

Twin–singleton early-life survival in sub-Saharan Africa



One in five twins born in sub-Saharan Africa dies before age 5 years, and this estimate is likely to be conservative. This is the important message from Christiaan Monden and Jeroen Smits¹ on the basis of their pooled analysis of 90 Demographic and Health Surveys for 30 sub-Saharan African countries taken between 1995 and 2014. The under-5 mortality is three times higher among twins than among singletons and for neonatal mortality it is five times higher. Still, only half of women pregnant with twins had medical assistance at birth. As emphasised by Monden and Smits, this calls for an improvement in both prenatal, intrapartum, and postnatal twin care.

In sub-Saharan Africa, increased focus should be on recognising twin pregnancies during antenatal care to prevent and treat potential complications.² If available, antenatal ultrasound has an important role in diagnosing twin pregnancies³ and currently WHO recommends an early scan before 24 weeks of gestation. Mothers carrying twins should be referred for delivery to specialised centres, where advanced obstetric care is available, and receive proper prenatal counselling.⁴ By improving the mother's understanding of possible complications related to twinning, delays in seeking medical care can be avoided.⁵ As Monden and Smits¹ point out, many hospital arrivals in sub-Saharan Africa occur at a late pregnancy stage due to obstetric problems (eg, obstructed labour), which increase mortality. Hospitals where the twin deliveries take place should be adequately provisioned to do caesarean sections if needed and the staff should be trained in neonatal resuscitation and care for premature neonates. Procedures to avoid unnecessary delays in hospital staff taking action during obstetric emergencies should be in place. Such institutional delays are usually referred to as type-3 delays in the three-layer delay model.⁵ For twins, an example would include fatal delay in doing a caesarean section in severe labour obstruction, resulting in fetal asphyxia.

After birth, newborn twins should be assessed carefully before hospital discharge and the mother properly informed on potential danger signs (eg, poor feeding).⁶ Malnutrition occurs more commonly among infant twins.⁷ If possible, home visits by health professionals should be undertaken during the first year of life to identify twins failing to thrive.^{6,7} In Guinea-Bissau,

we found that birthweight less than 2000 g, death of the co-twin perinatally, and severe maternal illness during pregnancy were risk factors for twin death in the first months after birth.⁶ Finally, more research is needed regarding obstacles to hospital admissions for twins.⁶

While the study by Monden and Smits¹ clearly shows that the current status of early-life survival in twins is alarming, the interpretation of the development over time is more complex. Monden and Smits emphasise that the under-5 mortality has been cut to half over the last 20 years for singletons, whereas for twins the decline has only been one third. However, it is also noted that the absolute risk reduction has actually been larger for twins than for singletons. In the study period, the under-5 mortality for twins changed from 33% to 21%—an absolute decline of 12% (and a relative decline of about one third), whereas for singletons it decreased from 13% to 6%—an absolute decline of 7% (and a relative decline of about one half). For mothers of twins and for twins themselves, the absolute risk is more important than the relative risk, so it could be argued that the progress in survival in recent years has actually been bigger for twins than for singletons in sub-Saharan Africa. We speculate that this finding might be due to a general improvement in antenatal and emergency obstetric care, which could be of even bigger importance in twin pregnancies. Hence, twins could benefit even more than singletons from such interventions.

The development in high-income countries shows the possibilities for progress in twin health and survival: Danish twins born between 1870 and 1900 had higher early-life mortality rates than twins born in the late 20th century and contemporary sub-Saharan twins, with about 40% under-6 mortality (double the risk for singletons at that time).⁸ Today, this risk is cut to about 2%.⁹ Furthermore, there is some evidence that twin cohorts with high early-life mortality can also have long-term health disadvantages compared with singletons. Best documented is the cognitive disadvantage of twins being born in the first part of the 20th century—a disadvantage that has vanished in more recent twin cohorts.¹⁰ Therefore, a continued progress in twin early-life survival in sub-Saharan Africa is likely to also have a positive impact in the future with better later-life health for twins, making increased attention to

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mothers of twins and the health care of their infants in sub-Saharan Africa even more pertinent. In this context, WHO should consider including twins specifically in the recommendations for postnatal care, which is currently not the case.

*Kaare Christensen, Morten Bjerregaard-Andersen

Danish Twin Registry, University of Southern Denmark, Department of Public Health, J B Winsløvs Vej 9B, 5000 Odense C, Denmark (KC); Bandim Health Project, INDEPTH Network, Apartado 861, 1004 Bissau Codex, Guinea-Bissau (MB-A); Research Center for Vitamins and Vaccines, Statens Serum Institute, Copenhagen, Denmark (MB-A); and Department of Endocrinology, Odense University Hospital, Odense, Denmark (MB-A)
kchristensen@health.sdu.dk

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