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Early Childhood Development: Situation Analysis for Malawi

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Teenage pregnancies have potential negative consequences for the next generation. Children born to adolescent mothers are particularly at a disadvantage with regard to their health, nutrition, cognitive, and socioemotional development. The early years, especially the first 1,000 days, are crucial for lifetime health, learning, and productivity. Particularly for the most vulnerable children and families, early childhood development (ECD[1]) is a high-return investment. This policy brief presents evidence on the health, nutrition, and overall development of children in Malawi with a focus on those born to adolescent mothers.

Trends in ECD

Health and Nutrition

Mortality rates among children are declining in Malawi. Infant mortality (deaths of children under the age of 1 year) and childhood mortality (deaths of children under the age of 5 years) have fallen substantially and are expected to continue to decline. The infant mortality rate in 2010 was an estimated 66 deaths per 1,000 live births, a decline from 135 in 1992, while under-5 mortality rate is an estimated 112 deaths per 1,000 live births—down from 234 in 1992. Data show that while neonatal, infant and child mortality rates have been declining steadily since 1992 (figure 1a), children born to adolescent mothers still experience higher mortality than children born to mothers in their 20s and 30s (figure 1b).

The decline in neonatal mortality (deaths within 28 days of birth) has not been as fast, as it declined from 41 deaths per 1,000 live births in 1992 to 31 in 2010. Similar to infant and childhood mortality, neonatal mortality is higher for babies born to mothers under 20 years of age than for babies born to mothers in their 20s. Even after controlling for key demographic and socioeconomic variables, the odds of mortality are approximately 70 percent higher for infants born to adolescent mothers than for infants born to older mothers; similar elevated odds exist for deaths of children under 5 years of age by mother's age.[2]

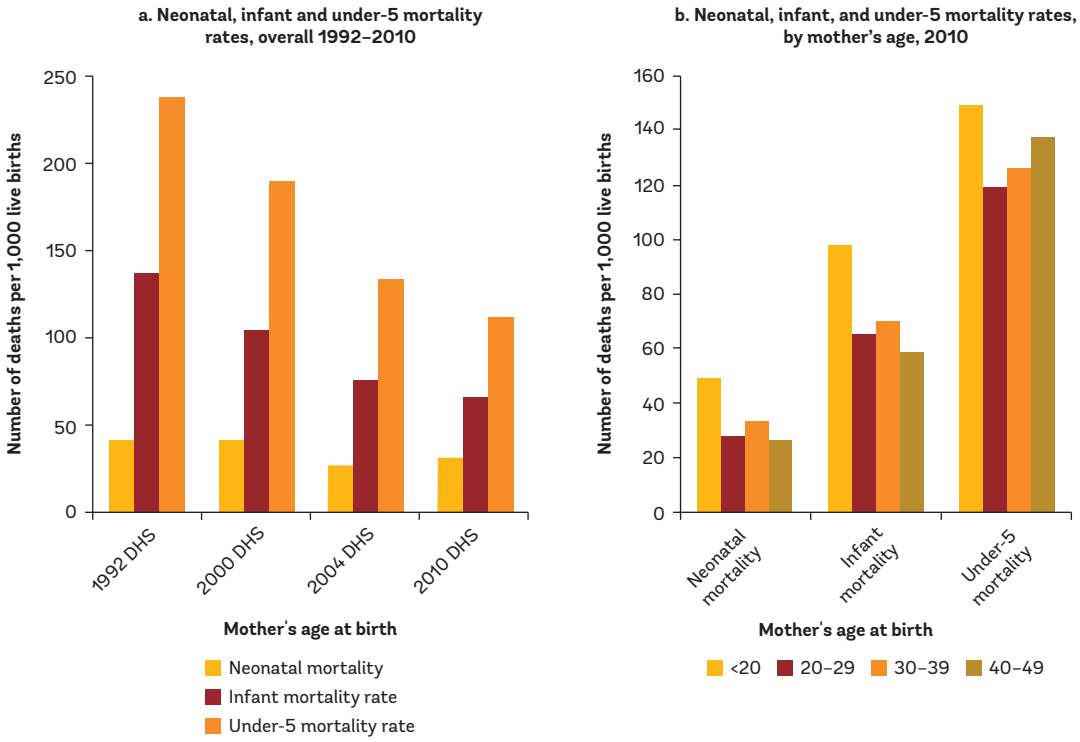
Children born to women with higher educational attainment have lower mortality before age 5 than children born to women with less education (figure 2)—but as mortality rates declined over time, the gap in neonatal and infant mortality between women with different education levels, has considerably narrowed. In 2010, the infant mortality rate was 71 per 1,000 babies born to

[1] ECD is defined as an orderly, predictable process along a continuous path, in which a child learns to handle more complicated levels of moving, thinking, speaking, feeling, and relating to others. Physical growth, literacy and numeracy skills, socioemotional development and readiness to learn are vital domains of a child's overall development, which is a basis for overall human development (MICS 2014).

[2] Results of a multivariate regression model using 2013–14 MICS data on whether infant (under-1) and under-5 mortality are associated with mother's adolescence, ethnicity, religion, region of residence, urban or rural residence, household wealth quintile, level of mother's educational attainment, sex of the child, twinship, and birth order. The full findings are available from the authors upon request.

Public Disclosure Authorized

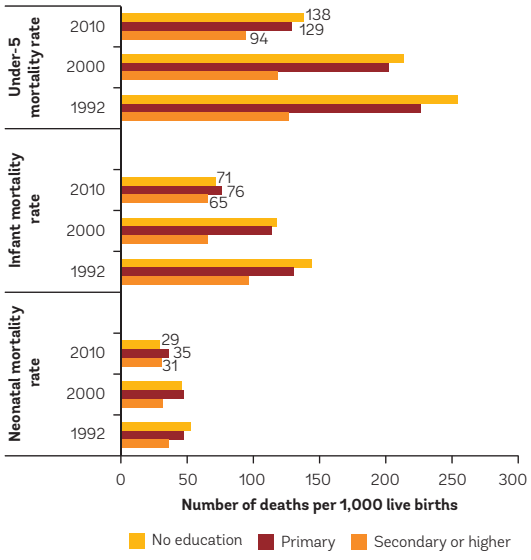
Figure 1. Under-5 Mortality Rates, Overall and by Mother's Age at Birth, 1992–2010



Source: Demographic and Health Surveys.

Note: Neonatal mortality is death in the first 28 days of life; infant mortality is death before one year of age.

Figure 2. Infant and Under-5 Mortality in Malawi, by Mother's Level of Education, 1992–2010



Source: Demographic and Health Surveys

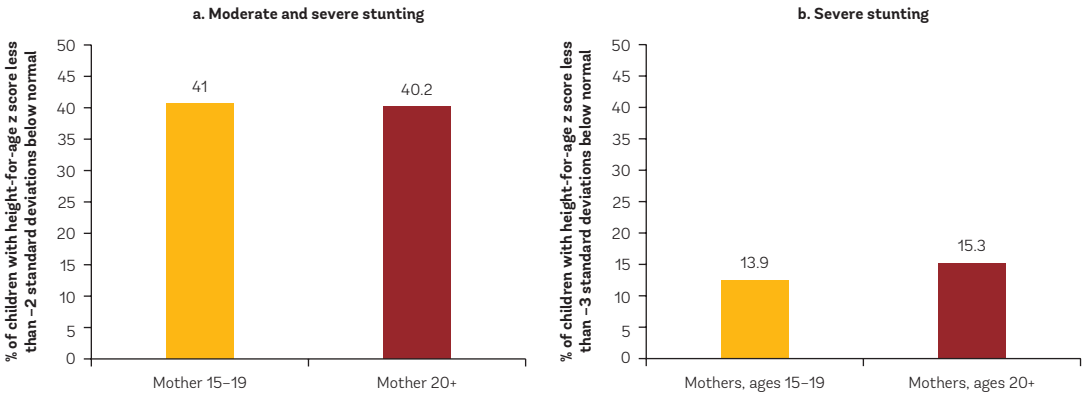
women with no education, compared with 65 per 1,000 for babies born to women with at least a secondary education; the under-5 mortality rates for these groups were 138 per 1,000 and 94 per 1,000, respectively; and the neonatal mortality rates for these groups were 29 per 1,000 and 31 per 1,000, respectively.

Risks for poor nutrition are higher among children born to adolescent mothers

Children born to adolescent mothers are at higher risk for stunting, especially severe stunting, which can affect cognitive development and educational outcomes in later childhood and adolescence.[1] These higher stunting rates may be explained by the strong intergenerational relationship between stunting and poor maternal health and nutrition before, during, and after pregnancy. The prevalence of moderate and severe stunting is 42% for children under five (MICS 2013–14), but the odds of being stunted are approximately 12 percent higher for a child born to an adolescent mother than for a child born to a mother over age 20.[3] In addition, a higher percentage of children born to women with no education were stunted (47 percent) or severely stunted (19 percent), compared to those born to women with secondary education or higher levels of education—where

[3] Results of a multivariate regression model using 2013-14 MICS data on whether moderate stunting is associated with mother's adolescence (child's birth between ages of 15 and 19), ethnicity, religion, region of residence, urban-rural residence, household wealth quintile, mother's level of educational attainment, and sex of the child. The full findings are available from the authors upon request.

Figure 3. Stunting of Children in Malawi, by Mother's Age, 2013–14



Source: MICS 2013–2014.

33 percent were stunted and 10 percent were severely stunted.

Children born to adolescent mothers also face illness more often compared to other children

Overall, diarrhea prevalence has barely changed since 1992 (from 22 percent according to the 1992 DHS, to 18 percent in the 2010 DHS, and 25 percent in the 2013–14 MICS); cough prevalence rose considerably during the 2000s before falling again (14 percent in 1992, 27 percent in 2000, 19 percent in 2004, 7 percent in 2010); and fever prevalence has declined slightly, from 40 percent in 1992 to 32 percent in 2012 (MICS). According to the 2013–14 MICS, a higher percentage of children born to adolescent mothers had fever, diarrhea, or cough than children born to older women: 38 percent versus 37 percent; 29 percent versus 24 percent; and 45 percent versus 41 percent. These differences were statistically significantly for diarrhea and cough (but not for fever), even after controlling for important factors in multivariate analyses: children born to adolescent mothers saw 18–20 percent higher odds of recent diarrhea or fever than children born to older mothers.[4] Similarly, recent DHS (2004, 2010) have also identified a significantly higher prevalence of recent diarrhea and cough among children born to adolescent mothers (versus those born to older mothers) (p-value < 0.05 for both), but no significant difference for fever. After controlling for important factors, analyses found that children of adolescent mothers are significantly more likely to have experienced a recent case of diarrhea (approximately 17 percent higher odds than for children of older mothers), but found no significant relationship for recent cough or fever.[5]

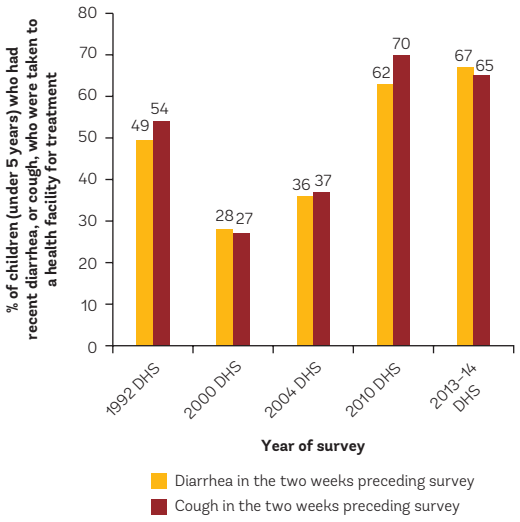
Seeking medical treatment for diarrhea and for cough decreased nationwide during the 2000s, but has since increased (figure 4). In 2010, 62 percent of children with a recent case of diarrhea reportedly had received care at a health facility (80 percent received either medical care or ORS); among children of adolescent mothers with a recent case of diarrhea, 66 percent had received medical care (80 percent received either medical care or ORS). There are similar rates of seeking care for recent cases of acute respiratory infection (fever or cough): 61 percent for all mothers and 63 percent for adolescent mothers.

Multivariate results, however, show that there is no significant relationship between adolescent motherhood and seeking care for diarrhea or respiratory infection, suggesting

[4] Results of a multivariate regression model using 2013–14 MICS data on cough in the past two weeks (or fever or diarrhea modeled separately) were associated with whether mother was an adolescent at the time of the child's birth, woman's educational attainment, household wealth quintile, religion, ethnicity, region of residence, urban/rural residence, child sex, and some relevant behaviors (such as ownership of a bed net to prevent fever, and improved water and sanitation for diarrhea). The full findings are available from the authors upon request.

[5] Results of a multivariate regression model using a pooled cross-sectional dataset on cough in the past two weeks (or fever or diarrhea modeled separately) were associated with adolescence, woman's educational attainment, household wealth quintile, marital status, religion, region of residence, urban/rural residence, child sex, birth order, survey year and some relevant behaviors (such as use of a bed net to prevent fever, and improved water and sanitation for diarrhea). The full findings are available from the authors upon request.

Figure 4. Treatment-Seeking for Childhood Illnesses in Malawi, 1992–2010, 2013–14



that factors other than age may be more important in motivating mothers to seek care.[6] For example, there may be differences in the quality of care received by teenage mothers or in the timeliness with which they seek care, which may in part explain poorer health outcomes for their children. Although they seek treatment for their children's illnesses, for some sicknesses, adolescent mothers are less likely to take preventive steps to avoid illness. For example, antenatal tetanus toxoid vaccination protects the mother from contracting tetanus, prevents preterm birth, and protects the newborn. In Malawi, it is relatively uncommon for adolescent mothers to receive antenatal tetanus toxoid vaccination. In 2010, only 6 percent of adolescent mothers had been vaccinated (versus 13 percent of women age 20–34 at time of birth, and 18 percent of women 35–49). Use of bed nets is also low for children of adolescent mothers. Only 52 percent had slept under a bed net during the previous night in 2013–14, compared to 53 percent nationwide—and after adjusting for socioeconomic and demographic factors, children of adolescent mothers had 20 percent lower odds of sleeping under a bed net compared to children of older mothers.[7]

22%

The percentage of 1st graders who are 8 years or older.

Learning, Cognitive Development, and Achievement

Poor health and nutrition adversely affect learning, cognitive development, and achievement. Among children enrolled in Standard 1, 22 percent of them are 8 years old or older, which sets them on a challenging learning trajectory (EMIS 2014–15). High repetition in early grades,[8] stunting or lack of maturity (parents may consider children "too small" or "not ready" to start Standard 1 and/or walk long distances to primary school), lack of required documentation to register in time for the school year, or lack of information among parents about the importance of starting school at the right age are some of the reasons for a delayed start in schooling. Late entry has many negative implications, including higher likelihood of dropping out or repeating grades later.

Few Malawian children get preschool experience, as only 28 percent of children entering primary school have had preschool experience (MoGCSW 2015); and only 39 percent of children aged 36–59 months were attending early childhood education, with large variations by socioeconomic characteristics (MICS 2014). The Ministry of Gender, Children, and Social Welfare (MoGCSW) reports that there are more than 11,000 early childhood centers in Malawi that serve 1.4 million children (2015). Over 8,000 of these preschools are public community-based childcare centers (CBCC), mostly catering to children in rural areas and opening for a few hours each weekday. Most CBCCs are volunteer-run by untrained caregivers and chaired by a community-based organization; some also receive nongovernmental organization support. The quality and reliability of services to children vary greatly—a 2011 survey of CBCCs in 4 districts found only 53 percent of those listed in the government registry were operational during unannounced visits (Neuman et al. 2014). CBCCs close for a variety of reasons including unavailability of food, inadequate shelter, and caregiver absenteeism. A baseline study of 199 CBCCs reported that one-third of CBCC caregivers lacked Primary School Leaving Certificates and less than

[6] Results of multivariate regression models, using both 2013–14 MICS and pooled cross-sectional datasets (modeled separately) on cough in the past two weeks (or fever or diarrhea modeled separately), were associated with adolescence, woman's educational attainment, household wealth quintile, marital status, religion, region of residence, urban/rural residence, child sex, birth order, and survey year (for pooled analysis). The full findings are available from the authors upon request.

[7] Results of a multivariate regression model using 2013–14 MICS data on cough in the past two weeks (or fever or diarrhea modeled separately) were associated with whether mother was an adolescent at the time of the child's birth, woman's educational attainment, household wealth quintile, religion, ethnicity, region of residence, urban/rural residence, child sex, and household bednet ownership. The full findings are available from the authors upon request.

[8] In 2014–15, 1 in 4 children in Standard 1 were repeaters (EMIS).

40 percent had received any training on early childhood development (World Bank 2015b).

The recent 2014 MICS ECDI[9] shows that only 60 percent of children aged 35–59 months were on track in their literacy-numeracy, physical, social-emotional, and learning domains, though there were large socioeconomic differences. A World Bank (2015b) study found that child development outcomes tend to be better for mothers with more formal education. Controlling for height and age, maternal primary school education was associated with a 1.2 point increase in children's receptive vocabulary scores and maternal secondary school education was associated with a 3.2 point increase in scores.[10] The MICS also showed that only 1.2 percent of children lived in households that had 3 or more books for the child, though about 30 percent lived in households where they had some sort of support for learning through engagement with adults in four or more activities.

Policy Framework in Malawi

Malawi's Growth and Development Strategy II (MGDS II) places great emphasis in the role of child development in building human capital and productivity. Malawi has a multisector approach to ECD, centered in the MoGCSW, with implementation at the district level by district social welfare officers. In recent years there has been great progress in ECD laws, policy, and guidelines development, including the National Policy on ECD (2006); National Social Support Policy (2012), which has a link with other policies including ECD; National Strategic Plan for ECD (2009-2014), National ECD Operational and Accreditation Guidelines (2012); the National Nutrition Policy and Strategic Plan (2009) and the National ECD Curriculum all aim to ensure Malawian children are given a fair chance to survive, grow, develop, and participate. The Growth and Development Strategy II (MGDS II) also emphasizes the importance of child development for building human capital and productivity, and there are multi-sectoral Population and Youth Policies. These policies incorporate some evidence-based approaches including positioning ECD at the intersection of health and early education, emphasizing ways to improve quality of education across levels (including ECE), promoting breastfeeding and community-based management of childhood illness, and the provision of psychosocial care for children – but important gaps remain, including maternal education about early learning and stimulation, as well as preparatory programs and policies about parental leave.

This set of ECD-relevant policies has seen wide support from the government and the community. They have created new institutions and structures, and the multitude of NGOs and partners in this space see many opportunities for partnership and cooperative implementation. There have been implementation challenges, however; some laws have been enacted but not implemented, and the policy space analysis based on stakeholder interviews found that there are insufficient resources for policy implementation – both in terms of budgetary shortages and staffing shortages, as well as poor coordination among the many implementing partners. The budget currently allocated to the operating costs of the country's more than 11,000 public CBCCs and private ECD centers is inadequate. Although there are monitoring and evaluation plans, there are concerns that these may not function well across the many partners. Specifically for child health, the multi-sectoral National Nutrition Policy has good support although it would benefit from a visible policy champion. While there are committees and coordinating bodies which have raised the visibility of this topic (although visibility and priority remain low, according to some stakeholders), policy implementation is under-resourced in terms of budget and human resources, particularly for activities at the community level. Similar overall results were found by the World Bank SABER report (2015a) – which rated Malawi's policy environment, implementation, and monitoring and assurance of ECD policy as "emergent," with some of the laws enacted but

17%

The percentage of children age 36–59 months who are developmentally on track for literacy and numeracy.

[9] ECDI is an overall the index calculated as the percentage of children who are on track in at least 3 of 4 areas- Literacy-numeracy tests naming of letters of the alphabet, reading simple words, and recognizing single digit numbers. Physical tests small motor skills and asks about recent illness. Social-emotional tests how the child interacts with other children, their attention span, and behavior issues. Learning tests following directions and executing a task independently. For literacy-numeracy and social-emotional, a child is considered on track if two of the three components in those areas are correct. Sixty percent of children age 36–59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains; however only 17 percent of children age 36-59 months were developmentally on track for literacy and numeracy.

[10] Measured by the Peabody Picture Vocabulary Test. The mean score for mothers without a Primary School Leaving Certificate was 24.4. Maternal education has been associated with PPVT scores for preschoolers in Cambodia, Ecuador, Madagascar, and Mozambique.

not implemented, and while established policies provide a solid basis for implementation there is a need to strengthen them through an overarching law specifically aimed at ECD policy and delivery; in addition it was found that lack of a corresponding budget is an obstacle to implementation of policies.

Key Findings and Conclusions

Teenage pregnancies have negative consequences for the next generation:

- Children of adolescent mothers are at higher risk of mortality, poor nutrition, and onset of illness than are children of older mothers.
- Teenage mothers are less likely to take preventive measures for ensuring better health of their children.
- Poor health and nutrition adversely affect cognitive and socioemotional development and learning, putting children of teenage mothers at higher risk of poor development outcomes.
- The number of children reached with ECD services continues to fall far short of goals, particularly in rural areas and there was need to increase the budget allocated to operating costs of the country's more than 11,000public CBCCs and private ECD centers.

To improve outcomes of children of teenage mothers, services need to be tailored to reach them. ECD policies and programs need to be of better quality to address the many challenges facing adolescents and their children. For Malawi to reap its full demographic dividend, it will be necessary to ensure improved health and early childhood development outcomes—particularly given the large number of children born to adolescent mothers currently and in the coming decades.

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