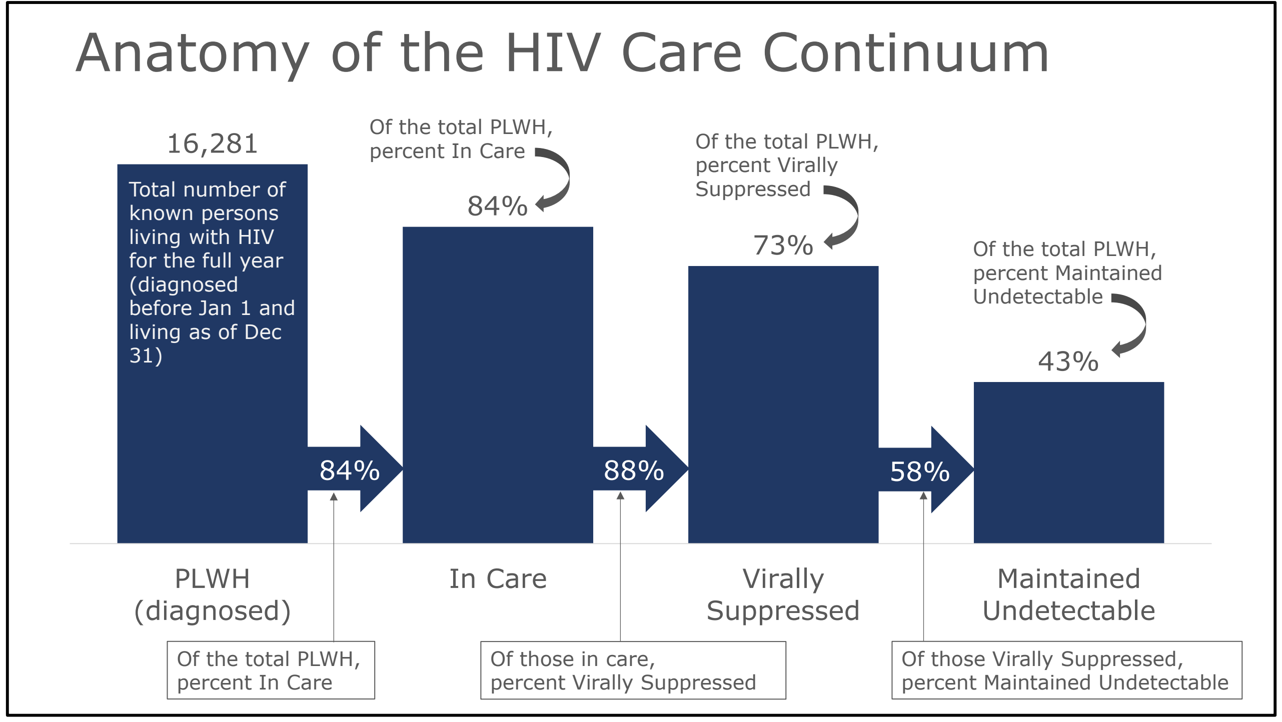
HIV Care Continuum Report, 2019

Data as of April 2020

To view the tables used to create the following figures, please see the HIV Care Continuum Report.

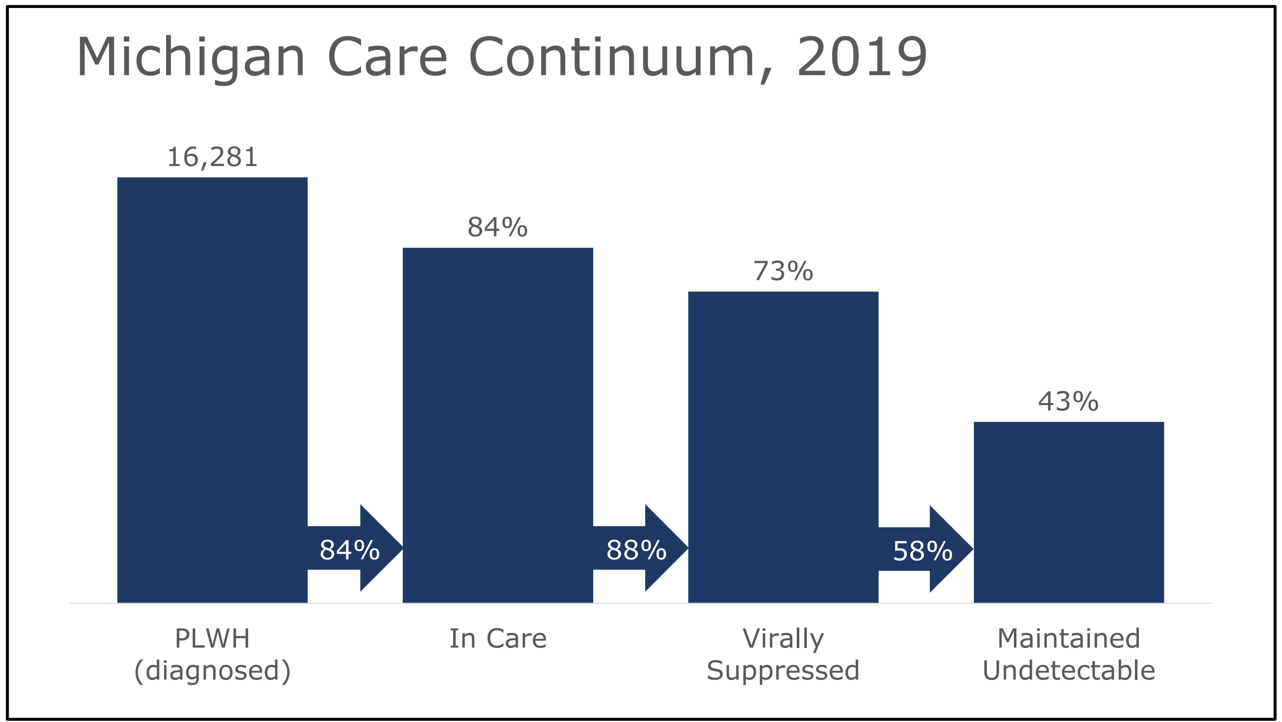


The HIV Care Continuum - also referred to as the Continuum of Care (CoC) or Treatment Cascade - was developed by the CDC to assess gaps in care.

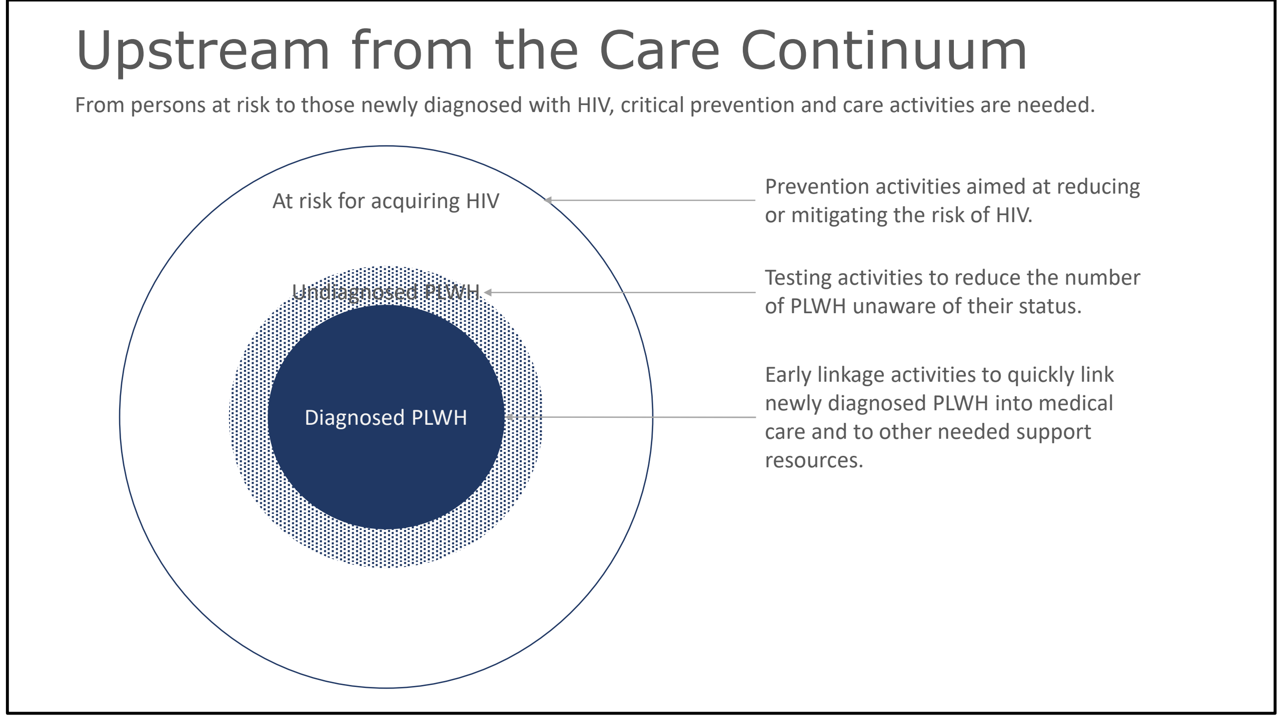
PLWH (diagnosed) is the total number of known persons living with HIV (PLWH) for the full year (diagnosed before January 1 and living as of December 31 of the given year).
In Care includes all diagnosed PLWH who received at least one CD4, viral load, or genotype lab test during the given year.
Virally Suppressed (VS) includes PLWH with less than 200 copies of HIV virus per milliliter of blood (<200c/mL) according to their last viral load lab test during the given year.
Maintained Undetectable (MU) includes virally suppressed individuals who maintained viral load levels <200c/mL for at least 4-8 months.

At each step along the CoC, the transmission rate decreases with 5.3 transmissions per 100 PLWH among those diagnosed but not in care[1], and zero sexual transmissions occurring among those who maintain and monitor a suppressed viral load (the maintained undetectable stage)[2]. Consistent suppression of the virus is an indication of routine access to care and treatment adherence. Those who maintain and monitor a low viral load (MU) have the best long-term prognosis in addition to being unable to transmit the virus sexually.

[1]Skarbinski J, Rosenberg E, Paz-Bailey G, Hall I, Rose C, Viall A, et al. (2015) Human Immunodeficiency Virus Transmission at Each Step of the Care Continuum in the United States. JAMA Intern Med.doi:10.1001/jamainternmed.2014.8180
[2]PreventionAccess.org

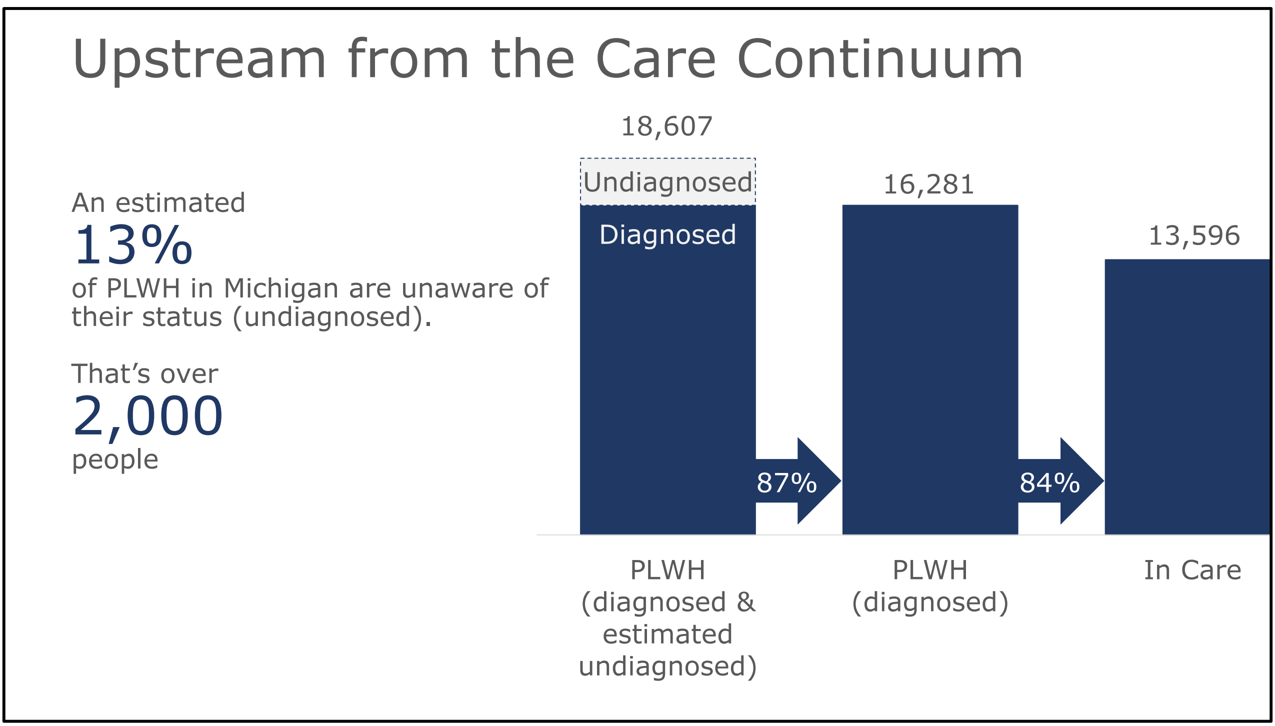


PLWH (diagnosed) - PLWH diagnosed before Jan 1 and alive Dec 31 of the given year.
In Care - PLWH with at least 1 CD4, viral load, or genotype lab test during the given year.
Virally Suppressed - PLWH with less than 200 copies of HIV virus per milliliter of blood (<200c/mL) according to their last viral load lab test during the given year.
Maintained Undetectable - PLWH who maintained viral load levels <200c/mL for at least 4-8 months.

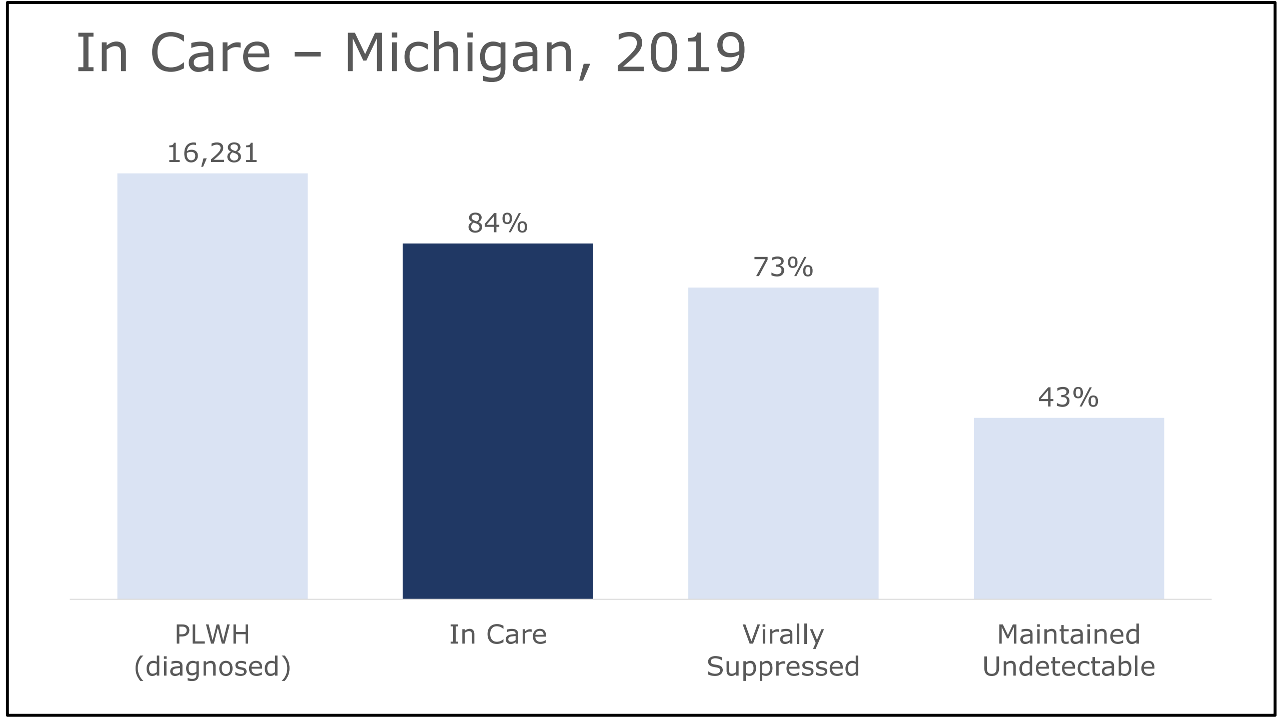


It's important to remember the care continuum is only useful in assessing need gaps among *diagnosed* PLWH. Upstream from the care continuum are three crucial stages:

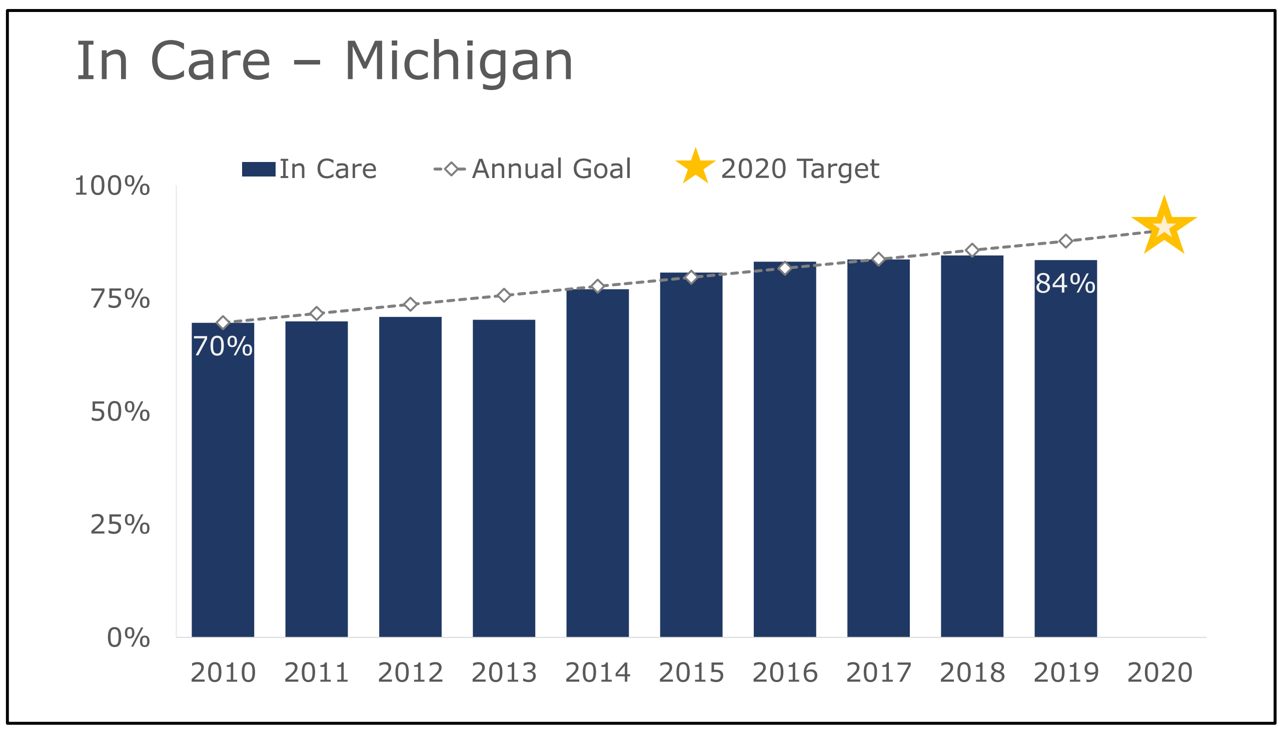
1) Prevention
2) Early testing
3) Rapid linkage


Upstream from the Care Continuum
An estimated
13%
of PLWH in Michigan are unaware of their status (undiagnosed).
That's over
2,000
people
18,607
Undiagnosed
Diagnosed
16,281
13,596
87%
84%
PLWH (diagnosed & estimated undiagnosed)
PLWH (diagnosed)
In Care

Michigan Care Trends and Disparities



In Care - PLWH with at least 1 CD4, viral load, or genotype lab test (proxies for medical care visits) during the given year.
The proportion In Care is the number of PLWH in care divided by the total number of *diagnosed* PLWH.



Getting into care is the first step toward achieving viral suppression, improving an individual's prognosis, and reducing transmission risk. In Michigan, the target is to increase the proportion of PLWH In Care (at least one CD4, viral load, or genotype test during the year) from 70% in 2010 to 90% in 2020. Currently Michigan is falling behind (not keeping up with the annual goal).

Falling behind here has a cascading affect – persons not in care cannot achieve viral suppression. This lowers community viral suppression levels, which increases community transmission risk. In order to reduce HIV transmissions at a population level, more PLWH in the state need to be in care. This stage of the Care Continuum (engaging and retaining PLWH in care) should be the primary focus of HIV care programs.

For assistance getting into care, visit the Link Up Michigan website: LinkUpMI.com

Note: The 2020 Target is a modification of an indicator from the National HIV/AIDS Strategy (NHAS) regarding continuous care. In Michigan, from the Surveillance Program's perspective, the focus should be improving the proportion "In Care" rather than "Continuous Care" for several reasons which you can learn more about here: https://www.michigan.gov/documents/mdhhs/Defining_Unmet_Need_Linkage_to_Care_639267_7.pdf

Communities with low care rates

15-29 year olds
especially Black/AA men

Transgender
persons

Persons on Medicaid or
lacking health insurance

Persons who inject drugs
& heterosexual men

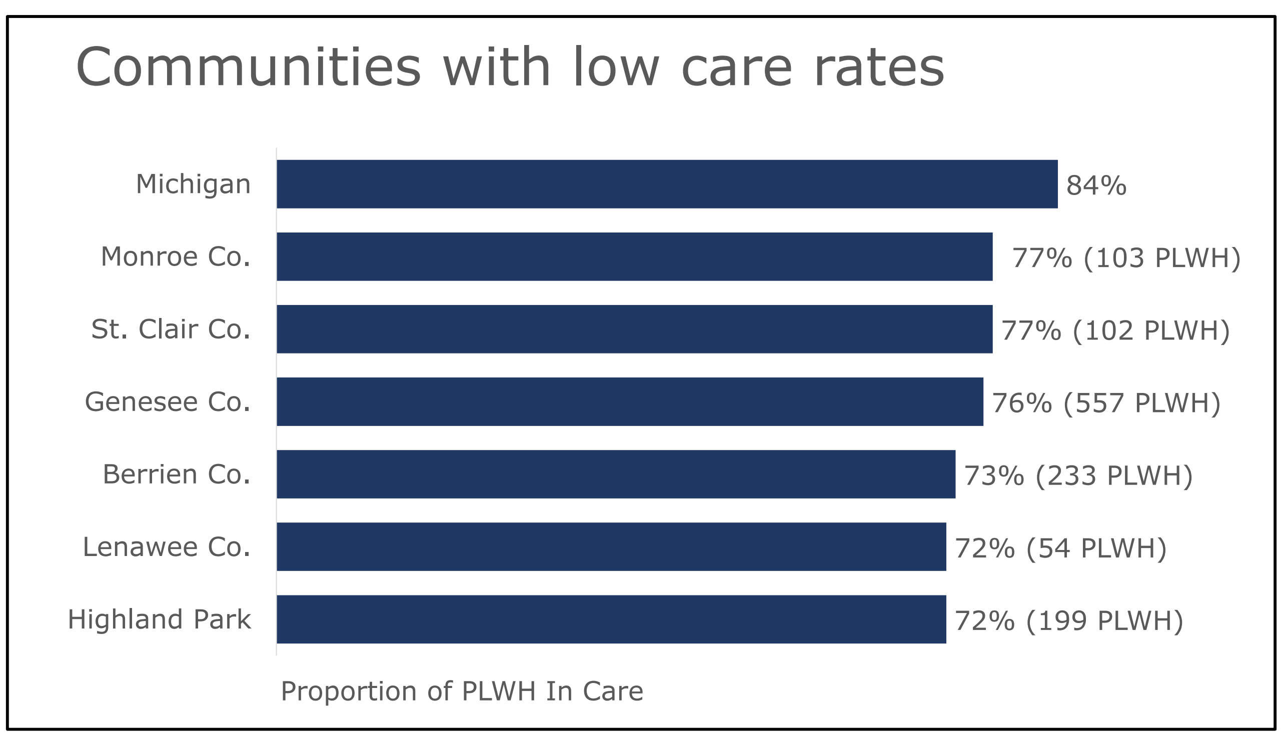
Persons with
unstable housing

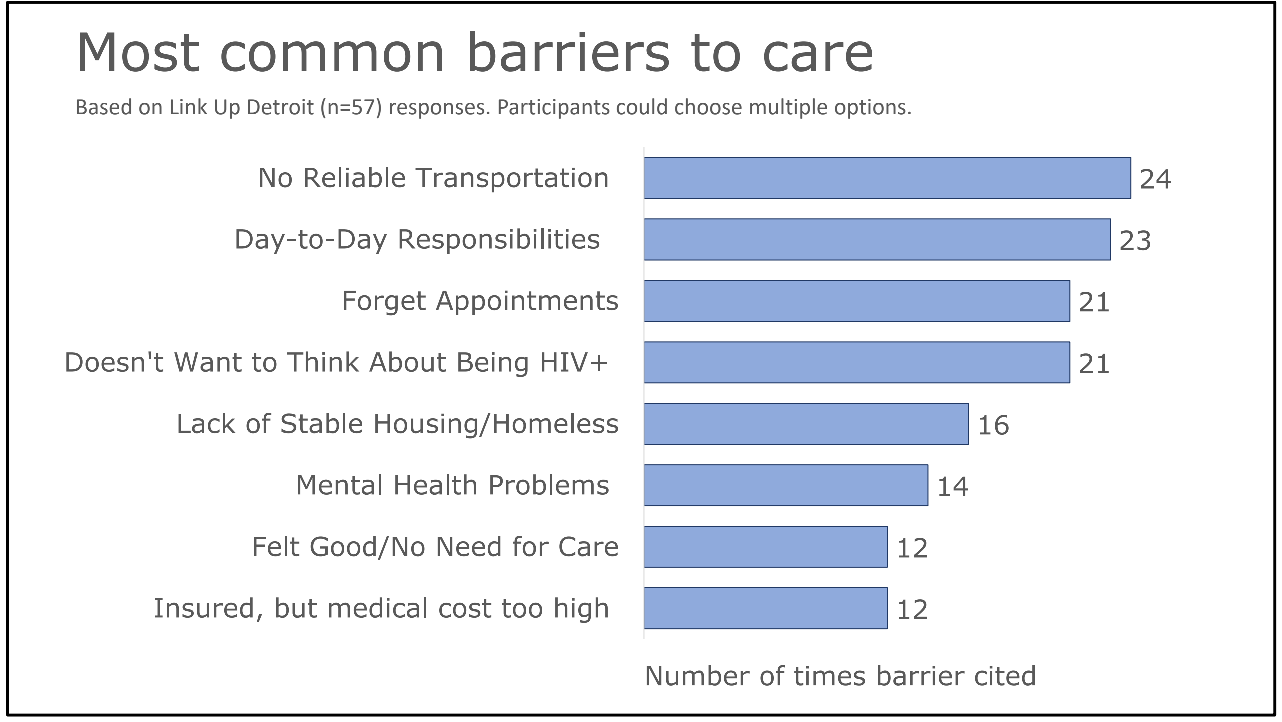
Persons living below
the poverty line

Some populations face significant barriers to receiving HIV care. The following populations experience lower care rates compared to the average PLWH in Michigan.

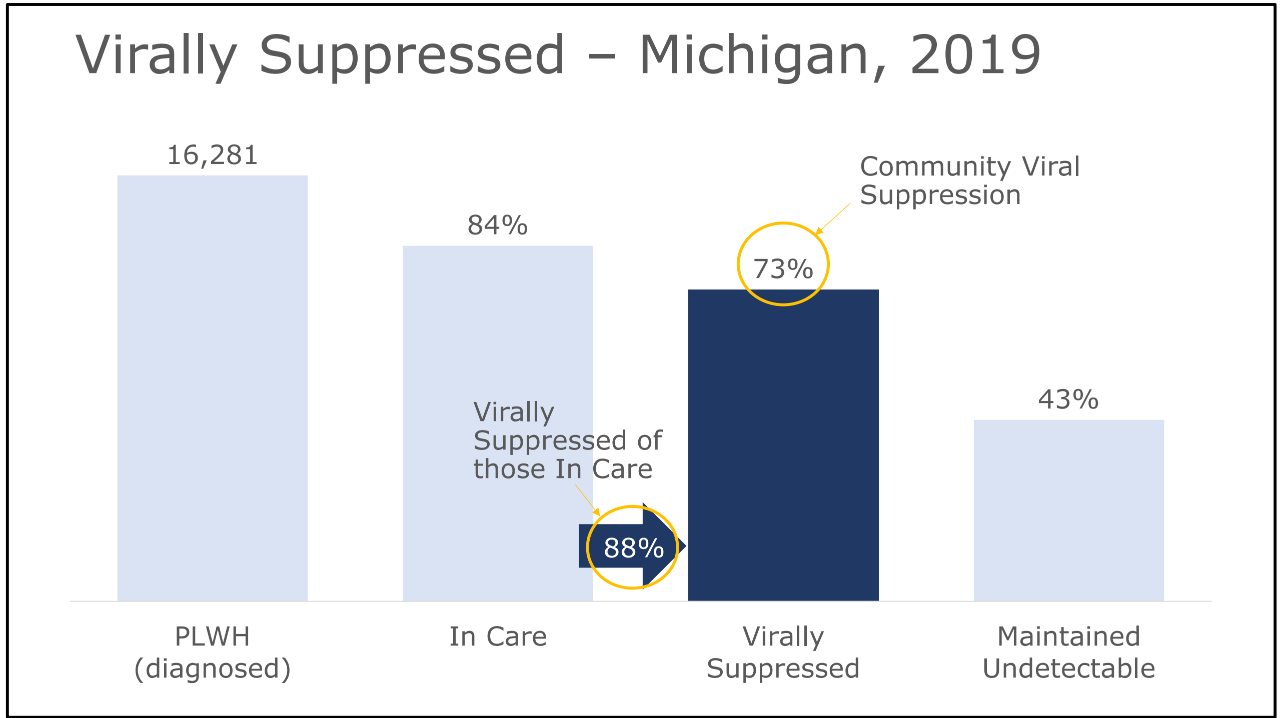
84% of all PLWH in Michigan received care in 2019, however, during that same year only
79% of 15-29 year olds were in care,
76% of 15-29 year old Black/AA men were in care,
78% of persons who inject drugs (PWID) were in care, and
81% of heterosexual men were in care.

Information regarding gender, housing status, health insurance, and income are often only reported among persons in care. Therefore, care rates cannot be reliably calculated for all groups of Michiganders living with HIV. However, based on available information (mainly viral suppression), it is very likely the other groups mentioned on the slide experience low care rates as well.


Communities with low care rates
Michigan
84%
Monroe Co.
77% (103 PLWH)
St. Clair Co.
77% (102 PLWH)
Genesee Co.
76% (557 PLWH)
Berrien Co.
73% (233 PLWH)
Lenawee Co.
72% (54 PLWH)
Highland Park
72% (199 PLWH)
Proportion of PLWH In Care



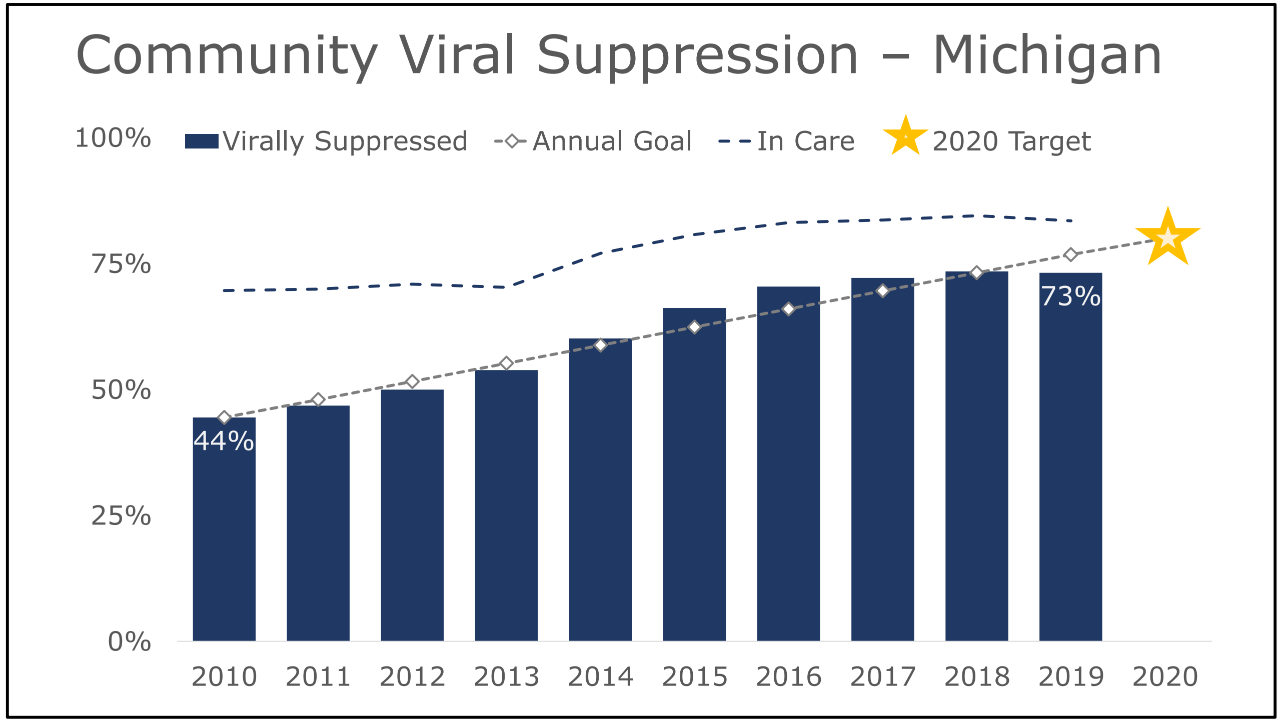
Many other barriers were reported. Those included in the slide were reported by at least 20% of participants. Other reported barriers include no health insurance, inconvenient clinic hours or location, couldn't get a timely appointment, have not disclosed to family, feel too sick, prefers alternative therapy, drinking/drug use, unaware of positive status, doesn't like doctor, incarcerated, could not find a doctor.



There are two ways to think about viral suppression and each is useful for different purposes. Community viral suppression is the proportion of all diagnosed PLWH who are virally suppressed (**VS divided by diagnosed PLWH**). High community viral suppression indicates high treatment adherence and low transmission risk at the community level. Community viral suppression, however, cannot convey which populations struggle to reach VS even after being established in care. Viral suppression of those in care (**VS divided by those In Care**) does indicate which populations struggle to reach VS after care is established.

Because improved prognosis and transmission reduction at the community level are overarching goals, community viral suppression is the more commonly used indicator. VS of those in care should be used sparingly to determine priority populations for treatment adherence interventions and programs.

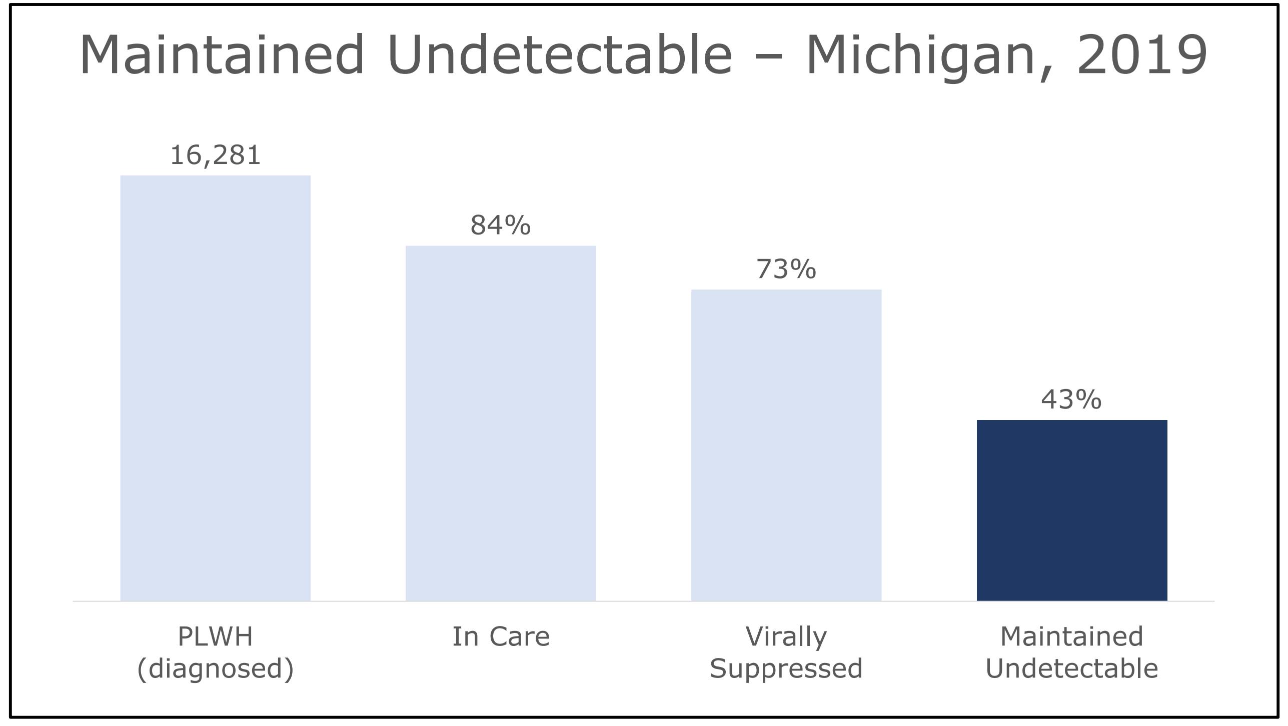
The good news is, in Michigan, once an individual is in care, the majority reach VS. The best way to increase community viral suppression in the state, is to focus on increasing the proportion in care (In Care/PLWH).



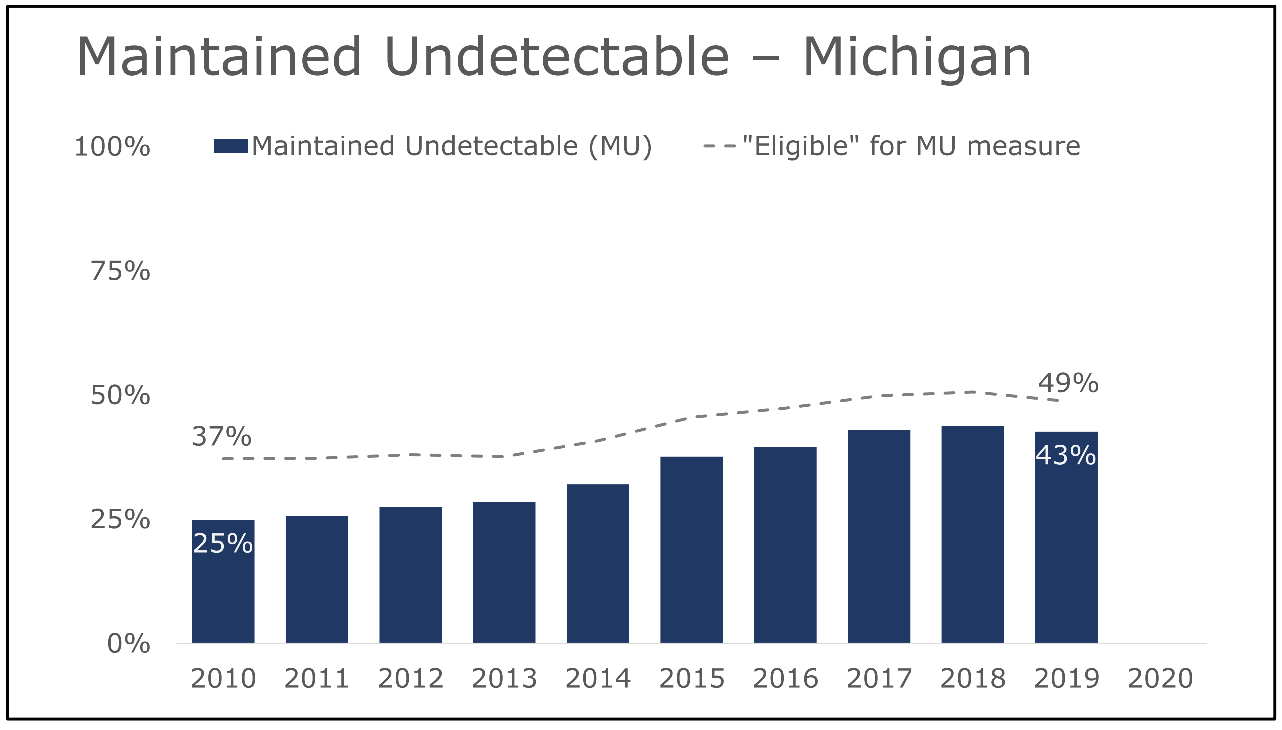
In Michigan we are not meeting the 2020 NHAS goal because we are running into the "care ceiling". A person cannot be virally suppressed if they are not in care, so viral suppression can never exceed the proportion in care. On the slide there is a dashed line representing the proportion of persons in care. This dashed line is the care ceiling.

The 2020 target is an indicator from the National HIV/AIDS Strategy (NHAS). The goal is to increase the proportion of diagnosed PLWH who are virally suppressed (community VS) to 80%. This can also be derived from the "90-90-90" goal (90% of PLWH are diagnosed, 90% of those diagnosed are in care, and 90% of those in care are virally suppressed). If 90% of diagnosed PLWH are in care, and 90% of them are suppressed, it translates roughly to 80% of all diagnosed persons are virally suppressed.

In Michigan during 2019, 90% of persons in care were virally suppressed (on track for the 3rd 90 of the 90-90-90 goal), but because the care rate is not on track to meet it's 90% target (see previous care slide), the overall virally suppressed proportion (community VS) is falling behind. Bottom line: Michigan needs to increase the proportion of PLWH who are in care.



Maintained Undetectable (**MU**) - PLWH who maintained viral load levels <200c/mL for at least 4-8 months. This measure is derived from studies supporting the U=U (undetectable = untransmittable) campaign. This stage was added to Michigan's CoC in 2018 and is not available nationally.



Maintained Undetectable (MU) - PLWH who maintained viral load levels <200c/mL for at least 4-8 months. This measure is derived from studies supporting the U=U (undetectable = untransmittable) campaign.

"Eligible" for MU measure - PLWH who received at least two viral load lab tests 4-8 months apart. This figure helps differentiate between the proportion of PLWH who were not MU due to high viral loads versus the proportion of PLWH who were not MU due to lack of sufficient viral load tests.

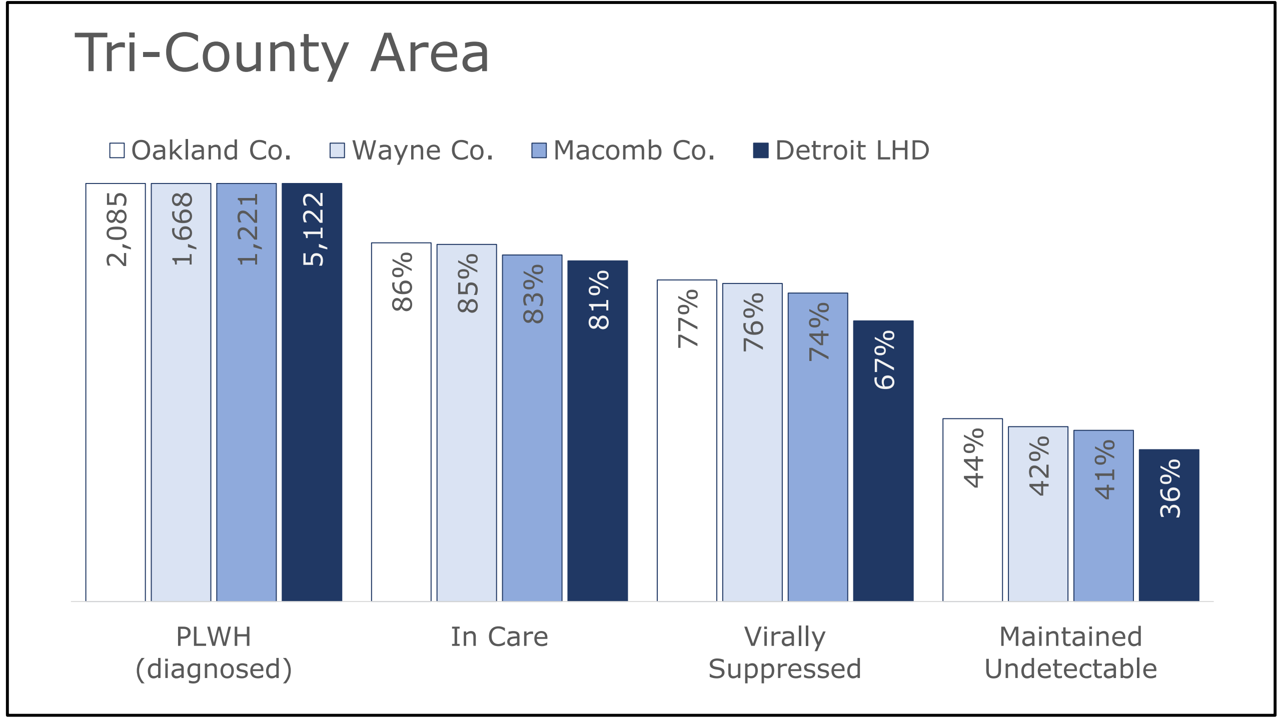
In 2019, only 49% of all PLWH received two viral load lab tests 4-8 months apart ("eligible" for MU measure). Of them, 88% (or 43% of all PLWH) were MU. This is good news – the vast majority of persons receiving consistent viral load monitoring, are maintaining a suppressed viral load. The remaining "ineligible" 51% of PLWH did not receive a sufficient number of viral load tests within the required time frame.

At this time, a goal has not been set for Maintained Undetectable. As more PLWH learn about U=U as a prevention method, it is likely this measure will increase, however utilizing this tool is a very personal decision. Additionally receiving two viral load lab tests 4-8 months apart is a decision made between patient and provider.

2019 Care Continuums

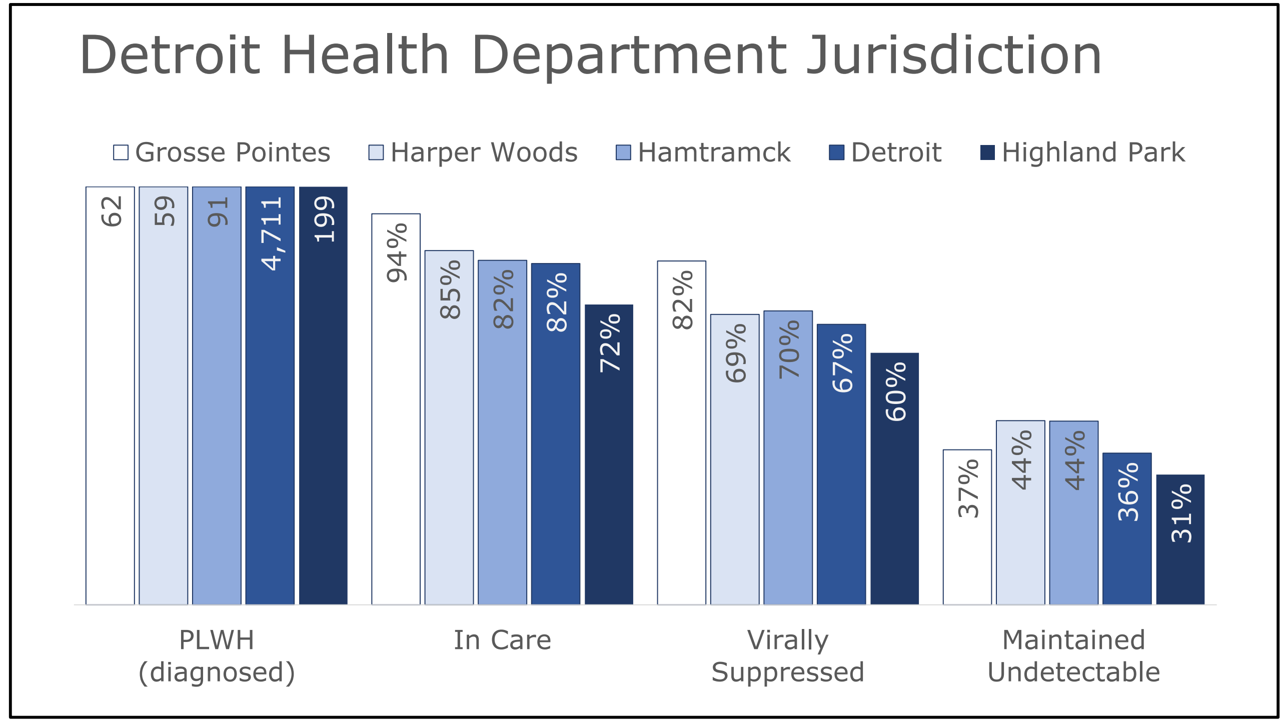
for select populations

Calculations involving populations with a small number of PLWH (45-99 PLWH) should be interpreted with caution. Proportions may fluctuate year to year as small changes in the numerator are magnified.

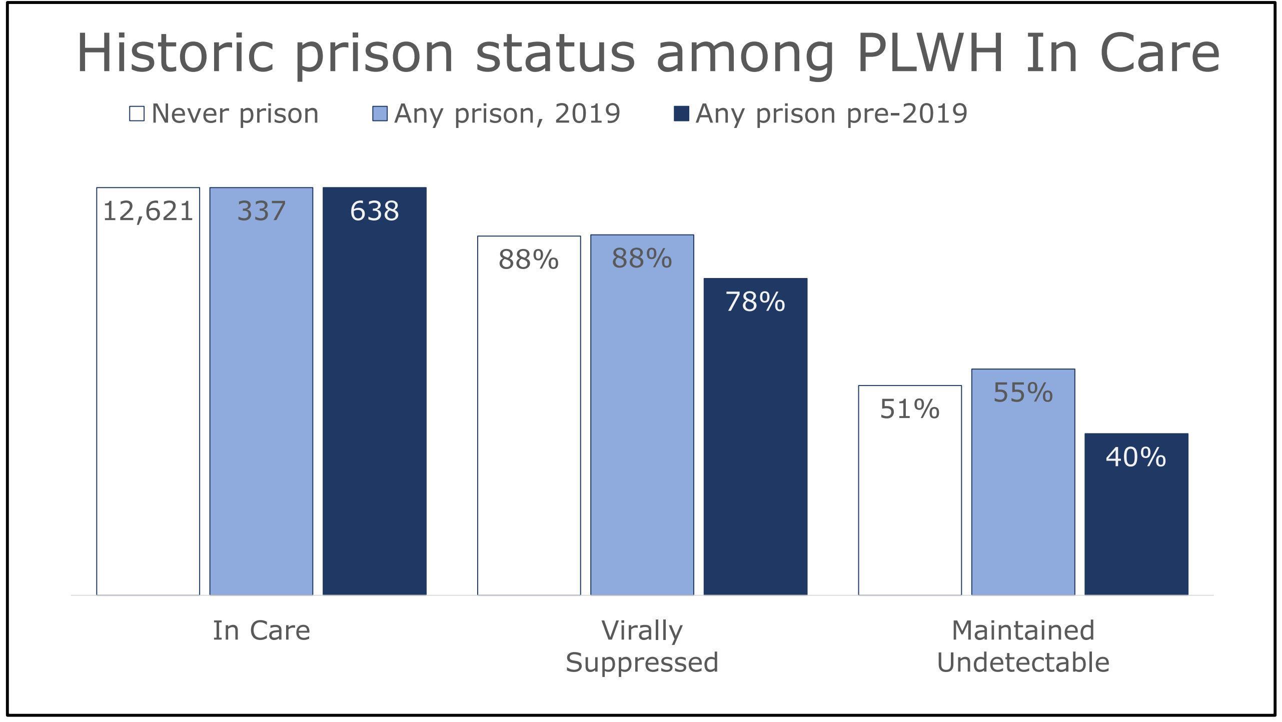


Detroit LHD jurisdiction includes residents of the cities of Detroit, Highland Park, Hamtramck, Harper Woods, and the Grosse Pointes (Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Park, Grosse Pointe Shores, & Grosse Pointe Woods).

Wayne Co. includes residents of Wayne County except for those residing in the Detroit LHD jurisdiction.



The Grosse Pointes include Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Park, Grosse Pointe Shores, & Grosse Pointe Woods

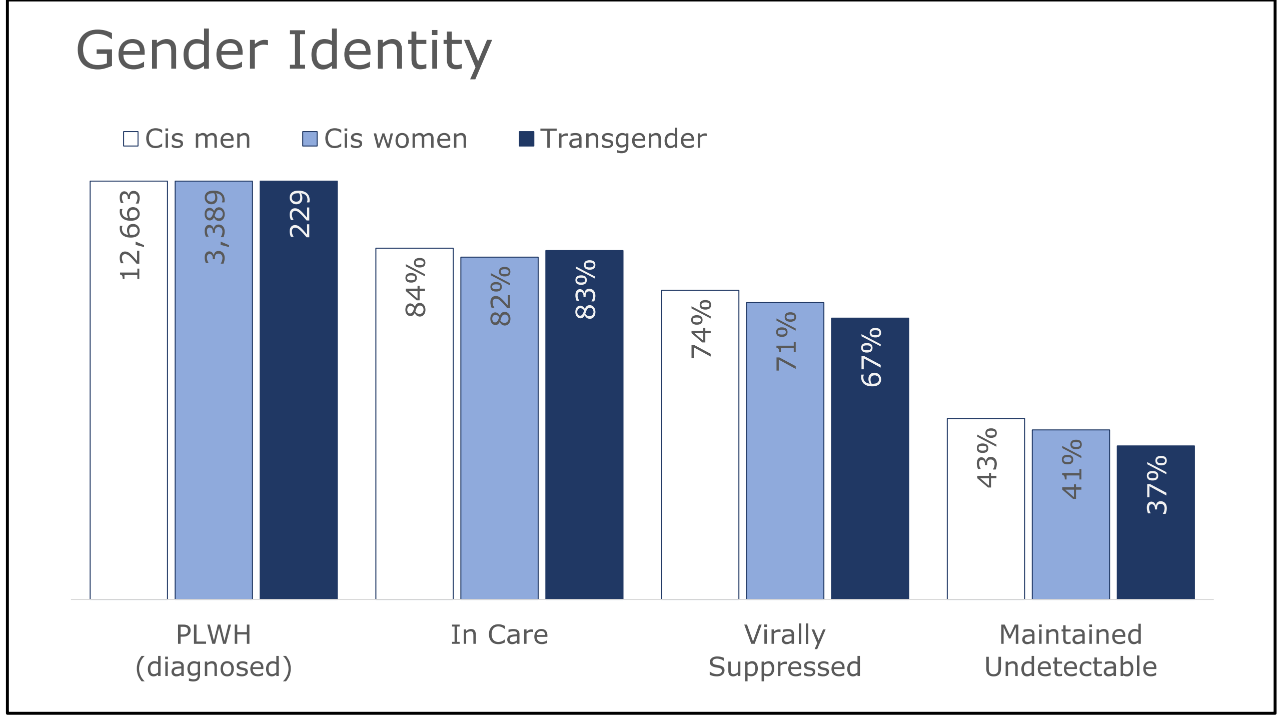


Prison status – current and historic – is based on address data reported to the HIV Surveillance program. Address information is most commonly reported along with a care lab. Because prison status is often only known among PLWH In Care (not total PLWH), In Care is the first stage presented here. In care is the reference point (denominator) for the other stages. In most other CoC's the total diagnosed PLWH is the reference point. ***Therefore, do not compare the proportion virally suppressed or maintained undetectable from this slide to Care Continuums where diagnosed PLWH is the first stage presented*** (most other slides).

The first group – "Never prison" – are PLWH who have never had a prison address reported since being diagnosed with HIV.
Persons with a prison address reported at some point during 2019 are included in the "Any prison, 2019" group.
Persons who have ever been to prison since being diagnosed with HIV, but who did not have a prison address reported in 2019 are included in the "Any prison pre-2019 group".

There are many limitations in attempting to interpret these data, but one take away is clear: reaching and maintaining viral suppression is extremely difficult for PLWH released from prison.

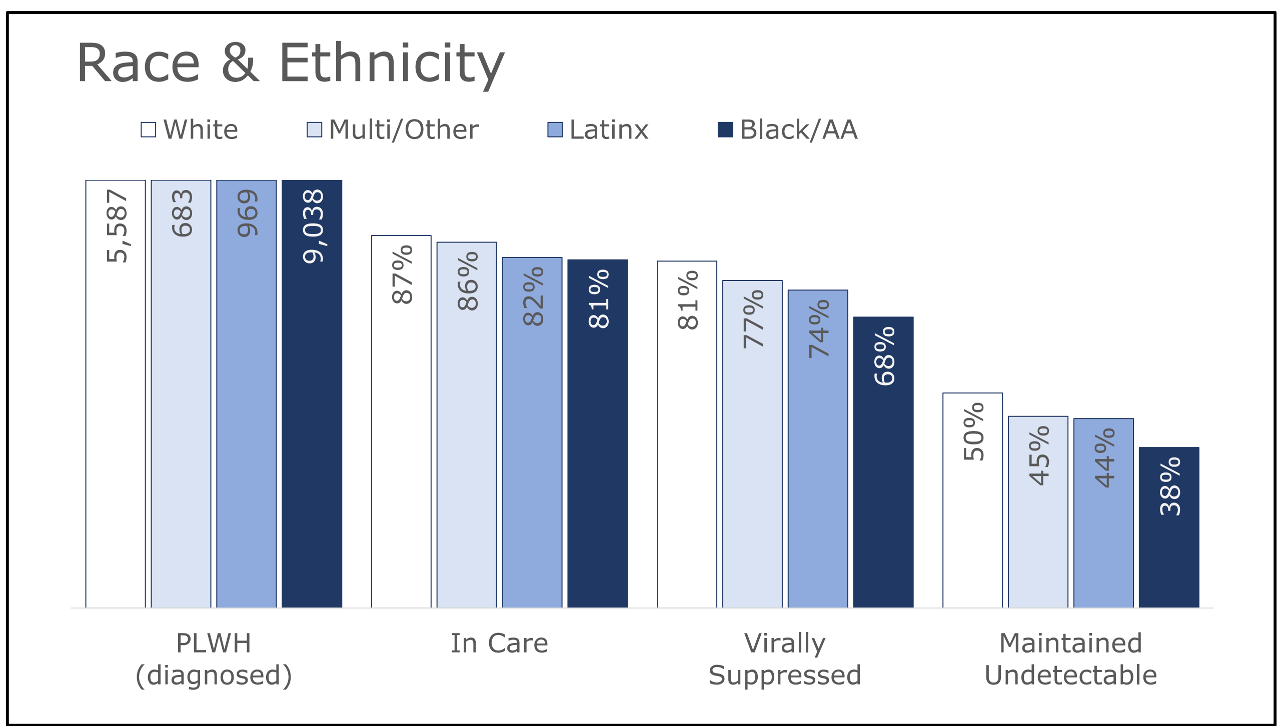
Note: Prison refers to state and federal prisons, not local jails.



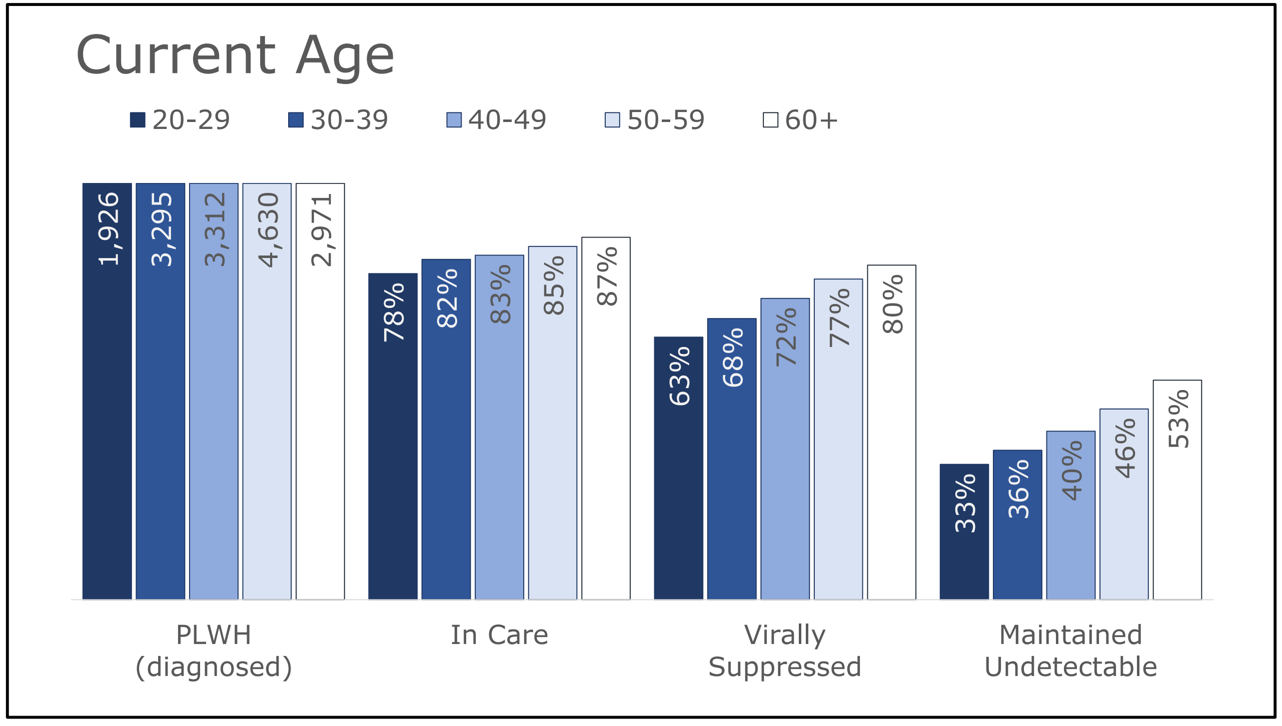
Of the 229 Transgender persons represented, 225 are trans women & 4 are trans men.

The proportion of Transgender persons who are In Care may be artificially high due to historic limitations within the HIV surveillance system. Current gender identity was added to the system by the CDC in 2010. Since then, Michigan has been able to collect gender identity among the majority of persons newly diagnosed and among persons in care if their provider reported the information. In other words, the surveillance system is more likely to know an individual identifies as transgender if they are in care. This would yield an artificially high proportion in care.

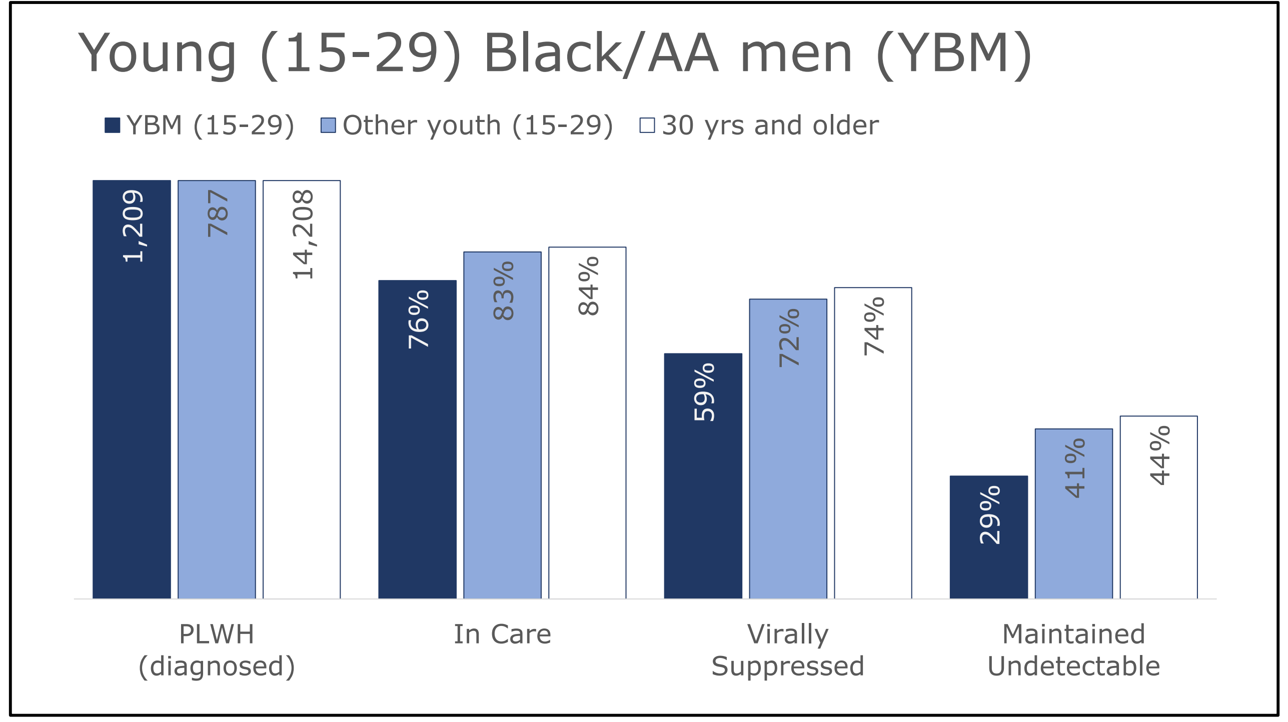
When assessing gaps in care for the transgender population, it's better to look at the proportion virally suppressed and maintained undetectable *relative to those in care.* Of the cis men and cis women in care, 88% and 87% were virally suppressed. However, of the transgender individuals in care, only 81% were virally suppressed. This indicates receiving and maintaining care is more challenging for this population.



For a copy of the slide set, email: MDHHS-HIV-STD-data-requests@michigan.gov.

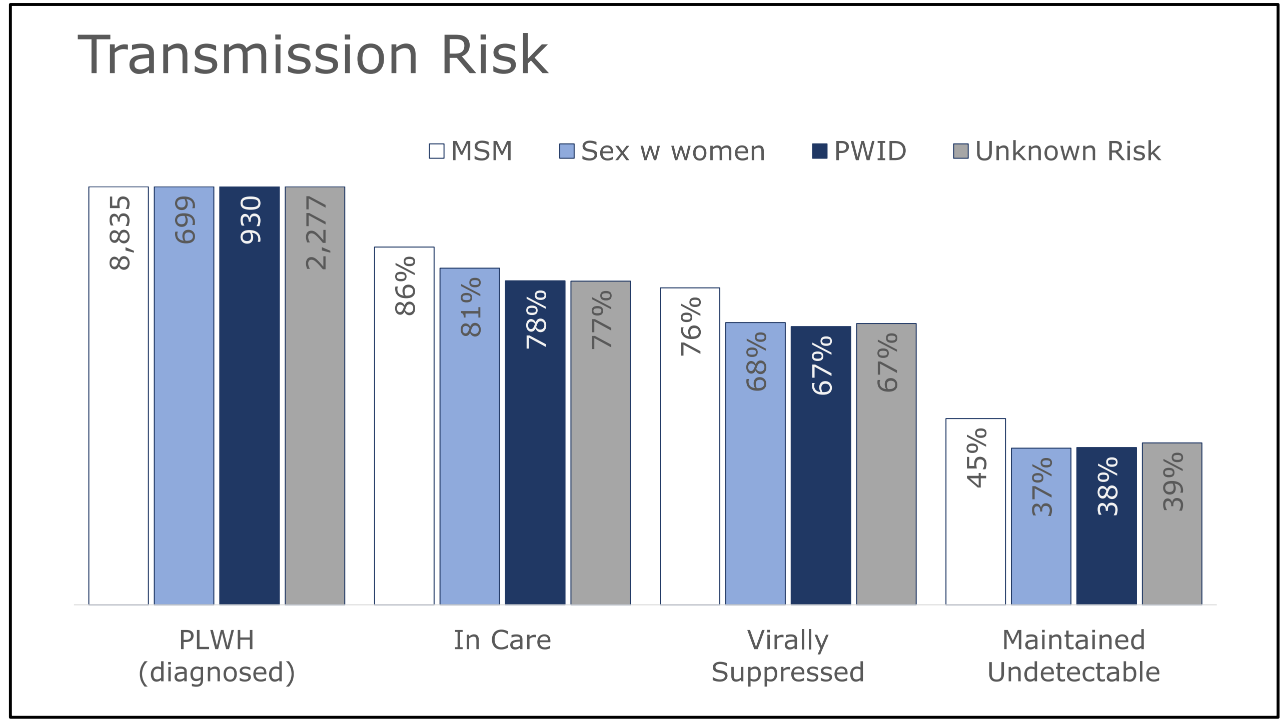


All stages of care improve with age. This is likely the reason why new HIV diagnosis rates are lower among older populations despite the prevalence rate being higher.



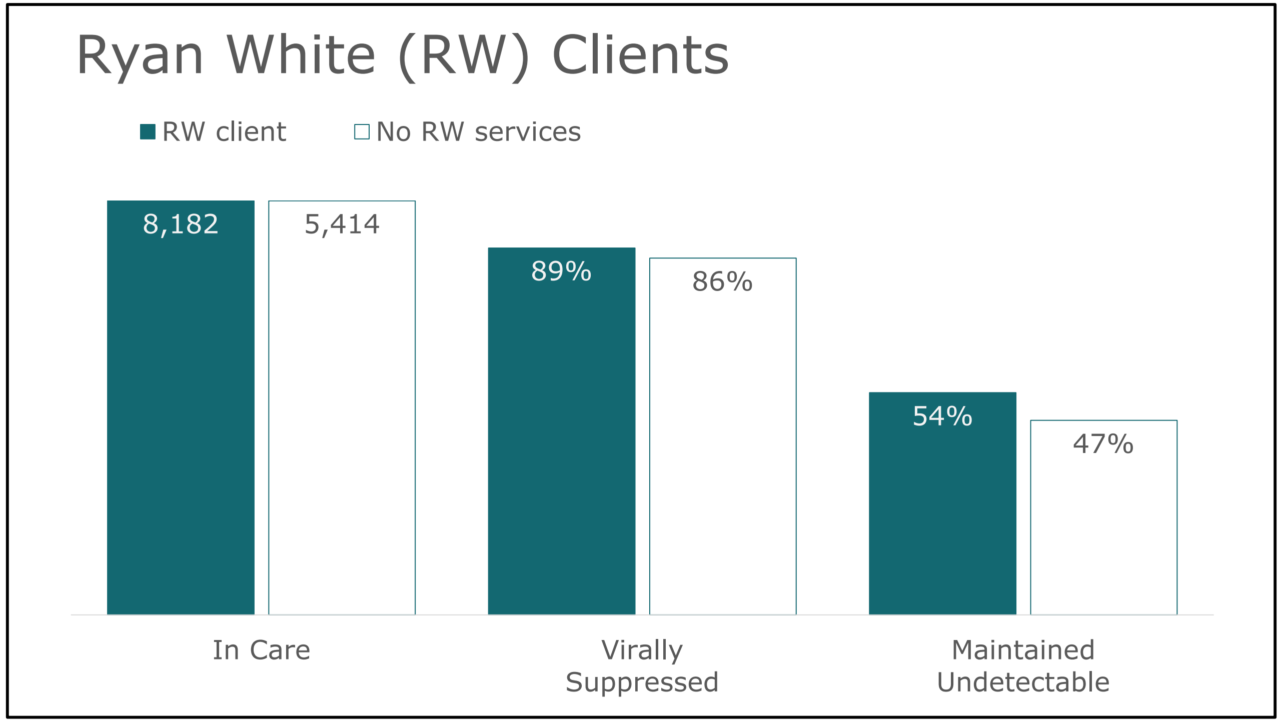
YBM only includes 15-29 year old Black/AA men.
Other youth includes anyone 15-29 other than Black/AA men (ie, it includes 15-29 yr old Black/AA women and 15-29 yr old non-Black/AA individuals).
30 yrs and older includes anyone 30 and older regardless of race (Black/AA and non-Black/AA).

As demonstrated on the previous slide, care improves with age. However, among young persons (15-29), young Black/AA men have poorer care outcomes compared to young women & young persons of other races. Because viral suppression on a community level reduces HIV transmission, poor viral suppression among YBM is likely contributing to the high diagnosis rates observed among this group.



The majority of PLWH are gay and bisexual men. This group (MSM) is included as a reference for comparison. The other transmission risk groups included are those with lower than average care outcomes:

Sex w women includes heterosexual men whose only reported risk factor was sex with a woman living with HIV or sex with a woman at high risk for HIV.
PWID (persons who inject drugs) includes persons whose only reported risk factor was injection drug use. Persons who reported PWID & MSM are not included as these individuals have care outcomes similar to MSM.
Unknown Risk - A large proportion of PLWH have no reported risk (14%). Such a large portion without a known risk hinders effective direction of HIV prevention and care programs.

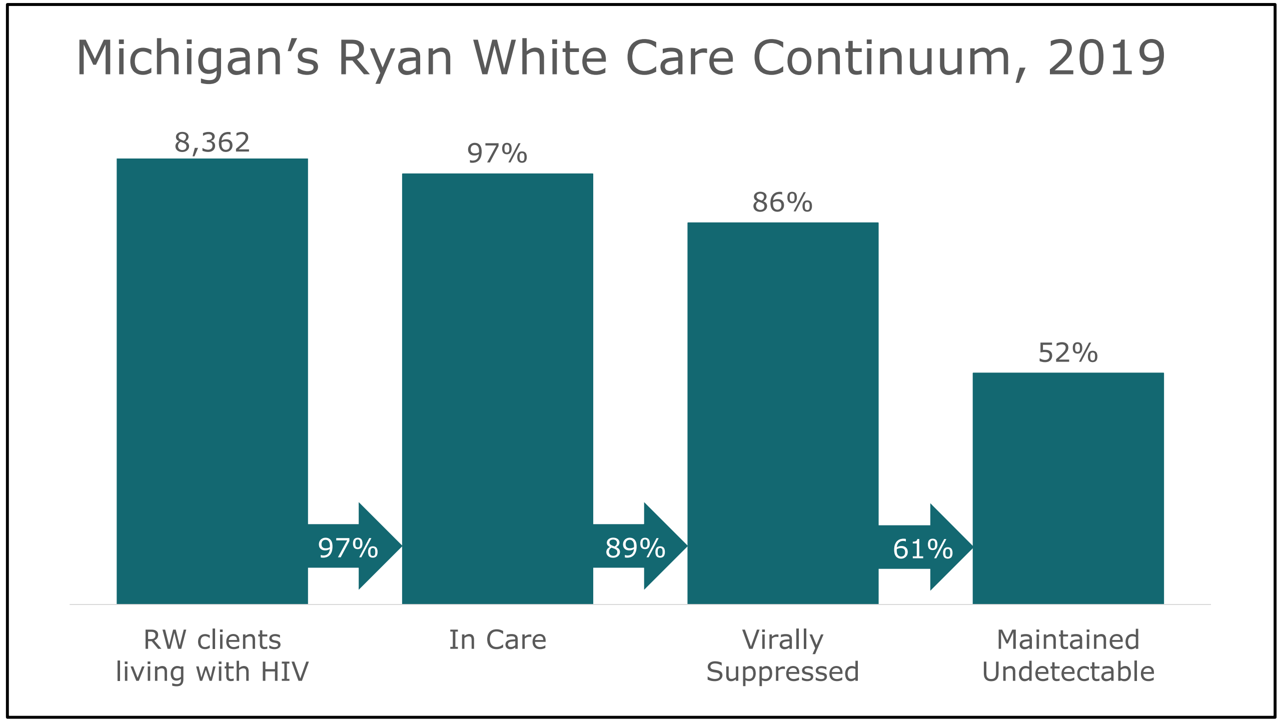


RW clients are individuals who received at least one RW funded service during the given year. Because receiving a service is highly correlated with care, In Care is the first stage presented here. In care is the reference point (denominator) for the other stages. In most other CoC's the total diagnosed PLWH is the reference point. ***Therefore, do not compare the proportion virally suppressed or maintained undetectable from this slide to Care Continuums where diagnosed PLWH is the first stage presented*** (most other slides).

2019 Ryan White Care Continuums

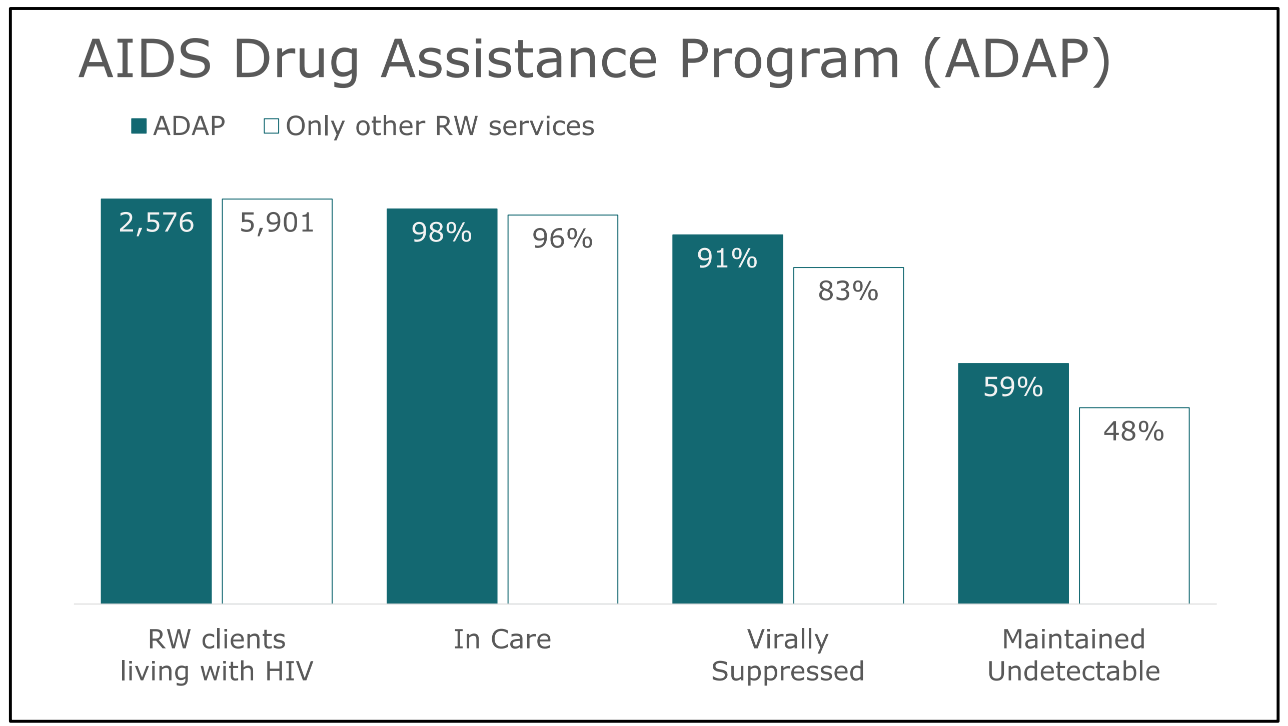
Includes persons who received at least one Ryan White (RW) service during 2019.

Do not compare to Care Continuums containing all PLWH



DO NOT COMPARE WITH NON RW CARE CONTINUUMS

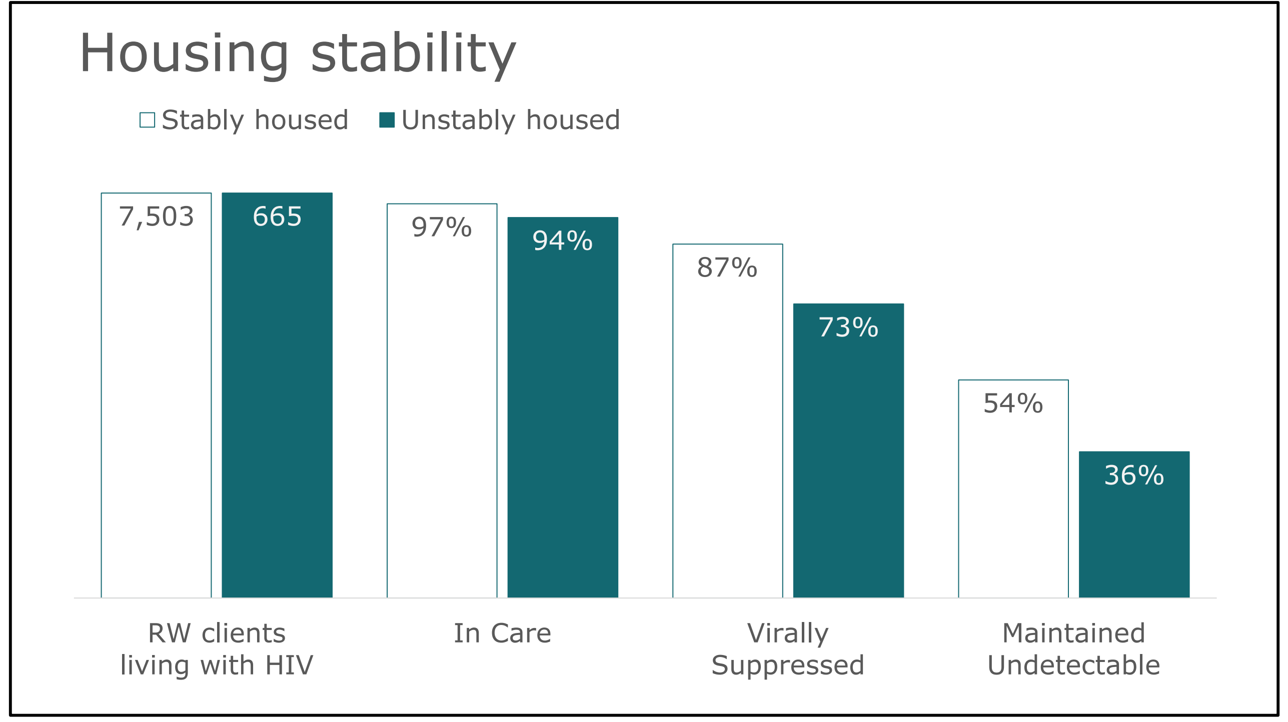
RW clients living with HIV- PLWH diagnosed before Jan 1 and alive Dec 31 of the given year and received at least one Ryan White service during the given year.
In Care – RW clients living with HIV with at least 1 CD4, viral load, or genotype lab test during the given year.
Virally Suppressed - RW clients living with HIV with less than 200 copies of HIV virus per milliliter of blood (<200c/mL) according to their last viral load lab test during the given year.
Maintained Undetectable - RW clients living with HIV who maintained viral load levels <200c/mL for at least 4-8 months.



DO NOT COMPARE WITH NON RW CARE CONTINUUMS

ADAP includes all RW clients who received at least one ADAP funded service during the year. They may also have received services funded by Parts A, B, C or D.
Only other RW services includes RW clients who did not receive any ADAP funded services during the year.

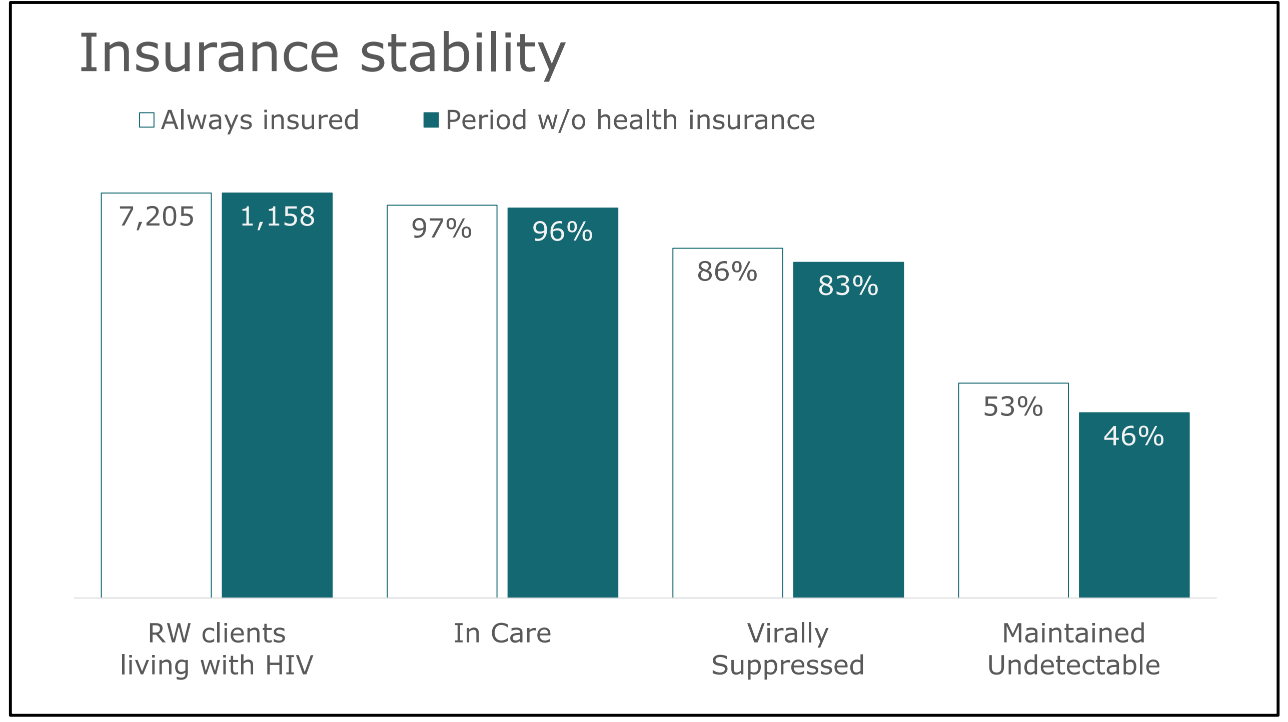
Michigan ADAP clients have higher viral suppression and maintained undetectable rates compared to RW clients who did not receive ADAP services.



DO NOT COMPARE WITH NON RW CARE CONTINUUMS

Persons **stably housed** includes RW clients who only reported stable housing all year.
Persons **unstably housed** includes RW clients who reported *any* period of unstable or temporary housing during the year.

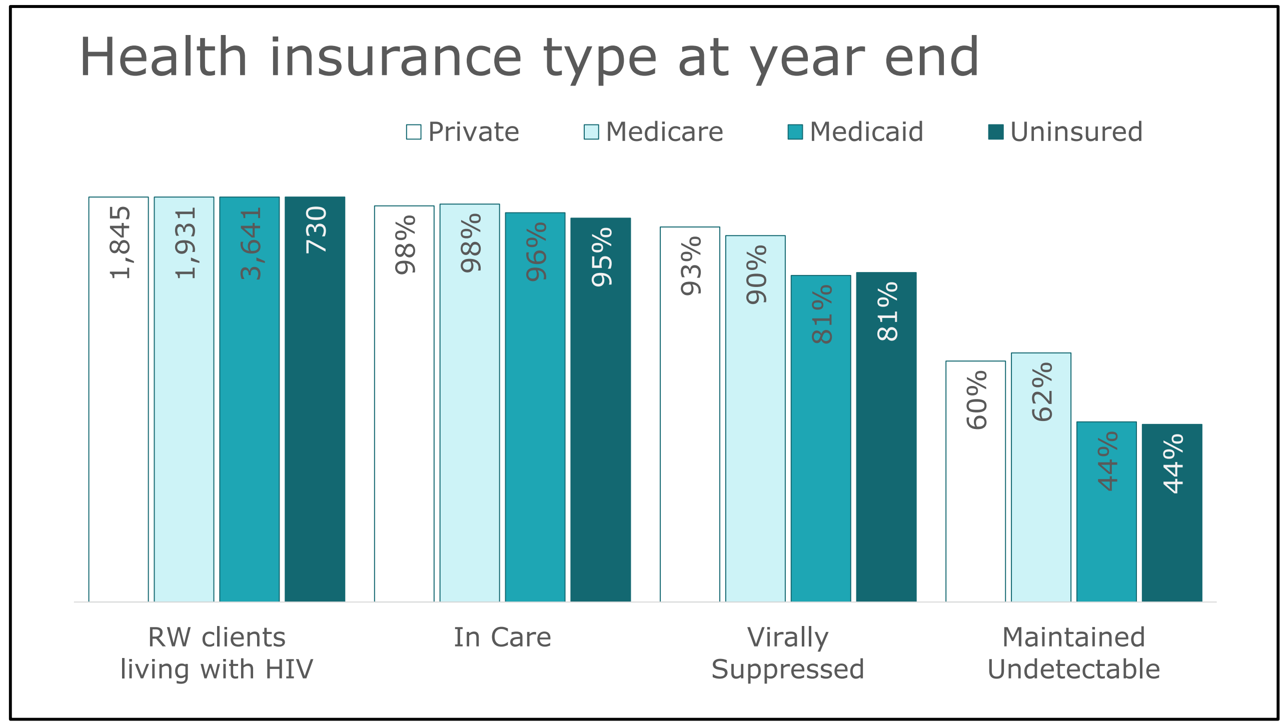
Persons with stable housing experience better care outcomes.



DO NOT COMPARE WITH NON RW CARE CONTINUUMS

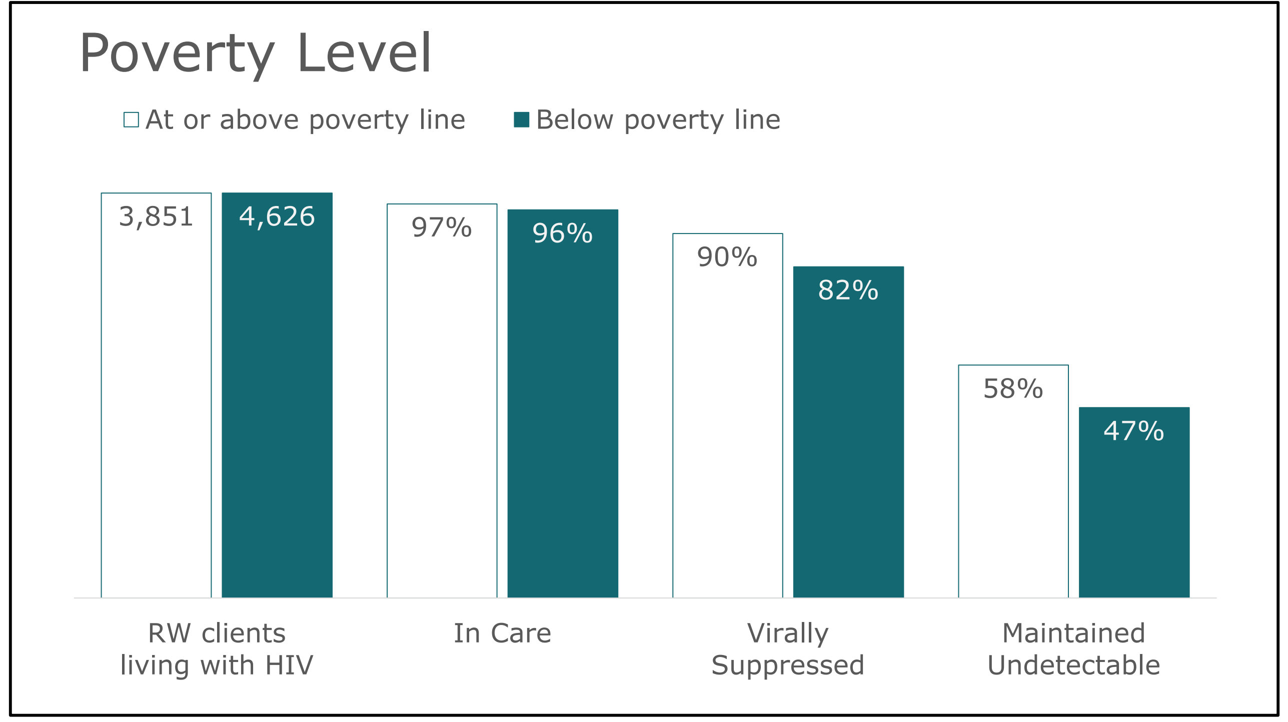
Persons **always insured** includes RW clients who always reported having some type of health insurance during the year.
Persons included in **period w/o health insurance** reported being uninsured at least once during the year.

Consistently insured RW clients experience only marginally improved care outcomes compared to those with gaps in coverage. Type of coverage is a better indicator of care (next slide).



DO NOT COMPARE WITH NON RW CARE CONTINUUMS

Persons uninsured or insured by Medicaid have poorer health outcomes than those with private insurance. The positive care outcomes among persons receiving Medicare is likely due to Medicare's age requirements – care outcomes are better among the older population (see earlier slide).

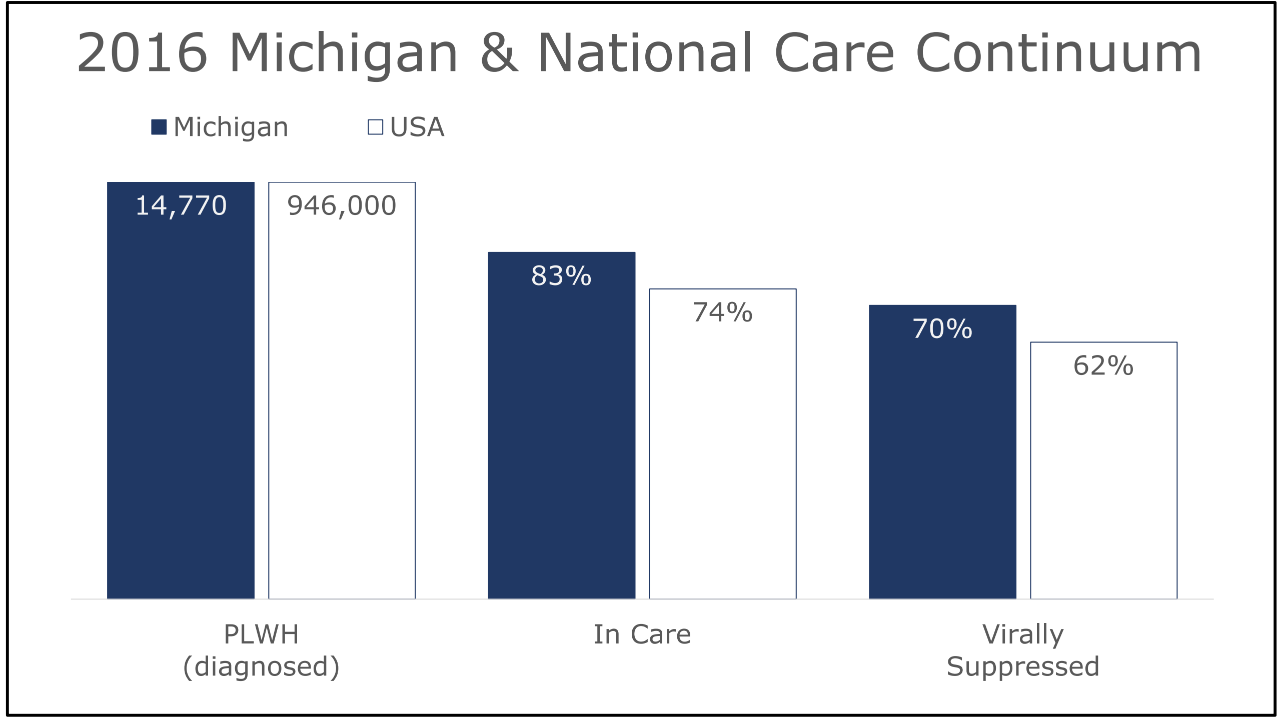


DO NOT COMPARE WITH NON RW CARE CONTINUUMS

Ryan White clients with higher incomes experience better care outcomes.

National comparison

2016



Compared to PLWH nationally, Michigan residents experience better care outcomes.