New WHO standards for improving the quality of healthcare for children and adolescents

Trevor Duke[1,2]

In the last 25 years there has been an increasing recognition of the importance of quality of health services as a public health issue.[1 2] Quality in healthcare is now represented in national policies, and demanded by health boards and consumers alike. The drive for quality began with the recognition that hospital-acquired adverse events were frequent, costly and often deadly in high-income countries. Since 2000, in many low-income and middle-income countries, assessments have shown that there was much scope for improving quality in many aspects of paediatric care, especially in district-level and provincial-level hospitals, and experience has grown in how to do this.[3–12]

Many populations and environments have seen little of the quality of healthcare revolution. This is especially the case in health facilities in low-income and middle-income countries, and particularly in rural and remote settings. Sometimes this has been because of the lack of clear and simple description of *how* to improve quality in difficult settings, of the standards that need to be achieved to improve health outcomes, and of the contributions that can be made by individuals and nurses and doctors working together.

On April 24 WHO published standards for improving the quality of care in children and young adolescents in healthcare facilities.[13] This is very important progress. Developing these standards involved a 20-person technical advisory group, a Delphi review involving over 200 paediatricians, scientists and policy makers from 88 countries, and a large WHO secretariat.

The standards define the priorities for quality improvement in eight domains (box 1). The standards are holistic, and include clinical standards aligned to WHO guidelines,[14] but go beyond treatment to require more child-centred and family-centred care, better environments to care for children, and greater attention to prevention and protection of children's rights.

Box 1 WHO standards for improving the quality of care for children and young adolescents in health facilities

1. Every child receives evidence-based care and management of illness according to WHO guidelines.
2. The health information system enables collection, analysis and use of data to ensure early, appropriate action to improve the care of every child.
3. Every child with conditions that cannot be dealt with effectively with the available resources receives appropriate, timely referral with seamless continuity of care.
4. Communication with children and their families is effective, with meaningful participation, and communication, and responds to their needs and preferences.
5. Every child's rights are respected, protected and fulfilled at all times during care, without discrimination.
6. All children and their families are provided with educational, emotional and psychosocial support that is sensitive to their needs and strengthens their capability.
7. For every child, competent, motivated, empathic staff are consistently available to provide management of common childhood illness.
8. The health facility has an appropriate child-friendly physical environment, with adequate water, sanitation, waste management, energy supplies, medicines, medical supplies and equipment for routine care and management of common childhood illness.

In the standards document, each domain has an overall aim, rationale, specific quality statements and quality measures. WHO states that these standards are applicable to all health facilities that provide healthcare to children and adolescents.

For the 8 domains there are 40 separate quality statements. For each quality statement there are 7–22 quality measures, divided into inputs, process/outputs and outcomes, for benchmarking, assessing and monitoring quality of care. Two examples are summarised in box 2.

Many healthcare settings with limited resources may find implementation of these standards challenging. Some committed healthcare workers may feel overwhelmed by the number of quality statements and measures, not know where to begin, or may feel if they cannot achieve all or most of what is in the document then it must have been designed for better resourced health systems. This would be a shame and a missed opportunity, as the standards, with some adaptations for context, are universally relevant, and the implementation can be gradual and prioritised.

How these new standards are communicated, introduced and used is as important as their content. The standards will be useful at a national level for preparing evidence-based national standards and protocols, allocating resources, assessment, monitoring performance and accreditation of healthcare facilities for children. They are even more useful at a local level, if support and guidance are available on how to make a start.

At the local level, one way to start is to work through the standards to prioritise, and do what is doable with the resources available. Local implementation requires leadership, and a commitment to *continuous quality improvement* by enthusiastic nurses, paediatricians and other health staff. To bring people along, forming a quality team in the paediatric department is ideal to ensure that all cadres of healthcare workers have roles, including administrators, pharmacists and other allied health staff. It will be possible to implement many of the standards within existing resources. Some require a change in the way healthcare workers interact and communicate with children and families, how they involve children in their own healthcare, and whether services are child-friendly and family-friendly. If staff are valued and work in a supportive team, they are more likely to treat patients with kindness and respect. This extends to non-clinical staff, including cleaners, ward clerks and maintenance staff, who also need to know that their roles are important in ensuring a healthy and safe environment for children. The hospital environment matters to recovery; add colour or pictures to the ward, privacy for

[1]Centre for International Child Health, University of Melbourne, Department of Paediatrics and Intensive Care Unit, Royal Children's Hospital, Parkville, Victoria, Australia
[2]School of Medicine and Health Sciences, University of Papua New Guinea, Papua New Guinea

Correspondence to Professor Trevor Duke, University Department of Paediatrics, Royal Childrens Hospital, Parkville, VIC 3052, Australia; trevor.duke@rch.org.au

Box 2 Two examples of a standard, one quality statement within that standard and one quality measure

Standard 1: Every child receives evidence-based care and management of illness according to WHO guidelines.

- Quality statement 1.8. All children at risk of tuberculosis (TB) and/or HIV infection are correctly assessed and investigated and receive appropriate management according to WHO guidelines.
- Quality measure 4. The health facility has child-friendly single or fixed-dose formulations of TB medicines available at all times in adequate quantities without stock-outs.

Standard 4: Communication with children and their families is effective, with meaningful participation, and communication, and responds to their needs and preferences.

- Quality statement 4.3. All children and their carers are enabled to participate actively in the child's care, in decision-making, in exercising the right to informed consent and in making choices, in accordance with their evolving capacity.
- Quality measure 2. The health facility has an up-to-date client charter that states the policies for child-centred and family-centred care, guidance on confidentiality, and the practice and culture of family presence during examinations, procedures and treatment of children.

families, an outdoor area where children can play and have fresh air and sunshine, a ward library figure 1, or plant a nutrition garden.

Some changes will require cooperation and support from hospital managers, the endorsement of national health departments, provincial and district public health authorities, and other external stakeholders. Some countries will initiate *national paediatric quality improvement programmes*. This will require the provision of tools and building capacity for various components of quality improvement: use of standardised care guidelines and protocols, mortality and morbidity auditing, infection control and data recording, for example.

The Sustainable Development Goals (SDG) call all countries to address the inequality in quality health services for mothers, newborns, children and adolescents.[14] The SDGs highlight children who

Figure 1 The children's library on the tuberculosis ward in a hospital in Papua New Guinea helped transform the ward into a more child-friendly place.

are less likely to access good quality of healthcare: children living in remote rural areas or urban slums; indigenous children, those who are homeless, refugees or living in conflict zones; children with disabilities, chronic illnesses or mental health problems; and adolescents. In 2005 Lynn Freedman wrote about the MDGs: 'Hospitals and health systems are not just mechanical structures to deliver technical interventions the way the post-office delivers a letter. Health systems are core social institutions; the way people are treated has the potential to worsen, or to mitigate, the effect of poverty and social disadvantage on health and development'.[15]

To achieve improved quality and equity, there needs to be more importance placed on these things in the training of health workers and in the culture of health services. Training in practical aspects of clinical quality improvement that are prioritised according to the local and national context, using the WHO standards as a guide. Training will be required for nursing and medical staff in how to continuously improve quality of care, conduct and learn lessons from audit, how to understand paediatric data and how to implement change, and how to apply standards in the healthcare setting. And we need to talk more about the way people are treated and the positive effect this can have on their lives and future care seeking.

The *Archives* wish to support WHO in this effort to improve quality of health facility care for children and adolescents. We hope that national child health programmes, national paediatric associations, academic institutions, hospitals, paediatric departments and child health leaders in low-income and middle-income countries will adopt and implement these standards. 'Child health leaders' is a broad term: from heads of paediatric associations, to committed paediatricians, enthusiastic young trainees and nurses who run children's wards. We welcome papers over the next 2 years from countries and these bold leaders, on the implementation of WHO standards of health facility care for children and adolescents, and hope that sharing such experiences will help bring improved quality of healthcare to the children who need this most, and to the hospitals that have previously not benefited from the global quality in healthcare revolution.

Funding TD acknowledges the RE Ross Trust (Victoria) for funding for paediatric education, research and quality improvement in PNG and the Pacific.

Competing interests None declared.

Provenance and peer review Commissioned; internally peer reviewed.

To cite Duke T. *Arch Dis Child* Epub ahead of print: [*please include* Day Month Year]. doi:10.1136/archdischild-2018-315423

Received 28 April 2018
Accepted 1 May 2018

Arch Dis Child 2018;**0**:1–3.
doi:10.1136/archdischild-2018-315423

REFERENCES

1 Donabedian A. The quality of care: how can it be assessed? *JAMA* 2017;260:1743–8.

2 Berwick DM, Calkins DR, McCannon CJ, *et al*. The 100 000 Lives Campaign. *JAMA* 2006;295:324–7.
3 World Health Organization. *Improving quality of paediatric care in small hospitals in developing countries*. Geneva: WHO, 2001.
4 Nolan T, Angos P, Cunha AJ, *et al*. Quality of hospital care for seriously ill children in less-developed countries. *Lancet* 2001;357:106–10.
5 Campbell H, Duke T, Weber M, *et al*. Global initiatives for improving hospital care for children: state of the art and future prospects. *Pediatrics* 2008;121:e984–92.
6 Gathara D, Opiyo N, Wagai J, *et al*. Quality of hospital care for sick newborns and severely malnourished children in Kenya: a two-year descriptive study in 8 hospitals. *BMC Health Serv Res* 2011;11:1–7.
7 Ayieko P, Ntoburi S, Wagai J, *et al*. A multifaceted intervention to implement guidelines and improve admission paediatric care in Kenyan district hospitals: a cluster randomised trial. *PLoS Med* 2011;8:e1001018.
8 Duke T, Keshishiyan E, Kuttumuratova A, *et al*. The quality of hospital care for children in Kazakhstan, Republic of Moldova and Russia. *Lancet* 2006;367:919–25.
9 Hoque DM, Rahman M, Billah SM, *et al*. An assessment of the quality of care for children in eighteen randomly selected district and sub-district hospitals in Bangladesh. *BMC Pediatr* 2012;12:197.
10 Tamburlini G, Siupsinskas G, Bacci A. Quality of maternal and neonatal care in Albania, Turkmenistan and Kazakhstan: a systematic, standard-based, participatory assessment. *PLoS One* 2011;6:e28763.
11 Lazzerini M, Shukurova V, Davletbaeva M, *et al*. *Improving the quality of hospital care for children by supportive supervision*, 2017.
12 Ehiri JE, Oyo-Ita AE, Anyanwu EC, *et al*. Quality of child health services in primary health care facilities in south-east Nigeria. *Child Care Health Dev* 2005;31:181–91.
13 World Health Organization. *Standards for improving the quality of care for children and young adolescents in health facilities*: Geneva, 2018.
14 World Health Organization. Hospital care for children: guidelines for the management of common illnesses with limited resources. Organization WH, editor. Geneva: WHO, ISBN 789241548373. 2013 http://www.who.int/maternal_child_adolescent/documents/child_hospital_care/en/
15 Freedman LP. Achieving the MDGs: health systems as core social institutions. *Development* 2005;48:19–24.