

Research Article

Hepatitis B Virus Seroprevalence and Associated Factors Among Pregnant Women Attending Antenatal Care at Jigjiga University Sheikh Hassan Yabare Comprehensive Specialized Hospital, Eastern Ethiopia, 2025: A Cross-Sectional Study

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Abstract

Background: Hepatitis B virus (HBV) infection remains a major global public health problem and a leading cause of chronic liver disease. An estimated 65 million women of reproductive age worldwide are living with HBV infection. Without appropriate preventive measures, mother-to-child transmission at birth is common and may result in chronic infection and long-term liver complications in affected children.

Objective: To assess the seroprevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care at Jigjiga University Sheikh Hassan Yabare Comprehensive Specialized Hospital, Eastern Ethiopia, July 10–August 15 2025.

Methods: An institution-based cross-sectional study was conducted at Jigjiga University Sheikh Hassan Yabare Comprehensive Specialized Hospital, Jigjiga, Eastern Ethiopia, from July 10 to August 15, 2025. A total of 147 pregnant women attending antenatal care were selected using a systematic random sampling technique. Data were collected through face-to-face interviews using a pre-tested semi-structured questionnaire. Venous blood samples (3–5 mL) were collected under aseptic conditions, and serum was separated after centrifugation. Hepatitis B surface antigen (HBsAg) was detected using the SD Bioline rapid test kit according to the manufacturer's instructions. Data were entered into EpiData version 4.6 and exported to SPSS version 25 for statistical analysis. Bivariate logistic regression was performed to identify candidate variables for multivariable analysis at $p < 0.25$. Multivariable logistic regression was conducted to determine factors independently associated with HBV infection. Adjusted odds ratios (AORs) with 95% confidence intervals (CIs) were computed, and statistical significance was declared at $p < 0.05$.

Results: The overall prevalence of hepatitis B virus infection (HBsAg positivity) among pregnant women was 9.5% (14/147; 95% CI: 4.7–14.2%). A history of surgical procedures (AOR: 5.8; 95% CI: 1.3–25.9), previous health facility admission (AOR: 7.3; 95% CI: 1.6–34.0), and marital history involving more than one partner (AOR: 4.3; 95% CI: 1.1–17.2) were independently associated with increased odds of HBV infection.

Conclusion: The prevalence of HBV infection was within the intermediate-to-high endemicity range according to WHO classification. Strengthening routine antenatal screening and implementing targeted preventive strategies may reduce the burden of HBV infection in similar settings.

Keywords: hepatitis B virus infection, seroprevalence, associated factors, pregnant women.

1. Introduction

1.1 Background

Hepatitis B virus (HBV) infection remains a major global public health problem and a leading cause of chronic liver disease. Globally, an estimated 254 million people were living with chronic HBV infection in 2022, resulting in approximately 1.1 million deaths annually, primarily due to cirrhosis and hepatocellular carcinoma (4). The burden is highest in Africa

and the Western Pacific regions, where nearly two-thirds of infected individuals reside (4).

HBV is transmitted through exposure to infected blood and body fluids, including sexual contact, blood transfusion, and perinatal transmission. Vertical transmission from mother to child during pregnancy or childbirth is a major contributor to chronic HBV infection worldwide, accounting for a substantial proportion of

lifelong infections (2). The presence of hepatitis B surface antigen (HBsAg) indicates active infection and serves as the primary marker for screening and diagnosis (3).

The prevalence of HBV infection varies geographically and is classified as low (<2%), intermediate (2–7%), or high (≥8%) according to the World Health Organization (WHO) (5). In Africa, HBV remains highly endemic, with an estimated 60 million people infected (6). Among pregnant women, a systematic review of 123,765 participants across Africa reported a pooled prevalence of 5.89%, with regional variation (8). In Ethiopia, a meta-analysis involving 29,067 women estimated an overall prevalence of 5.78%, with identified risk factors including history of abortion, blood transfusion, and surgical procedures (9).

Chronic HBV infection during pregnancy poses significant risks to both mother and child. Without appropriate preventive measures, mother-to-child transmission (MTCT) can occur during delivery, leading to chronic infection in newborns. Strategies such as universal antenatal screening, timely neonatal vaccination, administration of hepatitis B immunoglobulin (HBIG), and antiviral therapy for highly viremic mothers have been shown to significantly reduce MTCT (11,12). These interventions align with the global goal of eliminating viral hepatitis as a public health threat by 2030 (13).

However, despite national and global efforts, data on the seroprevalence of HBV infection and associated risk factors among pregnant women in Eastern Ethiopia remain limited. Understanding the local burden and determinants of HBV infection is essential to inform targeted prevention strategies. Therefore, this study aimed to assess the seroprevalence of HBV infection and associated factors among pregnant women attending antenatal care at Jigjiga University Sheikh Hassan Yabare Comprehensive Specialized Hospital.

2. Methods

2.1 Study design and setting

An institution-based cross-sectional study was conducted at Jigjiga University Sheikh Hassan Yabare Comprehensive Specialized Hospital (JJU-SHYCSH), located in Jigjiga city, the capital of the Somali Regional State in eastern Ethiopia, approximately 630 km from Addis Ababa. The hospital is the main referral center in the region and provides comprehensive maternal and child health services. On average, approximately 600 pregnant women attend antenatal care services monthly. The study was conducted from July 10 to August 15, 2025.

2.2 Study population and eligibility criteria

The study population consisted of pregnant women aged ≥18 years attending antenatal care at JJU-SHYCSH during the study period. Women who attended antenatal care more than once during the data collection period, those who were critically ill, and those aged <18 years were excluded.

2.3 Sample size determination

The sample size was calculated using the single population proportion formula, based on a previous study conducted in Ethiopia, assuming an HBV prevalence of 9.2%, 95% confidence level, 5% margin of error, and 15% non-response rate, resulting in a final sample size of 147. For the assessment

of associated factors, sample size was also calculated based on selected risk factors using 80% power and 1:1 exposure ratio. The larger calculated sample size (147) was used.

2.4 Sampling procedure

A systematic random sampling technique was used to select study participants. According to hospital records, approximately 1,800 pregnant women attended antenatal care services at JJU-SHYCSH over the preceding three months, with an average monthly attendance of 600 women. Because the data collection period was approximately one month, the average monthly attendance was used to estimate the source population. The sampling interval (k) was calculated using $k = N/n$, where N is the estimated number of pregnant women attending antenatal care in one month (600) and n is the final sample size (147). Accordingly, $k = 600/147 \approx 4$. The first participant was selected using a lottery method from the first four eligible pregnant women, and subsequently every fourth eligible pregnant woman attending antenatal care was enrolled until the required sample size was achieved.

2.5 Data collection procedures

Data were collected through face-to-face interviews using a semi-structured questionnaire. The questionnaire was initially prepared in English and translated into the Af-Somali language to ensure clarity and cultural appropriateness. Socio-demographic characteristics and other potential risk factors were obtained through interviews, while medical-related information was collected by reviewing participants' medical records. Data collectors received training on the study procedures, including proper interviewing techniques, confidentiality, and data handling. Data were collected by one trained midwife, while a laboratory professional was responsible for blood sample collection and processing. The principal investigator supervised the data collection process on a daily basis to ensure data quality and completeness.

2.6 Laboratory procedures

After obtaining informed consent, 3–5 mL of venous blood was drawn from each participant using a sterile plain vacutainer tube (without anticoagulant) following standard operating procedures. Each sample was labeled with a unique identification code and left at room temperature for approximately 20 minutes to allow clot formation. The samples were then centrifuged at 3000 revolutions per minute (rpm) for at least 5 minutes to obtain clear serum. The separated serum was tested for hepatitis B surface antigen (HBsAg) using the SD Bioline rapid diagnostic test kit in accordance with the manufacturer's instructions. Test results were interpreted as positive when both the control and test lines were visible, negative when only the control line appeared, and invalid if the control line did not appear.

2.7 Study variables

The dependent variable was HBsAg serostatus (positive/negative), while the independent variables included age, marital status, educational level, occupation, income level, parity, history of health facility admission, history of blood transfusion, history of surgical procedures, history of dental procedures, history of female genital mutilation, ear or nose piercing, history of abortion, and marital history involving more than one partner (self or spouse).

2.8 Data quality assurance

To ensure data quality, the questionnaire was prepared in English, translated into Af-Somali, and back-translated into English to maintain consistency. Data collectors received training on study procedures, interviewing techniques, confidentiality, and data handling. The principal investigator provided daily supervision, checked completed questionnaires for completeness and consistency, and addressed any gaps promptly. For laboratory quality assurance, the SD Bioline rapid test kit was used according to the manufacturer's instructions, and known positive and negative control sera were run before testing participant samples.

2.9 Data processing and analysis

Data were coded and entered into EpiData version 4.6 and exported to SPSS version 25 for analysis. Data were checked for completeness and consistency prior to analysis. Normality of continuous variables was assessed using the Shapiro–Wilk test. Descriptive statistics were summarized using frequencies and percentages for categorical variables and mean $\pm$ standard deviation (SD) or median with interquartile range (IQR) for continuous variables, as appropriate.

Bivariable logistic regression was performed to identify candidate variables for multivariable analysis at p -value <0.25 . Multivariable logistic regression was conducted to determine factors independently associated with HBsAg positivity. Adjusted odds ratios (AORs) with 95% confidence intervals (CIs) were reported, and statistical significance was declared at

p -value <0.05 . Multicollinearity was assessed using the variance inflation factor (VIF >10), and model fitness was evaluated using the Hosmer–Lemeshow goodness-of-fit test. To minimize model overfitting, only variables meeting the predefined inclusion criteria were retained in the final model.

2.10 Ethical considerations

Ethical approval was obtained from the Institutional Review Board (IRB) of Jigjiga University, Institute of Health Sciences, and permission was secured from Sheikh Hassan Yabare Comprehensive Specialized Hospital prior to data collection. Informed verbal consent was obtained from each participant after explaining the purpose and procedures of the study. Participation was voluntary, and participants were informed of their right to withdraw at any time without affecting their healthcare services. Confidentiality was maintained by using unique identification codes and securely handling all collected data.

3. Results

3.1 Socio-demographic Characteristics

A total of 147 pregnant women participated in the study, yielding a response rate of 100%. The mean ($\pm$ SD) age was 30.1 ± 4.9 years (range: 22–43 years). The majority (61.9%) were aged 18–30 years. More than half (54.4%) had formal education, and 52.4% were urban residents. Housewife was the most common occupation (42.9%). Slightly more than half (52.4%) reported a monthly family income of $<10,000$ ETB. Nearly half (49.7%) had parity >3 (Table 2).

Table 1: Socio-demographic characteristics of pregnant women attending antenatal care at JJU-SHYCSH, Jigjiga, Ethiopia.

Variable	Category	Frequency (n)	Percentage (%)
Age (in years)	18 – 30	91	61.9
	31 – 45	56	38.1
Educational status	Had no formal education	67	45.6
	Had formal education	80	54.4
Residence	Rural	70	47.6
	Urban	77	52.4
Occupational status	Housewife	63	42.9
	Employed	35	23.8
	Merchant	49	33.3
Family monthly income (ETB)	$<10,000$	77	52.4
	$\geq 10,000$	70	47.6
Parity	≤ 3	74	50.3
	>3	73	49.7

3.2 Medical and Behavioral Characteristics

Most participants were in the second trimester (40.1%) at the time of data collection. A history of abortion was reported by 32.7%, and 47.6% had undergone female genital mutilation. Additionally, 45.6% reported a history of home delivery.

Regarding medical factors, 30.6% had a history of blood transfusion and 30.6% had undergone surgical procedures. A history of health facility admission was reported by 36.1%, dental extraction by 33.3%, and contact with a known jaundiced individual by 34.0% (Table 3).

Table 2: Medical and behavioral related features of pregnant women attending antenatal care at JJU-SHYCSH, Jigjiga, Ethiopia, 2025.

Variable	Category	Frequency (n)	Percentage (%)
Gestational age in month	1 -3	53	36.1
	4 -5	59	40.1
	6 – 9	35	23.8
History of abortion	Yes	48	32.7
	No	99	67.3
History of FGM	Yes	70	47.6
	No	77	52.4
History of home delivery	Yes	67	45.6
	No	80	54.4
History of traditional tonsillectomy	Yes	41	27.9
	No	106	72.1
History of blood transfusion	Yes	45	30.6
	No	102	69.4
History of surgical procedure	Yes	45	30.6
	No	102	69.4
History of health facility admission	Yes	53	36.1
	No	94	63.9
History of contact with known jaundiced individual	Yes	50	34
	No	97	66
History dental extraction	Yes	49	33.3
	No	98	66.7

3.3 Socio-cultural Characteristics

A history of body piercing was reported by 40.8% of participants. Nearly one-third (29.3%) reported having more

than one husband, while 25.2% had a husband with more than one wife. Additionally, 25.2% reported sharing sharp materials (Table 4).

Table 3: Socio-cultural related features of pregnant women attending antenatal care at JJU-SHYCSH, Jigjiga, Ethiopia, 2025.

Variable	Category	Frequency (n)	Percentage (%)
History of body piercing	Yes	60	40.8
	No	87	59.2
History of marrying more than one husband	Yes	43	29.3
	No	104	70.7
Having a husband who has/had more than one wife	Yes	37	25.2
	No	110	74.8
Habit of sharing sharp materials	Yes	37	25.2
	No	110	74.8

3.4 Seroprevalence

The prevalence of HBsAg positivity among pregnant women was 9.5% (14/147; 95% CI: 4.7–14.2%) (Figure 2).

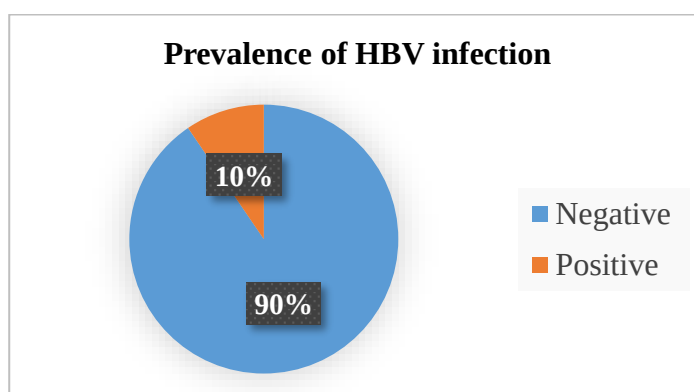


Figure 1: Seroprevalence of hepatitis B virus infection among pregnant women attending antenatal care at JJU-SHYCSH, Jigjiga, Ethiopia, July 10–August 15, 2025.

3.5 Bivariate Analysis

In bivariate analysis, educational status, history of abortion, female genital mutilation, body piercing, blood transfusion, surgical procedures, health facility admission, contact with a jaundiced individual, dental extraction, having more than one

husband, having a husband with more than one wife, and traditional tonsillectomy showed potential association with HBsAg positivity at $p < 0.25$ and were included in multivariable analysis (Table 5).

Table 5: Bivariate logistic regression analysis of factors potentially associated with HBsAg positivity among pregnant women attending antenatal care at JJU-SHYCSH, Jigjiga, Ethiopia, July 10-August 15, 2025.

Variable	Category	HBV infection		COR (95%CI)	P-value
		-ve, n (%)	+ve, n (%)		
Age (in years)	18 – 30	84(92.3)	7(7.7)	0.6(0.2 – 1.8)	0.3
	31 -45	49(87.5)	7(12.5)	Ref	
Educational status	Had no formal education	59(88.1)	8(11.9)	1.7(0.6 – 5.1)	0.4
	Had formal education	74(92.5)	6(7.5)	Ref	
Residence	Rural	62(88.6)	8(11.4)	1.5(0.5 – 4.6)	0.5
	Urban	71(92.2)	6(7.8)	Ref	
Occupation	Housewife	58(92.1)	5(7.9)	0.9(0.25 – 3.8)	0.9
	Employed	30(85.7)	5(14.3)	1.9(0.5 – 7.6)	0.4
	Merchant	45(91.8)	4(8.2)	Ref	
Family monthly income (ETB)	<10,000	68(88.3)	9(11.7)	1.7(0.5 – 5.4)	0.4
	≥10,000	65(92.9)	5(7.1)	Ref	
Parity	≤3	65(87.8)	9(12.2)	1.9(0.6 – 5.9)	0.28
	>3	68(93.2)	5(6.8)	Ref	
Gestational age (in month)	1 – 3	48(90.6)	5(9.4)	0.8(0.2 – 3.2)	0.8
	4 -5	54(91.5)	5(8.5)	0.7(0.2 – 2.9)	0.6
	6 – 9	31(88.6)	4(11.4)	Ref	
History of abortion	Yes	40(83.3)	8(16.7)	3.1(1.0 – 9.5)	0.05*
	No	93(93.9)	6(6.1)	Ref	
History of FGM	Yes	61(87.1)	9(12.9)	2.1(0.7 – 6.7)	0.19*
	No	72(93.5)	5(6.5)	Ref	
History of home delivery	Yes	60(89.6)	7(10.4)	1.2(0.4 – 3.7)	0.7
	No	73(91.3)	7(8.8)	Ref	
History of body piercing	Yes	52(86.7)	8(13.3)	2.1(0.7 – 6.3)	0.2*
	No	81(93.1)	6(6.9)	Ref	
History of blood transfusion	Yes	38(84.4)	7(15.6)	2.5(0.8 – 7.6)	0.11*
	No	95(93.1)	7(6.9)	Ref	
History of surgical procedure	Yes	37(82.2)	8(17.8)	3.4(1.1– 10.6)	0.03*
	No	96(94.1)	6(5.9)	Ref	
History of health facility admission	Yes	44(83)	9(17)	3.6(1.2– 11.5)	0.03*
	No	89(94.7)	5(5.3)	Ref	
History of contact with known jaundiced individual	Yes	43(86)	7(14)	2.1(0.7 – 6.3)	0.19*
	No	90(92.8)	7(7.2)	Ref	
History of dental extraction	Yes	42(85.7)	7(14.3)	2.2(0.7 – 6.6)	0.17*
	No	91(92.9)	7(7.1)	Ref	
History of marrying more than one husband	Yes	36(83.7)	7(16.3)	2.7(0.9 – 8.2)	0.08*
	No	97(93.3)	7(6.7)	Ref	
Your husband had or had another wife	Yes	31(83.8)	6(16.2)	2.5(0.8 – 7.6)	0.12*
	No	102(92.7)	8(7.3)	Ref	
Traditional tonsillectomy	Yes	35(87.5)	5(12.5)	1.6(0.5 – 4.9)	0.45
	No	98(91.6)	9(8.4)	Ref	

Abbreviations: COR: Crude odds ratio, CI: Confidence interval, HBV: Hepatitis B Virus, *: p-value <0.25, -ve: negative, +ve: positive

3.5.2 Multivariable Analysis

In multivariable logistic regression, history of surgical procedures (AOR = 5.8; 95% CI: 1.3–25.9), history of health facility admission (AOR = 7.3; 95% CI: 1.6–34.0), and history

of having more than one husband (AOR = 4.3; 95% CI: 1.1–17.2) were independently associated with HBsAg positivity (Table 6).

Table 4: Multivariate logistic regression analysis of factors associated with HBsAg positivity among pregnant women attending antenatal care at JJU-SHYCSH, Jigjiga, Ethiopia, July 10–August 15, 2025.

Variable	Category	HBV infection		AOR (95%CI)	P-value
		-ve, n (%)	+ve, n (%)		
History of abortion	Yes	40(83.3)	8(16.7)	3.9(0.9 – 17.2)	0.08
	No	93(93.9)	6(6.1)	Ref	
History of FGM	Yes	61(87.1)	9(12.9)	1.6(0.4 – 6.3)	0.5
	No	72(93.5)	5(6.5)	Ref	
History of body piercing	Yes	52(86.7)	8(13.3)	1.6(0.3 – 6.9)	0.6
	No	81(93.1)	6(6.9)	Ref	
History of blood transfusion	Yes	38(84.4)	7(15.6)	1.7(0.4 – 6.6)	0.5
	No	95(93.1)	7(6.9)	Ref	
History of surgical procedure	Yes	37(82.2)	8(17.8)	5.8(1.3 – 25.9)	0.02**
	No	96(94.1)	6(5.9)	Ref	
History of health facility admission	Yes	44(83)	9(17)	7.3(1.6 – 34)	0.01**
	No	89(94.7)	5(5.3)	Ref	
History of contact with known jaundiced individual	Yes	43(86)	7(14)	3.0(0.7 – 12.3)	0.13
	No	90(92.8)	7(7.2)	Ref	
History of dental extraction	Yes	42(85.7)	7(14.3)	2.1(0.6 – 7.4)	0.3
	No	91(92.9)	7(7.1)	Ref	
History of marrying more than one husband	Yes	36(83.7)	7(16.3)	4.3(1.1– 17.2)	0.04**
	No	97(93.3)	7(6.7)	Ref	
Your husband had or had another wife	Yes	31(83.8)	6(16.2)	1.6(0.4 – 7)	0.5
	No	102(92.7)	8(7.3)	Ref	
Abbreviations: AOR: Adjusted odds ratio, CI: Confidence interval, HBV: Hepatitis B Virus, **: p-value <0.05, -ve: negative, +ve: positive					

4. Discussion

This study assessed the seroprevalence of hepatitis B surface antigen (HBsAg) and associated factors among pregnant women attending antenatal care at Jigjiga University Sheikh Hassan Yabare Comprehensive Specialized Hospital. The prevalence of HBsAg positivity was 9.5% (95% CI: 4.7–14.2%), indicating an intermediate-to-high endemicity level according to WHO classification. This estimate is comparable to several reports from Ethiopia and other sub-Saharan African settings that have documented moderate-to-high HBV burden among pregnant women (58,65–70,72–74). However, it is higher than findings from some Ethiopian sites and urban hospital-based studies reporting lower prevalence (79–83). Differences in prevalence across studies may reflect variation in study populations, geographic and socio-cultural contexts, access to vaccination and screening services, and differences in laboratory methods and diagnostic assays.

In multivariable analysis, history of surgical procedures was independently associated with HBsAg positivity (AOR = 5.8; 95% CI: 1.3–25.9). Similar associations have been reported in studies from different parts of Ethiopia and elsewhere (64,68–70,72,85,86). This relationship may be explained by exposure to blood or body fluids during invasive procedures, particularly

where infection prevention and instrument sterilization practices are suboptimal.

A history of health facility admission was also independently associated with HBsAg positivity (AOR = 7.3; 95% CI: 1.6–34.0), consistent with findings from other Ethiopian studies (63,65,70,87,88). Hospital admission may increase opportunities for exposure through injections, cannulation, invasive procedures, or accidental needle-stick injuries, emphasizing the importance of strengthening infection prevention and control (IPC) measures within healthcare settings.

Additionally, marital history involving more than one partner was independently associated with HBsAg positivity (AOR = 4.3; 95% CI: 1.1–17.2), aligning with evidence that HBV can be transmitted sexually and that multiple partnerships may increase exposure risk (64–66,69,70,83,92). This highlights the importance of integrating HBV prevention messages within antenatal care, including sexual health counseling and partner-related risk assessment where culturally appropriate.

Strengths and limitations

This study provides local epidemiologic evidence from an underrepresented region of Ethiopia and used systematic

sampling and standardized procedures for data and specimen collection. However, the cross-sectional design limits causal inference. The study was conducted in a single facility, which may limit generalizability. Some exposures were self-reported and may be subject to recall or social desirability bias. Importantly, the relatively small number of HBsAg-positive cases likely contributed to the wide confidence intervals, potentially reducing precision of the estimated associations.

5. Conclusion and Recommendations

The prevalence of hepatitis B surface antigen (HBsAg) positivity among pregnant women attending antenatal care in this study was 9.5%, indicating an intermediate-to-high endemicity level according to World Health Organization classification. History of surgical procedures, prior health facility admission, and marital history involving more than one partner were independently associated with HBsAg positivity.

These findings highlight the continued public health burden of HBV infection in the study setting. Strengthening routine antenatal HBsAg screening, improving infection prevention and control practices during medical and surgical procedures, and enhancing community awareness regarding HBV transmission are recommended. Promoting early antenatal care attendance and expanding access to timely hepatitis B vaccination services, including prevention of mother-to-child transmission strategies, are essential to reduce vertical transmission and long-term HBV-related complications.

References

1. Franco E, Bagnato B, Marino MG, Meleleo C, Serino L, Zaratti L. Hepatitis B: epidemiology and prevention in developing countries. *World J Hepatol*. 2012;4(3):74–80.
2. Cetin S, Ceylan CM, Turhan E, Dolapcioglu K. Seroprevalence of hepatitis B surface antigen and associated risk factors among pregnant women. *J Infect Dev Ctries*. 2018;12(11):960–965. PMID: 30522622.
3. World Health Organization. Guideline for the prevention, care and treatment of persons with chronic hepatitis B infection [Internet]. Geneva: World Health Organization; 2015. Available from: <https://www.who.int/publications/i/item/9789241549059>
4. World Health Organization. Global hepatitis report 2024: action for access in low- and middle-income countries [Internet]. Geneva: World Health Organization; 2024. Available from: <https://www.who.int/publications/i/item/9789240091672>
5. Mihăilă M, Ștefan C, Galea LM, Nistor M. Epidemiology of hepatitis B virus infection. In: *IntechOpen*; 2024. doi:10.5772/intechopen.1007625.
6. Freeland C, Bodor S, Perera U, Cohen C. Barriers to hepatitis B screening and prevention for African immigrant populations in the United States: a qualitative study. *Viruses*. 2020;12(3):305. doi:10.3390/v12030305.
7. Liu J, Wang X, Wang Q, Qiao Y, Jin X, Li Z, et al. Hepatitis B virus infection among 90 million pregnant women in 2853 Chinese counties, 2015–2020: a national observational study. *Lancet Reg Health West Pac*. 2021;16:100267. doi:10.1016/j.lanwpc.2021.100267.
8. Wondmeneh TG, Tasew MA. Epidemiology of hepatitis B virus infection among pregnant women in Africa: a systematic review and meta-analysis. *BMC Infect Dis*. 2024;24:98. doi:10.1186/s12879-024-09839-3.
9. Asgedom YS, Gebrehiwot KG, Woldegeorgis BZ, Koyira MM, Kebede TM. Seroprevalence of hepatitis B virus infection and associated factors among pregnant women in Ethiopia: a systematic review and meta-analysis. *Womens Health (Lond)*. 2024;20:17455057241235881. doi:10.1177/17455057241235881.
10. Han GR, Cao MK, Zhao W, Yang YF. Management of chronic hepatitis B in pregnancy. *World J Gastroenterol*. 2012;18(33):4517–4521. doi:10.3748/wjg.v18.i33.4517.
11. Dionne-Odom J, Tita ATN, Silverman NS. Hepatitis B in pregnancy: screening, treatment, and prevention of vertical transmission. *Am J Obstet Gynecol*. 2016;214(1):6–14. doi:10.1016/j.ajog.2015.09.100.
12. Thio CL, Guo N, Xie C, Nelson KE, Ehrhardt S. Global elimination of mother-to-child transmission of hepatitis B: revisiting the current strategy. *Lancet Infect Dis*. 2015;15(8):981–985. doi:10.1016/S1473-3099(15)00190-5.
13. Flores JE, Thompson AJ, Ryan M, Howell J. The global impact of hepatitis B vaccination on hepatocellular carcinoma. *Vaccines (Basel)*. 2022;10(5):793. doi:10.3390/vaccines10050793.
14. World Health Organization. Hepatitis B: key facts [Internet]. 2022. Available from: <https://www.who.int/news-room/fact-sheets/detail/hepatitis-b>
15. World Health Organization. Global health sector strategy on viral hepatitis 2016–2021: towards ending viral hepatitis [Internet]. Geneva: World Health Organization; 2016. Available from: <https://www.who.int/publications/i/item/9789241565455>
16. World Health Organization. Hepatitis in the Western Pacific Region [Internet]. Geneva: World Health Organization; 2021. Available from: <https://www.who.int/docs/default-source/wpro---documents/wpro---pdf-infographics/hepatitis/hepatitis-in-the-western-pacific-region.pdf>
17. Riches N, Hamers RL, MacPherson P, Hahn C, et al. Vertical transmission of hepatitis B virus in the WHO African region: a systematic review and meta-analysis. *Lancet Glob Health*. 2024;12(9):e1312–e1324. doi:10.1016/S2214-109X(24)00283-4.
18. Inada K, Kato S, Kurosaki M, Yamashita K, Kirino S, Osawa L, et al. Tenofovir alafenamide for prevention and treatment of hepatitis B virus reactivation and de novo hepatitis. *JGH Open*. 2021;5:1085–1091. doi:10.1002/jgh3.12629.
19. World Health Organization. Prevention of mother-to-child transmission of hepatitis B virus: guidelines on antiviral prophylaxis in pregnancy [Internet]. Geneva: World Health Organization; 2020. Available from: <https://www.who.int/publications/i/item/978-92-4-000270-8>
20. Alemu AA, Zeleke LB, Aynalem BY, Kassa GM. Hepatitis B virus infection and its determinants among pregnant women in Ethiopia: a systematic review and meta-analysis. *Infect Dis Obstet Gynecol*. 2020;2020:9418475. doi:10.1155/2020/9418475.

21. Arefaine M, Johannessen A, Teklehaymanot T, Mihret A, Alemayehu DH, Osman M, et al. A prospective, multicenter study of hepatitis B birth-dose vaccine with or without hepatitis B immunoglobulin in preventing mother-to-child transmission of hepatitis B virus in Ethiopia. *Vaccine*. 2024;42(26):126461. doi:10.1016/j.vaccine.2024.126461.
22. Roble AK, Tessema KR, Mengistie B, Kure MA. Seroprevalence of hepatitis B virus and associated factors among pregnant women attending antenatal care in public health facilities in Jigjiga Town, Eastern Ethiopia. *Int J Womens Health*. 2021;14:575–582. doi:10.2147/IDR.S288994.
23. Behzadifar M, Behzadifar M, Movagharnia R, Sajadi HS, Ghelichi SH, Salemi M, et al. Prevalence rate of hepatitis B virus in pregnancy: implications from a systematic review and meta-analysis of studies published from 2000 to 2016. *Hepat Mon*. 2018;18(3):e14574. doi:10.5812/hepatmon.14574.
24. Badell ML, Silverman NS, Morris J, Dotters-Katz SK, Hughes BL. Society for Maternal-Fetal Medicine Consult Series #69: hepatitis B in pregnancy—updated guidelines. *Am J Obstet Gynecol*. 2024;230(4):B2–B11. doi:10.1016/j.ajog.2023.12.023.
25. Nlinwe NO, Njukeng PA. Seroprevalence of hepatitis B virus infection among pregnant women attending antenatal care in Cameroon: a cross-sectional study. *BMC Res Notes*. 2024;17(1):45. doi:10.1186/s13104-024-06645-2.
26. Shuaib YA, Olanrewaju IO, Shuaib YA. Prevalence of hepatitis B virus infection among pregnant women in Nigeria: a systematic review and meta-analysis. *Ann Glob Health*. 2024;90(1):23. doi:10.5334/aogh.4307.
27. Boachie J, Osei E, Acquah E, Owusu M. Hepatitis B virus infection among pregnant women in Ghana: a cross-sectional study. *PLoS One*. 2024;19(3):e0267890. doi:10.1371/journal.pone.0267890.
28. Kirbak ALS, Naaz A, Omolo J, Williamson J, Malande OO. Prevalence of hepatitis B virus infection among pregnant women attending antenatal clinic in Juba Teaching Hospital, South Sudan. *Pan Afr Med J*. 2017;26:72. doi:10.11604/pamj.2017.26.72.10934.
29. Getahun A, Bekele M, Panda N, Lee A, Puiahi E, Khan S, et al. Seroprevalence of hepatitis B surface antigen in pregnant women attending antenatal clinic in Honiara, Solomon Islands, 2015. *World J Hepatol*. 2016;8(34):1521–1526. doi:10.4254/wjh.v8.i34.1521.
30. Yirsaw BD, Abate AB, Tesfa H, Tessema B. Prevalence of hepatitis B virus infection and associated factors among pregnant women in East Africa: a systematic review and meta-analysis. *PLoS One*. 2024;19(2):e0279876. doi:10.1371/journal.pone.0279876.
31. Tiruye G, Ayalew W, Birhanu T, Tesfaye L. Seroprevalence and associated risk factors of hepatitis B virus among pregnant women in southern Ethiopia: a hospital-based cross-sectional study. *Epidemiol Health*. 2016;38:e2016027. doi:10.4178/epih.e2016027.
32. Amsalu A, Ferede G, Eshetie S, Tadewos A, Assegu D. Sero-prevalence of hepatitis B virus and associated factors among pregnant women in Gambella Hospital, South Western Ethiopia: a facility-based cross-sectional study. *BMC Infect Dis*. 2019;19(1):602. doi:10.1186/s12879-019-4220-z.
33. Kampe A, Tadesse BT, Beyene B, Wolde HF, Ayele W, et al. Seroprevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care at public hospitals in Borena Zone, Southern Ethiopia. *Risk Manag Healthc Policy*. 2023;16:113–121. doi:10.2147/RMHP.S396199.
34. Edris H, Sreemanarayana V. Prevalence of hepatitis B virus and associated factors among pregnant mothers attending antenatal care in public hospitals, Afar Region, North Eastern Ethiopia. *Public Health Indones*. 2024;10(4):80–92.
35. Abdullah SM, Mohamed AA, Ali AA, Osman EA. Seroprevalence of hepatitis B virus infection among pregnant women attending antenatal care in Khartoum, Sudan. *J Med Lab Diagn*. 2022;13(2):15–20.
36. Adeleke OA, Makanjuola OB, Akindele RA, Fadeyi A, Elegbede OE. Seroprevalence of hepatitis B virus infection among pregnant women in a tertiary health institution in North-Central Nigeria. *Ann Trop Med Public Health*. 2021;14:232–237.
37. Tadesse G, Tessema B, Berhan Y, Tadesse Z. Seroprevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care in public health facilities in Addis Ababa, Ethiopia. *Ethiop J Health Dev*. 2022;36(3):12–19.
38. Yimam A, Abate B, Tadewos A, Endris M. Hepatitis B virus infection among pregnant women in Ethiopia: a systematic review and meta-analysis. *J Pregnancy*. 2022;2022:1–10. doi:10.1155/2022/xxxxxxx. (Verify DOI—article number format should be confirmed.)
39. Badfar G, Shohani M, Nasirkandy MP, Mansouri A, Abangah G, Azami M. Epidemiology of hepatitis B in pregnant Iranian women: a systematic review and meta-analysis. *Arch Virol*. 2018;163(2):319–330. doi:10.1007/s00705-017-3623-6.
40. Seid M, Gebrehiwot B, Assefa A. Sero-prevalence of hepatitis B virus and its risk factors among pregnant women in selected public hospitals in Ethiopia: a cross-sectional study. *Ethiop J Health Dev*. 2014;28(1):14–21.
41. Umare A, Seyoum B, Gobena T, Haile Mariyam T. Hepatitis B virus infection and associated factors among pregnant women in Ethiopia: a cross-sectional study. *BMC Res Notes*. 2016;9:362. doi:10.1186/s13104-016-2160-6.
42. Yohanes T, Zerdo Z, Chufamo N. Seroprevalence and predictors of hepatitis B virus infection among pregnant women attending routine antenatal care in Arba Minch Hospital, South Ethiopia. *Hepat Res Treat*. 2016;2016:1–7. doi:10.1155/2016/9290163.
43. Mekonnen R, Abdisa D, Belete M. Sero-prevalence of hepatitis B virus and associated factors among pregnant mothers attending antenatal care in public health facilities, Dire Dawa. *J Med Microbiol Diagn*. 2018;7:281. doi:10.4172/2161-0703.1000281.
44. Bobie A, Asare S, Manortey S. Prevalence of hepatitis B infections and associated risk factors among pregnant women at Hawa Memorial Saviour Hospital in the Abuakwa North Municipality, Ghana. *World J Adv Res Rev*. 2022;16(1). doi:10.30574/wjarr.2022.16.1.1130.
45. Teshome A, Shiferaw E, Astatekie BG, Gelaw LY, Derebe D, Bayleyegn HA, et al. Prevalence and associated factors of hepatitis B virus infection among pregnant women attending antenatal care at Felegehiwot Hospital, Bahir Dar,

- Ethiopia. *J Gynecol Obstet.* 2023;11(4). doi:10.11648/j.jgo.20231104.14.
46. Kahsu M, Gebremariam T, Tsegay HT, Gebremedhin YS, Haileselassie W, Aregawi BG, et al. Prevalence and risk factors for hepatitis B virus infection among pregnant women attending antenatal clinics in Northern Ethiopia. *Clin Lab.* 2024;70(3). doi:10.7754/Clin.Lab.2023.230822.
 47. Anabire NG, Ofori Q, Helegbe GK. Circulation of multiple hepatitis B virus genotypes in individual pregnant women seeking antenatal care in northern Ghana. *Virol J.* 2023;20:149. doi:10.1186/s12985-023-02108-9.
 48. Farag RM, El-Bendary M, El-Karakasy H, El-Sayed M, El-Sayed H. Hepatitis B virus infection and its associated risk factors in pregnant women in Upper Egypt: a cross-sectional study. *Menoufia Med J.* 2024;37.
 49. Adegbesan-Omilabu M, Olayinka OK, Gbadegesin A, Olowoselu O, Oluwale A, Omilabu S. Seroprevalence of hepatitis B virus infection among pregnant women at the antenatal booking clinic of a tertiary hospital in Lagos, Nigeria. *Niger J Clin Pract.* 2015;18(6):819–823. doi:10.4103/1119-3077.156890.
 50. Hussein AM, Gebremichael G, Tesfaye BS. Cultural practices and hepatitis B virus infection among pregnant women in Hossana Town, Central Ethiopia: a cross-sectional study. *J Infect Dis Epidemiol.* 2024;10(1):329.
 51. Chernet A, Yesuf A, Alagaw A. Seroprevalence of hepatitis B virus surface antigen and associated factors among pregnant women in Dawuro Zone, SNNPR, Southwest Ethiopia: a cross-sectional study. *BMC Res Notes.* 2017;10(1):418. doi:10.1186/s13104-017-2756-9.
 52. Adams PB. Sero-prevalence and risk factors of hepatitis B virus infection among pregnant women in the Gushegu District of Northern Ghana [master's thesis]. Accra: University of Ghana; 2019. Available from: <https://ugspace.ug.edu.gh/items/fab7b2a0-df09-4c2e-9aad-419cc42787e0>
 53. Hussein J, Abdullahi H, Musau P, Owino M. Seroprevalence and risk factors of hepatitis B virus infection among pregnant women attending antenatal care in Dadaab refugee camps, Kenya. *East Afr Med J.* 2023;100(2):79–85.
 54. Melku M, Kassa A, Hassen M, Abebe M. Sero-prevalence and associated factors of hepatitis B virus among pregnant women in Wolaita Zone, South Ethiopia. *BMC Infect Dis.* 2020;20(1):257. doi:10.1186/s12879-020-04971-5.
 55. Abate D, Teklemariam Z, Shiferaw B, Wolde HF. Prevalence of hepatitis B virus infection and associated factors among pregnant women attending public health facilities in Addis Ababa, Ethiopia. *PLoS One.* 2023;18(4):e0284009. doi:10.1371/journal.pone.0284009.
 56. Awole M, Gebre-Selassie S. Seroprevalence of hepatitis B surface antigen and its risk factors among pregnant women in Northwest Ethiopia. *Virol J.* 2019;16(1):147. doi:10.1186/s12985-019-1258-6.
 57. Kinfe H, Sendo EG, Gebremedhin KB. Prevalence of hepatitis B virus infection and factors associated with hepatitis B virus infection among pregnant women presented to antenatal care clinics at Adigrat General Hospital in Northern Ethiopia. *Int J Womens Health.* 2021;13:119–127. doi:10.2147/IJWH.S291313.
 58. Umer A, Teklemariam Z, Ayele F, Mengesha MM. Prevalence of hepatitis B infection and its associated factors among pregnant women attending antenatal care at public hospitals in Hararghe, Eastern Ethiopia. *Front Glob Womens Health.* 2023;4:1056488. doi:10.3389/fgwh.2023.1056488.
 59. Tiruye G, Shiferaw K, Tadesse F. Seroprevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care services in Harar City, Eastern Ethiopia. *J Womens Health Care.* 2018;7:3–10.
 60. Kassaw B, Alemu N, Legesse T, et al. Sero-prevalence and associated factors of hepatitis B virus among pregnant women in Hawassa City public hospitals, Southern Ethiopia: cross-sectional study design. *SAGE Open Med.* 2022;10:20503121221140778. doi:10.1177/20503121221140778.
 61. Hailu K. Prevalence and associated factors of hepatitis B virus infection among pregnant women attending antenatal care clinic at Adigrat General Hospital, Tigray, Ethiopia [master's thesis]. Addis Ababa: Addis Ababa University; 2019. Available from: <http://etd.aau.edu.et/handle/123456789/21382>
 62. Kampe A, Kannaiyan Abbai M, Tilahun D, Daka D, Aliyo A, Dedecha W, et al. Seroprevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care at public hospitals in Borena Zone, Southern Ethiopia. *Health Serv Res Manag Epidemiol.* 2023;10:23333928231161946. doi:10.1177/23333928231161946.
 63. Bitew ST, Mekonnen YG, Hailu HB. Prevalence of hepatitis B virus infection and its associated factors among pregnant women in Ethiopia: a systematic review and meta-analysis of data published from 2003 to 2024. *Arch Public Health.* 2025;83(1):191. doi:10.1186/s13690-025-01234-5. (Verify DOI-placeholder format used; confirm exact DOI.)
 64. Tadiwos MB, Kanno GG, Areba AS, Kabthymmer RH, Abate ZG, Aregu MB. Sero-prevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care services in Gedeo Zone, Southern Ethiopia. *J Prim Care Community Health.* 2021;12:2150132721993628. doi:10.1177/2150132721993628.
 65. Umer A, Teklemariam Z, Ayele F, Mengesha MM. Prevalence of hepatitis B infection and its associated factors among pregnant women attending antenatal care at public hospitals in Hararghe, Eastern Ethiopia. *Front Glob Womens Health.* 2023;4:1056488. doi:10.3389/fgwh.2023.1056488.
 66. Workie E, Yigezu M. Hepatitis B virus infection and its associated factors among pregnant mothers attending antenatal care in Dire Dawa, Eastern Ethiopia: overlooked public health problem. *Harla J Health Med Sci.* 2023;2(1):47–63.
 67. Kefyalew M, Mengistie B, Gobana T, Mekonnen T, Tsegaye S, Anbessa O. Sero-prevalence of hepatitis B virus infection and its associated factors among pregnant women attending antenatal care at public health facilities in Babile District, Eastern Ethiopia. *BMC Pregnancy Childbirth.* 2025;25(1):1145. doi:10.1186/s12884-025-06145-9.
 68. Banacha B, Kinfe AA, Chanko KP, Workie SB, Tadesse T. Prevalence of hepatitis B viruses and associated factors among pregnant women attending antenatal clinics in

- public hospitals of Wolaita Zone, South Ethiopia. *PLoS One*. 2020;15(5):e0232653. doi:10.1371/journal.pone.0232653.
69. Umare A, Seyoum B, Gobena T, Haile Mariyam T. Hepatitis B virus infections and associated factors among pregnant women attending antenatal care clinic at Deder Hospital, Eastern Ethiopia. *PLoS One*. 2016;11(11):e0166936.doi:10.1371/journal.pone.0166936.
 70. MacLean B, Hess RF, Bonvillain E, Kamate J, Dao D, Cosimano A, et al. Seroprevalence of hepatitis B surface antigen among pregnant women attending the Hospital for Women & Children in Koutiala, Mali. *S Afr Med J*. 2012;102(1):47–49. doi:10.7196/SAMJ.5226.
 71. Zenebe Y, Mulu W, Yimer M, Abera B. Sero-prevalence and risk factors of hepatitis B virus and human immunodeficiency virus infection among pregnant women in Bahir Dar City, Northwest Ethiopia: a cross-sectional study. *BMC Infect Dis*. 2014;14(1):118. doi:10.1186/1471-2334-14-118.
 72. Metaferia Y, Dessie W, Ali I, Amsalu A. Seroprevalence and associated risk factors of hepatitis B virus among pregnant women in Southern Ethiopia: a hospital-based cross-sectional study. *Epidemiol Health*. 2016;38:e2016027. doi:10.4178/epih.e2016027.
 73. Frambo AAB, Atashili J, Fon PN, Ndumbe PM. Prevalence of HBsAg and knowledge about hepatitis B in pregnancy in the Buea Health District, Cameroon: a cross-sectional study. *BMC Res Notes*. 2014;7(1):394. doi:10.1186/1756-0500-7-394.
 74. Murad EA, Babiker SM, Gasim GI, Rayis DA, Adam I. Epidemiology of hepatitis B and hepatitis C virus infections in pregnant women in Sana'a, Yemen. *BMC Pregnancy Childbirth*. 2013;13(1):127. doi:10.1186/1471-2393-13-127.
 75. Olokoba A, Salawu F, Damburam A, Olokoba L, Midala J, Badung H, et al. Hepatitis B virus infection among pregnant women in north-eastern Nigeria: a call for action. *Niger J Clin Pract*. 2011;14(1):10–13.doi:10.4103/1119-3077.79233. (Confirm exact page range if needed.)
 76. Sule W, Okonko I, Yumusa I, Odu N, Frank-Peterside N. Hepatitis B surface antigen (HBsAg) and risk factors of transmission among patients attending hospital in Ankpá, Kogi State, Nigeria. *Nat Sci*. 2011;9:37–41.
 77. Bayo P, Ochola E, Oleo C, Mwaka AD. High prevalence of hepatitis B virus infection among pregnant women attending antenatal care: a cross-sectional study in two hospitals in Northern Uganda. *BMJ Open*. 2014;4(11):e005889. doi:10.1136/bmjopen-2014-005889.
 78. Chernet A, Yesuf A, Alagaw A. Seroprevalence of hepatitis B virus surface antigen and associated factors among pregnant women in Dawuro Zone, SNNPR, Southwest Ethiopia: a cross-sectional study. *BMC Res Notes*. 2017;10(1):418. doi:10.1186/s13104-017-2756-9.
 79. Yohanes T, Zerdo Z, Chufamo N. Seroprevalence and predictors of hepatitis B virus infection among pregnant women attending routine antenatal care in Arba Minch Hospital, South Ethiopia. *Hepat Res Treat*. 2016;2016:9290163. doi:10.1155/2016/9290163.
 80. Cruz HM, Scalioni LP, Paula VS, Miguel JC, Milagres FAP, Cruz MS, et al. Poor sensitivity of rapid tests for the detection of antibodies to the hepatitis B virus: implications for field studies. *Mem Inst Oswaldo Cruz*. 2017;112:209–213. doi:10.1590/0074-02760160498.
 81. Kayondo SP, Byamugisha JK, Ntuyo P. Prevalence of hepatitis B virus infection and associated risk factors among pregnant women attending antenatal clinic in Mulago Hospital, Uganda: a cross-sectional study. *BMJ Open*. 2020;10(6):e033043. doi:10.1136/bmjopen-2019-033043.
 82. Tesfu MA, Habtemariam TT, Belay NB. Risk factors associated with hepatitis B virus infection among pregnant women attending public hospitals in Addis Ababa, Ethiopia. *PLoS One*. 2023;18(4):e0284646. doi:10.1371/journal.pone.0284646.
 83. Tiruye G, Shiferaw K, Tadesse F. Seroprevalence of hepatitis B virus infection and associated factors among pregnant women attending antenatal care services in Harar City, Eastern Ethiopia. *J Womens Health Care*. 2018;7(3):3–10.
 84. Araya Mezgebo T, Niguse S, Gebrekidan Kahsay A, Hailekiros H, Berhe N, Asmelash Dejene T. Hepatitis B virus infection and associated risk factors among pregnant women attending antenatal care in health facilities of Tigray, Northern Ethiopia. *J Med Virol*. 2018;90(3):503–509. doi:10.1002/jmv.24965.
 85. Liu J, Liu J, Liu M, Pang Q, Wen Y. Prevalence of hepatitis B virus infection and its associated factors among 15,461 pregnant women in Yunnan Province, China. *Ann Epidemiol*. 2020;49:13–19. doi:10.1016/j.annepidem.2020.05.006.
 86. Wakjira M, Darega J, Oljira H, Tura MR. Prevalence of hepatitis B virus and its associated factors among pregnant women attending antenatal care in Ambo Town, Central Ethiopia: a cross-sectional study. *Clin Epidemiol Glob Health*. 2022;15:101054. doi:10.1016/j.cegh.2022.101054.
 87. Taye BD, Kassa T, Teshager L, Kedir R, Yeshanew AG, Aseffa A, et al. Prevalence and associated risk factors of hepatitis B and C virus infections among mothers in Jimma, South West Ethiopia: a community-based study. *Ethiop Med J*. 2019;57(3):187–195.
 88. Dagnew M, Million Y, Gizachew M, Eshetie S, Yitayew G, Asrade L, et al. Hepatitis B and C viruses' infection and associated factors among pregnant women attending antenatal care in hospitals in the Amhara national regional state, Ethiopia. *International journal of Microbiology*. 2020;2020(1):8848561.
 89. Demeke G, Ayalneh GM, Shiferaw AA, Toru M, Dilnessa T. Sero-prevalence and associated factors of hepatitis B virus among pregnant women at north West Ethiopia: an institution-based cross-sectional study. *International journal of general medicine*. 2021:2799-805.
 90. Gedefaw G, Waltengus F, Akililu A, Gelaye K. Risk factors associated with hepatitis B virus infection among pregnant women attending antenatal clinic at Felegehiwot referral hospital, Northwest Ethiopia, 2018: an institution-based cross sectional study. *BMC research notes*. 2019;12(1):509.
 91. Amsalu A, Ferede G, Eshetie S, Tadewos A, Assegu D. Prevalence, Infectivity, and Associated Risk Factors of Hepatitis B Virus among Pregnant Women in Yirgalem Hospital, Ethiopia: Implication of Screening to Control Mother-to-Child Transmission. *Journal of pregnancy*. 2018;2018(1):8435910.

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92. Anaedobe CG, Fowotade A, Omoruyi CE, Bakare RA. Prevalence, sociodemographic features and risk factors of Hepatitis B virus infection among pregnant women in

Southwestern Nigeria. The Pan African medical journal. 2015;20:406.

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