Appendix 2: Assessment of CS Rates among women who gave birth at Hawassa University Referral Hospital, Hawassa, South

Ethiopia.

Steps for	Interpretati	Example:	Sri	Our	Additional	Final Interpretation
Interpretation	on by	MCS	Lanka	finding	information	
	Robson	Population	study		from the data	
Step 1: CS rate in group 1	Under 10% are achievable	9.8%	18.8%	27.5%	35.0% of CS delivery is due to Abnormal foetal heartbeat pattern in our hospital	CS rate is higher than Robson, MCS, and Sri Lanka. This might due to a high ratio of group 1 to group 2 population in our study which indicates a higher CS rate in these groups as suggested by the WHO manual. It might also due to inappropriate indications of CS delivery in our hospital.
Step 2: CS rate in group 2	Consistently around 20%–35%	39.8%	41.0%	42.7%	- Failed induction was an indication in 36.0% of group 2a.	CS rate in line with Sri Lanka, but higher than MCS and Robson references. This may be possibly due to inappropriate indications of CS in the induction of labour and pre-labour CS.
Step 3 : CS rate in Group 3	Not higher than 3.0%.	3.0%	5.2%	16.7%	-Obstructed labour was an indication in 51.5%.	CS rate is higher than Robson, MCS, and Sri Lanka. This may be explained by misclassification (group 5 misclassified as group 3).
Step 4 : CS rate for group 4	It rarely should be higher than 15%	23.7%	16.8%	43.04%	Failed induction was an indication in 24.0% of group 4a.	CS rate is higher than Robson, MCS, and Sri Lanka. There was a high CS rate in group 4a (26.8%) which contributed to the high CS rate in group 4 in our study. The possible explanation may high failed induction or there might be misclassifications (group 5 misclassified as group 4).

Step 5 : CS rate in group 5	Rates of 50%– 60% are considered appropriate	74.4%	81.8%	77.6%	Previous CS was the indication in 72.8%. Rate of prelabour CS was 33.9%	CS rate is higher than Robson and MCS examples but lower than the Sri Lanka study. This may be due to a high indication of CS due to previous CS, low offer of a trial of labour or VBAC (Vaginal birth after CS delivery), women's preference for repeating CS.
Step 6 : CS rate for group 8	Usually around 60%	57.7%	80.9%	59.1%	-	CS rate in line with Robson and MCS example.
Step 7 : CS rate in group 10	Usually around 30%	25.1%	41.1%	26.05%	-	CS rate in line with Robson and MCS example
Step 8: Relative contribution of groups 1, 2 and 5 to the overall CS rate	Normally contribute to 2/3 (66%) of all CS performed in most hospitals	Contributed to 63.7% of all CS	63.9%	51.7%	The relative contribution of group 2 to the overall CS rate was low (7.38%).	CS rate lower than Robson, MCS example and Sri Lanka study. This may be due to the relative contribution of group 2 to the overall CS rate which was low. The size of group 2 may also be contributed due to the misclassification of the pre-term as a term.
Step 9: Absolute contribution of group 5 to overall CS rate	NA	Responsible for 28.9% of all CS	Absolut e contribu tion: 8.87% Relative contribu tion: 29.59%	Absolut e contribu tion: 7.02% Relative contribu tion: 21.39%	-	The absolute contribution was not indicated in the WHO Robson manual, but our study finding was lower than the MCS example and Sri Lanka study.