


The Annual Report  
of the **Director of  
Public Health**



**2018**

A photograph of a field of purple crocuses in the foreground, with snow-capped mountains in the background. The scene is captured in a soft, natural light, suggesting a high-altitude or mountainous region.

**Adverse Childhood Experiences,  
Resilience and Trauma Informed  
Care: A Public Health Approach to  
Understanding and Responding to  
Adversity**



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## Foreword by Director of Public Health



This year's annual report focuses on our children and young people. The report provides growing evidence that our experience of support and of stress, particularly in the early years, has a key role in shaping our capacity to learn, grow, and respond in a resilient manner later in life.

This report deals with 'Adverse Childhood Experiences' and chronic exposure to 'toxic stress'. A key message in this report is that such experiences increase

the risk of later development of poor mental health, adverse behavioural responses, and increased risk of a range of physical illnesses, but that caring relationships can buffer these adverse effects and improve resilience.

The evidence provided in this report suggests that we can help each other in the face of the stresses and strains to which we can all be subject. By sharing each other's burdens and helping each other to bounce back from the knocks that life brings, we can create a society that is more connected and healthy. Many of us also have opportunities to use the evidence provided in this report to enhance the lives of babies, children and young people in our extended families, our community, and in our place of work.

We are also tasked with listening and responding to the expertise of those with lived experience of adversity. Grassroots expertise needs to underpin the shifts in culture and practice that are required to demonstrate what has been termed 'ACE Awareness' or an 'ACE-Aware Nation'. We have found a grassroots energy and interest that we are keen to facilitate and support.

I would encourage all of us to think about ways in which we can increasingly develop a 'trauma informed' approach to our work, particularly with children and vulnerable people across our communities. I am grateful for the fact that such an approach is well recognised in many schools and mental health services, but there is probably more that we can do to embed these lessons in the way that we all work.

Finally, I want to thank the team, led by Sally Amor, that have contributed to the development of this report, which is the culmination of a lot of analysis, discussion and collaborative working. I hope that you enjoy reading the report.



Professor Hugo van Woerden

Director of Public Health and Health Policy, NHS Highland  
Stiùriche na Slàinte Phoblach, Bòrd Slàinte na Gàidhealtachd

**"Fire can warm or consume, water can quench or drown, wind can caress or cut. And so it is with human relationships: we can both create and destroy, nurture and terrorize, traumatize and heal each other."**

Source: Perry D, Szalavitz<sup>1</sup>

## Introduction

The human brain is unique: given the right opportunities, it has the capacity to bring meaning, perspective, insight, compassion and empathy to people's lives. The socio-biological processes that underpin these capacities are the basis for good mental and physical health and wellbeing with the resulting benefits for families, communities and society at large. When these processes work to best effect, people are more likely to be able to make sense of their lives, be these positive or negative experiences. This sits at the heart of what will be explored in this report: how to make sense of adversity, to enable babies, children, young people, families, communities and wider society to flourish.

Humans grow and develop through a process of responding to, and making sense of threat and adversity and sometimes, violence. One way this is achieved is through the concept of resilience. While adversity can have a positive role to play in our development, it can become a risk and a threat to healthy growth and development when there is too much of it, for too long, in the absence of safety from buffering relationships. This can have a profound and enduring impact on the way brains develop from the earliest moments in life: shaping the foundations of our physical and mental health, and informing the way we respond to ourselves and others on a daily basis. The first '1001 days' (that is the first three years or so of life) are particularly important, laying a template that influences our health and wellbeing across the life course.

The growing awareness of the impact and implications of the way we respond physiologically to threat, adversity, stress and violence prompts a rethink of our understanding and response to adversity. The lens of adverse childhood experience prompts, even requires, new and different approaches to the way health and wellbeing is supported: How to build the capacity for resilience? How to make sense of and recover from threat and fear? It also raises questions over the way we design and deliver services through the developing practice of trauma informed care: an approach that asks: 'What happened to you?' rather than 'What's wrong with you?' to follow through with 'How has this affected your life?' and 'Who is there for you?'

This report considers early development, the preschool and school years, adolescence and transition into adulthood and later life. Consideration is given also to the inter-generational effects of adversity and the impact of trauma on how individuals and families are able, or not, to engage with services. The report goes on to explore how services can be improved with this understanding of trauma in mind and what benefits can be delivered by addressing the impact of childhood trauma and adverse childhood experiences for our population. Throughout the report, case studies explore the links between data, lived experience and service provision.

The role of systems and services and our individual practice is to prevent adversity where possible and when it occurs, to offset harmful effects, while at an individual level, supporting each of us to have the skills and capacity to understand and make sense of the experience of adversity when it occurs.

The team writing the report came to a considered view that we would not use the ACE acronym in the report. This is intended to support a culture and practice of awareness in relation to adversity in childhood as something that can shape us, but that does not define us: we are all more than an 'ACE score'.

## Director of Public Health key messages

1. Adverse childhood experiences are common to many of us: they reflect key stressful events from before birth, to the age of 18. There should be no shame in having experienced adversity.
2. The impact of adverse childhood experiences can be offset by safe, secure responsive adult relationships that buffer the effects of stress/adversity and support the development of resilience, a key mechanism to make sense of, and recover from threat and fear.
3. 'Chronic toxic stress' can have a lasting effect on physical and mental health and wellbeing from birth to the older years. These effects can be passed on to further generations, which can cause intergenerational harm.
4. The impact of adverse childhood experiences can be mitigated throughout the lifespan: there is always hope and opportunities for recovery in childhood, adolescence, into adulthood, and even in the latter years.
5. The human costs of adverse childhood experiences are considerable for individuals, families and communities, both in the moment and from intergenerational effects. Environmental and community adversity, along with experience of adversity at an individual level, has been described as a 'Pair of ACEs'.
6. A public health approach to adverse childhood experiences seeks to describe the range and variety of adversity while reducing the experience of adversity for everyone, with benefits for all. This involves working within services to intervene, and to respond where there is evidence of harm. This involves the development of trauma-informed systems and services.
7. By taking a 'preventive spend' approach to adversity in childhood we can reduce the costs to health, education, social care, police and justice services of responding to the impact and consequences of adverse childhood experiences.
8. Being trauma aware and trauma informed is 'everyone's business'.
9. In practice, to be trauma informed requires a cultural shift from 'What's wrong with you?' to 'What happened to you?' and to follow through with 'How has this affected your life?' and 'Who is there for you?'
10. Routine enquiry is an approach to understanding and responding to an individual's experiences of adverse childhood experiences. It is a tool that can be built into practice with training, support and supervision.
11. Community Planning has the potential to be a transformational mechanism, working through a strength based approach, with communities, to understand and respond to adverse childhood experiences.
12. The GIRFEC Child's Plan and Wellbeing Indicators are an important example of a 'strengths based approach' for use with babies, children, young people and their families.

# Chapter One - Understanding the problem: the epidemiology of adverse childhood experiences





## What are adverse childhood experiences?

The term adverse childhood experiences (ACEs) is used to describe a wide range of stressful or traumatic experiences that babies, children and young people can be exposed to whilst growing up. The term was first introduced as part of the American Adverse Childhood Experiences Study<sup>2</sup>. This study found that as the number of adverse childhood experiences increased for an individual child, so did their risk of experiencing a range of physical and mental health conditions during the course of their lifetime.

Adverse childhood experiences range from experiences that directly harm a child (such as suffering physical, verbal or sexual abuse and physical or emotional neglect), to those that affect the environment in which a child grows up (including parental separation, domestic violence, mental illness, problematic alcohol or drug use, and a family member being in prison).

Over time, the terminology and language used when considering and discussing adverse childhood experiences has become complex and the subject of inter-disciplinary debate. As a result, a number of definitions have been proposed and presented. For example, adverse childhood experiences have been described as:

"intra-familial events or conditions causing chronic stress responses in the child's immediate environment. These include notions of maltreatment and deviation from societal norms"<sup>3</sup>.

It has also been recognised that:

"... adverse childhood experiences that harm children's developing brains so profoundly that the effects show up decades later; they cause much of chronic disease, most mental illness, addiction and are at the root of most violence"<sup>4</sup>.



**Figure 1.1** - Sentinel markers of adverse childhood experiences from the Adverse Childhood Experiences Study

**Source:** Felitti V et al<sup>2</sup>.

The ten sentinel markers of adversity (Figure 1.1) in the original American Adverse Childhood Experiences study were deliberately limited to direct harm and factors taking place within the home. These do not cover all the adversity experienced in childhood that might be expected to have a similar long-term impact on outcomes.

Other markers that have been proposed in relation to health include: bullying, bereavement and traumatic loss, peer rejection, experience of the care system, food scarcity and living in an unsafe environment<sup>5</sup>. These are shown in Figure 1.2.



**Figure 1.2:** Alternative markers of adverse childhood experiences

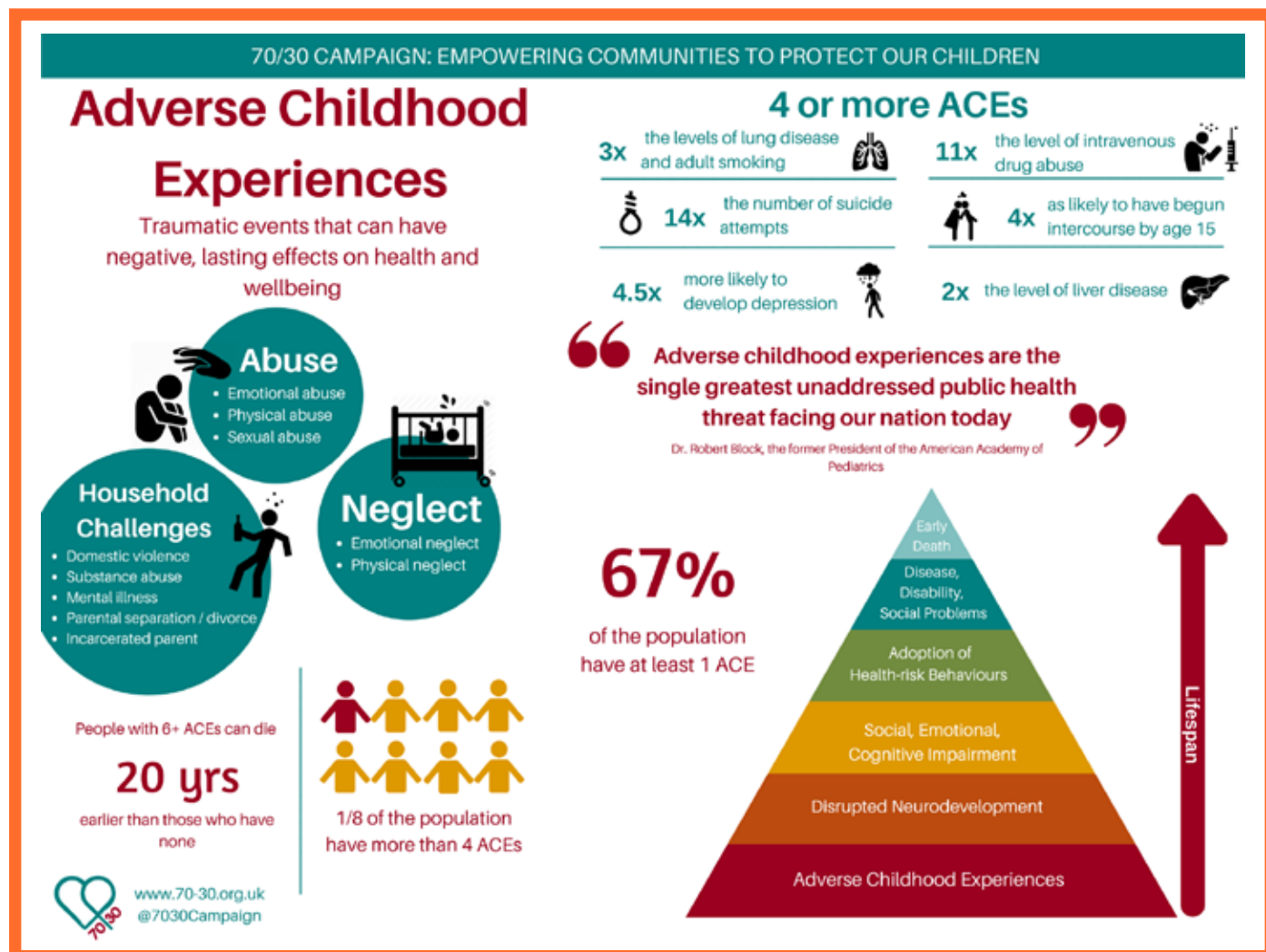
**Source:** Based on Smith M<sup>5</sup>

For the purpose of this annual report, the definition of adverse childhood experiences that has been used is: events that happen to a child in the absence of safety, which is traumatic for that child, causes toxic stress, can change their biology, and increase their risk of experiencing a wide range of physical and mental health conditions during their life course<sup>6</sup>.

Adverse experiences often cluster in children and young people's lives, and are associated with a range of poor educational, social, physical and mental health outcomes across the life course. A systematic review in 2017 concluded that focusing upon the effect of multiple adverse childhood experiences enables a better assessment of childhood adversity and its relationship with future health, than does examination of individual types of harm<sup>7</sup>.

A public health approach to adverse childhood experiences is important. It helps us understand the prevalence, the factors associated with their occurrence, and the potential long term impact on individual, family and community health and wellbeing. It helps us to understand how we can work to prevent them in the first instance, and to work across our services to offset their harmful consequences at all stages of life.

A conceptual framework for adverse childhood experiences across the life course is illustrated in the 70/30 Campaign infographic shown in Figure 1.3. 70/30 is a campaign led by the WAVE Trust that seeks to reduce toxic stress in children by 70% by 2030.



**Figure 1.3:** Conceptual framework of adverse childhood experiences  
**Source:** WAVE Trust, The 70/30 Campaign<sup>8</sup> See [www.70-30.org.uk](http://www.70-30.org.uk)

The model underpinning this diagram is that adverse childhood experiences disrupt neurodevelopment, leading to social, emotional and cognitive impairment, which increases the risk of the adoption of health risk behaviours and influences long term outcomes related to disease, disability, social integration and as much as twenty years lower life expectancy.

### Find out more

NHS Health Scotland website

[www.healthscotland.scot/population-groups/children/adverse-childhood-experiences](http://www.healthscotland.scot/population-groups/children/adverse-childhood-experiences)

WAVE Trust. The 70:30 Campaign website

[www.70-30.org.uk](http://www.70-30.org.uk)

Centres for Disease Control and Prevention website

[www.cdc.gov/violenceprevention/acestudy/index.html](http://www.cdc.gov/violenceprevention/acestudy/index.html)

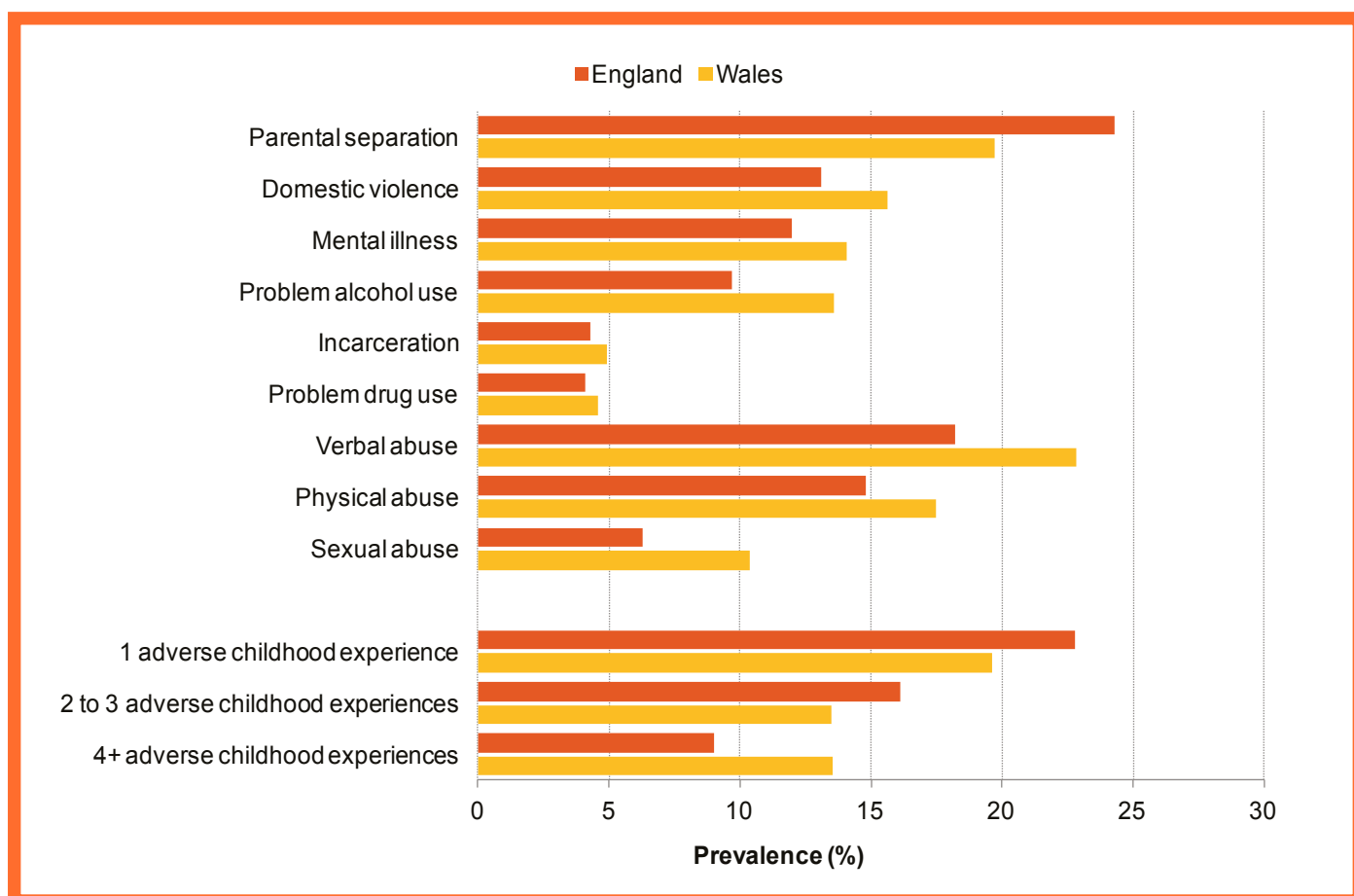
Public Health Wales website

[www.wales.nhs.uk/sitesplus/888/page/88504](http://www.wales.nhs.uk/sitesplus/888/page/88504)

## How common are adverse childhood experiences?

A number of epidemiological surveys have been undertaken both nationally and internationally to measure the prevalence of adverse childhood experiences. The first major study examining adverse childhood experiences involved over 17,000 adults enrolled with the Kaiser Permanente health plan in the United States<sup>2,9</sup>. This research used a standardised questionnaire to see if there was any link between the effect of multiple childhood experiences of trauma and abuse on the respondents health and wellbeing. The study reports upon the number of different types of adverse childhood experiences reported by participants, to assess cumulative childhood stress. This is reported as an 'Adverse Childhood Experience score', for example, experience of four or more different types of adversity. Although the study participants were mainly employed, middle class college graduates almost two-thirds (64%) reported experiencing one, and 12.5% reported multiple (4 or more) adverse childhood experiences.

The same questionnaire has been used to measure the prevalence of adverse childhood experiences in populations aged 18 to 69 years in England<sup>10</sup> and Wales<sup>11</sup> (Figure 1.4). The results of these two nationally representative population level surveys indicate childhood adversity is widespread, with 48% of adults in England and 47% of adults in Wales reporting experience of at least one type of adversity before the age of 18. Multiple (4 or more) adverse childhood experiences were reported by 9% of English and 13.5% of Welsh adults respectively. The prevalence of individual types of adversity show that childhood experience of parental separation, direct verbal and physical abuse, and household domestic violence were experienced by a substantial proportion of adults in both populations.

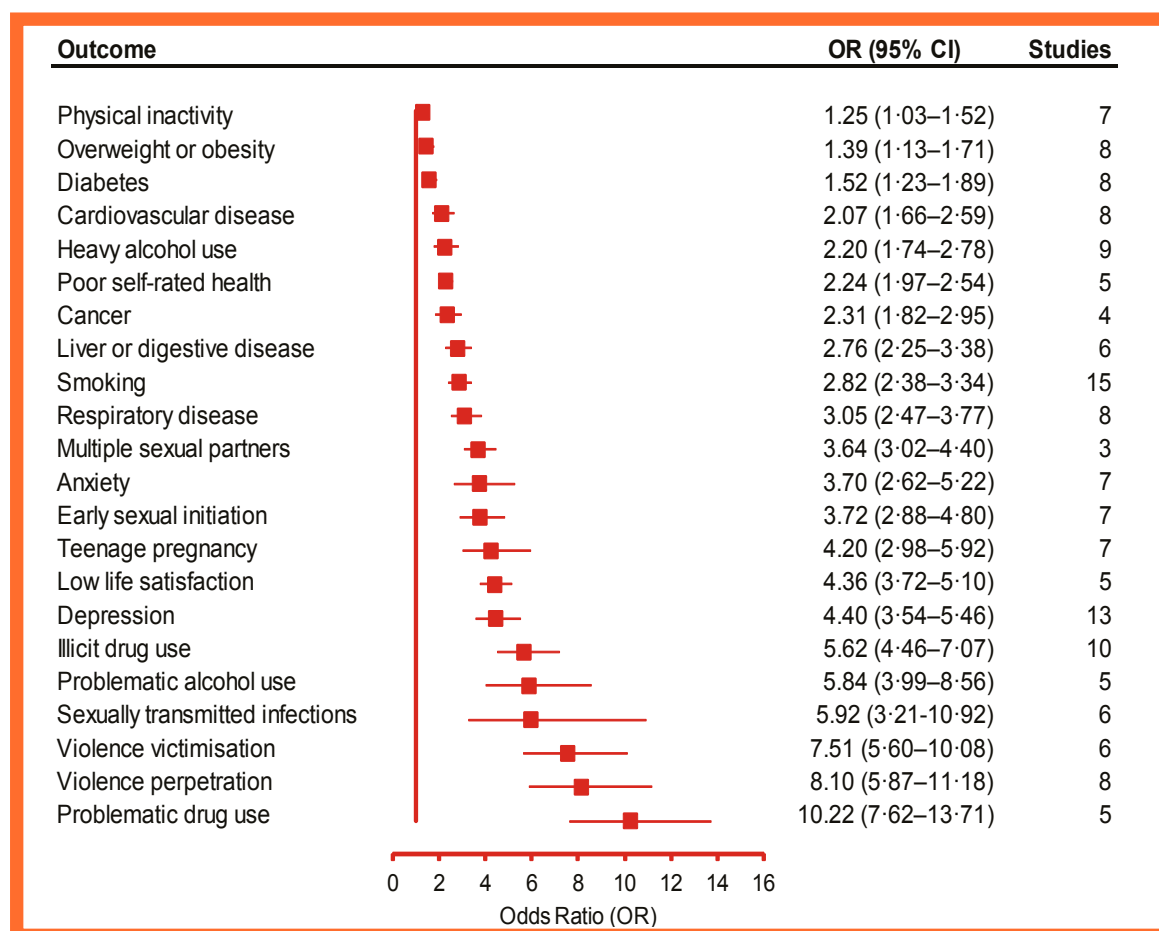


**Figure 1.4:** Prevalence of adverse childhood experiences from two studies based in the UK  
**Source:** Bellis M et al.<sup>10</sup> and Public Health Wales<sup>11</sup>

Figures based on average population adjusted prevalence in adults aged 18 to 69 years  
 a England study, n = 3,885, prevalence adjusted by age, gender, deprivation and ethnicity  
 b Wales study, n = 2,028, prevalence adjusted by age, gender and deprivation

These studies provide some information on the likely scale and relative frequency of the different types of adversity, though they may underestimate the actual experience of children for a number of reasons. This is because the surveys are based on self-reported recall of a person's childhood which may have been many years ago. People may choose not to disclose experience of childhood adversity, and the studies will not include people who have died at an early age. Research has also found that a prospective study of adverse childhood experiences may not identify individuals whose adverse experiences during childhood were not known or reported at the time<sup>12</sup>. The authors conclude that although prospective and retrospective reports of childhood adversity capture largely non-overlapping groups of individuals, both methods hold value in research designed to improve understanding of adverse childhood experiences.

The scale and influence of adverse childhood experiences is becoming clearer. A summary of a systematic review that demonstrates the strength of the relationship between adverse childhood experiences and various health and mental health outcomes is shown in Figure 1.5. In all studies, the reported risk was cumulative and showed a strong dose-response effect. This means that those experiencing higher numbers of adverse childhood experiences have poorer health outcomes. The strongest relationship has been shown to be between adverse childhood experiences and significant drug use, being involved in violent interactions, and suicide attempt.



**Figure 1.5:** Summary of studies reporting associations between multiple adverse childhood experiences and selected health outcomes

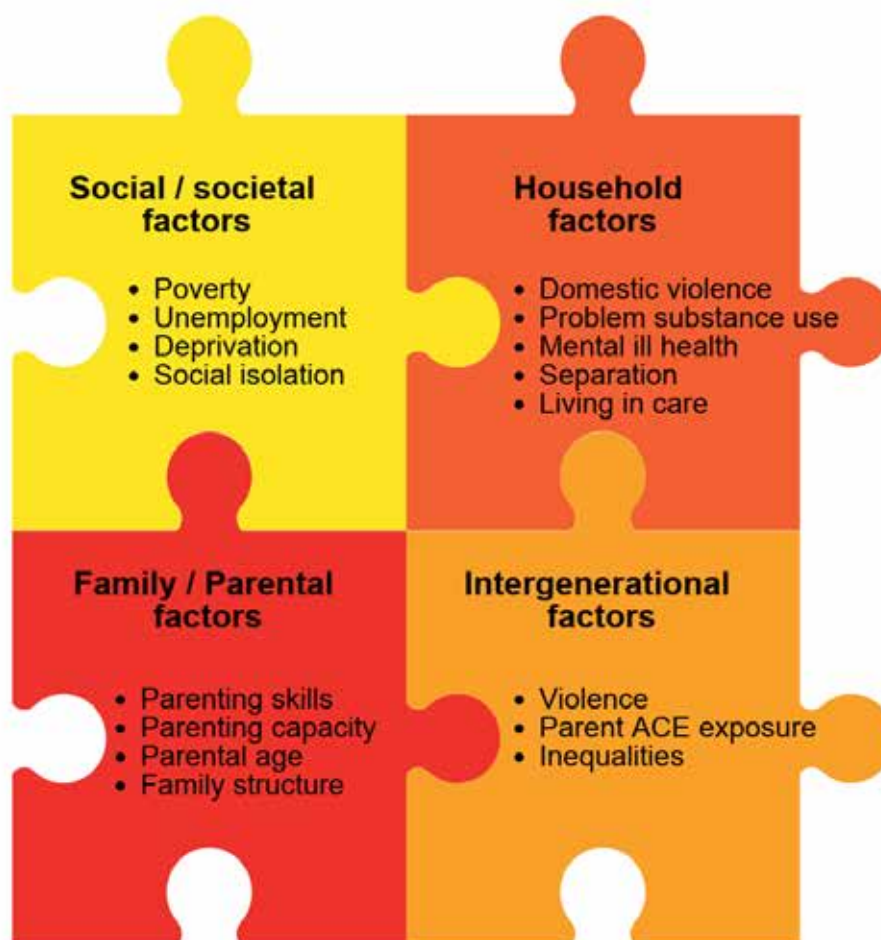
**Source:** Based on Hughes et al.<sup>7</sup>

Data for suicide attempt OR 30.14 (95% CI 14.73 – 61.67) based on three studies (not shown)  
Odds ratios compare cases with zero to multiple (four or more) adverse childhood experiences

## Risk factors for adverse childhood experiences

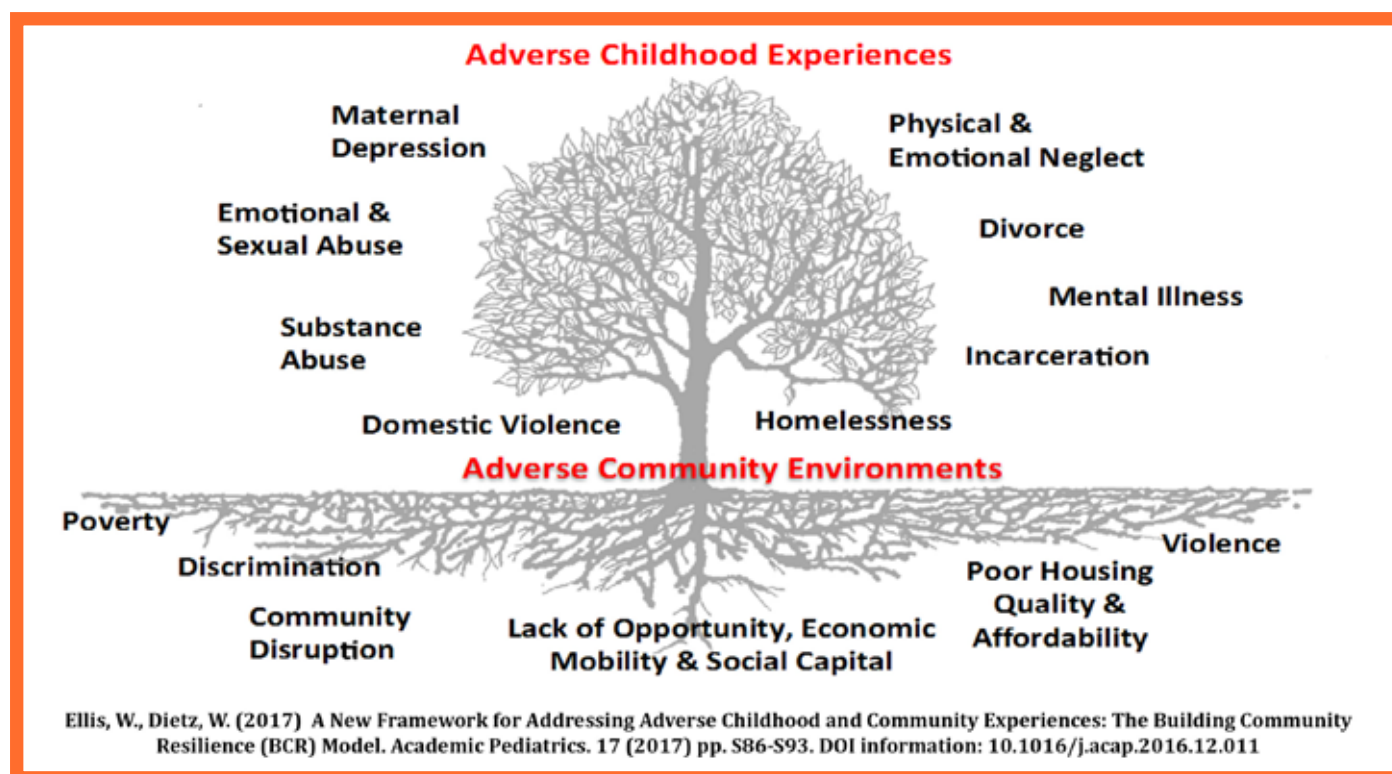
The risk factors associated with increased likelihood of experiencing abuse, trauma and stress in childhood are extremely varied. A report by the UCL Institute of Health Equity summarised a number of interacting risk factors for adverse childhood experiences as the social context in which families live, parenting and family structure, and household factors<sup>13</sup>.

It has been reported that these risk factors are often co-occurring and interlinked, and that it is usually the cumulative effects of a combination of factors, rather than a single issue that leads to a child's experience of adversity and stress. Some aspects of this relationship, together with the intergenerational risks associated with adverse childhood experiences, are illustrated in Figure 1.6.



**Figure 1.6:** Interlocking model of risk factors for adverse childhood experiences  
**Source:** Based on UCL Institute of Health Equity<sup>13</sup>

The environment in which families live can present additional risk factors that in combination, contribute to poorer outcomes from adverse childhood experiences. These have been proposed as adverse community experiences, which in combination with adverse childhood experiences, create what has been termed 'A Pair of ACEs', as detailed in Figure 1.7<sup>14</sup>.



**Figure 1.7:** The Pair of ACEs

**Source:** Redstone Global Center for Prevention and Wellness at George Washington University<sup>14</sup>.

The concept of the 'Pair of ACEs' demonstrates the relationship between adverse experiences at an individual child level and at a wider community/environmental level, within the context of a whole-system approach. These additional environmental stressors require greater levels of resilience by parents and related community support to buffer the effects of a greater likelihood of the accumulative adversity and the associated risk of toxic stress.

### Find out more

Adverse Childhood Experiences Connection website blog

[www.acesconnection.com/blog/using-data-to-spark-action-on-the-pair-of-aces](http://www.acesconnection.com/blog/using-data-to-spark-action-on-the-pair-of-aces)

The George Washington University - Milken Institute School of Public Health:  
Building Community Resilience Collaborative resources

<http://go.gwu.edu/BCR>

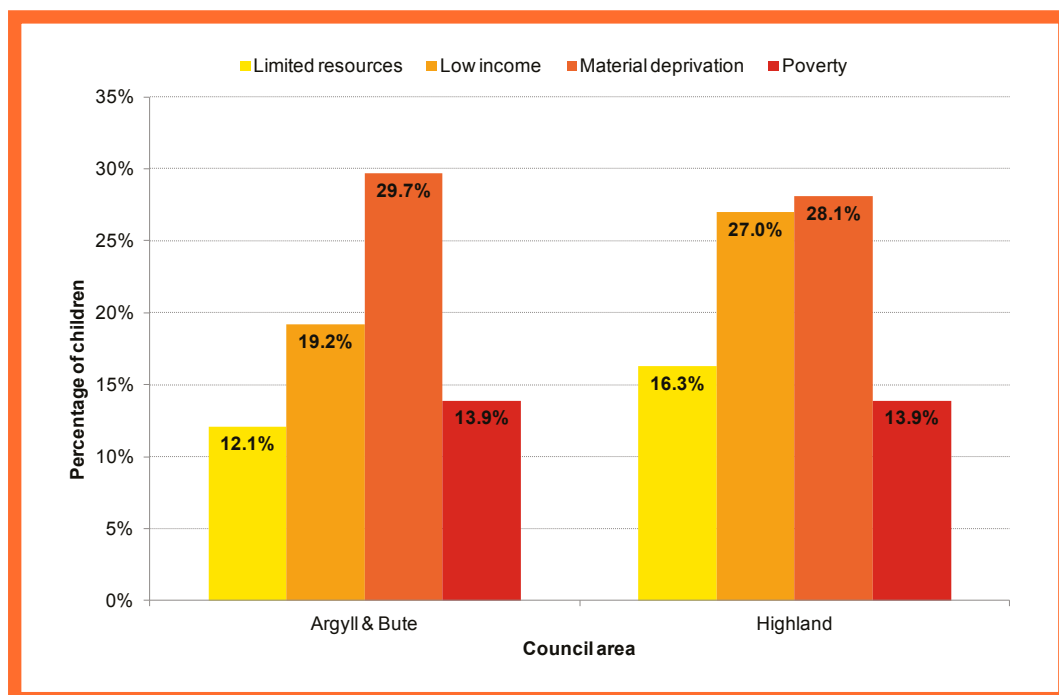
## Social and societal risk factors

The social context in which families live is a key risk factor for adverse childhood experiences. While it is clear that most children who live in poverty or socio-economic disadvantage are not subject to toxic stress, there is still a strong association between low family income, unemployment, social isolation and increased risk of adverse childhood experiences. Scottish research has found that 24% of mothers in the lowest income quintile had poor mental health in the first four years of their child's life compared to 6% of mothers in the highest income group<sup>15</sup>. There is also evidence that poverty is a major contributor to distress, relationship breakdown and conflict within families<sup>13</sup>.

Children are considered to be living in poverty if they live in households with less than 60% of median UK household income (before housing costs) or in receipt of Income Support or Income-Based Job Seekers Allowance. The latest child poverty estimates show that for every 20 children in Highland, three are living in poverty<sup>16</sup>. This equates to 8,200 children across NHS Highland (2,100 in Argyll & Bute and 6,100 in Highland) at increased risk of experiencing adversity through the social context in which they are growing up.

Statistics developed by the Scottish Government, albeit based on a small sample, also show that up to a third of children are living in circumstances of material deprivation<sup>17</sup>. A family lives in material deprivation when they cannot afford three or more items from a list of 22 key items, such as participating in family activities, day trips or having money for unexpected but necessary expenses (Figure 1.8).

The Child Poverty (Scotland) Act places a duty on local authorities and health boards to report annually on activity they are taking, and will take, to reduce child poverty. Priority groups for reducing child poverty include lone parents, disabled parents, mothers aged under 25 years, and families with three or more children or where the youngest child is aged under one<sup>18</sup>.



**Figure 1.8:** Indicators of child poverty in NHS Highland

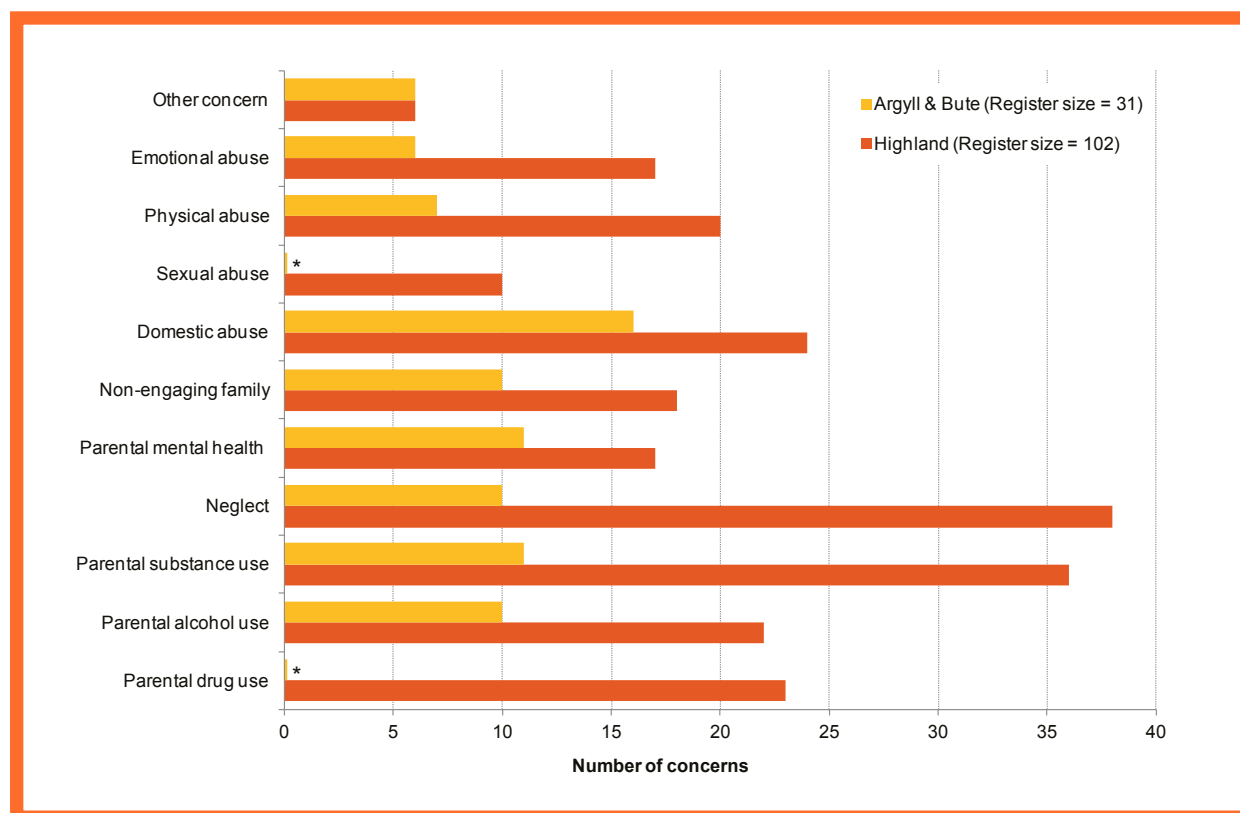
**Source:** Scottish Government<sup>17</sup>, HMRC<sup>16</sup>

- **Poverty:** living in families in receipt of Child Tax Credit (income <60% of median income), Income Support or Income-Based Job Seekers Allowance.
- **Material deprivation:** living in material deprivation (being unable to afford basic necessities).
- **Low income:** living on a low income (<70% of Scottish median incomes after housing costs).
- **Limited resources:** both living on a low income and living in material deprivation.



## Household risk factors

Household risk factors include domestic violence, parental divorce and separation, parental problem substance use and mental ill health. These have both direct negative impacts on children and young people, and act as a risk factor for child abuse or neglect. This is seen in NHS Highland, where the commonest categories of child protection concerns are related to parental substance use, neglect and domestic abuse (Figure 1.9)<sup>19</sup>.



**Figure 1.9:** Concerns identified at the case conferences of children who were on the child protection register at 31 July 2017, by local authority

**Source:** Children's Social Work Statistics<sup>19</sup>

\*small numbers suppressed to maintain confidentiality

Research also shows that children and young people in the care system, an already vulnerable population, are disproportionately exposed to household risk factors. One US study found that children in foster care were significantly more likely to be exposed to household problem alcohol and drug use (54% compared to 10%) and violence (31% compared to 8%) compared to other children<sup>20</sup>.

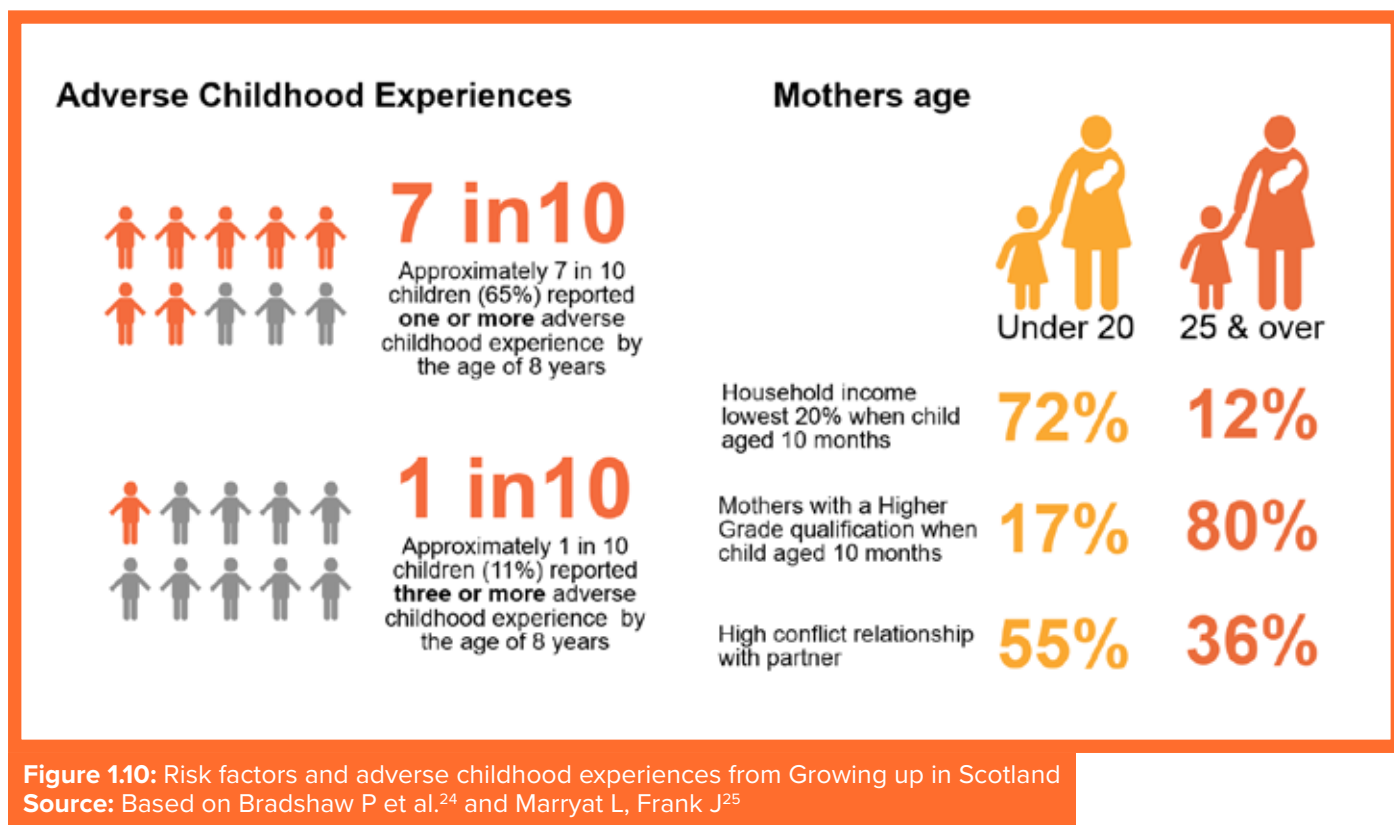
The latest data shows that over 220 children and young people in NHS Highland are referred to the Scottish Reporter on offence grounds each year<sup>21</sup>. These children and young people, who are involved in the criminal justice system, are at increased risk of experiencing adversity associated with loss and bereavement in their families. This includes bereavement of an immediate family member and losses due to parental separation, parental substance use and parental imprisonment. Scottish research has found that over two thirds of young people in custody had experienced traumatic bereavements and multiple losses by the age of twenty<sup>22</sup>.

Another population at risk of childhood adversity are young carers. A Scottish study found that young carers report poorer physical and mental health than their peers who were non-carers, and the nature of their caring role had adverse consequences for their resilience and capacity to cope with inter-related stressors such as poverty, mental-health issues and family separation<sup>23</sup>.

## Family and parental risk factors

Parental and family factors, such as a child having young parents, living in a lone parent household, or parents with poor parenting skills, have also been linked with increased risk of experiencing adverse outcomes. There is evidence that parenting factors are related to, and interact with, other risk factors such as poverty, parental mental ill health and problematic substance use<sup>13</sup>.

Growing Up in Scotland (GUS) is a longitudinal research project tracking the lives of over 10,000 Scottish children. The GUS study has demonstrated that mothers under the age of 20 tend to have a lower income, lower levels of educational attainment, poorer health behaviours and health outcomes, more unstable partner relationships and lower levels of engagement with formal parenting support<sup>24</sup> (Figure 1.10). Exploratory analyses from GUS show that by the age of eight, 11% of Scottish children have three or more adverse childhood experiences, and that having a mother aged under 20 years doubles this risk<sup>25</sup>.



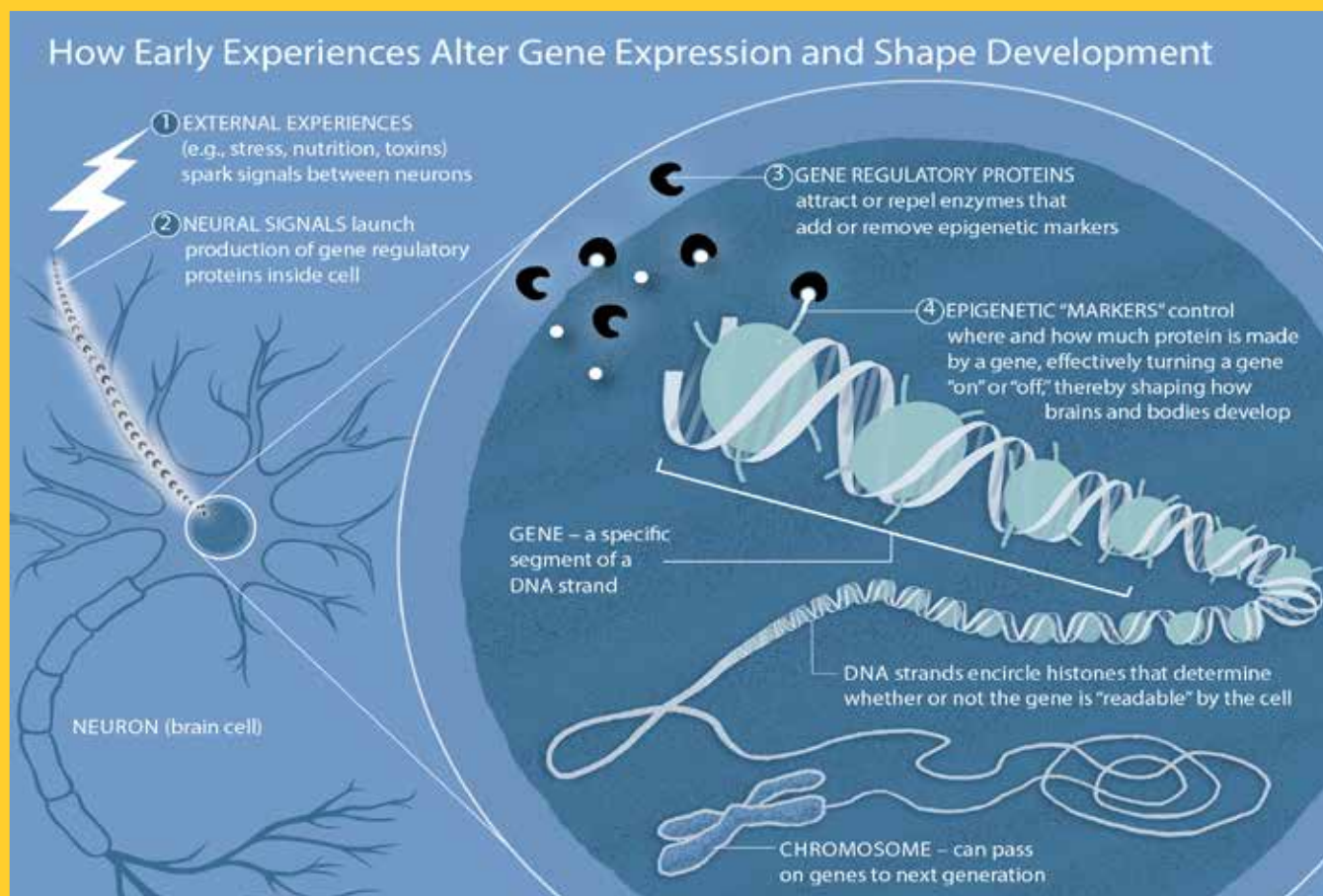
## Intergenerational risk factors and the role of genes

The intergenerational effects of adverse childhood experiences relate to those risk factors passed on through family generations. Children who experience adverse conditions are more likely to have a parent who has also experienced childhood adversity.

A Canadian study has found that mothers with multiple adverse childhood experiences are more at risk both pre-term and post-term birth. Their babies, for instance, are more likely to experience low birth weight, premature birth, and the mothers are at greater risk of developing postnatal depression. Their babies are also more likely to have poorer physical and emotional health at the age of 18 months than mothers with no adverse childhood experiences<sup>26</sup>. Recent studies conducted in the US have also found that mothers' exposure to adversity and stress is negatively associated with their child's physiological development<sup>27</sup> and poorer overall health status up to the age of 18<sup>26</sup>.

## The role of genes and epigenetic modification

Each person is made up of billions of cells, each containing genes that are unique to that person. The expression of genes can be turned off or on by certain environmental factors. Experiences that leave us satisfied, happy and content and experiences that cause us stress, such as malnutrition, can change the expression of genes in brain cells.



These experiences produce signals in our brain cells (neurons), which respond by producing signalling proteins. These proteins modify the way our genes are expressed, leading to changes in the brain, which can be temporary or permanent. The brain is especially responsive to experience and environment during early development. The interaction between genes and the environment causes 'epigenetic modification' that directly affects our development.

**Source:** Illustration by Betsy Hayes from National Scientific Council on the Developing Child<sup>28</sup>

The role of genes in the intergenerational transmission of childhood stress and trauma is illustrated in the box above. Changes in the way genes are expressed can be passed on to future generations, so that even though one person may not have directly experienced the stress and trauma that the previous generation of their family suffered, they may inherit genetic predisposition to ill health due to factors that affected their forebearers<sup>29</sup>. Long term consequences of this type of genetic change have been linked to heart disease, obesity<sup>30</sup>, and schizophrenia<sup>31</sup>. This pattern has been extensively studied in communities which have large groups of people who all experienced the same trauma, such as a famine.

When women are exposed to stress in their early pregnancy, their babies show the effects of this on their health in contrast to the babies of women who are not exposed to these experiences, and affected children go on to have significant health difficulties in comparison to their healthy siblings, such as those born to the same women before the famine<sup>32</sup>.

The impact of the Highland Clearances may have had a lasting impact on the Highland population similar to the intergenerational research outlined within the case study on the next page. We do not yet know or understand the impact on health and illness from these events on the health of the population of NHS Highland today, but it is possible to speculate that these events may have been traumatic enough to leave a legacy in the biology and psyche of communities across Highland and Argyll & Bute.

## Case study: The Highland Clearances

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On a background of the industrial and agricultural revolution of the late 18th and early 19th century, the Highland clearances have had a lasting significance for the people of Highlands. In the wake of the Jacobite uprisings, Highland dress, tartan and weapons were banned.

Clan leaders and landowners moved away to larger cities, and the land was sold or cleared for sheep farming. Some people were moved to resettle elsewhere, with the intention that people would become weavers, commercial fishermen and kelp workers.

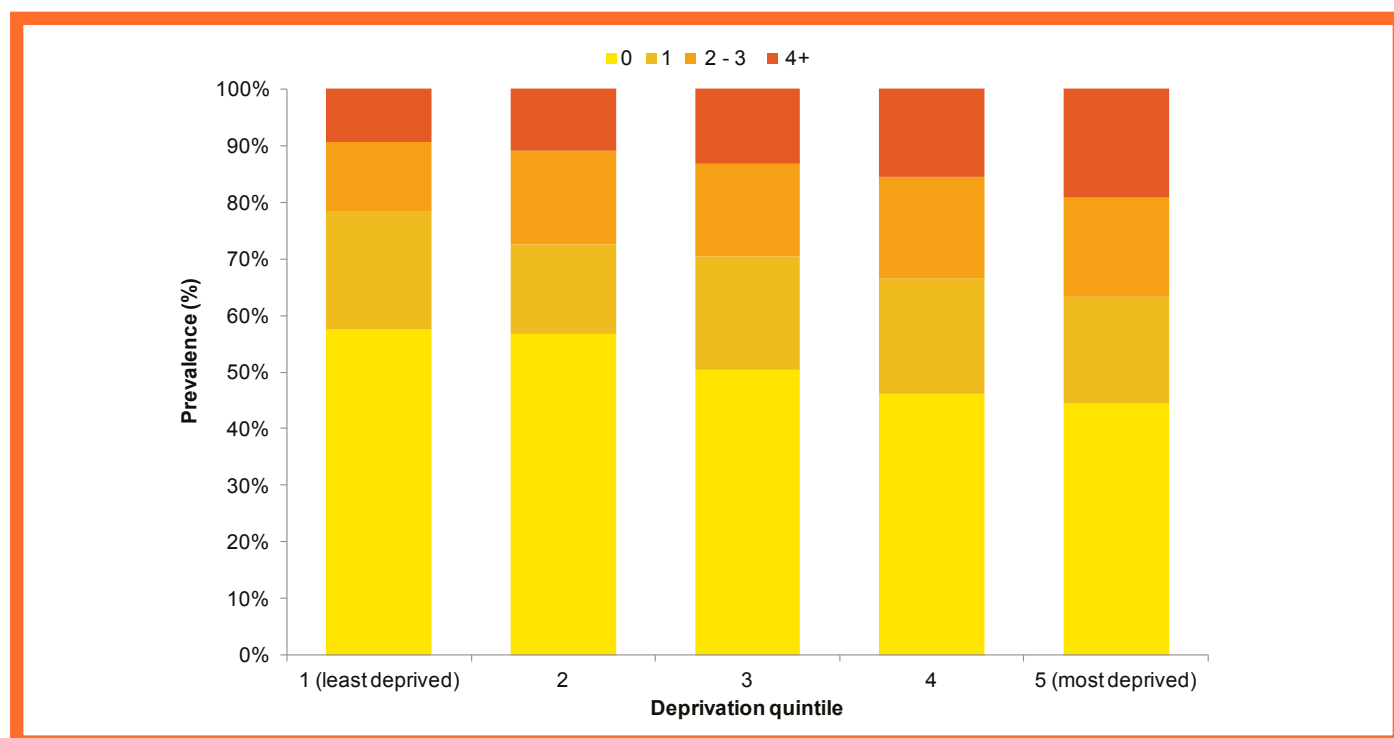
The result of the clearances was that thousands of people living in settled communities which had existed for hundreds of years across Highland, were forcibly removed, or emigrated overseas. As one commentator<sup>33</sup> put it, 'view the landscape today, and you will see a couple of stone-built houses for the shepherds. They too are now abandoned, and the glen stands empty.'

## Inequalities in adverse childhood experiences

A clear inequalities gradient for adverse childhood experiences exists. While adverse childhood experiences occur across the whole population, the majority of risk factors for adversity are clustered in areas of socio-economic deprivation<sup>13</sup>. For example, the GUS study has found that Scottish children living in a household in the lowest income band are more than six times as likely to have experienced multiple adverse experiences by the age of eight than those in the highest income band<sup>25</sup>.

An individual's response to stressful events may differ according to their position on the social gradient. A UK study reports that people living in more deprived circumstances may have worse outcomes due to an increased stress response and vulnerability to adversity<sup>3</sup>.

Similarly, studies on adults undertaken in England and Wales have both found a positive association between deprivation and the prevalence of childhood adversity. For example, the experience of four or more adverse childhood experiences is reported by 9.4% of Welsh adults in the least deprived quintile compared to 19.1% in the most deprived quintile (Figure 1.11)<sup>41</sup>.



**Figure 1.11:** Number of adverse childhood experiences by deprivation quintile in Wales  
**Source:** Based on Hughes et al.<sup>41</sup>

Translating population level measures of childhood adversity into individual risks, based on a person's socio-economic circumstances requires thought and care as it has the potential to stigmatise those living in areas of deprivation and perpetuate social injustice. Socio-economic factors are associated with a wide range of health outcomes and not just those linked to adverse childhood experiences.

The association between childhood adversity and increased risk of poor mental and physical health in later life is well recognised. The absence of protective and buffering relationships can result in an amplified dose-response effect, which is where the harm from adverse childhood experiences can occur. The implications of these relationships for health and social care services, as well as the police and justice systems, are considerable. There are costs for individuals, families and communities, and services are required to respond. Some commentators have observed these findings are a public health disaster "hidden in plain sight"<sup>34</sup>.

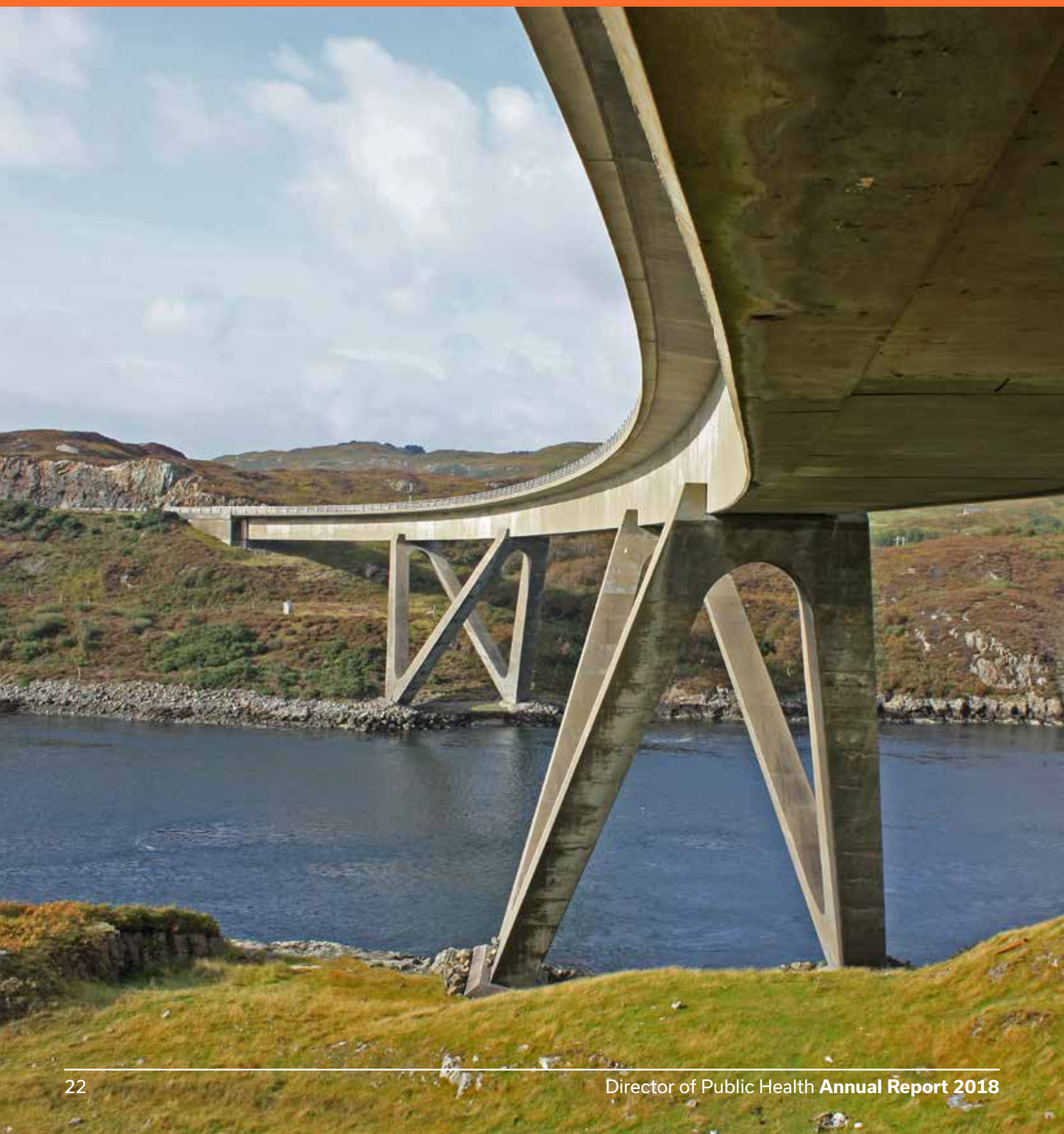
There should be no shame or stigma in having experienced adversity. If adversity is common, ensuring that individuals, families and communities have the skills and resources to create and support resilience is one of the key messages from this report.

### Find out more

Hiding in Plain Sight commentary

<http://sceptical.scot/2017/11/hiding-plain-sight-exploring-scotlands-ill-health>

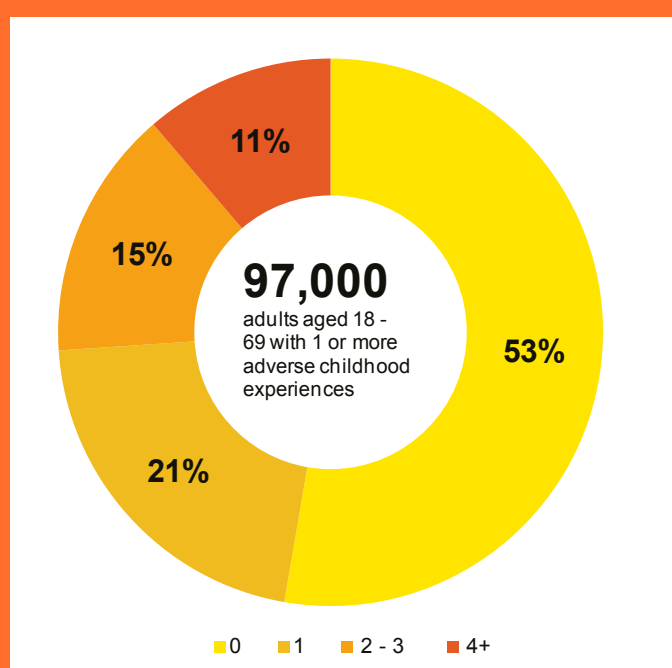
# Chapter Two - What does this mean for Highland?



## How common are adverse childhood experiences in Highland?

Insight into the occurrence of adverse childhood experiences in the Highland population is available from data collected in Highland at a mental health skills training event in August 2017<sup>35</sup>. Over 150 staff from NHS Highland and partner organisations came together for an interactive review of the widespread application of “Decider” skills which support people to manage their emotions and overall health more effectively<sup>36</sup>. Participants undertook a voluntary and anonymous survey of adverse childhood experiences. There were 112 responses, and the survey found that over two thirds (69%) of participants reported at least one adverse childhood experience, and 18% 4 or more. This compares to 47% and 11% from the England and Wales population surveys shown in Figure 1.4.

While we do not have Highland wide survey data, the studies conducted in England and Wales have found that almost half (47%) of the adult population aged 18 to 69 years have experienced at least one type of adversity and over 11% have experienced 4 or more. Assuming a similar prevalence across NHS Highland, this would equate to 97,000 people in our Board population who may have experienced adversity before the age of 18. Figure 2.1 details the estimated prevalence of adverse childhood experiences for the population served by NHS Highland.



**Figure 2.1:** Estimated prevalence of adverse childhood events in NHS Highland  
**Source:** Based on Bellis M et al.<sup>10</sup> and Public Health Wales<sup>11</sup>

Average age-specific rates in adults aged 18 to 69 years applied to council area mid-2016 population estimates<sup>37</sup>.

The estimated numbers of adults in Argyll and Bute and Highland are shown in Table 2.1.

**Table 2.1:** Estimated number of adults with adverse childhood experiences in NHS Highland

Area	Number of adverse childhood experiences			
	0	1	2 to 3	4+
Argyll & Bute	31,300	11,800	8,100	5,900
Highland	84,400	32,400	22,200	16,400
<b>NHS Highland</b>	<b>115,800</b>	<b>44,300</b>	<b>30,400</b>	<b>22,300</b>

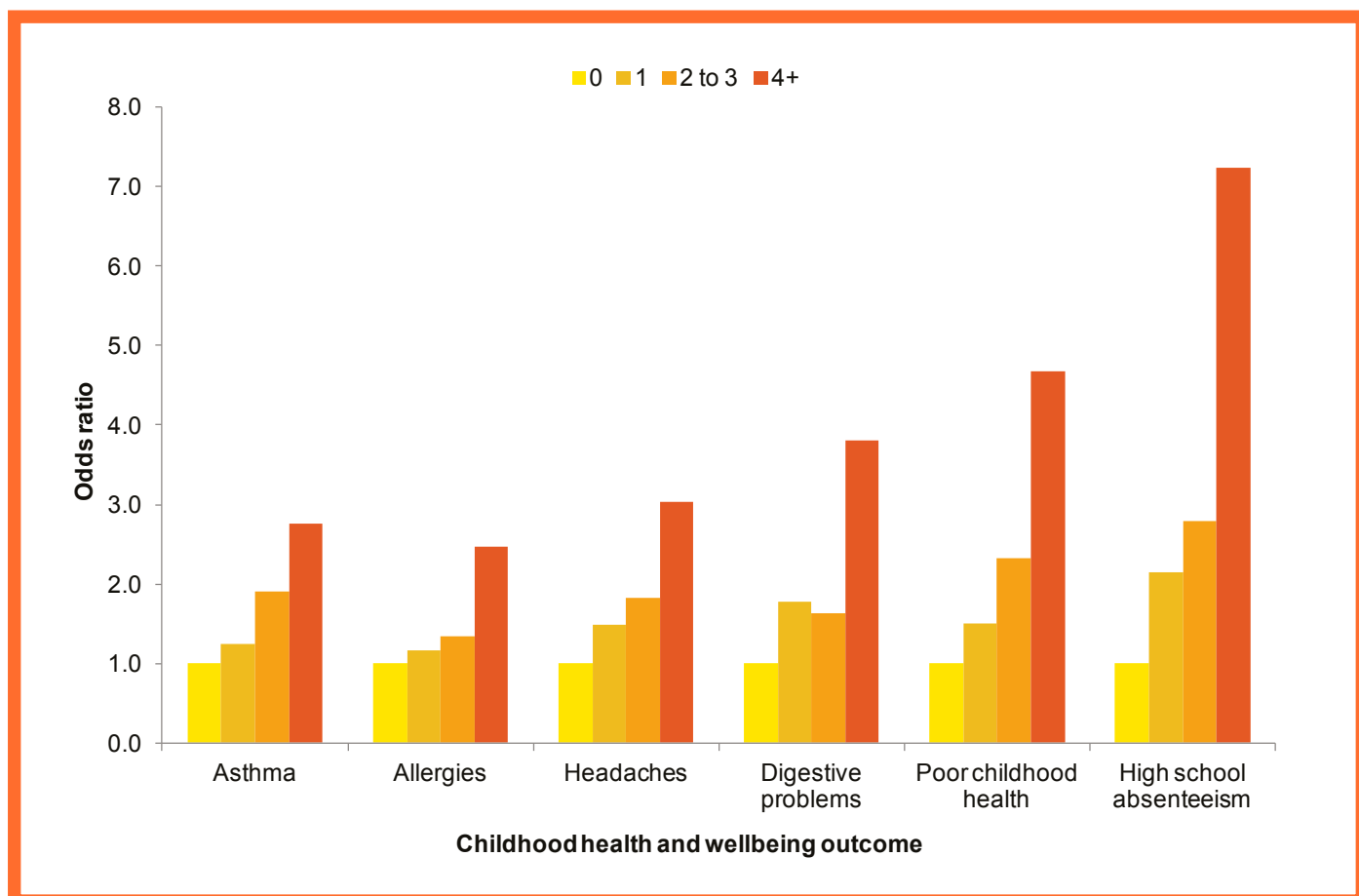
**Source:** Based on Bellis M et al.<sup>10</sup> and Public Health Wales<sup>11</sup>

Average age-specific rates in adults aged 18 to 69 years applied to council area mid-2016 population estimates<sup>37</sup>.  
 Rounded to the nearest 100.

## The influence of adverse childhood experiences on later childhood

There are clear associations between adverse childhood experiences, children’s development and childhood health. Research conducted in the US in children aged 0 – 17 reported lower rates of school engagement and higher rates of chronic disease in children experiencing childhood stress and trauma<sup>38</sup>.

A retrospective study from Wales in adults aged 18 – 69 similarly identified associations between early adverse childhood experiences, school absenteeism and common childhood health problems including allergies, asthma, headaches and digestive problems (Figure 2.2)<sup>39</sup>. The research also identified elements in childhood that help protect children from these harmful outcomes. Resilience as a protective factor from adversity is explored later in this report.



**Figure 2.2:** Childhood health and wellbeing outcomes by number of adverse childhood experiences

**Source:** Based on Bellis M et al.<sup>39</sup>

Odds ratios adjusted by age, gender, ethnicity, sample and deprivation quintile

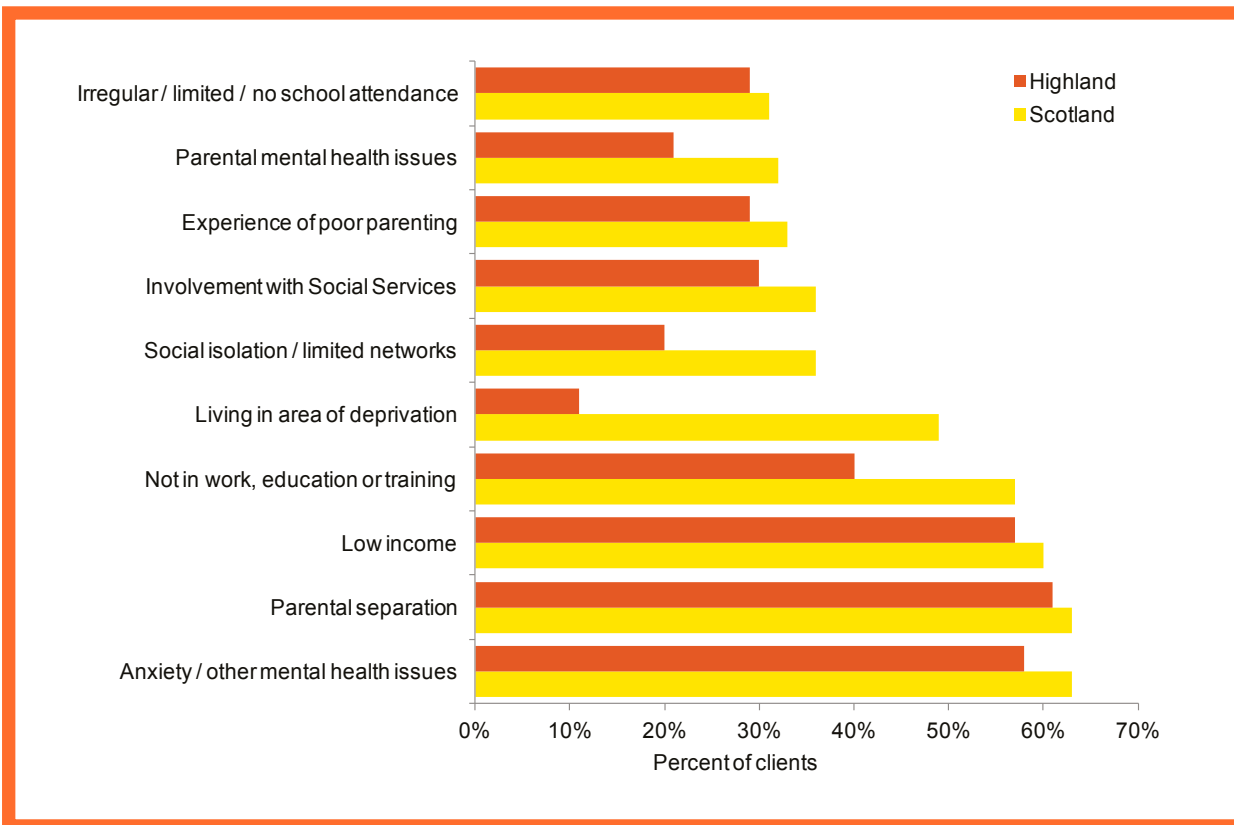
Some data on the prevalence of adverse childhood experiences is available from a key vulnerable group in NHS Highland, those who are supported by the Family Nurse Partnership (FNP).

The FNP is a programme where a specially trained nurse visits the home of first-time teenage mothers from early pregnancy until their child is two years old. The FNP aims to impact upon a range of maternal and child outcomes by supporting young mothers develop their parenting skills and capabilities and to make positive choices for themselves and their children. Support for parents is a key way of intervening in early life, with research showing their effectiveness in improving health and other outcomes for parents and children<sup>40</sup>.



Data collected from mothers enrolled with the Family Nurse Partnership (FNP) in the Highland Council area is shown in Figure 2.3. There is a high frequency of anxiety and other mental health issues (58%), low income (57%), and mothers who are ‘not in work, education or training’ (40%). This group of young mothers also have considerable personal experience of parental separation (61%), poor parenting (29%) and parental mental health issues (21%).

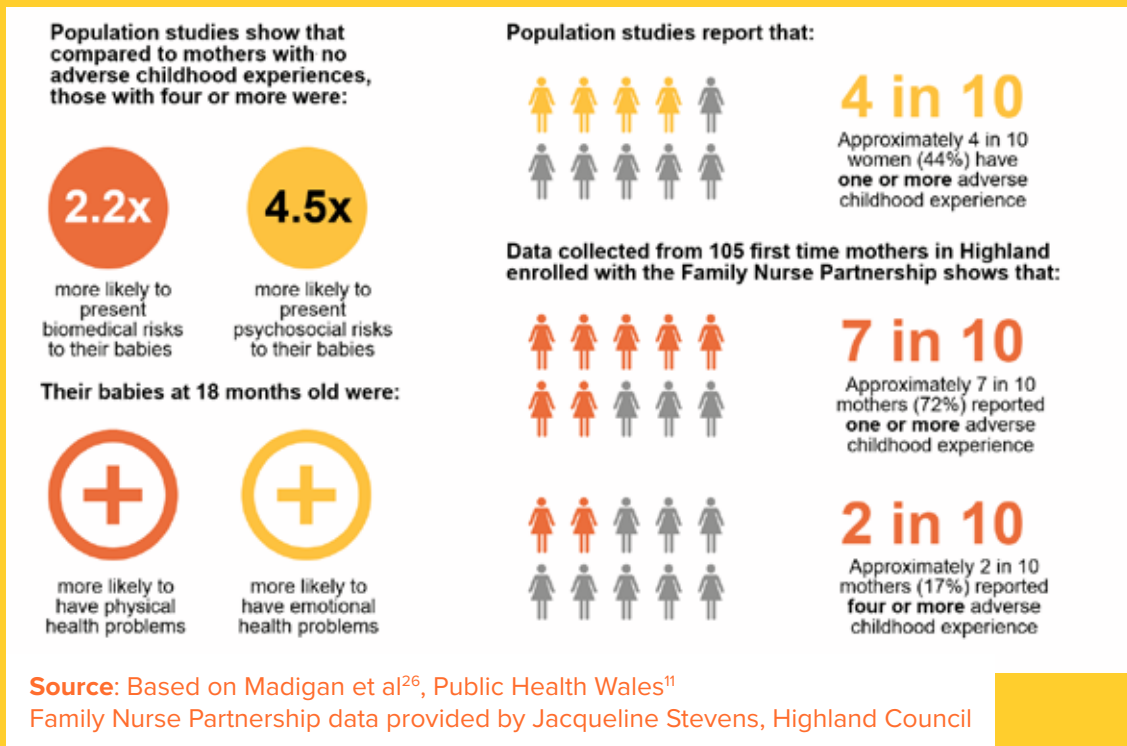
Exploratory analyses of responses from 105 mothers enrolled with the Highland Council’s FNP scheme indicated that 72% had one or more adverse childhood experience, and almost one fifth (17%) had 4 or more. This has significant implications for childhood health and the importance of the intergenerational effects of adverse childhood experiences explored in the previous section.



**Figure 2.3:** Client vulnerabilities found in the Family Nurse Partnership  
**Source:** Family Nurse Partnership data provided by Jacqueline Stevens, Highland Council

n = 105 mothers. Top 10 selected from overall Scotland vulnerabilities profile.

# Case Study: Family Nurse Partnership (FNP) strength based approach



The clinical approach underpinning FNP is strengths-based; nurses work alongside clients providing information and guidance about six specific domains relating to their pregnancy and parenthood. Through this, they support them in making positive decisions about their lives and the life of their baby. The six key domains are:

- Personal health
- the maternal role
- life course development
- family/friends
- environmental health
- health and human services.

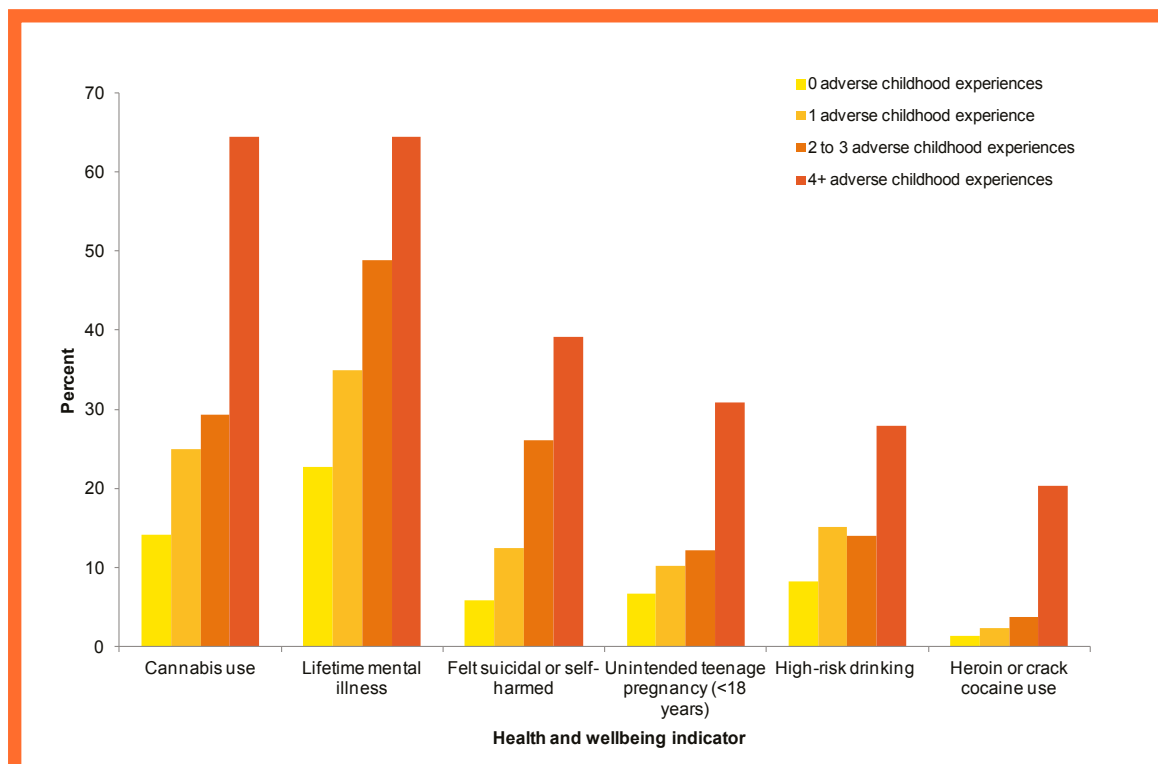
For many clients, a therapeutic relationship with a family nurse brings not only the delivery of the programme, but consistency and a positive role model that they may not have experienced before. FNP helps to control demand on local services by encouraging clients to engage with other appropriate services, managing and reducing risks and, in cases where additional safeguarding support is necessary, ensuring that this is accessed quickly and effectively.

The FNP programme materials help to support clients' resilience and decision-making to ensure good outcomes for not only themselves but for their child.

All family nurses receive reflective, restorative supervision from the family nurse supervisor, meeting regularly for supervision sessions which provides time to reflect and analyse the work with clients and to make robust plans to ensure that the needs of the baby remain paramount. Supervision also supports family nurses to consider how their feelings might influence decision-making around clients, helping to avoid 'early evidence bias'.

## The influence of adverse childhood experiences on health and wellbeing

Research undertaken on the impact of adverse childhood experiences has a strong focus on associations with mental health problems and vulnerability to adopting health-harming behaviours such as problem substance use. Two UK studies<sup>11,41</sup> have shown strong relationships between adverse childhood experiences and early sexual behaviour, drug and alcohol use, mental health and reported suicidal behaviour or self harm (Figure 2.4). Evidence from Scotland has also found that people exposed to multiple adverse childhood experiences are significantly more likely to report repeated episodes of self-harm<sup>42</sup>.



**Figure 2.4:** Proportion of the Welsh population reporting health and wellbeing outcomes by the number of adverse childhood experiences

**Source:** Public Health Wales<sup>11</sup>, Hughes et al.<sup>41</sup>

Figure 2.5 shows the number of teenage pregnancies, people with problem drug use, probable suicides, and alcohol and drug related deaths reported for NHS Highland over a five year period. It is likely that adverse childhood experiences are reflected in these outcomes.



**Figure 2.5:** Number of health and wellbeing outcomes reported for NHS Highland over a 5 year period

**Source:** Information Services Division<sup>43,44</sup> and National Records of Scotland<sup>45,46,47</sup>

The impact of adversity in childhood can be seen in adults presenting with mental health difficulties. NHS Highland runs a Supporting Self Management service as part of its mental health service provision, based in Inverness. The service has been designed to deliver short, time-limited interventions for people with any mental health diagnosis. Individuals accessing the service are supported to develop life and self management skills such as activities of daily living, stress response and a range of “Decider” skills that help people cope with difficult situations<sup>36</sup>.

Data collected routinely from 385 adults attending this service between April 2017 and June 2018, identified that 87% reported one or more adverse childhood experiences and 48% reported four or more adverse childhood experiences, as shown in Figure 2.6.

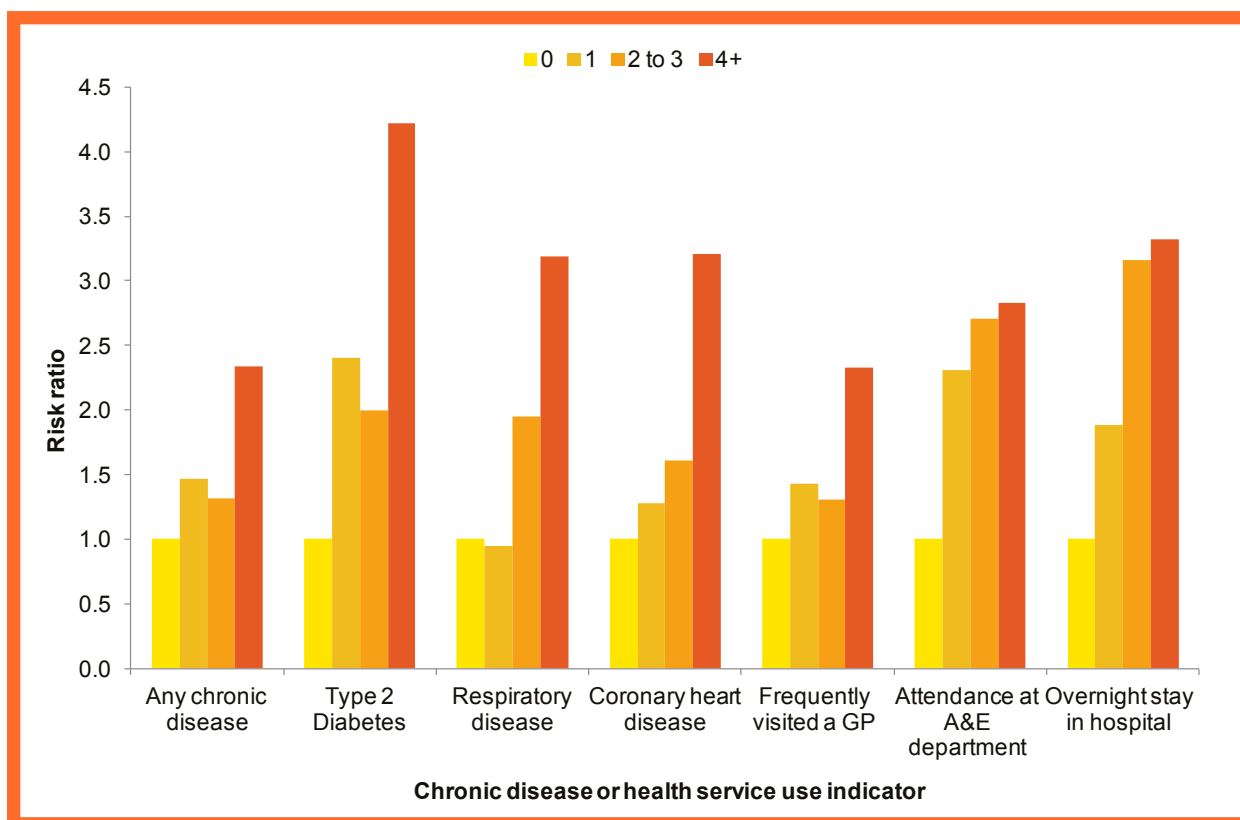


**Figure 2.6:** Mental health outcomes and the Supporting Self Management service  
**Source:** Based on Public Health Wales 2015<sup>11</sup>, Hughes et al. 2018<sup>41</sup>  
 Supporting Self Management data provided by Dr Timothy Agnew, NHS Highland

## The influence of adverse childhood experiences on chronic disease and premature mortality

Much research evidence on the impact of adverse childhood experiences has focused on associations with chronic disease and premature mortality across the life course. There is strong evidence that multiple adverse childhood experiences increase the risk of a range of chronic diseases, including cardiovascular disease, diabetes, cancer, liver disease, and respiratory diseases<sup>7</sup>. UK research also demonstrates that onset of disease occurs earlier in people exposed to multiple adverse childhood experiences, which contributes to an increased risk of premature mortality<sup>3</sup>.

Data from Public Health Wales has also highlighted associations with chronic disease and increased health service use, for example, GP consultations, A&E attendances and hospital stays<sup>48</sup>. Figure 2.7 shows that in the adult population in Wales, rates of type 2 diabetes, respiratory disease, coronary heart disease diagnosis and health service use were significantly higher for people with four or more adverse childhood experiences compared to those with none. For example, the risk of reporting a type 2 diabetes diagnosis is four times higher in those with multiple adverse childhood experiences compared to those with none.



**Figure 2.7:** Chronic disease diagnosis or health service use outcomes by number of adverse childhood experiences

Source: Based on Ashton K et al.<sup>48</sup>

**Risk ratios:** chronic disease (adjusted hazard ratio), service use (adjusted odds ratio)

A large population study in the US demonstrated that integrating adverse childhood experience enquiry into clinical practice resulted, in the first year, in a 35% reduction in GP consultations, an 11% reduction in emergency department attendances and a 3% reduction in hospital admissions<sup>49</sup>. Although more UK specific research is needed, there is clearly the potential to better understand how adversity informs the demand, use and uptake of health and social care services.

## The influence of adverse childhood experiences on crime and violence

Crime and violence has been shown to have a strong association with adverse childhood experiences. A study conducted in Wales found that people with multiple (four or more) types of adversity were 14 times more likely to have been a victim of violence and 15 times more likely to have committed violence over the last year compared to people with no reported adverse childhood experiences. The same study estimated that preventing childhood adversity could reduce levels of violent crime by up to 60%<sup>11</sup>.

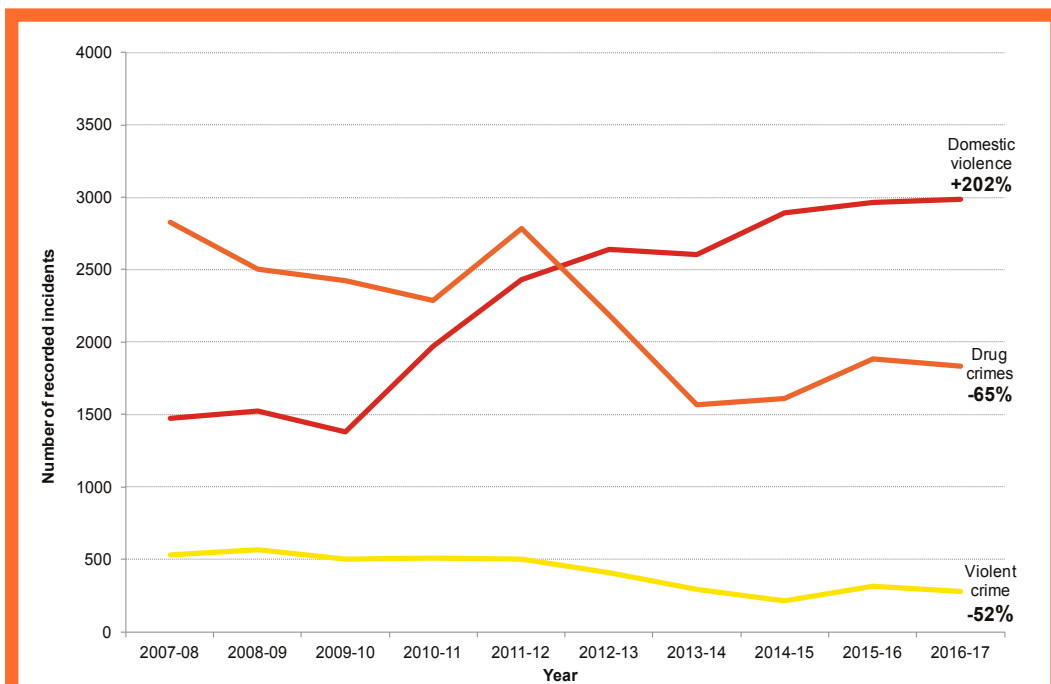
The World Health Organisation has published a set of strategies to end violence against children. In their document 'Inspire'<sup>50</sup> they set out why ending such violence is so important:

'Violence against children has significant, lasting effects that threaten children's well-being and can persist into adulthood. Exposure to violence at an early age can impair brain development and lead to a host of immediate and lifelong physical and mental health consequences. The immediate and long-term public health impact and economic costs undermine investments in education, health and child well-being. Violence against children also erodes the productive capacity of future generations.'



**Figure 2.8:** Infographic of strategies to end violence against children  
**Source:** Reprinted from: INSPIRE: Seven strategies for Ending Violence Against Children<sup>50</sup>

In NHS Highland, although trends in crime are generally decreasing, there have been over 4,000 incidents of non-sexual crimes of violence, 21,000 drug crimes and 23,000 incidents of domestic violence recorded by the police in the last 10 years (Figure 2.9). Incidents of domestic violence reported to the police have more than doubled over the time period. Although crime rates tend to be lower than those observed across other parts of Scotland, it is recognised that domestic violence is generally under-reported.



**Figure 2.9:** Incidence of non-sexual violent crime, domestic violence and drug crimes recorded by the police, NHS Highland, 2007-08 to 2016-17  
**Source:** Recorded Crime in Scotland, 2016-17<sup>51</sup>

Violent crime includes homicide, attempted murder, serious assault, robbery, other violence.

## Case Study: The cost of crime

Crime and disorder comes with a high economic and social cost to society. Costs include those incurred in anticipation of crimes occurring (such as security expenditure and insurance administration costs), as a consequence of criminal events (such as property stolen and damaged, emotional and physical impacts and health services), and responding to crime and tackling criminals (costs to the criminal justice system). The cost of violent crime across NHS Highland between 2007/08 and 2016/17 is estimated to be £265 million. If a 60% reduction in violent crime associated with adverse childhood experiences was achievable, this would have saved £106 million to Highland society.

**Source:** Criminal Justice System costs applied to council area estimates of recorded crime<sup>51,52</sup>

Reducing adverse childhood experiences across our population is likely to have a positive economic and social impact. It is acknowledged that by promoting safe environments, access to education, supporting parent's to develop capabilities, and changing beliefs so we develop new norms of behaviour with a low tolerance for violence and situations that induce toxic stress, we can break the cycle of violence. This work needs to be underpinned by a commitment to a strong judicial framework, action to address poverty and a 'trauma informed approach' by public sector services.

### Find out more

Understanding childhood adversity, resilience and crime report

[www.gov.scot/publications/understanding-childhood-adversity-resilience-crime/](http://www.gov.scot/publications/understanding-childhood-adversity-resilience-crime/)

World Health Organisation INSPIRE: Seven strategies for Ending Violence Against Children

[http://www.who.int/violence\\_injury\\_prevention/violence/inspire/INSPIRE\\_infographic\\_EN.pdf](http://www.who.int/violence_injury_prevention/violence/inspire/INSPIRE_infographic_EN.pdf)

## Adverse childhood experiences and exclusion from school

Exclusion from school is seen as a risk factor for adverse outcomes in later life, through what has been termed 'the school to prison pipeline'. Exclusion from school has been identified as contributing to social isolation and poorer health outcomes in later life.

An Edinburgh University study in 2010<sup>53</sup> compared the outcomes of children who had been referred to the Children's Hearings System in Scotland by the age of 12, with a closely matched group of young people involved in equally serious levels of offending who had not been referred. Researchers found that those who had been referred were around five times more likely to end up in prison by the age of 24. These findings are unexpected, and require independent confirmation.

The study concluded that one of the keys to tackling Scotland's high imprisonment rates may be to tackle school exclusion. Professor Susan McVie, co-author of the study<sup>53</sup>, believes that:

'If we could find more imaginative ways of retaining the most challenging children in mainstream education, and ensuring that school is a positive experience for all Scotland's young people, this would be a major step forward.'

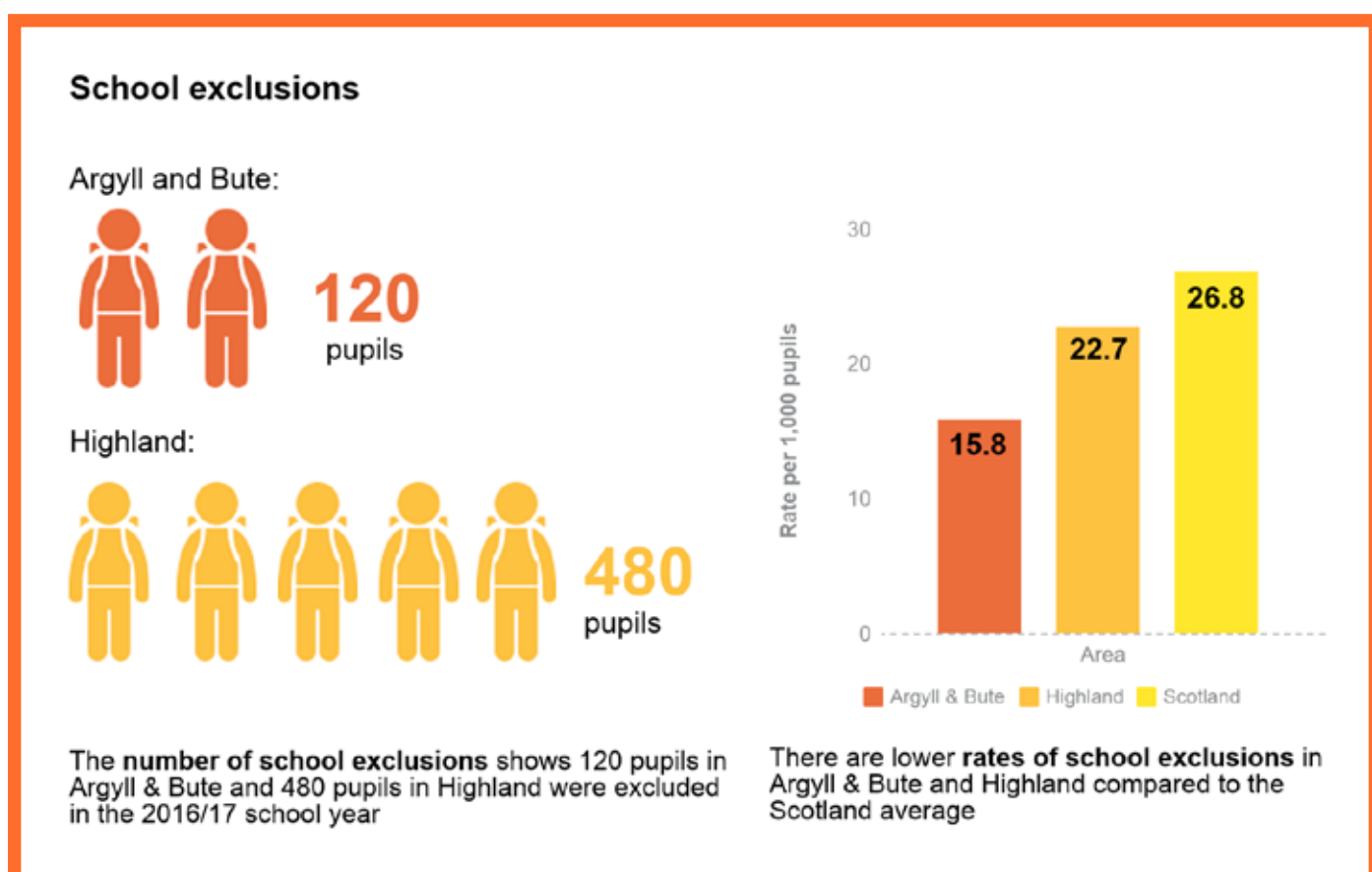
This needs to be undertaken in a way that does not impact negatively on other children in school, who have less challenging behaviours.

More recently, the Institute for Public Policy Research detailed the vulnerability of excluded pupils whose needs reflected a range of adverse experiences: child poverty, family problems including parental mental ill health, abuse and neglect, learning needs, mental ill health and poor educational progress<sup>54</sup>. They maintain that for too many of these young people, school exclusion leads directly to social exclusion and estimate that the cost of exclusion is around £370,000 per young person in lifetime education, benefits, healthcare and criminal justice costs.

Professor Harry Burns, the former Chief Medical Officer for Scotland, identified that for some particularly vulnerable pupils, exclusion can represent one more rejection and can compound a sense of not belonging and having no value, meaning or purpose<sup>80</sup>. Exclusion can compound the effects of adversity and have associated traumatic effects.

There may be equally poor outcomes for children and young people who are absent from school for periods of time and those who decline school. A recent study undertaken by Public Health Wales has reported a strong relationship between levels of school absence and adverse childhood experiences<sup>41</sup>. This research found that high school absenteeism, defined as over 20 days a year, was seven times higher in those reporting four or more adverse childhood experiences compared to those reporting none.

Each year approximately 600 children across NHS Highland are excluded from school, with the latest data for 2016/17 indicating that 120 pupils were excluded in Argyll and Bute and 480 pupils were excluded in the Highland Council area (Figure 2.10).



**Figure 2.10:** Number and rates of school exclusion, NHS Highland, 2016-17

Source: Scottish Government<sup>55</sup>

Number of exclusions rounded to nearest 10



## Adverse childhood experiences and care experienced children and young people

Care experienced children and young people are looked after in the care of their local authority. These children and young people are at considerable risk of toxic stress. For multiple reasons the decision has been reached that they cannot remain in the sole care of their parents. Some live at home, subject to specific conditions, and others are accommodated in residential or foster care or with extended family (known as kinship carers). Others may have been illegally trafficked or they have involvement with the youth justice system. They are some of the most vulnerable children and young people in our communities.

The Scottish Government publish numbers of care experienced children and young people annually (Table 2.2). The profile of those in care as at 31st July 2017, show that there were just over 660 children in care across the NHS Highland area, with 487 looked after by Highland Council and 175 by Argyll and Bute Council. Compared to Scotland as a whole, care experienced child and young people in NHS Highland are younger, with almost a quarter aged under 5 years. Other notable differences include a slightly higher proportion of children from minority ethnic groups for Highland Council (4% compared to 1% for Argyll and Bute and 3% nationally) and a higher proportion of children with additional support needs (22% for Argyll and Bute compared to 13% for Highland and 11% for Scotland). The majority of children are placed in community care (83% to 87%).

**Table 2.2:** Main characteristics of care experienced children and young people

	Argyll & Bute	Highland	Scotland
<b>Number of children</b>	175	487	14897
<b>% of 0-17 population</b>	1%	1%	1%
<b>% aged under 5 years</b>	25%	24%	19%
<b>% aged under 16 years</b>	15%	13%	12%
<b>% from minority ethnic groups</b>	1%	4%	3%
<b>% with additional support needs</b>	22%	13%	11%
<b>% in community care</b>	87%	83%	90%
<b>% in residential care</b>	13%	17%	10%

**Source:** Children's Social Work statistics 2016-17 additional tables<sup>19</sup>

Of all groups in society, care experienced children and young people are probably those most affected by adverse childhood experiences<sup>56</sup>. They are a group of babies, children and young people most likely to experience multiple adversity and least likely to experience the protective influence of a secure attachment. This is evidenced by the high rates of suicide, self harm, personality problems, poor educational achievement, substance misuse and offending behaviour among care experienced young people.

### Find out more

Making the Difference Breaking the Link Between School Exclusion and Social Exclusion  
[www.ippr.org/files/2017-10/making-the-difference-report-october-2017.pdf](http://www.ippr.org/files/2017-10/making-the-difference-report-october-2017.pdf)

# Chapter Three - Understanding and mitigating the impact of adverse childhood experiences



## Stress as a friend to stress as a poison

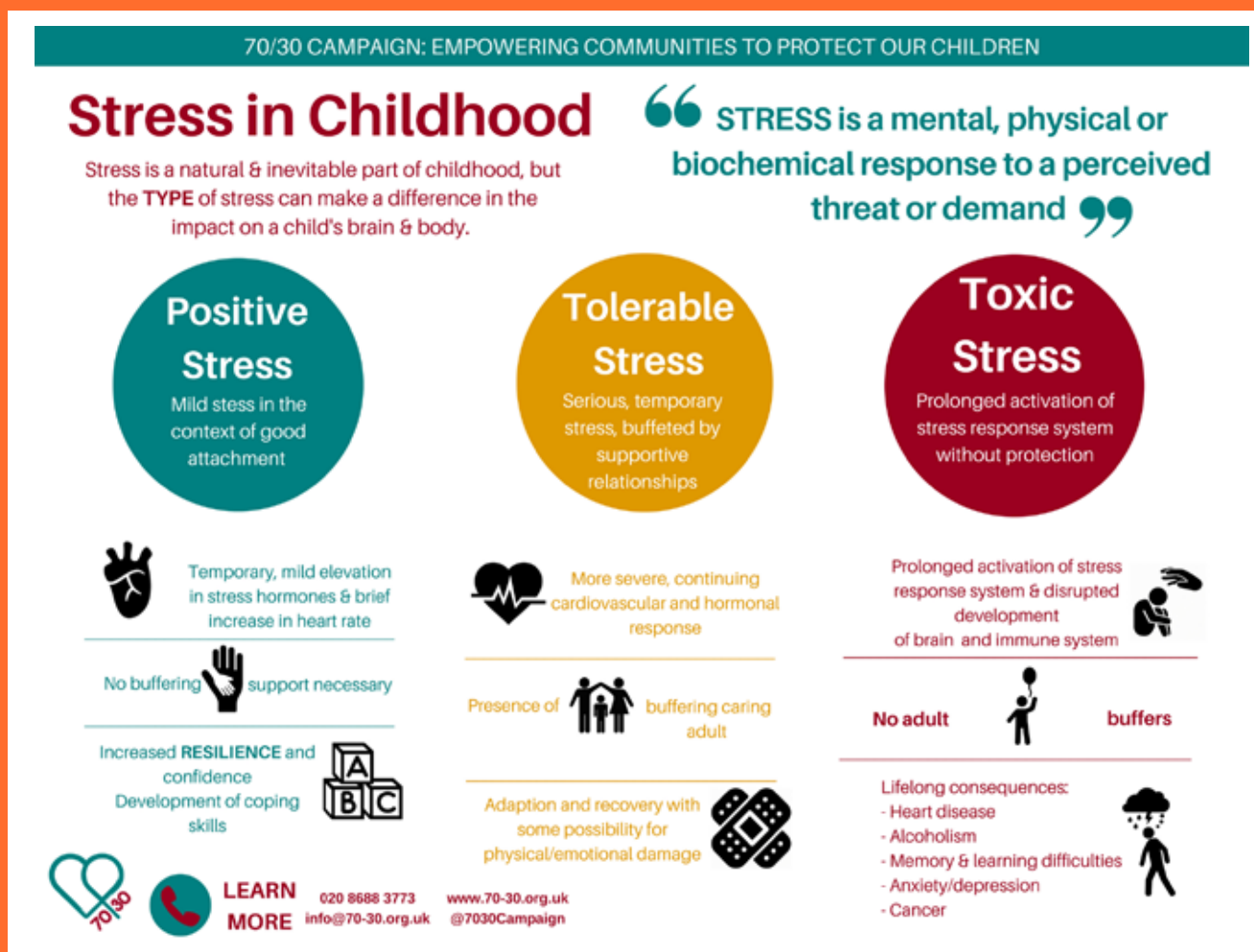
Learning to manage stress so that it does not harm us is part of normal healthy early development.

These skills are learnt through relationships that are nurturing and that buffer the effects of stress. This includes the capacity to self regulate our thoughts, feelings and body systems. This capacity is the basis for resilience.

**“[My children] being emotionally regulated is not only the best contribution I can make to their lives but it’s the best contribution I can make to my community.”**

Darren ‘Loki’ McGarvey, rapper and author of ‘Poverty Safari’<sup>57</sup>.

The 70/30 infographic in Figure 3.1 details the relationship between the different types of stress and the impact of a lack of protective relationships in place to buffer the effects of stress<sup>58,59</sup>.



**Figure 3.1:** Stress in Childhood  
**Source:** WAVE Trust, The 70/30 Campaign<sup>8</sup> See [www.70-30.org.uk](http://www.70-30.org.uk)

Examples of **positive stress** include feeling hungry or tired, being left for short periods and being with people other than the main caregiver, or brief episodes of discomfort. These experiences of positive stress, briefly trigger the body’s stress response, then as children learn that their needs are met, and they can be comforted and soothed, they settle very quickly back to their contented state. When a child experiences deeper trauma, either emotional or physical, such as the death of a loved one, or a frightening injury, the body’s stress response is activated for a longer period. Stress hormone levels rise, the heart rate rises and the child may be aware of every sound and movement in their environment. Supportive, loving relationships buffer a child against the worst of this and with this emotional support and care, a child can be helped to become resilient to stress. This level of stress is known as **tolerable stress**.

When a child experiences severe stress such as chronic abuse or neglect and they do not have the security of knowing that their needs will be met regularly or kindly, they experience toxic stress. If they live with a caregiver who cannot support normal interactions with their child, for example, because of mental health difficulties such as depression, or substance misuse, the child will reach out to their parent but is never certain that there will be an appropriate response.

A child living with these experiences is said to be enduring **chronic toxic stress**<sup>60</sup>. In this situation the child's stress response can become permanently activated, leading to high levels of stress hormones, including adrenaline and cortisol, circulating in the blood stream and a child chronically feeling in a state of 'fight, flight or freeze'.

## Dr Nadine Burke Harris

Dr Nadine Burke Harris, Centre for Wellness, San Francisco Bay, USA, is undertaking pioneering clinical studies to demonstrate the relationship between toxic stress and health & behaviour outcomes. This includes work in the following areas<sup>61,62</sup>:

- The impact of a dysregulated stress response during key developmental windows
- the importance of stress in relation to ageing, disease and risk of early death
- the use of relaxation, nutrition and exercise programs in conjunction with mental health support to reduce stress and improve health, sleep and concentration in school
- the use of screening tools with individual families to target support at those with significant experience of adversity.

Dr Burke Harris states that 'as the science evolves to identify the precise clinical manifestations of a toxic stress response in children, health care organizations can work toward integrating behavioural and mental health services and improve institutionalized practices that promote healing for individuals exposed to trauma'<sup>61</sup>.

Uncontrollable stress affects a person's ability to think, no matter what their age and changes the areas in the brain where behaviour and emotions are controlled, switching from the higher centres at the front of the brain to more basic brain circuits<sup>63</sup>. Over time the structure of the brain can become physically altered, if it is exposed to high levels of stress for prolonged periods<sup>64</sup>. The body responds to chronic toxic stress with hormonal changes as well as altered gene expression and levels of inflammation<sup>65</sup>.

Children living within chaotic homes show signs of raised blood pressure, poorer self regulation behaviours and obesity<sup>66</sup>. In the long term, the physical effects of chronic toxic stress include a greater likelihood of heart disease, liver disease, lung diseases and cancer. However, there is hope, fortunately our brain has some degree of plasticity, and hence has the potential to "bounce back" and move from a state of toxic stress to a state where the life-course of a child who has experienced adverse events during their childhood can be improved<sup>67</sup>. Indeed, having even one nurturing, stable, supportive relationship with an adult can help to reduce the effects caused by early toxic stress by buffering them from development disruption and helps to build both resilience and life skills for their future<sup>4,68,69</sup>.

### Find out more

Alberta Family Wellness Initiative 'Brains journey to resilience' video  
[www.albertafamilywellness.org/resources/video/brains-journey-to-resilience](http://www.albertafamilywellness.org/resources/video/brains-journey-to-resilience)

Elizabeth Blackburn | Ted 2017 - 'The science of cells that never get old' video  
[www.ted.com/talks/elizabeth\\_blackburn\\_the\\_science\\_of\\_cells\\_that\\_never\\_get\\_old](http://www.ted.com/talks/elizabeth_blackburn_the_science_of_cells_that_never_get_old)

## Resilience, an antidote to the harmful effects of toxic stress

Resilience is generally understood to be about the ability to cope, adapt positively to, and recover from adversity<sup>41</sup>. It can be defined as: ‘*normal development under difficult circumstances*<sup>70</sup>’. Similarly, the Glasgow Centre for Population Health publication, ‘Resilience for Public Health<sup>71</sup>’, quotes Windle<sup>72</sup> who defines individual resilience as the ‘*successful adaption to life’s tasks in the face of social disadvantage or highly adverse conditions*’.

For individuals, resilience comes from an ability to biologically and psychologically adapt to stress, through the creation of brain pathways that integrate the different parts of the brain so we can make sense of life experiences so that life is good or at least tolerable. Resilience has to be learnt and acquired as a key skill for life. This happens primarily through relationships<sup>73</sup>. Safe nurturing relationships, particularly in the early years and into adolescence are the key to developing resilience at an individual level.

Resilience is one mechanism by which toxic stress can be transformed into tolerable stress. Creating, supporting and building resilience is our primary response to preventing poor outcomes from adverse childhood experiences while also addressing the impact of adverse childhood experiences across the life course. We best support resilience for children and young people by supporting and creating resilience in parents, families and across communities, as shown in the box below. As resilience is created at an individual level by healthy neural pathways, similar connections between individuals within families and at a community level foster healthy relationships and build strong connections between people<sup>68,74</sup>.

### Protective factors that support resilience

Protective factors are those factors within the child and his or her environment that buffer and shield from the negative effects of adverse circumstances. They have been found to exist at three different levels:

- Within the individual child (e.g. the child’s disposition and temperamental attributes)
- within the child’s family or care situation (e.g. secure attachments with close family or carer relationships)
- within the wider community (e.g. positive peer relationships and supportive communities).

**Source:** Based on Daniel B, Wassell S<sup>75</sup>

Relationships underpin the development of resilience. Key care givers: parents, siblings, wider family, teachers, social care staff, and friends, can either promote resilience or limit its development. Resilience is related to a number of other personal characteristics. The Australian Resilience Centre<sup>73</sup> take the view that:

“Although many use the term resilience interchangeably with perseverance, mental toughness or grit, they are not the same thing. They are, in fact, competencies within resilience and involve the individual reaching inwards. Individuals may develop these competencies through the process of resilience, as they navigate and negotiate with their available resources.

Confusing resilience with an inward looking ‘toughness’ can be problematic, as this implies that resilience is somehow done alone. This is particularly unhelpful when we are trying to encourage individuals to reach out and connect.”

Resilience plays a pivotal role in balancing the impact of negative experiences with positive support<sup>76</sup> as demonstrated in Figure 3.2. These are dynamic interactive processes that can change over time and are worth the investment when we consider the costs involved by not taking action.

The essence of striving for stability within relationships through resilience is eloquently depicted in the Alberta Family Wellness 'Fulcrum of Resilience' model (Figure 3.2)<sup>77</sup>. This idea is further explored through the concept of the 'golden mean' as elaborated by Aristotle, who described the 'golden middle way', the midpoint between the extremes of excess and deficiency<sup>78</sup>. The authors propose this as the key to 'why finding the balance, or middle way, between support and challenge is vital to developing young people's resilience, confidence and well-being'.



**Figure 3.2:** The Resilience Fulcrum

**Source:** Alberta Family Wellness Initiative, Palix Foundation

See: [www.albertafamilywellness.org](http://www.albertafamilywellness.org)

## Case Study: A 'sense of coherence' as a route to resilience

Aaron Antonovsky, who building on the work of Hans Selye<sup>79</sup>, found that when two people were confronted by the same stressful situation, and one could respond to it successfully, but the other could not, their outcomes in terms of their health, were different<sup>80</sup>.

Antonovsky concluded that a healthy outcome depended on an individual's 'sense of coherence' which was the ability to make sense of, and manage the external environment. Essentially, unless an individual can view the world as being manageable and meaningful, they will experience a state of chronic stress. The former Scottish Chief Medical Officer, Harry Burns, argued that public policy should seek to enhance this sense of being able to control one's life. He puts forward the view that if policy makers persist in defining a population by its deficiencies and problems, then services will only ever be designed to fill gaps and fix issues, which leads to a further feeling of people as 'passive recipients of services, rather than active agents in their own lives.'

The key, then, is to pay attention to the emotional, psychological and spiritual resources that allow people to build relationships and establish social networks, so that people have opportunities to find what is meaningful to them, in a way that fosters optimism and control<sup>81</sup>. The understanding that follows is that this results in better health, and reduced societal inequalities. The attraction of a 'health assets' model is that it builds capacity for good health within populations instead of starting with a problem and designing policy to treat or prevent it.

**Source:** Burns H<sup>80,82</sup>

The use of the United Nations Convention on the Rights of the Child (UNCRC)<sup>83</sup> to support children's understanding of their human rights is shown in the film 'Resilience'. The film describes an established US education program called 'Miss Kendra'. Schools that had implemented this, which includes supporting the mental health of young children, reported improved wellbeing amongst their pupils<sup>84</sup>. Table 3.1 shows the link between Miss Kendra's list and the UNCRC.

**Table 3.1:** Adverse childhood experiences mapped to the UNCRC articles

Miss Kendra's List	United Nations Convention on the Rights of the Child
No child should be punched or kicked.	Article 19: You have the right to be protected from being hurt and mistreated, in body or mind.
No child should be left alone for a long time.	Article 27: You have the right to food, clothing, a safe place to live and to have your basic needs met. You should not be disadvantaged so that you can't do many of the things other kids can do.
No child should be hungry for a long time.	Article 6: You have the right to be alive.
No child should be bullied or told they are no good.	Article 28: You have the right to a good quality education. You should be encouraged to go to school to the highest level you can.
No child should be touched in their private parts.	Article 29: Your education should help you use and develop your talents and abilities. It should also help you learn to live peacefully, protect the environment and respect other people.
No child should be scared by violence at home or in school.	Article 34: You have the right to be free from sexual abuse.
No child should see other people hurt each other.	

**Source:** Based on UNCRC<sup>83</sup>

Programmes for babies, children and young people across NHS Highland provide opportunities, through cooperative group work, interactive play and games, for children to link the articles and the language of wellbeing, to better support their understanding, engagement and participation in these areas of their development. This is explained further in the case study below.

## Case study: 'Supporting Resilience' through 'My World of Wellbeing'

My World of Wellbeing is a programme that aims to encourage children to develop their emotional language and promotes an understanding of themselves and their social relationships, both within their families and their wider communities. Sessions support pupils to take ownership of their 'My World Triangle' based on the 'Wellbeing Wheel'.

The programme has been created to support school staff to deliver each of the sessions on a weekly basis over a full term, to create classroom displays with the pupils in the class and to support further learning through class discussion in between sessions. Although P6 is the recommended stage for programme delivery, it can be adapted and delivered to any age group, to suit local needs.

A recent evaluation of the initial pilots has shown some effectiveness of the programme in supporting the development of language associated with the wellbeing indicators<sup>85</sup>. The activities have supported a deeper understanding of these concepts and pupils have demonstrated their increased knowledge by engaging in further dialogue with their peers and adults alike following on from the programme itself.

**Source:** The Highland Council Care and Learning Service

Work undertaken in the Argyll and Bute Health and Social Care Partnership has been supporting staff resilience as they work with care experienced young people as explored on the next page.

## Supporting Resilience: Awareness for staff in Argyll and Bute children's houses

Staff within East Kings Street Children's House in Helensburgh had the opportunity to engage in a recent developmental workshop. The staff development day was led by Locality Manager, Paul Kyle who supported staff in a day of reflective practice, with adverse childhood experiences as the key theme of the day.

Staff were challenged to think about their own personal journey and the day included space for staff to think about what had led them to work with young people, what skills and knowledge they possessed, and how their experiences could have a positive impact on the resilience of those children that are in their care.

Workers were asked to think about the important things that had made a difference to them in their own developmental years: where did their resilience come from, how had this impacted on them as adults, and how could they use this knowledge in their day-to-day work?

Staff were exposed to training situations that enabled them to think about the kind of adverse events that have occurred in the lives of many of our care experienced children. What those experiences were, and what impact that may have had on their development. Staff also explored ways by which care experienced children might recover from adverse events and what factors might make a difference.

The training was well received by staff, who responded in a positive manner to this emotionally intense workshop. Staff agreed to take some of the learning from this session to their own team meetings.

The session has created wider interest and the same workshop will be delivered to the two other children's house staff in Dunoon and Oban in the coming months.

**Source:** Argyll and Bute Health and Social Care Partnership



**Figure 3.3:** Growing Resilient Communities  
**Source:** ACES Connection

See [www.acesconnection.com](http://www.acesconnection.com)

The 'skill of connecting' is key to resilience within Communities, through the creation of stronger social connections<sup>68,86</sup>.

The infographic shown in Figure 3.3 demonstrates how we can grow stronger communities within the context of adverse childhood experiences, and the case study below illustrates how NHS Highland is working towards building connected and compassionate communities.



## Case Study: NHS Highland's Compassionate Communities

With some funding from the Life Changes Trust, NHS Highland and Dementia Friendly Communities Ltd have formed a partnership to develop 'Compassionate Communities'. This is a programme that aims to build personal and community resilience through developing a circle of support for some of the most vulnerable people in our communities.

Initially developed for people with dementia in Helmsdale, 'Compassionate Communities' uses the same approach of providing community led activities, services and support that meets local needs for anyone in a vulnerable situation<sup>87</sup>. It aims to ensure that communities have a significant say in what is important to them, and works to a set of principles that supports people to feel included, safe, valued, and respected, through developing a range of activities and services that will build a network of community support<sup>88</sup>.

The project recognises that while many communities across NHS Highland face similar challenges, no two communities are exactly the same. Using lessons learned from the Helmsdale circle of support, the initiative has been set up with the aim of developing community-led activity and services that will see a network of local support that is designed to ensure they are sustainable and meet local need.

Four communities have already come forward keen to get involved in this initiative and it is hoped that it can be rolled out to a further four communities over the next 12 to 18 months.

**Source:** NHS Highland Public Health Team

### Find out more

Nadine Burke Harris: 'The Deepest Well' and the Center for Youth Wellness

<https://centerforyouthwellness.org/the-deepest-well>

The Highland Council's Care and Learning 'Layers of Resilience' video

[www.youtube.com/watch?v=wLuSmryLOe0](http://www.youtube.com/watch?v=wLuSmryLOe0)

Resilience for Public Health Supporting Transformation in People and Communities Report

[www.qcph.co.uk/assets/0000/4198/Resilience\\_for\\_public\\_health\\_2014.pdf](http://www.qcph.co.uk/assets/0000/4198/Resilience_for_public_health_2014.pdf)

Understanding Resilience

<https://content.iriss.org.uk/understandingresilience/risk.html>

What is Resilience? Center on the Developing Child at Harvard University Video

[www.youtube.com/watch?v=cqO7YoMscU](http://www.youtube.com/watch?v=cqO7YoMscU)

Channel 4 interview with author of 'Poverty Safari'

[www.youtube.com/watch?v=9sxENe4cvGU](http://www.youtube.com/watch?v=9sxENe4cvGU)

Toxic Stress Derails Healthy Development. Center on the Developing Child at Harvard University Video

<https://www.youtube.com/watch?v=rVwFkcOZHJw>

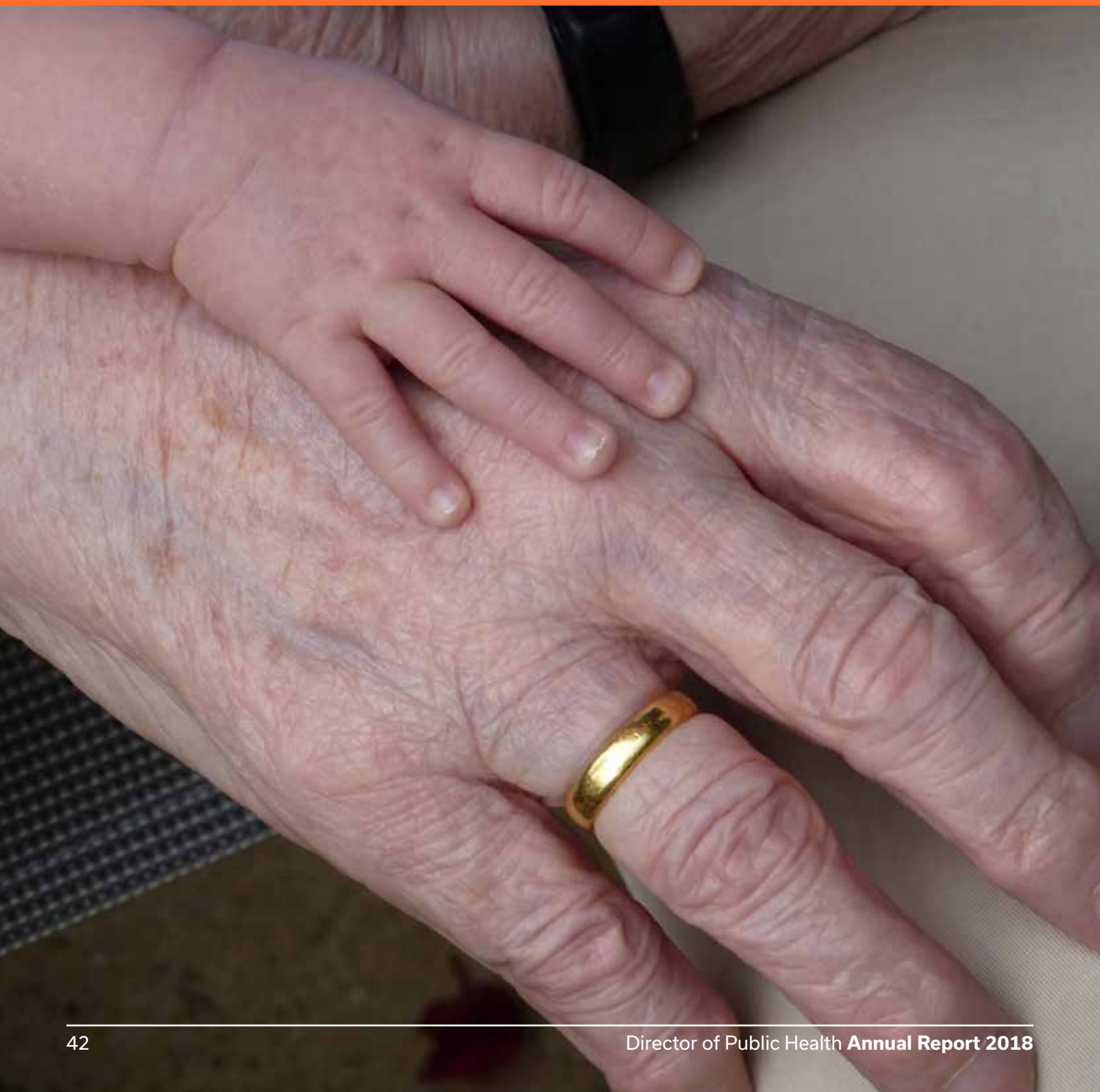
What causes wellness. Professor Harry Burns TED talk Video

<https://www.youtube.com/watch?v=yEh3JG74C6s>

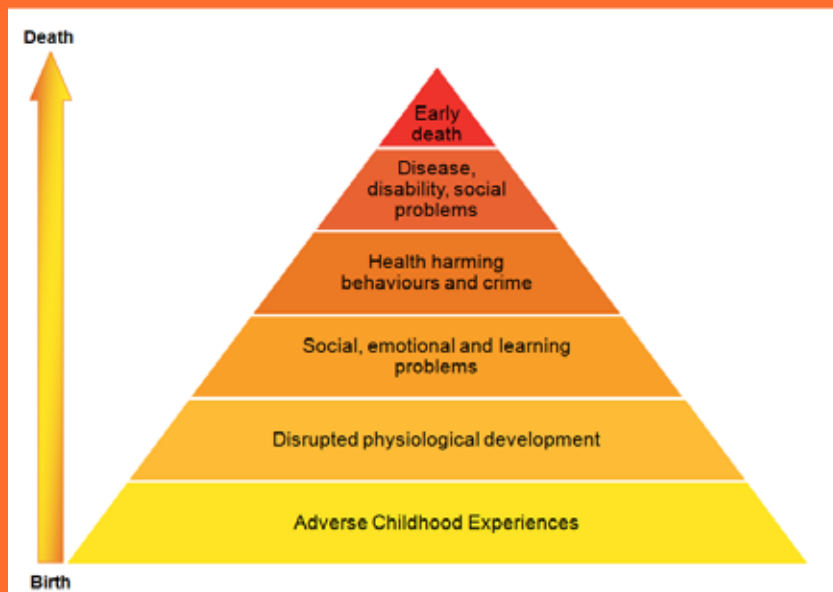
Supporting Resilience. Glasgow Centre for Population Health Video

[www.youtube.com/watch?v=eHyv\\_LFXkVU](http://www.youtube.com/watch?v=eHyv_LFXkVU)

# Chapter Four - The life course: The impact of trauma and adversity throughout our lives



This chapter examines the effect of adverse childhood experiences on the life course, from before birth to old age<sup>89</sup>. A life course approach (Figure 4.1) is useful for examining how adversity affects populations cumulatively, and considering ways in which these effects can be buffered<sup>90</sup>.



**Figure 4.1:** Impact of adverse childhood experiences across the life course  
**Source:** Based on Felitti et al.<sup>2</sup>

## Before birth

The environment a developing foetus experiences can have a direct effect on an infant’s growth and birth weight, their health at birth and their developing brain<sup>91</sup>. Between birth and eighteen months connections in the brain are created at a rate of one million per second. A baby’s earliest experiences shape their brain development, and have a lifelong impact on that baby’s mental and emotional health<sup>28</sup>.

A study by Barlow et al. has shown that attachment between a mother and a baby begins during pregnancy<sup>92</sup>. A woman’s representations of her unborn baby are influenced by many factors including whether she has other young children in the household, whether or not her pregnancy was planned, whether or not she is experiencing domestic abuse, and her own personality traits. One of the most significant factors affecting a mother’s attachment is her own attachment status. Mothers who are securely attached themselves tend to have infants who are securely attached, while mothers who are insecurely attached tend to have infants who are insecurely attached at 12 months<sup>93</sup>.

A model developed by Barlow describes categories of relationship between a mother and her developing baby, as described in Table 4.1 below.

**Table 4.1:** Types of maternal relationships.

<b>Balanced</b>	Balanced mothers tell detailed stories about their experiences of pregnancy and describe both their positive and negative thoughts and feelings about their foetuses.
<b>Disengaged</b>	Disengaged mothers appear uninterested in the foetus and their relationship with the foetus. They have few thoughts about the babies’ future behaviours or characteristics and their stories tend to be quite short.
<b>Distorted</b>	Distorted mothers often view their foetus mainly as an extension of themselves or their partner, and express intrusive thoughts about their own childhood experiences.

**Source:** Based on Barlow J<sup>92</sup>

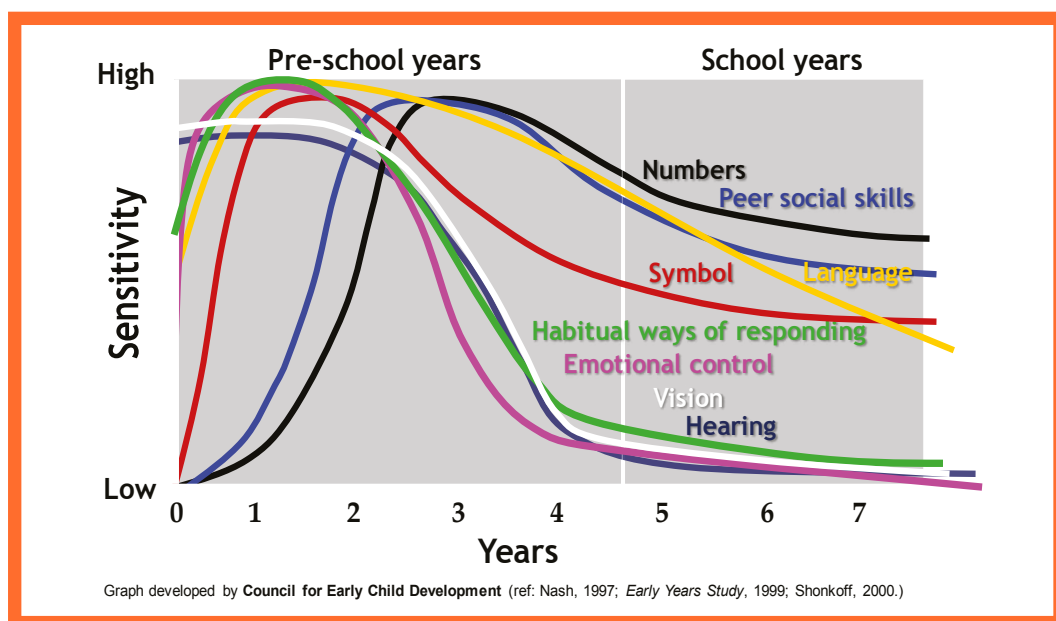
A study by Theran et al. of pregnancy using this model identified that 51% of women had ‘balanced representations’, 30% were classed as ‘disengaged’ and 19% were classed as having a relationship that was classed as ‘distorted’<sup>94</sup>. These representations are strongly associated with attachment following the birth of the baby, with mothers whose representations that are classed as ‘distorted’ or ‘disengaged’ being more likely to have an insecurely attached infant<sup>92</sup>. This has longer term consequences for childhood development.

## The First 1001 Days

The most optimal environment to lead to good longer term health outcomes is one in which a mother’s circumstances include the following<sup>95</sup>:

- Enjoying a well-balanced diet
- not experiencing stress or anxiety
- in a supportive relationship – and not experiencing domestic violence
- not smoking, consuming alcohol or misusing illegal substances
- not in poor physical, mental or emotional health
- not socio-economically disadvantaged
- at least 20 years old
- have a supportive birthing assistant at the birth itself.

When a baby’s development falls behind during the first year of life, it is then much more likely to fall even further behind in subsequent years, than to catch up with those who have had a better start (Figure 4.2). Some children who experience severe early stress and consequent delayed development can recover by later rapid development. However, this can still leave a legacy of negative social interactions and difficulty in social situations such as school<sup>96</sup>. Therefore, early intervention to support families and prevent adversity in early childhood is vital in achieving the best outcomes for children<sup>97</sup>.



**Figure 4.2:** ‘Sensitive periods’ in early brain development across different skill sets  
**Source:** Illustration from Geddes R, Haw S, Frank J<sup>98</sup>

If we consider attachment to be the developing emotional relationship or bond between a parent and their baby, securely attached infants have significantly better outcomes across all areas of their development. In one study, the majority of children (55-65%) were securely attached to their parent, but up to 24% showed an insecure style of attachment, and around 15-19% show disorganised attachment<sup>92</sup>. If we consider a population of abused children, 80% display a disorganised attachment style<sup>92</sup>.

**"The truth is, you cannot love yourself unless you have been loved and are loved. The capacity to love cannot be built in isolation."**

Source: Perry D, Szalavitz<sup>1</sup>

### Find out more

How Brains are Built: The Core Story of Brain Development Alberta Family Wellness Initiative video

[www.youtube.com/watch?v=LmVWOe1ky8s](http://www.youtube.com/watch?v=LmVWOe1ky8s)

## Biology and physiology

Normal healthy child development is based on back and forth responses between an infant and their mother or main care giver. A healthy child with a loving and responsive parent will make a noise or look towards their parent and that person responds by copying the sound or facial expression, by smiling or by making noises and sounds that instinctively emphasise language patterns. During this process, a baby is building the neuronal pathways in their brain, whereby some pathways are reinforced and others are pruned. The process of healthy brain development and healthy child development starts well before birth. A baby is born with 100 billion of brain cells, or neurons and it is the connections between them that provide some of the foundations for learning and behaviour.

The growth of a child's brain is influenced by their genetic make-up as well as by their experiences. These experiences include their experience of their physical environment and relationships which in turn will affect which genes are expressed. A child who is wiring their brain with positive 'serve and return' interactions, and who experiences consistent caring responses from their parent, will form strong and integrated brain pathways.

**Figure 4.3:** Serve and return interaction between children and caregivers



Source: Illustration by Betsy Hayes from Center on the Developing Child at Harvard University<sup>99</sup>.

## School Years

The Scottish 'ACEs Hub', which is coordinated by NHS Health Scotland<sup>100</sup>, has published work on childhood adverse experiences in a school context. They argue that:

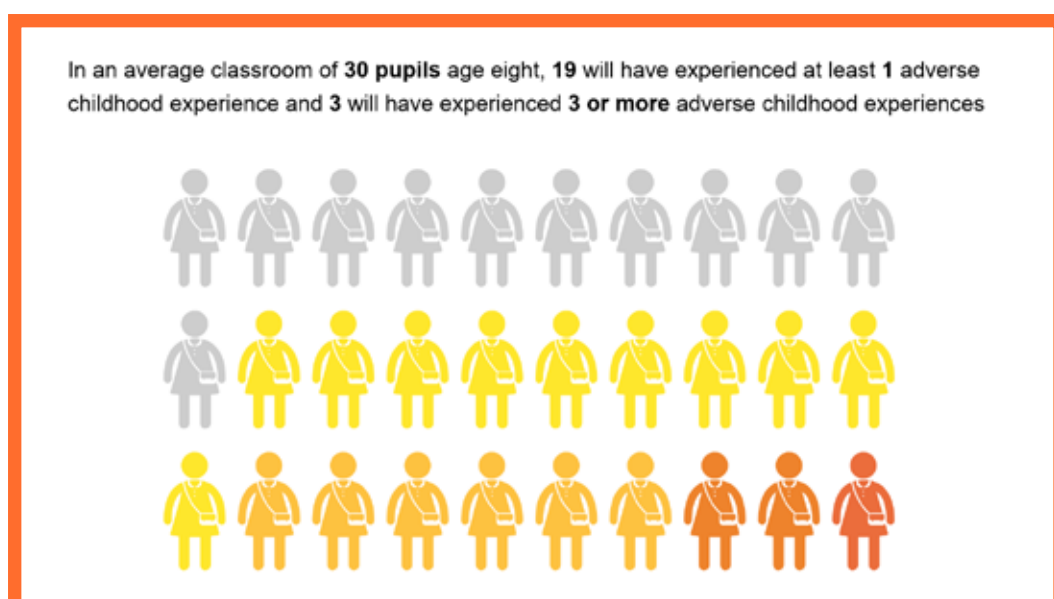
'tackling adverse childhood experiences will support educational attainment through improving the mental health and wellbeing of young people through schools' improved understanding of the behavioural outcomes of early adversity ... to be a supportive and inclusive environment for learning.<sup>101</sup>

A systematic review examining the impact of traumatic events on school-related outcomes, including cognitive functions and behavioural issues, showed that young people who have experienced trauma are at risk for impairments across various cognitive functions. These include: IQ; memory; attention and language/verbal ability; poorer academic performance and school-related behaviours such as discipline; dropout and attendance; and higher rates of behavioural problems and internalizing symptoms<sup>102</sup>. The experience of childhood trauma also has a potentially negative effect on how a person functions within the workplace<sup>103</sup>.

It has been argued that learning occurs best when a strong and healthy relationship is established between children and their teachers, suggesting that the quality of teacher-student relationships is the key to many aspects of managing a class<sup>104</sup>. A report for Scottish government concluded that more research is needed to properly determine the nature of how adverse childhood experiences impact on educational outcomes<sup>101</sup>.

Multiple factors mediate school outcomes including moving schools multiple times, less access to extracurricular activities, and educational expectations in the home. Children who have suffered abuse and those who are in care have impaired executive functioning, which includes the ability to think and plan ahead, to move between tasks, and to understand the link between actions and consequences<sup>105</sup>.

Children can experience shame and humiliation in the classroom that leads to a fear of school, and a child left feeling incapable. Perry suggests that learning is helped by a feeling of being in a safe and familiar situation, which fosters a sense of curiosity and the ability to learn in both adults and children<sup>106</sup>.



**Figure 4.4:** Estimated prevalence of adverse childhood experiences in a class of school pupils  
Source: Based on Marryat L, Frank J<sup>25</sup>

## Adolescence and transition to adulthood

Children who experience maltreatment, and in particular childhood sexual abuse (CSA), are more likely to experience further maltreatment as they get older. One prospective cohort study involved 70 female victims of childhood sexual abuse, who were followed for up for a number of years. In adolescence, the same young people were interviewed about the difficult events of their life, assessed for symptoms of post-traumatic stress disorder, and questioned in relation to their experience of other adversity such as physical harm, emotional harm and other adverse childhood experiences. The study found that victims of CSA were twice as likely to have been raped or sexually assaulted, and almost four times as likely to have inflicted subsequent self harm. They also reported significantly higher rates of physical re-victimisation (including domestic violence) and they subsequently experienced a greater number of significant lifetime traumas than comparative individuals in the cohort<sup>107</sup>.

This study also showed that many of the young women used dissociation as a means of coping with the distress that they experienced, and in this, they put themselves at greater risk for physical harm. The authors conclude that:

‘victims who adopt pathological dissociation as the primary defence strategy in adolescence or adulthood may be less able to engage in self-protection when physically threatened. Dissociation has been thought to be associated with suicide and self-injurious behaviours, and these results confirm this association.... Self-harm may not be a direct response to sexual abuse but to the dissociative experiences that result from efforts to cope with the abuse.’

This research highlights the importance of services that not only place a high value on providing trauma-informed responses<sup>108</sup>, but also on developing resources to allow children that have experienced significant adversity to be supported and to develop their resilience, so that they can be protected later in life, including during their adolescence and adulthood.

In a study examining stress responses in adolescents, young people who had been maltreated were more likely to show a ‘blunted’ cortisol profile than children who had not been maltreated. Cortisol is a stress hormone, released by the body at times of fear or distress. The signal to release cortisol comes from the brain, and when it moves through the body, it frees up energy that may be needed to fight or flee. A blunted profile suggests that these young people have a chronically active stress response.

This was also described as an ‘unemotional response’ in a study of young people who were habitually exposed to adversity<sup>109</sup>. In the young people studied, assessments were made at several time points during adolescence, to identify the pattern of the stress response, and the authors found that the process of developing this blunted response occurred over a number of years of accumulated stress. This was true even if any of the young people had a recent experience of adversity or trauma. This means that childhood adversity has a lasting effect on the ability of the body of a young person to respond appropriately to stressful events.

Starting higher education, or work, or getting married, are examples of the transitions young people make as they become adults. We all make many different transitions in various parts of our lives, and each has the potential to be stressful. For individuals who have experience of adversity and trauma, their ability to manage the stress of yet more change, and upheaval may be compromised, and so across the life course a cascade of events can influence later socio-economic status, health and behaviour<sup>90</sup>.

## Case Study: Sarah, a young mum with experience of multiple adversity

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Sarah, who has experience of growing up in care, gives her account of the circumstances in her life that led to involvement with the criminal justice system and drug and alcohol services.

"When I was younger my mum was an alcoholic, but she was a functional alcoholic, so she went to work, and she did all the chores. Even though people might think that's outrageous, I think at least she was... still making sure we had a roof over our heads, that we were getting fed, she was never aggressive, she was never anything like that towards us."

Eventually her home situation deteriorated and she was removed into care. This was very challenging for her personally, and she describes feeling the injustice and powerlessness of being the person removed when she was not the cause of the difficulty.

"I was only an 8 year old child.... at the end of the day I shouldn't have been the one to get removed from my family home, removed from my school, removed from all my mates."

She describes how wanting to go back to her family motivated a great deal of her behaviour.

"I was drinking a lot in care... I was getting moved every few weeks, in different care homes because they couldn't handle me...I got put into foster placements, it just wasn't working. But my attitude was, 'oh, I'll just do what I can to get moved until they put me back home.'

Sarah explained that when she was sent to a residential school she was told clearly that she would be staying and that her workers would support her. She describes the effect of this on her.

"That was really good because it felt...there was actually a family, that actually wanted to help me, to see me succeed...and they weren't gonna give up on me."

She describes wanting someone to understand her behaviour but not feeling equipped to express her needs. "I would behave like that...because I was too scared to say anything to anybody, like in any profession, what was happening at home, being ...young... you do get quite frightened saying stuff like that...so that's why I would behave like that, hoping that somebody would click on, ...thinking why has she started behaving like that these past few years?"

She reflected that, in her experience, professional services targeted support at her behaviour.

"...the alcohol wasn't the problem, the alcohol was one of the problems that I was using for the problem. They need to think, ...they need to look more into it. They need to get more involved and get to know their client more ... get right down to the core of it."

When Sarah found out she was pregnant she was able to use this to make major changes in her life. She was able to access support and is raising her daughter. She reflected on her journey and her own pathway to being in a position where she can speak about her experiences, both as an adult and a child. "Open your mind and ... see actual people for their personalities ...learn to maybe learn a bit more before you judge people... and not to give up on kids either because they can't afford for anybody else to give up on them."

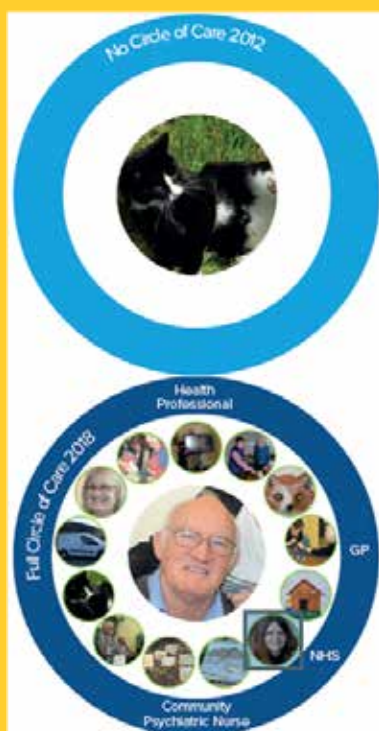
**Source:** With kind permission from the speaker and made available with the support of Highland C.H.A.M.P.S board. (Name changed to protect identity).



## Older Years

The impact of adverse childhood experiences can occur throughout people's lives. One study that sampled a range of people, many of whom were aged over 65 years, found that a history of multiple adverse childhood experiences had the greatest impact on those people with a low sense of community and a high level of stressful events in their current life. Those people with a strong sense of community and relatively few adult life stresses had mental health outcomes similar to people with a history of few adverse childhood experiences<sup>90</sup>. The importance of community to older people's health and wellbeing is recognised in NHS Highland through work to develop compassionate communities. This is illustrated in the case study of the Helmsdale circle of care.

### Case Study: Helmsdale circle of care



In an effort to address the difficulties faced by older people in rural communities, a focus was placed on building community support networks in Sutherland.

A number of initiatives were developed including 'bridge over troubled waters.' This is a tailored short term service to provide help at times of acute need. For example, a carer broke her hand and support was provided within 24 hours, meaning that her husband with dementia did not have to go into respite nursing care while her hand healed. The work centres around a hub, which operates three days per week, supporting older people who may be lonely, frail, isolated, or experiencing mild cognitive impairment, including early dementia. Other services include the use of technology via interactive screens, provision of hot meals, art classes, and a Men's Shed.

**Source:** Circle of Care. Illustration of support services before the community initiative and after. With thanks to Ann Pascoe and Sarah Kerr for use of their images.

**Retrieved from:** <https://dementiafriendlycommunities.files.wordpress.com/2016/06/dfc-how-rural-dfc-supports-dementia-families-poster.pdf>

The Institute at Northwestern University, Chicago has developed an Asset Based Community Development (ABCD) approach. This approach focuses on the positive: 'on the assets and strengths present in a community, mobilising these assets, passions and skills, community driven and based on relationship and skill sharing<sup>110</sup>.'

Cormac Russell of Nurture Development, argues that, '...their focus is not on building a bridge between older vulnerable people and the centre of their services but on building a bridge between older people and the centre of community life<sup>111</sup>, an approach we can usefully emulate.

A Scottish study found that an 'assets based approach' reduced medication use and had fewer visits to the GP<sup>112</sup>. These encouraging findings require further replication but provide some key emerging evidence.

#### Find out more

Cormac Russel. Sustainable community development: from what's wrong to what's strong video

[www.youtube.com/watch?v=a5xR4QB1ADw](http://www.youtube.com/watch?v=a5xR4QB1ADw)

Cormac Russel. Sustainable community development: from what's wrong to what's strong tour summary

[www.nurturedevelopment.org/wp-content/uploads/2017/09/AmericaTour2018.pdf](http://www.nurturedevelopment.org/wp-content/uploads/2017/09/AmericaTour2018.pdf)

# Chapter Five - Trauma-informed systems, care and services



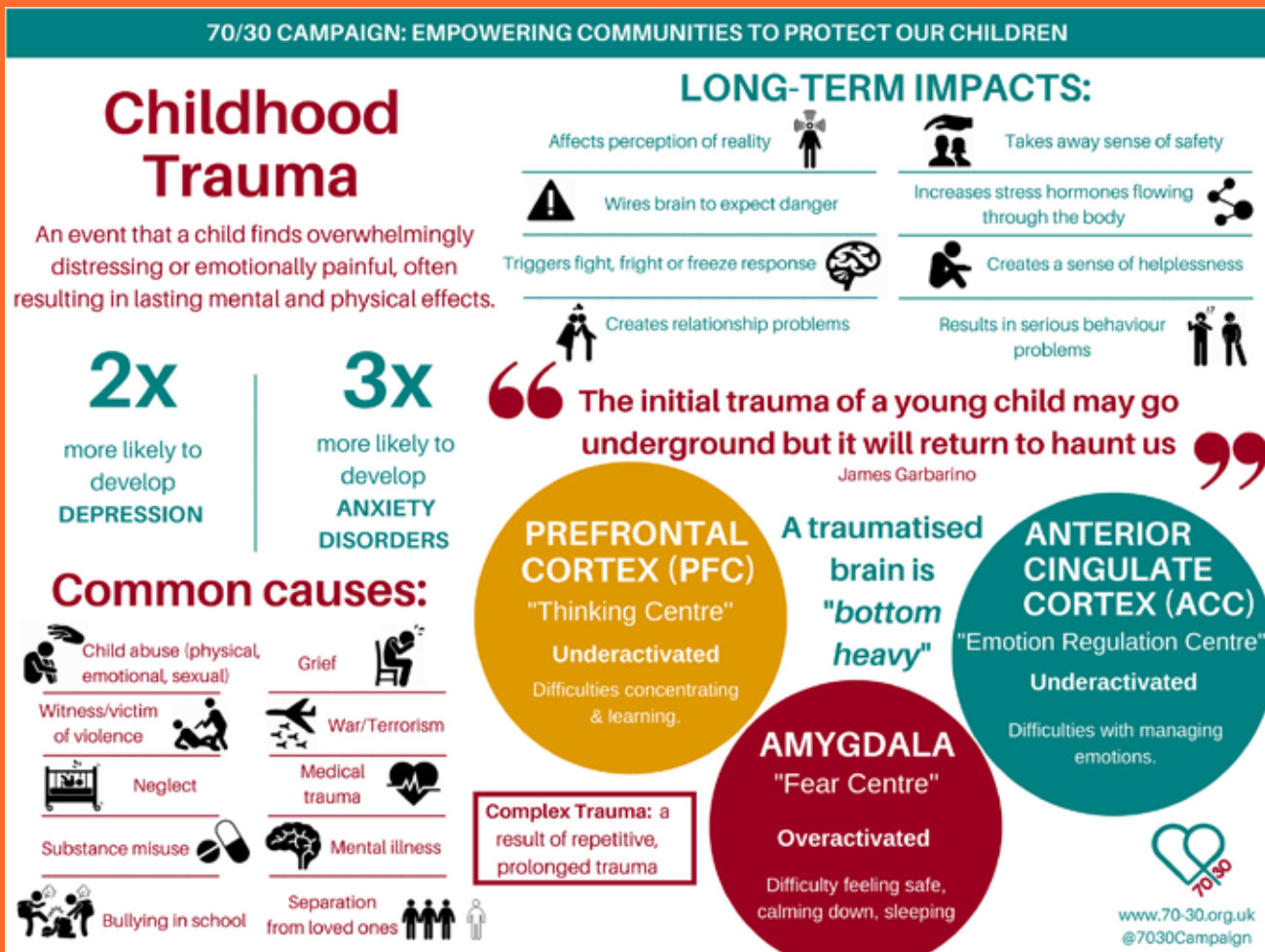
# Trauma

As explored in this report, adversity in childhood and adolescence, in the absence of safety and resilience, becomes traumatic and injurious to health and wellbeing across the life course.

A conceptual framework for ‘childhood trauma’ is shown in Figure 5.1, an infographic developed as part of the 70/30 Campaign, which links common causes to effects on different parts of the brain.

**“Trauma and adverse childhood experiences can be caused by any events (chronic or sudden) where children aren’t able to have attuned adults around them to help cope with fear, overwhelm, distress, uncertainty: that’s possible in schools, nurseries, hospitals, foster care and communities, as well as families.”**

Source: Zeedyk S<sup>13</sup>



**Figure 5.1:** Childhood Trauma  
Source: WAVE Trust, The 70/30 Campaign<sup>8</sup> See [www.70-30.org.uk](http://www.70-30.org.uk)

Trauma is a term used in many different ways depending on context: it can involve either or both a physical injury or a deeply distressing experience<sup>14</sup>. A definition of ‘trauma’ from the US Substance Abuse and Mental Health Services Administration (SAMHSA) is, ‘an event, a series of events or a set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening<sup>15</sup>.

Similarly, the World Health Organisation use the following definition: ‘a stressful event or situation (either short or long lasting) of exceptional or catastrophic nature, which is likely to cause pervasive distress in almost every one<sup>16</sup>.

Terr has developed a model of Type 1 and Type 2 trauma, as outlined in Table 5.1 below. A further explanation of Type 2 trauma is detailed in the box titled ‘Trauma and recovery’, and shows how trauma and recovery are linked in a therapeutic context.

**Table 5.1: Childhood traumas: an outline and overview**

Type 1 Trauma	Type 2 Trauma
Sudden and unexpected events, which are experienced as isolated incidents such as a road traffic accident, rape or terrorist attack. This can happen in childhood or adulthood.	Traumatic events which are repeated, interpersonal and often (although not always) occur in childhood. These include all forms of childhood abuse, which is chronic and cumulative such as child sexual abuse, childhood physical abuse,... and neglect.

**Source:** Based on Terr L<sup>117</sup>

## Trauma and recovery

Judith Herman, a psychiatrist at Harvard Medical School, advises that recovery from complex, Type 2 trauma can only take place within the context of healing relationships.

She further simplifies and summarises the three stages of recovery as follows:

- Relational safety
- Remembrance and mourning
- Reconnection with ordinary life

These are not linear or straightforward processes. Herman maintains that ‘in the course of a successful recovery, it should be possible to recognise a gradual shift from unpredictable danger to reliable safety, from dissociated trauma to acknowledged memory, and from stigmatised isolation to restored social connection.’

**Source:** Herman J<sup>118</sup>

This report has already detailed how chronic toxic stress during childhood, in the absence of safe buffering relationships, can lead to long term impacts in all areas of a person’s life and on their relationships with their family and community. Education Scotland detail that ‘Trauma in childhood can lead to reduced educational attainment, mental and physical health problems and difficulties in adult relationships.... Children who have experienced abuse and trauma will perform more poorly at school than their peers. A child living with fear and helplessness from experiences outside school cannot focus or learn to the same standard as other children<sup>119</sup>.

There is a tension in the published literature as to whether the impact of trauma is located in the individual, or whether the environment and the circumstances of someone’s life are the source of difficulty. Based on a system-led approach, workers need to understand how to work with people to support them in managing the effects on them of these experiences<sup>120</sup>.

There is a risk that professionals are seen as placing the ‘pathology of trauma within the individual - often an individual who has been deeply betrayed - instead of within the person(s) or environment(s) responsible for the betrayal<sup>121</sup>. Gomez et al argue that ‘a nonpathologising model of trauma takes the stance that the abnormality is generally in the situation rather than the person. When the trauma is relational, it is the nature of the act that is unhealthy and not the individual who has experienced the act.’

A nonpathologising model of therapy as a response to trauma takes the approach that ‘the person is greater than his or her problems and makes room for compassion through acknowledging the role of outside variables, such as relationships and environments, in the initial harm and the subsequent process of healing from the trauma’<sup>115</sup>.

## Trauma-informed systems

**“Being trauma-informed is much more than just a ‘simple’ word or term. It is multi-layered and a whole system approach. It should apply to every sphere of an organisation and be fully embedded into the different levels of a system. This includes integrating trauma-related aspects, knowledge and concept into things such as training, recruitment, induction, policies, procedures, mission statements, language used, having experts of experience, the environment, team meetings, supervision, reflective practice, leadership style, and so much more!”**

Source: Treisman K<sup>122</sup>



Figure 5.2: Trauma-informed and trauma-responsive systems

Source: See [www.safehandsthinkingminds.co.uk/trauma-informed-trauma-responsive-organisations-systems](http://www.safehandsthinkingminds.co.uk/trauma-informed-trauma-responsive-organisations-systems)

A range of models support the implementation of a trauma-informed approach to care<sup>123</sup>. As an example, the WAVE trust advocates the use of a strengths-based framework for trauma-informed care based on 5 key principles of: safety, trust, choice, collaboration and empowerment. Similarly, US research looking at a range of trauma informed care identified the following key principles<sup>124</sup>:

- Trauma awareness (includes staff training, consultation and supervision)
- Safety (trauma informed care works towards building emotional and physical safety for both people using the service and those providing the service)
- Control (choice and personal control alongside predictable environments, often involves consulting with people using services in the service design)
- Strengths-based approach (services support people to identify their own strengths and develop their skills)

The following case study gives an example of a trauma-informed systems approach to working with families in Glasgow to make the best possible decisions for parents and children.

## Case study: The New Orleans Intervention Model, Scotland Pilot

This model of working with families was first used in the US, and is now being piloted with Glasgow's Infant Family Team and in South London with support and oversight from the NSPCC. The National Institute of Health Research is funding the University of Glasgow to assess the difference it makes to children and families.

The programme is being tested to see if it helps social work and legal teams working with children in foster care to make the right decisions for children, and specifically to understand if they should return home to their birth families. Through the use of a series of assessments and by providing significant support to foster carers, the program workers are helped to reach a final decision, either for the children to return to their birth families, or adoption for those whose birth parents cannot show significant change and ability to strengthen their care giving relationship with their child.

In the longer term the team are looking to find out if this model can be used as follows:

- to improve parents' capacity to care for their children
- to improve children's mental health outcomes whether they enter care or return home
- to contribute significantly to the evidence necessary to take a child into care where it is in the child's best interests
- to reduce subsequent incidents of maltreatment of children and their siblings

**Source:** Minnis et al.<sup>125</sup> and Zeanah C et al.<sup>126</sup>

There is evidence of effect from using these approaches, with the identification of significant benefits.

Many people who have experienced adversity and trauma will have sufficient resilience to recover with little or no need of additional services. The culture, practice and environments that we live, study, play and work in can have an influential effect on supporting and sustaining such resilience. There are many opportunities to create change in the day-to-day: from the welcome and atmosphere in outpatient departments, in clinical areas and wards to police stations and schools. Staff awareness raising and support through training can bring a different perspective to understand, interpret and respond to distress and anger from the public, colleagues, toddlers, and young people.

Language focused on distress rather than anger and violent or challenging behaviour creates different opportunities for all involved. At a very practical level, there are daily opportunities to 'start where you are and do what you can'<sup>127</sup>.

Where there has been more complex or enduring experience of trauma, recovery may benefit from more specialist help from specialist trauma therapists and trauma-specific services. Trauma-specific services are those that provide evidence-based interventions to people with mental health difficulties linked to trauma.

Systemic family therapy, for example, can have a role to play in supporting and understanding the impact and effect of trauma in the life of a family<sup>128</sup>. An example of this is outlined in the following case study:

## Case Study: Phoenix Child and Adolescent Mental Health Service (CAMHS)

The Phoenix CAMHS team offers highly skilled and specialist interventions for children, young people and their families. A high percentage of children and young people present with a history of individual and/or family trauma that impacts upon their wellbeing. Taking a holistic and systemic approach in the assessment and treatment of the mental health problems presented is key. In the formulation of the presenting difficulties, the impact of trauma on the children and families is considered and further treatment for the trauma is available and offered if required.

This treatment could involve individual work with the child or young person, but often a family systemic approach is taken to ensure that the parents are included and seen as part of the solution to help their child with the problems that are presented. An example of this is families being invited to the Systemic Family therapy clinic to work together on alleviating the pressures within the family system.

Using systemic approaches in the wider system is often helpful and the CAMHS team regularly supports the network around the child or young person to gain better understanding of the existing problems of the child and their family. For example, if a school team has a better understanding of the impact of the trauma experienced by the child and the family they are in a better place to support the experience of the child in their education by adapting their approach to the behaviours that might be seen in class.

**Source:** Dr Wendy van Riet, Service Manager/Lead Consultant Clinical psychologist, CAMHS

SAMHSA identify that component parts of a trauma-informed system of care will be trauma-specific services which provide evidence-based interventions for people who have mental health difficulties that are linked to trauma<sup>129</sup>.

### Find out more

Good relationships are the key to healing trauma | Karen Treisman | TEDxWarwickSalon video  
[www.youtube.com/watch?v=PTsPdMqVwBq](http://www.youtube.com/watch?v=PTsPdMqVwBq)

Jaz Ampaw-Far The Power of Every Day Heroes video  
[www.youtube.com/watch?v=q3xoZXS5yc](http://www.youtube.com/watch?v=q3xoZXS5yc)

NHS Education for Scotland. Opening Doors: Trauma Informed Practice for the Workforce. video  
<https://vimeo.com/274703693>

## Trauma-informed services

Research suggests that a prerequisite to delivering trauma-informed services is leadership and commitment from the top of the organisation 'to integrate knowledge about violence and abuse into the service delivery practices of the organisation'<sup>118</sup>. This is more than a branding or a form of words. The principles apply within and across systems and services. To have full effect, becoming trauma-aware and evidencing trauma-informed services will require:

- A system-wide approach, involving system leaders, service managers and all front line staff
- High level and cross organisational leadership
- Dedicated resource, to ensure the full effect and impact across an organisation

SAMHSA have undertaken an extensive literature review on trauma, traumatic stress, trauma-informed care, and trauma-related interventions that demonstrates an emerging evidence and knowledge base of trauma-informed care<sup>130</sup>. They found that integrated approaches to the therapeutic management of trauma led to improved outcomes for service users.

Another systematic review by Torchalla et al. reports that 'integrated treatments can reduce both Post Traumatic Stress Disorder (PTSD) symptoms and substance abuse, and across the reviewed studies, the data suggested that such treatments were associated with relatively large reductions in symptoms'<sup>131</sup>. Other services that have evaluated integrated approaches to managing effects of trauma and mental health disorders have found that 'participants... showed significant improvements in terms of suicidal ideation, anxiety, shame, guilt, depression, and social adjustment, and they demonstrated no increase in self-injurious thoughts and behaviours'<sup>132</sup>.

Trauma-informed services appear to have better outcomes than 'treatment as usual' for many symptoms in mental health and substance misuse services, alongside decreased use of crisis-based services. One study found that for children specifically, trauma-informed care led to a more positive self-identity, increased ability to build healthy relationships and improved safety. The study found that for people experiencing homelessness, trauma-informed care led to increased residential stability. Furthermore the study found that trauma-informed services for care were cost-effective and that they are well received by the people using those services<sup>130</sup>.

To be trauma-informed, people working in services need to have a real-time understanding of adversity, emotional distress and trauma and the impact on health, wellbeing and day-to-day tasks and activities. The following trauma-informed services examples detail the childhood trauma of adults accessing health services and the supportive approaches used.

### Case study: Multiple adversity as a child

Wendy is a young woman in her early thirties with a history of trauma and childhood adversity. Both of her parents used drugs and alcohol problematically and following their separation, she was taken into care. Wendy developed a personal history of problematic alcohol and drug use following the death of one of her parents from a drugs overdose. Around this time she started to have problems with managing her anger and became known to the local criminal justice system.

Wendy has experience of domestic violence and sexual abuse by several partners. A child protection order resulted in both her children being looked after by foster carers. She is currently pregnant by her latest partner, who has just received a six-month custodial sentence. Wendy is now involved with an intensive, trauma-informed, support programme. This has enabled her to access safe and supportive accommodation, mentoring and recovery support.

**Source:** Highland Alcohol and Drugs Partnership. (Name and circumstances changed to protect confidentiality).



## Case study: Weight and health

Mandy lives with her partner and is getting married this year. She has been trying to get pregnant for four years. She works as a full-time carer in a Care Home. Mandy experienced an acrimonious parental separation as a child and began to put on weight. She was sexually abused as a teenager, she put on more weight, developed bulimia, and self harmed.

Mandy has a high body mass index, back problems and some arthritis. She feels she has 'tried everything' and would like bariatric surgery. She has spent five years dieting, both losing and gaining weight. She has stopped smoking, although this also led to further weight gain.

Mandy has experienced size discrimination for many years, and this continues on a daily basis. Some of this stigma has become internalised so that she views herself and others of a similar size as 'lazy, lacking self-discipline, and of little value as a person'.

Mandy's GP referred her to the specialist weight management service and she is now working with a team that have helped her to acknowledge her life experiences and recognise the impact that all of these things will have on her weight, through both physiology and psychology.

Mandy herself has identified that her main goal is to address her emotional eating. Identifying both emotional and physical drives give a route into naming emotions and considering appropriate responses that will 'soothe' these emotions. In addition, recognising physical drivers and responding appropriately has helped Mandy to eat more regularly, maintain stable blood sugars and become more emotionally and physically resilient.

The team working with Mandy continue to return to the concepts of acceptance and compassion. Acknowledging that Mandy needs to be kind to herself, gives her permission to prioritise her own needs and in doing this, she is in better health and is better able to look after others.

**Source:** North Highland Specialist Weight Management Service (Name and circumstances changed to protect confidentiality).

The development of such trauma-informed services reflects an increased understanding of both the widespread impact of adversity and trauma for individuals and the accessibility of services. The NHS Education for Scotland (NES) National Trauma Training Framework<sup>108</sup> emphasises that those who would most benefit from support and services are least likely to access or maintain contact with them. There can be difficulties in establishing trust across a range of services, difficulties with procedures that require touch, not feeling understood by services, difficulty in attending services, and frequent disengagement.

In key areas such as mental health, drug and alcohol services and some veterans groups (from armed conflict services), this has led to further stigmatisation. As people who might best benefit from services struggle to engage, or readily opt out of services as traditionally delivered, and such individuals may be labelled as 'difficult to engage', 'hard to reach' or 'non-compliant'. Trauma-informed approaches offer a different lens to explain both health-harming behaviours and the difficulties people with trauma can have in accessing services and support.

## Supporting the workforce working with trauma

Within Highland, there are a range of services that recognise the importance of giving staff an understanding of trauma to deliver a more trauma-responsive service. Examples of these are shown below.

### Trauma-informed services: What happened to you?

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#### Highland Sexual Health

Highland Sexual Health (HSH) is an integrated specialist service comprising of Genitourinary Medicine, HIV and Sexual and Reproductive Health. HSH aspires to be a trauma-informed service with routine enquiry of gender-based violence for all patients (regardless of gender).

All clinicians at HSH have had mandatory gender-based violence (GBV), Child and Adult protection training, and some of the doctors are trained in Sexual Offences examination and psychosexual therapy.

**Source:** Dr Hame Lata, Consultant, Sexual & Reproductive Health. NHS Lead Clinician, Sexual Health & BBV Strategy. NHS Operational Lead for Violence against Women

Across Scotland work is on going to develop services and systems that take a trauma-informed and trauma-responsive approach. In May 2017, the Scottish Government commissioned NHS Education Scotland to produce 'Transforming Psychological Trauma: A Skills and Knowledge Framework for The Scottish Workforce'<sup>108</sup>. This framework has been developed to support not just the NHS workforce but also the wider Scottish workforce to understand what trauma is, and to recognise and respond to the individual needs of people with adverse childhood experiences and adult experiences of trauma.

### Case study: Violence Against Women Partnership training ethos

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Understanding the impact of adverse experiences on the lives of women, men and children is a key aspect of the work undertaken through the Violence Against Women (VAW) Partnership in Highland.

The VAW Partnership works to promote trauma-informed practice, to recognise the natural ability of the majority of people to recover well from negative experiences (including abuse) and to understand when and how some people might need additional support. Recognising that the impact of sexual violence, domestic abuse, and many other forms of violence can be long-term is essential in providing appropriate, sensitive services that meet the health and care needs of our population.

A multi-agency training programme has been offered through the Partnership in North Highland for over 10 years. Much of this training focuses on improving practice in asking about abuse, assessing risk to individuals and co-producing safety plans with both adults and children affected. Specific training is offered on children's experiences of domestic abuse, the impact of rape and other forms of sexual violence and trauma (from a gender based violence perspective).

**Source:** Gillian Gunn, Violence Against Women Development & Training Manager, Highland Violence Against Women Partnership

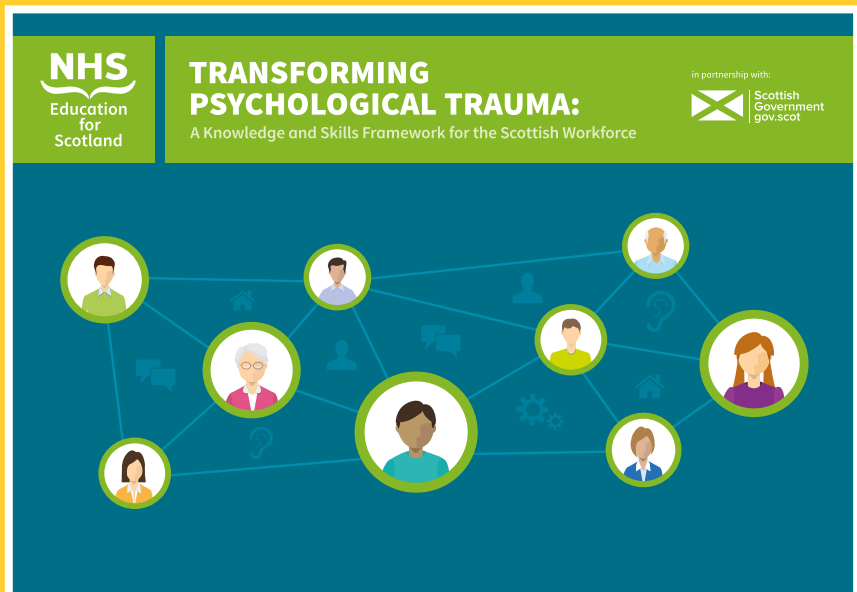
# NHS Education for Scotland Framework for Transforming Psychological Trauma

The framework splits the workforce into four main levels. It articulates the different knowledge and skills which workers require to respond effectively to people affected by trauma in the context of their job role and service remit:

- Trauma-informed details the knowledge and skills for the whole workforce
- trauma-skilled details the knowledge and skills for those workers who are regularly coming into contact with people affected by trauma, where trauma may not be known about, and in contexts where trauma-informed adjustments to practice can be helpful
- trauma-enhanced details the knowledge and skills for workers who have a role in directly providing services for people affected by trauma and who provide specific support, care and interventions
- trauma-specialist details the knowledge and skills for workers who have a role in providing specialist interventions for people affected by trauma who have complex difficulties.

“The key intended outcome of the workforce skills and training is that people affected by trauma feel safe and protected from harm; that they are feeling emotionally safe to make sense of the trauma, and have a future focus on what they want to achieve.”

**Source:** NHS Education for Scotland<sup>108</sup>



Given the examples and descriptions detailed above, research highlights the need for staff to be supported as they deliver a service that is trauma-informed. In the absence of this, service providers risk staff emotional exhaustion and re-traumatising both the people using the service and traumatising the staff delivering the service<sup>133</sup>. The use of peer support and supervision have both been found to reduce burnout and secondary traumatisation of staff, along with a supportive workplace<sup>134, 135</sup>.

Other research has shown that staff feel supported and experience less stress if they have adequate resources<sup>136</sup>, and opportunities to manage their own stress including being taught time management skills<sup>137</sup>, given cognitive behavioural techniques for distressing thoughts<sup>138</sup> and relaxation or meditation to reduce stress<sup>139</sup>.

The Education Scotland Paper ‘Nurture, Adverse Childhood Experiences and Trauma informed practice’, explores the joins between nurture, adverse childhood experiences, trauma and Getting It Right For Every Child (GIRFEC) approaches<sup>119</sup>. The approach is being developed by schools across the Highland and Argyll & Bute Council areas.

The difference that trauma-informed approaches can make are captured in an overview of trauma-informed/nurturing schools shown below.

**“Teachers are key figures in a child’s life and can provide very important relationships for children and young people. Positive relationships, such as those between a teacher-pupil can help repair some of the impaired ways of thinking, (such as the expectations and beliefs that a person develops about themselves, others and the relationships they have).”**

Source: Schore A<sup>140</sup>

## What do trauma-informed/nurturing schools look like?

Keyes<sup>141</sup> suggests that healing and growth can be simultaneous processes. With the right awareness and support in place, schools can make a powerful difference to the lives of students affected by adversity and trauma.

An overview of trauma-informed and nurturing schools from the Improving Life Chances Group of the Youth Justice Improvement Board suggest the following common themes:

- Building relationships with children and young people, recognising that this takes time and that there will be changes with age and stage of development
- looking beyond the child’s behaviour to their needs, seeking to understand the distress often experienced by our children on a daily basis
- practitioners adopting a holistic approach when working with children, young people and their families, one which recognises the central importance of relationships and a child-centred, trauma-informed, rights-based approach
- focusing on developing solutions and resilience, building on strengths and being prepared to pre-empt and address potential difficulties
- taking a whole-family approach, with all those involved feeling valued and receiving appropriate individual, as well as joint, support. The support can be as broad as the issues being experienced by the family, such as combinations of: individual and group parenting support; information-giving; practical and emotional support; crisis support; and helping families to feel able to ask for help without judgement
- recognising that some children and young people find it very difficult to engage with traditional school provision and ways of working, and so providing a flexible and supportive learning environment within which options are tailored to the individual young person and their needs
- empowering children and young people and enabling them to develop agency: showing rather than telling; role modelling rather than ‘doing for’; with children and young people as active participants, while also providing advocacy for child and family when required
- supporting teaching staff to understand the needs of young people they are working with, provide emotional support and be the type of teacher young people tell us is important to them.

Source: Youth Justice Improvement Board<sup>142</sup>

Schools are looking to develop partnerships with parents to raise awareness of adverse childhood experiences as detailed in the example below.

## Supporting Resilience: The journey towards awareness of adverse childhood experiences in Mid Argyll

Over the Academic year 2017-18, schools, early years settings and the central education team in Mid-Argyll have worked together to raise awareness around the impact of adverse childhood experiences amongst practitioners, parents and carers by arranging screenings of the 'Resilience' documentary.

The film had been shown at the Argyll and Bute Early Years Conference in early November 2017 and the Joint Head Teacher meeting in late November. Several Head Teachers and Early Years Leads then organised screenings in their own settings; The Central Education Team had purchased a license for screenings of the film and this made it possible for the screenings to be free of charge. A decision was then made by the Mid-Argyll cluster Head Teachers to arrange screenings of the film in different locations in Mid Argyll for parents, carers and other partners.

Audience numbers were extremely encouraging and the discussions that followed showed that there is a clear interest in exploring local approaches to raising awareness further and developing interventions to support those who have experienced adversity in childhood.

**Source:** Lena Carter, Head of Teaching and Learning (Secondary), Lochgilphead

### Find out more

Lenabellina -Musings and ramblings about life, education and wellbeing.  
<https://lenabellina.wordpress.com/2017/10/29/on-a-saturday-youre-mad/>

Glow Scotland - Burnside Primary School  
<https://blogs.glowscotland.org.uk/an/burnsideprimaryschool/>

Tacking the Attainment Gap by Preventing and Responding to Adverse Childhood Experiences  
[www.healthscotland.scot/publications/tackling-the-attainment-gap-by-preventing-and-responding-to-adverse-childhood-experiences](http://www.healthscotland.scot/publications/tackling-the-attainment-gap-by-preventing-and-responding-to-adverse-childhood-experiences)

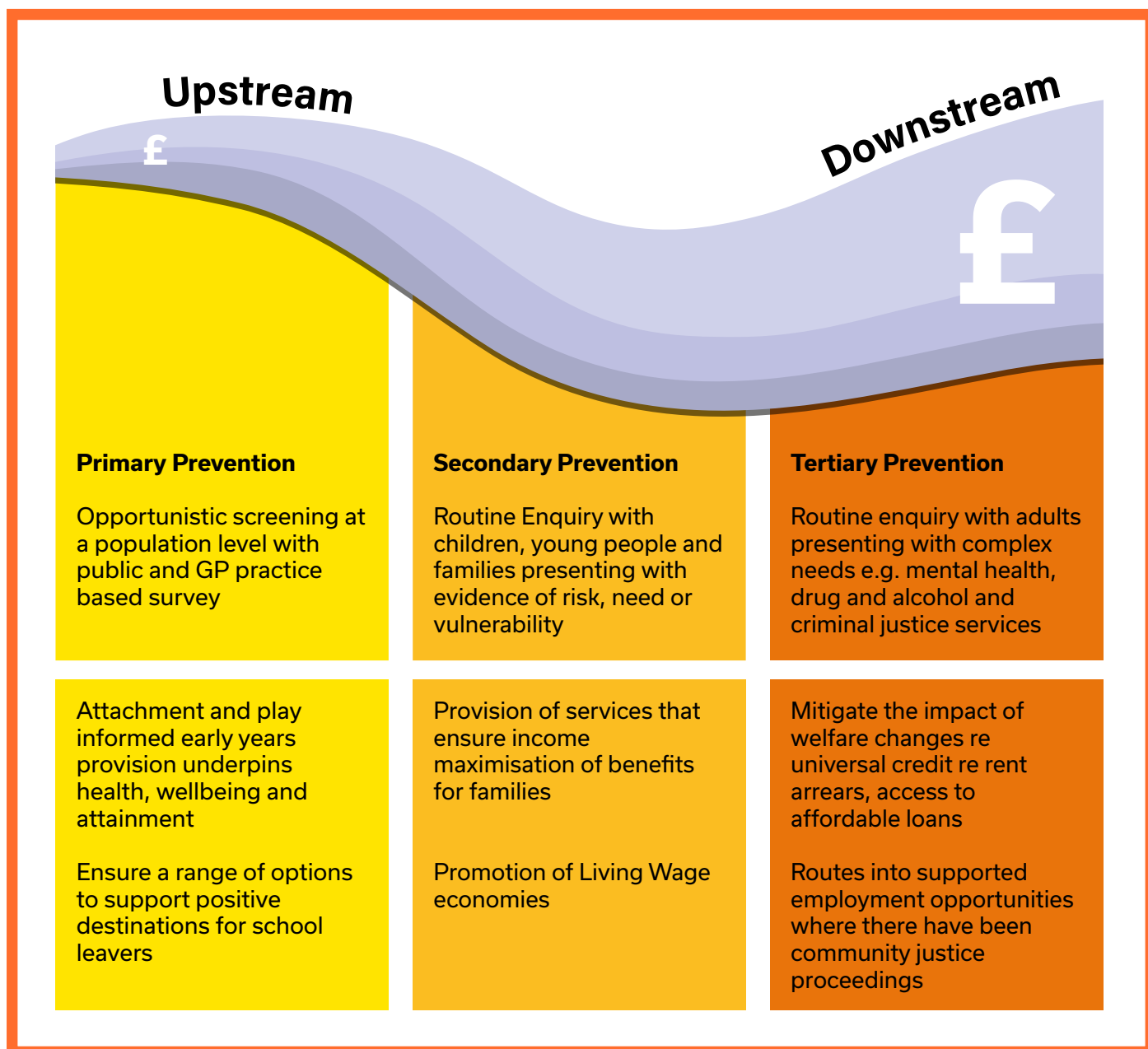
Education Scotland. Nurture, Adverse Childhood Experiences and Trauma informed practice  
<https://education.gov.scot/improvement/Documents/inc83-making-the-links-nurture-ACES-and-trauma.pdf>

Youth Justice Improvement Board. Educational exclusion and inclusion - Common themes from the Improving Life Chances Group  
<https://education.gov.scot/improvement/documents/inc56-education-exclusion-and-inclusion.pdf>

## Routine enquiry for adverse childhood experiences

Earlier chapters in this report have detailed the nature and extent of adversity in the lives of babies, children, young people, families and communities. The impact of adversity and trauma across the life course, with related consideration of the individual and societal cost, prompts a response for both individual and societal benefit. The challenge lies in how best to capture and use information about adversity and trauma in ways that are ethical, proportionate and that do no harm.

A public health perspective to understanding preventative approaches to adversity across the population is shown in Figure 5.3.



**Figure 5.3:** Stages of prevention for adverse childhood experiences

Primary prevention of adversity to reduce the likelihood of it becoming traumatic is currently informed by population surveys based upon the original study by Felitti et al.<sup>2</sup> There has been much debate in Scotland over the use, merits and ethics of scoring adverse childhood experiences for individuals. The Adverse Childhood Experiences study questionnaire<sup>2</sup> is best suited to researcher supported epidemiological studies. It is not primarily designed for routine use in classrooms or clinics.

There are legitimate concerns over asking children directly about their experience of adversity, and the impact this might have on them. This may leave them vulnerable to home situations where disclosure of harm might result in adult distress being directed towards them. There are expressed concerns from teachers over what, when and how to explore with a student what might be causing them concern outside school. Furthermore, teachers are becoming more aware of the challenges faced by their students. Trauma-informed approaches have a role in supporting teachers and reduce the risk of them becoming overwhelmed and experiencing vicarious/secondary trauma.

There has been some early work in England to explore the acceptability of screening people attending GP surgeries<sup>143</sup>. NHS Health Scotland and National Education Scotland are also exploring a Scottish pilot study with GPs in Edinburgh and Glasgow. Screening is a particular approach used in healthcare where individuals who are not presenting with a known health problem are invited to participate in a test, for instance the adverse childhood experience questionnaire, to see if they are at risk of poor health outcomes. Key to the development of screening programmes are consideration of ethics, risk, assurance of positive outcomes from intervening, outcomes from interventions that bring sufficient benefit after having identified a problem, and an underlying premise to 'do no harm'.

There are an increasing range of services across the UK that have recognised the importance of asking people about their experiences, so that a more trusting and honest relationship can be built, allowing people to access the help they need to begin to recover<sup>144</sup>.

## Getting It Right for Every Child

Getting It Right for Every Child (GIRFEC) is the national approach in Scotland to improve outcomes and support the wellbeing of our children and young people by offering the right help at the right time from the right people. It supports children and their parent(s) to work in partnership with the services that can help them.

The eight wellbeing indicators identify the key areas where attention might be focused for a baby, child, young person as safe, healthy, active, nurtured, achieving, respected, responsible and included.

The GIRFEC practice model and the wellbeing indicators present opportunities to explore adversity in a child/young person's life with the adults and practitioners in their lives. With thought and care, it can be an empowering framework to work within a strength based approach with babies, children, young people and their families to collate and understand the influence and impact of adversity in a child or young person's life and their presenting difficulties.

Opportunities for secondary prevention occur before the impact of adversity becomes long standing. These chances exist when we explore adversity in the lives of babies, children and young people who are looking for support and services with evidence of some kind of risk, need, or vulnerability. Routine enquiry methods detailed below present opportunities to explore adversity and its influence on day-to-day life, and consider how its impact can be reduced to limit harm and lay a base for recovery.

To date, routine enquiry has focused primarily on adult service users. There is some exploration of its use with adolescents and younger children, where there has been appropriate support for practice with consideration of confidentiality, safeguarding and parental involvement but this has not yet been published<sup>145</sup>.

Routine enquiry is fundamentally about inviting someone seeking help to disclose their experience of adverse childhood experiences in order to enhance a shared understanding of a person's difficulties or current challenges in the context of their past or current experiences. It has been argued by some authorities that,

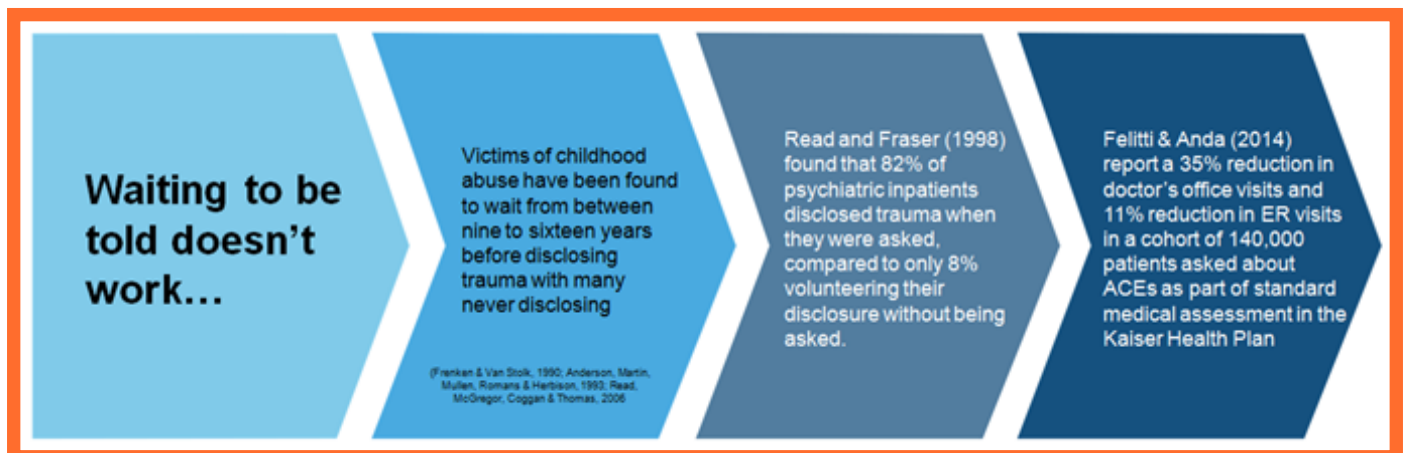
**"Routine enquiry is one component of a trauma-informed care approach and aims to identify and respond to those affected by adversity and trauma."**

Source: Ferguson S, Doherty S<sup>146</sup>

'To not think of their relevance, to not know about, or to not ask about adverse childhood experiences is to miss an opportunity to support and to help'<sup>4</sup>.

As highlighted by Read and Fraser, one cannot rely on clinical intuition or professional judgement to decide when or if to assess adversity and/or trauma<sup>147</sup>. Further research in this area is needed before strong conclusions can be drawn.

Routine enquiry can provide scope for tertiary prevention, where the impact of adversity is visible in the lives of adults, for instance, those accessing mental health, drug and alcohol and or criminal justice services. This presents further opportunities to understand and further reduce the harmful impact of adversity and trauma for individuals, their families and communities. Larkin<sup>148</sup> summarises some evidence that supports the case for routine enquiry in Figure 5.4.



**Figure 5.4:** Exploring the case for routine enquiry into adverse childhood experiences

Source: Larkin W<sup>148</sup>

## The REACH Model

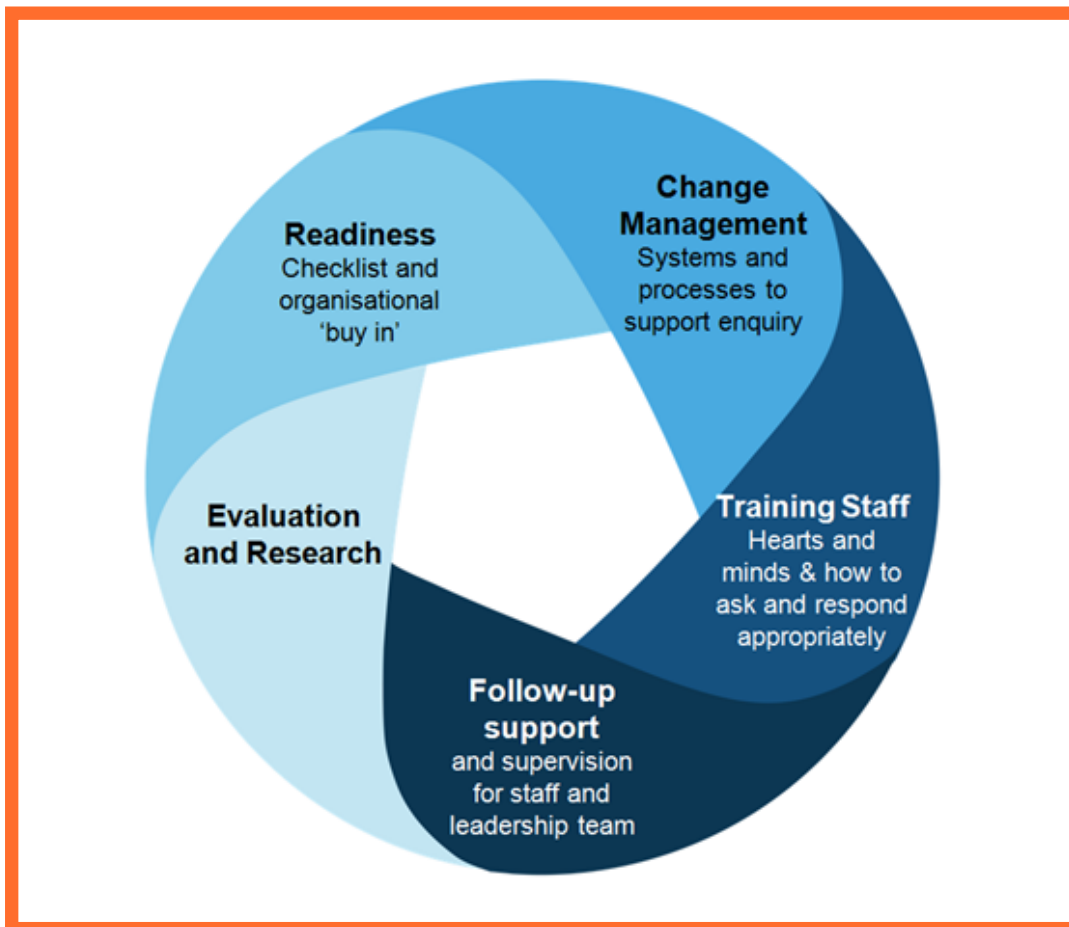
A model comprising five elements known as Routine Enquiry into Adversity in Childhood (REACH) involves adults in key services being routinely asked during an assessment about traumatic/adverse experiences in their childhood. An evaluation of implementing the approach into practice found that for organisations that have implemented this method for a number of years, there was no significant increase in referrals to psychological therapies and instead staff are better able to support those people they are already working with<sup>149</sup>.

The evaluation also found that without this, people do not readily make disclosures and the authors suggest that 'making ACE enquiry routine for all service users means those affected will be more likely to disclose and are then more likely to receive the most appropriate care and treatment to move forward on the road to recovery.'

A study of REACH in primary care found that adult general practice patients with adverse childhood experiences had a higher prevalence of both physical and mental health problems. The study concluded that this highlights a clear need to respond to wider determinants and examine a more trauma-informed approach in this setting.<sup>142</sup>



The Public Health Institute at Liverpool John Moores University also reports that consideration of the support and training needs of services (and their staff) in implementing REACH is crucial to its success<sup>150</sup>. An overview of the REACH Model implementation process is provided in Figure 5.5.



**Figure 5.5:** The Routine Enquiry into Adversity in Childhood (REACH) Model  
Source: Larkin W<sup>148</sup>

### Find out more

REACH Model video web-link

[www.warrenlarkinassociates.co.uk/resources/videos/](http://www.warrenlarkinassociates.co.uk/resources/videos/)

Warren Larkin Associates REACH Evidence Summary

[www.warrenlarkinassociates.co.uk/resources/reach-evaluation-papers-and-conference-presentations/reach-evidence-summary/](http://www.warrenlarkinassociates.co.uk/resources/reach-evaluation-papers-and-conference-presentations/reach-evidence-summary/)

# Chapter Six - Future directions



This report details a compelling case for better understanding and responding to adversity in childhood to reduce the long shadow of adversity that can stretch throughout lives and across generations.

The influence and reach needed is ambitious and wide ranging. It requires a whole system shift in awareness and practice from statutory services: health, education, social care, police and justice system to the voluntary/third sector providers as well as with children, young people, families and communities.

Community Planning mechanisms in Argyll and Bute and Highland are well placed to lead on this with opportunities for the Highland Health and Social Care Partnership and the Argyll and Bute Health and Social Care Partnership to take a lead on trauma-informed and trauma-responsive health and social care services.

## Community Planning

Community planning brings together five statutory bodies – health, local government, fire services, police, and enterprise agencies such as the Highlands and Islands Enterprise. The Scottish Government state that, “Community Planning is about how public bodies work together, and with local communities, to design and deliver better services that make a real difference to people’s lives”

**Source:** Scottish Government<sup>151</sup>

This change should support a grounded awareness that adversity might shape us, but need not define us. We can ‘reduce the dose’ of toxic stress in the lives of people of all ages including children and young people, and provide context for adults and older people to understand their experiences of adversity and trauma, and how this has impacted and influenced their lives.

Such shifts focus on the strengths of individuals and communities with experience of adversity, rather than their vulnerability. These approaches bring hope, foster resilience, and develop and embed the principles of trauma-informed and trauma-responsive approaches across services and practice.

In the development of this report it became clear that the real power to offset and address the long reaching influence of adverse childhood experiences, by reducing adversity, supporting resilience and the development of trauma-informed and responsive approaches, lies within the lives of babies, children, young people, parents, families and communities.

Lanyard et al.<sup>152</sup> report that the most powerful predictor of adult life satisfaction is the child’s emotional life followed by a child’s conduct. For adults, family income accounts for 0.5% of the variance of life satisfaction. The research concludes that physical and mental health are the most important factors underpinning life satisfaction into adulthood. As this report details, mediating the effects of adversity has a key role to play in the day-to-day for individuals and communities and in ensuring health and happiness across generations, while reducing the associated costs of adversity on health, education, social care and police/justice systems.

With an understanding of the importance of resilience there are many opportunities to create a sense of safety at an individual level, and in our services, to free individuals, families and communities up to build on their strengths and assets. With a move from ‘What’s wrong with you?’ to ‘What happened to you?’ and a shift to trauma-informed and trauma-responsive cultures and practice, opportunities are created to secure better outcomes for individuals and communities with savings to be achieved for the public and private sector.

The following upstream/downstream graphic details the next steps that might flow from the information detailed in this report. The Public Health Directorate are keen to advise and work with key stakeholders to effect change and to address the burden and costs of adversity, 'hidden in plain sight' for the babies, children, young people, families, adults, elders and communities across NHS Highland.

### **1. Primary Prevention/intervention**

- 1.1. Build awareness amongst Community Planning partners of the influence of environmental and structural influences (poverty, housing, employment, crime) that compound the effects of adversity in childhood and adolescence
- 1.2. Develop a community of interest among children, young people, families and communities by:
  - Working to develop approaches to understanding adversity and supporting resilience, for example, through matching the UNCRC with adverse childhood experiences
  - Working with early years, school and youth based services to raise awareness of the impact of adversity in the lives of the babies, children, young people and families they work with
- 1.3. Develop communities of interest to support grass roots awareness of adversity across Highland and Argyll and Bute by:
  - Hosting of adverse childhood experiences awareness raising/screening of Resilience and follow up discussion panels with community involvement
  - Engaging with local Community Planning Partnerships in the Highland and Argyll and Bute Partnerships
  - Building on our work to develop and grow compassionate communities which are tolerant, supportive and understanding

### **2. Secondary Prevention/intervention**

- 2.1. Support work with Community Planning partners to respond to the associated effects, impacts and costs across the life course in different services and settings by:
  - System, service and team awareness raising
  - Development and implementation of trauma-informed/responsive policy and practice
  - Assessment of skills and training needs across systems, services and teams
- 2.2. Create and support trauma-informed practitioner communities across Highland and Argyll and Bute. This will involve:
  - Developing a shared ethos and language around adversity and how trauma-informed approaches can support resilience with individuals of all ages, families and communities
  - Ensuring that services are supported to develop skills, confidence and competences in asking about adversity in the lives of families and adults through the use of routine enquiry approaches as detailed in this report
  - Developing a strengths based understanding of how to respond to trauma with services that can engage and work with children, young people, families and communities

### **3. Tertiary Prevention/intervention**

- 3.1. Develop a community of interest and trauma-informed vision and values across Public Protection Committees in Argyll and Bute and Highland including:
  - Child Protection
  - Adult Care and Protection
  - Alcohol and Drugs Partnership
  - Violence Against Women Partnership
  - Community Justice Partnership

Upstream

Downstream

## **Appendix: Raising awareness and the understanding of the impact and influence of adverse childhood experiences**

Through the year of writing this report and through awareness raising events, ‘buy in’ from senior leaders and front line practitioners has involved engagement from Chief Executives, Directors and Members of the Scottish Parliament, along with organisations leading change across Scotland. The Glasgow-based Violence Reduction Unit, NHS Education Scotland and NHS Health Scotland, Connected Baby, Reattach Parent and Children First, all contributed to the discussion and influenced the development of this report.

At a local level, we have built relationships and worked with the Argyll and Bute and Highland Health and Social Care Partnerships. We have worked with paediatric, child and adolescent mental health and adult services (mental health, drug and alcohol service), our integrated children and young people planning partners in health, education, social care, child protection, police, the Reporter and the third sector, as well as youth and community learning and development.

The primary route to start the discussion has been through screenings of the film ‘Resilience, the Biology of Stress and the Science of Hope’. This documentary details the origins of the original Kaiser Permanente study on adverse childhood experiences; how pioneers in the United States are seeking to raise awareness and shift practice while exploring and prompting new approaches to prevention work and interventions. The first Highland screening was held in Inverness in June 2017.

Work with teams has also involved the Wales animation of adverse childhood experiences, the NHS Health Scotland animation on adverse childhood experiences and more recently, the NHS Education animation on trauma informed approaches.

Engagement with front line services has included:

- maternity services
- early years providers
- health visitors
- school nurses; teachers
- youth and community workers
- Specialist Child and Adolescent Mental Health workers in Out Patient and Primary Mental Health Worker teams
- Allied Health Professionals
- Teachers
- Educational Psychologists
- Social Workers
- Primary Care teams
- Family Teams
- Addiction Teams
- Police
- Women’s Aid services

The range of 'Resilience' film screening related activity is summarised below and in Figure 7.1.

- The Highland Child Protection Committee has supported a series of training sessions across the Highland Partnership.
- Colleagues in Care and Learning, Highland Council have engaged with over 500 staff in screenings of Resilience with developmental sessions looking at how the science of adversity influences the way we deliver Highland Practice Model. These have been held in:
  - Inverness
  - Kingussie
  - Grantown
  - Culloden
  - Dingwall
  - Golspie
  - Tain
  - Wick
  - Thurso
  - Portree
  - Fort William
  - Ullapool
  - Gairloch
  - and Fortrose.

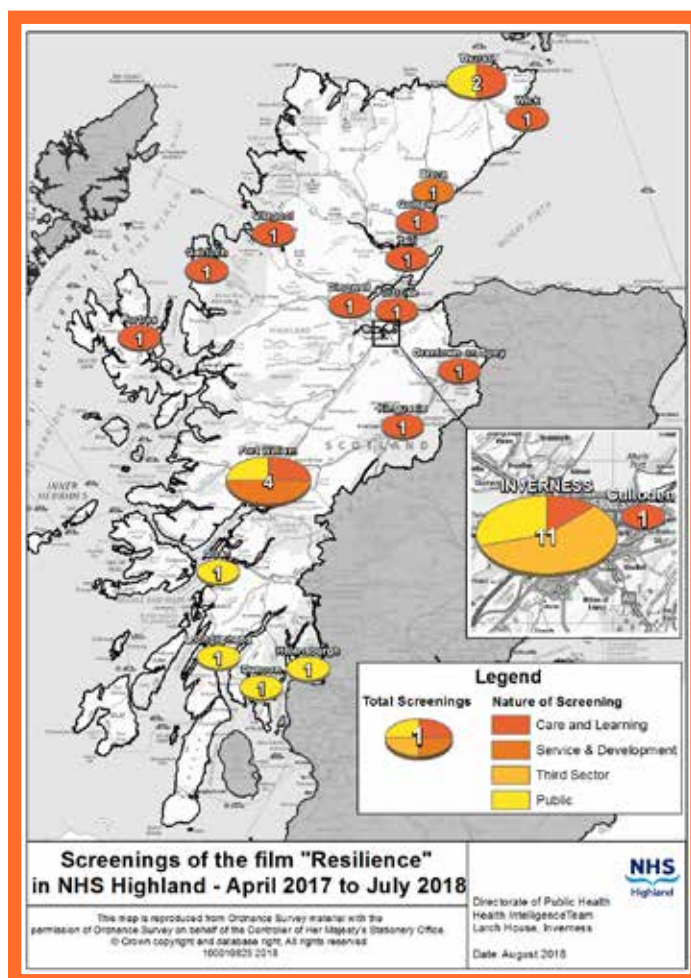


Figure 7.1: Screenings of "Resilience" in NHS Highland

- Education colleagues in Argyll and Bute have run school/parent screenings in Lochgilphead.
- Team based screenings of Resilience in the Highland Partnership have been run with Child and Adolescent Mental Health Services, Allied Health Professionals, Youth Action Teams, Nurseries and Community Paediatrics.
- Community of practice based screenings with support from Connected Baby, ReAttach Parent and 70:30 Ambassadors have been hosted in Inverness, Thurso, Fort William, Dunoon, Helensburgh and Oban.
- Wider screenings have been supported through the Highland Third Sector Interface, Children First and the Care and Learning Alliance and Who Cares Scotland.
- Developmental sessions have been run with High Life Highland and Youth Highland in Inverness, Brora and Fort William. These informed the wordle summaries in Figures 7.2 and 7.3 as to what participants understood by adversity and resilience.
- Highland Third Sector Interface (HTSI) and Community Justice Partnership with MSP Gail Ross hosted with the Violence Reduction Unit.

Outputs from some of the sessions are captured in the Wordles in Figure 7.2: 'What do we understand by adverse childhood experiences?' and 7.3 'What do we understand resilience to involve?'



Figure 7.2: Adverse childhood experience wordle

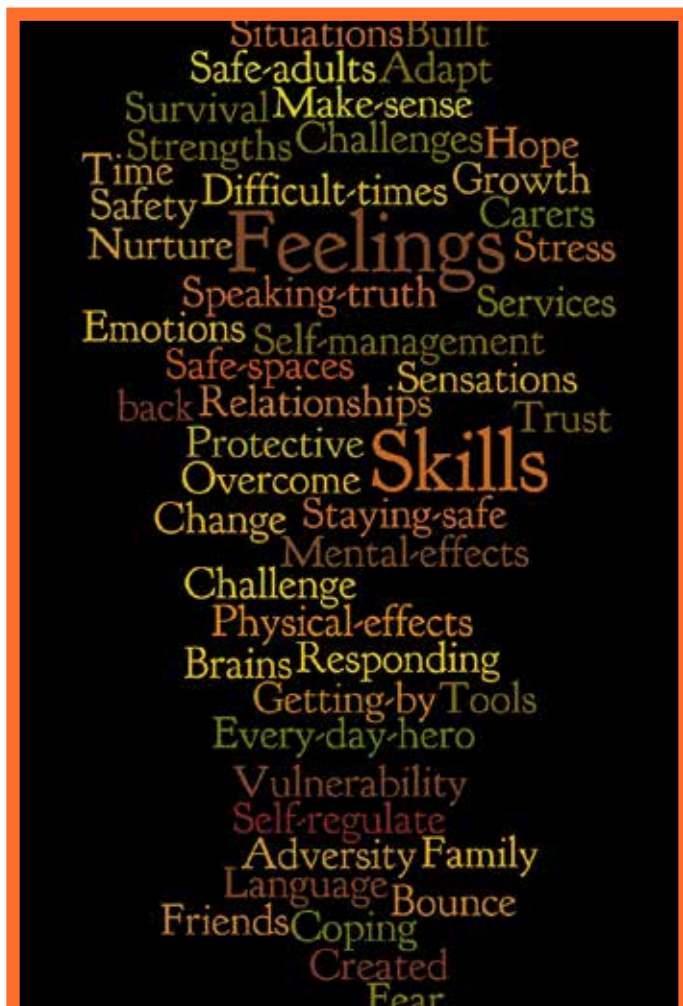


Figure 7.3: Resilience wordle

Highland have been pleased to be part of the growing movement to create an 'ACE-Aware Nation'.

## Foreword

- 1 Perry B, Szalavitz M. The boy who was raised as a dog: and other stories from a child psychiatrist's notebook : what traumatized children can teach us about loss, love, and healing. New York: Basic Books; 2006.

## Chapter One

- 2 Felitti V et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *Am J Prev Med* 1998; 14:245–258. Available from: [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
- 3 Kelly-Irving M, Lepage B, Dedieu D et al. Adverse childhood experiences and premature all-cause mortality. *Eur J Epidemiol* 2013; 28:721-734. Available from: <https://doi.org/10.1007/s10654-013-9832-9>
- 4 International Initiative for Mental Health Leadership. Healthy Families: From ACEs to Trauma Informed Care to Resilience and Wellbeing: examples of policies and activities across IIMHL & IIDL countries. December 2016
- 5 Smith M. Capability and adversity: reframing the “causes of the causes” for mental health. *Nature* 2018; 4:13. Available from: <http://dx.doi.org/10.1057/s41599-018-0066-z>
- 6 NHS Health Scotland. Briefing on Adverse Childhood Experiences. Available from: <http://www.healthscotland.scot/population-groups/children/adverse-childhood-experiences> [Accessed 9th May 2018]
- 7 Hughes K et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *Lancet Public Health* 2017; 2: e356–66. Available from: [http://dx.doi.org/10.1016/S2468-2667\(17\)30118-4](http://dx.doi.org/10.1016/S2468-2667(17)30118-4)
- 8 WAVE Trust. The 70:30 Campaign Infographics. Available from: <http://www.70-30.org.uk/infographics/> [Accessed 17 August 2018]
- 9 Anda R et al. The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. *Eur Arch Psychiatry Clin Neurosci* 2006; 256:174–86. Available from: <https://dx.doi.org/10.1007%2Fs00406-005-0624-4>
- 10 Bellis M et al. National household survey of adverse childhood experiences and their relationship with resilience to health-harming behaviors in England. *BMC Medicine* 2014; 12:72. Available from: <https://doi.org/10.1186/1741-7015-12-72>
- 11 Public Health Wales. Adverse Childhood Experiences and their impact on health-harming behaviours in the Welsh adult population. Public Health Wales NHS Trust; 2015. Available from: [http://www2.nphs.wales.nhs.uk:8080/PRIDDocs.nsf/7c21215d6d0c613e80256f490030c05a/d488a3852491bc1d80257f370038919e/\\$FILE/ACE%20Report%20FINAL%20\(E\).pdf](http://www2.nphs.wales.nhs.uk:8080/PRIDDocs.nsf/7c21215d6d0c613e80256f490030c05a/d488a3852491bc1d80257f370038919e/$FILE/ACE%20Report%20FINAL%20(E).pdf) [Accessed 4th June 2018]
- 12 Newbury J et al. Measuring childhood maltreatment to predict early-adult psychopathology: Comparison of prospective informant-reports and retrospective self-reports. *Journal of psychiatric research*. 2018;96:57-64. Available from: <https://doi.org/10.1016/j.jpsychires.2017.09.020>
- 13 UCL Institute of Health Equity. The impact of adverse experiences in the home on the health of children and young people, and inequalities in prevalence and effects. 2015. Available from: <http://www.instituteofhealthequity.org/resources-reports/the-impact-of-adverse-experiences-in-the-home-on-children-and-young-people/impact-of-adverse-experiences-in-the-home.pdf> [Accessed 13th April 2018]
- 14 Ellis W, Dietz W. A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience Model. *Academic Pediatrics* 2017;17:7(S),S86-S93. Available from: <https://doi.org/10.1016/j.acap.2016.12.011>
- 15 Scottish Government. Tackling Inequalities in the Early Years: Key messages from 10 years of the Growing Up in Scotland study. The Scottish Government: Edinburgh; 2015. Available from: <http://www.gov.scot/Resource/0048/00486755.pdf> [Accessed 4th June 2018]
- 16 HMRC. Children in low income families by local authority. Available from: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/556007/3\\_-\\_2014\\_Local\\_Authorities.xlsx](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/556007/3_-_2014_Local_Authorities.xlsx) [Accessed 4th June 2018]



- 17 Scottish Government. Children in families with limited resources across Scotland 2014-2016. The Scottish Government: Edinburgh; 2017. Available from: <http://www.gov.scot/Publications/2017/11/9758> [Accessed 4th June 2018]
- 18 Scottish Government. The Tackling Child Poverty Delivery Plan 2018-22. The Scottish Government: Edinburgh; 2018. Available from: <https://beta.gov.scot/publications/child-chance-tackling-child-poverty-delivery-plan-2018-22/> [Accessed 8th June 2018]
- 19 Scottish Government. Children's Social Work Statistics 2016-17. Available from: <https://www.gov.scot/Publications/2018/03/6242/downloads> [Accessed 8th June 2018]
- 20 Turney K, Wildeman C. Adverse childhood experiences among children placed in and adopted from foster care: Evidence from a nationally representative survey. *Child Abuse & Neglect* 2017; 64: 117–129. Available from: <https://doi.org/10.1016/j.chiabu.2016.12.009>
- 21 Scottish Children's Reporter Administration. Online Statistics Local Authority Breakdown 2016/17. Available from: <https://www.scra.gov.uk/wp-content/uploads/2017/07/SCRA-Statistics-2016-17-LA-Breakdown.pdf> [Accessed 18th July 2018]
- 22 Vaswani N, Paul S, Papadodimitraki Y. Our Lives with Others: An evaluation of trauma, bereavement and loss developments at HMYOI Polmont. Centre for Youth & Criminal Justice; 2016. Available from: <http://www.cycj.org.uk/wp-content/uploads/2016/11/Our-Lives-with-Others-Evaluation-Report.pdf> [Accessed 18th July 2018]
- 23 Scottish Government. Young carers: Review of research and data. The Scottish Government: Edinburgh; 2017. Available from: <http://www.gov.scot/Publications/2017/03/2478> [Accessed 11th June 2018]
- 24 Bradshaw P et al. The Experiences of Mothers Aged Under 20: Analysis of Data From the Growing up in Scotland Study. Scottish Government: Edinburgh; 2014. Available from: <http://www.gov.scot/Resource/0044/00444511.pdf> [Accessed 23 July 2018]
- 25 Marryat L, Frank J. The Prevalence of Adverse Childhood Experiences in the General Population of Scottish Children in the first 8 years of life [presentation]. 2017. Available from: <http://www.scphrp.ac.uk/the-prevalence-of-adverse-childhood-experiences-in-the-general-population-of-scottish-children-in-the-first-8-years-of-life/> [Accessed 12th April 2018]
- 26 Madigan et al. Maternal Adverse Childhood Experience and Infant Health: Biomedical and Psychosocial Rks as Intermediary Mechanisms. *J Pediatr* 2017;187:282-9. Available from: <https://dx.doi.org/10.1016/j.jpeds.2017.04.052>
- 27 Gray S et al. Thinking Across Generations: Unique Contributions of Maternal Early Life and Prenatal Stress to Infant Physiology. *J Am Acad Child Adolesc Psychiatry* 2017;56(11):922–929. Available from: <http://dx.doi.org/10.1016/j.jaac.2017.09.001>
- 28 National Scientific Council on the Developing Child. Early Experiences Can Alter Gene Expression and Affect Long-Term Development: Working Paper No. 10. 2010. Available from: <https://developingchild.harvard.edu/resources/early-experiences-can-alter-gene-expression-and-affect-long-term-development/>
- 29 Epigenetics: The Evolution Revolution. Israel Rosenfield and Edward Ziff. The New York Review of Books, June 2018.
- 30 Lumey L, Stein A, Kahn H, van der Pal-de Bruin K, Blauw G, Zybert P, Susser E. Cohort Profile: The Dutch Hunger Winter Families Study, *Int J Epidemiol* 2007;36(6):1196–1204. Available from: <https://doi.org/10.1093/ije/dym126>
- 31 Susser E, Hoek H, Brown A. Neurodevelopmental Disorders after Prenatal Famine: The Story of the Dutch Famine Study. *Am J Epidemiol* 1998;147(3):213-6
- 32 Roseboom T, Painter R, van Abeelen A, Veenendaal M, de Rooij S. Hungry in the womb: what are the consequences? Lessons from the Dutch famine. *Maturitas* 2011 Oct;70(2):141-5. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0378512211002337>
- 33 Noble R. The Cultural Impact of the Highland Clearances. Available from: [http://www.bbc.co.uk/history/british/civil\\_war\\_revolution/scotland\\_clearances\\_01.shtml](http://www.bbc.co.uk/history/british/civil_war_revolution/scotland_clearances_01.shtml) [Accessed 17th August 2018]
- 34 Craig C. Hiding in plain sight: Exploring Scotland's ill health. *Sceptical Scot*. 29th November 2017. Available from: <http://sceptical.scot/2017/11/hiding-plain-sight-exploring-scotlands-ill-health/> [Accessed 6th September 2018]

## Chapter Two

- 35 NHS Highland. Conference reviews “Decider” skills in Highland. Available from: <http://www.nhshighland.scot.nhs.uk/News/Pages/ConferencereviewsDeciderskillsinHighland.aspx> [Accessed 10th September 2018]
- 36 The Decider Limited. The Decider. Available from: <https://www.thedecider.org.uk/index.html> [Accessed 10th September 2018]
- 37 National Records of Scotland. Mid-2016 population estimates Scotland. 2017. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2016>
- 38 Bethell C, Newacheck P, Hawes E, Halfon N. Adverse childhood experiences: assessing the impact on health and school engagement and the mitigating role of resilience. *Health Aff (Millwood)*. 2014; 33(12):2106-15. Available from: <https://dx.doi.org/10.1377/hlthaff.2014.0914>
- 39 Bellis M et al. Adverse childhood experiences and sources of childhood resilience: a retrospective study of their combined relationships with child health and educational attendance. *BMC Public Health* 2018;18:792. Available from: <https://doi.org/10.1186/s12889-018-5699-8>
- 40 MacMillan H et al. Interventions to prevent child maltreatment and associated impairment. *The Lancet* 2009; 373: 9659, pp. 250 – 266. Available from: [http://dx.doi.org/10.1016/S0140-6736\(08\)61708-0](http://dx.doi.org/10.1016/S0140-6736(08)61708-0)
- 41 Hughes K, Ford K, Davies A, Homolova L, Bellis M. Sources of resilience and their moderating relationships with harms from adverse childhood experiences. Report 1: Mental illness. Public Health Wales NHS Trust; 2018. Available from: [http://www.wales.nhs.uk/sitesplus/documents/888/ACE%20&%20Resilience%20Report%20\(Eng\\_final2\).pdf](http://www.wales.nhs.uk/sitesplus/documents/888/ACE%20&%20Resilience%20Report%20(Eng_final2).pdf) [Accessed 13/04/2018]
- 42 Cleare S et al. Adverse Childhood Experiences and Hospital-Treated Self-Harm. *Int. J. Environ. Res. Public Health* 2018;15(6):1235. Available from: <https://dx.doi.org/10.3390/ijerph15061235>
- 43 Information Services Division (ISD) Scotland. Teenage Pregnancy. 2018. Available from: <https://www.isdscotland.org/Health-Topics/Sexual-Health/Publications/2018-07-03/2018-07-03-TeenPreg-Report.pdf> [Accessed 17th August 2018]
- 44 Information Services Division (ISD) Scotland. Estimating the National and Local Prevalence of Problem Drug Use in Scotland 2012/13. 2014. Available from: <https://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Publications/2014-10-28/2014-10-28-Drug-Prevalence-Report.pdf> [Accessed 17th August 2018]
- 45 National Records of Scotland. Alcohol deaths. 2018. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/alcohol-deaths> [Accessed 17th August 2018]
- 46 National Records of Scotland. Drug-related deaths in Scotland. 2018. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland> [Accessed 17th August 2018]
- 47 National Records of Scotland. Probable Suicides: Deaths which are the Result of Intentional Self-harm or Events of Undetermined Intent. 2018. Available from: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/alcohol-deaths> [Accessed 17th August 2018]
- 48 Ashton K et al. Adverse Childhood Experiences and their association with chronic disease and health service use in the Welsh adult population. *Public Health Wales NHS Trust*; 2016. Available from: <http://www.wales.nhs.uk/sitesplus/documents/888/ACE%20Chronic%20Disease%20report%20%289%29%20%282%29.pdf> [Accessed 13th April 2018]
- 49 Felitti V, Anda R. The relationship of adverse childhood experiences to adult medical disease, psychiatric disorders and sexual behaviour: implications for healthcare. In Lanius R, Vermetten E, Pain C (eds) *The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic*. Massachusetts : Cambridge University Press; 2009. P. 77-87.
- 50 World Health Organization. INSPIRE. Seven Strategies for Ending Violence Against Children. Switzerland: WHO;2018. Available from: [http://www.who.int/violence\\_injury\\_prevention/violence/inspire/INSPIRE\\_infographic\\_EN.pdf](http://www.who.int/violence_injury_prevention/violence/inspire/INSPIRE_infographic_EN.pdf) [Accessed 4th September 2018]
- 51 Scottish Government. Recorded Crime in Scotland 2016-17. Available from: <http://www.gov.scot/Resource/0052/00525056.xls> [Accessed 11th June 2018]
- 52 Scottish Government. Costs of the Criminal Justice System in Scotland dataset. Available from: <https://www.gov.scot/Topics/Statistics/Browse/Crime-Justice/Publications/costcrimjustscot/costcrimjustdataset> [Accessed 11 June 2018]

- 53 McAra L, McVie S. Youth Crime and Justice: Key Messages from the Edinburgh Study of Youth Transitions and Crime. *Criminology and Criminal Justice*. 2010; 10(2):179-209. Available from: <https://doi.org/10.1177/1748895809360971>
- 54 Gill K. Making The Difference: Breaking the link between school exclusion and social exclusion. London: Institute for Public Policy Research; 2017. Available from: <http://www.ippr.org/publications/making-the-difference> [Accessed 6th September 2018]
- 55 Scottish Government. Exclusions from Schools 2016/17 - Supplementary data. Available from: <https://www.gov.scot/Topics/Statistics/Browse/School-Education/exclusiondatasets/exclusionsdataset2017> [Accessed 17th July 2018]
- 56 Smith M. An 'ACE' look at mental health. Centre for Excellence for Looked After Children in Scotland. Available from: <https://www.celcis.org/news/news-pages/ace-look-mental-health/> [Accessed 6th September 2018]

## Chapter Three

- 57 McGarvey D. Darren 'Loki' McGarvey on poverty, personal responsibility and rap. (Video) 2018. Available from: <https://www.youtube.com/watch?v=9sxENe4cvGU>
- 58 Walsh I. Conception to age 2—the age of opportunity: addendum to the government's vision for the foundation years: Supporting families in the foundation years. 2013. Available from: [http://www.wavetrust.org/sites/default/files/reports/conception-to-age-2-full-report\\_0.pdf](http://www.wavetrust.org/sites/default/files/reports/conception-to-age-2-full-report_0.pdf) [Accessed 4th October 2018]
- 59 National Scientific Council on the Developing Child. Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper No. 3. Updated Edition. 2005/2014. Available from: [http://46y5eh11fhgw3ve3ytpwxt9r.wpengine.netdna-cdn.com/wp-content/uploads/2005/05/Stress\\_Disrupts\\_Architecture\\_Developing\\_Brain-1.pdf](http://46y5eh11fhgw3ve3ytpwxt9r.wpengine.netdna-cdn.com/wp-content/uploads/2005/05/Stress_Disrupts_Architecture_Developing_Brain-1.pdf)
- 60 Shonkoff J, Garner A. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1), e232–246. Available from: <https://doi.org/10.1542/peds.2011-2663>
- 61 Burke Harris N. *The Deepest Well*. London: Bluebird; 2018
- 62 Burke Harris N, Marques S, Oh D, Bucci M, Cloutier M. Prevent, screen, heal: collective action to fight the toxic effects of early life adversity. *Academic paediatrics*. 2017; 17(7), S14-S15. Available from: <https://doi.org/10.1016/j.acap.2016.11.015>
- 63 Arnsten AF. Stress signalling pathways that impair prefrontal cortex structure and function. *Nat Rev Neurosci*. 2009 Jun;10(6):410-22
- 64 McEwen BS, Gianaros PJ. Stress- and Allostasis-Induced Brain Plasticity. *Ann Rev Med*. 2011 Feb; 62: 431-445
- 65 Danese A, McEwen BS. Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology & Behaviour* 2012 Apr; 106 (1)29-39
- 66 Evans GW, Fuller-Rowell TE, Doan SN. Childhood Cumulative Risk and Obesity: The Mediating Role of Self-Regulatory Ability. *Pediatrics*. 2012 Jan;129(1):e68-73
- 67 NHS Health Scotland. Tackling the attainment gap by preventing and responding to Adverse Childhood Experiences(ACEs). Edinburgh: NHS Health Scotland; 2017. Available from: <http://www.healthscotland.scot/media/1517/tackling-the-attainment-gap-by-preventing-and-responding-to-adverse-childhood-experiences.pdf>
- 68 National Scientific Council on the Developing Child. Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper 13. 2015. Available from: <http://46y5eh11fhgw3ve3ytpwxt9r.wpengine.netdna-cdn.com/wp-content/uploads/2015/05/The-Science-of-Resilience1.pdf>
- 69 Couper S, Mackie P. *Polishing the Diamonds: Addressing Adverse Childhood Experiences in Scotland*. Scottish Public Health Network (ScotPHN). 2016. Available from: [https://www.scotphn.net/wp-content/uploads/2016/05/2016\\_05\\_26-ACE-Report-Final.pdf](https://www.scotphn.net/wp-content/uploads/2016/05/2016_05_26-ACE-Report-Final.pdf)
- 70 Fonagy P, Steele P, Steele H, Higgitt A, Target, M. The theory and practice of resilience. *Journal of Child Psychology and Psychiatry*. 1994; 35:231–57
- 71 Glasgow Centre for Population Health. *Resilience for Public Health: supporting transformation in people and communities*. Glasgow: GCPH; 2014
- 72 Windle G. Critical conceptual and measurement issues in the study of resilience. In: Glantz M, Johnston JL (eds.) *Resilience and Development: Positive Life Adaptations*. New York: Kluwer Academic/Plenum Publishers; 1999

- 73 The Resilient Doughnut. What is the Resilience Doughnut? Available from: <https://www.resiliencedoughnutuk.com/about>
- 74 Traub F, Boynton-Jarrett R. Modifiable resilience factors to childhood adversity for clinical pediatric practice. *Pediatrics*. 2017;139(5):e20162569. Available from: <https://doi.org/10.1542/peds.2016-2569>
- 75 Daniel B, Wassell S. Understanding Resilience. Available from: <https://content.iriss.org.uk/understandingresilience/index.html>
- 76 Hölzel B et al. Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Research*. 2011;191(1):36-43. Available from: <https://doi.org/10.1016/j.psychres.2010.08.006>
- 77 Alberta Family Wellness. Resilience: Why do some people bounce back from adversity better than others? Available from: <https://www.albertafamilywellness.org/what-we-know/resilience-scale> [Accessed 6th September 2018]
- 78 Kerr M (ed) *The Golden Mean: Fostering young people's resilience, confidence and well-being*. CCWB Press; 2018
- 79 Selye H. *Stress in health and disease*. London: Butterworth-Heinemann;1976
- 80 Burns H. What causes health? *J R Coll Physicians Edinb* 2014; 44:103–5
- 81 Kamen L, Seligman M. Explanatory style and health. *Current Psychology* 1987; 6(207):207-218. Available from: <https://doi.org/10.1007/BF02686648>
- 82 Burns H. What causes wellness. [Video] 2014. Available from: <https://www.youtube.com/watch?v=yEh3JG74C6s> [Accessed 6th September 2018]
- 83 UNICEF. Fact Sheet: A summary of the rights under the Convention on the Rights of the Child. Available from: [https://www.unicef.org/crc/files/Rights\\_overview.pdf](https://www.unicef.org/crc/files/Rights_overview.pdf) [Accessed 12th September 2018]
- 84 Frydman J, Mayor C. Trauma and Early Adolescent Development: Case Examples from a Trauma-Informed Public Health Middle School Program. *Children & Schools*. 2017 Oct 1;39(4):238-47.
- 85 Cairns B, Kinnear L. *My World of Wellbeing: Pilot Evaluation*. Internal Highland Council report, 2018. Unpublished.
- 86 Porter L, Martin K, Anda R. *Self-Healing Communities: A Transformational Process Model for Improving Intergenerational Health*. Robert Wood Johnson Foundation; 2016. Available at: <https://www.rwjf.org/content/dam/farm/reports/reports/2016/rwjf430225>
- 87 Crowther J, Wilson K, Horton S, Lloyd-Williams M. Compassion in healthcare—lessons from a qualitative study of the end of life care of people with dementia. *Journal of the Royal Society of Medicine*, 2013; 106(12):492-497.
- 88 Horsfall D, Noonan K, Leonard R. Bringing our dying home: How caring for someone at end of life builds social capital and develops compassionate communities. *Health Sociology Review*. 2012; 21(4): 373-382.

## Chapter Four

- 89 Ferraro K, Shippee T. Aging and cumulative inequality: How does inequality get under the skin? *Gerontologist*. 2009;49:333-343
- 90 Nurius P, Green S, Logan-Greene P, Borja S. Life course pathways of adverse childhood experiences toward adult psychological well-being: A stress process analysis. *Child Abuse & Neglect* 2015; 45:143-153
- 91 Center on the Developing Child, *Five Numbers to Remember About Early Childhood Development* (Brief). 2009. Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)
- 92 Barlow J. The importance of the relationship with the unborn baby: why it matters. *Int. Journal of Birth and Parent Education*. 2018 Vol 4(1) p5
- 93 Fonagy P, Steele H, Steele M. Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age. *Child Development* 1991; 62:891–905
- 94 Theran S, Levendosky A, Bogat G, Huth-Bocks A. Stability and change in mothers' internal representations of their infants over time. *Attachment & Human Development* 2005; 7(3):253-268
- 95 Wave Trust. *Conception to age 2– the age of opportunity*. Addendum to the Government's vision for the Foundation Years: 'Supporting Families in the Foundation Years'. Wave Trust with Dept for Education; 2013. Available from: <http://www.wavetrust.org/our-work/publications/reports/conception-age-2-age-opportunity>

- 96 Blair C, Raver CC. Child Development in the Context of Adversity. *Experiential Canalization of Brain and Behavior Am Psychol.* 2012 May-Jun; 67(4): 309–318.
- 97 WaveTrust. 1001 Critical Days: the importance of the conception to Age Two Period. Wave Trust with NSPCC; 2016. Available from <http://www.wavetrust.org/our-work/publications/reports/1001-critical-days-importance-conception-age-two-period>
- 98 Geddes R, Haw S, Frank J. Interventions for promoting early child development for health: an environmental scan with special reference to Scotland. Edinburgh: Scottish Collaboration for Public Health Research and Policy; 2010. Available from: [http://www.scphrp.ac.uk/wp-content/uploads/2014/03/1454-scp\\_earlyyearsreportfinalweb.pdf](http://www.scphrp.ac.uk/wp-content/uploads/2014/03/1454-scp_earlyyearsreportfinalweb.pdf) [Accessed 10th September 2018]
- 99 National Scientific Council on the Developing Child. The Science of Neglect: The Persistent Absence of Responsive Care Disrupts the Developing Brain: Working Paper 12. 2012. Available from: <https://developingchild.harvard.edu/resources/the-science-of-neglect-the-persistent-absence-of-responsive-care-disrupts-the-developing-brain/>
- 100 NHS Health Scotland. Adverse Childhood Experiences (ACEs). Available from: <http://www.healthscotland.scot/population-groups/children/adverse-childhood-experiences>
- 101 Smith L. Adverse Childhood experiences (ACEs): interventions in education. 2018. Available from: <https://www.iriss.org.uk/sites/default/files/2018-04/iriss-esss-outline-adverse-childhood-experiences-2018-4-23.pdf>
- 102 Perfect M, Turley M, Carlson J, Yohanna J, Saint Gilles M. School-Related Outcomes of Traumatic Event Exposure and Traumatic Stress Symptoms in Students: A Systematic Review of Research from 1990 to 2015. *School Mental Health.* 2016;8(1):7-43. Available from, DOI: 10.1007/s12310-016-9175-2
- 103 Sansone R, Leung J, Wiederman M. Five forms of childhood trauma: Relationships with employment in adulthood. *Child Abuse and Neglect,* 2012; 36(9):676-679
- 104 Marzano R, Marzano JS The Key to Classroom Management. *Educational Leadership,*2003; 61:6-13
- 105 DeGregorio L, Mclean S. The cognitive profiles of maltreated children in care and their educational needs: supporting good outcomes. *Children Australia,* 2013; 38(1):28-35
- 106 Perry B. Fear and learning: trauma-related factors in the adult education process. *New Directions for Adult & Continuing Education,* 2006;110:21-27
- 107 Noll J, Horowitz L, Bonanno G, Trickett P, Putnam F. Revictimization and Self-Harm in Females Who Experienced Childhood Sexual Abuse: Results from a Prospective Study. *Journal of Interpersonal Violence,* 2003;18:1452-1471
- 108 NHS Education for Scotland. National Trauma Training Framework. 2018. Available from: <http://www.nes.scot.nhs.uk/education-and-training/by-discipline/psychology/multiprofessional-psychology/national-trauma-training-framework.aspx>
- 109 Peckins M, Susman E, Negriff S, Noll J, Trickett P. Cortisol profiles: a test for adaptive calibration of the stress response system in maltreated and nonmaltreated youth. *Dev Psychopathol,* 2015; 27(4 Pt 2):1461-1470. Available from: <https://doi.org/10.1017/S0954579415000875>
- 110 Scott M. An evaluation of Senior Network Support (Leeds) – SeNS Final Report. 2014. Available from: <https://www.nurturedevelopment.org/wp-content/uploads/2016/01/Leeds-Sens-Evaluation-Report-MACE-9-Dec-2014.pdf>
- 111 Russel C. Sustainable community development: from what's wrong to what's strong. [Video] 2016. Available from: <https://youtu.be/a5xR4QB1ADw>
- 112 Social Marketing Gateway. Building Community: An evaluation of asset based community development (ABCD) in Ayrshire. Final Report to NHS Ayrshire and Arran. Social Marketing Gateway; 2018. Available from: [https://www.nurturedevelopment.org/wp-content/uploads/2018/08/ABCD\\_Final\\_Report\\_May2018.pdf](https://www.nurturedevelopment.org/wp-content/uploads/2018/08/ABCD_Final_Report_May2018.pdf)

## Chapter Five

- 113 How ACEs impact on the attachment system: a residential with Suzanne Zeedyk. <https://childreninscotland.org.uk/how-aces-impact-on-the-attachment-system-a-residential-with-suzanne-zeedyk/>
- 114 Oxford English Dictionary. Available from: <https://en.oxforddictionaries.com/definition/trauma>
- 115 Substance Abuse and Mental Health Services Administration. Concept of Trauma and Guidance for a Trauma Informed Approach. SAMSHA Trauma and Justice Strategic Initiative; U.S. Department of Health and Human Services, Office of Policy, Planning and Innovation; 2014.
- 116 World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines. Geneva: World Health Organization, 1992
- 117 Terr L. Childhood traumas: an outline and overview. *Am J Psychiatry.* 1991 Jan;148(1):10-20. Available from: <https://doi.org/10.1176/ajp.148.1.10>

- 118 Herman J. *Trauma and Recovery: The Aftermath of Violence--From Domestic Abuse to Political Terror*. New York: Basic Books; 2015
- 119 Education Scotland. *Nurture, Adverse childhood Experiences and Trauma informed practice: Making the links between these approaches*. 2018. Available from: <https://education.gov.scot/improvement/Documents/inc83-making-the-links-nurture-ACES-and-trauma.pdf>
- 120 Elliott D et al. Trauma-informed or trauma-denied: principles and implementation of trauma-informed services for women. *Journal of Community Psychology*, 2005; 33(4):461-477
- 121 Gómez J et al. Shifting the focus: Nonpathologizing approaches to healing from betrayal trauma through an emphasis on relational care. *J Trauma Dissociation*. 2016;17(2): 165-185. Available from: <https://doi.org/10.1080/15299732.2016.1103104>
- 122 Treisman K. Trauma-informed and trauma-responsive services: 25 April 2018 [Tweet] Available from: [https://twitter.com/dr\\_treisman/status/989090107167858689](https://twitter.com/dr_treisman/status/989090107167858689)
- 123 Harris M, Fallot R. Envisioning a trauma-informed service system: A vital paradigm shift. *New directions for mental health services*, 2001(89), 3-22.
- 124 Hopper E, Bassuk E, Olivet J. Shelter from the storm: Trauma-informed care in homelessness services settings. *The Open Health Services and Policy Journal*, 2010; 3: 80-100
- 125 Minnis H, Bryce G, Phin L, Wilson P. The “Spirit of New Orleans”: Translating a model of intervention with maltreated children and their families for the Glasgow context. *Clin Child Psychol Psychiatry*. 2010; 15(4):497-509. Available from: <http://dx.doi.org/10.1177/1359104510376124>
- 126 Zeanah C, Larrieu J, Heller S, Valliere J, Hinshaw-Fuselier S, Aoki Y et al. Evaluation of a preventive intervention for maltreated infants and toddlers in foster care. *J Am Acad Child Adolesc Psychiatry* 2001; 40(2), pp. 214-21. Available from: <https://doi.org/10.1097/00004583-200102000-00016>
- 127 Carnochan J, McCluskey K. Violence, culture and policing in Scotland. In: Donnelly D, Scott K (eds) *Policing Scotland* (2nd ed) Agincourt: Routledge, 2011. p. 399-424.
- 128 Figley C, Figley K. Stemming the tide of trauma systemically: The role of family therapy. *Australian and New Zealand Journal of Family Therapy*, 2009; 30(3), 173-183.
- 129 Substance Abuse and Mental Health Services Administration. *Public Health Partnerships for Trauma Transformation*. SAMHSA; 2017. Available from: <https://store.samhsa.gov/shin/content/SMA17-5015/SMA17-5015.pdf>
- 130 Substance Abuse and Mental Health Services Administration. *Trauma-Informed Care in Behavioral Health Services*. Treatment Improvement Protocol (TIP) Series 57. HHS Publication No. (SMA) 13-4801. Rockville, MD: SAMHSA, 2014. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK207192/>
- 131 Torchalla I, Nosen L, Rostam H, Allen P. Integrated treatment programs for individuals with concurrent substance use disorders and trauma experiences: A systematic review and meta-analysis. *Journal of Substance Abuse Treatment*. 2012;42:65–77
- 132 Harned M, Korslund K, Foa E, Linehan M. Treating PTSD in suicidal and self-injuring women with borderline personality disorder: Development and preliminary evaluation of a Dialectical Behavior Therapy Prolonged Exposure Protocol. *Behaviour Research and Therapy*. 2012;50:381–386.
- 133 Bloom SL, Farragher B. *Destroying sanctuary: The crisis in human service delivery systems*. New York: Oxford University Press; 2011.
- 134 Ducharme L, Knudsen H, Roman P. Emotional exhaustion and turnover intention in human service occupations: The protective role of coworker support. *Sociological Spectrum*. 2008;28:81–104.
- 135 Trippany R, Kress V, Wilcoxon S. Preventing vicarious trauma: What counselors should know when working with trauma survivors. *Journal of Counseling & Development*. 2004;82:31–37.
- 136 Garner B, Knight K, Simpson D. Burnout among corrections-based drug treatment staff: Impact of individual and organizational factors. *International Journal of Offender Therapy and Comparative Criminology*. 2007;51:510–522.
- 137 Hawkins F, Klas L. Time management as a stressor for helping professionals: Implications for employment. *Journal of Employment Counseling*. 1997;34:2–6.
- 138 Gardner B, Rose J, Mason O, Tyler P, Cushway D. Cognitive therapy and behavioural coping in the management of work-related stress: An intervention study. *Work & Stress*. 2005;19:137–152.
- 139 Oman D, Hedberg J, Thoresen C. Passage meditation reduces perceived stress in health professionals: A randomized, controlled trial. *Journal of Consulting and Clinical Psychology*. 2006;74:714–719.
- 140 Schore A. *Affect regulation and the repair of the self*. New York: WW Norton and Co; 2003.

- 141 Keyes C. The mental health continuum: From languishing to flourishing in life. *J Health Soc Behav.* 2002;43:2. Available from: [http://www.flume.com.br/pdf/Keyes\\_The\\_mental\\_health.pdf](http://www.flume.com.br/pdf/Keyes_The_mental_health.pdf)
- 142 Youth Justice Improvement Board. Educational exclusion and inclusion - Common themes from the Improving Life Chances Group. 2016. Available from: <https://education.gov.scot/improvement/documents/inc56-education-exclusion-and-inclusion.pdf> [Accessed 7th November 2018]
- 143 Hardcastle K, Bellis M. Routine enquiry for history of adverse childhood experiences (ACEs) in the adult patient population in a general practice setting: A pathfinder study. Wrexham: Public Health Wales NHS Trust; 2018. Available from: [http://www.aces.me.uk/files/2215/3495/0307/REACH\\_Evaluation\\_Report.pdf](http://www.aces.me.uk/files/2215/3495/0307/REACH_Evaluation_Report.pdf) (Accessed 10 October 2018)
- 144 Department of Health. Future in mind. London: DOH; 2015
- 145 Larkin W. Email sent to Sally Amor. 8th October 2018
- 146 Ferguson S, Doherty S. National Trauma Training Framework principles and approach. In: NHS Health Scotland. Recognising and Responding to Adverse Child Experiences and Trauma Workshop - Event Summary. Edinburgh; 2017. Available from: <http://www.healthscotland.scot/publications/recognising-and-responding-to-adverse-child-experiences-and-trauma-workshop-event-summary>
- 147 Read J, Fraser A. Abuse histories of psychiatric inpatients: to ask or not to ask? *Psychiatric Services* 1998; 49(3):355-9. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/9525796> (Accessed 12 June 2018)
- 148 Larkin W. Routine Enquiry about Adversity in Childhood – Implementation. In: NHS Health Scotland. Recognising and Responding to Adverse Child Experiences and Trauma Workshop - Event Summary. Edinburgh; 2017. Available from: <http://www.healthscotland.scot/publications/recognising-and-responding-to-adverse-child-experiences-and-trauma-workshop-event-summary> [Accessed 10 September 2018]
- 149 Real Life Research. An Evaluation of REACH: Routine enquiry into adversity in childhood. 2015. Available from: <https://warrenlarkinassociates.co.uk/media/1261/july29-final-full-evaluation-report-for-reach-1.pdf> (Accessed 12 June 2018)
- 150 Quigg Z, Wallis S, Butler N. Routine Enquiry about Adverse Childhood Experiences. Implementation Pack pilot evaluation. Liverpool; Public Health Institute; 2018. Available from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/712718/REACH-implementation-pack-pilot-evaluation-final-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/712718/REACH-implementation-pack-pilot-evaluation-final-report.pdf)

## Chapter Six

- 151 Scottish Government. Improving Public Services: Community Planning. Available from: <https://beta.gov.scot/policies/improving-public-services/community-planning/> [Accessed 12th September 2018]
- 152 Lanyard R, Clark A, Cornaglia F, Powdhavee N, Vernoit J. What Predicts a Successful Life? A Life-course Model of Well-being. *Econ. J.* 2014;124:F720-F738. Available from: <https://doi.org/10.1111/econj.12170>

# Notes



# Notes

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