Medical Research, Nursing, Health and Midwife Participation
https://medalionjournal.com| ISSN: 2986-7754

DESCRIPTIVE ANALYSIS OF THE IMPLEMENTATION OF THE HEPATITIS B EARLY DETECTION PROGRAM IN PREGNANT WOMEN IN THE HEALTH OFFICE OF NORTH SUMATRA PROVINCE USING THE CIPP MODEL IN 2023

Ungsi Maranatha Padang[1], Susy Sriwahyuni[2], Perry Boy Chandra Siahaan[3], Dian Fera[4], Siti Maisaroh Fitri Siregar[5]
Faculty of Public Health Universitas Teuku Umar[1-5]
*Correspondence:susysriwahyuni@utu.ac.id

Abstract

The achievement of pregnant women implementing DDHB in North Sumatra province in 2023 was 37.37%, not yet reaching the target of 95% and North Sumatra is the province with the lowest achievement in Indonesia in 2020-2022. The aim of the research is to provide an overview of the implementation of the DDHB program for pregnant women using CIPP theory. The research uses qualitative methods with a descriptive approach and evaluative design. The informants consisted of a key informant, namely PJ hepatitis, 2 main informants, namely hepatitis staff and a supporting informant, namely the head of the P2PM section. PThere is an aspect of the context of not achieving the target of pregnant women implementing DDHB due to the impact of previous Covid-19, pregnant women doing many visits 1 at health facilities such as clinics which do not report to the health service, and Padang Sidempuan, West Nias and Nias Regencies do not carry out DDHB . In the input aspect, budget shortages cause limitations in carrying out interventions. In the process aspect, there was a delay in reporting by districts/cities due to the inability to use the Sihepi application so it was done manually. In the product aspect, pregnant women implementing DDHB did not reach the target, namely 37.37%, with the 2023 RENSTRA target of 95%, and districts/cities implementing DDHB did not reach the target, namely 93.93%, with the 2023 RENSTRA target of 100%, and the achievement of Hepatitis B reactive pregnant women in 2023 is 0.83, indicating a decrease from the previous year of 1.1%. ImplementationDDHB for pregnant women in North Sumatra Province has not gone well. So that it is necessary to carry out in-depth advocacy, outreach, surveys and interventions with all parties involved such as pregnant women, health workers in health facilities, and district/city health offices, and increase cross-sector collaboration.

Keywords : CIPP, DDHB, Pregnant Women

INTRODUCTION

Based on P2 Hepatitis data from the North Sumatra Provincial Health Service in 2023, the Terjun Village Community Health Center is the community health center with 19 cases of Hepatitis B reactive pregnant women. Hermina Hospital is the highest contributor to cases of Hepatitis B reactive pregnant women in Medan City, namely 18% or 50 people out of 277 reactive pregnant women. Medan City is the city with the highest cases of Hepatitis B reactive pregnant women in North Sumatra Province, namely 29% or 277 people out of 945 reactive pregnant women. In 2022, 1.6% of pregnant women will show reactive HBsAg test results, or the same as in 2021, where 1.6% of pregnant women will be declared reactive. The provincial distribution shows East Nusa Tenggara Province with the highest percentage at 4.8%, followed by the provinces of West Papua (3.8%) and North Maluku (3.6%), North Sumatra with pregnant women declared reactive at 1.1% (RI Ministry of Health 2022). Indonesia is the third highest number of Hepatitis B sufferers after China and India in Asia and Southeast Asia. As many as 100 million people live with chronic hepatitis. Hepatitis B caused nearly 1.4 million new cases of death and 300 deaths (Nofiani and Sanjaya 2022). According to BPJS Health data in 2022, 2,159 people died from cirrhosis and liver

cancer, which is the impact of chronic hepatitis which is usually experienced by people with hepatitis B at an advanced stage (RI Ministry of Health, 2022).

In 2020, the World Health Organization (WHO) stated that hepatitis is the biggest infectious disease killer after tuberculosis (TB). According to WHO (World Health Organization) research results in 2020, hepatitis is one of the diseases with the second highest number in the world as a disease caused by viruses. (Syahputra and Syafindy 2023). The World Health Organization (WHO) in 2023 estimates that 354 million people worldwide are living with hepatitis B or C and every year one million people die from hepatitis. Meanwhile, in Southeast Asia, WHO estimates that there are around 39.4 million (28.8 – 76.5 million) people living with chronic hepatitis B and 10.3 million (8.0 – 17.8 million) people living with chronic hepatitis B. C chronic. Every year, in Southeast Asia, viral hepatitis accounts for approximately 410,000 deaths with 78% of whole deaths related to liver cancer and cirrhosis due to hepatitis B and C. Transmission of the Hepatitis B virus generally occurs vertically (from a mother who is positive for Hepatitis B to her baby) and horizontal (from individuals who are positive for Hepatitis B to other individuals).In endemic areas such as Indonesia, transmission of Hepatitis B generally occurs vertically, especially during the prenatal period and 95% of babies infected during the prenatal period will develop chronic Hepatitis B.Based on 2013 Riskesdas data, the prevalence of hepatitis B (HBsAg) in general is 7.1% or the equivalent of around 18 million Indonesians. Babies infected with the hepatitis B virus have a risk of more than 90% – 95% of developing chronic hepatitis B. Therefore, vertical transmission or from parent to child contributes around 50% of the global burden of hepatitis B. To prevent transmissionFrom mother to child, prevention efforts have been made, including by carrying out Early Detection of Hepatitis B (DDHB) in pregnant women using the Rapid Diagnostic Test (RDT) Hepatitis B Surface Antigen (HBsAg).)(RI Ministry of Health 2022).

The percentage of pregnant women carrying out DDHB in 2022 according to province is 65.0% of pregnant women carrying out DDHB out of the target number of pregnant women in 2022 of 4,897,988 pregnant women. The provinces with the highest achievements were Gorontalo at 91.5%, Lampung at 84.2%, and North Kalimantan at 83.0%. Meanwhile, the lowest achievement was North Sumatra Province at 21.8 (RI Ministry of Health 2022). Meanwhile, in 2023, based on data from the P2 Hepatitis Program of the North Sumatra Provincial Health Service, the percentage of pregnant women who carry out DDHB is 37.37% of the target number of pregnant women in 2023 of 302,236 pregnant women. The achievements obtained by North Sumatra Province have not yet met the National Action Plan for Hepatitis Prevention and Control (RAN HEP) 2020-2024 Ministry of Health of the Republic of Indonesia, target Implementing early detection of hepatitis B in pregnant women is 95% (Indonesian Ministry of Health 2020). The CIPP (Context, Input, Process and Product) model evaluation is widely used to carry out evaluations in the provision of public services in the health sector with a comprehensive framework that aims to improve and develop programs. Based on observations at the North Sumatra Provincial Health Service in the context aspect, a problem was found that of the total estimated target number of pregnant women, more than 50% did not carry out DDHB examinations, in the input aspect, budget availability was still lacking so that they were limited in carrying out follow-up on problems that occurred, process aspects inIn its implementation, there were problems with delays in sending reports by districts/cities because there were several districts/cities that had not used the Sihepi application in their reporting so it had to be done individually manual, in the product aspect, the target has not been achieved based on data for 2020-2023. Based on this, it is necessary to carry out research which aims to find out the description of the implementation of DDHB for pregnant women at the North Sumatra Provincial Health Service using the CIPP model which includes 4 aspects, namely context, input, process and product. Therefore, researchers are interested in conducting research on how it is implemented Hepatitis B early detection program in pregnant women at the North Sumatra Provincial Health Service using the CIPP model.

LITERATURE REVIEW

Hepatitis B

Hepatitis B is liver inflammation caused by the hepatitis B virus. Acute hepatitis is liver inflammation due to hepatitis virus infection after a virus incubation period of 30-180 days or 8-12 weeks. It is called chronic hepatitis if it lasts more than 6 months (Gozali 2020).

Risk of Hepatitis B Infection in Pregnancy

The risks for pregnant women are esophageal varices rupturing and causing bleeding (20–25%), especially in the second trimester, jaundice and splenic aneurysm rupture. 12 Patients with cirrhosis are at risk of prenatal HBV decompensation. Based on a retrospective study of 400 mothers with HBV cirrhosis, there were 15% severe attacks during pregnancy, 1.8% maternal deaths, and 5.2% fetal deaths. 11 Considering the poor long-term prognosis, pregnant women with chronic hepatitis B are advised to undergo liver transplantation, abortion, and sterilization (Gozali 2020).

CIPP

CIPP is an evaluation model that views the program being evaluated as a system. Through this evaluation activity, it is hoped that strategies can be formulated to improve the program in the future so that a training program can run better than before. The CIPP evaluation model divides four types of activities according to the name of the evaluation model, namely context, input, process and product. These four types of activities are components of the process of an activity program implemented by an institution (Arikunto and Jabar 2010)

METHOD

This research is qualitative research with a descriptive approach and evaluative research design. There were 4 informants in this study, including 1 key informant, namely the person in charge of the hepatitis B program, main informant 1, namely hepatitis B program staff, main informant 2, namely hepatitis B program staff, and 1 informant supporting the head of the P2PM section. The research was conducted at the North Sumatra Provincial Health Service in November - December 2023. Data collection was carried out through in-depth interviews and document observation. Meanwhile, other data sources were obtained from literature review and documentation.The object in this research uses the CIPP evaluation framework developed by Stufflebem, namely evaluation context, input, process, and product. Aspect context includes problems, needs, goals and objectives. Aspect input includes guide lines, schedules, human resources, budget and infrastructure. Aspect process includes early detection, follow-up, and recording reporting. While aspect sproduc tnamely achieving early detection. The data analysis used is data reduction, data presentation, and drawing conclusions.

RESULTS AND DISCUSSION

Table 1. Results of interviews with informants

No	Question	Answer
1	*CONTEXT* 1. Need What is the background for implementation DDHB in pregnant women?	*DDHB is a program that is motivated by SDGs goals and the child protection law states that the state ensures that children born are protected from diseases that threaten survival or cause disabilities. If we look at the transmission of hepatitis B, the transmission incidence is 90-95%. So it is very likely that Hepatitis B transmits the disease to the baby, so how can we get a golden generation if the mother has been infected with the disease since childhood.*

		*Therefore, in accordance with the mandate of the law and sustainable goals, it is necessary to break the chain of transmission early by carrying out DDHB (*key informant). DDHB in pregnant women is carried out because vertical transmission of hepatitis B from mother to child or unborn baby has a 90-95% incidence, so there is a very high possibility of it being transmitted to the child. If infected, it will have a bad impact on the child's future, for example it can cause disability in the child. (main informant 1). Because there were cases of children contracting hepatitis from their mothers while they were still in the womb (main informant 2). Because the incidence of hepatitis transmission from mother to child is very high, reaching 95%. (supporting informant)
	2. Target Who is the target in implementing the program?	*The targets for this program are pregnant women and districts/cities*(Key informant). According to the context, DDHB's target is pregnant women. But the health service itself is targeting pregnant women who carry out DDHB continuously in Kab*upatenIn cities that implement DDHB, we also see the number of pregnant women who are HBSAg reactive*(Main informant 1). The target was pregnant women (Main informant 2). The target is all pregnant women at the pro*vinceand 33 districtsupaten/city in the province*(Supporting informant).
	3. Problem Are there any problems found in the implementation of the program? ?	*North Sumatra Province is in the lowest position of district achievementupaten/cities that implement DDHB in 2020-2022 because their visits to pregnant women from health facilities to Public Health Centerare very low. Because at that time the Covid 19 pandemic allocated the budget at the time of refocusing. Logistics such as the Hepatitis B RDT were empty. So how can you carry out an inspection while the RDT is not available? Because the funds are allocated to Covid activities. So at that time the level of visits by pregnant women decreased as much as the level of immunization visits. Because just stay at home. The current problem may be that the reporting section is not optimal, this is usually due to the rotation of health workers at the Public Health Centerwhich affects their performance. Delays in reporting, this is usually because some health workers still cannot use the hepatitis reporting application itself, namely Sihepi, so it has to be done manually. Apart from that, there are also those who do not report like the new ones It is known that in Padang Sidempuan Regency, they do not do DDHB on pregnant women but wait for people infected with Hepatitis B and many pregnant women*

	What efforts have been made to overcome this problem?	*do not do K1 at the health center or prefer to go to private hospitals or private clinics so they are not reported.* (Key informant). Slow reporting from districts/cities (Main informant 2). The problem is that monthly reports are slow to be reported from districts/cities and not all pregnant women carry out K1 at the Public Health Centerso they are not captured in the report, so the percentage of pregnant women carrying out DDHB still has not reached the target (Main informant 1). Reporting is often late and there are still districts/cities that have not implemented DDHB. (Supporting informant)
	What is the aim of implementing this program?	*Continue to monitor and evaluate in Q1 and TW 3 and hold meetings such as socialization and promotion to overcome problems found*(Key informant). The efforts we make, especially for reports, continue to carry out outreach and meetings with community health centers and health offices in districts/cities. Apart from the monitoring and evaluation that we carry out (main informant 1). Socialization was carried out (main informant 2). Urges to always carry out socialization and intervention on this problem, such as always carrying out monitoring and evaluation in tw 1 and tw 2 (Supporting informant). *To break the chain of vertical transmission from mother to child, with the aim of creating a better golden generation*(Key informant). To prevent transmission of Hepatitis from mother to child (Key informant 1). *So that the mother and child are healthy, they don't get infected from the mother with hepatitis.*(Supporting informant)

2	*INPUT* 1. Guidelines What are the guidelines used in carrying out the DDHB program for pregnant women?	*There are two guidelines that we use as guidelines in P2 Hepatitis, especially for DDHB, namely PERMENKES NO 53/2015 concerning comprehensive management of viral hepatitis through a Promotion, Prevention, Early Detection and Management approach and PERMENKES NO 52/2017 concerning Elimination of Transmission of Hepatitis B, HIV, Syphilis from mother to child PPIA in 2022*(Key informant). PERMENKES NO 53 of 2015 and PERMENKES NO 52 of 2017 (Main informant 1). Our guidelines are Permenkes (Main informant 2). PERMENKES NO 53 of 2015 (Supporting informant).
	2. Timetable When is DDHB performed on pregnant women?	*Hepatitis B examination is carried out at K1 or the first visit by pregnant women or in the 1 st trimester at the nearest health center*(Key informant). In the first trimester of pregnancy, it is carried out at the community health center (main informant 1). 1st trimester of pregnancy (main informant 2). In k1 of pregnancy (Supporting informant).
	3. Human Resources How many staff are there in the DDHB program for pregnant women at the North Sumatra Provincial Health Service?	*For the Hepatitis Program there are 3, 1 person in charge of the program, and 2 program staff.*(Key informant, main informant 1, main informant 2, and supporting informant).
	What training have you attended?	*Training on procurement of hepatitis B for health workers, for the hepatitis B program for pregnant women, implementation of DDHB*(Key informant). Workshops and technical guidance (main informant 1). Technical guidance and workshops (Main informant 2). Usually technical guidance and workshops for each program (Supporting informant).
	4. Budget Is there a budget for implementing the DDHB program for pregnant women?	*For the DDHB program, the budget comes from the APBD (Regional Revenue and Expenditure Budget).*(Key informant, main informant 1, main informant 2, supporting informant). Budget*Noenough because it is not a priority programso thatthe budget is small*(key informant).
	What activities have been carried out with this budget?	*Normalhisbudgeted for technical guidance, online socialization and advocacy workshops and direct socialization and advocacy if you often see them going out in the field to districts/cities*(Key informant). *Usually the budget is for technical guidance, outreach and advocacy*

		workshops and going out into the field (Main informant 1). For socialization to go out in the field (Main informant 2)
	5. Infrastructure Does the DDHB program for pregnant women have facilities and infrastructure at the North Sumatra Provincial Health Service?	*For facilities such as laptops, printers. There are two centers for the DDHB program, namely vaccines and RDT. HBiG vaccine and HBO vaccine, HBsAg and Anti-HBS vaccine and rapid test equipment or RDT for HBSag and anti-HBS, Sihepi application*(Key informant). *Such as Vaccine and RDT printers and laptops* (Main informant 1). *Laptops, printers, cooling machines, and RDTs and vaccines* (Key informant 2).
	Are the DDHB program facilities and infrastructure at the provincial Health Office in accordance with standards and sufficient?	*It meets the standards and is sufficient.*(Main informant, key informant, main informant 1, main informant 2, supporting informant)
3	*PROCESS* 1. Early detection How is DDHB in pregnant women carried out?	*The implementation of early detection itself is actually the scope of the community health center, the health service only acts as a facilitator. So, pregnant women who visit health service facilities or medical personnel who visit pregnant women's homes carry out integrated ANC. In these 10 integrated ANCs there are 10 T's, one of which is a blood test. In this blood test, HB levels, blood type, resus number are checked, and admission to the DDHB for hepatitis B examination is carried out at K1 at the health center. Then the blood is submitted to the laboratory to check the viral load level. Is it more than 200 or not. If more then follow-up is carried out*(Key informant). Early detection is the domain of the community health center, we are just facilitators (Main informant 1). How to do early detection is the domain of the health center, we*only*facilitators, such as pregnant women visiting the community health center in the 1st trimester, then ANC is carried out which includes a blood test. From the blood test later oncheckviral load level, and the results are followed up if it is more than 200 thousand*(Main informant 2). If it is part of the community health center (Supporting informant).
	What activities are carried out to support early detection?	*So far, it's a coincidence because this is working at the*

	Who is involved in DDHB for pregnant women?	*provincial health service according to its main duties based on what we are currently doing, the first is monitoring and evaluation, the second is technical guidance, the third is conducting zoom meetings to validate data*(Key informant). We are currently working on, the first is monitoring and evaluation, the second is technical guidance, the third is holding zoom meetings to validate data. (Main informant 1). Activities are usually technical guidance and zoom meetings (main informant 2). Usually the first is monitoring and evaluation, the second is technical guidance, the third is holding zoom meetings for data validation (supporting informants).
	2. Follow-up What follow-up is carried out if the mother is reactive to hepatitis B?	*Those involved here are health workers and families of pregnant women who must participate in motivating them to provide support to pregnant women*(Key informant). Health workers, pregnant women and families of pregnant women, across sectors (Main informant 1). Pregnant women and families (Main informant 2). Pregnant women, cross-sectors, and health workers. (Supporting informant).
	What are the recordings in DDHB for pregnant women?	*If the mother is reactive to hepatitis B, she is referred to a specialist in internal medicine to see her viral load levels. Based on the management, if the viral load is above 200 thousand, tenofofire is given in the 3rd trimester. It is given in the 3rd trimester because during the 3rd trimester the baby's organs are already forming. Meanwhile, at the community health center stage, only at the RDT examination stage, if you are referred, you will be referred to the internal medicine department of the hospital. When the mother is reactive, education will be provided to the mother and given Hb0 and HBig to break the chain of transmission. It has been proven that around 95% of newborns who are given HB0 and HBiG for less than 24 hours have a small chance of contracting hepatitis B. In the final stage, counseling is carried out for pregnant women.*(Key informant). If the mother is reactive then immediately refer her to*hospitalto be followed*(Main informant 1). If the mother is positive, she will be referred to the hospital (main informant 2). The follow-up itself is carried out by the hospital (supporting informant).
	What method is used to record DDHB in pregnant women?	*Recording in monthly reports. If we look at the Sihepi report, there are estimates of pregnant women, the number of reactive and non-reactive pregnant women, the number of babies born this month, reactive pregnant women being referred, there are babies born to reactive mothers, babies getting HBO, HBIG.*(Key informant). Name and number of

	When does the Districtupaten/city reports to the Provincial Health Service? What date does the provincial Health Service report to the center every time? Is feedback carried out by the Provincial Health Service after receiving reports from the district?upaten/city? Is feedback carried out by the center after receiving reports from the provincial health service?	health centers: There are definitely the number of pregnant women, babies born to reactive mothers, the number of babies born per month, the number of babies referred, the number of babies getting HBO and the number of babies getting HBIG (main informant 1). Number of mothers and babies (Main informant 2). *There are two methods: Siepi application and manual. But only the city of Medan can use the Sihepi application, the others are still manual*(Key informant). With the Sihepi application and manual, but when using the Sihepi application only the city*mIt's just crazy who still does it*(Main informant 1). With online and non-online, if it's online, the name of the application is still using it manually*excel*(Main informant 2). For hepatitis with the Sihepi application (Supporting informant). *The maximum date for receiving reports from districts and cities is the 10th, but only a few districts/cities comply with the rules*(Key informant). Before the 10th of each month. (Main informant 1, main informant 2, and supporting informant) *Our reports are sent once every 6 months to the center.*(Key informant, main informant 1, main informant 2, and supporting informant) *Provide feedback.*(Key informant, main informant 1, main informant 2, and supporting informant). *The center will notify the deficiencies in our report, and and intervention will be carried out.*(Key informant, main informant 1, main informant 2, supporting informant)
.4	PRODUCTS 1. What is your target for implementing DDHB in 2020, 2021, 2022, 2023? 2. What are the achievements of pregnant women implementing DDHB in 2020, 2021, 2022, 2023? 3. What is the district/city target for implementing DDHB in 2020, 2021, 2022, 2023? 4. What are the	*The target for pregnant women to implement DDHB this year is 95%, if districts and cities implement DDHB the target is 100%. This year there will be three until November. If pregnant women carry out DDHB around 30 percent. Nearly all districts/cities have implemented DDHB. Only Nias and West Nias have yet to implement it.*(Key informant, main informant 1, main informant 2, supporting informant)

	achievements of districts/cities implementing DDHB in 2020, 2021, 2022, 2023 5. What is the percentage of HBSAg reactive pregnant women in 2020, 2021, 2022, 2023?	

Context Aspect

In the context aspect of implementing early detection of pregnant women at the North Sumatra Provincial Health Service, analyzing needs, targets, problems and objectives.

1. Need

Based on interviews with informants, the background to implementing early detection in pregnant women is becauseHepatitis B transmission can occur vertically from mother to child or unborn baby with an incidence of 90-95%. According to David H and Muljono (2019) Hepatitis B transmission can spread vertically (from mother to child). Transmission generally occurs vertically, especially during the prenatal period and 95% of babies infected during the prenatal period will develop chronic Hepatitis B.

2. Target

Based on interviews with informants, the target targets for the DDHB program for pregnant women are all pregnant women in the work area of the North Sumatra Provincial Health Service spread across33 districts/cities in North Sumatra Province where the estimated number of pregnant women in 2023 will be 301,236 pregnant women. This early detection itself is carried out on pregnant women during their first visit to a health facility to break the chain of transmission from mother to child. According toAya, Arso, and Nandini (2023), target achievement triple eliminationone of them is DDHB can be realized through quality services in mother and child programs that involve mothers, children and families as a whole. The success of this program depends on early detection of pregnancy to prevent transmission.

3. Problem

Based on pthe results of the informant's interview stated North Sumatra Province is in the lowest position for districts/cities implementing DDHB since 2020-2022 because their visits to pregnant women at health facilities and community health centers are very low. Because during the Covid 19 pandemic, the budget allocation when refocusing the budget for Covid 19 logistics such as RDT Hepatitis B was empty. According to Astiti (2020) stated that in facing the corona pandemic situation, the government must be able to manage the budget as effectively as possible. Therefore, the government has cut the budget for several activities and allocated the budget to help people affected by the corona virus pandemic. The process of budget cuts is carried out by not disbursing the appropriate budget from the APBN to the APBD.

Based on the results of the interview, the informant also said that the current problem may be that the reporting section is not optimal, this is usually due to the rotation of health workers at the Public Health Centerwhich affects their performance. Delays in reporting, this is usually because some health workers still cannot use the hepatitis reporting application itself, namely Sihepi, so it has to be done manually. Apart from that, there are also those who don't do DDHB, as was recently discovered, namely in Padang Sidempuan Regency, they don't do DDHB on pregnant women but wait for people infected with hepatitis B. And many pregnant women don't do K1 at the health center or prefer to go to hospitals that do not report or private clinics that are not reported.

4. Objective

Based on the results of interviews with informants, the aim of implementing DDHB for pregnant women is to break the chain of vertical transmission from mother to child, which aims to create a better golden generation.This is in line withMinister of Health Regulation Number 52 of 2017 concerning Elimination of Transmission of HIV, Syphilis and Hepatitis B from Mother to Child which aims to eliminate the transmission of Hepatitis B from mother to baby by 2022 and create a Hepatitis B-free generation by 2030(Indonesian Ministry of Health 2020).

Input Aspect

In the input aspect in implementing early detection of pregnant women in the work area of the North Sumatra Provincial Health Service, analyzing guidelines, schedules, human resources, budget, and infrastructure.

1. Guidelines

Based on pThe results of interviews with guideline informants in implementing the DDHB program for pregnant women in the work area of the North Sumatra Provincial Health Service are Minister of Health Regulation No. 53 of 2015 concerning comprehensive management of viral hepatitis through promotion, prevention, early detection and management approaches and Minister of Health Regulation no. 52 of 2017 concerning Elimination of mother-to-child transmission of HIV, Syphilis and Hepatitis B. The legal basis for the Hepatitis (P2 Hepatitis) prevention and control program in Indonesia is Minister of Health Regulation number 53 of 2015 concerning control of Viral Hepatitis and Minister of Health Regulation Number 52 of 2017 concerning Elimination of Transmission of HIV, Syphilis and Hepatitis B from mother to child which aims to eliminate transmission. Hepatitis from mother to baby in 2022 and the realization of a Hepatitis-free generation in 2030(Indonesian Ministry of Health 2020)

2. Timetable

Based on the results of interviews with informants, it was found that the schedule for implementing DDHB for pregnant women was carried out on the first day of the mother going to the community health center in the first trimester. According toIke et al. (2020)states that pregnant women come to health services for triple elimination examinations in the first trimester.

3. Human Resources

Based on the results of joint interviews with informants, it was found that all informants had attended training and provided training on the implementation of DDHB to pregnant women, both in the form of guidance and technical guidance. The number of staff involved in the DDHB program is 1 staff as program supervisor who serves as head of the P2PM section, 1 staff responsible for implementing the program, 2 staff staff. The implementers already have competent qualities because they are able to carry out advocacy, socialization, health promotion, and monitoring and evaluation and they are also able to carry out program planning, program implementation, and program feedback on problems found in the district/city and have tasks that balanced .According toSusanti (2022) beWork tires that are balanced or not excessive will support employees in carrying out their performance effectively and will provide welfare for these employees, so that organizational goals can be achieved.

4. Budget

In accordance with Law Number 23 of 2014 concerning regional government, health is a government affair that is divided between the central government, provincial regions and district/city regions, which is the basis for implementing regional autonomy. Therefore, the main source of funding for the P2 hepatitis program comes from the central government and regional government budgets to finance P2 hepatitis B activities. Funding for the P2 hepatitis B and C program can be sourced from the APBN, APBD, Loans and/or Foreign Grants (PHLN), as well as other sources/schemes. This is in line with the results of interviews with informants who stated that the source of funds for program implementation came from the North Sumatra Province APBD.

5. Infrastructure

Based on the results of joint interviews with informants, it was found that the infrastructure to support the success of the DDHB program was complete and sufficient. There are infrastructure such as RDT HBsAg, HBig Vaccine, and HB0 and apart from that there are also laptops, printers and AC to support the performance of Hepatitis B staff. In observations, researchers found that these facilities and infrastructure were available at the Provincial Health Service. In researchersan Sulyastini and Duarsa (2023) menstated that the availability of facilities and infrastructure will influence the comfort of pregnant women in carrying out examinations and will influence the production of quality services.

Process Aspects

In the process aspect of implementing early detection of hepatitis B in pregnant women in the work area of the North Sumatra provincial health service, analyzing early detection, follow-up and recording of reports

1. Early detection

Based on the results of interviews with informants, the implementation of DDHB was carried out at the Community Health Center, while the health service was only a facilitator. The informant stated that pregnant women who visit health facilities or medical personnel who visit pregnant women's homes carry out integrated ANC. In these 10 integrated ANCs there are 10 T's, one of which is a blood test. In this blood test, HB levels, blood type and resus number are checked. Then the blood is submitted to the laboratory to check the viral load level.

2. Follow-up

Based on the results interviews with informants at the North Sumatra Provincial Health Service at the health facility level, when a HBsAg reactive mother eats, she will be referred to a hospital to check the viral load to find out what to do next. This is in line with the provisions Indonesian Ministry of Health (2020). Feedback Pregnant women with reactive HBsAg examination results at FKTP will be referred to FKRTL for confirmation of diagnosis and treatment according to PNPK Hepatitis B delivery can be carried out at FKTP (Puskesmas) if there are no complications, according to the competence of the Puskesmas. The results of further diagnostic examinations, therapy, and recommendations from the expert team at FKRTL are communicated to the referring FKTP as feedback. Babies born to mothers with reactive HBsAg are given Hepatitis B Immunoglobulin (HBIg) antibodies, vitamin K, and Hepatitis B vaccination day 0 (HB0) within 24 hours after birth, followed by 3 doses of Hepatitis B vaccination (HB1, HB2, and HB3) according to the national immunization program schedule. HBsAg and anti-HBs examination is carried out when the baby is 9-12 months old. If the HBsAg test results are reactive, the baby is referred to FKRTL for further treatment. Babies born to mothers with non-reactive HBsAg are given vitamin K and HB0 within 24 hours after birth, followed by 3 doses of Hepatitis B vaccination (HB1, HB2, and HB3) according to the national immunization program schedule..

3. Reporting Recording

Based on the results of interviews with informants at the North Sumatra Provincial Health Service, recording and reporting activities by districts/cities to the province are maximum on the 10th of every month. Meanwhile, the province reports to the center every 6 months. Based on RI Minister of Health Regulation No. 53 of 2015, which is a guideline for implementing the Hepatitis program, states that recording and reporting activities are carried out with the aim of documenting all stages of hepatitis control activities that have been implemented starting from input, process, output, outcome and impact. Recording contains more detailed and detailed information about all activities (procces) that have been carried out, while reporting can be done in stages according to the time and format that has been determined. Provincial health offices are required to submit reports on the incidence of Hepatitis Virus periodically every 6 (six) months, which are the result of a compilation of district/city reports in their area accompanied by analysis of the situation and

trends, control of risk factors, and progress in immunization coverage, as well as the potential for spread between regions. However, in its implementation there are still problems with delays in sending reports by districts/cities because there are several districts/cities that have not used the Sihepi application in their reporting so it must be done individually manually.

Product Aspect

Table 2. Districts/Cities Implementing DDHB for Pregnant Women in North Sumatra Province

No	Year	RENSTRA Target	Achievements
1	2020	85 %	60.61 %
2	2021	90 %	77.8 %
3	2022	95 %	81.8 %
4	2023	100%	93.93 %

Based on table 2. above, the achievements of districts/cities implementing early detection in North Sumatra Province are increasing every year even though they have not yet reached the specified targets. Based on data from the Indonesian Ministry of Health in 2020-2022, North Sumatra Province is in the 3rd lowest district/city level in implementing DDHB for pregnant women after Papua and West Papua in Indonesia.

Table 3. Pregnant Women Carrying Out DDHB in North Sumatra Province

No	Year	RENSTRA Target	Achievements
1	2020	80 %	9.80 %
2	2021	85 %	10.6 %
3	2022	90 %	21.8 %
4	2023	95 %	37.37 %

Based on table 3. above, the achievements of pregnant women in carrying out early detection in North Sumatra Province are increasing every year even though they have not yet reached the predetermined targets. Based on data from the Indonesian Ministry of Health in 2020-2022, North Sumatra Province was at the lowest level for pregnant women implementing DDHB in Indonesia.

Table 4. HBSAg Reactive Pregnant Women in North Sumatra Province

No	Year	% of pregnant women reactive to HBSAg
1	2020	1.1 %
2	2021	1.3 %
3	2022	1.1 %
4	2023	0.83 %

Based on table 4. above, North Sumatra Province with the percentage of pregnant women showing HBSAg reactive pregnant women each year shows unstable numbers in 2020 - 2023 in Indonesia.

CLOSING

Conclusion

Based on the results of research conducted using the CIPP model, it can be concluded that the implementation of the Hepatitis B disease prevention and control program in pregnant women by implementing the DDHB program in pregnant women has not been implemented well in North Sumatra Province. This is because in the context aspect, pregnant women did not achieve the target of implementing DDHB due to the impact of previous Covid-19, many pregnant women carried out

K1 examinations at health facilities such as clinics which did not report to the health service, Padang Sidempuan, Nias and West Nias Regencies. did not do DDHB. In the input aspect, there is a budget shortage which causes limitations in intervening on problems. In the process aspect, there was a delay in reporting carried out by districts/cities due to the inability to use the Sihepi reporting application so it had to be done manually which slowed down performance. In the product aspect, the achievement of pregnant women implementing DDHB reached the target of 37.37% with the 2023 RENSTRA target of 95%, and districts/cities implementing DDHB did not reach the target of 93.93% with the 2023 RENSTRA target of 100% , and the achievement of hepatitis B reactive pregnant women in 2023 is 0.83, this figure shows a decrease from the previous year of 1.1%.

Suggestions and Acknowledgments

Advocacy, outreach, surveys and in-depth interventions need to be carried out with all parties involved, such as pregnant women, health workers at each health facility, district/city health services and so on. There is also a need to increase cross-sector cooperation to achieve targets. The researcher hopes that the research can become a reference for future researchers to conduct research on the determinants of pregnant women's low interest in carrying out DDHB. On this occasion the author would like to thank all parties involved in the preparation of this article. I would like to express my thanks to my supervisor who has helped in the process of preparing this article and I do not forget to also thank the North Sumatra Provincial Health Service for helping and providing honest and correct information.

REFERENCES

Arikunto, S, and CS West Java. 2010. Evaluation of Educational Programs: Practical Theoretical Guidelines for Students and Education Practitioners. Literary Earth.

Aya, Septo Pawelas Arso, and Nurhasmadiar Nandini. 2023. "Implementation of the Triple Elimination Program for Pregnant Women at the Karanganyar Community Health Center, Semarang City Using the CIPP Model." Indonesian Public Health Media 22 (3): 209–16. https://doi.org/10.14710/mkmi.22.3.209-216.

Astiti, Ni Putu. 2020. "As a result of Covid-19, budget cuts cannot be avoided." Journal of Economics, Finance and Business 5 (2): 1–8.

David H, and Muljono. 2019. "References to Guidelines for Early Prevention of Hiv+ Hepatitis." Program Guidelines for Preventing Transmission of HIV, Syphilis and Hepatitis B from Mother to Child.

Gozali, Angelin Putri. 2020. "Diagnosis, Management and Prevention of Hepatitis B in Pregnancy." Medical World Mirror 47 (7): 354.

Ike, Nita, Dwi Kurniasih, ; Tri, Ani Marwati, ; Asri Hidayat, ; Sn, and Nurul Makiyah. 2020. "Evaluation of the Implementation of 10T Antenatal Care (ANC) Service Standards." Bandung Department of Health Polytechnic Health Research Journal 12 (2): 429–44.

Indonesian Ministry of Health. 2020. National Action Plan for Hepatitis Prevention and Control. https://www.globalhep.org/sites/default/files/content/action_plan_article/files/2022-05/RANHEP 2020-2024 KDT_0.pdf.

Indonesian Ministry of Health. 2021. Indonesian Health Profile 2021. Pusdatin.Kemenkes.Go.Id.

Indonesian Ministry of Health. (2022). Indonesian Health Profile. In Pusdatin.Kemenkes.Go.Id.

Nofiani, Fatma, and Riona Sanjaya. 2022. "Factors That Influence Pregnant Women in Carrying Out Hepatitis B Screening." Journal of Current Health Sciences 2: 67–72. https://doi.org/https://doi.org/10.47679/jchs.202216.

Syahputra, Hadi, and Detrisha Monica Syafindy. 2023. "Expert System for Diagnosing Hepatitis

Using the Certainty Factor Method." JOURNAL OF APPLIED INFORMATICS SCIENCE 2.

Susanti, Riska. 2022. "ANALYSIS OF WORKLOAD OF EMPLOYEES AT Public Health CenterIN XYZ CITY." Journal of Research Innovation 3 (3).

Sulyastini, Ni Komang, and Dyah Pradnyaparamita Duarsa. 2023. "Education Model and Level of Knowledge of Pregnant Women in Implementing Triple Elimination in Buleleng Regency 2023 (A Phenomenological Study)." Buleleng STIKes Health Journal 8 (1): 88–99.