Chapter 2: Setting the scene

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> *It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way – in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.*
> *A tale of two cities*, Charles Dickens[1]

Charles Dickens vividly documented the poverty and pain of childhood in the UK in the nineteenth century. It is 200 years since Dickens was born, and child health in the UK, in many ways, is better than ever. In 1999 when the BMA published *Growing up in Britain*, the death rate for children aged under 14 years was 58.11 per 100,000. This fell to 45.98 per 100,000 by 2009, meaning that over 1,200 extra children survived in the past decade.[2] But mortality figures are an incomplete measure of child health, and although it is an undoubted success that so many more children survive today, what happens to these children? Are they healthy and happy? Do they thrive and fulfil their potential? Dickens would surely recognise some aspects of children's lives today.

This chapter will set the scene by examining child health outcomes and considering the underlying explanations, and drawing upon these to make recommendations.

2.1 Child health and wellbeing

Children are among the most vulnerable members of society, and children's wellbeing therefore indicates the state of our entire society. The UK is a signatory of the UNCRC, recognising that children are vulnerable and need special care and protection. Yet the UK is lagging behind many of its European counterparts in terms of child wellbeing,[3] and one in every ten British children is unhappy.[4]

Why are some half a million children so unhappy?[5] Is our health system prepared for the new morbidities, the chronic diseases, and mental ill health of children and young people? How well do we, as citizens, look after and nurture our children? What is our role, as health professionals, in the lives of children?

The UK is failing its young children on a grand scale, according to Professor Sir Michael Marmot. Children's wellbeing is inadequate in all of the aspects examined by UNICEF. In a 2013 UNICEF study of 29 of the world's most advanced economies, the UK was ranked overall in the middle third range of countries.[3] This is a modest improvement however, since in 2007, a previous study[6] by the same institution found the UK to rank lowest of the 21 countries examined. Although the more recent study included more countries, and used different measures, some direct comparisons of the two reports are possible. The UK has improved from 21st (joint last) to 16th position. These data cover the period up to 2009/10 however, so it is unlikely that much of the effects of the economic downturn could have been detected, nor can any inferences be drawn about the impact of the Coalition government's austerity policies.

The five UNICEF dimensions of wellbeing noted in the previous paragraph are similar to the five important outcomes of the ECM framework: being healthy, staying safe, enjoying and achieving, making a positive contribution, and economic wellbeing.[7] The ECM philosophy explicitly recognised the importance of health and social care, and the interface between them. Although the ECM framework has been superseded by more recent reports, its influence is reflected in current strategy such as the Children's Outcomes Forum report.[8] Accordingly, the chapters of this book focus on these topics that are of central importance in determining the life chances and wellbeing of children. It is in these areas that we must focus our efforts in improving the lives of children.

This report focuses on the early years of childhood, and takes the optimistic approach of emphasising the conditions that need to be put into place to promote healthy lives and development for children rather than services that are needed once things go wrong. These categories, however, are not and cannot be mutually exclusive. The life-stages of childhood are continuous and interdependent; the youngest children grow into older children, adolescents, and adults and what happens in the earliest stages is reflected later in life. Child health is affected both by upstream determinants such as socioeconomic conditions and social institutions and by downstream determinants such as health services necessary to help children who are ill and suffering with their immediate problems. Finally, since demand for health services continues to rise, and since parents seek help with problems of all types through the health sector, this is where we start our investigation of growing up in the UK.

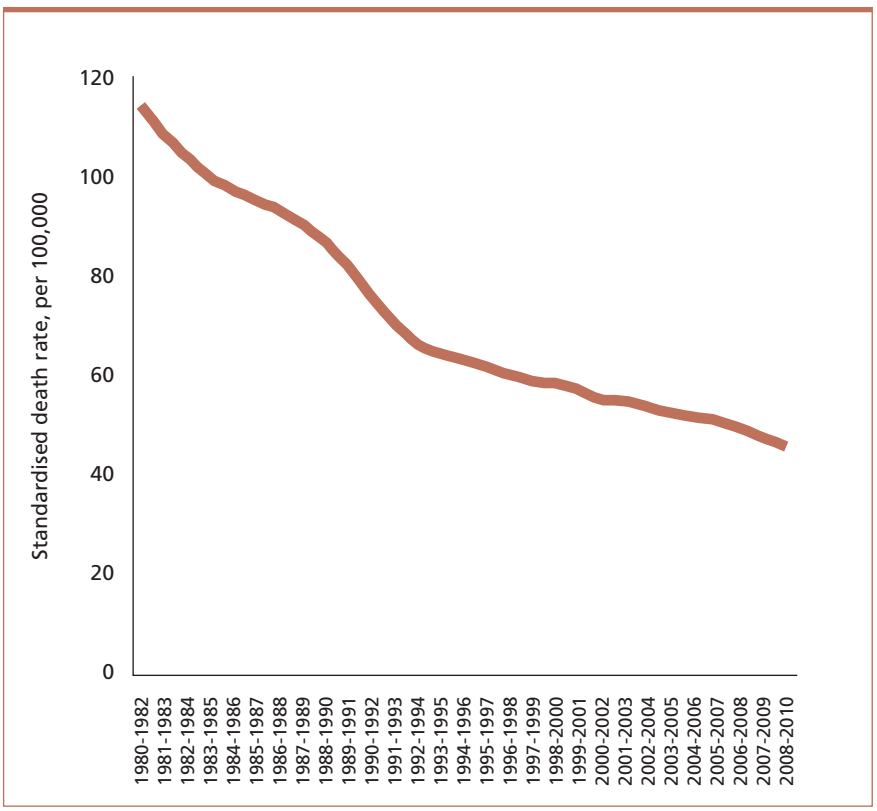
2.2 Health services

How well is our health service helping children? This is a difficult question to answer; health services research for children is at an early stage of development compared with biomedical research,[9] and one reason is because the research methods for answering questions in this field are different. Whereas the strength of evidence in biomedical research may be loosely judged according to a hierarchy, with randomised controlled trials as the gold standard, health policy and systems research (HPSR) is a transdisciplinary

research field which defines new methods, and new standards for evaluating evidence and making recommendations. This sort of research must often be able to produce recommendations on the basis of 'best available knowledge rather than the most desirable evidence'[10] in order to help us understand how well systems work, and what should be done differently to strengthen child health system performance.

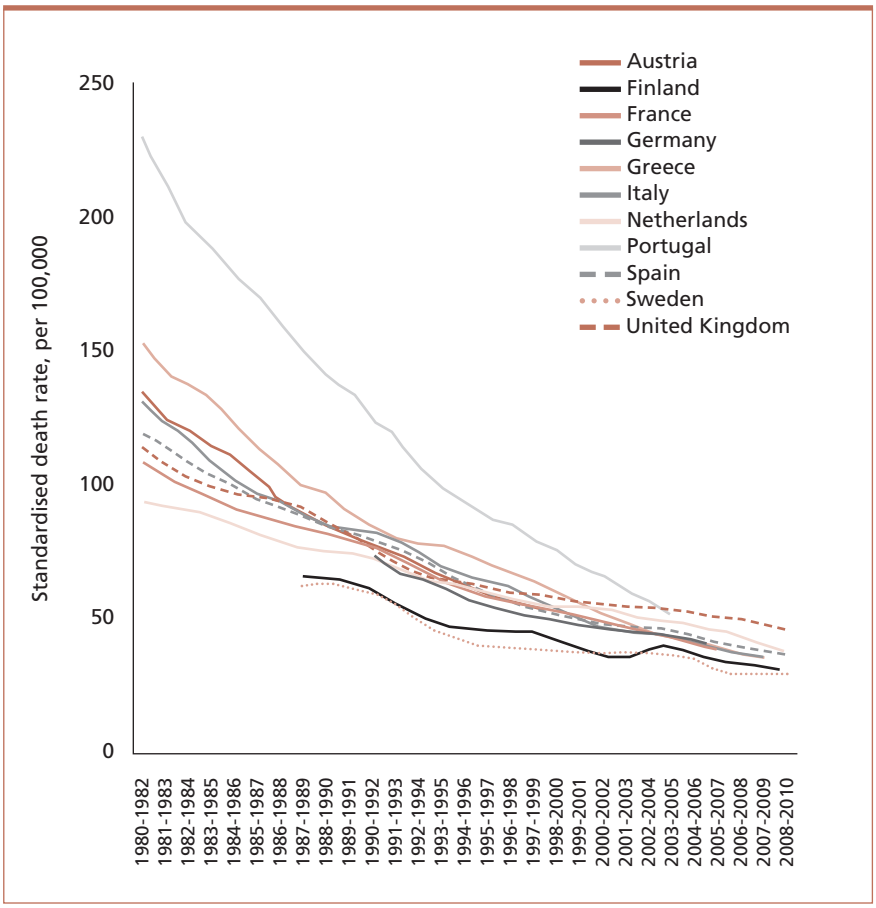
Death is a health outcome that no one wishes were necessary to consider. Fortunately fewer children die now than ever before (see **Figure 2.1**) This success is tempered by stark social inequalities in death rates within the UK. The death rate among infants from routine socioeconomic groups is nearly twice that of professional and managerial groups.[11] When we compare the UK's childhood mortality rate with similar European countries, there are further causes for concern; we lag behind comparable countries, and are at or above the EU average rate for child deaths (see **Figure 2.2**).

Figure 2.1: Child mortality in the UK – deaths among children aged 0-14 years, all causes



Source: *European health for all database* (World Health Organization). Figure provided by Dr Ingrid Wolfe.

Figure 2.2: Trends in child mortality (0-14 years): UK compared with European countries, 1980-2010



Source: *European health for all database* (World Health Organization). Reproduced from Wolfe I, Thompson M, Gill P et al (2013) Health services for children in Western Europe. *The Lancet*. Published online March 27, 2013 http://dx.doi.org/10.1016/S0140-6736(12)62085-6

What might be causing the higher child death rate in the UK? It is often argued that the UK's higher child poverty rate may be to blame. Poverty and other socioeconomic conditions contribute to differences in disease incidence and prevalence, and to access to health care. But dig a bit deeper, and the poverty explanation is insufficient. Many children in the UK die from causes that should be preventable with adequate health care. These deaths should not be happening.

The concept of avoidable or amenable mortality as a measure of health systems and healthcare effectiveness has gained increasing currency among high income countries health systems.[12] This method, however, has limited use for measuring the quality of children's health services for the felicitous reason that the number of deaths is small enough to render interpretation difficult. Avoidable mortality is an extremely useful concept, and there are two broad ways it can be used for assessing the quality of children's health care. First is through individual case audit. This method has been put to use effectively by the Confidential Enquiry into Maternal and Child Health (CEMACH) which produced the report *Why Children Die.* This work was a meticulous audit of the events leading to the deaths of a representative sample of children. Its findings are alarming: identifiable failures in the child's direct care, in just over a quarter of deaths, and potentially avoidable factors in a further 43 per cent of deaths. A further striking finding is that errors were particularly common among staff with inadequate paediatric training or supervision.[13] Case audit does not confirm causality, but it can point towards areas meriting further inquiry. The second way is examining mortality by avoidable cause, and by combining data for several years. This method allows some comparison between countries (as regions or hospitals would have numbers too small for statistical analysis). Focusing on death rates from illnesses that ought not to kill children in high-income countries with highly developed health systems reveals useful insights: death rates from pneumonia, asthma, and meningococcal disease are higher in the UK than in comparable European countries.[14] If the UK had the same all-cause death rate as Sweden, around 1,900 children's lives could be saved each year.[15] Although a complex interaction of social and economic forces shape children's life chances and risk of death, equitable access to high quality health care is an important determinant, and these are signals of concern: children's health services are not performing as well as they could. We should be doing better than this. A concerted effort is required to understand and correct these failures of health systems and services to match children's needs.

2.3 Physical health

There is no annual report documenting the state of child health in the UK. If there were such a resource, planning health services to meet health needs in an effective and efficient way would become a great deal easier. Describing what children need from health care services is a challenging task. There are no comprehensive childhood disease incidence and prevalence databases, with indicators of wellbeing, development, and risk profiles, all linked to demographic information. Such a resource should, ideally, be available on a geographic basis to allow health service planning and evaluation, and would provide a normative indication of healthcare need. Perceived need for healthcare is an important factor determining its use. Significant progress has been made recently with the Child and Maternal Health Observatory, although this resource can only ever be as good as the data available, which remain insufficient.[16] Similarly Joint Strategic Needs Assessments are ambitiously designed to encompass both health and social care needs, but nevertheless are still reliant on the data that is available. Health service planning usually still relies on

past evidence of service use, since there remains a lack of comprehensive data on needs. The result is a rather circular situation in which services are planned on the basis of what is already provided. A more rational system of health service planning is warranted. For the time being, information has to be gleaned piecemeal and indirectly.

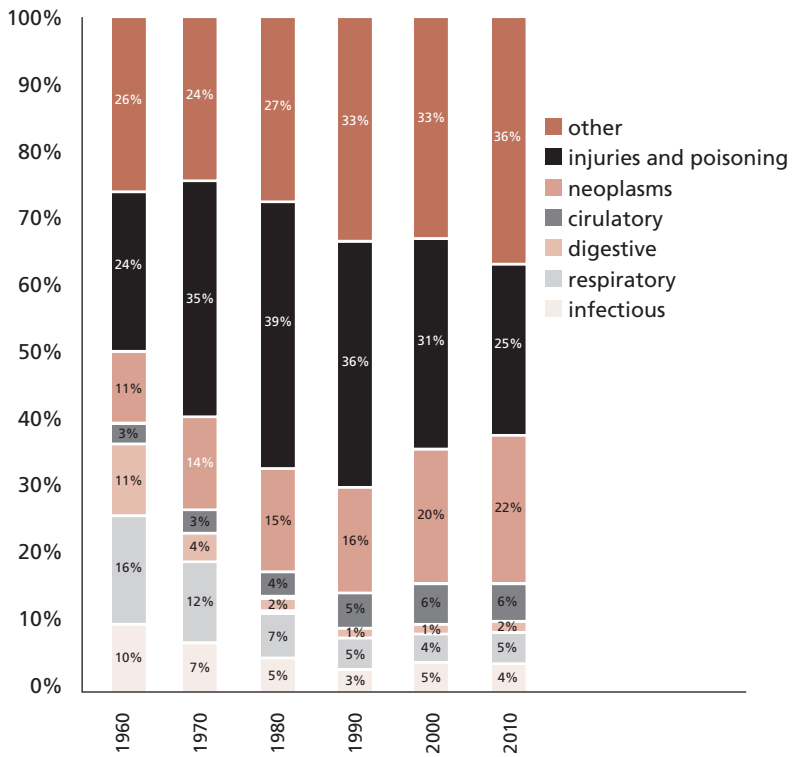
So we need to ask some questions, about what kills children, and what ails children, and how these things are changing with time, and how children in different areas, communities, and families may experience health and illness. With this information we can start to build a picture of child health needs, examine in more detail how well those needs are matched by services, and consider what we could do to make things better.

What are the main causes of children's deaths? Congenital abnormalities and external causes of death and injury such as accidents, injuries, and poisoning are the most common causes of death.[2,17] Accidents and injuries in children are strongly linked to socioeconomic conditions, and are highly preventable through public health intervention.[18]

Infectious diseases, respiratory illnesses, gastroenterological problems – the acute illnesses on which our hospital-centric health service configuration is largely based – are relatively small causes, and non-communicable disease are becoming more common (see **Figure 2.3**).

Since the NHS was founded over 60 years ago, there has been a shift in the causes of death in childhood. In recent years, long-term or ongoing conditions and accidents and injuries have become more frequent causes of mortality, accounting for 95 per cent of deaths, while communicable diseases are more commonly prevented or cured (see **Figure 2.3**). There has also been a notable change in the age distribution of deaths in childhood. Mortality rates in younger children have declined more quickly than in older children and adolescents. Fewer young children die of infectious diseases, while violence and injury-related death rates in young people aged 15 to 24 years have increased.[19] Adolescents, and boys in particular, have not benefited as much as younger children have from the improvements in health in recent decades.

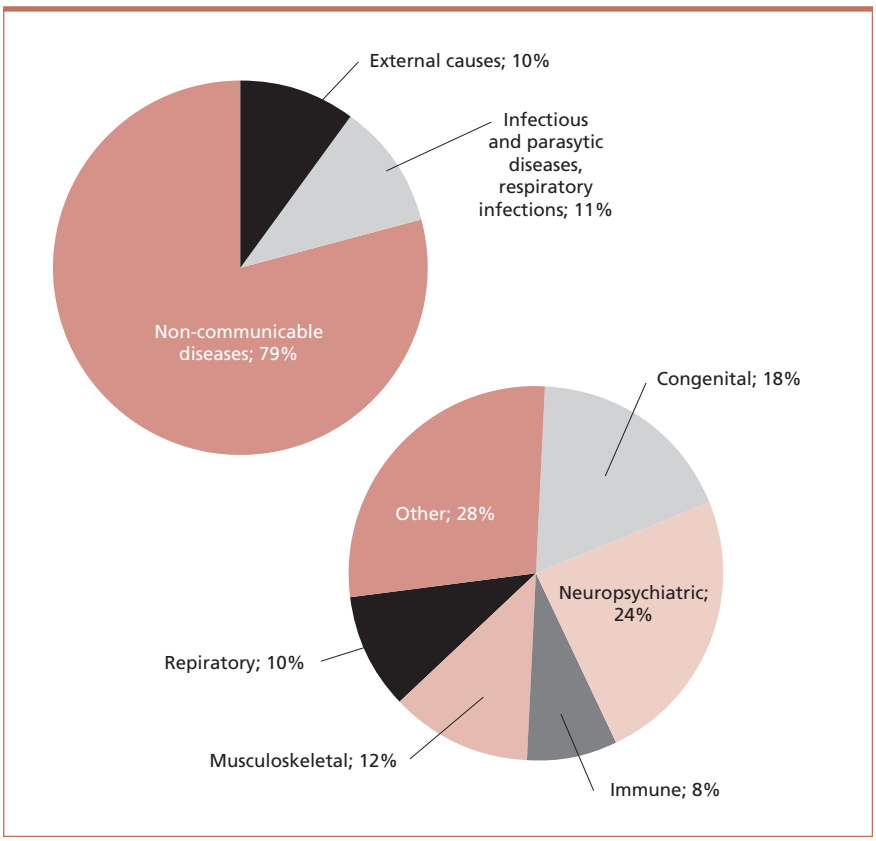
Figure 2.3: Shifting causes of childhood deaths (aged one to 14 years) – mortality in the 15 pre-2004 countries of the European Union, 1960-2010



Source: *European health for all database* (World Health Organization). Reproduced from Wolfe I, Thompson M, Gill P et al (2013) Health services for children in Western Europe. *The Lancet*. Published online March 27, 2013 http://dx.doi.org/10.1016/S0140-6736(12)62085-6

Chronic diseases and other long-term conditions are now the most common cause of illness and suffering among children and young people. There is an epidemiological shift away from acute infectious diseases towards ongoing conditions, and the new morbidities associated with environment, family and psychosocial conditions. Just over three-quarters of all childhood diseases are attributable to chronic conditions (see **Figure 2.4**), and around 7 per cent of children in the UK have a disability; the commonest involve difficulties with learning, communication, and mobility.[20]

Figure 2.4: The causes of illness and disability in childhood (aged 0 to 14 years), Western Europe, 2004



Source: Data from the Global Burden of Disease Study 2010 (Institute of Health Metrics and Evaluation). Reproduced from Wolfe I, Thompson M, Gill P et al (2013) Health services for children in Western Europe. *The Lancet.* Published online March 27, 2013 http://dx.doi.org/20.1016/S0140-6736(12)62085-6

Asthma is one of the commonest chronic diseases in childhood, and is responsible for the largest number of disability-adjusted life years[a] (DALYs) lost of any single childhood chronic illness.[18] There is conflicting evidence on whether the prevalence of asthma in the UK is increasing or decreasing, and what the differences in trends are between young and older children.[21-23] It is indisputable that our health services are not providing universally high-quality care for children with asthma. Only 3 per cent of children with asthma have written plans to prevent and manage exacerbations of symptoms, which contribute to preventable admissions to hospital,[24] and there are preventable deaths from asthma.[13,15]

a A DALY is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.

Diabetes mellitus is becoming increasingly common in children, and presenting earlier in life than ever before. Current trends suggest that the incidence of type I diabetes mellitus will double in children under five years of age, and the prevalence in children aged under 15 years will increase by 70 per cent between 2005 and 2020.[25] Less than 5 per cent of children with diabetes receive care consistent with guidelines, and therefore preventable complications of disease such as diabetic ketoacidosis occur. Children in the UK die from diabetes. These deaths ought to be entirely preventable.[26]

Epilepsy is a common chronic disease of childhood, yet children with epilepsy do not always get the care they should have. A recent national audit revealed significant gaps in services, for example only 65 per cent of children had an appropriate first assessment, and 35 per cent did not have a complete assessment, nearly half of the children did not receive appropriate specialist neurology care when it was necessary, and less than half of services employ a specialist epilepsy nurse.[27]

Although this book focuses on the first five years of life, the consequences of early years health and development are often revealed later in childhood. Self-rated health in adolescents and young people is important as a subjective indicator but also because it reflects events earlier in life, and predicts objective health later in life. There is a link with living conditions since poor or fair self-rated health is significantly associated with family poverty (see **Table 2.1**).

Table 2.1: Children who self-rated health as fair or poor*

	11 year olds		13 year olds		15 year olds	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
England	11	13	19	21	18	32
Wales	17	23	20	30	20	33
Scotland	13	14	16	25	18	34
Average (WHO European region, USA & Canada)	11	13	12	18	13	23

*No data given for Northern Ireland.

Source: Brooks F, Van Der Sluijs W, Klemera E et al (2009) *Young people's health in Great Britain and Ireland: findings from the health behaviour in school-aged children suvey, 2006. HBSC International Reports.* Cardiff, Edinburgh, Galway, Hertfordshire: University of Hertfordshire and University of Edinburgh.

2.4 Mental health and wellbeing

It is especially noteworthy, partly because it is often overlooked, that the largest category cause of non-communicable illness among children and young people is neuropsychiatric illness.[28] Unipolar depression is the commonest single cause. Emotional and behavioural problems affect one in five children, and mental health conditions affect one in eight.[29] Six per cent of the child and adolescent population have a diagnosed conduct disorder, 4 per cent an emotional disorder, 3 per cent have attention deficit hyperactivity disorder (ADHD), and 1 per cent have other conditions including autism.[30] The Centre for Maternal and Child Enquiries (CMACE), formerly the CEMACH, report identified mental health as an important area to focus efforts in reducing preventable deaths, since the majority of young people who die following suicide or substance misuse had not been in contact with mental health services. The DH has recognised the importance of these problems and recently issued a strategy for preventing mental illness and intervening early in childhood.[31] This is to be welcomed. Implementing such a strategy effectively at a time of tremendous upheaval in the NHS and severe budget cuts will be challenging.

2.5 Social determinants of child health

Virchow's statement that medicine is a social science, is especially relevant to child health, since early development is such a vulnerable and important stage of life.[32] The aetiology of emotional, behavioural, and mental conditions in children and young people is complex. There is, however, no doubt that changes in family structures, and social and economic factors influencing the whole of society play an important role. There are a variety of frameworks setting out plausibly how causal relations between social and economic stressors could affect health.[33,34] Although the exact mechanism is difficult to describe, there is no doubt that the relationship exists. Social risk factors for disease include proximal ones such as smoking, and more distal ones such as poverty.[34] These distinctions are fairly arbitrary since, for example, smoking and harm caused from alcohol consumption are strongly linked to socioeconomic status, and consumption is amenable to price and fiscal policy. The distinctions gain meaning only in how these risk factors are measured and in how policy should be devised to deal with the problems. Political solutions to the structural causes of ill health are required, even if the manifestations are seen and measured in the health sector.

2.6 Family

Parents are vital influences in the early years of children's lives and their social and emotional development. Furthermore there is evidence that the parent-child relationship may be a life-course health determinant. Young children whose parents show resentment or hostility have an increased risk of poor health in later childhood. Indeed higher levels of these negative parenting qualities predict greater likelihood of ill health, and higher use of health services. These results are independent of socioeconomic factors such as poverty.[36] Poor parent-child relationships can affect health much later in life too, even into adulthood.[37] These are important findings; first poor parenting is common (in the

Waylen study 34% of parents showed high levels of hostility towards their young child, up to 70% were moderately resentful, and around a third of parents hit their children frequently); and second because of the potential for universal and targeted public health interventions to improve the parenting relationship and, therefore, also possibly health.

Changes in family structure, together with wider social pressures, affect children's lives and health in fundamental ways. The UK ranks twenty-fourth out of 27 European countries in a composite measure of pressure on families, and the UK has the highest proportion of children living in a household where no one is employed.[38] Such is the strain on families and their consequent malfunction that over 64,000 children in the UK live in the care of local authorities rather than with their parents. Most of them are there because of abuse or neglect.[39] The UK has among the highest rates of out-of-home care in Europe.[40] The numbers of children referred for out-of-home care has been rising steadily and the past year, 2011 to 2012, has seen the highest number ever recorded – 10,199 referrals, an increase of over 10 per cent in the one year.[41] The phrase 'in care' is all too often inadequate, as there are widespread deficits in the quality of care for children in such circumstances. Children 'in care', for example, are often made to change home without notice (23% were informed on the day of their move, and 55% had less than a week's notice), representing major disruptions in the lives of children who crave stability. Nearly three-quarters of siblings are separated from each other while in care. Twenty-nine per cent of care-leavers were not in education, employment or training, and only 12 per cent of those leaving care go to a job or training post, thus perpetuating the social instability and stressors from which they came.[42]

Far more common than children in care, in terms of family disruption, are those whose parents have divorced. Twelve per cent of British children (age 11 to 15 years) live in step-families and 16 per cent in single-parent families. These figures are higher than other Western European countries, though lower than the USA.[43] Looking beyond the structure of families to how they function and what they do together is important. Thirty-three per cent of children, aged 15 years, eat main meals with their parents less than twice a week. Family meal times are important social and nutritional experiences. The changes in family behaviour that this may indicate could be related to the finding that fewer than two-thirds of five year olds had achieved a good level of development in 2011. This means that 250,000 children a year are failing to meet a school standard of good development, which examines such things as ability to concentrate, speak, recognise words, and dress themselves.[44]

2.7 Education

Early years education, at home, as well as formally, is a crucial part of child development.[45-47] The early years are vital in enabling children and future adults to develop empathy and to form healthy relationships.[48] Socially well-adjusted children are more likely to benefit from education.[49] It is an indictment of our culture that, in a country with such a strong literary heritage, one-third of children in Britain aged between 11 and 16 years do not own a book.[50] Children and young people's school experiences are important. According to UNICEF, the UK scores 24th (out of 29 countries) for education,[3] and the OECD ranks it twenty-second of 30 countries.[51] The quality of school life is, however, at least partly better: the OECD scores the UK fourth of 30 countries, and the UK mostly scores above average for 11 year olds. The proportions decrease with age and vary across the nations (see **Table 2.2**).

Table 2.2: Percentage of children who like school a lot*

	11 year olds		13 year olds		15 year olds	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
England	52	56	22	25	26	24
Wales	30	36	19	21	17	19
Scotland	33	45	31	33	22	16
Average (WHO European region, USA & Canada)	33	43	22	27	18	22

*No data given for Northern Ireland.

Source: Brooks F, Van Der Sluijs W, Klemera E et al (2009) *Young people's health in Great Britain and Ireland: findings from the health behaviour in school-aged children suvey, 2006. HBSC International Reports.* Cardiff, Edinburgh, Galway, Hertfordshire: University of Hertfordshire and University of Edinburgh.

It is interesting to note that much larger proportions of children report feeling pressured by school work (family affluence is not a significant factor) in the UK than in Scandinavian countries. Educational outcomes for the UK are, however, generally comparable for both reading and mathematics.[52]

2.8 Friends and peers

Peer relationships are important for social development, but both healthy and harmful influences can occur. A large majority of children aged 11 to 15 years report close friendships with three or more children, which is well above the average.[53] Time spent out with friends in evenings, however, is strongly associated with risk behaviour in adolescence, especially with substance misuse. The UK scores poorly in this area, compared with the average across surveyed countries (see **Table 2.3**).[54]

Table 2.3: Percentages of children who spend four or more evenings per week out with friends*

	11 year olds		13 year olds		15 year olds	
	Boys	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**
England	32	25	40	27	40	31
Wales	42	32	52	45	47	34
Scotland	46	39	54	46	53	40
Average (WHO European region, USA & Canada)	25	19	29	25	34	27

*No data given for Northern Ireland.

Source: Brooks F, Van Der Sluijs W, Klemera E et al (2009) *Young people's health in Great Britain and Ireland: findings from the health behaviour in school-aged children suvey, 2006. HBSC International Reports.* Cardiff, Edinburgh, Galway, Hertfordshire: University of Hertfordshire and University of Edinburgh.

2.9 Risk to health and wellbeing

Smoking usually begins in adolescence, and early initiation of smoking predicts likelihood of addiction to tobacco, and also problems with alcohol later in life[55] and later use of illicit drugs.[56] Around one-quarter of British 15 year olds report having first smoked at the age of 13 years or younger; the rate is higher in teenage girls than boys. The likelihood of early smoking in girls, but not boys, is related to family poverty. Just under one-fifth of 15 year olds smoke at least once a week, again more commonly in girls than boys.[53] Smoking remains the leading cause of preventable morbidity and mortality in the UK. The BMA has a long history of supporting comprehensive tobacco control measures since the pioneering work of Professor Sir Richard Doll in 1950 (further information on the BMA's work on tobacco control can be found on the BMA website).

Alcohol over-consumption is a serious problem in the UK, and it begins in early life. Binge drinking is a particular feature of adolescent and young people's drinking behaviour. Around 40 per cent of 15 year olds, and just under 20 per cent of 13 year olds drink alcohol at least once per week. There is no significant association between weekly alcohol consumption by young people and family affluence, but the harm from excess alcohol consumption falls disproportionately on poorer families.[53] The burden of alcohol-related harm represents a significant threat to public health in the UK. The BMA has a long history of supporting comprehensive measures to reduce alcohol-related harm. Since its first publication on alcohol and young people in 1986, the BMA has led the medical profession in calling for tough action to redress the excessively pro-alcohol social norms in the UK. The BMA has produced a number of reports on alcohol including *Reducing the affordability of alcohol* (2012), *Under the influence: the damaging effect of alcohol marketing on young people* (2009), *Alcohol misuse – tackling the UK epidemic* (2008), *Fetal alcohol spectrum disorders – a guide for healthcare professionals* (2007),

and *Adolescent health* (2003). Further information on the BMA's work on alcohol control can be found on the BMA website.

Over 20 per cent of children entering school (age 4+ years) are overweight or obese and are therefore at increased risk of ongoing overweight and obesity and of incurring the physical health problems such as diabetes, coronary heart disease (CHD), and early osteoarthritis in later life.[57] Physical activity, which is an important contributor to optimal weight, is also associated with physical and mental health gains in short and long term. Fewer than half of children aged 11 to 15 years engage in at least one hour per day of moderate to vigorous physical activity, and the rate decreases with age.[53] The BMA's 2005 report *Preventing childhood obesity* is a guide on childhood obesity for GPs and other healthcare professionals. The report highlights the impact childhood obesity can have on children's current and future health.

Environment can be both beneficial and harmful to health. The physical home environment is important for health, wellbeing and safety. Housing in deprived areas is more likely to be considered unsafe for children.[58] Poverty, adult alcohol consumption, and maternal depression are associated with injury in children aged under five years.[59] These risk factors are modifiable, and can enable early identification of children at risk of injury and so target prevention. The wider environment can increase or mitigate the risk of injury, which is not only a leading cause of childhood disability and disease, but is also largely preventable.[18]

2.10 Poverty

Poverty and social inequalities are some of the most important stressors on family life and are crucial determinants of children's health and wellbeing. The UNICEF league table on inequalities in childhood wellbeing assesses and ranks countries according to three related dimensions of inequalities: material, education, and health.[60] It tells us interesting and important things about the UK today. It demonstrates our relatively low position in the league tables of inequality, but also has a subtler message. The report focuses on what has become known as 'bottom-end inequality', that is how far below the median children who are at the margins of society live. The UK scores poorly in its overall inequality record for childhood, as well as in measures of bottom-end inequalities. The consequences are stark: social inequalities in health continue to widen, and while average life expectancy increased by 0.3 years from 2007/09 to 2008/10, the gap between the richest and poorest widened.[44]

The Labour Government that took office in 1997 pledged to halve child poverty by 2010, to eradicate it within 20 years, and to reduce health inequalities. Too many of the health policies that followed these pledges focused on modifying individual health behaviours, and taxation policies were not sufficiently progressive to achieve the redistribution of wealth that was promised.[61] The 2010 target was not met and

although as the 2013 UNICEF report shows,[3] some progress has been made, the situation faced now by the UK's children is one of deepening poverty. Nearly a third (27%) of children in the UK live in poverty,[62] and there are areas where poverty is particularly concentrated in specific places such that between 50 and 70 per cent of children are growing up in poverty.[63] Current Government austerity policies are predicted to cause child poverty to rise substantially (see **Table 2.4**).[64]

Table 2.4: Current and predicted child poverty rates in the UK

	1998/99*	2009/10*	2010/11**	2015/16**	2020/21**
Children in poverty (before housing costs)	3.4 million	2.6 million	2.5 million	2.9 million	3.3 million
Children in poverty (after housing costs)	4.4 million	3.8 million	3.5 million	3.9 million	4.2 million

* Data taken from Harker L (2006) *Delivering on child poverty: what would it take? A report for the Department for Work and Pensions*. London: Department for Work and Pensions.

** Data taken from Child Poverty Action Group (2012) *End child poverty: child poverty map of the UK*. London: Child Poverty Action Group.

Compiled by Dr Ingrid Wolfe.

The 2013 UNICEF report on child wellbeing makes important points about social protection policy and child wellbeing.[3] Compared with other European countries, data until 2009/10 showed that the UK had done comparatively well in reducing child deprivation, ranking 9th of 20 countries, with 5.5 per cent of children in deprivation. However it had done less well in reducing child poverty (defined for this study as the number of children living in households below 50% of the median income), for which the UK ranked 22nd of 35 countries, with 12.1 per cent of children in poverty.

The scale of the gap between child poverty and deprivation is partly accounted for by policy. Governments can reduce the impact of poverty through social protection policy. Sweden has lower child deprivation rates than other countries of similar wealth, because of differences in policy providing support for single parent families, for example. The UK too has had a fairly good social protection record, providing cash and public services to families in need. Up until 2009, the UK would have had three times the child poverty rate if the Government had not adopted the policies they did on cash transfers, tax credits, and public services for children.[65]

As shown in **Table 2.4**, child poverty is projected to increase, and the full impact of the Government's cuts to social protection policy, and austerity economics, are yet to be determined. The moderate progress for children made in the years since the 2007 UNICEF report[6] is likely to be lost.

2.11 Bringing it all together

The increasing numbers of children and families in poverty and widening social inequalities present enormous challenges for the health system. The rising numbers of children with chronic conditions has direct social and economic implications in terms of reduced school participation, and indirectly through reduced productivity for their parents at work. It also has substantial impacts on the health services since the hospital-centric structure of child health services was designed to suit an episodic illness model when infectious diseases predominated. When the current model was devised, children's medicine and healthcare was considered largely to be a subset of adult practice. Children's health needs are now accepted to be distinct from those of adults, and children's health care has become a sophisticated specialty with a discrete knowledge base. Health services, however, have failed to adapt sufficiently to meet children's needs adequately. Health systems still prioritise acute services modelled around the demands of running hospital wards and emergency departments. Services are used inefficiently as a result, and chronic care takes second place to urgent services.[15,66] Despite the emphasis on acute care, there are still significant numbers of children whose deaths are avoidable.[13]

Children with long-term conditions often require complex packages of care coordinated by different health professionals working in different organisations across health and other sectors such as social and educational. It remains to be seen whether the Health and Social Care Act 2012 facilitates or impairs integration between services. Health policy analysis suggests that the emphasis on competition rather than collaboration may impair efforts to integrate services and reduce equity of access to care.[67-69] A further significant impediment to reform is the size of the paediatric workforce; there is a mismatch between the number of paediatricians being trained, the number of funded consultant posts, and the number required safely and legally to staff existing acute hospital services.[70]

Prevention of chronic disease and improving life chances are priorities for the entire health system, and the greatest gains will accrue from starting at the earliest stage of life. Social and economic conditions are profoundly important determinants of children's health. A direct attack on the determinants of disease and deficits of wellness in children is necessary both comprehensively to deal with the problems children face today, and to improve our chances of ensuring a healthy and happy future for the next generations. Just as there has been a shift in disease burden among children, there has been a shift in the distribution of risks they face. Undernutrition is a less important risk for the UK's child population now than is over-nutrition. Although of note there are pockets of malnutrition, and the rising prevalence of rickets is a significant concern. Tobacco, alcohol, physical inactivity, overweight, lack of fruits and vegetables in the diet, and road traffic safety are important risk factors for child health.[71] Early years development is critical and sustained investment is needed. The life-course health development approach aims to provide rational interventions that deliver sustained improvements

in health and wellbeing.[33] Tackling the complex social and economic determinants of chronic ill health and of unfulfilled lives requires a multidimensional policy response across Government departments. It is important to get this right; children's health and development determines the strength of nations.[72] In these straitened economic times, investment in public health must be strengthened and protected as a vital part of our efforts to improve children's health and wellbeing.

Wellbeing in childhood encompasses a diversity of aspects of children's lives, summed up as the quality of children's lives. The OECD and UNICEF attempt to measure children's wellbeing by examining various dimensions of their lives, and then provide a score, and rank countries accordingly.[3,51] Both organisations measure dimensions of wellbeing based on the UNCRC.[73] The 2009 OECD report focuses especially on aspects of wellbeing that are amenable to policy interventions. Of 30 OECD countries, the UK ranks poorly in each domain except for quality of school life.[51] In its 2007 study, UNICEF ranked the UK as the worst performing of the 21 countries it assessed, based on an average ranking for six dimensions of children's wellbeing.[6] As noted in Chapter 1, its update to the 2007 study (published in April 2013),[3] found that the UK had shown a modest improvement, moving from 21st to 16th position. Further direct comparisons are not possible as the two studies used different measures and assessed different countries.

When UNICEF's 2007 report was published, David Cameron, then in opposition stated 'If today, Britain is the least family-friendly country in the developed world, the aim of the next Conservative Government is to make it the most family-friendly'. This pledge was repeated often during the election campaign, and into the early months of the Coalition Government. To date, the current administration's policies are unlikely to be described by health policy analysts as family-friendly. There are cuts to child benefit, Sure Start centres (which provide child care for working mothers, parenting support, behavioural and other early interventions to prevent family problems and later reliance on social services, and improve early years education) have been closed, and regressive tax policies have been implemented that differentially affect women and children (see **Chapter 7** for a more detailed discussion on parenting).

There is a new Welfare Reform Act and a Health and Social Care Act that many health professionals and policy analysts argue will have profoundly deleterious effects on the most vulnerable patients.[67-69] Despite an enormous amount of current policy change, there remains little comprehensive policy analysis to examine the effects of these changes on children's health and lives. This is compounded by the relatively small amount of work in children's health services research and comparative health systems analysis which could inform future policy direction. The updated UNICEF study, published in April 2013,[3] reports data from 2009/10, just before the Coalition government took office. Although some progress in improving child wellbeing was reported, the time lag in data availability means that it does not reflect the Coalition

government policies. It is unlikely, given the current economic situation and policy environment, that the trend in improving child wellbeing will continue for the next few years.

The Court Report in 1976, the NSF for Children in 2004, and the Marmot Review and Kennedy report in 2010, are major Government reports that emphasised the importance of health professionals working closely together, in integrated services, serving the best interests of children and young people.[35,74-76] Each made recommendations to improve children's health and health services and each contributed towards improving children's health. There remains, however, a great deal more work to be done in implementing the recommendations of those reports. It is to be hoped that the BMA's *Growing up in the UK* report can help to reinforce these preceding reports, and contribute towards realising the goals that are shared by all those who work to promote the interests, health, and wellbeing of the UK's children.

2.12 Recommendations

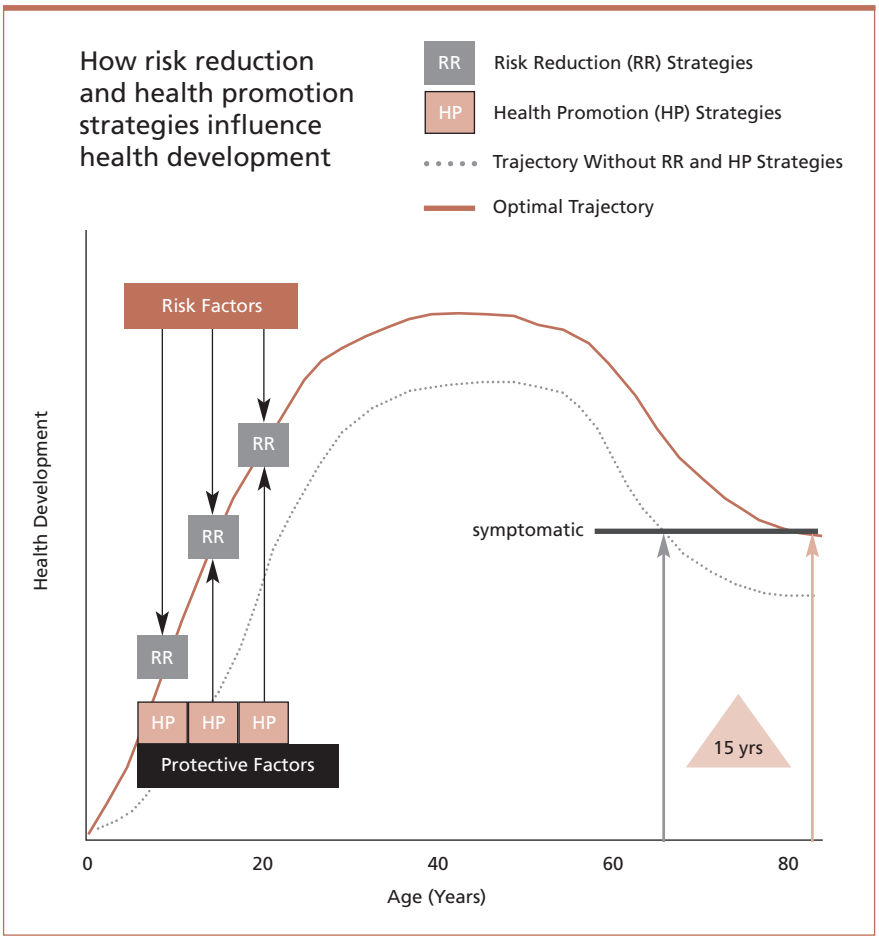
The recommendations in this chapter are intended to complement and support those in the children and young people's health outcomes strategy[8] published in 2012.

A life course approach to improving child health

Reducing risk and promoting health are fundamental to our efforts to improve the lives of children. The life-course approach to health defines health as a developmental process, and builds on chronic disease epidemiology, developmental epigenetics, early development research, and neurobiology.[77] A combination of reducing risk and promoting health, therefore, influences the life-course trajectory (see **Figure 2.6**).[33]

A 2012 report by the Royal College of Paediatrics and Child Health states that despite the commitment made by successive governments and progress in research, there remains a historic society-wide reluctance to involve children in research in the UK.[78] Children's research is needed to define the causal biological mechanisms, alter the development of aberrant trajectories, preserve health, and reduce the costs of healthcare in adult life. The report calls for a need to work together to effect a sea change in the recognition of the importance of child health research for the entire population. From a national perspective the economic arguments in favour of children's research activity are compelling. Improving child health accumulates advantages throughout the life-course and investment in the earliest years will reap the biggest rewards.

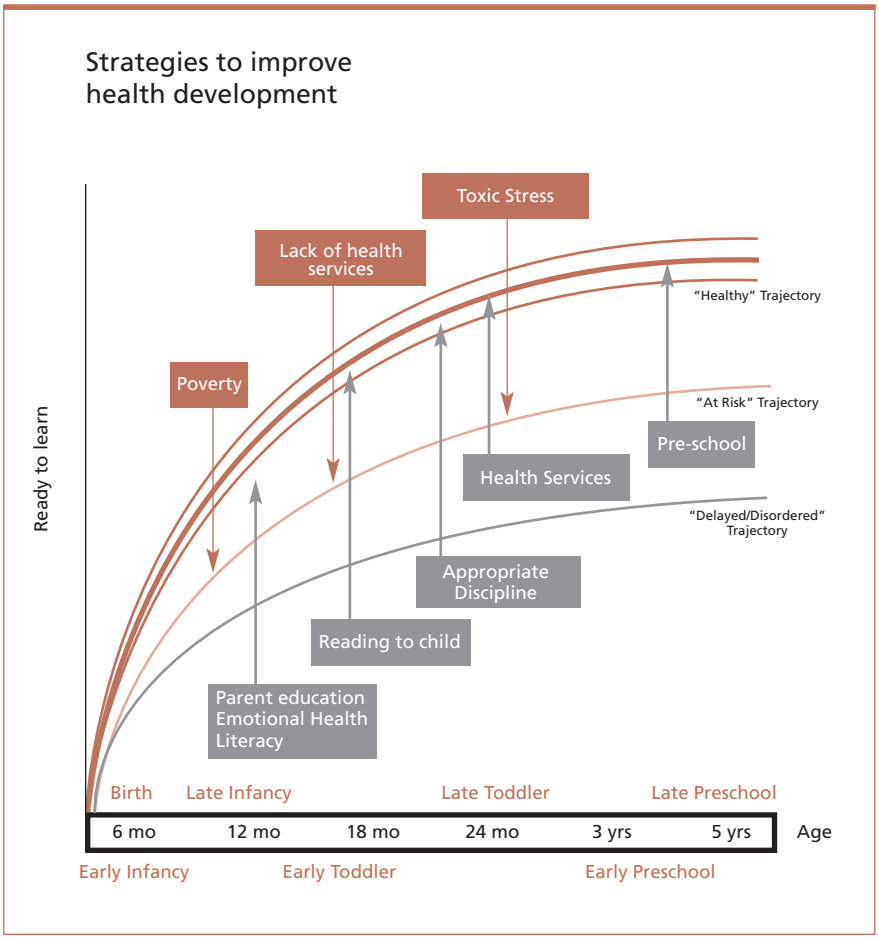
Figure 2.6: A life-course approach to health



Source: Halfon N & Hochstein M (2002) Life Course Health Development: an integrated framework for developing health, policy, and research. *Milbank Quarterly* **80**: 433-79. Reproduced with permission of the authors.

Adopting a life-course approach to improving child health means that a variety of interventions across different sectors will be required. The aim is to ensure that all children are given the best possible chance to develop along a healthy trajectory (see **Figure 2.7**) and by the time they reach five years old, they should be ready to learn.

Figure 2.7: Strategies to improve early development



Source: Dr Neal Hamilton (Director of the University of California, Los Angeles (UCLA) Center for Healthier Children, Families & Communities). Reproduced with permission of the author.

Key aims and recommendations

Overarching themes

- Policy should serve to improve the 'match' between healthcare needs and services.
- Children's services, and the processes and structures that enable them, should be coordinated in the interests of children and families. This will require financial and organisational coordination, supportive local and national policy, and adequate resources invested for sufficient time to enable improvement.
- Accountability for children's health and wellbeing is key to ensuring progress is made:
  - responsibility and accountability should be at Ministerial level within the Cabinet
  - a framework of monitoring, reviewing, and remedying processes is needed to enable accountability
  - a national oversight mechanism, with responsibility for child health services, should be set up, and report to the Minister with the power to implement remedying action when problems are detected.
- Every aspect of children's health services and systems should be committed to providing for children. The defining culture should be 'I exist to serve' rather than 'I am a professional, and this is what I do'.

Health services

- To reduce the numbers of healthcare amenable deaths among children.
- To improve the quality and efficiency of first contact care for children:
  - first contact care for children should be improved by ensuring that all staff are appropriately trained and supervised.
- To support and strengthen child and adolescent mental health through services:
  - the DH's strategy for preventing mental illness and intervening early in childhood must be accompanied by sufficient and protected funding.
- Chronic care for children should be improved by developing chronic care health service models, appropriate for children's needs, and effectively managing transitions to adults' services.
- The planning, commissioning and evaluation of children's health services should be informed by child public health professionals.
- To improve the child-friendly qualities of health services, ensuring that the views of children, young people, and their parents form an integral part of health service planning and evaluation.

Prevention, policy, and public health

- Strengthen early years development and readiness for school and promote a culture of playing outside.
- Adapt the social and physical (built) environment to prevent child obesity.
- Policy and regulatory action should be taken to reduce alcohol and tobacco use.
- Improve and support the health knowledge and behaviours of school age children.

- Support parents and families through universal public health and targeted interventions:
  - parents and families, particularly in areas of high need, should be supported through targeted interventions, while preserving and strengthening the universal approach of child services
  - the universal services provided by health visitors working closely with GPs in strong primary care teams should be supported and strengthened.
- Strengthen public health interventions to prevent childhood accidents and injuries:
  - the built environment should be improved to support healthy lives for children and families and to reduce accidents and injuries.
- National and local policy on matters affecting the social and economic determinants of health should be devised and evaluated according to the ECM outcomes, and with reference to the needs and interests of children. Consideration of the five ECM categories of outcomes: health; safety; enjoyment and achievement; meaningful social contribution; and economic security and wellbeing remains the ideal way to ensure that the most important aspects of children's wellbeing are covered in policy.

Infrastructure and enablers

- We recommend that an annual report on the health of children, similar to the Chief Medical Officer's report on the State of the Public Health, should be published, with a view to monitoring health trends in children so that remedial action can be taken where needed and progress monitored.
- Comprehensive, reliable, regularly collected data on child health and health care needs are required to inform health services planning and evaluation. Work should build on current outcomes frameworks to strengthen the data resources available for health services. The Early Development Index could be included to ensure a comprehensive perspective.
- Evidence-based commissioning and evaluation, and strengthened child health services research to improve the 'fit' between health care needs and health services.
- Evaluation of policies that affect children's lives, health, and wellbeing is essential. Children's health services research and HPSR should be strengthened in order to continue to improve the care we deliver to children and families.
- Money for health and welfare of children – including for health (primary, secondary and community), education, social care – should be consolidated in one fund, to enable the joined-up planning and delivery of care that children need and deserve.

Key evidence

- Improve the skills and supervision of all staff providing first contact care for children.[13,14,79]
- Healthcare models that integrate services and bridge the gap between primary and secondary care are likely to be helpful in improving the quality and efficiency of first contact and planned care.[14,15]
- Integration within and between sectors, with professionals working closely together

to cooperate in the best interests of those they serve, is likely to be the best way forward for children; and successful integration requires supportive policy.[76,80-83]

- Children's health and health needs are distinct from those of adults. Planning, commissioning and evaluating child health services are specialist skills that rely on specialist skills and data.[84]
- Accountability can be strengthened through a framework of monitoring, reviewing, and remedying processes.[85]
- The Council of Europe has ratified a strategy to adopt 'child friendly healthcare' based on the UNCRC.[86]
- The Early Years Development Index measures physical health and motor development; social and emotional development; and language, communication and cognitive skills. It is a systematic means of tracking child development and has been evaluated in the USA as a means of measuring development trajectories, health and wellbeing determinants, assessing quality of services, and driving improvement.[87]
- The National Healthy Schools Programme is associated with strengthening health-promoting environments in schools, specifically leading to improved health knowledge, choices and behaviour, as well as achievement.[88]
- Children in Sure Start areas are less likely to be overweight, more likely to experience better physical health, and to have a better learning environment at home. Families in Sure Start areas use less harsh means of discipline and are more likely to have someone in the household become employed by the time the child reaches the age of five years.[89]
- There are effective interventions for preventing child behaviour problems which also have benefits in other aspects of family life.[90] Parenting skills can be improved and strengthened through education and training support[91] and an on-going randomized controlled study should provide further evidence.[92]
- Strengthen the universal services provided by health visitors working closely with GPs in strong primary care teams.[35,93]
- The built environment is an important determinant of health and wellbeing and can be designed to improve children's and families' lives.[94,95]
- Child obesity can be prevented through a combination of healthy eating and physical activity, through changing social norms and physical environments.[96]
- Accidents and injuries in childhood are highly amenable to prevention.[18]
- Minimum pricing per unit of alcohol is an effective means of reducing alcohol consumption.[97]
- Plain packaging of tobacco make cigarettes less appealing to young people. Plain packaging may help in preventing young people from taking up smoking.[98-100]
- Children's health research, health services research and policy analysis are important for improving the care we deliver and ultimately for improving children's health and wellbeing.[9]

2.13 Conclusions

Charles Dickens would have railed against the rising levels of child poverty and the increasing unfairness in life chances among the UK's children. Although the social determinants of child health are diverse and complex, and causal pathways are complicated, there is no shortage of information on their effects on the health and life chances of children. Nor is there a lack of information on how to improve the lives of children. What is missing is sustained economic investment and political will.

Last year marked the bicentenary of Dickens' birth. It is also 10 years since the death of John Rawls. His thinking gives an insight into our current predicament, and perhaps signals a way forward. Rawls was in many ways Dickens' successor, taking forward the same focus on social inequality and injustice.[99] 'Principles of justice' are 'the basic structure of society' he wrote. Every person (child) has the equal right to basic liberties that 'nullifies the accidents of natural endowment'. Rawls made inequality a contemporary political concern, and would doubtless have agreed with the principle 'fair equality of opportunity', which should be the philosophy of all those seeking to promote the welfare and wellbeing of children.