Financial Sustainability Calculator for Safety-Net Family Planning Centers: Methodology

Andrea Rowan and Adam Sonfield
One central question facing safety-net health centers that provide family planning services is whether they are able to sustain themselves financially in an evolving U.S. health care system. Many safety-net providers rely on grant funding from the Title X national family planning program, from the Section 330 program for federally qualified health centers (FQHCs) and other sources. Yet increasingly, health centers must rely on reimbursement from Medicaid and private insurance plans as primary funding sources.

The Guttmacher Institute’s Financial Sustainability Calculator for Safety-Net Family Planning Centers is designed to help safety-net health centers that provide family planning services estimate two key indicators of their financial sustainability:

- the percentage of contraceptive visits that receive reimbursement from Medicaid or private insurance, and
- the percentage of the total cost of providing contraceptive visits that is recovered from Medicaid or private insurance.

The calculator includes built-in data from Guttmacher Institute studies, allowing users to see estimates of how different types of health centers fare, on average, for these two key indicators. Alternatively, users can input their own data to calculate these indicators for their own health center(s). In addition, they can compare results for two health centers or types of health centers; compare estimates for their own health center(s) with those of others; and estimate the potential impact that changing key inputs could have on sustainability. They can also view charts with additional details about their results.

To arrive at the two key indicators, the calculator relies on users’ answers to four questions:

- What percentage of all contraceptive visits are by clients covered by insurance (regardless of whether that insurance is used for the visit)?
- What percentage of contraceptive visits by insured clients are actually billed to their insurance?
- What percentage of contraceptive visits billed to insurance are eventually reimbursed?
- What percentage of the actual cost of a contraceptive visit is reimbursed by insurance, when reimbursement is received?

Those questions are asked separately for Medicaid and for private insurance. Users may also separate out their answers for privately insured clients according to whether the health center is an in-network or out-of-network provider in a client’s health plan.

The results of this calculator by themselves do not provide a complete picture of a health center’s financial sustainability, but they should be a useful starting point—particularly for health centers that are inexperienced in relying on Medicaid and private insurance reimbursement. The calculator can be used by health center staff to assess their own reimbursement, and to compare themselves with other U.S. health centers that provide family planning services. And it can be used to help providers and advocates envision ways to improve matters by addressing key questions: Which aspects of the reimbursement equation are most problematic? What types of health centers are faring best or worst? What might happen if more people had access to affordable health insurance?

**Instructions for Use**

The Guttmacher Institute’s Financial Sustainability Calculator for Safety-Net Family Planning Centers has been created using Microsoft Excel. It should work on most computers running a version of the Microsoft Windows operating system. It does not at present function on many current Apple Macintosh computers.

The calculator relies on a type of programming known as macros. Because of this, you may see a security warning at the top of the page when you first open it. If you see this warning, please click “Enable Content,” or the calculator will not function. You may also need to click “Enable Editing,” depending on your computer’s setup.

Each page of the calculator includes instructions for its use. Many pages also include question mark symbols that you can click to see definitions for key terms.

The steps for using the calculator can be summarized in brief. First, you will be asked to choose between two options about what you wish to accomplish: whether you wish to use built-in data from Guttmacher Institute studies to see estimated results for health centers with specific characteristics, or whether you wish to enter your own data to see estimated results for your center(s).

If you choose to use built-in data from Guttmacher Institute studies, you will be prompted to answer some
basic questions about the characteristics of the health center you are interested in evaluating:

- What is the type of health center (i.e., health department, FQHC, Planned Parenthood affiliate or other; “other” includes hospitals and other non-FQHC community centers)?
- Does the health center receive funding from the Title X national family planning program?
- Does the health center have a reproductive health focus or a primary care focus?
- Has the health center’s state implemented either or both of two types of Medicaid expansions: the Affordable Care Act’s (ACA’s) broad Medicaid expansion and a Medicaid expansion specifically for family planning services?

The calculator will then use built-in data from Guttmacher Institute studies to generate estimates for key indicators related to reimbursement. (For a few combinations of health center characteristics, no built-in data are available; in such cases, you will be notified and asked to choose a different combination of characteristics.)

Alternatively, you may choose to use data from your own health center(s), in place of some or all of the built-in data. (The tool is designed to be used for one health center or a group of similar health centers.) You will first be prompted to answer questions about your health center. Then, on subsequent pages, you will have the opportunity to overwrite some or all of the built-in data with your own data about your payer mix and about billing and reimbursement. You will also be able to revert to the built-in data, if needed.

Regardless of your initial choice, you will be able to choose whether to separate out your data and your answers for privately insured clients according to whether the health center is an in-network or out-of-network provider in a client’s health plan.

After viewing your results, you will have the opportunity to compare results for two health centers or types of health centers, and to view charts with additional details about your results, broken down by payer type.

At any point, you will be able to clear your data and start over. You will be able to access this methodology document for further information from the Overview page of the calculator.

Please note that you will not be able to save data in the calculator itself for future use, so you may wish to keep a separate record of your data. Each page of the calculator is designed to be printed (either to a physical printer or via your computer’s “print to PDF” function); alternatively, you may wish to capture screen shots of the calculator using the Print Screen button on your keyboard.

Methods and Data Sources
As noted, the Financial Sustainability Calculator for Safety-Net Family Planning Centers is designed to generate estimates for two indicators of financial stability:

A. The percentage of contraceptive visits that receive reimbursement from Medicaid or private insurance, and
B. The percentage of the total cost of providing contraceptive visits that is recovered from Medicaid or private insurance.

For its basic model, the calculator draws on eight data elements split into two sets according to insurance type:

1a. The percentage of all contraceptive visits that are by clients covered by Medicaid (regardless of whether that insurance is used for the visit);
2a. The percentage of contraceptive visits by clients on Medicaid that are actually billed to Medicaid;
3a. The percentage of contraceptive visits billed to Medicaid that are eventually reimbursed;
4a. The percentage of the actual cost of a contraceptive visit that is reimbursed by Medicaid, when reimbursement is received;

1b. The percentage of all contraceptive visits that are by clients covered by private insurance (regardless of whether that insurance is used for the visit);
2b. The percentage of contraceptive visits by clients on private insurance that are actually billed to private insurance;
3b. The percentage of contraceptive visits billed to private insurance that are eventually reimbursed; and
4b. The percentage of the actual cost of a contraceptive visit that is reimbursed by private insurance, when reimbursement is received.
The calculator uses the following formulas:

\[ \text{Indicator } A = (1a \times 2a \times 3a) + (1b \times 2b \times 3b) \]

\[ \text{Indicator } B = (1a \times 2a \times 3a \times 4a) + (1b \times 2b \times 3b \times 4b) \]

The calculator also includes an alternate model that splits up private insurance into two categories (in-network and out-of-network) and therefore uses 12 data elements instead, following the same pattern.

Users may input data for their own health center(s), may use built-in data drawn from two recent Guttmacher Institute studies or may use a combination of their own data and built-in data. The methodology for those two studies is discussed below.

**Family Planning Clinic Survey**

Built-in data for three questions are drawn from the results of the Guttmacher Institute’s 2015 Survey of Clinics Providing Publicly Funded Contraceptives Services. That survey is the latest iteration in a long line of Guttmacher nationally representative surveys to better understand the clinic network’s range of service delivery practices and the challenges it faces. A major focus of the 2015 survey was clinics’ interactions with Medicaid and private health plans.

The methodology for the 2015 clinic survey was similar to that used for prior iterations of the survey\(^1\) and will be detailed more fully in a separate publication. We include a summary of the methodology here.

Between February 2015 and November 2015, Guttmacher staff surveyed a nationally representative sample of 1,839 clinics providing publicly funded contraceptive services, drawn from the 8,497 publicly funded family planning clinics known to Guttmacher at that time. Sampled clinics were stratified by type (health department, Planned Parenthood, FQHC and other) and whether they received any Title X funding, and randomly selected within each of the eight resulting categories.

Surveys were pretested with clinic administrators and were then mailed to clinic family planning directors. The eight-page questionnaire asked about basic information on the clinic and its caseload; the range of reproductive health services the clinic provided or referred clients for; dispensing protocols and other clinical practices; linkages with other health and social service providers in the community; and a wide range of questions related to insurance and reimbursement through Medicaid and private health plans. Reminder mailings and follow-up phone calls and e-mails were used to improve the response rate.

Ultimately, 867 clinics responded to this survey; 15 clinics declined; 871 never responded, even after multiple follow-up attempts; and 86 from the original sample were found to be ineligible. The overall response rate was 50%. Response by provider type was 70% among Planned Parenthood clinics, 63% among health departments, 37% among FQHCs and 41% among others.

As noted above, we analyzed the data according to four characteristics of the clinic:

- the type of health center (e.g., health department, FQHC, Planned Parenthood affiliate or other);
- whether the health center received funding from the Title X national family planning program;
- whether the health center had a reproductive health focus or a primary care focus; and
- whether the health center’s state had implemented two types of Medicaid expansions: the ACA’s broad Medicaid expansion or a Medicaid expansion specifically for family planning services, or both.

Analyses were performed using Stata version 14. All cases were weighted for sampling ratios and nonresponse to reflect the universe of family planning providers at the time the sample was drawn.

Data elements for the Financial Sustainability Calculator were obtained from several questions, as follows:

Data elements 1a and 1b:

- Question: “Approximately what percentage of all contraceptive visits are for clients who are covered by each of the following types of insurance, regardless of whether or not you bill the insurance?”

The answer categories offered were full benefit Medicaid or CHIP (Children’s Health Insurance Program); family planning–specific Medicaid waiver/expansion program; other public insurance; private health insurance; and no insurance.

Respondents filled in each answer category with a percentage that, when summed across all categories, totaled 100%. To obtain the percentage of publicly insured clients for each health center, we summed the responses for “full benefit Medicaid or CHIP,” “family

---

**Guttmacher Institute**
planning—specific Medicaid waiver/expansion program” and “other public insurance.”

The overall percentage of privately insured clients was gathered from the “private health insurance” response. We used a second question from the survey to obtain the percentage of privately insured clients who were in-network clients:

- **Question:** “Approximately what percentage of contraceptive visits for private insurance enrollees are to clients enrolled in plans in which this clinic is an in-network provider versus an out-of-network provider?”

The percentage breakdown of in-network versus out-of-network clients was applied to the overall private insurance percentage. If centers reported in-network and out-of-network values that did not total to 100%, we dropped them from the analysis.

**Data elements 2a, 2b, 3a and 3b:**

- **Question (for 2a):** “Approximately what percentage of contraceptive visits to clients enrolled in Medicaid are not billed to Medicaid (e.g., because of confidentiality, administrative or other reasons)?”
- **Question (for 2b):** “Approximately what percentage of contraceptive visits for privately insured clients are not billed to insurance (e.g., because of confidentiality, administrative or other reasons)?”
- **Question (for 3a):** “Approximately what percentage of contraceptive visits billed to Medicaid are denied?”
- **Question (for 3b):** “Approximately what percentage of contraceptive visits billed to private insurance are denied?”

For our equations, we subtracted the data for billing and reimbursement percentages in these four questions from 100%. The questions for data elements 2b and 3b were asked separately for in-network and out-of-network clients. They were combined proportionately to generate overall estimates for private insurance.

We did not have a large enough sample in the survey to simply use the average reported value among clinics with a specific combination of the four clinic characteristics noted above; indeed, there was a total of 225 possible combinations of characteristics.

Instead, we used ordinary least squares (OLS) regression analyses to predict estimated values for each data element (1a, 1b, 2a, 2b, 3a, 3b, and the variants for in-network and out-of-network coverage). We performed 16 regression analyses separately for each of these data elements to capture every possible combination of up to four clinic characteristics as independent variables. The regression models predicted values for each dependent variable (data element) for each possible combination of health center characteristics, including combinations in which one or more characteristics were set as “all” (meaning the predictions represent values in which that characteristic was ignored).

Values were restricted to a minimum of 0% and a maximum of 100%; any predicted values lying outside this range were assigned the value of 0% or 100%. Additionally, in a few cases the predicted values for the percentage of clients enrolled in private in-network insurance exceeded the predicted values for the percentage of clients enrolled in private insurance overall. In these cases, the private in-network values were capped at the latter.

We did not perform any regression analyses to predict the percentage of clients enrolled in out-of-network private insurance; rather, these values were calculated by subtraction (i.e., the overall percentage of clients enrolled in private insurance minus the percentage of clients enrolled in private in-network plans). (In-network private coverage was more common than out-of-network private coverage in the survey results.)

**Study of Providers’ Costs and Reimbursement**

Built-in data for data elements 4a and 4b above (the percentage of the actual cost of a contraceptive visit that is reimbursed by insurance, when reimbursement is received) are drawn from the results of another Guttmacher Institute study, published in a 2016 report titled *Assessing the Gap Between the Cost of Care for Title X Family Planning Providers and Reimbursement from Medicaid and Private Insurance.*\(^2\) In that study, the Guttmacher Institute analyzed data on costs and reimbursement from Title X providers representing more than 350 health centers serving more than 900,000 contraceptive clients.

It found that for patient visits, the median Medicaid fee-for-service reimbursement was 45–49% of the actual cost of providing that care; for Medicaid managed care plans, it was 41–46% of actual costs. And for private insurance, the median reimbursement for patient visits was 55–58% of actual costs.
For purposes of the calculator, we took the medians of these medians: 46% for Medicaid and 56% for private insurance. The original study was not designed to assess variation by clinic characteristics, so these estimates are used universally in the calculator.

The methodology for this study is detailed fully in the report. In brief, between 2014 and 2015, the project team from Guttmacher and the New Jersey Family Planning League worked with a group of 11 Title X grantees to collect data (primarily from the councils’ subgrantees) on the estimated cost of providing specific family planning services. Data collection relied on recent preexisting cost analyses designed to account for all of a program’s expenses (so, excluding costs beyond an entity’s family planning project, but including an appropriate proportion of more general costs, such as staff salaries and basic infrastructure expenses) and using relative value units to apportion costs to specific procedures. Services were identified by Current Procedural Terminology (CPT) codes, drawing on a list of 20 codes commonly used by safety-net health centers that provide family planning services.

For the same services, we collected data on reimbursement rates under Medicaid (both fee-for-service and managed care, if appropriate for the given state) and under one or more private health plans with which the grantee or its subgrantees contracted (if any).

In total, the study included data from 43 respondents that administer Title X programs located in 11 states. The unit of analysis for the study was a payer-provider combination: In other words, we looked separately at each payer type (Medicaid fee-for-service, Medicaid managed care and private insurance), and when a respondent reported data from multiple payers of the same type (e.g., two private plans), we treated each combination of provider and payer as a separate data point in our calculations. In total, we had 120 payer-provider combinations: 42 for Medicaid fee-for-service, 23 for Medicaid managed care and 55 for private insurance.

We then analyzed the data to gauge the degree to which reimbursement covered the actual cost of care (i.e., calculating the proportion of costs that were reimbursed), looking for patterns by type of service and type of payer, and focusing on the medians.

**Limitations**

Users of the Financial Sustainability Calculator should be aware of a number of limitations. First, the basic formulas behind the calculator are simple, taking into account just eight or 12 pieces of data. Therefore, these formulas cannot fully or accurately account for all of the factors influencing a health center’s financial sustainability. For example, each of the inputs (e.g., the proportion of actual costs reimbursed by an insurance plan) might vary according to the specific type of patient visit, procedure or supply, or payer. Users of the calculator will need to use inputs that best reflect all of a health center’s experiences, on average.

In addition, the formulas do not specifically account for revenue a health center receives aside from insurance reimbursement. Rather, the calculator is designed to assess health center sustainability in the absence of these other revenue sources (e.g., Title X), in anticipation that these other sources may not be reliable in the future.

Further, the formulas can be only as accurate as their inputs. To make best use of the calculator, users will need to rely on high-quality data regarding clients’ insurance status, health centers’ billing and reimbursement experiences, and the full cost of providing care. Collecting and analyzing such data is an ongoing challenge for safety-net health centers that provide family planning services, and requires substantial investments and expertise.

The built-in Guttmacher Institute data in this calculator come with their own sets of limitations, as described in the study reports from which these data were drawn. In particular, the data for indicators 4a and 4b (the percentage of the actual cost of a contraceptive visit that is reimbursed by Medicaid and by private insurance, respectively, when reimbursement is received) are simple medians taken from a large but not nationally representative sample. It is certain that the actual experiences of individual health centers will vary from the predicted averages included in the calculator.

Despite these limitations, we believe that this calculator provides a valuable tool for providers, advocates and policymakers in helping them to assess how well equipped safety-net providers are for surviving in the evolving health care landscape.
References


Acknowledgments

The financial sustainability calculator was designed by Andrea Rowan and Adam Sonfield, formerly and currently of the Guttmacher Institute, respectively, who also wrote this methodology document. Both were edited by Susan London, independent consultant. The authors thank the following Guttmacher Institute colleagues: Kinsey Hasstedt, Jennifer J. Frost, Rachel Benson Gold, Megan L. Kavanaugh, Michael Moran, Kathleen Randall, Rebecca Wind and Mia R. Zolna, for their testing, review, comments, data assistance and other contributions.

In addition, the authors are grateful to the following people for testing and reviewing the calculator: Ana Carolina Loyola Briceno and Tasmeen Weik of the U.S. Department of Health and Human Services’ Office of Population Affairs; Joseph L. Alifante of the New Jersey Family Planning League; Catriona Reynolds of the Kachemak Bay Family Planning Clinic, Alaska; and the staff at the Monongalia County Health Department, West Virginia.

This product was supported by the Office of Population Affairs, U.S. Department of Health and Human Services, under grant FPRPA006060. Additional support was provided by the Guttmacher Center for Population Research Innovation and Dissemination, under National Institutes of Health grant 5 R24 HD074034. The views expressed are those of the authors and do not necessarily reflect the official policies or positions of the funders.

The Guttmacher Institute gratefully acknowledges the general support it receives from individuals and foundations, including major grants from the William and Flora Hewlett Foundation and the David and Lucile Packard Foundation, which undergirds all of the Institute’s work.

Suggested citation:
Good reproductive health policy starts with credible research