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Disease eradication and national reconstruction

By the time Indonesia finally attained *de jure* independence in 1949, it had been devastated by warfare resulting from Japanese occupation (1942-45) and a revolutionary struggle against the Dutch (1945-49). In addition to many other worries, the country had to cope with the resurgence of epidemic and endemic diseases. President Soekarno declared that independence had ushered a new period of development in all fields, including health. He argued that, as the key problem of health was economic, Indonesians should focus their efforts on economic development. Similarly, in his First State of the Nation Address (1954), Filipino President Ramon Magsaysay asserted that no nation could go ahead if crippled by disease. The two declarations attest to the centrality of public health in the post-World War II national reconstructions of Indonesia and the Philippines.

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Above: President Soekarno (centre) inaugurates Indonesia's malaria eradication programme near Yogyakarta on 12 November 1959. Source: The Indonesian Ministry of Health (http://www.beritasatu.com/kesehatan/224569-kemkes-gelar-pameran-foto-sejarah-pembangunan-kesehatan.html). Image in the public domain.

SOUTHEAST ASIA HAS BEEN A MICROCOSM of international health initiatives since 1945. Health conditions in this region were largely deplorable during the middle of the twentieth century, with a high prevalence of endemic diseases such as malaria, yaws, tuberculosis, leprosy, schistosomiasis, beriberi, and epidemics of communicable diseases such as smallpox and cholera.[1] Most of the countries in the region lacked adequate expertise and financial resources to combat these diseases. After wartime devastation, the problem of national reconstruction was exacerbated by political and ethnic conflicts, and poverty. At the time, Southeast Asia served as a theatre for superpower rivalry between the US and the USSR, for hegemony over the region. A comparative study of disease eradication campaigns in Indonesia and the Philippines could help identify overlaps between nation-building and Cold War politics.

The US, given its post-World War II economic dominance, overshadowed the USSR in extending economic and technical assistance to the newly-independent nations of Southeast Asia, provided as a part of its larger strategy to subvert the growth of communist ideology. The US contended that disease led to poverty and poverty was the breeding ground for communism. US Presidents, particularly Harry Truman and Dwight Eisenhower, had foreseen the political capital derived from funding disease eradication campaigns: the political allegiances of Southeast Asian leaders. The leadership of newly-independent nations of the region were aware that the acceptance of financial and technical assistance for disease eradication – funnelled primarily through the World Health Organisation (WHO) and the United Nations Children's Emergency Fund (UNICEF) – would have political ramifications. Whereas President Soekarno of Indonesia (1945-65) sought to achieve an equilibrium between the country's sovereignty in health and increased receptiveness of foreign aid, successive Filipino presidents (1946-65) – particularly Manuel Roxas, Elpidio Quirino, Magsaysay, Carlos Garcia, and Diosdado Macapagal – sought to align their health policies with US aid, with the view to lead their country towards a Western-led model of development.

This study offers an alternative to Randall Packard's argument that post-World War II disease eradication campaigns launched by international agencies, particularly WHO, reflected the growing ability of Western science to transform the underdeveloped world.[2] I would caution against presenting the history of disease eradication campaigns in such a simplistic fashion; it tends to overlook the geopolitics applied both within and outside WHO that affected the implementation of a regional health policy. Southeast Asia has lacked a fully effective institutional structure for regional cooperation in health. For historical and ideological reasons, WHO split Southeast Asia into two regions: the Southeast Asian Regional Office (SEARO), with its headquarters in New Delhi, and the West Pacific Regional Office (WPRO) headquartered in Manila. The split posed challenges to regional cohesion in policy.

Building a utopian world free of disease: WHO and international health

With the creation of WHO in 1948, the idea of a world free of disease started to take shape, supported by particular medical and technological advances, such as DDT against malaria, and BCG (Bacillus Calmette–Guérin) against tuberculosis. The preamble to the WHO Constitution was revolutionary as it stated that the achievement of the highest standard of health was a fundamental right of every person. Within WHO circles, planners had developed an economy-first policy. C.E.A. Winslow, who served as a consultant with the Public Health Administration for WHO, emphasised that public health was not limited to the control of diseases, but also sought to raise the general efficiency of the population.

In the 1950s, WHO approached the problem of public health in Southeast Asia through projects to control endemic diseases, particularly malaria and tuberculosis. These projects intended to provide a technological fix to the problem of disease.

However, between 1948 and early 1950s, coinciding with the Cold War, WHO was faced with the challenge of establishing its niche within the UN system as an apolitical specialised agency. To this end, it ironed over socio-economic causes of ill health, and instead, diverted its attention to narrowly conceived disease eradication campaigns.[3] The geopolitics of the Cold War was in part responsible for WHO establishing six regional offices in Africa, the Americas, Europe, the Eastern Mediterranean, Southeast Asia, and the West Pacific. Moreover, regional conflicts among nations led to some countries joining WHO offices outside their regions. In South Asia, owing to tensions between India and Pakistan over Kashmir, the former joined the Southeast Asian Regional Office (SEARO), whereas the latter decided to join the East Mediterranean Regional Office (EMRO), headquartered in Alexandria. In Southeast Asia, Indonesia signed up with SEARO in 1950 to cement further cooperation in health with India, with whom it shared a common antipathy towards new imperialism. In contrast, Malaya – engaged in a confrontation with Indonesia (1957-66) – decamped to the West Pacific Regional Office (WPRO).

The first regional WHO office was SEARO (1948), which, in the initial years, oversaw India, Ceylon, Nepal, Afghanistan, Burma, Indonesia, and Thailand.[4] WHO believed these countries to have a certain geographical unity shaped by tropical environment, poverty, and pathogenic conditions.[5] The SEARO assisted member states through the assignment of short-term project consultants for drawing up epidemiological strategies for controlling malaria, tuberculosis, leprosy, and yaws. It identified malaria as the number one public health problem affecting member states. The WPRO (1951), with member states Japan, South Korea, Taiwan (Formosa), Malaya, the Philippines, Vietnam, Cambodia, Australia, and New Zealand, experienced wide variations in health problems, quite unlike SEARO. Political disturbances in Malaya, Vietnam, and Cambodia were a major impediment to the development of public health services. For Southeast Asian member nations within its jurisdiction, the WPRO emphasised campaigns against malaria, tuberculosis, and yaws as these diseases debilitated the overall productivity of the population, and the after-effects of treatment were clearly visible.

Disease eradication in Indonesia: balancing national interests with international health

In 1950, Prime Minister Abdul Halim's cabinet identified malaria, tuberculosis, yaws and leprosy as the *penjakit rakjat* (the big four endemic diseases) that affected the overall vitality of the Indonesian population. National mobilisation around these diseases involved raising the living standards of Indonesians and presenting an image of the new Indonesian in accordance with *pembangunan* (nation-building ideology). Indonesian physicians adopted President Soekarno's nationalist rhetoric; they metaphorically depicted disease eradication campaigns as battles that would lead the nation to further victories against poverty and disease, and cultivate a strong and healthy population. Indonesians refashioned disease eradication campaigns to involve a balancing of national interests with the agenda of international agencies during the Cold War.

President Soekarno conceptualised *pembangunan* to articulate Indonesia's aspirations for a brighter future after nearly three-and-a-half centuries of Dutch colonialism. It envisioned the transformation of Indonesia into a just and prosperous society that also embraced advancements in public health. The disease aetiologies constructed by Indonesian physicians sought to rationalise the relationship between poverty, disease, and priorities of nation-building. Malaria, considered to be the *musuh nomor pertama* (the foremost enemy) of the newly-independent nation, was cast as a *hantu* (ghost) that haunted coastal areas causing malnutrition and infant mortality.

Below: The Malaria Control Unit of the Philippines Public Health Rehabilitation Programme (1946). Source: National Library of Medicine, Images from the History of Medicine (Image ID: 140911). Image in the public domain.

in Indonesia and the Philippines during the early decades of the Cold War

Between 1951 and 1956, Indonesia implemented malaria control projects with international support that sought to minimise the incidence of malaria using DDT. Unfortunately, malaria control operations were impeded as mosquitoes developed resistance to DDT. In response, between 1959 and 1965, Indonesia implemented malaria eradication – a permanent elimination of the disease even in the absence of control measures – that consisted of: (a) mapping out the prevalence of the disease using surveys, (b) determining the resistance of anopheline species to DDT, (c) treating suspected cases with chloroquine, and (d) spraying the affected houses with DDT.

The beginning of malaria eradication in Indonesia looked promising, with a sharp decline in the parasitic index of children from 22.5% in 1962 to less than 0.5% soon after spraying operations began in 1963. But, the programme failed to achieve the ultimate objective of eradication due to bureaucratic delays. Consequently, the US halved funding for the programme from $ 10 million to $ 5 million.[6] The US was disappointed that vehicles procured for the eradication campaign were purchased with ICA (International Cooperation Administration) funds, but then misallocated to doctors who did not participate in the programme. The ICA requested Prime Minister Djuanda to slow down the program, whilst the then Minister of Health Satrio was fighting to expand it. SEARO Director General C. Mani (1948-68) faced the delicate task of ensuring the Indonesian Health Ministry's compliance with ICA directives. Eventually, due to intense lobbying by the Indonesian Ministry of Health, Mani granted greater autonomy to the National Malaria Eradication Program, in line with Satrio's vision of expanding the coverage for malaria eradication.[7]

Tuberculosis was the second-most prevalent endemic disease in Indonesia during the 1950s. In 1952, with technical assistance from SEARO, the Indonesian Ministry of Health initiated a pilot tuberculosis control centre at Bandung. Financing the project was a thorny issue from the very start as the Tuberculosis Division under the Ministry of Health, which initially administered the project, devolved administrative control to the West Java Inspectorate of Health in 1954. But, the Bandung municipal health service was not involved in the execution of the project itself, as it lacked adequate funds. Concomitant with the establishment of the tuberculosis control project, the Ministry of Health initiated a campaign that involved the mass vaccinations of newborns with BCG (Bacillus Calmette–Guérin) as a prophylactic measure against tuberculosis. However, within a few months the BCG campaign ran into trouble as infants developed fever due to the poor efficacy of the vaccine, forcing then Minister of Health, Johannes Leimena, to reassess the long-term benefits of mass vaccinations.

The most influential political development that shaped the trajectory of disease eradication campaigns in Indonesia was the Bandung Conference of African and Asian nations held in 1955 that gave birth to the Non-Aligned Movement (a group of states not formally aligned with either the US or the USSR), and the idiomatic Bandung Spirit that advocated peaceful coexistence, liberation of the world from colonial and superpower hegemony, and solidarity with those who were weak and exploited. Health was related to the broader social and economic questions raised in the final communique of the Conference. The Eighth SEARO Session coincided with the Bandung Conference. At this session, Indonesians expressed optimism that rural development through public health could serve as a medium to diffuse worldwide tensions.

By 1960, the principle of non-alignment was already exerting a powerful influence on Indonesia's disease eradication programmes. At the Thirteenth SEARO Session in Bandung, Soekarno emphasised that while Indonesia was collaborating with other nations in the spirit of internationalism to eradicate disease, and even though it welcomed foreign aid, the country was capable of standing on its proverbial own two feet *(berdiri di atas kaki sendiri)* in achieving targets of malaria, tuberculosis, and yaws eradication.[8]

Disease eradication and Cold War in the Philippines

On 3 June 1946, a month before US colonialism finally ended in the Philippines, President Roxas, in his First State of the Nation Address, enumerated the challenges faced by the nascent nation. The Philippines was born amidst much political turmoil: (a) the Japanese occupation of the Philippine archipelago between 1942 and 1945, and (b) The *Hukbalahap* rebellion. The rebellion was a peasant-based guerrilla insurrection supported by the communists, which originated in Luzon to initially resist the Japanese during the War in the Pacific (1942-45). Between 1946 and 1954, the rebellion was again reorganised. But, this time it was redirected against the Filipino government before it was finally put down through rural reconstruction and military victories. In his address, President Roxas noted that the 'three great pests' of the Philippines – the rat, the mosquito and the locust – had threatened the nation with both disease and hunger. Control of the 'three great pests' had to be undertaken to prevent famine.[9] Between 1949 and 1957, the Filipinos were hopeful that, despite limited financial resources, the country was making satisfactory progress in achieving health outcomes. But, the initial optimism that characterised public health in the Philippines during the first decade of independence soon paved way for despair in the late 1950s. This was due to a lack of coordination between the central government, provinces, municipalities, and the *barrios* (villages) in the implementation of a health policy. In short, the Filipino political leadership aligned the country's health policy with the US and WHO prescription of controlling endemic diseases – a calculated measure intended to substitute the shortfall of domestic spending on health with international aid.

Above: ICA malariologist Lee Howard (left) and his Philippine counterpart Dr. Villanueva from the Department of Health, study map of a malarious area sprayed with DDT (1960). Source: ICA Photo No. 60-277, United States Operation Mission to the Philippines. (reproduced with permission from the Manila Times Photo Morgue and Archives, the Ateneo de Manila Special Collections).

Health policy in the Philippines during the 1950s bore the imprint of Magsaysay, who was the President between 1953 and 1957. He asserted that for the preservation of democratic values and to prevent the spread of communist ideology, the government had to assure its citizens favourable socio-economic conditions that would enable them to achieve freedom from disease, ignorance, and want. As nearly 75% of Filipinos lived in rural areas without access to essential medical services, Magsaysay focussed on using public health as the conduit to achieve rural reconstruction, with a health unit for each *barrio*. As Magsaysay's vision of rural reconstruction was congruent with the US objective of eliminating the social and economic foundations for communism, the ICA disbursed US$10 million for rural reconstruction in the Philippines between 1955 and 1957.[10]

Between 1946 and 1952, large scale application of DDT to achieve malaria control reduced the morbidity from 1000.7 per 100,000 in 1946, to 252.4 per 100,000 by 1952. The early declines in malaria morbidity across the Philippines could be attributed to the application of DDT, malaria case detection, and treatment. At the time, a WPRO pilot malaria control project was underway on the island of Mindoro to determine the effectiveness of residual spraying of DDT in malaria control operations. However, by 1954, malariologists discovered that the mosquito *anopheles flavirostris,* the chief vector responsible for malaria in the Philippines (particularly in Mindoro), had developed resistance to DDT. In 1956, malaria eradication was extended nationwide, aided by large scale application of the insecticide dieldrin. Unfortunately, *anopheles flavirostris* developed resistance to dieldrin as well. In 1960, the Filipino government decentralised malaria control to regional health directors, because the Central Division of Malaria Eradication could not exercise technical authority over regional staff, and the organisational aspects of the eradication program deteriorated.

Pulmonary tuberculosis was the leading cause of morbidity and mortality in the Philippines. In 1951, the US Public Health Service assisted the Filipino Department of Health in the establishment of a laboratory at Alabang for the domestic production of vaccines. Two years later, the country launched its first mass vaccination campaign against tuberculosis. In 1956, Philippines' first pilot project to control tuberculosis was launched in Ilocos Norte province with technical assistance from the ICA on the condition that tuberculosis control would be integrated into rural health services. While it was one thing to use mobile x-ray units to identify individual tuberculosis patients and treat them with isoniazid and other wonder-drugs, it was quite another to follow-up on their treatment. Surveillance was a weak arm of tuberculosis control in the Philippines, particularly in Ilocos Norte. No countrywide epidemiological surveys appertaining to the prevalence of tuberculosis were undertaken during the 1950s. Diagnosis for tuberculosis was based only on radiological findings and not bacteriological examinations. Patients could not follow-up on treatment as drugs were un-affordable. Tuberculosis treatment and control were divested to rural health units in the mid-1950s. With ever-expanding public health activities, such as administering smallpox vaccinations, public health education, and environmental sanitation, the rural health units could not follow-up on treatment of individual tuberculosis patients. Thus, between 1954 and 1958, the national mortality rate attributed to tuberculosis registered only a marginal decline, from 114 to 104 deaths per 100,000.[11]

The previous paragraphs highlight that isolated disease eradication programmes dominated the public health landscape of the Philippines during the 1950s. Despite Magsaysay's advocacy for establishment of a rural health unit for each *barrio* at the local level, his vision for rural health appeared somewhat over-ambitious as it lacked adequate funding from the Department of Health. Rural health activities were confined to the *poblacion* (headquarters of the municipal district at the sub-provincial level) leaving adjacent *barrios* bereft of basic health facilities.

Conclusion

This study does not chronicle individual disease eradication campaigns across Indonesia and the Philippines. Instead, it reveals how the US used disease eradication as a bargaining chip to purchase the loyalties of newly-independent countries of Southeast Asia in its fight against communism and draws a contrast between Indonesian and Filipino engagement with international health. A comparison between disease eradication in Indonesia and the Philippines sheds light on the nature of postcolonial sovereignty in public health. Both in Indonesia and the Philippines, the state's sovereignty in health was fractured due to tensions between various levels of government that affected policy outcomes. In the public health histories of Indonesia and the Philippines, the 1950s will be remembered as an era of mass campaigns against endemic diseases that had a marginal impact on the overall well-being of the population. Nevertheless, even though the public health achievements of both countries during the 1950s were modest, the decade did manage to impart the political will to surmount problems associated with national reconstruction following World War II.

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2 Packard, R. 1997. 'Visions of Postwar Health and Development and their Impact on Public Health Interventions in Developing Countries,' in Packard, R. & F. Cooper (eds.) *International Development and the Social Sciences: Essays on the History and Politics of Knowledge,* Berkeley: University of California Press, pp.93-118.

3 Neelakantan, V. 2014. *Health and Medicine in Soekarno Era Indonesia: Social Medicine, Public Health and Medical Education, 1949-1967,* PhD Thesis, University of Sydney.

4 These were the constituent countries of SEARO at the time. It was a geopolitically complex region. Countries have been transferred from one WHO Region to another over the course of fifty years and new countries have been admitted. E.g., Afghanistan is no longer with SEARO. It transferred its membership to the East Mediterranean Regional Office recently. Timor Leste is a SEARO member state since its independence from Indonesia in 1999. Mongolia (a SEARO member state in the 1950s) transferred its membership to the WPRO recently. Maldives in the 1950s was a British protectorate. Bhutan was not yet a SEARO member state in the 1950s. North Korea has been a SEARO member state since 1973 due to its tensions with neighbouring South Korea.

5 Amrith, S. 2006. *Decolonising International Health: India and Southeast Asia, 1930-1965,* Basingstoke: Palgrave, p.82.

6 For details refer to Neelakantan, V. 2014. 'The Campaign Against the Big Four Endemic Diseases and Indonesia's Relations with the WHO during the Cold War, 1950s,' in Liping Bu & Ka-che Yip (eds.) *Public Health and National Reconstruction in Post-War Asia: International Influences, Local Transformations,* Abingdon: Routledge, pp.154-74.

7 'Letter from James Deeny, Area Representative of the WHO to C. Mani, Director General of the SEARO,' 22 June 1960, INO-MPD-001A, File 3 'Plans of Operations and Related Correspondence,' *Project Files,* WHO Archives, Geneva [Strictly Confidential].

8 'Speech by President Soekarno to Participants of the Southeast Asian Regional Conference of the WHO,' 28 August 1960, *Inventory Pidato Presiden Republik Indonesia* No. 209, ANRI (The National Archives of Indonesia).

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