Appendix to:

Accuracy of Patient Perceptions of Maternity Facility Quality and the Choice of Providers in Nairobi, Kenya: A Cohort Study

Figure A1. Flow chart of facility inclusion in the study (Adapted from Cohen et al 2017[1])
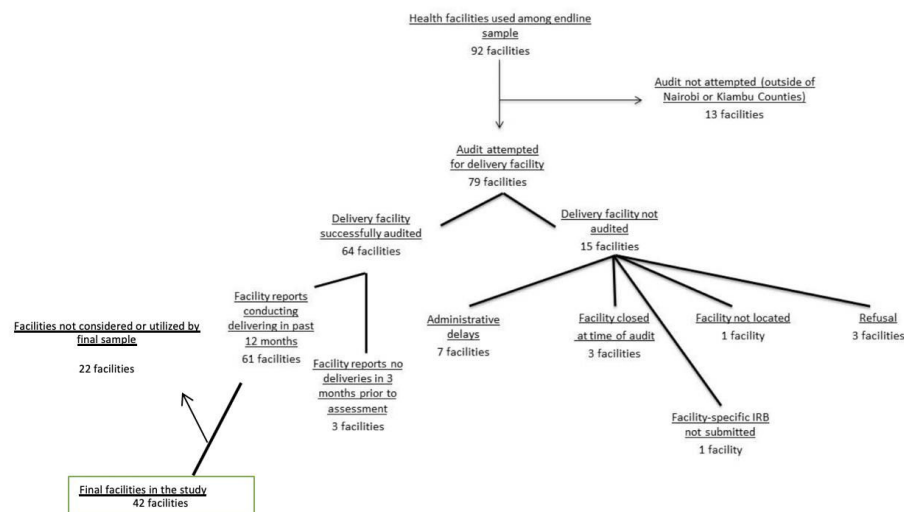
Table A1. Fraction of facilities performing each item in the quality index (N=42)

Quality Index Item	Percentage of Facilities Meeting Item
Reported practice in the past three months	
1. Removal of retained products of conception	73.8
2. Parenteral oxytocin for maternal hemorrhage	97.6
3. Parenteral anticonvulsants for (pre-)eclampsia	54.8
4. Manual removal of placenta	69.1
5. Parenteral antibiotics for maternal infection	90.5
6. Assisted vaginal delivery (vacuum or forceps)	26.2
7. Caesarean section	47.6
8. Blood transfusion	40.5
9. Antibiotics given to mother for preterm labor or prolonged rupture of membranes	73.8
10. Parenteral antibiotics for neonatal sepsis	66.7
11. Corticosteroids given to mother for preterm labor	47.6
12. Newborn resuscitation (with bag and mask)	81.0
13. Kangaroo Mother Care practiced for premature/very small newborns	64.3
14. Alternative Feeding for newborns unable to breastfeed	64.3
15. PMTCT if mother is HIV-positive	71.4
16. IV fluids given to newborn	47.6
17. Safe administration of oxygen to newborn	71.4
Verified presence of	
18. At least one medical officer present 24 hours 7 days a week	85.7
19. Essential medical supplies and equipment for medical complications †	52.4

Notes †. Medical equipment and supplies include syringes and needles, injectable oxytocic, IV infusion set, suture material with needle, injectable anticonvulsant and injectable antibiotics.

Table A2. Characteristics of study sample (N= 180) compared to original (full study) baseline sample (N=553)

Mean/percentage (se)	Study sample (N= 180)	Original Study Baseline Sample (N = 553)	Test of equality. p-value on F-test that 1=2
	(1)	(2)	(3)
Mean age, years	25.34 (4.73)	25.27 (4.53)	0.87
Married	85.56 (0.35)	88.43 (0.32)	0.31
Any Secondary Education	65.56 (0.48)	67.09 (0.47)	0.70
Electricity in household	98.89 (0.24)	92.39 (0.27)	0.50
Difficult to get 1000 Ksh †	60.00 (0.49)	59.60 (0.49)	0.92
Health Insurance	38.33 (0.49)	40.65 (0.49)	0.41
First pregnancy	31.67 (0.47)	33.82 (0.47)	0.62
Previous C-section (among those with previous birth)	9.83 (0.30)	12.39 (0.33)	0.45
People with whom delivery location was discussed, number	0. 54 (0.76)	0.42 (0.72)	0.06
Informed to have a high-risk pregnancy	8.33 (0.38)	6.15 (0.24)	0.31

Notes. † Amount converted from Kenyan Shillings (1000) to US Dollars using April 2017 conversion rate of 0.0097.

Table A3. Association between perception accuracy and the probability/odds of delivery in a facility in each quartile of the quality distribution (multivariate ordinary least square and logistic regressions; N=180)

| | | | Dependent Variable Is a Binary Variable Indicating: | | | | | | | | | |

Delivered in Bottom Quartile Facility			Delivered in Second Quartile Facility			Delivered in Third Quartile Facility			Delivered in Top Quartile Facility		
Estimate or Odds Ratio	95 % CI	p-value	Estimate or Odds Ratio	95 % CI	p-value	Estimate or Odds Ratio (se)	95 % CI	p-value	Estimate or Odds Ratio (se)	95 % CI	p-value
Ordinary least square regression (unadjusted)											
-0.082	-0.211, 0.047	0.211	-0.030	-0.157, 0.098	0.647	-0.045	-0.183, 0.092	0.516	0.157**	0.041, 0.273	0.008
Ordinary least square regression (adjusted)											
-0.070	-0.218, 0.079	0.358	-0.039	-0.173 0.116	0.599	-.036	-0.196, 0.124	0.659	0.145*	0.029, 0.260	0.015
Logistic regression (unadjusted)											
0.649	0.327, 1.288	0.216	0.851	0.427, 1.696	0.647	0.809	0.428, 1.531	0.515	2.962**	1.330, 6.597	0.008
Logistic regression (adjusted)											
0.737	0.311, 1.748	0.489	0.854	0.358, 2.038	0.721	0.835	0.379, 1.838	0.654	4.39*	1.302, 14.77	0.017

Notes. Each specification is a regression of a binary outcome indicating delivery in a facility within the specific quality quartile on the perception accuracy variable. There are four of these regressions, one for each quartile of the quality distribution. Adjusted regressions include the following covariates: Marital status, educational attainment, choice set size, ANC visits more than 4, previous pregnancy, C-section history, insurance status, information about risk in pregnancy, SES status, treatment arm, gestational month at baseline and neighborhood group.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table A4. Sensitivity Analysis: Association between Perception Accuracy and an Alternative Measure of Facility Quality (OLS Regression)

	Unadjusted			Adjusted		
	Estimate	95 % CI	p-value	Estimate	95 % CI	p-value
Outcome: BEmONC Count[1]	0.525	-0.007, 1.057	0.053	0.570*	0.043, 1.098	0.034

Notes. Models are ordinary least squares regressions. Adjusted regressions include: Marital status, educational attainment, choice set size, previous pregnancy, C-section history, insurance status, information about risk in pregnancy, ANC visits more than 4, SES status, treatment arm, gestational month at baseline, and neighborhood group.

1 BEmONC Count is the number of (out of 7) signal functions that the facility meets [2]. These functions are detailed in items 1-6 and 12 in Table A1.

* p <0.05; ** p< 0.01 ; *** p< 0.001

Table A5. Sensitivity Analysis: Association between a Lenient Definition of Accurate Perceptions and Facility Quality Index (N=180)

	Unadjusted			Adjusted	
Estimate	**95 % CI**	**p-value**	**Estimate**	**95 % CI**	**p-value**
0.096**	0.030, 0.161	0.005	0.090**	0.023, 0.156	0.009

Notes. These specifications consider a version of the "accurate perceptions" variable in which women were considered accurate if they either were exactly correct or if they were incorrect in their ranking of facilities that had equal index values (ranked one as better than the other). Specifications are ordinary least squares regressions. Adjusted regressions include the following covariates as midline: Marital status, educational attainment, choice set size, previous pregnancy, C-section history, ANC visits more than 4, insurance status, information about risk in pregnancy, SES status, treatment arm, gestational month at baseline, and neighborhood group.
* p <0.05; ** p< 0.01 ; *** p< 0.001

References

[1] Cohen J, Rothschild C, Golub G et al. Measuring the Impact of Cash Transfers And Behavioral 'Nudges' On Maternity Care In Nairobi, Kenya. Health Affairs 2017. 36(11): 1956-1964.

[2] Otolorin E, Gomez P, Currie S, et al. Essential basic and emergency obstetric and newborn care: From education and training to service delivery and quality of care. International Journal of Gynecology & Obstetrics 2015; 130(2): S46-S53.