Health Conditions in Yemen during the Mutawakkilite Era (1911–1962): A Historical Study of the Dialectic between Traditional and Modern Medicine

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Abstract:

This study analyzes health conditions in Yemen during the period of the Mutawakkilite State (1911–1962), an era characterized by distinctive political and social circumstances shaped by the Imamate's isolationist policy. The study focuses on the nature of available health services, the contrast between folk (popular) medicine and early manifestations of modern medicine, and the role of foreign medical missions in shaping the health system at the time. This study employs a narrative historical approach to document and trace events, while also adopting a descriptive-analytical approach to interpret the dialectical relationship between the state's political structure and the deterioration of health conditions. The study concludes, most notably, that Yemen experienced an "institutional health vacuum" throughout the first half of the twentieth century. In this vacuum, the overwhelming majority of the population relied on folk medicine in its various forms. In contrast, modern medicine remained largely confined to elites in major urban centers such as Sana'a, Taiz, and Al-Hudaydah. The study also finds that epidemics (malaria, smallpox, and plague) constituted the most dangerous demographic variable, claiming lives amid scarce governmental intervention and the absence of preventive strategies. Finally, the limited improvement in the health sector during Imam Ahmad's reign was insufficient to meet severe challenges, contributing to the deterioration of health as an implicit factor fueling popular anger and, ultimately, the Revolution of September 26, 1962. This study recommends that researchers urgently collect oral history from elderly Yemenis concerning older therapeutic practices before this memory disappears, and that comparative studies be conducted between health conditions in the southern protectorates (Aden) and the Mutawakkilite Kingdom to assess the impact of colonial administration versus traditional national rule on health.

Keywords: *Mutawakkilite State, health history in Yemen, diseases and epidemics, folk medicine, foreign medical missions.*

Introduction

Yemen's social history is integral to understanding the sweeping political changes that occurred in the region during the twentieth century. At the core of this history, "health status" stands out as a highly sensitive indicator that reflects the nature of state–society relations and the extent to which a political system can effectively manage and protect its human resources.

The period (1911-1962) constitutes an integrated historical era that begins with the Da'an Agreement in 1911, which granted Imam Yahya Hamid Al-Din broad autonomy, continues through the declaration of the Mutawakkilite Kingdom of Yemen following the Ottoman withdrawal in 1918, and concludes with the 1962 Revolution. Across these decades, the political authority imposed a deliberate policy of isolation, ostensibly to protect the country from colonial ambitions. Yet this policy had negative repercussions across all sectors, producing particularly catastrophic consequences for scientific and health infrastructure (Muammar, 1999, p. 83).

Health was not among the priorities of the Mutawakkilite regime, which directed most of its resources toward strengthening the military and security apparatus to control tribal dynamics and secure borders (Salim, 1993, p. 489). As a result, Yemeni society was left to confront harsh environmental conditions and endemic diseases through rudimentary therapeutic means rooted in medieval practices (Al-Attar, 1965, p.150). Accordingly, studying this issue goes beyond cataloging diseases; it also requires analyzing the governing mentality that treated illness as fate requiring no institutional intervention, and understanding the psychology of a society oscillating between superstition and the principles of science (Al-Yahya, 1986, p. 132).

This study presents a critical examination that transcends conventional narratives of political events to interrogate social realities through the lived experiences of suffering endured by the Yemeni people. It also explores how epidemics and health conditions became elements of collective memory, and how tentative attempts to introduce modern medicine served as narrow windows through which Yemenis glimpsed the modern age.

Problem Statement

The central problem addressed by this study lies in the stark contradiction between the urgent need for health care in a society

ravaged by lethal epidemics (such as malaria, schistosomiasis, and smallpox) and the Mutawakkilite State's limited and slow response. This contradiction is further exacerbated by the scarcity of sources and the lack of recent analytical studies on this topic.Accordingly, the study is guided by the following core questions:To what extent did the isolationist policy and the theocratic nature of Mutawakkilite rule contribute to the deterioration of health conditions and the delay in establishing modern medical institutions?. How did Yemeni society manage health affairs in the absence of an effective official state role?

Study Objectives

This study seeks to achieve the following integrated objectives:

1. Documenting and analyzing health conditions: Identifying endemic diseases and epidemics (e.g., malaria and smallpox) that spread in Yemen during 1911–1962.
2. Analyzing the status of folk medicine: Interpreting the role of folk and traditional medicine and its position as the primary therapeutic option amid the absence of modern medical infrastructure.
3. Tracing governmental health services: Reviewing stages in the development of official health services (e.g., hospitals and quarantine facilities) and assessing them during the reigns of Imam Yahya and Imam Ahmad.
4. Assessing the impact of foreign medical missions: Analyzing the role of these missions in introducing modern medical practices and evaluating their contribution to the formation of the nucleus of Yemen's health system.
5. Analyzing influencing factors: Examining the interconnected environmental, political, economic, and social factors and their direct effects on hindering or supporting health-sector development.

Study Questions

To achieve these objectives, the study addresses the following research questions:

1. What were the most prominent endemic diseases and epidemics in Yemen during 1911–1962, and what demographic effects did they have on society?

2. How did Yemeni society confront illness amid the absence of modern medicine and scarcity of therapeutic resources, and what mechanisms did it rely on?
3. What was the nature of the Mutawakkilite regime's health policy, and how effective was it in addressing contemporary health challenges?
4. What impact did the Mutawakkilite State's isolationist policy have on the entry of medical technology and specialized medical personnel into Yemen?
5. How did environmental, political, economic, and social factors interact, and what cumulative effect did they have in impeding the development of health conditions?

Study Significance

This study is significant in several respects:

- Historical significance: It enriches Yemeni historiography by foregrounding a crucial dimension of social and human history that has often been neglected in favor of political and military narratives.
- Documentary significance: It traces and documents the earliest beginnings of modern health institutions in Yemen, highlighting the role of foreign medical missions (e.g., Italian and Soviet) as a key factor in the introduction of modern medicine.
- Analytical significance: It examines the dialectical relationship between public policy and public health, showing how the absence of health development can directly threaten political stability and contribute to the collapse of regimes.

Methodology

This study adopts a dual research methodology. First, it employs a historical approach to document and trace events using primary sources (e.g., official records and archival documents) and secondary references. Second, it integrates a descriptive-analytical approach to interpret health phenomena by linking them to political, social, and economic contexts, ultimately producing precise conclusions about the nature of the period under study.

Theoretical Framework and Literature Review

Previous Studies

Despite the scarcity of specialized contemporary academic studies on "health history" in Yemen, several historical and documentary sources have illuminated important aspects of the topic, including:

Salim (1993), in Takwin al-Yaman al-Hadith [The Formation of Modern Yemen], provides a comprehensive historical overview of social conditions, including detailed indications of the absence of an official health institution (a Ministry of Health) prior to the Revolution, and the dominance of traditional practices ("Hakim Basha") and foreign physicians (Italians) over the health landscape.

The travel writings of NazihMu'ayyad al-'Azm (1986), documented in Rihlah fi Bilad al-'Arabiyyah al-Sa'idah [A Journey in the Land of Happy Arabia], constitute a significant primary source offering an external perspective on the health conditions and prevalent diseases of the period.

The memoirs of Dr. Claudie Fayan (1987), in Kuntu Tabibah fi al-Yaman [I Was a Doctor in Yemen], constitute a unique document that records a practitioner's testimony and field observations from within the health system during the Mutawakkilite era.

Epidemics and Prevalent Diseases in Yemen

Health conditions in Yemen during this period starkly embodied what has been described as the "triad of poverty, ignorance, and disease." This deterioration can be attributed to intertwined factors, most notably the absence of sanitation infrastructure, widespread malnutrition, and the availability of humid environments such as the marshlands of Tihamah, which facilitated the settlement of disease vectors.

This situation negatively affected demographic indicators. Travelers' reports and historical documents indicate a sharp decline in life expectancy, driven by high mortality rates among children and mothers. In this epidemic environment, the most widespread and deadly diseases included the following:

1. **Malaria (fever)**

Malaria was the most deadly and widespread epidemic, especially in coastal regions (Tihamah) and agricultural valleys. Testimonies of visiting physicians, most notably Dr. Fayan, indicate that malaria directly impeded agricultural activity and claimed thousands of lives annually (Fayan, 1987, p. 66).

2. Parasitic diseases (schistosomiasis as an example)

Daily practices contributed to the spread of parasitic diseases, especially schistosomiasis. Reliance (particularly in highland areas) on stream water (al-ghuyul) and uncovered pools (al-mawajil) as primary sources for drinking and domestic use was a direct cause of the disease and its devastating effects on health, producing generalized weakness and reduced capacity for labor and productivity (Al-Attar, 1965, p. 149).

3. Smallpox and plague

These two diseases appeared in recurrent epidemic waves. At a time when the world was progressing toward eradicating smallpox, the disease continued to kill large numbers of children in Yemen without intervention, especially in remote rural areas, one of the clearest manifestations of medical underdevelopment (Muammar, 1999, p. 119).

4. Eye diseases (trachoma)

Travelers' accounts highlight an alarming prevalence of blindness and visual impairment, largely attributable to bacterial trachoma infection, which was exacerbated by poor public hygiene, the spread of vectors, and eye flies amid a complete absence of care and medical treatment (Holfritz, 1985, p. 96).

5. Tuberculosis

Tuberculosis was common due to the convergence of factors, foremost malnutrition (which weakened immunity), cramped and overcrowded housing, lack of ventilation, and harsh living conditions, together creating an ideal environment for the disease's spread (Al-Attar, 1965, p. 149).

Because Mutawakkilite state institutions did not prioritize vital statistics and lacked official records of births and deaths, researchers must rely on alternative sources. Cross-reading travelers' narratives with reports of foreign physicians yield shocking, indicative estimates that reveal the depth of Yemen's demographic catastrophe. These figures were not merely statistical data; they constituted clear evidence of societal collapse in the face of repeated epidemics and famines.

Child Mortality: "Half a Generation Lost"

The memoirs of the French physician Claudie Fayan provide a highly significant and well-documented testimony regarding the scale of child mortality in Sana'a in the early 1950s. The credibility of her account is strengthened by her professional role, which enabled her to enter

households and observe mortality patterns with a degree of precision rarely possible for outside observers.

Fayan documented that approximately 50% of Yemeni children died before reaching the age of five. To illustrate the extent of this phenomenon, she recounts a statement from a princess: “It was rare to find a mother who had not lost one or two children. I asked one princess how many children she had; she said: I gave birth to seventeen, and none of them survived” (Fayan, 1987, p. 184).

This supports the study’s proposition that Yemen suffered from sustained “human hemorrhage.” Such massive depletion, especially among children and women,had direct negative effects on agricultural and economic productivity and trapped the country in a vicious cycle of poverty and disease, each reinforcing the other.

Traditional Folk Medicine (The Alternative Therapeutic System)

Amidst the near-total absence of health infrastructure and the spread of disease and epidemics, traditional folk medicine constituted the foundational pillar of healthcare. This medicine was not merely cultural heritage; it was a practical necessity and the only refuge for the overwhelming majority of the population, particularly in rural areas deprived of modern medical services.

Root Causes of the Prevalence of Folk Medicine

An academic analysis suggests that the prevalence of folk medicine can be attributed to intertwined structural causes:

- Geographic and logistical factors: Geographic difficulties were a major barrier. The distance of villages and rural areas from cities, rugged roads, and high travel costs made access to hospitals nearly impossible; thus, the folk healer was often the only available option.
- Economic factors: Modern imported medicines were expensive and largely accessible only to elites. By contrast, folk medicine relied on locally available materials (e.g., herbs and animal products), often free or low-cost.
- Cultural and religious frameworks: Cultural perceptions shaped understandings of illness, which was frequently interpreted as resulting from supernatural forces such as the evil eye or spirit possession; thus, spiritual treatment (ruqyah and amulets) became

integral to popular therapy, a dimension that modern medicine typically ignored.

- Political factors and distrust of outsiders: In many people's minds, modern medicine was associated with foreign medical missions. Under Imam Yahya's isolationist policy, this association generated suspicion and mistrust, reinforcing loyalty to inherited local therapeutic practices as a safe and reliable alternative (Muammar, 1999, pp. 138–139).

Major Traditional Practices and Informal Specializations

Traditional therapeutic practice in Yemen constituted a stratified system with informal specializations, including:

1. **Cauterization (cautery)**

One of the most common folk treatments involved applying a hot iron to the body to treat a wide range of conditions (e.g., internal pain, digestive disorders, some forms of partial paralysis, and joint pain). This practice often produced serious adverse outcomes, including permanent skin deformities, bacterial infections, and scars difficult to treat (Muammar, 1999, p. 146).

2. **Cupping (hijamah)**

Cupping was widely practiced based on the belief that it expels "spoiled blood" through skin incisions and was used for circulatory problems. However, because tools were often not sterilized, cupping constituted a major route for transmitting infectious diseases, especially hepatitis and other blood-borne illnesses (Muammar, 1999, p. 144).

3. **Herbal and natural remedies**

Healers used local plants (e.g., costus and fenugreek) for gastrointestinal and internal conditions. Although relatively safer than some other practices, risks remained: imprecise dosing and indiscriminate mixing of ingredients exposed patients to poisoning in many cases (Muammar, 1999, p. 147).

4. **Bone-setters (al-mujabbirun)**

Bone-setters held a respected status in treating fractures and dislocations using wooden splints and herbal materials. They achieved notable success in simple fractures, but often could not manage compound fractures due to the absence of diagnostic tools such as X-rays and the impossibility of surgical intervention, leading to serious consequences, including permanent disability (Muammar, 1999, p. 144).

Maternal and Childbirth Care (The Role of the Traditional Midwife)

This area constituted a catastrophic gap in the health system and was a primary driver of high maternal and infant mortality. Childbirth typically took place at home under the supervision of a traditional midwife (dayah), who relied entirely on accumulated experience and was generally unable to manage emergencies such as hemorrhage or obstructed labor. Moreover, concepts of sterilization and first aid were largely absent. This reality resulted in severe outcomes, including extremely high mortality among mothers and newborns due to puerperal fever (postpartum infections) and failures to manage acute bleeding or placental complications (John, 2018, p. 75; Muammar, 1999, p. 118).

Health Infrastructure (Hospitals and Services)

A Ministry of Health in the modern sense did not exist; rather, health affairs were managed in rudimentary fashion in the state's limited administrative structures.

The Ottoman legacy

At its establishment, the Mutawakkilite State did not surpass the limited Ottoman legacy. It relied on facilities left behind when the Ottomans withdrew in 1918, most notably the military hospital in Sana'a, which later became the general hospital. Yet these facilities deteriorated rapidly due to neglect and lack of maintenance, undermining their effectiveness (John, 2018, p. 52).

- Hospitals under Imam Yahya

His reign witnessed no meaningful expansion of health infrastructure. Hospitals remained extremely limited and confined to major cities (Sana'a, Taiz, and Al-Hudaydah). They primarily served the army and the royal entourage, while the public was largely excluded from their services (Salim, 1993, p. 486).

- Hospitals under Imam Ahmad (post-1948)

During Imam Ahmad's reign, health infrastructure expanded only modestly, primarily through the establishment of Al-Nasir Hospital in Taiz (later known as Al-Thawrah Hospital), which was regarded as one of the most modern facilities of its time (Fayan, 1987, pp. 49–50).

The Health Landscape in Major Cities (A Functional Capacity Analysis)

Although deterioration was the prevailing feature of health conditions, major cities contained a limited number of health institutions. Their

capacities varied considerably: many were neglected and outdated Ottoman inheritances, while others were products of limited and unsustained external assistance.

1. Sana'a: Between the Ottoman legacy and modern missions

As the political capital, Sana'a concentrated limited health institutions, combining Ottoman remnants with external initiatives:

- The military hospital (al-'Ardi): An old Ottoman legacy serving mainly soldiers. Reports indicate severe neglect, a lack of basic hygiene standards, and management by untrained medical staff (Opalans, 1990, p. 52).
- The general hospital (the royal/Mutawakkilite hospital): The official façade of modern medicine in the city, administered by successive foreign missions (Italian, then German). In practice, services were largely restricted to the ruling elite and their associates, or to those holding special "royal orders" permitting treatment. For the general public, access was typically limited to simple outpatient clinics (Fayan, 1987, p. 97).

2. Taiz: The second capital and a center of health modernization

Taiz, as the second capital, had an old hospital. Imam Yahya ordered the construction of a small hospital beside it, but it was not developed due to his preoccupation with securing his rule (Muammar, 1999, p. 122).

Following Imam Ahmad's relocation to Taiz and his establishment of the city as the capital in 1948, the center of medical gravity gradually shifted toward it. During the 1950s, Taiz witnessed relatively greater advancement in healthcare development, most notably:

- Al-Nasir Hospital (government hospital): Built under Imam Ahmad alongside the old hospital. Despite official support, it faced severe pressure, an acute shortage of beds and physicians, and reduced capacity to handle emergencies (Muammar, 1999, p. 125).

3. Al-Hudaydah: The gateway of quarantine

As the principal seaport, Al-Hudaydah served as the first line of defense against the entry of epidemics.

- The quarantine facility: Not a treatment institution but a health isolation center where arrivals by sea were held for a period to ensure they were free of epidemic diseases. Conditions were extremely harsh and lacked basic human standards. The facility

was established in the buildings of the old Italian hospital left behind after the Italians departed (Al-'Azm, 1986, p. 31).

- The modern hospital project: In the final years before the Revolution (1959–1961), a project was launched to build a modern hospital funded by the Soviet Union, which later became the nucleus of Al-Thawrah Hospital. However, the project was not completed and did not operate at full capacity until after the Republic was declared (Opalans, 1990, pp. 101–102).

Academic Critique: Presence of Institutions Did Not Necessarily Mean Care

The mere existence of these institutions did not translate into effective or comprehensive care. The core dysfunctions include:

- Operational deficits: "Having a building" did not mean "having a service." Many hospitals were old residential buildings converted in an ad hoc manner and lacked basic medical requirements (e.g., sterile operating rooms, laboratories, and essential equipment).
- Regime priorities over citizens: Health provision was biased toward the army (to protect the regime) and the ruling family, with no meaningful conception of "public health" as a right of citizens.
- Geographic concentration and deprivation: Institutions were confined to a very narrow geographic scope (Sana'a, Taiz, and Al-Hudaydah), depriving wide regions and other major towns of advanced care.

Medical Personnel and Foreign Missions in Yemen (1911–1962)

The health vacuum in Yemen was not solely institutional; it was fundamentally a crisis of human resources. This shortage can be traced to two main categories: limited foreign missions operating under strict oversight, and a small number of local personnel with only modest training.

Given the near-total lack of nationally trained physicians, the Imamate under both Imam Yahya and Imam Ahmad accepted a restricted presence of foreign doctors. This was not driven by openness, but by the urgent need to provide care for the ruling family, the army, and senior state officials. The composition of these missions varied according to the Imamate's political alliances.

Foreign Medical Missions: Medicine as a Tool of Diplomacy and Influence

A. The Italian medical mission (early pioneers)

The Italian medical mission represented the first organized medical presence in Sana'a, established under the 1926 Treaty of Friendship and Commerce. Its physicians, most notably Dr. Dubucci,managed a small clinic in the capital and were responsible for Imam Yahya's personal care. Although their reports carefully documented the health status of the ruling elite, their services remained confined to that narrow circle and only minimally extended to the broader population (Al-Ward, 2007, p. 73).

- Dr. Cesare Ansaldi

Arriving in Yemen in the late 1920s, Dr. Cesare Ansaldi did not limit his role to hospital administration in Sana'a. His book Il Yemen is a distinctive medico-anthropological document. It offered one of the earliest comprehensive epidemiological surveys, including a scientific description of schistosomiasis in mountainous areas and a linkage between its spread and the use of stagnant water in mosque pools and uncovered cisterns (Ansaldi, 1933).

- Dr. Luigi Toffolon

Whereas Ansaldi was close to Imam Yahya, Dr. Luigi Toffolon was effectively the "second man" in Imam Ahmad's court (1948–1962) in Taiz. Wenner (1967) describes him as the only person in whom Imam Ahmad had blind trust. This influence stemmed from Imam Ahmad's chronic painful illnesses (e.g., rheumatism and heart problems), which made him highly dependent on Toffolon for managing his condition and alleviating pain.

B. British medical presence (exploratory visits)

The need to combat epidemics occasionally tempered prevailing political tensions between the Imam and the British in Aden, enabling limited medical visits. The most prominent was the physician Batray mission in the 1930s. Reports published later in British medical journals are among the most important documented sources on Yemen's epidemic conditions, recording the spread of typhus and relapsing fever in Sana'a and its surroundings (Al-Yahya, 1986, p. 135).

C. French medical presence (the testimony of Claudie Fayan)

In the 1950s, French medical involvement left a notable imprint. The French physician Claudie Fayan worked in Sana'a for about a year and a

half and succeeded in entering the closed women's sphere, offering detailed accounts of gynecological diseases, childbirth problems, and infant mortality inside Sana'ani households, issues male physicians could rarely document. Her work took place within a broader French presence that included physicians such as Ripoli and Herman, who worked primarily in hospitals in Sana'a and Taiz, and distributed free medicines brought from France (Fayan, 1987, p. 38).

D. Soviet medical missions

This period marked a significant reorientation of Yemen's foreign policy, as the Imamate moved toward closer relations with the Eastern bloc in the aftermath of political tensions between Imam Yahya and Italy. A treaty with the Soviet Union in 1928 opened the door to Soviet medical missions in Sana'a. They established the "Soviet dispensary," providing free services and medicines to all citizens, including the general public,in contrast toEuropean missions that largely served elites. Notable Soviet physicians included Dr. Babajanov (internal medicine), Dr. Donsky, and Drs. Sliozberg and Bashurova (Yesipkin, 2005, pp. 66–67).

The Soviets also contributed to establishing the nucleus of Al-Hudaydah's hospital (later Al-Thawrah Hospital). In the late 1950s, Egyptian medical missions joined these efforts, focusing on basic health awareness (Opalans, 1990, pp. 101–102).

E. The Scottish mission

This mission had a religious character and was invited to Yemen in 1937 to treat Imam Yahya. It continued until it left the country in 1943 (Opalans, 1990, p. 52).

F. Arab physicians (outside formal treaties)

Beyond officially organized missions, the period also saw the arrival of Arab physicians from Egypt, Iraq, and Syria. Their presence was often informal, outside the framework of international agreements, and was driven largely by individual and economic motivations, as they sought employment in Yemen (Opalans, 1990, p. 52).

Local Personnel: Between the "Hakim" and the "Health Assistant"

Nationally, the situation was dire. The scientific training of medical personnel suffered from a profound vacuum:

- Near-total absence of qualified Yemeni physicians: Until the 1962 Revolution, the number of Yemenis holding modern medical degrees from recognized universities was almost negligible,

reflecting a deep crisis in national capacity-building (Al-Attar, 1965, p. 148).

- The "nurse-physician" phenomenon: In the absence of specialists, the fragile health system relied heavily on health assistants, often nurses with limited training under foreign physicians, to perform basic tasks. Given the scarcity of physicians in rural areas, these assistants were widely regarded as "doctors" and became the only accessible source of healthcare (John, 2018, p. 59).

Security Restrictions on Medical Personnel

Foreign medical personnel did not enjoy freedom of movement. They were placed under intense political and security oversight, viewed with persistent suspicion, and often could not leave Sana'a without written permission (Fayan, 1987, p. 16).

More critically, the distribution of medicines was governed by personal "royal orders" issued by the Imam. This practice transformed medicine from a fundamental human right into a discretionary "favor," with catastrophic implications for containing epidemics and limiting their spread (John, 2018, p. 60).

Overall, foreign medical intervention had dual effects on Yemeni society. Positively, it provided a window onto modernity, introducing knowledge, practices, and technologies previously unknown, and delivering services that otherwise would have been unavailable. Negatively, reliance on external expertise weakened confidence in local capacities and fostered long-term medical dependency. Technically, although foreign missions trained some local personnel, the training remained limited and insufficient to build a sustainable indigenous medical base. Moreover, foreign presence generated political concerns regarding national sovereignty.

Political, Economic, and Social Challenges

Efforts to develop the health sector under the Mutawakkilite State were shaped and often restricted by the period's political and economic context. The principal obstacle was the Imamate's theocratic governance, which placed little emphasis on modern healthcare. This orientation reflected a broader ideological position that regarded health, wealth, and power as divine gifts, with their preservation treated as the duty of individuals and households rather than a responsibility of the state (Al-Yahya, 1986, p. 132).

Economically, Yemen's traditional economy, rooted in agriculture and limited trade, posed a structural constraint on development. Its narrow and undiversified base generated acute fiscal scarcity, leaving the state with severely limited public resources. As a result, government revenues depended largely on taxes derived from these activities. However, such modest income was far from sufficient to meet the substantial financial demands of expanding public services, particularly healthcare (Salim, 1993, p. 486).

The regime's relative political isolation impeded cultural and scientific exchange with the outside world. It limited the transfer of modern medical knowledge and technologies into Yemen and confined advanced services to a narrow geographic scope, concentrated in a small number of urban centers. Fundamentally, this isolation reflected a governing philosophy that feared Western cultural influence on Yemen's conservative society (Salim, 1993, pp. 444–446).

Financially, public spending priorities were clearly skewed toward security and religious objectives, often at the expense of basic social services. A substantial share of the state budget was allocated to the Imamate Guard, the armed forces, and religious projects, whereas health and education received only a marginal proportion.

Socially, modern medicine faced resistance, particularly toward newly graduated doctors trained abroad, stemming from society's loyalty to its cultural heritage and trust in traditional therapeutic systems. This resistance may be attributed to the cultural gap and philosophical divergence between modern medical practice and folk medicine. Whereas modern doctors tended to view traditional medicine as unscientific and backward, society often perceived modern medicine as a foreign intrusion potentially at odds with prevailing religious beliefs and values, creating a psychological barrier to wider acceptance (Muammar, 1999, pp. 138–139).

Although the period (1911–1962) witnessed the earliest steps toward modern healthcare development in Yemen, these advances emerged considerably later than in other Arab countries. This historical delay left a heavy legacy of health challenges that profoundly influenced the subsequent trajectory of Yemen's health sector, with ramifications that remain visible today.

Conclusion

The study argues that public health in Yemen under the Mutawakkilite regime mirrored the country's broader political isolation and social inertia. Between 1911 and 1962, the health sector remained severely underdeveloped, and repeated waves of the population endured significant mortality and morbidity owing to sustained governmental neglect. While Imam Ahmad's belated initiative to bring in foreign specialists signaled limited progress, it amounted to ad hoc interventions introduced amid systemic deterioration. Unsurprisingly, these interventions could not match the scale of the humanitarian emergency. As a result, improving healthcare emerged as a key grievance that helped mobilize support for the September 26, 1962, revolution and later informed its social priorities.

Findings and Recommendations

Findings

- Absence of a strategic vision: The Mutawakkilite State's health policy was characterized by an almost complete lack of strategic planning, treating health as an immediate individual matter rather than a foundational development sector.
- Dominance of folk medicine: In the vacuum left by the state, folk medicine and traditional practices became the prevailing therapeutic system and the primary reference for an estimated 90% of the population.
- The dual nature of foreign missions: Foreign medical missions played a dual role, humanitarian in appearance yet political in function, with limited geographic reach and unsustained impact.
- Epidemics as a constraint on development: Epidemic diseases decisively reshaped the demographic landscape and constituted a major obstacle to potential economic growth.

Recommendations

Based on the study's findings, the following future research directions are recommended:

- Urgent efforts should be made to document the oral history of folk medicine from elderly Yemenis before this unique cultural heritage disappears.
- Researchers are encouraged to conduct in-depth comparative studies between health conditions in southern Yemen (under

British administration) and northern Yemen (under Mutawakkilite rule) to analyze key differences in demographic and developmental outcomes between the two governance models.

- Further archival research is recommended in available Ottoman, Italian, and local Mutawakkilite records to construct a more accurate and comprehensive epidemiological picture of diseases that spread in Yemen during this era.

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