

The Effect of Type of Antenatal and Delivery Care Provider on Breastfeeding in South and Southeast Asian Countries

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Introduction

- Countries in the South and Southeast Asian region vary tremendously in both the type of provider for antenatal and delivery care and the rates of breastfeeding.
- This region has both some of the lowest and highest rates of breastfeeding reported worldwide. For example, 23% of mothers in Thailand breastfeed while 65% in Cambodia and 82% in Sri Lanka breastfeed.
- Worldwide, only 38% of infants aged 0-6 months are exclusively breastfed and recent studies have shown that suboptimal breastfeeding practices (including non-exclusive breastfeeding and initiation at greater than 1 hour life) contributed to 11.6% of mortality in children under age 5 in 2011.
- Investigating the association, if any, between the type of provider with the duration of breastfeeding in this region, where the breastfeeding rates vary tremendously, could shed light where to direct efforts to achieve the fifth WHO Global Nutrition Target.

Research Questions

- What types of antenatal and delivery care providers (Doctor, Nurse/Midwife, Traditional birth attendant, No one) are used in various regions in South and Southeast Asia?
- From those types of antenatal and delivery care providers, what type is associated with shorter time after birth before initiation of breastfeeding and longer duration of breastfeeding?

Methods

A cross-sectional analysis was performed on data from Demographic Health Surveys conducted from 2015 and 2018 in 10 South and Southeast Asian countries. This included Afghanistan (n= 19,733), Bangladesh (n = 4,494), India (n = 190,797), Indonesia (n = 15,203), Cambodia (n = 5,898), Myanmar (n = 3,867), Maldives (2,667), Nepal (n= 4,006), Pakistan (n = 8,287), and Timor Leste (n = 4,916).

Results

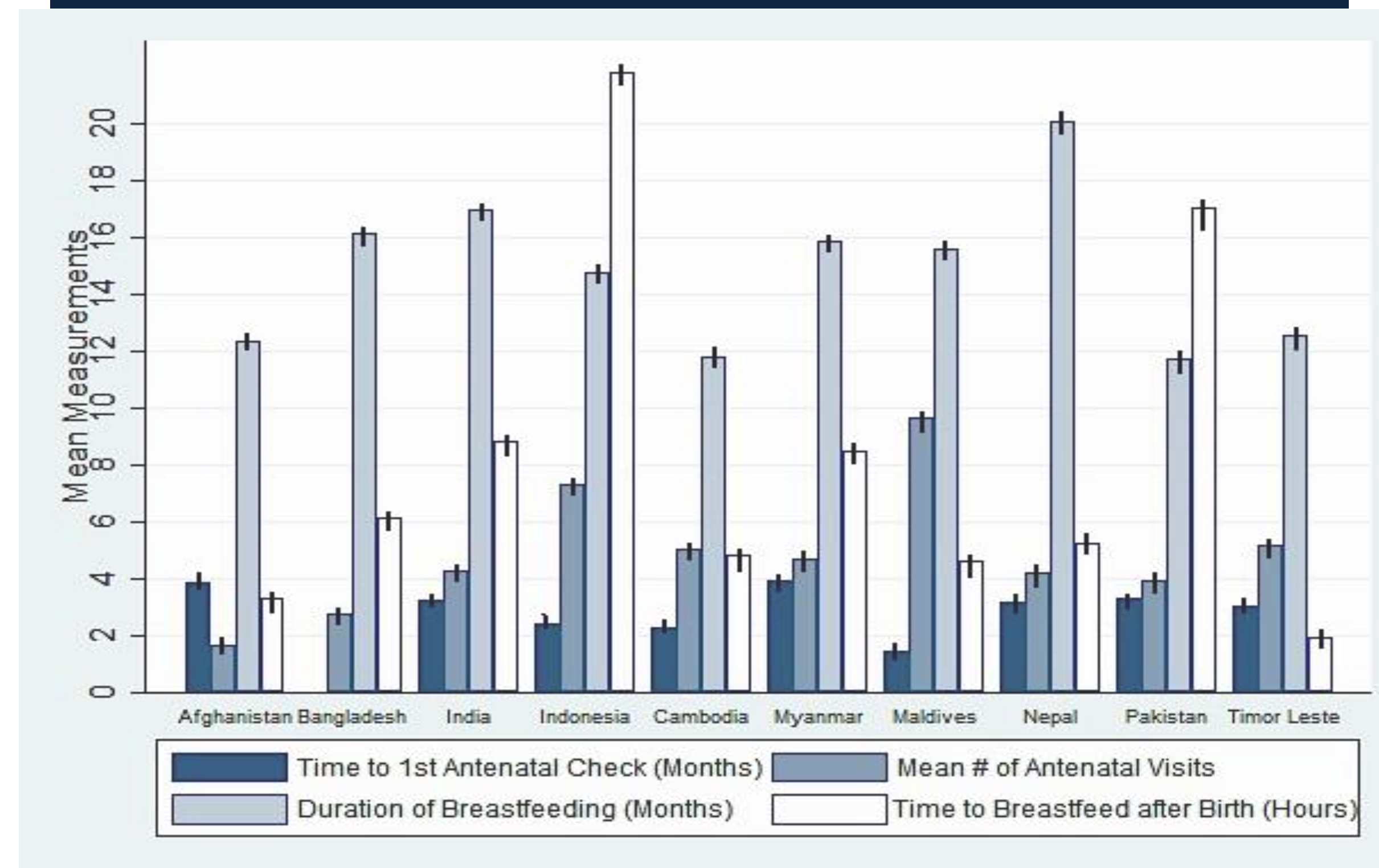


Figure 1: Mean (±SEM) of timing of first antenatal visit in months, number of antenatal visits during pregnancy, duration of breastfeeding in months and time to initial breastfeed in mothers who breastfeed in 10 countries in South and Southeast Asia.

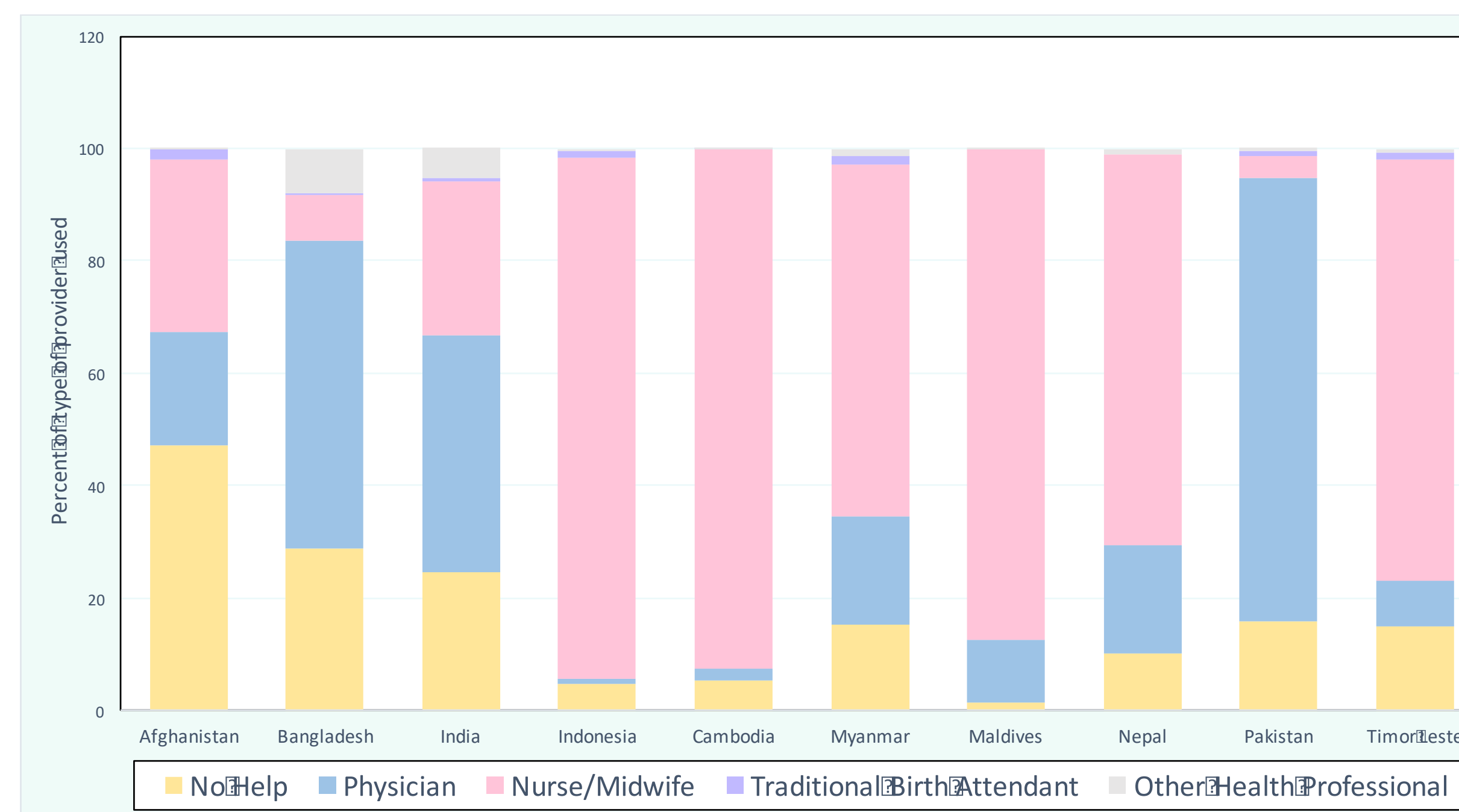


Figure 2: Percent of type of provider used (None, Physician, Nurse/midwife, Traditional Birth attendant, or Other) in each country.

Variables	Afghanistan Beta (95% CI)	Bangladesh Beta (95% CI)	India Beta (95% CI)	Indonesia Beta (95% CI)	Cambodia Beta (95% CI)
Antenatal care					
Doctor	N/A	-1.75 (-2.48, -1.03)**	N/A	N/A	N/A
Nurse / Midwife	0.11 (-0.43, 0.66)	-0.52 (-1.69, 0.64)	0.17 (-0.01, 0.35)	-2.67 (-5.86, 0.53)	3.62 (0.68, 6.56)*
Birth Attendant	1.27 (-0.31, 2.86)	8.47 (-0.58, 17.5)	-0.78 (-1.84, 0.27)	0.48 (-3.75, 4.70)	22.8 (5.48, 40.2)**
Other	-0.69 (-5.82, 4.43)	-0.94 (-2.11, 0.23)	1.02 (0.71, 1.32)**	1.64 (-4.01, 7.30)	0.81 (-11.6, 13.2)
Delivery Personnel					
No one	REF	REF	REF	REF	REF
Doctor	-3.23 (-6.14, -0.31)**	-1.04 (-4.72, 2.62)	0.24 (-1.12, 1.61)	2.41 (-6.27, 11.1)	-2.51 (-19.6, 14.6)
Nurse / Midwife	-3.71 (-6.54, -0.89)**	-0.32 (-3.79, 3.14)	0.26 (-1.11, 1.62)	4.93 (-1.84, 11.7)	-2.40 (-19.3, 14.7)
Birth Attendant	-2.63 (-5.50, 0.25)	-0.20 (-4.18, 3.78)	1.94 (-0.05, 2.72)	8.03 (1.21, 14.8)**	0.46 (-16.5, 17.5)
Other	-2.39 (-5.28, 0.48)	0.80 (-2.60, 4.21)	0.76 (-0.63, 2.14)	5.75 (-1.26, 12.8)	0.78 (-20.0, 21.6)
Myanmar					
Antenatal care					
Doctor	N/A	N/A	N/A	N/A	N/A
Nurse / Midwife	2.23 (0.59, 3.86)**	-0.56 (-3.27, 2.15)	1.43 (-0.19, 3.05)	1.67 (0.14, 3.23)	2.03 (0.18, 3.88)**
Birth Attendant	6.42 (1.35, 11.5)**	N/A	N/A	2.67 (-0.51, 5.86)	5.49 (0.58, 10.4)**
Other	2.51 (-3.62, 8.64)	9.94 (-11.8, 31.7)	6.07 (0.41, 11.7)**	-3.67 (-7.32, -0.03)*	3.72 (-1.58, 9.03)
Delivery Personnel					
Doctor	0.99 (-12.3, 14.3)	6.33 (-15.4, 28.1)	2.10 (-1.39, 5.62)	2.96 (-0.03, 0.07)	0.47 (-2.52, 3.47)
Nurse / Midwife	2.56 (-10.7, 15.8)	7.41 (-14.2, 29.0)	-0.87 (-2.98, 1.23)	1.74 (-5.75, 9.24)	0.34 (-1.87, 2.55)
Birth Attendant	4.63 (-8.65, 17.9)	N/A	1.86 (-1.99, 5.72)	3.19 (-4.26, 10.6)	0.17 (-2.25, 2.60)
Other	2.79 (-10.6, 16.3)	-3.70 (-34.3, 26.8)	2.26 (0.14, 4.38)**	3.06 (-4.44, 10.6)	1.40 (-1.08, 3.89)

Table 1: Increased or decreased association between duration of breastfeeding and antenatal or delivery providers adjusting for age, education, marital status, number of children, time between birth and 1st antenatal check, and time between birth and was baby breastfed.
*P<0.05 **P<0.01 ***P<0.001

Variables	Afghanistan Beta (95% CI)	Bangladesh Beta (95% CI)	India Beta (95% CI)	Indonesia Beta (95% CI)	Cambodia Beta (95% CI)
Antenatal care					
Doctor	N/A	2.05 (0.06, 4.05)*	N/A	N/A	N/A
Nurse / Midwife	0.32 (-0.34, 0.98)	-0.81 (-4.02, 2.39)	1.19 (0.67, 1.71)***	-8.88 (-20.6, 2.83)	4.08 (-0.56, 8.73)
Birth Attendant	2.77 (1.08, 4.46)**	-2.82 (-25.2, 19.6)	-1.43 (-4.50, 1.62)	-13.3 (-28.5, 1.91)	-0.37 (-22.4, 21.7)
Other	-1.21 (-7.36, 4.94)	0.29 (-2.93, 3.51)	-1.59 (-2.48, -0.70)**	-10.3 (-30.3, 9.68)	32.1 (1.29, 62.9)**
Delivery Personnel					
No one	REF	REF	REF	REF	REF
Doctor	-2.57 (-5.66, 0.51)	-5.79 (-15.9, 4.34)	-2.07 (-6.02, 1.89)	1.38 (-25.3, 28.1)	13.7 (-16.8, 44.4)
Nurse / Midwife	-3.65 (-6.63, -0.67)**	-9.01 (-18.6, 0.55)	-2.97 (-6.92, 0.98)	5.07 (-13.8, 23.9)	0.91 (-29.5, 31.3)
Birth Attendant	2.70 (-5.74, 0.33)	-10.8 (-21.8, 0.15)	-1.05 (-5.06, 2.95)	8.55 (-10.4, 27.5)	3.83 (-26.7, 34.3)
Other	-2.64 (-5.70, 0.40)	-7.80 (-17.2, 1.61)	0.95 (-3.05, 4.96)	2.69 (-30.3, 9.68)	-1.65 (-37.6, 34.3)
Myanmar					
Antenatal care					
Doctor	N/A	N/A	N/A	N/A	N/A
Nurse / Midwife	-1.99 (-5.31, 1.33)	-1.57 (-6.21, 3.07)	-0.73 (-3.00, 1.54)	-3.28 (-7.67, 1.11)	0.97 (-0.60, 2.56)
Birth Attendant	-3.28 (-12.5, 5.96)	N/A	N/A	-3.04 (-11.8, 5.75)	1.42 (-2.92, 5.75)
Other	0.78 (-9.53, 11.1)	14.1 (-13.6, 41.7)	9.80 (1.80, 18.0)**	-2.30 (-13.2, 8.60)	0.94 (-4.03, 9.91)
Delivery Personnel					
Doctor	-1.88 (-24.5, 20.7)	-0.26 (-32.3, 31.8)	8.46 (3.66, 13.3)**	-0.12 (-16.8, 16.5)	3.81 (1.13, 6.50)
Nurse / Midwife	-5.75 (-28.2, 16.7)	1.98 (-29.8, 33.7)	-0.03 (-3.05, 2.99)	-0.54 (-17.4, 16.3)	-1.27 (-3.32, 0.78)
Birth Attendant	-2.79 (-25.3, 19.7)	N/A	13.8 (8.23, 19.4)***	2.14 (-14.6, 18.9)	-1.14 (-3.37, 1.07)
Other	-5.97 (-28.9, 16.9)	-2.39 (-42.6, 37.8)	1.69 (-1.33, 4.73)	-1.19 (-18.1, 15.7)	-1.48 (-3.77, 0.79)

Table 2: Increased or decreased association between time after birth in which child was breastfed and antenatal or delivery providers adjusting for age, education, marital status, number of children, time between birth and 1st antenatal check.
*P<0.05 **P<0.01 ***P<0.001

Summary

- Having a doctor as provider was associated with decrease in duration of breastfeeding in Bangladesh and Afghanistan while having a Traditional Birth Attendant as a provider was associated with an increase in Cambodia, Indonesia, Myanmar, and Timor Leste.
- There was associated increase in time of initiation of breastfeeding after birth with both use of a doctor as the provider in Bangladesh and Nepal and with use of a Traditional Birth Attendant as the provider in Afghanistan and Nepal.

Conclusion

These findings suggest that there is a negative association in duration of breastfeeding with use of a doctor and a positive association with use of nurse/midwife or Traditional Birth Attendant in some, but not all, countries in this region. Further investigation would be necessary to confirm these findings and determine why this negative association may exist.

Acknowledgements

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