
Caesarean sections in Burundi

How well are the moms doing two years after?

van den Boogaard W, De Plecker E, Manzi M, Caluwaerts S, Van den Bergh R, Nanan-N'zeth K, Alders P, Etienne W, Duchenne B, Ndereye J, Manirampa J, Zachariah R.

Médecins Sans Frontières (MSF)
Ministry of Health Burundi



Caesarean Sections in MSF projects

C-sections between 2008 – 2012 from 17 countries: 14,643

A cross-sectional study of indications for cesarean deliveries in Médecins
Sans Frontières facilities across 17 countries



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Risk of uterine rupture in subsequent pregnancies / deliveries after C-section



higher among women with a previous C-section



higher in low income countries



and again higher when Inter-Pregnancy-Interval (IPI)* is short (<24 months)

- These factors increases the risks for uterine ruptures 2 – 3 times
- Uterine Ruptures account for 8% of all maternal mortalities!

Risk counselling activities post C-section

- Hospital based delivery
 - Family planning methods using various choices
 - So that child spacing is at least 24 months so that the uterus scar is healed
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How well are these moms doing two years after a C-section?

What was the situation as regards to child spacing?

Burundi - Context



- Small country in Central Africa with ~ 10 million people
- Maternal mortality ~ 650/100.000 live births (2/100.000 in Sweden)
- CURGO covered 1 from the 17 provinces
- Of all emergency deliveries in 2012 at CURGO, 49% were C-sections

Objectives

Two years post C-section we determined:

- **Clinical**
 - Pregnancies or deliveries
 - Where these deliveries took place
 - Uterine rupture and maternal death

 - **Family Planning (FP)**
 - Uptake and which methods being used
 - Inter-Pregnancy-Interval (IPI)
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Methods

- *Study design:* Household Survey using a structured questionnaire.
 - *Study population:* 1) All women who underwent a C-section at CURGO,
2) Discharge: July – September 2012,
3) Residing in Bujumbura Rural province.
 - *Ethics:* National Ethics Committee in Burundi and MSF Ethics Review Board.
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Women included in the study

156 women were documented to have undergone a C-section

125

31(20%) unknown by village leader

8(5%) migrated out of catchment area

117

1(0.6%) died of cholera

116



Baseline characteristics (n=116)

	n (%)	
Age in years	26	
Gravidity	3	
Parity	2	
Indication for CS (%)		
Obstructed labor (Cephalo-pelvic- Previous Caesarean Section	31	(26)
Mal presentation	24	(21)
Fetal Distress	19	(16)
Others	18	(16)
Newborn status at discharge (%)		
Alive	108	(92)
Dead	10	(8)

New pregnancies - deliveries

17 (15%) pregnant at time of interview

+

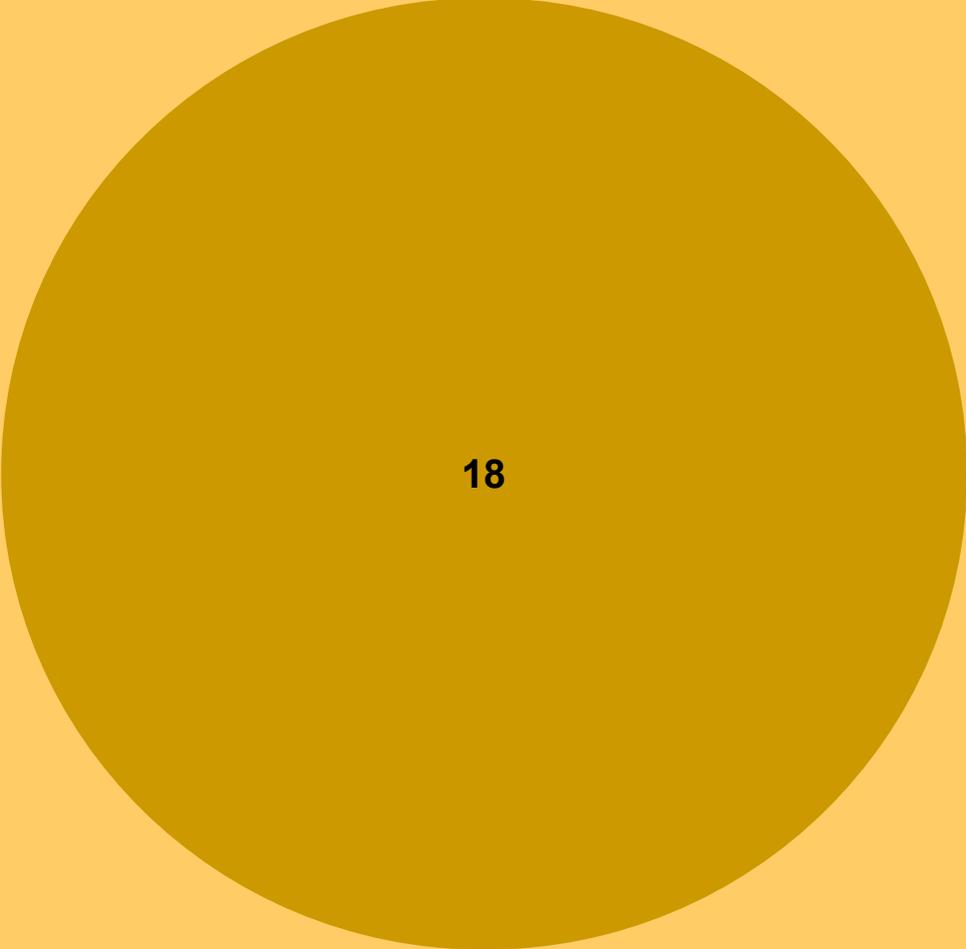
23 (20%) already delivered

=

40 (35%) women became pregnant
after last C-section

**Women who delivered since
C-section in 2012 (n=23)**

18

A large dark orange circle is centered on a lighter orange square background. The circle's diameter is approximately 80% of the square's side length. The number '18' is printed in the center of the circle. The square background is titled 'Women who delivered since C-section in 2012 (n=23)'. There are decorative elements: a thin dark orange line at the top, a thin dark orange line at the bottom, a small dark orange square on the right side of the square background, and some green and orange shapes in the top-left corner.

Maternal morbidity and mortality

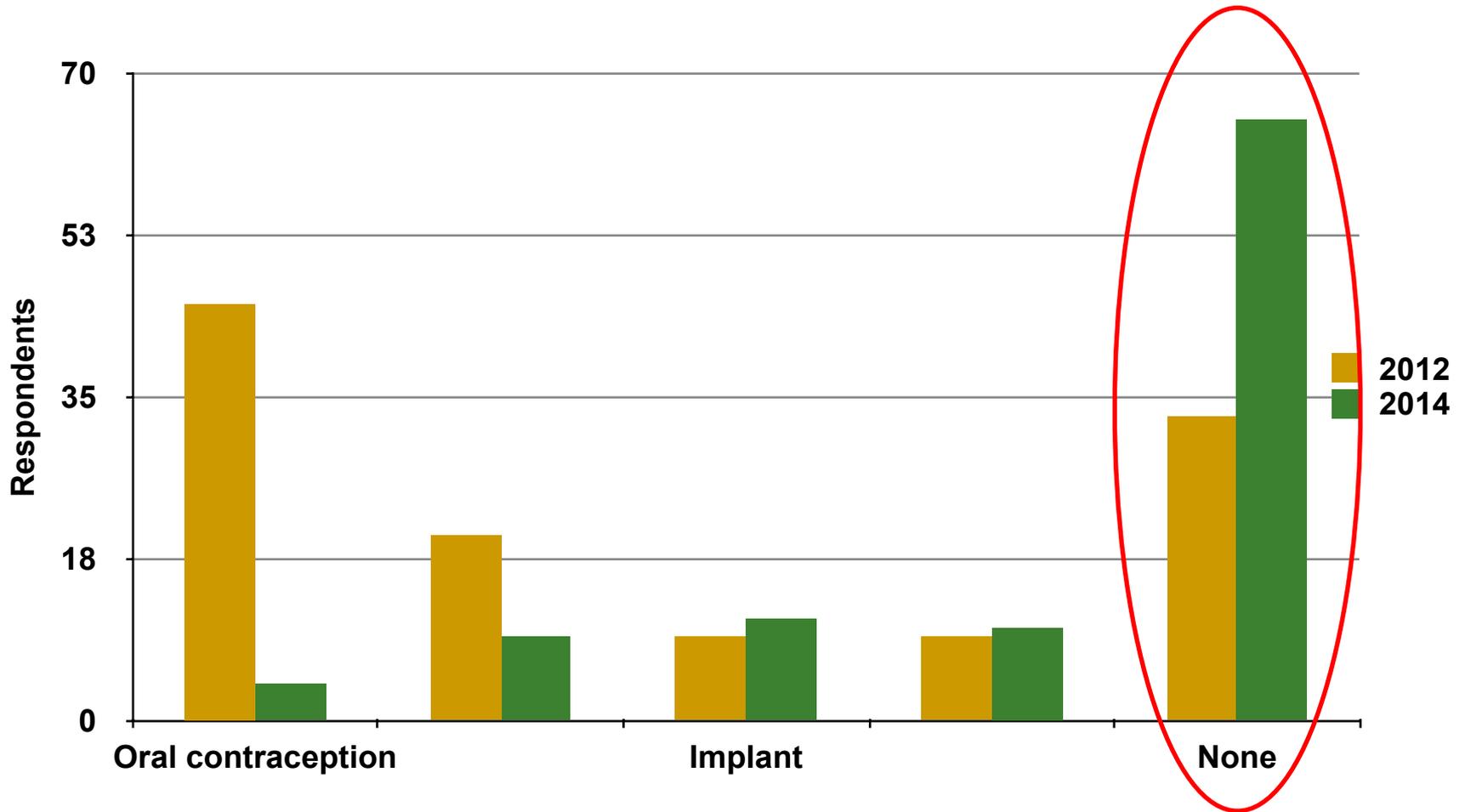
- One woman had a uterine rupture
 - One woman was hospitalized for a pregnancy related illness
 - There were no maternal deaths
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Family Planning (FP)

- FP country wide: 30%
- FP at discharge after C-section
in our programme: 72%

HAPPY?!?!?

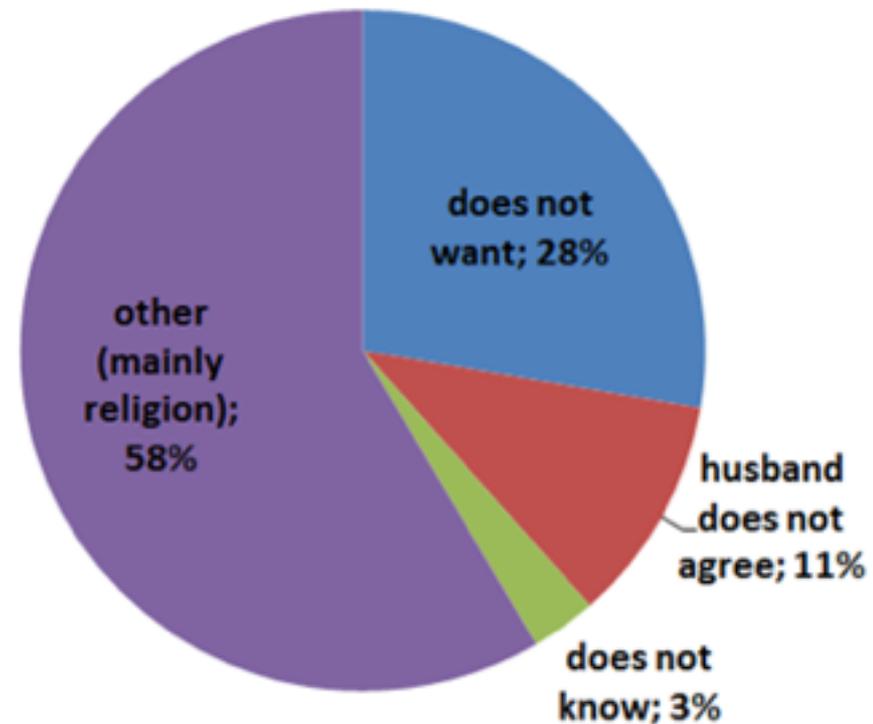
FP uptake at discharge and at time of interview



Reasons why not on family planning

2012: 33 (28%)

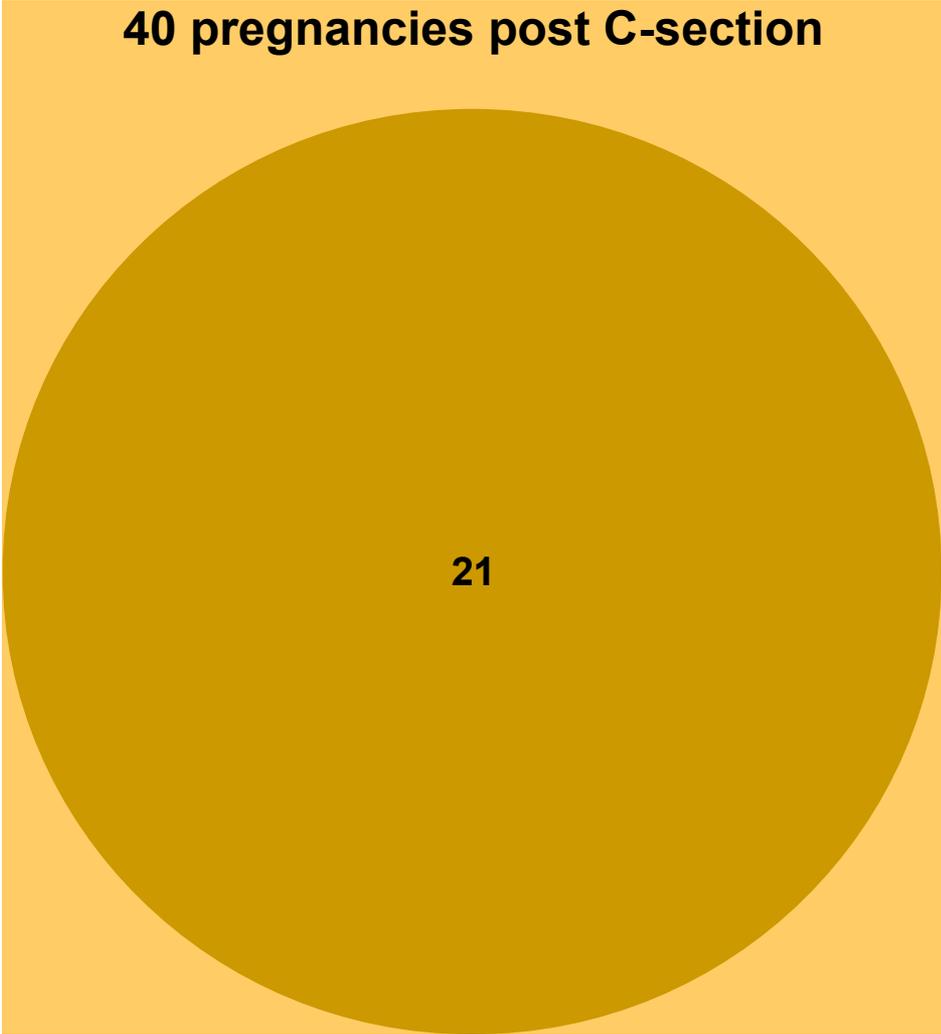
2014: 65 (56%)



NA: 17 (15%)

FP acceptance at discharge – pregnancy

40 pregnancies post C-section

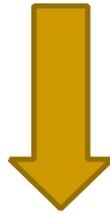


21

FP in relation to Inter-Pregnancy-Interval (IPI)

27 (68%) women **on** FP

13 (32%) women **not on** FP



16 months (3 – 24)
Median (Range)



15 months (5 – 21)
Median (Range)

Conclusions

- Vulnerable women still end up delivering outside the hospital even when they should have had access. We don't know the reasons why and therefore should be investigated.
 - One uterine rupture was found
 - There was no maternal death
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Conclusions

- The acceptance of family planning per-se did not influence the inter-pregnancy-interval
 - Socio-cultural factors are probably playing a more important role in child spacing:
 - early engagement of husbands should be enhanced
 - further investigation should allow to adopt different counselling strategies
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Acknowledgements



We thank the research team and the community health workers, without whom we would not have been able to find the participants.

We are grateful to the women who were willing to participate and who thanked us for showing interest even two years after.
