Scaling Up Intermittent Preventive Treatment of Malaria Among Pregnant Women (IPTp) in Three Local Government Areas in Sokoto State: Results and Lessons Learned

Malaria in Pregnancy Project

Final Dissemination Meeting
8th December, 2015

Sokoto

Study Objectives

- Is it possible to substantially increase SP coverage using a community-based primary health care system with “last mile” structures in place?
- Will communities accept SP and regularly demand it?
- What do we need to learn and document about scaling up SP coverage in Sokoto and in Nigeria?
- Test and document the association of increased SP3 coverage with improved intrauterine conditions for baby measured by:
  - ✓ Increased average head circumference
  - ✓ Decline in still birth rates

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Why Nigeria should be concerned

Data Element *(NDHS 2013)*	National	North West Zone	Sokoto State
Neonatal Mortality (Deaths per 1,000 live births)	37	44	44
LLIN Utilization (% of pregnant women who slept under LLIN the night before the survey)	16	16	9
% SP1 coverage	23	25	7
% SP2 coverage	15	17	5
% SP3 coverage	6	5	1

A Profile of the Intervention and Counterfactual (Control) LGAs

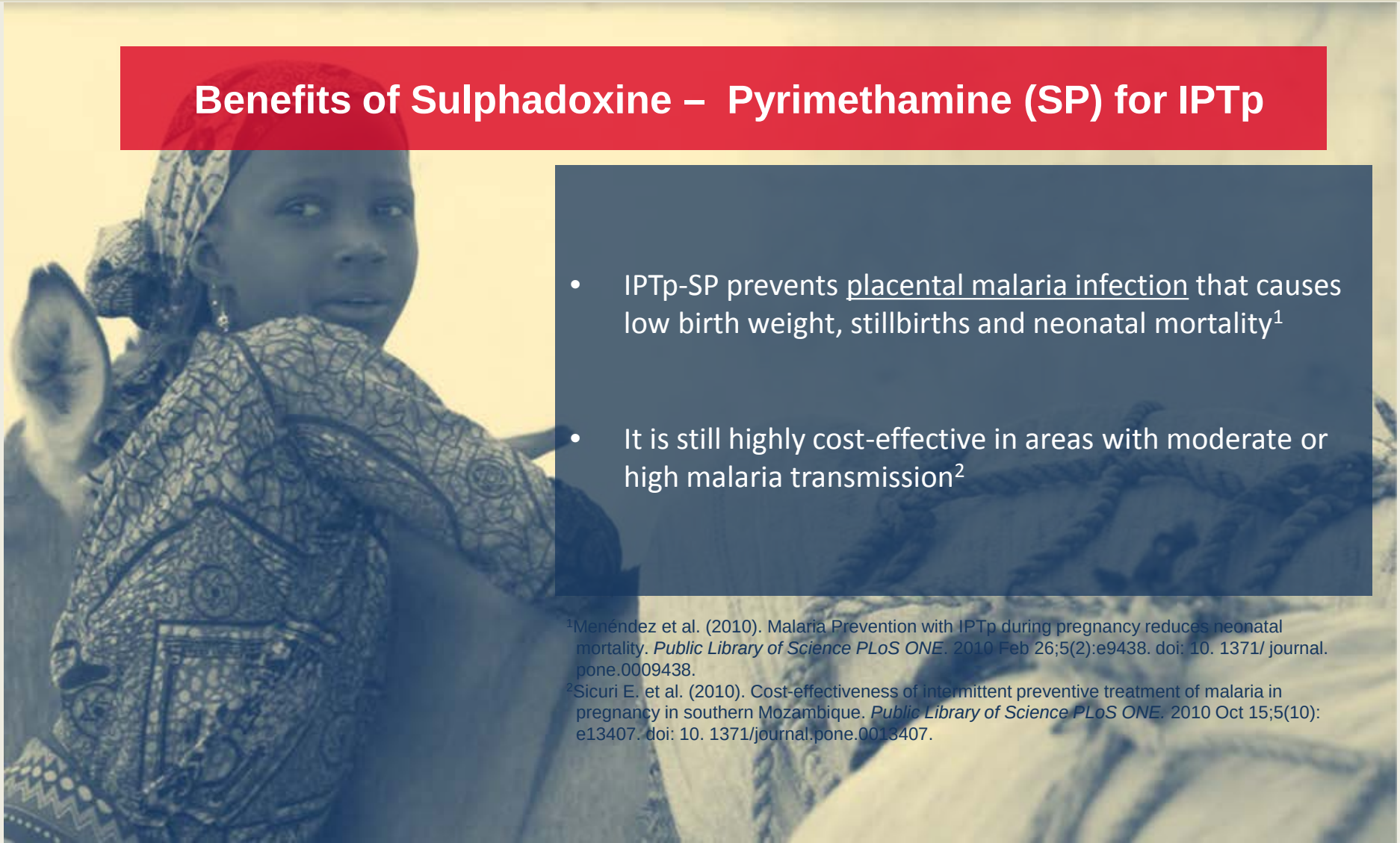
LGA	Dange Shuni	Goronyo	Silame	Yabo (Counterfactual)
Demographic/Political Description (Source: National Population Commission, JSI Project Database, 2015) N/A—not available				
No. Of district	4	3	3	3
No. Of Wards	11	11	10	10
No. Of settlements	396	314	218	N/A
No. Of Compounds Numbered	23, 027	26, 070	11, 331	N/A
Total Population	247, 346	254, 462	140, 712	148, 016
No. Of WRA	54, 416	55, 982	30, 957	32, 564
Expected No. Of Pregnant Women	12, 368	12, 724	7, 036	7, 401
Total Health Facilities	30	39	34	21
Health Facilities providing ANC	12	14	8	7
No. Of CBHV per 10, 000 population	7	6	10	7

Burden of Malaria in Sokoto State

- Seasonal transmission; peak period is May to December
- Peak prevalence of 59.5%,[1] falls in August
- State-wide, prevalence of malaria in pregnancy is 9% (ranged between 1 and 35% across LGAs)[2]

[1]Abullahi K., U. Abubakar, T. Adamu, et al., 2009. Malaria in Sokoto, North Western Nigeria. African Journal of Biotechnology; 8(24): 7101-7105.
[2]Sokoto State Ministry of Health Nigeria 2013

Benefits of Sulphadoxine – Pyrimethamine (SP) for IPTp



- IPTp-SP prevents placental malaria infection that causes low birth weight, stillbirths and neonatal mortality[1]
- It is still highly cost-effective in areas with moderate or high malaria transmission[2]

[1]Menéndez et al. (2010). Malaria Prevention with IPTp during pregnancy reduces neonatal mortality. *Public Library of Science PLoS ONE*. 2010 Feb 26;5(2):e9438. doi: 10. 1371/ journal. pone.0009438.

[2]Sicuri E. et al. (2010). Cost-effectiveness of intermittent preventive treatment of malaria in pregnancy in southern Mozambique. *Public Library of Science PLoS ONE*. 2010 Oct 15;5(10): e13407. doi: 10. 1371/journal.pone.0013407.

How We Designed and Carried out the Study

INTERVENTION LGAs (Dange Shuni, Goronyo, Silame)

- Highest burden of malaria in the state
- Compounds identified, numbered and registered
- Women of reproductive age identified, registered and enrolled when pregnant

COUNTERFACTUAL or CONTROL LGA (Yabo)

INPUTS

COMMUNITY

- Community education/mobilisation on SP
- House-to-House SP distribution
- Use of Health Information as alerts and reminders
- Reaching hard-to-reach settlements

HEALTH FACILITY

- SP and LLIN distribution
- Case management

OUTCOME

- % OF SP coverage among pregnant women- SP1, SP2, SP3
- Head circumference of newborn
- Stillbirth rate

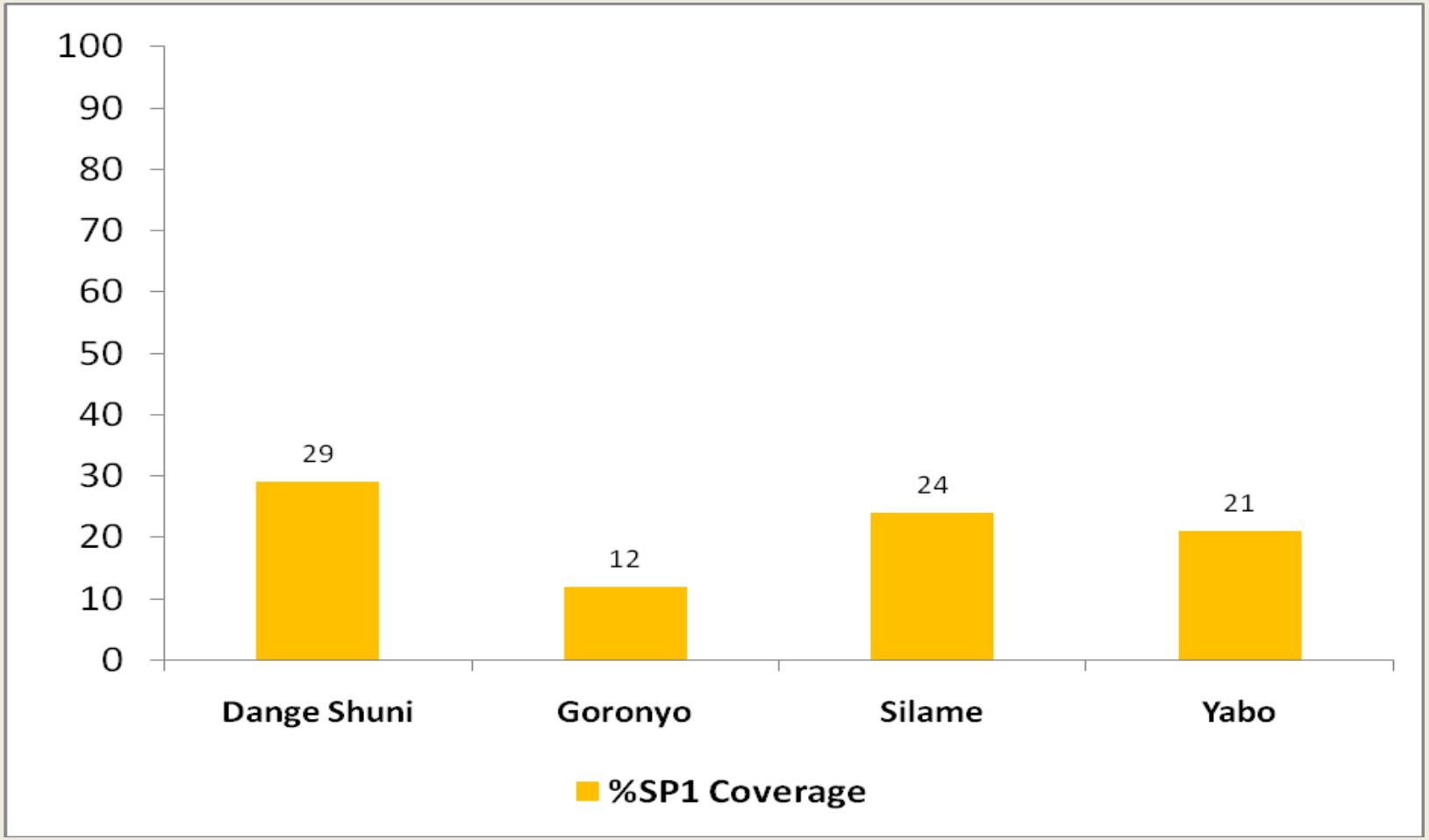
* Estimated population of WRA (22% of total population of Yabo for 7 months)

Distribution of Women of Reproductive age and Eligible for SP by LGA

	Dange Shuni	Goronyo	Silame	Yabo
Pregnant women Eligible for SP	9,136	10,580	5,586	5,999*
Women who received SP1	7,408	10,893	6,013	1,527
Women Who Received SP2	5,334	7,304	4,656	767
Women Who Received SP3	2,682	4,563	2,722	0
Women Who Received SP4+ (SP5, SP6)	240	818	406	0

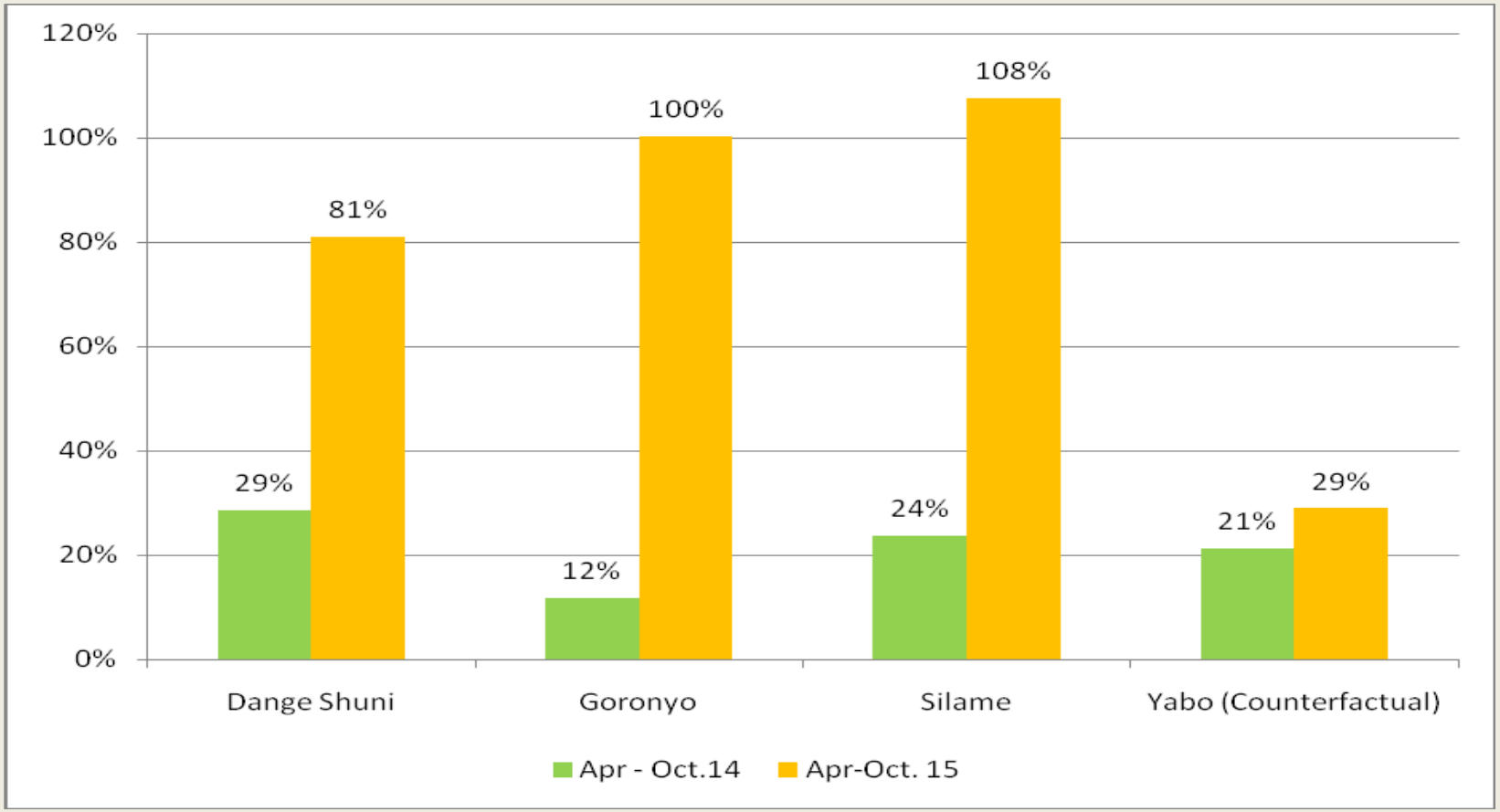
* Estimated population of WRA (22% of total population of Yabo for 8 months)

THE PICTURE ONE YEAR BEFORE INTERVENTIONS: Percentage Coverage of Pregnant Women That Took SP1 in 3 Intervention & 1 Counterfactual (Control) LGAs, Sokoto State, Apr-Nov 2014



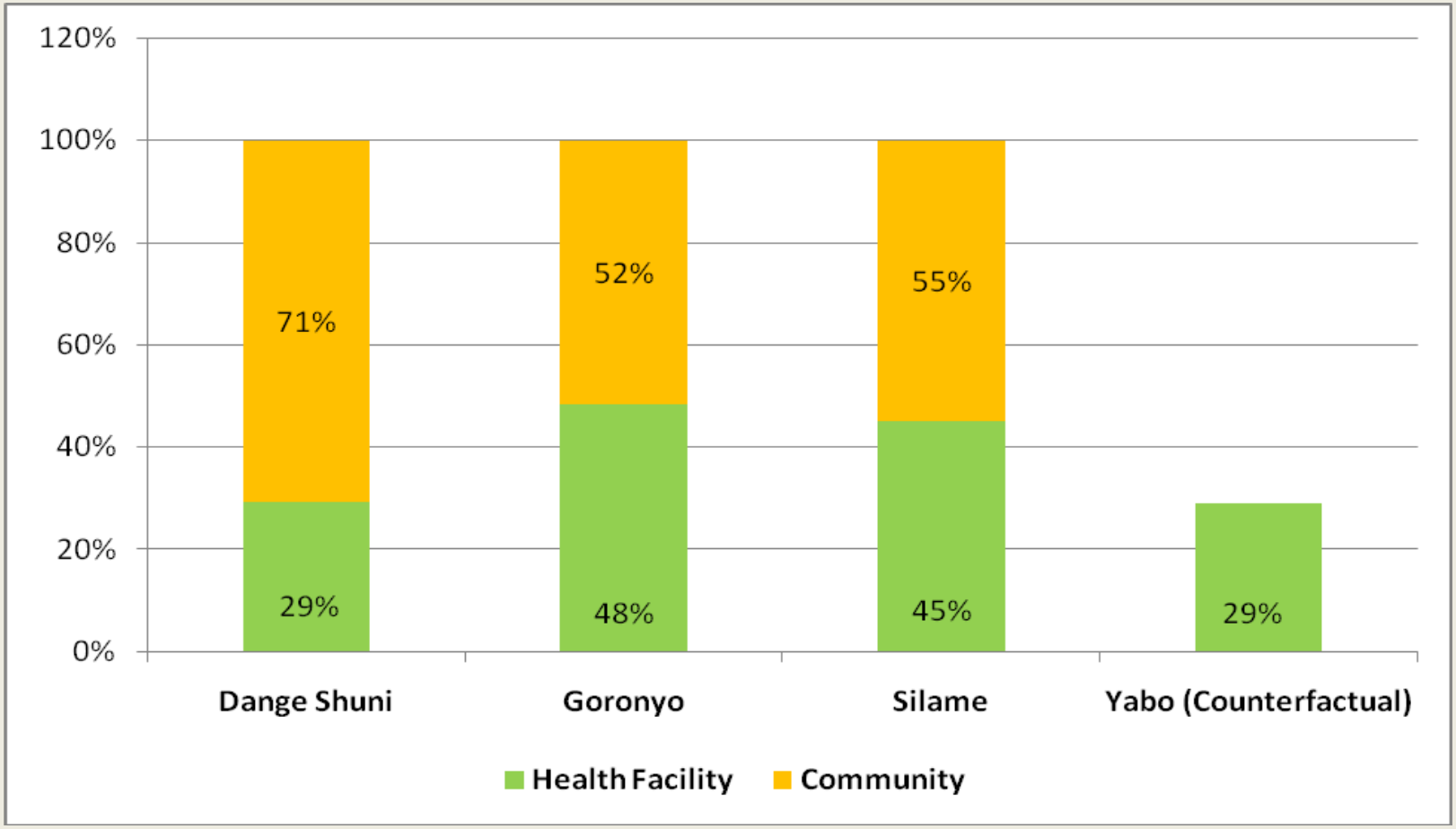
Data Source: Nigeria DHIS2, 2015

Percentage Coverage of Pregnant Women That Took SP1 in 3 Intervention & 1 Counterfactual LGAs, Sokoto State, Apr-Nov 2014 & Apr-Nov 2015



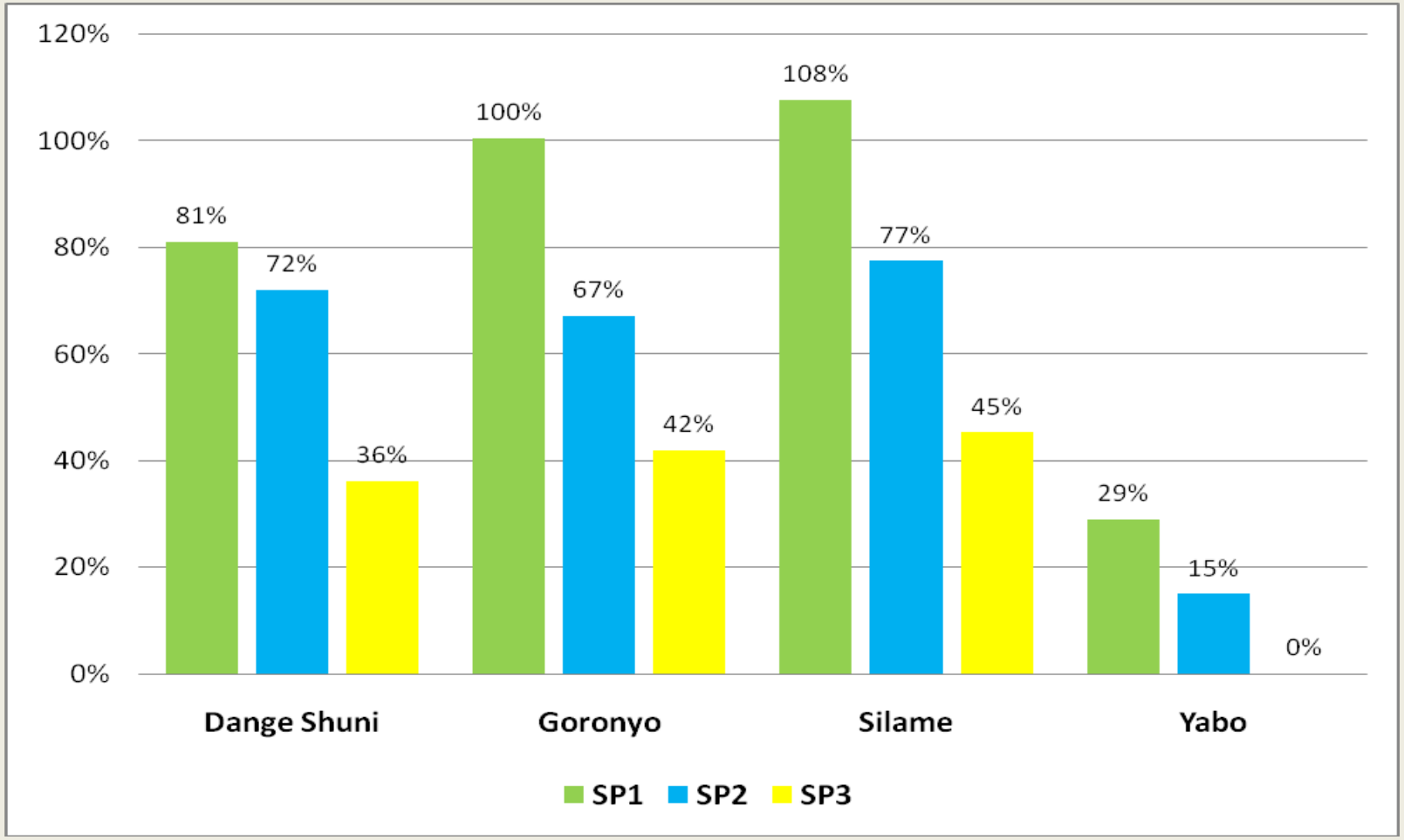
Data Source: Nigeria DHIS2, 2015; JSI Project Database, 2015

Percentage Coverage of Pregnant Women That Took SP1 in 3 Intervention & 1 Counterfactual LGAs By Source of SP1, Apr-Nov 2015



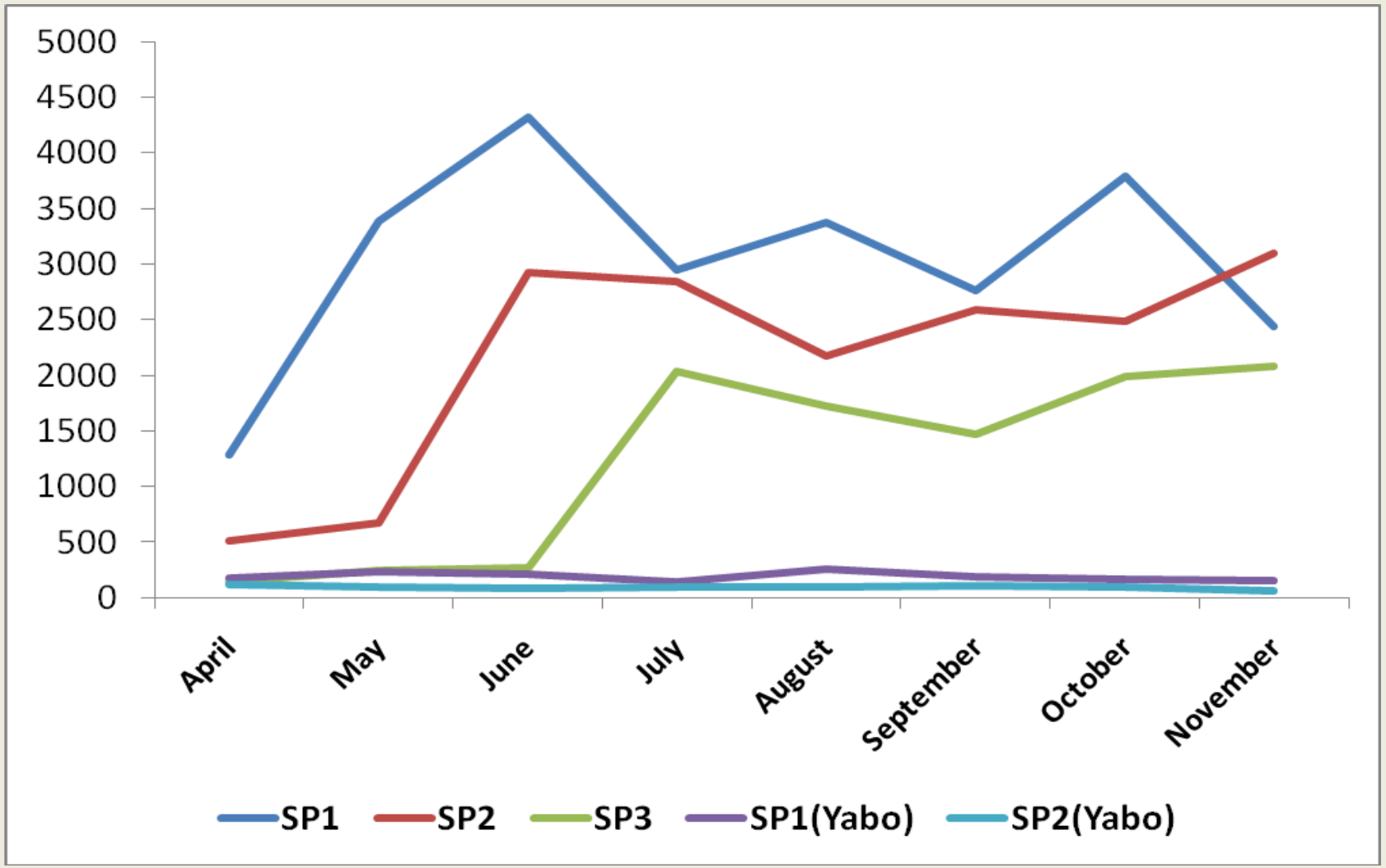
Data Source: Nigeria DHIS2, 2015; JSI Project Database, 2015

Percent Coverage of Pregnant Women That Took SP1, SP2 & SP3 in 3 Intervention & 1 Counterfactual LGAs, Sokoto State, Apr-Nov 2015



Data Source: Nigeria DHIS2, 2015; JSI Project Database, 2015

Monthly Number of Pregnant Women That Took SP1, SP2 & SP3 in 3 Intervention & 1 Counterfactual LGAs, Sokoto State, Apr-Nov 2015



Data Source: Nigeria DHIS2, 2015; JSI Project Database, 2015

“I was always shy before to show my baby after delivery because they are small but this one, I was eager to show people because he was looking very big and healthy”

32 years old mother of 5 from Silame

What We Learned

- It is possible to protect Every Pregnant Woman in Sokoto State from Malaria
- It is affordable with just N150 for 3 doses
- Communities fully embraced S-P use
- CBHV/WDC are key for delivery at last mile
- Communities recognize inequity
- SP is a natural fit with ongoing Maternal Newborn Health programs

Recommendations

Sokoto State:

- With good governance & commitment to ongoing maternal, newborn and child health through the CBHV program, add on, scale up low cost-high impact SP
- There is need to ensure regular availability of SP, LLIN and other malaria commodities (RDTs and ACTs) at the health facilities

Federal:

- The FMOH to revise NHMIS data capture tools and the DHIS2 to reflect doses of SP3 and higher
- The National Primary Health Care Development Agency's Ward Minimum Package for Primary Health Care roll-out works

Our sincere gratitude to:

- The WDCs, CBHVs, Women and the entire people of the 32 wards where this project was implemented
- The Sokoto State Government for creating the appropriate enabling environment and support to the project and
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Thank you all for your time