

PLAGUE MANAGEMENT IN PALEMBANG: COLONIAL MEASURES AND THE ROLE OF LOCAL COMMUNITIES 1821-1942

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Abstract

This research examines the responses of the Dutch colonial government and local communities to disease outbreaks in Palembang between 1821 and 1942. As a major trade center in Sumatra, Palembang was frequently exposed to epidemics such as cholera, smallpox, beri-beri, typhoid, and anthrax. The colonial government adopted a top-down biomedical approach through vaccination campaigns, construction of military and missionary hospitals, and limited health education. In contrast, local communities developed alternative responses rooted in traditional medicine, spiritual practices, and cultural rituals, including the use of herbal remedies, mantras, and community-based ceremonies like Rebo Kasan and Sedekah Bedusun. by analyzing colonial archives, health reports, oral traditions, and local manuscripts, this study reveals that although colonial policies dominated the formal medical discourse, they often failed to replace indigenous health practices. Instead, a complex negotiation emerged, where limited accommodations were made such as the integration of native medical personnel and selective toleration of local healing methods. The findings show that the plague functioned as a contested site of power and knowledge, reflecting broader dynamics of colonial governance and local resistance. This research contributes to the historiography of colonial medicine in Southeast Asia by addressing a geographical gap outside Java and demonstrating the significance of intercultural responses in shaping public health outcomes in colonial Palembang.

Keywords: Dutch, Colonial, Palembang, Biomedical, Plague.

INTRODUCTION

European colonization brought sweeping transformations to colonized societies not only in political and economic terms, but also in the field of public health. Disease outbreaks such as cholera, malaria, and smallpox were viewed by colonial authorities as biomedical crises demanding systematic intervention (Arnold, 1993). In response, the Dutch colonial government introduced medical infrastructure, vaccines, quarantine systems, and chemical treatments. These responses, grounded in Western medical science, reflected a civilizing mission that positioned colonial health interventions as instruments of modernization (Pols, 2018).

In contrast, local communities often perceived epidemics through spiritual and cosmological frameworks, responding with herbal remedies, spiritual healing, and

shamanic rituals—practices frequently dismissed by colonial officials as superstition (Boomgaard, 2007). Such tensions between colonial and indigenous medical systems were not unique to Indonesia, but were a common pattern across colonial Asia, where Western medicine often clashed with established local epistemologies (Heylen, 2011).

Palembang offers a particularly compelling case study for exploring this dynamic. As a major administrative and trading hub in Sumatra, the city was highly susceptible to the transmission of disease due to its riverine geography and intense population mobility (Reid, 2011). Yet, beyond its vulnerability to epidemics, Palembang's pluralistic society with its mix of Islamic scholarship, colonial presence, and resilient traditional practices makes it a rich site for examining the interaction between colonial medical policies and local responses.

While existing studies have focused heavily on Java and Batavia, there remains a historiographical gap concerning how colonial health interventions played out in Palembang. This research addresses that gap by analyzing how colonial and local actors in Palembang conceptualized, experienced, and responded to epidemic diseases between 1821 and 1942. By critically engaging Dutch archival records and reconstructing indigenous narratives through oral histories, traditional manuscripts, and folklore, this study maps the dialectical relationship between colonial public health measures and local resistance or adaptation. This interdisciplinary historical inquiry aims to contribute to a broader understanding of how health, power, and culture intersected in colonial Sumatra, revealing how local communities negotiated their agency within a landscape dominated by imperial medical authority.

Based on these considerations, this research seeks to answer the following main research questions: How did the colonial government and local communities in Palembang conceptualise and respond to epidemic diseases between 1821 and 1942?

Therefore, the objectives of this study are:

- i. Examine the nature and implementation of colonial public health policies in Palembang during major disease outbreaks such as Cholera, Smallpox, Beri-beri, Typus, Anthrax
- ii. Analyze the cultural, spiritual, and medical, responses of local communities to these outbreaks
- iii. Explore how colonial and indigenous responses interacted-whether in the form of tension, resistance, or accommodation-in shaping the broader landscape of epidemic management in colonial Palembang.

LITERATURE REVIEW

The study of the history of disease outbreaks in Indonesia is a rich and complex topic, reflecting the interaction between ecological, social and political factors. Among the various regions in Indonesia, Java tends to be the main focus of Epidemic history research. This phenomenon is due to several historical factors, demographics, and greater availability of data compared to other regions. Research related to disease outbreaks in Indonesia in the historical context of the colonial period in the last 10 years, is dominated by research on outbreaks that occurred in Java as the center of colonial power, which focuses on health services that emerged during this period, such as vaccines, health workers and so on.

In addition, from 2006 to 2019, there was minimal research on epidemics specific to a region, but rather epidemics in the context of the entire Java region. Some research does show regional specifications, but still within a very broad scope, and a different region from the context of colonial rule.

Java's Dominance in Colonial Epidemic Historiography

Most research on colonial epidemics is concentrated in Java. This is due to the availability of archival sources, population density, and the administrative position of this region as the center of government. This is reflected in historiographical products such as (Nasihin, 2021), which examines the distribution patterns of diseases in Java, including Cholera,

Smallpox, Malaria, and Tuberculosis in the 18th-19th centuries. A similar study was also conducted by (Pradjoko, 2021), which focused on the spread of epidemics in the Java Sea region through economic and demographic activities (Syahru, 2023) examined the epidemic more specifically, focusing on the spread of Cholera in Batavia in 1900-1920. On the other hand (Rohayati, 2020), documents the development of various types of diseases in Cirebon during the colonial period, from Malaria, Cholera, to Leprosy, and details the victims and government control efforts.

In addition to studies related to History, as well as patterns of the spread of disease outbreaks, Javanese Domination in the Historiography of colonial epidemics, is also illustrated in studies related to responses to the epidemic, such as policies related to Sanitation, the use of vaccines, treatment, and the involvement of indigenous medical personnel, such as the writing (Muslimah, 2016) which reviews in detail the Cholera outbreak in East Java in 1918-1927, based on colonial reports containing data on casualties in Java and Madura. This study also describes the types of drugs concocted by colonial doctors such as Dr. Schneider and Dr. Martinus, as well as the dosage adjusted to the patient's age.

Another study by (Setiawati, 2018) shows the success of the colonial government in suppressing Cholera in Surabaya through vaccination, improving city infrastructure such as drainage, sanitation and clean water. This effort also had an impact on the overall arrangement of the city. Meanwhile (Achdian, 2020) examines how disease control can be present through protests in the form of petitions submitted by residents to the colonial government known as the *Watervoorziening Soerabaja* petition in 1897, which was finally granted by the colonial government in 1903.

Shifting Focus to Outside Java and the Local Dimension

Despite the dominance of Java in the historiography of colonial epidemics, several important studies have also been conducted in other areas under Dutch East Indies rule, albeit very limited in number. These studies are important because they offer a different perspective on the spread of the disease and the response of communities and colonial authorities outside the colonial administrative center.

One important study on epidemics outside Java is the work of (Setiawan, 2022) entitled *History and Experience of the People of Central Sulawesi Facing the Influenza Pandemic 1918-1920*. This paper highlights the global influenza outbreak (Spanish flu) that reached Central Sulawesi but escaped the serious attention of the Dutch East Indies government. As a result, the death toll increased dramatically in various regions such as Donggala, Palu, Napu, Besoa, Poso, and Kulawi. The huge impact of this pandemic is recorded in the oral culture of the community, such as the song *Randa N Tovea*, which tells the story of a nobleman's son who was infected and exiled so as not to transmit the disease. This research makes an important contribution to understanding how local communities frame the plague in their collective and cultural memories.

Another study came from (Rachmawati, 2014) who wrote about Leprosy in Bangkalan in 1934-1939. This study traces the causes of the leprosy epidemic in an area that was then crowded with a slum and lacking clean water. The handling of the disease was done through a medical approach by the colonial government by sending leprosy specialists and other health workers. On the other hand, the native community also relied on traditional medicine using *bidara upas* tubers, although its effectiveness was questionable. This study shows a dualistic pattern of epidemic management between colonial intervention and local practices, which was also seen in other areas such as Palembang.

Meanwhile, (Arsa, 2015), in the article *The Spread of Plague and Anticipatory Actions of the Colonial Government in Sumatra's Westkust (1873-1939)* discusses various diseases that attacked the west coast of Sumatra, such as smallpox, cholera, dysentery, malaria, beriberi, tuberculosis, and mental illness. Arsa explained how environmental conditions, population density, and lack of sanitation were factors that caused the outbreak. The colonial government responded by establishing hospitals and providing vaccines, showing

an institutional response to the health crisis outside Java. A study on the Cholera Outbreak in Jambi Prefecture 1909-1924 by (Trijayanti, 2021) examines how the disease spread from the city of Jambi to surrounding areas that were the center of colonial plantation activities.

It also emphasizes the importance of geographical factors, especially the presence of the Batanghari River as a major transportation and economic route, in the spread of the disease. In addition to providing information about the conditions in Jambi, this study is also relevant for understanding the dynamics of the epidemic in Palembang, given the geographical proximity and economic relations between these regions.

Interestingly, writings related to colonial epidemics outside Java contain more dimensions of locality, such as the writing (Setiawan, 2022), which also explores how the influenza pandemic is remembered in the collective memory of the people of Central Sulawesi, such as in the stories of Jua Ropu and Hiropu Lele. These local narratives are an important historical resource in tracing indigenous experiences in dealing with the epidemic and show that responses to the outbreak were not only reflected in medical policies, but also in the cultural and spiritual practices of the community.

Palembang's Historiographical Lacunae and the Significance of Research

From the literature review that has been sorted previously, it appears that studies related to disease outbreaks in colonial Indonesia tend to be epidemics that occurred on the island of Java, as the center of the Dutch East Indies government. Although there are some studies related to disease outbreaks on the islands of Sumatra and Sulawesi, the number is very small compared to research centered on Java.

The tendency of historical research on disease outbreaks in Java reflects demographic, historical, and data accessibility factors that are better than other regions in Indonesia. However, it is important to expand research to other regions to understand the dynamics of disease outbreaks nationally. This will not only provide a more complete perspective but also enrich the understanding of human, environment and disease interactions in Indonesia as a whole.

The history of epidemics in colonial Indonesia has been an important focus of research, especially in areas with significant documentation and impact of outbreaks, such as Java. However, attention to the history of epidemics in other regions, including Palembang, has been relatively neglected. This historiographical void creates gaps in our understanding of the dynamics of disease outbreaks, community responses, and the influence of colonialism on public health in the area.

The absence of in-depth research on the history of epidemics in colonial Palembang creates a gap in Indonesian historiography. Filling this gap will not only enrich the narrative of health history in Indonesia but also help understand the impact of the plague on an under-explored region. By engaging a variety of sources and methods, research in Palembang can provide a broader perspective on how the plague shaped the course of people's history in Sumatra.

METHODOLOGY

This Research uses the historical method, comprising four main stages: heuristics (source collection), source criticism, interpretation, and historiography (Gottschalk, 2008; Abdurrahman, 2007). The research aims to reconstruct the epidemic history in Palembang (1821-1942) by analyzing both colonial and local responses to disease outbreaks, including cholera, smallpox, beri-beri, typhoid, and anthrax.

Heuristics (Source Collection)

Sources were obtained from: Colonial archives: Koloniaal Verslag, Staatsblad, Dutch newspapers, and official medical reports housed in ANRI, Delpher, and the digital collections of Leiden University.

Local materials: Oral traditions, traditional healing manuscripts (e.g., Mujarobat, Kaghas Manuscripts), folklore practices (e.g., Rebo Kasan, Sedekah Bedusun), and secondary literature on local health rituals and disease management.

Source Selection Criteria

Sources were selected based on the following criteria: Chronological relevance, covering the period between 1821 and 1942.

Thematic alignment with the research focus: disease outbreaks, health policies, and local healing practices.

Representativeness: effort was made to balance state-centered (colonial) narratives with indigenous/local perspectives to reflect the pluralistic nature of responses to epidemics. To ensure diversity of perspectives, the study combines written colonial records with orally transmitted and manuscript-based local knowledge.

Source Criticism

Criticism was conducted on two levels: External criticism: to verify the authenticity, origin, and authorship of documents. Internal criticism: to assess content credibility, detect colonial bias (e.g., portrayal of local practices as “superstition”), and evaluate consistency with other sources. Oral sources and manuscripts were triangulated with archival evidence to reduce subjectivity and mythologization.

Limitations and Biases of Sources

Colonial documents often reflect Eurocentric and technocratic biases, emphasizing public health as a tool of control while minimizing or dismissing local agency and knowledge. For instance, traditional healing, spiritual practices, and local hygiene rituals are often described as irrational or unscientific. Meanwhile, oral traditions and manuscripts, although invaluable for capturing local responses, pose challenges in terms of memory reliability, symbolic exaggeration, and lack of exact chronology.

Interpretation

Interpretation involves situating epidemic responses within broader frameworks of colonial governance, local resistance, social structure, and spiritual worldviews. The study examines how epidemics became arenas of negotiation between imposed biomedical models and indigenous healing logics.

Historiography

The historiographical approach emphasizes analytical narrative, combining chronological reconstruction with thematic analysis. Rather than portraying disease as merely a medical issue, the study interprets outbreaks as sites of power, conflict, and cultural resilience, where knowledge systems collided and interacted. The historiography contributes to a more inclusive understanding of health in colonial Southeast Asia, particularly in underrepresented regions like Palembang

DISCUSSION

Epidemic in Palembang 1821-1942

Cholera

The cholera outbreak was recorded to have started in Palembang since the Palembang Expedition II was launched by the Dutch colonial government in 1821. Based on a primary source entitled *Over de Asiatische Cholera, uit eigene Waarnemingen en echte Stukken*, which states that several of soldiers from Java involved in the expedition had shown symptoms of cholera during the voyage to Palembang. Although when the expedition ships arrived in the Palembang area, the health of the soldiers had improved and no casualties were recorded during the voyage, this situation did not last long (Blume, 1831).

Shortly after the landing, cholera returned and caused an even greater number of casualties. This was exacerbated by the physical condition of the soldiers, who were exhausted from heavy labor on the ship. They were exposed to cholera through the water of the Musi River, especially when doing loading and unloading activities and setting up camp around the river. The spread of the disease was exacerbated by natural conditions: the low tide of the Musi River hampered the movement of large warships, so they had to wait until the tide came in, extending the soldiers' contact time with the polluted environment (Dommelen, 1857). After the Palembang Expedition was carried out, the cholera epidemic did not infect the community permanently but sporadically appeared once a year.

Table 1: Victims of the Cholera Epidemic in Palembang 1821-1942

Year	Location	Infected	Died	Description
1821	Palembang	171	90	Infected Dutch Soldiers on the Palembang expedition ship
1852	Palembang	No exact number	No exact number	In this year, there was a population decline in Palembang due to the cholera and smallpox epidemics. The many expeditions carried out by colonials to inland areas were the cause of the spread of the plague and the resistance of local communities that occurred in several areas made it difficult to vaccinate the epidemic, causing many victims.
1850-1860	Palembang	No exact number	307	Infecting cholera-infected pilgrims in Jeddah or in transit
1915	subdivisi Lematang Hilir, Pasemah, Ogan dan Komering Hulu, dan pusat kota Palembang	814	179	Accompanied by outbreaks of smallpox, foot and mouth disease, drought, and crop disease
1918	Muara Enim	Unknow	Unknow	Affecting the mining coolies

Source: Kolonial verslag 1821-1942, dan (De Groot, 1918)

Beri-beri

The name Beri-beri disease is taken from the symptoms that arise in the sufferer, namely walking like a sheep, because this disease makes the sufferer's legs weak. Early records of the disease in the archipelago came from letters sent from the Moluccas by the Portuguese in the 16th century. The disease was identified in 1629 by Jacobus Bontius (Reid, 2011). In general, the initial symptoms felt by Beri-beri sufferers are weakening of leg function, and slowly numbness, even at a severe level beri-beri causes serious swelling of the legs, heart failure and death (Kenneth, 2000).

Beri-beri broke out in Palembang in 1886, precisely in the Dutch plantation area in Tebing Tinggi. This was caused by a nutritional imbalance in the workers' diet. Although there is no exact record of the number of fatalities, this year the colonial government issued orders for experiments on beri-beri in three places in the archipelago, namely Bangka chaired by Von Wining, Malang chaired by Van der Elst, Palembang chaired by Helfirch.

In historical records of beri-beri outbreaks in the early 20th century, it was reported that the disease became endemic in several regions, especially in tin mining areas such as Bangka and Palembang. Large-scale mining areas became the epicenter of the beri-beri epidemic, resulting in high mortality rates every month of the year. The temporal pattern of the outbreak shows seasonal fluctuations: from April to May, the number of casualties is relatively low and minor, while from August to October, there is a significant increase in morbidity and mortality rates. This phenomenon is thought to be related to weather and climate factors, which influence the periodic rise and fall of cases, as is the pattern of other epidemics in areas with similar geographical characteristics to Palembang (Laoh, 1903).

For example, in 1916, a beri-beri outbreak affected workers on a bridge and road construction project in Muaro Kingi, Upper Musi, Palembang. Countermeasures were carried out through nutritional improvement interventions, which succeeded in suppressing the spread of the disease. In the same year, the outbreak also hit Palembang City, killing 369 people. Analysis at the time concluded that the main cause was the consumption of low-quality rice. (Dutch East, 1916).

Smallpox

The epidemic had already affected Palembang before it was conquered by the Dutch, in 1772, affecting the cities of Palembang, Lematang, Komering, Ranau, and Rawas, although there is no exact record of the number of casualties, it is clear that smallpox at that time caused the affected area to experience population decline. The outbreak, which was classified as sporadic, reappeared in the 1790s with greater impact, causing the lowlanders of Palembang to vacate their villages and move elsewhere.

The plague reduced pepper production in the Palembang region in 1797 to the point where it was unable to send any pepper supplies to Batavia that year. This was because the farmers in the interior, as the main pepper suppliers, died due to smallpox (Pramasto, 2022). Afterward, smallpox had an outbreak in 1852, then disappeared and reappeared in 1900 with the following recapitulation:

Table 2: Recapitulation of Smallpox Epidemic in Palembang After 1900s

Year	Infected	Died
1916	-	436
1917	755	698
1918	535	122
1922	262	62

Source: Kolonial verslag 1916-1918, dan (G. Kolff « Co., 1924)

Anthraks

In 1911, there was an outbreak of Anthrax in Palembang in the Komering Hilir sub-district, which was so severe that a quarter of the buffalo population in the area died. Besides buffaloes, Anthrax also affected horses and deer in Ogan Hilir and Lematang Ulu. By the end of the year, the disease seemed to have subsided, but in January 1912, there were again several fatal cases. The following year, however, anthrax was well contained and only affected the Rawas region. Records of anthrax appear in the Department van Landbow Nijverheid, as well as the Burgerlijke Veeartsenijkundige Dienst.

Table 3: Number of Livestock Casualties Due to Anthrax Epidemic 1916-1920

Year	Location	Infected
1916	Palembang, Rawas	72 kerbau
1917	Palembang	57 Kerbau
1918	Rawas, Palembang, Tebing tinggi	57 Kerbau

1920	Ohan Ulu, Ogan Hilir, Lematang Ulu, 80 Kerbau dan sapi dan Pasemah
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Source: Kolonial Verslag 1916, 1917, 1918, 1920

Typhoid

This disease was recorded as an epidemic in Palembang in 1855, although not on a large scale, Tipes infected 65 people. Through this epidemic of Typhus in Palembang, the colonial government was able to identify Typhus that spread in Palembang into three types, namely: ephemera/abortief-typhus, typhus zonder localisatie, and typhus met praedominerende localisatie in den buik. After that Typhus only spread as an individual disease, no sources were found that Typhus broke out in the Palembang area after 1855.

Anticipatory Measures of the Colonial Government

The Dutch East Indies colonial government implemented various anticipatory measures in dealing with disease outbreaks. These measures included:

Construction of Health Facilities

In the early phase of the cholera outbreak in Palembang, the disease first affected Dutch troops. Treatment for infected soldiers was carried out in military hospitals located on ships, equipped with adequate health facilities (Bruining, 1822), however, access to these services was exclusive and only reserved for Dutch East Indies soldiers. In general, despite the existence of health services for civilians, no specialized hospitals for civilians were established outside Java until 1880. In the non-Javanese colonial territories, including Palembang, people relied on military hospitals that were primarily intended for Europeans.

These military medical facilities were scattered in various areas of Dutch rule. In Palembang, the construction of a military hospital was recorded in the Koloniaal Verslag in 1850 and completed in 1851. These hospitals functioned as treatment centers for Dutch soldiers and other Europeans, while access to health services by natives was still very limited and required special permission.

After 1880, there were efforts from various parties to establish health facilities for Palembang residents, both from the church and other private institutions. Such as the Charitas hospital which was built as one of the missionary missions in the field of Health which has been started since 1926 at the church in the center of Palembang city, and the new hospital building was built in 1937 and completed in 1938, which was fully supported by the Dutch government, starting from the procurement of medical personnel by sending doctors and sisters from the Congregation of Sisters of St. Francis Charitas Roosendaal, Netherlands, in addition to the hospital, Charitas also provided mobile health services, by visiting every alley in Palembang city to conduct health services, including childbirth (Charitas Hospital Management, 2014).

After the 1900s, the attention of the Dutch East Indies government and also the Europeans to the health of workers both native and European, became better, this was shown by the development of health facilities in their company environment, such as Plaju Hospital, which was established in 1933 in Palju 11 KM from Palembang city, which was established by NV DE BPM a Dutch Oil mining and became the first hospital in Seberang Ulu Palembang, which was equipped with a quarantine center.

Vaccination and Improved Nutrition

The first vaccine to be administered in Indonesia was the smallpox vaccine. Smallpox seeds were first bred in 1804 in Batavia, which were brought from the Isle de France, carried by 10-12 children aged 6-12 years. The smallpox vaccine was initially only given to indigenous people who interacted with Europeans. Only later, when the archipelago fell to the British, Thomas Stanford Raffles, as Lieutenant Governor, expanded this vaccination to the indigenous population, which at that time was limited only to Java. And began to provide

smallpox education to the natives, who were later appointed Juru cacar (Ministry of Health RI, 2009).

After the power returned to the Dutch, in 1820, the Relement voor den BGD was issued, then it was regulated regarding vaccination in all parts of the regency in the Dutch East Indies. through Reglement op de uitoefening der koepok vaccine in nederlandndsche indie. This regulation systematically organized the composition of the vaccinators and their staff in each prefecture, which can be seen as follows:

- i. Each vaccination is headed by an inspector.
- ii. Each prefecture had an Opziener who was a medical worker.
- iii. The superintendent administered vaccinations in the surrounding area
- iv. For areas beyond the reach of the superintendent, smallpox workers were hired, natives who had been given prior training.
- v. Vaccination reports had to be filed with the superintendent every month, and the superintendent's review of vaccinated areas took place every six months (Schoute, 1934).

This vaccination is not running smoothly, and is unevenly distributed, especially in areas far from the capital are rarely exposed to vaccines due to the long distance, and also the lack of education in the community. This also caused the high death rate of smallpox outbreaks in Palembang to occur in the interior. The improvement of vaccination services only occurred in 1879, when the Parc Vaccinogene was established in Batu tulis, and the discovery of cow vaccine as a breeding ground by Dr. Schuckink Kool in 1884 in Jatinegara (Peeverelli, 1936).

Based on the records of the Colonial Verslag 1852-1858, the expansion of Vaccine services to areas outside the center of the regency, in areas outside Java, was only treated in the 1850s as vaccine districts, where the government had at least one vaccine officer in each area, and in 1857 it was expanded again, with the division of vaccination in the area on the West Coast of Sumatra and Sulawesi and its subordinate regions, which divided the vaccine area consisting of 15 vaccine districts in Palembang, 9 vaccine districts in Banka, 11 districts in West Borneo and the Southern and Eastern Divisions of 5 districts.

All with one vaccinator for each district. In five districts in Palembang, one élève vaccinator was added for each district. Vaccines were given twice, on the first day and the 7th or 8th day after the first vaccine. Before the breeding of vaccines in animals and the manufacture of more modern vaccines, vaccines were distributed by carrying children who had become vaccine breeders. This only happened in urban centers. For remote areas, vaccines are distributed by shipping vaccine seeds in glass vials to other areas (Ministry of Health, 2009).

Vaccines are also used in the treatment of Cholera outbreaks. However, this treatment is not routinely carried out, only when an epidemic hits an area. This happened because there was a debate among Dutch doctors regarding the contagious nature of Cholera (Ministry of Health, 2009). In Palembang, during the 1852 Cholera outbreak, vaccination was held twice, which resulted in a reduction in mortality and an increase in population the following year (Colonial Verslag 1853).

The new Cholera vaccine was made in Indonesia in 1911 by Nyland. This vaccine then succeeded in suppressing the Cholera outbreak that occurred between 1911 and 1920. Until then, this outbreak reappeared in 1927 and became the last cholera case in the Dutch East Indies occupation era. In the cholera outbreak, in addition to vaccination, the Dutch East Indies government also provided education and improved public facilities that were considered to be the trigger for the outbreak, such as water facilities, city health and others (Ministry of Health of the Republic of Indonesia, 2007).

Vaccination is also carried out not only on humans but also on livestock, especially consumed livestock such as buffaloes, cows and pigs. With the rise of disease outbreaks that attacked animals during the Dutch East Indies, apart from vaccines, the Dutch government also took steps to ban the import of pigs from outside the Dutch East Indies. Which were

considered carriers of the Anthrax plague (Colonial Verslag 1913). A ban on cattle imports was also implemented in 1922, due to the prevalence of animal diseases such as Anthrax, Rabies and other animal diseases. (Colonial Verslag 1922).

In the case of Palembang beri-beri, there is no further information related to medical treatment of beri-beri patients, other than quarantine in a special place, and also nutritional improvement in the food consumed by beri-beri sufferers who are mostly plantation coolies, mines, or people who work in groups. Nutritional improvement seems to be the best option and can suppress outbreaks, as happened when the Beri-beri outbreak attacked road and bridge workers at Muaro Kingi in Upper Musi Palembang in 1916, this was then quickly overcome by improving nutrition for workers.

Health Education for Natives

In 1847, following a health crisis in Java, the colonial government published brief guidelines in Javanese and Malay on disease prevention and the use of accessible traditional medicine, which were then disseminated to village heads (Kolonial Verslag, 1847). In the same year, Dr. W. Bosch, head of the Dutch East Indies Health Ministry, proposed the establishment of a medical school for natives. On 1 January 1851, the School tot Opleiding van Inlandsche Geneeskundigen (Javanese Medical School) was established in Weltevreden under the leadership of Dr. P. Bleeker.

The initial education period was two years, later extended to three years (1864) and seven years (1875) in line with the complexity of medical challenges and advances in medical science. Dutch was used as the language of instruction, and in 1890, entry requirements were tightened by requiring prospective students to graduate from the Europeesche Lagere School (ELS). In 1902, the school changed its name to School tot Opleiding van Inlandsche Artsen (STOVIA), with graduates holding the title Inlandsch Arts (Bumiputera Doctor). The high demand for medical personnel prompted the opening of the Nederlandsch-Indische Artsen School (NIAS) in Surabaya in 1913, which accepted students from various ethnicities, including European *peranakans* (Indonesian Ministry of Health, 2009).

The development of medical education was not limited to Java but also included other regions such as Palembang. Kolonial Verslag (1900) recorded that seven Palembang youths - children of local officials working for the Dutch - studied medicine at STOVIA. They came from among the most respected men, showing that access to higher education for natives at that time was still limited to the local elite (Kolonial Verslag, 1900).

Although the establishment of colonial medical schools was driven by economic interests and the stability of the Dutch East Indies government, their impact went beyond colonial goals. These institutions not only increased the capacity of indigenous medical personnel but also became a means of social mobility and the awakening of national consciousness, including in Palembang. Graduates of STOVIA and NIAS would go on to play important roles in public health services and the national movement, including Dr. A.K. Gani, one of the independence struggle figures from South Sumatra (Indonesian Ministry of Health, 2009).

In addition to health education, the Dutch also provided hygiene education to selected Indigenous people. This is because one of the main causes of the spread of disease is poor environmental sanitation in the community. Public distrust of the Dutch required the Dutch to recruit indigenous people to campaign for hygiene and a healthy lifestyle in the indigenous community.

Anticipatory Actions of Local Communities

In confronting the threat of epidemic diseases during the colonial period, the people of Palembang did not remain passive. Instead, they developed a range of responses rooted in longstanding systems of local knowledge shaped by collective experience, spiritual belief, and traditional healing practices. These actions were not only practical measures to combat

illness but also served as forms of cultural resilience and subtle resistance to the dominance of colonial medical authority.

Such responses were manifested through the use of herbal remedies, incantations, traditional medical manuscripts such as *Mujarobat*, and communal rituals including *Rebo Kasan* and *Sedekah Bedusun*. These practices reflect a worldview in which disease was not solely understood in biological terms, but also as a social and spiritual disruption that required holistic responses. In this context, the anticipatory actions of local communities represent an enduring epistemology that persisted alongside and often in opposition to colonial modernity. This response appeared in various actions, including:

Traditional Medicine

In addition to the anticipatory actions taken by the Dutch East Indies government in dealing with the epidemic, the indigenous population had its own treatment in dealing with the epidemic. Indigenous people also developed or maintained various local traditions in dealing with disease outbreaks. These traditions reflected the way people combined traditional beliefs, religion and local experiences to deal with the health crisis.

This kind of thing appears in various forms, ranging from religious rituals, special abstinence, potions, and others. Such as consuming *jamu*, or other concoctions that are considered capable and effective as medicine. Coupled with the richness of the magical world in Indonesia, it is not uncommon for Indonesian people in the past to believe in magical things, such as mantras and special *tuah tuah* in dealing with disease outbreaks. For example, in Kerinci, which was hit by a severe smallpox epidemic after the independence of Indonesia, people believed that by reading special *jampi jampi* and facing the body part affected by smallpox to the incense fire, it could cure smallpox.

This practice can still be found in remote parts of Kerinci. In Palembang, this kind of practice also occurs, as written (Yunaini. Khabib Shaleh, 2018), that in the Lematang Ilir region of Palembang, in dealing with the plague, its citizens have used traditional medicine, including the following:

Smallpox

In smallpox outbreaks, traditional treatment is carried out using the medium of young coconut, which is drunk after reciting the following mantra:

*Bissmilahirahmanirahim
Buah are buah sentol
Jatohke tanah dimakan babi
Sopoloh darah menimbul
Toron pacak naek pacak
Sembolohlah cacar sianu...
Berkat syahadat lailahaiallah
muhammadaahrosullah.*

Cholera

Not much different from smallpox, in treating acute diarrhea or other stomach pains, the community uses the medium of young coconuts that have been read *jampi jampi* first, then young coconuts that have been mixed with a little salt, will be drunk on the patient. The mantra for stomach pain is as follows:

*Bissmillahirrahmanirrahim
Menghinju mengheijun mengheceu
Menghiceu soroh belari
Menghiceu nakal
Menghinju menghinju soroh belari
Peglah ketempat kau suke
Jangan lagi ke sini
Berkat syahadat lailahaiallah*

muhammadaahrosullah.

In addition, Palembang in the past had physicians who produced manuscripts on various medicines, such as the Mujarobat manuscript by Sayyid Ali bin Alwi bin Shibaudin which contained various kinds of special medicines for men and women (Rachmatun, 2013). Also Syaikh Azhari Abdullah Al falimbani who has written in his notebook about various medicines for diseases that existed in 1811-1874 (Nurwahyuni, 2021).

Typhoid

In the Kaghas Manuscript No. Inv 07.47 Collection of the South Sumatra State Museum, this manuscript contains several answers to the plague that occurred in Palembang, including Typhus, which can be treated with seletup slippery, seletup buli, and tempeyak or temprokak, which is drunk water, this practice is still preserved today in the Lahat district community. (Ridhollah et al., n.d.).

The Emergence of Traditions Related to the Epidemic

Dance Moves

In one of the dances, the Tanggai dance in Palembang city, there is an amethyst movement, which is inspired by the amethyst flower which is believed to have many properties if it can be utilized properly, and can also be a poison if misused. This dance movement also illustrates self-defense from disease outbreaks and survival by relying on the surrounding nature (Katungga, 2019).

Sedekah Bedusun

This tradition is carried out annually in several villages in Muara Enim. Where this tradition comes from a local story, namely Riye Carang, who promised that if the hamlet was safe, peaceful and protected from disasters such as floods, epidemics and robbery, a bedusun alms ceremony would be held, since then this tradition has been carried out (Febriana, 2018).

Rebo Kasan

This tradition combines Islamic teachings and local wisdom in dealing with disease outbreaks and disasters. This tradition is based on the community's belief that on every last Wednesday in the month of Safar, it is believed that Allah SWT sends down 320,000 kinds of disaster. Therefore, Muslims are encouraged to ask Allah SWT for protection to avoid these disasters. This is done through several practices and prayers.

Firstly, performing four rak'ahs of voluntary prayers, known as the Shafar voluntary prayers or Muthlaq voluntary prayers. Second, reciting special prayers to ask for protection from all kinds of diseases and to ward off bad luck. Third, performing Bekela, which is a typical Palembang tradition that involves giving alms and keeping in touch with others. This tradition ends with cleaning in the river in Palembang on the banks of the Musi river, the mouth of the Ogan river, the mouth of the Komering river or the tributaries scattered in the city of Palembang which is divided into Seberang Ulu and Seberang Ilir areas.

Negotiating Knowledge and Power in Epidemic Management in Palembang, 1821–1942

Disease outbreaks in Palembang between 1821 and 1942 were not only a biomedical phenomenon, but also closely related to the socio-political and cultural dynamics of colonialism. Outbreaks such as cholera, smallpox, beri-beri, anthrax and typhus were not only health crises, but also a site of negotiation between two systems of knowledge: colonial biomedicine and indigenous medical traditions.

The findings of this study reveal a recurring pattern of epidemic outbreaks, particularly cholera in 1821, 1852 and 1915, and smallpox from 1916 to 1918. These

recurrences indicate systemic failures in the colonial government's disease prevention strategies, especially in peripheral and inland areas. Colonial vaccination programmes, hospitals and health infrastructure were often designed for the military and European population, while access for indigenous people was limited and uneven. As a result, many local communities continued to rely on traditional medicine, herbal remedies, and culturally rooted rituals such as Rebo Kasan and Sedekah Bedusun.

A critical reading of the results of this study highlights the continuing gap between policy and practice. Although the Dutch East Indies government reported successes in expanding vaccination in official records such as the *Kolonial Verslag*, the reality on the ground shows a glaring gap. Similar to the case in Central Sulawesi during the 1918 influenza pandemic (Setiawan, 2022), local responses in Palembang were often preserved through oral tradition and cultural memory rather than through colonial documentation. This reflects a broader pattern in which colonial narratives prioritized control and technocratic order, while local communities responded with resilience through alternative epistemologies and spiritual practices.

In contrast to cities like Surabaya-where health infrastructure significantly reduced cholera mortality (Setiawati, 2018)-Palembang represents a different trajectory, where state interventions remain inconsistent and largely ineffective. The persistence of indigenous medical practices suggests that public health in the colonial period was not universally accepted. Instead, it was filtered through local beliefs, knowledge and accessibility. Community institutions played an important role in shaping health responses and maintaining cultural continuity.

This phenomenon shows that public health under colonial rule cannot be fully understood through medical or administrative frameworks alone. It was also a space of epistemological and political struggle. The colonial imposition of modern biomedicine met with forms of local resistance - not always overt, but visible in the resilience of indigenous knowledge systems. In Palembang, epidemic management emerged as a contested domain where top-down modernization clashed with grassroots adaptation and resilience.

Overall, the Palembang case illustrates how epidemic responses during the colonial period were shaped not only by state authority and medical policy, but also by deeply rooted cultural systems and community agency. Instead of a one-way process of medical modernization, what occurred was a complex negotiation characterized by selective adaptation, resistance and hybrid practices. These dynamics underline the importance of analyzing colonial health interventions in the local socio-cultural context.

CONCLUSION

This research examines the dynamics of disease management in Palembang during the Dutch colonial period between 1821 and 1942, with an emphasis on the interaction between colonial health policies and local community responses. Through analyses of colonial archives as well as local sources such as oral traditions, medical manuscripts, and community ritual practices, this study shows that plague was not only a medical event, but also an arena for negotiation between colonial power and local knowledge.

The findings in this study contribute to two main ways to the historiography of colonial medicine in Indonesia. First, by making Palembang the focus of the study, this research fills a geographical void in the study of the history of epidemics, which has been mostly centered on Java.

This study shows that the implementation of colonial medical policies in Sumatra, especially in Palembang, was not uniform, and faced challenges from geographical conditions, limited infrastructure, and community resistance to colonial medical intervention. Secondly, this study utilizes local sources as the main material for analysis, such as medical mantras, traditional texts, and cultural practices such as Rebo Kasan and Sedekah Bedusun, which have so far received little attention in medical history studies.

Theoretically, this research strengthens the critique of colonial modernity narratives that place Western medical science as the sole authority. Instead, it shows that local

communities have their own ways of understanding and dealing with the plague, which cannot be separated from their belief systems and cultural values. Plague becomes a dialectical space between power and belief, between modernity and tradition. In this context, the community does not fully submit to the colonial medical narrative but rather negotiates it with the knowledge they have.

As such, this study emphasizes that the history of health in colonial Indonesia must be read within a broader framework - not only as part of the history of medical policy, but also as a field of social, cultural and power interactions. This study places Palembang as an important example in understanding how health and illness became part of epistemological debates and practices of power in the colonial period.

It is therefore hoped that this research will encourage further studies that are more sensitive to local diversity in the history of epidemics, as well as open up space for approaches that combine colonial archives and local sources in a balanced way in understanding people's experiences of the plague.

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