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Tackling Structural and Social Issues to Reduce Inequities in Children's Outcomes in Low- to Middle-income Countries

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Tackling structural and social issues to reduce inequities in children's outcomes in low- to middle-income countries

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Abstract

Tackling inequities in children's outcomes matters both from a moral perspective, and because of persuasive social and economic arguments. Reducing inequity in children's outcomes requires tackling structural and social issues. The paper provides evidence about how social, economic and environmental conditions shape inequities in children's outcomes. Building on insights generated through studies on the social determinants of health, the paper provides a framework to inform research and policy to reduce inequities in children's outcomes, with a specific focus on low- and middle-income countries.

Keywords

Child and adolescent well-being, inequities, structural and social determinants, development

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Executive Summary

• There have been dramatic improvements in child survival and development across the world, but the gains have not been shared by all. Invariably children with the poorest outcomes are those who are growing up in the poorest social and economic circumstances.

• In addition, in rapidly developing countries some are now seeing the double burden of poverty and malnutrition alongside the proliferation of non-communicable diseases.

• We argue that the time has come for invigorated effort to reduce inequities in children's outcomes through action on the political, social, economic and environmental determinants of children's outcomes.

A social determinants approach

• The social determinants of health (SDH) approach has generated important insights that we can now apply to broader outcomes for children. This paper is a first effort to pull together a conceptual and operational framework along these lines.

• To reduce inequities in children's outcomes and related later life outcomes, ensuring equal access to services is necessary, but not sufficient. Service provision will be unable to fully redress the health and development issues that emerge as a consequence of social and economic inequities in the environments in which children are born, grow and live. Reducing inequity in children's outcomes requires tackling structural and social issues.

• Improvements in the social determinants relate to better outcomes – where employment opportunities and incomes rise, outcomes improve; when education is free, more children attend school. Similarly where there are good social protection floors, child poverty rates fall and where women's rights are upheld, children benefit.

• We present a new framework for analysis of the social determinants of children's outcomes that considers the macro-level context, wider society, systems, and the role of families. Attached to this we describe the often reported inequalities that are evident as a result of the unequal distribution of power, money and resources.

• In addition we take a life course approach which recognises that early adverse experiences increase the risk of more adverse experiences, and within this make the case for earlier intervention from a moral and economic perspective.

Tackling the social determinants of children's outcomes

• Tackling structural and social issues requires that agencies work together. UNICEF should carry forward their pragmatic drive on equity by bringing together partners, including other sectors, around a social determinants approach to child well-being. This needs to start with the agreements on a common language and the mobilisation of resources to tackle the issue. Taking this further, delivery systems need to be refocused to a whole-of-government, whole-of-society approach. This delivery needs to be universal yet proportionate to need (proportionate universalism) and should put people, the 'consumers', and not processes, at the heart of delivery, with a focus on life course stages.

• Such approaches are feasible and cost effective. An equity strategy that focuses on early years, prevention and proportionate universalism will direct resources to the heart of the problem, at the earliest stage. The savings made in terms of reduced social and health payments, and increased productivity will outweigh the costs. Not to mention the improvement in people's lives and well-being.

• This paper sets out a diagnostic approach that can be applied in different country settings. However we also recognise that countries are heterogeneous and strategic approaches to improving children's outcomes need to be appropriate to individual country context. Defining countries as low-, middle- or high-income can be insufficient. We suggest that UNICEF utilise a model such as that proposed by Vasquez and Sumner (8) to group countries according to: poverty rate, income inequality, type of economy, adequacy of governance, environmental sustainability and dependency on external finance.

• Countries will need political support to make some of this happen. However, governments and policy makers require more than an exposition of the problem to motivate action. UNICEF should collate information on effective systems and interventions, and where practicable, include information on cost effectiveness. Where this does not exist, UNICEF should support evaluation of promising programmes.

• A stronger system of accountability is required to make the most of the political will that exists. For example, countries do not always make good on the commitments that they make, for example to initiatives such as the Millennium Development Goals or human rights legislation. UNICEF should be vociferous in the need for monitoring frameworks that enable progress in, and the determinants of, outcomes to be tracked, with information on those outcomes for different sectors of society. The paper sets out further ideas for improving governance and delivery systems.

• More needs to be done on the fundamental drivers – inequalities in the distribution of power, money and resources. Growth-led models of economic development need to ensure that money can be used to spread the benefits of development to the whole population. Income distribution needs to be tackled at both local and global levels to reduce child poverty. Organisations such as UNICEF, UNDP, the World Health Organization (WHO), and the World Bank should work together to ensure a focus on equity in the global governance of macro-economic affairs, with co-ordinated messages and effective evidence utilised to lobby for change at the very highest levels of world leadership. At a global and local level companies should be encouraged to pay living wages and to improve working conditions.

• It is important for UNICEF to build a systematic evidence base around achieving equity in child well-being, in particular with and through national research groups. We present a research framework which sets out the data and research requirements needed to support progress.

Harnessing the momentum

• The social determinants approach has gained currency across the world, to reduce health inequities. There will be synergistic gain if UNICEF and children's organisations join forces with health and other sectors to push for improvements in the conditions in which people are born, grow, live, work and age. At the same time, increasing recognition of the importance of the early years in determining later life outcomes, and of the compelling moral, social, and economic case for reducing inequalities, creates a perfect environment for a new way forward. Systematic and comprehensive action on the social, economic and environmental factors that affect children's outcomes is urgently needed to sustain progress that has already been made and to improve the outcomes of huge sections of society. In low- and middle-income countries, approximately 40 per cent of the population still live in poverty on less than $2 a day (1). Without addressing these huge inequities, progress will stall.

1. Introduction

There is growing evidence for, and policy interest in, the social determinants approach, by which we mean understanding the underlying causes of health and social outcomes in order to design and evaluate policies to improve outcomes. A notable example of the growing policy interest is the expert consultation on the structural determinants of child well-being, hosted by the UNICEF Office of Research in 2012 (2), which sets the background in which this paper is written.

This paper builds on the discussions and analysis described by the report (2) of the UNICEF consultation. We present:

- common definitions that can be used to aid multi-sectoral working
- evidence of how the social determinants impact on children's outcomes
- a framework to inform policy thinking and analysis
- the rationale for why now is the right time to take a social determinants approach
- the moral and economic case for investment
- action and further research needed to implement a social determinants approach.

Our approach to reducing inequities in children's outcomes is informed by our work on tackling health inequities through action on the social determinants of health (3-5). A wide body of evidence, including our global, European and country specific reviews, have shown that health inequities do not arise by chance (5). Health inequities cannot be attributed simply to genetic makeup, 'bad', unhealthy behaviour, or difficulties in access to medical care, important as those factors may be. The conditions of people's daily life shape their health, and the unequal distribution of money, power and resources in turn shape the conditions of daily life. Health inequities (systematic differences in mortality and morbidity) are largely avoidable differences in health. Therefore action to address these inequities needs to tackle the conditions of daily life, and so a shift of focus is required. Ensuring equitable access to services is necessary, but not sufficient. Action across multiple sectors is essential to tackle the structural and social drivers of health inequities.

The reviews made recommendations based on evidence to improve people's living conditions by tackling the social and structural determinants of health. These recommendations emphasised a life course approach, reflecting the accumulation of advantage and disadvantage that affects outcomes over the life course, from before birth to the end of life. Based on compelling evidence, the reviews prioritise 'equity from the start' – investing in early childhood to improve outcomes for children as well as to reduce health inequities in later life. These reviews are shaping policy and helping to create a comprehensive framework of strategies and programmes (6). This work has strong crossover to work for the reduction of inequities in children's outcomes.

Reducing inequity in children's outcomes also requires tackling structural and social issues. Ensuring universal access to services is necessary, but will not be sufficient on its own to reduce inequities in children's outcomes or related later life outcomes. A combined approach that includes systemic change and service delivery is needed. We provide evidence to support a multi-sectoral approach, based on an understanding of the factors that drive the inequities in children's outcomes; and present examples of putting this approach into practice. Further research by UNICEF and others on the determinants of children's outcomes and on the interventions that are particularly effective in different contexts for those determinants would provide a more thorough basis of action, and the detail required by practitioners and policy makers on the ground (see section 7).

2. A common language

Ensuring that common definitions are used across sectors is vital when considering action to reduce inequities. This is because action to reduce inequities requires working with politicians, economists, and professionals in education, health, social care, social security, housing, transport, energy, employment, and environment. It requires a multi-sectoral approach, and as such it is important to align definitions across sectors to ensure effective communication.

Given that the goal of this work is to improve children's outcomes in low- and middle-income countries, this section defines children's outcomes, and discusses the heterogeneity of low- and middle-income countries; it will help to define scope and goals for programmes. Throughout the paper we further explore the concepts of social determinants and the life course.

Children's outcomes

In addition to survival, it is important to consider children's outcomes across five dimensions: physical (health, safety, nutrition and health-related behaviours), education/skills (educational attainment, literacy, numeracy), social (peer, family and community relationships, social behaviours, participation in social activities, voice), psychological/emotional (psychological/emotional well-being, self-esteem, sense of control), and material (economic and other material resources). Our previous work on identifying priority children's outcomes has informed this list, and illustrated that there is a social gradient, such that poorer children are more likely to do badly across all these dimensions (4, 7). In addition these dimensions of children's outcomes are inter-related and inter-dependent. Hence outcomes in one dimension influence outcomes in other dimensions.

Unless otherwise specified, 'children's outcomes' is used to refer to all of the above, for the period 0-18 years which spans developmental stages from total dependency to the transition to adulthood.

While many development agencies and countries give high priority to policies and programmes to improve material well-being, child survival, health and nutrition in the early years, emphasis on structural interventions to improve children's outcomes has been slower to gain ground in many countries. Broadening and deepening the ambitions of policymaking to address the social determinants represents a major opportunity to improve outcomes for children and young people, and to achieve 'equity from the start'.

Heterogeneous countries

Within this paper our focus is on countries defined as low- and middle-income countries (LMICs).[1] Per capita income is widely used as a variable in making comparisons between countries (see, for example, Figure 2 showing under-five mortality by gross national income (GNI) per capita).

However, LMICs are highly heterogeneous, and other classifications that take into account wider developmental outcomes, such as life expectancy and education (Human Development Index) or that classify by region and mortality stratum (levels of child mortality and adult mortality within WHO regions) provide a finer grained analysis of comparative national development. For example, Vasquez and Sumner (8) used cluster analysis of a number of variables across a number of dimensions of development to classify countries into five groups. These dimensions of development included poverty rate, income inequality, type of economy, good governance, environmental sustainability, and dependency on external finance. All these factors map on to the structural and social factors that impact on child development which we will discuss in this paper. Some factors, namely poverty, inequality, weak governance, environmental sustainability, impact more directly than others on the living conditions in which children develop. Other factors not included in the Vasquez and Sumner classification that impact on child outcomes include gender inequity, violence/conflict and systems and levels of social protection (see section 3).

An important observation from Vasquez and Sumner's analysis that is highly relevant to the focus of this paper is that less than a quarter of the world's poor live in low-income countries. Half of the world's poor live in the rapidly developing middle-income economies of

[1] According to 2011 GNI per capita, calculated using the World Bank Atlas Method, low-income countries have a GNI per capita of $1,025 or less; lower-middle-income countries, $1,026-$4,035; and upper-middle-income countries, $4,036-$12,475.

India and China, while a quarter live in other middle-income countries. At the same time it is important to note that even those who are not counted as living below the international poverty line suffer many inequities and disadvantages which are created by social determinants.

The heterogeneity that is apparent across LMICs means that strategic approaches to improving children's outcomes need to lead to a set of policies and programmes that are appropriate to individual country contexts. We know that progress in children's outcomes can be made in countries as disparate as India and Brazil (sections 3 and 4), while the extent, distribution and pace of progress, and the mechanisms and processes by which progress is achieved may have both differences and similarities. Learning from success in particular contexts can inform progress in others. UNICEF has an important role in fertilising such exchange of knowledge as a lever for action in LMICs at different stages of development.

Social and structural determinants

We use the term 'social determinants' to include structural determinants within this paper. Such labelling is common within the health field. The detail on the determinants is set out in the following section.

3. The social determinants of children's outcomes

This section presents the rationale for addressing the social determinants of inequities in children's physical, cognitive, social, psychological/emotional and material outcomes. As mentioned earlier, these are inter-dependent and inter-related and the drivers of one are often the drivers of another.

Before discussing the social determinants of children's outcomes we briefly address the influence of heritable factors. While all children's characteristics have a genetic component this is no reason for inaction. There is a growing evidence base on the ability of the environment to influence gene expression (epigenetics). There are additional and significant effects of the environment over and above genetic variation, and we present examples throughout this paper. For example, researchers found that children who perform well on cognitive test scores at age 22 months, but who are in lower socioeconomic groups, do less well at age 10 than their peers in higher socioeconomic groups who scored less well at 22 months (9).

In addition, Hoff and Pandey (10) tested the hypothesis that expectation of discrimination based on caste might cause underperformance among children because they think their efforts

will not be fairly rewarded. In the study, carried out in India, the researchers assigned boys to groups to solve mazes for cash rewards. There was no difference in the children's abilities to solve the puzzles when the children's ascribed caste was not announced, but when the children's caste was made known to the children before they were asked to solve the puzzle, children from a low caste performed worse than children from a higher caste.

The key point here is that where inequalities in child outcomes are determined by social inequalities, they are inequitable.

3.1 A framework for analysis of social determinants of child well-being

A framework for analysis of the social determinants of health has helped to define a common language across sectors and focus the thinking of policy makers and researchers beyond the proximate determinants of health and beyond the effects of health care services on health outcomes. Here we present an analogous framework for analysis of social determinants of children's outcomes:

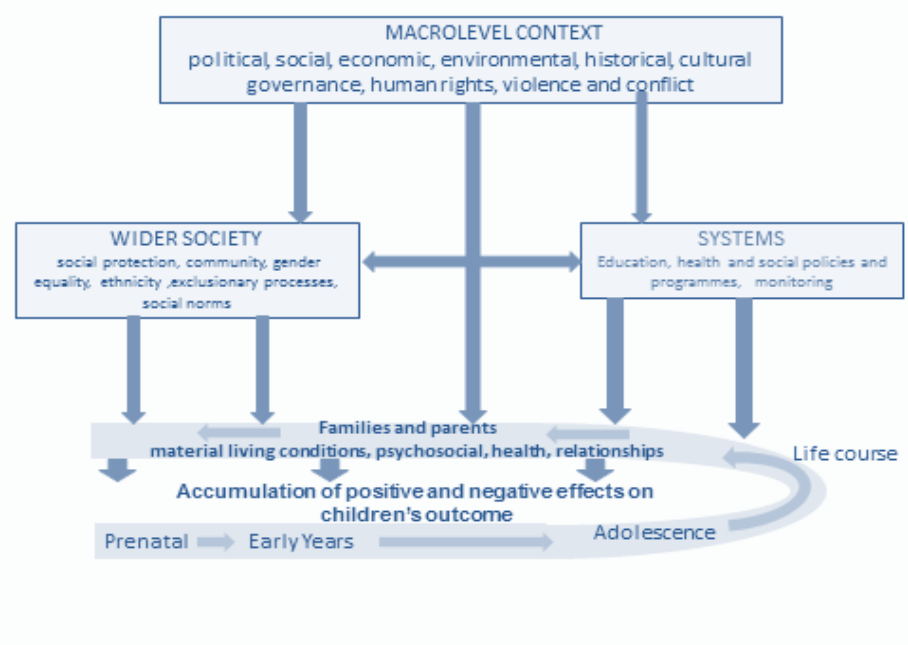

Figure 1 A framework for analysis of the social determinants of child well-being
This framework is adapted from that developed for the WHO European review of social determinants of health and the health divide. See Marmot et al. The Lancet 2012; 380(9846):1011-29.

Within the framework, the macro-level context includes wider national and transnational influences, including aspects of the political, economic, social, environmental and historical context, cultural norms and values, governance and human rights, and the experience of violence and armed conflict.

Among important dimensions of the macro-level context we examine the inequitable distribution of income globally and within countries, as a symptom, or summary indicator, of the distribution of power, money and resources that shape societies. We examine the impact of governance processes, conflict, and human rights (section 3.2). All these are of critical importance in shaping the wider society into which children are born and grow, the systems of government that help shape the experiences of families and children, and the conditions in which families live and raise their children.

At the level of the wider society (section 3.3) we consider how societies and communities protect those experiencing vulnerabilty, including children. In addition, we consider how gender biases and discrimination on the basis of ethnicity or race negatively affects the well-being of girls and boys.

At the level of systems (section 3.4) we discuss the contribution of those put in place for education, health and employment.

Finally we discuss the the effects of the conditions in which famillies live on the developmental outcomes of their children (section 3.5). We examine these influences during pregnancy, and throughout early life and adolescence. Improving the living conditions of families is critical to improving the well-being of children, and for preventing transmission of poverty and inequity between generations (section 3.5)

The layers of factors that affect children's outcomes (Figure 1) are highly inter-related and inter-dependent (11), therefore understanding the inter-actions between two or more layers, for example between community level factors, social protection provision and conditions of daily life for families and parents, has the potential to open up new avenues for action to improve children's outcomes in any particular context.

3.2 Macro-level context

The inequitable distribution of money and resources

A key structural issue facing many LMICs, and particularly low-income countries, is the lack of money in their economies, leading to an inability to provide good quality services and resulting in high numbers of people in poverty. At an international level, as countries become richer, basic outcomes improve. Figure 2 illustrates this point by showing national under-5 mortality rates by GNI per capita. It is evident that in countries with a higher GNI per capita under-5 mortality is significantly lower.

The rise from a lower to a higher income country is not, however, something that we can simply assume to happen over time. Figure 3 illustrates the increasing differentials between the wealth of the higher income countries and the low-income countries. Notably, low-income countries have shown very slow growth since the 1980s.

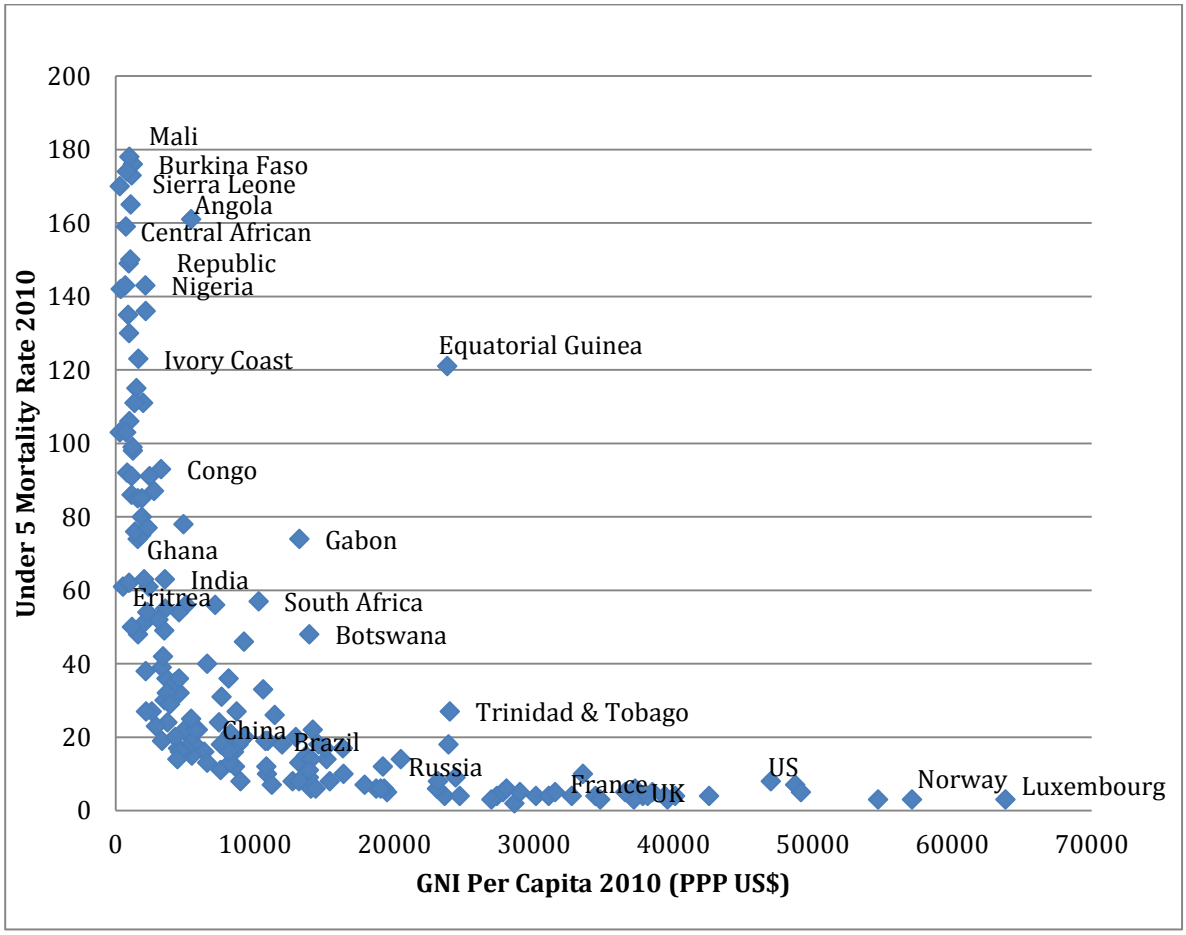

Figure 2 Under-5 mortality in relation to GNI
Source: UNICEF 2012 (12)

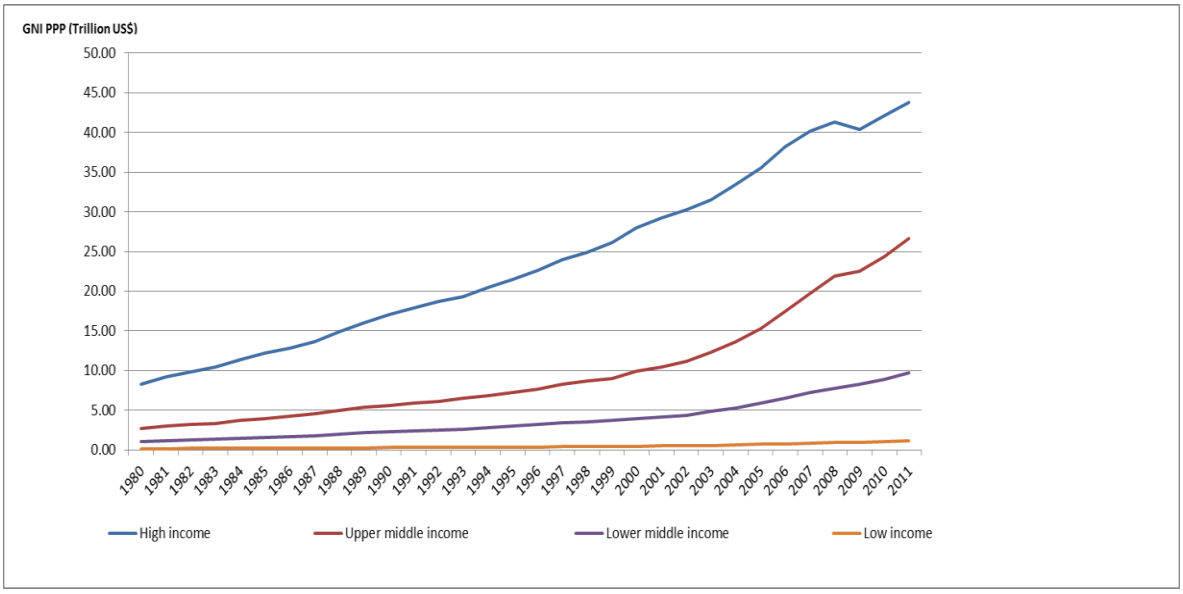

Figure 3 Trends in Gross National Income for high-income, higher-middle income, lower-middle income and low-income country groups, 1980-2011

Global distribution of income between countries is therefore an important social determinant of outcomes in LMICs. However, the considerable scatter of points in Figure 2, and the reduction in improvements in outcomes at higher levels of income, indicate that important dimensions of country characteristics affecting child mortality are not all captured by GNI. We will discuss other determinants in the following sections.

National distribution of wealth and an adequate income

In addition to having enough money at a national level to afford decent services and infrastructure, more equitable distribution of the increased consumption that comes with growth *within countries* is also crucial (13). Parents need, as a minimum, enough resources to have access to clean water and sanitation, to afford a healthy diet for their families, to have a decent home that protects against the elements, and to provide adequate clothing. In addition, families need to have enough money to enable their children to attend school, and to be able to join in activities that are deemed culturally important to foster social inclusion.

Children living in poverty are more likely to be undernourished and to be stunted (14). Undernutrition in the early years is associated with poor cognitive outcomes. Poor children are more likely to die young compared to their richer counterparts (12). In many countries there is a graded pattern of under-five mortality by household income – the poorer the household the worse the outcome for children (15). Socioeconomic gradients in growth and development of young children have also been reported (7). And for all health

outcomes, those for children living in poverty are worse across the life course (16).

Poverty has also been shown to have negative effects on the amount and quality of parental interaction with children at an early age which subsequently impacts negatively on the cognitive development of children (17). In addition, when children get older, even if there is equal access to school, children living in poverty are less likely to attend school and more likely to labour; when they do attend school, they are less likely to succeed because of their multiple responsibilities and financial constraints (18-21). This is a clear example of why ensuring equal access to services is necessary but not sufficient.

Good distributional policies including minimium wage policies, fair trade policies, employment regulation and good social protection floors, that have suitable enforcement regimes, all help to ensure that wealth is fairly distributed. In rural areas, credit unions and other informal ways of saving and sharing can be helpful in mitigating against shocks. Ensuring fair distribution of resources within countries is essential to making progress on child outcomes in low- and middle-income countries, where approximately 40 per cent of the population lives in poverty on less than $2 a day (1).

Accountable governance and effective institutions

Governments, the finance sector and corporations all need to be held accountable for the inequitable distribution of resources at a global and regional level. Weak global and national governance has allowed resources to be concentrated in the hands of few and attempts at legislation are often ineffectual. For example, a recent review of 189 countries found that although 167 had established a minimum wage level, in 40 of these countries a working adult earning the minimum wage with one dependent child would still be living on less than $2 a day (22). Only half of the countries in both South and East Asia and the Pacific provide a minumum wage that is over $2 per day per person to live on.

Weak governance systems with a combination of inadequate administrative capacities and ineffective coordination mechanisms, poor accountability and low transparency also make the multi-sectoral policies and programmes necessary to tackle inequity highly challenging.

Countries with low political freedoms, an unstable policy environment and poorly developed services and monitoring systems create vulnerability among the population which has deleterious effects on children's well-being. Improving accountability of government and other stakeholders whose actions shape the lives of

children requires appropriate systems for measurement, evaluation and remedial action throughout the policy cycle (see section 7.6) (5).

Armed conflict

The causes of violence and conflict are many and complex. Conflict has a direct impact on the survival of children, an adverse effect on their developmental outcomes, and on the social and economic prospects of their families.

Effective response programmes to crisis will always remain essential. At the national or international level, an important step to prevent recurrence of violence is to ensure that post conflict reconstruction efforts help to rebuild economies, infrastructure, employment opportunities, education and social welfare and health systems. The effect of armed conflict on the mental health of former soldiers, many of whom may be adolescents, and on the mental health of populations, including children, displaced by armed conflict, or those who have otherwise suffered from the effects of armed conflict, needs to be addressed in a coherent manner during post reconstruction efforts.

In addition, at the individual level, a developmental perspective would focus on knowledge that good parenting enables children to develop a sound basis for social and emotional development that encourages empathy and non violent resolutions to challenges and disagreements.

Human rights

Human rights reflect the values of society with respect to the fundamental dignity of human life and provide a legislative framework which establishes the responsibilities of states to uphold the human rights of their citizens. The Universal Declaration of Human Rights (1948) declared education, good health, nutrition and access to medical care essential human rights (23) (United Nations General Assembly, 1948). Within this framework the Convention on the Rights of the Child states that all children have the right to an education, free at primary school level and available at secondary school level, to ensure full development of talents, personality and abilities. Furthermore, the Convention declares that all children have the right to the best possible health, including good nutrition and clean water, and requires governments to reduce child mortality and combat disease (24).

Human rights approaches are supported by governance systems with well developed arrangements for state and non-state actors to be held to account or their actions. Increasingly in countries around the world non-state actors fill the place of local governments in

delivering services; in some countries more than half of health services are delivered through non-state sector and public private partnerships. Similar trends are taking place in education, in social service provision and security. Major equity, quality, and accountability issues arise which must be matched by effective regulatory mechanisms.

While countries may make commitments to these global mandates, remedial action is not necessarily a political priority. Where governance systems are weak or where politcal freedoms are suppressed, human rights are less likely to be protected. Enactment of human rights legislation and other global agreements requires creating stronger capacity, systems and institutions for good governance, including effective systems for monitoring, accountability and participatory processes.

Child protection is a global human rights issue of major importance. Prevention of violence and abuse, as well as more systematic exploitation and neglect in forms of children growing up without parental care, children with disabilities, or children caught up in dysfunctional justice systems raise challenges that call for a social determinants approach. Indeed these are outcomes of children's lives which are increasingly seen as shared across high-, middle- and low-income countries, and while often concentrated amongst the poorest are outcomes that often cut across the social gradient.

3.3 Wider society

Equity and discrimination

Exclusionary processes operate across political, economic, social and cultural dimensions which intersect and become mutually reinforcing, thereby creating varying degrees of vulnerability and disadvantage (25). In this way, gender inequalities and discrimination on the basis of race, ethnicity or caste shape the socialisation and experiences of children as they develop.

Gender inequalities in education and the imbalance in power and resources between men and women can be seen largely as a result of societal norms that regard women to be of lower social status than men and require women to be the main caregivers. Girls and women not only fail to reach their full potential, but are also more likely than boys and men to be subject to domestic violence and sexual abuse. Gender biases also affect boys in damaging ways. Societal notions of what it is to be masculine may be linked to higher levels of violent and/or risk taking behaviours among adolescent boys.

The struggle for women's rights endures. Yet hard-won equality legislation has underpinned progress in many countries. For example, families and children benefit in countries where paid maternal leave is statutory, and where affordable childcare is available. Heymann and McNeill's study of child policies around the world found that most countries provide paid leave for new mothers, only 8 did not (22). Far fewer countries provide paid paternal leave. However, many people in low- and middle-income countries, especially the poor, work in the informal economy with no legislated rights such as paid parental leave.

Discrimination on the basis of ethnicity or race erodes trust and solidarity across society and excludes those affected from participating fully in society, damaging their children's life chances and health. Even in places where struggles for universal civil and political rights have achieved equality legislation, the legacy of discrimination remains in social interactions that are slow to change and reinforced by deep rooted exclusionary processes across related economic, social, political and cultural dimensions.

Social protection

State provision of social protection is starting from a low level in many low- and middle-income countries, where traditionally social protection has been provided by family networks within communities. Where significant pressures build on families for a variety of reasons including long working hours, low material and psychological resources, poor health, family conflicts, migration of one or both parents to seek work, external armed conflicts and environmental degradation, the resilience of communities and the capacity of families to provide social protection may be diminished, with potentially highly damaging effects on children's outcomes. Fragmentation of supportive family and community networks will be particularly damaging to children's well-being where government systems for social protection are weak.

The urgency of providing a social protection floor in low- and middle-income countries is increasingly apparent as countries undergo rapid demographic and economic changes. Indeed, social protection policies are an effective way of distributing resources within countries. They involve a transfer of resources and provision of services to those in need. Child poverty rates are particularly dependent on social transfers. Country comparison studies on welfare policies have shown that countries with more generous family policies have lower child poverty rates. However many countries do not have adequate social protection policies. For example in south and east Asia and the Pacific, where incomes are particularly low, as highlighted in the previous section, 78 per cent

of countries in east Asia and the Pacific and 88 per cent of south Asian countries do not provide cash transfers to families (22).

It is possible for countries at low levels of economic development to build social protection policies. Studies have long demonstrated the feasibility of introducing social protection policies in low-income countries in sub-Saharan Africa (26). Many developing countries have established conditional cash transfer systems that aim to improve outcomes for poor children and families (27). In section 4 we describe how social protection policies in Brazil have contributed to improvements in outcomes for children.

Rural and urban populations

Children living in rural areas are at risk from having a lack of food and schooling. This is because parents are often reliant on informal work, often agricultural, and dependent on informal support from family networks in the community for social protection and childcare. Poverty and hunger in poor rural populations are inextricably linked; those who are poor are more likely to live in areas that are vulnerable to drought or flooding, or to survive in fragile ecologies due to unsustainable deforestation and intensive exploration for minerals. Addressing widespread hunger and food security in rural populations requires a coherent multisectoral approach to improve work security, social security, and infrastructure. This requires resources to be made available and distributed from the national/state and long-term stategic planning.

However, there is action that can be taken at a local level. For example, while safe, secure, year-round work is the preferred option to lift rural dwellers out of poverty, micro-credit schemes, as a short-term measure, can empower impoverished groups in the absence of formal social protection floors. A particularly effective example is from the Bangladesh Rural Advancement Committee, where chronic food deficits were reduced from around 60 per cent of households to 15 per cent of households (28).

This is not to say that those children living in urban environments flourish. In developing countries around half of the the urban population lives in slums. Particular risks for these children depend on the nature of their circumstances, and these are largely governed by the level of household resources. In terms of health, the most vulnerable young children may have been born at low birthweight to homeless mothers, and are at risk of malnutrition and infectious disease. However, in addition, urban populations are increasingly at risk of obesity and non-communicable diseases, changing the nature of the public health problems in LMICs (29).

As urban children from the most disadvantaged backgrounds age, they become vulnerable to abuse by adults in both a physical sense and in terms of social and work life. Child labour remains a major risk for children from low-income families. Older children are at risk of sexual abuse and, in many contexts, sexual slavery. Street children and adolescents are also at risk from alcohol and drug misuse (29), in addition to risks associated with living in an unsafe and unhealthy environment. Ultimately therefore the policy solutions to improve children's outcomes will differ according to where they live and the challenges they face.

3.4 Systems

Education

A good education has intrinsic value for individual development and is important for children and young people to thrive. A lack of basic education will affect the ability of communities and countries to develop and improve their outcomes. However, for every 100 children who could be attending secondary school, just 40 are enrolled in sub-Saharan Africa, 59 in south and west Asia and 69 in the Arab states (30). A study by UNESCO of 30 countries with a total of 34 million out-of-school children found that the poorest are 4 times as likely to be out of school than the richest, and that girls are more likely to be out of school than boys (31). Making sure that school is free is a critical step that countries can take (22). In Malawi, for example, primary school tuition fees were eliminated in 1994, raising the participation rate from 50 per cent in 1991, to 99 per cent by 1999 (32). In other cases, families may not be able to afford the costs of school uniforms or other school associated needs. But factors other than affordability which prevent school attendance must also be understood and addressed. These factors include issues associated with gender (such as early marriage, especially of girls), ethnicity (such as speaking a minority language), and household economic situations, for example, where families are living at subsistence levels or on low incomes and children are expected to contribute to work inside or outside the home to maintain the family.

Parental education

A large body of research has emphasised the importance of maternal education for the well-being of children. Lower maternal educational attainment levels have been linked to a wide range of poorer outcomes for children, such as increased infant mortality, stunting and malnutrition, overweight children, lower scores on vocabulary tests, conduct problems, emotional problems, lower cognitive scores, mental health problems and infections (33, 34).

Skills and abilities which are developed through schooling are vital to effective parenting. For example, language and reasoning skills enable parents to provide a richer vocabulary to their children through using a wider range of words and sentence structures. Such parental influences may even be cumulative, as has been shown in a recent longitudinal study in Ecuador, which focused on the effects of maternal vocabulary levels on children's cognitive development (34). Educated parents are also more likely to take up health messages and prioritise education for their children.

In low-income settings parents are more likely to be illiterate. Oral traditions of story-telling and singing to children support development of the ability to communicate. In addition, literacy campaigns for parents have had positive and long-lasting effects on the number of times parents read to their children and the presence of books in the home, both of which are important indicators of future childhood outcomes (35).

Employment

In low- and middle-income countries many workers are in informal employment, which affords no social or legal protection or employment benefits, such as sick pay or paid holidays. This can damage children's well-being, for example, in circumstances when children become sick their parents may decide to leave them at home alone or with older children rather than risk losing income from paid work (36).

Where employment opportunities have been improved, there is evidence of an improvement in children's outcomes. The Self Employed Women's Association (SEWA) in Ahmadabad, India, works with the poorest women holistically across employment, right to work, child care, health care, access to credit, housing and infrastructure, and sees improvements in children's outcomes (37).

Employment and income strategies are also important because, in certain circumstances, children's lives and well-being are affected by the need to work in order to survive. According to the International Labour Organization (ILO) an estimated 215 million children were engaged in child labour in 2008, 60 per cent in agricultural labour (38).

3.5. A multi-sector approach across the life course

We advocate a life course approach to tackling inequity for two main reasons. The first is that disadvantage is cumulative across the life course, and the second is that action to tackle inequities needs to take a multi-sectoral approach at life course stages. The opportunities for intervention and impact differ across the life

course and there are opportunities to improve children's outcomes through policies and interventions that impact on parents' work and employment conditions, and their health and well-being, as well as on the living conditions of older people and grandparents.

Inter-generational transfer of disadvantage

Children are born into the social and economic circumstances of their parents. Hence strengthening communities and improving the lives of parents is important to maximising the life chances of children. In our discussion of social determinants we look at improving social circumstances across the life course to parenting age. It is relevant to note that the rapidly growing field of epigenetics is showing that the actions of the parent, and experiences of the child – through factors like diet, stress and prenatal nutrition – can affect gene expression. An innovative study on the 1958 birth cohort in England showed that childhood socioeconomic position was associated with differential methylation of adult DNA suggesting that childhood socioeconomic position is associated with epigenetic patterning (39).

Prenatal

What happens in the womb can have lasting effects on children and can influence their outcomes. Therefore there is a need to work across sectors to ensure that families and women of child-bearing age are healthy and emotionally supported. Ensuring economic security of mothers at this stage is vitally important. Researchers have found that if a mother is living in poor environmental conditions, has poor health and nutrition, smokes, is young, has a history of alcohol and drug misuse, is stressed, or is subject to highly demanding physical labour, there can be negative effects on the development of the foetus, leading to a higher likelihood of sub-optimal outcomes in childhood and later life (40-42). For example, foetal alcohol syndrome is one of the leading causes of developmental delays in children (43). Focusing just on children to improve their outcomes is insufficient.

Early years

There is a growing body of evidence, particularly from higher income countries, that points to the importance of the early years in terms of minimising inequities in children's outcomes, and subsequent outcomes in later life. Specifically with regard to a number of child outcome domains, social, psychological and emotional and educational skills, there is evidence to suggest that environmental influences shape the brain's development in the early years to such an extent that lack of secure attachment, neglect, lack of quality stimulation within and outside the home, and conflict (44-

49) for example, can negatively impact on future social behaviour, educational outcomes, employment status and health (50, 51). Exposure of children to neglect, direct physical and psychological abuse, and growing up in families riven with domestic violence is especially damaging.

There is a social gradient, such that children in lower socio-economic groups are less likely to experience conditions for the 'best start in life'. Inequities in the conditions for good child development translate into inequities in health and development that can be identified in the earliest years of life and have lifelong repercussions.

Not only do early experiences have a profound impact on later life outcomes, but they also have cumulative effects. Children's behaviour and ways of responding are shaped by the situations they face and by the child's own social and psychological resources. This is known as the 'accentuation principle' (52). In practice it means that if a child has early adverse experiences this increases the risk that they will have further adverse experiences. However, the converse is also true. The economist James Heckman explains that the much higher financial return from investment in children in the earliest years of their lives is because 'learning begets learning' and 'good behaviour begets good behaviour' (53). A virtuous circle is established, instead of a downward spiral. In addition, accumulation of risk is known to be embedded within families, ethnic groups, neighbourhoods, and social classes (54).[2] Improving children's outcomes would therefore have a positive influence for families, communities and countries.

Effective interventions at the earliest stages of people's lives will therefore be the most cost effective to society because they prevent future accumulation of disadvantage and its associated social costs. While the research base is from higher income countries, there is no reason to believe that similar pathways would not occur in other communities. Further research work by UNICEF to measure the distribution of children's outcomes in LMICs to assess the scale of this problem and identify cost-effective interventions in particular types of settings, would provide much needed evidence to support practitioners on the ground.

Alongside the influence of the home, parents and childcare, are the enduring effects of undernutrition in some LMICs (nearly one third of children in LMICs are under-nourished), and growing obesity rates in others. Striking the right balance between policies to ensure optimal cognitive and social and emotional development, alongside polices to ensure optimal physical development will be important.

[2] As described by Elder and Shannon.

Further work to identify the different types of challenges facing each LMIC, and the available infrastructure and resources to tackle them, would help to prioritise action.

Later childhood

While the early years of brain development are foundational, there is a need for continued support through childhood. Good quality schooling is absolutely key (as previously covered in section 3.4). In addition, neurological and biological changes in adolescence mean that teenagers become more interested in sensation-seeking (55) (with a link to risk-taking, substance misuse and sexual desire). During this time in the life course, adolescents navigate their lives between impulses that arise in response to emotionally charged situations and decisions made on the basis of knowledge and rational thought (56). The ability to control emotional responses develops later than cognitive processes (56). It is therefore important to ensure not only that adolescents have the knowledge to make informed decisions, but that they have social and emotional support.

Reproductive age and parenting

Ensuring that the working age population are financially secure, have the skills they need, good mental health and social and emotional competence is one of the best ways for ensuring that the next generation will flourish. This brings us back round to prenatal effects, and the inter-generational aspect of intervention – efforts to improve the conditions in which people live and work will affect present and future generations.

4. Action on the social determinants improves children's life chances

Many laws, policies and programmes in different sectors impact on social determinants of children's outcomes. The evidence base on effective interventions to improve childhood outcomes is wide ranging but incomplete, not least because evaluating programmes can be particularly costly. However, in making the case to tackle social determinants it is important to illustrate that wherever improvements have been made to the social determinants, improvements in children's outcomes have followed. Some examples are given above in the discussion regarding the social determinants of children's outcomes. Where income rises, outcomes improve; when education is free, more children attend school; when employment opportunities have improved, children's outcomes have improved; where there are good social protection policies for families, child poverty rates fall; where women's rights are upheld,

children benefit; where the natural environment is protected, children fare better. The report by Jody Heyman and Kristen McNeill (22) is significant in that it is the first attempt to compile information about what laws, policies and programmes are in place in countries around the world to improve children's life chances.

A further important point is that action on policy areas across the social determinants framework has synergistic effects that support improvement in children's outcomes. To illustrate, Brazil has made great progress in bringing down stunting levels among children. Figure 4 shows the decline in stunting prevalence by household income. The decline in the lowest income quintile was particularly strong over the ten years between 1996 and 2006/7. The decline has been attributed to income redistribution policies, and increased access to education, health care, water and sanitation (57, 58). Arguably the political momentum behind these policies was achieved through the concerted efforts of social movements and coalitions over the longer term. Brazil has higher than average levels of civic participation and political engagement; voter turn-out at 79 per cent is higher than the OECD average of 72 per cent (59).

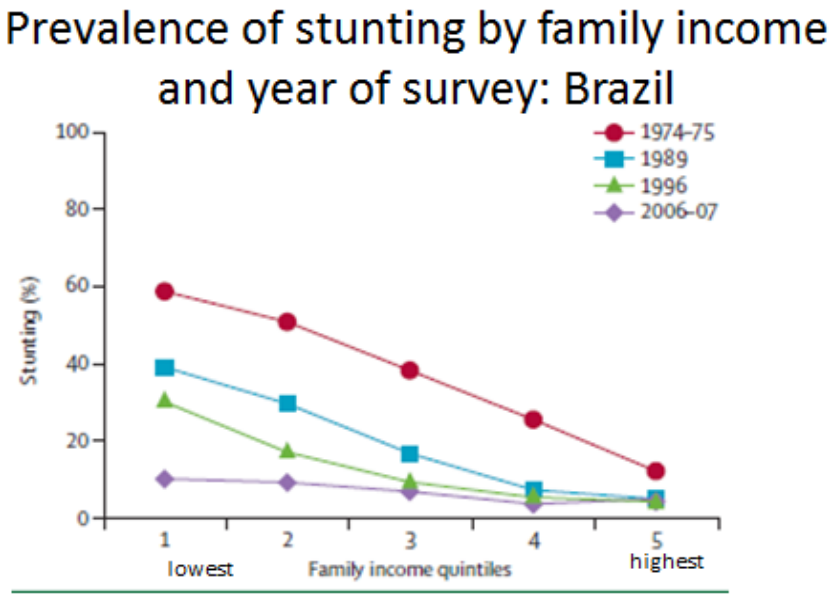

Figure 4 Prevalence of stunting by family income and year of survey: Brazil

In section 7 we outline what needs to be in place to implement a social determinants approach and the further work needed to identify and disseminate what works. First we explain why a social determinants approach is needed now, and present the economic and moral case for investment.

5. Why apply a social determinants approach now?

There have been dramatic improvements in child survival across the world in recent years. This has been achieved through concerted efforts by mulitple stakeholders. The recent report on the global burden of disease highlights the finding that infectious diseases, maternal and child illness, and malnutrition caused fewer deaths (60) and less illness in 2010 than they did in 1990. This achievement gives grounds for optimism that further improvements can be made in child health and survival. But the momentum from the improvements made in this sector needs to be harnessed now to drive for wider and deeper improvements in child outcomes, across child health and survival as well as other dimensions of children's outcomes that contribute to what Amartya Sen (61) describes as the capabiliites of people to live a life they have reason to value.

Yet more of the same approach that contributed to the recent improvements in child health and survival is not enough. A new approach is needed that incorporates existing good practice and at the same time addresses deep-rooted inequities. This is because, despite improvements in child survival, inequities in children's outcomes persist. Of the 7.6 million children worldwide who died in 2010 before their fifth birthday (12), the vast majority were in low- to middle-income countries and, within those countries, were among children from more disadvantaged households and communities. In addition, despite progress, there were an estimated 61 million children of primary school age out of school in 2010 – 53 per cent of whom were girls. Furthermore, there were an estimated 71 million children of lower-secondary school age out of school in 2010. In sub-Saharan Africa, which accounts for half of all out-of-school children worldwide, numbers have risen over the past few years from 29 million in 2008, to 31 million in 2010 (UNICEF and UIS, 2012) (62).

In addition, developing countries are increasingly facing a double burden of disease. Non-communicable diseases are largely responsible for the poorer health and premature mortality among more disadvantaged groups in high income countries. Within some less developed countries there are concurrent problems with both under-nutrition and obesity, persistent suffering from infectious diseases and from causes associated with under-nutrition, and increasing burden from non-communicable disease (60). This is an opportune time to learn from the mistakes and successes of higher income countries.

At the same time there is an increasing body of knowledge on the processes of development in the early years of life and that the early years, in particular, are key to reducing inequalities throughout life.

The adolescent years have received increasing attention as a second sensitive period of development. In order to make progress in virtually all social policy areas, researchers have provided evidence that supports the importance of ensuring children are given the best possible start in life in the earliest years and that this is reinforced throughout childhood and adolescence. Given the current research and political interest in the early years that is growing in a number of countries, other sectors will be particularly willing at this time to consider the inter-sectoral work needed to invest for children's futures. Efforts to improve children's outcomes by action on the social determinants will help achieve better outcomes in other areas, including community resilience, employment, physical and mental health.

In addition, by taking a social determinants approach across the life course, we open up avenues for tackling the perpetuation of social and economic inequities from one generation to the next. This is of central importance to the global debate on sustainability that is taking place in thinking about the renewed global development goals post 2015. It also has wide application to thinking about how inequities in social and economic factors are transmitted between generations and in developing policy responses to tackling them.

Finally, given the currency of our work in the health field, we believe that there would be synergistic benefit in deepening intersectoral working across UN agencies. There is much potential in UNICEF and the WHO, among others, working together for policy change in the structural issues that unfairly impact on the health of disadvantaged groups and their children's life chances. This level of coordinated response across the United Nations would generate positive action on the ground, with practitioners empowered to work across sectors, within life course stages, to tackle the effects of social disadvantage.

6. An economic and moral case for investment

In terms of cost effectiveness, research has shown that investments in improving children's outcomes are some of the most powerful that countries can make – in terms of reducing costs for judicial and prison systems, and enabling more children to grow into healthy adults who can make a positive contribution to society, socially and economically (63-67). Investment in improving children's outcomes can also be a powerful equalizer, with interventions having the largest effects on the most deprived children (65).

If governments in rich and poor societies were to act specifically to improve outcomes for children these investments would pay for themselves many times over (63, 64). Implementing quality

programmes and services for young children is part of what needs to be done within broader development plans. These investments would incur returns high enough to be considered not only health development initiatives, but also as economic development initiatives (68). The timing of investment is, however, critical according to the outcomes one is seeking to influence (69).

In addition to the strong economic evidence, which is desired by many, we also argue that action to improve children's outcomes should not rely solely on the basis of whether it is the best value for money. Many would agree that it is essential that all children are given the best start in life, have adequate nutrition and good schooling, and that anything else would be morally wrong. This moral case is supported by international human rights law (section 3.2).

Action to improve outcomes for children is morally right, and will help to break the transmission of inequity through generations.

7. Learning from experience

The Knowledge Network on Priority Public Health Conditions (PPHC-KN), set up by WHO as part of the Commission on Social Determinants of Health (CSDH), reported 13 case studies describing challenges in implementing programmes to address the social determinants of health (70). While each policy or programme described in the case studies had its own particular challenges specific to the type of programme and the context in which it was implemented, broad lessons could be drawn from these 13 case studies that give important insights into scaling up, managing policy changes, managing multi-sectoral processes, adjusting design, and ensuring sustainability (71). These lessons may be valuable to those involved in the implementation of policies and programmes to improve equity in children's well-being. Below we provide a brief summary (based on Blas 2011 (71)).

Scaling up: Broadly it was found that fidelity to the values that motivate action on the equity and social determinants is as important as fidelity to the set of strategies and operational procedures. The CSDH put forward strong arguments that values and evidence should guide action in order to build sustainable momentum for action to improve outcomes for less advantaged members of society.

Managing policy change: all change generates resistance, but under certain circumstances, for example following natural or man-made crises, or in situations where there is a favourable international or social climate for change, support for change can outweigh resistance. Ways to tackle resistance included:

- public debate, advocacy through media (including advertising and celebrity events), except where these approaches risked raising resistance from powerful groups;
- political and legislative work to create the conditions for implementation;
- research to provide evidence to show how changing the social determinants of health would have long term benefits for health and other social outcomes;
- feeding this research into the public debate through the media;
- creating operational or strategic alliances, although with the caveat that such alliances can create their own problems, especially if there is an imbalance in power between 'allies';
- where donor funds are involved, the values and interests of donors are important in how policies are formulated, amended and implemented;
- consistent leadership to carry the vision through.

Blas argues that "*Introducing as well as implementing policies for reducing inequities through addressing the social determinants rely on a combination of choosing the right moment of opportunity, providing the evidence, and taking control of public perception through leadership and skilful media work. These call for values and politics more than management, administration and procedures.*" (Blas 2011: 195 (71))

Managing intersectoral processes: working with new partners in different sectors presents challenges because partners may have different value bases, different success criteria, different constraints and management cultures, and staff in different sectors often have different backgrounds, technical skills and views of the world. Blas identifies ways of managing intersectoral processes through coordination, incentives, involving non-governmental organisations (NGOs), and leadership.

- Coordination: one way to initiate coordination between partners was to develop a common conceptual framework to which all parties contribute and understand.

- Incentives: all partners must have a sense of ownership and there must be incentives for each collaborator (for example: sectors held accountable for achieving targets across an agreed set of indicators).

- Role of NGOs: NGOs had an important role in linking different sectors, advantages included being less bureaucratic, enabling communities to link with government sectors, providing links between the government and the private sector, and even in providing services that were controversial.

- Leadership: here Blas stresses the importance of vision in leadership in managing intersectoral processes, and the corresponding importance of the ability to pass the vision on to different sectors and actors.

Adjusting design: practical implementation of policies and programmes inevitably involves the need for flexibility to respond to a changing operating environment and to the needs of diverse sets of partners without compromising and being blown off course by external pressures or by the interests of powerful stakeholders. Blas identified the need for corrective measures in several cases, for example if the monitoring and research system reveals that the programme is not reaching the intended population groups, and may even be increasing rather than ameliorating inequities. We discuss the need for monitoring and evaluation as a vital part of the policy cycle in section 8.5. Related to this is the need for an effective reporting process and decision-making body so that information about output and outcome measures could be reviewed and acted on (see Figure 5, page 43).

Ensuring sustainability: policies and programmes to improve equity require continuous implementation over a long period of time. Many of the social determinants interventions are about long-term, rather than short-term outcomes. The question is whether any country is prepared to invest for the long term. There is always a political need to show 'quick wins' – short or medium term gains which require short and medium term investments, but longer term investments are necessary to gain sustainable improvements in equity.

Blas identified that *"investing and empowering the people might have a high pay-back in terms of sustainability"* (Blas 2011: 200 (71)). Indeed, empowerment, of individuals and of groups, is central to sustained action on social determinants (4). Social or community empowerment enables people to be active participants in creating change, rather than passive recipients of assistance. The CSDH described empowerment across three dimensions, material (having the material resources for a healthy life) psychosocial (having control over one's life), and political (having political voice and a say in the decisions that affect one's life) (4).

While many of the lessons learned from case studies on policies and programmes to improve equity in health have relevance to policies to improve children's outcomes, an important contribution to knowledge and practice can be made by analysis of how, why, and under what circumstances policies and programmes have been introduced to systematically improve outcomes for children and reduce inequity in children's outcomes. Naomi Eisenstadt gives an

insight into how the UK government 'discovered childhood' (72). She was instrumental in introducing the Sure Start Programme for young children which aimed to prevent the inter-generational transmission of disadvantage in England. Alfredo Tinajero's study of the Cuban system is also instructive (Box 1). Further work in low- and middle-income countries would provide valuable information about how to drive policy change to improve children's outcomes where implementation of policies on the ground have not matched high level political ambitions.

Box 1: Case study: children's outcomes in Cuba

In Cuba, basic indicators of child health and development (mortality in infants and under 5s, and low birthweight rates) are comparable to those of North America and Western Europe. Cuban children have high rates of school attendance and perform well in primary and secondary education. Analysis of the reasons for this discussed the contribution of the following factors: (73)

- historical/ideological commitment to health as a social goal;
- social welfare orientation to development;
- community participation in decision-making processes relevant to health;
- universal coverage of health and pre-school educational services for all social groups;
- intersectoral linkages for health are seen as very important, the Educa a Tu Hijo (Educate your Child) programme is a community-based, family-centred programme that integrates health and education services into a single system, prioritising health, learning, behaviour, and life trajectories during prenatal life, infancy, childhood, and adolescence.

With regard to child health and education services the following factors were identified as important: (73)

- child development services start early, are universal;
- cover health care and child social/emotional and language/cognitive development;
- cover all developmental stages (prenatal, perinatal, postnatal, first years of life). All pregnant women in Cuba have at least 12 prenatal medical checks and deliver in a maternity clinic or specialised health centre. They are entitled to 18 weeks' maternity leave before the birth and 40 weeks afterwards (which can be taken by either parent). Children receive between 104 and 208 stimulation and development monitoring sessions up to the age of 2 years and 162 and 324 group sessions from age 3-5.
- provide training to all in basic concepts of child development;
- participation of the family, the community, and other key individuals in the child's development;
- services are family-based, non-institutional, community oriented, multi-sectoral involving different government ministries, social organisations, families, and an extended social network including teachers, doctors, and other trained professionals.

A measure of success of the Cuban system is that only 13 per cent of participating children reach school age with unsatisfactory development in key domains (motor skills, cognition, social-personal, and personal hygiene). This is about half of what it is in Canada and Australia (74).

8. Action

We have demonstrated that poor children's outcomes are unequally distributed between countries, and socially graded within countries, and that there is evidence that where aspects of the social determinants of children's outcomes are addressed, improvements in outcomes follow. In addition we have illustrated that there will be longer term economic benefits to a country of improving children's outcomes. It is a child's right to have the means to fully develop their talents, personalities and abilities. The case for action is therefore clear: globally, we need to uphold these rights and follow a combination of policies that tackle the social determinants of outcomes. In this section we address opportunities and barriers to taking an equity perspective to children's outcomes. Where action is taken it can impact on more than one of the determinants of children's outcomes; we link back to the analytical framework to help the reader understand where the impact would be.

This section summarises some of the key points made in our discussion paper and focuses on what more could be done.

8.1. Understanding the problem and context

There is a need to tackle social and structural determinants of child outcomes to reduce inequities within them. This paper sets out a rationale for this, but further work to identify the influence of social and structural determinants within each LMIC on children's outcomes would be helpful to inform tailored policy responses. However, we recognise that there is imperfect information. UNICEF should play a key role in advocating for data collection that enables monitoring and that will drive forward improvement in children's outcomes.

In this section we set out an agenda for research to inform action on the social and structural determinants of children's outcomes, with a focus on equity: giving every child the best start in life.

i. Cross-sectional research to help prioritise action on the structural and social determinants, children's outcomes, and inequities in children's outcomes

Within this paper we have utilised evidence from many fields to illustrate that future progress on children's outcomes will require changes in the conditions in which children are born, grow and age. Figure 1 – a framework for analysis of the social determinants of child well-being, illustrates the many influences on children's outcomes, and we present examples of where improvements in the social and structural determinants lead to improvements in children's outcomes. Policy makers would however require some

form of needs assessment for a particular country or group of countries, based on this model, to prioiritise the most appropriate set of actions for them. We would therefore recommend that further work is needed to help determine the size of the problem within countries and to prioritise action. In addition, as stated in section 3.5, research to identify the different types of challenges in any particular country, and the available infrastructure and resources to tackle them, would help to prioritise action. Such cross-sectional descriptive work would form the basis for better decision making, and baselines upon which progress could be measured.

Following on from Figure 1 a multilevel research agenda for children would therefore include research to look at the following levels and at policies, programmes and interventions that impact these levels.

Individual level outcomes – child outcomes (early childhood and adolescence) by gender, by a measure of socioeconomic status of parent/houshold, by race/ethnicity;

The situation of parent, households, and older people – parenting behaviours/atttudes; material conditions (income, access to resources, food/nutrition, water, sanitation, housing, employment), parental physical and mental health, pregnancy and maternal care, social support;

The level of community influence – neighbourhood trust and safety, community-based participatory processes, violence/crime, attributes of the natural and built environment, neighbourhood deprivation;

The provision of local services – early years care and education provision, schools, youth/adolescent services, health care, social services, clean water and sanitation;

The importance of structural factors – poverty, discrimination, governance, human rights, armed conflict, policies to promote access to education, employment, housing and services proportionate to need, social protection policies that are universal and proportionate to need.

ii. Longitudinal research to strengthen the evidence base

Descriptive cross-sectional statistics can provide a useful base for prioritisation of issues; however, existing and new longitudinal studies should be used to help build the evidence base on the impact of social, economic and environmental determinants, and changes in these on children's outcomes, and inequalities in children's outcomes. Specifically, we envisage that longitudinal studies on

children's outcomes at the population level could provide a wealth of information, to strengthen research regarding:

- which factors experienced before birth or during early childhood affect outcomes in older childhood and into adulthood, in countries at different stages of development;
- how disadvantage is transferred from one generation to the next;
- what factors are associated with children doing better than might be expected (protective factors), and worse than expected (risk factors). Cohort analysis could be utilised to determine if selected children's outcomes change over time and the drivers of that change; and whether inequalities in well-being within cohorts are stable or change over time;
- additionally, with the right design, longitudinal studies could be utilised to evaluate policies and how groups with different exposures and vulnerabilities are affected by them (whether policies exacerbate, ameliorate or have no impact on inequities in children's outcomes).

Longitudinal studies in several countries at different stages of development should be set up to examine how changes in the structural determinants, for example employment conditions and social protection provision, affect the conditions of daily life for families and parents, and the impact on equality in children's outcomes.

iii. Analysis of policies to improve children's outcomes

Analysis of the policy landscape in a country is necessary to determine which policies that specifically tackle social determinants are in place to improve children's outcomes and where there are areas for improvement. Jody Heymann's recent work (22) goes some way to achieving this. Alongside this, an analysis of the economic and political situation within a country would help determine where the scope might exist for future policies. In section 2, we made reference to the heterogeneity of country contexts, and the country typology developed by Vasquez and Sumner (8). Analysis of children's outcomes in selected domains according to dimensions of country typology including poverty, inequality, weak governance, environmental sustainability, gender equity and violence/conflict would contribute to an understanding of the macro-level drivers of children's well-being. Where comparable data exists, detailed case studies of pairs or larger groups of countries should be carried out to examine the structural determinants of children's well-being.

iv. Identifying practical solutions

Understanding the nature of the problem is a key step, and will refine understanding of the priority areas for action. However, a good level of knowledge and understanding already exists about the drivers of children's outcomes, and arguably, to get some 'quick wins', research to identify where policies have been implemented that tackle some of the structural and social determinants in LMICs and the impact of these policies, could provide useful insight on the systems and structures within LMICs that have made effective action possible. Learning from this research could be rolled out in advance of more nuanced work which will provide a fuller picture and suite of evidence-based intervention ideas.

In particular, further work to identify effective early years interventions in LMIC countries would be valuable given that the research base on this is mainly from higher income countries. Additional studies on the social benefits and cost effectiveness of investing to improve children's outcomes should be carried out to support political acceptance and prioritisation of policies to improve children's outcomes.

v. Research on multi-sectoral action

A further area for research needs that emerges strongly is on governance to improve children's outcomes (section 3.2). A priority identified in recent reviews of social determinants of health has been the importance of multisectoral policies and programmes. An understanding of the barriers and opportunities for new governance approaches previously described for health (75) in the context of improving children's well-being would be of value. In this context, identifying countries that have developed effective strategies and programmes to improve children's well-being, disseminating these and helping to build effective delivery channels would be a useful avenue for UNICEF.

8.2. Delivering on change: overcoming barriers to taking a social determinants approach

Practitioners and other stakeholders raise legitimate concerns that, despite the evidence presented in this paper and elsewhere, there are immense structural barriers to implementing a social determinants approach. The following section describes some of the steps that need to be taken to develop the motivation and systems within countries to enable this work to go forward. In addition our further work will seek to explore how to overcome structural barriers, through more in-depth work in a select number of countries.

Gaining political will

Linking back to the analytical framework in Figure 1 and the macro-level context, it is clear that there needs to be firm and unequivocal political commitment within and across government to reduce inequities in child outcomes through action on social determinants. The strength of this commitment ensures clear leadership through political legitimacy to tackle the agenda. There are encouraging signs that the SDH approach is influencing aspects of policy development around the world (6). Much work has been undertaken to get the social determinants of health and inequities in health onto the political agenda in many countries and there is a clear opportunity to learn from those who have been successful, the United Kingdom being a prime example, where tackling health inequalities is a central plank of the government's public health strategy.

Motivating governments and others to act on inequalities now requires more than an exposition of the problem. Governments understandably require convincing evidence that policies can bring about cost effective change. Strong – and more – evidence is needed on effective interventions, as proposed in the research section (7.1).

While countries make commitments in response to initiatives such as the Millennium Development Goals or human rights legislation, a stronger system of accountability is needed to prioritise global initiatives at the political level. Progressively developed within countries, a monitoring framework[3] that enables progress made in the causal pathway from determinants to outcomes to be monitored would provide information for use in strengthening the accountability mechanism (see section 8.5).

8.3. Improving governance, delivery systems and leadership

We have mentioned above that action to improve the social determinants requires multisectoral working and stronger governance. Linking back to the analytical framework, such actions would have a clear link in improving systems, and the macro-level context. Stronger emphasis on following policy cycle models within government may be necessary, as will be work to improve measurement and evaluation so that the nature of the problem can be accurately determined and appropriate responses can be made.

[3] Analogous to that described for health outcomes by the European Review in Marmot M, Goldblatt P, Allen J, Bell R. "Building of the global movement for health equity: from Santiago to Rio and beyond". *Lancet.* 2012;379(9811):181-8.

Inter-sectoral working at life course stages

The analytical model clearly shows the breadth of policies that could influence children's outcomes and the need to engage with parents to improve outcomes. Making real progress therefore requires multi-sectoral working. Tackling the social determinants means working outside normal sectors and influencing not only economists and ministers, but also employers and environmental planners. Contacts and credibility are key. Building credibility, raising awareness and encouraging action by others is therefore important.

Improvements in children's outcomes and their social determinants will not be achieved without a significant refocusing of delivery systems to a whole-of-government and whole-of-society approach that addresses survival and development, by addressing the context in which children live, the nature of parenting and the external inputs that children receive. A whole-of-government or society approach means that all relevant sectors join together in their aim to reduce inequalities in child outcomes. Everyone coming into contact with children takes responsibility for improving children's outcomes, acts to improve their lives, or refers them to those who can. Kickbusch and Gleicher (75) have highlighted other features to consider when embarking on whole-of-government/society approaches, including the importance of working collaboratively with high levels of citizen engagement, the need to have a mix of regulation and persuasion, the need to include independent and expert bodies, and govern through adaptive policies, resilient structures and foresight.

Addressing the issues of multi-sectoral working will be central to this issue. The importance of a common languag which will help to reinforce understanding across sectors has been discussed. In addition, delivery channels should be focused on the consumer of those services rather than on what is easiest to achieve for those delivering the service. Designing services around life course stages, and ensuring that the voices of children and families are listened to and acted on within the policy-making process, will help to ensure that services come together holistically to meet the needs of people at different stages in their life. Such an approach, linked to an increase in resources is needed to address the social determinants of children's outcomes. Of course, as recognised before, countries are heterogeneous and will be at different points in terms of their governance systems. The amount of work needed will then depend on the individual setting.

Leadership and effective systems

There need to be leaders who are tasked with driving forward change. Within the health field, the starting point is the health

system – what it does itself and how it influences others to achieve better health and greater equity.

We argue that for children's outcomes joined-up services are needed across the health, education and social care systems, with the health system leading in the early years and the education system taking the lead when children reach school age. To improve children's outcomes coherent systems of governance across multiple sectors are needed. Leaders need to be accountable for positive change, and need to work with others to create sustainable improvement.

Overcoming the tendency to choose shorter term policies

Governments, with their short electoral cycles, often appear to choose shorter term polices which will show some 'quick wins'. The motivation is re-election. Similarly, practitioners and policy makers are incentivised to work to yearly targets. However, some policies, particularly those aimed at improving the social, emotional and cognitive outcomes of young children, will not 'pay back' until many years later. Such policies need a longer term commitment across political parties. Without longer term commitment the economic case is hard to sell because the returns from investing in children occur throughout their lives.

To achieve long term policy goals, local data will be needed to illustrate how the economic and moral cases for investment are relevant to each particular situation. Governments are wary about using international evidence which might not translate to their country. In addition, it may be difficult for countries to identify and realise attributable benefits to specific policies or programmes because of factors such as population growth, and because benefits accrue to many different policy investments. Research from LMIC settings which illustrates the benefits of early intervention, needs to be collated and disseminated in the form of short policy briefings.

8.4 Gaining the power to redistribute

While we see encouraging signs of action on the social determinants of health (6), more needs to be done at a macro-level, on the fundamental drivers – inequalities in the distribution of power, money and resources. In addition, the social determinants approach needs to be applied more widely, as described in this paper, to improve children's outcomes.

Economic growth has benefited those at the top of the income distribution greatly, and the richest countries. However, there has not been the 'trickle down' effect that some economists and politicians predicted, rather more of a 'drip down' with, for example, companies paying the least they can for resources, be those raw

materials or the workforce, in order to maximise (shareholder) profit.

Amartya Sen discussed two health development models: 'growth mediated' and 'support led' (76). *Growth mediated* works through rapid economic growth and the use of new economic wealth to invest in health care, basic education, and what Sen describes as the 'extension of social opportunities'. *Support led* health development works through investing in health care and education, even in the absence of rapid economic development. India has been pursuing economic growth with remarkable success – growth was 9.6 per cent in 2010 and 6.9 per cent in 2011, yet still around 400 million people live at under $1.25 a day (77). However, despite its growing economic power in recent years, India has been slow, particularly in rural areas, in developing its infrastructure to provide clean water and sanitation, in reducing poverty, in improving the quality of education and in increasing access to basic healthcare. There are signs of increasing interest in India in implementing structural approaches to challenging social issues.[4] The key here is that a growth mediated model could work, but the money needs to be used to spread benefits to the whole population (76).

There are operational barriers to tackling the inequitable distribution of income and other resources, not least the size of the issue. We argue that it is imperative to tackle income distribution and taxation policy at a global and national level. No one country is likely to stand alone to do this, for fear of the economic consequences to their country. In essence, big business is exercising its economic power to influence decision making on regulatory processes. Collectively, national leaders and their chancellors need to regain control in order to prioritise the well-being of the population.

Bringing a focus on equity to global governance of macroeconomic affairs should be a goal of multilateral organisations and other development partners. UNICEF, the World Bank, WHO and others should come together with coordinated messages and effective evidence to lobby for change targeted at the very highest levels of world leadership. It is a particularly opportune time to do this, because the practices of companies and country taxation policies are in the spotlight as a result of the worldwide banking crises and recession.

In addition, we know that change can be made at a smaller scale to economic policies, for example we do know that many companies treat their staff fairly, and some are motivated to be 'good

[4] Personal communication Mirai Chatterjee reported in Marmot M, Allen J, Bell R, Goldblatt P. "Building of the global movement for health equity: from Santiago to Rio and beyond". *Lancet* 2012; 379(9811):181-188.

employers', and to develop meaningful corporate responsibility initiatives where they are awarded with an accreditation which is used when recruiting or advertising. Such practices are generally driven by concern regarding the fact that consumers will choose alternative products without these policies. Therefore civil society has an important role in driving change. More could be done to name and shame those companies that have poor corporate policies and to drive change through the consumer wallet. For example, consumer campaigns to publicise poor working conditions, for instance in 'sweatshops', have had some impact on the living conditions of workers in LMICs, which, in turn impacts on children's outcomes.

8.5 Monitoring: measurement to inform policy

At the heart of developing a social determinants approach to child outcomes that is suitable for a particular context is the need to understand how children's outcomes are distributed across various dimensions – for instance by family income, by level of maternal education, by gender, ethnic background, and by geographic area of residence, for example rural/urban. This enables prioritisation. Where disaggregated data exists on child outcomes it should be analysed and fed into the policy process to inform policy initiatives to tackle structural and social determinants. Where data does not exist or is limited, there is a need to use (or to develop) appropriate measures and survey instruments to understand the scale and dimensions of the problem. In particular, the most vulnerable children in the poorest countries are least likely to be registered at birth and are therefore most likely to be excluded from such analyses. Universal birth registration is a key tool for policy makers in order to ensure that every member of society derives the benefits of living in that society, to enable accurate assessments of the population's needs, and to monitor the effect of changes in systems, policies and programmes over time. There is a role for communities themselves to identify issues that affect their children's outcomes, to measure the size of the problem, and to participate fully in developing solutions.

UNICEF has, with partners including WHO and USAID, invested significantly in data collection through household surveys for monitoring the progress of child outcomes, and advocates strongly for disaggregated data analysis (on gender, ethnicity, other grounds of discrimination). We argue that monitoring the progress of child outcomes should be set within a social determinants framework. Knowing the scale of the problem, trends, and the distribution within society, means that a country can make a case for action, identify policy priorities and track progress. Targets help to focus delivery leaders, especially when they are held accountable for them.

Indicators do exist in some settings for evaluating the dimensions of children's well-being described in this paper, but more work needs to be done outside health and education to develop indicators for monitoring children's outcomes and their social determinants in low- and middle-income countries. However, rather than wait to develop and test these indicators, analysis and evaluation of currently available data should be used to review inequities in children's well-being in countries around the world. With the ultimate goal of enabling all children and young people to have the best start in life, policies should be developed and implemented at a scale and intensity that is proportionate to need in order to remedy inequities in children's outcomes and to make improvements against achievable benchmarks (Figure 5).

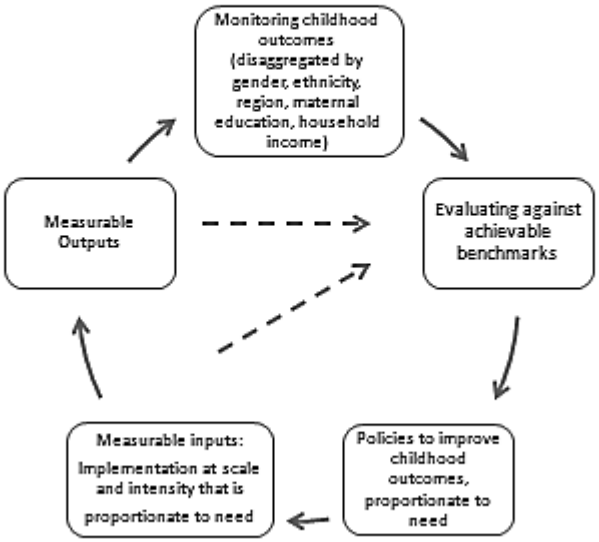

Figure 5 Understanding the problem: monitoring and evaluation to inform the policy cycle to improve children's outcomes

The measurement of poverty is also of the utmost policy importance because of its use as an indicator of development (for example within the Millennium Development Goals), and because it may be used, as it is in India (78), to assess eligibility for participation in social protection programmes within countries. There is much national debate about the definition of the poverty line in both India and China (78).

Within Europe there is a growing policy debate about the development of minimum standards within countries that reflect all that is needed to live a healthy life, including social as well as physical needs. The European review of social determinants and the

health divide discussed the need for countries '*to ensure a minimum standard for healthy living for all*', noting that minimum standards, "*need to be determined country by country, based on developing national criteria using a standard international framework*".[5]

8.6 Improving delivery systems

Proportionate universalism

A common over-simplification of the situation is that children who are poor do badly, and children who are rich do well. In reality, there is a social gradient such that for every step up the 'social ladder' outcomes for children will be better. The gradient is not always linear however. In countries or regions where the majority of the population is poor, deprivation will affect the majority of children, although there will always be groups who suffer more from discriminatory and exclusionary processes. Therefore, to improve systems, delivery needs to be universal yet proportionate to need (proportionate universalism). Such an approach recognises that focusing just on the bottom of the distribution misses much of the problem. Universal approaches may provide basic services, but also have a screening system in place such that those who are most at need are provided more intense support. Care also needs to be taken within such systems to guarantee that the right incentives are in place to ensure that hard-to-reach children are not ignored.

Competent systems

With the right leadership and governance, and a realisation of the nature of the problem, the next step is the task of developing effective delivery systems. Delivery systems need to be informed by evidence, adequately led and governed, adequately financed and targeted at the right people.

Competent delivery systems should include characteristics that demonstrate evidence of:

- a defined delivery chain
- ownership, accountability, and active management
- levers and incentives
- performance management
- strong civic, executive and political leadership
- sustainable financing and training
- political support and statutory responsibilities
- high public engagement and accountability.

[5] WHO European review of social determinants of health and the health divide. *See* Marmot et al. The Lancet 2012; 380(9846):1011-29.

8.7 Changing societal norms

Within the context of having an impact on wider society, one of the key barriers relates to social norms. For example, societal norms that consider women to be inferior to men drive gender inequalities in education, voice and participation (section 4.3). Without good, accessible and affordable childcare systems, and free education, such norms will persist. However, even if the systems change, will women enter the labour force in LMICs to the same extent as men? Will there be a reduction in domestic violence? Will there be an increase in girls attending school? Such changes will require some shifts in attitudes to women's roles, the demand for female labour, and to women as equals. Social attitudes that drive discrimination on the basis of gender, race, ethnicity and caste have long historical roots. Legislation to ensure equality before the law and the realisation of human rights, is a necessary step which then requires implementation in practice.

An understanding of societies and thought leadership is needed here, including alliances with political business and spiritual leaders and community groups to drive change.

Final remarks

We have presented the compelling case to tackle the social determinants of children's outcomes. Without tackling social determinants, overall improvements in outcomes will be limited and unjust inequities will persist. UNICEF has a central role in pushing forward such approaches and in strengthening the evidence base. We recognise that there are challenges to implemenation and that further work and refinement of ideas are needed. Our future work will seek to provide further insight into how these can be overcome by sharing the learning from a group of LMIC countries.

Bibliography

1. The World Bank. Poverty Reduction and Equity (2013). Available from: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTEMPOWERMENT/0,,contentMDK:20040961~isCURL:Y~menuPK:486417~pagePK:148956~piPK:216618~theSitePK:486411,00.html
2. Unicef Innocenti Publications (2012). The structural determinants of child well-being: An expert consultation hosted by the Unicef Office of Research.
3. The Institute of Health Equity (2013). Review of the Social Determinants of Health and the Health Divide in the WHO European Region.
4. Commission on the Social Determinants of Health (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. Geneva: World Health Organization.
5. The Marmot Review Team (2010). Fair Society, Healthy Lives: Strategic review of health inequalities in England post-2010. London: Marmot Review Team.
6. Marmot M, Allen J, Bell R, Goldblatt P. (2012). Building of the global movement for health equity: from Santiago to Rio and beyond. Lancet. 2012;379(9811):181-8.
7. Pordes-Bowers A, Strelitz J, Allen J, Donkin A. (2012). An Equal Start: Improving outcomes in Children's Centres. London: UCL Institute of Health Equity.
8. Vasquez ST, Sumner A. (2012). Beyond low- and middle-income countries: what if there were five clusters of developing countries. IDS working paper 404.
9. Feinstein L. (2003). Inequality in the early cognitive development of British children in the 1970 cohort. Economica. 2003;70:3-97.
10. Hoff K, Pandey P. (2004). Belief systems and durable inequalities: an experimental investigation of Indian Caste. Washington: World Bank.
11. Early Child Development Knowledge Network (2007). Total environment assessment model for early child development. Evidence Report. Background document of the Early Child Development Knowledge Network of the Commission on Social Determinants of Health. Geneva: World Health Organisation.
12. United Nations Children's Fund (2012). The State of the World's children: Children in an Urban World. New York: UNICEF.
13. Edwards P. (2006). Examining Inequality: Who really benefits from global growth? World Development. 2006;34(10):1667-95.
14. Crombie IK, Irvine L, Elliot L, Wallace H. (2005). Achieving the MDGs with Equity; Closing the health inequalities gap: An international perspective. Copenhagen: World Health Organization Regional Office for Europe.

15. Gwatkin DR. (2007). Socio-economic differences in health, nutrition and population within developing countries: an overview. Washington: World Bank.

16. Heymann J, McNeill K. (2013). Children's Chances: How countries can move from surviving to thriving. Cambridge: Harvard University Press.

17. Kelly Y, Sacker A, Del BE, Francesconi M, Marmot M. (2011). What role for the home learning environment and parenting in reducing the socioeconomic gradient in child development? Findings from the Millenium Cohort Study. Arch Dis Child. 2011;96(9):832-7.

18. Allais FB, Quinn P. (2010). Marginalisation and Child Labour, background paper for UNESCO, Education for All Global Monitoring Report: Reaching the Marginalised. Oxford.

19. UNESCO (2010). Education for All Global Monitoring Report 2010: Reaching the Marginalised. Oxford.

20. UNESCO (2005). Institute for Statistics. Children out of School: Measuring Exclusion from Primary Education. Montreal.

21. Guarcello L. (2010). Understanding children's work, 'the twin challenges of eliminating child labour and achieving EFA: evidence and policy options from Mali and Zambia'. Background paper for UNESCO, Education for All Monitoring Report 2010: Reaching the Marginalised.

22. Heymann J, McNeill K. (2013). Changing Children's Chances: new findings in child policy worldwide. Cambridge, Mass.: Harvard University Press.

23. United Nations General Assembly. Universal Declaration of Human Rights 1948. Available from: http://www.unhcr.org/refworld/docid/3ae6b3712c.html.

24. United Nations General Assembly. Convention of Human Rights of the Child 1989. Available from: http://www2.ohchr.org/english/law/crc.htm.

25. CSDH Social Exclusion Knowledge Network (2007). Understanding and tackling social exclusion: Final report of the Social Exclusion Knowledge Network of the Commission on Social Determinants of Health. Geneva: World Health Organization.

26. Pal K, Behrendt C, Leger F, Cichon M, Hagemeier K. (2005). Can low-income countries afford basic social protection? Discussion Paper 13, Issues in Social Protection, Social Security Department. Geneva: International Labour Office.

27. Forde J, Bell R, Marmot M. (2011). Improving uptake of essential services: using conditionality as a solution to the problem of low uptake of essential services among disadvantaged communities: a social determinants view. American Journal of Public Health. 2011;101(8).

28. Schurmann A. (2007). Microcredit, inclusion and exclusion in Bangladesh. Background Paper for the Social Exclusion Knowledge Network on the Social Determinants of Health. Geneva: World Health Organization.

29. Stephens C. (2012). Urban inequities, urban rights: a conceptual analysis and review of impacts on children, and policies to address them. Journal of Urban Health. 2012;89(3).

30. UNESCO (2012). Education for All Global Monitoring Report: youth and skills.

31. UNESCO (2012). Education for All Global Monitoring Report Policy Paper.

32. United Nations Statistics Division (2009). Millenium Goals Indicators, 2.1 Net Enrolment Ratio in Primary Education [updated 14.07.2009]. Available from: http://mdgs.un.org/unsd/mdg/Data.aspx.

33. Bicego GT, Boerma J. (1993). Maternal education and child survival: A comparative study of survey data from 17 countries. Social Science & Medicine. 1993;36(9).

34. Schady N. (2011). Parents' education, mothers' vocabulary, and cognitive development in early childhood: Longitudinal evidence from Ecuador. American Journal of Public Health. 2011;101(12).

35. McCoy E, Cole J. (2011). A snapshot of local support for literacy: 2010 Survey. London: National Literacy Trust.

36. International Labour Organization (2011). KILM 3. Status in employment 2011 [02/08/2013]. Available from: http://kilm.ilo.org/manuscript/kilm03.asp.

37. World Health Organization Regional Office for South East Asia. Self Employed Women's Association: Tackling social and economic determinants of health through women's empowerment: the SEWA case study 2008. Available from: http://www.searo.who.int/LinkFiles/SDH_SEWA_Case_Study.pdf.

38. International Labour Organization (2010). Accelerating action against child labour: Global report under the follow-up to the ILO Declaration on fundamental principles and rights at work.

39. Borghol N, Suderman M, McArdle W, Racine A, Hallett M, Pembrey M. (2012). Associations with early-life socio-economic position in adult DNA methylation. International Journal of Epidemiology. 2012;41(1).

40. Jefferis BJ, Power C, Hertzman C. (2002). Birth weight, childhood socioeconomic environment, and cognitive development in the 1958 British birth cohort study. British Medical Journal. 2002;325(7359):305-8.

41. Scientific Advisory Committee on Nutrition (2011). The influence of maternal, fetal and child nutrition on the development of chronic disease in later life. London: TSO.

42. Barker DJ. (2004). The developmental origins of adult disease. Journal of the American College of Nutrition. 2004;23(6 Suppl):588S-95S.

43. Abel EL, Sokol RJ. (1986). Fetal alcohol syndrome is now leading cause of mental retardation. Lancet. 1986;2(8517):1222.

44. Shaw DS, Winslow EB. (1997). Precursors and correlates of antisocial behaviour from infancy to preschool. In: Stiff DM, Breiling J, Maser JD, editors. Handbook of Antisocial Behaviour. New York: Wiley.

45. Gunnar MR, Donzella B. (2002). Social regulation of the cortisol levels in early human development. Psychoneuroendocrinology. 2002;27(1-2):199-220.

46. Martin J. (1981). A longitudinal study of the consequences of early mother-infant interaction: a microanalytical approach. Monographs of the Society for Research in Child Development. 1981;46:485-505.

47. Eisler R, Levine DS. (2002). Nurture, nature and caring: We are not prisoners of our genes. Brain and Mind. 2002;3:9-52.

48. Perry BD, Pollard RA, Blakely TL, Baker WL, Vigilante D. (1995). Childhood trauma, the neurobiology of adaptation and 'use-dependent' development of the brain: how 'states' become 'traits'. Infant Mental Health Journal. 1995;16(4):271-91.

49. National Scientific Council on the Developing Child (2005). Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper No. 3 2005. Available from: www.developingchild.harvard.edu.

50. Feinstein L, Duckworth K, 2006). Centre for Research on the Wider Benefits of Learning. Development in the early years: its importance for school performance and adult outcomes. London: Centre for Research on the Wider Benefits of Learning.

51. Lexmond J, Reeves R. (2009). Building character: London : Demos.

52. Elder GH, Caspi A. (1990). Studying lives in a changing society: Sociological and personological explorations. In: Rabin AI, Zucker RA, Frank F, editors. Studying persons and lives. New York: Springer.

53. Heckman JJ, Materov DV. (2007). The productivity argument for investing in young children. Review of Agricultural Economics. 2007;29(3).

54. Elder GH, Shanahan MJ. (2007). The life course and human development. In: Damon W, Lerner RM, editors. The handbook of child psychology 6th Edition New York: Wiley.

55. Steinberg L. (2008). A social neuroscience perspective on adolescent risk-taking. Developmental Review. 2008;28(1):78-106.

56. Casey BJ, Jones RM, Hare TA. (2008). The Adolescent Brain. Annals of the New York Academy of Sciences. 2008(1124):111-26.

57. Victora CG, Aquino EM, Leal MdC, Monteiro CA, Barros FC, Szwarcwald CL. (2011). Maternal and child health in Brazil: progress and challenges. Lancet. 2011;28(377):1863-76.

58. Monteiro CA, Benicio MH, Conde WL. (2009). Narrowing socioeconomic inequality in child stunting: the Brazilian experience. Bulletin World Health Organisation. 2009;88:305-11.

59. OECD (2013). The OECD Better Life Index: Brazil 2013 [05.07.13]. Available from: http://www.oecdbetterlifeindex.org/countries/brazil/

60. Lozano R, Naghavi M, Foreman K, Kim S, Shibuya K, Aboyans V. (2012). Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Desease Study 2010. Lancet. 2012;380(9859).

61. Sen A. (1999). Development as Freedom. Oxford: Oxford University Press.

62. United Nations Children's Fund, UNESCO Institute for Statistics (2012). Global Initiative on out-of-school children 2012 [15.11.12]. Available from: http://www.uis.unesco.org/Education/Documents/oosci_flyer.pdf

63. Schweinhart LJ, Barnes HV, Weikart DP (1993). Significant Benefits: The HighScope Perry Preschool study through age 27 (Monographs of the HighScope Educational Research Foundation, 10). Ypsilanti: HighScope Press.

64. Lynch RG. (2004). Exceptional Returns: Economic, Fiscal, and Social Benefits of Investment in Early Childhood Development. Washington, D.C.: Economic Policy Institute.

65. ECDKN (2007). Early child development: a powerful equalizer. Final report of the Early Child Development Knowledge Network of the Commission on Social Determinants of Health. Geneva: World Health Organization.

66. Karoly LA, Kilburn MR, Cannon JS. (2005). Early Childhood Interventions: Proven results, Future Promise. Santa Monica, CA.: RAND Corporation.

67. Lynch R. (2005). Early childhood investment yields big payoff. San Francisco, CA.: WestEd.

68. Rolnick A, Grunewald R. (2003). Early Child Development: Economic Development with a High Public Return.

69. Heckman JJ. (2008). The case for investing in disadvantaged young children. In: First Focus, editor. Big Ideas for Children: Investing in our Nation's Future. Washington DC: First Focus.

70. Blas E, Sommerfeld J, Sivasankara Kurup A, editors (2011). Social determinants approaches to public health: from concept to practice. Geneva: World Health Organization.

71. Blas E. (2011). From concept to practice: Synthesis of findings. In: Blas E, Sommerfeld J, Kurup AS, editors. Social Determinants approaches to public health: From concept to practice. Geneva: WHO.

72. Eisenstadt N. (2011). Providing a Sure Start: How government discovered early childhood. Bristol: Policy Press.

73. Tinajero AR (2010). Scaling-up early child development in Cuba: Cuba's 'Educate your Child' programme: strategies and lessons from the expansion process.

74. Hertzman C, Siddiqi A, Hertzman E, Irwin LG, Vaghri Z, Houweling TA. (2010). Bucking the inequality gradient through early child development. British Medical Journal. 2010;340.

75. Kickbusch I, Gleicher D. (2011). Governance for health in the 21st century: a study conducted for the WHO regional office for Europe. Copenhagen.

76. Sen A. (1995). Mortality as an indicator of economic success and failure: UNICEF Innocenti Lecture. Florence.

77. World Bank. (2012). Poverty & Equity: Country dashboard - India 2012 [01.11.12]. Available from: http://povertydata.worldbank.org/poverty/country/IND

78. Addison T, Niño-Zarazúa M. (2012). Redefining poverty in China and India: What does this mean for the first against global poverty? WIDER Angle newsletter. 2012; part 1.