

**Cesarean Section Safety and Quality
in Low Resource Settings –Zambia's
Experience
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Facts about Zambia

- Population- 13 million
- MMR-398/100,000 live births
- Total fertility -5.3
- CPR-45%
- Unmet need for FP-21%
- C/S rate 4.4%
- 1 doctor per 12,000 patients



7 Basic and 9 Comprehensive Signal Functions for assessing EmONC services

Basic EmONC signal functions	Comprehensive EmONC signal functions
1. Parenteral antibiotics	Perform signal functions 1 – 7, plus:
2. Uterotonic drugs (i.e. parenteral oxytocin)	8. Perform surgery (e.g. caesarean section)
3. Parenteral anticonvulsants for pre-eclampsia and eclampsia (i.e. magnesium sulfate)	9. Perform blood transfusion
4. Manually remove the placenta	
5. Remove retained products (MVA)	
6. Assisted (instrumental) vaginal delivery	
7. Basic neonatal resuscitation	

Response to operative delivery needs

Training of non physician clinicians- Medical Licentiate (MLs) began in 2002 (task shifting)

- Close to 300 trained
- The MLs have proved capable of providing clinical and emergency obstetric surgical care in particular, at first level Hospitals
- Almost all ML are working in the rural districts
- Type and quality of medical referrals have improved

Research on task-shifting

- In September 2009 ECSA-HC recommended that member states develop appropriate country responses, policies and guidelines
- RCQHC was mandated to gather information from task shifting experienced countries on policy, training and guidelines related to this best practice to address the unmet need of for emergency obstetric surgery
- A study to document the experience of the practice of task shifting of emergency obstetric surgery to non physician clinicians in Zambia was thus carried out

Results

- There is no country policy per se regarding task shifting of EMOC-CS to non-physician clinicians; however the Ministry of Health has embraced and accepted the idea
- None of these NPCs ever experienced any complication during caesarean section both for baby and mother.
- The quality of caesarean section was acceptable in terms of prevention of mortality and morbidity for both mother and baby.
- Key aspects of the mechanisms and support structures in place to support trained NPCs to provide quality emergency obstetric surgical care or ensure quality services

Comparison of 2005 and 2014-15 Zambia EmONC Needs Assessments

EmONC Indicators	2005	2014-15
1. And 2 Availability and Geographical distribution of (EmONC): basic and comprehensive care facilities	No H/Centres were EmOC facilities	HC: 98.3% (most partial BEmONC)
		Hospitals: 48.3% (of these half fully functioning CEmONC)
3. Proportion of all births in EmONC facilities	9.2%	74.8%
4. Met need: Proportion of women with major direct obstetric complications who are treated in such facilities	8.5%	24.4%
5. Caesarean sections as a proportion of all births	1.6%	3.6%
6. Direct obstetric case fatality rate	2.4%	1.9%
7. Intra-partum and very early neonatal death rate	–	27.4/1000
8. Proportion of maternal deaths due to direct and indirect causes in EmONC facilities	–	MMR: 161/100,000 LB (excludes community MDs)

Zambia 2014-15 EmONC Needs assessment

(Based on 2012 Health Facility census of 1965 Health Facilities, 1231 conduct deliveries [excluding Health Posts])

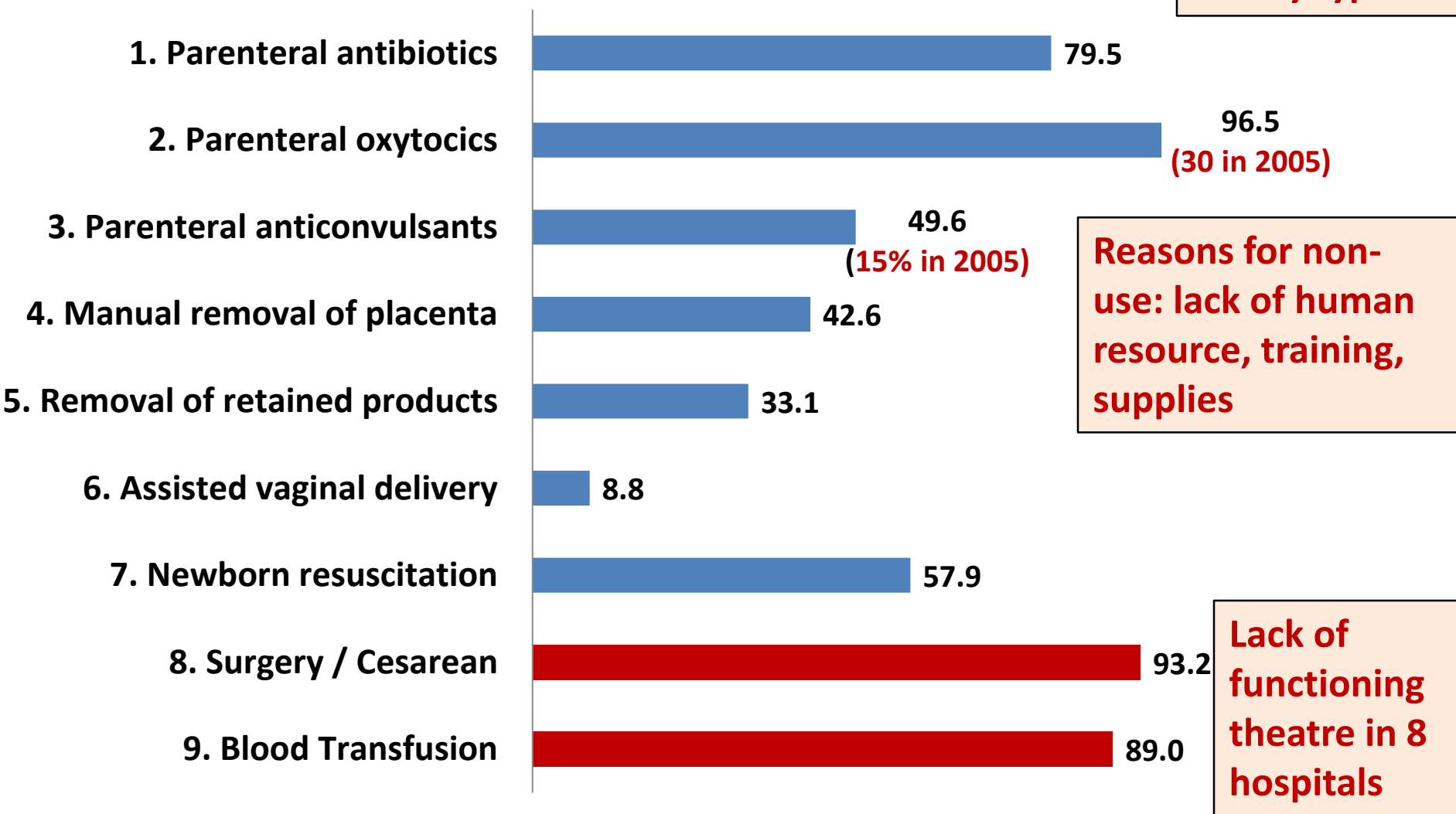
Type of facility	Level category	Total	Assessed	Assessed
Hospitals	Level 3	3	3	100%
	Level 2	26	26	100%
	Level 1	89	89	100%
Health Centres (that conduct deliveries)	Urban HC	125	30	24%
	Rural HC	992	236	24%
Health Post	HP	307	0	0%
		Total	384	

Hospitals:
census

HCs:
Representative
sample

Percent distribution of the nine signal functions, all facilities, Zambia 2014-5

Wide variation by province, facility type



Reasons for non-use: lack of human resource, training, supplies

Caesarean section rates by province

(Zambia EmONC Needs Assessment 2014-15)

	percent
National	3.6
Province	
Central	3.5
Copperbelt	6.7
Eastern	2.7
Luapula	2.7
Lusaka	5.2
Muchinga	2.3
Northern	2.6
N-Western	2.7
Southern	2.4
Western	2.5

Note:

Numerator Caesareans

**Denominator: expected
births in province**

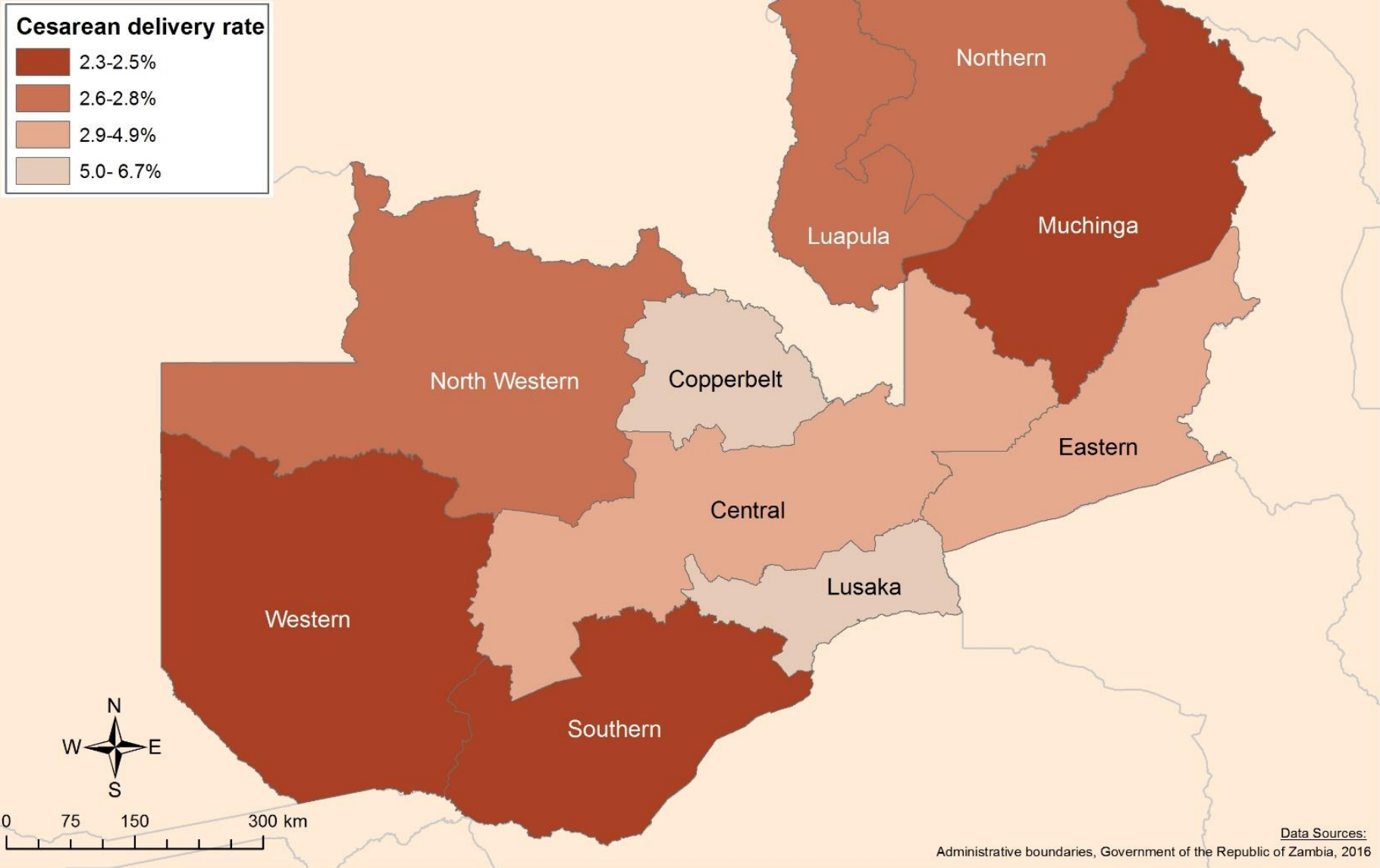
**Only Lusaka and
Copperbelt >5%**

**Institutional CS rate:
public 16%, Private 38%**

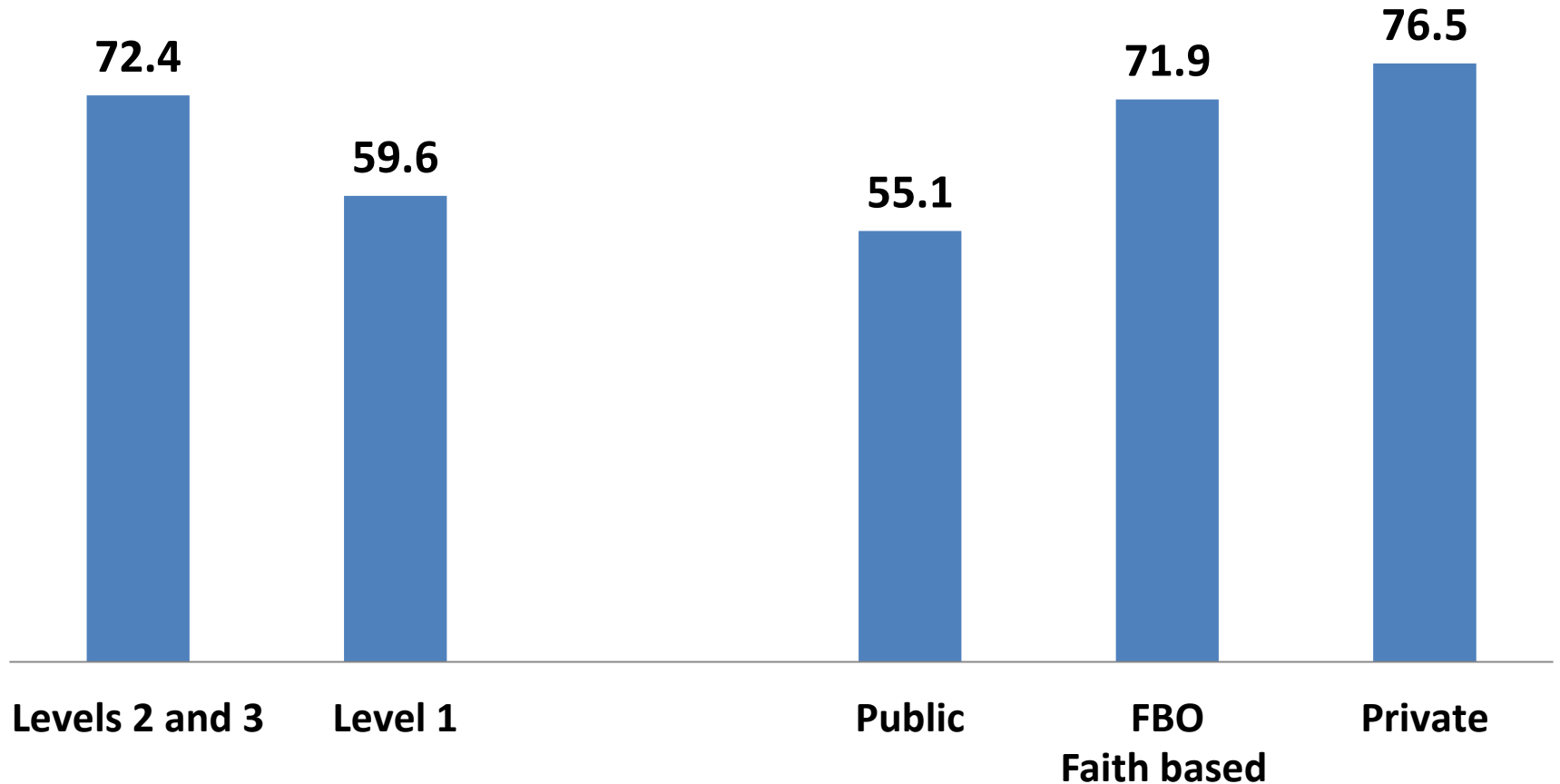
**ZDHS 2013-14
National: 4.4%**

Cesarean Delivery Rate

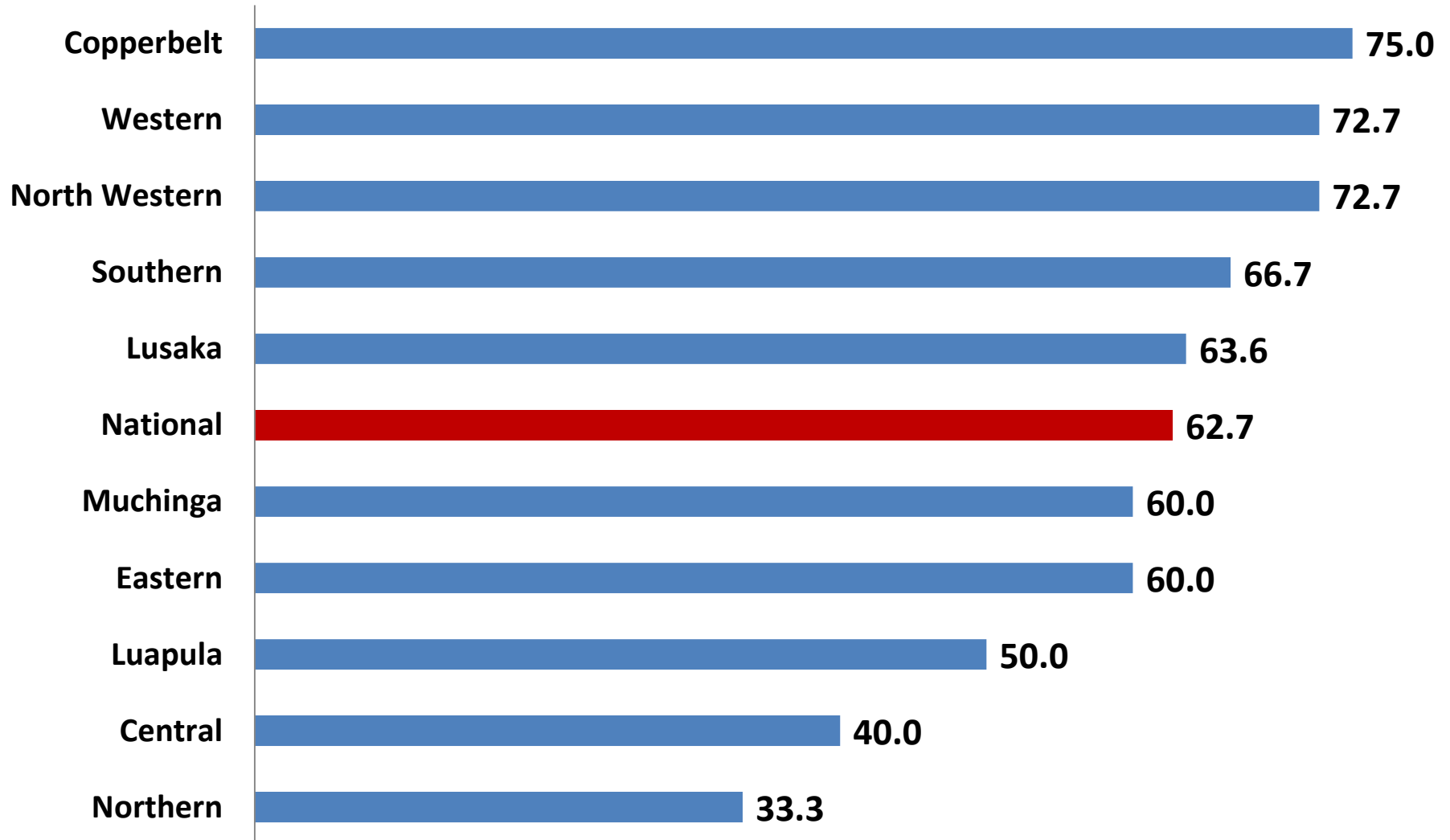
Zambia EmONC Needs Assessment 2014-2015



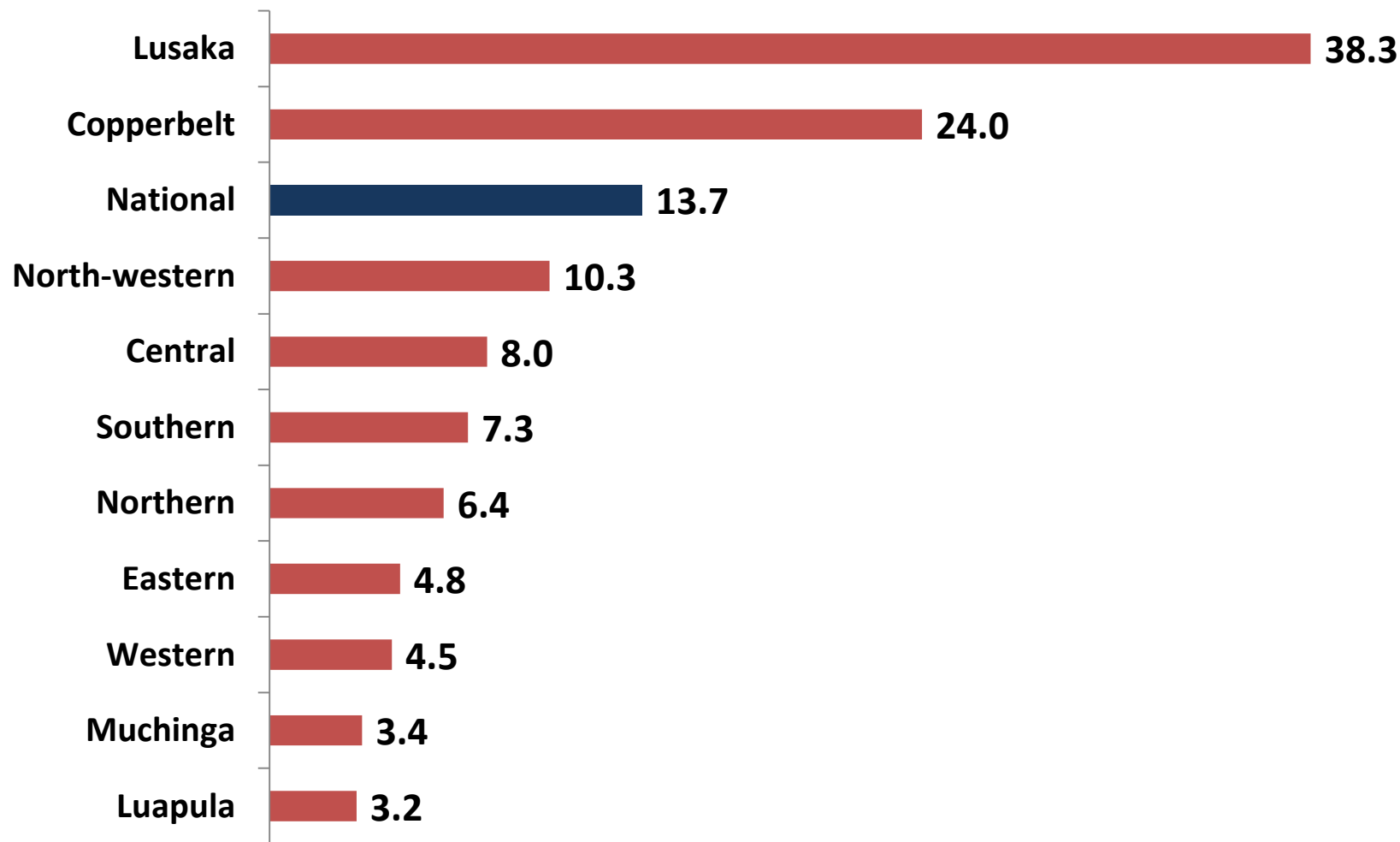
Percentage of hospitals with at least one complete C/S set by level of hospital and ownership, Zambia, 2014-15



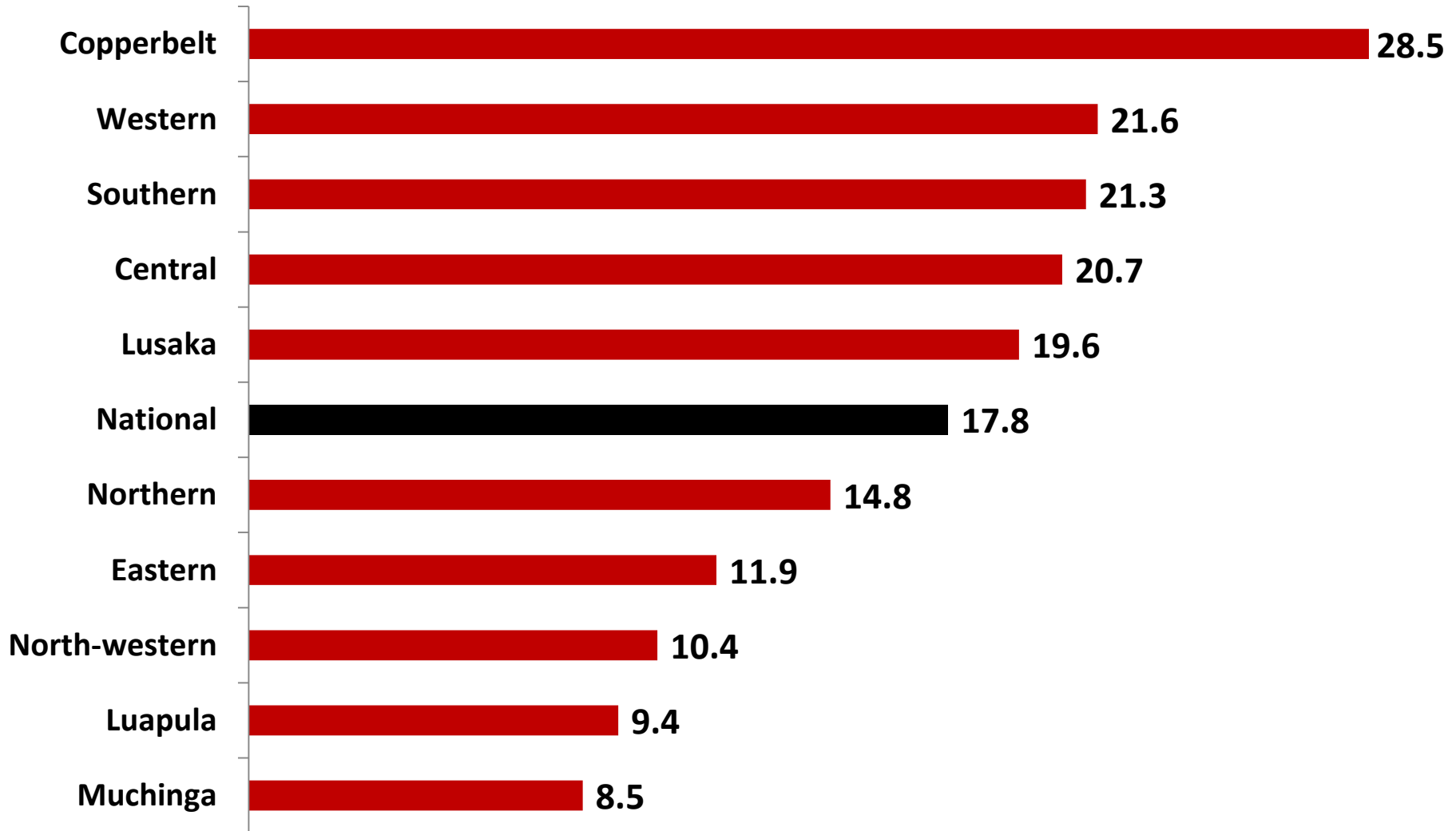
Percentage of hospitals with at least one complete cesarean section set at national level and by province, Zambia, 2014-15



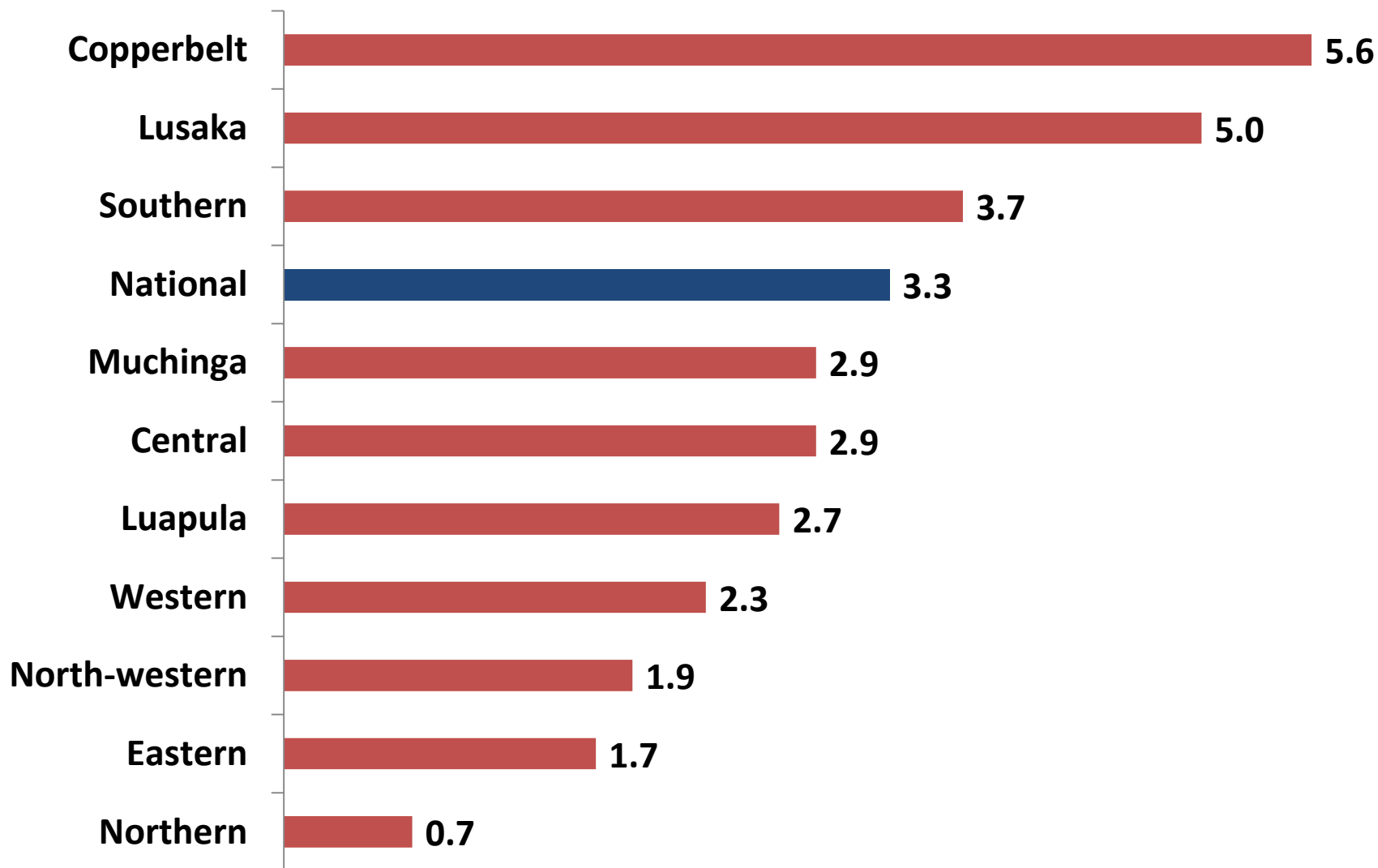
Ratio of Doctors (specialist Obs/Gyn + General) per 10,000 expected births, Zambia 2014-15



Ratio of Medical Licentiates and Clinical Officers per 10,000 expected births, Zambia 2014-15



Ratio of anesthetists (physicians or ML/CO) to 10,000 expected births



Conclusion NPCs

- Training and establishment of the NPCs in Zambia has shown that this programme could succeed with strong political will.
- The programme is now a university BSc CS degree for 4 years
- The NPCs have shown to be safe with regard to practice of emergency obstetric surgery though a scientific evaluation of this impact will be helpful.
- Task shifting that has been effected to expand access obstetric surgery has been addressed within the national safe surgery strategy in Zambia -along with training of specialists