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Health equity as equality, or health equity as an asset?

Martin Laverty

Royal Flying Doctor Service
The furthest corner. The finest care.

Far North Queensland remote school participation

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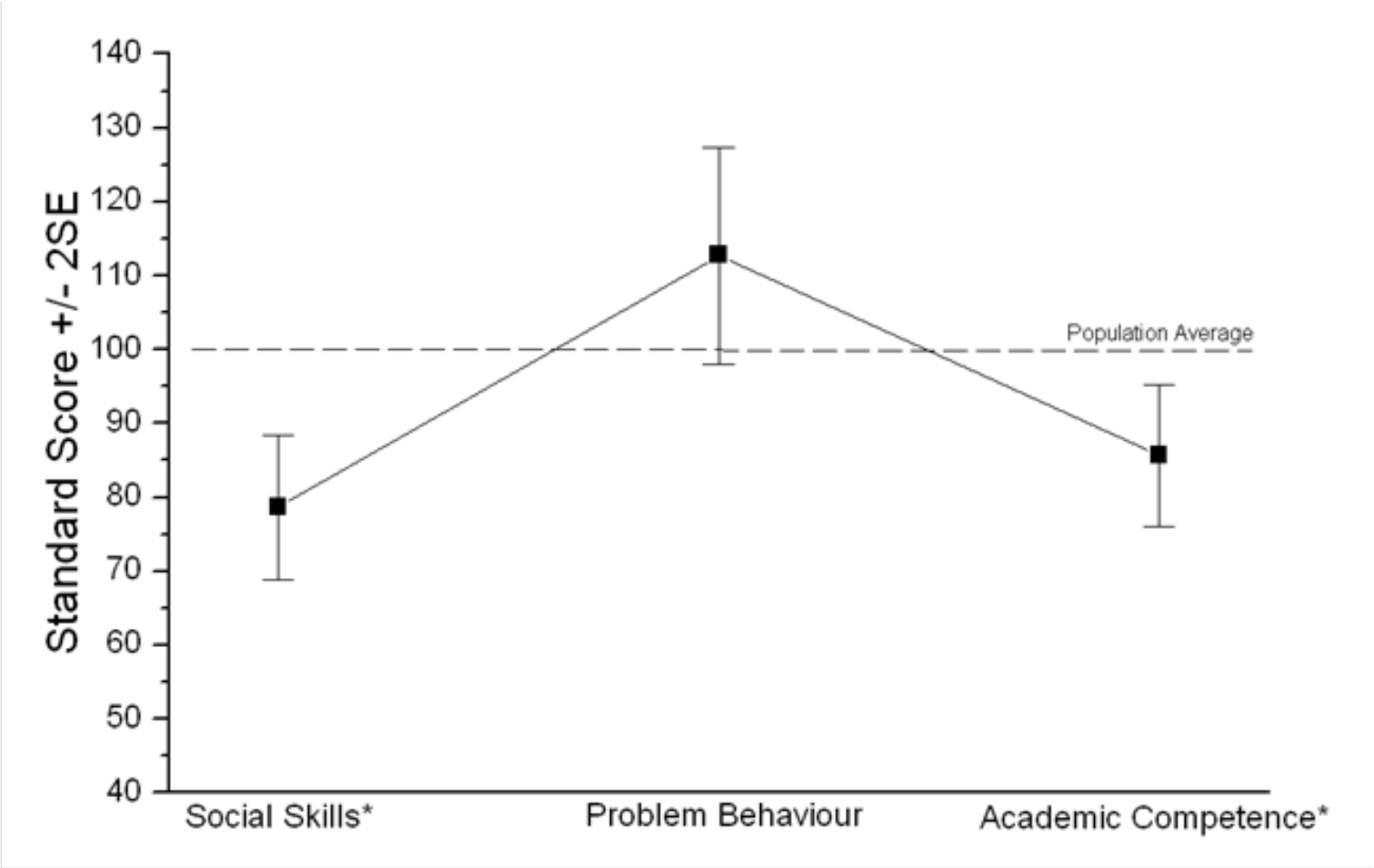

Social Skills Improvement System Rating Scale (SSIS) results
derived from teacher assessment of student participants at RFDS
Well Being Centre program in Far North Queensland

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Australian health outcome by educational attainment

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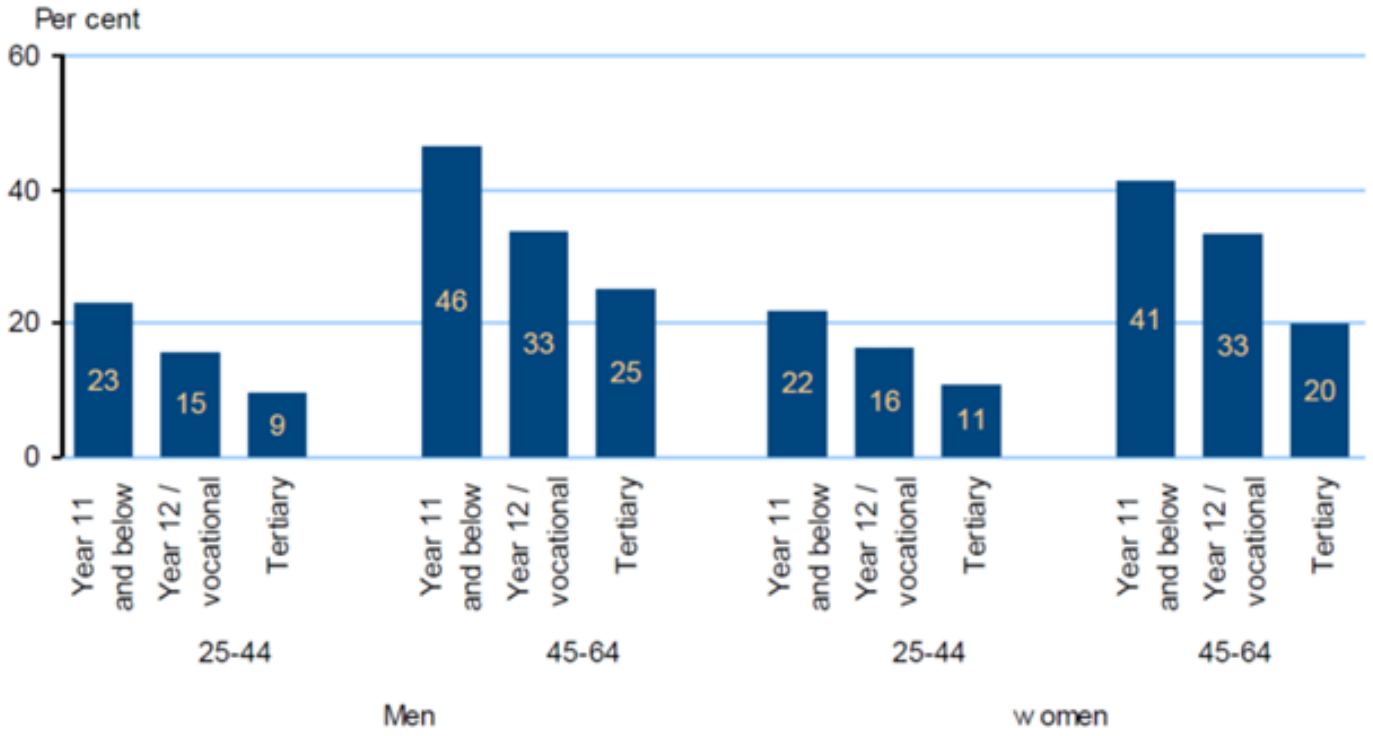
Figure 11 Per cent of persons reporting a long-term health condition, by sex, age and education



Source: HILDA Wave 8 datafile.

CHA-NATSEM, *Health lies in wealth*, September 2010

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Swedish life expectancy by educational attainment

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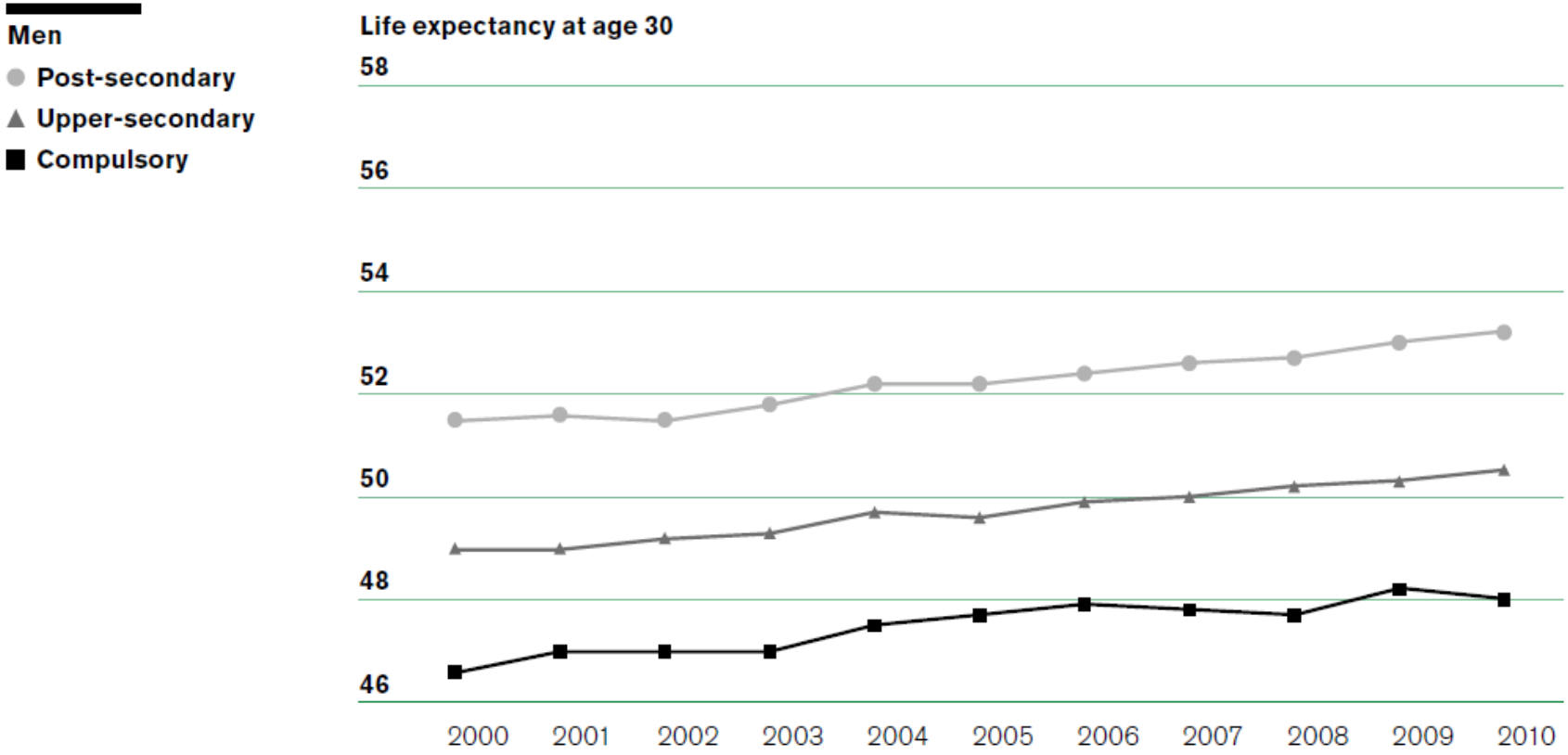

Statistics Sweden, (2011), Life expectancy in Sweden 2001-2010

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World Health Organisation

2008 Commission on Social Determinants

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"The structural determinants such as **safe pregnancy**, **early childhood** experiences, **educational attainment**, **secure employment**, safe **housing**, and **conditions of daily life** constitute the social determinants of health and are responsible for a major part of health inequalities.

There is **no necessary biological reason why there should be a difference in life expectancy** between social groups in any given country. Change the social determinants of health and there will be dramatic improvements in health equity."

Source: WHO Commission on Social Determinants of Health *"Closing the Gap"* 2008.

Global wealth & health disparities

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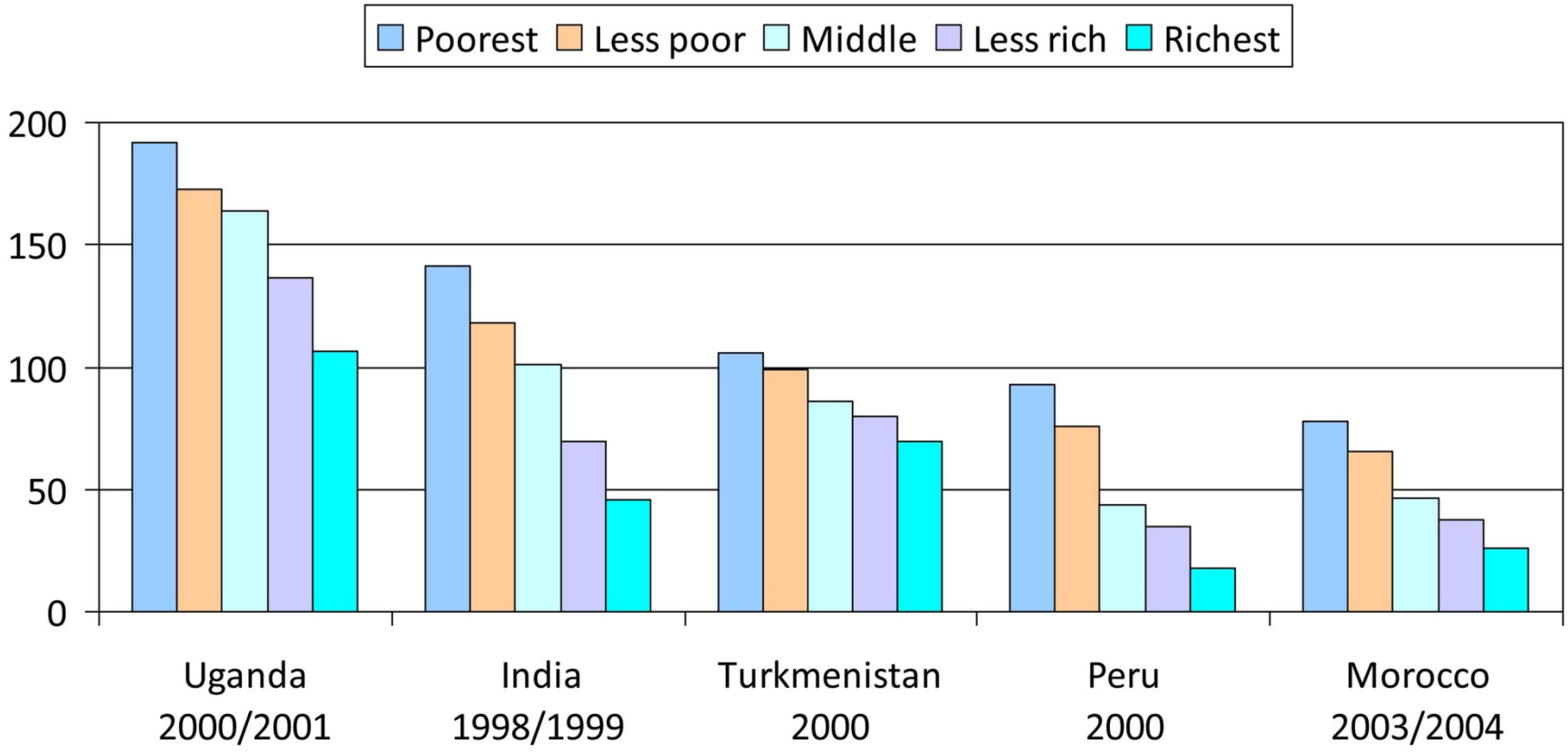
Under 5 mortality rate per 1000 live births by level of household wealth



Source: WHO Commission on Social Determinants of Health, (2008) Closing the Gap within a generation.

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Socioeconomically disadvantaged Australians die on average 3 years before more affluent Australians

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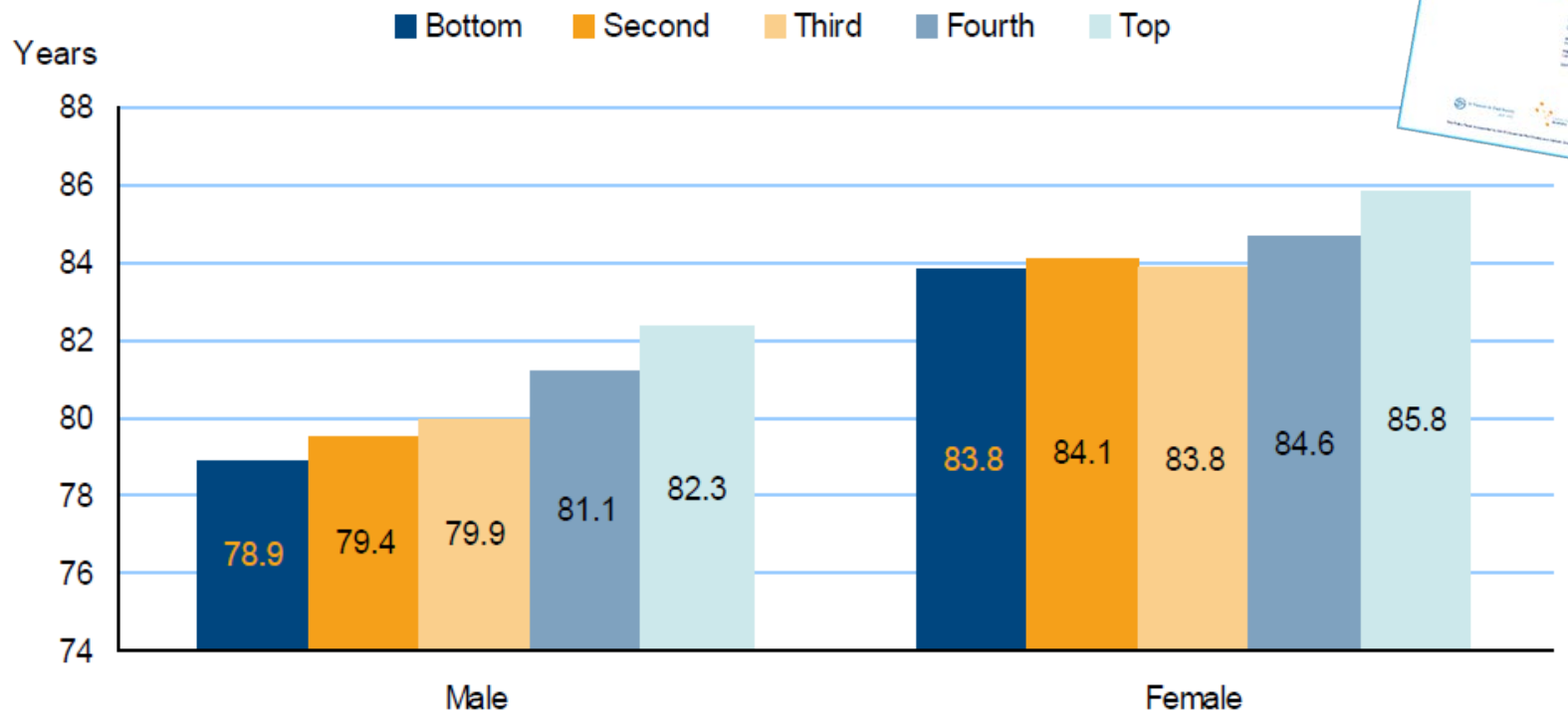
Figure 1 Life expectancy at birth by quintiles of Index of Relative Socioeconomic Disadvantage, Victoria, 2003-2007



Source: CHA-NATSEM, *Health lies in wealth,* September 2010

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Cardiovascular disease: City v Bush

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METROPOLITAN VS. REGIONAL/REMOTE

	Population Aged 18+ ('000)	% of people with diseases of the circulatory system
Total New South Wales	**5,544.8**	**22.5**
Sydney - Total	3,296.2	19.9
Rest of NSW - Total	2,248.6	26.3
Total Victoria	**4,316.9**	**20.6**
Melbourne - Total	3,013.3	19.3
Rest of Victoria - Total	1,303.6	23.6
Total Queensland	**3,388.1**	**21.7**
Brisbane - Total	906.4	18.1
Rest of Qld - Total	2,481.7	23.0
Total South Australia	**1,260.7**	**22.6**
Adelaide - Total	990.1	21.3
Rest of SA - Total	270.6	27.4
Total Western Australia	**1,747.0**	**18.6**
Perth - Total	1,331.0	16.8
Rest of WA - Total	416.0	24.4
Total Tasmania	**382.3**	**28.0**
Hobart - Total	166.6	27.6
Rest of Tasmania - Total	215.7	28.3
Total Australian Capital Territory	**278.3**	**22.4**
Australian Capital Territory	278.3	22.4
Total Australia	**17,042.2**	**21.5**

Heart Foundation analysis of ABS Australian Health Survey Data 2011/12, released 14 August 2014

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Diabetes disparity: City v bush

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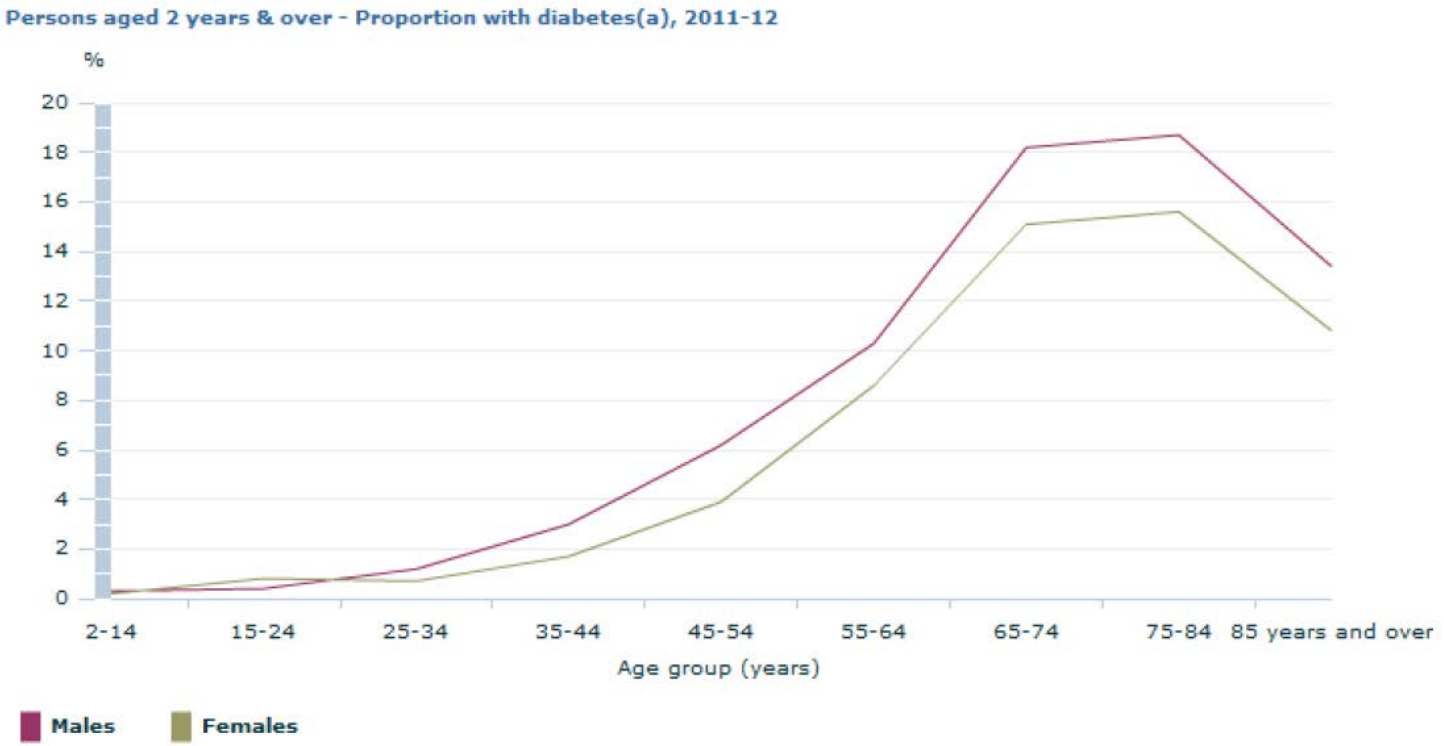

In 2011/12, 1 million or 4.6% of Australians aged over 2 years had diabetes. People living in **areas of the most disadvantage were more than 2 times likely to have diabetes** than those living in areas of least disadvantage. People living in **remote Australia were 3.7 times more likely** to have diabetes.

Source: Australian Bureau of Statistics, Australian Health Survey: Update Results 2011-12

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What if low SES group had average health?

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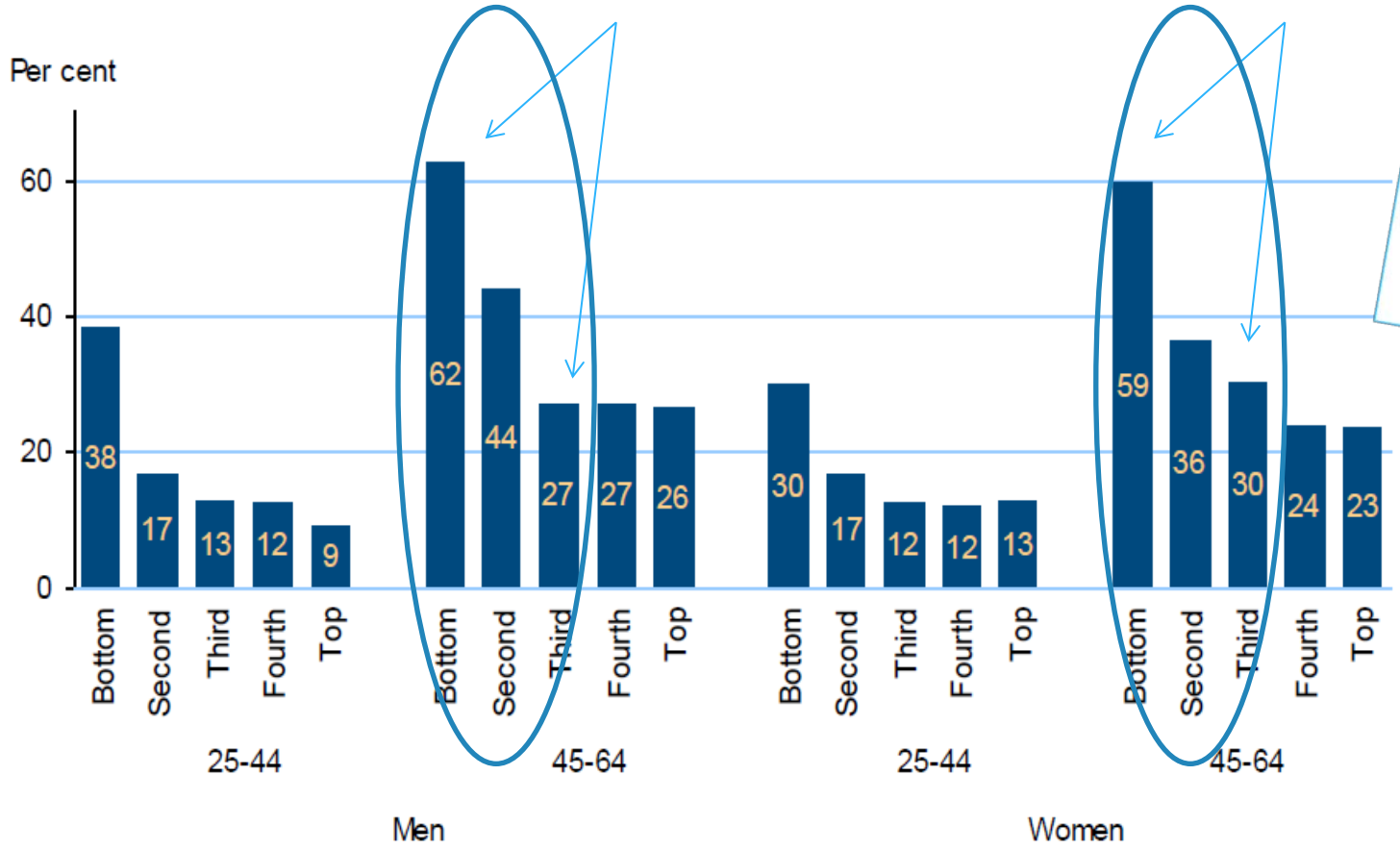
Figure 9 Per cent of persons reporting a long-term health condition, by sex, age and income quintile



Source: HILDA Wave 8 datafile.

Source: CHA-NATSEM, *Health lies in wealth,* September 2010

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CHA-NATSEM: Cost of inaction

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- 500,000 Australians could avoid suffering a chronic illness;
- 170,000 extra Australians could enter the workforce, generating $8 billion in extra earnings;
- Annual savings of $4 billion in welfare support payments could be made;
- 60,000 fewer people would need to be admitted to hospital annually, resulting in savings of $2.3 billion in hospital expenditure;
- 5.5 million fewer Medicare services would be needed each year, resulting in annual savings of $273 million;
- 5.3 million fewer Pharmaceutical Benefit Scheme scripts would be filled each year, resulting in annual savings of $184.5 million each year.

Before acting, what's the evidence to decide how to act?

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"The social determinants evidence base is dominated by descriptive, epidemiological studies that, by highlighting associations, are only implicitly able to suggest possible interventions. For example, studies consistently show associations between higher job control and better mental health; by implication, therefore, interventions that increase job control should result in health improvements. What is lacking though is further evidence about **what sort of interventions might be required** or whether they will actually be effective in improving health or reducing the social gradient."

Source: Bambra, C., Gibson, M., Sowden, A., Wright, K., Whitehead, M., & Petticrew, M, (2010), *Takling the wider social determinants of health and health inequalities: evidence from systematic reviews,* J Epidemiol Community Health, 64:284-291

Traditional health prevention activity and healthy food interventions typically produce small effects

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Michie et al considered **what physical activity and healthy eating behaviour change interventions are effective**

Meta-analysis review of **122 studies** on physical activity and healthy eating behaviour change to determine what of 26 different interventions were effective

Found **interventions typically produce small effects**, with passive provision of information the least effective in achieving behaviour change

Five self-regulation techniques, derived from **control theory** found more effective:

(1) prompt intention formation or goal setting
(2) specify goals in relation to contextualised actions
(3) active self-monitoring of behaviour
(4) feedback on performance
(5) review previously-set goals

Michie S, Abraham C, Whittington C, McAteer J, Gupta S, (2009) *Effective techniques in healthy eating and physical activity interventions: a meta-regression,* Health Psychol;28(6):690-701

Social media efficacy

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- Internet and **social media campaigns are increasingly used** to deliver health behaviour change interventions
- Meta-analysis of 85 studies involving 43,236 participants utilisng web-delivered
- **Interventions had statistically small effect** on health-related behaviours; interventions based on self regulation theory were more impactful
- Effectiveness of internet based interventions enhanced by additional communications providing performance feedback, affirming role of control theory in health behaviour change

Webb TL, Joseph J, Yardley L, Michie S, (2012), *Using the internet to promote health behaviour change: a systematic review and meta-analysis of the impact of theoretical basis, use of behaviour change techniques, and mode of delivery on efficacy,* J Med Internet Res;12(1):e4.

See Salad, Eat Fries: Why Healthy Menus Backfire

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- Consumers' food choices differ when healthy items are included in a choice set compared with when they are not available.

- Consumers are more **likely to make indulgent food choices when a healthy item is available compared to when it is not**.

- Goal-activation explains findings: mere presence of the healthy food option vicariously fulfills nutrition-related goals and provides consumers with a license to indulge.

Wilcox K, Vallen B, Block L, Fitzsimons GJ, (2009), *Vicarious goal fulfillment: when the mere presence of a healthy option leads to an ironically indulgent decision*, J Consum Res, 36(3):380–93.

Social determinant actions

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Determinant	Study	Intervention	Outcome
Education	Dahlgren G, Whitehead M. (2007), *European strategies for tackling social inequities in health: levelling up*, Part 2. Copenhagen: WHO Regional Office for Europe.	Vocational education programs targeted at long term unemployed	Qualifications improved chances of secure employment for long term unemployed with observed improvements in health status
Housing	Acevedo-Garcia D, Osypuk TL, Werbel RE, et al. (2004), *Does housing mobility policy improve health?* Housing Policy Debate, 5:49-98.	"Social" changes (rent assistance so that low income families can choose where to live, eg, public/private)	Improvements reported in terms of overall health, distress and anxiety, depression, problem drinking, substance abuse and exposure to violence.
Transport	Pilkington P, Kinra S. (2005), Effectiveness of speed cameras in preventing road traffic collisions and related casualties: systematic review. Br Med J, 330:331-4.	Fixed or mobile speed cameras	Reduction in road traffic collisions and casualties, with the reduction in the vicinity of the camera ranging from 5% to 69% for collisions, 12 to 65% for injuries and 17% to 71% for deaths.

Bambra, C., Gibson, M., Sowden, A., Wright, K., Whitehead, M., & Petticrew, M., (2010), Tackling the wider social determinants of health and health inequalities: evidence from systematic reviews, *Journal of Epidemiology of Community Health,* 64:284-291.

GP screen for poverty

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Three ways to address poverty in primary care: 123

1. SCREEN

Poverty is not always apparent... we can't make assumptions

Poverty is everywhere ... In Ontario 20% of families live in Poverty.

Poverty affects health on a gradient: There is no health poverty line. Income negatively affects the health of all but the highest income patients.

Screen everyone!!!

"Do you ever have difficulty making ends meet at the end of the month?"

(Sensitivity 98%, Specificity 64% for living below the poverty line)

2. ADJUST RISK

Factor poverty into clinical decision-making like other risk factors. Consider the evidence:

Cardiovascular disease:

- Prevalence: **17% higher** rate of circulatory conditions among lowest income quintile than Canadian average.
- Mortality: If everyone had the premature mortality rates of the highest income quintile there would be **21%** fewer premature deaths per year due to CVD.

Diabetes:

- Prevalence: Lowest income quintile **more than double** highest income (10% vs. 5% in men, 8% vs. 3% in women).
- Mortality: Women **70% higher** (17 vs. 10/105); men **58% higher** (27 vs. 17/105).

Mental Illness

- Prevalence: Consistent relationship between low SES and mental illness, e.g. depression **58% higher** below the poverty line than the Canadian average.
- Suicide: Attempt rate of people on social assistance is **18 times higher** than higher income individuals.

Cancer:

- Prevalence: **Higher** for lung, oral (OR 2.41), cervical (RR 2.08).
- Mortality: **Lower 5-year survival** rates for most cancers.
- Screening: Low income women are **less likely to access** mammograms or Paps.

Other chronic conditions:

- Prevalence: **Higher** for hypertension, arthritis, COPD, asthma. higher risk of having multiple chronic conditions.
- Mortality: **Increased** for COPD.

Infants:

- Infant mortality: **60% higher** in lowest income quintile neighbourhoods
- Low birth weight: If all babies in Toronto were born with the low birth weight rate of the highest income quintile there would be **1,300** or **20%** fewer singleton LBW babies born per year.

Highest risk groups:
Women, First Nations, people of colour, LGBT.

Growing up in Poverty:

We must intervene to improve income early.

Growing up in poverty has been associated with increased adult morbidity and mortality resulting from: stomach, liver, and lung cancer; diabetes; cardiovascular disease; stroke; respiratory diseases; nervous system conditions; diseases of the digestive system; alcoholic cirrhosis; unintentional injuries; and homicide.

Some examples of how the evidence might change your practice:

1. If an otherwise healthy 35 year old comes to your office, without risk factors for diabetes other than living in poverty, you consider ordering a screening test for diabetes.
2. If an otherwise low risk patient who lives in poverty presents with chest pain, this elevates your pre-test probability of a cardiac source and helps determine how aggressive you are in ordering investigations

3. INTERVENE

7 simple questions to help patients living in poverty

FOR EVERYBODY:

Have you filled out and mailed in your tax forms?

- Tax returns are essential to access many income security benefits e.g. GST / HST credits, Child Benefits, working income tax benefits, and property tax credits.
- Even people without official residency status can file returns.
- **Drug Coverage:** Extended Health Benefits or Trillium for those without a Ontario Drug Benefits.

For seniors living in poverty:

Do you receive Old Age Security and Guaranteed Income Supplement?

- Most people over age 65 who live in poverty should receive at least **$1400/month** in income through OAS, GIS and grants from filing a tax return.

For families with children:

Do you receive the Child Benefit on the 20th of every month?

- This can get some low income single parents over **$8000 more per year**, and can lead to a number of other income supports.

For people with disabilities:

Do you receive payments for Disability?

- Eight major disability programs: ODSP, CPP Disability, EI, Disability Tax Credit (DTC), Veterans benefits, WSIB, Employers' long term protection, Registered Disability Savings Plan (RDSP).
- The DTC requires a health provider to copmlete the application form. It provides **up to $1100 per year** in tax savings (plus retroactive payments), and is required to receive other benefits including the RDSP.
- RDSP: **Up to 300%** matching funds. Or disability bonds **up to $20 000** for those without resources to save money.

For First Nations:

Are you Status Indian?

- First Nations with the Status designation may qualify for Non-Insured Health Benefits through the federal government. These pay for drugs and other extended health benefits not covered by provincial plans

For social assistance recipients:

Have you applied for extra income supplements?

- Mandatory Special Necessities Benefits (*MDs bill K054 for $25*):
  - Medical supplies and health-related transportation (includes e.g. AA, psychotherapy).
- Limitation to Participation (*MDs bill K053 for $15*): Disability can exclude a recipient from mandatory job search and training programs.
- Special Diet Allowance (*MDs bill K055 for $20*): some health conditions will qualify a recipient for extra income.
- Other benefits available: Employment supports, Drug & Dental, Vision, Hearing, ADP Co-payment, Community Start Up & Maintenance, Women in Transition/Interval Houses, Advanced age allowance, Community Participation ($100 per month extra for volunteering). "Discretionary Benefits".

Applications and benefits available through a patient's OW/ODSP worker

If you might qualify, have you applied for ODSP?

- ODSP application (MDs bill K050 for $100): provide as much information as possible, including about the impact of a person's disability on their lives.
  - Include all collateral, expedite necessary referrals, and write a detailed narrative on the last page. Consider obtaining a detailed functional assessment, and having an allied health provider assist with filling in details.
- If denied, refer to nearest legal clinic – acceptance rates on appeal are very high.

www.cleo.on.ca/english/pub/onpub/PDF/socialAsst/ods-prof.pdf for a good ODSP tip sheet for health professionals.

Remember:

Health providers are not the gatekeepers for income security programs. Our job is to provide complete and detailed information that accurately portrays our patients' health status and disability.

For references, please visit
www.ocfp.on.ca/cme/povertytool

Acute system response to Indigeneity

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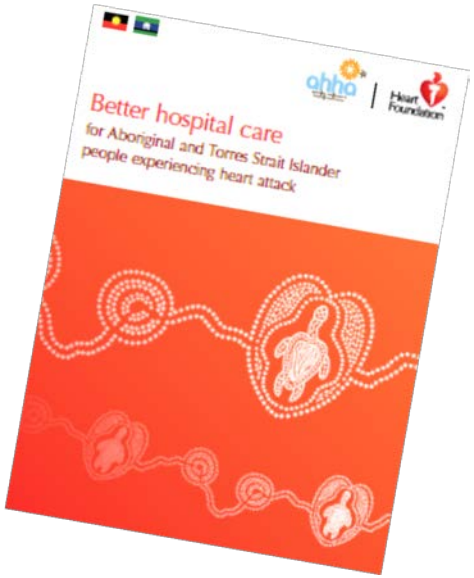

When in hospital, compared with other Australian patients, Indigenous Australians have:

- twice the in-hospital coronary heart disease death rate
- 40% lower rate of angiography
- 40% lower rate of coronary angioplasty or stent procedures
- 20% lower rate of coronary bypass surgery.

15 practical clinical reforms outlined to reverse post admission health outcome disparity focused on more effective continuum of care.

Source: AHHA/Heart Foundation, (2010), *Better hospital care for Aboriginal and Torres Strait Islander people experiencing heart attack.*

Labor/Liberal/Greens Senate Inquiry recommendations of March 2013

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- The committee recommends that the Government **adopt the WHO Report** and commit to addressing the social determinants of health relevant to the Australian context.

- The committee recommends that the government adopt administrative practices that ensure **consideration of the social determinants of health in all relevant policy** development activities, particularly in relation to education, employment, housing, family and social security policy.

- The committee recommends that the government place **responsibility for addressing social determinants of health within one agency,** with a mandate to address issues across portfolios.

- The committee recommends that the NHMRC give greater emphasis in its grant allocation priorities to **research on public health and social determinants research.**

- The committee recommends that **annual progress reports to parliament be a key requirement** of the body tasked with responsibility for addressing the social determinants of health.

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