

A practical handbook on Adverse Childhood Experiences (ACEs)

Delivering prevention, building resilience and
developing trauma-informed systems

A resource for professionals and organisations



A practical handbook on Adverse Childhood Experiences (ACEs)

Delivering prevention, building resilience and developing
trauma-informed systems

Authors

Sara Wood, Hayley Janssen, Karen Hughes,

World Health Organization (WHO) Collaborating Centre on Investment for Health and Well-being, Public Health Wales

Jonathon Passmore

WHO Regional Office for Europe - Violence and Injury Prevention

Mark A Bellis

WHO Collaborating Centre for Violence Prevention, Liverpool John Moores University

Acknowledgments

We are very grateful to the following people for their help in developing the case studies presented in this handbook and/or for reviewing the handbook:

- **Tuovi Hakulinen**, PhD, Associate Professor in Health Promotion, University of Tampere, Finland.
- **Jenni Helenius**, M.Ed, PhD (Education), Development Manager, Finnish Institute for Health and Welfare, Finland.
- **Joanne Hopkins**, Programme Director, ACEs, Criminal Justice and Violence Prevention, Public Health Wales, Wales, UK.
- **Judy Hutchings**, Professor in Psychology, Bangor University, Wales; Parenting for Lifelong Health.
- **Vicky Jones**, Head of Integrated Strategy and Development, Adult Mental Health, Betsi Cadwaladr University Health Board, Wales.
- **Piia Karjalainen**, M.Ed, PhD, Senior Researcher, Finnish Institute for Health and Welfare, Finland.
- **Freja Ulvestad Kärki**, Psy.D, Specialist in Clinical Psychology, Project Leader, Norwegian Directorate of Health, Norway.
- **Eeva-Leena Kataja**, PhD (Psychology), Clinical psychologist, Psychotherapist; Senior Researcher, University of Turku, FinnBrain Birth Cohort Study, Finland.
- **Ulla Korpilahti**, PHN, MSc, PhD student (Public Health), Development Manager, Finnish Institute for Health and Welfare and University of Turku, Finland.
- **Marjo Kurki**, PhD, Senior Researcher, Itla Children's Foundation and University of Turku, Finland.
- **Taina Laajasalo**, PhD, Associate Professor in Forensic Psychology, University of Helsinki; Chief Researcher, National Institute for Health and Welfare, Finland.
- **Sandra O'Meara**, RAPID (Revitalising Areas through Planning, Investment and Development) co-ordinator, Cork City Council, Cork, Ireland.
- **Zara Quigg**, Professor in Behavioural Epidemiology, Liverpool John Moores University, England, UK; Director of the World Health Organization (WHO) Collaborating Centre for Violence Prevention.
- **Tiina Riekkii**, MD, PhD, Clinical Researcher and Specializing Psychiatrist, University of Oulu and Oulu University Hospital, Chair of the Finnish Perinatal Mental Health Association, Finland.
- **Dr Corinne Roehrig**, Family Psychologist, France; Strengthening Families Program initiative.
- **Dinesh Sethi**, Program Manager, WHO.
- **Saija Westerlund-Cook**, MSc, Families and Relationships Expert, Folkhälsan; Doctoral Researcher, University of Turku, Finland.

We would also like to thank Katie Cresswell and Natasha Judd from Bangor University, and Lauren Couzens and Daniela Stewart from Public Health Wales, for proofreading the report, Jenney Creative for designing the report, Erin Wood for the front cover artwork and Canna Translation Services for its translation into Welsh.

This document is available in Welsh

ISBN 978-1-83766-202-9

WHO Collaborating Centre and research on Adverse Childhood Experiences

This handbook is one of a series of publications on the topic of adverse childhood experiences (ACEs), which includes:

1. **Health and financial costs of adverse childhood experiences in 28 European countries: a systematic review and meta-analysis** [1] – This review estimates the annual health and financial burden of ACEs in Europe, providing a rationale for preventative and trauma-informed action.
2. **Tackling Adverse Childhood Experiences (ACEs): State of the art and options for action** [2] – This report provides a comprehensive insight into what ACEs, resilience and trauma-informed systems are and the programmes of work that have been used to prevent and mitigate their effects.
3. **A practical handbook on Adverse Childhood Experiences (ACEs): Delivering prevention, building resilience and developing trauma-informed systems** – This document.

ACRONYMS USED IN THIS REPORT

ACEs	Adverse Childhood Experiences
GDP	Gross Domestic Product
PLH	Parenting for Lifelong Health
SAMSHA	Substance Abuse and Mental Health Administration
SFP	Strengthening Families Program
UK	United Kingdom
WHO	World Health Organization

Contents

Acronyms used in this report.....	3
1. Introduction.....	5
2. How to use this handbook.....	6
3. The importance of addressing ACEs	7
3.1 What are ACEs?	7
3.2 The prevalence of ACEs	7
3.3 Impacts on health and society – life course issues.....	8
3.4 Intergenerational effects	10
3.5 Wider impacts – costs to society	10
3.6 Factors increasing the risks of ACEs and vulnerable groups.....	11
4. What works to address ACEs?.....	12
4.1 Who should be involved?	13
4.2 Preventing ACEs and building resilience	14
4.2.1 Strategy 1: Strengthening families and other relationships	16
4.2.2 Strategy 2: Providing education and life skills.....	17
4.2.3 Strategy 3: Implementing multi-component programmes	18
4.2.4 Strategy 4: Providing response and support	19
4.2.5 Strategy 5: Addressing harmful social norms and values (societal attitudes and conditions).....	20
4.2.6 The prevention of and response to individual ACEs	21
4.2.7 Additional useful resources	23
4.3 Developing trauma-informed organisations, sectors and systems	24
5. Implementing prevention, resilience and trauma-informed organisations, sectors and systems	27
5.1 Assess the current situation and collect data.....	28
5.2 Raise awareness, gain commitment, advocate for change	31
5.3 Develop partnership working.....	33
5.4 Select, adapt or develop interventions based on evidence and resources.....	35
5.5 Provide training, support and a culture for change.....	38
5.6 Evaluate action	40
5.7 Scale up, embed and sustain effective action.....	43
5.8 Integrating steps to implement action	46
6. Current issues and research needs in the ACE field.....	49
7. References.....	50
Appendices: sector roles	52

1. Introduction

This handbook aims to support action to address adverse childhood experiences (ACEs) by providing professionals and organisations with guidance on implementing work to prevent ACEs, build resilience, and develop trauma-informed organisations, sectors and systems.

ACEs include child maltreatment¹ (such as physical, emotional or sexual abuse) **and other stressful experiences within the first 18 years of life**, such as exposure to family and intimate partner violence or substance abuse by parents or caregivers. These experiences have the potential to **alter a child's developing brain and biological systems**. ACEs can have an **immediate physical and psychological impact** on a child, but can also increase the **risk of later behavioural, health and social problems** that impact individuals, communities, societies, and health and other services [2]. That said, many individuals do not experience adverse outcomes from ACEs, displaying **resilience** to their harmful effects. Individuals with access to sources of resilience, such as positive coping strategies, trusted adult relationships, or good community support, have the resources available to cope better with their experiences and **avoid harmful impacts**.

ACEs are widespread across Europe and other continents in both child and adult populations. Therefore, addressing ACEs and reducing burdens on individuals, families and wider societies is essential. This should be through:

- **Preventing ACEs** from occurring through action during early years and in schools and families.
- **Building resilience** such as life skills to help children mitigate the effects of ACEs if they occur.
- Developing **trauma-informed organisations, sectors and systems** (e.g. health, social, criminal justice and education systems) where staff, policy makers and the public understand ACEs (and trauma) and their consequences and can support individuals with ACEs to prevent re-traumatisation and improve outcomes [3–5].
- Tackling the wider structural inequalities that exacerbate and sustain the experience of ACEs, such as poverty, discrimination and poor housing (beyond the scope of this report).

Addressing ACEs and their impact across the life course (and generations) requires a collective response from governments, non-governmental organisations, society and the private sector through the implementation of a comprehensive package of prevention [6], response and support. Strategies that prevent ACEs from occurring in the first place are optimal as they not only support good health and social well-being across the life course for individuals and their families but also minimise the financial burden of ACEs on economies.

This handbook explains what you need to know about ACEs, resilience and trauma-informed organisations, sectors and systems. It draws from previous evidence-based interventions, policies and strategies relating to exposure to individual or multiple ACEs and describes how to move from knowledge to action. To support continuous improvement in tackling ACEs, the handbook highlights the need for rigorous evaluation of action to ensure that future work to prevent ACEs, build resilience and develop trauma-informed organisations, sectors and systems adds to a growing evidence base.

This handbook draws on extensive research on ACEs, resilience and trauma-informed practice, including promising and effective programmes of work to prevent ACEs and mitigate their effects; presented in the accompanying report 'Tackling Adverse Childhood Experiences (ACEs): State of the Art and Options for Action' [2]. The handbook is intended for use alongside the State of the Art report, providing practical information to enable action.

Some of the evidence that forms the basis of this report focuses on work to prevent or respond to child maltreatment and other ACEs and build resilience although, as a relatively new concept, not all evidence was described as trauma-informed at the time that it was published.

¹ Child maltreatment is one form of the wider category: violence against children. Violence against children includes all forms of violence against people under 18 years old, whether perpetrated by parents, caregivers, peers, romantic partners or strangers.

2. How to use this handbook

This handbook will provide information on:

Why?

Section 3: The importance of addressing ACEs

This includes information on what ACEs are, their prevalence, risk factors and potential impacts across the life course and to society.

What?

Section 4: What works to address ACEs?

This includes details of evidence-based interventions for individuals, families and communities that show promise or are effective in **preventing** ACEs and in **building resilience**. Existing **trauma-informed organisations, sectors and systems** are also described, including detail on how they work. The roles that different stakeholders/sectors can play in addressing ACEs are identified.

How?

Section 5: Implementing prevention, resilience and trauma-informed organisations, sectors and systems

Following on from the evidence, this section sets out a framework that includes steps to implement key prevention/resilience building strategies and trauma-informed organisations, sectors and systems, including case studies with experts on their implementation.

Where next?

Section 6: Current issues and research needs in the ACE field

This includes limitations and gaps in ACE research to guide future progress on work to address ACEs.

3. The importance of addressing ACEs

Adverse childhood experiences (ACEs) are widespread across Europe and other continents. They can have devastating impacts on children's physical health, mental health and social well-being across the life course and perpetuate inequality within populations. The impacts of ACEs can also place substantial burdens on services such as health, social care, education and criminal justice. The financial impacts across society are immense.

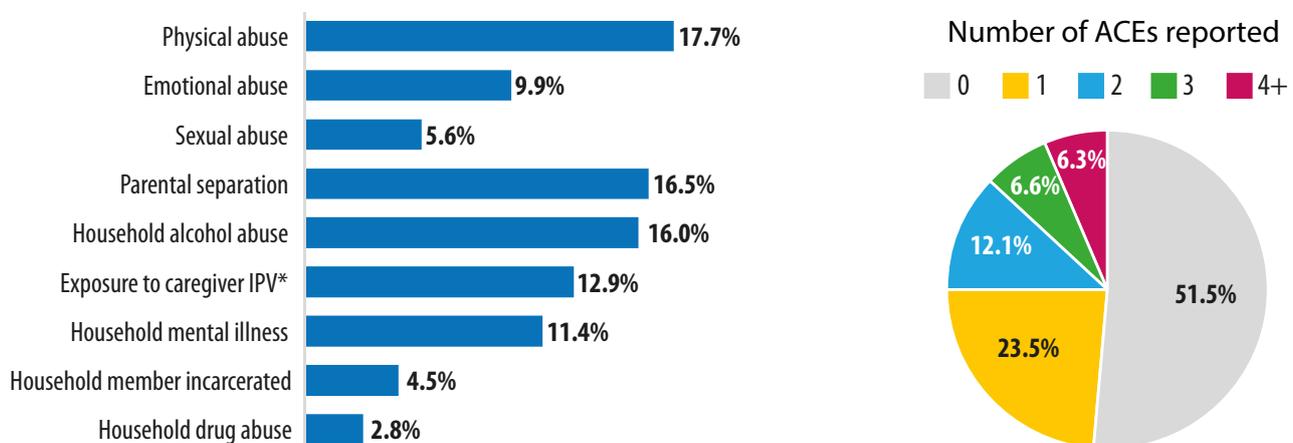
3.1 What are ACEs?

The term ACEs refers to some of the most intensive sources of stress that children can suffer whilst growing up. These can include child maltreatment (physical, emotional or sexual abuse) and living in a household with adversities such as family and intimate partner violence or parental substance abuse, mental illness or incarceration. A child may experience a single incident or repeated traumatic events, and may be exposed to multiple ACEs during childhood, particularly as adversities often cluster in affected families. There is currently no universally agreed definition of ACEs. Research often refers to a specific range of ACEs that affect children in the home environment and which reflect a lack of safe and nurturing care essential for healthy child development. However, children can suffer a wide range of other adversities both inside and outside of the home, such as parental death, parental gambling and other non-substance addiction, bullying in school, community violence, racism, discrimination, persecution, forced migration, exposure to war, terrorism or natural disasters. These experiences can be equally traumatic and harmful to children and are already measured in some ACE studies [7]. Childhood adversities may not always be referred to as ACEs but can also be described as child maltreatment or childhood trauma.

3.2 The prevalence of ACEs

Whilst figures vary, studies across the world suggest that around a half of adults in general populations have suffered at least one ACE [8]². Since 2010, the World Health Organization (WHO) Regional Office for Europe has supported the implementation of ACE surveys among 18,747 students aged 18-25 years in 13 European countries. Nine ACE types were measured. Almost half of students had experienced at least one ACE and around one in four had suffered multiple ACEs (Figure 3.1). The prevalence of individual ACEs ranged from 17.7% (physical abuse) to 2.8% (household drug abuse) (Figure 3.1). Combined analyses of surveys in Europe estimates that annual child maltreatment prevalence rates are 10% for sexual abuse, 23% for physical abuse and 29% for emotional abuse [9].

Figure 3.1: Number and prevalence of ACEs reported by students aged 18-25 in 13 European countries³



*IPV = intimate partner violence.

² The review reported that across studies, prevalence of 1+ ACEs ranged from 33% to 88%.

³ Analyses conducted for this report are based on data in [10,11].

3.3 Impacts on health and society – life course issues

ACEs can affect children’s physical and mental health and social well-being across the life course. Studies have identified a high burden of mental ill health and health-harming behaviours (e.g. smoking, substance abuse, risky sexual behaviour) arising from ACEs [10,11]. ACEs have also been associated with increased risks of poor educational outcomes, involvement in violence or criminal behaviour, poverty or unemployment, and early onset of chronic illness (Figure 3.2). Although a range of negative outcomes have been associated with ACEs, experiencing ACEs is not deterministic. Many people exposed to ACEs do not experience harmful effects, displaying levels of resilience to the uptake of health-harming behaviours associated with negative outcomes [12].

Resilience is defined as:

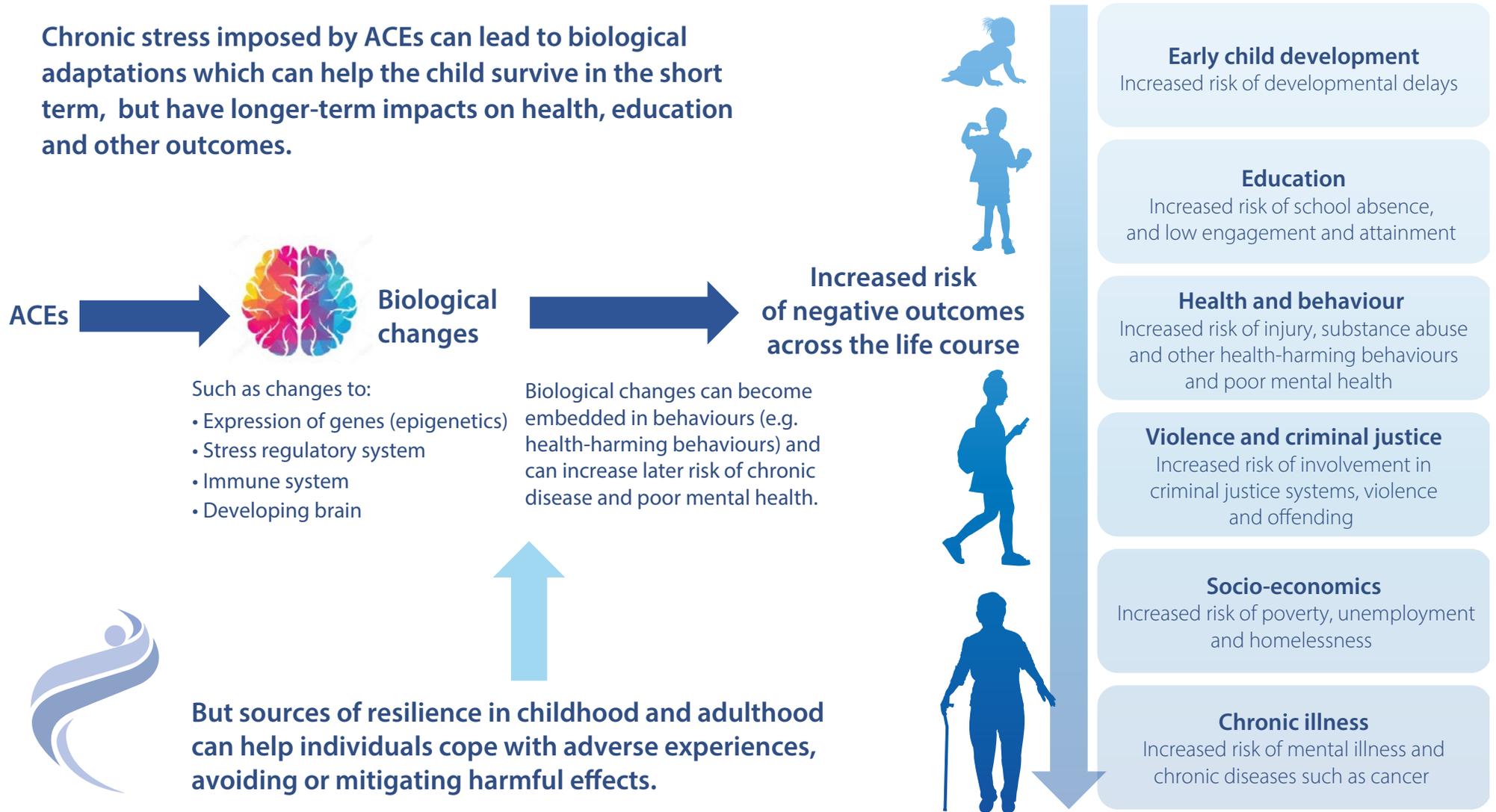
“The dynamic process of adapting and responding well individually or collectively in the face of challenging circumstances, economic crisis, psychological stress, trauma, tragedy, threats, and other significant sources of stress. It can be described as an ability to withstand, to cope or to recover from the effects of such circumstances and the process of identifying assets and enabling factors” [13].

Building resilience is therefore important and can be achieved through the following sources [2]:



Figure 3.2: Harms arising from ACEs across the life course

Chronic stress imposed by ACEs can lead to biological adaptations which can help the child survive in the short term, but have longer-term impacts on health, education and other outcomes.



3.4 Intergenerational effects

ACEs' harmful effects can extend across generations, impacting on the health and behaviour of offspring [14–19]. Additionally, parents who have suffered ACEs can be at increased risk of exposing their own children to ACEs [20], creating a cycle of ACEs (Figure 3.3). How ACEs pass on from one generation to the next is not fully understood. However, there are likely to be multiple pathways including: biological changes in the parent and foetus; parental mental illness; parental health-harming behaviours such as substance abuse or poor diet; social learning; and environmental factors such as low socio-economic status or social isolation [21–28].

Figure 3.3: The intergenerational cycle of violence and abuse



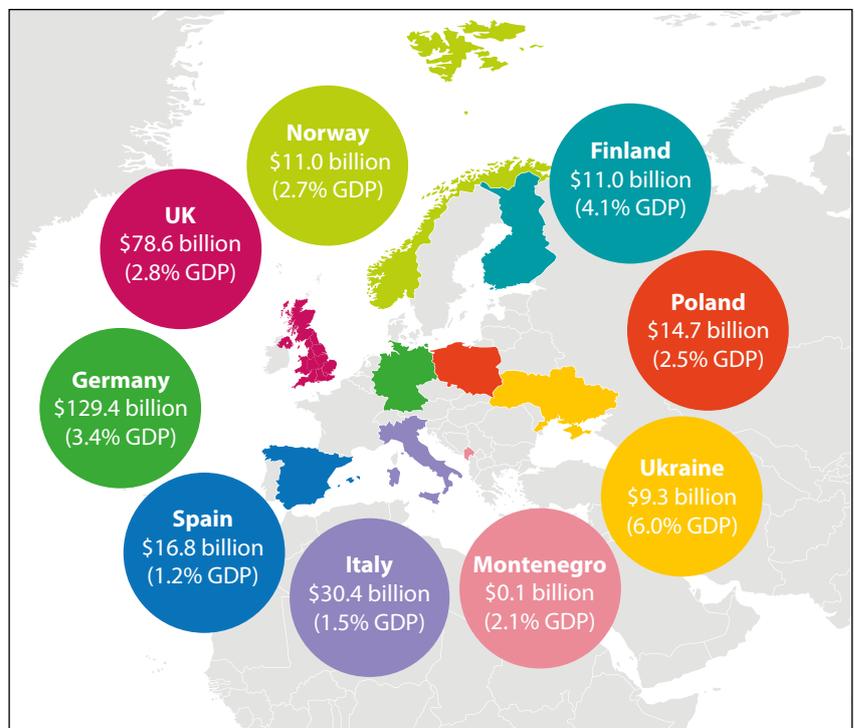
3.5 Wider impacts – costs to society

The financial burden associated with ACEs is vast due to their long-lasting impacts across the life course. There are immediate costs during childhood, which include costs to health, social care, education and criminal justice systems. Additional longer-term costs relate to the health and social impacts of ACEs leading to ongoing health, social care and criminal justice demands, as well as unemployment and lost productivity due to illness or premature death.

Combined analyses of data from European studies measuring the prevalence and impacts of ACEs estimated their annual health and financial burden in 28 individual countries [1]; Figure 3.4 presents some of these findings. Total ACE-attributable costs (costs that would be avoided on average if ACEs were prevented) ranged from \$0.1 billion (Montenegro) to \$129.4 billion (Germany) and were equivalent to between 1.1% of nations' gross domestic products (GDP) for Sweden and Turkey and 6.0% for Ukraine⁴. Harmful alcohol use, smoking, and cancer accounted for the highest ACE-attributable costs in many countries.

It is important when advocating for intervention and change to understand the costs of leaving ACEs unaddressed and the realisable savings to health and the wider economy if they were prevented or their impacts mitigated.

Figure 3.4: Estimated annual costs (US\$ in 2019)* of ACEs across four health risks and eight health conditions in European countries and the equivalent percentage of GDP [1]



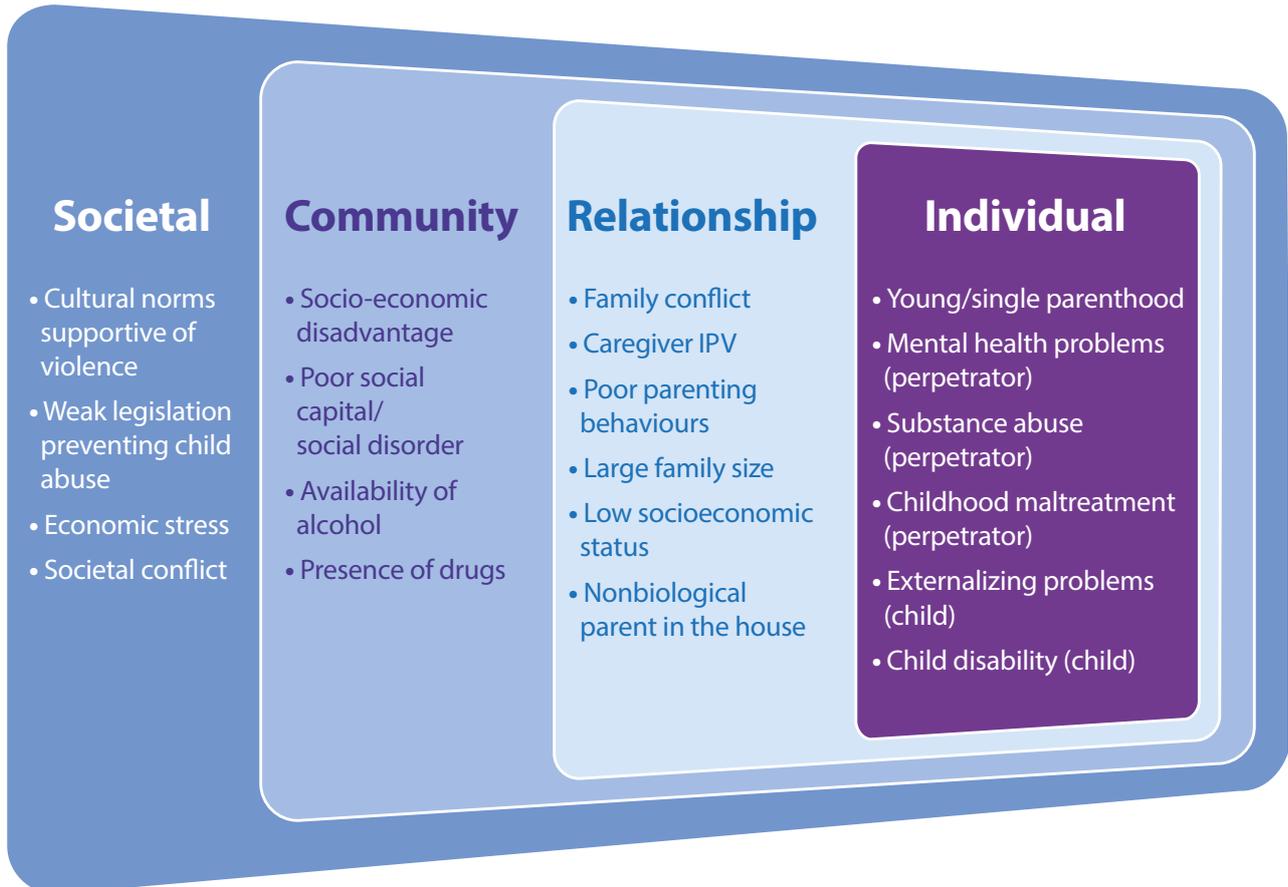
* The extent and quality of data available to estimate costs varied widely across countries. Therefore, findings presented here are not comparable across countries but represent the best estimates for each country using available data.

4 This figure relates to the period prior to the conflict in Ukraine, which began in February 2022.

3.6 Factors increasing the risks of ACEs and vulnerable groups

Several factors can increase or decrease the risk of children suffering ACEs. As ACEs include many different experiences, they have many risk factors that apply to one or multiple ACE types and can occur at individual, family, community and societal levels (Figure 3.5 [29]). Many of these factors also increase the risk of other types of adversity. For example, socio-economic deprivation is a stressor for parents and can act as a catalyst for ACEs such as parental separation, mental illness, substance abuse and incarceration. Equally, experiencing ACEs can result in reduced socio-economic opportunities for individuals and families across the life course and thus a greater likelihood that the individual and their families will experience poverty.

Figure 3.5: Examples of common risk factors associated with violence against children [30]



4. What works to address ACEs?

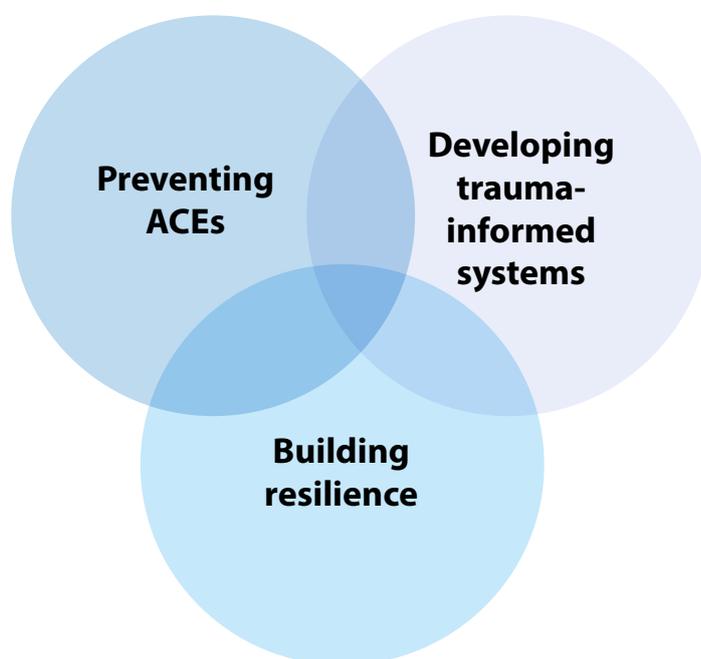
ACEs can be addressed across the life course, through:

- Programmes to **prevent ACEs and/or respond to ACEs when they occur.**
- Interventions that **build resilience and give individuals the resources to cope with adverse experiences.**
- The development of **trauma-informed organisations, sectors and systems that recognise and support those affected.**

Strategies for each of these stages are detailed in this section. Although these are often regarded as separate strategies, in practice they often overlap (Figure 4.1). For instance, actions to prevent ACEs can also build resilience, whilst trauma-informed organisations, sectors and systems may include actions to respond to ACEs, build resilience, or prevent intergenerational transmission of ACEs. In an ideal world, all organisations, sectors and systems would be trauma-informed, working together to prevent ACEs, build resilience and respond to adversity. Work to tackle ACEs requires co-ordinating action across all three strategies. The earlier an individual benefits from action to address ACEs, the more chance there is of reducing individual and population burden of ACEs.

Addressing ACEs requires a multi-sector approach informed by data and evidence. This can be supported by strengthening national and global data on the extent and impacts of ACEs, sharing evidence and practice, building knowledge and capacity, and developing partnership working at local, national and international levels.

Figure 4.1: Addressing ACEs across the life course



4.1 Who should be involved?

This work spans across **all sectors** of the economy, including public, private, and voluntary, and extends to the media and general public. A multi-sector approach is needed to implement the strategies. Sector-specific actions and responsibilities are identified below (see Appendix tables 1-7 for further detail on their roles and examples of practice). For each strategy (Sections 4.2.1-4.2.5), there are ways in which **all sectors**, including the general public, can be involved.

Local and national legislators and policy makers

Communicate messages widely, create legislation and policy, allocate funding, provide oversight and adopt trauma-informed approaches.



Public health systems

Communicate messages, advocate, allocate funding, and deliver, monitor and evaluate. Adopt trauma-informed approaches.



Health and care

Deliver or support the delivery of interventions, screening, and adopt trauma-informed approaches.



Academia

Provide expertise and resource, build evidence, evaluate and monitor, and adopt trauma-informed approaches.



Community/3rd sector (non-governmental organisations)

Deliver or support the delivery of interventions and adopt trauma-informed approaches.



Criminal justice

Enforce laws, educate staff, deliver or support the delivery of interventions and adopt trauma-informed approaches.



Education

Educate children, parents and professionals, deliver or support the delivery of interventions and adopt trauma-informed approaches.



Media

Use media wide coverage to raise awareness of ACEs and their solutions.



Public

Understand ACEs and their consequences, practice kindness and understanding towards others, and advocate for change.



4.2 Preventing ACEs and building resilience

There are a range of different strategies that can be used to prevent and respond to ACEs and build resilience. These strategies cut across the different ACE types, and include:



1. **Strengthening families** and developing/maintaining safe, stable, nurturing relationships and environments for children, families and wider communities.



2. Provision of **education** and opportunities to **develop life skills** that help children deal with stress, negative emotions, behaviours, and conflict.



3. **Response and support services** that aim to reduce the impact that adversity has on children and adults (see also 4.3 Developing trauma-informed organisations, sectors and systems).



4. **Multi-component programmes** that combine different strategies to address multiple risk factors at the same time.



5. **Addressing harmful social norms and values (societal attitudes and conditions)** through policies, legislation and strategies that promote the social determinants of health and human rights, address inequalities in health and genders, and aim to alter norms, behaviours and environments that promote ACEs.

The five strategies, and related actions and programmes are presented in Table 4.1. This table uses tick marks to indicate which strategies have been shown to be promising or effective in preventing specific ACE types, or in building resilience [2]. Those without tick marks may also be effective, but there is currently less evidence to support these approaches. Each of the main strategies and their importance are described in more detail in Sections 4.2.1-4.2.5.

Further information on all strategies can be found in the report *Tackling Adverse Childhood Experiences: State of the Art and Options for Action* [2]. Implementing multiple strategies is likely to offer the widest benefits (Box 4.1). There are several additional resources that can be helpful in addressing specific ACEs. A summary of these resources can be found in Section 4.2.6, whilst additional useful resources can be found in Section 4.2.7.

Box 4.1: Collective application

Implementing multiple strategies that can address a range of risk factors and enhance protective factors may offer the widest benefits. Therefore, the strategies should be viewed collectively to address ACEs as opposed to viewing single strategies or programmes in isolation.

It is important to note that many people with ACEs will not be identified at the point that ACEs occur; these individuals could have higher risks of engaging in health-harming behaviours later in life (Section 3.3). Alongside the actions and programmes presented in Sections 4.2.1-4.2.5 therefore, work to address ACEs would also benefit from programmes aiming to prevent health-harming behaviours such as smoking, substance abuse and risky sexual behaviour. Such programmes should be aware that the individuals they are aiming to support may have adopted health-harming behaviours, at least in part, because of ACEs they have or are continuing to suffer.

Table 4.1: Effective/promising interventions to prevent and/or mitigate the impacts of ACEs, prevent risk factors for ACEs, or build resilience

Strategy		Child maltreatment	Exposure to household/parental:					Building Resilience
			IPV	Alcohol use	Drug use	Mental illness	Incarceration	
	1. Strengthening families and other relationships							
	• BEST BUY* : Parenting programmes	√	√	√		√	√	√
	• Income and economic strengthening	√	√					
	• Mentoring interventions							√
	2. Providing education and life skill development							
	• BEST BUY* : School-based prevention or education programmes	√	√	√	√	√		√
	• Pre-school enrichment (with family support)	√						√
	• Training of health sector and other professionals	√						√
	3. Multi-level programmes							
	• BEST BUY* : Family-level (combine components for children, their parents and their wider families)	√		√	√	√		
	• Community-level (combine components for children, parents and families with wider community)	√						
	4. Providing good quality response and support services							
	• BEST BUY* : Counselling and therapeutic approaches	√	√	√		√		√
	• Approaches to support survivors to increase safety and lessen harms	√	√					
	• Screening and brief intervention			√	√			
	• Pharmacological treatment			√	√	√		
	• Programmes to address specific ACEs (e.g. prison nursery programmes or psychoeducational interventions for children of divorced parents)						√	√
	5. Addressing harmful social norms (societal attitudes and conditions) that enable ACEs							
	• BEST BUY* : Implementation/enforcement of laws	√	√	√	√	√		√
	• Empowerment programmes (e.g. microfinance; gender equality; relationships)		√					
	• Public awareness raising and education programmes	√						√
	• Change social/cultural gender norms (e.g. media awareness; work with men and boys)		√					√

*Best buys selected according to the current available evidence.

4.2.1 Strategy 1: Strengthening families and other relationships



Why is this important?

Financial insecurity and unstable relationships within families can result in stress and poor parenting practices, which are risk factors for child maltreatment, family and intimate partner violence and other adversities impacting children. Safe, stable, nurturing relationships and environments for children, within families and wider communities, are vital for preventing ACEs and supporting those affected. Trusted relationships are also a source of resilience. These positive environments for children from the very beginnings of life also have the potential to benefit early childhood development.

What does this involve?

Strengthening families and other relationships is a family and community-level strategy that aims to strengthen parenting practices, encourage healthy relationships between children and parents and/or other caring adults or peers and improve the financial security of families by:

- Delivering **parenting programmes** that provide educational and emotional support. These programmes can help parents to develop safe and stable relationships with their children, develop a safe home environment for children to grow [6,30], strengthen parenting skills, and (in some instances) help to address specific ACEs (e.g. parental mental illness or substance abuse).
- Providing **income and economic support** to improve families' financial security and ability to provide children with basic necessities (e.g. food and shelter) and safe and nurturing child care, and reduce parental stress [31,32].
- Providing **mentoring** interventions to connect children with a caring adult or peer, at school or in the community, with whom they can build a supportive relationship and who will act as a positive role model for the child [6].



Parenting programmes

Parenting programmes are targeted at caregivers to improve their knowledge of child development and parenting skills and strengthen parent-child relationships. Parenting education programmes are often group-based and delivered in community settings. They can focus on specific problems, such as how to prevent abusive head trauma in infants [33], whilst others take a more general approach. Home visiting programmes provide personal support during pregnancy and post-partum to develop parenting practices and opportunity for referral to services through a series of home visits. Parenting programmes have been successful in reducing child maltreatment and child injuries, reducing risk factors for child maltreatment such as harsh parenting and promoting protective factors such as positive strengths-based parenting practices [34,35]. Although programmes may be resource intensive, they can offer substantial return on investment in some locations and populations [36–38], and there is good evidence for affordable programmes designed for low-resourced countries (e.g. Parenting for Lifelong Health (PHL); [39,40] see also Step 7).

4.2.2 Strategy 2: Providing education and life skills



Why is this important?

Increased knowledge and skills can change behaviours and ways of coping. The provision of education and life skills can build **resilience** in children and adolescents through making them aware of potentially harmful situations, building knowledge about how to protect themselves, and developing skills that help them deal with stress, negative emotions, behaviours, and conflict.

These can contribute to preventing violence victimisation and perpetration along with avoiding engagement in other health-harming behaviours [6]. Providing education and life skills to children and adolescents not only helps to protect against the effects of different ACEs, but also develops skills for healthy intimate relationships for themselves and their offspring in the future. For professionals, education can help to raise awareness of ACEs to recognise and support those affected and can be part of broader trauma-informed organisations, sectors and systems (see Section 4.3).

What does this involve?

Providing education and life skills is an individual, family and system-level strategy that aims to increase knowledge and understanding in children and professionals. Work with parents is included within Strategy 1: Strengthening families and other relationships. Work with children and professionals includes:

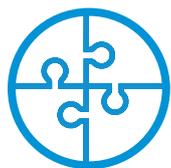
- **Pre-school enrichment programmes** that improve life skills, build resilience and educate young children on specific forms of violence such as sexual abuse. These programmes are often delivered alongside programmes to strengthen families.
- **School-based prevention or education programmes** that aim to teach children about specific forms of abuse and how to recognise harmful situations, including in online environments. These programmes can also build children's internal (e.g. problem solving, self-regulation) and/or external (e.g. peer support, community participation) resilience.
- **Training of health sector and other professionals** to raise awareness of abuse and the ways in which they can offer support and referral.

Best buy!

School-based prevention or education

School-based prevention programmes can be used to protect against certain ACEs, and to build resilience through the development of life skills. For instance, some school-based programmes aim to teach children about sexual abuse, how to recognise and avoid harmful situations, body ownership, how to distinguish between appropriate and inappropriate forms of touching and disclosing abuse to a trusted adult. These programmes can be effective at strengthening protective factors against child abuse (e.g. knowledge of sexual abuse/protective behaviours) and may increase disclosures [41]. Other school-based programmes aim to build children's resilience through the development of life skills such as problem solving and self-regulation, and through improving sources of support. Programmes can be effective in addressing depressive symptoms, internalising and externalising problems, general psychological distress [42] and some risk behaviours e.g. adolescent illicit substance use [43].

4.2.3 Strategy 3: Implementing multi-component programmes



Why is this important?

Addressing multiple risk factors at the same time can often increase the potential for changes to occur, and for them to occur at wider levels, such as within a whole family or community. For instance, providing education and life skills to children may affect children's individual risk factors for ACEs and improve individual resilience. However, including components for parents/families or wider communities may also influence relationship and community-level risk factors and strengthen community resilience, increasing the overall potential for impact.

What does this involve?

Implementing multi-component programmes is a family and community-level strategy that aims to increase effectiveness of action to tackle ACEs by combining different interventions and population groups, such as:

- **Family-level programmes.** These combine components for children, their parents and their wider families and may involve education, skill building and practical support such as childcare.
- **Community-level programmes.** These combine components for children, parents and families with wider community engagement such as awareness campaigns, strengthening community resources or improving social relationships and networks. Community engagement could help to raise awareness of ACEs and promote kindness towards others in the community, linking in with wider trauma-informed systems (see Section 4.3).

Best buy!

Family-based multi-component programmes

At a family level, the Strengthening Families Program is a skill building programme for high-risk and general population families that combines parental, youth and family skill building elements. For parents, this can include work on alcohol/drug relapse prevention, family relationships, parental supervision, communication and use of positive reinforcement. For children, sessions can include developing skills in problem solving and coping mechanisms. The programme has been successful in improving factors such as positive parenting and parenting confidence [44]. In Europe, programmes such as Sure Start provide multiple components for parents and children such as child care, home visits and parental support. In lower income countries, Parenting for Lifelong Health (PHL) offers a range of programmes for parents and children to prevent violence with minimal resources, and has been associated with improvements for caregivers and children [39,45].

4.2.4 Strategy 4: Providing response and support



Why is this important?

Across all ACEs, the provision of safe and effective response and support services to those affected are vital, helping individuals and families cope with the emotional and physical effects of adversity and trauma. The better and earlier the support given to children and adults affected by ACEs, the better the chances of mitigating effects on health and reducing the likelihood of intergenerational transmission. The provision of response and support can be a part of wider trauma-informed systems (see Section 4.3) that integrate knowledge on ACEs and trauma into policies and practice.

What does this involve?

Providing response and support to those affected by adversity and trauma is an individual and family-level strategy that involves:

- Offering **counselling and therapeutic support** (which should be trauma-informed, see Section 4.3) to children and parents, either jointly or separately.
- **Supporting survivors to increase safety and lessen harms.** This can include health, emotional and practical support such as legal advice or shelter.
- **Screening and brief intervention** within health and other services to identify and help those suffering from the impacts of ACEs that may need support.
- **Pharmacological treatment** to help overcome problems associated with ACEs such as substance abuse or mental ill health.
- Support for specific ACEs, such as **psychoeducational interventions** to help children affected by parental separation, or work to facilitate parental relationships and child development for incarcerated parents and their children, such as **prison nursery programmes**, **community residential facilities** that allow mothers and children to live together, and **parent-child visitation programmes** to continue relationships.
- **Work with perpetrators of violence**, such as intimate partner violence, to change attitudes and behaviours, build skills and reduce risks of re-offending.

These approaches must be culturally appropriate and gender sensitive to avoid re-traumatisation.



Counselling and therapeutic approaches

Counselling and therapeutic approaches support children, parents and caregivers to cope better with the impacts of ACEs and other challenges in their daily lives. There are a wide range of different strategies, including cognitive behavioural therapy, psychotherapy and motivational interviewing. Child-centred therapies such as play therapy are used with children. These approaches have shown benefits in parents, such as reductions in parental depression and emotional distress [46]; improved parenting practices, coping skills and family functioning [47–51]; and improved outcomes for specific ACEs such as reduced parental alcohol use [52,53]. Benefits have also been reported in children, such as improvements in children's mental health and coping skills, and reductions in behavioural problems, reductions in parental depression and emotional distress, and improved parenting practices and family functioning [54–56].

4.2.5 Strategy 5: Addressing harmful social norms and values (societal attitudes and conditions)



Why is this important?

Socially or culturally accepted norms allow or expect certain behaviour within a cultural or social group. Harmful social norms concerning age, gender, ethnicity and socio-economic status can make ACEs more likely and perpetuate inequality. For instance, it may be socially acceptable for parents to use corporal punishment to discipline a child, for men to assert power over women, or for girls to be forced into marriage. Norms can also hinder help-seeking behaviours; for example, there may be stigma attached to mental health issues or help-seeking behaviours, particularly for males. Addressing harmful social norms and values can help to shift social environments so that they protect against ACEs, rather than enable them.

What does this involve?

Addressing harmful social norms and values is a societal-level strategy that aims to improve knowledge, attitudes and behaviours that will reduce ACEs or promote help-seeking behaviours, through:

- The **implementation/enforcement of policies and laws** that promote human rights, criminalise behaviours relating to ACEs (e.g. violence against children or intimate partners), and address wider social determinants of health that can impact on the risk of ACEs occurring, for example: income and social protection, education, employment and job security, housing and affordable access to decent health services.
- **Public awareness raising and education programmes** that aim to change harmful attitudes and behaviours via multiple platforms including television, radio, printed materials and the Internet. **Bystander programmes** can also challenge harmful social norms and behaviours through encouraging people to intervene when witnessing abuse.
- Working with specific groups to challenge harmful social norms and behaviours, such as programmes that **empower women**, or work with men and boys to **change social/cultural gender norms**.



Implementation / enforcement of laws

Laws that criminalise certain behaviours relating to ACEs or their risk factors send a message to society that it is not acceptable and therefore, can alter social norms and values that promote ACEs [57]. Legislation relating to ACEs and their risk factors includes prohibiting corporal punishment of children, including in the home; prohibiting intimate partner violence; controlling excessive use of alcohol e.g. the enforcement of minimum prices; and prohibiting the use of recreational drugs. Legislation can also be used to strengthen protective factors for ACEs, such as enforcing key environmental, financial and work-related factors important for good mental and physical health (e.g. legislation on housing conditions, child-benefit requirements, and parental leave requirements). Although legislation is rarely evaluated, if it is enforced, it has the potential to impact substantially and in the long term across whole population.

4.2.6 The prevention of and response to individual ACEs

There are several additional resources that can help guide the prevention of and response to individual ACEs such as child maltreatment, caregiver intimate partner violence, and parental substance abuse and mental illness (see summary boxes below). These resources include strategies like those outlined in sections 4.2.1-4.2.6 but also include interventions targeting the specific ACE. Resources on other ACEs, such as parental incarceration and parental separation, are currently lacking.

Child maltreatment

WHO's *INSPIRE: Seven strategies for ending violence against children* [32] identifies a select group of strategies that have shown success in reducing violence against children:

- Implementation and enforcement of laws.
- Norms and values.
- Safe environments.
- Parent and caregiver support.
- Income and economic strengthening.
- Response and support services.
- Education and life skills.

Caregiver intimate partner violence

WHO's *RESPECT women: Preventing violence against women* [58] is a framework for policymakers and presents a range of strategies to prevent violence against women:

- Relationship skills strengthened.
- Empowerment of women.
- Services ensured.
- Poverty reduced.
- Environments made safe.
- Child and adolescent abuse prevented.
- Transform attitudes, beliefs and norms.

Parental alcohol abuse

WHO's *Tackling NCDs: 'best buys' and other recommended interventions for the prevention and control of noncommunicable diseases* [59] identifies strategies to reduce the harmful use of alcohol, such as:

- Increasing awareness of alcohol harms.
- Increasing excise taxes on alcoholic drinks.
- Enacting/enforcing restrictions on availability.
- Enacting/enforcing drink-driving laws.
- Providing brief psychosocial interventions.

Parental drug use

United Nations Office on Drugs and Crime and WHO's *International standards on drug use prevention* [60] presents evidence-based and cost-effective interventions and policies for the prevention of drug use, such as:

- Home visitation for parents.
- Multi-component community interventions.
- Early childhood education for disadvantaged communities.
- Personal and social skills education.
- Brief interventions for those at risk.

Parental mental illness

The WHO's *Mental health action plan 2013-2020* [61] includes strategies to prevent mental illness and promote well-being, such as:

- Antidiscrimination laws and campaigns that address stigmatisation/human rights violations.
- Promotion of rights, opportunities and care of individuals with mental disorders.
- Early childhood programmes, life-skills training and parenting programmes.
- Early identification and treatment of emotional and behavioural problems.
- Provision of healthy living and working conditions.
- Protection programmes that address child abuse / violence.
- Social protection for the poor.

Parents can experience changes in mental health during the perinatal period. The WHO supports the integration of perinatal mental health in maternal and child health services to improve parental support [62].

4.2.7 Additional useful resources

This section presents a selection of additional useful resources for each of the five strategies outlined in sections 4.2.1-4.2.5.

Title of resource	Author	Strategies included in resource				
						
INSPIRE: Seven strategies for ending violence against children	World Health Organization	√	√	√	√	√
Preventing child abuse and neglect: A technical package for policy, norm and programmatic activities	CDC	√	√	√	√	√
Ending violence against children: six strategies for action	UNICEF	√	√	√	√	√
Designing parenting programmes for violence prevention	UNICEF	√				
Parenting and caregiver support programmes to prevent and respond to violence in the home	The prevention collaborative	√				
Life skills education school handbook	World Health Organization		√			
A comprehensive technical package for the prevention of youth violence and associated risk behaviours	CDC		√	√	√	√
Effectiveness of response mechanisms to prevent violence against women and girls	WhatWorks to prevent violence				√	
Social norms atlas	The Social norms learning collaborative					√
DFID guidance notes: shifting social norms to tackle violence against women and girls (WAWG)	Violence against women and girls helpdesk					√

4.3 Developing trauma-informed organisations, sectors and systems

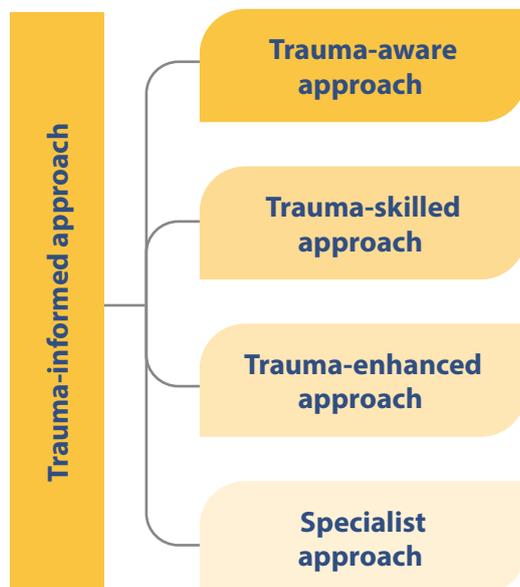


ACEs often result in trauma. Trauma is the psychological impact of experiencing or witnessing physically or emotionally harmful or life-threatening events that can happen at any time of life including those that occur in childhood such as ACEs. It may be a single incident or prolonged or repeating experiences. Those affected by trauma are at increased risk of exposing their own children to ACEs (see Section 3.4 Intergenerational effects). While the literature includes a range of definitions of trauma-informed practice [63], the definition provided by the US Substance Abuse and Mental Health Administration (SAMHSA) is the most widely accepted and cited version⁵ and covers the event itself, the experience of the event, and the effect via four underlying assumptions (accompanied by six key principles; Box 4.2). SAMHSA [64] state that a trauma-informed approach:

“realises the widespread impact of trauma and understands potential paths for recovery; recognises the signs and symptoms of trauma in clients, families, staff and others involved with the system; responds by fully integrating knowledge about trauma into policies, procedures and practices, and seeks to actively resist re-traumatisation”.

A potential public health approach to becoming trauma-informed used in Wales, UK involves four connected levels of action with different groups of people across society (Figure 4.3) [65]. The broadest level, a *trauma-aware approach*, involves all members of society, and all organisations, sectors and systems, and seeks to improve awareness of trauma (experienced at any point in life, including ACEs), strengthen coping and build empathy (e.g. the Time to be Kind public campaign; see Box 4.3). A *trauma-skilled approach* involves all members of organisations or services that provide care or support to the public, regardless of whether personally they have a caring role. A *trauma-enhanced approach* involves all professionals providing direct or intensive support to those who have or are likely to have experienced trauma e.g. women in refuge for intimate partner violence. Lastly, a *specialist approach* involves all practitioners providing specialist psychological or pharmacological interventions [65]. The levels are not linear, and individuals affected by trauma can move between levels based on their needs and experiences. An integrated and interacting system will be most effective, whereby those involved in each level of action work closely together to develop a consistent approach.

Figure 4.3: The four levels of a trauma-informed approach used in Wales, UK



⁵ For instance, the SAMHSA definition has been adopted as a working definition of trauma-informed practice by the Government in the UK <https://www.gov.uk/government/publications/working-definition-of-trauma-informed-practice/working-definition-of-trauma-informed-practice>

What does trauma-informed practice involve?

Trauma-informed practice is being used across a variety of services, organisations, sectors and systems, including health, education, policing and criminal justice. Trauma-informed practice helps services to recognise the signs of trauma and understand the impacts that ACEs can have on individuals and families, to ensure that they provide a trauma-informed response. The goal of trauma-informed practice is to support resilience and self-efficacy, and to create a safe environment for service users and staff [66].

Developing trauma-informed organisations, sectors and systems can involve (see also Step 5, page 41):

- Changing organisational culture to prioritise a trauma-informed approach and actively resist re-traumatisation by reviewing/revising policies and procedures.
- Assessing current levels of trauma awareness within organisations [67], for which a growing number of tools are available [68,69].
- Training for staff on ACEs and their impacts, as well as self-compassion and self-care to help manage any painful emotions that arise from past trauma or the trauma of others.
- Changing organisations' delivery of services to ensure they are trauma-informed, including thoughts and language used when engaging with service users (Figure 4.2).
- Providing physical environments that are welcoming, non-stigmatising and non-clinical, that promote feelings of safety and calmness [70].
- Engaging and involving service users and trauma survivors in trauma-informed approaches.

Some trauma-informed systems, predominately in health settings, also use screening or routine enquiry for ACEs [71]. This usually involves completing a tool [72] to measure individuals' past exposure to ACEs, either before or during contact with a health or other professional. Responses to the tool can then be discussed to enable service users to reflect on how their childhood history may be affecting their current health, and to inform any additional support needs.

Box 4.2: Underlying assumptions and key principles for trauma-informed practice [64]

Assumptions

- **Realisation:** Understanding how trauma impacts individuals, families and organisations.
- **Recognition:** The identification of signs of trauma.
- **Response:** System-level responses occur by applying principles of TIP.
- **Resisting re-traumatisation:** For service users and staff.

Principles

- **Safety:** Service users feel physically and psychologically safe; safety is considered in the physical setting, and promoted in interpersonal interactions.
- **Trustworthiness & Transparency:** The organisation is transparent in its decisions and operations in order to build trust with service users, families, staff and other stakeholders.
- **Peer support:** Collaboration with individuals with lived experience of trauma to promote recovery and healing.
- **Collaboration & Mutuality:** Power and decision-making are shared and input from all organisational levels is valued.
- **Empowerment, Voice & Choice:** Individuals' strengths and experiences are recognised and built upon; service users are supported in shared decision-making and goal setting.
- **Cultural, Historic & Gender Issues:** Moving beyond stereotypes and biases to be responsive to the racial, ethnic and cultural needs of different individuals.

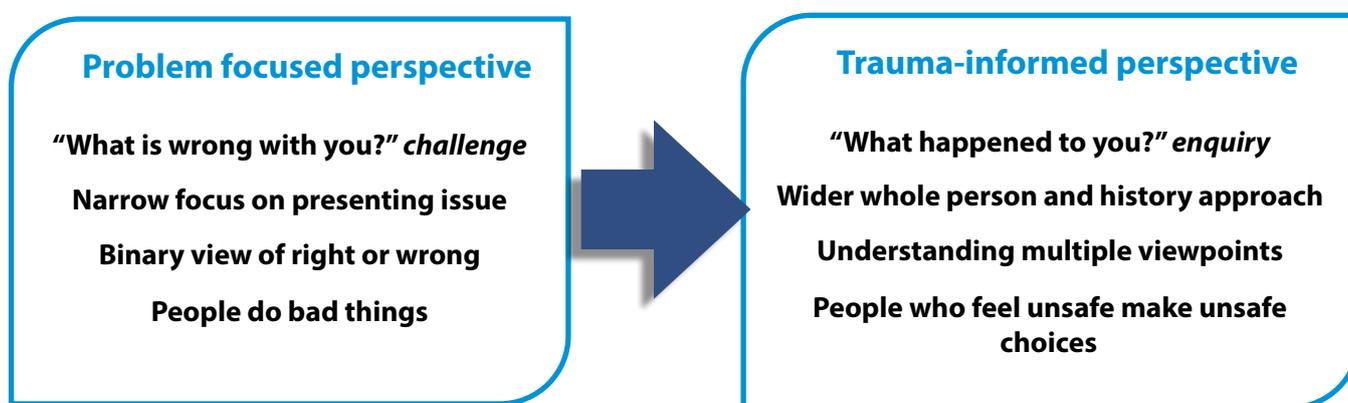
Box 4.3: Time to be Kind

“Time to be Kind” was a public awareness campaign in Wales, UK, which included public engagement with social media and short films aired on television highlighting that compassion and kindness can make a positive difference to those affected by ACEs. An evaluation found some encouraging results in terms of people’s intentions to be kinder.

Website: <https://aceawarewales.com/time-to-be-kind/>

One aspect of developing trauma-informed systems is to change the perspective of service providers and encourage caring and non-judgmental interactions. This can involve changing the thoughts and language used when engaging with service users from being problem focused to trauma-informed.

Figure 4.2: Trauma-informed systems: what happened before versus what’s happening now? [73]



Why is trauma-informed practice important?

There can be unintended harms for both service users and practitioners if services and organisations do not take a trauma-informed approach. Potential service users may not wish to engage with services or may be triggered by aspects of care and re-traumatised if they feel they are not believed or supported. Practitioners may experience emotional costs of empathising with clients’ trauma [74], threatening their own well-being and limiting their care for service users.

Creating a universal understanding

Developing a shared understanding of what is meant by trauma-informed practice is important. Several countries are involved in efforts to create a common definition of trauma-informed practice and improve consistency on practice across professionals and organisations (see also Box 5.8).

5. Implementing prevention, resilience and trauma-informed organisations, sectors and systems

The implementation of work to address ACEs will vary substantially across different types of action, setting, sector, and country, and will be influenced by the availability of resources. However, across all types of action and setting, it can be useful to consider the following steps. These are loosely ordered from the beginning to end of the implementation process, but many steps can be conducted alongside each other.

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

The following sections suggest how the seven steps can be used to implement work to address ACEs, covering the prevention of ACEs, building resilience, and the development of trauma-informed systems. **Guidance is based on several existing documents (Box 5.1).**

Box 5.1: Useful resources to support implementation of prevention, resilience building interventions and trauma-informed systems

- Centers for Disease Control and Prevention. [Violence prevention in practice.](#)
- Centers for Disease Control and Prevention. [Preventing Adverse Childhood Experiences \(ACEs\): Leveraging the best available evidence.](#)
- Public Health Wales, Liverpool John Moores University and WHO. [Tackling Adverse Childhood Experiences \(ACEs\): State of the art and options for action.](#)
- SAMHSA. [SAMHSA's concept of trauma and guidance for a trauma-informed approach.](#)
- Scottish Government. [Trauma-informed practice: toolkit.](#)
- British Columbia Provincial Mental Health and Substance Use Planning Council. [Trauma informed practice guide.](#)
- Community Tool Box. [Toolkits.](#)

1 Assess the current situation and collect data

The first step in implementing work to prevent and address ACEs is to establish a good understanding of the current ACE situation in a population or setting. If feasible, it may help to collaborate with partners to achieve this (see Step 3). You may wish to ask the following questions:

1. How many children and adults are affected by ACEs, which ACE types are most prevalent, and what are the costs of ACEs to society?

Understanding this information can help to justify the need for ACE prevention and support and advocate for change (see Step 2). Understanding the prevalence of ACEs, through surveying children about their current experiences or adults about their childhood experiences (see Box 5.2), can help to inform which approaches to prevention and support would be most useful. It can also act as a baseline to measure the impact of any work to prevent or address ACEs in the future (see Step 6). You may wish to consider:

- **Making use of established ACE tools.** There are several established ACE tools that can be used to collect data (Box 5.3). Using established tools increases the robustness of the data collected and allows for consistency of data across research studies.
- **Using existing data sources.** Some countries conduct population ACE surveys. Many also carry out routine population health surveys and school health surveys that may include questions on ACEs. Administrative data may also be used to collect information on ACEs, such as data from health care systems (e.g. hospitals, general practice), social services (e.g. child maltreatment) or police reports. A number of existing studies have estimated the financial costs of ACEs to society (see Section 3.5).



To save time and resources, it may be possible to adapt existing routine health surveys so that they include ACE questions, e.g. adding an additional module.

You will need to ensure that any new data being collected is done so **ethically** and with **informed consent**. For more information about ethical considerations, please see Box 5.2.

2. What factors could be increasing the likelihood of ACEs occurring, and which ones may offer protection from ACEs?

There are a range of factors that can increase the risk of ACEs occurring and others that protect against them including factors at the individual, family, community, and societal level (see Section 3.6). It is important to take account of these factors – for example the exacerbation of ACEs where there are high levels of deprivation in the community – to help understand the wider social and economic context in which ACEs arise, and to inform future action. Risk factors that are easily modifiable, and that cut across multiple ACEs, are often addressed first (such as family-level factors). However, addressing wider community and societal-level factors, such as income and social protection, access to education, and employment and job security (see Section 4.2.5) can ensure that individuals have the resources needed to make positive changes in their lives.

3. What work is currently being undertaken to prevent or address ACEs in the population or a specific setting?

A good understanding of existing work to prevent ACEs and support those affected can help to avoid duplication of efforts and ensure that work complements existing action. It can also help to progress future work, particularly if past successes and failures are taken into consideration. It may also open up collaborative opportunities for taking work to address ACEs forward (see Step 3) or identify potential entry points for action e.g. adding a module to an existing prevention programme.

4. What are the current levels of awareness and understanding about ACEs among staff / other relevant groups in your setting?

Determining levels of ACE awareness and understanding provides essential information about the environment in which work on ACEs will progress. It can feed into efforts to raise awareness, gain commitment and advocate for change (see Step 2). It can help to identify staff training needs (see Step 5) and can also act as a baseline for evaluating work on ACEs (see Step 6). When determining levels of ACEs awareness in staff, it is important to consider that they themselves may have suffered from ACEs and to have resources in place for any support that may be needed (see Step 5).

5. How ready is your organisation / setting to take a trauma-informed approach?

Identifying organisational readiness for taking a trauma-informed approach can be a useful first step in planning future work towards being trauma-informed. Self-assessment tools are available [70] that measure organisational readiness across different domains, including: governance and leadership (e.g. organisational commitment to becoming trauma-informed), policies and procedures (e.g. policy that outlines commitment), and workforce training and support (e.g. strategies that ensure workforce training on ACEs).

In the early stages of implementation it will help to write a **reference document** or **action plan**, agreed by all partners, about the current situation on ACEs, why ACEs are important to address, the objectives of action, and a plan of how to achieve the objectives. Even at this early stage, it may be helpful to consider longer-term goals regarding the scaling up of effective action, to help identify how initial action may be expanded or sustained in the longer term. This reference document/action plan can help generate shared understanding of ACEs across partners and can act as a useful guide to keep on track with aims and objectives as action progresses.

Box 5.2: Ethical considerations

One method of establishing the prevalence of ACEs in a population is to ask adults about their past experiences or children about their current experiences. Many surveys are retrospective and ask adults to self-report exposure to ACEs; there are fewer instances of surveys measuring children's current exposure. When new data is collected in this way, several ethical considerations need to be considered to protect the rights, health and well-being of those participating in research. This includes for instance: ensuring that participants understand why questions are being asked and understand how the data will be used; ensuring that they agree to take part in a survey (for children, this may also involve gaining consent from an appropriate adult); ensuring that information collected is confidential/anonymous and cannot be traced back to or used against an individual in any way; and ensuring that support is available and signposted to anyone affected by answering questions about their childhood (e.g. access to support services).

Box 5.3: Step 1 further resources

- Global End Violence Against Children Knowledge Network. *Measuring violence against children: a methods menu*: provides methods and strategies to collect data on the prevalence of violence towards children, including ACEs, covering household, school-based and community-based surveys.
- WHO. *Adverse Childhood Experiences (ACE) studies (2012-2018)*: presents a collection of ACE prevalence studies from across Europe.
- WHO. *Measuring and monitoring national prevalence of child maltreatment: a practical handbook*: presents processes and recommendations for the creation of a surveillance system to measure and monitor child maltreatment prevalence across European countries.

ACE measurement tools

There are a range of ACE tools available that vary in length and the number of types of ACEs measured. Some examples include:

- *Behavioural Risk Factor Surveillance Survey (BRFSS) ACE module.*
- *National Survey of Children's Health-ACEs (NSCH-ACEs).*
- *The World Health Organization's ACE-International Questionnaire (IQ) tool.*

1 Collecting data on ACEs in Montenegro

Previous research in Montenegro found high levels of violence against children. As a result, a collaboration between the Ministry of Health of Montenegro, World Health Organization and the Institute of Public Health of Montenegro was formed to conduct a new study on ACEs. The study aimed to investigate the prevalence of child maltreatment and other ACEs in Montenegro, and to examine the relationship between ACEs and health-harming behaviours, whilst adjusting for socio-economic factors. The data was generated to quantify the scope of the issue within the country, to identify risk and protective factors, and to rationalise the development of efficient preventive strategies.

In 2012, a cross-sectional study of university students from all three universities in Montenegro was conducted. The study was based on a standard WHO methodology for collecting ACE data that had been used in similar studies in several European countries, primarily Central and Eastern Europe. The questionnaire used in the survey was adapted from the CDC-Kaiser Permanente Family Health History Questionnaire*. Adaptation, modifications and translations of the questionnaire were made by the survey team members, in close cooperation with the WHO, to ensure that the survey was suitable for the sample and local context. Female and male versions of the survey were produced due to specificity of some of the questions.

The findings showed that over 60% of all respondents reported at least one ACE, with emotional abuse and neglect being the most common types of child maltreatment. Whereas witnessed violence (mother treated violently) and alcohol misuse in the family were the most common types of household dysfunctions. There was a strong-graded correlation between ACE score and the likelihood of substance abuse, multiple sexual partners, smoking and attempted suicide. Therefore, suggesting that ACEs may have a long-lasting negative impact on the physical health, reproductive health, and mental well-being of those affected in Montenegro.

The ACEs survey results were used to raise the profile for the prevention of child maltreatment in Montenegro and in turn impacted policy, which led to a decision on implementing parenting programmes regionally and then nationally. These programmes have involved training existing staff in relevant agencies, such as schools, health centres and specialist services, to deliver the programmes, with continued training and support to help sustain and embed the practices learnt.

Sources [39,75] * Questionnaire available from <https://www.cdc.gov/violenceprevention/aces/about.html>

2 Raise awareness, gain commitment, advocate for change

An important step in developing work to address ACEs is to raise awareness of ACE prevalence and impacts across the life course and gain commitment in addressing ACEs. This will help to create an enabling environment from which work to address ACEs will thrive. Depending on the work and intended setting, this may involve awareness and commitment from governments, leaders of organisations or settings such as schools, staff within intervention settings, parents, communities and the general public. Raising awareness of ACEs and advocating for change can help gain acceptance and motivation for change, increase the ease with which an intervention or action can be implemented, help people to think compassionately about those affected by ACEs, and help gain funding and resources. This could involve (see also Box 5.4):

- 1. Identifying key messages and target groups** for communication. Data collected in Step 1 will be useful in generating key messages around how many people are affected by ACEs and the costs to society if not addressed. Including messages about the wide range of potential impacts that ACEs can have across the life course, and on communities, societies, the economy and/or services such as health, education and criminal justice (see Section 3.3) and highlighting the roles that people can play in helping to address ACEs could also be an integral part of messaging.
- 2. Communicating key messages** and advocating for change using a range of approaches. Specific ACE events such as workshops or conferences may be a useful way to communicate key messages and gain initial commitment. Other options could be meetings, news articles, campaigns or social media that could be used to reach a wide audience, including the general public. It may also be useful to make use of existing networks and partnerships (see Step 3) to create wider circles of communication and share communication efforts.
- 3. Gaining commitment** for action. This could be in the form of a pledge or promise of action/support from selected target groups. For instance, with trauma-informed practice, gaining support and investment from the governance and leadership of an organisation, and making this commitment visible through communication with all staff, is considered to be essential. Commitment to work on ACEs can also result from the development of policies or protocols that enable work to address ACEs, e.g. policies on staff training for ACE awareness.



Consider identifying ACE/trauma champions within different settings to help communicate key messages and co-ordinate action.



Gain commitment from senior officials and managers that can publicise key messages and help progress plans more rapidly.

Box 5.4: Step 2 further resources

- Community Tool Box. *Advocating for Change*: supports planning for advocacy efforts and responding to opposition.
- Cairney and Kwiatkowski. *How to communicate effectively with policymakers: combine insights from psychology and policy studies*: a three-step strategy to communicating with policy makers.

2

Raising awareness of ACEs and gaining commitment to become a trauma-sensitive city in Cork, Ireland.



Previous work in Cork, Ireland, had highlighted several disadvantaged hot spot locations that needed attention. Therefore, the RAPID (Revitalising Areas through Planning, Investment and Development) Co-ordinator at Cork City Council began researching ACEs and trauma and through discussions with other agencies, identified a pattern of similar problems emerging across the city. Learning from a clinical psychologist, the RAPID Co-ordinator took this evidence to the Lord Mayor at the time, who in turn made a commitment to support an agenda to increase awareness of trauma in Cork.

Via the Lord Mayor's office, all relevant agencies in Cork were invited to participate in a free 2-day trauma-aware training event, which aimed to increase awareness on the impact of trauma (including ACEs) and introduce the concept of working using a trauma lens. The training aimed to provide a common language for service providers and a toolbox of approaches for working with those experiencing trauma. The training was presented to almost 400 frontline service providers and organisers from multiple agencies including schools, youth services, homeless services, public services, and family support services in Cork. Following the success of the initial training and positive feedback from agencies, a further 2-day training event was delivered to 500 participants, including those that participated in the original training, plus others. This training looked at how organisations recognise and respond to the impact of trauma with a focus on avoiding re-traumatisation through systems and practices, highlighting that we all have a part to play.

With a new Lord Mayor passionate about the agenda and agency buy in from all, there was a call from the Chief Executive of Cork City Council to become a trauma-sensitive city. A steering committee was established, chaired by the Lord Mayor, with representatives and experts from all different agencies. The ambition to develop a trauma-sensitive city was woven into [Cork Healthy Cities 10-year action plan](#), part of WHO's European Healthy Cities Network. The city of Cork made a commitment to creating trauma-sensitive systems and organisations to ensure that they are working in a compassionate, kind, positive and sensitive way. All organisations agreed to review their policies and processes and pitch where they want to get to in terms of their understanding of and approach to trauma.

The next steps involve asking each organisation to make a pledge to adhere to the principles in the strategic plan. Additionally, a 45-minute trauma-awareness training video is being developed and will be made freely available on the Council website, for the public and professionals, with an intention for all staff in relevant agencies to watch. Further plans include identifying trauma change teams and a trauma-champion that will be mentored to share learning and provide peer support within their organisation. Mapping and evaluation are also underway and will be used to identify what works, with ambitions to scale-up to other areas.

Sources: [76]; Sandra O'Meara, personal communication

3 Develop partnership working

Understanding ACEs allows multiple sectors and agencies to recognise that the issues they see in people's lives, whether health, education, social or criminal justice related, are often rooted in the same childhood adversities and resulting toxic stress response. An ACE framework can therefore be a useful tool to underpin multi-sectoral partnership working. Working with partners to address ACEs can share the resources and efforts needed to plan and implement action, extend the level of expertise that can be brought to plans and actions, and ensure that work to address ACEs complements rather than duplicates existing strategies. For trauma-informed systems, partnership working can also increase the consistency of approaches across services, meaning that any benefits gained from trauma-informed practice in one setting are not then lost in another. Work with multi-sectoral partners can begin in the earliest stages of planning, where partners can feed into efforts to assess the current situation and collect data (Step 1). It may help to (see also Box 5.5):

- 1. Identify potential partners**, considering what experience, services or roles they could bring. Existing partnerships or networks may already be in place that could offer a useful starting point for collaboration. Inviting professionals from other organisations or sectors that have responded to similar issues would be beneficial. As well as professional partnerships, it may also be beneficial to partner with potential recipients of action to address ACEs. This could include representatives from communities, families, school students, service users or people affected by ACEs, and can help empower those receiving interventions or services as co-creators of action (see also Step 4).
- 2. Consider the benefits that partnership work may bring to partners.** For instance, work to address ACEs may help partners achieve their own objectives (e.g. for schools, work to address ACEs may help to improve child behaviour and academic achievement) or help to reduce future burden on partner services. There may also be other benefits that could be brought to partnership working, such as the sharing of expertise (e.g. networks, knowledge or training). Promoting how partners could benefit from partnership work could help receive agency buy-in and gain commitment (see Step 2).
- 3. Create a shared vision statement** that sets out understanding of the problem, the direction in which work will develop, the roles of partners and the intended outcomes of action. A shared vision statement may also help all partners keep on track with roles, aims and objectives over time.
- 4. Establish a regular method of communication** that keeps all partners up to date on action and progress, recognises and celebrates the ongoing efforts of all involved, and enables referrals to be made across partnerships.
- 5. Consider methods of information sharing** across partners, if this would be helpful. Sharing information can create a wider understanding of ACEs and their impact in the community and enable a collaborative response. Any information sharing across partners **must** adhere to data sharing or information governance regulations specific to your country.
- 6. Develop consistent and collaborative training that is regularly provided** for partners. Delivering the same baseline information, knowledge and skills to staff across all partner agencies will help ACE work remain consistent. Partners will have different perspectives, experiences and needs. Developing training materials collaboratively will therefore allow content to be comprehensive. If possible, delivering training collaboratively could allow partners to share experiences and learn from each other. In addition, ensuring training is delivered regularly will increase the opportunity for uptake and will also ensure new staff are up to date.



Top tip

One way of encouraging partnership working could be to hold a shared event on ACEs (e.g. workshop or conference) to share experiences and objectives, and agree steps to take partnership work forward.



Top tip

Training partners together and allowing space to discuss thoughts and experiences can encourage collaborative thinking and learning.

Box 5.5: Step 3 further resources

- Centers for Disease Control and Prevention. [Violence prevention in practice: Partnerships](#): provides information about identifying partners, and developing and sustaining partnerships.
- Community Tool Box. [Creating and Maintaining Coalitions and Partnerships](#): provides guidance for creating a partnership among different organizations to address a common goal.

3**Partnership working to support parenting and prevent/respond to violence against children in Finland.**

Finland has a long tradition of working together to support parents, children, youth and families. For example, maternity and child health clinics provide support from pregnancy through to early childhood in collaboration with nurseries, pre-schools and teachers, and includes health and family well-being services for parents. Mothers are screened for depression and family violence, and pregnant women are screened for psychosocial risk factors (that may be ACEs for the unborn child) and referred to further support if needed. In addition, Family Centres have been developed that bring together experts (e.g. maternity and child health clinic services, child protection services, family counselling services and non-governmental organisations) to offer health services and early childhood education and care under one roof. The multi-agency functioning of the Family Centres is what makes them effective in supporting families; by enabling accessible, appropriate and timely support.

There is much on-going work to improve children's lives, protect them from adversity and mitigate harm from abuse in Finland. This includes:

- Work to establish evidence-based parenting interventions within Family Centres, such as the [Incredible Years training programme](#).
- Population-based screening for children at four years old in primary healthcare, with the provision of psychoeducational interventions for parents of children with behavioural problems ([the Voimaperheet model](#)).
- Multi-agency support services for abused children that are child centred and provide all services under one roof (e.g. forensic, medical, psychological and social services), sometimes involving additional work with the family ([the Barnahus model](#)).
- Specific work on ACEs, such as the development of a simplified ACE screening tool (picture assisted, colour coded, easier language; designed to be useable regardless of age, cognitive abilities or language issues) originally for vulnerable parents in sheltered accommodation. The screening tool is being used universally in some municipalities' maternity and child health clinic services to help plan support for families, reaching 99% of families with children under 7 years or expectant parents.

In 2019, on-going efforts to improve children's lives and protect them from adversity were enhanced through the development of an [action plan for the prevention of violence against children](#) aged 0-17 years. Based on the United Nations Convention on the Rights of the Child (1989) and INSPIRE strategies developed by the World Health Organization, the action plan drew on existing work to prevent and mitigate harm, and treat children affected by violence across Finland, and highlighted areas for future progress through the development of 93 actions. A number of these actions are specific to ACEs.

The action plan brought together almost 80 specialists from a wide range of fields to work on its development. An extensive, multidisciplinary steering group was established at the Finnish Institute for Health and Welfare, responsible for monitoring and directing the action plan, as well as assessing its implementation. One of the first actions of the steering group was to create a document outlining the background to the work, and the role and membership of the steering group. This helped to establish a shared agreement and vision across organisations and disciplines. To aid multi-sector collaboration, working groups were established for different aspects of the action plan, helping to formulate objectives, actions and indicators, and establishing networks for on-going cooperation. The action plan has helped to drive and guide future work on the prevention of violence against children.

Sources: [77]; Ulla Korpilahti, Piia Karjalainen, Saija Westerlund-Cook, Taija Laajasalo, Tuovi Hakulinen, Jenni Helenius, Eeva-Leena Kataja and Marjo Kurki, personal communication.

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

Decisions on which strategies to implement should be based on evidence of what works in practice and the resources available to implement and sustain action over time. Finding a balance is therefore important. It is possible to start with a single strategy or implement multiple strategies that can address a range of risk factors at one time. You may wish to consider which strategies:

1. Can **address the risk factors** or **strengthen the protective factors** for ACEs most relevant to your setting (see Step 1).
2. Have the ability to **address multiple ACEs**. These strategies may offer the widest benefits.
3. Will **complement existing strategies**, rather than duplicate them. An understanding of existing work to address ACEs is important to establish (see Step 1).
4. Have been formally evaluated and can **improve ACE-related outcomes** such as risk factors for ACEs, levels of resilience, or improved mental health (see Step 6). Table 4.1 provides a brief outline of promising or effective interventions for prevention and resilience-building interventions. Look for evidence of **cost-effectiveness**, which can help to identify wider financial benefits.
5. May be **feasible and acceptable** among relevant participants, staff or wider communities. It may be possible to draw on experience within similar settings to gain an idea of feasibility and acceptability (see also Step 1) or seek feedback and engage participants, staff and wider communities in the development of the intervention.
6. Can be **adapted** to suit the relevant culture or setting. This could include adaptations to language, the content of interventions or the implementation process.
7. Could be most **sustainable**, in terms of the time and financial costs of implementation, training and support. Interventions that can be sustained over time will have the best chance of making long-term impacts.



Pilot an intended intervention first to help establish its feasibility, address any problems and build early evidence before disseminating more widely.

Guidelines for trauma-informed systems largely focus on how organisations involved in treating those affected by ACEs (e.g. health settings) can become trauma-informed. Guidance on implementing trauma-informed systems in wider settings (e.g. community settings) is needed to supplement this. Guidance from SAMHSA and Scottish Government (see Box 5.1) suggest that the following considerations are important for organisational implementation:

- ✓ Provide a **physical environment** that is welcoming and non-clinical, that promotes feelings of safety and calm and that minimises the risk to the mental health of service users and staff (e.g. by avoiding the triggering of past trauma).
- ✓ Consider ways to promote **trust** and **transparency** between staff and service users. Characteristics such as empathy and warmth are important, so that relationships between staff and service users can be viewed safely and positively. Clear information and explanations of service delivery will also help to ensure transparency.

✓ Consider the use of **screening or routine enquiry, assessment and treatment services**.

- The use of ACE screening has been debated but can be important in delivering trauma-informed services. Some practitioners do not use screening tools routinely, but gauge whether screening would be appropriate for an individual. Consider making use of existing ACE measurement tools (see Box 5.3; [78]) that can be culturally adapted to suit needs.
- If screening is not considered appropriate, training practitioners to recognise signs of trauma can be a useful indicator of support (see Step 5).
- Consider whether there is capacity to provide trauma-specific interventions or identify local and experienced services available for the referral of service users affected by trauma and seeking support.
- Ensure that practitioners can discuss trauma reactions with service users and reduce feelings of shame and guilt that may be associated with trauma.



Creating a “living room”
ambience can help
people feel comfortable
and relaxed (Scottish
Government, Box 5.1)

✓ **Engage and involve service users and trauma survivors** in trauma-informed approaches. This could involve:

- Consulting with service users from the outset to co-produce trauma-informed services, building on users’ lived experiences and skills.
- Inputting into existing organisational functioning (e.g. actively searching for feedback).
- Empowering users by giving them choice, and by involving them in decision-making. This may include, for instance, times of appointments, or decisions in interventions or referrals. Encouraging choice can help to reduce power differentials between clients and practitioners.



Involving service
users in the physical
design of a waiting
room [or location of a
service] could be one
way of encouraging
engagement. (Scottish
Government, Box 5.1)

Once an intervention has been selected, drawing up an implementation plan that describes **what** intervention will be taken forward, by **whom**, and **when**, can help take progress forward (Box 5.6). Further resources for implementation can be found in Box 5.7.

Box 5.6: Developing an implementation plan

An implementation plan can help to guide future action. It could include:

- Roles and responsibilities of all stakeholders.
- Action steps to be taken and timelines.
- Resources and support needed for implementation.
- How stakeholders involved will be kept updated.
- Potential barriers that may need to be addressed.
- How action will be evaluated (see also Step 6).

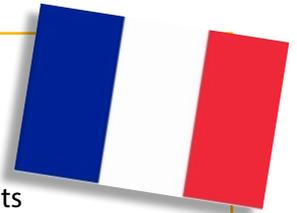
Source: [79]

Box 5.7: Step 4 further resources

- Moore et al. *Adapting interventions to new contexts—the ADAPT guidance*: presents new evidence and informed guidance for adapting and transferring interventions to new contexts.
- Centers for Disease Control and Prevention. *Violence prevention in practice: Adaptation*: provides guidance on adapting policies, practices and programmes to fit the local context.
- Community Tool Box. *Developing an Intervention*: provides support for developing core components of a community intervention and adapting them to fit the context.

4

Adaptation of the Strengthening Families Program in France (PSFP: Programme de Soutien aux Families et à la Parentalité)



The Strengthening Families Program (SFP) is a multi-component programme first developed in the US and implemented in over 30 countries globally. It combines elements to develop parenting skills, children's social skills and family life skills, and has evidence of effectiveness in improving positive parenting and parenting confidence, as well as reducing child mental illness, delinquency and substance abuse. France, along with a number of other European countries, has adapted the programme for its own culture, where it is known as PSFP: Programme de Soutien aux Families et à la Parentalité.

Recognising that quality family environments could foster children's development, protect against harmful behaviours, and promote health and well-being, Santé publique France (part of the French Ministry of Health) considered implementing a parenting programme for French families. The SFP was chosen due to good evidence that it could benefit parenting and health, particularly around reduced risks of substance abuse.

Careful consideration was given to how SFP could be adapted for use in France whilst retaining its theoretical and conceptual integrity. Initially, a pilot phase was implemented in a single town to check the acceptability and feasibility of the programme among families and professionals. Information meetings were held with families, town services (e.g. health, education, leisure) and service partners (e.g. those offering parent support) to outline the programme, how it would be used, and the potential benefits. Opinions were sought from all groups. A small group of families registered and took part in the pilot and measures of effectiveness (e.g. family satisfaction, parenting skills), as well as session observations, were collected. These data sources were used to identify the programme's potential acceptability, feasibility and effectiveness, and to make adaptations to the programme content and its implementation. These included: simplifying vocabulary and creating an expert group of professions responsible for promoting the programme and supporting families to register.

A second phase tested PSFP in two other areas of France, while inviting more parents to take part in the pilot town. During this phase, further adaptations were deemed necessary, including providing more time for parental discussions; adding certain session scenarios such as schooling support and management of screen time; re-writing facilitation guides and creating DVD support; and allowing extra time for more extensive training for professionals. Several contextual adaptations were also made, such as involving wider partners in programme implementation, and adopting a shared vocabulary and understanding across partners. This two-phase process was fundamental in adapting the programme for wider use across regions in France. Between 2015 and 2018, a large-scale evaluation across 19 cities confirmed its effectiveness for children and parents. PSFP is now active in nearly 40 sites across France, with new sites and regions planned.

Sources: [80]; PSFP: <https://clefsparentalite-psfp.com/>; Dr Corinne Roehrig, personal communication.

5 Provide training, support and a culture for change

Providing training and support to those involved in action to address ACEs can ensure consistent and compassionate delivery of action and help staff manage any challenging aspects of their role. Basic training on ACEs and trauma-informed practice can begin within the curriculums of all relevant professional training courses, such as those for healthcare practitioners, teachers and police officers. Further, more specialised training and other support can be provided to employees of relevant organisations. Training and support can be enabled through its inclusion in policies or protocols and further embedded by organisations, sectors, and systems undergoing cultural change to provide the supportive environment from which work to address ACEs will thrive (see also Step 2). It is important to recognise that staff involved in delivery of action may themselves be affected by ACEs. Training and support may offer a valuable opportunity to help staff deal with any past trauma of their own. Training and support can involve (see also Box 5.8):

1. **Training on personal awareness.** It is essential that staff delivering work on ACEs have a basic understanding of themselves and what they bring to their interactions with others, such as individual beliefs, cultural or social norms, or relevant past experiences. It is important that staff are aware that these factors can influence their responses to others and delivery of action.
2. **Training on self-compassion.** Training on self-compassion and self-care can be a useful part of staff training, particularly if staff will be engaging with individuals with ACEs. In these cases, staff may need to manage emotions arising from other people's traumatic experiences. However, staff may also be affected by past trauma themselves. Developing work on self-compassion may go some way to helping these individuals manage any painful emotions that arise from their work.
3. **Awareness of ACEs and their impact.** Helping staff to develop an understanding of ACEs is essential. This should include what ACEs are, their widespread nature, and the range of impacts that they can have if children do not receive adequate support. Understanding how to recognise the signs of ACEs is also important so that support or referral can be offered. Training should also include an awareness of resilience in reducing the impact of ACEs and the role that people can play in building resilience (e.g. through developing trusting relationships).
4. **Training on materials, processes and skills involved in delivering action.** Developing the skills and knowledge needed to deliver work on ACEs will ensure that interventions are provided consistently and safely. Including training on the characteristics of delivery that can maximise effectiveness will be important. For instance, this could be how to: manage a classroom of students effectively, facilitate group learning, develop empathetic and trusting relationships with those engaged in interventions or services, listen effectively without judgement, or discuss trauma and its impact with others in a sensitive and caring manner. For trauma-informed practice, training often includes materials to encourage a shift in thoughts and language used when engaging with service users (Figure 4.2).
5. **The provision of peer and professional support.** Recognising that individuals may be affected by past trauma or the trauma of others and ensuring that support is available and accessible to staff is essential. This could involve supervision, peer support where staff can talk to colleagues in similar roles, support from management through e.g. regular staff-management meetings, or professional mental health support such as counselling.
6. **Creating a culture for change.** Whilst only certain staff may be directly involved in the delivery of action, it is integral to include wider settings (e.g. an organisation, the whole of a school community) for training on ACE awareness and impact to create universal understanding and cultural change. If organisations, sectors, and systems themselves undergo cultural change from the embedding of ACE awareness and trauma-informed practice, this will allow staff to have the autonomy to make changes to their processes and practices, such as spending more time with service users building trust, without being restricted by existing policies and guidelines or performance targets. Therefore, creating a more supportive environment for staff to put training on ACE awareness into practice.



Make training free and accessible to enable maximum participation and impact.

Box 5.8: Step 5 further resources

- ACE Hub Wales. [Trauma and ACE \(TrACE\) Informed Organisations Toolkit: Supporting organisations to embed ACE Awareness and trauma-informed Practice](#): provides a self-assessment tool and guidance on becoming TrACE (Trauma and ACE) informed organisations.
- SAMHSA. [SAMHSA's concept of trauma and guidance for a trauma-informed approach](#): provides a framework to understand and develop trauma-informed practice.
- Scottish Government. [Trauma-informed practice: toolkit](#): guidance and tools to help organisations on their trauma-informed journey.
- British Columbia Provincial Mental Health and Substance Use Planning Council. [Trauma informed practice guide](#): strategies to guide the implementation of trauma-informed practice.

Source: [79]

5 Training on ACE-informed care in California, USA



In December 2019, The Department of Health Care Services (DHCS) and Office of the California Surgeon General (CA-OSG) launched the ACEs Aware initiative in California to give Medi-Cal (California's Medicaid programme*) providers training, clinical protocols, and payment as an incentive for screening children and adults for ACEs. During training, clinicians learn:

- What ACEs are, their prevalence, and their impact on biological mechanisms and health,
- How to integrate ACEs and toxic stress screening into clinical care, and
- How to risk assess for toxic stress and use this to develop a treatment and follow-up plan if needed.

In May 2021, The DHCS and CA-OSG launched the *State of CAre* engagement campaign to expand the reach and impact of the ACEs Aware initiative. The campaign used digital and print media to raise awareness about ACEs and the long-term health effects they can have on children and adults if not addressed. The core component of the *State of CAre* campaign was to motivate all eligible clinicians to access a free, two-hour "[Becoming ACEs Aware in California](#)" online training and certification. The training continues to be available to any provider but is targeted at primary care clinicians who serve Medi-Cal beneficiaries as they are required to provide evidence of completing ACEs training to continue receiving payment for ACEs screenings.

ACEs Aware offers a suite of training for clinicians that address key topics including ACEs and resilience, futures without violence and trauma-informed paediatric care. Supplementary training on specific topics is also available, with some community targeted training open to educators, parents, caregivers and community members.

In two years, the ACEs Aware initiative enabled the delivery of training on ACEs to over 20,500 Californian clinicians, who subsequently screened more than 500,000 children and adults for ACEs across the state.

In November 2021, the ACEs aware initiative was moved into the University of California system - University of California, Los Angeles (UCLA) and University of California, San Francisco (UCSF) - which was awarded \$41.5 million to address the impact of ACEs on health. The positioning in academia at the UCLA-UCSF ACEs Aware Family Resilience Network (UCAAN) has allowed access to substantial interdisciplinary resources of two public health sciences campuses to develop, promote, and sustain evidence-based methods to screen patients for ACEs and advance evidence-based treatments for toxic stress.

Source: [81] *Medicaid is a healthcare insurance programme operating in all states of the US that provides cover for people with low income.

6 Evaluate action

An important part of action to prevent and address ACEs is evaluation. This can measure the effectiveness of action, ensure that it is being implemented as intended, and make the case for continued financial support for programme implementation. There are several benefits to evaluation, including:

- Demonstrating the impact of action / intervention.
- Deciding whether an action / intervention is worth continuing or expanding (see also Step 7).
- Making the case for further funding and protecting existing funding.
- Identifying ways in which action can be adapted and improved.
- Contributing to shared understanding of what works to address ACEs.

As a start, you may wish to consider identifying (see also Box 5.9):

1. Evaluation needs. There are different types of evaluation. Identifying needs can help determine which evaluation types would be most appropriate. Two common evaluation types are:

- **Outcome or impact evaluations**, which can establish whether an intervention achieved its intended outcomes (outcome evaluation) or achieved longer-term, broader impacts on participants (impact evaluation). These evaluations are an important part of driving further action and funding, as well as scaling up action (See also Step 7).
- **Process evaluations**, which can help understand how an intervention is delivered, whether it is being carried out in the intended way, and whether there are any barriers / facilitators to implementation. This can be useful learning to help explain the successes or failures identified through an outcome or impact evaluation and to improve action in the future.

However, other types of **formative evaluations** may also be useful, such as assessing the acceptability or feasibility of an intervention before it is fully implemented.

2. Key questions. Determining key questions to be addressed can help to clarify and direct an evaluation. Key questions could include, for instance, whether action improved risk factors for ACEs, whether trauma-informed practice was implemented as intended across a service, or whether use of routine screening for ACEs would be acceptable to health-care staff and patients.

3. Key outcomes and methods of data collection. Key outcomes are measurable factors that can help answer key questions (Table 5.1). They are most often measured quantitatively using surveys, observations, reporting systems or service data, particularly for outcome or impact evaluations. However, qualitative information gained from interviews or focus groups can be useful for gaining context and in-depth understanding of quantitative data, as well as for creating a narrative on the lived experience of those who have suffered ACEs, helping to humanise the data and advocate for change. Qualitative information may be particularly useful when conducting process or formative evaluations. Thinking through potential key outcomes and data sources could be carried out as part of, or alongside Step 1.

4. Evaluation methods. There are multiple ways to carry out an evaluation and it is important to consider evaluation needs, time, staffing and resources to help decide and plan a suitable method. Evaluation plans should be considered from the earliest stages of implementation so that adequate resources can be set aside. Some common methods of outcome or impact evaluations are:

- **Before and after designs.** This is one of the simplest methods of evaluation and involves measuring key outcomes before and after an intervention to identify any improvements that may arise. These types of evaluations are quicker and less expensive than other methods to carry out but are less robust in nature and will provide lower quality evidence of impact.



Utilise partnerships that can bring expertise in evaluation (e.g. university groups to conduct or advise on evaluations) to help ensure that evaluation methods are robust.

- **Controlled trials** (e.g. randomised controlled trails or quasi-experimental designs). These are more robust designs that compare key outcomes over time for participants or services that have received an intervention, compared to those that have not. These methods can take into consideration changes that would have occurred even without the intervention (e.g. underlying trends) and can therefore offer higher quality evidence. However, these designs can be more time consuming and expensive to implement.

Process and formative evaluations may use a combination of qualitative and quantitative data collection to a) (*process evaluation*) compare planned with actual activities and identify what hindered/facilitated implementation, or b) (*formative evaluation*) identify participants’ acceptability of planned activity and the feasibility of implementation (e.g. through considering practicalities that may hinder implementation such as resource or time constraints).

5. **The use of evaluation results.** It is important that information collected through monitoring and evaluation is used to improve interventions or trauma-informed practices in the future.

Table 5.1: Some examples of key outcome measures

Evaluation	Prevention of ACEs / building resilience	Trauma-informed practice
Outcome / Impact	<ul style="list-style-type: none"> ● Change in time period prevalence or incidence of ACEs or child injuries. ● Change in time period prevalence or incidence of risk/protective factors for ACEs e.g.: <ul style="list-style-type: none"> ● positive parenting practices. ● parental mental health. ● child social and emotional competence. ● child coping skills. 	<ul style="list-style-type: none"> ● Change in staff or service users’ knowledge of ACEs and other trauma. ● Change in behaviour of service users (e.g. risk or violent behaviours) or children (e.g. child problem behaviours). ● Change in mental health of service users / children. ● Change in service users’ willingness to engage with services.
Process	<ul style="list-style-type: none"> ● Percentage of planned activities that were implemented. ● Number of people engaging in the intervention. ● Participant satisfaction with delivery and support. 	<ul style="list-style-type: none"> ● Practitioners’ use of screening tools, trauma services or referrals. ● Adherence to the principles of trauma-informed practice. ● Staff / service user satisfaction with delivery and support.
Formative	<ul style="list-style-type: none"> ● Participant / staff / service user acceptability of intervention or practice. 	

Box 5.9: Step 6 further resources

- Centers for Disease Control and Prevention. [Introduction to programme evaluation for public health programs. A self-study guide](#): provides a “how to” guide for planning and implementing evaluation activities.
- Quigg et al. [Violence Prevention Evaluation Toolkit](#): offers support to embed evaluation into the design and delivery of programmes, interventions or services to prevent and respond to violence.



6 Evaluation of Bounce Forward: an intervention to build resilience in Blackpool, England

Bounce Forward was a school-based resilience-building programme implemented in Blackpool, a socio-economically deprived town in the UK. Supported by the UK's National Lottery Community Fund, the programme formed part of the Resilience Revolution: Blackpool HeadStart, a wider whole-town approach to building resilience in young people. The programme was based on Resilient Therapy [82], which proposes the Resilience Framework with five main components: basic elements for a safe and healthy lifestyle; belonging and relationships; learning new life skills; coping with challenges; and understanding the core self. Delivered over 10 weekly sessions, it aimed to develop children's knowledge and skills about mental health and resilience and help them to cope better with challenging experiences. Between 2016 and 2019, all year 5 classes (ages 9 and 10) in schools across Blackpool took part in the intervention.

An evaluation of the programme was planned alongside the programme, led by the University of Brighton, and included both qualitative and quantitative approaches. Young people completed questionnaires before participation, at the end of the programme, and 3-5 months later. Quantitative data included measurements of resilience, and emotional and behavioural difficulties, whilst qualitative data focused on general perceptions of the programme from both students and teachers.

Quantitative data were analysed to establish differences in measurements over time, identifying an improvement in several protective factors related to resilience before and after the programme, such as levels of problem-solving skills, goals and aspirations, and communication and cooperation. Although some effects had declined by 3-5 months, this may have represented a natural decline as children neared transition to high school. Qualitative data identified that the programme was enjoyable and addressed issues that were important to students. Teachers highlighted the benefits of the programme, such as improved coping and problem-solving skills, confidence, relationships and behaviour, as well as a shifted attitude toward schoolwork and learning. Taken together, the evaluation suggested that young people had benefitted from Bounce Forward. With positive findings, the programme was adapted to make it sustainable through the development of a free downloadable [teacher resource pack](#), allowing schools to self-deliver the programme in the future.

Sources: [83,84]

7 Scale up, embed and sustain effective action

Once the effectiveness of an action has been established, considering how to expand the reach and benefits of action (scaling up) will be important. Scaling up may be carried out internally (to the whole of an organisation), externally (to other organisations / settings / geographical areas) or across organisations to affect system transformation. Considering how to embed and sustain effective action in the longer term will be an essential part of this process, particularly for trauma-informed systems where organisational-wide change may already have taken place. It will be important to consider the logistics, resources and funding needed for scaling up, embedding, and sustaining action. Developing a strategy together with other partners that outlines a shared vision for scaling up, embedding, and sustaining action would be helpful. You may wish to consider (see also Box 5.10):

1. The **scale** of action. Consider how effective action will be scaled up or embedded and sustained, e.g. different settings or locations, further reach, wider involvement of relevant partners or additional components.
2. The **feasibility** of scaling up, embedding and sustaining. Carry out initial work to establish whether scale-up intentions will be feasible. This could involve gaining insight into the environment, functioning and resources of different settings / locations or seeking the opinions of staff. This process can identify any barriers to implementation that need to be addressed before scaling up.
3. The **successful components** of action that are most important to replicate. Identifying characteristics that are key to effectiveness (e.g. through evaluation; Step 6) will help to ensure that the most important aspects of action remain consistent across settings / locations or over time. Consider whether these key characteristics require maintenance in the longer term. For instance, in trauma-informed practice, it could be important to maintain non-clinical waiting rooms to retain feelings of safety and calm (see Step 4).
4. The **need for additional partners** or networks. Consider whether any additional partnerships would need to be involved in scaling up, embedding and sustaining effective action. Further work around raising awareness, gaining commitment and advocating for change (Step 2) may be needed to encourage the commitment of additional partners.
5. The **support from organisations, leaders and wider networks**. Consider who is best placed to support scaled up action and how support can be visibly maintained in the longer-term. Writing effective action into policy (see Step 2) may be one way of enabling long-term action, whilst sending a clear message of continued support. Further support may be gained from setting up networks of professionals engaged in similar work to create a space for learning and mutual support.
6. Methods of **effective communication** between leaders, staff and any partners. Wider levels of communication will be needed for scaled up action. Consider ways in which staff and partnerships can be kept informed and connected. Maintaining these connections in the longer-term will be essential to keep momentum and sustain partnerships.
7. The **needs and well-being of staff**. Consider the number and needs of staff required for scaling up action, including any requirements for co-ordination and management of action at a wider scale. Consider the needs of existing and new staff such as on-going quality training and sustainable support systems (Step 5). Recognition of staff contribution to ACE work, including feeding the impact of ACE work back to staff, will also be useful to maintain staff morale in the longer term.



Embed action into existing services to ensure that changes can be sustained.



Ensure that evaluation findings feed into efforts to scale up and/or sustain action, so that barriers to implementation are reduced and positive aspects of delivery are strengthened.

8. The **evaluation of scaled up action**. Plan the resources needed to evaluate whether scaled up, embedded and sustained action remains effective, and identify which characteristics may be influencing effectiveness (Step 6). Evaluation can also ensure that delivery is carried out as intended and identify barriers to action that can be addressed.
9. Using **evidence to advocate for change**. Information on the effectiveness of action can be a useful tool to advocate for change and gain commitment from leaders (Step 2). Evidence can feed into the key messages communicated, presenting the benefits gained from taking action.
10. Potential **sources of funding** to expand and sustain action. Lack of funding is often a barrier to scaling up, embedding and sustaining effective action. Sharing evaluation results (Step 6) and communicating the importance of addressing ACEs (Step 2) may help to achieve commitment for additional funding. Look for local or national sources of funding such as grant awarding schemes or health foundations to help fund scaled up or on-going action.

Box 5.10: Step 7 further resources

- WHO. *Nine steps for developing a scaling-up strategy*: provides guidance on how to facilitate systematic planning for scaling up and is intended for programme managers, researchers and technical support agencies who are seeking to scale up health service innovations that have been tested in pilot projects or other field tests and proven successful.
- Schell et al. *Public health program capacity for sustainability: a new framework*: presents a new conceptual framework for programme sustainability in public health.

7

Scaling up the Parenting for Lifelong Health programme, South Africa and worldwide.

Evidence on violence against children in Africa has shown some of the highest rates of child abuse in the world. A suite of parenting programmes (Parenting for Lifelong Health; PLH) aimed at preventing household violence in low-resource settings was developed for families in South Africa, through a collaboration between the universities of Bangor, Oxford and Reading in the UK; Stellenbosch University and the University of Cape Town in South Africa; WHO; and UNICEF. PLH has since been tested and implemented around the world.

The overarching aim of PLH is to develop, test and widely disseminate free parenting programmes, through the provision of specific training led by various non-governmental organisations. The main goal of the parenting programmes is to establish and sustain nurturing relationships between parents or caregivers and their children through strengthening parenting skills and caring behaviours and promoting alternatives to violent discipline. Evaluations of the programmes have shown associated improvements in parenting practices and caregiver mental health, reductions in substance use among caregivers and adolescents, improved household finances and reductions in caregiver abuse and corporal punishment. In preventing child maltreatment, these programmes have the potential to benefit longer-term physical and mental health and social well-being and to prevent the inter-generational cycle of violence.

Following positive results in the evaluations and by conducting feasibility studies, interviews and focus groups with professionals and parents, the programmes have been scaled up in over 20 low- and middle-income countries across Sub-Saharan Africa, South-eastern Europe, South-east Asia, and the Caribbean, with an estimated 300,000 families receiving support. Adaptation in various cultural and contextual settings have occurred, including changes to the language used and illustrations. However, the content on parenting skills remains universal. Implementers of the programmes are asked to evaluate and share the findings with the programme development team to ensure that the programmes are continually developed, improved and evidence-based.

In Montenegro, UNICEF seed funded the programme, and following good initial results the Government legislated that the programme should be made available to every family. With ongoing support from UNICEF, the programme is being rolled out nationally into various sectors including education and health. Funded training was delivered to staff within a range of services, provided that each organisation would continue to fund and support programme delivery, successfully embedding the work into existing services.

To further embed the work and sustain change, the Global Parenting initiative has recruited experts in the field to provide supervision and consultation for trainers across the world, ensuring that trainers are continuously supported and to help problem-solve the challenges of training.

Sources: [39,40]; Judy Hutchings, personal communication.

5.8 Integrating steps to implement action

The seven steps outlined in sections 5.1-5.7 do not need to be implemented in a linear fashion. In practice, multiple steps are likely to occur together, and steps will be repeated over time in a cycle of action that works to continue identifying problems, and developing, implementing, evaluating and scaling up effective action. Box 5.11 and accompanying Figure 5.1 present a case study from Wales, UK, where work to address ACEs began in 2015 and has since developed into an aim to become a trauma-informed nation. The case study details how the different steps to tackle ACEs and transform systems to become a trauma-informed nation are progressing over time.

Box 5.11: Implementing prevention, resilience and trauma-informed systems in Wales (see also Figure 5.1)



In 2015, **the first national ACE study for Wales was conducted**; looking into the prevalence of ACEs and their impact on health-harming behaviours in the Welsh adult population [85]. The study found that just under half (46%) of those living in Wales had experienced at least one ACE before the age of 18 years and identified the increased risks that individuals with ACEs had of health-harming behaviours, health service use, physical and mental ill-health, lower education and employment, and involvement in violence.

Findings from the Welsh ACEs study raised awareness of ACEs and influenced Welsh Government to prioritise action on ACEs, informing the development of ACEs policy [86]. **Welsh Government made a commitment to tackling ACEs** in its 2016 programme for government, *'Taking Wales Forward'* [87] and explained their plans in 2017's *'Prosperity for all: national strategy'* [88], which outlined Early Years as a priority area. Additionally, political leadership called upon the Welsh Government to support the **establishment of an ACE Hub for Wales**⁶, which would act as a centre of knowledge and expertise for ACEs [89].

In 2016, in the criminal justice sector, collaborative work began between police, public health, a local council and third sectors in South Wales to explore opportunities for prevention and early intervention. Drawing on learning from the pilot programme, the Early Action Together programme was launched across Wales in 2018. The programme aimed to effect systems change and create a cultural shift within organisations at a national level. The programme delivered training to police and partners, and prison and probation service staff to increase awareness of ACEs, and provide support to identify vulnerable people, intervene early and help to break the generational cycle of crime. The programme involved collaborative work with multiple agencies such as social services, schools and housing. A number of evaluations of the programme were subsequently carried out, identifying that it had been successful in raising awareness of ACEs and increasing confidence to intervene among police and partners [90]. Alongside Early Action Together, additional collaborative work on ACEs was being developed, piloted and evaluated within criminal justice, education, health, housing and homelessness, youth work, higher education, sports and public and community, with support from the ACE Hub Wales. For example, within **health**, a pilot programme trained health visitors to enquire about ACEs among pregnant women and new parents and within **education**, staff were trained to improve awareness of ACEs and schools were supported to develop and sustain an ACE-informed approach.

⁶ The ACE Hub Wales was established in 2017 as a centre of knowledge, evidence and expertise on ACEs, to help drive the collective vision for Wales as a leader in ACE-free childhoods through: (1) spreading information and knowledge about ACEs; (2) sharing evidence; (3) developing knowledge and skills; (4) pulling learning and sharing it; and (5) driving change.

With on-going commitment from Welsh Government, the ACE Hub Wales is continuing to **work with partners to embed and sustain effective action** to bring about systems transformation to prevent, mitigate and tackle the impact of ACEs across the life course. This includes partnership work to develop a National Trauma Practice Framework for Wales and to develop a shared definition of trauma-informed practice [91]. This is helping people, organisations and systems to prevent adversity/trauma and their subsequent impacts and is bringing consistency to ACE and trauma-informed practice across Wales. The shared definition of trauma-informed practice developed in Wales is:

A trauma-informed approach recognises that everyone has a role in creating opportunities and life chances for people affected by trauma and adversity.

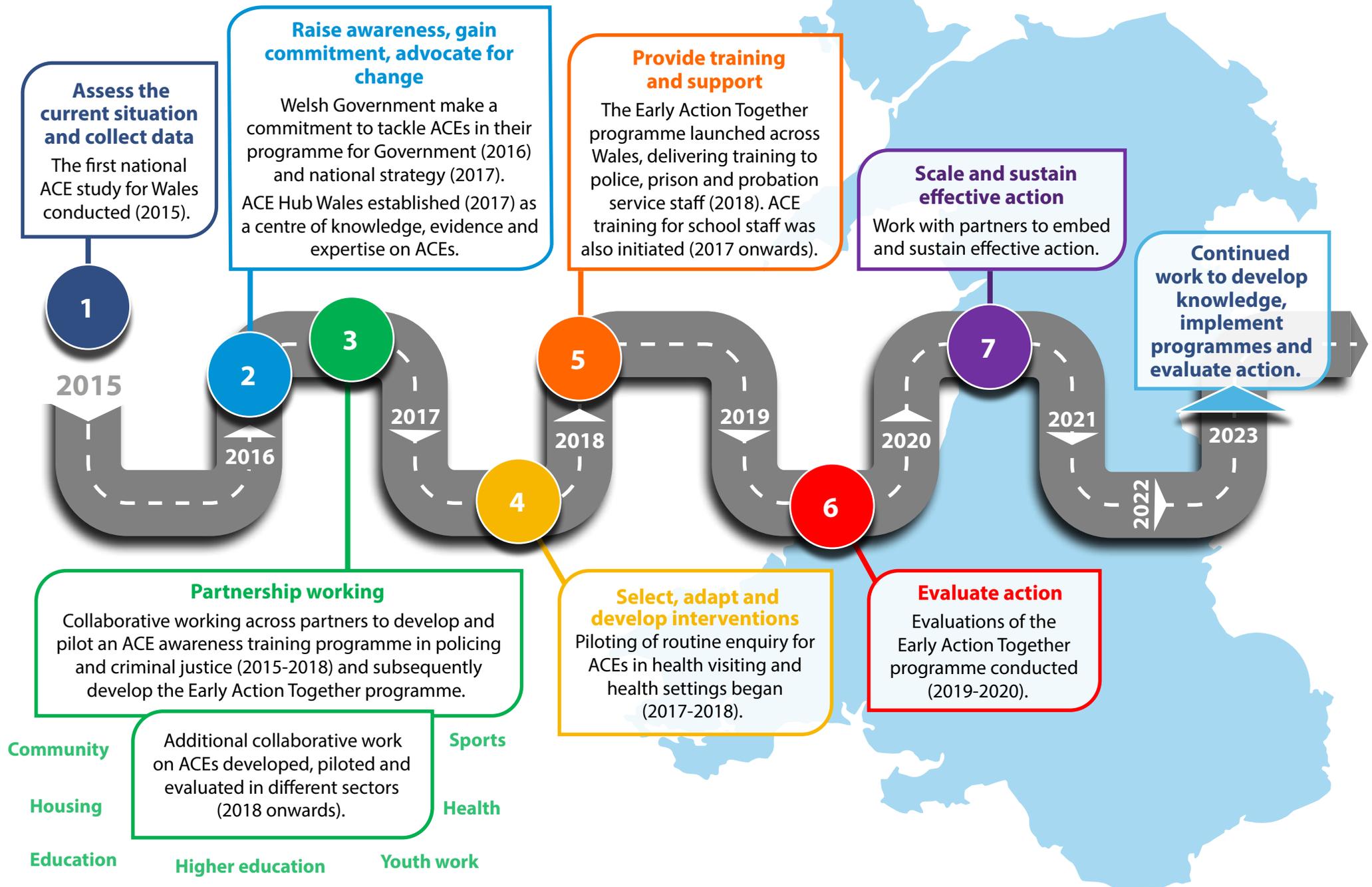
It is an approach where a person, organisation, service or system takes account of the widespread impact of adversity and trauma and understands potential ways of preventing, healing and overcoming this as an individual or with the support of others, including communities and services.

It is where people recognise the signs and symptoms of being affected by trauma in individuals, families, communities, staff, and others in organisations and systems across all Welsh society.

In this approach knowledge about trauma and its effects are integrated into policies, procedures, and practices. It seeks to actively resist re-traumatisation and prevent and mitigate adverse consequences, prioritising physical and emotional safety and commits to 'do no harm' in practice.

The development of knowledge on ACEs, implementation of programmes, and evaluation continues to be an on-going process, so that effective strategies can continue and unsuccessful ones can be stopped.

Figure 5.1: Implementing prevention, resilience and trauma-informed systems in Wales



6. Current issues and research needs in the ACE field

Inevitably, issues and questions will arise from partners and others as coalitions begin to form and support to tackle ACEs is identified. There are already some excellent examples of action to prevent ACEs, mitigate their harmful effects through building resilience, and support those affected by ACEs through trauma-informed systems across Europe and internationally. The large and wide-ranging burdens that ACEs can have on individuals, families and wider societies highlight the urgent need to progress action to tackle ACEs and protect children from harm as early as possible. There are many questions that remain unanswered in the field of ACEs. However, a great deal can be done using the knowledge and evidence base already available, whilst further well researched action will add to our understanding and effectiveness. Further work should help us with:

Developing a shared definition of ACEs, including a shared understanding of what should be considered an ACE. There is currently no universally agreed definition of ACEs. Definitions can vary, and whilst some interventions / screening tools focus on a specific set of ACEs that affect children in the home environment, children can suffer a wide range of other ACEs such as parental death, bullying in school, community violence, persecution, racial discrimination, forced migration and exposure to war, terrorism or natural disasters. Achieving a shared understanding of what should be regarded as an ACE, and consistent language on ACEs, would help to clarify understanding and improve the consistency of action on ACEs.

Developing a shared understanding of trauma-informed practice. Approaches are often poorly defined and vary in terms of what is delivered, how and with whom. Work to generate a shared definition of trauma-informed practice and the components needed to achieve it would be helpful in driving practice forward. Several countries are involved in efforts to create a common definition of trauma-informed practice and improve consistency of practice between professionals and across organisations. This will support a more coherent and consistent approach to developing and implementing trauma-informed practice.

Developing greater evidence on trauma-informed practice. The evidence base on effective action to prevent ACEs and build resilience is well established. However, evidence on the effectiveness of trauma-informed practice is less advanced. Research is needed that can evidence improved outcomes to help guide best practice.

Integrating work to address ACEs. Often the prevention of ACEs is considered separately from building resilience or developing trauma-informed practice. However, action to tackle ACEs may benefit from being integrated across these three domains through multi-agency collaboration. Trauma-informed nations, regions or cities should be able to prevent ACEs from occurring in the first place, build resilience to help protect individuals against ACEs' harmful effects if they do occur, and support those affected by ACEs through ACE and trauma-informed systems.

As such knowledge becomes available it is important that it is shared on a regional, national and international basis. Evidence on outcomes of interventions needs to be accompanied by learning on the process of implementing action and moving to scale. Sharing what did not work is just as critical. Networks within countries are already developing for these purposes as well as forums that exchange information internationally between cities and countries. However, more are needed. Importantly, action on ACEs is recognised as not just a matter for professionals; **everyone has a role to play**. The scale of the issues and number of people affected mean ACE and trauma-informed work must extend past professionals, services and systems to the wider community and society. Work is already developing to increase knowledge and activity to address ACEs amongst the general public so that everyone can contribute to, and realise the benefits from, all children experiencing safe and caring childhoods.

7. References

- Hughes K, Ford K, Bellis MA, Glendinning F, Harrison E, Passmore J. Health and financial costs of adverse childhood experiences in 28 European countries: A systematic review and meta-analysis. *Lancet Public Health*. 2021; 6:e848–57.
- Bellis M, Wood S, Hughes K, Quigg Z, Butler N, Passmore J, et al. Tackling adverse childhood experiences: State of the art and options for action. Wrexham: Public Health Wales, 2023.
- Murphy K, Moore KA, Redd Z, Malm K. Trauma-informed child welfare systems and children's well-being: A longitudinal evaluation of KVC's bridging the way home initiative. *Child Youth Serv Rev*. 2017; 75:23–34.
- Bartlett JD, Griffin JL, Spinazzola J, Fraser JG, Noroña CR, Bodian R, et al. The impact of a statewide trauma-informed care initiative in child welfare on the well-being of children and youth with complex trauma. *Child Youth Serv Rev*. 2018; 84:110–7.
- Branson CE, Baetz CL, Horwitz SM, Hoagwood KE. Trauma-informed juvenile justice systems: A systematic review of definitions and core components. *Psychol Trauma*. 2017; 9:635–46.
- Centers for Disease Control and Prevention. Preventing Adverse Childhood Experiences (ACEs): Leveraging the best available evidence. Atlanta: CDC, 2019.
- World Health Organization. Adverse Childhood Experiences International Questionnaire (ACE-IQ). Available from: [https://www.who.int/publications/m/item/adverse-childhood-experiences-international-questionnaire-\(ace-iq\)](https://www.who.int/publications/m/item/adverse-childhood-experiences-international-questionnaire-(ace-iq)), accessed 26th April 2023.
- Hughes K, Bellis MA, Hardcastle KA, Sethi D, Butchart A, Mikton C, et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *Lancet Public Health*. 2017; 2:e356–66.
- Sethi D, Yon Y, Parekh N, Anderson T, Huber J, et al. European status report on preventing child maltreatment. Copenhagen: World Health Organization, 2018.
- Bellis MA, Hughes K, Leckenby N, Jones L, Baban A, Kachaeva M, et al. Adverse childhood experiences and associations with health-harming behaviours in young adults: Surveys in eight eastern European countries. *Bull World Health Organ*. 2014; 92:641–55.
- Hughes K, Bellis MA, Sethi D, Andrew R, Yon Y, Wood S, et al. Adverse childhood experiences, childhood relationships and associated substance use and mental health in young Europeans. *Eur J Public Health*. 2019; 29:741–7.
- Benard B. Fostering Resilience in Children. Urbana: ERIC Clearinghouse on Elementary and Early Childhood Education, 1995.
- World Health Organization. Regional Office for Europe. Health 2020: A European policy framework and strategy for the 21st century. Copenhagen: World Health Organization, 2013.
- Pear VA, Petito LC, Abrams B. The role of maternal adverse childhood experiences and race in intergenerational high-risk smoking behaviors. *Nicotine & Tobacco Research*. 2017; 19:623–30.
- Sun J, Patel F, Rose-Jacobs R, Frank DA, Black MM, Chilton M, et al. Mothers' adverse childhood experiences and their young children's development. *Am J Prev Med*. 2017; 53:882.
- Doi S, Fujiwara T, Isumi A. Association between maternal adverse childhood experiences and mental health problems in offspring: An intergenerational study. *Dev Psychopathol*. 2021; 33:1041–1058.
- Plant DT, Pawlby S, Pariante CM, Jones FW. When one childhood meets another – maternal childhood trauma and offspring child psychopathology: A systematic review. *Clin Child Psychol Psychiatry*. 2017; 23:483–500.
- Félice LS, Wang X, Kathryn HBS, Pachter LM. Intergenerational associations of parent adverse childhood experiences and child health outcomes. *Pediatrics*. 2018; 141:e20174274.
- McDonnell CG, Valentino K. Intergenerational effects of childhood trauma: evaluating pathways among maternal ACEs, perinatal depressive symptoms, and infant outcomes. *Child Maltreat*. 2016; 21:317–26.
- Russotti J, Warmingham JM, Handley ED, Rogosch FA, Cicchetti D. Child maltreatment: An intergenerational cascades model of risk processes potentiating child psychopathology. *Child Abuse Negl*. 2020; 112:104829.
- Plant DT, Pawlby S, Pariante CM, Jones FW. When one childhood meets another – maternal childhood trauma and offspring child psychopathology: A systematic review. *Clin Child Psychol Psychiatry*. 2017; 23:483–500.
- Lomanowska AM, Boivin M, Hertzman C, Fleming AS. Parenting begets parenting: A neurobiological perspective on early adversity and the transmission of parenting styles across generations. *Neuroscience*. 2017; 342:120–39.
- Bowers ME, Yehuda R. Intergenerational transmission of stress in humans. *Neuropsychopharmacology*. 2016; 41:232–44.
- Gillespie SL, Cole SW, Christian LM. Early adversity and the regulation of gene expression: Implications for prenatal health. *Curr Opin Behav Sci*. 2019; 28:111–8.
- Letourneau N, Dewey D, Kaplan BJ, Ntanda H, Novick J, Thomas JC, et al. Intergenerational transmission of adverse childhood experiences via maternal depression and anxiety and moderation by child sex. *J Dev Orig Health Dis*. 2019; 10:88–99.
- Bandura A. Social learning theory. Englewood Cliffs, NJ: Pearson Education, 1977.
- Moon DS, Bong SJ, Kim BN, Kang NR. Association between maternal adverse childhood experiences and attention-deficit/hyperactivity disorder in the offspring: The mediating role of antepartum health risks. *Soa Chongsonyon Chongsin Uihak / Journal of the Korean Academy of child & adolescent psychiatry*. 2021; 32:28–34.
- Velleman R, Templeton LJ. Impact of parents' substance misuse on children: an update. *BJPsych Adv*. 2016; 22:108–17.
- Asmussen K, Fischer F, Drayton E, McBride T. Adverse childhood experiences What we know, what we don't know, and what should happen next. London: Early Intervention Foundation, 2020.
- Sethi D, Bellis M, Hughes K, Gilbert R, Mitis F, Galea G. European report on preventing child maltreatment. Copenhagen: World Health Organization, 2013.
- Fortson, B. L., Klevens J, Merrick MT, Gilbert LK, Alexander SP. Preventing child abuse and neglect: A technical package for policy, norm, and programmatic activities. Atlanta: CDC, 2016.
- World Health Organization. INSPIRE: Seven strategies for ending violence against children. Geneva: World Health Organization, 2016.
- Lopes NRL, Williams LC de A. Pediatric abusive head trauma prevention initiatives: A literature review. *Trauma Violence Abuse*. 2018; 19:555–66.
- Chen M, Chan KL. Effects of parenting programs on child maltreatment prevention: A meta-analysis. *Trauma Violence Abuse*. 2016; 17:88–104.
- Coore Desai C, Reece JA, Shakespeare-Pellington S. The prevention of violence in childhood through parenting programmes: a global review. *Psychol Health Med*. 2017; 22:166–86.
- O'Neill D, McGilloway S, Donnelly M, Bywater T, Kelly P. A cost-effectiveness analysis of the Incredible Years parenting programme in reducing childhood health inequalities. *Eur J Health Econ*. 2013; 14:85–94.
- Stevens M. The cost-effectiveness of UK parenting programmes for preventing children's behaviour problems - A review of the evidence. *Child Fam Soc Work*. 2014; 19:109–18.
- Washington State Institute for Public Policy. Nurse Family Partnership Public Health & Prevention: Home- or Family-based. Available from: <https://www.wsipp.wa.gov/BenefitCost/Program/35>, accessed 26th April 2023.
- World Health Organization. Parenting for Lifelong Health: A suite of parenting programmes to prevent violence. Available from: <https://www.who.int/teams/social-determinants-of-health/parenting-for-lifelong-health>, accessed 26th April 2023.
- University of Oxford. Parenting for lifelong health. Available from: <https://www.ox.ac.uk/research/research-impact/parenting-lifelong-health>, accessed 26th April 2023.
- Walsh K, Zwi K, Woolfenden S, Shlonsky A. School-based education programs for the prevention of child sexual abuse: A Cochrane systematic review and meta-analysis. *Res Soc Work Pract*. 2015; 28:33–55.
- Dray J, Bowman J, Campbell E, Freund M, Wolfenden L, Hodder RK, et al. Systematic review of universal resilience-focused interventions targeting child and adolescent mental health in the school setting. *J Am Acad Child Adolesc Psychiatry*. 2017; 56:813–24.
- Hodder RK, Freund M, Wolfenden L, Bowman J, Nepal S, Dray J, et al. Systematic review of universal school-based 'resilience' interventions targeting adolescent tobacco, alcohol or illicit substance use: A meta-analysis. *Prev Med (Baltim)*. 2017; 100:248–68.
- Kumpfer KL, Whiteside HO, Greene JA, Allen KC. Effectiveness outcomes of four age versions of the Strengthening Families Program in statewide field sites. *Group Dynamics: Theory, Research, and Practice*. 2010; 14:211–29.
- Cluver LD, Meinck F, Steinert JI, Shenderovich Y, Doubt J, Herrero Romero R, et al. Parenting for Lifelong Health: a pragmatic cluster randomised controlled trial of a non-commercialised parenting programme for adolescents and their families in South Africa. *BMJ Glob Health*. 2018; 3:e000539.

46. Summer GS. The design and implementation of a cognitive behavioural problem-solving training program for children of severely disturbed parents. PhD thesis. Florida: Florida State University, 1983.
47. Giusto A, Puffer E. A systematic review of interventions targeting men's alcohol use and family relationships in low- and middle-income countries. *Global Mental Health*. 2018; 5:e10.
48. Howell KH, Miller-Graff LE, Hasselle AJ, Scrafford KE. The unique needs of pregnant, violence-exposed women: A systematic review of current interventions and directions for translational research. *Aggress Violent Behav*. 2017; 34:128–38.
49. Feltner C, Wallace I, Berkman N, Kistler CE, Middleton JC, Barclay C, et al. Screening for intimate partner violence, elder abuse, and abuse of vulnerable adults: Evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2018; 320:1688–701.
50. Bacchus LJ, Colombini M, Contreras Urbina M, Howarth E, Gardner F, Annan J, et al. Exploring opportunities for coordinated responses to intimate partner violence and child maltreatment in low and middle income countries: a scoping review. *Psychol Health Med*. 2017; 22:135–65.
51. Alvarez CP, Davidson PM, Fleming C, Glass NE. Elements of effective interventions for addressing intimate partner violence in Latina women: A systematic review. *PLoS ONE*. 2016; 11:e0160518.
52. World Health Organization. Guidelines for the identification and management of substance use and substance use disorders in pregnancy. Geneva: World Health Organization, 2014.
53. Stade BC, Bailey C, Dzendoletas D, Sgro M, Dowswell T, Bennett D. Psychological and/or educational interventions for reducing alcohol consumption in pregnant women and women planning pregnancy. *Cochrane Database Syst Rev*. 2009; (2):CD004228.
54. Martin CG, Everett Y, Skowron EA, Zalewski M. The role of caregiver psychopathology in the treatment of childhood trauma with trauma-focused cognitive behavioral therapy: A systematic review. *Clin Child Fam Psychol Rev*. 2019; 22:273–89.
55. Morina N, Koerssen R, Pollet T V. Interventions for children and adolescents with posttraumatic stress disorder: A meta-analysis of comparative outcome studies. *Clin Psychol Rev*. 2016; 47:41–54.
56. van der Stouwe T, Asscher JJ, Stams GJMM, Deković M, van der Laan PH. The effectiveness of multisystemic therapy (MST): A meta-analysis. *Clin Psychol Rev*. 2014; 34:468–81.
57. World Health Organization. Changing cultural and social norms that support violence. Geneva: World Health Organization, 2009.
58. World Health Organization. RESPECT women: Preventing violence against women. Geneva: World Health Organization, 2019.
59. World Health Organization. Tackling NCDs: “best buys” and other recommended interventions for the prevention and control of noncommunicable diseases. Geneva: World Health Organization, 2017.
60. United Nations Office on Drugs and Crime. International standards on drug use prevention: Second updated edition. UNODC: Vienna, 2018.
61. World Health Organization. Mental health action plan 2013–2020. Geneva: World Health Organization, 2013.
62. World Health Organization. Guide for integration of perinatal mental health in maternal and child health services. Geneva: World Health Organization, 2022.
63. Addis S, Brierley-Sollis T, Jones V, Hughes C. ‘Trauma informed’: Identifying key language and terminology through a review of the literature. Cardiff: Public Health Wales, 2022.
64. SAMHSA. SAMHSA's concept of trauma and guidance for a trauma-informed approach. Rockville, MD: SAMHSA, 2014.
65. ACE Hub Wales. Trauma-informed Wales: A societal approach to understanding, preventing and supporting the impacts of trauma and adversity. Cardiff: Public Health Wales, 2022.
66. Esden JL. Adverse childhood experiences and implementing trauma-informed primary care. *Nurse Pract*. 2018; 43(12).
67. Farro SA, Clark C, Hopkins Eyles C. Assessing trauma-informed care readiness in behavioral health: An organizational case study. *J Dual Diagn*. 2011, 7:228–41.
68. Fallot R, Harris M. Trauma-informed services: a self-assessment and planning protocol. Available from: <https://www.unitedforyouth.org/sites/default/files/2020-08/Trauma-Informed%20Services%20-%20Self%20Assessment%20and%20Planning%20Protocol.pdf>, accessed 26th April 2023.
69. Traumatic Stress Institute. ARTIC scale: Attitudes Related to Trauma-Informed Care. Available from: <https://www.traumaticstressinstitute.org/the-artic-scale/>, accessed 26th April 2023.
70. ACE Hub Wales. Trauma and ACE (TrACE) Informed Organisations Toolkit. Cardiff: Public Health Wales, 2021.
71. Roberts SJ, Chandler GE, Kalmakis K. A model for trauma-informed primary care. *J Am Assoc Nurse Pract*. 2019; 31: 139–144.
72. Eklund K, Rossen E, Koriakin T, Chafouleas SM, Resnick C. A systematic review of trauma screening measures for children and adolescents. *Sch Psychol Q*. 2018; 33:30–43.
73. Sweeney A, Filson B, Kennedy A, Collinson L, Gillard S. A paradigm shift: relationships in trauma-informed mental health services. *BJPsych Adv*. 2018, 24:319–33.
74. Sage CAM, Brooks SK, Greenberg N. Factors associated with Type II trauma in occupational groups working with traumatised children: a systematic review. *Journal of Mental Health*. 2018; 27:457–67.
75. The Institute of Public Health of Montenegro. Survey on adverse childhood experiences in Montenegro: National Survey Report. Copenhagen: The Institute of Public Health of Montenegro, 2013.
76. Cork Healthy Cities. Cork Healthy Cities Action Plan Phase VII. Available from: <https://corkhealthycities.com/action-plan-2020-2030/>, accessed 26th April 2023.
77. Ministry of Social Affairs and Health. Action plan for the prevention of violence against children, 2020–2025. Helsinki: Ministry of Social Affairs and Health, 2020.
78. Ford K, Hughes K, Hardcastle K, Di Lemma LCG, Davies AR, Edwards S, et al. The evidence base for routine enquiry into adverse childhood experiences: A scoping review. *Child Abuse Negl*. 2019; 91:131–46.
79. Centers for Disease Control and Prevention. Violence Prevention in Practice tool: Developing an action plan for implementation. Available from: https://vetoviolence.cdc.gov/apps/violence-prevention-practice/sites/vetoviolence.cdc.gov/apps/violence-prevention-practice/files/Dev%20Action%20Plan%20for%20Implementation%20508_0.pdf, accessed 26th April 2023.
80. Roehrig C, Pradier C. Clés de l'adaptation française d'un programme américain de soutien à la parentalité. *Sante Publique (Paris)*. 2017; 29:643–53.
81. ACEs Aware. Training: How to get certified to screen for ACEs. Available from: <https://www.acesaware.org/learn-about-screening/training/>, accessed 26th April 2023.
82. Hart A, Bincow D, Thomas H. Resilient therapy: working with children and families. Hove / New York: Routledge, 2007.
83. Kara B, Morris R, Brown A, Wigglesworth P, Kania J, Hart A, et al. Bounce Forward: A school-based prevention programme for building resilience in a socioeconomically disadvantaged context. *Front Psychiatry*. 2021; 11:599669.
84. Blackpool Headstart. Bounce Forward programme evaluation and final report. Blackpool: Blackpool Headstart, 2020.
85. Bellis MA, Ashton K, Hughes K, Ford K, Bishop J, Paranjothy S. Adverse childhood experiences and their impact on health-harming behaviours in the Welsh adult population. Cardiff: Public Health Wales, 2015.
86. Welsh Government. Review of Adverse Childhood Experiences (ACE) policy: report. 2021. Available from: <https://www.gov.wales/sites/default/files/pdf-versions/2021/3/3/1615991408/review-adverse-childhood-experiences-ace-policy-report.pdf>, accessed 26th April 2023.
87. Welsh Government. Welsh Government Taking Wales Forward. 2016. Available from <https://www.gov.wales/taking-wales-forward-0>, accessed 26th April 2023.
88. Welsh Government. Prosperity for all: the national strategy - taking Wales forward. 2017. Available from: https://www.basw.co.uk/system/files/resources/basw_80650-6_0.pdf, accessed 26th April 2023.
89. Riley G, Bailey J, Bright D, Davies A. Knowledge and awareness of adverse childhood experiences (ACEs) in the public service workforce in Wales: a national survey. Cardiff: Public Health Wales, 2019.
90. Hardcastle K, Bellis MA, Hopkins JC. The Early Action Together Programme: Outcomes, impacts and lessons for future transformation. Cardiff: Public Health Wales, 2021.
91. ACE Hub Wales. Trauma-informed Wales: A societal approach to understanding, preventing and supporting the impacts of trauma and adversity. Cardiff: Public Health Wales, 2022.

1. Appendices: sector roles

Table 1: Public health systems

STEP	POTENTIAL ACTIONS
1 Assess the situation, collect data.	Consider existing sources of data on ACEs, implement or procure surveys to collect data on ACEs.
2 Raise awareness, gain commitment, advocate for change.	Use knowledge to educate partners and policymakers on the situation and solutions.
3 Develop partnership working.	Create opportunities to bring partners together.
4 Select, adapt or develop interventions based on evidence and resources.	<p>Help to build the evidence base of what works, e.g. through evaluation and evidence reviews in addition to ...</p> <p> Educate staff on social and gender norms. Raise awareness of social norms e.g. through public campaigns.</p> <p> Contribute to the development or delivery of parenting programmes (e.g. within health visiting).</p> <p> Contribute to the development of education and life skill programmes within school and other settings. Educate staff on ACEs and how to respond.</p> <p> Create opportunities to bring partners together. Contribute to the development or delivery of multi-component programmes.</p> <p> Contribute to the development of support services in various settings. Provide access to support services for staff affected by their own or others' ACEs.</p> <p>Trauma-informed systems. Educate all employees on ACEs and ways to offer support to those affected. Advocate for and develop a trauma-informed service / organisation.</p>
5 Provide training, support and a culture for change.	Train staff and external partners, develop training materials and protocols.
6 Evaluate action.	Monitor, procure evaluations.
7 Scale up or embed and sustain effective action.	Build effective action into routine practice.

Table 2: Criminal justice

STEP	POTENTIAL ACTIONS
1 Assess the situation, collect data.	Share anonymised data to feed into situational analyses and monitoring systems.
2 Raise awareness, gain commitment, advocate for change.	Use knowledge to educate staff, partners and policymakers on the situation and solutions.
3 Develop partnership working.	Create and engage in opportunities to work together with partners.
4 Select, adapt or develop interventions based on evidence and resources.	 Educate staff on social and gender norms. Raise awareness of and enforce laws e.g. minimum prices on alcohol.
	 Deliver or support the delivery of interventions e.g. parenting programmes within prison settings.
	 Deliver or support the delivery of interventions e.g. educating children around abuse and illicit substances / teaching life skills to young offenders. Educate staff on ACEs and how to respond.
	 Contribute to the development or delivery of multi-component programmes.
	 Provide support services for victims, offenders and children of incarcerated parents e.g. prison nursery programmes. Provide access to support services for staff affected by their own or others' ACEs.
	Trauma-informed systems. Educate all employees on ACEs and ways to offer support to those affected. Advocate for and develop a trauma-informed service / organisation.
5 Provide training, support and a culture for change.	Educate staff on ACEs and create a culture for change.
6 Evaluate action.	Monitor, procure evaluations, share data for evaluations.
7 Scale up or embed and sustain effective action.	Build effective action into routine practice.

Table 3: Legislators, policymakers and other authorities

STEP	POTENTIAL ACTIONS
1 Assess the situation, collect data.	Enable national and/or local surveys to collect data on ACEs.
2 Raise awareness, gain commitment, advocate for change.	Raise awareness of ACEs and enable change to address them.
3 Develop partnership working.	Create and engage in opportunities to work together with partners.
4 Select, adapt or develop interventions based on evidence and resources.	 Educate staff on social and gender norms. Create legislation and policy e.g. law banning the corporal punishment of children.
	 Allocate funding to interventions e.g. funding for parenting programmes and economic support for struggling families.
	 Allocate funding to interventions e.g. funding for school-based life skill development. Deliver education campaigns to the public on ACEs and ways to support those affected.
	 Allocate funding for interventions e.g. funding for family-focused multi-component interventions.
	 Allocate funding for support services, e.g. mental health services and charities that support those affected by ACEs. Provide access to support services for staff affected by their own or others' ACEs.
	Trauma-informed systems. Educate all employees on ACEs and ways to offer support to those affected. Advocate for and develop a trauma-informed service / organisation.
5 Provide training, support and a culture for change.	Educate staff on ACEs and create a culture for change.
6 Evaluate action.	Monitor, procure evaluations.
7 Scale up or embed and sustain effective action.	Build effective action into routine practice.

Table 4: Academia

STEP	POTENTIAL ACTIONS
<p>1 Assess the situation, collect data.</p>	<p>Build evidence on ACEs e.g. publishing literature related to ACEs or conducting ACE surveys.</p>
<p>2 Raise awareness, gain commitment, advocate for change.</p>	<p>Use knowledge to educate staff, partners and policymakers on the situation and solutions.</p>
<p>3 Develop partnership working.</p>	<p>Create and engage in opportunities to work together with partners.</p>
<p>4 Select, adapt or develop interventions based on evidence and resources.</p>	<p>Help to build the evidence base of what works, e.g. through evaluation and evidence reviews in addition to ...</p> <ul style="list-style-type: none"> <li data-bbox="598 667 1474 790">  Educate staff and students on social and gender norms e.g. institutional wide education on the culture around violence against women. <li data-bbox="598 797 1474 958">  Raise awareness e.g. promoting campaigns related to sexual harassment and violence on campus. Contribute to the development of interventions in other settings e.g. parenting programmes. <li data-bbox="598 965 1474 1070">  Contribute to the development of interventions in educational settings. <li data-bbox="598 1077 1474 1182">  Contribute to the development of multi-component interventions. <li data-bbox="598 1189 1474 1350">  Provide support services for students and staff affected by ACEs e.g. mental health or counselling services. Provide access to support services for staff affected by their own or others' ACEs. <p>Trauma-informed systems. Educate all employees on ACEs and ways to offer support to those affected. Advocate for and develop a trauma-informed university.</p>
<p>5 Provide training, support and a culture for change.</p>	<p>Train staff and external partners, help to develop training materials and protocols.</p>
<p>6 Evaluate action.</p>	<p>Monitor and evaluate interventions.</p>
<p>7 Scale up or embed and sustain effective action.</p>	<p>Build effective action into routine practice.</p>

Table 5: Education

STEP	POTENTIAL ACTIONS
1 Assess the situation, collect data.	Collect data on ACEs within school settings. Share anonymised data to feed into monitoring systems.
2 Raise awareness, gain commitment, advocate for change.	Use knowledge to educate staff and partners on the situation.
3 Develop partnership working.	Engage in opportunities to work together with partners.
4 Select, adapt or develop interventions based on evidence and resources.	 Educate staff and children on social and gender norms.
	 Deliver or support the delivery of interventions e.g. facilitating mentoring interventions.
	 Educate children e.g. to recognise abuse or by building resilience. Educate staff on ACEs and how to respond.
	 Help to develop or engage in multi-component programmes to address ACEs.
	 Provide support services in schools e.g. counselling or mental health services. Provide access to support services for staff affected by their own or others' ACEs.
	Trauma-informed systems. Educate all employees on ACEs and ways to offer support to those affected. Advocate for and develop a trauma-informed school / college.
5 Provide training, support and a culture for change.	Educate staff on ACEs and create a culture for change.
6 Evaluate action.	Monitor, procure evaluations.
7 Scale up or embed and sustain effective action.	Build effective action into routine practice.

Table 6: Health and care

STEP	POTENTIAL ACTIONS
1 Assess the situation, collect data.	Share data to feed into situational analyses and monitoring systems.
2 Raise awareness, gain commitment, advocate for change.	Use knowledge to educate staff, partners and policymakers on the situation and solutions.
3 Develop partnership working.	Create and engage in opportunities to work together with partners.
4 Select, adapt or develop interventions based on evidence and resources.	 Educate staff on social and gender norms. Raise awareness of social norms and impacts on health e.g. through public campaigns.
	 Deliver parenting programmes e.g. home visiting programmes for support during pregnancy and post-partum.
	 Educate health professionals on ACEs and how to respond.
	 Deliver or support the delivery of interventions e.g. Family-based multi-component programmes.
	 Provide mental health support services and referral to specialist service for those affected by ACEs. Provide access to support services for staff affected by their own or others' ACEs.
	<p>Trauma-informed systems.</p> <p>Educate all employees on ACEs and ways to offer support to those affected.</p> <p>Advocate for and develop a trauma-informed health service.</p>
5 Provide training, support and a culture for change.	Educate staff on ACEs and create a culture for change
6 Evaluate action.	Monitor, procure evaluations, and share data for evaluations.
7 Scale up or embed and sustain effective action.	Build effective action into routine practice.

Table 7: Community / 3rd sector

STEP	POTENTIAL ACTIONS
1 Assess the situation, collect data.	Share data to feed into situational analyses and monitoring systems.
2 Raise awareness, gain commitment, advocate for change.	Use knowledge to educate staff, partners and policymakers on the situation and solutions.
3 Develop partnership working.	Create and engage in opportunities to work together with partners.
4 Select, adapt or develop interventions based on evidence and resources.	 Educate staff on social and gender norms. Deliver or support the delivery of interventions e.g. empowerment programmes for women.
	 Deliver training to parents e.g. parenting programmes delivered in community settings. Deliver action to address specific ACEs e.g. parental mental illness or substance abuse.
	 Deliver education programmes to children e.g. prevention of sexual abuse. Educate staff on ACEs and how to respond.
	 Deliver or support the delivery of interventions e.g. family- and community-based multi-component programmes.
	 Provide specialist support to families, adults and children on a range of issues e.g. mental health, intimate partner violence, sexual violence and substance abuse. Provide access to support services for staff affected by their own or others' ACEs.
	<p>Trauma-informed systems.</p> Educate all employees on ACEs and ways to offer support to those affected. Advocate for and develop a trauma-informed service / organisation.
5 Provide training, support and a culture for change.	Educate staff on ACEs and create a culture for change.
6 Evaluate action.	Monitor, procure evaluations, and share data for evaluations.
7 Scale up or embed and sustain effective action.	Build effective action into routine practice.

Policy and International Health,
WHO Collaborating Centre on
Investment for Health and Well-being,
Public Health Wales,
Clywdian House
Wrexham Technology Park
Wrexham
LL13 7YP

X @PublicHealthW

<https://phwwhocc.co.uk>