

Life-course Ageing, Dementia and Indigenous Australians:

The Koori Growing Old Well Study (KGOWS)

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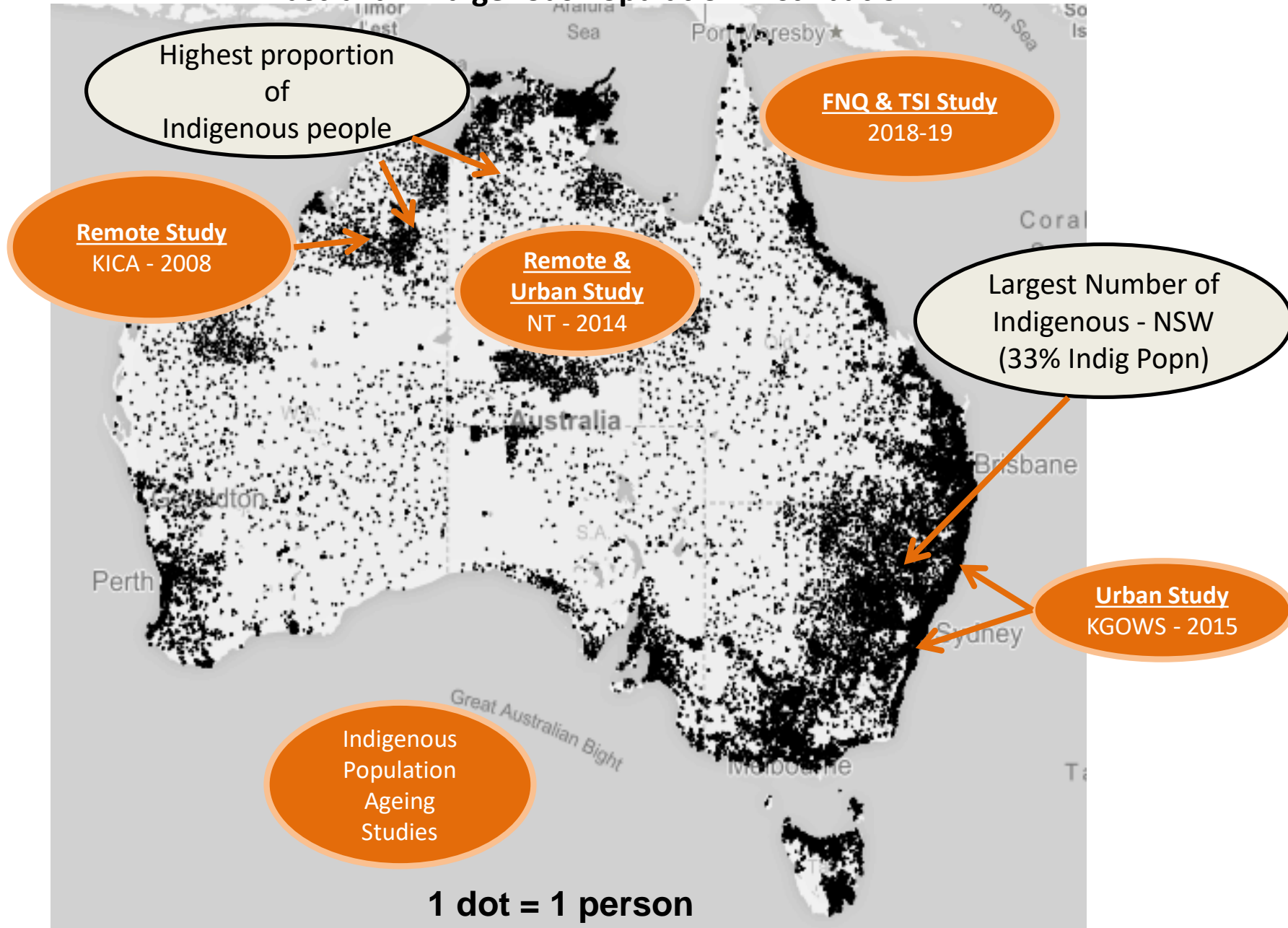
- Kylie Radford, Kim Delbaere, Brian Draper, Gail Daylight, Darryl Wright, Ellen Finlay, Sharon Wall -
and Indigenous Partners & Organisations

Neuroscience Research Australia

University of NSW

Trauma abuse & adversity across Aboriginal peoples' lifecycle - to older ages - is what I will discuss today - as a background to elder abuse

Australian Indigenous Population Distribution



Lifespan Trauma, Ageing & Health

Areas to be covered

1. What do we know about lifespan trauma, ageing & Aboriginal Health? - from recent population studies with Indigenous partners* *A Review*
2. What strategies can we apply to increase lifespan, improve ageing & prevent or delay the excess chronic disease & dementia? *Proposals*
3. What can the Aboriginal experience teach us more generally about lifespan, ageing & trauma for all populations? *Indigenous lessons*

* ABS Census, 2011, 2016; Henderson, AS & Broe, GA, 2010; Li, SQ et al. 2014; Lo Giudice, D. et al 2016; Minogue, C. et al. 2015; Naismith, SL & Parker, RM, 2017; Newton, BJ, 2017; Radford, K. et al. 2014, 2015, 2017; Smith, K. et al 2008, 2010

Background

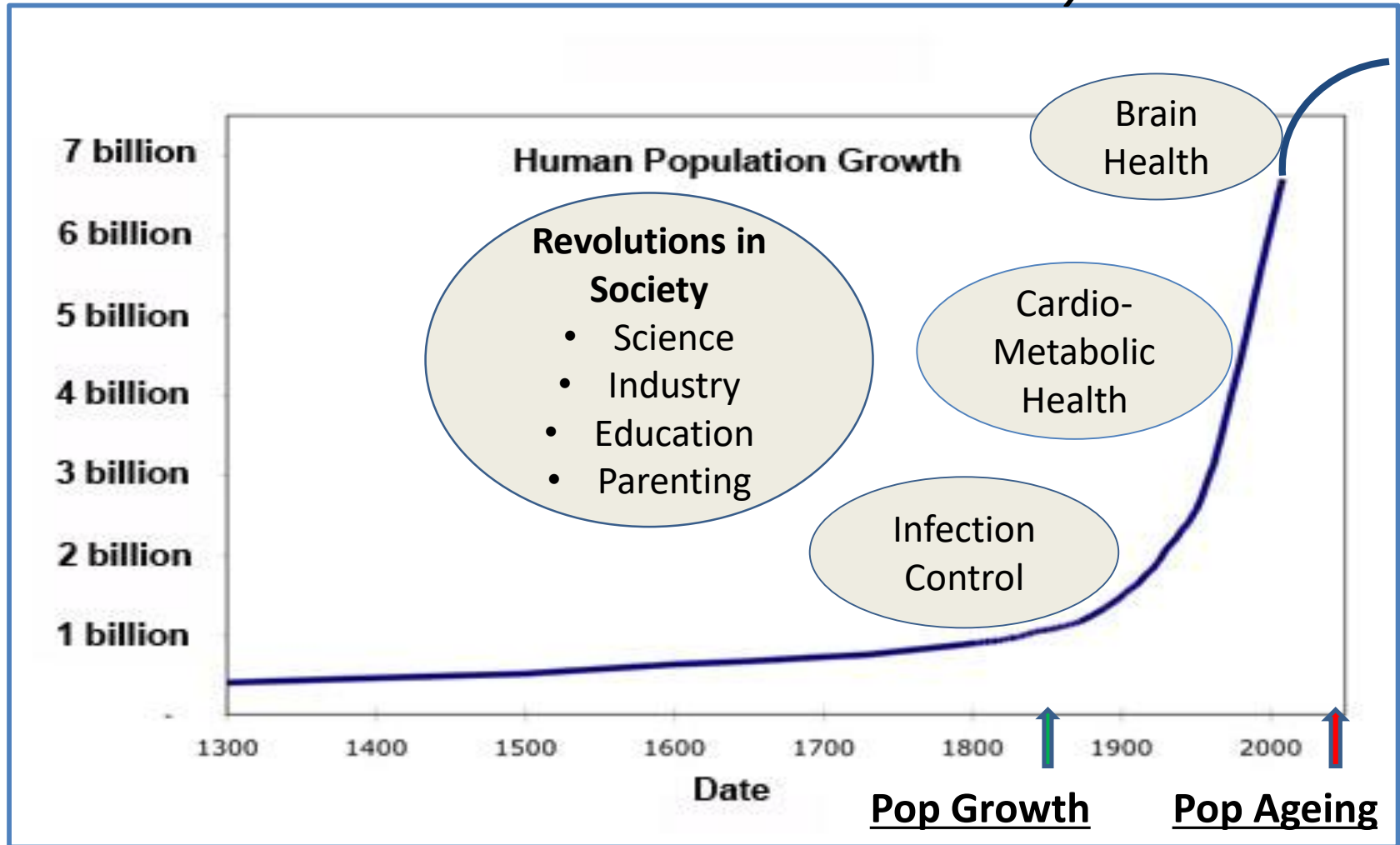
What is Healthy Ageing?

How do Populations Grow?

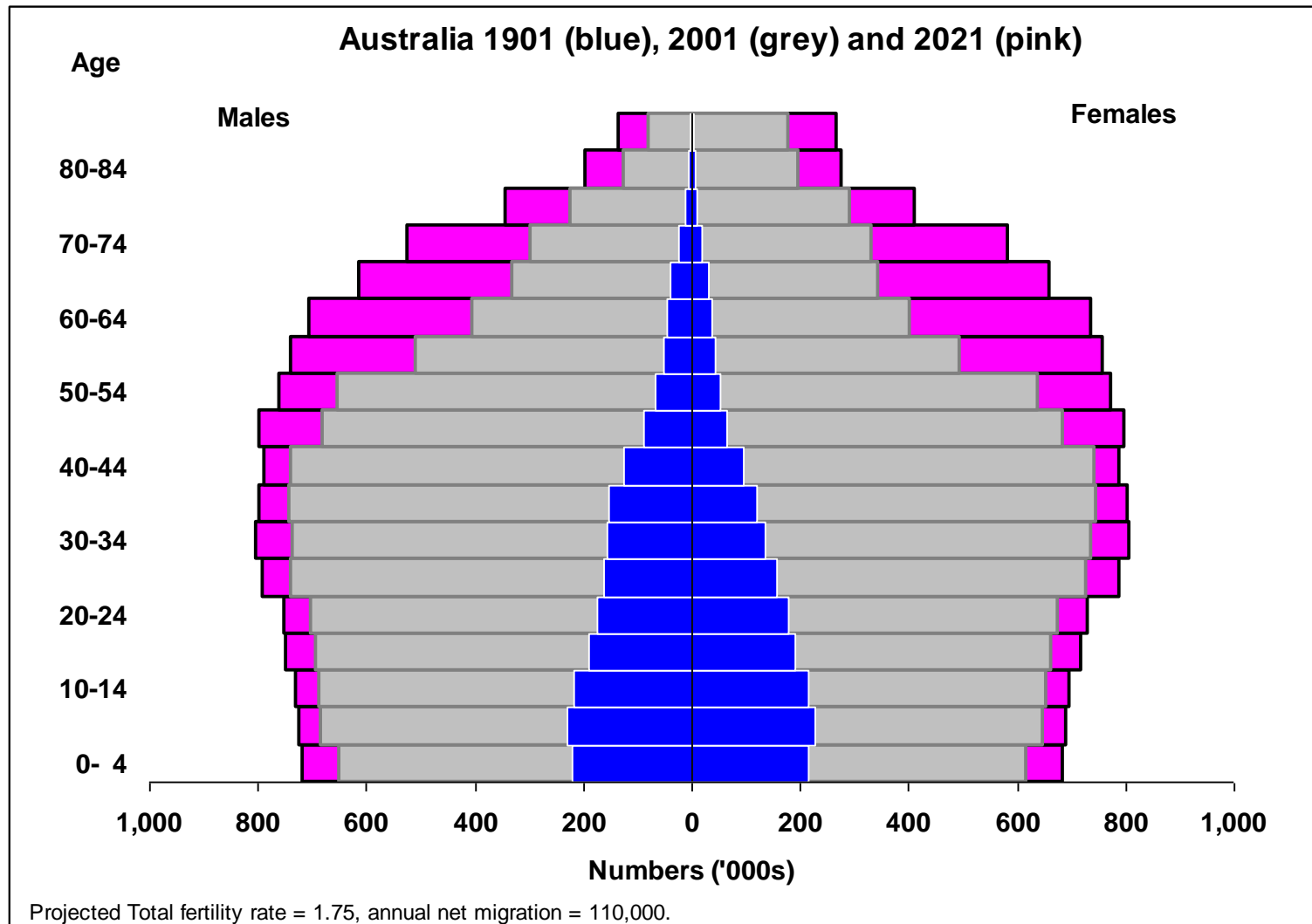
How do Populations Age?

World Population Growth & Ageing

Recent Events - in World History



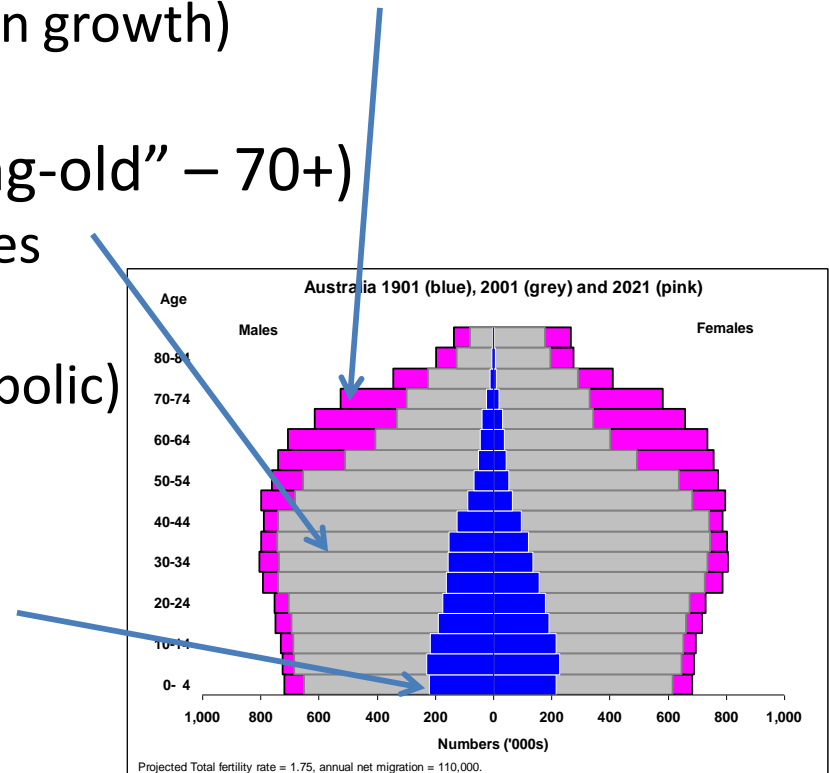
Australian *Non-Indigenous* Population Ageing (1901/2001/2021)



How do Populations Grow and Age

How do all Populations Grow & Age

- **3rd - Ageing of the Aged** (“Very-old” - 80 to 100 yrs)
 - Life-course – Maternity, Parenting, Education, Jobs, No Trauma
 - **“Life-course Public Health”** (Brain growth)
- **2nd - Better Adult Health** (“Young-old” – 70+)
 - Delay non-communicable diseases
 - Av lifespan rises to 70+ years
 - **New Public Health** (cardio-metabolic)
- **1st - Lower fertility – Less kids**
 - Better Infant & Child Health
 - Women’s lib; choice; equality
 - **Public Health** (Infection Control)



Aboriginal Ageing

Life-course Ageing & Dementia

For Indigenous Australians

From ABS data we know, since the 1990s, the Australian Indigenous population has been increasing – now to pre-1788 levels.

Fertility is falling; lifespan is rising; however the lifespan gap & many health & social indices are not improving.

(ABS Census, 2011; 2016)

Lifespan Health & Ageing

For Indigenous Australians

We know that Indigenous Australians have a similar poor health status, high chronic disease rate & shortest lifespan* of Indigenous people in four *Settler Colonial Societies* - NZ; USA; Canada; and Australia

*Ring & Brown 2003; *Anderson et al Lancet, 2017

The common factor in all 4 Nations? The Settlers

Life-course Ageing & Dementia

Indigenous Dementia

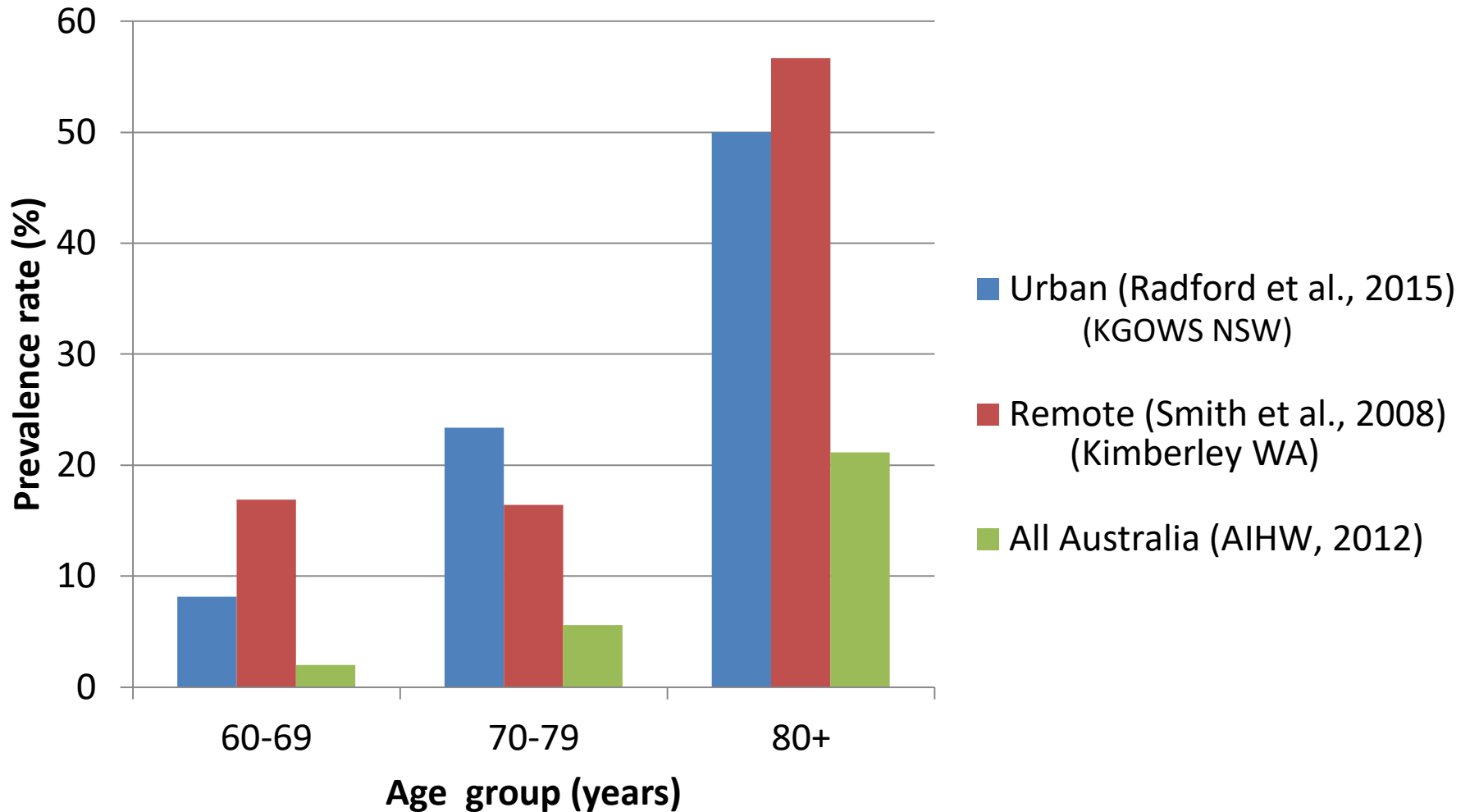
Dementia rates are 3 to 4 times higher and dementia occurs at an earlier age in Australian Indigenous people in all regions studied - remote, rural, urban across WA, NT, NSW - despite major regional and cultural differences between these communities

(Li, S.Q. et al. 2014; Lo Giudice, D. et al 2016; Radford, K. et al. 2014, 2015, 2017; Smith, K. et al 2008, 2010)

The common factor in each region? The Settlers

Dementia Prevalence - Indigenous & All Australia - 60+

(Dementia is 3 to 4 times higher in Aboriginal people)



Accelerated Indigenous ageing & dementia

What are the potential causes?

When does the trauma start?

- **Multiple non-indigenous studies** - Adverse Child Events (ACE), Childhood Trauma Questionnaire (CTQ) studies - correlate early & life-course social determinants with mid-life risks for accelerated ageing & dementia
- **Increased mid-life** - cigarette & alcohol use, vascular risks, hypertension, obesity & diabetes, depression, cognition
- **'Ageing'** does not start at 60, 70, 80 - 'Big Pharma' funding of a late life "cure" & amyloid removal is unproductive & ignores social factors

Lifecycle Ageing & Dementia

Role of Lifecourse Trauma, Parenting, Adversity

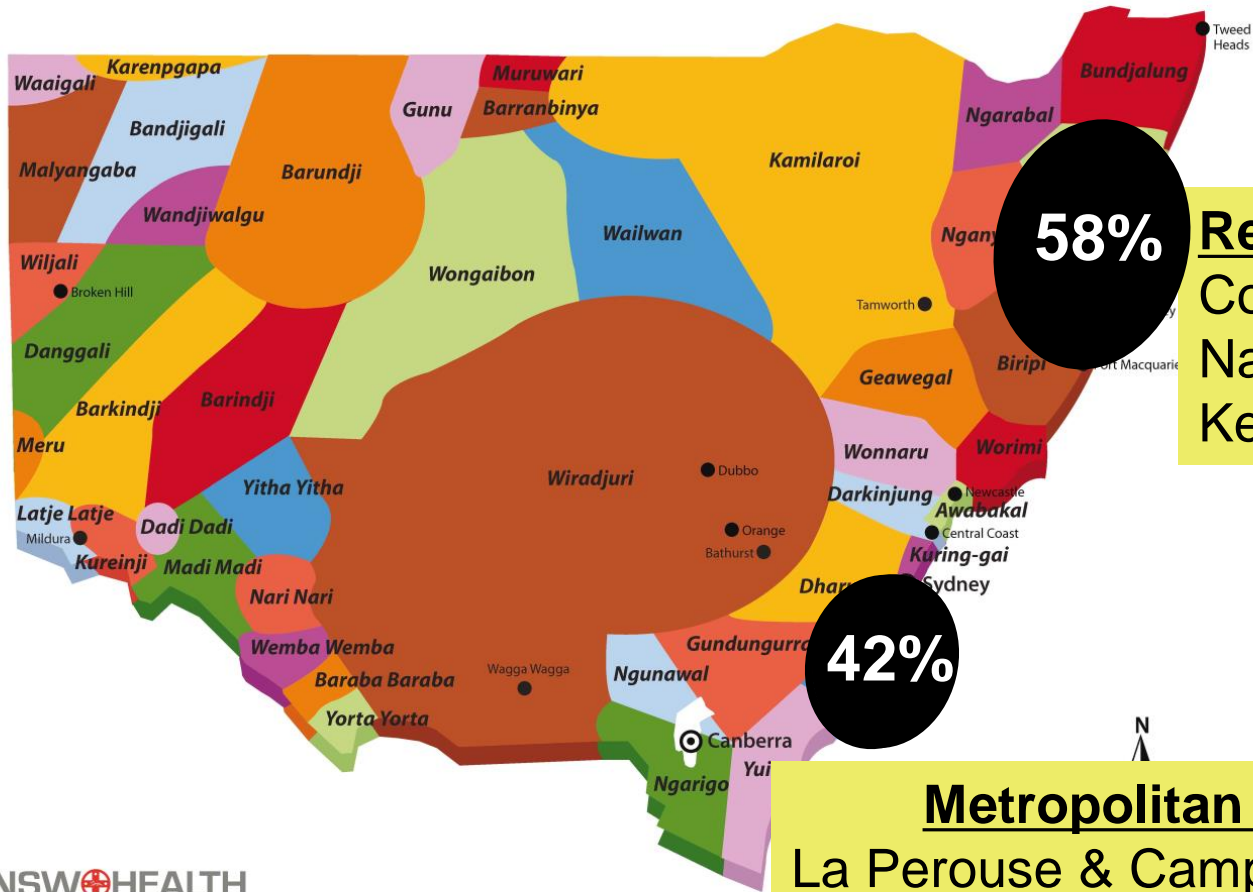
- **Indigenous studies** show imposed **social trauma** – racism, stolen children, ongoing child removal, poor education, unskilled jobs, damage social & emotional well-being
- **KGOWS** has shown that early-life social & emotional trauma & adversity are associated with the high dementia prevalence

* KGOWS Findings need duplication & longitudinal follow-up

KOORI GROWING OLD WELL STUDY

Research Partners – Five NSW urban communities

New South Wales Area Health Services Aboriginal Nations Map



NSW HEALTH

Disclaimer: This map indicates only the general location of larger groupings of people, which may include smaller groups such as clans, dialects, or individual languages in a group. The boundaries are not intended to be exact. This map is not suitable for use in native title or other land claims.

(HSFD) 090021

KGOWS

Koori Growing Old Well Study

NHMRC 510347



Participant Interview

STAGE 2A

KGOWS ID:

Koori Growing Old Well Study (KGOWS; NHMRC 510347)
Participant Survey Stage 2A
Version 33 / 9 December 2011
Revised by: Cecilia Minogue

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Multivariate “Risk Factors” Model

ALL-CAUSE DEMENTIA

Factor	Odds Ratio	95% CI lower	95% CI upper	p
* Age	2.73	1.85	4.02	<.001
Male	1.21	0.56	2.61	.635
Education	0.96	0.67	1.38	.818
* Childhood Trauma	1.64	1.13	2.39	.010
Past Alcohol	2.19	0.97	4.93	.060
* Unskilled Job	2.49	1.16	5.35	.020
*† Late (Biolog) RFs	2.34	1.09	5.01	.029

† History of stroke, TBI &/or epilepsy

Multivariate “Risk Factors” Model

ALZHEIMER’S DISEASE

Factor	Odds Ratio	95% CI lower	95% CI upper	p
* Age	2.73	1.72	4.36	<.001
Male	1.91	0.72	5.08	.193
Education	0.91	0.59	1.42	.689
* Childhood Trauma	1.94	1.22	3.09	.005
Past Alcohol	1.21	0.45	3.26	.701
* Unskilled Job	2.89	1.12	7.47	.028
Late (Biolog) RFs	1.95	0.77	4.92	.158

*History of stroke, TBI &/or epilepsy

Mechanisms?

How may life-course social determinants?

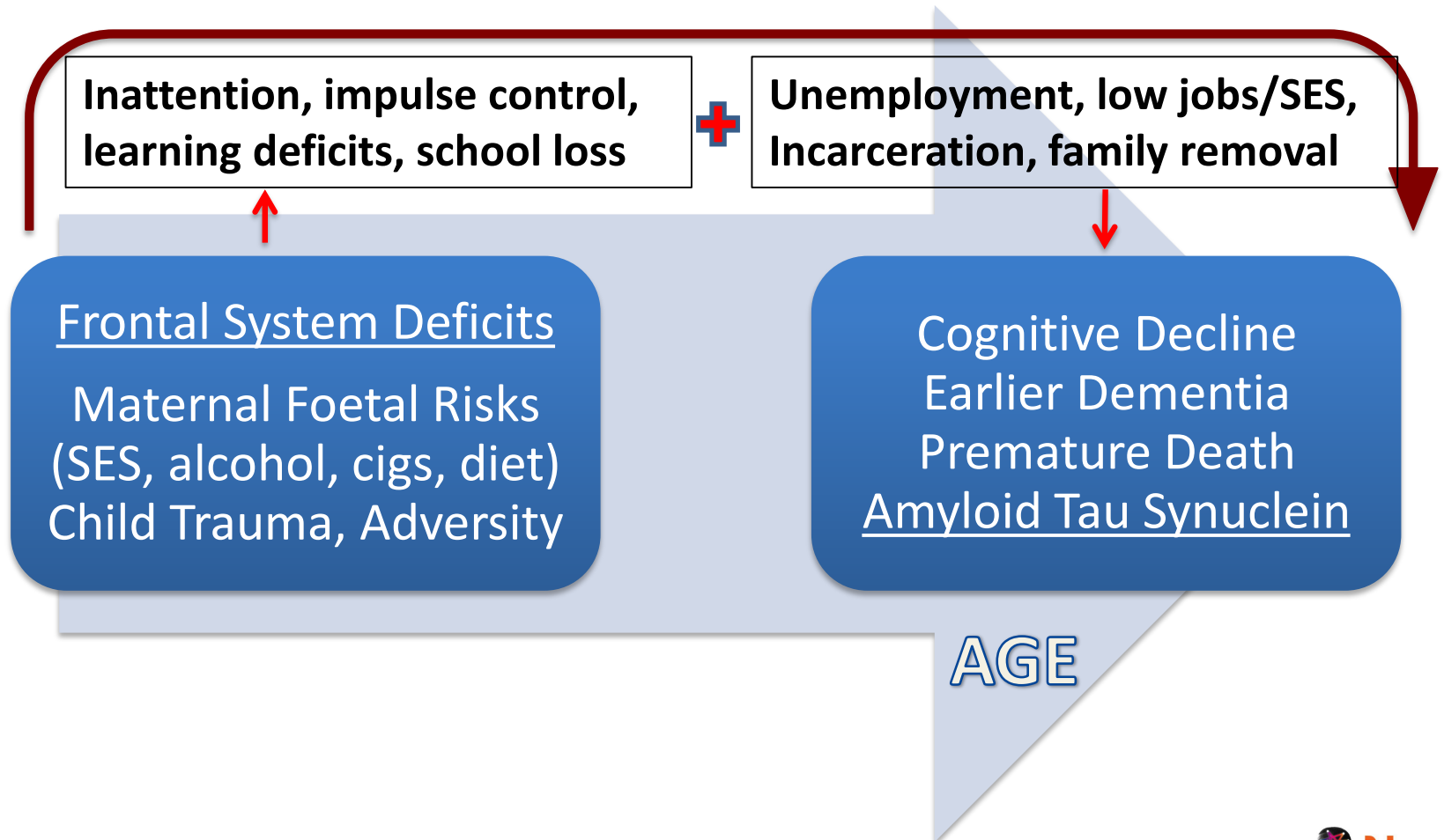
- Impair children's brain growth & function
- Generate adult risk & impair adult brains
 - Accelerate late life dementia
 - Reduce lifespan

Brain Mechanisms?

- **Child & Lifespan trauma, inequality, adversity**
 - Reduce Frontal attention & concentration
 - Reduce working memory & ability to learn
 - Poor impulse control & Behaviour
 - Structural brain changes
- **Consequences**
 - Reduced school attendance & performance
 - Reduced skilled-job capacity
 - Impaired social & emotional well-being
 - Decreased adult neuroplasticity - brain growth

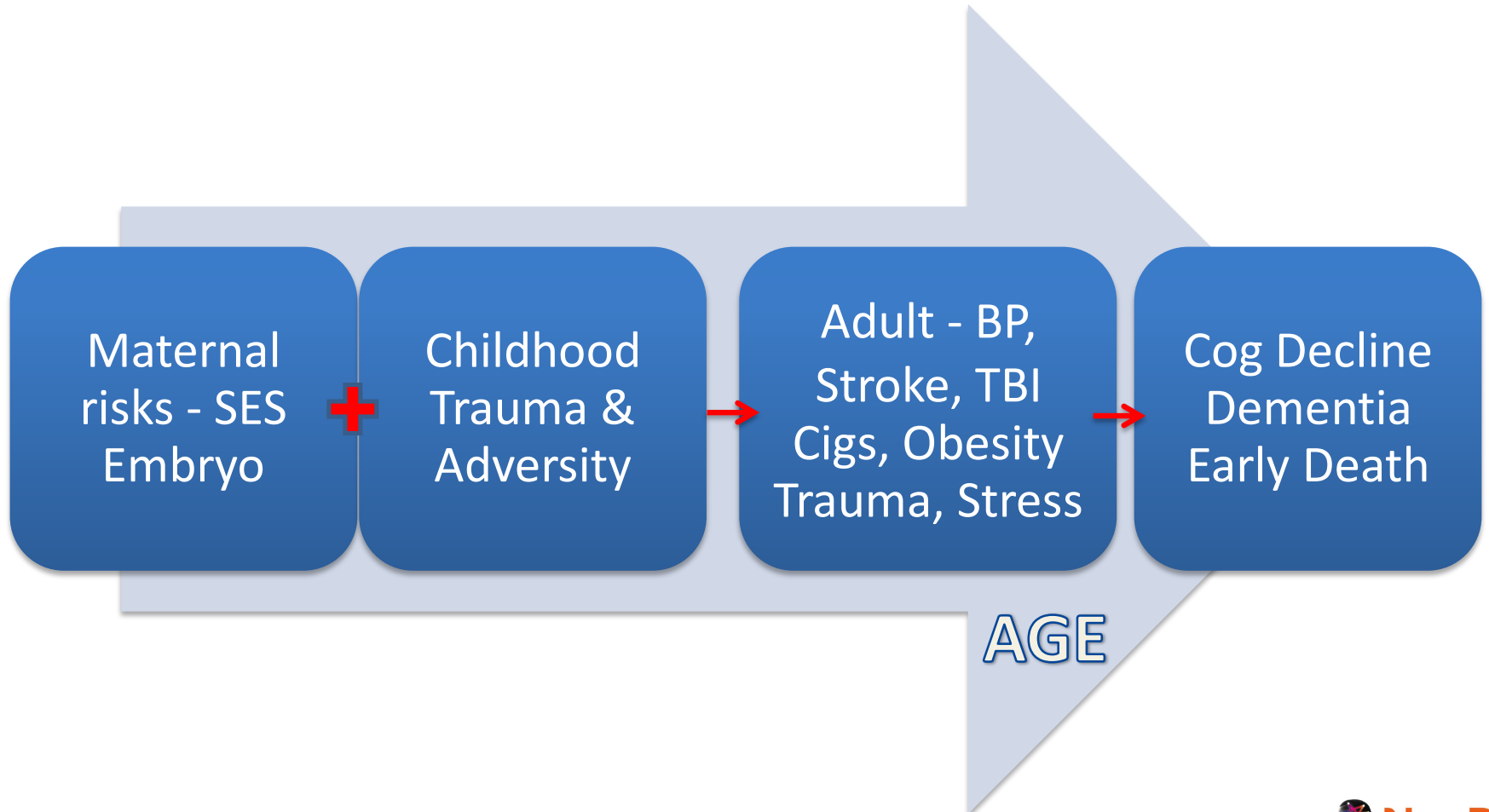
Two Multiple Risk Factor Models

1. Life-course Impairment of Brain Growth



Second Multiple Risk Factor Model

2. Life-course Cumulative Risks



Strategies to close the Indigenous lifespan gap, improve health & prevent dementia?

- **Traditional biomedical Public Health approaches** to chronic diseases of later life are stalling at average Indigenous lifespan of ~70 years - while non-Indigenous lifespan is 82 years & rising: Campaigns on cigs, alcohol, hypertension, obesity, hearts, diabetes, vascular risks are **essential but not sufficient**
- We need to **add a Life-course Public Health** approach: Early brain growth (via maternal & parental support) & Lifelong brain neuroplasticity (via trauma reduction, education, emotional well being, mental health) - **enhance Physical Outcomes** - healthy ageing, longevity, dementia prevention

Life-course Public Health

Proposals: Promote Brain Growth over the life-course

Attitude Change – Key to Aboriginal health is white mainstream Public & Govt. support for **self-determination and community control** of the trauma imposed on Aboriginal people by ‘settlers’

Education - The 19-20th C. revolution in education – in access, quality & methods - is not reaching many Aboriginal Australians

Parenting – A 20th C. parenting revolution to *love, empathy & support* has not reached stolen gen Aboriginal mothers

Jobs - Aboriginal people - **given training** – are in the box seat for skilled jobs in aged, disability & health care; Environment care etc

We need to combine **Classic Public Health** campaigns (cigs, alcohol, cardio-metabolic risks) with a life-course social context

Uluru Declaration & Self-determination

Recognition of the Causes of ongoing Lifespan Trauma
Support self-determination as path to control Trauma

Lifespan Trauma & Stress

Invasion, loss of land, killings, racism,
Govt. policies - terra nullius, protection,
child removal, faulty criminal justice

Uluru Declaration - Self-determination

Recognise the Traditional Owners
Recognise 'settler' role in the Stress
Achieve a consensus in a Referendum

Growing Older

Take home messages

- **Aboriginal Australians** experience a life-course of trauma & adversity from settler society
- **Rising public recognition & respect** for our First People needs to translate to **Government action**
- **Growing** brains well - foetal, infant, child, teens - sets adults up for a long healthy older age
- **Life-cycle Public Health** - control of trauma across the life-course - to better grow our brains for healthy ageing - applies to all people & cultures

La Perouse Aboriginal Community

Health-Link Advisory Group - 2003



South Eastern Sydney Area Health Service staff who attended the recent Health Workers' Conference in Adelaide

Acknowledgments & Thanks

- Our Aboriginal Communities and Partners
 - *La Perouse Land Council*
 - *La Perouse ACHC*
 - *Tharawal AMS*
 - *Durri AMS*
 - *Booroongen Djugun Kempsey*
 - *Galambila AMS*
 - *Daarimba Maarra AHC*
 - *local Elders Groups and Aboriginal Guidance Groups*
- *Our Participants*
- *Our Research teams*
- The NHMRC and AHMRC
- Department of Health and Ageing
- Ageing Disability & Home Care NSW

