End of Project Report:
The Measurement, Learning and Evaluation (MLE) Project for the Urban Reproductive Health Initiative, 2011 – 2017

July 2017
End of Project Report:
The Measurement, Learning and Evaluation (MLE) Project for the Urban Reproductive Health Initiative

© 2017, Johns Hopkins University. All Rights Reserved.

Authors:
Lisa Calhoun, University of North Carolina Chapel Hill, Carolina Population Center
Christina Shaw, Johns Hopkins Center for Communication Programs
Courtney McGuire, University of North Carolina Chapel Hill, Carolina Population Center
Rebecca Shore, Johns Hopkins Center for Communication Programs
Ilene Speizer, University of North Carolina Chapel Hill, Carolina Population Center

Design:
Mark Beisser, Johns Hopkins Center for Communication Programs

Photos Credits:
cover, pages 11, 25, 29: ©2010 UHI/FHI 360, Uttar Pradesh, India
pages 5, 23, 26: ©2012, Tobin Jones/Jhpiego/Tupange, Kenya
pages 9, 28: ©2012, ISSU/IntraHealth, Senegal
## CONTENTS

Acknowledgements .................................................................................................................. 6
Project Overview ......................................................................................................................... 7
Research & Evaluation Questions: .............................................................................................. 8
Final Progress Details .................................................................................................................. 8
Evaluation Design Elements ...................................................................................................... 9
Impact over Time ........................................................................................................................ 9
  Impact among the Urban Poor ............................................................................................... 9
  Impact across Cities .............................................................................................................. 9
Study Tools ................................................................................................................................. 10
  Individual Surveys .................................................................................................................. 10
  Service Delivery Point Surveys ............................................................................................. 10
  Program Cost Analysis .......................................................................................................... 11
Hybrid Data Sources ................................................................................................................. 11
  Cross-Sectional Data ............................................................................................................ 11
  Longitudinal Data .................................................................................................................. 12
Project Highlights/Successes .................................................................................................... 13
Country-Specific Interventions and Impact Evaluation Results ............................................. 15
  India ...................................................................................................................................... 16
  Kenya ................................................................................................................................... 18
  Nigeria ................................................................................................................................. 19
  Senegal ............................................................................................................................... 20
Project Outputs & Research ...................................................................................................... 21
  Publications Using MLE Data .............................................................................................. 21
  MLE Publications Using Non-MLE Data ............................................................................. 25
Country Reports ........................................................................................................................ 26
  India ...................................................................................................................................... 26
  Kenya ................................................................................................................................... 26
  Nigeria ................................................................................................................................. 26
  Senegal ............................................................................................................................... 27
Factsheets .................................................................................................................................. 27
  India ...................................................................................................................................... 27
  Kenya ................................................................................................................................... 28
  Nigeria ................................................................................................................................... 29
  Senegal .................................................................................................................................. 30
Training Tools ............................................................................................................................. 31
Longitudinal data is a powerful tool for impact analysis, but complicated to collect, especially in complex urban settings.

Global development is complex with a lot of players—open and collaborative engagement is important.

Have more than one evaluation tool.

Monitor quality carefully.

Make sure you have the right team.

GIS was a cornerstone of survey management.

Put in extra time for start-up activities.

Costing is difficult.

Design and build good systems.

Capacity building.

Importance of face-to-face interactions.

Building support through data dissemination.

Future Directions

Measurement, Learning & Evaluation Partners

Data Collection Partners

Implementation Prime Partners
Acknowledgements

This report was made possible by support from the Bill & Melinda Gates Foundation under terms of the Measurement, Learning and Evaluation (MLE) Project for the Urban Reproductive Health Initiative. The MLE project is implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill, in partnership with African Population and Health Research Center, International Center for Research on Women, Johns Hopkins Center for Communication Programs and Population Reference Bureau. The authors’ views expressed in this publication do not necessarily reflect the views of the donor, the Bill & Melinda Gates Foundation.
**Project Overview**

The Measurement, Learning & Evaluation (MLE) Project was the evaluation component of the Urban Reproductive Health Initiative (URHI), a multi-country program in India, Kenya, Nigeria and Senegal that aimed to improve the health of the urban poor. The MLE project’s goal was to promote evidence-based decision-making in the design of integrated family planning and reproductive health (FP/RH) interventions for the URHI.

Measuring a program’s success should begin when the program is being designed. Impact evaluation assesses the change in individuals, families or communities that can be attributed to a project, program or policy. It creates an understanding of the difference between what happened with the program and what would have happened without it. Increased evidence of effective interventions forms the foundation for better policymaking and program design.

The URHI was implemented in India, Kenya, Nigeria, and Senegal by country consortia (CCs). MLE collaborated with the four CCs to measure the impact of their programs, to use monitoring and evaluation results to adjust program activities and to identify promising best practices. To ensure successful local, national, regional and global dissemination and use of program results, the MLE project and the CCs fostered collaborative relationships with key stakeholders to encourage evidence-based policymaking and allocation of resources that improve urban family planning programs. The MLE project was tasked with three objectives that guided program activities:

1. **Monitor and evaluate the impact of the URHI within and across target countries using a rigorous study design and multiple data collection approaches**
2. **Build country and regional capacity to undertake rigorous measurement and evaluation of population, FP, and integrated RH activities with a focus on urban and peri-urban poor and vulnerable populations**
3. **Facilitate knowledge sharing by documenting and disseminating best practices across CC, in the region and within the global community of practice**
Research & Evaluation Questions:

1. Did the project achieve a significant increase in the CPR in the selected urban areas?

Specific Questions:
- Which supply-side interventions contributed to increases in contraceptive use?
- Which demand and behavior change interventions contributed to increases in contraceptive use?
- Which private sector interventions contributed to increases in contraceptive use?
- Did the introduction of new methods contribute to increases CPR?
- Did the interventions improve quality of services provided?

2. Did CPR increase among the lower quintiles in the selected urban areas?

Specific Questions:
- Which supply-side interventions contributed to increases among the lower quintiles?
- Which demand and behavior change interventions contributed to increases among the lower quintiles?
- Which private sector interventions contributed to increases among the lower quintiles?

3. Where it is feasible to calculate, what was the relative cost-effectiveness of specific interventions or, in cases where costs cannot be disaggregated, of groups of interventions?

Final Progress Details

MLE deployed a hybrid study design in order to achieve the first objective: monitoring and evaluating the impact of the URHI. The project’s hybrid design integrated cross-sectional and longitudinal data to assess the direct impact of innovative family planning programs and identify any change in the contraceptive prevalence rate and behavioral and attitudinal norms in intervention cities over the course of the programs. These design elements allowed the MLE project to measure programmatic impact across cities, over time, and among the urban poor.
Evaluation Design Elements

Impact over Time
The MLE project used a combination of repeated cross-sectional data surveying a new representative sample of respondents at multiple points in time and longitudinal data (surveying the same respondents at multiple points in time) in a hybrid study design. This hybrid approach maximizes the strengths of both types of data; rigorous cross-sectional surveys provide the attitudes and behaviors of a representative sample of the cities’ population at a given point in time, while longitudinal data are used to measure the causal impact of program components on outcomes of interest. The project also collected longitudinal data from service delivery points (SDPs) that offer sexual, reproductive, and maternal and child health services in order to examine access to and quality of family planning services at these facilities over the study period.

Impact among the Urban Poor
To identify the impact of URHI interventions among the urban poor, the MLE project structured the sampling of respondents to identify programmatic outcomes among both slum and non-slum populations. To ensure that the urban poor were fully represented in this study, MLE researchers oversampled slum areas using country-specific strategies identified prior to baseline data collection (see baseline reports for details). Oversampling slum areas ensured that the urban poor were represented in the analysis sample with a large enough number to permit sub-sample analyses.

Impact across Cities
The MLE project collected data from six cities in each country, with the exception of Kenya, where five cities were included. In each city, a representative sample of households and women was selected so that results could be examined at the city level. Most of the URHI program activities were similar across cities in terms of implementation; however, changes in the modern contraceptive prevalence rate (mCPR) differed by city in each country.
**Study Tools**

**Individual Surveys**
The MLE project conducted surveys with women and men of reproductive age at baseline. Women and men provided their basic demographic characteristics such as age, ethnicity, family structure, and migration practices; their experience with family planning methods; their awareness of family planning messages; and their fertility desires. In addition, respondents discussed their current health care experiences, including how they pay for health care and when and where they seek care for themselves and their children. At baseline, the women’s survey collected information on how to locate these women at mid-term and endline for follow-up surveys. This permitted an examination of how fertility desires and family planning behaviors change over time with increasing program activities and exposure. At mid-term, a sub-sample of cities and women was included as part of a longitudinal follow-up. At endline, all women from baseline who were usual residents of the household were tracked, and if found, interviewed. At endline, extensive questions were included on exposure to the URHI program activities.

**Service Delivery Point Surveys**
MLE researchers also collected data at a wide range of public and private service delivery points (SDPs). In facilities with licensed health care providers, the MLE team conducted facility audits to determine the services provided at each location, the availability of family planning methods, and prescription requirements. Field staff conducted surveys with health care providers in these facilities to identify their training, standard operating procedures with clients, and referral mechanisms. In addition, the MLE team conducted exit interviews with women as they were leaving high-volume facilities to evaluate satisfaction with health care services. Because family planning services are often available outside health care facilities, the MLE project also collected data from local pharmacies and other retail outlets that offer contraceptives. In these locations, field workers took an audit of available contraceptive methods, educational materials, and counseling opportunities, as well as identified the requirements women must meet to obtain a method and the cost of contraceptives.
Program Cost Analysis

Impact evaluations also provide an opportunity to determine the cost-effectiveness of different programmatic approaches to ensure that scarce resources are used most efficiently. To conduct these cost analyses, the MLE project collected detailed information on program costs over the course of the project. Where possible, the team used this information to contribute to an impact analysis that captures the cost of individual interventions.

Hybrid Data Sources

Cross-Sectional Data

The MLE project conducted cross-sectional surveys in India and Nigeria with women at two points in time: at baseline prior to the implementation of the URHI programs and at endline of the interventions, four years later. (For Kenya and Senegal, MLE used information from the 2014 DHS to inform cross-sectional comparisons in key indicators.) These data allowed the MLE team to determine if the overall contraceptive prevalence rate changed significantly in cities during this period. The MLE team also collected cross-sectional surveys with men in intervention cities at baseline, mid-term, and endline in Senegal to measure men’s contraceptive attitudes and behaviors, gender attitudes, and identify any changes in men’s perspectives over time. Male data were collected in all countries at baseline; however, at mid-term, male data were only collected on a limited basis in Nigeria and Kenya, and at endline, no male data were collected in India, Kenya, and Nigeria. Because these surveys were cross-sectional among women (and men), baseline, mid-term, and endline respondents differed, making it impossible to attribute changes in knowledge, attitudes, and behaviors directly to program exposure at the individual level. Cross-sectional data collection requires that researchers use an updated sampling frame to randomly select respondents at each survey round. A sampling frame
is a snapshot of the entire population of a study area—in this case, each city, at a given point in time. With an accurate sampling frame, every adult in each city has the same chance of random selection into the study. Because urban populations are quite dynamic—urban migration can change the characteristics of cities quite rapidly—MLE researchers identified, to the extent possible, updated sampling frames at baseline and endline. By randomly selecting primary sampling units and households from these sampling frames, each cross-sectional survey represented the entire population of women (or men) living in each city at the time of the survey. Thus, the MLE team assessed the mCPR of each city (calculated from the women’s cross-sectional surveys) at baseline and endline of the study.

To maximize the significant resources required to collect both cross-sectional and longitudinal data, the women who were randomly selected as respondents to the baseline cross-sectional survey eventually became participants in the longitudinal study. These women received follow-up surveys at mid-term and endline.

Dovetailing the cross-sectional and longitudinal data collection conserves project resources and ensures that the longitudinal surveys with women represent the larger population of study cities at baseline (as researchers randomly selected these women from a current sampling frame). One of the challenges of collecting longitudinal data is respondent attrition. Over time, individuals may move households or migrate to other cities or regions, limiting the ability of researchers to conduct follow-up surveys. To mitigate this, MLE researchers collected detailed tracking information for each woman in the longitudinal survey. This information included addresses and cell phone numbers for each respondent, as well as for her household members, community leaders, landlords, and friends. If a respondent changed residence before a follow-up survey, the MLE team used this detailed tracking information to locate the respondent and determine the feasibility of conducting follow-up surveys at her new location.

**Longitudinal Data**
The MLE project also collected longitudinal data from women and SDPs. Field workers first conducted surveys with women and SDPs at baseline of the study, then followed up with the same women and SDPs at mid-term and endline. Because longitudinal data permit researchers to measure change over time, this study component allowed the MLE project to identify the causal impact of the URHI family planning interventions on women’s family planning attitudes and behaviors and also determine if URHI intervention activities improved the quality of family planning services in urban areas.
The longitudinal component of the hybrid study design also included data collection from a wide range of public and private SDPs. At baseline, MLE researchers included all public-sector health care providers who offered maternal and child health and/or sexual and reproductive health services. For cities that had more than 100 private sector facilities or more than 100 pharmacies, we included the private facilities and pharmacies that served as locations where women received maternal and child health or sexual and reproductive health services. If the number of private facilities or pharmacies in a city was fewer than 100, we sought to include all facilities in the study sample. Field workers conducted follow-up surveys at the same SDPs at mid-term (Senegal only) and endline (all countries); if new facilities were included by the program, these facilities were also surveyed at endline. To track the location of the facilities, researchers noted the GPS coordinate of each SDP during the baseline survey and used this information to easily identify the same facilities upon return visits.

**Project Highlights/Successes**

On the next page, we provide a table that gives the numbers of women, facilities, providers, and clients surveyed at each phase of the survey as well as the response rates in the longitudinal sample.
### Household surveys

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Kenya</th>
<th>Nigeria</th>
<th>Senegal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cities and names</td>
<td>6 cities: Agra, Aligarh, Allahabad, Gorakhpur, Moradabad, Varanasi</td>
<td>5 cities: Nairobi, Mombasa, Kisumu, Machakos, Kakamega</td>
<td>6 cities: Kaduna, Ilorin, Ibadan, Abuja, Zaria, Benin City</td>
<td>6 cities: Dakar, Pikine, Guédiawaye, Mbao, Mbour, Kaolack</td>
</tr>
<tr>
<td>Number of women at baseline</td>
<td>17,643</td>
<td>8,932</td>
<td>16,144</td>
<td>9,614</td>
</tr>
<tr>
<td>Number of women interviewed at mid-term</td>
<td>5,790</td>
<td>3,207</td>
<td>4,331</td>
<td>2,774</td>
</tr>
<tr>
<td>Number of women interviewed at endline (longitudinal)</td>
<td>14,043</td>
<td>5,217</td>
<td>10,672</td>
<td>6,927</td>
</tr>
<tr>
<td>Percent of eligible women interviewed at endline (response rate for longitudinal)</td>
<td>84%</td>
<td>59%</td>
<td>66%</td>
<td>74%</td>
</tr>
<tr>
<td>Number of women interviewed at endline cross-section</td>
<td>4,534</td>
<td>NA (DHS data available)</td>
<td>10,713</td>
<td>NA (DHS data available)</td>
</tr>
<tr>
<td>Number of men interviewed at baseline</td>
<td>6,428</td>
<td>2,503</td>
<td>5,547</td>
<td>2,270</td>
</tr>
<tr>
<td>Number of men interviewed at mid-term</td>
<td>NA</td>
<td>Mombasa only n=696</td>
<td>Kaduna and Ibadan only n=2,358</td>
<td>Pikine, Guédiawaye, Mbao only n=1,622</td>
</tr>
<tr>
<td>Number of men interviewed at endline</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>2,214</td>
</tr>
</tbody>
</table>

### Facility surveys

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Kenya</th>
<th>Nigeria</th>
<th>Senegal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of health facilities at baseline</td>
<td>732</td>
<td>279</td>
<td>400</td>
<td>205</td>
</tr>
<tr>
<td>Number of pharmacies at baseline</td>
<td>517</td>
<td>223</td>
<td>433</td>
<td>518</td>
</tr>
<tr>
<td>Number of drug shops (PMV/RMP) at baseline</td>
<td>140</td>
<td>NA</td>
<td>555</td>
<td>NA</td>
</tr>
<tr>
<td>Number of provider surveys at baseline</td>
<td>1,753</td>
<td>684</td>
<td>1,479</td>
<td>637</td>
</tr>
<tr>
<td>Number of exit interviews at baseline</td>
<td>3,490</td>
<td>4,222</td>
<td>5,442</td>
<td>2,691</td>
</tr>
<tr>
<td>Number of health facilities at endline</td>
<td>741</td>
<td>377</td>
<td>385</td>
<td>249</td>
</tr>
<tr>
<td>Number of pharmacies at endline</td>
<td>441</td>
<td>NA</td>
<td>433</td>
<td>542</td>
</tr>
<tr>
<td>Number of drug shops (PMV/RMP) at endline</td>
<td>NA</td>
<td>NA</td>
<td>540</td>
<td>NA</td>
</tr>
<tr>
<td>Number of provider surveys at endline</td>
<td>1,583</td>
<td>966</td>
<td>1,431</td>
<td>781</td>
</tr>
<tr>
<td>Number of exit interviews at endline</td>
<td>3,732</td>
<td>4,861</td>
<td>5,391</td>
<td>3,188</td>
</tr>
</tbody>
</table>
Country-Specific Interventions and Impact Evaluation Results

As shown in the figures below, in target cities in all four countries, mCPR increased significantly between baseline and endline. These mCPR increases were generally observed for all women, including those in the highest and two lowest wealth quintiles. Greater increases were often observed among women in the lowest wealth quintiles.

The figures do not reflect large increases in use of long-acting and permanent methods including implants, IUDs, and mostly in India, female sterilization. These increases were observed among all women and across the wealth groups.

Using statistical methods that take advantage of the data on the same women and facilities over time, the project demonstrated that numerous factors were associated with increased modern contraceptive use in each of the study contexts (see tables below). In India, women exposed to brochures/billboards/posters, pamphlets, community health workers, and living close to project facilities were more likely to be users. In Nigeria, the key factors driving use were exposure to local radio programs, television programming, outreach activities where family planning was discussed, and living close to a program facility. Likewise, in Kenya, local radio programming, as well as exposure to community health workers and exposure to program facilities, led to greater modern method use. Finally, in Senegal, among women, those exposed to ISSU radio programming on FP and those exposed to community-based activities were significantly more likely to be using modern family planning at endline. MLE also found that for Senegalese men, exposure to religious leaders discussing family planning and a variety of other URHI program activities were associated with increased reported use.

These findings are being used to inform The Challenge Initiative in URHI project countries and beyond to other countries and urban areas. The findings are informative for other global initiatives, including FP2020 and the Sustainable Development Goals.
Percentage of Women Using Modern Contraceptive in Urban Uttar Pradesh, India, MLE

Based on four target cities: Agra, Aligarh, Allahabad, and Gorakhpur. Among women in union at baseline.
## Impact Evaluation Results of UHI Program on Modern Method Use in Six Cities in Uttar Pradesh, India

### Multivariate Fixed Effect Model

<table>
<thead>
<tr>
<th>Activity</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHI radio program</td>
<td>NS</td>
</tr>
<tr>
<td>UHI television program</td>
<td>NS</td>
</tr>
<tr>
<td>Mid-media activities (folk shows, magic shows, caravans, etc.) on FP</td>
<td>NS</td>
</tr>
<tr>
<td>Brochures on family planning</td>
<td>+++</td>
</tr>
<tr>
<td>Billboards on family planning</td>
<td>+</td>
</tr>
<tr>
<td>Community group activities on family planning</td>
<td>NS</td>
</tr>
<tr>
<td>Community health workers</td>
<td>(+)</td>
</tr>
<tr>
<td>UHI full implementation public facility</td>
<td>+</td>
</tr>
<tr>
<td>UHI partial implementation public facility</td>
<td>NS</td>
</tr>
<tr>
<td>UHI full implementation private facility</td>
<td>NS</td>
</tr>
<tr>
<td>UHI partial implementation private facility</td>
<td>(+)</td>
</tr>
<tr>
<td>General family planning messages on the radio</td>
<td>NS</td>
</tr>
<tr>
<td>General family planning messages on television</td>
<td>+++</td>
</tr>
</tbody>
</table>

Note, all models control for marital status, caste, age, education, religion, wealth group, and city; all models control for clustering.  
NS: not significant; +++ positive and $p \leq 0.001$; ++ positive and $p \leq 0.01$; + positive and $p \leq 0.05$; (+) positive and $p \leq 0.10$; --- negative and $p \leq 0.001$; -- negative and $p \leq 0.01$; - negative and $p \leq 0.05$; (-) negative and $p \leq 0.10$. 
Based on three target cities: Nairobi, Mombasa, and Kisumu.

**Impact Evaluation Results of Tupange Program on Modern Method Use in Five Cities in Kenya**

**Multivariate Fixed Effect Model**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jongo Love radio spot</td>
<td>++</td>
</tr>
<tr>
<td>CHW</td>
<td>+</td>
</tr>
<tr>
<td>Amua facility</td>
<td>(+)</td>
</tr>
<tr>
<td>Community event</td>
<td>NS</td>
</tr>
<tr>
<td>Tupange meeting</td>
<td>NS</td>
</tr>
<tr>
<td>Leaflet</td>
<td>NS</td>
</tr>
<tr>
<td>Poster</td>
<td>NS</td>
</tr>
<tr>
<td>Shujaaz comic book</td>
<td>NS</td>
</tr>
<tr>
<td>Tupange facility within 1.5 km</td>
<td>+</td>
</tr>
</tbody>
</table>

Note, all models control for marital status, caste, age, education, religion, wealth group, and city; all models control for clustering.

NS: not significant; +++ positive and p ≤ 0.001; ++ positive and p ≤ 0.01; + positive and p ≤ 0.05; (+) positive and p ≤ 0.10; --- negative and p ≤ 0.001; -- negative and p ≤ 0.01; - negative and p ≤ 0.05; (-) negative and p ≤ 0.10.
Based on four target cities: Abuja, Ibadan, Ilorin, and Kaduna.

Impact Evaluation Results of NURHI Program on Modern Method Use in Six Cities in Nigeria

Multivariate Fixed Effect Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURHI radio</td>
<td>+++</td>
</tr>
<tr>
<td>Heard FP messages on TV</td>
<td>+</td>
</tr>
<tr>
<td>NURHI outreach</td>
<td>++</td>
</tr>
<tr>
<td>NURHI provider badge</td>
<td>+</td>
</tr>
<tr>
<td>NURHI print media</td>
<td>NS</td>
</tr>
<tr>
<td>NURHI health facility within 1 km</td>
<td>(+)</td>
</tr>
<tr>
<td>IEC program at health facility</td>
<td>NS</td>
</tr>
<tr>
<td>Stockout(s) of modern FP method in the last 30 days</td>
<td>NS</td>
</tr>
</tbody>
</table>

Note, all models control for marital status, caste, age, education, religion, wealth group, and city; all models control for clustering

NS: not significant; +++ positive and p ≤ 0.001; ++ positive and p ≤ 0.01; + positive and p ≤ 0.05; (+) positive and p ≤ 0.10; --- negative and p ≤ 0.001; -- negative and p ≤ 0.01; - negative and p ≤ 0.05; (-) negative and p ≤ 0.10.
Based on four target cities: Dakar, Guédiawaye, Pikine, and Mbao.

**Impact Evaluation Results of ISSU Program on Modern Method Use in Six Cities in Senegal**

Multivariate Fixed Effect Model

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General radio exposure to FP/No ISSU radio</td>
<td>NS</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>ISSU radio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General television exposure to FP/No ISSU TV</td>
<td>NS</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>ISSU television</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspaper or magazine</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISSU community religious talks</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious leaders speak favorably about FP</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISSU community activities</td>
<td>+++</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMS messages</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISSU/Informed Push Model (IPM) facility</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note, all models control for marital status, caste, age, education, religion, wealth group, and city; all models control for clustering.

NS: not significant; +++ positive and $p \leq 0.001$; ++ positive and $p \leq 0.01$; + positive and $p \leq 0.05$; (+) positive and $p \leq 0.10$; --- negative and $p \leq 0.001$; -- negative and $p \leq 0.01$; - negative and $p \leq 0.05$; (-) negative and $p \leq 0.10$. 

**Percentage of Women Using Modern Contraceptive in Urban Senegal, MLE**

All Women | Lowest two wealth quintiles | Highest wealth quintiles
--- | --- | ---
16.0 22.6 | 15.9 24.5 | 16.7 19.0

July 2017
Project Outputs & Research

MLE collaborated with its extensive network to achieve the second and third objectives of the project. In order to build country and regional capacity to undertake rigorous monitoring and evaluation efforts, MLE hosted trainings to continue to build capacity among staff and regional partners. Sharing knowledge in a timely manner was an important priority for the MLE project. Team members published numerous papers, presented at conferences, and maintained Communities of Practice on regional and global levels. These efforts served to strengthen family planning interventions and understanding of monitoring and evaluation methods. Below, we list some of the project’s outputs in the form of publications and trainings.

Publications Using MLE Data

2012


2013


2014


2015


- Tumlinson K, Okigbo CC, Speizer I. *Provider barriers to family planning access in urban Kenya*. Contraception. 2015, 92:143-151.


2016

2017
• Schwandt HM, Speizer IS, and Corroon M. Contraceptive service provider imposed restrictions to contraceptive access in urban Nigeria. BMC Health Services Research. 2017. 17:268 doi: 10.1186/s12913-017-2233-0
MLE Publications Using Non-MLE Data

Country Reports

India
- Measurement, Learning & Evaluation of the Urban Health Initiative: Uttar Pradesh, India, Baseline Survey 2010

Kenya

Nigeria
Senegal

Executive Summary

Factsheets

India
- The Urban Health Initiative in Agra, India: Baseline Findings for Married Women
- The Urban Health Initiative in Aligarh, India: Baseline Findings for Married Women
- The Urban Health Initiative in Allahabad, India: Baseline Findings for Married Women
- The Urban Health Initiative in Gorakhpur, India: Baseline Findings for Married Women
- The Urban Health Initiative in Moradabad, India: Baseline Findings for Married Women
- The Urban Health Initiative in Varanasi, India: Baseline Findings for Married Women
- The Urban Health Initiative in India: Demand Generation - Focus on Women’s Exposure to Community Health Workers Between Baseline (2010) and Endline (2014) Longitudinal Surveys
- The Urban Health Initiative in India: Service Delivery - Focus on Family Planning Service Provision and Quality at UHI Facilities Between Baseline (2010) and Endline (2014) Longitudinal Surveys
Surveys

- The Urban Health Initiative in India: Improvements in Family Planning Use and Trends Between Baseline (2010) and Endline (2014)

Kenya

- Key Findings of the 2010 Tupange Baseline Household Survey
- Key Findings of the 2011 Tupange Baseline Service Delivery Survey
- Key Findings of the 2011 Tupange Baseline Surveys (May 2012) Kakamega
- Key Findings of the 2011 Tupange Baseline Surveys (May 2012) Kisumu
- Key Findings of the 2011 Tupange Baseline Surveys (May 2012) Machakos
- Key Findings of the 2011 Tupange Baseline Surveys (May 2012) Mombasa
- Key Findings of the 2011 Tupange Baseline Surveys (May 2012) Nairobi
- The Kenya Urban Reproductive Health Initiative (Tupange) Mid-term Findings for Kisumu
- The Kenya Urban Reproductive Health Initiative (Tupange) Mid-term Findings for Mombasa
- The Kenya Urban Reproductive Health Initiative (Tupange) Mid-term Findings for Nairobi
- The Kenya Urban Reproductive Health Initiative (Tupange) Endline Findings for Kakamega
- The Kenya Urban Reproductive Health Initiative (Tupange) Endline Findings for Kisumu
- The Kenya Urban Reproductive Health Initiative (Tupange) Endline Findings for Machakos
- The Kenya Urban Reproductive Health Initiative (Tupange) Endline Findings for Mombasa
- Fertility and family planning trends in urban Kenya: a research brief
- Trends in family planning service quality in Kisumu, Kenya: a research brief
Nigeria

• Baseline findings for the Nigerian Urban Reproductive Health Initiative: A Research Brief
• The Nigerian Urban Reproductive Health Initiative: Baseline Findings for Abuja
• The Nigerian Urban Reproductive Health Initiative: Baseline Findings for Benin City
• The Nigerian Urban Reproductive Health Initiative: Baseline Findings for Ibadan
• The Nigerian Urban Reproductive Health Initiative: Baseline Findings for Ilorin
• The Nigerian Urban Reproductive Health Initiative: Mid-term Findings for Kaduna
• The Nigerian Urban Reproductive Health Initiative: Mid-term Findings for Abuja
• The Nigerian Urban Reproductive Health Initiative: Mid-term Findings for Ibadan
• Mid-term findings for the Nigerian Urban Reproductive Health Initiative (NURHI): A Research Brief
• The Nigerian Urban Reproductive Health Initiative: Endline Findings for Abuja
• The Nigerian Urban Reproductive Health Initiative: Endline Findings for Ibadan
• The Nigerian Urban Reproductive Health Initiative: Endline Findings for Ilorin
• The Nigerian Urban Reproductive Health Initiative: Endline Findings for Kaduna
• The Nigerian Urban Reproductive Health Initiative: Endline Findings for Zaria
Senegal

- Méthodologie pour le Projet de Mesure, Apprentissage & Evaluation
- Principaux Résultats de l’Enquête de Base ISSU/MLE 2011 Auprès des Ménages
- Principaux Résultats de l’Enquête de Base ISSU/MLE 2011 Au Niveau Des Points de Prestation de Services
- The Senegal Urban Health Initiative (ISSU) Mid-term Findings for Guédiawaye
- The Senegal Urban Health Initiative (ISSU) Mid-term Findings for Mbao
- The Senegal Urban Health Initiative (ISSU) Mid-term Findings for Pikine
- Résultats de l’évaluation à mi-parcours de l’Initiative Sénégalaise de Santé Urbaine (ISSU) pour Guédiawaye
- Mid-term findings for the Senegal urban health initiative (ISSU): a research brief
- Résultats de l’évaluation à mi-parcours de l’Initiative Sénégalaise de Santé Urbaine (ISSU) pour Mbao
- Résultats de l’évaluation à mi-parcours de l’Initiative Sénégalaise de Santé Urbaine (ISSU) pour Pikine
- The Senegal Urban Health Initiative (ISSU) Endline Findings
- L’Initiative Sénégalaise de Santé Urbaine (ISSU) Résultats en fin d’étude pour Guédiawaye
- L’Initiative Sénégalaise de Santé Urbaine (ISSU) Résultats en fin d’étude pour Mbao
- L’Initiative Sénégalaise de Santé Urbaine (ISSU) Résultats en fin d’étude pour Mbou
- L’Initiative Sénégalaise de Santé Urbaine (ISSU) Résultats en fin d’étude pour Pikine
- L’Initiative Sénégalaise de Santé Urbaine (ISSU) Résultats en fin d’étude pour Kaolack
## Training Tools

<table>
<thead>
<tr>
<th>Title</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring Success Webinar and Online Discussion Forum</td>
<td><a href="http://knowledge-gateway.org/?g82vy1y5">http://knowledge-gateway.org/?g82vy1y5</a></td>
</tr>
<tr>
<td>Data Visualization Facilitation Package</td>
<td>TBD</td>
</tr>
</tbody>
</table>
## Connections: Data & Programs

<table>
<thead>
<tr>
<th>Story</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award-winning Jongo Love Engages Kenyan Youth Through Multiple Media Channels</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/award-winning-jongo-love-engages-youth-through-multiple-media-channels">https://www.urbanreproductivehealth.org/connections/award-winning-jongo-love-engages-youth-through-multiple-media-channels</a></td>
</tr>
<tr>
<td>Improving Service Delivery in Kenya From Top to Bottom</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/improving-service-delivery-kenya-top-bottom-0">https://www.urbanreproductivehealth.org/connections/improving-service-delivery-kenya-top-bottom-0</a></td>
</tr>
<tr>
<td>Community Theaters Spark Discussion on Family Planning in Senegal</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/community-theaters-spark-discussion-family-planning-senegal">https://www.urbanreproductivehealth.org/connections/community-theaters-spark-discussion-family-planning-senegal</a></td>
</tr>
<tr>
<td>The Nigerian Urban Reproductive Health Initiative Emphasizes Connection Between Family Planning and Quality of Life</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/nurhi-emphasizes-connection-between-family-planning-and-quality-life">https://www.urbanreproductivehealth.org/connections/nurhi-emphasizes-connection-between-family-planning-and-quality-life</a></td>
</tr>
<tr>
<td>Partner Communication Increases Modern Contraceptive Use in Urban Kenya</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/partner-communication-increases-modern-contraceptive-use-urban-kenya">https://www.urbanreproductivehealth.org/connections/partner-communication-increases-modern-contraceptive-use-urban-kenya</a></td>
</tr>
</tbody>
</table>

July 2017
<table>
<thead>
<tr>
<th>Story</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Integrated Services on Postpartum Family Planning Use in Urban Areas of Senegal</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/role-integrated-services-postpartum-family-planning-use-urban-areas-senegal">https://www.urbanreproductivehealth.org/connections/role-integrated-services-postpartum-family-planning-use-urban-areas-senegal</a></td>
</tr>
<tr>
<td>Distance Learning Program using Mobile Phones Reduces Provider Bias in Nigeria</td>
<td><a href="https://www.urbanreproductivehealth.org/connections/distance-learning-program-using-mobile-phones-reduces-provider-bias-nigeria">https://www.urbanreproductivehealth.org/connections/distance-learning-program-using-mobile-phones-reduces-provider-bias-nigeria</a></td>
</tr>
</tbody>
</table>
VIDEOS

- An Introduction to the MLE Project
- La Planification Familiale Urbaine: Des Vies Changent
- Innovations in Evaluation – A Brief Animation of the MLE Project
- Finding Impact: The MLE Project’s Role for the Urban Reproductive Health Initiative
- Comprendre L’impact: Le role du projet MLE pour L’initiative de Sante Urbaine
- Finding Impact: The MLE Project’s Role for the Urban Reproductive Health Initiative (short)
- The Key to Sustainable Development: Investing in Urban Reproductive Health
- The Key to Sustainable Development: Investing in Urban Reproductive Health (French Subtitles)
Lessons Learned

Longitudinal data is a powerful tool for impact analysis, but complicated to collect, especially in complex urban settings

Longitudinal data requires the alignment of design and procedures across multiple time periods and the ability to re-interview women at multiple time points. To accomplish this, dedicated resources are needed during the initial planning phase as well as for follow-up. For this project, the longitudinal design was executed in dynamic, chaotic, heterogeneous environments across the range of countries where URHI operated. In the URHI settings, people have high mobility and there are complex dynamics to an ever-evolving family planning supply environment with choices of where women can obtain services. This makes it challenging to define persons unexposed to program components; therefore, it makes having longitudinal data all the more important, permitting elimination of some of the selection effects in the modeling approach. For each context, we needed to develop a tracking system that was relevant for that setting and make it as feasible as possible to find and interview the largest set of women from baseline.

Global development is complex with a lot of players—open and collaborative engagement is important

MLE had a mandate to pursue a study design with the greatest degree of cross-country comparability. This meant coordination among a diverse series of stakeholders, including host country governments and URHI implementing programs. The project needed to coordinate communication, planning, execution, dissemination and learning amongst all the stakeholders. It is important to be cognizant of the varying contexts and understandings of the different stakeholders. Continuity and transparency were also important in terms of ensuring that the same MLE team members were communicating with field-based partners to build rapport and trust.

Have more than one evaluation tool

Events beyond the project’s control can impact the feasibility or credibility of results, instruments might not adequately capture the concepts you are trying to measure, and anticipated variation in impact might not emerge. Being prepared with multiple evaluation tools at the beginning of the study ensures a greater chance of measuring impact. For example, the MLE project used multiple methods to estimate impact in the demand phase of the project; however, as the study evolved, some of these did not work out, while others proved to be strong methods.
Monitor quality carefully
From the beginning, the MLE team recognized the possibility for quality concerns with these large household surveys. The team elaborated extensive quality control measures to avoid problems observed in other large-scale demographic surveys. To do this, MLE hired a separate team of quality assurance supervisors who proved crucial for identifying and solving problems such as cases of replacing households or women, households fabricated on listing forms, interviewers filling out questionnaires, and much more. Quality assurance supervisors also handled hard-to-find cases, coordinated work between tracking and data collection firms, and ensured all facilities were visited.

Make sure you have the right team
It was important for the MLE project to consider and anticipate staffing needs, especially during this complex project with numerous intervention, data collection, and government partners. The project required skills including sampling, statistical programming, data processing, GIS, data management, contracting, and of course, diplomacy. It was important to invest in team cohesion and create a solutions-oriented culture so that we could learn across the multiple countries and firms. Finally, it was important to value all of the critical technical perspectives from the team members (in the U.S. and in country) for key decisions.

GIS was a cornerstone of survey management
Slum and non-slum settings are confusing and challenging. Fortunately, GIS provided a way of organizing MLE’s work around the geography of study areas, turning what could be liabilities into assets. GIS also provided the framework for all stages of our work and allowed us to organize our analyses, particularly as they related to facility-level results.

Put in extra time for start-up activities
There are so many elaborate, moving parts to getting the project up and running: selecting local partners, negotiating contracts, operational agreements, creating comparable instruments across diverse settings, engaging multiple stakeholders, submitting IRBs, working with national statistical offices, etc. Notably, the intervention program will not get going as fast as you think or partners claim; adjustments will be required along the way, possibly even to your program design. This makes development of the baseline instruments difficult: Although it is important to measure all possible components at baseline, the program may not yet know the full extent of these components. This was a problem in some of the MLE study sites. Mid-term and endline surveys incorporated questions to address new program activities introduced over the life of the project.
Costing is difficult
If you want to do cost-effectiveness analysis of different program components, you need program costs measured at the same level. For example, if you want to evaluate the cost-effectiveness of a family planning advertisement campaign on TV for which you have estimated effectiveness, you need to be able to code costs in such a way as to isolate the true marginal costs associated with that television advertisement. The challenge is that often, program costing systems are designed to cost, at best, at the objective level. This is appropriate from the program's standpoint, but makes accurate costing for cost-effectiveness analysis hard to do and thus requires extensive negotiation and systems development to make lower-level cost data available.

Design and build good systems
In a large, multi-country survey agenda like the MLE project, there is a lot going on, with many people working on numerous files in an intense environment where deadlines are always looming. You need to have strong operational systems and procedures to avoid chaos. This is one area where MLE did not do as well in the beginning, resulting in a lot of frustration, confusion and deadweight time lost. Implementing a far simpler, more organized system resulted in more efficient teamwork. A major lesson is that a limited number of people need to serve as the stewards of critical files for systems purposes.

Capacity building
MLE's focus on building local monitoring and evaluation research capacity afforded many learning opportunities. Especially in the beginning of the project, it was important to focus these opportunities on high priority groups, such as research partners. These trainings and continued technical assistance connections encouraged higher research standards and produced richer data. Despite these efforts, there were still occasional struggles with output quality. For future projects, MLE would prioritize longer and more tailored trainings.

Importance of face-to-face interactions
Throughout the project, MLE staff members benefitted from time spent in the field working directly with project staff and country partners. MLE staff prioritized making "courtesy calls" to country partners in order to continue to develop strong working relationships. MLE reaped many benefits from hosting the URHI Annual Meetings. In-person discussions and cross-country brainstorming sessions strengthened each of the projects as well as partner rapport.
Building support through data dissemination
MLE was tasked with facilitating knowledge and learning by documenting and disseminating best practices. In order to encourage adoption of evidence-based practices at the local and country levels, MLE and its partners engaged in various dissemination activities throughout the project. It was important to broadly share results after each data collection round in order to facilitate project modifications and continue to build support for M&E activities. Implementing partners were important collaborators for data dissemination events, as they were able to share their experiences with the interventions that nicely complemented the data findings. These activities resulted in increased understanding of the importance of rigorous evaluation and contributed to the expansion of evidence-based family planning practices.
Future Directions

The conclusion of this phase of the MLE project is accompanied by continued opportunities for knowledge growth and informing programmatic strategies. The Bill & Melinda Gates Foundation has funded a second phase of MLE: the NURHI Sustainability Study. This new study will evaluate the sustainability of the Nigerian Urban Reproductive Health Initiative (NURHI) program both in terms of its implications for processes and outcomes. Survey data collected two years after cessation of NURHI Phase 1 activities will provide crucial information about what is both successful and unsuccessful over a longer horizon than is usually considered in FP impact evaluations. It will inform the design of FP programs that yield sustained change while maximizing donor support.

Upon the conclusion of formal activities, BMGF launched NURHI Phase 2 and The Challenge Initiative (TCI) with the goal of scaling up tools and approaches developed under URHI and evaluated by MLE. NURHI Phase 2 will continue activities in Kaduna city and Kaduna state, Ibadan city and its corresponding state (Oyo) and introduce NURHI program approaches to Lagos. TCI will work with self-selected participating municipalities to implement URHI impactful strategies through the selection of evidence-based FP interventions. TCI is targeting activities to Uttar Pradesh, India, the Ouagadougou partnership francophone African countries, East Africa (Kenya, Tanzania, and Uganda) and additional sites in Nigeria.

In Nigeria, the NURHI Sustainability Study is taking advantage of a natural experiment where program activities continued in Kaduna under NURHI Phase 2 but were stopped in Ilorin, a Phase 1 city. The NURHI Sustainability Study will collect data from households, women, and facilities in Kaduna and Ilorin as well as in a third site – Plateau state and its capital, Jos – where NURHI programming never took place. The study will compare the varying scenarios two years after the NURHI Phase 1 activities were completed. The NURHI Sustainability Study will provide additional evidence as to the impact of this continued funding, which will allow TCI/NURHI 2 and BMGF to further refine their implementing strategies for scale-up in Nigeria and other settings.
**Measurement, Learning & Evaluation Partners**

- Carolina Population Center (CPC)
- International Center for Research on Women (ICRW)
- Johns Hopkins Center for Communication Programs
- IntraHealth International
- African Population Health and Research Center (APHRC) and Population Reference Bureau (PRB) were initial partners.

**Data Collection Partners**

**India**
- Nielsen Limited (India), Ltd.
- Fact Indepth

**Kenya**
- Kenya National Bureau of Statistics
- Kenya Medical Research Institute – Research, Care and Training Program
- African Institute for Health and Development

**Nigeria**
- Nigeria Population Commission
- Data Research and Mapping Consult, Ltd.

**Senegal**
- Centre de Recherche pour le Développement Humain
- l’Agence pour la Promotion des Activités de Population-Sénégal (APAPS)
- Global Research and Advocacy Group (GRAG)

**Implementation Prime Partners**

- Johns Hopkins University Center for Communications Programs
- FHI 360
- Jhpiego
- IntraHealth International