**KNOWLEDGE:**
1. How many HPV infections were there in 2018?
2. Which particular type of HPV causes the most HPV-related oropharyngeal cancers?
3. What impact will current HPV vaccinations have on the rate of oropharyngeal cancer among young people in the future?

**COMPREHENSION:**
4. Why is it important to know how often oral infections persist and the best way to screen for these infections?

**APPLICATION:**
5. Why is it difficult to screen for oropharyngeal cancers and how might Amber’s research help?

**ANALYSIS:**
6. What do you think motivates Amber to do the work she does?

**EVALUATION:**
7. Amber discusses how effective the HPV vaccine has been at preventing new infections. Given the current situation regarding the pandemic and the anti-vaxxer movement, what are some of the concerns raised by those against vaccines? What are the arguments for vaccines?

**CREATIVITY:**
8. Part of Amber’s job is talking to the media about her research. What questions would you ask Amber if you were interviewing her?

**MORE RESOURCES**

**FIGHTING COVID-19 WITH EPIDEMIOLOGY: A JOHNS HOPKINS TEACH-OUT**
Amber led this free online course about studying outbreaks like COVID-19. It will help you to learn about how epidemiologists identify and measure outbreaks like COVID-19 and how they study the epidemiology of these infections: [www.coursera.org/learn/covid19-epidemiology?action=enroll](http://www.coursera.org/learn/covid19-epidemiology?action=enroll)

**HEALTH EQUITY FACTSHEETS**
The American Public Health Association has a wealth of useful factsheets. They will give you some idea on health equity, which provides the opportunity for everybody to attain their highest level of health: [www.apha.org](http://www.apha.org)

**EPIDEMIOLOGISTS: DISEASE DETECTIVES**
Here is a lesson plan you might wish to share with your teacher or work through yourself. It will help you to learn about epidemiology and the role epidemiologists play in responding to disease outbreaks and protecting public health: [www.pbslearningmedia.org/resource/envh10.health.lp912/epidemiologists-disease-detectives](http://www.pbslearningmedia.org/resource/envh10.health.lp912/epidemiologists-disease-detectives)

PBS Learning Media also provides interesting videos, including one about the 1854 cholera outbreak in London and the work of famed physician John Snow ([www.pbslearningmedia.org/asset/envh10_vid_johnsnow](http://www.pbslearningmedia.org/asset/envh10_vid_johnsnow)), and one about a mystery illness in New York ([www.pbslearningmedia.org/asset/midlit11_vid_splwniles](http://www.pbslearningmedia.org/asset/midlit11_vid_splwniles)).

**TALKING POINTS**

**ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM**
Create a public health campaign about HPV to be rolled out nationally to young people. This can take the form of an article or perhaps a fact sheet, with words and pictures/illustrations. Consider the following points to inform your campaign:

- What specific message are you trying to communicate about HPV?
- How can you raise awareness without scaring people?
- What facts, figures and statistics will you include? Will you provide sources for your facts, figures and statistics? If so, how will you ensure the information source is reliable?
- How will you support a call for people to get the HPV vaccine?

There are some links in the body of Amber’s article that will point you to some websites containing information. Of course, you may wish to discuss the types of cancers that can, in rare instances, result from HPV, but consider the wider audience when putting the campaign together.

Other things to consider:

- How will you share the campaign? Will it be on social media, at bus stops, leaflets through the door, at schools, on television, elsewhere or a combination?