

## Chapter 7

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# Life stage: School years

### Chapter author

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### Key statistics

- Currently there are around 8.2 million pupils in all schools in England. Some 4.3 million pupils are in state-funded primary schools and 3.2 million pupils in state-funded secondary schools.<sup>1</sup>
- Eligibility for free school meals is a marker of social deprivation. Pupils known to be eligible for and claiming free school meals account for 19.2% of pupils in maintained nursery and state-funded primary schools and 16.3% of state secondary school pupils. Among pupils in special schools the figure claiming free school meals is much higher (38.3%) and even higher for pupils attending referral units and alternative provision academies and free schools (40.1% of pupils).<sup>1</sup>
- 31% of school pupils in 2012 aged 11–15 who reported having a long-term illness, disability or medical condition felt it impacted negatively on their ability to participate in education.<sup>2</sup>
- The National Child Measurement Programme reported that in 2011/2 over a fifth (22.6%) of the children measured in Reception were either overweight or obese. In Year 6, this proportion was one in three (33.9%). The percentage of Year 6 (19.2%) who were obese was over double that of Reception year children (9.5%).<sup>3</sup>
- Studies consistently identify that only a minority of young people meet the Chief Medical Officer's guideline for physical activity. The proportion meeting the guideline declines with age, most notably among girls.<sup>2,4</sup>
- In 2012, boys aged 11–18 years, on average, consumed 3.1 portions of fruit and vegetables per day and 13% met the 'five a day' recommendation. Girls in the same age group consumed 2.7 portions per day and 7% met the recommendation.<sup>5</sup>
- 12% of boys and 17% of girls aged 11–15 in 2012 reported never eating breakfast on weekdays.<sup>2</sup>
- The majority of young people in 2012 (88%) reported feeling well supported by their parents and 95% reported that they were encouraged by their parents to do well at school.<sup>2</sup>
- In 2012, there were 1,174 whole-time equivalent qualified school nurses to meet the needs of the school-aged population,<sup>6</sup> which equates to one nurse per 6,985 children.
- In 2013, Ofsted reported that in 40% of schools in England the quality of personal, social, health and economic education required improvement or was inadequate.<sup>7</sup>
- Among 5–9 year olds the most common causes of death are malignant neoplasms and leukaemia, followed by cerebral palsy and traffic accidents among boys and influenza among girls. Unintentional injuries and accidents are the leading cause of mortality among all secondary school children (10–19 years).

## Overview: resilience and the school-aged population

The middle years of childhood and early adolescence are sometimes assumed to constitute a period of good health often characterised as a time unburdened by adult stressors. While it is true that the health of children has improved over the past decade, a number of national and international reports have highlighted that the reality of childhood is very different, with marked and persisting inequalities in the area of child wellbeing in the UK.<sup>8,9,10</sup> Major life events such as illness and family breakdown, as well as economic and material hardship, are realities for many children and younger adolescents that impact on their development and ability to reach their full potential. Having a long-term condition or disability in childhood can also have a marked effect on educational accomplishment and the attainment of life goals, as well as restricting social and emotional development.<sup>11</sup> The current generation are growing up in very different environments from their parents and grandparents and are subject to new and emerging health determinants.

Strategies to improve child wellbeing have often focused on disease prevention or risk reduction. Targeting a single risk factor has limited evidence of effectiveness<sup>12</sup> and may even have unwanted negative effects. More importantly, better outcomes may result from equipping children to deal

with general life stressors.<sup>13,14</sup> *Fair Society, Healthy Lives*, published in 2010, specifically called not only for continued commitment to children and young people during the education years but also for policies to maximise capabilities in order to sustain reductions in inequalities achieved by early years interventions.

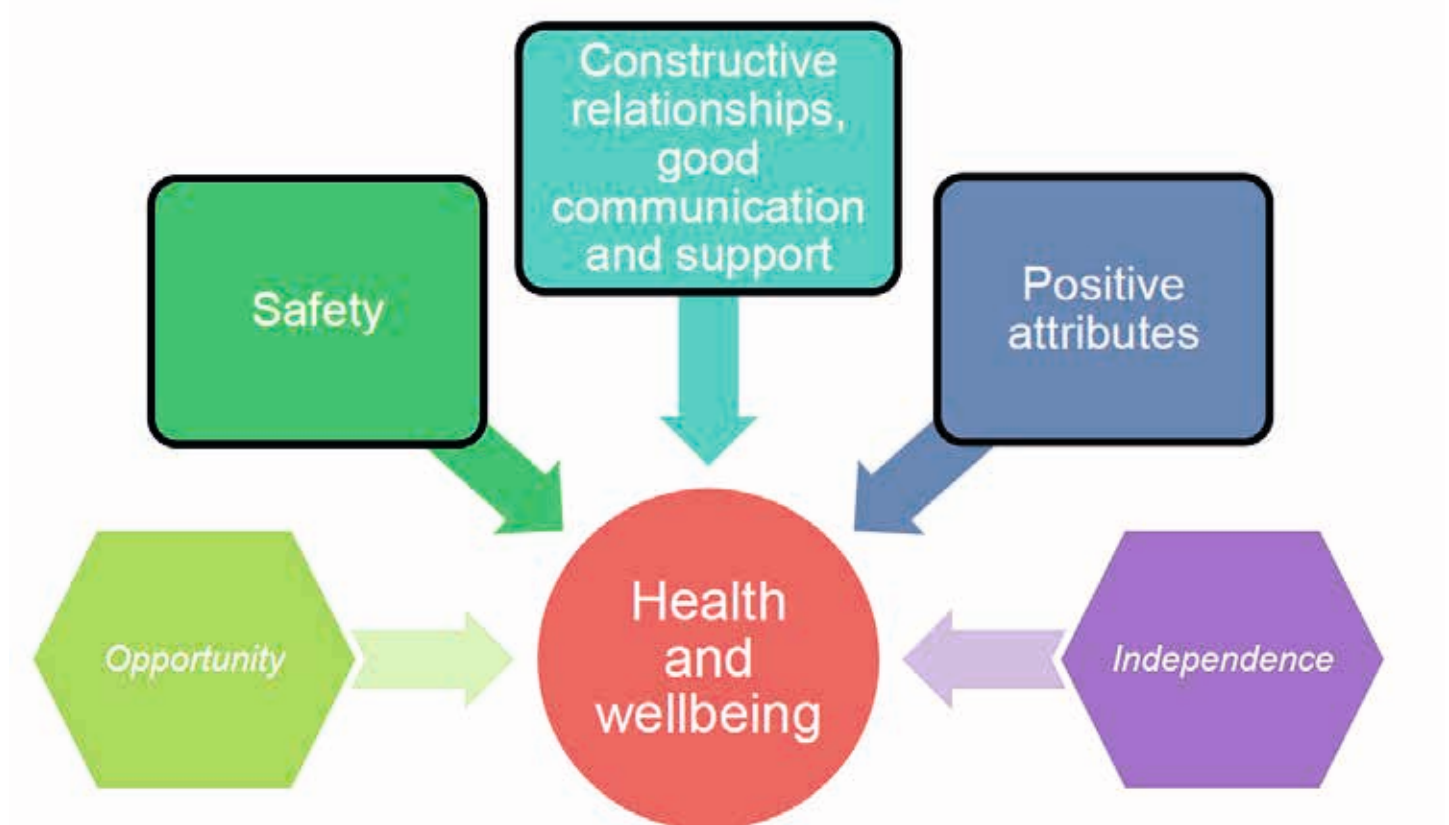
There is evidence that approaches focusing on the building of young people's social and emotional skills have greater long-term impacts than deficit-based programmes.<sup>15</sup>

**Strengthening protective factors or health assets in schools, in the home and in local communities can make an important contribution to reducing risk for those who are vulnerable and in so doing promote their chances of leading healthy and successful lives.**<sup>16,17,18</sup>

### Chapter structure

This chapter examines the protective health factors or assets that operate as key drivers for the school-aged population to enhance and sustain health and wellbeing. These **assets illustrate how promoting physical and mental health simultaneously can form a virtuous circle that reinforces overall health, wellbeing and achievement for children.** These key drivers can be conceptualised into three main areas, outlined in Figure 7.1.<sup>19</sup>

**Figure 7.1 Assets model to shape health promotion with young people**



Source: Fenton, C. 2013. *An assets based approach to health promotion with young people in England: Doctoral Thesis*. Hatfield: University of Hertfordshire.

**Constructive relationships** represent a core determinant for building resilience during childhood, a keystone asset, from which children can develop and marshal other resources that are protective of their health and wellbeing.

**Positive attributes** or a positive sense of self, encompasses concepts related to resilience such as self-esteem, self-efficacy and a problem-solving approach.<sup>20,21</sup> The facility to act autonomously, identify opportunities and pursue these to meet goals could be considered internal assets.<sup>22</sup> There are similarities between such attributes and the concept of being socially competent.<sup>23</sup>

**Safety** is a broad heading encompassing both physical and emotional safety that links to the acquisition of social and practical competencies. This encompasses notions of school and neighbourhood support and physical safety, as well as being able to set boundaries.<sup>22,24,25</sup>

This chapter will commence with a focus on the relationship between resilience and wellbeing in the core domains or environments of the child; these include the family, the school and the social networks and wider community of the child. The chapter will then consider in detail health-promoting behaviours, notably physical activity and healthy weight and diet. Throughout the chapter evidence that links to mental health status and the importance of improved emotional wellbeing are highlighted.

### Limited data

There are important gaps in the evidence base relating to childhood and the key factors that impact on development and the promotion of resilience.<sup>26</sup> For example, a recent report by the Organisation for Economic Co-operation and Development (OECD) for the European Commission highlighted that policy makers need to have better access to accurate information from surveys of children on family structure and to improved indicators on parenting practices.<sup>27</sup>

### Families and parenting

Throughout childhood and adolescence the family dynamically impacts on the child's life chances and the nature of his or her external relationships. Consideration of how parenting influences child development has often focused on the early years. More recently the importance of families in maintaining emotional wellbeing and health behaviours during middle childhood and early adolescence has been highlighted,<sup>28</sup> for example, stability and sense of belonging within a family have been linked with youth life satisfaction.<sup>24</sup>

Material disadvantage clearly plays a significant role in the ability of families to maintain their children's health and wellbeing and intersects with issues relating to both family structure and quality of interaction. The UNICEF report in 2010 which looked at the most disadvantaged children in OECD countries found that a significant dimension of child poverty and social exclusion was the quality of parental engagement and the differing levels of support offered by parents.<sup>8</sup> **The relative ability of parents to provide**

**their children with important social, educational and developmental opportunities, such as engaging leisure activities, has been termed the 'socialisation gap'. This appears to have widened over the past 30 years,** with profound implications for the maintenance of children's health and wellbeing and overall life chances of children in the poorest families.<sup>29</sup>

### Family structure

Over the past three decades the composition and structures of families in England have radically altered with significant implications for children and adolescents. Stress and conflict within families including poor experiences of family break-up can have profoundly negative impacts on child wellbeing.<sup>30</sup> One study<sup>31</sup> looked at the impact of changed family structures on life satisfaction and found that children living with both biological parents reported higher levels of life satisfaction than children living with a lone parent or with a parent and step-parent. Those who reported the lowest levels of life satisfaction were those not living with their mother. **In the Millennium Cohort Study of 15,500 children, poverty and parental mental health status have been identified as key factors that interact with family structure to produce poorer outcomes for children.**<sup>32</sup> Some protective health assets may mediate the effect of family structure on child health and wellbeing; for example, adolescents from lone parent families who participated in activities outside school were much less likely (1.8 times) to engage in substance misuse.<sup>33,34</sup>

**Key domains of parental engagement that act as protective health assets are:**

#### Communication

**A mutually interactive style, non-judgemental listening by the parent and the child believing the parent to be trustworthy, all appear to be dimensions of parental communication that contribute to child wellbeing.**<sup>35,36</sup>

The quality of parental communication can be influential for the development of pro-social values and provide children with an important resource for the management of stressful situations,<sup>13,24</sup> as well as helping them navigate adverse influences including health risk behaviours such as smoking, substance use and aggressive behaviours.<sup>37, 38</sup>

**For example, open family communication on sexual issues corresponds to less high-risk sexual behaviours in adolescents.**<sup>39</sup> Young people during late childhood to mid-adolescence who report good communication with their parents or guardians have higher overall life satisfaction and report fewer physical or psychological complaints.<sup>40</sup> For example, girls who find it easy to talk to their fathers report higher life satisfaction and a more positive body image than comparable peers.<sup>41</sup>

#### Parental monitoring

**How parents set age-appropriate boundaries, create rules and regulate the degree of autonomy that children exercise are key elements of parenting that contribute to children's emotional safety and security.**<sup>21</sup>

**Table 7.1 Percentage of children undertaking activities with their families**

Activity	11 year olds		13 year olds		15 year olds	
	Girls	Boys	Girls	Boys	Girls	Boys
<b>Watch a TV programme or DVD together once a week</b>	79	78	74	78	72	73
<b>Eat a meal together every day</b>	58	55	54	55	46	46
<b>Play sports together once a week</b>	40	51	29	34	15	29
<b>Talk about things together once a week</b>	75	73	64	65	62	56

Source: (HBSC England data) Brooks, F., J. Magnusson, E. Klemra, N. Spencer & A. Morgan. 2011. *HBSC England National Report: World Health Organization Collaborative Cross National Study*. Hatfield: CRIPACC.

Monitoring is a core aspect of the familial environment that helps to develop self-control and decision-making skills in the child. For example, parental regulation of autonomy that involves negotiated decision making about what children do in their spare time has been associated with a reduced likelihood of participation in multiple health risk behaviours.<sup>33</sup>

### **Parental support**

Support from parents and a strong family bond are linked to positive emotional wellbeing and reduced prevalence of health risk behaviours.<sup>42</sup> Data from the Health Behaviours of School-aged Children (HBSC) study suggest that the majority of children in early to mid adolescence feel their parents are interested and engaged with them, although parental engagement and support were significantly related to family affluence.<sup>2</sup>

How families spend time together offers opportunities for positive interaction that builds and reinforces resilient capacities and health-promoting behaviours.<sup>43</sup> Longitudinal studies have identified that parental support in terms of a good relationship, and time spent in family meals and support for extra-curricular activities have been associated with both positive mental health and educational attainment.<sup>21,22,44</sup> **Family support also appears to have a significant impact on behaviour change in terms of the adoption and maintenance of healthy lifestyles by adolescents, especially physical activity.**<sup>24</sup> The HBSC study in England considered the range of activities families undertake together to give a picture of family interaction (see Table 7.1). Encouragingly, most families do find time to talk and undertake some form of leisure activity together and about half eat together every day as a family. Notably, family interaction declines with age and girls are much less likely than boys to be engaged in sport activities with their families.



**Dinner (from an educational workshop in a school)**

Source: Kids Company

### **Parenting vulnerable children and young people**

**Quality of communication with a supportive parent figure appears to be a key component in the development of resilient and coping mechanisms among vulnerable or marginalised children.** For example, a longitudinal study of primary school children found that the prevalence of emotional and behavioural problems among victims of bullying was significantly reduced if their families, parents and siblings provided warm, empathetic relationships and the home environment was calm and well structured.<sup>45</sup> In another example a recent qualitative study of very vulnerable black and minority ethnic teenage mothers who had been looked after by the care system reported that having a supportive relationship with a carer (foster parent or social worker) promoted the development of improved self-worth and reinforced a sense of self-directedness.<sup>46</sup>

Overall, studies of family communication and parenting highlight a component critical to the establishment of resilience in childhood, that of having access to at least one supportive, caring adult.

# Actions for resilience in families

## Parenting programmes

There is evidence, including National Institute for Health and Care Excellence (NICE) guidance, **that structured parenting programmes can assist parents in providing a supportive and caring relationship** and a structured home environment;<sup>47</sup> for example, The Incredible Years group programme or the Triple P stepped approach, both based on social learning theory, aim to improve child–parent interaction.<sup>48</sup> Triple P Parenting also includes levels designed to support parents with mental health problems.<sup>49</sup> Parenting programmes are widely, but not universally, available and almost exclusively targeted at families with children under 12 years.

## School

School can be an important driver of resilience in children – a protective health asset that provides children with the learning opportunities and competencies to develop a positive identity and healthy behaviours, as well as the skills that enable successful negotiation of life challenges; for example, children feeling safe in school has been associated with greater levels of social competence.<sup>22</sup>

School can also function as a risk to children's health and wellbeing. Factors such as the experience of bullying and poor educational attainment can impact negatively on children's mental health status, generating disconnection from school. In England and Wales, the school system is associated with two of the most significant transitions during childhood (that of starting school at age 4–5 and transferring to secondary school for the majority at age 11). **Children with long-term conditions or disabilities can find it difficult to maintain attendance and access the resources that schools offer.** For example, of school students aged 11–15 years with a long-term condition or disability, just under a third (31%) felt it impacted negatively on their participation in school.<sup>2</sup>

**There appears to be a strong association between a sense of belonging to school and wellbeing.**<sup>20,25,50</sup>

A number of studies have found that feeling connected to school (having a sense of belonging in a school) and/or teacher connectedness (having a teacher who is interested in you as a person) operate as important assets.<sup>51</sup> Longitudinal studies from the USA found that school connectedness was the only single school-related variable that was protective against participation in health risk behaviours (including violence, substance and alcohol misuse and early sexual initiation).<sup>52</sup> Liking school is also a significant predictor of attainment.<sup>53</sup> **School connectedness appears to be generated in schools through extra-curricular activities, positive classroom management and tolerant disciplinary policies.**<sup>54</sup>



**Running: A young person representing how he keeps healthy.**

Source: Kids Company

## Personal, social, health and economic education and emotional learning in school

The contribution of schools to developing resilience and enhancing wellbeing as a component of the curriculum is grounded in an extensive evidence base, for example the establishment and development of healthy relationships was identified as a teachable core competency by the Collaborative for Academic, Social and Emotional Learning (CASEL).<sup>54</sup> The Healthy Schools programme along with SEAL (Social and Emotional Aspects of Learning) for primary schools are whole-school initiatives designed to develop emotional wellbeing and healthy positive behaviours among school students.

**'School should teach you to be healthy and make you learn to eat well.'**

## Case study

### Penn Resilience Programme in English schools

The Penn Resilience Programme (PRP) was developed by the University of Pennsylvania. The 18-lesson programme is aimed at 11–13 year olds and enables young people to develop skills that empower them to deal with setbacks and focus and thrive in intense times both in and out of school.

The PRP was implemented in 22 schools in Hertfordshire, Manchester and South Tyneside as part of a three-year research study. Some 4,000 young people participated. Since the initial research project a further 60+ schools now teach the PRP as part of the core curriculum. The lessons feel different to other lessons – they are more conversational and led by student input.

The lessons build to enable students to develop a more sophisticated understanding about their thinking style and how this impacts both on how they feel and on what they do. Students are able to think more accurately and flexibly about different or difficult situations and so are more likely to solve problems effectively, keep things in perspective, not give up and enhance their optimism and confidence.

The PRP has a strong evidence base. The findings of a three-year study led by the London School of Economics show a significant improvement in pupils' depression symptom scores, school attendance rates, academic attainment in English, anxiety scores, and maths attainment concentrated in a few groups of pupils.

The impacts varied by pupil characteristics with larger impacts for pupils entitled to free school meals, who had not attained the national targets at Key Stage 2 and who had worse initial symptoms of depression or anxiety.

Gary Lewis, Head of Kings Langley School in Hertfordshire, views the benefits of the PRP as follows:

*'Students have become more proactive in their learning, attend school readily and manage themselves (homework issues; equipment for e.g. sports lessons) more effectively. Students have increased self-efficacy leading to the setting of realistic but challenging academic targets and aspirations. UKPRP has contributed to our improved school attendance figures. Students are actively encouraged to put the skills learned in Resilience lessons into practice at home and in school. We have heard via CAMHS [Child and Adolescent Mental Health Services] that local GPs report that the PRP is having an impact.'*

## Case study

### Healthy Schools London – Greater London Authority

Healthy Schools London is a voluntary awards programme that recognises schools' achievements in improving pupil health and wellbeing across four areas: healthy eating; physical activity; personal, social, health and economic education; and emotional health and wellbeing. It provides information and support to all London schools via a website and local and pan-London training, and through a network of local leads. It builds on the success of the National Healthy Schools Programme (NHSP). Since the demise of the NHSP, not all London schools have had access to support and recognition for their work on pupil health and wellbeing. Healthy Schools London fills this gap.

Since the Healthy Schools London launch on 25 April 2013, 224 schools have registered and 66 schools have achieved a Bronze Award. Examples of work that is being undertaken across London schools include:

- increasing active travel to school
- increasing physical activity during lunch and playtimes through playground markings and playground peer monitors
- changing the dining room environment to more family-style dining

#### St Peter's London Docks Primary School, Tower Hamlets

Headteacher Liz Dickson was determined to improve the lunchtime experience for her 238 pupils.

Nearly half the children get free meals, 46% compared with the 16% national average. The school transformed their dining room experience into a family-style environment with children seated at tables served by their peers.

*'We abolished queuing because it was noisy and time consuming,' Liz Dickson explains. 'It was an awful system where they ate on trays – we got rid of the trays and put plates and bowls on the tables with tablecloths.'*

Children have a salad bowl and dish-of-the-day at each table, served by the pupils who take turns and also set up and clear the tables themselves, taking responsibility for their own mealtimes.

St Peter's has its own vegetable garden. Waitrose, nearby in St Katharine Docks, gave the school seeds to plant and promised that the children can sell their produce outside the store when it has been harvested.

Personal, social, health and economic education (PSHE) aims to equip young people with the knowledge, understanding, attitudes and practical skills to live healthily, safely, productively and responsibly. **Children and young people appear to value PSHE and feel that it provides relevant and useful information, although older teenagers are less likely to be positive about the quality of PSHE that they receive.**<sup>2</sup> There is evidence that specialist teachers trained in PSHE deliver the most effective health-related teaching, especially in relation to the topics that children are reported to be most likely to want information about, including health exploratory behaviours and sexual health.<sup>55</sup>

PSHE also offers an opportunity for young people to access advice and guidance relating to new and emerging health risks. Children and young people are part of a digital, online generation. It is estimated that the majority of children under 1 will have a 'digital shadow'\* and the majority will have some experience of the internet by age 2. Children and young people in England are among the highest users in Europe of video games and communicate with peers via electronic media more than children in the majority of countries.<sup>2</sup> While new technologies can offer numerous educational and some pro-social advantages, it is important to enable children to reduce the potentially harmful effects of the internet and electronic media, including exposure to violent and pornographic content.<sup>56</sup>

The quality of PSHE input and teaching experienced by children and young people appears to be highly variable across the country. A recent Ofsted report<sup>7</sup> identified that, although in 60% of schools PSHE was good, in 40% of schools the quality of PSHE required improvement or was inadequate. Notably, the report identified gaps in the way in which PSHE provision provided children and young people with personal and social skills and abilities to manage their personal safety. Moreover, in relation to sex and relationship education, in a third of schools children were left *'unprepared for the physical and emotional changes they will experience during puberty, and later when they grow up and form adult relationships'*. Addressing the gaps and weaknesses in PSHE provision, especially in relation to personal and social skills, is likely to be vital for the engagement of children in education; for example, studies are now indicating the link between the development of emotional intelligence in children and young people and academic success.<sup>57</sup>

## Health-promoting behaviours

### Play and physical activity

Regular participation in physical activity offers children and young people an array of positive health and social benefits, impacting not only on physiological health and development,<sup>58</sup> but also on psychological and social wellbeing;<sup>59</sup> for example, participation in sporting activities has been associated with reductions in social anxiety among primary school children.<sup>60</sup> **Despite the positive benefits of physical activity, over the last decade studies have consistently identified that few children and young people achieve the Chief Medical Officer's guideline for physical activity of one hour of moderate-to-vigorous physical activity every day.**<sup>61</sup> The HBSC study reported in 2010 that 28% of boys and only 15% of girls aged 11–15 years were meeting the recommended levels.<sup>2</sup> Physical activity levels also decline with age and across all ages girls are much less active than their male peers. The lower rates of participation by girls in physical activity compared with their male peers have a complex range of causes: girls have a limited range of provision specifically designed for them, and this, coupled with negative, often subtle, gender stereotyping from peers and families, may all serve to reinforce young women's sedentary behaviours (see Table 7.1).

Evidence is accumulating on the types of physical activity and the programmes that deliver an increase in physical activity rates along with associated positive health and psychosocial benefits, including offering intrinsic motivation for children to sustain their physical activity levels into adolescence. **Physical activity programmes in schools can have positive influences on cognitive performance, with demonstrable positive results in academic attainment, concentration, memory and classroom behaviour.**<sup>62</sup> Participation in physical activity also appears to be an important component in creating school satisfaction and school connectedness, factors that have been associated with lower levels of participation in health-risk behaviours.<sup>51</sup> Successful school-based physical activity programmes appear to have a number of common elements: notably, they tend to create a positive culture concerning physical activity, provide long-term interventions, employ specialist PE teachers, link to the community, and avoid stigmatising those who have been inactive and instead emphasise enjoyment combined with a focus on skills development.<sup>63,64</sup> They also take into account the elements that children and young people value, providing students with choice over the range of activities and sports; encouraging young people's leadership through being able to enhance the skills of other students may also increase commitment to physical activity.

\* A digital shadow is a trail of visibility that can be found within the internet and other digital records.

One teenager who had participated in a junior sports leadership programme spoke about the benefits of such programmes from a personal development point of view.<sup>65</sup>

*'You have to get inside the little ones' heads and think 'how do I explain this to them?', it makes you realise how to pass on a skill, the knowledge. It feels really good.'* (girl aged 14)



**Footballer (from an educational workshop in a school)**

Source: Kids Company

For children of primary school age, time spent in active, free play outside school (running around and playing games) can contribute a significant amount of time to their physical activity rates.<sup>66</sup> **For the current generation of children in England a number of factors can be seen as contributing to a decline in free play.** These include parental as well as children's own concerns over safety and a lack of appropriate green or urban spaces to play in combined with a reduced general tolerance towards children playing on the streets. If, however, parents feel that an area is safe they are more likely to let their children play outside, which also may bring a range of physical and emotional benefits.<sup>67</sup> For both younger children and adolescents, physical activity undertaken as part of leisure time outside school can enable children and adolescents to widen their friendship groups and participate in their local communities, thereby providing opportunities to develop social skills that help to build positive personal attributes such as self-esteem and self-confidence.<sup>60</sup>

## Case study

### Exploring nature play – Play England

Children's access to nature has declined dramatically – fewer than 25% of children use their local 'patch of nature' compared with over 50% of their parents. As children, 70% of adults enjoyed most of their adventures in natural outdoor environments compared with only 29% of children today.

Play England, with £500,000 from Natural England's Access to Nature programme, is working with three adventure playgrounds and local children's centres and schools to test what works in engaging children with nature through their play.

As a result, 3,000 children in deprived areas in London, North Tyneside and Torbay regularly engage with nature. Eating habits have changed as a result of growing and cooking healthy food outdoors – 'from yuck to yummy', as one child said.

Shiremoor children's centre in North Tyneside now has a presumption in favour of their children being outdoors in all weathers. Local schools say that children are readier to learn, more confident with increased levels of challenge, and have more imaginative conversations and improved writing and descriptive skills. Children attending the nature play days take four times as many steps per day as in normal school days as measured by pedometers.

A child, aged 7, from Waterville Primary School said:

*'Our trips to Shiremoor Adventure Playground every half term are fun because we get to play for the whole day and I always get very mucky. I wear warm clothes and I am usually covered in mud but I don't care. My mam knows I have fun if I'm muddy.'*

*When it was the 'Wet and Wild' day, I liked doing skids on the water slide. There was also loads of water in the sandy area and I got soaking wet. It was really fun. I always need to take spare clothes.'*

*Some of us have used pedometers at Shiremoor Adventure Playground to find out how many steps we take on a play day and at school. I knew there would be loads more steps when I am at Shiremoor because I am out and moving about all day.'*

## Case study

### An economic evaluation of play provision – Play England

An adventure playground provides a good quality play space for children to take risks, explore and experiment. The type of play an adventure playground encourages promotes the healthy development of children – physically, emotionally, mentally, socially and creatively.

In the short run an adventure playground promotes children's physical activity and social play. It has been estimated that in the long term these short-term effects will lead to improved health and educational outcomes. Increased physical activity in childhood has been associated with higher levels of physical activity in adulthood, which in turn decreases the chances of experiencing a number of diseases including coronary heart disease, stroke, type 2 diabetes and colon cancer.

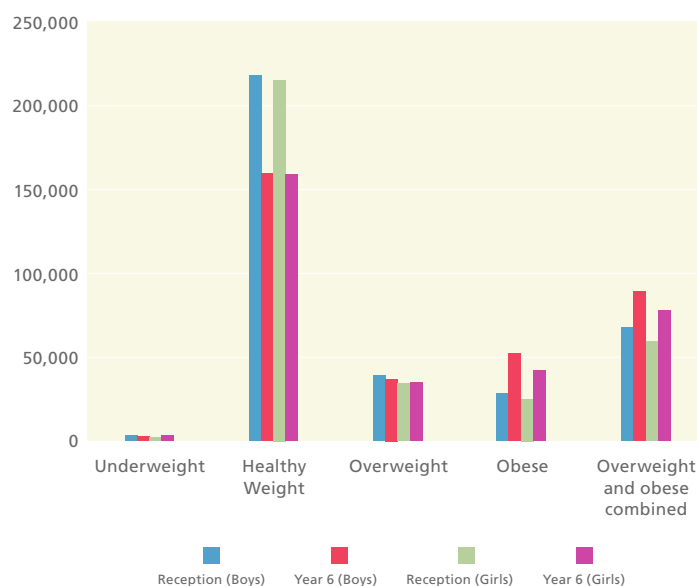
- The benefits generated by an adventure playground compared with no playground exceed the costs by £0.67 million.
- Every £1 invested in an adventure playground generates £1.32 in social benefits.
- The total cost of an adventure playground over 20 years is estimated at £2.13 million.
- The estimated present value of the long-term benefits of improved physical activity for all children attending an adventure playground is £0.31 million.
- The estimated present value of the long-term benefits of increased social play and associated improvement in educational outcomes for all children attending an adventure playground is £2.49 million.

## Screen time

Evidence suggests that extended screen time per day has an effect on health which is independent of the sedentary aspect:

- There is a link between screen time and type 2 diabetes, hypertension, obesity and attention deficit hyperactivity disorder (ADHD).
- Adolescent boys who have more than 2 hours a day of screen time have two times higher levels of insulin, suggesting relative resistance
- Other potential mechanisms through which this effect is mediated are food cuing, food intake via advertising and interaction with the dopamine pathway.
- Mechanisms to reduce this effect include age-specific maximum times set by parents.<sup>68</sup>

**Figure 7.2 – Prevalence of underweight, healthy weight, overweight, obese and combined overweight and obese children by year and sex, England, 2011/12**



Source: Mandalia, D. 2012. Child Obesity. In *Health Survey for England – 2011, Health, social care and lifestyles*, ed. Health Survey For England. The Health and Social Care Information Centre.

## Healthy eating, healthy weight

In October 2011, the Government published *Healthy Lives, Healthy People: A call for action on obesity in England*.<sup>69</sup> This outlined detailed national ambitions to address overweight and obesity through a 'life course' approach. For children, the national priority is to achieve 'a sustained downward trend in the level of excess weight by 2020'.<sup>69</sup> The National Child Measurement Programme reported that in 2011/2 over a fifth (22.6%) of the children measured in Reception were either overweight or obese. In Year 6, this proportion was one in three (33.9%). The percentage of Year 6 (19.2%) who were obese was over double that of Reception year children (9.5%),<sup>3</sup> with older children more likely to be obese than younger children (see Figure 7.2). Although there is some indication that the trend may be flattening, a downward trend is not yet in evidence.<sup>70</sup>

**'Grown ups should get children to get more active, eat lots of fruit and vegetables, and get outside more. I get out lots and lots. I've got lots of energy and like the trampoline and swings.'**

Obesity and overweight also have implications for the immediate wellbeing of children and young people; for example, the HBSC 2010 study found that the highest average life satisfaction was among those who say that their body size is 'about right', followed (in rank order) by those who think they are 'a bit too thin', 'a bit too fat', 'much too thin' and 'much too fat'. The same pattern is found for both genders.<sup>2</sup> When the diets of children are examined, healthy

## Case study

### Street play – Playing Out

Playing Out is part of a national project with Play England, London Play and the University of Bristol, funded by the Department of Health, to support local residents who are keen to make their street a safe place to play and work with local authorities and others to create the conditions that will enable children to play out more on the streets where they live.

In 2010, grassroots organisation Playing Out supported residents to pilot a model of short, after-school temporary road closures on six streets in Bristol, allowing children to play freely and safely near their own front door. In response to this project, Bristol City Council launched a trial Temporary Play Street Order (TPSO) from September 2011 to September 2012, enabling residents to close their street to through traffic for up to 3 hours a week, with stewarded car access for residents.

During the trial year, with support from Playing Out, 16 streets organised regular weekly or monthly sessions, directly involving approximately 500 children and 200 adults. Children of all ages engaged in a wide variety of freely chosen activities and play types including vigorous play such as cycling, scooting and running, relishing the opportunity to use the space directly outside their homes, forming friendships and gaining a sense of belonging in their local environment. Adults, including older residents, benefitted from the increased interaction with neighbours.

Since the trial, Bristol has rolled out the TPSO and several other councils have adopted similar policies. The project has sparked national discussion about the importance and benefits of street play and demonstrates the use of residential streets as shared public space.

This simple, low-cost, resident-led intervention has immediate and long-term benefits for children and the wider community. With widespread uptake, there is potential to change the culture towards outdoor neighbourhood play being a normal part of everyday life for children across the UK.

*'It's great to see relaxed parents and energetic children in a street environment, not something we get to see every day.'* – Resident, Bristol

*'All in all a very positive community-building activity, led by residents, and focused on children who are to be the future community.'* – Retired resident, Bristol

*'As time has gone on, it's become almost a self-contained thing, with very little organisation needed as people pass the responsibility for stewarding around.'* – Resident organiser, Bristol

*'The weather wasn't always kind in April, May and June but it had to be really pelting down for the children to give up and go indoors.'* – Resident organiser, Bristol

*'I look at my kids and their friends running, skipping and playing and I know it's doing them so much good – not just the exercise but the fun and the chance to feel part of where they are growing up.'* – H, Bristol.

eating appears to feature in the lifestyle of only a minority. For example, **only about a quarter of children are likely to eat the recommended five portions of fruit and vegetables a day, and their diets tend to contain high levels of energy-dense foods and sugar.**<sup>4</sup>

In response to the obesity epidemic there have been a plethora of interventions designed to improve the eating patterns of children. The majority over the past decade have consistently called for integrated approaches that involve schools, parents and children in actions to promote healthy eating and physical activity.<sup>71,72,73,74</sup> Multi-domain and multifactorial approaches towards tackling obesity represent a significant opportunity to enable children to benefit from the health protective elements of a healthy diet with positive actions in schools providing a link to the home and community.

**A multifactorial whole-school approach to healthy eating has been associated with having a positive impact on improving the diet of children in schools.**

For example, the overall number of different actions that secondary schools have in place to promote healthy eating has been associated with increasing the proportion of healthy food choices made by students.<sup>73,75</sup> Another study also found that engaging primary school children and their school in wider issues about food production and sustainability when combined with experiential food education impacted positively on fruit and vegetable consumption.<sup>74</sup> An overview of the types of positive assets-based actions that may enable children to adopt and sustain healthy eating is outlined in Table 7.2.<sup>75</sup>

## School nursing

**The school nursing service is ideally located to deliver an assets-based public health agenda.** The potential of the school nurse to adopt a leadership role in the promotion of health and wellbeing among the school-aged population has recently been reasserted, with new policy guidance on school nursing.<sup>76</sup> Identified as key public health professionals, school nurses are intended to lead, co-ordinate and provide services to deliver the Healthy Child Programme to the 5–19 years population and ensure a smooth transition from the health visiting service for the school-aged population.

Relative to the 8.2 million school children, England can be deemed to have a small school nursing workforce. In 2012, there were 1,174 whole-time equivalent qualified school nurses to meet the needs of the school-aged population.<sup>77</sup> In most areas school nurses are supported by school staff nurses, and in some cases community nursery nurses and healthcare assistants. Overall, the entire workforce is likely to be approximately 5,000 individuals including part-time staff. The Centre for Workforce Intelligence also recently highlighted that, despite the increasing demand for skilled school nurses, the workforce is ageing and there are planned reductions in commissions for school nurses.<sup>78</sup>

Often negatively associated in the past with very task-focused services such as immunisation, school nurses in fact can and

**Table 7.2 Examples of healthy weight and diet initiatives (school based)**

Area for change	Examples of strategies
<b>Promoting healthy food in schools</b>	<ul style="list-style-type: none"> <li>■ Regular taster sessions to promote the taste and texture of different foods</li> <li>■ Involve young people in the development and promotion of menus and snacks</li> <li>■ Promote benefits other than generic health benefits, e.g. foods give a natural energy boost, good for nails/hair etc.</li> <li>■ Develop sustainable food policies/agenda and encourage young people to become active consumers</li> </ul>
<b>Food/eating culture</b>	<ul style="list-style-type: none"> <li>■ Develop 'buddy systems' to encourage children to support each other to try new foods</li> <li>■ Boost the social aspects of eating through addressing the dining environment</li> <li>■ Consider giving young people more choice about where to eat, e.g. healthy food van</li> </ul>
<b>Positive culture of body acceptance and health promotion</b>	<ul style="list-style-type: none"> <li>■ Deliver training for school staff so that mixed messages about weight are not given to children and young people</li> <li>■ Invite parents and communities into schools to discuss their own experiences of weight, diet and physical activity</li> </ul>

Source: *The Health and Social Care Information Centre, Lifestylve Statistics 2012*

do undertake a variety of public health roles. For example, school nurses have been seen as critical in supporting the care of children with complex needs, long-term conditions and disability in schools; enhancing health-promoting behaviours including healthy eating and healthy weight initiatives; and enabling schools to enhance the mental health and emotional wellbeing of their students. School nurses can also have a significant expert role to play in the delivery of PSHE, with some evidence suggesting that they are perceived by young people as offering authoritative and credible information.<sup>79</sup> However, the evidence base relating to the impact of school nurses on the health of the school-aged population is small and relatively weak. Models for the assessment of the impact of school nursing on health outcomes and determinants of health require development.

## Conclusion

The middle years of childhood represent a key part of the life course. As the child moves through the education system their early years experiences provide a foundation from which they begin to navigate their expanding environment. During childhood, school and community settings offer further opportunities to accumulate and strengthen the assets that are protective of health and wellbeing.

The evidence presented in this chapter has illuminated how the core domains of the child, family, school and community can operate to provide constructive relationships, safety and security and opportunities that build resilience and positive personal attributes for all children. Protective health factors or assets within these domains operate as key drivers for the school-aged population to enhance and sustain health and wellbeing.

Targeted single-issue interventions aimed at reducing health risk behaviours have often characterised responses to child and adolescent health. The evidence presented in this chapter highlights how multi-domain and multifactorial approaches

to promoting health-enhancing behaviours represent the greatest opportunities to build resilience in childhood. The promotion of physical and mental health simultaneously can offer great benefits for children, working dynamically to create a **virtuous circle** that keeps reinforcing overall health, wellbeing and achievement. It is vitally important that all children and young people have access to good quality PSHE in schools that supports their developmental goals and enables them to successfully negotiate health risk behaviours and develop positive personal attributes.

The most disadvantaged and vulnerable children have fewer opportunities to access social, educational and developmental opportunities that build self-esteem and positive personal attributes. Schools and communities can play a fundamental role in addressing the socialisation gap and providing children and families with important social, educational and developmental opportunities.

In core areas relating to the development of resilience in childhood there is a need for an improved evidence base concerning how to develop and sustain health-promoting behaviours among the school-aged population. This improved evidence base is vital if successes from early years interventions are to be sustained and in order to prepare children to manage the challenges and developmental goals of late adolescence and early adulthood.

## What we still need to find out

Good prevalence data relating to health behaviours exist in relation to children and young people. There are, however, notable gaps in our understanding of the key factors that impact on the development of resilience and wellbeing. If the capabilities of children are to be enhanced across the inequalities gradient, an important part of such a strategy is a public health research agenda that identifies the best forms of multifactorial and multifaceted interventions to enhance resilience. Most notably, we need to be able to distinguish

what protective factors **work for who** and **in what context**.

In terms of assets-based research we still need to understand what assets operate as keystone assets, in terms of being essential for both wellbeing and the development of resilience as well as enabling children to martial other capabilities and assets.

In core areas relating to the development of resilience in childhood there is a need for an improved evidence base that identifies how to develop and sustain health- promoting behaviours among the school-aged population, in particular:

- This requires evidence across the environments of the child, including educational interventions but also attention as to how community or neighbourhood initiatives may impact positively on health and wellbeing for children.
- Too little attention has been given to gender as a key determinant of resilience and wellbeing for children; for example, there is a need to understand how to improve the psychological wellbeing of girls and how to enhance health- promoting behaviours for girls.

This chapter has highlighted the central importance of family life and parenting for the wellbeing of children of school age. However, relatively little attention has been given to understanding how to enhance health-promoting dimensions of family life; for example, relatively little attention has been given to parenting programmes for older children. Evidence is needed relating to effective interventions that address persistent inequalities in children's health and wellbeing created by the cycle of inter-generational poverty and the socialisation gap. International comparative policy analysis relating to family policies is also likely to be a valuable source of information and intelligence in this area. A recent report by the OECD for the European Commission highlighted that policy makers need to have better access to accurate information from surveys of children on family structure and importantly to improved indicators on parenting practices.<sup>27</sup>



***A Hunger Monster: Children who had experienced hunger, missed meals or came from a background of poverty created Hunger Monsters to represent how it feels to go without regular food.***

*Source: Kids Company*

### Key messages for policy

- Strategies that focus on the acquisition of protective health factors or assets have the ability to promote resilience and positive capacities in children and young people. The promotion of skills, capacities and protective health assets in relation to confidence building and self-esteem offers significant associated benefits across a range of social, emotional and educational outcomes. They specifically equip children and young people to navigate exploratory behaviours.
- Positive parenting throughout childhood and adolescence provides children with the necessary emotional repertoires and social skills to successfully navigate childhood and adolescence.
- The socialisation gap (ability to provide access to social events) represents an increasing inequality that determines the ability of parents to maintain and enhance children's health and wellbeing and reinforces social exclusion.
- Communication within families is an important protective health asset and a factor in enabling children and young people to become resilient.
- School and teacher connectedness can operate as an important driver of resilience for children.
- Children with disabilities or long-term conditions may find it difficult to access educational opportunities, including participation in programmes that build resilience.
- PSHE at school is an important part of the way in which schools can contribute to improving resilience and health among children.
- Physical activity undertaken as part of leisure time provides opportunities for children to build positive personal attributes such as self-esteem and self-confidence.
- Participation in physical activity also appears to be an important component in creating school satisfaction and school connectedness, factors that have been associated with lower levels of participation in health risk behaviours and academic performance.
- Multi-domain and multifactorial approaches towards tackling obesity represent a significant opportunity to enable children to benefit from the health-protective elements of a healthy diet.

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