

Solving the Data Mystery of Varying Modern Contraceptive Use Findings in Bauchi and Sokoto States

Abstract

Bauchi and Sokoto States were selected by USAID Nigeria in 2009 under the focus states strategy for significant improvements to governance, basic education, and health of women and children. As part of its health activities, efforts to increase access to family planning services for women who desire to space and limit births have been implemented. Despite substantial funding and targeted interventions, the Nigerian Demographic and Health Surveys in 2008 and 2013 reported similarly low modern contraceptive prevalence rates. Commodity data indicate a different story: in between 2009-2014, the number of facilities providing commodity data increased nearly 2-3 fold and the average facility-level CYP increased 3-5 times. The purpose of this study is to continue to explore all data available on contraceptive use in Bauchi and Sokoto State in an effort to explain the inconsistency of findings between different sources at the household/individual and facility levels.

Introduction

Bauchi and Sokoto States were selected by USAID Nigeria in 2009 under the focus states strategy for significant improvements to governance, basic education, and health of women and children. As part of its health activities, efforts to increase access to family planning services for women who desire to space and limit births have been implemented. Despite substantial funding and targeted interventions, the Nigerian Demographic and Health Surveys in 2008 and 2013 reported similarly low modern contraceptive prevalence rates. These stagnant findings were unexpected given the inputs into these two states in the area of contraception. The inputs include increasing the number of contraceptive service delivery points – especially in the rural areas and task shifting: obtaining approval to and training lower tier providers, community health extension workers (CHEW), in implant insertion. The purpose of this study is to explore all data available on contraceptive use in Bauchi and Sokoto State, facility-level consumption data, commodity resupply data, and household surveys, in an effort to explain the inconsistency of findings at the household and facility levels.

Methods

Multiple sources of data are included in this analysis. Household survey data, in particular, the 2008 and 2013 Nigeria Demographic and Health Surveys, are included to assess contraceptive use at the household level. Additionally, contraceptive commodity data is included to assess the amount of contraceptive consumption at the contraceptive facility level. These data are from the JSI/DELIVER project, which was contracted by USAID to support contraceptive commodity supply to public sector facilities in Bauchi and Sokoto States. Data from the Society of Family Health will also be included to assess contraceptive commodity supply to the private sector in these two states.

Finally, project data from the Targeted States High Impact Program (TSHIP) will be included to match the facilities partnered with the project with the commodity data, identify the facilities with TSHIP trained providers, and the overall effect of the project in increasing modern contraceptive use.

Results

Nigeria Demographic and Health Survey Findings

There was almost no change in reported contraceptive prevalence rates in these two states comparing 2008 and 2013 data. The modern contraceptive prevalence rate among currently married women in Bauchi in 2013 was 2.1% while it was 2.0% in 2008. In Sokoto, the modern contraceptive prevalence rate among currently married women in 2013 was 0.7% and it was 1.9% in 2008.

JSI/DELIVER Commodity Data

The DELIVER project began work with contraceptive service delivery points in Bauchi in January of 2009, in tandem with the start-up of TSHIP project activities in that state. The interventions in Sokoto State started a bit later, in May of 2010. At this time data are still being collected. The most current data available for this analysis is June 2014.

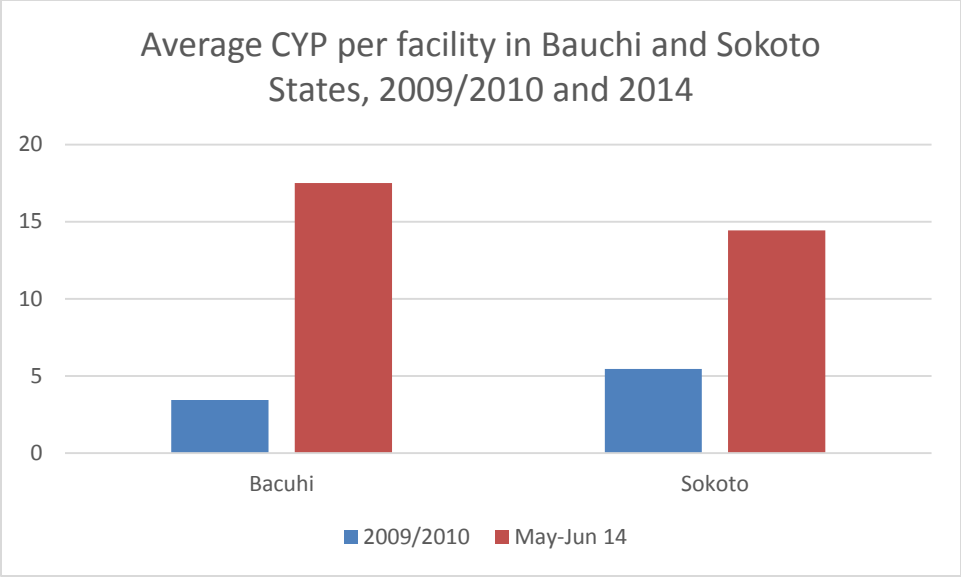
Number of Facilities

The number of facilities providing commodity data via this project in Sokoto from May of 2010 to June of 2014 increased by 175% – from 117 to 201. In Bauchi, the project began earlier, in January of 2009, and the number of facilities reporting to DELIVER nearly tripled between the start of the project until June of 2014 – from 84 facilities to 243. An increase in the number of facilities participating in the program is expected to increase over time as the projects have time to develop and grow their interventions. It is imperative that the analyses of these data include that information to avoid attributing an increase in commodity to an increase in consumption when it is actually due to an increase in the number of facilities reporting data instead.

CYPs in Commodities

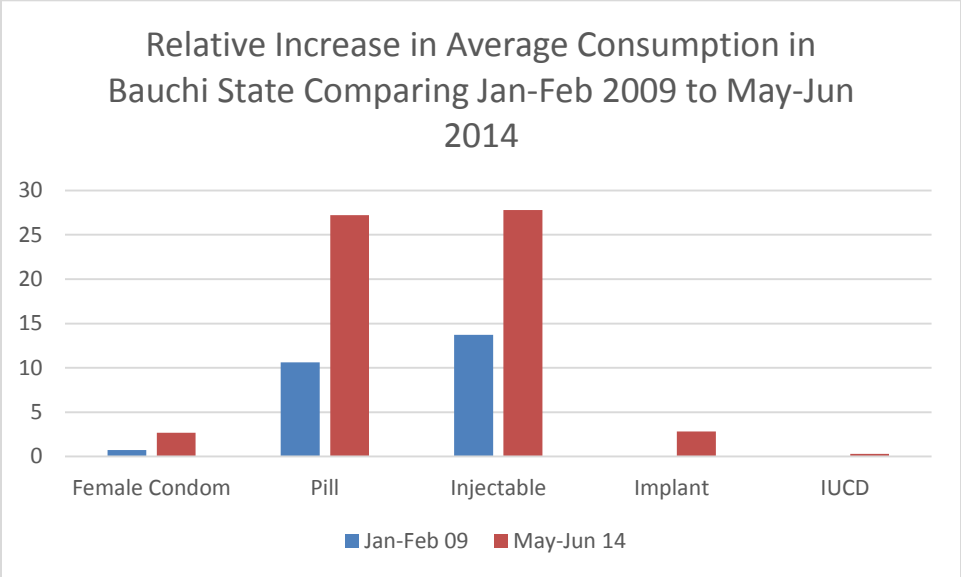
We used the Couple Year Protection multipliers for each method to create a summary comparison score between time points for the two states. In Sokoto, the total CYP in May/June 2010 was 638. In May/June 2014 it was 2901. Taking into consideration the number of facilities reporting, the average CYP in May/June 2010 was 5.5 and the average increased to 14.4 in May/June 2014.

In Bauchi the CYP in Jan/Feb 2009 was 288 and 4251 in May/June 2014. The facility average CYP for these two time periods in Bauchi was 3.4 and 17.5, respectively.

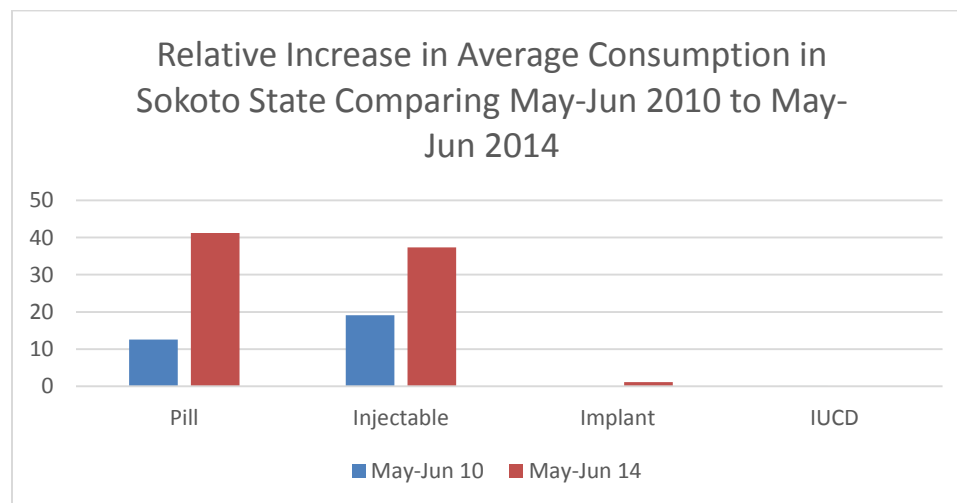


Method Consumption using Commodity Data

In Bauchi, average consumption of all method types increased between the Jan/Feb 2009 and the May/June 2014 time periods. The most dramatic increases were in pill and injectable method consumption. Among injectables, the increase in consumption of Depo-provera exceeded that of Noristerat. The increase in IUD use is small on the scale but significant in relative terms. Male and female condom use increased, most dramatically among male condoms (data not shown due to larger scale of male condom use compared to the other methods).



In Sokoto, average consumption of all method types, except IUD, increased between the May/June 2010 and the May/June 2014 time periods. The most dramatic increases in consumption were pill and injectable methods. Among injectables, as in Bauchi State, the increase in consumption of Depo-provera exceeded that of Noristerat. Male condom use increased most dramatically out of all methods (data not shown due to larger scale of use compared to all other methods). There was no female condom consumption in Sokoto State at either data points.



In both Bauchi and Sokoto, implants were not offered at the time of the 2009/2010 data collection period. Implants were available in both states in the facilities included at the most recent data collection period. These data indicate that implants were not only available, but desired, by some of the family planning clinics accessing contraceptives from the facilities included.

Discussion

In analyzing the data from the Nigerian Demographic and Health Surveys in 2009 and 2013 it appears that contraceptive use in both Bauchi and Sokoto States has been stagnant through these two time periods – despite extensive, targeted, investments from the US Government and other donors.

In contrast, when compiling the facility commodity data from the DELIVER project during this same time period, there appears, however modest, to be an increase in contraceptive use. The increase in contraceptive use is across all methods in Bauchi, and all methods except female condoms and IUDs in Sokoto. The increase in male condom, pill, and injectable use is the most striking – while the increase in implant use, from zero, is quite significant as well.

What explains the discrepancy in the reports of contraceptive use when examining the two different types of data? The discrepancy could be explained by a number of factors: clandestine use that is not reported in household surveys, fabrication of commodity data by facilities - particularly if they are motivated to receive a travel stipend awarded only to facilities reporting they need additional commodities, poor record keeping and/or poor storage conditions leading to high amounts of wastage, or a mismatch in contraceptive use in the local government areas (LGAs) selected for household survey inclusion and those LGAs with high performing contraceptive service delivery points.

At this juncture we are still asking questions – and looking for more potential explanations of this data mystery. We suspect that clandestine use is a likely explanation while fabrication of commodity needs and high amounts of commodity wastage unlikely explanations. It is possible that the DHS sample of LGAs included in the household surveys impacted the accuracy of contraceptive use measurement – but given the fact that individuals are not restricted to LGAs when accessing contraceptives, this also seems to be an unlikely explanation.

With continued data analysis and data collection, as described in more detail below, we are hopeful that we will have a better handle on this data puzzle, as well as some possible explanations, before the close of 2014.

Planned Future Analyses

There are a number of data collection and analysis activities that will be conducted over the next three months to support the current analysis – as well as to extend the analysis into other areas to attempt to detangle the contraceptive use puzzle in Bauchi and Sokoto States.

All DELIVER commodity data available will be analyzed and compared – not just the data at the beginning and the end of the data collection period.

Household surveys, in addition to the Demographic and Health Surveys, will be analyzed. The surveys that will be analyzed include: MICS, NHARS Plus, and MDG. In addition, TSHIP carried out multiple household surveys in these two states and those survey data will also be included in the analysis plan.

Service statistics from TSHIP and through the HMIS system for facilities in Bauchi and Sokoto States will be analyzed for accuracy, consistency, and compared with the commodity data.

Top performing facilities identified in the quantitative analysis portion of this study will be visited in the two states. During the visits, the investigators will complete observation checklists, in-depth interviews with facility supervisors and staff, and in-depth interviews with clients. The investigators will also examine the contraceptive stock available, as well as the data collected to monitor the contraceptive use and stock levels.

These various data pieces will all be used to discern potential explanations for the mismatch between data collected at the household level by various surveys and the contraceptive service/commodity data.

By using these various data sources we hope to disentangle the contraceptive use in Bauchi and Sokoto States data mystery.

Disclaimer

This abstract is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the author and do not necessarily reflect the views of USAID, the United States Government, or Johns Hopkins University.