

Table 1. Input parameters and model assumptions

Variable	Baseline (probability)	Beta Distribution	Reference
Probability a woman gets pregnant in a given year	0.0654	(14.882, 212.76)	(42)
Markov States			
Probability that a woman has a history of hysterectomy	0.017	(5378.14, 310982.86)	(43)
Probability that a woman has a history of CS	0.172	(42994.32, 206972.68)	(17)
Probability that a woman in a rural area has a history of CS	0.128	(23020.67, 156828.33)	(17)
Probability that a woman in an urban area has a history of CS	0.282	(19773.28, 50344.72)	(17)
Probability that a woman has no history of CS	Complement		
Access	Probability	Beta Distribution	Reference
Probability that a woman has access to CEmOC	0.502	(125483.43, 124483.57)	(17)
Probability that a woman in a rural area has access to CEmOC	0.472	(84888.73, 94960)	(17)
Probability that a woman in an urban area has access to CEmOC	0.557	(39055.73, 31062.27)	(17)
Complications	Probability	Beta Distribution	Reference
Probability of a woman developing an absolute indication for antepartum CS	0.0362	(893.49, 23788.51)	(44)
Probability of PPH in the setting of vaginal delivery	0.009	(1174.32, 129305.68)	(45)
Probability of hysterectomy in the setting of vaginal delivery	0.0003	(4.39, 14632.61)	(46)
Probability of intrapartum CS in the setting of TOLAC	0.739	(3346.93, 1182.07)	(47)
Probability of not having an indication for an antepartum CS	0.0094	(42.98, 4529.02)	(47)
Probability of not having an indication for an intrapartum CS in the setting of TOLAC	0.018	(21, 1161)	(47)
Probability of successful TOLAC	Complement		
Probability of PPH in the setting of placenta accreta	0.6	(18, 12)	(48)
Probability of hysterectomy in the setting of placenta accreta	0.765	(42.84, 13.16)	(49)
Probability of PPH in the setting of placenta previa	0.2111	(57, 213)	(50)
Probability of uterine rupture in the setting of TOLAC	0.0169	(25, 1454)	(51)
Probability of hysterectomy in the setting of uterine rupture during TOLAC	0.0819	(14.61, 163.75)	(41)
Probability of ICU admission in the setting of a peri-partum hysterectomy	0.357	(19.99, 36.01)	(46)
Probability of all-cause for obstetric mortality during ICU admission	0.2165	(42, 152)	(52)
Probability of a woman developing an absolute indication for intrapartum CS	0.144	(3426, 20348)	(47)
Probability of mortality in the setting of an absolute indication (placenta accreta, placenta previa) for antepartum CS	0.00323	(15.95, 4920.62)	(53–55)
Probability of mortality in the setting of an absolute indication (uterine rupture, prolonged obstructed labor) for intrapartum CS	0.0025	(15.96, 6367.04)	(45,56,57)
Probability of mortality in the setting of PPH during vaginal delivery	0.006	(11.01, 18618.99)	(58)
Probability of emergency hysterectomy during CS	0.0027	(39.52, 14597.48)	(46)
Probability of PPH in the setting of uterine rupture	0.314	(50.55, 110.45)	(59)
Probability of mortality in setting of PPH during vaginal delivery without access to care	0.0006	(11.01, 18618.99)	(58)
Probability of developing a fistula following vaginal delivery in setting of absolute indication for CS	0.0001	(16, 159967)	(60)
Probability of developing incontinence during vaginal delivery in the setting of absolute indication for CS	0.0011	(15.98, 14512.97)	(60)
Probability of developing stroke during vaginal delivery in the setting of absolute indication for CS	0.0015	(15.97, 10633)	(61)
Costs	Cost (US \$)	Gamma Distribution	Reference
Vaginal delivery at a facility	153.70	(16, 9.51)	(24,25)
CS	745.66	(16, 47.93)	(24,26,27)
Managing PPH, including blood transfusion	79.89	(16, 4.99)	(24)
Peripartum hysterectomy	2241.42	(16, 140.09)	(26)
ICU admission	448.50	(16, 28.03)	(28)
Assumptions:			
Fertility rate is the same throughout India. If a woman has no access to CS, then she also has no access to blood transfusion, hysterectomy, or ICU-level care. The cost of uterine rupture is equivalent to the cost of CS. Absolute indications for both antepartum CS and intrapartum CS are			

independent and mutually exclusive. CEmOC capability is equivalent across India (data used from Gujarat state). Access to CEmOC care is equal to the probability that someone delivers in a facility times the probability that the facility has CEmOC capabilities. Neonatal mortality occurs if the woman has an absolute indication for a CS but does not have access to CS. The probability of PPH following TOLAC which ends in an intrapartum CS is equivalent to the probability of PPH after any CS. In rural areas where current CS rate is below the WHO recommended rate, there were no CS performed without indication. If a woman has access to cesarean section, neonatal survival is 100%.

*Complement probabilities were obtained by subtracting from 1 the probabilities of all parallel branches to obtain the complement. Cost of medical services in India are presented in 2016 USD

** CS: Cesarean section; TOLAC: trial of labor after CS; PPH: post-partum hemorrhage; VBAC: vaginal birth after CS; ICU: intensive care unit, CEmOC: comprehensive emergency obstetric care