



**Innovative approaches to identify and apply  
context-specific interventions**

**Barriers to IPTp uptake:  
access vs. quality**

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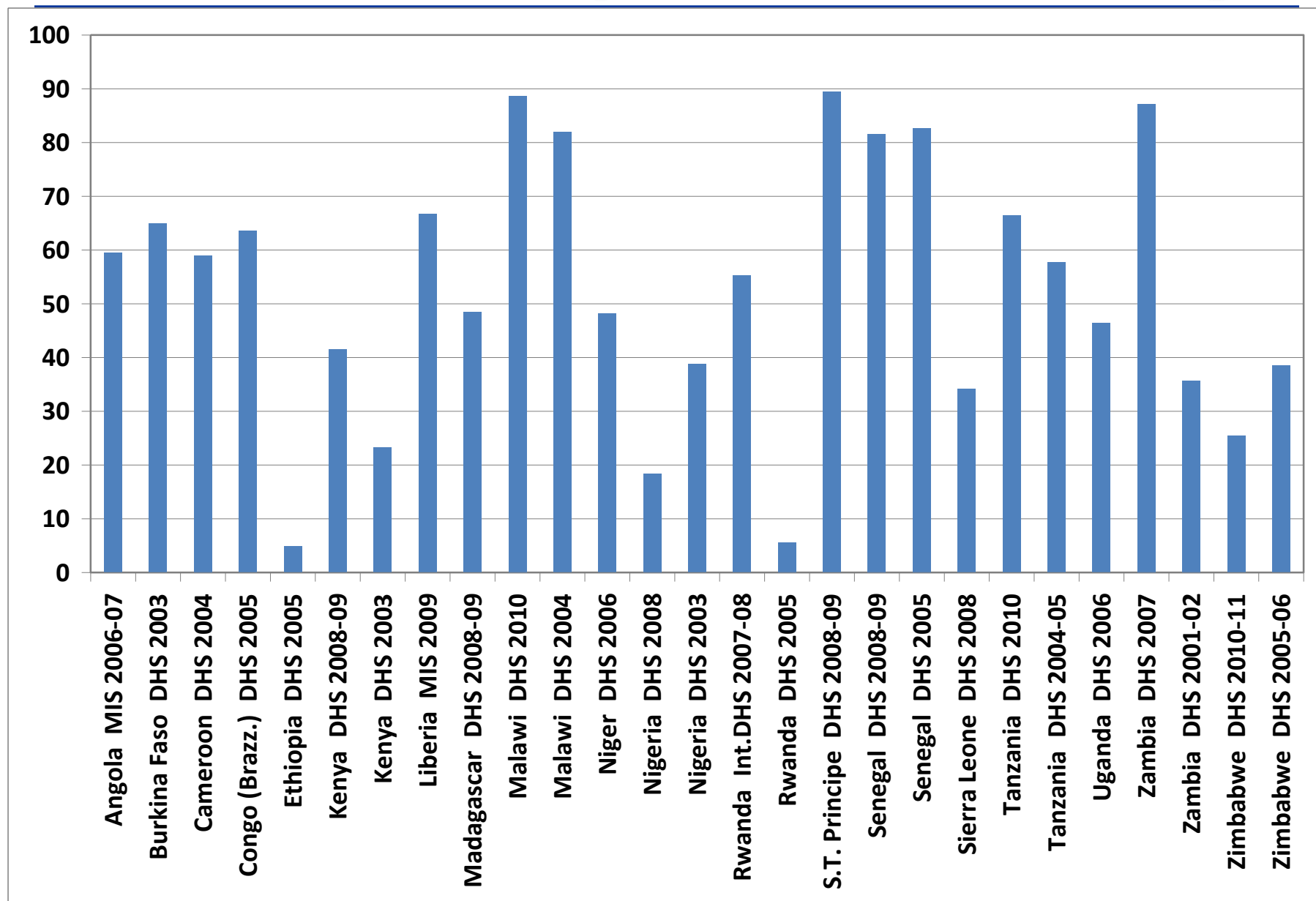


# Aims

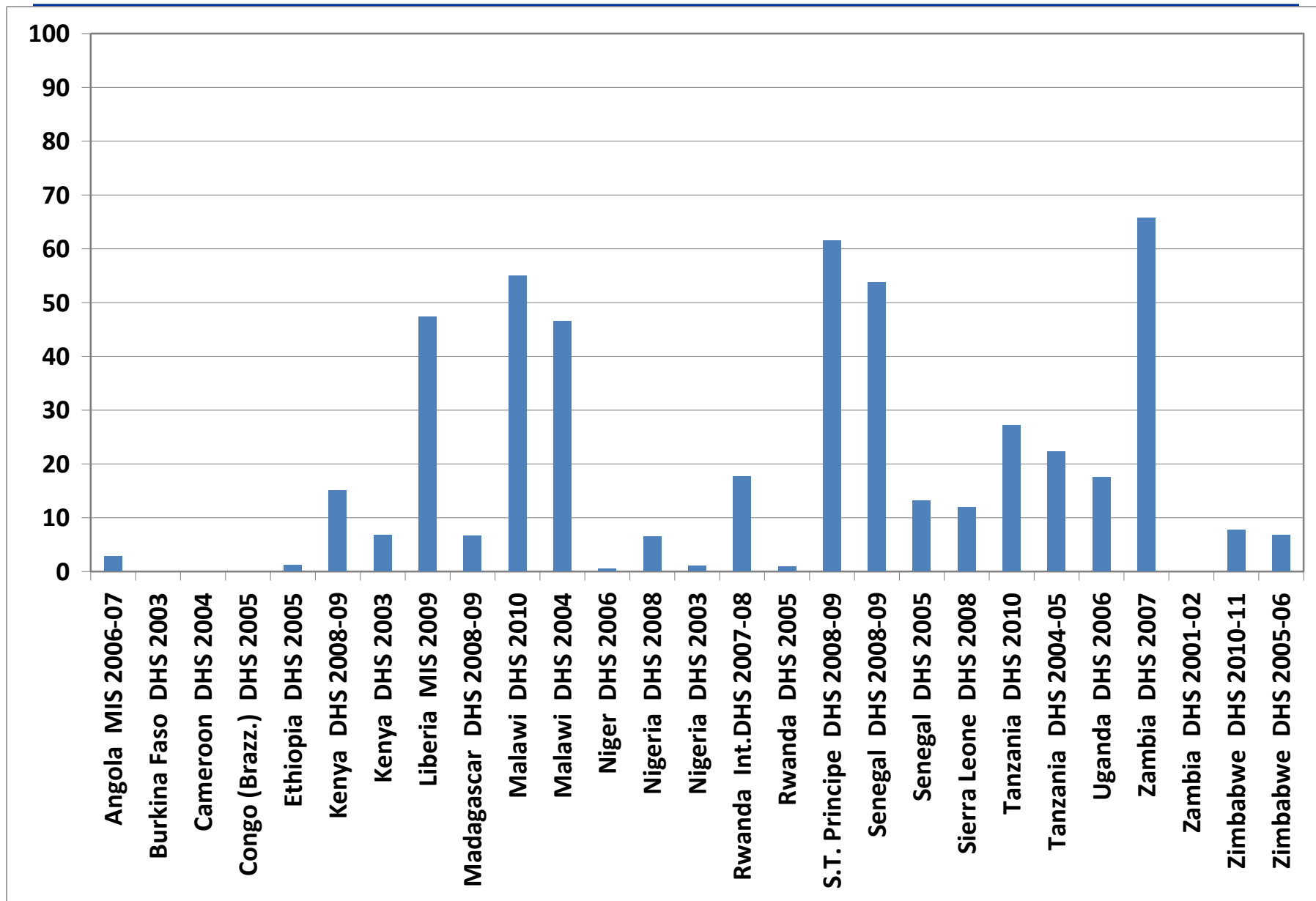
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- What are the impediments for achieving better IPTp coverage, in the context of Kenya?
  - IPTp correctly administered?
- Are there significant spatial patterns in the IPTp intake?
  - Individual characteristics
  - Quality (HF)
  - Access (District)
- Evidence for interventions?

# % who took any anti-malarial drug



# % who took 2+ doses (SP/Fansidar)

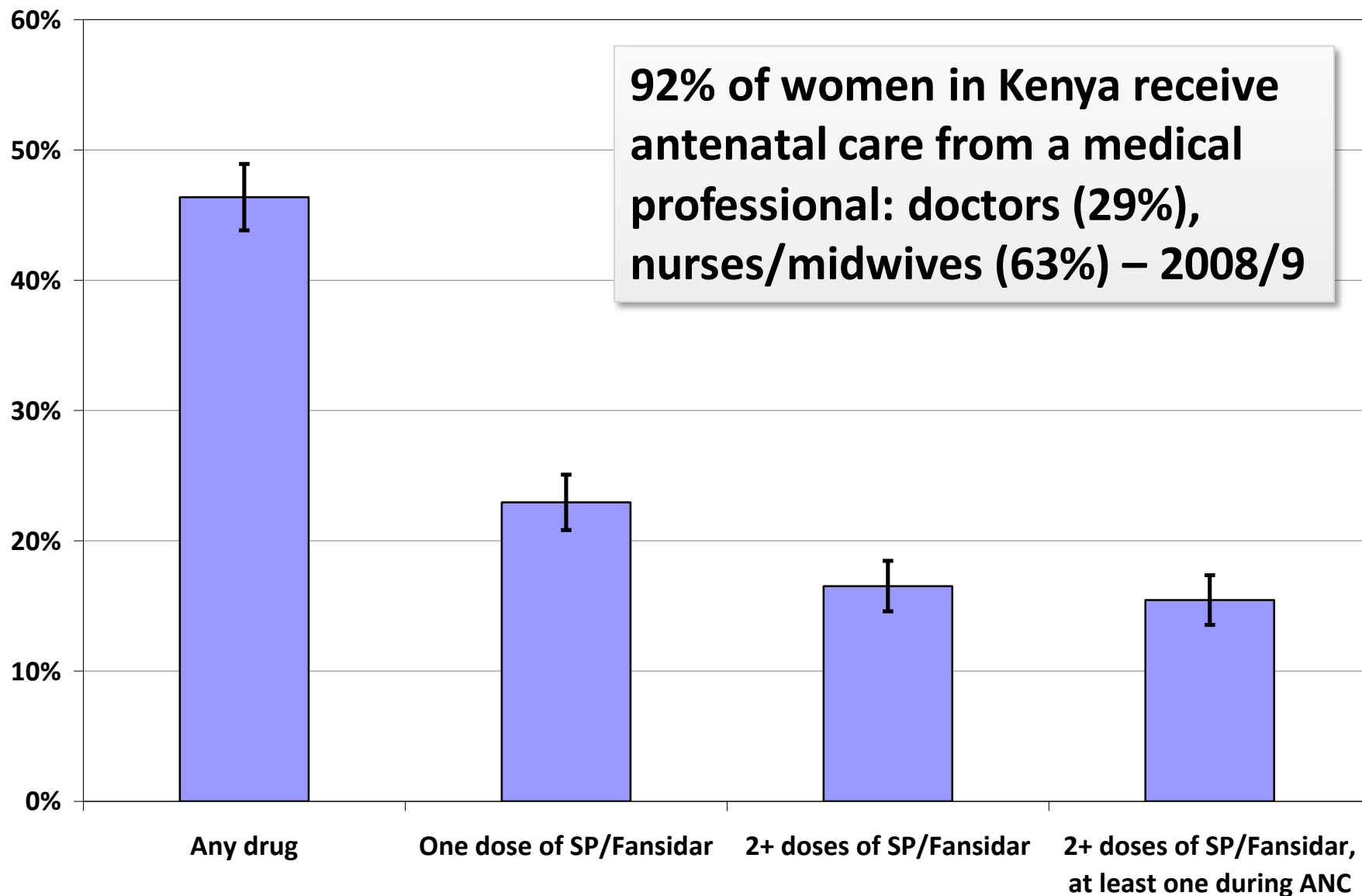


# **IPTp in Kenya**

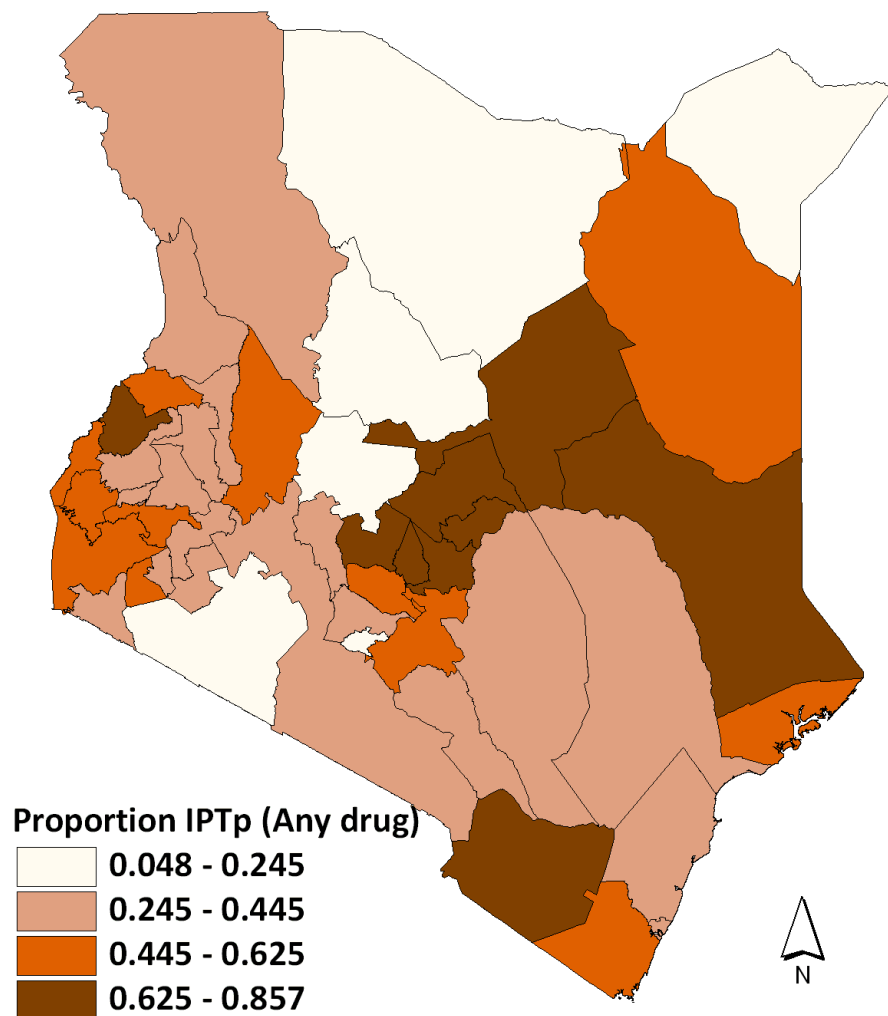
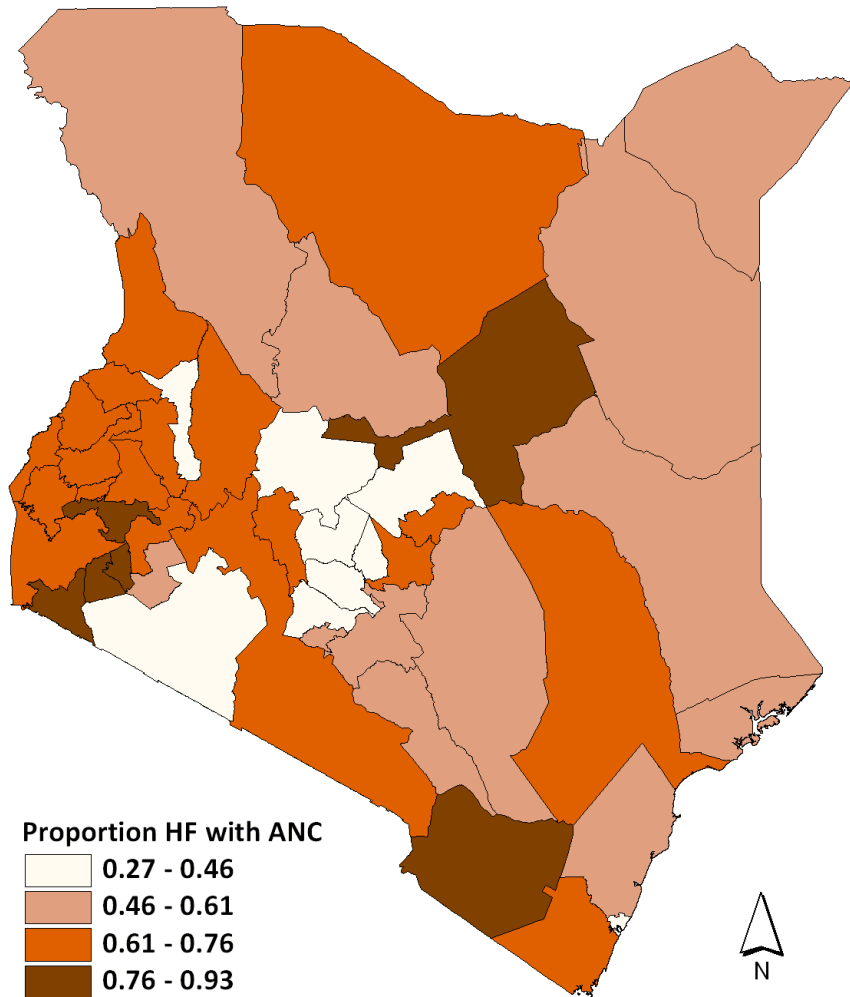
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- First introduced in 1998
  - The 1<sup>st</sup> dose given at 16 weeks of gestation; subsequent doses with each ANC scheduled visit as long as they are 1 month apart.
- IPTp coverage below the target
  - Providing clear directions on when to give IPTp in a memo from the MOH, and the review of this memo during routine supervisory visit, resulted in a twofold increase in coverage of the recommended 2 doses of IPTp.

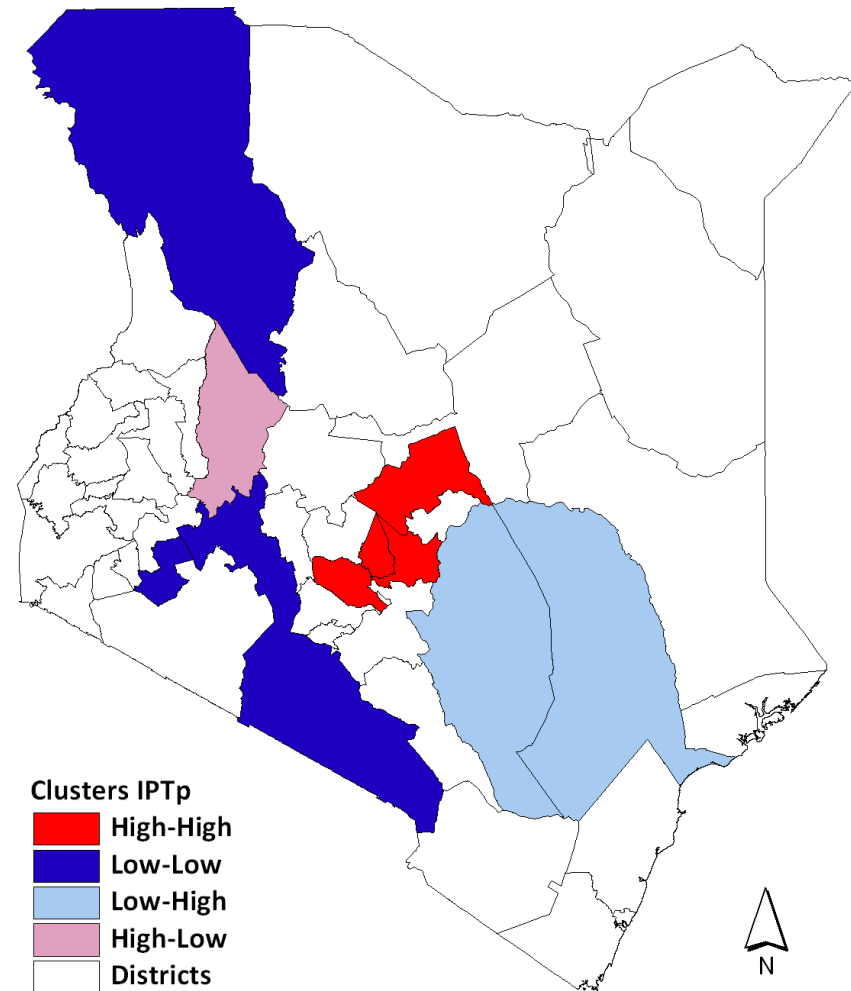
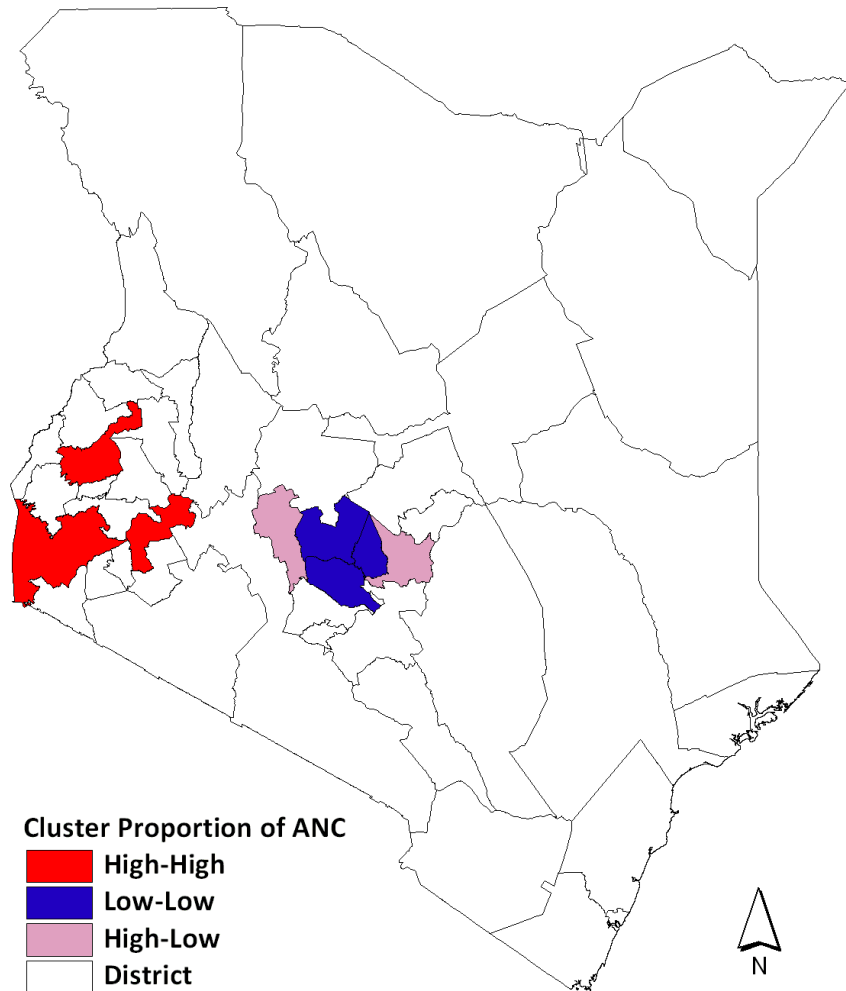
# IPTp in Kenya - coverage



# IPTp in Kenya – spatial patterns

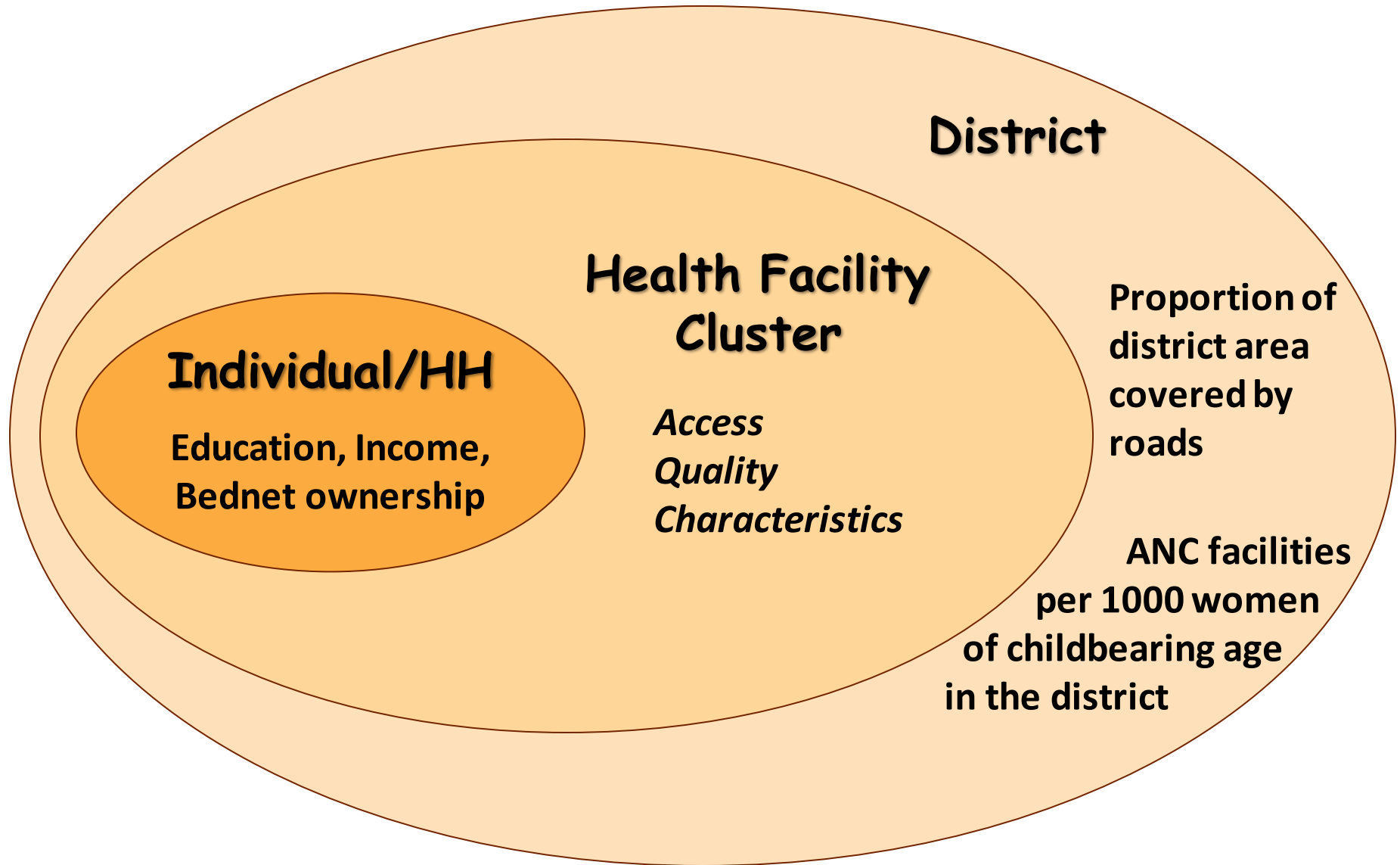


# IPTp in Kenya – spatial patterns





# **IPTp uptake - framework**



# Modeling approach

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- Multilevel model
  - Individual/HH
  - Health Facility/DHS Cluster
  - District
- Data:
  - DHS 2008/2009
  - DHS 2010 – Service Provision Assessment
- Access variables created with the aid of GIS

# IPTp in Kenya - Individual characteristics

Individual	Any Drug	2 SP doses	2 SP ANC
	Odds	Odds	Odds
Household Owns a bednet	1.62046 ***	1.75804 ***	1.76020 ***
Married	1.32260 *		
Age 35-39	0.68655 *		
More than Secondary Ed	2.40190 **	2.72041 **	3.04184 **
Complete Secondary Ed	3.01409 ***	2.21837 **	2.42056 **
Some Secondary Ed	2.33397 ***	1.93424 **	2.16720 **
Complete Primary Ed	1.78836 **	1.57933 *	1.65508 *
Some Primary Ed	1.46448 **		1.74682 **
Wealth Quintile 3	1.46432 **		

\*\*\*  $p \leq 0.001$ ; \*\*  $p \leq 0.05$ ; \*  $p \leq 0.1$

# IPTp in Kenya - HF

HF/Cluster	Any Drug Odds	2 SP doses Odds	2 SP ANC Odds
<i>Access:</i>			
Distance to nearest HC (Km)	0.99068 **	0.98837 **	0.99036 *
Prob. experiencing minor cost problems			2.10414 **
<i>Quality:</i>			
Prob. Recommending Facility	2.65335 **		
Major problems with waiting times	1.61003 *		
The average wait is 1-3 hours	0.65725 **		
Provider explains how to take IPTP	1.42324 *		
HF gives counseling about 4 visits		2.45817 **	2.66470 **
The average wait is 31-60 minutes		0.66344 **	
<i>Characteristics:</i>			
Midwives work at HC	0.38270 *		
Midwives refer women to HC	3.23089 **		

\*\*\*  $p \leq 0.001$ ; \*\*  $p \leq 0.05$ ; \*  $p \leq 0.1$

# IPTp in Kenya - District

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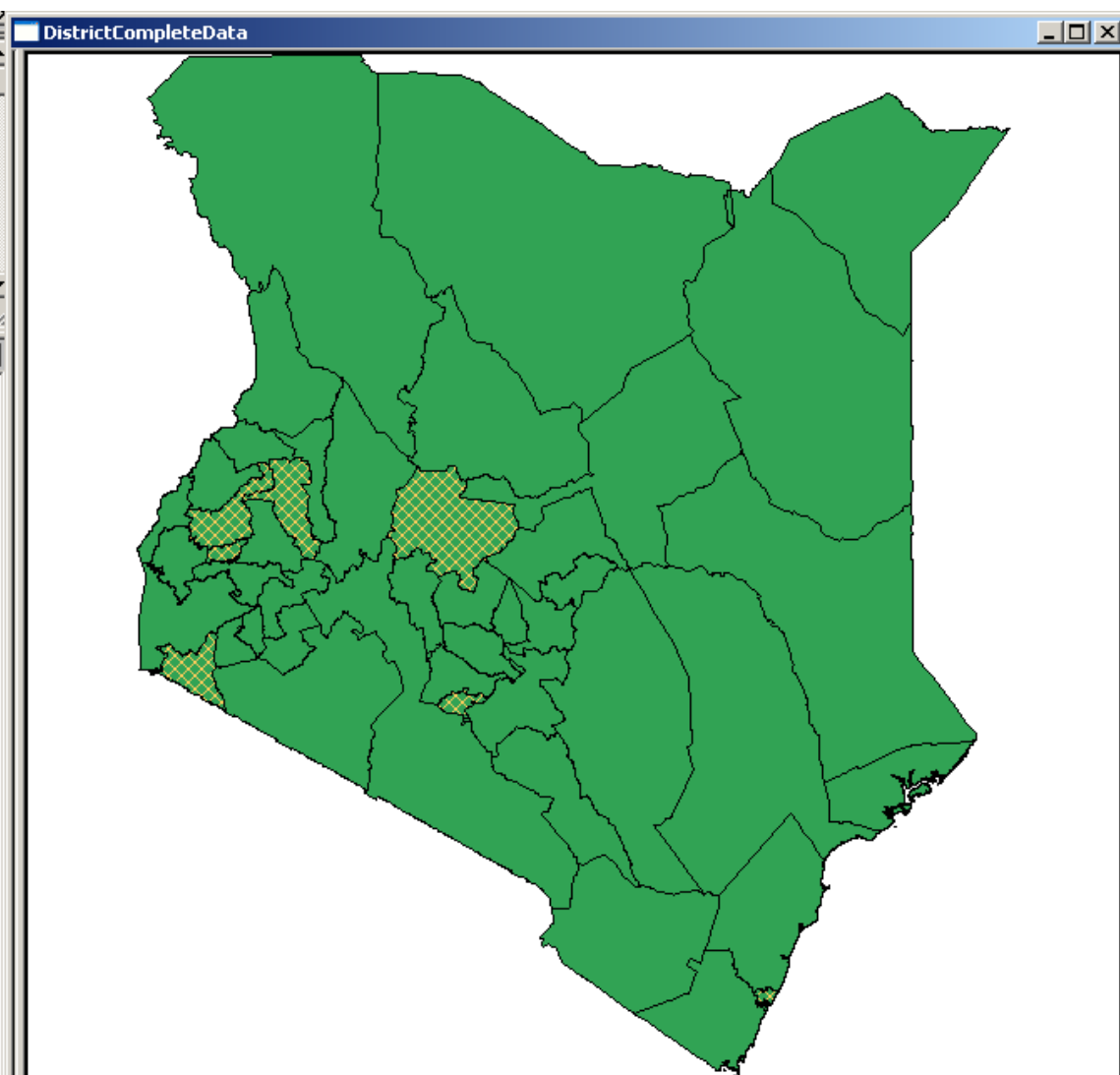
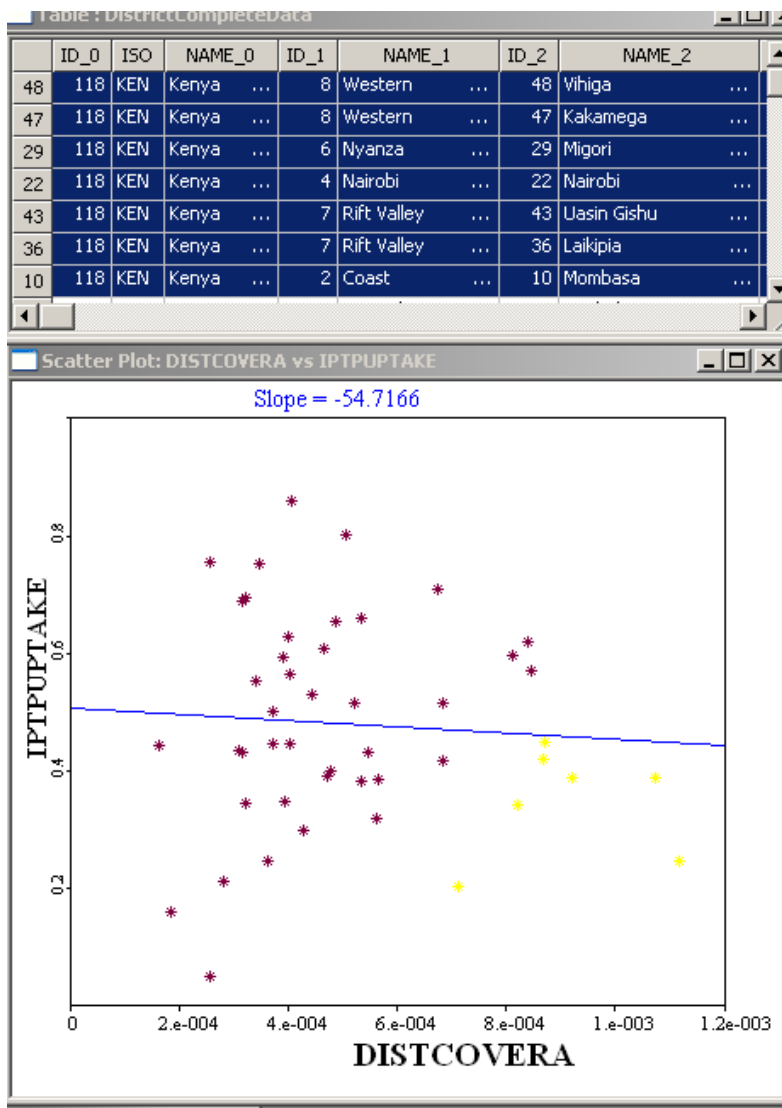
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District	Any Drug	2 SP doses	2 SP ANC
	Odds	Odds	Odds
0.50 - 0.59 Km <sup>2</sup> of roads per 1000 Km <sup>2</sup>	0.38253 **		
1.0 - 1.2 Km <sup>2</sup> of roads per 1000 Km <sup>3</sup>	0.14352 ***		
# ANC facilities / 1000 women (15-45)		2.26673 **	2.40292 **

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# More roads, better coverage?



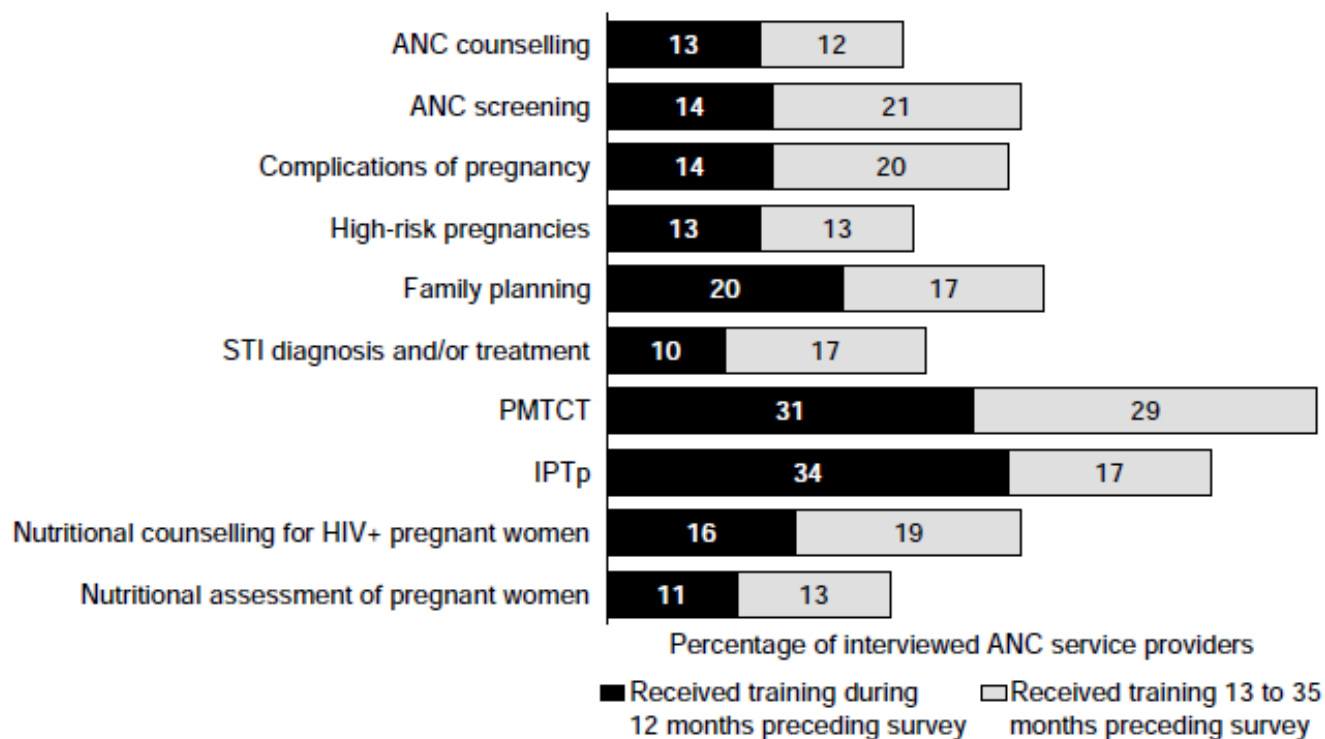
# **IPTp in Kenya – all levels**

	<b>Any Drug</b>	<b>2 SP doses</b>	<b>2 SP ANC</b>
Proportion of total variance explained at facility level	3.64%	0.00%	3.32%
Proportion of total variance explained at district level	12.05%	5.35%	5.93%
Proportion of total variance explained at individual	19.67%	22.08%	21.17%

# IPTp in Kenya – what's next?

## ■ Training

*Figure 6.4 Training Received by Interviewed ANC Service Providers, by Topic and Timing of Most Recent Training (N=1,486)*





# IPTp in Kenya – what's next?

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## Malaria Journal



Research

Open Access

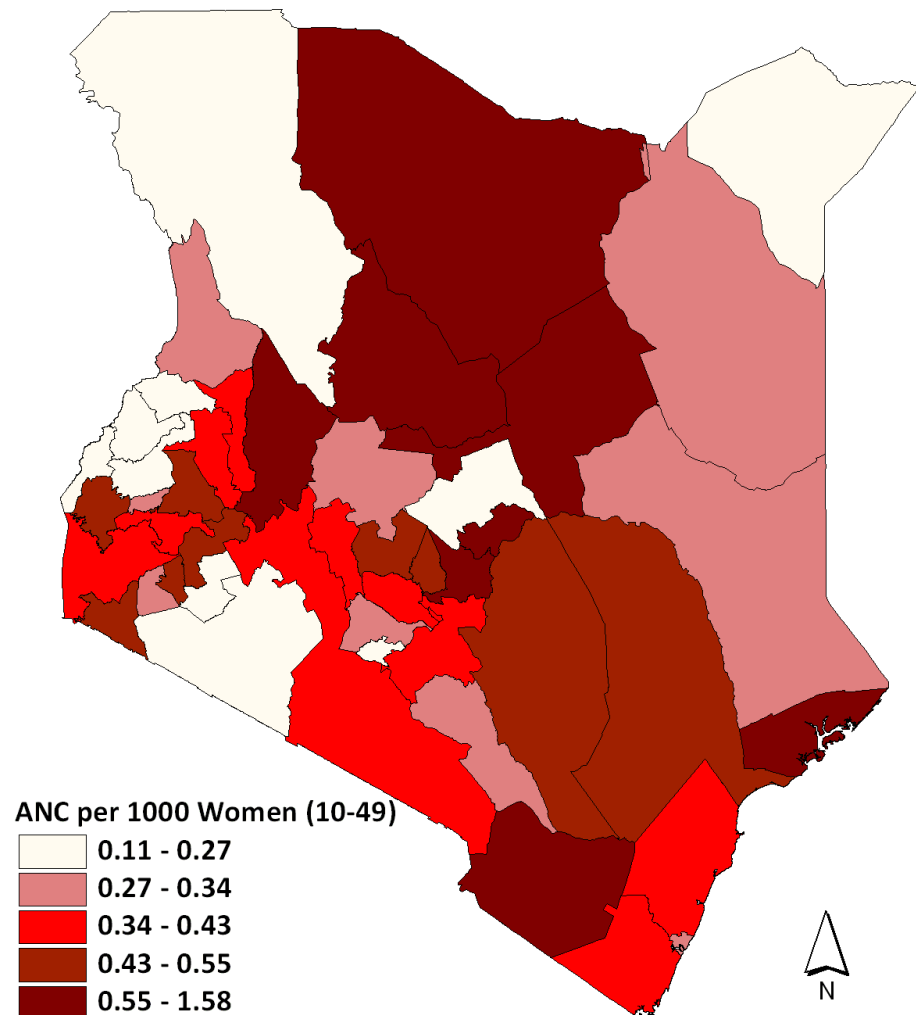
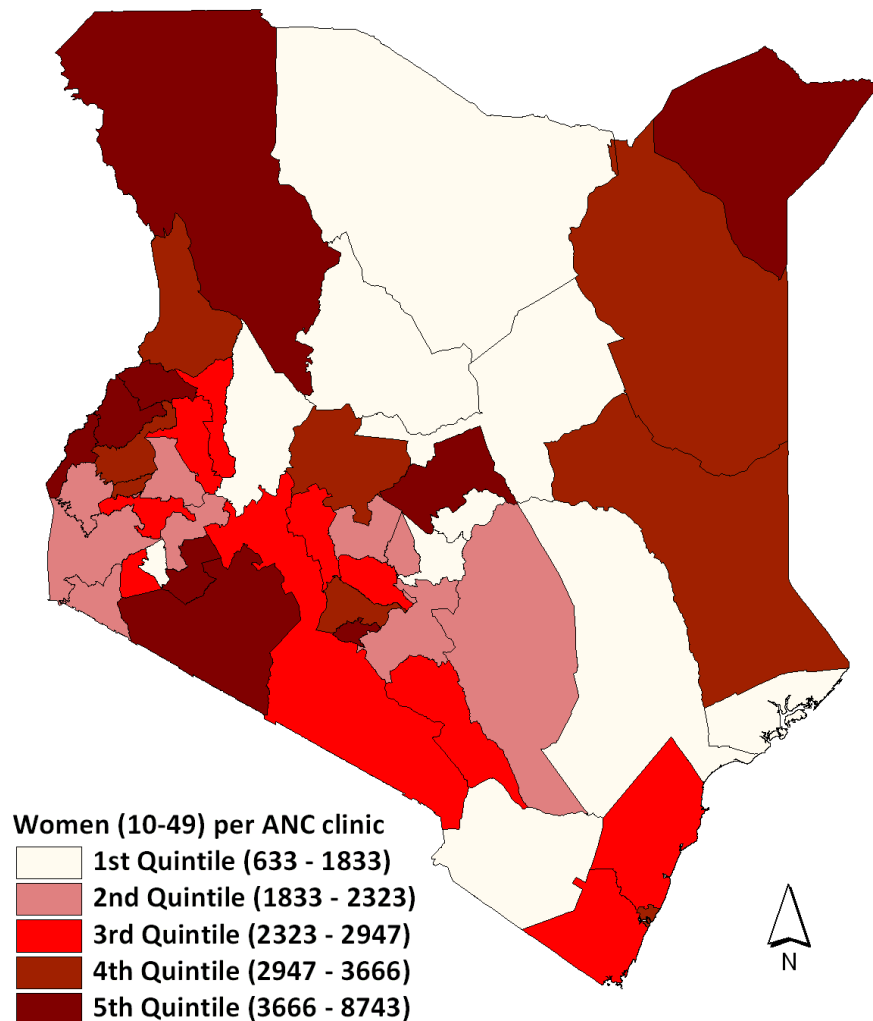
### **Knowledge of malaria influences the use of insecticide treated nets but not intermittent presumptive treatment by pregnant women in Tanzania**

Rhoida Y Nganda<sup>1</sup>, Chris Drakeley<sup>\*2,3</sup>, Hugh Reyburn<sup>2,3</sup> and Tanya Marchant<sup>2</sup>

**Conclusion:** Individual knowledge of malaria was an important factor for ITN uptake, but not for IPTp-SP use, which was reliant on delivery of information by MCH systems. When both these interventions were used, severe anaemia postpartum was reduced by 69% compared to use of neither, thus providing evidence of effectiveness of these interventions when used in combination.

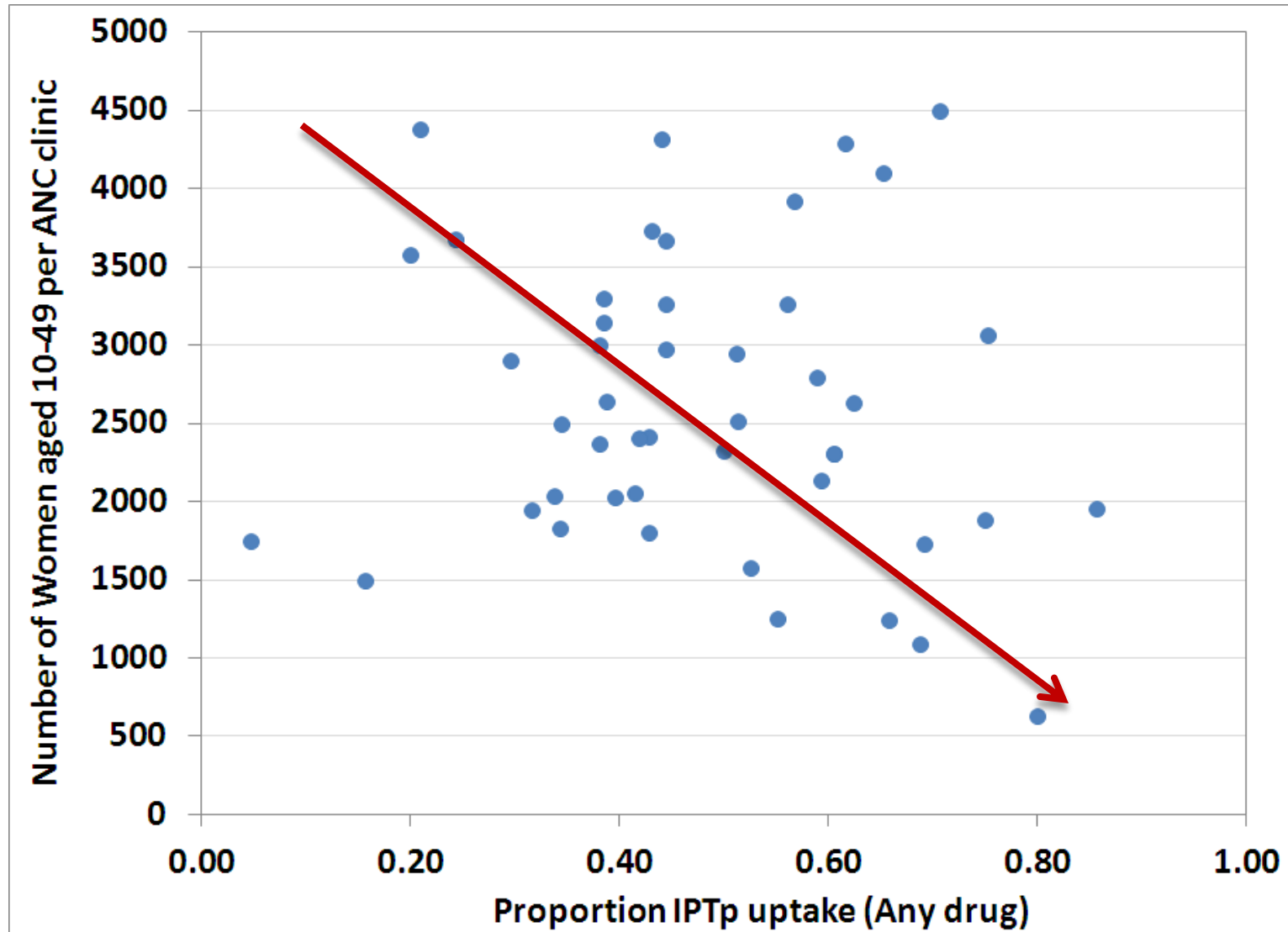
# IPTp in Kenya – what's next?

## ■ Optimizing the spatial distr. of HFs with ANC



# IPTp in Kenya – what's next?

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# **IPTp in Kenya – what's next?**

## **■ mHealth**

- Mobile technology to increase ANC attendance and IPTp uptake**
  - Uganda
  - Ghana
  - Tanzania/Zanzibar
- Send text reminders of appointments based on date of 1<sup>st</sup> visit and gestational age**

# IPTp in Kenya – what's next?

- Tracking pregnant women

- Small area estimation

- Demand

- Women in reproductive age

- Pregnant women

- Under coverage (?)

- Expected number of pregnant women

- CHWs

- CHW & mHealth

- Surveillance

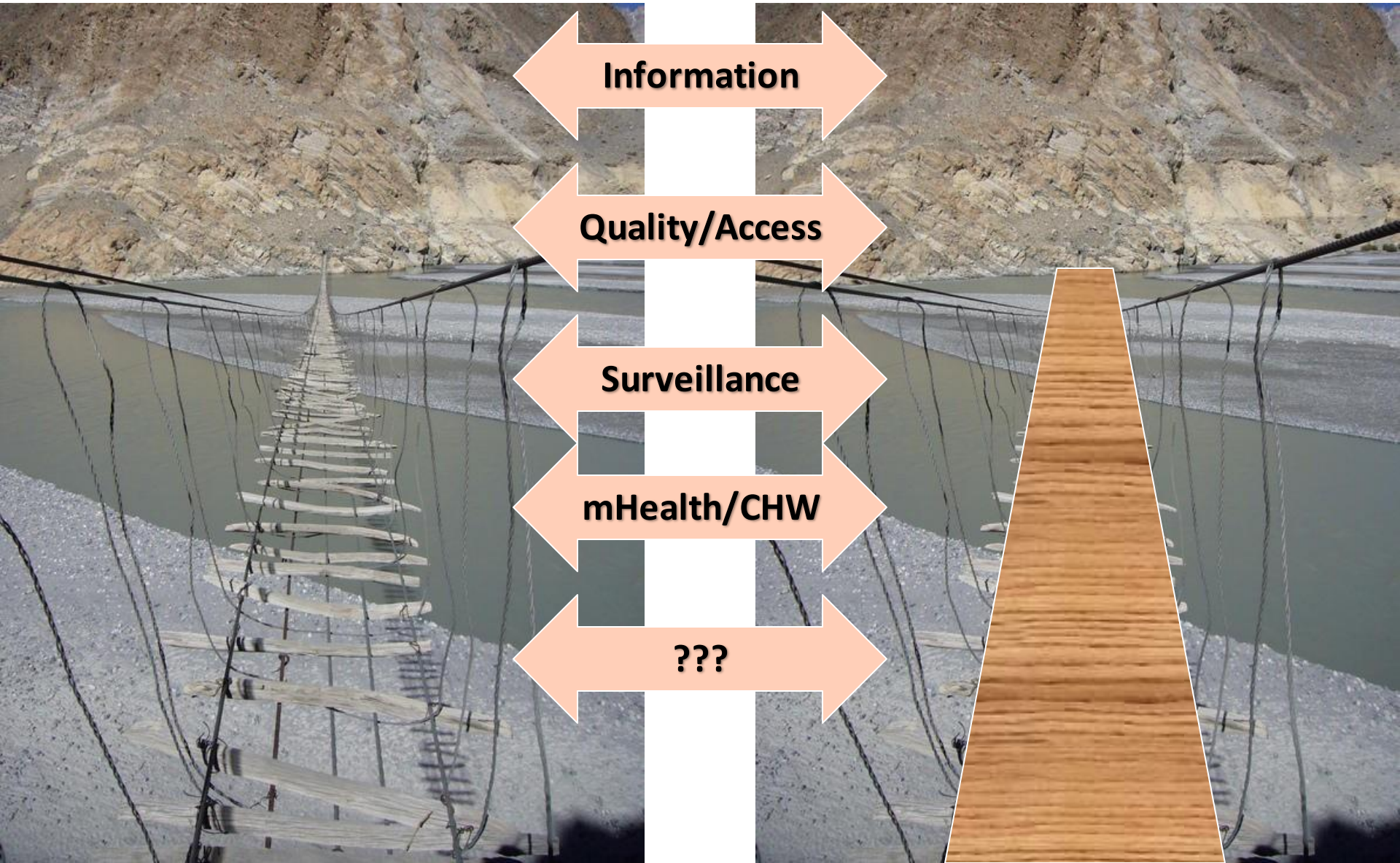
# **Intermittent Screening and Treatment (IST)**

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- Active detection and case management process using ANC as a platform
  - Rwanda - completed a study using RDTs and treatment of those with parasitemia during first ANC visit and is in the process of setting guidelines for formalizing this as part of ANC
  - UNICEF in collaboration with USAID is piloting IST in selected regions of Indonesia
  - Low transmission areas - IPTp or IST?

# ANC & IPTp: bridging the gap...

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**Information**

**Quality/Access**

**Surveillance**

**mHealth/CHW**

**???**