

Turning the Tables: Requiring Access to Diaper Changing Stations

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his report offers information on the issues surrounding access to diaper changing stations and proposed policy solutions. First, it briefly describes the risks posed by attempting to change babies' diapers without safe and sanitary facilities to do so. Next, the report presents evidence on the cost and space requirements of changing stations, which might be significant burdens. On the basis of a survey of changing station legislation, the report then summarizes significant policy differences among bills on the subject. Finally, the report describes the diaper changing station bills introduced in Wisconsin and examples of other states' recent legislation.

Risks to babies' health and safety

Public restrooms are not safe or sanitary environments for infants. A study published in *Applied and Environmental Microbiology* examined restrooms in a life sciences building at San Diego State University. Researchers found that even after thorough sanitization with bleach, bacteria levels in the restroom returned to the precleaning "abundance plateau" within just one hour.¹ Staphylococcus (staph) bacteria were the most prevalent. The study also showed human papillomaviruses (HPV) and herpes viruses "in high abundance."²

Changing a baby's diaper on a public restroom surface such as a counter or sink can also expose the child to a significant risk of falling. When children are unrestrained on a surface not designed to contain them, they can and do fall. A Centers for Disease Control (CDC) report shows that falls accounted for over half of nonfatal injuries to children under one year of age.³ Falls were relatively less likely to be fatal compared to other childhood injuries, but can still cause severe harm. A child under the age of two who falls onto a hard surface from a height of about three feet has at least a 75 percent chance of sustaining a skull fracture.⁴

Installing diaper changing stations can effectively mitigate these risks. Changing stations are built to safely hold children in place with baby-appropriate straps or other restraints. Diaper changing stations are also designed to remain sanitary. Most changing stations are built from antimicrobial materials whose surfaces can be easier for a parent to quickly sanitize with an alcohol wipe instead of trying to wipe down the restroom floor or finding another usable surface. In addition, many have compartments that can hold disposable sanitary liners. They also fold up so that surfaces are not exposed when not in use.⁵

Diaper changing stations are a purpose-built solution to the problem of safely chang-

^{1.} Sean M. Gibbons et al., "Ecological Succession and Viability of Human-Associated Microbiota on Restroom Surfaces," Applied and Environmental Microbiology 81, no. 2 (January 15, 2015): 765–73, https://doi.org/10.1128/AEM.03117-14.

^{2.} Gibbons et al.

^{3.} United States Centers for Disease Control and Prevention (CDC), "CDC Childhood Injury Report: Patterns of Unintentional Injuries among 0–19 Year Olds in the United States, 2000–2006," December 2008, https://www.cdc.gov.

^{4.} Marzieh Hajiaghamemar et al., "<u>Infant Skull Fracture Risk for Low Height Falls</u>," *International Journal of Legal Medicine* 133, no. 3 (May 1, 2019): 847–62, https://doi.org/10.1007/s00414-018-1918-1.

^{5.} Microban, "Koala Kare Uses Antimicrobial Protection," accessed September 12, 2019, https://www.microban.com.

ing children's diapers when families are away from home. However, interrelated issues of cost and space can make installing changing stations more difficult than it might otherwise seem.

Installation costs

It is difficult to pin down the average cost of installing diaper changing stations. While changing stations themselves are more or less standardized, restrooms are not. How well an existing restroom can accommodate the addition of a changing station, therefore, determines most of the installation cost.

Several states' fiscal agencies have analyzed the potential costs of proposed diaper changing station legislation.⁶ Estimates of per-restroom and total project costs vary significantly, but can be a helpful starting point to understand potential costs of similar legislation.

In short, two trends emerge from the various state estimates:

- In the simplest cases, adding diaper changing stations to restrooms in government buildings that can easily accommodate them costs under \$200 per restroom.
- In more complex cases that require construction to enlarge or reconfigure restrooms in government buildings to accommodate a new changing station, costs per restroom can reach \$7,500 or more.

Examples of estimates involving the simpler case come from Arkansas, New Mexico, and Tennessee. A brief Arkansas fiscal analysis used the figure of \$132 as "the average retail price of a budget changing station…uninstalled" when considering installing them in buildings operated by the State of Arkansas.⁷ Figures were not provided to account for the costs of materials, labor, and any further renovation required for installation.

A larger scale analysis for a New Mexico bill examined the cost of purchasing diaper changing stations for 791 public schools.⁸ The estimate showed the approximate cost of a diaper changing station itself as \$230, not including installation. The total materials cost for installing two changing stations per school in 791 schools would be approximately \$364,000. No figures were provided for other installation costs, such as labor.

The fiscal analysis for a Tennessee bill estimated the cost of "purchasing and installing a baby station" at \$186 per station, plus \$15 per station to purchase and install signage.⁹

^{6.} Bills mentioned in this section are described in greater detail in the "Examples of diaper changing station legislation" section below.

^{7.} Ark. Bureau of Legis. Research, Fiscal Impact Statement for 2019 Ark. SB 443 (Feb. 27, 2019), http://www.arkleg.state.ar.us/.

^{8.} N.M. Legis. Educ. Study Comm., Bill Analysis of 2019 N.M. HB 205 (Mar. 11, 2019), https://www.nmlegis.gov/.

^{9.} Tenn. Gen. Assembly Fiscal Review Comm., <u>Fiscal Note for 2019 Tenn. HB 54 – SB 1008</u> (Feb. 26, 2019), http://www.capitol.tn.gov/. HB 54 and SB 1008 are companion proposals, which are identical bills introduced in both houses for simultaneous consideration.

Fiscal analyses from California and Arizona considered complicating factors such as remodeling and accessibility requirements. As part of an analysis for a California bill, the state's Department of General Services looked at existing state office buildings and two proposed state buildings. They found an estimated cost of \$150,000 for "design, project management, and installation of changing stations in 20–30 existing restrooms." That figure works out to an average of \$5,000–\$7,500 per restroom. The same analysis estimated a cost of "up to \$31,000 in additional costs for installation of four changing stations in two proposed buildings," or about \$7,750 per restroom.

A <u>fiscal analysis</u> for an Arizona bill used the roughly 300 restrooms maintained by the Arizona Department of Administration in Capitol Mall facilities as a case study.¹¹ Arizona's fiscal staff estimated the "cost per fixture including installation" to be between \$3,600 and \$10,000, depending on the model.

Space and accessibility requirements

Diaper changing stations can vary in size and shape, but since the Koala brand changing stations dominate the market, Koala models are a reliable standard. Koala's standard wall-mounted changing station has horizontal dimensions of about three feet by two feet when open—a six-square-foot rectangle. More compact models can trim a few inches off one or both dimensions, reducing the space requirements to around five square feet.

Diaper changing station installations must follow the 2010 ADA Standards for Accessible Design. These requirements include, for example, locating changing stations outside restroom stalls, in spaces easily accessible by wheelchair users, and in positions that do not obstruct clear routes through the space. In addition to the space taken up by an open diaper changing station, there must be clear floor space of 30 inches by 48 inches (10 square feet), and the configuration of the room must meet specific requirements for travel, knee space, toe space, and more.¹³

For context, ADA standards for ambulatory-accessible (as opposed to wheelchair-accessible) toilet stalls require dimensions of roughly 5 feet by 3 feet (15 square feet). Assuming all other requirements can be met, the 5–6 square feet taken up by an open diaper changing station combined with the 10 square feet of required clear floor space are about the same size as one ambulatory-accessible toilet compartment.

^{10.} Cal. Gen. Assembly, Assembly Floor Analysis of 2017 Cal. AB 1127 (Sept. 8, 2017), https://leginfo.legislature.ca.gov/.

^{11.} Ariz. Joint Legis. Budget Comm., Fiscal Note for 2019 Ariz. HB 2529 (Mar. 14, 2019), https://www.azleg.gov/.

^{12.} Dan Mitchell, "Yes, Onion, Koala Dominates the Baby-Changing-Station Market," Fortune, August 13, 2014, www. fortune.com.

^{13.} United States Department of Justice, "2010 ADA Standards for Accessible Design," September 15, 2010, 107, https://www.ada.gov.

^{14.} United States Department of Justice, 167-68.

Significant policy decisions and differences in state-level legislation

A number of states have recently passed or considered legislation related to diaper changing stations.¹⁵ The legislation typically includes some form of mandate that changing stations be installed in publicly accessible restrooms, but the details vary. First, some states apply narrow mandates that apply only to certain buildings, while other mandates have a broader scope. For example, some legislation applies new diaper changing station requirements only to buildings owned or maintained by the state itself, while in other cases, a mandate might apply equally to private and government-owned buildings. As a middle option, a state might apply the mandate to state-owned buildings and also to state-funded entities such as public universities, but not to privately owned commercial spaces.

A second significant area of legislative variation is whether a renovation cost threshold applies to the installation requirement and, if so, the amount of the threshold. If diaper changing station requirements apply to existing restrooms, most states limit that applicability to buildings or restrooms that undergo a certain level of significant renovation. Some states specify, for example, that changing stations are required in existing restrooms only if those restrooms undergo renovations that demolish interior walls or modify existing plumbing. More often, requirements for existing restrooms are defined by renovation project cost; cost thresholds in state legislation range from \$5,000 to \$50,000.

The potential cost of updating renovated restrooms to meet ADA requirements when installing diaper changing stations motivates the inclusion of renovation cost thresholds. Many significant restroom renovation projects already involve some amount of demolition, reconfiguration, or expansion of the space. Therefore, the installation of a new diaper changing station could be incorporated into the existing project rather than requiring expensive standalone construction.

State bills that include renovation cost thresholds can differ in terms of which renovation costs are considered. Most states' cost thresholds apply specifically to restroom renovations, but in some cases, any renovation of an existing building above a certain cost triggers the changing station requirements, even if the renovation project does not otherwise include restrooms.

In addition to renovation cost thresholds, essentially all examples of legislation in this area include provisions for building inspectors or other code professionals to provide exceptions to the threshold requirements on a case-by-case basis. Typically, these exceptions are allowed when installing a changing station would necessarily violate accessibility or other building standards or would otherwise not be "feasible" as judged by the building inspector.

^{15.} Policy options presented in this section are summarized and extrapolated from bills described in the "Examples of diaper changing station legislation" section that follows.

Wisconsin's diaper changing station legislation

Senate Bill 625 was introduced in December 2019. This bill appears to be the first piece of diaper changing station legislation introduced in the state. The bill proposes changes to section 101.128 of the Wisconsin Statutes. The existing section governs "restroom equity," requiring equal "speed of access" for women's and men's toilets in certain buildings with public restrooms. The bill creates a new subsection that requires owners of public buildings and places of employment and commercial buildings to install and maintain at least one diaper changing station in a men's restroom and one diaper changing station in a women's restroom or one diaper changing station in a restroom accessible to all genders.

After the bill's effective date, the mandate would apply to new construction projects and to existing buildings that undergo renovations that affect "more than 50 percent of the square footage of a restroom" or that cost \$10,000 or more. The renovation cost threshold applies to the whole building, not only to restroom renovations. However, reroofing, cosmetic remodeling such as painting or carpeting, and electrical and mechanical system alterations do not count as "renovations" for the purpose of the requirement.

The bill also includes a process by which owners of buildings undergoing renovations that begin after the bill's effective date can request a waiver from the diaper changing station requirements. The local governmental unit with permitting authority for the renovation can grant the waiver if it determines that compliance with the diaper changing station requirements is not feasible or would cause the building to violate federal, state, or local access requirements for people with disabilities. Industrial buildings and bars that do not allow minors are also not subject to the diaper changing station requirements.¹⁶

In addition to the requirements to construct and maintain diaper changing stations, the bill also requires owners of public buildings and places of employment to "identify any restroom that contains a diaper changing station with a sign on the entrance to the restroom that indicates the location of the diaper changing station."

Examples of other states' diaper changing station legislation

At the federal level, the Bathrooms Accessible in Every Situation (BABIES) Act passed in 2016.¹⁷ The act requires federally controlled public buildings to have restrooms equipped with baby changing facilities or to have "conspicuous signage" pointing to a restroom on the same floor with a diaper changing station.

^{16.} For the purposes of the bill, "bar" is defined as "an establishment that is devoted to the serving of alcoholic beverages for consumption on the premises and that derives no more than 10 percent of its gross revenue from the sale of food consumed on the premises and includes a tavern, nightclub, cocktail lounge, adult entertainment facility, or cabaret."

^{17.} Bathrooms Accessible in Every Situation (BABIES) Act of 2016, H.R. 5147, 114th Cong. (2016).

At the state-level, the following diaper changing station bills recently passed:

- Arizona 2019 House Bill 2113 requires that publicly owned buildings include at least one diaper changing station in a men's restroom and one changing station in a women's restroom or one changing station in a restroom accessible to both men and women. The requirement applies to public buildings with newly constructed restrooms and restrooms "totally renovate[d]" at a cost of \$50,000 or more. The bill passed the senate 26-3, passed the house 56-2, and was signed by the governor in May 2019. Another bill that would also have covered privately owned buildings failed, but is described in further detail below.
- <u>California 2017 Assembly Bill 1127</u> requires "state agencies, local agencies, and facilities open to the public" to include at least one diaper changing station in a men's restroom and one changing station in a women's restroom or one changing station in a restroom accessible to both men and women. The requirement applies to all new construction and to restrooms renovated at an estimated cost of \$10,000 or more. The bill passed the assembly unanimously and passed 37-2 in the senate; it was signed by the governor in late 2017.
- <u>Illinois 2019 House Bill 3711</u> requires buildings with restrooms accessible to the public to have at least one diaper changing station in a men's restroom and one changing station in a women's restroom or one changing station in a restroom accessible to both men and women. The bill includes exceptions for industrial buildings and certain other buildings, such as night clubs, that do not permit anyone under 18 years of age. The bill passed both houses of the state legislature unanimously and was signed by the governor in August 2019; it goes into effect on January 1, 2020.
- New Mexico 2019 House Bill 205 requires that each newly constructed public restroom in a "place of public accommodation" include a diaper changing station no later than January 1, 2020, unless "conspicuous signage" points to another changing station on the same floor. A "place of public accommodation," as defined in the bill, includes schools, stores, libraries, and most other buildings likely to have public restrooms. The bill passed the senate 26-12 and passed the house unanimously; it was signed by the governor in March 2019.
- The New York FY 2019 Executive Budget includes a provision that "ensures equal access to diaper changing stations in public restrooms" in new or substantially renovated buildings with public restrooms. The provision requires that "at least one changing table must be accessible to both genders per publicly-accessible floor," and "clear signs" must direct the public to the nearest available changing table. The FY 2019 budget passed in April 2018, and the changing table requirements took effect on January 1, 2019.
- <u>Utah 2019 House Bill 218</u> amends the state construction code to require that buildings owned by the state government or political subdivisions of the state include diaper changing stations. The requirement applies to newly constructed buildings and all ren-

ovated restrooms. The bill also changes several existing diaper changing station requirements to indicate that when they are provided, "there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms." The bill passed both houses of the state legislature unanimously and was signed by the governor in March 2019.

At the state level, the following state-level bills are still under consideration:

- Massachusetts 2019 Senate Bill 75 requires that "any public building or place of public accommodation, resort or amusement," as defined in state law, "shall install and maintain at least one diaper changing station in a semi-private area accessible to caretakers regardless of sex, gender, or disability." The requirements would apply to new construction and to buildings "which undergo substantial renovation or remodeling." The bill had its first committee hearing in October 2019, and the Massachusetts Legislature remains in session until January 5, 2021.
- New Hampshire 2019 House Bill 520 requires that "a person, private firm, organization, or corporation that owns or manages a commercial place of public accommodation... shall install and maintain at least one diaper changing station that is accessible to all genders when the facility is open to the public." Starting on January 1, 2021, the requirement would apply to new construction or to renovations of existing buildings costing over \$50,000. The bill passed the house of representatives 206-142 and, as of December 2019, is still in committee in the senate. The New Hampshire Legislature remains in session until June 30, 2020.
- New Jersey 2019 Senate Bill 3589 creates new diaper changing station requirements for buildings classified as assembly (Group A) or mercantile (Group M) occupancies. Under the bill, newly constructed public restrooms and existing restrooms renovated at a cost of \$5,000 or more are required to include diaper changing stations and signage directing visitors to those stations. In addition, the bill requires all public buildings that contain Group A or Group M occupancies to install diaper changing stations within three years of the bill's enactment, even if restrooms are not newly constructed or substantially renovated. The bill requires public buildings to install at least one diaper changing station in a men's restroom and one changing station in a women's restroom or one changing station in a dedicated unisex family restroom on each publicly accessible floor. Under the bill, K-12 schools must install at least one diaper changing station in a men's restroom and one changing station in a women's restroom or one changing station in a dedicated unisex family restroom per campus, rather than per floor. The bill includes a \$500,000 appropriation to fund the expense for public buildings. The bill passed its first committee in May 2019, and the New Jersey Legislature remains in session until January 13, 2020.
- New York 2019 Assembly Bill 2323 adds a new section to the state's civil rights law requiring that public buildings that install diaper changing stations "ensure that the ac-

- commodation is equally available or provided regardless of the gender for which the restroom is designed." The requirement would apply to newly constructed or substantially renovated restrooms. The bill has not yet received a hearing or vote as of December 2019, but the New York Legislature remains in session until June 26, 2020.
- Pennsylvania 2019 House Bill 1029 requires a diaper changing station in each public restroom. The bill requires installation in both newly constructed and renovated restrooms, and also requires signage to indicate the location of diaper changing stations near the entrance of public restrooms and as part of a central directory for the building, if one exists. The bill includes exceptions for industrial buildings and certain other buildings, such as night clubs, that do not permit anyone under 18 years of age. The bill has not yet received a hearing or vote as of December 2019, but the Pennsylvania Legislature remains in session until November 30, 2020.

At the state level, the following recently introduced bills failed to pass:

- Arizona 2019 House Bill 2529 required that newly constructed or substantially renovated public restrooms include at least one diaper changing station that can accommodate a baby and one that can accommodate an adult, or one that can accommodate both. The bill passed the House Health & Human Services Committee unanimously, but the state legislature adjourned without taking further action on the bill.
- Arkansas 2019 Senate Bill 443 required that "a public building or public place that installs a diaper changing accommodation in a restroom shall ensure that the diaper changing accommodation is equally available or provided regardless of the gender for which the restroom is designed." The requirement would have applied to restrooms constructed on or after the effective date of the bill. The bill passed the senate, but the house of representatives adjourned without voting on the bill.
- Connecticut 2019 Senate Bill 533 required revisions to the state building code regarding diaper changing stations in newly constructed public or commercial buildings with at least one public restroom. For each floor open to the public, new buildings would have been required to have either (1) at least one changing station accessible to both men and women or (2) at least two changing stations, with one accessible to women and one accessible to men. The bill passed the senate 34–2 in April 2019, but the house of representatives adjourned without voting on the bill.
- <u>Florida 2019 Senate Bill 1082</u> created new diaper changing station requirements in the Florida Building Code for newly constructed or substantially renovated theaters, sports stadiums, public libraries, amusement parks, and certain shopping centers and restaurants over minimum sizes. Neither the senate bill nor its house of representatives companion bill received a hearing or a vote before the state legislature adjourned.
- Oregon 2019 Senate Bill 316 required revisions to the state building code for "places of public accommodation" as defined in state law. The bill required diaper changing stations in one or more public restrooms in such places "provided to or accessible by both

- genders on an equal basis." The requirements would have applied to newly constructed restrooms and restrooms renovated at a cost of \$10,000 or more. The bill did not receive a hearing or a vote before the state legislature adjourned.
- Tennessee 2019 House Bill 54 required public buildings "owned, operated, or under the control of a public entity" to be equipped with at least one diaper changing station "accessible to both men and women." The bill also required signage to indicate the location of diaper changing stations near the entrance of public restrooms and as part of a central directory for the building, if one exists. The requirements would have applied to newly constructed public buildings and to buildings in which restrooms are renovated at a cost of \$10,000 or more. Neither the house bill nor its senate companion bill received a hearing or a vote before the state legislature adjourned.
- <u>Texas 2019 House Bill 952</u> required that buildings with restrooms accessible to the public include at least one diaper changing station in a men's restroom and one changing station in a women's restroom or one changing station in a "restroom not designated by gender." The requirements would have applied to newly constructed or renovated buildings. The bill had a public hearing but did not receive a vote before the state legislature adjourned.

Conclusion

Diaper changing station legislation has grown in popularity across the United States. At the time of this writing, six states have enacted diaper changing station legislation and at least five other states are considering similar legislation. These enactments often have strong bipartisan support. Opposition to diaper changing station legislation typically stems from concerns about government mandates on private facilities and undue burdens or costs on building owners. The costs can be significant, depending on the scope and reach of the legislation. However, these concerns are the impetus for the many exceptions and thresholds built into nearly all examples of legislation in this area.