



***The NDBN Diaper Check 2023:  
Diaper Insecurity among U.S. Children and Families***

a nationally representative study commissioned by

National Diaper Bank Network

Executive Summary

June 15, 2023



## Major Findings

- **Diaper need has increased sharply.** 47% (almost half) of families reported diaper need in 2023. In the first diaper need investigation in 2010 and in several subsequent studies, approximately 33% or 1/3 of families reported diaper need.
- **Diaper need forces families to cut back on other essentials.** 46% of families reported reducing other expenditures to afford diapers, with most of those households cutting back in multiple areas. The most common cutback was entertainment outside the home (56%). Other common areas for cutbacks included food (35%) and utilities (19%).
- **Diaper need is associated with stress and worry.** 70% of the respondents reporting diaper need said that they were stressed or anxious about their responsibilities as a parent or caregiver. 53% said they felt judged as a bad parent/caregiver because they could not afford diapers.
- **Diaper need is widespread and cuts across income levels.** Among families with diaper need, 66% were categorized as low income, 28% as middle income, and 6% as high income.
- **Diaper need impacts daily life.** Families with diaper need reported more instances of unmet health needs; stress and anxiety; limitations on free time and social contact; and barriers to work.
- **Diaper need intersects with food insecurity.** More than a quarter of respondents (28%) who reported diaper need said that they skipped meals so that they could afford more diapers.
- **Diaper need results in parents missing work and losing wages.** 1 in 4 (25%) of parents and caregivers with diaper need reported having to miss work or school because they did not have enough diapers to drop their child off at childcare, and reported missing, on average, 5.1 workdays in the past 30 days. This represents a loss of \$296 per month for a parent earning the federal minimum wage of \$7.25 per hour.



## Diapers Are an Essential Need for Young Children

For babies and toddlers, diapers are an essential need for health and hygiene.<sup>1,2</sup> Without an adequate supply of diapers, parents and caregivers may be forced to delay diaper changes or to reuse soiled diapers.<sup>3,4,5</sup> Prolonged contact with urine and feces, a consequence of delayed diaper changes, increases a child's risk for diaper rash and other infections.<sup>6,7</sup> Diaper-related illness is uncomfortable for children and may strain the healthcare system as well as impact the household budget of families who struggle to afford diapers.<sup>8</sup>

Families are considered to have diaper need when they cannot afford a supply of diapers adequate for changing at healthy intervals.<sup>9</sup> Diaper need is a public health issue that threatens not only child health, but also maternal health and household income.<sup>10</sup> Prior research has documented a link between maternal stress and depression and the experience of diaper need.<sup>11,12</sup>

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<sup>1</sup> Porter S, Steefel L. Diaper need: a change for better health. *Pediatr Nurs*. 2015;41(3):141-144.

<sup>2</sup> Smith MV, Kruse A, Weir A, Goldblum J. [Diaper need and its impact on child health. \*Peds\*. 2013;132\(2\):253-259. doi:10.1542/peds.2013-0597.](https://doi.org/10.1542/peds.2013-0597)

<sup>3</sup> Massengale KEC, Erausquin JT, Old M. Health, social, and economic outcomes experienced by families as a result of receiving assistance from a community-based diaper bank. *Maternal Child Health J*. 2017a;21(10):1985-1994. doi:10.1007/s10995-017-2317-9.

<sup>4</sup> Porter S, Steefel L. Diaper need: a change for better health. *Pediatr Nurs*. 2015;41(3):141-144.

<sup>5</sup> Smith MV, Kruse A, Weir A, Goldblum J. Diaper need and its impact on child health. *Peds*. 2013;132(2):253-259. doi:10.1542/peds.2013-0597.

<sup>6</sup> Adalat S, Wall D, Goodyear H. Diaper dermatitis: frequency and contributory factors in hospital attending children. *Pediatr Dermatol*. 2007;24(5):483-488.

<sup>7</sup> Sugimura T, Tananari Y, Ozaki Y, et al. Association between the frequency of disposable diaper changing and urinary tract infection in infants. *Clin Pediatr*. 2009;48(1):18-20.

<sup>8</sup> Sobowale, Kunmi, Ashley Clayton, and Megan V. Smith. "Diaper need is associated with pediatric care use: an analysis of a nationally representative sample of parents of young children." *J of Peds* 230 (2021): 146-151.

<sup>9</sup> Smith MV, Kruse A, Weir A, Goldblum J. Diaper need and its impact on child health. *Peds*. 2013;132(2):253-259. doi:10.1542/peds.2013-0597.

<sup>10</sup> Massengale, K. E., Comer, L. H., Austin, A. E., & Goldblum, J. S. (2020). Diaper need met among low-income US children younger than 4 years in 2016. *Am J Public Health*, 110(1), 106-108.

<sup>11</sup> Austin AE, Smith MV. Examining material hardship in mothers: associations of diaper need and food insufficiency with maternal depressive symptoms. *Health Equity*. 2017;1(1):127-133.

<sup>12</sup> Smith MV, Kruse A, Weir A, Goldblum J. Diaper need and its impact on child health. *Peds*. 2013;132(2):253-259. doi:10.1542/peds.2013-0597.



Additional research has documented the impact of diaper need on parental workforce participation, showing that when families experience diaper need, they often lack the supply of diapers required by child care providers.<sup>13</sup> Without child care, adult household members miss work or school.<sup>14</sup>

Fortunately, community-based diaper banks throughout the U.S. work daily to address diaper need.<sup>15</sup> The lack of federal policies to address diaper insecurity has given rise to sustainable nonprofit diaper banks that procure, inventory, warehouse, and distribute diapers and related hygiene products to families in need. Founded in 2011, the National Diaper Bank Network (NDBN) is the foremost authority on diaper need in the U.S. and leads a Network of more than 300 community-based basic needs banks serving all 50 U.S. states, Puerto Rico, and the District of Columbia.<sup>16</sup>

When families receive support from a diaper bank, they receive essential hygiene products while experiencing a myriad of positive outcomes including connection to other resources, reduced parental stress, improved attendance at child care, and the ability to divert household income towards other essential needs.<sup>17,18</sup>

In the same way that parents and caregivers might give a young child's diaper a check to see if a change is in order, we offer *The NDBN Diaper Check 2023: Diaper Insecurity among U.S. Children and Families*, a nationally representative study commissioned by National Diaper Bank Network, as a check on the status of diaper need in the U.S. The results that follow offer a quantitative look at diaper need in 2023. Additional findings from this study will be shared over the next year as further analyses are completed.

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<sup>13</sup> Carstensen F, Gunther P. (2019). Better health for children and increased opportunities for families: The social and economic impacts of The Diaper Bank of Connecticut. <https://nationaldiaperbanknetwork.org/wp-content/uploads/2022/02/The-Social-and-Economic-Impacts-of-the-Diaper-Bank-of-Connecticut-1.pdf>

<sup>14</sup> Ibid.

<sup>15</sup> Massengale, K. E., Comer, L. H., Austin, A. E., & Goldblum, J. S. (2020). Diaper need met among low-income US children younger than 4 years in 2016. *Am J Public Health*, 110(1), 106-108.

<sup>16</sup> National Diaper Bank Network (2023). <https://nationaldiaperbanknetwork.org/>

<sup>17</sup> Massengale, KEC., Erasquin, J. T., & Old, M. (2017). Organizational and health promotion benefits of diaper bank and community-based organization partnerships. *Child Youth Serv Rev*, 76, 112-117.

<sup>18</sup> Massengale KEC, Erasquin JT, Old M. Health, social, and economic outcomes experienced by families as a result of receiving assistance from a community-based diaper bank. *Maternal Child Health J*. 2017;21(10):1985-1994. doi:10.1007/s10995-017-2317-9.



## **Study Sample for *The NDBN Diaper Check 2023***

NDBN retained YouGov, a leading international research marketing group with expertise in online research data and analytics, to survey a nationally representative sample of U.S. households with young children in diapers.

Survey participants were eligible to complete the survey if they met the following criteria:

1. Were the parent or caregiver to a child in their household under the age of 4 who currently wears diapers.
2. Were responsible for changing their child's diaper at least 25% of the time when their child was at home.
3. Purchased diapers for the child in their household at least some of the time.

Using the U.S. Census Bureau's 2019 American Community Survey (ACS) results, YouGov constructed a sampling frame for the respondent characteristics of gender, age, race, and education. To ensure a nationally representative sample, YouGov surveyed 2,118 people, stratifying their demographic characteristics to match the same characteristics of people who completed the 2019 American Community Survey. The result was a nationally representative sample of 1,033 (n=1,033) U.S. households who met the eligibility criteria detailed above and were reflective of the 2019 American Community Survey demographics for gender, age, race, and education, completed surveys.

*The NDBN Diaper Check 2023: Diaper Insecurity among U.S. Children and Families*, a nationally representative study commissioned by National Diaper Bank Network, is hereafter referred to as *The NDBN Diaper Check 2023*.



## **Portion of U.S. Families Experiencing Diaper Need Has Increased**

Surveys completed by nationally representative samples of U.S. households in both [2010](#)<sup>19</sup> and [2017](#)<sup>20</sup> concluded that 1 in 3 U.S. households were experiencing diaper need. *The NDBN Diaper Check 2023* concluded that diaper need increased significantly compared to past years.

To assess whether a household was experiencing diaper need, survey respondents were presented with three diaper need screening statements. Households who responded 'Completely Agree' or 'Agree' to one or more of the following statements were determined to have diaper need:

1. I do not always have enough diapers to change my child's diapers as often as I would like.
2. I find it difficult to afford buying diapers for the child(ren) in my household.
3. I have run out of diapers for the child(ren) in my household because I cannot afford enough diapers.

*The NDBN Diaper Check 2023* found that 47% of households in a nationally representative sample of U.S. households with children under age 4 are experiencing diaper need.

***Nearly half of all U.S. households with young children in diapers have diaper need.***

***According to The NDBN Diaper Check 2023, 1 in 2 U.S. households with young children struggle to afford the diapers necessary to keep their children clean, dry, and healthy.***

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<sup>19</sup> Raver, C., Letourneau, N., Scott, J., & D'Agostino, H. (2010). *Huggies® Every Little Bottom Study: Diaper Need in the U.S. and Canada*. (Report commissioned by Huggies).

<sup>20</sup> (2017). *Diaper Need and Its Impact on U.S. Families*. (Report commissioned by Huggies).



## Diaper Need Impacts a Diverse Portion of U.S. Families with Young Children

Families across the nation report diaper need:<sup>21,22</sup>

U.S. region	Reported diaper need (n=486)	Did not report diaper need (n=547)
Northeast	14%	17%
Midwest	20%	23%
South	44%	41%
West	22%	19%
<i>Total</i>	100%	100%

The NDBN Diaper Check 2023 found that U.S. households with and without diaper need share similar racial and ethnic identities.

Racial or ethnic identity	Reported diaper need (n=486)	Did not report diaper need (n=547)
Asian	3%	7%
Black	14%	14%
Hispanic	20%	15%
Middle Eastern	<1%	1%
Mixed	4%	2%
Native American	2%	1%
Other	2%	2%
White	55%	58%
<i>Total</i>	100%	100%

<sup>21</sup> US Census. Percentage of US population in each region.

[https://www.census.gov/popclock/data\\_tables.php?component=growth](https://www.census.gov/popclock/data_tables.php?component=growth)

<sup>22</sup> US Census. States in each US region. [https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us\\_regdiv.pdf](https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf)



Families across income groups are experiencing diaper need, according to *The NDBN Diaper Check 2023*:

<b>Household income</b>	Reported diaper need (n=486)	Did not report diaper need (n=547)
Low income (≤ 200% FPL)	66%	38%
Middle income (200% FPL to \$150K)	28%	45%
High income (>\$150K)	6%	17%
<i>Total</i>	100%	100%

Working families are experiencing diaper need:

<b>Employment status</b>	Reported diaper need (n=486)	Did not report diaper need (n=547)
Full time	42%	56%
Part time	12%	11%
Temporarily laid off	3%	1%
Unemployed	9%	4%
Retired	1%	1%
Permanently disabled	2%	2%
Homemaker	27%	23%
Student	3%	1%
Other	1%	1%
<i>Total</i>	100%	100%



## Families Are Forced to Make Tough Choices to Afford Diapers

Diaper need forces families to make tough choices in order to be able to afford diapers for their children. Parents and caregivers reported having to make difficult choices when shopping for household essentials. Diaper need also makes families spend their time in ways they would not have chosen.

In the past year, 46% of all households surveyed for *The NDBN Diaper Check 2023*, including 72% of households with diaper need, reported that they have had to cut back on other spending to be able to afford diapers.

All households reported that they reduced spending in several categories of expenses including:

Household expense	% who cut back (n=472)
Entertainment (e.g., movies, going to restaurant, sporting events)	56%
Clothing	47%
Streaming TV, cable TV, or other paid TV or movie services	43%
Personal savings	39%
Cosmetics and beauty supplies	39%
Food / groceries	35%
Personal hygiene items (e.g., shampoo, soap, deodorant, toothpaste, menstrual products)	28%
Transportation (e.g., gas, vehicle repairs, car payments)	25%
Mobile phone	22%
Personal healthcare expenses	19%
Utilities (e.g., gas, electric, water)	19%
Internet service	18%
Pet supplies	16%
Mortgage or rent	15%
Non-diaper baby care products (e.g., baby wipes, diaper rash creams, other baby care products)	13%
Child care/day care services	12%
Child healthcare expenses	7%

Of the households that reported cutting back on spending, the majority (80%) did so in two or more categories of expenses. When asked about the expense they had to cut back on most often to provide diapers, households reported the top expense they reduced spending on was entertainment (e.g., movies, going to a restaurant, sporting events).



Personal savings was the second most common category that households cut back on to afford diapers, followed by: streaming TV, cable TV, or other paid TV or movie services; food and groceries; and clothing.

When families have to reduce the money they put into personal savings in order to afford diapers, they have less cash saved for unexpected expenses, inflation, and rising living expenses, any involuntary reductions in the number of hours worked, health-care crises, and other family emergencies. These situations can further exacerbate diaper need.

Addressing diaper need forces households to juggle bills, change how they may spend their time, and make hard decisions about meeting essential needs. Parents and caregivers described facing many challenging situations in order to purchase diapers for their children, including:

<b>What families have to do in order to purchase diapers</b>	<b>% with diaper need who responded 'Yes'</b> (n=486)
Spending less time with loved ones (my child, family, friends)	41%
Skipping meals	28%
Working at additional jobs	25%
Skipping a bill payment	33%
Delaying a mortgage or rent payment	19%
Doing laundry less often	24%



## Parents and Caregivers with Diaper Need More Likely to Report Stress and Worry

While completing the survey for *The NDBN Diaper Check 2023*, respondents were asked to indicate their level of agreement with statements regarding their feelings about parenting and providing for their children.

In all situations, parents and caregivers experiencing diaper need were more likely to report that they were experiencing stress or worry about their family's future:

<b>Statement</b>	<b>Reported diaper need Agree or Completely Agree (n=486)</b>
I am concerned about being a good parent or caretaker to my child(ren).	67.7%
I feel stressed or anxious about the responsibilities that come with parenthood/caretaking.	70.2%
My self-esteem is directly tied to my ability to provide financially for my child(ren).	66.7%
I am concerned about my family's financial future.	75.1%
I worry about what the future holds for me and my family six months from now.	69.3%
I feel stressed or anxious when I am unable to afford enough diapers for the child(ren) in my household.	80.2%
I feel stressed or anxious when I am unable to afford basic household necessities for the child(ren) in my household.	81.9%



## **Diaper Need Impacts Child Care and Work Attendance**

Many working families rely on child care so that adults can go to work or school. Families with diaper need often have challenges finding and affording childcare. 57% of families with diaper need reported that they 'often' or 'sometimes' find it hard to find regular day care and/or child care when they need it. Further, 60% of families with diaper need reported that they 'often' or 'sometimes' have trouble affording regular child care for their child.

Child care providers generally require families to provide all of the diapers a child will wear during the time the child is in care. 25% of parents and caregivers with diaper need reported that in the past year they have had to miss work or school because they did not have enough diapers to drop their child off at childcare, day care or early education programs. Parents and caregivers who had to miss work in the past month reported missing, on average, 5.1 workdays in the past 30 days. For a parent making the federal minimum wage of \$7.25 per hour, this represents \$296 of missed income per month, or \$3,550 per year.

## **Diaper Need Impacts Mental Health for Parents and Caregivers**

23% of parents and caregivers experiencing diaper need reported that they have no free time or down time to themselves in a typical day, compared to 16% of parents and caregivers without diaper need. Of those reporting no free or down time, 78% were female, compared to 28% male.

The average amount of free time or down time to themselves varied by experience of diaper need, with those experiencing diaper need reporting 1.55 hours of free time daily compared to 1.90 hours daily for those without diaper need. A gender difference was noted as well, with women averaging 1.56 hours of free or downtime daily compared to 2.17 hours for men.

Half (50%) of parents and caregivers with diaper need felt that others did not understand their experiences of diaper need. Some of those experiencing diaper need felt alone (44%), judged (53%), or helpless (68%) for having diaper need. Households with diaper need felt that diaper need was more common than other people may realize and felt that parents struggling with diaper need were reluctant to ask others for help with diapers.



Parents and caregivers with diaper need were more likely to report having felt hopeless or depressed several days or nearly daily over the past two weeks (82%), compared to parents and caregivers without diaper need (44%). Those experiencing diaper need were also more likely to indicate that they would feel comfortable seeking mental health services for depression or postpartum depression if given access to them.

Statement	Reported diaper need Agree or Completely Agree (n=486)
Other parents/caretakers don't understand the struggles I have with affording diapers for my child(ren).	50%
I feel alone because I cannot afford enough diapers for my child(ren).	44%
I feel that other parents/caregivers are judging me as a bad parent/caretaker because I struggle to afford enough diapers for my child(ren).	53%
More families cannot afford diapers in the U.S. than people realize.	80%
I feel helpless when I cannot afford enough diapers for my child(ren).	68%
Parents who struggle to afford diapers for their child(ren) are hesitant to discuss it with others or ask for help.	81%
I would feel comfortable seeking mental health services for depression or postpartum depression if given access to them.	69%



## Use of Diaper Banks by U.S. Families

89% of families with diaper need reported that receiving a supplemental supply of 50 diapers per month per child would reduce their diaper need. (NDBN recommends diaper banks distribute 50 diapers per child per month.)

19% of households struggling with diaper need reported that they have received support from a diaper bank.

Additional survey questions identified that families with diaper need are statistically significantly more likely than families without diaper need to feel comfortable accepting help with diapers, and to feel comfortable receiving diapering guidance and parenting advice from healthcare professionals. These findings confirm the important role of diaper banks in communities and the need for continued partnership between diaper banks and health-care providers.

<b>Statement</b>	<b>Reported diaper need Agree or Completely Agree (n=486)</b>
I feel comfortable accepting diaper assistance (e.g., from family, friends, diaper banks, charity).	75%
I feel comfortable receiving diapering guidance and other parenting advice from a nurse or other health professional.	72%



## Conclusion

*The NDBN Diaper Check 2023* found an unprecedented amount of diaper need with nearly half (47%) of U.S. families surveyed reporting it. The study also documented the physical, emotional, and economic harm that diaper need causes children and parents alike. Diaper need, or diaper insecurity, is a public health crisis in the U.S. The data presented here has implications for maternal health and mortality, child development, health care spending, employment, and more.

Only the U.S. government has the scale to address the need as quantified in *The NDBN Diaper Check 2023*. We all know that the first months and years of life are critical to a child's development and lifelong health and prosperity. Our government must act now to address diaper insecurity. Nearly half the families in this country are struggling and their children are living in conditions that could prevent them from reaching their full potential, which is poor preparation for the next generation to lead our families, businesses, and institutions.

The 300+ basic needs banks that make up the National Diaper Bank Network put families in a position to thrive by supplying them with diapers and other basic material necessities. Through individual and corporate support, the Network has grown rapidly, and it continues to grow today. The evolution of community-based basic needs banks has both protected families from diaper insecurity and created a platform to study the extent of this problem and advocate for solutions.

We are encouraged by the innovative moves of some states to use Medicaid and Temporary Assistance for Needy Families (TANF) funds to buy and distribute diapers. We also applaud the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) for recognizing diapers as an allowable expense in programs funded through that source. Plus, we are optimistic of the advent of the federal Diaper Distribution Demonstration and Research Pilot (DDDRP) and advocate for the rapid growth of investment in children to meet the enormity of diaper need in the U.S.

As NDBN continues to support a Network of community-based members extending a lifeline to families, we will increase our research around basic needs. Diaper need has long been an emergency hiding in plain sight. We plan to document not just the extent of this tragedy but real and actionable steps to put every child on a path to success.

We believe, now more than ever, that diaper insecurity is a problem that can be solved – it is a matter of political will. We encourage you all to join us in making that vision a reality.