

The Equalizing Power of Early Child Development: From the Commission on Social Determinants of Health to *Action*

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Abstract

This article synthesizes knowledge about opportunities to improve the state of early child development globally. Research confirms a strong association between child survival and child development. The evidence and its interpretation are derived primarily from three sources: (a) peer-reviewed scientific literature, (b) reports from governments, international agencies, and civil society groups, and (c) a knowledge network of experts in ECD. The principal insight of our knowledge synthesis is that nurturant qualities of the environments where children grow, live, and learn—parents, caregivers, family, and community—will have the most significant impact on their development. We propose ways in which government and civil society actors, from local to international, can provide equitable access to strong nurturant environments for all children globally.

Key Words: early child development; equity; social determinants of health; lifecourse; rights of the child

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The World Health Organization (WHO) set up the International Commission on Social Determinants of Health (CSDH) in March 2005 in order to promote better health and greater health equity for all. In this article we offer a summary of the findings of our Final Report (Irwin, Siddiqi, & Hertzman, 2007) to the WHO Commission on the Social Determinants of Health related to early child development. Here we describe our recommendations made to the CSDH and discuss the subsequent actions that we, as an academic-based research centre, have engaged in as a result of this global knowledge synthesis and our involvement with the CSDH.

The Commission on Social Determinants of Health

The purpose of the CSDH is to draw the attention of society to the social determinants of health that are known to be among the worst causes of poor health and inequalities between and within nations globally (Solar & Irwin, 2005). Nine knowledge networks (Early Child Development, Measurement and Evidence, Women and Gender Equity, Priority Public Health Conditions, Employment Conditions, Globalization, Social Exclusion, Urban Settings and Health Systems) were created by the CSDH as a primary mechanism for organizing and synthesizing knowledge, strengthening country practice and supporting leadership. The CSDH was structured around these specific themes that underpin actions on social determinants of health in a global context with twenty change agents committed to the process as Commissioners. The Commissioners, who are global and national leaders from political, government, civil society, and academic fields, are expected to use the work of the knowledge networks as a primary mechanism to create key messages and recommendations that will be adopted as matters of policy by countries around the world and serve as a basis for reform of the World Health Organization and other international bodies dealing with health issues.

Focus on early child development. The CSDH provided an important vehicle for creating a global focus on early child development (ECD) from the perspective of population health. The early childhood period should be considered the most important developmental phase throughout the lifespan (Hertzman, 1999). Healthy early child development (ECD)—which includes the physical, social-emotional, and language-cognitive domains of development, *each equally important*—strongly influences well-being, obesity/stunting, mental health, heart disease, competence in literacy and numeracy, criminality, and economic participation throughout life (Marmot & Wadsworth, 1997). The early years are marked by the most rapid development, especially of the central nervous system (Barker, 1990). The environmental conditions to which children are exposed in the earliest years literally “sculpt” the developing brain (DiPietro, 2000). Thus, what happens to the child in the early years is *critical* for the child’s developmental trajectory and lifecourse (Wadsworth, 1997). The environments that are responsible for fostering nurturant conditions for children range from the intimate realm of the family to the broader socioeconomic context shaped by governments, international agencies, and civil society (Siddiqi, Irwin, & Hertzman, 2007). These environments and their characteristics are the determinants of ECD; in turn, *ECD is a determinant of health, well-being, and learning skills across the balance of the lifecourse*. In order to run an effective ‘global conversation’ on early child development we gave priority to evidence (including grey literature) in areas that are equally relevant to *all* societies. Ultimately, our reporting to the commission focused on the following: fostering broad-based understandings of ECD; building leadership; creating policy-sustaining action for young children; and creating the intersectoral collaboration needed to create positive change for children in a range of country contexts.

Summary of knowledge synthesis. Two main documents emerged from the work of our Knowledge Hub for ECD: an evidence synthesis titled *The Total Environment Assessment Model for ECD* (Siddiqi et al., 2007) and a summary of the findings plus recommendations from the insights of the evidence document called *Early Child Development: A Powerful Equalizer* (Irwin et al., 2007).

The scope of the knowledge synthesis presented in this summary is fourfold:

1. To demonstrate which environments matter most for children’s early development. This includes environments from the most intimate (family) to the most remote (global).
2. To review which environmental configurations are optimal for ECD, including aspects of environments that are economic, social, and physical in nature.
3. To determine the “contingency relationships” that connect the broader socioeconomic context of society to the quality of nurturing in intimate environments such as families and communities.
4. To highlight opportunities to foster nurturant conditions for children at multiple levels of society (from family-level action to national and global governmental action) and by multiple means (i.e., through programmatic implementation, to “child-centered” social and economic policy development).

In keeping with international conventions, early childhood is defined as the period from prenatal development to eight years of age. The evidentiary base was derived from three

primary sources: (a) peer-reviewed scientific literature, (b) reports from governments, international agencies, and civil society groups, and (c) international experts in the field of ECD (including members of the WHO Commission on Social Determinants of Health Knowledge Network for ECD) that were representative in both international and intersectoral terms. This evidence-based, multiple-sourced approach ensures that the conclusions and recommendations of this work are borne out of the perspectives of a diverse array of stakeholders and are thus broadly applicable to societies throughout the world.

Framework

A significant outcome of this knowledge synthesis was the creation of a framework (see Figure 1) based on Bronfenbrenner's (1986) model that identifies and characterizes the environments that play a significant role in setting the nurturant conditions experienced by children globally (Siddiqi et al., 2007). A variation on the original model of Urie Bronfenbrenner, the framework acts as a guide to understanding the relationships between these environments, putting the child at the center of her or his surroundings. The environments are not strictly hierarchical, but are overlapping and interconnected. At the most intimate level is the family environment. At the next level are residential communities (such as neighborhoods), relational communities (such as those based on religious or other social bonds), and the ECD service environment. Each of these environments (where the child actually grows up, lives, and learns) is situated in a broader socioeconomic context that is shaped by factors at the regional, national, and global level.

The framework affirms the importance of a lifecourse perspective in decision making regarding ECD. Actions taken at any of these environmental levels will affect children not only in present day, but also throughout their lives. The framework also suggests that historical time is critically influential for children; large institutional and structural aspects of societies (e.g., government policy-clusters, traditions of community support or indifference) matter for ECD, and these are "built" or "dismantled" over long periods of time.

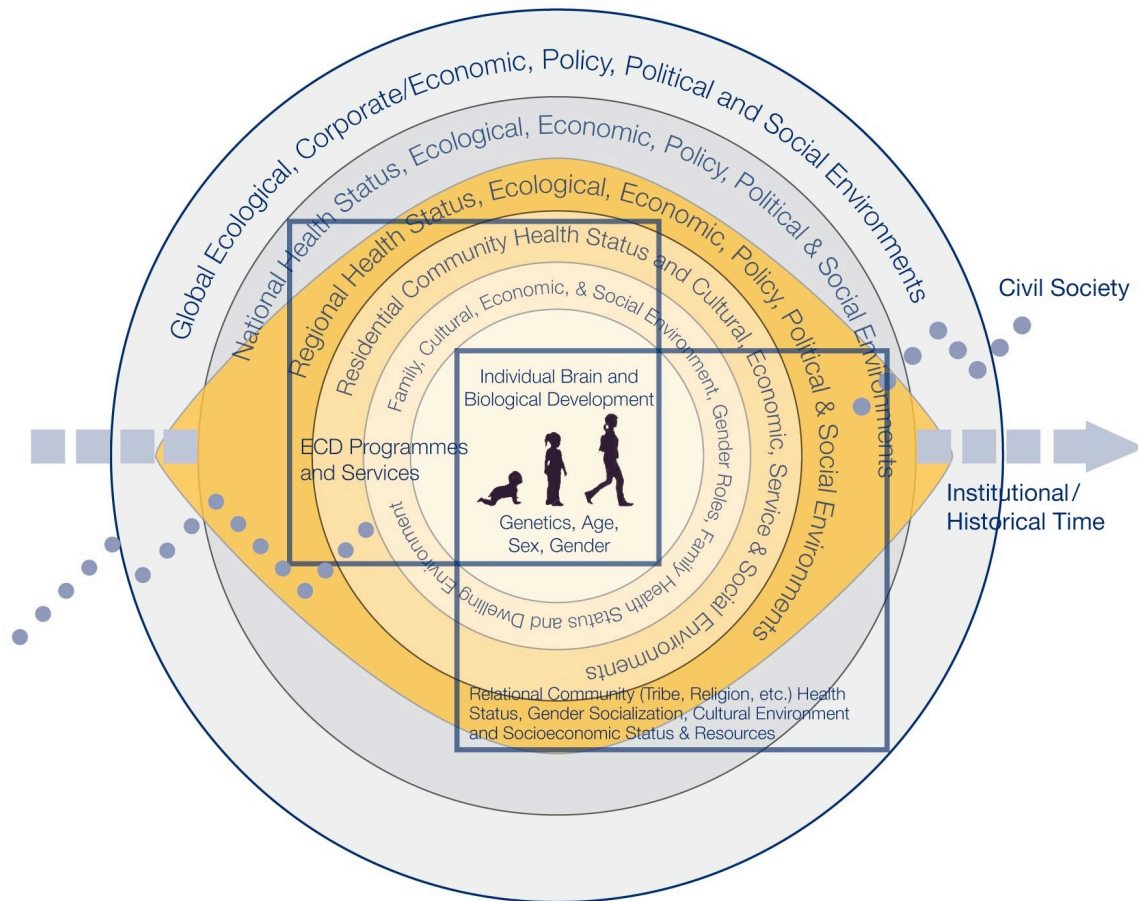


Figure 1. Total Assessment Model for Early Child Development. From *Total environment assessment model for early child development: Evidence report for the Commission on Social Determinants of Health* (p. 15), by A. Siddiqi, L. G. Irwin, and C. Hertzman, 2007, Geneva, Switzerland: World Health Organization, Commission on Social Determinants of Health. Reprinted with permission of the authors.

The framework gave rise to the following key insights regarding the determinants of ECD:

- Socioeconomic inequities in developmental outcomes result from inequities in the degree to which the experiences and environmental conditions for children are nurturant (Ramey & Ramey, 1998). Thus, all recommendations for action stem from one overarching goal: to improve the nurturant qualities of children's experiences in the environments where they grow up, live, and learn. A broad array of experiences and environmental conditions matter (Barker, 1990; Bronfenbrenner, 1986; Wadsworth, 1997). These include things that are intimately connected to the child, and therefore are readily identifiable (e.g., the quality of time and care provided by parents, and the physical conditions of the child's surroundings), but also more distal factors that in various ways influence the child's access to nurturant conditions (e.g., whether government policies provide families and communities with sufficient income and employment, health care resources, early childhood education, safe neighborhoods, decent housing, etc.).

- While genetic predispositions and bio-physical characteristics at the individual child level partially explain how environment and experience shape ECD (Hertzman, 1999), the best evidence leads us to consider the child as a social actor who shapes and is in turn shaped by his or her environment (Bartley, 2006; Boyden & Levison, 2000; Irwin, Johnson, Henderson, Dahinten, & Hertzman, 2007; James, 1993; Lansdowne, 2005). In this transactional model, the principal driving force of child development is relationships. Strong nurturant relationships are better predictors of health and ECD than the socioeconomic conditions in which children live and learn (Ramey & Ramey, 1998).
- The family environment is the primary source of experience for a child, both because family members (or other primary caregivers) provide the largest share of human contact with children and because families mediate a child's contact with the broader environment (Kohen, Brooks-Gunn, Leventhal, & Hertzman, 2002). Clearly, one of the most salient features of the family environment is its access to social and economic resources (Brooks-Gunn, Duncan, & Maritato, 1997; Heymann, 2006). Family social resources include parenting skills and education, cultural practices and approaches, intra-familial relations, and the health status of family members (Richter, 2004; Willms, 2003). Economic resources include wealth, occupational status, and dwelling conditions. The gradient effect of family circumstances is the most powerful factor driving inequalities in ECD, within societies and contributes to inequalities between them, too. Our simple message was this: Young children need to spend their time in warm responsive environments that protect them from inappropriate disapproval and punishment. They need opportunities to explore their world, to play, and to learn how to speak and listen to others (Hart & Risley, 1995; Ramey & Ramey, 1998). Families want to provide these opportunities for their children, but they need support from community and government at all levels (Heymann, 2006).
- The seeds of adult gender inequity are sewn in early childhood (United Nations Children's Fund [UNICEF], 2006b). In the early years, gender equity issues—in particular, gender socialization, feeding practices, and access to schooling—are determinants of ECD. Early gender inequity, when reinforced by power relations, biased norms, and day-to-day experiences in the family, school, community, and broader society, go on to have a profound impact on adult gender inequity (UNICEF, 2006b; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2006). Gender equity from early childhood onwards influences human agency and empowerment in adulthood.
- Children and their families are also shaped by the residential community (where the child and family live). Residential communities offer families multiple forms of support, from tangible goods and services that assist with child rearing, to emotional connections with others that are instrumental in the well-being of children and their caregivers. Residential communities are also the sites that can undermine children's development. Communities are also home to dangers, lack of social cohesion, lack of legal status for children, and more (Evans & Katrowitz, 2002; Irwin, Johnson, et al., 2007; Kohen et al., 2002). At the residential/locality level, both governments and grass-roots organizations also play a highly influential role. Many resources available to children and families are provided on a community-level through local recognition of deficits in resources, problem-solving, and ingenuity (Dunn & Hayes, 2000). There are, however, inequities in

ECD that are apparent among residential communities, which must be addressed in a systematic way.

- “Relational community” refers to the people, adults, and children, who help form a child’s social identity: tribal, ethnic, religious, language/cultural. Often, this is not a geographically clustered community. Relational communities can provide a source of social networks and collective efficacy, including instrumental, informational, and emotional forms of support (Carter & Maluccio, 2003; Sampson, Morenoff, & Earls, 1999). However, discrimination, social exclusion, and other forms of subjugation are often directed at groups defined by relational communities. The consequences of these forms of discrimination (e.g., fewer economic resources) can result in discernable inequities. Moreover, relational communities can be sources of gender socialization, both equitable and nonequitable. Relational communities are also embedded in the larger sociopolitical contexts of society; as such, reciprocal engagement with other relational groups, civil society organizations, and governmental bodies is a means of addressing the interests and resource needs of their members.

- The availability of quality ECD programs and services to support children’s development during the early years is a crucial component of an overall strategy for success in childhood (Anderson et al., 2003; Cleveland & Krashinsky, 1998; Grantham-McGregor et al., 2007; Hertzman & Wiens, 1996; Kamerman & Gabel, 2006). ECD services may address one or more of the key developmental domains (i.e., language–cognitive, socioemotional, and physical development). There are principles of ECD programs and services that are readily transferable between places; however, many program features require tailoring to the social, economic, and cultural contexts in which they are found. ECD services may be targeted to specific characteristics of children or families (e.g., low birth-weight babies or low-income families), may occur only in some communities and locales and not others, or may be more universally provided. Each of these is also accompanied by their respective benefits and drawbacks; however, the overarching goal of the global community should be to find means of providing universal access to effective ECD programs and services (Schady, 2006; UNESCO, 2006). Health care systems (HCSs) are key to providing many important ECD services. The HCS is in a unique position to contribute to ECD, since HCSs provide facilities and services that are more widely accessible in many societies than any other form of human service, are already concerned with the health of individuals and communities, employ trained professionals, and are a primary point of contact for child-bearing mothers.

- The influence of the regional and national environments is fundamental in determining the quality and accessibility of services and resources to families and communities. They are also salient for understanding the levels of social organization at which inequalities in opportunity and outcome may be manifest, and the levels of organization at which action can be taken to ameliorate inequities.

- There are many interrelated aspects of regional environments that may be significant for ECD: physical (e.g., the degree of urbanization, the health status of the population), social, political, and economic. These aspects of the regional environment affect ECD through their influence on the family and neighborhood, and on ECD services (Houweling, Kunst, Borsboom, & Mackenbach, 2006). In contrast to more intimate environments, such as the family, the significance of large environments, such as the

region, is that regions have an effect on large numbers of children (Kershaw, Irwin, Trafford, & Hertzman, 2005).

- The most salient feature of the national environment is its capacity to affect multiple determinants of ECD through wealth creation, public spending, child- and family-friendly policies, social protection, and protection of basic rights (Office of the United Nations High Commissioner for Human Rights, 1990; International Labour Office, 2002; Kamerman et al., 2003). The chances that children will face extreme poverty, child labor, warfare, HIV/AIDS, being left in the care of a sibling, and so on, is determined, first and foremost, by the countries in which they are born.
- At the level of the national environment, comprehensive, intersectoral approaches to policy and decision making work best for ECD. Although ECD outcomes tend to be more favourable in wealthy countries than poor ones, this is not always the case. It is clear that a commitment of 1.5–2.0% of GDP to an effective mix of policies and programs in the public sector can effectively support children's early development (Organisation for Economic Co-operation and Development [OECD], 2006). Those nations with less economic and political power are less free to determine their internal policy agendas, and are more influenced by the interests of the international community, including other nations and multilateral organizations. Notwithstanding this, most of the recommendations that were borne out of the evidence synthesis are within the capabilities of any national government that meets the international criteria for a "competent authority."
- The global environment can influence ECD through its effects on the policies of nations as well as through the direct actions of a range of relevant actors, including multilateral economic organizations, industry, multilateral development agencies, nongovernmental development agencies, and civil society groups. A major feature of the global environment in relation to children's well-being is the element of power in economic, social, and political terms (Gertler, 2004). Power differentials between types of actors, particularly between nations, have many consequences, including the ability of some nations (mainly resource-rich ones) to influence the policies of other nations (mainly resource-poor ones) to suit their own interests. Although power differentials may have invidious effects on ECD, they can be exploited for the benefit of children, too. Requiring a minimum level of government spending on ECD and compliance with the Rights in Early Childhood provisions of the Convention on the Rights of the Child, as preconditions for international developmental assistance, are two mechanisms that can be used. Analogous mechanisms have been used effectively in other areas of international development in the past.
- Civil society groups are conceptualized as being organized at, and acting on, all levels of social organization, from local residential through global. The ability of civil society to act on behalf of children is a function of the extent of "social capital," or connectedness of citizens, and the support of political institutions in promoting expressions of civil organization. When civil society is enabled, there are many avenues through which it can engage on behalf of children. Civil society groups can initiate government, nongovernment organization, and community action. They can advocate on behalf of children to assure that governments and international agencies adopt policies that benefit children's well-being. Finally, civil society groups are instrumental in organizing

strategies at the local level to provide families and children with effective delivery of ECD services, to improve the safety, cohesion, and efficacy of residential environments, and to increase the capacity of local and relational communities to better the lives of children. Although research on the direct effect of civil society on ECD is limited, the strong statistical association between the strength of civil society and human development in societies around the globe leaves little doubt about its importance to ECD.

Recommendations

The timing is now right for building on the global momentum of the Child Survival, Child Health, Education for All, Gender Equity, and Child Rights Agendas established as part of the WHO Commission on the Social Determinants of Health, as follows:

Create a Global Alliance for Early Child Development

While governments can do much to change the circumstances of the world's children and families, this review has also demonstrated the need for global collaboration in the area of ECD.

We propose an expanded global interagency collaboration—the Global Alliance for Early Child Development (GA-ECD)—that will build upon existing informal networks of agencies currently working on ECD internationally, such as UNICEF, UNESCO, The Consultative Group on ECCD, World Bank, The Bernard van Leer Foundation, Soros Foundation, the Aga Khan Foundation, and the WHO.

It should work towards linking ECD to the Millennium Development Goals, especially to poverty reduction, education, gender equality, and child survival.

Advocate for WHO's Responsibility for Early Child Development

1. The WHO has a critical role to play in advocacy for ECD as a key social determinant of health that must be addressed beyond the Commission on Social Determinants of Health.
2. In their commitment to ECD and to equity, the WHO should recognize that ECD is a key social determinant of health playing a critical role for achieving the Millennium Development Goals by subsuming its child survival and health programs globally under the developmental perspective articulated in this report.
3. The WHO should be responsible for provision of technical support for the inclusion of ECD policies within national development policies and in the national development frameworks/instruments.
4. The WHO should provide technical support to regions, countries, and partners for the integration of simple ECD interventions such as the Integrated Management of Childhood Illness Care for Development intervention in health services and in community health initiatives.

5. Assessing the costs and benefits of programs remains a challenge but WHO should take responsibility for gathering data on the effectiveness of interventions, especially those that are connected to the health care system.
6. The WHO should commit to overseeing an interagency collaboration for scaling up ECD programs through district health systems in several countries to develop models and dissemination of the findings to all countries.

Generate Multi-level Commitment to Early Child Development

1. Local, regional, and national governments should incorporate the “science of early child development” into policy.
2. In order to achieve a global consensus on the importance of ECD, there is a need to foster a broader and more profound understanding of what is involved in ECD, and to a much wider audience than in the past. This should take shape as a social marketing campaign that expands to include audiences not traditionally thought of as ECD stakeholders: finance and planning departments of government, the economic sector, the corporate world, and media.
3. WHO, UNICEF, UNESCO, The Consultative Group on ECCD, the World Bank, and key NGOs should form a consortium to ensure broad dissemination of the science of ECD in conjunction with the social marketing campaign.
4. Governments, by ratifying the Convention on the Rights of the Child, have committed themselves to realizing rights in early childhood. Implementation pilots, like those in Jamaica, are designed to raise consciousness among families, communities, service providers, and policy makers about rights in early childhood, and should be a model for how to conduct such campaigns in other countries.
5. There must be a fully funded global capacity building strategy to assist countries in incorporating the science of early child development into policy; and implementing and monitoring rights in early childhood under the UN Convention on the Rights of the Child.

Build Infrastructure for Early Child Development

1. Governments should create an interministerial policy framework for ECD that clearly articulates the roles and responsibilities of each sector and how they will collaborate. Governments should also integrate ECD policy elements into the agendas of each sector to ensure that they are considered routinely in sectoral decision making. Governments will need to reallocate resources to decrease inequities in access to high-quality ECD programs and services; to facilitate this, our review has identified evidence that can be used as a benchmark for judging the quality of ECD programs and services.
2. Children benefit most when national governments adopt child- and family-friendly policies that guarantee adequate income for all, and maternity benefits, financial support for the ultra-poor, and allow parents and caregivers to balance

their time spent at home and work. Governments should take up the challenge of creating a work-life/home-life balance, by putting systems in place to ensure that quality out of home community-based childcare relevant to local culture and context is available for the children of working mothers.

3. In order to have the appropriate capacity/infrastructure to tackle issues related to ECD, governments, in association with international agencies, should create interdisciplinary opportunities for professional training and research in ECD in resource-poor countries. This could be achieved through regional centers of excellence such as that emerging at the Aga Khan University in Karachi, and/or successful distance education models such as the ECD Virtual University.
4. Community involvement is an important component of successful ECD programming. Because of this, governments should involve local communities in developing, implementing, monitoring and reviewing ECD policies, programs and services. This does not absolve governments from their responsibilities but ensures stronger relationships between government and the local communities where service delivery occurs.

Develop Strategies for Implementation

1. Given the overlap in underlying determinants, governments should be building upon established child survival and health programs to make ECD programs accessible through existing platforms. The health care system is often the most cost-effective platform and most universal point of contact.
2. Governments need to develop strategies for “scaling up” effective programs from the local to the national, without sacrificing the characteristics of the program that made it effective. Implementation integrity and accountability at the local level must be sustained, even when programs are scaled-up to the national level.
3. Governments should ensure that children are enrolled in school, that gender inequities in years of schooling are eliminated, and that schooling is free and compulsory.
4. UNICEF, with the concurrence of the GA-ECD, should develop a common formula for calculating national expenditures on ECD, as well as per capita investment in children. An economic analysis that indicates the “return on investment” that society can anticipate from different types of ECD programs and services should be created and disseminated.

Monitor Processes and Outcomes Related to Early Child Development

1. There is an immediate need to expand the evidence base related to ECD programs, services, policy, and evaluations in resource-poor countries where systems are stressed, resources are low, and challenges of basic living are high. It is not acceptable for inferences made from research conducted in resource-rich countries to be applied to resource-poor countries. Essential in this evidence base are economic analyses of the effectiveness of ECD programs and services as they occur in resource-poor countries.

2. An essential precondition for ECD is the child's basic right to a name and a nationality; thus, national governments have an essential predisposing role to play by ensuring that all children are registered at birth, through maintaining a functioning, comprehensive birth registry without financial costs to families for registration.
3. We now understand that the transactional nature of young children's relationships are far more important for their growth and development than has traditionally been recognized. Children do not just grow up according to internal laws of biology; they grow and develop through the interplay of human relationships in the environments where they live. In order to provide nurturant environments for their children, all families need support from community and government. The quality of support received by families should be monitored by local NGOs including community groups and parents' committees as part of the reporting under the Convention on the Rights of the Child. The goal is universal access to a range of ECD services: parenting and caregiver support, quality childcare, nutrition, social protection, primary health care, and basic education—preschool through school-age. To be effective, these services need to be coordinated at the regional level, and delivered at the local level in a way that puts the child at the centre.
4. National governments and international agencies should be responsible for funding independent monitoring of ECD programs and services for quality and effectiveness. This should include an assessment of barriers to and opportunities for access, with a particular focus on decreasing inequity in ECD. Mechanisms need to be developed and implemented to insure that communities and central agencies work together to collect reliable data on outcomes.

From International Commission to Action

Our ultimate goal in the pursuit of this work was to raise the profile of early child development such that children in *all* societies can thrive. While governments can do much to change the circumstances of the world's children, this knowledge synthesis has demonstrated the need for global collaboration in the area of ECD. To this end, we have initiated a process for beginning to fulfill our recommendations.

Despite the growing body of evidence of the importance of ECD, a key challenge is the absence of data related to children's healthy development. Together with our partners,¹ we have expanded our process for monitoring ECD in multiple country contexts using the Early Development Instrument (Janus & Offord, 2000, 2007). The Early Development Instrument (EDI) is a population-based measure of early childhood development that can be used to assess the character and quality of children's early experiences at a population level. Only internationally comparable, population-level measurement can identify the glaring differences in child development patterns across and within countries. Data for identifying the risk of exclusion from opportunities for healthy child development are immensely useful for enhancing community capacity, informing strategic policy and guiding advocacy.

¹ The Consortium for International Population-Based Early Child Development Indicators

One globally established way to make a significant contribution to children's health is through the actualization of child rights—especially in the early years. With a group of experts and invited by the Committee on the Rights of the Child, in 2006 we began work to develop indicators for *General Comment #7: Implementing Rights in Early Childhood* (Office of the United Nations High Commissioner for Human Rights, 1990). Through working with the Committee on the Rights of the Child, we will put in place a concrete monitoring framework, increase awareness about reporting on the early years, improve how countries report, assist countries to develop better child rights monitoring systems, and as a result, affect change for children's health on a global scale.

Finally, we are in the process of working with the Department of Child and Adolescent Health and Development (CAH), Cluster of Family and Community Health of the WHO where we have committed to developing an approach to health care systems as a platform for delivering early child development programs and services. In partnership, our intention is to develop a plan for gathering data on the effectiveness of ECD interventions and programs, especially those that are connected to the health care system as well as developing models for scaling up ECD programs through district health systems.

While the challenges are many, our Final Report to the WHO Commission on Social Determinants of Health (Irwin et al., 2007) and the work that has been borne out of our recommendations represents a step in a direction of affecting change for children at a global level.

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