In a small, unpublished manuscript from 1928 that he entitled ‘A Medico of Melanesia’, Raphael Cilento proclaimed that ‘it has always seemed to me that there was nothing that could compare for interest and charm with medical work among natives’. Unlike the private practitioner in the suburbs, chained miserably to the ‘confounded telephone’, colonial medical officers were treated to adventure, exotic disease and the full breadth of social work involved in public health.¹ For Cilento, recording birth and death rates, monitoring water supplies and examining housing, nutrition and waste disposal were all vital aspects of health in Australia’s tropical territories. From this viewpoint, he concluded that ‘the problem of health is the basic problem of government and permeates every subdivision of administration’.² The claim that social and economic progress ultimately depended on health was to become a mantra for his work in public health in both New Guinea and Australia. Colonial administration was thus a crucial context for Cilento’s fundamental belief that government must make health and hygiene the core elements of governing all populations and their development.

² ibid., p. 3.
Cilento hoped that in New Guinea he might replicate the deeds of medical men such as William Gorgas, whose ‘war’ against mosquitoes and yellow fever in Panama was legendary. In New Guinea, Cilento could embody the type of man for whom:

the jungle of the present is the city of the future, and with the ear of the Imperialist and the enthusiasm of the pioneer, he hears the hammer of the builder in the crash of every falling tree.

Yet this ideal image of colonial pioneering belies the more complex realities of colonial hygiene. A chronic lack of money frustrated public health projects across the colonial tropics. At the same time, Cilento had to constantly negotiate the authority of medical knowledge. Tropical hygiene had promised greater efficiency in colonial production and reinforced racial segregation of colonial spaces. Yet Cilento also vigorously lobbied a parsimonious New Guinea administration to spend more on health by appealing to an international discourse of paternal responsibility that itself rested on ideas about modernity, civilisation and backwardness.

Cilento’s career as director of the Department of Public Health in the mandated Territory of New Guinea highlights the ambiguous place of public health in colonial government. As Heather Bell suggested in her study of Anglo-Egyptian Sudan, it is important to decentre, to an extent, tropical medicine within the study of colonial medicine. Preventive medicine and other social approaches to health could be just as important in local colonial politics as the discipline of tropical medicine, tied as it was to London and Liverpool. With this in mind, it is important that a fresh examination of public health in New Guinea avoids singling out tropical medicine for criticism while valorising the basic principles of preventive medicine that colonial officials supposedly neglected. Clean water supplies, satisfactory nutrition and sanitary living conditions are

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of course important facets of a sound and just public health system. Yet such practices were as deeply enmeshed in colonial government and culture as were the specific interests of tropical medicine.

Health officers were one kind of colonial agent among many, the interests, objectives and ideologies of whom could be complementary, negotiable, tense or incompatible with each other. Cilento’s training in the discipline of tropical medicine made him a conduit for public health policies that legitimated racial segregation and offered technologies for surveillance and population management. While some government officials in Rabaul approved of his proposals for complete racial segregation of urban spaces, commercial interests objected to the costs of transporting indentured labourers from their planned compound. Malnutrition and population decline became the focus of Cilento’s scathing criticism of the New Guinea administration, which invoked an international discourse of colonial paternalism enshrined in the League of Nations mandates. Cilento’s own construction of racial difference and his justification of colonial rule, however, owed as much to the emerging science of nutrition as they did to tropical medicine’s claims about uncleanliness and disease reservoirs among indigenous people.

New Guinea

As a member of the Commonwealth Department of Health (CDH), Cilento was part of a milieu concerned both with national development and efficiency and with making Australia a centre of medical research, training and intelligence in the near Pacific Islands. Cilento found an especially kindred spirit in J. S. C. Elkington, the former public health commissioner in Tasmania and Queensland and the head of the Division of Tropical Hygiene in the CDH. Both men shared an evangelical passion for white settlement of the Australian tropics and the application of preventive medicine for national progress. They developed a close friendship in which Cilento took on the role of pupil to Elkington, whom he later addressed as Tuan (‘Master’ in Malay). J. H. L. Cumpston, the director-general of the department, was never as close to Cilento and their relationship would sour in the late 1920s. Yet they certainly shared a passionate belief in preventive medicine, national advancement and the ambition to make Australia the most important force in public health in the South Pacific.8

Plate 2.1 Cilento in 1923
Source: John Oxley Library, State Library of Queensland, Neg: 186000.
As director of the Australian Institute of Tropical Medicine (AITM) in Townsville from late in 1922, Cilento oversaw a shift in its focus. In the wake of the 1920 Australasian Medical Congress, the Commonwealth took control of the institute and emphasised the need for more practical public health work. Climate continued to represent a problem in the minds of many local practitioners and observers, but Commonwealth health officials maintained that pathogens were the chief obstacles to tropical development. Disease prevention would require improved local clinical knowledge and detailed epidemiological information on mortality, morbidity and the distribution of disease. Cilento’s work in 1923 thus focused on organising surveys of malaria, filariasis and hookworm across Queensland and the Northern Territory from his base in Townsville.9

Cilento’s fascination with colonial health work continued to tug at him. He would later reflect on how stultifying, pretentious and stubborn Townsville society could be. He and his wife, Phyllis, had urged townsfolk to adopt styles of dress more suited to life and work in the tropics. Cilento later recalled that when he donned a white two-piece suit: ‘The conventional were scandalised to think that anyone in my position could be so odd; the lower middle class were, as always, the most condemnatory, and the ultimate imitators.’10 The ladies of Townsville were similarly affronted when Phyllis suggested to the local Women’s Club that they should adopt a Malayan-style sarong and bare midriffs.11 The couple had evidently developed a self-conscious worldliness, and Cilento kept hoping for a new position in New Guinea that might provide an arena for the pioneering and stimulation that he relished.

An opportunity arrived when Colonel Andrew Honman retired from the New Guinea Department of Public Health in 1923. Cumpston had long desired to place a Commonwealth medical officer in New Guinea in some capacity, and now he was able to put forward Cilento’s name as most qualified to direct the health department, stressing in particular


10 Raphael Cilento to Albert Henry Spencer, 17 December 1940, Cilento Papers, UQFL44, Box 4, Item 11.

the importance of his formal training and experience in tropical medicine. The appointment worried the administrator of the territory, Evan Wisdom, who feared resentment from veteran officers denied a chance for advancement. Cilento, however, ultimately impressed the Commonwealth Government and was set to commence his duties in March 1924.

When Cilento steamed into Rabaul Harbour for the second time, he arrived in a territory emblematic of imperial continuity and change. A lasting European presence in New Guinea had begun late in imperial history, when German companies such as Godeffroy of Hamburg and, later, the New Guinea Company, established coastal trading posts in the 1870s. These companies remained the chief agents of German colonialism for some time, with the German Government granting sovereignty to the New Guinea Company over its portion of the islands in 1885. Britain had quashed Queensland’s attempt to annex south-eastern New Guinea in 1883, but, after some prompting, declared a protectorate over the same portion of the main island in 1884. The German Government took over control of its portion from the New Guinea Company in 1899, while Australia took control of British New Guinea in 1906. The territorial claims of the 1880s, however, largely fixed the imperial boundaries that lasted until World War I: the Netherlands held western New Guinea, Britain held the south-eastern portion (later named Papua, under Australian control) and the Germans held the north-east and the Bismarck Archipelago.

Colonial influence was everywhere limited and partial, centred on coastal settlements that were the shipping centres for surrounding coconut plantations. Until the discovery of major gold deposits in the 1930s, the production and export of copra—the dried kernel of coconuts—dominated the colonial economy, making up over 90 per cent of the value of exports in the 1920s. Planters produced the copra, which companies such as Burns Philp and W. R. Carpenter shipped from their wharves at major centres such as Kavieng on New Ireland and the capital, Rabaul.

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12 J. H. L. Cumpston to Secretary of the Prime Minister’s Department, 6 October 1921, NAA: A457 (A457/1), 741/2; Cumpston to J. G. McLaren, Secretary of the Department of Home and Territories, 31 December 1923, NAA: A452 (A452/1), 1959/5894.
13 Brigadier-General Evan Wisdom, Administrator, Mandated Territory of New Guinea, to Department of Home and Territories, 7 January 1924, NAA: A452 (A452/1), 1959/5894.
The difficulties of transport and communication over the mountainous terrain left much of the interior and its diverse indigenous groups beyond the reach of colonial administrations. These indigenous groups were not, however, traditionally isolated from each other. For generations, they had fashioned large trading networks and social connections through the exchange of goods, technology, marriage, language and stories. Europeans initially missed these larger connections and communities beyond the level of the village. The belief that these communities had been cut off from the civilising influences of trade and travel that had shaped Europe and Asia became central to colonial representations of diverse Pacific Island cultures as primitive and hostile to outsiders. Indigenous scholars and writers and historians have since sought to challenge these colonial discourses by emphasising the exchange networks that gave Pacific Islanders a connected and dynamic culture and history.

Australia established a civil administration in 1921 after seven years of military occupation, under the umbrella of a League of Nations mandate—one of a new kind of colonial territory. With the mandates, international society as embodied in the league granted the responsibility for governing dependent territories to other countries as trustees. These trustees, which would not enjoy complete sovereignty, were obliged to promote ‘to the utmost the material and moral well-being and the social progress’ of indigenous people. Article 22 of the League of Nations Covenant in fact described the wellbeing of the subjects of the former German colonies as a ‘sacred trust of civilisation’. The league mandates ultimately did little to change colonial practice and many recognised the hollowness of claims about the enlightened reform of imperialism. As Susan Pedersen has argued, however, the mandates did force colonial practices into the glare of international scrutiny and produced an international ‘official mind’ on colonialism. Unlike late nineteenth-century attempts to reconcile empire

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19 *The Official Yearbook of the Commonwealth*, p. 975.
with liberal ideals of democracy, the League of Nations’ mandates, in denying sovereignty to the ruling power, theoretically placed a temporal limit on colonial rule.20

The mandate system emerged as a compromise among the great powers over the future of Ottoman territory and German colonies. At the Paris Peace Conference, US president Woodrow Wilson proposed an international system of colonial administration instead of annexation. In a series of famous wartime speeches, Wilson had argued that the equality of nations, a mechanism for international cooperation and the right of self-determination should be the foundations of peaceful international order.21 Speaking before the US Congress in January 1917, Wilson made it clear that international peace would fail unless there was universal recognition that:

> governments derive all their just powers from the consent of the governed, and that no right anywhere exists to hand peoples about from sovereignty to sovereignty as if they were property.22

When it came to the British Empire, however, the fulfilment of these principles faltered. Wilson did not consider the colonial world within his framework and had little interest in challenging the entire imperial world order.23 Instead, self-determination for colonised societies, which were considered unready for it, would come gradually and through the guidance of advanced countries subject to the expectations of the international community.

This proposition drew Wilson into an increasingly personal confrontation with the British and with Australian prime minister Billy Hughes, who insisted on Australia’s right to annex German New Guinea.24 The compromise that emerged involved the creation of A-, B- and C-class mandates under the League of Nations that set out different limits and conditions of administrative power. It was a classification based on what had become a transnational understanding of ‘civilisation’ in which societies were assumed to pass through common historical stages

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22 ibid., p. 24.
23 ibid., p. 25.
of economic and political organisation.\textsuperscript{25} The league assigned C-class mandates to territories whose indigenous peoples it deemed to be at the most primitive stage of this universal development and in greatest need of tutelage. This status satisfied imperialists such as Hughes, since in granting the trustee full control of administration and legislation it provided ‘most of the substance of annexation’.\textsuperscript{26} Trustees were, however, obligated to enact certain regulations, including banning forced labour and the sale or trade of alcohol, arms and opium to indigenous people, along with the obligation to submit an annual report to the Permanent Mandates Commission of the League of Nations.

Many of these policies and the language of the mandate had clear precedents in late nineteenth-century international relations and diplomacy. As Kevin Grant notes, the General Act of the 1885 Berlin Conference, at Britain’s insistence, included a commitment to suppressing slavery, while the signatories of the Act, in a clear echo of the terms of the mandate, pledged to protect the ‘moral and material well-being’ of indigenous people in Africa. Later documents, such as the 1890 General Act and Declaration of Brussels, addressed the trade in arms and liquor.\textsuperscript{27} These policies reflected nineteenth-century discussions about the rehabilitation of empire through the enlightened, paternal guidance of colonised people.\textsuperscript{28} As Jeanne Morefield shows, intellectuals such as Gilbert Murray and Alfred Zimmern exemplify how liberal internationalism rested on articulating imperialism as a civilising and paternalistic force. The notion of the ‘family of man’ in fact emerged as the dominant metaphor helping these thinkers to resolve the tensions between liberalism and the subjugation of other peoples, since it could legitimise empire as a natural order.\textsuperscript{29} In other words, a race of natural parents should lead a race of natural children who were not yet ready for self-government.\textsuperscript{30} Mark Mazower has convincingly argued that these

\textsuperscript{25} Grant, ‘Human Rights and Sovereign Abolitions of Slavery,’ p. 84. On the role of notions of universal history in representations of colonial societies, see Uday Singh Mehta, \textit{Liberalism and Empire: A Study in Nineteenth Century British Liberal Thought} (Chicago: University of Chicago Press, 1999), pp. 77–82.

\textsuperscript{26} J. C. Rookwood Proud, \textit{World Peace, the League and Australia} (Melbourne: Robertson & Mullens, 1936), p. 36. See also Hiery, \textit{The Neglected War}, p. 205.

\textsuperscript{27} Grant, ‘Human Rights and Sovereign Abolitions of Slavery,’ pp. 83–4.

\textsuperscript{28} Mehta, \textit{Liberalism and Empire}, p. 199.


\textsuperscript{30} Mehta has shown how metaphors of infancy and family pervaded British liberalism. See Mehta, \textit{Liberalism and Empire}, pp. 31–3.
ideas were deeply felt among those who played key roles in framing the character of the League of Nations and liberal internationalism generally, including Zimmerm and the South African field marshal and politician Jan Smuts.31 Indeed, it was Smuts who provided much of the language and ideas that Wilson used to reconcile his internationalist principles with the ongoing exercise of imperial rule.32

The language of the mandate system featured prominently in Australian policy debates over the future of New Guinea, especially in the contributions of the lieutenant governor of Papua, Hubert Murray, and public servants such as Edmund Piesse, who took up the discourse of colonial duty in earnest. In his 1925 book, *Papua of To-day*, Murray described Article 22 of the League of Nations Covenant as marking:

> the abandonment of the theory that a colony is to be regarded merely as a business proposition, and the native inhabitants merely as ‘assets’ to be utilized for the purpose of this business.33

Colonial governments everywhere needed to heed this spirit, Murray argued, in which the ‘interests of the native are to be regarded as of the first importance’.34 This rhetoric had provoked prime minister Hughes into trying to marginalise Murray over the future of German New Guinea, which ultimately became a separate territory out of Murray’s reach.35

Piesse, appointed to head the Pacific branch within the prime minister’s department in 1921, read widely on colonial policy and indigenous customs in the hope of pushing official policy on land and labour closer to international norms.36 Among that collected literature was a speech that John Wear Burton, the head of the Methodist mission in Sydney, gave in Melbourne in July 1921. Drawing on Murray and the prominent British internationalist C. Reginald Enock, Burton’s speech articulated neatly with international conversations. The league and its covenant, Burton argued, represented a:

33 Hubert Murray, *Papua of To-day, or an Australian Colony in the Making* (London: P. S. King & Son, 1925), pp. 210–11.
34 ibid., p. 213.
35 Bennett, ‘Holland, Britain and Germany in Melanesia,’ pp. 56–7.
A MEDICO OF MELANESIA

[d]aring scheme of corporate living which transcends every other attempt in human history to provide an enduring and practical basis for human society. In looking out upon the nations of the earth it sees them as members of one great human family and has for its objective the promotion of true family feeling.

Following the British liberals, Burton argued that ‘some members of the family are merely infants’. The imperial powers were obligated to educate and train indigenous people ‘in order that they may come to full stature’. This project rested on the rejection of contract labour that bonded indigenous people to plantations and mines and the encouragement of independent indigenous production of export crops. Ultimately, imperialism was cast as a moral mission, aimed at uplifting colonised people through hygienic, spiritual, agricultural and economic instruction.

The league’s Permanent Mandates Commission was largely powerless to affect or enforce the terms of the mandate. International media scrutiny exerted the most pressure on the colonial policy of sensitive governments, yet even then had limited impact. South African atrocities in the former German South West Africa colony were condemned, yet there was little change in colonial conduct. As Pedersen has pointed out, the terms of the mandates were also flexible. While Burton argued that following the ideals of the mandate would lead to peasant proprietorship, others, including the head of the Commonwealth Bank in Rabaul, used the terms of the mandate to justify the introduction of forced labour. The government anthropologist in New Guinea, Ernest Chinnery, suggested in 1927 that legislation be introduced that would allow government officers to compel indigenous people to work as carriers on patrols. The territory’s annual report for 1926–27 informed the Permanent Mandates Commission that some forced labour of ‘a very light nature’ had been used for road maintenance.

37 John Wear Burton, ‘The Australian Mandate,’ Speech delivered to meeting of League of Nations Union, Melbourne, 21 July 1921, pp. 1–2, Piesse Papers, MS 882, Series 6, Item 563-89, NLA.
38 ibid., p. 20.
41 Ernest Chinnery, Government Anthropologist, to Evan Wisdom, 29 November 1927, Papers of Ernest William Pearson Chinnery [hereinafter Chinnery Papers], MS 766, Series 5, Folder 3, NLA.
The goal of indigenous welfare could be used to support a range of different labour regimes. The administrator, Brigadier-General Evan Wisdom, urged continuation of the contract labour system for the plantation economy that had been more effectively developed in the German territory than in the Territory of Papua:

If the policy is such as to enable the native with his small wants to loaf and live on the production of others, the ruin of the country economically is sure, and with it all hope of the moral and material uplifting of the native. If the native is to be uplifted, it must be done in conjunction with the progress of the country, and progress is only possible with abundance of native labour.43

The protection of indigenous land tenure in Fiji, he claimed, had entrenched an Indian labouring class at the expense of indigenous communities. This had created a situation in which the government would be forced to grant Indians ‘full rights’ or cease economic activity by repatriating them, either of which was an unpalatable outcome.44 The best solution, therefore, in the interests of indigenous welfare and the economic progress of New Guinea, was contract labour:

We must, therefore, lay down the principle that any policy should, whilst ensuring that the terms of the Mandate, as regards forced labor are observed, avoid making it more difficult to obtain and use to as full an extent as possible, the native labor.45

Piesse challenged this insistence on indentured plantation labour, drawing on anthropological literature on indigenous land use to make a case for alternatives. In particular, Piesse argued the importance of encouraging indigenous communities to produce cash crops on their own land, as Papua had done.46

43 Evan Wisdom to Secretary of the Prime Minister’s Department, 3 August 1921, p. 2, Piesse Papers, MS 882, Series 6, Item 174-8, NLA.
44 ibid., p. 1. On the tensions between the White Australia Policy and the mobility of British imperial subjects, see Lake and Reynolds, Drawing the Global Colour Line, p. 20; McKeown, Melancholy Order, p. 185.
45 Evan Wisdom to Secretary of the Prime Minister’s Department, 3 August 1921, p. 3, Piesse Papers, MS 882, Series 6, Item 174-8, NLA.
Piesse warned the Commonwealth Government about the ‘scrutiny and criticism’ Australia would face from the League of Nations, Germany and the International Board of Missions. His influence was limited, however, and almost all authority over legislation and policy rested with Wisdom, who rejected most of Piesse’s proposals. The number of indentured labour contracts climbed from just over 27,000 in 1921–22 to more than 40,000 by the onset of World War II. Wages were kept at 5 shillings a month, with a maximum of 10 shillings, which Cilento later pointed out was much lower than the average wages of 10 and 20 shillings in Papua and the British Solomon Islands, respectively. The administration defended its low pay by reminding critics that ‘the wants of the native are few, and that he might not make wise use of a larger wage’. Wages were also withheld until the expiration of the three-year contracts. Exploitation could thus be explained away as inculcating industrious habits and discipline. Encouraging manual labour, including handicrafts, was part of the government’s responsibility for the ‘welfare of the natives’, argued the secretary of the prime minister’s department, who also noted that admitting Indian workers ‘who are culturally far above them’ would place indigenous people at a serious disadvantage. The government thus deployed the language of the ‘sacred trust’ to justify extending racial immigration restrictions to New Guinea and thus preserve indigenous populations as a source of labour.

Reconciling indigenous welfare and colonial economic development had become an important trope of imperial discourse by the 1920s. Frederick Lugard’s notion of the ‘dual mandate’ was the most famous of these formulations, in which railways, health measures, trade and employment would increase wealth, check disease and encourage industrious habits. Economic development for the benefit of colonising countries and indigenous welfare could be made ‘reciprocal’.

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47 ibid., pp. 8–9.
49 Bennett, ‘Holland, Britain and Germany in Melanesia,’ p. 57; Moore, New Guinea, p. 186.
51 New Guinea Annual Report 1921–22, 1923, p. 52. The justification of low pay on the basis of the supposedly simple life of non-European peoples was persistent; see H. Ian Hogbin and Camilla Wedgwood, Development and Welfare in the Western Pacific (Sydney: Australian Institute of International Affairs, 1943), p. 8.
52 Secretary of the Prime Minister’s Department to Secretary of the Governor-General’s Department, 31 May 1921, p. 2, Piesse Papers, MS 882, Series 6, Item 101, NLA.
in New Guinea similarly made indigenous and colonial interests two sides of the same coin. As Patricia O’Brien puts it, measures to protect indigenous people were ‘entwined with economic growth and preservation of a labour supply’. Despite the prevalence of an international discourse that made indigenous welfare and progress the primary concerns of empire, the hope for Australian profits from plantation copra exports remained central to the social and political order of Australian New Guinea between the wars.

Hubert Murray’s apparently progressive rhetoric in Papua belied the racist paternalism and violence that informed government in both Papua and New Guinea. Echoing Cilento’s description of the ‘gulf’ between colonisers and colonised, Murray claimed:

‘The Papuan, on the arrival of the white man, is confronted with an entirely new civilization, and is invited to step over a gap which the wisest and most gifted races have hardly crossed in twenty centuries.’

The government was thus obliged to protect the welfare of the people in the face of this supposed cultural shock by protecting indigenous health and inculcating ‘habits of industry’. One Papuan regulation, for example, compelled Papuan villagers to maintain coconut groves. As Penelope Edmonds has shown, Murray framed this policy as inculcating the value of regular labour and peasant proprietorship yet also designed it to augment government revenue. Such policies were necessary, Murray explained, because of the ‘ignorance of the natives and their weakness and the backwardness of their civilization’. Australian government must also transform indigenous society by sweeping away the ‘superstitious terrors which haunt the darker side of Papuan life’ and remake them in a European image. The writings of Murray, once considered a ‘progressive’ colonial administrator, are thus typical of colonial disdain for ‘savage’ and ‘primitive’ customs and the vain determination to erase them.

55 Murray, Papua of To-day, p. 220.
56 ibid., p. 253.
58 Murray, Papua of To-day, pp. 252–3.
59 ibid., p. 224.
The violence and brute force of Australian colonial rule also undermined any progressive image that Australian colonialism might have once enjoyed.\(^{60}\) George le Hunte and Australian-born Christopher Robinson—successive governors of British New Guinea in the early years of the twentieth century—presided over massacres that together killed more than 150 indigenous people at Gaoribari Island.\(^{61}\) Murray’s police were known to fire on Papuans who resisted.\(^{62}\) Under pressure from public criticism and constant reports of illegal flogging in the press, the Commonwealth Government invited Colonel John Ainsworth, a former native commissioner in Kenya, to investigate indigenous welfare in the mandated territory in 1924. Ainsworth’s report suggested that this kind of violence was common, yet Wisdom ignored it.\(^{63}\) Aside from covert brutality, official punitive expeditions were not uncommon. Cilento himself participated in such expeditions, including once during the military occupation when reports of attacks on villages along the Sepik River prompted the dispatch of a force comprising two machine guns, a three-pound cannon and 80 indigenous police.\(^{64}\) In 1927, Cilento volunteered for another expedition, in response to the killing of four European miners in the Nakanai District of New Britain. The Permanent Mandates Commission questioned the Australian High Commissioner in London over the Nakanai expedition, which killed 18 indigenous people, but little was made of the incident.\(^{65}\)

Indigenous resistance in New Guinea never achieved the sustained and collective anticolonial demands for autonomy that had arisen in Samoa.\(^{66}\) The vast array of communities and languages and the complete lack of colonial influence in many areas made large-scale rebellion or protest difficult or unnecessary. Villagers occasionally assaulted or killed Europeans, such as the miners mentioned above, often as retaliation.


\(^{63}\) ibid., pp. 92–3; Thompson, ‘Making a Mandate,’ pp. 74–80.

\(^{64}\) Raphael Cilento, Diary: Sepik River Expedition, 20 February – 10 March 1919, Cilento Papers, UQFL44, Box 11, Item 18.


against the indigenous police who accompanied European officers.\textsuperscript{67} When the government seized valuable land for a new hospital, local people harassed the survey party and removed pegs marking out the site.\textsuperscript{68} The major exception to localised resistance was the Rabaul maritime strike of 1929, led by sailors and police who earned more than ordinary indentured labourers, who assembled at the Catholic and Methodist missions outside Rabaul after stopping work. The industrial action soon fell apart when the missionaries told the strikers to return to work, but the response of colonial authorities was harsh. Many of the leaders were sentenced to three years’ confinement and colonists vocally resisted attempts to provide better education for indigenous people in the wake of the strike. As Bennett suggests, this reaction speaks to the insecurity of the European elite and their desire to retain New Guineans as a subservient labour force.\textsuperscript{69}

Cilento’s somewhat turbulent time as the Director of Public Health in New Guinea took shape at this intersection of imperial capital, colonial violence and international discourses on indigenous welfare. Medicine was in many ways tied to the project of imperial conquest and development, providing options for maintaining labour supplies and enforcing colonial order. Yet medical knowledge could also be in tension with colonial policy and practice and provide a platform from which to critique other priorities and interests. Nutrition, in particular—a research field that emerged within imperial contexts and encouraged social perspectives on health and sickness—became an important platform from which Cilento criticised the colonial government.

Public health, labour and policing a territory

Cilento’s first task as Director of Public Health was to conduct a full review of medical services in the territory. At the time, these were divided between the administration and the Expropriations Board that maintained former German property and employed hundreds of indentured labourers and demanded more. Prefacing his report by stressing that it was not meant to be contentious, Cilento nevertheless bluntly claimed, ‘It may be

\begin{footnotes}
\item[67] Ernest Chinnery to Harold Page, 19 April 1928, pp. 1–2, Chinnery Papers, MS 766, Series 5, Folder 15, NLA.
\item[68] \textit{Sydney Morning Herald}, 15 October 1938, p. 12.
\item[69] Bennett, ‘Holland, Britain, and Germany in Melanesia,’ pp. 57–8.
\end{footnotes}
said that *there is little, if any, progress being made in medicine or sanitation throughout the Territory*, noting in particular that nearly every aspect of preventive medicine he or his predecessors pursued had been undermined by crippling financial stringency.\(^{70}\)

Tropical medicine has come in for special criticism in studies of health and medicine in New Guinea. It was a specialty founded on assumptions about the profound environmental and racial differences of the tropics as a colonial world. Tropical rainfall, humidity and ecological fecundity had produced alien pathogens that ravaged European communities. European science also comprehended the tropics as having produced races characterised by physical and mental lethargy. With the discovery of germs carried in the bloodstream or digestive tract and communicated by insect vectors or contaminated soil, medical knowledge increasingly depicted the indigenous peoples of the tropics as a threat to Europeans and therefore to governance, productivity and commerce. For Donald Denoon, this tendency to pathologise whole racial groups dominated the medical policy of New Guinea. Denoon understood tropical medicine—by neglecting nutrition, clean water and other basic aspects of applied public health, and in hopelessly obsessing over the elimination of specific diseases—as having condemned New Guineans to generations of sickness and suffering.\(^{71}\) Tropical medicine is thus contrasted with a more virtuous preventive medicine.

Cilento’s public health policies certainly rested on racist logic. Yet Cilento clearly favoured a broadly preventive approach to medical services that included the protection of water supplies and the disposal of waste. ‘The infinitely greater aspect of the subject is preventive medicine,’ he wrote in his report, ‘upon which depends the increase or decrease of endemic and epidemic diseases, and, practically every essential problem of public health.’\(^{72}\) One of Cilento’s great frustrations was the difficulty of obtaining funds for an incinerator in Rabaul, the purchase of water tanks and the mosquito-proofing of these and other water sources in the town.\(^{73}\) The design and construction of sanitary latrines were also major priorities. Cilento concluded his report with a scathing accusation:


\(^{73}\) ibid., p. 4.
No criticism of the policy could be so severe as this intrinsic condemnation. Prevention is the whole basis of public health administration and this policy aims not at it but at the multiplication of hospitals and personnel. In other words, the whole policy is directed towards combating effects with a total disregard of the causes, which produce them.  

The point here is not to absolve tropical medicine or to suggest that public health in New Guinea was indeed progressive, but to show that the distinction between tropical hygiene and preventive medicine was not as sharp as some have suggested. Prevention was an important concept in imperial tropical hygiene, while laudable aspects of public health—such as ensuring clean water supplies, effective waste disposal and good nutrition—were equally enmeshed in the politics, discourse and finances of colonial administration. 

Australian colonial officials did not receive Cilento’s report well. Writing from neighbouring Papua, Hubert Murray supposed that: 

most medical men would like to spend almost the whole of a limited revenue on medical services, just as most agriculturalists would spend it on agriculture, and engineers on works.  

In Rabaul, Evan Wisdom complained of the severity of Cilento’s report and suggested that he was seeking personal glory: 

It must be kept in mind that Dr. Cilento is an enthusiast given an opportunity to do a big work and sees everything through the glasses of his idealism. To him the whole horizon is medical and everything else must give way. 

Cilento had indeed asserted this in his report: 

All well established tropical administrations recognise in fact that all other problems are subservient to those of health, since if a country can be made healthy it can survive even poor administration; while if it remains unhealthy no government however conscientious or well-intentioned in other respects, can secure permanent progress. 

74 ibid., p. 59. Cilento’s emphasis.  
75 For similar connections between colonial and metropolitan preventive medicine in the British Empire, see Jones, Health Policy in Britain’s Model Colony, pp. 109–22.  
This insistence on expanding the remit of medicine in New Guinea inevitably provoked resistance from the government. In Cilento’s mind, water, housing, labour laws and town planning were all the purview of applied public health in the tropics. Yet these were aspects of administration that he would have to wrest from other departments that were responsible for them. The purchase and mosquito-proofing of water tanks in Rabaul, for example, put him in conflict with the Department of Public Works.\(^7\) As elsewhere in the Pacific and Asia, in New Guinea, the scarcity of funding and the conflicting priorities of medical men, district officers, engineers and the central government made for a complicated relationship between medicine and government.

Malaria in New Guinea was a chronic infection for many indigenous people outside the Highlands and a lethal danger for Europeans. Prolonged exposure to malaria can confer a degree of resistance to specific strains of the *Plasmodium* parasites in individuals and to larger communities that enjoy a stable set of social and economic relationships. This does not prevent infection, but lessens the severity of the disease and can be lost if time is spent away from the ecological context that gives rise to it.\(^8\) The various *Anopheles* mosquito species, whose bites introduce parasites to the human bloodstream, reproduce in different types of aquatic environments.\(^9\) Epidemics and outbreaks of the disease thus usually followed changes in the distribution or flow of water, which in turn changed the number and distribution of mosquitoes, or after the introduction of new strains of the parasite through migration. Agricultural or infrastructure development and population movements associated with migrant labour or refugees were very often at the heart of these ecological changes. The intensive development of commercial plantation agriculture in the colonial tropics—which involved significant land clearing, labour migration and a range of effects on nutrition—meant that malaria persisted as an endemic disease far longer in Africa, Asia and Latin America than in Europe and North America.\(^10\)

Cilento described the *Plasmodium* parasite as having shaped the body of indigenous society, reporting: ‘Malaria, in a native territory such as New Guinea, passes beyond the stage of a prevalent disease to become

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79 ibid., p. 8.
81 ibid., p. 7.
82 ibid., pp. 84–95.
practically a normal circumstance in native environments. His approach nevertheless reflected an increasing emphasis in tropical medicine on the ecological and social aspects of the disease. Malaria, Cilento argued, could not be stamped out once and for all by a ‘violent crusade’:

Time, agriculture, and the gradual evolution of more sanitary methods of living, coupled with the steady repulse of the jungle, must be regarded as the all essential lines of the offensive throughout the main mass of the native-owned land.

If sanitation reform across the territory seemed a long-term project, intensive effort at least promised to control malaria in the towns and outstations where the disease persistently threatened European health. Malaria outbreaks were most common in Rabaul between May and June when the Anopheles mosquito population that carried the disease increased dramatically. The local Anopheles punctulatus mosquitoes bred in bodies of still water such as swamps, rainwater puddles, ditches and permanent pools. Although one study dismissed the possibility of mosquitoes breeding in discarded tins and coconut shells, routine measures continued to collect them. Control thus focused on the periodic destruction of larvae and eliminating breeding places by filling holes, oiling water tanks, collecting bottles and treating wells with lime.

Hookworm and yaws, or framboesia, were also common diseases targeted in mass treatment and eradication campaigns. Historians have justly critiqued such specific disease campaigns, which were explicitly linked to the expansion of colonial authority and influence. Officials hoped that mass treatment, which was often dramatically effective, would convince indigenous people of the effectiveness of Australian medicine. Routine

88 ibid., p. 626.
patrols treated yaws en masse with injections of the arsenical drug Novarsenobillon, which usually cleared major lesions. In his 1925 report, Cilento claimed that the injections were the:

ideal weapon for penetration work among suspicious and timid native groups. In the experience of the writer nothing contributes so towards popularising and assisting the advance of Australian medicine and prestige as a successful framboesial drive.92

Evidence suggests that European medicine actually had very limited influence on indigenous attitudes. Annie Stuart, for example, has argued that instead of simply transmitting Western knowledge, such encounters between indigenous people and Western medical men produced hybrid meanings.93 Yet for some colonial officials, medicine was a potential spearhead for extending government influence across the territory.

The New Guinea administration similarly saw hookworm treatment campaigns as 'a means of penetrating into country little touched by the Administration and establishing relations with the natives in the best way possible'.94 Officials were also concerned with the way hookworm impaired the fitness of labourers and reduced resistance to tuberculosis and pneumonia, which were the principle causes of disease mortality among labourers.95 Victor Heiser, the Director of the East for the International Health Board (IHB), had visited Australia, Papua and Fiji in 1916, and subsequently proposed an anti-hookworm campaign in Papua, New Guinea and northern Australia modelled on the programs the IHB had developed in other tropical regions.96 That type of program was ultimately deemed unsuitable for New Guinea, yet hookworm remained a special target of health work in the territory.97 At a 1921 meeting of administration officials, business representatives and Sylvester Lambert

92 Cilento, 'Medical Progress and Policy in the Territory of New Guinea,' p. 27.
93 Annie Stuart, 'We Are All Hybrid Here: The Rockefeller Foundation, Sylvester Lambert, and Health Work in the Colonial South Pacific,' Health and History, 8(1), 2006, pp. 56–79.
94 Evan Wisdom to Secretary, Department of Home and Territories, 4 August 1921, NAA: A457 (A457/1), 741/2.
(an IHB officer who was to become an important figure in the Pacific Islands) it was suggested that Lambert and the Commissioner for Native Affairs, Captain H. C. Cardew, draft a labour ordinance requiring that employers examine indigenous workers and provide treatment when they signed on and every six months.98 Wisdom later informed the Department of Home and Territories that the hookworm campaign would treat 32,000 indentured labourers and a total of 197,000 indigenous people.99

Tuberculosis and pneumonia—diseases not usually associated with the tropics—dominated statistics on mortality. A series of postmortem examinations of indigenous people in Rabaul attributed one-third of all deaths to tuberculosis alone.100 In another report, Cilento described pneumonia as the ‘most prolific cause of death in the Territory’.101 In the 1920s, British colonial health officials began recognising that the living conditions of migrant workers in mines and plantations in Africa were leading to high levels of mortality and morbidity from diseases associated with overcrowding and malnutrition rather than with tropical environments.102 Cilento similarly noted that bringing indigenous people to work around Rabaul caused significant social dislocation, while their living conditions in town and on plantations were conducive to respiratory infections. One sanitary inspector reported that quarters for labourers contracted to the administration had been constructed from rusty kerosene tins, galvanised iron and grass. Strict regulations were frequently breached, making it easy to understand ‘why there is so much sickness among the native labourers’.103 Cilento and members of his team of medical officers and sanitary inspectors thus asserted the need for stronger government action on indigenous sickness and to some extent recognised that structures of colonial rule impacted on indigenous health.

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98 ‘Minutes of Second Meeting of Hookworm Committee of the Territory of New Guinea,’ p. 4.
99 Evan Wisdom to Secretary, Department of Home and Territories, 4 August 1921, NAA: A457 (A457/1), 741/2.
Health became an important aspect of attempts to reform conditions of colonial labour in the first decades of the twentieth century. The territory’s annual report for 1921–22 acknowledged criticism of the social disruption and health risks involved, but insisted that populations were increasing in recruitment areas and medical examination at the expiration of contracts prevented the spread of disease. Ultimately, the administration argued, ‘the native must be induced to work’. The Native Labour Ordinances of 1922 required that employers provide a sick ward or, where there were more than 100 employees, a separate hospital building. Where there were over 500 workers, employees had to provide a qualified medical practitioner and in all cases there must be a store of prescribed drugs, bandages and other treatment materials. Employers were required to send seriously ill employees to the nearest government hospital and cover charges for inpatient and outpatient treatment.

Public health in many respects revolved around managing indigenous mobility, while the limitations of disease surveillance and control over the territory often brought colonial anxiety to the surface. In August 1921, rumours heard from indigenous people suggested an outbreak in Dutch New Guinea of a disease resembling smallpox, which the administration associated with Asia and was desperate to exclude from the territory. The Dutch resident informed the outstation at Vanimo that smallpox had indeed broken out, advancing more than 30 kilometres towards the border in 10 days. There was an urgency, even panic, in the correspondence between Rabaul and Melbourne. ‘Terror-stricken’ Malays from the Dutch side were said to be streaming towards Australian territory, requiring urgent quarantine action by police and medical officers. Without adequate personnel, Wisdom feared an epidemic might be unavoidable: ‘If cannot stop epidemic through inability to obtain medical advisers requested, it is my wish to be absolved from responsibility.’ A shortage of personnel and the lack of real control over the territory struck fear into the heart of the colonial government.

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106 ibid., pp. 172–3.
107 Rabaul to Prime Minister’s Department, 13 August 1921, NAA: A457 (A457/1), 741/1.
108 Evan Wisdom to Prime Minister’s Department, 12 August 1921, NAA: A457 (A457/1), 741/1.
Anxiety over such threats prompted efforts to extend epidemiological surveillance and control movement across the territory. The 1921 Quarantine Ordinance gave the administrator authority to declare quarantine areas in response to epidemics.\textsuperscript{109} Severe epidemics of dysentery, whooping cough or pneumonia occasionally struck rural districts, prompting efforts to restrict movement in or out of the quarantined areas.\textsuperscript{110} Following a 1927 meeting with government officials, including Cilento and government anthropologist Chinnery, infectious disease regulations included Christian missions and schools in the collection of vital statistics and epidemiological information.\textsuperscript{111} ‘We want to have a hundred eyes, and we want an eye in every village’, Cilento told the missionaries.\textsuperscript{112} Systematic government patrols collected vital statistics and data on diseases, food and water supplies, housing, the disposal of waste and topography on standardised forms and maps.\textsuperscript{113} In this way, Cilento wanted to make all the hidden spaces of New Guinea visible and legible to the public health gaze.

The indentured labour system exacerbated fears about the movement of pathogens. One outbreak of gonorrhoea soon after Cilento’s arrival illustrates the contradictions and failures of attempts to regulate this movement. In 1924, government hospitals in Rabaul and Kavieng were swamped by 300 or so cases of the disease. In Wisdom’s absence, Cilento decided that treatment—in any case difficult—was futile given the scale of the problem. Instead, he opted to release a substantial number of patients with certificates that stated ‘Gonorrhoea—no facilities for treatment’. Having required that employers send cases of venereal disease to government hospitals under the Native Labour Ordinances, this was an acute embarrassment. Wisdom also recognised, however, that contradicting Cilento and stopping the practice he instituted would ‘have a disastrous effect on business and domestic matters generally, and would land us with a horde of natives with whom we are unable to deal … effectively’.\textsuperscript{114}

\textsuperscript{109} New Guinea Annual Report 1921–22, 1923, p. 31.
\textsuperscript{111} New Guinea Gazette, 1 July 1927, p. 2.
\textsuperscript{112} Mission Government Conference Proceedings, 21 June 1927, p. 6, Chinnery Papers, MS 766, Series 5, Folder 13, NLA.
\textsuperscript{114} Evan Wisdom to Secretary, Department of Home and Territories, 29 October 1925, NAA: A1, 1926/19358.
At the same time, the prospect of time-expired workers spreading disease when they returned to their home districts continued to unsettle colonial medical officials, as it did in other colonies.\textsuperscript{115} Cilento noted:

Areas of gonorrhoea have been found in most distant districts recently opened up, where one or two returning labourers (perhaps the only ones who have been outside the tribal area) had brought the disease back with them.

One village in Talasea district, which patrols had visited only twice, had an 80 per cent infection rate.\textsuperscript{116}

Cilento responded by establishing depots for isolating and treating off-contract labourers on Vulcan Island, in Rabaul Harbour, and on Nago Island, in Kavieng District, New Ireland. When the major outbreak of gonorrhoea occurred in the first half of 1925, many patients were kept in temporary compounds on these islands. Cilento complained, however, that the indigenous police assigned to guard the 6 kilometres of coast, besides some of them being themselves infected, were ‘refractory and incompetent’ and made little attempt to hinder ‘deserters’. The buildings in the compound were made from local bush materials and Cilento noted that when repairs were needed, ‘the coastal natives acting apparently in concert have refused to allow any further bush timber to be cut’.\textsuperscript{117}

So although colonial officials dreamt of effectively controlling the spread of disease through surveillance and detention, practical attempts to do so faltered on limited resources and indigenous resistance. Such examples highlight the general weakness and unease of colonial governance in New Guinea, which at different times found expression in punitive violence, panic or resignation.

Public health, town space and colonial social order

If medical knowledge and public health practices had limited impacts on governance in New Guinea, they certainly played a role in planning colonial order. In particular, tropical medicine helped construct colonial

\textsuperscript{116} \textit{New Guinea Annual Report 1925–26}, 1927, p. 82.
\textsuperscript{117} Cilento, ‘Medical Progress and Policy in the Territory of New Guinea,’ p. 31.
subjects as dangerous and provided one rationale for racial segregation, especially through the concept of the ‘reservoir.’\textsuperscript{118} The increasing dominance of bacteriology and parasitology in the knowledge and practice of medicine had a corollary in the idea that some human communities, in long association with their environment, could develop resistance or even immunity to diseases. This would allow them to carry the infection without suffering from obvious or debilitating symptoms.\textsuperscript{119} Colonial health personnel could thus represent whole populations as practically permanent reserves of pathogens posing a grave threat to planters, traders and government officials. Beyond immunity, medical discourse also pathologised non-Europeans in sanitary terms. Certain races, it was assumed, lacked modern understandings of hygiene and continually created insanitary conditions through habits and customs relating to housing, waste disposal, cleanliness and food preparation. Racial segregation within urban and institutional spaces thus became a central principle of tropical medicine and of colonial government generally in the first decades of the twentieth century.\textsuperscript{120}

Rabaul was an ethnically diverse and very masculine place, with a small European population and a larger, predominantly male indigenous population living throughout the town near their places of work.\textsuperscript{121} The German Government had introduced a significant Chinese labour force that, by the time of Cilento’s appointment, had become a prominent community of hoteliers, restaurateurs and traders.\textsuperscript{122} Cilento noted in one report that racial segregation had been important in the original plans for Rabaul:

\begin{quote}
The demands of hygiene, racial inclination, and variations in the standards of living, all emphasize the desirability of some such subdivision, and the Department of Public Health has endeavoured to continue and develop this policy of racial segregation.\textsuperscript{123}
\end{quote}

\textsuperscript{119} Anderson, \textit{Colonial Pathologies}, p. 88.
\textsuperscript{123} \textit{New Guinea Annual Report 1925–26}, 1927, p. 73.
In another report, he stressed:

The native population represents a constant reservoir of disease, and it is believed that the removal of the natives from the township area will do much to minimize the risk of transference of all parasitical and protozoal diseases.124

But Cilento also criticised lapses in sanitation in Chinese parts of the township, pointing to the closure of one restaurant and the demolition of nine residences as evidence of positive health policies. He reported:

The Chinese houses that have been removed represented a continual menace to the inmates of the neighbouring European buildings in this important section of the township, and several cases of bacillary dysentery had been traced to them.125

Indigenous and Chinese communities were thus represented as persistent sources of disease because the characteristics that supposedly made them so were assumed to have a racial basis. This construction of non-Europeans as inherently pathogenic demanded the erection and maintenance of racially structured social boundaries.

The long, tortuous process of planning and building a new hospital and housing compound for labourers at Rapindik, just outside Rabaul’s town limits, demonstrates, however, the limits of hygiene logic in shaping a racialised social order. Cilento’s predecessor had condemned the old ‘native’ hospital as a ‘grave danger to the health of the white community’ two years before Cilento arrived.126 Scarce funds delayed attempts to move the hospital or upgrade its facilities, although Cilento continued to stress that its patients and latrines posed a threat to European residents. Following the gonorrhoea crisis at Vulcan Island, he asked for funds to build a new lock hospital to detain patients, but anticipated that it would become a new general hospital for indigenous people. Venereal disease control was ultimately kept on Vulcan Island, however, and new buildings at Rapindik were instead expanded with the aid of an annual grant of £10,000 intended for ‘native welfare’.127 The hospital was finally finished in late 1928, after Cilento had returned to Australia.128

126 Evan Wisdom to Secretary of Prime Minister’s Department, 11 October 1922, p. 2, NAA: A518 (A518/1), R832/1/3.
The new hospital was in fact part of a larger plan to more thoroughly segregate indigenous people from the township. In a memo to the secretary of the prime minister’s department, Wisdom noted that segregation rested on more than medical logic:

> It is the universal practice to have the white and coloured communities kept entirely separate. At present, the white, asiatic and native communities are all grouped together in the same area and practically mixed up with each other.129

In his annual report for 1926–27, Cilento explained that the planning of the new hospital had been carried out in conjunction with construction of a police barracks, prison and housing compound, in which the entire indentured labour force employed around Rabaul was to be permanently housed. Officials planned the Rapindik compound as three blocks of housing, a central playground or park and walls, with one boundary formed by the shoreline.130 “The experience of other colonial administrations was here influential. When discussing the hygiene of labourers’ compounds in his book *The White Man in the Tropics*, Cilento drew extensively on the work of A. Pearson and R. Mouchet, who worked as medical officers for the mining company Union Miniere in the Belgian Congo.131 In 1930, when officials were still discussing the compound, the Commissioner for Native Affairs reminded a meeting of the New Guinea Advisory Council: ‘We have something to go on in the fact that they have compounds in Africa and other native countries. We are not experimenting.’132

Public health discourse may have provided a powerful rationale for segregation, but the demand for a native compound reflected the influence of broader representations of indigenous people and the threat they apparently posed to social order.133 Cilento noted that the compound would help prevent petty crimes and other social problems in Rabaul,

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129 Evan Wisdom to Secretary of Prime Minister’s Department, 11 October 1922, p. 1, NAA: A518 (A518/1), R832/1/3.
133 Harriet Deacon has also questioned whether medical knowledge had a determining role in shaping racial segregation in the context of nineteenth-century Cape Town. See Harriet Deacon, ‘Racism and Medical Science in South Africa’s Cape Colony in the Mid to Late Nineteenth Century,’ *Osiris*, 15, 2000, pp. 203–5.
which ‘doubtless flourish owing to the fact that natives reside within the limits of the European area, and constantly have the opportunity for misdemeanours’. 134 At a 1930 meeting of the Advisory Council, the district inspector argued that housing indigenous people in one area would simplify policing. 135 Two years earlier, Chinnery described how:

[until recently there was no street lighting system in Rabaul and in the complete darkness … one might brush into prowling natives at all hours of the night without being able to see them.

Officials highlighted the sexual threat that indigenous men posed to European women. ‘There is scarcely a European woman in the Town’, wrote Chinnery, ‘who is free from the fear that she might be molested at night. Many sleep with loaded revolvers near them.’ Even in broad daylight, ‘European women have been accosted and insulted by natives on the walks in the public gardens and in lonely parts of the principle roads’. The native compound, Chinnery argued—along with street lighting, banning football, establishing night patrols and other policing measures—was a vital part of preventing a ‘contemptuous indifference’ that, if not dealt with, could lead to a ‘nasty native problem’. 136 Indeed, it was contact between indigenous people and Europeans, Chinnery argued, that had led to racial problems in Rabaul:

The lack of systematic and intelligent method and the isolated cases of foolish intimacy, mutilation of the dead, treachery and other manifestations of incompetence, produced re-actions from which the native has not yet recovered. 137

Segregation was thus a vital element in the creation of the social order necessary for fulfilling the ‘ideals of progress laid down in our policy of native administration’, reflecting the wider commitment to segregation in the British Empire. 138

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136 Ernest Chinnery to Harold Page, 5 April 1928, pp. 1–9, Chinnery Papers, MS 766, Series 5, Folder 4, NLA. For this racist sexual anxiety and legislation, including restrictions on dancing, drumming and singing in Papua and New Guinea, see Wolfers, Race Relations and Colonial Rule in Papua New Guinea, pp. 93–7.
137 Ernest Chinnery to Harold Page, 5 April 1928, p. 3, Chinnery Papers, MS 766, Series 5, Folder 4, NLA.
Colonial authorities could at times be ambivalent about the maintenance of strict racial boundaries, which was evident in Cilento’s attitude to the prohibition on indigenous people wearing European clothing. The government required that indigenous people wear only a lap-lap, a kind of skirt-cum-loincloth, which was supposed to approximate traditional dress. Indigenous people, it was said, did not know how to wear European clothes and would let shirts get dirty and sodden to the point where they became a health risk. This was a fairly common concern across the colonial world and part of a discourse that implicated the trappings of European ‘civilisation’ in the decline of indigenous society. Other colonial authorities instead argued that clothes were a convenient way of bridging the gulf between the colonisers and the colonised. In Papua, Hubert Murray suggested European clothes might ‘foster a sense of dignity’ among indigenous people, who, with the proper permit, may receive official recognition as ‘a man of prudence and intelligence beyond the ordinary run of his fellows’. Cilento similarly claimed that where the ‘better class native’ increasingly desires European marks of social status, ‘clothing is a great civilizing factor’. After quoting the Filipino nationalist José Rizal on the importance of dignity, Cilento asserted:

An absolute prohibition against clothing would be recognized by the natives as a barrier that places them definitely and finally in a position of obvious inferiority. Inferiority there doubtless is, but its ostentation, however unintentional, is harmful and unnecessary.

Colonial discourse could thus be condescending and contradictory in its assertions of social inequity and the possibilities of indigenous improvement.

140 Murray, Papua of To-day, p. 256.
The indigenous compound reflected multiple rationales of colonial government, but it later became a contested site in colonial politics as debate surrounded its planning well into the 1930s. Business interests in Rabaul objected most, particularly the larger companies such as Burns Philp and W. R. Carpenter & Co., which were either building or maintaining copra wharves and stores just outside the official town boundaries. In May 1930, both companies officially requested that they be exempt from any requirement to house labourers in the planned compound. Burns Philp employed about 500 indentured labourers and claimed to have spent £4,000 developing housing and medical facilities on land leased from the government inside the township. W. R. Carpenter had also developed facilities to house labourers on its land, at Toboi, outside the township. The Rabaul manager for Burns Philp claimed that transport would take over three hours from the 10-hour working day, adding: ‘It seems practically certain that natives will not willingly take to the restriction of life in a compound.’\textsuperscript{142} W. R. Carpenter similarly argued: ‘If we were compelled to occupy quarters at Rapindik the transport of our labour each morning would entail heavy cost and serious loss of time.’\textsuperscript{143} The immediate priorities of reducing costs and squeezing as much labour as possible out of its employees thus brought business into conflict with the official policy of racial segregation.

The principles of tropical medicine thus had to compete with other interests in shaping colonial social order. Cilento saw medical knowledge and public health as the central principles of governance in a way that led to his alienation from the rest of the administration. Cilento’s successors as Director of Public Health would prove to be less demanding. Indeed, when Burns Philp and W. R. Carpenter asked for their exemptions, the Acting Director of Public Health noted: ‘I would say that the last thing we want is to cause Burns Philp any embarrassment.’\textsuperscript{144} Medicine was not therefore simply a tool of colonial government and conquest. Rather, it provided ways of imagining and enforcing a colonial social order, its authority always negotiated and contested in the context of financial parsimony and the dictates of imperial capitalism.

\textsuperscript{142} P. Coote, Rabaul Manager of Burns Philp, to Evan Wisdom, 12 May 1930, NAA: A518, S840/1/3.
\textsuperscript{143} J. A. Carpenter, Managing Director of W. R. Carpenter and Co., to Evan Wisdom, 2 May 1930, NAA: A518, S840/1/3.
\textsuperscript{144} ‘Minutes of Advisory Council Meeting,’ 29 May 1930, NAA: A518, S840/1/3.
Population, diet and the colonial future

Tropical medicine and the imperatives of imperial rule clearly shaped Cilento’s work as the Director of Public Health in New Guinea. Yet he did have medical and social concerns beyond his formal training in tropical medicine and, indeed, beyond the interests and expectations of the central administration in New Guinea. Cilento often framed health and sickness within a historical narrative of colonialism and its social impacts, rather than simply appealing to inherent racial characteristics of indigenous or ‘Asiatic’ peoples. Cilento’s work in New Guinea roughly coincided with a flurry of anthropological reflections on the European impact on culture and society in the Pacific, which focused especially on population decline.

Cilento’s ambivalent relationship to this discourse was clearest in his deepening preoccupation with diet and its relationship to health and society. He had early on questioned the quality and quantity of rations for indentured labourers in government employment across New Guinea. In his review of medical services, Cilento suggested: ‘The question of native food is possibly the most important factor connected with conditions of indentured labour.’ After a tour of the territory to inspect living and working conditions, he claimed that 54 per cent of New Guinean police, labourers and prisoners at the government station at Manus suffered from ‘incipient’ beriberi, a condition of vitamin B deficiency causing weight loss and weakness.145 The issue later became Cilento’s most important conflict with the administration, as diet moved to the heart of his broad medical and social vision for New Guinea and its future. Diet and nutrition, in other words, became Cilento’s chief means of constructing the past and present of indigenous people, and a future for them under the guidance of ‘civilised’ peoples.

Modern knowledge of human nutrition had roots in colonial laboratories and fieldwork and fed back into discussions of public health across the world. In this way it is an illuminating example of the complicated ‘networked’ routes that ideas and practices have taken across imperial space.146 Robert McCarrison conducted comparative studies of diets in the

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mid-1920s and advised the Indian Government of the influence of vitamin deficiencies on disease resistance. John Boyd Orr carried out comparative analyses of diets and health among African tribes that seemed to suggest the superiority of protein over carbohydrates in protecting health. Earlier research in the late nineteenth and early twentieth centuries in the Dutch East Indies and the Federated Malay States produced a wealth of results linking beriberi to a deficiency of vitamin B brought about by a reliance on polished rice in the diet of prisoners.147 By the mid-1930s, the League of Nations had established committees to investigate and synthesise current knowledge of the physiological, economic and social aspects of diet on a global scale.

Cilento tried to bring this research to bear on New Guinea health policy. Drawing on Elmer McCollum and Nina Simmond’s *Newer Knowledge of Nutrition* (largely based on McCollum’s research at Johns Hopkins), Cilento stressed that health was not just the absence of disease, but also a positive quality that a multitude of factors, continually operating on the body throughout one’s life, could cultivate or undermine.148 Poor nutrition, he wrote, affected ‘the relative muscular power, physical endowment, degree of endurance, resistance to disease, and even the place to which a tribe or race has won in manliness, energy, and soldierly instincts’.149 When Cilento pushed the administration on dietary reform, he pointed to examples from Northern Rhodesia, South Africa and other African colonies as guides to policy in New Guinea.150 The international literature and the policies of other territories, in other words, became resources for Cilento’s efforts to reform workers’ rations.

Cilento at first concentrated on the immediate problem of the diet of indentured labourers employed by the government, particularly those on outstations. Their food rations consisted mainly of tinned meat and polished rice, which had been stripped of its vitamin and nutrient-rich

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150 Raphael Cilento to Evan Wisdom, 8 August 1925, NAA: A1, 1925/24149.
husk and other outer layers during processing. By the time Cilento was appointed director of public health in New Guinea, most health officials recognised that consumption of polished rice was the cause of beriberi among colonised peoples in the tropics. Moreover, medical authorities also understood that vitamin deficiencies undermined resistance to diseases, including tuberculosis, pneumonia and malaria. Anne Hardy has noted that nutritional researchers in the late 1920s and early 1930s, such as Wallace Aykroyd and Benjamin Platt, resisted nutritional reform that emphasised the replacement of vitamins lost through processing. Instead, they took a holistic approach that recommended increasing the variety and quantity of food, so providing a healthy foundational diet.\footnote{Hardy, ‘Beriberi, Vitamin B1 and World Food Policy,’’ p. 68.}

Cilento began from a similar perspective, suggesting that colonial policy should reflect the knowledge that the whole diet of indigenous people shaped their health in a broad sense. After raising the issue, Cilento criticised Wisdom’s suggestion of importing red rice from Asia as a useless measure. Instead, rations needed to reflect the more complete traditional local diets of villagers. In October 1925, he wrote to Wisdom:

I state deliberately and emphatically that the diet supplied to labourers is grossly inferior to that used by them even in their own villages and that the death rate from food deficiency has a direct and indirect relation to the total mortality and the depopulation of this country.\footnote{Raphael Cilento to Evan Wisdom, quoted in Cilento to J. H. L. Cumpston, 8 September 1927, p. 3, NAA: A452, 1959/5894.}

The rations Cilento developed, although a compromise, were designed to provide a more complete diet that mimicked the village diet while also increasing the consumption of animal protein. Eventually included in the Native Labour Ordinance in 1927, the rations included 5 lb (2.3 kg) of either taro or breadfruit, along with dried beans or lentils, wholemeal barley or wheat and fresh meat or fish.\footnote{New Guinea Annual Report 1926–27, 1928, pp. 101–7.}

For Cilento, the pace of change was frustratingly slow. He had been pressing the administration to adopt new dietary standards since 1924, but the administration argued it would be too costly and prevaricated with assertions that natives did not need the 9 oz (255 g) of meat Cilento originally prescribed. In September 1925, government secretary H. Page relayed Wisdom’s statement that he thought it ‘most undesirable that
we should compulsorily increase the cost of the native diet to the extent indicated’. Cilento replied by pointing out how low the wages in New Guinea were compared with those in Papua and the Solomon Islands: ‘There is no country in the world where so little money is expended by the planter for the safeguarding of the native.’ In an excoriating indictment of the administration, Cilento wrote:

I now state deliberately that the Administration, with the facts established by me before it, is faced with the question of either improving the diet obligatory for natives or of being party to the deliberate destruction of the race to whose moral and social welfare it has pledged itself.

For Cilento, medical knowledge, his professional identity and the language of the mandate gave him a position from which he felt he could criticise the colonial administration in strong terms.

The tension between Cilento and the administration snapped when beriberi broke out among labourers on the recently opened goldfields at Bulolo and Edie Creek in the Waria River area. The rush of prospectors began in earnest in 1926 and 1927, which worried the administration. In October 1927, Wisdom sent Chinnery to the area to address the increasingly tense situation between miners, indigenous police and local communities. Prospectors had already gone into areas where there had been little contact and no government control. Cilento had advised that they observe the ration scales outlined in the labour ordinance, but the miners failed to implement them for their contracted labourers. The outbreak of beriberi on the goldfields confirmed for Cilento that the administration lacked progressive spirit. He wrote to Wisdom in May 1927:

I am persuaded to take this step in final recognition of the futility of my attempting, as matters are, to establish in this Territory an efficient and effective medical service.

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156 Ernest Chinnery to Harold Page, 19 April 1928, Chinnery Papers, MS 766, Series 5, Folder 15, NLA; Ernest Chinnery, Diary: 20 August – 21 November 1927, Chinnery Papers, MS 766, Series 30, Folder 5, NLA.
157 Ernest Chinnery to Leahy and Extone, 24 October 1927, Chinnery Papers, MS 766, Series 5, Folder 15, NLA.
He stressed that he would not accept responsibility for:

[the] epidemic of beri-beri at present gathering way at Idi [sic] Creek, where roughly a thousand natives shew marked evidences of mal-nutrition, several hundred have definite beri-beri, scurvy or ulcerative stomatitis and many have died.\textsuperscript{158}

Cilento felt his ‘personal and professional reputation’ was under threat and asked Cumpston whether he could return to Australia early.\textsuperscript{159}

Anne Hardy has noted that many nutrition researchers in the late 1920s and early 1930s—such as McCarrison in India, Wallace Aykroyd in Newfoundland and Benjamin Platt in China—began to see illness as a structural problem of income and living conditions in both the metropolitan and the colonial worlds.\textsuperscript{160} This was not a new idea, but knowledge of nutrition could provide new ways to understand that connection. Cilento similarly linked diet and health in New Guinea to social and economic conditions. Beyond workers’ rations, nutrition was at the centre of a narrative in which Cilento traced the sickness of indigenous people to the social and economic changes that followed colonisation. At the same time, however, nutrition helped represent racial difference in new ways that justified ongoing colonial rule.

Acute humanitarian and economic anxieties about declining indigenous populations had marked colonial discourse in the Pacific Islands since the late nineteenth century.\textsuperscript{161} Distant metropolitan observers, as Margaret Jolly has shown, tended to portray indigenous women as the antithesis of idealised middle-class European mothers and blamed high infant mortality on ‘faulty’ feeding methods and ‘insouciance’ towards children.\textsuperscript{162} W. H. R. Rivers, a Cambridge University psychologist-cum-anthropologist, published an edited collection of \textit{Essays on Depopulation} in 1922, including contributions from missionaries, anthropologists and his own paper on ‘The Psychological Factor’.\textsuperscript{163} George Henry Lane-Fox

\textsuperscript{158} Raphael Cilento to Evan Wisdom, 21 May 1927, NAA: A452, 1959/5894.
\textsuperscript{159} Raphael Cilento to J. H. L. Cumpston, 28 May 1927, NAA: A452, 1959/5894.
\textsuperscript{160} Hardy, ‘Beriberi, Vitamin B1 and World Food Policy,’ p. 63.
Pitt-Rivers’ *The Clash of Cultures* and Stephen Roberts’ *Population Problems of the Pacific* showed the influence of Rivers’ text. While acknowledging the impact of introduced diseases, these works emphasised psychological explanations for depopulation. Put in its simplest form, the disruption of headhunting, dancing and other customs created an environment in which ‘the native’, deprived of the rituals and activities that created his universe and provided meaning for his existence, fell into a listless despair. Noting Rivers’ claim regarding ‘the enormous influence of the mind upon the body among lowly peoples’, Roberts argued that the coming of European civilisation had left indigenous people ‘suspended as it were, in mid air’; ‘the native, making up his mind to die, forces his body to keep pace with his mental pessimism, and dies’. In this strange and fantastic rendering of ‘native’ fragility, indigenous people were prone to physical collapse when cultural contact undermined the spiritual, symbolic and customary world they inhabited.

Cilento shared a deep concern about depopulation but engaged critically with prevailing thought. In February 1927, he undertook a health and population survey of the Western Islands of the Bismarck Archipelago. In his report, he criticised Rivers and Pitt-Rivers for overemphasising psychology, arguing that they had mistaken effect for cause. In all the island groups Cilento visited, he found high rates of malaria, as was common in most communities in New Guinea except the Highlands. At Auna, on the island of Matti (Wuvulu), Cilento claimed that 68 per cent of males under the age of 14 showed signs of malarial infection, while the disease also accounted for a significant proportion of infant mortality. Other introduced diseases, such as tuberculosis and pneumonia, also contributed significantly to total mortality, just as they did in the rest of the territory. In one village on an island in the Ninigo Group, Cilento claimed that malaria accounted for the deaths of 66 per cent of children in the 20 years before his study.

167 ibid., p. 12.
Cilento emphasised how diseases interacted with malnutrition among the indigenous people of these islands. He rejected the notion that they had lived in a kind of languid paradise, arguing that the predominantly carbohydrate diet of precolonial life would at times have left them in a state of starvation for significant periods. Yet he also rejected the idea that Pacific Island populations were already in irreversible decline before colonisation: ‘We cannot, we fear, lay such flattering unction to our souls.’ For Cilento, the way European cash cropping had undermined indigenous agriculture was the greater cause of sickness and depopulation in the islands. Planters and governments had taken the best land, separating indigenous people from their social foundations:

Land was obtained by purchase, by force or by fraud, foreign labourers and foreign diseases were introduced, and the natives were soon driven from their ancestral properties to a common concentration depot on some inferior island or set of islets.

Loss of agricultural land had led to reliance on imported rice, sometimes supplemented with coconut and fish, which was ‘no basis for progress or initiative’. The resulting malnutrition had lowered resistance to malaria, leading to the very high mortality Cilento observed. Malaria and vitamin A deficiency in turn made indigenous people more vulnerable to tuberculosis and pneumonia. Dental defects were also common. Disease, moreover, had led to high rates of uterine defects that directly affected fertility. Cilento wrote of the island of Matti:

One can only deplore the unfortunate fact, that ignorance of the true condition of affairs permitted the alienation, a generation ago, of practically the whole of the valuable land, destroying, as an unforeseen consequence, the social organization and the institutions of the natives in favour of a company, and reducing an artistic and intelligent people from a high plane of potential development to the lowly status of dependence on the bounty of foreign intruders.

169 ibid., p. 21.
170 ibid., p. 9.
172 ibid., p. 17.
174 ibid., p. 6.
In his analysis of diet and health, Cilento did not therefore entirely blame sickness on indigenous people, and in fact suggested that patterns of dispossession and economic transformation involved in colonisation were responsible for much of the sickness suffered across the territory.

If Cilento traced sickness and depopulation back to the impacts of colonisation, nutrition was an important part of how he conceived of racial difference and a justification of paternalistic administration. Cilento built up around diet and nutrition an ‘anti-conquest’ narrative of the kind that Mary Louise Pratt has described for the eighteenth century. In these stories, imperial agents ‘seek to secure their innocence in the same moment as they assert European hegemony’. Cilento asserted that the predominance of carbohydrates in New Guinean diets had historically shaped indigenous people as weaker and less creative than European peoples:

The character of the carbohydrate eater is opposed to the character of the races which include in their diet an adequate proportion of animal protein, in that it is deficient in the qualities of energy, initiative, and progress, though it possibly surpasses the latter in the power of endurance at monotonous physical tasks. Such nations are hewers of wood and the drawers of water for the more vigorous nations. They make ideal porters and pack carriers, and apparently they do not desire to be otherwise.

In this account, diet had made some non-European peoples an ideal labour force for the economic development of tropical countries. So, while nutrition had allowed a critique of colonisation and exploitation, it simultaneously asserted the superiority of European peoples and justified colonial rule founded on paternal guidance.

In paying such close attention to nutrition, Cilento constructed racial difference within a narrative of environmental and social history rather than heredity alone. Diet shaped embodied subjects as contingent products of history, culture and the environment. Indeed, colonial discourse and law tended to incorporate a range of cultural attributes in the idea of

177 On the place of nutrition in representations of racial difference in the 1920s, see Nick Cullather, ‘Foreign Policy of the Calorie,’ *American Historical Review*, 112(2), 2007, pp. 354–9.
race rather than reduce it to hereditary biology. Cilento’s discussion of depopulation similarly framed race in terms of lost or declining forms material production, customs, stories and art. The inhabitants of the Western Islands had once been an ‘active and capable race’, responsible for stonework of a ‘high order of excellence’. The islands had been part of a thriving trading network supporting vital communities:

Decorated earthenware, pottery and such like evidences of handicraft and progressive culture were traded, native legends, dances and songs, with the mythology they illustrated were exchanged, and a considerable intercourse aided the social development of all parties. This has now entirely disappeared, such fragments of pottery, &c., as do remain being jealously hoarded by the natives as belonging to the ‘time before’.

On the other hand, Cilento often drew on ethnography to suggest an underlying instinct towards the consumption of meat. Assertions concerning widespread cannibalism in the past and the high social value of protein-rich shark livers across Melanesia suggested to Cilento an instinctive recognition of nutritional value. In this way, knowledge of diet and nutrition constructed racial difference in terms of the cultural and environmental constraints of place, while also positing a universal instinct towards an ideally balanced diet. It was on this basis that Cilento claimed there was a need for intervention in the ‘social development’ of indigenous people.

If reformers believed that peasant proprietorship could uplift colonised peoples from barbarism to membership of international society and commerce, Cilento presented it as the most meaningful and lasting safeguard for the health of indigenous people. In Cilento’s account, the people of Unia (Unea) Island had maintained their customs and institutions and ‘remain true peasant proprietors’, cultivating traditional

staple crops on land that they largely owned.\footnote{182 ibid., p. 11.} Cilento suggested setting up communal gardens that could emulate this supply of a varied and traditional diet; the surplus of such gardens could be sold for profit. Cilento’s plan, however, reserved for senior medical assistants the authority to approve or disapprove indigenous requests for purchases using money from an administration trust fund to which 50 per cent of annual receipts would go.\footnote{183 ibid., p. 50.}

Nothing came of these proposals, but Cilento’s pursuit of indigenous dietary reform illustrates conflicting agendas in colonial government and the contradictions and ambivalence within colonial discourses on social development. It is clear that Cilento attributed much disease and sickness among indigenous communities to the social and economic consequences of colonisation. Malnutrition, he argued—deriving from both poor rations and the alienation of land for commercial agriculture—underpinned the vast majority of illness and deaths among indigenous labourers in New Guinea.\footnote{184 Raphael Cilento to Harold Page, 28 May 1927, NAA: A452 (A452/1), 1959/5894.} The colonial economy was thus an important structural factor in indigenous sickness and disease, in his view. Yet nutrition also served as a way to represent racial difference, not in terms of heredity per se, but through a narrative of environmental and social history. Poor nutrition thus lay at the heart of the indigenous lethargy that seemed apparent to the colonial eye:

> It is protein deficiency at the present day which makes the native the undeveloped, dull and indolent creature that he is and that contributes to his excessive tendency to tuberculosis, his ready surrender to disease and his heavy death rate.\footnote{185 Raphael Cilento to Evan Wisdom, 15 October 1925, p. 4, NAA: A1 (A1/15), 1925/24149.}

Nutrition thus allowed Cilento to criticise colonial policies while representing difference in a way that justified supervision of the social transformation of indigenous people as they were drawn into a tightening net of global economic relations.

Cilento’s career in New Guinea illustrates the ambiguous position of medicine and public health in colonial governance. Rather than a simple tool, it was always complicit and contentious, authoritative and marginal. With the establishment of schools of tropical medicine in Britain and the
United States, the medical profession acquired new influence on imperial policy and practice. Beyond protecting the health of European officials, medical officials were by the 1920s claiming responsibility for the efficiency of the whole colonial enterprise. Cilento was certainly a conduit for the disciplinary practice of colonial hygiene. Racial segregation and control of specific infectious diseases such as malaria and hookworm were central aspects of the activities of Cilento’s Department of Health. Programs for the mass treatment of hookworm and gonorrhoea, and the attempt to expunge mosquitoes and their larvae from pools, puddles and water-filled tin cans, were central aspects of the routine work of Cilento’s department. Yet Cilento brought basic principles of public health to New Guinea, including protection of water supplies, sanitary disposal of waste and the provision of an adequate diet. He was often forced to contest what was considered the domain of medicine as he developed a strong conception of the broad role of public health in government that was, on occasion, in conflict with imperial capitalism.