CM4FP
STUDY
METHODOLOGY

OVERVIEW

The Consumer's Market for Family Planning (CM4FP) project is a multi-round longitudinal family planning (FP) outlet census with an accompanying repeated cross-sectional household survey. The study aims to test the feasibility and utility of a range of novel and modified approaches to understanding the supply and the demand side of the FP market in three countries: Nigeria, Uganda, and Kenya. This study design allowed for directly linking FP users to the outlets where they obtained their most recent FP method. The study also aimed to represent the supply environments to which the sampled consumers had access. CM4FP collected data on a quarterly basis from four sites in each country, between 2019 and 2020. The study primarily focused on urban areas, to better understand the FP market, particularly the private sector, in these zones.

In each site, CM4FP delineated an "outer ring," consisting of contiguous administrative wards or parishes to measure the FP supply-side "total market." CM4FP's supply-side dataset includes outlet and provider characteristics, data on out-of-stock products, FP service provision, and an audit of FP product data collected from all FP outlets in each study geography, including brand, price, and current and past stock. A smaller designated household survey area, the "inner ring," was then purposefully selected to sit at the geographic center of the outer ring to facilitate direct matching of current FP users with the outlets surrounding them from the "outer ring" census. CM4FP data are not designed to be representative beyond the study sites.

The CM4FP outlet survey builds on the FPwatch study design of conducting an FP outlet census by enumerating, mapping, and surveying all outlets (of all sectors and levels) that offered FP methods and/ or services of all types (but excluding those that offer only male condoms). CM4FP FP outlets included hospitals, medical centers, clinics, health centers, pharmacies, and drug shops.

The accompanying cross-sectional household surveys include data on a large proportion of women (FP users and non-users) who lived in the "inner ring" and was designed to capture demand-side data and perceptions of the local FP environment from the female respondents' perspectives, that can be directly linked to the local FP supply environment. FP data in the household survey included information on women's FP use history, experiences with and perceptions of accessing FP services and products from local outlets, reported drivers of outlet choice, experience with stock-outs, and level of knowledge of the supply market.

OUTLET–TO– RESPONDENT LINKING

The CM4FP household survey was designed to directly link contraceptive users in the interview to the source where they obtained their FP product or service. Linking was attempted by asking women surveyed in the "inner ring" information about the outlet (i.e., outlet names, location information, and personnel names) and matching it with the data collected in the outlet census, using searchable electronic databases in the open data kit-based SurveyCTO software. Among household survey respondents, outlet matches were attempted only for those who were using or had recently used an FP method and had obtained the method in the past 12 months.

GEOGRAPHIC DATA

The study collected GPS coordinates for all outlets and households included in the study. To protect the anonymity of household respondents, all geographic information below county, state, or district level has been removed from the data. In its place, CM4FP provides distance (Euclidean and least-cost route) and travel time matrices between all households and their surrounding outlets. More information about the methodology used and data available may be found in the accompanying documentation *Managing Disclosure Risk in CM4FP Spatial Data Using Derived Physical Access Metrics.*

LIMITATIONS

The urban focus of the study means that conclusions about the supply and demand-side FP market interactions cannot be generalized to rural contexts, although the study does include one rural site, in Soroti district, Uganda. Likewise, the aim of focusing on representing the supply environment as experienced by consumers limits the extent to which the results can be said to represent wider geographical areas.

For consumer-to-outlet matching, strict eligibility criteria were used, substantially reducing the number of household survey participants available for matching. This resulted in small Ns for some rounds and sites, limiting the potential for complex analysis.

Matching consumers with outlets also created challenges in terms of making geo-coordinates available. Outlet geospatial data would generally be considered public and therefore non-sensitive, however, the risk of household identification is increased once they are linked to outlets, meaning that anonymization of both household and outlet data is necessary for all CM4FP public datasets.

Outlet censuses, in which audits of all FP products in multiple sub-outlets are collected can be complex. Fieldworker training on FP product types and brands needed to be comprehensive, electronic data collection tools can be intricate to program, and in the case of CM4FP also required sophisticated search and look-up capabilities, including using photos of outlets for matching. These tools resulted in datasets that have a complex structure. Current and future data users should review relevant documentation before starting analysis.