JURNAL SYNTAX TRANSFORMATION
Printed ISSN: 2721-3854 | Electronic ISSN: 2721-2769

Volume 5 , No. 1 January, 2026
p-ISSN 2721-3854 | e-ISSN 2721-2769

Effectiveness of the Malaria Control Program at Buana Clinic, Yohanis Kapiau Air Force Base, Mimika Regency

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ABSTRACT
This qualitative descriptive-analytical study examines the role of Buana Clinic at Yohanis Kapiyau Air Force Base (Lanud YKU) in malaria prevention, diagnosis, and treatment in Mimika Regency, a high-endemic area for malaria. The study focuses on service quality challenges (Reliability and Responsiveness) and the hybrid collaboration model. Data were collected through triangulation methods: observation, in-depth interviews with key stakeholders, and clinical documentation. The findings reveal that the Prevention Pillar, supported by the Civil-Military Cooperation (CIMIC) strategy, effectively implements vector control and net distribution interventions. However, the Diagnosis and Treatment Pillar faces significant challenges, with a high surge in malaria cases and a shortage of healthcare personnel, compromising Responsiveness and the critical 14-day follow-up treatment, jeopardizing clinical Reliability. The Hybrid Collaboration Model plays a critical role in managing the internal military population but needs further manpower support to sustain malaria elimination efforts. The study concludes that enhancing the internal curative capacity at Buana Clinic is essential to accelerate malaria elimination in Mimika.
Keywords: *Malaria; Buana Clinic Lanud YKU; ServQual; Reliability; Responsiveness; Civil-Military Cooperation (CIMIC)*

INTRODUCTION

Malaria remains a significant endemic health problem in Papua Province, including Mimika Regency, mainly due to hot and humid physical environmental conditions that support mosquito vector breeding (Mau et al., 2025; Price et al., 2020). This disease is transmitted through the bite of a female Anopheles mosquito infected with the parasite Plasmodium sp., causing Mimika Regency to become one of the areas with high malaria cases (Elyazar et al., 2015; Fadilah et al., 2022; Syafruddin et al., 2025). Factors such as high population mobility, especially from the immigration of workers to mining areas, complicate malaria prevention and control efforts in the region, as they can introduce new parasitic strains and expose non-immune individuals to infection. Global malaria elimination efforts face substantial obstacles, particularly in the Southeast Asian region. Despite a significant decline in cases between 2000 and 2015, the rate of reduction slowed dramatically to only 2% between 2015 and 2019, signaling stagnation in elimination initiatives. In Indonesia, the elimination challenge is most acute in the eastern region, which consistently accounts for the highest proportion of cases at the national level. The national elimination strategy prioritizes high-endemic areas requiring intensive and integrated interventions.

Mimika Regency, Papua Province, is one of the priority areas for high malaria endemism (Endemic Category III), with an Annual Malaria Parasite Rate (API) that is structurally above 100 per 1000 population . Although the Ministry of Health has advocated for strengthening malaria

control efforts in Papua through the provision of effective antimalarial drugs, malaria diagnosis training, and distribution of insecticide mosquito nets, the incidence of malaria remains high in many districts. Epidemiological pressures in the region have reached critical levels. According to the Mimika Health Office, a dramatic surge in cases occurred between January and mid-April 2023, with 31,381 malaria cases documented during this period alone (Bentum-Micah et al., 2020; Kassim et al., 2022). This overwhelming case burden has placed extraordinary strain on primary healthcare facilities and civilian referral centers. Community Partner Hospital (RSMM) and Wania Health Center reported thousands of cases within this compressed timeframe. Such conditions create an urgent demand for expanded health service capacity, encompassing both early detection (Passive Case Detection/PCD) and complete treatment protocols. Of particular concern is ensuring compliance with the 14-day Primaquine regimen, which is crucial for preventing relapse and aligns with national programs such as TEMPO KAS TUNTAS.

In the face of an endemic health crisis that threatens social and regional stability, the role of the Indonesian National Army (TNI) has become strategic as part of Military Operations Other than War (OMSP). Non-traditional threats, including infectious diseases such as malaria, are the main determinants of mortality during complex emergencies, making malaria control an integral part of a Human Security-oriented defense strategy. The presence of the Buana Clinic under the Yohanis Kapiyau Air Force Base (YKU Air Base) Timika represents a non-public asset that functions to provide comprehensive health services (preventive and curative) to the civil society, filling the service gap in areas with limited access.

Buana Clinic and its territorial element, the Aerospace Potential Coaching Corps (Babinpotdirga), have actively implemented the triple role (3P: Prevention, Diagnosis, and Treatment). In the prevention pillar, Babinpotdirga utilizes the military structure to carry out effective Civil-Military Cooperation (CIMIC), as evidenced by collaboration with the Mimika Health Office and the corporation (CHD PTFI) in vector spraying (rodapest) in the assisted areas and the distribution of mosquito nets (Sutanto et al., 2022; World Health Organization, 2023). However, Buana Clinic's contribution in the Diagnosis and Treatment (curative) pillar faces the challenge of internal capabilities. The analysis of service quality (ServQual) of the Timika Air Force health facility previously showed significant obstacles in the dimensions of Reliability (non-conformity of clinical SOPs) and Responsiveness (lack of health workers). This operational gap risks hindering the management of malaria diagnosis and treatment in accordance with the standards of the Indonesian Ministry of Health, which requires high precision and strict patient monitoring.

This research is essential. Research shows that inconsistent community behavior in prevention efforts and the assumption that mosquito eradication is the responsibility of health workers also contribute to the high number of malaria cases in endemic. Exceptional cases of malaria are often associated with environmental changes such as unmaintained shrimp or fish ponds, felling of mangroves, and clogged river estuaries, all of which provide ideal breeding grounds for Anopheles mosquitoes. Therefore, comprehensive interventions involving public education, improving environmental sanitation, and strengthening epidemiological surveillance

systems are essential to reduce the burden of malaria (Goossens et al., 2022; Marfai et al., 2021). This thesis aims to analyze in depth the hybrid collaboration model between the Indonesian Air Force, the Mimika Health Office, and Corporations, as well as evaluate the effectiveness of the 3P role of Buana Clinic, especially in the context of mitigating Reliability and Responsiveness weaknesses. The results of this study are expected to provide precise policy recommendations to optimize the role of military health facilities in the public health system, in order to accelerate malaria elimination in Mimika Regency and strengthen National Resilience.

Based on the background that has been explained, the formulation of the problem in this study is about the effectiveness of the malaria control program at the Buana Clinic of Yohanis Kapiyau Air Base. The purpose of this study is to analyze the extent of the effectiveness of the program in overcoming malaria in the area. Academically, this research aims to enrich the literature on the role of military health facilities in the public health system and civil-military relations in Indonesia. The study also offers an in-depth analysis of the application of Human Security theory in non-traditional defense contexts, focusing on how military assets, such as Clinics and Babinpotdirga, can support National Resilience through endemic disease control efforts. From a practical point of view, the results of this study are expected to provide operational recommendations for the TNI Headquarters and Koopsud III related to the Civil-Military Cooperation (CIMIC) optimization model in the health sector in endemic areas. This recommendation is also addressed to YKU Air Force Base to formulate a policy to improve service quality, especially in overcoming the problem of reliability and lack of health human resources (HR), so that Buana Clinic can make a more stable and reliable contribution to public services.

METHOD

This study uses a descriptive qualitative approach with a policy case study method to understand the complexity of military health policy implementation in Mimika, Papua. This qualitative research relies on the philosophy of postpositivism and is carried out through data triangulation, which involves observation, interviews, and documentation (Sugiyono, 2022). Researchers play a role as the main instrument in collecting qualitative data, which is in the form of words, sentences, and images (Sugiyono, 2022). A descriptive approach is used to describe the existence of an independent variable without comparison with other variables. The focus of this research is on the role of the 3P (Prevention, Diagnosis, and Treatment) of malaria and the factors that affect the quality of health services at Buana Clinic.

Data collection techniques involve direct observation in the field, semi-structured interviews with relevant informants, and documentation to obtain evidence that supports the research (Sugiyono, 2022b; Abdussamad, 2022). Informants were selected using purposive sampling techniques, including medical personnel, Babinpotdirga Buana Clinic, the Health Office, and the surrounding community. The collected data was analyzed using a qualitative data analysis method consisting of four stages: data collection, data reduction, data presentation, and conclusion drawing (Sari et al., 2022; Abdussamad, 2022). This process aims to produce a deeper understanding of the implementation of Buana Clinic's policies and contribution to malaria elimination.

RESULTS AND DISCUSSION

Program Understanding

1) Observation Results

The results of participatory and visual observations in the YKU Timika Air Force Base environment show that the implementation of the malaria control program is carried out in a structured manner and follows clear procedures. In vector control activities, collaboration between Babinpotdirga personnel and partner technical teams can be seen in the implementation of rodapest fogging in open and closed areas. The spraying process is carried out on the road, yard, as well as inside office buildings and barracks (Figure 1 and Figure 2).

Figure 1. Fogging Process in Barracks

Figure 2. The Fogging Process On The Road

Figure 3. Fogging Process

In addition, the procedure of mixing chemical liquids into the sprayer machine is carried out by technical personnel using personal protective equipment (PPE), which demonstrates an understanding of occupational safety standards and vector control techniques (Figure 4).

Figure 4. Process of Mixing Chemical Liquids for Foging

2) Interview Results

The understanding of the program was also affirmed by the Head of Buana Clinic who explained the flow of malaria services according to the Ministry of Health's standards:

"Any patient who comes with fever symptoms, or has a history of fever within 48 hours and is in the endemic area of Mimika, must be suspected of malaria. The flow starts from symptom screening, followed by malaria blood tests."(Interview of the Head of Clinic, n.d.-a)

Babinpotdirga also showed a clear understanding of his role in malaria prevention programs:

"Our role is to carry out Military Operations Other than War (OMSP) in the field of Human Security. We are the spearhead for vector control and mosquito net distribution."
(Interview with Babinpotdirga, n.d.-b)

3) Documentation Data

The Malaria Management Pocket Book document of the Ministry of Health of the Republic of Indonesia (2023) and the Buana Clinic's monthly case report are operational references in the implementation of the program, strengthening the consistency of understanding of program implementers.

Based on observations, interviews, and documentation, indicators of program understanding were assessed well, both at the clinical and field levels.

Target Accuracy

a) Observation Results

Observations showed that fogging and spraying activities were focused on areas with high human activity in the YKU Air Force Base and the Babinpotdirga assisted areas (Figure 4.1 and Figure 4.2). The distribution of mosquito nets was carried out directly to civil society, especially construction workers and vulnerable groups (Figure 5 and Figure 6).

Figure 4. Distribution of mosquito nets

Figure 5. Distribution of mosquito nets

b) Interview Results

Babinpotdirga explained that the determination of intervention targets is carried out selectively:

"Distribution is carried out door-to-door or centrally, ensuring mosquito nets reach the most vulnerable groups." *(Interview with Babinpotdirga, n.d.-b)*

Community leaders confirmed the accuracy of the program's objectives:

"We know from Babinpotdirga who came directly to our environment. The mosquito nets were indeed distributed to workers and families in need."*(Interview with Community Leaders/Patients, n.d.-c)*

c) Documentation Data

Data from the Buana Clinic shows that 89.1% of new malaria cases in October 2025 came from the military, with the predominance being 21–30 years old (Table 1).

Table 1. Distribution of New Malaria Cases at Buana Clinic by Status and Strata (October 2025)

Strata	Number of New Cases	Total Percentage of New Cases (46)	Status	Source
Enlisted	26	56.5%	Military	(Buana Clinic Monthly Report, 2025b)
Officers	9	19.6%	Military	(Buana Clinic Monthly Report, 2025b)
Bintara	6	13.0%	Military	(Buana Clinic Monthly Report, 2025b)
Family	5	10.9%	Civil	(Buana Clinic Monthly Report, 2025b)
Age Group 21-30 Years	29	63.0%	Dominant	(Buana Clinic Monthly Report, 2025b)

This strengthens the relevance of the program's goals focused on the productive and active age group at YKU Air Base. The accuracy of the program's objectives was considered effective, because the intervention was directed at groups and areas at high risk of malaria.

Punctuality

1) Observation Results

The implementation of fogging is carried out according to a collaborative schedule with the Health Office and partners. At Buana Clinic, health checks and internal vaccinations are carried out regularly to maintain the health readiness of TNI AU personnel (Figure 4.7, Figure 4.8, and Figure 4.9).

Figure 6. Vaccination

Figure 7. Health and Vaccination Check Card

2) Interview Results

The Head of the Clinic explains that treatment is given immediately after diagnosis:

"We use RDT for rapid screening and microscopy for confirmation. Once positive, ACT was immediately given."*(Interview of the Head of Clinic, n.d.-a)*

However, the limitation of health workers has an impact on the timeliness of follow-up services:

"Our responsiveness is limited due to the lack of health workers... The queue is bound to happen."*(Interview of the Head of Clinic, n.d.-a)*

3) Documentation Data

The Indonesian Ministry of Health's Malaria Management Pocket Book (2023) requires monitoring of H-3 and H-28, which based on data and interviews have not been carried out optimally. Punctuality is quite effective in the early stages of service, but it is not optimal in the follow-up stage.

Achievement of Program Objectives

1) Observation Results

Vector control activities and mosquito net distribution show real efforts to reduce the risk of mosquito bites in the YKU Air Force Base and the target areas (Figure 1–5).

2) Interview Results

Community leaders stated the direct impact of fogging:

"After spraying, adult mosquitoes are significantly reduced over several days."*(Interview with Community Leaders/Patients, n.d.-c)*

3) Documentation Data

Despite a 48.3% increase in cases from September to October 2025 (Table 2), all cases received treatment according to national standards.

Table 1. Buana Clinic Case Trends (September-October 2025)

Metrics	September 2025	October 2025	Percentage Increase	Source
Total New Cases	31	46	+48.3%	(Buana Clinic Monthly Report, 2025a, 2025b)
New Military Cases	27	41	+51.8%	(Buana Clinic Monthly Report, 2025a, 2025b)
New Family Cases	4	5	+25.0%	(Buana Clinic Monthly Report, 2025a, 2025b)

The program's objectives are partially achieved, particularly on prevention and early treatment.

Real Change

1) Observation Results

The distribution of mosquito nets and fogging showed a marked change in the form of a decrease in the density of adult mosquitoes and an increase in individual protection during sleep.

2) Interview Results

Patients convey the benefits but also disadvantages of follow-up:

"I got DHP and Primaquin for 14 days, but after that no one asked me if the medicine had run out."

(Interview with Community Leaders/Patients, n.d.-c)

3) Documentation Data

The dominance of P. vivax cases (64 cases in two months) demands 14-day Primaquin adherence as a key factor in long-term change. Real changes are felt immediately, but their sustainability is still constrained by human resource limitations.

Table 3. Patterns of Malaria Types Based on Outpatient and Inpatient (September & October 2025)

Types of Malaria	September 2025 (RJ+RI)	October 2025 (RJ+RI)	Total Cases (2 Months)	Source
Tersiana (*P. vivax*)	33	31	64	(YKU Air Force SIKES Report, 2025a, 2025b)
Campur (*Mix*)	11	17	28	(YKU Air Force SIKES Report, 2025a, 2025b)
Tropic (*P. falciparum*)	6	3	9	(YKU Air Force SIKES Report, 2025a, 2025b)

Analysis of quantitative data from Buana Clinic shows a sharp increase in cases by 48.3% in one month. The majority of new cases (89.1%) are from the Military, with the Enlisted group and the age group of 21-30 years old as the most vulnerable population. This indicates that the productive and active age group at YKU Air Force Base is the focus of transmission. Clinically, infections were dominated by Tertiana Malaria (P. vivax) (64 cases in two months) requiring strict 14-day administration of Primaquin to prevent relapse, a finding that has critical implications for the Reliability and Responsiveness aspects of curative services.

The policy document (Pocket Book of Malaria Management of the Ministry of Health of the Republic of Indonesia) sets critical standards that must be adhered to by the Buana Clinic:

1. ACT:ACT (DHP) treatment should be given immediately after a positive diagnosis.
2. P. vivax *Treatment*: Primaquin must be given for 14 days to prevent relapse.
3. Reliability Monitoring: Outpatient treatment evaluation is conducted after 24 hours of treatment completion (Day 3) and Day 28. 14-day Primaquin adherence is a non-negotiable element for *P. vivax elimination*.

Based on the five effectiveness indicators, the malaria control program at the Buana YKU Air Force Clinic is considered quite effective, with the main strength in civil-military collaboration and target accuracy, as well as the main weakness in the responsiveness and reliability of treatment follow-up.

Data Triangulation

This data triangulation presents a synthesis of findings from three data sources (Observation, Interview, and Documentation) to answer the Problem Formulation (RM) of the research:

Table 4. Research Data Triangulation

Problem Formulation/Focus	Observation Data & Documentation	Interview Data	Synthesis of Findings
RM 1: Pillar of Prevention (Preventive)	Observation of rodapest *spraying activities* (Fig. 4.1-4.5) & distribution of mosquito nets (Fig. 4.6-4.8); Hybrid collaboration documentation (YKU & CHD PTFI Air Base, n.d.)	Babinpotdirga: Strong collaboration, quick and structured intervention (Interview, n.d.-b)	**Powerful and Effective.** Babinpotdirga's preventive role utilizes military assets (structure/logistics) to expand the range of interventions to civil society (*CIMIC),* becoming the strongest pillar of Buana Clinic in supporting *Human Security*.
RM 2: Diagnosis & Treatment (ServQual Challenge)	Doc. Quantitative: Cases increased by 48.3%, Majority *of P. vivax* (70%), Mandatory 14-day Primaquin (4.2.3)	Head of Clinic: Lack of Health Workers, *Limited Responsiveness*, Difficulty in *Follow-up* of Primaquin (Interview, n.d.-a); Patients: Long queues, less intensive 14-day surveillance (Interview, n.d.-c)	**Curative quality is threatened.** Limited human resources (*Responsiveness*) triggers the risk of *clinical reliability* failure (Taylor et al., 2019; Thriemer et al., 2017; White et al., 2016). The high prevalence *of P. vivax* requires 14 days of supervision, but the pressure of cases and the shortage of health workers hinder compliance with the standards of the Ministry of Health of the Republic of Indonesia.
RM 3: Hybrid Collaboration Model	Doc. Quantitative: Buana Clinic absorbed the load of 46 cases/month (4.2.3 A); Doc. Qualitative: There is formal collaboration (YKU & CHD PTFI Air Base, n.d.)	Babinpotdirga: Quick collaboration (Interview, n.d.-b); Head of Clinic: Need additional human resources from outside (Interview, n.d.-a)	**Adaptive Model.** Buana Clinic serves as a *buffer* for internal cases in the midst of Mimika's high endemism. The strength of collaboration lies in the preventive aspect (Supported by the TNI/Babinpotdirga), but the curative weakness (limited human resources) must be overcome through *the support of manpower* from the collaboration network.

The synthesis of the three data sources (Observation, Interview, and Documentation) shows a clear divergence between the preventive and curative capabilities of the Buana Clinic of Yohanis Kapiyau Air Base.

1. Prevention Pillar (RM 1): CIMIC Strength and Territorial Support

The findings of visual observation (Figure 4.1-4.8) directly support the statement from Babinpotdirga (Interview, n.d.-b) that the preventive role of the Buana Clinic is very effective. The

hybrid collaboration involving the Indonesian Air Force, the Health Office, and PTFI's CHD provides structural and logistical advantages that allow vector control interventions (rodapest) and mosquito net distribution to be carried out quickly and in a structured manner in the target areas. This aspect completely answers the first Problem Formulation and shows the real manifestation of the Human Security doctrine of the Indonesian Air Force.

2.Curative Pillar and Quality Challenge (RM 2): Responsiveness vs. Reliability

Triangulation revealed that the critical point of Buana Clinic lies in the quality of curative services, especially in the dimensions of Responsiveness and Reliability (Buana Clinic, n.d.). Documentation data (4.2.3 A) shows a massive spike in cases (48.3% in a month) and is dominated by P. vivax (70% of cases) among young soldiers (Enlisted Soldiers/21-30 years). This pattern of P. vivax cases requires 14-day Primaquin supervision and 28-day control (Ministry of Health of the Republic of Indonesia, 2023). However, an interview with the Head of the Clinic (Interview, n.d.-a) confirmed that the lack of health workers (low responsiveness) hampered the Clinic's ability to carry out a strict 14-day follow-up treatment. This limited human resource has a direct impact on the reliability of clinical services, which is then complained by patients (Interview, n.d.-c) through less intensive supervision, potentially causing a high relapse rate and hindering the elimination program of TEMPO KAS COMPLETUS.

3. Collaboration Model (RM 3): Buffer Cases with Capacity Deficits

The Buana Clinic acts as a safety valve (buffer) that absorbs the burden of internal malaria cases (military and family), thereby reducing pressure on the already burdened Mimika Civil Health Facility. Although the hybrid collaboration model works very well at the preventive level, the sustainability of Buana Clinic's contribution at the curative level is highly dependent on the ability of the collaboration to overcome the internal Responsiveness deficit, namely providing additional health workers, so that complete treatment management can be guaranteed (Fransisca et al., 2025; Rozi et al., 2024; Rozi et al., 2025).

The Preventive Role of Babinpotdirga in Supporting Human Security (RM 1)

The study confirms that countering endemic threats in Papua requires the integration of defense assets into the pillars of public health prevention, an essential manifestation of the *doctrine of Human Security*. Data from visual observations (Figures 4.1–4.8) and interviews with Babinpotdirga (*Interview, n.d.-b*) show consistency in the implementation of preventive interventions. Babinpotdirga plays a territorial role in vector control (*fast rodapes*) and distribution of individual protection (mosquito nets). The hybrid collaboration with the Health Office and PTFI's CHD (YKU & CHD PTFI Air Base, n.d.) provides the TNI AU's structural advantages, which are recognized by the public (*Interview, n.d.-c*) due to the speed and range of intervention.

The effectiveness of this role is in line with the concept of OMSP (Military Operations Other than War) (Military, n.d.), which functionally allows the Indonesian Air Force to be directly involved in public health issues. This is a real application of *Human Security theory*, where non-traditional threats such as malaria are addressed through defense assets. The military presence

(*CIMIC)* has also proven to be effective in building trust in Papua, which is a prerequisite for community empowerment programs. Thus, the prevention aspect is the strongest pillar of Buana Clinic in its contribution to National Resilience.

Implications of Case Patterns on Clinical Management (Reliability) (RM 2)

The success of malaria control in Mimika depends not only on accurate diagnosis, but also on the integrity of radical curative management, especially when faced with the high prevalence of *Plasmodium vivax* that threatens *clinical reliability*. Operational data (Table 3) show infection is dominated by Tersiana Malaria (*P. vivax*) (64 cases in two months) which is equivalent to about 70% of the total cases. The Indonesian Ministry of Health Standard (2023) requires *treatment of P. vivax* with Primaquin for 14 days and clinical/laboratory monitoring on Day 28 to prevent relapse. However, interviews with the Head of Clinic (*Interview, n.d.-a*) and Patient (*Interview, n.d.-c*) explicitly complained that limited human resources (*low responsiveness*) hampered the Clinic's ability to carry out a *rigorous 14-day follow-up of treatment.*

These findings replicate the results of previous research that identified *Responsiveness* as a weak quality dimension at the Timika Air Force Health Facility. In the context of malaria management, failure to guarantee 14-day Reliability Primaquin has an impact on elimination failure at the individual level (*relapse*) because *hypnozoites* are not eradicated. This shows that although the initial diagnosis can be assured of *accuracy* (Interview, n.d.-a), the operational capabilities of Buana Clinic are not optimal to support elimination programs that require complete treatment.

Sustainability of YKU Air Force Hybrid Collaboration Model (RM 3)

This study confirms that to address the high and complex endemism in Mimika, the Indonesian Air Force has adopted a hybrid collaboration model as a *strategic enabler*, but the sustainability of this adaptive model is largely determined by the network's ability to mitigate internal curative capability deficits. Through Operational Data (4.2.3 A), it can be seen that Buana Clinic absorbed 46 new cases in October, serving as a **safety valve (*buffer*)** for Mimika, which has a massive burden of civil cases. This collaborative model, which is strong in the preventive aspect (*Interview, n.d.-b*), faces a dilemma: effective contribution in one pillar (Prevention) is balanced by the risk of failure in the other pillar (Treatment) due to the internal weaknesses of the Buana Clinic (*Interview, n.d.-a*). This *weakness of Responsiveness* requires a solution that goes beyond a single military capability, namely the addition of human resources from a collaborative network.

Hybrid collaboration (Government-Military-Corporation) is an adaptive mechanism in complex endemic areas. According to the *Health Systems Strengthening* framework , the Indonesian Air Force must utilize its partnership network (Dinkes/Corporation) to obtain additional *manpower* so that *the responsiveness* and *reliability* of curative services can be increased. This increase in capability is a prerequisite so that the *role of Human Security* carried

out by Buana Clinic can be carried out in a complete and stable manner, instead of just being an incidental intervention.

CONCLUSION

The conclusion of this study shows that the role of prevention implemented by the Babinpotdirga of YKU Air Force Base through rodapest spraying and mosquito net distribution is very effective in expanding the range of interventions to the community level, overcoming geographical and logistical challenges in Mimika. Buana Clinic strives to carry out malaria diagnosis and treatment according to standards, but the quality of services is hampered by the lack of health workers which affects Responsiveness and Reliability, especially in the supervision of Primaquin treatment. Hybrid collaboration between the Government, the Military, and Corporations, involving the military, provides operational guarantees to support malaria elimination programs more stably. The suggestion for the Indonesian Air Force is to increase the ratio of health workers and conduct regular medical audits, while the Mimika Regency Health Office is advised to strengthen the integration of malaria surveillance data. Follow-up research is recommended to measure the quantitative impact of preventive interventions on reducing malaria incidence.

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