Human Papillomavirus: Investigating the Prevention, Transmission, and Treatments of a Viral Infection

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This unit provides the framework to investigate the role of viruses in human populations with a brief overview of the production of vaccines. The virus that is the focal point of this unit is the Human Papillomavirus (HPV). HPV is part of a family of viruses that are linked to causing cancer in their hosts. Recently, the FDA approved a vaccine for HPV providing immunity against four strains of HPV known to lead to cervical cancer in women. There is great debate among health officials and the government whether or not to mandate that preadolescent females receive the vaccine. This unit serves to educate general biology students as to what a virus is composed of and the way in which it infiltrates the cells of its host. This knowledge provides the foundation for students to investigate how science, technology, and society are working together to come to a conclusion concerning a topic that directly involves their physical health.

(Developed for Biology, grade 10; recommended for Biology and AP Biology, grades 9-10 and 12)