

Piracy, Disease and Treasure

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Blockade Of Charles Town 1718, The Last Great Age of Piracy

In the spring of 1718, the infamous pirate Edward Teach also known as Blackbeard, made his boldest move during his career. With small crew and a determined goal he set sailed to the port of Charles Town South Carolina and carried out a total blockade of the port, preventing ships from entering or leaving. ¹His fleet isolated the entire town and took everyone by surprise. Quickly, they plundered and took other ships as hostages, the local government could do nothing but watch in horror as the black jolly roger flags were spotted, the helpless townspeople could only wonder what the pirate demands were going to be.

Blackbeard's demands were simple, he wanted ransom of a chest full of medication.

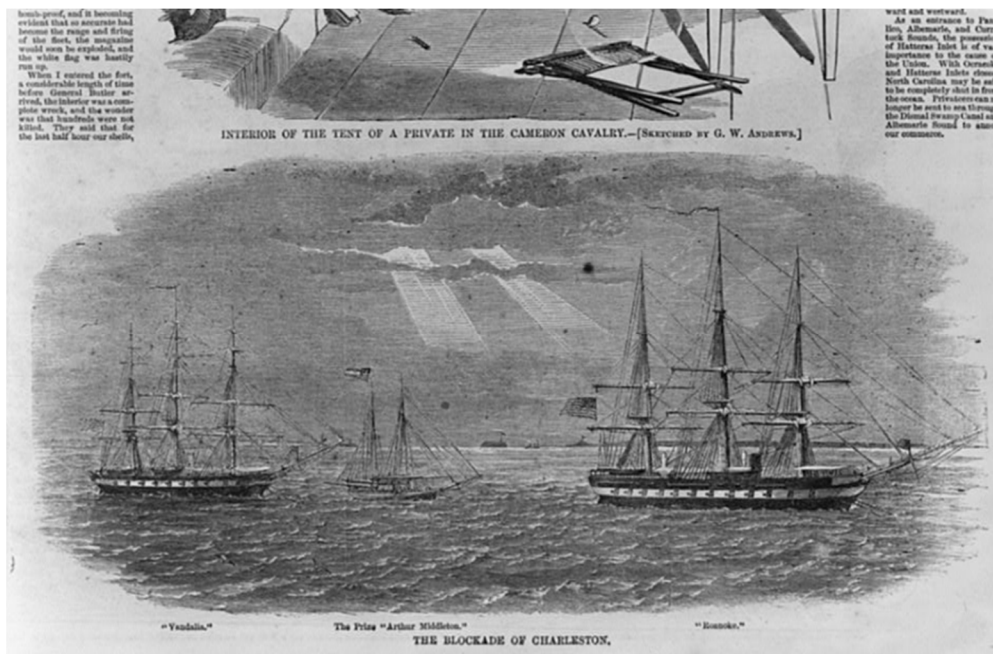


Fig 1. The blockade of Charleston²

“Not all treasure is silver and gold” (Captain Jack Sparrow, Pirates of the Caribbean)

Out of the many things that he could have demanded, medication? Surely, the pirates would have preferred a chest of riches instead that could be divided amongst themselves. After all, the phrase pirates and booty bring to mind an image of a chest overflowing with gold and precious jewels. The great captain Blackbeard would have been foolish to turn down the opportunity to appease his crew.

Blackbeard did not rise to gain his notoriety through incompetence, he gained them through ruthless cunning and many successes. You see, in contrast to how current popular culture depicts the pirate life, it was not something that simply arose out of men's allure to the sense of adventure and riches. For a majority, it was a life chosen from a position of depravity and desolation. The pirate life was not an easy life, while glory and riches were achieved by some lucky individuals, many experienced death and sickness. It was this death and sickness that the prudent Captain Blackbeard was trying to stave off, for any outbreak of diseases or sickness would have easily wiped out the fleet. Traditional booty like gold and trade goods were in abundance during the Blockade of Charles Town, booty onboard the ships trying to leave and enter the port were all seized by the pirates. More would have been greedy, a far more valuable treasure for the longevity of the crew was medication.

Disease and infection were the pirates to the pirates. Diseases came swiftly and unexpectedly, before anyone could know about it, first the gunner would have been taken hostage (maybe from amoebic dysentery from the local town), next to the cook, following the first mate. Not before long, the pirates can only surrender to the demand of the disease and port to wherever refuge they can find. Those in the arms of the disease and infection would be tortured with bouts of fever and other various 'pirate persuasions' till the point of death. Their dream of glory and riches is all but forgotten.

“.. a merry life and a short one, shall be my motto. For I have dipped my hands in muddied waters, and, withdrawing them, find 'tis better to be a commander than a common man” (Bartholomew Roberts, Black Bart, Assassin Creed)

Indeed, a short life befell many pirates during Roberts' time. Diseases such as dysentery, malaria, smallpox, and yellow fever were always around the corner.³ That is without considering the countless more who lose their life to battle, or more likely the infection and mortification (often caused by infection of the *clostridium perfringens* bacteria) that surely came after.

While modern-day antibiotic, medication, and surgery practices have mostly removed the cannons from diseases and infections that plagued the pirates of that time, there still can be treasures buried waiting to be found. From the Golden Age of Pirates, we can study how social, economic, and environmental forces acting on the pirates made them unusually susceptible to disease and death. So that we can draw some parallels to understand the mechanics and patterns of diseases on who gets most affected.

The business model of pirates

During the Golden Age of Piracy (1690-1730) an economic niche arose from the absence of employment opportunities following the end of the wars between England and France.⁴ Furthermore, as trade routes in the new European colonies were in their infancy stages, the security around the ports was low, hence it was the perfect condition for piracy to flourish. Piracy gave the men who had nothing to offer but their undifferentiated labor and appetite for risk a chance for treasure. It was a stark difference from the alternative of traditional employment, working on merchant ships and ships of the Empire for minimum wages.

The pirate business model was one that offered high rewards for high risk, it was the quick get rich scheme of that time. While the model required more than any else a reliable crew that can survive the dangerous journey also battle, the mortality of pirate life was high. This led to a simple numbers game, pirate ships were often filled with more pirates so that after the attrition from the sea and battles took their toll, the remaining pirates would have bounty as profits. Overcrowding and traveling and interacting with many different ports and people, pirate ships were a hotbed for diseases to flourish. The poor working condition of the pirates placed them at the frontlines of disease and death.

Today there are certain types of jobs and economic pressures that make us more vulnerable to disease outbreaks. About two-thirds of new diseases were transmitted to humans from animals.⁵ This process of diseases transmitting across species to humans is called zoonotic spillover and it happens the more we encounter animals in the form of livestock or/and wild animals. When studying the events of zoonotic spillover, we consider where people live, how they work and interact with one another. It was discovered that there seems to be an association between people with poverty and how likely they are to be in close contact with animals.⁶

It was suspected that economic demand for animals which drives people into higher contact with them could be a driving force for the zoonotic spillover that lead to outbreaks of Ebola in West Africa.⁷ It is worth considering that disproportionately, people from lower income backgrounds and those from developing countries are those who are more likely to work outdoors and are associated with the risk that comes with these working conditions.

Unequal access to sanitation and treatment caused by economic differences is not something that has disappeared too. People living in developed countries have greater access to drinking water and sanitation which are factors to prevent diseases. In the event that someone from a developed country falls ill, they would have better access to road and emergency services which can bring them quicker to be treated. They would also have access to more robust healthcare systems when receiving treatment.

Formal and informal societal norms

Pirates were outlaws, criminals, and wanted men. ⁴ Those who took on its lifestyle also took on the Empire's noose. They lived beyond both the law of the land and its services. Pirates could not sail into a port of the Empire without the fear of the noose tightening around them. By the nature of the criminal lifestyle that they lived, were marginalized by the society that they lived in. A ship of sick diseased pirates would have to sail to a friendly port to receive treatment and services, which might be too late for the rest of the crew. Furthermore, due to the brutal and violent nature of pirate life, healthcare was always in demand.



Fig 2.

Image of a urethral syringe onboard the Queen Anne's Revenge⁸

It was said that the medication demanded by Blackbeard was mercury to treat Syphilis

While ships like Blackbeard's Queen Anne's Revenge ⁹ were fortunate to come with surgeons, medical devices, and plunger 'pre-pirated'. This was not the norm for most pirate fleets; unlike the merchant ships and Empire ships of that time, a pirate crew would have had a hard time finding willing surgeons and doctors to join them.

Societal pressures can shape the way diseases spread amongst people, in the Golden Age of the Pirates societal pressures were applied by law restricting the healthcare received by pirates. While today, more insidious informal forms of social stigma influence and restrict people's access to healthcare.

The Human immunodeficiency virus infection (HIV) epidemic is a sobering reminder of how shame and stigma can influence people's behaviors. HIV is transmitted by 2 major pathways, sexual intercourse, and by intravenous drug use. In Zimbabwe, both these activities are still highly stigmatized. ¹⁰ This is often the case in many parts of the world too where some members of society are socially disapproving of anyone infected with HIV. Much like pirates, people with HIV are denied a normal existence free from disapproval and judgment from their society. Furthermore, that disapproval results in a lack of support for the treatment and prevention of those who might have HIV. It is no surprise that many who have HIV or suspect themselves of having HIV avoid seeking diagnosis even when it could aid them with treatment and slow the spread of the virus. Since identifying that they have HIV could mean that they would have to live under the constant judgment and stigmatization from others, some choose to remain undiagnosed, encouraging the spread of the virus worsening the epidemic. ¹¹ Social inequality influences and shapes how epidemics grow and change, it is a dynamic factor can play a part to determine who are more at risk of infection and how the infection will spread.

Lessons Leant

For the longest time, outbreaks and infectious diseases have caused suffering and death. A case study into the history of pirates and their struggle against diseases and death can help us navigate the turbulent waters. While the threats posed by diseases are neither the same, nor even the same diseases. The forces which acted on the pirates then have modernized and evolved. 'The threats posed by infectious diseases today are being amplified by social, behavioral and environmental factors that accelerate the natural phenomena that modify infectious disease patterns.' ⁷The pirate scourge of the seas can be our compass

to identify the looming threat of outbreaks. So that we can ready our cannons to deal with them before it is too late.

References

1. Blackbeard the Pirate - Edward Teach. *ThoughtCo* <https://www.thoughtco.com/blackbeard-edward-teach-2361128>.
2. *The blockade of Charleston*. (1861). ThoughtCo. <https://www.thoughtco.com/blackbeard-edward-teach-2361128>
3. Magra, C. P. Book Review: Liberty on the Waterfront: American Maritime Culture in the Age of Revolution. *Int. J. Marit. Hist.* **16**, 419–421 (2004).
4. Cartwright, M. Golden Age of Piracy. *World History Encyclopedia* https://www.worldhistory.org/Golden_Age_of_Piracy/.
5. Gholipour, LiveScience, B. What 11 Billion People Mean for Disease Outbreaks. *Scientific American* <https://www.scientificamerican.com/article/what-11-billion-people-mean-disease-outbreaks/>.
6. Mapping of poverty and likely zoonoses hotspots. *GOV.UK* <https://www.gov.uk/research-for-development-outputs/mapping-of-poverty-and-likely-zoonoses-hotspots>.
7. Heymann, D. L. Social, Behavioural and Environmental Factors and Their Impact on Infectious Disease Outbreaks. *J. Public Health Policy* **26**, 133–139 (2005).
8. published, O. J. Photos: The Medical Instruments Found on Blackbeard's Ship. *livescience.com* <https://www.livescience.com/49564-photos-blackbeard-pirate-medical-instruments.html> (2015).
9. Pirates Also Needed Medical Devices. *mddionline.com* <https://www.mddionline.com/business/pirates-also-needed-medical-devices> (2015).
10. Duffy, L. Suffering, shame, and silence: The stigma of HIV/AIDS. *J. Assoc. Nurses AIDS Care* **16**, 13–20 (2005).
11. An, Q., Prejean, J., McDavid Harrison, K. & Fang, X. Association Between Community Socioeconomic Position and HIV Diagnosis Rate Among Adults and Adolescents in the United States, 2005 to 2009. *Am. J. Public Health* **103**, 120–126 (2013).