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Assessing psychosocial hazards and impact of child labour

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**International
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on the
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Executive summary

The working environment and the nature of work itself are both important influences on health (Marmot and Wilkinson, 2006). However, the impact of hazards at work on health varies greatly between adult and child workers as, given their physiological and psychological immaturity and the biological process of growth, children's increased vulnerability puts them at a high risk of work-related health problems (Forastieri, 1997, 2002; O'Donnell et al., 2002). Children may be more vulnerable than adults to abuse and to given health risks. While there may be consensus among stakeholders that work can have positive effects on children such as the development of discipline, responsibility, self-confidence and independence and provides valuable models to teach them work skills (Fassa et al., 2000; ILO, 2002; O'Donnell et al., 2002), it is unequivocally acknowledged that work can also have a significant negative impact on health and development of children (e.g. Dorman, 2008; Forastieri, 2002; ILO, 2002; O'Donnell et al., 2002; WHO, 1987). It must be noted here that it is the type of work children perform that determines whether work is harmful to them, however, the complexity of the nature of children's work makes it difficult to distinguish what is harmful and what is not (Punch, 2009).

Health, both psychological as well as physical, is central to the definition of child labour in international law. Since the 1950s psychological aspects of work have increasingly been the subject of research (Johnson and Hall, 1996; Sauter et al., 1998). Research in this area gained further impetus with the emergence of psychosocial work environment research (Johnson and Hall, 1996) with a shift in focus from an individual perspective to the impact of certain aspects of the work environment on health (Cox, Griffiths and Rial-González, 2000). The majority of the studies on the impact of psychosocial hazards at work use adult worker samples and only recently some studies began looking at the detrimental effect of specific aspects of the working environment on children (e.g. ILO, 2004).

Factors influencing the psychosocial development of children were first discussed in 1976, by a WHO Expert Committee. In its report (WHO, 1977), the Committee drew attention to the importance of ensuring healthy psychosocial development and the prevention and treatment of mental health problems in children. It is therefore important to consider both the risk posed by psychosocial hazards at work as well as the impact of work on the psychosocial well-being of children (Woodhead, 2004).

The current report reviews key evidence in relation to psychosocial aspects of child labour. It addresses both psychosocial hazards and psychosocial impact of child labour. It also synthesises the available evidence in a list of key indicators that can be used in this area and can be incorporated in different monitoring and research instruments. The report reviews key instruments that have been used in research focussing on psychosocial aspects at work both with adult and children populations. It concludes that the nature of child labour research makes it difficult to identify one gold-standard method for data collection. However, it would still be possible for the suggested indicator framework to be used as part of on-going surveys, rapid assessment and other methods to allow data collection for

monitoring and comparison purposes. The developed indicator model is also relevant for qualitative research as the dimensions it covers could still be incorporated in qualitative approaches on child labour used in field research. However, the focus of this report is on suggesting a public health approach in addressing psychosocial aspects of child labour.

In the short term, it is proposed that a short tool is pilot-tested in on-going projects to assess psychosocial hazards in child labour and is supplemented by readily available tools assessing psychosocial impact and resilience aspects. On the basis of the current review of the literature and existing child labour and adult tools as well as the proposed indicator model, a short tool to assess psychosocial hazards in child labour is presented. It is important that this tool is used in addition to questions addressing demographic issues, the employment process, working conditions, the work environment, physical hazards as well as the family context. Furthermore, it is recommended that additional standardised tools are used to explore psychosocial impact and resilience aspects. It should be noted that the use of these tools would provide a snap-shot at the situation in relation to psychosocial aspects of child labour in different contexts. However, more in-depth research would be necessary to reach detailed conclusions on various aspects of the proposed indicator model.

As it has been suggested in this report, a long-term strategy is advisable and should be considered by ILO to achieve the desired outcomes in terms of monitoring. However, this report represents a crucial first step in identifying an indicator framework that can be incorporated in on-going research in order to monitor psychosocial conditions and outcomes of child labour globally adopting a public health approach.

1. Introduction

“Throughout the world, most adults—and many children—spend much of their waking hours at work. Work provides a number of economic and other benefits. At the same time, people at work face a variety of hazards owing to chemicals, biological agents, physical factors, adverse ergonomic conditions, allergens, a complex network of safety risks, and many and varied psychosocial factors” (Concha-Barrientos et al., 2004: p. 1653). The working environment and the nature of work itself are both important influences on health (Marmot and Wilkinson, 2006). However, the impact of hazards at work on health varies greatly between adult and child workers as, given their physiological and psychological immaturity and the biological process of growth, children’s increased vulnerability puts them at a high risk of work-related health problems (Forastieri, 1997, 2002; O’Donnell et al., 2002). Children may be more vulnerable than adults to abuse and to given health risks.

While there may be consensus among stakeholders that work can have positive effects on children such as the development of discipline, responsibility, self-confidence and independence and provides valuable models to teach them work skills (Fassa et al., 2000; ILO, 2002; O’Donnell et al., 2002), it is unequivocally acknowledged that work can also have a significant negative impact on health and development of children (e.g. Dorman, 2008; Forastieri, 2002; ILO, 2002; O’Donnell et al., 2002; WHO, 1987). It must be noted here that it is the type of work children perform that determines whether work is harmful to them, however, the complexity of the nature of children’s work makes it difficult to distinguish what is harmful and what is not (Punch, 2009). A simple dichotomy is that between ‘child work’ and ‘child labour’. ‘Child work’ or ‘children’s work’ is seen as a general term covering the entire spectrum of work and related tasks performed by children, and ‘child labour’ as a subset of children’s work that is harmful to children and that should be targeted for elimination. There is also growing recognition that there are certain intolerable, or ‘unconditionally worst’, forms of child labour that constitute especially serious violations of children’s rights, and that should be targeted as a priority for immediate action (Cigno et al., 2003).

1.1 Defining and measuring the prevalence of child labour

Although there is no universally agreed upon definition of child labour, cross country studies of child labour universally define it as children who are part of the economically active population (Edmonds, 2009). UNICEF defines child labour as “work that exceeds a minimum number of hours, depending on the age of a child and on the type of work. Such work is considered harmful to the child and should therefore be eliminated, for

- Ages 5-11: At least one hour of economic work or 28 hours of domestic work per week.
- Ages 12-14: At least 14 hours of economic work or 28 hours of domestic work per week.

- Ages 15-17: At least 43 hours of economic or domestic work per week” (UNICEF, 2009).

Since the late 1990s along with an increased awareness of child labour (especially its worst forms) by governments and institutions, there has been an enormous increase in the statistical information available on child labour (UNICEF, 2009). There are three main survey instruments for collecting data on child labour. These are the Living Standards Measurement Study (LSMS) conducted by the World Bank, surveys by the Statistical Information and Monitoring Programme on Child Labour (SIMPOC) carried out by the International Programme on the Elimination of Child Labour of ILO (ILO-IPEC), and the Multiple Indicator Cluster Survey (MICS) conducted by the United Nations Children’s Fund (UNICEF) (ILO, 2007).

The main objective of the LSMS surveys is to collect household data that can be used to assess household welfare, to understand household behaviour and to evaluate the effect of various government policies on the living conditions of the population. Due to the multi-topic integrated nature of the LSMS surveys the entire survey needs to be looked at to get all the available information relevant to children’s activities. SIMPOC surveys include development of standard indicators of child labour at the national level, measurement of incidence, causes and consequences of child labour. The surveys also measure the impact of intervention programmes and policies. SIMPOC surveys mark an important development by moving beyond using economically active children as a proxy for child labour by including both unpaid and remunerated work and mapping children’s non-market work like domestic work (ILO, 2007).

UNICEF collects data on working children with the MICS, a series of nationally representative household surveys. MICS questionnaires ask what kind of work a child does and for how many hours, collecting data on both economic activities (paid or unpaid work for someone who is not a member of the household, work for a family farm or business) and domestic work (household chores like cooking, cleaning, or caring for children). A further source of child labour data used by UNICEF is the Demographic and Health Surveys (DHS), carried out with support of the United States Agency for International Development (USAID). Some recent DHS surveys have adopted the MICS child labour questionnaire and provide the same data on work by children (UNICEF, 2009).

In an effort to make the available data more consistent and comparable, an inter-agency programme of the ILO, UNICEF and the World Bank, ‘Understanding Children’s Work’ was set up in December 2000. In 2008, the 18th International Conference of Labour Statisticians adopted a new definition of child labour in Resolution II, which concerns statistics on child labour (ILO, 2009). The target population for measuring child labour for the purpose of the resolution comprised all persons in the age group from 5 to 17 years. The framework set by the resolution encompasses economic activity (‘children’s employment’) and household chores (‘hazardous unpaid household services’). According to the resolution, the term ‘child labour’ covers:

- The worst forms of child labour, including slavery; prostitution and pornography; illicit activities; and work likely to harm children’s health, safety or morals, as defined in ILO Convention No. 182.

- Employment below the minimum age of 14, as established in ILO Convention No. 138.
- Hazardous unpaid household services, including household chores performed for long hours, in an unhealthy environment in dangerous locations, and involving unsafe equipment or heavy loads.

According to UNICEF, an estimated 158 million children aged 5-14 are engaged in child labour - one in six children in the world. Millions of children are engaged in hazardous situations or conditions, such as working in mines, working with chemicals and pesticides in agriculture or working with dangerous machinery. They are everywhere but invisible, toiling as domestic servants in homes, labouring behind the walls of workshops, hidden from view in plantations (UNICEF, 2009). It has also been estimated that more than 200 million children less than 14 years of age work worldwide, many of whom are employed in hazardous occupations and are doing the same type of work as adults (ILO, 2002).

The number of children in hazardous work, often used as a proxy for measuring the extent of the worst forms of child labour, is declining, particularly among those below 15 years of age. Recent figures indicate that between 2004 and 2008, child labour has continued to decline globally, however, the overall rate of reduction has slowed (ILO, 2010). Despite this decrease there are still 215 million children caught in child labour. There are still 115 million children in hazardous work. Children's work is declining in the Asia-Pacific region and in Latin America and the Caribbean, but it is increasing in sub-Saharan Africa. Among girls there is a significant decrease. Among boys and older children (age 15 to 17), however, the trends show some increase. Most child labourers continue to work in agriculture. Only one in five working children is in paid employment. The overwhelming majority are unpaid family workers (ILO, 2010).

Even though millions of children around the world are being exposed to health and safety hazards on a daily basis not enough information is available on specific non-fatal injuries and short-term and long-term toxic exposures, and their effects on children. Data available on mortality rates is insufficient and only a few studies exist on the cohorts of employed children (Forastieri, 2002). Several studies on the health of child labourers have been carried out, however, they tend to include only small sample sizes or have design flaws. These limitations are often exacerbated by the settings in which investigations are conducted, for example, areas where medical care is sporadic or non-existent and conditions favour the spread of diseases (Parker, 1997). Furthermore, evidence on long-term health consequences of child labour is even more limited (O'Donnell et al., 2002). Since the past decade some evidence concerning the actual conditions under which children work and about the impact on their health is beginning to emerge (e.g. Dorman, 2008; Fassa, 2003; Graitcer, and Lerer, 1998; Roggero et al., 2007); this is presented briefly in the next sections.

1.2 Child labour: impact on health

Health, both psychological as well as physical, is central to the definition of child labour in international law. The United Nations Convention on the Rights of the Child (UNCRC) emphasizes the importance of protecting children from hazardous or harmful work. Article 32 of the Convention calls on States Parties to take legislative, administrative, social and educational measures to ensure that "the right of the child to be protected from economic

exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development", is realized (UNCRC, 1989: Article 32). In order to achieve this goal, the UNCRC also calls on States to set the minimum age for admission to employment and provide for appropriate regulation of the hours and conditions of employment having regard to other international instruments. The ILO Conventions No. 138 (Minimum Age) and No. 182 (Worst Forms of Child Labour) are the most important of them.

The ILO Conventions speak of the 'fullest physical and mental development of young persons' (ILO C138, 1973). The ILO Convention on Worst Forms of Child Labour defines the types of work that are unacceptable to be undertaken by children. These forms involve slavery or compulsory labour, prostitution, pornography, human trafficking, war, drug dealing or trafficking, or any illicit activity, and any 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 (ILO C182, 1999). This convention has been ratified by nearly 87% of ILO members, who represent 77% of the children around the world (ILO, 2006). Despite these developments, the health of working children is still an under-researched topic (Graitcer and Lerer, 2000) and has only begun to receive attention both in relation to policy and practice.

Graitcer and Lerer (1998) in the first comprehensive review of its kind on the effect of child labour on children's health extrapolated data from the Global Burden of Disease Study (Murray and Lopez, 1996). They found that the occupational mortality rate among children matched the adult occupational mortality rate, and further concluded that published epidemiological studies of the health consequences of child labour almost certainly underestimate the incidence of injuries which therefore indicated that throughout the world, occupational injuries and mortality rates for children exceed those of adults (Graitcer and Lerer, 1998).

Fassa (2003) in a study to estimate the disability adjusted life years (DALY)¹ of child labour assumed that the worst forms of child labour can have three types of negative impact on health:

- exacerbating common diseases with an increase in the prevalence due to occupational exposures;
- determining occupational diseases; and
- causing injuries and premature death.

The review indicated that although some studies, particularly in developing countries, evaluated the prevalence of common diseases in workers as headache, diarrhoea, common cold, malnutrition and others, most of these studies used a cross-sectional design and the data was mainly descriptive with no or scarce control of confounding factors. Furthermore, due to important temporal ambiguity in many situations, and lack of information, such as duration of disability and the fraction of the common disease that could be attributable to work, it was not possible to estimate the impact of occupational exposure on health. The

¹ DALY is the sum of the years of life lost due to premature mortality (YLL) in the population and the equivalent "healthy" years lost due to disability (YLD) for incident cases of the health condition.

review also found other studies which evaluated occupational diseases, as musculoskeletal problems, respiratory problems, occupational hearing loss among others, but the information was available for very few and specific occupations. Even in these cases, important information was lacking for conversion of morbidity to DALY, such as the duration of the disability and the age of onset of disability for the morbidities with a lengthy latency period.

However, estimates from a bibliographic review, but mainly from developed countries, allowed Fassa (2003) to estimate total DALY due to work-related fatal and non-fatal injuries. This was estimated to be 1.9 million DALY for the 5-14 year olds and 0.8 million for the 15-17 year olds, adding up to 2.7 million of DALY due to child labour per year. Sufficient information was also not found for the unconditional worst forms of child labour such as sexual exploitation, child soldiers, slavery and illicit activities, to perform DALY calculations. There was also a lack of sufficient information to consider occupational illnesses comprehensively and as such difficult to establish the injury/illness ratio because the literature presents very different numbers (Fassa, 2003).

Reviews on the impact of child labour and health also report on the lack of longitudinal and control group studies as well as methodological issues on how to estimate the impact of child work on health (Dorman, 2008). O'Donnell and colleagues (2002) following a review of the evidence concluded that the most harmful forms of child labour certainly include those that damage the short and long run health prospects of the working child and to an extent, identification of the forms of child labour that are potentially most damaging to health is not difficult. However, at present, evidence on the health consequences of child work activity is limited. Illness and injury hazard rates by sector of employment describe the risks faced by the working child but, in the absence of comparison with the 'no work' counterfactual, they do not provide a basis for evaluating the impact of work on health. Comparisons between the growth rates of working and non-working children in rural settings provide mixed results. Furthermore, interpretation of all current estimates of the relationship between child labour and health is difficult given the absence of analyses that account for the potential endogeneity of child work activity to health outcomes (O'Donnell et al., 2002). This in part is due to the complex causes that give rise to child labour such as homelessness, unfair and exploitative labour relations, exploitative socio-economic and cultural relations, conventional child development practice, poverty and socio-economic status, large family size, lack of education, domestic violence (Dorman, 2008; Forastieri, 2002; Parker, 1997) as well as deeply rooted cultural and social attitudes and biases especially towards women (Beyrer, 2004; Leinberger-Jabari et al., 2005).

Dorman (2008) in a review of the literature on the relationships between child labour, education and health found that a large proportion of studies pursued a generalized relationship between child labour and health, as a result of which not much can be asserted about the causes of ill health due to child labour. The review indicated that child injury rates were as high as or higher than adults, but their severity, as measured by fatalities or the need for surgery, was found to be lower on average. Findings were the same as previous reviews since biometric evidence, as well as evidence from studies of concurrent or subsequent general health was found to be mixed. It was suggested that to draw any methodological conclusion, it was important that research should focus on symptoms linked to particular stressors. The review recognised that, fortunately, many researchers are now

assembling more targeted data on specific child work activities and health outcomes (Dorman, 2008).

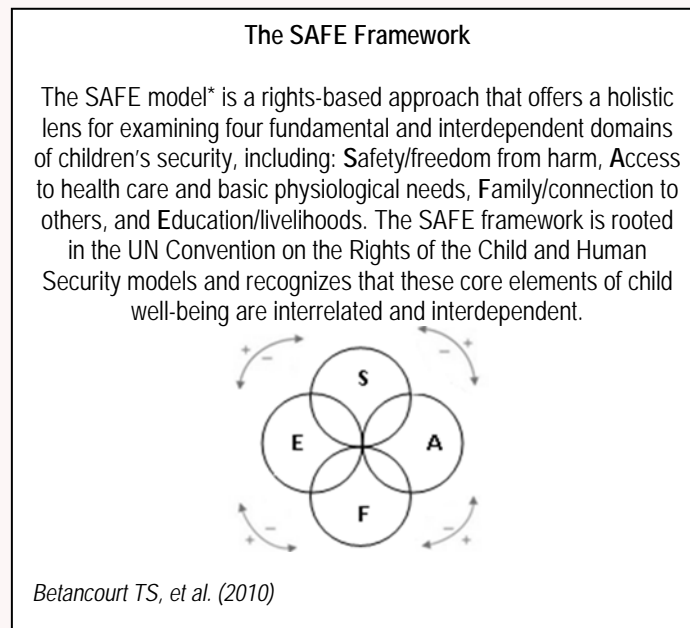
In a recent study to determine the impact of child labour on children's health in 83 developing countries, Ruggero and colleagues (2007) correlated existing health indicators with the prevalence of child labour in the selected countries. They analyzed the relationship between child labour (defined as the percentage of children aged 10 to 14 years who were workers) and selected health indicators using multiple regression to determine the nature and strength of the relation. The regression included control variables such as the percentage of the population below the poverty line and the adult mortality rate. Results indicated that child labour was significantly and positively related to adolescent mortality, to a population's nutrition level, and to the presence of infectious disease. Since regression of health on an indicator of childhood participation in work can inform only of the average effect of child labour on health and such estimates can vary with the nature of work most prevalent in any particular data set (O'Donnell et al., 2002), the authors concluded that longitudinal studies were required to understand the short and long-term health effects of child labour on the individual child (Ruggero et al., 2007).

It is clear that more detailed evidence of the relationships between 'child work' and health both in childhood and as well as its long term consequences in adulthood is required especially for the design of appropriate and effective policy. It is essential that future empirical work should endeavour to take account of a number of characteristics of the true relationship between child labour and health and of factors that govern the statistical relationship between the variables. O'Donnell and colleagues (2002) following their review suggested that child work activity can influence health both through a direct negative effect as a result of workplace hazards and stress as well as indirect effects operating through impacts on family living standards and education.

There is evidence to indicate that child labour is more harmful if it interferes with school, recreation and rest (Dorman, 2008). The evidence also suggests that the younger the child is, the worse the nature of the work schedule, the longer the hours or the frequency of the nocturnal work; the more hazardous the occupation and the lower the wage (Forastieri, 2002; UNICEF, 1997). Child labour damages children's physical and mental health since, because of their premature incorporation into the workforce, they often have to perform tasks which are not suited to their physical and mental abilities and needs (Forastieri, 1997). The total (net) effect of child work on health can be estimated by examining the relation between work activity and health, while controlling for all factors, other than child work, which influence living standards and education (O'Donnell et al., 2002).

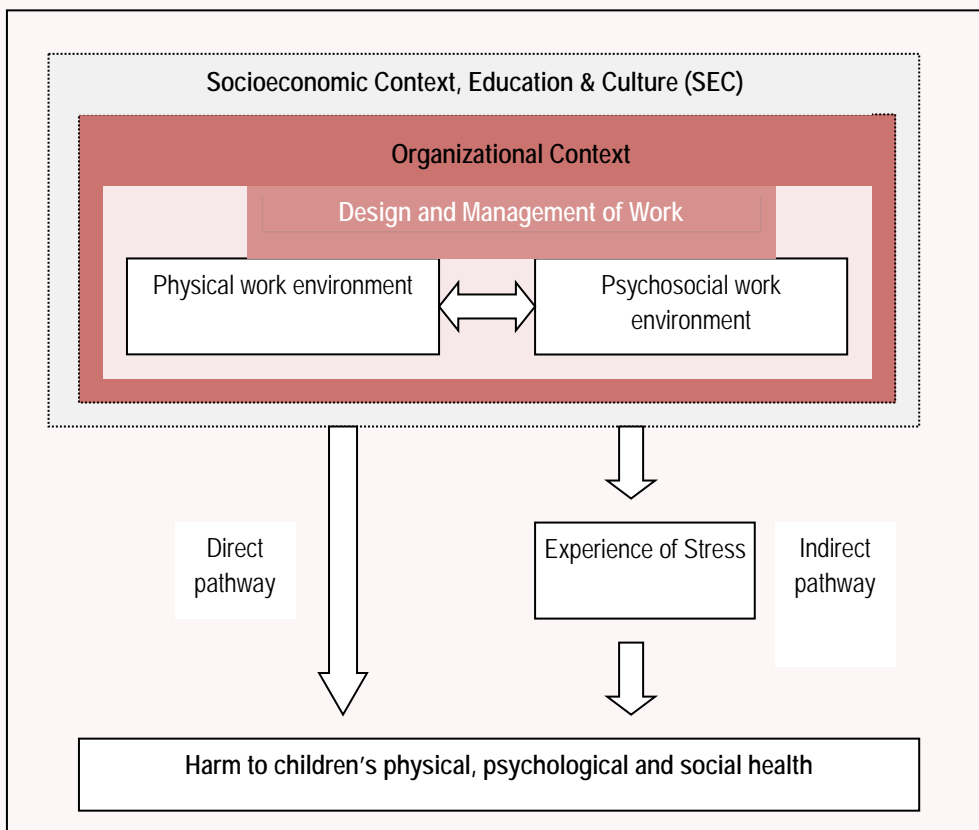
A recently developed model, the SAFE model (Betancourt et al., 2010), which is grounded in a human rights and developmental perspective on children, argues that four dimensions of security are fundamental for the well-being of young people facing adversity: Safety/protection; Access to health care and basic physiological needs; Family and connection to others; and Education and economic security. Children's survival depends on physiological necessities, safety, communal relationships and opportunities for learning and securing a future livelihood. Children's basic security needs are intimately linked to their social environment – their families and communities. The survival and healthy development of children in turn builds a healthier, more secure, and economically viable community. By

acknowledging the interrelated nature of children’s security needs and rights, this model is just as concerned with maintaining healthy social relationships as providing for physiological and physical security. The model also identifies survival strategies, both adaptive and dangerous, that children and families use to cope with insecurity (Betancourt et al., 2010). For example, children may engage in work as a survival strategy in response to insecurity in any of the domains captured in the SAFE model, which then brings with it a cascade of consequences that can, in turn, be damaging to their security and well-being across domains.



Consistent with this model, a comprehensive approach which takes into account both the direct and indirect effect of the social and organisational context as well as the working conditions for children at work on their physical, mental and social health is therefore necessary. The widely used dual pathway hazard-harm model suggested by Cox, Griffiths and Rial-González (2000) may be used as the basis of such an approach to explain the association between work-related health complaints (for adult workers) and exposure to psychosocial hazards, and to an interaction between physical and psychosocial hazards, to an array of health outcomes at the individual level and at the organisational level. Figure 1 proposes such a comprehensive model to examine the health impact of child labour taking into account both the direct pathway linked to the nature of work and working environment, the social context which includes Socio-economic status, Education and Culture (SEC) as well as the indirect pathway linked to the experience of stress.

Figure 1: Health impact of Child Labour - Dual pathway hazard – harm model



Source: Adapted from Cox, Griffiths and Rial-González (2000).

1.3 Psychosocial implications of child labour

Child labourers face higher health risks relative to adults because children often work in informal, small scale and illegal settings which, by their very nature, are difficult to regulate (Fassa et al., 2000). The substantial number of children worldwide working in domestic services and the sex industry are left particularly vulnerable to physical and psychological abuse. Children working in small scale farming and manufacturing are often not given the protection promised by health and safety regulation. Even when this protection is available, it is likely to be much less effective for children since the measures are usually designed for adult, and not child, workers (ILO, 2002; Fassa et al, 2000).

Working children are more vulnerable than adult workers not only for physiological reasons, but also because of a combination of psychological and social reasons. The motivation for children to start working and to retain their job can vary but it is usually to contribute to the financial support of the family, which is a heavy responsibility at an early age. This consequently places additional burden and stress on child workers. Children are also at greater psychological or social risk because they lack authority and physical power, because their work is not always valued as a productive activity, and because they usually have the lowest status of all workers (Boyden et al., 1998). Furthermore, children react differently from adults when exposed to similar risks (Forastieri, 1997).

Childhood is the time for emotional, psychological, cognitive and personality development. Interaction with family members, other children and peers through play, games, sports,

exchange of thoughts and expression of feelings are vital for the harmonious development of self (Shah, 2002). Schooling has a great role to play in the process of development (Dorman, 2008). Children need the time and opportunity to play and to explore, to develop relationships with family as well as their peers and to learn, all of which are critical to their physical, mental, social and intellectual development.

Restricted social interaction, long hours of work, heavy responsibilities and lack of social support have far-reaching negative effects on their emotional and moral development. Regular employment or work deprives children of the time and opportunity to go through normal development at the most critical stage of life (Forastieri, 2002). Various types of psychological harm may occur when young children are subjected to work situations where they are deprived of intellectual and emotional stimuli and where they live in a totally adult environment. The most damaging form of deprivation can be one that seriously effects the personality development of the child (Shah, 2002). Children who are exhausted, hungry or anxious because of work would be at a disadvantage at school as compared with their non-working counterparts (Dorman, 2008).

In most countries of the world today, where children are working, they do it for more hours per week than are legal for adults in those countries (ILO, 2010). Long working hours limit a child's opportunities for social interaction and education. Work may have a long-term negative impact on social development, when it leads to no education or poor education and low employment prospects. These children will always remain in the group of low-wage earners. In macroeconomic terms, work injurious to the development of children perpetuates poverty, by degrading the human resources necessary for economic and social development (Forastieri, 2002).

Even though interference with the process of psychological and social development has been a longstanding concern about child labour, it is only in recent years that researchers have attempted to put this hypothesis to an empirical test (Woodhead, 2004). Mounting evidence also suggests that antecedents of adult mental disorders can be detected in children and adolescents. The development of policies and programmes for child and adolescent mental health have lagged due to widespread lack of knowledge about child development and childhood mental disorders, relatively weak advocacy, lack of training and, in many parts of the world, absent financial and professional resources for programme development and implementation (Remschmidt and Belfer, 2005; WHO, 2005).

Failure to ensure delivery of care is a violation of human rights, whether children or adults are the victims. The consequences are particularly disastrous in the case of the young because adult capabilities are determined in early years. Opportunities lost may never be recouped. The final cost to society of an adult who fails to perform at his or her highest capability will be far greater than outlays for care in childhood and adolescence (ILO, 2003). The needs of children cannot be deferred while we wait for a more convenient time (Eisenberg, 2005 – in the WHO 2005 mental health atlas).

While the physical aspects of the working child's health are beginning to receive the attention they deserve, the non-physical aspects characterised by psychosocial hazards, are not (Gunn et al., 2010). This is in some ways is because physical hazards are much more

tangible than psychosocial hazards, as is their impact on children's well-being. Many psychosocial hazards are much less readily identified (Woodhead, 2004).

There is however, substantial evidence on the assessment and impact of psychosocial hazards at work for the adult working population (Leka and Jain, 2010). While the literature on child labour takes into account the context and hazards child labour poses, it has largely focused on the psychosocial impact of child labour or 'psychosocial wellbeing' (Woodhead, 2004). The next sections review this literature and present an integrated framework of psychosocial aspects of child labour. At this point it must be reiterated that the focus of this paper is not 'child work' but 'child labour', a subset of children's work that is injurious to children.

2. Current state of the art: different foci in the literature

Since the 1950s psychological aspects of work have increasingly been the subject of research (Johnson and Hall, 1996; Sauter et al., 1998). Research in this area gained further impetus with the emergence of psychosocial work environment research and occupational psychology in the 1960s (Johnson and Hall, 1996) with a shift in focus from an individual perspective to the impact of certain aspects of the work environment on health (Cox, Griffiths and Rial-González, 2000). The majority of the studies on the impact of psychosocial hazards at work use adult worker samples and only recently some studies began looking at the detrimental effect of specific aspects of the working environment on children (e.g. ILO, 2004).

Factors influencing the psychosocial development of children were first discussed in 1976, by a WHO Expert Committee. In its report (WHO, 1977), the Committee drew attention to the importance of ensuring healthy psychosocial development and the prevention and treatment of mental health problems in children. The report includes a discussion of the biological factors, cognitive factors, ecological and social factors, patterns of upbringing and ameliorating influences and factors leading to positive psychosocial development. Poverty, migration, housing, urbanization and industrialisation are all discussed as ecological and social factors but not direct reference is made to child labour (WHO, 1977). Most work on child labour is based on this model and focuses on the impact of work on the psychosocial development of children (e.g. Ennew 1994; Brewer, 2003).

It is therefore important to consider both the risk posed by psychosocial hazards at work as well as the impact of work on the psychosocial well-being of children (Woodhead, 2004). The following review is not intended to be exhaustive but indicates the key issues that relate to the psychosocial aspects of child labour. This serves as the basis for developing an integrated model and indicators for psychosocial hazards and impact of child labour.

2.1 Psychosocial hazards at work

According to the ILO, “psychosocial factors at work refer to the interactions between and among work environment, job content, organizational conditions and workers’ capacities, needs, expectations, custom, culture, and personal extra-job considerations that may, through perceptions and experience, influence health, work performance and job satisfaction” (ILO, 1986); as such, this definition refers to those interactions that prove to have a hazardous influence over employees' health through their perceptions and experience. A simpler definition of psychosocial hazards might be those aspects of the design and management of work, and its social and organisational contexts that have the potential for causing psychological or physical harm (Cox and Griffiths, 2005). There is a reasonable consensus in the literature of the nature of psychosocial hazards (see Table 1) but it should be noted that new forms of work give rise to new hazards – not all of which will yet be represented in scientific publications (Cox, 1993) or those relevant to child labour.

Table 1: Psychosocial Hazards

Psychosocial hazards	
Job content	Lack of variety or short work cycles, fragmented or meaningless work, under use of skills, high uncertainty, continuous exposure to people through work
Workload and work pace	Work overload or under load, machine pacing, high levels of time pressure, continually subject to deadlines
Work schedule	Shift working, night shifts, inflexible work schedules, unpredictable hours, long or unsociable hours
Control	Low participation in decision making, lack of control over workload, pacing, etc.
Environment and equipment	Inadequate equipment availability, suitability or maintenance; poor environmental conditions such as lack of space, poor lighting, excessive noise
Organisational culture and function	Poor communication, low levels of support for problem solving and personal development, lack of definition of, or agreement on, organisational objectives
Interpersonal relationships at work	Social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support, bullying, harassment
Role in organisation	Role ambiguity, role conflict, and responsibility for people
Career development	Career stagnation and uncertainty, under promotion or over promotion, poor pay, job insecurity, low social value to work
Home-work interface	Conflicting demands of work and home, low support at home, dual career problems

Source: Adapted from Leka, Griffiths and Cox (2003).

Psychosocial risks go hand in hand with the experience of work-related stress. Work-related stress is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope (WHO, 2003). Psychosocial risks, work-related stress, violence, harassment, and bullying (or mobbing) are now widely recognised major challenges to occupational health and safety (EU-OSHA, 2007).

Quick, Quick and Horn (1986) noted that work-related stress can cause behavioural, medical, and psychological problems. Behavioural changes tend to be the earliest and most overt signs of stress, and include: (1) greater alcohol and drug abuse; (2) increased cigarette smoking; (3) accident proneness; and (4) violence. Psychological consequences include: (1) family problems; (2) sleep disturbances; (3) sexual dysfunction; and (4) depression. Medical problems include: (1) hastening the appearance of disease; and (2) worsening the impact of illness. Reviews of work stress and employee health conclude that the indirect evidence from occupational studies which indicate a causal effect of work experiences on physiological and emotional responses, does indicate a work stress effect (Ganster and Schaubroeck, 1991; Cox Griffiths and Rial-Gonzalez, 2000; WHO, 2010).

Systematic reviews and longitudinal studies using adult worker samples have indicated that stress at work is associated with heart disease, depression, and musculoskeletal disorders (MSDs) and there is consistent evidence that high job demands, low control, and effort-reward imbalance are risk factors for mental and physical health problems (e.g. Johnson et al., 1996; Kivimäki et al., 2006; Rosengren et al., 2004; Stansfeld and Candy, 2006; Tennant, 2001). In a wider perspective, psychosocial risks are being increasingly acknowledged as major public health concerns in industrialised countries (Leka and Cox, 2008). However, due to processes of globalisation and changes in the nature of work, these risks are not limited to the developed world. There is growing concern about the causes and health consequences of psychosocial risks, particularly in developing countries (Kortum, 2007).

These issues and concerns for the adult working population are also relevant to children at work. It is plausible and has also been suggested that there are certain common stressful psychosocial factors inherent in child labour, as compared to adult workers (WHO, 1987; Gunn et al., 2010). Furthermore, the special situation of being both a child and a worker either generates psychosocial risk factors over and above those faced by adults at work or makes the children react differently from adults on exposure to similar psychosocial risks. Also, regardless of the economic sector or form of employment, the very adverse socioeconomic and family backgrounds that may have compelled children to join the labour force from the beginning are a source of stress. In addition, when children become workers they are possibly subject to the general risk factors in the working environment like adult workers but also to more specific risk factors, due to deprivation of childhood, schooling and education, family life conflict, poor interpersonal relationships at work (WHO, 1987).

An early review carried out by the WHO on special health risks affecting children at work pointed out that no research had been done on the psychosocial risks encountered by children at work or their effects on the children either in the immediate future or later on in life (WHO, 1987). Over twenty years later, the availability of evidence has not changed much as only a few studies examining the health impact of psychosocial risks on child labour have been carried out. It is therefore important to consider the available evidence from studies on psychosocial health and development in non-working children, on children in difficult circumstances such as extreme poverty and war, and on work-related psychosocial health on adults (Gunn et al., 2010). Many studies on child labour have examined psychosocial health and development in non-working children and some on children in difficult circumstances (e.g. Dorman, 2008; Dawes and Donald, 2000; Catani et al., 2009). However, the available literature examining the impact of psychosocial hazards at work in adult populations has largely been ignored in research on child labour, despite the obvious parallels. Such studies can suggest lines of inquiry and identify ways of addressing the psychosocial hazards in the case of child workers (Gunn et al., 2010). The next sections present some literature on the effect of psychosocial hazards on the health of workers which are relevant in the context of child labour.

2.1.1 Job content

There are several different aspects of job content which are hazardous: these include low value of work, low use of skills, lack of task variety and repetitiveness in work, uncertainty, lack of opportunity to learn, high attention demands, conflicting demands and insufficient resources (Cox, Griffiths and Rial-González, 2000). Cox (1985) reviewed the physical and psychological health effects of such work, and reported that exposure to repetitive and monotonous work is often associated with the experience of boredom, and, in turn, with anxiety and depression, resentment, and generally poor psychological health. There may also be an increased incidence of postural and musculoskeletal problems, including work-related upper limb disorders, disorders of the digestive system and various changes in health-related behaviours, such as smoking and drinking (Cox, Griffiths and Rial-González, 2000). New studies based on large population samples have further strengthened this evidence base (e.g., Borritz et al., 2006; Smith et al., 2000; Theorell et al. 2003).

Many children work in extremely dangerous situations and in exploitative and abusive conditions. The types of hazards children face vary according to the occupation involved and

the specific working conditions (Forastieri, 1997). Studies on child labour highlight that characteristics of child labour include uncertainty, low value of work where children are usually given menial jobs which require low use of skills, lack task variety, are repetitive in nature and rarely provide an opportunity to learn (Dorman, 2008; Forastieri, 2002; WHO, 1987). Such work has also been found to be detrimental to the health and well-being of child labourers. For example, Doocy et al. (2007) conducted a comprehensive study of Nepalese child porters, using a sample of 249 such children and 262 controls. Porterage was characterised as demanding work as the child porters were described to carry loads averaging 47.5 kg; the work was also monotonous and repetitive. The results indicated that the body mass index of child porters was significantly lower and the presence of anaemia significantly higher than the controls. The authors further pointed out that the sample selection strategy did not pick cases of death, serious disability or injury leading to a cessation of employment among the child porters, so the risks faced by this population may be underestimated.

Traditionally, children have been initiated into culturally valued activities, roles and cognitive skills through participation in supervised work, notably in rural societies (Rogoff, 1990; 2003). Acquisition of skills has often been strongly linked to development of gender identities e.g. Reynolds, 1991; Nieuwenhuys, 1994; Punch, 2001). By contrast, within modern urban societies, much child work is judged to be mundane, monotonous and/or repetitive. In these circumstances working can undermine children's self-worth and inhibit opportunities for developing cognitive and social skills, and positive self-esteem. Children may be deprived of key experiences that are considered normal and desirable for children, their age and gender within their community (notably school), with the consequence that they are ill-prepared for the demands of adult life, risking future unemployment and/or social exclusion. Judging whether children's learning is maladaptive requires that account is taken of the context and realistic opportunities available to working children. For example, children apprenticed in a specific vocation from an early age (e.g. as weavers) may be judged to miss out on wider skills and more academic education. But parents and children themselves may believe that acquiring these early vocational skills is most likely to assure them long term economic security (Woodhead, 1999).

Particular working conditions or specific occupations pose an additional threat due to public attitudes as they may challenge the identity of child due to which they feel may degraded and stigmatised by their situation and by the ways they are treated. Working children can be most at the risk of humiliation or rejection by peers, teachers or others in school and community settings, where they are labelled for carrying out low status work. Children working in occupations perceived as socially degrading are at particular risk. Equally, children who have been sexually abused through their work may be stigmatised rather than treated with compassion, adding to their sense of social exclusion (Woodhead, 2004).

2.1.2 Workload and work pace

Workload was one of the first aspects of work to receive attention, on its impact on workers' health (Stewart, 1976) and it has long been clear that both work overload and work underload can be problematic (Frankenhauser, 1975; Frankenhauser and Gardell, 1975; Jones et al., 1998; Lundberg and Forsman, 1979; Szabo et al., 1983). French and his colleagues, among others, have made a further distinction between quantitative and

qualitative workload (French and Caplan, 1970; French et al., 1974). Both have been associated with the experience of stress (Cox, Griffiths and Rial- González, 2000). Quantitative workload refers to the amount of work to be done while qualitative workload refers to the difficulty of that work. Jones et al. (1998) found that workers reporting high levels of stress and stress-related illnesses were 4½ times more likely to report problems with time pressure and work pace i.e. “working to deadlines” and “having too much work” than the general working population.

Although work overload and work pace are endemic in many activities carried out by children, studies on child labour has not yet covered these aspects of work. Workload in the child labour literature has generally been characterised as shift work, long work hours and also the physical effort and strain it requires (e.g. Guarcello et al., 2004; Joshi et al., 2009). Joshi and colleagues (2009) in a study carried out a qualitative observational study to assess the work settings of child labourers in Nepal. Their findings indicated that agriculture, hotel and restaurant work, carpet factories, transport services, vehicle repair, domestic work, construction work, printing and metal works were the main sectors where children needed to work long hours. Portering involved high physical load because the children had no aids, such as carts, trolleys, or pulleys, and no mechanical aids such as cranes or conveyors. Some work also required the children to perform many different types of tasks at the same workplace. Carpet factories, hotel and restaurant work, stone crushing, vehicle repair, agriculture, tyre retreading and metal works were such sectors. In these workplaces, children had to work shifts, sit on the floor for a long time, engage in work involving heavy physical workload and do whatever their superiors ordered (Joshi et al., 2009). Shift work and long work hours, in the literature on psychosocial hazards are characteristics of work schedule are covered in the next section.

2.1.3 Work schedule: shift work and long work hours

Much of the literature on work schedule relates to shift (and night) working and long working hours. Stress commonly follows extensive shift work, long hours of labour, job tasks that require interruption to sleep patterns, and resulting fatigue. The increased stress risk is caused by difficulties in inverting biological circadian rhythms, reduced length and poor quality of daytime sleep, and conflicting work/home demands. Fatigue can have a dual effect and both predispose a worker to stress and exacerbate the extent of any pre-existing condition. Stress and fatigue are likely to be greatest among nightshift workers, with 75% of night workers experiencing sleepiness on every night shift (Akerstedt, 1995, 1988, 1985).

Early studies on the effect of shift work on health of adult workers (Harrington, 1978; Johnson, 1981; Monk and Tepas, 1985; Rutenfranz et al., 1977, 1985) concluded that while good evidence existed to show that shift work, particularly night work, caused disruption of circadian rhythms and sleep patterns, the evidence for there being any major effect on health was limited. The research did however indicate evidence of a link between night work and digestive disorders, and between shift work in general and fatigue. Work/non-work conflicts are an additional stressor, for example, women shift workers with responsibility for children may more frequently have their sleep interrupted (Bohle, 1999). The risk of fatigue and stress is exacerbated by rapidly rotating shifts with repeated late finish/early start shift combinations being more stressful than nightshift (Bohle, 1999). Stress also arises because of shorter daytime sleep periods, or as a result of poorer quality sleep which begins during

the morning at the inverse point of the normal circadian rhythm (Akerstedt, 1995). Most shift workers self-report chronically impaired health and well-being (Bohle, 1999; Akerstedt, 1995, 1988, 1985). Boggild and Knutsson (1999) reviewed 17 studies dealing with shift work and cardiovascular disease risk. They found that, on balance, shift workers were found to have a 40% increase in risk. Possible causal mechanisms of this risk via known cardiovascular risk factors related to circadian rhythms, disturbed socio-temporal patterns, social support, stress, health behaviours (smoking, diet, alcohol, exercise), and biochemical changes (cholesterol, triglycerides, etc.). They concluded that the risk is probably multifactorial, and that the literature has focused on the behaviour of shift workers, thus neglecting other possible causal connections.

Working long hours has also been shown to have an impact on cognitive functioning (Virtanen et al., 2009). Shields (1999) examined associations between long working hours, depression and changes in selected health behaviours (changes in weight, smoking, drinking and exercise, while controlling for potential socioeconomic and work-related confounders such as education, income, occupation, shift work and self-employment) over a two year period in a sample of adult workers aged 25 to 54 who worked 35 hours or more per week (n=3830). It was observed that women who worked long hours had increased odds of subsequently experiencing depression. Moving from standard to long hours was associated with unhealthy weight gain for men, with an increase in smoking for both men and women, and with an increase in drinking for women. Long working hours have also been found to have a negative impact on sleep patterns (duration, quality) of individuals (Cox, Griffiths and Rial-González, 2000).

In the context of child labour, research into other conditions of work, although still very limited (Gunn et al., 2010), indicates that work intensity (i.e. the number of work hours) and late night work by children have an impact on both their physical health, due to exhaustion and sleep deprivation, and on their psychosocial health (Carskadon, 1990; Dornbusch, 2004). There is also a demonstrable effect of child labour on intellectual development. Studies have shown that, with increased work hours, there is a decrease in school achievement, increased school drop-out rates, and disruption of family relationships (Dorman, 2008; Woodhead, 2004).

Long hours and days of uninterrupted work have a negative effect on the child, narrowing his horizons and often crippling him emotionally. Since a child working full time with potentially dangerous machines cannot afford to imagine or fantasize, as most children do, the child's creativity and ability to transcend reality are blunted and his whole mental world becomes impoverished as a result (Mendelievich, 1979). Girls are especially at risk. Almost everywhere girls work longer hours than boys, often engaged in both economic and household activities, whereas boys are usually only engaged in economic activities. Due to the greater burden placed on girls, they generally have a lower rate of school attendance and completion (Leinberger-Jabari et al., 2005).

In a study of child labourers in Ethiopia, Fekadu et al. (2006) administered the Diagnostic Interview for Children and Adolescents to a randomly constructed sample of 528 children between the ages of 5 and 15 employed as domestics, street-workers or in other paid tasks, along with 472 controls—children of similar ages and social condition but not economically active. The condition of the working children was relatively dire: over half work for more

than eight hours per day, while a third are ten years old or younger. The interview tool scores respondents with respect to a large number of potential symptoms, such as disruptive behaviour disorder, mood disorders, anxiety disorders, separation anxiety disorder, elimination disorders, substance abuse, and psychosocial stressors. The authors performed logistic regressions on each of these outcomes, using as control variables a set of demographic and family health characteristics and found that in most instances being a child labourer was the only significant predictor. The findings indicated that child labourers were six times more likely for a composite adverse diagnosis as compared to non-working children.

In a study for the ILO, Guarcello, Lyon and Rosati (2004) used household survey data from Bangladesh, Brazil, and Cambodia, to look in detail at the relationship between the intensity of children's work (i.e., children's weekly working hours) and children's health outcomes with the aim of providing an empirical basis for recommendations on maximum permissible working time for adolescents aged 14 to 18 years. Taking into account effect of work hours on health outcomes on the nature of the work performed, and therefore sector of work is also included in the analysis they found an important causal relationship between working hours and children's health and safety. They concluded that both working hours and cross-sectorial differences in risk need to be taken into consideration in distinguishing permissible work from child labour. A single universal hour's threshold applied across all sectors would be less justifiable, as such a threshold would offer very different levels of protection for working children depending on their sector of work. Sector-specific thresholds for maximum permissible working hours would be needed to help ensure a constant risk level across sectors (Guarcello et al., 2004).

2.1.4 Control

Decision latitude and control are important issues in job design and work organisation. They are often reflected in the extent to which employees can participate in decision-making affecting their work. However, there are other aspects to participation such as status which may also affect health and behaviour (Cox Griffiths and Rial-González, 2000). The experience of low control at work or of loss of control – low decision latitude – has been repeatedly associated with the experience of stress, and with anxiety, depression, apathy and exhaustion, low self-esteem and increased incidence of cardiovascular symptoms (Ganster, 1989; Karasek and Theorell, 1990; Sauter et al., 1989; Terry and Jimmieson, 1999).

Cognitive processes and emotional reactions have also been included in the demand-control pathway. Levels of anxiety and psychiatric morbidity (as measured by the General Health Questionnaire-GHQ) were found to be higher in lower employment grades where there was lower decision latitude in the Whitehall studies (Stansfeld et al., 2000). In both men and women, high job demands, comprised of measures of work pace and conflicting demands, were associated with increased risk of psychiatric disorder. Further, low decision latitude was associated with markedly increased risk of poor general mental health at follow up (Stansfeld et al., 2000). Other studies have identified more equivocal findings, perhaps due to a time lag following changing levels of involvement in decision-making (Parkes and Sparkes, 1998). Research suggests that where there are greater opportunities for participating in decision-making, greater satisfaction and higher feelings of self-esteem are

reported, while non-participation appears related to work-related stress and overall poor physical health (Cox, Griffiths and Rial-González, 2000).

Sense of control, also termed as locus of control is an important factor which can influence children's psychosocial well-being (Brewer, 2003). Children's distress may increase when they feel they have little control over what is happening to them, or feel they are being forcibly removed, or they are not able to maintain regular contact with sources of security. In addition to interfering with social networks and emotional bonds, children may be disoriented by the sudden loss of familiar settings, cultural routines, and social practices. At the same time, they may face a new situation, new sets of relationships, new daily patterns as well as the unfamiliar work demands that may be made on them (Woodhead, 2004).

2.1.5 Environment and equipment

A wide variety of physical hazards have been extensively studied for their effects on the psychological experience of stress and on health (Gobel et al., 1998; Holt, 1982; Neale et al., 1983). Results from the Fourth European Working Conditions survey (Eurofound, 2007) indicated that employees with a high level of exposure to physical risk are more likely to report that their health is at risk as a result of their work.

Overall, there is evidence to suggest that poor physical working conditions, in general, can affect both workers' experience of stress and their psychological and physical health (Warr, 1992). For example, Lu (2008) carried out a study on occupational exposure (physical, chemical and ergonomic) and health problems among workers in export processing zones (n=500). The top five hazards were reported to be ergonomic hazards (72.2%), heat (66.6%), overwork (66.6%), poor ventilation (54.8%), and chemical exposure (50.8%). The most common illnesses reported were gastrointestinal problems (57.4%), backache (56%), headache (53.2%), and fatigue/weakness (53.2%). An association between work-related factors, occupational illnesses, and psychosocial problems was also found.

Children's physical environment can also have effects on the psychological experience of stress and on their health. Many of the world's poorest children spend much of their day in conditions that are cramped, noisy, and lacking in sanitary or other basic. Chemical, physical, biological and psychological hazards are often found in combination in the workplace. Often, too, their adverse effects are not only cumulative but magnified through their synergistic interaction (ILO, 1996). Woodhead (2004) summarised many well-recognised physical hazards which can have an impact on mental and physical health. These include:

- Toxic substances which may impact on the developing nervous system and in turn on children's psychosocial functioning (e.g. Tong et al., 1996; Banks et al, 1997; Lewendon et al, 2001).
- Unhealthy, noisy, poorly lit and ill-ventilated environment pose risks to children's general health and increases stress, fatigue and demoralisation.
- Dangerous tools, without adequate safety precautions may induce stress and fear of accidents. Children may be traumatised by suffering or witnessing serious incidents. Children working in extreme conditions, (e.g. mining, fishing) are especially vulnerable;

- If children do suffer an accident in which they are disfigured or disabled this may increase the risk of social rejection, isolation and stigmatization.

The psychosocial consequences of exposure to physical hazards can affect all children, but the severity of trauma will depend on children's age, maturity and vulnerability. As a general rule, younger children are at greatest risk, during periods of rapid physical and psychological change (Schaffer, 1996). Adolescent workers (14-18 year olds) are exposed to multiple hazards, use dangerous equipment despite federal prohibitions, and work long hours during the school week. They also lack consistent training and adult supervision on the job. It is important for more prevention efforts through both anticipatory guidance and policy advocacy (Runyan et al., 2007).

2.1.6 Interpersonal relationships at work

Three important sets of relationships have been identified: relationships with superiors, relationships with subordinates and relationships with colleagues (Sauter et al., 1992); and have been highlighted as potential stressors (Danna and Griffin, 1999). It has been argued strongly that good relationships amongst workers and members of work groups are essential for both individual and organisational health (Cooper, 1981). Similarly, Jones et al. (1998) found that workers reporting high levels of stress and stress-related illnesses were 6.5 times more likely to report 'lack of support from people in charge at work' than the general working population. On the other hand, employee relationships offering support and attachment have very positive effects as discussed below.

Social relationships both at work and outside the workplace are most commonly viewed as playing a moderating role, and adverse effects of exposure to other psychosocial hazards are more likely or more pronounced when relationships provide little support (Cobb and Kasl, 1977; Cohen and Willis, 1985; House and Wells, 1978). The relationship between social support and health has been thoroughly examined over the last two decades and is well documented (Cox, Griffiths and Rial-González, 2000). It has been shown that those with lower levels of social support have higher rates of many different diseases; the aetiological factor being the link between a wide range of psychosocial factors and diminished functioning of the immune system (Syme, 1996). Because people with weak social support are more vulnerable to a wide range of disease agents, including stress-related conditions, the provision of support at work should have a preventive effect (Peterson, 1999).

There is growing literature on violence in the workplace (Beale et al., 1999; Chappell and Di Martino, 2000; Cox and Leather, 1994; Leather et al., 1998; Standing and Nicolini, 1997) and on the related issue of post-traumatic stress disorder (Figley, 1985). There is strong evidence that exposure to violence in the workplace can cause damage to psychological as well as physical health (Leather et al., 1999). In a study for the ILO, Chappell and Di Martino (2000) found that there appeared to be a general rising trend in the incidence of occupational violence across industrialised countries. At best, one in five incidents are reported; with the non-reported incidents commonly known as the 'dark' figure. Even allowing for significant under-reporting, it is clear that the incidence and severity of the different types of occupational violence varies significantly between different developed countries. Attempts at extrapolation from developed to developing countries are fraught with difficulty; nevertheless where the risk factors are higher (poverty, unemployment etc.), the incidence

of occupational violence is likely to be increased (Chappell and Di Martino, 2000; Hoel et al., 2001).

The incidence of post-traumatic stress disorder (PTSD) has been widely documented; it suffices to note here that PTSD following violent events at work is relatively common, disabling, results in long-term stress, and the incidence is likely to increase if 'external' violence becomes more common (Flannery, 1996; Raphael, 1991; Rippon, 2000). The outcomes of sexual harassment appear to be similar to those following bullying, including impairment of health and well-being, depression, anxiety, and loss of concentration (Barling et al., 1996; Richman et al., 1999; Schneider et al., 1997). Further, sexual harassment is a significant stressor for women. For minority groups, racial discrimination is a stronger predictor of health outcomes than are traditional job stresses (Hoel et al., 2001).

Among the many psychological risks faced by working children, one of the most troubling is their potential susceptibility to abuse, from both employers and older co-workers. Working children are vulnerable to maltreatment and emotional/verbal abuse perpetrated by employers (who often are also parents), supervisors, clients or others with authority and power. They are relatively isolated and powerless – forced to endure the ill treatment from employers or from other more powerful individuals from whom they might normally expect to receive nurturance, support and encouragement. Children's fear that they are going to be ill-treated can be just as stressful as actual incidents of abuse (Woodhead, 2004).

In some cases, work can also be a socially isolating experience, especially where children are deprived of the opportunity to socialise with their peer group and participate in play and peer culture that is viewed as normal for young people within their communities. Children may feel rejected or stigmatised by their peer group because of their poverty and also by the work they do. At worst, they may become victims of bullying, or physical, emotional or sexual abuse from other children who are older, stronger or more powerful. This abuse can take many forms, but sexual and physical abuses are paramount concerns (Woodhead, 2004). Children can also face social exclusion where their occupation is seen as degrading, as in the case of child sex workers (Woodhead, 1998).

The serious psychological consequences of emotional abuse are well-recognised from research carried out into abusive families (e.g. Glaser, 2002). Emotionally abusive behaviour frequently goes hand-in-hand with harsh treatment, severe physical punishments and other abusive practices. Beatings from employers and clients are regularly reported by working children, as well as physical abuse by teachers (Woodhead, 1998). However, protecting working children from emotional abuse can be challenging as neglect and emotional abuse can be harder to pin down than physical abuse (Stegmann, 2003).

Hadi (2000) randomly selected 4643 children ages 5-15 in 150 Bangladeshi villages for interviews, just over a fifth of whom were working, where work was defined as being engaged in economic activity for at least four hours per day. It was discovered that approximately 12% of all the working children had reported being beaten at work, with "beating" taking the form of at least a slap. Even more disturbing is the evidence presented by Gharaibeh and Hoeman (2003) who selected 41 boys aged 11-16 and working as mechanics and asked about their treatment at work. 25 (61%) reported physical abuse and 8

(27%) reported sexual abuse; in nearly every instance the culprits were older boys from the same or neighbouring workshops.

2.1.7 Precarious working conditions

In a meta-analysis of job insecurity and its consequences, Sverke, Hellgren and Näswall (2002) found that job insecurity has detrimental consequences for employees' job attitudes, organizational attitudes, health, and, to some extent, their behavioural relationship with the organization. Further analyses also suggested that the behavioural consequences of insecurity are more detrimental among manual, as compared with non-manual workers. Rugulies et al. (2006) analyzed the impact of psychosocial work characteristics on the incidence of severe depressive symptoms among employees from a representative sample of the Danish workforce between 1995 and 2000. They found that among men, job insecurity predicted severe depressive symptoms. In general, there is growing evidence to indicate that job insecurity and short-term contractual relationships have a negative effect over workers' health (Virtanen et al., 2005). Quinlan and his colleagues (2001) conducted a review and found that in relation to temporary work, 58.3% of the studies demonstrated a negative association with ill-health indicators. Another aspect of precarious working conditions that has been investigated is poor pay. While most workers will complain about levels of pay, the extremes of poor pay clearly have an effect on the worker's ability to remain healthy (Lynch et al., 1997; Warr, 1992). Method or schedule of payment may also be a source of stress (for example, piece work) and may interact in its effects with the rate of working (Kasl, 1992).

These findings also have implications for child labour as several reports on child labour have pointed out that children have to cope with a combination of insecurities, which include financial insecurity, uncertain income, job insecurity, lack of formal 'contracts', lack of sick leave or holiday pay, no recourse to legal protection, trade union or other supportive agency (Dorman, 2008; Forastieri, 2002; Woodhead, 2004). Furthermore, child labourers are powerless to complain or leave, and often face unpredictable treatment from employers. In such circumstances, children's sense of personal agency can be seriously undermined. They are dependent on and in the power of their employer, economically and also psychologically (Woodhead, 2004).

2.1.8 Life-work interface

The link between work and home is increasingly being recognised as a potential source of stress (Cooper and Cartwright, 1994; Frone et al., 1992). The concept of the work-home interface (or "work-home interference", WHI) relates not only to domestic life and the family but also to the broader domain of life outside of work (Cox, Griffiths and Rial-González, 2000). WHI in research studies has been often considered as a stressor that together with other stressors has adverse effects on health and well-being. It has also been positioned as a stress-reaction (i.e., an indicator of strain), particularly caused by work-related stressors, while in more elaborate models it has been considered a mediator in the stressor-strain relation, particularly between job stressors (e.g., work overload, time pressure) and indicators of impaired psychological health, including psychosomatic complaints, depressive symptoms, and occupational burnout (Demerouti, Bakker and Bulters, 2004).

For adult workers, work-to-family conflict occurs when efforts to fulfil the demands of the employee role interfere with the ability to fulfil the demands of the roles as a spouse, parent, or carer. Frequent work-to-family conflict may represent an impediment to successfully meeting family-related demands and responsibilities, and may undermine a person's ability to construct and maintain a positive family-related self-image; further, as both employee and family roles represent core components of adult identity, impediments to work and family related identity formation and maintenance are likely to be experienced as stressful (Frone, Russel and Cooper, 1995). Hingley and Cooper (1986) have argued that problems relating to the interface between work and the family either involve resolving conflicts of demands on time and commitment, or revolve around issues of support.

Frone et al. (1996) argued that on the basis of identity theory, researchers need to simultaneously examine both work-to-family and family-to-work conflict to fully understand the impact of the work-family interface on employee health. In a comprehensive review of the stress-related health outcomes associated with work-family conflict. Allen et al. (2000) demonstrated the widespread and serious consequences associated with work-family conflict including psychological strain, anxiety and depression, somatic complaints, elevated blood pressure, and alcohol abuse.

Similarly home, family and life circumstances are a potential risk factor in hazardous work for children. These include conflicting demands of work and home, low support at home, breakdown of social networks, disruptions to familiar surroundings, disruption in education/schooling, responsibility for siblings (Forastieri, 2002). For many children, work and family systems can be the same as parents or other members of the family also act as the 'employers'. In family work situations, there are few boundaries to the demands that can be made on children's time and sense of loyalty (Woodhead, 1998). O'Donnell et al. (2002) estimated that as much as 70% of working children worked for their parents or family and the largest were employed in agriculture. Parents and other family members are normally a primary source of emotional security, socialization and learning. Contributing to family-based work (e.g. through farm work or small businesses) can strengthen personal identity and psychological well-being. But if family work is excessive, exploitative or abusive, family-based child-workers may be at even greater risk than children working outside their families (Woodhead, 2004). Furthermore heavy burden of responsibility for family and siblings which is often placed on children, especially girls, who are also generally engaged in other work activities places additional pressure on them which may lead to negative consequences on the development of these children as well as their health and wellbeing.

Where children's work is not located within family settings, the linkages between working and family lives can serve to reduce or to amplify work hazards. For example, parents' expectations for children's work strongly mediate the impact of that work on their children – through the support and encouragement they are offered, or through the unreasonable expectations they are expected to fulfil, and the punishments they endure as a result (Boidin, 1995; Woodhead, 1998). In situations of extreme hardship, families may have little choice but to collude with employers in the exploitation of their children, or at least feel they have no power to prevent it. At worst, children may be trapped between several sources of emotional and/or physical abuse – from employers, clients, parents and others (Woodhead, 2004).

It is also important to note that the work competes with education, either because the child drops out of school to work or because there is less emphasis on school than on work. Being illiterate or poorly educated, child workers will be in a precarious position as regards employment throughout their lives (WHO, 1987). Following a literature review, Dorman (2008) concluded work of children, their educational activities and their health conditions are not determined separately and are influenced by age, gender, hour of work, nature of work activity (Dorman, 2008). Child labour also been reported to strongly influence educational outcomes and educational attainment in turn influences child labour. An in-depth analysis of a diverse sample of SIMPOC national child labour survey data from all world regions highlighted that child labour and the achievement of Education for All (EFA) are negatively correlated as child labour acts as a significant barrier to the achievement of EFA. At the national level, a higher incidence of child labour was reported to be associated with lower values in the Education Development Index (EDI). However, it was also pointed out that the lack of an accessible and affordable education infrastructure can also act as a push factor for children to take up work. The findings also indicated that the impact of child labour on education for boys and girls vary and girls were found to often bear the double burden of work outside and inside the house, with little time left for schooling. Also long hours of work, especially more than 14 or 21 hours per week, were reported to increase the school attendance gap regardless of gender (Allais and Hagemann, 2008).

2.2 Psychosocial impact of child labour

As presented in the previous section, children's exposure to psychosocial hazards at work and their experiences of exhausting work, neglect and abuse are significant indicators of harm to their health and well-being. This section discusses the long term impact of work on the psychosocial functioning of children. Woodhead (2004) pointed out that even though, a vast, research literature is available on these topics, including well-researched concepts, indicators and instruments, generalising these to the study of child work is not straightforward. Most research is linked to psychosocial development amongst children in affluent Western societies and the adversities that commonly affect their well-being and even though key concepts and general principles may apply, caution is needed in translating specific findings into the very different circumstances of most child workers (Woodhead, 2004). Most of the existing tools for psychosocial evaluation tend to be expensive and are impractical for developing countries because the instruments require individual assessments and professional analyses. There are some notable exceptions as pointed out by Gunn et al. (2010): the general psychosocial framework developed by Woodhead (2004); a detailed guide for labour inspectors and other field practitioners by Boidin (1995); a reference for use in rapid assessments by Ennew (1994); and a special tool for assessing psychosocial development in child domestic workers (Brewer, 2003).

This section draws extensively on an existing review by on psychological indicators of child work Woodhead (2004) in which he proposes five broad domains of psychosocial functioning most relevant to studying the impact of work. These domains cover areas of social cognition, social/cultural competence and personal agency as well as emotional and physiological expressions of well-being.

2.2.1 Cognitive abilities and cultural competencies

Children's cognitive abilities are traditionally encompassed by the concept of intelligence. Well-tested psychometric instruments are available in abundance. Measures of general intelligence or sub-tests of specific areas of spatial, motor and verbal intelligence are likely to be most relevant in assessing children whose working situation is marked by extreme deprivation, lack of stimulation or mundane and repetitive activities, or children whose general development has been seriously impaired by an unhealthy and restricted environment.

2.2.2 Personal security, social integration and social competence

Continuities in relationships are significant for children's well-being, in whatever context. Quality of relationships is also central, with distorted and conflictual relationships and inconsistent patterns of care putting children at greater risk than disruptions and separations. For example, a longitudinal study in New Zealand reports that parental discord (conflict, arguments and physical assaults) was more strongly associated with negative psychosocial development than family disruptions and separations (such as divorce) (Fergusson et al, 1992). Problem behaviour (including a history of offending) was more marked for boys than girls, confirming the well-established gender differences in children's reactions to difficulties, with boys more likely to develop challenging and anti-social behaviour, while girls are more likely to become withdrawn, anxious and depressed. Studies of emotional abuse in families draw similar conclusions (e.g. Emery and Laumann- Billings, 2002).

These lines of research all point to the quality of children's relationships with others as important indicators of social adjustment. These indicators include their success in 'managing' interactions with others (especially those in authority), feelings of security and social confidence, anti-social behaviour as well as symptoms of depression. During middle childhood and adolescence, peer relationships become important sources of identity and social support for young people (Tietjen, 1989). In contexts where childhood is dominated by education, the school is a major context for establishing and maintaining these relationships. 'Peer-culture' mediates social relationships, and shapes appropriate tastes and behaviour (Corsaro, 1997; Kehily and Swann, 2003). For working children, the peer group at work may be at least as important as a source of security, solidarity, and cultural initiation as the peer group at school. It can also be a context where children experience rejection and social exclusion. For children 'of the streets' the peer group can play a primary role in maintaining psychological health and well-being (Ennew, 1994a). In short, the quality of children's social integration is a further indicator of their psychosocial well-being.

An additional dimension of children's social integration is about whether children's social interactions, social understanding and behaviour are moral (or prosocial). Children may be psychologically secure even though they are growing-up within deviant relationships and being guided by undesirable role models, through which they are initiated into anti-social, abusive or exploitative behaviours. It is a matter for debate how far substance misuse, criminal or anti-social behaviour and other indicators of psychosocial harm are attributable to work itself and how far to the poverty, deprivations and abuses suffered by children at

home and on the streets. For many vulnerable children, productive work may be seen as helping protect children from these risks (Campos et al., 1994).

2.2.3 Personal identity and valuation

Identity is fundamental to psychosocial adjustment. Identity is for most young people multi-faceted, dynamic and shifting with time according to cultural as well as developmental agendas (Woodhead, 2004). This is important when it comes to considering positive and negative influences of work. Children may be at risk in circumstances: (i) where they lack opportunity and encouragement to develop a coherent sense of their identity(ies) within which they have self-respect; (ii) where they are forcibly separated from their family and community (as in trafficking); (iii) where they are surrounded by conflict, violence and social instability or where they (and their community) are subject to persecution; and (iv) where they are faced with confusing or competing expectations (e.g. incompatible and unreasonable demands for economic activity as well as school achievement). At worst their identity may be challenged where they feel degraded and stigmatised by their situation and by the ways they are treated (e.g. as in bonded labour or in sex work).

Indicators related to children's identity include concepts of self-concept, self-esteem, self-efficacy (Woodhead, 2004). Self-concept refers to children's sense of who they are, which is closely linked to identity and becomes increasingly more reflective, differentiated and explicit during later childhood (Harter, 1983). Self-esteem is about children's sense of their worth and value. It can involve their own judgements about themselves, as well as their beliefs about how others view them. Self-esteem is a widely used indicator of psychosocial adjustment. In qualitative studies with working children, self-esteem often emerges as a major theme, with evidence of both positive and negative impact of work (Stegmann 2003; Woodhead, 1998).

2.2.4 Personal agency

Personal agency is about how far an individual is able to shape their destiny versus being shaped by external forces outside their control (Woodhead, 2004). Developmental psychologists have emphasized that children are active meaning makers, endeavouring to make sense of their social environment (Bruner and Haste, 1987). They are partners in social interaction and communication (Schaffer 1996), actively shaping the ways they are treated by adults in transactional patterns of influence (Sameroff, 1987). At the same time, the concept of 'socialisation' is being set aside in favour of a much more dynamic theoretical framework within which children are seen as contributing to the creation of social life, as well as being shaped by it (James and Prout, 1990). Questions about children's sense of personal agency (and the closely related concept of self-efficacy, Bandura, 1977) are thus central to any assessment of their wellbeing. Assessment of working children's sense of agency or self-efficacy can be informed by a number of well-researched psychosocial constructs which include 'locus of control', 'learned helplessness', and 'attribution' (Woodhead, 2004).

2.2.5 Emotional and somatic expressions of well-being

Low self-esteem, self-efficacy and feelings of helplessness are often accompanied by strong – sometimes overwhelming – negative feelings (Woodhead, 2004). Work-related stress is the

reaction people may have when experiencing intense pressure at work over a period of time. Many people are motivated by the challenges and difficulties that normally occur with work demands. However, when pressure at work becomes excessive and prolonged, it can lead to stress. Stress is a negative and unpleasant condition, which may be experienced when a person perceives that s/he is unable to meet the demands and pressures that are placed upon them. Unacceptable levels of stress may be associated with a range of adverse effects both physiological and psychological (WHO, 2003).

The concept of stress is often confused with challenge, but these concepts are not the same. Challenge energizes us psychologically and physically. It motivates us to learn new skills. Challenge is an important ingredient for healthy and productive work and life. Many working children may be at risk of excessive stress, trying to cope with the insecurity and pressures of their situation, unreasonable demands, risk of beatings or other abuse etc. The majority of working children combine working with schooling. They may experience the added stress of trying to satisfy competing demands from parents, employers as well as teachers. Excessive stress is often accompanied by reduced efficiency, disrupted concentration (and in extreme cases) chronic anxiety, feeling overwhelmed and unable to cope. The anxious child worries about their situation, lacks confidence about their skills, capacities and achievements, and is often wary about what will happen next. In this way, stress and anxiety are frequently linked to low self-esteem, low self-efficacy and feelings of helplessness. The longer term consequences of excessive stress for children's overall health are well recognised, for example in terms of reduced immunity to infections and digestive difficulties. Stress and anxiety may also lead to symptoms of depression (Woodhead, 2004).

Emotional, psychological and behavioural consequences of abuse have now been well-documented, especially for children in Western family and institutional settings. For example, Paschall et al. (2004) examined the relationship between work intensity (the number of hours worked per week) and heavy alcohol use among adolescents using two waves of in-home interview data provided by a representative sample of adolescents who participated in the National Longitudinal Study of Adolescent Health. Results indicated that working more than 10 hours/week increases the likelihood of heavy alcohol use among adolescents, and that the effect of work intensity is largely, but not completely attributable to demographic characteristics (e.g., age, race/ethnicity, personal income), prior alcohol use, and family, school, and peer-individual factors. Similarly, Nuwayhid and colleagues (2005) while exploring associations between work status and multidimensional health indices in a sample of urban Lebanese children reported that working children reported frequent abuses and smoked more than the comparison group (non-working children from the same socio-economic background).

New lines of neurobiological research offer an even stronger understanding of the physiological process underpinning the impact of abuse, for example demonstrating damage to the growing nervous system following states of hyper-arousal associated with traumatic stress during early childhood (Glaser, 2000; Teicher, 2002). This evidence relates to children maltreated during early childhood, but it is nonetheless indicative of the possible far reaching developmental consequences of extreme stress-inducing hazards that can be faced by some child workers. It is also important to take account of the powerful mediating role of

cultural context in defining what counts as a stress-inducing, abusive environment (Korbin, 2002).

Drawing on wide ranging research and clinical experience mainly in Western contexts Yule (2002) suggests that the main manifestations of trauma in children and adolescents include some combination of: fear, anxiety and panic attacks, repetitive and intrusive thoughts, sleep disturbances and nightmares, resistance to separation from parents or other sources of security but reluctance to talk about their experiences, irritability, impaired concentration and learning wariness about the dangers. The literature on adult workers also indicates that the experience of stress can alter the way the person feels, thinks and behaves, and can also produce changes in their physiological function (Cincirpini et al., 1984; Sauter and Murphy, 1995; Stainbrook and Green, 1983; Stansfeld et al., 1999). Many of these changes simply represent, in themselves, a modest dysfunction and possibly some associated discomfort. Many are easily reversible although still damaging to the quality of life at the time. However, for some workers and under some circumstances, they might translate into poor performance at work, into other psychological and social problems and into poor physical health (e.g., Devereux et al., 1999). Nevertheless, the overall strength of the relationship between the experience of stress and its antecedents on one hand and health on the other is consistent but moderate (Cox, Griffiths and Rial-González, 2000).

2.3 Protective factors against negative impact: child resilience

Traditionally, resilience has been conceptualized as an individual trait or unique quality (Block and Block, 1980) that helps an individual child achieve desirable emotional and social functioning despite exposure to considerable adversity (Masten et al., 1991; Rutter, 1985, 2003). However, it is now widely acknowledged that resilience should not be merely thought of as an individual quality of certain children (Bartelt, 1994; Benard, 1995; Cowan et al., 1996; Luthar, 1993; Richmond and Beardslee, 1988). Rather, protective factors and protective processes operate at all levels of a child's social ecology, from interaction with individual traits to the family and extended social network to the cultural and historical context (Garmezy, 1988; Masten et al., 1999, Masten, 2001). For example, Luthar et al. (2000) summarize three sets of factors thought to relate to the development of resilience in children: attributes of the individual child, attributes of a child's family, and characteristics of the larger social environment. Betancourt and Khan (2008) describe several aspects of resilience including child characteristics, attachment relationships, social support, caregiver mental health, childcare institutions and schools, cultural beliefs and practices in mental health as well as the cultural, historical and political context. It is advisable for studies exploring psychosocial hazards and psychosocial impact in child labour to also explore potential protective factors against negative impact building child resilience.

Having reviewed the evidence on psychosocial hazards and psychosocial impact of child labour, the next section of the report presents an indicator framework addressing both of these aspects. It is suggested that these indicators can be incorporated in both quantitative and qualitative studies on child labour globally.

3. An indicator framework on psychosocial hazards and impact of child labour

Building indicators — especially indicators that are effective and serve to improve children's lives — is not an easy task, especially when the need to adopt a public health approach is considered. A balance has to be struck between what is needed and what is practicable. The first step in designing indicators is to identify clearly who they are for, and for what purposes they are required. Based on this, the information needs can then be defined.

The potential users of indicators on child labour are clearly many and varied. They include international agencies such as ILO, WHO and UNICEF, national governments and their ministries, regional and local authorities, professional agencies and public institutions, research organisations and, of course, the public themselves. Each of these may use indicators in very different ways. Some require them to help formulate and assess policy at a relatively broad (e.g. national) level, others to help develop more local strategies. Some may use indicators to monitor the impacts of existing actions, others to identify gaps where new action is required. Users at the international or national level are mainly concerned with policy formulation and monitoring. Governments and international agencies are generally interested in the larger picture and broad patterns and trends. Ministries and public authorities require indicators that are quantitative and reproducible.

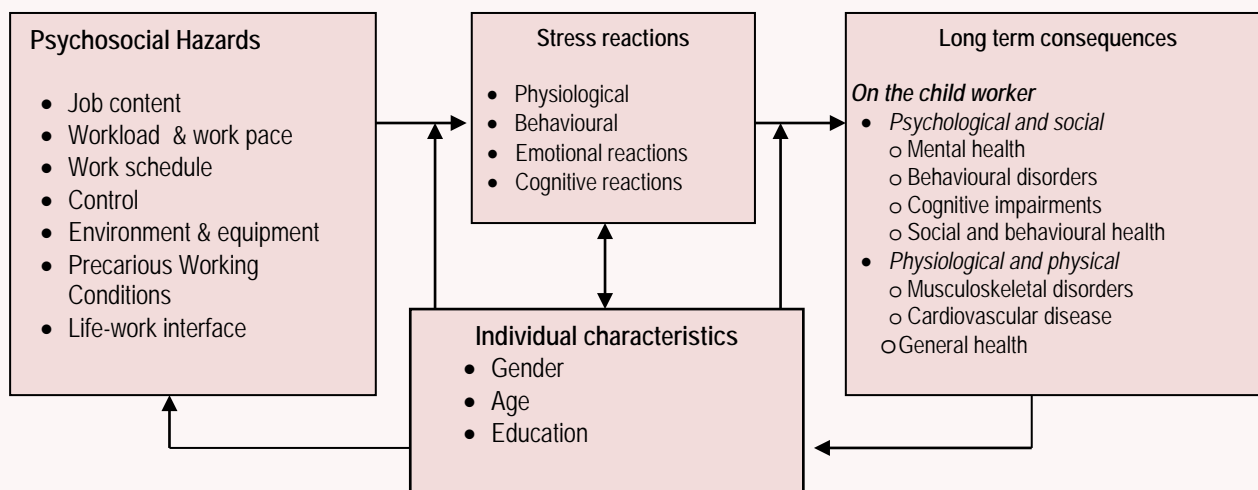
The aim of this document is to provide a list of indicators that can help to assess the global and national situation in relation to child labour to help prioritise policy, and to monitor and evaluate the effectiveness of national and international initiatives to address it, by adopting a public health approach.

In an ILO consultation meeting on child labour in Turin in 2011, the ILO definition of psychosocial factors was discussed in relation to child labour and was revised as follows:

“For children, psychosocial factors at work refer to the interactions between and among work environment, job content, organisational conditions and the child’s evolving capacities, needs, expectations, customs, culture that may, through perceptions and experience, influence their health, well-being, development, interpersonal, family and community relationships, education and job satisfaction.”

On the basis of this definition and the review presented in this report, a model of causes and consequences of psychosocial hazards and impact of child labour is presented in Figure 2.

Figure 2: Model of causes and consequences of psychosocial hazards and impact of child labour



Source: Adapted from Kompier and Marcelissen (1990).

On the basis of the above model, it is possible for some key indicators in relation both to psychosocial hazards and psychosocial impact of child labour to be defined. It should be noted here that indicators are tools, and all tools have to fit the purpose for which they are intended. What makes an indicator good for one purpose in the hands of one user may not be appropriate in the hands of another. The criteria, like the indicators themselves, are dependent on the situation in which they are used.

As discussed in other indicator reports (e.g., Briggs, 2003) indicators should have some key characteristics. Comparability and consistency are important. Comparability over space is crucial to draw meaningful comparisons or contrasts either between different regions within a country, or between different countries. Consistency over time is essential to observe and understand trends. Both require not only that the indicators used are constant in terms of its definition, but also that the methods and data used to construct them are consistent and standardised.

As this suggests, measurability is also an important characteristic of good indicators. Indicators, like all forms of information, are only as good as the data on which they are based. If we cannot obtain the necessary data, indicators remain meaningless. Measurability, however, does not stand alone. Availability of routine data and affordability of introducing special measurement tools have to be considered. Cost-effectiveness thus goes hand in hand with measurability. Together, they define the practicability of many indicators.

In the area of psychosocial hazard identification and risk assessment, indicator models have already been defined for adult populations as already discussed. The literature on child labour indicates that indicators included in these models are also relevant in this area with some adaptation. The table below is based on guidance on psychosocial hazards and work-related stress developed by Leka, Griffiths and Cox (2003) for WHO. It has been modified to include key areas and issues which relate to psychosocial hazards relevant to child labour, on the basis of the literature review presented in this report. The table provides a list of psychosocial hazard categories and associated indicators that can be incorporated in instruments used in child labour research.

Table 2: Psychosocial hazards in child labour

Area	Key issues
Job content	Lack of variety, lack of creativity, fragmented or meaningless work, stigmatization, quality stress (failures, mistakes), lack of opportunities for development
Workload and work pace	Work overload or under load, high levels of time pressure, repetitive work tasks
Work schedule	Shift working, night shifts, inflexible work schedules, unpredictable hours, long or unsociable hours, breaks and days off work
Control	Lack of control over workload, shift working, etc.
Environment and equipment	Inadequate equipment availability, suitability or maintenance; poor environmental conditions such as lack of space, poor lighting, excessive noise, exposure to chemicals, pesticides
Interpersonal relationships at work	Social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support, harassment, third party violence
Precarious working conditions	Poor pay/rewards, job insecurity, low social value to work
Life-work interface	Conflicting demands of work and home, low support at home, breakdown of social networks, disruptions to familiar surroundings, disruption in education/schooling, heavy burden of responsibility for family and siblings, orphan hood, abuse at home

Source: Adapted from Leka, Griffiths and Cox (2003).

In addition to the indicators in relation to psychosocial hazards presented above, Table 3 covers key issues and indicators in relation to the psychosocial impact of child labour. Bringing these two tables together allows the identification of key indicators for the assessment of psychosocial hazards and impact of child labour.

Table 3: Psychosocial impact of child labour

Psychosocial and development impact	Key Issues
Cognitive abilities and cultural competencies	intelligence, communication skills, technical skills
Personal security, social integration and social competence	Secure attachments, positive adult/peer relations, social confidence, sense of belonging
Personal identity and valuation	self-concept, self-esteem, feeling valued and respected
Sense of personal agency	self-efficacy, feelings of helplessness, internal locus of control, positive outlook
Emotional and somatic expressions of well-being	stress levels; sleeping and eating patterns, general health, disrupted concentration, anxiety and depression

Source: Adapted from Woodhead (2004).

An important issue to consider in relation to the indicators presented for both psychosocial hazards and psychosocial impact are positive aspects that might act as buffers against negative impact on the child. Such resilience aspects are relevant not only to individual characteristics but also to family and social support, belonging to organisations and support networks through, for example, schools and NGOs, as well as cultural aspects (see for example, Betancourt and Khan, 2008).

As discussed earlier it is important to consider issues in relation to measurability, cost-effectiveness, consistency and comparability when building indicator models. As such another important step in the process, concerns the review of existing methods and tools used in the area of psychosocial hazards and impact in the workplace, and especially in relation to child labour. This will allow the possible identification of suitable tools to be adapted and used widely to obtain data on the indicators set. The following section of the report examines methods, approaches and tools that have been used both with adult and child populations.

4. Measurement approaches and tools

A number of methods have been identified to assess psychosocial aspects of child labour. These can be quantitative, qualitative or combining a mixed approach. For the purpose of this report, it is important to consider the types of methods that will be more suitable to achieve the desirable result: to allow monitoring of psychosocial conditions and outcomes of child labour globally adopting a public health approach. The following sections provide an overview of available tools and methods, both for adult and child populations.

4.1 Psychosocial risk assessment tools for adult populations

Typically, methods and tools that are used for risk assessment of psychosocial hazards for adult populations are based on the survey method (Leka et al., 2008). Recently, different reviews of such tools have been published, some of which also provide a comparative analysis of their key elements (E.g., Leka et al., 2008; Tabanelli et al., 2008). It should be noted though that these tools are based on robust theoretical models and have been validated with adult populations.

Psychosocial factors include exposures thought to impact on the well-being and health outcomes of workers (e.g. temporal aspects of employment and the work itself, aspects of work content, group work, supervision, organisational conditions). Other factors that can be included in an assessment include strain (i.e. workers' psychological and physiological reactions to stressors in terms of anxiety, depression, high blood pressure, heavy smoking, alcohol consumption, etc.) and coping strategies, which make measures of psychosocial risks broader and more detailed than specific stress questionnaires (Tabanelli et al., 2008). Popular examples of instruments assessing psychosocial risks include the Job Content Questionnaire (JCQ) (Karasek et al., 1985), the Effort Reward Imbalance (ERI) Questionnaire, the Copenhagen Psychosocial Questionnaire (Kristensen et al., 2005), QPS Nordic: and the General Nordic Questionnaire for Psychological and Social Factors at Work (Lindstrom et al., 2000). Tables 4 and 5 present a review of the current 'major' measures available to assess work-related stress, burnout and psychosocial risks using self-report measures (Table 4) and observational measures (Table 5).

Table 4: Summary of psychosocial questionnaires with references to a guide/description [and year of first publication]

COPENHAGEN PSYCHOSOCIAL QUESTIONNAIRE (COPSOQ) (Kristensen et al. 2005) [2002]	
Objectives	Psychosocial factors, stress, individual health/well-being, personality factors (coping style, sense of coherence, etc.)
Measures	Cognitive demands; commitment; freedom; demands to hide emotions; emotional demands; feedback; influence; insecurity; satisfaction; meaningfulness; career; predictability; leadership; quantitative demands; role clarity; role conflicts; community feeling; sensorial demands; social relations/support; mental/physical health; coherence; behavioural stress
Versions	Long (141-item) for researchers; medium (95-item) for work-environment professionals; brief (44-item) for workplace

Languages	Dutch, Chinese, Danish, English, Flemish, German, Croatian, Malaysia, Norwegian, Persian, Portuguese, Spanish, Swedish
EFFORT-REWARD IMBALANCE (ERI) (Siegrist et al. 2004) [1994]	
Objectives	Effort-reward relations as determinants of well-being
Measures	3 unidimensional scales: effort (6 items on quantitative/qualitative load, overall increase, physical load); reward (11 on financial, esteem, career, security, etc.); over commitment (6 or 29 items)
Versions	short (23-item), long (46-item)
Languages	German, Chinese, Czech, Danish, Dutch, English, Finish, French, Italian, Japanese, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish
GENERAL NORDIC QUESTIONNAIRE (QPS NORDIC) (Lindstrom 2002) [2000]	
Objectives	Psychological/social factors (as potential determinants of motivation, health and well-being)
Measures	Job demands/control, role expectation, Work/individual predictability, social interaction, leadership, communication, organisational culture/climate, work group, organisation-commitment, competence, preference for challenge, work motives/centrality, private life interactions
Versions	Short (34-item); long (123-item)
Languages	English, Danish, Icelandic, Norwegian, Suomi, Swedish, Greek
HSE INDICATOR TOOL (HSE) [2004]	
Objectives	Conditions known to be potential determinants of work-related stress
Measures	6 primary stressors: demands; control; support; relationships; role; change
Versions	35-item
Languages	English, Arabic, Bengali, Chinese, Farsi, Gujarati, Hindi, Hungarian, Kurdish, Pashto, Polish, Punjabi, Russian, Tamil, Turkish, Urdu, Welsh
JOB CHARACTERISTICS INDEX (JCI) (Sims et al. 1976)	
Objectives	Subjectively perceived job characteristics
Measures	Skill variety; autonomy; feedback; co-worker interactions; task identity; friendships
Versions	30-item
Languages	English
JOB CONTENT QUESTIONNAIRE (JCQ) (Karasek et al. 1998) [1985]	
Objectives	Content of respondents' work tasks using high-demand/low-control/low-support model of job strain development
Measures	Three main scales of job stress development: decision latitude; psychological demands; social support. Two scales of work demands: physical demands; job insecurity
Versions	By Karasek: recommended (49-item); long (112-item); original (brief, 27-item). Widely used adaptations of the JCQ include the Swedish Demand-Control Questionnaire (DCQ) (17 items, with five on psychological job demands, six on decision latitude [authority, 2; skill discretion, 4], and six on social support) and the Whitehall version (25 items, with 15 on decision latitude/control, four on job demands, and six on social support) (Landsbergis and Theorell 2000)
Languages	English, Bulgarian, Chinese (incl. Taiwan), Czech, Dutch (incl. Flemish), German, Greek, French (incl. Canada), Iceland, Italian, Japanese, Korean, Malaysian, Norwegian, Polish, Portuguese (incl. Brazil), Russian, Spanish (various), Swedish, Thai.
JOB DIAGNOSTIC SURVEY (JDS) (Hackman and Oldham 1975) [1975]	
Objectives	Subjectively perceived job characteristics
Measures	Skill variety; autonomy; task significance; task identity; feedback
Versions	15-item

Languages	English
JOB STRESS SURVEY (JSS) (Vagg and Spielberg 1999) [1994]	
Objectives	Severity/frequency of working conditions
Measures	3 main scales: job stress (-index, -severity and -frequency). Plus three job pressure (-index, -severity and -frequency) subscales and three support deficit subscales
Versions	30-item
Languages	English, French
MULTIDIMENSIONAL ORGANISATIONAL HEALTH QUESTIONNAIRE (MOHQ) (Avalone and Pamplomatas 2005) [2003]	
Objectives	Indicators of organisational wellbeing
Measures	Environmental comfort, clear goals, competence valorisation, listening, information disponibility, conflict, relationships, problem solving, demand, safety, effectiveness, fairness, job descriptions, social utility, openness to innovation
Versions	139-item
Languages	Italian
NIOSH GENERIC JOB STRESS QUESTIONNAIRE (Hurrell and McLaney 1988) [1988]	
Objectives	Job characteristics, psychosocial factors, physical conditions, safety hazards, stress, health and job satisfaction
Measures	Psychosocial exposure (workload, responsibility, role demands, mental demands, conflict, skill underuse, employment opportunities, types of job control, etc.); individual strain (depression, somatic complaints, job dissatisfaction, illnesses); stress-strain mediators (social support, self-esteem)
Versions	Selectable forms (n = 22); total: 246 items
Languages	English, Chinese, Japanese, Korean, Spanish
NOVA WEBA QUESTIONNAIRE (Huys and De Rick 2005) [1992]	
Objectives	Identify stress-related risks
Measures	4 main measures: control requirements/job demands (quantitative demands, control problems); control options (autonomy, contacts, organizing tasks, information provision); job composition (completeness of functions, cycle times, craftsmanship, cognitive complexity/mental effort); other risks (uncertainty, time constraints, job-education/experience fit, emotional effort/exhaustion)
Versions	156-item
Languages	Dutch
OCCUPATIONAL STRESS INDEX (OSI) (Belkic 2000) [2003]	
Objectives	Occupational stress burdens
Measures	2-dimensional matrix. Vertical: information transmission (sensory input, central decision-making, task performance). Horizontal: stress dimensions (underload, high demand, strictness, extrinsic time pressure, aversive/noxious exposures, vigilance/disaster potential, conflict/uncertainty)
Versions	Generic (65-item) and specific (drivers, physicians, teachers, manufacturing workers, clerical staff, air traffic controllers, airline pilots)
Languages	English, Bosnian, Serbian, Swedish
OCCUPATIONAL STRESS INDICATOR (OSIND) (Cooper et al. 1988) [1988]	
Objectives	Stressful working conditions
Measures	3 main measures: sources of pressure scale (intrinsic factors, managerial role, relationships, career/achievement, organisational structure/climate, home-work interface); stress effects (low job satisfaction, poor mental/physical health); stress-strain mediators (coping skills, stress-prone personality)

Versions	167-item
Languages	English, Chinese, Italian
OCCUPATIONAL STRESS INVENTORY (OSINV) (Osipow 1992) [1980]	
Objectives	Occupational adjustment in terms of job stressors, personal strain, and coping
Measures	3 dimensions: Occupational Roles Questionnaire (role overload/insufficiency/ambiguity/boundary, responsibility, physical environment); Personal Strain Questionnaire (vocational, psychological, interpersonal and physical strain); Personal Resources Questionnaire (recreation, self-care, social support, rational/cognitive coping)
Versions	Battery of three questionnaires (140 items)
Languages	English, Chinese
OCCUPATIONAL STRESS QUESTIONNAIRE (Elo et al. 1998) [1992]	
Objectives	Occupational stress: perceived work/environmental stressors, individual stress reactions, and organisational influence
Measures	Job complexity, autonomy, role clarity, organisational climate, support from superiors, cooperation, work appreciation, work hazards, feedback, time pressure
Versions	56-item
Languages	Finnish; English
PRESSURE MANAGEMENT INDICATOR (Williams and Cooper 1998) [1998]	
Objectives	Workplace pressure
Measures	Effects of pressure (job satisfaction, organisational satisfaction, organisational security, organisational commitment, state of mind, resilience, confidence level, physical symptoms, energy levels); sources of pressure (workload, relationships, recognition, organisational climate, personal responsibility, managerial role, home/work balance, daily hassles); individual differences (drive, impatience, control, influence, problem focus, social support, emotional detachment)
Versions	120-item
Languages	English, "over 20 languages"
Notes	Developed from Occupational Stress Indicator
PSYCHOSOCIAL WORKING CONDITIONS (PWC) (Widerszal-Bazyl and Cieslak 2000) [2000]	
Objectives	Stress impact of psychosocial working conditions
Measures	3 main scales: job demands (intellectual, psychosocial, and resulting from overload; role conflict); job control (behavioural/cognitive); social support. Plus two scales adapted from Occupational Stress Questionnaire: well-being, wish-list for change
Versions	36-item
Languages	Polish
STRESS DIAGNOSTIC SURVEY (SDS) (Ivancevich et al. 1983) [1983]	
Objectives	Identify specific areas of high job stress in work environment
Measures	2 main measures: individual (role conflict/ambiguity, job scope, time pressure, career, responsibility, qualitative/quantitative overload); organisational (policy, rewards, participation, underuse, supervisory style, organisation structure, human resource development)
Version	80-item
Languages	English
STRESS ORGANISATION QUESTIONNAIRE (VOS-D) (PREVENT 2005) [1986]	
Objectives	Work conditions to facilitate task accomplishment for challenged workers

Measures	14 modules: overloads, role definition, over-responsibility, conflicting roles, work station immobility, decisional powers, interest in work, job security, support from superiors, from colleagues, job satisfaction, work worries, mental health, physical health
Version	95-item (some open questions)
Languages	Dutch, French
STRESS PROFILE (Setterlind and Larson 1995) [1995]	
Objectives	Psychosocial work environment
Measures	4 main measures: external causes of stress (psychosocial work environment, work content, workload/control, leadership climate, physical work environment, family relationships, major life events, daily hassles/satisfactions); reactions (self-perception, sense of coherence); coping skills (problem-focused, emotion-focused, behaviour type, lifestyle); stress reactions (physical, emotional, cognitive, burnout)
Versions	224-item
Languages:	English, Norwegian, Danish, Estonian, Finnish, German, French
STRESS RISK ASSESSMENT QUESTIONNAIRE (SRA) (Stressrisk.com) [2003]	
Objectives	Workplace stress
Measures	12 main measures: organisational culture; demands (including physical hazards); control; relationships; organisational change; role; support; health; performance; coping with workplace pressures; need for organisational change; stress-reduction suggestions
Versions	50-item
Languages	English
TRAVAIL ET SANTÉ (VAG) (Conseil National du Travail (CNT) 2004; Fédération Générale du Travail de Belgique (FGTB) 2002) [1993]	
Objectives	Characteristics of workplace stress
Measures	Task contents; work organisation; physical conditions, safety/equipment; relationships; physical/psychological efforts; work-private life interaction; career; health; work opinion
Versions	Complete (200-item), abridged (41)
Languages	Dutch, French
TRIPOD SIGMA QUESTIONNAIRE (Wiezer and Nelemans 2005) [2003]	
Objectives	Stress management tool
Measures	8 scales: procedures; hardware; organisation; communication; training/skills; incompatible goals; social support; individual defences
Versions	166-item
Languages	Dutch
VRAGENLIJST BELEVING EN BEOORDELING VAN DE ARBEID (VBBA) (Van Veldhoven and Broersen 2003) [1994]	
Objectives	Causes and consequences of work-environment factors
Measures	8 dimensions: job characteristics (work pace/volume, emotional/mental load, physical effort); variety; autonomy; relationships/communication; job-related problems (task clarity/changes, information, problems); conditions (pay, career, insecurity); satisfaction (pleasure, organisational involvement, turnover); strain (need to recover, worry, sleep quality, emotional reactions, fatigue)
Versions	Full (232-item) and abridged (108-item); plus optional sector-specific items
Languages	Dutch, French (Questionnaire sur le vécu du Travail; VT)

WORK ENVIRONMENT SCALE (WES) (Moos 1981) [1981]	
Objectives	Social climate of work units
Measures	Involvement; peer relations; supervisor support; autonomy; task orientation; work pressure; clarity; control; innovation; physical comfort
Versions	Long (90-item); short (40-item)
Languages	English
WORKING CONDITIONS AND CONTROL QUESTIONNAIRE (WOCQ) (De Keyser and Hansez 1996) [2001]	
Objectives	Psychosocial risk and workers' job-control
Measures	Control of work situation: resources; future; task management; risks to self/others; work planning; time management
Versions	80-item (plus two optional questionnaires)
Languages	French; Dutch, English

Source: Adapted from Tabanelli et al. (2008).

Table 5: Summary of observational instruments with references to a guide/description [and year of first publication]

CANEVAS (Delaunois et al. 2002) [1995]	
Type	Company analysis
Objectives	Company stress diagnosis at given moment. Initial global evaluation of situation (service, department, company, organisation) in terms of risks/confirmation of stress
Measures	Activities (task, autonomy, role, make decision, risks); environment (context, organisational structure, career, earnings, interpersonal relation); individual mediators (family stress, personality, values, capacity, experience, health)
Methods	70 items on factual company data (physical environment, information exchange dynamics, company culture, psychosocial factors, working conditions, working hours). Analysis based on four concepts: integration, mastery, transparency, requirements
Languages	French
FINNISH INSTITUTE OF OCCUPATIONAL HEALTH (Hurrell et al. 1998) [1983]	
Type	Observational checklist
Objectives	Assessment of job stressors (psychosocial, physical, chemical)
Measures	12 stressors (safety responsibilities, repetitiveness, forced pace, complex decision making, etc.)
Methods	Ratings based on work observations (stressors defined/illustrated in user manual), supplemented by supervisor/worker interviews
Languages	Finnish
POSITION ANALYSIS QUESTIONNAIRE (PAQ) (McCormick et al. 1972) [1972]	
Type	Job-analysis
Objectives	Position and job stress evaluations
Measures	195 items: 187 regarding activities/environment (information, mental processes, output, relationships, work station, job characteristics), eight compensation
Method	Based on worker/supervisor interviews, analysts rate items' strength in particular job
Languages	English

RHIA/VERA (Leitner and Resch 2005) [1989]	
Types	Observational job-stress analysis
Objectives	Describe and evaluate stress factors thought to affect health
Measures	Work barriers, monotonous working conditions, time pressure, adverse environmental factors, time constraints, constraints to physical necessities
Methods	Two parts: manual with all definitions and response sheets, prepared for particular analysis; 2–6 h worksite observations/worker-interviews using semi-standardised protocol (reported on response sheets following user-manual definitions)
Languages	German
SUVAPRO (Delaunois et al. 2002) [1999]	
Type	Checklist
Objectives	Screening of company stress situations providing premises for interventions
Measures	Stressors, anti-stress resources; symptoms of stress
Methods	3 documents: (1) For management, questions on accidents, absence, material damage, accidents, job security; deadline stress-related complaints, socially isolated working stations, monotony, responsibilities, work station. (2) For working groups, 3-section checklist comprising: stress identification, eliminating causes of stress, improving working conditions. (3) For individuals, 10 sections: “five illustrative cases”; explanation of stress; personal questions to identify stressors; evaluation of symptoms; resource assessment (autonomy, social network, information/participation, physical/mental fitness, organisation/planning/ work motivation); summary results table (and identification of any immediate action); removing stressors (more detailed illustration), developing resources (facilitating organisation, planning/preparation, communication, relaxation/balance), discussion of “five illustrative cases”, construction of personal anti-stress program
Languages	French, German, Italian
TRAVAILLEUR ET ORGANISATION (TOMO) (PREVENT 2005) [1994]	
Type	Observational checklist
Objectives	Inventory of risks associated with functions/departments (not individual workers)
Measures	(1) Task requirements: work contents (monotony, function, cycles, units, etc.); workload (time pressure, precision/concentration, underload, emotional); responsibility (too much/little, poorly defined, contradictory); knowledge/aptitudes (too high/low). (2) Working relationships: functional contacts (dialogue, support, co-operation); other contacts (possibilities, work environment); superiors (feedback, support, etc.); personal integrity (space, intimacy, discriminations, sexual harassment). (3) Working conditions: remuneration (level, differentiation, etc.); secondary conditions (recreation facilities, etc.); rest-working time (schedules, working time, pauses); career. (4) Regulation possibilities: tasks (modality, rate/rhythm, solution of problems, external disturbances); environment (freedom of movement, work station, interruptions, contact with colleagues); organisation (dialog, working time/schedules, career); information/feedback
Methods	Three documents: (1) inventory of problems, list of 54 items (evaluated by observation, interviews, discussion); (2) 137 preventive actions; (3) 54 items divided four groups of measures (see above)
Languages	Dutch
WEBA (WELZIJN BIJ OF ARBEID) (Delaunois et al. 2002)[1990]	
Type	Job-analysis instrument
Objectives	Identify threats to wellbeing in terms of risks of stress and psychic overload and lack of appropriate work-training availability
Measures	7 dimensions: (1) completeness of work function (coherent set of tasks with preparation/support); (2) task organisation (decision-making, communication with superiors/co-workers for problem-solving); (3) avoidance of short-cycle tasks (<90 sec); (4) degree of function difficulty (balance between intensive/straightforward tasks); (5) work autonomy (rate/rhythm, task order, personal working method);

	(6) social contacts (superiors/co-workers); (7) information availability (individual, departmental and company levels)
Methods	Preliminary screening by questionnaire (to determine risk groups/departments), followed by six steps: (1) task analysis (inventory); (2) task-condition evaluation (work-cycle time, cognitive complexity, autonomy, opportunities for contact, information); (3) and (4) job control problems (capacity vs. demands), process disturbances; (5) job evaluation (see measures, above); (6) reporting of results and discussion of priorities and interventions
Languages	French, Dutch

Source: Adapted from Tabanelli et al. (2008).

Leka et al. (2008) have provided another review of tools that map onto the whole risk management cycle. Additional examples from this review include the SOBANE strategy (Malchaire, 2004), and the AMIGO model (Peiro, 2000).

A number of large-scale subjective studies of stress have been conducted, based on questionnaire or interview data and which include self-reports of physical health symptoms. Some studies have demonstrated a close correlation between feelings of ill health caused by stress and later ill-health states. For example, the General Health Questionnaire (GHQ) is a very robust instrument that has been repeatedly used in medical and psychosocial studies to assess levels of stress (Goldberg, 1972). The GHQ has pre-set questions that have numerical scores allocated for each response; these are then totalled to give an overall score. This instrument has been repeatedly validated in international studies. NIOSH (Hurrell and McLaney, 1988) has also developed a generic work-related stress questionnaire. Similar instruments include the Occupational Stress Questionnaire (OSQ) (Elo et al., 1992), the Job Stress Survey (JSS) (Speilberger and Vagg, 1991), the Occupational Stress Indicator (OSI) (Cooper et al., 1988) and the General Well-being Questionnaire (GWBQ) (Cox and Gotts, 1987). Use of such instruments may be particularly useful to assist with separation of cause and effect relationships in stress pathways.

Although as it can be seen from the review above (which is not exhaustive as new instruments might have been validated in the last years), there is good availability of tools for the assessment of psychosocial risks with adult populations that can be used for monitoring purposes. The debate in this area is now moving to not only assessing psychosocial risks but to monitoring the implementation of preventive actions (e.g., Dollard et al., 2007; EU-OSHA, 2010). However, the same trends are not observed in the area of child labour where there is an on-going debate in relation to developing appropriate risk and impact assessment methods and tools. This is understandable given the complexity of this area as has been described earlier in this report. The following section provides a summary of tools that have been used to assess psychosocial risks and psychosocial impact of child labour.

4.2 Psychosocial assessment tools for child labour

Child labour studies focussing on assessment of psychosocial risks and impact have used a number of methods, including: surveys, observations, structured interviews with children, employers and parents, child behaviour checklists, focus groups, child focussed participatory methods and structured activities to explore the children's work situation. It should be noted, though, that a standardised instrument assessing psychosocial hazards in child labour

does not exist although, as discussed earlier in this report, some relevant frameworks have been suggested. In contrast, standardised instruments do exist to assess psychosocial impact of child labour on child development. Some of these standardised instruments are presented in this section in addition to other types of assessment methods.

The choice and use of different methods depends on the research objectives, the age of the target children population and access issues. This section provides a brief overview of some of the methods used. Again it is important to keep in mind the objective of this report that seeks to identify methods that will allow monitoring of psychosocial conditions and outcomes of child labour globally, adopting a public health approach and also considering existing capacities.

4.2.1 Rapid assessment

The Rapid Assessment (RA) methodology was developed by the ILO-International Programme on the Elimination of Child Labour (IPEC) together with UNICEF. The aim of the RA methodology is to investigate the types of activities children undertake so as to aid the construction of relevant categories. The method is called 'Rapid Assessment' because it is expected to last no more than three months from beginning to end. RA researches populations by observing or interviewing small groups of individuals; it does not employ scientific sampling methods or use control groups. It also does not engage in the intensive long term participant observation that characterises anthropological field work. In most cases, in fact, even repeat interviews with the same individual do not (or cannot) take place.

RA does not use structured questionnaires administered to large population samples for making estimates, such as would be found in a national census or nationwide household or establishment/enterprise surveys. It can provide detailed qualitative information that is not only useful in planning and starting programmes to help working children on a local or more limited level, but which is frequently required. The output of RA is primarily qualitative and descriptive. Some numerical data may be obtained as background information or through interviews, but these usually cannot be generalised to larger populations.

Rapid Assessment uses the sources of information below in varying proportions, depending on the focus of the particular research and the resources that are available in a given geographical area:

- Existing information: Searching the published and unpublished literature; reading any studies that may have been done; examining all available statistical data, etc. to find information that would be useful for providing background knowledge and helping to 'focus' the research.
- Discussions and consultations with individuals and organisations familiar with the details of the child labour in the area: This may include government agencies, NGOs, women's organizations, trade unions, religious groups, charitable associations, elected officials (politicians), appointed administrators and managers, etc. in order to identify the principal features of child labour in the area.

- In-depth discussions with key informants: Intensive discussions with individuals who are carefully selected because of their knowledge of child labour in the area. These interviews help to focus the study, in terms of both locations to be researched and topics to be examined.
- Mapping: Making approximate drawings, or 'maps', of the area under investigation, showing its major physical features and layout and the relative locations of child workers of various kinds within it.
- Observation: Systematic observation of child workers and of workplaces in various parts of the area being researched, to obtain visual information on their work activities and working conditions.
- Individual interviews and conversations: Formal and informal interviews and discussions with working children, where possible, and with employers, parents, teachers, and all other individuals who can help us to understand the child's occupation and what it entails, why the child is working, details about working conditions, wages, schedules, and work experiences, the relation between work and school, and what other activities the child carries out within and outside the home. Various techniques may be desirable in the interviews with children, including personal histories, recall of the activities of the previous day, story narration, and drawing.
- Group interviews: Discussions with small groups of adults and/or children may be productive. They may sometimes be spontaneous and not necessarily formally structured.
- Questionnaires: Short questionnaires may be used in various settings, either to obtain items of information or to cross-check the information obtained through interviews. They are also used for collecting information on a broader scale, for example via specific networks or when administered through larger organisations such as school systems.

Several methods are used to identify which children to interview. The ILO-UNICEF approach is to start with discussions with country-level counterparts and partners to reach a consensus on country specific approaches. Local, national and regional consultations may be used to ensure consistency on issues of child labour and to distinguish between work, as a culturally perceived socialisation process, and labour detrimental to a child's development. A challenge is to get access to the informants who can best describe child labour and other activities undertaken by children.

By using the rapid assessment methodology, one may identify and describe what children are doing at different times of the day, the different hazardous, unhealthy or illicit conditions some of their activities may involve, the characteristics of those children undertaking activities that may be defined as child labour and the characteristics of their families and social networks. The RA methodology may be particularly suited to determine the existence of hidden or hard-to-access forms of child labour.

4.2.2 Surveys

The challenge in designing a survey instrument will always be to gather as much information as possible through a very limited number of questions. Household surveys on general living conditions can be suitable for looking into child labour and issues like family income and welfare, health, and access to facilities like water and fuel. A labour force survey may make it possible to look at intra-household sharing of work and tasks and also at the demand side of child labour for wages. Special child labour surveys may be extended to cover the particulars of the employers of children working outside the household, the children's present or former teachers, and representatives of the community (see, for example, Grimsrud, 1998 or ILO, 1995).

The age span to survey may depend on the purposes of the survey, the minimum age for employment, and the age for completing compulsory education in the country concerned. An important question is whether the children themselves should be interviewed or if the parent should be used as a proxy. This has methodological implications and might require resources that are not available. Questions may be asked of parents, children, or both. The best approach would be to interview the children themselves. However, this creates a problem regarding the youngest children, below 10 to 12 years of age, as it is not likely that these children will be able to respond properly on their own. The presence of an adult may influence the answers given by the child. In any case the survey should record whether the children are answering for themselves. The special difficulties attached to interviewing children must not be underestimated.

Statistical Information and Monitoring Programme on Child Labour - SIMPOC

The SIMPOC surveys have developed a standard module (core questions) that can be linked to labour force surveys and a special household survey for child labour. Additionally, methodologies for supplementary approaches to the household based survey, such as community/town/village level surveys (key informants), employers and workplace surveys, street level child labour enquiries and rapid assessment methodologies have been considered and applied. The type of data made available within the SIMPOC approach may be classified by questions addressed to the head of the household concerning each child in the household aged 5 to 17, and by questions addressed directly to children aged 5 to 17. The former types of questions include those on:

- schooling and non-schooling activities (both economic and non-economic, 'current' and 'usual', and duration of 'usual' employment or work); primary (principal) and secondary (subsidiary) economic activities of each child aged 5 to 17 who is a member of the household;
- details on the current economic activity of the child, including the type of occupation, goods produced or services rendered, and, when working for someone else, the employer's industry and location of the workplace;
- earnings and other benefits; working hours and conditions; the child's contributions to the household;
- work-related injuries and illnesses suffered by the child caused by his/her work in the past; other safety and health aspects at the workplace;

- housekeeping activities carried out regularly in own parents/guardians household; the types of tasks and number of hours devoted to such work on a daily/weekly basis;
- in the case of children aged 5 to 17 who work and live somewhere else, details on where they live, their occupations, earnings, their contribution to the household, why and how they left the household to work elsewhere.

The latter types of questions include:

- whether attending school or a training institution and, if not, the main reason for not going to school or training institution;
- if combining schooling and work (whether economic or non-economic work, including housekeeping activities), the effect of such work on schooling;
- work-related injuries and illness, other safety and health aspects at the workplace in the past; types and seriousness of the injuries/illness; responsibility for covering costs of medical treatments and hospitalisation;
- age when started work for the first time; reasons for working and whether or not satisfied with present job; if not satisfied, the reasons why; own perceptions about working; current choice and future plans.

Both sections may include questions on whether the child is working for someone else, name and address of the workplace of the employer, industry, relationship with the employer, salaries/wages and mode of payment, hours of work and whether working during evenings/nights or on weekends and public holidays; details on all other benefits, for example, paid holidays, overtime pay, full or subsidised meals/uniform/training etc.; social security benefits (including health, family or unemployment insurance and pension plans) and union membership of the child. The questionnaire also asks whether the child is supervised or not on the job by adult(s), and negative consequences of working (for example, frequency of exhaustion, heavy physical work, stressfulness, risks and types of hazards with details of each category).

Multiple Indicator Cluster Survey - MICS

The MICS survey tools are developed by UNICEF after consultations with relevant experts from various UN organizations as well as with interagency monitoring groups. UNICEF works closely with other household survey programmes, in particular the Demographic and Health Surveys (DHS) programme, to harmonize survey questions and modules and to ensure a coordinated approach to survey implementation, with the objective to provide comparability across surveys and to avoid duplication of efforts. The survey questionnaires are modular tools that can be adapted to the needs of the country. MICS questionnaires ask what kind of work a child does and for how many hours, collecting data on both economic activities (paid or unpaid work for someone who is not a member of the household, work for a family farm or business) and domestic work (household chores like cooking, cleaning, or caring for children). A further source of child labour data used by UNICEF is the Demographic and Health Surveys (DHS), carried out with support of the United States Agency for International

Development (USAID). Some recent DHS surveys have adopted the MICS child labour questionnaire and provide the same data on work by children (UNICEF, 2009).

Strengths and Difficulties Questionnaire - SDQ

The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural screening questionnaire about 3-16 year olds. It exists in several versions to meet the needs of researchers, clinicians and educationalists. Each version includes between one and three of the following components: 25 items on psychological attributes (including emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour), an impact supplement (asking whether the respondent thinks the young person has a problem, and if so, enquire further about chronicity, distress, social impairment, and burden to others) and two additional follow-up questions for use after an intervention (Goodman, 1997; 1999).

Child Status Index - CSI

The Child Status Index (CSI) toolkit assesses vulnerabilities, needs, and outcomes of orphaned and other children made vulnerable by HIV/AIDS. CSI provides a framework for identifying these children's needs, creating service plans, and assessing outcomes. CSI can be used to monitor children's well-being on a regular basis to provide routine data on the impact of Orphans and Vulnerable Children (OVC) programmes. This simple, reliable toolkit can be used by people who have not had specific monitoring and evaluation training. CSI was designed to gather information on individual children at provider level, not as a toolkit for aggregate data collection, although that is being investigated. The CSI tools are not intended as a requirement but rather as an example of good tools to use within a programme that more broadly looks at children within the context of family centred care (O'Donnell et al., 2008).

WHO Disability Assessment Schedule - DAS

The World Health Organization Disability Assessment Schedule (WHO DAS) is a generic assessment instrument for health and disability. It can be used across all diseases, including mental, neurological and addictive disorders and is applicable in both clinical and general population settings. It produces standardized disability levels and profiles and is applicable across cultures, in all adult populations. The conceptual frame of reference of this instrument is the International Classification of Functioning, Disability and Health: ICF. It covers 6 domains: Cognition – understanding and communicating; Mobility– moving and getting around; Self-care– hygiene, dressing, eating and staying alone; Getting along– interacting with other people; Life activities– domestic responsibilities, leisure, work and school; Participation– joining in community activities. This information can be used to identify needs, match patients to interventions, track functioning over time and measure clinical outcomes and treatment effectiveness. The WHO DAS is available in eleven versions and sixteen languages. Available versions include self-administered, interviewer-administered, and proxy-reported.

Children’s Global Assessment Scale – CGAS

The Children’s Global Assessment Scale (CGAS) (Shaffer et al., 1983) is one of the most widely used measures of the overall severity of disturbance in children. It is a unidimensional (global) measure of social and psychiatric functioning for children ages 4–16 years. The CGAS is based on an adaptation of the Global Assessment Scale (GAS) for adults and can be used as an indicator of need for clinical services, a marker for the impact of treatment, or a single index of impairment in epidemiological studies. CGAS is a numeric scale (1 through 100) used by mental health clinicians and doctors to rate the general functioning of children under the age of 18. Ratings on a CGAS scale should be independent of specific mental health diagnoses. The CGAS is widely used in clinical settings. When used by a well-trained clinician, it appears to be a useful measure of overall severity. It allows the rater to assimilate and synthesize knowledge about social and psychiatric functioning and to condense it into a single index. There are some indications that the CGAS may function more as an indicator of functional competence than of symptomatology.

Diagnostic Interview for Children and Adolescents (DICA)

The DICA-IV is a complete structured interview based on the DSM-IV™. It is a valuable assessment tool to supplement a clinical examination by efficiently screening for a broad range of behavioural problems in children aged 6-17 years of age. A vital feature of the DICA-IV program is the Stein-Reich Critical Items listing. These items identify high-risk features by highlighting responses that reflect a potential for dangerous behaviour (e.g., suicidal ideation, violent tendencies, drug abuse). These items are divided into six categories: conduct disorder, street drugs, marijuana, post-traumatic stress disorder, alcohol and major depressive disorder (Reich, 2000).

It should also be noted that through an IPEC project on child labour in agriculture (2006) some questions on psychosocial hazards and impact were included in the developed tool. This manual and tool is available in Spanish only.

Child and Youth Resilience Measure (CYRM) - 28

The Child and Youth Resilience Measure (CYRM) - 28 is designed as a screening tool to explore the resources (individual, relational, communal and cultural) available to youth aged 12 to 23 years old, that may bolster their resilience (Ungar and Liebenberg, 2009). This measure has acceptable psychometric properties and is the only measure to look at resilience across cultures. It contains items that are both consistent across cultures and unique to specific cultures allowing for introduction of culturally-specific items. Several studies have employed the CYRM and support the use of this measure for screening and group comparisons.

Additional instruments assessing resilience in children and adolescents are presented in Appendix II.

4.2.3 Child-focussed participatory methods

Child-focussed participatory methods for use with children often mirror the activities they are thought to experience as part of their daily lives in school, at play, or at home, although

in some cases this may be based on researchers' ethnocentric assumptions about what children do and like, informed especially by Western developmental psychology and child-centred pedagogies. Data have been generated with children through the use of, for example, diaries (Baxter, 2007; Frankel, 2007; Nesbitt, 2000; Tekola, 2007), photography (Barker and Weller, 2003; Clark and Moss, 2001; Einarsdottir, 2005; Gabhainn and Sixsmith, 2006; Orellana, 1999; Punch, 2002; Morrow, 2001), draw-and-tell techniques (Driessnack, 2006; Ennew and Morrow, 1994; Pridmore and Bendelow, 1995; Punch, 2002), mapping (Darbyshire et al., 2005; Veale, 2005), time-use charts (Christensen and James, 2000), drama and role play (Armstrong et al., 2004; Veale, 2005), video clips from soap operas (Punch, 2002) and the use of radio workshops and recordings (Frankel, 2007), among many other examples and creative techniques.

One of the advantages of using visual data, such as photographs and drawings, or 'active' methods, such as child-led neighbourhood tours, is that children with limited literacy may participate in the research (Clark and Moss, 2001). Visual data enable the researcher to ground discussion in children's experiences and social environments thus making the interpretative process more collaborative (Hart, 1992; Mauthner, 1997; Smith et al., 2005). For example, photo-elicitation techniques involve children using cameras to capture aspects of their lives for discussion. Children are also able to capture spaces and aspects of their social worlds to which adult researchers may not have access, such as intimate home environments or 'hidden' spaces of child labour (e.g. Young and Barrett, 2001). Other methods are more heavily reliant on literacy, such as the use of diaries which some children may consider 'too much like schoolwork' and therefore not enjoyable. However, diary writing can also be a preferred medium for young people who like that it is 'like schoolwork' (Tekola, 2008).

Some of the available measures used to explore psychosocial impact are reviewed in Johnston (2008). In particular some available tools, including surveys, are discussed that explore personal agency, self-efficacy and well-being. Some recommendations are also made for items that can be included in surveys on employment. In addition, Camfield, Streuli and Woodhead (2009) and Crivello, Camfield and Woodhead (2009) provide a review and discussion of additional methods and tools to measure well-being in particular.

4.3 Conclusions

The objective of this report is to identify an indicator framework that can be incorporated in on-going research in order to monitor psychosocial conditions and outcomes of child labour globally adopting a public health approach. A number of tools have been used in research addressing psychosocial aspects of the work environment, both with adult and children populations. The nature of child labour research makes it difficult to identify one gold-standard method for data collection. E.g., Brewer's (2003) review of psychosocial instruments for use with child domestic workers in developing world contexts recommended instruments for research with child domestic workers. She drew the questions from various psychological instruments for assessing social skills in North American and Europe. However, it should be noted that these have not been validated cross-culturally. Boidin (1995) has made a number of suggestions for assessment of psychosocial risks and impact in child labour but linked them primarily to qualitative interview methods.

There are a number of important considerations that need to be taken into account on the basis of the available methodologies and the objective to be achieved. Firstly, it is important to acknowledge the inherent difficulties of child labour research due to the topic itself, the target population and access issues. As such it is important to decide the age bracket of the children the research will address using the proposed indicator model. Once this has been decided, it would be possible to make a decision on the data collection method to be used.

The proposed indicator model could be incorporated in different methodologies used to research child labour. Research with adolescents could be based on survey instruments incorporating the suggested indicator model in the form of specific tools. In relation to psychosocial hazards, a specific tool will need to be developed, possibly through the adaptation of existing survey instruments from adult populations. In relation to psychosocial impact, a set of standardised tools already exists and could be considered.

The previous sections have also discussed survey instrument limitations in relation to the respondents as well as existing capacities in terms of expertise and access. However, it would still be possible for short survey tools to be incorporated into other on-going surveys as well as in research using the Rapid Assessment methodology. At the moment, the authors of this report do not have a clear picture of on-going ILO projects using different methodologies that could be considered for implementing the proposed indicator framework. This needs to be explored further.

5. Promoting the integrated model of psychosocial indicators for child labour: Needs and priorities

This report has suggested an indicator framework to be used for monitoring purposes of psychosocial aspects of child labour. The model suggested has been considered by international experts in a consultation meeting on child labour organised by ILO in Turin to reach consensus. On the basis of this work, a number of steps need to be followed to translate existing knowledge into practice.

1. **Decision on data collection method:** It is important to consider the various methods and tools employed in this area of research to decide on the most suitable methodology to be used.
2. **Identification of available tools:** It is recommended that available tools are considered to identify those ones that could be adapted to incorporate the suggested indicator model.
3. **Tool modification to include agreed indicator list:** Tool modification and adaptation needs to take place for use in practice.
4. **Piloting through ILO projects in different countries:** Tools would then need to be piloted in different countries. It is recommended that on-going ILO projects are reviewed to identify those ones that would be most suitable for this purpose.
5. **Tool revision:** Once piloting has taken place, necessary modifications of the tools will need to take place.
6. **Development of guidance including tool:** Once this process has been finalised, guidance through a handbook for using the tools will need to be developed.
7. **Training module development:** Training will need to be developed on the indicator model developed and the use of developed tools.
8. **Consideration of database development for monitoring purposes:** Finally, ILO is advised to consider the development of a database on the basis of the developed tools that could be used for monitoring and comparison purposes and for guiding policy recommendations both globally and in different countries.

Conclusions and next steps

This report has reviewed key evidence in relation to psychosocial aspects of child labour. It has addressed both psychosocial hazards and psychosocial impact of child labour. It has also synthesised the available evidence in a list of key indicators that can be used in this area and can be incorporated in different monitoring and research instruments. The report then reviewed key instruments that have been used in research focussing on psychosocial aspects at work both with adult and children populations. It has concluded that the nature of child labour research makes it difficult to identify one gold-standard method for data collection. However, it would still be possible for the suggested indicator framework to be used as part of on-going surveys, rapid assessment and other methods to allow data collection for monitoring and comparison purposes. The developed indicator model is also relevant for qualitative research as the dimensions it covers could still be incorporated in qualitative approaches on child labour used in field research. However, the focus of this report is on suggesting a public health approach in addressing psychosocial aspects of child labour.

In the short term, it is proposed that a short tool is pilot-tested in on-going projects to assess psychosocial hazards in child labour and is supplemented by readily available tools assessing psychosocial impact and resilience aspects. On the basis of the current review of the literature and existing child labour and adult tools as well as the proposed indicator model, a short tool to assess psychosocial hazards in child labour is presented in Appendix I. It is important that this tool is used in addition to questions addressing demographic issues, the employment process, working conditions, the work environment, physical hazards as well as the family context (see Appendix I for suggestions). Furthermore, it is recommended that additional standardised tools are used to explore psychosocial impact and resilience aspects (examples of such tools are the SDQ and CYRM-28). It should be noted that the use of these tools would provide a snap-shot at the situation in relation to psychosocial aspects of child labour in different contexts. However, more in-depth research would be necessary to reach detailed conclusions on various aspects of the proposed indicator model. As it has been suggested in this report, a long-term strategy is advisable and should be considered by ILO to achieve the desired outcomes in terms of monitoring. However, this report represents a crucial first step in identifying an indicator framework that can be incorporated in on-going research in order to monitor psychosocial conditions and outcomes of child labour globally adopting a public health approach.

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Appendix I. Short tool to assess psychosocial hazards in child labour

Does the child work part-time or full-time?	FT	PT				
How many days per week does the child work:	_____ days					
How many hours per day does the child work:	_____ hours/day					
Does the child work in shifts:	Yes	No	Sometimes	Don't know		
Which times of the day does the child work?	Day	Night	Variable			
Does the child work overtime:	Yes	No	Sometimes	Don't know		
If <i>Yes/Sometimes</i> , how many hours of overtime work does the child do per week on average: _____						
Is the child working for his/her family, a relative or a third party?	Family	Relative	Third party			
Does the child have the freedom to leave his/her employment?	Yes		No			
Is the child working alongside his/her immediate family?	Yes		No			
Is the child working alongside his/her relatives?	Yes		No			
Are the child's parents alive?	Yes		No			
Are the child's parents living together in the household?	Yes		No			
Does the child have caring responsibilities for members of his/her family?	Yes		No			
Is the child paid a wage, in kind only, by piece, by each client or through his/her parents?						
Wage	In kind	By piece	By each client	Through parents	Mixed method of payment	
Other _____ (specify)						
Is the child allowed to attend school?	Yes		No			
Is the child given leave for sick days?	Yes		No			
Is the child executing repetitive tasks at his/her work?			Yes	No	Sometimes	Don't know
Is the child exposed to high levels of time pressure through his/her work?			Yes	No	Sometimes	Don't know
Is the child's pace of work intense?			Yes	No	Sometimes	Don't know
Is the child's workload high?			Yes	No	Sometimes	Don't know
Is the child physically isolated at his/her work?			Yes	No	Sometimes	Don't know
Is the child penalised for mistakes made at his/her work?			Yes	No	Sometimes	Don't know
Does the child have opportunities for learning and development at his/her work?			Yes	No	Sometimes	Don't know
Does the child have opportunities for creativity at his/her work?			Yes	No	Sometimes	Don't know
Is the child proud of his/her work?			Yes	No	Sometimes	Don't know
Is the child supported in his/her work by his/her employer?			Yes	No	Sometimes	Don't know
Is the child supported in his/her work by his/her colleagues?			Yes	No	Sometimes	Don't know
Are incentives given to the child to do well at his/her work?			Yes	No	Sometimes	Don't know
Has the child been exposed to physical abuse by employers, supervisors or fellow workers?			Yes	No	Sometimes	Don't know
Has the child been exposed to sexual abuse by employers, supervisors, fellow workers?			Yes	No	Sometimes	Don't know
Has the child been exposed to verbal abuse by employers, supervisors, fellow workers?			Yes	No	Sometimes	Don't know

NOTE: When the above questions are included in rapid assessment or in other surveys, it is important that they are supplemented by more general questions addressing the family context, the work environment itself and physical hazards. In addition, it should be noted that the above questions address psychosocial hazards at the work environment. They do not address psychosocial impact on child development or resilience aspects. It is advisable that other standardised instruments such as SDQ (<http://www.sdqinfo.org>) and the CYRM-28 (<http://www.resilienceresearch.org>) are used to address these aspects. Finally it should be noted that both the above short tool and the additional suggested standardised instruments will provide a snap-shot of the situation. However, it is recommended that a more in-depth investigation is employed where data points out to a need for it.

Appendix II. Resilience measures

Scale	Authors	Age
Adolescent Resilience Questionnaire (ARQ)-revised	(Gartland et al., 2006)	11-19 yrs.
Adolescent Resilience Scale (ARS)	(Oshio, Kaneko, Nagamine and Nakaya, 2003)	teens
Assessing Developmental Strengths questionnaires (ADS)	(Donnon and Hammond, 2007)	CR: 5-8 yrs.; YR: 7-12 yrs.; AR: adults
Brief Resiliency Checklist (BRC)	(Vance and Sanchez)	Teens
Child and Youth Resilience Measure (CYRM)	(Ungar, M. and Leibenberg, L., 2009)	12 -23 yrs.
Connor-Davidson Resilience Scale (CD-RISC/CD-RISC2)	(Connor, K.M. and Davidson, J.R.T., 2003)	Adults/ older teens
Devereux Early Childhood Assessment Program (DECA)	(LeBuffe and Naglieri, 1998)	2-5 yrs.
Devereux Student Strengths Assessment (DESSA/ DESSA-mini)	(LeBuffe, Naglieri and Shapiro)	5-14 yrs.
Ego Resilience 89 Scale (ER 89)	(Block and Kremen, 1996)	18+ yrs.
Ego Resiliency	(Bromley, Johnson and Cohen, 2006)	18+ yrs.
Resilience and Youth Development Module (RYDM) of the California Healthy Kids Survey	(Constantine and Benard, 2001; Constantine, Benard, and Diaz, 1999)	elementary/ secondary students
Resilience Scale (RS)	(Wagnild and Young, 1993)	adults/ older teens
Resilience Scale for Adolescents (READ)	(Hjemdal et al., 2006)	13-18 yrs.
Resiliency Attitudes and Skills Profile (RASP)	(Hurtes and Allen, 2001)	12-19 yrs.
Resiliency Scale (RS)	(Jew, Green and Kroger, 1999)	children/ teens
Resiliency Scales for Children and Adolescents (RSCA)	(Prince-Embury, 2005, 2006)	9-18 yrs.