## CONTENTS

Navigating this document .......................... 3

4.1 Education and skills and health .............. 4

4.2 Social determinants of education and skills .... 6

4.3 Childhood education .......................... 6

4.4 Not in education, employment or training (NEET) .... 6

4.5 Education in later life .......................... 6

4.6 Education and skills: interventions ............ 7

4.7 Education and skills – further reading and resources .... 8

References ........................................ 10
Throughout this document boxes are used to highlight specific information.

**Key messages:**
In the Executive Summary and at the beginning of each section on the social determinants of health these boxes are used to highlight key points from the research.

**Strength of evidence:**
At the beginning of Sections 2–9 these boxes are used to highlight the most recent research that examines the strength of evidence relating to links between the specific social determinants and health outcomes.

**Example interventions:**
A variety of case studies demonstrating action on the social determinants of health are presented in these boxes at the end of each section.

**Key terms** are identified and explained in these boxes throughout the document.

Each section is followed by a number of evaluations and evidence reviews of interventions that address specific determinants of health.
4. EDUCATION AND SKILLS

**Strength of evidence: strong**

In 2006 a review of the evidence found ‘considerable international evidence that education is strongly linked to health and to determinants of health such as health behaviours, risky contexts and preventive service use.’ Further, it was found that ‘there are substantial and important causal effects of education on health’.1

**Education and skills – key messages:**

Education and skills are important for health. Participation in higher levels of education and higher education attainment is associated with healthier lifestyles, better mental health, greater levels of health literacy, and a reduced risk of a range of conditions, including cognitive decline and dementia.

Children from disadvantaged backgrounds are more likely to start school with lower social, emotional, language and literacy development than their better-off peers.

Poor housing, adverse childhood experiences, poor living standards and nutrition, inadequate parental support, family conflict and poor interactions with children can negatively influence childhood educational outcomes.

These issues can impact on future life chances, including increasing the risk of a young person becoming NEET (not in education, employment or training), affecting future employment opportunities and future income.

Pooper educational attainment is linked to multiple adverse health outcomes, including an increased risk of obesity and dementia, decreased levels of health literacy, poor mental health, and poorer health behaviours.

**4.1 Education and skills and health**

Education and skills are important for health throughout the life course. Higher cognitive scores are associated with healthier lifestyles,2 and reduce the likelihood of obesity and major diseases, including diabetes, heart disease, stroke and some cancers.3 Cognitive development in early life also affects mental health throughout the life course, with good development reducing the risk of poor mental health in later life.4 Higher cognitive functioning is linked to higher socioeconomic position, which protects against psychological distress in later life.5 Higher levels of education also reduce the risk of poor health behaviours such as smoking.6 Educational attainment also strongly predicts for good health literacy, the skills, knowledge and confidence to access and use health and social care services.7

Education and a broad range of skills and abilities can protect against the onset and symptoms of cognitive impairment and dementia in later life.8,10 ‘Cognitive reserve’, the skills, abilities and knowledge gained throughout the life course, is higher for those with greater levels of education and experience of stimulating employment and environments, and strong cognitive reserve enables people to cope better with the onset of cognitive impairment and dementia in later life.8,11,12 It can also delay the onset of dementia symptoms.11

Education in later life is also important. Mentally stimulating experiences have been found to have a physiological effect on the brain and can be clinically effective in replacing lost cognitive function caused by dementia, in particular Alzheimer’s disease.12

The multiple pathways through which poor educational attainment can impact on health are depicted in Figure 1 on page 5.
Figure 1. Education: Pathways to health outcomes (adapted from Egerter S, et al).
4.2 Social determinants of education and skills

The following sections provide information on the various factors that determine access to education and the unequal distribution of education outcomes.

4.3 Childhood education

A range of interacting factors impact on educational outcomes for children, including parental support and relationships with children, and school and peer factors such as the nature of the school and its pupils. However, there is a particularly strong relationship between disadvantage and educational achievement. Specific factors that are linked to the likelihood of a child achieving well at school, such as levels of stress and maternal mental health, weight at birth, and cognitive stimulation, are all influenced by the socioeconomic status of parents.\textsuperscript{15}

Children from disadvantaged backgrounds are more likely to start school with less social, emotional, language and literacy development and skills and have an increased risk of behavioural problems that can impact on educational attainment.\textsuperscript{15} These factors are not linked to children’s differential abilities or to innate cognitive functioning, but to the circumstances and environments that they are born into and live.

Poor housing conditions are also linked to slower cognitive development and limited educational attainment,\textsuperscript{16} while access to green space and adequate green infrastructure is known to impact on the cognitive development and educational outcomes of children.\textsuperscript{17}

ACEs have also been shown in a wide range of evidence reviews to have a significant impact on educational attainment including lowering grades and reducing school attendance, and increasing levels of placement in special education programmes.\textsuperscript{18-24}

Gender and ethnicity also influence levels of education. Poorer white girls and boys (those eligible for free school meals from year 3 onwards) achieve some of the lowest rates of GCSE A–C grades in England.\textsuperscript{25} Irish Traveller, Gypsy and Roma children also achieve significantly lower educational outcomes than the national average and are four times more likely to be excluded from school.\textsuperscript{26}

4.4 Not in education, employment or training (NEET)

There is strong evidence that poor educational achievement in childhood increases the risk of not being in education, employment or training (NEET) between the ages of 16 and 24. Young people who are NEET are not evenly distributed: greater numbers are found in areas of deprivation and disadvantage.\textsuperscript{27}

The long-term impacts of becoming NEET include ‘wage scarring’ or lower levels of earnings in later life, future unemployment, poorer physical and mental health, increased risk of teenage and early parenthood, insecure housing, homelessness and involvement in crime.\textsuperscript{28, 29}

4.5 Education in later life

There is a social gradient in terms of access to, and the ability to utilise, stimulating educational resources for older people. A large proportion of older people are not engaged in learning and only 7 per cent of people over the age of 75 participating in a 2012 study stated that they had any plans to take up some form of learning in the future.\textsuperscript{30}

There are multiple barriers to learning in later life, experienced particularly by disadvantaged groups. Funding can be skewed towards higher educated groups, and there is unequal access to meaningful training and professional development between professional, manual and low-paid groups of workers.\textsuperscript{31}
4.6 Education and skills: interventions

Example: Building emotional resilience in schools in Denny, Scotland

This pilot, funded by the Scottish Government, Falkirk Council and HeadsUpScotland, was delivered by YoungMinds in 2007–08, with the aim of building emotional resilience and wellbeing in school. The programme had a specific focus on supporting the transition from primary to secondary school, including through training teachers and working with parents.

YoungMinds is a charitable organisation in Scotland and offers advice and information about bullying, divorce and separation, and children’s behaviour.

The pilot programme included four initiatives:

- Building confidence and self-esteem among pupils, including through peer support, use of the Creating Confident Kids programme, and the Aiming for High programme, which is specifically designed to increase resilience in young people during times of transition.
- Promoting confidence and understanding among teachers and other staff, including through training on resilience and emotional wellbeing.
- Raising awareness of resilience and wellbeing among parents through workshops designed to increase support across the transition between schools.
- Enhancing the leadership skills of head teachers in the areas of resilience and wellbeing.

An evaluation revealed the following key findings:

- Pupils’ self-esteem and resilient attitudes were enhanced, and worries about transition were reduced.
- Staff’s own confidence in their ability to promote and facilitate discussion about resilience and emotional wellbeing increased.
- Parents felt more confident in their ability to support their child, and there were improvements in the parent–child relationship.
- Schools reported a greater focus on, and prioritisation of, resilience and emotional wellbeing.

Example: Open Age

Open Age is a charity led by users, supporting older people to develop and maintain physical and mental health through pursuing their interests. Over 200 mentally, physically and socially stimulating activities are delivered from Open Age hubs across London each week, run from a range of settings including community centres, sheltered housing, libraries, church halls and residential settings. Open Age runs the Link Up Project and is funded by the NHS and local councils. Project workers aim to identify and support older people who are most vulnerable to social isolation and non-engagement in activities. Open Age workers offer a range of support including one-to-one confidence-building, accompaniment to first sessions, home visits and meetings in the community, advice, and links to transport options designed for older people with physical mobility issues. Activities have also been facilitated over the phone for those unable to leave their home, for example a telephone book club.
4.7 Education and skills — further reading and resources

Improving school transitions for health equity (2016), a paper by the Institute of Health Equity, summarises the latest evidence on school transitions to determine the nature and extent of their impact on health outcomes. It also considers whether or not school transition interventions and strategies can help to reduce health inequalities. The paper includes example interventions and a review of programme evaluations.

Local action on health inequalities: Building children and young people’s resilience in schools (2014), published by the Institute of Health Equity, demonstrates inequalities in the clustering of adverse circumstances and experiences that lower resilience in children and young people and argues that action to build resilience in children and young people should be taken by a wide range of organisations, including in the voluntary sector. It recommends a number of actions including extra-curricular activities that build social networks, interpersonal relationships, confidence and self-esteem.

Approaches to supporting young people not in education, employment or training – a review (2012), written by the National Foundation for Educational Research, examines preventive and reintegration approaches and research about successful approaches supporting those not in education, employment or training (NEET). It examines the evidence at a general level as well as evidence pertinent for those in identifiable sub-groups, including those ‘open to learning’, those with sustained absence from education, employment or training, and those who are undecided and dissatisfied with their choices.

Are we failing young people not in employment, education or training (NEETs)? A systematic review and meta-analysis of re-engagement interventions (2017), research compiled by the universities of Newcastle, Durham, Lincoln and Leeds Trinity, demonstrates a ‘small but significant 4 per cent increase in employment’ achieved by interventions supporting NEETs and estimates a saving of £469 million to the public purse. Successful interventions had high levels of contact with service users and targeted deprivation.

The early bird... Preventing young people from becoming a NEET statistic (2011), research published by the University of Bristol, focuses on identifying a set of characteristics that helps to identify those young people who are most at risk of becoming NEET, and provides a review of interventions from the UK and internationally that have addressed issues that increase the risk of becoming NEET. Interventions that demonstrated the most success were those that offered financial incentives for engagement and part-time work experience during school hours. Young people who are most vulnerable to becoming NEET are those that lack basic numeracy and literacy skills. The research also found that programmes that force individuals to stay in formal education, without providing alternatives, can do more harm than good. The study reports: ‘Formal apprenticeships with key on the job training and a proper connection to the world of work could play a fundamental role on increasing engagement.’

Evaluation of the ESF [European Social Fund] support to lifelong learning: final report (2012), a study written by European research and consulting company Ecorys, focused on three target groups: young job seekers (up to the age of 24), low-skilled workers (those with qualifications up to ISCED [International Standard Classification of Education] level 2) and older workers (age 55 plus). The focus of the study has been on the economically active – European Social Fund participants in work or actively seeking work. The report provides a list of critical success factors for young, low-skilled and older workers, and details how the design and operation of ESF processes and delivery systems can influence impact.

Higher education access: Evidence of effectiveness of university access strategies and approaches (2014), research written by Durham University, uses various methodologies, including systematic review, meta-analysis, experimental, regression discontinuity and other quasi-experimental designs and was undertaken mainly in the United States. The research demonstrates that widening participation programmes with specific interventions including financial incentives, advice and academic mentoring were most successful at increasing participation in higher education.
Impacts of lifelong learning upon emotional resilience, psychological and mental health: fieldwork evidence (2004), qualitative research published in the Oxford Review of Education, uses 145 in-depth biographical interviews with learners and 12 group interviews with learning practitioners regarding the impact of lifelong learning on their health and wellbeing. A range of health outcomes were recorded including wellbeing, protection and recovery from mental health difficulties, ability to cope with potentially stressful circumstances, including the onset and progression of chronic illness and disability. These health outcomes were mediated through a number of psychosocial qualities including self-esteem and self-efficacy, a sense of purpose and hope, competences, and social integration. The research also found that learning had to match the interests, strengths and needs of the learner if it was to have a positive impact on health.

Intervening to improve outcomes for vulnerable young people: A review of the evidence (2010), published by the Department for Education, identifies common barriers to implementation of new initiatives for vulnerable young people and their families and elements of effective practice in the delivery of multi-agency services and their associated costs and outcomes.

Lifelong learning and crime: A life-course perspective (2014), a review written by the Institute of Education, examines the financial and other social benefits that are gained from utilising lifelong learning to address crime. It provides a review of the policy environment that has linked education and desistance from crime and the ways in which education for people involved in the criminal justice system has been delivered. The paper provides evidence on the returns to be expected from educational interventions with offenders and argues for a ‘more broadly based methodological stance in relation to this kind of research’. It reviews how education, social exclusion and offending are linked.

Literature review of research on the impact of careers and guidance-related interventions (2009), written by the CfBT Education Trust, found that, although it is difficult to quantify in hard terms the impact of careers and guidance-related interventions on intermediate or longer-term learning, social and economic outcomes, there is ‘reasonably’ strong evidence that careers advice and guidance interventions can have an impact on delivering softer outcomes, such as increased self-confidence and enhanced decision-making skills that can be viewed as ‘precursors’ or proxy indicators that make a significant contribution to longer-term socioeconomic outcomes.

Getting older people involved in learning (2010) is a best practice guidance report written by the Institute of Lifelong Learning, to support older people into learning throughout the EU.

Older people, learning and education: what do we know? (2011), produced by NIACE, provides evidence from the English Longitudinal Study of Ageing that shows a strong correlation between older people’s participation in music, arts and evening classes and wellbeing outcomes, particularly for women and those still in work. It also demonstrated that for older people, more formal, exam-based education was not related to wellbeing outcomes.

The special educational needs and disability review. A statement is not enough (2010), a report by Ofsted, evaluates how effective the legislative framework and arrangements are for serving disabled children and young people and those who have special educational needs. It examines the accuracy and appropriateness of identification and assessment, expectations about the potential of children with special educational needs, access to good educational provision and other services that meet needs, improvements in opportunities, and any progress that has been made in preparing children and young people with disabilities for the future.
Education and skills – References


31. European Centre for the Development of Vocational Training, RESEARCH PAPER No 52 Unequal access to job-related learning: evidence from the adult education survey. 2015.


