Changing the Odds for Vulnerable Children

BUILDING OPPORTUNITIES AND RESILIENCE

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BETTER POLICIES FOR BETTER LIVES

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Preface

The OECD has been at the forefront in documenting the rising levels of income inequality and the widening gap in terms of access to opportunities that have marked the past three decades. It has also taken a leading role in proposing policy approaches that can help countries make the turn towards more inclusive models of growth. The data make for a sobering read: the average disposable income of the richest 10% of the population is now around nine and a half times that of the poorest 10% across the OECD, up from seven times 25 years ago. Wealth inequality is even more pronounced, with the top 10% owning half of total wealth, while the bottom 40% holds only 3%. The concentration of income, opportunities and assets at the top of the distribution partly reflects the fact that tax and transfer systems have become less progressive in many OECD countries over the past decades. In many emerging and developing countries, inequalities remain large and the institutional developments required to provide effective social safety nets remain slow to take off the ground.

Childhood is a crucial moment in the development of individuals. Childhood is also a critical issue for societies and economies, as it determines the formation of human and social capital. Inequality in childhood means inequality across the life-cycle. Children who grow up in poor families have less access to quality education and health care. As young people, they are likely to enter the labour market at an earlier age than their peers and take up low-skilled jobs at a time when technological change and globalisation are increasing the returns to education. Furthermore, low-skilled workers receive much fewer opportunities to upskill and retrain: only 20% participate in job-related adult learning compared to 37% and 58% of medium- and high-skilled workers.

OECD evidence shows that we are facing a persistent gap in opportunities between the children at the bottom of the income distribution and the children at the top. This is fuelled by the growing inequality in parents' resources and the quality of children's home environments. As a group, children in affluent families receive far more investment in parenting and education than ever before. However, societies that let children from less fortunate households fall behind and fail to improve their chances of success pay a heavy price. According to the 2018 OECD report *A Broken Social Elevator?* reduced social mobility is now a feature of our societies. On average across the OECD, it would take between four and five generations (i.e. up to 150 years) for a child born into a low-income family to reach the average level of income. Left unchecked, these gaps will further widen and create greater economic and social polarisation. Already the political consequences of such dynamics can be seen in many countries, expressed through citizens' distrust of institutions and an overriding sense of discontent with the deal they have been given.

In response to this, the OECD has called for a new growth narrative that puts people's well-being at the centre of policy and moves beyond GDP as the sole metric of success. Through its Well-being Framework, New Approaches to Economic Challenges and Inclusive Growth initiatives, the OECD has sought to upgrade its analytical models and measurement tools to better understand the functioning of our economies and to promote policies that integrate considerations of equity *ex-ante*. The OECD has also developed a *Framework for Policy Action on Inclusive Growth*, which offers governments concrete guidance on how to design and implement policies that will give all people, firms and regions the opportunity to thrive – particularly those that are struggling or have been left behind.

The OECD has also placed the issue of inequalities and the need for inclusive growth at the heart of the international agenda, where it has helped inform the work of the G7 and G20.

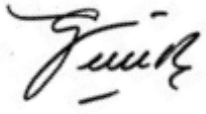
The present OECD report, *Changing the Odds for Vulnerable Children: Building Opportunities and Resilience,* makes an important contribution to the first pillar of the *Framework for Policy Action on Inclusive Growth*: Investing in people and places left behind. In doing so, it highlights the fact that children are vulnerable for different reasons and outlines the individual and environmental factors at play. It calls on countries to develop child well-being strategies that prioritise the needs of vulnerable children. It recommends six key policy actions around which to promote child well-being. These policies actions aim to reduce risks and strengthen protective factors, thereby enabling children to build greater resilience. They are designed to reach vulnerable children early in life, when it matters most, and include policies targeted at increasing children's educational success and empowering vulnerable families.

The analysis underscores the decisive role that childhood experiences play in shaping adult outcomes and the importance of providing children with the support they need to successfully overcome early-life disadvantage. Young children under three suffer heavily from family stress and material deprivation. Conversely, they benefit the most from early childcare and education (ECEC) interventions and time away from the home environment. Yet, children from low socio-economic households have far less access to ECEC, in some countries only half as many of them attend as their more fortunate peers. Maltreatment in childhood undermines adult economic self-sufficiency later in life and is a strong predictor of poor adult mental health. The quality of out-of-home care informs young adults' level of educational attainment and preparedness for the labour market.

We have found that rising inequalities have an adverse impact on child well-being. Higher inequality is linked with greater psychological distress and poor mental health among adolescents; where children rank economically amongst their peers matters a lot. The inter-generational transmission of mental health is strongest for children in lower socio-economic households. A larger share of children with disabilities live in low socio-economic households.

The report documents a rise in child poverty in almost two-thirds of OECD countries since the Great Recession. Children are more exposed to poverty than the rest of the population. Right now, across the OECD, one in seven children grows up in poverty. The living standards of children from low-income families have declined in many countries, particularly for those families with the smallest incomes. Furthermore, family homelessness is on the rise in a number of OECD countries, creating hardships that have serious implications for child development and well-being, as well as later adult outcomes.

The well-being of society improves most when society chooses to invest in its children. This report makes a key contribution to the OECD's vision for inclusive growth by placing children where they belong – at the centre of policy concerns. This report builds an overwhelming case for investing in the well-being of vulnerable children. We hope it will translate into concrete action by helping governments develop policies that ensure a better life and a brighter future for all children, particularly the most vulnerable.



Gabriela Ramos

OECD Chief of Staff and Sherpa to the G20 and Leader of the Inclusive Growth Initiative

Foreword

The OECD established the Inclusive Growth Initiative in 2012 to provide answers on how to reduce the problems of inequality and lack of opportunities that many OECD countries have experienced over the last decades. In 2018, the Framework for Policy Action on Inclusive Growth was launched to help countries design policies that makes growth more inclusive. This report, *Changing the Odds for Vulnerable Children: Building Opportunities and Resilience*, positions investing in the well-being of vulnerable children as a central action for inclusive growth, along the recommendations of the first pillar of the Framework that emphasises the importance of investing in people and places left behind.

The report highlights the fact that children are vulnerable for different reasons and outlines the individual and environmental factors at play. It calls on countries to develop child well-being strategies that prioritise the needs of vulnerable children. It recommends six key policy actions around which such strategies could be organised. These policies actions aim to reduce risks and strengthen protective factors, thereby enabling children to build greater resilience. They are designed to reach vulnerable children early in life, when it matters most.

- **Chapter 1**: This chapter provides an overview of the report drawing on analyses carried out in subsequent chapters. It introduces the concept of child vulnerability and an analytical framework for overcoming it. This framework looks at the factors contributing to vulnerability and seeks to integrate resilience building into the design of policies. The chapter discusses the recommendation of countries developing well-being strategies, with a particular focus on vulnerable children and outlines a set of recommendations through which OECD countries can develop such strategies.
- **Chapter 2**: This chapter analyses five individual factors contributing to child vulnerability: disability, mental health difficulties, immigrant background, maltreatment and being in out-of-home care.
- **Chapter 3**: This chapter analyses environmental factors contributing to child vulnerability. Environmental factors operate at both the family and community levels. Family factors include material deprivation, parents' health and health behaviours, parents' level of education, intimate partner violence and family stress. Community factors are associated with the school and neighbourhood environments.
- **Chapter 4:** This chapter builds on the insights gained in the previous chapters and identifies six policy areas around which child well-being strategies could be organised. They are policies empowering vulnerable families; policies strengthening children's emotional and social skills; child protection policies; policies improving educational outcomes; policies improving health outcomes and policies reducing child poverty and material deprivation. For each of these policy areas, a selection of best-practice programmes and policy initiatives in OECD countries suited to building resilience in children is presented.
- **Chapter 5:** This chapter describes the common challenges facing vulnerable children in developing countries, taking a life-cycle approach. It examines selected dimensions of well-being, including educational attainment, health and child protection measures.

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The report draws extensively on analysis carried out across a range of OECD Directorates. Chapter 1: lead author was Gráinne Dirwan. Chapter 2: lead author was Gráinne Dirwan with contributions from Thomas Liebig and Yves Breem of the Directorate for Labour, Employment and Social Affairs, and Caitlyn Gutherie and Francesco Borgonovi of the Directorate for Education and Skills. Chapter 3: lead author was Gráinne Dirwan with contributions from Olivier Thévenon and Marissa Plouin of the Directorate for Labour, Employment and Social Affairs, and Stéphanie Jamet, Yuri Belfali, and Elizabeth Shuey of the Directorate for Education and Skills. Chapter 4: lead author was Gráinne Dirwan with contributions from Olivier Thévenon of the Directorate for Labour, Employment and Social Affairs, Stéphanie Jamet, Yuri Belfali, Caitlyn Gutherie, Elizabeth Shuey and Tracey Burns of the Directorate of Education and Skills, and Elettra Ronchi and Andras Molnar of the Directorate for Science, Technology and Innovation. Chapter 5: lead authors were Alexandre Kolev, Justina La and Ji-Yuen Rim of the OECD Development Centre, with contributions from Olivier Thévenon of the Directorate for Labour, Employment and Social Affairs.

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Executive Summary

Across the OECD, millions of vulnerable children face daily hardships ranging from poor housing and inadequate diets to maltreatment and missed opportunities to fulfil their potential and thrive. At a time of rising inequalities, the OECD is calling for a better deal for children who are worst off.

Vulnerable children need consistent, coherent and coordinated support throughout childhood. From health and education to coping with emotional problems, the right policies at the right time can reduce negative experiences and increase positive ones for children in their homes, schools and communities. It can make a lifetime's difference, turning vulnerable children into resilient adults.

Early investment in education, health and families yields high returns later in life. Direct investments in low-income children's health and education generate the highest pay-off, many paying for themselves in the long run through increased tax revenue and lower social transfers. This potential does not decline as children get older. Investing in vulnerable children is not only an investment in disadvantaged individuals, families and communities; it is an investment in more resilient societies and inclusive economies.

No single policy can make a lasting difference to the well-being of a vulnerable child. A combination of cross-cutting policies is needed to increase protective factors while simultaneously reducing risks. This report highlights the environmental and individual factors of vulnerability and identifies ways to reduce risks and increase protective factors, thereby helping children build resilience.

Risks to well-being

The individual factors that contribute to child vulnerability include disability, mental health difficulties, maltreatment, coming from a family with an immigrant background and out-of-home care.

Environmental factors – family and community – shape child vulnerability. Family environment, such as material deprivation, parental health and education, as well as intimate partner violence (IPV), play a crucial role in child vulnerability. Community environment, such as schools and neighbourhoods, are also major factors.

Schools and early learning, for example, have a pronounced impact on child well-being. On average, just over a third of children under the age of three participate in early learning in OECD countries, with wide variations: for example 62% in Denmark to under 3% in Mexico. However, in many countries children from low-income households are significantly less likely to participate in early learning despite evidence of its benefits, particularly for vulnerable children. This may, in part, be down to affordability. However, estimates suggest that economic returns on investment in early learning, including higher income, better health and lower crime, are significant.

Risk factors for a child can include material deprivation, parents with low levels of education, parents with negative health behaviours, lack of supportive adults, limited access to leisure activities, high neighbourhood crime and high family stress.

Protective factors can include good access to pre-natal care, particularly for vulnerable expectant mothers, well supported families, good communication between parents and children, schools that identify and assist students in need of support and child-centred and accessible child protection systems.

Vulnerable children have complex needs that may require multiple interventions at several points in time. Building resilience is not a singular policy intervention. It is an across childhood and cross-cutting policy approach.

This report outlines six key policy areas which, when taken in a coordinated and coherent way, increase the chances of childhood well-being:

- **Policies to empower vulnerable families** including opportunities for parents to gain parenting skills, knowledge and resources through home-visiting and parenting programmes.
- **Policies that boost children's emotional and social skills** by enhancing the roles of schools in emotional and social well-being and providing opportunities for vulnerable children to build relationships with supportive adults through mentoring and organised sport and cultural activities.
- **Policies that enhance child protection** by making child protection services more child-centred and accessible and improving after-care services for young people leaving out-of-home care.
- **Policies that increase children's educational success**, including making ECEC high quality and accessible for vulnerable children and reducing inequity in education.
- **Policies that improve children's health** such as designing pre-natal care to meet the needs of vulnerable expectant mothers as well as ensuring access to adequate nutrition.
- **Policies that reduce children's poverty and material deprivation** including ensuring social benefits reach the poorest families and removing barriers for parents in taking up work.

Children pay a high price for inequality

Over the past three decades, the increase in income inequalities in OECD countries has eroded the chances of vulnerable children overcoming early adversity later in life.

Vulnerable children face greater risks of deprivation and stress. They are more likely to struggle as adults to fulfil their economic and social potential. Vulnerability locks disadvantaged children into disadvantaged adulthood, putting the brakes on social mobility.

Children are vulnerable in different ways. From individual vulnerabilities, such as disability and maltreatment, to growing up in an immigrant family, the challenges children face can prove decisive to their experiences later in life.

Children with disabilities, for example, are twice as likely to live in low socio-economic households. A possible explanation is the effect of poor social and environmental conditions during pregnancy and early childhood on child development.

Maltreatment also plays a major role in making children vulnerable. A systematic review on prevalence rates in high-income countries estimates that over the course of one year, around 4-16% of children experience physical abuse, one in ten experience neglect or emotional abuse and over childhood 5-10% of girls and 1-5% of boys experience sexual abuse, suggesting high demand for child protection and prevention services. These estimates are on the conservative side.

Childhood exposure to IPV in the home also significantly influences child well-being, in particular health, education and emotional well-being. Some country-level studies suggest significant numbers of children have witnessed IPV at home at some point in childhood, for example in the United States 28% and in Sweden 14%. Most households with IPV contain children, particularly under-fives.

Where and how children are raised is also decisive. Children in out-of-home care – residential care and foster care – are among the groups that perform least well in terms of education, although they can catch up if they have well supported foster carers interested in their education and aspirations

Poverty and vulnerability

Poverty is also part of the vulnerability puzzle. On average, one in seven children in the OECD live in income poverty. In European OECD countries, one in five income-poor children experience food poverty. Children from low socio-economic backgrounds are up to three times more likely to develop mental health difficulties than peers from better off homes.

Homelessness, an extreme form of material deprivation, has a profound impact, over and above poverty alone. Homelessness in childhood can lead to increased anxiety, loss of contact with family and friends, poor educational outcomes, school displacement and stigmatisation.

The number of homeless families in some OECD countries is growing. It has risen significantly in England, Ireland, New Zealand and some US states. In addition, youth homelessness has increased in Australia, Ireland, New Zealand and Portugal, among others. Ireland recorded the largest increase, with a jump of 82% over just a four-year period, from 2014 to 2018. Youth homelessness grew by 20% between 2011 and 2016 in Australia and by 23% between 2006 and 2013 in New Zealand.

This is against a backdrop of rising inequality. In OECD countries, the average disposable income of the richest 10% is around ten times higher than the poorest 10%, up from seven times in the mid-1980s. The richest 10% own around 50% of all wealth and the bottom 40% own barely 3%. That inequality goes on to entrench divisions between individuals, families and communities down the generations. At the current level of intergenerational mobility, it takes on average four to five generations for children from low-income families to reach the average income.

When it comes to vulnerability of children in developing countries, the six key policy areas are valid overall. When it comes to priorities though, interventions during pregnancy, around birth, and in the early years of life are critical due to high child morality from preventable diseases and malnutrition. Investing scarce resources during these crucial years should be the absolute priority for developing countries. While there are many ways to reach children in the early years, early child development (ECD) and child health deserves particular attention.

This report puts the well-being of children at the heart of the OECD's inclusive growth agenda. The OECD Inclusive Growth Initiative launched the Framework for Policy Action on Inclusive Growth in 2018 to help countries invest in people and places left behind, support business dynamism and inclusive labour markets and build efficient and responsive governments.

The odds are stacked against children who are vulnerable. This report makes recommendations for redressing the balance to create a level playing field. It is time to give children who are worst off a better deal.

1 What is child vulnerability and how can it be overcome?

This chapter introduces the concept of child vulnerability and the factors that contribute to it. If offers an analytical framework for overcoming it. This framework looks at the factors contributing to vulnerability and seeks to integrate resilience building into the design of policies. The chapter summarises the relationship between vulnerability and low child well-being, and the case for strengthening children's resilience. Finally, it outlines a set of recommendations through which OECD countries can develop child well-being strategies with a particular focus on vulnerable children, organised around six key policy areas.

Introduction

Over the past three decades, growing inequalities in OECD countries have exacerbated the challenges faced by society's most vulnerable groups. Children in particular are suffering the consequences. This report positions investing in the well-being of vulnerable children as a central action for inclusive growth, in line with the recommendation of the OECD Framework for Policy Action on Inclusive Growth to invest in people and places that have been left behind (Box 1).

The OECD has defined child well-being in terms of a number of life dimensions that matter for children, now and in the future.[1] This report builds upon the OECD's understanding by focusing on vulnerable children as a group with the lowest levels of well-being and worthy of the greatest investment. It introduces an analytical framework that looks at the individual and environmental factors that contribute to child vulnerability, as well as the application of resilience-building into policy design.

This report recommends that OECD countries develop cross-cutting well-being strategies with a focus on vulnerable children, in order to build their resilience to overcome the range of adversities experienced from an early age. Investing in vulnerable children is not only an investment in disadvantaged individuals, families and communities, it is an investment in more resilient societies and inclusive economies.

Box 1.1. Opportunities for All: A Framework for Policy Action on Inclusive Growth

In 2018, the OECD Inclusive Growth Initiative launched the Framework for Policy Action on Inclusive Growth to help countries sustain and ensure a more equitable distribution of the benefits from economic growth. The Framework is supported by a dashboard of indictors and consolidates key OECD policy recommendations into three areas for action:

1. Invest in people and places that have been left behind through (i) targeted quality childcare, early education and life-long acquisition of skills; (ii) effective access to quality health care, justice, housing and infrastructures; and (iii) optimal natural resource management for sustainable growth.
2. Support business dynamism and inclusive labour markets through (i) broad-based innovation and technology diffusion; (ii) strong competition and vibrant entrepreneurship; (ii) access to good quality jobs, especially for women and under-represented groups; and (iv) enhanced resilience and adaptation to the future of work.
3. Build efficient and responsive governments through (i) aligned policy packages across the whole of government; (ii) integration of distributional aspects upfront in the design of policy; and (iii) assessing policies for their impact on inclusiveness and growth.

Source: (OECD, 2018[1]) *Opportunities for All: A Framework for Policy Action on Inclusive Growth*.

What is child vulnerability?

The concept of *child vulnerability* is frequently referred to in child development and children's rights literature; but is neither well defined nor analysed (Schweiger, 2019[2]; Jopling and Vincent, 2016[3]; Brown, 2011[4]).

Child vulnerability is the outcome of the interaction of a range of individual and environmental factors that compound dynamically over time. Types and degrees of child vulnerability vary as these factors change and evolve. Age, for example, shapes children's needs while also exposing them to potential new risks. Infants, who are completely dependent and require responsive and predictable caregiving, are particularly

sensitive to parents' health and material deprivation. Young children under three years old are especially affected by family stress and material deprivation because of the rapid pace of early brain development. Young children can benefit from early childcare and education (ECEC) interventions and time away from the home environment. The independence of older adolescents makes them more susceptible to opportunities and risks in the community, making the presence of supportive adults, school quality, and local economic opportunities important for well-being.

The special vulnerability of children is recognised by the United Nations Convention of the Rights of the Child (UNCRC), which underlines the need to extend special care and protection to children on grounds of physical and mental immaturity. The UNCRC stipulates governments' responsibility to take protective and preventative measures against all forms of child maltreatment, and to support parents in meeting child-rearing responsibilities through the development of institutions, facilities and services. OECD and non-OECD countries provide for the special vulnerability of children through specific legalisation and policies across education, health, labour regulations, juvenile justice and child protection, though specific approaches vary according to countries' traditions and definitions of the issue.

Factors contributing to child vulnerability

I**ndividual factors** contributing to child vulnerability stem from cognitive, emotional and physical capabilities or personal circumstances, for instance age, disability, a child's own disposition or mental health difficulties. They can be invariable, such as belonging to an ethnic minority or having an immigrant background, or situational, such as experiencing maltreatment, being an unaccompanied minor or placed in out-of- home care. Chapter 2 provides a more detailed analysis of the following individual factors.

Disability

- Children with disabilities are a very broad group with varying capabilities and needs whose individual functioning is limited by physical, intellectual, communication and sensory impairments and various chronic conditions. Though the outlook for children with disabilities has improved considerably over the last few decades, they are still overrepresented in institutional care settings and more likely to experience maltreatment, particularly neglect. Compared to non-disabled peers, children with disabilities are more likely to live in in low socio-economic households and to be bullied.

Mental health difficulties

- Evidence suggests that childhood mental health difficulties are becoming more common. Some OECD countries, for example England (United Kingdom), have recorded a gradual increase over the last 20 years. Potential explanations are better detection and increased interest in emotional well-being and help-seeking behaviours. High academic pressures and weakening of family and support units also play a part.
- Inequality contributes to pronounced differences in children's mental health. Children from low socio-economic backgrounds are two to three times more likely to develop mental difficulties than those from high socio-economic backgrounds; material deprivation. Perceived inferior social status and a stronger parent-child transmission are factors. Highly educated parents are more able to access timely and specialist support for children.

Immigrant background

- Children with immigrant backgrounds are a large and growing group. Factors such as parents with lower educational attainment and fewer economic resources in the household can affect their ability to succeed in or complete school. These children also tend to have fewer social networks

established in their host country, speak a language at home that differs from the one spoken at school, and are more mobile than students without an immigrant background. On average, across the OECD, native-born students perform better academically; the gap between children with immigrant background is largest among children who arrive after age 12.

- Unaccompanied minors face particular integration challenges. Most arrive just before or after the age of compulsory schooling and have little or no formal education. The challenges are greatest for those without a guardian to provide emotional, financial, social and practical support.

Maltreatment

- Environmental risk factors for maltreatment include poverty, living in a poor neighbourhood, overcrowded housing, intimate partner violence and parental substance misuse. Child factors include disability and poor child-parent attachment. Identifying children at risk is difficult, as many children exposed to similar risks are not maltreated.
- Maltreatment has long and enduring economic consequences for individuals and society. Adult who were maltreated are more likely to have lower levels of educational attainment, to earn less and own fewer assets. Maltreatment negatively predicts poor adult mental health and convictions for non-violent crime.

Out-of-home care

- Children in out-of-home care are a particularly vulnerable group. Child protection systems in OECD countries operate quite differently, shaping the numbers of children entering and leaving the care system. These differences are linked to countries' social, political and cultural contexts, legislative and policy frameworks, child protection system resources and constraints, and child protection workers' training and decision-making.
- The outcomes for children in out-of-home care are lower than for the general population, across education, health, adult employment and future earnings. There are opportunities to help these children catch up, for example by providing care placements with well-supported foster carers. Support for young adults ageing out of the care system can be critical for eventual labour market participation.

Environmental factors contributing to child vulnerability operate at both family and community levels. Family factors include income poverty and material deprivation, parents' health and health behaviours, parents' education level, family stress and exposure to intimate partner violence. Community factors are associated with school and neighbourhood environments. Environmental factors illustrate the inter-generational aspect of child vulnerability and the concentration of vulnerable children within certain families and communities. Chapter 3 provides a more detailed analysis of the following environmental factors.

Material deprivation

- Children are overrepresented in income-poor households. In OECD countries, on average, one in seven children lives in income poverty. The poverty risk varies by family type and parent's employment status; it is six times higher in families with no working-parent than families with at least one working-parent, and three times higher for single-parent families.
- Material deprivation is strongly linked to income poverty. OECD measures material deprivation across seven dimensions: nutrition, clothing, educational materials, housing conditions, social environment, leisure opportunities and social opportunities. One in six children in European OECD countries experiences severe deprivation, measured as being deprived in four dimensions. In a number of countries, sub-groups of children are deprived across all seven.

- Family homelessness is growing by significant levels in some OECD countries, for example England (United Kingdom), Ireland, New Zealand and some US states. Children in homeless families are much more likely to suffer from low well-being. Homelessness imposes on children a difficult set of stressors and adversities including poor diet and missing meals, increased anxiety, loss of independence, overcrowded living conditions and lack of privacy, repeated accommodation moves, loss of parental care if accommodated separately, loss of contact and support from family and friends, school placement disruption, and stigmatisation.

Parents' health and health behaviours

- Childhood conditions have a lifelong impact on health: 6% of poor health at age 50 is associated with poor health at age 10, controlling for adult socio-demographic factors. Parents transmit risk factors for poor health to children, including genetic predispositions and poor health behaviours. High socio-economic status moderates certain genetic risk, for example smoking, and can influence gene variants that predict higher educational attainment. Epigenetics also shows that stressful early life experiences and exposure to environmental toxins can affect gene expression and long-term outcomes.

Parents' education level

- Parents' level of education strongly influences children's educational achievements. Across the OECD, the likelihood of attaining a tertiary education is over 60% for those with at least one parent who has a tertiary education. The likelihood of attaining children only the level of education of their parents corresponds to 41% and 42% for those whose parents have upper secondary and below upper secondary, respectively. The OECD PIACC survey highlights the influence of parents' education on adult literacy and numeracy skills levels: 25% of adults whose parents had less than an upper secondary education achieved the lowest scores compared to only 5% of those whose parents had a tertiary education.
- The OECD PIACC survey shows that individuals from advantaged family backgrounds are more likely to be highly educated than cognitive skills assessments would suggest: 4.5% of adults with low numeracy test scores have a tertiary education, just as their parents before them. This suggests that parents' levels of education and income help children succeed regardless of ability and skills, as children benefit from many opportunities to overcome shortcomings and accumulate skills valued by the labour market.

Intimate Partner Violence (IPV)

- IPV significantly influences child well-being. Exposure to IPV during pregnancy is associated with low birth weight and pre-term delivery, after controlling for socio-economic and other factors. In early childhood, it can have long-term consequences on social and emotional development. There is a strong co-occurrence of IPV and child maltreatment.
- There is no available OECD-wide data on the numbers of children exposed to IPV. Some country-level studies based on children's exposure to violence or women's reports of IPV suggest that the numbers are significant. Overall, households with IPV are twice as likely to contain children, particularly under five years old.

Family Stress

- Family stress is caused by the co-occurring factors that contribute to child vulnerability. The manner in which children learn to respond to stress is shaped by individual traits and the risks and protective factors in their environment. Children's stress responses can become excessive and prolonged

without adequate support from a supportive adult. The presence of chronic stress in early childhood is serious and contributes to health and emotional and behaviour difficulties. It weakens the foundation of the brain architecture, causes epigenetic adaptions, disrupts the hypothalamic-pituitary-adrenocortical and compromises the immune system.

Schools

Early childhood care and education (ECEC)

- Estimates suggest that the economic returns of investment in early learning, including higher adult earnings, better health across the life-cycle and lower crime, are between 2% and 13% per annum. A number of studies suggest that children from lower socio-economic status families experience particular benefits in the areas of cognitive and social skills development compared to peers from higher socio-economic backgrounds. Participation in ECEC can influence parents to engage more frequently in cognitively stimulating and less passive activities with their children, helping to close the gap between disadvantaged children and children from non-disadvantaged families. Yet children from low socio-economic backgrounds access ECEC at much lower rates, in some countries up to half.
- Participation in ECEC is beneficial for children who speak a different language at home than the one spoken in school. PISA 2015 shows that immigrant students who attended ECEC for at least one year scored 36 points higher in the science assessment domain. After accounting for student economic status, this gap remained significant at 25 score-points (i.e. ten months of formal schooling).

Primary and secondary education

- PISA 2015 shows that across OECD countries disadvantaged students performed worse than advantaged students across all assessment domains. For example, for mathematics test scores, school effects are the most important explanatory factor (33%) followed by family background (14%), student characteristics (11%) and school policy effects (8%). School effects include the sorting of students of similar ability or background into the same schools. In all countries, there are clear advantages to attending a school where students, on average, come from more advantaged backgrounds.
- The aspirations and self-expectations of disadvantaged students can be raised by attending the same school as advantaged students. PISA 2015 shows that children of blue-collar workers who attend schools alongside children of white-collar workers are around twice as likely to expect to earn a university degree and work in a management or professional occupation compared to children of blue-collar workers who perform similarly but attend other schools. The clustering of poor students in poor schools can have the effect of dampening students' expectations and beliefs in themselves.

Neighbourhoods

- Neighbourhoods have a causal effect on child and later adult outcomes, distinct from family factors. Neighbourhoods vary in the opportunities available for children to do well; some have supportive mechanisms in place that enhance child development, while others have too many stressors and not enough protective factors. Neighbourhoods can increase the difficulties experienced by families through concentrated poverty, social isolation and joblessness.
- Neighbourhoods can be high-opportunity places for low-income children to grow up in. High-opportunity neighbourhoods improve the likelihood of social mobility by transmitting advantages that favour human capital development, such as good schools, more adults in

employment, and lower spatial segregation and crime. Several studies looking at the benefits for children and adolescents of moving to a high-opportunity neighbourhood point to positive place exposure effects that are cumulative and linear.

Building resilience to overcome child vulnerability

Child vulnerability is not caused by a single contributing factor, but the interaction of several over time. For instance, children living in income poverty may also live in high-poverty neighbourhoods that lack social capital and social cohesion (Wikle, 2018[5]). In addition to housing insecurity, homeless children encounter other stressors such as poor parental mental health and family separation (Radcliff et al., 2019[6]). Intimate partner violence can be more harmful to young children because of the critical stage of their development, high level of dependence and high concentration of time spent in the home environment (Schnurr and Lohman, 2013[7]). Low household income can compound the barriers faced by children with disabilities to performing well in school (Sentenac et al., 2019[8]). Maltreatment is present in all socio-economic groups, but children from low-income families are more exposed due to lack protective factors such as adequate living space, access to high-quality education and childcare, and good social and family support (Ellenbogen, Klein and Wekerle, 2014[9]). The interaction of factors mediating child vulnerability calls for an across-childhood approach to well-being.

The framework introduced in this report applies the concept of building resilience to policy design in order to improve the well-being of vulnerable children. In general, children are identified as resilient if they succeed in spite of significant adversity and stress. Resilience is a dynamic process, not a fixed characteristic of a child. Therefore, resilience can be built upon (Center on the Developing Child at Harvard University, 2016[10]; Ungar, Ghazinour and Richter, 2013[11]). Building resilience requires reducing the number of risks and increasing the number of protective factors in a child's world.

Box 1.2. Brief review of the literature on resilience

Since the 1970s a rich literature has developed on the resilience of children who experience significant adversity. Children's ability to be resilient is attributed to possessing certain strengths and the presence of protective factors (Zolkoski and Bullock, 2012[12]). The single most common protective factor shared by resilient children is the support of one stable and committed relationship with an adult, be it a parent, caregiver or other adult (Center on the Developing Child at Harvard University, 2015[13]).

Resilience has been studied across an array of child outcomes and sub-populations: high educational attainment of students from low socio-economic backgrounds (OECD, 2011[14]); high life satisfaction, social integration and low academic anxiety of students from low socio-economic backgrounds (OECD, 2018[15]); baseline academic proficiency, school connectedness and high life satisfaction of students from immigrant backgrounds (OECD., 2018[16]); and resilience functioning among maltreated children (Cicchetti, 2013[17]). The common thread in these studies is that resilient children beat the odds and manage to have good and robust well-being outcomes over the longer term.

Risk factors prevalent in the lives of vulnerable children increase the likelihood of negative outcomes in childhood and later in adulthood. They disrupt healthy child development, family functioning and community prosperity. Risk factors include lack of a healthy diet, poor quality housing, limited access to leisure activities, limited parental understanding of child development and children's needs, negative parental health behaviours, the absence of supportive adults, and high neighbourhood crime, among others.

Protective factors mitigate risk and reduce negative outcomes. They allow children to benefit from positive experiences, form key capabilities and access resources in favour of good outcomes. Over time, the cumulative impact of protective factors makes it easier for children to achieve positive outcomes. Protective factors include a child's disposition, such as temperament and ability to adapt to stress, and good social and emotional skills, as these help children respond to or avoid adversity. Protective factors are present in the family and community; some are embedded in relationships children have with adult family members, schoolteachers and other adult role models, and others through local resources such as access to quality health care, effective schools and neighbourhoods, and strong child protection systems (VicHealth, 2015[18]).

Efforts to build resilience interventions should be targeted to where they can be most effective. Research suggests that enhancing the quality of the environment and making resources to nurture and sustain well-being available are very important for children experiencing high levels of adversity (Ungar, Ghazinour and Richter, 2013[11]). This makes reducing risks such as inequalities and hazards at the environmental level critical. Generating more resilience in children is the culmination of stronger support systems, better opportunities, secure child-parent attachment, high self-efficacy and optimism and adequate economic resources (Southwick et al., 2014[19]).

Towards child well-being strategies

This report recommends that OECD countries approach improving the well-being of children through cross-cutting child well-being strategies with a particular focus on vulnerable children, and deliver policies that develop these children's capacities to be resilient. The value of a strategic approach is that in considering the different dimensions of child well-being, synergies, trade-offs and unintended consequences of policy actions can be identified in principle. A strategic approach also increases accountability and aligns effort and investment to make the greatest impact.

Vulnerable children need consistent, coherent and coordinated support throughout childhood. In most OECD countries, child policies are developed in silos without adequate consideration of how the range of factors shaping child well-being interact, for instance the effect of poor mental health on school performance and engagement, or poor housing quality on children's health and family relationships. Disparate approaches that focus on single aspects of well-being are unlikely to be effective if they do not address other barriers to healthy child development (OECD, 2015[20]).

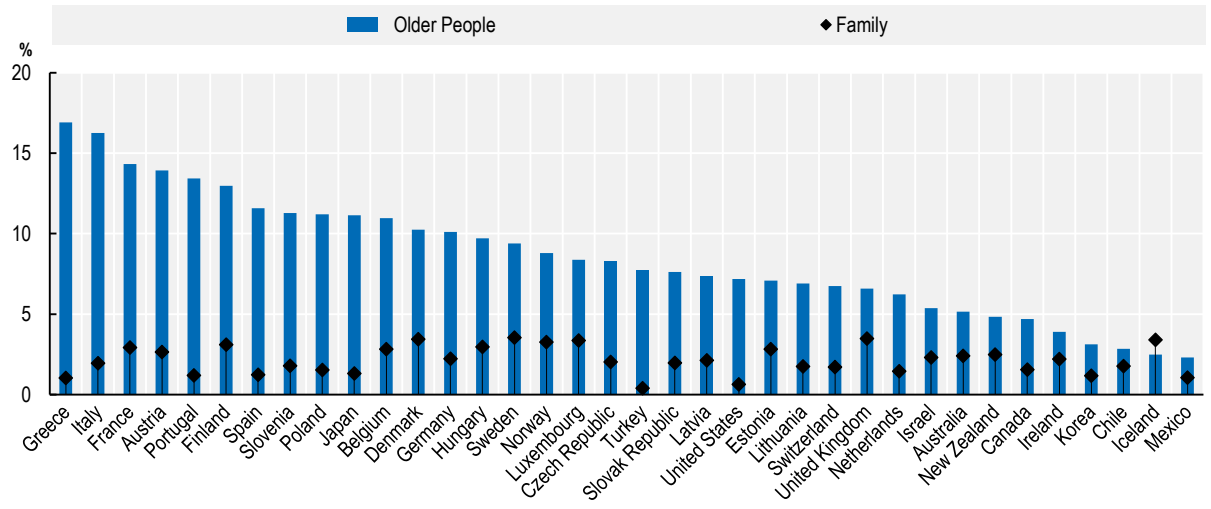
A whole-of-government approach to child policy is required for the development and implementation of child well-being strategies. Such an approach embeds horizontal co-ordination and integration into policy design and implementation processes to strengthen responses to complex issues. It allows the required consideration of the inter-connection between policy areas. For instance, mental health policy interacts with education policy when schools operate programmes to support students with emerging mental health difficulties. A whole-of-government approach is effective at resetting systems that have moved into sector-based silos and have poor co-ordination and cooperation. It also requires that one ministry or a stand-alone agency take responsibility for coordinating the strategy and ensuring overall accountability (OECD, 2011[21]).

The well-being of society is most improved when investments are made in children. An analysis of 133 significant policy changes in the United States over the past fifty years shows that public investment during childhood has the strongest returns over any part of the life course. Direct investments in low-income children's health and education generate the highest pay-offs, many paying for themselves in the long run through increased tax revenue and lower social transfers. This potential does not decline as children get older. Moreover, returns on adult investment can be higher when there are positive spillover effects on children (Hendren and Sprung-Keyser, 2019[22]).

Investing in vulnerable children is most effective when it happens across the life-cycle. The factors determining the level of investment needed differs by the country context. In some cases, it may mean spending more (greater investment). In OECD countries overall, the share of public expenditure on families with children is much lower than that on older people (Figure 1.1). In other cases, it may mean redirecting expenditure (better investment) into areas that improve value for money. Interventions that substantially enrich the early learning environment are important for closing gaps that emerge early in life. However, if maximum benefits for children and economies are to be realised, early investments should be followed by later investments (Heckman, 2008[23]).

Figure 1.1. A much smaller share of public expenditure is allocated to families

Public social expenditure on Older People and Family as percentage of GDP, 2017



Note: Data refer to cash and services expenditure.
Source: OECD, Social Expenditure Database (SOCX, www.oecd.org/els/social/expenditure).

StatLink https://doi.org/10.1787/888934038818

Policies that build resilience in vulnerable children

This report puts forward six areas of policy action around which child well-being strategies could be organised: empowering vulnerable families; strengthening children's emotional and social skills; strengthening child protection; improving children's educational outcomes; improving children's health; and reducing child poverty and material deprivation. New Zealand is one example of a country that is starting to implement a child well-being strategy close to this set of policy actions (Box 1.3.). These policies build resilience in children by reducing the barriers to healthy child development and well-being (risk factors) and increasing opportunities and resources (protective factors).

Box 1.3. New Zealand Child and Youth Wellbeing Strategy

New Zealand's first Child and Youth Wellbeing Strategy was launched in August 2019. The Strategy sets out a shared understanding of what young New Zealanders want and need for good wellbeing, what government is doing and how others can help.

The strategy was developed with input from 10,000 people – including over 6000 children and young people, who shared what makes for a good life and what gets in the way. It also draws on the best evidence from social science and cultural wellbeing frameworks.

Led by the Prime Minister, the Minister for Children and a newly established Child Wellbeing Unit, the work is underpinned by new child wellbeing and poverty reduction legislation which ensures ongoing political accountability for reducing child poverty and requires successive governments to develop and publish a strategy to improve the wellbeing of all children, with a particular focus on those with greater needs.

The newly published Strategy provides a unifying framework and way of aligning efforts across government and with other sectors. It includes an aspirational vision, nine guiding principles, and six wellbeing outcomes that outline what children and young people want and need for a good life.

The current Programme of Action that accompanies the Strategy brings together 75 actions and 49 supporting actions led by 20 government agencies. While the Strategy is aimed at improving the wellbeing outcomes for all young New Zealanders under 25 years old, it also reflects the strong call to urgently reduce the current inequity of outcomes.

The Government has prioritised the wellbeing of children and young people who are living in poverty and disadvantaged circumstances, and those with greatest needs, including children and young people of interest to Oranga Tamariki (New Zealand's child protection and youth justice agency). This involves work to address child poverty, family violence, and inadequate housing, and improving early years, learning support and mental wellbeing for children, young people and their families.

A set of indicators has been established to help inform an annual report to Parliament on achievement of the outcomes. The legislation also requires that the Strategy be reviewed at least every three years, to ensure it continues to address the issues and challenges facing New Zealand's children and young people.

Many of the issues facing children, young people and their families are complex, stubborn and inter-generational, so change will take time. It will also require a unified response, so the Strategy seeks to support, encourage and mobilise action by others, and empower and enable people and communities to drive the solutions that work for them.

Source: Department of the Prime Minister and Cabinet, New Zealand Government.
Note: For more information go to www.childyouthwellbeing.govt.nz

Empower vulnerable families

- **Parenting Support**. Vulnerable families benefit from access to a range of services to reduce stressors and build protective factors. **Family based interventions**, such as home visiting programmes, improve children's home environment by helping parents enhance parenting skills, learn more about child development and access local resources. **Parenting programmes**, delivered in group settings tailored to different age-groups, can help parents work alongside each

other to gain a better understanding of children's needs and learn more effective and consistent parenting approaches. An example is the Incredible Years programme, which has been ran in a number of OECD countries and there is evidence of its effectiveness on positive child behavioural changes and improved family relationships.

- **Policies that take a whole-family approach.** Working with different family members has the potential to reduce family-level risk factors and build protective factors. Taking a whole-family approach to working with men who perpetrate intimate partner violence (IPV), for example, can reduce reported incidences of IPV and improve children's sense of safety.
- **Neighbourhood based programmes.** Neighbourhoods can be a resource for vulnerable families. Neighbourhood based programmes can take a whole-community approach to early intervention and prevention and develop services that address families' multiple needs, for example parenting support, childcare and employment advice. Whole-community approaches can reduce the stigmatisation attached to accessing support and build neighbourhood collective efficacy to improve child well-being. Australia and the United Kingdom have experience over the past decade in applying this approach to work with the most vulnerable families.

Emotional and social well-being

- Schools play a key role in supporting children's social and emotional well-being, and identifying and assisting children who need support. Many countries are integrating emotional and social skills development into the national and subnational curricula. Some countries, for example France, Ireland, Norway, Portugal, Koran and Scotland (United Kingdom), have gone a step further by developing emotional well-being frameworks that integrate health services and strengthening protective factors in the school environment.
- **Children need to be able to access mental health information and interventions more easily, at the school and neighbourhood level.** Schools can build stronger relationships and collaborations with local mental health professionals, including psychologists and social workers and cultural mediators. Early intervention and open to all services should be accessible in communities to target children with emerging and mild to moderate mental health difficulties. E-counselling can fill in gaps as it is accessible for longer hours and has a broad geographical reach.
- **Clear policies need to be in place to support young people through the critical transition onto adult mental health services.** These policies need to be centred on the young person's needs, incorporate the inclusion of young people and families in care planning, and provide clear transitions guidelines. The United Kingdom has issued working guidelines on supporting the planned transition of young people onto adult services.
- **Adolescent mentoring programmes.** Vulnerable adolescents exposed to high environmental risks and/or behavioural problems benefit from having the opportunity to build relationships with supportive adults and role models. Some of the best-known programmes are Big Brother Big Sister of America (United States) and Youth Advocate Programme (Ireland, the United Kingdom, and the United States).
- Vulnerable children need to be provided with the same opportunities as peers to participate in leisure activities. Leisure activities provide children opportunities to engage in developmental appropriate tasks and build relationships with supportive adults. This has benefits for the development of social and emotional skills, and educational outcomes.
- Schools and the broader community are important stakeholders in building children's digital resilience and digital skills. Professional development programmes need to prepare teachers and schools to educate students on online safety and privacy. Integrating online safety or digital citizenship responsibilities in the curriculum is an option. Beyond schools, policy makers should better measure and monitor existing policies and countries should consider co-ordinated regulatory responses to children protection.

Child protection

- Child protection services should be accessible to children and families in need. The key tenets of child protection legalisation and policies in the OECD include safeguarding children from maltreatment, promoting children's best interests and family preservation. Child protection services in OECD countries generally fall between "child protection systems", for instance in Australia, Ireland, New Zealand, the United Kingdom and the United States, and "family welfare systems" as in Denmark, Finland and Norway. Some countries have made efforts to become more accessible and provide more appropriate responses by adopting the differential response (DR) model, for example Australia, Ireland, New Zealand and the United States. An overarching aim of DR is to facilitate a more nuanced approach to working with vulnerable families and to extend access to services to lower-risk families and to families who voluntarily accept help.
- To enhance the well-being of children placed in out-of-home care**, greater investments is needed in resources to build protective factors in those systems.** Overall, better outcomes for children in out-of-home care are associated with reception into care at a younger age, minimal care and school placement disruptions, placement in kinship or foster care, maintenance of positive contact with birth family, and the continued support of an adult after ageing out of the care system.
- **Aftercare policies to support young people ageing out of the care system**. In recent years, some OECD countries have strengthened access to aftercare services, for example France, Ireland and Scotland (United Kingdom). The quality of out-of-home care and the opportunities provided to build human and social capital influence the level of support young care leavers need. Young care leavers may need assistance with matters that other young people can rely on their family for, such as advice and support, and help securing accommodation and employment, and attending medical appointments. They also need reliable contact with positive role models.

Education

- **Participation in early childcare and education (ECEC)** can be an important protective factor in the lives of vulnerable children**.** A number of countries have defined education policies specifically to increase children from lower socio-economic backgrounds, for instance the Netherlands, Norway and the United Kingdom (Scotland). In Norway, preliminary evidence shows increased participation in ECEC among minority-language children by 15%, leading to better results on mapping tests in the first and second grade compared to areas with no intervention.
- Ensuring the **quality of ECEC** is fundamental for maximising the benefits for vulnerable children. High quality childcare is associated more positively with school readiness and language skills for low-income 3 year-olds than children from non-disadvantaged families. Yet greater positive benefits for children from low-income families are not consistently found, but this could be explained by the fact that children from lower-income families are less likely to benefit from the highest quality of care.
- B**uilding teacher capacity** to detect individual students' needs, particularly in diverse classroom settings, can help close the well-being gap. This could be done by providing schools with inputs such as specialised teacher support and training to identify students at risk and to foster self-esteem and positive attitudes.
- Polices should address the concentration of disadvantaged students in schools and adopt proactive measure to **prevent further educational segregation**. This involves counteracting residential segregation and the greater sorting of children by academic ability and socio-economic status. In addition, addressing the practical barriers to accessing certain schools such as tuition costs and availability of public transport is important.
- Preventing early school leaving and youth unemployment requires intensive and targeted support at groups of young people most at risk. Policies need to ensure that school disengagement is

detected early for young people to receive the support the need. In Sweden, for instance, municipalities are required to report to the national education authority every six months to report on interventions tried to help engage young people in education. In Norway, school have the flexibility to exempt teachers from teaching commitments to work directly with students and parents on the factors driving school disengagement. Extra-circular activities delivered through well deigned after school programmes can contribute to young people's social and emotional development, and keep them engaged in school. Empirical evidence suggests that positive effect of extra-curricular on schooling outcomes and careers prospects and these benefits tend to be largest for young people from disadvantaged backgrounds.

- **Quality vocational education and training (VET) can help smooth school-to-work transitions.** Yet, on average, slightly less than half of upper-secondary students in the OECD follow a VET courses, although proportions vary considerably between countries. Apprenticeships may also be effective against early school leaving as they appeal to more practically-minded young people who may lack the aptitude for further classroom-based learning, and reduce incentives to leave school for paid work. There is renewed interest in apprenticeship training due to the positive results produced by apprenticeship programmes – in particular favourable youth labour market outcomes- in countries with a tradition of strong apprenticeship systems like Austria, Germany and Switzerland.
- Responding to the different set of vulnerabilities linked to migrant displacement can support the integration of students with immigration background. Education systems play important roles in providing students with learning opportunities and promoting overall well-being, and this can be enhance through partnerships with collaborations amongst schools, universities and community-based services. **Unaccompanied minors and later arrivals with limited schooling can benefit from targeted educational programmes.** On example in Germany is the SchlaU-Schule programme, which supports students in securing a school diploma through specially adapted programmes and later first workplace experiences through internships.
- Many immigrant children have lower socio-economic status and attend schools in disadvantaged classrooms. This can amplify difference in academic performance and overall student well-being. Reviewing resource allocations to provide greater support to disadvantaged students and schools can help overcome some of the socio-economic barriers facing immigrant students.

Health

- Broadening access to health insurance and family-planning services is effective in improving neo-natal outcomes. In the United States, expansion of Medicaid in the 1980s increased health insurance coverage for pregnant women and reduced the numbers of low-birth weight babies and infant mortality. Better access to family planning lowers the risk of low-birth weight, pre-term birth and small size for gestational age by reducing incidences of unplanned pregnancies and better spacing of pregnancies.
- Access to adequate health care from an early age facilitates early intervention and saves on future costs. Some vulnerable families face barriers in accessing preventative health care, for instance limited access to transport, other family and social priorities, poor understanding of need, and in the case of children in out-of-home care difficulties in gaining parental medical consent**.** Addressing these barriers is vital**. Food and nutrition programmes** can address malnutrition and poor nutrition, especially for families who experience food insecurity. The United States has substantial experience in nutrition assistance programmes, including *Special Supplemental Nutrition Program for Women, Infants, and Children* (WIC), whose benefits are linked to better neo-natal health, and children's cognitive development and educational achievements.
- Routine pre-natal care should **screen for individual and family factors** that have potential to impact on neo-natal health and parents' ability to meet the needs of new-born babies, for instance

intimate partner violence, and parental drug and alcohol use. Support and advice on **making positive health behaviour changes** should be targeted better at specific groups for whom harmful health behaviours are more common, for instance smoking among young women and those from socially disadvantaged backgrounds and ethnic groups.

- **Paid family leave** promotes good maternal health and child health and developmental outcomes. Paid parental leave is associated with reduced maternal stress and improved mother's life satisfaction during early infancy, and some evidence suggest positive effects into the long-term. On child well-being, the evidence is more mixed. Nonetheless, in Australia, longitudinal data has linked paid leave, if the duration of leave is at least 6 weeks, to reduced incidences of childhood asthmas and bronchitis and to significantly increased breast-feeding uptake.

Child poverty and material deprivation

- OECD analysis suggests that a **broad reduction in child poverty** can only be achieved through the following actions: increasing parental employment and the quality of jobs, supporting maternal employment as well as a stronger redistributive system. Tax and benefit systems can be designed to make work pay by providing first and second earners in two-parent families equal incentives to work. Maternal employment can be supported by access to affordable all-day childcare. In addition, more intensive job placement support and opportunities to build skills to access better quality jobs, particularly for parents whose health status, family circumstance or low skill levels keep them out of the labour market.
- Social expenditure seems to have the strongest effect on child poverty when it is earmarked to low-income households. This association can be strongest when the 10% poorest households receive a higher share of total spending. Countries could decide to intensify the support given, by either increasing spending or by reallocating family cash benefits, or both. How the greatest reduction in child poverty is achieved varies across countries. In some countries, the redistribution of family allowances could be very effective, while in others, improving the distribution of housing benefits.
- Families benefit from adequate social benefits to help meet the additional care needs of children with disabilities. Caring for a child with a disability restricts parents' capacity to work outside of the home and/or to take up better-paid employment. Definitions and assessment procedures of disability differ across countries. In general, payment rates vary by the level of impairment, child's age, family status and income. For example, children with disabilities in single-parent families in Australia and Portugal are entitled to higher allowances than two-parent families. In some countries, parents may receive a supplementary payment, a carer's allowance, for taking full-time care of their children.

Notes

[1] The OECD began working on child well-being in 2009 and developed a measurement framework that was used to provide an extensive analysis of child well-being in the reports *Doing Better for Children* (OECD, 2009[24]) and *How's Life 2015* (OECD, 2015[25]). The OECD has a *Child Well-Being Portal* to conduct policy-oriented research on children, enhance child well-being and promote equal opportunities among children.

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2 Individual factors that contribute to child vulnerability

This chapter examines five individual factors contributing to child vulnerability: disability, mental health, immigrant background, maltreatment and being in out-of-home care. It provides evidence on how these factors affect child well-being and later adult outcomes.

Introduction

Individual factors contributing to child vulnerability stem from cognitive, emotional and physical capabilities or personal circumstances, for instance age, disabilities, a child's own disposition or mental health difficulties. They can be invariable, such as belonging to an ethnic minority or having an immigrant background, or situational, such as experiencing maltreatment, being an unaccompanied minor or placed in out-of- home care. This chapter examines five individual factors and how they affect child well-being and later adult outcomes.

Disability

Children with disabilities are a very broad group with varying capabilities and needs whose individual functioning is limited by physical, intellectual, communication and sensory impairments and various chronic conditions. Children with disabilities have more extensive health needs, a greater rate of unmet health, educational and therapeutic needs, and experience higher social and environmental barriers to full participation. In younger children, disability is a delay or deviation in the expected developmental trajectory (Halfon et al., 2012[1]).

OECD countries operationalise different frameworks for measuring childhood disability. Some include long-term impairments only, while others count illnesses that are likely to resolve in time. Ireland, for example, applies the International Classification of Functioning, Disability and Health (ICF) framework, which incorporates the bodily and social dimensions of disability and particularly recognises the susceptibility of people with disabilities to exclusion from everyday life. More aligned definitions of childhood disability among countries would allow meaningful comparisons of prevalence and be a resource for better policy development across the lifecycle.

OECD countries collect data on childhood disability through specialised surveys and/or censuses. Given the level of detail required, under-reporting is more common in censuses (OECD, 2010[2]). The most up-to-date data comes from the 2004 Global Burden of Disease study, which recorded that the prevalence of moderate and severe disabilities among children in the 0-14 age group in high-income countries is nearly 3%, almost half the global rate of over 5%. At the country level, in the United Kingdom, 8% of children and young people between the ages of 0-19 years have a disability based on any physical or mental health condition or illness that lasts or is expected to last for 12 months or more which limits ability to carry out day-to-day activities (DWP, 2018[3]). In Canada, based on parents' responses to a survey on disability, nearly 4% of the 0-14 age group have a physical or mental health condition or health problem that restricts their ability to engage in activities of daily living (HRSD Canada, 2011[4]).

The outlook for children with disabilities has changed considerably over the last few decades. Improvements in health care have allowed them to enjoy a better quality of life. For example, children born with Down syndrome, the most common genetic form of disability, can now expect to live to 60 years of age and in much better health (Glasson et al., 2016[5]). Inclusive education policy has emphasised the need for equal opportunities for students with disabilities or special needs and has reduced segregation in mainstream schools (NCSE, 2010[6]). Access to local schools also facilitates children living at home with their families and integration in the community.

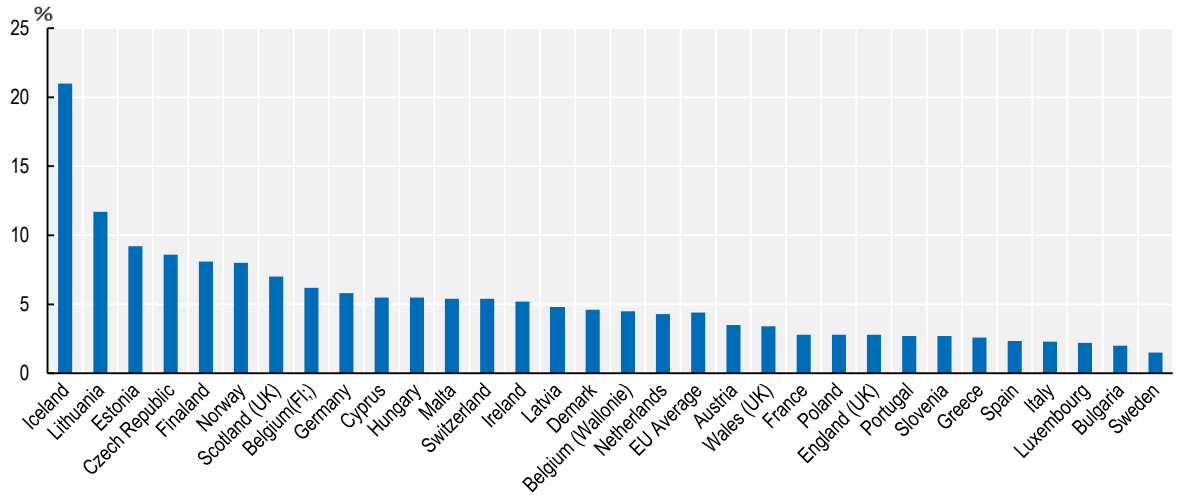
Nonetheless, children with disabilities continue to experience greater adversity and poorer outcomes. They are over-represented in institutional care settings, particularly in transition economies (Opening Doors for Europe's Children, 2017[7]) (Berens and Nelson, 2015[8]). They are more likely to experience maltreatment, particularly neglect (Paquette et al., 2018[9]), and are at higher risk of bullying victimisation (Emerson, 2012[10]) and violence (Jones et al., 2012[11]). They have lower educational attainment, particularly children from lower socio-economic backgrounds (Sentenac et al., 2019[12]).

Children with disabilities are twice as likely to live in low socio-economic households in OECD countries (Spencer, Blackburn and Read, 2015[13]). The reasons for this association are not clear, but one possible explanation is the negative impact of poor social and environmental conditions during pregnancy and early childhood on child development. There is some evidence of an association between Autism Spectrum Disorder (ASD) and low-economic status. Research from Sweden suggests that children from lower-income families and of parents with manual occupations are at higher risk (Rai et al., 2012[14]), while French research found that the rate of children with ASD with an associated intellectual disability is higher in areas with the highest levels of deprivation (Delobel-Ayoub et al., 2015[15]). Moreover, the financial and time resources parents allocate to caring for a child with a disability can worsen economic hardships. Parents also shoulder significant pressures placing them at a heightened risk of poor physical and mental health.

Children with disabilities face particular challenges in succeeding in their education. At the European Union level, over 4% of children are assessed as having a special education need, i.e. a disability or difficulties with learning. There are large variations between countries, from almost 2% in Sweden to around 21% in Iceland (Figure 2.1). Ninety-seven percent of 9 year-olds and almost 99% of 15 year-olds diagnosed with an official special education need attend mainstream education.[1] Boys are twice as likely as girls to have a special educational need. Evidence suggests that boys are more likely to have difficulty coping with mainstream school environments, are more often referred for special needs assessments and receive more support (Rix et al., 2013[16]).

Educational transitions, such as starting school or ageing out of compulsory state schooling, are a critical time for children with disabilities. Children face the risk of educational and social exclusion, and therefore diminished outcomes, when the necessary supports are not in place in the school environment. These include assisted technologies, physical accessibility, extra learning support, trained teachers and investment in labour market insertion for young adults.

Figure 2.1. Percentage of children in the EU with a special educational need, 2016



Note: Percentage of pupils with an official decision of SEN, based on the enrolled school population (%).
Source: European Agency for Agency for Special Needs and Inclusive Education 2016 database.
www.european-agency.org/resources/publications/european-agency-statistics-inclusive-education-2016-dataset-cross-country.

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Mental health difficulties

The WHO defines mental health as "a state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2004, p. 59[17]). Good mental health means not only the absence of symptoms and disorders, but also positive well-being and the ability to cope with difficulties.

Much of the foundations for well-being are laid during childhood, and efforts should be made to ensure that they are strong and healthy. Poor mental health emerges early: half of all lifetime cases start by the age of 14 years (Kessler et al., 2005[18]) and 75% before 25 years (McGorry et al., 2011[19]). Despite this, treatment usually does not begin until later due to stigma, lack of awareness and other cultural and social factors.

Comparing the prevalence of childhood mental health difficulties between OECD countries is difficult due to differing definitions and related statistical frameworks. Based on a systematic review using 2010 and 2013 Global Burden of Disease study data, the global prevalence of mental health difficulties among children and adolescents aged 5-17 years across a number of disorders (i.e. conduct disorders, attention deficient hyperactivity disorders (ADHD), autism spectrum disorders (ASD), eating disorders, depression and anxiety) was almost 7%. This figure paints an incomplete global picture, as data from low- and middle-income countries is very limited (Erskine et al., 2017[20]). Studies from individual OECD countries show higher prevalence rates: England at almost 13% (NHS Digital, 2018[21]); Poland 9% (ENOC, 2018[22]); and New Zealand 8%[2] (MoH, 2018[23]).

Certain disorders, such as Autism Spectrum Disorder (ASD), fall in between disability and mental health classifications. ASD is considered a neurodevelopmental disorder, as symptoms typically emerge as developmental delays in a child's first two years of life. According to the Diagnostic and Statistical Manual of Mental Health Disorders (DSM-5), people with ASD have difficulties – within a wide degree of variation – in communicating and interacting with others, restricted interests and repetitive behaviours, and significant impairments in social, occupational or other important areas of functioning. Some children with ASD have normal levels of intelligence, while others have mild or significant intellectual disabilities or are gifted (Association of American Psychiatrics, 2015[24]). Under-identification of ASD is associated with language barriers, a lack of parental awareness and, in the case of some countries, stigma (OECD, 2017[25]).

Globally, the prevalence of mental health difficulties among children and youth is increasing (Moffitt et al., 2010[26]; West and Sweeting, 2003[27]). For example, at the country level, England (United Kingdom) reports small increases over time: from slightly below 10% in 1999 to just above 10% in 2004, and more than 11% in 2017 (NHS Digital, 2018[21]). Potential factors behind this rise in prevalence are increased interest in and awareness of emotional well-being, and an increase in help-seeking behaviours. There is also better detection, particularly of rare conditions. A systematic review of time trends in the reporting of mental health difficulties across certain OECD and non-OECD countries showed no improvements or changes for toddlers and children, mixed results for adolescent boys and an increase in reporting of internalised difficulties for adolescent girls. Researchers concluded that the increase in readiness to report is unlikely to be a key explanatory factor in the rise in mental health difficulties among adolescent girls and boys (Bor et al., 2014[28]).

Overlapping factors contribute to poor childhood mental health, for example rising wealth and income inequalities, weakening of the family unit and support systems, Internet and social media, perceived inferior social status, poor body image and high academic pressures (Bor et al., 2014[28]). Inequality has been linked with greater psychological distress and poor mental health in adolescents through data from the Health Behaviour of School-aged Children Study (HBSC). A time series analysis of data for 34 countries associated higher national inequality with greater reporting of psychological symptoms and more pronounced differences between socio-economic groups in psychological, physical and subjective

well-being (Elgar et al., 2015[29]). Another study measuring the association between relative affluence (where children rank economically among peers) versus absolute affluence and self-reported psychosomatic symptoms (physical complaints with a psychological and emotional cause) found that relative affluence was a better predictor for psychosomatic symptoms and related to symptoms even when differences in absolute affluence were held constant (Elgar et al., 2013[30]).

Children and adolescents from low socio-economic backgrounds are two to three times more likely to develop mental health difficulties than peers from high socio-economic backgrounds. Furthermore, children from low socio-economic backgrounds are more likely to suffer from more than one disorder. The negative effect of low socio-economic background on mental health is strongest for children under 12. Childhood material deprivation is linked to the onset of mental health problems, though it does not influence disease course or severity. Parents' level of education is a protective factor, as highly educated parents are better able to access timely and specialist support (Reiss, 2013[31]).[3]

The inter-generational transmission of mental health is strongest amongst children in lower socio-economic backgrounds (Reiss, 2013[31]). In particular, poor maternal mental health is associated with children's susceptibility to developing difficulties, as mothers typically take on the larger share of childcare and caregiving tasks, reinforcing environmental transmission (Fitzsimons et al., 2017[32]). Exposure to stressful situations is another important factor: a German study suggests that along with poor parental mental health, experiencing two or more stressful events is significantly associated with the development of child mental health difficulties (Plass-Christl et al., 2017[33]). This finding is concerning, as adverse factors are more frequent in families with a parent with poor mental health. It underlines the relevance of strong parent-child relationships for good mental health, and the use of interventions to improve communication between parents and children.

Box 2.1. Digital technologies and vulnerable children's mental health

The rapid growth in the use of digital technologies brings into focus their effects on children's social and emotional well-being. To date, the literature in this area is not extremely well developed and tends to be inconsistent, but the question is raised of how much digital technology usage is too much for children and how much is too little (the "Goldilocks Hypothesis") (Przybylski and Weinstein, 2017[34]).

Using digital technologies poses a risk to children, but also provides opportunities to foster important skills and enhance well-being through the promotion of protective factors such as the reinforcement of relationships (Burns and Gottschalk, 2019[35]). Digital technologies can compound risks for vulnerable children: for example, adolescents with depression or low self-esteem may prefer to access support and social interactions online, which can contribute to social exclusion and increase self-comparison (El Asam and Katz, 2018[36]). In the case of adolescents who self-harm or are suicidal, the Internet can be constructive in terms of emotional support and reinforcement of positive behaviours, but can also normalise self-harm and provide exposure to suicide and self-harm material (Daine et al., 2013[37]).

The transition of young people from child and adolescent mental health services (CAMHS) to adult services is frequently problematic. Poorly planned transitions can mean discontinuity of care for very vulnerable young people or service provision that is not appropriate or sensitive to need and developmental stage. A 2018 study on the interface between child/adolescent and adult mental health services in EU countries indicated that almost half of young people receiving mental health services have a continuing need for care, yet few countries have transition plans in place to avoid disruptions (Signorini et al., 2018[38]).

The significant association between child mental health and later adult mental health, labour market participation and high economic costs makes reducing the burden of childhood mental health difficulties a priority. Based on 2010 Global Burden of Disease data, the cost of mental illness to the global economy is

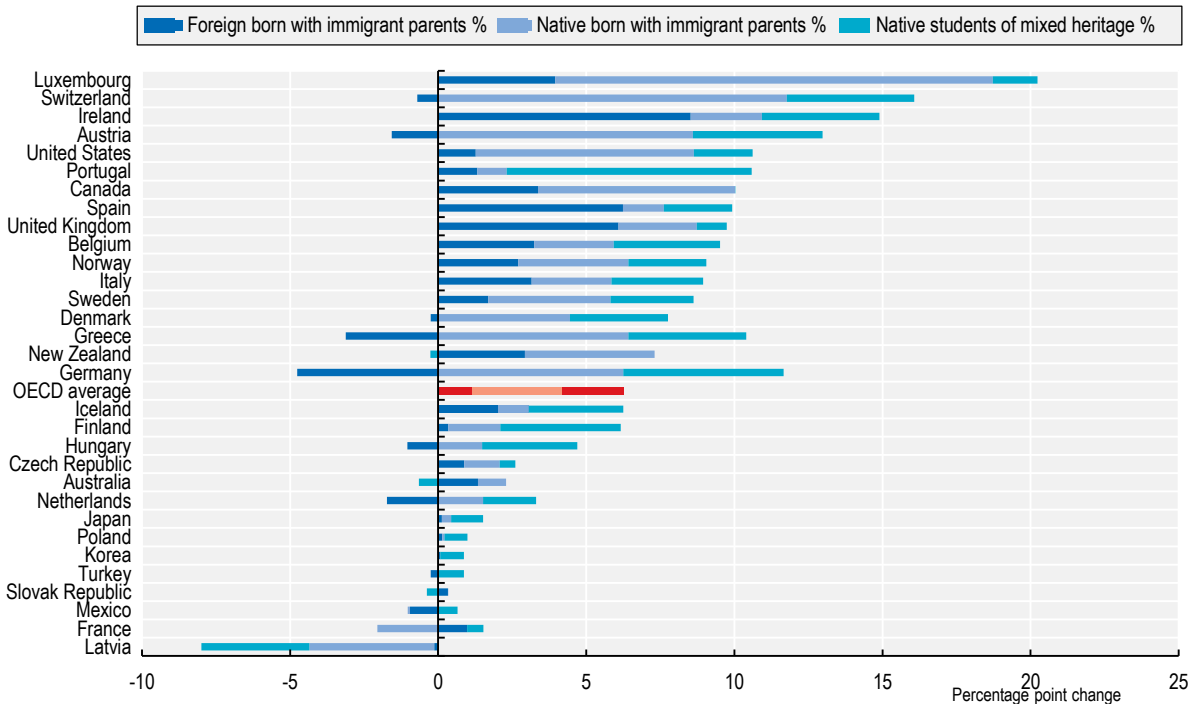
high, though to what degree depends on the analytic approach taken: USD 2.5 trillion by adding direct (e.g. healthcare) and indirect costs (e.g. loss of income and loss of productivity); or USD 8.5 trillion using a willingness-to-pay approach. Mental illness has economic costs comparable to cardiovascular disease and higher costs than other chronic conditions including diabetes and cancer. The economic burden is expected to almost double until 2030 (Trautmann, Rehm and Wittchen, 2016[39]).

Immigrant background

Children with an immigrant background are a large and growing group across OECD countries. As a whole, for the under-15 age cohort these children number around 40 million, or almost 18% of the child population.[4] Broken down across the OECD in 2015, on average 23% of 15 year-old children with an immigrant background were foreign-born with two foreign-born parents; 31% were native-born with two foreign-born parents; 38% were of mixed heritage (native-born with one native-born and one foreign-born parent) and a further 8% were foreign-born with native-born parents (OECD, 2018[40]).

Analysis of the OECD's Programme for International Student Assessment (PISA) data shows that between 2003 and 2015 the share of students aged 15 years who migrated or had a parent who migrated across international borders grew by six percentage points on average across OECD countries (Figure 2.2). The share of foreign-born students (with and without native-born parents) grew by around 1%, native-born students with immigrant parents by 3%, and native-born students with a mixed background by 2% (OECD, 2018[40]).

Figure 2.2. Changes in the percentage of students aged 15 with an immigrant background between 2003 and 2015



Note: 1.Foreign-born students are those who were not born in the country in which they sat the PISA test at the age of 15 and have two foreign-born parents (or one foreign-born parent in the case of students living in single-parent households).
Source: OECD, PISA 2015 Database and PISA 2003 Database.

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The profiles of students with an immigrant background have evolved differently over time and across countries (Figure 2.2). These differences are associated with a child's migration experience along with factors such as personal and family circumstances, relationships with peers and school personnel, and system-level support. In many education systems, students with an immigrant background face multiple sources of disadvantage. They tend to have parents with lower educational attainment working in less prestigious jobs, and fewer economic resources in the household. In the EU, 15% of native-born children with non-EU parents have a mother with no completed formal education, five times the share among children with native-born mothers. In many European OECD countries, native-born children with low-educated immigrant parents have a lower probability of completing secondary school and higher education compared with native-born children whose parents have an equally low level of education but are native-born. In addition, higher levels of parental education do not improve later labour market chances for the children of non-EU immigrants as much as they do for the children of natives.

Children with an immigrant background tend to have fewer social networks established in their host country, speak a language at home that differs from the language of instruction, and tend to be more mobile. As a result, they are more likely to have changed schools, switched curricula and in some cases experienced an interruption in schooling. This can negatively influence academic proficiency and well-being (OECD, 2017[41]).

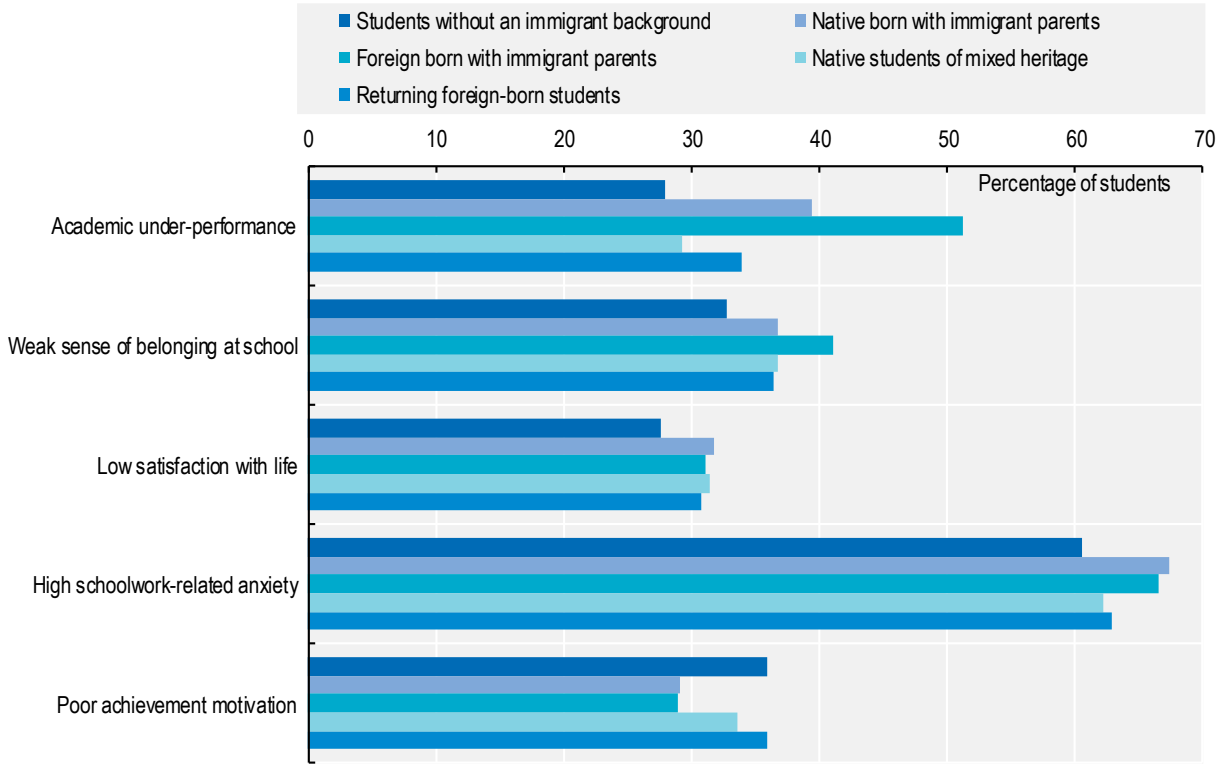
Results from PISA 2015 reveal that on average across OECD countries, as many as 51% of foreign-born students with immigrant parents failed to reach baseline academic proficiency in mathematics, reading and science, compared to only 28% of students without an immigrant background (Figure 2.3). This gap in performance underlines the need for education policies to improve the academic skills of immigrant students. Attaining academic proficiency is an important part of the integration process, as it helps to equip immigrant students with the skills needed to enter the labour market and participate in the economy of their host country.

Disadvantaged socio-economic status and language barriers are other important risk factors. For example, in 25 countries and economies the gap in academic proficiency between native and immigrant students was considerably smaller after socio-economic differences were considered. This means that differences in academic proficiency were at least partly due to immigrant students being more socio-economically disadvantaged. Socio-economic background also influences student well-being, but this correlation is much weaker than that between socio-economic background and academic performance.

In some cases, level of linguistic proficiency can explain the gap in academic achievement. In most countries, immigrant students reporting that the language used to administer the PISA assessment was different than the one they spoke at home had lower scores in reading than both native students and immigrant students who reported speaking the language of assessment at home, after accounting for mathematics scores and socio-economic status. On average across OECD countries, the gap in reading scores between native-speaking and non-native-speaking immigrant students was 16 points, but the difference can be much larger. In the Slovak Republic, the score difference in reading performance between immigrant students who reported that they did not speak the language of assessment at home and native students who reported that they did was 56 points (OECD, 2018[42]).

Age of arrival can also influence the well-being of students with an immigrant background. For example, late-arrival immigrant students in Germany were 45 percentage points less likely to report a sense of belonging at school than those who immigrated before the age of 12. On average across OECD countries, the share of students who reported this sentiment was five percentage points smaller among non-native-speaking immigrant students than among native-speaking immigrant students, and nine percentage points smaller than among native students.

Figure 2.3. Academic and well-being outcomes aged 15, by immigrant background, OECD average



Note: Differences in all outcomes between students without an immigrant background and all categories of students with an immigrant background are statistically significant, except for the difference in the percentage of students with poor achievement motivation between students without an immigrant background and returning foreign-born students. Academic under-performance implies that a student failed to attained at least proficiency Level 2 in all three core PISA subjects: science, reading and mathematics. Low satisfaction with life implies that a student reported a life satisfaction of 6 or less on a 0-10 scale. High school-work related anxiety implies that a student reported that he or she "agrees" or "strongly agrees" with the statements "I often worry that it will be difficult for me taking a test" and "Even if I am well prepared for a test, I feel very anxious". Poor achievement motivation implies that a student "disagrees" or "strongly disagrees" with the statement "I want to be the best, whatever I do".

Source: OECD (2018), "Graph 1.1 - Academic and well-being outcomes, by immigrant background: OECD average", in *The Resilience of Students with an Immigrant Background: Factors that Shape Well-being*, OECD Reviews of Migrant Education, OECD Publishing, Paris, https://doi.org/10.1787/9789264292093-graph1-en.

Major differences exist in self-reported levels of social and emotional well-being between native students and those with an immigrant background (Figure 2.3). A large degree of variation depends on the country in which the student (or their parents) settle, such as cultural or linguistic differences between their country of origin and the host country, but also on the characteristics of the schools students attend and the help they receive in dealing with daily problems of living, learning and communicating. Results from PISA 2015 show that 89% of native-born students with immigrant parents from Iraq who live in Finland reported a sense of belonging at school, while only 63% of those who live in Denmark did so. Similarly, 82% of native-born students with immigrant parents from Somalia who live in Finland reported a sense of belonging at school, while only 63% of those living in Denmark did so.

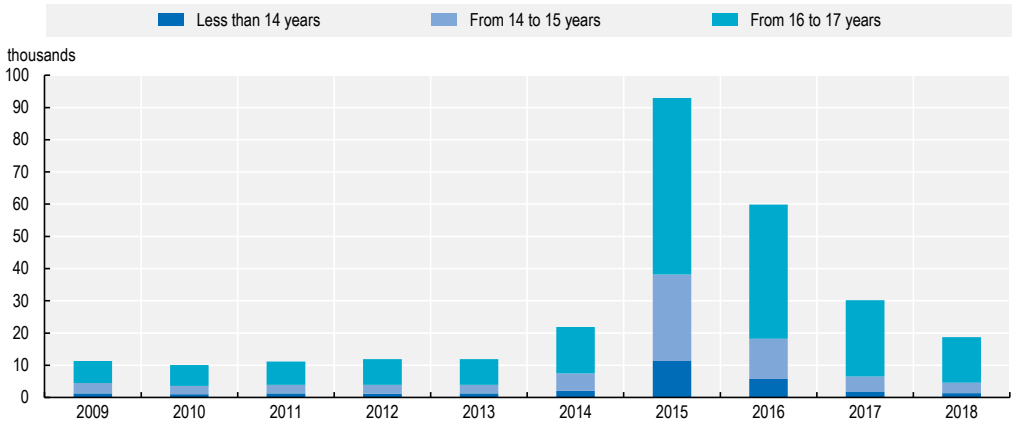
When considering the academic proficiency and well-being of students with an immigrant background, it is crucial to acknowledge not only the challenges they face but also the assets they posess. High motivation is one of the most important assets students with an immigrant background have. It is an ingredient of

achievement both in school and beyond (OECD, 2013[43]). PISA 2015 shows that in 16 out of 30 OECD countries with available data, foreign-born students with immigrant parents were more likely to express high levels of achievement motivation compared to native students (OECD, 2017[44]). Ensuring that education systems can help students with an immigrant background make full use of such protective factors is key to building the resilience of these children.

Unaccompanied minors

Unaccompanied minors are children who migrate without parents or caregivers. The rise in numbers of unaccompanied minors over recent years, including in Austria, Germany, Italy Sweden and the United States, has made providing for their needs a major policy challenge. For example, between 2014 and 2016, European OECD countries received more than 180 000 asylum applications from unaccompanied minors, and the United States reported almost 170 000 border apprehensions of unaccompanied minors. The numbers have decreased since a peak in 2015 in European OECD countries (Figure 2.4) and the United States in 2014. A number of accompanied minors do not submit asylum applications, as some countries grant protection without requiring a direct application.

Figure 2.4. Asylum applications submitted by unaccompanied minors in European OECD countries



Source: Data adapted from Eurostat (2019), *Asylum applicants considered to be unaccompanied minors by citzenship, age and sex. Annual data (rounded)* (database), http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr_asyunaa.

StatLink https://doi.org/10.1787/888934038875

Before arriving in a host country, unaccompanied minors have often travelled for months or years in unhealthy, unsafe and stressful conditions. As a consequence, they are more vulnerable to psychosocial difficulties, behavioural problems, negative role modelling and substance misuse. The typical late age of arrival can further complicate the integration process. Unaccompanied minors do not have the time to catch up with peers and often need urgent and substantial support to find their way through the school system and into the labour market in a meaningful way (OECD, 2019[45]).

The United Nations Convention on the Rights of the Child (UNCRC) stipulates that countries should afford unaccompanied minors the same set of rights as all other children, such as protection and access to education and health care. Notably, expenditure costs associated with unaccompanied minors are higher than that of other refugee groups. Data from Austria and Norway suggest that expenditure on unaccompanied minors is three to five times higher than for adult asylum seekers, particularly in the period prior to settlement (OECD, 2016[46]).

Responsibility for the care of unaccompanied minors generally comes under central governments or local authorities, but there are significant differences in the way OECD countries handle it. In the EU, there is great heterogeneity in procedures, practices and resources. In principle, after authorities have identified unaccompanied minors, child protection authorities should ensure that they are accommodated in special facilities that provide an adequate standard of living and access to education and healthcare (FRA, 2016[47]).

Unaccompanied minors face particular integration challenges, particularly those who do not have a guardian to provide emotional, financial, social and practical support. Most arrive just before or after the age at which schooling is no longer compulsory (14-17 years) but have little or no formal education. Therefore, the main challenge for host-country education systems is to enrol unaccompanied minors in school as quickly as possible. In the EU, member states should enrol asylum-seeking children in education within three months of arrival, but extended periods of time spent in reception centres and on securing a school placement during the academic year delays enrolment (FRA, 2016[47]). Furthermore, unaccompanied minors who have passed the cut-off age for compulsory education may find it particularly difficult to access education and language courses.

Unaccompanied minors are often among the most determined to build a new life in their host country. Job search intensity is high, as many want to start earning soon after arrival in order to remit money back home to their families. While this motivation to be in employment is positive, it can come at the cost of investment in continued education and lead to low-skilled and unstable work. Unaccompanied minors need tailored education and training programmes to help overcome the many obstacles they face. This requires a substantial commitment from training and integration services.

Maltreatment

Child maltreatment is a public health problem requiring co-ordinated responses across multiple government departments and services. Child maltreatment is defined as child abuse (physical, sexual and emotional) and neglect, regardless if harm was intended (Measuring the prevalence of maltreatment across countries is difficult. First, multiple sources of data (e.g. hospital admissions, child protective services referrals and police records) needs to be disaggregated, particularly between substantiated and unfounded maltreatment cases and again by groups at risk. Second, countries operationalise varying definitions of maltreatment across and within countries, obscuring the true extent of the problem. Under-reporting is an issue and is influenced by social stigma, societal acceptance and cultural and political barriers . Third, some countries' national child protection systems are not yet mature, for example Mexico's .

There is no comparative data on the prevalence of child maltreatment in OECD countries. Based on a limited number of country studies, a 2009 systematic review estimated that each year around 4-16% of children are physically abused; one in ten children experiences neglect or emotional abuse; and 5-10% of girls and 1-5% of boys are subjected to penetrative child sexual abuse over the course of childhood . When broader definitions of sexual abuse are applied, prevalence estimates of sexual abuse are much higher. For example, in the United States, under a broader definition approximately 11-17% of girls and 4-5% of boys are sexually abused over the lifetime. The size of these numbers indicates a high demand for child protective services (CPS) and preventative services.

Table 2.1). In the majority of cases children are maltreated by parents or caregivers. Children are also vulnerable to maltreatment by other adults and children, though to a much smaller extent (Hurren et al., 2018[48]). Children are more likely to be maltreated by their mothers, with young maternal age a risk factor (Jonson-Reid et al., 2010[49]). Increasingly, exposure to intimate partner violence is considered a form of child maltreatment (Nixon et al., 2007[50]).

Measuring the prevalence of maltreatment across countries is difficult. First, multiple sources of data (e.g. hospital admissions, child protective services referrals and police records) needs to be disaggregated, particularly between substantiated and unfounded maltreatment cases and again by groups at risk. Second, countries operationalise varying definitions of maltreatment across and within countries, obscuring the true extent of the problem. Under-reporting is an issue and is influenced by social stigma, societal acceptance and cultural and political barriers (Leeb and Fluke, 2015[51]). Third, some countries' national child protection systems are not yet mature, for example Mexico's (Government of Mexico, 2019[52]).

There is no comparative data on the prevalence of child maltreatment in OECD countries. Based on a limited number of country studies, a 2009 systematic review estimated that each year around 4-16% of children are physically abused; one in ten children experiences neglect or emotional abuse; and 5-10% of girls and 1-5% of boys are subjected to penetrative child sexual abuse over the course of childhood (Gilbert et al., 2009[53]). When broader definitions of sexual abuse are applied, prevalence estimates of sexual abuse are much higher. For example, in the United States, under a broader definition approximately 11-17% of girls and 4-5% of boys are sexually abused over the lifetime. The size of these numbers indicates a high demand for child protective services (CPS) and preventative services.

Table 2.1. Definition of child maltreatment, by type

	Definitions
Physical Abuse	The intentional use of physical force against a child that results in, or has the potential to result in, physical injury. This can include hitting, kicking, punching, beating, stabbing, biting, pushing, shoving, throwing, pulling, dragging, dropping, shaking, strangling/choking, smothering, burning, scalding and poisoning.
Sexual Abuse	Any completed or attempted (non-completed) sexual act, sexual contact with, or exploitation (i.e. noncontact sexual interaction) of a child by a caregiver, adult or older child.
Emotional abuse (psychological abuse)	Intentional caregiver behaviour that conveys to a child that he/she is worthless, flawed, unloved, unwanted, endangered, or valued only in meeting another's needs. Emotional abuse can be continual or episodic. Emotionally abusive behaviours may include blaming, belittling, degrading, intimidating, terrorizing, isolating, restraining, confining, corrupting, exploiting, spurning or otherwise behaving in a manner that is harmful, potentially harmful, or insensitive to the child's developmental needs, or can potentially damage the child psychologically or emotionally.
Neglect	Failure by a caregiver to meet a child's basic physical, emotional, medical/dental, or educational needs, and to ensure a child's safety within and outside the home given the child's emotional and developmental needs.
Exposure to Intimate Partner Violence	Direct and indirect exposure to intimate partner violence, e.g. violence, threatening behaviour and abuse in parental intimate relationships.

Note: * includes caregivers in temporary custodial roles (e.g. relatives, teachers, clergy and coaches).
Source: Adapted from Gilbert, et al (2009), Burden and consequences of child maltreatment in high-income countries, Lancet.

At the regional level, the WHO Regional Office for Europe estimates that the lifetime prevalence of childhood sexual abuse is almost 10% (5.7% of boys, 13.4% of girls), physical abuse almost 23%, and emotional abuse 30%. In addition, almost 15% of children witness intimate partner violence in the home. Differences in cross-country prevalence are partly attributable to levels of inequality within countries and the level of state assistance provided to families exposed to financial hardships (Sethi et al., 2013[54]).

At the country level, in the United States, the National Survey of Children's Exposure to Violence (NatSCEV) 2014 measured the maltreatment exposure rate in the study year among 0-17 year olds and lifetime exposure among older children aged 14-17 years.[5] The survey showed that around 15% of children experienced some form of maltreatment over the previous year, while almost 38% of older children reported experiencing maltreatment over the lifetime. Over 8% of children experienced sexual victimisation over the previous year, while almost 22% of older children experienced sexual victimisation over the

lifetime (Finkelhor et al., 2015[55]). Taking another angle, an Australian study looked at the prevalence of particular maltreatment types by category, using administrative data on CPS contact with maltreatment perpetrators, specifically those born in 1983 and 1984. Neglect was the most common of maltreatment perpetrated (38.5%), followed by emotional abuse (38%), physical abuse (20.9%) and sexual abuse (2.6%). Significantly, maltreatment categories co-occur: 40% of perpetrators had multiple contacts with CPS (Hurren et al., 2018[48]). This highlights that seizing the opportunity to intervene, when it presents, is critical.

Box 2.2. Understanding child sexual abuse

High-profile inquiries into historical (i.e. non-recent) child sexual abuse have raised public awareness of the problem.[6] In general, these inquiries highlight systemic failings by the state and other key institutions to protect children from abuse. In many cases, the subjects of inquiries are large institutions or serial sex offenders. Although provoking high levels of decry, the understanding of child sexual abuse remains limited among the public and other important stakeholders. Media reporting tends to stereotype sex offenders, often negating the diversity of sexual offenders' backgrounds and the different typology of risks posed (Mccartan, Kemshall and Tabachnick, 2015[56]). This contributes to the persistant view that child sex offending is perpetrated in a narrow set of circumstances.

Evidence suggests the under-reporting of child sexual abuse across OECD countries (Gilbert et al., 2009[53]; Alaggia, Collin-Vé Zina and Lateef, 2019[57]). The effects of child sexual abuse are insidious, with disclosures often made on a retrospective basis in adulthood. Therefore, there is a large discrepancy between official figures supplied by child protection services (CPS) and the police, and those counted in prevalence studies, mostly based on North American and European samples. Under-reporting also implies that many children exposed to sexual abuse never come to the attention of CPS and remain at risk of further abuse and longer-term maladjustment.

Child sexual abuse is a global problem affecting children across all ages, genders, ethnicities and socio-economic classes. It demands the same treatment as other public health problems with resources invested in prevalence monitoring, prevention and treatment (WHO, 2006). Childhood sexual abuse contributes to a range of poorer adult developmental outcomes with a small to medium effect size: mental health difficulties, low self-esteem and life satisfaction; social welfare dependency (Fergusson, McLeod and Horwood, 2013[58]); and poor general physical health (Irish, Kobayashi and Delahanty, 2010[59]). Yet compared to other forms of childhood adversity, child sexual abuse and other forms of child maltreatment are a much smaller focus of child policy discussions.

Managing the risk of child sexual abuse requires that key stakeholders in children's lives collaborate well. Child safeguarding procedures need to be better operationalised and child protection systems strengthened. Prevention also includes the provision of monitoring and therapeutic treatment to individuals who pose risks to children.

Not enough is known about the causal pathways that lead to maltreatment. Research has identified factors that place children at risk, but identifying children at actual risk can be difficult, as not all children facing the same risk factors are maltreated. Environmental factors associated with maltreatment include household poverty (Slack et al., 2004[60]), high neighbourhood poverty (Farrell et al., 2017[61]); overcrowded housing (Cant et al., 2019[62]); social isolation (Gracia and Musitu, 2003[63]); intimate partner violence (Zolotor et al., 2007[64]); and parental substance misuse (Kepple, 2018[65]). In addition, parental understanding and ability to respond to children's needs is relevant and is informed by parents' own

experiences of being parented (Howe, 2005[66]). Child factors include disability, behavioural problems and poor child-parent attachment (Maclean et al., 2017[67]; Howe, 2005[66]).

Child maltreatment has a deleterious impact on child development, well-being and later adult outcomes. Articles 19 and 34 of the UNCRC stipulate the duty of countries to protect children all forms of maltreatment while in the care of parents, and from all forms of sexual abuse and exploitation. A systemic review of the long-term effects of childhood physical and emotional abuse and neglect suggest a causal relationship with a range of psychiatric disorders, drug use, sexually transmitted infections and risky sexual behaviours (Norman et al., 2012[68]). Furthermore, child maltreatment prior to 12 years of age has been found to affect adult cognitive functioning, evident in deficits in working memory, executive functioning and emotional processing, in particular sexual abuse on working memory (Gould et al., 2012[69]).

Research suggests that neglect is the most common type of maltreatment, yet less is known about its impact on child development and well-being and on strategies to support vulnerable children and families. Neglect is the failure of parents or caregivers, in the context of available resources, to meet children's health, security and safety needs, as well as their material, emotional, social and educational needs. Parental stress, parental substance misuse, hardships and intimate partner violence are contributing factors (Gardner, 2016[70]). In the short term, neglect is associated with increased internalising and externalising behavioural problems, and delays in cognitive and emotional development (Stoltenborgh, Bakermans-Kranenburg and van IJzendoorn, 2013[71]).

Maltreatment often co-occurs with environmental stressors and deprivations. Poverty, poor parental mental health and parental substance misuse are associated with higher maltreatment reoccurrence (Jonson-Reid et al., 2010[49]). Some of the long-term effects may be explained by these mediating factors (Norman et al., 2012[68]). Nonetheless, some studies have accounted for the maltreatment effect while controlling for these factors and provided evidence of the direct negative effects.

Adults who were maltreated in childhood experience long and enduring economic consequences. They have lower education, earn less and have fewer assets (Currie and Widom, 2010[72]). In all, there is a 14% gap in the probability of employment at middle age, controlling for demographic factors. Experiencing and/or witnessing sexual abuse and physical violence during childhood negatively predicts poor adult mental health and male convictions for non-violent crimes (Ballard et al., 2015[73]). Poor parental mental health has been linked to sexual abuse exposure, suggesting in part that sexual abuse mediates the intergenerational transmission of mental health disorders.

Out-of-home care

Children in out-of-home care are a particularly vulnerable group who face high levels of adversity. Available data from some OECD countries suggests that the overall number of children in out-of-home care is relatively small,[7] but insufficient harmonised data makes meaningful comparisons between countries impossible. At the European level, a 2010 survey across 30 European countries highlighted inconsistent approaches to data collection and lack of shared understanding of what constitutes family-like and institutional-like care (Eurochild, 2010[74]).

Child protection systems in OECD countries operate quite differently, shaping the numbers of children entering and leaving the care system. Multiple factors are linked to these differences, including countries' social, political and cultural contexts, legislative and policy frameworks, CPS resources and constraints, and child protection workers' training and decision-making (Davidson-Arad et al., 2015[75]). The factors informing decisions to place children in care vary across countries and even at the country level, from legal definitions of maltreatment to differences in professional and agency perceptions of risk. More often than not, child protection workers walk a tight line when deciding whether a child's well-being would be less

harmed by removal than remaining in the family home (Keddell and Hyslop, 2018[76]; Davidson-Arad et al., 2015[75]).

The UNCRC and UN Guidelines for the Alternative Care of Children stipulate that countries should support efforts to keep children in the care of their families, and place children in out-of-home care only when measures to prevent family separation have failed. Even then, countries should continue to work on the possibility of family reunification if the risks to children have been resolved or minimised. The UN Guidelines for the Alternative Care of Children also state that countries should provide children care in a family-like environment or, in limited circumstances, a residential setting if "appropriate, necessary and constructive" and "in his/her best interests" (UNGA, 2010[77]).

In the majority of cases, children in out-of-home care reside in family-based foster care (general and kinship care) or residential care (small residential units and larger institutions). The proportion of children in these systems varies across the OECD. Australia, Ireland and New Zealand have high numbers of children in family-based foster care, over 80%.[8] In some eastern European OECD countries, for example Latvia, Lithuania and Poland, a larger proportion of children live in large state institutions. This is because ending the practice of placing of children in large institutions (deinstitutionalisation) is still ongoing. Some European OECD countries, for instance Austria, Belgium and Greece, have responded to the challenge of hosting unaccompanied minors by placing them outside of the foster care system in residential and non-specialised reception centres (Opening Doors for Europe's Children, 2018[78]).[9] In the United States, the majority of children are in family-based foster care (Children's Bureau, 2017[79]), while in Japan, the majority are in residential care (Nakatomi et al., 2018[80]).

Considerable research supports the placement of children in family foster care for more favourable outcomes (Li, Chng and Chu, 2017[81]; Sim, Li and Chu, 2016[82]). The same holds true in promoting foster care for children who have experienced institutionalisation. Evidence from the Bucharest Early Intervention Project, a randomised control trial that assigned children to foster care versus remaining in institutional care, shows the long-term positive effects of family-based care on children's brain electrical activity. Comparing the brain electrical activity of three groups (16 year-olds currently in institutional care, in foster care or never institutionalised), adolescents who had been placed in foster care displayed brain activity comparable to adolesents who were never institutionalised, even if the transition to foster care was made after 24 months of age (Debnath et al., 2019[83]).

Residential care varies greatly across countries in quality and number of children cared for. Some facilities provide children with a family-like environment, and others an institutional-like environment. Institutional environments are characterised by isolation of children from the community, the lack of control/say children have in their daily lives, and prioritisation of the institution's requirements over children's needs (Opening Doors for Europe's Children, 2018[78]). Children with higher needs and those who have experienced many placement breakdowns may be better suited to residential settings that are small in size and staffed with professional caregivers.

The challenges faced by children in out-of-home care can be particularly pronounced when children are separated from their extended family network and neighbourhood of origin, for instance the additional burden of worrying about their parents' well-being. Disruptions such as changes in care placements and family reunification can have deleterious effects. Placement disruptions – e.g. moving homes, changing schools and leaving friends and supportive adults behind – are associated with developing insecure attachments, emotional and behavioural problems, mental health problems, poor educational outcomes, and failed adoption and family reunification (Jedwab et al., 2019[84]). Placement permanency is essential for children to feel safe and secure in their environment.

Young people ageing out of the foster care system are expected to become independent very quickly. This is a big undertaking for young people who lack stable social support to help them through the transition into adulthood. Significantly, ageing out of care has been linked with higher incidences of homelessness

in young adulthood (Fowler et al., 2017[85]). Residential centres can provide intensive support to young people preparing for independence as they age out of the care system (Hart and Valle, 2015[86]).

In general, outcomes for children in out-of-home care – across education, health, adult employment and future earning – are lower than that of the general population (Gypen et al., 2017[87]). Given the high levels of adversity experienced, poorer outcomes are not surprising. Nonetheless, good quality out-of-home care plays a fundamental role in improving outcomes. For example, children in out-of-home care are among the lowest performing groups in terms of educational outcomes internationally, but can catch-up if they have well-supported foster carers with an interest in their educational achievements and aspirations (Sebba et al., 2015[88]).

Research on adult labour market outcomes for children in out-of-home care is not well developed Out of what is known about these children's adult employment outcomes and earnings, educational attainment and the quality of care received around the time of ageing out of the care system are important determinants (Hook and Courtney, 2011[89]).

Children in care have additional health needs, some of which arise as a consequence of difficult family circumstances and the accumulation of disadvantages prior to their reception into care. For example, children in out-of-home care have greater dental needs, a higher prevalence of tooth decay and require more interventions compared to low-income children not in foster care (Morón et al., 2019[90]). Up to half of children in-out-home care have clinical-level mental health difficulties and another 15-25% have difficulties approaching the clinical level (Tarren-Sweeney, 2017[91]). As such, children in out-of-home care should have priority of access to health and specialist care.

The removal of a child from its family is the strongest and most far-reaching intervention a state can undertake. Therefore, mastering successful care placements is a priority for governments. Child protection systems need to enhance the procedures and interventions that build resilience in children by contributing to placement stability (more kinship care and well-supported foster carers), providing children with adequate health and therapeutic support, fewer changes in child protection personnel, and help for birth parents in coping with their problems and loss (Jedwab et al., 2019[84]).

Notes

[1] Calculated as the number of 9 year-olds or 15 year-olds who are enrolled and educated in mainstream classes with their non-disabled peers for at least 80% of the time over the number of 9 year-olds or 15 year-olds enrolled in all formal educational settings.

[2] In New Zealand, 8% of children aged 3-14 years assessed are at high risk of experiencing social, emotional or behavioural difficulties based on a Strengths and Difficulties Questionnaire completed by parents. Children graded in the 'concerning category' are regarded as likely to benefit from a clinical assessment and probably some intervention.

[3] Family socio-economic status was measured by household income, parental education and/or parental occupation.

[4] Among these children under the ages of 15 years, 19 million are native-born with two foreign-born parents (8.2%); a further 13 million are native-born with a mixed background (one parent foreign-born and one parent native-born) (5.7 %), and 8 million are foreign-born (3.3%).

[5] Maltreatment is defined in the NatSREV survey as physical abuse, emotional abuse, neglect and custodial interference, and sexual victimisation as experiencing any sexual offence including sexual assaults and harassment.

[6] National inquiries into child abuse include The Pollard Review 2012 into Jimmy Savile (United Kingdom); Freeh Report 2012 into Gerald A. Sandusky (United States); Independent Commission of Inquiry into Child Sexual Abuse 'Geschichten die Zählen' 2018 (Germany); Royal Commission into Institutional Responses to Child Sexual Abuse 2017 (Australia); The Report of the Commission to Inquire into Child Abuse 2009 (Ireland); and the Final Report of the Wilhelminenberg Commission 2013 (Austria).

[7] The absolute numbers of children in out-of-home care in several OECD countries are as follows: Australia 47 915 (AIFS, 2018[97]); Austria 13 617 (Statistik Austria, 2019[105]); Canada 62 428 (Jones, Sinha and Trocmé, 2015[98]); England (United Kingdom) 75 420 (DfE, 2018[103]); France 164 000 (DREES, 2017[99]); Ireland 6 072 (Tusla, 2018[100]); Japan approximately 30 000 (Nakatomi et al., 2018[80]): Switzerland 18 900 (Seiterle, 2018[104]); New Zealand 6 400 (MSD, 2019[102]); and 442 995 in the United States (Children's Bureau, 2017[79]).

[8] The percentage of family-based placements as a total of out-of-home placements is as follows: Australia 94% (AIFS, 2018[97]); Ireland, 92% (Tusla, 2018[100]); and New Zealand 82% (MSD, 2019[102]).

[9] Information on the use of residential and institutional care in European OECD countries was accessed through Opening Doors individual country fact sheets. <https://www.openingdoors.eu/category/resources/country-factsheets/>

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3 Environmental factors that contribute to child vulnerability

This chapter analyses the environmental factors contributing to child vulnerability. These factors operate at both the family and community level. Family factors include material deprivation, parents' health and health behaviours, parents' level of education, intimate partner violence and family stress. Community factors include schools and neighbourhoods. The analysis shows the strong inter-generational aspect of vulnerability and the concentration of vulnerable children within certain families and communities.

Introduction

This chapter provides an overview on the transmission of vulnerabilities in OECD countries through environmental factors. Environmental factors with a bearing on vulnerability operate at both the *family* and *community* levels. Contributory factors include material deprivation, poor parental health, low parental education, family stress, exposure to intimate partner violence, neighbourhood deprivation, and poor school environment. Although this list is not exhaustive, it does outline the inter-generational aspect of child vulnerability and the concentration of vulnerable children within certain families and communities.

Vulnerable children grow up in harsh environments where they are exposed to multiple adversities, greater hardships, and hazards. These environments provide fewer opportunities and protective factors. Intervening to improve outcomes for vulnerable children requires understanding fully the environment in which they live and the different factors that may hinder development and those that could enhance resilience.

Family Factors

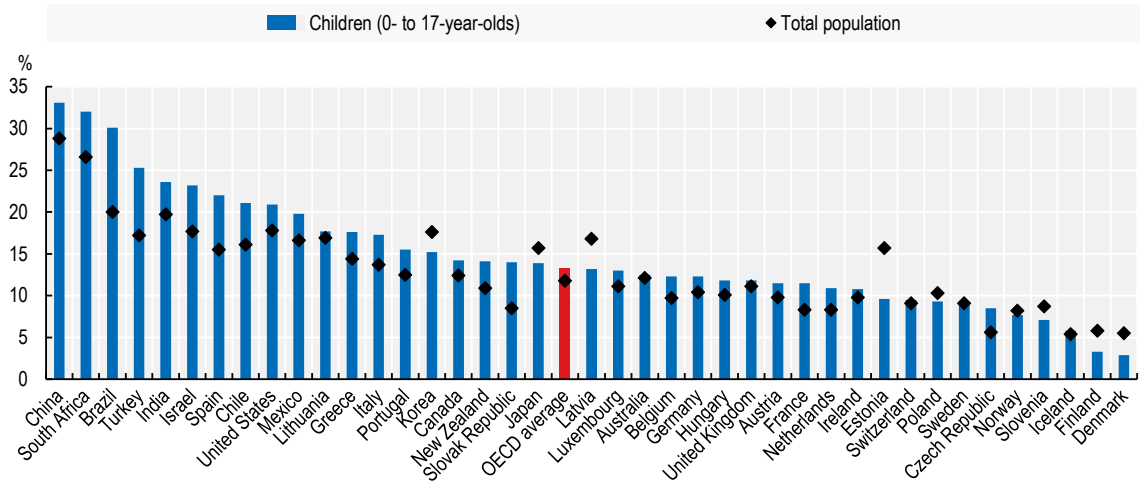
Material deprivation

In OECD countries, children are overrepresented in income poor households: on average, one in seven children live in income poverty (Figure 3.1). Child poverty has been on the rise in about two-thirds of OECD countries since the 2008 financial crisis, partly due to the negative impact on employment for the most vulnerable populations (Thévenon et al., 2018[1]; OECD, 2018[2]). Overall, families with no working parent are six times more likely to be poor than those with at least one working parent. The poverty risk for single-parent families is three times higher and is strongly dependent on the parent's employment status. The level of deprivation for these families is often more intense. Moreover, the standard of living of poor families with children, particularly those with very low income, has declined in several countries.

Article 27 of the United Nations Convention on the Rights of the Child (UNCRC) recognises the right of children to a standard of living "adequate to their physical, mental, spiritual, moral and social development" and the responsibility of parents and governments in fulfilling this right. Child material deprivation reflects the degree of difficulty faced by families in providing children with the minimum material conditions for an adequate standard of living. Broadly, the OECD defines material deprivation as the inability of individuals or households to afford consumption goods and activities that are typical in a society at a given point in time. Specific to children, the OECD measures material deprivation across seven dimensions[1]: nutrition, clothing, educational materials, housing conditions, social environment, leisure opportunities and social opportunities.

Figure 3.1. Nearly 1 in 7 children live in income poverty in the OECD

Relative income poverty rate for the total population and for children (0- to 17-year-olds), OECD and key partner countries, 2016 or latest



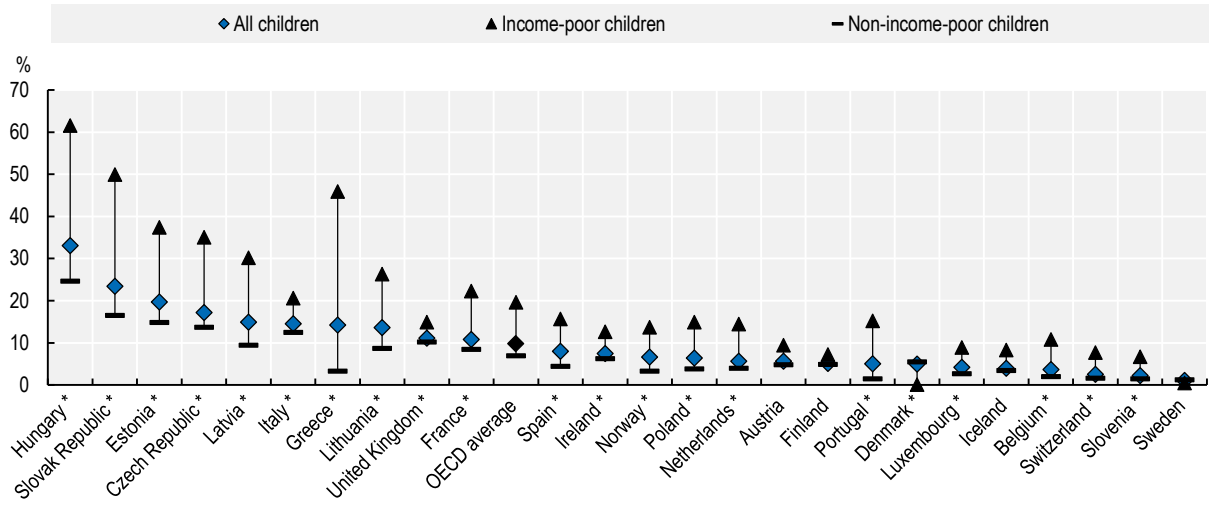
Note: Data are based on equivalised household disposable income, i.e. income after taxes and transfers adjusted for household size. The poverty threshold is set at 50% of median disposable income in each country. Data for China and India refer to 2011, for Brazil to 2013, for Hungary and New Zealand to 2014, and for Chile, Denmark, Iceland, Ireland, Japan, Switzerland, Turkey and South Africa to 2015.
Source: OECD Income Distribution Database, https://www.oecd.org/social/income-distribution-database.htm.

StatLink https://doi.org/10.1787/888934038894

There is a strong link between material deprivation and income poverty. Nonetheless, non-income poor children can also experience material deprivation (Thevenon, Clarke and de Franclieu, forthcoming[3]). For instance, 20% of income poor children in European OECD countries experience food poverty, as do 7% of non-income poor children. Overall, one in ten children do not have access to fresh fruit and vegetables and/or one meal including meat, chicken, fish or a vegetarian equivalent at least once a day (Figure 3.2). Poor nutrition negatively affects child development and health and interferes with children's ability to perform well at school.

Along with family food budgets, access to cooking and food storage facilities and locally available food options determine children's diets. For example, the diet of children in homeless families can deteriorate drastically during homeless episodes due to limited access to cooking and storage facilities, and restrictive budgets and meal times (Kourgialis; et al., 2001[4]; Share and Hennessy, 2017[5]). Schools and after-school clubs can play an important role in supplementing the diets of vulnerable children.

Figure 3.2. One in 10 school-age children experience food poverty or lack access to basic nutrition



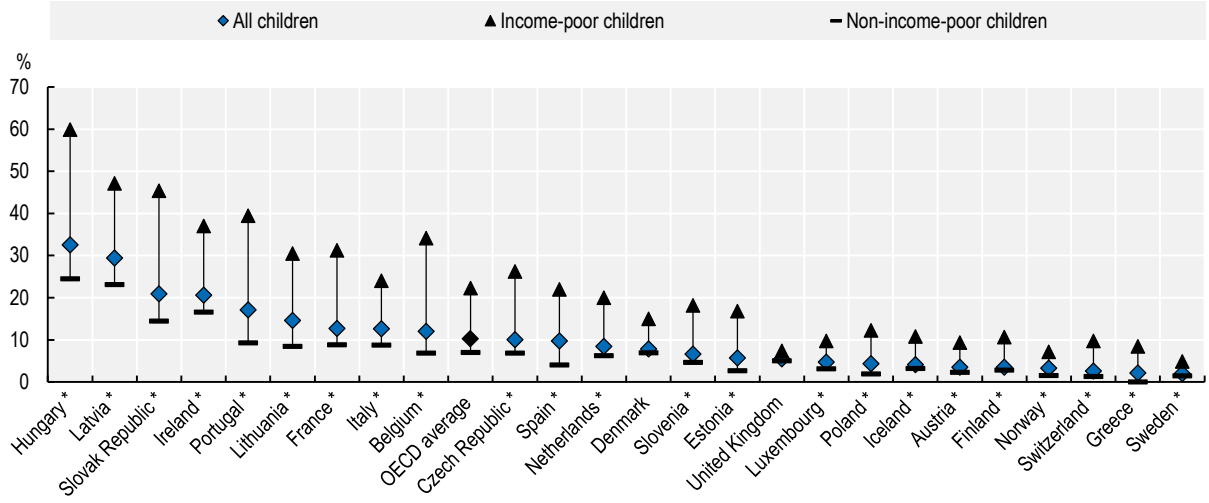
Note: Percentage of children in households where at least one child does not eat "fruits and vegetables once a day" and/or "one meal with meat, chicken or fish (or vegetarian equivalent) at least once a day". Countries are ranked according to deprivation among all children. In countries marked with an *, the difference between income-poor and non-income-poor children is statistically significant at p<0.05.
Source: OECD calculations based on the European Union Statistics on Income and Living Conditions (EU-SILC) survey 2014; OECD Child well-being data Porta, www.oecd.org/els/family/child-well-being/data/.

StatLink https://doi.org/10.1787/888934038913

On average, one in ten children in European OECD countries lacks access to basic clothing (Figure 3.3), defined as the inability of parents to afford to replace worn-out clothes with new (not second-hand) clothes and to purchase two pairs of properly fitting shoes, including one pair of all-weather shoes. In just a few countries (Iceland, Luxemburg, Sweden and Switzerland), deprivation of food and clothing is relatively rare (less than 1 in 20 children) and the risk only slightly higher for poor children. However, in countries where it is more common for poor children to lack these basic items (e.g. Hungary, Latvia and Slovak Republic), children from non-income poor families are also more likely to be also affected.

Figure 3.3. One in ten school-age children live in households where at least one child lack access to basic clothing

Percentage of children (6- to 15-year-olds) deprived of basic clothing, European OECD countries, 2014



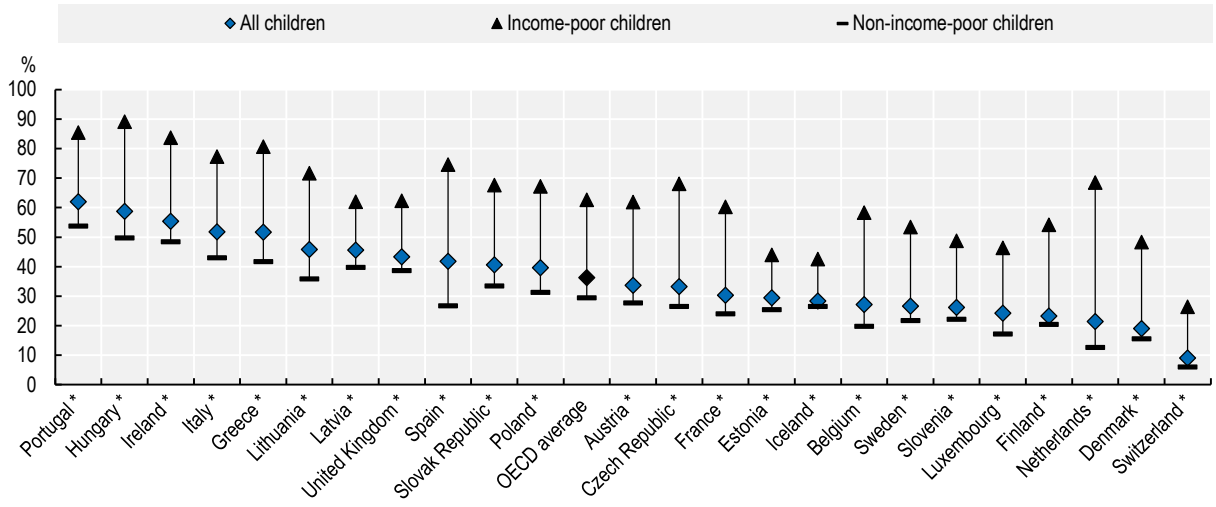
Note: Percentage of children in households where at least one child does not have access to "some new (not second-hand) clothes" and/or "two pairs of properly fitting shoes (including a pair of all-weather shoes)". Countries are ranked according to deprivation among all children. In countries marked with an *, the difference between income-poor and non-income-poor children is statistically significant at p<0.05.
Source: OECD calculations based on the European Union Statistics on Income and Living Conditions (EU-SILC) survey 2014.

StatLink https://doi.org/10.1787/888934038932

Participation in regular leisure activities helps children develop social skills, friendships, and positive subjective well-being, and is associated with improved educational outcomes. Leisure activities are especially important for vulnerable children, as they provide natural and consistent opportunities to interact with supportive adults and mentors, as well as time away from stressful home environments. One-third of children in European OECD countries experience deprivation in leisure activities that incur a financial cost, such as weekly sports or music instruction or a yearly one-week holiday. In Greece, Hungary, Ireland, Italy, and Portugal, more than half of children are deprived (Figure 3.4). On average, children from income poor families are more than twice as likely to be deprived of leisure activities.

Figure 3.4. One-third of school-age children experience deprivation of leisure activities

Percentage of children (6- to 15-year-olds) deprived of basic leisure activities, European OECD countries, 2014



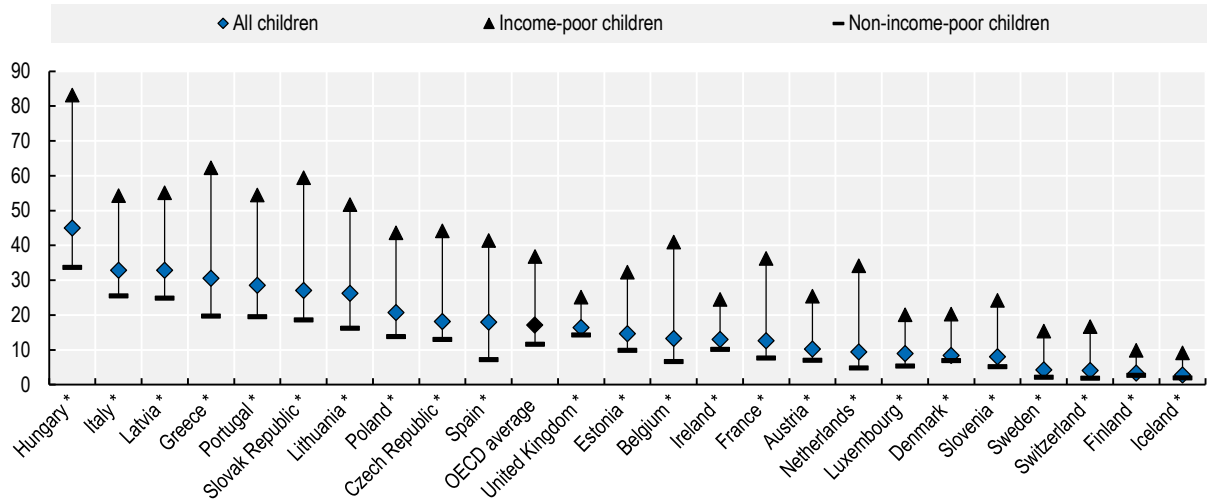
Note: Percentage of children in households where at least one child does not participate in a "regular leisure activity" and/or "go on holiday away from home at least one week per year". Countries are ranked according to deprivation among all children. In countries marked with an *, the difference between income-poor and non-income-poor children is statistically significant at p<0.05.
Source: OECD calculations based on the European Union Statistics on Income and Living Conditions (EU-SILC) survey 2014; OECD Child well-being data Porta, www.oecd.org/els/family/child-well-being/data.

StatLink https://doi.org/10.1787/888934038951

Material deprivation is considered severe if children are deprived in at least four of seven dimensions (nutrition, clothing, educational materials, housing conditions, social environment, leisure opportunities and social opportunities). One in six children in European OECD countries is subject to severe material deprivation, although with a large variance across countries (Figure 3.5). The risk of severe deprivation is highly associated with income poverty: on average, 36% of children living in income poor households experience severe material deprivation, three times more than children who are not income poor. Further analysis of a number of European countries highlights that sub-groups of poor children are deprived in all dimensions: for instance, almost 20% in France and Spain, and 12% in the United Kingdom (Thevenon, Clarke and de Franclieu, forthcoming[3]). Severe material deprivation is more common among very low-income families, and households where both parents are unemployed or headed by a single parent.

Figure 3.5. One in six children in European OECD countries experience severe deprivation

Percentage of children (6- to 15-year-olds) suffering severe material deprivation, 2014



Note: Percentage of children deprived on at least four measures. Countries are ranked according to severe deprivation among all children. In countries marked with an *, the difference between income-poor and non-income-poor children is statistically significant at p<0.05.
Source: OECD calculations based on the European Union Statistics on Income and Living Conditions (EU-SILC); OECD Child well-being data Porta, www.oecd.org/els/family/child-well-being/data/.

StatLink https://doi.org/10.1787/888934038970

The United States uses different criteria to assess children's material deprivation, but the resulting data suggests an even stronger link between material deprivation and income poverty.[2] Between 2013 and 2017, almost 16% of children aged 6-17 experienced more than two types of deprivation. Forty-six percent of children living in poor households (i.e. with income below 100% of the federal poverty threshold) experienced multiple deprivations. This number decreases significantly as household income increases. Race and parental education correlate with child material deprivation: children from Hispanic or Native American backgrounds are more likely to experience multiple deprivations than children from white, Asian and Pacific Islander populations. Children of parents who did not complete secondary school experience material deprivation at almost twice the rate of children of parents who did. Similar to European countries, at least one unemployed parent in the household almost doubles the risk of multiple deprivations (Erickson et al., 2019[6]).

Homelessness

Homelessness is an extreme form of material deprivation that has serious implications for child development and well-being, and later adult outcomes (Radcliff et al., 2019[7]; Cobb-Clark and Zhu, 2015[8]; Buckner, 2008[9]).

Overall numbers of homeless children and young people are low, but the problem is growing in several OECD countries, and by significant levels in some. Homelessness among families with children almost quadrupled in Ireland between 2014 and 2018, from 407 to over 1 600 households. New Zealand recorded an increase of 44% between 2006 and 2013, representing more than 21 700 individuals in 2013. England recorded an increase of 42% between 2010 and 2017, representing 44 000 homeless families with children in 2017 (OECD, forthcoming[10]). In the United States, families with children represented one-third of the homeless population in 2018 (over 180 000 people in more than 56 300 families). Some areas saw a significant rise in family homelessness: between 2007 and 2018, both Massachusetts and Washington, DC

had an increase in homelessness among families with children of more than 90%, while New York (state) saw a rise of 51% over the same period (HUD, 2018[11]).

Some OECD countries are experiencing a concerning rise in youth homelessness. Among countries with available data, youth homelessness has increased in Australia, Ireland, New Zealand and Portugal, among others. Ireland (15-29 years) recorded the largest increase, with a jump of 82% over just a four-year period from 2014 to 2018. Youth homelessness grew by 20% between 2011 and 2016 in Australia (15-29 years) and by 23% between 2006 and 2013 in New Zealand (15-29 years). In Australia and New Zealand, youth homelessness grew faster than that of the overall homeless population. Other OECD countries have recorded a decline in youth homelessness: Denmark (18-29 years) reported a decline between 2017-2019, ending an uptrend that started in 2011, and England (16-24 years) a decline of 20% between 2010 and 2017 (OECD, forthcoming[10]).

The factors leading to family homelessness are complex and can result from an accumulation of family-level and structural risk factors (EOH, 2017[12]; Fertig and Reingold, 2008[13]). Family-level factors include female-headed households, unemployment, relationship breakdowns, intimate partner violence, parental substance misuse and mental health difficulties, lack of social support, or exhausted support networks. As such, children are likely to have experienced trauma and other poverty-related adversities prior to becoming homeless. Structural factors – i.e. those beyond parents' control – include lack of affordable housing, a weak labour market, inadequate social welfare provision, and limited availability of social housing and homeless accommodation. In Europe, the typical profile of a homeless family is one headed by a woman with a history of intimate partner violence, with one or more children in her care (EOH, 2017[12]).

Children in homeless families are much more likely to suffer from poor well-being. Broadly speaking, they are exposed to three levels of risk: risks specific to being homeless (e.g. living in a stressful shelter environment), risks linked to low-income households (e.g. community violence), and risks shared by children regardless of income level (e.g. biological and family-related factors) (Buckner, 2008[9]).

Family homelessness represents great difficulties for children over and above poverty alone (Cutuli et al., 2013[14]; Samuels et al., 2010[15]). It imposes a difficult set of stressors and adversities including poor diet and missing meals, increased anxiety, loss of independence, overcrowding and lack of privacy, repeated accommodation moves, loss of parental care if accommodated separately, loss of contact and support from family and friends, school placement disruption, and stigmatisation.

Homelessness is traumatic for children. It contributes to the isolation of already vulnerable families and puts high strain on established family and formal support networks, undermining resources available to assist recovery. A study on the distribution of adverse childhood experiences (ACEs) among adults who experienced childhood homelessness compared with adults who did not found higher exposure to all 11 ACEs[3] (Radcliff et al., 2019[7]). Being homeless is often heavily socially stigmatised; not only are children vulnerable to being bullied, but identity issues and mental health can be made much worse (Kilmer et al., 2012[16]).

Research has established correlations between homelessness and poor educational outcomes (Cutuli et al., 2013[14]; Obradović et al., 2009[17]). Homelessness generates school absenteeism, long school commutes and deprives children of home-based educational inputs, for example a place to study and parental time. A study on one large urban school district in the United States compared the academic progress and achievements in mathematics and reading of homeless or highly mobile (HHM) children from third to eighth grade (8-13 years old) with two other groups of low-income children (receipt of federal programme no-cost school meals or reduced-cost school meals) and the general student population. HHM children recorded significantly lower educational achievement with weaker signs of improvement over time compared with the general student population. In fact, children who were identified as HHM at any time during the five-year period recorded lower academic achievement compared to peers with stable accommodation, regardless of household income. The study revealed a risk gradient wherein the

low-income students progressively performed poorly, but HHM students exposed to the most risk performed the worst. No evidence indicated that this gap narrows over time (Cutuli et al., 2013[14]).

However, in the same study, 45% of HHM children showed academic resilience, scoring between and above the average range. The researchers suggest that this resilience, while linked to typical indicators for academic achievement such as school attendance and qualifying for academic support, was more significantly influenced by factors outside of those routinely assessed in schools. These include socio-emotional regulation, the quality of peer relationships, achievement motivation, teacher quality and effective parenting (Cutuli et al., 2013[14]).

Research on the impact of family homelessness on other areas of child development and well-being is less developed. Nevertheless, available studies highlight that homelessness has a negative impact on child and adolescent physical and mental health when compared to outcomes for housing-secure peers (Edidin et al., 2012[18]; Weinreb et al., 1998[19]) and more frequent and severe adolescent mental health difficulties (Perlman et al., 2014[20]). A study on the mental health and resilience of homeless youth correlated positive relationships between parents and adolescents (parent connectedness) with higher social competencies and positive self-identity (Kessler et al., 2018[21]). This suggests that strengthening relationships with parents and other adults (e.g. school teachers and mentors) can help homeless youth cope with the disruption of homelessness and to navigate normal developmental tasks.

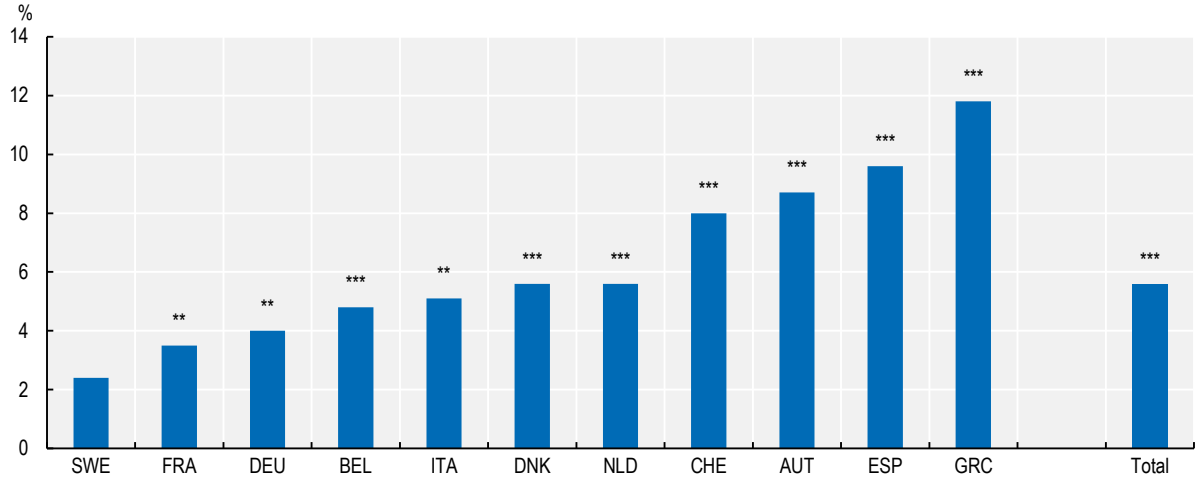
Housing insecurity (housing unaffordability and frequent accommodation moves and homelessness) contributes to child maltreatment, independent from poverty and economic hardships (Warren, 2015[22]). Lack of access to affordable and adequate housing compromises parents' ability to meet children's basic needs (neglect) through material deprivation. Moreover, housing insecurity is associated with physical and emotional abuse by reason of increased parental stress. Parenting responses can be linked with different types of stress: for example, overcrowding with increased punitive parenting styles and physical abuse, and housing instability with maternal distress and emotional abuse.

Parenting during periods of homelessness is extremely demanding. Parents encounter large difficulties in adequately meeting children's needs while having little control over environmental circumstances. For young children, the quality of parent-child relationship is important in determining child outcomes but also parental competencies, such as problem solving skills (David, Gelberg and Suchman, 2012[23]). More needs to be learnt about parents who manage these pressures well, and how to better support those who struggle. Some families live in supported homeless accommodation and/or have formal support on transitioning out of homelessness, which present opportunities to build on parenting competencies.

Parents' health and health behaviours

Childhood conditions can have a lifetime impact on health. On average, adults over 50 are 6% more likely to report poor health if they had a chronic disease at 10 years of age (after controlling for adult socio-demographic characteristics such as education, employment status, marital status, age and wealth quintile) (Figure 3.6). The impact of early childhood conditions on health varies across European OECD countries: it is lower in France but the highest in southern European countries such as Greece and Spain. Sweden is the only country where no significant association between childhood conditions and adulthood has been found.

Figure 3.6. Relationship between poor childhood health and adult poor or fair self-assessed health



Note: The results show the percentage of poor or fair self-assessed health at current adult age attributable to self-reported chronic conditions at age 10. Any childhood health refers to chronic conditions which include diabetes or high blood sugar, heart trouble, severe headaches or migraines, epilepsy, fits or seizures, emotional, nervous or psychiatric problems, neoplastic diseases and other serious health conditions. Estimates are from a limited probability model. For further details, see Annex Table 5.A1.1 in OECD (2018), A Broken Social Elevator? How to Promote Social Mobility. ***, **, *: statistically significant at 1% and 5% levels, respectively.
Source: OECD (2018), "The impact of early childhood health on poor adult self-assessed health status", in *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://doi.org/10.1787/9789264301085-graph79-en.

Childhood conditions with a bearing on adult health are multi-faceted and partly stem from risk factors that parents transmit to children, including biological factors and parental health behaviours. Biological determinants are important channels for the transmission of disadvantages from one generation to the next. Nonetheless, recent developments in epigenetics highlight that stressful early life experiences and exposure to environmental toxins can affect gene expression and influence long-term outcomes, including adult disease risk (Child, 2010[24]). Certain epigenetic changes can be transmitted across generations, compounding socio-economic disadvantage (Scorza et al., 2019[25]).

High socio-economic status during childhood moderates the genetic risk for smoking in adulthood (Bierut et al., 2018[26]). Genetically at-risk adult smokers from high socio-economic backgrounds tend to smoke roughly as many cigarettes at the peak (about 8% more) compared to non-genetic at risk adults from similar backgrounds, whereas there is a larger difference (about 28% more) for adults from low socio-economic backgrounds.

Genetic factors also interact strongly with childhood socioeconomic status and educational outcomes. Recent research suggests that specific gene variants predict educational attainment (Papageorge and Thom, 2018[27]). Yet, college graduation rates are stronger among children growing up in higher socio-economic backgrounds, indicating that children in poor families encounter adversities that hold them back. This raises concerns about wasted potential among low-income children.

Parent's health behaviours affect children' health. Beginning in the pre-natal period and early childhood years, parents' health behaviours have a persistent influence on subsequent child and later adult outcomes. Pre-term births and/or low birth weight are associated with poor maternal conditions (inadequate maternal nutrition, alcohol consumption, smoking, quality of prenatal care, and exposure to toxins during pregnancy). Pre-term birth and low birth weight can have adverse repercussions on later child health and education outcomes. Better educated families are more able overcome these early health disadvantages (Almond, Currie and Duque, 2018[28]; Currie, 2008[29]; Anderson, Doyle and Victorian Infant

Collaborative Study Group, 2003[30]; Hack, Klein and Taylor, 1995[31]). A Chilean study found persistent effects of birth weight on educational achievements; a 10% increase in birth weight is associated with nearly a 0.05 standard deviations higher performance in math throughout first to eighth grade (Bharadwaj, Eberhard and Neilson, 2018a[32]). A Swedish study found that birth weight positively affects permanent income and income across large parts of the life-cycle (Bharadwaj, Lundborg and Rooth, 2018[33]).

Disparities in poor health at birth would have limited consequences if parents were able to offset them through specific investments, such as in access to high-quality healthcare and therapies, and a good diet. In reality, vulnerabilities inherited very early in life tend to become more pronounced over time, due to deepening socio-economic inequalities at the different stages of childhood and beyond. Longitudinal studies indicate that pre-natal and post-natal parental investments add up exponentially, but post-natal investments are less effective below a certain birthweight (Aizer and Currie, 2014[34])

Parents' health behaviours influence children's own health behaviours in the early years and throughout the life-cycle. For example, overweight and obesity have a well-documented genetic component, but also depend on the shared lifestyle of family members, particularly nutrition and physical activity. Previous OECD work on adult overweight and obesity trends highlights that one-sixth to one-fourth of the overall variation in the probability of being obese is determined by differences among households rather than differences among individuals. The proportion was higher, up to 50% (similar to what is observed in smoking), for health-related behaviours such as consumption of fruit and vegetables and physical activity, and was about one-third for fat consumption (Sassi et al., 2009[35]).

Genetics alone cannot account for the rise in overweight and obesity in all OECD countries over the past 20 to 30 years. Obesogenic environments appear to encourage individuals, especially when culturally and socially vulnerable, to make less healthy lifestyle choices, and those genetically predisposed tend to become overweight or obese as a result.[4] A strong indication emerges that actions targeting individuals outside the social context in which they lead their lives are unlikely to be very effective due to the "social multiplier effect" (Sassi et al., 2009[35]).[5]

Tackling childhood obesity is a priority for society and the economy as a whole, as obesity from a young age can affect academic performance and educational attainment later in life. OECD analysis shows that healthy-weight 11-15 year-olds are 13% more like to report good performance at school than those who are obese. The strength of this relationship varies across countries and gender: for instance in Belgium and France girls with a healthy weight are 27% more likely to report good school performance than girls with obesity and in Germany and Latvia boys with a health weight are 24% and 23% more likely to report good school performance. Lower life satisfaction and self-esteem, higher propensity to being bullied, and higher school absenteeism are factors (OECD, 2019[36]).

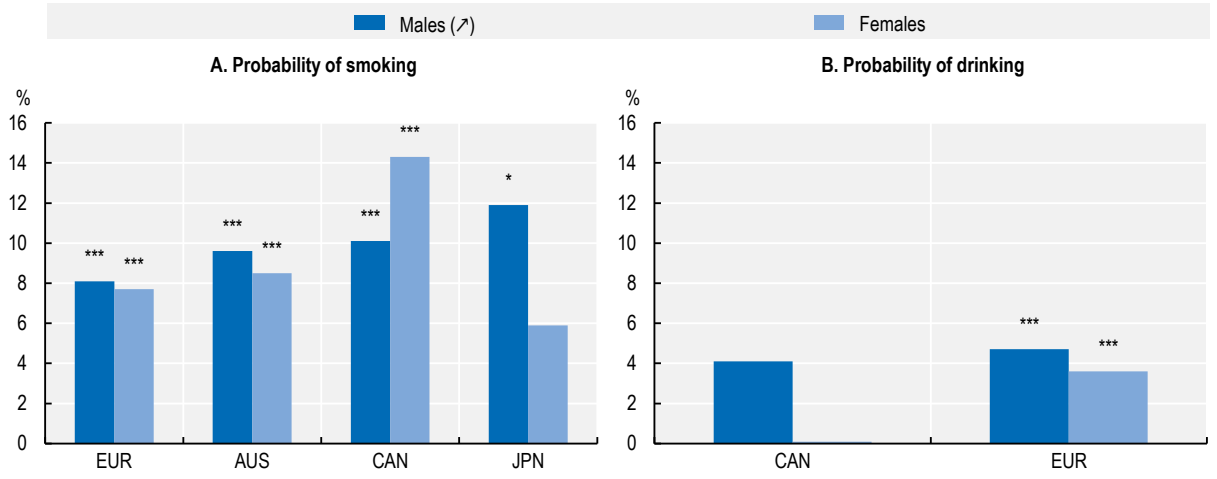
The medical and psychological literatures evidence that children's smoking and drinking patterns are positively correlated with parental smoking/drinking or parental attitudes towards smoking/drinking (Jayne and Valentine, 2017[37]; Vuolo and Staff, 2013[38]; Mares et al., 2015[39]). The association between the probability of drinking or smoking at age 14 and parental consumption of alcohol or tobacco varies across OECD countries (Figure 3.7). In European countries, regular smoking is 8% higher for both men and women if either parent smoked. For men, parental smoking is the most important predictor, greater than belonging to the lowest wealth quintile. For women, parental smoking has a similar impact on increased smoking probability, as does having a higher education. Not having completed secondary schooling correlates with an increased risk of smoking for women (and for men in Europe and Canada).

In the case of drinking alcohol, parental influence is much smaller (for Canada it is insignificant). For European countries, parental drinking during the childhood years is associated with an almost 5% higher chance of later adult drinking for men and just under 4% for women. Being unemployed is another important driver for men, but not for women. In Europe, unemployment is associated with a 5.5% higher probability of drinking for men (OECD, 2018[40]). As is the case with smoking, in Europe higher education

tends to increase the probability of drinking for women, but to a lesser degree than having a parent who drank.

Figure 3.7. Inter-generational health behaviour correlations

Probability of smoking or drinking alcohol whether parents smoked or drank when the person was aged 14, 2015



Note: Europe refers to 11 countries: Austria, Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden and Switzerland. For further details, see Annex table 5.A1.4. ***, *: statistically significant at 1% and 10% levels, respectively.
Source: OECD estimates based on SHARE waves 1 to 5 for the European countries. For Canada estimates based on NLSCY cycles 5 to 8 and children aged 0 to 15 years old. For Australia, estimates based on HILDA wave 9 and 13. For Japan, estimates based on JHPS waves 2009, 2011 and 2012; from OECD (2018), "Intergenerational health behaviour correlations", in *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://doi.org/10.1787/9789264301085-graph84-en.

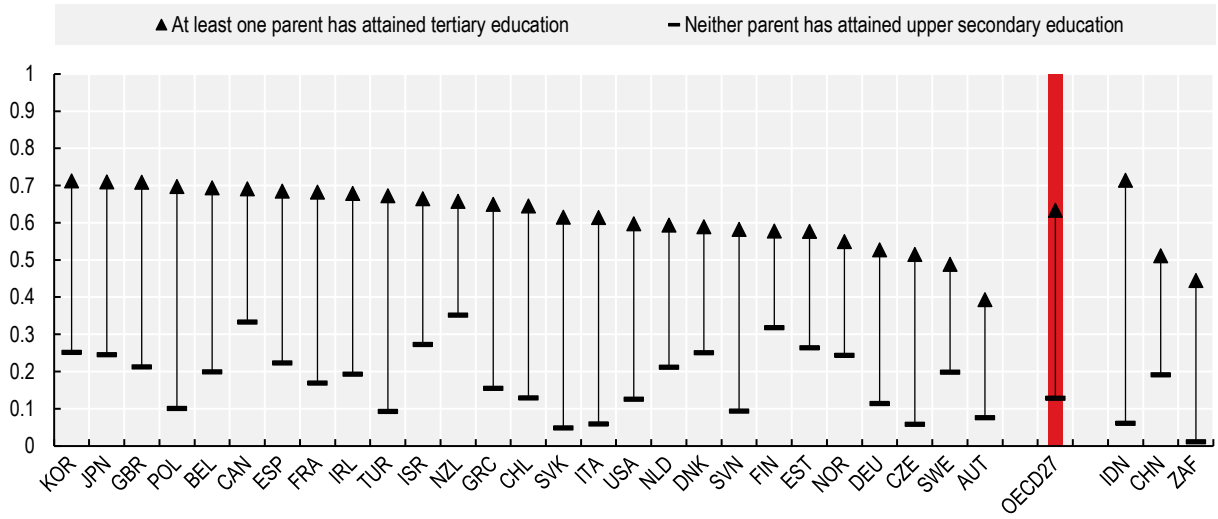
Parents' level of education

Parents' level of education has a strong influence on the educational achievements of their children. For instance, across the OECD the likelihood of a child attaining tertiary education is over 60% if at least one parent had tertiary education (Figure 3.8). The likelihood of a child attaining the same level of education as parents is 41% in the case of upper secondary education and 42% for below upper secondary. Overall, children from more educated families seem protected from leaving school at lower secondary level or earlier. Such children are six times less likely to drop out at this early stage, compared with students whose parents have a lower educational background (OECD, 2018[40]).

Prospects for upward mobility depend very much on the level of parent's education. The children of lower educated parents have much more limited chances of achieving tertiary education than peers, indicating the existence of a "sticky floor". While the children of parents without upper secondary education have only a 13% chance of attaining tertiary education, they would have been four times more likely to go to university if at least one parent had attained tertiary education (OECD, 2018[40]). "Sticky floors" are observable in most countries where data is available.

There are wide differences across countries in the educational attainment of children with the same parental background. For example, in Italy and Turkey a child whose parents has not attained upper secondary will be ten times more likely to have the same outcome than to reach tertiary education. In Canada, similar children are more likely to attain tertiary education than remain at the same level as their parents.

Figure 3.8. Likelihood of achieving tertiary education, by educational attainment of parents, 2015



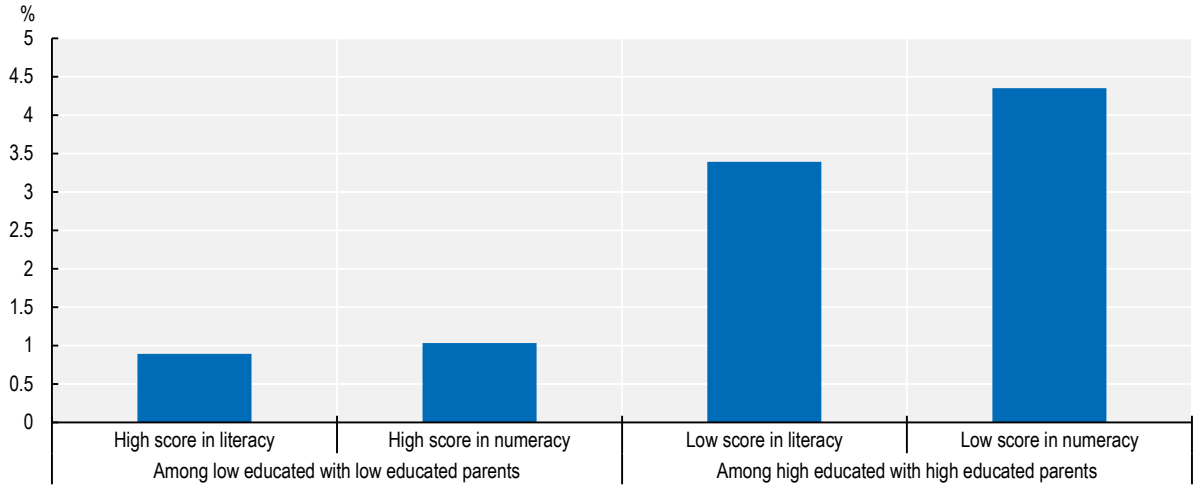
Source: OECD calculations using PIAAC 2012 and 2015, based on LIS for China, IFLS for Indonesia and NIDS for South Africa; from OECD (2018), "Sticky floor at the bottom and sticky ceiling at the top", in *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://doi.org/10.1787/9789264301085-graph88-en.

Parents' levels of education and income help children succeed, regardless of their abilities and skills. A study from the United Kingdom found that affluent parents hoard opportunities for their children to succeed in education and later in their careers. Children from low-income families and of less skilled parents might have scored well at IQ tests at age 5, but their outcomes at age 42 years shows that they were much less successful at converting their high potential into career success (higher earnings and top job status). By contrast, children from wealthier families and of highly-educated parents who scored poorly on IQ tests at five years of age were more likely to perform better at age ten, and later to have more career success than would have been expected (McKnight, 2015[41]).

Affluent children benefit from many opportunities to overcome shortcomings: higher parental education; easier access to high quality education (private grammar and secondary schools); more parental and educational support to get into university. Families with greater means at their disposal, financial and otherwise, assist their children in accumulating skills, particularly those that are highly valued in the labour market.

Results from the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) survey highlight similar trends across OECD countries as a whole (Figure 3.9). On average, individuals of highly educated parents have better skills scores than those whose parents have low educational achievement; 25% of adults whose parents had less than upper secondary education achieve the lowest literacy scores, whereas only 5% of those whose parents had achieved tertiary education did. The impact of parental education on test scores is more marked for numeracy; 30% of those at the bottom numeracy scores have a parent with low education. At the same time, those from advantaged family backgrounds are found to be more likely to be highly educated than the cognitive skill assessments would suggest. About 4.5% of individuals with low numeracy test scores and 3.5% with low literacy test scores attained tertiary education like their parents confirming that children in affluent households receive multiple advantages that help them secure a high education and income later in life.

Figure 3.9. Percentage of individuals attaining tertiary education, by PIACC scores and parental education, OECD average, 2015



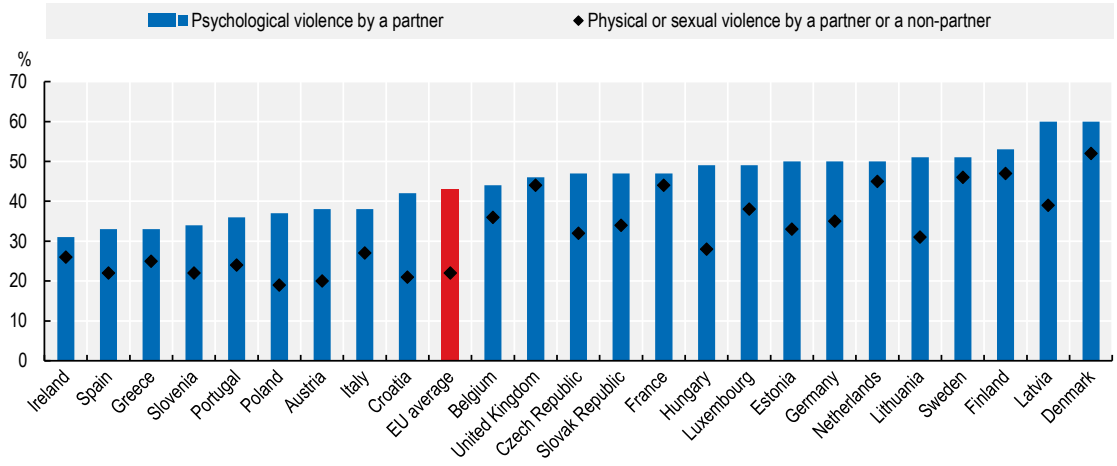
Source: OECD (2018), "Percent of individuals attaining tertiary education, by PIAAC scores and parental education", in *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://doi.org/10.1787/9789264301085-graph90-en.

Parental level of digital literacy informs the digital mediation strategy adopted to children's use of digital media. Parents who are relatively digitally skilled are more likely to adopt an enabling mediation approach to maximise children's online opportunities, while parents who are lower digital skilled parents are more likely to employ a restrictive mediation approach to keep children safe. The PIACC survey shows that in OECD countries only 31% of adults have adequate problem-solving skills (levels 2 and 3) for technology-rich environments. Enabling mediation reflects favourable parental judgement of children's digital skills and understanding of risk. Research suggests that enabling mediation is associated with more child-initiated requests for support minimising – or avoiding – the likelihood of encountering harm online. Restrictive mediation is preferable when parents or children have lower digital skills as it is associated with fewer online risks, but at the cost of opportunities (Livingstone et al., 2017[42]). Furthermore, being vulnerable offline can translate into exposure to more risks and harms online that have a greater impact. Online safety education needs to be more nuanced to particular risks across different age groups. Reducing offline risks has the potential of reducing online risks (El Asam and Katz, 2018[43]).

Exposure to intimate partner violence

Intimate partner violence (IPV) is increasingly recognised as a serious problem in OECD countries. IPV is not gender neutral: in the majority of cases, victims are women who are also mothers. Globally, 30% of women report physical and/or sexual violence by their current or previous partner (WHO, 2013[44]). At the European Union level, 22% of women report physical and/or sexual assault by their current or previous partner, and 43% disclosed psychological abuse including intimidation, belittling and restriction of freedom (Figure 3.10) (FRA, 2014[45]).[6] Results of the 2016 OECD Gender Equality Questionnaire highlight that violence against women is one of the key gender equality issues for urgent action in OECD member countries.

Figure 3.10. Percentage of women reporting psychological abuse and physical and/or sexual violence by current or previous partner, since the age of 15, 2012



Source: FRA - European Union Agency for Fundamental Rights (2012), "Physical, sexual and psychological violence", *Survey on Violence Against Women in EU (2012)*, https://fra.europa.eu/en/publications-and-resources/data-and-maps/survey-data-explorer-violence-against-women-survey.

StatLink https://doi.org/10.1787/888934038989

Although there is no OECD-wide data available, national surveys on children's exposure to violence and self-reports by parents indicate that significant numbers of children are exposed to IPV, either through current or previous parental relationships. In the United States, the National Survey of Children's Exposure to Violence II recorded that 17% of children were direct witnesses to a parent assaulting another parent or parental partner. The lifetime exposure rate is 28%, if only responses of 14-17 years olds are regarded (Finkelhor et al., 2015[46]). In Sweden, 14% of 14-17 year olds report witnessing IPV (Jernbro and Janson, 2017[47]). Self-reports by parents, primarily mothers, point to the majority of children in households with IPV being directly exposed to violence: Australia at least 50% (Australian Institute of Health and Welfare., 2018[48]); France 84% (Thélot, 2016[49]); and Spain 64% (Delegación del Gobierno para la Violencia de Género, 2015[50]). Furthermore, households with IPV are twice as likely to contain children, particularly children under years of age (Fantuzzo and Mohr, 1999[51]). At the European Union level, 73% of women reporting IPV are caregivers of children who also witness the abuse (FRA, 2014[45]). In New Zealand, children are present about half of the time when police respond to incidents of IPV (Murphy et al., 2013[52]).

IPV in the home undermines developing children's need have for safety and predictability in their surroundings. In general, IPV is an episodic experience, though sometimes mothers exit and re-enter violent relationships. Children are often the direct witnesses of violent physical and sexual assault, and psychological abuse, even if they are not directly harmed by it (Jasinski and Williams, 1998[53]). Children are observers to the aftermath of violent incidents, including signs of physical injuries, parental distress and the destruction of personal property (Swanston, Bowyer and Vetere, 2014[54]). Furthermore, as children become older, the likelihood of them intervening to protect a parent increases (Hester, Pearson and Harwin, 2007[55]).

Overall, research indicates that childhood exposure to IPV significantly influences child well-being at different developmental stages across an array dimensions and indicators: being overweight or obese (Jun et al., 2012[56]); childhood depression and aggressive behaviours (Johnsona et al., 2002[57]); conduct disorders (Meltzer et al., 2009[58]); poorer school performance (Akter and Chindarkar, 2019[59]; Kiesel, Piescher and Edleson, 2016[60]); and bullying and victimisation behaviours (Knous-Westfall et al., 2012[61]).

Also notable is the strong co-occurrence in households of IPV and child maltreatment (Hamby et al., 2010[62]).

The timing and duration of exposure to IPV is relevant to understanding the impact on children's well-being and development. Children can be exposed to IPV from very early on into their lives. While the research has not concluded if pregnancy is a risk factor for IPV, expectant mothers with demographic characteristics such as young maternal age, low socio-economic status, minority status and being unmarried, are at elevated risk. For children, IPV during pregnancy is associated and with low birth weight and pre-term delivery, even after controlling for background and other relevant factors (Bailey, 2010[63]), and poorer mother-infant attachment in the early years (Levendosky et al., 2011[64]).

Early childhood exposure to IPV can have long-term consequences on children's social and emotional development (Schnurr and Lohman, 2013[65]; Levendosky et al., 2011[64]). As an age cohort, young children are the most exposed to IPV, as most of their time is spent in the direct home environment. In addition, young children are particularly susceptible to the stress of IPV due to the rapid pace of early brain development and their underdeveloped coping skills. IPV is associated with the establishment of insecure infant-parent attachment. However, IPV can also later disrupt parent-child attachments that were of a high quality. Young children exposed to IPV are more likely to have internalised and externalised behavioural problems, lower verbal skills, poor physical health, and difficulties in forming peer relationships. These difficulties are likely to follow young children into their schooling. IPV affects the quality of parenting and the ability of both parents to meet children's needs (Pels, van Rooij and Distelbrink, 2015[66]; Guille, 2004[67]).

Parenting in the context of IPV is demanding. It is associated with the primary caregiver or protective parent employing restrictive parenting practices and harsher disciplinary methods to prevent rising tensions. IPV usually goes hand-in-hand with the absence of supportive co-parenting practices. Fathers who perpetrate IPV are less likely to be involved in children's day-to-day care and also serve as poor role models for relationship modelling and conflict resolutions. Furthermore, families experiencing IPV tend to be more socially isolated and have smaller informal support networks.

The scope of these difficulties underlines the seriousness of IPV for children and the need for interventions to promote children's well-being. In some OECD countries, exposure to IPV is considered a form of child maltreatment (Nixon et al., 2007[68]).This implies an expectation on child protection services (CPS) to intervene to assess the risk of harm. However, research suggests that the response from CPS to these set of risks can vary greatly, sometimes placing children at elevated risk of harm and other times overlooking opportunities to positively intervene (Nixon et al., 2007[68]). Often CPS are satisfied to close IPV referrals on the undertaking from the protective parent that children will not be directly exposed to further violent incidents. A study by (Kiesel, Piescher and Edleson, 2016[60]) highlights that children exposed to only IPV can fare worse across educational outcomes than children exposed to maltreatment, or to co-occurring IPV and maltreatment. The disparity in outcomes may be attributable, in part, to these children not consistently receiving an intervention of any kind to promote their well-being. Children living in households with IPV benefit not only from the risk of exposure to IPV being reduced and/or eliminated, but also from interventions to strengthen parent-child relationships.

Family stress

The co-occurring factors that contribute to child vulnerability – e.g. low household income, persistent material deprivation, poor work-family life balance, poor parental mental health, parental substance misuse, intimate partner violence, unsafe neighbourhoods and social isolation – also generate chronic family stress, which in itself has an impact on child development and well-being.

Research on children's developing biological systems suggests that chronic family stress, particularly in early childhood, can have immediate and long-term impacts on healthy development (National Center on

the Developing Child, 2016[69]; Thompson, 2014[70]; Hostinar and Gunnar, 2013[71]). Chronic family stress from low household income or economic hardships is associated with increased internalised and externalised problems in early childhood and adolescence, poorer child physical health and lower preschool literacy, as well as inconsistent and harsher parenting practices (Masarik and Conger, 2017[72]). Parents with good problem-solving skills and strong support networks are more likely to use positive parenting practices.

Childhood exposure to chronic family stress can reinforce the link between parental mental illness and child and adolescent mental health difficulties. A study by (Plass-Christl et al., 2017[73]) used data from the German National Health Interview and Examination Survey to examine the link between poor parental mental health, child and adolescent mental health difficulties and chronic stress. The study highlighted that although poor parental mental health is a risk factor, exposure to two or more stressful events is more significant. Events considered stressful included a recent bereavement, recent parental separation or divorce, financial stress, and accident or severe illness affecting the child.

Children's stress responses reflect individual traits, the risks and protective factors in the family and community environments. Children with timid dispositions are more likely to develop anxiety or depression than those who are more self-assured. Parents and other supportive adults play a fundamental role by providing reassurance and buffering stress. They assist children in developing capabilities to deal with stress. However, parents themselves are often overwhelmed by the same set of stressors, and in some cases are the source of stress when substance misuse and poor mental health makes their behaviour inconsistent, insensitive, or aggressive.

Good stress helps children master healthy stress responses, including positive coping skills and self-regulation. Bad stress, on the other hand, is severe, chronic and unpredictable (Box 3.1). Although children's stress responses vary, in almost all case too much bad stress causes health and developmental problems.

In early childhood, the foundations of executive function, self-regulation, and mental and physical health are laid down. In summary, chronic stress contributes to the following disruptions:

- Weakens the foundation of the brain architecture. Early experiences – positive and negative – determine which neural circuits are reinforced and which are pruned (National Center on the Developing Child, 2016[69]),
- Causes epigenetic adaptions. Gene expression is influenced by positive and negative life experiences and environmental toxins. Highly stressful early experiences can authorise genetic instructions that disrupt the development of the systems that manage responses to stressful life situations. These epigenetic changes can be short-term or enduring, and can be passed onto future generations (National Center on the Developing Child, 2016[69]; Thompson, 2014[70]),
- Disrupts the hypothalamic-pituitary-adrenocortical (HPA). The sensitivity of the HPA axis, a regulatory stress-response system integrating the nervous and endocrines systems, can be disrupted by chronic stress with long-term cognitive, and social and emotional consequences (Ballard et al., 2015[74]; Thompson, 2014[70]),
- Compromises the immune system. Toxic stress undermines immune system functioning by reducing the ability to fight infections and embedding pro-inflammatory tendencies (Thompson, 2014[70]).

Children's capabilities continue to develop into adolescence and early adulthood. Nevertheless, it is easier and more effective to help vulnerable children if strong foundations have been laid. Policy makers should promote policies that reduce family and community level stress and strengthen vulnerable children's ability to cope with adversity and threats (National Center on the Developing Child, 2016[69]).

Box 3.1. Three Types of Stress Responses

The National Scientific Council on the Developing Child (2016) distinguishes among three different types of stress responses: positive, tolerable and toxic.

- Positive stress response is a normal and essential part of healthy development, characterised by brief increases in heart rate and blood pressure, and mild or brief elevations in stress hormone levels. Situations that might trigger a positive stress response are a child's first day with a new caregiver or receiving an injection at the doctor's office.
- Tolerable stress response activates the body's alert systems to a greater degree as a result of a more severe or longer-lasting threat, such as the loss of a loved one, a natural disaster or a frightening injury. If the activation is time-limited and buffered by relationships with supportive adults who help the child adapt, the brain and other organs recover from what might otherwise be damaging effects.
- Toxic stress response can occur when a child experiences major, frequent, and/or prolonged adversity – such as recurrent physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, repeated exposure to violence, and/or the accumulated burdens of family economic hardship – without adequate adult support, or worse, when the adult is the source of both support and fear. Excessive and/or prolonged activation of the stress response systems can disrupt the development of brain architecture and other developing organs. This cumulative toll increases the risk for stress-related disease and cognitive impairment, including heart disease, diabetes, substance abuse, and depression, well into the adult years. Research also indicates that supportive, responsive relationships with caring adults as early in life as possible can prevent or reverse the damaging effects of a toxic stress response.

Source: National Scientific Council on the Developing Child (2016)

Community Factors

Schools

Early Childhood Care and Education (ECEC)

Access to early learning has considerable positive implications for the well-being of individuals and for societies as a whole. Evidence shows that early learning has a positive impact on the educational attainment of children later in life, but also on a wide range of other characteristics such as physical and mental health. The brain develops faster and has a higher plasticity during early childhood than at any other point in life; children are therefore particularly responsive to the interactions they experience over this period (Meltzoff and Kuhl, 2016[75]). The benefits of early learning go well beyond academic achievement.

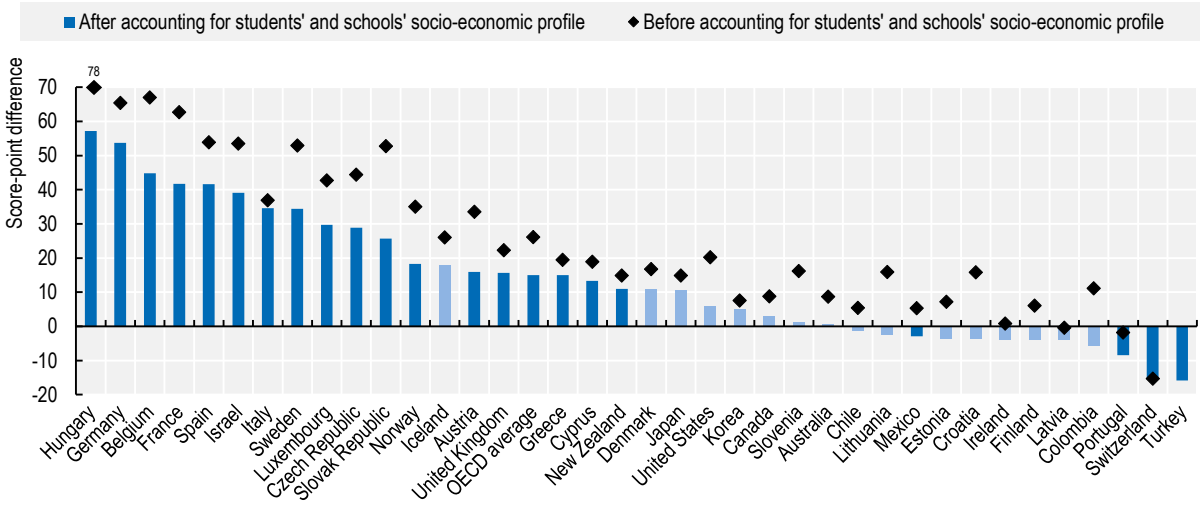
Early intervention makes it easier for children to acquire knowledge and skills in the future (OECD, 2015[76]). For instance, children's ability to comply with demands from adults will shape their relationships with caregivers, which can in turn influence opportunities for developing cognitive skills, such the ability to engage in language-rich exchanges.

PISA 2015 shows that, on average across OECD countries, 15 year-old students who attended early childhood education and care (ECEC) for two years or more score a significant 26 score-points higher on the PISA test assessing sciences performance than their counterparts who attended ECEC for less than two years (Figure 3.11). The significant difference in sciences performance according to the duration of attendance in ECEC remains after controlling for the socioeconomic profile of students and schools, as

15-year-old students who attended ECEC for two years or more still score 15 score-points higher than their peers who attended ECEC for a shorter duration. This suggests that the beneficial effects of attending early childhood settings on academic results are valid for all children.

Figure 3.11. The beneficial effects of ECEC attendance on science performance (PISA 2015)

Score-point difference in science performance between 15-year-old students who attended early childhood education (ISCED 0) for two years or more and those who attended for less than two years



Note: Score-point differences that are statistically significant are marked in a darker tone. Countries and economies are ranked in descending order of the score-point difference in science performance between 15-year-olds who reported that they had attended early childhood education (ISCED 0) for two years or more and others, after accounting for socio-economic status.
Source: OECD (2017), "Graph 5.3 - Score-point difference in science performance between 15-year-old students who attended early childhood education (ISCED 0) for two years or more and those who attended for less than two years (PISA 2015)", in Starting Strong 2017: Key OECD Indicators on Early Childhood Education and Care, Starting Strong, OECD Publishing, Paris, https://doi.org/10.1787/9789264276116-graph41-en.

The positive outcomes of early learning extend beyond the scope of school and academic achievement. The early learning environment provides opportunities to ensure that children understand the importance of good nutrition and physical activities, and that they can familiarise themselves with both. Studies show that target interventions on the youngest can be effective in changing behaviours, and decrease the odds of issues such as being overweight during adolescence (Sassi, 2010[77]; OECD, 2011[78]).Early childhood education also provides children with opportunities to master self-regulation. Children who develop good self-regulation during childhood achieve higher income and socioeconomic status in their 30s, and are less likely to develop substance dependence or to be convicted of a crime (Moffitt et al., 2011[79]). They are also comparatively less likely to live in social housing or have poor health by age 42 (Shuey and Kankaraš, 2018[80]).

The positive effects of early learning are particularly strong for vulnerable children. For instance, a number of correlational studies suggest that children from lower socioeconomic status families experience particular benefits in the areas of cognitive and social skills development compared to peers from higher socioeconomic backgrounds (Sylva et al., 2014[81]; Burger, 2010[82]). The benefits of ECEC for this group of children can in fact be stronger and may not fade over time (van Huizen and Plantenga, 2018[83]).The positive effect for children from minority backgrounds is more mixed, however (Ladd, 2017[84]).

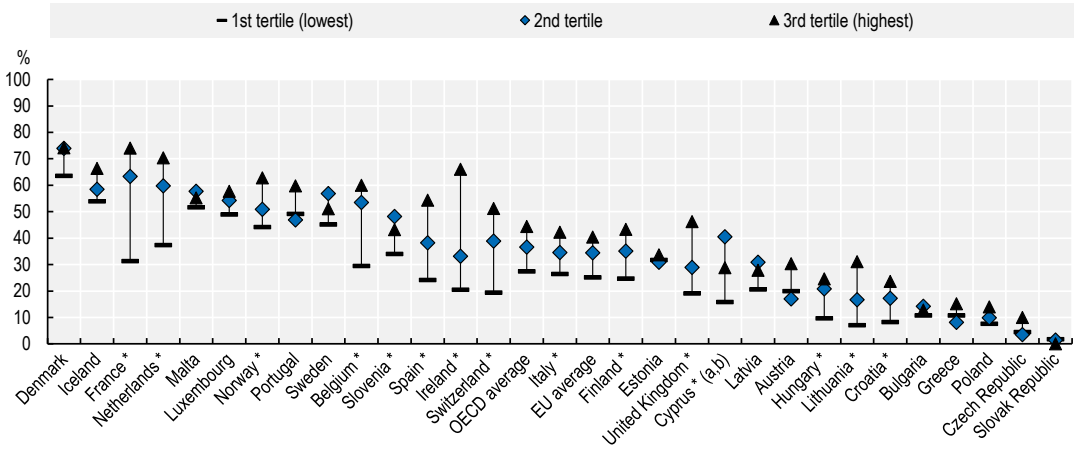
The wide benefits that early learning produces for individuals, governments and societies translate in the fact that investments at this stage of children's education generates high returns. Estimates suggest that economic returns of investment in early learning, including higher income, better health and lower crime, are between 2% and 13% (García et al., 2016[85]; Karoly, 2016[86]), and that they are comparable for investments in emotional and cognitive domains (Paull and Xu, 2017[87]). These high rates of return in early learning justify public investments in this field.

Despite early learning benefiting children from vulnerable backgrounds the most, concerning inequities of access to ECEC persist. These differences arise, at least in part, because in many countries ECEC programmes incur fees that higher-income families are more able to afford. Higher income families also tend to provide more stimulating and responsive interactions in the home environment (Burchinal et al., 2015[88]; Sylva et al., 2004[89]).

On average, just over one-third of children under three years old participate in formal ECEC. This percentage varies widely across countries, from almost 3% in Mexico to as high as 62% in Denmark**.** In addition, in many countries the ECEC participation of children from low-income households is significantly lower, up to half (Figure 3.12). Evidence from Germany suggests however that participation in ECEC can influence parents to engage more frequently in cognitively stimulating and less passive activities with their children, helping to close the gap between disadvantaged children and children from non-disadvantaged families (Felfe and Lalive, 2010[90]).

Figure 3.12. Children's participation in formal education and care services is substantially lower for low-income families

Participation rates in early childhood education and care, 0- to 2-year-olds, by equivalised disposable income tertile, 2016 or latest available



Note: Data for Switzerland and Malta refer to 2014, and for Iceland to 2015. Data are OECD estimates based on information from EU-SILC. Data refer to children using centre-based services (e.g. nurseries or day care centres and pre-schools, both public and private), organised family day care, and care services provided by (paid) professional childminders, regardless of whether or not the service is registered or ISCED-recognised. Equivalised disposable income tertiles are calculated using the disposable (post tax and transfer) income of the household in which the child lives – equivalised using the square root scale, to account for the effect of family size on the household's standard of living – and are based on the equivalised disposable incomes of children aged less than or equal to 12. In countries marked with an *, differences across groups are statistically significant at p<0.05.

Source: OECD (2018), "PF3.2: Enrolment in childcare and pre-school", *OECD Family database, Indicator 3. Public policies for families and children (PF)*, www.oecd.org/els/family/database.htm.

StatLink https://doi.org/10.1787/888934039008

Participation in ECEC may also be particularly beneficial for children from families where the language spoken at home is different from the language of schooling (Burchinal et al., 2015[88]), or in families from immigrant backgrounds. PISA results show that the gains in science proficiency at age 3 versus age 5 are greater for children from immigrant families than with children of non-immigrants. In countries where the proportion of 15-year-old students with an immigrant background (first and second generation) is above 6%, immigrant students who reported that they attended ECEC for at least one year scored 36 score-points higher in the PISA science assessment than those who attended ECEC for less than a year or not at all. When accounting for student's socioeconomic status, the difference in PISA scores of students with an immigrant background and different lengths of enrolment in ECEC is still significant at 25 score-points (i.e. 10 months of formal schooling) (OECD, 2017[91]). The benefits of ECEC for children who speak a different language at home or come from immigrant backgrounds are broadly related to language and integration, which are beneficial for children irrespective of the socio-economic status of their families.

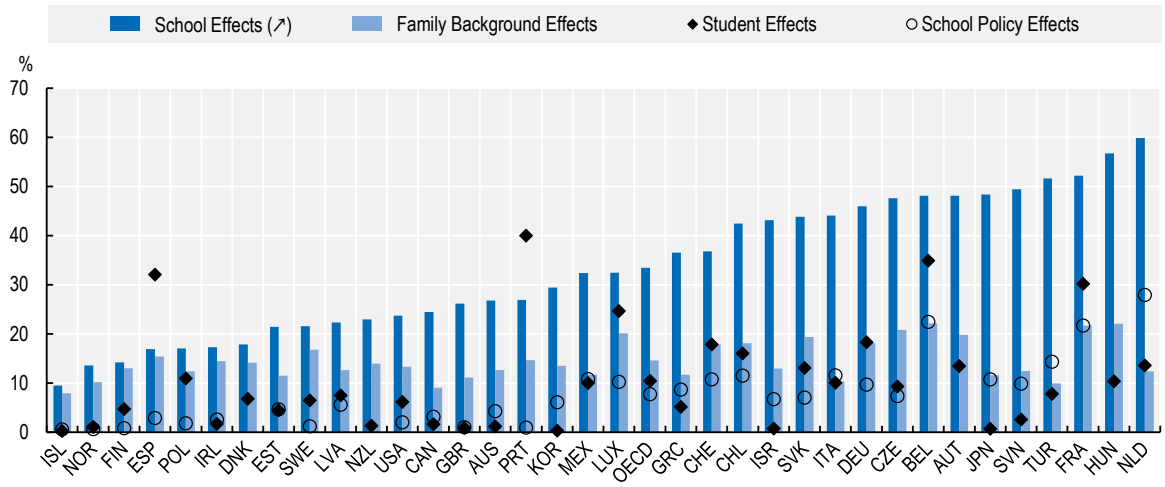
Although research suggests that vulnerable children benefit more from early learning, participation in ECEC does not necessarily close the gap in later outcomes between children from low and high socioeconomic status (Schoon, Cheng and Jones, 2013[92]). Results from PISA notably underscore the importance of accounting for children's family and home environment to understand potential implications of ECEC attendance, meaning that the positive effects associated with ECEC attendance are partly dependent on families' socio-economic status (OECD, 2017[91]).

Primary and secondary school

Disadvantaged students usually have to overcome specific obstacles if they are to succeed in their education and later on in their careers. [7] These obstacles include not benefiting from the same parental support as students of more educated parents or attending a disadvantaged school with fewer financial resources and well-qualified teachers. Achieving equity in education would mean that students of different socio-economic status, gender and family backgrounds attain similar levels of academic performance in key cognitive domains, for example reading, mathematics and science, and similar levels of social and emotional well-being during their school years. However, results from PISA 2015 show that disadvantaged students perform worse than advantaged students across all of these dimensions.

Schools play a role in reducing or accentuating the impact of family background and individual characteristics on children's educational outcomes. Based on PISA 2015, school effects, which reflects the impact of going to different schools, are the most important explanatory factor in the variation of student test scores in mathematics in 21 of 35 OECD countries. On average, across OECD countries, school effects explain 33% of the variation while students' family background explains 14% and students' own characteristics (gender, age and grade) 11% and school policy effects 8% (Figure 3.13). Similar results are observed in other PISA assessment domains. There are some exceptions for example Spain and Portugal where student and family effects are much stronger predictors of variations in PISA test scores. School effects tend to be strongest in countries that have early tracking, for example Germany and the Netherlands but it is also high in countries where there is no early tracking (OECD, 2018[40]).

Figure 3.13. Variance decomposition of PISA mathematic tests scores, aged 15 years



Note: This represents the share of PISA mathematics test score variation explained following a regression of test scores as a function of family background, student-level and school-level controls. Student effects refer to gender, age and grade. Family background refers to the PISA ESCS, immigration status, language spoken at home, whether living with two parents. School effects represent specific dummy for each school. School policy refers to the quality of Educational Resources, creative extracurricular Activities, Student/Teacher Ratio and Index of ability grouping between mathematics classes.
Source: OECD (2018), "Variance decomposition of test scores", in *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://doi.org/10.1787/9789264301085-graph94-en.

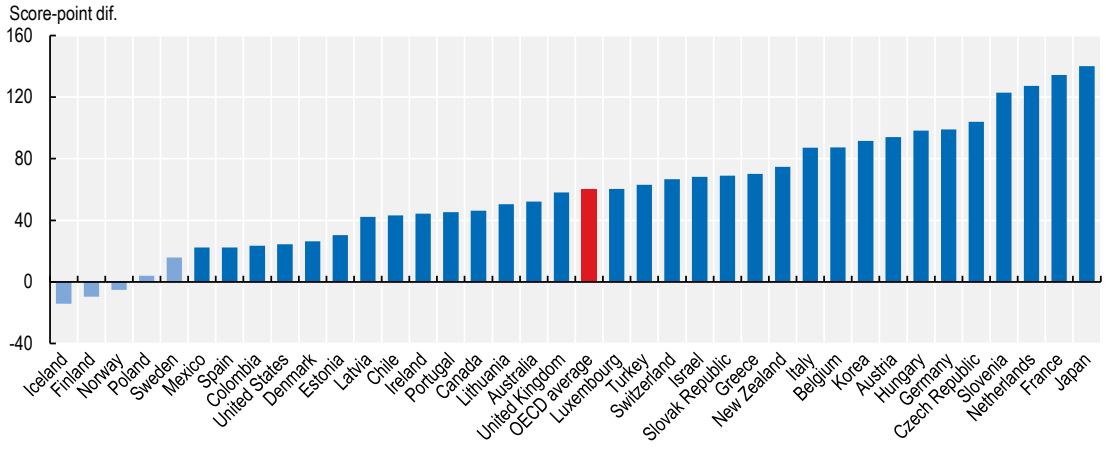
There are two pathways by which students' PISA test scores vary by the school that they attend. The first is through the sorting of students of similar ability or background into the same schools due to national policies on academic tracking, school admission policies and parent/student or teacher behaviour. The second is through school-level educational policies that affect student achievement with "good schools" raising the test scores more than "poor schools" (OECD, 2018[40]). On average, across the OECD, 48% of disadvantaged students attend disadvantaged schools.[8] In some OECD countries, there is a concentration of disadvantaged students in schools without high achieving students (defined in PISA as students who score higher than the top quartile of performance), for example Chile, the Czech Republic, Hungary, Mexico and Slovenia. However, in some countries disadvantaged students are evenly distributed across schools, including in schools enrolling high-achieving students, for example Canada, Denmark, Finland, Iceland, Ireland, Norway and Sweden. In all countries, however, there is a clear advantage in attending a school where students, on average, come from more advantaged backgrounds (Causa and Chapuis, 2010[93]).

Student performance is strongly associated with student socio-economic status. PISA consistently finds that disadvantaged students perform worse than advantaged, although the strength of this relationship varies across countries. On average across the OECD, a one-unit change in the family wealth index represents a 10 point increase in a student's science score, before accounting for parents' education, and an increase of 4 points after accounting for parents' education. Similarly, students in high-income families perform better at science than students in low-income families (OECD, 2017[94]). Furthermore, OECD analysis shows a strong relationship between the variation in science performance related to family wealth and the overall income inequality in countries measured by the GINI index. This association suggest that the inequalities observed more broadly in a country are reflected in student performance. In other words, in all countries, affluent parents may use their wealth to provide a better education for children and in more in equal societies these advantages can be greater (OECD, 2017[94]).

Student performance is also strongly associated with the school socio-economic profile defined as the average socio-economic status of enrolled students (Figure 3.14). School socio-economic profile is shaped by social segregation and the sorting of students across schools. Sorting can result in academic segregation of students by placing higher preforming students into a limited number of schools or by designating the lowest achieving students to disadvantaged schools. The sorting of students through early tracking and ability grouping are often very costly and ineffective at raising educational outcomes, particularly for disadvantaged students. Furthermore, disadvantaged students are much more likely than advantaged students to be sorted into non-academic tracks. On average, across disadvantaged students in OECD countries, a one-unit increase in school socio-economic profile is associated with a 60 score-point improvement in student performance, even after accounting for student socio-economic status. In the Czech Republic, France, Japan, the Netherlands and Slovenia, each additional unit of school-level socio-economic status is associated with a more than 100 score-point improvement in performance among disadvantaged students (OECD, 2018[95]).

Figure 3.14. Change in disadvantaged student performance associated with school socio-economic profile

Score-point difference in science among disadvantaged students associated with a one-unit increase in school socio-economic profile, after accounting for student socio-economic status



Note: Statistically significant score-point differences are shown in a darker tone.
Countries and economies are ranked in ascending order of the change in performance associated with school socio-economic profile.
Source: OECD (2018), "Change in student performance associated with school socio-economic profile: Score-point difference in science among disadvantaged students associated with a one-unit increase in school socio-economic profile, after accounting for student socio-economic status", in *Equity in Education: Breaking Down Barriers to Social Mobility*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/9789264073234-graph33-en.

Attending the same schools as advantaged students may help raise disadvantaged students' aspirations and self-expectations. Students' aspirations for further education and their career later on are shaped by family wealth, social status and neighbourhood characteristics (Stewart, Stewart and Simons, 2007[96]). On average across OECD countries, 29% of children of blue collar workers[9] and 55% of the children of white collar workers[10] report that they expect to complete a university education. Children of blue collar workers were much less likely to expect to work as managers or professionals than children of white collar workers, with an average difference of 21 percentage points across OECD countries. However, children of blue-collar workers who attend schools where students have parents with white-collar occupations were around twice as likely to expect to earn a university degree and work in a management or professional occupation than children of blue-collar workers who perform similarly but who attend other schools. In other

words, the education and occupation expectations of disadvantaged students are related to the socio-economic profile and composition of their school (OECD, 2017[94]).

The clustering of poor students in poor schools might dampen students' expectations and beliefs in themselves. Disadvantaged students are less likely to develop high motivation and aspirations for themselves when they are around students with similarly low motivation and aspirations. Yet on the other hand, being in a school with a diverse student body can make a student at the bottom of the socio-economic hierarchy feel less satisfied with their life than those from a more advantaged background. PISA 2015 data show that there are large differences across countries in the strength of the relationship between socioeconomic advantage and students′ well-being outcomes, suggesting that policies and school practices can help level (OECD, 2017[94]).

Neighbourhoods

Neighbourhoods affect the social, cultural, and demographic conditions that contribute to child well-being. A growing body of research argues that neighbourhoods have a causal effect on child and later adult outcomes, distinct from family factors (Chetty and Hendren, 2018[97]; Deutscher, 2018[98]). Neighbourhoods vary in the opportunities available for children to do well; some have supportive mechanisms in place that enhance child development, while others have too many stressors and not enough protective factors. Neighbourhoods increase the difficulties experienced by families through concentrated poverty[11], social isolation (particularly from mainstream institutions), and joblessness (Wilson, 2013[99]).

Several non-experimental studies have linked poor child and adolescent outcomes to the neighbourhood level. These include externalised behavioural problems and lower cognitive abilities (Donnelly et al., 2017[100]); anti-social behaviours (Odgers et al., 2012[101]); risky sexual behaviours (Leventhal, Dupéré and Brooks-Gunn, 2009[102]); higher incarceration and teenage births rates (Chetty et al., 2018[103]); and lower adult earnings, college enrolment and marriage rates (Chetty and Hendren, 2018[97]). Moreover, growing up in a toxic environment (i.e. neighbourhoods with concentrations of violence, incarcerations and lead exposure) independently predicted poorer adult outcomes for low-income children, after accounting for demographic factors.[12] However, the associated neighbourhood effects are different by race and gender: lower social mobility among white children; adult incarceration and lower income rank relative to parents' earnings among black boys; and teenage births among black girls (Manduca and Sampson, 2019[104]).

In OECD countries, there is evidence that income inequality has taken on clear spatial dimensions. In urban areas, affluent and low-income households often live in clearly separate neighbourhoods. Neighbourhoods in European cities are, on average, less spatially segregated by income than those in North America. Nonetheless, patterns in spatial segregation differ across countries. In Denmark and the Netherlands, on average lower income households experience the highest levels of segregation, whereas in Canada, France and the United States the most affluent households concentrate in specific areas of cities (OECD, 2016[105]).

Research on neighbourhood effects within OECD countries has been mainly based on the United States and to a lesser extent Australia, Denmark and Germany. Evidence of neighbourhood effects are strongest in the United States and Australia and weaker in Denmark and Germany. In the United States, the Moving to Opportunity (MTO) experiment randomly assigned housing vouchers to low-income families; some on the condition of families moving to lower-poverty neighbourhood. Over the long run, MTO has shown that the integration low-income families into mixed-income neighbourhoods can help reduce persistent poverty and increase inter-generational mobility. Moving to a low-poverty neighbourhood during childhood (below the age of 13) had a positive effect on inter-generational mobility, but gains fell with age underlining that the longer exposure to a better environment the more improved adult outcomes are. The disruption of moving neighbourhood after age 13 may even have a negative effect on adult outcomes (Chetty et al., 2016[106]). In Australia, the opposite effect was shown on moves undertaken during adolescences; one year in a better environment is more valuable in adolescence than in early childhood because of the long-

lasting peer effects and the probability as a young worker of entering the local labour market (Deutscher, 2018[98]). In Denmark, the neighbourhood effect on adult earnings becomes negligible after the age of 30 when family background becomes more relevant (Eriksen, 2018[107]; Bingley, Cappellari and Tatsiramos, 2016[108]). In Germany, centralised institutional services might cushion the neighbourhood effect and allow more even of access to resources for support across different neighbourhoods (Howell, 2019[109]).

Recent studies have gone a step further by evidencing that for low-income children neighbourhoods can be high-opportunity or low-opportunity places to grow up in (Chetty and Hendren, 2018[110]) (Donnelly et al., 2017[100]).High-opportunity neighbourhoods influence the chances for low-income children's inter-generational mobility by transmitting advantages that favour human capital development. Broadly speaking, high-opportunity neighbourhoods have better preforming schools, lower levels of income inequality, more adults in employment, lower spatial segregation and crime, and a greater share of two-parent households. These neighbourhoods have higher social capital[13] and collective efficacy[14], better institutional resources and fewer physical hazards.

Low-income parents in high-opportunity neighbourhoods allocate more time to the care of children and to engaging with institutions. A study by (Wikle, 2018[111]) examined the breakdown of low-income parents' time, controlling for education, employment, race and gender. Low-income parents in high-opportunity neighbourhoods spend more time with children, in particular on developmental care, and spend less time alone. Furthermore, parents in high-opportunity neighbourhoods access government services at a higher rate. This suggests that adult public programmes have positive spillover effects for parenting, indicating that investing in adults in low-opportunity neighbourhoods, including in unemployment services and parenting programmes, benefits children.

The high collective efficacy of high-opportunity neighbourhoods mediates the impact of limited neighbourhood resources, poor social organisation and low density of social ties on rates of neighbourhood violence and individual well-being (Sampson, 2012[112]). High collective efficacy represents stronger social cohesion and a shared willingness to intervene for the common good. Neighbourhoods with high collective efficacy have less crime- now and holding true into the future-, a greater number healthy birth weights, lower infant mortality and fewer teenage pregnancies. This suggests a link between overall health and community well-being that is independent from social composition (Sampson, 2012[112]).

High collective efficacy may be a more valuable resource for vulnerable children. A study by (Odgers et al., 2009[113]) found that at age five, collective efficacy can act as a protective factor against anti-social behaviour i.e. delinquent and aggressive behaviours. Moreover, high collective efficacy also reduces incidence of child maltreatment. Research suggests that it can reduce reports of substantiated of child physical abuse, sexual abuse and neglect to child protection services, controlling for background factors (Molnar et al., 2016[114]).

Several studies have looked at the benefits of moving to a high-opportunity neighbourhoods by measuring the gains for child development and later adult outcomes. The most extensive work measuring has been undertaken by Chetty and colleagues, most notably the Opportunity Atlas (Box 3.2). This work points to positive place exposure effects that are cumulative and linear; there is no point in childhood in which the positive returns from moving to a high-opportunity neighbourhood become negligible. Another study by (Donnelly et al., 2017[100]) focusing on early childhood and middle childhood only capture gains in children's cognitive skills that are associated with access to high-quality schools. For children's socio-emotional skills, the benefits of high-opportunity neighbourhoods appear by age three years and neither grow nor decline over time.

Box 3.2. The Opportunity Atlas: Mapping the Roots of Childhood Social Mobility

Where should families seeking to improve their children's outcomes live? This is one of the questions that Raj Chetty and colleagues set out to answer when they developed the Opportunity Atlas, a United States wide database linking children's outcomes in adulthood back to the neighbourhood in which they grew up.

The Opportunity Atlas shows that neighbourhoods influence social mobility at a very granular level, down to a few block radius. Places that produced good outcomes for children in the past generally continue to do so, even a decade later. Moving to a high-opportunity neighbourhood earlier in childhood is associated with higher lifetime earnings on average of USD $200,000, and lower likelihood of incarceration and teenage births. However, an important take away is that neighbourhoods produce good outcomes for one sub-set of children and may not replicate the same success for others i.e. across racial groups and genders.

The Opportunity Atlas reveals that historical data on children's outcomes is a powerful indicator of children's chances of upward social mobility. Families should look at moving to areas that are opportunity bargains: affordable neighbourhoods that produce good outcomes for children. Policymakers should support families in making this move, but also target policies in low-opportunity areas at particular sub-sets of children who fare the worst.

Source: Chetty et al (2018) The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility

Notes

[1] The OECD Child Data Portal provides data on all child material deprivation dimensions, including educational deprivation, low-quality housing and poor environmental conditions: http://www.oecd.org/els/family/child-well-being/data/.

[2] In European countries, the EU-SILC child material deprivation indicators measure and compare the living standards of children in different households and the relevant household level material deprivation items that have a direct effect on children's living condition. This includes items with a direct bearing on children's standard well-being (e.g. inadequate home heating), but also items that may have an indirect or future impact on children's well-being (e.g. ability to replace a car for families living in remote areas) (Eurostat, 2012[132]). In the US, there is no multidimensional poverty indictor applied. Household poverty is measured through the official poverty measure and the supplementary poverty measure, which takes into account government programmes that assist low-income families and individuals that are not included in the official poverty. Together these measures are used side-by-side for comparisons to determine poverty thresholds, measurement units, threshold adjustments, and what counts as resources (Erickson et al., 2019[6]).

[3] Numerous studies have confirmed the association between adverse childhood experiences (ACE) and poorer adult health and well-being outcomes. The seminal study undertaken by (Feletti and al, 1998[137]) used seven categories of ACE to evidence that childhood adversity is strongly interrelated and that multiple ACE increase the likelihood of multiple health problems in adulthood. (Radcliff et al., 2019[7]) employed an eleven-question ACE module, capturing parental substance misuse, poor parental mental health, household incarceration, parental separation, exposure to intimate partner violence, and experiences of abuse, and an additional question on childhood homelessness.

[4] Obesogenic environments are aspects of the environment – physical, social and economic – that favour obesity, such as price dynamics and the availability of certain food types.

[5] The social multiplier effect is the clustering of overweight and obesity within households, social networks, and possibly other levels of aggregation.

[6] The definition of psychological violence applied in the FRA survey takes into account 17 forms of psychological violence. These include psychologically abusive behaviour and other forms of psychological violence such as controlling behaviour, for example trying to keep a woman from seeing her friends or visiting her family or relatives, and economic violence, such as forbidding a woman to work outside the home, blackmail and belittling.

[7] A socio-economically disadvantaged student is a student in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) within his or her own country/economy.

[8] Socio-economically disadvantaged schools are defined as schools in the bottom quarter of the distribution of the school-level PISA index of economic, social and cultural status within each country/economy. Socio-economically advantaged schools are defined as those in the top quarter of the distribution of the index.

[9] Blue-collar workers are defined in PISA as skilled agricultural, forestry and fishery workers (ISCO-08 category 6), craft and related trades workers.

[10] White-collar workers are defined in PISA as managers, professionals and technicians and associate professionals.

[11] Concentrated poverty refers to the percentage of income-poor households living in a particular area. High-poverty neighbourhoods contain a high concentration of households living under the poverty line. In the United States, high-poverty neighbourhoods typically have in excess 40% of households living under the poverty line. Low-poverty neighbourhoods are more mixed socio-economically and have less than 10% of households under the poverty line (Leventhal and Dupéré, 2011[128]).

[12] The demographic factors in the study included level of concentrated neighbourhood poverty and racial composition.

[13] Social capital is the links (personal relationships, social network supports and civic engagement), shared values and understandings (trust and cooperative norms) in society that enable individuals and groups to trust each other and so work together (Scrivens and Smith, 2013[133]).

[14] Collective efficacy is an active process involving an expectation of successful collective action for a common good, derived from informal social control (i.e. neighbour's ability to influence each other) and social cohesion (i.e. mutual trust and solidarity among neighbours). It mediates the impact of neighbourhood resources (or lack of), social organisation, and density of social ties on rates of violence and well-being (Sampson, 2012[112]).

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4 Building resilience: policies to improve child well-being

This chapter builds on the insights gained in the previous chapters and identifies six policy areas around which child well-being strategies could be organised. They are policies empowering vulnerable families; policies strengthening children's emotional and social skills; child protection policies; policies improving educational outcomes; and policies improving health outcomes.

Introduction

The previous chapters analysed the various individual and environmental factors contributing to child vulnerability. In summary, child vulnerability is the outcome of the interaction of a range of individual and environmental factors that compound dynamically over time. This chapter identifies six policy areas around which child well-being strategies could be organised These policies reduce the barriers to healthy child development and well-being (risk factors) and increase opportunities and resources (protective factors), thereby building resilience. The chapter presents a selection of best-practice programmes and policy initiatives suited to building resilience in children that have been recently implemented in OECD countries.

Which policies can empower vulnerable families?

Provide opportunities for parents to gain parenting skills, knowledge and resources

Vulnerable children and their families benefit from access to a range of services aimed at reducing stressors and building protective factors to promote healthy child development and well-being. These family services are often publically provided or community-led and tend to invest in crisis interventions over preventative and early intervention (Lonne et al., 2008[1]).

By helping families with day-to-day tasks and parenting skills, **family-based interventions** can prevent or remedy dysfunctions that are harmful to child well-being and development. Family-based interventions play a crucial role in improving children's living environments, and are important for parents with limited access to material and/or cultural resources to help children learn and develop (Acquah and Thévenon, forthcoming[2]). They are particularly relevant for meeting the specific needs of individual children, building parental capacity and reducing stress and hazards in the family environment. Although the benefits of these programmes can be considerable, so too can be the costs (Michalopoulos et al., 2017[3]).

Home visits following the birth of a child reach families who would otherwise lack the information or social capital to use the services to which they are entitled. Certain vulnerable groups, such as young first-time mothers and parents with intellectual disabilities, benefit from this intensive support. The *Nurse-Family Partnership* is an intensive programme delivered in the United States by specially recruited and trained nurses who visit first-time teenage mothers from early pregnancy until their child reaches two years of age. During visits, mothers receive information on prenatal health care and child development and learn to respond sensitively and competently to their children's needs. Evidence shows that this type of programme has positive effects on child cognitive development, well-being and school achievement (Olds et al., 2004[4]) (Robling et al., 2016[5]), and reduces exposure to intimate partner violence (Mejdoubi et al., 2013[6]) and child maltreatment (Olds et al., 1986[7]). Parents with disabilities may find it more difficult to provide adequate care and need support in acquiring basic parenting skills. A review of randomised control trials on in-home training interventions for parents with intellectual disabilities in Australia, Canada, the United States and the Netherlands suggests that such programmes can improve safe home practices and the recognition of childhood illness, and reduce parental stress (Coren, Ramsbotham and Gschwandtner, 2018[8]).

Group-based parenting programmes can help parents gain a better understanding of child development and learn more effective and consistent discipline methods. There is evidence that parenting programmes can have moderate effects on children's behaviour over time (Mingebach et al., 2018[9]). An example in a number of OECD countries is the *Incredible Years programme*, delivered through weekly group sessions for parents of children up to 12 years of age. A New Zealand study on this programme found clear evidence at the six-month follow-up of child behaviour changes and improvements in parenting behaviour and family relationships. Effect sizes in parenting behaviours and family relationships were smaller than the effect size in child behaviour, suggesting that small changes in parenting and family relationships produce

substantial improvements in child behaviour. Broadly similar gains were recorded among Māori and non-Māori children, though evidence suggests that Māori families could benefit from further support to maximise gains in improved child behaviour (Sturrock et al., 2013[10]).

The OECD is building an inventory of family services to support parents in the raising and care of children. This inventory also compares the policies implemented to assist the development of these services. Overall, the aim is to strengthen the implementation of evidence-based family support programmes and the more efficient use of resources. This inventory will be available from the second half of 2020.

Work together with families to reduce specific risks to child well-being

Policy needs to respond to specific family-level risks to child well-being such as intimate partner violence (IPV) and high family stress.

IPV **interventions that work jointly with children and parents** yield positive results for both. For example, the *Community Group Programme*, run in both Canada and the United Kingdom, helps children process their family experience of IPV through psycho-education delivered in separate groups to children and mothers over a 12-week period. A UK evaluation of the programme found that participating children developed better safety strategies (e.g. not to intervene in fights and to seek help from neighbours) and learned to prioritise their own well-being. Mothers found the programme helpful for learning how to move on from violent relationships and to strengthen parent-child relationships (Nolas, Neville and Sanders-McDonagh, 2012[11]).

The *Caring Dads: Safer Children* (CDSC) programme, also run in Canada and the United Kingdom, motivates men who have perpetrated IPV to change their behaviour by focusing on their roles as fathers. The programme comprises three interventions over a 17-week period: group work with fathers, partner engagement and coordinated family case management. Programme participation is linked with a reduction in reported IPV, reduced parental stress for fathers, and improvements in children's feelings of safety, although some men continue to pose a risk. Delivering the programme effectively relies on project workers having strong skill sets and good relationships with external agencies (McConnell, Barnard and Taylor, 2017[12]).

Invest in communities to support vulnerable families

Some OECD countries operationalise **whole-community approaches to early intervention and prevention**. In Australia, *Communities for Children Facilitating Partners,* present in 52 disadvantaged communities, aims at improving the health and well-being of families and the development of young children from birth until 12 years by delivering early intervention and prevention services including parenting support, group peer support, case management, home visits, community events and life skills courses. A minimum of 50% of the budget is allocated to evidence-based programming (ACIL Allen Consulting, 2016[13]). A review of the programme's initial implementation stage (2004-2009) found small but positive effects on children, families and the community; improvements in child behaviour and social, motor and language skills; successful transitions to mainstream services; increased parenting and coping skills; improved parental attitudes towards children; higher levels of reported neighbourhood social cohesion; and increased interaction between local agencies (Muir et al., 2009[14]).

In the United States, *Strong Communities for Children* (SC) develops neighbourhood-based child protection systems to support families, making child protection a shared responsibility. Rather than specific interventions, the model is based on a set of guiding principles, for example integrating support into settings where children and families are normally found, broadly mobilising community residents and leaders to become involved, and providing support universally and in non-stigmatizing ways. An evaluation measuring the model's effect in SC communities and control communities showed gains in social support

and collective efficacy, improved perceptions of neighbours' parenting, decreased parental stress, and a small decrease in child maltreatment (McDonell, Ben-Arieh and Melton, 2015[15]).

In the United Kingdom, *Sure Start* centres support children's school readiness, health, and social and emotional well-being by providing services to families in socially-disadvantaged areas who have high support needs, including early childcare and education, health services and parenting and employment advice. Evaluations of programme outcomes showed reductions in family disorganisation and parental stress, and improvements in home learning environments and parent-child relationships. For children aged 5-11 years, long-term health benefits were captured through reductions in hospital admissions and fewer infections among younger children (possibly because increased interaction with other children strengthens immune systems; the centres also support immunisation). Among older children (10-11 years), injury-related hospital admissions decreased by 30% (Cattan et al., 2019[16]; Sammons and et al, 2015[17]).

Which policies can strengthen children's emotional and social well-being?

Enhance the role of schools in promoting good emotional and social well-being

Education systems play a primary role in supporting children's emotional well-being and identifying and assisting students who need support.

Promotion of emotional well-being in school environments differs between and within OECD countries. Twenty out of 24 countries responding to the OECD's *21st Century Children Policy Questionnaire* reported that emotional well-being is covered in existing teacher education training and professional development, though many respondents could not describe, as a general rule, how teachers dealt with emotional well-being in practice given existing regional, teacher and school autonomy (Burns and Gottschalk, 2019[18]).

On top of teacher training, schools can promote emotional and social well-being by providing students with opportunities to develop social and emotional skills. Many countries have already integrated social and emotional skill development into their national and sub-national curricula (Provide timely and accessible early intervention for children with mental health difficulties

Improving outcomes for children with mental health difficulties requires timely access to early intervention and treatment. This requires building partnerships between the professionals involved in children's lives, sharing knowledge and information on local services.

Table 4.1). For example, Norway has introduced building life-skills and learning about mental health as a cross-curricular theme. Ireland has introduced a framework for use in early years and primary school settings to promote well-being and a sense of identity and belonging (Burns and Gottschalk, 2019[18]).

Some countries have gone a step further by developing emotional well-being frameworks drawn up by central governments and implemented locally. These often integrate health services, with increased focus on strengthening the protective factors and resilience of children through different aspects of the school environment (Burns, 2019). For example, the *Australian Student Wellbeing Framework* concentrates on five areas (leadership, inclusion, support, student voice and partnerships) to support school communities in building positive and inclusive learning environments.

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Table 4.1. Integrating social and emotional skills into the curriculum – selected examples

	Programme	Type	Skills and content addressed
Ireland	Aistear (Early Childhood Curriculum Framework for children from birth to 6 years)	Curricular	• For use in early years and primary school settings • Themes: Well-being and Identity and Belonging • Developing secure attachments, becoming emotionally strong and developing resilience to deal with challenges and difficulties
Ireland	Social Personal and Health Education (SPHE) curriculum	Curricular	• Developing self-awareness to build self-esteem and awareness of diversity for more meaningful connections in school and life
Norway	Curriculum reform and legislation regarding the School Health Service (2017)	Curricular and regulatory	• Introduction of life skills and learning about mental health as a cross-curricular theme • Lay out guidelines clarifying the professional requirements regarding organisation, number of health workers/nurses and professional standards
Portugal	Student Profile by the End of Compulsory Schooling (Perfil dos Alunos à Saída da Escolaridade Obrigatória, PA)	Curricular	• Development of Interpersonal relationships and aims to help students recognise, express and manage emotions, build relationships, and respond to personal and social needs
Scotland	Health and Well-being area (Curricular for Excellence)	Curricular	• Developing self-awareness, self-worth and respect for others • Meet challenges, manage change and build relationships • Build resilience and confidence (for dealing with school-related anxiety and stress) • Developing well-being and social skills • Acknowledge diversity and learn how to challenge it
Korea	Child Welfare Act, School Health Act, Character Education Promotion Act	Curricular and regulatory	• Strengthen character education as a way of addressing school-related stress

Source: Adapted from 21st Century Children Policy Questionnaire (Burns and Gottschalk, 2019[18]).

A good example is the United States' *Healthy Students, Promising Futures* toolkit, which compiles information on resources, programmes and services offered by non-governmental organisations in different states to outline high-impact opportunities. In New Zealand, the Ministries of Health and Education, the Ministry for Children and non-governmental organisations have collaborated to provide schools access to social workers, youth workers and nurses. Nurses carry out a HEEADSSS (Home, Education, Eating, Activities, Drugs and Alcohol, Suicide and Depression, Sexuality and Safety) wellness assessment for students in the first year of secondary school to identify any medical or mental health issues and refer students for further treatment.

Early intervention services can be more effective if delivered at the community level (Castillo et al., 2019[19]). An example is Ireland's *Jigsaw project*, a prevention and early intervention service aimed at young people (12-25 years) with mild to moderate mental health difficulties. The service is delivered across different sites, often in socially disadvantaged communities, with efforts made to engage the most vulnerable groups of young people. Jigsaw works to provide accessible brief counselling interventions (six sessions) and to increase local mental health literacy through youth-led action. Evaluation of Jigsaw

interventions found evidence of significant reductions in the level of distress experienced by young people and progress in setting and achieving personal goals (Community Consultants, 2018[20]).

Many youth services offer online or "e-counselling", for example Australia's *eHeadspace,* which allows young people (12-25 years) to connect with trained counsellors through online chat and e-mail. The plus side of e-counselling is that it increases service accessibility and geographical reach and provides an alternative to face-face contact, which some young people may prefer. After engaging with the service, typically after a few sessions, a more thorough assessment is completed with the young person to draw up a treatment plan. An evaluation of the effectiveness of *eHeadspace* found a small but significant correlation in the reduction of psychological distress (Dowling and Rickwood, 2014[21]). The longer a young person engages with the service, the more beneficial it may be. Retaining young people over the longer term is a challenge for online services in general.

Ensure smooth transitions of young people onto adult mental health services

Clear policies can aid the successful transition of vulnerable young people from child and adolescent mental health services (CAMHS) into adult services and avoid discontinuity of care. This entails specific policies such as the development of youth-tailored care pathways and standardised assessment frameworks for young people approaching the transition age-boundary. Importantly, policies should incorporate the inclusion of young people and their families in the care planning process (Signorini et al., 2018[22]).

The UK's National Institute for Health and Care Excellence (NICE) Guidelines support the planned transition of young people to adult services. These guidelines require CAMHS to provide direct support to young people who are failing to engage with adult services. The Guidelines include the allocation of one consistent social worker from the transition assessment and planning process through to the first review of care and until the support plan has been completed by adult services (NICE, 2016[23]).

Provide opportunities for vulnerable children to build relationships with supportive adults and role models

Mentoring is a popular and longstanding intervention for vulnerable adolescents. **Mentoring programmes** match adolescents with positive adult role models who support them in taking part in productive activities and committing to socially appropriate personal goals (Whybra et al., 2018[24]). Successful mentoring is associated with higher subjective well-being, greater sense of belonging within the family and community, and resilience during episodes of adversity (Devlin et al., 2014[25]).

Two of the better-known mentoring programmes are *Big Brothers Big Sisters of America* (United States) and the *Youth Advocate Programme* (Ireland, the United Kingdom and the United States). In these programmes an adult role model is selected based on common interests and trained to work with an adolescent for an agreed period of time. The effectiveness of mentoring is strongest for adolescents exposed to high environmental risks (e.g. maltreatment, peer rejection and parental separation and abandonment), and those with behavioural and conduct problems. Research suggests that this type of intervention works best if the young person is working to improve outcomes across a number of areas in life and when mentors are properly screened and trained (Dubois et al., 2011[26]).

Provide vulnerable children with access to extra-circular activities

Organised sporting activities can foster positive outcomes in vulnerable children through developmentally appropriate tasks and positive child-adult relationships (Lubans, Plotnikoff and Lubans, 2012[27]). Sport helps children learn how to follow rules, develop self-control and conflict resolution skills, and cope with disappointment. There is evidence that participation in sport is a protective factor against

youth delinquency. OECD evidence shows that one in three children in European OECD countries does not have the opportunity to regularly participate in leisure activities.

In the Netherlands, AJB, a sports-based programme funded through the Ministry of Security and Justice targeted at adolescents at risk of developing delinquent behaviours, has had a positive impact on youth behaviour with observed decreases in aggressive behaviour, better acceptance of authority and resistance to peer pressure, and improved educational performance. The success of this programme was correlated to the level of education of coaches and how they built relationships with young people (Spruit et al., 2018[28]).

Research suggests that opportunities to develop musical and artistic abilities benefit vulnerable children's school performance and socio-emotional skills. In the United States, a randomised control trial was conducted to examine the benefits of the introduction of **arts education** (*Houston Arts Access Initiative*) through community art partnerships to 3rd to 8th grade children (8 to 14 year-olds) with limited exposure to cultural activities. Over 10,000 children in 42 schools were provided with substantial arts education inputs over the course of an academic year. The findings showed significant reductions in the number of students receiving disciplinary infractions, and improvements in writing achievement, school engagement and level of compassion for fellow students (Daniel Bowen, Kisida and Roeder, 2019[29]).

Empower children online and build digital resilience

The digital environment presents both opportunities and risks for children. Preparing children for the digital society needs to begin early, in families and schools where parents and teachers equip children not only with cognitive skills but also with **digital resilience,** defined as the ability to manage the risks and opportunities of going online (Hooft Graafland, 2018[30]; Hatlevik and Hatlevik, 2018[31]).

Parents' involvement in their children's digital education is increasingly important, as many children first access digital devices at home. When parents lack the skills required to help children manage their online activity, others need to step in to build children's digital resilience and avoid further exacerbating digital inequalities. Digital inequality is not only about access to ICT but also about how it is used. PISA 2015 data shows that advantaged students and disadvantaged students use ICT differently: advantaged students use it more to access news (70%) and obtain practical information (74%), in comparison to disadvantaged students (55 and 56% respectively).

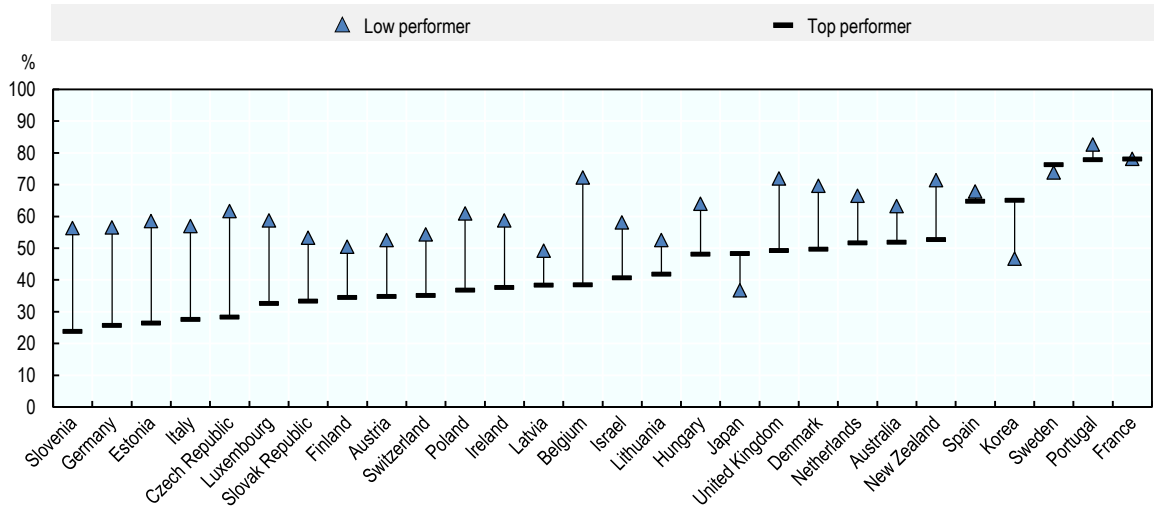
The digital environment can sometimes reproduce and amplify harmful behaviour that exists outside the digital sphere (Livingstone et al., 2011[32]). Cyber-stalking, online harassment and cyberbullying are only a few examples of such behaviours. Tackling these problems requires a coordinated response from parents, schools, social media and tech companies, as well as lawmakers. This multi-stakeholder approach is key, as children from disadvantaged homes are more likely to have parents with lower digital skills, and those parents less likely to be involved in their schooling. This makes the involvement of schools and the broader community even more important for building digital resilience and skills more generally (Burns and Gottschalk, 2019).

The increasing use of new technologies and devices has triggered fears that they may harm well-being in other ways, including negatively affecting users' mental health. This link is proving difficult to establish, however. To date, the research suggests that moderate use of digital technologies seems mostly to have beneficial effects on mental well-being, with no or excessive use having small negative consequences. The impacts of new technologies and devices on mental health may vary significantly across children. Highly skilled individuals are likely to be better informed about the risks associated with extreme usage of technology and to pay more attention to screen time and use of personal devices. Data from PISA suggest that top-performing students are less likely to feel bad without an Internet connection. On average across OECD countries with available data, 45% of students with top performance in reading, mathematics and

science reported negative feelings in the absence of an Internet connection, in contrast to 62% among low performers (Figure 4.1).

Figure 4.1. Feeling bad without Internet connection, by students' performance

Percentage of students who reported to agree or strongly agree to feeling bad without an Internet connection, 2015



Note: Students who are low performers are students who score at less than Level 2 in the reading, mathematics and science assessments. Level 2 is considered to be the baseline level of proficiency in reading, mathematics and science. Students who are top performers are students who are proficient at Level 5 or 6 in reading, mathematics and science. Shares for countries with less than 100 observations available for top or low performer categories are not reported in the figure.
Source: OECD (2019), "Feeling bad without Internet connection, by students' performance: Percentage of students who reported to agree or strongly agree to feel bad without Internet connection", in OECD Skills Outlook 2019: Thriving in a Digital World, OECD Publishing, Paris, https://doi.org/10.1787/b707fe08-en.

Parents' digital skills and awareness affect the types of opportunities and threats their children experience online. Digitally skilled parents are more likely to have an enabling approach to Internet use, encouraging their children to explore and learn things online and sharing online activities them, but also explaining the inappropriate nature of some websites (Livingstone et al., 2017[33]). While such a strategy may also expose children to more risks, it also enables them to develop resilience and be better prepared to grapple with risks when they arise. Policies that seek to minimise digital inequalities as well as the risks faced by children and adults online should also aim to boost parents' and children's digital skills, using skills development as levers.

On another hand, increasing evidence suggests parental use of mobile devices adversely affects child-parent interactions. In the United States, 51% of US adolescents (13-17 years old) said their parents were "often" (14%) or "sometimes" (34%) distracted by their cell phone during attempts to have a face-to-face conversation (Pew Research Center, 2018[34]). Parents who use smartphones during parent-child play are usually less sensitive and responsive to their children, verbally and non-verbally, and children are more likely to engage in potentially harmful attention-seeking behaviours (Kildare and Middlemiss, 2017[35]). More longitudinal studies are needed to assess robustly how these changes in parent-child interactions affect children's long-term socio-emotional skills development, and whether the context in which

interactions take place (e.g. during meals, playtime, vacation) or the type of mobile phone activity engaged in by the parent make a difference (Burns and Gottschalk, 2019[18])

Teachers and schools are natural candidates to support the development of digital skills and resilience. To ensure education systems are able to adapt to new requirements, professional development programmes need to prepare teachers and school to educate students on online safety and privacy, understand the implications of some online behaviours and identify various forms of online harassment that build up in schools. Integrating online safety or digital citizenship responsibilities in the curriculum can also be considered, although more evaluations are needed to establish the effectiveness of such interventions (Hooft Graafland, 2018[30]). Beyond education systems, policy makers could also consider a co-ordinated regulatory response to child protection and better measuring and monitoring of existing policies (OECD, 2018[36]).

The OECD is currently reviewing the 2012 OECD Recommendation on the Protection of Children Online with a view to updating these recommendations to reflect persistent, evolving and emerging risks. For example, although cyberbullying was a definite concern in 2011, in 2017 an OECD country survey showed that it was now the highest priority for member countries. Issues that did not yet exist or were not highly visible during the 2011 consultation, such as sexting or sextortion, are now common. Although government action is moving in the right direction, the policy environment is very fragmented and without a sufficient understanding of the impacts of policy and legalisation. International and regional cooperation is key in addressing the cross-border challenges of digital participation.

Which policies can strengthen child protection?

Make child protection services more child-centred and accessible

Child protection services should offer support to vulnerable families to prevent poor outcomes for children and exercise their mandated power to intervene when children are in real need of protection. The key tenets of child protection legalisation and policies in the OECD include safeguarding children from maltreatment, promoting children's best interests and family preservation. OECD countries operate different types of child protection services that in general fall between 'child protection system' and 'family welfare system' approaches. A child protection system approach operates high thresholds for interventions and focuses on preventing and stopping serious harm. A family welfare system approach aims to promote a healthy childhood and prevent serious harm though universally accessible services (Križ and Skivenes, 2014[37]).Australia, Ireland, New Zealand, the US and the UK and operate closer to the child protection systems approach whereas in Denmark, Finland and Norway operate closer to the family welfare system approach (Pösö, Skivenes and Hestbæk, 2014[38]).

Child protection services should be accessible to children and families in need. Some countries have made efforts to become more accessible and provide more appropriate responses by adopting the differential response (DR) model, for example Australia, Ireland, New Zealand and the United States. An overarching aim of DR is to facilitate a more nuanced approach to working with vulnerable families and to extend access to services to lower-risk families and to families who voluntarily accept help. DR involves a differential two-pathway approach; one directing families to support services like parenting support (alternative response) and the other to child protection investigations (investigative response). The approach requires strong initial screening and assessment tools to identify which pathway is the most suitable for families (Merkel-Holguin and Bross, 2015[39]). Assessing the effectiveness of DR is problematic as evaluation studies are limited by the use of narrow child protection indicators (like rates of re-referrals to CPS) and focus on substantiated incidences of child maltreatment rather than measuring positive changes in family functioning and child well-being. Moreover, some evaluations have included high-risk families, whose needs the DR system was never designed to meet and therefore much less likely to help (Conley and Duerr Berrick, 2010[40]).

Vulnerable children receive a better service when all agencies involved in children's lives, such as schools, hospitals, child protection, and the police, work together. In New Zealand, the Ministries of Health, Education, Social Development, Justice, Oranga Tamariki (child protection and youth justice agency) and the police must develop and publish an *Oranga Tamariki Action Plan*, which is a plan for how agencies will work together to improve the wellbeing of children in or on the cusp of entering the care and protection or youth justice system as well as those young people up to the age of 25 who are transitioning out of the system. The aim is to ensure that these children and young people receive the right level of support, at the right time, in every area of their lives.

Invest in improving outcomes for children in out-of-home care

Harmonised data on children in out-of-care would contribute to raising outcomes of these very vulnerable children by facilitating policy development in OECD countries of similar child protection systems and informing evidence-based policymaking. At a minimum, data should include trends in numbers coming into care, reasons for care admissions, and care placements types. Data should also capture the effect of out-of-home care on the different dimensions of child well-being.

Enhance the well-being of children placed in out-of-home care requires, greater investment is needed in resources that build protective factors. Overall, better outcomes for children in out-of-home care are associated with reception into care at a younger age, minimal care and school placement disruptions, placement in kinship or foster care, maintenance of positive contact with birth family, and the continued support of an adult after ageing out of the care system (Akister, Owens and Goodyer, 2010[41]; Frechon, Breugnot and Marquet, 2017[42]; Gypen et al., 2017[43]).

Supporting kinship care keeps children with their families, can contribute to better outcomes. In kinship care children are cared for by relatives, such as grandparents or aunts and uncles, whose desire to keep children within the family can motivate their commitment. Empirically it is sometimes difficult to distinguish the effect of kinship care on child well-being. In the United States, a change in policy towards a preference for kinship care in some states has shown evidence that kinship care contributes to better child protection outcomes: shorter care admissions, less placement disruptions, and decreased likelihood of future maltreatment by a caregiver (Hayduk, 2017[44]).

It is very important to provide kinship families with financial and emotional support and training opportunities to develop the skill sets to meet children's high needs. CPS should ensure that all kinship families have access to support workers. A good example of training in the United States is *Keeping Foster and Kin Parents Supported and Trained* (*KEEP*), which helps carers to learn and implement strategies to manage challenging behaviours and to create a nurturing home environments. This has been shown to improve children's behaviour, which in turn contributes to placement stabilities (Chamberlain, 2017[45]).

Policies should support contact between children in out-of-home care and their family of origin; however, not all contact is good for children. Decisions around contact should be made on a case-to-case basis. Moreover, the wishes of children should always be considered. Contact can be harmful if it is poorly planned, of poor quality, and/or poorly supervised. CPS can influence the quality of contact by supporting parents and children –before and during- to make full use of this time (Sen and Broadhurst, 2011[46]).

Countries should have aftercare policies in place to support the transition of young people ageing out of the care system. This entails a statutory entitlement for assistance until reaching a particular age and/or completing education and training. In recent years, some OECD countries have strengthened access to aftercare services, for example France, Ireland and Scotland (United Kingdom) and New Zealand. In France aftercare policies are decided on and operated at a local level. This means that the support young care leavers can accept to receive depends much on where they reside. In New Zealand, there are provisions to allow young people to remain or return living with a carer until 21 years of age and to access transition support and advice until 25 years of age.

The quality of out-of-home care and the opportunities provided to build human and social capital influence the level of support young care leavers need. Young care leaver may need assistance with matters that other young people can rely on their family for, such as advice and support, and help securing accommodation and employment, and attending medical appointments. They also need reliable contact with positive role models. Specific evaluation on support programmes for young care leavers to inform policy are needed as much of the programme evaluations has focused more broadly on vulnerable young people.

Young care leavers are at higher risk of experiencing homelessness (Fowler et al., 2017[47]). In the US, an evaluation of *First Place for Youth service*, which works on reducing homelessness among young care leavers aged 18 to 24 years by providing accommodation and intensive case management, concluded positive preliminary outcomes (within first six months- year of service induction). The goal of the service is to engage the young people over an 18-month period minimum in building positive life skills, including maintaining stable accommodation, accessing education and/or employment and to improving well-being. In summary, the evaluation found that 68% enrolled in education, 72% were employed, greater self-reported security, safety and quality, and less self-reported depression and greater positive social supports. These outcomes are higher than usual for this population. The relationship between young person and allocated keyworker was a central part of these changes (Goldsmith et al., 2012[48]).

Which policies can improve children's education outcomes?

Increase participation of vulnerable children in early childhood education and care

Participation in early childhood education and care (ECEC) can be an important protective factor in the lives of vulnerable children. A number of countries have defined education policies specifically to increase children from lower socio-economic backgrounds. In Scotland (UK), 2-4 year-old children from disadvantaged families are entitled to 16 hours of free provision per week (600 hours/year) since 2014, above the normal number of hours of free provision of around 12 hours per week. In the Netherlands, targeted programs for children from disadvantaged backgrounds (age 3 and 4) are available in both childcare and playgroups. In some municipalities of the country, those target-group specific programmes are free (OECD, 2017[49]).

Norway offers an interesting example of a country that implemented a series of measures aimed at improving the enrolment rate of children from lower socioeconomic backgrounds in ECEC. Despite a significant reduction of the amount of parental fees for ECEC between 2004 and 2014, parental fees still appeared as a disincentive for participation in ECEC for more disadvantaged families (Moafi and Bjørkli, 2011[50]). Authorities in Norway reacted by implementing several policies to remedy this situation. In 2015, a regulation capping the maximum annual fee for ECEC participation at not more than 6% of the family income was introduced. In addition, children aged 4 and 5 were given the right to 20 free hours of preschool per week, a measure extended to 3 year-old one year later. Finally, the grant given to municipalities for outreach programmes to families with low socioeconomic and minority backgrounds was increased by 118, 000 USD from 2016 onward (OECD, 2017[49]).

Research on these measures have concluded the positive effect of these policies on the enrolment rates and the outcomes of children from low socioeconomic backgrounds. Preliminary findings on Norway indicate that the availability of 20 hours of free pre-schooling increased the participation of minority-language children by 15%, leading to better results on mapping tests in the first and second grade compared to areas with no intervention (i.e. no free preschool hours allocation) (Bråten et al., 2014[51]; Drange, 2015[52]).

Other studies have demonstrated that an effective policy consists in ensuring the socioeconomically diverse nature of the ECEC centre and avoid the concentration of children form lower socio-economic

backgrounds in the same centres. Research led in the US found that children from low-socioeconomic backgrounds who were integrated into ECEC programmes that are socio-economic diverse scored similarly to their peers from non-disadvantaged backgrounds, but only if they spoke only English at home. (Schechter and Bye, 2007[53]). A study comparing socioeconomically mixed preschools and targeted programmes in the Netherlands also found that disadvantaged children in mixed preschool and kindergarten classrooms gained more in literacy and math than disadvantaged children enrolled in programmes specifically targeted at them (de Haan et al., 2013[54]). Ensuring the socioeconomic diversity of preschools therefore appears as a promising way to allow vulnerable children to catch up on their peers.

Improve the quality of early childhood education and care vulnerable children receive

The magnitude of the benefits of **ECEC** for vulnerable children depends on the level of quality provided in ECEC services. Low-quality can be associated with no benefits or even detrimental effects on children's development and learning (Britto, Yoshikawa and Boller, 2011[55]; Howes et al., 2008[56]). Quality first includes characteristics of structural quality, such as the infrastructures of the centre and the available physical, human and material resources. These aspects are traditionally the easiest to regulate, through regulations of child-staff ratios for instance (Slot et al., 2015[57]; Barros et al., 2016[58]).

Other aspects of quality include the quality of the interactions between children and ECEC staff or among children, so-called **process quality**, which involves the more proximal processes of children's everyday experience in ECEC centres. Process quality covers the social, emotional, physical and instructional aspects of children interactions with staff and other children while being involved in play, activities or routines (Pianta et al., 2005[59]; Anders, 2015[60]; Barros et al., 2016[58]; Ghazvini and Mullis, 2010[61]). The shape of these interactions will then participate in creating an environment in which children feel safe and emotionally supported, in a way that allows their language and socialisation skills to develop.

Some studies brought evidence that an environment of high-quality childcare was more positively associated with school readiness and language skills for low-income 3-year-olds than for children of non-disadvantaged families (McCartney et al., 2007[62]). This positive association was in turn associated with a reduced achievement gap in maths and literacy through elementary school years (Dearing, McCartney and Taylor, 2009[63]). A study led in the UK found that participation in ECEC in centre-based care for children aged 9 months was associated with better cognitive skills at age 3 and 5, and that the effect was more than twice as strong for children of mothers with a low level of education (Cote et al., 2013[64]). Other studies led in the United States and Norway found that ECEC provision for lower-income children contribute to reduce inequalities in language acquisition of children from non-disadvantaged families (Duncan and Sojourner, 2013[65]; Dearing et al., 2018[66]).

However, greater positive effects of ECEC participation for children from lower-income families are not consistently found. Some studies show a positive impact of ECEC on cognitive outcomes for all children, but not more so for children from disadvantaged backgrounds. This could be explained by the fact that children from lower-income families are less likely to benefit from the highest quality ECEC (Ruzek et al., 2014[67]) as well as that ECEC complements the stimulation that children receive at home, and therefore unintentionally favouring advantaged students (Ceci and Papierno, 2005[68]).

Adopt measures to reduce inequity in education

Countries should create and reinforce policies and programmes that support disadvantaged students at the stages when inequity in education is most prevalent, ideally before inequity emerges. Countries could develop age-appropriate national assessments and conduct longitudinal studies to monitor inequities. Countries could also monitor the progress of disadvantaged students by setting progressive benchmarking points that account for equity in education. For example, to improve the academic performance of disadvantaged students, countries might want to distinguish between benchmarks based on national

criteria, such as reaching a certain share of disadvantaged students who achieve excellence by national standards.

Policies should focus on building teacher capacity to detect individual student needs, particularly in diverse classroom settings, to close the gap in cognitive and socio-emotional skills related to socio-economic status. Teacher capacity can be built by providing schools with specialised teacher support and training to equip teachers with stronger skills to identify and address learning difficulties, to develop more customised and effective teaching methods, and to foster self-esteem and positive attitudes among disadvantaged students. Furthermore, regular assessments to monitor individual performance can help teachers identify students who are struggling more effectively. These activities could be coupled with greater enthusiasm for personalised learning and the use of technologies that facilitate it.

Additional resources should be allocated to disadvantaged students and disadvantaged schools to equalise opportunities and educational achievement. Schools with larger shares of disadvantaged students require greater investments in both human and material resources. These investments include improvements to school infrastructure, teacher training and support, language-development programmes for immigrant students, tutoring and homework-assistance services, extracurricular activities, and customised instructional programmes to address the learning challenges unique to disadvantaged and minority students. However, it is equally important that school resources reach all students in need, particularly in school with large shares of disadvantaged students.

Policies should address the concentration of disadvantaged students in particular schools and proactively prevent further educational segregation. Importantly, policies need to counteract increasing residential segregation and the greater sorting of students by both ability and socio-economic status. Providing choice to parents without exacerbating segregation can be achieved through the introduction of specific criteria around the allocation of students across schools in the same catchment area. Schools can be incentivised to admit disadvantaged students, for example, by weighting the funds received by the schools, depending on the socio-economic profile of their student populations.

Policies should address the practical barriers against accessing school like tuition costs and availability of public transport. To avoid unfair competition between public and private schools, all publicly funded educational providers should adhere to the same regulations regarding tuition fees and admissions policies. As evidence has shown that attending a school with a large proportion of high achievers does not necessarily result in improvements in individual performance, parents should be provided by prospective schools the relevant information about which advantages, including a measure of the actual “value-added” i.e. whether those schools succeed in improving the performance of all of their students.

Prevent early school leaving and provide early action for school leavers.

Policies should provide intensive, targeted support to address the contributing factors behind early school leaving and youth unemployment. Young people who are not in education or employment (NEETs) are a diverse group. Nevertheless, particular factors including individual (e.g. mental health difficulties, disabilities and migrant background), family (e.g. low parental education, parental unemployment, and caring responsibilities) and school (e.g. low educational attainment, and limited opportunities for vocational training) increase the risk for young people of leaving school early and/or without the necessary skills to secure employment (OECD, 2016[69]).

To tackle the challenge of NEET effectively, countries must ensure that all young people obtain at least an upper secondary school degree that entitles them to pursue third level studies, or the opportunity to develop the vocational skills needed to succeed in the labour market. Policies need to ensure that the signs of school disengagement are detected early, and that young people at risk receive the support they need to complete their education. Strategies to keep at risk students in education yield the most promising results when the address problems at an early stage. Schools should systematically monitor school attendance

and keep key stakeholders, notably parents, child protection services and health services, informed to ensure that vulnerable students get the help that they need. Requirements to report attendance to the national education authorities can ensure that parents, schools and municipalities take non-attendance seriously. In Sweden, for instance, municipalities are required to report to the national education authorities on the situation of the young people identified as being at risk, and on what interventions have been tried, every six months.

Making specialised support staff available in schools is key to quickly identifying and addressing the challenges that vulnerable young people may face. Trained psychologists or social workers can be an important first point of call for students, parents and teachers when problems arise. Where schools lack the resources for such specialised staff, designated teaching staff who have received the appropriate training can provide important support (OECD, 2016[70]). In Norway, for instance, schools have the freedom to exempt teachers from some of their teaching duties so that they have the time to address with students and parents the reasons for school absenteeism. These teachers can take students who have concentration or behavioural problems for time out of the classroom for an hour, or drive out to a student's home in the morning to pick up a pupil who has failed to show up.

Well-designed after-school programmes can make a considerable contribution to the educational and social development of young people, and to staying on in school. Attractive opportunities for young people to engage in sports, learn a musical instrument or get involved in handicraft and other practical activities can help build social and professional skills, while countering the risk of isolation. Empirical evidence confirms the positive effects of extracurricular activities on schooling outcomes and career prospects (OECD, 2012[71]; Carcillo et al., 2015[72]), and these effects tend to be largest for youth from deprived backgrounds (Heckman, 2008[73]). As participation in private after-school schemes is often at the parents' initiative, however, the young people who take part in such activities tend to in most cases come from well-off backgrounds (OECD, 2011[74])

Quality vocational education and training can help smooth school-to-work transitions. The combination of classroom learning and practical training is an attractive learning pathway (OECD, 2016[70]). Yet, on average, slightly less than half of upper-secondary students in the OECD follow a VET courses, although proportions vary considerably between countries. Apprenticeship courses, which match students with private- or public-sector employers early on in the programme, typically for a period of several years, are often regarded as best practice. Apprenticeships may also be effective against early school leaving: they appeal to more practically-minded young people who may lack the aptitude to for further classroom-based learning, and reduce incentives to leave school for paid work. There is renewed interest in apprenticeship training due to the positive results produced by apprenticeship programmes – in particular favourable youth labour market outcomes- in countries with a tradition of strong apprenticeship systems like Austria, Germany and Switzerland. Countries are increasingly concerned with promoting the attractiveness and relevance of VET programmes to boost participation. A number of European countries, such as Italy and Spain, are working closely with Germany to reform their VET systems, and Korea introduced an apprenticeship system inspired by the German, British and Australian systems in 2014.

While the long-term goal of public policies is to help young people become independent, those on low-incomes, especially NEETs may require income support to avoid poverty. Only a few OECD countries operate income support benefits that exclusively targets young people. Instead, most countries provide access to income support programmes for working-age adults with the exception of Australia, which has a youth job-seekers allowance (16-21 years of age). The actual income support benefits for youth tends to be low because of both low coverage and benefit adequacy (OECD, 2016[70]).

Support the integration of migrant children in schools

Improving the coordination among different actors as well as the evidence basis on what works will help improve the impact and sustainability of policies supporting the integration of migrant children at schools.

OECD countries have used a range of responses to support the resilience of students with an immigrant background. Policy makers, civil society organisations, schools and citizens have helped support the educational integration of new arrivals and students with other migration profiles. This experience has led to a range of approaches in regards to integrating immigrant students and communities into the education systems of host countries. Insights from the OECD Strength through Diversity reveal that using a holistic approach that addresses not only academic proficiency but also well-being can be an effective way to support students with an immigrant background.

Grouping individuals based on their immigrant background can help target service delivery and support integration processes. However, this is not always possible, since immigrant populations may have rather heterogeneous characteristics, which could create barriers or fail to address dimensions important for an individual's well-being, development and integration. Students with an immigrant background can benefit from targeted support but care should be taken to avoid stigmatising individual children.

Education policies should take into account the different sets of vulnerabilities linked to migrant displacements. Considering the differences in social and emotional well-being between immigrant and native populations is crucial to sustaining integration in the long-term. Education systems can play important roles not only in providing migrant students with learning opportunities, but also in promoting their overall well-being. To do so, partnerships and collaboration among schools, hospitals, university and community-based services can help.

Schools and education system can address the multiple needs of refugee children by adopting a holistic approach aimed at supporting their academic, physical, social and psychological development. Refugee children often face a wide array of unique challenges, including the need to overcome interrupted or limited schooling and trauma. Providing individualised development plans and making use of diagnostic assessments can help account for non-standard learning pathways and build professionalism among the teaching community.

Unaccompanied minors and late arrivals with limited schooling can benefit from targeted educational programmes make the transition from school to work. One example is "*SchlaU-Schule*" in Munich, Germany, which enables unaccompanied minor and young adult refugees to secure secondary school leaving certificates through specially adapted individually based teaching and support in a close-knit school setting, and also their first work experience through internships. The scheme also provides post-school follow-up into mainstream education and the labour market.

School plays an important role in translating the high motivation levels of migrant students into a key asset for immigrant communities (see chapter 3). Schools can do this by strengthening migrant students' skills, providing new arrivals with educational and career guidance, and helping students and their families develop realistic short-, medium-, and long-term plans can be effective ways to ensure that immigrant students' motivation and ambition become key assets for their academic and personal outcomes.

Providing language support to ensure that migrants can learn the language of the host country and benefit from education and training opportunities is an essential part of their overall integration. At the same time, migrants' native languages are important assets in terms of their cultural identity. It is important for education systems to recognise this. Ways of doing so can include supporting plurilingualism, offering mother tongue tuition when feasible and appropriate, building the capacity of teachers to work in linguistically diverse classrooms, and promote opportunities for informal language learning.

Many immigrant children have lower socio-economic status and attend schools in disadvantaged classrooms. The adversity this creates can trigger differences in academic performances but also in the overall individual well-being. Reviewing resource allocations to provide greater support to disadvantaged students and schools can help overcome some of the socio-economic barriers facing immigrant students. Education systems could also consider what institutional and government services are available beyond

the education sector to work together in supporting immigrant students with disadvantaged socio-economic backgrounds.

As teachers are key actors for immigrant students to reach their full potential, they need the capacity to respond to the individual needs of their students. Providing initial teacher education and professional development that incorporate inclusive education and inter-cultural topics are ways in which countries have built the capacity of teachers to respond to diverse classrooms. Hiring professionals that reflect the student body can be another way to prepare teachers and school leaders for the increasing diversity found in schools.

Which policies can improve children's health?

Improve the quality and accessibility of pre-natal care for key groups

Broadening access to health insurance and family-planning services are very effective interventions for reducing poor neo-natal outcomes. For instance, the Medicaid expansion in the US in the 1980s increased health insurance coverage for pregnant women, and reduced the numbers of low-birth weight babies and infant mortality among low-income women. Research by (Currie and Gruber, 1996[75]) evidenced that increasing eligibility for Medicaid by 30 percentage points reduced the probability of a low-birth-weight birth by 1.9% and infant mortality by 8.5%. More recent work by (Sonfield, Gold and Benson, 2011[76]) focused on the effects of Medicaid (and other publicly funded) expansions of coverage for family-planning services in certain US states. Better access to family planning was associated with a reduction in unplanned pregnancies, less unprotected sex and improved continuity of contraceptive use. Better pregnancy spacing benefits pregnant women and babies by reducing the risk of low-birth weight, pre-term birth and small size for gestational age.

Support and advice on making positive health behaviour changes during pregnancy should be better targeted to specific groups of expectant mothers. Indeed, all expectant mothers may benefit from advice and information but certain harmful health behaviours are more prevalent among some groups of women, such as smoking during pregnancy among young women and those from socially disadvantaged backgrounds and ethnic groups. These women face unique barriers to quitting smoking, and individual behavioural counselling and reward-based cessation interventions have proven more effective (Scherman, Tolosa and McEvoy, 2018[77]). Again, poor nutrition during pregnancy is related to undernourishment and food insecurity, and low-income, low education and poor living conditions are factors. Certain nutritional programmes can be delivered effectively at the local level, for instance food-distribution systems, or national distribution of calcium supplements to at-risk women to reduce hypertensive disorders and pre-term births (Bhutta et al., 2013[78]). National and regional programmes to reduce pollution in certain regions, improve water quality, hygiene and sanitation conditions are particularly important for low-income mothers.

Routine pre-natal care should screen for individual and family factors that may have an impact on neo-natal health and parents' ability to meet infants' needs. These include intimate partner violence and parental drug and alcohol use. Evidence suggests that one-on-one counselling has some effect on reducing the risk of intimate partner violence during pregnancy and the early post-natal period (Jahanfar, Howard and Medley, 2014[79]). Drug use during pregnancy is a growing problem. Data from the US indicated that in 2013, 5.4% of pregnant women were using illicit drugs. The rate was higher among expectant mothers aged 18-25 years, although overall it is as common across socio-economic classes and racial groups. Multi-disciplinary approach to intervention is needed to help the mother stabilise drug use to minimise the risk of neo-abstinence syndrome (NAS), to implement standardised management of NAS and follow-up on the baby's discharge from hospital (Shukla and Gomez Pomar, 2019[80]). Overall, more research is needed on the effectiveness of these interventions on neo-natal and maternal health.

Social protection is a crucial policy element for the prevention of pregnancy-related problems. One study from Canada highlighted the association between the allocation of unconditional cash transfers to low-income pregnant women and the reduction in pre-term births, low birth weight and small gestational size (Brownell et al., 2016[81]). Universal simplified perinatal data-collection system with electronic feedback systems, and the improvement in facility-based perinatal care in regions with low coverage are among other recommended measures (WHO, 2014[82]; Rubens et al., 2010[83]).

Improve access to parental leave for low-income families and those with children with additional needs

The provision of paid family leave promotes good maternal health and child health and developmental outcomes. Paid family leave enables mothers to recover from pregnancy and childbirth and allows both parents to care for and bond with their child by providing time off around childbirth and during early infancy. Paid family leave also provides low-income families with time and the economic security to invest in children. In subsequent years, paid family leave may also facilitate parents to care for children when sick (Heymann, Toomey and Furstenberg, 1999[84]).

The OECD Family Database provides cross-national on family outcomes and family policies, including child-related leave. The duration of paid family leave and average payment rates varies across the OECD. For example, for paid maternity, Greece and the United Kingdom provided the entitlement at 43 weeks and 39 weeks respectively, while Canada, Portugal and Mexico are among a few countries that provide 100% payment rate (Research points to the positive impact of paid leave on child health, including lower infant mortality and a lower likelihood of low birth weight, although the evidence is mixed. Paid maternity leave gives mothers to have time at home to care for and bond with their baby. Sensitive and responsive caregiving are key for infant development and the formation of secure attachments with a primary caregiver. Research suggests that the quality of the infant-caregiver attachment influences children's neurophysiological, physical and psychological development . Analysis using Australian longitudinal data showed that the effects of paid maternity leave can be significant if the duration of leave is at least 6 weeks. Paid maternity leave reduces the incidences of childhood asthma and bronchitis and significantly increases the likelihood to breastfeed, the duration on breast-feeding and the likelihood of up-to-date immunisation . In Canada, the extension in 2011 of paid maternity leave from six to twelve months in 2011 increased the quantity of maternal care and duration of breastfeeding but had no consistent effect on self-reported child health outcomes .

Evidence from the United States on unpaid leave suggests inconsistent effects on child health outcomes. The introduction of 12 weeks of unpaid leave through the Family and Maternity Leave Act (1993) led to small increases in birth weight, decreases in the likelihood of premature birth and substantial decreases in infant mortality. However, these positive effects hold only for children of educated mothers and not for children of less-educated and single mothers who are less likely to be able to take the unpaid leave . Children whose mothers returned to work after the 12 weeks of unpaid leave were less likely to receive regular medical check-ups, to be breast-feed, and to have all of their DPT/Oral polio immunisations . OECD analysis on the introduction of paid family leave in the states of California and New Jersey on child immunisation uptake showed significant increases in young children receiving does and full vaccination series. Paid family leave has important effects on the immunisation of children in low-income households, however the effect is much weaker on children living in poverty than children living above or at the poverty line .

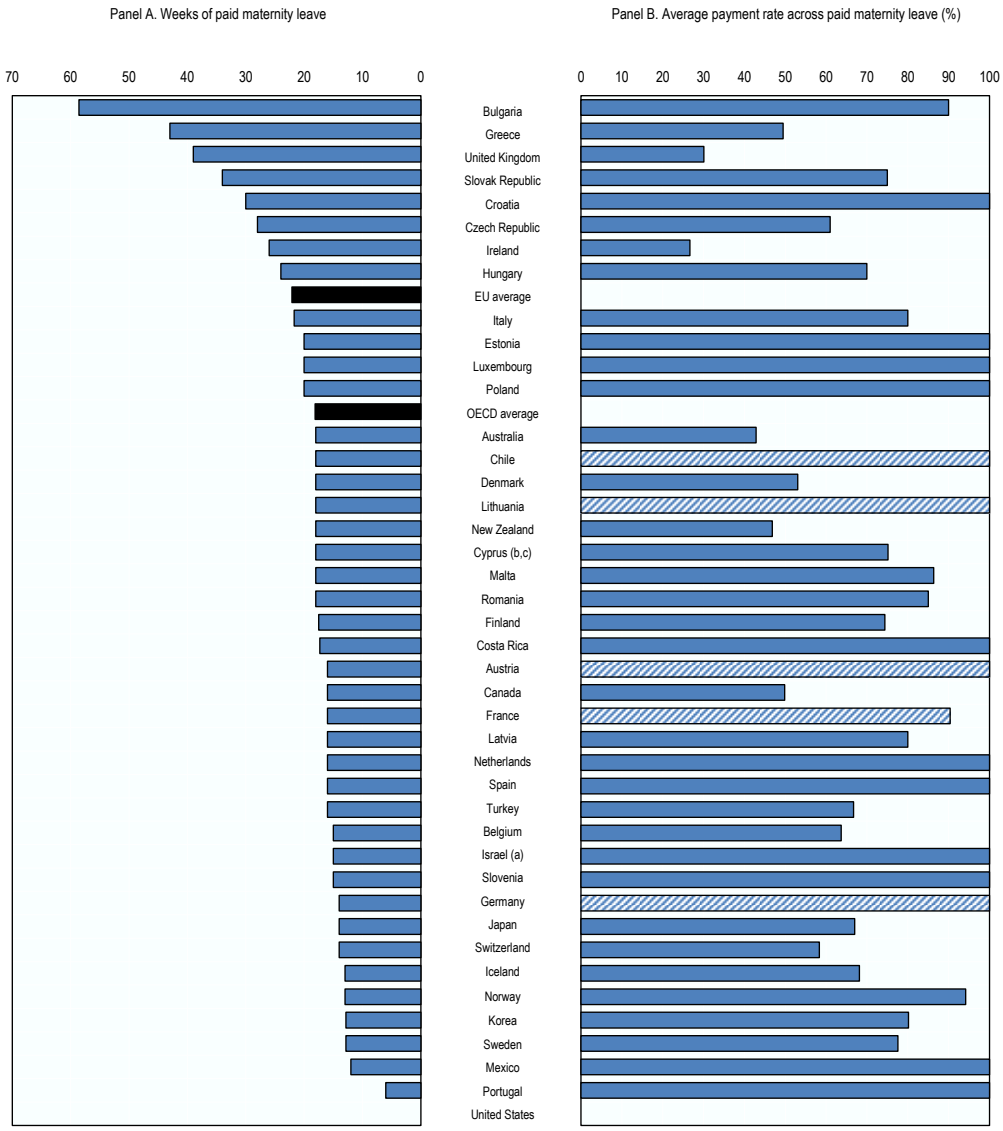
Figure 4.2).

Research points to the positive impact of paid leave on child health, including lower infant mortality and a lower likelihood of low birth weight, although the evidence is mixed. Paid maternity leave gives mothers to have time at home to care for and bond with their baby. Sensitive and responsive caregiving are key for infant development and the formation of secure attachments with a primary caregiver. Research suggests

that the quality of the infant-caregiver attachment influences children's neurophysiological, physical and psychological development (Cozolino, 2013[85]) (Shonkoff, Boyce and McEwen, 2009[86]). Analysis using Australian longitudinal data showed that the effects of paid maternity leave can be significant if the duration of leave is at least 6 weeks. Paid maternity leave reduces the incidences of childhood asthma and bronchitis and significantly increases the likelihood to breastfeed, the duration on breast-feeding and the likelihood of up-to-date immunisation (Khanam, Nghiem and Connelly, 2009[87]). In Canada, the extension in 2011 of paid maternity leave from six to twelve months in 2011 increased the quantity of maternal care and duration of breastfeeding but had no consistent effect on self-reported child health outcomes (Baker and Milligan, 2008[88]).

Evidence from the United States on unpaid leave suggests inconsistent effects on child health outcomes. The introduction of 12 weeks of unpaid leave through the Family and Maternity Leave Act (1993) led to small increases in birth weight, decreases in the likelihood of premature birth and substantial decreases in infant mortality. However, these positive effects hold only for children of educated mothers and not for children of less-educated and single mothers who are less likely to be able to take the unpaid leave (Rossin, 2011[89]). Children whose mothers returned to work after the 12 weeks of unpaid leave were less likely to receive regular medical check-ups, to be breast-feed, and to have all of their DPT/Oral polio immunisations (Berger, Hill and Waldfogel, 2005[90]). OECD analysis on the introduction of paid family leave in the states of California and New Jersey on child immunisation uptake showed significant increases in young children receiving does and full vaccination series. Paid family leave has important effects on the immunisation of children in low-income households, however the effect is much weaker on children living in poverty than children living above or at the poverty line (Adema, Clarke and Frey, 2015[91]).

Figure 4.2. Duration of paid maternity leave and the average payment rate across paid maternity leave for an individual on national average earnings, 2018



Note:Striped bars indicates payment rates based on net earnings. Data for Chile and Costa Rica refer to 2017. Data reflect entitlements at the national or federal level only, and do not reflect regional variations or additional/alternative entitlements provided by states/provinces or local governments in some countries (e.g. Québec in Canada, or California in the United States). The "average payment rate" refers the proportion of previous earnings replaced by the benefit over the length of the paid leave entitlement for a person earning 100% of average national full-time earnings. If this covers more than one period of leave at two different payment rates then a weighted average is calculated based on the length of each period. In most countries benefits are calculated on the basis of gross earnings, with the "payment rates" shown reflecting the proportion of gross earnings replaced by the benefit. In Austria, Chile, Germany, Lithuania and Romania (parental leave only), benefits are calculated based on previous net (post income tax and social security contribution) earnings, while in France benefits are calculated based on post-social-security-contribution earnings. Payment rates for these countries reflect the proportion of the appropriate net earnings replaced by the benefit. Additionally, in some countries maternity benefits may be subject to taxation and may count towards the income base for social security contributions.

Source: OECD (2019), OECD Family Database (website), www.oecd.org/els/family/database.htm (accessed November 2019).

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There is some evidence of the effect of **paid leave** on children's cognitive development and educational and labour market outcomes. In Norway, the extension in 1977 of mothers' paid leave entitlement by four months had a positive effect on school early leaving. Children of mothers who benefitted from paid leave were, on average, 2.7 percentage points less likely to drop out of high school. The effects were even greater for children of less-educated mothers, who were 5.2 percentage points less likely to drop out of high school. In Sweden, the extension of parental leave from 12 to 15 months had no effect on the school achievements of children aged 16 years (Liu and Skans, 2010[92]), while in Germany, evidence on three expansions of the maternity leave system no substantial effects on long-term educational and labour market outcomes, despite the early negative effect the mother's return to work may have had on children's behaviour (Dustmann and Schönberg, 2012[93]). The absence of significant long-term effects on children's outcomes may be due to the fact that children who are not cared for by parents can, in some countries, receive quality early care and education services that have a positive impact on their development, especially for children from the most disadvantaged families (Datta Gupta, 2018[94]).

Paid parental leave can help reduce maternal stress and improve new mothers' life satisfaction. Several studies find that leave may promote the mental health of mothers following childbirth. For example, at least 15 weeks off work following childbirth has a positive effect on mothers' self-reported mental health, while at least 20 weeks improves mothers' ability to perform routine daily activities (McGovern et al., 1997[95]). Similarly, delaying the return to work reduces depressive symptoms, with one week increase in the length of leave associated with as much as a 6-7% decline (Chatterji and Markowitz, 2005[96]). Moreover, having a spouse who did not take any parental leave after childbirth is associated with higher levels of maternal depression (Chatterji and Markowitz, 2008[97]). Evidence on the long-term effects of maternity leave on mental health and life satisfaction is becoming available. Accessing birth-related leave in Germany and the United Kingdom is found to contribute to higher life satisfaction (D'Addio et al., 2014[98]), while more generous maternity leave provision is associated with reductions in the risk of depression in old age

Flexibility in the workplace for parents during their child's early years is especially important to support the development of secure infant-parent attachment. It provides parents with greater opportunity to build this critical relationship with their child, and it helps avoid stressful situations that can harm maternal and/or child's health. During pregnancy, the job content, working conditions and working schedules may need to be adapted to limit the risks that intense forms of work or exposure to certain working contexts may have on maternal and child health.

Ensure access to health care for children from low-income families and with additional health needs

Ensuring that children from poor families and children with additional health needs have access to adequate health care from an early age facilitates early intervention and saves on future costs. The provision of health insurance to these groups is one support but limited health insurance coverage can leave health care services still unaffordable for families. Evidence from expanded health insurance programmes in Pennsylvania and Massachusetts underlined that for newly enrolled children entering these programmes, being uninsured for a six-month period or more was linked to higher health care needs and higher unmet or delayed care (Hadley, 2003[99]).

The additional barriers that vulnerable families may face in accessing preventative health care need to be considered in programme design. For example, routine interventions such as childhood vaccination programmes are critical foundations for good health for all children, reducing infant mortality, promoting healthy growth and generating significant economic gains for health expenditure savings and the positive effects on human capital formation. Childhood vaccinations also contributes to the prevention of intellectual and physical disabilities, and other large collective externalities that enhance the effectiveness of preventative measures and prevent the failure of curative measure, like increasing antibiotic resistance (Bloom, 2011[100]) (Bärnighausen et al., 2011[101]). Vulnerable families, for instance ethnic minorities,

immigrants with poor knowledge of the host country language, poor families, and also children in out-of-home care are more likely to miss or delay childhood vaccinations. Some of the obstacles include limited access to transport, other family and social priorities, poor understanding of need, and in the case of children in out-of-home care difficulties in gaining parental medical consent (Roberts et al., 2017[102]).

Ensure access to adequate nutrition for low-income children and pregnant women have access to adequate nutrition

Food and nutrition programmes can address malnutrition and poor nutrition, especially for families who experience food insecurity. Poorer families are more likely to alter food purchases during difficult times. The United States has substantial experience in nutrition assistance programmes. The available evidence suggests that access to nutrition assistance during childhood can have considerable positive effects, including on subsequent adult health outcomes and on adult economic self-sufficiency (Hoynes, Schanzenbach and Almond, 2016[103]). The *Special Supplemental Nutrition Program for Women, Infants, and Children* (WIC) serves as a gateway to health care by connecting families to resources such as prenatal, obstetric, maternal, and paediatric care; dental care; and counselling for smoking cessation, and drug and alcohol abuse, as well as nutritional assistance. WIC has been associated with mothers giving birth to healthier babies, and to improved access to health care (Carlson and Neuberger, 2017[104]).

There is also some evidence that the receipt of WIC during pregnancy can improve children's cognitive development and educational achievements (Jackson, 2015[105]). Comparisons of siblings showed that those who benefited from WIC performed significantly better on reading tests, controlling for differences in parental behaviour and family economic circumstances during the child's first year of life.

Which policies can reduce child income poverty?

Create better quality jobs for working parents and remove barriers to taking up employment

OECD analysis suggests that a broad reduction in child poverty can only be achieved by increasing parental employment and the quality of jobs, supporting maternal employment as well as a stronger redistributive system. On average in OECD countries, slightly less than one in ten families with at least one parent working live below the poverty line, whereas more than six in ten families are income-poor when both parents are not working. Moreover, most countries have their lowest child poverty rates when the poverty rate of two-parent households is at the level of the poverty rate of two-person childless households with the same employment situation.

To make work pay for both parents, tax and benefit systems should provide first and second earners in two-parent families equal financial incentives to work. Enhanced access to affordable all-day childcare is particularly important to facilitate low-income parents to remain in full-time employment, and for mothers to return to work after maternity leave. Yet in many countries, children from low-income families are among the least likely to participate in formal childcare (OECD, 2016[106]).

Removing barriers to employment is crucial, particularly for parents whose health status, family circumstance or low skill levels keep them out of the labour market (OECD, 2011[107]). This requires intensive job placement support, from better tools to profile workers' skills and support from unemployment caseworkers for hard to-place workers (OECD, 2015[108]). In addition, helping parents in low-income families to improve job skills and access better quality jobs also helps reduce child poverty. Vocational training schemes and financial assistance for training could be targeted at low-skilled parents as a priority and adapted to their family constraints (OECD, 2014[109]).

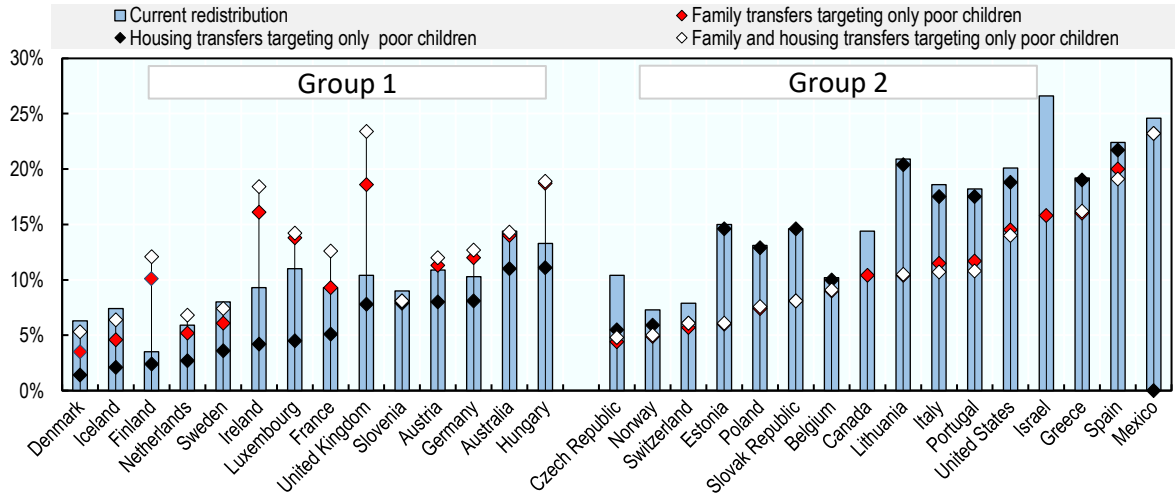
Ensure social benefits reach the poorest families and those with children with additional needs

Social expenditure seems to have the strongest effect on children poverty when it is earmarked to low-income households. In most OECD countries, the increase in per capita social expenditure over recent decades coincided with a reduction in child poverty. There is some evidence that the association is strongest when the 10% poorest households receive a higher share of total spending. From the mid-1990s until the mid- 2010s, a 1% increase in per capita social expenditure, on average, was associated with roughly a 1% reduction in the relative child poverty rate (Thévenon, 2018[110]). There is, however, no clear association between increases in social spending and poverty rates of jobless families and single-parent families, mainly because the income of these families is often far below the poverty line and cash transfers are not large enough to lift them out of relative-income poverty.

To help low-income families more, countries could decide to intensify the support given, by either increasing spending or by reallocating family cash benefits, or both. In times of public spending constraints, reallocation of cash benefits is an option that keeps social expenditure constant. Under these conditions, substantial decreases in child poverty rates can be achieved through more targeted coverage of poor children (OECD, 2018[111]).

Figure 4.3. Child poverty rates following a reallocation of family and/or housing benefits

Percentage of children (0-17) in poor families by scenario regarding the distribution of family and/or housing allowances, 2014-15



Note: The chart shows the estimated child poverty rates that would follow a reallocation of family and/or housing benefits to poor families, keeping constant the total expenditures on family and housing benefits. The first group consists of countries for which the lowest child poverty rate is achieved by redistributing housing allowances to cover all poor children; group 2 corresponds to countries where the lowest rate is achieved by redistributing family allowances or the sum of family and housing allowances. Countries are ranked in each group according to the lowest poverty rate obtained in the best case scenario.
Source: OECD (2018), "Poor children in rich countries: why we need policy action", *Policy Brief on Child Well-Being*, www.oecd.org/els/family/publications.htm.

StatLink https://doi.org/10.1787/888934039046

In most OECD countries, family benefits and/or housing benefits are distributed to all families, or to a much larger segment of families than those categorized as income-poor. In these conditions, a re-allocation of

benefits towards only income poor children implies that a smaller number of children would receive much larger family transfers, resulting in a reduction of child poverty. Nevertheless, how this outcome can be best achieved varies across countries. In some countries, the redistribution of family allowances could be very effective, while in others, a greater reduction in child poverty could be achieved by improving the distribution of housing benefits (In group one the lowest child poverty rate is achieved when housing benefits are redistributed to cover all poor children. The largest reductions in child poverty are estimated to unfold in Luxembourg (-6.5 percentage points) and Denmark, Iceland and Ireland (around -5 percentage points). Given that the initial average housing benefit rate is relatively small, withdrawing this transfer from children above the poverty line does not substantially increase the poverty risk. The relatively high payment rate of the targeted housing transfers (pooled among a smaller group of children) will move many poor children out of poverty.

In group two, on the other hand, the lowest child poverty rate would be achieved by targeting family benefits, or the sum of family and housing benefits, towards income-poor children. In this scenario, Israel and Lithuania would see the largest reduction in child poverty rates, about 10 percentage points. These countries have either low mean family transfers with a low proportion of children in receipt, or they the take-up rate is much lower among poor families than wealthier ones. Nonetheless, for other countries (in particular Belgium, Greece, Mexico and Slovenia), the change in child poverty rates across the different scenarios is very small.

Adequate social benefits should be allocated to families to help meet the additional care needs of children with disabilities, for example additional health and educational needs that place a strain on the household budget. Caring for a child with a disability restricts parents' capacity to work outside of the home and/or to take up better-paid employment. Definitions and assessment procedures of disability differ across countries. In general, payment rates vary by the level of impairment, but vary by age, family status and income. For example, children with disabilities in single-parent families in Australia and Portugal are entitled to higher allowances than two-parent families. In some countries, parents may receive a supplementary payment, a carers allowance, for taking full-time care of their children .

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5 Vulnerable Children in Developing Countries: special considerations

This chapter describes the common challenges facing vulnerable children in developing countries, taking a life-cycle approach. It examines selected dimensions of well-being, including educational attainment, health and child protection measures. Child outcomes can vary based on household income, parents' education, gender, ethnicity and place of residence.

Introduction

Despite remarkable progress in poverty reduction since 2000, children in developing countries remain exposed to many risks that compromise their development and well-being and prevent them from reaching their potential. In part, these risks stem from a failure of economic growth to be inclusive, widening inequalities within countries. Large numbers of children have limited and poor access (or in some cases, no access at all) to health services, adequate nutrition, positive early learning environments, quality education and other protections.

As is the case in developed countries, inequalities develop early in life and childhood experiences are important determinants of later life outcomes (Chapters 2 and 3). Focussing on the primary child development stages, this chapter provides a cursory overview of child vulnerability in developing countries along three key dimensions for measuring child well-being and intervening to improve outcomes: health, education, and child protection/rights (Table 5.1).

Table 5.1. Indicators of child well-being and potential vulnerability used in this chapter

Age cohort	Dimension of well-being	Influencing variables	Selected indicators
Infants and young children (0-5 y/o)	Health	• Household income • Socioeconomic status • Ethnicity and culture • Religion • Place of residence	Infant, child and maternal mortality; malnutrition (stunting, wasting, overweight)
	Education		Early childhood development (ECD)
	Child protection/rights		Birth registration; female genital mutilation (FGM)
School-aged children (6-14 y/o)	Health		Regular healthcare; water, sanitation and hygiene (WASH); Disability adjusted life years (DALYs)
	Education		Access to education and retention in school
	Child protection/rights		Violence; child labour; subjective-well-being
Adolescents (15-18 y/o)	Health		Risky health behaviours
	Education		Youth literacy
	Child protection/rights		Early marriage and childbearing

Infants and young children (0-5 years old)

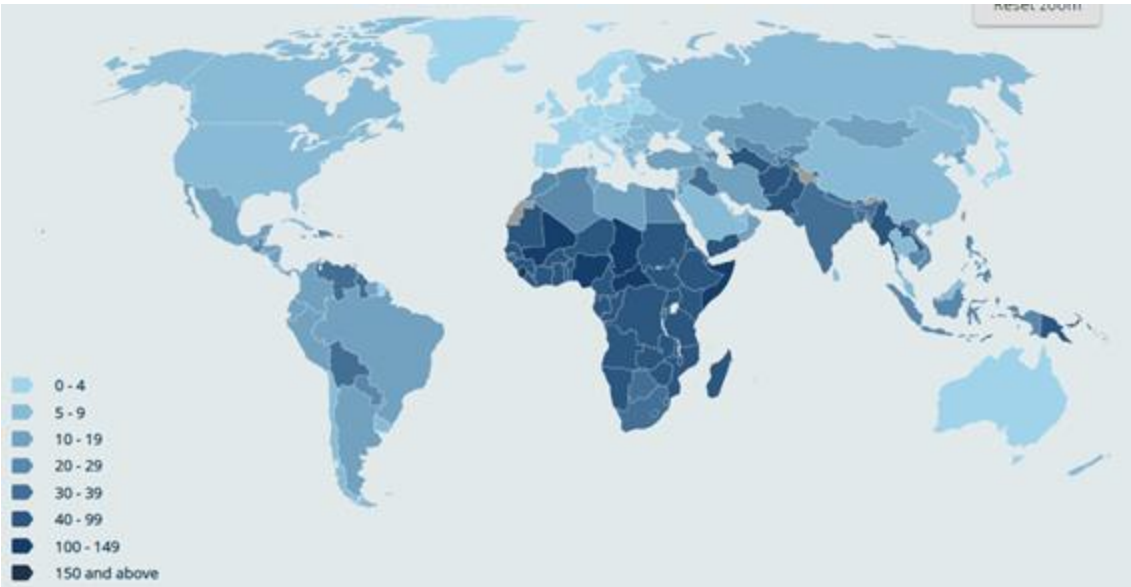
Zero to five years of age is a critical period for child development. Yet in developing countries, persistent poverty, malnutrition, poor healthcare and non-stimulating home environments deprive young children of opportunities to develop strong foundations in cognitive, motor, and social-emotional skills (Grantham-McGregor et al., 2007[1]). The 0-5 age group has the highest rate of child morality in developing countries: 5.4 million of a total 6.3 million deaths in 2017 (UN IGME, 2018[2]). This group is also particularly vulnerable to poor health outcomes, impaired physiological development and violation of their fundamental rights.

Gaps in progress on reducing infant and child mortality persist within regions

Despite unprecedented global progress in reducing infant and child mortality, wide gaps still exist between and within world regions (Figure 5.1). According to estimates by the United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), Sub-Saharan Africa remains the region with the highest under-five mortality rate in the world, with an average of 76 deaths per 1 000 live births. About 1 in 13 children die in Sub-Saharan Africa before their fifth birthday. This ratio is 14 times higher than the high-income country average of 1 in 185, and 20 times higher than the region with the lowest average under-five mortality rate (Australia and New Zealand, where the average is 1 in 263) (UN IGME, 2018[2]).

Figure 5.1. Sub-Saharan Africa has the highest under-five mortality rate in the world

Under-5 mortality rate (2017)



Source: *UN IGME (2018) Levels and Trends in Child Mortality Report 2018*.

Numerous factors influence early child survival outcomes, but an important share is attributable to health service provision and the social determinants of health (Table 5.2) (Silva et al., 2018[3]). Maternal care, namely the availability of prenatal care, medically assisted deliveries and health facility delivery, significantly reduces infant mortality (Rutstein, 2000[4]). Good sanitation coupled with access to health services, and good quality of care play a role (Silva et al., 2018[5]). Public health interventions, including access to and availability of quality nutrition, are important. Other factors associated with infant and child mortality include poverty, location (urban/rural), access to electricity, and caregivers' level of education (Rutstein, 2000[4]).

Table 5.2 The leading causes of death in children 0-5 years old are largely preventable

Leading causes of death in post-neonatal children: risk factors and response

Cause of death	Risk factors	Prevention	Treatment
Pneumonia, or other acute respiratory infections	Low birth weight		Appropriate care by a trained health provider
	Malnutrition	Vaccination	
	Non-breastfed children	Adequate nutrition	Antibiotics
	Overcrowded conditions	Exclusive breastfeeding	
		Reduction of household air pollution	Oxygen for severe illness
Childhood diarrhoea	Non-breastfed children	Exclusive breastfeeding	Low-osmolality oral rehydration salts (ORS)
	Unsafe drinking water and food	Safe water and food	
	Poor hygiene practices	Adequate sanitation and hygiene	
	Malnutrition	Adequate nutrition	Zinc supplements
		Vaccination	

Source: WHO (2014[6]), Leading causes of death in post-neonatal children: risk factors and response in Weekly epidemiological record 89(38), World Health Organization, Geneva, www.who.int/wer/2014/wer8938.pdf,

Inequalities in child survival outcomes are evident within countries, with location, poverty prevalence and other socio-economic factors often determining access to life-saving health interventions. For example, infant, child, and maternal mortality are disproportionately higher in rural areas.

A combination of factors, including low maternal education and low concentration of health professionals and health facilities, contributes to 50% higher under-five mortality rates in rural areas (UN IGME, 2018[2]). Poor children are more likely to be exposed to health risks that they are less able to withstand due to undernutrition and other hazards that are typical in poor households (Victora et al., 2003[7]). Children in indigenous households are less likely to access preventive and curative care, with inadequate public health subsidies locking this population in a vicious cycle of poverty and poor health (Victora et al., 2003[7]).

Stunting and wasting, measured by low height-for-age and low weight-for-height respectively, are typical indicators of childhood malnutrition. While less than half of the world's children live in low- and middle-income countries, these countries host two in three of all stunted children and three in four of all wasted children (UNICEF/WHO/World Bank, 2019[8]). Unsafe sanitation and foetal growth restrictions are the most significant risk factors (Danaei et al., 2016[9]). As of 2018, South Asia has the highest prevalence of child malnutrition, with 32.7% of children stunted and 14.6% wasted, as compared to 2.6% of stunted children and 0.4% of wasted children in Northern America. Oceania and Sub-Saharan Africa have the next highest overall malnutrition prevalence, with 38.2% and 32.2% of children stunted and 9.4% and 7.1% of children wasted, respectively (UNICEF/WHO/World Bank, 2018[10]). In Sub-Saharan Africa, stunting is more common among boys and children living in rural areas; sanitation and access to health care are factors (Keino et al., 2014[11]). In India, girls are more affected by stunting, as nutritional resources may be allocated in preference to boys and girls pay a bigger role in the care of younger infants. Higher maternal education is a protective factor (Pillai and Nahar, 2019[12]).

Undernutrition is the main cause of nearly half of under-five mortality (Black et al., 2013[13]). Evidence from low- and middle-income countries suggests that early exposure to undernutrition and poverty is closely linked to deficits in subsequent cognitive and social-emotional development, educational performance, adult income and chronic disease risks (Lu, Black and Richter, 2016[14]). Children born to adolescent mothers are particularly at risk of undernutrition, as they are more likely be undernourished, have a lower level of education, poorer access to health services and live in poorer conditions. Delaying childbirth to an older maternal age can reduce child stunting. (Nguyen et al., 2019[15]).

Public health interventions aimed at reducing preventable diseases and conditions often fail to reach populations in need. A review of public health interventions in in the 42 countries where 90% of child deaths worldwide occurred in 2000 showed that 63% of these deaths could have been prevented by full implementation of a few well-known and effective interventions. Overall, breastfeeding was the preventive intervention that reached the most children (measured by the breastfeeding rate at 6-11 months), followed by coverage of the measles vaccination (two-thirds of children under 5 years). However, 60% of children remained in need of common and effective interventions such as insecticide-treated nets and diphtheria-pertussis-tetanus vaccinations (Bryce et al., 2013[16]).

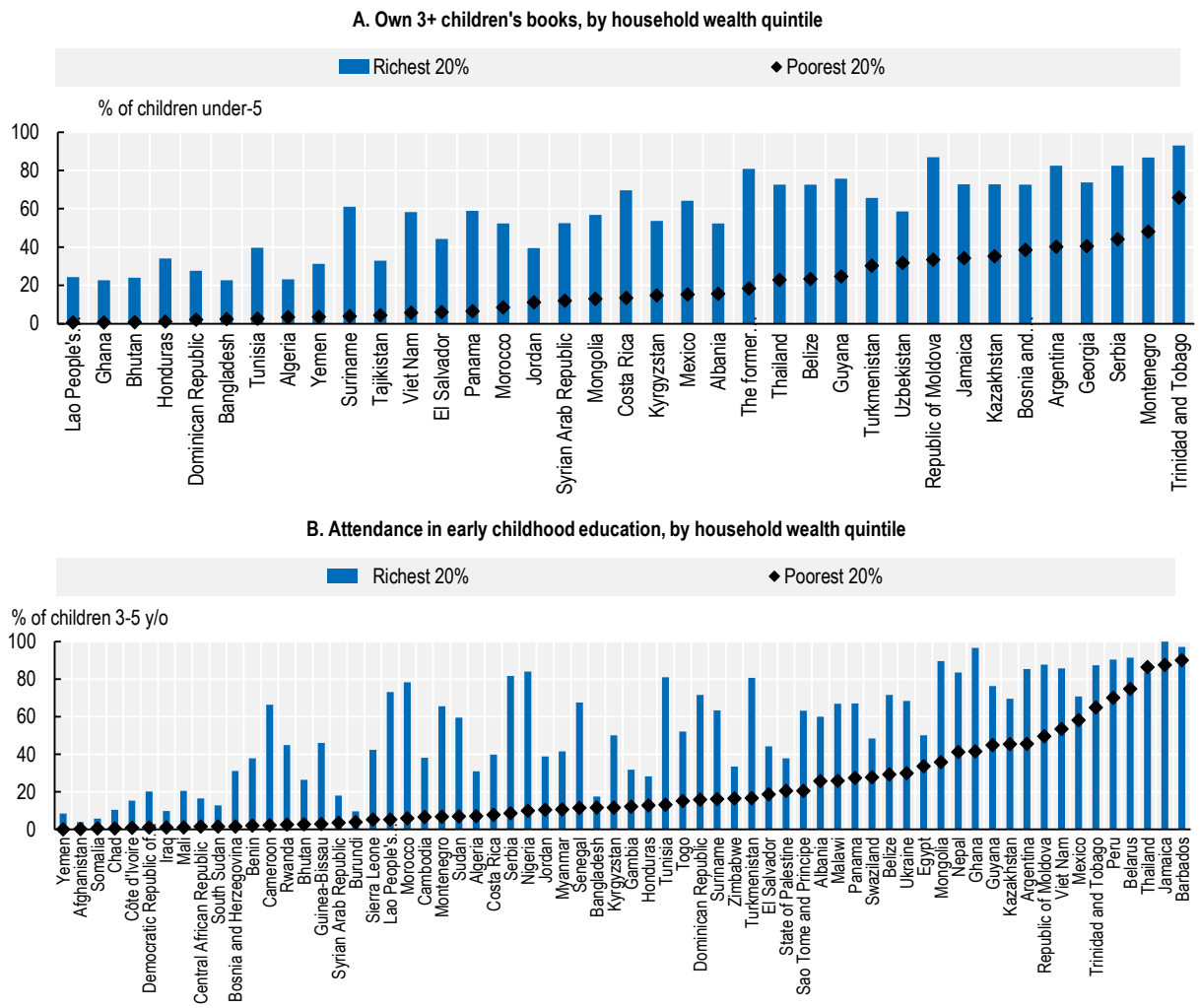
Early childhood development programmes are not accessible to the poorest children

The brain develops faster and has a higher plasticity during early childhood than at any other point in life. Evidence suggests that activities that provide optimal opportunities for positive stimulation of children's developing sense of sight, sound, touch, taste and smell are critical to healthy cognitive, social, emotional and physical development in infancy and beyond. To this end, early childhood development (ECD) programmes offer a safe and nurturing environment for young children to develop to their fullest potential, and can mitigate some of the negative effects of poverty and other adverse circumstances on their development (The Lancet Child & Adolescent Health, 2019[17]).

The United Nations Convention on the Rights of the Child (UNCRC) affirms the right of children to develop to the maximum extent possible (Article 6). Early childhood is a critical period for child learning, yet ECD is often under-exploited as an opportunity to assist the development of children from poorer households (UNICEF, 2013[18]). Children in rural areas have fewer opportunities to attend pre-primary programmes, with less than 25% of children accessing ECD in 24 out of 52 low and middle-income countries (UNESCO, 2017[19]).

Across most countries in development, children in the poorest households are less likely to have access to a favourable learning environment (i.e. one that is safe and physically well organised with access to developmentally appropriate books and toys) at home or through an ECD programme, compared with affluent children (Figure 5.2). These children are also less likely to interact with adults who engage in activities that promote early learning and school readiness, such as reading books, playing, singing songs and spending time with the child outside the home. This is especially true in least-developed countries (LDC), where an estimated 29% of children in the wealthiest quintile were enrolled in ECD, compared with only 7% of children in the poorest quintile (UNICEF, 2017[20]).

Figure 5.2. The poorest children in developing countries lack access to learning materials and early education



Source: UNICEF (2017[20]), "Early childhood development - early childhood education data" and "Early childhood development – home environment data", United Nations Children's Fund, New York.

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Home environments favourable to children's early development and enrolment in ECD can serve as a measure of child cognitive development, as well as the likelihood of children staying in school. In Sub-Saharan Africa, 69% of children aged 36-59 months old in the top 20% of the wealth distribution had adult support for early learning and school readiness, compared with only 44% of children in the bottom 20%. (UNICEF, 2016[21]).

The human rights of infants and young children are not always adequately protected, especially in the poorest households

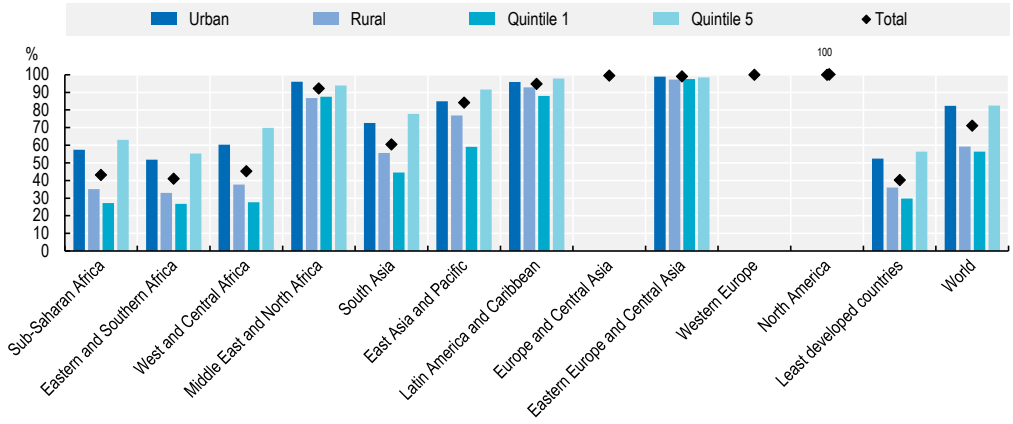
Birth registration is the process of formally recording a child's birth in a government's civil registry. It is a prerequisite for accessing government services and social protection, and provides protection from exploitation (child labour, early marriage, forced conscription into armed services, sexual abuse and trafficking) and access to juvenile justice. Although most countries have a legal framework in place for birth registration, laws are not always enforced or sufficiently comprehensive (UNICEF, 2003[22]). In many developing countries, birth registration systems have fallen into disuse due to high associated costs, low bureaucratic engagement and lack of oversight. Individual factors such as poverty, religion, maternal education and access to a health facility play a role (Bhatia et al., 2017[23]).

Eight of the ten countries with the lowest birth registrations for children under five are in Sub-Saharan Africa: Somalia (3%), Liberia (4%), Ethiopia (7%), Zambia (14%), Chad (16%), Tanzania (16%), Guinea-Bissau (24%) and the Democratic Republic of the Congo (28%) (UNICEF, 2013[24]). Low birth registration remains a prevalent child rights issue for countries affected by armed conflict. According to UNICEF's Innocenti Research Centre, war and high poverty were factors in the majority of countries where children's birth registration is lower than 40% (UNICEF-IRC, 2007[25]). In a number of conflict-torn countries, civil registration systems are likely to be weak and caregivers lack information. In Afghanistan, less than 10% of mothers whose children were unregistered knew how to register their child's birth, as did less than 20% in the Democratic Republic of the Congo (UNICEF, 2013[24]).

Birth registration rates vary widely within countries and are particularly low in rural areas and among the poorest households (Figure 5.3). Prohibitive factors include distance to the nearest registration facility and associated opportunity costs. Overall, across most regions, children from the wealthiest households are 1.5 times more likely have their births registered than children from the poorest households (Figure 5.3). Birth registration is highest in Latin America and the Caribbean (95%), the Middle East and North Africa (92%), and Eastern Europe and Central Asia (99%).

Figure 5.3. Birth registration is particularly low in rural areas and for the poorest households

Percentage of children under age 5 whose births are registered, by location and household wealth quintile



Source: UNICEF (2017[26]), "Birth registration data", UNICEF Data. https://data.unicef.org/resources/dataset/percentage-children-age-5-whose-births-registered-sex-place-residence-household-wealth-quintile/.

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Female genital mutilation/cutting (FGM/C) refers to "all procedures that involve partial or total removal of the female external genitalia or other injury to the female genital organs for non-medical reasons" (WHO, 2018[27]). Across 29 countries studied, an estimated 39% of women and girls aged 15-49 have undergone some form of FGM/C (OECD, 2019[28]). Various reasons are given for the persistence of FGM/C, including it being a rite of marriage, a prerequisite for inheritance or a purported means of safeguarding girls' chastity or controlling their sexuality. FGM/C is not endorsed by any religion in particular, but religious narratives are commonly deployed to justify the practice.

Where FGM/C is practised, it disproportionately affects infant and young girls under five. In half of African countries with available data, the majority of girls who underwent FGM/C were cut before 5 years of age (UNICEF, 2013[29]). Evidence has shown that in some contexts the practice of FGM/C is associated with women of low socio-economic status (Sakeah et al., 2018[30]).

School-aged children (6-14 years old)

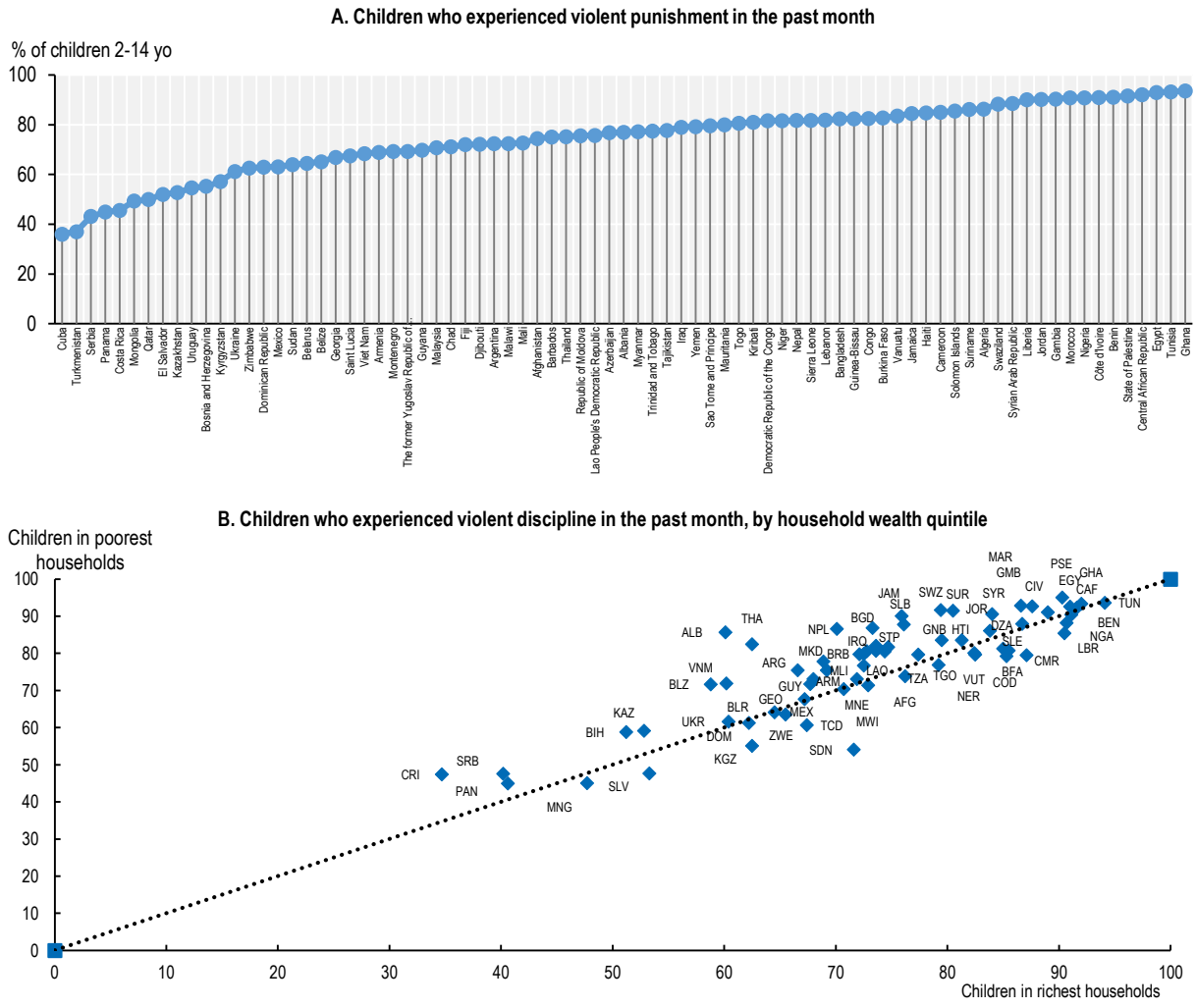
School-aged children (children and young adolescents) are in a period of physiological transition into puberty and are even more vulnerable to external pressures such as economic impoverishment, societal gender expectations and educational performance, among others. In developing countries, barriers to healthcare and water, sanitation, and hygiene (WASH) continue to affect children's health outcomes. Protecting children against violence and labour exploitation is fundamental to helping them develop to their fullest potential.

Violence disrupts the healthy development of children

The UNCRC declares the right of children to protection from all forms of physical and psychological violence, maltreatment and exploitation, including sexual abuse. Significantly, children's first exposure to violence is likely to be in the home through violent forms of discipline (physical punishment and/or psychological aggression) and exposure to intimate partner violence (UNICEF, 2017[31]).

Data collected from the Demographic and Health Surveys (DHS) Program, UNICEF's Multiple Indicator Cluster Surveys (MICS3) and national surveys indicates that violent discipline is extremely common. Around 79% of children between the ages of 1-14 in least-developed countries experience either physical punishment or psychological aggression each year (Figure 5.4). The percentage of children subjected to violent discipline does not vary significantly between quintiles of household wealth (Figure 5.4B). One in four children under five years of age worldwide is in the care of a mother who has been a recent victim of intimate partner violence (UNICEF, 2017[31]). Chapter 4 of this report explores the impact of exposure to intimate partner violence on child development.

Figure 5.4. Violent forms of discipline are common in many developing countries



Note: Violent discipline is defined as physical punishment and/or psychological aggression.
Source: UNICEF (2017), *A Familiar Face: Violence in the lives of children and adolescents*, United Nations Children's Fund, New York.

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Data on the prevalence of sexual abuse in developing countries suggests that girls are at heightened risk, particularly from the age of 10 onwards. In 20 countries with data, nine out of ten adolescent girls who have been a victim of forced sex (sexual intercourse or any other forced sexual act) report the first occurrence happening during adolescence. In 28 countries with data, nine out of ten adolescent girls report

being victimised by somebody close or already known to them. Very few girls, around one out of ten, report ever accessing professional help. Despite the lack of data evidencing boys' exposure to sexual violence, boys are also vulnerable. Among boys aged 13-17 years, the most common perpetrators are classmates/ friends and partners (UNICEF, 2017[31]). Chapter 2 of this report explores the impact of child sexual abuse on child well-being.

Child labour threatens the health and education of children worldwide

Child labour captures forms of work that are harmful to the physical, social, mental or moral development of children, including work that deprives them of the opportunity to attend school, obliges them to leave school prematurely or requires them to combine school attendance with excessively long and heavy work. The minimum employment age of 15 only applies to work not defined as one of the worst forms of child labour.

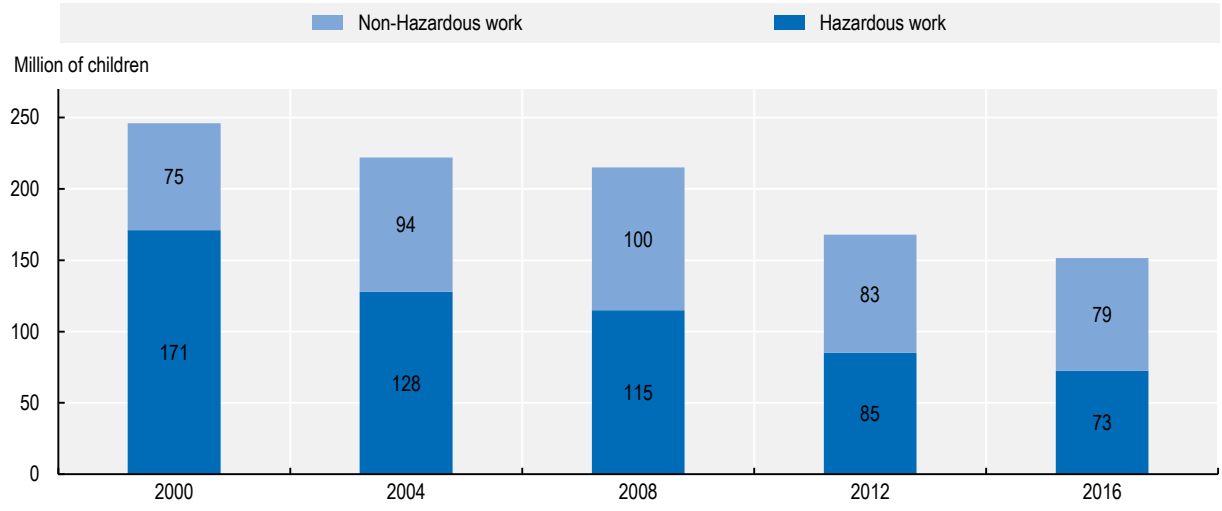
Not all work carried out by children is child labour, and not all child labour falls under the internationally recognised legal definition of the worst forms of child labour. The worst forms of child labour involve children being enslaved, separated from their families, exposed to serious hazards and illnesses and/or left to fend for themselves on the streets of large cities, often from a very early age. Whether or not particular forms of work are classified as child labour depends on a child's age, working conditions and the type and hours of work performed.

Eradicating the worst forms of child labour is not only a moral imperative, it is essential for ensuring that children can enjoy their childhoods and fulfil their potential. Sustainable Development Goal target 8.7 aims to eradicate child labour in all its forms by 2025.

The adoption in 1999 of the ILO Worst Forms of Child Labour Convention was followed by a significant reduction in child labour: in 2016, around 152 million children were in child labour worldwide, down from 246 million in 2000, when data on child labour was first estimated (Figure 5.5). Nevertheless, after a significant decline in the late 2000s, the pace of progress has slowed. Since 2012, numbers of children in child labour are growing again, mainly in Sub-Saharan African countries.

Figure 5.5. Child labour has declined, but progress has slowed

Millions of children aged 5-17 years old in child labour, 2000-16



Source: ILO (2012), ILO Global Child Labour Trends 2008-2012 and ILO (2017) Global Estimates of Child Labour Report.

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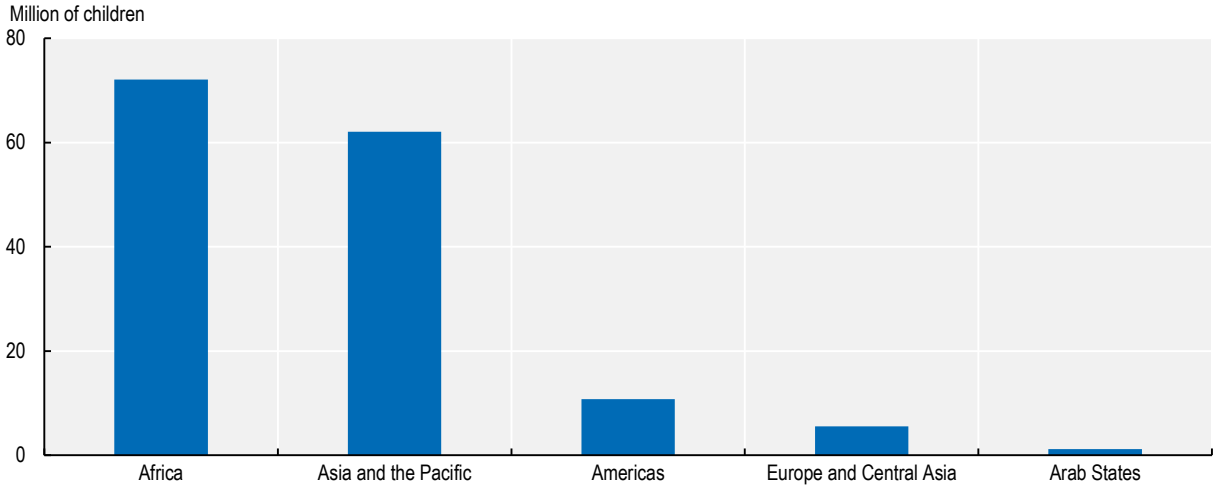
In 2013, the OECD issued *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, an effort by member countries of the International Conference on the Great Lakes Region[1], industry, civil society and UN experts on the Democratic Republic of the Congo to reinforce protections against the worst forms of child labour. In 2017, the OECD published *Practical Actions for Companies to Identify and Address the Worst Forms of Child Labour in Mineral Supply Chains*.

Child labour is a heterogeneous phenomenon characterised by large differences across and within countries in the same region. The global picture includes the following key facts (ILO, 2017[32]):

- In 2016, about one in ten children aged 5-17 years engaged in some form of child labour, and nearly half in hazardous forms of work. Forty-eight percent were in the 5-11 age bracket, 28% aged 12-14 years and 25% aged 15-17 years.
- Children engaged in child labour typically work in paid or unpaid household-based economic activities, mostly agricultural work. ILO figures for 2016 suggest that 108 million boys and girls worked in the agricultural sector, an increase of 10 million children from 2012. This rise was mainly driven by an increase in child labour in the African region.
- Boys are more involved in paid work than girls. Girls do more unpaid work and spend longer hours on household chores (which often prevents them from attending school).
- Although roughly two-thirds of children engaged in child labour are enrolled in school, they are more likely to leave school prematurely or perform poorly on tests.
- The worst forms of child labour, particularly hazardous child labour, contribute to chronic health problems that have serious repercussions for physical and/or mental health outcomes in adulthood.
- Children doing unpaid household work such as cooking, cleaning and caring are typically not counted in child employment and child labour statistics, but 2016 ILO estimates indicate that around 800 million children aged 5-17 years spend at least some time each week performing household chores. Girls do far more, spending more than 14 hours per week engaged in these tasks.
- About nine in ten children in child labour live in Africa or in the Asia and the Pacific region (Figure 5.6).Africa ranks highest, with one in five children in child labour. The share is 7% in Asia and the Pacific.

Figure 5.6. Nine in ten children in child labour live in Africa or in Asia and the Pacific

Regional estimates of child labour, 5-17 years old, million (2016)



Note: The Africa region comprises both northern Africa and Sub-Saharan Africa, while the Arab States region excludes northern Africa. The Americas region comprises both Latin American and the Caribbean and northern America. Regional estimates based on the new regional classifications are therefore not comparable with the regional estimates based on the previous ILO regional classification system employed in the 2012 and 2008 global estimate reports.
Source: ILO (2017) Global estimates of Child labour.

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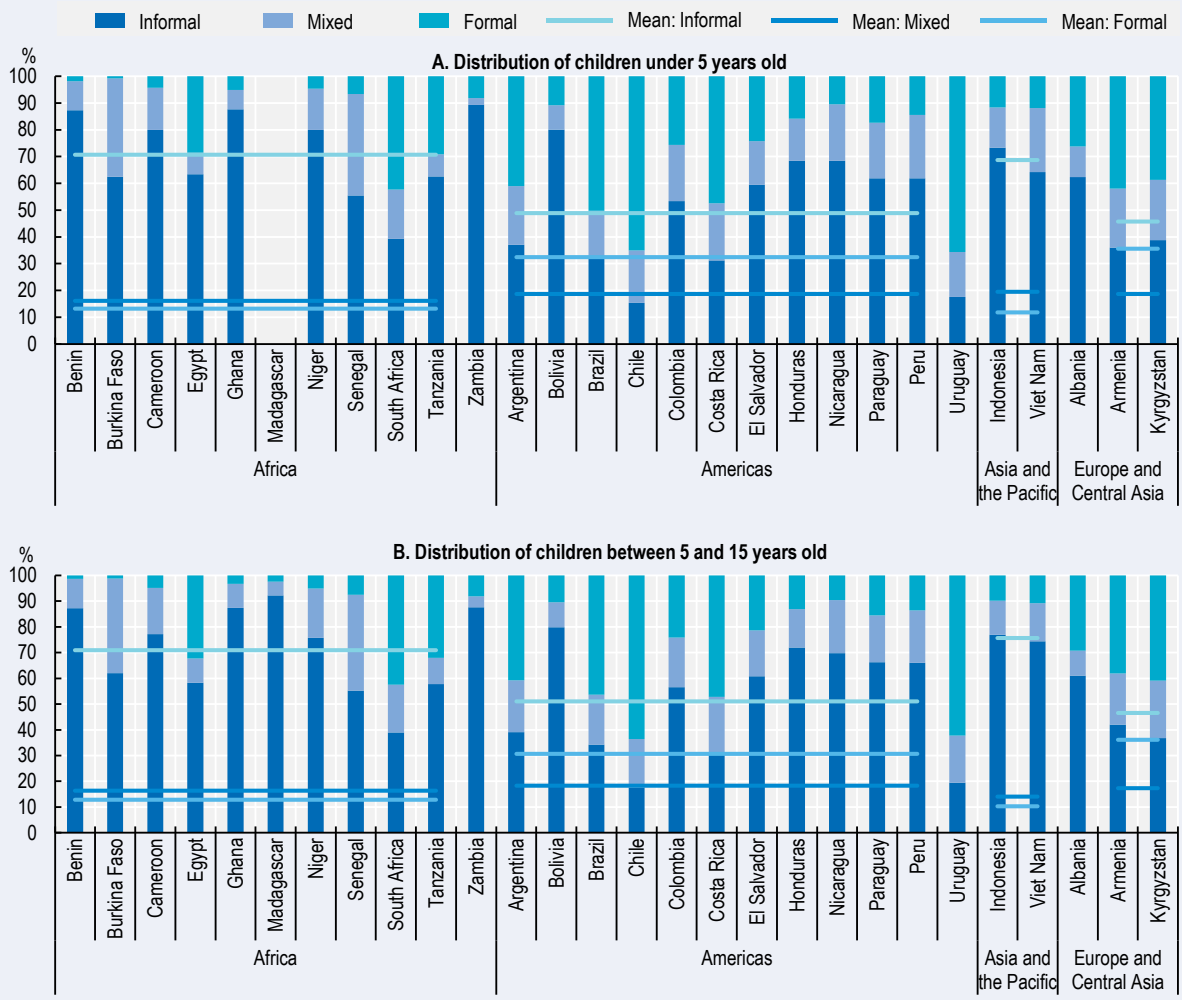
Box 5.1. Informal household employment contributes to the vulnerability of children in developing countries

The majority of children in developing countries live in households where all workers are informally employed (informal households) or households with a mix of workers employed in formal and informal employment (mixed informal households) (OECD, 2019[33]). Based on estimates from the OECD's *Key Indicators of Informality based on Individuals and their Households (KIIbIH) Database*, on average around 60% of children in developing countries live in some kind of informal household (Figure 5.7). In Sub-Saharan Africa, the rate is even higher, at 70%. In Latin America and the Caribbean, the rate is just under 50%. In the more advanced economies sampled, the proportion of children in households where all workers are formally employed is larger.

By definition, informal employment implies the absence of social protection for workers. This exposes the dependents of informal workers more to shocks than those living in mixed or formal households. Children in informal households are less likely to have access to consistent and affordable healthcare and other social protection programmes.

Figure 5.7. Children (aged 0-15) are overrepresented in informal households



Note: Data is not available for children under 5 in Madagascar.

Source: OECD (2019), *Key Indicators of Informality based on Individuals and their Household* (database).

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Children from poorer households have less chance of completing their education

Statistically, children in the least developed countries are unlikely to complete primary school. Only 50% of children in low-income countries who enter the first grade pass through to the last grade of primary school, compared to the world average of 80% in 2016. Students in Sub-Saharan Africa and small island developing states (SIDS) have the worst outcomes (54.3% and 58.9% respectively), followed by the Arab States (80.7%) (UIS.Stat, 2018[34]).

Rates of attendance, retention and attainment typically decline as children progress through the education system. More than half of young people worldwide have not completed upper secondary school (UNESCO, 2017[19]). Barriers to education range from high costs to lack of disability-inclusive programmes. While many developing countries have mandated school attendance for primary through to secondary school, not all children are able to comply. For example, less than one in five countries guarantee twelve years of free and compulsory education (UNESCO, 2017[35]).

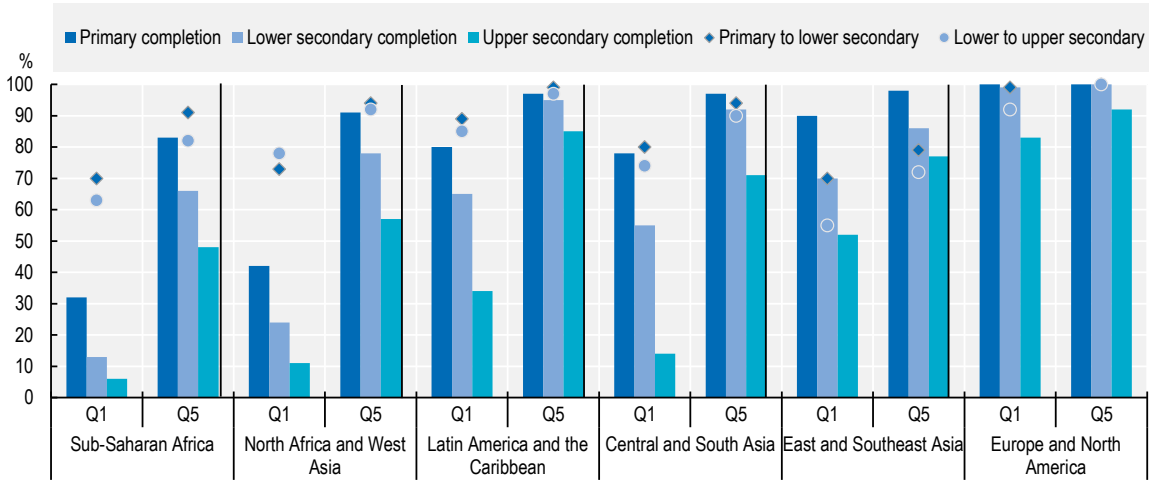
Children from poor households are the most vulnerable to leaving school prematurely. Poor households have fewer economic and educational resources to invest in children. Across all regions of the world, children from wealthier families are more likely to attain a completed education than those from poor families. There is a strong association between inequality and educational completion rates (Figure 5.8). Children from families in the top wealth quintile complete primary school and proceed to secondary school at much higher rates than children from families in the lowest wealth quintile. Mitigating factors include parents' level of education, low teacher-to-student ratios, adequate schooling facilities, distance to school facilities, and the presence of white-collar jobs in the district, though poverty remains one of the most influential factors for school completion (Huisman and Smits, 2009[36]).

Across all levels of schooling, girls are much less likely to receive an education than boys. At the primary level, only two out of three countries have achieved gender parity, falling to one out of two at lower-secondary level and one in four at high-secondary level. Some regions are progressing faster at closing the gap, for instance Southeast Asia and in particular India. Sub-Saharan Africa remains far from achieving parity at all levels of education. Barriers to girls' participation include access to sanitation facilities for menstrual hygiene management, early marriage and early pregnancy. In 2016, only half of schools had access to handwashing facilities with soap and water. Four sub-Saharan African countries exercise a full ban on young mothers returning to school (UNESCO, 2019[37]).

Poverty moderates children's educational aspirations, which in turn influences children's participation, motivation and achievement at school. For example, children from disadvantaged socio-economic backgrounds are also likely to experience pressure to drop out of school in favour of paid work. Family environment and socio-economic status are the most immediate barriers to upward mobility, despite external factors that also influence children's knowledge, development and aspirations. Family environment affects children's aspirations and can contribute to a self-fulfilling prophecy of low expectations and educational attainment. Low socio-economic status is associated with low-educational attainment and limited or no economic mobility (see also Box 5.2.).

Figure 5.8. Students from poorer families are less likely to attain a complete education

Primary through upper secondary education completion rates and transition rates, by household wealth quintile



Note: Primary completion rate is the percentage of (i) children and young people aged 3-5 years above primary school graduation age and (ii) young people aged 15-24 years, who have completed primary school. The transition rate to lower secondary education is the number of young people attending the first grade of lower secondary school as a percentage of those attending the final grade of primary school. The lower secondary completion rate is the percentage of (i) young people aged 3-5 years above lower secondary school graduation age and (ii) young people aged 15-24 years, who have completed lower secondary school. The lower to upper secondary transition rate is the number of young people attending the first grade of upper secondary school as a percentage of those attending the final grade of lower secondary school. The upper secondary completion rate is the percentage of (i) young people aged 3-5 years above upper secondary school graduation age, and (ii) people aged 20-29 years, who have completed upper secondary school.
Source: Authors' calculations based on UNESCO (2017[19]), *World Inequality Database on Education (WIDE)*.

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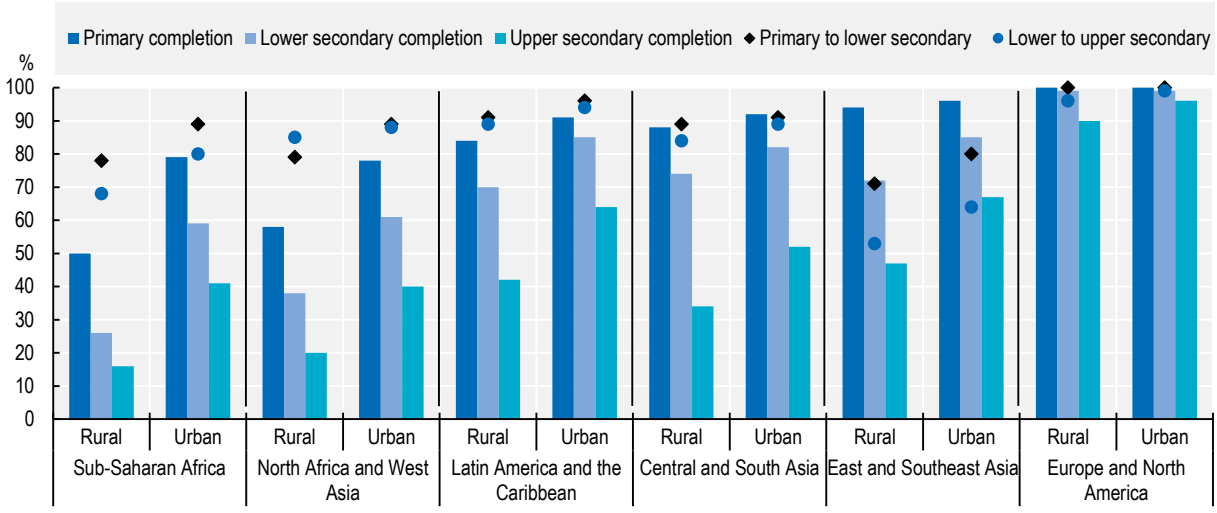
Rural areas generally lag behind urban centres in grade completion at every level of education. There is a gradual reduction in the number of students moving through the education system from primary to upper secondary school level (Figure 5.9). The primary level completion rate is high in both urban and rural areas in the majority of world regions. However, despite the high transition rates, completion rates of lower and upper secondary schooling are low, with the exception of Europe and North America. All other regions have low upper secondary completion rates, particularly in rural areas, for instance Sub-Saharan Africa (16%), followed by rural Central and South Asia (34%) and rural Latin America and the Caribbean (42%).

Figure 5.9. School completion rates are higher in urban areas, across all regions

Primary through upper secondary education completion rates and transition rates, by location



Note: Primary completion rate is the percentage of (i) children and young people aged 3-5 years above primary school graduation age and (ii) young people aged 15-24 years, who have completed primary school. The transition rate to lower secondary education is the number of young people attending the first grade of lower secondary school as a percentage of those attending the final grade of primary school. The lower secondary completion rate is the percentage of (i) young people aged 3-5 years above lower secondary school graduation age and (ii) young people aged 15-24 years, who have completed lower secondary school. The lower to upper secondary transition rate is the number of young people attending the first grade of upper secondary school as a percentage of those attending the final grade of lower secondary school. The upper secondary completion rate is the percentage of (i) young people aged 3-5 years above upper secondary school graduation age, and (ii) people aged 20-29 years, who have completed upper secondary school.
Source: Authors' calculations based on UNESCO (2017[19]), World Inequality Database on Education (WIDE).

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Box 5.2. School completion and parental migration in Cambodia

A recent empirical study based on the 2009 Cambodia Socio-Economic Survey examined the impact of migration on the well-being of children whose parents have migrated and found a significant negative effect on children's school attendance (Hing, Lun and Phann, 2011[38]).

Children in migrant families are more likely to drop out of school. Reasons include little to no aspiration to study and obligation to contribute to household chores and income (OECD/CDRI, 2017[39]). Girls are disparately impacted; 73.8% of surveyed household stated they would take female children out of school if needed (OECD/CDRI, 2017[39]). According to the OECD/CDRI report *Interrelations between Public Policies, Migration and Development in Cambodia*, this reflects gender-biased customary thinking, wherein almost 50% of household heads believe girls are better suited to household chores than attending school, and 20.3% say it is risky for girls to go far from home. The study also found that children in migrant households have a 27% higher probability of participating in economic activities than those in non-migrant households.

Source: OECD/CDRI (2017[39]), *Interrelations between Public Policies, Migration and Development in Cambodia*, OECD Publishing Paris.

Access to WASH improves health and educational outcomes

Children from poor households are less likely to have access to clean water, sanitation, and hygiene (WASH). Children's entry into schooling systems provides an opportunity to access these facilities. Undisrupted access to regular healthcare, water, sanitation and hygiene services – in and outside of schools – is necessary to curtail vectors of disease and adverse health outcomes, and improve hygiene behaviours in students' households and communities, such as handwashing with soap to reduce contact with and contraction of diarrhoea. Universal, sustainable, and equitable access to safe drinking water, sanitation and hygiene is key for achieving other public health agendas (i.e. health and nutrition, education, economic growth and gender equality).

Disadvantaged girls stand to benefit greatly from "WASH at school" interventions, for instance bathroom facilities separated by gender. These girls often lack the economic resources to meet menstrual hygiene needs (Sommer et al., 2016[40]). In Ghana, Kenya and Uganda, for example, unmet need for menstrual pads or tampons is cited as one of the major reasons for surveyed girls to miss school (Jewitt and Ryley, 2014[41]; Montgomery et al., 2016[42]; Montgomery et al., 2012[43]). Recent evidence shows an association between early puberty and economic impoverishment. This underlines the importance of basic WASH facilities in schools (Kelly et al., 2016[44]; Arim et al., 2007[45]; Sun et al., 2017[46]).

Older adolescents (15-18 years old)

Adolescents aged 15-18 occupy a unique space at the intersection between children (0-18) and youth (15-24). Many programmes in developing countries focus specifically on child vulnerabilities or the challenges of youth transitioning into adulthood, overlooking the needs of older adolescents.

Basic literacy rates are improving, and functional literacy is more important than ever

Literacy is the ability to read and write. It is a fundamental necessity for day-to-day life in much of the world. Over the last 65 years, the global literacy rate has increased from 42% in 1960 to 86% in 2015 (UNICEF, 2015[47]). Overall, school enrolments have increased, leading to the highest rate of basic literacy rates among youth (15-24 years old) ever: on average, 90.5% of the world's youth are literate, with a slight gap between men (92.5%) and women (88.5%) (UNICEF, 2015[47]).

Results from PISA for Development (PISA-D) highlight the gap between OECD countries and developing countries in school progression and student core skills proficiency. Among the seven participating countries – Cambodia, Ecuador, Guatemala, Honduras, Paraguay, Senegal and Zambia – only 43% of all 15 year-olds enrolled in at least grade seven were eligible to participate in PISA, compared to the OECD average of 89%. Lower eligibility was associated with students being absent from school or in a lower grade. Twenty-three percent of participating students attained the minimum level of reading proficiency (Level 2 in PISA) compared to the OECD average of 80%. At Level 2 in PISA, students can read simple and familiar texts and understand them literally. They can also demonstrate, even in the absence of explicit directions, some ability to connect several pieces of information, draw inferences that go beyond explicitly stated information, and connect a text to their personal experience and knowledge (Ward, 2018[48]).

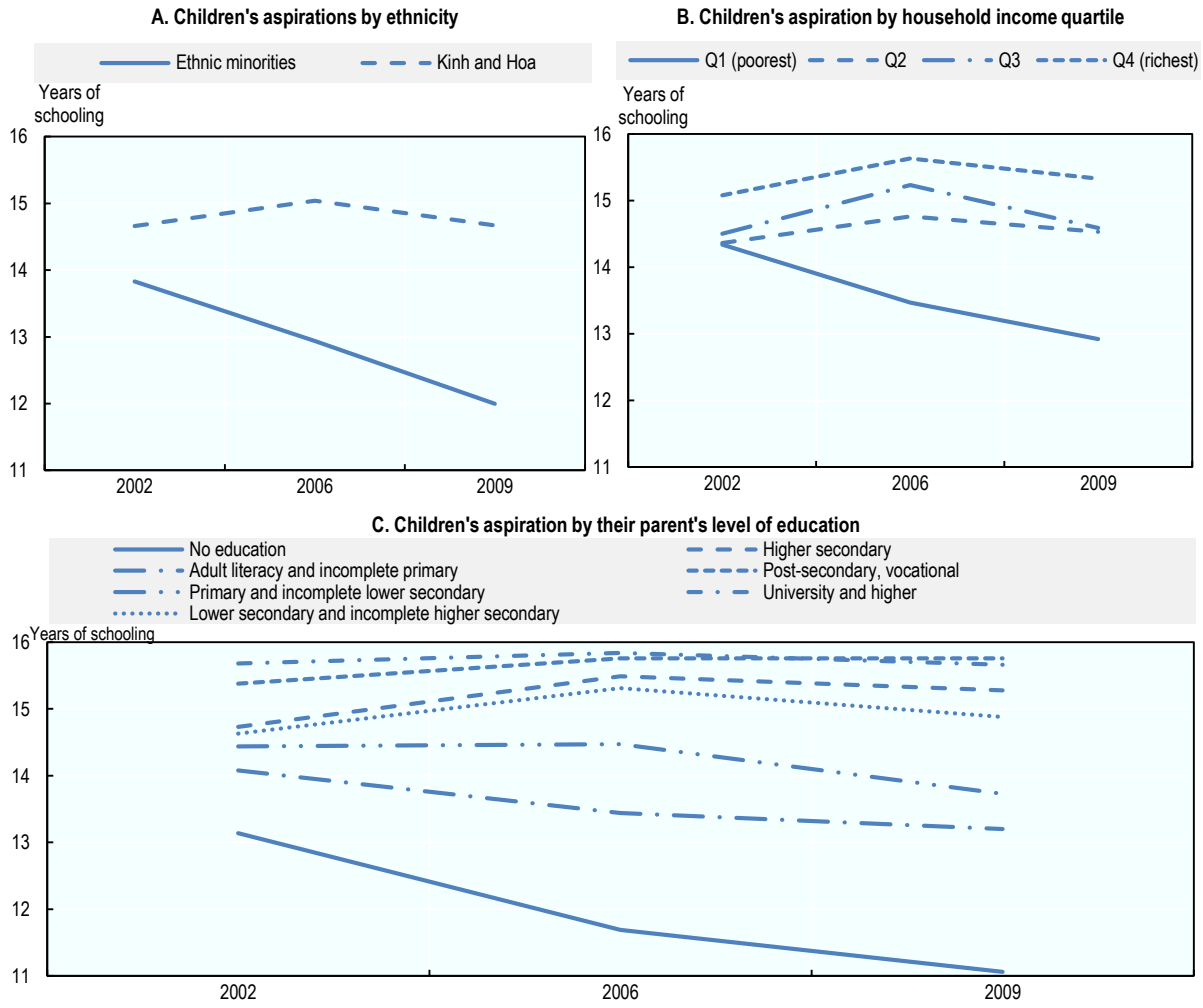
Attaining basic literacy is often not enough for young people in developing countries to succeed in an ever increasingly digital world. While basic literacy measures the ability to read and write a simple sentence, functional literacy and numeracy requires additional competencies. UNESCO defines functional literacy and numeracy as the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. This implies the ability to produce and engage with knowledge in a larger variety of contexts (UNESCO, 2017[49]).

Functional and digital literacy are increasingly important for employment and full participation in society. Evidence supports the relationship between poverty and illiteracy in a handful of countries (Christoffels et al., 2016[50]; UNESCO/Indian National Commission for co-operation with UNESCO, 2001[51]). In the Netherlands, functionally illiterate people have a considerably lower income on average than those who are literate, with 19% of functionally illiterate people living below the national poverty line for at least one year, and 6% living in long-term poverty (Christoffels et al., 2016[50]).

Improving youth functional literacy levels can help in meeting rising youth aspirations. At all education levels young people enter the labour market with high career aspirations, but often these aspirations are not satisfied by current employment, due in-part to skills mismatch (OECD, 2017[52]). Skills mismatch – whether measured as over- or under-qualification in education or skills – can be mitigated by development of functional literacy and numeracy skills and complemented with high-quality career guidance counselling, investments in the quality, relevance and responsiveness of education and initial training, and opportunities to learn on the job and to receive continuing training at work (OECD, 2017[52]).

By and large, youth career aspirations are driven by young people's position in society, with the notable exception of female students, who have high career preferences (OECD, 2017[52]). Panel analysis based on the Young Lives dataset for Viet Nam on children aged between 12-19 years (Figure 5.10) shows the negative association between children's aspiration and ethnicity, household income, and parental education. Household income and parental education positively influence children's aspirations. Moreover, as they get older, children from an ethnic minority, in the poorest wealth quartile and with parents lacking primary education tend to adjust their aspirations downwards. Readjusting downwards educational aspiration is linked with the maturing of children's own attitudes and preferences, but also barriers to further education and accessing a good job, and existing job opportunities.

Figure 5.10. Children's educational aspirations by socio-economic status of the household, by years of schooling



Source: OECD (2014[53]), *Social Cohesion Policy Review of Viet Nam*

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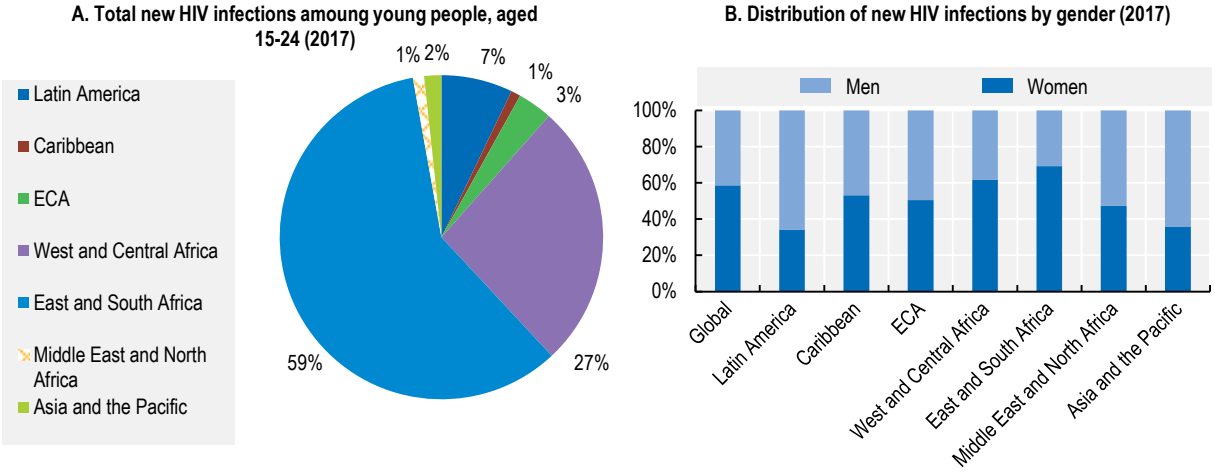
Risky health behaviours among youth can jeopardize long-term health

Risky behaviours amongst adolescents, such as drug and alcohol abuse or unprotected and unsafe sex, increase vulnerability to adverse health outcomes and chronic health conditions. Unprotected and unsafe sex facilitates the spread of sexually transmitted diseases and infections such as HIV/AIDS and HPV, among others, and can lead to early and/or unwanted pregnancy.

HIV/AIDS is one of the more serious and lethal transmitted diseases that can be acquired through risky health behaviours. Young people bear a major share of new HIV/AIDS infections, with global estimates of 1 600 young people acquiring HIV per day, and one young person dying from AIDS-related illnesses every ten minutes (UNAIDS, 2018[54]). Currently, over 30% of all new HIV infections occur among youth aged 15 to 25 years, with 59% of the world's newest HIV transmissions among youth in Sub-Saharan Africa (Figure 5.11) (UNAIDS, 2018[54])).

Young women (15-24 years) are disproportionately impacted by new HIV infections among youth. For instance, in Sub-Saharan Africa, 67% of new infections among youth are contracted by women. Worldwide, 58% of new HIV infections globally are contracted by women (). Young gay men are 27 times more likely to contract HIV/AIDS than heterosexual men, forming an important key population at risk (UNAIDS, 2018[54]).

Figure 5.11. Percentages of new HIV infections in young people, by region and gender



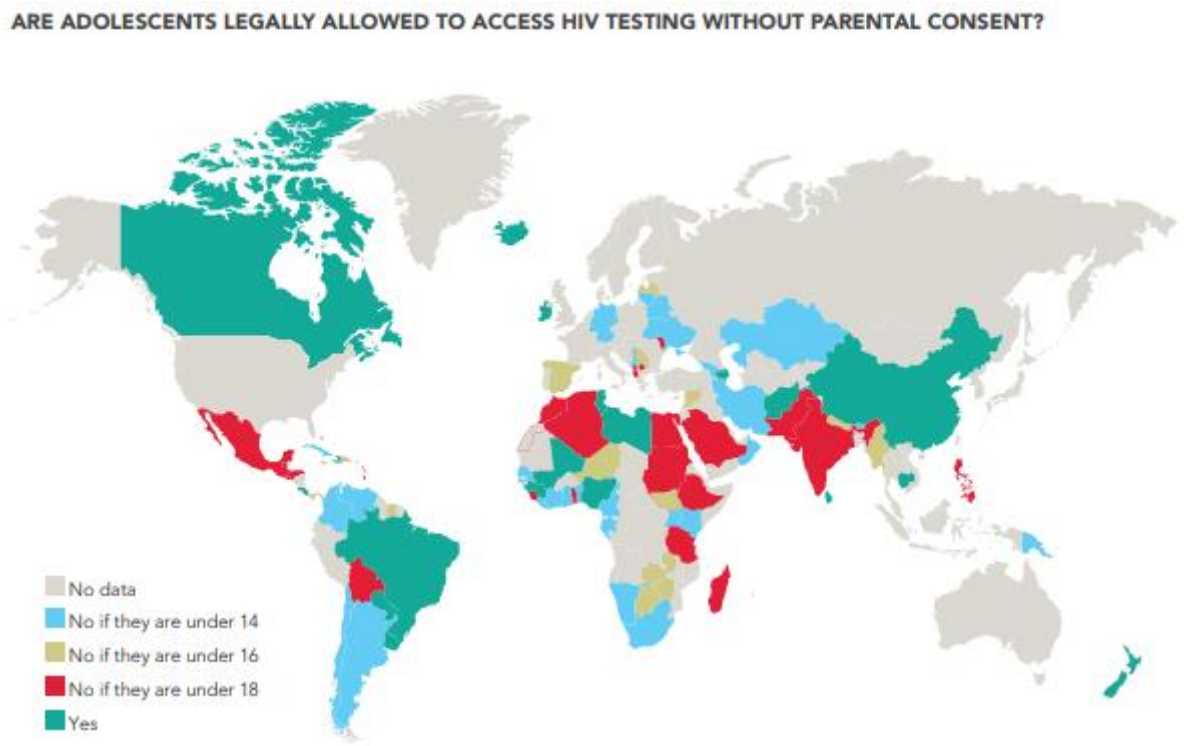
Source: UNAIDS (2018[54]), Youth and HIV — Mainstreaming a three-lens approach to youth participation.

StatLink https://doi.org/10.1787/888934039236

Restricted medical rights for youth under 18 years old contribute to difficulties in receiving a diagnosis and accessing treatment. Many young people are unaware of having contracted HIV/AIDS and can be reluctant to seek testing services that require the consent of a parent or caretaker. Among countries for which data is available, 60% require adolescents to have parental consent in order to access HIV treatment services (Figure 5.12). Of these countries requiring consent, 29% require parental consent for adolescents younger than 18 years of age, 19% require it for adolescents younger than 16, and 12% require it for adolescents younger than 14 (UNAIDS, 2018[54]).

In summary, children living with HIV/AIDS deal with stigma and can be the subject of discrimination, exclusion, and violence, all of which have long-term effects on well-being.

Figure 5.12. Parental consent is still largely necessary for young people to access HIV/AIDS testing



Source: UNAIDS (2018[54]), Youth and HIV: Mainstreaming a Three-lens Approach to Youth Participation

Early pregnancy and marriage can hinder the healthy transition of girls and boys into young adulthood

Early marriage (before the age of 18) and early pregnancy (before the age of 20) remain common in developing countries. Most countries have set a legal age for marriage (usually 18 years), however 93 countries provide exceptions upon parental consent or court application. Furthermore, 54 countries allow girls to marry between one and three years earlier than boys (Heymann and McNeill, 2013[55]). In total, 39 000 girls marry every day, of which one in three marry before the age of 19 and one in nine before the age of 15.

Early marriage is closely linked to early motherhood. Ninety percent of the 16 million adolescent girls who give birth each year are married. Of these 16 million, two million are under the age of 15. Access to education is a major protective factor against early pregnancy, as more years in school correlates with fewer pregnancies (WHO, 2014[56]). In all, a significant number of women have their first baby while still children themselves. Between 2010 and 2015, over 45% of women in the 20–24 age cohort reported having given birth for the first time by age 18. Early marriage and pregnancy are linked with lower educational attainment, higher rates of poverty, higher rates of maternal mortality, lower likelihood of accessing health services, HIV exposure, domestic violence and reduced decision-making power within the family) (Nguyen et al., 2019[57]; Jones, Harper and Watson, 2010[58]). In fact, complications from childbirth and pregnancy is the leading cause of death among females in the 15-19 age cohort in low- and middle-income countries (WHO, 2014[56])

Poverty disparately affects the proportion of girls who are married early. In many developing countries, adolescent pregnancy rates are higher among girls from poor families. In Latin America and the Caribbean, for example, pregnancy rates are 3-5 times higher for poor adolescents versus their richer counterparts (Fatusi and Hindin, 2010[59]). Across poorer rural areas, pregnancy rates are also higher than in urban

areas (Fatusi and Hindin, 2010[59]). Girls with no education are also at higher risk of early pregnancy than those who have at least attended secondary education (Fatusi and Hindin, 2010[59]).

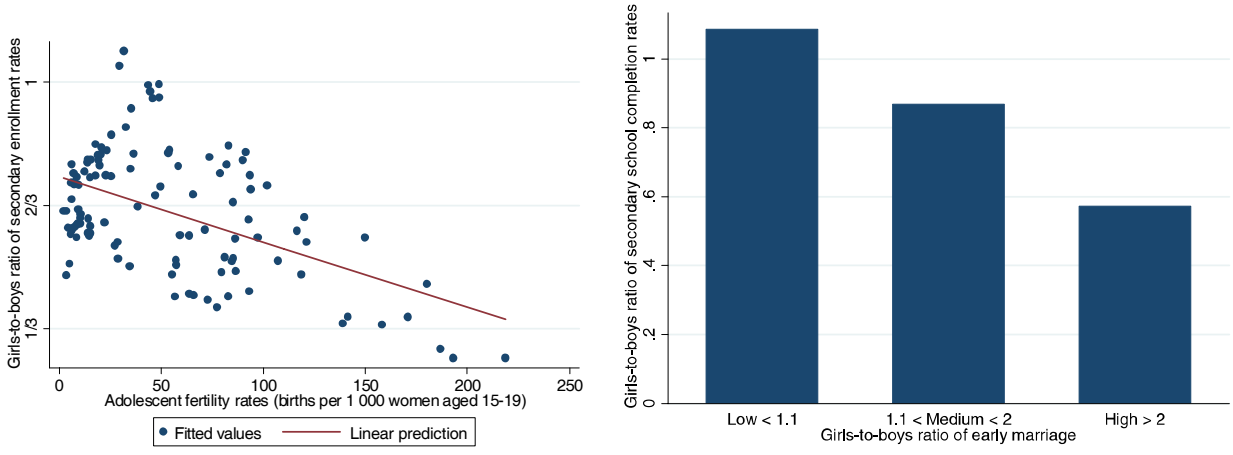
Since 2010, early marriage rates have dropped significantly, though global absolute numbers remain high. Today one in five girls is married before the age of 18, compared with one in four a decade ago (UNICEF, 2018). South Asia has the highest rates of child marriage in the world: 45% of all women aged 20-24 years reported being married before the age of 18, and 17% are married before the age of 15 (UNICEF, 2018).

Early marriage and pregnancy cut short girls' educations and explain persistence in gender gaps at the secondary school level. Societal expectations and heavy domestic workloads force many married girls to abandon their education. In Nigeria, marriage and childbearing account for 15-20% of girls' dropping out of school (Nguyen and Wodon, 2012). Where adolescent fertility rates are high, fewer girls enrol in secondary school, thereby increasing the gender gap in enrolment and completion rates (Figure 5.13).

Likewise, in countries where more girls than boys aged 15-19 are married, fewer girls complete secondary school (Figure 5.13). As the rates of prevalence of both early marriage and early pregnancy increase, girls' secondary school enrolment rates and completion rates decrease. This is the case regardless of other factors at the country level, including poverty, share of female teachers, government expenditure on education, female unemployment rates, urbanisation rates and region-specific characteristics.

Figure 5.13. Early pregnancy and early marriage are linked to low secondary school completion rates among girls

Correlation between secondary school enrolment and adolescent fertility, early marriage and school completion



Note: This graph shows the relationship between the predicted total fertility rate and the SIGI 2014, controlling for the country's human development index score, gender gap in unemployment rates, and urbanisation rates.
Source: OECD (2014[60]), SIGI 2014 Synthesis Report, OECD Development Centre, Paris.

Conclusion

This chapter described the common challenges facing vulnerable children in developing countries under three dimensions of well-being. While the factors contributing to child vulnerability overlap with those discussed in earlier chapters, in developing countries place of residence and gender are especially pertinent. Infant, child and maternal mortality are disproportionately higher in rural areas and with low maternal education. Low concentration of health workers and health facilities are associated factors. Poverty and lack of access to education contribute to large numbers of girls marrying before the age of 18.

The six areas of policy action for improving the well-being of vulnerable children discussed in Chapter 5 are equally valid in the context of developing countries. However, there is wide variation in the modalities developing countries can use to implement desired policy objectives, from programme types to supporting legislation.

In the context of high infant mortality, maternal and child health interventions are critical for improving children's health and survival. Perinatal mortality accounts for more than 20 percent of deaths in children under five, underscoring the necessity of good quality and accessible maternal health care. Child health interventions should focus on the root causes of child mortality, which are in most cases attributable to five preventable communicable diseases: pneumonia, diarrhoea, measles, malaria and HIV/AIDS. Malnutrition increases the risk of dying from these diseases.

The potential for high returns in early child development makes investing in the early years a priority. Within developing countries, there are large differences in the quality of children's home learning environments. In the majority of developing countries, children from the poorest wealth quintile are unlikely to access early child development (ECD) programmes, though ECD can go a long way in assisting families in meeting children's basic needs. Interventions include nutritional supplementation; socio-emotional and cognitive stimulation; health care; training, support and education of parents, caregivers, and teachers in effective childcare; and public awareness campaigns to enhance parents' knowledge of child development and parenting practices.

Notes

[1] The International Conference on the Great Lakes Region include countries Angola, Burundi, Central African Republic, Republic of Congo, Democratic Republic of Congo, Kenya, Rwanda, Sudan, Tanzania, Uganda and Zambia.

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BUILDING OPPORTUNITIES AND RESILIENCE

Child vulnerability is the outcome of a range of complex factors that compound over time. Across the OECD, millions of children from diverse backgrounds face daily hardships ranging from poor housing and inadequate diets to maltreatment and unsafe neighbourhoods. Vulnerability locks disadvantaged children into disadvantaged adulthood, putting the brakes on social mobility. Investing in vulnerable children is not only an investment in disadvantaged individuals, families and communities, it is an investment in more resilient societies and inclusive economies.

This report analyses the individual and environmental factors that contribute to child vulnerability. It calls on OECD countries to develop and implement cross-cutting well-being strategies that focus on empowering vulnerable families; strengthening children's emotional and social skills; strengthening child protection; improving children's health and educational outcomes; and reducing child poverty and material deprivation. Such policies reduce the barriers to healthy child development and well-being and increase opportunities and resources, thereby helping vulnerable children build resilience.

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