Child Feces Disposal in ETHIOPIA

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Key messages:

- In 2010, seven in 10 households (69 percent) surveyed in Ethiopia reported unsafe disposal of the feces of their youngest child under age three.
- Even among households with improved toilets or latrines, half (49 percent) reported unsafe child feces disposal behavior.
- Unsafe child feces disposal is more prevalent among households that defecate in the open, those in rural areas, those that are poorer, and those with younger children.[1]

OVERVIEW

Safe disposal of children's feces is as essential as the safe disposal of adults' feces. This brief provides an overview of the available data on child feces disposal in Ethiopia and concludes with ideas to strengthen safe disposal practices, based on emerging good practice.

The Joint Monitoring Programme for Water Supply and Sanitation (JMP) tracks progress toward the Millennium Development Goal 7 target to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The JMP standardized definition for an improved sanitation facility is one that hygienically separates human excreta from human contact.[2]

In the latest JMP report, only a quarter (24 percent) of Ethiopia's population had access to improved sanitation in 2012.[3] This means that 70 million individuals in Ethiopia lacked improved sanitation in 2012; of these, 34 million practice open defecation. However, these estimates are based on the household's primary sanitation facility, and may overlook the sanitation practices of young children. In many cases, children may not be able to use an improved toilet or latrine—because of their age and stage of physical development or the safety concerns of their caregivers—even if their household has access to one.

SUMMARY OF CHILD FECES DISPOSAL DATA

In 2011, less than one-third (31 percent) of households in Ethiopia reported safe disposal of their youngest child's feces. However, only 3 percent of households reported that their youngest child's feces were disposed of into an improved sanitation facility (see Figure 1). This low percentage of households reporting improved child feces disposal suggests that children under age three have less access to sanitation than the country's broader population, where 24 percent use improved sanitation.

Ethiopia ranked number 26 for the percentage of children whose feces are safely disposed, putting the country among the worst third of 38 African countries with available Multiple Indicator Cluster Survey (MICS) or Demographic and Health Survey (DHS) data. According to a recent WASHplus baseline survey in Ethiopia, 42 percent of respondents reported that their child does not have easy access to existing latrines, and their main reasons were related to the design of the latrine structure.[4] In Ethiopia, households lacking improved sanitation including those who open defecate, those in rural areas, and poorer households—as well as households with younger children—have a higher prevalence of unsafe disposal of child feces. Even among households with improved sanitation, half (49 percent) reported unsafe child feces disposal behaviors. Among these households with improved sanitation, the feces of a quarter (24 percent) of children were left in the open, which essentially is open defecation (see Figure 2).

In addition, households with younger children were more likely to report unsafe disposal methods (see Figure 3). Specifically, among households with children in their first year of life, a quarter (24 percent) reported safe disposal, compared to over half (56 percent) of households with children aged four (48 to 59 months). A shift in safe disposal practices is also seen as children grow: children are increasingly likely to use a toilet/latrine themselves, rather than have their feces put or rinsed into one. At these young ages, the behavior of the child's caregiver is critical to dispose of their feces safely and shape the child's toilet training.

Only 15 percent of children under the age of three in the poorest households in Ethiopia had their feces deposited into a toilet/latrine,

What Is "Safe Disposal" of a Child's Feces?

The safest way to dispose of a child's feces is to help the child use a toilet or latrine or, for very young children, to put or rinse their feces into a toilet or latrine. For the purposes of this brief, these disposal methods are referred to as "safe," whereas other methods are considered "unsafe." By definition, "safe disposal" is only possible where there is access to a toilet or latrine. When a child's feces is put or rinsed into an "improved" toilet or latrine, this is termed "improved child feces disposal."

FIGURE 1 Percentage of households reporting each feces disposal practice for their youngest child under age three, Ethiopia, 2011.

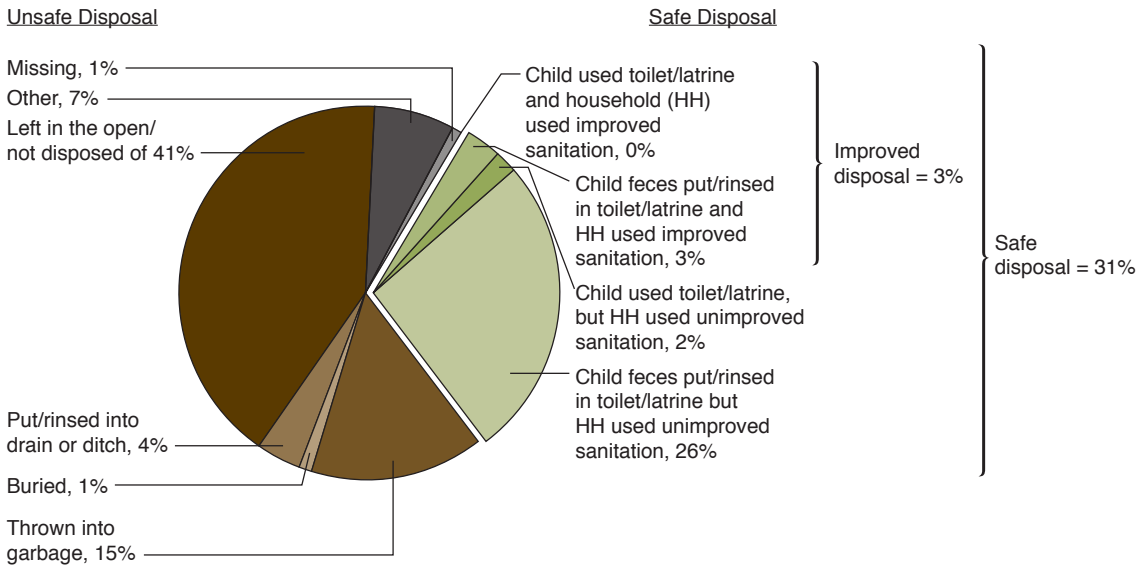
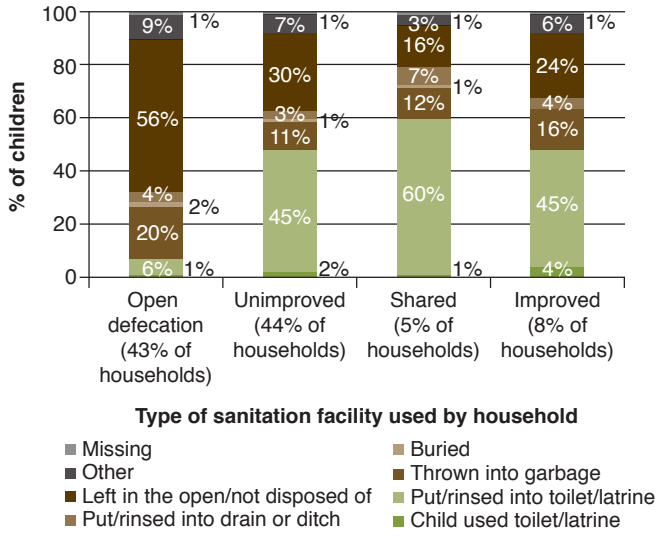


FIGURE 2 Households practicing open defecation reported the highest level of unsafe child feces disposal. *Reported feces disposal practice for households' youngest child under age three, by household sanitation facility type, Ethiopia, 2011.*



compared to 57 percent in the richest quintile (see Figure 4). However, even among the wealthiest quintile of households in the country, 15 percent still report the riskiest practices: leaving child feces in the open. This is essentially open defecation. In all households with children under age three, 22 percent of people in the poorest quintile used a toilet/latrine of any kind, compared to 85 percent of people in the richest quintile.

Between 2000 and 2011, reported latrine coverage and safe disposal of child feces improved in Ethiopia, especially among rural populations, albeit from a very low baseline of 4 percent of rural children (see

FIGURE 3 Households with younger children were more likely to report unsafe feces disposal methods. *Reported feces disposal practice for children of different ages, 2011.*

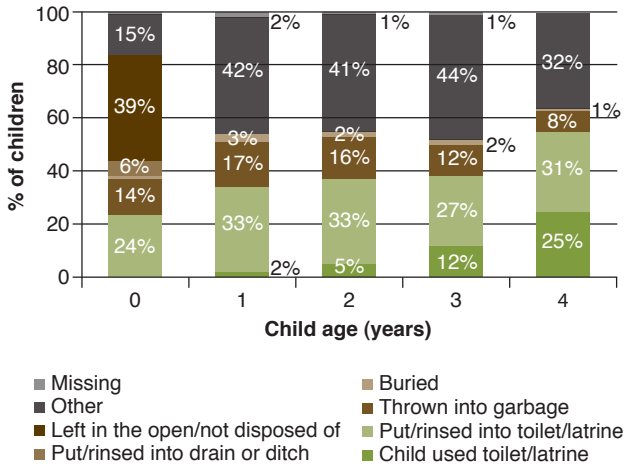


Figure 5). In both years, safe disposal was far less prevalent among rural households than urban households. In 2011, 57 percent of urban households reported safe disposal, compared to only a quarter (27 percent) of their rural counterparts.

IDEAS FOR CONSIDERATION

In Ethiopia, two efforts to increase demand, improve supply, and create an enabling environment for the safe disposal of child feces during the first years of life were identified. First, Ethiopia's Ministry of Health launched a "National Hygiene and Sanitation Strategy: To Enable 100 percent Adoption of Improved Hygiene and Sanitation" in 2005.

FIGURE 4 The poorest 20 percent of households were more likely than richer households to report unsafe child feces disposal. *Reported feces disposal practice for households' youngest child under age three, by household wealth quintile, Ethiopia, 2011.*

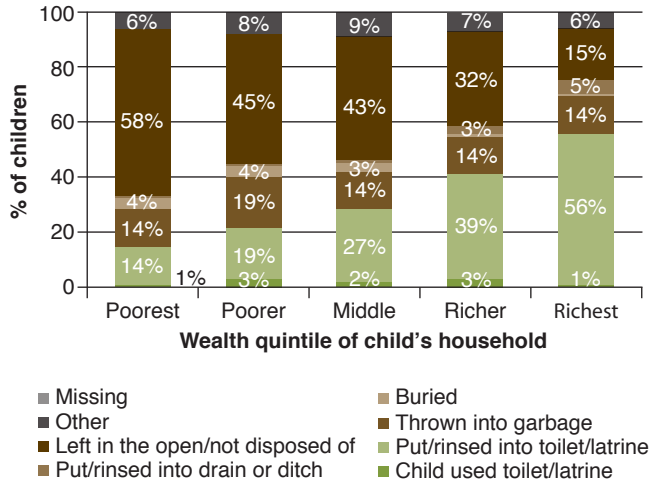
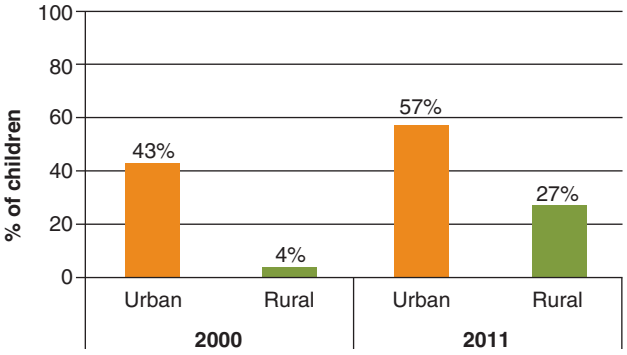


FIGURE 5 The prevalence of safe child feces disposal has been increasing over time, but remains more than twice as high in urban than rural areas. *Percentage of households reporting safe feces disposal for their youngest child under age three, by urban and rural residence, Ethiopia, 2000 and 2011.*[5]



The strategy defined a set of guiding principles for interpretation at different levels of administration. Its preamble notes that promotion would be a central theme and the success of promotional methods and messages could be measured in terms of "sanitary excreta management practices with particular emphasis on young children," among other indicators. Highlighting child sanitation even further, the strategy report front cover depicts an adult assisting a child in defecating, alongside the slogan "your health is in your hands" (see Figure 6).[6]

Second, USAID's Hygiene Improvement Project (HIP) and the World Bank's Water and Sanitation Program (WSP) supported the Amhara Health Bureau and the Federal Ministry of Health's Health Extension Program, which included integration of comprehensive water, sanitation, and hygiene improvement into the government's maternal and child health program. It includes the production of an Ethiopia-specific job aid to support government and other outreach workers to assess current practices and "negotiate" (MIKIKIR in Amharic) small, achievable, or feasible improvements on a scale of unhealthy to healthy behaviors in seven key areas. Health workers use these cards to encourage positive behavior shifts in the communities they visit. One of the seven key behaviors targeted is the safe disposal of child feces (see Figure 7).[12] The program focused on the Amhara region, which has a population of 19 million, where a representative survey documented a 24 percent drop in open defecation, but no specific measurement of child feces management. The program is now scaled up to include three other big regions representing 75 percent of the population in Ethiopia. As a result, child feces management is now being promoted in 71 districts in Ethiopia.

Globally, there is not a strong evidence base of effective strategies for increasing the safe disposal of child feces. Despite the efforts to date in Ethiopia (mentioned above), ongoing knowledge gaps must be filled before comprehensive, practical evidence-based policy and program guidance will be available. Nevertheless, organizations and governments interested in improving the management of children's feces could consider:

- Conducting formative research to understand the behavioral drivers and barriers to safe child feces disposal
- Strengthening efforts to change the behavior of caregivers through programs that encourage cleaning children after defecation, potty training children, and using appropriate methods to transport feces to a toilet/latrine as well as handwashing with soap after fecal contact and before preparing food or feeding a child

What Is the Impact of Unsafe Disposal of Child Feces?

There is widespread belief that the feces of infants and young children are not harmful, but this is untrue. In fact, there is evidence that children's feces could be more risky than adult feces, due to a higher prevalence of diarrhea and pathogens–such as hepatitis A, rotavirus, and *E. coli*–in children than adults.[7] Therefore, children's feces should be treated with the same concern as adult feces, using safe disposal methods that ensure separation from human contact and household contamination.

In particular, the unsafe disposal of children's feces may be an important contaminant in household environments, posing a high risk of exposure to young infants.[8] Poor sanitation can result in substantial health impacts in children, including a higher prevalence of diarrheal disease, intestinal worms, enteropathy, malnutrition, and death. According to the World Health Organization (WHO), most diarrheal deaths in the world (88 percent) are caused by unsafe water, sanitation, or hygiene. More than 99 percent of these deaths are in developing countries, and about eight in every 10 deaths are children.[9] Diarrhea obliges households to spend significant sums on medicine, transportation, health facility fees, and more, and can mean lost work, wages, and productivity among working household members.[10] Stunting and worm infestation can reduce children's intellectual capacity, which affects productivity later in life. The WHO estimates that the average IQ loss per worm infection is around 3.75 points.[11]

FIGURE 7 Excerpt from the USAID/HIP/WSP Mikikir Card for Hygiene and Sanitation behavior change.

- Exploring opportunities to integrate child sanitation into existing interventions that target caregivers of young children, such as including key messages in antenatal/newborn care materials and infant and young child feeding guidance provided to parents, ensuring that midwives' training includes information on safe child feces disposal, and integrating child sanitation information into early childhood development materials and preschool programs
- Partnering with the private sector to improve feces management tools, such as potties, diapers, tools for retrofitting latrines for child use, and scoopers
- Improving the enabling environment for management of children's feces, by including specific child feces related criteria in open defecation free (ODF) verification protocols and in national sanitation policies, strategies, or monitoring mechanisms.

DATA SOURCES

Unless otherwise specified, all analysis in this brief is based on households' self-reported behavior for disposing of child feces, as collected in the 2011 Ethiopia DHS, which is the latest MICS/DHS available for Ethiopia that records child feces disposal behavior.

The MICS and DHS collect data in a generally harmonized manner and hence are the basis for this country profile series. However, while the DHS collects data on the youngest child under age five living with the mother for each household, the MICS collects data on all children under age three who live with the respondent (mother or caretaker). To maximize comparability, we restricted all analysis to children under age three in all figures, except Figure 3.

It is likely that self-reports overestimate safe disposal.[13] In Bangladesh, for example, although 22 percent of children reportedly either used a toilet/latrine or their feces was put or rinsed into the toilet/latrine (according to MICS 2006), a structured observation of behavior conducted under UNICEF's Sanitation, Hygiene Education and Water Supply in Bangladesh (SHEWA-B) program in 2007 found only 9 percent of subjects disposed of child feces into a toilet/specific pit.[14] Regardless of this issue, self-reports are currently regarded as the most efficient method for gauging safe disposal of children's feces.

NOTES

We're interested in your thoughts. Have you found different evidence of what works through your own programming? If you have thoughts to share, or know of a program that is encouraging the safe disposal of child feces, please contact WSP at worldbankwater@worldbank.org or UNICEF at WASH@unicef.org so that we can integrate your information into future program guidance.

REFERENCES

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2 The JMP has established a set of standardized definitions to categorize improved sanitation, which are used to track progress toward Millennium Development Goal 7. However, these definitions are not always the same as those used by national governments. See *Progress on Drinking Water and Sanitation: Update 2014*.

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