Pennsylvania Environmental Public Health Tracking (PA EPHT) Program
Public Health Action – January 2017:

Possible Link between Marcellus Shale Unconventional Gas Drilling Activities and Sexually Transmitted Infections (STI) and Hepatitis C Virus (HCV) Cases

IDENTIFY THE PROBLEM/SOLUTION:

An alarming increase of sexually transmitted infections (STI) and hepatitis C virus (HCV) cases has occurred in a 12-county region of southwestern Pennsylvania (Allegheny, Armstrong, Beaver, Butler, Cambria, Clearfield, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland counties). Most notably, in 2014 HCV has increased by more than eight-fold — climbing from 335 cases in 2003 to 2,818. Leading health authorities, including the CDC and the U.S. Preventive Services Task Force, have called for increased attention to this silent epidemic, but more concrete actions are critical.

PA EPHT was called upon by the Pennsylvania Viral Hepatitis Prevention Program to provide research data to identify a possible link between Marcellus Shale unconventional gas drilling activities, and fluctuations in coal mining production, coinciding with this alarming upward trend of STI and HCV cases.

DESCRIBE PA EPHT’S INVOLVEMENT:

The Pennsylvania Viral Hepatitis Prevention Program continues to develop new strategies to combat this problem through public health actions. PA EPHT has served as an important supporting component to these new strategies by providing Geographic Information System maps, and a summary report for unconventional natural gas extraction activity and deep mining (coal) activity specific to the 12-county region.

DEMONSTRATE THE IMPACT OF THE PHA IN ADDRESSING THE PROBLEM/ SOLUTION:

The current research on the public health impacts of Marcellus Shale gas extraction has mainly focused on the environmental and occupational effects. However, little has been done to explore the effects on sexual health and related issues that impact the welfare of a community. Specific public health recommendations are needed to develop innovative strategies to address this current, critical issue.

The high dependence on these industries has led to significant economic changes, employment fluctuations, and most notably, STIs. By the end of 2016, the number of unconventional gas wells (3,892) operating in southwestern Pennsylvania required thousands of workers, drawn from across the country and separated from any existing social connection. Add the element of long work days averaging 12 hours, lack of entertainment options and social ties, and the
prospect of high-risk behavior for STI and HCV cases becomes more opportunistic. So the argument remains. Should investments be made for violence prevention, health screenings or infrastructure improvements that could potentially make a difference?

Programs focusing on hepatitis and HIV/STI prevention, with targeted interventions for high-risk workers, will be extremely important in communities where there is substantial recent in-migration.

IF POSSIBLE, QUANTIFY THE IMPACT OF THE RESULTING ACTION ON THE HEALTH OF THE POPULATION:

Gas extraction is a multi-billion dollar industry and drilling activities will continue to develop in southwestern Pennsylvania with a steady draw of transient workers to the region. The Pennsylvania Department of Health, Viral Hepatitis Prevention Program, must continue to address sexual health issues openly and take a proactive approach in STI and HCV prevention. Investing in prevention now will improve health outcomes and decrease health care costs associated with the potential rise in STIs in the future.

The assessment of the factors in this report is based on and limited to published data. Additional research needs to be conducted on the impact of these industries on community health.