

The Good

The Bad

The Ugly

In the History of Medicine

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Néstor A. Ramírez, MD, MPH, FAAP

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Behavior of Society Towards Illness

Negative and Inhumane Behaviors

The Problem?

- Societies see certain illnesses as problems.
- Reactions vary with time and location.
- Political expediency often exceeds public benefit.
- Decisions based on ignorance, diverse pressures.
- Priorities change, funding wanes, policies blow in the wind, and ill people become the real victims.

Rationalizing Behaviors

- Protection of the ill population.
- Protection of the general population from harm.
- Decrease costs by grouping of patients.
- Improve quality of care and living standards.
- Display of government's paternalistic benevolence.
- Ready supply of research subjects.

Mechanisms of Inhuman Behavior

- Banishment
- Seclusion
- Reclusion
- Exclusion
- Preferential treatment
- Isolation
- Discrimination
- Elimination
- Sterilization

Some Affected Illnesses

- Leprosy
- Tuberculosis
- AIDS
- Mental Illness
- Yellow fever
- Senility or Infirmary
- Ethnicity
- Poverty

Leprosy

Leprosy, What It Is

- Chronic Infectious Disease.
- Transmissible but not easily contagious.
- Debilitating and deforming.
- Appearance may be repulsive or scary.
- Treatable.

Leprosy, What It Isn't

- Biblical curse.
- Punishment for evil behavior.
- Inherited.
- Untreatable and/or Incurable.
- Extremely contagious.
- “Rotting away of face or extremities”.

Leprosy ⁽¹⁾

- Also known as Hansen's disease (HD).
- Infection by *Mycobacterium leprae*.
- Initially an infected person has no symptoms and may remain this way for 5 to 20 years.
- Infection can lead to damage of the nerves, respiratory tract, skin, and eyes.

Leprosy ⁽²⁾

- About 95% of people with *Mycobacterium leprae* contact do not develop the disease.
- Does not spread during pregnancy to baby
- Does not spread through sexual contact.
- More common among people in poverty.

Leprosy ⁽³⁾

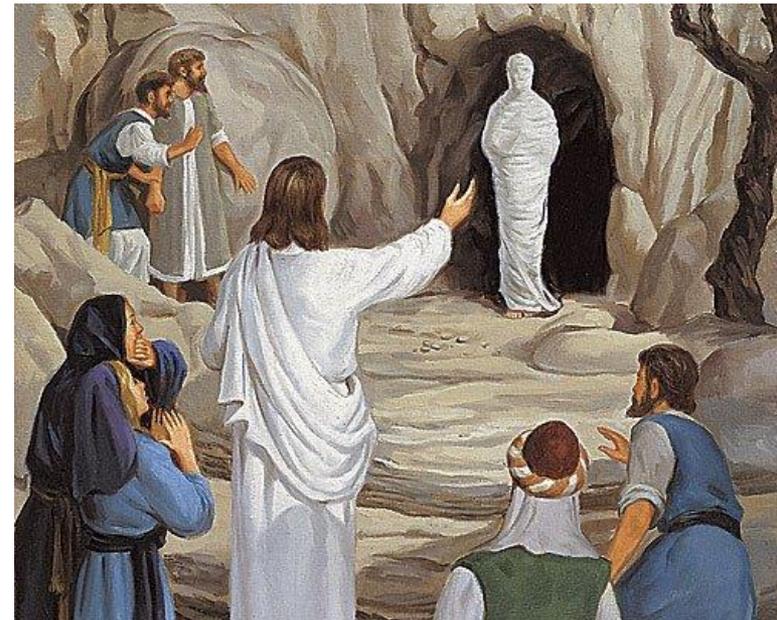
- Nerve damage results in a loss of feeling pain.
- Person may lose extremities from repeated injuries or infection due to unnoticed wounds.
- Physical and neurological damage may be irreversible even if treated and cured.
- May present with diffuse granulomatous skin lesions: nodules, macules, or papules.

Hansen's Disease Damage



Lazarus and the Gospels ⁽¹⁾

- Name is Latinized from the Aramaic “Eleazar”.
- Lazarus of Bethany, brother of Mary & Martha.
- Was resuscitated by Jesus (John 11:11-44).
- Celebrated as a saint on December 17.



Lazarus and the Gospels (2)

- Lazarus in Luke (16:19–31) was a beggar whose sores the dogs licked.
- Inspired creation of The Order of St. Lazarus.
- Conflated with Lazarus of Bethany.
- Feast is celebrated on June 21st.



Leprosarium in Jerusalem

- Originally built by St. Basil in 4th Century.
- In 2nd decade of the 12th century, documents mention the *Leprosis Ecclesie Sancti Lazari*.
- Describes it as a dwelling of lepers beyond the walls of Jerusalem between the Tower of Tancred and the Gate of Saint Stephen.
- Order of St. Lazarus ran the Church/hospital.

Leprosy in History

- Even the great and the good wanted to be seen to be helping the lepers.
- Amalric, king of Jerusalem was a notable patron of St. Lazarus because his son had leprosy.
- He would one day rule as Baldwin IV.
- The teenage 'Leper King' went down in legend fighting against Saladin with bandages around his deformed hands.

The Order of Saint Lazarus ⁽¹⁾

- Started in the Holy Land after 1st Crusade of 1099.
- Original scope was to care for lepers within the Kingdom of Jerusalem, were called lazarites.
- Many members of the order – including the original masters – were lepers themselves.
- Founded leprosarium outside walls of Jerusalem.
- Now called the Military and Hospitaller Order of Saint Lazarus of Jerusalem.

The Order of Saint Lazarus (2)



- In the Crusades an army made up of diseased men, fought fiercely and formidably despite their ailments.
- They had many former Templars in their ranks, but their battles were catastrophic and many Lazarites died.

The Order of Saint Lazarus (3)

- By 13th Century, Templars with leprosy were made to switch to the Order of St. Lazarus.
- Since more manpower was needed to secure the Kingdom, the Lazarites became more militaristic.
- In 1291, with the other four military Orders, the Lazarites fought bravely to protect Acre.
- Defeated by warriors of the Malmuk Sultanate.
- All the military members of the Order of Saint Lazarus in Acre were killed defending the city.

Order of Saint Lazarus ⁽⁴⁾

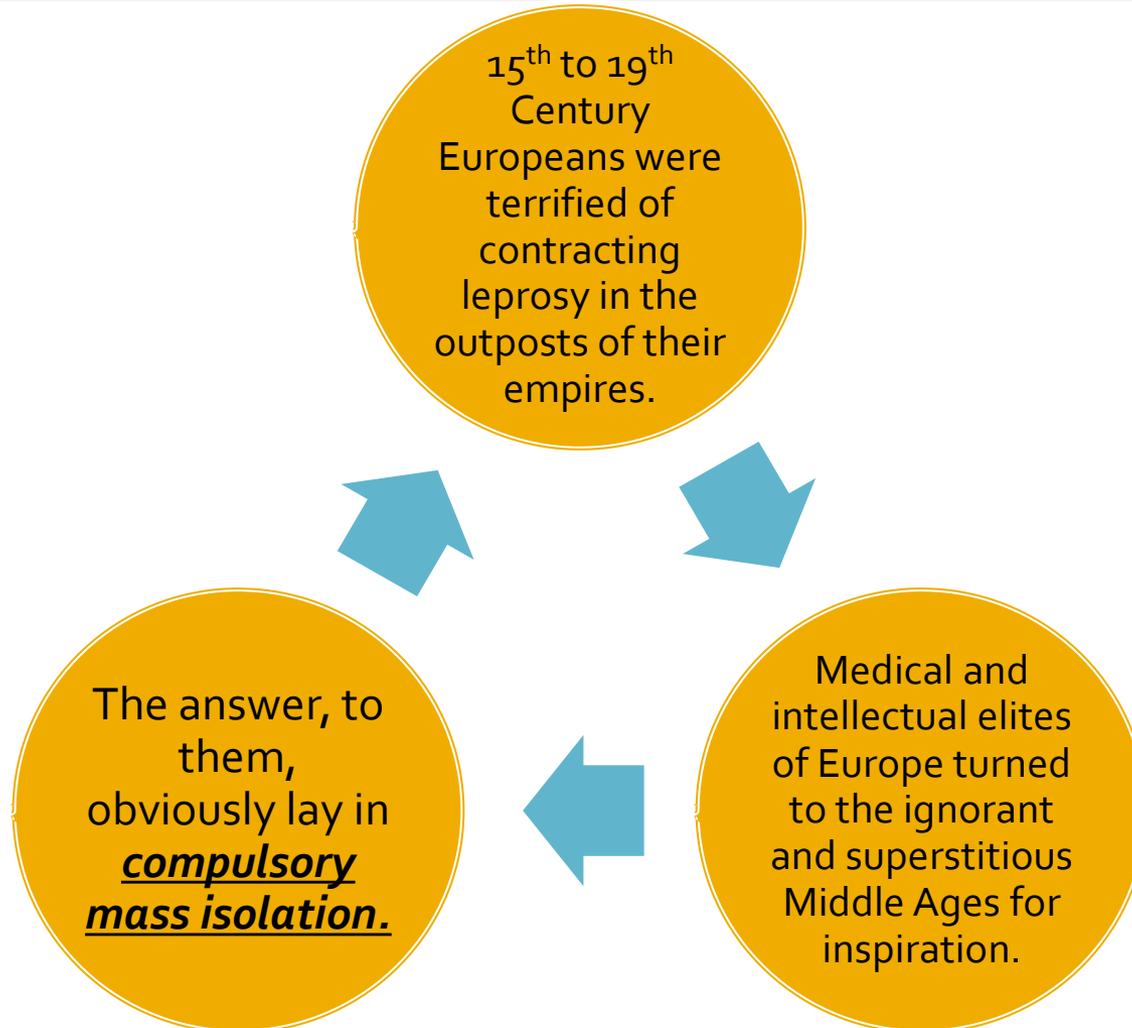
- The Order built leprosaria in Acre, Bethlehem, Caesaria, Ascolon, & Tiberias.
- 1250: Had >300 leprosaria throughout Europe.
- 1253: Started to recruit non-leprous knights.
- 1261: Pope Urban IV put the Order under the sole control of the Latin Patriarch of Jerusalem.
- 1265: Pope Clement IV put all lepers in Christendom under the control of the Order.

Order of St. Lazarus (5)

At present, mostly a ceremonial religious order with rituals and structured membership which is still involved in leprosy care and research.



Why Leprosariums?



Lazarettos ⁽¹⁾

- A lazaretto or lazaret is a quarantine station for maritime travelers.
- Can be ships permanently at anchor, isolated islands, or mainland buildings.
- A leper colony administered by a Christian religious order was often called a lazaret house.
- Used for quarantine of cholera, plague, yellow fever or other diseases.

Lazarettos ⁽²⁾

- Called leprosariums when used for leprosy.
- Many built in 17th – 19th centuries all over world.
- Located in distant areas or remote islands.
- Usually run by religious orders or pious groups.
- Frequently had own currency, to be used ONLY inside the leprosariums.

Leprosarium Currency (1)



Colombia



Philippines (US sovereignty)



Japan



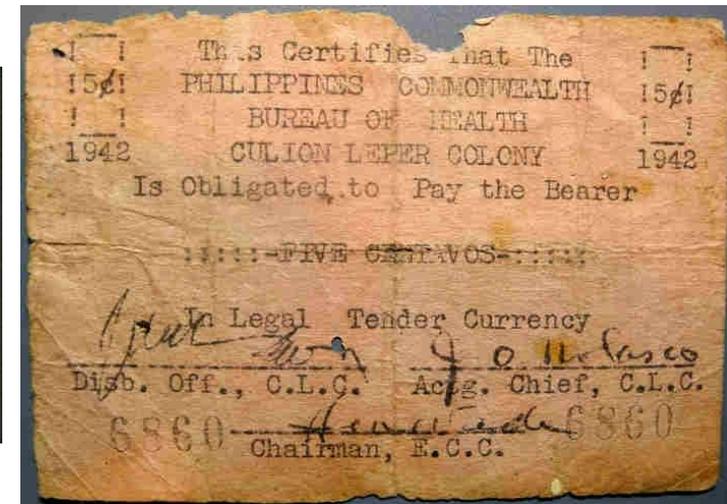
Culion coin



Jose Rizal



Malaysia



Culion scrip

Leprosarium Currency (2)



Venezuela



Palo Seco Colony Panama Canal



Colonia Santa Teresa Brazil

Leper Colonies



Chacachacare Island in Trinidad & Tobago



Spinalonga (Grece) closed 1957

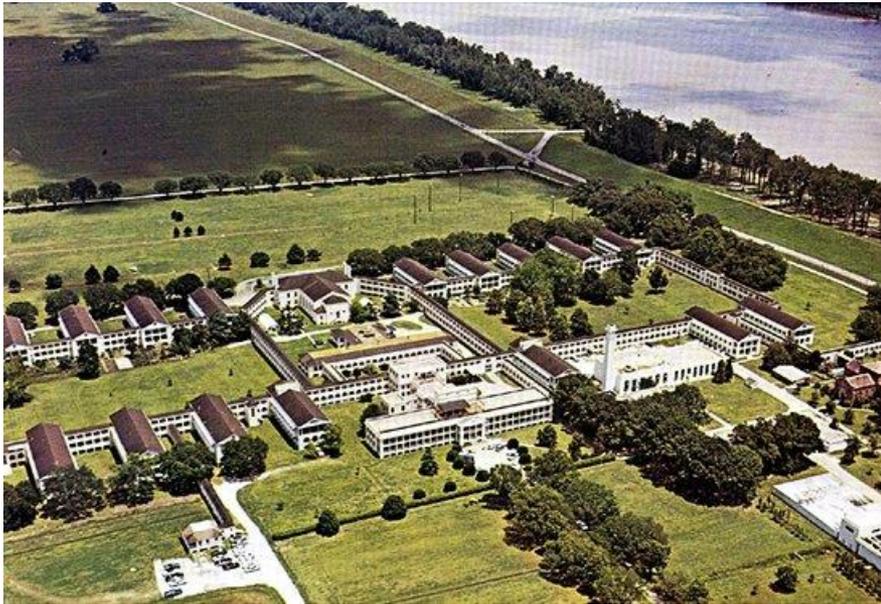


Laoe Si Momo colony, 1906 in the Batak region of Sumatra.



Kalaupapa Leper Colony, Molokai closed 1969

Carville Leprosarium

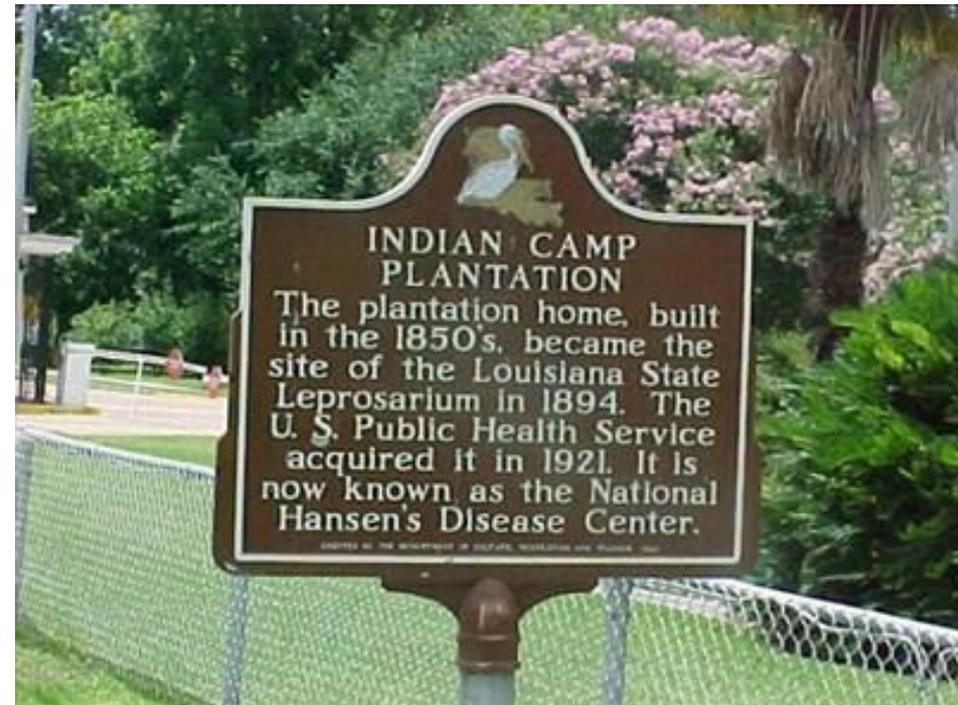


Carville became known as the national leprosarium because all persons diagnosed with Hansen's disease in the U.S. were required by law to be quarantined and treated.

Leprosarium Warning Signs (1)



Leprosarium Warning Signs (2)



Japan Issues

- In 2001, the high court ordered Japan to compensate former patients of government-run leper colonies.
- It determined that the Japanese government had mistreated the patients.
- March 2005: "Japan's policy of absolute quarantine... did not have any scientific grounds."
- Indicted by the high court:
 - The government.
 - The doctors involved with the policy.
 - Previous courts that repeatedly ruled in favor of the government.
 - The media, which failed to report the plight of the victims.

Tuberculosis

Tuberculosis ⁽¹⁾

- TB is a contagious infection that usually attacks lungs or spreads to brain and spine.
- Caused by *Mycobacterium tuberculosis*.
- In the early 20th century, TB was a leading cause of death in the United States.
- Tuberculosis Types:
 - Latent TB - Germs in the body, but the immune system prevents their spread.
 - Active TB - Germs multiply and can make person sick or spread the disease to others.

Tuberculosis ⁽²⁾

- In folklore TB was associated with vampires.
- When one member of a family died from TB, other members would lose their health slowly.
- People thought the original person drained life from the others.
- TB identified as a single disease in 1825.
- Hermann Brehmer opened the first TB sanatorium in 1859 in Görbersdorf, Silesia.

Tuberculosis ⁽³⁾

- Slow progress in preventing the disease may in part be due to stigma associated with TB and fear of transmission from affected individuals.
- Stigma may result in:
 - Delays in seeking treatment.
 - Lower treatment compliance.
 - Family members keeping cause of death secret.
- Studies have shown TB education programs are effective in decreasing stigma, and may increase treatment compliance.

Tuberculosis (4)

- Some have claimed the stigma to be worse than the disease.
- Doctors may unintentionally reinforce stigma, as patients with TB are often perceived as difficult or undesirable.
- In Ghana, individuals with TB are ***banned*** from attending public gatherings.

Tuberculosis Sanatoria ⁽¹⁾

- Tuberculosis, the white plague (consumption, phthisis) was considered an ailment of the poor.
- The rich escaped the disease by going to European health spas, while the poor had no relief.
- As urban centers grew, the plague spread and no one was immune.
- Basis for sanatoria was that a regimen of rest and good nutrition would help the patient's immune system heal pockets of pulmonary TB infection.

Tuberculosis Sanatoria (2)

- Brehmer opened the first sanatorium for the treatment of TB, exposing patients to high altitude, abundant fresh air, and good nutrition.
- Adirondack Cottage Sanatorium, in Saranac Lake, NY, in 1885, was first in North America.
- In Finland, many TB sanatoria were built throughout the country *in isolated forest areas* during the early 1900s.
- In Portugal, the Heliantia Sanatorium in Valadares treated bone tuberculosis between the 1930s and 1960s.

Tuberculosis Sanatoria (3)



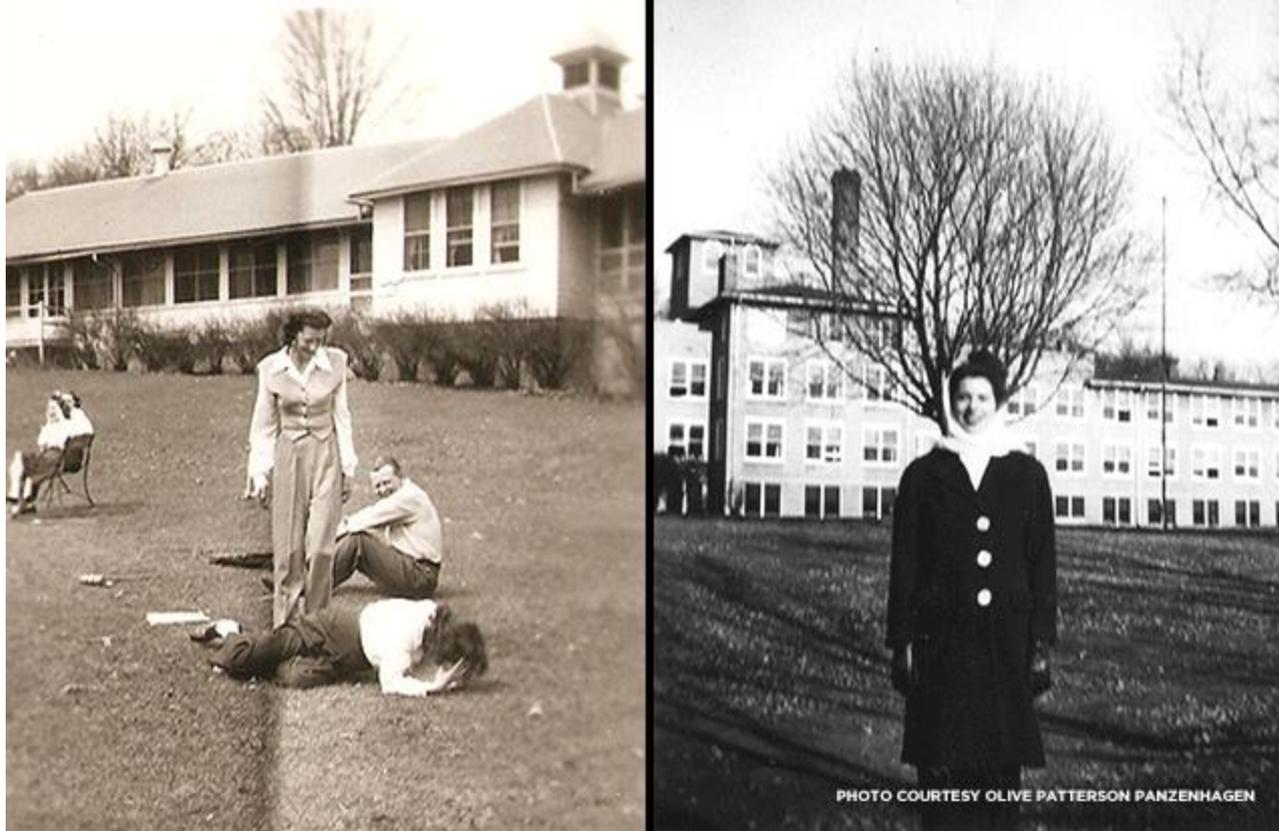
Paimio Sanatorium Finland

Tuberculosis Sanatoria (4)



Waverly Hills Sanatorium, Louisville, KY

Tuberculosis Sanatoria (5)



Wisconsin State TB Sanitarium (circa 1940).

Tuberculosis Education (1)

Tuberculosis Comes From Other Persons

CARELESS SPITTERS SPREAD COMMUNICABLE DISEASES - INCLUDING TUBERCULOSIS

Co-operate in the Christmas Seal Campaign against spitting in Public Places.



MINNESOTA PUBLIC HEALTH ASSN.
614 Portland Avenue St. Paul 2, Minn.
FINANCED BY CHRISTMAS SEALS

Please **DON'T SPIT**



SPITTING SPREADS DISEASE

TB

HELP BANISH TUBERCULOSIS
CHEST X-RAY IS FREE - and compulsory



Issued by THE VICTORIAN TUBERCULOSIS ASSOCIATION - 406 LONSDALE ST., MELBOURNE C.I.

TUBERCULOSIS



YOUR KISS OF AFFECTION THE GERM OF INFECTION

TOWN OF HEMPSTEAD, W.H. RUNCIE MD. HEALTH OFFICER
WPA FEDERAL ART PROJECT DISTRICT 4

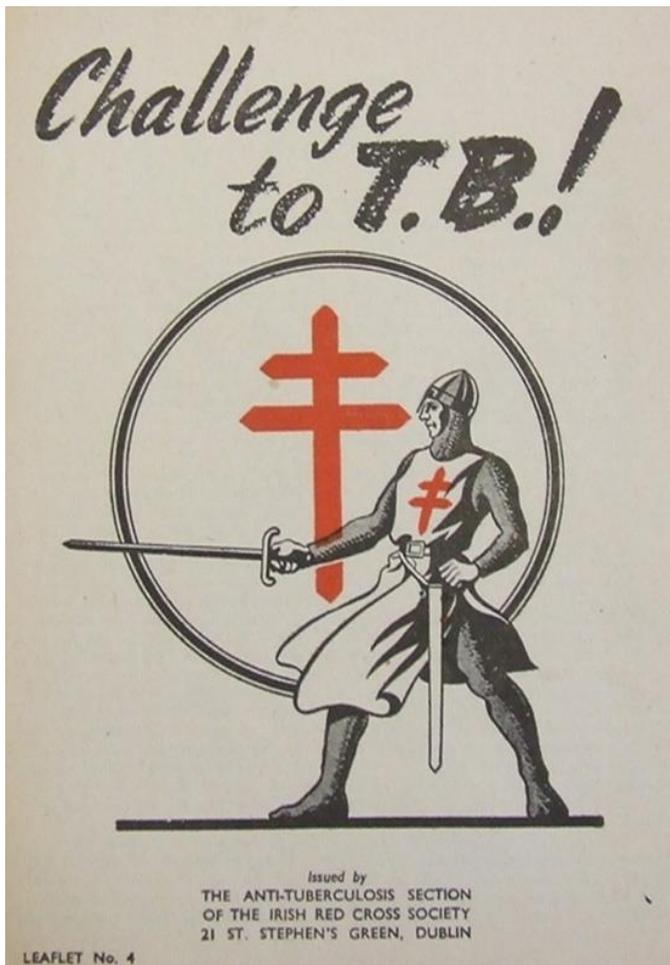
TUBERCULOSIS IS PREVENTABLE

PLEASE **DO NOT SPIT**



No Spitting

Tuberculosis Education (2)



Tuberculosis

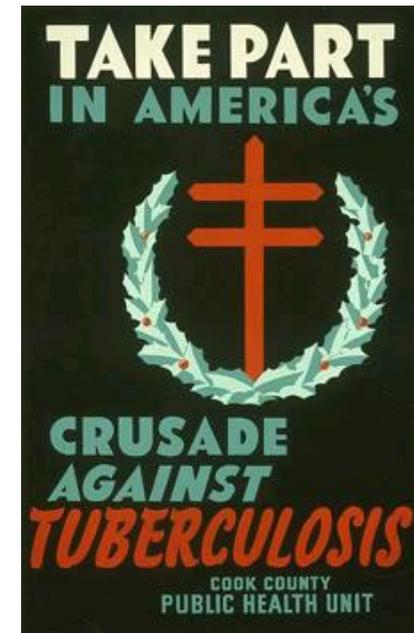
1886

EARLY DISCOVERY, EARLY RECOVERY

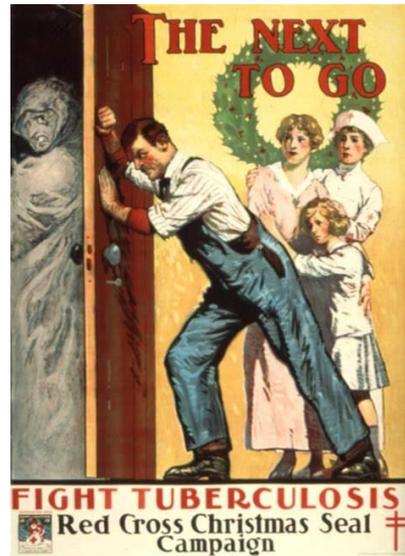


Danger Signs

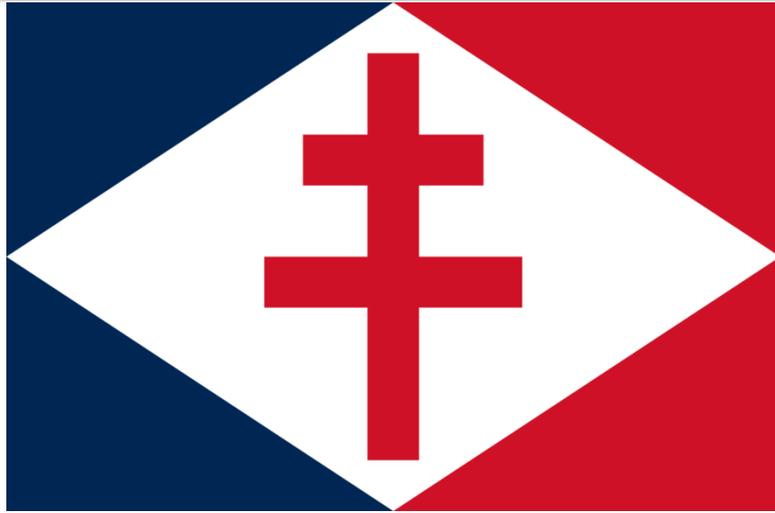
- ~ too easily tired
- ~ loss of weight
- ~ indigestion



Christmas Seals



The Double-Bar Cross



Tuberculosis Sanatoria (6)

- In the early 1900's, Arizona's sunshine and dry desert air attracted many patients (called "lungers"), so TB camps in the desert were formed by pitching tents and building cabins.
- In the 1880s TB was made a notifiable disease in Britain, and the infected poor were pressured to enter ***sanatoria that resembled prisons.***
- Sanatoria for the middle & upper classes offered excellent care and constant medical attention.
- Even under the best conditions, 50% of those who entered were dead within five years.
- Oregon was the 1st state to enact legislation for the government to supply housing for people with TB who were unable to receive proper care at home.

Tuberculosis Sanatoria (7)

- The first TB sanatorium for blacks in the segregated South was the Piedmont Sanatorium in Burkeville, VA.
- A. G. Holley Hospital in Lantana, FL, was the last freestanding TB sanatorium in US until it closed in 2012.
- In 1907, Stannington Sanatorium was opened in the North East of England to treat tuberculosis in children.
- The largest U.S. tuberculosis sanatorium was located on the site of Chicago's present day North Park Village.

Tuberculosis Sanatoria (8)

- In 1943, streptomycin was discovered and sanatoria began to close.
- Some were transformed into general hospitals, many were demolished.
- By the 1950s, TB could be controlled by antibiotics rather than extended rest.
- The Tambaram Sanatorium in south India is now a hospital for AIDS patients.
- The state hospital in Sanatorium, Mississippi, is now a regional center for treatment of intellectual disability.

Tuberculosis Sanatoria ⁽⁹⁾

- Anti-TB organizations made government units create a network of state and county hospitals that *isolated* patients.
- Located away from local urban populations, these self-sufficient medical complexes became *isolated communities* .
- They had buildings that provided housing for patients and staff, medical and administrative offices, utility plants, and other uses.
- Many of these structures have been lost, but others have found new uses.

Tuberculosis Sanatoria ⁽¹⁰⁾

- TB Sanatoria organized patients into three distinct classes: hospital, semi-ambulant, and ambulant.
- Physicians prescribed round-the-clock bed rest to their **hospital** patients in wards.
- **Semi-ambulant** patients were often housed in *separate* hospital wards or pavilions that allowed them greater freedoms.
- **Ambulant patients**, who were closest to being cured, were assigned to open-air cottages and shacks *constructed away* from the main hospital buildings.

Yellow Fever

Yellow Fever Information

- **Yellow fever** is a viral disease of typically short duration, spread by the bite of an infected female mosquito.
- Symptoms include fever, chills, loss of appetite, nausea, muscle pains and headaches, improving in 5 days.
- In about 15% of people, fever comes back in 1 day, with abdominal pain and onset of liver damage.
- This causes yellow skin (jaundice), and increased risk of bleeding and kidney failure.
- Death occurs in up to half of those who get severe disease.
- Since the 1980s, the number of cases has been increasing.

Yellow Fever and USA ⁽¹⁾

- During its tenure, it caused 500K casualties and 100K deaths.
- USA capital moved from Philadelphia to Washington DC after an epidemic in 1793.
- In NY, Greenwich Village became known as “The Village” because it was a safe haven.
- Napoleon sold Louisiana cheap to Jefferson as he retreated from the pestilent land.
- Until Atlantic slave trade abolished in 1807, it attacked mostly NYC, Boston, and Philadelphia.

Yellow Fever and USA ⁽²⁾

- In 1878, conditions were ripe for a Yellow Fever epidemic.
- Memphis, TN, lost 5,000 lives, the Mississippi valley lost 20,000 lives.
- The financial loss was \$200 Million.
- Memphis's Board of Health had failed to clean the "filthy city", and had to resort to quarantine.

Yellow Fever and USA ⁽³⁾

- Initially ships had to spend 30 days anchored offshore (*trentina*) until crew cleared of disease.
- Later increased to 40 days (*quarantina*).
- São Tomé Island called Dutchman's Graveyard.
- Flying Dutchman legend involves Yellow Fever?
- Hamilton quarantined from NYC due to Yellow fever.

Yellow Fever and USA ⁽⁴⁾

- April, 1878 Congress passed the Quarantine Act granting the Marine Hospital Service quarantine rights along port cities.
- In Memphis, Doctors and Mayor could not agree on quarantine, so it was not enacted.
- After news of Yellow Fever in New Orleans reached Memphis, quarantine was enacted in July.
- River, trains and roads guarded by armed police.

Too Little, Too Late!

- The epidemic started silently and slowly, but illnesses and deaths began happening.
- Board of Health and the press did not keep track of cases correctly: When 22 cases had happened, only 2 had been officially reported.
- By September, of a population of 47,000, only 19,000 remained and 17,000 had Yellow Fever.
- The rest had escaped town!

Yellow Fever and USA ⁽⁵⁾

- Those escaping fared no better than the ones staying in Memphis.
- Surrounding towns and villages would not receive them.
- Armed citizens kept them on the trains.
- One town gave them food and water on tables set up 4 miles from the town.
- After eating, they were herded back on train.

Yellow Fever and USA ⁽⁶⁾

- Only people remaining in Memphis were the poor, the sick, and the dead.
- On August 23, an epidemic was formally declared.
- Citizens made tent camps and got the poor out of town.
- Wires to President Hayes from the Mayor received the response on August 19 that “the *Memphis sorrow* is greatly exaggerated”.

Yellow Fever and USA ⁽⁷⁾

- On September 2, the Mayor again wired for assistance.
- Four days later, he died of the Yellow Fever.
- Of total deaths, the mortality was:
 - Whites: 70% (4,200 of 6,000)
 - Blacks: 8% (946 of 14,000)
 - 2/3 of the deaths were children, most less than 5.