

**THE ECONOMICS OF IMPERIALISM AND HEALTH:
MALTA'S EXPERIENCE**

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The thesis of this article is that the prevalence of disease and premature death depends more on national, class, and gender relationships than on medical and biological factors. The political and economic realities of life in the British Colony of Malta revealed here clearly determined the severity of both infant mortality rates and the attacks of brucellosis. A brief history sets the background for an in-depth study of the interaction between socio-economic conditions and disease in the first half of the 20th century. Britain's adherence to imperialist "free" trade policies and refusal to consider Malta's economy beyond its use as a military base had resulted in the "underdevelopment" of Malta's traditional cotton agroindustry and the erosion of household economic stability. Persistently high infant mortality rates and the absence of preventive disease measures were a clear manifestation of continuing exploitative imperialist policies. In this scenario, the devastation of the Second World War became a catalyst for change.

HISTORICAL BACKGROUND TO THE MALTESE ISLANDS

Lying in the center of the Mediterranean Sea, the Maltese Islands were, some seven to four thousand years ago, the heart of an intriguing neolithic culture whose temples celebrated the fertility of women and the bounty of mother earth, including many healing herbs. Malta's first colonizers, the Phoenicians, found refuge in Malta's unrivalled natural harbors, and from about 1800 B.C. began to utilize its strategic location. Ancient skills in the cotton agroindustry and in trade and commerce were notable Phoenician legacies.

The history of the Maltese people is bitterly romantic. More than three thousand years of imperial exploitation did not quench the island people's thirst for freedom and peace, nor did it destroy their solidarity, language, and love of life. Through repeated occupation and exploitation by one imperial power after another—Carthaginian, Roman, Byzantine, Arab, Norman, Spanish, crusader Knights of St. John, Napoleon's French army, and finally the British—the Maltese people endured. Despite wave after wave of malaria, plague, cholera; through famine and

drought; through national, class, and gender oppression, they died or survived and multiplied (1; for seminal works on the interaction of disease and economic development see 2, 3).

Repeated British promises of self-government were broken, and at the beginning of the 19th century Malta was locked in an administrative dictatorship characterized by a callous indifference to the health and development of the colonized people. A thriving centuries-old cotton agroindustry was systematically destroyed in the name of free trade. This process is best characterized by the term “enforced dependency.”¹ It was followed by “counterdevelopment”—the creation of a buffer bureaucracy, servants, and the intermittent expansion of naval repair facilities. With a population of 185,000 in an area of 122 square miles, by the turn of the 20th century, the Maltese were totally captive to the vagaries of British commerce and British imperial strategy.

The “twentieth century opened with the first billion dollar trust (United States Steel) . . . the age of steel following the age of steam . . . heavy industry preponderating over light industry . . . free competition being transformed into its opposite, monopoly” (8). But Malta, in its role as Britain’s island fortress and naval headquarters, lost its former cotton agrobusiness and did not gain any industries. Its high degree of dependence on British military strategy and spending was clearly described by the 1911 royal commissioners (9):

The present distress and the greatly extended unemployment of the working people of Malta have fallen upon them as a calamity which they could not foresee, and against which they could make no provision. To appreciate this, it is necessary to recognize the entirely artificial nature of their former prosperity and employments, which depended to a large extent upon imperial expenditure, upon the fortifications and military works, and upon the expenditure of the garrison and the fleet in the island.

Political Alliances

During the 20th century, external power games brought Malta into the firing lines of two world wars, while its people experienced continual internal political turmoil. The early years saw the birth of two significant movements: socialism—fired by the inspiration of far-sighted patriot Manwel Dimech—which led to the formation of the Malta Labour Party in 1921;² and lay catholicism, led by Dun

¹ Enforced dependency and counterdevelopment, I believe, accurately describe the historic experiences of colonized people who were formerly part of domestic family industries that gave them self-sustaining power but were systematically stripped of resources, and forced to move to urban areas to work in occupations that made themselves and their country more dependent on the imperial power. (For studies giving some insight into enforced dependency and counterdevelopment, while not coining the terms, see 4–7.)

² In 1881, from a nucleus of Senglea dockers, the Society of Workers was founded and unity amongst Malta’s biggest concentration of workers increased. Manwel Dimech, their leader in the early 20th century, was exiled by the British Administration to Alexandria, Egypt, until his death.

Gorg Preca, the founder in 1907 of a Catholic fundamentalist organization, the MUSEUM (meaning Magister, Utinam Sequator Evangelium Universus Mandus! or Would, O Lord, that the whole world follow the gospel! The lay society was not officially approved by the Roman Catholic Church until 1932) (10). Both these movements and their ideals grew strong roots in the working class, nurturing a mentality that persists to this day.

The Nationalist Party, more a party of the elite and favored by the wealthy and influential Catholic Church hierarchy, has had a checkered past, including opposition to essential humanitarian reforms at the end of the 19th century; support for Mussolini’s fascists in the 1930s; and its current adherence to laissez-faire capitalist beliefs. In the 1921–1931 period, the Constitutional Party (led by the Briton Lord Strickland) also enjoyed some popularity, but since its demise in the 1930s the politically active Maltese community has been increasingly polarized between Labour and Nationalist (11, especially Chapter 3; 12).

ECONOMIC BACKGROUND

Malta’s small work base was concentrated at the turn of the century in the repair and bunkering of the British naval dockyards. But the tonnage of merchandise handled fell significantly as port facilities were improved at a faster pace in other Mediterranean centers. Algiers and Naples, for instance, were aided, respectively, by the consolidation of French control of Algeria and the reunification of Italy. But in Malta, meager reinvestment by the British Imperial Government and local small capitalists was a direct cause of Malta’s lack of competitiveness.

Changes in production, particularly the introduction of bigger, faster and safer ships, meant fewer stops. This contributed to a decline in Malta’s dockyard bunkering and repairing. Also, world trade-flow changes did not benefit Malta. The growing importance of the U.S. and Japanese economies meant less East-West traffic through the Mediterranean, decreasing Malta’s commercial locational value.

Although Malta was headquarters of the British Mediterranean Fleet throughout the first half of the 20th century (13, especially Chapter 13), employment at the docks was by no means steady, nor was prosperity the luxury of more than a few families. “Large and rapid” changes of Imperial “policy and expenditure” left Malta captive to outside exigencies that had multiple effects on the small economy (14).

Following the First World War, more than half of the shipyard workers were laid off, with no social services network to fall back on. Mass riots broke out in June 1919 against the layoffs and the continuing high taxation of bread, the staple food. Dockers were, as indicated by the fluctuating employment figures in Table 1, little more than the flotsam and jetsam of the British navy. The level of popular unrest and anger in response to such callous treatment was so high that, following the 1919 riots and the deaths of four workers, the British Government

Table 1

Employment at the docks, Malta, 1914–1987 ^a	
Year	No. employed ^b
1914	23,000
1919	10,000
1926	5,000
1940	15,000
1945	12,000
1959	5,940
1968	4,850
1987	6,000

^aSources: reference 15; Malta DryDocks Workers' Council.

^bIncludes employees at Malta Ship-building Corporation.

was compelled to grant limited constitutional rights to a privileged class of professional and property-owning citizens.

A monopsonist market for labor persisted. When farmers left the land, as was increasingly necessary, it was usually to become servants, priests, or dock-workers. For many there was little alternative to emigration. By 1927, according to Dr. C. Mifsud-Bonnici, a delegate to the Conference on the Position of Malta in the British Empire, "there were over six thousand Maltese ex-dockyard men in Detroit alone, in the Ford, Packard and other factories" (15). Assisted fares were introduced to Australia and Canada, where Maltese populations now outnumber those in Malta itself. During the interwar years, about 12 percent of the total population had to leave their island home, at an annual rate of 3,000 (15; see also 16–18). Nevertheless, unemployment and underemployment remained high.

Working hours in the first half of the century were practically unlimited. "The present condition of our working classes is really one that existed in Europe one hundred years ago," stated the 1929–1930 Annual Report on the Health of the Maltese Islands. For instance, girl dressmakers worked from 6:30 a.m. to 9:00 p.m. with one hour break for lunch, and mineral-water factory girls often had to work until midnight. Work conditions were also unhealthy and unsafe. As more machines were introduced into dock and factory work in the 1930s, accidents increased. Safety training and safety devices were nonexistent.

In 1931, the percentage of female workers who were registered as unoccupied and unproductive was 83 percent, while 34 percent of male workers found themselves in the same unenviable condition. The number of spinners and weavers who could find work had declined by 98 and 92 percent, respectively, in just 30 years, 1901–1931 (19; trend compiled in 1, p. 226). The catastrophic decline in the

cotton agroindustry brought a disastrous rise in unemployment and destitution, marked by the displacement of labor from household production and the widespread economic insecurity and ill-health of thousands of women. Inevitably, prostitution and servitude increased.

In 1935, the largest manufacturing firms were restricted to cigarette making (900 workers), furniture and cabinet making (some 700), and boots and shoes (600). About 11,000 of the civil population over five years old were reported to be engaged in agriculture. Farming offered a hard, insecure life, as most farms were small scattered holdings with insufficient water. The 1935 Greaves report noted, "Only thirty per cent of farmers can read and write, so cultivators are largely in the hands of middlemen to whom they are indebted for seed or in other ways" (20). Calls for expansion of ship-repairing activities and for the British to pay adequate rent for the use of nearly one-third of Malta's land area as well as many large, beautiful buildings, went unheard.

As the economic basis of agriculture was eroded, more and more people moved to the inner-harbor urban/industrial area where insecure and exploitative employment, gross overcrowding, inadequate and polluted water supplies, and an inefficient or nonexistent sewage system increased their susceptibility to disease and death.

DISEASE AND DEATH

In this vise of destitution, inadequate sanitation, and debilitated health, diarrheal diseases were rampant. The infant mortality rate remained extremely high, as the comparative data show (Table 2). Between 1932 and 1947, Malta's average infant mortality rate was 225 infant deaths per 1,000 live births, while that of the United States was only 43. The cause of this appallingly high mortality rate was extreme exploitation: the triple oppression of nation, class, and sex. Such exploitation was reflected in mass unemployment and poor living conditions—but above all in disease and immature death.

The British Government viewed the Maltese as dispensable servants to its military base, and as innately inferior beings; and only due to the exceptional conditions of the Second World War did the infant mortality rate fall definitively and dramatically from 345 in 1942 to 116 per 1,000 live births in 1944 (Table 2).

The main reason for this singular improvement in an infant's chances of survival was the rise in employment opportunities and the unionization of an increasing number of workers. Aid from various voluntary services and generous donations from Maltese emigrants were also pivotal in these wartime years of danger and scarcity. The vital role of Maltese mothers in changing the conditions of disease and destruction has yet to be recorded and evaluated, but there seems no doubt of the importance of their determination to change the hunger, poverty, disease and death that stalked their families' lives (on some catalytic effects of war

Table 2

Comparative infant mortality rates (deaths per 1,000 live births), 1932–1947^a

Year	Algeria (Europeans)	Cyprus	Italy	U.K.	U.S. (all)	Malta
1932	120.6	155.7	110.5	68.3		257.5
1933	113.6	132.7	100.1	66.4	60.4 ^b	253.3
1934	119.9	128.9	98.7	61.4		277.0
1935	108.8	120.9	101.2	60.4		285.7
1936	107.9	105.3	100.4	62.1		190.3
1937	125.1	159.4	108.8	61.1	53.2 ^c	242.7
1938	—	129.9	106.3	55.5		224.8
1939	94.1	98.2	97.0	53.6		227.0
1940	102.7	89.1	102.7	61.0	47	276.5
1941	105.9	107.7	115.2	63.3	45.3	303.5
1942	102.7	184.7	112.4	52.9	40.4	345.2
1943	132.6	120.8	112.8	51.9	40.4	210.0
1944	107.1	81.8	101.6	47.6	39.8	116.3
1945	108.5	81.0	98.1	48.8	38.3	144.0
1946	91.9	70.9	87.3	42.7	33.8	130.8
1947	—	65.5	82.4	43.5	32.2	120.3

^aSources: U.N. Statistical Office Demographic Yearbook, Kraus Reprint, New York, 1975, Table 24; Annual Reports of the Health Conditions of the Maltese Islands, Government Printing Office, Valletta; Vital Statistics of the U.S., 1987, Vol. II, Pt. A, Section 2, p. 1.

^bAverage for 1930–1934.

^cAverage for 1935–1939.

in Britain, see 21). As war took its toll on more and more lives, society placed increased value on children. The war-time establishment of Emergency Medical Services and Child Care Medical Services was officially considered “helpful” in bringing about the remarkable fall in the number of cases and deaths from childhood infectious diseases such as enteric fever and diphtheria during 1943–1944 (1, pp. 296–299).

Poor nutrition and unsanitary living conditions remained the main direct cause of death. In 1939, for instance, the principal killers of children under two years old were diarrhea with enteritis (257 per 1,000 deaths) and infectious and parasitic diseases (64 per 1,000 deaths). In 1944, the excessively high number of deaths from diarrhea and enteritis persisted. By 1946, as Table 2 shows, the infant mortality rate had fallen phenomenally (to 131 per 1,000 live births), but infectious and parasitic diseases among adults—particularly undulant fever (brucellosis)—were taking a higher toll (135 per 1,000 deaths). The divergent course of undulant fever and infant mortality is of particular interest and will be addressed later. (Relatively high mortality rates persisted among the aged; see 22.)

Such were the vicissitudes of the Maltese people after a century and a half of British rule, their payment for immeasurable service in two world wars. Neglect

and counterdevelopment in the colonial system were reflected in the way people, especially babies, died. Infant mortality rates in the 1930s remained over 200 per 1,000 live births, indicating an enormous need to improve nutrition among the population and to provide hygienic conditions. Quite accurately, a 1944 British publication stated (23):

The standard of health in the colonies, only recently seriously studied by Governments, gives the following picture: Complete inadequacy of medical facilities; generally low standards of sanitation; high incidence of diseases; in places, an infant mortality rate of 50%; and above all, widespread malnutrition and hunger.

Until 1948, the main killers in the adult age group were infectious diseases: in particular, pulmonary tuberculosis, undulant fever, and leprosy. Poverty and inadequate sanitary conditions were still so widespread that epidemics such as bubonic plague, smallpox, and gastroenteritis claimed large numbers of victims (24; for an account of the 1945 plague epidemic see 1, pp. 267–268). The change from infectious to noncommunicable diseases did not occur in these islands until later in the 20th century. In Britain, this transition occurred in the 19th century (25, 26).

Tuberculosis

It was pulmonary tuberculosis, the working-class disease, that caused the heaviest mortality. An official report of 1922, commented (27):

TB is fast becoming a class disease, a disease of the poor, based essentially on adverse housing and economic conditions forming, with lack of proper or sufficient food and restricted education, a vicious cycle which can only be broken by a well-determined and persistent public effort.

Such a well-determined and persistent public effort was not in the interests of the British ruling class, nor was it yet achievable by the still embryonic Maltese workers' movement.

Scarcity of dwellings and the uncontrolled rise of rents meant unhealthy, overcrowded housing and low living standards, which exacerbated the spread of tuberculosis among the lower classes (28). The chief government medical officer admitted failure, as late as 1957, “to achieve a decisive victory in our fight against tuberculosis” because of “socio-economic factors and the persistent lack of an adequate hospital, chest surgery and means of mass X-raying” (29).

Nonrespiratory tuberculosis, gastroenteritis, and undulant fever (brucellosis) are all predominantly caused by infected milk. Their decline in Britain can be traced to general measures to protect milk supplies after 1900 (30).

In the United States, as part of Franklin D. Roosevelt's New Deal, the 1934 James Connolly Bill led to establishment of the Federal-State Cooperative Brucellosis

Eradication Program (31, 32). The rapid fall in deaths from gastroenteritis substantially contributed to the decline of infant mortality rates in these countries and was largely due to the introduction of milk pasteurization, bottling, and efficient transportation. Of central importance were improvements in hygiene and improved nutrition, especially of mothers. The Maltese people did not share in these steady improvements, as shown by Table 2.

The particular history of the course of undulant fever, one of the main killers during the first half of the 20th century and a major cause of incapacitation, is enlightening. Let us therefore examine it in detail.

UNDULANT FEVER IN THE MALTESE ISLANDS

Diseases were created long ago by animals in revenge for the abuses they suffered from man.

Cherokee "Origin of Medicine"

Undulant fever (variously named brucellosis, melitensis, Malta fever, or Mediterranean fever) is a zoonosis that spreads to humans when they work with infected animals such as goats and cows, drink their milk, or handle their carcasses. Infection takes place through the gastrointestinal mucosa after ingestion, through skin injuries, the conjunctiva, or the respiratory mucosa after inhalation. "The chronic disease in man, which can be the cause of great misery, is often characterized by irregular waves of fever and is accompanied by a wide variety of debilitating symptoms" (33).

Although it is a notifiable disease in most countries, undulant fever is underdiagnosed and underreported, largely due to the similarity of its initial symptoms to influenza, its varying latency period, and its frequent recurrence. It can be prevented through hygienic production conditions and the heat treatment of milk and by the immunization or slaughter of affected herds (34; for a recent report substantiating the possibility of coital transmission, see 35).

Undulant fever, perpetuated by goats, existed among the people of Malta for many hundreds of years. Dr. Paul Cassar, a prolific local medical historian, finds the earliest reference in an account of the island written in the late 16th century.

For almost 300 years this type of fever continued to prevail—undifferentiated from other "intermittent" and "remittant" fevers until the second half of the 19th century, when its protracted course and disabling effects among British troops began to engage the attention of the military authorities (36).

In 1886, a Maltese doctor, Caruana Scicluna, and Surgeon Major David Bruce of the British Army, studying deaths from this particular fever, succeeded in isolating the infecting microbe from the spleen. They described it in detail in 1887, when the causative bacterial genus was named *Brucella*, after Dr. David Bruce. At the time, the mode of transmission was unknown, and Dr. Bruce blamed the insanitary conditions of the barracks (37).

In 1902, a Maltese physician, Dr. Thermistocles Zammit, traced the source of *Brucella melitensis* to goats' milk and goats' blood. He strongly recommended the boiling of milk before drinking (38). Zammit's discovery could have enabled the immediate reduction of this disease in the Maltese Islands. But, as in the case of the recurring 19th century cholera epidemics, the colonial administration limited preventive measures to the British garrison. Perceptive and dedicated Maltese scientists were unable to improve the condition of their people because the technology of prevention remained in the hands of the imperial state.

By the turn of the century, the prevention of undulant fever among the British servicemen who were based in Malta had become a financial priority for the British Admiralty and the Colonial Office (39, as quoted in 36, p. 242):

This fever was seriously undermining the strength of the twenty-five thousand soldiers and sailors of the Mediterranean garrison. In fact, in 1891, it was calculated that the Malta garrison was costing the State, on account of the disease alone, an expense equal to that of a whole regiment one thousand strong in hospital for twenty-five days.

Consequently, a British Commission was established in 1904 to carry out a detailed investigation of the disease. It proved, without doubt, that pasteurization destroys the microbe in infected milk. By 1906, the British Navy and Army had prohibited the use of raw goats' milk and its products in their barracks, ships, and hospitals, replacing them with sterilized or condensed milk.

As shown in Table 3, this was not so for the local population, whose incidence of undulant fever did not definitively decline for 40 more years—until well after the Second World War. The 1911 Commission stated: "The disease was soon stamped out among soldiers and sailors. But the fever still prevails among the civilian population" (9, Part 4, p. 39).

The Commissioners, while stressing the loss of efficiency and loss of life, also indicated some serious financial consequences of the widespread fever to Maltese peasants and workers. "Some 400 goats found to be infected are destroyed each year; Turkey has prohibited the imports of Gozitan cheese (or *gbejnijiet*); the loss of milk sales to the garrison and fleet caused a severe blow to Maltese farmers; the cost of imports of preserved milk is 10,000 pounds sterling a year." Instead of drawing the obvious conclusion that pasteurization should be extended to milk used by the Maltese population, the Commissioners simply recommended that more research be done to find out how the infection was conveyed to goats. This led not only to unnecessary delays in the eradication of undulant fever among the local people but to public resistance. The goat had long been the Maltese people's sole source of milk, living in close proximity, and respected for its agility and abundance.

From 1911, every case of undulant fever was to be reported to the Malta Health Office, and a local sanitary inspector was to detail the source of the milk. A routine inspection of as many milch-goats as possible was supposed to be

Table 3

Undulant fever and infant death rates per 1,000 population, Malta, 1927–1960^a

Year	Undulant fever incidence rate	Undulant fever mortality rate	Infant mortality rate
1927	3.05	4	301.3
1928	4.2	4.4	267.9
1929	5.5	4.8	260.7
1930	6.3	5.8	296.7
1931	5.6	5.6	306.5
1932	5.9	5.6	257.5
1933	6.8	3.9	258.3
1934	7.5	4.6	277
1935	5.1	6.1	285.7
1936	3.3	6	190
1937	3.9	5.8	242.7
1938	3.7	5.1	224.8
1939	3.2	6	227
1940	3.5	4	276.5
1941	2.3	5	303.5
1942	1.7	3.5	345.2
1943	1.2	2.7	210
1944	0.6	4.6	116.3
1945	3.6	2.5	144
1946	8.2	1.6	130.8
1947	4.6	2.4	120.3
1948	3.4	1.4	113
1949	2.9	0.9	83.8
1950	2.7	0.7	88.5
1951	2	1	100
1952	1.7	0.7	72
1953	1.3	0.7	65
1954	1.7	0.4	67
1955	1.7	0.2	45
1956	1.4	0.5	43
1957	0.9	0.4	41
1958	0.4	0	40
1959	0.7	0.45	35
1960	0.8	0.4	38

^aSource: Reports on the Health Conditions of the Maltese Islands and on the Medical and Health Department, Government Printing Office, Valletta.

made twice a year, while the Public Health Department annually recommended that milk be boiled.

However, these gestures were to have little effect. Local people in extremely difficult circumstances did not have the means to heat raw milk by the prevalent Holder method (heat at 63° to 65°C for 30 minutes, then cool to 12°C before drinking). They were also subject to inadequate and contradictory information as to the propagation of the disease. Public and professional controversy continued for many years, while the responsibility was left squarely on poor, ill-informed individuals to take preventive measures.

It was not until 1922, 18 years after the colonial government began providing pasteurized milk to the British garrison, that there came an official recommendation to pasteurize milk sold to the public. And even after repeated recommendations,³ nothing was done toward general pasteurization until 1938, when—mainly because of the persistence of Maltese Professor Albert Victor Bernard—a small Milk Pasteurization Center was inaugurated.

Moreover, the subsequent decline in undulant fever incidence rates from 946 cases in 1940 to 173 cases in 1944 (Table 3, Figure 1) had more to do with the widespread slaughter of goats for meat due to Second World War food shortages than with the limited supply of pasteurized milk (sold at, for most people, prohibitive prices).

By 1945 the situation had become deplorable. Notified case incidence of undulant fever rose to 3.6 per 1,000 Maltese population, or 1,024 cases. In the British Public Records Office, there lies a revealing letter written in 1945 by a British soldier serving in Malta to a British Member of Parliament (40; see also 41):

There is a severe shortage of all kinds of milk; great confusion and irregularity in administration and distribution; and in the production of raw milk, an entire absence of supervision and hygienic methods. . . . The situation is one that would not be tolerated for a moment in Britain, where in spite of wartime emergencies, the milk supply has been maintained on a far superior level.

In January 1946, General Schreiber, British Governor of Malta, sent a secret dispatch from Malta to London's Colonial Office: "The conditions under which this [raw milk] is delivered are unspeakably unhygienic. Goats are herded into the streets and milked into buyers' containers on their doorsteps" (42).

The British Governor to Malta also realized that fever (tuberculosis, brucellosis, and foot and mouth disease) was rampant among the herds, but there was still no adequate testing of the animals for disease.

³ The 1922 Undulant Fever Committee made clear recommendations to this effect, so did subsequent doctors and governors. A unanimous recommendation was made by the 1932 Special Committee on Undulant Fever.

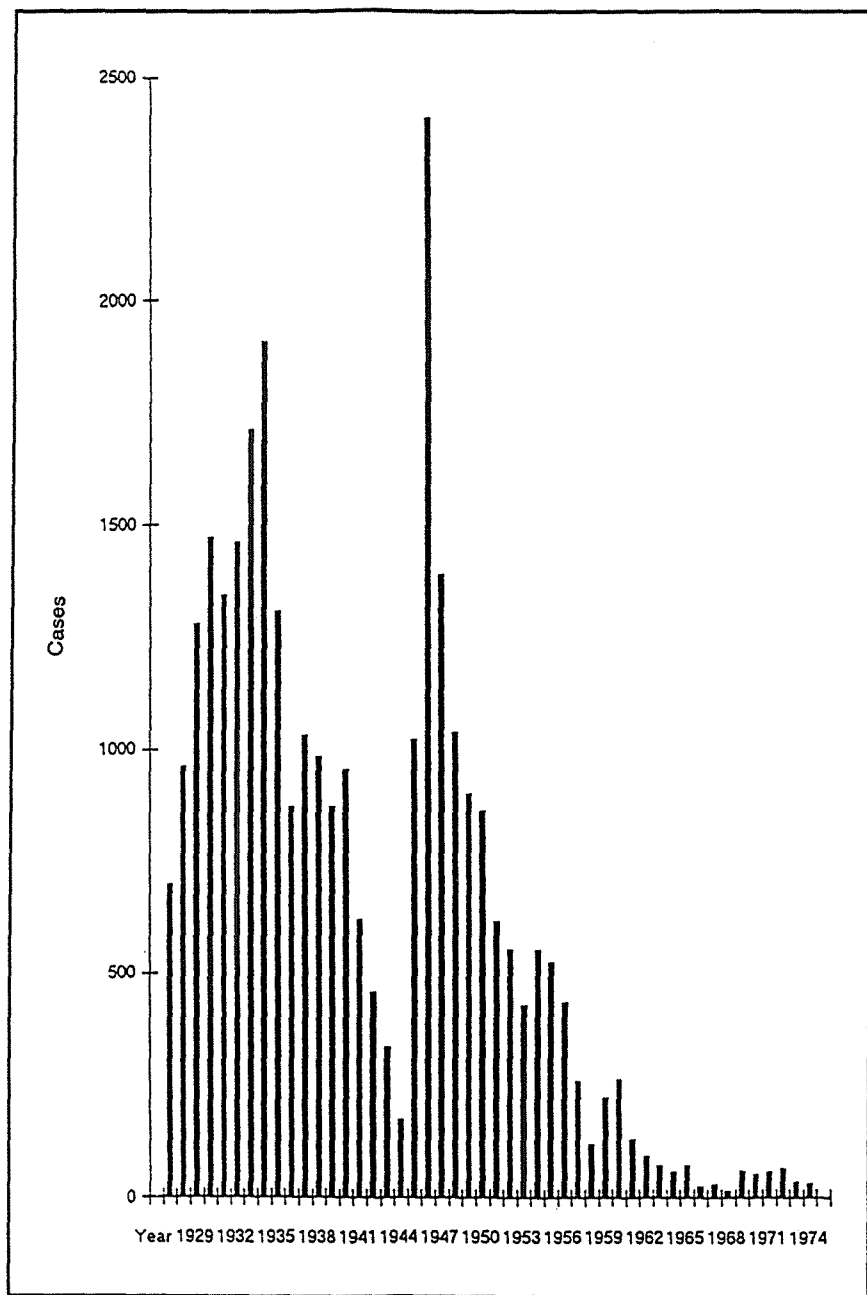


Figure 1. Incidence of undulant fever in Malta, 1927–1974. Source: Reports on the Health Conditions of the Maltese Islands, Government Printing Office, Valletta.

Table 4

Rates of milk consumption, Malta, 1946 ^a	
Type of milk	Pints per day
Raw milk	56,000
Tinned milk	40,000
Powdered milk	25,000
Pasteurized milk	11,000

^aSource: reference 42.

The Milk Marketing Undertaking (MMU) sold pasteurized milk from goats and cows only to restricted, garrison areas of Valletta and Sliema at a subsidized low price. A few local people managed to buy this milk by queuing up very early in the morning, but the bulk of the civil population, even in the “garrison towns,” had to buy unsafe milk straight from the street goatherd.

As Table 4 shows, untreated raw milk was by far the most commonly consumed in 1946. Only the very privileged could obtain pasteurized milk, although the necessity for heat treatment had been scientifically proven by a local doctor a half century earlier.

Despite pleas from many, including the British Governor, for an increase in the milk subsidy and expansion of the pasteurization plant—supported by informed details of the appalling state of affairs—the British Colonial Office in fact abolished the milk subsidy at the end of 1944. In correspondence from the Treasury Chambers in London, the withdrawal of the milk subsidy was confirmed and the provision of a new pasteurization plant to the MMU was further delayed. This occurred despite the acknowledged fact that the MMU had made a handsome profit during the previous year, amounting to half the estimated cost of the desperately needed plant (43).

Just as with one hand the British colonial administration quietly took away a lifeline, with the other hand it noisily bestowed on Malta the honor of the George Cross for outstanding gallantry, heroism, and sacrifice during the war. Between 1941 and 1943, the Maltese suffered 33,437 air raids by German and Italian warplanes, which dropped 14,000 tons of bombs that destroyed over 100,000 buildings. The dead and wounded amounted to the highest percentage of population to suffer in any theater of war, apart from the Soviet Union. In the rubble, debris, and destruction of densely populated areas, diseases such as tuberculosis, undulant fever, and bubonic plague found their breeding grounds (44).

In 1946, just when the local population was in these dire straits, the British Admiralty and Colonial Office—with their characteristic attitude that the Maltese were expendable—laid off thousands of dockers, reduced subsidies on basic foods such as bread and tomato paste, and relaxed the regulations prohibiting the sale of raw milk. It is therefore not surprising that in 1946, the recorded incidence of

undulant fever reached an all-time peak of 8.2 cases per thousand, or 2,410 notified cases (Table 3, Figure 1). Still the Colonial Office postponed a decision on the provision of a new pasteurizing plant to the MMU, preferring to divert scarce colonial funds to a veterinary research center in England.⁴

The "colonial regime's neglect of social equipment expenditure" in Malta was officially acknowledged in Sir G. Schuster's *Interim Report on the Financial and Economic Structure of the Maltese Islands* in 1950 (46). The one and only general hospital, St. Luke's, still had not been completed, although work had begun in 1930. Sanatorium facilities were totally inadequate, there being 3,000 cases of tuberculosis alone. No leper colony existed, despite 80 reported cases every year. "Not a single classroom was built under the colonial administration from 1933 to 1947," continued Sir G. Schuster.

Paradoxically, primary school education was made compulsory, but the necessary facilities were not provided! Meanwhile, secondary school education was only available for 6 percent of primary school-leavers; and even then the schools were badly overcrowded.

Thus it is clear that the nonprovision of pasteurized milk was just one part of a callous colonial policy that neglected hygiene, sanitation, health care, and education for the indigenous people. It was as though the colony—apart from Britain's immediate strategic need—did not exist. The disastrous results of this racist and militaristic policy were nowhere so marked as they were on health.

It was during the Second World War, a period of extreme intensification of existing conflicts and contradictions, that a qualitative change occurred in the relations between the local and imperial states. Where before there had been compliance (or conflict that was seldom in the interests of the working class), now there was organized resistance to increased national, class, and female exploitation.

The leveling effect of the war, the growth of unionization, and the victory of the newly organized Malta Labour Party led to sweeping changes following the 1947 General Elections. There was a massive vote in favor of self-government, reconstruction, and social reform, "the tidal wave of popular enthusiasm for local taxation reforms and the introduction of sorely needed welfare schemes" (47).

Subsidized basic foods and government housing programs were financed in part by the introduction of progressive income taxation. A serious campaign to retain shipyard employment and diversify job opportunities began. At last, the basis was to be laid for a transition in health conditions for the mass of people through egalitarian policies and the defense of workers' rights. In

particular, an extensive program of public works (including the milk pasteurizing plant), hospitals, schools, and roads, and the introduction of social services, were pivotal to lowering both infant mortality rates and the incidence of undulant fever (Table 3).

CONCLUSION

We see the play of dialectics in this study of disease in one colony. The conflicts between the interests of the dominant state and the most basic needs of the local people resulted in uncontrolled diseases, high infant mortality rates, and inadequate health care policies for the Maltese people.

Preventive techniques were enforced for the British garrison while the Maltese were denied access to the ameliorative measures that their own scientists had discovered and proposed. The right of a people to live healthily, without suffering from recurrent fevers, crippling illness, or premature death, was not recognized or even seriously considered by the colonial power.

It was the catalytic effect of mass destruction in the Second World War, the intensification of contradictions, and the growth of a progressive workers' movement largely motivated and sustained by women, that broke a vicious cycle of counterdevelopment, disease, and death. Not until after the Second World War, with the introduction of the vote for all women and men and limited self-government representing the interests of the indigenous people, could this interaction of opposing interests be transcended, and progress be made.

Central to the framework of this analysis is the impact of political and economic conditions upon disease. Transitions in disease and death rates are not simply biological or medical but socioeconomic and power-based. In the Maltese Islands, the essential turning point in overcoming infectious diseases was the increased ability and freedom of the Maltese people after the Second World War. To the extent that national, class, and female oppression decreased, so health and chances of development improved. Comparative studies may indicate the applicability of this paradigm to other countries, regions and times (48).⁵

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⁴ Meanwhile, the Governor assured the people that the goat population would be replaced after the war, but this was not done, on the excuse that the improved, imported goat stock would become infected (45).

⁵ In the southern United States, for instance, pellagra and hookworm spread in the interwar years due to nutritional deficiencies and poverty that only declined with improved economic conditions for oppressed women, workers, and regions.

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