Adverse Childhood Experiences (ACEs), public health and early violence prevention

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Hyb ACE Cymru ACE Hub Wales

Adverse Childhood Experiences (ACEs)

- Highly stressful experiences that affect a child directly (e.g. child abuse) or the environment in which they grow up (e.g. domestic violence, caregiver substance abuse)
- One of the strongest predictors of poor health and social wellbeing across the life course
  - Child development
  - Education and employment
  - Health-harming behaviours
  - Violence and crime
  - Physical and mental health
- More ACEs → more risk
- ACEs are preventable & their impacts can be avoided



Adverse Childhood Experiences (ACE) Studies

Child maltreatment	Wales & England
Verbal abuse	20%
Physical abuse	17%
Sexual abuse	7%
Household difficulties	
Parental separation	21%
Mental illness	15%
Domestic violence	15%
Alcohol abuse	12%
Drug use	4%
Incarceration	3%

10 ACE studies, n>28,000 adults, Wales & England

Half of all adults report at least 1 ACE

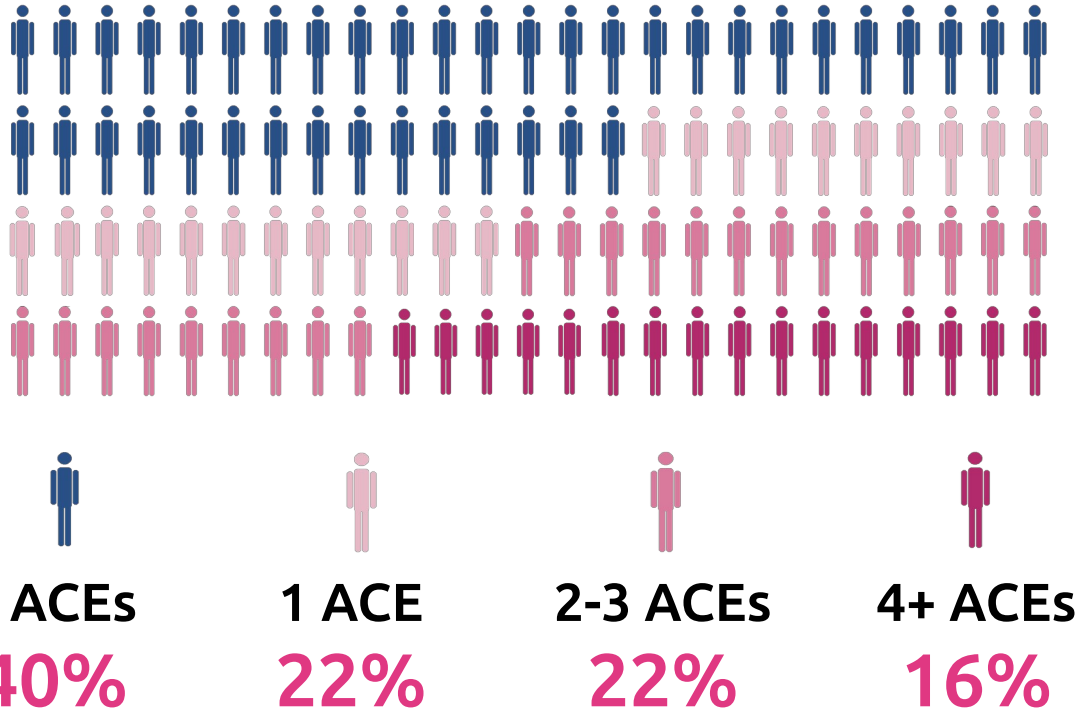


Adverse Childhood Experiences (ACE) Studies

Child maltreatment	Wales & England	Global studies
Verbal abuse	20%	28%
Physical abuse	17%	18%
Sexual abuse	7%	11%
Household difficulties		
Parental separation	21%	24%
Mental illness	15%	17%
Domestic violence	15%	15%
Alcohol abuse	12%	22%
Drug use	4%	
Incarceration	3%	8%

>500,000 adults across 22 countries (Madigan et al, 2023)

>Half of all adults report at least 1 ACE



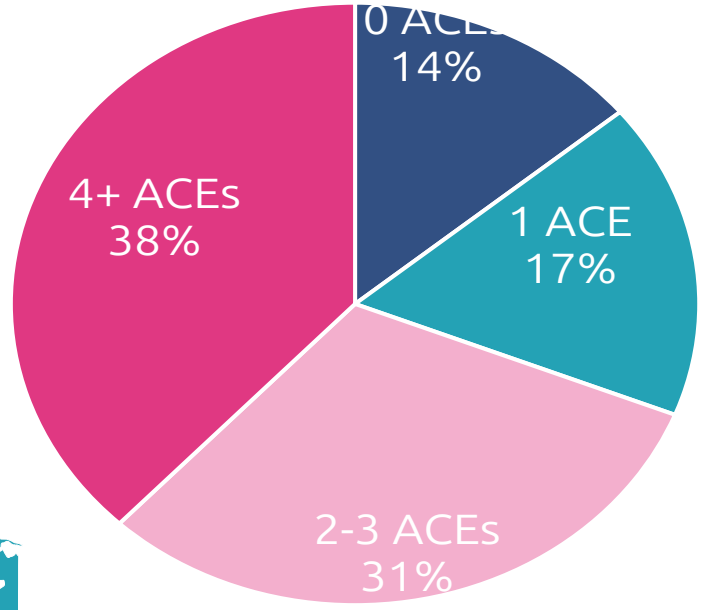
Adverse Childhood Experiences (ACE) Studies

Child maltreatment	Wales & England	Global studies	Chile
Verbal abuse	20%	28%	41%
Physical abuse	17%	18%	42%
Sexual abuse	7%	11%	14%
Household difficulties			
Parental separation	21%	24%	43%
Mental illness	15%	17%	14%
Domestic violence	15%	15%	52%
Alcohol abuse	12%	22%	22%
Drug use	4%		
Incarceration	3%	8%	6%

2,101 adults across Chile (Santelices et al, 2024)

- Emotional neglect
- Physical neglect
- Bullying
- Community violence
- Collective violence

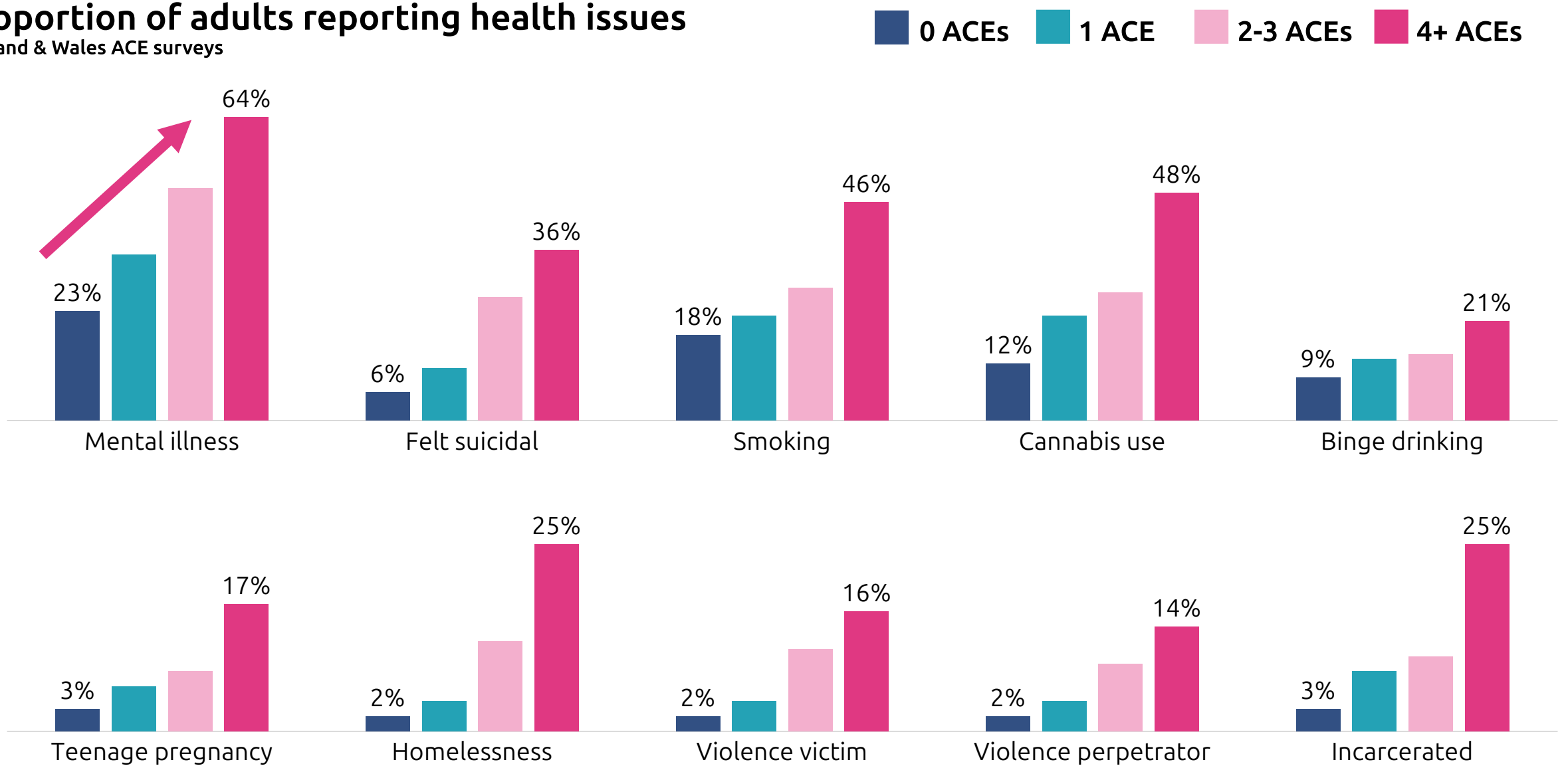




ACEs and health

Proportion of adults reporting health issues

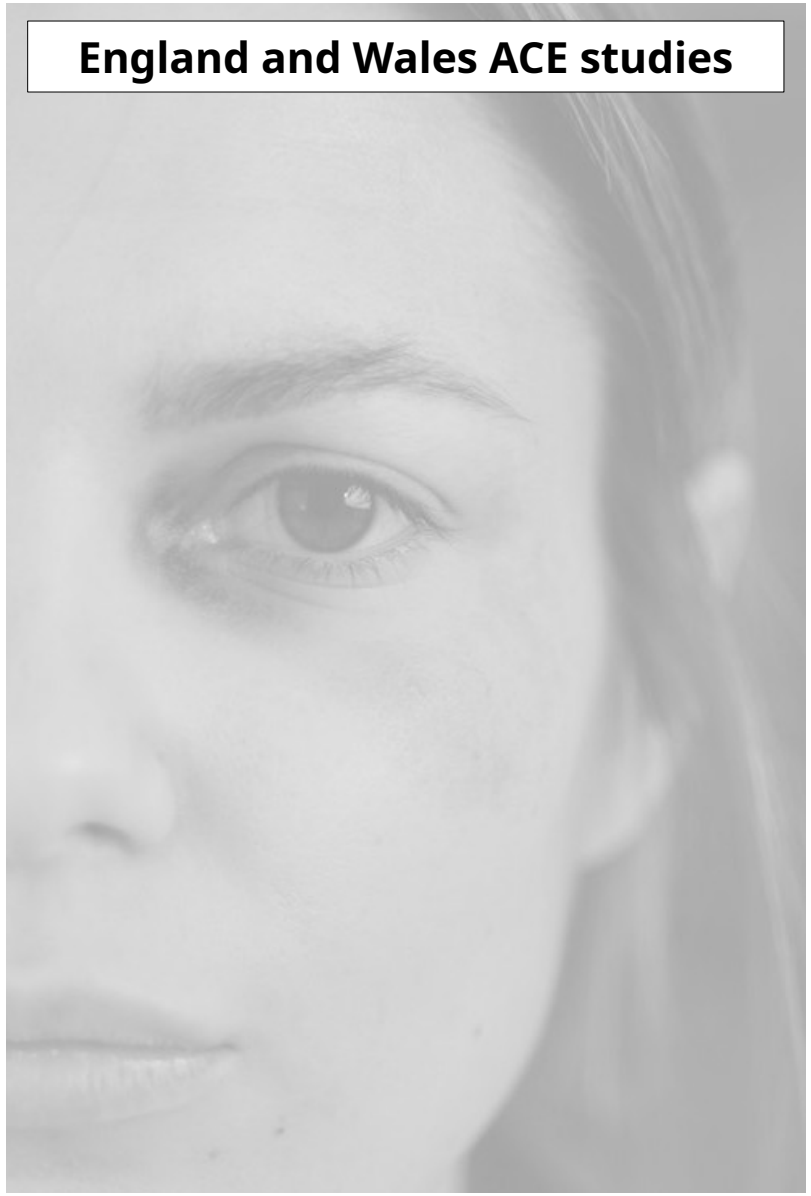
England & Wales ACE surveys



Increased risk of poorer health with 4+ ACEs (v 0 ACEs)

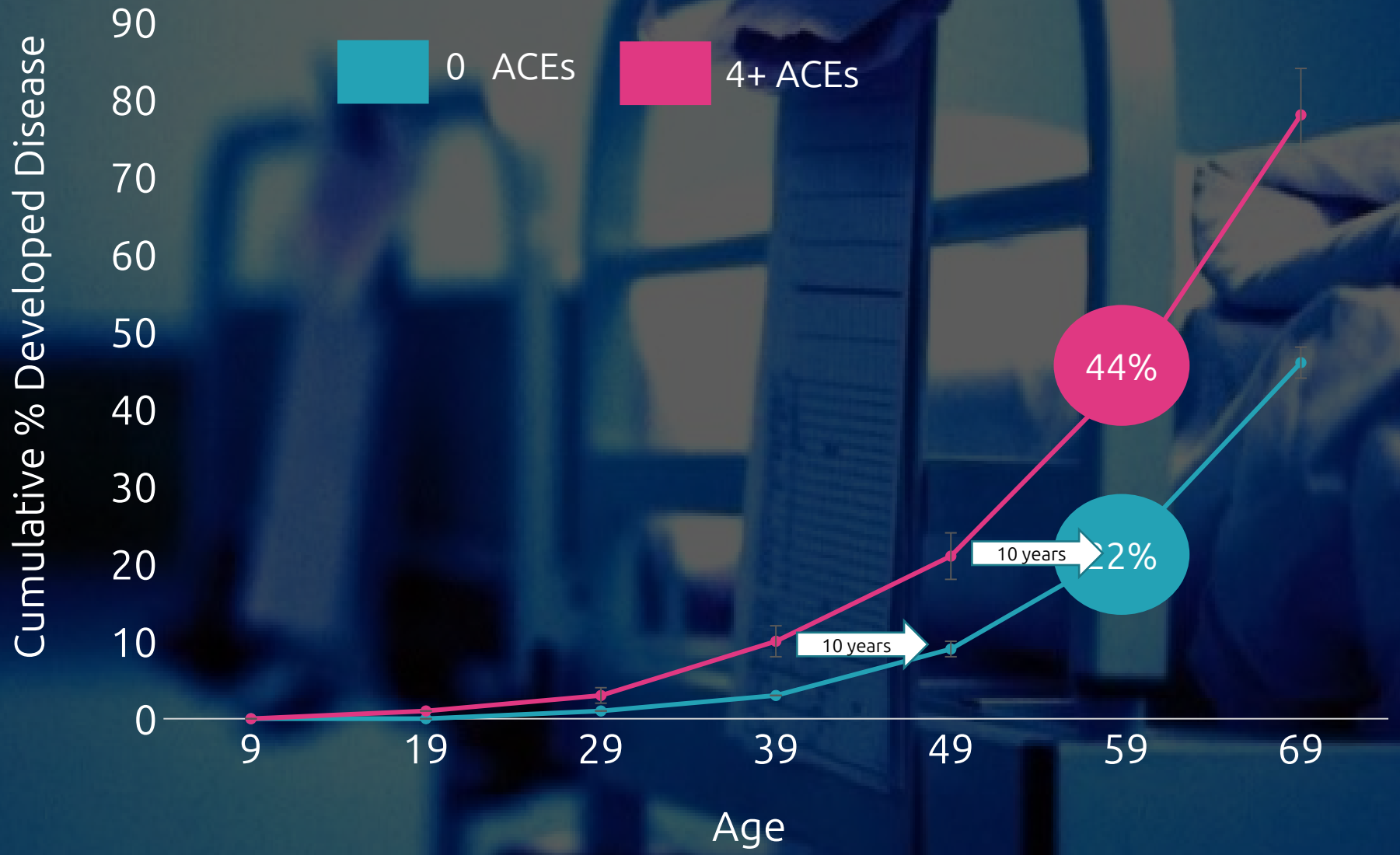
2 x	High risk drinker
	Smoker
4 x	Low mental wellbeing
	Mental illness
5 x	Unplanned teenage pregnancy (<18 years)
	Cannabis use
8 x	Victim of violence
	Incarcerated
10 x	Perpetrator of violence
	Suicidal thoughts or self-harm

England and Wales ACE studies



Length of Healthy Life

Individuals **Diagnosed** with a Major Disease by Age (%)



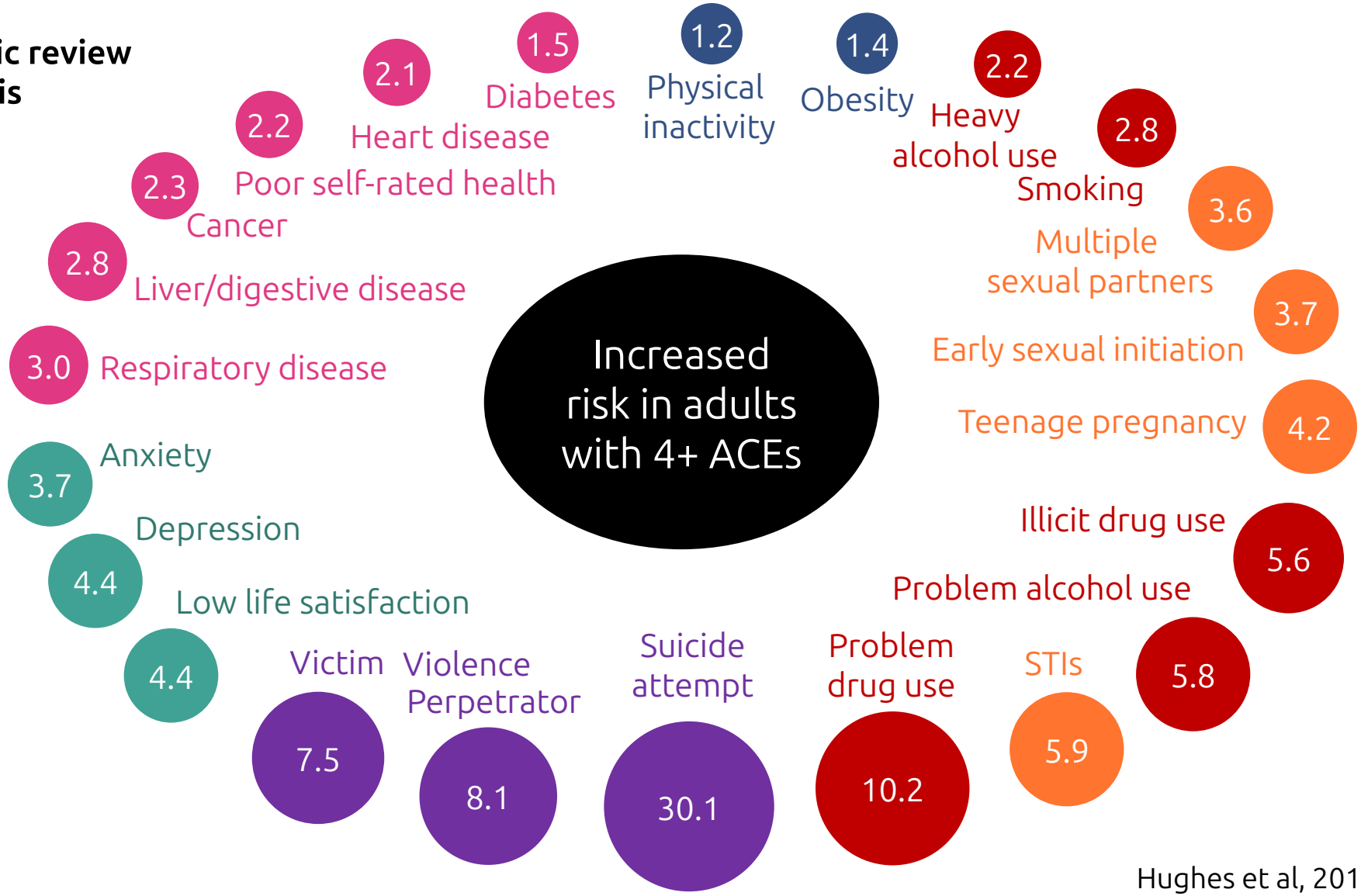
UK ACE studies

Cancer
Heart disease
Respiratory disease
Liver disease
Type 2 diabetes

PHYSICAL HEALTH | **WEIGHT & EXERCISE** | **SEXUAL HEALTH**

Global systematic review and meta-analysis of ACE studies

- 37 studies
- 17 countries



Hughes et al, 2017; Lancet Public Health

MENTAL ILLNESS | **VIOLENCE** | **SUBSTANCE USE**

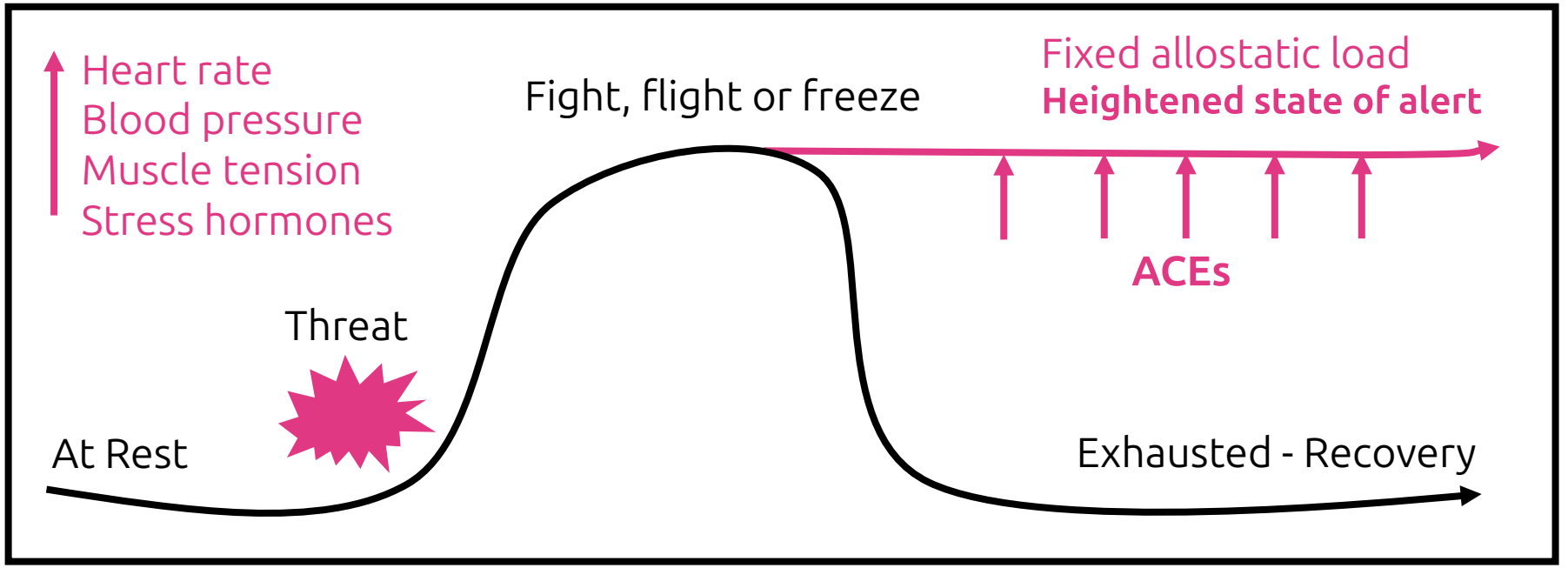
Early life experience and the brain

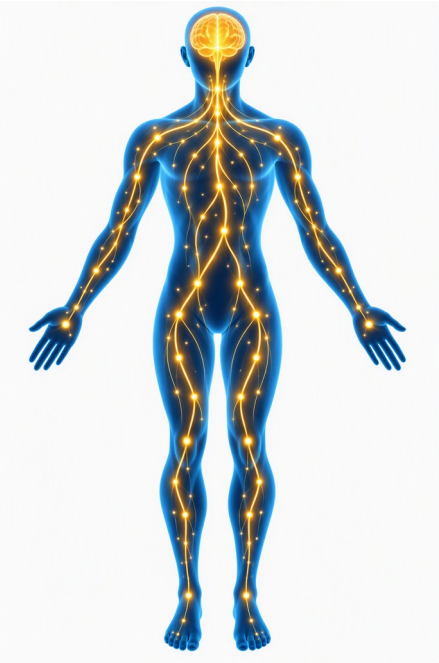




- Humans highly adaptive
- First few years of life, rapid brain development
  - Billions of cells, trillions of synapses
- Strengthened and pruned by environment
  - Development continues over childhood
  - Interaction with other humans
- Safe and nurturing environment
  - Attachment, trust, empathy
- Violent and unpredictable
  - Short-term survival

ACEs and child development

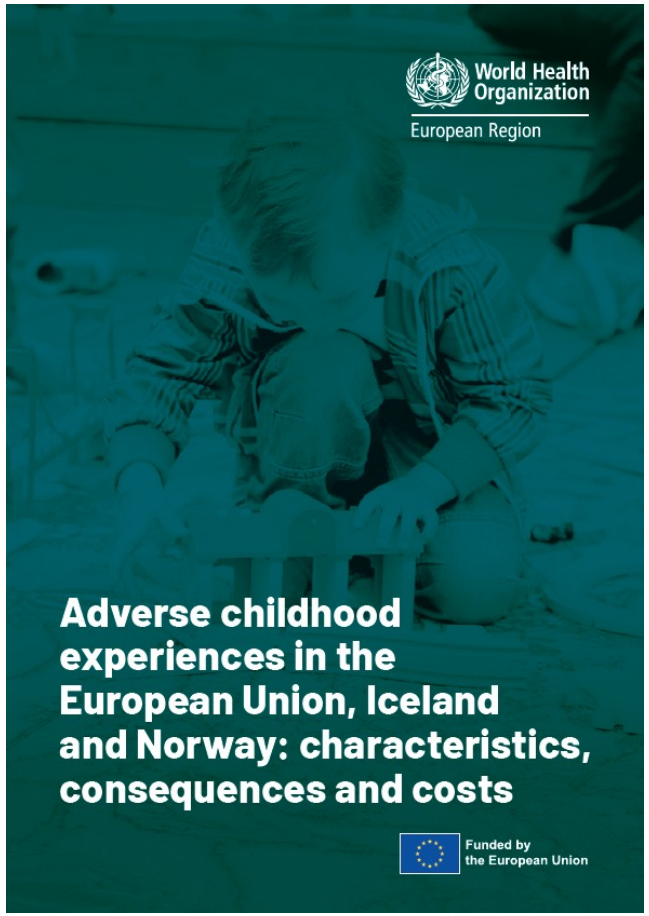




- Over-develops life preserving system - **always prepared for threat**
- Disrupts brain and physiological development
  - Cognitive - memory, attention, learning – **education and employment**
  - Emotional – stress response, trust, ability to read social cues – **relationships and violence**
- Wear and tear on the body – inflammation and immunity – **premature illness and ageing**

ACEs and healthy life

>26,000 18-30 year olds in 29 European countries



ACEs and health related quality of life in young adults

Mobility, self-care, engaging in activities, pain & discomfort, anxiety & depression

Healthy life lost per person aged 18-30 years (v 0 ACEs)

	1 ACE	2-3 ACEs	4+ ACEs
Over 1 year	8 days	27 days	**51 days**
Over 13 years (age 18-30)	0.3 years	1.0 year	**1.8 years**

Financial cost per person aged 18-30 years (v 0 ACEs)*

	1 ACE	2-3 ACEs	4+ ACEs
Over 1 year	US$ 1,080	US$ 3,430	**US$ 6,530**
Over 13 years (age 18-30)	US$ 14,050	US$ 44,590	**US$ 84,870**

*Based on quality adjusted life years and GDP per capita; costs converted from Euros; Bellis et al, WHO Euro, 2026

ACEs and Schools





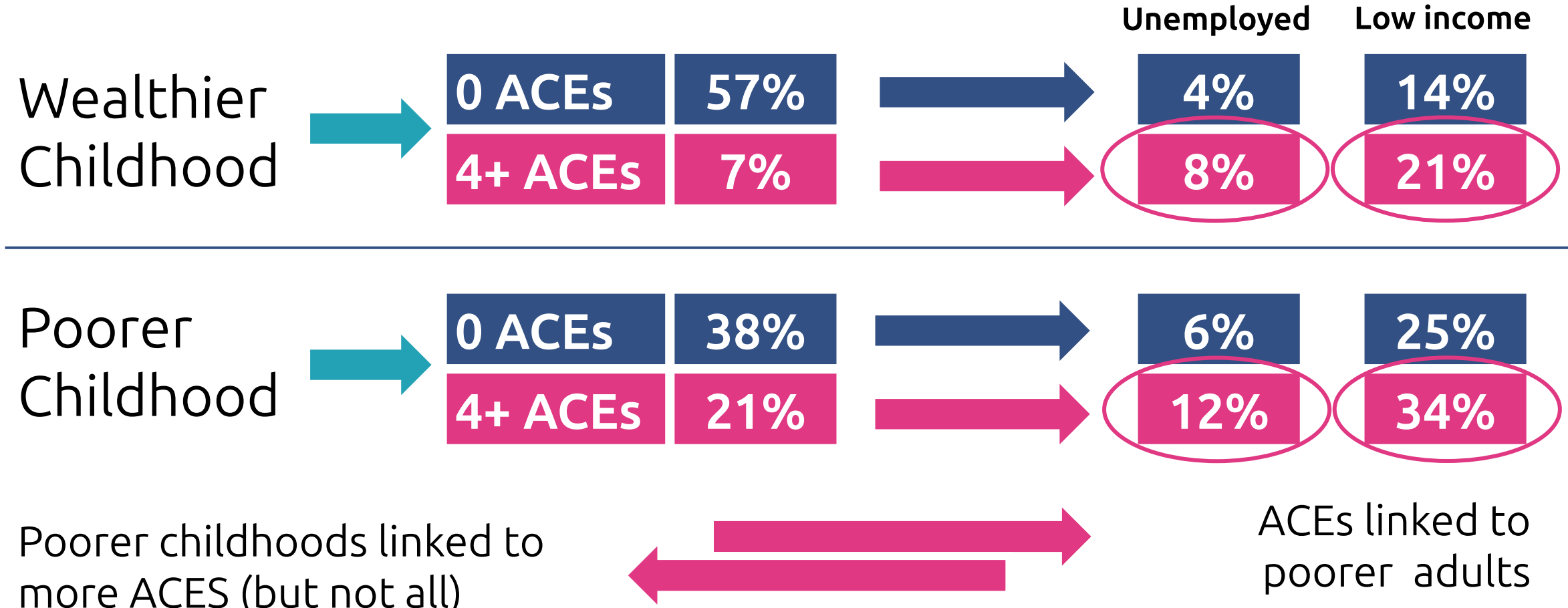
- ↓ Language, literacy, maths skills
- ↓ Attention, concentration
- ↓ Social skills
- ↓ Peer and teacher relationships

- ↑ Behaviour problems and aggression
- ↑ Bullying victimisation and perpetration
- ↑ Health problems & illness
- ↑ Absenteeism and exclusion

- ↓ Grades
- ↓ School completion
- ↓ Employment and income

ACEs, Poverty and Employment

5,330 adults in England

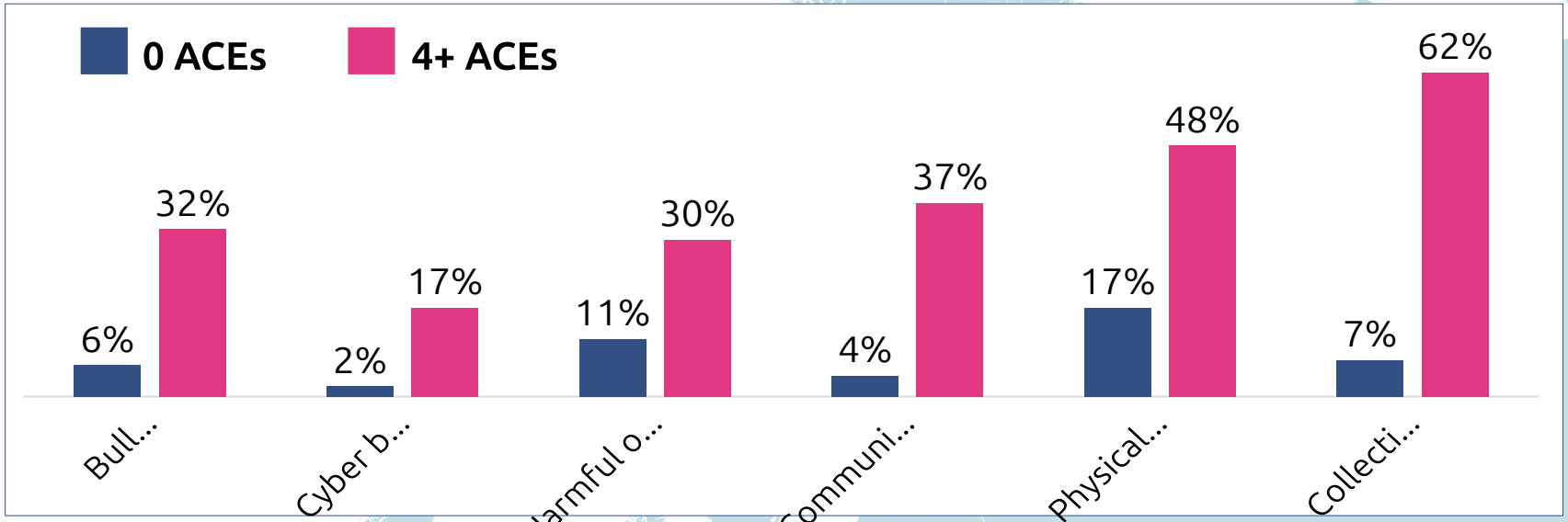


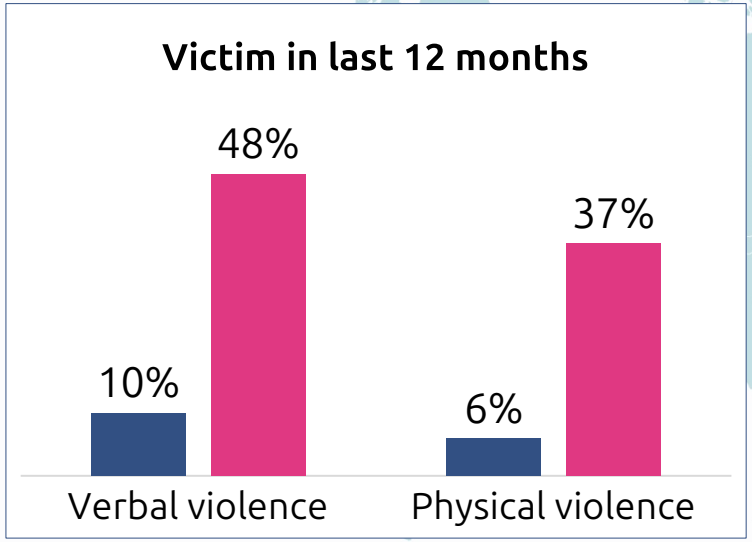
Bellis et al, 2025; BMC Public Health

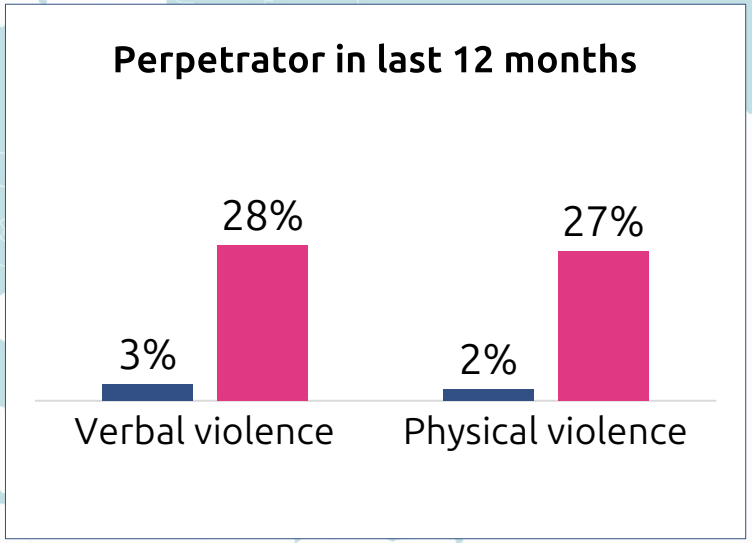
ACEs and violence

~26,000 18-30 year olds in 29 European countries





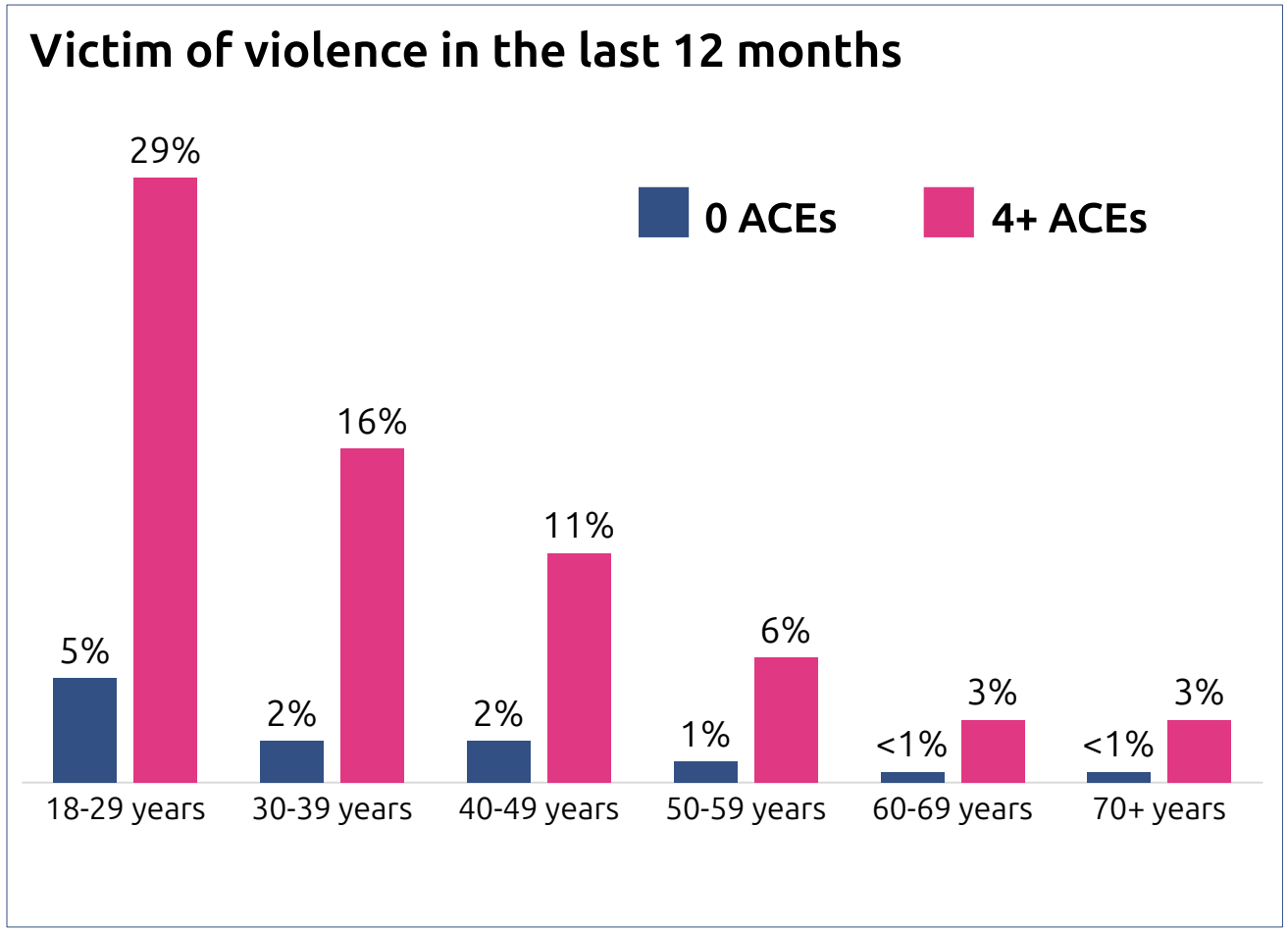




Bellis et al; WHO Euro, 2026

ACEs and violence

England and Wales ACE studies



- Youth violence
- Gang membership
- Firearms violence
- Sexual violence
- Dating and intimate partner
- Child abuse perpetration
- Self-directed violence
- Abuse in older age

ACEs and criminal behaviour

Chronic young offenders in Wales (n=117)

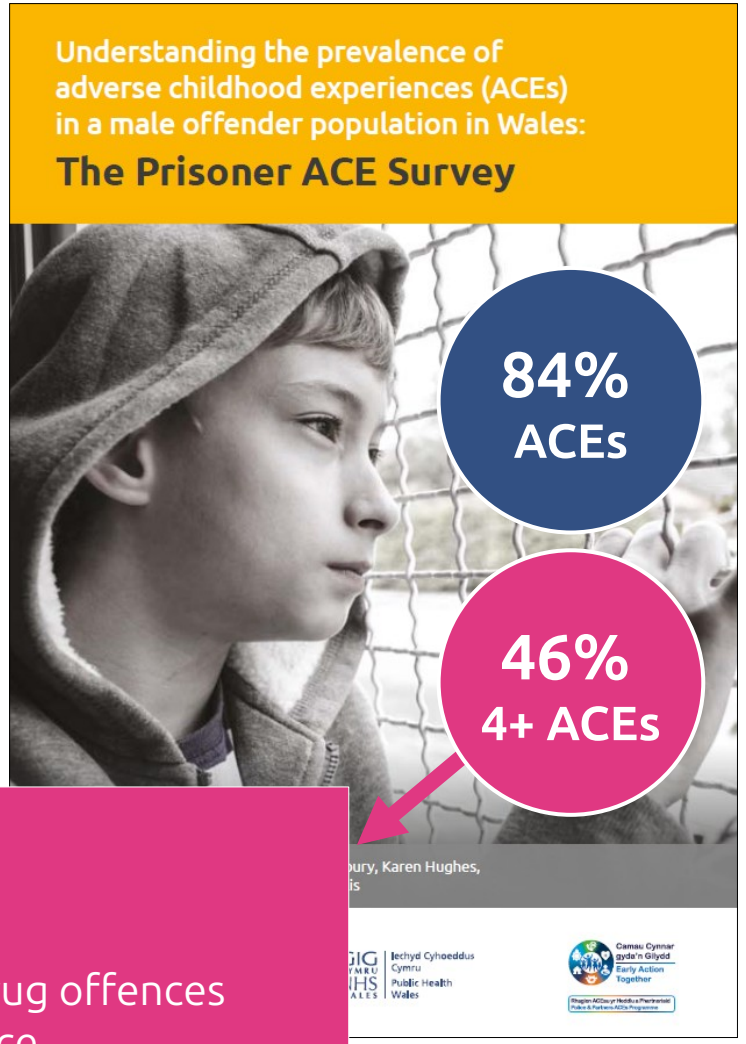


Family:

- **48%** domestic violence
- **55%** abused or neglected
- **58%** offending family members
- **72%** substance abuse

Self:

- **57%** mental health services
- **81%** without qualifications
- **95%** substance misuse issues



More likely to have:

- History of juvenile detention
- More times in prison
- Imprisoned for violent and drug offences
- Recent involvement in violence
- Suicide attempt and self-harm

The cost of ACEs

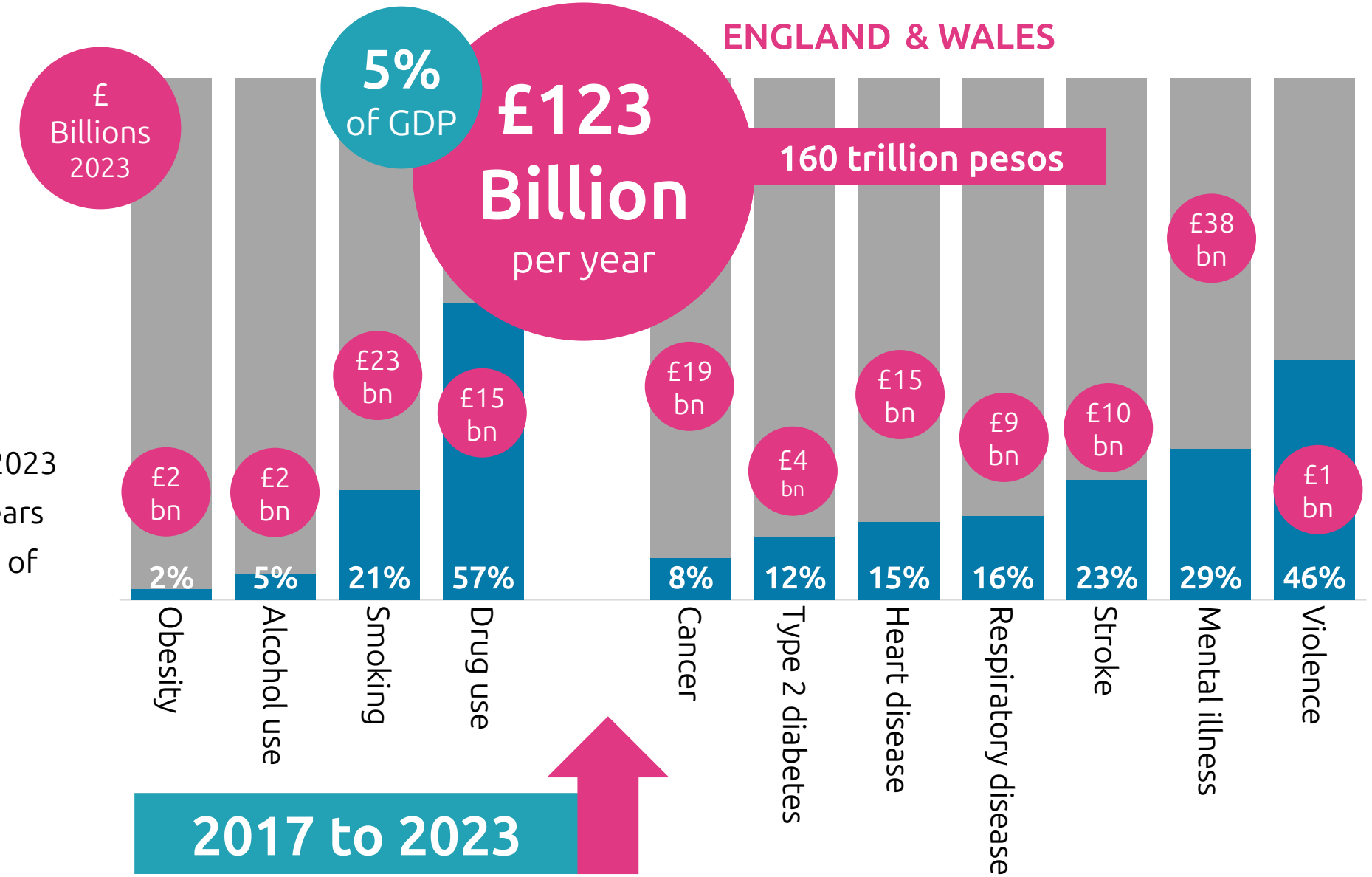
£1 ● US$ 1.35 ● 1,300 pesos

- Data from Wales & England ACE studies
- Population attributable fractions

Proportion attributable to ACEs

ENGLAND

- Global burden of disease 2023
- **D**isability **A**djusted **L**ife **Y**ears
- 1 DALY = UK societal value of reduced health risks



Hughes et al, 2026; BMJ Open

ACEs and national resilience

COVID-19 pandemic (2020-21)

Increased risk in those with 4+ ACEs (v 0 ACEs)

2x

- Feeling unfairly restricted by government
- Breaking restrictions

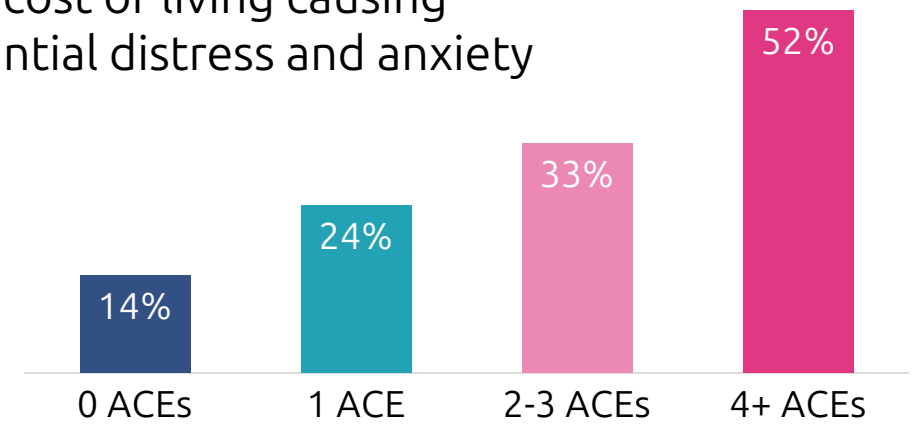
3x

- Low trust in COVID-19 information
- Vaccine hesitancy

Cost of living crisis (2022-23)

3x

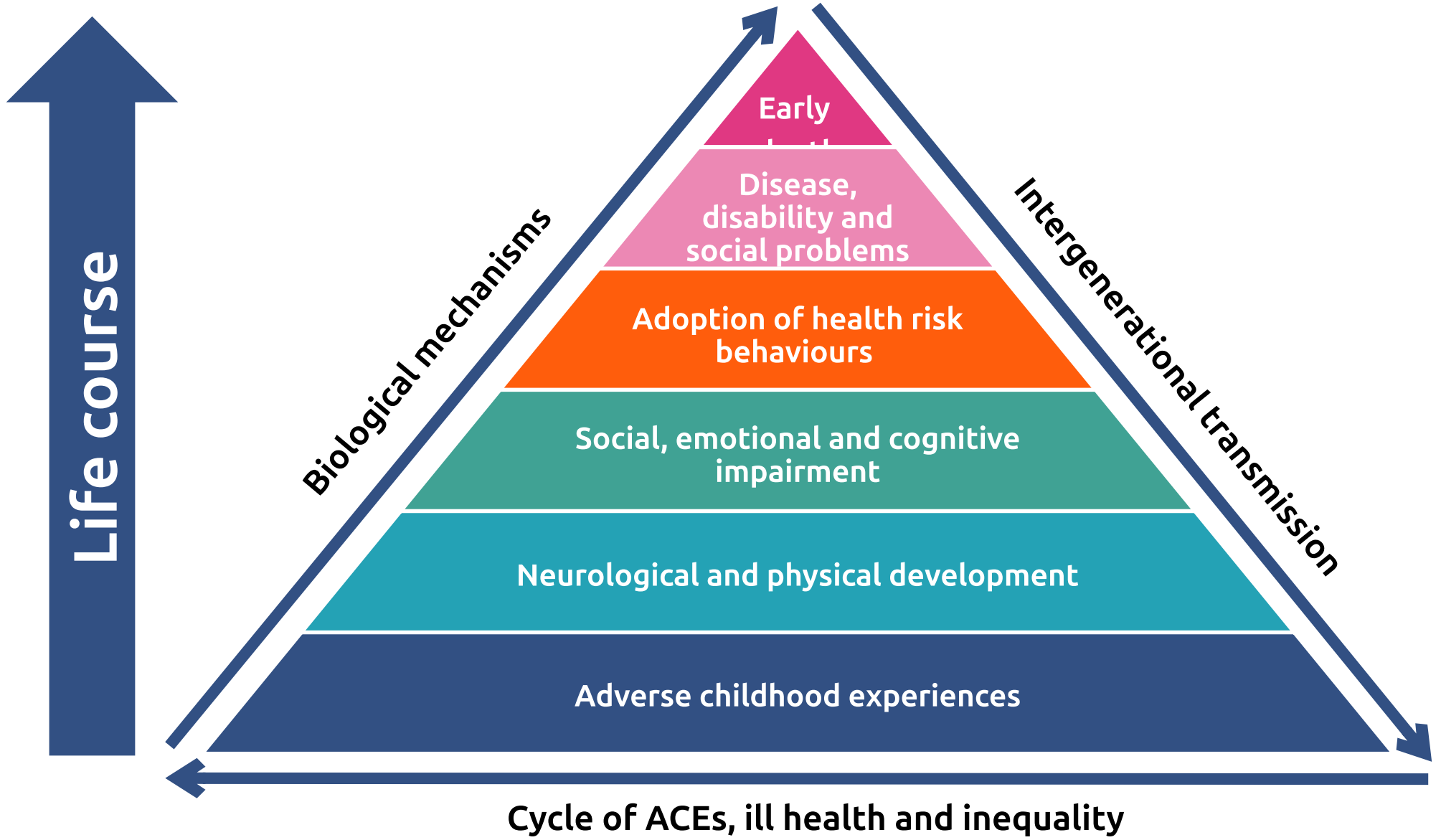
Rising cost of living causing substantial distress and anxiety



% with low trust in:	0 ACEs	4+ ACEs
Health services	8%	23%
Charities	7%	14%
Social services	19%	40%
Police	17%	44%
Government	48%	74%

Bellis et al 2022, *BMJ Open*; Hughes et al 2024, *BMJ Open*; Bellis et al 2024, *BMJ Public Health*

ACEs across the life course

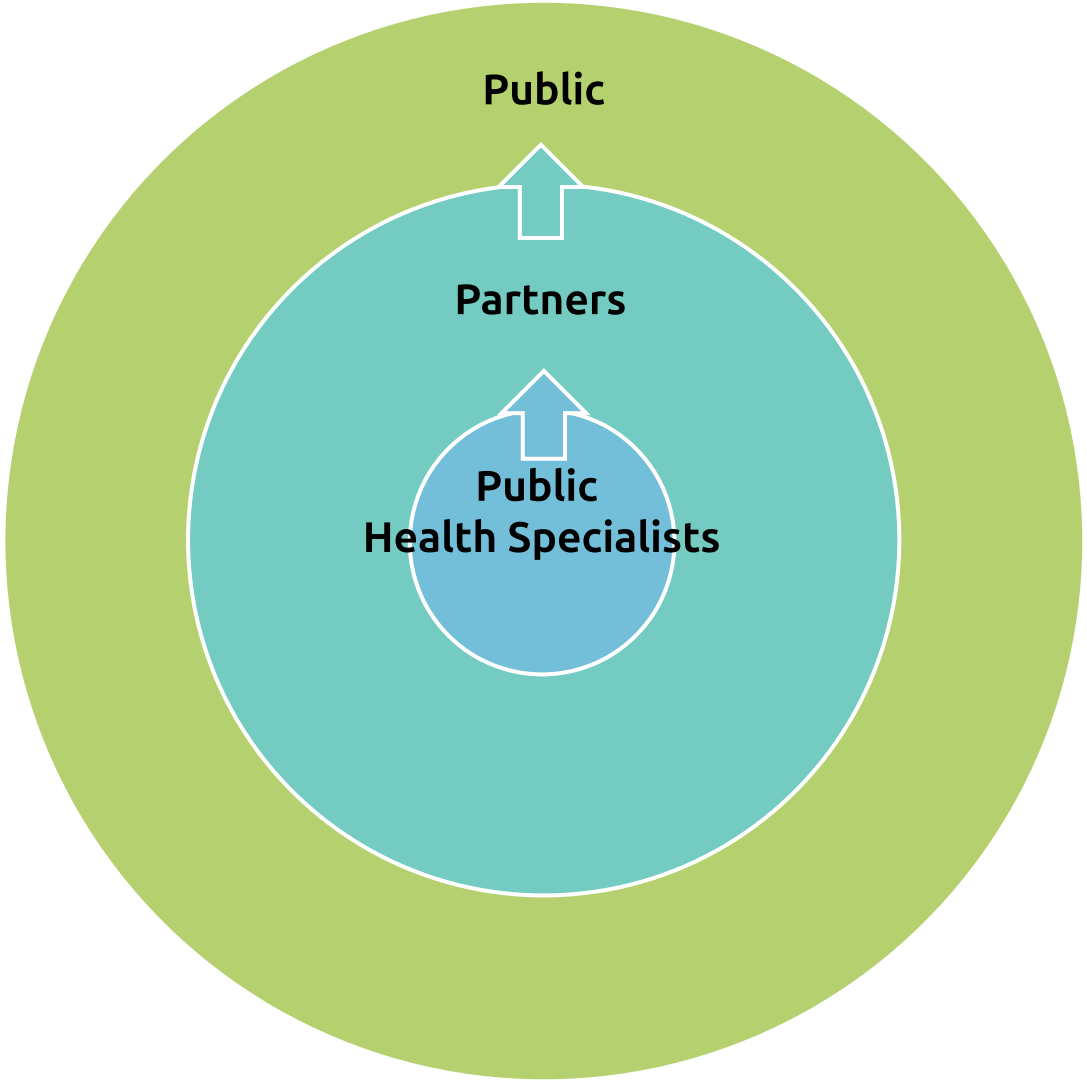


Breaking the cycle

- Preventing ACEs
- Building resilience
- Providing trauma responsive services, systems & policy
  - Life-course
  - Multi-agency
  - Societal response

Public health approach

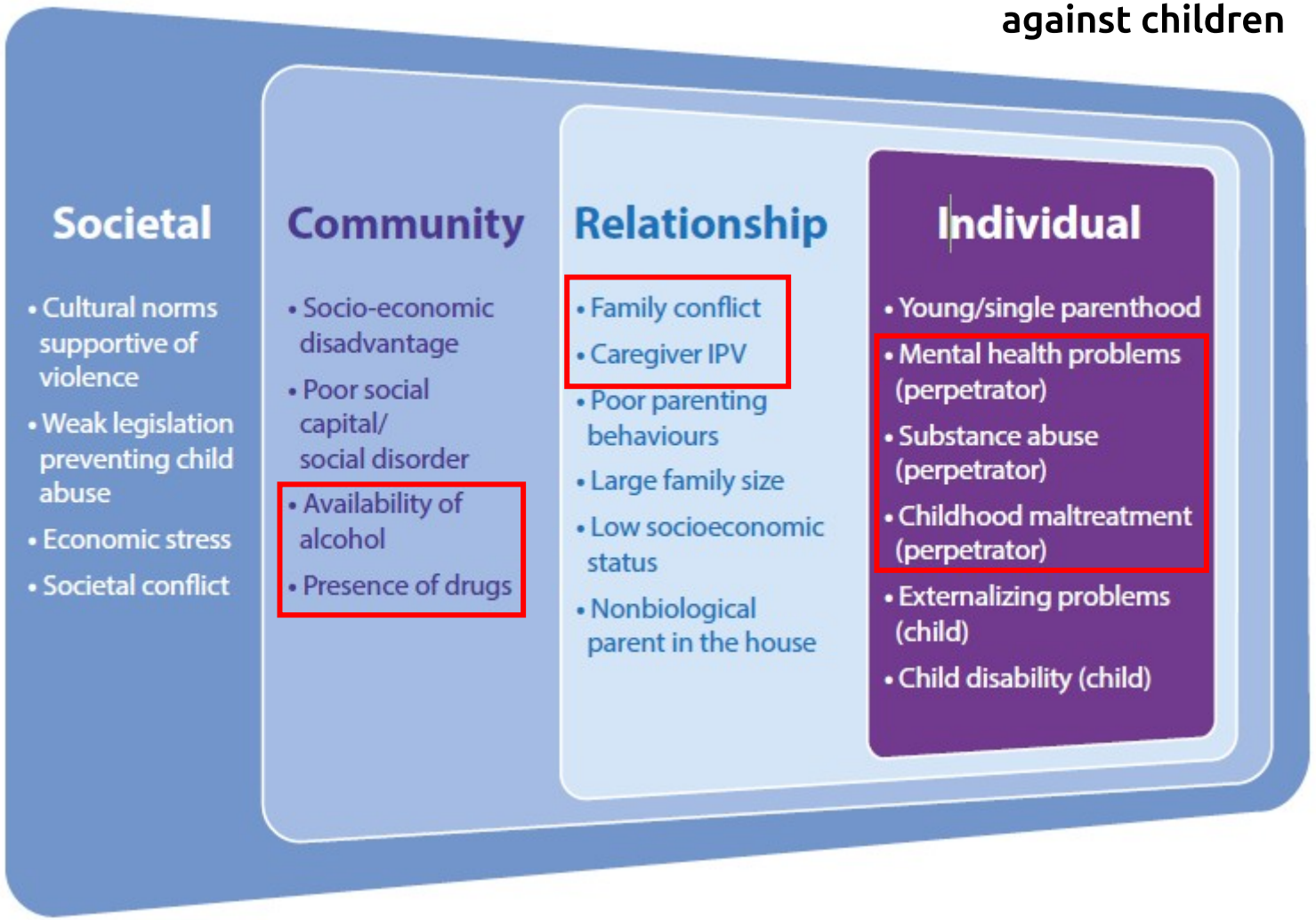
- **Public Health**
  - Preventing disease and promoting health through the organised efforts of society
- **Focused on:**
  - Populations (v. individuals)
  - Prevention (v. cure)
  - Determinants of health
  - Tackling inequalities
  - Partnership working



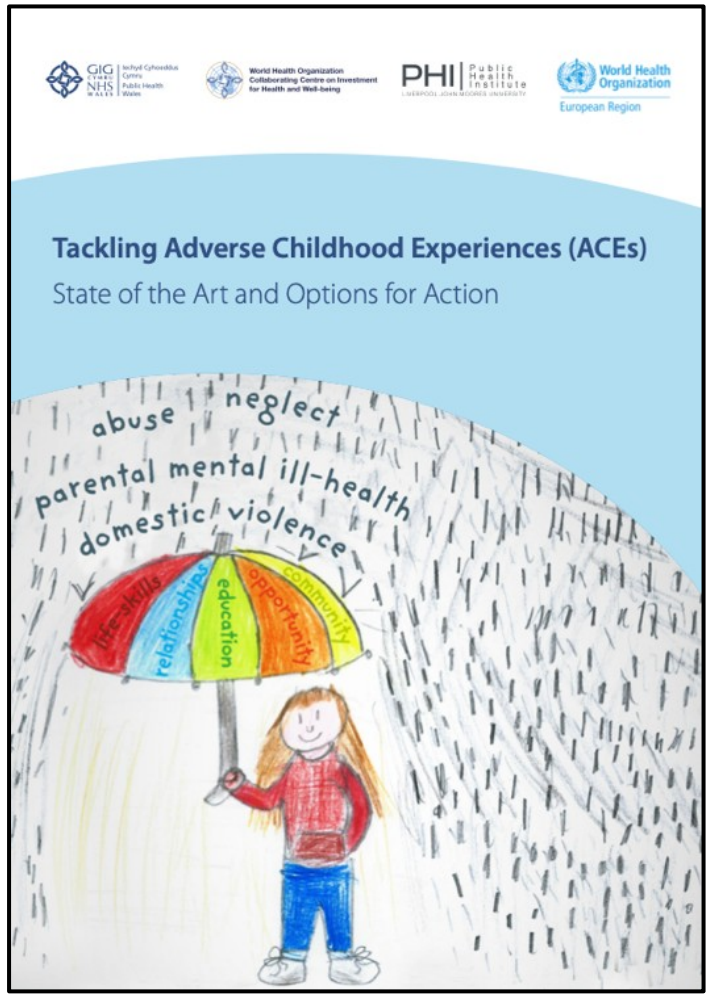
Preventing violence against children

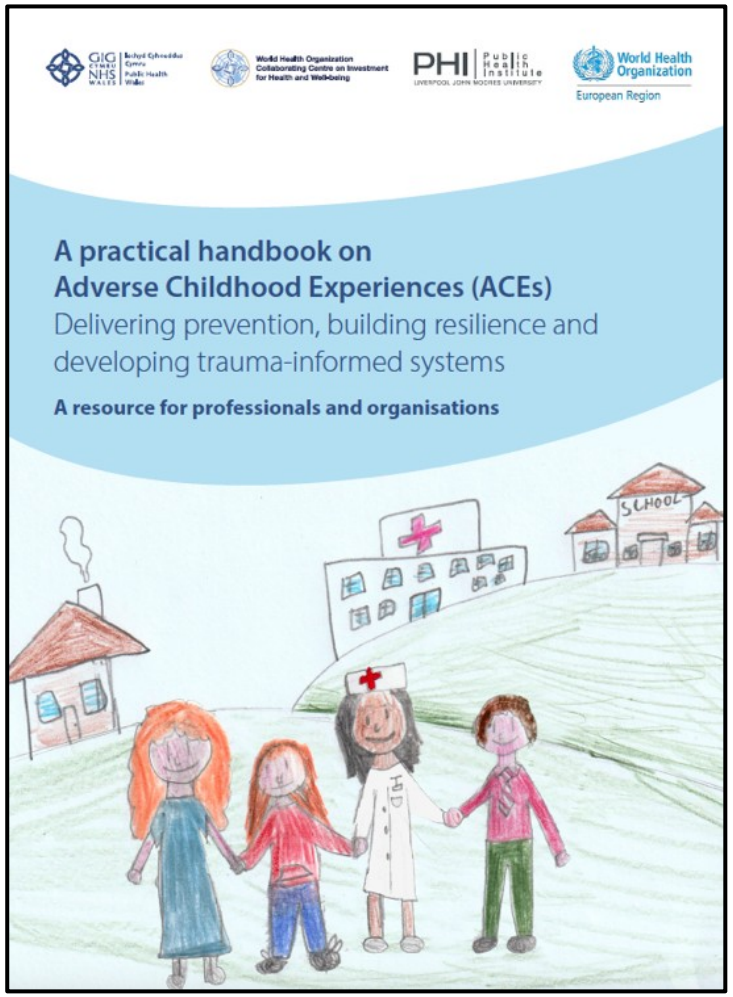


Common risk factors for violence against children

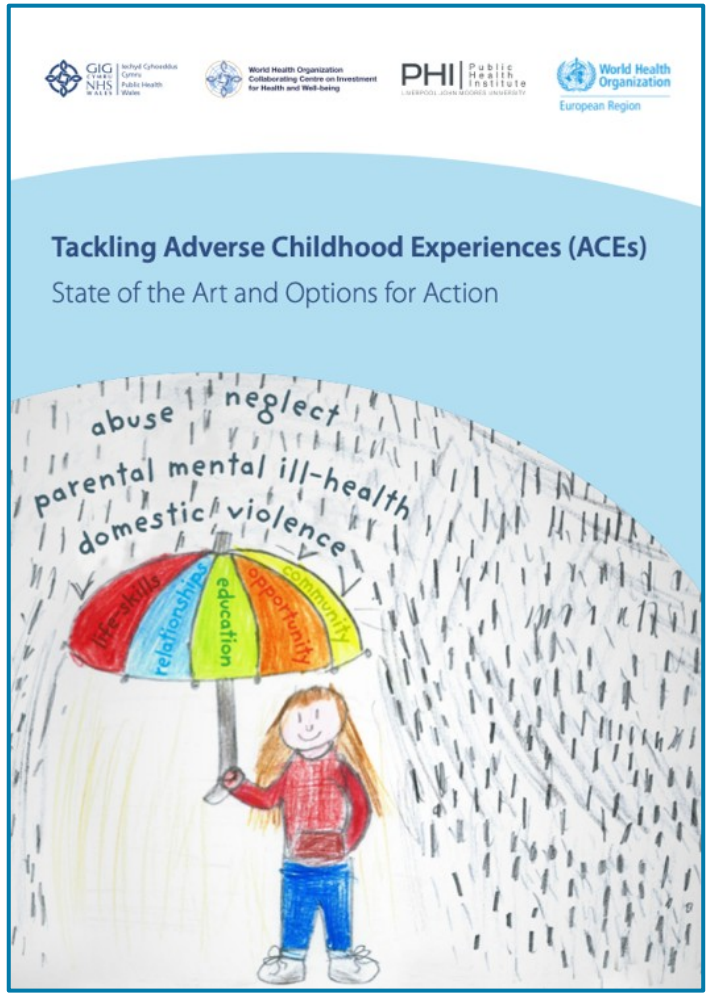


Addressing ACEs





Prevention and Response



Effective/promising interventions to prevent and/or mitigate impacts of ACEs or prevent known risk factors

			Exposure to household/parental:					
		Child maltreatment	IPV	Alcohol use	Drug use	Mental illness	Incarceration	Separation
Addressing societal norms and values	Implementation/enforcement of laws (e.g. banning violent punishment of children by caregivers)	√	√	√	√	√		√
	Empowerment programmes (e.g. microfinance, gender equality and relationship skills)		√					
	Public awareness-raising and education programmes	√						
	Change social/cultural gender norms (e.g. media awareness; work with men/boys)		√					
Strengthening families	Income and economic strengthening	√	√					
	Parenting programmes	√	√	√		√	√	√
Providing education and life skills	Pre-school enrichment (with family support)	√						
	School-based prevention or education programmes	√	√	√	√	√		
	Other educational interventions	√						
	Training of health sector and other professionals	√						
Providing response and support services	Counselling and therapeutic approaches	√	√	√		√		
	Approaches to support survivors to increase safety and lessen harms	√	√					
	Screening and brief intervention			√	√			
	Pharmacological treatment			√	√	√		
	Prison nursery programmes						√	
	Community residential facilities for incarcerated mothers and their children						√	
	Incarcerated parent-child visitation programmes						√	
	Psychoeducational interventions for children of separated or divorced parents							√
Implementing multi-component programmes	Community level	√						
	Family level	√		√	√	√		

Supporting parents and developing children

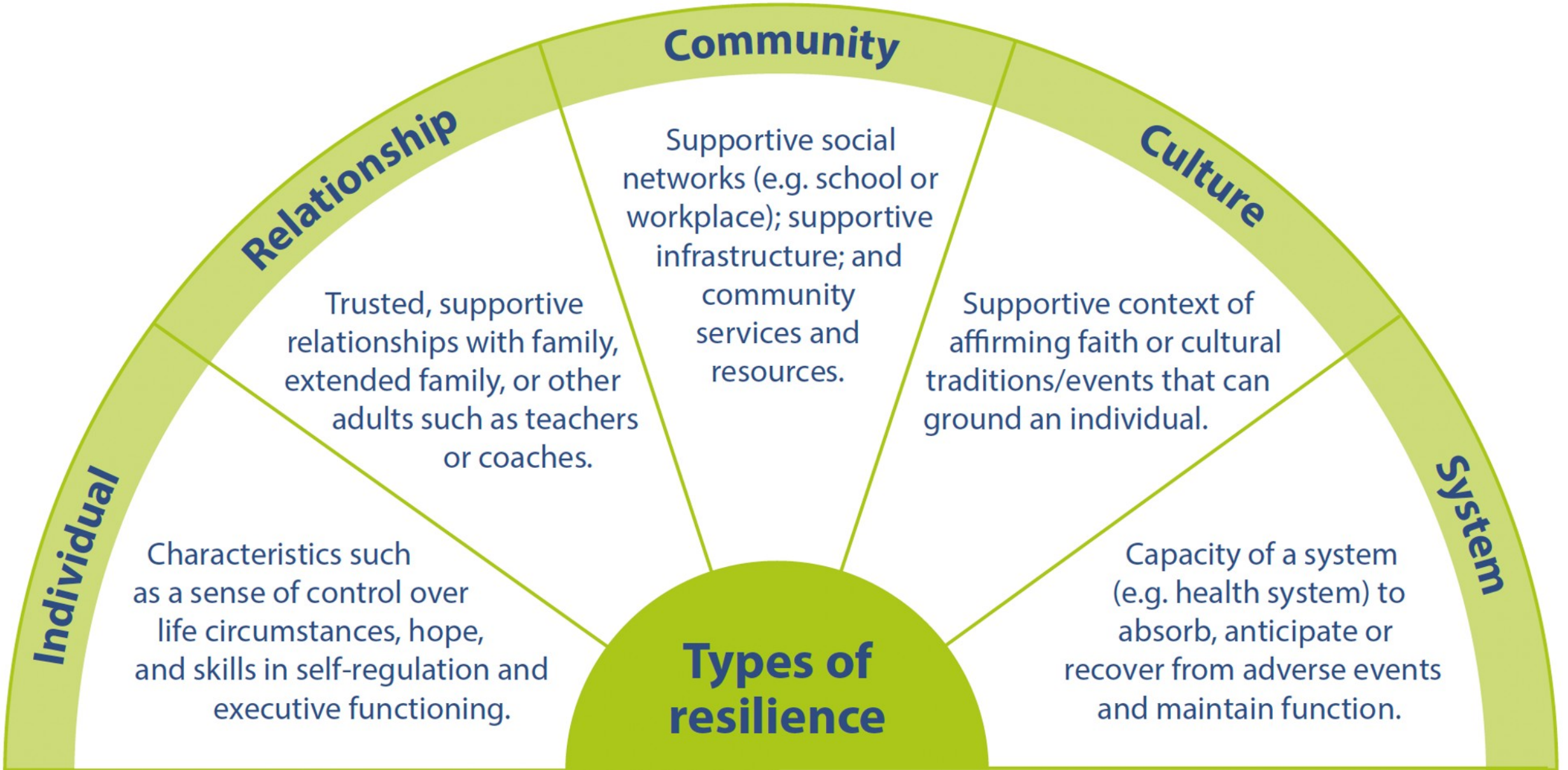
Parenting programmes & early education

↓ Child maltreatment

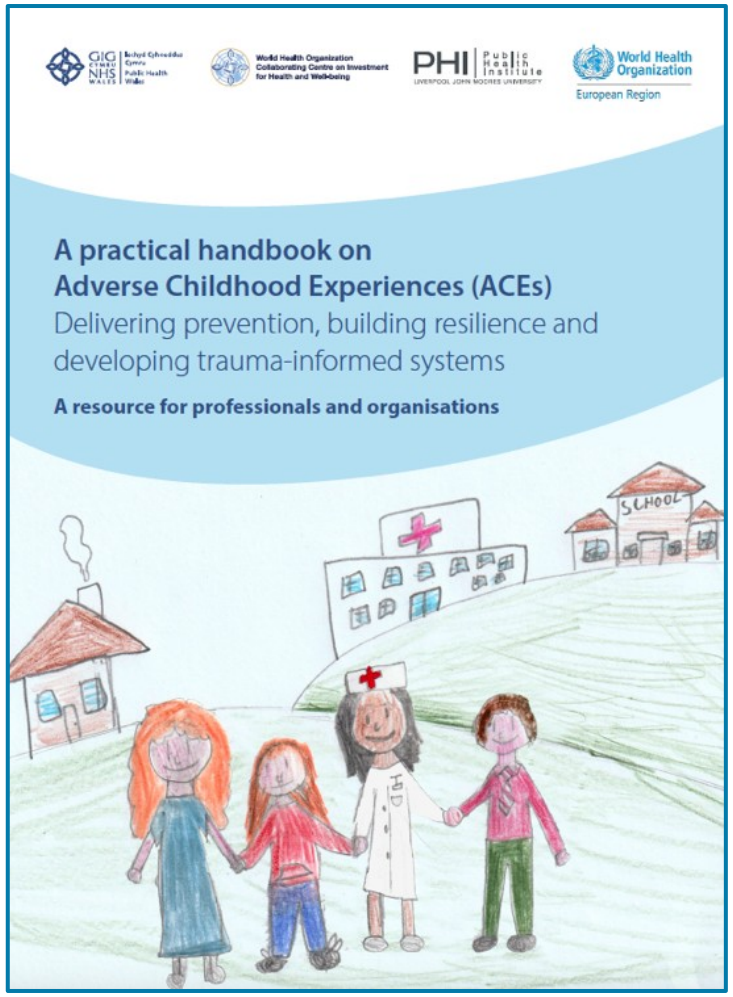
- Child & maternal health → **Health**
- Academic achievement → **Education**
- Violent offences → **Criminal justice**
- Employment in mid 20s → **Economy**

- Return on investment ACROSS all of lifetime and multiple agencies
- Not just new programmes - enhancing and linking existing services

Resilience


Community
Relationship
Culture
Individual
System
Supportive social networks (e.g. school or workplace); supportive infrastructure; and community services and resources.
Trusted, supportive relationships with family, extended family, or other adults such as teachers or coaches.
Supportive context of affirming faith or cultural traditions/events that can ground an individual.
Characteristics such as a sense of control over life circumstances, hope, and skills in self-regulation and executive functioning.
Capacity of a system (e.g. health system) to absorb, anticipate or recover from adverse events and maintain function.
Types of resilience

Prevention and Response



Common steps for implementation

1. Assess the current situation and collect data
2. Raise awareness, gain commitment, advocate for change
3. Develop partnership working
4. Select, adapt or develop interventions based on evidence and resources
5. Provide training, support and a culture for change
6. Evaluate action
7. Scale up, embed and sustain effective action

Addressing ACEs in Wales

Assess the current situation and collect data

The first national ACE study for Wales conducted (2015).

Raise awareness, gain commitment, advocate for change

Welsh Government make a commitment to tackle ACEs in their programme for Government (2016) and national strategy (2017).

ACE Hub Wales established (2017) as a centre of knowledge, evidence and expertise on ACEs.

Provide training and support

The Early Action Together programme launched across Wales, delivering training to police, prison and probation service staff (2018). ACE training for school staff was also initiated (2017 onwards).

Scale and sustain effective action

Work with partners to embed and sustain effective action.

Continued work to develop knowledge, implement programmes and evaluate action.

1 2015 — 2 2016 — 3 2017 — 4 2018 — 5 2019 — 6 2020 — 7 2021 — 2022 — 2023

Partnership working

Collaborative working across partners to develop and pilot an ACE awareness training programme in policing and criminal justice (2015-2018) and subsequently develop the Early Action Together programme.

Additional collaborative work on ACEs developed, piloted and evaluated in different sectors (2018 onwards).

Community · Housing · Education · Higher education · Youth work · Health · Sports

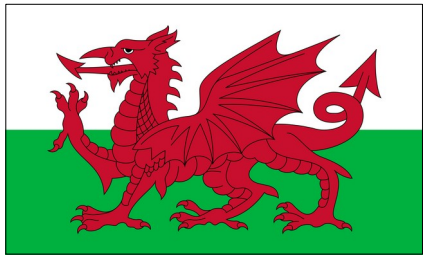
Select, adapt and develop interventions

Piloting of routine enquiry for ACEs in health visiting and health settings began (2017-2018).

Evaluate action

Evaluations of the Early Action Together programme conducted (2019-2020).

WALES

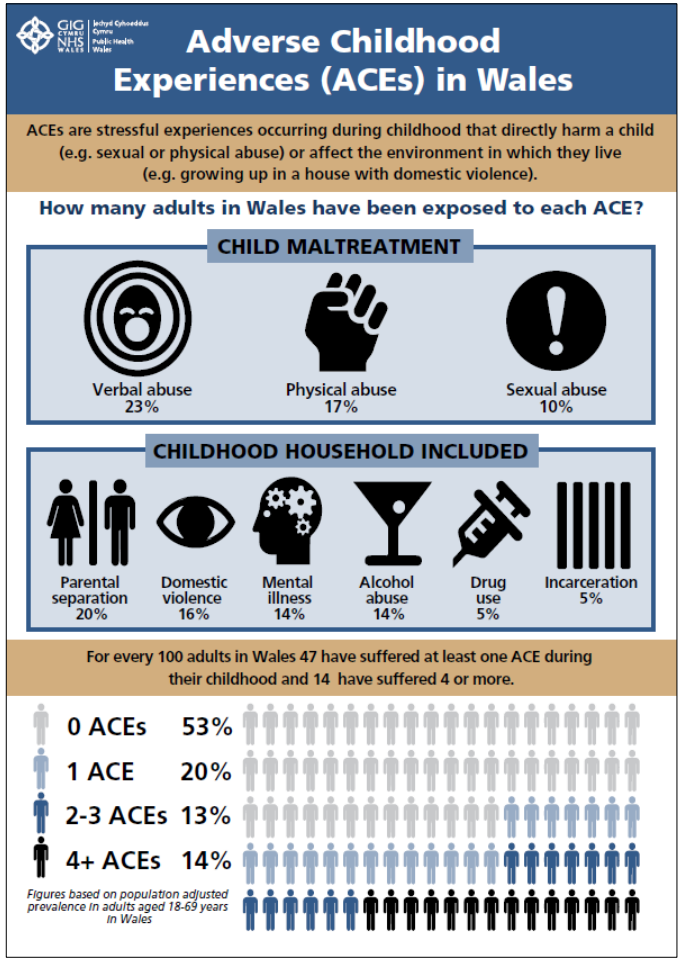


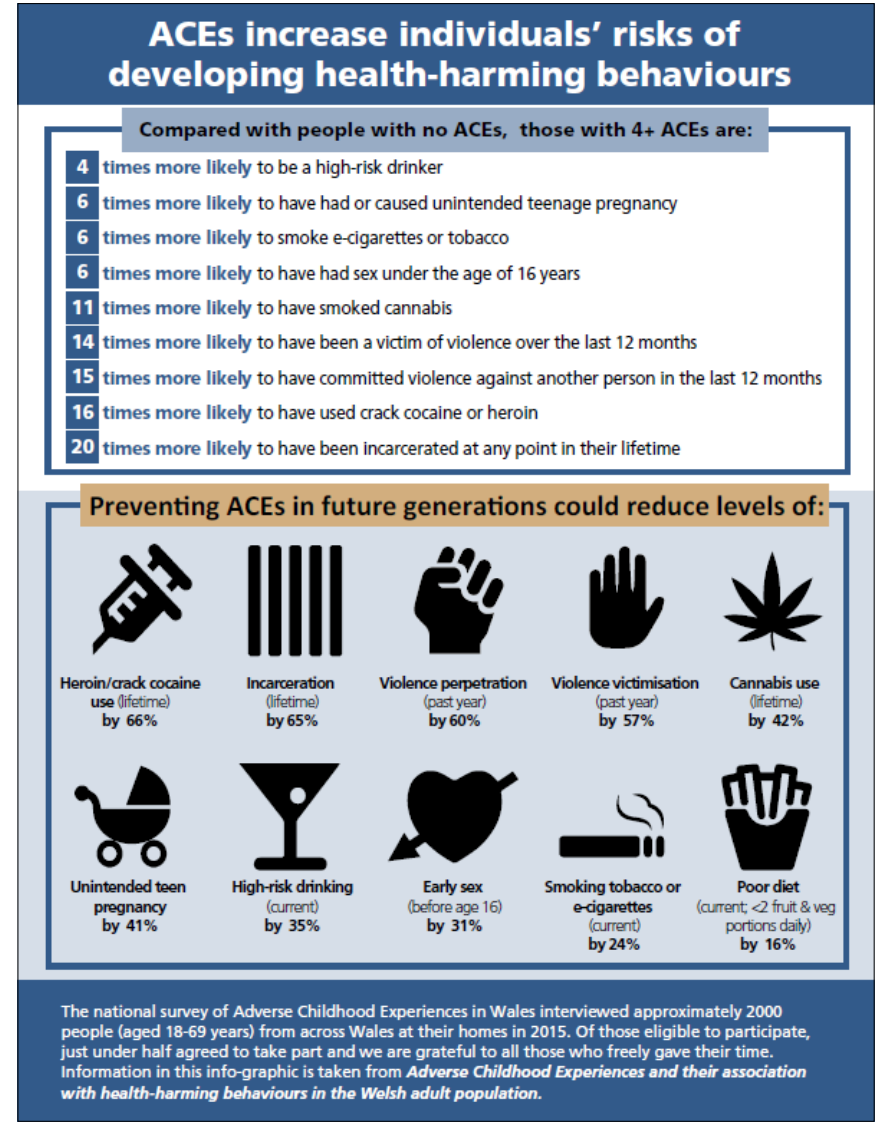
CYMRU

Addressing ACEs in Wales

1 Assess the current situation and collect data

1st National ACE Study 2015





Addressing ACEs in Wales

2 Raise awareness, gain commitment, advocate for change

Wellbeing of Future Generations Act 2015



Public bodies must:

- take account of the long term
- help prevent problems occurring or getting worse
- take an integrated and collaborative approach

Llywodraeth Cymru
Welsh Government

"We will create ACE-aware public services which take a more preventative approach to avoid ACEs and improve the resilience of children and young people"

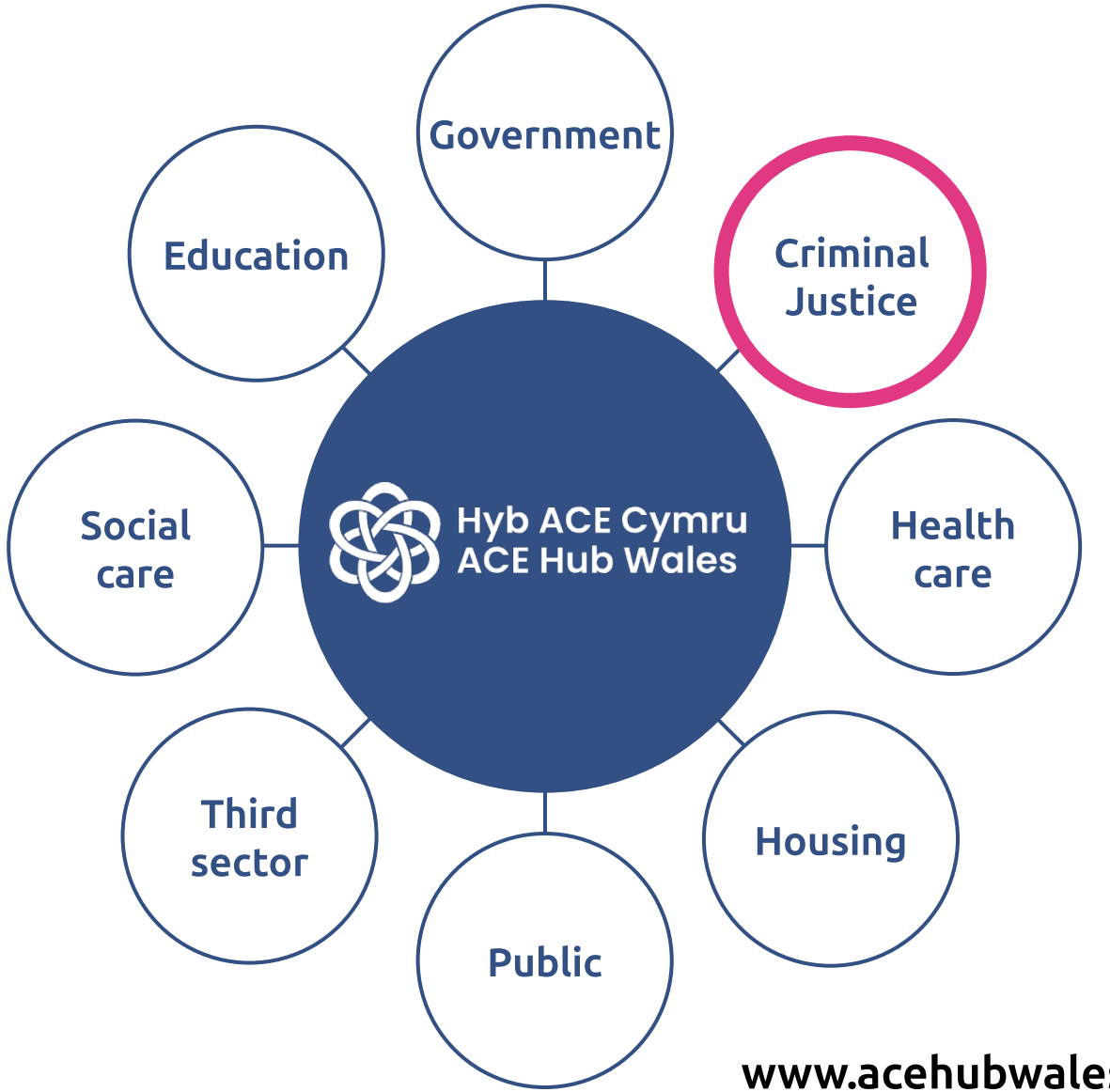
Prosperity for All: the national strategy

Taking Wales Forward

Addressing ACEs in Wales

3 Develop partnership working

- To support Welsh society to help create an ACE Aware Wales
- Promote and support the sharing of knowledge, ideas and learning
- To change ways of working to break cycles of ACEs together



www.acehubwales.com

Police and vulnerability

1,400 Child Public Protection Notifications

3% Child Social Services Care and support plan

Physical or sexual abuse



Mental Illness

Verbal Abuse

Domestic Violence

Drug Use

Alcohol Abuse

Incarceration

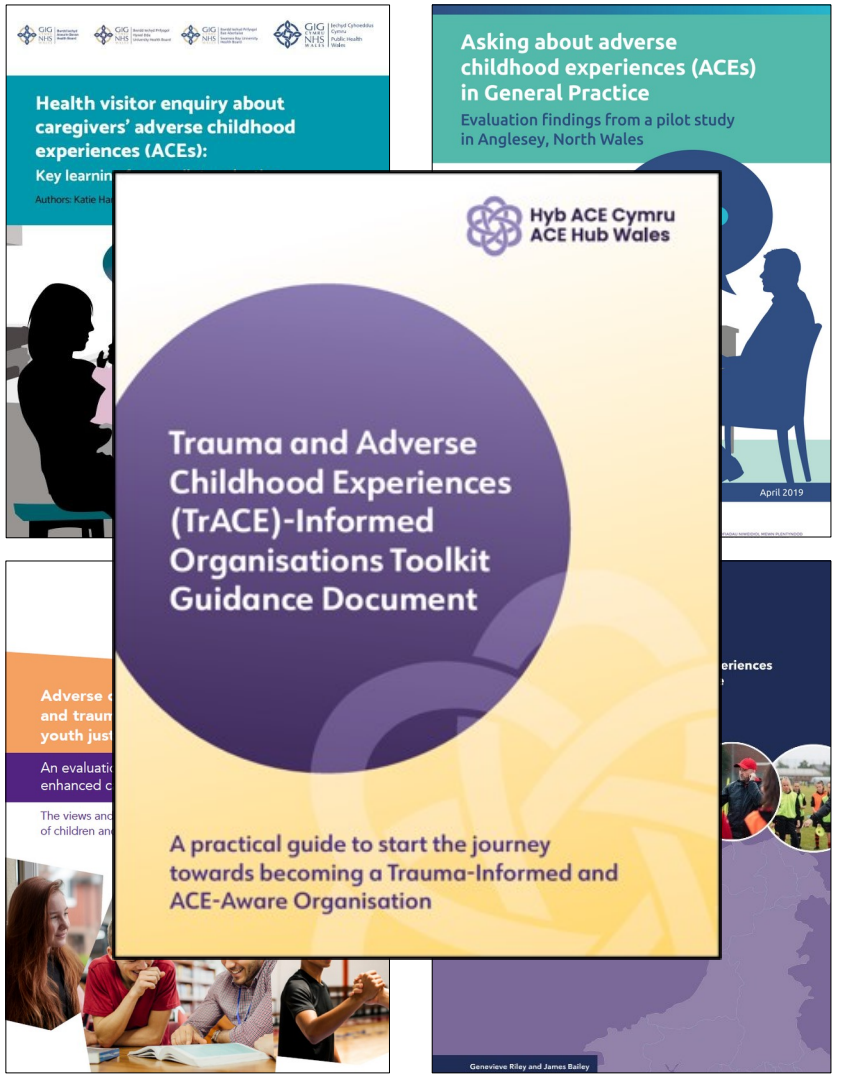
Addressing ACEs in Wales

4 **Select, adapt or develop interventions based on evidence and resources**

5 **Provide training, support and a culture for change**

6 **Evaluate action**

- Early years services
- Health services
- Schools, colleges & universities
- Youth justice
- Mental health services
- Social housing
- The public



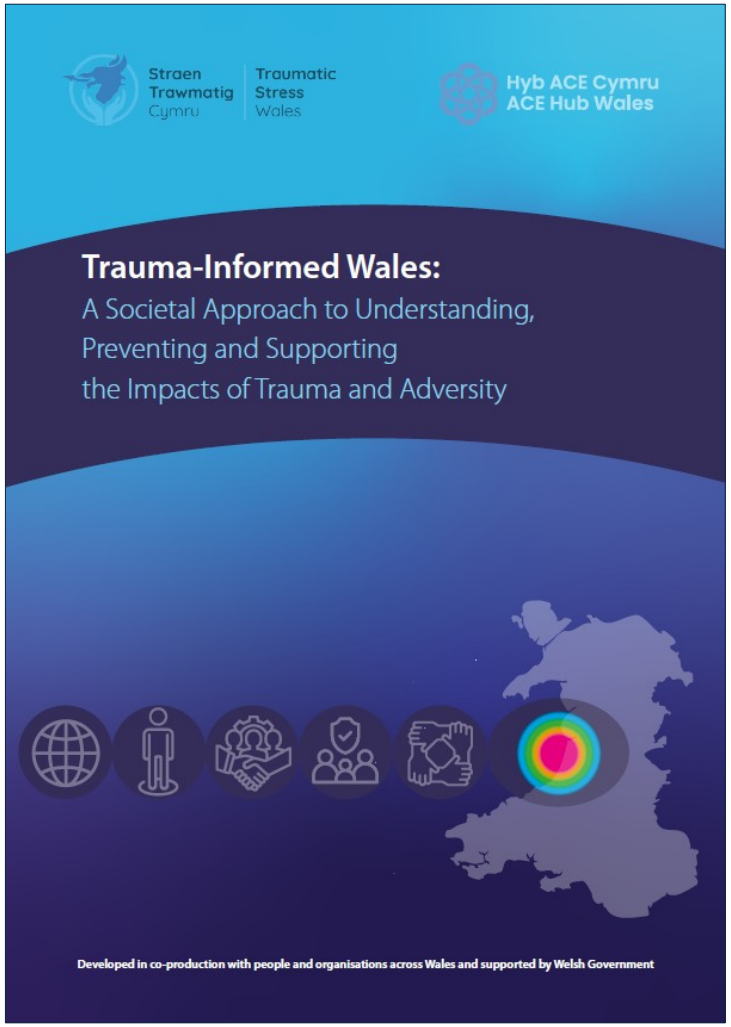
Trauma and ACE (TrACE) toolkit and resources

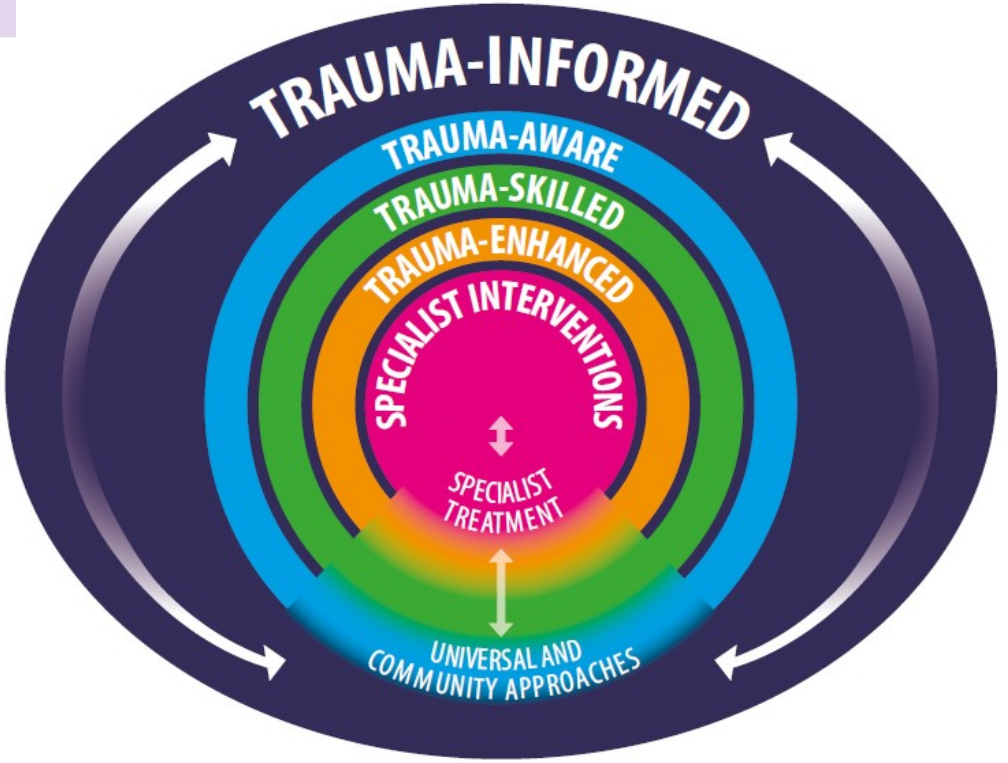
- Face to face and online training for multi-agency partners
- Community of practice to share learning and knowledge
- Resources to support organisations to become trauma-informed

Addressing ACEs in Wales

7 Scale up, embed and sustain effective action

traumaframeworkcymru.com





Everyone – Understand impacts of trauma - strengthen coping, build empathy

Staff who may work with those affected by trauma – compassionate & caring support

Workers & Carers with regular interaction – well established practice and policy

Specialised Practitioners – psychological therapies, specialist approaches

Social determinants – policy and legislation

1 **Promote economic security and equality**
Social protection policies, childcare subsidies, minimum wage

2 **Improve access to quality education**
Compulsory education, financial support for low income students

3 **Provide safe environments**
Urban renewal and regeneration, affordable housing

4 **Strengthen social and community contexts**
National-level parenting programs, laws banning violence

5 **Reduce exposure to health harming influence**
Reduce population access to alcohol and firearms

6 **Improve access to quality health care**
Healthcare coverage, youth-friendly services

7 **Governance**
Data sharing, training and capacity building



Summary

- ACEs strong predictor of poor outcomes across the life course
- Impacts start early and include violence and others linked to ACE cycles
  - mental illness, substance use, crime
- Costs to society are immense
  - Already costly in adolescents and young adults
- BUT - Benefits of prevention and response begin early as well
  - How much can your interventions save society?
- Compelling social and economic case for funding prevention and response:
  - Better education, employment and income
  - Less violence and crime
  - Better health and healthier ageing
  - Community cohesion and resilience
- Whole of society, multi-agency, partnership working

Thank you Gracias Diolch

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