**Cholera**

*Use the provided article and* [*www.choleraandthethames.co.uk*](http://www.choleraandthethames.co.uk) *to learn about Cholera and the London outbreak in 1854.*

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| --- | --- |
| **Virus / Parasite / Bacterium** |  |
| **Symptoms** |  |
| **Vaccine / Cure / Medical Treatments / Prevention? Describe.** |  |
| **How is it spread? How do you get it?**  **Who is most at risk?** |  |
| **Where is it typically found globally?** |  |
| **About how many are infected / die each year?** |  |

1. In which country did cholera originate?
2. Who were John Snow and Reverend Henry Whitehead, and how are they important figures in cholera medical history?
3. What was the source of the cholera outbreak in London in 1854? How was this outbreak pivotal in understanding cholera?

**Malaria**

*Use the provided articles and video “Malaria and Sickle Cell Anemia” to complete the following table and questions 4-6.*

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| **Virus / Parasite / Bacterium** |  |
| **Symptoms** |  |
| **Vaccine / Cure / Medical Treatments / Prevention? Describe.** |  |
| **How is it spread? How do you get it?**  **Who is most at risk?** |  |
| **Where is it typically found globally?** |  |
| **About how many are infected / die each year?** |  |

1. How does malaria affect society and the economy? Think about everything from the individual, the family, workers, hospitals, jobs, education, etc.
2. Draw a diagram showing the life cycle of the malaria parasite.
3. Describe the relationship between malaria and sickle-cell disease, a genetic disorder.

**Dengue**

*Watch the DVD “Viral Outbreak: The Science of Emerging Disease” starting at time 7:25 and ending at 16:52 to complete the following table and answer questions 7-8.*

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| **Virus / Parasite / Bacterium** |  |
| **Symptoms** |  |
| **Vaccine / Cure / Medical Treatments / Prevention? Describe.** |  |
| **How is it spread? How do you get it?**  **Who is most at risk?** |  |
| **Where is it typically found globally?** |  |
| **About how many are infected / die each year?** |  |

1. How are people with asymptomatic Dengue infection more susceptible to severe Dengue?
2. How does global trade and travel affect diseases that are spread by vectors such as mosquitoes?

**Tuberculosis**

*Use the provided articles and video “EXPOSED Chapter 1: The Global Epidemic” to complete the following table and question 9-10.*

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| **Virus / Parasite / Bacterium** |  |
| **Symptoms** |  |
| **Vaccine / Cure / Medical Treatments / Prevention? Describe.** |  |
| **How is it spread? How do you get it?**  **Who is most at risk?** |  |
| **Where is it typically found globally?** |  |
| **About how many are infected / die each year?** |  |

1. Explain the difference between TB, MDR-TB, XDR-TB. How did these strains develop?
2. What surprised you about TB from the videos?

**Ebola**

*Use the provided articles and video “What You Need to Know About Ebola” to answer questions 11-12.*

|  |  |
| --- | --- |
| **Virus / Parasite / Bacterium** |  |
| **Symptoms** |  |
| **Vaccine / Cure / Medical Treatments / Prevention? Describe.** |  |
| **How is it spread? How do you get it?**  **Who is most at risk?** |  |
| **Where is it typically found globally?** |  |
| **About how many are infected / die each year?** |  |

1. Describe something new you learned about Ebola from the video. What surprised / shocked you?
2. What do you think is the biggest challenge for control of the Ebola virus? Explain.

**Influenza**

*Use the provided book and videos “Flu Attack! How A Virus Invades Your Body” and “Influenza: Get the (Antigenic) Drift” to complete the following chart and answer question 13-14.*

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| --- | --- |
| **Virus / Parasite / Bacterium** |  |
| **Symptoms** |  |
| **Vaccine / Cure / Medical Treatments / Prevention? Describe.** |  |
| **How is it spread? How do you get it?**  **Who is most at risk?** |  |
| **Where is it typically found globally?** |  |
| **About how many are infected / die each year?** |  |

1. Explain how the flu virus infects a person.
2. Explain Antigenic Drift and how that affects infection and vaccination.
3. Why did Influenza spread so quickly during the outbreak in 1918?