Health and early years, children and young people

a GCPH synthesis

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The Glasgow Centre for Population Health (GCPH) was established in 2004 to investigate issues relating to poor health, generate evidence about new approaches, and work with others to facilitate change. It is a partnership between NHS Greater Glasgow and Clyde, Glasgow City Council and the University of Glasgow, funded by the Scottish Government.

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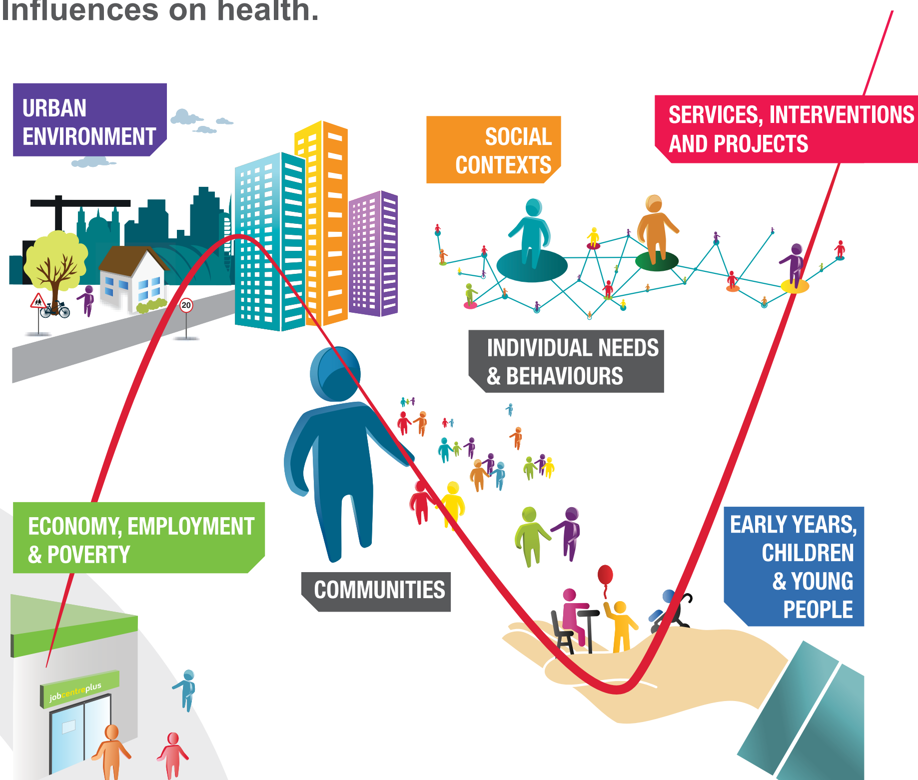
INTRODUCTION

The foundations for virtually every aspect of human development – physical, intellectual and emotional – are laid in early childhood[1]. What happens during these early years (starting in the womb) has lifelong effects on many aspects of health and wellbeing[1]. This is why it is crucial to understand how the whole of society can support and nurture all children. It is during this critical life stage that a range of effective universal services and targeted interventions can yield significant positive impacts in later life. This report draws together learning from the Glasgow Centre for Population Health (GCPH) about what factors influence the health of babies, children and young people and how improving circumstances during this life stage can help improve health and tackle health inequalities in Glasgow and wider Scotland.

This review of evidence on early years, children and young people follows on from the synthesis of ten years of GCPH evidence published in October 2014 which emphasised, in line with international evidence, the importance of economic, environmental and social factors on health[2]. In particular, the GCPH evidence base emphasised the role of four key areas (see Figure 1): the economy, employment and poverty; early life experience; neighbourhood environments; and social contexts. Interacting with all of these, and having their own effect, are the services, interventions and approaches undertaken to improve outcomes for individuals and communities (represented by the red line in Figure 1)[2]. A subsequent synthesis brought together the GCPH evidence about the influence of social contexts on health[3] and this report now focuses on the evidence about health and the early years, childhood and young adulthood.

Figure 1: Influences on health.

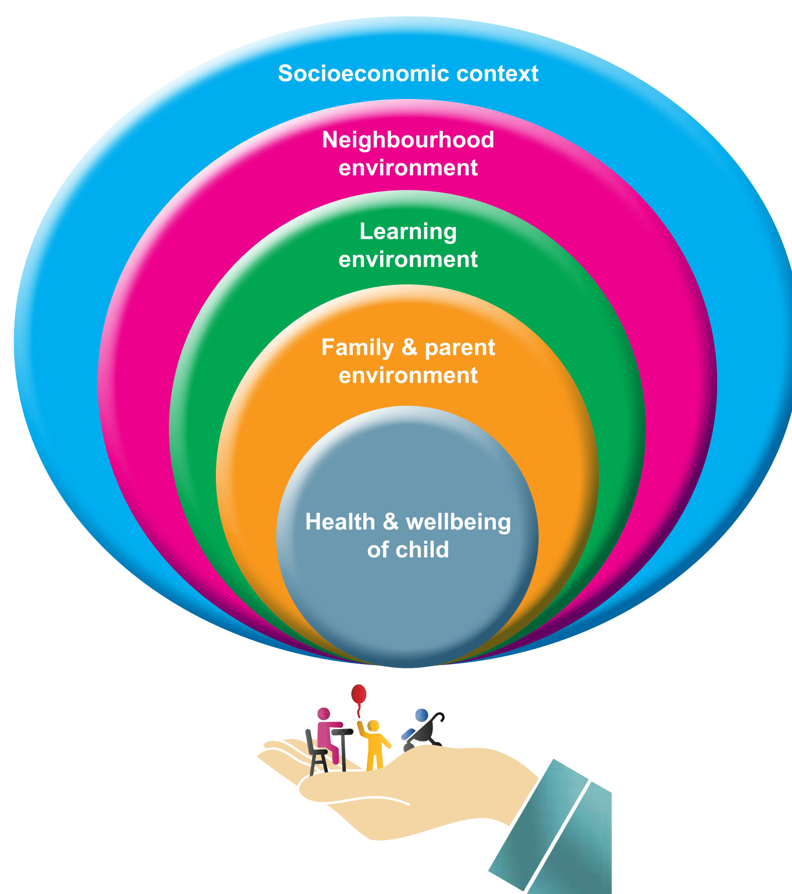


The evidence is compelling regarding the importance of early years' and childhood experiences for healthy development and for health and wellbeing throughout the life course[4]. An infant or child can be considered to be 'nested' within several spheres of influence which are impacting on their health and wellbeing (see Figure 2). This report brings together GCPH evidence about these different 'spheres' of influence:

- **Family and parent environment** (Chapter 1) – Fundamental to healthy child development and attachment is the family/household environment, the health and wellbeing of the child's parents (or main carers) and crucially, consistent love and care.
- **Learning environment** (Chapter 2) – The early years settings and schools the child attends exert critical influences on their development and future outcomes.
- **Neighbourhood environment** (Chapter 3) – The neighbourhoods in which children and young people live and socialise also have significant impacts on their day-to-day lives and their health and wellbeing.
- **Socioeconomic context** (Chapter 4) – The health and wellbeing of children is directly influenced by material circumstances. As discussed throughout the chapters on family, learning and neighbourhood environments, socioeconomic factors also play out across all these spheres.

The final chapter (Chapter 5) provides an overview of the cumulative implications of the evidence on these different spheres of influence.

Figure 2: Influences on child health and wellbeing.



As well as GCPH evidence, this report also incorporates evidence from the GoWell research and learning programme[a]. This report draws on all the evidence developed since the GCPH was established in 2004 and since GoWell was established in 2005. GoWell is investigating the impact of investment in housing, regeneration and neighbourhood renewal across 15 communities in Glasgow. The GCPH research studies have typically been undertaken in Glasgow or West Central Scotland, but some of the research, data analysis and evidence reviews also have a wider Scotland, UK or international focus.

The evidence outlined is drawn from the analysis, research and reviews undertaken by GCPH and GoWell researchers or commissioned/part funded by the GCPH. This report also incorporates insights from events hosted by GoWell and the GCPH, including the GCPH Seminar Series lectures. Many of the publications and seminars incorporate a review of wider research and literature, therefore this evidence base is also discussed here in this report, however, only the GCPH and GoWell related outputs are referenced.

Further information about the work programmes and evidence sources are available from the GCPH and GoWell websites and the individual publications referenced. This report also includes data about the health and wellbeing of children in Glasgow, taken from the section on children's indicators on the Understanding Glasgow website[b].

[a] GoWell is a collaborative partnership between the GCPH, and Urban Studies and the MRC/CSO Social and Public Health Sciences Unit at the University of Glasgow, sponsored by Glasgow Housing Association, the Scottish Government, NHS Health Scotland and NHS Greater Glasgow and Clyde: www.gowellonline.com.

[b] The Understanding Glasgow website (www.understandingglasgow.com) was developed by the GCPH, with support from a range of partners, to create an accessible resource providing information about the wellbeing of Glasgow's population across 12 domains (including social capital), each with a basket of indicators for both adults and children allowing progress to be monitored.

1. FAMILY AND PARENT ENVIRONMENT

The family environment, the health and wellbeing of parents or carers, and how parents and carers relate to children and care for them, all have a profound effect on the early years and childhood and on subsequent outcomes in later life[5]. The family environment is regarded as the most influential of children's environments as it is the first and closest environment a child will experience and has the most enduring impacts on a child's life[6]. However, as discussed in Chapter 4, individuals and families are situated in, and react to, broader social structures and socioeconomic contexts.This chapter considers the following questions:

- How do family contexts vary? (Section 1.1)
- How do parental health, wellbeing and health behaviours impact on child development *in utero* and beyond? (Section 1.2)
- What do we know about what influences infant feeding choices and the benefits of breastfeeding? (Section 1.3)
- What role do family relationships and attachment with children play? (Section 1.4)
- How can we best support parents and specific needs they may have? (Section 1.5)
- What types of family circumstances create vulnerabilities for children? (Section 1.6)
- What do we know about children's resilience and overcoming adversity? (Section 1.7)

Image taken from *"Poverty, parenting and poor health: comparing early years' experiences in Scotland, England and three city regions".* GCPH; 2013.

1.1 Family structures and circumstances

A diversity of family forms has emerged since the late 20th century[7]. There has been a growth in 'non-traditional' families, with more children living in cohabiting couple families and one-parent families. The presence of a supportive partner has been found to help buffer many adversities for parents, however, serious tensions between partners can lead to stresses[8]. It can be assumed that for successful outcomes it is necessary for families to stay united in the face of challenges[8]. This may be the case for many families, but it is reported that in some circumstances family separation is better for individual wellbeing[8]. This is particularly the case, for example, in situations involving intrafamilial violence[8]. Divorce and parental separation are significant family transitions and can potentially bring major changes to children's lives[8]. The management, timing and pace of change are important factors in determining how well children cope[8]. Research with children found that they want to be informed of what is happening and consulted on decisions that will affect them, such as living arrangements[8]. Being left out of discussions was found to increase anxiety and upset for children[8].

Parents experiencing poverty, or facing other stresses, have been found to usually cope better when they have one or more close relationships outside the household to provide practical, emotional or informational support[8]. For example, the important role of grandparents for children in lone parent households has been highlighted[c,9]. Hence, for many children and young people, other adults apart from the resident and non-resident parents may also fulfill parenting functions, such as being met from school, being given treats or being put to bed[10]. This highlights the fact that understandings of the family environment may also need to include relationships with extended family members and/or parents that do not live with the child[10]. There have been calls for greater recognition of the fact that modern families no longer fit the definition of people living within one household and for a need to understand the intricacy and fluidity of how children conceive their 'family'[10].

There are also situations when young people themselves become parents. Becoming a parent in the teen years or even early 20s represents a faster transition to adulthood than the norm nowadays, as having children before the age of 20 has become more of an anomaly than in earlier times[11]. Scotland has a high teenage pregnancy rate compared with other countries in Europe, although the rate has fallen slightly across Scotland, including in Glasgow, in recent years. Of the Scottish cities, Dundee has the highest rate of teenage pregnancy, followed by Glasgow[d]. Teenage pregnancy is associated with socioeconomic deprivation, with higher rates in more deprived areas[12]. For some teenagers, pregnancy and parenthood can be a positive decision, for others the pregnancy will be unplanned and could have negative consequences. Some studies report poor outcomes for children born to teenage parents in terms of education, employment, income and health[11]. Children of young mothers (aged younger than 20 years at first birth) are statistically more likely to have difficulties with learning and development, exhibit health problems and have behavioural problems at age five years[5]. However, the extent to which

[c] Growing up in Scotland (GUS) data showed that children in lone parent families (compared with other families) have more contact with a grandparent, and a greater proportion have a resident grandparent[9].

[d] Understanding Glasgow. *Children's lifestyle, Teenage pregnancy*. http://www.understandingglasgow.com/indicators/children/lifestyle/teenage_pregnancy

becoming a parent at a young age has a negative impact on their child's early years and later outcomes has been questioned[11]. It has been argued that teenage parents' pre-existing social disadvantage is the issue, rather than teenage parenting being a *cause* of social disadvantage[11]. Whatever the causal direction there is a clear need for support for both young people experiencing social disadvantage and those who become teenage parents.

Teenage parenthood has also been found to provide young people a route into adulthood and a form of social inclusion through the positive role identity of being a parent[11]. It has been suggested that many fathers involved in teenage pregnancies have only brief or unsupportive relationships with the mother of their child and that their involvement with their child is commonly minimal and temporary[11]. Other studies, however, find that young men's contact with their child is often maintained despite separation from the mother of their child, with young men placing importance on "being there" for their child[11]. Research in Scotland with young fathers (aged 16 to 25 years) who had teenage partners (aged 16 to 19 years), found that the young men's relationship with their partner and fatherhood can be a turning point in men's lives, galvanising them to make positive changes to their lifestyles and take on parental responsibilities[11].

Overall, it is clear that there is a need to take even greater account of family diversity in policy and practice and of the importance of family relationships to health (discussed further in Section 1.4).

1.2 Parental health and wellbeing

Parents' life circumstances and socioeconomic contexts have a fundamental bearing on the early years and children's outcomes (as discussed further in Chapter 4). These factors are also critically related to parents' health and wellbeing, which in turn impact on early years and childhood outcomes. Hence, the health and wellbeing of children cannot be addressed in isolation from the health and wellbeing of parents[13]. Recognising the excess ill-health experienced by young working-age adults in Scotland documented by GCPH data analysis[14], there is a particular need for services and approaches to be inter-generational, affecting parents as well as children, to reduce the inter-generational transmission of disadvantage[13]. In particular, it is important to support lone mothers since they are more likely to report poor mental health or physical health, than couple mothers[9].

For example, where adults with alcohol or drug problems become parents there are number of potential risks for babies and children. Alcohol use during pregnancy is a known risk factor for babies *in utero*. Foetal alcohol syndrome is a pattern of mental and physical defects that can develop in a foetus in association with high levels of alcohol consumption during pregnancy[15]. Foetal alcohol syndrome is recognised as the leading preventable cause of developmental and cognitive disability in children in the developed world[15]. Children living with parental alcohol and/or drug misuse face a number of disadvantages, including increased risk of witnessing violence and poor, neglectful or inconsistent parenting[5]. Such experiences of parenting may increase children's risk of behavioural problems, learning and development difficulties and have a detrimental impact on their social and mental wellbeing[5]. Further evidence relating to parental, in particular maternal, health and wellbeing is discussed in the following sections on smoking (Section 1.2.1) and stress (Section 1.2.2).

1.2.1 Maternal smoking

There is a strong relationship between smoking and deprivation and this relationship is even more marked in the pregnant population[16]. Smoking during pregnancy is associated with risks such as pre-term babies, low birth weight babies, miscarriage and attention deficit hyperactivity disorder[17]. Overall, there has been a steady and marked downward trend in the rate of maternal smoking across Scotland, from 25% in 2000/01 to 15% 2014/15[e]. However, the strong relationship between smoking in pregnancy and deprivation remains. Within Glasgow, for example, 2014/15 data showed a maternal smoking rate of 22% in the most deprived decile, compared with a rate of 1.2% in the least deprived decile[e].

Existing smoking cessation interventions with pregnant women are effective but uptake is lower than necessary to achieve an impact on inequalities in tobacco exposure prenatally and in the early years. A randomised controlled trial in Greater Glasgow and Clyde (co-funded by the GCPH) found that financial incentives more than doubled the quit rate when added to existing smoking cessation services (the offer of £400 of shopping vouchers increased quitting from 9% to 23%)[18]. This type of approach has the potential to impact significantly on inequalities in tobacco-associated harm[13].

Children's passive smoke exposure has been linked to asthma, lower respiratory tract infections, middle ear infections and sudden infant death syndrome[16]. Research with mothers who smoked found that they were concerned about the adverse health effects for their child and reported attempting to reduce their children's exposure to tobacco smoke[16]. The study suggested that smoking cessation interventions specifically targeting women in the immediate post-partum period could be beneficial[16]. It was noted that this would help improve the health of new mothers, increase the chances of abstinence during any future pregnancies, and reduce their children's exposure to tobacco smoke[16]. There have also been calls for greater understanding of the social meanings underlying health-damaging behaviours[19]. Jennie Popay in her 2006 GCPH Seminar Series lecture, discussed qualitative research by Hilary Graham which showed how mothers' smoking behaviour could be understood as a coping mechanism for stressful situations, changes in their lives, and their roles caring for children[19]. It was argued that the cigarette cannot be removed without looking at the overall life situation the mother is experiencing[19].

1.2.2 Stress and epigenetics

Our understanding of the impact of mother's experiences and emotions on their babies *in utero*, is still evolving. At a 2012 GCPH Seminar Series lecture on parental environments, Jonathan Seckl outlined that *in utero* exposure to a highly stressed mother, a malnourished mother or *in utero* exposure (e.g. from medication) to hormones of stress (glucocorticoids) can all lead to the reduction of a hormone (11B-hydroxysteroid dehydrogenase-2) in the placenta which normally acts as a barrier to protect the foetus from stress hormones[20]. This weakening of the barrier allows

[e] Understanding Glasgow. *Children's Health, Smoking during pregnancy, Scottish cities.* http://www.understandingglasgow.com/indicators/children/health/smoking_at_health_visitor_s_first_visit/selected_councils
Understanding Glasgow. *Children's Health, Smoking during pregnancy, Deprivation.* http://www.understandingglasgow.com/indicators/children/health/smoking_at_health_visitor_s_first_visit/simd_2012_decile

the stress hormone cortisol to pass through to the placenta, which alerts the foetus to the possibility of a stressful environment[20]. One of the effects of this is a change in the level of expression of certain genes within cells of the foetus – known as epigenetics[20].

Epigenetic changes refer to the heritable changes in gene expression or cellular phenotype caused by mechanisms other than changes in the underlying DNA sequence[20]. Which has been described as a *"chemical sequence superimposed on the DNA"* [21]. Seckl noted that the DNA code is still there but, due to a process known as DNA methylation (addition of a methyl group to the DNA), these epigenetic changes influence whether are not the 'instructions' in the DNA code can be 'read'[20]. DNA methylation is vital to healthy growth and development, it also enables the suppression of potentially dangerous sequences of DNA (e.g. retroviral genes)[20]. Early life exposure to stress or excess stress hormones is known to have a significant impact on the rate of methylation and therefore has the power to activate or deactivate genes in early life[20]. Seckl, therefore, suggested that this could mean that babies developing *in utero* in mothers experiencing hardship in disadvantaged areas of Scotland could result in some babies having early life programming making them more vulnerable to physical and emotional difficulties later in life[20]. Indeed, the pSoBid study carried out by colleagues at the University of Glasgow along with the GCPH, did find that total DNA methylation is lower in groups of men brought up in more deprived circumstances[22]. The pSoBid study was set up to investigate the psychological, social and biological determinants of ill health in Glasgow. The study explored possible links between early life, biological conditions[f] and health outcomes in adulthood[g].

Rachel Yehuda in her 2013 GCPH seminar on the effects of traumatic stress discussed research she had undertaken with adult children of Holocaust survivors over the last 20 years, as well as pregnant survivors of the 9/11 terrorist attack in New York[23]. There was found to be clear evidence that when mothers experienced post-traumatic stress disorder (PTSD)[h] in their response to trauma, their offspring were also found to have PTSD as adults (in terms of offspring of Holocaust survivors) or indicators of this condition in babies (in terms of the children of 9/11 survivors)[23]. This process was found to be a result of epigenetics. Babies exposed to trauma are developmentally programmed for a tough environment, however, this programming may be a mismatch for the children's actual environment (e.g. they experience a more plentiful environment with fewer stressors), so biologically they do not always respond in the most appropriate way[23].

The seminars with Seckl and Yehuda highlighted the ways in which the developing stress response system in infants *in utero* appears to be affected biologically by parents' experiences[20,23]. The field of epigenetics is still developing, so there is still

[f] The biological conditions investigated were **chronic inflammatory state** (C-reactive protein and interleukin-6 both of which have been shown to predict cardiovascular events), **increased insulin resistance** (elevated circulating levels of insulin and glucose) and **endothelial activation** (a dysfunctional state where there is increased expression of cellular adhesion molecules [proteins on the cell surface] and other factors).

[g] The health outcomes investigated were atherosclerosis, lung function and cognitive impairment.

[h] Post-traumatic stress disorder (PTSD) is where responses to trauma are found to be enduring and have led to longer-term change in the person, including unwanted memories, nightmares, avoidance and hyper-vigilance. Only some people exposed to trauma develop PTSD, depending on the trauma type or severity, and an individual's interpretation of the trauma.

a lot to be further understood, but it appears that these changes that may occur in early life can persist for the duration of a life span and might translate into the next generation (although not into a third generation)[20,23]. Seckl and Yehuda suggested, however, that the effects may also be reversible during the child's subsequent development depending on their environment and parenting experiences[20,23]. As well as the *in utero* epigenetic effects of trauma, Yehuda also highlighted the important postnatal effects of parents' behaviour which may be related to parents' own traumatic experiences and may in turn influence stress responses in their children[23]. Yehuda gave examples from therapeutic work with Holocaust survivors and their children, which found that survivors may be over protective, may not give their children enough freedom to explore, or their fear of loss may make it difficult for them to love their child fully[23]. Although this evidence related to extreme trauma of the Holocaust, poor mental health in general, has been found to be associated with less engaged parenting and reduced ability to emotionally attend and respond to children's needs; which in turn can affect the psychological and emotional wellbeing of children[6]. These issues and adverse childhood experiences are discussed further in Sections 1.4 and 1.5.

1.3 Infant feeding

The rate of breastfeeding in Scotland is one of the lowest in Europe and is much less prevalent among women in poorer communities than those living in more affluent areas. In 2013/14, 47% of mothers in the least deprived areas of Glasgow were exclusively breastfeeding at the 6-8 week review, compared with 13% of mothers in the most deprived areas of the city[i]. Evidence has shown that breastfeeding has a protective influence on children's early health[24]. Further confirmation of such benefits in a Scottish context was provided by analysis of a unique linked dataset created by the GCPH and collaborators to explore infant feeding and child health in Scotland[25]. The analysis found that infants who had been breastfed for at least 6-8 weeks had a lower risk of hospital admission and GP consultations than bottle-fed infants, leading consequently to lower direct healthcare costs[25]. Breastfed infants also had a reduced risk of excessive weight gain in early childhood[25].

Image taken from *"What shapes future infant feeding choices? The views of young people from three cultural backgrounds"*. GCPH; 2012.

[i] Understanding Glasgow. *Children's health, Smoking during pregnancy, Deprivation.* http://www.understandingglasgow.com/indicators/children/health/smoking_at_health_visitor_s_first_visit/simd_2012_decile

Challenges experienced by breastfeeding mothers, however, have also been reported including: discomfort/soreness, severe after-pains, tiredness, being constrained by physically needing to feed, and the time involved[24]. The health policies and services focused on promoting breastfeeding have been found to play an important role in encouraging and supporting breastfeeding, such as the antenatal information and advice[24] and postnatal support in hospitals[24,25]. However, a wide range of cultural, family and maternal characteristics are also found to influence the likelihood to breastfeed in Scotland[25], including socioeconomic status[24], education[24], age[24], ethnicity[24-26] , culture and social norms[24,27], and maternal mental health[24]. Therefore it has been suggested that interventions to increase breastfeeding in Scotland should extend beyond the health service and engage the entire population and should also consider the context of changing demographic and cultural influences[25,26].

1.4 Family life, relationships and attachment

Family relationships are vital for children's development, having a protective impact if positive and representing a risk factor if negative[6]. The following aspects of family life have been found to be important to children's health and wellbeing:

- Clear and open communication between parents and children[8]
- Family bonds – emotionally close relationships within the family[8,28]
- Spending time together with joint activities[8,28] (e.g. play and reading[j,5] and family routines (e.g. regular mealtimes and bedtimes)[5]
- Family involvement in wider social networks[28]
- Adaptability – family's capacity to meet obstacles and to be flexible and shift course if necessary[8]

Attachment theory[k] describes the importance of a child's attachment to at least one caregiver for providing a secure base that supports the child to feel safe to explore the wider world and to play and to learn[29]. The development of a secure attachment enables a child to have a 'secure base' to explore away from but to be able return to that parent/care giver when feeling tired or afraid[30]. Secure attachment allows a child to build a positive self-image, manage distress, function independently and relate to others[30]. Attachment is therefore fundamental to a child's health and wellbeing, but there is a risk that a narrow focus on attachment can lead to a sole focus on the role of mothers[29]. Therefore a focus on a child's attachment with their primary care givers should be placed alongside an appreciation of the impact of structural inequalities (discussed further in Chapter 4) and the wider range of people in children's lives, including the influence of nurseries and schools[29] (discussed in Chapter 2).

[j] Reading to very young children on regular basis has been found to be important; not only as a good preparation for formal education, but also for children's health and wellbeing[5]. For example, it was estimated that if all three year olds in the UK who are currently read to on a less than weekly basis were read to daily, this would reduce the proportion of five year olds with social or emotional difficulties by one fifth[5].

[k] Attachment theory, as developed by Bowlby and elaborated later by Ainsworth and others, describes the centrality to a child's healthy development in all domains of a secure attachment to at least one caregiver[29].

Secure attachments have been shown to be nurtured by warm, sensitive and responsive care giving, coupled with the establishment of clear boundaries[29]. Consistency in parenting has also been established as being important for a child's 'sense of coherence'[I] and promoting healthy child development[29,31]. Indicators of positive parent-child relations have been found to include joint activities (e.g. play), good communication, feelings of support and nurturance, and low levels of conflict[28]. A systematic review found that children and adolescents who experience a positive relationship with their parent(s) are more likely to report that they[28]:

- have better mental health outcomes and fewer problem behaviours
- engage in health-promoting behaviour (and less likely to report engaging in health-risk behaviours)
- experience better general health, higher levels of quality of life, and more positive wellbeing.

Conversely, insecure attachments, which develop in the context of inconsistent, insensitive or indifferent care giving provide a much less secure base and can inhibit the child's capacity to feel safe to flourish in the world[29]. For example, Bruce McEwen's GCPH Seminar Series lecture on brain development in 2015 outlined that when a child cries and receives attention from a concerned adult, the child's stress subsides[32]. This is referred to as 'serve and return'. If the child's cry goes unnoticed, its reactions are quite different with associated negative effects on brain development. Overall, a lack of positive attachment relationships in childhood has been found to often lead to relationship and health problems in adulthood[5]. Parent-child conflict has been found to be associated with poorer health and to be strongly associated with an increased risk of mental and behavioural problems in early childhood[5]. Furthermore, an absence of good parent-child relationships during childhood can result in problems in adolescence and early adulthood, including increased risk of substance misuse, violence and suicide[5] (See Section 1.6). However, the development of healthy attachment is not just about avoiding extreme problems, it also underpins the everyday connections and relationships a child will make (social networks are discussed further in Chapter 3) and that are known to be important to health[3].

Overall, it is clear that family relationships have a critical impact on children's health and have lifelong effects. As discussed below, support for parents can play a crucial role (Section 1.5) and interventions are needed to prevent and mitigate damaging experiences for vulnerable children (Section 1.6).

1.5 Support for parents

It needs to be recognised that family life and parenting is influenced by circumstances experienced by the family and levels of income, as discussed in detail in Chapter 4. Alongside this, evidence points to the importance of parenting initiatives that are designed to promote positive family relationships, help develop nurturing family environments and support parents to manage their child's behaviour appropriately[28]. However, it has been noted that there is a tendency for interventions

[I] Sense of coherence: the extent to which one has a feeling of confidence that one's environment is predictable and that things will work out as well as can be reasonably expected. It is a reflection of an individual's capacity to respond to stressful situations[2].

providing support to parents to focus on pre-school years, with limited interventions to support families with school-aged children and adolescents (other than higher-risk groups and/or those with specific behavioural or health problems)[28]. However, there are examples where this is changing. The nurturing approach adopted in Glasgow's schools and early years settings (see Chapter 2), works with children across a wide range of ages and seeks to involve parents/carers and wider family. For example, parents are encouraged, in a supportive non-judgemental way, to consider alternative positively orientated approaches when dealing with issues as they arise, but building on positive aspects of the family, and what is already working well for the child[33,34].

The review of GCPH evidence on social contexts and health concluded that parents need to be supported and enabled to create positive family conditions, and also supported to address difficult life circumstances and to strengthen and expand their social networks (e.g. through community-based groups)[3]. Examples of holistic approaches that offered these opportunities were featured in the case studies of community projects adopting asset-based approaches[35]:

- Fair Isle primary school initiative, *Opportunities for All* – The initiative provided a range of activities for parents and children to participate in together and parents were supported to be aware of the impact of their behaviour on their children and were provided with resources to inform choices. Importantly, with the help of a family worker, the project provided a clear link between home and school life with a focus on early intervention across a range of issues affecting families (e.g. housing, unemployment, debt, relationships, addictions) and provided a crucial role in referring parents to other agencies and services to provide support.

Image of Fair Isle Primary School's Opportunities for All project taken from *"Assets in Action: illustrating asset-based approaches for health improvement"*. GCPH; 2012.

- Templehall Dad's Group – The project was part of the Cottage Family Centre in Kircaldy which provides a range of services responding to the needs of families in the area and providing practical support, it also involves groups led by parents, and works to build self-esteem of parents and children. The need for a dads' group was identified by locally led research and the Templehall Dad's Group project was set up, driven by young fathers. The project involves young dads in meaningful activities (e.g. converting waste ground to play areas, community gardening), values their abilities and builds confidence and self-esteem. The project was reported to support good emotional and physical health, to build mutually supportive relationship between the young men, and develop their skills as parents. In addition the activities helped to enhance their employment prospects and provided community benefits of improved outdoor spaces.

As discussed in Section 1.1 families are diverse and can involve a range of relationships within and outside a child's household. Involvement of wider family members and social networks can provide important support to parents. Most often this is informal but, for isolated parents, access to family centres, befrienders or professionals can be crucial[8]. This can also be important for parents who face specific challenges, such as having a child with a rare impairment[8]. In such cases access to professional help is important for providing specialist information and support, as well helping to bring together parents facing similar issues to aid stress reduction and provision of mutual support[8]. Teenage parents can also require specific support. Research has emphasised the need for services to be mindful of the particular needs and self-consciousness of younger parents and to seek to actively involve both young mothers and fathers at all stages[11]. It has also been highlighted that it is important to link young parent service users to other sources of information and advice about critical aspects of their lives like money, benefits and housing[11]. The GCPH film, Young Mums, conveys how a supportive and caring education environment can support teenage mothers with adapting to their new role as mothers and staying in education[36].

Parents who experienced parental absence and/or harm (discussed below in Section 1.6) in their childhood can encounter difficulties when they become parents[8]. They need to be offered support to turn around their experiences[8]. Jane Stevens in her 2016 GCPH Seminar Series lecture on adverse childhood experiences (ACEs) gave examples of organisations in the USA that have sought to help parents by informing them about ACEs research[37]. For example, the Family Centre in Nashville, Tennessee has included education on ACEs in classes for parents who are mandated to participate by courts. As a result of learning about ACEs these parents, who themselves had adverse experiences in their own children, report that the ACEs research explains their lives and that they want to know how not to pass their ACEs on to their children[37]. A toolkit and programme called 'Near at home' has been developed in the USA for nurse home visitors incorporating learning about ACEs. It helps parents to reframe their history so they know that: they were not born bad; they are not responsible for their childhoods; they have coped appropriately in the best ways they could until now; and that they can have hope to change their lives and their children's lives[37].

Bruce McEwen in his 2015 GCPH Seminar Series lecture on brain development stated that highly specialised, sensitive interventions are needed as early as possible for families and children experiencing adversity[32]. He reflected that the Nurse-Family

Partnership in the US was a good model of what can be done. A similar model was introduced in the UK, called the family nurse partnership (FNP) and it was introduced in Scotland in 2010. It offers intensive, structured home visiting support to first-time mothers (aged 19 years or younger at conception). It aims to improve both the pregnancy outcomes for the woman and the health and development of the child, as well as to support future plans for the family. A randomised controlled trial of the programme in England recently reported no additional short-term benefits on the four primary outcomes investigated[m]. The Scottish Government, however, is interested in both understanding the longer-term impact of FNP, and its impact on a different set of outcomes, some of which showed improvements in the English trial, and an evaluation of FNP in Scotland using a natural experiment approach is currently underway. Case study research by the GCPH on assets-based approaches within services included the FNP team covering Glasgow City[34]. The FNP was reported to offer a different approach to interacting with service users, by taking a strengths-based approach which works with expectant mothers' intrinsic motivation to do the best for her child and seeks to develop and expand the strengths within a family to promote change[34].

Family nurse partnership (image courtesy of the NHS Scotland Photo Library).

[m] Robling M, Bekkers MJ, Bell K, Butler CC, Cannings-John R, Channon S, Martin BC, Gregory JW, Hood K, Kemp A, Kenkre J, Montgomery AA, Moody G, Owen-Jones E, Pickett K, Richardson G, Roberts ZES, Ronaldson S, Sanders J, Stamuli E, Torgerson D. Effectiveness of a nurse-led intensive home-visitation programme for first-time teenage mothers (Building Blocks): a pragmatic randomised controlled trial. *The Lancet* 2016;387(10014):146-155.

1.6 Vulnerable children and adverse childhood experiences

In some cases children and young people become carers for their parents due to a disability or illness. Marilyn Waring discussed issues for young carers in her GCPH Seminar Series lecture on the 'Economics of Dignity' in 2015[38]. Waring noted that in the UK more than 175,000 children under 18 were acting as carers, including 13,000 providing more than 50 hours of care a week. She stated that the 2007/8 Scottish Household Survey identified that there were 100,000 unpaid young carers[n]. Waring discussed research in Scotland which had found that young carers experience a number of restrictions in their life: a lack of transport, a lack of information, a lack of services, few if any shops with fresh produce to enable healthy eating, long school journeys, few or no leisure activities[38]. Waring highlighted the issue of rights and capabilities, and expressed concern that young carers are being denied their rights as a child and also being denied the potential to fulfill their capabilities. She raised questions, about pay for child carers and whether they will be given agency in decisions about the planning and provision of care and about support for themselves[38].

In other situations parental factors contribute to children's adversity either directly (as in abuse and neglect) or indirectly (as in parental disharmony or alcohol use)[8]. Children in such circumstances are likely to be at increased risk of poor outcomes[8]. A range of harmful impacts have been linked to children's experiences of domestic violence including: impairing physical, mental and emotional development and, in some studies, increased risk of aggression in adolescence or early adulthood[5]. For mothers in abusive relationships, their increased risk of depression and the negative influences of the abuser, have been found to make warm, positive parenting very difficult for them[5,8]. As noted in Section 1.2, children living with parental alcohol and/ or drug misuse face risks of inadequate parenting and witnessing violence, which in turn increase the children's risk of behavioural problems, learning and development difficulties and reduced wellbeing[5].

Michael Meaney, in his 2009 GCPH Seminar Series lecture on risks for chronic illness, stated that children who undergo the trauma of physical or sexual abuse, emotional neglect or inconsistent discipline, are more likely to develop forms of chronic illness[21]. Similarly, McEwen in his 2005 GCPH Seminar Series lecture on brain development discussed how researchers studying child abuse and neglect had identified problems with mental health, impulsive behaviour, substance abuse and increase levels of ischaemic heart disease[51]. McEwen outlined that traumatic stress, chaos or neglect in early life helps determine a pre-existing state of the brain and body that is more susceptible to the effects of daily life experiences and stresses and to later disease[51]. In a later GCPH Seminar Series lecture in 2015, McEwen summarised that research over the last 20 years or so has revealed that the human brain is 'plastic' and can remodel itself in relation to experience including stressful experience[32]. He distinguished between three types of stress[32]: **positive stress** (exhilaration of a challenge for which there is a satisfying outcome), **tolerable stress** (arising from adverse life events in a context of good emotional and social support), and **toxic stress** (associated with a lack of a sense of control and poor social and

[n] Waring stated that this figure was higher than census figures at the time and argued that the census figures were an underrepresentation, given the dual stigma of admitting some disabilities and of admitting that children are caregivers[38].

emotional support). Positive and tolerable stress both provide a sense of mastery and control and generate self-esteem, whereas, those affected by toxic stress have compromised brain architecture[32].

Although children can survive damaging experiences and succeed in many ways, there is nevertheless, a well-established evidence base that those who are exposed to an excessive number of harmful or distressing experiences, described in the literature as 'adverse childhood experiences' (ACEs), are more likely to have mental health problems and physical ill-health in adulthood[30]. The USA-based Adverse Childhood Experiences Study (ACE Study) published in 1998 looked at ten types of childhood adversity[o], different types of abuse, neglect and household dysfunctions and found they were linked to adult onset of chronic disease, mental illness, violence and being the victim of violence[37]. It was found that the more types of adversity the worse the consequences (they have a cumulative effect)[37]. Stevens outlined that data from the USA has established that, compared with people with no ACEs, people with four or more ACEs are: more likely to be depressed, twice as likely to smoke, seven times more likely to be an alcoholic, and 12 times more likely to commit suicide[37].

McEwen emphasised that adult disease prevention begins with the reduction of toxic stress in early life, and early childhood[32]. He argued that such a focus on prevention would reduce human misery and provide a huge return on investment for society[32]. Michael Smith reinforced this argument for prevention when speaking about the significance of ACEs at the 2015 GCPH Healthier Futures Forum event on early years[30]. He expressed concern that the challenges of austerity and welfare reform, with anticipated increases in child poverty and family stress, will lead to greater likelihood of children experiencing ACEs and subsequent challenges to their health and wellbeing in adulthood[30]. Smith stated that services can help to mitigate some of the effects of poverty through wider action in areas such as housing, food/fuel poverty, and money advice in partnership with others and through community-based approaches (also see Chapter 4)[30]. He emphasised the need to keep children and families at the centre of everything we do, the importance of providing co-ordinated help, and the need to involve children and families in the decisions that affect them[30].

At the subsequent GCPH Seminar Series lecture on ACEs, Jane Stevens highlighted ways in which organisations and communities in the USA are implementing trauma-informed and resilience-building approaches informed by ACEs research to both prevent ACEs occurring and where ACEs have occurred to ameliorate the effects on those individuals[37]. This was described as a profound shift from longstanding approaches of 'blame, shame and punishment' to change human behaviour, to approaches based on 'understanding, nurturing and healing'[37]. Stevens emphasised the plasticity of the brain and the body's capacity to heal[37]. Similarly, McEwen highlighted that children and adults can be helped to recover from past negative experiences and that due to brain plasticity the architecture of the brain can be remodeled[32]. He discussed the need to 'open windows of plasticity' referring to the importance of creating environments and experiences that help the brain develop and adapt positively, essentially to 'push the brain in the right direction'[32].

[o] The ten types of childhood adversity can be found at: https://acestoohigh.com/got-your-ace-score/. Although the original study looked at ten types of adversity, these are not the only ones, there are other types of trauma that people experience that have the same effect and subsequent ACE surveys/studies are incorporating other types of trauma depending on the populations they are looking at[37].

1.6.1 Looked after children and young people

Issues relating to care and protection (including neglect, mental, physical or emotional abuse, parental substance misuse or poor parenting) can lead to children becoming 'looked after' by the state[5]. Looked after children and young people (LACYP) are a vulnerable sub-group within the general population of children and young people. Socioeconomic disadvantage is an important 'upstream' cause of children being placed in care[39]. There have been calls for better data to understand why children become looked after, in order to direct prevention efforts and consider differential need according to maltreatment[39].

Looked after children and young people (LACYP) comprise a sizeable proportion[p] of the population of children and young people in Scotland[39]. Children looked after at home (where the parental care of children at home is supervised by the local authority) are the biggest care setting sub-group in Scotland[39]. The proportion of children looked after in this way has remained fairly stable over the last 35 years. Over the same time period there has been a large increase in the number of children who are looked after in kinship care[q] and also a smaller increase in the number in foster care; whereas there has been a decrease in the number in residential care[39]. Glasgow had more than 3,500 looked after children as at 31st July 2010 – a number far higher than any other local authority in the country. This equates to 3% of the child population, the highest rate of any authority within Scotland[r]. It is known that one or more parents of 64% of children looked after currently have (or have previously had) contact with Social Work Services related to addiction[m].

Despite LACYP being a very vulnerable sub-group within the population of children and young people, who have often been exposed to previous maltreatment, there is no comprehensive health profile of LACYP[39]. The lack of available data on health outcomes for LACYP is reported to be a significant barrier to prioritising and improving early years' experience of Scottish children; since inadequate early years support for looked after children increases the risk of perpetuating cycles of parenting difficulties[39].

1.7 Children's resilience

Children's resilience is understood in terms of general coping capacities that usually enable them to do well in life[8]. A focus on resilience is not to suggest that adversity can be overcome by individual effort or that children should be able to be resilient in the face of severe abuse and neglect, or multiple adversities, rather to recognise children's achievements despite these disadvantages[8,40]. Research on resilience does, however, help identify factors and processes that parents and professionals can employ to help modify the impact of adversity and promote children's wellbeing[8,41]. This is perceived by some to be more future and solution focused, and hence less stigmatising for those affected and more energising for professionals[8]. Generally it is found that the individual characteristics which

[p] At the time of the report publication LACYP were stated to comprise 1.6% of children and young people in Scotland.

[q] Kinship care is when a child is looked after by their extended family or close friends, if they cannot remain with their birth parents.

[r] Understanding Glasgow. *Children's safety, Looked after children*. http://www.understandingglasgow.com/indicators/children/safety/looked_after_children

enable a child to grow up to be resilient (e.g. intelligence, problem-solving skills, self-esteem), are so intertwined with their experiences of parents, families (e.g. attachments, harmony, consistency, discussed above) and wider environments (e.g. schools, neighbourhoods, friendships discussed in later chapters) that it is difficult to disentangle such individual characteristics[41]. Hence, it has been emphasised that a resilience approach should look beyond individual coping characteristics and should focus on changing environmental hazards and stressors, as well as enhancing individual and family responses to adversities[8].

Evidence points to the crucial role of parents (or alternative care givers) in promoting the knowledge, skills and environment that can help children be prepared for the challenges they may face in life and be supported through adversity[8]. The three fundamental building blocks of resilience are having a secure attachment, good self-esteem and an appropriate sense of self-efficacy[s,8]. Research exploring what helps children to develop resilient capacities and to cope with adversities, such as poverty, ill health, bereavement or community violence, has identified a range of important parenting factors[8]:

- warmth, responsiveness and stimulation
- providing adequate and consistent role models and harmony between parents
- spending time with children
- promoting constructive use of leisure
- consistent guidance
- structure and rules during adolescence.

Parents can buffer children from some of the worst effects of environmental adversity and can also nurture the characteristics in children that help them to cope with problems[8]. Given this critical role of parents in supporting children's resilience, it is therefore extremely difficult for children to be resilient in the absence of such parental care, and particularly when parents are implicated in the problems (e.g. family violence, neglect)[8]. In such situations it is crucial for children to have access to additional or alternative helpers who fit with the children's needs, wishes and expectations[8]. Such supportive adults are frequently members of children's networks at school or in the community, but for others an intervention to allocate a professional or mentor can be vital[8]. Adults who help children and young people in these situations, sometimes referred to as 'turnaround people', have been found to provide support through a caring relationship, having high expectations, and providing the child or young person with opportunities for contribution and participation[8].

Children who have experienced a lack of emotional warmth, responsive care and stimulation have been found to make dramatic recoveries when placed in an environment providing better care; in particular when the new environment is a loving, supportive family, for example, through return to kin, fostering or adoption[8]. Hence, it has been argued that a child's personality, abilities and prospects are not determined in infancy, unless the same circumstances persist[8]. In addition it has been highlighted that a focus on helping individual children overcome adversity and cope better should also be accompanied by attention to structural factors and the causes of socioeconomic disadvantage and other adversities[8]. Stevens argued for

[s] Self-efficacy is a person's perception of their ability to reach a goal.

a whole system approach, since in order to have healthy families you also have to have healthy organisations, healthy systems and healthy communities to support families[37]. She argued that the frontier of resilience research is in communities and systems[37].

It is not always possible to gauge how well a child is coping with difficult experiences, so a child who appears to be coping well outwardly may be suffering internal distress and developing unhelpful coping strategies and defences[8]. This has been termed 'apparent resilience'[8]. For example, some adolescents who were found to be 'doing well' in most domains like school showed signs of depression and anxiety when carefully assessed[8]. Lifespan research has emphasised that there is always the potential for developmental change and, therefore, that an 'outcome' is an ongoing process rather than an end point[8]. Wellbeing can improve across the lifespan and the onset of disorder can also occur at any stage[8].

2. LEARNING ENVIRONMENT

Children spend a significant amount of time at school and the quality of school attended is important for health and wellbeing[28]. The following sections outline GCPH evidence (or evidence reviewed in GCPH publications) which provide insights about children's health and wellbeing and early years settings and schools. This chapter looks at the following questions:

- What is the role of early years settings and what have we learned about the nurturing approach? (Section 2.1)
- What is known about the influence of schools on the development of children and young people's social relationships? (Section 2.3)
- What role does school food and school travel play in children and young people's health and wellbeing? (Sections 2.4 and 2.5)
- How does family income impact on school experiences and outcomes for children and young people? (Section 2.6)

2.1 Early years settings

Evidence points to the importance of providing universal early childhood education and care for the wellbeing of the population as a whole[13]. Early years education provision is important for enabling children to learn and develop socially, but it can also play a critical role in addressing inequalities by supporting children from disadvantaged backgrounds and enabling parents' to work and improve their family income. However, at the GCPH Healthier Futures Forum on Child and Family Poverty in 2011, the lack of affordable childcare was highlighted as one of the biggest barriers to ensuring that work pays[42]. It was argued that this is one of the reasons that Scandinavian countries have less child poverty than in Scotland[42]. For example, it was stated that the UK spends 0.5% of GDP on childcare compared with Sweden's 2%[42]. In the 2016 GCPH Seminar Series lecture on poverty, Julia Unwin, the chief executive of the Joseph Rowntree Foundation (JRF) argued that the prospects for

Image taken from *"Maximising opportunities: final evaluation report of the Healthier, Wealthier Children project"*. GCPH; 2012.

people with responsibilities for caring for children are persistently damaged by the lack of affordable, high-quality childcare[43]. Furthermore, that patchy provision of early years care, with an under-skilled and low-paid workforce means that children's development is not maximised[43].

The JRF have proposed the creation of an 'anti-poverty childcare system'[44]. This proposal is for a flexible, year-round childcare provision with professionally qualified staff earning salaries comparable with those working in schools, and an affordable fee system which includes free access to childcare for those on low incomes[44]. The JRF proposal cites evidence suggesting that such childcare provision would be cost effective in the long-term, as investment would be exceeded by later savings (e.g. from reduced social security payments, higher pay, lower costs to criminal justice systems)[44]. Unwin, in her GCPH lecture, stated that there is clear evidence that good-quality and affordable childcare not only helps parents to progress, it also improves the prospects of the next generation too[43].

At the 2011 GCPH Healthier Futures Forum on child and family poverty, John Dickie highlighted that even before reaching primary school, by the age of three some children are nine months behind in "school readiness" and learning[45]. This gap can persist into adulthood, undermining life chances and increasing the subsequent risk of intergenerational poverty[45]. Recent data (2013-15) from reviews of children aged 27-30 months, show that the children living in areas of Glasgow with higher levels of deprivation were more likely to be assessed as having communication delay than those in the least deprived deciles[t].

The following section discusses the nurturing approach implemented to enable some children to overcome difficulties and gain the most from early years settings.

2.2 Nurturing approach in nurseries

In 2011 Glasgow City Council introduced nurturing approaches in early years settings to support children who find it difficult to play and learn with others and to ensure that they can remain in and benefit from mainstream early years education. The nurturing approach is intended to offer an effective short-term intervention to reduce the barriers to learning which can be created by social, emotional and behavioural difficulties. Key features of the nurturing approach include: a separate room or corner for the nurture group; small group size; one or two trained adults; and integration of time spent in the nurture corner and the main playroom or classroom[29,34].

The key benefits of the nurture approach have been found to lie, not necessarily in literacy, numeracy or other cognitive attainment, rather in terms of overcoming communication and language difficulties[4,29]. Nurture practitioners were reported to be skilled at establishing relationships with children, who may initially reject or resist engagement, and supporting them to develop social skills and regulate their behaviour and expression of emotion. Nurture provision was stated to be responsive to individuals and fine-tuned to developmental needs. The practitioners used conversation to support language development, explore children's emotional states, structure social interactions and build self-esteem and confidence[4,29].

[t] Understanding Glasgow. *Indicators, Wellbeing and development, Language development, Deprivation*.
http://www.understandingglasgow.com/language_development/bi/multilingualism/deprivation

Staff reported that the approach appeared to increase children's confidence to an extent that was regarded by some practitioners as transformational[4,29]. Parents were also found to be generally very positive about nurture approaches. Parents talked about feeling welcomed by the nurture practitioners and being given good advice which had helped them to see and interact with their child in a more positive way. Parents valued the special events arranged for them and the resource bags that allowed them to try out nurture activities and play games with their children at home. The biggest benefit of nurture provision, for parents, was the positive impact that it had on their children. Even those who were initially anxious about their child's involvement in the nurture approach were rapidly impressed by the changes they noticed. However, the opportunities for nurture practitioners to engage with parents were found to be limited and it was noted that other influences on family life may constrain the impact of this one intervention. Hence, it was suggested that further opportunities to engage parents in the nurture approach should be sought[4,29].

2.3 Schools and social development

Schools play a critical role in the development of children and young people's social networks and their experiences of social relationships[28]. Maureen O'Hara in a 2005 GCPH Seminar Series lecture on future change emphasised that children need an education that develops their emotional intelligence, including their capacity to deal with people who are different and with complex interpersonal situations[46]. O'Hara emphasised that this is particularly important in the increasingly complex and diverse world within which people are operating[46].

School friendships such as those developed through extracurricular activities have been shown to support educational engagement[6]. Structured activities, for example school sport, performing arts, hobby clubs, have also been found to reinforce more 'school oriented' friendships which value schoolwork and higher educational aspirations. Such benefits have been found to accrue unevenly for those who can afford to enroll in these activities and who are intrinsically motivated or encouraged by parents to do so[6]. Peers can also have a negative influence in terms of health risk behaviours and peer relationships have been reported to spread negative attitudes towards school among marginalised young people[6]. The influence of young people's social networks is discussed further in Chapter 3.

In addition to the relationships that children have with their peers, the relations they have with school staff and their perceptions of safety and cohesion are important[28]. Pupils who attend schools where they feel safe and where they feel a sense of community have better health and wellbeing outcomes[28]. Hence, it has been recommended that policies and initiatives should promote high-quality school environments and involve young people in decision-making about how to support health and wellbeing in schools[28]. Involving young people in decision-making in schools requires supporting them to take meaningful, responsible, age-appropriate roles working in co-operation with staff and parents/carers[47]. Jane Stevens, in her GCPH Seminar Series lecture on ACEs, discussed an example of a school in Washington, USA that had changed its approach to discipline, based on ACEs research (see Section 1.6)[37]. School staff began to work with students to understand what students' were experiencing in their lives and what help they might need. After four years, suspensions dropped by 90% and there were no expulsions. Other

indicators improved too including: test scores and graduation rates; truancy rates and absenteeism; and post-school college or training destinations[37].

Many children experience adversity in their family and neighbourhood environments including relationship difficulties and poverty[8]. Studies of children's resilience have observed that the school setting, in a space between family and community relationships, can offer protection against such adversities. For example, a study of children exposed to community violence found that school support seemed to be a strong predictor of behavioural, academic and emotional resilience[8]. Protective features of school environments are noted to include[8]:

- academic stimulus and achievement
- support and guidance by teachers
- opportunities to develop interests and skills
- access to peers and alternative identities away from home.

It has also been found that an individual parent or carer can stimulate an interest in education that provides children with a diversion from difficulties in other aspects of their lives, enabling them to feel a sense of achievement and self-esteem[8]. A range of evidence suggests that parental interest in a child's education can support achievements in school, despite problems related to poverty or other family difficulties[8].

As discussed in Section 1.5, the 'Opportunities for All' project based at Fair Isle primary school provided opportunities for families to spend time together to nurture family relationships, as well as enabling families to develop supportive social networks with others.

The project highlights the way in which children not only require support in building their networks, but that children can also give parents a reason to get to know each other and form connections[48]. The example also demonstrates the important community function that schools can play in enabling residents to participate in activities and develop networks[3]. As Howard Frumkin argued, in his 2006 GCPH Seminar Series lecture on urban design, schools embedded in residential neighbourhoods can play an important function as a centre of social activity for communities[49]. Similarly, the Glasgow Health Commission recommended that the city's community facilities should be used more flexibly, such as extending the school usage into the evenings and weekends[50]. It stated that charges levied for using school and other facilities should be examined to ensure that they are not blocking use which could otherwise bring about health gains[50].

The Glasgow Health Commission consultation also found that older people wanted to forge better links with young people and to share their experience with them[50]. The Commission recommended maximising opportunities for older people to connect with children and young people through local schools, housing associations, and other community facilities[50]. In his GCPH Seminar Series lectures on neurology research, Bruce McEwen discussed the Experience Corp programme developed in Baltimore, USA which trains older people to become teaching assistants in elementary schools[32,51]. McEwen highlighted this programme as an example of an intervention that encompasses two of the factors, social support and physical activity, that help 'open windows of plasticity' in the brain (discussed in section 1.6) for both children and older adults[32,51].

2.3.1 Nurturing approach in schools

As discussed in Section 2.1 a nurturing approach was introduced to Glasgow's early years settings in 2011; this was a development of the nurture approach which had already been established in the city's schools[u]. Within schools adopting a nurturing approach, as with the early years' settings, support was offered to children with social, behavioural and emotional difficulties[34]. The nurture setting is designed to offer an environment in which children can experience an increased sense of security and self-worth and be supported in their social and emotional development. This includes providing many of the experiences normally found in the home environment, with a focus on activities that are not part of a normal classroom[34]. These include activities where there is a focus on communication, friendship, social skills, sharing, taking turns and table manners, such as sitting down for breakfast together and tidying up afterwards and snack time[34]. The approach is underpinned by a set of values and principles, which align with asset-based approaches, which are focused on building strong relationships with children and their families enabling their strengths and abilities to be identified and developed[31,34]. There is evidence, both nationally and within Glasgow, to illustrate the social, emotional and educational attainment benefits of placement within a nurture group[34].

2.3.2 Sensory impairment and additional support needs

Case study research of asset-based approaches in service settings featured the musicALL project at Hazelwood School – a Glasgow school for children and young people aged between two and 18 years of age who have a sensory (visual and hearing) impairment and additional complex needs[34]. All of the children and young people involved in the musicALL project have a visual impairment with additional complex learning needs including cerebral palsy, epilepsy, Down's syndrome, autism, and communication issues[34]. Many young people in this situation are socially isolated and may experience difficulty in accessing external music provision. musicALL aims to promote inclusion by enabling the young people to work together to build relationships through the joy and fun of making music and to work alongside, learn from, and perform with tutors, experienced musicians, music volunteers and students. The ultimate vision is to create an Expressive Arts Hub where young people both with additional learning needs and without can come together to participate in and produce high quality music that can be performed and taken out into society. In developing this inclusive approach it is hoped that musicALL can impact on participation in society, perceptions of disability, and access to opportunities that so many others take for granted while at school, and after leaving[34]. Involvement in musicALL has brought many positive wellbeing benefits for participants including increased levels of confidence, self-esteem, improved language and communication skills, the development of social and life skills, friendships and connections between young people with and without disabilities[34]. It has also enabled the young people to share their skills and talents with others through public performances, which were reported to be having a transformational effect for the young people and also to be

[u] Glasgow City Council implemented an education-led early intervention strategy in 2001 and the initial nurture group pilot was extended to three schools in session 2001/2002. The pilot group was subsequently extended to 17 schools in 2002/2003 due to the reported positive outcomes achieved. Funding was subsequently approved by the Education Services Committee which enabled 29 Nurture Groups to run in Glasgow primary schools. Further funding was then approved by Education Services Committee in 2005 to extend the number of nurture groups in Glasgow schools from 29 to 58, which enabled the nurture approach to be adopted as one of the key strategies in supporting early intervention for its most vulnerable pupils[34].

challenging others' perceptions of disability[34]. Using music as a vehicle for addressing inequalities, in the Big Noise programme, is also discussed in Chapter 4 (Section 4.5.2).

2.4 School food

Children and young people in Scotland follow a diet that falls short of national recommendations and is less healthy than that of other European countries[52]. Poor diet contributes to the risk of obesity and increasing levels of child and adult obesity are already damaging health and wellbeing[52]. Healthy school food policy can play an important role in promoting a healthier diet among children[13].

GCPH studies exploring school food policies and programmes in Glasgow have highlighted the importance of establishing and maintaining good quality social and physical environments within schools in order to promote healthy eating among school pupils[52-61]. Within primary schools, effective management and co-ordination by school staff during lunchtime has been found to have a positive impact on pupils' experience of lunch and on the general atmosphere in school canteens[53]. Active encouragement by teaching and catering staff, as well as practical steps to make healthy foods accessible and attractive to pupils can increase uptake[53]. Other primary school initiatives have also been found to be successful, such as free fruit distribution during the school day and a free breakfast service in deprived urban areas[53]. Snacks that children bring into primary school for break time can be problematic with many bringing crisps, sweets or chocolate[53].

Further learning through a GCPH collaboration with public health and education colleagues in Gothenburg, Sweden[62,63] led to the testing out of a 'family-based' approach to school lunchtime in Caledonia Primary School in the east of Glasgow. Tables within the school canteen were rearranged into more social seating. Lunch time was extended by 15 minutes and treated as a learning experience addressing healthy eating choices and good manners. Pupils enjoyed the opportunity to chat with staff and fellow pupils over lunch. They also appeared to transfer listening and talking skills to the classroom; and staff reported less wastage of food as children spent more time eating. There were also positive impacts in relation to improved content of packed lunches brought in by individual pupils. After initially testing out this approach with one primary class group and observing valuable benefits, school staff extended this lunch-time initiative to the entire school[13].

Typically secondary school pupils purchase lunchtime food and drinks from external outlets situated near schools[64]. An investigation into the quality of popular foods purchased by pupils from outlets near five Glasgow secondary schools, found a stark contrast between the nutritional quality of the food available within school and that commonly sold by external commercial outlets near schools[64]. Findings indicated that most pupils who eat out of school at lunchtime buy unhealthy, convenience food of very poor nutritional quality. Many outlets selling food in the study areas appeared to be offering meal deals and promotions to pupils which included food and drinks that school canteens are not permitted to provide such as crisps, confectionery and sugared drinks[64]. The researchers advocated the need to support schools to make remaining in school for lunch more attractive to secondary school pupils through a range of innovative approaches, and to explore measures to restrict pupils' access to

nutritionally inappropriate foods from businesses located in the vicinity of schools[64].

Research on the 'Cost of the School Day' in Glasgow schools exploring the experiences of children and young people from families on low incomes, identified a range of issues relating to eating at school[65]. Not all families entitled to free meals apply for them. Staff suggested that this may be related to parents' ability to complete the necessary form and provide sufficient information, something particularly problematic for parents who do not have English as a first language. It was also reported that some families who are above the free meal threshold still struggle to pay for lunch every day. Once at secondary school, some young people choose not to take free meals as they prefer to go out of school[65]. Young people involved in the research discussed that eating a free school meal at school could single you out, so rather than sitting in school on your own they preferred to go out to the shops with friends, even if they had no money[65].

Many school staff reported being aware that a lack of food or proper nutrition at home is a reality for some children and young people and that this affects their concentration, energy and general health and wellbeing[65]. Staff spoke about 'plugging gaps' when children or young people are hungry, giving leftovers from breakfast club or their own food and keeping an eye on what's being eaten at lunch. This appeared to be easier to do with younger children[65].

2.5 School travel

Concerns about children at risk of becoming overweight or obese point to the need for increasing levels of physical activity among children. Shifting from car-based transport to more active modes such as walking and cycling not only increases levels of regular physical activity, it can also reduce harm from pollution and make urban spaces more pleasant and reduce the fear of accidents[66]. While levels of walking to school remain high in Scotland, particularly in primary schools, the national trend over the last 20 years has been toward greater car use and less walking (with consistently very low national levels of cycling to school)[67].

In his GCPH Seminar Series lecture, Howard Frumkin emphasised the importance of locating schools within residential neighbouhoods, rather than on the edge of towns, so that children can walk and bike to their school[49]. A range of factors have been identified as being important in influencing levels of walking and cycling in schools[66]:

- whether there is a manageable **distance** between the home and school
- low levels of perceived **safety** risks (the existence of safe routes to school, particularly supervised crossings, were therefore important)
- **encouragement by schools** (e.g. proactive promotion of active travel, including participation in national, local and individual school initiatives)[v]
- **attitudes of parents and community members** make a difference to whether local communities are supportive of pupils' active travel
- active travel gave an opportunity for young people to **practise independence and to socialise** with friends while walking to school.

[v] The research found that primary schools appeared to be more proactive in promoting active travel, whereas secondary schools tended not to promote active travel and so relied on behaviours established prior to arrival at secondary school[66].

Research exploring school experiences for children and young people from low income families, identified a number of issues relating to travel[66]. For example, children who have a distance to walk, yet do not have appropriate clothes or footwear, can arrive at school wet and cold in bad weather[66]. Safety can also be a concern if children and young people have to walk in the dark and/or they have to go through neighbourhood territories they do not live in[66] (discussed further in Section 3.3). The health and mobility of parents and carers can also mean that it is not possible to walk children to school[66]. It was found that transport costs can affect children and young people's school attendance and time keeping. For example, children arriving late due to waiting for benefit payments to cover bus fares or being kept off school due to a lack of money for transport[66]. Children and young people's attendance and their participation in after-school activities and learning support can also be affected by routes which involve lengthy journeys, high costs or reliance on school transport[66].

2.6 Schools and family income

School attendance has been found to vary by deprivation. The Understanding Glasgow website outlines data from 2013/14 showing that primary and secondary school attendance varies across Scottish Index of Multiple Deprivation (SIMD) deciles. The most deprived decile had the lowest attendance rates and the least deprived decile had the highest attendance rates, and this deprivation-related gap in attendance widens in secondary schools[w]. The most deprived decile had the lowest attendance rate in 2013/14 for secondary pupils (89.4%) and the least deprived decile had the highest attendance rate for this age group (95.1%).

Living on a low income affects daily school experiences. The 'Cost of the School Day' research highlighted that costs, policies and practices throughout different parts of the school day place pressure on family budgets and mean that children and young people miss out on opportunities or feel different or excluded because of their family incomes[65]. In addition to issues of school food and travel (discussed above), the study found that a range of different aspects of school life were found to present problems for children from low income families, including: clothing, participation in fun events at school, school clubs and external trips/activities (therefore affecting friendships), and learning outside of school and resources for homework[65].

The report argued that schools cannot be expected to singlehandedly mitigate the effects of poverty, since a wide range of local and national stakeholders have a role to play[65]. However, it was suggested that increased knowledge of the effect which policies and practices have on children and young people from low income households can help schools poverty proof policies and practices within their direct control[65]. The final report suggested a range of actions for schools to overcome income-related barriers and reduce stigma, including: financial support, maximising opportunities to make activities/events affordable, enabling access to equipment/

[w] Understanding Glasgow. *Children's learning, School attendance, Deprivation, Primary.* http://www.understandingglasgow.com/indicators/children/education/school_attendance/neighbourhood/primary_schools/deprivation

Understanding Glasgow. *Children's learning, School attendance, Deprivation, Secondary.* http://www.understandingglasgow.com/indicators/children/education/school_attendance/neighbourhood/secondary_schools/deprivation

resources for learning and homework, and mitigating against inequalities and stigma[65]. Schools participating in the 'Cost of the School Day' project made a range of simple changes such as improving communication with parents about financial support, making approaches to lending resources consistent, starting homework clubs with computer access and removing the need for expensive badged sweatshirts[65]. Following the 'Cost of the School Day' project further work is underway to capture good practice from schools who are implementing changes informed by the original research, so learning on these issues is continuing to evolve.

3. NEIGHBOURHOOD ENVIRONMENT

Neighbourhoods are both physical and social entities comprising homes, schools, services and resources, social connections and the social norms of residents[6]. Most children and young people spend a large amount of time in their neighbourhoods[6] and their experiences of the social and physical aspects of this environment are important to their health and wellbeing[28]. Neighbourhood facilities, peers, role models, levels of violence and antisocial behaviour all contribute to the impact of neighbourhoods on children[6]. Children have been found to be more likely to thrive where cohesion, trust and safety are high, where young people feel they have the support of others around them, and where hazards, such as graffiti and crime, are low[28]. This chapter considers the following questions:

- What are the benefits of neighbourhood social networks and what do we know about the risks associated with peer influences? (Section 3.1)
- What impact do neighbourhood design, facilities and greenspaces have on children and young people? (Section 3.2).
- What do we know about children and young people's perceptions of safety and experiences of antisocial behaviour in their neighbourhoods? (Section 3.3)
- What has been learned about experiences of engaging and empowering young people in decision-making about their neighbourhoods and local areas? (Section 3.4)

3.1 Neighbourhood social networks

An important aspect of neighbourhood environments is social networks. Children and young people have numerous daily interactions with peers, adults and services; their behaviour, opportunities and outcomes will be in part shaped in this setting[6]. As children grow up their peer relationships take on more importance as they spend more time with friends, while interaction with the family remains constant or decreases[6]. Children and adolescents who have a wider range of – or higher quality – social support networks, either their own or through their parent(s), have been found to benefit in terms of having better general health, quality of life and/or wellbeing, and fewer reports of negative health outcomes[28]. Positive friendships can facilitate opportunities for the development of social competencies, afford different kinds of social support, and help young people to face new situations[28]. Furthermore, studies have found that good friendships can help moderate the adverse effects, such as parental separation or discord[8].

For children and young people living in poorer circumstances, strong local networks are often a source of strength and support[6] (sometimes referred to as 'bonding' social capital). However, young people in low income communities do not necessarily benefit from the proximity to wider networks (sometimes referred to as 'bridging' social capital), who can provide, for example, 'word of mouth' employment opportunities[6]. Indeed, research with 8-14 year olds in disadvantaged communities in the West of Scotland identified that although most of the children felt supported and safeguarded by close social networks, there was limited linkage to educational

and job opportunities which children in more affluent communities are more likely to gain[40]. Therefore, children who aspired to professional careers, for example, lacked individuals in their networks who could act as role models, provide information about the requirements for such jobs or facilitate access to suitable preparatory work[40].

The downsides to young people's social networks have been observed in terms of encouragement to experiment with risky behaviours such as substance use[28]. The following sections discuss research relating to young people and excessive alcohol consumption (Section 3.1.1) and young people and gang membership (Section 3.1.2). However, there are organisations working effectively to support young people to transition away from problematic networks and to develop positive activities and relationships within their neighbourhoods. For example, case study research of asset-based approaches within services described how Cassiltoun Housing Association, a community-based housing organisation in the east of Castlemilk, Glasgow, supports young people to become involved in clubs and events to help them develop respect for their neighbourhood[34]. The association has also been able to offer work placements to local young people and offer them employment or assist them with moving into other employment opportunities or education[34].

3.1.1 Young people and alcohol

Research exploring young people's relationship with alcohol reported how excessive alcohol consumption was socially and culturally constructed as a normal aspect of socialising for young adults . Drinking alcohol with friends was described as one of the few occasions in young people's lives for fun, making and maintaining friendships and group bonding. The effects of alcohol were reported to help with interacting with individuals and groups, in particular openness and the breaking down of barriers. Heavy episodic drinking was justified as a temporary behaviour associated with the freedom of young adulthood, so it was not perceived to pose a long-term health risk[68]. This perception was reinforced by young people's increasingly delayed development of full adult identities (e.g. delayed entry to the labour market) and by the marketing of alcohol to young people. Drinks marketing and the atmosphere of the bars and clubs targeting young people were reported to support and promote excessive drinking and to separate young people's drinking from more mainstream experiences[68]. For young adults with fewer socioeconomic resources excessive alcohol consumption was more likely to be outside the night-time economies of city centres[68]. These drinkers, often male and not on higher education trajectories, were more likely to be in private homes or public spaces, such as streets or parks[68]. The researchers noted that there are few approaches which target such drinkers, despite the increased risk of immediate harm for this group[68].

Gender differences have been observed in young people's drinking behaviours. For young women, drinking in groups was perceived to help mitigate the risks of male violence or assault on a night out[69]. The young women perceived that risks of violence, assault and rape were greater for women in cultures of normative drunkenness and also within an overall culture of the sexualisation of young women. Young women described a complex relationship between alcohol consumption and 'appropriate' forms of femininity, where excessive alcohol consumption was both required for 'being one of the girls' but simultaneously ran a risk of shame, guilt and embarrassment for compromising 'appropriate' femininity[69]. Young men have been found to be a lot less likely to adopt group solidarity as a safety strategy than young

women[69]. Heavy drinking was reported by young men to be a key part of perceived 'masculine' behaviours. Risks described by male respondents included exclusion from commercial drinking establishments and threats of violence or arrest while out drinking[69]. As young men became older, and less likely to drink outdoors, this could enhance safety[69].

The GCPH research reinforced the existing evidence base that people drink more to excess in youth, than when people reach their late 20s and start to 'settle down' (e.g. become employed, have a partner, become parents), tending to move to a pattern of more habitual drinking of smaller amounts rather than drunkenness (although they may still be consuming high levels of alcohol units)[68]. However, there were found to be some young people for whom these markers of 'adulthood' are delayed, where the excessive alcohol use phase continued over a prolonged period. Some participants with fewer socioeconomic resources appeared to achieve 'full' adult role identities through becoming parents. Although early parenting is often seen as a risk factor for longer-term life chances, for the parents in this study it led to moderated alcohol consumption and offered protection against street-based cultures of intoxication[68].

Overall, it is important to understand different patterns of drinking and how the social/cultural norms vary across the life-course and by gender, and tailor services and approaches accordingly. The research with young people has highlighted how participating in social networks can be simultaneously health promoting and risky[68,69]. The challenge is how to best to support young people to manage these potential threats and benefits. In some cases problem drinkers whose social networks are detrimental to their health need new networks offering different forms of support[70]. The research highlighted that campaigns which accept excessive alcohol consumption by young adults and seek to provide information to reduce harm, may risk further normalising excessive alcohol consumption and overlook opportunities to seek to provide alternatives to excessive drinking[68]. Indeed, the research found that some young people expressed a desire for alternatives to excessive drinking[68].

3.1.2 Young people and gangs

Research with children and young people in disadvantaged areas in the West of Scotland found that they were attuned to gang boundaries in the local area and they used this information to avoid areas where gangs gathered and areas dominated by gangs from other territories, where they would be perceived as the 'outsider'[40]. Neighbourhood safety is discussed further in Section 3.3. Not all the children interviewed, however, relied solely on avoidance approaches for safety, some also referred to the need to fight back or confront aggressors. Some of the young people, particularly but not exclusively boys, indicated that the safest or 'natural' response was to join the local gang[40].

Denys Candy, in his 2005 GCPH Seminar Series lecture on community partnership working, asserted that to counter gang cultures, young people have to be offered alternatives to rival the perceived benefits of gang membership (e.g. identity, group membership, sense of community, status)[71]. Indeed, research on the *Includem*[x] gang pilot found that the young people reported that their gang-related networks were important for social and emotional support, particularly in the face of challenges they

[x] The Includem service in Glasgow, works with young people at risk of custodial sentences from involvement in gangs and other forms of antisocial behavior: www.includem.org.

experienced, such as poverty or parental substance misuse[72]. The young people also outlined, however, the negative influences that their networks had in terms of offending and gang fighting[72].

Key to the success of the *Includem* intervention was recognition that the energy and ambitions that can lead an individual into trouble can, in other circumstances, be the energies which underpin successful life strategies[72]. Research highlighted the importance of a trusting relationship, provided by *Includem* project workers, in compensation for damaging peer relationships[72]. The slow development of a trusting relationship between the young person and *Includem* worker were found to be critical. From that starting point workers were able to promote the development of consequential thinking – getting the young people to reflect on the consequences of their actions on others[7]. The approach encouraged personal decision-making, helping young people to identify, access and use different opportunities to grow away from gang relationships[72]. Given the loss of emotional support that results from moving away from these peer relationships, the project workers encouraged a focus on future aspirations by identifying and linking the young people to more positive social networks, as well as community and educational resources. However, it was observed that it was important that this was done without detracting from a young person's sense of self-determination, which was crucial to them sustaining positive trajectories following the project[72].

The research found that although the project helped young people with the transition to alternative social networks and the move away from gang activity; the structural deficits within communities or wider society (e.g. prejudice, lack of job opportunities) could prevent young people from establishing successful lives, regardless of changes at the individual level[72]. Despite the positive intervention of the project workers, the young people still had to navigate issues of poverty, parents with difficult life circumstances and issues related to remaining in neighbourhoods where they may need to handle risky situations. The *Includem* gangs pilot, however, was part of a wider Community Initiative to Reduce Violence (CIRV), which linked agencies and services working with young people. Through consistency of approach *Includem* and CIRV were able to help the young people to navigate the risks posed by their immediate environments[72]. This is a good example of how facilitating joint working across agencies and services can help address the multiple dimensions of a problem. Similarly, multi-agency commitment to tackling local problems in a co-ordinated way was found to be an important aspect of the youth diversionary projects in Glasgow evaluated by GoWell[73]. Inter-agency working was found to enable simultaneous and reinforcing action, as well as referral opportunities to assist with the needs of individual participants (e.g. advice or training and employment opportunities)[73].

3.2 Neighbourhood design, greenspaces and facilities

Frumkin, in his 2006 GCPH Seminar Series lecture on urban design, questioned whether we are designing healthy, wholesome neighbourhoods in which children can develop[49]. Neighbourhood characteristics important to young people include accessible and safe green spaces (e.g. parks and playgrounds) and recreational facilities[6]. Evidence clearly shows that children who have better access to safe greenspaces and recreational facilities are more likely to be physically active, compared with those living in neighbourhoods (usually more deprived

neighbourhoods) with reduced access to such facilities[6]. If children and young people are enabled to be more physically active in their neighbourhoods, this could help tackle the increasing prevalence of overweight children[49].

Neighbourhood safety concerns have been raised in relation to traffic. Analysis of pedestrian casualty rates in Scotland reaffirms that pedestrian casualties among adults and children have continued to reduce in the last decade, but that the child pedestrian casualty rate is over two-and-a-half times higher than the equivalent adult rate[74]. Of further concern is the fact that significantly higher casualty rates are reported in more deprived areas[75]. Existing evidence shows that 20mph zones have the potential to be part of the solution to reducing casualty rates particularly among vulnerable road users, including children[75]. The Glasgow Health Commission recommended the introduction of mandatory 20mph zones in residential areas, especially those near schools; since there is clear evidence that this will save young lives, reduce the severity of injuries and prevent accidents in more deprived neighbourhoods[50]. A range of neighbourhood design measures (e.g. larger pavements, larger traffic islands, and more bike lanes) were also advocated by Frumkin to enable children to move about their neighbourhood more actively and independently[49].

Image taken from *"Planning for better health"*. GCPH; 2012.

3.2.1 Greenspaces

Greenspace needs to be flexible enough to cater for different age groups and the varying needs of the population[75]. The use of urban greenspaces has been found to contribute to levels of physical activity, as well as enhancing individuals' sense of wellbeing by providing opportunities for engagement with nature, and social interaction[75]. Rich Mitchell at the 2013 GCPH event on 'Nature and nurture, people and places' outlined evidence of additional mental health benefits of being active in outdoor natural environments, compared with other types of environment[76]. Studies on the health-promoting effects of urban greenspace have identified the need to provide opportunities for sports, unstructured activities (e.g. trees for children to climb) and passive pursuits (e.g. places to connect with nature and enjoy the view)

to take place[75]. Mitchell outlined initiatives such as forest schools which expose pupils to nature and provide significantly higher levels of physical activity in natural environments than in traditional school environments[76]. The John Muir Award also provides people of all ages with opportunities to access 'wild' places (including everything from parkland to wilderness) and has generated increased interest in visiting these environments[76,77]. Research on the John Muir Award found that those in the poorest circumstances were much less likely to have visited wild places before their Award experience, and that perhaps this group was most positively affected by the experience[77]. This is important, given that it is known that children who have experience of natural environments are more likely to use natural environments in adulthood, with their own children[77].

However, in some neighbourhoods concerns about the safety of outdoor spaces means that young people are less likely to use them. For example, young people participating in research in disadvantaged communities in the West of Scotland, reported that formal and supervised spaces, mostly indoors, compensated for the absence of safe outdoor public spaces[40]. A Glasgow Health Commission consultation found that school children often feel unsafe on streets and in public spaces[50]. Although children reported liking the city's parks and play spaces, they stated they wanted to see more safe and attractive places for children to get together[50]. The important safety issues are discussed further in Section 3.3.

3.2.2 Neighbourhood facilities

The young people participating in research in disadvantaged communities in the West of Scotland, reported that where they were able to access sports facilities and clubs in their local areas these were highly valued[40]. In addition to local government recreational facilities, the young people attended clubs run by local people which normally took place in low-cost premises such as schools and community halls, making entrance costs minimal and affordable[40]. The young people reported that their involvement in such recreational and social organisations helped to keep them safe and to avoid 'getting into trouble'[40]. However, other research has highlighted the difficulty of young people affording access to recreational facilities. The *Includem* project research found there were few cost-free opportunities that could be offered to the young people in their neighbourhoods and that the young people could not afford to pay for activities after the project stopped paying[72].

Literature on children's resilience has also highlighted the positive role that recreational facilities and community centres can play in helping children overcome adversities, such as poverty or intrafamilial difficulties[8]. Children's ability to take part in neighbourhood-based activities has been linked to developing their self-efficacy, self- esteem and control[8]. For some young people, however, this transition may require more than just the provision of community facilities and involve the need for specific personal support. GoWell research on youth diversionary projects found that simply keeping young people 'busy' was not perceived to be a sustainable approach, since many young people lacked sufficient parental support and guidance[73]. Thus, projects with personal and social development objectives were thought to be necessary[73]. Having staff who were skilled in dealing with young people, who were able to communicate and build trust but also offer structure and discipline, was reported to be important[73]. The projects were observed to be beneficial as they enabled young people to engage with people from other areas, as well as with young

people from other ethnic groups within their own area[73]. The involvement and visibility of the police and the fire service was also noted to be beneficial, in terms of reducing hostility and increasing respect for these services and workers[73].

Overall, evidence on health and wellbeing outcomes for young people, particularly for those experiencing economic disadvantage, points to the importance of the provision of community amenities and leisure activities, alongside personal support for those experiencing difficulties and/or efforts to increase their social connections[3].

3.3 Neighbourhood safety and antisocial behaviour

Differences in the quality and safety of neighbourhoods impact on the use and enjoyment of greenspaces and community facilities, and the potential health benefits that can be derived[40,75]. Research has found that parents' perceptions of neighbourhood safety are an important determinant of children's activity levels[76]. Children and young people's own experiences and perceptions are also important. For example, research with children and young people in disadvantaged areas of the West of Scotland found that the need to avoid certain routes at certain times can mean that access to recreational or other resources is restricted[40]. Spaces that were regularly occupied by adults or teenagers who were perceived to be aggressive or strange due to drug or alcohol misuse also prevented them from entering certain places[40]. These restrictions impact on children and young people's current wellbeing and potentially their future development[40]. Although the local neighbourhood risks were reported to relate to human behaviour, rather than the built environment[y]; aspects of the physical built environment were used to assess risks[40]. Built environment features, such as litter, graffiti, broken bottles and vandalised play areas indicate a risk of danger to children and young people[40,75]. For example, a study assessing the impacts of neighbourhood improvements in Calton, Glasgow found that despite physical improvements to a play park, young people and their carers perceived the park as being unsafe to use as it was reported to be regularly covered in glass and needles and often to be the site of drug deals .

Children and young people in disadvantaged areas in the West of Scotland reported taking active steps to protect themselves in their neighbourhoods[40]. Although not infallible, they demonstrated a detailed and highly differentiated understanding of the people and places surrounding them and the safety of different areas and how this might change by the time of day of the day, week or year[40]. For example, children chose not to walk as a way of avoiding perceived dangers in their neighbourhoods, preferring to use public transport, taxis or parental lifts. As children grew older, however, they were less willing to be seen with parents and relied more on friends or older siblings. Mobile phones were also discussed as a being a significant aid to safety and providing a sense of security[40].

The term antisocial behavior (ASB) has featured in UK legislation since 1998[z] and became widely used in the UK during the 1990s[79]. Some commentators have

[y] Except for traffic, which was a concern, especially for younger children[40] (discussed in Section 3.2).

[z] The 1998 Crime and Disorder Act defined antisocial behaviour (ASB) as 'acting in a manner that caused or was likely to cause harassment, alarm or distress to one or more persons not in the same household as (the defendant)'. This definition stipulated that the ASB must be an action or speech; it must be directed at someone who is not related to the perpetrator and is likely to cause a negative response. The Antisocial Behaviour (Scotland) Act (2004) built on this definition and stipulated that the action must occur on at least two occasions and could adversely affect witnesses, as well as direct victims[79].

been critical of the way the ASB term is often used in association with population subgroups that are already disempowered, such as disadvantaged young people[79]. It has been argued that apparent examples of young people's ASB often include harmless activities such as 'free play' (hanging out with friends in the street) and that young people are sometimes the object of intolerance from older people[79]. Analysis of GoWell survey data, however, revealed it was not older adults who were most concerned about ASB, rather it was younger adults (16-24) and people who were either vulnerable themselves or concerned for their own children[79]. Both young and adult residents in GoWell areas reported problematic behaviours perpetrated by people from a range of ages, including violence, vandalism, harassment and problems related to drinking and substance abuse[79,80]. Nevertheless, young people in GoWell study areas reported experiencing negative reactions and stereotyping from adult residents who failed to distinguish between problems with gangs and groups of friends hanging around together[80]. Research with the adult residents, however, found that there were varying views about whether 'hanging around' was really (or always) antisocial. Many of the adult residents were found to empathise with young people and argue that many young people do not pose problems for the rest of the community[80].

GoWell research suggested increasing connections between younger and older generations to help reduce the incidence of adults misreading harmless behaviours as threatening, as both young and adult residents reported low levels of social connections between younger and older generations[79,80]. GoWell also suggested working with communities to more clearly define 'intolerable behaviours' to help discourage the ASB label being applied to activities that are not intended to or likely to be problematic[80]. However, GoWell also emphasised that ASB in the neighbourhoods was not just a matter of addressing connections and misperceptions, since residents reported a range of intolerable behaviours[79,80]. The importance of tackling drink and drug problems was emphasised since they act as a barrier to social cohesion and add to perceptions of poor neighbourhood safety[80]. Research has also pointed to the need to maintain and manage neighbourhood environments (e.g. parks, play areas, open spaces)[73,81]. For example, the need to have park rangers and clear lines of communication for reporting graffiti, vandalism and ASB have been suggested[81]. Improved facilities for young people has also been advocated to address a reported lack of community amenities and leisure activities[72,81] and to provide safe, welcoming places for young people to socialise with likeminded friends[82]. However, in some circumstances the provision of facilities and activities needs to be in conjunction with personal support where, for example, young people lack parental support and suffer from low self-esteem and lack of confidence (as discussed in Section 3.2.3) and/or where they may be involved in peer networks that have a damaging influence, such as gangs (as discussed in Section 3.1.2).

3.4 Engaging and empowering young people

While young people's involvement in the development and delivery of neighbourhood planning and services is often discussed as a policy objective, it has been commented that in practice there is often little evidence of young people having a direct influence on decision-making[47]. Research exploring experiences of engaging community residents in Glasgow in neighbourhood improvements[78], planning

decisions[83], and a local partnership to address health inequalities[84], all found that young people were not involved in the processes.

Research investigating the involvement of young people in neighbourhood and local decision-making has identified a number of problems[47]:

- Young people can experience inconsistency in their experiences with public service decision-making, for example, in some circumstances their views are actively sought and in others their views are ignored or valued less than those of adults. This can lead to young people's disaffection.
- The influence that young people are able to have about decisions that affect their lives is dependent on such factors as their social class, geographical location, ethnicity, the free time they have, their confidence, and their social networks (including accessibility to adult decision-makers).
- Engagement with young people often focuses on 'youth spaces' (e.g. playgrounds, skate parks) or youth services, but such approaches have been criticised on the basis that they take a narrow view of what is important to young people and often occur within wider agendas that serve the priorities of adult decision-makers.

Young people have been found to care about a wide range of issues, including their neighbourhoods, schools and education[47]. However, most young people are not actively involved in political and public decision-making systems[47]. Therefore it has been argued that opportunities for inclusion and participation need to be provided in the everyday lives of young people[47]. Young people can be involved in direct empowerment where they make the decisions, often jointly with adults, and also indirect empowerment, where their views and preferences influence the decisions that adults make[47]. As discussed in Section 2.3 schools can be an arena where young people gain experience of involvement in decision-making, but providing opportunities or enabling young people to pursue roles within their neigbourhoods and local areas is also important.

An example of engaging young people was detailed in an *Animating Assets*[aa] case study of a neighbourhood partnership in Edinburgh, which included a 'Youth Talk' initiative to engage with young people about their experiences of local services and support[85]. As a result the neighbourhood partnership took a range of actions on the issues identified, including[85]:

- involving young people in recruiting local youth workers
- commissioning a new service, Positive Realities, run by local young people
- hosting the Youth Talk awards where young people honoured their peers
- initiating a participatory budgeting scheme for young people to award money to local agencies address their concerns
- developing a plan (forming part of the wider neighbourhood plan) to address services for young people and methods for meaningfully engaging them in the planning process.

[aa] *Animating Assets* was an action research and learning programme which supported the initiation and development of asset-based approaches in community settings and agency-led partnerships, and reflected on learning from the process[85].

The Big ShoutER project in East Renfrewshire, established by young residents to influence positive change in the design and delivery of their local youth services, has also been highlighted as an example of encouraging and supporting young people's active citizenship[28,35]. The project allows young people to be able to actively influence the design and development of health-related services, ensuring that the vision and ideas of local young people are recognised and addressed[35]. The direction of the project is led by the young people and staff work alongside to support them in a responsive and adaptable manner[35]. It was found that young people involved in the project developed new relationships and friendships and benefited from increased confidence, sense of purpose, self-belief and self-esteem[35]. Indeed, participation in civic engagement groups has been found to be associated with positive health and wellbeing outcomes in children and adolescents[28].

Image of The Big ShoutER project taken from *"Assets in Action: illustrating asset-based approaches for health improvement"*. GCPH; 2012.

4. SOCIOECONOMIC CONTEXT

As discussed throughout the preceding chapters on family, educational and neighbourhood environments, the socioeconomic context that children and young people grow up in impacts on their experiences and their health and wellbeing. This chapter specifically focuses on the way that poverty and income differences affect children's start in life and their future health and life outcomes. It is well established that economic policies matter for health[44]. Health inequalities are known to be intrinsically linked with social inequalities: in household income, life circumstances, education and opportunity[86]. This chapter considers the following questions:

- What do we know about child poverty in Glasgow and Scotland? (Section 4.1)
- Why is it important to take account of gender and women's experiences in relation to family income and poverty? (Section 4.2)
- How does poverty impact on families (Section 4.3) and what are the consequences for children (Section 4.4)?
- What are the policy and practice implications and what have we learnt to date from some approaches that have been implemented? (Section 4.5)

4.1 Understanding child poverty

National measures of relative poverty[bb], both before and after housing costs, show that relative poverty has reduced over the last 15 years[87]. In 1994/95, 21% of Scots were defined as being in relative poverty (before housing costs), but by 2013/14 this figure had dropped to 14%[87]. This reflects more people moving into employment and increases in hours worked[87]. However, after housing costs are accounted for, poverty in Scotland has not decreased to the same extent, particularly for families with children[87]. Changes to housing benefit eligibility, combined with the fact that rent values have increased at a faster rate than income, has resulted in little improvement in the standard of living[87]. In 2013/14 the proportion of children in Scotland experiencing poverty (after housing costs) remained at 22%, after increasing from 19% in 2011/12[87]. In 2014, 33% of all children in Glasgow were estimated to be living in poverty[87].

Levels of child poverty are considerably higher in Glasgow than in other Scottish cities and neighbouring local authorities[87]. The distribution of child poverty and vulnerability to child poverty varies dramatically across Glasgow; in some neighbourhoods in 2011 over 50% of children were living in poverty compared with less than 10% in other parts of the city, representing a five-fold difference in a key measure of life circumstance. The Institute for Fiscal Studies forecast[cc] a large increase in children living in relative and absolute poverty in Scotland by 2020[87].

[bb] 'Relative poverty' reflects the degree to which the lowest income households are keeping pace with the incomes of the population as a whole, with the thresholds potentially changing if the national median income changes[89].

[cc] This forecast did not take account of the 2015 budget, in which cuts to the welfare budget were announced, including benefits caps, restrictions on first time tax credits and family benefits and a freeze on most working-age benefits[87].

Given that Glasgow already has a higher proportion of people living in poverty across all age groups, it is predicted that many more Glaswegians, particularly children, are likely to suffer poverty in the future if these projections come to pass[87].

Figure 3: Child poverty in Glasgow and Scotland.

Source: Understanding Glasgow. *Children's poverty, Overview*.
http://www.understandingglasgow.com/indicators/children/poverty/overview

As well as changes to the numbers of people in poverty, the nature of poverty is changing in the current context of welfare reforms and austerity. In particular two relatively new issues have emerged[87]:

1. Increasing *in-work poverty*: In-work poverty is a measure of how many working households are affected by poverty. When considered as a proportion of overall relative poverty in Scotland after housing costs, the contribution of in-work poverty is actually increasing – indicating that employment is not a guaranteed route out of poverty[87]. By 2013/14, 56% of children in Scotland were experiencing poverty, living in households where at least one adult was in employment[87]. As Julia Unwin outlined in her 2016 GCPH Seminar Series lecture on poverty, many families who are poor experience low pay and irregular hours, short-term contracts and unreliable work[43].

2. Rising levels of *food poverty*[87]: For example, across Scotland, the number of children receiving food from Trussell Trust food banks has increased from 1,861 in 2011-2012 to 36,114 in 2014-2015[65].

4.2 Family income and gender

Pregnancy and the period after birth can impact on a family's circumstances with loss of earnings, increased costs of a larger family, and the possible need for a larger house[88]. Furthermore the responsibility of looking after a young child can make these changes more difficult[88]. The evidence shows that the impact is greater on women than men, with women being more likely than men to live in poverty and work in part-time and/or low-paid jobs and have caring responsibilities which may limit their capacity for paid work[88]. The affordability of childcare has been shown to be a factor influencing levels of female participation in the labour market; for many, particularly families with low incomes, the cost of childcare represents a financial disincentive to return to full-time work[89].

The phenomenon of 'hidden poverty' is more likely to impact women, as they have been found to be more likely than men to go without in order to provide for families, and to have responsibility for most of the management of poverty and debt[88]. This is likely to impact adversely on their mental health and wellbeing[88]. Mothers have been described as acting as poverty 'shock absorbers', since they often try to shield their children from the stigmatising effect of poverty[42]. It has been argued that championing children is inextricably linked to championing gender inequality[42].

The majority of lone parents are female[dd]. Balancing work with family responsibilities has been found to be particularly challenging for lone parents, including barriers to seeking and taking up work, restricted options and choice, lack of control and difficulties in sustaining work[90]. A GCPH film provides an account of the life of one lone parent, conveying how the experience has both enriched her life but also presented sacrifices and bureaucratic obstacles[91]. Research has highlighted a range of issues and trends that underline the vulnerability for lone parents and the need to provide specific support[90]:

- Lone parent households are six times more likely than couple households to contain no earner.
- Lone parents are more likely to experience underemployment and in-work poverty, and their median earnings are one-third of the earnings of couples with children.
- Lone parent families are more likely to experience child poverty than are couple families, regardless of whether they are in or out of work.
- Lone mothers tend to have worse health than couple mothers and are much more likely to report domestic violence.

Addressing these issues is particularly important for Glasgow, since lone parent households make up 40% of all households with dependent children[87]. Furthermore, the number of lone parent households is predicted to rise slightly[87]. Research with lone parents emphasised the importance of considering the needs of lone parents in the planning and delivery of services across childcare, transport, employment support, poverty responses and future welfare provision[33]. Three important problems with the current welfare regime were identified[33]:

[dd] The 2011 Census data shows that the male lone parent rate was only 7.8% in Scotland and even lower in Glasgow at 6%[90].

1. Lone parents can feel pushed into applying for or accepting jobs without considering the sustainability of the job in light of childcare responsibilities and children's wellbeing.
2. There can be a mismatch between childcare availability and the point at which lone parents are required to search for, and take on, work[ee].
3. Typically lone parents experienced a lack of support from Job Centre staff, reporting fortnightly signing-on sessions to be unpleasant experiences with a suspicious and punitive atmosphere, eroding personal confidence.

The research informed a range of work to support lone parents, for example, in Glasgow the Lone Parents Development Project was established to take forward wide ranging actions to improve and further understand the experiences of lone parents.

4.3 Low incomes and family life

Poverty means having a low income but it is also about living standards and the ability to participate in society[65]. Unwin highlighted that it is families living on low incomes that have faced the greatest price increases, since the largest part of the budget of poorer households goes on those costs which have risen most – heating, housing, food, and childcare[43]. This is often exacerbated by the fact that families experiencing poverty have fewer options to control costs and end up paying more, known as the 'poverty premium'. Unwin discussed, for example, how a lack of internet access prevents access to price comparisons and cheaper goods, and how a lack of transport results in reliance on higher costs in local corner shops[43].

Image taken from *"Healthier, Wealthier Children: learning from an early intervention child poverty project"*. GCPH; 2013.

[ee] Adults are required to search for, and take on, work as soon as the youngest child reaches the age of five. Where the child turns five in the months before starting school, availability of sufficient hours of childcare is a challenge, particularly during the summer holidays when free nursery provision ceases[33].

The gap between household incomes and what the public agree is needed to reach a normal standard of living has widened dramatically in recent years[65]. In 2008, families with children, working full-time on national minimum wage had nearly enough to get by; today they fall 15% short[65]. This shortfall in income can mean difficulties in affording the basics, including food[65]. Being able to afford quality housing is also more difficult for people living on low incomes. Having a comfortable and secure place to live is known to be critical to family wellbeing, physically and psychosocially[6]. In some cases poor housing is at the root of problems facing children and their families; in others it exacerbates difficulties the household is already facing[6]. For example, parents in overcrowded housing may be less responsive to their children, which can be explained by the higher levels of stress and depression among parents living in overcrowded conditions[6]. Living in neighbourhoods with high levels of deprivation can also create conditions that stress the family unit[6]. Jennie Popay, in her 2006 GCPH Seminar Series lecture on lay knowledge, discussed how people living in disadvantaged communities had described the link between poor places and poor health being a result of having problems that are beyond one's control – that lack of power to change the situation was reported to result in stress[19].

An inadequate income also makes it difficult for families to participate in activities that others do routinely, such as travelling to the supermarket, repairing household goods, buying phone credit to contact friends, booking a block of swimming lessons or buying new school shoes[92]. School holidays, a pleasurable time for many children across Scotland, can be a very difficult time for families on low incomes. Research in Glasgow has found that school holidays can place emotional and financial pressures on families, as parents struggle to juggle work and childcare and to provide food, clothing and heating during the holidays[92]. Parents expressed guilt that they cannot afford the same treats, trips and experiences that other children enjoy during the holidays[92]. Research in communities with different income profiles, across three UK cities, found that people across all communities in the study want the best for their children[7]. However, there were differences in the opportunities to enact this aspiration. The ability to parent, particularly in the deprived and middle income areas, was reported to be under threat from austerity and associated financial stress. The harsher economic climate was believed to be increasing pressure on families and family life was presented as "increasingly at risk"[7]. A recent GCPH blog outlined that research in Scotland, using Growing Up in Scotland data, shows that families experiencing financial vulnerability have increased maternal emotional distress and lower child wellbeing[93]. The impacts on children are discussed further below.

4.4 Impacts of child poverty

The impacts of child poverty are of concern in terms of their health in childhood (see 4.4.1) and adulthood (see 4.4.3), as well their future life prospects (see 4.4.2).

4.4.1 Immediate health impacts

Children and young people living in damp, mouldy homes are more prone to respiratory conditions than those in dry homes[6]. Such symptoms can lead to sleep loss and restrictions on children's daily activities[6]. Living in cold, damp housing may also have an impact on mental health, increasing children's chances of experiencing stress, anxiety and depression[6]. There is some evidence to suggest that improving

housing conditions can lead to measurable mental health gains[6]. The space available within a home can also impact on other wider health determinants. Qualitative research with small numbers of families has shown a link between overcrowding and stress, tension and sometimes family breakup; anxiety and depression; a lack of privacy (particularly for adolescents) and disrupted sleep patterns[6]. Housing quality can also impact on educational attainment, for example if there is insufficient quiet, warm space for children to do their homework[6].

Looking at the impacts of poverty overall, it has an overwhelmingly negative effect on children's health, their cognitive development and their social, emotional and behavioural development[65]. The consequences of poverty on children's health have been shown to affect mortality, health at birth, growth, physical morbidity, and psychological and developmental disorders[94]. Bruce McEwen in his 2007 GCPH Seminar Series lecture on brain development discussed research by others which had found that children experiencing poverty and associated problems were found to have increased levels of psychological distress, helplessness and poor self-regulatory behaviours[51]. He also outlined research that had found that levels of poverty were related to increases in blood pressure and body mass at nine years of age[51]. A 2013 systematic review reported that disadvantaged children and adolescents were two to three times more likely to develop mental health problems than their more affluent peers[95]. The Understanding Glasgow website highlights that children and young people who experience control over their own lives can see the point in developing good habits (e.g. diet, exercise, positive coping strategies) and this has long-term positive effects[ff].

The impacts of poverty on child health are of critical concern, since child health is so important in a range of ways, as summarised on the Understanding Glasgow website[dd]:

- Poor physical or mental health causes a child to suffer.
- Physical damage sustained in childhood is not always reversible (e.g. rotten teeth do not re-grow, diabetes developing in adolescence).
- Poor health in a child causes strain in the family, affecting parents'/carers' health, relationships and employment.
- If poor physical or mental health results in poor educational attainment and disaffection with society, the underachievement and low self-esteem will affect wellbeing for life (discussed further in the next section).

4.4.2 Impacts on educational attainment and future prospects

Research on the 'Cost of the School Holiday' has highlighted concerns about access to 'enriching activities' and to food over the school holidays for children and young people living in poverty, both of which can impact on attainment[92]. For example, the report cited research findings that children living in poverty, with no access to free school meals during the school holidays, dropped further behind their better-off peers and were often physically and mentally unprepared for learning when they returned to school[92].

[ff] Understanding Glasgow. *Children's health, Overview.* http://www.understandingglasgow.com/indicators/children/health/overview

The detrimental effects of child poverty can become a vicious cycle, where poor physical and mental health and low educational achievement increase the risk of lower earning capacity and poverty and continued poverty throughout the lifespan[94]. A review of the Scottish school system in 2007 by the Organisation for Economic Co-operation and Development (OECD) highlighted stark inequalities in education-based outcomes, primarily due to socioeconomic context rather than the school system itself[44]. An achievement gap was reported to open up at about Primary 5 and continue to widen throughout the junior secondary years (S1 to S4)[44]. Other UK studies have also found that attainment levels are largely due to differences in the social background of children rather than school systems[44]. This not to say, however, that education systems and schools are unimportant nor that families and parents cannot have an influence. For example, reviews have highlighted the importance of teacher quality in explaining some outcomes[44] and research has found that parental involvement in children's learning and stimulating home environments influence children's performance regardless of socioeconomic background[6]. Overall, however, it is generally agreed that socioeconomic contexts have the most influence on educational attainment[44] and this in turn increases the risk of future poverty and associated poor health[94].

4.4.3 Impacts on future adult health

The link between poverty at all stages of the life-course and subsequent poor health is proven and profound[44]. Even when an individual has overcome disadvantage and moved out of poverty in adulthood, evidence suggests that a 'health penalty' of early life socioeconomic adversity still continues into adulthood[22]. Adverse childhood socioeconomic position has been reported to be associated with a poorer health profile in mid-adulthood (45 years), independent of adult social position and across diverse measures of disease risk and physical and mental functioning[22]. The reasons why socioeconomic circumstances in the early years result in increased morbidity and mortality in adulthood is less clear for most diseases – whether as a result of biological programming due to critical events *in utero*, the accumulation and interaction of harmful exposures along the pathway between infancy and adulthood, or a combination of both[22].

The pSoBid study demonstrated the significance of child poverty for later health in adulthood. The study found that stressful environments in early life, even when an individual appears to have successfully coped and adapted to a later adult role, continued to exert an influence[96]. The study highlighted that chronic stress has a negative impact on wellbeing and cognition throughout the life-course. The data revealed that the early life environment influences, through biological pathways, the propensity to develop chronic diseases in later life[97]. The data also suggested that the duration of childhood spent in poverty or in a household of low socioeconomic status has an effect that accumulates over time to adversely affect morbidity and mortality in later adulthood[97]. Furthermore, it was found that the effects of the socioeconomic environment become embedded at a biological level (within the genotype[gg]). These changes are transmissible from one generation to the next through epigenetic processes (discussed in Section 1.2), contributing to health inequalities in subsequent generations[96]. The pSoBid findings added further weight to the argument for the need to reduce early life adversity, which will help support the development

[gg] Genotype: genetic make-up of an individual, the internal coded, inheritable information.

of more resilient phenotypes[hh] and individuals who will be less susceptible to stress-associated cognitive disturbances and disorders in later life[96].

4.5 Poverty and income inequalities – policy and practice implications

The evidence outlined here, presents a clear case for the need to reduce poverty to improve the health of children and young people, and their subsequent health as adults. As was argued at the 2011 GCPH Glasgow's Healthier Futures Forum there is a need to ensure preventative spend and early intervention is focused on preventing children and families from living in poverty and on reducing the current poverty levels[42]. However, in addition to the need to reduce poverty there is a need to be concerned with income differences in general. As outlined in a GCPH blog about Michael Marmot's 2015 book 'The Health Gap' – inequality is not just a matter of rich versus poor, but of differences across the social spectrum which affect everyone[98]. The Marmot review[ii] of health inequalities confirmed that children's outcomes improve progressively the further up the socioeconomic spectrum, and worsen progressively down[13]. The Marmot Review therefore advocated improving public health by addressing social inequalities, including a focus on early years[99].

Improving outcomes for children and young people also necessitates critical actions to tackle poverty, reduce income inequalities, and mitigate the impacts of existing inequalities. The following two sections discuss approaches that have been implemented to maximise the incomes of families at risk of poverty (Section 4.5.1) and enable children in disadvantaged communities to increase their confidence and fulfill their potential (Section 4.5.2). The final section outlines the wide ranging actions needed to address poverty and social inequalities (Section 4.5.3).

4.5.1 Healthier Wealthier Children income maximisation project

Healthier Wealthier Children (HWC), conceived by the GCPH together with NHS Greater Glasgow and Clyde (NHSGGC) and Glasgow City Council (GCC) colleagues, established information and referral pathways between the NHSGGC early years' workforce and money/welfare advice services. It was an early intervention approach to address the needs of pregnant women and families experiencing poverty. At the 2011 Healthier Futures Forum, Jackie Erdman highlighted HWC as an example of inequality-sensitive practice, since the project responded to evidence that income is a determinant of health and recognised that services had a role to play[42]. The project also included elements of a proportionate universal approach, which involves a response proportionate to levels of disadvantage necessary to reduce the steepness of social gradients in health.

Evaluation of Phase 1 (October 2010 to January 2012) found that HWC had a positive impact on pregnant women and families with young children in terms of maximising income, reducing and managing debt, and providing support to increase financial capability, confidence and wellbeing[88]. HWC was found to have raised awareness of child poverty issues among the early years health workforce and provided a mechanism by which they could refer vulnerable individuals and families

[hh] Phenotype: the observable characteristics or traits of an individual which result from interactions between an individual's genes and the environment.

[ii] Marmot M. Fair Society, Healthy Lives. *Strategic review of health inequalities in England post-2010*. London: The Marmot Review; 2010. Available at: www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review

with money worries to advice services[88]. HWC provided an important new pathway to mitigate the impact of poverty and disadvantage. In adopting a proportionate universal approach and inequalities sensitive practice, HWC demonstrated good reach in accessing low income households, lone parents and families with disabilities[88]. There was less observed success, however, in reaching kinship carers and people with mental health and addiction problems[88]. As a consequence Phase 2 (April 2012 to March 2013) sought to target specific groups facing disadvantage (e.g. homelessness, women not engaging with mainstream early years' services, teenage parents)[100]. Evaluation of Phase 2 highlighted the overlapping and complex needs some expectant and new mothers may have[100]. For example, at a homelessness pilot, included in Phase 2 of HWC, over 25% of the clients were either asylum seekers or had humanitarian protection, and over 50% had some disability in the family unit. Such clients required support in overcoming their specific challenges (e.g. complex welfare benefit arrangements)[100].

Overall, the HWC evaluations provided evidence of the effectiveness of such a partnership approach in maximising the income of pregnant women and families with children, at risk of or experiencing poverty[100]. It was found that by having this approach integrated into the delivery of health services, previously unmet need was identified. A significant number had been unaware of their entitlements and had not had contact with money advice services. Families gained direct financial benefits[jj] and benefited in additional ways[100]:

- Increasing understanding of entitlements and timing of eligibility.
- Advocacy to renegotiate payments to creditors; applications to charities for household equipment.
- Providing information on childcare, employment and housing tenancy.
- Referring people to further sources of support, for example, for immigration issues, social work support or accessing voluntary organisations.

Overall, many of the clients reported improved quality of life, reduced stress and worry, and better relationships. For some families the financial gains enabled essential improvements to the home environment. As a result of HWC, permanent changes have been made to money advice services across the NHSGGC area to better meet the needs of mothers and children, with new contact protocols and a greater diversity of contact modes established (e.g. telephone triage, outreach clinics, house visits). Money advice and health staff proved keen to continue to work together following the HWC project. HWC demonstrated the achievements of implementing a system-wide approach (without a need for major service re-design) to support financial inclusion and income maximisation. Additionally, HWC demonstrated the way that services can play a role in maximising their contact with a client to link them to additional support from other public services, in order to bring about wider benefits for families. However, it cannot be assumed that such interventions will fully alleviate future financial concerns, since significant and wide-ranging changes are needed to address the underlying social inequalities[100].

[jj] Between the service launch in October 2010 and May 2016, a total of 11,103 referrals to HWC money advice services were made, with a total financial gain for clients of £11,658,777. Financial gains included: child-related and other benefits; backdated benefits; savings from debt written off; reduced debt payments; switching utility tariffs; one-off payments including social fund awards; and Healthy Start Vouchers.

HWC is now mainstreamed across NHS Greater Glasgow and Clyde and within Glasgow City's Poverty Action Plan. A recent University of Edinburgh briefing argued that adapting and extending approaches like HWC could help address child poverty and financial vulnerability across Scotland[101]. It argued that combining a financial inclusion role within universal health services would provide a potent mechanism for improving outcomes for children and families[101].

4.5.2 Big Noise programme

Sistema Scotland[kk] is a charity working to create permanent social change in some of the most disadvantaged communities in Scotland. Based on the Venezuelan *El Sistema* model, Sistema Scotland's Big Noise programme uses music making to foster confidence, discipline, teamwork, pride and aspiration in child participants, their families and across their wider community[102]. There are currently three Big Noise communities in Raploch, Stirling (established in 2008), Govanhill, Glasgow (established in 2013), and Torry, Aberdeen (established in 2015). It has also been announced that a fourth Big Noise community will be established in Douglas, Dundee in 2016.

The Big Noise teams provide an intensive orchestral programme for their families and the wider community. It is more than a 'community-based project'. Richard Holloway, the Chair of Sistema Scotland describes the Big Noise programme as being in these children's lives virtually from when the umbilical cord is cut to initiate "long-term, deep, organic change", enabling the children to become a more confident, disciplined and more fulfilled version of themselves[102]. The programme provides music classes for babies right through to when they leave secondary school. The programme also provides class trips, after-school and holiday care, free healthy meals and more. The Big Noise programme is a constant in the children's lives no matter what else is going on[102].

Image taken from *"Evaluating Sistema Scotland – Initial Findings Report"*. GCPH; 2015.

[kk] Big Noise, Sistema Scotland. http://makeabignoise.org.uk/sistema-scotland/

An initial evaluation of the Big Noise programme operating in Raploch and Govanhill concluded that it is a high-quality programme providing a challenging and rewarding learning experience, with the potential to positively impact on the health, wellbeing and life prospects of participants[103]. The evaluation acknowledged that the positive work undertaken by Sistema Scotland, the schools involved, and the wider partners, has been undertaken during a challenging time of increased service demand and reduced resource[103]. Both Raploch and Govanhill experience multiple deprivation with significant numbers in the communities affected by unemployment, austerity measures and welfare reform. The majority of Big Noise participants were found to come from disadvantaged households, and a large proportion are children who sometimes struggle to engage with learning and education in other contexts[103]. An identified key strength of Sistema Scotland's approach was ensuring that each Big Noise centre is tailored to the specific needs of the community and target population[103]. Furthermore, there is significant scope within programme delivery to be flexible and innovative to accommodate specific individual needs, particularly in terms of promoting inclusion for those with complex needs[103].

Participants were found to be increasing in confidence and self-esteem, acquiring skills for life (e.g. self-discipline, time management, organisation), and to have higher school attendance[103]. Importantly, music making was found to be a source of happiness, fun and enjoyment[95]. Furthermore, the challenge and reward of learning complex skills required to play musical instruments was found to generate particular benefits for emotional health, notably pride and satisfaction. The opportunities for praise and recognition; to perform as an orchestra ensemble, underpinned the role of the programme in generating confidence and self-esteem[95]. A recurring theme throughout the evaluation is Sistema Scotland's emphasis on the quality of the relationship between musician and participant[103]. This relationship proved pivotal to the impacts identified. This serves to emphasise that it is the quality of inter-personal interactions within services or programmes are at the heart of changing lives[95]. The deep social change that Sistema Scotland aspires to achieve within disadvantaged communities is predicated on being a permanent, visible and stable part of community life over the long term and on fostering sustained quality relationships between musician and participant[95]. This approach is consistent with attachment theory[95] discussed in Section 1.1.3.

The initial evaluation report concluded that the Sistema Scotland model encompasses innovation, sustained commitment and person-centered ways of working, all of which are needed to achieve better prospects for disadvantaged communities[103]. The GCPH will be continuing to evaluate the impacts of the Big Noise programme over time and draw out lessons from the Sistema Scotland approach to increase understanding of how such social interventions with children and young people can help reduce inequalities in health, wealth and opportunity.

4.5.3 Reducing poverty and socioeconomic inequality

Actions are needed to reduce socioeconomic inequality, while at the same time working to mitigate the health and social impacts of existing inequality[86]. Inevitably this involves a very wide range of policy and practice actions both nationally and locally. For example, the types of policies that have been discussed in relation to achieving these objectives, both for Scottish society as a whole and children and young people specifically, have included:

- **redistributive fiscal policy** (e.g. progressive systems to tax income and wealth)[44,86]
- national **living wage** and local living wage employment initiatives (e.g. Glasgow's living wage campaign)[44,86]
- provision of greater **income security** (e.g. guarantee of hours for those who wish them)[44]
- provision of affordable, high-quality **childcare** which both enables parents to work and enables child development and learning[33,44]
- **employment practices which enable flexibility** to reconcile work and childcare demands[3,33]
- provision of adequate **welfare support** in proportion to need[44,86]
- **income maximisation** initiatives[86]
- a **poverty proofing** approach to national and local policies and spending decisions[44] and to everyday practices, such as the **school day**[65]
- a focus on improving **neighbourhood quality** in disadvantaged areas and support for the **social dimensions of community life**
- investment in **housing**[86] and implementation of 'living rent' proposal (where social housing rents linked to local earnings)[44]
- targeting **cold and damp housing** and people who struggle to afford fuel[44]
- free or subsidised **transport** for those on low earnings[44]
- services that are **universal and proportionate** to increasing need[13,86]
- services adopting **inequality sensitive practices** (health and social care professionals ensuring service equity and supporting a rights-based approach that responds to the life circumstances that affect health)[42].

5. SUMMARY AND IMPLICATIONS

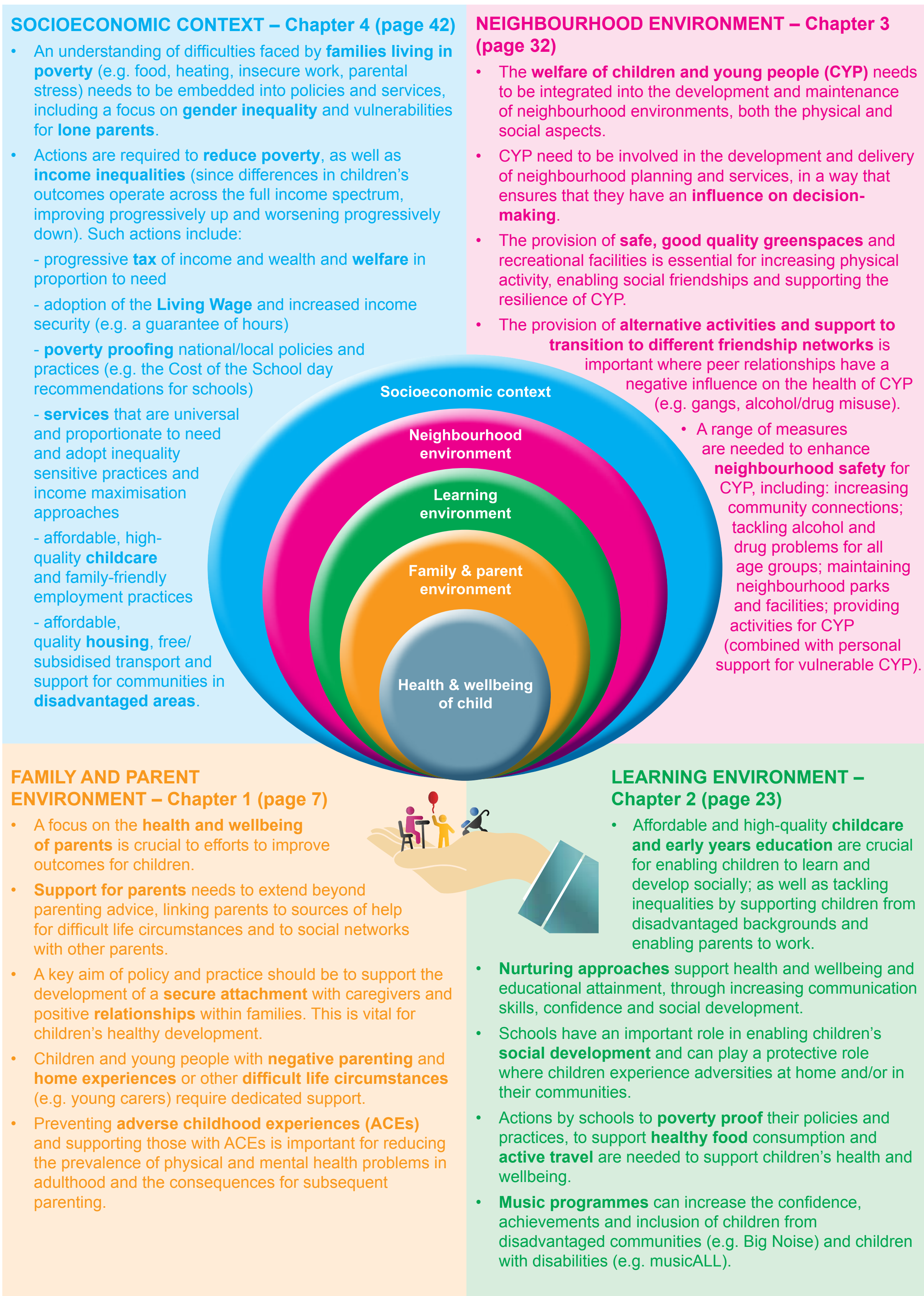
There is overwhelming evidence outlined in this report, and many other evidence sources, of the critical importance of the early years and early life experiences for future physical and mental health and life outcomes. However, discussions about improving children's lives are often undertaken in isolation from discussions about parents' or carers' lives. The evidence outlined in this report demonstrates that these cannot be separated out. Outcomes for children clearly depend on parents' or carers' socioeconomic contexts (work, income, access to housing and good quality neighborhoods), life circumstances (e.g. lone parenthood) and health and wellbeing (e.g. smoking, alcohol misuse, stress) which are influenced by their contexts, circumstances and neighbourhood environments. Hence, there is a need for approaches and services to have an awareness of the context in which children and young people live and to seek to be inter-generational, affecting parents as well as children, to reduce the inter-generational transmission of disadvantage and poorer health.

Efforts to improve health and reduce health inequalities need to focus on all spheres of children's lives: their family and parental environment; their learning environment; their neighbourhoods; and crucially the socioeconomic circumstances in which they are growing up. Therefore the needs of children and young people need to be considered in all policies. Figure 4 overleaf provides a high-level summary of the range of actions required by national and local governments, public services, third sector and others (e.g. employers, community organisations) to make a difference to each of the spheres of influence outlined in this report: parent and family; learning; neighbourhood; and socioeconomic context. Inevitably these spheres are all inter-related, so actions relating to one influence another. In particular, the evidence clearly shows that material factors cut across all of the spheres. Growing up in poverty has a negative impact on children's health and their subsequent health in adulthood, as well as having a detrimental impact on educational attainment and future risk of poverty (with associated health risks). In addition to the actions needed to reduce poverty and income inequalities (see Section 4.5.3), policy and practice operating at family, school or neighbourhood levels also need to take account of socioeconomic differences. For example, services working with parents can play an important role linking them to financial advice, help with housing or employment issues, and schools can implement policies to minimise barriers for children in poverty.

As well as there being clear actions across each of the spheres of influence (outlined in Figure 4) there are a number of key themes that have emerged from this evidence review which cut across all of these spheres and need to be embedded within approaches adopted. These are detailed in Figure 5.

There are already a wide range of policies and practices implemented nationally, within Glasgow and different local areas across Scotland which are intended to improve outcomes for children and young people and to reduce poverty. Detailing here the key cross-cutting themes and summary of actions to emerge from this evidence base, is not to overlook these widespread and important policies and practices, rather it is intended that they inform how approaches are undertaken and provide a challenge to explore how further progress can be made.

Figure 4: Actions to improve child health and wellbeing.



SOCIOECONOMIC CONTEXT – Chapter 4 (page 42)

- An understanding of difficulties faced by **families living in poverty** (e.g. food, heating, insecure work, parental stress) needs to be embedded into policies and services, including a focus on **gender inequality** and vulnerabilities for **lone parents**.
- Actions are required to **reduce poverty**, as well as **income inequalities** (since differences in children's outcomes operate across the full income spectrum, improving progressively up and worsening progressively down). Such actions include:

  - progressive **tax** of income and wealth and **welfare** in proportion to need

  - adoption of the **Living Wage** and increased income security (e.g. a guarantee of hours)

  - **poverty proofing** national/local policies and practices (e.g. the Cost of the School day recommendations for schools)

  - **services** that are universal and proportionate to need and adopt inequality sensitive practices and income maximisation approaches

  - affordable, high-quality **childcare** and family-friendly employment practices

  - affordable, quality **housing**, free/ subsidised transport and support for communities in **disadvantaged areas**.

NEIGHBOURHOOD ENVIRONMENT – Chapter 3 (page 32)

- The **welfare of children and young people (CYP)** needs to be integrated into the development and maintenance of neighbourhood environments, both the physical and social aspects.
- CYP need to be involved in the development and delivery of neighbourhood planning and services, in a way that ensures that they have an **influence on decision-making**.
- The provision of **safe, good quality greenspaces** and recreational facilities is essential for increasing physical activity, enabling social friendships and supporting the resilience of CYP.
- The provision of **alternative activities and support to transition to different friendship networks** is important where peer relationships have a negative influence on the health of CYP (e.g. gangs, alcohol/drug misuse).
- A range of measures are needed to enhance **neighbourhood safety** for CYP, including: increasing community connections; tackling alcohol and drug problems for all age groups; maintaining neighbourhood parks and facilities; providing activities for CYP (combined with personal support for vulnerable CYP).

FAMILY AND PARENT ENVIRONMENT – Chapter 1 (page 7)

- A focus on the **health and wellbeing of parents** is crucial to efforts to improve outcomes for children.
- **Support for parents** needs to extend beyond parenting advice, linking parents to sources of help for difficult life circumstances and to social networks with other parents.
- A key aim of policy and practice should be to support the development of a **secure attachment** with caregivers and positive **relationships** within families. This is vital for children's healthy development.
- Children and young people with **negative parenting** and **home experiences** or other **difficult life circumstances** (e.g. young carers) require dedicated support.
- Preventing **adverse childhood experiences (ACEs)** and supporting those with ACEs is important for reducing the prevalence of physical and mental health problems in adulthood and the consequences for subsequent parenting.

LEARNING ENVIRONMENT – Chapter 2 (page 23)

- Affordable and high-quality **childcare and early years education** are crucial for enabling children to learn and develop socially; as well as tackling inequalities by supporting children from disadvantaged backgrounds and enabling parents to work.
- **Nurturing approaches** support health and wellbeing and educational attainment, through increasing communication skills, confidence and social development.
- Schools have an important role in enabling children's **social development** and can play a protective role where children experience adversities at home and/or in their communities.
- Actions by schools to **poverty proof** their policies and practices, to support **healthy food** consumption and **active travel** are needed to support children's health and wellbeing.
- **Music programmes** can increase the confidence, achievements and inclusion of children from disadvantaged communities (e.g. Big Noise) and children with disabilities (e.g. musicALL).

Figure 5: Key cross-cutting themes.

1. **The fundamental importance of emotional attachments and relationships** Strong bonds and positive relationships within families, in schools and in neighbourhoods are crucial to children's healthy development and underpin their future development of good relationships and good parenting.

2. **The critical need for children and young people to feel safe.** Not feeling safe at home can have damaging long-lasting impacts for children into adulthood; levels of safety and cohesion in schools impact on health and wellbeing; and use and enjoyment of neighbourhoods is affected by experiences and perceptions of safety.

3. **The potential for negative early years and early life experiences to exert lasting damage, but also the potential for healing through effective support and changes to circumstances.** A lack of attachment and stressful experiences impact negatively on physical and emotional development, with potentially life-long consequences. However, there is also significant capacity for healing through changing circumstances, nurturing approaches, and supporting resilience through family support, schools, communities and services.

4. **The need for approaches and service delivery to understand and respond to differences in personal circumstances.** Examples outlined in this report include issues relating to: family poverty, lone parenthood, disability (both parents caring for children and children caring for parents), children and parents with Adverse Childhood Experiences (ACEs), and teenage/young parents.

5. **The need for children and young people to be involved in decisions affecting their lives.** Meaningful involvement is required which influences outcomes and cut across children's different environments – their family, schools and neighbourhoods.

6. CONCLUSION

This report brings together GCPH learning about how health is influenced by experiences in the early years, childhood and adolescence, and reflects the Centre's focus on addressing health inequalities within Glasgow and Scotland. This report is not a systematic evidence review; nevertheless it draws upon a wide spectrum of evidence, and brings together different types of knowledge from a range of sources. It has outlined ways in which this body of knowledge can inform future actions.

The evidence presented in this report underlines the fact that there are predictable consequences throughout the life-course for children[105], depending on their attachment with caregivers and family relationships, the socioeconomic circumstances in which they are growing up, their learning and development within nurseries and schools, and their day-to-day lives within their neighbourhoods. There is strong evidence that there are actions that can be taken across all these spheres (focusing on both parents and their offspring) to facilitate the best outcomes for children. This evidence review emphasises the importance of emotional attachments and relationships and highlights the need to both prevent Adverse Childhood Experiences (ACEs) and to ameliorate the impacts where these have occurred. We can build on learning to date and continue to seek to shift from historical 'shame and blame' approaches to those that are focused on 'understanding and nurturing' and recognising that healthy organisations, neighbourhoods, systems and services are needed to best support children. Such approaches take account of *what* actions need to be put in place, but also *how* these are best undertaken. There are, additionally, significant concerns about the impact of poverty and inequalities on today's children and the anticipated increases in levels of child poverty. There is an urgent need to build on the policies and practices underway and to further progress actions that help to tackle the significant inequalities that exist and to ensure that all children in Scotland have the best start in life.

Ensuring that children have a good start in life, is the right thing to do for children now, but it is also a long-term strategy to reduce future inequalities[105] – since today's young people become Scotland's future adult population and potential parents to the next generation.

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