

Cesarean Section Safety and Quality in Low-Resource Settings

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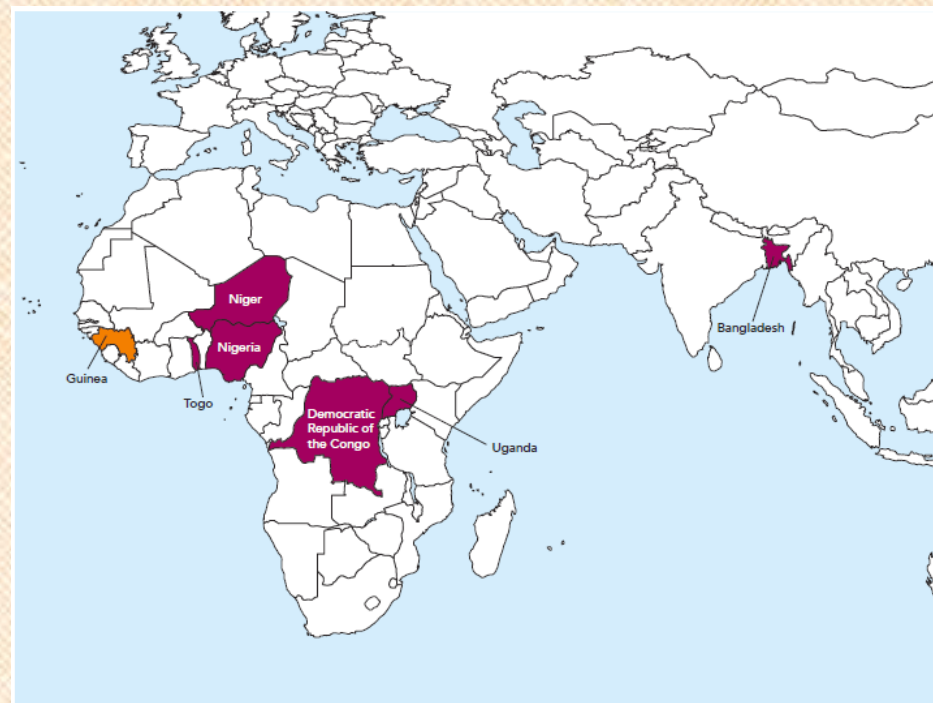


EngenderHealth
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Fistula Care *Plus* overview

- **Goal:** Strengthen health system capacity for fistula prevention, detection, treatment, and reintegration; 2013–2018
- **Outputs:** With USAID funding, fistula projects at EngenderHealth have supported >39,000 surgical fistula repairs and trained >26,500 health care workers

Countries: Bangladesh, Democratic Republic of Congo, Niger, Nigeria, Uganda; EngenderHealth also addresses fistula in Guinea

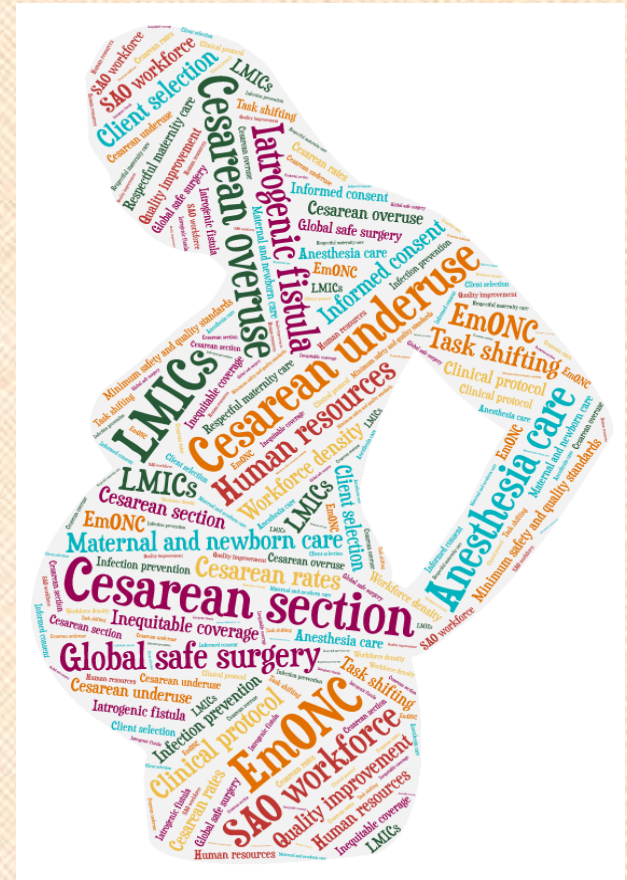


Genital fistula

- An abnormal opening in the upper or lower female genital tract that causes uncontrollable urinary and/or fecal incontinence
- 1–2 million women living with fistula; 6,000–50,000 new cases per year
- Causes
 - Obstetric
 - Inadequate management of prolonged/obstructed labor
 - Traumatic injury
 - Iatrogenic
 - Cancer/radiation therapy
 - Infection
 - Congenital defect

A global technical consultation – July 2017

- Conveners: FC+ & Maternal Health Task Force
- Participants: Clinicians, researchers, safe surgery/safe motherhood implementers
- Objectives:
 - Understand context of cesarean section provision in LMIC
 - Describe contributors to unsafe health system environments for cesarean section
 - Identify knowledge gaps requiring evidence
 - Identify key actions to ensure safety and quality of cesarean care in LMICs
 - Build commitment to enacting a plan of action



Sounding an alarm about cesarean safety

- The fistula eradication equation:
 - **Treat backlog + prevent new cases = ERADICATION**
- Recent FC+ program and research findings suggest areas of risk and regression in preventing new cases
 1. Cesarean section clinical decision making
 2. Iatrogenic fistula following cesarean section
- **Cesarean section is one of the most commonly performed surgical procedures in the world**

1. CS record keeping study

- Analyze data re: circumstances surrounding cesarean delivery
- Nearly 3,000 records reviewed from 9 facilities in Bangladesh, Guinea, Mali, Niger, Uganda



1. Referred patients

	Bangladesh	Guinea A	Guinea B	Mali	Niger A	Niger B	Niger C	Uganda A	Uganda B
# cases reviewed/ sampled	350	277	376	269	299	349	324	348	349
% patient files found	88%	9%	61%	37%	99%	66%	67%	78%	95%
% patients referred to facility	1%	39%	13%	51%	67%	88%	56%	11%	23%
% referred who came with notes	67%	9%	70%	8%	0%	29%	0%	14%	30%
% referred who came with partograph	0%	0%	0%	32%	<1%	6%	0%	0%	0%

1. Results: Recording exams & procedures

Percentage of records found with information on recording of times for exams and procedures by facility:

	Bangladesh	Guinea A	Guinea B	Mali	Niger A	Niger B	Niger C	Uganda A *	Uganda B
1 st Exam	5%	<1%	<1%	6%	60%	75%	68%%	-	59%
Decision for CS	5%	0%	<1%	7%	3%	3%	28%	-	51%
Birth	99%	57%	73%	76%	96%	92%	995	-	93%
Signed Surgical consent	87%	<1%	0%	0%	0%	0%	0%	-	93%

* At Uganda site A, data was not collected.

1/3 CS indications 'other/no information' in Bangladesh

1. Results – Key informant feedback

- No site had a formally documented Cesarean indication classification system
- No site had undertaken a review of Cesarean indications prior to this study
- No routine review of maternity data reported to management or district health authorities
- Staff shortage → backlog of unfiled patient records



2. Iatrogenic fistula study

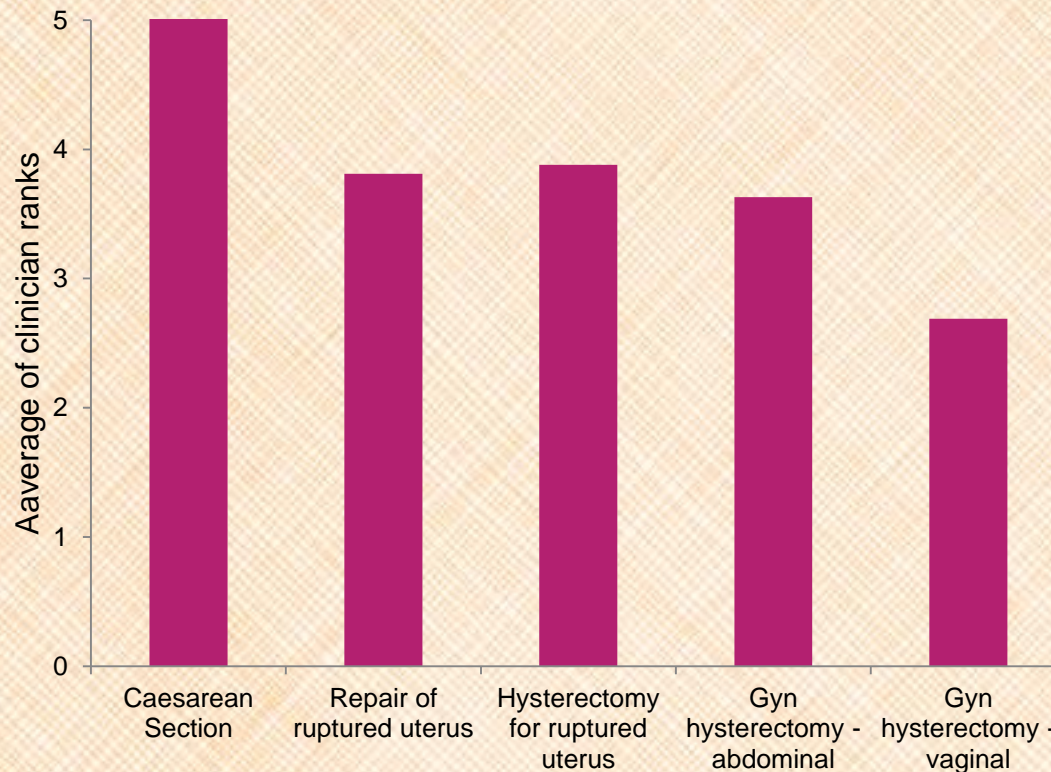
- Raassen et al., 2014
 - Reviewed ~6,000 fistula repair cases in 11 countries
 - Found that 13.2% of fistulas were caused by surgical error
 - 80% following treatment of obstetric complications
 - Causative procedures were performed by **all cadres of staff**

Full citation: Raassen, T. J. I. P., Ngongo, C. J., and Mahendeka, M. M. 2014. Iatrogenic genitourinary fistula: An 18-year retrospective review of 805 injuries. *International Urogynecology Journal* 25(12):1699–1706.

2. Clinician survey at FC+ supported sites

- 18 facilities responded (6 in Nigeria, 6 in Bangladesh, 3 in Uganda, 3 in DRC)
- Annual caseload: 11–100 repairs: 50%; 101–300 repairs: 25%; >300 repairs: 25%
- Respondents: Hospital-based clinicians, mostly ob-gyns/fistula surgeons

Clinician ranking of procedures contributing to iatrogenic fistula



2. Case reviews at FC+ supported sites

- **DRC:**
 - Jan. 2012–March 2015 at Hospital St. Joseph, Kinshasa
 - 566 fistula repair cases – 8% iatrogenic
- **Niger:**
 - Jan. 2009–Sep. 2015 at Hôpital National de Lamordé and National Referral Center for Fistula
 - 724 fistula repair cases – 10% iatrogenic
- **Bangladesh:**
 - 2012–2014 at four hospitals (primarily National Fistula Center)
 - 248 fistula repair cases – 27% iatrogenic

*An in-depth analysis of a subset of cases has been published: Ganda, S., Chipkao, R., Harissou, A., et al. 2016. Les fistules uro-génitales iatrogènes: À propos de 62 cas et revue de la littérature. *African Journal of Urology* 22(2):55–60. doi:10.1016/j.afju.2015.09.007.

Implications

Even as more women come to health facilities to deliver, inadequate quality of emergency obstetric care leaves them vulnerable to adverse iatrogenic outcomes such as fistula.

What HRH issues put cesarean safety at risk?

- **Flashpoint 1: Linkage between safe surgery and maternal health professional communities**
- **Flashpoint 2: Workforce density**
- **Flashpoint 3: Task shifting**
- Flashpoint 4: Clinical decision making and patient selection – protocols and practice
- Flashpoint 5: Informed consent and patient rights
- Flashpoint 6: Anesthesia care
- Flashpoint 7: Infection prevention and management

THANK YOU

Meeting reports available at: <https://fistulacare.org/resources/program-reports/cesarean-section-technical-consultation/>

