

# Ghana EMBRACE Implementation Research



Ghana EMBRACE Implementation Research Team

# Maternal, Neonatal and Child Health Background in the World

- Globally 289,000 women died due to complications of pregnancy and child birth in 2013
  - 99% of maternal death occurred in MLIC countries
- 6.6 million children under five died worldwide in 2012
  - 80% of under five deaths occurred within 48h postpartum
- MDG4 (reduce child mortality)
  - two-third MDG target countries are unlikely to achieve MDG4
- MDG5 (improve maternal health)
  - AARD\* is far below the needed (5.5%)

\*AARD: average annual rate of decline



(WHO data in 2013)



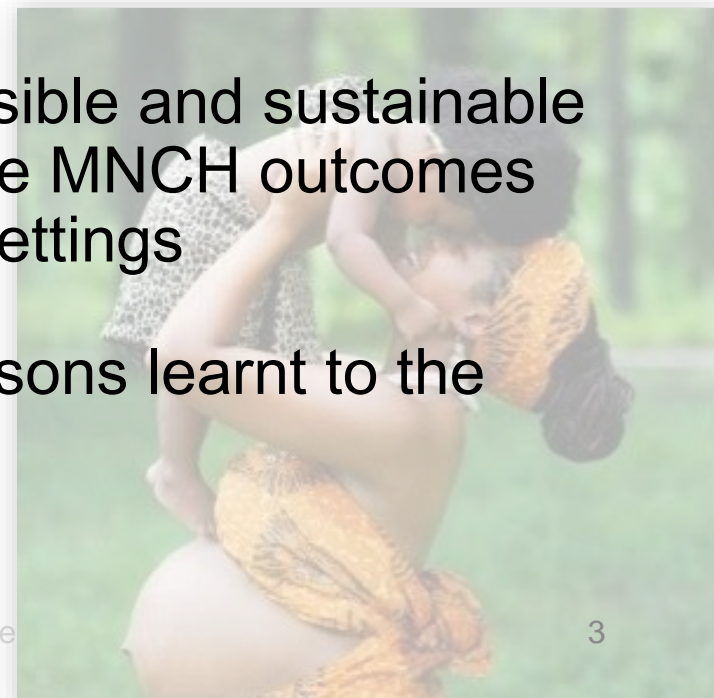
# What is the Ghana EMBRACE Implementation Research?

**E**nsure **M**others and **B**abies **R**egular **A**ccess to **C**are

In 2012, Japanese government in conjunction with Ghanaian government launched the Ghana EMBRACE Implementation Research

## Aims

- To develop a pathway to create feasible and sustainable packages of interventions to improve MNCH outcomes and to test such packages in rural settings
- To disseminate the findings and lessons learnt to the wider global health community



# Continuum of Care (CoC)

CoC definition in MNCH

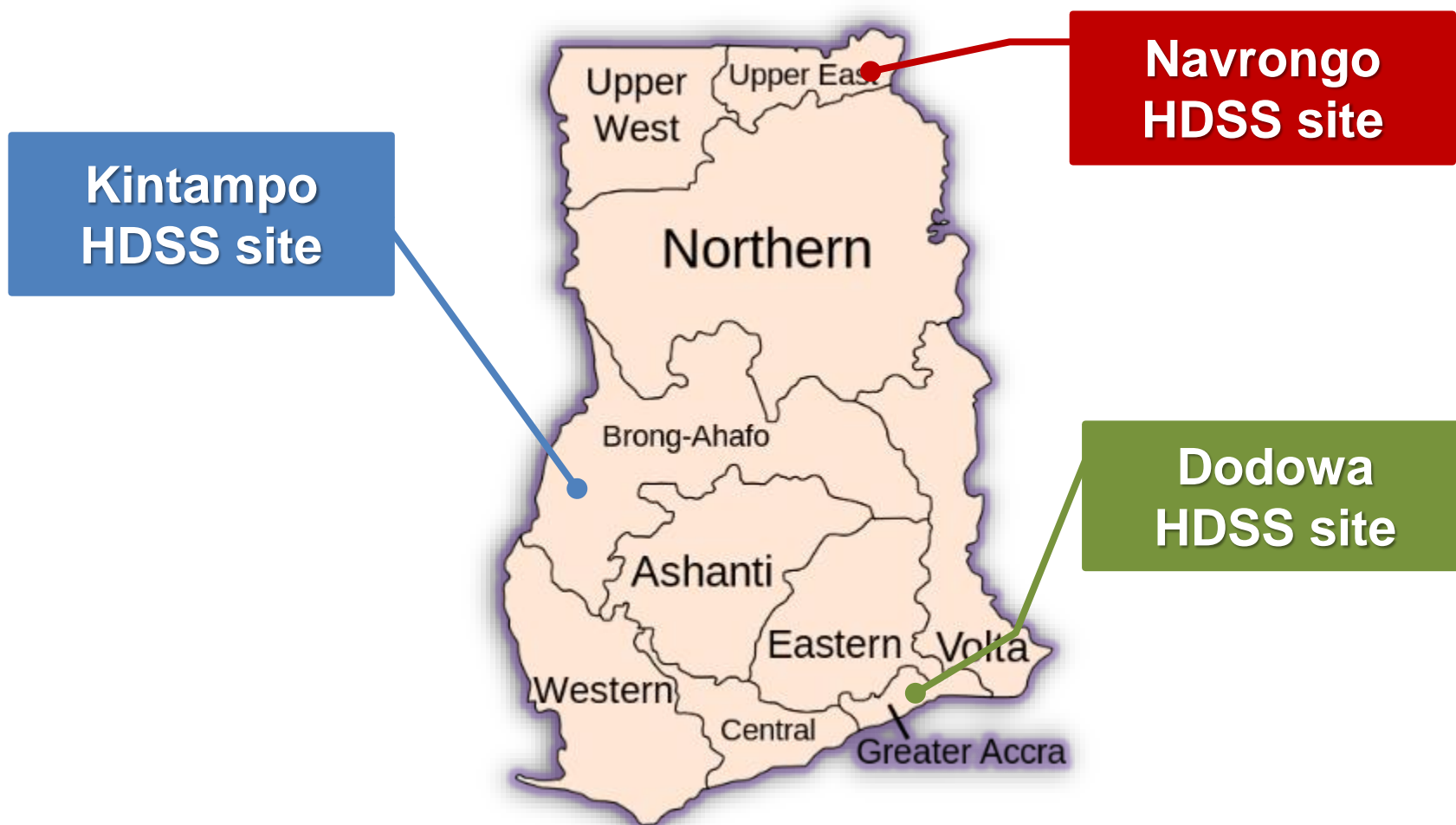
- often explained as:
  - up to 67% of women do not receive CoC
- ANC for 4 times
  - Delivery assisted by skilled birth attendants
  - PNC within 48h, at 7days, at 6weeks



(Haggerty 2003, Kerber 2007, Darmstadt 2005)

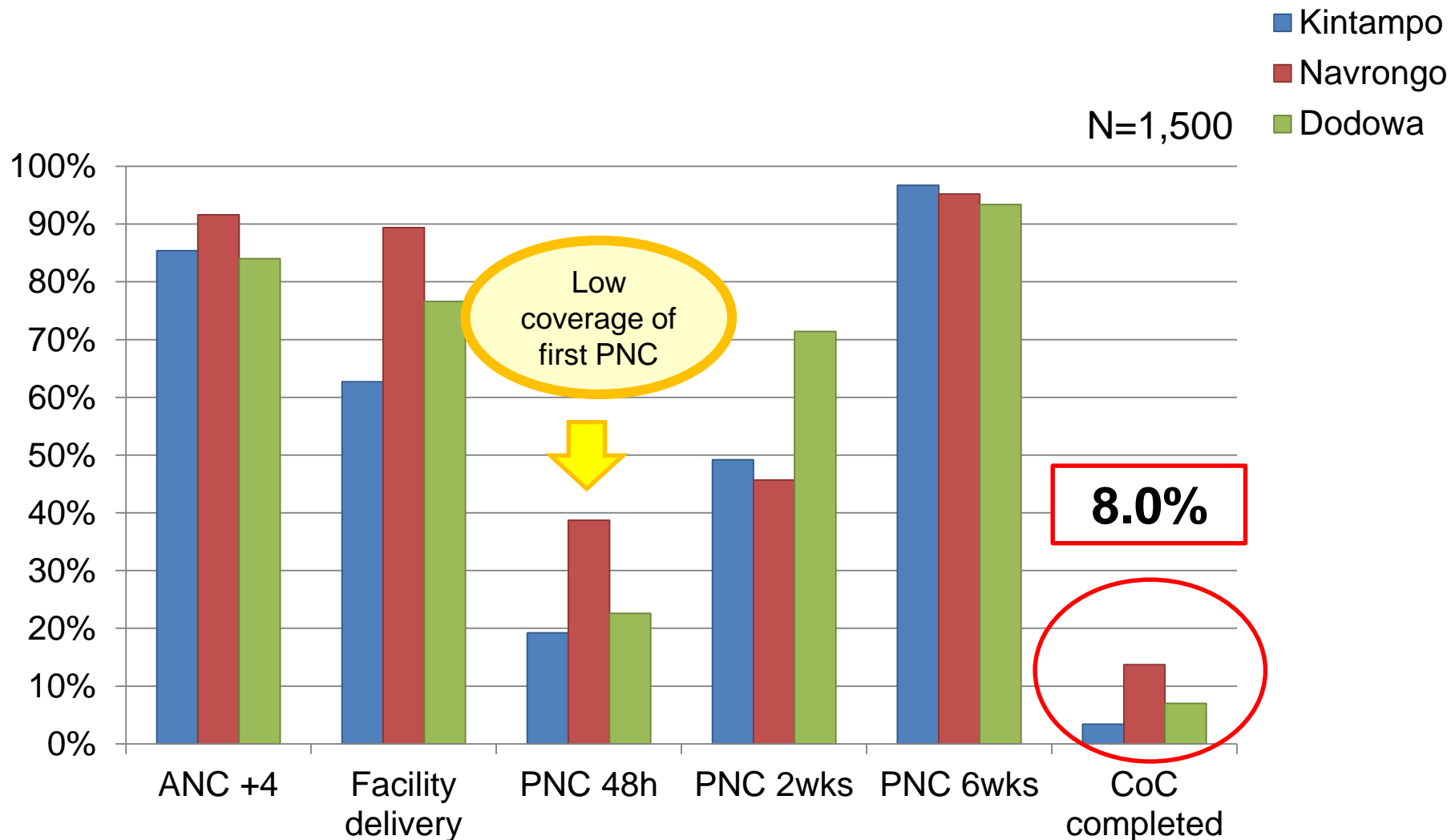
# Study Sites in Ghana

(Health and demographic surveillance system: HDSS)





# Coverage of CoC related service indicators



# Findings from CoC Situation Analysis



Retrospective survey



Focus group discussion

## Factors negatively associated with CoC

- Low mothers' education
- Low partners' education
- Multi parity
- Non married status
- Lack of family support
- Long travel time to facility

## Barriers to CoC ANC/Facility Delivery/PNC

- Financial difficulties
- Long distance & bad roads
- Attitudes of HWs
- Local beliefs
- Lack of preparedness
- Ignorance
- Perception of being well

## Promoters for CoC

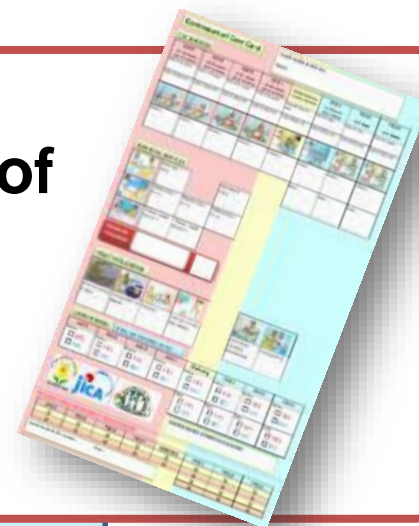
- Easy access to facility
- Availability of professionals & equipments to manage complications
- Positive attitudes of HWs

# EMBRACE Intervention Package

## CoC orientation for HWs



## Utilization of CoC Card



## 24h retention at facility after delivery

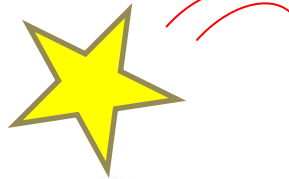


## Home visit PNC

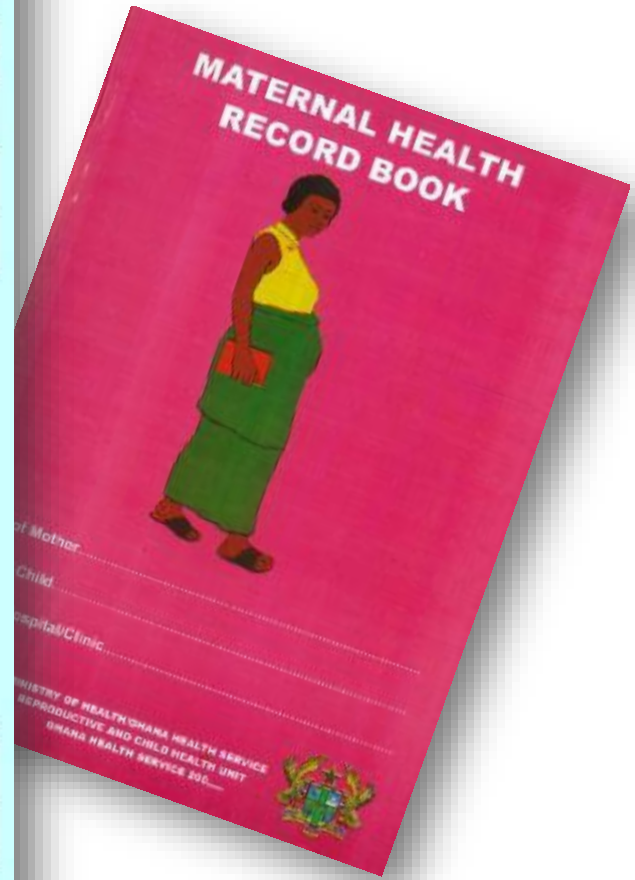


# Continuum of Care Card

Stick me on!

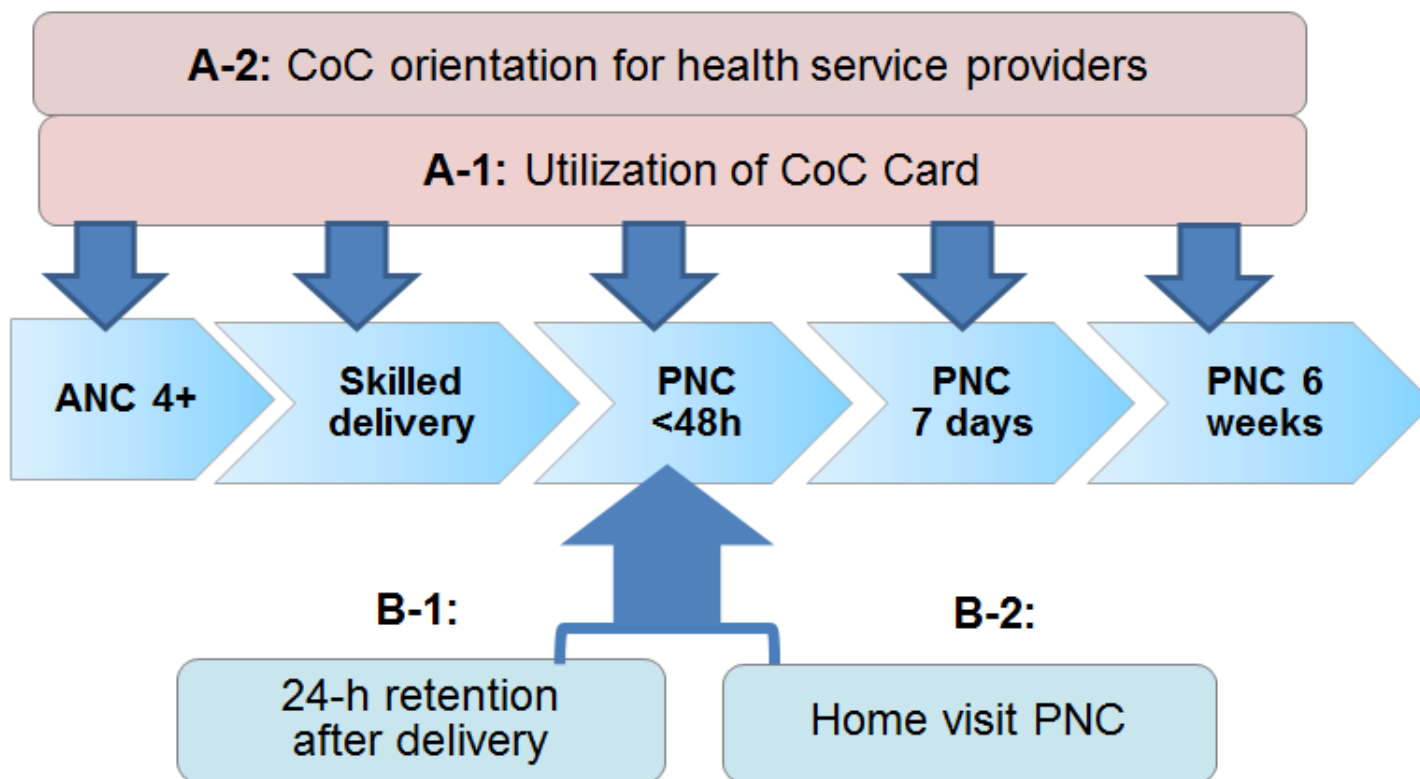


Continuum of Care Card				Health facility & ANC No.:			
Name:							
CoC SERVICES							
ANC1 by 18 weeks (by 4 months)	ANC2 20-26 weeks (5-7 months)	ANC3 at 32 weeks (at 8 months)	ANC4 at 36 weeks (at 9 months)	Optimal delivery Family delivery	PNC1 by 48 weeks (by 11-12 days)	PNC2 at 7 days	PNC3 at 6 weeks
Date of visit	Date of visit	Date of visit	Date of visit	Completed delivery date	Date at 1 day	Date at 7 days	Date at 6 weeks
Site of service visit	Site of service visit	Site of service visit	Site of service visit	Site of service visit	Site of service visit	Site of service visit	Site of service visit
Mother	Mother	Mother	Mother	Delivery	Mother	Mother	Mother
					Baby	Baby	Baby
ESSENTIAL SERVICES							
	Blood test 1 (Hb/D)		Blood test 2 (Hb/D)				
	Malaria Drug 1 (PT1)	Malaria Drug 2 (PT2)	Malaria Drug 3 (PT3)				
	Tetanus Toxoid Injection 1	Tetanus Toxoid Injection 2					
Blood group Rh factor							
HEALTH EDUCATION							
Info for Delivery & Baby	Transportation for delivery	Caregiver	Call Care provider after delivery	Early infant exclusive breastfeeding	Family planning		
DANGER SIGNS <small>If Yes, see the detail record</small>							
ANC1	ANC2	ANC3	ANC4	Delivery	PNC1	PNC2	PNC3
Mother	Mother	Mother	Mother	Mother	Mother	Mother	Mother
<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
				Baby	Baby	Baby	Baby
				<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
Contact number of Health care provider							
SECTION 1 BY HEALTH CARE PROVIDER TO BE FILLED AFTER DELIVERY							
ANC1	ANC2	ANC3	ANC4	Delivery	PNC1	PNC2	PNC3
☆	☆	☆	☆	☆	☆	☆	☆
☆	☆	☆	☆	☆	☆	☆	☆
☆	☆	☆	☆	☆	☆	☆	☆
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Health facility & ANC number				Name			



## Outcomes

## Interventions (Oct. 2014~ Sep. 2015)



### Intervention Impact

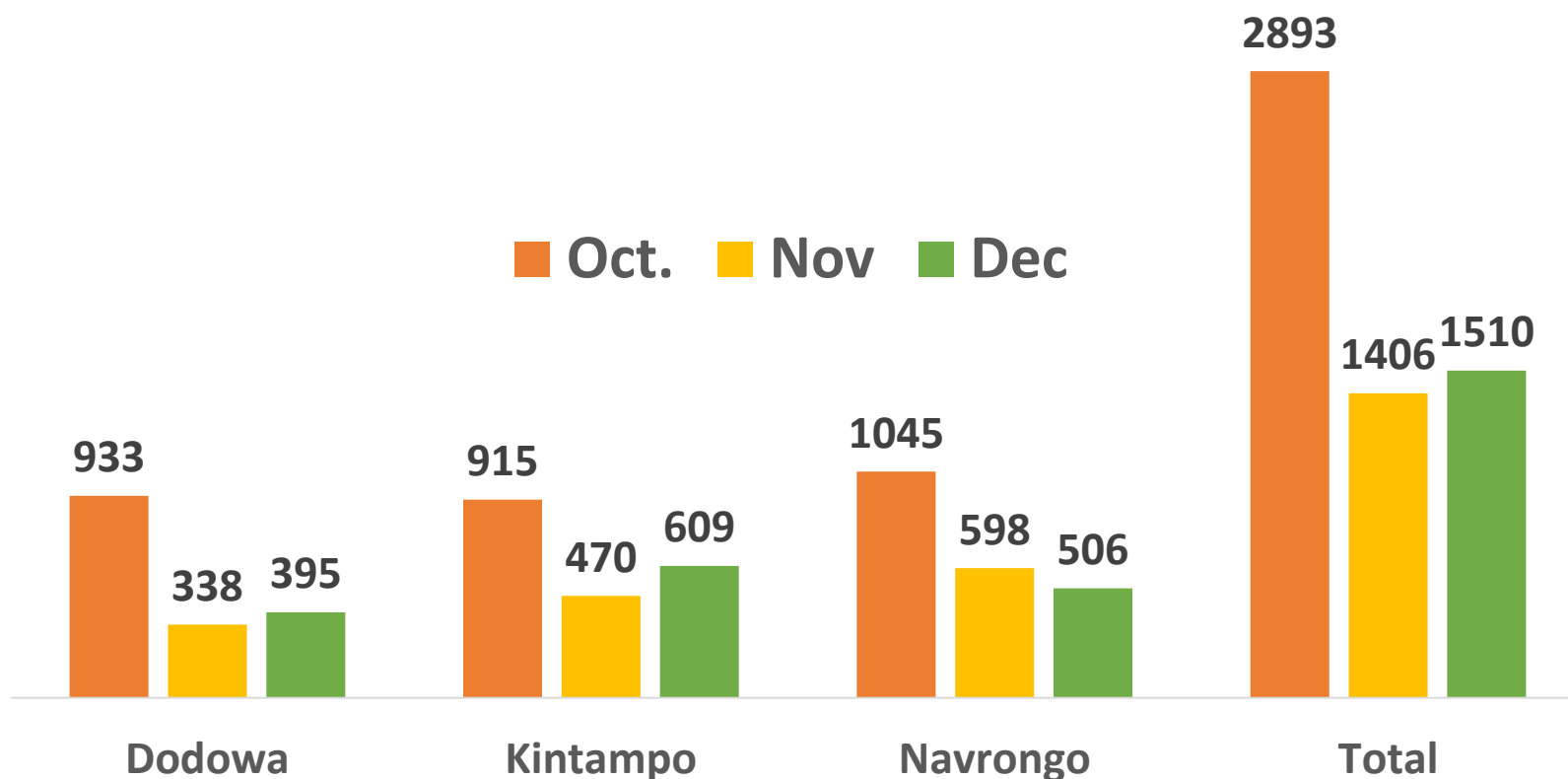
1. CoC completion
2. PNC within 48 h
3. Complications which require  $\geq 24$ -h admission
4. PMR/NMR

### Implementation Impact

1. Intervention coverage
2. Intervention adoption
3. Intervention fidelity
4. Implementation cost
5. Sustainability

# Initial Report of Intervention (Oct.~Dec. 2014)

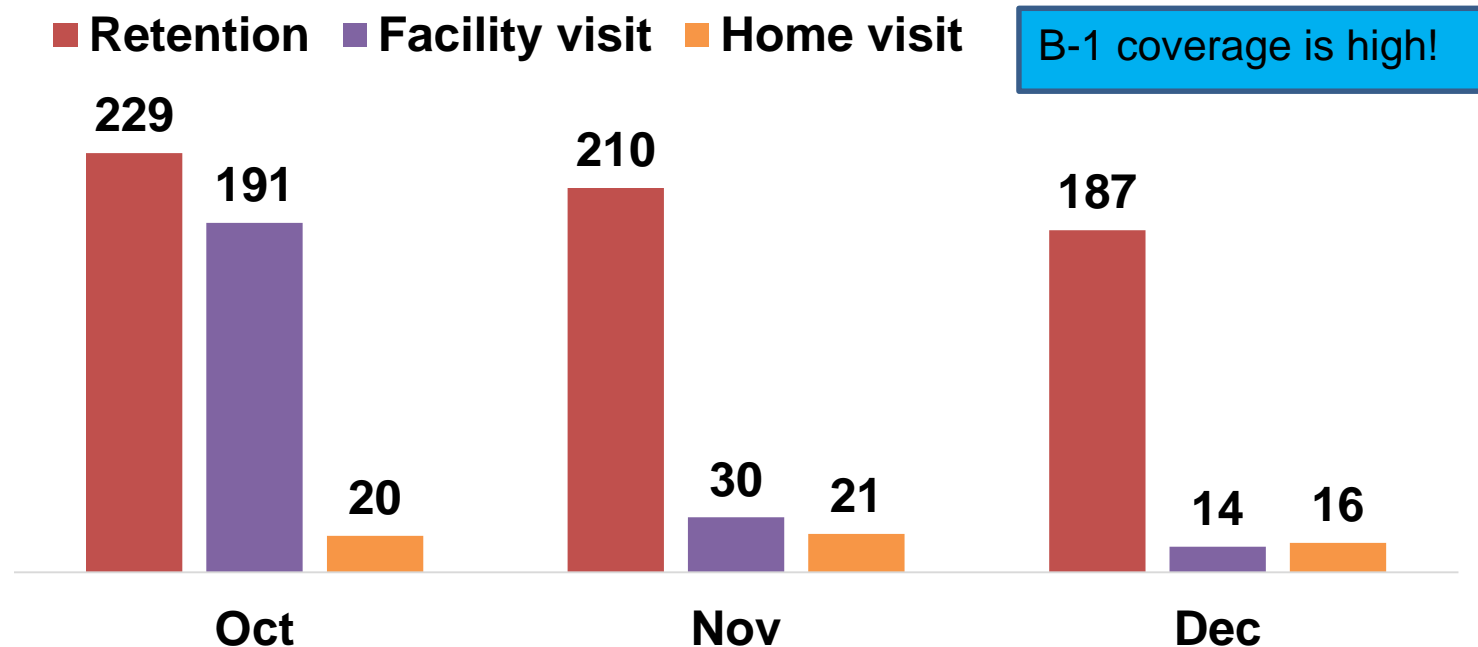
- Very high potential of adoptability
- 5,809 CoC cards were distributed





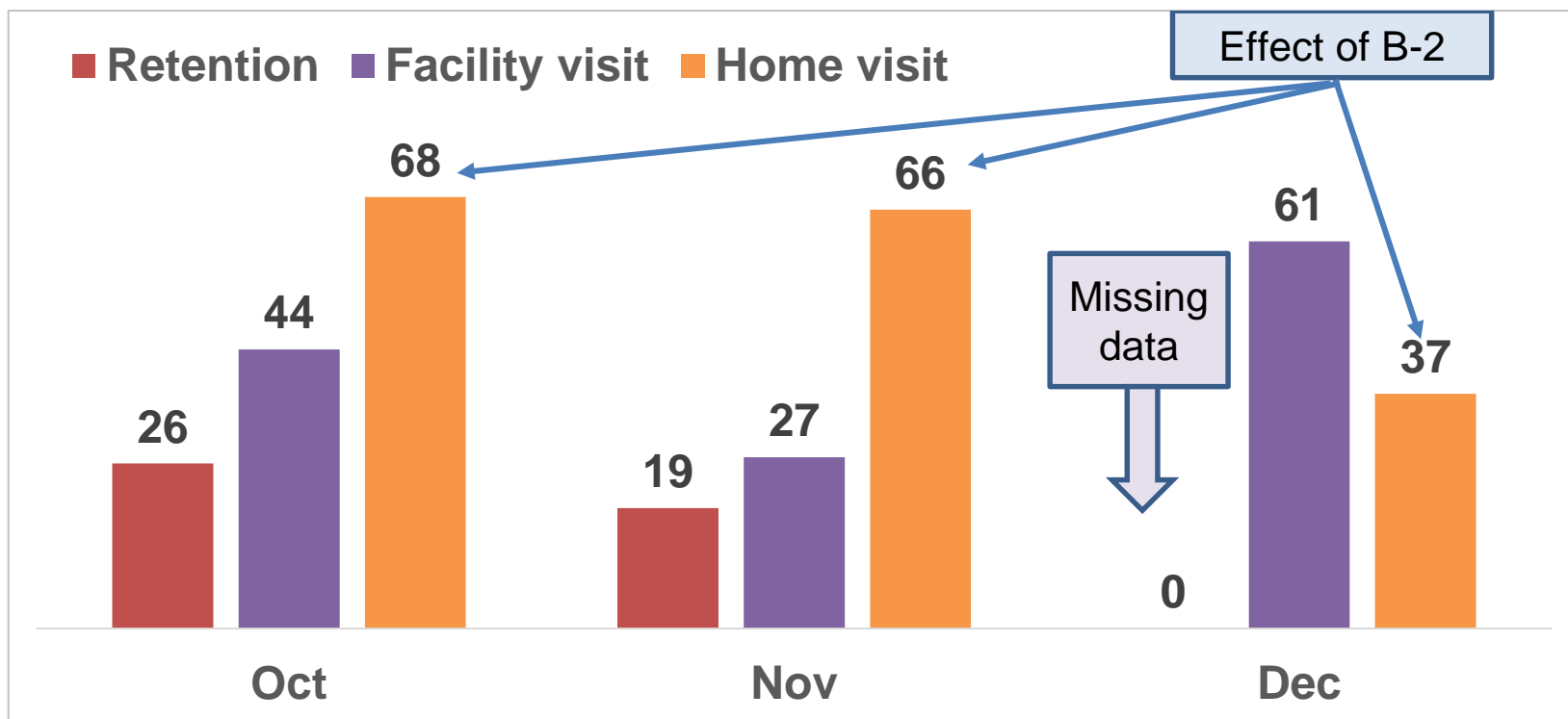
# Navrongo

- Approx. 600 women stayed at health facility for 24 hrs. postpartum and all received PNC within 48 hrs.

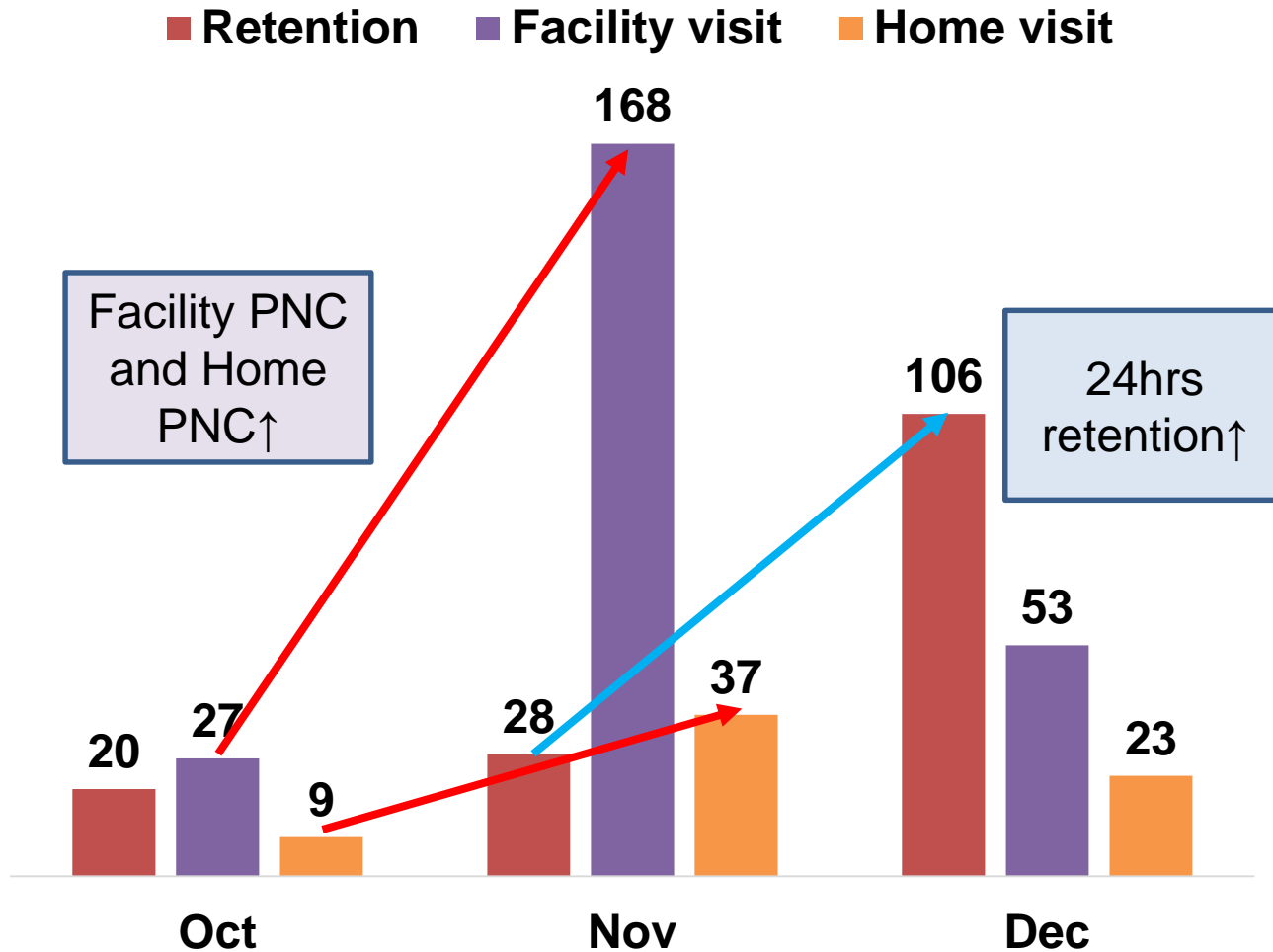


# Kintampo

- Home visit PNC has been favorably received, where women have custom to stay home for 6 weeks postpartum



# Dodowa





# Understanding CoC

“ When I properly follow the CoC card and do good behavior, I can get a gold star”

“I want to get all gold stars “



## Quality works

“Using the CoC card, we can now spend quality time on each mother.”



**Useful tool to  
convince mothers**

**“Usually, women  
do not want to stay  
at facility after  
delivery.**

**But looking at the  
CoC card, they  
understand that  
they should stay”**

“Traditionally, women of this region do not go out for 40 days after delivery.

So, it is really good to visit their home and see if mother and baby are fine.

They seem very happy.”

## Beyond the cultural barrier



## Discovering problems earlier

“By home visit, many neonatal sepsis cases were found. It’s due to bad umbilical cord cutting practices, like use of salty sand and toothpaste”



## Importance of 24h retention

“Yesterday, I attended a delivery. In the evening, I found the baby had 38.6°C, so I referred.”

“Now, I know how important 24-hour retention is.”





# Study Protocol Registration & Publication

RCT registration: *ISRCTN90618993*  
<http://www.isrctn.com/ISRCTN90618993>

**Trials** 2015; 16: 22.  
Published online 2015 Jan 27.  
DOI 10.1186/s13063-014-0539-3



**STUDY PROTOCOL**

**Open Access**

## Ghana's Ensure Mothers and Babies Regular Access to Care (EMBRACE) program: study protocol for a cluster randomized controlled trial

Kimiyo Kikuchi<sup>1</sup>, Evelyn Ansah<sup>2</sup>, Sumiyo Okawa<sup>1</sup>, Akira Shibanuma<sup>1</sup>, Margaret Gyapong<sup>3</sup>, Seth Owusu-Agyei<sup>4</sup>, Abraham Oduro<sup>5</sup>, Gloria Quansah-Asare<sup>6</sup>, Abraham Hodgson<sup>2</sup>, Masamine Jimba<sup>1\*</sup> and for the Ghana EMBRACE Implementation Research Project



***Thank you for your  
attention***