Child Feces Disposal in CHAD

Key messages:

- In 2010, 82 percent of households surveyed in Chad reported unsafe disposal of the feces of their youngest child under age three.
- Even among households with improved toilets or latrines, 33 percent reported unsafe child feces disposal behavior.
- Safe child feces disposal dramatically increases with the wealth of the household: only 1 percent of the poorest quintile reports safe disposal compared to 65 percent of the richest quintile.[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 Chad 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]

According to the latest JMP report, only 12 percent of Chad's population had access to improved sanitation in 2012.[3] This means that around 10 million individuals in Chad lacked improved sanitation in 2012, of which 7.4 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 Chad in 2010, less than a fifth of households (18 percent) reported that the feces of their youngest children under age three were safely disposed. Only 6 percent of households in Chad reported that their youngest children's feces were disposed of into an improved sanitation facility, according to the 2010 Multiple Indicator Cluster Survey (MICS) 4, as shown in Figure 1. This low percentage of households reporting improved child feces disposal suggests that children under age three have worse sanitation than the country's broader population, where 12 percent use improved sanitation. Interestingly, a majority of households (51 percent) report throwing children's feces into the garbage. Due to variable solid waste management systems and environmetal health concerns such as leeching, this is considered an unsafe practice.[4]

In Chad, households lacking improved sanitation, those in rural areas, and poorer households—as well as households with younger children—have a higher prevalence of unsafe disposal of child feces. Between 2000 and 2010, reported safe disposal of child feces decreased in both urban and rural areas (see Figure 2). Several factors could have contributed to this decrease, but more research is needed to identify the key causes.

Households practicing open defecation reported the highest level of unsafe child feces disposal, at 98 percent (see Figure 3). However, 2 percent of households practicing open defecation (i.e., they do not use a latrine) reported safe child feces disposal. It is possible, but not probable, that households that do not use a latrine themselves deposit their children's feces into a latrine.

The prevalence of safe feces disposal is fairly similar across age groups: 17–31 percent of households reported using safe feces disposal regardless of the age of their youngest child under age three (see Figure 4). At these young ages, the behavior of the child's caregiver is critical to dispose of the feces safely and shape the child's toilet training.

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 Safe disposal prevalence in Chad is very low, and the prevalence of improved disposal is negligible. In 2010, 15 percent of households left their child's feces in the open. *Percentage of children under age three with each feces disposal type, Chad, 2010.*

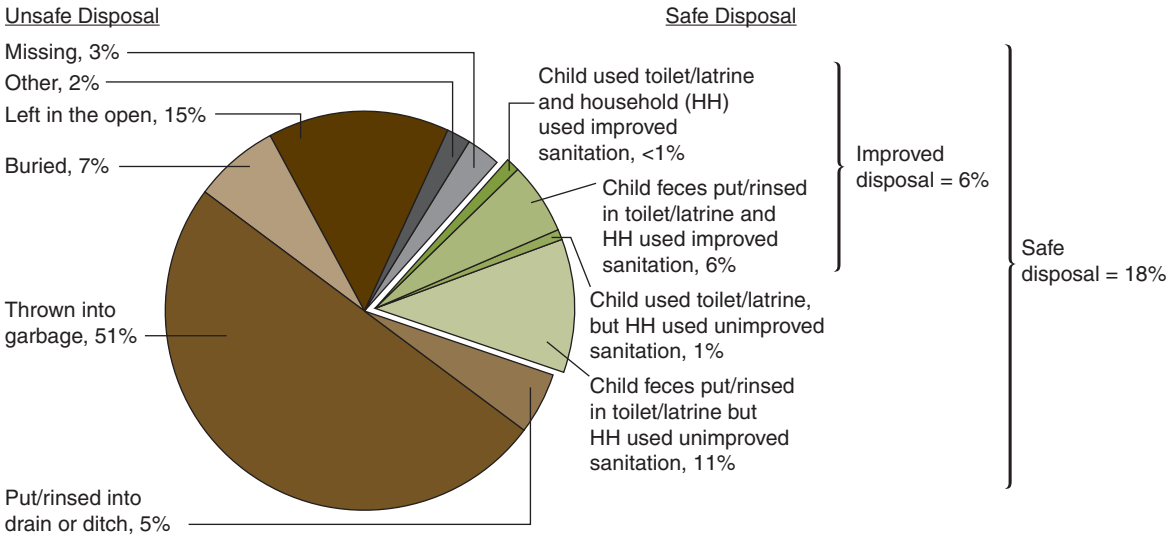


FIGURE 2 The prevalence of safe child feces disposal has decreased over time, but remains more than 8 times higher in urban than in rural areas. *Percentage of children under age three with safe feces disposal, by urban and rural residence, Chad, 2000 and 2010.*[5]

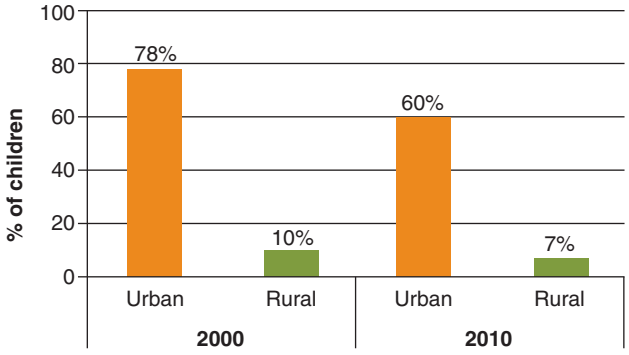
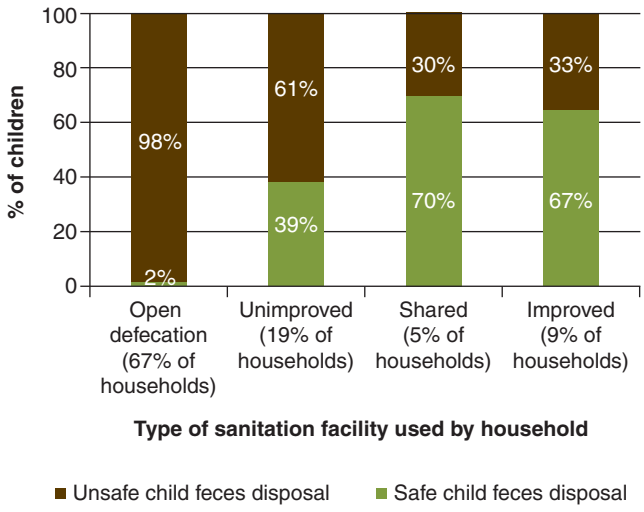


FIGURE 3 Even among households with improved sanitation, only two-thirds (67 percent) reported safe child feces disposal behaviors. *Reported feces disposal practice for children under age three, by household sanitation facility type, Chad, 2010.*



Safe disposal differs widely across the wealth asset quintiles.[6] The poorest three quintiles of households were substantially less likely than the richer and richest households to report safe child feces disposal (see Figure 5). Only 1–5 percent of the poorest three quintiles reported safe disposal. Children's feces from 16 percent of the poorest households were left in the open, which is essentially open defecation. Looking at overall sanitation facility coverage for households with children under age three in Chad, less than 1 percent of the poorest households reported use of a toilet/latrine compared to 92 percent of the richest quintile. This is an important factor in child feces disposal: by definition, safe disposal is only possible when there is access to a toilet/latrine.

Behind this national-level data, there is wide variation in child feces disposal practices, with a greater prevalence of unsafe practices among households without access to improved sanitation, in rural areas, and those that are poorer. For example, unsafe disposal in rural areas and among the poorest 60 percent of households is worse than among children overall. Although this brief only focuses on one socioeconomic indicator at a time, applying multiple lenses would show even greater extremes of disparity—with the poorest rural households with the youngest children and no sanitation facility likely reporting the greatest prevalence of unsafe disposal.

FIGURE 4 Child feces disposal behaviors are fairly similar across child age groups; however, the oldest have the highest prevalence of open defecation. *Reported feces disposal practice for children of different ages, Chad, 2010.*

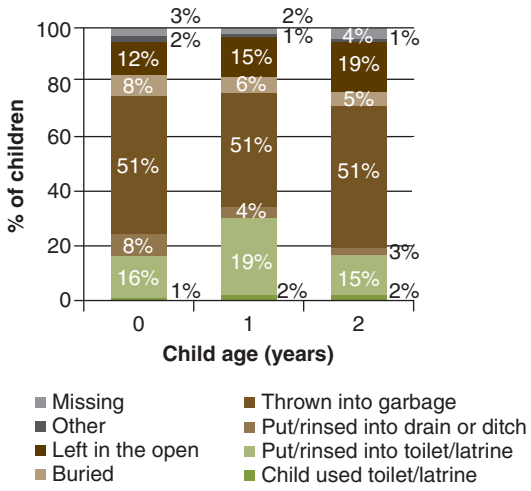
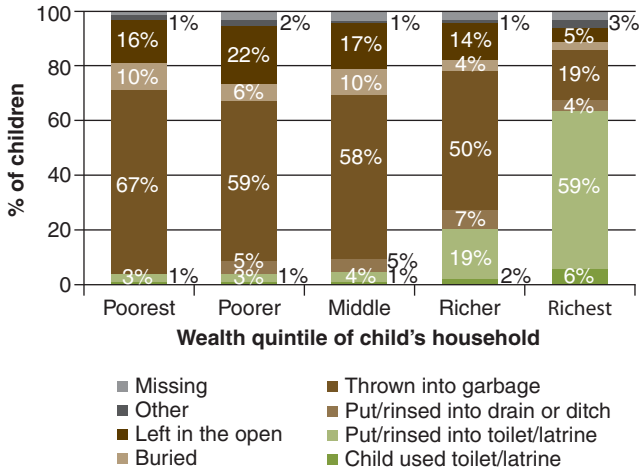


FIGURE 5 Safe child feces disposal increases substantially with increasing wealth, and is negligible in the poorest households. *Reported feces disposal practice for children under age 3, by household wealth quintile, Chad, 2010.*



IDEAS FOR CONSIDERATION

In Chad, there are few interventions aimed at the safe disposal of children's feces during the first years of life. In general, sanitation for children under age three has been a neglected area of policy and program intervention. Given the relatively few programs focusing on children's sanitation in Chad and globally, there is not a strong evidence base of effective strategies for increasing the safe disposal of child feces. Significant 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:

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 adults' feces, due to a higher prevalence of diarrhea and pathogens–such as hepatitis A, rotavirus, and *E. coli*–in children than in adults.[7] Therefore, children's feces should be treated with the same concern as adults' 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]

- 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
- 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, as well as early childhood development materials and preschool programs, include information on safe child feces disposal
- Partnering with the private sector to improve feces management tools, such as potties, diapers, tools for retrofitting latrines for children's 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 child feces disposal behavior self-reported by the child's mother or caregiver in the 2010

Chad Multiple Indicator Cluster Survey (MICS) 4, which is the latest MICS or Demographic and Health Survey (DHS) available for Chad 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, whereas 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 4.

It is likely that self-reports overestimate safe disposal.[12] In Bangladesh, for example, although 22 percent of children reportedly either used a toilet/latrine or their feces were 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 that only 9 percent of subjects disposed of children's feces into a toilet/specific pit.[13] Regardless of this issue, self-reports are currently regarded as the most efficient method for gauging safe disposal of children's feces.

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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.*

3 WHO/UNICEF Joint Monitoring Programme, 2014. *Progress on Drinking Water and Sanitation: Update 2014.* Geneva: World Health Organization.

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6 The wealth indices used to classify households into wealth quintiles include drinking water and sanitation variables.

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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.

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