

# SHiNe

SHARED HIV NETWORKS

## What is a Shared HIV Network?

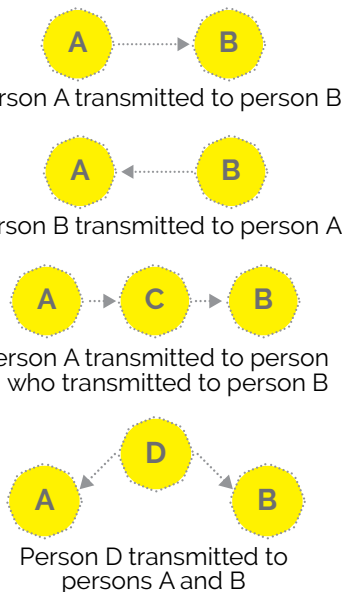
After an HIV diagnosis, a genotype test is performed to determine if the specific HIV strain is resistant to certain drugs. This allows medical professionals to prescribe the most effective anti-viral regimen that will allow their patient to reach an **undetectable viral load**. Like all tests (CD4, viral loads, etc.) related to HIV, these genotype tests are reported to the state to provide insight on trends and patterns in the community with the goal of decreasing new transmissions to zero. Using the results of the genotype test, public health workers can detect **Shared HIV Networks** consisting of people whose strains of HIV are closely related (**THE SPARK**).

We can create these groups because the HIV virus changes and mutates at a consistent, rapid rate. For instance, if two people have a similar strain of HIV it may indicate a connection between these individuals. After living with HIV for a period of time, each person's strain will evolve in its own unique way and no longer resemble other people's individual HIV strains. Identifying related viral strains within a short period of time can indicate that transmission is occurring rapidly within a group (Shared HIV Network).

When these groups of individuals with similar HIV strains are identified, the health department **CANNOT** tell who infected whom. Additionally, these groups may represent only a few out of the actual number of cases within the transmission group (**THE LIGHT**) or the larger network of people susceptible (**THE GLOW**).

Groups with similar HIV strains only provide evidence of some type of connection. We can infer that there is a direct or indirect epidemiologic link, but we **CANNOT** infer who may or may not have transmitted HIV to whom. There could be multiple different scenarios in play as indicated in the figure below.

Figure: Four Possible Transmission Paths



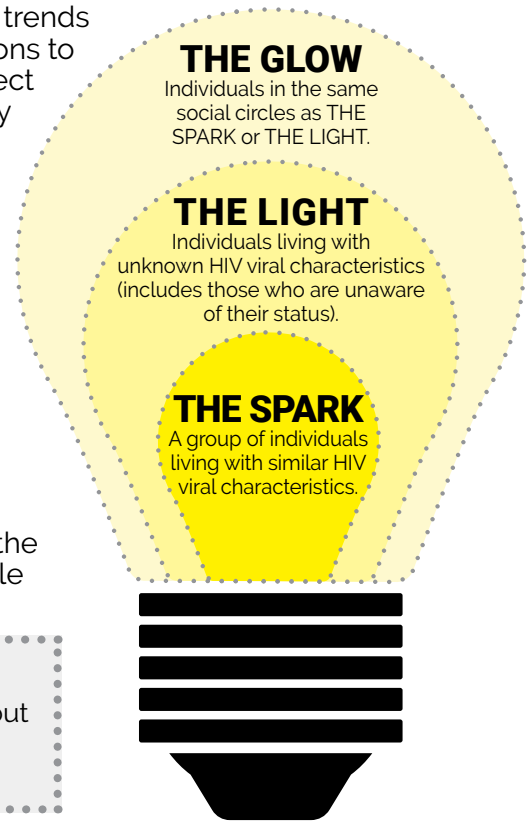
## What is a transmission group?

A transmission group is a larger piece of a Shared HIV Network (**THE SPARK and THE LIGHT**). Individuals within this transmission group are persons with HIV (PWH) who have a direct or indirect relationship to each other. There could be a few reasons why a person in a transmission group might not be detected initially as part of a Shared HIV Network (**THE LIGHT but not THE SPARK**):

- Persons living with undiagnosed HIV.
- Persons diagnosed but have not yet received genotype testing.
- Results of genotype testing have not been reported to the health department.

## What is the greater social network?

The overarching network that contains both PWH as well as those at risk of acquiring HIV (**THE GLOW**) is called a social network. Every individual is involved in a social network to some degree; however certain people are 'more susceptible' or more likely to contract HIV. Those 'more susceptible' individuals within a social network who do not have HIV are the focus of effective preventative interventions, such as pre-exposure prophylaxis (PrEP).



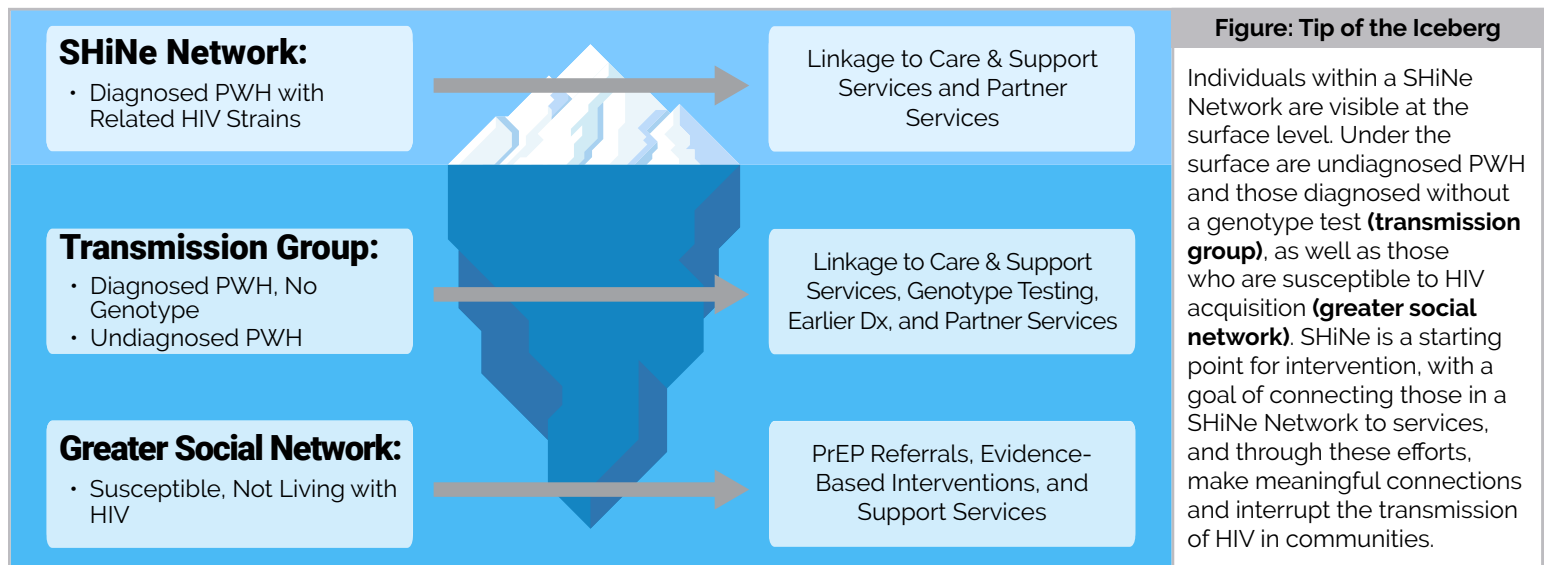
## Why SHiNe?

The purpose of SHiNe can be broken down into two important goals:

1. Prevent the spread of HIV in our community.
2. Ensure PWH have access to and receive timely, comprehensive care to support their path to viral suppression.

Once PWH reach and maintain viral suppression, the virus cannot be transmitted sexually, which reduces the spread of HIV in our communities.

When discussing SHiNe, it is important to emphasize the importance of maintaining viral suppression, specifically Undetectable = Untransmittable (U=U). Being told that you cannot sexually transmit HIV if you have maintained your undetectable viral load over time increases the effectiveness of messaging regarding SHiNe and general HIV care.



## What do SHiNe activities look like?

When a SHiNe Network is identified we have two main responsibilities:

1. Connect with individuals in that SHiNe Network to ensure they have access to and are receiving the care and support services they need to live a healthy life.
2. Form meaningful partnerships with members of the SHiNe Network to assist with connecting named partners for testing and referral to care or PrEP services, identify locations/venues for free testing and outreach events, and/or determine what facilities or medical professionals work the best for PWH.

SHiNe is an important benefit for the entire community – regardless of HIV status. By participating in SHiNe, community members are actively helping stop the spread of HIV.

Strong partnerships between the state, locals, CBOs, and community are essential to ending the HIV epidemic, and SHiNe is a tool that can help move us forward and ensure that communities and individuals have the support they need to thrive.

For more information regarding SHiNe or other HIV related activities, find us at: [Michigan.gov/HIVSTI](https://Michigan.gov/HIVSTI)