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Impact evaluation of the Urban Health Initiative in urban Uttar Pradesh, India

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Abstract

Objectives: The Urban Health Initiative (UHI) was initiated in 2009 with the goal of increasing family planning (FP) use among the poor in urban areas of Uttar Pradesh, India. The Measurement, Learning & Evaluation project (MLE) was tasked with rigorous impact evaluation of the UHI. This paper presents the impact evaluation findings of the UHI program.
Study design: The MLE design includes a longitudinal sample of women and health facilities with baseline (2010) and endline (2014) data collection in six cities in Uttar Pradesh, India. At baseline, samples representative of women in each city were selected with oversampling of the poor. Eighty-four percent of women interviewed at baseline were reinterviewed 4 years later at endline. The longitudinal data support a within/fixed-effects approach to identification of program impact on changes in modern FP use.
Results: Impact evaluation results show significant effects of exposure to both demand and supply side program activities. In particular, women exposed to brochures (marginal effect: 6.96, $p<.001$), billboards/posters/wall hangings (marginal effect: 2.09, $p<.05$), and FP on the television (marginal effect: 2.46, $p<.001$) were significantly more likely to be using a modern method at endline. In addition, we found borderline significance for being exposed to a community health worker (marginal effect: 1.66, $p<.10$) and living close to an improved public and private supply environment where UHI undertook activities (marginal effects and p values: 2.48, $p<.05$ and 1.56, $p<.10$, respectively).
Conclusions: UHI program activities were designed to complement the Government of India's strategies aimed at ensuring access to and provision of FP to urban poor populations. The effective demand- and supply-side strategies of the UHI program are therefore likely to be sustainable and scalable to other urban areas in India.
Implications statement: Findings from this study are important for designing sustainable and scalable FP strategies for urban India where increases in FP use will be relevant for meeting international FP targets.

Keywords: Family planning; Impact evaluation; Urban; India; Longitudinal

1. Introduction

The 2012 London Summit on Family Planning encouraged world leaders to make financial and political commitments to improve access to and use of family planning (FP). The Summit sparked a global FP agenda to achieve 120 million new users of modern contraception by 2020 (termed "120 by 20") [1]. Following the Summit, the Government of India (GoI) pledged to commit over US$2 billion to provide FP services to 48 million new users. This constitutes 40% of the overall FP2020 target [2]. This increase in new users would raise the India national modern contraceptive prevalence rate (mCPR) from an estimated 48.1% in 2012 to 63.7% in 2020 [2].

Nearly twelve and a half million of the new Indian users are expected to come from the state of Uttar Pradesh (UP) [2]. With a population of nearly 200 million, UP is the most populous state in India and has some of the lowest levels of modern contraceptive use. Historically, there have been

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extensive efforts in UP to reduce population growth and increase FP use. For over two decades (1992–2012), the Innovations in Family Planning Services (IFPS) project, supported by GoI and the United States Agency for International Development, undertook interventions in UP and two other states with a focus on public-private partnership models such as voucher schemes, working with community health workers, mobile health clinics and quality assurance activities [3]. IFPS was designed to complement and support the National Rural Health Mission (NRHM) launch and rollout; the NRHM is a national initiative to address health issues in rural India which was launched in 2005 [3]. Despite the far-reaching contributions of IFPS, the program was not rigorously evaluated, and therefore, conclusions cannot be made regarding its success in influencing increasing FP use over the period. At this juncture, to attain the proposed increase in new users, the GoI and the Government of Uttar Pradesh (GoUP) need to pursue scale-up of proven strategies. The Urban Health Initiative (UHI) that took place between 2009 and 2015 in urban UP provides a wealth of new information on effective implementation strategies that can inform the GoI and GoUP approaches.

This paper presents recent evidence from the rigorous impact evaluation of the UHI. It is divided into the following sections: Section 2 presents the UHI program objectives and key activities. Section 3 presents the evaluation data and methods, and Section 4 presents the results. The last section discusses the results and provides programmatic recommendations for the GoI and other stakeholders seeking to increase mCPR in settings like urban India.

2. Urban Health Initiative

The UHI, funded by the Bill & Melinda Gates Foundation (BMGF) and launched in 2009 by a consortium of partners led by FHI360, implemented FP programs in urban areas of UP, India. UHI was designed to complement and support national and state urban health strategies. UHI's goals were to increase mCPR, reduce maternal and infant mortality and use evidence-based strategies aligned with GoI programs to ensure sustainability. UHI objectives were to (a) improve the quality of FP services in high-volume facilities, (b) develop cost-effective interventions to integrate FP with postpartum and postabortion services, (c) test innovative private-sector approaches to increase access to and use of FP by the urban poor, (d) develop interventions to sustain demand for quality contraceptive services and supplies and (e) advocate for funding and a supportive policy environment for FP supplies and services. The main activities of UHI included provision of postpartum and postabortion FP, training providers to improve technical competence and client–provider interactions, expanding the role of the private sector in FP service provision, using community health workers (CHWs) for outreach efforts, and using mid- and mass-media to promote demand for FP services. A key UHI strategy was to task CHWs with visiting every home in slums of target cities to offer information about FP methods; counsel on postpartum FP; accompany women to a health facility; refer women to a health facility or fixed service days; and, if requested, provide short-term methods (pills and condoms).

3. Data and methods

The Measurement, Learning & Evaluation (MLE) project, also funded by BMGF, is led by the Carolina Population Center at the University of North Carolina at Chapel Hill. The MLE project was tasked with developing a rigorous evaluation of the UHI; longitudinal data were collected from women and facilities in six cities in UP. Data presented here come from MLE's baseline (2010) and follow-up survey 4 years later in 2014 (termed *endline*) [4]. Between January and August, 2010 representative samples of women in each of six cities (Agra, Aligarh, Allahabad, Gorakhpur, Moradabad and Varanasi) in UP were approached for baseline data collection. A two-stage sampling design was used. In the first stage, random, equal-sized samples of primary sampling units (PSUs) were selected from slum and nonslum areas, permitting oversampling of the poor [5]. All women aged 15–49 and currently married who had spent the previous night in selected households were eligible for baseline interview. At the 2014 endline follow-up, all usual residents interviewed at baseline were eligible for interview. At endline, extensive tracking procedures were used to find women interviewed at baseline in their baseline location or in the location they moved to, assuming it was within one of the six study cities. Overall, we had a final endline reinterview rate of 84%. All study procedures were approved by the Institutional Review Board (IRB) at the University of North Carolina at Chapel Hill, the IRB at the International Center for Research on Women and MAMTA-Health Institute for Mother and Child in India IRB committee.

The dependent variable for this analysis is current modern contraception use. Women who report that they or their husband is using female or male sterilization, an intrauterine device, injection, oral contraceptive pills, female or male condom, lactational amenorrhea, implants, emergency contraception, dermal patch, diaphragm, Standard Days Method or spermicide are considered modern method users. Modern method users are coded 1; traditional method users and nonusers are coded 0.

A number of key program exposure variables are considered in this analysis. All women were asked about exposure to UHI radio and television messages which promoted use of modern FP methods. The UHI program aired three spots on the radio and three similar spots on the television; each woman was asked if she was familiar with each of these spots. At endline, women who reported hearing or seeing any of the spots are coded 1 for the UHI radio or UHI television variables, respectively, and 0 otherwise. All