

# HIV infection epidemic investigation in southern Indiana (us.): the community should be aware and avoid being the next victim

## Abstract

At beginning of this year 2015, an outbreak of HIV infection was detected in Southern Indiana communities. It was quickly declared an epidemic HIV infection due to the investigation which confirmed that the rates of this transmissible disease have surpassed the regular annual rate in the county. The cause was linked to as many generations of a family and multiple community members injecting drugs together. Anyone who took a risky behavior should contact the health officials such as the health care centers, health care providers and the Indiana State Department of Health and comply with the full investigation and receive appropriate health care to stop the spread of HIV infection.

**Keywords:** HIV, human immunodeficiency virus; CDC, centers for disease control and prevention; AIDS, acquired immunodeficiency syndrome; WHO, world health organization

Volume 2 Issue 4 - 2015

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Received: July 1, 2015 | Published: July 03, 2015

## Editorial

On January 23, 2015, the Indiana State Department of Health began an ongoing investigation of outbreak of human immunodeficiency virus (HIV) infection, after the Indiana disease intervention specialists reported 11 confirmed HIV cases traced to a rural county in Southern Indiana.<sup>1</sup> Situated in the eastern north-central U.S., Indiana is the smallest of the 12 mid western states and has an area of 35,826.11 square miles and a population of 6,537,334 according to the 2012 U.S. Census Bureau estimated data. The human immunodeficiency virus (HIV) is a retrovirus that infects cells of the immune system, destroying or impairing their function; the most advanced stage of HIV infection is acquired immunodeficiency syndrome (AIDS).<sup>2</sup> The Southern Indiana's HIV outbreak was a problem of public health importance, because for a county who had fewer than 5 cases of HIV infection yearly, the investigation found nearly 140 persons confirmed cases, aged 18 to 59 years old (54% male), 80% reported injection drug use, 3% no drug or no injection drug use and 13% unknown had status as of April 21, 2015. The CDC report confirmed that 7.4% female patients were commercial sex workers. Among the 135 patients, 84.8% have been confirmed with hepatitis C virus coinfection.<sup>1</sup> This HIV outbreak involved a rural population, historically at low risk of HIV, in which the HIV infection has spread rapidly within a large network of person who shared needles for injected drugs in most of the cases. People should be aware that HIV is transmitted essentially through unprotected sexual intercourses (anal or vaginal), transfusion of contaminated blood, exchanges of contaminated needles and during pregnancy from infected mother to her infant (possibly during child bearing and breast feeding). The Southern Indiana communities, be on the alert that HIV exist at a higher level than before; get protected! Citizen should use abstention, or preservatives such as male or female condoms for sexual activities. Preventive measures are always the best option when it comes to HIV infection and other communicable diseases. Pregnant women should get screen for HIV and positive cases should get enrolled in early intervention program for better

health care services that lead to great health outcomes and well-being of the mother and the infant. Drug users should avoid sharing needs and get enrolled in the harm reduction program if one exists, with the health care provider or public health professionals in order to have access to clean needles for injectable drugs use. For months, the outbreak investigation continue with the June 16, 2015,<sup>3</sup> arrest of four people accused of distributing a painkiller linked to the largest HIV outbreak in Indiana history. Stay tune for new development related to the cases. The HIV infection outbreak of Southern Indiana should be a wakeup call for all of us to emphasize the care for mental health and substance abuse intervention programs in medically underserved rural community areas. The lessons learned from the Southern Indiana HIV epidemic is the adequate response of the state and local who achieved the deployment of a great emergency response system and followed a consistent outbreak investigation in responding to the spread of this infectious disease. Today, more tools than ever are available to prevent HIV infection in our communities. In addition to opting for abstention from sexual activities, it is important to limit your number of partners,, never exchange needles and using condoms correctly and consistently, you may be able to take advantage of newer biomedical options such as pre-exposure and post-exposure antiretroviral therapy for prophylaxis.

## Acknowledgements

None.

## Conflict of interest

The author declares no conflict of interest.

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