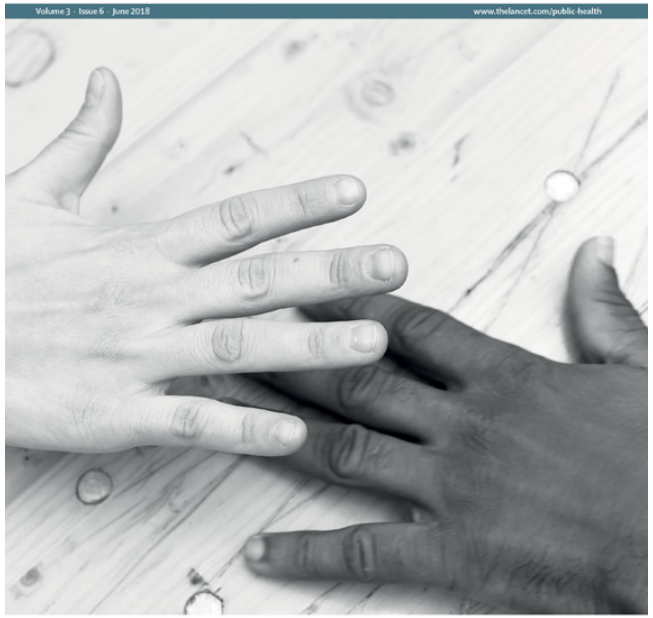
- Disability Support Pension ($4700m)
- Hospital in-patients ($1000m)
- Carer payments ($1000m)
- MBS ($900m)
- PBS ($800m)
- DVA ($192m)
- PHI ($105m)
- Mental health initiatives (eg perinatal depression, suicide prevention) (payments to states) ($169m)
- Headspace ($69.4m)
- Beyond Blue ($29.5m)
- Other Payments to NGOs (64 programs to 542 organisations) ($505m)

State ‘mental health’ payments 2012-13



Source: ROGS, 2015, Mental Health Commission Report 2015

THE LANCET
Public Health



Segal L, Guy S, Leach M, Turnbull C, Groves A, Furber G, A needs-based workforce model to deliver tertiary-level community mental health care for distressed infants, children and adolescents in South Australia: a mixed-methods study, *Lancet Public Health* 2018 Jun;3(6):e296–e303

A needs-based workforce model to deliver tertiary-level community mental health care for distressed infants, children, and adolescents in South Australia: a mixed-methods study

Leonie Segal, Sophie Guy, Matthew Leach, Aaron Groves, Catherine Turnbull, Gareth Furber

Summary

Background High-quality mental health services for infants, children, adolescents, and their families can improve outcomes for children exposed to early trauma. We sought to estimate the workforce needed to deliver tertiary-level community mental health care to all infants, children, adolescents, and their families in need using a generalisable model, applied to South Australia (SA).

Methods Workforce estimates were determined using a workforce planning model. Clinical need was established using data from the Longitudinal Study of Australian Children and the Young Minds Matter survey. Care requirements were derived by workshopping clinical pathways with multiprofessional panels, testing derived estimates through an online survey of clinicians.

Findings Prevalence of tertiary-level need, defined by severity and exposure to childhood adversities, was estimated at 5–8% across infancy and childhood, and 16% in mid-adolescence. The derived care pathway entailed reception, triage, and follow-up (mean 3 h per patient), core clinical management (mean 27 h per patient per year), psychiatric oversight (mean 4 h per patient per year), specialised clinical role (mean 12 h per patient per year), and socioeconomic support (mean 12 h per patient per year). The modelled clinical full-time equivalent was 947 people and budget was AU$126 million, more than five times the current service level.

Interpretation Our novel needs-based workforce model produced actionable estimates of the community workforce needed to address tertiary-level mental health needs in infants, children, adolescents, and their families in SA. A considerable expansion in the skilled workforce is needed to support young people facing current distress and associated family-based adversities. Because mental illness is implicated in so many burgeoning social ills, addressing this shortfall could have wide-ranging benefits.

Funding National Health and Medical Research Council (Australia), Department of Health SA.

Lancet Public Health 2018; 3: e296–303

See Comment page e266

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Introduction

The global burden of mental illness is considerable and growing. It was the leading cause of years lost to disability in 2010 (estimated cost US$2·5 trillion)[1,2] and is projected to increase to US$6·0 trillion by 2030.[3] This burden reflects a combination of high prevalence, high severity, extensiveness of negative effects, and failure to fund preventive services.[4]

In Australia, 45% of people aged 16–85 years are estimated to have had a mental disorder in their lifetime,[5] and 17·5% report a current mental or behavioural condition (2014–15).[6] The burden on children, adolescents, and youth is a particular concern.[7] The prevalence of most mental disorders peaks at age 16–24 years,[5] but typically with antecedents in childhood.[8,9] One in seven Australian children and adolescents (aged 4–17 years) have a current mental disorder.[10] High rates of mental and emotional problems are also seen in infants,[11–14] and one in five women have postnatal depression before the child's second birthday,[15] exposing early family life to a high burden of mental illness.

The results of psychological distress and mental illness in infants, children, and adolescents are considerable and include poor mental health into adulthood,[16] low school engagement and performance, high welfare dependency and involvement with the child protection system, criminal activity, insecure housing, drug and alcohol dependency, and premature death.[17,18] Failure to address early mental illness effectively could have implications across multiple sectors.

A mental health service able to respond effectively to the mental health needs of infants, children, and adolescents is vital, but there is reason to believe that infant, child, and adolescent mental health services are struggling to meet population needs.[19,20] Needs-based workforce modelling can be used to establish the workforce and budget required to meet need, but as far as we are aware, there are no reported studies applying these methods to child and adolescent mental health. In the 1990s, Faulkner and Goldman reported on workforce modelling for psychiatrists[21] but simply modelled plausible scenarios,

Change mechanisms – Redirect monies

Get ministerial support /State and Commonwealth – Lobby

- Ensure causal pathways understood
- Size of consequences and that they are preventable (in part).
- There **Are** E and $/E evidence-based programs
- Generate more published evaluations

Get the public on-side – What is the story?

- How proceed without blaming parents, when failure of nurturing and disrupted brain development *is* the story

Create a community of interest – create alliances across the public sector - child protection, prisons, housing, social security

Barriers to changing funding allocation

Sector very competitive

- Adult/adolescent services dismissive of infant mental health

Punitive societal attitudes – it's their fault

- 'disturbed behaviour' even in infants needs to be punished, it's naughty/bad, *not* brain damage / stress / adversity

'Demystify mental illness' campaign - suggests mental illness not serious

Power of drug companies – a preventive model threatens their markets

Struggling / chaotic families can't advocate for themselves – don't generate sympathy (vs cancer patients/families)

Budgets always scarce – but money can always be found if this is a priority

Practice change - organisational level

1. Create a supportive environment for staff so they can offer compassion-based care
   - Model a cooperative non-judging open culture, where staff feel heard
   - Provide adequate supervision/mentoring, **training** opportunities
2. Ensure all environments are welcoming and accessible
3. Promote flexibility in service delivery – not just 9-5 M-F
4. Support out-reach into pertinent agencies, client's homes, the community
5. Ensure required skill mix and skill level
6. Don't compromise quality / skill / components / eligibility to win contracts
7. Advocate for client group to government, join other stake-holders
8. Promote workplace gender equity – employ more men

Practice change - practitioner/clinician led

Ensure all contacts trauma informed/non-judging/non-shaming

- Be self-reflective

Seek training/upskilling

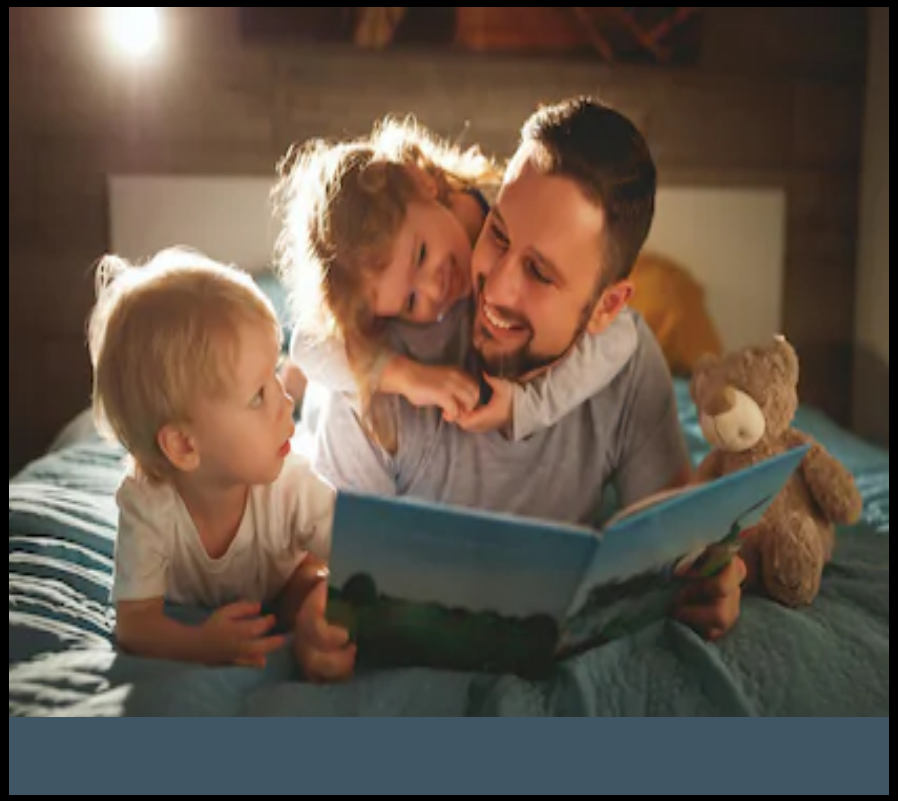
Understand your clients – their issues

Know the literature on pathways into mental illness, what works

Advocate for your clients to your organisation

Participate in professional associations

Thank You



So much to gain from getting this right

So much to lose if we don't

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PROMISING 'INNOVATIVE' MODELS

- **Pre-school:** Multi-D Child & Family Centres/NGO + Outreach + mental health expertise – Congress pre-school reediness
- **Justice** reinvestment / support for troubled youth (they will soon be parents) eg Collingwood Neighbourhood Justice Centre, Bourke JR,
- Perth Boronia women's facility
- Intensive **employment lead / schooling** / community partnership
- Therapeutic community / community healing

Boronia Pre-release Centre for Women

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