Topic 2: The Basic Science of Viruses
[Date of training]

Agenda:

- Introduction
- The Basic Science of Viruses
  - Video
  - Discussion and reflection
- Session feedback form and next steps

Learning Objectives:

- Differentiate one (1) core difference between SARS-CoV-2 and COVID-19.
- Identify, and explain to others, the three (3) main parts of a virus.
- Describe three (3) steps showing how viruses use of the cells of living things to make more copies of themselves.
- Explain one (1) reason why infection control actions focus on keeping respiratory droplets out of the air and away from other people.

Introductions

- Please be prepared to introduce yourself, answering the questions below:
  - Name and professional role
  - How long you've been working in healthcare

What stands out most in your memory from the last session?

Were you able to successfully implement the personal action yo

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As you watch, consider the following questions:

1. Did you learn something new from this video, or were you reminded of something important that especially resonates with you? Can you think of someone you know who would benefit from these concepts?
2. Have you ever received questions from patients or coworkers on these topics? Does this video give you any ideas of how you could explain these concepts to others?

INSIDE INFECTION CONTROL

SARS-COV-2? COVID-19? WHAT'S THE DIFFERENCE?

EPISODE 2

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Let’s Discuss

1. Did you learn something new from this video, or were you reminded of something important that especially resonates with you? Can you think of someone you know who would benefit from these concepts?
2. Have you ever received questions from patients or coworkers on these topics? Does this video give you any ideas of how you could explain these concepts to others?

INSIDE INFECTION CONTROL

WHAT'S A VIRUS?

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INSIDE INFECTION CONTROL

HOW DO VIRUSES MAKE YOU SICK?

EPISODE 5

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Breakout Groups

- With the concept you were given, identify an analogy from everyday life that you could use to explain it to a patient, coworker, or family member who's never studied this before.
- Be ready to share your answer with the broader group.

Let’s Reconvene

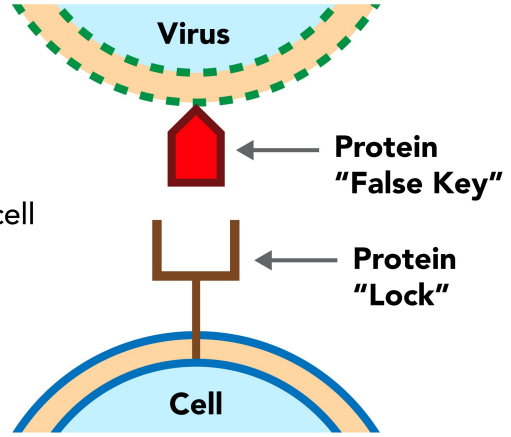
- Differentiate between SARS-CoV-2 and COVID-19.
- Identify the 3 main parts of a virus.
- Describe how viruses use the cells of living things to make more copies of themselves.
- Explain why infection control actions focus on keeping respiratory droplets out of the air and away from other people.

Job Aids

VIRUS LOCK AND KEY

Viruses invade cells

- **Viruses have "false key"**
  - Not exact match
  - Close enough to "unlock" cell
- **Uses cell to make more copies of itself**



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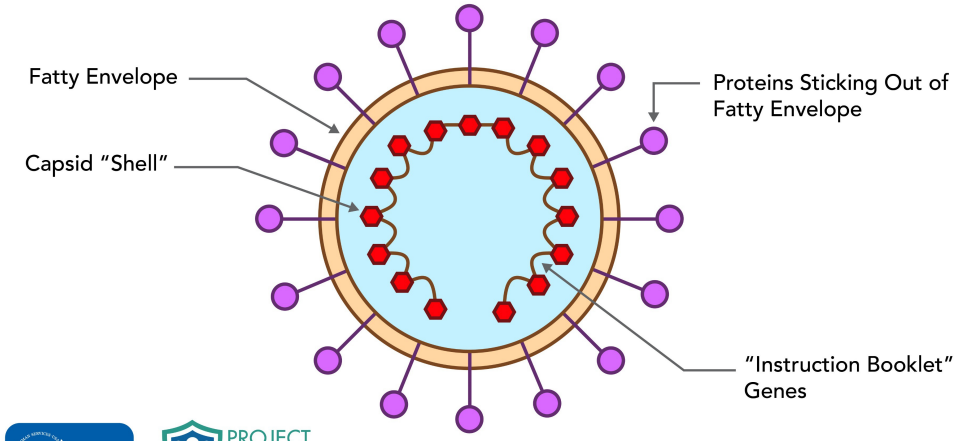
THE PARTS OF VIRUSES



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Reflection

- Can you imagine a realistic, every-day occasion when you could practice using this job aid or explain this concept to others?

Key Messages

What was the most important element of today's session for you?

- SARS-CoV-2 is the official, scientific name of the virus, the germ that causes the disease COVID-19
- COVID-19 is the name of the disease – the fever, cough, chills and other symptoms that people have when they are infected with the virus SARS-CoV-2.

Key Messages Continued

What was the most important element of today's session for you?

- All viruses have two parts:
  - Genes that contain all the information needed to make more virus copies
  - Proteins that protect the genes and help the virus spread
- Some viruses – SARS-CoV-2 is one of them – also have a third part: an envelope made of special fats that protects the genes and proteins

Key Messages Continued

What was the most important element of today's session for you?

- Viruses are able to use cells in living things, including people, to make copies of themselves. It's how viruses spread within a body, and from person to person.
- When enough viruses have been able to get into our cells and make copies of themselves, the body recognizes that there's an infection, and our immune system revs up to fight off the virus.
- It is the activity of our immune system fighting the virus that makes us feel sick.

Resources and Future Training sessions

Project Firstline on CDC:

https://www.cdc.gov/infectioncontrol/projectfirstline/index.html

Project Firstline on Facebook:

https://www.facebook.com/CDCProjectFirstline/

Twitter:

https://twitter.com/CDC_Firstline

Youtube:

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Feedback form

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