

# Role of Routine Ultrasonographical Evaluation During First and Second Trimesters of Pregnancy

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## Abstract

**Background:** Routine obstetric ultrasonography is an essential part of antenatal care because it allows early, noninvasive assessment of pregnancy and fetal development. First-trimester ultrasonography is useful for confirming intrauterine pregnancy, viability, gestational age, multiplicity, and early complications, while second-trimester ultrasonography plays a major role in fetal anatomical assessment, detection of congenital anomalies, placental evaluation, and identification of growth or cervical abnormalities.

**Aim of the study:** This study aimed to evaluate the role of routine ultrasonographical evaluation during the first and second trimesters of pregnancy.

**Methods:** This hospital-based prospective observational study enrolled 50 pregnant women attending antenatal care at the Department of Gynecology & Obstetrics, Uttara Adhunik Medical College & Hospital, Dhaka, Bangladesh. The study was conducted over a 6-month period, from January 2024 to June 2024. Women with confirmed intrauterine pregnancy who underwent routine ultrasonography in both the first trimester, up to 13 weeks, and the second trimester, 18 to 24 weeks, were included. First-trimester ultrasonography assessed pregnancy location, viability, gestational age, multiplicity, and early complications, while second-trimester ultrasonography evaluated fetal biometry, structural anomalies, placental location, amniotic fluid volume, and cervical status.

**Results:** The mean participant age was  $27.8 \pm 5.1$  years; 58.0% were multigravida. In the first trimester, all pregnancies were intrauterine, 92.0% were viable, and 6.0% were twins. In the second trimester, 92.0% of fetuses grew appropriately, with a few showing placental, liquor, or cervical abnormalities. Congenital anomalies were found in 10.0%, mostly central nervous system anomalies (4.0%). Routine ultrasonography confirmed viability in all cases, refined gestational age in 88.0%, guided referral or evaluation in 16.0%, and altered management in 38.0%, highlighting its essential role in prenatal decisions.

**Conclusion:** Routine ultrasonographic evaluation in the first and second trimesters was clinically valuable for confirming viability, accurate pregnancy dating, detecting multiple gestation and congenital anomalies, and identifying early obstetric complications.

**Keywords:** Obstetric ultrasonography, antenatal diagnosis, first-trimester and second-trimester pregnancy

## Introduction

Routine obstetric ultrasonography is now regarded as a key component of antenatal care. It provides

real-time, noninvasive assessment of early pregnancy and fetal development. In the first trimester, ultrasound is especially valuable for confirming intrauterine pregnancy, establishing

viability, estimating gestational age, determining multiplicity, and identifying early complications such as miscarriage or ectopic pregnancy.<sup>[1,2]</sup> When performed before 24 weeks of gestation, routine ultrasound also improves pregnancy dating, facilitates earlier recognition of fetal anomalies and multiple pregnancies, and can improve women's pregnancy experience and care planning.<sup>[3,4]</sup> Accurate early dating is particularly important. Contemporary validation data suggest that first-trimester ultrasound can estimate gestational age with a mean error of about  $\pm 1.5$  days when compared with embryo-transfer dating.<sup>[2]</sup>

The clinical value of second-trimester ultrasonography lies primarily in systematic fetal anatomical assessment. The routine anomaly scan remains the cornerstone for detecting major structural abnormalities, evaluating placental location, assessing amniotic fluid volume, and identifying cervical or growth-related concerns. These may alter pregnancy management.<sup>[4,5]</sup> Evidence synthesis indicates that routine second-trimester ultrasound increases the prenatal detection of major fetal abnormalities before 24 weeks. Recent diagnostic reviews support the complementary role of combined first- and second-trimester screening strategies for structural anomalies.<sup>[4,5]</sup>

This issue is clinically important because congenital anomalies remain a major cause of perinatal morbidity and mortality worldwide. A recent systematic review noted that congenital anomalies affect approximately 1 in 33 newborns globally.<sup>[6]</sup> In South Asia, the burden is also substantial. A study from India estimated a pooled birth prevalence of congenital anomalies at 184.48 per 10,000 births. Hospital-based data showed that central nervous system defects were among the most frequently reported groups.<sup>[7]</sup> Long-term tertiary-centre evidence from North India similarly demonstrated a broad and persistent spectrum of congenital anomalies. This underscores the need for effective antenatal detection strategies in the region.<sup>[8]</sup>

In Bangladesh, however, the broader antenatal care platform into which routine ultrasound must be integrated still shows important gaps. Nationally analyzed data have shown that mothers received, on average, only 2.7 antenatal visits. Only 6% received the recommended eight or more visits, and only 22% received all basic ANC items.<sup>[9]</sup> Rural Bangladeshi studies have also reported inadequate coverage and content of ANC. Only 11% of women in one large northern Bangladesh study received timely first ANC from a medically trained provider.<sup>[10,11]</sup> Additional rural disparities have been documented in disaster-prone settings.<sup>[12]</sup> Taken together, these findings suggest that although international evidence supports routine ultrasound before 24 weeks, local evidence on the practical contribution of routine first- and second-trimester ultrasonography in Bangladeshi antenatal populations remains limited. Therefore, this study aimed to evaluate the role of routine ultrasonographical evaluation during the first and second trimesters of pregnancy, with particular emphasis on pregnancy dating, assessment of viability and multiplicity, detection of fetal and placental abnormalities, and its influence on clinical management.

## Methods

This hospital-based prospective observational study was conducted in the Department of Obstetrics and Gynaecology in collaboration with the Department of Radiology and Imaging at Uttara Adhunik Medical College & Hospital in Dhaka, Bangladesh over a specified study period, from January 2024 to June 2024. A total of 50 pregnant women attending the antenatal outpatient department and undergoing routine ultrasonographical evaluation during the first and second trimesters of pregnancy were enrolled by purposive sampling.

Pregnant women with confirmed intrauterine pregnancy who attended for routine antenatal

care and underwent at least one ultrasonographic examination in both the first trimester, up to 13 completed weeks, and the second trimester, from 18 to 24 weeks, were included in the study. Women with incomplete follow-up data, uncertain pregnancy status, or unwillingness to participate were excluded. After informed written consent had been obtained, relevant sociodemographic, clinical, obstetric, and ultrasonographic information was recorded in a predesigned data collection sheet.

During the first trimester, ultrasonography was performed to assess pregnancy location, fetal viability, gestational age, number of fetuses, and early pregnancy-related complications. During the second trimester, ultrasonography was carried out mainly as a routine anomaly scan for the evaluation of fetal biometry, structural abnormalities, placental localization, amniotic fluid volume, cervical status, and other clinically relevant findings. All ultrasonographic

examinations were performed by qualified sonologists or radiologists using standard obstetric ultrasonography protocols. The collected data were checked, cleaned, coded, and entered into SPSS (v. 26.0) for analysis. The findings were presented in the form of frequency, percentage, mean, and standard deviation using tables and descriptive text.

## Results

Table 1 shows that the mean age of the participants was  $27.8 \pm 5.1$  years, and the largest age group was 25 to 29 years, with 18 cases (36.0%). More than half of the women were from urban areas (28; 56.0%). Most participants were multigravida (29, 58.0%), while 21 (42.0%) were primigravida. Regarding parity, 42.0% were nulliparous. In terms of nutritional status, the majority had normal BMI (28; 56.0%), whereas 24.0% were overweight and 10.0% were obese.

**Table 1:** Baseline sociodemographic and obstetric characteristics of the study participants ( $N = 50$ )

Variable	Category	Frequency ( <i>n</i> )	Percentage (%)
Age (years)	<20	4	8.00
	20 to 24	13	26.00
	25 to 29	18	36.00
	30 to 34	10	20.00
	$\geq 35$	5	10.00
	Mean $\pm$ SD		$27.8 \pm 5.1$
Residence	Urban	28	56.00
	Rural	22	44.00
Gravidity	Primigravida	21	42.00
	Multigravida	29	58.00
Parity	Nullipara	21	42.00
	Para 1	15	30.00
	Para 2	10	20.00
	Para $\geq 3$	4	8.00
BMI, kg/m <sup>2</sup>	<18.5	5	10.00
	18.5 to 24.9	28	56.00
	25.0 to 29.9	12	24.00
	$\geq 30.0$	5	10.00

Table 2 demonstrates that the main indication for first-trimester ultrasonography was routine dating and viability assessment in 36 cases (72.0%). All pregnancies were intrauterine (100.0%). Most cases showed normal viable pregnancy, 46 (92.0%), while 4 (8.0%) had threatened abortion. Singleton pregnancy was found in 47 cases (94.0%), and twin pregnancy in 3 cases (6.0%). Subchorionic hematoma was detected in 4 cases (8.0%), uterine fibroid in 3 (6.0%), adnexal cyst or mass in 2 (4.0%), and a gross anomaly was suspected in 2 cases (4.0%). The mean gestational age by first-trimester ultrasonography was  $10.3 \pm 1.7$  weeks.

Table 3 shows that the most common indication for second-trimester ultrasonography was a routine anomaly scan, with 41 cases (82.0%). Most pregnancies remained singleton (47; 94.0%), while 3 (6.0%) were twins. The placenta was most commonly anterior in 20 cases (40.0%), followed by posterior in 17 cases (34.0%). A low-lying placenta was found in 3 cases (6.0%), and placenta previa in 2 cases (4.0%). Amniotic

fluid volume was normal in 45 cases (90.0%), with oligohydramnios in 2 (4.0%) and polyhydramnios in 3 (6.0%). Fetal growth was appropriate for gestational age in 46 cases (92.0%), while cervical abnormality was present in 3 cases (6.0%).

Table 4 reveals that congenital anomalies were detected in 5 cases (10.0%), whereas 45 cases (90.0%) had no detectable anomalies. Among the anomaly types, central nervous system anomalies were the most frequent, occurring in 2 cases (4.0%). Cardiovascular, genitourinary, and multiple anomalies were each found in 1 case (2.0%). The specific anomalies detected were anencephaly, ventriculomegaly, congenital heart disease, renal anomaly, and multiple anomalies, each accounting for 2.0% of the total cases.

Table 5 indicates that routine ultrasonography confirmed intrauterine pregnancy and fetal viability in all 50 cases, 100.0%. It helped with accurate gestational age estimation in 44 cases (88.0%). Multiple pregnancy was detected in

**Table 2:** First trimester ultrasonographical findings (N = 50)

Variable	Category	Frequency (n)	Percentage (%)
Indication of scan	Routine dating and viability	36	72.00
	Pain abdomen	5	10.00
	Bleeding per vagina	4	8.00
	Others	5	10.00
Pregnancy status	Normal viable pregnancy	46	92.00
	Threatened abortion	4	8.00
Number of fetus	Singleton	47	94.00
	Twin	3	6.00
Subchorionic hematoma	Present	4	8.00
	Absent	46	92.00
Uterine fibroid	Present	3	6.00
	Absent	47	94.00
Adnexal cyst or mass	Present	2	4.00
	Absent	48	96.00
Gross anomaly suspected	Yes	2	4.00
	No	48	96.00
Gestational age by USG (weeks)	Mean $\pm$ SD		$10.3 \pm 1.7$

**Table 3:** Second trimester ultrasonographical findings ( $N = 50$ )

Variable	Category	Frequency ( <i>n</i> )	Percentage (%)
Indication of scan	Routine anomaly scan	41	82.00
	Placental localization	3	6.00
	Growth assessment	2	4.00
	Follow-up of abnormal scan	2	4.00
	Others	2	4.00
Number of fetus	Singleton	47	94.00
	Twin	3	6.00
Placental site	Anterior	20	40.00
	Posterior	17	34.00
	Fundal	7	14.00
	Lateral	3	6.00
	Low-lying	3	6.00
Placenta previa	Yes	2	4.00
	No	48	96.00
Amniotic fluid volume	Normal	45	90.00
	Oligohydramnios	2	4.00
	Polyhydramnios	3	6.00
Growth pattern	Appropriate for gestational age	46	92.00
	Growth restriction	2	4.00
	Larger than dates	2	4.00
Cervical status	Normal	47	94.00
	Short or funnelled	3	6.00

**Table 4:** Congenital anomalies detected on routine ultrasonography ( $N = 50$ )

Variable	Category	Frequency ( <i>n</i> )	Percentage (%)
Congenital anomaly detected	Yes	5	10.00
	No	45	90.00
Type of anomaly	Central nervous system	2	4.00
	Cardiovascular	1	2.00
	Genitourinary	1	2.00
	Multiple anomalies	1	2.00
Specific anomaly	Anencephaly	1	2.00
	Ventriculomegaly	1	2.00
	Congenital heart disease	1	2.00
	Renal anomaly	1	2.00
	Multiple anomalies	1	2.00

**Table 5:** Clinical role of routine ultrasonography in pregnancy management (N = 50)

Role of ultrasonography	Frequency (n)	Percentage (%)
Confirmed intrauterine pregnancy	50	100.00
Confirmed fetal viability	50	100.00
Helped accurate gestational age estimation	44	88.00
Detected multiple pregnancy	3	6.00
Detected early pregnancy complication	4	8.00
Detected congenital anomaly	5	10.00
Identified placental abnormality	5	10.00
Identified liquor abnormality	5	10.00
Identified cervical abnormality	3	6.00
Guided referral or further evaluation	8	16.00
Changed obstetric management	19	38.00

3 cases (6.0%), early pregnancy complications in 4 (8.0%), and congenital anomalies in 5 (10.0%). Placental and liquor abnormalities were each identified in 5 cases (10.0%), while cervical abnormality was detected in 3 (6.0%). Importantly, ultrasonography-guided referral or further evaluation was performed in 8 cases (16.0%), and obstetric management was changed in 19 cases (38.0%).

## Discussion

In this prospective observation study of 50 cases, routine ultrasonography during the first and second trimesters proved clinically valuable across several domains. First-trimester scanning confirmed an intrauterine pregnancy and fetal viability in 100.0% of cases. It identified twin gestation in 6.0% and detected threatened abortion in 8.0%. The mean gestational age was  $10.3 \pm 1.7$  weeks. These findings support the established role of the 11-to-14-week scan in confirming viability, determining the number of fetuses, and accurately dating the pregnancy. Current ISUOG guidance continues to emphasise early ultrasound, particularly crown-rump length-based dating, as the most reliable method for assigning gestational age. This is important in settings where menstrual dates may be uncertain.<sup>[13,14]</sup> This point is reinforced

by Bangladeshi data from Sylhet, where clinical surrogates, such as symphysis-fundal height, performed poorly compared with early ultrasound dating.<sup>[15]</sup>

The present findings also support the incremental value of first-trimester structural assessment. Only 4.0% of cases had a gross anomaly suspected in the first trimester. However, this early suspicion is clinically important because some severe abnormalities can be detected before 14 weeks. Karim et al. reported that first-trimester ultrasound detects about 32.35% of structural anomalies in low-risk populations. Detection improves with the use of standardized anatomical protocols.<sup>[16]</sup> Brown et al. further showed that even before 11 weeks, 17.4% of major anomalies could already be recognized.<sup>[17]</sup> Conversely, Bardi et al. demonstrated that when first-trimester anatomical screening is not part of routine care, many anomalies remain unidentified until the second trimester or later. This includes 56% of those considered “always detectable” in the first trimester.<sup>[18]</sup> Taken together, these studies help explain why combining an early dating and viability scan with a later anomaly scan is more useful than relying on a single mid-trimester examination.

Second-trimester ultrasonography in this study was performed mainly as a routine anomaly

scan (82.0%). It showed that 92.0% of fetuses had growth appropriate for gestational age. Placenta previa was found in 4.0%, low-lying placenta in 6.0%, amniotic fluid abnormalities in 10.0% overall, and cervical abnormality in 6.0%. These findings are clinically meaningful because they influence follow-up schedules, delivery planning, and referral. Jansen et al. and Durst et al. showed that most low-lying placentas and placenta previa diagnosed at the mid-trimester scan resolve later in pregnancy. Durst et al. reported a cumulative resolution rate of 91.9%.<sup>[19,20]</sup> However, DeBolt et al. found that even resolved low placentation is associated with higher odds of postpartum hemorrhage. This suggests that an apparently improving placental position should not be dismissed as clinically trivial.<sup>[21]</sup> Similarly, routine cervical length screening at the mid-trimester scan has gained support. A shortened cervix is a modifiable risk marker for preterm birth. Large reference datasets, such as that of Olisova et al., help standardize interpretation.<sup>[22]</sup>

A notable finding of the present study was that 10.0% of fetuses had congenital anomalies on routine ultrasonography. This proportion is higher than the 3.46% frequency reported in a Bangladeshi hospital-based delivery series by Fatema et al. The difference is likely explained by the small sample size, hospital-based recruitment, and the fact that prenatal ultrasound captures suspected anomalies before birth. In contrast, delivery series include only confirmed neonatal diagnoses.<sup>[23]</sup> More broadly, this finding aligns with evidence that antenatal detection in LMICs is highly variable. Detection depends heavily on equipment, timing, and operator skill. Goley et al. found that antenatal detection rates in LMICs varied widely, with a median of 34.7% in Asian studies.<sup>[24]</sup> The recent Cochrane review by Buijendijk et al. strengthens the argument for a two-stage approach. Combined first- and second-trimester screening has a pooled sensitivity of 83.8%, compared with 50.5% for single-stage second-trimester screening alone.<sup>[5]</sup>

An important practical finding in this study was that routine ultrasonography changed obstetric management in 38.0% of cases. It also guided referral or further evaluation in 16.0%. This management effect is consistent with evidence from LMIC-focused reviews. These reviews show that ultrasound often improves diagnosis, triage, and referral, even when effects on mortality are less clear.<sup>[24,25]</sup> Therefore, the clinical implication for Bangladesh is clear. Routine first- and second-trimester ultrasound should be viewed primarily as a tool for accurate dating, early recognition of complications, anomaly detection, and appropriate care planning. It should not be seen as a stand-alone intervention expected to improve survival outcomes.

## Limitations of the Study

The study was limited by its small sample size and single-centre design, which may reduce the generalizability of the findings. In addition, the absence of long-term follow-up of pregnancy and neonatal outcomes limited the assessment of the full diagnostic impact of routine ultrasonography.

## Conclusion

Routine ultrasonographic evaluation during the first and second trimesters was found to be clinically valuable for confirming pregnancy viability, accurate gestational dating, detecting multiple pregnancies, early identification of obstetric complications, and antenatal detection of congenital anomalies. It also contributed meaningfully to clinical decision-making and helped optimize pregnancy monitoring and management.

## Recommendations

Routine ultrasonographic evaluation should be integrated into standard antenatal care during

both the first and second trimesters to facilitate accurate pregnancy dating, prompt detection of complications, and early identification of fetal anomalies. Enhanced training for sonologists, implementation of standardized scanning protocols, and reinforcement of referral services are recommended to optimize maternal and fetal outcomes.

## References

- Murugan VA, Murphy BO, Dupuis C, Goldstein A, Kim YH. Role of ultrasound in the evaluation of first-trimester pregnancies in the acute setting. *Ultrasonography* 2020 Apr 1;39(2):178–89.
- Hawken S, Olibris B, Ducharme R, Bota AB, Murray JC, Potter BK, et al. Validation of gestational age determination from ultrasound or a metabolic gestational age algorithm using exact date of conception in a cohort of newborns conceived using assisted reproduction technologies. *AJOG Glob Rep* 2022 Nov 1;2(4):100091.
- Noguchi L, Bucagu M, Tunçalp Ö. Strengthening antenatal care services for all: implementing imaging ultrasound before 24 weeks of pregnancy. *BMJ Glob Health* 2023 May 31;8(5):e011170.
- Kaelin Agten A, Xia J, Servante JA, Thornton JG, Jones NW. Routine ultrasound for fetal assessment before 24 weeks' gestation. *Cochrane Database Syst Rev* 2021 Aug 26;8(8):CD014698.
- Buijendijk MF, Bet BB, Leeftang MM, Shah H, Reuvekamp T, Goring T, et al. Diagnostic accuracy of ultrasound screening for fetal structural abnormalities during the first and second trimester of pregnancy in low-risk and unselected populations. *Cochrane Database Syst Rev* 2024 May 9;5(5):CD014715.
- Ahn D, Kim J, Kang J, Kim YH, Kim K. Congenital anomalies and maternal age: A systematic review and meta-analysis of observational studies. *Acta Obstet Gynecol Scand* 2022 May;101(5):484–98.
- Bhide P, Kar A. A national estimate of the birth prevalence of congenital anomalies in India: systematic review and meta-analysis. *BMC Pediatr* 2018 May 25;18(1):175.
- Kumar J, Saini SS, Sundaram V, Mukhopadhyay K, Dutta S, Kakkar N, et al. Prevalence & spectrum of congenital anomalies at a tertiary care centre in north India over 20 years (1998–2017). *Indian J Med Res* 2021 Mar;154(3):483–90.
- Islam MM, Masud MS. Determinants of frequency and contents of antenatal care visits in Bangladesh: Assessing the extent of compliance with the WHO recommendations. *PLoS One* 2018 Sep 27;13(9):e0204752.
- Siddique AB, Perkins J, Mazumder T, Haider MR, Banik G, Tahsina T, et al. Antenatal care in rural Bangladesh: gaps in adequate coverage and content. *PLoS One* 2018 Nov 19;13(11):e0205149.
- Sarker BK, Rahman T, Rahman T, Rahman M. Factors associated with the timely initiation of antenatal care: findings from a cross-sectional study in Northern Bangladesh. *BMJ Open* 2021 Dec 23;11(12):e052886.
- Begum A, Hamid SA. Maternal healthcare utilization in rural Bangladesh: A comparative analysis between high and low disaster-prone areas. *PLOS Glob Public Health* 2023 Jul 31;3(7):e0001409.
- Bilardo CM, Chaoui R, Hyett JA, Kagan KO, Karim JN, Papageorgiou AT, et al. ISUOG Practice Guidelines (updated): performance of 11–14-week ultrasound scan. *Ultrasound Obstet Gynecol* 2023 Jan 3;61(1):127–143.
- Salomon LJ, Alfirevic Z, Da Silva Costa F, Deter RL, Figueras F, Ghi TA, et al. ISUOG Practice Guidelines: ultrasound assessment of fetal biometry and growth. *Ultrasound Obstet Gynecol* 2019 Jun;53(6):715–23.
- Lee AC, Whelan R, Bably NN, Schaeffer LE, Rahman S, Ahmed S, et al. Prediction of gestational age with symphysis-fundal height and estimated uterine volume in a pregnancy cohort in Sylhet, Bangladesh. *BMJ Open* 2020 Mar 12;10(3):e034942.
- Karim JN, Roberts NW, Salomon LJ, Papageorgiou AT. Systematic review of first-trimester ultrasound screening for detection of fetal structural anomalies and factors that affect screening performance. *Ultrasound Obstet Gynecol* 2017 Oct;50(4):429–41.
- Brown I, Rolnik DL, Fernando S, Menezes M, Ramkrishna J, da Silva Costa F, et al. Ultrasound findings and detection of fetal abnormalities before 11 weeks of gestation. *Prenat Diagn* 2021 Dec;41(13):1675–84.
- Bardi F, Beekhuis AM, Bakker MK, Elvan-Taşpınar A, Bilardo CM. Timing of diagnosis of fetal structural abnormalities after the introduction of universal cell-free DNA in the absence of first-trimester anatomical screening. *Prenat Diagn* 2022 Sep;42(10):1242–52.
- Jansen CH, Kleinrouweler CE, Kastelein AW, Ruiters L, Van Leeuwen E, Mol BW, et al. Follow-up ultrasound in second-trimester low-positioned anterior and posterior placentae: prospective cohort study. *Ultrasound Obstet Gynecol* 2020 Nov;56(5):725–31.
- Durst JK, Tuuli MG, Temming LA, Hamilton O, Dicke JM. Resolution of a low-lying placenta and placenta previa diagnosed at the midtrimester anatomy scan. *J Ultrasound Med* 2018 Aug;37(8):2011–9.
- DeBolt CA, Rosenberg HM, Pruzan A, Goldberger C, Kaplowitz E, Buckley A, et al. Patients with resolution

of low-lying placenta and placenta previa remain at increased risk of postpartum hemorrhage. *Ultrasound Obstet Gynecol* 2022 Jul;60(1):103–8.

22. Olishova K, Sung CY, Lussier EC, Chang TY. Revisions to mid-pregnancy cervical length reference range for preterm birth screening among singleton pregnancies in Taiwan—10 years' experiences. *Taiwan J Obstet Gynecol* 2021 Sep 1;60(5):836–9.
23. Fatema K, Das T, Mannan A, Zaman SM. Frequency, Distribution of Congenital Anomaly and Associated Maternal Risk Factors. *Mymensingh Med J* 2017 Jul 1; 26(3):658–66.
24. Goley SM, Sakula-Barry S, Adofo-Ansong N, Ntawunga LI, Botchway MT, Kelly AH, et al. Investigating the use of ultrasonography for the antenatal diagnosis of structural congenital anomalies in low-income and

middle-income countries: a systematic review. *BMJ Paediatr Open* 2020 Aug 20;4(1):e000684.

25. Kim ET, Singh K, Moran A, Armbruster D, Kozuki N. Obstetric ultrasound use in low and middle income countries: a narrative review. *Reprod Health* 2018 Jul 20;15(1):129.

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