

Why European Anti-Malarial Drug Advances During Colonization Matter Today

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Background/Context

- About 12-13 million Africans were captured, shipped across the world, and enslaved in the worst conditions known to mankind over three centuries, making the African slave trade one of the most infamous periods in history.
- Social scientists across the world have studied many aspects of the political, cultural, and economic history and impact of the Atlantic slave trade. Medical anthropology research has been light on the topic, especially the research of what are now classified as Neglected Tropical Diseases (NTDs)
- NTDs are curable diseases that prevail in poorer, tropical regions. Perhaps the most prevalent and curable NTD is malaria, which has been curable since the extraction of the active ingredient quinine from the bark of the cinchona tree, used as a fever medication by native Peruvians long before the Spanish invasion in 1532.

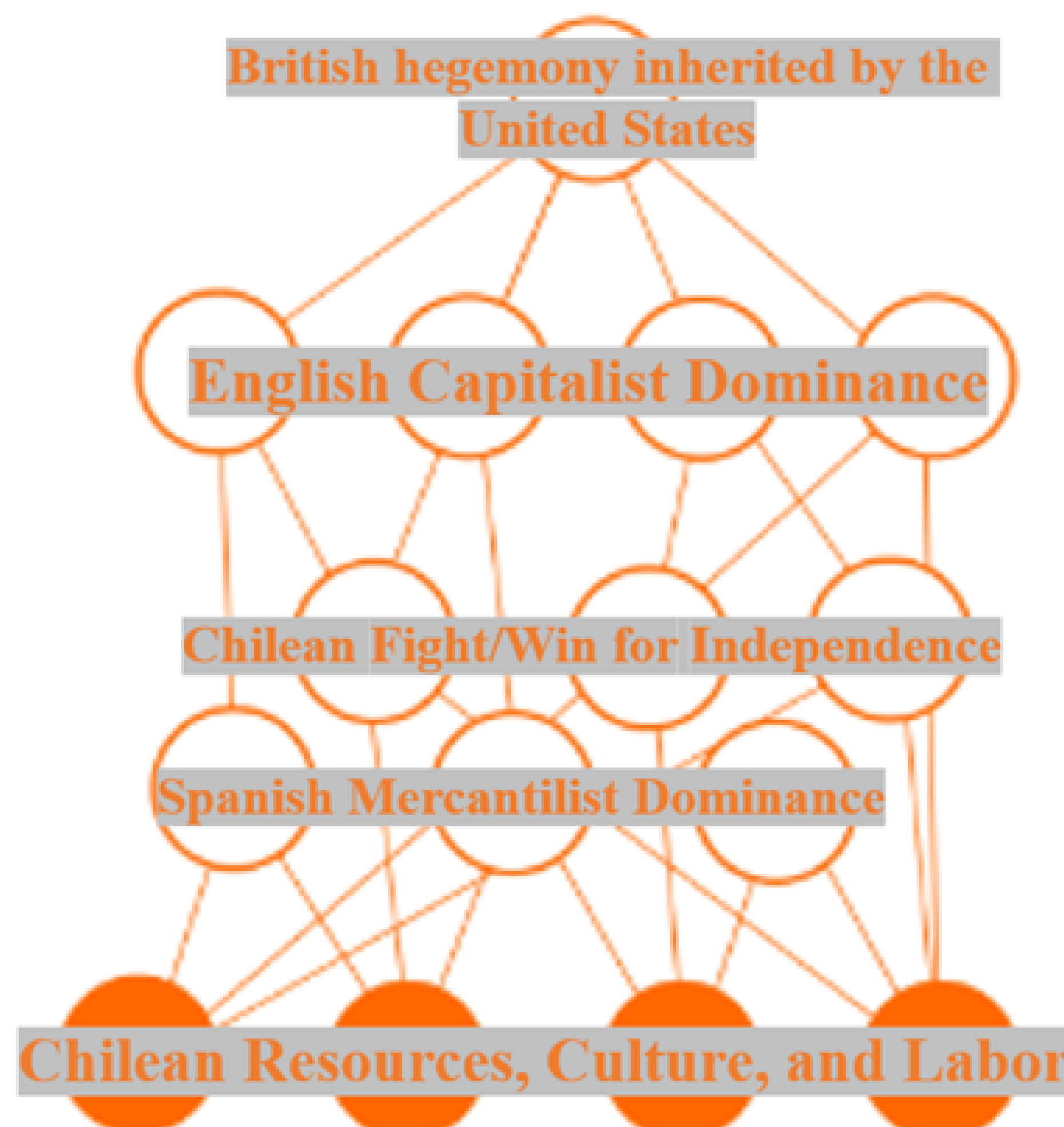
Hypothesis

- By studying any small example of medical exploitation the researcher can gain a broader understanding of the relationship between exploitation in medicine, exploitation in economics, and the exploitation and denial of basic human rights. The co-option of quinine by early European powers is not the start of this complicated web, but merely a point inside of it where the connection between power and ability to live with dignity is so apparent.



Figure 1: the evolution of Chilean economic dependency

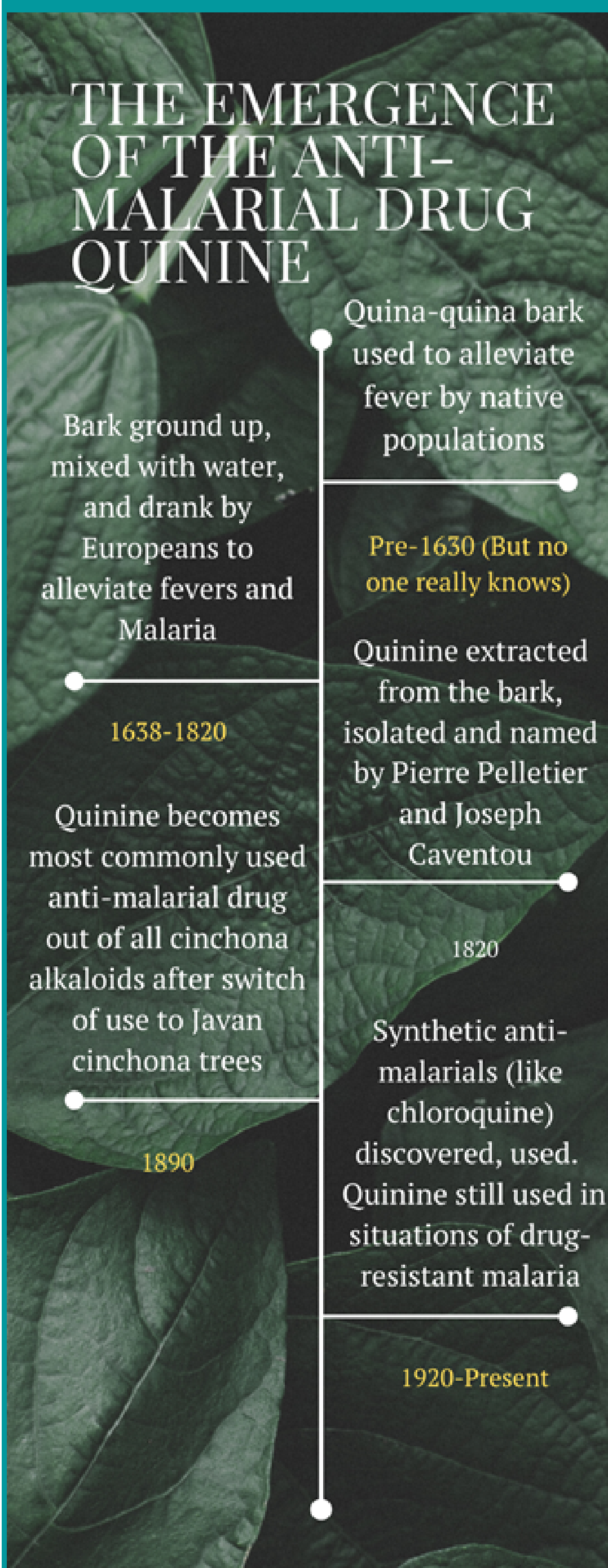
ECONOMIC DEPENDENCY OF EUROPE ON COLONIAL LATIN AMERICA



“by dependence we mean a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected.”
- Brazilian economist Theótonio Dos Santos

Results

- Starting with the “discovery” of quinine by Europe (illustrated in Figure 2 from the Incas' use of cinchona tree bark, European governments were able to conquer the “White Man’s Grave” of West Africa and the perils of malaria and forever change the economic and political landscape of the world by implementing the slave trade
- As can be seen in Figure 3, I was able to take European military deaths (per 100 soldiers for accuracy) from disease in key regions of conquest for the French, British, and Dutch in the time periods of 1819-1836 (before quinine became commonly used) and then from 1909-1913, before World War 1 where a conquering military would commonly use quinine as an anti-malarial drug.



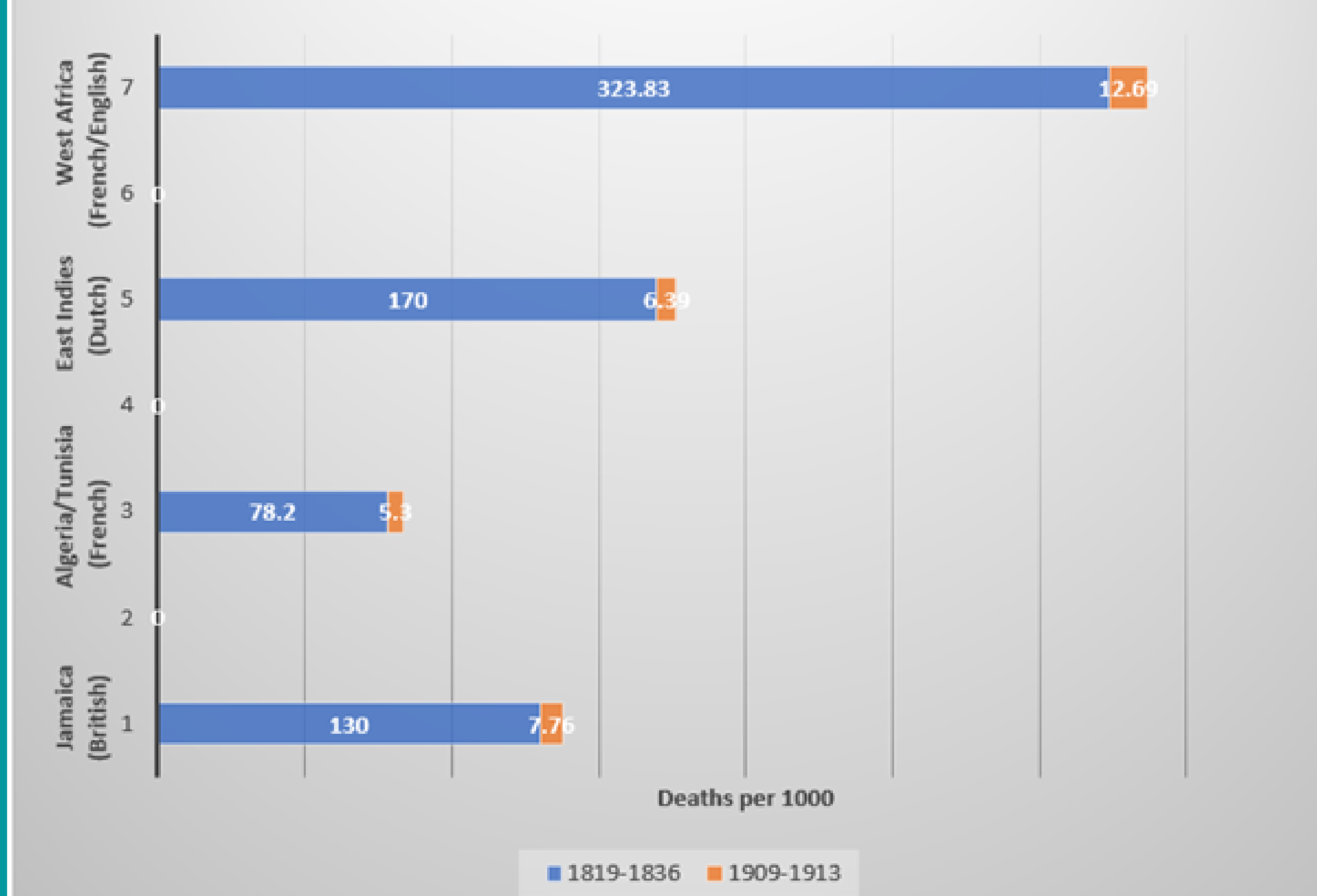
Methods

- There is a lack of research on the history of medical anthropology in relation to NTDs in Latin America during colonialism, and I have a lack of access to the resources necessary to do this work on my own.
- My research was mainly piecing together more specific works done in academic journals and books to get the full picture of what these smaller studies mean for the legacy of colonialism.
- This kind of interconnected research that needed to be done can be seen in Figure 1 with the explanation of economic dependence in the lens of Latin American colonialism (in this case, Chile).

Figure 2 (Left): A detailed timeline of the adoption of quinine and use by European governments, circa 1600-1900

Figure 3 (Below): Chart of military death by disease data of European soldiers showing the effect of antimalarial drugs on regions of the world formerly known as the “White Mans Grave”

European Military Mortality in Regions of Conquest Before and After Introduction of Quinine



SOURCES: Netherlands: Central Bureau voor de Statistiek, *Statistisch Overzigt der Behandelde Zieken van het Nederlanisch Lager over het jaar 1913* (The Hague, 1915), 28. Kamerun: Germany, *Kolonialamt. Medizinal-Bericht über die Deutschen Schutzgebiete, 1905-1906*, 122, 385-389, 393-394, 410-411, 422, 430. Philippines, Cuba/Puerto Rico, Hawaii, and United States: United States Report of Surgeon General of the Army, Annual series, 1904-1913, Deaths from disease only. Morocco and Algeria: Ministère de Guerre, *Statistiques médicales*, report for 1913. French Colonies 1909-1913: *Statistiques medicale des troupes coloniales*, CE Curtin, *Death by Migration: Europe's Encounter with the Tropical World in the Nineteenth Century* (New York, 1989) Table 1.1 7-8

Conclusions

- This relationship of European medical advancements in Latin America and emergence of economic dependency allowing for the implementation of racism, classism, and militarism as a powerful worldwide machine can be classified as a "dependent" relationship, but this is where I disagree with Dos Santos and argue that the pathology of colonialism itself is parasitic because of its creation of only a dependence of the oppressed on the oppressor.
- To this day we see medical technology and practices constantly serving those who conquer them and leaving everyone else behind. However, today this conquering is done by money and markets instead of horses and muskets.
- We have seen medical inequity spread though the world like every other kind of inequity, but this kind is blatantly obvious. While the current global pandemic is a great example of such, the issue runs mch deeper and has been occurring in global health for quite a while. The book *Reimagining Global Health* (Figure 4) by Paul Farmer and Partners in Health associates shows this well. Farmer's work in Haiti, the Dominican Republic, and Peru with epidemics of tuberculosis and cholera show that even today the developed world can completely eradicate a disease, but will not put forth the effort to do the same in parts of the wolrd that they economically exploit to develop themselves while keeping those countries underdeveloped.
- Not only was my hypothesis supported by my research, I was astounded at the level of exploitation leading to the underdevelopment and of countries today that is largely ignored in the public eye. I realized through this one example that this pattern plays out throughout centuries, and by recognizing this pattern we can realize that while so many of our problems today are unnecessary, they prevail because of those that benefit from them.
- Our students, whether they study medicine, law, foreign policy, or any other discipline must keep the extent of the world's inequality and the history behind it in mind at all times. Only then can we begin to work towards a just society.

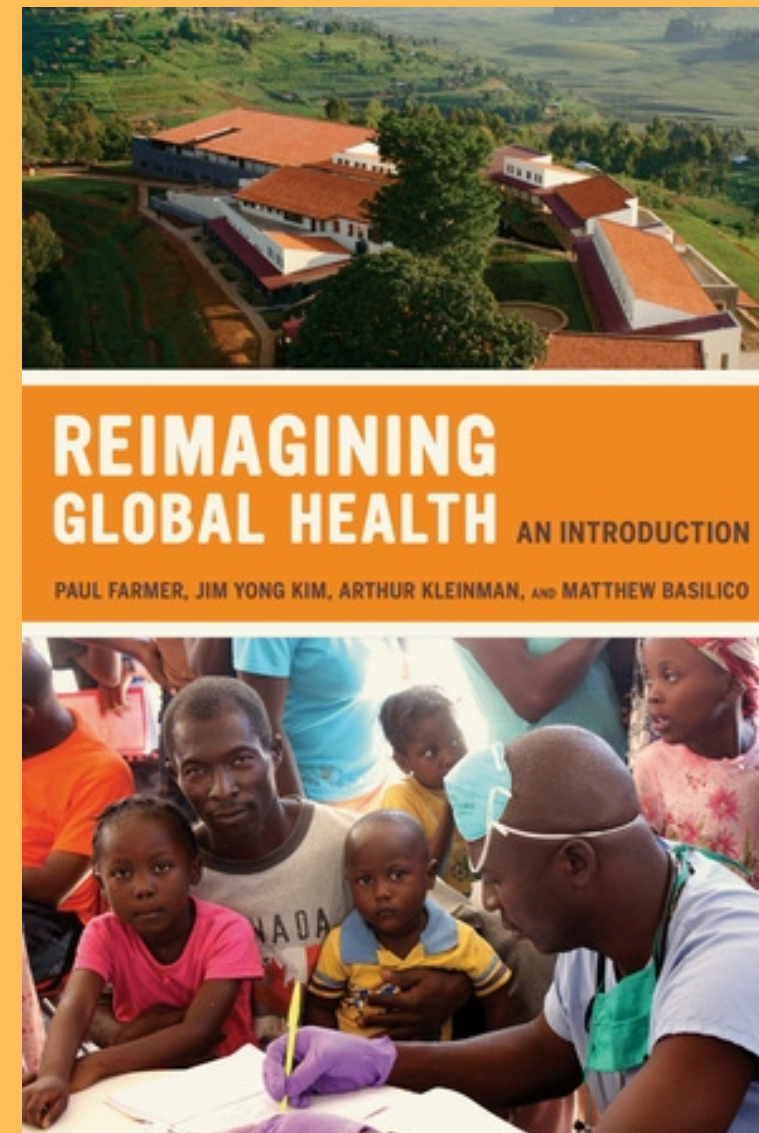


Figure 4: *Reimagining Global Health* cover (Farmer et. al)

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