

analysis of the incidence of cerebral palsy in survivors, enabling assessment of special health care needs and the potential burden to the health care system and to families.

Despite the encouraging decrease in the prevalence of cerebral palsy reported by the SCPE group, which is consistent with findings from our institution for infants of less than 1000 g birthweight born between 2000 and 2002,<sup>7</sup> there is no cause for complacency. Cerebral palsy is associated with major disabilities: in the SCPE study, 35.2% of children with bilateral spastic cerebral palsy were unable to walk and 23.5% of children had severe mental retardation (ie, intelligence quotient <50). Furthermore, both the SCPE study and data from the USA<sup>8</sup> have recorded an increase in the number of livebirths of very low birthweight, which might lead to an increase in the number of children with cerebral palsy. Therefore every effort needs to be invested in the prevention of preterm birth and its associated brain injury.

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We declare that we have no conflict of interest.

- 1 Hagberg B, Hagberg G, Olow I, van Wendt W. The changing panorama of cerebral palsy in Sweden VII: prevalence and origin in the birth period 1987-1990. *Acta Paediatr* 1996; **85**: 954-60.
- 2 Pallisano R, Rosenbaum P, Walter S, Russel D, Wood E, Gallupi B. Development and reliability of a system to classify gross motor function in children with cerebral palsy. *Dev Med Child Neurol* 1997; **39**: 214-23.
- 3 Bax M, Goldstein M, Rosenbaum P, Leviton A, Paneth N. Proposed definition and classification of cerebral palsy, April 2005. *Dev Med Child Neurol* 2005; **47**: 571-76.
- 4 Platt MJ, Cans C, Johnson A, et al. Trends in cerebral palsy among infants of very low birthweight (<1500 g) or born prematurely (<32 weeks) in 16 European centres: a database study. *Lancet* 2007; **369**: 43-50.
- 5 Paneth N, Hong T, Korzeniewski. The descriptive epidemiology of cerebral palsy. *Clin Perinatol* 2006; **33**: 251-67.
- 6 Blair E, Watson L. Epidemiology of cerebral palsy. *Semin Fetal Neonatal Med* 2006; **11**: 117-25.
- 7 Wilson-Costello D, Friedman H, Minich N, et al. Improved neurodevelopmental outcomes for extremely low birth-weight infants in 2000-2002. *Pediatrics* (in press).
- 8 Martin JA, Hamilton BE, Menacker F, Sutton PD, Mathews TJ. Preliminary births for 2004: infant and maternal health. Nov 15, 2005. <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/prelimbirths04/prelimbirths04health.htm> (accessed Nov 28, 2006).

## Early childhood development: the global challenge

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In 1978, WHO and UNICEF made immunisation and the prevention and control of endemic disease key elements of primary health care and Health for All, set up a new programme for the promotion of oral rehydration therapy (ORT), and supported their widespread adoption and promotion in developing countries. Within 15 years, the practice of ORT had multiplied exponentially, reaching all continents and most countries of the world. By 1990, WHO estimated that the number of children aged under 5 years who died from diarrhoea and dehydration each year had fallen from 5 million to 4 million. The expansion of immunisation was saving a further 3 million, if not more.<sup>1</sup>

Three *Lancet* papers, one in today's issue and the others in the following two issues,<sup>2-4</sup> if taken seriously, could have an impact hardly less dramatic. **At least 200 million children aged under 5 years fail to reach their potential in cognitive and socioemotional development, because of four causes: malnutrition that leads to stunting, iodine and iron deficiency, and inadequate stimulation in their first 5 years of life. This lost potential is preventable.** There are effective and mostly low-cost actions that can be taken to

prevent the damage and remedy the deficiencies. Just as with ORT (and immunisation, growth monitoring, and the promotion of breastfeeding), the problem is not the lack of knowledge about what to do but the lack of professional and political commitment to mobilise action on the scale required—and for poorer communities in countries throughout the world.

The third paper in the series<sup>4</sup> sets out the strategic actions required: mobilise awareness, among parents as well as professionals; implement interventions for childhood development in infancy through families and caregivers, particularly for disadvantaged children; expand preschool education programmes, with components linked to health and nutrition; incorporate early childhood development into existing services and systems; and reach full coverage of programmes to eliminate iodine and iron deficiency in all countries. The call for such action is not to whistle in the wind. This paper provides hard evidence from countries in all regions of the world where such programmes are successfully underway and at an affordable cost. Moreover, programmes of iodine and iron fortification have, since 1990, shown the possibilities for rapid expansion, even in some of the poorest countries. In

**Panel: Child development priorities: Jim Grant's ten commandments<sup>6</sup>**

- Articulate your vision with inspiring goals
- Break goals down into doable, time-targeted actions
- Demystify techniques and technologies
- Generate and sustain political commitment
- Mobilise a grand alliance of all social forces
- Go to scale
- Select your priorities and stick to them
- Institute public monitoring and accountability
- Ensure relevance to broader development goals
- Unleash full potential of the UN

1990, less than a fifth of households in developing countries were using iodised salt; by 2000, the proportion was about 70%.<sup>5</sup>

The first and second papers<sup>2,3</sup> review a mass of recent material which leaves no doubt about the widespread nature of the major causes of these failures in early childhood development. They underline how any one of these four deficiencies leads to a serious effect on childhood development. When two or more of the deficiencies are found together, the combined impact is even more severe. These two papers also draw attention to related problems: malaria, violence and maternal depression, diarrhoea, exposure to heavy metals, and HIV/AIDS. These problems also cause severe setbacks to childhood development no less serious than those resulting from the basic four causes, although, as the authors make clear, remedial actions for the others are more difficult to implement and less evidence is available about costs and effectiveness.

We can learn how to respond to the challenge today by remembering the lessons of expanding ORT and immunisation in the 1980s and 1990s. Jim Grant, the legendary executive director of UNICEF, summarised the approach in his ten commandments (panel).<sup>6</sup>

UNICEF working with WHO and many others—governments, civil society, Christian, Islamic, and other religious groups, and non-governmental organisations such as the Rotarians—showed that applying these principles on a global scale could achieve rapid results in more than a hundred countries, rich and poor. UNICEF described the results in the 1980s as a “child survival and development revolution”.<sup>7</sup> The bottom line was that child deaths were reduced over the 1980s from 15 million to 12 million a year, despite the fact

that economically these years were a lost decade for economic development in most of Latin America and Africa.<sup>8</sup>

What is the chance that early childhood development could experience a similar surge in awareness, commitment, and action over the next decade? The papers in this *Lancet* series and the country examples show the opportunities well. Whether they are seized will depend on the response from key groups. These groups include policymakers within countries and internationally. Will they take up the challenge—and back up their response with the necessary resources? Researchers and academics also have a critical role. Will they give new attention to the issues, provide the professional leadership and guidance required, help document experience, and explore outstanding research questions, especially to identify low-cost approaches which can be implemented by poor families and communities? Another key group is the medical and public-health community. Will they agree that these critical issues of early childhood development can and need to be put on the priority agenda, along with the mass challenges of reducing child mortality and poverty?

The challenge is clear. The size and nature of the problem is defined, along with the seriousness of its long-term consequences. What remains open is only the world's response, and our own.

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I declare that I have no conflict of interest.

- 1 UNICEF. State of the world's children report 1992. Oxford: Oxford University Press, 1992: 12.
- 2 Grantham-McGregor S, Cheung YB, Cueto S, and the International Child Development Steering Group Developmental potential in the first 5 years for children in developing countries. *Lancet* 2007; **369**: 60–70.
- 3 Walker SP, Wachs TD, Meeks Gardner J, and the International Child Development Steering Group Child development: risk factors for adverse outcomes in developing countries. *Lancet* (in press).
- 4 Engle PL, Black MM, Behrman JR, et al. Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. *Lancet* (in press).
- 5 UNICEF. Progress since the World Summit for Children: a statistical review. New York City: UNICEF, 2001: 19.
- 6 Gautam K. Ten commandments of Jim Grant's leadership for development. In: Jolly R, ed. Jim Grant: UNICEF visionary. New York City: UNICEF, 2001: 137–44.
- 7 Jolly R, ed. Jim Grant: UNICEF visionary. New York City: UNICEF, 2001: 15, 50.
- 8 UNDP. Human development report 1993. New York City: Oxford University Press, 1993: 141.