Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)

Dwike Primadita Rosanti[1*], Abdul Kohar Mudzakir[2], Nungky Taniasari[3]

[1,2,3]Program Studi Administrasi Kesehatan, Fakultas Ilmu Kesehatan, Universitas Anwar Medika, Sidoarjo

ARTICLE INFO	ABSTRACT
Keywords: Mother, Child, Transmission, Implementation, HIV/AIDS	The Health Policy Program to Prevent Mother-to-Child Transmission (PMTCT) has four prongs/activities with various goals. The PMTCT program, which is integrated with antenatal care in a health institution, is evaluated regularly to measure its success in preventing mother-to-child HIV/AIDS transmission. HIV/AIDS, a virus that assaults the immune system, needs attention, prevention, and treatment in Indonesia, especially in areas with high rates of mother-to-child transmission. HIV/AIDS cases increased in Jember Regency, East Java. The number of HIV-positive people in Jember Regency rose to 644 in 2017, including 42 pregnant women. 25–49-year-olds dominate HIV/AIDS. This study evaluated prong 3 of the PMTCT program at six Public Health Centers in Jember Regency and identified input, processes, output, and outcome in accordance with ANC service standards. This mixed-method research with a sequential explanatory design employed a crosssectional research strategy to investigate input, process, output, and outcome in PMTCT prong 3. After that, qualitative study will prove, deepen, and increase quantitative data, specifically the execution of prong 3 of the PMTCT program in antenatal care services at six public health clinics in Jember Regency. This study employed logistic regression and purposive sampling. Meanwhile, for the second phase of research (qualitative research) there were 18 informants (six key informants, six main informants and six additional informants). This study was concluded in April 2020. This study examined inputs (man, money, method, material, machine), process, output, outcome, and PMTCT prong 3 implementation.
Email : dprimaditar16@gmail.com	

1. INTRODUCTION

Prevention Mother To Child Transmission (PMTCT) Program is one of the health policy programs which consists of 4 prongs/activities with different targets in each prong[1][2]. This program which aims to prevent the transmission of HIV/AIDS from mother to child requires regular and periodic evaluations in order to determine the success of the PMTCT program which is integrated with antenatal care services in a health facility[3][4][5][6]. In Indonesia, this infectious disease of HIV/AIDS caused by a virus that attacks the human immune system requires attention[7][8], prevention and treatment, especially in areas with a high incidence of mother-to-child transmission of HIV[9]. One of them is in Jember Regency East Java, there were increasing numbers of people with HIV/AIDS. In 2017 the number of people with HIV in Jember Regency again increased to 644 people, and 42 were pregnant women. Of all people with HIV/AIDS, it is dominated by 25-49 years old.

The objective of this research was to evaluate the implementation of prong 3 in the PMTCT program at six Public Health Centers in Jember Regency and also to identify the input[10][11], processes, output and outcome in line with ANC service standards[12][13]. This is mixed-method research with a sequential explanatory design that used a crosssectional[14]. research plan that aimed

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

854

to analyze the component of input, process, output, and outcome in implementing prong 3 of the PMTCT program[15]. Followed by the second phase of research, namely qualitative research which aims to prove, deepen and expand quantitative data, especially the implementation of prong 3 of the PMTCT program in antenatal care services at six public health centers in Jember Regency[16]. This Research used the purposive sampling technique and used logistic regression analysis[17]. Meanwhile, for the second phase of research (qualitative research) there were 18 informants (six key informants, six main informants and six additional informants). This research was conducted in April 2020 until it was completed. The variables in this research were input components (man, money, method, material, machine), process, output, outcome and implementation of prong 3 of the PMTCT program.

The results of the first phase of research (quantitative), obtained frequency distribution characteristics of pregnant women thatthe majority of pregnant women aged late teens and early adulthood, the majority of them parts ofJavanese and Madurese they only finished the junior high school education, they were housewives with income < xiii 500,000. in addition, all respondents stated that they were married and the majority were multipara. The data were analyzed using a logistic regression test, which consist of age, ethnicity, education, occupation, income, marital status and parity showed that there was no effect between the characteristics of respondents to the implementation of prong 3 of the PMTCT program.

While the input aspect showed that the man variable with a value of sig. 0.026 indicated that there was an effect of man (human resources) on the implementation of prong 3 of the PMTCT program with the odds ratio in this research of 4.969, which means that good human resources tend to be at risk of 4.969 times on a better implementation of prong 3 in the PMTCT program. The same thing happened to the money variable with a sig value. 0.015 which indicated that the effect of money (funding) on the implementation of prong 3 of the PMTCT program with an odds ratio of 5.956 which means that good funding (moderate/middle to upper economy class) tends to be risk 5.956 times on a better implementation of prong 3 in the PMTCT program. In the outcome variable which showed the value of sig. 0,026 which means that there was an effect of the Outcome aspect on the implementation of prong 3 of the PMTCT program with an odds ratio of 4.962 which means that a good outcome (reduced negative stigma and discrimination from husband, close family or the community and the number of babies born with HIV who are born by mothers with HIV is decreasing) tends to be 4.962 times at risk for better implementation of prong 3 in the PMTCT program. While the Method variable obtained the value of sig. 0.107; Material variable with value sig. 0.234; Machine variable with value sig. 0.283; Process variable shows the value of sig. 0.151; Output variable with value sig. 0.708 which means that there was no effect of the method, material, machine, process and output variables on the implementation of prong 3 of the PMTCT program.

After obtaining the results in the first phase of research (quantitative research) followed by the results of the second phase of research (qualitative research), which generally resulted that in each research focus at each six public health center research locations indicate that, from the human aspect (health human resources) the majority have an educational background according to their current job, finished diploma of Midwifery/Nursing and Bachelor Midwifery/Nursing, the majority of informants have a long tenure (> 10 years) and some informants were not receiving PMTCT training, especially midwives in the ANC/KIA poly. The quantity of health workers involved with the implementation of the PMTCT program is sufficient. In the focus of the research on the money, material, machine aspects, it did not show significant obstacles, while in the method aspect, several informants expressed doubts about the guidelines that they used[18]. In the focus of the research, the process aspect of the majority leadership suppport is very good, but the obstacles found are that some informants have not implemented pre-test and post-test. In the focus of the research, the output aspect of the coverage and the majority of achievements has been going quite well, while in the xiv outcome aspect, the existence of negative stigma and discrimination is one of the causes of delaying a pregnant woman to be willing to have her HIV status checked.

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

855

The conclusion of this research, overall evaluation the implementation of prong 3 in the PMTCT (Prevention Mother To Child Transmission) program for Antenatal Care (ANC) which is integrated with the VCT poly at six public health center in Jember regency has been going well[19]. Mainly from the results of quantitative and qualitative research it is quite good, but the constraints in terms of health human resources are the most common problems especially in terms of not all health workers receiving training on the PMTCT program or VCT services, some have not been under PMTCT guidelines because they have not implemented pre-test and post-test, the follow-up has not been carried out optimally, and there was still negative stigma[20]. So that more support and motivation were needed from their husbands, close family and also from health workers

2. METHOD
2.1. Research Stages
The research stages carried out in this study are in the form of stages that will be carried out in completing the research. By carrying out the stages in a structured and systematic manner so that this research can run well.

The following are the stages in this research, which can be illustrated through a research flowchart as shown in Figure 1
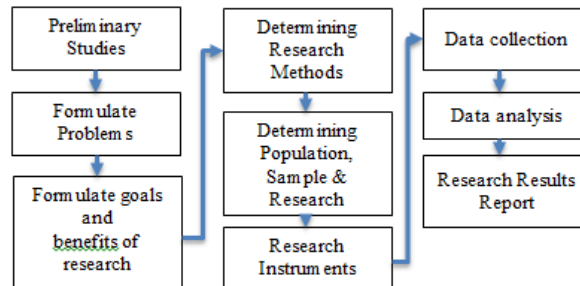

Figure 1. Research Flow of PMTCT (Prevention Mother To Child Transmission) Program Evaluation on HIV / AIDS in Antenatal Care Services (ANC) Puger Health Center, Kencong, Tanggul, Jember Kidul, Sumberjambe, and Pakusari, Jember Regency

Findings

The PMTCT program for pregnant women at the Jember District Health Center's Antenatal Care Services has not run optimally in view of the still high incidence of HIV/AIDS in Jember District HIV/AIDS in pregnant women if not detected early can increase the risk of transmission to the baby they are carrying Analyzing and evaluating the implementation of the PMTCT Program both in terms of input, process, output, outcome components on prongs 3 and 4 Analytical Research using the Sequential Explanatory Mix Methods method. Quantitative data obtained from questionnaires; Qualitative data obtained from in-depth interviews & documentation The population is 362 pregnant women in 6 health centers. The sample used the Accidental Sampling technique so that a sample of pregnant women who came to visit the Antenatal Care Service (ANC) at 6 Community Health Centers was obtained. Key informants, namely midwives/nurses in VCT services (6 Community Health Centers in Jember district); The main informant, namely the coordinating midwife/Ka.P2M (6 Community Health Centers in Jember Regency) Kab. Jember; Additional informants namely midwives in the MCH poly. Create questionnaires, interview guides, recapitulation tables Giving questionnaires to pregnant women (quantitative data), conducting in-depth interviews with informants (qualitative data) Quantitative data analysis using SPSS using logistic regression test; Qualitative data analysis using source triangulation Research Results Report

3. RESULTS AND DISCUSSION
3.1. Research Result

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

856

This research was conducted on a sample of 362 pregnant women, of which 352 respondents were pregnant women with negative HIV status and 10 respondents were pregnant women with positive HIV status.

As for the research data sample, one of the Community Health Centers was taken, as follows table

Table 1. **Characteristics of Respondents Pregnant women at the Puger Health Center**

Category		Total	
		Frequency	**%**
Age	Early Youth (12-16 years)	1	1,6%
	Late Youth (17-25 years)	32	51,6%
	Early Adults (26-35 years)	25	40,3%
	Late Adults (36-45 years)	4	6,5%
	Total	**62**	**100,0%**
Ethnic Group	Javanese ethnic	48	77,4%
	Madurese	14	22,6%
	Total	**62**	**100.0%**
Education	Finished Junior	10	16,1%
	High School Finished High School	28	45,2%
	Finished PT	21	33,9%
	No Schoo	3	4,8%
	Total	**62**	**100,0%**
Wife Work	Housewife	56	90,3%
	Businessman	4	6,5%
	Farmer	2	3,2%
	Total	**62**	**100.0%**
Wife's Income	No Income	36	58,1%
	< Rp. 500.000	32	35,5%
	> Rp. 500.000 – Rp. 2.000.000	4	6,5%
	Total	**62**	**100.0%**
Marital status	Married 1 time	62	100,0%
	Total	**62**	**100.0%**
Parity	Primipara	34	54,8%
	Multipara	18	29,0%
	Grandemultipara	10	16,1%
	Total	**62**	**100.0%**

Table 1. shows the results that the characteristics of the 62 pregnant women respondents from the working area of the Puger Health Center are quite varied. In terms of age, the majority of respondents were in their late teens (17-25 years), namely 32 respondents (51.6%), early adults (26-35 years), namely 25 respondents (40.3%), late adults (36-45 years) namely 4 respondents (6.5%) and early adolescents (12-16 years) as many as 1 respondent (1.6%). While the ethnicity of the respondents was dominated by the Javanese, namely as many as 48 respondents (77.4%) then the Madurese as many as 14 respondents (22.6%).

The education level of the majority of respondents was high school graduates with 28 respondents (45.2%), university graduates with 21 respondents with 33.9%, junior high school graduates with 10 respondents (16.1%) and no school with 3 respondents (4.8%). . The majority of respondents' work is a housewife, namely there are 56 respondents (90.3%), entrepreneurs as many as 4 respondents (6.5%), farmers as many as 2 respondents (3.2%). The income of the 62 respondents showed that 36 respondents (58.1%) had no income. A total of 22 respondents (35.5) had income < Rp. 500,000 and as many as 4 respondents (6.5%) have income > Rp. 500,000 – Rp. 2,000,000. The marital status of

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

the 62 respondents in all (100%) was married once. As for the parity of 62 respondents, 34 respondents (54.8%) belonged to primiparas, 18 respondents (29.0%) were included in multiparas while 10 other respondents (16.1%) were included in grandemultiparas.

Frequency Distribution of Respondents Based on Input (man, money, method, material, machine), Process, Output, Outcome at the Puger Health Center

Table 2. **Distribution of Respondents for Pregnant Women Based on Input (man, money, method, material, machine), Process, Output, Outcome at the Puger Health Center**

Category		Total	
		Frequency	**%**
Man	Good	42	67,7%
	Not Good	20	32,2%
	Total	**62**	**100.0%**
Money	Good	53	85,5%
	Not Good	9	14,5%
	Total	**62**	**100.0%**
Method	Good	53	85,5%
	Not Good	9	14,5%
	Total	**62**	**100.0%**
Material	Good	56	90,3%
	Not Good	6	9,7%
	Total	**62**	**100.0%**
Machine	Good	53	85,5%
	Not Good	9	14,5%
	Total	**62**	**100.0%**
Process	Good	53	85,5%
	Not Good	9	14,5%
	Total	**62**	**100.0%**
Output	Good	54	87,1%
	Not Good	8	12,9%
	Total	**62**	**100.0%**
Outcome	Good	47	75,8%
	Not Good	15	24,1%
	Total	**62**	**100.0%**

Table 2 above shows the results that the input variable at the Puger Health Center is in the good category, there are 42 respondents (67.7%) and the money variable in the category, there are 53 respondents (85.5%). There were 53 respondents (85.5%) in the good category of method variables, and in the good category of material variables there were 56 respondents (90.3%). In the good category machine variable 53 respondents (85.5%), and the process variable with good category there are 53 respondents (85.5%). Furthermore, there were 54 respondents (87.1%) in the good category output variables and in the good category outcome variables there were 47 respondents (75.8%).

The results of the logistic regression statistical test on the tribal variable showed a sig. 0.840, which means that there is no ethnic influence on the implementation of Prong 3 in the PMTCT program. The B value, which is -0.049, is negative, which means that a pregnant woman's ethnicity has a negative influence on the implementation of prong 3 services in the PMTCT program and the odds ratio is 0.041, which means that a pregnant woman from any ethnicity, Javanese, Madura, Sundanese and so on, has a 0.041 chance of receiving prong 3 in the PMTCT program. Each ethnic group has different customs and culture, besides that it also gives rise to different health behaviors

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

858

because it is related to knowledge, beliefs, values and norms in their social environment, related to providing therapy, efforts to prevent disease based on their respective cultures[21]. The PMTCT program prong 3 implementation standards also do not exclude the ethnic diversity of pregnant women from joining/participating in this program so that this becomes one of the factors of ethnicity having no effect on the implementation of prong 3 PMTCT program.

The results of the logistic regression statistical test on the education variable showed a sig. 0.917 which means that there is no effect of education on the implementation of Prong 3 in the PMTCT program. The B value, which is 0.015, is positive, which means that the education of a pregnant woman has a positive influence on the implementation of prong 3 services in the PMTCT program and the odds ratio is 0.011, which means that either a pregnant woman has an education that is classified as high (up to high school/university graduation) or pregnant women who are classified as having low education have a 0.011 times chance of implementing prong 3 in the PMTCT program. Education is not only based on formal education, but also based on non-formal education (daily life). A pregnant woman with junior high school to tertiary education certainly has a different mindset, whether the mindset is good or not so that this is one of the factors in not influencing the education variable on the implementation of prong 3 of the PMTCT program.

The results of the logistic regression statistical test on the variables of pregnant women's work showed a sig. 0.711, which means that there is no effect of the work of pregnant women on the implementation of Prong 3 in the PMTCT program. The B value, which is -0.043, is negative, which means that the work of a pregnant woman has a negative influence on the implementation of prong 3 services in the PMTCT program and the odds ratio is 0.137, which means that both a working pregnant woman and a pregnant woman as a housewife have a 0.137 chance of implementing prong 3. in the PMTCT program. Both pregnant women who become housewives or pregnant women who work as civil servants, farmers, entrepreneurs and others will still be the target of the PMTCT program according to existing standards/guidelines. Pregnant women who work or are housewives both have the opportunity to check their pregnancy at the Puskesmas or other adequate health facilities. In addition, working mothers have 87 working hours which coincide with the working hours of health workers at the Puskesmas as well as pregnant women who are housewives who sometimes do not come to the Puskesmas because of several things that cannot be left behind. Several factors are the reason why the work of pregnant women does not affect the implementation of prong 3 of the PMTCT program.

4.   CONCLUSION

From the results of the research and discussion that have been described in the previous chapter, the following conclusions can be drawn: 1). The results of identification and analysis of aspects of the characteristics of pregnant women show that the majority of pregnant women are in their late teens and early adulthood with the majority being Javanese and Madurese, and junior high school graduates, as housewives with income <500,000. In addition, all respondents stated that they were married and the majority are multiparous (high parity). 2). The evaluation results of the characteristic aspects of pregnant women show that age, ethnicity, education, occupation, income, marital status and parity of pregnant women have no effect on the implementation of prong 3 of the PMTCT (Prevention Mother To Child Transmission) program in Antenatal Care Services (ANC) which is integrated with polyclinics. VCT at Jember District Health Center. 3). The results of the evaluation of the human aspects (human resources/human resources for health) from the Input component have an influence on the implementation of prong 3 of the PMTCT (Prevention Mother To Child Transmission) program in Antenatal Care Services (ANC) which is integrated with the VCT poly at the Jember District Health Center. 4). Evaluation results on the money aspect (funding) of the Input component show that the money aspect (funding) has an influence on the implementation of prong 3 of the PMTCT (Prevention Mother To Child Transmission) program in Antenatal Care Services (ANC) which is integrated with the VCT poly at the Jember District Health Center. 5). The

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

859

results of the evaluation of the method aspect (guideline method/SOP) of the Input component show no influence between the method aspect (guideline method/SOP) and the implementation of prong 3 PMTCT (Prevention Mother To Child Transmission) program in Antenatal Care Services (ANC) which is integrated with poly VCT at Jember District Health Center.

REFERENCES

[1] S. Suhartati and R. Amelia, "Implementasi Program Prevention Mother to Child Transmission (PMTCT) Di Puskesmas Kota Banjarmasin," *Din. Kesehat.*, vol. 9, no. 2, pp. 592–603, 2018.

[2] W. A. Marleni, R. L. Marsofely, and Yuniarti, "Implementasi Programpreventionmother To Child Transmission (Pmtct) Di Kota Bengkulu Tahun 2014," *J. Media Kesehat.*, vol. 9, no. 2, pp. 114–120, 2018, doi: 10.33088/jmk.v9i2.301.

[3] S. Mulyani and E. Novianti, "Hubungan Tingkat Pengetahuan Ibu Hamil Terhadap Perilaku Pencegahan Penularan HIV/AIDS," *J. Ilm. Kesehat.*, vol. 19, no. Mei, pp. 33–42, 2020.

[4] Y. Afsari and S. P. Dewi, "Evaluasi Pengelolaan Rumah Susun Sewa Karangroto Kota Semarang," *J. Riptek*, vol. 13, no. 1, pp. 71–78, 2019.

[5] N. U. R. Azis, "ANDROID BASED LIBRARY APPLICATION DEVELOPMENT USING SQLITE CRUD," *Intelektiva*, vol. 3, no. 9, pp. 149–158, 2022.

[6] N. A. L. Nurjanah and T. Y. M. Wahyono, "Tantangan Pelaksanaan Program Prevention Of Mother To Child Transmission (PMTCT): Systematic Review," *J. Kesehat. Vokasional*, vol. 4, no. 1, p. 55, 2019, doi: 10.22146/jkesvo.41998.

[7] J. Andri, A. Ramon, Padila, A. Sartika, and E. Putriana, "PENGALAMAN PASIEN ODHA DALAM ADAPTASI FISIOLOGIS," *J. Telenursing*, vol. 2, no. 2, pp. 1–12, 2020.

[8] N. Azis, A. S. Azzahra, A. Muditomo, U. A. Medika, and J. Timur, "Analysis Of Human Computer Interaction Approach In Pospay Application," *J. Mantik*, vol. 6, no. 36, pp. 1956–1963, 2022.

[9] A. Dewi and U. N. Karim, "Efektivitas Pelaksanaan Pedoman Who 2010 Tentang Pencegahan Penularan Hiv Dari Ibu Ke Bayi Di Puskesmas Kecamatan Koja Jakarta Utara," *J. Keperawatan Dirgahayu*, vol. 4, no. 1, pp. 31–38, 2022, doi: 10.52841/jkd.v4i1.216.

[10] N. Azis, G. Pribadi, and M. S. Nurcahya, "Analisa dan Perancangan Aplikasi Pembelajaran Bahasa Inggris Dasar Berbasis Android," *J. IKRA-ITH Inform.*, vol. 34, no. 4, pp. 101–108, 2020.

[11] N. Azis and B. A. Handoko, "Analisa dan Perancangan Aplikasi Pengadaan Barang di PT . Sintra," *J. Inf. Syst.*, vol. I, no. 2, pp. 38–42, 2021.

[12] K. Yoga, I. Siswanti, N. Azis, and E. Prowanta, "Determinant Factors Affecting Performance of Supply Chain in Pulp and Paper Industries During Pandemic Era in Indonesia," *Turkish J. Comput. Math. Educ.*, vol. 12, no. 3, pp. 4406–4409, 2021.

[13] N. Azis, Herwanto, and F. Ramadhani, "Implementasi Speech Recognition Pada Aplikasi E-Prescribing Menggunakan Algoritme Convolutional Neural Network," *J. Media Inform. Budidarma*, vol. 5, no. April, pp. 460–467, 2021, doi: 10.30865/mib.v5i2.2841.

[14] R. Vebrianto, M. Thahir, Z. Putriani, I. Mahartika, A. Ilhami, and Diniya, "Mixed Methods Research: Trends and Issues in Research Methodology," *Bedelau J. Educ. Learn.*, vol. 1, no. 2, pp. 63–73, 2020, doi: 10.55748/bjel.v1i2.35.

[15] N. Azis, "Perbandingan Dan Prediksi Kelulusan Mahasiswadengan Metode Algoritma Vfi," *Semin. Nas. Teknol. 2018*, pp. 847–852, 2018.

[16] M. L. . Meo, "Persepsi Ibu Terkait Pemanfaatan Pelayanan Antenatal Care Di Kota Kupang," *J. Kesehat. Reproduksi*, vol. 9, no. 2, pp. 79–86, 2018, doi: 10.22435/kespro.v9i2.935.79-86.

[17] D. L. Siregar and T. Agustini, "Pengaruh Fee Audit, Audit Tenure Dan Rotasi Audit Terhadap Kualitas Audit Di Bursa Efek Indonesia," *J. EMBA J. Ris. Ekon. Manajemen, Bisnis dan Akunt.*, vol. 8, no. 1, pp. 637–646, 2020.

[18] Y. Saputro and C. S. Pramudyo, "ANALISIS 5M (MAN , MATERIAL , MACHINE , MONEY & METHODE) DALAM PENGEMBANGAN TEKNOLOGI PERTAHANAN DI

INDONESIA (STUDI KASUS : PT LEN INDUSTRI),” no. November, pp. 96–103, 2022.

[19]   A. Nur Indrastuti, “Pemanfataan Pelayanan Antenatal Care di Puskesmas,” *Higeia J. Public Heal. Res. Dev.*, vol. 3, no. 3, pp. 369–381, 2019.

[20]   N. Azis and A. M. Rizki, “Rancang Bangun Aplikasi Penjualan Rumah Berbasis Android,” *J. Inf. Syst.*, vol. 1, no. 2, 2021.

[21]   S. Affandy, “Penanaman Nilai-Nilai Kearifan Lokal Dalam Meningkatkan Perilaku Keberagamaan Peserta Didik,” *Atthulab Islam. Relig. Teach. Learn. J.*, vol. 2, no. 2, pp. 69–93, 2019, doi: 10.15575/ath.v2i2.3391.

*Evaluation of the Prevention of Transmission from Mother to Child (PMTCT) Program in Antenatal Care Services (ANC) (Case Study Jember District Health Center)- **Dwike Primadita Rosanti** Et.al*

861