

Appendix 1: Assessment of the type of Populations among women who gave birth at Hawassa University Referral Hospital, Hawassa, South Ethiopia.

Steps for Interpretation	Interpretation by Robson	Example: MCS Population	Sri Lanka study	Our finding	Additional information from the data	Final Interpretation
Step 1: Size of group 1+ 2	35-42%	38.1%	38.1%	32.99%	Nulliparas in our population 41.1%	Rate is lower than all the three references by Robson, MCS and Sri Lanka populations. This might be due to a low proportion of nullipara women in our Hospital. There is also a possibility of misclassification (group 1 misclassified as group 10) since we determined gestational based new-born birth weight.
Step 2: Size of Group 3+4	30%	46.5%	37.3%	37.81%	Multiparous in our population 58.9%	Rate higher than Robson reference population, in line with Sri Lanka reference population and lower than MCS examples. This may be explained by a high proportion of multiparous women in our population
Step 3: Size of group 5	Half of the total CS rate	7.2%	10.9%	9.04%	-	Lower than half of total CS. This, as suggested by the WHO manual, may be due to relatively low CS rate in the previous years, or to a recently increased CS rate or misclassification.
Step 4: size of group 6+7	3-4%	2.7%	3.4%	2.77%	-	Rate is in line with Robson, MCS and Sri Lanka reference populations
Step 5: Size of group 8	1.5-2%	0.9%	1.1%	3.85%	36.7% of women delivered in our Hospitals	Rate is higher than Robson, MCS and Sri Lanka reference populations. This may be due to high referral cases in our hospital as suggested by the WHO manual.

					15.1% of all women who gave birth in our hospital delivered preterm birth.	Rate is higher than Robson, MCS and Sri Lanka reference populations. This may be due to high referral cases and high preterm birth in our hospital. The hospital is a tertiary hospital were most high-risk pregnancies referred to. There is also a possibility of misclassification since we determined gestational based new-born birth weight.
Step 6: Size of group 10	<10%	4.2%	7.8%	13.14%	15.1% of all women who gave birth in our hospital delivered preterm birth.	Rate is higher than Robson, MCS and Sri Lanka reference populations. This may be due to high referral cases and high preterm birth in our hospital. The hospital is a tertiary hospital were most high-risk pregnancies referred to. There is also a possibility of misclassification since we determined gestational based new-born birth weight.
Step 7: Ratio of the size of group 1 versus group 2	Ratio 2 or higher	Ratio 3.3	Ratio 1.5	Ratio 4.8	-	The rate in line with Robson and MCS example reference populations
Step 8: Ratio of size of group 3 versus group 4	>2:1	Ratio 6.3	Ratio 2.6	Ratio 8.6	-	Rate in line with Robson and MCS example reference populations
Step 9: Ratio of size of group 6 versus group 7	Usually 2:1	Ratio 0.8	Ratio 1.2	Ratio 0.7	Multiparous in our population 58.9%	The rate in line with MCS and Sri Lanka reference populations, but lower than Robson references. This may be explained by a high proportion of Multiparous women in our population.