

MALARIA CONTROL AND MEDICAL SERVICES IN CILACAP UNDER DUTCH COLONIAL RULE IN THE EARLY 20TH CENTURY

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Abstract

This study examines health problems and healthcare services in Cilacap Regency in relation to malaria outbreaks during the Dutch colonial period in the early 20th century. Cilacap was known as the largest port in southern Java yet faced numerous complex health problems. This study employs the historical method, which is categorized into four stages: heuristics, source criticism, interpretation, and historiography. In analyzing the research problems, biopower theory is used, which positions the role of the Dutch colonial government in controlling biological aspects and public health. The findings of this study indicate that the health of Cilacap Regency's population was under threat from diseases, particularly malaria. Inadequate environmental conditions were one of the main factors in the spread of malaria. Furthermore, efforts to eradicate malaria through healthcare services remained limited. The Dutch colonial government's health interventions were solely aimed at serving their economic interests. This made Cilacap Regency one of the areas with the lowest quality of public health despite the implementation of the Dutch Ethical Policy and economic activities at Cilacap Port.

Keywords: Health Services, Cilacap Regency, Disease, Dutch Colonial Government.

INTRODUCTION

Health and health services are important and interesting issues which has recently gained attention from historians. This attention is closely tied to the recently health issues concerning the public, such as COVID-19, stunted growth, and cancer. To manage health issues, the government would improve health services. Health issues and health services have become interesting topics of discussion among historians, even since the Dutch colonial period. However, in previous historical works, the discussion was still focused on cities of the Dutch East Indies. Many towns and villages have not received attention from historians, which made it important for a discussion on health

issues and health services within a local locus to be had.

Cilacap Regency, located in the South Coast of Java, was an important region neglected in Indonesia's historical narratives. Zuhdi (2016) stated that Cilacap, as a remote region in the South Coast, did not have as active of trade than the Northern Coast of Java. Furthermore, Lopian (2016) stated that the South Coast was often deemed haunted (*angker*) because of myths and secrets developing among the Javanese people. This shifted the attention of historians towards the North Coast. However, behind the negative stigma, Cilacap had the largest port along the South Coast, especially in the Dutch colonial period. Furthermore, the Cilacap Port was one of the main ports in Java, where ships of various sizes were docked (De Locomotief, 1907). Furthermore, in the early 20th century, the Dutch Ethical Policy helped initiate modernization in various departments, such as education, irrigation, infrastructure, and modernization.

In the middle of the modernization of the early 20th century, malaria health issues affected Cilacap Regency. Malaria cases were found in several places in Cilacap Regency. A Banyumas resident, J.J. Helsdingen, in his report mentioned that cases of malaria were found in the coast of Cilacap Regency in the 1920s (Arsip Nasional Republik Indonesia, 1977). Furthermore, Stutje (2025) explained that, in Nusakambangan, some prisoners lived under extremely poor health standards; many of them contracted diseases. On the other hand, available health services were extremely limited. This issue is interesting to analyze, especially when compared to the role of health services in managing ill patients.

Based on previous studies, historical works discussing health in Cilacap Regency are still very limited. Zuhdi (2016), in his work, discussed the dynamics of Cilacap Port in the Dutch colonial period. Though it focused on maritime history, the study briefly discussed health facilities and malaria in Cilacap. However, discussion on health aspects was still limited because it was not the main topic of the study. Sugesti and Haryatmi (2022) identified *Plasmodium malariae* among the residents of Cilacap Regency. The study itself was not a historical study with a contemporary temporal discussion. Aside from the previously mentioned works, Hermawan (2016) discussed the Batavia-Cilacap railway line, Raharjo et al. (2025) discussed the lifestyle of Europeans in Cilacap Regency in the Dutch colonial period, and Stutje (2025) discussed the Nusakambangan Prison, which was administratively part of Cilacap Regency. Specifically, the previously mentioned works had not discussed Cilacap Regency's health services as the main topic.

Additionally, there are historical works that discuss health issues in the Dutch East Indies in a broader context. Boomgaard (1993), provides a historical and

sociological overview of the development of healthcare services in Java during the colonial period. Boomgaard critiques the traditional colonial medical history approach that tends to be curative or institutional, focusing only on the organization of colonial medical services and the success of health campaigns. On the other hand, the article by Wasino et al. (2025) discusses healthcare services in Medan, specifically tobacco plantations. The work concludes that the spread of disease in Medan was significantly influenced by segregative settlement patterns and labor stratification, thus revealing structural inequalities in the formation of medical policies and the distribution of healthcare services. Whereas Agustono et al. (2025), which specifically examines the issue of malaria in Semarang during the Dutch colonial period, explains how the factors that exacerbated malaria cases and the efforts made to eradicate malaria. Semarang was a major city on the north coast of Java with a large population and better facilities compared to Cilacap. This condition certainly reinforces the indication of differences in malaria cases and the policies implemented to address malaria between Semarang and Cilacap.

Based on this background and problems, this research focuses on Malaria Control and Medical Services in Cilacap Under Dutch Colonial Rule in the early 20th century. The temporal focus of this research is the early 20th century, which was known as the modernization period because of the Dutch Ethical Policy and the Dutch East Indies's participation within the global trade. To facilitate discussion, this research raises the following questions, how did the Dutch colonial government, which had authority and interests in Cilacap Regency, handle the malaria outbreak in the early 20th century. This research aims to contribute to the development of local historiography, particularly the history of Cilacap and health history.

METHODS

This research is historical research which uses the historical research method. According to Wasino and Hartatik (2018), the historical method is a system of correct methods to reach a historical truth. Procedurally, the historical method is classified into four steps: heuristics, criticism, interpretation, and historiography. Heuristics is the search for primary and secondary sources. The primary sources used in this research consist of contemporary published sources including *Memori van Overgave* (MvO), documents from *de Provinciale Waterstaat van Midden-Java, Volkstelling 1930*, and *Regeerings Alamanak Voor Nederlandsch-Indië 1933*. In addition, newspaper sources were used including *Sumatra-Bode, Pemandangan, De Amstelbode, De Avondpost, De Indische Courant, De Locomotief, De Preanger-Bode, Het nieuws van den dag voor Nederlandsch-Indië, Het Vaderland, and Soerabaijasch Handelsblad*. Meanwhile, the

secondary sources used in this research consists of other scientific articles and relevant books. The next step is criticism to produce credible data or information by substantively examining and weighing the sources (Gottschalk, 1950).

At the interpretation stage, the facts collected through source examination are then interpreted using environmental and health approaches. The environmental approach is used to examine how the environmental conditions of Cilacap Regency influenced the development of *anopheles* mosquitoes. In addition, the health approach is used to examine how medical responses were implemented in Cilacap Regency in dealing with the malaria outbreak. As the analytical framework for this research, biopower theory is used to understand how the Dutch colonial government played a role in regulating society's life in aspects of health and population. According to Foucault (2003), control over humans is understood in terms of human capacity as living beings, where biological aspects (health) of life are placed under state supervision, or at least there is a tendency toward state control over the biological domain of humans.

The Dutch colonial government's efforts to control the population's health aimed to ensure that port areas, plantations, and economic activities continued to operate effectively. Public health was not merely a medical matter, but part of the state's power strategy, population surveillance, and labor management. Therefore, the use of this theory at the interpretation stage analyzes how malaria eradication efforts in Cilacap Regency were inseparable from the interests of the Dutch colonial government. The interpretation would then produce historical facts to be synthesized in the historiography step, which would create a chronological and credible historical narration. In historiography, the message and aim of this research would be presented in the form of an article (Wasino and Hartatik 2018).

RESULT AND DISCUSSION

Regional Landscape and Demographic

Administratively, Cilacap Regency was part of Banyumas Residency (De Locomotief, 1938; Basundoro, 2020; Utomo and Putri, 2023). In the early 1930s, Cilacap Regency consisted of several administrative regions: Majenang, Sidareja, Cilacap, and Kroya Districts (*Regeerings Alamanak Voor Nederlandsch-Indië 1933, 1933*). Each district is divided into several subdistricts (*onderdistrict* or *kecamatan*). Cilacap Regency was led by a regent assisted by a viceregent (*patih*) and officials, which then led the districts, subdistricts, and villages. These officials were *Bumiputera* (indigenous).

Geographically, Cilacap Regency was located along the South Coast of Java. The South Coast directly faced the Indian Ocean with Nusakambangan, a large island.

The island protected Cilacap from the waves of the ocean, known for its size and ferocity. Meanwhile, several parts of the land in Cilacap Regency were swamps, which were common breeding grounds for malaria-carrying mosquitoes (Zuhdi, 2016). The north of Cilacap Regency were highlands. Large rivers also crossed Cilacap regency, which were used for transportation routes to distribute commodities from remote regions to Cilacap Port (Utomo and Putri, 2023).

In the early 20th century, Cilacap Regency had a relatively large population distributed across all its districts. The residents of Cilacap Regency consisted of the indigenous people, Foreign Orientals, and Europeans (Departement Van Economische Zaken 1936). The indigenous numbered the most in Cilacap Regency. Even so, the number did not determine their influence within the socioeconomic and political aspects of Cilacap Regency. In this case, the Europeans were Dutch and they had a strong influence (Rahardjo et al., 2025). Their position as first class citizens was one of the reasons of the European community's impact in Cilacap Regency.

The residents of Cilacap Regency lived in common residences like many other residences found in the Dutch East Indies. The residences were socially segregated, where each ethnic groups lived together within their own groups, such as the Chinese, Arab, and European communities. The Chinese lived in residences called *Chineesche Kamp* (Chinatown) (De Locomotief, 1930). Meanwhile, the Arab community lived in residences called *Arabische Kamp* (Arabtown). The European lived in strategic regions, such as city centers and around large factories. The European houses tended to be stately, equipped with luxurious appliances, and stood on spacious land. This was the opposite of the indigenous people's houses, most of which were simpler.



Figure 1. Residence of Assistant Resident in Cilacap (Source: https://digitalcollections.universiteitleidennl/view/item/904343?solr_nav%5Bid%5D=e1cc4d90934da512abfa&solr_nav%5Bpage%5D=0&solr_nav%5Boffset%5D=18).



Figure 2. Chinatown (*Chineesche Kamp*) in Cilacap (Source: https://digitalcollections.universiteitleiden.nl/view/item/863664?solr_nav%5Bid%5D=e1cc4d90934da512abfa&solr_nav%5Bpage%5D=0&solr_nav%5Boffset%5D=5).

In terms of livelihood, the Europeans dominated the government and industrial sectors. The highest government position within a residency was held by a Dutch official, as well as the position of assistant resident in Cilacap Regency (*Regeerings Alamanak Voor Nederlandsch-Indië 1933*, 1933). Furthermore, large companies operating in Cilacap Regency were also owned by the Europeans. Some of these companies included N.V. Cuultuur Mij. Tjokoekoen and N.V. Preanger Rubber Mij. (Wasino et al., 2013).

Meanwhile, most of the indigenous people were classified into 2 categories: the *priyayi* (Dutch-era nobles of the robe) and ordinary indigenous people. The *priyayi* worked in strategic sectors, such as the government sector (*Inlandsch Bestuur*) and trade, while the ordinary indigenous people worked as farmers, dockworkers, factory workers, and small-scale traders. This image highlighted how socioeconomic inequality existed then, so much so that even the Cilacap Port did not affect the prosperity of the indigenous people (Leirissa, 2002).

Nevertheless, most of Cilacap Regency's economy was concentrated in coastal areas, which were largely swamps prone to becoming mosquito breeding grounds. In addition, many indigenous people living in the squalid coastal areas worked as laborers with low welfare levels (Zuhdi, 2016). These conditions were further exacerbated by population explosions that were not accompanied by significant improvements in welfare and environmental conditions. The high population and low levels of welfare could trigger the emergence of slum settlements that are prone to disease outbreaks. Therefore, demographic conditions could affect various aspects of life, including the

population's health.

Malaria Health Issues

The environment in Cilacap Regency was known to be lacking in supporting the health of its residents. Some areas were swamps and its residents lived under subpar condition. Cilacap Regency was also vulnerable to flooding, which further damaged the environment and caused malaria-carrying mosquitoes to develop. Some infectious diseases were present in Cilacap Regency along the 20th century. This health issue was recorded in newspapers and official government reports. In 1901, *De Locomotief* reported Cilacap Regency as a malaria-prone area, so much so that Cilacap Regency was deemed to have similar condition as other regions affected by malaria, such as Surulangun in Sumatra (De Locomotief, 1901). The terrible health condition because of malaria was also reported by a newspaper on a story of Mulder, a teacher, who moved to Cilacap Regency in 1910 (Algemeen handelsblad voor Nederlandsch-Indië 1929).

Cilacap Regency was affected by malaria in several different time periods, such as 1906-1907, 1918-1919, and 1935. The high number of malaria cases in 1906-1907 was reported by some newspapers, such as *Het Vaderland*, *De Avondpost*, and *Soerabaijasch Handelsblad*. In January 1907, a doctor in Cilacap Regency, and in several areas such as Majenang, reported that the number of deaths because of malaria in November-December 1906 and January 1907 reached 10% of the population each year (De Avondpost, 1907). Dr. Vogel also reported that Cilacap Regency was affected by malaria worse than Semarang, with the number of deaths reaching 10% of Cilacap Regency's population (Soerabaijasch Handelsblad, 1907).

Europeans enlisted in the Dutch colonial army were also affected by malaria. Most soldiers consistently contracted malaria, while those not infected were in weak physical condition. This was clearly observed on long-term drills, where many soldiers had to stop on the first day because of health issues. On some occasion, the drills planned to go for multiple days had to be cut short because of the high number of ill soldiers (Het Vaderland, 1907). This forced the Dutch colonial government to rethink its plan of building barracks in Cilacap Regency.

In 1918-1919, a massive increase in malaria cases were accompanied with influenza. Based on a report in 1919, the environment condition in Cilacap Regency was extremely terrible. Trash was gathering on the sides of the streets while mosquitoes were flying rampant (Sumatra-Bode, 1919). The number of deaths because of malaria was still extremely high in late 1919, though it was not as high as previous years (Het nieuws van den dag voor Nederlandsch-Indië 1919). However, among the deaths, the government denied the existence of repeated deaths in Cilacap Regency. Based on

reports from newspapers, however, the number of malaria cases and deaths caused by malaria were high. Even so, statistical data supporting the reports were difficult to obtain. Regardless, some news and reports from health workers stated that Cilacap Regency was a malaria-prone region.

In 1935, malaria cases increased. The increase in malaria cases occurred at the beginning of the year when the rainy season took place. The high number of malaria cases in early 1935 was widely reported by newspapers, but data on the number of cases and deaths were not presented. The Chief of Public Health Services (*Dienst der Volksgezondheid*), dr. Theunissen, assisted by local doctors, investigated why malaria cases increased in that year. The number of malaria cases reported was constantly increasing, such as reported in Kroya District (Pemandangan, 1935). However, malaria cases were reported to decrease in March 1935 until the end of that year (De Indische Courant, 1935; Het nieuws van den dag voor Nederlandsch-Indië, 1935). Though the malaria cases decreased, Cilacap Regency was still affected by malaria in the coming years.

The high number of malaria cases and the impact they caused in Cilacap Regency were widely known by the population of the Dutch East Indies. This led other areas affected by large-scale malaria outbreaks to be compared with Cilacap. As happened in Sorolangun, where malaria cases increased significantly in 1901, the newspaper *De Locomotief* (1901) then stated that Sorolangun was a malaria-prone area comparable to Cilacap. The issue of Cilacap Regency as a malaria-prone area continued to persist in the 20th century, as evidenced by the high number of malaria cases occurring in that area. This reinforces how malaria cases occurred in high numbers in Cilacap, even though the population growth in Cilacap was not as great as in Semarang, which was a major industrial area supported by the Port of Semarang, a class 1 port at that time (Agustono et al., 2025; Zuhdi, 2016; Sulistiyono, 2003).

The Role of Health Services in Malaria Control

The Dutch colonial government institutionally gave the authority of health management to the Civil Health Services (*Burgerlijke Geneeskundige Dienst*), which became Public Health Services in 1925 (*Dienst der Volksgezondheid*) (Kurniawan and Agustia, 2021; Luwis, 2020; Jaelani, 2017). The Public Health Services was under the control of the Dutch colonial government, which placed medicine-educated Dutch people as leaders. The responsibility of the Public Health Services was, among others, to carry out health investigations, to carry out health management, and to write health reports. The Dutch colonial government also had a role in health management through its health-related policies.

In dealing with the malaria outbreak, the government implemented medical treatment policies for malaria patients. Hospitals were the basic health infrastructure in the Dutch East Indies. Cilacap Regency had a military hospital (Zondervan 2016). While initially reserved for the military, the hospital began servicing the public in 1896 (Zuhdi, 2016). The hospital treated patients infected with diseases in the early 20th century. However, the service of Cilacap hospital was not representative of the actual need for health services, as the hospital had minimal health facilities compared to hospitals in other regions of Banyumas Residency, such as Gombang, Purwokerto, and Purbalingga (De Preanger-Bode, 1916). Because of this, the Cilacap hospital could not handle the high number of patients infected with diseases.



Figure 3. Military Hospital in Cilacap (Source: <https://historicalhospitals.com/military-hospitals/garrison-hospital-cilacap/>).

In the middle of limited health facilities, the Dutch colonial government used medicine to manage infectious diseases. To manage malaria, cinchona pills were freely distributed by the government in 1935 to manage increasing malaria cases in Cilacap Regency (“Kolonial Verslag van 1916”). Another distribution was also done in 1935 for the same purpose (De Indische Courant, 1935). Hundreds of cinchona pills were distributed to residents of Cilacap District, the population of which reached 145,000 (Pemandangan, 1935). The medicine was freely distributed because the indigenous people were poor and could not afford medicine. This view also showcased another side of life in Cilacap Regency in the colonial era; the residents not only had to endure infectious diseases, but also live in poverty.

The government also repaired infrastructure, such as repairing the sanitation in Cilacap Regency. The spread of malaria and cholera was tied to sanitation, so the repair was also aimed to manage the diseases, because one of the main ways to eradicate malaria was to keep the environment clean, including irrigation (Zuhdi, 2016). In the latter half of the 1920s, Public Health Services expended f 700,000 to repair sanitation in Cilacap Regency. This repair included the sanitation in the lowlands of the Yasa River banks, closing ditches where mosquitoes bred, and drying out the area along Panggang River (Arsip Nasional Republik Indonesia, 1977). Furthermore, the government carried out small-scale sanitation repairs in hamlets with a budget of f 10.000. Repairs were also carried out in Nusakambangan Island in 1929 (Het nieuws van den dag voor Nederlandsch-Indië, 1929).

Sanitation improvements continued to be carried out intensively by the Central Java Provincial Government through *De Provinciale Waterstaat van Midden-Java* in the late 1920s to early 1930s (Dinas Kearsipan dan Perpustakaan Provinsi Jawa Tengah, 1932). Sanitation improvements were carried out extensively in densely populated coastal areas near the port. In addition to improvements, the government also carried out the construction of sanitation infrastructure, as was done in the early 1930s, which began with the release of land rights for assainering. One of the areas included in this project was Tambakrejo (Dinas Kearsipan dan Perpustakaan Provinsi Jawa Tengah, 1933). Sanitation projects (*assaineringwerken*) were also carried out by *De Provinciale Waterstaat van Midden-Java* in 1933. A budget of f 500 was allocated for leveling land that was likely swamp in the harbor area (Dinas Kearsipan dan Perpustakaan Provinsi Jawa Tengah, 1933). This sanitation improvement and construction project or assainering was a fairly bold action taken by the government amid the pressure of the 1930s economic depression that collapsed the global economy. However, the regional government and Public Health Services did not consider sanitation repair to bring significant results. However, the regional government and Public Health Services did not consider sanitation repair to bring significant results.

More preventative methods were carried out by deploying teachers to lecture the public about health. This was initiated by dr. Gothein with the help of dr. Angka, dr. Umar, and others (Arsip Nasional Republik Indonesia, 1977). Courses were held in Cilacap, Kroya, Banyumas, Purwokerto, and Banjarnegara. Those who had followed the courses were then deployed further to inform the public. The health lecture, which was also propaganda, was delivered with illustration to facilitate the spread of information. Furthermore, health education was given to orderlies and placing them in several regions, such as Cilacap, Sidareja, Kroya, and Sumpiuh Districts (Arsip Nasional Republik Indonesia, 1977).

Regardless of various efforts carried out by the government and Public Health Services in managing infectious diseases, Cilacap Regency's health services and infrastructures were still subpar. This was not only because of limited health facilities, but also because of the Dutch Ethical Policy applied by the Dutch colonial government, which introduced reforms aiming to improve health of the indigenous people. However, social structures, which enabled segregation, prioritized the health of Europeans as first class citizens (Hartatik et al., 2025). Discriminative factors also contributed in health practices where the indigenous people were discredited as lower class citizens within the Dutch East Indies's social structures.

CONCLUSION

The malaria outbreak in Cilacap Regency was an important issue that had an impact on social and economic fields. Although malaria cases were not qualitatively widely reported in newspapers, the impact of the outbreak was reported by various newspapers. The swampy environmental landscape and the existence of slum settlements around the coast were important reasons why malaria could spread over a relatively long period. The government then took steps to eradicate malaria with a modern medical approach, especially through the provision of medicine and medical services. Nevertheless, this treatment did not work optimally because malaria periodically continued to spread in Cilacap Regency. This failure was driven by the government's orientation toward colonialism and capitalism, so malaria eradication was merely to fulfill those interests. This was shown through the limitations of medical service facilities and continued economic exploitation. The government apparently did not want to address malaria optimally because it considered profit and loss factors that were economic in nature. These conditions caused Cilacap Regency to become one of the areas with low public health levels amid the implementation of the Dutch Ethical Policy and the development of economic activities on the Cilacap coast.

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