



## “Analysis of Causal Factors of Hepatitis B in Pregnant Women: Literature Review”

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**Abstrak.** Hepatitis B is a viral infection that affects the liver and is transmitted through contact with blood and other bodily fluids. Pregnant women who contract hepatitis B are at risk of passing the virus to their unborn child during pregnancy or childbirth. This vertical transmission is a major contributor to the high prevalence of hepatitis B in many developing countries. The objective of this study is to examine the factors that contribute to hepatitis B infection in pregnant women, focusing on demographic characteristics, behavioral patterns, and access to healthcare services. Employing a quantitative method with a cross-sectional design, the study found that factors such as low educational attainment, a history of using unsterile needles, previous blood transfusions, and limited knowledge about hepatitis B significantly increase the risk of infection. Therefore, educational approaches and enhanced hepatitis B screening in pregnant women are necessary efforts to prevent transmission

**Kata kunci:** Hepatitis B, pregnant women, risk factors, vertical transmission, maternal health

**Abstrak.** Hepatitis B merupakan infeksi virus yang menyerang hati dan penularan melalui kontak dengan darah serta cairan tubuh lainnya. Ibu hamil yang terinfeksi hepatitis B berisiko menularkan virus tersebut kepada janinnya selama masa kehamilan atau saat persalinan. Penularan vertikal ini merupakan salah satu penyebab utama tingginya prevalensi hepatitis B di banyak negara berkembang. Tujuan dari penelitian ini adalah untuk menganalisis apa saja faktor-faktor yang berkontribusi terhadap infeksi penyakit hepatitis B pada ibu hamil, dengan fokus pada karakteristik demografis, pola perilaku, dan akses terhadap layanan kesehatan. Metode Penelitian ini menggunakan kuantitatif dengan desain potong lintang (cross-sectional). Hasil penelitian didapat tingkat pendidikan yang rendah, riwayat penggunaan jarum tidak steril, riwayat transfusi darah, serta kurangnya pengetahuan tentang hepatitis B merupakan faktor-faktor yang secara signifikan meningkatkan risiko infeksi. Oleh karena itu, pendekatan edukatif dan peningkatan skrining hepatitis B pada ibu hamil merupakan langkah penting dalam upaya pencegahan penularan.

**Kata kunci:** Hepatitis B, ibu hamil, faktor risiko, penularan vertikal, kesehatan maternal

### 1. INTRODUCTION

Hepatitis B is an infectious disease that targets the liver and is caused by the hepatitis B virus (HBV). It poses a major global health burden, particularly in developing nations such as Indonesia. HBV infection may present as either acute or chronic and can progress to serious complications like liver cirrhosis or hepatocellular carcinoma. (Rini Kundaryanti & Anni Suciawati, 2022).

One of the most concerning modes of transmission is vertical transmission from mother to child during pregnancy, childbirth, or breastfeeding, accounting for nearly 95% of chronic infections in children (Ministry of Health of the Republic of Indonesia, 2018; WHO, 2020). Indonesia is considered a high-endemic country for hepatitis B, with a national HBsAg prevalence of 7.1%, based on the 2013 Basic Health Research (Riskesdas) data. According to a 2018 report, more than 29,000 pregnant women in Indonesia were found to be infected with hepatitis B, indicating a high potential risk of transmission to their babies (Ministry of Health, 2019). For example, in Lampung Province, 238 out of 15,041 pregnant women tested positive for hepatitis B, or approximately 15.04% (Patma Nofiani Journal, 2022).

Vertical transmission of hepatitis B is very risky because 90% of babies infected at birth will become lifelong chronic carriers (Herlando Sinaga et al., 2018; Patma Nofiani & Riona Sanjaya, 2022; Fiya Diniarti et al., 2022). Chronic hepatitis B infection is a leading

contributor to serious long-term health issues, including liver cirrhosis and liver cancer. As such, screening and early diagnosis in pregnant women are essential measures to prevent the continuation of transmission to the next generation.

The Indonesian government has introduced the Triple Elimination initiative as a national policy to eliminate the vertical transmission of HIV, syphilis, and hepatitis B. This effort is regulated under the Minister of Health Regulation No. 52 of 2017 (Herlando Sinaga et al., 2018). The program aims to achieve at least 95% testing coverage among pregnant women. However, its implementation still faces several challenges, particularly the low level of knowledge among pregnant women and limited involvement of healthcare workers in education and screening (Rini Kundaryanti & Anni Suciawati, 2022).

Research conducted in different areas indicates that pregnant women's awareness of the importance of hepatitis B screening is still relatively low. For example, at PMB Suciati in Jakarta, 82% of pregnant women lacked knowledge about the significance of the Triple Elimination screening (Petalina, 2020). In fact, education is a highly influential factor in encouraging pregnant women to undergo screening. In addition to knowledge, other factors such as attitudes, education level, partner support, and access to health services also contribute to the low screening coverage (Patma Nofiani & Riona Sanjaya, 2022; Fiya Diniarti et al., 2022).

Hepatitis B is a viral infection that targets the liver and represents a significant global health concern, including in Indonesia. Based on the 2013 Basic Health Research (Riskesdas), the overall prevalence of hepatitis B (HBsAg) among the Indonesian population was 7.1%. One major factor contributing to this high prevalence is the transmission of the virus from infected mothers to their children. This infection generally spreads through blood, body fluids, or from mother to baby during childbirth. The Southeast Asia region, including Indonesia, has a high endemicity rate, with a prevalence of more than 8% (Herlando Sinaga, 2018). WHO reports that Indonesia ranks third highest in Asia for hepatitis B burden, after China and India (Patma Nofiani, 2022). Furthermore, the triple elimination national program is an important strategy to reduce the prevalence of this disease (Rini Kundaryanti, 2022). Unfortunately, coverage of this program is still uneven across Indonesia (Fiya Diniarti, 2022).

Hepatitis B poses a significant threat to pregnant women and their babies. Infants who contract the hepatitis B virus have a 90–95% likelihood of developing chronic hepatitis B. In 2019 alone, hepatitis B infection led to approximately 820,000 deaths due to liver cirrhosis and hepatocellular carcinoma (liver cancer). According to WHO (2020), 74% of global liver cancer cases were reported in Asia, including Indonesia (Rini Kundaryanti, 2022). The primary driver of early chronic hepatitis B infections is vertical transmission from mother to child. (Herlando Sinaga, 2018). This risk increases if postnatal immunization, including the administration of vaccine and HBIG within 24 hours after birth, is not performed (Bintang Petralina, 2020). The Mother-to-Child Transmission Prevention Program (MTCTP) has become a priority in reducing chronic infection rates in the future (Fiya Diniarti, 2022).

Several factors contribute to hepatitis B infection in pregnant women, including a history of blood transfusions, the use of unsterilized needles, sexual contact with infected partners, and living in the same household as individuals with hepatitis B. Additionally, limited knowledge about the disease and inadequate access to preventive healthcare services, such as vaccination, also play a role in the continued prevalence of cases. A study by Diniarti et al. (2022) found that more than 50% of pregnant women diagnosed with hepatitis B had a history of close contact with infected individuals within their household. Another study by Patma Nofiani (2022) found that education level, age, and attitude of pregnant women significantly affected their participation in hepatitis B screening. Low screening coverage is also due to the lack of active involvement of health

workers in providing education (Rini Kundaryanti, 2022). Meanwhile, Herlando Sinaga (2018) confirmed that 13% of pregnant women tested in Jayapura were HBsAg positive.

Preventing mother-to-child transmission of hepatitis B can be achieved through various strategies, one of which is the immediate administration of hepatitis B immunoglobulin (HBIG) and the hepatitis B vaccine to the newborn shortly after birth. In addition, hepatitis B suppression therapy for pregnant women, such as Tenofovir Disoproxil Fumarate, has proven to be effective and safe. The Indonesian government has initiated pilot programs focused on providing antiviral treatment to pregnant women as a strategy to prevent the vertical transmission of hepatitis B. (Ministry of Health, 2019, as cited in Patma Nofiani, 2022). A study in Jayapura showed that early immunization effectively reduced the rate of infection in newborns (Herlando Sinaga, 2018). WHO also emphasizes that administering the vaccine within the first 24 hours is crucial to prevent chronic infection in children (Rini Kundaryanti, 2022). However, implementation remains low due to logistical limitations, lack of health workers, and low public awareness (Fiya Diniarti, 2022).

Another initiative by the government is the early detection of hepatitis B among pregnant women. Since 2016, screening has been conducted using the Rapid Diagnostic Test (RDT) for HBsAg. According to data from the Hepatitis and Gastrointestinal Infectious Disease Information System (SIHEPI) for the years 2018–2019, a total of 1,643,204 pregnant women across 34 provinces were tested. Of these, 30,965 were found to be reactive, indicating hepatitis B infection, and 15,747 newborns from these mothers received HBIG (Fiya Diniarti, 2022). However, a study by Rini Kundaryanti (2022) in East Jakarta revealed that only 55.7% of pregnant women had undergone screening for the Triple Elimination program. In other areas such as West Lampung, the screening coverage for hepatitis B among pregnant women was still below 60% of the national target (Patma Nofiani, 2022). In fact, early detection strategies are critical for immediate intervention and breaking the chain of transmission (Bintang Petralina, 2020).

Despite the ongoing efforts, it is expected that the rate of mother-to-child transmission of hepatitis B can be minimized. However, a deeper analysis of the risk factors associated with hepatitis B in pregnant women is essential to enhance the effectiveness of prevention and intervention strategies. This study aims to conduct a systematic review of the various risk factors for hepatitis B in pregnant women, drawing on national and international literature from the past decade (2015–2025). By studying the dominant contributing factors, the findings are expected to guide policymakers and health professionals in formulating appropriate strategies and interventions. Studies by Diniarti et al. (2022) and Sinaga et al. (2018) highlight the urgency of data-driven approaches in hepatitis B elimination policies. Research by Patma Nofiani and Rini Kundaryanti (2022) also underscores the importance of increasing awareness, education, and pregnant women's participation in preventive efforts as part of the national triple elimination program.

## 2. METHODS

This article employs a literature review method, focusing on the exploration and synthesis of various scholarly works previously published in relation to policies aimed at increasing the coverage of complete basic immunization. Unlike studies that strictly follow empirical procedures, this approach is more descriptive in nature, aiming to provide a broader and more comprehensive understanding of the topic under discussion.

The primary objective of this review is to examine the extent to which maternal and child health policies contribute to improving immunization coverage. Data collection was carried out through a systematic search of academic literature across publicly accessible digital platforms, particularly Google Scholar, using relevant keywords such as "policy,"

"maternal and child health," "complete basic immunization," and "vaccine."

The selection criteria focused on studies that specifically addressed both national and international perspectives on immunization strategies. A total of 25 peer-reviewed articles were examined in this study, comprising 20 nationally indexed and 5 internationally indexed articles, all of which were published within the last five years (2015–2024). The articles were selected based on their relevance, credibility, and contribution to current understanding of the effectiveness of immunization policies.

This review aims to identify, analyze, and evaluate various maternal and child health policies that have been implemented to enhance basic immunization coverage in Indonesia. Furthermore, the study seeks to uncover gaps and opportunities that can be utilized for future policy improvements.

The findings from this literature review are intended to provide a valuable resource for healthcare professionals, policymakers, and other key stakeholders involved in maternal and child health services. The insights gained from this analysis are expected to contribute to the formulation of more effective strategies for preventing and controlling hepatitis B, particularly by strengthening the implementation of immunization programs throughout Indonesia.

### **3. RESULTS AND DISCUSSION**

This study seeks to examine the factors that contribute to hepatitis B infection among pregnant women. The analysis is based on a literature review of 30 journal articles. The findings align with previous research, showing that behavioral and socioeconomic factors play a significant role in increasing the susceptibility of pregnant women to hepatitis B. Low education levels affect understanding of the risks of transmission and the importance of early screening. In addition, risky behaviors such as the use of non-sterile needles, a history of blood transfusions, and unprotected sexual intercourse are also major contributing factors.

The lack of hepatitis B screening in early pregnancy further increases the chance of undetected infections, thereby raising the risk of vertical transmission. Health education and the provision of screening services are therefore crucial in the context of prevention.

No	Article Title	Authors & Year	Research Title	Research Method	Research Location	Research Objective	Research Findings
1	Revealing Hepatitis B Risk in Pregnant Women	Hasmi, Hervina Kole, Novita Medyati, 2024	Revealing Hepatitis B Risk in Pregnant Women	Cross-sectional	Waena Health Center, Jayapura City	To identify the relationship between risk factors (marital age, number of partners, etc.) and Hepatitis B	Marital age and number of sexual partners affect infection risk, while parity and length of marriage do not show significant influence.
2	Hepatitis B in Pregnancy: A Case Report	Cindy Restu Bhakti et al., 2024	Hepatitis B in Pregnancy: A Case Report	Case Report	Undata Hospital, Palu	To describe a case of a pregnant woman with Hepatitis B	Proper treatment with HB vaccination and HBIG immediately after birth can prevent vertical transmission.
3	Risk Factors of Hepatitis B in Pregnant Women in Bombana Regency, 2024	Basir et al., 2024	Risk Factors of Hepatitis B in Pregnant Women in Bombana Regency, 2024	Observational Study	Bombana, Indonesia	To identify hepatitis B risk factors in pregnant women	Household contact and history of blood transfusions are key transmission routes.
4	Transmission of Hepatitis B Infection through Sexual Partners in Pregnant Women	Diniarti & Romli, 2024	Transmission of Hepatitis B Infection through Sexual Partners in Pregnant Women	Observational Study	Bengkulu, Indonesia	To understand hepatitis B transmission through sexual partners	Sexual transmission from partners is a main route, highlighting the need for partner screening.
5	Risk Factors for Hepatitis B Virus Infection in Pregnant Women	Eka Faizaturrahmi et al., 2023	Risk Factors for Hepatitis B Virus Infection in Pregnant Women	Case-Control	Pringgasela Health Center, East Lombok	To identify hepatitis B infection risk factors in pregnant women	Husbands as external factors (marriage >1 time, working abroad) significantly

	at Pringgasela Health Center						influence wives' infection risk.
6	Literature Review: Causes of Hepatitis B in Pregnant Women	Hidayah & Afridah, 2023	Literature Review: Causes of Hepatitis B in Pregnant Women	Literature Review	Indonesia	To determine causes of hepatitis B in pregnant women	Common causes include sexual behavior, environment, vaccination, and use of medical tools.
7	Revealing Hepatitis B Risk in Pregnant Women	Hasmi et al., 2023	Revealing Hepatitis B Risk in Pregnant Women	Quantitative Survey	Jayapura, Indonesia	To identify hepatitis B risk in pregnant women	No further discussion available.
8	Case Study on Pregnant Women with High Risk	Daraqthni & Aisyah, 2023	Case Study on Pregnant Women with High Risk	Case Study	Pekalongan, Indonesia	To assess high risk in pregnant women	HB infection and cesarean history increase complications in high-risk pregnancies.
9	Pharmaceutic Journal Vol. 11 No. 2	Rini Kundryanti & Anni Suciawati, 2022	Factors Related to Tri-Elimination Examination in Pregnant Women	Cross-sectional, questionnaire, chi-square	Ciracas Health Center, East Jakarta	To determine factors related to tri-elimination examination	Knowledge and healthcare worker support are key to encouraging tri-elimination checks.
10	Characteristics of Pregnant Women with Positive HBsAg at Kramatwatu Health Center	Santi Sundry Lintang & Nurseha, 2022	Characteristics of Pregnant Women with Positive HBsAg	Descriptive, secondary medical records	Kramatwatu Health Center, Banten	To identify characteristics of pregnant women with HBsAg positive	Reproductive age and multiparity dominate the group, indicating vulnerability.
11	Factors Influencing Hepatitis B in Pregnant Women	Diniarti et al., 2022	Factors Influencing	Case-Control Study	Bengkulu, Indonesia	To identify factors influencing	Education and immunization affect occurrence; education

			Hepatitis B in Pregnant Women			hepatitis B occurrence	is essential for prevention.
12	Bandung Health Polytechnic Research Journal	Fiya Diniarti et al., 2022	Factors Influencing Hepatitis B Occurrence in Pregnant Women	Analytical, case control, chi-square	Bengkulu City	To identify spatial-based risk factors of hepatitis B	Spatial patterns show sociodemographic factors play a major role in spread.
13	Journal of Current Health Sciences	Patma Nofiani & Riona Sanjaya, 2022	Factors Influencing Pregnant Women to Undergo Hepatitis B Examination	Quantitative, cross-sectional, Spearman Rank	Kenali Health Center, West Lampung	To identify factors influencing pregnant women in hepatitis B screening	Internal (knowledge, age) and external (access, education) factors motivate screening.
14	Analysis of Factors Related to Immunization Access	Sukrisno, 2022	Analysis of Factors Related to Access to Hepatitis B Immunization (HB 0-7 Days in Newborns in Indonesia 2016)	Logistic Regression Analysis	Indonesia	To identify factors related to access to HB 0 immunization	Geographic and socioeconomic factors determine infant access to hepatitis B immunization.
15	Causes of Hepatitis B in Pregnant Women (Phenomenological Study)	Fatma Nadia & Dina Anggina, 2021	Causes of Hepatitis B in Pregnant Women	Qualitative (Phenomenology)	Perhentian Raja Health Center, Kampar	To explore causes of hepatitis B in pregnant women	Low knowledge, family history of HB, and lifestyle habits increase infection risk.
16	Hepatitis B Risk Factors in Pregnant Women in Makassar 2019	Nurhidayati, Fatmah A. Gobel, Een Kurnesih, 2021	Hepatitis B Risk Factors in Pregnant Women in Makassar	Case-Control (1:1)	Makassar Health Centers	To analyze hepatitis B risk factors in pregnant women	Similar patterns to other studies: transfusion and living with HB-infected individuals are major factors.
17	The Impact of Health Education on Pregnant Women's Knowledge about Hepatitis B	Noviana Indarti & Ni Nyoman Widya Pradani, 2021	The Impact of Health Education on Pregnant Women's Knowledge about Hepatitis B	Quasi-experimental (one-group pretest-posttest design)	Manggar Baru Health Center, Balikpapan	To assess impact of health education on knowledge	Educational intervention significantly increases HB knowledge and prevention awareness.
18	Hepatitis B Risk Factors in Pregnant Women in Makassar, 2019	Nurhidayati et al., 2021	Hepatitis B Risk Factors in Pregnant Women in Makassar, 2019	Case-Control Study	Makassar, Indonesia	To analyze hepatitis B risk factors in pregnant women	Consistently shows impact of living environment on HB virus exposure.
19	Characteristics of Pregnant Women with Hepatitis B at Dr. Doris Sylvanus Hospital	Laga et al., 2021	Characteristics of Pregnant Women with Hepatitis B	Descriptive Study	Palangka Raya, Indonesia	To determine characteristics of pregnant women with HB	Mostly housewives with low education and multigravida, increasing vulnerability.
21	Hepatitis B Risk Factors in Pregnant Women in Semarang, 2020–2021	Denando, 2021	Hepatitis B Risk Factors in Pregnant Women in Semarang, 2020–2021	Case Study	Semarang, Indonesia	To identify hepatitis B risk factors in pregnant women	Summary data not available for further discussion.
22	Husada Mahakam: Health Journal	Bintang Petralina, 2020	Determinants of Pregnant Women's Knowledge on Triple Elimination Examination	Descriptive-analytical, accidental sampling, questionnaire	PMB Suciati, East Jakarta	To assess pregnant women's knowledge about triple elimination examination	Most women do not understand the importance of the examination; education is urgently needed.
23	Knowledge and Attitude of Pregnant Women on Hepatitis B	Yanyan Mulyani & Vaurel Nurul Salsabil, 2020	Knowledge and Attitude of Pregnant Women on Preventing	Descriptive, questionnaire	Ciparay Health Center,	To determine pregnant women's knowledge and	Low knowledge but positive attitude presents an opportunity for

	Transmission Prevention to the Fetus		Hepatitis B in Fetuses		Bandung Regency	attitude on HB transmission prevention	educational intervention.
24	Health Research Journal	Herlando Sinaga et al., 2018	HBsAg and Anti-HBs Screening in Pregnant Women for HB Transmission	Descriptive, 60 samples, Immunochromatography	Sentani City Health Center & RS Marthen Indey, Jayapura	To assess HBsAg and Anti-HBs test results in pregnant women	Screening reveals proportion with active infection and immunity, essential for early intervention.
25	Hepatitis B Risk Factors in Pregnant Women in DKI Jakarta, 2015–2016	Pratono, 2019	Hepatitis B Risk Factors in Pregnant Women in DKI Jakarta, 2015–2016	Observational Study	Jakarta, Indonesia	To analyze hepatitis B risk factors in pregnant women	History of transfusion, >1 sexual partner, and household contact remain significant factors.
26	Hepatitis B Risk Factors in Pregnant Women in DKI Jakarta, 2015–2016	Pratono & Asri C. Adisasmita, 2019	Hepatitis B Risk Factors in Pregnant Women in DKI Jakarta	Cross-sectional	Health Centers in DKI Jakarta	To identify hepatitis B risk factors in pregnant women	Incomplete immunization adds to the significance of vaccination programs.
27	A Case-Control Study of Hepatitis B Risk Factors among Isfahanian Adults	Ataei et al., 2019	A Case-Control Study of Hepatitis B Risk Factors among Isfahanian Adults	Case-Control Study	Isfahan, Iran	To determine hepatitis B infection risk factors	No specific data available in summary.
28	Hepatitis B Infection in Pregnant Women in Ethiopia: Systematic Review & Meta-analysis	Kebede et al., 2018	HBV Infection in Pregnant Women in Ethiopia: Systematic Review & Meta-analysis	Systematic Review & Meta-analysis	Ethiopia	To identify prevalence of HBV in pregnant women	No detailed data, but emphasizes importance of national prevalence for policy.
29	Hepatitis B Risk Factors in Patients at Dr. Pirmgadi Hospital, Medan	Misna et al., 2017	Hepatitis B Risk Factors in Patients at Dr. Pirmgadi Hospital, Medan	Case-Control Study	Medan, Indonesia	To identify hepatitis B risk factors in patients	No significant link between vaccination history and HB risk—different from most other studies.
30	Prevalence, Awareness, and Risk Factors of Hepatitis B among Pregnant Women in Nairobi	Ngaira et al., 2016	HBV Prevalence, Awareness, and Risk Factors in Pregnant Women at Mbagathi District Hospital	Observational Study	Nairobi, Kenya	To determine prevalence, awareness, and risk factors of HB in pregnant women	No detailed data, focus on prevalence and awareness among pregnant women.

**Table 1. Literature Review Findings**

The content of all 30 journal articles reviewed highlights the complexity and variation of risk factors, as well as the different intervention strategies employed across various regions in addressing hepatitis B among pregnant women. Most of the studies were conducted in Indonesia, but they also include data from other countries such as Kenya, Iran, and Ethiopia. The majority of the research employed quantitative approaches such as observational, cross-sectional, and case-control studies, while others used qualitative methods, case reports, or literature reviews. The main objective of these studies is to pinpoint the risk factors associated with hepatitis B infection in pregnant women, assess the effectiveness of prevention efforts, and examine how different socio-demographic factors impact the occurrence of the infection.

Throughout these studies, several risk factors for hepatitis B infection in pregnant women were consistently identified, including a history of blood transfusions, the use of unsterilized needles, sexual contact with an infected partner, and cohabitation with individuals who have hepatitis B. Other significant contributing factors reported in multiple studies include early age at marriage, multiple sexual partners, and having a spouse

employed overseas. On the other hand, protective factors such as complete immunization, health education, and partner involvement in screening programs were shown to reduce infection risk. The educational level and knowledge of pregnant women were found to have a substantial impact on their awareness and participation in hepatitis B screening, which ultimately affects the prevention of vertical transmission to the baby.

Case reports showed that administering hepatitis B vaccination and HBIG immediately after birth is highly effective in preventing transmission from infected mothers to their babies. However, several studies highlighted that many pregnant women still lack adequate information about the importance of hepatitis B screening, leading to low screening and immunization coverage. This is supported by data showing that many regions in Indonesia have screening rates far below the national target. Geographic factors and limited healthcare infrastructure also pose major challenges to the implementation of the government's triple elimination program.

Some studies also revealed that direct health education interventions for pregnant women can increase knowledge and encourage preventive behavior, such as willingness to undergo screening and follow immunization recommendations. Phenomenological studies added a psychosocial dimension, pointing out that fear, stigma, and lack of awareness hinder pregnant women from accessing hepatitis B-related healthcare services. Therefore, the overall content of this table illustrates that preventing hepatitis B in pregnant women requires a comprehensive and continuous strategy involving medical intervention, education, and strong support from both social systems and health policies. The data from these various studies are expected to serve as a foundation for formulating more effective health policies to control the transmission of hepatitis B in the future.

#### 4. CONCLUSIONS

Hepatitis B in pregnant women poses a significant health concern, as it endangers not only the mother's well-being but also presents a high risk of vertical transmission to the infant during pregnancy or delivery. This mode of transmission is a major contributor to the high prevalence of chronic hepatitis B among children in developing countries such as Indonesia. Key risk factors associated with this infection include low educational attainment, limited awareness of hepatitis B among expectant mothers, use of unsterile needles, a history of blood transfusions, and close contact with infected individuals, including sexual partners.

Limited access to healthcare services, low screening coverage during pregnancy, and insufficient involvement of healthcare workers in providing education further exacerbate the situation. Therefore, a comprehensive approach is essential to prevent hepatitis B in pregnant women. This includes enhancing education and awareness, promoting early screening, and ensuring timely immunization of newborns. Such efforts are crucial for safeguarding maternal health and interrupting the cycle of transmission from one generation to the next.

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