Evaluation of Two Programs Supporting Global Family Planning Data Needs

Summary

Family planning helps countries achieve manageable levels of population growth through voluntary choices about the number and timing of pregnancies, making family planning programs an important contributor to economic development. Regulating fertility through safe and effective contraception also has numerous health benefits for both the mother and infant (Seltzer, 2002). Family planning programs must both deliver commodities and services and collect data to track progress toward national goals. In 2012, countries agreed on an ambitious global goal of achieving, by 2020, 120 million new users of modern contraception in 69 of the world’s poorest countries. This Family Planning 2020 (FP2020) goal, and the initial commitment by at least two dozen of those countries, triggered support by major donors for various programs to help countries advance toward the FP2020 goal.

Among such efforts, the Bill & Melinda Gates Foundation launched two key programs in early 2013 to help countries collect, analyze, and use data to monitor progress toward the FP2020 goal. The Performance Monitoring and Accountability 2020 (PMA2020) program, implemented by Johns Hopkins University’s Gates Institute for Population and Reproductive Health, was to focus on supporting data collection in nine countries through annual, rapid-turnaround, national surveys typically led by university-based experts, using mobile phone technology and local “resident enumerators.” The Track20 program, implemented by Avenir Health, was to work with governments in a larger number of countries to gather data from various sources, analyze and model the data to derive estimates for core family planning indicators, facilitate consensus around data to be reported globally, and promulgate the effective use of these data.

In early 2017, roughly the midpoint between the launch of these programs and the 2020 target date, the Gates Foundation sought to take stock of the progress of PMA2020 and Track20 in order to inform its future directions. It contracted with the RAND Corporation to undertake an objective external evaluation of the two programs. The study team conducted the evaluation from April through September 2017. The findings should be of interest to the Bill & Melinda Gates Foundation, the two programs, the governments of countries participating in one or both programs, associated donors and implementing partners, and the larger global family planning and development communities.

This summary presents the key findings of this research. A detailed account of the research methods and findings can be found in the full report: Evaluation of Two Programs Supporting Global Family Planning Data Needs: Assessing Achievements, Informing Future Directions, by Melinda Moore, Laura J. Faherty, Shira H. Fischer, Kathryn E. Bouskill, Julie DaVanzo, Claude Messan Setodji, Bill Gelfeld, Emily Hoch, Luke J. Matthews, Sarah Weilant, Michele

This research was performed as part of the Population Health program within RAND Health. RAND Health has built an international reputation for conducting objective, high-quality, empirical research to support and improve policies and organizations around the world. Its work focuses on a wide array of domestic and international policy areas, including quality of care, health promotion, financing, organization, public health preparedness, domestic and international health care reform, and military health policy. A profile of RAND Health, abstracts of its publications, and ordering information can be found at www.rand.org/health.
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Summary

Overview

Family planning is an essential strategy for reducing maternal and infant morbidity and mortality and enhancing social and economic development in developing countries. At a summit in July 2012, the global community set the ambitious goal of making modern contraception available to 120 million new users in 69 low-income countries by 2020—the Family Planning 2020 (FP2020) goal. The summit representatives recognized that high-quality family planning data were essential to monitor progress toward this goal and to help countries stay on track.

In 2013, the Bill & Melinda Gates Foundation launched two complementary programs to help monitor annual progress toward the FP2020 goal. The Performance Monitoring and Accountability 2020 (PMA2020) program was designed to generate data through (at a minimum) annual, rapid-turnaround, nationally representative surveys of households and the women in them as well as nearby service delivery points, using mobile phone technology for data collection. The Track20 program was designed to support global standardization and reporting of family planning indicators and, in countries where the program operates, draw on data from various sources (including data from PMA2020 surveys) to produce estimates of those indicators through Bayesian modeling.

In early 2017, the Gates Foundation asked the RAND Corporation to evaluate the programs. Specifically, it wanted to know whether the programs were accomplishing their objectives, how they could be improved, what stakeholders thought about the programs, and whether the programs were sustainable.

The core findings of the RAND research team’s assessment are as follows:

• **High-quality family planning data are necessary but not sufficient to achieve family planning goals.** Most of the countries in which the programs operate have an abundance of family planning data, but many stakeholders do not understand how to interpret the data or how to use them to make decisions or take action.

• **The foundation for mature, sustainable data systems is country ownership.** Particularly for PMA2020, country stakeholders we interviewed wanted greater ownership than they currently feel they have of planning, collecting, managing, analyzing, and disseminating the family planning data from their PMA2020 surveys.

• **Mature, sustainable data systems and a culture of data use will not just happen on their own.** They need to be planned for, pursued explicitly over time, and measured.

In this report, we summarize the methods and results of our evaluation.
Program Profiles

PMA2020 was designed to generate family planning data through annual, rapid-turnaround, nationally representative surveys of households and health facilities on which to base annual progress reports of core FP2020 indicators. PMA2020 is implemented by the Gates Institute for Population and Reproductive Health at Johns Hopkins University (hereafter Gates Institute), in collaboration with in-country partners.

As part of the evaluation, the RAND team assessed PMA2020 achievements against the program’s objectives, including both the original objectives (for April 2013 through March 2018) and the Gates Institute’s modified set of objectives from 2015:

Original objectives:

1. Expand country-level monitoring capacity.
2. Integrate a rapid data collection system using mobile devices.
3. Improve data monitoring to strengthen service delivery.
4. Promote use of data to respond to family planning needs at the community level.

Modified objectives:

1. Generate survey data.
2. Build a sustainable business model.
3. Progress toward survey sustainability and financing.
4. Integrate PMA2020 into countries’ monitoring and evaluation (M&E) architecture.

PMA2020 surveys are typically fielded twice per year for two years and annually thereafter. Most of the surveys produce national-level estimates for the desired FP2020 core indicators; in some countries, surveys are carried out only in selected states or provinces. Using mobile phone technology, the surveys collect demographic information about households, women’s reproductive history and use of contraception, supply of reproductive commodities and services, data about the quality of services, and more. A unique feature of PMA2020 is that the surveys are conducted by local data collectors (resident enumerators), who are women over the age of 21 from the surveyed area or nearby.

As of July 2017, PMA2020 was operating in 11 countries in Africa and Asia, working mainly through university-based partners.

Track20 was designed to monitor progress toward FP2020 goals by standardizing and reporting on national family planning indicators. It was also intended to help countries develop capacity to collate and analyze data, facilitate consensus around estimates for key FP2020 indicators, and promote the use of family planning data, including data from PMA2020 surveys, by country-level decisionmakers. As of July 2017, the program was active in 37 of the 69 poorest countries targeted by FP2020, working mainly with and within government-based partners, such as ministries of health. Track20 is implemented by Avenir Health (hereafter Avenir).

A core feature of Track20 is the M&E officer model, with one or more M&E officers in each program country. Ideally, M&E officers have sophisticated quantitative skills, considerable experience related to data analysis and use, and strong interpersonal skills. In roughly 20 countries, Avenir pays part or all of officers’ salaries.
Avenir supports and helps strengthen the technical capacity of M&E officers, supports (at least) annual national data consensus meetings among key stakeholders in each country, and has adapted a United Nations Population Division statistical model (the Family Planning Estimation Tool [FPET]) to generate family planning indicator estimates. FPET estimates the likelihood of a given estimate using prior observed values and incorporating all available survey data and service statistics that are of sufficiently high quality.

Track20 also examines country-level family planning expenditures using data from multiple sources, and Avenir supports M&E officers to improve strategic planning around family planning through its FP Goals model. FP Goals incorporates demographic data, program information, and evidence of intervention effectiveness to help decisionmakers set goals and prioritize family planning investments.

**Methods**

To evaluate the performance of PMA2020 and Track20, we adopted a mixed-methods approach. After reviewing key documents, we conducted discussions with the two grantee organizations (the Gates Institute and Avenir) and interviewed stakeholders based in the United States and in selected program countries. We analyzed the statistical properties of the PMA2020 survey, as requested by the Gates Foundation (focusing on five countries with multiple rounds of available data). We asked stakeholders to provide numeric ratings of their country’s performance on various elements of the data maturity and sustainability assessment frameworks we developed for the evaluation.

Together with colleagues at the Gates Foundation and the two grantee institutions, we finalized the 15 countries to be included in the evaluation, including 11 in Africa and four in Asia. The 15 countries include all 11 PMA2020 countries and 14 of 37 Track20 countries; ten have both PMA2020 and Track20 programming, four have Track20 only, and one has PMA2020 only (Figure 1). These 15 countries vary in population size, all are classified as low income or lower middle income by the World Bank, and most rank quite low on the Human Development Index.

We conducted semistructured interviews with 225 individuals in these countries, representing three broad stakeholder groups: PMA2020 staff; Track20 staff; and a group that included government officials and representatives from bilateral, multilateral, and nongovernmental organizations with family planning programming. Some interviews included multiple interviewees. The semistructured interview protocols included questions about the two programs and about family planning data needs and data use. To complement the interviews with in-country stakeholders, we also conducted telephone interviews with nearly 40 U.S.-based stakeholders representing various perspectives: staff from the Gates Foundation and the two grantee organizations; members of the PMA2020 External Consultative Group who are based in such organizations as the U.S. Agency for International Development, FP2020, the United Nations Population Fund, and academic institutions; other family planning experts; and statistical experts.

As part of our evaluation of PMA2020 and Track20, we developed three frameworks: a logic model for each program, a data maturity framework, and a sustainability framework. We used the logic models to guide the development of the stakeholder interview protocols and subsequently modified them to reflect observations from U.S. and country stakeholders and then to reflect our recommendations for future program directions. At the request
of the Gates Foundation, we developed and applied a framework to assess data maturity associated with PMA2020 and Track20 in program countries. The framework includes several specific elements within three main domains: organizational readiness, data systems, and data use. We developed a sustainability framework for PMA2020 and Track20 that organizes various sustainability-enabling factors into four domains—financial sustainability, technical sustainability, operational/programmatic sustainability, and data culture.

Findings

What Information Do Stakeholders Say They Need?
To provide a baseline understanding of the potential contributions of PMA2020 and Track20, we asked in-country decisionmakers and PMA2020 and Track20 program staff about their data needs for decisionmaking, including how often they thought data should be collected and their preferences for national and/or subnational estimates. Our purpose was to explore the extent to which PMA2020, other family planning data sources, and Track20 are producing the kind of data that decisionmakers find useful and whether or how they use these data to take action.
We found that, overall, the desired frequency of data collection varied by type of data. Stakeholders called for more frequent service statistics (that is, routinely collected data on health facility–based commodity supplies and provision of family planning services)—ideally quarterly or even monthly—and less frequent survey data. Annual PMA2020 household surveys were sufficient for their purposes, but they would like PMA2020 data from the service delivery points more frequently than annually. They also found service statistics to be particularly useful but of variable quality. Finally, data users expressed a clear need for subnational family planning data in addition to national estimates in order to inform local decisionmaking.

How Do Stakeholders View PMA2020’s Performance to Date?

We sought stakeholder views of PMA2020’s goals, accomplishments to date, and the challenges the program faces going forward. In general, stakeholders felt that PMA2020 has laid the foundation for collecting high-quality data on family planning. They valued the fact that PMA2020 is fielded (at least) annually and that data are quickly available for monitoring family planning activities. As one nongovernmental organization leader noted, “I know what it takes to conduct a very good survey, and the PMA2020 survey is a good survey.”

However, stakeholders also felt that PMA2020 has not yet met some of its objectives—in particular, promoting the use of data to enhance evidence-based decisionmaking, responding to family planning needs at the local level, and ensuring sustainability. They regarded these yet-to-be-achieved goals as opportunities for future efforts, including raising the profile of PMA2020 in certain countries; strengthening linkages to government decisionmakers; facilitating data use for planning, resource allocation, and program management (and, secondarily, for research purposes); and modifying the survey design to make it more useful to decisionmakers at all levels. Stakeholders viewed this evaluation as an opportunity to clarify PMA2020’s vision and scope (that is, to reassess the survey’s goals and potential uses), to acknowledge PMA2020’s notable achievements to date, and to build on those achievements in pursuing goals for the future.

In addition to examining big-picture achievements and challenges for PMA2020, we also analyzed the survey’s statistical properties, integrating quantitative analysis with qualitative perspectives of stakeholders. We explored the representativeness of the data (which has implications for reporting national estimates), determined the margin of error for key indicator estimates (which has implications for survey sample size), and examined intra-class correlation and design effect (which reflect how similar individuals within a given cluster are with respect to their characteristics and their responses, with implications for the ideal number of clusters and respondents within each one). We also examined changes in indicator values over different time intervals (six, 12, 18, and 24 months) to explore how modifying the frequency of data collection might affect the survey’s ability to detect statistically meaningful changes in key indicators.

Our analysis of PMA2020 surveys in five countries with at least three rounds of data collection (Ghana, Ethiopia, the Democratic Republic of the Congo [DRC], Nigeria, and Kenya) offers insight into potential modifications to the survey:

• While the PMA2020 survey samples may not be representative, as compared with the population surveyed by the “gold standard” Demographic and Health Surveys (DHSs), differences in demographic and socioeconomic characteristics between
the PMA2020 and DHS populations may not necessarily impact estimates of contraceptive indicators.

- Margins of error for major indicators, such as modern contraceptive prevalence rate (mCPR), were small by typical survey standards, indicating that the sample sizes are large enough to produce estimates with the desired level of precision.
- In some countries, participant characteristics and responses were clustered (relatively homogeneous) in sampled enumeration areas. In statistical terms, intra-class correlation and design effect were high. This clustering results in substantially smaller effective sample sizes. To achieve larger effective sample sizes, the program could implement a sampling strategy that samples more clusters with fewer respondents in each cluster.
- All clusters currently have the same number of respondents. Another way to potentially improve efficiency is through an optimal design scheme in which different numbers of respondents could be selected within each cluster, depending on the variance of key indicators of interest: more respondents from clusters that are heterogeneous and fewer respondents from clusters that are fairly homogenous. Our results showed that implementing such an optimal design would improve the survey’s precision and efficiency in some countries, as long as family planning indicators in general and mCPR in particular remain the sole or main focus for the surveys.
- Our statistical analysis supports stakeholder views on the desired frequency of data collection, demonstrating that, in most countries, the household portion of the PMA2020 survey could be fielded every 12 months instead of initially every six months (which is done for the first four rounds of data collection) without losing significant information about key indicators.

To complement the quantitative findings about PMA2020’s design, we elicited stakeholder views. Stakeholders in both the United States and PMA2020 countries expressed concerns about resampling the same enumeration areas and up to one-third of the same women in subsequent rounds of PMA2020 surveys. They also expressed skepticism about the survey marketing itself as providing nationally representative estimates when only sampling one or more selected states in certain countries. Nearly all stakeholders wanted more geographically granular information about key family planning indicators, specifically at the state or provincial level, and even at the district level.

We describe several options for potential changes to PMA2020. Ultimately, PMA2020’s design should be responsive to the data needs of its users and should fill a gap in the family planning data landscape in the countries where it operates. One of the most important needs, for which PMA2020 is currently well positioned but would require a change in sampling, is to provide annual (rather than semiannual) estimates at subnational levels.

Other promising directions for PMA2020, depending on program priorities, include expanding the pilot of panel data collection and incorporating it more systematically if successful, pursuing more data collection via mobile phone rather than face to face to reduce survey costs, implementing rolling samples as a way to provide continuous employment for resident enumerators, and rotating modules or administering them in a targeted fashion to particular subgroups of respondents as a way to broaden use of the PMA2020 platform and attract co-financing. In addition, the service delivery point surveys could be used to both triangulate (i.e., validate) and provide more context to routine service statistics.
However, the benefits and drawbacks of changing one element of the survey design depend on decisions about other elements. The Gates Foundation asked for options that assume little change to basic resources, such as funding and the use of resident enumerators for data collection. Additional changes to PMA2020’s survey design are possible if the program were considering larger-scale changes, such as moving away from the resident enumerator model.

**How Do Stakeholders View Track20’s Performance to Date?**
Paralleling our evaluation of PMA2020, we solicited stakeholder views of Track20’s accomplishments to date, including the work of the M&E officers, and the challenges Track20 faces. Stakeholder interviews reveal that the Track20 approach is well respected. As one stakeholder noted, Track20 is “one of the most trusted sources of information at the national level.” The program has achieved most of its objectives and is on track to reach its original goal.

Track20 has developed a data-driven and methodologically consistent process to establish consensus around key indicators from a variety of sometimes-conflicting data sources and has built country capacity by embedding M&E officers within the existing structure of ministries of health or comparable institutions. Track20 has the potential to make significant, lasting impacts on family planning data collection, analysis, and use around the world. Its evolving emphasis on developing country-owned agendas through the FP Goals model and strengthening the quality of the data inputs into the FPET model (particularly service statistics) has yielded important successes. Avenir recognizes the need to continue working with country partners to develop realistic, data-driven, and country-generated costed implementation plans for family planning (defined by FP2020 as multiyear strategic plans with clear action items and associated costs, intended to guide donor investments and government efforts to achieve their family planning goals).

Track20 has achieved a strong balance between standardizing, across varying country contexts, a methodologically sound system for producing consensus estimates (using FPET) from available family planning data sources, while allowing for substantial flexibility and encouraging country ownership. This decentralized model has allowed countries to determine what their specific needs are with respect to technical assistance, to decide how to finance their M&E officer(s), and to define their priorities for improving family planning in their country. Key challenges for Track20, representing opportunities for improvement, are that M&E officers are often stretched very thin, there is a need for continued capacity-building among decisionmakers to facilitate data use, and the quality of the FPET estimates is impacted by the quality of the various data inputs, including incomplete or inaccurate service statistics.

**Do PMA2020 and Track20 Interact as Originally Planned?**
The PMA2020 and Track20 programs were originally intended to be “twinned.” However, since their respective launches in 2013, their activities were never really coordinated as intended, to the point where there is very little interaction between them in some program countries. In interviews with the Gates Foundation, U.S.-based stakeholders, and in-country stakeholders, we sought to understand the extent to which PMA2020 and Track20 complement each other in achieving FP2020 goals and how the programs could work together more effectively.

Respondents had very few concrete suggestions for how the two programs could interact more effectively beyond involving the PMA2020 staff in the Track20-supported national data consensus meetings and ensuring that PMA2020 data are incorporated into Track20 indicator
estimates. The strength of collaboration between the two varies by country, but there is general acknowledgement that **more communication, shared activities, and contact between PMA2020 and Track20 would benefit each program.** Going forward, it would prove fruitful to intensify efforts to find common ground, particularly around disseminating family planning data and facilitating their use by key decisionmakers. As one Track20 program officer commented, “We are on the same team, just two different approaches.”

**What Are the Significant Barriers to Using Program Data?**

The ultimate goal of collecting and analyzing data is using them to inform decisionmaking and action. As one PMA2020 leader noted, “I’m very happy that we have very good-quality data, but if nobody uses it, what have we done all of this for?” We asked stakeholders how important they thought data were for these purposes and how prepared decisionmakers were in their respective countries to understand and use data. We also asked them to describe facilitators and barriers to using PMA2020 data and Track20 estimates and to provide examples of situations in which those resources had been used.

Stakeholder views about the importance of data use varied substantially by stakeholder group and by country. In general, Gates Foundation staff felt that the demand for data came from the global level rather than from the countries themselves. However, **in-country stakeholders asserted that family planning data were invaluable for a variety of uses,** including, for example, program planning, development of costed implementation plans, and forecasting commodity needs. Data were also seen as essential to tracking progress against milestones and for demonstrating pressing needs to donors. In-country respondents were candid about the **inadequate capacity of some decisionmakers in their country to interpret data** so that they could use them when making decisions, or even so that they could follow discussion of family planning data with PMA2020 or Track20 staff or with other experts.

Some respondents saw a natural division between PMA2020 as data generators and Track20 as promoters of data use. The Gates Institute shares the view that its responsibilities stop short of advocating for or actively facilitating data use for in-country decisionmaking. However, the Institute is convening workshops and hosting meetings to actively and widely disseminate its results and to help in-country researchers conduct and publish data analyses; PMA2020 and Track20 are piloting a collaboration to promote use of service delivery point data.

Respondents commented in general terms but provided **few concrete examples of using either PMA2020 data or Track20 estimates for decisionmaking.** Some of the more specific examples included program planning, prioritizing family planning activities and investments using the FP Goals model, developing costed implementation plans, evaluating commodity stock-outs, improving commodity logistics, and soliciting funding from governments and donors. A clear role for Track20 estimates was that they served as a harmonized figure around which there was consensus. Stakeholders appreciated that Track20’s FPET took into account disparate survey results and service statistics to produce more-realistic and high-quality estimates than any one single survey or other data source could produce (although there was little elaboration on how those harmonized consensus estimates were put to use).

When asked to describe facilitators of and barriers to using PMA2020 data, in-country respondents noted challenges with meeting decisionmakers’ data needs. Compounding this barrier is the perception that **decisionmakers do not value, understand, or have the capacity to use the data.** On the other hand, **trust** in the rigorous nature of the data (with the excep-
tion of concern about extrapolating a national estimate from a limited geographic sample), leadership buy-in, having champions of the survey, and connections with policymakers were seen as facilitators of PMA2020 data use. Weak connections with policymakers represented an important barrier. The most commonly cited barrier to use was general lack of awareness of the PMA2020 survey, highlighting the need for more effective dissemination to increase the visibility of PMA2020 within countries. Similarly, for Track20, having an in-country champion of the Track20 methodology helped to promote use of Track20 data, while stakeholders noted a need to build awareness of and obtain buy-in around the FPET model. Decisionmakers emphasized their desire for subnational estimates from Track20.

Multiple respondents thought that receptivity to using data for decisionmaking had increased—what they referred to as an improved data culture, particularly as a result of Track20’s efforts. However, not all respondents shared that view. Overall, respondents thought that, in some countries, use of PMA2020 data and Track20 estimates was hindered by a lack of demand for data and a lack of appreciation for why data are needed.

How Mature Are the Data Systems in the 15 Countries We Evaluated?

Data maturity refers to the extent to which high-quality data are collected, well managed, well governed, rigorously analyzed, shared, communicated, and, ultimately, used. Data maturity models are tools used to evaluate and manage continuous improvement. The Gates Foundation asked RAND to develop a framework to assess data maturity for PMA2020 and Track20. Our framework encompasses multiple factors that we organized into three broad domains: organizational readiness (including staffing, leadership and staff buy-in, and infrastructure), data systems (including data collection, data management, data analytics, technology, data governance, and institutionalization), and data use.

Our data maturity framework is tailored to PMA2020 and Track20. Consistent with industry data maturity models, ours uses a ten-point scale for rating maturity levels within three stages: beginning (scores 1–3), developing (scores 4–7), and advanced (scores 8–10). We developed a comprehensive assessment tool consisting of all elements in our data maturity framework and asked interviewees in program countries to rate their country’s performance on each element. We analyzed the data maturity of PMA2020 and Track20, drawing from both qualitative data (from our stakeholder interviews) and quantitative data (from the stakeholder ratings). PMA2020 and Track20, while increasingly well established and highly informed by best practices, fell into the developing maturity level in most countries.

The level of data maturity in countries can be impacted by both country-specific factors (e.g., political support for family planning) and program-specific factors (e.g., technical capabilities of staff). Stakeholders conveyed to us that even after data generation has been optimized, further improvements can be made to data management, data analysis, organizational readiness (in terms of knowing how to use the data for decisionmaking), institutionalization, ownership, and data use.

Quantitative analysis of the data maturity ratings points to three groups of countries: a more advanced group (Burkina Faso, Côte d’Ivoire, Ethiopia, Ghana, and India), a middle-of-the-road group (Indonesia, Kenya, and Nigeria), and a group that remains in the nascent stages of data maturity (DRC, Lao People’s Democratic Republic [Lao PDR], Niger, Pakistan, Tanzania, Uganda, and Zimbabwe, with DRC as an outlier well below the entire group of countries included in this evaluation). However, given that data maturity is highly country-
specific, our framework is perhaps more appropriate for monitoring progress within countries over time than for comparisons across countries.

Stakeholders were enthusiastic about striving to improve data maturity elements that are lagging in their countries. The factors impacting data maturity in each country and for each program are highly variable, and the programs we evaluated can directly influence some factors (e.g., organizational readiness, data system processes) more than others (e.g., governance).

**Are PMA2020 and Track20 Sustainable?**
Sustainability is a nearly universal priority in the development community but is often difficult to define precisely and measure. Here, we consider the sustainability of a data system to mean its endurance over time, which is directly related to the degree of its institutionalization within the routine functioning of the government. Our assessment of sustainability of PMA2020 and Track20 programs included qualitative analysis from our stakeholder interviews and quantitative analysis from stakeholders’ ratings of various factors within the sustainability framework we developed for this evaluation. The qualitative interview data and quantitative data from the sustainability ratings provide complementary views on enablers and barriers to PMA2020 and Track20 sustainability in these countries.

Our framework includes sustainability-enabling factors within four key domains: financial sustainability, technical sustainability, operational sustainability, and data culture. We consider these factors as key to the sustainability of PMA2020 and Track20 and a means to measure progress over time.

**Financial sustainability** (framed as co-financing) is of critical concern to the Gates Foundation, grantee organizations, and program countries and is particularly salient for PMA2020 because of the resource intensity of launching PMA2020 surveys in a new country and then ensuring that they run smoothly in subsequent rounds of data collection. There is currently very little domestic resourcing of these programs, with the notable exception of in-kind resourcing—e.g., paid government personnel who serve as Track20 M&E officers and university personnel who serve as PMA2020 principal investigators.

**Technical sustainability** is also a concern. Our interview data consistently highlighted the need for more well-trained M&E personnel, and the numeric ratings within this domain of sustainability also highlighted the need to ensure hardware and software maintenance.

Stakeholders provided the most feedback on operational sustainability and data culture. The strongest sustainability-enabling factors for operational sustainability were leadership buy-in and cultural acceptability; the weakest were satisfaction of policymakers’ needs, accountability in using data to inform policy, engagement of local communities and civil society, and use of local expertise. The strongest sustainability-enabling factor for data culture was data impact on outcomes; the weakest was institutionalization of data use, including inadequate numbers of people with sufficient technical capabilities. Our interviews signaled that some key stakeholders do not understand the data or know how to use them effectively. This complementary information from the qualitative and quantitative analyses suggests specific actions for PMA2020 and Track20 as they move into their next grant cycle.

Moreover, the data point to countries that are doing well with regard to operational sustainability and data culture (e.g., India, Uganda) and those that are doing less well (e.g., DRC, Tanzania); the data also identify specific barriers in a given country, again suggesting areas for focused attention. One theme that emerged clearly from these analyses was the need to plan for sustainability and take deliberate actions to help enable it.
Recommendations

We synthesized qualitative input from the more than 260 stakeholders we interviewed in the United States and 15 program countries and conducted quantitative analyses related to PMA2020 statistical properties and numeric ratings of data maturity and sustainability. Based on this synthesis, we offer recommendations, both overarching and specific to each program, for future actions.

The achievements of the programs to date are significant. Our recommendations, reflecting different perspectives and based on different methods, suggest opportunities to further enhance their contributions. Because we found that stakeholders largely perceive PMA2020 and Track20 as driven by and largely serving the global community more than the program countries themselves, our recommendations all reinforce the general shifting of program focus from the global level to the country level—from a mostly “donor-driven agenda” toward an “owner-driven agenda” (Moore et al., 2012). Deciding whether and how to pursue this shift will be a program-specific effort because pursuing a strategic reorientation can require additional resources and a new mindset among implementing partners in order to change course.

Overarching Recommendations

1. Promote country-driven agendas.

The preponderance of stakeholder feedback suggested that countries have unmet needs that could be addressed by strategically reorienting the two programs (PMA2020 in particular) so that family planning data collection, analysis, and use are tailored to each country’s needs. Orienting the programs toward country-driven agendas will help to strengthen country ownership of the programs’ processes, including their greater involvement in decisions and management of data collection, management, analysis, and use. Country ownership entails active engagement with key stakeholders from national to local governments, nongovernmental organizations, civil society, and multistakeholder working groups. Such groups are often overseen by government, which enhances government ownership of multistakeholder programming. Country ownership also entails planning for transition to full government ownership and institutionalization of data systems (e.g., through mutually agreed-upon expectations and an exit strategy for donors).

2. Intensify focus on data use.

One of the clearest messages that emerged from stakeholder interviews was the need to strengthen data use for decisionmaking and action. Building on the achievements of the first few years of implementation, which focused on generating high-quality data and estimates, both programs should now focus more intensively on promoting data use. This challenge may be more salient for PMA2020, which has focused almost exclusively on data generation and not data use, than for Track20, which has promoted data use in its program efforts. Nonetheless, data use could be improved at all levels across both programs.

Data must be actively and explicitly transformed into understandable information from which actionable messages are created to help decisionmakers know what appropriate actions they might take. Figure 2 shows a data-driven accountability cycle, in which high-quality data are translated into understandable information, which is in turn packaged into an actionable message that prompts policy and program action, driving and institutionalizing the demand for
more data. Such a cycle can drive capacity, performance, and motivation to continue this cycle of accountability, attract investment, and contribute to mature and sustainable data systems that are country-owned.

The RAND research team recommends that all data presentations, including graphics, tables, or narrative reports, include an interpretive statement (translating data to information) and an actionable message (even if only a set of alternatives to consider) for data users, whether for advocacy or decisionmaking purposes.

3. **Plan for and measure data maturity.**

Stakeholder interviews and ratings indicated that most of the program countries included in our evaluation fall into the developing level of data maturity, suggesting room for improvement. But improvement does not happen automatically. Mature data systems require planning and explicit effort. The RAND research team recommends that PMA2020 and Track20 systematically plan to advance each country’s data system maturity and use (or adapt) the data maturity framework developed for this evaluation as a tool with which countries can perform periodic self-assessments to track their progress.

4. **Plan for and measure sustainability.**

Stakeholder interviews and ratings also indicated gaps and opportunities to strengthen sustainability-enabling factors and thereby enhance the prospects for sustainability of PMA2020 and Track20 data systems. But this also requires planning and explicit effort. The research team recommends being proactive in planning for sustainability of PMA2020 and Track20 and for the programs to implement activities accordingly. As noted by the implementing organiza-
The sustainability framework developed by the research team can serve as a tool for periodically taking stock of progress in each country and addressing bottlenecks along the pathway toward sustainable data systems. The RAND research team supports stakeholder suggestions that the programs should establish formal, written agreements (such as memoranda of understanding) with governments around ownership and sustainability. These agreements should articulate mutual expectations, the roles and responsibilities of key parties, and the ultimate aim for countries to take greater ownership of the systems and processes as one of the key factors that will enable their sustainability.

5. Institutionalize data capacity development.

Another clear message from our interviews was the need for larger numbers of qualified personnel to carry out family planning monitoring and data use at both the national and subnational levels. As a final, overarching recommendation and a unifying effort to institutionalize data capacity and use, the RAND research team proposes establishment of a Data for Action Training Activity for Family Planning (DATA-FP) program. The DATA-FP program would build capacity by increasing the number of people with the high-level skills needed for data system management at all levels—an ever-larger cadre of well-trained M&E personnel who can collectively collect, manage, analyze, interpret, disseminate, and facilitate use of family planning data.

Family planning is just one of several vertically oriented Gates Foundation programs to which the proposed DATA program could be applied—others could include DATA-NUT (nutrition), DATA-WASH (water, sanitation, hygiene), and DATA-MNCH (maternal, newborn, and child health). Use across more program areas would unify data-oriented programming in countries and would be a unique opportunity for the Gates Foundation to systematically promote mature and sustainable data systems, support a strong data culture in countries, and facilitate capacity-building among enough staff to make it all possible.

Program-Specific Recommendations: PMA2020

1. Reorient and operationalize the program to better align with program objectives.

Different stakeholders have varying expectations of PMA2020’s goals and objectives, which lead to widely ranging opinions on future directions and potential opportunities. The research team recommends that the Gates Foundation and PMA2020 implementers reexamine, revise, and reach consensus around the program’s vision, goals, objectives, and activities, and that they, in turn, operationalize their decisions.

A good starting point is the set of PMA2020 objectives, including the four original objectives from 2013 and four revised objectives from 2015. While PMA2020 has largely achieved its objective (from both 2013 and 2015) of carrying out annual, rapid-turnaround surveys that generate high-quality family planning data, it has not fully achieved its original objectives related to building capacity, promoting data use to meet local data needs, and integrating its surveys into country data systems, nor its revised objectives to build a sustainable business model, ensure sustainability of the platform, and integrate the survey into countries’ M&E architecture. Clarifying PMA2020’s goals and objectives for the future will be necessary to further define what successful data generation and use will look like, how to facilitate them, and how to measure and sustain them over time. These changes will clarify the extent to
which the PMA2020 grantee organization is expected to both generate and facilitate the use of PMA2020 data. The RAND research team recommends that the PMA2020 grantee play a key role in disseminating its data, interpreting them with and for decisionmakers, and sharing the data with key advocates and others through dissemination meetings that also function as training workshops.

A strategic reexamination of goals and potential reorientation will also enable the Gates Foundation to make challenging decisions about future directions, all of which entail trade-offs. For instance, if the Gates Foundation decides to shift its emphasis toward subnational estimates over national estimates (as in-country stakeholders have strongly advocated), then the survey can target certain regions or states of interest. However, PMA2020 will be required to shift away from marketing itself as being intended to produce national estimates to track progress toward the global FP2020 goal. We discerned emerging consensus among U.S. and in-country stakeholders that priorities have evolved away from providing national estimates for global purposes and more toward generating local data to meet country needs.

Alignment among different stakeholders will also help to address the tension between “vertical” family planning data generation and “horizontal” data system strengthening—ideally moving toward the idea of a more “diagonal” approach that accomplishes both (Frenk, 2010). A vertical approach fills important gaps in the availability and quality of family planning data and could address several of the stated needs of decisionmakers, such as more qualitative information, more data on the quality of services, additional populations (e.g., adolescents and men), and more. A horizontal approach seeks to better integrate family planning data generation and use into a larger effort of building data maturity within countries across all health (and related) sectors.

The proposed DATA-FP program incorporates PMA2020 and Track20 and marries the virtues of horizontal data system strengthening with vertical family planning programming—i.e., a diagonal approach. The capacity-building feature increases the cadre of well-trained M&E personnel, while PMA2020 data generation remains vertically oriented around family planning narrowly or any other programs associated with non–family planning PMA2020 modules. By working within such a diagonal approach, PMA2020 could position itself to help build M&E capacity for family planning while also continuing to support the generation and use of high-quality data for family planning and potentially other programs.

2. Engage key partners in active data dissemination.

The research team recommends that PMA2020 actively engage key partners to strengthen its data dissemination efforts and further raise its visibility within program countries. There are definite advantages to having the PMA2020 principal investigators be located primarily within academia. However, the RAND team heard loud and clear that the university-based location of the principal investigator contributes to the perception among in-country decisionmakers that the PMA2020 survey is “boutique,” “academic,” and “by and for researchers.” The onus is on PMA2020 in-country partners and their teams to deliberately build strong and lasting connections to governmental decisionmakers (including Track20 M&E officers) and other actual and potential users of its data (e.g., advocacy organizations, donors, nongovernmental organizations, other researchers).

The evaluation revealed that in-country PMA2020 staff were not always invited to the national data consensus meetings organized by the Track20 M&E officer. This disconnect sug-
gests a need for both programs to be more proactive about connecting around their common mission and finding efficient ways to communicate with a shared voice with key decisionmakers.

3. **Enhance PMA2020’s survey design.**

There are many options to enhance PMA2020’s design, but selecting one or more options will involve weighing different trade-offs and priorities. Based on our integration of family planning data needs as articulated in stakeholder interviews with our analyses of the statistical properties of the PMA2020 survey, the RAND team offers six recommendations:

- Collect PMA2020 household data annually from the outset in a new PMA2020 country rather than every six months in the first two years; if semiannual surveys are important for capacity-building purposes, consider conducting them in different subnational jurisdictions.
- Support pilot efforts to implement both a targeted panel survey and a cross-sectional survey and adopt the panel survey component if the pilot testing proves promising.
- Use the resources freed up from decreasing the frequency of data collection to intensify explorations of other innovative but resource-intensive experiments—e.g., a pilot of conducting surveys by telephone, which may include polling.
- Consider enhancing efforts to produce robust subnational estimates to meet decisionmakers’ data needs. This could be an important niche for PMA2020 going forward, should it be deemed a program priority. However, countries may have to work within existing PMA2020 survey resources and make trade-offs in terms of where and how frequently to conduct subnational surveys. The research team also recommends implementing an optimal design (a sampling strategy that chooses the number of survey respondents in each cluster to minimize the variance of the population estimate of the indicator), potentially improving the precision of key indicators, increasing the efficiency of the PMA2020 survey, and reducing the necessary sample size for robust subnational estimates.
- Use the service delivery point surveys to their full potential. Stakeholders believe that the data from these surveys have not been effectively linked to household survey data (as originally intended), nor have they been used effectively to help validate routine service statistics or manage service delivery programs.
- Strengthen the technical support for data set users and ensure a streamlined and user-friendly data download process. For those who do not need or want to work with the full, raw data sets, PMA2020 should continue to support its valuable DataLab tool, which is a web-based data visualization program used to create customized charts with PMA2020 data.

4. **Broaden the PMA2020 platform and seek cost efficiencies to attract co-financing.**

Supporting a broader range of survey content (e.g., through rotating modules addressing other family planning–related topics or other priority health areas, such as nutrition; maternal and child health; and water, sanitation, and hygiene) would, arguably, meet a broader range of stakeholder needs and increase the possibility of co-financing, which is an important sustainability enabler. The case against expansion involves the extra program costs that would be required to prepare new questions for collection using PMA2020’s survey platform and what some stakeholders view as dilution of the family planning focus of PMA2020 as originally con-
ceived and implemented. However, we recommend broadening the PMA2020 survey platform while redoubling efforts to reduce survey costs and seek co-financing.

Program-Specific Recommendations: Track20

1. Intensify focus on generating actionable data at different levels in increasingly decentralized health systems.

The RAND research team recommends that Track20 continue to emphasize the important country-level activities that country stakeholders wish to prioritize. In addition to having at least one M&E officer in the national ministry of health or comparable agency, more officers should be placed at subnational-level positions. Track20 should also continue to promote its FP Goals model and help improve countries’ costed implementation plans. While these costed implementation plans are a source of pride within countries that are developing them, there is much room to improve their quality, feasibility, degree of country ownership, and their use of family planning data.

2. Improve and expand use of FPET.

FPET is a core feature of the Track20 program and is one of the keys to its success. Track20 should (1) continue its work with countries to improve their routine service statistics, (2) continue to further understanding of the FPET methodology and its theoretical basis for both the users of the tool and the consumers of the data (the decisionmakers), (3) expand the number of people who understand and are trained to use FPET, and (4) expand FPET’s capacity to produce robust subnational estimates to meet the needs of decisionmakers.

3. Optimize the M&E officer model

Another of Track20’s strengths is its placement of M&E officers within existing governmental structures (primarily ministries of health), facilitating their access to key decisionmakers in the family planning arena. The RAND team recommends that Track20 further optimize several dimensions of the unique model. First, Track20 could determine which of the several M&E officer financing models has yielded the best results and replicate this across other countries, to the extent possible. Second, as noted above, Track20 could place additional M&E officers at subnational levels, as is occurring in some countries, and continue to test which partnerships with governmental offices yield the best results. Third, Track20 could place M&E officers at an organizational level at which they can be most effective (e.g., not buried within lower units in a ministry of health). The specific solution will not be the same in every country, but the success of the M&E officers depends on some of these structural factors.

Our interviews suggested that some M&E officers need additional support for their expected duties, including reasonable expectations about their workload; turnaround time for responding to data requests; further professional development, supervision, and guidance commensurate with their experience and skill level; and assistance with connections to policymakers. Track20 should continue to support the efforts of M&E officers to communicate effectively with stakeholders, including ensuring access to them and the tools they need to interpret analytic results and provide actionable messages in relation to those results. Building on existing partnerships with all relevant partners and with data users will help institutionalize the Track20 program within the larger data architecture of program countries.
Conclusions

The RAND research team’s overarching recommendations for further empowering countries, strengthening data use, planning for and measuring data maturity and sustainability, and institutionalizing data capacity-building are captured in a logic model reflecting potential futures for these two family planning programs (Figure 3). The figure also places these broad concepts in the context of the two programs we evaluated and shows how the proposed new DATA-FP program (outlined in red) could be integrated. Our overarching recommendations reflect ways to build on achievements to date and orient the programs to achieve even more into the future.

The Gates Foundation is uniquely well positioned to support DATA-FP by virtue of its commitment to empower developing country partners, its strong data system orientation, and its broad range of development programs. Government buy-in and expert technical assistance will continue to be required inputs for future PMA2020 and Track20 successes. Activities would include continuing data generation and analysis, strengthening dissemination efforts, focusing more broadly and intensively on data use to meet country needs, improving family planning service statistics, and potentially implementing the proposed DATA-FP program to help grow a cadre of well-qualified M&E personnel. Countries would assume greater leadership and management responsibilities for the data processes, including data presentations and reports. Intermediate outcomes would lead to impacts that include high-quality data to inform program planning, resource allocation, and management; a survey platform that meets a broader range of government and other stakeholders’ needs; institutionalized and sustainable country data capacity and use; and a mature data culture.

PMA2020 and Track20 reflect the vision of Gates Foundation leadership, the commitment of participating countries, and the technical expertise of the grantee organizations. Their achievements to date are significant. We have offered recommendations for future program activities that could be implemented in the near term.


In 2013, the Bill & Melinda Gates Foundation launched two programs to help monitor progress toward a new global goal to increase modern contraceptive use by 2020. The Performance Monitoring and Accountability 2020 (PMA2020) program aimed to support annual, rapid-turnaround, nationally representative surveys of households and service delivery points in nine countries. Track20 was designed to support global standardization of key family planning indicators and country-level monitoring and capacity-building in 22 countries. This summary of an evaluation of both programs is based on interviews with more than 260 stakeholders in the United States and 15 program countries, statistical analysis of the PMA2020 survey, and analysis of stakeholder ratings of data maturity and sustainability.

Stakeholders felt that PMA2020 has successfully conducted annual, rapid-turnaround surveys with high-quality data. However, it has not fully achieved its original objectives of promoting data use, meeting local data needs, or integrating PMA2020 into country data systems. The team’s statistical analysis of PMA2020 surveys identified opportunities for modifications in survey frequency, design, and content. Stakeholders felt that Track20 is on target to achieve most of its objectives. Monitoring and evaluation officers are the core of Track20 in program countries: They are highly skilled personnel, typically embedded within ministries of health, giving them ready access to decisionmakers. The RAND research team recommended that both programs promote country-driven agendas for data collection, use, and ownership; intensify focus on data use; and plan for and measure data maturity and data system sustainability. The research team also recommended a new program—Data for Action Training Activity for Family Planning (DATA-FP)—to increase country capacity for data system management.