As the proposed Sustainable Development Goals include a target on early childhood development, the United Nations agencies are coordinating efforts to develop a shared measurement framework, from birth to 8 years of age, which cuts across sectors and can efficiently prioritise, validate and report on new indicators and measurement systems to improve policy implementation and programme effectiveness. This article makes the case that measurement of child outcomes is feasible at global and national levels. Further investments are required to expand global reporting and strengthen national capacities to implement measurements for young children’s development and learning.

As the 15-year span of the Millennium Development Goals comes to a close, the international community is currently engaged in discussions to add detail to a post-2015 agenda framed around 17 Sustainable Development Goals (SDGs) and their targets. For the first time in the history of global development, ‘Early Childhood Development’ is part of the UN Secretary-General’s Synthesis Report, The Road to Dignity by 2030 (2014). The report recognises the importance of early childhood as part of the transformative agenda. With respect to tracking progress, the early childhood part of the fourth SDG (‘Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all’), articulated in Target 4.2, reads:

by 2030 ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

This recognition was further endorsed by the Incheon Declaration, adopted at the World Education Forum (held in Incheon, Korea, 19–21 May 2015) which was attended...
by over 140 ministers of education and co-convened by six UN agencies.

This proposed target, and concomitant indicators, focus attention on measurement. How can we measure child outcomes, beyond access to services? What are the most relevant dimensions to capture whether a child is ‘ready’ for primary education? What determines if a given service is ‘quality’? Credible measures which provide useful, reliable data are not only necessary to track progress towards achieving the goal, they are necessary to enable us to meet the goal. Only by measuring the development and learning, beyond access, of different groups of children will we be able to discern which policies, programmes and strategies are working, and why.

Innovations in measurement tools over the last decade have greatly improved the reliability of measurements of the development and learning of preschool-age children at the population level, for example, at global level, the Early Childhood Development Index of UNICEF’s Multiple Indicator Cluster Surveys (MICSS)\(^4\). Several regional efforts have recently made progress in region-wide measurement of early childhood development and learning, notably the East Asia Pacific Child Development Scales; the Regional Project on Child Development Indicators (PRIDI), run by the Inter-American Development Bank; and UNICEF’s West and Central Africa Regional Office (WCARO) prototype. Such regional efforts have successfully developed tools that are culturally appropriate across many countries. Several of them collect information using direct assessment and others are based on reports from teachers and parents. These global, regional and national efforts demonstrate that measuring child outcomes of learning and development is technically feasible with the potential of being a significant tracking mechanism to measure progress towards the SDGs.

Measurement of early childhood development towards the post-2015 target should focus on the following technical areas:

- **Ensuring that measures are reliable and reflect the holistic nature of development.** Child development is holistic by nature. It includes, but is not limited to, domains of cognitive, linguistic, social-emotional and physical development. It is imperative that standards of quality are met – inaccurate data are worse than no data at all. Establishing validity requires substantial investments in research and testing, and attention to the holistic nature of children’s development. During these early years, development and learning have a symbiotic relationship, with learning informing development and vice versa. Additionally, different aspects of development build on each other – for example, children learn words by reading facial expressions. While rates of development, across these domains, are not necessarily linear, and children may experience spurts in one area while other areas progress more slowly, there should be overall progress over time.

- **Understanding what is universal and what is culturally contingent.** Years of research on children’s development has given us a strong scientific...
understanding that children’s development proceeds, overall, according to basic developmental processes that share some consistency from one place to the next. Within this overall consistency, however, are important variations reflecting cultural and contextual influences, because development is experience-dependent. Based on the quality of the environment, development can be greatly enhanced. This poses challenges for any attempt to measure learning and development. For example, when it comes to reaching for objects or walking, it seems that children develop in roughly similar ways across cultures and contexts; but the acquisition of early literacy skills, like naming letters and sounds, is likely to vary considerably from one place to the next. To be able to measure effectively how children are progressing across a variety of cultures and contexts, we need to deepen our understanding of these kind of differences and how to account for them.

- **Understanding when it matters that a child achieves a certain skill by a certain age.** If early literacy skills, for example, are acquired later in one culture than in another, we need to be able to tell whether or not this is something to be concerned about. Should we consider culturally appropriate interventions to encourage earlier acquisition of these skills? Or can we be confident that the literacy skills of children in the lagging culture will catch up in due course? We have more to discover here: only a few longitudinal studies have been conducted to date, so we know little about the long-term consequences of the age at which children acquire certain skills and competencies.

- **Understanding the contribution of environmental inequities.** Across all cultures and contexts, we know that the speed at which children acquire skills depends on factors such as the extent to which their parents or caregivers engage with them, whether they have books and toys to stimulate them, and their health and nutrition status. But we need a more nuanced understanding of the interplay of these factors to know what lessons to draw from data. If measurements tell us children attending a certain kind of preschool are not demonstrating the desired skills or competencies, for example, is it because their preschool is not of sufficiently high quality? Or because of inadequacies in their diet? Or because local norms of parenting do not encourage play with infants? Only by understanding the root causes of differences – which can be achieved by analysing population data – will we be able to draw the right conclusions about what kind of interventions are needed.

- **Better alignment between global, regional and national measures.** While they are necessary to track global progress, though, global tools can never be the whole story. Therefore alignment will be created with regional and national measures. These can be tailored to cultural and contextual relevance and designed to inform about specific programmes and policies, are generally more likely to be perceived as relevant and useful for decision-making. The more local measures exist, the more potential there is to test new and innovative approaches. However, it takes significant resources and capacity to build and test new measures – even those based on a global core – and use the data in a systematic way. The early childhood community should coordinate to support investment in such efforts.

- **Seamless measurement across the early life course (birth to 8 years).** Current measures are designed for children between the ages of 3 and 7 years, but gaps which appear much earlier than this can be hard to close. Literacy, for example, is dependent on early language, so identifying early patterns in development should begin at birth. Work is now underway, led by the World Health Organization, to develop a measure of children’s development from birth to age 3, based on integration of existing measures. The project focuses on defining items for assessing the child’s environment as well as holistic measurement of developmental outcomes. Greater investment is needed to develop measures of children’s development and learning in their first three years that will align with the MELQO focus on 3–8 year olds. By putting these efforts together, the development continuum will be measured.
The renewed interest in early childhood development and measurement, more broadly, presents an excellent opportunity to ensure that young children’s development and learning are measured at global, regional and national levels within the Sustainable Development Framework. As the technical feasibility of measuring child outcomes has been demonstrated, the next steps need to focus on strengthening the measurement systems and improving our capacity to use the data not only to track results but also to inform improvements in programmes and policies. Measurement of child outcomes of learning and development, in the global measurement framework, demonstrates a significant breakthrough in bridging the evidence and policy gap. This innovative work on measurement in the field of early childhood development has the unique distinction of bringing evidence to inform policy to improve the developmental potential of all young children born in the SDG era.

Notes
1 The authors alone are responsible for the views expressed in this article and they do not necessarily represent the decisions, policy or views of the World Health Organization and UNICEF.
2 The proposal for Sustainable Development Goals and their targets is presented in detail by the Open Working Group on the UN’s Sustainable Development Knowledge Platform at: https://sustainabledevelopment.un.org/sdgsproposal (accessed May 2015).

Reference

Suggested reading

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