



---

## Evaluation of the Implementation of K4 Coverage Services at Harapan and Waibu Health Centers in the Jayapura Regency

Yanes Ohee<sup>a</sup>, Sarce Makaba<sup>b\*</sup>, Rosmin M. Tingginehe<sup>c</sup>, Samuel Piter Irab<sup>d</sup>,  
Arius Togodly<sup>e</sup>, Hasmi<sup>f</sup>

<sup>a</sup>Postgraduate Master Program of Public Health, Faculty of Public Health, Cenderawasih University

<sup>b,c,d,e,f</sup>Faculty of Public Health, Cenderawasih University, Jayapura Papua, Indonesia, 99351

<sup>a</sup>Email: [theresie.chindy89@gmail.com](mailto:theresie.chindy89@gmail.com)

<sup>b</sup>Email: [sarcemakaba22@gmail.com](mailto:sarcemakaba22@gmail.com)

### Abstract

**Background:** K4 coverage (fourth visit) is the number of pregnant women who have received ANC services following the service provisions according to the recommended schedule for each trimester during pregnancy compared to the target number of pregnant women in a work area over a period of one year. According to the profile data from the Jayapura Regency Health Office, the number of K4 visits in 2020 was 69.2% and there was an increase in 2021 of 77.7%, below the provincial target of 95%. **Objectives:** The purpose of this study was to evaluate the implementation of K4 coverage services at Harapan Health Center and Waibu Health Center in terms of input, process, output, and external factors. **Methods:** This type of research is qualitative with a case study approach. There were 9 informants in this study consisting of staff from the Health Office, health workers at the Waibu and Harapan Health Centers, and pregnant women from the working areas of each Health Center. Data was collected by in-depth interviews using a list of questions and document study. **Result:** The results of the research on service inputs for K4 coverage at the Harapan Health Center had no problems, while at the Waibu Health Center there was a lack of human resources, complete and adequate infrastructure, and funding that had not been allocated properly.

---

Received: 5/9/2023

Accepted: 6/20/2023

Published: 6/30/2023

---

\* Corresponding author.

The process flow for K4 coverage services at the Health Center is appropriate. The output that has not been achieved is due to the uncertainty in predicting the targeting of pregnant women. External factors of geography, demography and support also have an influence on K4 coverage services.

**Keywords:** K4 coverage; inputs; process; outputs; external factors.

## **1. Introduction**

The health centers operate facilities that service and organize community health initiatives, particularly first-level individual health efforts, through adopting promotional and preventative measures. Health centers offer a wide range of services including as health promotion, nutrition, environmental health, illness prevention and control, and maternity and child health. Services for pregnant women, services for women giving birth and babies, services for postpartum mothers services for obstetric obstacles, reproductive health services, and family planning are all indicators of maternal and child health initiatives. Complications during pregnancy, delivery, and the puerperium are serious health issues that, if addressed, can result in maternal mortality [1].

The death of a mother during the reproductive process is a terrible tragedy. A mother's presence is a stepping stone toward having a successful family, and her death is a calamity for her family. One of the projects under the 2030 Sustainable Development Goals (SDGs) is an aim to lower the Maternal Mortality Rate (MMR) to 95%, or 70 per 100,000 live births. MMR cases in Indonesia increased by 56.69% between 2020 and 2021, from 4,627 to 7,389 cases. This signifies that Indonesia has not fulfilled the SDGs objective for MMR. In Papua Province, there were 70 instances of MMR in 2020, 87 fatalities in 2021, and it is still very high, which may really be recognized during the prenatal screening procedure [2].

Pregnancy services include care for both the mother and the fetus during the pregnancy. Pregnant women get a variety of pregnancy-related information and instruction, and birthing preparation can be provided to moms as early as feasible. A lack of understanding about pregnancy risk symptoms is frequently caused by a lack of prenatal care visits [3]. A lack of these visits can be harmful to both the mother and the fetus. This lack of pregnancy visits can lead to pregnant women's lack of knowledge about proper pregnancy care, anemia during pregnancy, which can cause undetected bleeding, pelvic deformities, and multiple pregnancies, which can cause difficulties in normal delivery, and unknown complications or disease. Comorbidities were also not discovered throughout pregnancy. It can cause Low Birth Weight Babies (LBW), early birth, and problems in the fetus [4]. Pregnancy checkups are also a chance to provide information and health promotion to pregnant women, which can be improved. ANC's supporting and communicative functions not only lower MMR but also increase the quality of life for new moms and newborns [5]. Furthermore, the quality of health-care services improves indirectly. The coverage of K4 or the percentage of visits to four pregnant women in the third trimester of pregnancy might indicate the success of prenatal services [6]. K4 coverage is the number of pregnant women who got ANC services according to the prescribed schedule for each trimester of pregnancy compared to the target number of pregnant women in a work area during a one-year period. The K4 coverage indicator measures women' access to health care throughout pregnancy, as well as their level of adherence to having their pregnancies assessed by health workers [7].

From 2006 to 2019, coverage of K4 pregnant women's health services grew in Indonesia, although in 2020 it declined to 76.84% of the objective of 85%, then increased to 91% in 2021 [2]. According to Papua Province Health Office data, Jayapura Regency is one of the regencys whose K4 coverage remains below the target year after year. According to profile data from the Papua Province Health Office, K4 coverage has fallen from 27.2% in 2020 to 24.1% in 2021 (Primary Data from the Papua Provincial Health Office, 2021). According to the Jayapura Regency Health Office profile, the number of K4 visits in 2020 was 69.2%, and in 2021 it was 77.7%, indicating an increase but still falling short of the provincial objective of 95% (Primary Data of the Jayapura Regency Health Office, 2021). In 2021, Harapan Health Center has very high K4 coverage, while Waibu Health Center has the lowest K4 coverage in Jayapura Regency. In 2021, K4 visits were 80.7% at Harapan Health Center and 25% at Waibu Health Center [8].

The government recognizes that expecting pregnant mothers to have frequent prenatal check-ups is still difficult. This demonstrates that pregnant women's conduct in checking their pregnancy is inconsistent with national expectations and aims. Pregnancy check-ups are considered a type of health behavior [9].

Given the significance of routine pregnancy screenings in compliance with Minimum Service Standards (SPM) standards, it is vital to examine why certain K4 services have not met the target. The K4 coverage initiative has been underway in Jayapura Regency for some time, although it has never been adequately examined [6].

Program evaluation is meant to offer information on the causes and effects of a policy that is more focused on the activities that are being implemented and is carried out on a regular basis by digging to acquire information based on particular indicators.

The goal of this program evaluation research is to assess the degree of success or achievement in comparison to the predetermined plan, look at the supporting and inhibiting factors of the program being carried out, and provide input or recommendations for the next program's implementation [10].

Various evaluation models, including the Good Oriented Evaluation model, the context-input-process-product (CIPP) model, the UCLA model, the Countenance Evaluation model, the Krikpatric model, the experimental/quasi experiment, and the logic model, have been developed. Evaluators must select an evaluation model that is flexible enough to accommodate changes in complicated processes. Essentially, different assessment models have the same purpose but place varying emphasis on different variables. The Logic Model will be utilized to analyze the implementation of the K4 coverage program in the two health centers. Input, process, and output indicators are examples of evaluation indicators [11].

The benefits of assessing with a logic model are that the assessment process is complicated and complete in each of its components, and the evaluation model is best suited for usage in the health sector.

Seeing the description of the background above, the authors are interested in conducting further research regarding "Evaluation of the Implementation of K4 Coverage Services at Harapan Health Center and Waibu Health Center, Jayapura Regency."

## 2. Methods

The type of research used in this research is qualitative research. The research design uses a case study approach used to explore the input, process, output and external factors of the implementation of K4 coverage services. Research informants are people who are used to provide data, information about situations and conditions, research backgrounds [12]. The informant is someone who really knows the problem to be studied. The informants who were examined were 1 person from the Health Service Office, 2 health workers from the Waibu Health Center, 2 people from the Harapan Health Center and 2 pregnant women from the work area of each Health Center. So the total number of informants is 9 informants. This research was conducted at the Harapan Health Center and the Waibu Health Center in Jayapura Regency from January to February 2023.

**Table 1:** The characteristics of Informants based on Gender, Age, and Position.

No.	Initial	Age (years)	Gender	Position
1.	Informant 1	48	Female	Person in charge of the MCH Program
2.	Informant 2	56	Male	Head of Waibu Health Center
3.	Informant 3	38	Male	Head of Harapan Health Center
4.	Informant 4	46	Female	Midwife Coordinator of the Waibu Health Center
5.	Informant 5	49	Female	Midwife Coordinator of the Harapan Health Center
6.	Informant 6	21	Female	Pregnant mother
7.	Informant 7	25	Female	Pregnant mother
8.	Informant 8	31	Female	Pregnant mother
9.	Informant 9	28	Female	Pregnant mother

## 3. Results

### 3.1. Input Components in the Implementation of K4 Coverage Services

The first variable that affects the implementation of K4 coverage services is the availability of inputs. Availability of inputs for the implementation of K4 coverage services at Harapan and Waibu Health Centers includes: Human Resources (HR), facilities, funding, policies and SOPs.

#### 3.1.1. Human Resources (HR)

After conducting a document review, it was found that in the implementation of K4 coverage services, there were 18 staff working as midwives consisting of 13 midwives with civil servant status and 5 midwives with non-permanent employee status. The Waibu Health Center has 15 people who work as midwives consisting of 12 midwives with civil servant status and 3 midwives with non-permanent employee status.

The results of interviews with key informants and supporting informants at the Harapan Health Center in the last three years, felt that human resources were sufficient, in this case midwives in handling K4 services, from the Regency Health Office also stated that there was no benchmark for the distribution of human resources because the division of human resources are in accordance with their respective duties.

*"...I think the human resources here are enough, right...usually we have assigned tasks to take care of programs*

*from the agency, so each midwife has a responsibility" (Informant 4)*

*"...for the programs that we usually target at the Health center, usually the heads of departments and midwife coordinator have assigned their duties according to their duties and functions..." (Informant 5)*

In contrast to the Waibu Health Center, the informant said that since the establishment of the Waibu Health Center, the number of human resources was lacking, so there was a buildup of programs, as the following interview results show.

*"That's what we've been working on, sometimes programs overlap, and 1 person can handle more than 1 program.....sometimes that makes you lose focus." (Informant 4)*

In connection with the addition of human resources, the results of interviews with key informants and supporting informants at the Hararapan Health Center showed that in the last three years there was an addition of 1 midwife in the maternity ward of the Harapan Health Center and the Waibu Health Center, but there were no additional staff. Meanwhile, in carrying out activities inside and outside the building, the coordinating midwife makes a guard schedule for the Puskesmas and poly so that it is not empty when the patient comes to visit for a pregnancy check-up.

*"We have an additional midwife apprentice here; thank God she often helps us when there are activities..." (Informant 5)*

*"Yes, since our establishment there has been no increase in the number of midwives, we have asked the service but until now no midwives have come here" (Informant 4)*

With regard to education and training regarding K4, the head of the health center said that there was 1 midwife who was allowed to continue their education to the next stratum at the Harapan Health Center, while regarding training in the last 3 years the Harapan Health Center and the Waibu Health Center did not receive training on K4. The Jayapura Regency Health Office has yet to conduct training in 2022, because the budget for health training has been cut so that the DKK only conduct joint training with NGOs. Even if the training is conducted, the training participants come from the health center which has the highest number of health cases, while the training is held in an accredited place.

*"Yes, the last time we socialized about the K4 program was in 2019 before the pandemic, after that it didn't exist yet, but we have budgeted for 2023" (Informant 1)*

With regard to service attitudes and actions, based on the results of interviews with mothers who had done K4 at Harapan Health Center and Waibu Health Center stated that the officers behaved well and made patients feel comfortable when receiving services at the health center.

*"The midwives are all very kind, yes we get services here, we are always advised to have blood tests if we haven't checked and come for control every time there is a posyandu" (Informant 6)*

*"The midwife told me to come to the health center for blood checks, we usually checked for pregnancy at the posyandu too if we didn't have time to go to the health center, ... midwives served us well" (Informant 7)*

### **3.1.2.Facility**

Based on interview results, observation results and document review, it can be concluded that all facilities are in good condition and are quite complete according to the requirements of the Minister of Health Regulation Number 75 of 2014, but there is no ultrasound yet. Visits for pregnant women are in good condition, but the room is still the same room as the MCH, KB and STI rooms. Pregnant women who had conducted pregnancy checks at the Harapan and Waibu Health Centers said they were satisfied with the existing facilities, and there were also those who gave suggestions for additional facilities or infrastructure.

*"If the room is good, but I think it's a bit small, a little wide is fine...additional waiting room inside is okay..."(Informant 9)*

*"The room is good; just add wind so it doesn't get hot inside, sometimes it's very hot" (Informant 7)*

*"Yeah, sometimes when it's busy, we get a place because it's full, right?..." (Informant 8)*

### **3.1.3.Funding**

Based on the results of interviews with key informants, it is known that funding for the implementation of K4 services at Harapan Health Center and Waibu Health Center comes from Health Operational Assistance (BOK) funds and there are no obstacles regarding funding for K4 services.

*"So far, if we have a funding problem, we already have a budget, and we just adjust it to that budget... If you want to say it's enough or not, let's just make it enough, the important thing is that our target is achieved" (Informant 2)*

*"So far there have been budgetary issues according to our needs for this service, and we have budgeted for it, we have also recruited patients to go straight to the field to look for pregnant women and that also has a budget... and so far there have been no problems... even if there are problems, it's usually We immediately coordinate with the service" (informant 3)*

### **3.1.4.Policies and SOPs**

Based on the results of interviews with key informants, supporting informants and document data, it was found that the implementation of K4 services at Harapan Health Center and Waibu Health Center already had Standard Operating Procedures (SOP).

*"Ah, we have had SOPs for a long time, and we also work according to SOPs, so there is no problem with SOPs" (Informant 5)*

*"The SOP already exists, we have also worked according to the directions as well, what should be done, one of which is that pregnant women must contact the toll officer for examination and during the examination there is blood test, if there is no blood test at the Posyandu, that's why we direct them to the health center.. that's in accordance with the SOP" (Informant 4)*

### **3.2. Process Components in the Implementation of K4 Coverage Services**

#### **3.2.1.Planning**

Based on the results of interviews with key informants and supporting informants, namely in preparing plans related to K4 services, starting with the Proposed Activity Plan (RUK) and then entering it into the Health Center's Plan Of Action (POA), if the implementation does not reach the set target, the Health Center conducts home visits for pregnant women. K4 planning is included in the annual program planning.

*"As for the K4 coverage service, it is already in the annual program of the health center, because every year we have to report to the office" (Informant 2)*

*"What detailed activities are included in the POA, so what plans will we carry out to achieve the target are all included in the POA" (Informant 3)*

#### **3.2.2.Organizing**

Based on the results of interviews with the three main informants related to the process component (organization) that affects the achievement of K4 visit coverage for pregnant women for health services at Harapan Health Center and Waibu Health Center, it can be stated that in order to achieve the set targets, midwives holding the MCH program make a schedule so that all midwives can work according to a schedule that has been divided. In addition, the head of the Harapan Health Center and the Waibu Health Center stated that in managing staff or human resources in order to achieve the targets set, usually by holding monthly meetings, annually or through mini-workshops.

*"Usually we always have meetings to achieve the targets of the health center program, there are monthly, yearly, minlok too, there we discuss targets and obstacles during implementation ..." (Informant 3)*

*"As for the schedule for the posyandu or visits, it is the direct midwives who arrange it, I only know about it and we have indeed arranged the meetings monthly, yearly as well" (Informant 2)*

The results of interviews with the supporting informants of the Head of Sie. Maternal and Child Health stated that the Jayapura Regency Health Office had organized health centers in Jayapura Regency related to achieving the K4 target, and directly coordinated with midwives or heads of health center if there were problems in K4 services for maternal visits. .

*"... we from the service also go down directly to explore problems or obstacles midwives in implementing the programs they carry out, including the K4 service" (Informant 1)*

### **3.2.3.Implementation**

Based on the results of interviews with midwives holding the MCH program (main informant) stated that the types of services provided to pregnant women during K4 examinations were the same as those provided when pregnant women had their first examination at the health center plus mandatory examinations such as blood group tests, Hb level tests, malaria, sexually transmitted infections (STI), hepatitis and human immunodeficiency virus (HIV).

*"The service that we provide is the same as usual ANC services to,.... Yes, the 14 T examination, only when we get a new mother for the first check at the posyandu we always direct it to the health center for a complete blood count" (Informant 5)*

*"The implementation of K4 is the same as usual pregnancy services, we check the pregnancy, weigh it, measure it..." (Informant 4)*

### **3.2.4.Recording and Reporting**

The recording of the implementation of K4 coverage services is documented in a format that is given directly by the Health Office, the person in charge of the report is the coordinating midwife assisted by the head of the health center.

*"Yes, the Office already has a format, it's only a matter of time from the health center that completes it, we always ask for the report every year." (Informant 4)*

Based on the results of interviews with informants, the recording process was carried out every day and recapitulated every month. As stated by informants at the Harapan Health Center and the Waibu Health Center:

*"Yes, if the report on the results of our inspection is always recorded in the report book, then we will recap every month, we will have monthly and annual reports" (Informant 4)*

This was carried out by the two health center as the person in charge of MCH. This is intended to improve record keeping, because the head of the health center is responsible for reporting to the Health Office. The conclusion from the results of the interviews and observations at the two Health center was that there were no problems in the recording and reporting system at the two Health center.

### **3.2.5.Supervision**

Supervision in the implementation of K4 coverage is carried out from the Jayapura Regency Health Office to the Health center, supervision from the head of the health center to midwives, and cadres.

Supervision from the Regency Health Office (DKK) in the implementation of K4 coverage is carried out every 3 months by looking at the MCH reports. There is no special team to directly monitor the implementation of K4 coverage in each region. The following is a quote from an informant:



*"There is no monitoring team yet and there is no schedule for regular meetings to discuss this, but evaluations are still being carried out, because they submit quarterly reports." (Informant 1)*

So it's not optimal yet and there's very little supervision by DKK. The agency has not yet formed a special monitoring team to assess the performance of K4 coverage implementers in each region that has implemented the K4 service program. This can result in the negative impact of the program will increase.

Supervision carried out at the Health center is usually carried out by the head of the health center who has scheduled monthly and quarterly meeting activities. The results of reporting and supervision are usually used by the head of the health center as material for evaluating the implementation of K4 coverage services.

*"In the Health center every month, sometimes during minilok or technical guidance there we often evaluate how K4 services are implemented" (Informant 3)*

Most of them have performed supervisory functions. Supervision is an ongoing process that is carried out by gathering information about the program that has been planned. This includes assumptions or external factors and side effects from the implementation of the program, both positive and negative.

### ***3.3. Output Components in the Implementation of K4 Coverage Services***

The output referred to in this study is data on the percentage of pregnant women who utilize K4 services at the Harapan Health Center and the Waibu Health Center. The output component was obtained based on checking the completeness of the documents and viewing the program implementation documentation, as well as the results of interviews with the head of the health center. The number of pregnant women who receive K4 pregnancy services in the Health center work area is the output of the implementation of K4 services.

Based on the results of interviews with the two health center heads, they said there was a target for the number of pregnant women that had to be achieved every month. The success of the K4 coverage target is assessed from the percentage of pregnant women who go for check-ups at health facilities. Following are the results of interviews with several informants:

*"Hmm..if there is already a K4 coverage target, we will check the data on women who have checked in our work area" (Informant 5)*

*"... yes, the data that we got was what we just recapitulated what is the percentage, according to the target not" (Informant 4)*

### ***3.4. External Factor Components in the Implementation of K4 Coverage Services***

Data collection on external factor components in the implementation of K4 services was obtained by filling out questionnaires and conducting interviews with informants. This study aims to determine the description of the external factor in the implementation of K4 coverage services.

The data in this study came from primary data in the form of questionnaires submitted to respondents in the working area of the Harapan Health Center and the Waibu Health Center. External factors in the implementation of K4 services include geographic, demographic and support factors.

*"...sometimes the distance is also an obstacle, we are in the area of the lake to, so sometimes women are lazy if they have to go anywhere" (Informant 5)*

The location for the implementation of K4 coverage service activities is not only at the Health center, but this service is also carried out at posyandu-posyandu in the working areas of the two Health center. Sometimes midwives also go directly to residents' homes to screen pregnant women after receiving information from health cadres, as was done by midwives at the Harapan Health Center.

*"...Yes, we do pregnancy checks, not only at the health center, at Posyandu we also do pregnancy checks.... too bad if you don't have fees to go to the health center or posyandu, we sometimes visit your mother at home..."(Informant 5)*

The same thing was also done at the Waibu Health Center, but there was a lack of midwife human resources, so that not all midwives could recruit pregnant women to remote areas.

*"Yes, we usually only guard at the health center and posyandu. So far, if there is information from cadres if there are pregnant women, we always direct them to check at the posyandu or health center" (Informant 4)*

#### **4. Discussion**

##### **4.1. Input Components in the Implementation of K4 Coverage Services**

###### **4.1.1. Human Resources (HR)**

Human resources are an important factor in the implementation of K4 services. The number of human resources in the Maternal and Child Health (KIA) room at Harapan Health Center is 18 people. Of these 18 midwives, eight midwives were in charge of providing services for services inside and outside the building, as well as maternity clinics while the other seven midwives served as village midwives at their respective pustu. Likewise, midwives at the Waibu Health Center have the same duties and functions. Based on the number and tasks they have, the informant from the health center said that the human resources currently owned by the Harapan Health Center are sufficient to handle K4 services. As for the Waibu health center, it is still lacking. Based on the data, midwives in the two health center actually met the standards stated in the Minister of Health Regulation Number 75 of 2014 which states that the number of midwives in rural health centers must be four people [13].

Harapan and Waibu Health Centers are health centers capable of PONED, namely health centers that are capable of providing Basic Emergency Obstetric Neonatal Services (PONED). After carrying out a document review of the guidelines for implementation of the PONED Health center, the health workers owned by the health center had met the standards of health workers according to the health centers' guidebook capable of PONED, which stated that the midwives that must be owned by the health center were five people with a minimum D3 education, while the midwives owned both Community Health Centers have met the standards, so

it can be concluded that the health workers at the Harapan and Waibu Health Centers are sufficient. The research is also in line with research conducted by Intan (2020) which stated that the health workers at the Health center are sufficient to handle antenatal visits and can have an impact on targeting K4 visits [14].

In carrying out every service in the MCH Poly, the coordinating midwife makes a schedule of tasks or pickets for each midwife so that the service continues and the room is not empty when the patient comes to visit considering that apart from the midwife's job of providing services inside and outside the building such as posyandu, midwives also have concurrent duties, with a maternity clinic. The schedule for the KIA poly itself is a morning guard schedule, while for the clinic there is a morning, afternoon and evening guard schedule. Midwives who are assigned outside the building, such as posyandu, will return to the health center to provide services if there are still service hours at the health center. Training as part of education concerns the learning process to acquire and improve skills outside the applicable education system in a relatively short time with methods that prioritize practice rather than theory [15].

In the last three years there has been no training conducted by the Jayapura Regency Health Office regarding K4 services. In 2020, the Regency Health Office did not carry out activities due to the budget for carrying out activities being cut and the Covid 19 pandemic so that the Jayapura Regency Health Office only carried out joint activities with Non-Governmental Organizations (NGOs). Even if the training was conducted, the training participants came from the health center which had the most cases in accordance with the training activities held.

#### **4.1.2. Facility**

Facilities are things that are needed to support a K4 service. The availability of sufficient facilities is very supportive in the implementation of K4 services. Based on the results of interviews and observations made by researchers, the facilities at Harapan and Waibu Health Centers comply with the 2010 Guidelines for Integrated Antenatal Services of the Ministry of Health of the Republic of Indonesia and the Appendix to Regulation of the Minister of Health Number 75 of 2014 concerning Community Health Centers. The facilities referred to in this study include the tools used for K4 service activities and the physical building of the health center used to carry out K4 services [16].

The medical and non-medical equipment at the Harapan Health Center stated that since the last three years it has been quite complete and fulfilled, all the equipment is in a usable condition and well used and the Waibu Health Center, because the new health center has the equipment available, has been equipped and is still suitable for use. If there is a shortage of equipment, then the follow-up is carried out to match the number of needs according to Minister of Health Regulation Number 75 of 2014, namely making a proposal to procure health center equipment. Judging from the availability of facilities, facilities and infrastructure at the Harapan and Waibu Health Centers it is said to be adequate, this is in accordance with observations made with the help of an observation check list, this includes the availability of tools according to what has been determined. This research is in line with research conducted by Marita (2021) which shows that the facilities or infrastructure at the Bandarhajo Health Center are complete and this affects the quality of service [17].

The condition of the MCH/KB and Immunization rooms at the Harapan Health Center which is used to serve pregnant women's visits to pregnant women's services is in good condition, it's just that because of the limited space where the main informants (midwives) feel a lack of space so they feel uncomfortable due to the accumulation of tasks or work in the MCH/KB room and immunization and STIs.

After conducting interviews with pregnant women informants who had conducted K4 pregnancy checks at the Harapan and Waibu Health Centers, most of the informants said that the equipment they had was quite complete. This made the informants feel comfortable and satisfied enough to carry out pregnancy checks at the health center. However, some informants said that there were no ultrasound devices at the health center and gave suggestions that there should be additional facilities such as beds for examining patients, and so on.

#### **4.1.3. Funding**

The funding component is one of the elements that can support ongoing activities to achieve goals. Based on Law Number 36 of 2009 in Chapter XV article 170 states that the sources of health financing funds come from various sources, namely those from the government, namely the APBN or better known as BOK, while those originating from local governments are often referred to as APBD and also comes from other parties such as a gift from the community itself sincerely or like an insurance agency [17]. In addition to financing, health center also receive fees from patients who use health insurance owned by the community such as BPJS, Askes. Users of this health insurance are regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 28 of 2014 concerning guidelines for implementing the national health insurance program [16].

There are no problems for the Harapan and Waibu Health Centers regarding financing in implementing K4 services, this is because the source of funding for the health center comes from the Health center Health Operational Assistance (BOK). This research is in line with research conducted by Rahmawati (2020) in Semarang which shows that there are no obstacles related to the availability of funds because the source of the funds comes from BOK funds [1].

#### **4.1.4. Policies and SOPs**

Harapan and Waibu Health Centers already have Standard Operating Procedures (SOP) regarding the implementation of K4 services. Midwives in carrying out K4 services use 14T as stated in the 2020 integrated ANC guidelines. When asked about the policy of the Jayapura Regency Health Office regarding regional regulations governing Kibla, the health center did not know about this policy. After confirming with a supporting informant, the Head of the KIA Section stated that there were indeed many health center who did not know about this regional regulation because most of the health center in Jayapura Regency had not received socialization regarding this policy.

Kareba (2020) which states that the existence of standard operating procedures for services has a significant influence on service quality. So the realization of service quality is inseparable from the service procedures for officers in providing services to patients [15].

## **4.2. Process Components in the Implementation of K4 Coverage Services**

### **4.2.1. Planning**

The implementation of K4 coverage services at Harapan Health Center and Waibu Health Center in the elements of the process, it is known that the flow of K4 coverage services starts from pregnant women arriving at the registration counter, then data is collected and an examination is carried out.

The Jayapura Regency Health Office and Harapan Health Center both use Minimum Service Standards (SPM) to determine the target achievement of a program, including the mother program in K4 services. The Baumata Health Center uses the K4 achievement targets set by the Jayapura Regency Health Office based on minimum service standards. In preparing plans related to K4 services, starting with the Proposed Activity Plan (RUK) then it is included in the Health Center's Plan Of Action (POA), and implemented by the Health Center in accordance with the POA that has been made. The time limit for planning maternal health programs is annually. Usually those involved in planning are all midwives. The stages of planning a health center are as follows:

#### **4.2.1.1. Preparation**

Based on the Regulation of the Minister of Health Number 44 of 2016, the initial stage in preparing the planning for the health center level is the preparatory stage, in which one of the heads of the health center forms a planning team at the health center level whose members consist of health center staff. Based on the results of the interviews that were conducted, three informants stated that there was no special team, but they worked on the K4-related planning together.

#### **4.2.1.2. Situation Analysis**

The results of observations and interviews obtained data that the health center had also carried out the second stage, namely situation analysis where the health center had collected all the data needed in compiling the health center level planning, both general data and specific data. For example, population data, school data, and others.

#### **4.2.1.3. Formulation of the problem**

Identification of this problem was obtained by the health center through data from the village midwife regarding K4 which had not reached the target. Determining the priority of problems can be through the agreement of the planning team or by using the USG (Urgency, Seriousness, Growth) method. The results of the analysis of the existing data, if the K4 data obtained by the health center from the village midwives does not match the targets set, the midwives have agreed to carry out sweeping or home visits in order to reach the target.

#### **4.2.1.4. Preparation of Proposed Activity Plans (RUK)**

After the formulation of the problem, the health center will prepare a Proposed Activity Plan (RUK) and be accompanied by the Jayapura Regency Health Office.

#### **4.2.1.5. Preparation of Activity Implementation Plans (RPK)**

After the RUK of the health center is approved, the health center also prepares an activity implementation plan, for example by compiling a schedule of activities so that all activities run well and smoothly, as well as coordinating with the sub-regency or cross-sectoral cooperation. Regarding the planning of the facilities and infrastructure of the Harapan and Waibu Health Center, there are no problems in planning and procuring facilities and infrastructure, this is because the existing facilities and infrastructure are in accordance with the standards listed in the annex to Regulation of the Minister of Health Number 75 of 2014 and are in good condition. If there is a shortage of infrastructure, the health center will make a proposal for the procurement of infrastructure.

#### **4.2.2. Organizing**

Midwives holding the MCH program usually manage the midwives in the Harapan and Waibu Health Center's MCH polyclinic so that they can achieve the targets set by making work schedules (shifts) for the midwives, while the Heads of the Harapan and Waibu Health Centers can manage staff to achieve the targets set. through monthly and annual meetings. The Jayapura Regency Health Office is also organizing in collaboration with professional organizations such as the Indonesian Midwives Association (IBI) so that they can provide solutions to the health center if things go wrong and coordinate directly with the midwife or head of the health center regarding the problems found.

#### **4.2.3. Implementation**

Most pregnant women have received health services for pregnant women in accordance with the Integrated ANC Guidelines in 2020. However, there are several services that have not reached the Minimum Service Standards (SPM) targets listed in the Minister of Health Regulation Number 43 of 2016, such as routine laboratory test services and speech gathering/counseling where each service item has not reached the 100% target.

#### **4.2.4. Recording and Reporting**

Recording and reporting at the Harapan and Waibu Health Centers has been running but for the Waibu Health Center it has not been maximized. The K4 service recording and reporting system is a vital instrument in MCH services. Information on developments in maternal health and various other health information is useful for decision making and policy making at the regency or city or sub-regency level.

Recording and reporting are indicators of the success of an activity. Without recording and reporting, the implementation of K4 services will not be visible. The output of this recording and reporting is valuable and valuable data and information when using the right and correct method. So, data and information is an important element in an organization, because data and information speak about the success or development of the organization.

The recording system is the foundation of the data so it is hoped that accurate, representative and reliable information can be used as a guide in preparing program planning. The resulting data needs to be recorded, analyzed and made a report. The data presented is information about the implementation of the program. Existing information needs to be discussed, coordinated, integrated so that it becomes knowledge for all managers and implementers.

Recording and reporting formats need to be developed according to the needs and capabilities of the K4 service implementing team. In contrast to records, reports must be submitted to other people/parties. The report process is done in writing. The benefits of reporting include authentic accountability regarding the implementation of activities, providing documented information, evidence of activities (legal evidence), service materials, planning and evaluation materials.

#### **4.2.5. Supervision**

The results of the study indicated that there was a concordance between the informants regarding the supervision carried out by the Health Office and the head of the health center. Supervision from the Health Office is carried out once a year, when the head of the health center submits a report to the Office. In fact, this form of oversight is ineffective because the supervisor does not see directly how the program is implemented. The form of this supervision is by looking at data on pregnant women who receive K4 services.

Supervision from the Head of the health center is carried out every month by asking about problems, cases, and obstacles that are currently occurring during implementation in the form of regular monthly meetings and minilok. The sub-regency supervises by looking at the implementation of K4 services and during meetings with village heads.

Supervision is a process to continuously observe the implementation of activities according to plans that have been prepared and make improvements if deviations occur. Implementation of this management function requires the formulation of performance standards (standard performance).

Supervision is not only carried out by personnel from the Health center. The involvement of village officials and community leaders is also needed to increase the percentage of utilization of health services, because they are the ones who know the condition of the population best. With this it is hoped that they can take the most appropriate and effective actions to follow up.

#### **4.3. Output Components in the Implementation of K4 Coverage Services**

The output in this study is data on K4 service coverage at Harapan and Waibu Health Centers. The data obtained revealed that the coverage of K4 services based on data from the Harapan Health Center in 2022 reached 92.5% (184 pregnant women) of the 300 targeted mothers. Meanwhile, the data obtained at the Waibu Health Center in 2022 reached 12.9% (18 pregnant women) of the 140 targeted mothers. There will be an increase in the following year where in 2022. This achievement has almost met the target desired by the government.

Reducing the K4 coverage target at the Waibu Health Center from 2021 (25%) and 2022 to 12.9%, this happened because the Waibu Health Center is a fraction of the Kanda Health Center. So that the coverage data is divided into 2. In 2021 the Waibu Health Center will stand alone with 4 villages which are located far apart. 2 locations are located around Lake Sentani and 2 are on land which have very wide working areas.

#### ***4.4. External Factor Components in the Implementation of K4 Coverage Services***

The results of this study indicate that travel time is not related to the utilization of K4 services. This is not in line with previous findings where travel time is strongly related to distance to health services. Travel time has a slightly different context from distance to a health facility. Travel time apart from showing distance also shows access and transportation infrastructure from the community's homes to the Health center.

This study shows that apart from travel time, distance is also not related to utilization of health facilities, where respondents who live <25 km have the possibility to utilize health services compared to mothers who live >25 km. This finding is in line with the results of a study in Maluku which showed that there was an increase in the utilization of health services in communities that were less than 25 km away, while in communities that were >25 km tend not to utilize health services. When viewed from geographical factors, the existing facilities in Jayapura Regency can still be reached by residents. However, the lack of access to go to health facilities is the reason why people are reluctant to use health facilities, some people have to wait for an ambulance from the health center.

Education is one of the factors that influence individuals in utilizing health services. The existence of education can affect awareness of the importance of being healthy, thereby encouraging the need for health services and the selection of health services. Low education has an impact on absorption of information, motivation and decision making to utilize health services. Higher education tends to increase awareness of health status, and the consequences for using health services.

Education is a factor that indirectly influences the socio-economic conditions of the family so that it will also affect a person's use of health services. Someone who has a higher education will have better thinking in processing information so that it can affect his knowledge.

Lia Dewi (2011) states that education is a factor underlying decision-making and delivery outcomes are also supported by the mother's level of knowledge about health, the environment, the economy, interaction with health workers and awareness of the pregnant woman herself [18].

Apart from education, work is also a socio-demographic factor that can play a role in influencing individuals in the utilization of health services. The work done by mothers greatly influences their lifestyle and is important for conveying prestige, respect and honor which can influence client decision making. Occupation is one of the supporting factors that influence a person in utilizing health services. Someone who works has a higher tendency to take advantage of health services compared to someone who doesn't work. In addition, according to socioeconomic factors originating from family income, it will affect the demand for health services and affect a person's use of health services.



Another external factor is the support from community leaders and families because the community is the actor and target of the development, so that to increase community participation it is necessary to involve community leaders to play an active role in supporting program implementation. The lack of functioning of health services causes low performance, partly due to the low ability of cadres and the lack of guidance from the village government and related agencies/agencies/institutions, which results in low public interest in health services. External factors in the implementation of this RTK can influence directly or indirectly.

Based on their location and function, the Health center in East Sentani and Waibu are the ones that can be reached by the community. The location of the Health Center is very appropriate because access from each village to this location already exists. According to Abdulkair (2019), service location influences service utilization. Affordability makes people feel that there are no obstacles to going to health facilities.

Harapan Health Center and Waibu Health Center can be reached by land route only, ordinary people use motorbikes and cars. There are transportation difficulties for the Harapan Health Center area, namely water transportation in the form of speed.

Access will be easier and faster if the existing transportation facilities function properly so that transportation can become a means of integrating various regions. Through transportation, people from one region to another can reach health facilities. Transportation is an attempt to move people or goods from one place to another [20].

Transportation will always be related to travel/movement, trips, traffic, and routes/paths. Transportation facilities on land, sea and air play a vital role in the health aspect through the function of distribution between one region and another. Difficulties in accessing health services can be overcome by the availability of facilities and infrastructure to support transportation from population areas that are far from the location of health center services, for this reason the construction of roads and the availability of city transportation can be a way to make it easier for people to get services [15].

## **5. Conclusion**

The following conclusion based on the findings of this study:

### **5.1. Input Component**

#### **5.1.1. Human Resources**

Midwives must take part in training so that they increase their skills and are expected to be innovative in reaching pregnant women so that K4 at the Waibu Health Center can increase.

#### **5.1.2. Infrastructure**

Availability, adequacy and feasibility of infrastructure at the two Health center is good, there must be an ultrasound device so that at the Health center there is an increase in K4 coverage.

### **5.1.3. Funding**

It is necessary to manage funds that are right on target, and special allocation funds for establishing partners in the coverage of K4 services.

## **5.2. Process component**

### **5.2.1. Planning**

There is an antenatal care plan in accordance with the SOP and there is a plan to achieve antenatal care coverage in both Health center.

### **5.2.2. Organizing**

The organization of midwives to assist in antenatal care and the organization of several parties to support antenatal care is good.

### **5.2.3. Implementation**

There are history taking and 14 T examination activities that have been carried out by the two health center.

### **5.2.4. Recording and Reporting**

Recording and reporting at the Waibu Health Center had several problems due to the solution of the Kanda and Waibu Health Centers.

### **5.2.5. Supervision**

Supervision of the coverage of antenatal care and recording and reporting of antenatal care has not run optimally.

## **5.3. Output Components**

The percentage of K4 services as a result of the input and process components has been good, as evidenced by the increased achievement of the MCH program, although the implementation has not been optimal, there has been an increase in the percentage of coverage at the expected Community Health Center in 2021 as much as 80.7% and in 2022 as much as 92.5% while at the Waibu Health Center in 25% in 2021 and 12.9% in 2022 so that there is a decrease.

## **5.4. External Factor Components**

Geography, demography and support indirectly affect K4 services.

## References

- [1] N. Rahmawati; 2020. Penyuluhan Tentang Pentingnya Pemeriksaan Kehamilan K1-K4 Di Wilayah Kerja Puskesmas Padasuka Kota Bandung. *Abdi Masada*, 1(1), 45-52.
  - [2] Minister of Health of Republic of Indonesia; 2022. Indonesia Health Profile 2021. Jakarta: Ministry of Health.
  - [3] A. Saifuddin; 2014. Buku panduan praktis pelayanan kontrasepsi. Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo
  - [4] Fitriyani, Suryati, and Faranti; 2016. Penyebab Rendahnya Kelengkapan Kunjungan Antenatal Care Ibu Hamil di Wilayah Kerja Puskesmas Pegambiran. *Jurnal Kesehatan Masyarakat Andalas*, 10(1), 101–107.
  - [5] Rahmi, N. Safitri, F. Husna, A. Andika, and F. Yanti; 2021. Analisis Faktor Yang Berhubungan Dengan Kunjungan Antenatal Care (ANC) Selama Pandemi Covid - 19 Di Wilayah Kerja Puskesmas Ie Alang Kabupaten Aceh Besar, *Journal of Healthcare Technology and Medicine*, vol. 7(2), pp. 761–773.
  - [6] F. Zulaikhah, and V. Vefisia; 2022. Relationship of Husband's Support to K4 Visits in Mudal and Slukatan Villages, Mojotengah District, Wonosobo Regency. *Journal of Holistics and Health Sciences*, 4(1), pp. 162-179.
  - [7] D. Zulfitri; 2017. Faktor Yang Berhubungan Dengan Pemanfaatan Pelayanan Antenatal Care Pada Ibu Hamil Di Wilayah Kerja Puskesmas Mawasangka Tengan Kabupaten Buton Tengah Tahun 2017. *Jurnal Ilmiah Mahasiswa Kesehatan Masyarakat*, vol. 2(7).
  - [8] Jayapura Regency Health Office; 2021. Jayapura Regency Health Profile 2020. Sentani.
  - [9] NA. Harahap; 2022. Hubungan Pengetahuan, Sikap Ibu Hamil Dan Dukungan Suami Terhadap Kunjungan K4. *JIDAN: Jurnal Ilmiah Kebidanan*, vol. 2(2), pp. 116-126
  - [10] AS. Rosa, and M. Shalahuddin; 2016. Rekayasa Perangkat Lunak Terstruktur dan Berorientasi Objek. Bandung: Informatika Bandung.
  - [11] HK. Kang, 2013. Development of Logic Model for R & D Program Plan Analysis in Preliminary Feasibility Study. *International Journal of Economics and Management Engineering*, vol. 7(9), pp. 2613-2616.
  - [12] LJ. Moleong; 2009. Metode Penelitian Kualitatif. Bandung: Remaja Rosdakarya.
- D. Dary, T. Sujana, and JN. Pajara; 2018. Strategi Tenaga Kesehatan Dalam Mnurunkan Angka Kejadian ISPA Pada balita di Wilayah Binaan Puskesmas Getasan. *Jurnal Kesehatan Kusuma Husada*, vol. 9(2), pp. 142-152.

- [13] Minister of Health of Republic of Indonesia; 2014. Regulation of Minister of Health of Republic of Indonesia Number 75 of 2014 About Public Health Center. Jakarta: Ministry of Health.
- [14] AI. Medina; 2020. *Pengaruh Komitmen Organisasi, Kepuasan Kerja dan Kepribadian Terhadap Organisational Citizenship Behavior Tenaga Media DI Puskesmas Kecamatan Menteng Jakarta Pusat*. Skripsi thesis, Sekolah Tinggi Ilmu Ekonomi Indonesia Jakarta.
- [15] L. Kareba; 2020. Evaluasi Sistem Pelaksanaan Program Kesehatan Ibu dan Anak (KIA) di Puskesmas Marawola Kabupaten Sigi. *Jurnal Ilmiah Kesmas*, vol.20(2), pp. 114-122.
- [16] Sulistiyani, and ER. Dewi; 2016. Evaluasi Pelaksanaan Pelayanan Cakupan K4 Di Puskesmas Jakenen Pati. *Jurnal Kesehatan Masyarakat Cendekia Utama*, Agustus 2016.
- [17] I. Marita, Budiyo, and H. Purnaweni; 2021. Kualitas Standar Pelayanan Minimal Kesehatan Ibu Hamil. *HIGEIA Journal Of Public Health Research And Development*, vol. 5(1), pp. 39-51.
- [18] L. Dewi, V. Nani, and T. Sunarsi; 2011. Asuhan Kebidanan Pada Ibu Nifas. Jakarta Selatan: Salemba Medika.
- [19] M. Abdulkadir, R. Rainis, AE. Zaidan, MU. Muhammad, and YA. Kani; 2019. Pattern and Utilization of Maternal Health Services in Jigawa State, Nigeria. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, vol. 4(7), pp. 31 – 40.
- [20] MU. Siregar; 2022. Evaluasi Kebijakan Jaminan Persalinan Di Gunung Tua Kabupaten Padang Lawas Utara Provinsi Sumatra Utara. *Jurnal Ilmiah Multidisiplin Indonesia*, vol. 1(12), pp. 1797-1804