

State-Level Contraceptive Use and Preferences: Estimates from the US 2022 Behavioral Risk Factor Surveillance System



Hannah Olson, Madeleine Haas and Megan L. Kavanaugh

Contraception plays a key role in people's realization of their sexual and reproductive health and well-being. The factors that shape contraceptive behaviors are complex and dynamic, and there is growing recognition among reproductive health service providers and advocates that contraceptive service delivery must prioritize patients' values and preferences to help them exercise their reproductive autonomy.¹ Similarly, research and public health surveillance systems that measure not only contraceptive use and method selection but also contraceptive preferences are best suited to evaluate service quality and track progress toward meeting the needs of reproductive-aged people.

Building on findings from two previous Guttmacher Institute reports describing Behavioral Risk Factor Surveillance System (BRFSS) data on contraceptive use in 2017² and 2019,³ this report uses data from the 2022 BRFSS to provide an expanded set of state-level estimates of contraceptive use and preferences. In 2022, scientists at Guttmacher collaborated with the Centers for Disease Control and Prevention (CDC) to modify existing questions and include additional questions in the BRFSS family planning module. The resulting data set allows analysis not only of people's primary contraceptive method use but also of multiple method use, overall contraceptive preferences and method-specific contraceptive preferences.

Data collection for the 2022 BRFSS occurred during a pivotal time for reproductive health and rights due to the US Supreme Court's June 2022 ruling in *Dobbs*

v. Jackson Women's Health Organization, which overturned the federal right to abortion. A wave of restrictive state laws and policies have followed, and as legislation concerning sexual and reproductive health care becomes increasingly politicized, state-level policies are key determinants of the quality and accessibility of contraceptive care.⁴ In this environment, state-level data, especially on person-centered measures of contraceptive preferences, are of paramount importance in understanding how shifts in reproductive health policy and service delivery are felt in the population.

This report finds that contraceptive use is high across all reporting jurisdictions, but there is considerable variation in whether people are realizing preferences for which contraceptives they use or whether to use at all. People who report having used a method that requires some interaction with a provider, for example, are more likely than people using exclusively provider-independent or over-the-counter methods to report their current method as their preferred method of contraception. Throughout this report, we will explore how patterns of contraceptive use and preferences vary by type of method or combination of methods and jurisdiction. Given the elevated barriers to contraception that young people have historically experienced,^{5,6} we also highlight differences between two age-groups (18–24 and 25–49) where possible.*

*Comparisons are available only for those jurisdictions for which data disaggregated by age met reliability standards. See a full description of our reliability standards in the Additional Notes on Data.

[†]AL, AR, AZ, CA, CT, DE, IA, IN, KS, MI, MN, NC, NE, NJ, NM, NV, OH, OK, OR, RI, SC, VA, VT, WV, WI and WY.

Data and Methods

The BRFSS is an annual household health survey conducted by the CDC in collaboration with state health departments. Landline and cell phone interviews with US residents aged 18–49 are used to collect retrospective self-reported data representative of noninstitutionalized adult residents in each jurisdiction where the survey is fielded. Each state's BRFSS survey has up to three components: a set of core required modules that gather standard demographic and health information, optional multistate modules on specific health topics and state-specific questions added by health departments. For the 2022 BRFSS, surveys were fielded over a period of 13 months from January 2022 to February 2023.

Our analysis draws primarily on data from the optional family planning module of the 2022 BRFSS, which includes questions about contraceptive use, nonuse and preferences (see Appendix for a full list of BRFSS questions used in this analysis). Some 28 jurisdictions (26 US states[†] and the US territories of Puerto Rico and Guam) administered the family planning module as part of their BRFSS data collection efforts.

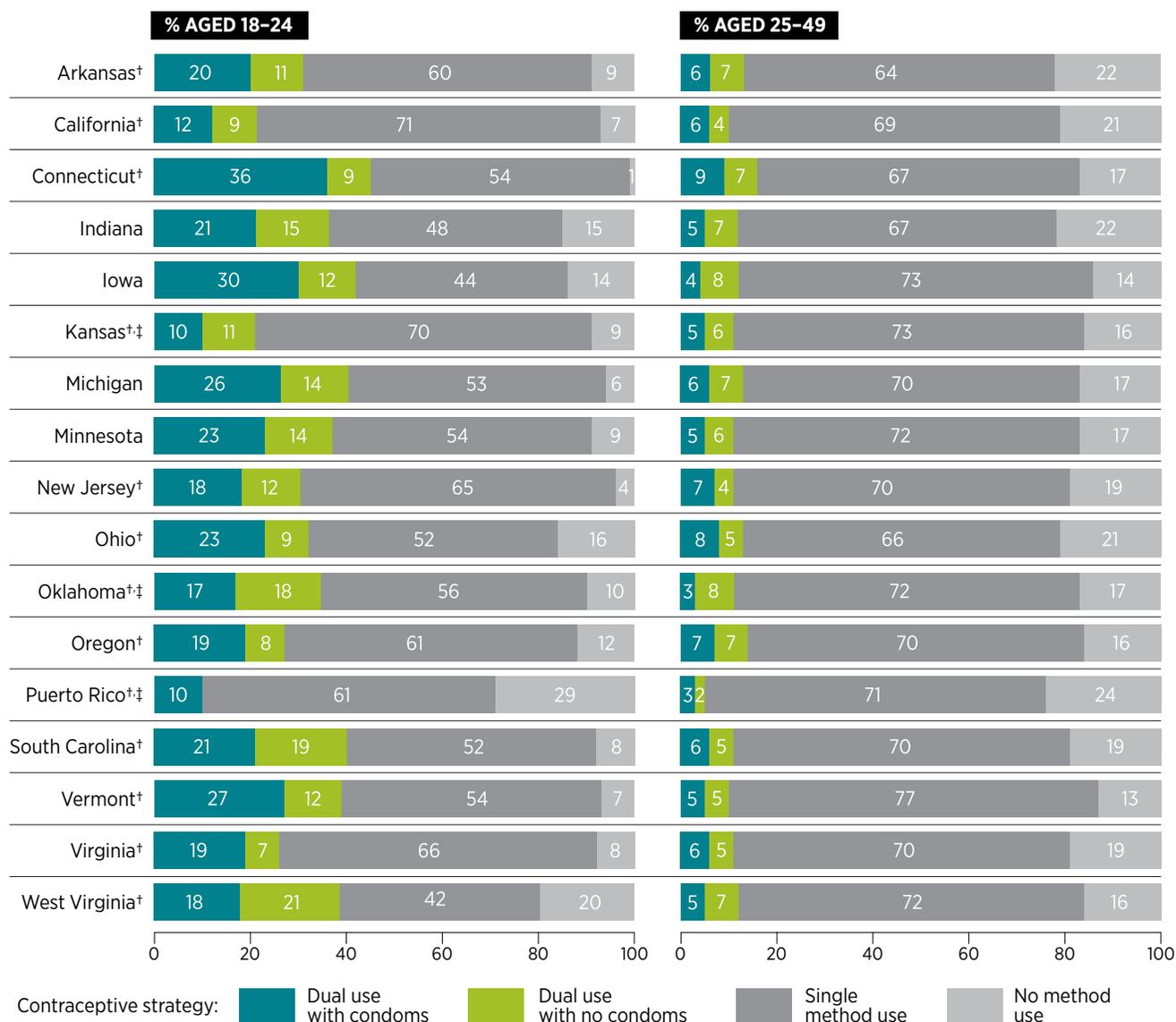
Eligibility for the family planning module was limited to respondents who were aged 18–49 at the time of the survey and who were assigned female at birth, were not pregnant and had not had a hysterectomy. Our analysis includes 17,124 eligible individuals across the 28 jurisdictions who reported having had penile-vaginal sex in the 12 months prior to the survey. We considered all of these respondents to be at risk of pregnancy.

Our analysis provides basic tabulations and data visualizations of state-level contraceptive prevalence, methods used at last sex, dual method use and unfulfilled contraceptive preferences. We ran Pearson's chi-square tests of equal proportions to check for statistically significant differences between groups. A more detailed description of the analytic sample and

construction of each indicator is available in the Additional Notes on Data below, and the appendix tables are available at the end of this report and online as a Microsoft Excel download. We conducted all analyses using Stata version 18.0 and used survey weights available in the public data set to adjust all estimates for both complex sampling design and population characteristics.

Further information on BRFSS survey methodology, sampling design and data preparation are published elsewhere.⁷⁻⁹ The full BRFSS questionnaire, public data sets, and documentation files for 2022 and prior BRFSS survey years are available on the CDC BRFSS website.¹⁰

FIGURE 1. Contraceptive strategy used at last sex among people at risk of pregnancy



[†]For 18-24, estimates have at least one relative standard error of 30-50% and should be interpreted with caution. [‡]For 25-49, estimates have at least one relative standard error of 30-50% and should be interpreted with caution. *Notes:* Respondents could report up to two methods of contraception used at last sex. Estimates from AL, AZ, DE, Guam, NE, NV, NM, NC, RI, WI and WY not shown because they had fewer than 50 observations from respondents aged 18-24 in their sample and/or at least one estimate with a relative standard error greater than 50%. All percentages are weighted. Distributions may not add to 100 because of rounding. Data available in Appendix Table 2. *Source:* 2022 Behavioral Risk Factor Surveillance System.

Dual method use

Between 21% and 45% of respondents aged 18–24 reported having used two methods of contraception at last sex across the 17 states in our analysis with sufficient data on this age-group (Figure 1, page 2, and Appendix Table 2, page 11). Across all 26 states in our analysis, 10–16% of people 25 and older reported using two methods at last sex. Reports of dual method use were considerably lower in Guam and Puerto Rico.

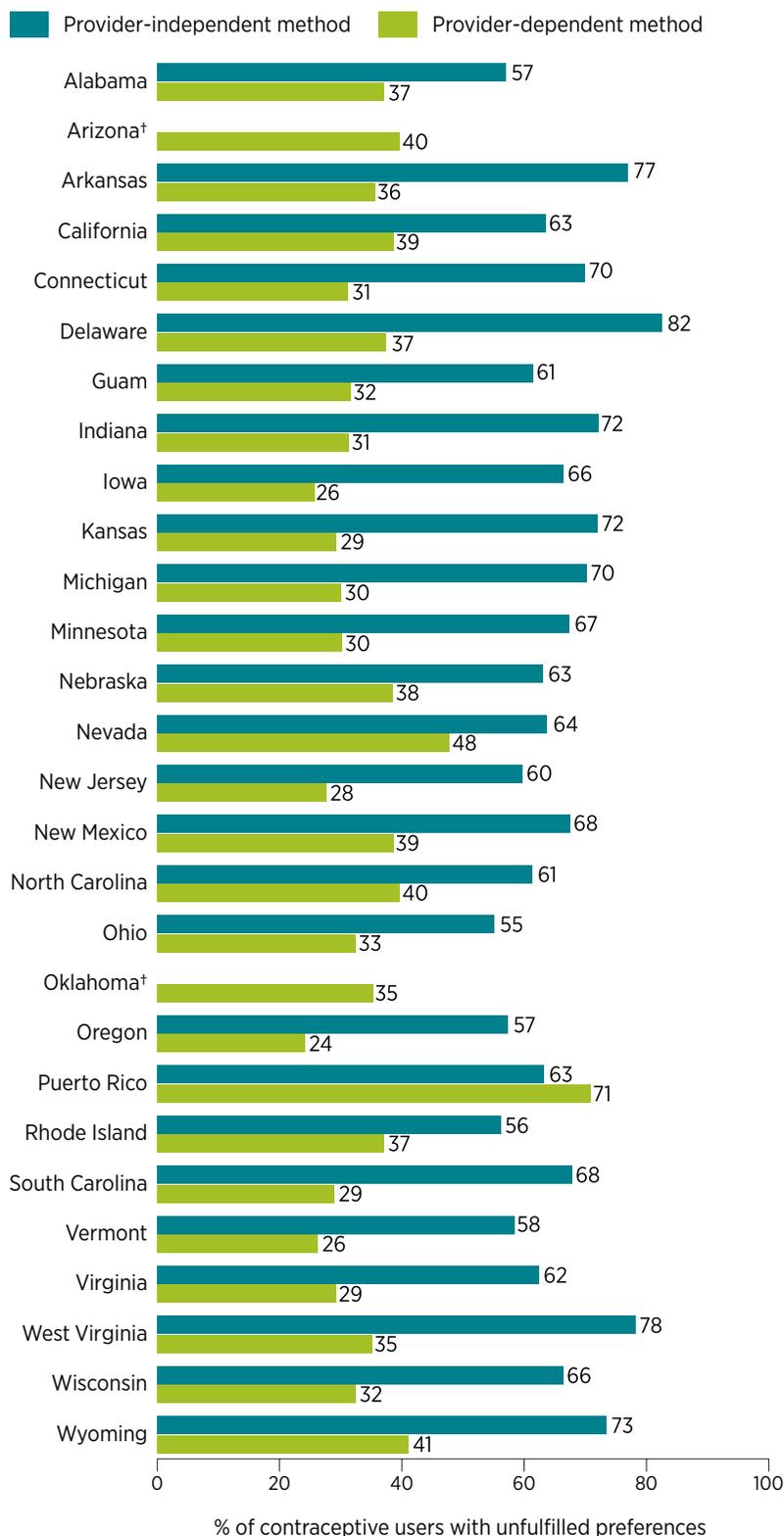
- Dual method users most commonly used condoms in combination with another method. This pattern was especially prevalent among people younger than 25, the majority of whom selected condoms as one of their methods in all but three states.
- People in the younger age-group also employed method combinations that did not include condoms (e.g., combining withdrawal with permanent or hormonal methods) at significantly higher levels than people in the older age-group in eight states.
- In West Virginia, 21% of 18–24-year-olds reported having combined two methods other than condoms, the highest proportion among states with a sample large enough to allow comparison by age-group. Only 7% of 25–49-year-old West Virginians reported the same.

Contraceptive preferences

A substantial proportion (36–71%) of people at risk of *undesired pregnancy*[§] in each jurisdiction had unfulfilled contraceptive preferences at last sex, meaning that at the time of the survey, they were using methods other than the methods they reported as preferred, were not using any method when there was a method they preferred or were using a method when

[§]We defined people as at risk of undesired pregnancy if they were aged 18–49 at the time of the survey and were assigned female at birth, were not pregnant, had not had a hysterectomy, had engaged in penile-vaginal sex in the prior 12 months, and did not report wanting to get pregnant.

FIGURE 3. Unfulfilled contraceptive preferences among users of provider-dependent and provider-independent contraceptive methods



†Estimate for provider-independent method users suppressed (has a denominator less than 50). Notes: Provider-dependent methods are those that typically require interaction with a provider to obtain; provider-independent methods are those that typically do not. Users of “other” (unknown) methods are classified as using a provider-independent method; thus, we may have captured a small number of provider-dependent method users in the provider-independent group. Data available in Appendix Table 4. Source: 2022 Behavioral Risk Factor Surveillance System.

they would have preferred not to use any method (Figure 2, page 3, and Appendix Table 3, page 12)."

- The state with the highest contraceptive use (Vermont) also had the second-lowest proportion of people at risk of undesired pregnancy with unfulfilled contraceptive preferences (37%).
- However, high levels of contraceptive use did not always translate into high levels of contraceptive preference fulfillment. For example, Wyoming had the second-highest level of overall contraceptive use (87%), and yet about half of people at risk of undesired pregnancy had unfulfilled contraceptive preferences.

In nearly all jurisdictions, people who exclusively used methods that are typically available over the counter (i.e., provider-independent methods) had significantly higher levels of unfulfilled contraceptive preferences than people who used at least one provider-dependent method at last sex (e.g., sterilization, implants, IUDs and short-acting hormonal methods that typically require either a prescription or a procedure from a provider; Figure 3, page 4, and Appendix Table 4, page 13).

- This pattern held true for users in every jurisdiction except Nevada and Puerto Rico, where there were no significant differences by whether methods used were provider-dependent, and Arizona and Oklahoma, where we had insufficient data to draw comparisons by method type.
- Across all jurisdictions for which we have data, the majority (55–78%) of people who used only provider-independent methods at last sex reported that they would have preferred to have used a different method.

** In Appendix Tables 3 and 4, we provide the proportion of the population of interest with fulfilled preferences at last sex (i.e., having used a preferred method or not used any method when that is the preference), as well as the proportion with unfulfilled preferences (i.e., having used a nonpreferred method at last sex or not using any method when there was a method that they would have preferred to use). While fulfilled preferences reflect a key objective of contraceptive access initiatives, throughout this report, we reference unfulfilled preferences to highlight where gaps between contraceptive use and preferences exist, and thus pinpoint opportunities for policy and programmatic intervention.

Discussion

These latest BRFSS data on state-level contraceptive use and preferences reflect the ongoing reality that as in 2017 and 2019, the majority of people at risk of pregnancy are using some form of contraception—and in most jurisdictions with data, they are most commonly using condoms or pills. However, compared with past surveys, the 2022 BRFSS data provide a more comprehensive and nuanced understanding of use and preferences by highlighting simultaneous use of two contraceptive methods. Data on dual method use at last sex shed light on the reality that contraceptive behavior is complex and is not well-captured by measuring only the most effective method used, which is common in state-level contraceptive tracking efforts.^{11,12} In 2022, although use of a single method of contraception was the most common strategy employed by users, combining condoms with another method or combining two non-condom methods were additional strategies that varied across states and have not previously been documented at the state level.

We find that compared with respondents aged 25–49, people in the younger age-group reported higher overall contraceptive use, higher use of two contraceptive methods at last sex and higher use of condoms as part of their dual use across most jurisdictions. One factor may be that the youngest adults—who are less likely than older adults to be married or cohabiting¹³ and more likely to have had more than one recent sexual partner¹⁴—maybe be more motivated to prevent STIs, and thus to use condoms in combination with another method. However, we also see more dual method use among 18–24-year-olds that does not involve condoms, suggesting that multiple factors shape dual method use in this population.¹¹ Notably, pregnancy prevention may be especially salient within this younger age-group, particularly as other options for ensuring their reproductive autonomy, such as access to abortion, are increasingly threatened.

Perhaps the most actionable findings in this report are those on unfulfilled contraceptive preferences at the state level, a metric that sheds light on the extent to which there are gaps between methods

used and methods desired. Furthermore, higher unfulfilled preferences among people using exclusively over-the-counter methods suggest that many people may face substantial barriers, including barriers to getting provider-based care, that make it harder for them to obtain their preferred methods and satisfy their contraceptive needs. Jurisdictions where high levels of unfulfilled contraceptive preferences are reported among people at risk of undesired pregnancy—such as Arizona, Arkansas, California, Delaware, Guam, Nevada, Puerto Rico and Wyoming—can bring contraceptive use and preferences into greater alignment by supporting policies and programs that ensure equitable access to health-related resources.

The 2022 BRFSS family planning module's more nuanced and comprehensive measures of contraceptive use and preferences provide critical data at a pivotal time for sexual and reproductive health and rights in the United States. The *Dobbs* decision was followed by an increase in restrictive state-level policies and widespread confusion around availability of sexual and reproductive health care services that has had implications far beyond access to abortion.⁴ Without national protections for reproductive health and rights, we see far more variability in access to essential sexual and reproductive health care at the state level: Supportive states are generally moving to protect or expand access to contraception and abortion, while other states have taken the opportunity to further restrict such access.⁴ In this environment, state-level data, especially on person-centered measures of contraceptive preferences, are of paramount importance in understanding how shifts in reproductive health policy and service delivery are felt in the population. Other state-level surveillance efforts that monitor contraceptive use, such as the Pregnancy Risk Assessment Monitoring System (PRAMS)^{15,16} and the Surveys of Women,¹⁷ help to round out what is known about this crucial aspect of reproductive autonomy. Going forward, we recommend greater synergy across these state-level efforts in how contraceptive use and preferences are assessed. Increased collaboration will help support the production of high-quality scientific evidence that sheds light on the extent to which changes in federal

and state policies and programs may facilitate or impede individuals' ability to fulfill their right to reproductive autonomy.

Additional Notes on Data

Data collection period. Data collection for this survey took place from January 2022 to February 2023. Within that time frame, the *Dobbs v. Jackson Women's Health* Supreme Court ruling significantly changed the landscape of sexual and reproductive health care in the United States. We do not distinguish between the pre- and post-*Dobbs* time periods in this analysis but acknowledge that this event may have had an impact on people's contraceptive use and preferences.

Definition of population at risk.

Throughout the report, we define people as at risk of pregnancy as those who were aged 18–49 at the time of the interview, were assigned female at birth, were not pregnant, had no history of hysterectomy and had had penile-vaginal sex in the previous 12 months. In Figure 2 and Appendix Table 3, we further restricted our analysis of contraceptive preference fulfillment among both contraceptive users and nonusers to people at risk of undesired pregnancy. We define people as being at risk of undesired pregnancy if they met all the criteria for “at risk of pregnancy” and did not report wanting to get pregnant as the primary reason for not using contraception at last sex.

Analytic sample selection. We included all people who completed the 2022 BRFSS questionnaire and family planning module in the 26 states and two territories that fielded the optional module. Of the 34,299 respondents aged 18–49 who were assigned female at birth and did not report a current pregnancy or previous hysterectomy, 11,041 dropped out of the survey prior to reaching the family planning module. For the question “In the past 12 months, did you have sexual intercourse?” 894 survey respondents did not answer, 4,844 responded “no” and 68 responded “don't know/not sure;” these respondents were not directed to continue to the subsequent questions in the module.

Among those who replied “yes” to having had penile-vaginal sexual intercourse in the past 12 months, we excluded 69 who were

missing information on current pregnancy status, 38 who were missing information on whether they had had a hysterectomy, and 205 did not know or were missing responses to the question: “The last time you had sexual intercourse, did you or your partner do anything to keep you from getting pregnant?” Lastly, we dropped 19 respondents who, in the sexual and gender identity module, reported being trans women (i.e., females assigned male at birth) and two respondents who reported being assigned male at birth as the reason for not using contraception at last sex. After all exclusions, our final analytic sample included 17,124 people at risk of pregnancy with complete information on eligibility criteria, sexual activity and contraceptive use.

Variable construction. In our analysis, we constructed or recoded several variables using data from the BRFSS family planning module.

- **Overall contraceptive use (Table 1).** We coded any respondent who reported using contraception at last sex as a user, regardless of whether they provided a response regarding the type of method they were currently using. In addition, for Table 1, we recoded as a user any respondent who answered “no” to the question about whether they used anything to prevent pregnancy at last sex but subsequently reported using withdrawal, having had a tubal ligation or having a partner who has had a vasectomy as their reason for not doing anything to keep from getting pregnant. We then recoded these users to the appropriate method in Table 2.
- **Method type (Table 2 and Appendix Table 1).** Respondents were asked an open-ended question regarding the type of method they or their partner used the last time they had sexual intercourse to keep from getting pregnant. In a follow-up question, they were asked if they used any other method at last sex. In Table 2, we provide the percentage of people at risk of pregnancy who reported using each method at any point in the family planning module. The “other methods” category includes respondents who reported having used contraceptives and when asked what method was used either selected “other” or “don't know/not

sure,” did not report a specific method, or reported one or both of the two method categories that we combined with “other” because of small cell size (diaphragms/cervical caps/spermicide and emergency contraception).

- **Dual method use (Figure 1 and Appendix Table 2).** Because respondents were given the opportunity to report up to two concurrent methods used at last sex, we constructed a variable to represent four mutually exclusive contraceptive strategies: 1) no method use, 2) single method use, 3) dual method use combining any method with condoms and 4) dual method use combining two methods other than condoms. Any users who did not report a specific method used at last sex and were coded as “other” method users were assumed to have used only one method.
- **Contraceptive preferences (Figures 2 and 3 and Appendix Tables 3 and 4).** We constructed a binary variable of unfulfilled contraceptive preferences in which we marked respondents as having unfulfilled preferences if they reported that the last time they had sex they 1) used a method other than their preferred method, 2) used a method but reported that they preferred not to be using one or 3) did not report using contraception but cited a preferred method when asked. Conversely, we considered respondents to have fulfilled their contraceptive preferences if they had either used their preferred method or had not used any method and reported not wanting to be using a method. Anyone who reported not using contraception because they wanted to get pregnant was excluded from measurements of contraceptive preferences.

In Figure 2, we report the percentage of all people who were at risk of undesired pregnancy with unfulfilled contraceptive preferences in each jurisdiction, excluding Puerto Rico and Guam. We defined someone as at risk of undesired pregnancy if they met all criteria for being at risk of pregnancy and did not report that they wanted to get pregnant. Appendix Table 3 provides the proportions of these same people with either fulfilled or unfulfilled preferences, separately by age-group and

combined for all 28 jurisdictions. We used Pearson's chi-square tests to compare differences between the proportion of each age-group with unfulfilled preferences in each state and found no significant differences in any jurisdiction in which the data met our reliability standards; thus, we do not display the results of these tests.

In Figure 3, we report unfulfilled contraceptive preferences only among people who used any method of contraception at last sex, by whether the type of method used typically requires an interaction with a provider. Appendix Table 4 provides the proportion of these same users with either fulfilled or unfulfilled contraceptive preferences, as well as the results of Pearson's chi-square tests of differences between the proportion of each group with unfulfilled preferences.

Gender identity. We used respondent sex at birth to determine eligibility for the family planning module and thus our analytic sample. We used the CDC-constructed variable “_sex” to determine sex at birth, which is coded based on responses to demographic questions in the core module or, if possible, the optional sex at birth module, which was fielded in eight of the 28 jurisdictions that fielded the family planning module. Gender identity was collected in 18 of the 28 jurisdictions that fielded both the family planning module and the sexual and gender identity (SOGI) module. We dropped any respondents in the overlapping jurisdictions who were trans women (i.e., selected “yes, transgender, male-to-female”). Around 1% of respondents who reported their sex as female in the core module reported being either trans men or trans/nonbinary (i.e., selected “transgender, female-to-male” or “gender nonconforming”) in the SOGI module. We assumed these individuals were at risk of pregnancy and thus included them in our sample.

Reliability standards. For any estimate based on the full analytic sample, we used the reliability standards established by the CDC,¹⁸ suppressing any estimates where the relative standard error exceeded 30%. For age-disaggregated results, we display estimates with a relative standard error up to 50% but flag any results with a relative standard error of 30–50% to urge caution

when interpreting the findings. We suppress all estimates with an unweighted denominator of fewer than 50 observations from the report, regardless of aggregation.

We calculated relative standard error by dividing the standard error by the point estimate and multiplying by 100. In Table 2 and Appendix Table 1, we combined some methods that did not meet reliability standards in any or nearly any states with other categories. Specifically, we folded injectable contraceptives into a single category for short-acting hormonal methods, along with pills, vaginal rings and contraceptive patches. We grouped diaphragms, cervical caps, sponges, various forms of spermicide and emergency contraception under “other” methods for the same reason.

Limitations

- BRFSS response rates are low in many states. The median combined (landline and cell phone) response rate for the 2022 BRFSS samples in our 28 jurisdictions was 44%, with rates ranging from 23% in Guam to 59% in Puerto Rico. Of the 26 continental states in our analysis, response rates ranged from 36% in California to 55% in Iowa.¹⁹
- Some 24 states did not field the family planning module in the 2022 BRFSS, and this prevented us from providing a comprehensive picture of US contraceptive use and preferences or drawing regional comparisons. The number of states abstaining from collecting these data nearly doubled since 2019, indicating that states may be increasingly reluctant to accept or participate in research related to sexual and reproductive health at a time when this research is particularly vital.
- The BRFSS explicitly measures use of and preferences for contraceptives only for the purposes of pregnancy prevention at last sex among people who have had penile-vaginal sex within the past 12 months. This definition of contraceptive use may exclude people using methods for reasons other than pregnancy prevention. In addition, these measures do not gather information on the contraceptive use or preferences of people whose most recent sexual activity was more than one

year prior or who engaged exclusively in other forms of sexual activity in the preceding year. To obtain estimates that capture the full extent of contraceptive use and preferences in the population, future efforts should take into account that people may use contraception for reasons other than pregnancy prevention, as well as at intervals and in ways not currently captured by the survey.

- Although the 2022 version of the family planning module improved measurement of contraceptive use and preferences, the changes to the questionnaire prevent us from analyzing trends in contraceptive use across time. In 2019, no time frame was provided when asking respondents about contraceptive use at last sex. In 2022, the survey first asked respondents to report whether they had had penile-vaginal intercourse within the past 12 months and conducted the remainder of the family planning module only with respondents who answered “yes” to this initial question. Thus, we see differences in contraceptive use between rounds that may be attributable to changes in measurement rather than, or in addition to, changes in behavior.

TABLE 1. Use of any contraceptive method at last sex among people at risk of pregnancy, 2022

Jurisdiction	Aged 18–24		Aged 25–49		Difference % point	Total	
	N	% using	N	% using		N	% using
Alabama	43	†	338	82.2		381	79.7
Arizona	34	†	290	82.4		324	79.7
Arkansas	53	91.3	322	77.6	13.7 *	375	80.9
California	128	92.5	759	78.7	13.8 **	887	81.0
Connecticut	52	98.6	379	83.4	15.3 ***	431	86.8
Delaware	43	†	297	79.1		340	82.0
Guam	28	†	187	67.5		215	71.0
Indiana	103	85.3	818	77.8	7.5	921	79.3
Iowa	158	85.5	787	85.8	−0.3	945	85.8
Kansas	62	91.4	436	83.8	7.6	498	85.5
Michigan	107	94.1	693	82.9	11.2 **	800	85.0
Minnesota	177	91.0	1329	83.0	8.0 *	1506	84.4
Nebraska	43	†	304	76.6		347	78.9
Nevada	33	†	238	75.7		271	77.9
New Jersey	94	95.6	657	81.2	14.4 ***	751	84.0
New Mexico	48	†	355	80.3		403	81.6
North Carolina	49	†	447	81.5		496	82.7
Ohio	115	84.0	751	79.4	4.7	866	80.4
Oklahoma	52	90.1	274	83.4	6.7	326	85.0
Oregon	70	87.9	585	84.0	3.9	655	84.6
Puerto Rico	111	71.5	751	76.0	−4.5	862	74.5
Rhode Island	43	†	431	82.4		474	84.8
South Carolina	82	92.2	629	80.6	11.6 *	711	82.9
Vermont	59	92.8	752	86.8	6.0	811	88.2
Virginia	96	91.9	756	81.0	10.9 *	852	83.2
West Virginia	53	80.4	490	84.4	−4.0	543	83.6
Wisconsin	90	88.6	760	82.5	6.1	850	83.6
Wyoming	25	†	258	86.6		283	87.1

*p<0.05 **p<0.01. ***p<0.001. †Estimate suppressed because of small sample size (unweighted denominator less than 50). Notes: All percentages are weighted; sample sizes are unweighted. Source: 2022 Behavioral Risk Factor Surveillance System.

TABLE 2. Use of specific contraceptive methods at last sex among people aged 18–49 at risk of pregnancy, 2022

Jurisdiction	Tubal ligation or Essure %	Vasectomy %	Contraceptive Implant %	IUD %	Short-acting hormonal [†] %	Condom %	Natural family planning %	Withdrawal %	Other [‡] %	No method %	Total N
Alabama	20.1	7.8	3.0	7.7	15.4	24.1	§	5.7	§	20.3	381
Arizona	12.1	13.3	§	10.9	22.0	16.2	§	8.8	6.1	20.3	324
Arkansas	14.7	7.4	§	12.2	15.8	23.0	§	10.8	10.6	19.1	375
California	9.4	6.5	§	10.3	18.4	23.1	§	7.2	11.8	19.0	887
Connecticut	6.6	10.1	§	19.3	27.2	25.8	§	10.4	4.9	13.2	431
Delaware	12.6	10.2	7.4	9.9	18.5	18.2	§	§	10.4	18.0	340
Guam	§	§	§	13.2	17.6	17.9	§	10.9	§	29.0	215
Indiana	12.5	9.4	1.7	13.8	19.8	18.4	1.5	11.8	6.4	20.7	921
Iowa	15.1	12.8	5.6	13.2	24.0	17.8	3.4	8.3	4.0	14.2	945
Kansas	12.7	11.6	§	15.4	22.8	16.9	§	8.5	4.7	14.5	498
Michigan	12.4	11.3	§	14.6	19.8	23.2	1.4	9.5	9.5	15.0	800
Minnesota	9.2	13.1	3.9	19.7	20.9	16.4	1.9	7.0	8.1	15.6	1,506
Nebraska	11.4	14.8	§	15.8	19.7	16.9	§	9.2	§	21.1	347
Nevada	10.9	9.3	§	9.7	18.5	21.1	§	10.1	§	22.1	271
New Jersey	7.0	5.8	§	13.0	26.0	25.4	2.1	11.4	7.0	16.0	751
New Mexico	19.1	7.3	5.6	13.7	20.2	19.8	§	4.4	§	18.4	403
North Carolina	16.1	7.1	§	17.3	19.1	18.0	§	5.1	5.8	17.3	496
Ohio	11.8	8.9	§	13.1	19.8	22.7	§	9.7	6.8	19.6	866
Oklahoma	14.8	9.9	§	14.0	25.6	14.8	§	8.1	7.9	15.0	326
Oregon	10.8	13.9	3.8	21.3	20.6	18.1	§	4.6	5.2	15.4	655
Puerto Rico	30.5	5.7	§	4.3	11.1	22.5	2.3	2.6	1.5	25.5	862
Rhode Island	7.0	8.2	4.3	13.8	27.6	20.4	§	9.0	7.9	15.2	474
South Carolina	13.2	8.7	§	14.3	23.6	17.1	§	12.4	6.4	17.1	711
Vermont	6.8	13.0	1.5	24.5	20.2	20.8	§	7.9	7.7	11.8	811
Virginia	10.2	10.2	2.1	16.0	20.7	22.3	1.4	7.0	6.9	16.8	852
West Virginia	19.4	10.9	§	11.0	23.4	13.8	§	14.3	5.0	16.4	543
Wisconsin	9.7	15.2	§	17.4	19.8	17.7	§	7.4	6.2	16.4	850
Wyoming	16.0	14.3	§	16.9	19.6	18.7	§	§	9.8	12.9	283

[†]Injectables, pills, vaginal rings and patches. [‡]Methods not specified by the respondent and methods for which there were too few observations to display separately (diaphragms and cervical caps, sponges, spermicide and emergency contraception). [§]Estimate suppressed (has a relative standard error greater than 30%). *Notes:* All percentages represent the weighted percentage of eligible respondents using the method. Respondents could report up to two methods; thus, rows may total more than 100%. All percentages are weighted; sample sizes are unweighted. Estimates for the 18–24-year-old sample available in Appendix Table 1. *Source:* 2022 Behavioral Risk Factor Surveillance System.

APPENDIX TABLE 1. Percentage of people aged 18–24 at risk of pregnancy§ by contraceptive method or methods used at last sex, 2022

Jurisdiction	Tubal ligation or Essure	Vasectomy	Contra-ceptive implant	IUD	Short-acting hormonal†	Condom	Natural family planning	With-drawal	Other**	No method	Total
	%	%	%	%	%	%	%	%	%	%	N
Arkansas	††	††	††	†12.5	27.6	41.2	††	19.6	†17.2	††	53
California	††	††	†4.6	†10.1	27.7	40.0	††	†8.9	21.0	†7.5	128
Connecticut	††	††	††	†9.9	55.6	54.7	††	†17.7	††	††	52
Indiana	††	††	††	14.2	41.3	31.9	††	24.7	†6.8	14.7	103
Iowa	††	††	†8.6	†8.8	44.4	41.7	†6.1	12.6	†4.3	14.5	158
Kansas	††	††	†10.7	†11.6	38.6	26.9	††	†19.7	††	†8.6	62
Michigan	††	††	†5.4	14.0	38.1	48.6	††	15.3	12.0	†5.9	107
Minnesota	††	††	†9.4	27.1	39.1	29.4	††	13.4	8.2	9.0	177
New Jersey	††	††	††	†4.6	45.7	45.6	††	16.7	††	†4.4	94
Ohio	††	††	†5.2	13.0	34.4	37.3	††	†17.1	††	16.0	115
Oklahoma	††	††	††	†14.3	47.5	28.7	††	†15.2	†10.6	†9.9	52
Oregon	††	††	†8.5	13.9	37.4	34.1	††	††	†5.2	†12.1	70
Puerto Rico	††	††	††	†5.5	19.4	48.1	††	††	††	28.5	111
South Carolina	††	††	††	†17.0	37.3	36.4	††	26.3	†7.9	†7.8	82
Vermont	††	††	††	29.9	33.1	40.1	††	†10.1	†12.4	††	59
Virginia	††	††	†4.6	16.6	31.3	43.8	††	9.2	†10.2	†8.1	96
West Virginia	††	††	††	††	42.9	26.6	††	27.5	††	†19.6	53
Wisconsin	††	††	††	25.1	28.5	42.0	††	12.2	††	†11.4	90

§People at risk of pregnancy are those aged 18–49 who were assigned female at birth, were not currently pregnant, had not had a hysterectomy, and had engaged in penile-vaginal sex in the last 12 months. †Injectables, pills, vaginal rings and patches. ††Methods not specified by the respondent and methods for which there were too few observations to display separately (diaphragms and cervical caps, sponges, spermicide and emergency contraception). ††Estimate suppressed (has a denominator less than 50 or a relative standard error greater than 50%). †Estimate has a relative standard error of 30–50% and should be interpreted with caution. *Notes:* Only jurisdictions with at least 50 respondents aged 18–24 are reported. All percentages represent the weighted percentage of eligible respondents using the method. Respondents could report up to two methods; thus, the rows may total more than 100%. All sample sizes are unweighted. *Source:* 2022 Behavioral Risk Factor Surveillance System.

APPENDIX TABLE 2. Percentage distribution of people at risk of pregnancy§ by contraceptive strategy (nonuse, single method use or dual method use) at last sex, according to age, 2022

Jurisdiction	% aged 18–24					% aged 25–49					% point difference (18–24 vs. 25–49)			% aged 18–49				
	None	Single	Dual w/con- dom	Dual w/ other	Total	None	Single	Dual w/con- dom	Dual w/ other	Total	Single	Dual w/con- dom	Dual w/ other	None	Single	Dual w/con- dom	Dual w/ other	Total
Alabama	††	††	††	††	††	17.8	70.4	6.8	†5.0	100.0				20.3	68.4	6.6	4.8	100.0
Arizona	††	††	††	††	††	17.6	70.4	7.2	†4.8	100.0				20.3	65.9	7.7	†6.1	100.0
Arkansas	†8.7	60.1	19.8	†11.3	100.0	22.4	64.4	6.3	7.0	100.0	–4.2	13.6 **	4.4	19.1	63.3	9.5	8.0	100.0
California	†7.5	70.9	12.3	†9.3	100.0	21.3	69.0	5.7	4.0	100.0	1.8	6.6 *	5.3	19.0	69.3	6.8	4.9	100.0
Connecticut	††	53.5	36.1	†9.1	††	16.6	67.3	8.7	7.4	100.0	–13.8	27.3 ***	1.7	13.2	64.3	14.7	7.8	100.0
Delaware	††	††	††	††	††	20.9	71.5	†3.8	†3.9	100.0				18.0	71.9	6.9	†3.1	100.0
Guam	††	††	††	††	††	32.5	59.1	††	††	††				29.0	59.7	††	†5.6	††
Indiana	14.7	48.3	21.5	15.5	100.0	22.2	66.7	4.6	6.5	100.0	–18.4 **	16.9 ***	9.0 **	20.7	63.2	7.8	8.3	100.0
Iowa	14.5	43.6	30.1	11.7	100.0	14.2	73.5	4.4	8.0	100.0	–29.8 ***	25.8 ***	3.8	14.2	67.3	9.7	8.7	100.0
Kansas	†8.6	70.2	†10.4	†10.8	100.0	16.2	72.9	†4.9	6.0	100.0	–2.7	5.5	4.8	14.5	72.3	6.1	7.0	100.0
Michigan	†5.9	53.5	26.4	14.2	100.0	17.1	70.0	6.2	6.7	100.0	–16.5 **	20.2 ***	7.5 *	15.0	66.8	10.1	8.2	100.0
Minnesota	9.0	53.9	22.9	14.1	100.0	17.0	71.8	4.7	6.5	100.0	–17.9 ***	18.2 ***	7.7 **	15.6	68.7	7.9	7.8	100.0
Nebraska	††	††	††	††	††	23.4	64.7	4.5	7.4	100.0				21.1	60.0	8.9	9.9	100.0
Nevada	††	††	††	††	††	24.3	61.8	†5.4	8.5	100.0				22.1	58.3	8.8	†10.8	100.0
New Jersey	†4.4	64.9	18.4	†12.4	100.0	18.8	69.8	7.2	4.2	100.0	–4.9	11.2 **	8.2 **	16.0	68.8	9.4	5.8	100.0
New Mexico	††	††	††	††	††	19.7	74.2	†3.6	†2.4	100.0				18.4	70.6	7.5	†3.5	100.0
North Carolina	††	††	††	††	††	18.5	73.6	4.6	3.3	100.0				17.3	72.4	6.5	3.8	100.0
Ohio	16.0	52.0	23.2	†8.8	100.0	20.6	66.1	7.8	5.5	100.0	–14.1 *	15.3 ***	3.4	19.6	62.9	11.3	6.2	100.0
Oklahoma	†9.9	55.7	†16.6	†17.8	100.0	16.6	72.4	†3.2	7.9	100.0	–16.7 *	13.4 ***	10.0 *	15.0	68.6	6.2	10.1	100.0
Oregon	†12.1	60.9	18.6	†8.4	100.0	16.0	69.9	7.2	6.8	100.0	–9.1	11.4 **	1.6	15.4	68.5	9.1	7.1	100.0
Puerto Rico	28.5	61.3	†10.2	††	††	24.0	71.2	2.8	†1.9	100.0	–9.9	7.4 ***		25.5	68.1	5.1	†1.3	100.0
Rhode Island	††	††	††	††	††	17.6	69.9	5.9	6.6	100.0				15.2	69.5	8.7	6.6	100.0
South Carolina	†7.8	52.3	20.8	†19.2	100.0	19.4	69.7	6.3	4.7	100.0	–17.4 **	14.5 ***	14.5 ***	17.1	66.3	9.1	7.5	100.0
Vermont	††	54.0	27.0	†11.8	††	13.2	76.5	5.5	4.8	100.0	–22.5 ***	21.5 ***	7.0 *	11.8	71.3	10.5	6.4	100.0
Virginia	†8.1	66.1	19.3	†6.5	100.0	19.0	70.2	5.7	5.1	100.0	–4.1	13.5 ***	1.4	16.8	69.4	8.4	5.4	100.0
West Virginia	†19.6	42.3	†17.6	20.6	100.0	15.6	72.5	5.2	6.7	100.0	–30.2 ***	12.3 **	13.9 ***	16.4	66.2	7.8	9.6	100.0
Wisconsin	†11.4	60.5	25.9	††	††	17.5	71.1	4.4	7.0	100.0	–10.6	21.5 ***		16.4	69.2	8.3	6.1	100.0
Wyoming	††	††	††	††	††	13.4	74.9	†4.9	6.7	100.0				12.9	72.3	8.9	5.9	100.0

*p<0.05. **p<0.01. ***p<0.001. §People at risk of pregnancy are those aged 18–49 who were assigned female at birth, were not currently pregnant, had not had a hysterectomy, and had engaged in penile-vaginal sex in the last 12 months. ††Estimate suppressed (has an unweighted denominator less than 50 or a relative standard error greater than 50%). †Estimate has a relative standard error of 30–50% and should be interpreted with caution. *Notes:* Percentage distributions may not add to 100.0 because of rounding. Unweighted sample sizes for each jurisdiction and age group are provided in Table 1. *Source:* 2022 Behavioral Risk Factor Surveillance System.

APPENDIX TABLE 3. Percentage distribution of people at risk of undesired pregnancy§ by fulfillment of contraceptive preferences,† according to age, 2022

Jurisdiction	Aged 18–24				Aged 25–49				All			
	% un-fulfilled	% fulfilled	Total	N	% un-fulfilled	% fulfilled	Total	N	% un-fulfilled	% fulfilled	Total	N
Alabama	††	††	††	35	42.6	57.4	100.0	289	47.8	52.2	100.0	324
Arizona	††	††	††	30	50.4	49.6	100.0	253	52.6	47.4	100.0	283
Arkansas	††	††	††	49	50.7	49.3	100.0	282	52.8	47.2	100.0	331
California	51.6	48.4	100.0	116	52.8	47.2	100.0	642	52.5	47.5	100.0	758
Connecticut	††	††	††	48	46.8	53.2	100.0	322	45.6	54.4	100.0	370
Delaware	††	††	††	37	53.5	46.5	100.0	250	53.5	46.5	100.0	287
Guam	††	††	††	24	46.4	53.6	100.0	158	50.9	49.1	100.0	182
Indiana	51.2	48.8	100.0	92	46.4	53.6	100.0	719	47.3	52.7	100.0	811
Iowa	35.0	65.0	100.0	140	36.6	63.4	100.0	695	36.3	63.7	100.0	835
Kansas	40.2	59.8	100.0	54	43.7	56.3	100.0	388	43.0	57.0	100.0	442
Michigan	46.9	53.1	100.0	94	44.8	55.2	100.0	609	45.2	54.8	100.0	703
Minnesota	34.0	66.0	100.0	153	44.0	56.0	100.0	1,149	42.3	57.7	100.0	1,302
Nebraska	††	††	††	39	47.4	52.6	100.0	253	46.6	53.4	100.0	292
Nevada	††	††	††	32	54.1	45.9	100.0	211	57.2	42.8	100.0	243
New Jersey	49.5	50.5	100.0	87	40.6	59.4	100.0	554	42.5	57.5	100.0	641
New Mexico	††	††	††	44	49.1	50.9	100.0	301	48.8	51.2	100.0	345
North Carolina	††	††	††	44	48.2	51.8	100.0	382	47.3	52.7	100.0	426
Ohio	48.7	51.3	100.0	107	43.9	56.1	100.0	638	45.1	54.9	100.0	745
Oklahoma	††	††	††	45	41.3	58.7	100.0	237	43.6	56.4	100.0	282
Oregon	39.1	60.9	100.0	65	38.7	61.3	100.0	453	38.7	61.3	100.0	518
Puerto Rico	70.3	29.7	100.0	100	71.8	28.2	100.0	686	71.3	28.7	100.0	786
Rhode Island	††	††	††	33	39.0	61.0	100.0	362	45.0	55.0	100.0	395
South Carolina	47.9	52.1	100.0	73	40.8	59.2	100.0	549	42.2	57.8	100.0	622
Vermont	30.8	69.2	100.0	54	38.9	61.1	100.0	647	37.0	63.0	100.0	701
Virginia	42.8	57.2	100.0	89	42.2	57.8	100.0	654	42.3	57.7	100.0	743
West Virginia	††	††	††	48	47.8	52.2	100.0	444	48.5	51.5	100.0	492
Wisconsin	40.4	59.6	100.0	80	43.3	56.7	100.0	652	42.8	57.2	100.0	732
Wyoming	††	††	††	23	47.8	52.2	100.0	222	50.0	50.0	100.0	245

§People at risk of undesired pregnancy are those at risk of pregnancy (see definition on previous tables) who did not report wanting to get pregnant. †Respondents are defined as having unfulfilled preferences if they reported that the last time they had sex they 1) used a method other than their preferred method, 2) used contraception but reported that they would prefer not to be using a method or 3) did not report using contraception but cited a preferred method when asked. Conversely, we considered respondents to have fulfilled their contraceptive preferences if they had either used their preferred method or had not used any method and reported not wanting to be using a method. ††Estimate suppressed (has a denominator less than 50). *Notes:* We excluded individuals who reported using a contraceptive method but did not report which method they used or preferred to use. We performed Pearson’s chi-square tests on these data and found no significant differences between the contraceptive preference fulfillment of 18–24-year-olds and 25–49-year-olds at risk of undesired pregnancy in jurisdictions where the estimates for both groups meet our reliability standards. *Source:* 2022 Behavioral Risk Factor Surveillance System.

APPENDIX TABLE 4. Percentage distribution of contraceptive users by fulfillment of contraceptive preferences,§ according to whether a provider is required to obtain the type of method used at last sex, 2022

Jurisdiction	Used a provider-independent method [‡] (non-Rx)				Used a provider-dependent method ^{‡‡} (Rx)				% point difference (non-Rx vs. Rx users)	Used any method			
	% un-fulfilled	% fulfilled	Total	N	% un-fulfilled	% fulfilled	Total	N		% un-fulfilled	% fulfilled	Total	N
	Alabama	57.0	43.0	100.0	70	37.0	63.0	100.0		211	20.0 *	43.1	56.9
Arizona	††	††	††	49	39.6	60.4	100.0	198		45.7	54.3	100.0	247
Arkansas	76.9	23.1	100.0	79	35.6	64.4	100.0	202	41.2 ***	49.3	50.7	100.0	281
California	63.5	36.5	100.0	230	38.7	61.3	100.0	429	24.8 ***	48.0	52.0	100.0	659
Connecticut	69.9	30.1	100.0	99	31.2	68.8	100.0	239	38.8 ***	41.6	58.4	100.0	338
Delaware	82.5	17.5	100.0	51	37.4	62.6	100.0	195	45.1 ***	49.6	50.4	100.0	246
Guam	61.4	38.6	100.0	50	31.6	68.4	100.0	88	29.8 *	42.8	57.2	100.0	138
Indiana	72.6	27.4	100.0	178	31.3	68.7	100.0	507	41.3 ***	43.0	57.0	100.0	685
Iowa	66.4	33.6	100.0	141	25.7	74.3	100.0	612	40.7 ***	33.5	66.5	100.0	753
Kansas	72.0	28.0	100.0	86	29.3	70.7	100.0	317	42.7 ***	39.2	60.8	100.0	403
Michigan	70.3	29.7	100.0	167	30.1	69.9	100.0	459	40.2 ***	42.1	57.9	100.0	626
Minnesota	67.9	32.1	100.0	248	30.2	69.8	100.0	921	37.8 ***	38.3	61.7	100.0	1,169
Nebraska	63.0	37.0	100.0	50	38.5	61.5	100.0	203	24.5 *	43.4	56.6	100.0	253
Nevada	63.7	36.3	100.0	64	47.7	52.3	100.0	145	16.0	53.0	47.0	100.0	209
New Jersey	59.7	40.3	100.0	189	27.6	72.4	100.0	383	32.1 ***	38.3	61.7	100.0	572
New Mexico	67.6	32.4	100.0	58	38.7	61.3	100.0	250	28.9 **	43.9	56.1	100.0	308
North Carolina	61.3	38.7	100.0	75	39.7	60.3	100.0	308	21.6 **	44.5	55.5	100.0	383
Ohio	55.1	44.9	100.0	160	32.5	67.5	100.0	492	22.6 ***	39.2	60.8	100.0	652
Oklahoma	††	††	††	49	35.4	64.6	100.0	206		40.4	59.6	100.0	255
Oregon	57.4	42.6	100.0	102	24.2	75.8	100.0	347	33.2 ***	31.8	68.2	100.0	449
Puerto Rico	63.2	36.8	100.0	169	70.9	29.1	100.0	460	-7.6	68.5	31.5	100.0	629
Rhode Island	56.2	43.8	100.0	91	37.0	63.0	100.0	259	19.3 *	42.1	57.9	100.0	350
South Carolina	67.9	32.1	100.0	121	28.9	71.1	100.0	424	39.0 ***	38.2	61.8	100.0	545
Vermont	58.4	41.6	100.0	161	26.2	73.8	100.0	492	32.2 ***	34.4	65.6	100.0	653
Virginia	62.1	37.9	100.0	159	29.2	70.8	100.0	498	32.9 ***	38.3	61.7	100.0	657
West Virginia	78.2	21.8	100.0	84	35.1	64.9	100.0	352	43.0 ***	44.5	55.5	100.0	436
Wisconsin	66.4	33.6	100.0	136	32.4	67.6	100.0	525	33.9 ***	40.3	59.7	100.0	661
Wyoming	73.4	26.6	100.0	51	41.0	59.0	100.0	169	32.5 ***	48.5	51.5	100.0	220

*p<0.05. **p<0.01. ***p<0.001. §Contraceptive users are defined as having unfulfilled preferences if they reported that at last sex they used a method other than their preferred method or used contraception but reported that they would prefer not to be using a method. Conversely, we considered users to have fulfilled their contraceptive preferences if they had used their preferred method at last sex. ‡Methods that can typically be obtained without an interaction with a provider (condoms, emergency contraception, natural family planning methods, withdrawal or other). As the methods classified as 'other' are unknown, we may capture some provider-dependent methods in this group. ‡‡Methods that typically require a prescription or procedure from a provider to obtain (tubal ligation/Essure, vasectomy, contraceptive implants, IUDs, injectables, pills, vaginal rings or contraceptive patches). ††Estimate suppressed (has a denominator less than 50 or a relative standard error greater than 30%). Source: 2022 Behavioral Risk Factor Surveillance System.

APPENDIX TABLE 5. Percentage of people at risk of pregnancy§ who were using a permanent method at last sex, by method type, 2022

Jurisdiction	% using tubal ligation	% using vasectomy	% using any permanent method	N
Alabama	20.1	7.8	27.9	381
Arizona	12.1	13.3	24.1	324
Arkansas	14.7	7.4	22.1	375
California	9.4	6.5	15.8	887
Connecticut	6.6	10.1	16.0	431
Delaware	12.6	10.2	22.8	340
Guam	†	†	†	215
Indiana	12.5	9.4	21.3	921
Iowa	15.1	12.8	27.1	945
Kansas	12.7	11.6	24.1	498
Michigan	12.4	11.3	22.8	800
Minnesota	9.2	13.1	21.5	1,506
Nebraska	11.4	14.8	26.1	347
Nevada	10.9	9.3	18.2	271
New Jersey	7.0	5.8	12.6	751
New Mexico	19.1	7.3	26.3	403
North Carolina	16.1	7.1	23.2	496
Ohio	11.8	8.9	20.6	866
Oklahoma	14.8	9.9	24.0	326
Oregon	10.8	13.9	24.4	655
Puerto Rico	30.5	5.7	36.2	862
Rhode Island	7.0	8.2	15.0	474
South Carolina	13.2	8.7	21.6	711
Vermont	6.8	13.0	19.8	811
Virginia	10.2	10.2	20.1	852
West Virginia	19.4	10.9	29.5	543
Wisconsin	9.7	15.2	24.6	850
Wyoming	16.0	14.3	30.1	283

§People at risk of pregnancy are those aged 18–49 who were assigned female at birth, were not currently pregnant, had not had a hysterectomy, and had engaged in penile-vaginal sex in the last 12 months. †Estimate suppressed (has a denominator less than 50 or a relative standard error greater than 30%). *Notes:* All percentages are weighted, and all sample sizes are unweighted. *Source:* 2022 Behavioral Risk Factor Surveillance System.

Appendix: BRFSS Survey Questions Used in this Analysis

We drew all questions listed below from the BRFSS questionnaires provided by the CDC:
<https://www.cdc.gov/brfss/questionnaires/pdf-gues/2022-BRFSS-Questionnaire-508.pdf>

Core Section 8: Demographics

Q#	Variable name	Question Text	Responses	Skip Pattern
CDEM.01	AGE	What is your age?	__ Code age in years 07 Don't know/not sure 09 Refused	
CDEM.17	PREGNANT	To your knowledge, are you now pregnant?	1 Yes 2 No 7 Don't know/not sure 9 Refused	

Sex of respondent is constructed from the responses to 1-2 of 4 questions: LL07, LL09, CP05, or MSAB.01

Q#	Variable name	Question Text	Responses	Skip Pattern
LL07 LL09 CP05	COLGSEX LANDSEX CELLSEX	Are you male or female?	1 Male 2 Female 3 Nonbinary 7 Don't know/not sure 9 Refused	Go to sex at birth module (MSAB.01) if relevant.
MSAB.01	BIRTHSEX	What was your sex at birth? Was it male or female? <i>This question refers to the original birth certificate of the respondent. It does not refer to amended birth certificates.</i>	1 Male 2 Female 7 Don't know/not sure 9 Refused	

Core section 10: Breast and Cervical Cancer Screening

Q#	Variable name	Question Text	Responses	Skip Pattern
CBCCS.07	HADHYST2	Have you had a hysterectomy? Read if necessary: A hysterectomy is an operation to remove the uterus (womb).	1 Yes 2 No 7 Don't know/not sure 9 Refused	

Appendix: BRFSS Survey Questions Used in this Analysis (cont.)

Module 26: Sexual and Gender Identity

MSOGI.02	TRNSGNDR	<p>Do you consider yourself to be transgender? <i>Read if necessary: Some people describe themselves as transgender when they experience a different gender identity from their sex at birth. For example, a person born into a male body, but who feels female or lives as a woman would be transgender. Some transgender people change their physical appearance so that it matches their internal gender identity. Some transgender people take hormones and some have surgery. A transgender person may be of any sexual orientation – straight, gay, lesbian, or bisexual. If asked about definition of gender non - conforming: Some people think of themselves as gender non - conforming when they do not identify only as a man or only as a woman. If yes, ask Do you consider yourself to be 1. male -to -female, 2. female - to - male, or 3. gender non - conforming? Please say the number before the text response. Respondent can answer with either the number or the text/word.</i></p>	<p>1 Yes, Transgender, male-to-female 2 Yes, Transgender, female to male 3 Yes, Transgender, gender nonconforming 4 No 7 Don't know/not sure 9 Refused</p>	
----------	----------	--	---	--

Appendix: BRFSS Survey Questions Used in this Analysis (cont.)

Module 27: Family Planning

SKIP PATTERN FOR FAMILY PLANNING MODULE SECTION: If respondent is greater than 49 years of age, has had a hysterectomy, is pregnant, or is male, go to the next module.

PROLOGUE: The next set of questions asks you about your experiences preventing pregnancy and using birth control, also known as Family planning. Questions that ask about sexual intercourse are referring to sex where a penis is inserted into the vagina.

Q#	Variable name	Question Text	Responses	Skip Pattern
MFP.01	HADSEX	In the past 12 months, did you have sexual intercourse?	1 Yes	
			2 No 7 Don't know/not sure 9 Refused	Go to next module
MFP.02	PFPPRVN4	Some things people do to keep from getting pregnant include not having sex at certain times of the month, pulling out, using birth control methods such as the pill, implant, shots, condoms, or IUD, having their tubes tied, or having a vasectomy. The last time you had sexual intercourse, did you or your partner do anything to keep you from getting pregnant?	1 Yes	
			2 No	Go to MFP.06
			7 Don't know/not sure 9 Refused	Go to MFP.07
MFP.03	TYP CNTR9	The last time you had sexual intercourse, what did you or your partner do to keep you from getting pregnant? <i>Interviewer note: If respondent reports using two methods, please code the method that occurs first on the list. Code the other method in question 4 (do not ask question 4). If respondent reports using</i>	Read if necessary: 01 Female Sterilization (Tubal ligation, Essure, or Adiana) 02 Male sterilization (vasectomy) 03 Contraceptive implant 04 Intrauterine device or IUD (Mirena, Levonorgestrel, ParaGard)	

Appendix: BRFSS Survey Questions Used in this Analysis (cont.)

		<p><i>more than two methods, please code the method that occurs first on the list. Of the remaining methods mentioned, code the method that occurs first on the list in question 4 (do not ask question 4).</i></p> <p><i>If respondent reports “other method,” ask respondent to “please be specific” and ensure that their response does not fit into another category. If response does fit into another category, please mark appropriately.</i></p>	<p>05 Shots (Depo-Provera)</p> <p>06 Birth control pills, Contraceptive Ring (NuvaRing), Contraceptive patch (Ortho Evra)</p> <p>07 Condoms (male or female)</p> <p>08 Diaphragm, cervical cap, sponge, foam, jelly, film, or cream</p> <p>09 Had sex at a time when less likely to get pregnant (rhythm or natural family planning)</p> <p>10 Withdrawal or pulling out</p> <p>11 Emergency contraception or the morning after pill (Plan B or ella)</p> <p>12 Other method</p> <p>Do not read:</p> <p>77 Don’t know/not sure</p> <p>99 Refused</p>	
MFP.04	BRTHCNT4	<p>The last time you had sexual intercourse, what else, if anything did you or your partner do to keep you from getting pregnant?</p> <p><i>Interviewer note:</i></p> <p><i>If respondent reports using more than one additional method, please code the method that occurs first on the list.</i></p>	<p>Read if necessary:</p> <p>00 Nothing else</p> <p>01 Female Sterilization (Tubal ligation, Essure, or Adiana)</p> <p>02 Male sterilization (vasectomy)</p> <p>03 Contraceptive implant</p> <p>04 Intrauterine device or IUD (Mirena,</p>	

Appendix: BRFSS Survey Questions Used in this Analysis (cont.)

			<p>Levonorgestrel, ParaGard)</p> <p>05 Shots (Depo-Provera)</p> <p>06 Birth control pills, Contraceptive Ring (NuvaRing), Contraceptive patch (Ortho Evra)</p> <p>07 Condoms (male or female)</p> <p>08 Diaphragm, cervical cap, sponge, foam, jelly, film, or cream</p> <p>09 Had sex at a time when less likely to get pregnant (rhythm or natural family planning)</p> <p>10 Withdrawal or pulling out</p> <p>11 Emergency contraception or the morning after pill (Plan B or ella)</p> <p>12 Other method</p> <p>Do not read:</p> <p>77 Don't know/not sure</p> <p>99 Refused</p>	
MFP.06	NOBCUSE8	<p>Some reasons people might not do anything to keep from getting pregnant might include wanting a pregnancy, not being able to pay for birth control, or not thinking that they can get pregnant.</p>	<p>Read if necessary</p> <p>01 You didn't think you were going to have sex/no regular partner</p> <p>02 You just didn't think about it</p>	

Appendix: BRFSS Survey Questions Used in this Analysis (cont.)

		<p>What was your main reason for not doing anything to prevent pregnancy the last time you had sexual intercourse?</p>	<p>03 You wanted a pregnancy</p> <p>04 You didn't care if you got pregnant</p> <p>05 You or your partner didn't want to use birth control (side effects, don't like birth control)</p> <p>06 You had trouble getting or paying for birth control</p> <p>07 You didn't trust giving out your personal information to medical personnel</p> <p>08 Didn't think you or your partner could get pregnant (infertile or too old)</p> <p>09 You were using withdrawal or "pulling out"</p> <p>10 You had your tubes tied (sterilization)</p> <p>11 Your partner had a vasectomy (sterilization)</p> <p>12 You were breast-feeding or you just had a baby</p> <p>13 You were assigned male at birth</p> <p>14 Other reasons</p> <p>Do not read:</p> <p>77 Don't know/Not sure</p> <p>99 Refused</p>	
--	--	---	---	--

Appendix: BRFSS Survey Questions Used in this Analysis (cont.)

MFP.07	BCPREFER	<p>If you could use any birth control method you wanted, what method would you use?</p>	<p>01 Female Sterilization (Tubal ligation, Essure, or Adiana)</p> <p>02 Male sterilization (vasectomy)</p> <p>03 Contraceptive implant</p> <p>04 Intrauterine device or IUD (Mirena, Levonorgestrel, ParaGard)</p> <p>05 Shots (Depo-Provera)</p> <p>06 Birth control pills, Contraceptive Ring (NuvaRing), Contraceptive patch (Ortho Evra)</p> <p>07 Condoms (male or female)</p> <p>08 Diaphragm, cervical cap, sponge, foam, jelly, film, or cream</p> <p>09 Had sex at a time when less likely to get pregnant (rhythm or natural family planning)</p> <p>10 Withdrawal or pulling out</p> <p>11 Emergency contraception or the morning after pill (Plan B or ella)</p> <p>12 Other method</p> <p>Do not read:</p> <p>77 Don't know/not sure</p> <p>99 Refused</p>	
--------	----------	--	--	--

References

1. Gaffield ME and Kiarie J, Setting global standards: the paramount importance of considering contraceptive values and preferences of clients and providers, *Contraception*, 2022, 111:1–2, doi:10.1016/j.contraception.2018.08.006.
2. Douglas-Hall A, Kost K and Kavanaugh ML, *State-Level Estimates of Contraceptive Use in the United States, 2017*, New York: Guttmacher Institute, 2018, <https://www.guttmacher.org/report/state-level-estimates-contraceptive-use-us-2017>.
3. Douglas-Hall A, Li N and Kavanaugh ML, *State-Level Estimates of Contraceptive Use in the United States, 2019*, New York: Guttmacher Institute, 2020, <https://www.guttmacher.org/report/state-level-estimates-contraceptive-use-in-us-2019>.
4. Nash E and Ephross P, *State Policy Trends 2022: In a Devastating Year, US Supreme Court's Decision to Overturn Roe Leads to Bans, Confusion and Chaos*, New York: Guttmacher Institute, 2022, <https://www.guttmacher.org/2022/12/state-policy-trends-2022-devastating-year-us-supreme-courts-decision-overturn-roe-leads>.
5. Advocates for Youth, *Behind the Counter: Findings from the 2022 Oral Contraceptive Access Survey*, 2022, <https://www.advocatesforyouth.org/wp-content/uploads/2022/09/BehindTheCounter-OralContraceptivesAccessReport-2022-1.pdf>.
6. Hocklong L et al., Access to adolescent reproductive health services: financial and structural barriers to care, *Perspectives on Sexual and Reproductive Health*, 2003, 35(3):144–147, <https://www.guttmacher.org/journals/psrh/2003/05/access-adolescent-reproductive-health-services-financial-and-structural>.
7. Centers for Disease Control and Prevention (CDC), 2022 BRFSS Overview CDC, BRFSS Survey Data and Documentation, 2022 survey data information, 2023, https://www.cdc.gov/brfss/annual_data/annual_2022.html.
8. CDC, The BRFSS Data User Guide, 2013, https://www.cdc.gov/brfss/data_documentation/index.htm.
9. CDC, Complex Sampling Weights and Preparing 2022 BRFSS Module Data for Analysis CDC, BRFSS Survey Data and Documentation, 2022 survey data information, 2023, https://www.cdc.gov/brfss/annual_data/annual_2022.html.
10. CDC, Behavioral Risk Factor Surveillance System, 2024, <https://www.cdc.gov/brfss/index.html>.
11. Frohwirth L et al., The complexity of multiple contraceptive method use and the anxiety that informs it: implications for theory and practice, *Archives of Sexual Behavior*, 2016, 45(8):2123–2135, doi:10.1007/s10508-016-0706-6.
12. Kavanaugh ML, Pliskin E and Jerman J, Use of concurrent multiple methods of contraception in the United States, 2008 to 2015, *Contraception: X*, 2021, 3:100060, doi:10.1016/j.conx.2021.100060.
13. Horowitz J, Graf N and Livingston G, *Marriage and Cohabitation in the U.S.*, Washington, DC: Pew Research Center, 2019, https://www.pewresearch.org/social-trends/wp-content/uploads/sites/3/2019/11/PSDT_11.06.19_marriage_cohabitation_FULL.final_v2.pdf.
14. Ueda P et al., Trends in frequency of sexual activity and number of sexual partners among adults aged 18 to 44 years in the US, 2000–2018, *JAMA Network Open*, 2020, 3(6):e203833, doi:10.1001/jamanetworkopen.2020.3833.
15. Shulman HB et al., The Pregnancy Risk Assessment Monitoring System (PRAMS): overview of design and methodology, *American Journal of Public Health*, 2018, 108(10):1305–1313, doi:10.2105/AJPH.2018.304563.
16. CDC, PRAMS, 2023, <https://www.cdc.gov/prams/index.htm>.
17. Poland S et al., Design and implementation of the Surveys of Women: protocol for an address-based sampling multimodal study, *JMIR Research Protocols*, 2023, 12:e40675, doi:10.2196/40675.
18. CDC, Comparability of Data CDC, BRFSS Survey Data and Documentation, 2022 survey data information, 2023, https://www.cdc.gov/brfss/annual_data/annual_2022.html.
19. CDC, Behavioral Risk Factor Surveillance System 2022 Summary Data Quality Report with Response Rates CDC, BRFSS Survey Data and Documentation, 2022 survey data information, 2023, Table 6, https://www.cdc.gov/brfss/annual_data/annual_2022.html.



Good reproductive health policy starts with credible research

[guttmacher.org](https://www.guttmacher.org)

125 Maiden Lane
New York, NY 10038
212.248.1111
info@guttmacher.org

March 2024

Acknowledgments

This report was prepared by Hannah Olson, Madeleine Haas and Megan L. Kavanaugh, with support from Ayana Douglas-Hall. Haley Ball edited the report. Kathryn Kost, Emma Stoskopf-Erich and Kimya Frouzan offered valuable comments and suggestions. All are of the Guttmacher Institute.

All data for analyses presented here were collected by states with technical and methodological assistance from the Centers for Disease Control and Prevention (CDC). The content is solely the responsibility of the authors and does not necessarily represent the official views of the CDC or state agencies.

Suggested citation:

Olson H, Haas M and Kavanaugh ML, *State-Level Contraceptive Use and Preferences: Estimates from the US 2022 Behavioral Risk Factor Surveillance System*, New York: Guttmacher Institute, 2024, <https://www.guttmacher.org/report/state-level-contraceptive-use-preferences-estimates-in-us-2022>, <https://doi.org/10.1363/2024.300488>.

© Guttmacher Institute, 2024