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



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# Introduction

According to both the 2008 and 2013 Nigerian Demographic and Health Surveys the modern contraceptive rate in Bauchi and Sokoto States remained steady at 2%. These stagnant findings were unexpected given the inputs into these two states in the area of family planning, including: increasing the number of service delivery points, training, and task shifting. The purpose of this study is to analyze facility-level consumption data, commodity resupply data, and household survey data in an effort to explain the inconsistency of findings at the household and facility levels in modern contraceptive use in Bauchi and Sokoto States.

# Methods

Multiple sources of data are included in this analysis: household surveys (2008-2014), facility level (public and private) service statistics (2009-2014), and commodity supply data (2009-2014). In this study contraceptive methods are categorized by commodity, the following methods make up the commodity contraception category: IUD, implant, injectable, pill, female condom, and male condom.

# Results

#### **Household Survey Findings**

The modern contraceptive prevalence is reported as between 2% and 3% for most household surveys in Bauchi from 2008 to 2014, between 0.6 and 2% for Sokoto. For most household surveys, the contraceptive prevalence rate reported in Bauchi exceeds that of Sokoto.

#### **Household Survey Findings Comparison**

Modern CPR	Bauchi	Sokoto
NDHS 2008	1.93	1.90
MICS 2011	2.30	1.40
NARHS 2012	3.14	1.85
LQAS 2012	6.80	6.90
NDHS 2013	1.94	0.60
SMART 2014	8.00	0.70
<b>Commodity CPR</b>		
NDHS 2008	1.63	0.74
NARHS 2012	3.14	1.85
NDHS 2013	1.88	0.49

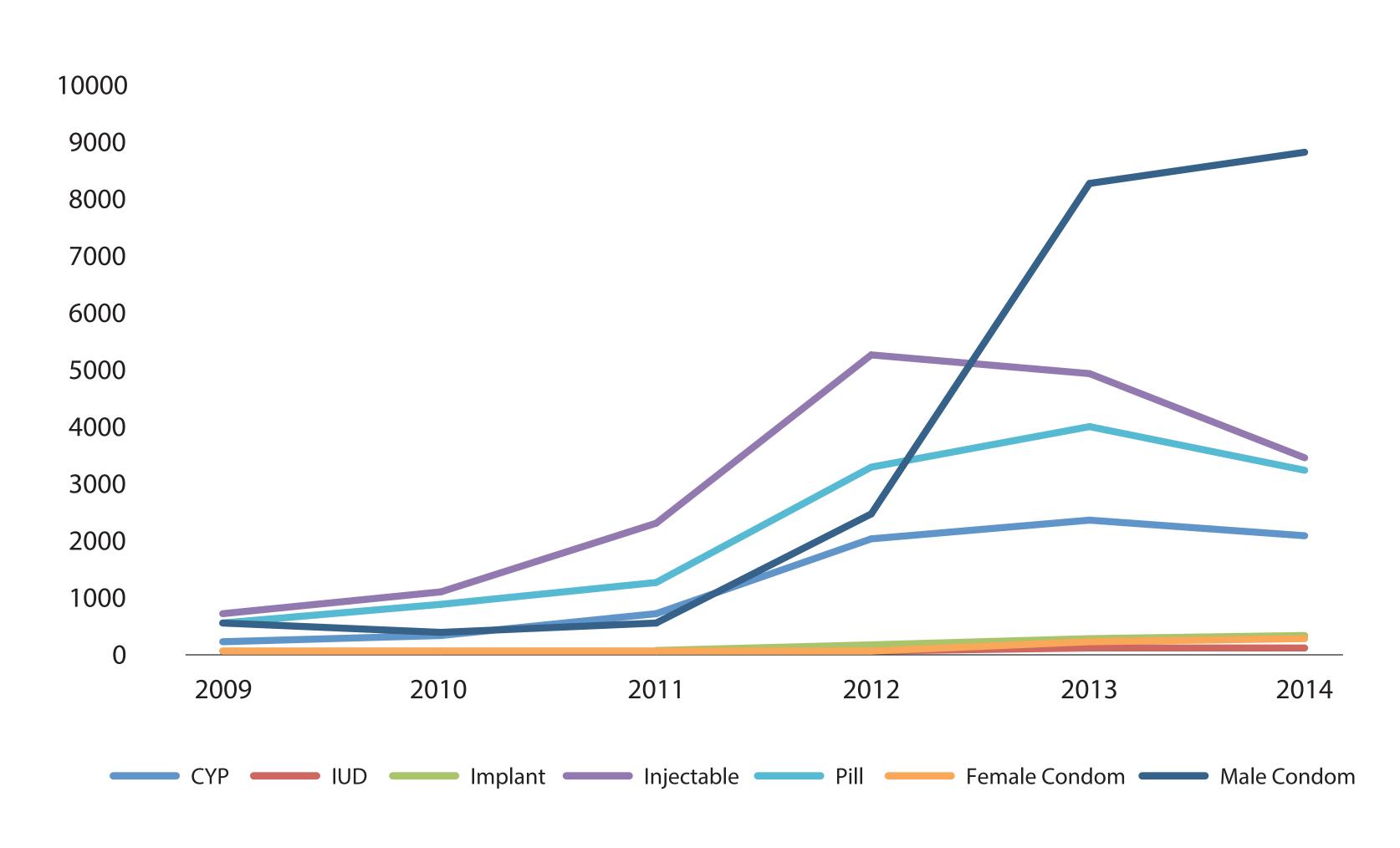
#### Increase in the Number of Facilities

The increase in the number of public facilities in Bauchi reporting commodity needs from 2009 to 2011-2014 ranges from 131% to 339%. In Sokoto, the increase in number of facilities in the data set increases over 5.5 times from 2011 to 2012-2014.

#### **Facility-Level Data**

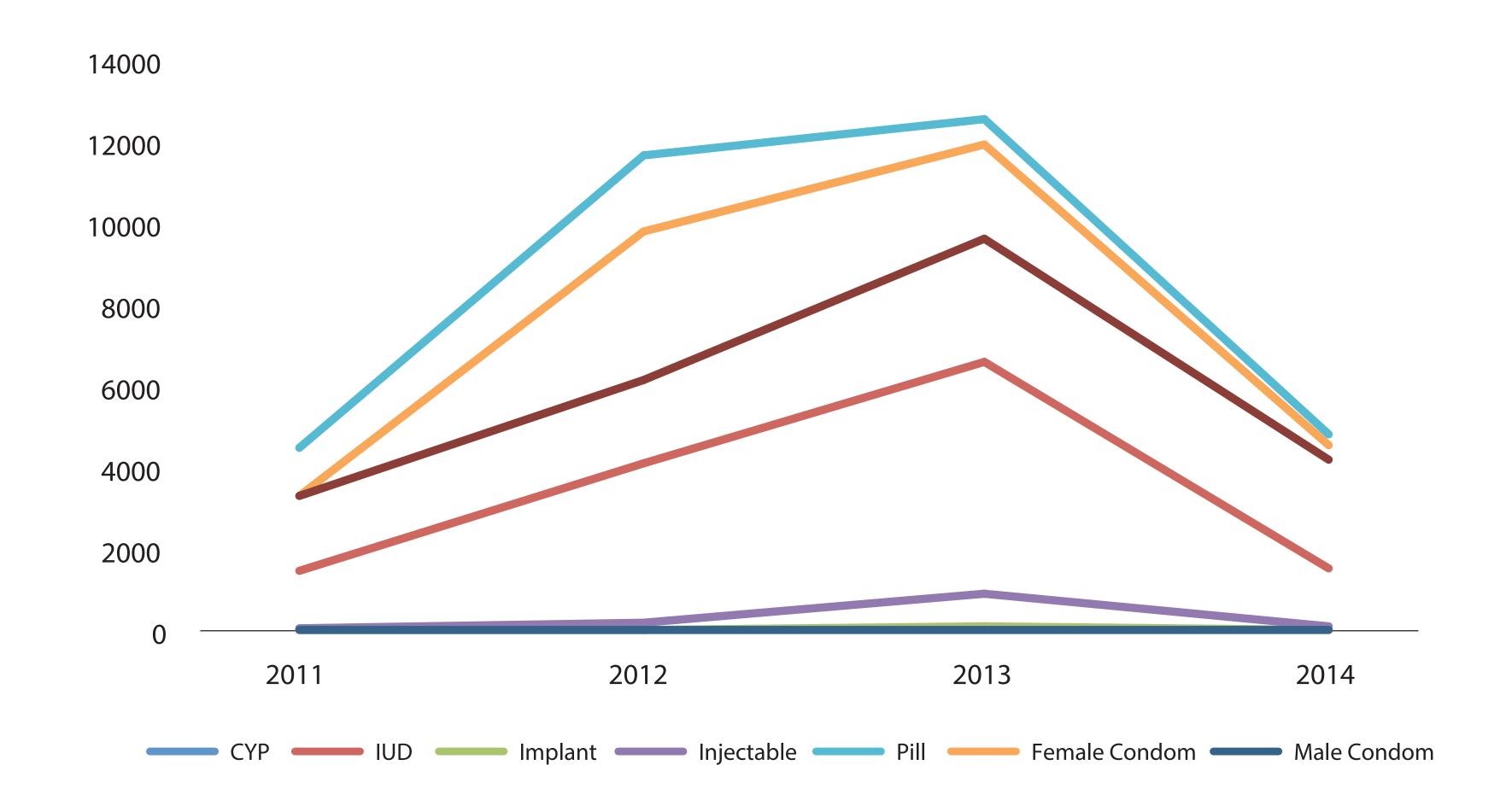
Based upon the Bauchi public facilities data from 2009 to 2014 it is apparent that there have been increases in use in all contraceptive methods. Overall, the calculated couple year protection (CYP) for the state increased most dramatically between 2012 and 2013.

#### Bauchi Average Method Use, Deliever Data 2009-2014



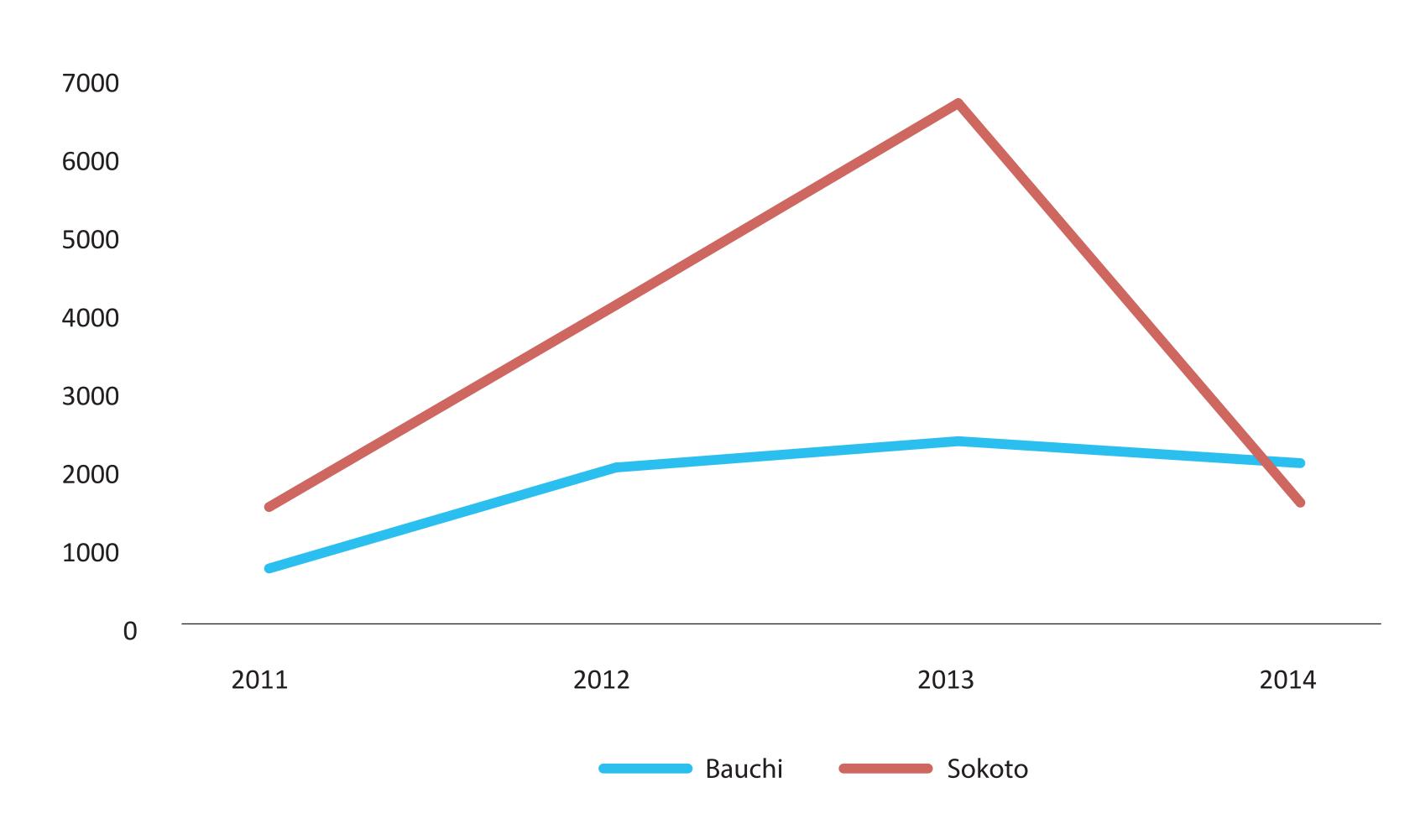
In Sokoto use of all methods, especially injectable and pill, increased significantly between 2011 and 2012. The trend continued, albeit a bit slower for injectables and pills in between 2012 and 2013. Consumption of all methods peaked in 2013 and fell dramatically in 2014 – partially due to an addition to the commodity supply and reporting systems.

# Sokoto Average Method Use, Deliver Data 2011-2014



The total average use for every method, except female condoms, is higher in Sokoto than in Bauchi from 2009 to 2014, most strikingly for injectables and pills.

#### Sokoto Average Method Use, Deliver Data 2011-2014



It is clear from the composite data that use of family planning methods requiring commodities in public facilities in Bauchi and Sokoto increased from the time period of 2011 to 2013. It is also likely that the population of women of reproductive age (WRA) (15-49 years old) increased in these states in this time period as well. To assess whether the apparent increase in commodity contraceptive use increased in tandem, or excess, of the population increase; the public facilities service statistics were compared to the population projections in Sokoto. The Sokoto population increase is 0.17 between 2008 and 2013. The percent increase in commodity method usage is 2.4. In sum, the increase in contraceptive commodity use in Sokoto is not simply a result of an increase in the population of WRA – it surpasses the increase that would have been necessary to keep up with the population increase for consistent use. The estimated contraceptive prevalence rate for 2013 in Sokoto State using public facility data is estimated at 6.92%, which is higher than the estimate from the Nigerian 2013 DHS of 0.5%.

# Sokoto Population of Women of Reproductive Age

	2008	2013	<b>Absolute Increase</b>	<b>Percent Increase</b>
Central	270,946	313,470	45,525	0.16
Southern	336,207	392,239	56,032	0.17
Eastern	248,504	44,857	44,857	0.18
Total	855,657	143,415	143,415	0.17

#### **Commodity Method Use**

	2011	2013	Absolute Increase	Percent Increas
Central	8767	19,775	11,007	1.26
Southern	8269	38,377	30,108	3.64
Eastern	3484	10,991	7,507	2.15
Total	20521	69,143	48,622	2.37
<b>Commodity CPR</b>	2.19*	6.92		

\*Using the population estimate for 2011, not 2008, of 938,748

### Discussion

In sum, based on the reports, data available, and data analyses, it is likely that use of modern commodity contraceptives has increased in Sokoto – unlike what has been reported in the household surveys. The quality of the facility level data available, as well as the number of assumptions necessary to make these comparisons, make this a tentative conclusion – not a firm one.