

Towards the urgent elimination of **HAZARDOUS CHILD LABOUR** 

# Towards the urgent elimination of **HAZARDOUS CHILD LABOUR**

# Copyright © International Labour Organization 2018 First published 2018

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

#### **FUNDAMENTALS**

Towards the urgent elimination of hazardous child labour / International Labour Office, Fundamental Principles and Rights at Work Branch (FUNDAMENTALS) - Geneva: ILO, 2018.

ISBN: 978-92-2-030954-4 (Print), 978-92-2-030955-1 (PDF)

Also available in French: Vers l'abolition urgente du travail dangereux des enfants, ISBN 978-92-2-030956-8 (Print), 978-92-2-030957-5 (PDF), Geneva, 2018; and Spanish: Hacia la eliminación urgente del trabajo infantil peligroso, ISBN 978-92-2-030958-2 (Print), 978-92-2-030959-9 (PDF), Geneva, 2018.

#### **ACKNOWLEDGEMENTS**

The ILO is grateful to Susan Gunn, Halshka Graczyk and Martha Samano, who were co-authors of this report. The report was produced and edited by Liliana Castillo, Jane Colombini, José Maria Ramirez, Ben Smith, and Simon Steyne from ILO FUNDAMENTALS Branch.

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

Cover Photos © International Labour Organization

Printed in Switzerland

Photocomposed by Romy Kanashiro, Lima, Peru

# Contents

rore	eword		,
Exec	cutive summary		i
New	w findings to report		xii
1.	other terms?		<b>1</b> 2 3 3 6 6
2.	2.1 In which sectors is had exposures are most had	bout hazardous child labour azardous child labour most prevalent? What tasks or zardous for children? ninating hazardous child labour not quicker?	13 14
3.	3.3 Are more boys than gir		19 21 21 22 22
4.		en's unique vulnerabilities at work acute for children under 18?	<b>25</b> 26
5.	What we know about the im 5.1 Fatal injuries 5.2 Non-fatal injuries 5.3 Occupational disease 5.4 Economic consequence 5.5 Educational consequence	pacts of hazardous work	29 30 31 32 33 33
6.	Why are children more likely	to be hurt at work?	35
7.	What we need to do: Prevention 7.1 Legal foundations 7.2 Risk assessment	t and protect	<b>39</b> 40 42
8.	What we need to do: Promo 8.1 Integrated area-based a		<b>49</b> 50
Con	nclusion		53
Refe	erences		57

# Foreword







#### **Foreword**

Eight-year-old Otgonbayar wakes up before dawn to search for water for his family's livestock. It is a long walk in the desert, made dangerous by wild animals and the darkness. By the time he returns with a full bucket, his back hurts. He rubs it and sits down to rest, but his mother calls him and his siblings to come with her to work at the riverside. Otgonbayar's family left their village for this isolated artisanal mining camp when his grandfather's illness emptied the family's savings.

His father and older brothers start crushing the boulders. His father tells Otgonbayar this task is only for older boys who can lift the heavy tool over and over again. Sifting the crushed rock is usually left to the young children and women. Otgonbayar spreads a cupful of crushed rock and sand onto his sieve and adds liquid mercury. It spreads in large balls and attaches to any gold in the mixture. This is his favourite part. He evens plays with the mercury on his hand when his parents aren't looking. After sifting, any mercury-laden rocks are plucked by hand and left in a small bowl. The debris is dumped back in the river. Otgonbayar doesn't know that mercury is dangerous, especially to a child whose brain and nervous system are still developing. He does not know that mercury gets into his body through his skin, the air he breathes, and the water he drinks.

Otgonbayar wants to go to school, but there are none here; he is aware that all the children in the camp share his fate (Graczyk, 2010). In 2018, there is simply no place for hazardous child labour. It is a violation of children's rights, and of the right of everyone to live in a world free from child labour. The Sustainable Development Goals (SDGs) reaffirmed this universal aspiration by establishing Target 8.7, which calls for immediate and effective measures to eliminate the worst forms of child labour, including hazardous child labour, and by 2025 to end child labour in all its forms.

The urgency to act could not be clearer: today some 73 million children, toiling in mines and fields, factories and homes, exposed to pesticides and other toxic substances, carrying heavy loads or working long hours, are in hazardous child labour. Many suffer lifelong physical and psychological consequences. Their respective communities and societies lose too, as children are prevented from reaching their full potential as citizens. The shocking information, that while hazardous child labour among older children continued to decrease between 2012 and 2016, it increased among children aged 5-11 years, means we need renewed commitment to integrated approaches to address child labour of all types. If we are serious about reaching our objective we must "turn off the tap" and prevent children from ever entering child labour.

A robust evidence base is essential if we are to meet the target of eliminating child labour, and this report presents vital new information about hazardous work performed by children. The world of work is experiencing profound change, and the nature and consequences of hazardous work of children are dynamic as well. New industries arise creating new hazards; new science sheds light on how hazardous work affects children's physical, mental and moral development.

This report brings together and assesses new research on hazardous child labour, following the ILO's last report on this subject in 2011. It is our hope that it will be useful to governments and employers' and workers' organizations as they formulate policies to tackle hazardous child labour, including by creating national "hazardous work lists". Such lists, required by the ILO Minimum Age Convention, 1973 (No. 138) and the Worst Forms of Child Labour Convention, 1999 (No. 182), provide essential legal protection. They are created at the national level, reflecting the fact that hazardous work varies between countries and that tailored responses are required. Effective hazardous work lists are derived from tripartite consultations at the national, regional and sectoral levels, and grounded in risk assessments and other occupational safety and health data and tools. These lists should be detailed and provide specific guidance on employment or work which by its nature or the circumstances in which it is carried out is likely to harm the health, safety or morals of children. They should be comprehensive yet not so broad that they close opportunities for decent work for children above the minimum age for work.

Today we see signs of renewed commitment to end hazardous child labour and achieve SDG Target 8.7. In the 2017 Buenos Aires Declaration, adopted at the IV Global Conference on the Sustained Eradication of Child Labour, governments and employers' and workers' organizations resolved to adopt and periodically review hazardous work lists, made a series of related concrete pledges, and reaffirmed their commitment to use integrated approaches to address all forms of child labour. Alliance 8.7, with the goal of eradicating forced labour, modern slavery, human trafficking, and child labour, is gathering pace as a platform for accelerating timelines, sharing knowledge, driving innovation, and increasing resources. The International Partnership for Cooperation on Child Labour in Agriculture (IPCCLA) is another important forum for action in this sector, which accounts for 71 per cent of all child labour.

In 2018, the World Day Against Child Labour, with the theme "Generation Safe and Healthy", is marked across the globe. It is part of the wider ILO campaign against child labour and for safe youth at work, promoting safe and decent employment for young workers, and this report should be read in conjunction with the ILO publication Improving the Safety and Health of Young Workers (ILO, 2018a) and the SafeYouth@Work Action Plan (ILO, 2018b). What follows demonstrates that we have extensive experience and an ample evidence base to assist us in tackling hazardous child labour. Let's join forces, put this knowledge to greater use, and put an end to it.







# Executive summary

<u>All</u> child labour must be eradicated. Reaching SDG Target 8.7 of ending child labour in all its forms by 2025 requires integrated approaches and massively accelerated progress, including to prevent the youngest children from entering child labour in the first place.

In 2017, the ILO global estimates report (ILO, 2017b) showed that almost 73 million children – almost half of the 152 million in child labour – were engaged in hazardous work. Risks are present in any kind of work, but for children – whose bodies and minds are still developing – any risk is amplified. When children work in hazardous conditions, conduct hazardous tasks, or are exposed to hazardous substances, the risk is multiplied still further. That is why the international community committed itself to eliminating hazardous child labour – defined by ILO Conventions No. 138 on Minimum Age and No. 182 on the Worst Forms of Child Labour – and to protecting all children from it as an urgent priority.

Despite the continued support from governments, employers' and workers' organizations and from the wider worldwide movement for eliminating hazardous child labour, it persists, in developed as well as developing countries, jeopardizing children's health, safety, or morals. Shockingly, the number of youngest children in hazardous child labour has increased.

In 2011, the ILO published the report *Children in hazardous work: What we know, what we need to do* (ILO-IPEC, 2011) – a review of the nature and extent of hazardous child labour. Seven years later, new evidence is aiding better understanding of why this worst form of child labour persists and

uncovering new interventions that might have more chance of eliminating it.

A new finding is that certain occupational hazards – including exposure to psychological stress and to commonly-used chemicals – are more serious for children that we had thought. Girls and certain social and ethnic groups are particularly disadvantaged. Such research findings can assist policy-makers, employers and trade unions in challenging entrenched practices and enable them to focus their attention better on the most dangerous or prevalent risks, rather than just on those that might be most visible or easiest to deal with.

Protecting children requires evaluation of the risks in all work they undertake and informed judgements about what is appropriate for them to do. Patently dangerous activities normally form the core of the "hazardous child labour list" that Conventions Nos. 138 and 182 require countries to prepare. But others are not always so obvious – one key reason for the list to be revised regularly.

The potential impact of work on children's physical and psychological health varies according to their developmental stage. New evidence emphasizes the vulnerability of adolescent children and the length of time this vulnerability lasts. Research is demonstrating that the period of growth from 5 to 24 years is a continuum, within which children (and young adults) face a range of vulnerabilities that require responses in law and practice. Depending on whether the work is intrinsically hazardous or is hazardous because of the circumstances in which it is carried out, interventions may differ between children above the minimum age for



admission to employment or work (usually 15 years of age) and those below that age. As the report explains, the limited exceptions permitted by the Conventions apply only to children of 16 and 17. What is important is that member States fulfil their obligations to protect the human rights of all children from hazardous work. And to be effective the interventions need to be appropriate to the particular conditions, not least if the workplace is the child's own family home.

Another major finding is the crucial and mutual link between education and health: lack of education increases the risk of negative health outcomes from work, and conversely, quality education has positive and protective effects on health.

Some progress has been made during the last few years. A number of pilot interventions have been scaled up with good results. Key among these are "integrated area-based approaches". This multi-pronged strategy seeks to ensure that children removed from one form of hazardous work do not end up in another, or are replaced by their siblings, and that, even if the entry point for intervention is prevalence of hazardous child labour in one sector or supply chain, the exit point

is a community or area free from child labour in all its forms and with all children of school age where they should be – in school.

This report highlights that, when governments, employers and their organisations, trade unions, and other relevant civil society organizations join forces, we can develop appropriate law and regulation and implement innovative ways to enforce them, to prevent hazardous child labour, and to promote safe and decent youth employment for those legally old enough to work. Given the knowledge about the risks and interventions now available, it is time to renew our commitment to respond to this urgent challenge.

# New findings to report Photo © ILO/Crozet, M.





# New findings to report

# 1. Are rates of hazardous child labour continuing to fall?

New ILO estimates show that among the younger children aged 5-11 in child labour the number and percentage in hazardous child labour increased between 2012 and 2016. While hazardous child labour continues to decline overall, in particular among children aged 15-17, the decline of child labour that is not hazardous but performed by children who are below the minimum age for work has slowed drastically and is confined largely to children aged 12-14. This bucks the general downward trend in child labour in all age groups since 2000. There are several theories as to why this may be occurring. Among others, the increase is mainly in Africa, and most likely among children in rural areas, where we have seen a significant increase in the number and percentage of children in child labour in agriculture, most of it performed on family farms, in which children typically first enter child labour between the ages of 6 and 8 years (Guarcello, Lyon, Valdivia, 2016).

#### 2. How does risk vary with age?

We know that the youngest children are most susceptible to a range of hazards because of their size, lack of strength and understanding of risk, and because their body mass/skin ratio makes them exponentially more vulnerable to certain toxic hazards. New analyses conclude that adolescence – the period of maturation of key organ systems – is starting earlier (age 9-10) and lasts longer (up to age 25) than previously understood. The speed and nature of these changes, make adolescents more vulnerable to chemical and psychological

hazards than previously thought. A new Lancet Commission on Adolescence has raised concern that, for years, less research or action has been targeted towards children and youth than other age groups, resulting in less appreciation of their unique characteristics (Sawyer et al., 2018).

# 3. How does child labour harm children's psychological well-being?

A four-country study (Afghanistan, Bangladesh, Nepal, Pakistan) of child labour in one particularly hazardous sub-sector found that children who were working in brick kilns displayed poorer psychosocial well-being than their non-working peers. In contrast to a comparison group, these 955 working children, aged 11-17, experienced less social and family support, had less confidence in others, less hope for the future, and a greater feeling of abuse. Schooling mitigated certain of the negative psychological impacts otherwise associated with this arduous child labour, but the nature and severity of the psychosocial suffering, which compounded the physical risks, underscore the urgency of action (Pelleng, Gunn, Lima, 2018).

# 4. Why is agricultural work, particularly pesticide exposure, dangerous for children?

New research presents further convincing evidence of the effect of commonly-used agricultural pesticides on the health of children.

A 3-year epidemiological study of 297 adolescents in Egypt who applied organophosphate and pyrethroid pesticides reported reduced lung function, neurobehavioural deficits, increased Attention Deficit Hyperactivity Disorder, and



changes in neurobehavioural outcomes. It indicated that some of these changes continued for months after exposure ended, and that environmental exposure affected even children who were not applying pesticides (Rohlman, 2015).

# 5. In agricultural work, are the tasks that children perform less dangerous than those performed by adults?

Recent review of data in Ethiopia, Niger, Nigeria and Tanzania confirms that children and youth play an important role in agricultural production and perform tasks mostly similar to those of adults. Depending on the nature of production, children and adults face similar hazards, though the risks those hazards present are greater for children. The very high level of dependence of family farms on unpaid child labour presents great challenges for prevention and remediation. And while many children attempt to combine work with formal education, there is a perceptible decrease in school attendance and achievement among both boys and girls aged 10 (Dachille, Guarcello, Lyon, 2015).

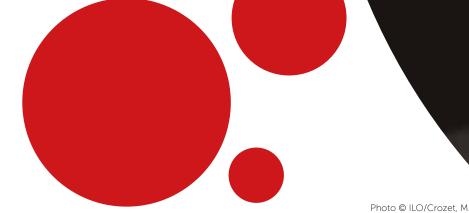
# 6. What substances in the work environment pose the most common risk to children in hazardous child labour?

Improved measurement equipment confirms that a wide range of types of work children perform expose them to silica-containing dust. Children in hazardous child labour are exposed to dust in agricultural work, brick and stone manufacturing, pottery-making, construction, mining, and in sweeping up in homes and workshops. The dust often contains silica, which has a particularly noxious effect on children because the alveoli in their lungs are still developing, and because poverty-associated factors (inadequate food and shelter, and crowding) compound the risk of tuberculosis (Parker, 2018).

## 7. Is working with the family less hazardous for children?

Family-based work can be as hazardous as work outside the family. Hazardous work must be addressed even when it happens in family-based work, including agriculture, and adults in the family may themselves be unaware of the hazards they and their children face. Two recent studies found that children working with their family often worked for long hours and suffered psychological stress of different kinds (Pellenq, 2017; ILO-IPEC, 2014).

What do international labour standards mean by hazardous child labour – and other terms?







# What do international labour standards mean by hazardous child labour – and other terms?

The ILO brings together as equal counterparts those who represent the actors in the real economy: governments, and employers' and workers' organisations. Tripartism and social dialogue are not only objectives of the ILO, they are its means of action at all levels, including in global standard-setting, and help to ensure the relevance of international labour standards, and of legislation and its implementation. They underpin, not least, the two fundamental ILO Conventions on child labour: Convention on the Minimum Age for Admission to Employment, 1973 (No. 138) and the Convention on the Worst Forms of Child Labour, 1999 (No. 182), These standards dealing with hazardous child labour (especially when ratified) are the basis on which countries develop national law and regulation in compliance with their treaty obligations. When a national government is determining the types of work to be prohibited to persons under 18, it must do so in consultation with representatives of the concerned employers' and workers' organizations.

Early legislation against child labour in Europe began already in the 1830s. Almost a century later, outrage over children toiling in mines and factories put child labour on the ILO's agenda as soon as it was established in 1919. International Conventions dealing with child labour were among the first to be negotiated and adopted and these were largely consolidated in ILO Convention No. 138 The global campaign to end child labour was reinvigorated with the adoption of Convention No. 182, which highlighted the continued high prevalence of hazardous child labour among the worst forms.

# 1.1 "Children" and minimum ages in international law

When people speak of children they often mean someone of school age or below 15 years, not a tall and muscular 17-year-old. Particularly in Spanish-speaking countries, the term "children and adolescents" is often used. Yet in international law, notably the Convention on the Rights of the Child and in the ILO Conventions, "children" means all persons under 18. These instruments recognize that children are persons with a distinct set of rights: to survive, to grow and learn, and to be respected and protected in order to reach their full potential. The key international labour standard - ILO Convention No. 138 on Minimum Age - sets a further distinction by establishing the general age for starting employment or work at 15 years, although it can be set higher or, in less developed countries provisionally at 14. Indeed, of the 171 states which have ratified the Convention (as of May 2018), 78 have declared a minimum age of 15 years; 44 of 16 (including developing and emerging economies); and 49 of 14 years.

Biological age categories are somewhat different. Childhood is recognized as a time of rapid growth, encompassing certain periods of critical development or "windows" – some psychological, some physical – when children are particularly vulnerable. New thinking in biology about adolescence includes the range of changes in physical body structure and function and the full maturation of the brain, other organs, and psychological systems – starting progressively earlier and not ending until around age 25 (Sawyer et al., 2018). This means that vulnerability extends longer than previously thought and is reflected in ILO thinking about young workers, defined as

those in the age range 15-24, and about school-towork transition. In most areas of the world, formal compulsory education begins around age 6, with primary education ending at around 11 or 12, lower secondary at 14, 15 or 16 (commonly the ages at which compulsory schooling ends), and higher secondary education at about 18. Vocational and skills training can take place in both educational and workplace settings but informal systems may be unrecognised. Crucial to the meaning of Convention No. 138 is that the minimum age for admission to employment or work and the minimum age at which compulsory schooling ends should be consonant. The purpose is to prevent children from leaving school before they are permitted to work and, conversely, to prevent them from being enticed into the labour market before they have completed their compulsory education.

The two factors - of legal ages for the end of compulsory education and for starting employment or work of different types – are the basis for ILO Convention No.138, through which the international community established the general minimum age for (non-hazardous) work and prohibited hazardous work for all children under the age of 18. It also opened the possibility for countries to legislate to permit "light work" that did not interfere with education (from age 13 in a country with a general minimum age of 15, and from age 12 if the general minimum age was provisionally set at 14 years). While growth and development by definition form a continuum, clear minimum ages, enforceable in law and practice, are required to protect all children. Just as there are, commonly, clear minimum ages set in law at which children can learn to drive, vote, purchase alcohol, have consensual sexual relations or marry, and leave school, so too are there clear minimum ages for different types of work.

#### 1.2 "Hazardous child labour"

"Hazardous child labour" is work, which – by its nature or the circumstances in which it is carried out – is likely to harm children's health, safety or morals. The term "likely to" in the child labour

Conventions means that it is neither necessary to prove <u>beforehand</u> that the task, tool, or situation will cause injury or illness to a child, nor to wait until <u>after</u> a child suffers a work-related injury or chronic illness for work to be judged hazardous. Rather, it is a conclusion, after consultation with the concerned employers' and workers' organizations and based on best available evidence, that there is a strong chance that it can cause harm.

Although the ILO child labour Conventions and the Convention on the Rights of the Child do not use the word "hazardous", ILO Recommendation No. 190 includes an entire section entitled *Hazardous work*.

Determining what is and is not hazardous is a challenge for everyone - public authorities and employers' and workers' organisations, which have primary responsibility for making the determination, as well as for enterprises, cooperatives and other producer groups, and parents. Recognizing this, the ILO left the composition of the list to national determination, with guidelines in the Worst Forms of Child Labour Recommendation No. 190 that outline types of work that countries should, among others, consider as hazardous child labour. This determination is called the national "hazardous work list", which should reflect the types of occupations in the country - a land-locked country would not need to prohibit work in coastal fishing for example.

Most countries that have ratified one or both of the child labour Conventions have developed their hazardous work lists, but the quality varies. Despite the guidance of Recommendation No. 190, we lack a standardized methodology for determining what exactly constitutes hazardous work. Some lists cover too little, including only the most obvious and visible types of work or only those considered easiest to address, omitting some of the toughest challenges. Or the lists may focus just on those trades and types of work that present safety issues (e.g. risk of injury), omitting those without immediate or visible symptoms (e.g. chronic illnesses or psychological problems).



#### ILO Convention No. 182, Article 4\*

- 1. The types of work referred to under Article 3(d) [work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children] shall be determined by national laws or regulations or by the competent authority, after consultation with the organizations of employers and workers concerned, taking into consideration relevant international standards, in particular Paragraphs 3 and 4 of the Worst Forms of Child Labour Recommendation, 1999...
- 2. The competent authority, after consultation with the organizations of employers and workers concerned, shall identify where the types of work so determined exist.
- 3. The list of the types of work determined under paragraph 1 of this Article shall be **periodically examined and revised as necessary**, in consultation with the organizations of employers and workers concerned.
- \* ILO Convention No. 138, Article 3(2) also contains the requirement to determine the hazardous work list.

#### **ILO Recommendation No. 190**

#### I: Programmes of action

Programmes of action to eliminate as a priority the worst forms of child labour should aim at identifying and denouncing them, preventing the engagement of children in or removing them from the worst forms of child labour, and giving special attention to: younger children, the girl child, hidden work situations – in which girls are at special risk –, and other groups of children with special vulnerabilities or needs.

#### II: Hazardous work

In determining the list of hazardous work consideration should be given, inter alia, to work:

- a) which exposes children to physical, psychological or sexual abuse;
- b) underground, under water, at dangerous heights or in confined spaces;
- c) involving dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads;
- d) in an unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging to their health;
- e) under particularly difficult conditions such as work for long hours or during the night or where the child is unreasonably confined to the premises of the employer.

On the other hand, some lists may be too general, designating whole occupations, including all their constituent tasks, as hazardous, which may unnecessarily reduce opportunities for safe youth employment – not least in communities with limited labour markets.

Convention No. 138 foresees the possibility of national tripartite agreement to authorise children of 16 and 17 years to perform work designated as hazardous so long as their health, safety and morals are fully protected and that they have receive adequate specific instruction or vocational

### Community-based participatory studies: Helping take stock of hazardous child labour and revising the hazardous work list (Mali)

A study of occupational hazards to children was conducted in 30 agriculture enterprises in Mali. It identified over 25 hazards in roughly equal numbers in crop agriculture, livestock raising, and fish farming. These resulted in accidents, cuts or bruises from tools, injuries or bites from reptiles and domestic animals, road accidents and falls, back strains and other musculoskeletal disorders, as well as diseases, the most frequent of which were: malaria, bilharzia (schistosomiasis), and digestive infections, seasonal illnesses (colds and flu due to exposure). Shockingly, the study revealed the use of more than 50 different types of chemical products, including some of the most dangerous pesticides (e.g. organochlorines) banned elsewhere.

While some of the working children were above the legal minimum age for employment or work, many others were not. All had left school temporarily or permanently. Their work was gruelling – commonly seven days per week, sometimes for more than 8 hours per day. Coupled with this was an average journey to work of 2.6 km, plus subsequent household work (1-2 hours on average).

Children were engaged because there was little mechanization and the work involved mostly traditional techniques that required manual labour, hauling, and use of hand tools.

#### The study found that there was at least:

- one accident or illness per day/per child in crop agriculture and fishing
- one case of accident or illness per week/per child in livestock breeding

This study had a number of positive outcomes (besides the data). It led to the creation of a health statistics collection system, and was able to identify and rank the factors that had been hindering preventive efforts. It recommended that a guide to raise awareness of children's occupational safety and health (OSH) be prepared for parents, inspectors, and monitors to use with children before they started work; and that the safety and health of children at work be integrated into training for labour inspectors, agricultural inspectors, and extension workers. Especially important, it provided guidance for the revision of the national list of hazardous work in crop agriculture, livestock raising and fishing. Particularly helpful in the risk assessment was the detailed list of agricultural activities and tasks that helped to differentiate hazardous tasks from those that were appropriate for children of working age in this sector.

Source: ILO, 2017a.



training in the relevant branch of activity. On the one hand, this derogation cannot apply to work which is hazardous by its nature (precisely because its intrinsically hazardous nature means that the hazards it entails cannot be managed). On the other hand, the derogation (which has been used by only a small number of member States) would open the possibility of tripartite agreement to permit, for example, young workers to learn to use sharp tools safely as part of a structured apprenticeship.

#### 1.3 "Hazard" and "risk"

A "hazard" is anything with the potential to cause physical injury, illness, mental harm, or stunt physical, intellectual, or emotional development. A hazard can be a toxic substance, a dangerous machine, a strenuous task, or a stressful situation. Every workplace contains different types and combinations of hazards.

A "risk", on the other hand, is the likelihood that a hazard will result in some type of harm. Risk can be further ranked by the degree of harm that can result (i.e. severity) and the assessment of the chance that the harm may occur (i.e. probability).

# Risk = severity of harm x probability of harm occurring

For children, these risks include risks of harm to long-term development.

#### 1.4 "Child labour" and "children in employment"

In English, the terms "labour" and "employment" have both colloquial meanings and technical (statistical) or legal meanings. Some use "child labour" colloquially – and erroneously - to refer to any work a child does. However, the two definitions are distinct for a reason. Children in employment refers to those children working in any form of market production and certain types of non-market production, including the production of goods such as agricultural products for the child's own use or consumption

# ILO statistical concepts and definitions for categories of work and child labour

- a) Children in employment are children working in any form of market production and certain types of non-market production (principally, the production of goods such as agricultural produce for own use). This group includes children in forms of work in both the formal and informal economies; inside and outside family settings; for pay or profit (in cash or in kind, part-time or full-time); and domestic work outside the child's own household for an employer (paid or unpaid).
- b) Child labour is a narrower category than children in employment. It reflects the engagement of children in prohibited work and, more generally, in types of work to be eliminated as socially and morally undesirable as guided by national legislation, the ILO Minimum Age Convention, 1973 (No. 138), and the Worst Forms of Child Labour Convention, 1999 (No. 182), as well as their respective supplementing Recommendations (Nos. 146 and 190). It excludes children in employment who are in permitted light work and those above the minimum age whose work is not classified as a worst form of child labour, or, in particular, as hazardous work.
- c) Children in the worst forms of child labour are those in the categories of child labour set out in Article 3 of ILO Convention No. 182. These comprise:

  (a) all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom, and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict;
  (b) the use, procuring or offering of a child for prostitution, for the production of pornography or for



pornographic performances; (c) the use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties; and (d) work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety, or morals of children.

- d) Children in hazardous work are those involved in any activity or occupation that, by its nature or the circumstances in which it is carried out, is likely to harm their health, safety, or morals.
- e) Light work is a special category, in which national law or regulation may permit the employment or work of persons from 13 years of age (or 12 years in countries that have specified a general minimum working age of 14 years) in light work which is: (a) not likely to be harmful to their health or development; and (b) not such as to prejudice their attendance at school, in vocational orientation or training programmes approved by the competent authority or their capacity to benefit from the instruction received.
- f) Unpaid household services or household chores by children refers to the performance of domestic and personal services for consumption within the children's household.

Source: ILO, 2017b.

(ILO, 2017b). Child labour, on the other hand, is a narrower category, defined legally by ILO Convention No, 138 on Minimum Age and Convention No. 182 on the Worst Forms of Child Labour), as well as their respective supplementing Recommendations (Nos. 146 and 190). This term reflects the engagement of children in prohibited work and, more generally, in types of work to be eliminated as socially and morally undesirable as guided by national legislation (ILO, 2008). Unfortunately, although they have different meanings, the common, interchangeable use of these terms often causes confusion.

#### To summarize

Labour standards reflect international consensus of the actors in the world of work about what is and is not acceptable for children to do. Some countries, in accordance with the flexibility of the ILO child labour instruments, have set the minimum age for admission to employment or work provisionally at 14 years. They are committed towards moving that age to 15 years, which is the basic standard of Convention No 138. Of course, Conventions set minimum standards - states are free to exceed them and provide greater protections if they wish, and a number have indeed set the general minimum age at 16 years. But, despite possible exceptions for 16 and 17 year olds, there is no such flexibility regarding hazardous work: in principle it should be prohibited for all children under the age of 18 and that protection should apply regardless of the state of development of the country concerned. These standards provide a basis for national law and regulation concerning compulsory school attendance and for labour law, which, for example, enables a labour inspector to stop a shop owner from demanding excessive hours of work for its younger staff.

In this report, we focus on children of all ages classed as being in hazardous child labour, including children performing hazardous work in home-based enterprises and family farms. We are concerned also with those who are above the general minimum age for admission to employment or work but currently doing work



that, if protections are not in place, could be categorized as hazardous child labour, as well as children who are helping out with chores in the home or on the family farm, and children living outside family care.

Of particular concern is the youngest age group (5-11 year olds), among whom there has been a discernible increase in the absolute number engaged in hazardous child labour since 2012 (and in the percentage of those in child labour in that age group who are performing hazardous work). This deeply worrying trend portends higher figures in the future... unless the tap can be turned off now.

#### **RECOMMENDATION FOR ACTION**

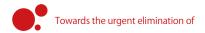
Given the fast pace of economic and social change, governments should update their "hazardous child labour lists" frequently, cooperating with the relevant employers' and workers' organisations, paying full attention to occupations where hazards are less visible and the risks are less obvious.



What we know (and don't) about hazardous child labour







# What we know (and don't) about hazardous child labour

Hazardous child labour is a priority for several reasons. First is the risk to the child and the child's future. Suffering a significant work-related injury or illness when young can be catastrophic for future working life and health, and even a mild impairment can have long-lasting effects on wellbeing. Loss of health in childhood results in a longer period of infirmity than if it occurs later in life.

Second, reduced lifetime productivity and income insecurity result for both the child and the household. This is especially true for the 69 per cent of children in child labour who perform unpaid work as "contributing family members". In these cases, the family livelihood or income may be dependent on the work of the children, either because the family enterprise is not viable enough to replace their unpaid labour with an adult employed in decent work (often in local labour markets with a labour shortage); or because, typically, the entire family is engaged in piece work for a third party employer for rates that are too low for the adults alone to earn a sufficient income and for which family work only the head of household is paid. Or, the work of the children may substantially increase the efficiency of the parents, as in the case of brick manufacturing, in which children might turn the bricks to dry, releasing adults to do more arduous work of gathering clay and feeding the kilns. So, in addition to costs for care or medicine, the family also loses the value of the labour of a child who is made sick or is injured as a result of their work.

There is also an inter-generational effect. All too often, a child takes up a hazardous work because the parent has become incapacitated or has died due to this same activity. This perpetuates a cycle

My name is Sarswati Danuwar. I am 13 years old. I stopped going to school my family didn't have enough to eat so I had to work. I wake up at 2 o'clock in the night and work with a flashlight until the sun comes up. My job is putting clay into the moulds, turning the bricks as they dry, and then stacking them to go into the kiln. They are really heavy.\* At 11 o'clock, I make Dad's lunch, take rest and then work until it gets dark. I go back to cook supper and do housework and then go to bed at 9 in the evening. When the rainy season starts the brick season ends. I go back to our home village – about three days' travel from here. At home I help farm the small plot we rent. Yes, I have to come again next season because my little sister won't be able to go to school if I don't work, and my father is having trouble breathing too. I'm worried that he is ill. Yes, I know that some people say this work is dangerous, but it's okay for me, because the other workers take care of us. The only time I got hurt was when I dropped a brick on my bare foot.

Yet the health check-up Sarswati was given a as part of an ILO project, told a different story. The health impacts were invisible: exposure to silicate dust from the brick kiln was already showing up in her lungs; she was exhausted and anaemic just at the point when her body needed resources to grow, and the heavy sense of obligation for her family's welfare was creating a serious level of depression, anxiety and stress. Most of all, Sarswati does not feel she has a choice and the future looks bleak (Joshi, 2016).

\* Each brick weighs about 2 kilos, more when wet.



of ill health, poverty and social inequality. The most disadvantaged families are more likely to be involved in hazardous child labour, and thus more likely than those in other social groups to become further disadvantaged due the resulting injuries and illnesses.

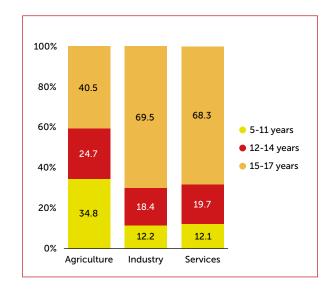
The harm done to children and their families has broader, societal effects as well, as injuries or illness suffered in childhood may result in life-long healthcare costs, and hinder productivity of the adult workforce in the future.

# 2.1 In which sectors is hazardous child labour most prevalent? What tasks or exposures are most hazardous for children?

Statistics show a clear correlation between economic sector and the age of children doing hazardous work. Agriculture is the sector with the highest proportion of younger children in child labour (5-11 years). Africa has the highest percentage (80.7 per cent) of children in child labour in agriculture. Not surprisingly, agriculture also accounts for the majority of children in hazardous work worldwide: some 62 per cent. On the other hand, older children are more likely to do hazardous work in industry and services. Of all children in hazardous work in industry, 69.5 per cent are 15-17 years old and only 12.2 per cent are 5-11 years old.

The impact of poor working conditions and environment is compounded when there is also lack of adequate food, clothing or housing or lack of access to quality schooling, leisure or social activities (WHO, 2008). Most if not all of these affect a child's psychological well-being, which suggests in turn that psycho-social damage to children is a huge area of risk that remains below the radar.

**Figure 1:** Percentage of hazardous work by branch of activity and age group, 5-17 years



Source: ILO, 2017c.

#### **RECOMMENDATION FOR ACTION**

Pay special attention to improving working conditions and environment – especially hours of work – wherever children above the minimum age for work are engaged in work or might do so in the future.

Most children in child labour perform unpaid family work, but it is often said that third party employers hire children because they are docile. Desperate to keep their jobs, more likely to be in precarious, informal work without the protection of a trade union, culturally accustomed to being respectful or reticent, or simply afraid, children are less able to speak up for themselves or to refuse to undertake a hazardous task.

Studies on this topic consistently show demonstrable negative mental health impacts of hazardous child labour, such as anxiety, mood disorders, negative self-esteem, depression, somatic complaints and social and cognitive problems – a vicious circle. Factors contributing to child workers' psychosocial ill-health include



isolation from peers and/or family, for example when children in child labour in domestic work live in the home of their employer, working long hours and are faced with fast-paced or demanding workloads, harassment and intimidation (Sturrock, Hodes, 2016).

My name is Badhra. We live in a very dry area so farming is very unsure. So, when I was 11 years old, my parents told me I should go to work as a maid for our landlord's family. They are very rich and live in the city. Mum and Dad said I would have lots of food to eat and, although I wouldn't go to school, I would learn to cook and other things I could use when I get married. But the worst thing was that everyone even the children in that family - treated me as if I was worthless. Pretty soon, I too started thinking I was worthless. I had to be ready to work any time they wanted, so I was often exhausted. They made me do the dirtiest jobs, like cleaning the toilets. If I was not fast enough they slapped my face or beat me with a stick. It could have been worse – I heard about other girls who were burned with a hot iron or had bad things done to them. It was so far from home and I never had anyone my own age to talk to. I was so lonely and so sad.

A study of occupational health of children in child labour in domestic work found that the indeterminate nature of the work hours caused domestic workers to suffer greater fatigue than in any of the other hazardous occupations that were studied (Awan, 2014).

# 2.2 Why is the pace of eliminating hazardous child labour not quicker?

Hazardous child labour is often hidden or difficult to reach. In the following table common examples of work of children that is often hidden behind closed doors, unseen or ignored are highlighted.

Table No. 1: Visible and unseen child labour

	Visible child labour	Unseen child labour	
Concentrated	Work in street-based workshops	Agricultural work in plantations	
	Street vending	Factory work	
	Tourist aides/souvenir	Cleaning	
	selling Restaurant serving	Scavenging (at night or on the dump)	
	Construction	Offshore fishing	
	Street-based car washing/watching	(platforms & ships) Work in tanneries	
		Work in cemeteries	
		Dishwashing in restaurants	
	Family agricultural	Domestic work	
Dispersed	work	Artisanal mining	
	Livestock herding	Brick kiln work	
	Lake/river fishing	Home-based	
	Water and wood gathering	production  Household chores	
	Portering/carrying grocery bags	in own home that are hazardous or performed for long hours	
	Recycling and rag- picking		

New types of hazardous work are also emerging. With the proliferation of electronics, the new occupation of e-waste recyclers exposes children to heavy metals such as cadmium. Mining is an old occupation, but in some areas of the world uses new processes that expose children to severe neurotoxins such as mercury to extract gold, and lead that may accompany the gold. The fodder chopper, a traditionally hand-operated piece of equipment commonly used in South Asia, poses new risks because the rotating blades are now machine-driven, creating risk of amputation and electrocution. New hazards are presented by large hoists used in "big box" stores; by manure pits, and



augers on grain silos on industrial farms, which suffocate and entrap; and, in the retail industry, by threats of and actual violence including armed violence, especially for those working or walking home at night.

My name is Aditja. I work on our family farm. As you can see, my right arm has gone. I got it caught in our fodder chopper. My father was getting more grass, and I couldn't reach the switch to turn off the machine. People here have used hand-cranked fodder choppers for years to make food for their animals. Recently, someone showed us how to fix a little engine to it and it really speeded things up. We could get the work done in half the time. But now everything has changed for me. It takes me twice as long to do anything. I don't know how I am going to make a living with only one arm.

A study reports traumatic injuries and over 5,000 deaths from powered fodder choppers attributed, in part, to loss of concentration or carelessness. Adolescents' work-related injuries are often attributed to their tendency for impulsiveness or distraction (Kalaiselvan, 2016).

We should bear in mind that, in addition to the specific category of hazardous work defined in Convention No. 182, other worst forms of child labour defined by the Convention – notably recruitment for use in armed conflict, commercial sexual exploitation, and illicit activities such as the production or distribution of narcotics – all present great hazards for children.

Another challenge in addressing hazardous child labour is that it crosses several disciplines, among them labour market economics, labour rights, education, child development, as well as a number of health-related areas – public health,

paediatrics, occupational safety and health, psychology – and, similarly, crosses multiple agencies at the international and national levels. In general, inadequate attention is paid to occupational safety and health, labour inspection and the enforcement of labour law.

There is, especially, lack of coverage of prevention and enforcement in the informal and rural economies, where most child labour is found. Labour inspectorates everywhere require better training, more resources and universal coverage if they are to be able to meet the needs of all workers, including children in child labour and children and youth in hazardous work. In recent years, public campaigns have often concentrated on hazardous child labour in global supply chains, not least in the manufacturing of immediately visible products that regularly reach consumers in the Global North. This appears to have entailed greater attention towards older children employed by third party employers and less towards younger children performing unpaid family work, not least in locally-traded agriculture, goods and services, more of whom are performing hazardous work than in 2012.

Trade unions have played a critical role in eliminating hazardous child labour, including by promoting occupational safety and health (OSH) for all workers and by helping ensure that minimum ages are respected in the workplace. ILO Convention No. 87 on freedom of association is clear: all workers and employers, without distinction whatsoever, have the right to establish and, subject only to the rules of the organisation concerned, to join organisations of their own choosing without previous authorisation. The policy of the global trade union movement is equally clear: all workers need their own organisations in order to defend their interests (ITUC, 2010a, 2010b). Strengthening and extending the presence of union "roving safety and health representatives", not least in the rural economy, could further increase awareness about hazardous child labour and OSH and encourage more workers to become trade union members.



Certainly, even if national laws (or unions' own rules) require duty bearers to be of an age to assume legal responsibility, all those in the workforce who are above the minimum age for the type of employment or work in which they are engaged should have access to trade union membership, regardless of the nature of their employment relationship and of whether they work in the formal or informal economy. In the days of the closed shop, young workers would commonly join the union on their first day at work. Some organisations still have youth "wings". Nonetheless, today, growing fragmentation of labour markets, increasing decentralisation of collective bargaining, casualization and the growth of the informal and gig economies are presenting significant new challenges to recruiting youth into trade unions. Both employers' and workers' organizations can and do also support young own account workers to form producer associations and cooperatives, but much more could be done. Collating, sharing and replicating successful practices in this regard is an important element of ensuring that young workers can exercise their rights to have a representative, collective voice at work.

#### **RECOMMENDATION FOR ACTION**

Both employers' and workers' organizations can make minimum age for membership concurrent with respective minimum ages for employment, as well as reach out to young workers and young entrepreneurs in the informal economy.









# What we know about the numbers of children involved

Can we quantify the problem of hazardous work among the children of the world? Is the trend going down as we would hope? How many of these children are actually injured or succumb to an occupational illness, including those serious enough to impair their future? Unfortunately, the available statistics allow us only a glimpse. As there is little quantitative data from developing countries, the most comprehensive information is from industrialized countries. This gives us little with which to understand the plight of these vulnerable children. But it is where we must start.

#### RECOMMENDATION FOR ACTION

To gain the information we need, national employment surveys should count children under 15 years of age, household surveys should inquire if any children are working; health surveys/health recording systems/ clinic records should document children's work status and any work-related injuries; and reporting and notification systems on occupational injuries and diseases should be improved.

The most recent global child labour estimates indicate that 72.5 million children are in hazardous work. This is almost one in twenty of the world's child population. While some advances have been made in the fight against hazardous child labour, progress has stalled among the youngest children and a simple projection based on the pace of reduction during 2012 to 2016 would leave 52 million children in hazardous work in 2025. This slow pace is unacceptable. These statistics clearly show that **we must step up the pace of action.** 

Table 2: Global estimates of hazardous work by age, 2016

	2012		2016		Percentage-point
	Hazardous work (thousands)	Hazardous work rate (%)	Hazardous work (thousands)	Hazardous work rate (%)	change in the hazardous work rate from 2012 to 2016
Total	85,344	5.4	72,525	4.6	-0.8
5-11 years	18,499	2.2	19,020	2.2	0
12-14 years	19,342	5.3	16,355	4.6	-0.7
(5-14 years)	37,841	3.1	35,376	2.9	-0.2
15-17 years	47,503	13.0	37,149	10.5	-2.5

Source: ILO, 2017c.



### 3.1 How many children are potentially at risk?

These statistics portray only one piece of the hazardous work landscape: the children who are currently doing work which exposes them to tasks, substances, or working conditions that are observed to be hazardous. What about the children who are potentially at risk of hazardous exposures or for whom the risks have not yet been recognized?

152 million children (including the 72.5 million in hazardous work) fall into the general category of "child labour". In addition, there are 66 million who are classed as "children in employment", i.e. children who are above the minimum age for work (or, in some cases, light work) but not exceeding the limits that would class them as being in child labour; and there are also 800 million children who regularly perform household chores. All work activities involve some degree of risk, as do sports and other common activities of childhood. If not adequately sensitized to potential risks or otherwise protected, it is not uncommon for children who are doing seemingly simple or traditional<sup>1</sup> work to be injured or become ill. Again, these statistics give us an important clue as to whom interventions should be targeted at or, rather, who should not be missed!

## 3.2 Is hazardous work more common among younger or older children?

In general, the number of children in hazardous work tends to increase with age. The most recent global figures show that there were 19 million children in hazardous work in the 5-11 age group; 16.4 million aged 12-14; and 37.1 million aged 15-17.

Progress has been made, but not for the youngest age groups! Between 2012 and 2016, the number of children aged 5-17 years in hazardous work decreased by 12.8 million, but this was accounted for wholly by children above the age of 12, and, mostly (more than 10 million) by children aged 15-17. However, among 5-11-year-olds, a particularly important age for growth and development, the absolute number of children in hazardous work actually increased from 18.5 to 19 million.

Shockingly, children aged 5-11 years account for a quarter of all children in hazardous work. While there are no possible exceptions for hazardous work – all children must be protected – these very young children facing hazardous work that directly endangers their health, safety or moral development are of tremendous concern (Figure 2).

<sup>1</sup> Care should be taken with the use of the adjective "traditional". There is, for example, nothing traditional about child labour in the production of cash crops (cotton, cocoa, tobacco etc.), which were introduced in countries under colonial rule.



90 000 75,000 **Number of children** 60,000 85.344 2012 45,000 72,525 2016 30,000 47.503 37,149 15 000 18,499 19,020 19,342 16.355 5-11 years 12-14 years 15-17 years 5-17 years

Figure 2: Global trends in hazardous work by age group and year (millions)

Source: ILO, 2017c.

### 3.3 Are more boys than girls doing hazardous work?

In all age groups (5-17 years), more boys than girls are engaged in hazardous work: a total of 44.8 million boys and 27.8 million girls. As they as grow older, the proportion of boys compared to girls increases. However, when broken down by age some puzzling trends emerge since 2012. There are 3.2 million more of the youngest boys (5-11 years) in hazardous work than in 2012, but 2.6 million fewer girls. The same applies to younger adolescents, aged 12-14: there are substantially fewer girls in hazardous work compared with 2012, but more boys. However, the gap between older adolescent boys and girls (aged 15-17) has narrowed. While in 2012 there were 38.7 million boys in hazardous child labour and 8.8 million girls, by 2016, the number of boys had decreased to 23.5 million, but the number of girls had increased to 13.6 million. What can account for these trends? These are pivotal questions about the age and gender distribution of different types of child labour in different types of production in different sectors of the economy that we need to investigate in order to design appropriate, integrated interventions.

# 3.4 What region has the highest numbers of children in hazardous work?

The regional distribution of hazardous work has been changing and varies substantially by country (Guarcello, Lyon, Valdivia, 2016). The largest number of children in hazardous work is in Sub-Saharan Africa (31.5 million children, 8.6 per cent of children in Africa); followed by Asia and the Pacific (28.5 million, or 3.4 per cent); the Americas (6.6 million, or 3.2 per cent); Europe and Central Asia (5.3 million, or 4 per cent); and the Arab States (0.6 million, equivalent to 1.5 per cent).

Significant progress has been made in Latin America and the Caribbean, a region that saw a 2.4 percentage-point reduction in the proportion of children in hazardous work between 2012 and 2016. Asia and the Pacific experienced the second steepest decline. The third steepest decline occurred in Sub-Saharan Africa. However, despite the decrease in the proportion of children engaged in hazardous work in the region, the absolute number of those children rose by 1.7 million.

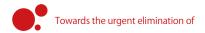
It bears noting that, even in the United States, a recent study of 2,503 adolescents in a large urban school district provided evidence that even 12-13 year olds are transitioning into the workforce (Guerin et al., 2018).



What we know about children's unique vulnerabilities at work

Photo © ILO/Chakraborty, W.





# What we know about children's unique vulnerabilities at work

Children face multi-faceted vulnerabilities in regard to hazardous work – and differently, because the process of development can be highly individual. Factors such as a child's location, socioeconomic status, age and gender have a bearing on how s/he will develop. Although not precisely at the same time, all children go through what are known as "critical exposure windows", "windows of vulnerability", or "developmental windows" when their health can be most affected by hazardous exposures.

## 4.1 Are the risks especially acute for children under 18?

Yes, because they are still growing and developing both psychologically and physically (Sudhinaraset, Blum, 2010). The brain, particularly the cerebral cortex, which governs judgement and critical thought, and other parts of the neurological system are not fully mature until the twenties.

Adolescents seem to be more affected than adults by exciting or stressful situations when making decisions — so-called "hot cognitions" (Steinberg, 2007). Compared with adults who have reached full cognitive maturity, adolescents, due to these described "risk-taking" behaviours, may be more likely to take unreasonable and potentially dangerous decisions when faced with fast-paced, exciting or stressful situations in the workplace. However, a systematic review of risk factors for work injury among children and youth (12-24 years) found sufficient evidence that age and personality traits (such as impulsiveness) were not associated with injury when job/ workplace factors were controlled. On the other hand, the same study revealed that occupational/ work hazards and perceived work overload were associated with injury when demographic and other job/workplace factors were controlled. So, the study concluded that "the type of job or workplace mattered more than the nature of the young workers themselves" (Breslin et al., 2005).









# What we know about the impacts of hazardous work

Children and young workers display higher rates of injuries, and acute and chronic disease than their adult counterparts (CDC, 2010; Breslin et al., 2003; Salminen, 2004; Breslin et al., 2007). Data are almost entirely from North America and Europe, which have more reliable reporting and surveillance systems and even these are thought to underestimate occupational injuries by as much as 50 per cent (Guarcello, Lyon, Valdivia, 2016). Estimating the prevalence and types of workrelated injuries of children is made more difficult because definitions of what a work injury - or even what work - is are not uniform, especially types of informal employment such as babysitting, feeding poultry, and lawn cutting. Work injuries are underestimated because they are often unreported, as more young workers are in unrecorded, family or part-time employment (EU-OSHA, 2007).

#### 5.1 Fatal injuries

In the United States, 30 child workers died on the job in 2015, the latest year for which we have figures (US-BLS, 2016). This is in line with previous years and roughly comparable to the numbers recorded in the European Union countries (EU-OSHA, 2007).

In the United States, agriculture accounts for more fatalities of children (under 18) than any other industry and a much higher proportion of young worker deaths compared to adult workers (NIOSH, 2003; NCCRAHS, 2011). The fatality rate in the agricultural sector is estimated to be about four times greater than for young workers in other industries (Hard, Myers, 2006). About two-thirds of the fatalities in agriculture were of children under 16 (Windau, Meyer, 2005). Moreover, approximately

60 per cent of the deaths of children in agriculture occur on family farms.

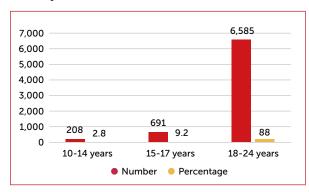
The construction sector also has high rates of workplace fatalities. Children aged 15-17 in this sector were seven times more likely than their peers in other sectors to die on the job and have twice the risk of workplace fatalities when compared to adult construction workers (Barkume, 2000).

The causes of fatal injuries of children at work are similar to those for adults. In the United States, the top three are transport-related (e.g. operating motor vehicles), assaults, and contact with objects and equipment (US-BLS, 2010; CDC, 2010).

adopted useful inter-sectoral Brazil has cooperation on hazardous child labour. National health policies for child labour were set in the 2000s. The law established compulsory notification/reporting of all workplace accidents involving children and adolescents (below 18 years). Guidelines for comprehensive health care of economically active children and adolescents were developed for law enforcement and public health professionals. These resulted in information about fatal and non-fatal injuries (ILO, 2009, 2010; ILO et al., 2015; Santana et al., 2017). However, children's work-related injuries are still considered to be largely underestimated and there is, as yet, very little knowledge or recognition of long-term health conditions.

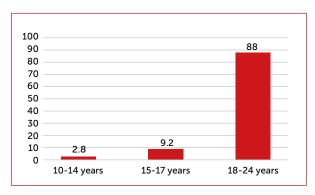
The following figures show the trends from 2000 to 2014 of children in child labour and young workers in Brazil. Of the 7,484 deaths due to work accidents in Brazil in the period 2000-2014, 12 per cent were children aged 10-17 years (Santana et al., 2017).

Figure 3: Percentage and number of fatal work accidents among children and young people, 10-24 years, 2000-2014, Brazil



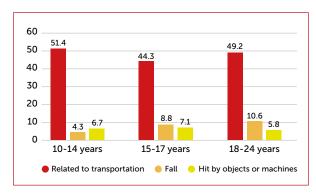
Source: Santana et al., 2017.

**Figure 4:** Percentage of fatal work accidents among children and young people, 10-24 years, by age group, 2000-2014, Brazil



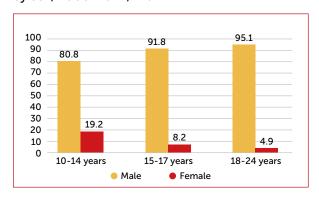
Source: Santana et al., 2017.

**Figure 5:** Percentage of fatal work accidents among children and young people, 10-24 years, by type of accident, 2000-2014, Brazil



Source: Santana et al., 2017.

**Figure 6:** Percentage of fatal work accidents among children and young people, 10-24 years, by sex, 2000-2014, Brazil



Source: Santana et al., 2017.

#### 5.2 Non-fatal injuries

In 2013, the ILO produced the first and only global estimate of the number of children injured at work (ILO-IPEC, 2013): in a one-year period this was a staggering 106.4 million children, **around 40 per cent of all working children** aged 5-17 – in child labour or youth employment at the time. Of these, 15.1 million children required medical attention and/or lost at least one day from work or school.

Data from North America and Europe confirm that children and youth have more work-related injuries than adults (EU-OSHA, 2007). Children aged 15-17 have approximately twice the injury rate of workers aged 25 years and older (CDC, 2010). Private industry employers reported 4,350 work-related injuries resulting in at least one working day lost among children under 18 in the United States in 2009. A shocking total of 26,600 children were treated in hospital emergency departments for work-related injuries (Davis, Vautin, 2013). The link between age and work-related injuries is extremely strong (Breslin et al., 2003; CDC, 2010; Forastieri, 2002; Roggero et al., 2007; Salminen, 2004; Wegman, Davis, 1999).

The injuries are predominantly sprains/strains, lacerations, burns and abrasions (Barkume, 2000) and attributed to being hit by objects or equipment, falls, and overexertion (CDC, 2010). Boys exhibited injury rates around twice those of girls (NRC, 1998). From 2008 to 2015, 19,734 cases of work accidents affecting children were registered in Brazil.



4,000 3.682 3.443 3,389 3,500 2 946 3,000 2 305 2.500 1 946 2,000 1.160 1,500 863 1,000 500 0 2008 2009 2010 2011 2012 2013 2014 2015

Figure 7: Work accidents among children, 5-17 years, 2008-2015, Brazil

Source: FNPETI, 2015.

#### 5.3 Occupational disease

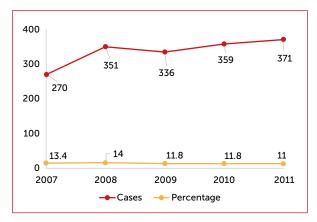
Obtaining data about occupational disease rates, including among children in child labour and young people at work is difficult because it can be hard to link an illness to the work being undertaken, especially when there is a latency period or lag time between exposure and symptoms. Nor is it always easy to isolate work as the prime cause when a child is also exposed to environmental hazards or inadequate nutrition. Similarly, toxic substances associated with the work mercury from mining, or organophosphates from agriculture, for example - may contaminate the surrounding soil, air, and water. Is the illness caused by occupational exposure? Health care personnel may not ask children if they are working or about the nature of the work, in which case children's occupational diseases are not recorded.

Pesticide poisoning is a particular concern. Brazil, one of the few countries outside Europe and North America to record poisonings, recorded that 10-19 year-olds accounted for 12 per cent of all cases of pesticide poisoning between 2007 and 2011 (Santana et al., 2012).

My name is Lynda. I love school, but this is planting season and today, granny says I am needed in the fields. I know my work helps her pay for my school uniform and books. Today I have to help the farm owner prepare the insecticides. I'm 14, but he says I am too young to do the spraying (I think that would be more fun). First, I go to the river for water. I hate that because of the snakes – you never know where to put your feet. I pour the water into large buckets and mix in the powder. Bending makes my back ache but the smell and fumes are worse my eyes water, my nose runs. I'm used to that, but today I feel like I'll throw up, like the time I was pouring the mixture into the sprayer and spilled it over me. That was very unlucky and I missed a week of school. Now I've got to be more careful. My hands are sweating so I dry them on my shirt to make sure I pour without spilling anything.

Studies indicate that, even when farmers are aware that the chemical agents they use are hazardous, temporary workers may be inadvertently exposed through re-use of containers, tools, or clothing (Graczyk, 2016).

**Figure 8:** Work-related pesticides poisoning in people, 10-19 years, 2002-2011, Brazil



Source: Santana et al., 2012.

An EU survey confirmed an earlier Canadian study (Breslin et al., 2005) which found a higher prevalence of lung disorders among workers 15-24 years old than among older workers (EU-OSHA, 2007). This study associated occupational sectors that produce substantial amounts of dust – bakeries, and the manufacturing of carpets, pencils, furniture and textiles – with respiratory conditions such as asthma (Breslin et al., 2005). There is also evidence that noise, solvents (in cleaning agents), biohazards (mosquitoes), blood pathogens (HIV), extreme weather exposure, chemical burns, and skin irritants were common sources of occupational illnesses for youth (Pollack, 2001).

#### **5.4 Economic consequences**

Because work-related injuries for children have severe health consequences, they also have educational and economic consequences. An estimated 15 to 26 per cent of children injured at work sustain permanent impairments, including chronic pain, sensory loss, scarring, and loss of range of motion (Parker et al., 1994). Others experience more serious injuries, such as amputations. Injuries also often imply time lost from school, and evidence shows that economic repercussions for adolescent workers with a work injury including significant decrease in earnings in the year after returning to work compared with their uninjured peers (Breslin et al., 2007).

The prevalence of hazardous child labour is also correlated, to an extent, with country national income status and population size. In 2016, 8.8 per cent of all children in lower-income countries were in hazardous child labour, compared with only 1 per cent of children in high-income countries. But up to 87 per cent of hazardous child labour worldwide was in low-income and lower-middleincome countries; compared to 13 per cent of hazardous child labour that was in upper-middleincome and high-income countries. (ILO, 2017c). These statistics reflect the fact that hazardous child labour (and all child labour) reinforces the cycle of poverty but, also, as we have seen above, that wealthy countries can also fail to enact and enforce law that adequately protects all children in the world of work. Equitable economic development, and increased equity in countries with higher levels of economic development, also need to be subject to primary focus (WHO, 2008).

#### 5.5 Educational consequences

Children in hazardous child labour have generally dropped out of school earlier than their peers in other types of work (Guarcello, Lyon, Valdivia, 2016); they are more likely to have fewer future employment options and are therefore more likely to remain in hazardous work.<sup>2</sup> But not only lifetime employment is of concern. School attendance has a protective effect on various indices of psychosocial health (Pellenq, Gunn, Lima, 2018). This may be due both to the social connections that occur in school as well as to the learning process.

The Understanding Childrens' Work (UCW) Programme analysis of country level data concludes that there are sometimes "dramatic" differences between adolescents, aged 15-17, who are trying to combine school with hazardous work (which for this age group means child labour slated for abolition) and those who are attending school but in other forms of work. In Viet Nam, only 4 per cent of adolescents in hazardous work are able to continue with their education against 62 per cent of adolescents in other jobs. In Jamaica there is a 65 percentage point difference and in Togo the difference is 60 percentage points.

Why are children more likely to be hurt at work?







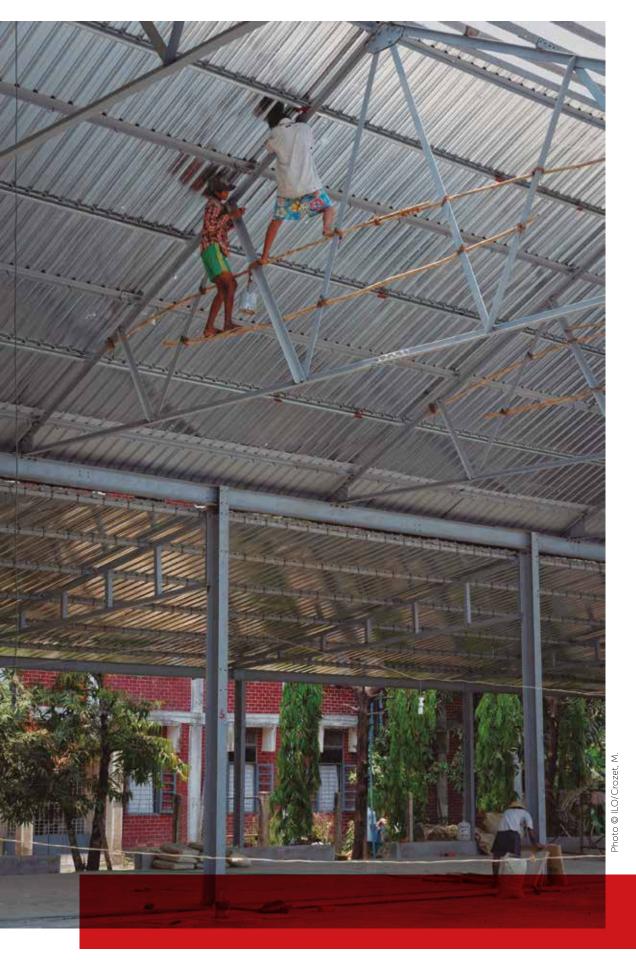
# Why are children more likely to be hurt at work?

Evidence is consistent that lack of experience, lack of training and inadequate supervision are major causes of injury of children performing child labour. There is also growing evidence that adolescents' reputation for impetuousness, lack of judgement, and readiness to take risks stems mainly from the stage of development of their brains (Steinberg, 2006). However, the higher injury rate among children is also due (at least in the United States and Europe, where many of the studies were done) to the types of tasks that children are given (NIOSH, 2003). There is some evidence that older adolescents are more aware and can assess risks appropriately; but boys in particular may choose not to act safely... in fact, they may do the opposite!

Above all, it is important not to view childhood as a single unit. There are at least three distinct stages during which many children are engaged in hazardous child labour: (a) middle childhood

(5–9 years), which is a growth and consolidation phase during which infection and malnutrition remain key constraints on development, and mortality rates are higher than previously realised; (b) the early adolescent growth spurt (10–14 years) when body mass increases rapidly and substantial physiological and behavioural changes associated with puberty occur; and (c) the adolescent growth and consolidation phase (15–19 years), which brings further brain restructuring linked with exploration, experimentation, and initiation of behaviours that are lifelong determinants of health (Patton et al., 2016).

The following section highlights three types of intervention: protection, prevention, and promotion. For each of these, we have chosen one intervention that stands out because there is strong evidence of its effectiveness in a wide variety of circumstances.









## What we need to do: Prevent and protect

#### 7.1 Legal foundations

A child who is below the general minimum age for employment or work should not be working - unless their country permits protected, nonhazardous light work from the ages of 12 or 13. One of the most significant, systemic steps towards ending hazardous child labour would be to end all child labour of children under the minimum age even for light work. The majority of the 72.6 million youngest children aged 5-11 in child labour – 19 million of whom are engaged in hazardous work - are performing unpaid family work in family farms and enterprises. Given that they are doing so mainly because those enterprises depend on their children's labour for their income or just to function, ending that dependence is essential.

Children above the national minimum age for admission to employment or work but not yet 18 have the right to work, but they must not perform hazardous work or be exposed to hazards in the workplace – their work must not be hazardous by its nature or because of the circumstances in which it is performed. As noted above, limited exceptions, following national tripartite agreement and with strict special protections, may be agreed for children aged 16-17, which would enable them to train in occupations which involve manageable hazards.

A key tool in protecting children from hazardous work is the national list of hazardous work prohibited for children (under 18 years). The list needs to be drawn up following tripartite consultation with the relevant employers' and workers' organizations. Some countries have still to draft their lists, while others may need to

complete or update an existing one. These three points: establishing, completing and updating are crucial to coherent national action to end hazardous child labour.

ILO Convention No. 182 and its accompanying Recommendation No. 190 provide instructions and guidance on how this should be done and criteria that should determine what is in the list. In some cases, entire sectors (for example deep sea fishing) may be considered to present hazards that cannot be managed adequately to permit children of any age to work in them. Others may involve tasks which are acceptable for youth employment so long as ambient risks are adequately managed. For example, clerical work in the administrative office of a factory or some farm work might be acceptable, but not if the office were exposed to toxic chemical fumes from the factory floor or if the child on the farm were exposed to dangerous agro-chemicals.

The first questions therefore is: Are the occupation, task, hazard or circumstances reflected in the hazardous work list?

If they are so reflected, if the child is aged 16 or 17, and if there is national tripartite agreement for exceptions with adequate risk management and training, the second question is: Should the child be removed from the task or the workplace or, if the hazard can be removed and the risks adequately managed, is the latter the more appropriate response?

In reality, a child above the minimum working age may be engaged in an occupation which is not in principle considered hazardous (and therefore not included in the hazardous work



list), but may nonetheless encounter "hazardous circumstances" which are in the list. For example, a child working in a normally well-managed supermarket might be asked by a poorly trained supervisor to carry a load that is too heavy – but the union shop steward or a more senior manager intervenes and the child is not asked to perform such a task again. Here, the successful – and simple – intervention allows the child to continue working safely.

**Removing the child** can mean s/he leaves the premises or it can mean s/he is separated from the hazard (task, equipment, substance, or situation) in such a way that s/he cannot come in contact with it again.

**Removing the hazard** can mean eliminating the hazard from the workplace altogether, changing the task or transforming the situation or working conditions so that it no longer poses a risk.

#### 7.2 Risk assessment

Occupational health safety (OSH) and management, including risk assessment and control, is the responsibility of the employer. The actual assessment - that seeks to provide children the additional protection they need might be supported by an OSH professional, a union OSH representative or a workplace joint OSH committee (and experience shows that such joint employer/trade union procedures yield the best outcomes). In the home or home-based enterprise a parent may be the one conducting any assessment. The ILO's Work Improvement in Small Enterprises (WISE) programme – widely used in Africa, Asia and the Pacific and Latin-America and the Caribbean - assists micro-, small and medium-sized enterprises to improve working conditions and productivity by using simple and affordable techniques that provide direct benefits to owners and workers. In Europe and North America several programmes have been encouraging employers, parents and others to equip themselves with basic risk assessment skills.

#### Risk assessment can involve five steps:

**Step 1. Identify any hazards:** Look for anything in the workplace (including in the child's own home if the home is the workplace or if considering household chores) that has the potential to cause harm. The hazards may be associated with the tasks (e.g. the equipment or substances used) or the working conditions and environment (e.g. attentiveness of supervisors, noise, hours).

**Step 2. Evaluate the risks and prioritise them:** Estimate how severe the effect might be on a child's health of each of the identified hazards, given the age of the child who would be exposed. Assess how likely it is that the harm would actually occur.

Step 3. Decide if the risks can be readily reduced or the hazards removed: Taking into account the vulnerabilities of the child's age, identify what it would take to remove exposure to the identified hazards or to reduce the risks to a level at which the hazards would not cause injury or ill health. Identify if it is possible to reduce the chance of exposure to the point that it would be extremely unlikely.

**Step 4. Take action:** Either remove the young person or put in place the preventive and protective measures in order of priority. The priority can be based on what is most likely to occur, what might cause the greatest harm, and which of those can be done most quickly and easily. Part of taking action – and absolutely essential – is training the young persons about the risks and how to avoid them.

**Step 5. Monitor and review:** Review the assessment at regular intervals to ensure that it remains up to date.

#### **Considerations and limitations**

Removing a child from a work situation is a twostep process: first, separation from the danger, second, assuring follow-up. The follow-up may be medical assessment and care, psychological



support, reintegration into education or, if the child is above minimum working age, a safe work alternative and vocational/skills training. In addition, the work the child was performing – if it is intrinsic to the functioning of the enterprise – must be modified so that it is safe for an adult to perform.

This same rule applies even in informal work situations, for example where the child lives in a home-based workshop or family farm, or lives on the street or has a family of her own. Where the task or conditions are hazardous, the child must be separated from the danger. Some circumstances present greater challenges than others for withdrawal and remediation. In crises and conflict, in remote areas, and, most commonly, where children live with their parents in family farms and workplaces where ambient hazards are also present, separation from the hazard may not be simple and may require several steps. Whatever the circumstances, children must be provided with alternatives that balance all their rights: to safety, health, education and to family life.

These steps of assessing hazard can also help parents protect their children at home when they are performing household chores or, if they are old enough, to ensure that what should be "light work" within the family enterprise is indeed safe for their children to do.

The use of Personal Protective Equipment (PPE) is, in general, discouraged because it is a measure of last resort for any worker. But for younger workers PPE is all too often used as an (inappropriate) shortcut to seek to reduce risks. PPE that includes masks, protective gloves, reinforced-toe boots, respirators and other specialized equipment is not the same as normal clothing such as shoes, shirts, and hats, and does not make dangerous work safe enough for children of any age to do.

When the task or conditions suggest a need for PPE, it indicates that the work is not suitable for persons under 18 unless they are in agreed and recognised training (vocational programme, supervised on-the-job training, etc.).

My name is Angie, and I am 7 and three quarters! Every day before school, I feed the chickens. My parents say that's enough for a child my age to do and they don't let me go near the big animals or do other chores. But I got into big trouble the other day. I saw a pretty red box on the shelf in the barn so I climbed on a stool and took it down. I thought it [the pellets] might be a treat for the baby chicks so I gave them a handful. The box had pictures on it, but I didn't know what they meant. When I went back to the hen house in the morning, all the baby chicks had died. My tummy was feeling funny and I was frightened I was going to die too. My mother scolded me she said the pellets were for killing rats and insects and I must never climb up like that because I might fall and hurt myself. She also told me that I should always wash my hands after doing any chores. I wish I had known that before.

Young children living on farms have a heightened risk of pesticide (organophosphate) poisoning because their higher frequency of mouth-hand contact (Shalat, 2003).

Even for children aged 16-17 who might, exceptionally, be covered by a national agreement to permit their training in a particular type work designated as hazardous, PPE poses problems, because:

- it is frequently unavailable locally, or of poor quality;
- it often does not fit a smaller face or frame;
- it may be taken off because it is uncomfortable, too hot, or too bulky;
- employers may not replace worn-out equipment;
- training in its use may be insufficient;
- it may give a false sense of security, leading children to think that they can safely perform a

- task (e.g. in welding or construction) that they may not be physically or psychologically ready or adequately trained for; and
- children may avoid wearing PPE consistently because it might not be considered cool and because they feel it implies they are unsure or afraid.

#### **Education**

Education and training produce some of the most effective measures to prevent hazardous child labour. While, for children, the emphasis is largely on formal schools, other forms of education may also contribute.

Hazardous child labour is often associated with inadequate or inaccessible schools. Evidence shows that, where there are accessible schools

(i.e. within reach financially and logistically), the rates of hazardous child labour are substantially lower than otherwise (Rosati, Rossi, 2007; Berlinski, Galiani, Manacorda, 2008; UCW, 2006, 2015). Data from a wide sample of low resource countries indicate that children who drop out of school, especially in rural areas, tend to do so around the age of 10 or 11 (UCW, 2012). The overarching challenge is to keep children in school by ensuring access to free, quality education at least until the minimum age for admission to employment or work, and to enforce compulsory education legislation. In addition, two important approaches for preventing hazardous child labour include OSH education integrated into the school curriculum already in primary schools, and the availability of second chance alternatives to allow those who have left school to return to education. Both help to provide them with the information they need on safety and health. We should

#### **Junior Farm Field and Life Schools**

Many children think of leaving the agricultural sector when they grow up as it seems to offer little but drudgery and almost no chance to improve their lives. The Junior Farm Field and Life Schools (JFFLS) model, developed by the UN Food and Agriculture Organization (FAO), present a vigorous challenge to this notion and shows how, especially in agriculture-based economies, there is wide scope for innovation, good financial return, and even better health for future farmers. Unlike traditional vocational training schools which often ignore farming in favour of urban-oriented skills, the JFFLS curriculum is specifically tailored to rural settings, combining agro-production, with farm employment promotion and access to markets. It is practical, combining concrete learning about agricultural subjects (e.g. soils, weather, plants, and livestock) with life skills (e.g. group planning, gender equity, occupational safety and health, and prevention of child labour). The reason this model has been so successful in countries ranging from Asia to South America is that its modular methodology can be oriented to the local environment and specific local challenges, whether these be post-conflict issues, high incidence of unemployment, food insecurity and malnutrition, land scarcity, drought, etc.

A priority of JFFLS is gender sensitivity. Training courses in Malawi and Tanzania, including Zanzibar, for example, have maintained a 50-50 gender balance. As part of the methodology, the young farmers work in groups of 20-25 persons using a "rotation" policy, where both young women and young men share ideas and roles, and become accustomed to seeing each other perform in roles such as group leaders, finance managers, buyers, marketers, and production managers. A second key priority is agricultural sustainability. The latest techniques of bio-diverse production are the backbone of the training, including seed conservation, water conservation, and preparation for climate change (FAO, 2014).



recall that ILO Convention No. 182 requires that all children removed from worst forms of child labour, including hazardous work, should have access to free basic education and, wherever possible and appropriate, to vocational training.

#### **School-based initiatives**

In the last few years, countries around the world have been integrating occupational safety and health (OSH) in the school curricula. Young people used not to OSH information until they were in vocational education or on the job — sometimes not even then. Now, in almost all European countries and Canada, it starts in kindergarten! Here are some examples:

**Upsi** is a comic book character, created by Accident Insurance Berlin to raise awareness about OSH among children aged 4-6 in a playful way using books and radio. Topics deal with exercise (Upsi is learning to fly), spinal and back disorders (Upsi and the giant snake), skin protection (Upsi saves the big whale), fire danger (Upsi and the green dragon), noise (Upsi and the loud fur seal), emotions (Upsi visits the wizard), and listening (Upsi discovers the most beautiful sound in the world). Every kindergarten in Berlin gets the books for free (ENETOSH, 2018b).

Instead of a separate unit, a number of schools include OSH as one of the core competencies or life skills that all children need, seeing it as part of a larger goal "...to bring up pupils as free citizens who fulfil their duties, who [know] their rights and respect others' rights, responsible for their own lives, health and the environment, [with] a positive attitude to work..."

As this life cycle approach takes expression in older children, the curriculum takes on more and more of an occupational dimension.

In Finland, OSH is called **TET (Työelämään tutustuminen)**. Local education authorities and the schools draw up their own curricula within the framework of the national core curriculum. TET at Rajamäki School consists

of work periods during the three last years of compulsory comprehensive school. The students are 13, 14 and 15 years old. For 7th graders, TET deals with the hazards of kitchen and cleaning work, clothing at work, and practical things such as scheduling the TET day and informing their parents. The 8th- and 9th-graders must find a workplace (for work experience) on their own. They are taught [Finnish laws on young workers], employment contracts, working hours, and absence notifications. No salary is paid for TET work, but the experience can help them get a "real job", for example, in the summer (ENETOSH, 2018a).

Some of the most widely-used school curricula dealing with health and safety are those developed for secondary schools and to reach children of that age through youth clubs and the media, for example, state- and province-specific programmes in Canada and the United States.

Youth@Work—Talking safety, is a foundational curriculum in OSH, produced by a consortium partners, including government institutions and academic and labour/ community advisory committees with representation from the United States trade unions, and published by the National Institute for Occupational Safety and Health (NIOSH) of the United States. It is dedicated to reducing occupational injuries and illnesses among youth by teaching core health and safety skills and knowledge applicable to any occupation at any stage of working life. The learning activities raise young people's awareness about OSH and provide skills that youth need to be ready for work and to contribute to creating safe and healthy work environments throughout their working lives. The comprehensive curriculum is adaptable to a wide range of State and territory-level OSH systems and frameworks, and includes six modules, student hand-outs, overhead projector slides, a PowerPoint slide show, video, and interactive activities. Its learning objectives cover worker vulnerability, rights and representation; prevention, and hazard and risk assessment; and emergency response. It also empowers young people to communicate with their employer or worker representatives about workplace safety, and, depending on the State, covers the role of labour relations in promoting OSH (NIOSH, 2018).

#### **On-the-job OSH training**

Children's work-related injuries are often due either to inadequate training or insufficient workplace mentoring and supervision. Labour inspectors can provide informal training during workplace visits, explaining to workers and employers the regulations and what tasks, situations, equipment, substances in this workplace might pose a risk.

#### **Public OSH education**

Though still impossible to quantify, evidence nonetheless suggests that a substantial part of children's work-related illnesses may be due simply to the lack of knowledge of employers, parents, or the children themselves about "invisible risks", such as the toxicity of chemicals in a container of fertilizer purchased at the local

#### An example of the need for public OSH education

Canada's International Development Research Center's project, ECOSALUD II, sought to address the high incidence of pesticide poisoning among small farmers in developing countries and, given the high proportion of children in subsistence agriculture, paying particular attention to child exposures. The project promoted health among small farmers in Peruvian and Ecuadorian communities, identifying the drivers of unsafe pesticide use and empowering farm families. Among social and economic factors influencing unsafe practices were:

- little or no training on handling, storing and disposing of pesticides;
- common absence of municipal or industry-supported services for disposal of pesticide containers;
- less dangerous pesticides were neither sold nor available;
- farmers did not stay away from newly sprayed areas;
- pesticides were stored in the houses, even in kitchens;
- pesticide containers were not always labelled. Even when they were, many farmers were illiterate and/or unable to read or understand the label colour system, and labels were not in indigenous languages. (Farmers for whom Spanish was not their first language understood the labels least);
- basic hygiene was poor both at work and home. On small farms, adequate housing, water and sanitation facilities were lacking;
- farmers were accustomed to eating at the workplace without taking off their pesticidecontaminated clothes or washing their hands.

Worse practices were observed in communities with lower education, greater poverty, high prevalence of indigenous languages, limited government enforcement and lack of due diligence on the part of the pesticide industry. Poor education, illiteracy and other social deficits in rural South America contribute to higher rates of ill health among these populations (Orozco et al., 2009). Other studies have made similar findings in Latin America and elsewhere. Particularly worrisome is that poor farmers, unaware of the dangers, wash and reuse pesticide containers to store water or food.



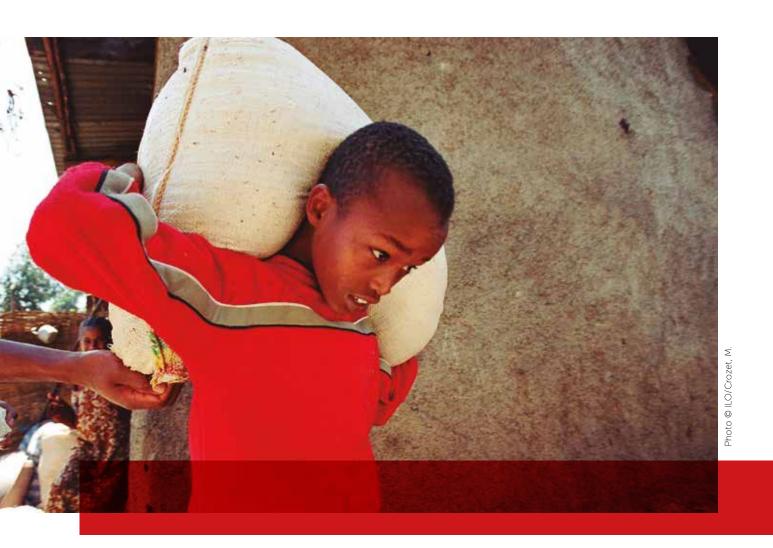
shop, or the damage to hearing loud machine noise can cause, or the long-term psychological effects of isolation or mind-numbing tasks. Public health education – through, for example, posters, flyers, radio, person-to-person talks, or community meetings – can help combat public lack of awareness. Parents' knowledge of how to identify hazards and assess risks, taking into account their child's age and developmental stage, is crucial for protecting children performing household chores, and the considerable number of children whose workplace is their own home.

#### **Media-based learning**

Several programmes reflect the growing evidence that children of all ages need to be able to make informed choices. They also need to know how to protect themselves from acts of harassment and violence, including bullying, as well as the psychological aftermath of such incidents. These programmes recognize that not all children are in an established school. They may have dropped out of school – or never attended; they may be incarcerated or living in refugee camps; living on their own with children of their own; some have disabilities which confine them, or are restricted in other ways by social custom. Video or other self-directed learning often responds to these situations.

WorkSafe (British Columbia) has three online modules: On the job, Addressing hazards on the job, and WorkSafe for life. These modules address the changing needs of students and allow for more personalized learning. An accompanying "Student resource page" includes publications, questionnaires, and worksheet assessment tools. For students working on their own as part of a self-directed learning plan or distance education course, there is an "Independent learning guide (WorkSafeBC, 2018).

SCREAM (Supporting Children's Rights through Education, the Arts and the Media), implemented in over 70 countries, is an ILO education and social mobilization initiative that empowers children and youth by equipping them with knowledge and skills to actively participate in the global campaign against child labour and bring about change in society. It enables young people to express themselves through different forms of artistic expression, such as drama, creative writing and art and in a manner specific to their culture and traditions. It is delivered through the SCREAM Education Pack available in 21 languages (ILO-IPEC, 2002).









# What we need to do: Promote

## 8.1 Integrated area-based approaches

To eliminate hazardous child labour and to promote a culture of health and safety, we need good law, properly promoted and enforced at all levels; employers – supported by their organisations – who are aware and in compliance; and strong workers' organisations that can monitor compliance daily, educate their own members and represent them – most effectively in joint employer/union workplace OSH procedures. Small producers' organisations, including cooperatives, can educate and supervise their members, and, in communities, schools and civil society bodies can also promote awareness, understanding and good practice.

Reaching our goal means creating an entire generation of young people who, from the age they begin helping out with chores at home to the day they land their first job, are attuned to their

rights, responsibilities, and the risks at work, have the confidence to speak out when concerned about something, and, in the workplace, are protected by a workers' organization that provides them with a collective voice, and by public authorities and responsible employers.

How do we promote this ideal future? "Culture, compliance and enforcement" are key words. At the local level, they imply a set of values embedded in district authorities, enterprises, trade unions, producers' organizations (including cooperatives), and the community and, flowing from these values, practices and behaviour that support children's well-being. They also imply integrated interventions that include all children in the area so there is no longer the likelihood of a child being removed from one form of hazardous work only to fall into another – or being replaced by a sibling. Most importantly, they imply that there is a safety net – a social protection floor that protects families from the social and economic



forces which generate hazardous child labour, and that rural development policies in particular are recalibrated to end the dependence of family farms on the unpaid work of their children.

Promoting a culture of health and safety starts with understanding the push/pull factors that cause hazardous child labour. Are adults of the family unable to secure a decent wage? Are they related to conflict? An environmental shock? Is there no way to sustain families with a sick or missing adult? Is marginalization, social inequality or injustice temporarily or permanently impoverishing a family? Are children able to access free, quality education? Is the family enterprise dependent on the unpaid labour of its children, whether hazardous or not? Depending on the circumstances, a combination of these factors commonly apply. That is why measures to address poverty, social exclusion, rural development, absence or weakness of social dialogue, inadequate law enforcement, and the functioning of public services must be part of the promotion strategy.

Family- and community-based OSH education programmes enable children directly or indirectly through their parents to identify risks they are likely to encounter as their worlds expand outward from home, to school, and finally to the workplace and larger community. Innovative trade union organising strategies in numerous countries that are bringing family farms, artisanal fishers and other small producers into membership – often through the entry point of OSH and/or child labour - are already proving effective at combating hazardous child labour. In Ghana, for example, the General Agricultural Workers' Union has organised small cocoa farmers, lake fishers and fish processors supporting OSH education, technological inputs to help end dependence on child labour, the formation of cooperatives, provision of school places and, above all, community ownership – to create child labour free communities.

## Conclusion







#### Conclusion

The message is clear: we have not been paying sufficient attention to the safety and health of children aged 5-17 – particularly those under 11 – and yet these are precisely the years that children begin working inside or outside the home or performing household chores.

More than any other time in life, during this period young people are bursting with potential. They are on a gradient of increasing physical, mental and emotional maturity, of increasing independence and sense of self. When they are involved in child labour, including hazardous child labour, their ability to reach their potential is compromised, in many cases for life.

"The realisation of human potential for development requires age-specific investment... in the middle childhood growth and consolidation phase (5-9 years), when infection and malnutrition constrain growth and mortality is higher than previously recognised; the adolescent growth spurt (10-14 years), when substantial changes place commensurate demands on good diet and health; and the adolescent phase of growth and consolidation (15-19 years), when new responses are needed to support brain maturation, intense social engagement, and emotional control" (Bundy et al., 2017).

Hazardous child labour can occur in each of these phases. The key to protecting children from it is for governments, in consultation with employers' and workers' organizations, to establish and regularly update their hazardous work list, and to enforce it. But there is also the potential for civil society to identify additional situations which

might cause harm and take additional action to protect children accordingly.

Children who are working or doing chores are not necessarily in constant danger. But what is imperative is that all of us – parents and policy-makers, governments, employers and trade unions, civil society organizations – are vigilant in identifying all the psychological and physical hazards of work tasks, working conditions and the surrounding environment and promote age-appropriate activities. It is easy to become complacent, mistakenly assuming that child labour is a thing of the past. The rise in hazardous child labour among the youngest children makes it all the more urgent to act now.

In this report we see abundant evidence that hazardous child labour <u>can</u> be prevented and that a culture of protection can be fostered through law enforcement, education, proper labour relations, and integrated community action.

#### ■ This is a call to action for governments

to use risk assessments and hard evidence to draw up carefully-designed hazardous child labour lists; to be resolute in addressing infractions and in promoting compliance by strengthening their labour inspection services – ensuring they are gender balanced, well trained, adequately resourced and have a mandate of universal coverage, including homes when they are workplaces. It is a call on governments to support, in particular, small family farms and enterprises to end their dependence on child labour in the first place, and to enhance the effectiveness of agricultural extension services.

- This is a call to action for employers' organizations and enterprises to inform themselves of the ways in which younger workers need special protection, but not to shy away from engaging – in decent work – those of minimum age for admission to employment or work. Employers bear primary responsibility for OSH in the workplace. They will want to pay specific attention to working conditions and the working environment - ensuring young workers are not performing hazardous tasks, working in hazardous environments or for long or late hours, and being sensitive to psychological pressures, harassment and violence in the workplace. Cooperation with workers' organizations assists them in fulfilling those obligations.
- This is a call to action for workers' organizations to support younger workers and give them the benefit of collective representation and voice by including them in membership from the minimum age for admission to employment or work. They and their adult members have an important mentoring and monitoring role in the workplace, as well as providing representation and participation in joint OSH procedures with employers. "Roving" union OSH representatives can raise awareness and help build workers' organizations (ILO, 2016).

- This is a call to action for educators to put in place a graduated curriculum of 'risks, rights, and responsibilities' awareness, starting in the earliest years of school. Vocational trainers, health educators, labour inspectors, safety and health managers and trade union OSH representatives can reinforce these key lessons through on-the-spot training and media.
- This is a call to campaigners to support an end to child labour and hazardous child labour in all its forms, everywhere, including barely visible work in family enterprises that produce goods and services for local economies, and including child labour in domestic work.

Failing to protect children's health now risks yet another generation of social, economic, and personal suffering. All must act now if we are to have any hope of eliminating hazardous child labour – and, in accordance with SDG Target 8.7 and with the principles of integrated approaches that protect the human rights of all children – end child labour in all its forms by 2025.

## References

Photo © ILO/Crozet, M.





## References

- Barkume, A. 2000. "Occupational injuries, illnesses and fatalities", in *Report on the youth labor force*, US Department of Labor, pp. 58-67. Available at: www.bls.gov/opub/rylf/pdf/rylf2000.pdf.
- Berlinski, S.; Galiani, S.; Manacorda, M. 2008. "Giving children a better start: Preschool attendance and school-age profiles", in *Journal of Public Economics*, Vol. 92, No. 5-6, pp. 1416-1440. Available at: www.econ.qmul.ac.uk/media/econ/research/workingpapers/archive/wp618.pdf.
- Breslin, F.C. et al. 2003. "Age related differences in work injuries and permanent impairment: a comparison of workers' compensation claims among adolescents, young adults, and adults", in *Occupational & Environmental Medicine*, Vol. 60, Issue 9. Available at: http://oem.bmj.com/content/oemed/60/9/e10.full.pdf.
- ——. 2005. "Systematic review of risk factors for injury among youth" in Institute for Work and Health, Toronto. Available at: www.iwh.on.ca/sites/iwh/files/iwh/reports/iwh\_sys\_review\_risk\_factors\_youth\_2006.pdf.
- ——. 2007. "Work disability absence among young workers with respect to earnings losses in the following year", in *Scandinavian Journal of Work, Environment & Health*, Vol. 33, No. 3, pp. 192–197. Available at: www.sjweh.fi/download.php?abstract\_id=1126&file\_nro=1.
- Bundy, D. et al. 2017. "Investment in child and adolescent health and development: key messages from Disease Control Priorities", in *The Lancet*, Vol. 391, No. 10121, pp. 687-699. Available at: www. thelancet.com/journals/lancet/article/PIIS0140-6736(17)32417-0/fulltext.
- CDC (Centers for Disease Control and Prevention). 2010. "Occupational injuries and deaths among younger workers United States, 1998-2007", in *Morbidity and Mortality Weekly Report (MMWR)*. Vol. 59, No. 15, April, pp.449-455. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5915a2.htm.
- Dachille, G.; Guarcello, L.; Lyon, S. 2015. Child and youth agricultural work in Sub-Saharan Africa:

  Perspectives from the World Bank Integrated Surveys on Agriculture Initiative, UCW Working Paper
  Series, Rome. Available at: www.ucw-project.org/attachment/05042017138Child\_Labor\_Youth\_
  Employment\_agriculture.pdf.

- Davis, L.; Vautin, B.P. 2013. "Tracking work-related injuries among young workers: An overview of surveillance in the United States", in *Health and safety of young workers: proceedings of a United States and Canadian series of symposia*, pp. 105-125. DHHS (NIOSH) Publication No. 2013-144. Available at: www.cdc.gov/niosh/docs/2013-144/pdfs/2013-144.pdf.
- ENETOSH (European Network Education and Training on Occupational Safety and Health). 2018a. *TET practice at Rajamäki School in Nurmijärvi*. Available at: http://bit.ly/2kX7BAe.
- ——. 2018b. *UPSI, A Comic Character For Safety And Health*. Available at: www.enetosh.net/webcom/show\_article.php/\_c-3/\_nr-31/\_p-1/i.html.
- EU-OSHA (European Agency for Safety and Health at Work). 2007. OSH in figures: Young workers Facts and figures. European Risk Observatory Report, Brussels. Available at: https://osha.europa.eu/en/tools-and-publications/publications/reports/7606507.
- FAO (Food & Agriculture Organization). 2014. FAO, private and public partnership model for youth employment in agriculture, Experiences from Malawi, Tanzania Mainland and Zanzibar archipelago, Case Studies Series No. 4. Available at: www.fao.org/3/a-i4118e.pdf.
- FNPETI (Fórum Nacional de Prevenção e Erradicação do Trabalho Infantil). 2015. *Cenário do Trabalho Infantil Dados PNAD 2014*, Brasilia. Available at: www.fnpeti.org.br/arquivos//biblioteca/733226a82765a5a62fb2d30f8b40aa7b.pdf.
- Forastieri, V. 2002. *Children at work: Health and safety risks*, ILO, Geneva. Available at: www.ilo.org/safework/info/publications/WCMS\_235332/lang--en/index.htm.
- Graczyk, H. 2010. "The Price of Gold: Mercury Use in Small-Scale Mining", in *Epidemic Proportions: The changing face of public health*, Vol. 6, Issue 1, pp. 49-50. Available at: http://pages.jh.edu/~ep/Downloads/Issues/Vol6Issue1.pdf.
- ——. 2016. ILO mission in Malawi to assess risks for children in hazardous child labour in the tobacco sector.
- Guarcello, L.; Lyon, S.; Valdivia, C. 2016. *Adolescents in hazardous work: Child labour among children aged* 15-17 years, UCW Working Paper Series, Roma. Available at: http://www.ilo.org/wcmsp5/groups/public/---ed\_dialogue/---lab\_admin/documents/projectdocumentation/wcms\_528135.pdf.
- Guerin, R. et al. 2018. "Using a Modified Theory of Planned Behavior to Examine Adolescents' Workplace Safety and Health Knowledge, Perceptions, and Behavioral Intention: A Structural Equation Modeling Approach", in *Journal of Youth and Adolescence*, Springer US, March. Available at: https://link.springer.com/article/10.1007%2Fs10964-018-0847-0.



- Hard, D.L.; Myers, J.R., 2006. "Fatal Work-Related Injuries in the Agriculture Production Sector Among Youth in the United States, 1992–2002", in *Journal of Agromedicine*, Vol. 11, Issue 2, pp. 57-65. Available at: https://doi.org/10.1300/J096v11n02\_09.
- Hesketh, T.; Gamlin, J.; Woodhead, M. 2006. "Policy in child labour", in *Archives of Disease in Childhood,* Vol. 91. No. 9. pp. 721–723. September. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2082915.
- ILO. 2008. Resolution concerning statistics of child labour. Adopted by the Eighteenth International Conference of Labour Statisticians (November-December 2008). Geneva. Available at: www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms\_112458.pdf.
- ——. 2009. Boas práticas do setor saúde para a erradicação do trabalho infantil, Brasilia Office. Available at: www.ilo.org/ipecinfo/product/download.do?type=document&id=25177.
- ——. 2016. Trade Unions and Child Labour: A tool for action, Bureau for Workers' Activities (ACTRAV), Geneva. Available at: www.ilo.org/wcmsp5/groups/public/---ed\_dialogue/---actrav/documents/publication/wcms\_463161.pdf.
- ——. 2017a. Contribution à l'évaluation des risques santé et sécurité au travail dans les exploitations agrohydro-pastorales du Mali, Fundamental Principles and Rights at Work Branch, Geneva.
- ——. 2017b. *Global estimates of child labour: Results and trends, 2012-2016*, Geneva. Available at: www.ilo. org/global/publications/books/WCMS\_575499/lang--en/index.htm.
- ——. 2017c. *Methodology of the global estimates of child labour, 2012-2016*, Geneva. Available at: www.ilo. org/global/topics/child-labour/WCMS\_586125/lang--en/index.htm.
- ——. 2018a. Improving the Safety and Health of Young Workers, Geneva. Available at: www.ilo. org/wcmsp5/groups/public/---ed\_protect/---protrav/---safework/documents/publication/wcms\_625223.pdf.
- ——. 2018b. SafeYouth@Work Action Plan: For a Safer and Healthier Future of Work, Geneva.

  Available at: www.ilo.org/wcmsp5/groups/public/---ed\_dialogue/---lab\_admin/documents/projectdocumentation/wcms\_626924.pdf.
- ILO; Ministry of Social Development and Fight Against Hunger (MDS). 2015. *Good Practices: Combating Child Labour in the World*, Brasília. Available at: www.ilo.org/brasilia/publicacoes/WCMS\_398910/lang--en/index.htm.
- ILO-IPEC. 2002. Supporting children's rights through education, the arts, and media (SCREAM) Programme, Geneva, ILO. Available at: www.ilo.org/scream.

- ———. 2011. Children in hazardous work: What we know, what we need to do, ILO, Geneva. Available at: www.ilo.org/ipec/Informationresources/WCMS\_156475/lang--en/index.htm. ---. 2013. A global estimate of the work-related injuries among children, ILO, Geneva. Available at www.ilo. org/ipec/Informationresources/WCMS\_IPEC\_PUB\_25299/lang--en/index.htm. ———. 2014. A health approach to child labour - Synthesis report of four country studies on child labour in the brick industry. ILO, Geneva. Available at: www.ilo.org/ipec/Informationresources/WCMS\_IPEC\_ PUB\_25300/lang--en/index.htm. ITUC. 2010a. Resolution on organising, 2nd ITUC World Congress, 21-25 June 2010, Vancouver. Available at: www.ituc-csi.org/IMG/pdf/2CO\_06\_Organising\_03-10-2.pdf. ———. 2010b. Resolution on promoting and defending fundamental workers' rights, 2nd ITUC World Congress, 21-25 June 2010, Vancouver. Available at: www.ituc-csi.org/IMG/pdf/2CO\_02\_ Promoting\_and\_Defending\_Fundamental\_Workers\_Rights\_03-10-2.pdf. NCCRAHS (National Children's Center for Rural and Agricultural Health and Safety). 2011. "Factsheet: Childhood Agricultural Injuries", article published by the National Farm Medicine Center, Marshfield Clinic Research Foundation. January. Available at: www3.marshfieldclinic.org/proxy///mcrf-centersnfmc-nccrahs-childaginjuryfactsheet\_jan-2011.1.pdf. NIOSH (National Institute of Occupational Safety and Health) of the United States. 2003. NIOSH Alert: Preventing deaths, injuries and illnesses of young workers, DHHS (NIOSH) Publication No. 2003-128. July. Available at: www.cdc.gov/niosh/docs/2003-128/pdfs/2003128.pdf. ———. 2018. Youth@Work—Talking Safety, a foundational curriculum in occupational safety and health. Available at: www.cdc.gov/niosh/talkingsafety. NRC (National Research Council). 1998. Protecting youth at work: Health, safety, and development of working children and adolescents in the United States, National Academy Press. Available at: www. nap.edu/catalog/6019/protecting-youth-at-work-health-safety-and-development-of-working. Orozco, F.A. et al. 2009. "Monitoring adherence to the international code of conduct: highly hazardous pesticides in central Andean agriculture and farmers' rights to health", in International Journal of Occupational and Environmental Health, Vol. 15, Issue 3. pp. 255-268, July. Accessible at: https:// doi.org/10.1179/oeh.2009.15.3.255. Parker, D.L. 2018. "Silica and paediatric pulmonary development", in Occupational and Environmental Medicine, BMJ Journals. Vol. 75, Issue Suppl. 2, April. Available at: http://oem.bmj.com/content/75/ Suppl\_2/A627.3.
- Parker, D.L.. et al. 1994. "Characteristics of adolescent work injuries reported to the Minnesota Department of Labor and Industry", in *AJPH Publication, American Public Health Association*, Vol. 84. No. 4. pp. 606-611, April. Available at: https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.84.4.606.



- Patton, G.C. et al. 2016. "Our future: a Lancet commission on adolescent health and wellbeing", in *The Lancet*, Vol. 387, Issue 10036, 11 June, pp. 2423-2478. Available at: www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)00579-1.pdf.
- Pellenq, C. 2017. Psychosocial characteristics of working children compared with non-working children: Analysis of a four country data set in the brick industry (unpublished manuscript).
- Pellenq, C.; Gunn, S.; Lima, L. 2018. Psychosocial impacts of work on children: A comparative study of working and non-working children in brick factories (unpublished manuscript).
- Pollack, S.H. 2001. "Adolescent occupational exposures and paediatric-adolescent take-home exposures", in *Pediatric Clinics of North America*, Vol. 48, Issue 5, pp. 1267-1289. Available at: www.pediatric. theclinics.com/article/S0031-3955(05)70374-6/abstract.
- Roggero, P. et al. 2007. "The Health impact of child labor in developing countries: Evidence from cross-country data", in *American Journal of Public Health*, Vol. 97, Issue 2, pp. 271-275. Available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC1781398/pdf/0970271.pdf.
- Rohlman, D.S. et al. 2015. "A 10-month prospective study of organophosphorus pesticide exposure and neurobehavioral performance among adolescents in Egypt", in *Cortex*, January 2016, Vol. 74, pp. 383-395. Available at: www.sciencedirect.com/science/article/pii/S0010945215003482.
- Rosati, F.M.; Rossi, M. 2007. Impact of school quality on child labor and school attendance: The case of CONAFE compensatory education program in Mexico, UCW Working Paper Series. Rome. Available at: www.ucw-project.org/attachment/standard\_CONAFE\_rossi\_rosati20110224\_153935.pdf.
- Salminen, S. 2004. "Have young workers more injuries than older ones? An international literature review", in *Journal of Safety Research*, Vol. 35, pp. 513-521. Available at: https://doi.org/10.1016/j. isr.2004.08.005.
- Santana, V. et al. 2012. Boletim epidemiológico: Acidentes de Trabalho devido à Intoxicação por Agrotóxicos entre trabalhadores da agropecuária, 2000-2011. Centro Colaborador em Vigilância aos Agravos à Saúde do Trabalhador do Ministério da Saúde, No. 4, Year II, Brasilia. Available at: https://docs.wixstatic.com/ugd/303ec7\_5035dd57edfc4ba0a1327caebc50c860.pdf.
- ——. 2017. Boletim epidemiológico: Acidentes de trabalho fatais em crianças e jovens de 10 a 24 anos no Brasil, 2000-2014, Centro Colaborador em Vigilância aos Agravos à Saúde do Trabalhador do Ministério da Saúde, No. 10, Year VII, Brasilia. Available at: https://docs.wixstatic.com/ugd/303ec7\_e055f253bc53444a99f9d67559481ffb.pdf.
- Sawyer, S. et al. 2018. "The age of adolescence", in *The Lancet Child & Adolescent Health*, Vol. 2, No. 3, pp. 223-228. Available at: https://doi.org/10.1016/S2352-4642(18)30022-1.

- Steinberg, L. 2006. "Risk Taking in Adolescence: What Changes, and Why?", in *Annal of the New York Academy of Sciences*, Vol. 1021, Issue 1, pp. 51-58. Available at: https://doi.org/10.1196/annals.1308.005.
- ——. 2007. "Risk taking in adolescence: New perspectives from brain and behavioral science", in *Current Directions in Psychological Science*, Vol. 16, No. 2, pp. 55-59. Available at: bit.ly/2JneZDA.
- Sturrock, S.; Hodes, M. 2016. "Child labour in low- and middle-income countries and its consequences for mental health: a systematic literature review of epidemiologic studies", in *European Child & Adolescent Psychiatry*, Vol. 25, pp. 1273-1286. Available at: bit.ly/2sQcPkR.
- Sudhinaraset, M.; Blum, R.W. 2010. "The unique developmental considerations of youth-related work injuries", in *International Journal of Occupational and Environmental Health*, Vol. 16, pp. 195-201. Available at: www.tandfonline.com/doi/pdf/10.1179/107735210799160372.
- UCW (Understanding Children's Work). 2006. *Children's work in Cambodia: A challenge for growth and poverty reduction*, UCW Country Report Series, Rome. Available at: bit.ly/2JjR9J3.
- ——. 2015. Child labour and the youth decent work deficit in Ghana, Understanding Children's Work Programme, Rome. Available at: bit.ly/2sGPHGr.
- US-BLS (US Bureau of Labor Statistics). 2010. *Census of fatal occupational injuries*, Table A-7 (Worker characteristics by event or exposure). Available at: www.bls.gov/iif/oshcfoi1.htm#2010.
- ——. 2016. "Nonfatal occupational injuries and illnesses requiring days away from work, 2015", in *BLS News Release* USDL-16-2130, Available at: www.bls.gov/news.release/pdf/osh2.pdf.
- Wegman, D.H.; Davis, L.K. 1999. "Protecting Youth at Work", in *American Journal of Industrial Medicine*, Vol. 6, pp. 579-583. Available at: bit.ly/2Ju5nDk.
- WHO. 2008. Closing the gap in a generation: Health equity through action on the social determinants of health. Commission on Social Determinants of Health, Geneva. Available at: bit.ly/2sSuxnO.
- Windau, J.; Meyer, S. 2005. "Occupational injuries among young workers", in *Monthly Labor Review*, Vol. 28, Issue 10, pp. 11-23. Available at: www.bls.gov/opub/mlr/2005/10/art2full.pdf.
- WorkSafeBC. 2018. Website available at: www.worksafebc.com/en.



## Fundamental Principles and Rights at Work Branch (FUNDAMENTALS)

## **International Labour Organization**

4 route des Morillons CH-1211 Geneva 22 – Switzerland Tel.: +41 [0) 22 799 61 11 Fax: +41 (0) 22 798 86 95

childlabour@ilo.org - www.ilo.org/childlabour

**y** @ILO\_Childlabour

