Memorandum

To: Interested parties

From: Jennifer J. Frost and Lawrence B. Finer

Date: UPDATED: June 23, 2017

Subject: **Unintended pregnancies prevented by publicly funded family planning services: Summary of results and estimation formula**

This memo summarizes and updates the techniques we used to estimate **the number of unintended pregnancies prevented each year** among U.S. women who depend on publicly funded family planning services, and reports the results of our calculations. It also describes a formula for calculation of unintended pregnancies prevented **that can be applied to other populations of family planning clinic clients**.

Data sources

- *Contraceptive use:* The 2011-2015 **National Survey of Family Growth**, a nationally representative survey of 11,300 women aged 15–44, was the main source of data on current contraceptive use among women who received care from publicly funded family planning providers, as well as women's hypothetical method mix in the absence of services.
- *Failure rates:* We used **subgroup-specific 12-month failure rates** from Sundaram A et al., Contraceptive failure in the United States: estimates from the 2006–2010 National Survey of Family Growth, *Perspectives on Sexual and Reproductive Health*, 2017, 49(1):7-16; and from Trussel J, "Contraceptive efficacy," in Hatcher RA, et al., *Contraceptive Technology*, 20th revised ed., 2011.

Methodology

The methodology for updating our estimates of unintended pregnancies prevented is similar to the methodology developed in prior analyses (see Frost JJ, Zolna MR and Frohwirth L, *Contraceptive Needs and Services, 2010: Methodological Appendix*, New York: Guttmacher Institute, 2013, Frost JJ et al., Return on investment: a fuller assessment of the benefits and cost savings of the U.S. publicly funded family planning program, *Milbank Quarterly*, 2014, 92(4):667–720 and Frost JJ, Finer LB and Tapales A, "The impact of publicly funded family planning clinic services on unintended pregnancies and government cost savings," *Journal of Health Care for the Poor and Underserved*, 2008, 19(3):778–796).

The updated results described below were published in: Frost JJ, et al., *Publicly Funded Contraceptive Services at U.S. Clinics, 2015,* New York: Guttmacher Institute, 2017. A methodological appendix is forthcoming.

- We examined the actual contraceptive method-mix distribution (i.e., **current** use) for a national sample of recipients of public-sector family planning services.
- We estimated a hypothetical method-mix distribution scenario for these women in the **absence** of publicly funded services. The hypothetical scenario was based on measuring the method mix of similar women who did not use publicly funded contraceptive services in the prior year, but were likely to need them in the future.
- For current use and the hypothetical scenario, we used contraceptive failure rates to estimate the number of unintended pregnancies that these women **would experience** in one year.
- As part of the previous step, we discounted the failure rates based on the difference between the number of pregnancies **predicted** by those rates and the **actual** number of pregnancies experienced by all contraceptive method users in the United States in 2011. This adjusts for the fact that not all women use their method for an entire year and for the fact that women who have used their method for longer than 12 months have failure rates that are lower than those experienced during the first year of method use.
- For current use and the hypothetical scenario, we used these estimates to compute national-level rates of the numbers of unintended pregnancies expected per 1,000 public-sector family planning clients.
- We computed an average national-level rate of unintended pregnancies prevented per 1,000 women by **subtracting** the number of unintended pregnancies expected among current clients from the number of unintended pregnancies expected under the hypothetical scenario that would occur in the absence of publicly funded services.

Actual and expected method-mix

Distributions of women according to contraceptive method use among women who received contraceptive care from a publicly funded provider in the prior year compared to similar women (eligible and in need of publicly supported care) who did not receive any publicly supported care in the past year, 2011-2015 NSFG; method failure rates and expected unintended pregnancies for each scenario.

		NSFG 2011-2015	
Method	Failure rate*	**Current method use among women using public services**	**Expected method use among women unable to access public services****
Pill, Patch and Ring	7.2	42%	8%
Injectable	4.0	15%	1%
IUD	1.4	14%	13%
Implant	1.4	4%	3%
Tubal ligation in past year	0.5	7%	1%
Condom	12.6	12%	29%
Diaphragm/cervical cap	15.9	0%	0%
Spermicide/sponge	28.0	0%	1%
Natural family planning/ periodic abstinence	24.0	1%	4%
Withdrawal/other	19.9	5%	13%
No method	89.0	0%	28%
Total	–	100%	100%
Expected unintended pregnancies per 1,000 contraceptive users		46	296
Number of unintended pregnancies averted per 1,000 contraceptive users			250

** Failure rate sources: Sundarum, et al, 2016; and Contraceptive Technology

* To estimate expected method use among women unable to access public services, we used the current method use distribution of similar women (eligible and in need of publicly funded services) who did not receive any publicly funded contraceptive care in the prior year (they either received no services or received a private service that they paid for out of pocket).

Key results and application of findings to other data

- In 2015, an estimated 250 unintended pregnancies are prevented for each 1,000 contraceptive clients obtaining publicly funded family planning services. This is based on subtracting the estimated number of unintended pregnancies that will occur to women using services (46) from the number of such pregnancies that would occur to these same women in the absence of services (296).
- These findings suggest that **for every 1,000 contraceptive clients of publicly funded family planning services, 250 unintended pregnancies are prevented**. Thus, the formula

for estimating pregnancies averted, ***among populations of contraceptive users***, is to multiply the numbers of users by 25.0%.

- However, among most clinic populations, not all clients adopt a contraceptive method. Therefore, **it is usually necessary to adjust this formula** to account for some clients not adopting methods**.** We have adjusted the formula for calculating unintended pregnancies averted based on the percentage of all Title X family planning users who were method users in 2015 (85.9%).
- The adjusted number of unintended pregnancies averted among all publicly funded family planning users **is therefore estimated to be 215 unintended pregnancies prevented per 1,000 clients,** and the formula for calculating pregnancies averted ***among general populations of publicly funded family planning clients*** is to multiply the number of clients by 21.5%, to get the number of unintended pregnancies averted.

Example: A network of clinics that served a total of 5,000 family planning clients in the prior year (but did not know how many of those clients were contraceptive method users) could assert that their services had averted 1,075 (5000 * .215) unintended pregnancies.

- Note that these formulas are based on the national method-mix distribution for all contraceptive clients of publicly funded providers. This distribution may differ from the method-mix distribution of clients in individual states or among local providers; but currently we do not have a methodology for adjusting these estimates using local information on the method-mix distribution of current clients.*
- Unintended pregnancies prevented can be distributed according to births, abortions and miscarriages using the following distributions. For total pregnancies prevented, use the 'total' row. If age specific client data are available and are used to calculate unintended pregnancies prevented, outcomes can be calculated separately for teens.

Distribution of unintended pregnancies according to outcome and age, 2011

	% Births	% Abortions	% Miscarriages	Total
Total	42%	34%	19%	100%
Age <20	52%	29%	15%	100%

Example, continued: Earlier, we calculated that a network of clinics with 5,000 family planning clients would have averted 1,075 pregnancies. Using the percentages from the "Total" row above, these unintended pregnancies would have likely resulted in 452 unintended births and 366 abortions.

* The methodology for calculating numbers of unintended pregnancies expected is based on detailed information about method use among clients according to client demographic characteristics (age by marital status by race/ethnicity by poverty status) and includes applying appropriate failure rates to each subgroup. The formula therefore cannot be revised based simply on the overall distribution of clients by methods used.