

# ACES



Adverse Childhood Experiences  
Ensuring a better deal for children in Wales

**Professor Mark A. Bellis**

Director of Policy, Research and International  
Development

Public Health Wales

**Email:** [mark.bellis@wales.nhs.uk](mailto:mark.bellis@wales.nhs.uk)



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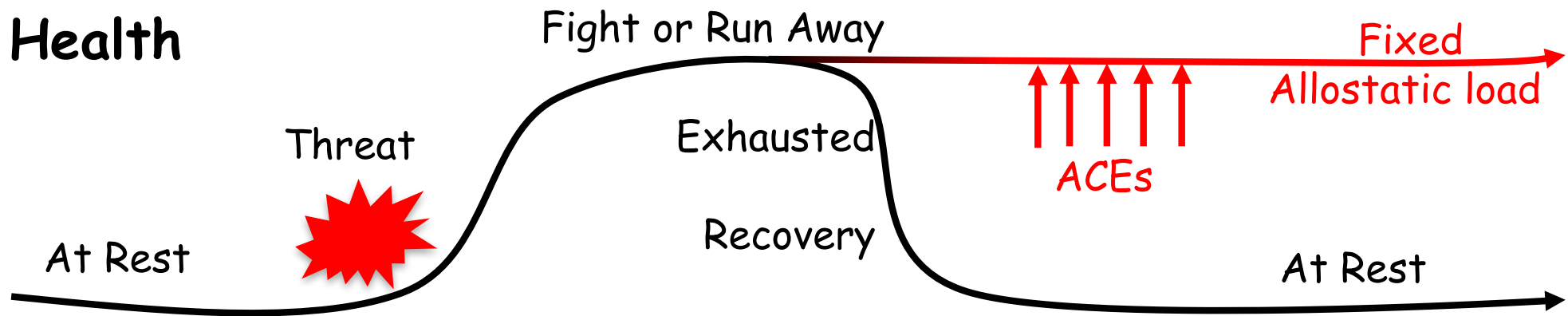
# Early Life Experience and The Brain



## Childhood

- First 2 years - baby's brain grows from 25% to 80% of adult size
- Critical restructuring continues through childhood for *empathy, trust, community*

## Health



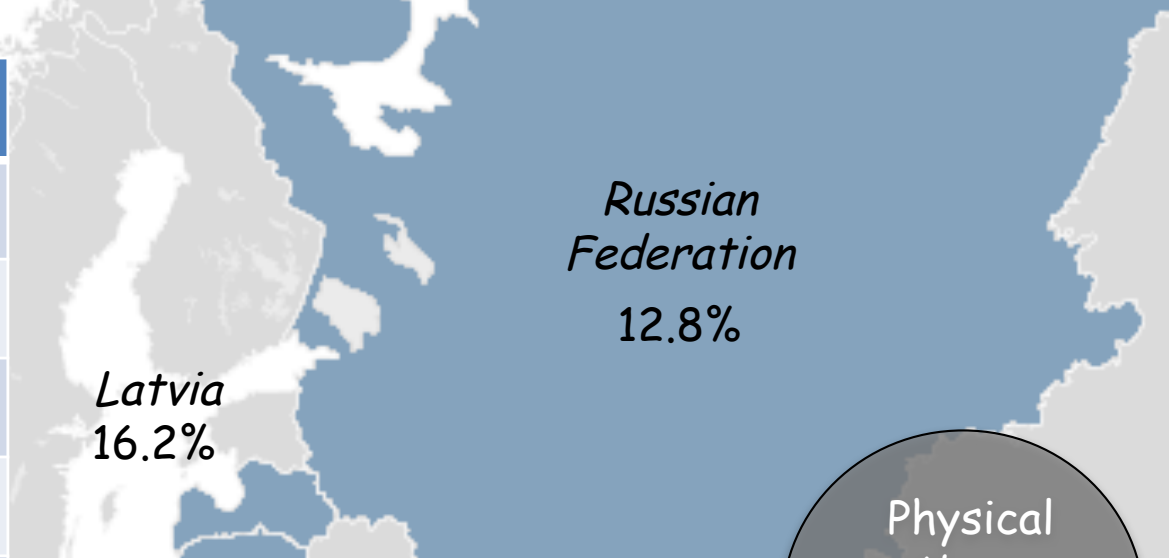
## Chronic Stress from ACEs

- Violence - over-develop 'life-preserving' brain  
**NEUTRAL CUES LOOK THREATENING**
- School - anxious, disengaged, poor learner

# How many people suffered ACEs 0-18 years old?

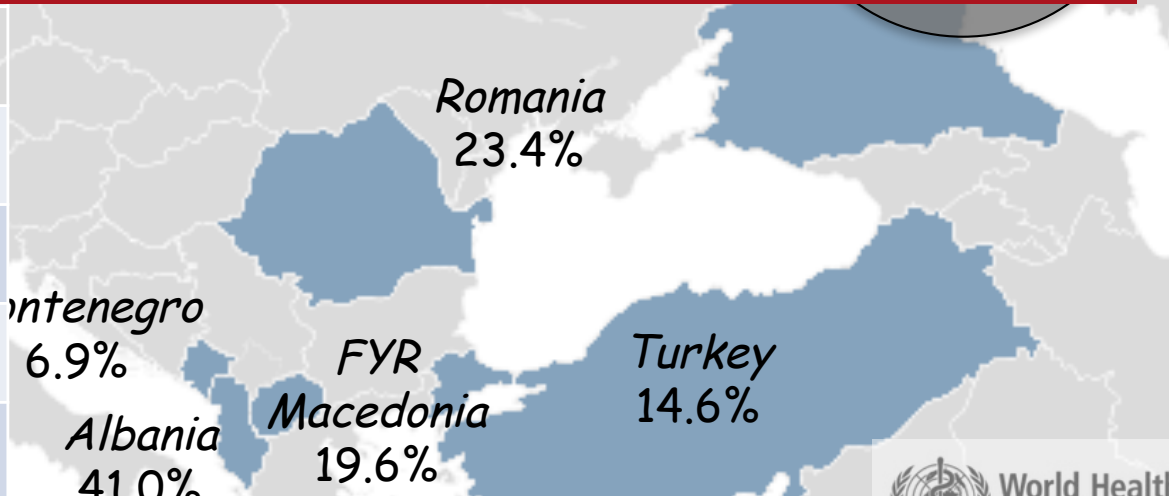
European Survey of students 18-25 years old (n=10,696)

ACE are:	Wales	E. Europe
Physical abu	17%	18.6%
Sexual abus	10%	7.5%
Domestic vic	16%	14.6%
Parental sep	20%	14.1%

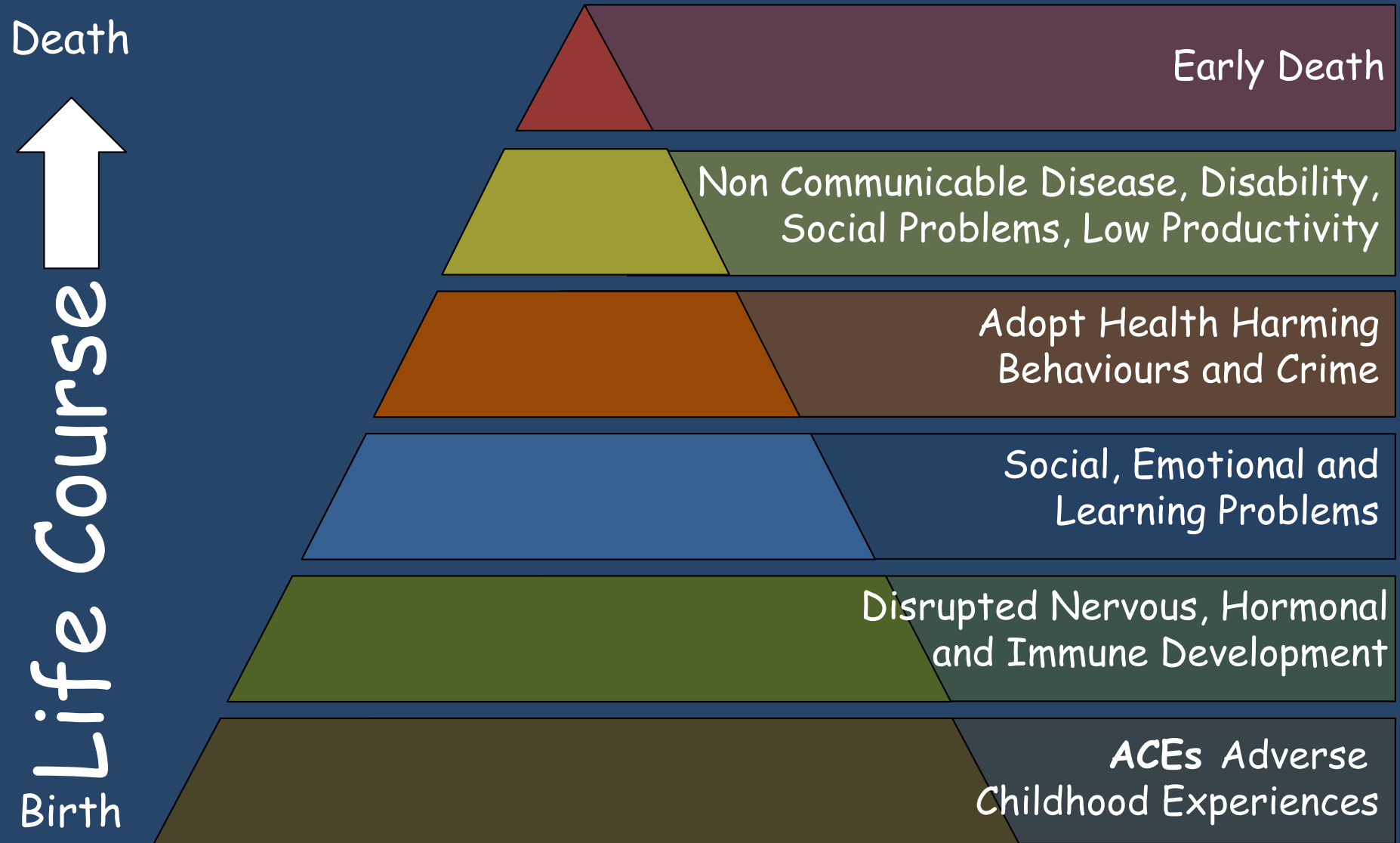


**In Wales 47% adults suffered at least one ACE, 14% 4+ ACEs during their childhood**

Household member:	Wales	E. Europe
Depressed/s	14%	10.0%
Alcoholic	14%	16.4%
Incarcerate	5%	5.3%
Street drug	5%	2.6%



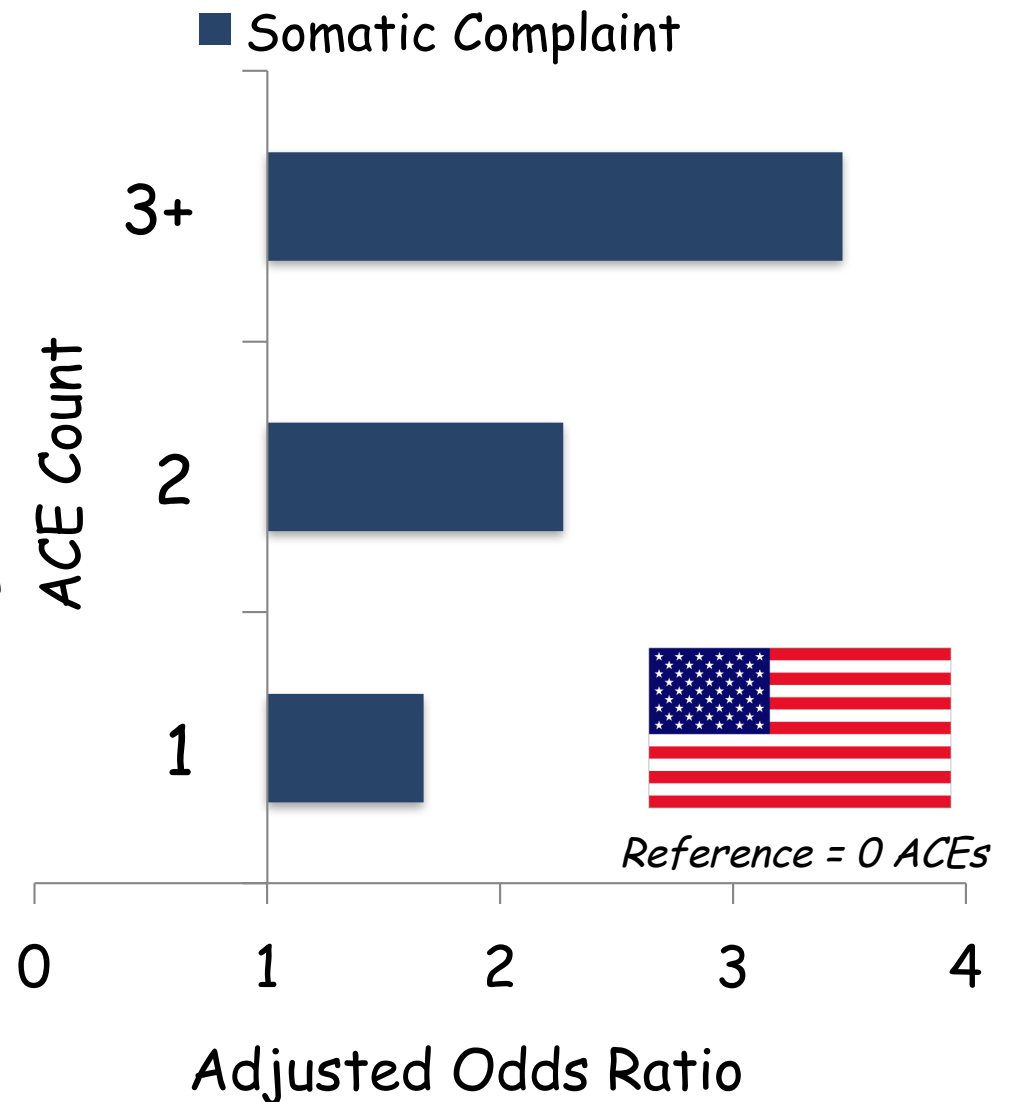
# Adverse Childhood Experiences ACEs - The Life Course





# Early Adolescence and Concurrent ACEs (Age 13-14 years)

- Somatic complaints
  - Digestive problems, vomiting, headaches, skin disorders
  - Frequent with often no medical explanation
- Underlying Cause
  - Stress /emotional factors



## National Study of ACEs in Wales (18-69 years)

Compared with people with no ACEs, those with 4+ ACEs were:



4

times more likely to be a high risk drinker

6

times more likely to have had or caused a teenage pregnancy

15

times more likely to have committed violence in last 12 months

16

times more likely to have used crack cocaine or heroin

20

times more likely to have been incarcerated in their life

INDEPENDENT OF POVERTY

# Preventing ACEs in Wales could reduce



**Heroin/crack cocaine use (lifetime) by 66%**



**Incarceration (lifetime) by 65%**



**Violence perpetration (past year) by 60%**



**Violence victimisation (past year) by 57%**



**Cannabis use (lifetime) by 42%**



**Unintended teen pregnancy by 41%**



**High-risk drinking (current) by 35%**



**Early sex (before age 16) by 31%**



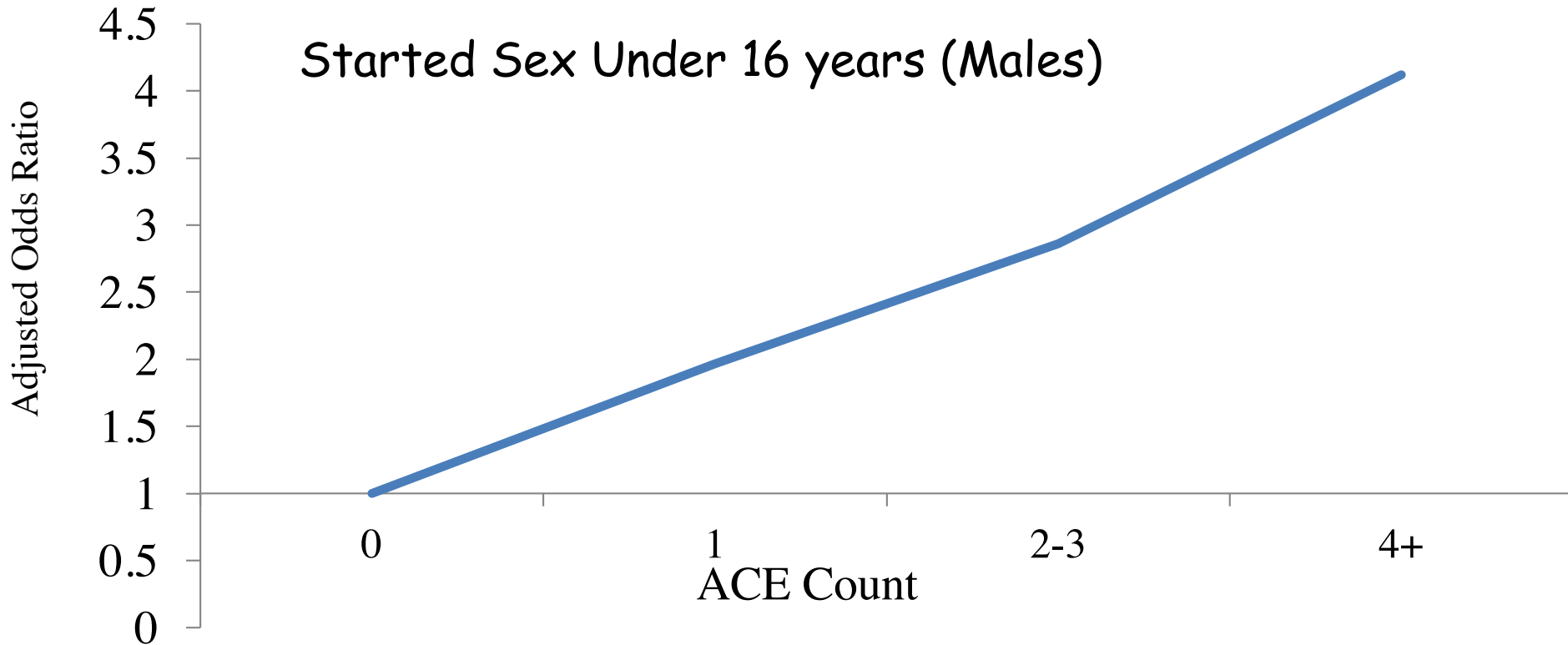
**Smoking tobacco or e-cigarettes (current) by 24%**



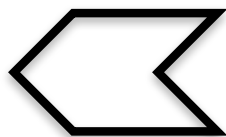
**Poor diet (current; <2 fruit & veg portions daily) by 16%**

**in adults aged 18-69 years**

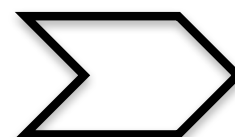
# ACEs Life Cycle - Children having Children



**4+ ACES vs. 0 ACES**  
 Mother  $\leq 18$  years when born



**4+ ACES vs. 0 ACES**  
 Got a girl pregnant when under 18 years



**4+ ACES vs. 0 ACES**  
 First child born under 18 years





# Cycles of Violence

18-29 year olds

*With no ACEs*

3% had hit someone in the last 12 month

*With 4 or more ACEs*

30% had hit someone in the last 12 month





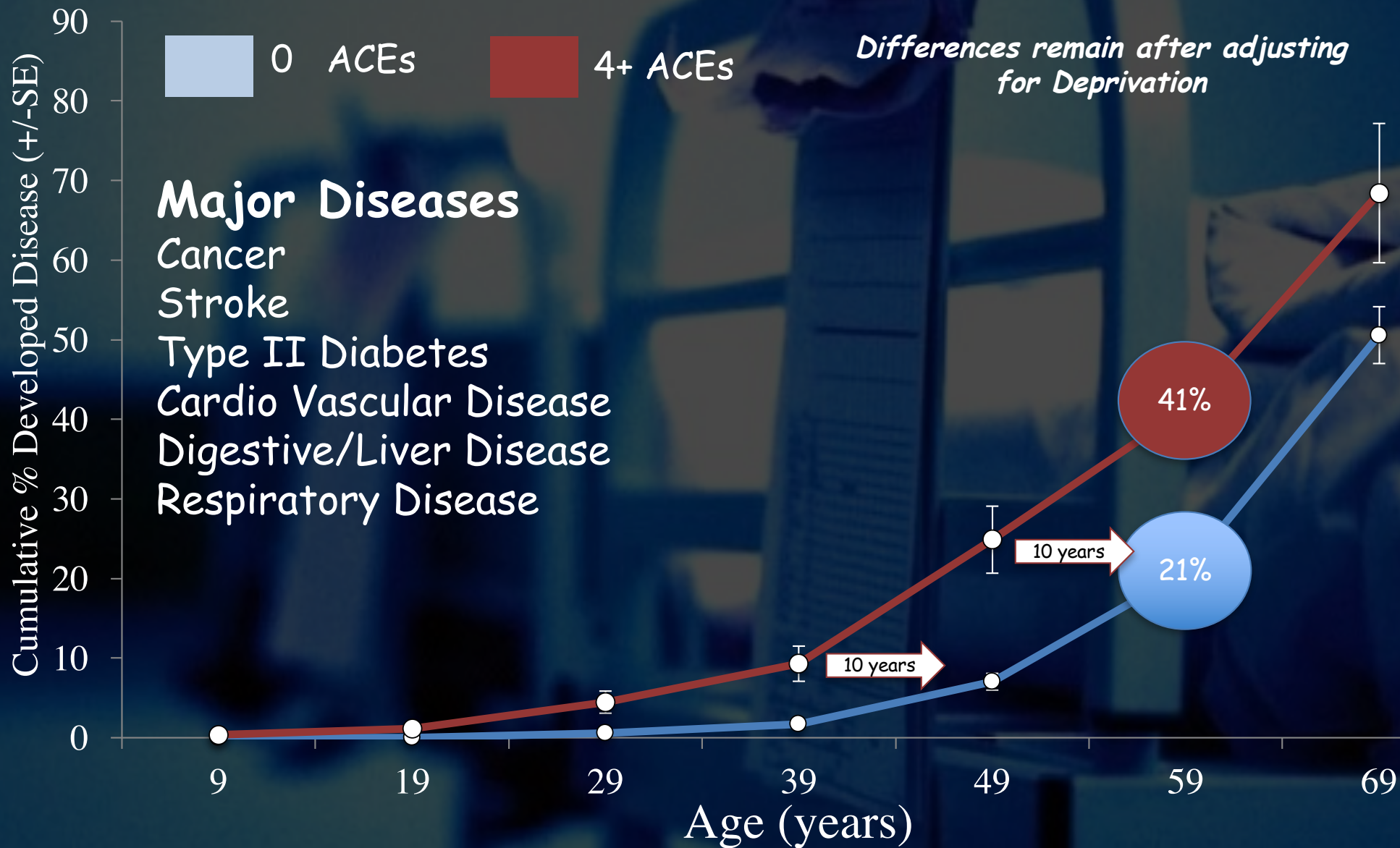
# Prevalence of Low mental well-being in adults by the number of ACEs suffered in childhood

**Over the past two weeks, compared to people with no ACEs, those with 4+ ACEs were also:**

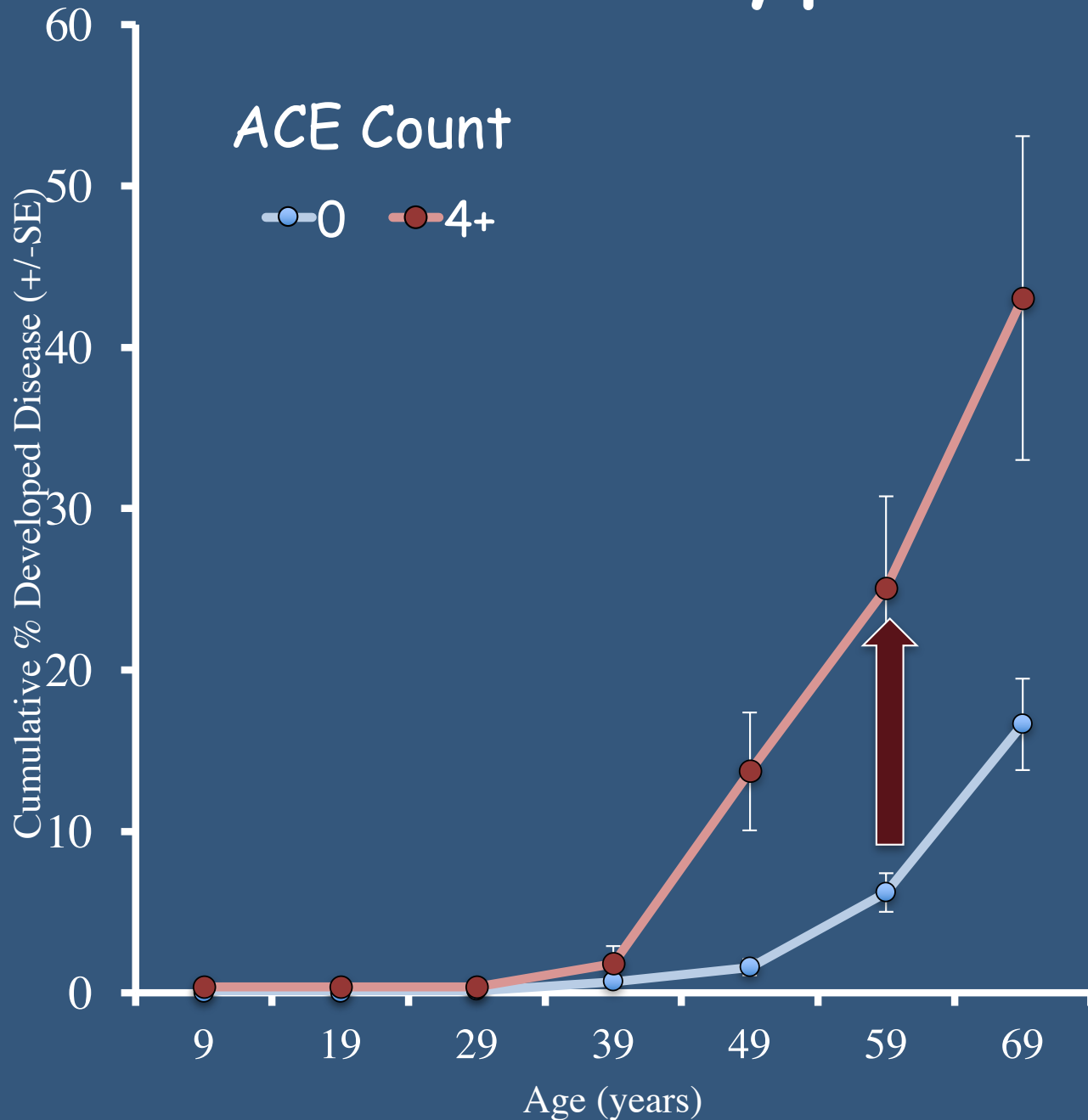
- 3 times more likely** to have never or rarely felt relaxed
- 3 times more likely** to have never or rarely felt close to other people
- 4 times more likely** to have never or rarely been thinking clearly
- 5 times more likely** to have never or rarely to have dealt with problems well
- 5 times more likely** to have never or rarely been able to make up their own mind about things
- 6 times more likely** to have never or rarely felt optimistic about the future
- 6 times more likely** to have never or rarely felt useful

# Wales: Length of Healthy Life

Individuals Diagnosed with a Major Disease by Age (%)



# Diabetes Type 2



4 or more vs.  
No ACEs



**4x**  
more likely to develop  
**Diabetes (Type 2)**

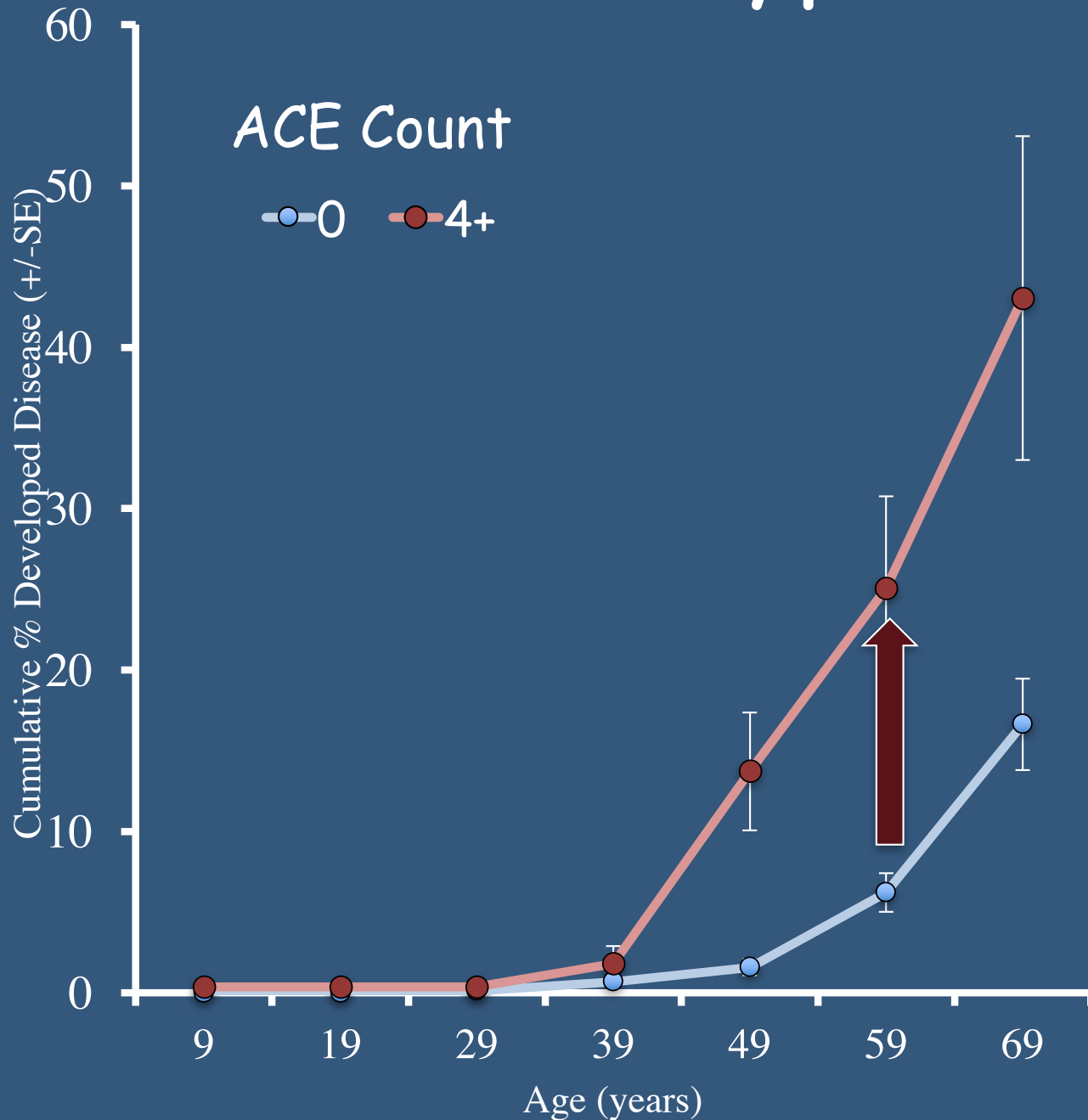


**3x**  
more likely to develop a  
**Respiratory Disease**



**3x**  
more likely to develop  
**Heart Disease**

# Diabetes Type 2



4 or more vs.  
No ACEs

**3x**



more likely to have  
attended A&E

**2x**



more likely to have  
frequently visited a GP\*\*

**3x**



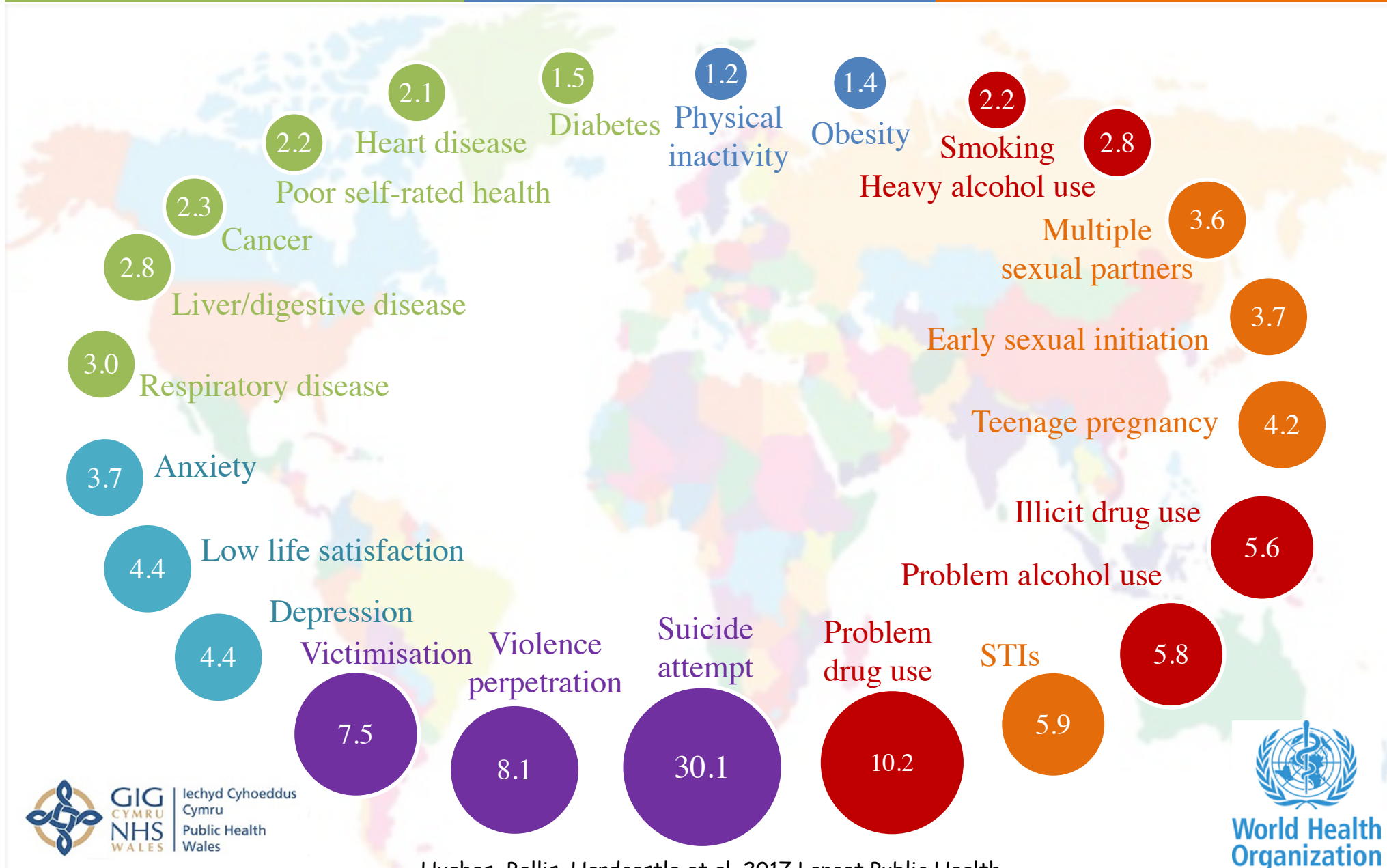
more likely to have stayed  
overnight in hospital

# Research Impact – Collaborative Global Analysis with WHO

PHYSICAL HEALTH

WEIGHT & EXERCISE

SEXUAL HEALTH



Hughes, Bellis, Hardcastle et al, 2017 Lancet Public Health

MENTAL HEALTH

VIOLENCE

SUBSTANCE USE

# Policy



Llywodraeth Cymru  
Welsh Government

## Prosperity for All: the national strategy

Taking Wales Forward

### Five Cross Cutting Priorities

#### Early Years

##### Vision

We want children from all backgrounds to have the best start in life. Our aim is that everyone will have the opportunity to reach their full potential and lead a healthy, prosperous and fulfilling life, enabling them to participate fully in their communities and contribute to the future economic success of Wales.

There is substantial evidence to suggest that delivering the right support for all children, particularly those from deprived backgrounds, is the best means of breaking the poverty cycle, and raising aspiration and attainment for everyone. This underpins our central ambition of creating prosperity for all, reducing inequality, and promoting well-being. Investing in early years is an investment in the economy and workforce of the future. By tackling problems early, we are far more likely to stop children encountering difficulties at a later stage, when they can be much harder to solve.

##### Childhood

The first few years of a child's life are critical to laying the foundation for lifelong well-being. They determine how well children perform in school, how well they relate to others, and ultimately shape the adult they become. A series of **adverse** childhood experiences (ACEs) can have a devastating effect on development. This is why it is so important to lay successful foundations from the earliest age.

##### Parenting

Confident, positive and resilient parenting is fundamental to preparing children for life. Parents have by far the greatest influence on their children, but it can at times be an overwhelming experience. This is when help and support needs to be on hand, in order to help them create supportive and enriching environments for their children. Our approach is shaped by the understanding that needs vary between people, and vary over time.

##### Inequality

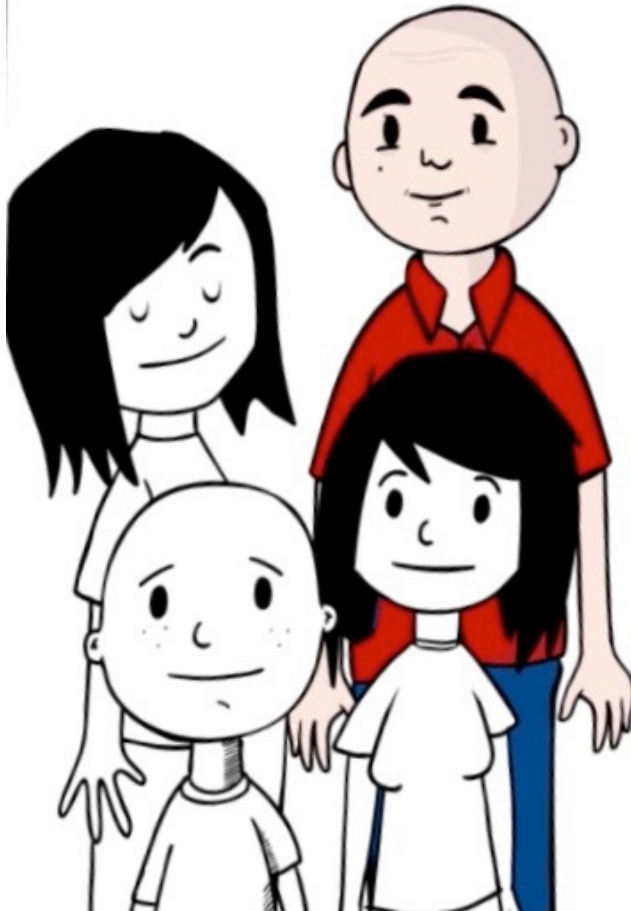
There are still significant gaps between the educational performance of different groups of children, with persistent under-achievement by those from more deprived and disadvantaged backgrounds. These are children who will benefit most from a concerted programme of support to give them the best start – an advantage they will carry with them for the rest of their lives.

We will:

- build on our current early years programmes and create a **more joined-up, responsive system that puts the unique needs of each child at its heart**.
- ensure that the early years provision in the new curriculum **builds strong key skills, and embeds health awareness, well-being and resilience** in children from the earliest stage.
- ensure **consistent regulation and delivery of pre-school provision**.
- deliver **extended, coherent support for parenting**, drawing together family support programmes, focused on positive parenting and early intervention.
- provide working parents of 3 and 4 year olds with **30 hours of free education and childcare** for up to 48 weeks a year, delivered in a way that works for parents and children.
- legislate to **ban the physical punishment** of children.
- create **'ACE aware' public services** which take a more preventative approach to avoid ACEs and improve the resilience of children and young people.
- pilot **Children First areas, to support the better integration of services** to reduce the numbers of ACEs and improve the resilience of children and young people.

# Wales ACE Hub

# Preventing ACEs - Supporting Parents



**Nurse Home Visiting**

**Parenting Programmes**

**Preschool Enrichment**

↓ Child maltreatment  
↓ Child injury



↑ High School completion



↓ Violent offences  
↑ Employment in mid 20s

First 1000 Days -



**Cymru Well Wales**



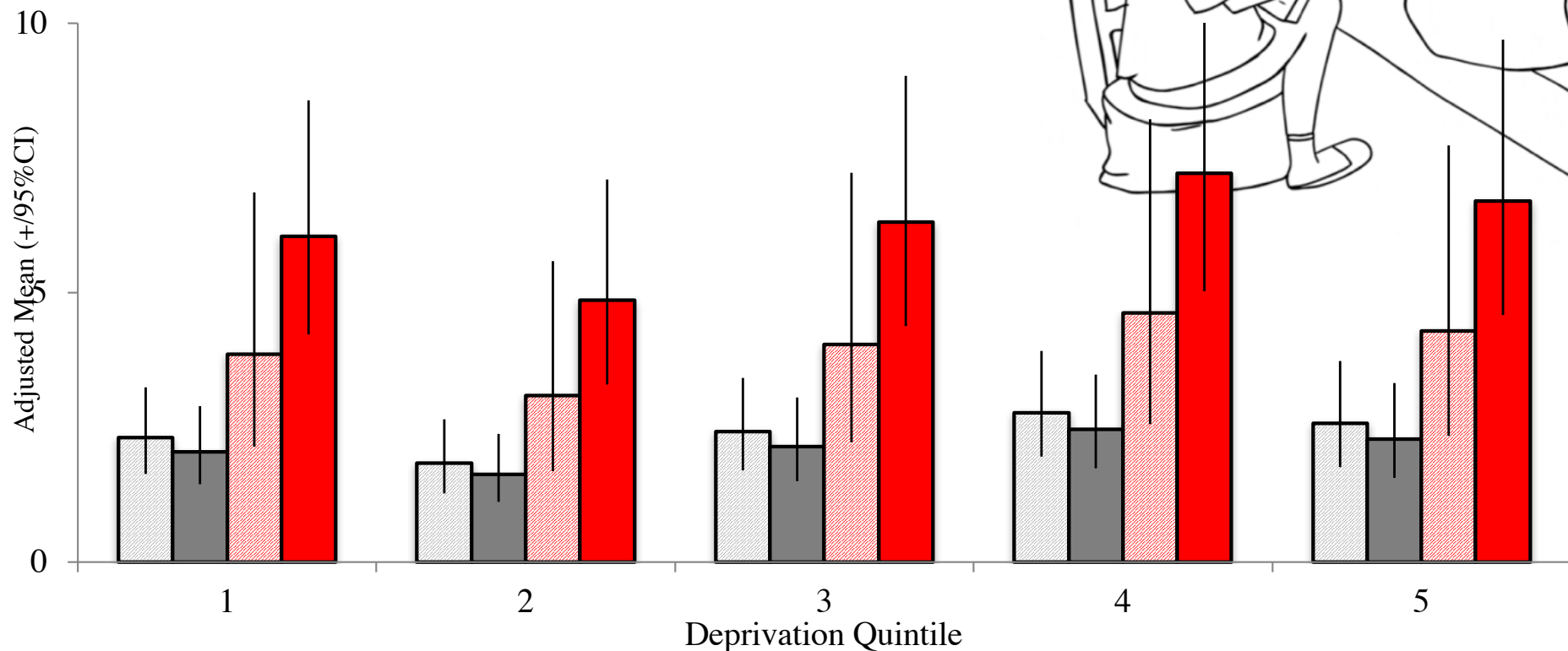
# Building Blocks of Resilience



# Weekly Heavy Drinking

## ACEs and AAA (Always Available Adult) Status

- 0 ACEs, Always trusted adult
- 0 ACEs, Not always trusted adult
- ≥4 ACEs, Always trusted adult
- ≥4 ACEs, Not always trusted adult



Percentages are calculated using estimated marginal means function and are adjusted through logistic regression modelling for confounding from other variables in the model

Bellis et al. *BMC Psychiatry*, 2017, 17:110 DOI 10.1186/s12888-017-1260-z

Feel you can overcome hardship  
and guide your destiny

Grounded in cultural traditions  
'Connected'

Equipped to manage your  
behaviour and emotions

One or more stable, caring  
child-adult relationship



## Welsh ACE Resilience Survey 2017 (n=2500)

Childhood Resilience Factors, Adult Resilience Factors,  
Adult Support in Childhood, Trust in services, Financial Security

# Resilience Building - ACEs in Challenging High Schools

Example from Washington State Family Policy Council

- **ACEs**
  - 1/3 of class had 4+ ACEs
  - Best predictor of health, attendance, behaviour
  - Educational success related more to ACEs than income
- **Change**
  - Public Health and others inform staff about impacts of ACEs



# Developing Trauma informed Services

- Pre-examination completed ACE survey
- At examination asked, *How have ACEs affected you in later life?*
- Results
  - General Practice ↓35%; Emergency Department ↓11%

## Trauma Informed Practice

- Workforce Development
- Trauma Screening
- Practice Change
- Inter-Agency Working



# ACEs and the Police

- 9 in 10 police contacts complex welfare, safety & vulnerability



Police and Public Health Wales  
Memorandum of Understanding

*...Ensure that from the earliest possible age individuals are supported to follow a health benefiting and crime free life course...*

- Police transformation Fund
  - Develop an ACE informed response with Police

# Research: Adverse Childhood Experiences

- Understanding Prevention, Resilience and Trauma Informed services
- Life course research agenda, not just in children
- Impacted by Environment (e.g. poor alcohol control)
- Related to inequalities
- Joint agenda for Health, Social, Education and Crime
- Strongly related to Welsh policy – Future Generations
- Requires partnerships with academia and public sector
- A linked bio-medical research agenda is emerging
- Potential to make a remarkable difference to health and well-being



Watch the  
**ACEs**  
Animation  
at  
[www.aces.me.uk](http://www.aces.me.uk)

## Professor Mark A. Bellis

*Director of Policy, Research and International Development  
Public Health Wales*

***e: [m.a.bellis@bangor.ac.uk](mailto:m.a.bellis@bangor.ac.uk)    t: @markabellis***

