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HOLDING MULTILATERAL ORGANIZATIONS ACCOUNTABLE: THE FAILURE OF WHO IN REGARDS TO CHILDHOOD MALNUTRITION

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ABSTRACT

At a time when accountability is a key message for countries, constituencies, and organizations, it is important that major multilateral agencies such as the World Health Organization (WHO) are also held accountable for actions taken or not taken. This article first reviews the methods of monitoring growth and development among children under five years of age by the WHO. It then addresses the fact that the WHO delayed disseminating new Child Growth Standards. In addition, the need for more technical support by the WHO for managing chronic malnutrition in young children is needed. This delay has cost the lives of malnourished children around the world.

Malnutrition can account for up to 50% of deaths among children under the age of five since it is a significant underlying factor of child mortality. In developing countries, approximately 25% of children in this age range are moderately or severely malnourished (underweight and/or stunted).¹ With over 9.2 million under-five child deaths in 2007 worldwide, malnutrition accounts for a significant degree of this burden of childhood mortality.² Since this is such a prevalent condition causing great devastation, it is essential that physicians and other health care providers be given the best tools to properly assess malnutrition in hospitals, clinics, and community-based settings. This article discusses the standards used to assess childhood malnutrition in the international community over the last 30 years and implications for their dissemination and use.

In 1977, the United States National Center for Health Statistics (NCHS) produced growth references to assess proper physical development.³ The growth references used the weight-for-age, height-for-age, and weight-for-height distributions from studies conducted in the United States to identify underweight, stunted, wasted, and obese children. These references were used by hospitals and clinics throughout the United States and were immediately adopted by the World Health Organization. As a result of the WHO adoption of these standards, the US-based growth references for children were widely disseminated and used in countries around the world.

However, a number of studies subsequently showed that the 1977 NCHS/WHO growth reference standards were not appropriate for all infants and children. In particular, the 1977 NCHS/WHO standards tended to underestimate levels of low weight-for-age (underweight) for breastfed infants.⁴ As early as 1995, the WHO documented recognizing the problem, particularly for the use of the 1977 NCHS/WHO standards for infants.⁵ The reference data for infants were based on information collected among infants in the Fels Longitudinal Study from 1929 to

1975 in Yellow Springs, Ohio. The limitations noted by the WHO working group at the time included: 1) the sample was limited to Caucasian infants from mostly middle-income families; 2) data were collected every three months rather than monthly, which limited the accuracy of developing the growth curve, particularly from 0–6 months of age; and 3) the majority of the infants in the sample were bottle-fed, and if they were breastfed it was only for a short duration (typically less than three months).⁶

A study examining the 1977 NCHS/WHO standards in a developed area of Brazil provided empirical evidence for the limitations in using the 1977 NCHS/WHO growth references for infants in other settings. These data demonstrated that infants in their sample grew faster than the 1977 NCHS/WHO reference in the first six months of life with a relative decline thereafter. Among the sub-sample of infants that were either exclusively or primarily breastfed from 4–6 months of age, the average decline occurred earlier, usually after three months of age. As a result, breastfed infants were falsely perceived as not getting adequate nutrition through breast milk. Concerns arose that the perceived faltering may cause unnecessary early introduction of non-human milk.⁷

As a result of empirical data demonstrating limitations in the use of the 1977 NCHS/WHO standards, in 2000 the US Centers for Disease Control and Prevention (CDC) published a set of growth charts meant to replace the NCHS growth reference.⁸ These charts were based on national data from the US for infants and children from birth to 20 years of age from five national health examination surveys and supplemental data. The study sought to be more ethnically diverse and to better represent breastfed and bottle-fed infants. Studies comparing CDC growth charts to the 1977 NCHS/WHO references resulted in mixed views. Similar to findings described above, there were notable differences, particularly among breastfed infants under six months of age. The WHO found that “breastfed infants grow more rapidly in the first 2 months of life and less rapidly from 3 to 12 months in relation to the CDC curves.”⁹ The overall consensus, however, was that the CDC growth charts more closely matched the population in the US, particularly since the majority of infants in the US are at least partially bottle-fed. A study comparing the 1977 NCHS/WHO growth references

and CDC growth charts showed that CDC charts were superior in accurately representing the United States population.¹⁰

In 2006, after 11 years of debate and 29 years following the original publication of the NCHS chart, the WHO released new growth charts based on primary data collected from 1997 to 2003 in Brazil, Ghana, India, Norway, Oman, and the US. The WHO sample population only included breastfed infants and measured infant weight and length every two weeks for the first two months and monthly thereafter. Similar to previous findings, a comparison of the 2006 WHO Child Growth Standards to the 1977 NCHS/WHO international growth reference showed significant differences in infants. The mean weight-for-age z-scores of infants in the first six months were higher for the 2006 WHO standards compared to the 1977 NCHS/WHO growth reference. After six months the 2006 WHO standards fell below the 1977 NCHS/WHO values. One significant limitation of the 1977 NCHS/WHO standards was the finding that prevalence of low height-for-age was higher for all age groups using the 2006 WHO standards, particularly for early infancy.¹¹ More recent data indicate significant limitations of the 1977 NCHS/WHO standards. Among children screened for severe malnutrition in a Médecins sans Frontières (MSF) program in Niger, the 2006 WHO standards identified more than eight times the number of severely malnourished children compared with the 1977 NCHS/WHO standards (25,754 versus 2,989 children). The implications are significant: children identified as severely malnourished according to the 1977 NCHS/WHO standards were less likely to recover and more likely to be lost to follow-up compared to those identified by the 2006 WHO standards. In addition, there was a greater likelihood of hospitalization and death among those children identified by the 1977 NCHS/WHO standards compared to the 2006 WHO standards.¹²

Based on these data, it is clear that the new (2006) WHO standards more accurately assess childhood malnutrition in developing countries, particularly in settings where the large majority of infants are breastfed. However, many settings in the field still use the old (1977) NCHS/WHO standards due to poor technical assistance and capacity building in countries with a high burden of malnutrition. The WHO delayed in the creation of these charts and has

also failed to update its own manual regarding the management of severe malnutrition.¹³ In addition, only recently has the WHO updated the *Integrated Management of Childhood Illness (IMCI)* training booklet and the *Manual for the Health Care of Children in Humanitarian Emergencies* with the new WHO nutrition standards.¹⁴

There has been documented recognition of problems with the 1977 NCHS/WHO references by the WHO as early as 1995, but no efforts were made to change the standards until 1997, and new standards were finally published 11 years after acknowledgement of a problem. While 20 million children suffered from malnutrition yearly, health care workers often continued to use charts that were inaccurate. The delay in acting to change these charts in a more expeditious manner was at the expense of children's lives. More than two years after the introduction of their new growth charts, the WHO has not updated some of its manuals for health care workers, meaning many continue to use references published nearly 30 years ago. This is evidenced by UNICEF's recent *State of the World's Children 2009* report that provides prevalence estimates of underweight using the 2006 WHO standards; however, prevalence rates of wasting and stunting are still provided using the 1977 NCHS/WHO standards.¹⁵ UNICEF states in the 2009 report that "the WHO Child Growth Standards are gradually replacing the widely used NCHS/WHO reference population [standards]."¹⁶ This suggests that many countries have not changed their growth reference standards and continue to under-diagnose children who are malnourished. It is concerning that it took more than a decade to develop growth standards appropriate for developing countries. Offering technical assistance and capacity building for these countries falls within the WHO's mandate, but over the past three years the WHO has demonstrated significant delays and has failed to adequately support the dissemination and appropriate use of these standards in countries with a high burden of malnutrition.

The WHO has been tasked with setting international standards for health. As a multilateral agency it has the responsibility of not delaying progress towards developing more accurate nutrition standards and in finding gaps in the uptake and implementation of the revised standards. Children have unnecessarily

suffered the consequences of ignoring recognized problems in nutrition standards for years. The same problem has extended to the WHO malnutrition guidelines, which have fallen short in the management of chronic malnutrition. The WHO website for publications offers no standards for care or management of children with chronic malnutrition despite their own acknowledgement that this condition causes poor growth which can result in delayed brain development and a reduced capacity to learn.¹⁷

At a time where there is a consensus about accountability, Rwanda, among other countries has agreed to be part of the NEPAD (New Partnership for Africa's Development) Peer Review for Joint Assessment of the Government. There is an agreement of the necessity of accountability for not only the government, but also developing partners and the civil society. Still, people have been silent about the accountability of multilateral organizations like the World Health Organization. Many developing countries depend on the WHO to provide them with accurate information. Since they often do not have the resources themselves to remain up-to-date, it is vital that they can rely on the WHO to quickly make available and widely disseminate the standards that reflect the highest standard of care. The question remains: If we know the right thing to do, and we know the consequences it may bring, why do we continue to do wrong?

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