



# **| STOP HIV IOWA**

**IOWA'S INTEGRATED HIV  
PREVENTION AND CARE PLAN**

**2022–2026**

# Acknowledgements

The Stop HIV Iowa Integrated HIV Prevention and Care Plan was developed by Iowa's HIV and Hepatitis Community Planning Group (CPG) and staff from the Bureau of HIV, STI, and Hepatitis, a part of the Division of Public Health at the Iowa Department of Health and Human Services.

The planning process was led by a steering committee comprising bureau staff, CPG co-chairs (past and present), and leadership from PITCH (Positive Iowans Taking Charge), a group led by and for people living with HIV.

The steering committee extends their gratitude and appreciation to everyone who contributed to the creation of this plan, including Iowans living with HIV, healthcare providers, public health professionals, and all of those individuals who provide care and support to persons living with HIV or with a higher likelihood of acquiring it. We are incredibly thankful for your time, expertise, and thoughtful recommendations.

Finally, special thanks to the 33 focus area co-chairs who led the research and community engagement around the Plan's nine focus areas. Through their hard work and dedication, the co-chairs reached more stakeholders than ever before and engaged thousands of Iowans in the planning process. This plan reflects those voices, ideas, and values.

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# SECTION I

## Introduction and Executive Summary

The Stop HIV Iowa Plan that follows represents the work and ideas of more than 3,000 Iowans on how to stop transmission of HIV in Iowa and how to ensure the best health outcomes for the 3,430 Iowans estimated to be living with HIV in the state. Iowa may be the best-positioned state in the nation to achieve the goals set forth in the National HIV/AIDS Strategy—that is, a 75% reduction in new diagnoses by 2025 and a 90% reduction by 2030. In 2020, Iowa led the nation in the proportion of people diagnosed with HIV who had achieved viral suppression, with 80% achieving that goal. In 2021, this had increased to 82%. People who have suppressed the amount of HIV in their bodies to undetectable levels do not transmit HIV to their partners. They also achieve their best health outcomes.

Unfortunately, some populations in the state are faring better than others. To achieve success statewide, there will need to be a concerted effort to ensure that health inequities are addressed by removing systemic barriers that affect Black, Latino, and Indigenous people, people who use drugs, people born outside of the US, and youth. Our data tell the story, and we must use the data to find ways to remove the barriers experienced by and facing these populations.

This integrated HIV prevention and care planning process was begun in June 2019. The state's previous prevention and care plan ended in 2021, but many of its objectives and action steps had been achieved. This document represents new ideas, and was built upon information from new needs assessments, surveys, focus groups, town halls, epidemiological and other data, and key informant interviews. We also scanned the research and talked to experts around the globe. We evaluated our past efforts and identified best practices as well as opportunities to improve. This document summarizes what we found and what we heard from the community. A concerted effort was made to engage a large number of stakeholders and community members, including many that had not previously been active in HIV planning efforts.

In this document, you will find a strategic plan with four overarching goals:

- Preventing new HIV infections
- Improving health-related outcomes for people living with HIV
- Reducing HIV-related disparities and health inequities
- Achieving integrated, coordinated efforts that address the HIV epidemic among all interested parties.

**During 2023, an implementation plan will be developed to specify the action steps and responsible parties for achieving these goals and objectives.** Recommended action steps were collected throughout the planning process and were used to form the overarching goals and objectives found in the strategic plan.

**So what will it take to stop HIV in Iowa?** We asked more than 3,000 Iowans this very question. The response was clear—keep what is working, but redouble efforts to eliminate health disparities and inequities. In particular, Black and Latino gay, bisexual, and other men who have sex with men are experiencing stark health disparities that will require a concerted focus to reverse. Therefore, in the strategic plan, you will find a strong emphasis on addressing health disparities and inequities.



### **These strategies include:**

- Using a status-neutral approach for service delivery such that needed services, including addressing social determinants of health, are delivered regardless of HIV status
- Using peer-led initiatives and expanding the meaningful involvement of people with HIV and who have lived experience
- Developing innovative strategies to increase engagement of people from priority populations in the planning and implementation processes
- Addressing mental health and substance use issues by expanding trauma-informed and healing-centered approaches to service delivery
- Reducing stigma by normalizing comprehensive sexual health services (including routinizing testing for sexually transmitted infections) at key service delivery venues and expanding sexual health educational programming in schools
- Developing relationships and collaborating with non-traditional partners at the community level, including working with local, grassroots, social and community power-building organizations that serve priority populations
- Increasing cross-disciplinary partnerships and collaboration between public health and the justice system, housing providers, urban and regional planners, tribal nations, and others who serve priority populations
- Focusing on improving quality of life for PLHIV, including food security, employment, housing, substance use, and mental health
- Improving the use of data to understand the relationship between upstream determinants of health and an increase in the probability of exposure to and/or vulnerability to HIV.

Iowa also faces some unique challenges. Iowa has no “epicenter” or area of concentration of HIV. Des Moines, the state’s largest metropolitan area, contains about 30% of all diagnosed PLHIV. Another 45% of PLHIV live in or around nine smaller metropolitan areas spread throughout the state. The remaining 25% live in more rural areas. This means that service providers are needed in at least ten locations throughout the state. Even so, transportation is still a significant issue for many PLHIV in the state.

In addition, 85% of the population is White and non-Hispanic. Service providers, like the state’s population, lack racial and ethnic diversity while racial and ethnic minorities are disproportionately impacted by HIV. The low prevalence of HIV means that routine testing is not cost effective, HIV is often overlooked as a condition or issue during routine or urgent care medical visits, and Iowa experiences a significant proportion of people who are diagnosed with HIV late in the course of the disease. Despite having modernized Iowa’s criminal transmission statute in 2014, we found that the current statute is not well understood by many people in the state, and it continues to stigmatize PLHIV and others in Iowa.

In this plan and accompanying documents, you’ll find a description of the state’s strengths and challenges, plus the best ideas from the communities impacted to build on those strengths and address those challenges. The integrated plan includes a description of the planning process (Section IV), a description of the contributing data sets and assessments (Sections V, VI and VII.), a situational analysis that describes the strengths and weaknesses of Iowa’s program (Section IX), and the resulting Strategic Plan with the 2022–2026 Goals and Objectives (Section X). Implementation, monitoring and evaluation are described in Section VI, and the Community Planning Group’s letter of concurrence is included in Section VII.

**This plan is meant to be a living document, and feedback is welcomed.** The full plan is available on the [Stop HIV Iowa Planning](http://stophiviowaplan.org) website (stophiviowaplan.org), along with options to [submit feedback](#). Your participation is important: let us know where we are succeeding and where we can improve.

Our goal is to make Iowa a place where transmission of HIV is prevented, where everyone knows their HIV status, and where everyone living with HIV is valued and respected, has high-quality care and treatment, and lives free from stigma and discrimination.

# SECTION II

## Common Acronyms

ACA	Affordable Care Act
ACEs	Adverse Childhood Experiences
ADAP	AIDS Drug Assistance Program
AIDS	Acquired Immune Deficiency Syndrome
BIPOC	Black, Indigenous, and other People of Color (see Words Matter, Section III)
CARE Act	Ryan White Comprehensive AIDS Resources Emergency Act/Ryan White HIV/AIDs Treatment Extension Act of 2009
CBSS	Community Based Screening Services
CDC	Centers for Disease Control and Prevention
CNA	Consumer Needs Assessment
CPG	Iowa's HIV and Hepatitis Community Planning Group
DTS	Data to Services
DIS	Disease Intervention Specialist(s)
DOC	Iowa Department of Corrections
EHE	Ending the HIV Epidemic (see Words Matter, Section III)
FQHC	Federally Qualified Health Center
HCV	Hepatitis C Virus
HHS	Iowa Department of Health and Human Services
HIPWUD	Iowa's Health Initiative for People Who Use Drugs
HIV	Human Immunodeficiency Virus
HOPWA	Housing Opportunities for Persons with AIDS
HRSA	Health Resources and Services Administration
ITS	Integrated Testing Services
LGBTQ+	Lesbian, Gay, Bi-sexual, Transgender, Queer, + (see Words Matter, Section III)
MATEC	Midwest AIDS Training and Education Center
MSM	Men who have sex with Men
nPEP	Non-Occupational Post-Exposure Prophylaxis
PLHIV	People Living with HIV (see Words Matter, below)
PNA	Prevention Needs Assessment
PrEP	Pre-Exposure Prophylaxis
PWID	People Who Inject Drugs
PWUD	People Who Use Drugs
RHS	Regional Health Specialists
RW	Ryan White
SAMHSA	Substance Abuse and Mental Health Services Administration
STIs	Sexually Transmitted Infections
SSPs	Syringe Services Programs
SUD	Substance Use Disorder
U=U	Undetectable = Untransmittable

## SECTION III

### Positive. Negative. Equal.

### WORDS MATTER.

Numerous conversations were held throughout the planning process and the development of this plan regarding language and which terms should be used to describe the state of the HIV epidemic in Iowa. The first of these discussions occurred as the Community Planning Group (CPG) was considering whether the timing was right to begin working on what had become known throughout the U.S. as an "ending the HIV epidemic plan" or "EHE." This sparked a debate not only about whether the timing was right but also about how some CPG members felt about the term "EHE."

One question was what EHE means for people living with HIV (PLHIV). When the focus of our efforts is ending HIV, does this inadvertently send a message that PLHIV are not welcome in our state? One community member asked how it would be possible to end HIV as long as she and other Iowans are still living with it. Additionally, questions arose about whether applying an EHE lens to our planning efforts would move the focus away from improving the quality of life for PLHIV, as this would be considered secondary to activities preventing HIV transmission. Holistic care, complementary services, and overall wellness are essential components of Iowa's response to HIV, and some community members wondered if EHE would capture those strategies.

As the discussion above demonstrates, it can be difficult to communicate the complexity of the goals and strategic direction for HIV prevention and care work within a state. It was with these concerns, and the desire to carefully communicate our plans for addressing HIV, that the process was called **Stop HIV Iowa**. With this goal, our work is to stop HIV stigma, stop HIV transmission, stop the damage from HIV to one's immune system, stop the disparities associated with HIV, stop the division HIV creates in communities and relationships, stop the criminalization of HIV, and stop HIV from doing the harm it has done in Iowa for far too long.

This was the beginning of our journey to explore the way in which **language is an important part of how we think about, talk about, and plan for our work to stop HIV in Iowa**. The following guide provides other terms that were consciously chosen, many in reference to populations disproportionately impacted by HIV. Although it was acknowledged early on that agreement on a single term to describe an entire community was not possible, several guiding principles were identified to help inform our decisions.

- What terms are used by the communities being referenced?
  - Do members of the group use "people-first language" or "identity-first"?
- Is this language commonly used in Iowa?
- Will people outside of "those in the know" understand?
  - Can the term be looked up or defined relatively easily within the document?
- Who might find the language used inclusive versus exclusive or even offensive?
  - What impact does using this language—or not using it—have on diversity, equity, and inclusion efforts?

The list on the next page provides further explanation as to the decisions made concerning a variety of terms found throughout the plan. Decisions were made in consultation with community members, CPG, and cultural experts.

## Community vs Population

The terms community and population are often used interchangeably; however, in this document we have differentiated the two based on the following definitions:

**Population:** A population describes a group or units of measurement. For example, HIV incidence may be studied among a population of 18–24 year-old people or the Latino population.

**Community:** A social unit that shares a culture, identity, language, or norms—for example, the LGBTQ+ community. The term may also imply a geographical reference, such as the rural community.

## PLHIV—People Living With HIV

Historically, several different terms and acronyms have been used to describe HIV and people impacted by the virus. In this document, we are using the same language for PLHIV as used by the U.S. People Living with HIV Caucus. This aligns with our interest in applying the principles of “people-first language,” emphasizing that people living with HIV are people with full lives and that HIV is just one part of their worlds.

## Disproportionately Impacted

One way of analyzing HIV-related data and statistics is to compare the size of a population in a given area (the state of Iowa, for instance) to the factor being measured (e.g., the number of new people diagnosed). When a population experiences a greater burden of disease or other negative health outcomes, they are said to be disproportionately impacted. Another way to describe a population that is disproportionately impacted is to say they face health disparities. Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by a population.

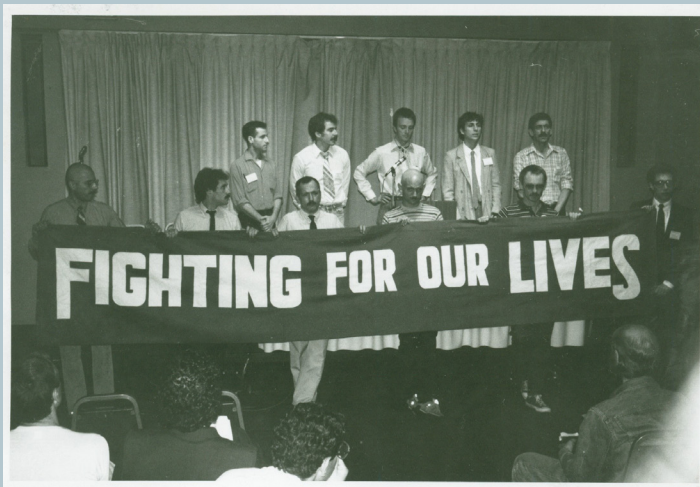
### THE DENVER PRINCIPLES (1983)

The Denver principles articulate the self empowerment movement of People With AIDS (PWA). The statements, written in 1983 by the Advisory Committee of the People With AIDS, include recommendations on how to support those living with HIV:

*We condemn attempts to label us as victims,” a term which implies defeat, and we are only occasionally “patients,” a term which implies passivity, helplessness, and dependence upon the care of others.*

**We are “People with AIDS.”**

Excerpt from The Denver Principles



**Figure 3.1.** Richard Berkowitz and ten other men reading the Denver Principles behind a “Fighting For Our Lives” banner at the National Lesbian and Gay Health conference

Note. 1983, black and white photograph. Located at the Division of Rare and Manuscript Collections, Cornell University Library, Ithaca, NY, United States.

## Priority Population

HIV affects different populations differently. Some groups are disproportionately impacted by HIV due to biological differences or behaviors that affect disease acquisition or progression. Social determinants of health, or conditions in the environment that affect health outcomes, also impact the health of populations and contribute to HIV-related health disparities experienced by populations. Because of these differences and the fact that prevention and care resources are limited, populations are often prioritized to direct resources where they can have the most significant impact. See the Situational Analysis for a description of how and which populations are prioritized in Iowa.

## Race and Ethnicity

Race and ethnicity are characteristics that are often used to compare how HIV affects different groups differently. Race refers to the concept of dividing people into groups on the basis of various sets of physical characteristics and the process of ascribing social meaning to those groups. Ethnicity describes the culture of people in a given geographic region, including their language, heritage, religion, and customs.

The CDC uses the current Office of Management and Budget (OMB) categories of race and ethnicity. The surveillance program in the Bureau of HIV, STI, and Hepatitis at Iowa HHS, which is funded and guided by CDC, also uses the OMB standards for defining race and ethnicity.

The current OMB standards for classifying data on race and ethnicity define five minimum categories for race and two for ethnicity. Race and ethnicity are conceptualized as two separate and distinct concepts as seen below:

### OMB Standards for Race

**American Indian, or Alaska Native**—A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.

**Asian or Asian American**—A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

**Black or African American**—A person having origins in any of the Black racial groups of Africa.

**Native Hawaiian or Other Pacific Islander**—A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

**White**—A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

The standards also permit the reporting of more than one race.

### OMB Standards for Ethnicity

**Hispanic or Latino**—A person of Cuban, Mexican, Mexican American, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.

**Non-Hispanic or Latino**—A person who does not meet the definition above for Hispanic or Latino.

For additional information on how race and ethnicity are recorded in Iowa's HIV surveillance system, see the epidemiological profile.



## Beyond OMB—Conversations with Community

Gathering input from populations being defined or categorized is a minimum standard for creating a culturally responsive document. For this reason, and out of respect for people's rights to define and name themselves, community members and leaders were consulted in determining which terms to use in reference to the following groups of people:

**BIPOC**—BIPOC is an acronym that stands for Black, Indigenous, and People of Color. It is more descriptive than the term “people of color,” as used in previous plans, and as it emphasizes how not all people of color have the same experience, particularly when it comes to systemic oppression as well as historical trauma.

**Latino**—We have chosen to use the word “Latino” in place of “Hispanic” based on conversations with community leaders and members of the population. Whereas Hispanic has been considered a term imposed by the U.S. government, Latino has been more broadly seen as a community-driven name. Our use of the term Latino is meant to be inclusive of all people of Latin American heritage regardless of gender. Other more recent terms have come to be used as a gender-neutral alternative to Latino, including Latinx and Latine. However, at this time, these terms have not been accepted as broadly by people of Latino heritage. It is acknowledged that a majority of people of Latin American heritage, especially those living outside of the U.S., identify more readily with their country of origin. For example, someone from Guatemala may use the term Guatemalan to describe themselves before the term Latino.

**Indigenous**—Indigenous people are individuals who have descended from the earliest known inhabitants of a particular geographical region. In the U.S., Native American may be used interchangeably with the term indigenous. It is acknowledged that many indigenous people identify more readily with their specific nation, for example, as a member of the Meskwaki Nation.

**Born in/outside of the U.S.**—The use of “born outside of the U.S.” is a change from previous statewide HIV plans in which terms such as “foreign born” or “Non-US born” were used. This change is an attempt to avoid terms that marginalize or imply a lack of belonging. To avoid the implied othering, we are using “born outside of the U.S.” to describe people with origins in another country, including immigrants, migrants, naturalized citizens, refugees, or permanent residents of the U.S.

**LGBTQ+**—An acronym for “lesbian, gay, bisexual, transgender, and queer” with a “+” sign to recognize the limitless sexual orientations and gender identities used by members of the community.

**PWID/People Who Inject Drugs**—One core principle of “person first language” is to put a person first before a diagnosis, condition, or other descriptor. In this case, PWID is used to refer to people who inject drugs. Another acronym commonly used is PWUD or “people who use drugs.” Both of these terms avoid using a disease state or other condition to define a person's identity, the core of who they are. PWID centers and moves the person to the forefront while the descriptor is secondary to their overall personhood.

# SECTION IV

## Planning Process and Community Engagement

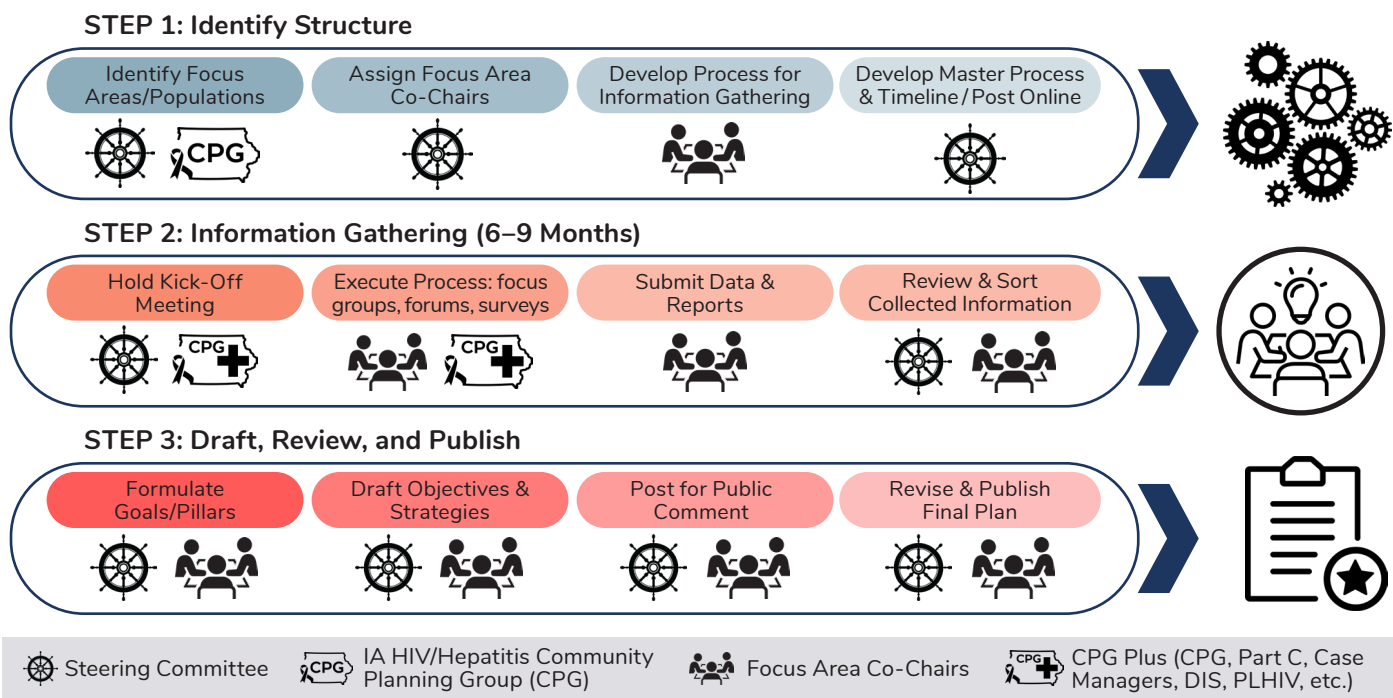
In June 2019, the Iowa HIV and Hepatitis Community Planning Group (CPG) and staff from the Bureau of HIV, STI, and Hepatitis at Iowa HHS reviewed the “state of the state” of HIV in Iowa. A number of factors served as the impetus for CPG to determine that it was the right time to develop a plan focused on ending the HIV epidemic in Iowa. These factors included a 32% decrease in new diagnoses, an all-time high level of viral suppression, and full implementation of most strategies identified in Iowa’s 2017-2022 integrated plan, thanks, in part, to increased funding. Although not among the 57 jurisdictions required by HRSA and CDC to create an EHE plan, local decision-makers determined this was the right moment to proceed with what we ultimately called the Stop HIV Iowa plan.

Lessons learned and feedback received from past planning processes led CPG and the bureau to work together to develop a community-centered engagement process that would involve more people in the process and further engage those involved in meaningful ways. A community-based participatory research model was adapted as a framework for engaging and collaborating with key stakeholders who worked together to identify strategies to end the HIV epidemic in Iowa.

Figure 4.1 shows the original planning structure developed with input from CPG, leaders of the bureau, and the Stop HIV Iowa steering committee. The steering committee comprised bureau staff, CPG co-chairs (past and present), and leadership from PITCH (Positive Iowans Taking Charge), a group led by and for PLHIV.

CPG approved the planning structure in Nov. 2019. At the same meeting, CPG members also brainstormed initial areas of focus to help reach the goals of a 75% reduction in HIV acquisitions in 5 years and a 90% reduction in 10 years. Nine focus areas were chosen; an overview of these can be found on the next page.

FIGURE 4.1. STOP HIV IOWA PLANNING STRUCTURE PROPOSAL





## STOP HIV IOWA PLANNING FOCUS AREAS

### Primary Prevention & Diagnosing PLHIV

HIV is preventable. People continue to acquire it. We must do more to grow awareness of and access to effective HIV prevention strategies. Meanwhile, 14% of PLHIV in Iowa are unaware of their status. Diagnosing PLHIV is key to improving health outcomes for those individuals. It is also an important part of interrupting the chain of HIV transmission in Iowa.

### Support Services & Medical Care for PLHIV

To stop HIV in Iowa, we must focus on the health and well-being of people living with PLHIV. Starting treatment as soon as possible after being diagnosed, and staying in treatment, is the best way for PLHIV to achieve their best health outcomes, including viral suppression. To do this, PLHIV need access to high quality medical care and support services.

### Addressing Sexually Transmitted Infections

Acquiring any STI increases the likelihood of HIV acquisition. Therefore, prompt diagnosis and complete treatment of people with STIs is very important. This prevents the long-term health consequences of STIs and reduces the risk of acquiring HIV or other STIs. Given how common STIs other than HIV currently are, we cannot stop HIV in Iowa unless STIs are reduced.

### Viral Hepatitis

For people living with HIV to achieve their best health outcomes, co-occurring health conditions must be addressed, including viral hepatitis. This includes access to vaccines for hepatitis A and B as well as treatment for chronic hepatitis C.

### Workforce

In Iowa, the workforce serving people living with HIV and working in HIV/HCV prevention faces challenges in recruitment, retention, and capacity building. The strength of this workforce directly impacts the health outcomes of people living with HIV.

### Behavioral Health

People living with HIV and those at risk of acquiring HIV have a higher prevalence of mental health conditions. The impacts of higher prevalence of mental health conditions are significant.

### Health Equity

The goal of health equity is to eliminate barriers and increase access to the resources that promote and protect health for all people. To do this, health equity must address the disparities in health and determinants experienced by excluded or marginalized groups.

### Social Determinants of Health

Social determinants of health (SDOH) are the conditions in the places where people are born, live, learn, work, play, and age. They affect a wide range of health, functioning, and quality-of-life outcomes and risks. To stop HIV in Iowa, we must identify and develop strategies to address the structural factors contribute to health inequities, including disparities in rates of HIV, STI, and hepatitis.

### Stigma

Stigma and discrimination affect the emotional well-being and mental health of people living with and vulnerable to HIV. Stigma may be internalized (fear, anxiety, depression) or it may felt or experienced as discrimination.

CPG also approved a structure for coordinating the research and engagement around each of these focus areas. Each focus area included three co-chairs, comprising one bureau staff member, one service provider, and one community member. Co-chairs were provided with support and training in order to complete their responsibilities, which included:

- A. Conducting a literature, data, and resource review to answer the question “Where are we now?” as related to the respective focus area. For example, the health equity focus area co-chairs reviewed epidemiological data to determine which communities were experiencing health disparities.
- B. Narrowing the focus to determine what needed to change within the area of focus to end HIV in Iowa. Put another way, the co-chairs were asked to answer the question, “Where do we want to be?” The health equity co-chairs, for example, took the health disparity data and calculated the change in percentage of diagnoses and viral suppression needed among populations with higher rates of HIV acquisition and lower rates of viral suppression.
- C. Once the previous steps were completed, the co-chairs were charged with developing and implementing a community outreach and engagement plan to gather broad input in answering the question, “How do we get there?” Co-chairs attended a kick-off meeting in January 2022 to present their literature and data review and gather input from attendees concerning their planned outreach activities. Co-chairs shared and received feedback on their outreach plans at the kick-off meeting. After the event, they conducted focus groups, surveys, and key informant interviews to gather input from community members, people with lived experience, the HIV workforce, and other experts.
- D. Each focus area group recorded their recommendations and then submitted them to the steering committee.

It should be noted that between steps B and C, this planning process was paused due to the COVID-19 outbreak and its impact on our ability to conduct in-person meetings, focus groups, and other engagement activities. Once it was reasonable to do so, the process resumed.



**Figure 4.2.** (Above) Viral Hepatitis focus area co-chairs at a planning meeting.

**Figure 4.3.** (Left) Co-chairs of the Primary Prevention and Diagnosing PLHIV focus area.

Following the community engagement process, bureau staff compiled, de-duplicated, and sorted the objectives and strategies to align with the four goals of the National HIV/AIDS Strategy. The resulting draft strategic plan was presented to CPG in September 2022. It was then posted online and shared with all stakeholders for public comment. The final plan was presented to CPG for concurrence on Nov. 30, 2022.

This structure represented a substantial shift when compared to previous planning processes. In the past, CPG would convene in person along with 50 or so stakeholders to identify strategies over a fairly limited time period. This meant fewer people could be engaged, and people needed to be able to be present for all planning meetings. For this process, we engaged over 3,000 people in the development of the strategies. Participants included 33 co-chairs, 171 kick-off meeting attendees, 340 attendees at 18 different focus groups, 50 key informant interviewees, and 2,257 respondents to 11 different surveys. Outreach activities also engaged groups of people impacted by health disparities, notably:

- A focus group for Black and Latino people living with HIV
- Key informant interviews with non-gay or bisexual identified MSM
- A focus group at a barber shop serving community members of diverse racial backgrounds
- A key informant interview with the Great Plains Tribal Epidemiology Center
- A focus group with harm reduction service providers and people who use drugs
- Key informant interviews with people living with HIV who identify as one or more of the following: racial or ethnic minority, 13-34 years old, 65 years or older, transgender, women, virally unsuppressed

Engagement of people with knowledge about the social determinants of health that most impact our HIV, STI, and hepatitis epidemics included:

- Key informant interviews and surveys with Department of Corrections medical staff
- Key informant interviews and surveys with housing advocates
- A panel discussion with urban planners
- Key informant interviews with PLHIV who utilize housing assistance services.



**Figure 4.4.** Two of the Health Equity focus area co-chairs, Akosua Dosu (r) and Jordan Selha (l).

## EXAMPLE FOCUS AREA PROCESS: HEALTH EQUITY

The health equity focus area co-chairs started by reviewing epidemiological data to identify the populations experiencing health disparities.

To answer the question, “Where we want to be?”, the health equity co-chairs measured the amount of change that would be required in reduced diagnoses and increased viral suppression among those populations experiencing health disparities.

With this information, the health equity co-chairs engaged the community to ask:

***What will it take to reduce diagnoses and increase viral suppression among the identified groups?***

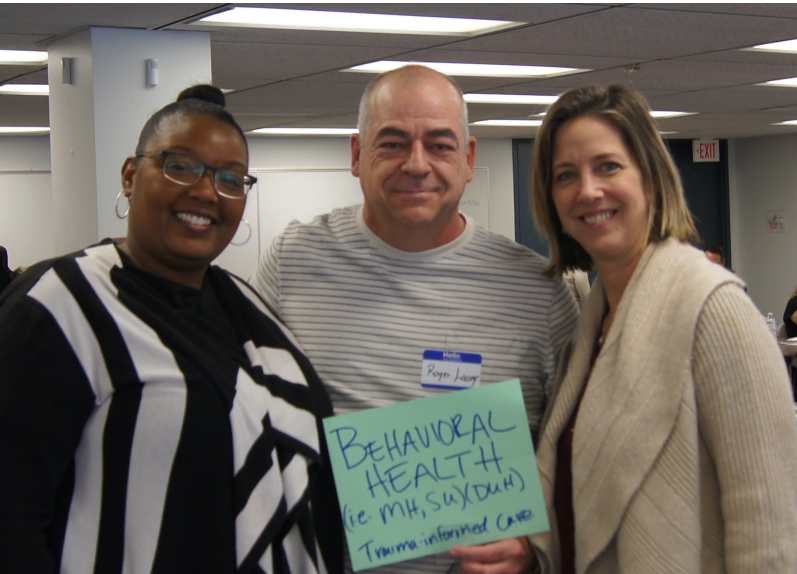
The recommendations were then submitted to the steering committee.



In addition to the outreach conducted with subject matter experts not previously engaged in our work, numerous traditional partners also participated. These included all populations and individuals required by HRSA and CDC:

- PLHIV
- Community leaders
- Health department staff
- Community-based organizations serving populations affected by HIV
- HIV services providers
- Part C HIV clinical care providers
- Community health care center representatives, including FQHCs
- Minnesota AETC
- Substance use treatment providers,
- Hospital and health care planning agencies
- Mental health providers
- Social services providers including housing and homeless services representatives
- Individuals with an HIV diagnosis during a period of incarceration

A similar level of engagement will be utilized as we move forward with implementation planning and the ongoing quality plan-do-study-act (PDSA) cycle.



**Figure 4.5.** (Above) The co-chairs for the Behavioral Health focus area prior to the planning process’ pause during COVID-19.

**Figure 4.6.** (Top left) A co-chair from the Support Services & Medical Care for PLHIV focus area presents to Ryan White Part B case managers at a regional focus group meeting.

**Figure 4.7.** (Bottom left) CPG members participate in identifying the focus areas for the Stop HIV Iowa planning process.

# SECTION V

## Data Sharing and Use

The Bureau of HIV, STI, and Hepatitis collects prevention, surveillance, and care service data on PLHIV in Iowa. Collection and use of these data are governed by Iowa Code 141A and Iowa Administrative Code chapters 641.1 and 641.11. **Data are confidential and may only be shared or released as authorized by state or federal law.** Limited data sharing is allowable for purposes related to HIV prevention, disease surveillance, or care of PLHIV. Shared data may not be rereleased by the entity with which the data were shared.

Staff in the bureau regularly present programmatic and aggregate statistical data to CPG to help them prioritize populations for prevention and care, better understand trends and populations most impacted, and evaluate the effectiveness of state and local services and programs. In addition, annual reports are made available, including prevention and care service reports, end-of-year surveillance reports, and programmatic fact sheets. Requests for data are received and processed by bureau staff. On average, the bureau receives nearly 70 requests for data from people within and outside of the bureau each year.

The Bureau of HIV, STI, and Hepatitis collects surveillance and programmatic data in several databases. In addition, data sharing between the bureau and other programs and entities allows for improved prevention and care responses. **Below are the sources of data:**

### BUREAU OF HIV, STI, AND HEPATITIS DATA SOURCES

#### HIV Surveillance Data

The surveillance program collects data on people diagnosed with HIV pursuant to Iowa Code 141A and 641 Iowa Administrative Code chapter 11. All diagnostic tests and other tests that are indicative of HIV infection are reportable. This includes all viral load detection tests, all CD4+ cell counts, and all genetic resistance tests. Data are collected electronically and uploaded into eHARS, the Enhanced HIV/AIDS Reporting System. Other reportable events include an AIDS diagnosis or an AIDS-defining condition, a death of a person with HIV, and births to people with HIV (pediatric exposures). AIDS has been a reportable disease in Iowa since February 1983. HIV became reportable by name in Iowa on July 1, 1998. HIV disease diagnosis data include persons reported to have tested positive for HIV while a resident of Iowa.

#### Integrated Testing Site (ITS) Data

The Bureau of HIV, STI, and Hepatitis funds 10 free, confidential HIV and hepatitis integrated testing sites in Iowa. Participants complete client assessments as part of a testing visit or during outreach. Because the integrated testing system collects information only from persons who seek testing services, data are not representative of all persons disproportionately affected by HIV. The ITS sites use APHIRM, a web-based data collection and reporting system designed by Luther Consulting, LLC, to collect and report on HIV and hepatitis prevention data.

#### Prevention Needs Assessment (PNA)

In 2019, the first Iowa PNA for people not living with HIV or who were unaware of their HIV status was administered online. The PNA was conducted in partnership with the Ryan White Part B Program's Consumer Needs Assessment, or CNA (see more information below). The survey sought to gain a better understanding of needs and barriers to accessing prevention services. Additional data are utilized to assess awareness, access, and attitudes around HIV prevention tools. There were 572 total respondents to the PNA. Results from the survey were used in the development of the needs assessment section in this plan.

## Ryan White Part B Programmatic Data

Since 1993, the Bureau of HIV, STI, and Hepatitis has collected data on persons served by the Iowa Ryan White Part B Program. Part B services include, but are not limited to, medical case management, non-medical case management, psychosocial support services, outreach, housing assistance, transportation services, oral health care, mental health services, and substance abuse treatment services. Data are collected in the Ryan White Electronic Management Information System, or REMI, which was launched in 2020. REMI contains all client-related forms, notes, and assessments. It interfaces seamlessly with CAREWare, a client-level data system used by Iowa's Ryan White Part B Program (including ADAP) to collect, monitor, and report client-level service data (i.e., RSR data). Iowa's CAREWare is networked, which allows the sharing of information between agencies, thereby improving referral times, the monitoring of client service need and utilization, and the tracking of quality indicators.

Information collected from the Ryan White service providers includes basic demographic and risk information, eligibility verification data, the type of services received, the date and quantity of services received, the cost of these services, and other pertinent information (history of substance use or mental health treatment, current pregnancy status, etc.). The data indicate which Ryan White resources are being used, how often, and by whom. However, these data only reflect persons who (1) are diagnosed, (2) are currently seeking care and treatment services from Ryan White Part B-funded providers, and (3) are financially eligible to receive services.

For Part B services reporting purposes, individuals that switched from one Part B service provider to another Part B service provider may be counted twice during the service year.

## Consumer Needs Assessment (CNA)

In 2019, the Iowa CNA for people living with HIV was administered online. The Bureau of HIV, STI, and Hepatitis contracted with a third party, RDE Systems, to program the online survey making it accessible on computers, tablets, and smartphones. The survey was translated into Spanish, and audio was recorded in English and Spanish to reach a larger population of people living with HIV in Iowa who may have a low literacy level or English as their second language. There were 555 total respondents to the CNA. Results from the survey were used in the development of the needs assessment section in this plan.

## Ryan White Part B Client Experience Survey

In 2022, the Ryan White Part B Program conducted its first Client Experience Survey. The goal of the survey was to collect feedback from Ryan White Part B clients enrolled in case management on the variety and availability of services offered at their case management agency, and the types of interactions they are having with agency staff. The program contracted with a third party, RDE Systems, to program the survey online, making it accessible on computers, tablets, and smartphones. The online survey was translated into Spanish and French. Computer-generated audio was available in English, Spanish, and French. A paper version of the survey was available in English, Spanish, French, and Burmese. There were 293 total respondents to the Client Experience Survey. The results of the survey were used in the development of the needs assessment section of this plan.

## AIDS Drug Assistance Program (ADAP) Data

ADAP provides insurance assistance to PLHIV in Iowa who have incomes less than 500% FPL. Insurance assistance includes premiums, medication copayments, and deductible costs. Medication assistance (HIV-related prescription medications) are provided when insurance is unavailable (e.g., when people enroll in ADAP between insurance open enrollment periods).

For this report, when “ADAP” data are presented, they represent unduplicated client-level data. However, data presented in the “medication assistance” and “insurance assistance” sections may contain information or counts on the same person if that person utilized both medication assistance and insurance assistance within the same year. An example of this would be when a person who previously received medication assistance then later enrolled in insurance coverage during an open enrollment period. Data on ADAP clients are limited to basic demographic information on each client, eligibility verification data in regards to income and insurance coverage, prescription fills through Iowa’s centralized pharmacy (including cost of full-pay medications, or applicable insurance copays and/or deductibles), insurance premium payment information, and laboratory information. Data on ADAP clients are included in REMI.

### Ryan White Part C Data

Four Ryan White Part C providers in Iowa administer ongoing medical care, medical case management, oral health care, psychosocial support services, nutritional, and other care services for PLHIV. Each Part C clinic has a different method of collecting and storing data. Ryan White Service Reports (RSR) are submitted to the HRSA annually, and the Ryan White Part B Program receives a copy of these summary reports. Clients who used more than one Ryan White Part C provider in a year may be counted more than once. In addition, Ryan White Part C data cannot be generalized to all PLHIV in the state because they are collected only for persons who (1) are diagnosed and (2) are currently seeking care and treatment services from Part C-funded providers. Three of the four Part C providers in Iowa use REMI, which is networked with the Part B CAREWare system. All Part C clinics utilize CAREWare and their EHRs to maintain their client-level data, but they are not currently networked with the Ryan White Part B REMI system.

### STI Surveillance and Partner Services Data

The STI Program collects statewide surveillance data to determine the number of reported cases of STIs, to monitor trends in the epidemics, and to offer voluntary partner counseling and notification services (i.e., partner services). Chlamydia, gonorrhea, and syphilis cases are reportable STIs. STI surveillance data can serve as surrogate markers for behaviors among specific populations that increase the likelihood of acquiring HIV. In addition, certain STIs can facilitate the transmission of HIV. Because of a shorter time from exposure to symptomatic disease, STI diagnoses can be a good predictor of trends in HIV diagnoses if no actions are taken to intervene. Because of the higher number of cases, STI data tend to be less complete than HIV data, particularly for behaviors associated with the exposures. STI surveillance data are collected in the Iowa Disease Surveillance System (IDSS), which is a locally built, web-based system designed to facilitate reporting, investigation, and surveillance of communicable diseases in Iowa. The STI Program also oversees statewide partner services for HIV, syphilis, and gonorrhea. People newly diagnosed with these infections receive a visit from a DIS.

Four counties, Polk, Linn, Scott, and Black Hawk, have their own staff who conduct partner services for residents of their respective counties. DIS from the Bureau of HIV, STI, and Hepatitis conduct partner services in the other 94 counties in Iowa. Data on partner services are collected in IDSS, but are reviewed by HIV Surveillance Program staff for PLHIV to ensure that new information is added to eHARS so that the systems are complete and accurate.

## DATA-SHARING ACTIVITIES

### Vital Records—Iowa HHS

The HIV Surveillance Program matches data monthly with the Bureau of Vital Statistics at HHS to determine births to and deaths among PLHIV. Births are indicators of pediatric exposures to HIV, which are reportable events. Pediatric exposures provide information on the effectiveness of HIV prevention and treatment strategies for pregnant PLHIV.



## Medicaid—Iowa HHS

In September 2021, a data-sharing agreement between the Bureau of HIV, STI, and Hepatitis and the Medicaid Program was signed and implemented. The agreement allows staff in the HIV Surveillance Program and the Medicaid Program to match data to confirm receipt of HIV-, STI-, and hepatitis-related services by Medicaid members, to provide linkage to or re-engagement in care, and to calculate CMS performance measures related to viral suppression among Medicaid recipients living with HIV. Data matching began in late 2022.

## STI Program—Bureau of HIV, STI, and Hepatitis, Iowa HHS

The STI Program sends a daily file to the HIV Surveillance Program to identify people with HIV who have also been identified with other reportable STIs. This information is provided to the DIS who follow up on reportable STIs to help them provide better resources and services to PLHIV and/or to prioritize people for follow-up.

## Ryan White Part B Program—Bureau of HIV, STI, and Hepatitis, Iowa HHS

The HIV Surveillance Program imports HIV viral load and CD4+ cell count results to REMI every other week. The lab results are used to improve service delivery by helping case managers prioritize clients for medication adherence supports or other follow up. Case managers also help identify gaps in the surveillance system when Ryan White Part B clients or case managers report lab values that were not obtained and uploaded into REMI.

## HBV and HCV Surveillance Program—Bureau of HIV, STI, and Hepatitis, Iowa HHS

Data are matched annually between the hepatitis and HIV surveillance systems. This allows staff in the bureau to understand any patterns of comorbidity so that prevention strategies can be developed or adapted.

## TB Control Program—Bureau of Immunization and TB, Iowa HHS

All Iowans reported with infectious (i.e., active) tuberculosis cases are matched against the HIV surveillance system. This gives additional information to staff in both programs about the services that might benefit the person living with HIV and TB.

## National Death Index and Social Security Death Index Master File (SSDMF)

The HIV Surveillance Program matches data to death registries to obtain complete information on people with HIV who are deceased. This ensures accurate estimates of HIV prevalence in Iowa and of the causes of deaths among PLHIV. Matches to the NDI and SSDIMF occur annually.

## Cancer Registry—State Health Registry of Iowa, University of Iowa

On an annual basis, the HIV Surveillance Program matches data with the State Health Registry of Iowa (SHRI) at the University of Iowa. The SHRI conducts surveillance of cancer cases among Iowans. The data sharing allows more complete information for people who have cancer and HIV. The HIV Surveillance Program obtains information on reportable HIV-related cancers while the cancer registry obtains information on what cancers may be related to HIV.



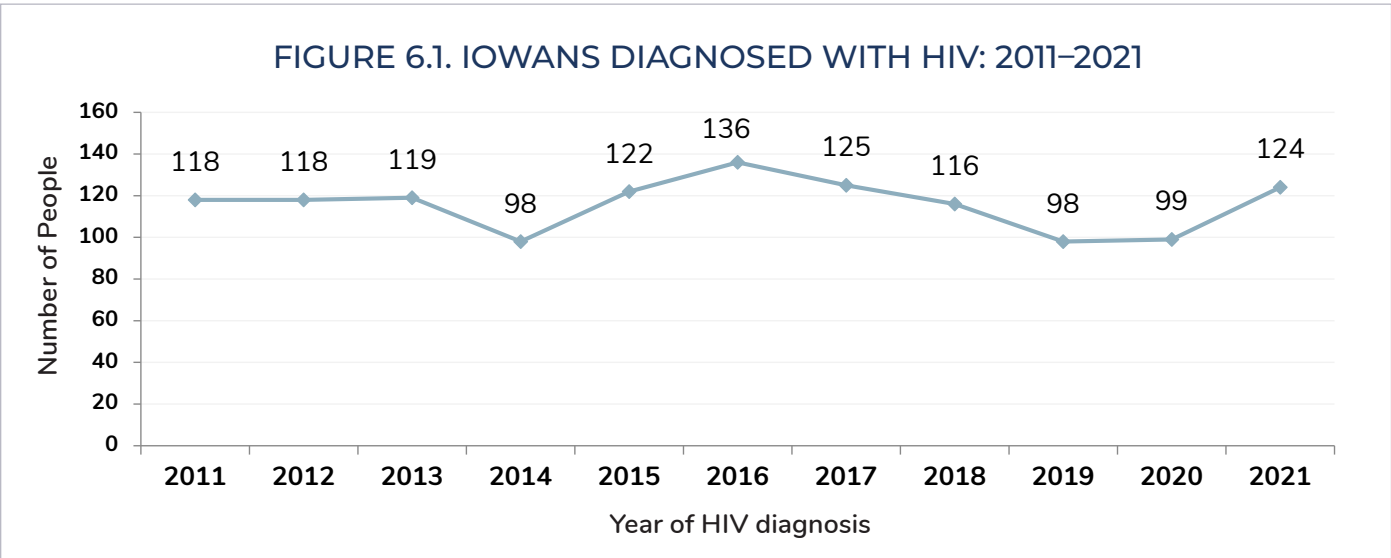
# SECTION VI

## Epidemiological Snapshot

### EPIDEMIOLOGICAL OVERVIEW

Below is a brief summary of the epidemiological profile of HIV in Iowa. Note that much of the data are from 2020, which was an unusual year because of COVID-19. For that reason, we will also occasionally highlight data from 2021 as a contrast and window into future trends. It is likely that the changes in patterns of receiving healthcare related to COVID-19 are continuing to impact HIV-related diagnoses, viral suppression, and other measures even into 2022.

Since the peak of 136 diagnoses in 2016, Iowa experienced a 28% decrease in diagnoses in the five-year period between 2016 and 2020 (Figure 6.1). In 2020, there were 98 new HIV diagnoses, the same number of diagnoses as 2019 and 2016, with an incidence rate of 3.07 per 100,000 population. With 3,012 people diagnosed and living with HIV at the end of December 31, 2020, Iowa’s crude HIV prevalence is 95 per 100,000 population.



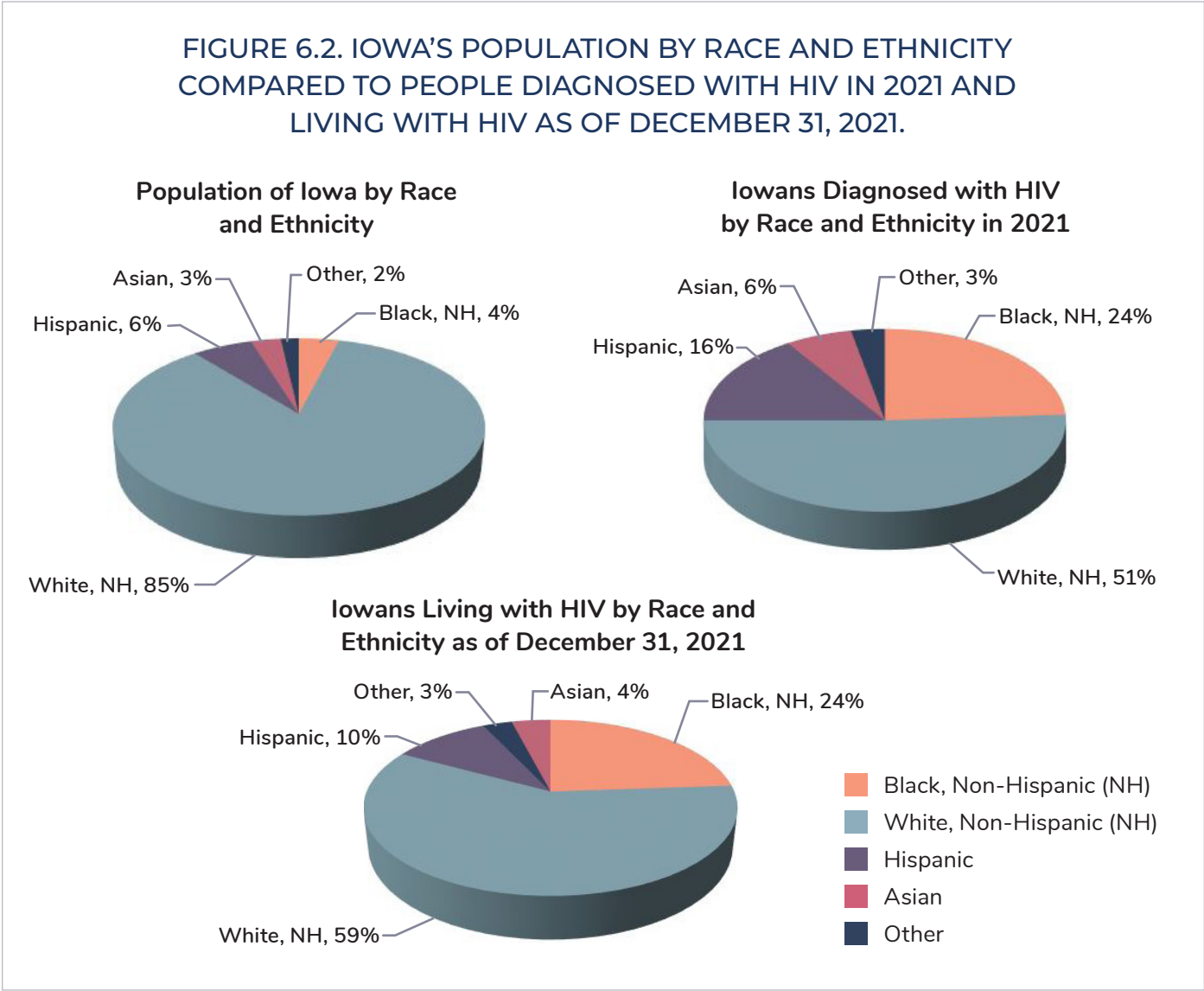
### USE OF TERMINOLOGY REGARDING RACE AND ETHNICITY

For the purposes of epidemiological categorization pertaining to race and ethnicity, Iowa uses the minimum standard categories as defined in the 1997 U.S. Office of Management and Budget Standards (OMB) standards for demographic data collection, as utilized in the decennial census, most recently in the 2020 Decennial census. Race categories include, at a minimum, American Indian or Alaskan Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; and White. Data on ethnicity has been collected since 1970 in the decennial census and is collected separately from race. Ethnicity includes two categories: Hispanic or Latino; and Non-Hispanic or Latino. People of Hispanic origin may be of any race.

In order to incorporate community input on the use of language referring to population groups, this epi overview uses the term ‘Latino’ to refer to people who self-identified as being of Hispanic origin. Similarly, we drop the use of ‘Non-Hispanic’ when referring to racial groups, with the understanding that racial and ethnic groups as defined by the U.S. Census Bureau are mutually exclusive, and people of Hispanic origin may be of any race.

In 2021, HIV diagnoses increased by 25% over 2020, reversing decreasing trends in diagnoses in recent years. Diagnoses increased across almost all social and demographic groups, with exceptions only among people 15 to 24 years of age, US-born women, and people who indicated a multi-racial identity. Among racial and ethnic populations, diagnoses increased significantly among US-born Latino persons (800%); Latino persons born outside the US (175%); Black persons born outside the US (50%); and Asian persons born outside the US (200%). While diagnoses among all people born outside the US increased by more than 80% from 2020, they were only a little higher than diagnoses in 2019. This may indicate that restrictions in movement during the COVID-19 pandemic in 2020 suppressed diagnoses in this population temporarily.

Although Iowa is a low-incidence state with an average of one hundred new HIV diagnoses per year, prevalence data show that Black, indigenous, and other people of color are disproportionately impacted by HIV (Figure 6.2) and continue to experience significantly higher rates of HIV diagnoses and prevalence than White lowans. In 2020, the prevalence of HIV disease among White lowans was 74.4 per 100,000 population, while the prevalence of HIV disease among Black/African Americans was 707.0 per 100,000 population. For Latino lowans, it was 205.0 per 100,000 population. Black/African American males were nine times more likely to be diagnosed with HIV than White males, and Latino males were twice as likely to be diagnosed as White males in 2020. A surge of diagnoses among Latino males in 2021 further exacerbated this disparity.



Ninety-five percent of Iowa's 99 counties had at least one resident living with HIV in 2020. Males have historically accounted for the largest proportion of new diagnoses, and they continue to do so, accounting for over 80% of new HIV diagnoses in Iowa. Diagnoses of HIV among males during the last decade (2011 through 2020) averaged about 90 diagnoses annually, with the largest proportion of diagnoses being among men who have sex with men (MSM). In 2020, 52% of the 98 diagnoses were among MSM, slightly lower than the 10-year (2010-2019) average of 57%. Among MSM, Black MSM are the most disproportionately impacted. During the period from 2017 to 2021, Black MSM were diagnosed at a rate of 3,985 per 100,000 population, a rate nearly 6 times that of Latino MSM and more than 11 times that of White MSM.

Historically, females have accounted for only 19% of Iowa's cumulative 3,719 HIV diagnoses from 1982 through 2020. During the last decade (2011 through 2020), HIV diagnoses among females averaged just over 25 diagnoses annually, with diagnoses among females born outside the U.S increasing more rapidly than among U.S-born females. Black/African American females had the highest prevalence rate in 2020, and were 15 times more likely to be diagnosed with HIV disease than White females in Iowa.

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***Ninety-five percent of Iowa's 99 counties had at least one resident living with HIV in 2020.***

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Male-to-male sexual contact remains the predominant mode of exposure of HIV in Iowa. Since 2005, more than half of the total HIV cases diagnosed in Iowa were among MSM, with a 5-year (2016-2019) average of 53%. While the annual number of diagnoses among MSM has decreased year over year from a high of 78 diagnoses in 2016 to a low of 45 in 2019, the proportion of total diagnoses has remained consistent at over 50%. The proportion of diagnoses among people who inject drugs (PWID) and among men who have sex with men who inject drugs (MSM/PWID) have remained consistent at eight and seven percent, respectively, over the last 10 years.

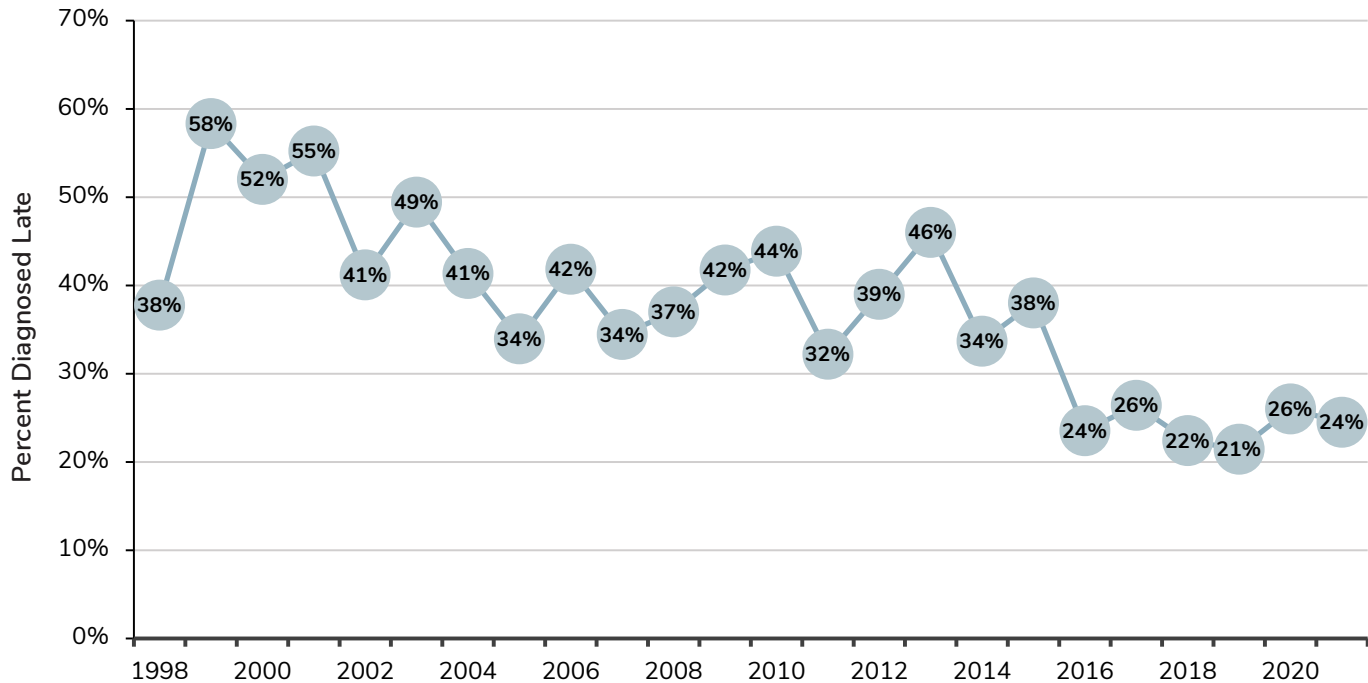
When assessed by age, the greatest numbers of diagnoses occur among Iowans between 25 and 44 years of age, who accounted for 50% of total diagnoses over the last 10 years. Diagnoses among Iowans between 13 through 24 years of age accounted for approximately 20% of total diagnoses over the last 10 years, with 27 new diagnoses in 2020. This was an 8% reduction in diagnoses since the peak of 33 diagnoses among people this age group in 2015. The median age of adolescents and adults (13 years of age and older) diagnosed with HIV in 2020 was 35.0 years. Males diagnosed with HIV had a median age of 36.3 years, and females had a median age of 34.3 at time of diagnosis.



**Figure 6.3.** Twenty-five percent of PLHIV in Iowa live in rural areas, compared to the national average of 8%.

**FIGURE 6.4. PERCENTAGE OF IOWANS DIAGNOSED LATE**

(AIDS Diagnosis within 3 Months of HIV Diagnosis): 1998 to 2021



**Iowa still has a relatively high percentage (10-year average of 33%) of “late testers”, i.e., people who were diagnosed with HIV and AIDS within three months of their HIV diagnosis (Figure 6.4), when compared to the national average.** The proportion of late testers has been decreasing and reached its lowest level ever reported at 21% in 2019. Although the proportion of late testers increased to 26% in 2020, it dropped to 24% in 2021. It has remained consistently below 30% since 2015. Over 90% of “late testers” in Iowa were diagnosed with AIDS concurrently, meaning within one month of their HIV diagnoses.

Analyses of Iowans diagnosed from 2017 to 2021 show that men (30%), people 45 to 64 years of age at time of diagnosis (47%), people 65 or older at time of diagnosis (67%), White people (31%), people who inject drugs (37%), people whose risk is not identified (40%), people born outside the US (30%), and people who live in rural counties (35%) are more often receive late diagnoses than others in the state (average = 28%).

The number of deaths among people diagnosed in Iowa continues to decrease after peaking at 102 deaths in 1995. From 2005 through 2020, deaths of PLHIV fluctuated from a low of 24 in 2008 to a high of 53 in 2019. As of December 31, 2020, 1,361 deaths had been reported among people diagnosed with HIV or AIDS in Iowa. Of those deaths, 58% were caused in part by the underlying HIV disease, 36% of deaths were not HIV-related, and the causes of death for 5% were unknown.

The good news for those with or at risk for HIV is that people with HIV who are on treatment are living long, healthy lives and can now manage HIV as a chronic health condition. Iowa’s challenge is to continue to have sufficient resources to serve this population well, such that viral suppression is achievable by everyone with HIV, transmission is rare, and quality of life among PLHIV is maximized.

Because of the increasing average length of time since diagnosis, we have chosen to calculate the state’s prevalence of PLHIV using people with a current residence of Iowa (regardless of state of residence at time of diagnosis). With a prevalence of 95 per 100,000 persons in 2020, Iowa’s prevalence is lower than the Midwest prevalence of 220.3 per 100,000, and the U.S. prevalence of 379.7 per 100,000. While the ten most populous counties (Black Hawk, Dallas, Dubuque, Johnson, Linn, Polk, Pottawattamie, Scott, Story, and Woodbury) account for 51% of the total population of Iowa, 75% of people diagnosed with



HIV and living in Iowa in 2020 were living in these counties, with only 30% of them living in Polk, Iowa's most populous county. In essence, **this distribution of PLHIV means that there are no areas of the state where services can be effectively concentrated.** Service providers need to be located in the ten most populous counties to be most effective at reaching PLHIV in Iowa, which has implications for the amount of resources needed in the state.

In 2020, 89% of the 98 people diagnosed during the year were linked to care within one month. Black persons and people who identified as more than one race had the lowest linkage-to-care rates in 2020. Linkage-to-care rates were also lower for people diagnosed between the ages of 25-44 and those for whom no risk was reported. Of the PLHIV residing in Iowa at the end of 2020, 84% were in care and 79% achieved viral suppression. According to the CDC, this was the highest viral suppression reported among any state in 2020, although it was a slight reduction in viral suppression from the 80% reported in Iowa in 2019. Viral suppression rates increased significantly for those who were retained in care, with 94% of those retained in care being virally suppressed at the end of 2020. Fortunately, viral suppression among Iowans diagnosed and living with HIV increased to 82% in 2021 (see the 2021 Continuum of Care, p. 13).

Historically, success in achieving viral suppression has varied by a number of demographic and other factors. Iowans who are White or Asian have experienced the most success in achieving viral suppression when compared to Black or Latino Iowans, but the gap between the populations has narrowed substantially over time.

In 2020, Iowa began using the HIV TRANsmiSSion Cluster Engine (Secure HIV-TRACE) program to identify people diagnosed with HIV who have genetically similar HIV strains (referred to as a molecular cluster of cases of HIV). These are detected through the analysis of molecular sequence data that are generated from laboratory data received from HIV drug resistance testing of people in care in the state. Drug resistance testing is conducted to identify mutations associated with resistance to HIV antiretroviral medications. It helps the HIV medical care provider select an appropriate treatment regimen. This testing is recommended for all people diagnosed with HIV at entry to HIV care or upon a treatment regimen failure.

The goals of using molecular surveillance data are three-fold:

- **Goal 1:** Discover where there is ongoing transmission of HIV occurring among a connected group of people in the state;
- **Goal 2:** Use the ongoing transmission chain to identify people who may benefit from prevention (e.g., testing, PrEP, housing, substance use treatment) or care (e.g., case management, behavioral health services, medical care) services; and
- **Goal 3:** Interrupt ongoing transmission of HIV.

A team of prevention and care staff meet monthly to review data and to outline specific client-level actions to be taken immediately.

Between January 2021 and December 2022, Iowa identified five ongoing transmission chains that met the CDC definition of a transmission cluster, with an average cluster size of ten people. Approximately 80% of cluster members had male-to-male sexual contact as their primary mode of transmission. Black persons were over-represented in the clusters, making up 29% of cluster members despite representing only 4% of Iowa's total population. When assessed by county of residence, 82% of cluster members resided in the central Iowa counties of Polk, Story, Marshall, Dallas and Boone.

## Trends in other conditions often associated with HIV:

- Other sexually transmitted infections (STIs), including gonorrhea, chlamydia and syphilis, are among the most common conditions reported in Iowa. Having HIV and another STI is increasingly common, with many of the same populations being affected by increased transmission of STIs other than HIV. In 2020, about half (50%) of people newly diagnosed with HIV had been diagnosed with another reportable STI within the last 5 years, an increase from 30% in 2018. Because many STIs have no symptoms, routine testing of populations most impacted is important. Priority populations for STI testing include people 24 years or younger, those who are uninsured and underinsured, people with new or multiple sexual partners over the most recent 60-day period, and those with exposure to someone who was recently diagnosed or who displayed symptoms suggestive of chlamydia or gonorrhea.

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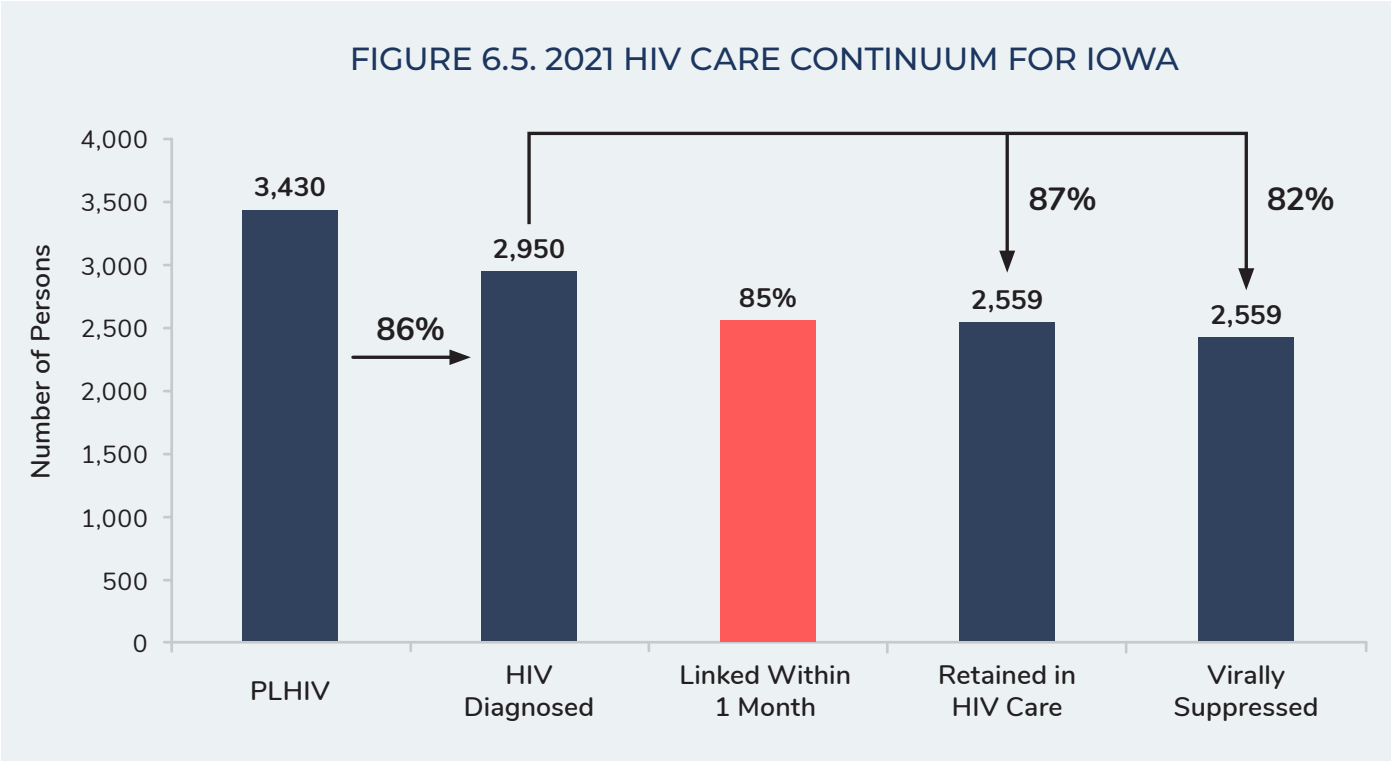
*In 2020, about half (50%) of people newly diagnosed with HIV had been diagnosed with another reportable STI within the last 5 years.*

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- Chlamydia is the most frequently reported STI in Iowa, with 15,095 cases reported in 2020. This was a slight decrease from the 10-year peak of 16,046 cases reported in 2019. The decrease in 2020 could be attributable to decreased testing during the COVID-19 pandemic. In the ten years between 2011 and 2020, chlamydia cases increased by 28% from 10,928 cases in 2011. Most chlamydia cases (66%) are among females, and among those 20-24 years of age in Iowa.
- In 2020, there were a total of 6,919 newly-diagnosed cases of gonorrhea in Iowa. Females accounted for 3,468 (51%) of the cases. The relatively equal number of diagnoses between males and females indicates that most cases are among heterosexual people and that most cases among males produce symptoms that cause them to seek curative treatment. Usually treatment is sought soon enough to prevent serious sequelae, but this may not be soon enough to prevent transmission to others. Many cases among females do not produce recognizable symptoms until complications (e.g., pelvic inflammatory disease) have occurred. Gonorrhea, like chlamydia, can be diagnosed with oral, anal, and/or urethral/cervical presentations. Repeat infections of gonorrhea are good predictors of risk for HIV.
- The number of syphilis cases (all stages) in Iowa increased by more than 600% between 2011 and 2020, from 70 reported cases in 2011 to 500 cases in 2020. Cases among Iowans between 25-29 years of age made up over 20% of all reported cases in 2020, with a prevalence rate of 51 per 100,000 people. Men who have sex with men experience syphilis infections at disproportionately high rates and account for approximately 70% of the cases among men. The incidence of syphilis has changed dramatically in recent years. Statewide rates per 100,000 people almost doubled from 2017 to 2020, increasing from 120 cases per 100,000 people in 2017 to 219 cases per 100,000 people in 2020. Rates of infectious syphilis (primary, secondary and early non-primary, non-secondary) are disproportionately higher among Black/African American Iowans with a rate of 92 per 100,000 people, which was three times the infection rate among Latinos of all races, and seven times the rate among White persons in 2020.
- In 2020, 825 Iowans were diagnosed with chronic hepatitis C (HCV), bringing the total number of Iowans ever diagnosed with chronic HCV to 27,675. Approximately one third of all infections are among people under 40 years of age, with injection drug use being the primary mode of transmission in this cohort. All people living with HIV who were first diagnosed while living in Iowa, or who resided in Iowa at some point in time while living with HIV, or who have accessed care at an Iowa facility and have been reported to Iowa HHS, are matched against the hepatitis C database to determine co-infection between HIV and HCV. Since 2000, 302 Iowans have been diagnosed with both HIV and chronic HCV, with 78% of them being males.

## HIV CARE CONTINUUM

This section focuses on the HIV care continuum in Iowa in 2021 (Figure 6.5). The bars in the HIV care continuum represent the number of Iowans living with HIV who have achieved each progressive stage in the care continuum from diagnosis, to linkage to care, to retention in care, and to viral suppression.

Since 2010, the HIV care continuum has been included in the National HIV/AIDS Strategy for the United States. It provides a framework for understanding where obstacles to engagement in care exist, and it helps to illuminate population-level disparities in accessing care and treatment services when the data are disaggregated by demographic variables. Understanding the characteristics of specific populations of Iowans living with HIV who do not achieve viral suppression can help focus services or interventions to populations or geographical areas of the state that are most in need. Laboratory data, including diagnostic tests, CD4+ cell counts, and viral loads are used as proxies for estimating PLHIV who are engaged in HIV-related care. The stages along the HIV care continuum are as described below:



### People Living with HIV (PLHIV)

This is the number of people diagnosed with HIV on or before December 31, 2020, and living in Iowa at the end of 2021, plus an additional 14% who are estimated to be living with undiagnosed HIV. The CDC recommends testing for adults and adolescents at least once in their lifetimes and at least annually for certain populations at increased vulnerability to transmission. Iowa has almost 100% reporting of diagnosed cases.

### Diagnosis of HIV infection

This is the total number of people diagnosed with HIV on or before December 31, 2020, and living in Iowa at the end of 2021. This number includes people who may have been initially diagnosed with HIV while living in Iowa or diagnosed in another state before moving to Iowa. This number does not include those diagnosed between January 1, 2021, and December 31, 2021. It serves as the underlying population for estimating retention in care and viral suppression measures.

*Linkage to Care, Retention in HIV Care, and Viral Suppression described on the next page.*

## Linkage to care

This is the number of people  $\geq 13$  years of age, who were newly diagnosed with HIV while residing in Iowa between January 1, 2021, and December 31, 2021, and were linked to HIV care services.

The denominator for linkage to care is different from that used to calculate other stages of the care continuum. The CDC recommends that linkage to care should occur within one month of diagnosis.

## Retention in HIV care

To estimate the number of people retained in care, Iowa calculated the proportion of the cohort of people diagnosed and living with HIV who received either two CD4+ cell counts or viral load test results 2021 at least three months apart, or who had one viral load test result with the result  $\leq 200$  copies/ml of blood in 2021.

## Viral suppression

Adherence to Antiretroviral Therapy (ART) can reduce HIV viral load to less than 200 copies/ml or undetectable levels, at which point studies have found there is effectively no risk of sexually transmitting the HIV virus to an HIV-negative partner. This concept, referred to as Undetectable = Untransmittable or U=U, is an important strategy towards improving the health outcomes for people living with HIV, and reducing HIV transmissions in Iowa.

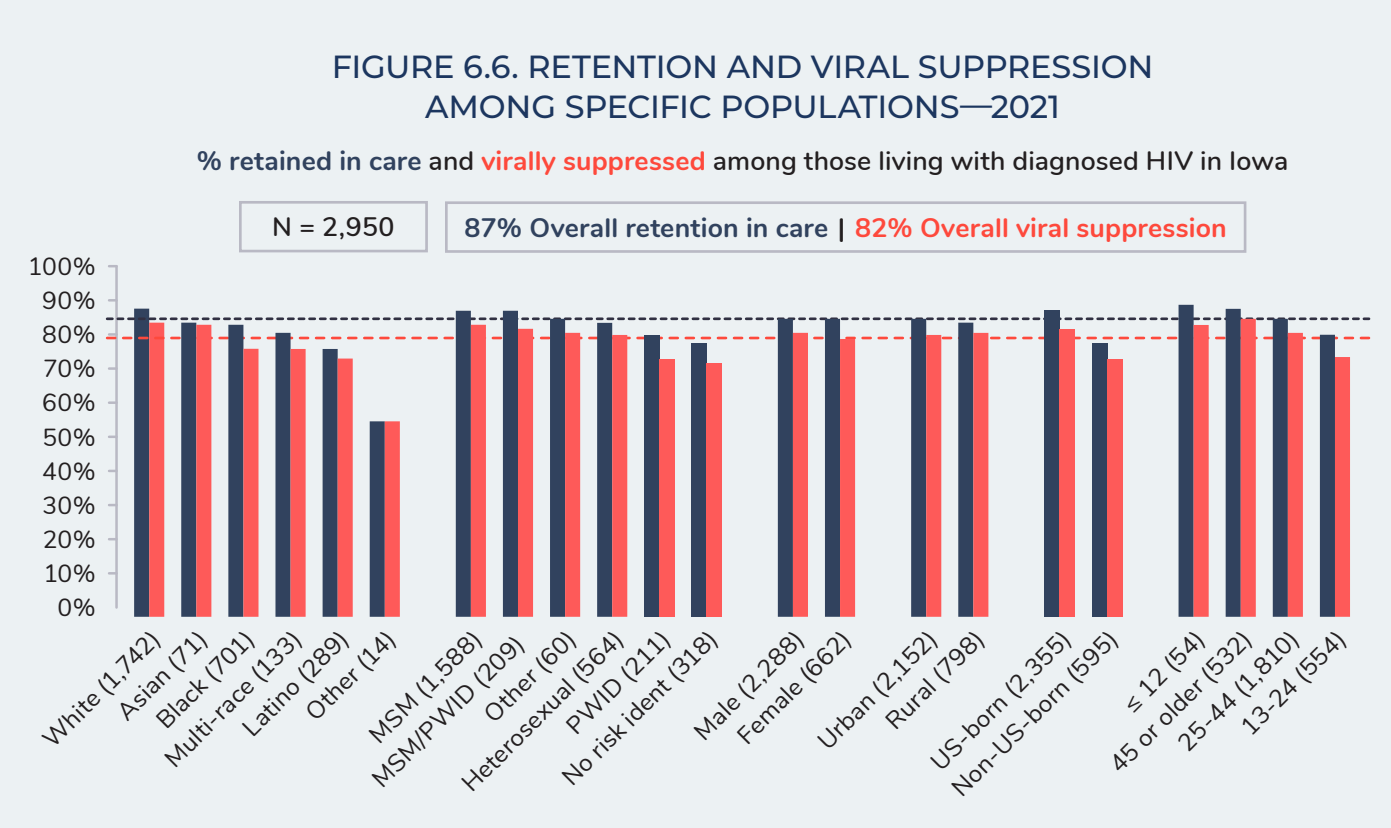
Late diagnosis of HIV, delays in linkage to HIV care, and poor adherence to ART treatment could be barriers to achieving the goal of the HIV care continuum. In a 2015 CDC study, 91.5 percent of HIV acquisitions in 2009 resulted from people with HIV who were either not in medical care or who were undiagnosed, compared to less than 6 percent of new diagnoses that resulted from people with HIV who were in care and receiving antiretroviral therapy. This means that 9 in 10 new cases of HIV that were diagnosed in the U.S. could be prevented through early diagnosis and prompt, ongoing care and treatment of PLHIV.

- There were 3,430 people living with HIV disease and residing in Iowa on December 31, 2021. Of these, 2,950 (86%) had been diagnosed, and an estimated 480 are living with undiagnosed HIV (Figure 6.5).
- Of the 124 people who were diagnosed with HIV in 2021, 85% were linked to care within one month (Fig. 6.5) and 94% were linked within three months. When disaggregated by demographic characteristics, people who are born outside the U.S. had significantly lower linkage-to-care rates at one month after diagnosis, with only 72% linked to care compared to 88% of U.S.-born people. Similarly, people whose modes of exposure were not identified (NIR) had lower linkage-to-care rates at 73%.
- Urban counties are defined as any of the ten most populous counties in Iowa, including Black Hawk, Dallas, Dubuque, Johnson, Linn, Polk, Pottawattamie, Scott, Story, or Woodbury. There were no significant differences in linkage to care or viral suppression among PLHIV in urban versus rural counties, despite Iowa being a largely rural state with the larger concentration of services in urban areas.
- Of the 2,950 PLHIV in Iowa at the end of 2021, 87% were retained in care according to Iowa's definition of retention in care. In addition, 82% of Iowans diagnosed and living with HIV at the end of 2021 were virally suppressed. Viral suppression rates were higher for those who were retained in care, with 95% achieving viral suppression. This indicates the importance of linkage to and retention in care. People who are retained in care are very likely to achieve viral suppression, an important predictor of overall positive health outcomes and reduced transmission of HIV to partners.



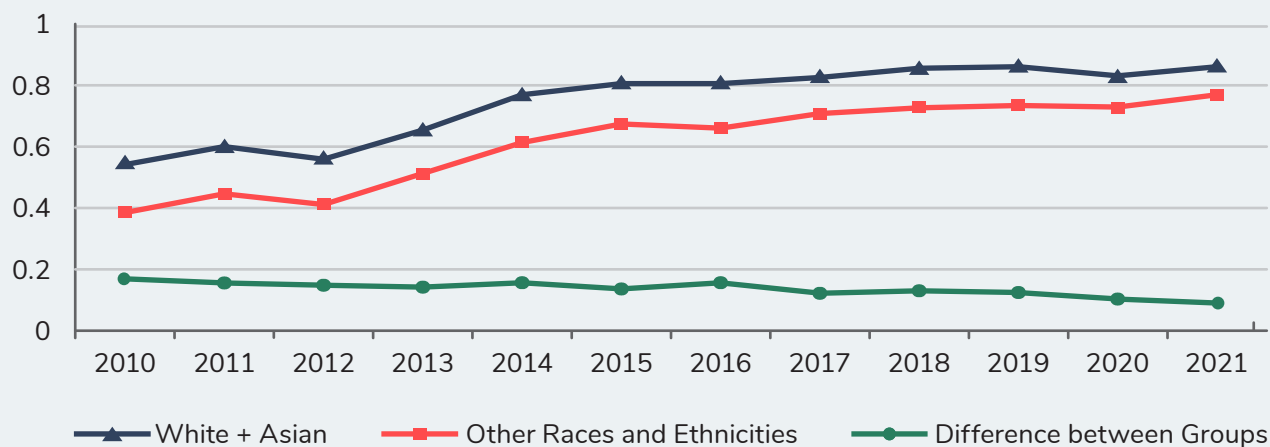
HEALTH DISPARITIES

Figure 6.6, below, illustrates the differences in retention and viral suppression among populations in Iowa. Not all populations are equally able to attain viral suppression, the final bar in the HIV care continuum. Specifically, people who are White or Asian are more likely to attain viral suppression than people who are Black, Latino, Indigenous, or who identify multiple race categories. Similarly, people who inject drugs or people for whom the mode of exposure has not been identified achieve viral suppression less often than do people with other modes of exposure. Finally, people born outside the U.S. and people between the ages of 13 and 24 are less likely to achieve viral suppression than other populations. As previously mentioned, there is little difference in the proportion of those who live in urban areas of the state achieving viral suppression compared to those in rural areas.



To examine how differences in viral suppression among populations in Iowa may be changing over time, we looked at viral suppression by race and ethnicity from 2010 to 2021. We combined White and Asian populations because they had similar levels of viral suppression, and compared them to people with other races and ethnicities (Figure 6.7, see next page).

**FIGURE 6.7. PROPORTION OF PEOPLE WHO ATTAIN VIRAL SUPPRESSION BY RACE AND ETHNICITY AND THE DIFFERENCE IN VIRAL SUPPRESSION BETWEEN THE TWO GROUPS: 2010 TO 2021**



Increasing proportions of all populations have achieved viral suppression since 2010. In 2010, 55% of White or Asian people attained viral suppression compared to 38% of people of other races and ethnicities. This was a difference of 17 percentage points. By 2021, 86% of White or Asian people in Iowa achieved viral suppression compared to 77% of people of other races and ethnicities, a difference of only 9 percentage points. Figure 6.7 shows the gap between the populations has been narrowing since 2016. Funding and programmatic efforts focused on health equity have reduced the disparities seen in Black, Latino, and Indigenous populations, but much work remains to eradicate health disparities among all populations of PLHIV.

# SECTION VII

## Financial and Human Resources Inventory

The programs in the Bureau of HIV, STI and Hepatitis at the Iowa Department of Health and Human Services (Iowa HHS) use federal and state funding to increase the number of Iowans living with HIV who are able to attain viral suppression.

This section will detail the current HIV-related resources available in Iowa. They are grouped according to the part of the HIV Continuum of Care that they are designed to impact.

### PREVENTING AND DIAGNOSING HIV

More tools than ever before are available to prevent HIV. Effective prevention strategies reduce transmission and acquisition of HIV while also ensuring timely diagnosis and engagement in care.

Evidence-based strategies include:

- Biomedical interventions (PrEP and PEP)
- Syringe services programs (SSPs) and other harm reduction services
- Condoms
- HIV testing
- Linkage to care and support services

The Bureau's HIV Prevention Program utilizes federal funds from the Centers for Disease Control and Prevention (CDC) and the Health and Resources Services Administration (HRSA) to implement prevention and testing programming across Iowa.

### HIV Prevention

#### Personal Responsibility Education Program (PREP)

Iowa's PREP provides sexuality education to adolescents that is medically accurate, culturally and age-appropriate, and evidence-based and informed. The goal of PREP is supporting youth to reduce their risk of unintended pregnancy, HIV, and other sexually transmitted infections (STIs). In addition to education on abstinence and contraceptive use, PREP also addresses other topics to prepare young people for a successful adulthood. Subjects include healthy relationships, adolescent development, healthy life skills, parent-child communication, financial literacy, and educational and career success. Iowa PREP grantees deliver services in nine Iowa counties with the highest teen birth rates. The priority population for programming is youth who are 10–19 years old. Between August 1, 2019, and July 21, 2020, 10 organizations facilitated 29 cohorts. During that period, 919 students completed at least one session while 319 completed 75% of the scheduled program hours.

#### Community Adolescent Pregnancy Prevention (CAPP)

The CAPP grant program operates throughout the state and funds community-based projects with the intention of preventing adolescent pregnancies. Projects must include a core set of components:

- Community coalition building to address system factors that contribute to adolescent pregnancy (i.e., schools, churches, human services providers);
- Comprehensive programming that focuses on the prevention of initial pregnancies during the adolescent years; and
- Services to pregnant and parenting adolescents, including education.



**Figure 7.1.** Promotional image for MyIACondoms.org

## Condom Distribution

In 2019, the Bureau of HIV, STI, and Hepatitis implemented a new statewide digital condom distribution program to increase access to condoms and other safer-sex supplies for communities and individuals in need. Using a “condom locator” on the website MyIACondoms.org, individuals can find organizations in their community that offer free condoms. If condoms are not available in their community, or the individual has additional barriers to accessing those condoms, an ordering option is available whereby condoms can be shipped to them. When the new program was implemented between 2018 and 2019, there was a 123% increase in the number of condoms distributed by the bureau. In 2021, over 436 organizations across Iowa distributed more than 1.6 million condoms.

## Harm Reduction Services

**Harm reduction refers to strategies directed toward individuals or groups that aim to reduce the harms and risks associated with some behaviors, such as substance use.** Harm reduction views risk on a continuum, recognizing the opportunity to reduce the risk of harm incrementally. Harm reduction uses evidence-based, cost-effective interventions that “meet people where they are.”

Syringe Services Programs (SSPs) are examples of harm reduction strategies. According to the CDC, SSPs are community-based programs that provide PWUD access to sterile needles and syringes, facilitate safe disposal of used syringes, and provide and/or link people to other important services and programs, such as HIV and STI testing, housing, substance use treatment, and opioid overdose prevention education. SSPs and harm reduction providers can play important roles in preventing HIV transmission. Iowa has a paraphernalia law that prohibits distribution of syringes and other drug paraphernalia. Therefore, harm reduction programming in Iowa provides only allowable harm reduction services and supplies to people who inject drugs (PWID).

### WHAT ARE **SYRINGE SERVICES PROGRAMS (SSPs)**?

Syringe Services Programs, often called SSPs, are community-based prevention programs. SSPs provide a range of health services, and they provide a lifeline to those struggling with substance use disorder (SUD). Comprehensive SSPs offer patients vaccinations and testing for diseases, referrals to treatment for SUD and other diseases (such as viral hepatitis and HIV), and sterile injection equipment to prevent the transmission of infectious diseases.



**SSPs save lives** by lowering the likelihood of deaths from overdoses.



Law enforcement benefits from reduced risk of needlesticks, **no increase in crime**, and the ability to save lives by preventing overdoses.



Users of SSPs were **three times more likely** to stop injecting drugs.



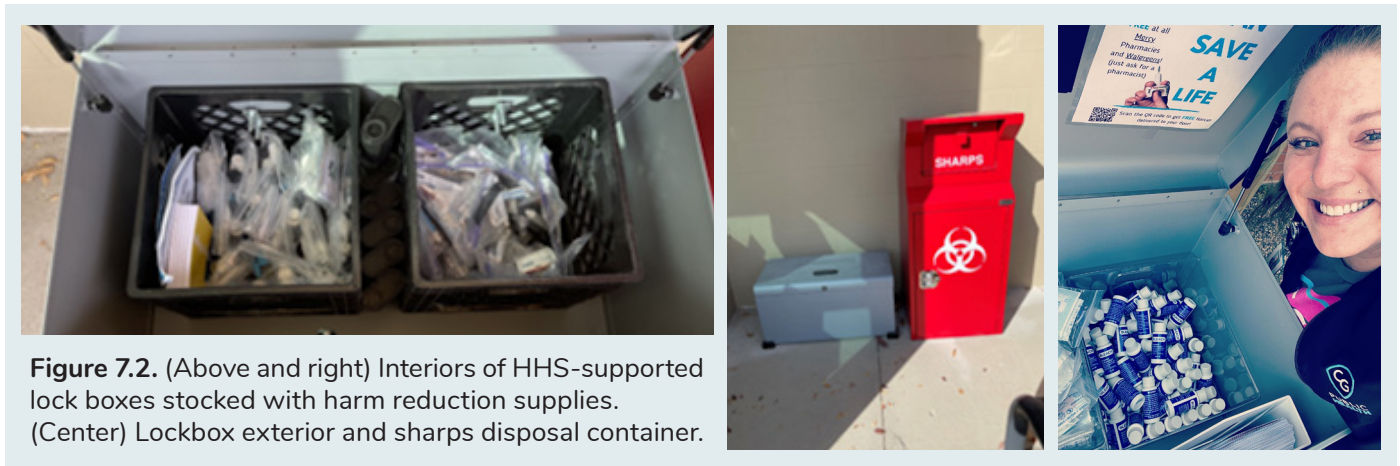
Providing testing, counseling, & sterile injection supplies helps prevent outbreaks of other diseases. For example, SSPs are associated with a **50% decline** in the risk of HIV transmission.



When two similar cities were compared, the one with an SSP had **86% fewer syringes** in places like parks & sidewalks.

**More than 30 years' worth of research demonstrates that SSPs protect the public's health.** They save lives, help those experiencing a SUD get the support to regain a healthy life, and reduce the impact of drug use on the community.

Note. From *What are Syringe Service Programs (SSPs)?* Centers for Disease Control and Prevention, 2019



Beginning in Nov. 2020, the Bureau of HIV, STI, and Hepatitis launched a statewide digital supply ordering system to support community partners interested in distributing legal harm reduction supplies to PWID. The system was originally limited to substance use prevention and treatment agencies, community-based harm reduction organizations, and HIV prevention and care partners. The system was expanded in Oct. 2022 to extend support to other community organizations and agencies that serve PWID. From the program's launch to Sept. 30, 2022, the following supplies have been provided for distribution across Iowa:

- 24,000 wound care kits;
- 23,200 non-latex gloves;
- 97,000 alcohol prep pads; and
- 9,072 bleach bottles
- 14,500 bandages;
- 12,928 sharps containers.

## Harm Reduction Organizations

Iowa currently has three harm reduction organizations in operation across the state. They include Quad Cities Harm Reduction (QCHR), Iowa Harm Reduction Coalition (IHRC), and Dubuque Harm Reduction. IHRC operates out of Des Moines, providing services to the surrounding areas and recently shut down their location in the Iowa City/Cedar Rapids area. QCHR operates in Davenport and Rock Island (IL), but also serves Scott, Clinton, and Muscatine counties in Iowa, plus several Illinois counties. Dubuque Harm Reduction serves multiple counties, including Dubuque, Clayton, Jones, Jackson, and Delaware County along with others across state lines.

All three harm reduction organizations offer a variety of comprehensive services including harm reduction supply distribution (safer use supplies, naloxone, fentanyl test strips, hygiene supplies, and safer sex supplies). Some organizations use mail-based distribution. The harm reduction organizations also offer education and training related to the supplies provided, among other topics, such as overdose prevention. Education and training are provided to people who use drugs, their family and friends, and a wide variety of community organizations. The harm reduction organizations also offer linkages to local counseling and addiction treatment and recovery services, mental health counseling, social services, and sexual assault and domestic violence counseling. They also prioritize referrals to HIV and hepatitis C testing and treatment services, and IHRC and QCHR provide on-site rapid testing.

QCHR is currently funded through AIDS United/NASTAD and the Comer Foundation. They have two paid staff members with lived experience who work 30 hours/week and operate out of The Center in Davenport. Dubuque Harm Reduction recently restarted operations as a non-profit and have no paid staff, though they do have a leader, several dedicated volunteers, and a Board of Directors. Their operation currently relies heavily on secondary distribution. IHRC is funded through foundation grants, local fundraising, and specific programming with local and state public health offices for limited services. All harm reduction organizations are staffed by people with lived experience of drug use and/or sex work and a significant amount of harm reduction services are delivered by passionate volunteers.

## Pre-Exposure Prophylaxis (PrEP)

Pre-Exposure Prophylaxis (PrEP) is a biomedical HIV prevention intervention that involves taking medications or receiving injections that have been proven to be effective in reducing the likelihood of acquiring HIV from sex and injection drug use. Daily-oral PrEP products were first approved by the U.S. Food and Drug Administration (FDA) in 2012 and a long-acting injectable PrEP product was approved for use in 2021.

In 2018 Iowa HHS partnered to launch a statewide PrEP program to increase awareness of and access to PrEP across the state. PrEP Iowa ([prepiowa.org](http://prepiowa.org)) links Iowans to PrEP education, PrEP navigation services, and local or telehealth PrEP providers. PrEP Iowa also connects medical providers to information and resources to initiate and monitor PrEP therapies and provides targeted technical assistance to providers who are interested in adding biomedical HIV prevention interventions to the services they provide.

Patient navigation services, administered by Iowa HHS, include the following:

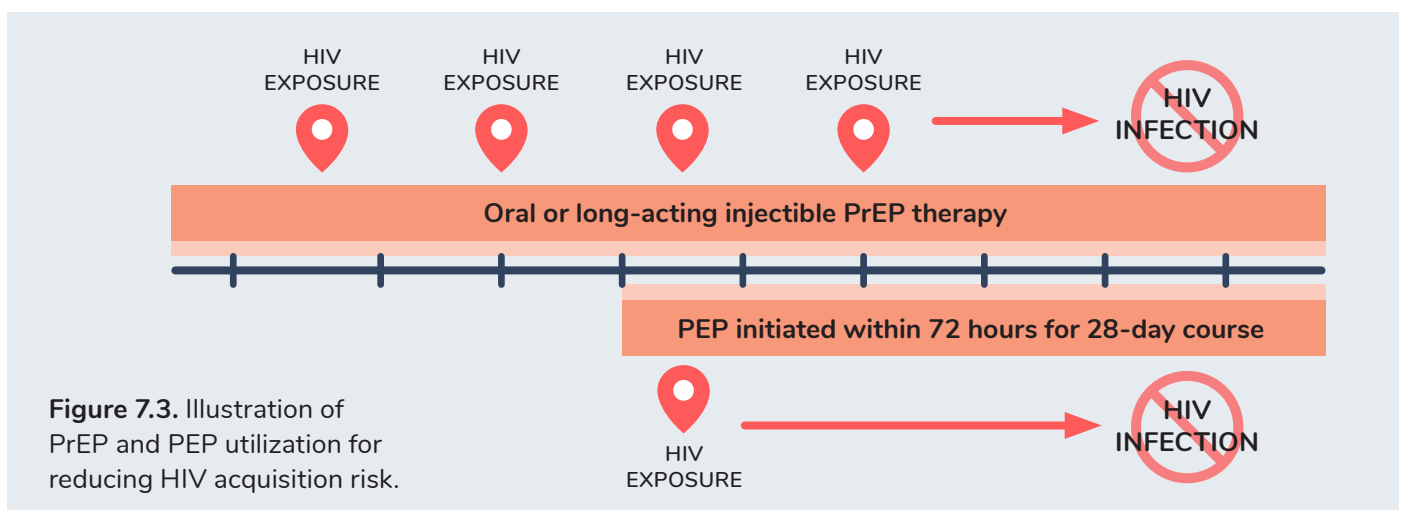
- Assistance with obtaining or utilizing health insurance benefits
- Assistance navigating out of pocket costs (e.g., co-pays or co-insurance)
- Linkage to ancillary services such as housing, mental health, or substance use disorder services
- Linkage to local providers and pharmacies.

In conjunction with the development of PrEP Iowa, Iowa TelePrEP was established as a partnership between Iowa HHS and University of Iowa Health Care to provide Iowans with local tele medical access to PrEP services. Iowa TelePrEP patients have web-based medical visits with a pharmacist provider using a secure application, obtain required labs locally at outpatient lab sites or by using Iowa's extensive network of public health providers, and receive medications directly by mail or at a local pharmacy of their choice.

## Post-Exposure Prophylaxis (PEP)

Post-Exposure Prophylaxis (PEP) is a biomedical HIV prevention intervention that involves taking a course of antiretroviral medications immediately after a potential exposure to HIV to reduce the likelihood of acquiring HIV from the specific event. Individuals seeking PEP must initiate therapy within 72 hours of the potential exposure.

In 2021, the PrEP Iowa program began providing emergency patient navigation services to Iowans seeking PEP as well as technical assistance to providers interested in adding PEP to the services they provide. Iowa TelePrEP also added PEP to their service offerings in 2021 in an effort to increase access for Iowans in need of emergency biomedical HIV prevention while also facilitating a streamlined transition to PrEP care for those patients found to have an ongoing need.



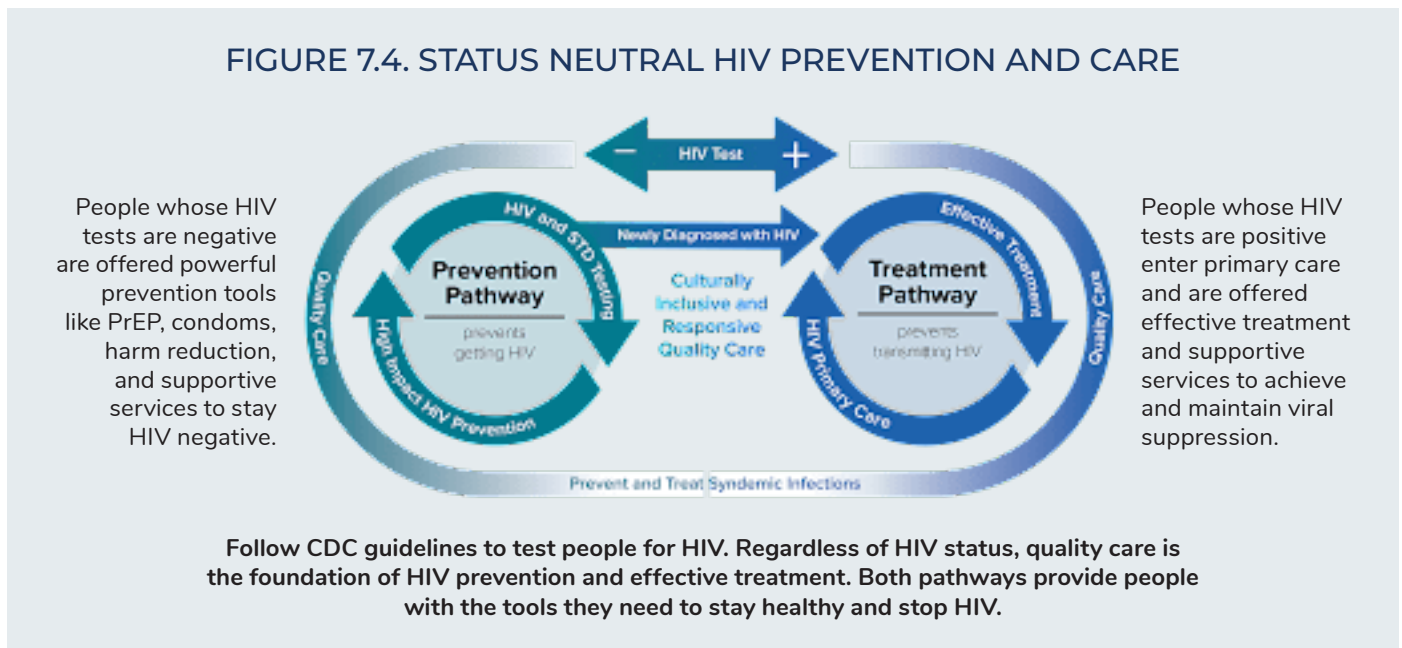


## HIV Diagnosis

In Iowa, an estimated 14% of people living with HIV (PLHIV) are unaware of their HIV (positive) statuses. HIV testing is a key entry point into a variety of health care services. The CDC's **Status Neutral HIV Prevention and Care model** (Figure 7.4) is a holistic approach to HIV prevention and care that emphasizes high quality care to engage and retain people in services.

This model seeks to address social and structural barriers to engagement in biomedical prevention (e.g., PrEP) and HIV care and treatment. HIV testing serves as the entry point to services regardless of the test result. People who receive a negative test result are offered tools that prevent HIV and a path emphasizing a consistent return to HIV testing services. People who receive a positive test result are linked to HIV care and support services.

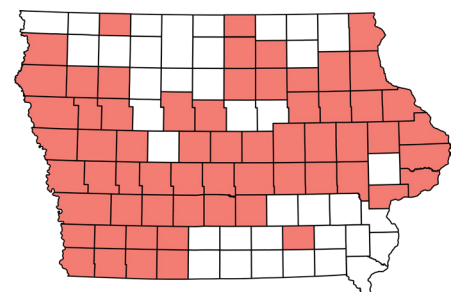
Many challenges and gaps exist in Iowa's quest to implement a status-neutral approach to offering services. As mentioned earlier, HIV testing is the entry point into the status-neutral model. In Iowa, resources dedicated to HIV testing programs have increased substantially over the last five years. This provides a strong foundation on which to build to integrate status-neutral programming and services.



## Integrated Testing Services

The Bureau of HIV, STI, and Hepatitis supports ten agencies as part of Integrated Testing Services (ITS). The ten agencies implementing ITS include seven local public health departments, two federally qualified health centers, and one community-based organization.

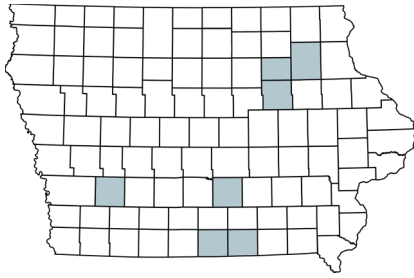
The purpose of ITS is to provide an integrated approach to HIV, HCV, and STI prevention, screening, and treatment (for STIs) and/or linkage to care (for HIV and HCV). ITS sites also have the option of offering adult hepatitis A and hepatitis B vaccinations as part of their efforts. Each site implements materials-distribution initiatives that include condom, prophylactic, and harm reduction supply distribution to priority populations. Traditional and social marketing efforts are broadly used to increase programmatic reach and support client recruitment efforts. Infectious disease screening services are offered in both clinical and non-clinical settings, including outreach to rural and geographically isolated communities in 54 of Iowa's 99 counties.



**Figure 7.5.** Integrated Testing Services (ITS) Service Areas







**Figure 7.7.** Community-Based Pharmacy Rapid HIV Testing Sites



**Figure 7.8.** Example of an in-home HIV test.

### Pharmacy-Based Testing:

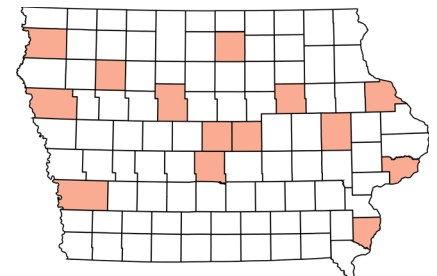
Since 2018, the bureau has supported the Iowa Pharmacy Association (IPA) to increase the availability and accessibility of rapid HIV and HCV testing in community-based pharmacies situated in geographic areas of unmet need. The ultimate goal of this project is to create non-traditional points of entry into systems of prevention, testing, and care by leveraging pharmacist expertise to overcome known barriers related to primary care provider shortages and stigma. In 2021, twelve participating pharmacy locations conducted a total of 24 tests.

### Home-Based HIV Testing:

Since July 2020, the bureau has supported home-based screening for HIV. These efforts were initially in partnership with one ITS site that made home-based rapid test kits available statewide. During 2021, 91 requests were made for home-based rapid HIV tests. In Dec. 2021, a second ITS site brought comprehensive STI and HIV home-collected test kits to scale statewide, offering an alternate screening option. In the first eleven months of this pilot, 79 people accepted HIV screening using this method.

## Iowa Primary Care Association (Iowa PCA) and Federally Qualified Health Centers (FQHCs)

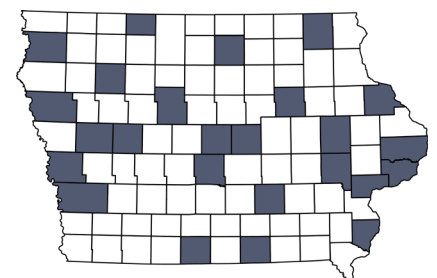
Since March 2014, the bureau has supported the Iowa PCA to work with the thirteen FQHCs and one Migrant Health Center to promote routine, opt-out testing for HIV, STIs, and HCV per the U.S. Preventive Services Task Force (USPSTF) and CDC guidelines. The ultimate goal is to create sustainable screening/testing practices that take advantage of the Affordable Care Act's (ACA) provision that allows for HIV and HCV testing without patient cost-sharing. Staff at the Iowa PCA provide training and technical assistance to support opt-out testing implementation. In 2021, twelve of the FQHCs participated in the routine opt-out screening project. FQHCs conducted 7,716 HIV tests during 2021.



**Figure 7.9.** FQHCs with Routine Screening Policies

## Family Planning (FP) Agencies and Clinics

Family Planning clinics play an important role in Iowa to provide access to sexual and reproductive health services, including HIV and STI testing. FP clinics are located in a variety of settings, including community health centers, county health departments, and community-based organizations. Twenty-one agencies have clinic sites located throughout the state, including rural areas where individuals may not have access to other providers. Family planning clinics provide confidential HIV and other testing as part of preventative medical exams. They also provide education and outreach to communities within their region and can respond to specific requests from members of the community for HIV-related workshops, materials, or training. Beginning in 2018, the Bureau of HIV, STI, and Hepatitis also began to pilot opt-out rapid HIV screening in one rural FP clinic where alternate rapid testing services were not available. In 2021, this clinic conducted 337 rapid HIV tests. Working in collaboration with the STI Program, the bureau will expand this pilot to other FP agencies and clinics in geographic areas that currently lack access to rapid HIV screening services.



**Figure 7.10.** FP Agencies and Clinics Providing HIV Screening

**Testing initiatives and projects supported by the Bureau of HIV, STI and Hepatitis aim to increase access to testing, reduce barriers, and fill gaps in services.**

## HIV LINKAGE TO CARE

Linking individuals newly diagnosed with HIV to medical care and support services in a timely manner improves long-term outcomes, including retention in care and viral suppression. In Iowa, linkage is facilitated by a skilled workforce of Disease Intervention Specialists (DIS). The Bureau of HIV, STI, and Hepatitis employs eleven DIS who serve ten different geographical regions in Iowa. Iowa's four most populous counties, Polk, Black Hawk, Linn, and Scott, also employ their own DIS who serve people in their respective counties. Although DIS in these four counties are employed by their county health departments, they all work closely with the bureau's STI Program and the eleven state DIS. Together, the state and county DIS are able to cover all of Iowa and offer services to people diagnosed with HIV, thus improving both the health of individuals and the public.

### Partner Services (PS)

In addition to linking individuals to care, DIS provide assistance to people newly diagnosed with HIV in notifying their sex and needle-sharing partners of their exposures. DIS interview newly diagnosed individuals and collect information about their partners within a specific timeframe. This information is used to locate and confidentially notify partners of their exposures so that they may be linked with medical care, including testing and treatment. If the person with the diagnosis (i.e., original patient) prefers, they may notify partners directly with assistance from the DIS. The Partner Services program is voluntary, and DIS uphold the strictest standards of confidentiality.



**Figure 7.11.** DIS provide assistance in helping newly-diagnosed persons notify their sex and needle-sharing partners.

### Rapid Start Programs

Guidelines have changed in recent years to reflect the importance of early treatment initiation. This has allowed patients to start treatment at the time of diagnosis. There are several benefits to beginning medical treatment as quickly as possible after an initial diagnosis. Early initiation of treatment can shorten the time between diagnosis and viral suppression, lower the risk of transmission sooner, improve retention in care, and reduce inflammation and immune activation.

HIV specialty clinics have begun to operationalize the rapid start of treatment, although they are still in the early stages of their implementation. Staff at clinics is learning what does and does not work and beginning to write policies and procedures. Partner agencies that conduct testing and linkage services are working closely with specialty and other local providers to develop referral protocols that support rapid linkage and treatment starts to shorten the window between diagnosis and treatment initiation.

## RETENTION IN HIV CARE

Numerous federal departments and agencies are involved in the HIV response. The key programs that provide health insurance coverage, care, and support to people with HIV in the U.S. include the Ryan White HIV/AIDS Program, Medicaid, Medicare, and the Housing Opportunities for Persons with HIV/AIDS Program (HOPWA). In addition, the passage of the ACA in 2010 provided new opportunities for expanding health care access, prevention, and treatment services for millions of people in the U.S., including many people living with or affected by HIV.

Importantly for PLHIV, there are provisions in the ACA that make access to health coverage more feasible. These include the expansion of Medicaid in many states (including Iowa), a prohibition on insurance rate-setting tied to health status, the elimination of health insurance exclusions for preexisting conditions, and an end to lifetime and annual caps on health insurance expenditures.

**The next section concerning retention and viral suppression will describe the following programs and health insurance coverage options that provide care and support services for PLHIV in Iowa:**

- Ryan White HIV Program—Parts B, C, and F
- Health Insurance Options—Employer-sponsored, Marketplace, Off-Marketplace
- HOPWA
- Medicaid/Medicare

All of these programs combine to create a web of support for retaining PLHIV in care and assisting them in achieving optimal health outcomes.

## **Ryan White HIV Program**

The Ryan White Program is administered by the U.S. Department of Health and Human Services (HHS) through the Health Resources and Services Administration (HRSA). It is the largest federal program designed specifically for people with HIV in the United States. It provides outpatient care and support services to individuals and families affected by the disease, functioning as the “payer of last resort,” by filling the gaps for those who have no other source of coverage or face coverage limits or cost barriers.

The legislation was first enacted in 1990 as the Ryan White CARE (Comprehensive AIDS Resources Emergency) Act. It has been amended and reauthorized four times, in 1996, 2000, 2006, and 2009. The current iteration of the legislation is called the Ryan White HIV/AIDS Treatment Extension Act of 2009 (Public Law 111-87, October 30, 2009).

The Ryan White Program is divided into multiple “parts” that fund different categories of services. The majority of Ryan White funds in Iowa support primary medical care (Part C) and essential support services (Part B). A smaller but equally critical portion funds technical assistance, clinical training, and research on innovative models of care (Part F). These three programs, and how they operate in Iowa, are described in the following pages. Visit the [Program Parts & Initiatives](#) page of the Ryan White website for more information.

### **THE RYAN WHITE HIV/AIDS PROGRAM: KEY FACTS**

- The Ryan White HIV/AIDS Program, first enacted in 1990, is the largest federal program designed specifically for PLHIV, serving over half of all those diagnosed. It is a discretionary, grant program dependent on annual appropriations from Congress.
- It is the nation’s safety net program for PLHIV, providing outpatient HIV care, treatment, and support services to those without health insurance and filling in gaps in coverage and cost for those with insurance limitations.
- Most Ryan White clients are low-income, male, people of color, and half are gay and bisexual men and other men who have sex with men.
- The program is the third largest source of federal funding for HIV care in the U.S., following Medicare and Medicaid and is the largest source of HIV discretionary funding. Funding is distributed to states/territories, cities, and HIV organizations in the form of grants. In FY 2022, the Ryan White HIV/AIDS Program was funded at \$2.5 billion which includes continued funding for the federal “Ending the HIV Epidemic” initiative.
- Originally enacted as an emergency measure, the Ryan White program has grown to become a central component of HIV care in the U.S., playing a critical role in the lives of many low and moderate-income PLHIV.

Note. From [The Ryan White HIV/AIDS Program: The Basics](#). KFF, 2022.

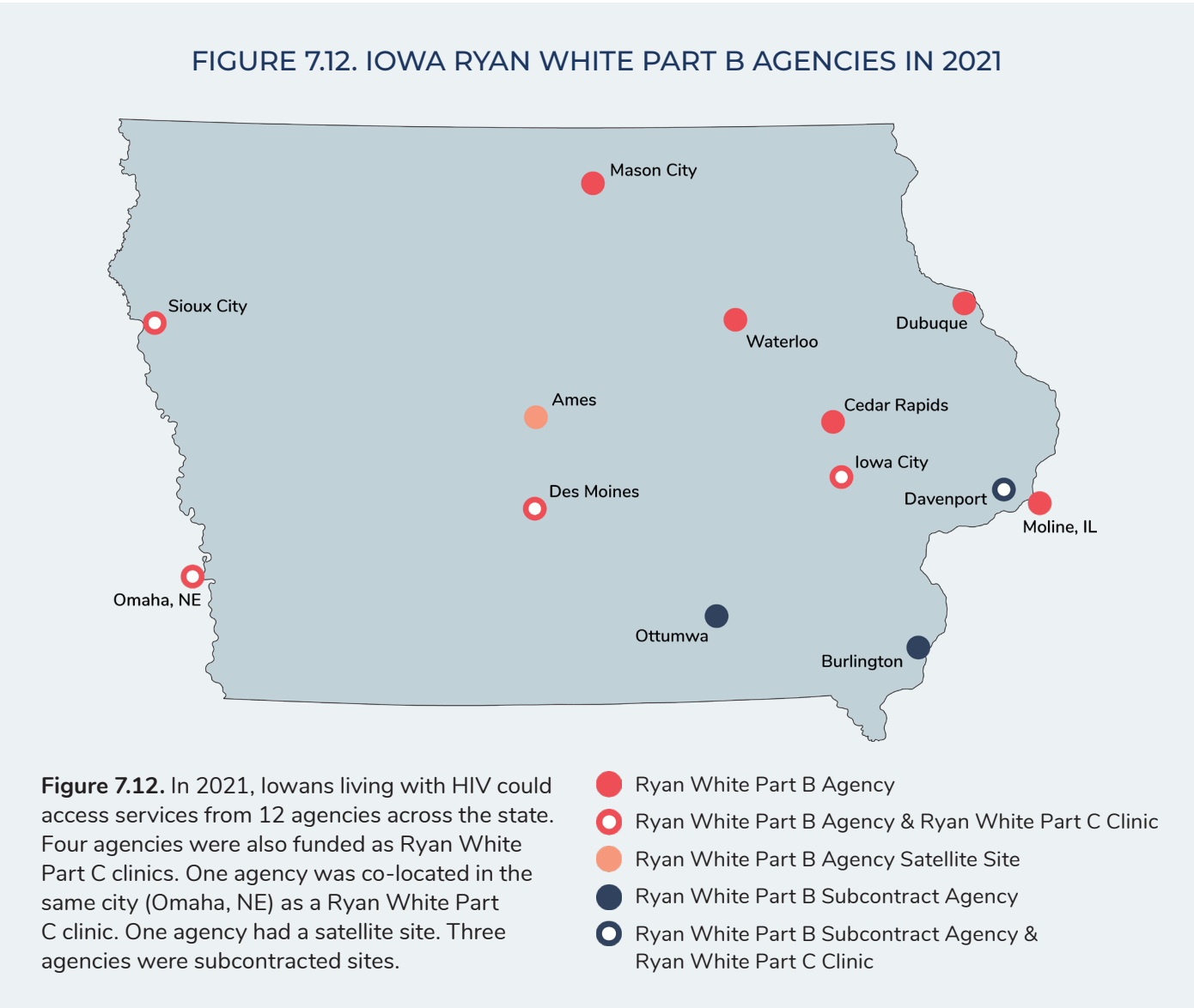
Ryan White Part B Program—Support Services and the Drug Assistance Program

Ryan White Part B (RW Part B) provides grants to all 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and 5 U.S. Pacific Territories or Associated Jurisdictions. The purpose of these grants is to improve the quality, availability, and coordination of HIV-related health care and support services, including the AIDS Drug Assistance Program (ADAP).

Iowa HHS is Iowa’s grantee for the RW Part B program. The grant consists of a base award, plus the AIDS Drug Assistance Program (ADAP) earmark. Additional resources have expanded program offerings through an ADAP Emergency Relief award, Ryan White Part B Supplemental funding, state funding, and pharmaceutical rebates related to the 340B Drug-Pricing Program.

In Iowa, PLHIV face many barriers to navigating and accessing HIV care, such as transportation, stigma, and lack of financial resources. RW Part B-funded staff, especially case managers, play a vital role in helping clients navigate and access HIV care and other critical services that enable them to stay in care.

In 2021, 12 agencies provided RW Part B-funded services to PLHIV. The Bureau of HIV, STI, and Hepatitis directly contracted with nine agencies across the state. Three agencies were subcontracted sites. Figure 7.12 displays where the 12 agencies were located in Iowa.



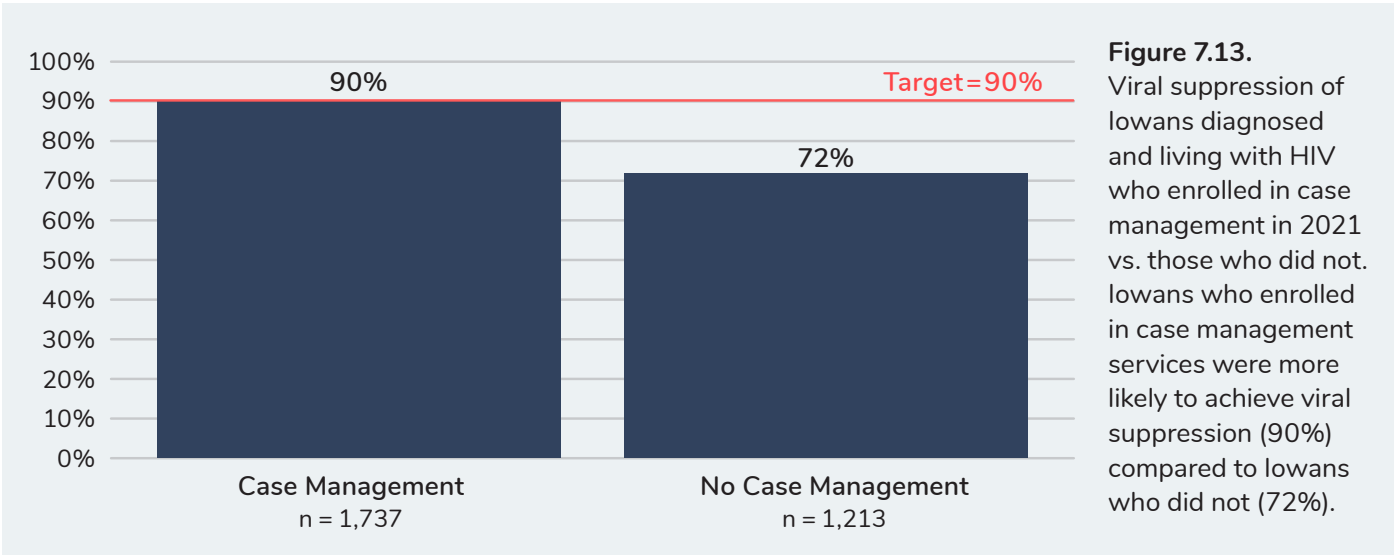
Ryan White providers provide essential health and supportive services to financially eligible clients living with HIV. All Ryan White programs are “payers of last resort,” meaning that all other resources, Ryan White providers provide essential health and supportive services to financially eligible clients living with HIV. All Ryan White programs are “payers of last resort,” meaning that all other resources, including Medicaid and Medicare, need to be used before the RW Program “completes” payment for services. In 2021, more than 2,000 persons living with HIV received services through the RW Part B Program.

Since 2016, when funding amounts increased significantly thanks to Ryan White Part B Supplemental funding and 340B pharmaceutical rebates, Ryan White Part B agencies have offered a robust array of core medical and support services, all aimed at assisting individuals to stay engaged in their care. Services and assistance include, but are not limited to, the following: four levels of case management, based on need; health insurance; oral health care; mental health care; substance use disorder care; transportation; food; housing; linguistic services; nutritional therapy; and more.

The AIDS Drug Assistance Program (ADAP), a component of the Ryan White Part B Program, provides medications for low-income lowans with HIV without health insurance. It also assists with costs for health insurance, including premiums, co-pays, and deductibles for those who have access to health insurance policies or programs. ADAP comprises three components: the Medication Assistance Program, the Insurance Assistance Program, and a county Jail Assistance Program. The Jail Assistance Program began in January 2020. When a PLHIV is incarcerated in a county jail, medical staff may submit an application to ADAP for assistance with medication costs. Each approval provides one 30-day supply of medications for the client. Jails may continue to submit monthly applications for the duration of the individual’s incarceration. Medications are sent directly to the jail and are the property of the person who is incarcerated. When the request for ADAP Jail Assistance involves a client who is enrolled in case management, ADAP staff notifies the client’s case manager. If the client has not enrolled in case management, then ADAP staff notifies the Data-to-Services Coordinator (DTSC). The DTSC then ensures the individual is linked to HIV medical care upon release.

In 2021, approximately 829 individuals (approximately 28% of all people diagnosed and living with HIV in the state) were enrolled in Iowa’s ADAP. Ten percent of those enrolled utilized the Medication Assistance Program, 58% utilized the Insurance Assistance Program, and 32% needed both Insurance and Medication Assistance at different times during the year. In 2021, an additional 42 PLHIV received services through the ADAP Jail Assistance program.

Ryan White Part B case management services have a strong impact on viral suppression among lowans diagnosed and living with HIV. The following figures display viral suppression among lowans diagnosed and living with HIV who were enrolled in case management vs. those who were not enrolled in case management.





## Ryan White Part C Programs

Part C of the Ryan White HIV/AIDS Treatment Extension Act of 2009 provides grants directly to service providers such as ambulatory medical clinics to support outpatient early intervention services and ambulatory care. The Part C Early Intervention Services component of the Ryan White HIV/AIDS Program funds comprehensive primary healthcare in an outpatient setting for PLHIV in Iowa. There are four Ryan White Part C clinics in Iowa: Siouxland Community Health Center in Sioux City, Primary Health Care in Des Moines, University of Iowa Hospitals and Clinics in Iowa City, and Genesis Medical Center in Davenport and are shown in Figure 7.12 on page 37. In addition, the University of Nebraska Medical Center in Omaha, NE, serves PLHIV from western Iowa.

In fiscal year 2022, Iowa's four Part C clinics received approximately \$1.6 million in funding and were able to provide the following services to approximately 1,500 patients:

- Risk-reduction counseling, antibody testing, medical evaluation, and clinical care;
- Antiretroviral therapies; protection against opportunistic infections; and ongoing medical, oral health, medical nutritional therapy, psychosocial, ophthalmology, and other care services;
- Case management to ensure access to services and continuity of care for PLHIV;
- Support services such as linguistic services; and
- Other services, including addressing tuberculosis and substance use disorders.

## Ryan White Part F—Midwest AIDS Education and Training Center

Part F provides funds for a variety of programs, such as Special Projects of National Significance Programs (SPNS), The AIDS Education and Training Centers (AETC) Program, Dental Programs, and the Minority AIDS Initiative.

The AETC Program focuses on training a diverse group of clinicians, including physicians, advanced practice nurses, physician assistants, nurses, oral health professionals, and pharmacists. The AETC Program also works with other multidisciplinary HIV care team members working in Ryan White HIV/AIDS Program and STI clinics, hospitals, community-based organizations, health departments, mental health and substance use disorder treatment facilities, and other health care facilities.

The Midwest AIDS Training + Education Center (MATEC) serves Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin through a central office in Chicago, Illinois, and its local partners (LPs). Since 2016, Iowa's LP has been the University of Minnesota - Twin Cities (MATEC-MN). The bureau contracts with MATEC-MN to provide a robust Lifelong Learner program, professional development opportunities, shadowing/mentorship opportunities, a practice transformation project with a Ryan White Part C clinic, and a clinical scholars program.

## Housing Opportunities for People with AIDS (HOPWA)

HOPWA is a federal program funded by the United States Department of Housing and Urban Development (HUD). HOPWA provides housing assistance and related supportive services to address specific needs of low-income people living with HIV to establish or maintain a stable living environment. HOPWA also works to reduce homelessness and to improve access to health care. Services include tenant-based rental assistance (TBRA); short-term rent, mortgage, and utility assistance (STRMU); housing case management; and other supportive services for those living with HIV. According to data reported by the Iowa Finance Authority, Iowa's HOPWA grantee, approximately \$675,000 was distributed to 190 households in Iowa in the form of housing subsidy assistance through HOPWA in 2021. The Iowa Finance Authority partners with five community-based organizations to offer services across the state.

## MEDICAID

Medicaid is the largest public health insurance program in the United States, covering health and long-term care services for more than 73 million low-income individuals. Medicaid has played a critical role in HIV care since the epidemic began. Its role has grown over time as people with HIV live longer and healthier lives. The program was expanded under the Affordable Care Act (ACA) in many states, including Iowa. Nationally, Medicaid is estimated to cover 42% of adults with HIV. By comparison, just 13% of adults in the general population are covered by the program.

With implementation of the ACA in 2014, many low-income Iowans living with HIV transitioned from ADAP to Iowa's expanded Medicaid managed care program known as Iowa Health Link. Fee-for-service Medicaid is also available for PLHIV who are co-enrolled in other programs like Medicare, the Medically Needy Program, or the Health Insurance Premium Payment Program. Even before the ACA, Iowa's Bureau of HIV, STI, and Hepatitis had been working to improve our understanding of the usage of Medicaid by Iowans living with HIV. Since 2013, a limited data-sharing agreement between the Iowa Department of Public Health and the Iowa Department of Human Services allowed Ryan White Part B Program staff to access enrollment information to ensure Ryan White payer-of-last-resort requirements and confirm receipt of specific HIV-related services.

In July 2022, the two departments merged to form the Iowa Department of Health and Human Services. The merger was undertaken to improve health and human service delivery for Iowans, including improving use and integration of data across the two departments to better coordinate services, focus services for maximum impact, and drive continuous improvement while preserving confidentiality and statutory privacy protections. As such, the Bureau of HIV, STI, and Hepatitis and Iowa Medicaid now enjoy a more robust data-sharing agreement that involves routine matching of client-level data. In 2021, 1,263 Iowans living with HIV were enrolled in Medicaid (43% of all Iowans diagnosed with HIV). Fifty-two percent participated in AmeriGroup Iowa, 42% in Iowa Total Care, and 6% in fee-for-service Medicaid. Overall, 86% of Medicaid participants achieved viral suppression. While viral suppression differed only slightly between the three plans, people in fee-for-service programs had the largest gap between the number of people engaged in care (99%) and the number who achieved viral suppression (84%).

The Iowa RW Part B Program continues to provide support for Medicaid participants through benefits counseling and enrollment assistance at each of the case management agencies across the state.

## MEDICARE

Medicare is the federal health insurance program for seniors (age 65 and older) and people under age 65 with permanent disabilities. Prior to implementation of the ACA, Medicare accounted for approximately one quarter of federal spending on HIV care in the U.S. and is an important source of coverage for PLHIV. Historically, Iowans living with HIV qualified for Medicare through the permanent disability pathway. In 2022, there were 597 Ryan White clients enrolled in case management who also were enrolled in Medicare. Of those, 217 were using ADAP to access assistance with the cost of their premiums, coinsurance, copays or deductibles. The number of Ryan White clients enrolled in Medicare has increased 504% since 2013. In 2015, all Ryan White benefits specialists became SHIIP (Senior Health Insurance Information Program) certified to serve Ryan White clients enrolled in Medicare better. Since the implementation of the partnership with SHIIP, there has been a significantly increased number of eligible Ryan White clients on Medicare screened and enrolled in Medicare savings programs that provide assistance with Medicare Part B and Part D premiums and copays.

## CROSS-CUTTING EFFORTS

In addition to the aforementioned programs and services, a number of initiatives affect more than a single part of the HIV Continuum of Care. These efforts are outlined below.

### Health and Racial Equity

The Health Equity Program was officially established in 2017 with the hiring of the bureau's first Health Equity coordinator. The Health and Racial Equity Coordinator position and program were created upon the recommendation of the community to address health disparities in prevention, care, and health outcomes among populations most impacted by HIV, STIs and Hepatitis. The program increases the capacity of bureau staff, subrecipients, and community partners to meet the needs of populations experiencing disparate health outcomes due to racism, sexual orientation and gender discrimination, and unjust social determinants of health.

The Health and Racial Equity program currently operates across all bureau programs; it has four focus areas:

- A. Leadership development—Bureau leadership is engaged in an ongoing process to institutionalize policies, practices, and programmatic guidance to address health inequities in HIV, STI, and hepatitis health outcomes.
- B. Bureau staff capacity building and training—Staff participate in training and knowledge sharing to increase their capacity to address health inequities in their teams and individual roles.
- C. Bureau subrecipient capacity building and training—Bureau funded sites that provide prevention and care services have health equity related contract, reporting, and quality improvement requirements. The health equity program provides training and guidance to subrecipients to assist them with meeting their health equity goals.
- D. HIV, STI, hepatitis provider and community partner engagement—The Regional Health Equity Specialist is responsible for engagement and outreach to HIV, STI, and Hepatitis workforce and community partners to improve access to care and prevention services for disproportionately impacted populations.

### Data-to-Services Program

In late 2014, Iowa began developing its re-engagement program using “Data-To-Services” (DTS), a public health strategy that employs HIV surveillance data to identify people diagnosed with HIV who are not in care, link them to care, and improve health outcomes. In 2019, a Data-to-Services Coordinator (DTSC) was hired to facilitate and expand the re-engagement program. The DTS Program has established a streamlined process where all referrals and outreach plans are sent to and tracked by the DTSC. Referrals (i.e., people who are out of care or at high risk for falling out of care) can come from case managers, nurses, private medical providers, the HIV surveillance office, DIS, or the STI Program.

To ensure those PLHIV with the highest needs are being addressed quickly, the following groups or populations are currently prioritized for re-engagement services:

- People with high viral loads and/or low CD4+ cell counts
- Women under 40 years of age
- Men who have sex with men (MSM) who are under 35 years of age
- Black/African American people

Because of the unique population distribution of PLHIV in Iowa, the DTS Program quickly recognized the need for a community-based team approach for outreach and re-engagement services. Case managers, nurses, Disease Intervention Specialists (DIS), and the DTSC all have roles they play in outreach efforts for a PLHIV who is out of care.

In 2021, there were 123 referrals made to the DTS Program; 52 from Part B agencies, 6 from Part C clinics, 57 from the HIV surveillance office, and 8 from the STI Program/DIS. In addition, the DTS Program completed 123 data-to-services investigations where updated client contact information was obtained and returned to agency staff for continued client outreach. Finally, 50 case consultations were completed where information was gathered from a variety of service providers (e.g., case manager, nurse, DIS, etc.) about a client's situation in an effort to determine the appropriate next steps in the re-engagement process.

Substance Use Treatment

The Bureau of Substance Use Disorder Prevention, Treatment, and Recovery within the Department of Health and Human Services is responsible for regulating and licensing approximately 120 substance use disorder (SUD) treatment programs. Services offered include assessment/evaluation; continuing care; extended outpatient; intensive outpatient; day treatment; and residential care. Additionally, the bureau supports substance use and problem gambling services through the Integrated Provider Network (IPN). The IPN is a statewide, community-based resiliency- and recovery-oriented system of care for substance use and problem gambling services (prevention, early intervention, treatment, and recovery support). IPN services are funded by the state General Fund appropriation for substance use and problem gambling services and the Substance Abuse and Mental Health Services Administration (SAMHSA).

In 2017, the Bureau of HIV, STI, and Hepatitis and the Bureau of Substance Use Disorder Prevention, Treatment, and Recovery partnered to develop a new position to improve the integration of work across SUD and infectious disease. This shared position, the Systems Integration Coordinator, serves as a liaison between the two bureaus to improve systems of care and coordinate collaborative work. The Systems Integration Coordinator works to identify areas for collaboration and integration utilizing a **syndemic approach**. In 2019, the two bureaus participated in a HRSA SPNS project in partnership with JSI Inc. The goal of the project was to improve systems of care for PLHIV and SUD. A 3-year work plan was developed with activities in the areas of service provision, stakeholder engagement, workforce development, and data sharing and reporting. The project ended in 2022 and an internal workgroup was established to continue implementing the strategies and activities to move this work forward.

WHAT IS A SYNDEMIC APPROACH?

**Syndemic**—National HIV/AIDS Strategy 2022-2025 Definition

A set of linked health conditions—such as HIV, viral hepatitis, STIs, and substance use and mental health disorders—that adversely interact with one another and contribute to an excess burden of disease in a population.

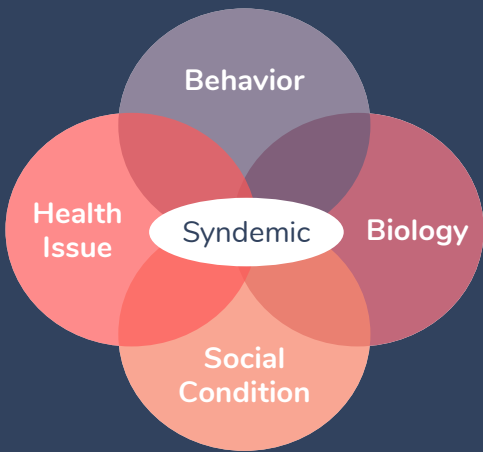
What defines a syndemic?

The health conditions are:

- 1. **Co-occurring within certain contexts**
- 2. **Interacting in meaningful ways**, often through biological processes but potentially through social or psychological processes and
- 3. **Sharing one or more upstream factors driving their co-occurrence and interaction**, which may include dynamics that are structural, social, cultural, ecological and economic in nature.

A **syndemic approach** focuses on the **adverse interactions between diseases and social conditions** in a population, specifically drawing attention to the mechanisms of these interactions.

*Note. From Integrating Services to Address the Syndemics of HIV, STIs, Substance Use Disorder, and Viral Hepatitis. TAP-in, 2023.*



## Social Marketing, Media, and Mobilization

Ongoing social marketing efforts seek to share information pertaining to HIV prevention, testing, treatment, and care with Iowans. Special care has been given to creating marketing materials that reflect the people and places of Iowa.

For the general population, messaging has focused on education, awareness, and straightforward calls to action. These messages are placed in Iowa's 17 largest metro newspapers each month, with a combined readership of 1.5 million. Video and banner ads are placed on the same newspapers' websites. Periodically throughout the year, print advertisements are also placed in over 200 community newspapers, reaching every corner of the state. These papers have a combined readership of 925,000, focused in Iowa's most rural communities. Finally, digital advertising is also used to reach the general public. Recent original campaigns have included *No Matter Who You Are (An HIV Test is Right for You)*, *HIV Affects Everyone*, and *We Can Stop HIV, Iowa*.

Special populations have received additional messaging tailored to the interests and needs of each group. These populations have included MSM, healthcare providers, Spanish speakers, members of the LGBTQ+ community, and others. Messages aimed at these groups share more specialized information and are frequently more in-depth. Print advertisements have been placed in over 20 niche publications around the state, to make sure that all high-priority groups receive messaging unique to them. In addition, a variety of digital tactics have been utilized to ensure wide reach among target populations. These tactics included social media advertising, advertising on niche digital applications and platforms, and targeted advertising based on the audiences' online activities. Recent original campaigns have included *You Hold the Key*, *We're Making a Plan to Stop HIV in Iowa*, and *Take Pride (in knowing your HIV status)*.



**Figure 7.14.** Messaging produced as part of social marketing efforts around HIV prevention, testing, treatment, and care in Iowa.



## Public Health Detailing

In 2016, as part of Iowa's 2017-2021 Comprehensive HIV Plan, the Bureau of HIV, STI, and Hepatitis developed an initiative that employed Regional Health Specialists (RHS) to provide clinical education to Iowa's health and services provider workforce. Through a discipline called "academic detailing," RHS provide evidence-based HIV, STI, and hepatitis education, especially to providers in rural parts of the state.

Currently, there are six regionally-located RHS. When RHS deliver support and education to their stakeholders, those clinicians and service providers make better, evidence-based decisions, and those decisions improve the health of diverse populations throughout Iowa. Facilitated by the relationships developed between the RHS and the clinical/ service provider workforce, patients have improved access to culturally responsive prevention services, including PrEP, condoms, and STI/HIV testing. Additionally, PLHIV face reduced stigma when accessing primary care and other services in rural communities and through the work of the RHS, providers are more aware of resources available to help PLHIV get into and stay in care.

## Policy Initiatives

The following is a list of policy initiatives that have been enacted over the past several years. These structural approaches to HIV in Iowa have been met with a great deal of success.

### Use of Surveillance Data—Molecular Surveillance

The bureau developed an HIV Cluster and Outbreak Detection and Response Plan in 2020 and began conducting cluster detection activities as part of regular HIV surveillance in 2021. The plan was presented to and discussed with CPG and other stakeholders at meetings and contractor training events. On a monthly basis, a team of 10–15 bureau staff members gather to review data on people who have been associated by their molecular HIV sequences. The team reviews partner service interviews, case management notes, and other sources of data to determine whether additional follow up is needed. To date, 19 additional partners have been tested, 14 people were referred to the Data-to-Services Program, and many more have received additional services or other follow up. In addition, staff has gained insight into transmission patterns in Iowa.

### Administrative Rules—Ryan White Part B Program Eligibility

In 2022, the bureau revised administrative rules (Iowa Administrative Code 641 Chapter 11—Acquired Immune Deficiency Syndrome) to expand the eligibility for the AIDS Drug Assistance Program from 400% FPL to 500% FPL for medication and insurance assistance. Ryan White Program staff had noted that a growing number of clients were seeing higher levels of income following the lifting of COVID-related restrictions. For example, some clients were finding extra work or were being required to work overtime in service-related jobs. The increase in income threatened their eligibility for services and could potentially force people to choose between jobs and health benefits. The increase in program eligibility took effect on September 14, 2022.

### Iowa Code 709D, Contagious or Infectious Disease Transmission Statute

In May 2014, advocates in Iowa were successful in working with legislators to repeal Iowa Code 709C, the Criminal Transmission of HIV law, and replaced it with Iowa Code 709D, the Contagious or infectious Disease Transmission Act. The new statute requires that a person with a number of serious contagious or infectious diseases (i.e., HIV, hepatitis in any form, meningococcal disease, and TB) protect others from exposure by taking practical means to prevent transmission. Disclosure of status is not required. The practical means include substantial good-faith compliance with a treatment regimen (if applicable) and use of barrier methods when an exposure would present a "substantial risk" of transmission. The new statute also established a range of penalties for exposing and/or infecting others by acting with reckless disregard or intent to transmit the disease agent.

In 2022, staff from the bureau reviewed the law's implementation. Under Iowa Code 709C (1998–2014), there were 25 convictions of 16 lowans living with HIV. All were class B felonies (up to 25 years), and all included being listed on the sex offender registry. Under Iowa Code 709D (2015–2021), there have been 18 convictions of 10 people. Two persons were charged with class D felonies (up to 5 years), which require transmission and/or intention to transmit. No one has been convicted of a class B felony. The remaining eight persons were convicted of misdemeanors. Half of these people received suspended sentences or no jail time as part of the sentences. While advocates hoped to eliminate criminalization of people with HIV, the new statute has substantially reduced the number of people convicted of felonies related to exposure of others to HIV or other infectious diseases. Notably, no one has been convicted of a class B felony or been added to the sex offender registry, a significant improvement over the previous statute.

### Syringe Services Programs (SSPs)

Iowa's drug paraphernalia law (Iowa Code 124.414) prevents Syringe Services Programs (SSPs) from legally distributing syringes or other drug equipment in the state. Several bills have been introduced to allow for legal SSPs; however, none has been successful. The most recent bill was introduced in 2019. This bill sought to amend the drug paraphernalia law and establish a pilot SSP program administered by the Iowa Department of Public Health. The bill proposed establishing a certification program administered by the Department to authorize harm reduction providers and set forth data collection and program evaluation expectations. The bill was not passed and no changes were made to Iowa's drug paraphernalia law.

### Naloxone Overdose Prevention

In 2016, Iowa passed SF2218 into law, which allowed Iowa pharmacies to dispense naloxone by a standing order to eligible laypersons, including “an individual at risk of an opioid-related overdose or to a person who may be in a position to assist an individual at risk of an opioid-related overdose.” Naloxone is an opioid antagonist that can reverse an opioid or heroin overdose when administered intramuscularly or as a nasal spray. In 2018, a “Good Samaritan” law for drug overdoses was passed as part of HF2377. The law encourages people who witness a drug overdose to call 911, rather than leaving for fear of police involvement, by providing limited protections for overdose reporters.

As overdoses continued to hit record highs, the Bureau of Substance Use Disorder Prevention, Treatment, and Recovery partnered with the University of Iowa Hospital and Clinics (UIHC) in 2019 to develop a tele-medical program for nasal-spray naloxone distribution. This program, called Tele-Naloxone, allows individuals to set up a virtual appointment with a pharmacist at UIHC, register as a patient, and receive free naloxone mailed to wherever they live in Iowa. To expand access to free naloxone further, the bureau worked with the Iowa Board of Pharmacy in 2020 to develop the Naloxone Dispensing Program for interested Iowa community-based pharmacists. The program allows pharmacists to order and dispense free nasal-spray naloxone without a prescription to individuals. In 2021, the bureau also worked to develop a protocol to increase access to free nasal-spray naloxone for businesses and organizations.

In 2022, HF2573 was passed by the Iowa General Assembly to create a state fund for naloxone access by first responders and to allow schools to have naloxone on-site. Now, businesses, organizations, and schools are able to request naloxone from HHS to use in case of an overdose emergency.



Figure 7.15. A promotional image for the Tele-Naloxone program.

## WORKFORCE INVENTORY

Iowa has built a strong infrastructure and system of prevention, linkage, and care for ending the HIV epidemic in Iowa—especially so in the last five to six years with much needed funding increases. Described below are those systems as they exist as of the writing of this plan. Systems that are internal to the Bureau of HIV, STI, and Hepatitis are described first: HIV surveillance, hepatitis prevention, and sexually transmitted infections. Systems external to the bureau are described next: PrEP/nPEP providers, Integrated Testing Services (ITS) providers, medical providers and nurses, case management and support services personnel, clinics and medical facilities, among others). The following section describes gaps, barriers, and challenges the workforce is facing.

### HIV Surveillance Program

The goal of the Iowa HIV/AIDS Surveillance Program is to provide a comprehensive picture of the HIV/AIDS epidemic through data collection, quality assurance, and analysis and to support prevention and health service activities delivered by staff in the Bureau of HIV, STI, and Hepatitis in partnership with a statewide system of health care and social service organizations. Epidemiologists are responsible for the collection, analysis, and interpretation of adult and pediatric HIV/AIDS case data. Data-to-services activities, including HIV partner services, linkage to care, and re-engagement activities are initiated by the surveillance office. Aggregated HIV surveillance data are disseminated widely throughout the state to governmental agencies, public and private providers, advocacy groups, and community members. The program distributes specialized and routine data reports. The program also works collaboratively with the HIV and Hepatitis Community Planning Group (CPG), other planning and policy groups, health care providers, and other staff at Iowa HHS, providing surveillance information and assisting with assessment of resource distribution and ongoing planning to ensure that the needs of people living with or affected by HIV are met.

### Bureau Data Team

The Data Team comprises 13 bureau staff members whose positions involve considerable collection, use, or interpretation of data. The team meets monthly to review trends within HIV, STI and viral hepatitis data, assess priority cases, and serve as a data community of practice for the bureau. The data team is tasked with setting standards for the collection, review, and analysis of data, as well as standardizing data dissemination, materials, and products. Staff members from surveillance, prevention, quality improvement, STI, viral hepatitis, and Regional Health Specialists work collaboratively to evaluate current data analyses, assess data gaps, develop methodology, and propose improvements for better use of data.

### Cluster Monitoring Team

The Cluster Monitoring Team comprises 15 staff members who meet monthly to discuss the updates to clusters of people who have been associated through analysis of their molecular HIV sequences. The team includes staff with access to HIV, STI, and hepatitis surveillance data; HIV and hepatitis programmatic data; case management data; out-of-care data; DIS and partner services data; and public data sources. The team reviews the cluster information and assigns action steps to various members to ensure linkage to care or prevention services and to complete partner services activities. The team reviews active CDC-defined clusters as well as pre-clusters: smaller groups of people and partners who might benefit from additional follow up to keep the transmission cluster from growing any larger.

### Iowa Hepatitis Prevention Program

The Bureau of HIV, STI, and Hepatitis has a cooperative agreement with CDC for viral hepatitis surveillance and prevention services and utilizes state general funding from the Iowa General Assembly to administer viral hepatitis prevention services. Prevention services are focused on HCV and integrated into HIV prevention activities. All ten ITS sites administer HCV testing, and ITS programs also have the option

of offering adult hepatitis A and hepatitis B vaccinations as part of their efforts. HCV testing is offered free-of-charge to people who report having ever injected drugs. The test is a 20-minute rapid HCV-antibody test. People who test antibody-positive undergo a blood draw, which is sent to a laboratory to conduct RNA confirmatory testing.

In 2020, the bureau was awarded additional funding from the CDC to support special projects to address the infectious disease consequences of injection drug use. The goal of this funding is to increase access to the prevention, diagnosis, and treatment of viral hepatitis B and C, HIV, and bacterial and fungal infectious disease consequences of drug use among people who inject drugs (PWID). Select ITS sites and other community-based partners have integrated a “PWID service bundle” into existing services that includes access to harm reduction supplies/education, assessment for substance use disorders, testing for HCV, HBV, and HIV, vaccines for hepatitis A and B, and referral to services such as SUD treatment, access to naloxone, and treatment for infectious diseases (viral, bacterial, and/or fungal).

### Iowa STI Program and Community Based Screening Services

The STI Program at the Bureau of HIV, STI, and Hepatitis is primarily funded via a cooperative agreement with the Division of STD Prevention at the CDC, but it also receives some state money for testing and treatment of STIs. The STI Prevention Program works to reduce the burden of chlamydia, gonorrhea, and syphilis in Iowa, reduce HIV acquisition and transmission, and reduce health disparities, through a number of strategies. These strategies include accessible STI testing and treatment in accordance with CDC guidelines, maintenance of a network of 60 clinics that provide safety-net clinical services via the Community-Based Screening Services (CBSS) program (see below), delivery of partner services through deployment of Disease Intervention Specialists (DIS), training and technical assistance to STI care and treatment providers, and assurance of care, treatment, and prevention services for people newly diagnosed with an STI. The STI Program oversees STI surveillance and monitors the quality and timeliness of the public health response to these infections.

CBSS provides testing for chlamydia and gonorrhea to eligible patients through a network of approximately 60 clinics. CBSS is a safety-net provider of testing services for those who do not have insurance or are unwilling to use it because of confidentiality concerns (i.e., the primary insurance beneficiary or policyholder might be a parent, spouse, or other person who would be notified of the services the patient received through the Explanation of Benefits that is sent by the insurance provider). The majority of the participating sites are either STI clinics (housed within local/county health departments) or family planning clinics. There are a small number of other clinic types, including those housed within correctional facilities or schools. Clinicians at CBSS clinic sites are experienced with STIs and offer expertise that may be lacking among some primary care physicians at private clinics. CBSS sites have access to laboratory testing at the State Hygienic Laboratory (SHL) for tests that are of particular importance to public health through the Tests of Public Health Significance (TOPHS). TOPHS ensures testing is available to individuals at no cost if they meet eligibility criteria. These tests include HIV, syphilis, and hepatitis B and C. CBSS provides approximately 28,000 chlamydia/gonorrhea tests annually at its clinic sites.

### PrEP/nPEP Providers

PrEP and nPEP can be prescribed by any health care provider licensed to write prescriptions. At its core, PrEP is a primary care strategy and should not be considered a specialized or infectious disease service. Since 2016, Iowa has seen a 438% increase in the estimated number of PrEP users. Ninety-seven unique PrEP providers representing 51 clinic settings have agreed to be publicly listed on the Iowa PrEP directory. Additionally, Iowa’s TelePrEP program provides statewide telemedical delivery of PrEP services. In October 2021, the Iowa TelePrEP program received approval to formally include nPEP in the program’s service offerings.

## Integrated Testing Services (ITS)

ITS sites are evenly distributed throughout the state in or near the ten most populous counties. Capacity of the ten ITS sites improved in 2017 when each site went from .25 FTE to 1.0 FTE (minimum) dedicated to ITS activities. The increase in staffing dedicated to implementing ITS activities has greatly increased the capacity and geographic reach of the program.

## HIV Case Management and Support Services

As previously mentioned, there are 12 Ryan White locations throughout the state that provide case management and support services to PLHIV. Since 2016, HHS has drastically increased the amount of funding available to contracted sites providing case management and support services. Between 2016 and 2022 the number of full-time employees increased from 38 to 69, nearly an 82% increase.

## Infectious Disease Providers and Providers who Treat HIV

Iowa has developed a system of “centers of excellence” for HIV primary medical care, with the centers being in or contiguous to the ten most populous counties that also have the highest prevalence of PLHIV. An assessment conducted in 2020 revealed 69 medical providers (physicians, nurse practitioners, and physician assistants) who provide HIV care to Iowa residents living with HIV. This includes telemedicine clinicians and clinicians with multi-state licenses who may see Iowa residents living with HIV.

There are five Ryan White Part C clinics available across the state (and in Nebraska), two Veterans Affairs clinics (Des Moines and Iowa City), and nine state correctional facilities that treat PLHIV. In addition, all ten counties have at least one private infectious disease specialist and/or clinic that cares for PLHIV. Other FQHCs and safety net providers in the state refer patients to these centers of excellence and/or work collaboratively with the centers. Despite this, 28% of PLHIV who responded to the 2019 Consumer Needs Assessment travel an hour or more to reach an HIV specialist.

## Iowa Primary Care Association (Iowa PCA) and Federally Qualified Health Centers (FQHC)

Iowa currently has thirteen FQHCs located within its borders, with over 60 clinic- and community-based locations throughout Iowa and Illinois. Iowa also has one migrant worker health program with three locations across the state. FQHCs provide equitable access to healthcare by serving low income and medically under-resourced communities. FQHCs utilize an integrated care model where patients can access comprehensive medical, behavioral health, dental, and pharmacy services. Additionally, they provide a broad range of support services to address barriers to care a patient might face, such as lack of transportation, houselessness, food insecurity, and more. In 2021, Iowa FQHCs served 252,926 patients. Two FQHCs house Ryan White Part C clinics.

## Hospital and Medical Centers

In Iowa, there are 118 acute care hospitals; two Iowa-based Veterans Administration Hospitals (Iowa City and Des Moines) and one in Sioux Falls, South Dakota; and one major academic medical center, the University of Iowa Hospitals and Clinics (UIHC) in Iowa City. UIHC receives RW Part B and Part C funding, and the University of Nebraska Medical Center receives RW Part C funding to serve PLHIV in southwest Iowa. There are three other RW Part C clinics in Iowa in Des Moines (Primary Health Care, Inc.), Sioux City (Siouxland Community Health Center), and Davenport (Genesis Health System).

## Iowa Department of Corrections (DOC)

The DOC maintains nine prisons across the state, and there are eight judicial districts that manage Iowa's community-based corrections services. In FY 2022, the average number of individuals incarcerated



in Iowa's prisons per quarter was 8,189. Additionally, approximately 35,000 individuals are served by community-based corrections. Individuals entering one of Iowa's prisons enter through two central medical classification centers, where they receive HIV and HCV testing. STI testing is also provided if clinical symptoms are present. An estimated seventy individuals who are incarcerated in the prisons are living with HIV. DOC expenditures for HIV medications were nearly \$800,000 in state fiscal year 2021.

## Mental Health Programs

There are 25 accredited Community Mental Health Centers (CMHC) and 61 accredited mental health services providers in Iowa. There are also other providers of mental health services available through private organizations, hospitals, and other health care facilities. Over the last decade, Iowa Ryan White programs have put an increased emphasis on offering mental health services and integrating trauma-informed principles into programming. Three Ryan White agencies have a designated HIV Behavioral Health Consultant who is able to triage and/or provide acute mental health care.

## Substance Use Disorder Treatment Centers and Programs

There are about 100 substance use disorder (SUD) treatment and problem gambling providers across the state. Funded by the state, the Integrated Provider Network (IPN) comprises substance use prevention and treatment providers, as well as problem gambling prevention and treatment services. The IPN covers all 99 counties over 19 service areas, creating a safety net provider network across Iowa. Iowa SUD treatment providers offer an array of treatment options, including, but not limited to, intensive outpatient treatment, adult and youth residential treatment, women and children treatment, and medication for opioid use disorder.

## Medically Underserved Areas

At least 18 of Iowa's 99 counties are considered to be medically underserved areas. In addition, there are many more localized underserved areas spread throughout the state.

## HIV Peer Navigation

A peer navigator is an individual who is affected by or living with HIV, shares similar background characteristics with those being served, and is not a clinically trained healthcare professional. The potential benefits of peer navigation include improved health outcomes, increased patient satisfaction, decreased no-show rates, and fewer disparities in care.

One agency in Iowa has had a peer navigation program running for four years. The program provides clients with an opportunity to connect with someone who has lived through similar experiences. Peer navigators act as professional friends and assist clients in navigating the complexities of engaging in care, building relationships with case managers, and understanding the challenges of living with HIV. They are also great resources for client engagement through support groups and soliciting feedback that clients may be unwilling to share with their case managers. A potential disadvantage is that a shared experience of living with HIV may not be a strong enough thread for one Peer to weave with all clients. An ideal situation might be multiple peer navigators with a variety of identities and lived experiences (e.g., gender, sexual orientation, and/or history of substance use.) However, this may not be possible for many smaller agencies or in more rural areas.

Looking at it from an employer's perspective, the Peer Navigator position is a unique and crucial role in the agency. Typically, those who take up this position are already familiar with the community or have been clients of the agency they are now working for. As agencies plan to transition people into these roles, it is essential to focus on providing an effective onboarding process to set the Peers up for success. Peer navigators can offer immense support, and the shift from being a community member or client to an employee is a significant one that should be handled with care and attention.

## FINANCIAL RESOURCES

The table on the next four pages provides an inventory of **public and private funding sources** for HIV prevention, care, and treatment services in Iowa. Unless otherwise indicated, funding is listed for the most recently completed fiscal year.

RESOURCE	DOLLAR AMOUNT & FUNDED SERVICE PROVIDER AGENCIES	SERVICES PROVIDED
Bureau of Substance Use Disorder Prevention, Treatment, and Recovery	<b>\$217,376 (CY2022)</b> State Opioid Response HIV and HCV Testing: Iowa Provider Network Integrated Addiction Care Coordination and Essential Support Services: University of Iowa Center for Addiction Medicine Systems Integration and Harm Reduction Supplies: NuCara Capacity Extension Program Lock Boxes: Johnson County Public Health Hillcrest Family Services Black Hawk County Health Dept. Polk County Health Dept. Primary Healthcare, Inc. Pottawattamie County Public Health	SOR Testing IAccess Program Systems Integration Coordinator (staff) SOR TA Project HR Supplies Lock Box Placements
Medicaid	<b>\$9,517,695 (2013)</b> Iowa Department of Health and Human Services (HHS)	Medical, testing, PrEP
Corrections	<b>\$639,427 (SFY-2020)</b> Iowa Department of Corrections	Medications
Iowa TelePrEP 2021	<b>\$544,941.00 (CY 2022)</b> University of Iowa	PrEP/PEP
State Funding	<b>\$568,452 (SFY 2021)</b> Iowa HHS	
CDC HIV Surveillance	<b>\$271,312 (CY 2022)</b> Iowa HHS	Surveillance
Title V—Maternal Health Allocation	<b>\$1,351,267 (FY 2023)</b> Iowa HHS Service Providers: Fifteen subrecipients covering 99 counties Direct Care Amount: \$851,388	Education, Referrals/linkage to care and prevention

RESOURCE	DOLLAR AMOUNT & FUNDED SERVICE PROVIDER AGENCIES	SERVICES PROVIDED
HOPWA	<b>\$675,000 (FY 2022)</b> Iowa Finance Authority (IFA) Project Sponsors: Primary Health Care, Siouxland Community Health Center, Cedar AIDS Support System, The Project of the Quad Cities, University of Iowa Hospitals and Clinics	Short-term rent and utility assistance, Tenant-based rental assistance, Supportive services
HRSA Part B Base + ADAP Earmark + ADAP Emergency Relief + Part B Supplemental + Rebates from ADAP	<b>\$19,303,275 (RWFY 2021)</b> Iowa HHS Contractors: Siouxland Community Health Center University of Nebraska Medical Center Mid-Iowa Community Action Agency North Iowa Community Action Organization The Project of Primary Health Care Cedar AIDS Support System University of Iowa Hospitals and Clinics Linn County Community Services The Project Quad Cities Finley Visiting Nurse Association	Core medical and support services Early intervention services Capacity building Outreach services
HRSA Part C FY2021	<b>\$145,427 (47% of a total grant award of \$309,421 for services delivered in Iowa)</b> Genesis	Outpatient ambulatory health services and support services
	<b>\$440,067</b> Primary Health Care	same as above
	<b>\$245,785</b> Siouxland Community Health Center	same as above
	<b>\$586,844</b> University of Iowa Health Care	same as above
	<b>\$196,876 (28% of a total grant award of \$703,131 for services delivered in Iowa)</b> University of Nebraska Medical Center	same as above
County DIS	<b>\$636,063 (CDC STD grant)</b> <b>\$1,037,204 (County/Other Funds)</b> <b>Total = \$1,673,267 (CY 2022)</b> 4 counties—Polk, Black Hawk, Linn, Scott	Disease investigation, partner services, linkage to care, reengagement

RESOURCE	DOLLAR AMOUNT & FUNDED SERVICE PROVIDER AGENCIES	SERVICES PROVIDED
Title X Family Planning	<b>\$3,387,990 (FY 2023)</b> Family Planning Council of Iowa Service Provider: eight subrecipients covering 55 counties Direct Care Amount: \$2,217,990  Iowa HHS Service Provider: eight subrecipients covering 56 counties Direct Care Amount: \$1,170,000	Education HIV testing PrEP Referrals/linkage to care and prevention
CDC HIV Prevention	<b>\$849,802 (CY 2022)</b> Iowa HHS CDC Prevention supports the following providers: Black Hawk County Health Department Cerro Gordo Public Health Hillcrest Family Services Johnson County Public Health Linn County Public Health Polk County Health Department Pottawattamie County Health Department Primary Health Care, Inc. Scott County Health Dept., Siouxland Community Health Center	Education Assessment Testing Linkage to care and prevention services
Sexual Risk Avoidance Education Program	<b>\$445,608 (\$267,365 out to local agencies) (CY 2022)</b> Iowa HHS Service Providers: Community! Youth Concepts Marshalltown Community School District New Opportunities Trinity Muscatine Public Health Youth & Shelter Services Iowa State University (evaluation)	Sexual risk avoidance education for youth ages 10-19

Continued

RESOURCE	DOLLAR AMOUNT & FUNDED SERVICE PROVIDER AGENCIES	SERVICES PROVIDED
Iowa's Personal Responsibility Education Project (PREP)	<b>\$519,640 (\$389,730 out in contracts) (FY 2022)</b> Iowa HHS Service Providers: American Home Finding Association Bethany for Children and Families Cerro Gordo Public Health Community Youth Concepts Lutheran Services in Iowa Marshalltown Community School District Pottawattamie County Public Health Iowa State University (evaluation) Curriculum Training & Technical Assistance: Community Youth Concepts Children's Home Society of North Carolina	Sexual health education for adolescents

## APPROACHES AND PARTNERSHIPS

As described in Section IV, Community Engagement and Planning Process, the planning structure focused planning efforts in nine key focus areas. Each focus area was tasked with conducting a literature, data, and resource review to answer the question “Where are we now?” as related to the respective focus area. This included gathering information about current resources and partnerships. This approach engaged a variety of new stakeholders and partners in the assessment process. Notable new partners included the Great Plains Tribal Health Center, Sexual Assault Response Team (SART) and Sexual Assault Nurse Examiners (SANE) staff, a variety of medical providers, homelessness/housing service providers, and urban planners.

Additionally, HIV prevention and care staff at HHS collected information from stakeholders and partners including, Medicaid, Department of Corrections, Title X, Title V, Ryan White Part C organizations, and Iowa's HOPWA grantee.



# Section VIII

## Assessing Opportunities, Needs, Gaps, and Barriers

### OVERVIEW AND BACKGROUND

The Bureau of HIV, STI, and Hepatitis, in close partnership with CPG and the key focus areas for the Stop HIV Iowa plan, engaged in several activities to assess the needs, gaps, and barriers for the 2022-2027 HIV Integrated Plan. These activities included 11 surveys, 18 focus groups, and 50 key informant interviews—engaging over 3,100 Iowans.

#### **The eleven surveys reached over 2,200 Iowans and included:**

- Inaugural statewide Prevention Needs Assessment (PNA), completed in 2019 and reaching 572 Iowans either not living with HIV or unaware of their HIV statuses.
- HIV Prevention and Testing Engagement Survey reaching additional Iowans either not living with HIV or unaware of their HIV status. This survey was developed to build on information gathered during the PNA.
- The fifth comprehensive statewide Consumer Needs Assessment (CNA), completed in 2019 and reaching 555 Iowans living with HIV.
- Statewide Ryan White client experiences survey—Iowa's first statewide survey conducted in 2021 reaching 293 Iowans receiving Ryan White Part B services.
- Primary care provider survey completed in 2022, assessing knowledge, education, training, provider demographics, and practices surrounding HIV prevention and care reaching 415 primary care providers.
- Comprehensive HIV/HCV workforce survey, performed in 2022, assessing capacity, training, knowledge, demographics, and retention, reaching 141 individuals.
- Four targeted workforce surveys assessing knowledge, attitudes and practices in regards to HIV and substance use (surveyed groups included: Ryan White sub-recipients, HIV prevention sub-recipients, substance use prevention & treatment staff, homelessness/housing providers, and Department of Corrections staff).
- Two STI surveys (one for adults, one for youth) assessing knowledge of STIs and HIV transmission, testing, comfort in seeking testing, and prevention tools. Ninety-one adults and 68 youth completed the survey.

#### **The eighteen focus groups reached approximately 340 people and included:**

- Two regionally-based focus groups with Integrated Testing Sites workforce
- Three regionally-based focus groups with Ryan White Part B and C workforce
- Health Equity environmental scans:
  - Ryan White Part B agencies
  - Integrated Testing Services agencies
- HIV Medical Provider Focus Group
- Pharmacy Focus Group

- Statewide Public Health Investigator workforce
- Statewide Disease Intervention Specialist workforce
- Ryan White Part C staff group interviews (5 group interviews)
- Viral Hepatitis C Project ECHO (Extension for Community Healthcare Outcomes) providers
- Iowans Living with HIV focus groups included:
  - Stigma focus group at the annual summit for Positive Iowans Taking Charge (PITCH)
  - Black and Latino focus group
  - Housing-specific focus group
- Community members at a barbershop in Davenport, Iowa
- Community members from a juvenile detention center in Davenport, IA



**Figure 8.1.** One of three regional focus groups with the Ryan White Part B and C workforce.

### Key Informant Interviews:

- PLHIV who previously utilized PrEP (1 participant)
- Non-gay or bisexually identified MSM (3 participants)
- Sexual Assault Response Team/Sexual Assault Nurse Examiners (2 participants)
- Community Adolescent Pregnancy Prevention Program (CAPP) Program Manager
- Personal Responsibility and Empowerment Program (PREP) Program Manager
- PLHIV who identify as one or more of the following: racial or ethnic minority, 13-34 years old, 65 years or older, transgender, women, virally unsuppressed (5 participants)
- LGBTQ+ Advocacy Organization Director of Policy and Advocacy (One Iowa)
- Urgent care providers (2 participants)
- Transgender service provider and pharmacist
- Staff from Federally Qualified Health Centers (2 participants)
- Great Plains Tribal Health Center Medical Epidemiologist
- Harm Reduction Organizations & Iowa's Health Initiative for People Who Use Drugs (HIPWUD) (5 participants)
- People engaged in SUD treatment or recovery services (PWUD) (11 participants)
- Department of Corrections medical staff (3 participants)
- Homelessness/housing providers
- Housing advocate (1 participant)
- Urban planner (intersection of built environment and public health) (2 participants)
- Sexual health educator (1 participant)

The remainder of this section will describe prioritized needs as well as gaps and barriers to addressing those needs. Discussion of actions taken to address those gaps and barriers will be included.

## PREVENTION

More tools than ever before are available to prevent HIV. However, new transmissions continue to occur, and more work is needed to extend equitable awareness of and access to prevention strategies. Additionally, 14% of PLHIV in Iowa are unaware of their HIV statuses. Early diagnosis and linkage to care is key to improving the health of PLHIV; it is also an effective prevention strategy.

### Sexual Health Education

Educating youth about age-appropriate sexual health topics is essential for the health and wellbeing of young people and helps to increase knowledge of evidence-based prevention interventions related to HIV, STIs, and unintended pregnancies. Iowa code mandates public schools teach age-appropriate, research-based instruction in human growth and development in grades 1-12. Required topics include self-esteem, stress management, interpersonal relationships, human sexuality, domestic abuse, HPV and its vaccine, and HIV.

#### Gaps, Barriers, and/or Challenges:

Although Iowa Code mandates age-appropriate sexual education, many schools don't require courses that include sexual health education. Curriculum selection is conducted at the school district level, therefore no standardized curriculum is taught in Iowa schools. In Iowa, teen birth rates decreased 23% between 2016 and 2020; however, STI rates increased during that time. From 2016 to 2020, cases of gonorrhea among youth 15-19 years of age increased 34%, and cases of chlamydia increased 155%. Standardized, comprehensive sexual health education in schools is needed.

Additionally, Iowa Code does not outline specific expectations to provide information that is relevant to the LGBTQ+ community. Progress has been made to increase the percentage of schools that provide curricula or supplementary materials that include HIV, STI, or pregnancy information that is relevant to the LGBTQ+ community, reflected by an increase from 32.6% to 56.1% from 2014 to 2016. However, additional work needs to be done to ensure all students, regardless of gender or sexual orientation, receive appropriate sexual health education.

**Actions taken to address gaps and barriers:** As outlined in the Financial and Human Resources Inventory, the Iowa Department of Health and Human Services (HHS) supports two grant-funded programs to support sexual health education for Iowa's youth. However, these programs do not reach all Iowa youth.

### Condoms

Condoms continue to be an important tool in preventing HIV. When used consistently and correctly, condoms are highly effective in preventing HIV. They are also the only method that also provides protection against other STIs and unintended pregnancies.

**Gaps, Barriers, and/or Challenges:** The My IA Condoms program has greatly increased access to condoms; however, data collected during a 2019 prevention needs assessment (PNA) show low utilization of condoms. Additionally, populations most impacted by HIV reported low condom use, with 22% of MSM, 54% of PWID, 32% of Latino, and 36% of Black PNA respondents reporting never using condoms for sexual activity. When comparing condom use and condom access within each prioritized population, condom use remained low even when reports of condom access barriers were low, indicating that access to condoms is not by itself predictive of condom use.



**Figure 8.2.** Age-appropriate sexual health education is essential for the health and wellbeing of young people.



Although reported condom use is low, current distribution efforts should be maintained to ensure access to free safer sex supplies. In addition to maintaining current condom distribution efforts, increased education related to efficacy and correct use is needed.

**Actions taken to address gaps, barriers, and challenges:** In the past five years, the Bureau of HIV, STI, and Hepatitis has increased the volume and geographic scope of the condom distribution program, My IA Condoms. Free condoms and other safer sex supplies are widely available in Iowa through the My IA Condoms program. Condoms are available at community-based organizations and other partners across the state as well as delivered directly to individuals.

## PrEP and nPEP

Biomedical HIV prevention interventions have increased options for HIV prevention and are an important part of comprehensive HIV prevention. Oral PrEP was first approved by the Food and Drug Administration (FDA) in 2012, and the first injectable PrEP medication was approved in 2021. Post Exposure Prophylaxis (PEP) has been a long-utilized intervention in occupational settings but remains challenging to obtain in response to non-occupational exposures (PEP administered outside of occupational settings is often denoted as nPEP).

**PrEP Gaps, Barriers, and/or Challenges:** PrEP uptake remains low and disparities exist. According to the CDC's PrEP Population Estimation Tool, an estimated 8,620 Iowans could benefit (CDC refers to this as "PrEP indicated") from PrEP, while an estimated 1,470 Iowans utilized PrEP in 2019. Many Iowans are not aware of PrEP. In 2020, of those who were tested for HIV at funded Integrated Testing Services (ITS) sites, 3,779 were indicated for PrEP. Of those, 51% had ever heard of PrEP, 16% reported PrEP use in the previous 12-month period, and only 4% reported currently using PrEP. Additionally, we know that disparities exist in PrEP awareness and utilization. Nationally, PrEP coverage among White persons in 2018 was seven times that among Black persons and four times that among Latino persons. In Iowa, among individuals tested at ITS sites between January and June 2022, PrEP awareness was higher among Latino persons (62%) and non-Hispanic White persons (55%) but lower among non-Hispanic Black persons (43%). A similar pattern of racial and ethnic disparities also existed in PrEP utilization, as only 6% of non-Hispanic Black persons reported taking PrEP in the past 12 months, an uptake rate 3 times lower than Hispanic persons and non-Hispanic White persons, who had an utilization rate of 22% and 21%, respectively, in the past 12 months.

PrEP awareness continues to increase, however, barriers remain to moving individuals from awareness to utilization. In the 2019 PNA, a number of reasons were given for not using PrEP among those who were aware of PrEP but did not report its use. The most prevalent reported barriers included not knowing how to start on PrEP, not being able to afford PrEP, and being afraid of side effects. Additional barriers were related to fear of negative social judgment, talking to a provider, and using a local pharmacy.



**Figure 8.3.** (Left) A selection of free condoms available at a community of event. **Figure 8.4.** (Right) Oral PrEP has been available since 2012, and the first injectable PrEP medication was approved in 2021.

Primary care providers play a key role in increasing awareness of and access to PrEP. In a survey conducted in 2021, only 23% of 331 Iowa primary care providers reported prescribing PrEP. Additionally, many providers in rural areas choose to not be included on the PrEP Iowa provider map. Of the 249 respondents that do not prescribe PrEP, 30% were unfamiliar with PrEP.

#### **nPEP Gaps, Barriers, and/or Challenges:**

Awareness of nPEP as an HIV intervention after potential exposure remains low. In the 2019 PNA, 45% of respondents were aware of nPEP. However, many of those who were unaware of nPEP belong to populations that are prioritized for HIV prevention: 32% of MSM, 58% of PWID, 56% of Latino, and 47% of Black respondents reported not being aware of nPEP.

Increasing awareness among individuals who may benefit from nPEP may be problematic if they do not have accessible providers, navigation services, and/or pharmacy access. PNA respondents who were aware of nPEP and had a failed attempt to access the intervention reported not knowing where to go, not feeling comfortable asking for it, provider refusal, medication availability, not being able to afford it, and not having a known resource in their community.

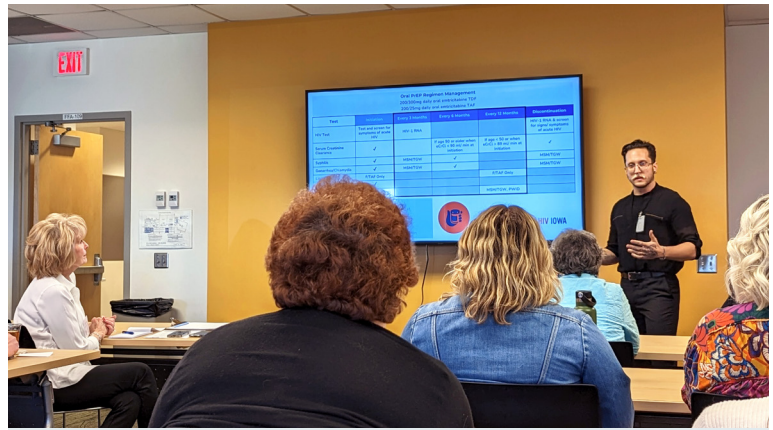
**Actions taken to address gaps, barriers, and challenges:** Over the past 5 years, efforts to increase PrEP awareness and uptake have been a priority of the Bureau of HIV, STI, and Hepatitis. Interventions include: public health detailing to increase provider awareness and prescribing, an online PrEP provider directory, PrEP educational materials for providers and consumers, and telemedical delivery of PrEP. Additionally, PrEP and nPEP navigation services are available state-wide to provide individualized assistance to overcome barriers and increase access.

### **Harm Reduction & Syringe Services Programs**

Syringe Services Programs (SSPs) are community-based prevention programs that can provide a wide range of services, including linkage to substance use disorder treatment; access to and disposal of sterile syringes and injection drug equipment; and vaccination, testing, and linkage to care and treatment for infectious diseases. Nearly 30 years of research by the CDC shows that comprehensive SSPs are safe, effective, cost saving, do not increase illegal drug use or crime, and play an important role in reducing the transmission of viral hepatitis, HIV, and other infections.

**Gaps, Barriers, and/or Challenges:** SSPs are not authorized to operate legally in Iowa, due to the paraphernalia law. Iowa law does allow pharmacists to sell sterile syringes without a prescription, however policies and practices across the state vary. In 2022 the Iowa Pharmacy Association (IPA) in partnership with the Bureau of HIV, STI, and Hepatitis conducted a survey of Iowa pharmacists and pharmacy technicians to assess current policies and practices related to the sale of syringes without a prescription. Of the 110 pharmacists and pharmacy technicians who completed the survey, less than 50% reported currently selling syringes without a prescription, and 64% of pharmacies reported not having current policies and procedures regarding the sale of syringes without a prescription.

As outlined in the Financial and Human Resources Inventory section, there are three harm reduction organizations across the state. However, there are several barriers to harm reduction organizations operating in Iowa. The paraphernalia law prohibits possession and distribution of essential harm reduction



**Figure 8.5.** Seth Owens, a prevention navigation coordinator at the Bureau of HIV, STI, and Hepatitis, presents about PrEP.



supplies, such as sterile syringes and fentanyl test strips. This severely limits the potential funding opportunities and support provided to the limited number of organizations in existence. These harm reduction organizations are seeing an increase in the need for services, as the overdose and infectious disease syndemics reach new highs, but they do not have the resources or support to expand. Limited funding and staffing prohibits the harm reduction organizations' capacity to apply for and manage grants, as well as build robust programming. The reach of these organizations is also limited, with coverage offered to only a handful of Iowa communities.

**Actions taken to address gaps and barriers:** Past legislative efforts aimed at authorizing SSPs in Iowa have failed, including the most recent bill introduced during the 2019 legislative session. Iowa's Health Initiatives for People Who Use Drugs (HIPWUD) serves as an advisory body and has developed a set of recommendations to improve the health of Iowans who use drugs, including policy change to support implementation of SSPs. Additionally, the Iowa HIV and Hepatitis Community Planning Group (CPG) has recommended implementation of SSPs in past statewide comprehensive HIV plans. In the absence of SSPs, the Bureau of HIV, STI, and Hepatitis has worked to increase access to allowable harm reduction services and supplies for people who use drugs (PWUD).

## STI Testing

Many sexually transmitted infections (STIs) are very common. Delayed diagnosis and treatment for STIs can lead to serious health consequences for the individual, including increased likelihood of acquiring or transmitting HIV. However, if STIs are treated promptly, these health consequences can be avoided and likelihood of HIV acquisition and transmission is greatly reduced.

While STIs may cause symptoms, it is common for individuals who have acquired an STI to have mild symptoms or be asymptomatic. This is especially true for infections like chlamydia, gonorrhea, and trichomoniasis. At the same time, the signs and symptoms associated with infections like syphilis may be easily confused with other conditions. This means that individuals may be unaware that they have an STI and unknowingly transmit the infection to others. In addition to increasing the risk for the individual to develop severe health outcomes, this facilitates transmission in our communities and increases community risk of HIV acquisition. Testing individuals for STIs, regardless of the presence of signs and symptoms, is known to be an effective strategy for diagnosing and treating STIs early in the course of infection, which subsequently reduces overall community risk of HIV acquisition.

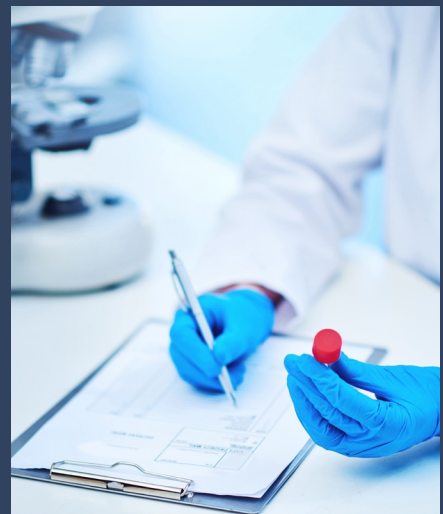
### UNTREATED STIs AND HIV TRANSMISSION

**The connection between HIV and STIs is strong and well documented.**

STIs can compromise the body's natural barriers and defenses, making individuals more susceptible to acquiring HIV. For example:

- Some STIs can cause sores or ulcers, which break down skin or mucosal barriers and provide an easy entryway for HIV.
- STIs also increase inflammation, which can lead to cellular damage and increase the presence of cells that HIV can infect.

Given how common many STIs are, their increased prevalence at a community level can subsequently increase overall community transmission of HIV.



**Figure 8.6.** STIs may have mild symptoms or be asymptomatic; STI testing is key to early diagnosis and treatment.

**Gaps, Barriers, and/or Challenges:** STI rates in Iowa are rising. From 2019 to 2021, gonorrhea cases increased 20% and cases of infectious syphilis increased 136%. Congenital syphilis has increased substantially as well. In 2021, 11 cases were reported in Iowa, more than the previous 15 years combined.

Like HIV, other STIs disproportionately impact Black, Indigenous, and other persons of color. For example, in 2021, 30% of gonorrhea diagnoses and 20% of infectious syphilis diagnoses were among Black populations in the state, despite the fact that Black populations make up just over 4% of Iowa's population. The percent of syphilis diagnoses among Indigenous populations in the state is rapidly increasing. Early data from 2022 indicate that 8% of infectious syphilis diagnoses statewide were among individuals identifying as Native persons. In some counties, the percent of diagnoses among Native persons was nearly 40%.

Similar to HIV, infectious syphilis disproportionately affects men who have sex with men. However, the syphilis epidemic is broadening to more populations. In 2017, more than 90% of infectious syphilis diagnoses were among men. In 2021, that percentage dropped to 77%, indicating growing incidence among women and heterosexual males. Increasing rates and disparities associated with STIs often precede similar increases and disparities that occur in HIV epidemiology. Rising rates of STIs threaten efforts to reduce new HIV infections, and we cannot reduce new HIV infections unless STIs are mitigated.

Misinformation and stigma surrounding HIV and other STIs is common. In a 2021 survey of youth in eastern and southeastern Iowa, the majority of respondents had received sexual health education, however, very few respondents were aware that STIs and HIV can be asymptomatic; only half of respondents were aware that having fewer sex partners can reduce your risk, 30% were aware of PrEP, and the majority (57%) had never been tested for HIV or other STIs. Strategies to increase education and awareness among youth and the general public are needed.

A variety of gaps, barriers, and challenges are seen in medical settings. Sexual histories are not routinely conducted, leading to potentially missed opportunities for STI and HIV testing. Expedited Partner Therapy (EPT) is not well known and rarely utilized, and concurrent testing of HIV and other STIs (such as syphilis and chlamydia/gonorrhea) is uncommon.

Overall, lack of resources continues to be a challenge as it relates to STIs. Although federal resources have recently been made available to support Disease Intervention Specialists, support for STI testing, education, and prevention is minimal. With STI incidence continuing to rise, this means that the minimal resources available are being stretched even thinner.

**Actions taken to address gaps and barriers:** A variety of efforts to increase awareness, testing, and treatment have been implemented to address gaps, barriers, and challenges. Public health detailing implemented in 2016 aims to educate medical providers on the prevalence of STIs, testing recommendations, treatment guidelines, and other best practices such as conducting sexual histories with patients. Additionally, the last five years have seen an increased emphasis on increasing extragenital testing and implementing innovative models of testing, including at-home and self-collected 'express' testing services. Additional efforts are being taken to further integrate services related to HIV and STIs. Given the overlapping epidemiology of HIV and STIs, an increasing emphasis is being placed on concurrent testing for HIV and other STIs. Furthermore, discussions are beginning on how to approach HIV and STI epidemics with a more "status neutral" approach, so that individuals may benefit from services that will reduce their risk of acquiring these infections in the future by addressing underlying needs they may have and social determinants of health.

## DIAGNOSIS

People who know their HIV status can be linked to the care they need to stay healthy and prevent transmission. HIV testing is key to early diagnosis and linkage to care and other support services.

**Gaps, Barriers, and/or Challenges:** As mentioned previously, 14% of Iowans living with HIV are unaware of their status. While this has improved over the last 5 years, it remains one of Iowa's biggest challenges when compared to other states. The number of new diagnoses in Iowa has been fairly steady over the past 10 years, approximately 115 people each year. After reaching a high of 136 new diagnoses in 2016, Iowa saw a steady decrease in the number of new diagnoses through 2020 (98 new diagnoses in 2020). However, in 2021, the number of Iowans newly diagnosed with HIV went up to 124. Certain populations are disproportionately impacted by HIV in Iowa. Since 2005, more than half of individuals newly diagnosed with HIV identify as men who have sex with men (MSM). Additionally, Black, Indigenous, and other people of color experience higher rates of HIV than non-Hispanic Whites.

The proportion of “late testers” (people diagnosed with AIDS within three months of their initial HIV diagnosis) in Iowa has decreased to 26% from the 10-year average of 31%. Iowa sees very different trends in late diagnoses than what is seen nationally. Males are more likely to have a late diagnosis, as are White, non-Hispanic people. In addition, people born outside of the U.S. are more likely to have a late diagnosis than people born in the U.S. Finally, people from rural areas are more likely to have a late diagnosis than are people from urban areas. The lower number of “late testers” indicates that people in need of testing are getting timelier access. However, more work is needed to increase access to HIV testing for the general public and priority populations.

HIV testing is not a routine part of health care, despite the CDC recommendation that all adults ages 18 and older be tested at least once in their lifetime. In Iowa, only 26% of adults report ever being tested for HIV. Stigma surrounding HIV and HIV testing impacts implementation of routine screening in medical settings. Additionally, CDC testing guidelines include a cost-effectiveness threshold, below which it is not cost effective to screen for HIV in a given population (1 per 1,000 patients or 0.1%). Many of Iowa's medical providers likely fall below that threshold, leading to questioning if routine testing is warranted. Although increasing routine screening in medical settings is a priority, stigma, racism, medical mistrust, and other social and structural barriers impact access to testing and other medical services. Therefore, a variety of strategies to increase access to testing is needed in both medical and non-medical settings.

Policies related to HIV testing do not support increased access to testing. Iowa Code 141A.4 does not support routine screening and recommends testing and education be offered to “persons who are at risk for HIV infection.” Additionally, Iowa Code 141A.7 requires written consent for testing of minors and parental notification for minors who test positive. Policy change is needed to increase access to testing.

**Actions taken to address gaps, barriers, and challenges:** Resources to support HIV testing in Iowa have increased dramatically over the last five years. Integrated Testing Services (ITS) sites have expanded service delivery to more counties in Iowa. Prior to 2017, nine counties in Iowa were covered by ITS sites providing free HIV testing in clinical and outreach settings. In 2022, 51 of Iowa's 99 counties were covered by ITS sites. Additionally, innovative pilot projects currently being implemented aim to improve access to testing, including at-home testing, routine screening at FQHCs, and testing at SUD treatment facilities.



**Figure 8.7.** A staff member at an ITS site provides HIV testing services.

## LINKAGE

Individuals newly diagnosed with HIV should be **promptly connected to HIV care and support services**. **Linkage should occur within one month of diagnosis.** In 2021, 85% of the 124 individuals newly diagnosed with HIV were linked to care within 30 days.

**Gaps and/or Barriers:** Over the past 10 years, an average of 85% of people newly diagnosed with HIV each year are linked to care within one month of their diagnoses. Much of this success is due to the strength of the Disease Intervention Specialist (DIS) workforce in Iowa. While linkage rates remain relatively high, challenges remain. Many of the factors that impact linkage are described below, including stigma, economic instability, access to housing and transportation, mental health and substance use disorders, co-occurring conditions, etc.

**Actions taken to address gaps, barriers, and challenges:** In 2021, the Division of STD Prevention at the CDC provided additional funding to support the expansion of the DIS workforce. As described in the Financial and Human Resources Inventory section, the DIS workforce provides linkage services to persons newly diagnosed with HIV. With the additional resources, the bureau added four new DIS positions and provided Iowa's four largest counties with additional resources to add DIS staff at the local level.

## RETENTION AND VIRAL SUPPRESSION

### Re-engagement Services

Iowa aspires to keep PLHIV continually engaged in care to achieve sustained viral suppression and optimize their individual health outcomes. Studies have shown that newly diagnosed PLHIV who missed a clinical visit within the first year of diagnosis have mortality rates twice as high as those who attend all of their medical appointments. Poor health outcomes, such as virologic failure (failure to reach undetectable viral load levels), clinical disease progression (including AIDS-defining illnesses), and death are associated with missing an HIV medical care appointment. Retention in care depends on successfully connecting to an HIV clinic and being actively engaged in care, but this is not an all-or-nothing process. Many clients cycle in and out of care. Iowa's HIV surveillance data suggest that many of those diagnosed with HIV are not accessing medical care and adhering to treatment as indicated. It is estimated that of the approximately 2,944 Iowans living with HIV at the end of 2021, an estimated 7.5% were not engaged in care with a medical provider. Though Iowa's out-of-care rate has been steadily improving over the years and is one of the best in the nation, youth ages 13-24 and Black/African American Iowans living with HIV make up a disproportionate number of people out-of-care.

As described in the previous section, Iowa employs a full-time data-to-services coordinator. Significant strides have been made since dedicating one FTE to these activities in 2019. Procedures have been developed and implemented for collaborating with Ryan White Part B and C clinics and organizations. Partnerships have been created and/or improved with the Iowa Department of Corrections and county jails. Opportunities for expanding programming and services for individuals who are incarcerated and/or transitioning out of incarceration exist, as does increased attention to stigma, mental health and substance use issues—often directly related to why people fall out of care.

### Core Medical and Support Services

Iowa's Ryan White Part B Program has a philosophy of not only retention in medical care, but also in support services. As described in the previous section, those engaged with support services, especially case management, have a significantly higher viral suppression rate than those who are not engaged in those services. Therefore, Iowa encourages retention in these services by enrolling clients in the appropriate level, or tier, based on current needs. Over the last decade, and especially since 2016, a much needed increase in resources was realized. Since that time, core medical and support services have increased substantially. All but one directly funded RW Part B agency offer case management services, assistance with health insurance, housing, transportation, food, and other emergency needs such as utilities. Most agencies offer several additional services such as linguistic, mental health, substance use treatment, nutrition, etc.



According to the 2019 Consumer Needs Assessment, among all services, HIV case management was the most wanted or needed (89%), and 95% of respondents who needed it were able to access it. Childcare during appointments was the least wanted or needed service (47%), and 89% of respondents who needed it were able to access it.

**The top 5 services with the lowest met need were:**

- Alternative therapy (62% met need)
- Help paying for education or to go back to school (65% met need)
- Help finding a job or job training (78% met need)
- Support group or counseling (79% met need)
- Social support from community, religious, hobbies, or volunteer group (80% met need)

**The top 5 services with the highest met need were:**

- Translation or interpretation services (96% met need)
- HIV case management (95% met need)
- Help selecting or enrolling in insurance coverage (93% met need)
- More information about living with HIV, treatments, or available support (92%)
- Help getting to the appointments you needed (91%)

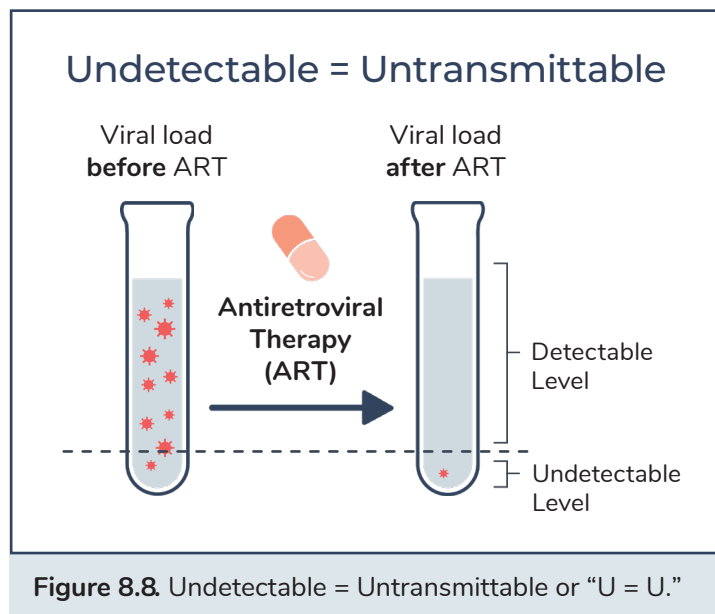
In addition to increasing core medical and support services, RWPB agencies also saw a significant increase in available funding for case managers to address high caseloads as well as funding for on-staff behavioral health coordinators, quality and data management coordinators, and other key management positions. One agency has a homeless outreach coordinator. Despite these strides, challenges in the workforce exist and will be described in more detail below. Briefly, retention of staff is a significant challenge for many agencies and for those who stay, burnout and vicarious traumatization can, and often does, occur.

**Undetectable=Untransmittable or U=U**

In the last several years it has become increasingly known that when a person living with HIV is actively taking their HIV medications and their viral load stays at undetectable levels (<200 copies/mL), that person **cannot transmit HIV to a sexual partner** who is HIV-negative. This is widely referred to as **“Undetectable Equals Untransmittable” or “U=U.”**

HIV Treatment as Prevention, or TasP, is the foundation of U=U. Sharing the message of U=U is an important strategy to break down HIV stigma, provide hope, improve the lives of PLHIV, and move closer to ending the HIV epidemic.

As such, Iowa has promoted U=U in media campaigns across the state for several years. In addition, there is a question on the Ryan White Part B intake/assessment to assess knowledge of Iowans living with HIV about the concept of U=U. In the coming years it will be important to continue promoting the U=U message to not only PLHIV, but also their medical and support providers, other stakeholders, and the community.





## Benefits Management

Iowa's Ryan White Part B Program developed a system to ensure each Iowan living with HIV was enrolled in their "best benefit home" based on their needs. Just prior to the full implementation of the Affordable Care Act in January 2014, regional, or field, benefits specialists were added to staff in several agencies across the state. Their charge is to become experts in all things benefits: private insurances (ADAP sponsored and employer sponsored), public insurances like Medicaid and Medicare, Veteran's Benefits, and other options like the medication and jail assistance programs. This model has proven very successful in a complex benefits landscape and expanded over the years such that each agency has at least one person on staff who has this skill set. It will be important to maintain this initiative in the coming years.

Over the years, Antiretroviral therapy (ART) has reduced the burden of HIV-associated illness and the number of deaths over all stages of HIV infection. ART can effectively reduce the viral load in a person living with HIV to below the level of detection, resulting in excellent health outcomes as well as preventing transmission of HIV to an individual who is HIV negative. Once a daunting number of pills taken several times a day and often resulting in severe side effects, ART has become significantly simplified and effective over the years. It is now standard to take one pill, once a day, while experiencing few to no side effects. Still, when a long-acting injectable option was approved in January 2021, many patients and providers were very excited. Though there has been some usage of the long-acting injectable among some Iowa providers, issues around access, storage, administration, and billing for this drug will need to be addressed in the coming months.

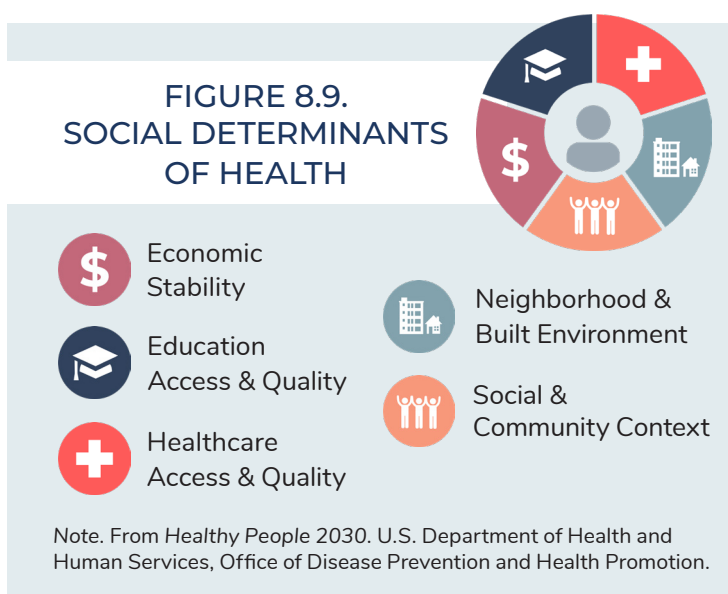
## SOCIAL DETERMINANTS OF HEALTH

To end the HIV epidemic in Iowa and across the country, it is essential to stretch beyond a biomedical approach and to fully integrate social determinants of health into our response.

Although biological factors contribute, much of HIV transmission is underpinned by SDOH, or the **"circumstances in which people grow, live, work, and age"** and the wider set of forces and systems shaping conditions of daily life. Although Iowa has made great strides in all parts of the HIV continuum from diagnosing people living with HIV to providing high quality health and supportive services, disparities remain. Social determinants of health barriers are better indicators for health inequities than individual actions. Based on the variety of assessments described above, **Iowa must address the following social determinants of health to end the HIV epidemic:**

- Stigma
- Health and racial equity
  - Racism and heterosexism as a SDOH
- Economic stability
  - Poverty
  - Food insecurity
- Neighborhood and built environment
  - Homelessness
  - Need for transportation assistance
- Involvement in the justice system
- Access to health care
- Education
  - Education level
  - Health literacy
- Impact of trauma, including history of sexual/physical intimate partner violence

FIGURE 8.9.  
SOCIAL DETERMINANTS  
OF HEALTH



## Stigma

In a Howard University study of healthcare workers, 66% had at least one stigmatizing attitude about HIV. According to GLAAD in the 2021 State of HIV Stigma report, only 48% of Americans feel knowledgeable about HIV. Stigma leads to **poorer mental health outcomes**, including anxiety, depression, stress associated with disclosing HIV status, suicidal ideation, and ultimately a **decreased quality of life**. Moreover, stigma leads to **poorer physical health outcomes, including lower viral suppression**.

The Ryan White Part B program's 2019 Consumer Needs Assessment demonstrates that **HIV-related stigma remains a considerable barrier and concern for PLHIV in Iowa**. For this reason, stigma was chosen as one of the focus areas for the development of the Stop HIV Iowa planning process. Focus groups among various groups of PLHIV were conducted as part of the process, and stigma was universally identified as a barrier among participants.

**The following were noted as significant barriers that contribute to stigma:**

- Lack of peer-based support
- Lack of education for family members
- Health and service provider trust
- Policies related to policing, criminal justice system, housing, and Iowa's Criminal Transmission Law
- General education and awareness of HIV in Iowa

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*Stigma leads to poorer mental health outcomes, including anxiety, depression, stress associated with disclosing HIV status, suicidal ideation, and ultimately a decreased quality of life. Moreover, stigma leads to poorer physical health outcomes, including lower viral suppression.*

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The Iowa Ryan White Part B Program has been measuring and reporting on stigma since 2005. Based on the levels of stigma reported among PLHIV in Iowa, numerous anti-stigma efforts have been implemented by subrecipients, grassroots organizations, and the Ryan White Part B Program at HHS. These efforts have included marketing campaigns, storytelling to raise public awareness, and academic detailing to health and service providers. The most recent initiative has been taking place during this past year, when Iowa was selected to participate in the ESCALATE program in collaboration with the National Minority AIDS Council. Through this initiative, concrete recommendations have been sought from BIPOC women who are experts in behavioral health. These suggestions have been used to improve the enrollment and assessment tool for case managers to avoid stigmatizing or other triggering forms of information gathering.

## Health and Racial Equity

As can be seen in the epidemiological profile included with this plan, numerous health disparities persist along all parts of the HIV continuum. Populations facing disparities in diagnosis, retention, and viral suppression were prioritized to be included in the Stop HIV Iowa engagement and needs assessment activities. During focus groups held with Black and Latino PLHIV, a variety of barriers were discussed that affect medication adherence, optimal health outcomes, and overall quality of life. These barriers included stigma, discrimination, criminalization, lack of resources to meet culturally-specific needs, lack of a diverse and culturally responsive workforce and peer support, and lack of educational resources for family members. We found additional barriers during a series of health equity staff and resource capacity scans with ITS and Ryan White subrecipient sites. Employees at these agencies also indicated that staff turnover, challenges with hiring and retaining people with cultural and lived experience, and lack of access to real time data-tracking of disparities also present barriers to achieving health equity in their communities. It has also been shown that these populations experience higher levels of other factors (stigma, stress, lack of access to health care, homelessness) that may lead to chronic health conditions, which in turn may make them more susceptible to HIV.

**Actions taken to address gaps and barriers:** To reduce disparities and improve equitable access to prevention and care services, an increased focus on health and racial equity has been prioritized in the Bureau of HIV, STI, and Hepatitis. These efforts include the following:

- A Health and Racial Equity Coordinator position was created in May of 2017.
- ITS and Ryan White Sites prioritize service delivery to individuals who are at increased risk of acquiring HIV and groups with low viral suppression rates.
- HR practices and training have been upgraded to recruit, retain and support a more diverse and culturally responsive workforce.
- Health Equity Spotlights and a Book Club for bureau and subrecipient staff were developed to discuss resources conducive to learning about health equity.
- 100% of bureau staff participate in a Racial Equity Challenge that includes 21 units of resources and discussions about racial equity.
- An advisory committee of community members with expertise in health and racial equity has been guiding the health equity focus area work for the Stop HIV Iowa plan. It is anticipated that this committee will continue to serve in an advisory capacity to the bureau on an ongoing basis.

## Economic Instability

### Poverty and Food Insecurity

Poverty and HIV have long been linked. Conditions of poverty often lead to food and housing insecurity and are also tied to lack of education and low literacy rates. These conditions can lead to the inability to determine one's own destiny and thus create conditions where one is more vulnerable to acquiring HIV as well as staying in care once diagnosed.

At the end of 2019, 50% of Iowa Ryan White Part B clients had a Federal Poverty Level (FPL) below 138% and 91% had an FPL below 400% (n=2,007). Up until September of 2022, in order to be eligible for services, including financial assistance and case management, Iowa Ryan White Part B clients needed to be at or below 400% FPL. In September of 2022, this increased to 500% of the FPL to better meet the needs of clients who are advancing in the workplace as well as many who were working required overtime due to COVID conditions.

Among 2019 Consumer Needs Assessment respondents (n=555), 35% had an FPL below 138% and 65% had an FPL below 400%. When these percentages are applied to the number of people diagnosed and living with HIV at the end of 2019 (n=2,938), there were an estimated 1,028 PLHIV under 138% FPL and 1,910 PLHIV under 400% FPL.

Poverty and food insecurity often go hand-in-hand. Access to adequate food is considered a basic human right. An intrinsic precursor to this right is food security. Lack of food security, or food insecurity, exists "whenever the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain." Central to the concept of food insecurity is the focus on uncertain or inadequate food access due to limited financial resources. A significant body of research reveals that PLHIV suffer from particularly high rates of food insecurity compared to the general population—exacerbated during times of stress like the COVID-19 pandemic. Indeed, in Iowa's Ryan White Part B program, the number one most utilized support service was food assistance. Several organizations have implemented cooking classes utilizing licensed nutritionists to assist PLHIV to gain skills in healthful eating. They were paused during the COVID-19 pandemic, but plans to resume are underway.

## Neighborhood and Built Environment

### Address Housing Instability

**Homelessness and housing instability negatively affect an individual's ability to stay in care and adhere to medical appointments and medications**, leading to poor health outcomes and an increased risk that the virus can be transmitted to others. A growing body of research shows that **housing is a stronger predictor of HIV health outcomes than individual characteristics** such as gender, race, age, drug and alcohol use, mental health issues, and receipt of social services. Expanded efforts are needed to fill the gaps in housing services across Iowa, including increasing the amount of resources dedicated to Ryan White housing services and a specialized homeless outreach worker to serve PLHIV experiencing homelessness.

Data collected during the 2019 Iowa HIV Consumer Needs Assessment indicated that 42% of respondents had experienced homelessness in their lifetime. Many more experienced some form of housing instability. In addition, key informant interviews conducted in 2022 with experts in housing policies highlighted the need to expand “housing first” interventions, specifically to ensure people who are at higher risk for transmission of HIV have access to housing options. Discussions revealed that “safe neighborhood” housing policies led to both intended and unintended consequences, including discrimination in access to housing, higher rate of evictions and refusal to rent for people who inject drugs, people with correctional background and their families, or people who are perceived to have a higher interface with policing systems, such as immigrants and refugees, people living under the poverty levels and people using housing vouchers. Experts also discussed zoning practices that have a high impact on housing prices, including: restrictive housing covenants that impose restrictions on materials, design, and landscaping and how these increase home prices; the need to update zoning codes and ordinances to allow more accessible dwelling units (ADU) as a strategy for increasing the housing stock available within cities and counties; reduce lots sizes so as to reduce sprawl and construction costs; and the need for partnerships with stakeholders in health, finance, education, and other sectors to address structural barriers to housing.

Housing Opportunities for People with AIDS (HOPWA) has been available to Iowans since about 2001, spending about \$675,000 in the most recent fiscal year. However, this funding was inadequate to meet the housing needs across the state. Ryan White Part B was able to allocate funding to supplement HOPWA in approximately 2016 and is now spending approximately \$600,000 per year on housing for PLHIV—**by far the largest direct service provided**. In addition, there is a homeless outreach worker dedicated to PLHIV who provides subject matter expertise on homelessness and HIV overlapping issues, conducts HIV testing and outreach, and builds capacity in the community by training other outreach workers on HIV competencies.



**Figure 8.10-11.** Housing is a stronger predictor of HIV health outcomes than individual characteristics.



## Justice-Involved Individuals

Over 33% of respondents to Iowa's HIV Consumer Needs Assessment in 2019 have been involved with the justice system at some time in their lives—meaning they have spent time in either county jail or in state prison. According to The Sentencing Project's 2021 report, in Iowa, Black, non-Hispanic adults are imprisoned 9.3 times the rate of white adults, a slight improvement from 2016, when the rate was 11.1 to 1. Still, Black Iowans make up 25% of the prison population despite being just 4% of the total population. The imprisonment rate for the Latino population in Iowa imprisonment rate was 1.5 times the rate as those identifying as white.

In 2016, 57% of those in Iowa's prison system population had a chronic mental illness. With 33% having a serious mental illness. Additionally, it has been reported that 81% had a problem with illicit drugs at some point in their life, and 46% had a current drug problem.

There are 91 jails to serve Iowa's 99 counties and nine state-run prisons. The state prison system tests all offenders for HIV upon entry, but not on exit. While in prison, all PLHIV are treated and provided the medications they need. The county jail system does not routinely test for HIV, though some regional initiatives have tried to provide localized testing. In 2020, Iowa ADAP created a program to cover HIV medications for those in the county jail system. The Data to Services Coordinator is working with both the prison and jail systems to ensure smooth transition to care upon release. In addition, Iowa's Regional Health Specialist initiative is working with community-based corrections officers to help create a better understanding of the needs of PLHIV in Iowa.

## Access to Health Care

Although Iowans living with HIV have access to five Ryan White Part C clinics (four in Iowa and one in Nebraska) and several committed infectious disease doctors throughout the state, challenges in receiving HIV care remain. In addition to challenges already described around issues of housing insecurity, transportation challenges, and more, those with conditions in addition to their HIV often struggle to engage and/or stay engaged in the additional care. This is true for those with mental health and substance use issues as well as those who struggle with other chronic diseases such as cardiovascular disease, diabetes, renal disease, and cancer. Therefore, it is important for Iowans living with HIV to be able to receive their HIV care alongside care for other normal and chronic conditions. This presents challenges for both HIV care providers as well as primary care physicians; though there are HIV providers in Iowa who will also provide their patient's primary care, it is the exception and not the rule. In addition, for those with mental health and substance use disorders, there are not enough providers to meet the need.



Two of the three Ryan White Part B agencies that also serve as Ryan White Part C clinics. **Figure 8.12.** (Left) Primary Health Care in Des Moines, IA. **Figure 8.13.** (Right) Siouxland Community Health Center in Sioux City, IA.



## Education

**Level of education**—Less education is linked to lower income, which is linked to poorer health. Numerous studies show that people in lower socioeconomic situations experience more obesity, asthma, diabetes, heart disease and other health problems, including HIV, than people in better financial circumstances. In the 2019 Consumer Needs Assessment, the second highest unmet need was that respondents needed help paying for education or to go back to school. Currently, there has not been a dedicated payer source or program to help lowans living with HIV to achieve additional education or training.

**Health literacy**—Health literacy is an individual's and a community's capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. It is a cognitive and social skill that determines the motivation and ability of individuals to gain access to, understand, and use health-related information. Low health literacy limits the ability to understand health information, read and follow written and oral instructions, and follow medical recommendations. Adequate health literacy may be an essential prerequisite to improving the health of individuals living with HIV. Early studies showed that persons with low health literacy—i.e., those who had limited skill for obtaining and acting in ways to benefit their health—had lower HIV disease-related knowledge and were less likely to take and adhere to antiretroviral medications.



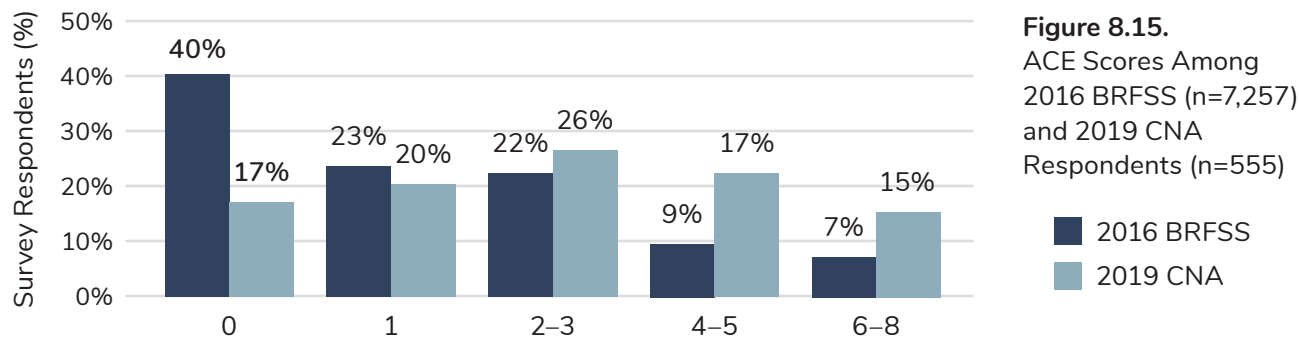
**Figure 8.14.** Adequate health literacy may be an essential prerequisite to improving the health of individuals living with HIV.

It is important to maintain and/or improve efforts at the organizational level to ensure materials and health education are at adequate reading levels and available in several languages. In the last 5-7 years, Iowa's Bureau of HIV, STI, and Hepatitis has increased its efforts to ensure online and print messages are available and clear. In addition, they have worked with their AIDS Education local partner (University of Minnesota) to assist in providing specialized HIV training for medical professionals across the state.

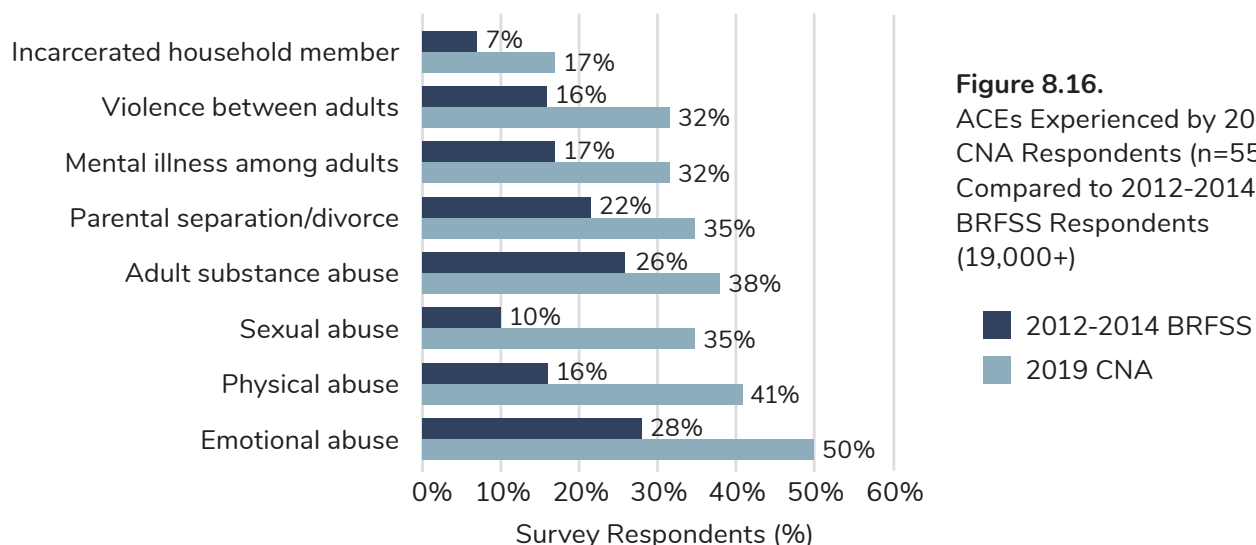
## Understanding and Addressing the Impact of Trauma

Evidence suggests that a **strong relationship exists between childhood trauma and poor physical, social, and mental health outcomes decades later**. The Adverse Childhood Experiences Study was the first to examine the relationship between adverse childhood experiences (ACEs) and a range of long-term health and social outcomes. The study supports that ACEs significantly increase the risk of developing heart disease, depression, and/or substance use disorders, acquiring sexually transmitted diseases, and experiencing intimate partner violence, acquiring acquisition of sexually transmitted diseases, and early death. This is because frequent and prolonged activation of the body's stress response during childhood disrupts brain development, causes social, emotional, and cognitive impairment, and ultimately the adoption of health-risk behaviors, disease, disability, and social problems.

The ACE questions were included in both the 2016 and 2019 HIV Consumer Needs Assessment survey to determine the impact of childhood trauma on people living with HIV. The results were compared to the ACE studies conducted in the 2012–2016 Iowa Behavioral Risk Factor Surveillance System (i.e., general population of Iowa). The results suggest that experiences of childhood trauma are markedly higher among lowans living with HIV versus the general population. See figures 8.13 and 8.14, on the next page.



**Figure 8.15.**  
ACE Scores Among  
2016 BRFSS (n=7,257)  
and 2019 CNA  
Respondents (n=555)



**Figure 8.16.**  
ACEs Experienced by 2019  
CNA Respondents (n=555)  
Compared to 2012-2014  
BRFSS Respondents  
(19,000+)

Iowa believes that instituting a widespread trauma-informed care paradigm, with an eye toward a healing-centered approach and emphasis on health and racial equity, can significantly turn the tide in the health outcomes for those with current or past traumas, including so many Iowans living with HIV. The Substance Abuse and Mental Health Services Administration (SAMHSA) offers the following definition of “trauma informed:”

“When a human service program takes the step to become trauma-informed, every part of its organization, management, and service delivery system is assessed and potentially modified to include a basic understanding of how trauma affects the life of an individual seeking services. Trauma-informed organizations, programs, and services are based on an understanding of the vulnerabilities or triggers of trauma survivors that traditional service delivery approaches may exacerbate, so that these services and programs can be more supportive and avoid re-traumatization.”

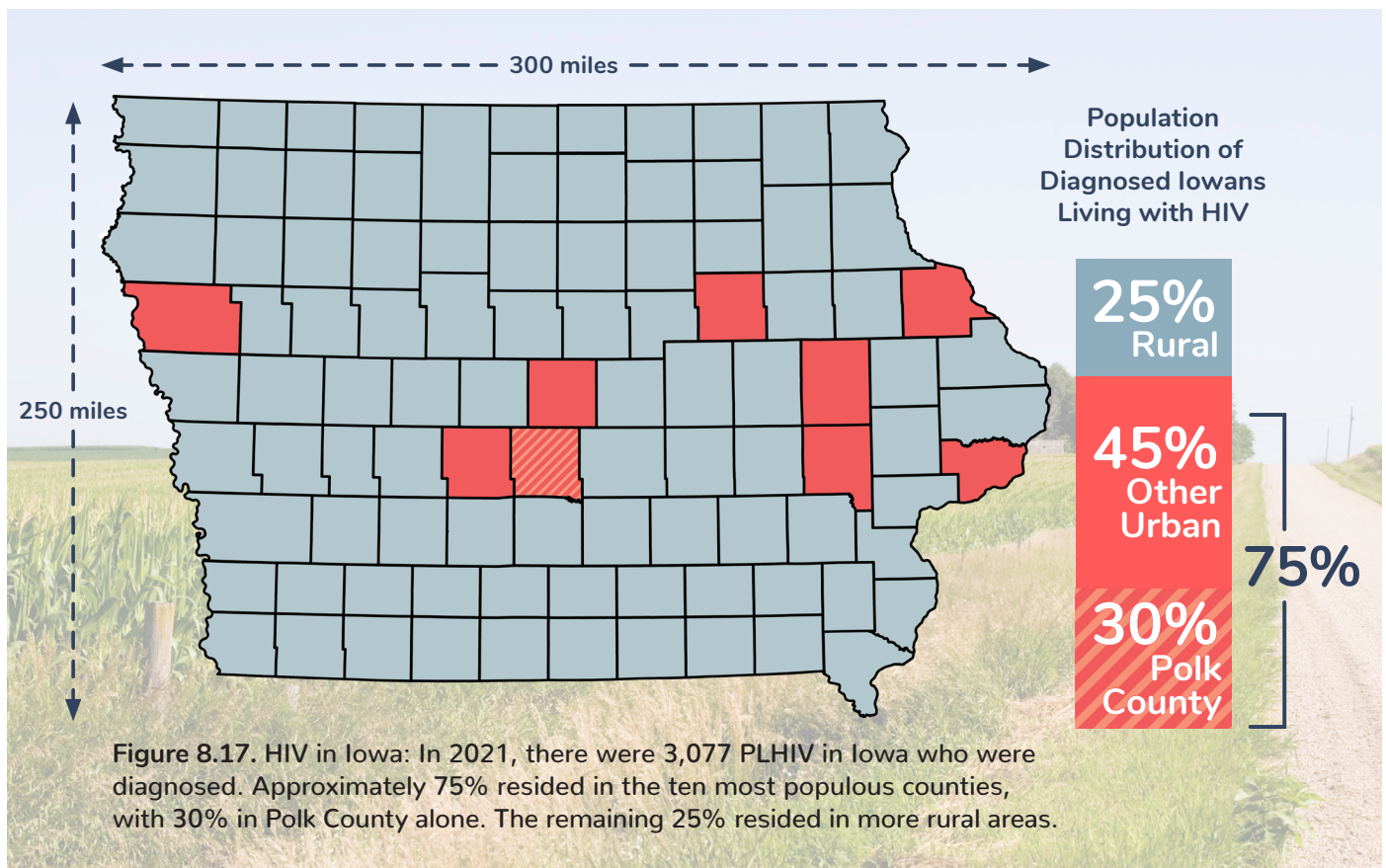
A significant amount of work has already been done with Ryan White contractors and organizations to introduce the trauma-informed approach. In addition, a cross-division workgroup within the Division of Public Health has been developed to coordinate and collaborate on the many initiatives being instituted at the state health department and in communities. Other programs involved include early childhood development, tobacco, intimate partner violence, substance abuse, minority health, and nutrition. Response, interest, hope, and enthusiasm for instituting this approach has been significant. In the coming years, Iowa plans to expand these early efforts both internally and externally.

## Other Structural Barriers

Structural barriers are obstacles that can affect groups disproportionately and perpetuate or maintain stark disparities in outcomes. Iowa's unique population and rural nature are two barriers that affect service delivery and access in Iowa and thus, need constant attention and strategy.

### Population Distribution and Rural Challenges

The geographic distribution of HIV in Iowa provides a unique and often overlooked context from which to assess levels of resources and to ensure their appropriate distribution. Iowa does not have a single epicenter of disease, such as a large metropolitan area, which would allow for efficiencies in the delivery of services. Instead, there are ten mid-sized (micropolitan) population centers that together contain just over 70% of PLHIV. Twenty-five percent of PLHIV in Iowa live in rural areas (defined as counties with populations  $\leq 50,000$ ), compared to the national average of 8%. The Des Moines metropolitan area, Iowa's largest city, contains fewer than 30% of PLHIV in Iowa. This creates an added challenge for delivering services. Expert services are needed in each of those ten population centers, but even this means that nearly one-third of PLHIV must travel to reach one of these centers. It also means that Iowa's resources must be divided to support infrastructure, staff, and supplies in many different areas. As a result of examining this issue during the last planning process in 2016, a Regional Health Specialist initiative has been initiated. It operates utilizing a variation of public health detailing and has at one of its goals to manage the disparate population distribution. In addition, a new support services access point in Ottumwa was created since the last planning period. TeleHealth services were successfully implemented in 2019 at the Dubuque Visiting Nurse Association (DVNA), which greatly eased transportation barriers for clients in eastern Iowa by making local medical services available. Utilizing the success in Dubuque as momentum combined with lessons learned from the COVID-19 pandemic, Iowa's HIV community is committed to addressing the rural and population distribution challenges of Iowa by increasing the availability of Telehealth.



## COMORBIDITIES

In addition to the SDOH described above, often PLHIV also struggle with other diseases or infections like sexually transmitted infections and viral hepatitis as well as mental health and/or substance use issues. This can add to, or create, difficulties in engaging in prevention and care activities all along the HIV care continuum. To end the HIV epidemic in Iowa, it is critical that strategies must be maintained, created, and elevated to help Iowans living with HIV manage these issues. Strategies should include training and support for the workforce.

In addition, as the **HIV epidemic ages, so too do those living with HIV**. It will be increasingly important to attend to the unique needs of those Iowans living with HIV over 50 years old.

### Sexually Transmitted Infections

The connection between HIV and STIs is strong and well documented. According to the CDC, people who have an STI are at an increased risk of acquiring HIV. One reason is the behaviors that put someone at risk for one infection often put them at risk for other infections. In addition, when someone acquires an STI, it suggests they got it from someone who may be at risk for other STIs and HIV. Finally, a sore or inflammation from an STI may allow infection with HIV that would have been stopped by intact skin.

To end the HIV epidemic in Iowa, it will be critical to focus on the unique connection between STIs and HIV. As such, a comprehensive look at opportunities, needs, gaps, and barriers was conducted in 2022. Key findings include:

- Sexual histories are not routinely conducted in urgent care settings, leading to potential missed opportunities for testing persons at increased risk of HIV and other STIs.
- Routine meetings among providers in clinical settings in which best practices and update guidelines are shared results in better sexual health services clinic wide. Especially when championed by leadership.
- Expedited Partner Therapy (EPT) is not well known and very rarely utilized. Concerns over provider liability frequently raised.
- Different providers have different ways they like to receive information and updates (related to HIV/STIs or otherwise).
- Urgent care and FQHC clinics have a higher proportion of their patient population who are BIPOC, immigrants, and other populations that are often marginalized. These are also populations that are often disproportionately impacted by HIV and other STIs.
- HIV PrEP—not routinely discussed in urgent care settings. Very little knowledge of [prepiowa.org](http://prepiowa.org) or TelePrEP.
  - If PrEP is discussed, it is almost exclusively with MSM.
- Stigma—noted in all geographic locations and clinic sites; however stigma related to HIV seemed higher in rural NW Iowa than other parts of the state.
- Concurrent testing of HIV and other STIs (such as syphilis and chlamydia/gonorrhea) is uncommon.
  - Tendency at urgent care clinics is to only test for the most common infections (like chlamydia/gonorrhea).

## Hepatitis C Virus (HCV)

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). Because HIV and HCV can spread in blood, a major risk factor for both HIV and HCV infection is injection drug use. Sharing needles or other drug injection equipment increases the risk of contact with HIV- or HCV-infected blood. Approximately 7% of Iowans living with HIV also have HCV.

Similar to HIV and STIs, to end the HIV epidemic in Iowa, it will be critical to focus on the unique connection between HCV and HIV. As such, a comprehensive look at opportunities, needs, gaps, and barriers was conducted in 2022. Key findings include:

HCV providers feel limited in the number of harm reduction strategies they can offer to PLHIV who are at risk, or living with, HCV due to Iowa paraphilia laws and lack of funding and resources to support syringe service programs (SSP). Increased harm reduction resources and sharing of strategies was identified as a needed intervention. Iowa Medicaid continues to restrict access to HCV treatment for PWID, as well as limiting access to treatment providers by requiring treatment to be prescribed by or in consultation with a specialist. These restrictions create an undue burden on patients seeking treatment, particularly patients with limited resources or social determinants of health impacting access to care.

- **Barriers**
  - Treatment and healthcare provider deserts in rural areas
  - Reluctance of primary care providers to provide HIV/HCV care
  - Challenges related to referrals and linkages to care to specialist
  - Social and structural determinants of health (transportation, etc.)
- **Suggestions for Improvement**
  - Enhanced promotion of the HCV ECHO model for treatment
  - Advocating for changes to Iowa Medicaid requirements for HCV treatment (especially 3-month sobriety requirement)
  - Legalized Syringe Services Programs and harm reduction supplies

## Mental Health

**Mental health conditions affect the overall health and wellbeing of people living with HIV (PLHIV) and individuals who are otherwise vulnerable to acquiring HIV.**

In 2019, the Iowa Department of Public Health assessed the needs of PLHIV in Iowa. The survey had 555 respondents (about 19% of PLHIV in Iowa in 2019).

Below are some of the findings from the data collected during the 2019 needs assessment related to behavioral health:

- Respondents were 2 times more likely to experience a serious mental illness compared to Iowa's general population, 23% compared to 11% respectively.
- 42% of respondents reported using drugs within the past 12 months.
- 46% of respondents reported using tobacco in the past 12 months.
- Respondents were more likely to experience feelings of depression compared to Iowa's general population.
- Respondents were three times more likely to experience sexual abuse.



- Respondents were more than twice as likely to have a high ACE score (4+) than the general public. Adverse Childhood Experiences (ACEs) have been proven to negatively impact a person's health outcomes.
- Respondents were twice as likely to have experienced an incarcerated household member, violence between adults, and physical abuse.
- PLHIV also experience other mental health conditions at higher rates than the general public:
  - 18% of PLHIV experience depression compared to 8% of the general population
  - 21% of PLHIV experience Generalized Anxiety Disorder (GAD) compared to 15% of the general population.
  - 8% of PLHIV experience severe anxiety compared to 2.7% of the general population.
  - Estimates of Post-Traumatic Stress Disorder (PTSD) among PLHIV range from 35%-64%.



**Figure 8.18.** Mental health and substance use have long been stigmatized conditions. As with HIV, stigma surrounding behavioral health can create debilitating barriers to receiving the care one needs to manage their conditions.

In 2015, Iowa closed two of the four state mental health facilities. This reduced the number of available state mental health hospital beds from 239 (2005) to 149 (2010) to 64 (2016). This reduction equates to 2 beds per 100,000 population: significantly lower than the national average of 11.7 beds per 100,000 population, which means Iowa has the fewest number of beds per 100,000 population in the nation. In addition, Iowa ranks 47th in the nation in availability of psychiatrists and 44th in mental health workforce capacity.

## Substance Use Disorders

According to the CDC, substance use and dependence has been closely associated with HIV infection since the beginning of the epidemic. Although injection drug use (IDU) is a direct route of HIV transmission, drinking, smoking, ingesting, or inhaling drugs such as alcohol, crack cocaine, methamphetamine ("meth"), and amyl nitrite ("poppers") are also associated with increased risk for HIV infection. These substances may increase HIV risk by reducing users' inhibitions to engage in risky sexual behavior.

Substance use and addiction are public health concerns for many reasons. In addition to increasing the risk of HIV transmission, substance use can affect people's overall health and make them more susceptible to HIV infection. In those already infected with HIV, substance use can hasten disease progression and negatively affect adherence to treatment.

In 2017, the Bureau of HIV, STI, and Hepatitis partnered with the Bureau of Substance Abuse to hire a shared staff member to serve as a liaison between the two bureaus and to coordinate collaborative efforts. This coordinator identifies opportunities for collaboration and integration using a syndemic approach. In addition, they assess needs and develop training/educational materials for the workforce. In 2019, Iowa embarked on a SPNS (Special Projects of National Significance) to Strengthen Systems of Care for People with HIV & Opioid Disorder. A 3-year work plan was developed with activities in the areas of service provision, stakeholder engagement, workforce development, and data sharing and reporting. The project ended in 2022 and an internal workgroup was established to continue implementing the strategies and activities to move this work forward.

## WORKFORCE

Our workforce is a key component to stopping HIV in Iowa. Front desk staff, social workers, nurses, clinicians, public health workers, and administrators all have a role to play. Recruitment, retention, and capacity building continue to be a concern in Iowa for those providing care to PLHIV, specifically infectious disease providers and clinic staff, case managers, Integrated Testing Services (ITS), and hepatitis C care.

Initial research of national and regional workforce issues informed our workforce focus groups and surveys. This research pointed toward key findings:

- There is a need for additional staff in this field
- Access to care is a barrier, and “access” can mean several different things
- There is a high turnover rate, and consistency of care is an issue
- Equipping staff with the right tools and education during onboarding and ongoing is essential for the best health outcomes for PLHIV

Through the workforce focus groups and survey collection efforts, further insight into the needs of the workforce was gained to best prepare to support stopping HIV in Iowa. Six themes emerged:

1. Primary care providers are a central part of stopping the spread of HIV and need additional training and resources on HIV prevention, testing and care.
2. Training needs to be accessible to all staff working within the HIV field regardless of their position or organization type, and training needs to be offered virtually or recorded for newly hired staff.
3. Increasing the diversity of the HIV workforce could increase retention and engagement of those living with HIV and recruitment within the field can be challenging.
4. Increased integration of HIV education within medical and other professions schooling can positively impact the HIV pandemic.
5. Retention of staff is a concern and impacts the care of PLHIV, especially among HIV case managers.
6. Additional positions are needed to support the care of PLHIV and decrease caseloads and burnout.

# SECTION IX

## Situational Analysis

### PREVENT

Iowa has made great strides to increase access to effective prevention interventions. Free condoms and other safer sex supplies are readily available in communities. However, condom aversion remains high among priority populations, and STI rates continue to increase. Current efforts should be maintained while expanding the availability of information related to efficacy and correct use of condoms. Ineffective sexual health education policies mean Iowa's youth do not receive comprehensive sex education in public schools. According to Eyes Open Iowa, a statewide organization working adolescent sexual health, only half of Iowa's sexual health education includes prevention information that is relevant to the LGBTQ+ community. Yet, we know that over half of people newly diagnosed with HIV each year are men who have sex with men (MSM). Policies and programs to increase the availability of, and access to, culturally responsive sex education programs are needed. In particular, the community called on the state to promote the concept that sexual health is an important part of overall health, particularly among populations disproportionately impacted by sexually transmitted infections and PLHIV. Additionally, outreach programs are needed to reach populations most impacted by HIV.

PrEP is an important tool in the prevention toolbox, and awareness of and access to PrEP has increased in Iowa over the past 5 years. Public health detailing conducted by the Regional Health Specialists (RHS) has increased the number of providers aware of and prescribing PrEP, statewide navigation services provide one-on-one assistance to navigate barriers to accessing and maintaining PrEP use, and tele-medical delivery of PrEP helps to fill in geographic gaps and privacy concerns. However, uptake of PrEP is still lower than is needed, barriers to access remain, and stigma and disparities among populations exist. Nationally PrEP use is higher among White people than among Black and Latino people. A variety of interventions at the individual, community, and policy levels are needed to increase awareness of and access to PrEP in Iowa. Additionally, access to nPEP remains challenging in rural and urban areas of the state. Coordinated efforts are needed to address these barriers.

To prevent HIV in Iowa, implementation of safe, effective prevention interventions is needed. In addition to the aforementioned PrEP and nPEP, access to sterile drug injection equipment is necessary to reduce transmission of infectious diseases associated with drug use. Historically, around 7% of Iowans newly diagnosed with HIV report a history of injection drug use. In 2021, that increased to 11%. When considering all PWID (PWID plus MSM/PWID), 18% of new diagnoses in 2021 were among this group. Current legislation prohibits the distribution of equipment deemed to be drug paraphernalia. Programming and/or policy change that improves access to these safe, effective prevention interventions and supplies is needed.

Strategies to increase the diversity and capacity of the workforce are also needed to prevent new HIV transmissions. Through funding and programs such as public health detailing, targeted efforts have been made to increase the training and resources available to the HIV workforce. Though progress has been made, training and technical assistance are needed to support those who are working in HIV prevention or primary care to ensure they have the skills and tools to implement HIV prevention interventions. The number of staff working in HIV prevention has increased with funding increases since 2016. However, community members are clearly calling for an increase in the diversity and amount of lived experience among providers. Moving forward, a focus on diversifying the workforce and hiring people with lived experience will be important.

The issues of stigma and discrimination arose throughout the community engagement process. Additionally, racial and ethnic minorities are overrepresented among people newly diagnosed with HIV. Data should continue to be used and new methodologies should be identified to detect populations and areas experiencing a disproportionate burden of diagnoses. These populations and locations should be prioritized for implementing and scaling up prevention interventions. The community also recommended diversifying our use of data to understand the role of social determinants of health better, and to examine the relationship between upstream determinants of health and the increase in vulnerability of populations to transmission of HIV (see Strategic Plan Objectives 4.5.1 and 4.5.5).

## DIAGNOSE

Structural-, community-, and individual-level interventions have focused on increasing HIV testing across Iowa. Public health detailing works to educate primary care providers on the importance of “once in a lifetime” testing, regular testing for individuals who may benefit from it, and methods to conduct sexual health assessments. Resources directed toward HIV testing by the Bureau of HIV, STI, and Hepatitis have increased, and ITS sites serve more Iowans and locations than ever before. Innovative demonstration projects such as pharmacy-based testing, testing in SUD treatment facilities, and home-based testing are being supported and evaluated for opportunities to scale up best practices.

Although testing efforts and resources have increased, 14% of PLHIV are unaware of their HIV statuses. Additionally, in 2021, 26% of individuals newly diagnosed were “late testers,” meaning that they received an AIDS diagnosis within three months of their HIV diagnoses. The percentage of individuals considered to be “late testers” has decreased over the past 10 years. However, early diagnosis is key to engaging people in care to ensure the best health outcomes and to prevent transmission to partners. HIV testing needs to be available in a variety of settings to reach individuals and populations that are disproportionately impacted by HIV. Additionally, HIV and other STI testing should be a routine part of healthcare services, especially in primary care and emergency department settings. Unfortunately, CDC guidelines on routine HIV testing indicate that routine testing is cost ineffective when it is demonstrated that the prevalence of undiagnosed HIV in a population of clients is less than 1 per 1,000. Iowa is unlikely to have many, if any, providers who serve populations that exceed that threshold. Policy changes to promote routine screening in selected venues and to reduce barriers minors may face to access testing are needed. Iowa currently requires minors to give written consent for testing and for the notification of their parents or guardians should they test positive. A previous survey has shown that the parental notification requirement and the need for written consent among minors inhibit a significant number of medical providers from offering HIV testing to minors in Iowa.

Prevention and testing services should be holistic and comprehensive. STI testing is an important component of HIV prevention. Community members suggested that stigma related to STIs would be reduced by normalizing comprehensive sexual health services, including routinizing testing for sexually transmitted infections, such as syphilis, HIV, chlamydia, and gonorrhea. They also suggested making sexual health services more convenient via express clinics, at-home testing, and other strategies.

Black and Latino communities bear a disproportionate burden of HIV in Iowa. Stigma, racism, medical mistrust, and other social and structural barriers impact testing and linkage among these populations. Culturally responsive strategies, including diversifying and increasing the cultural capacity of the HIV workforce in Iowa, were highlighted by the community. Other needs included integrating testing into other venues and services outside of medical settings.

To support all of these initiatives, a holistic, status-neutral approach is necessary. The status-neutral model, described in Section VII of this plan, seeks to address the social and structural barriers that keep people from obtaining optimal health. The model also aims to reduce the disparities seen among specific marginalized populations in Iowa.

## TREAT

Over the past 10 years, an average of 85% of people newly diagnosed with HIV each year are linked to care within one month of their diagnoses. Much of this success is due to the strength of the Disease Intervention Specialist (DIS) workforce in Iowa. While linkage rates remain relatively high, challenges remain. Many of the factors that impact linkage are described above, including stigma, economic instability, access to housing and transportation, mental health and substance use disorders, co-occurring conditions, etc.

In 2021, the Division of STD Prevention at the CDC provided additional funding to support the expansion of the DIS workforce. As described in the Financial and Human Resources Inventory section, the DIS workforce provides linkage services to individuals newly diagnosed with HIV. With the additional resources, the bureau added four new DIS positions and provided the four largest counties with additional resources to add DIS staff at the local level. This should help to not only to increase linkage rates, but also help with burnout among staff.

Through Iowa's Data-to-Services Program, re-engagement efforts have improved significantly over the past five years. Currently, Iowa's "out-of-care" rate is one of the lowest in the nation—hovering between 8-10% compared to 50% nationally. It is imperative that human and financial resources continue to be available for this important initiative.

Iowa has a strong system of Ryan White Part B and C providers, an active AIDS Education and Training Center, and several excellent Infectious Disease providers across the state. Iowa's Ryan White Part B Program has a philosophy of not only retention in medical care, but also in support services. Those engaged with support services, especially case management, have a significantly higher viral suppression rate than those who are not engaged in those services. Therefore, Iowa encourages retention in these services by enrolling clients in the appropriate level, or tier, of Ryan White services based on current needs. Still disparities exist in achieving viral suppression, specifically in Black and African/American Iowans and those under 35 years of age.

Over the last decade, and especially since 2016, a much-needed increase in resources was realized. Since that time core medical and support services have expanded substantially. It will be critical over the next five years to continue to strengthen this system to ensure a diverse, well-trained, and supported workforce. Special attention will need to be paid to those issues that continue to make it difficult for Iowans living with HIV to stay engaged in their care, such as continued stigma, racism, economic instability, homelessness and housing instability, economic instability, mental health and substance use issues, the impact of childhood trauma and continued chronic stress. Community members stressed the importance of addressing social determinants of health, mental health, and substance use issues using trauma-informed and healing-centered approaches.

Finally, as the HIV epidemic ages, so too do Iowans living with HIV. Special attention will need to be paid to the unique needs of PLHIV over the age of 50, including common ailments such as diabetes and heart disease as well as loneliness and isolation.

## RESPOND

In 2014, Iowa's Data-to-Services (DTS) Program was established to engage people who were out of HIV primary medical care and to help identify and respond to rapidly growing HIV transmission networks in Iowa (i.e., cluster detection and response). This program is supported and led by a statewide DTS Coordinator who sits within the Bureau of HIV, STI, and Hepatitis. In 2020, an HIV Cluster and Outbreak Detection and Response Plan was developed, and cluster detection and response activities began in 2021 as part of regular HIV surveillance work. During the development of the HIV Cluster and Outbreak



Detection and Response Plan and continuing throughout this planning process, the bureau engaged the HIV and Hepatitis Community Planning Group (CPG) as well as PLHIV to hear the concerns and recommendations for how to implement DTS activities successfully. Concerns related to data collection, privacy, and consent were voiced. In 2014, the Iowa legislature worked with advocates in the state to “modernize” Iowa’s criminal transmission law. Information on HIV medication adherence, viral loads, or genetic strains of HIV are not releasable by the department. Nevertheless, strategies that support DTS efforts should continue to include monitoring and addressing stigma associated with policies and laws that impact PLHIV. Additionally, efforts should be made to continue to secure and protect data collected for public health purposes.

The internal DTS work conducted by the bureau and HIV surveillance program is supported by additional programs working to expand HIV infrastructure and workforce to support response efforts. This includes a strong workforce of Disease Intervention Specialists (DIS). They work directly with individuals who may be part of rapidly growing networks of HIV to ensure their access to care and linkage to services. At the same time, they engage partners of those in networks to ensure prevention services like PrEP, STI testing, and referrals for behavioral health services, are offered and considered. The DTS team also includes the Regional Health Specialists (RHS) who conduct public health detailing. Public health detailing has increased the number of providers who are aware of DTS services, the need for routine HIV testing, and how to prescribe PrEP, all which builds our statewide capacity to respond to rapidly growing networks of HIV. Efforts should be continued to increase the capacity of the infrastructure and workforce able to respond to rapidly growing networks of HIV.

## PRIORITY POPULATIONS

In May 2022, CPG began the process of prioritizing populations for prevention services. This process had not been undertaken since the majority of CDC funding for HIV prevention was removed under the 2012–2017 funding opportunity announcement. Some of the reasons for reinitiating the prioritization process included recent increases in overall funding for the Bureau of HIV, STI, and Hepatitis, EHE planning, requests from local partners for guidance on prioritization of populations, and a need to understand whether current prevention and care efforts and outcomes were being experienced by populations equitably.

The process involved the following steps:

1. Create a list of populations to be examined and a brief description of each population. The full list of populations can be found in Appendix B.
2. Create a list of prevention-related factors or measures to be used to indicate how well or poorly each population is doing. Nine factors were selected by the planning committee. See Worksheet 1 in Appendix C.
3. Weight each factor from 1 to 5 for how good or important it is as a predictor of successful outcomes for the population
4. Create ratings from 1 to 5 for each factor to distribute the populations according to data collected for each population for that factor or measure. See Worksheet 2 in Appendix D.
5. Collect the data for each factor for each population and assign a rating.
6. Multiply the weights by the ratings for each factor and sum across the factors for each population.
7. Rank the populations by score. See the final list of populations and scores on the next page.

## PRIORITY POPULATIONS

Rank	Population	Score
1	Black MSM	142
2	Latino MSM	122
3	Black people born outside the US	113
4	People who inject drugs	108
5	Black women born outside the US	107
6	Latino/a people born outside the US	105
7	White MSM	105
8	Black people born in the US	105
9	Men who have sex with men - any race	105
10	Youth aged 13-24 years	105
11	Women—any race or ethnicity	101
12	Heterosexual people with identified risks	101
13	Latina women born outside the US	97
14	Black women born in the US	96
15	Latino/a people born in the US	82
16	Transgender people	77
17	Latina women born in the US	73

The exercise was conducted over two meetings, which allowed CPG members to review the process and provide feedback in real time. Additional populations were added, and factor ratings were adjusted based upon the feedback. Notably, factor ratings were adjusted to accommodate a population that was an outlier when compared to other populations. Specifically, Black MSM were found to be disproportionately impacted on a number of factors, and community members felt this deserved special recognition. They agreed to assign a rating beyond the 1 to 5 initially allowed in the scoring matrix. While this did not affect the overall ranking of this population, it did provide a meaningful increase in overall score for the population. CPG members agreed that the score better reflected the unmet prevention needs of Black MSM in Iowa.

Finally, CPG members discussed whether to prioritize populations for HIV care using a new scoring rubric specific to care metrics. It was decided to add this as an objective in the plan so that more time could be spent preparing a care-based scoring tool and rubric.

## ADDRESSING THE NEEDS OF PRIORITY POPULATIONS

Addressing the needs of priority populations is found throughout the objectives and strategies of the strategic plan. The strategies within goal 3 best speak to how the needs of priority populations will be addressed. Specifically, increasing the meaningful involvement of people with lived experience was a common theme in listening sessions. Since the significant loss of CDC prevention funding that began in 2012, programs in the Bureau of HIV, STI, and Hepatitis have not allocated funding by population, opting to allow subrecipients of funding to do that locally, when possible. The notable increase in funding more recently will allow for better targeting of funding to prioritized populations at the state and local levels. As described in Objective 3.2, funds will again be allocated to address prioritized populations. In addition, more opportunities to involve people of lived experience in prevention and care strategies will be made available (see Objectives 1.4, 2.1, and 2.2).

Throughout the planning process, the community emphasized other needs that could help address priority populations better and reduce health inequities. Emphasis was placed on the need to develop relationships and to collaborate with non-traditional partners at the community level, including with local, grassroots, social and community power-building organizations that serve populations that experience disparities in HIV prevention, care, and treatment outcomes (see Objective 4.2.2). There was also a recommendation to increase cross-disciplinary partnerships and collaboration between public health and other systems, including the justice system, housing, urban and regional planning, and tribal nations, to expand access to information and resources among disproportionately affected populations (see Objectives 4.4.1 and 4.4.2).

# SECTION X—Strategic Plan

## GOAL 1: PREVENT NEW HIV INFECTIONS

### Objective 1.1 Increase Awareness of HIV.

- Strategy 1.1.1 Develop, implement, and evaluate culturally responsive campaigns, interventions, and resources to raise awareness of HIV among the general public and disproportionately impacted populations.
- Strategy 1.1.2 Increase availability of and access to, culturally responsive sexual education and outreach programs for youth.

### Objective 1.2 Increase knowledge of HIV status.

- Strategy 1.2.1 Implement HIV, STI, and HCV testing in places that have the potential to serve as key points of entry, including county jails, prisons, substance use prevention and treatment settings, and community-based harm reduction service organizations.
- Strategy 1.2.2 Incorporate a status-neutral approach to HIV testing to include social support services for all people regardless of test result.
- Strategy 1.2.3 Develop and expand implementation of effective models for testing, such as opt-out testing and conducting sexual histories in medical settings, free testing, home-based testing, express testing, incentivized testing, and service delivery outside of traditional business hours and physical locations.
- Strategy 1.2.4 Increase awareness of and promote concurrent testing (HIV, STI, and HCV), preventative sexual health services (e.g., hepatitis A/B and HPV vaccination), and harm reduction among providers and the general public.
- Strategy 1.2.5 Provide partner services to people diagnosed with HIV or other STIs and their sexual and/or syringe-sharing partners.

### Objective 1.3 Expand and improve implementation of safe, effective prevention interventions, including treatment as prevention, PrEP, nPEP, and SSPs.

- Strategy 1.3.1 Expand awareness of treatment as prevention by amplifying the Undetectable=Untransmittable (U=U) message.
- Strategy 1.3.2 Increase access, uptake, and maintenance of PrEP.
- Strategy 1.3.3 Increase access to nPEP.
- Strategy 1.3.4 Support policy change that improves access to safe, effective prevention interventions (e.g., SSPs, pharmacists prescribing PrEP and nPEP).
- Strategy 1.3.5 Maintain a condom distribution system and expand the availability of information related to efficacy and correct use.
- Strategy 1.3.6 Standardize processes and procedures to identify populations and areas (geographic) experiencing a disproportionate burden of diagnoses. Prioritize these populations and locations for testing, education, and prevention intervention strategies.

Strategy 1.3.7 Implement widespread holistic trauma-informed, healing-centered approaches in those organizations that serve disproportionately impacted populations with a focus on service delivery and evaluation; physical environment; client-centered practices; workforce training and development.

**Objective 1.4 Increase the diversity and capacity of healthcare delivery systems, community health, public health, and the health workforce to prevent and diagnose HIV.**

Strategy 1.4.1 Diversify the HIV workforce so that the composition of HIV prevention frontline staff is proportionate to the diagnosis and prevalence rates of disproportionately impacted populations and reflects their lived experience.

Strategy 1.4.2 Provide resources, training, and technical assistance to primary care providers to expand workforce and systems capacity to provide or link people to culturally responsive and linguistically appropriate HIV,STI, and viral hepatitis testing, prevention, and supportive services especially in areas with shortages that are geographic, population, or facility-based.

Strategy 1.4.3 Provide training, technical assistance, certification, supervision, financing, and team-based service delivery to support the prevention workforce.

Strategy 1.4.4 Implement HIV, STI, and viral hepatitis testing and prevention education requirements into healthcare provider licensure requirements.



## GOAL 2: IMPROVE HEALTH-RELATED OUTCOMES OF PEOPLE LIVING WITH HIV

### Objective 2.1 Link PLHIV immediately after diagnosis and provide low-barrier access to treatment.

- Strategy 2.1.1 Rapidly link people newly diagnosed with HIV to medical care and support services.
- Strategy 2.1.2 Provide same-day or rapid start (within 7 days of HIV diagnosis) of antiretroviral therapy.
- Strategy 2.1.3 Support peer support specialists to assist newly diagnosed people living with HIV and partners to navigate medical, health, and community resources.

### Objective 2.2 Identify, engage, or re-engage PLHIV who are not in care or who are not virally suppressed.

- Strategy 2.2.1 Prioritize engaging and re-engaging Black/African Americans, Latinos, and youth into care.
- Strategy 2.2.2 Quickly detect and respond to rapid transmission of HIV among Iowans.
- Strategy 2.2.3 Utilize historical and current data to improve re-engagement and direct future programming (e.g., reasons individuals fall out of care, methods/resources that are most successful in helping individuals re-engage and stay in care, etc).
- Strategy 2.2.4 Expand programming and services for individuals who are incarcerated and/or transitioning out of incarceration.
- Strategy 2.2.5 Increase collaborative efforts with Ryan White Part B and Part C agencies to identify individuals who are lost to care or at high risk of falling out of care earlier (case consultations, investigations, etc.).

### Objective 2.3 Increase retention in care and adherence to HIV treatment to achieve and maintain viral suppression.

- Strategy 2.3.1 Ensure essential needs, such as food and housing, are met for Iowans living with HIV.
- Strategy 2.3.2 Develop and implement, expand, and/or maintain interventions and supportive services, such as transportation, utilities, telehealth, community health workers, peer navigators, and underutilized Ryan White service categories, to improve retention in care.
- Strategy 2.3.3 Gain better understanding of current resources for educational and workforce development and ensure access to those resources.
- Strategy 2.3.4 Implement effective, evidence-based biomedical solutions such as long-acting injectables and at-home testing for routine laboratory tests.
- Strategy 2.3.5 Develop and implement holistic, culturally responsive, effective strategies and activities to ensure the most disproportionately affected populations receive tailored approaches to increase achievement and maintenance of viral suppression.
- Strategy 2.3.6 Improve health literacy among people living with HIV to improve health outcomes related and unrelated to HIV diagnosis status.

**Objective 2.4 Provide integrative HIV services for HIV-associated comorbidities, coinfections, and complications, including STIs.**

- Strategy 2.4.1 Implement widespread holistic trauma-informed, healing-centered approaches in those organizations that serve Iowans living with HIV with a focus on service delivery and evaluation; physical environment; client-centered practices; workforce training and development.
- Strategy 2.4.2 Address the mental health needs of PLHIV through innovative and collaborative approaches.
- Strategy 2.4.3 Address the substance use disorder needs of PLHIV through innovative and collaborative approaches.
- Strategy 2.4.4 Address the impacts of intimate partner violence and human trafficking on PLHIV through innovative and collaborative approaches.
- Strategy 2.4.5 Address aging-related issues (e.g., social isolation, multiple complex medical issues, memory-related issues/dementia, benefit coordination with long-term care facilities, etc) through innovative and collaborative approaches.
- Strategy 2.4.6 Increase screenings for STIs, cancer (anal and cervical), mammograms, colonoscopies, etc. and increase availability and coordination of care for co-morbidities including STIs, cardiovascular disease, diabetes, etc.

**Objective 2.5 Increase the capacity of the HIV workforce to provide holistic care and treatment for people living with HIV.**

- Strategy 2.5.1 Diversify the HIV workforce so that the composition of HIV care frontline staff is proportionate to the diagnosis and prevalence rates of disproportionately impacted populations and reflects their lived experience.
- Strategy 2.5.2 Provide resources, training, and technical assistance to expand the knowledge and openness of Iowa primary care providers to provide primary care to PLHIV.
- Strategy 2.5.3 Increase capacity to provide or link clients to culturally responsive and linguistically appropriate care, treatment, and supportive services with a trauma-informed, healing-centered approach, especially in areas with shortages that are geographic, population, or facility based.
- Strategy 2.5.4 Develop and implement strategies to increase capacity and reduce turnover of HIV medical care and supportive services workforce, such as increasing paraprofessional positions, capacity building programming, workforce wellness, and leadership programs.

## GOAL 3: REDUCE HIV-RELATED DISPARITIES AND HEALTH INEQUITIES

### Objective 3.1 Reduce HIV-related stigma and discrimination.

- Strategy 3.1.1 Monitor and address stigma associated with specific policies and laws (e.g., criminal transmission law, minor consent and parental notification, HIV surveillance policies and procedures, paraphernalia law).
- Strategy 3.1.2 Secure and protect public health data and information to ensure they are used only for public health and not for purposes that potentially involve criminal justice or other punitive purposes.
- Strategy 3.1.3 Provide more opportunities for social support and networking among PLHIV as a way of building community resilience and advocacy to end stigma and discrimination.
- Strategy 3.1.4 Develop, implement, and evaluate culturally responsive campaigns, interventions, and resources to reduce stigma that affects populations that are most affected by HIV, STIs, and viral hepatitis.
- Strategy 3.1.5 Participate in national anti-stigma training, learning collaboratives, and initiatives to ensure transformational change (e.g., Ending Stigma through Collaboration and Lifting All to Empowerment (ESCALATE)).
- Strategy 3.1.6 Reduce stigma that prevents people who use drugs from seeking harm reduction and other needed services.
- Strategy 3.1.7 Ensure that the HIV service-delivery workforce completes education and training on stigma, discrimination, and unrecognized bias.

### Objective 3.2 Reduce disparities along the HIV Continuum.

- Strategy 3.2.1 Prioritize populations for prevention and care regularly using data to identify the populations most affected and those that have barriers to achieving optimal viral suppression and health outcomes.
- Strategy 3.2.2 Ensure resources are focused on the communities and populations where the need is greatest, especially Black, Latino, and American Indian/Alaska Native and other people of color, particularly those who are also gay and bisexual men, transgender people, people who use substances, sex workers, and immigrants.
- Strategy 3.2.3 Identify and build relationships with culturally responsive referral sources and networks for Black and Latino clients including mental health, and substance use institutions/professionals to expand access to culturally responsive services and resources.
- Strategy 3.2.4 Provide funding, capacity building, and technical assistance opportunities to community organizations to reach people in disproportionately affected populations.
- Strategy 3.2.5 Address social determinants of health and co-occurring conditions that impede access to HIV services and exacerbate disparities.

### Objective 3.3 Develop meaningful opportunities for collaboration, decision-making, and service delivery including people with lived experience.

- Strategy 3.3.1 Ensure disproportionately affected populations are engaged in the HIV and Hepatitis Community Planning Group (CPG) and other decision-making bodies, with 50% representation of priority populations, by the end of 2025.

- Strategy 3.3.2 Develop and implement a plan to maintain the community engagement planning process, including participatory budgeting processes and community-driven decision-making.
- Strategy 3.3.3 Institutionalize an anti-racism advisory group led by people with lived experience.
- Objective 3.4 Increase the diversity and capacity of healthcare delivery systems, community health, public health, and the health workforce to improve cultural responsiveness and access to services.**
- Strategy 3.4.1 Diversify the HIV workforce so that the composition of HIV care and prevention frontline staff is proportionate to the diagnosis and prevalence rates of disproportionately affected populations and reflects their lived experience.
- Strategy 3.4.2 Engage, employ, support, and provide public leadership opportunities at all levels for people living with or from communities disproportionately affected by HIV.
- Strategy 3.4.3 Promote the development of mentoring programs, community-based participatory research practices, social networking approaches, and other initiatives designed to increase recruitment of BIPOC and other professionals with lived experience.
- Strategy 3.4.4 Ensure the implementation of best practices to support equity in hiring, recruitment, and promotion within the HIV service delivery system.
- Strategy 3.4.5 Address prejudice and discrimination in the workforce (racism, ethnocentrism, homophobia, transphobia) by incorporating social justice into programming and other public health work.
- Strategy 3.4.6 Educate healthcare professionals and front-line staff on stigma, discrimination, and bias toward populations living with or disproportionately affected by HIV, STIs, and viral hepatitis.
- Strategy 3.4.7 Ensure health equity is incorporated into the planning, implementation, and content of bureau conferences.

**Objective 3.5 Address healthcare mistrust and misinformation.**

- Strategy 3.5.1 Develop, implement, and evaluate culturally appropriate campaigns, interventions, and resources in a variety of languages and platforms to raise awareness of HIV, STIs, and viral hepatitis among the general public and disproportionately impacted populations.
- Strategy 3.5.2 Address medical bias and build mutual trust between providers and priority populations.
- Strategy 3.5.3 Utilize a community-based participatory research model to assess levels of healthcare mistrust and misinformation throughout Iowa and to develop action steps to improve the relationship between community members and public health.

## GOAL 4: ACHIEVE INTEGRATED, COORDINATED EFFORTS THAT ADDRESS THE HIV EPIDEMIC AMONG ALL PARTNERS AND INTERESTED PARTIES

### Objective 4.1 Integrate programs to address the syndemic of HIV, STIs, viral hepatitis, substance use, and mental health disorders.

- Strategy 4.1.1 Coordinate service delivery, data collection, and program implementation among ITS, CBSS, and other programs providing sexual health services.
- Strategy 4.1.2 Coordinate efforts with internal and external partners, including harm reduction service organizations, to address the syndemic and improve health outcomes for PWUD.
- Strategy 4.1.3 Identify and address funding, policy, data, workforce capacity, and programmatic barriers to remove silos and effectively address the syndemics.
- Strategy 4.1.4 Integrate HIV, STI, and viral hepatitis awareness and education into all services that reach disproportionately affected populations (substance use, mental health, housing, correctional settings, intimate partner violence, human trafficking).
- Strategy 4.1.5 Coordinate strategic planning across partners within HHS.
- Strategy 4.1.6 Ensure meaningful involvement of people with lived experience in developing programs, practices, and policies.

### Objective 4.2 Increase coordination among and sharing of best practices from HIV programs across all levels of government (federal, state, tribal, local, and territorial) and with public and private healthcare payers, faith-based and community-based organizations, the private sector, academic partners, and the community.

- Strategy 4.2.1 Collaborate with organizations and agencies that serve adolescents (e.g., schools, community organizations, state/local programs) to increase access to sexual health education, risk reduction, and clinical services. Prioritize these efforts for BIPOC and other disproportionately affected populations.
- Strategy 4.2.2 Collaborate with local, grass roots, social and community power-building organizations to share power and resources with communities that are most disproportionately affected by health inequities.
- Strategy 4.2.3 Partner with societies, boards, and internal partners to disseminate information to healthcare providers (e.g., USPSTF/CDC testing recommendation, referral information, Ryan White services, disease reporting, partner services).
- Strategy 4.2.4 Provide opportunities for collaboration and coordination of efforts by providers across the HIV continuum of care.
- Strategy 4.2.5 Coordinate across partners to quickly detect and respond to HIV, STI, and viral hepatitis outbreaks.
- Strategy 4.2.6 Expand use of Expedited Partner Therapy (EPT) for treatment of STIs by providers to reduce co-factors of HIV transmission.



**Objective 4.3 Enhance the quality, accessibility, sharing, and uses of data, including HIV prevention and care continua data and social determinants of health data.**

- Strategy 4.3.1 Expand the data to care program to utilize STI data to identify individuals who may benefit from PrEP intervention and facilitate linkage to care.
- Strategy 4.3.2 Implement and maintain data sharing agreements with key data sets and stakeholders.
- Strategy 4.3.3 Maximize utility of case management data systems for service delivery.

**Objective 4.4 Foster private-public-community partnerships to identify and scale up best practices and accelerate HIV advances.**

- Strategy 4.4.1 Increase partnerships and collaboration between public health and its partners in education, justice, housing, urban and regional planning, tribal nations, among others, to expand access to resources among disproportionately affected populations.
- Strategy 4.4.2 Establish relationships with Native American nations/tribal leadership from Iowa and surrounding states to discuss trends related to HIV, hepatitis and other STIs, and identify areas of future collaboration and growth.
- Strategy 4.4.3 Advocate for improved technology and broadband infrastructure to increase access to HIV prevention and care services.
- Strategy 4.4.4 Establish relationships and develop buy-in from organizational and senior-level healthcare administration to support funding for and access to resources for addressing health-related social needs (HRSNs) and SDOH.

**Objective 4.5 Improve mechanisms to measure, monitor, evaluate, and use the information to report progress and course correct as needed in order to achieve the plan's goals.**

- Strategy 4.5.1 Streamline and harmonize reporting and data systems to reduce burden and improve the timeliness, availability, and usefulness of data.
- Strategy 4.5.2 Monitor, review, evaluate, and regularly communicate progress on this plan.
- Strategy 4.5.3 Utilize a QI framework to evaluate and make recommendations for improvements.
- Strategy 4.5.4 Identify opportunities to incorporate the priorities of this plan in funding opportunities.
- Strategy 4.5.5 Ensure resources are focused on communities, populations, and geographic areas where the need is greatest.

## SECTION XI

# Monitoring, Implementation, and Evaluation

The Stop HIV Iowa plan provides a framework for ending the HIV epidemic in Iowa. Development of this plan was a collaborative process led by the Bureau of HIV, STI, and Hepatitis that engaged partners, stakeholders, and community members from across the state. This framework will be used by the Bureau of HIV, STI, and Hepatitis and the HIV and Hepatitis Community Planning Group (CPG) to coordinate partners, stakeholders, and resources to achieve the goals, objectives, and strategies of the plan.

Addressing HIV in Iowa will require a coordinated, syndemic approach among a variety of stakeholders and partners. Goal four of the plan is to achieve integrated, coordinated efforts that address the HIV epidemic among all partners and interested parties. The strategies developed within the five objectives of goal four will lay the groundwork for implementation, monitoring, and follow-up.

### IMPLEMENTATION

The Bureau of HIV, STI, and Hepatitis and CPG will continue to collaborate with partners, stakeholders, and community members to develop an implementation plan. The implementation plan will include detailed activities to describe how the strategies and activities will be accomplished. Throughout the community engagement and planning process described in Section II, recommended activities were collected by focus area co-chairs. These activities will be incorporated into the development of the implementation plan.

During 2023, bureau staff will work with CPG and other partners during four meetings focused on the development of the implementation plan. Additionally, bureau staff will develop annual work plans with shorter time frames and more specific details. The implementation plan and corresponding work plans will guide implementation timelines, prioritization of activities, and resource allocation. Leadership within the bureau will serve as the coordinating workgroup to avoid duplication of efforts and gaps in service provision.

### MONITORING, REPORTING, AND IMPROVEMENT

A variety of mechanisms are and will continue to be used to monitor and evaluate progress and report outcomes to CPG, community members, stakeholders, and the public. Quarterly CPG meetings are used to provide implementation and progress updates, collect feedback, and redirect as needed.

Additionally, during the planning and community engagement process, multiple strategies were developed to improve mechanisms to measure, monitor, and evaluate plan implementation. These strategies are outlined in Goal 4, Objective 5 and include: 1) streamline and harmonize reporting and data systems; 2) monitor, review, and regularly communicate progress on this plan; 3) utilize a QI framework to evaluate and make recommendations for improvements; 4) identify opportunities to incorporate the priorities of this plan in funding opportunities; and 5) ensure resources are focused on communities, populations, and geographic areas where the need is greatest. As mentioned previously, a detailed implementation plan will be developed to identify specific activities in this area.

In collaboration with CPG, additional groups serve as advisory bodies to the Bureau of HIV, STI, and Hepatitis and will participate in monitoring and evaluating plan activities and progress. These groups include Iowa's Health Initiatives for People Who Use Drugs (HIPWUD), the Ryan White Quality Management Team, and a committee focused on racial and health equity.

The Ryan White Quality Management Team, launched in 2014, guides the work of the Ryan White Quality Management Program, which aims to ensure the highest quality of medical and support services

to achieve optimal health outcomes for PLHIV. The team monitors performance measures along the continuum of care and utilizes performance measure data to identify areas for improvement and to develop quality improvement (QI) projects. As described above, the use of the QI framework will be expanded to evaluate and make recommendations for the strategies and activities of this plan.

## EVALUATION

The Stop HIV Iowa plan includes thirteen indicators to monitor progress toward achieving the plan's objectives. Below is a list of the indicators to monitor annual progress toward achieving the plans goals and objectives:

- Indicator 1:** Increase knowledge of status
- Indicator 2:** Reduce new HIV diagnoses
- Indicator 3:** Increase PrEP coverage
- Indicator 4:** Increase linkage to care
- Indicator 5:** Increase viral suppression
- Indicator 6:** Decrease stigma
- Indicator 7:** Improve the general health of PLHIV
- Indicator 8:** Improve the mental health of PLHIV
- Indicator 9:** Decrease food insecurity among PLHIV
- Indicator 10:** Decrease the proportion of PLHIV who report being out of work
- Indicator 11:** Decrease the proportion of PLHIV who report being unstably housed or experiencing homelessness
- Indicator 12:** Increase LGBTQ+-supportive school policies and practices
- Indicator 13:** Increase sexual health education in secondary schools

In addition, two indicators are stratified by priority populations to measure progress toward reducing disparities. These indicators include “**Reduce new HIV diagnoses**” and “**Increase Viral Suppression.**” Outcomes of those two indicators will be stratified by the following priority populations:

- Black/African American;
- Latino/Hispanic MSM;
- Black people born outside the U.S.;
- People who inject drugs;
- Black women born outside the U.S.;
- Latino people born outside the U.S.;
- White MSM;
- Black people born in the U.S.;
- MSM (any race or ethnicity); and
- Youth aged 13 to 24 years.

A comprehensive overview of the thirteen indicators including definitions, methodology, and data sources can be found in Appendix F.

STATE OF IOWA DEPARTMENT OF  
**Health** AND **Human**  
SERVICES

**State of Iowa HIV Disease  
End-of-Year 2021  
Surveillance Report**

SEPTEMBER 2022

**AUTHORSHIP – BUREAU OF HIV, STI, AND HEPATITIS**

## Acknowledgements

### SUGGESTED CITATION:

Iowa Department of Public Health, Bureau of HIV, STI, and Hepatitis. *State of Iowa HIV Disease End-of-Year 2021 Surveillance Report*. Des Moines: Iowa Dept. of Health and Human Services, Division of Public Health, 2022. Web. <https://idph.iowa.gov/hivstdhep/hiv/data>.

Gov. Kim Reynolds  
Lt. Gov. Adam Gregg  
Kelly K. Garcia, Director

### Report Contact Information:

Alagie Jatta, M.S.  
HIV/AIDS Surveillance Coordinator  
Phone: (515) 281-6918  
Email: [alagie.jatta@idph.iowa.gov](mailto:alagie.jatta@idph.iowa.gov)

Samoane Don, M.P.H.  
HIV/AIDS Surveillance Epidemiologist  
Phone: (515) 242-5141  
Email: [samoane.don@idph.iowa.gov](mailto:samoane.don@idph.iowa.gov)

Joyce Mbugua, M.C.R.P.  
Data and Epidemiology Program Manager  
Phone: (515) 305-0225  
Email: [joyce.mbugua@idph.iowa.gov](mailto:joyce.mbugua@idph.iowa.gov)

Randy Mayer, M.S., M.P.H.  
Chief, Bureau of HIV, STI, and Hepatitis  
Phone: (515) 242-5150  
Email: [randy.mayer@idph.iowa.gov](mailto:randy.mayer@idph.iowa.gov)



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## Key Points

### HERE ARE A FEW POINTS DRAWN FROM OUR 2021 HIV DATA:

**One hundred and twenty-four (124) Iowans were diagnosed with HIV in 2021:** HIV diagnoses increased by 25% over 2020, reversing decreasing trends in diagnoses in recent years. Diagnoses increased across almost all social and demographic groups, with exceptions only among people 15 to 24 years of age, US-born women, and people who indicated a multi-racial identity. Among racial and ethnic populations, diagnoses increased significantly among US-born Hispanic/Latinx (800%); non-US-born Hispanic/Latinx (175%); non-US-born Black (50%); and non-US-born Asian (200%) people. Diagnoses among non-US-born people increased by more than 80% from 2020, but were only a little higher than diagnoses in 2019. This may indicate that restrictions in movement during the COVID-19 pandemic in 2020 suppressed diagnoses in this population temporarily.

Other groups that saw significant increases in diagnoses included heterosexual Iowans, among whom diagnoses increased by 78%. This increase is due, in part, to the previously mentioned increase in diagnoses among non-US-born people, where heterosexual contact is the most commonly reported route of exposure. Finally, there was a significant increase in diagnoses among men who have sex with men and who inject drugs, although the absolute number remains relatively low (an increase from 6 to 9 people). Since 2016, Iowa had seen a decrease in diagnoses overall, and had experienced fewer than 100 new HIV diagnoses in 2019 and 2020. HIV diagnoses decreased by 8.1% from 2016 to 2017, by 7.2% from 2017 to 2018, and by 15.5% from 2018 to 2019. In contrast, diagnoses increased in 2021 to the third highest peak over the last ten years. The increase in diagnoses among most populations is likely due in part to the effects of the COVID-19 pandemic. Widespread clinic closures throughout the state in 2020 led to subsequent spikes in other symptomatic sexually transmitted infections, including gonorrhea and syphilis, in 2020 and 2021, respectively. This may relate to increases in diagnoses among US-born populations. On the other hand, restrictions in mobility related to COVID-19 in 2020 may have decreased diagnoses in non-US-born populations that year, but diagnoses in 2021 increased to about 7% higher than levels in 2019.

**Sex:** Diagnoses increased among males and females in 2021, by 26% and 24%, respectively. Diagnoses among U.S.-born males increased by 21% in 2021 compared to a 55% increase in diagnoses among non-U.S.-born males. However, diagnoses among U.S.-born females decreased by 13% in 2021 while diagnoses among non U.S.-born females increased by 140%. Overall, the proportion of HIV diagnoses that are among males continued to outnumber those among females by a ratio of about four to one in 2021.

**Age:** People aged 25 through 44 years continue to account for the largest proportion (53%) and number (55) of people diagnosed with HIV. Diagnoses in this age group increased by 28% from 2020 to 2021 after a slight decrease (by 2%) from 2019 to 2020. Youth and young adults 15 through 24 years experienced a significant decrease in new HIV diagnoses from 2020 to 2021 (by 31%) after having a sustained increase in diagnoses for two years in a row; new HIV diagnoses increased in this age group by 16% from 2018 to 2019 and by 18% from 2019 to 2020. Youth and young adults accounted for 26 (27% of all people newly diagnosed with HIV) in 2020 and 18 (15% of all people newly diagnosed) in 2021.

**Race and ethnicity:** Diagnoses among non-Hispanic Black/African-American people increased by 30% in 2021 after experiencing a sustained decrease in diagnoses for four years in a row after peaking in 2016 at 44 new diagnoses (32% of total diagnoses). In 2021, 30 Black/African-American Iowans were diagnosed with HIV. While non-Hispanic Black/African-American people represent 4% of Iowa's population, they experienced 24% of all HIV diagnoses in 2021. Diagnoses among non-US-born Black/African American Iowans accounted for 40% of all diagnoses among non-Hispanic Black/African American Iowans, higher than in 2020 when non-U.S.-born Black/African Americans accounted for 33% of all diagnoses among non-Hispanic Black/African American Iowans. While there was a 13% increase in diagnoses among U.S.-born Black/African Americans, diagnoses among non-U.S.-born Blacks increased by 50% in 2021.

Diagnoses among Hispanic/Latinx people increased by 300% in 2021 from 5 diagnoses in 2020 to 20 diagnoses in 2021. Hispanic/Latinx people represent 6% of Iowa's population, yet represented 16% of people diagnosed with HIV in 2021. Of the 20 Hispanic/Latinx people diagnosed, 11 (55%) were non-U.S. born.

Non-Hispanic White people experienced a 15% increase in diagnoses in 2021, the second continuous year of increases after a fairly steady decline in diagnoses since 2007. Non-Hispanic White people represent 85% of Iowa's population, but experienced only 51% of HIV diagnoses in 2021.

It is important to note that the disproportionate impact of HIV on communities of color is related to social determinants of health. These determinants create environments in which some populations are more likely to experience higher rates of exposures to infectious disease agents. It has also been shown that these populations experience higher levels of other factors (stigma, stress, lack of access to health care, homelessness) that may lead to chronic health conditions, which in turn may make them more susceptible to HIV.

**Mode of Exposure:** HIV diagnoses increased overall in all mode of exposures categories. Diagnoses increased in 2021 among males who have sex with men (MSM) by 5%; among people who inject drugs (PWID) by 8%; among males who have sex with men and who inject drugs (MSM/PWID) by 50%; and among people with heterosexual mode of exposure by 78%. Of the 63 non-Hispanic White people diagnosed in 2021, 63% were MSM (74% of non-Hispanic White males). This compared to 33% of the 30 non-Hispanic Black/African-American people diagnosed (48% of non-Hispanic Black/African-American males), and 75% of the 20 Hispanic people diagnosed (83% of Hispanic males diagnosed).

**Late testers:** The proportion of people diagnosed with AIDS within three months of their initial HIV diagnosis ("late testers") decreased from 26% in 2020 to 24% in 2021. The proportion of people that are "late testers" in 2021 is similar to the five-year (2016-2020) average, and is lower than the 10-year average of 31%. The lower number of "late testers" is further confirmation that people at risk for HIV are getting timelier access to testing. Of the 124 new HIV diagnoses in 2021, 3 were in an acute stage (i.e., very early) of HIV infection.

**HIV prevalence:** As of December 31, 2021, there were 3,077 people with a current address in Iowa diagnosed and living with HIV, a prevalence of 96 per 100,000 persons. As of December 31, 2021, 94 of Iowa's 99 counties had at least one resident living with HIV. Prevalence in six counties was greater than 100 per 100,000 population (0.1%). Polk County, with 184 per 100,000, has the highest prevalence, followed by Pottawattamie County (141 per 100,000), and Scott County (133 per 100,000).

**HIV Continuum of Care:** The HIV continuum of care includes people living with HIV in Iowa who were diagnosed before January 1, 2021. Of the 2,950 people diagnosed with HIV disease on or before December 31, 2020, and living in Iowa as of December 31, 2021, 2,559 (87%) were retained in HIV care and 2,429 (82%) were virally suppressed. These numbers increased from 2020 and are also significantly higher than in many parts of the country. The most recent estimate from Centers for Disease Control and Prevention (CDC) is that 66% of people in the US who are diagnosed with HIV were virally suppressed at their last test. When Iowans are retained in care (i.e., have two or more CD4 or viral load tests, performed at least three months apart, or have at least one suppressed viral load test result), viral suppression rises to 95%.

## ORGANIZATION OF THIS DATA REPORT

This end-of-year report presents surveillance data on HIV disease in Iowa. It provides an overview of HIV disease in the state and within its population subgroups. It includes information on the HIV care continuum and partner services offered to people newly diagnosed with HIV while residing in Iowa. There are four sections to the report: Section 1 describes **data sources**; Section 2 is a **narrative summary** with key highlights; Section 3 employs **charts, graphs, and tables** to illustrate trends; and Section 4 outlines the **reporting requirements** for HIV in Iowa.

## DEFINITIONS

**HIV diagnoses** reflect all people diagnosed with HIV for the first time, regardless of AIDS status, who were residents of Iowa at time of diagnosis. Some people may also have been counted among AIDS diagnoses if they received an AIDS diagnosis during the same calendar year. Age is the age at time of diagnosis of HIV.

**AIDS diagnoses** reflect all people who first met the criteria for AIDS while living in Iowa during the specified time period, regardless of when the case was reported to the state. Age is age at time of diagnosis of AIDS.

**People living with HIV disease** reflect people diagnosed with HIV (regardless of AIDS status) who were alive as of December 31 of a given year.

**Pediatric exposures:** A person diagnosed at 13 years of age or older (adult/adolescent) may have had a pediatric exposure to HIV. In such an instance, the person would be classified as adult/adolescent at time of diagnosis, but would be listed under pediatric exposures in tables that display data by category of exposure. Pediatric exposure categories include mother with HIV; hemophilia or coagulation disorder with exposure to contaminated Factor VIII (Hemophilia A), Factor IX (Hemophilia B), or other clotting factors; or receipt of contaminated blood, blood components, or tissue.

## Section I: SOURCES OF DATA

### CORE HIV SURVEILLANCE DATA

#### eHARS

The enhanced HIV and AIDS reporting system (eHARS) includes information on all people with HIV disease who have been reported to the Iowa Department of Health and Human Services (Iowa HHS) HIV Surveillance Program. All people with HIV disease who were first diagnosed while living in Iowa, or who have lived in Iowa at some point in time after diagnosis with HIV, or who have accessed care at an Iowa facility and have been reported to Iowa HHS, are included in eHARS. eHARS is the primary source of data for this report.

#### Surveillance Case Definition of HIV Disease

The surveillance case definition of HIV infection (the cause of AIDS) was created by CDC in 1982 and has been modified several times to respond to advances in HIV disease diagnosis. The most recent revision occurred in April 2014. For inclusion in eHARS and for purposes of this report, people are considered to be HIV infected if they meet the current CDC surveillance case definition [Richard M. Selik, Eve D. Mokotoff, Bernard Branson, et al., *Revised Surveillance Case Definition for HIV Infection – United States, 2014*. MMWR 2014; 63(No. RR-3):1-10.]

#### Diagnosis Date and Completeness of Surveillance Data

Only people reported in Iowa and for whom last name, date of birth, race and ethnicity, sex, date of HIV diagnosis, and vital status (living or deceased at time of report) are known are included in this report.

Evaluations of the Iowa HHS surveillance system indicate that at least 99% of newly diagnosed HIV cases are reported. While the data represent diagnosed HIV cases well, they do not include cases among people that are not yet diagnosed. Nationally, CDC estimates that 13.3% of people living with HIV in United States remain undiagnosed. (*HIV Surveillance Supplemental Report 2021*; 26(No. 1)). At the same time, CDC cautions that this national estimate may not apply to individual states.

CDC-developed computer programs run on Iowa HHS data suggest that a delay in reporting diagnoses among Iowa residents is extremely unlikely. Nonetheless, to eliminate possible reporting delays, case reports received through March 2021 have been used. This report includes only those people diagnosed through December 31, 2021. Data are presented by the year of HIV or AIDS



diagnosis regardless of when the diagnosis was reported. All data are provisional and are subject to change as further information becomes available.

### Surveillance HIV Mode of Exposure Categories

People diagnosed with HIV may indicate multiple routes of exposure to HIV, and are counted only once in a hierarchy of exposure categories. People with more than one reported mode of exposure to HIV are classified in the exposure category listed first in the hierarchy, except for men with both a history of sexual contact with other men and a history of injection drug use. They make up a separate category. The modes of exposure are categorized in this report according to the following hierarchy:

- “Men who have sex with men and inject drugs” (MSM/PWID) includes men who inject nonprescription drugs and report sexual contact with other men or who report sexual contact with both men and women.
- “Men who have sex with men” (MSM) includes men who report sexual contact with other men, and men who report sexual contact with both men and women.
- “People who injects drugs” (PWID) includes people who inject nonprescription drugs.
- “Hemophilia/Coagulation disorder” includes people who received Factor VIII (Hemophilia A), Factor IX (Hemophilia B), or other clotting factors.
- “Heterosexual contact” includes people who report specific heterosexual contact with a person with documented HIV, or heterosexual contact with a person at increased risk for HIV, such as someone who reports injection drug use, a person with hemophilia, a transfusion recipient with documented HIV, or a bisexual male. A person who reports heterosexual contact with partners whose specific HIV exposures and HIV status are unknown is considered to have “no risk reported or identified” (NIR). Adults and adolescents born, or who had sex with someone born, in a country where heterosexual transmission was believed to be the predominant mode of HIV transmission (formerly classified as Pattern-II countries by the World Health Organization) are no longer classified as having heterosexually acquired HIV. Similar to case reports for other people who are reported without behavioral or transfusion exposures for HIV, these reports are now classified (in the absence of other information that would classify them in another exposure category) as “NIR” (MMWR 1994;43:155-60).
- “Transfusion” includes people who received blood or blood components (other than clotting factor).
- “Received transplant” includes people who received tissues, organs, or artificial insemination. The “received transplant” category has been combined with “transfusion” in this report because of the low number of people diagnosed in Iowa in each category alone.
- “No risk reported or identified (NIR)/other” includes people with no identified history of exposure to HIV through any of the routes listed in the hierarchy of exposure categories. Further investigation over time can help to clarify exposure history. In addition, the category includes people whose exposure history is incomplete because they died, declined to be interviewed, or were lost to follow-up. It also includes people who had no exposure other than working in a health care or clinical laboratory setting. There has been one confirmed case of transmission in a health care or clinical setting in Iowa.

## Population Data

The surveillance program has used the 2020 population estimates from the U.S. Census Bureau (<http://www.census.gov>) to calculate prevalence rates.

## Section 2: NARRATIVE SUMMARY

### IOWANS DIAGNOSED WITH HIV

There were 124 Iowans diagnosed with HIV in 2021, 25% higher than the number diagnosed in 2020. In Iowa, the number of people diagnosed with HIV since 1998 peaked at 136 in 2016, the most HIV diagnoses ever recorded in a single year, and then steadily decreased to 99 new diagnoses in 2020 (Figure 3.1). The 124 diagnoses in 2021 was the third highest number of diagnoses in a single year since 2016. The increase in diagnoses in 2021 was mostly experienced across all populations with few exceptions. In particular, diagnoses among US-born females, among those 15 to 24 years of age, among non-Hispanic White females, among US-born Asian Iowans, and among multi-race Iowans decreased in 2021. New diagnoses among males increased by 26% from 78 males diagnosed in 2020 to 98 males diagnosed in 2021, and new diagnoses among females increased by 24% from 21 females diagnosed in 2020 to 26 females diagnosed in 2021. Similarly, among non-Hispanic White Iowans, diagnoses increased by 15% from 2020 to 2021 while diagnoses among minority racial and ethnic groups increased by 39%. Additionally, diagnoses among Iowans 15 to 24 years of age decreased by 31%, while diagnoses increased by 28% among Iowans of 25 to 44 years of age, and increased by 90% among those 45 years of age and above.

The increase in diagnoses from 2020 to 2021 was influenced by a significant increase in diagnoses among non U.S.-born people (increased by 81%) and a comparatively mild increase in diagnoses among US-born people (increased by 14%). The increase in diagnoses among non-U.S.-born people from 2020 to 2021 was mostly among non-U.S.-born Hispanic Iowans (increased by 175%), among non-U.S.-born Black/African American Iowans (increased by 50%), and non-U.S.-born Asian Iowans (increased by 200%). Among U.S.-born people, the increase in diagnoses from 2020 to 2021 was among U.S.-born Hispanic Iowans (increased by 800%), among US-born White, non-Hispanic Iowans (increased by 15%) and among US-born Black, non-Hispanic Iowans (increased by 13%). Diagnoses among people who identified as Hispanic/Latinx increased from 5 diagnoses in 2020 to 20 diagnoses in 2021 (increased by 300%), with the largest increase being among US-born Hispanic/Latinx people (increased by 800%) compared to foreign-born Hispanic/Latinx people (increased by 175%). Of the 20 Hispanic/Latinx people diagnosed in 2021, 18 (90%) are males. Changes in the number of diagnoses among foreign-born people are often influenced by immigration. The increases in diagnoses among foreign-born Black, non-Hispanic people and foreign-born Hispanic people could be the result of loosening of restrictions in travel and immigration in 2021 related to SARS-CoV-2 (COVID-19). In addition, the increased access to resources for SARS-CoV-2 testing and preventions may allow more opportunities for the essential workers that largely include Hispanic and Black people visit health care centers and receive HIV testing.

Research indicates that racial disparities in people diagnosed with HIV involve complex social factors (i.e., social determinants of health), such as stigma, poverty, discrimination, lack of economic opportunity, inequitable treatment in the health care system, and disproportionate incarceration rates. These social circumstances may limit a person's access to health care and the opportunity to engage in a healthful lifestyle.

The increase in diagnoses among US-born populations is also likely due to the effects of the COVID-19 pandemic. Widespread clinic closures throughout the state in 2020 led to subsequent spikes in other symptomatic sexually transmitted infections, including gonorrhea and syphilis, in 2020 and 2021, respectively. Diagnoses of infections that tend to be asymptomatic in a majority of people, like chlamydia, decreased in 2020, but began to increase again in 2021. This reflected a decrease in routine testing activities in the state. In short, the COVID-19 pandemic seems to have increased transmission of STIs, including HIV. Those who experienced symptoms were still able to find testing during the pandemic, and diagnoses increased in 2020 and 2021.

In 2021, there were 3.9 HIV diagnoses per 100,000 people. This compared to 3.1 HIV diagnoses per 100,000 people in 2020 and 2019, 3.7 HIV diagnoses per 100,000 people in 2018, and 4.0 HIV diagnoses per 100,000 population in 2017.

In 2021, 53 people were diagnosed with AIDS (stage 3 HIV disease), up from 48 in 2020, and less than the average of 51 for the last five years (2016 through 2020).

It is estimated that there are 480 Iowans living with HIV who have yet to be diagnosed. The expansion of HIV testing coupled with pre-exposure prophylaxis (PrEP) programs and condom distribution services may help in finding most of the undiagnosed people living in Iowa and slow transmission of HIV in the state.

## Sex

Diagnoses among males increased by 26% from 2020 to 2021, from 78 in 2020 to 98 in 2021. Similarly, diagnoses among females increased by 24% from 21 in 2020 to 26 in 2021. Despite the increase in diagnoses among females, HIV diagnoses among US-born females decreased by 13% from 2020 to 2021 compared to a 140% increase among non-US-born females. Among males, the significant decrease in diagnoses among non-US-born males (55%) masked the relatively small increase in diagnoses among US-born males (21%) such that males experienced a 26% increase overall. Year-to-year variations notwithstanding, the proportion of overall diagnoses among males in Iowa continued to outnumber diagnoses among females by almost a ratio of about four to one.

## Age

People aged 25 through 44 years continued to make up the largest proportion (55%) and number (68) of people diagnosed with HIV in 2021. This age cohort experienced a 28% increase in diagnoses from 2020 to 2021. The number of youth and young adults 15 through 24 years of age who were diagnosed with HIV decreased from 26 in 2020 (27% of all people diagnosed with HIV) to 18 in 2021 (15% of all people diagnosed). This is the only age cohort that experienced a decrease in diagnoses (31%) in 2021. Among Iowans 15 through 24 years of age, the number of people diagnosed in 2021 (18) is lower than the five-year (2016-2020) average of 25 diagnoses in that age group. People aged 45 years and older experienced the largest increase in HIV diagnoses (by 90%) in 2021 after three consecutive years of decreases in diagnoses: from 26 (22% of all people diagnosed) in 2018 to 25 (26% of all people diagnosed) in 2019, and finally dropping to 20 (20% of all people diagnosed) in 2020. Diagnoses among people aged 45 years and older increased to 38 (31% of all people diagnosed) in 2021. There were no pediatric HIV diagnoses in 2021.

For people 13 years of age and older (adults and adolescents), the median age at diagnosis in 2021 was 36, higher than the previous five-year average median age of 33. In 2021, the median age of diagnosis for adult/adolescent males was 34.5, lower than that for adult/adolescent females, which was 38.5.

### **Racial and ethnic minorities are over-represented**

Diagnoses among non-Hispanic Black/African American Iowans increased from 24 (24% of all people diagnosed) in 2020 to 30 in 2021 (24% of all people diagnosed), lower than the 5-year average of 34 (29% of all people diagnosed) from 2016 to 2020. The increase in diagnoses among people who are Black/African American was among males, who experienced a 40% increase in diagnoses, whereas diagnoses among Black/African American females remain unchanged from 2020 to 2021. Similarly, non-US-born Black/African American people experienced a 50% increase in diagnoses in 2021, whereas diagnoses among US-born Black/African American people increased 13% from 16 diagnoses in 2020 to 18 diagnoses in 2021. Non-Hispanic Black/African Americans represent 4% of Iowa's general population, but experienced 24% of new HIV diagnoses in 2021. Of the 30 non-Hispanic Black/African Americans diagnosed in 2021, 12 (40%) were non-US-born.

Males accounted for 16 (89%) of the 18 U.S-born non-Hispanic Black/African American people diagnosed in 2021, and among these, 10 (63%) identified as men who have sex with men (MSM) while the exposure category of two is yet to be determined. Among non-US-born Black/African Americans, 7 (58%) of the 12 diagnosed in 2021 were females. The 30 non-Hispanic Black/African American people diagnosed with HIV in 2021 equates to 25 diagnoses per 100,000 non-Hispanic Black/African American population. When the numbers of people diagnosed per 100,000 population are compared, non-Hispanic Black/African Americans were more than 10 times more likely to have been diagnosed with HIV in 2021 than non-Hispanic White Iowans.

The number of Hispanic/Latinx people diagnosed with HIV increased from 5 (5% of all people diagnosed) in 2020 to 20 (16% of all people diagnosed) in 2021. The 20 Hispanic/Latinx people diagnosed in 2021 is the highest number of Hispanic/Latinx people diagnosed in a single year in Iowa since the beginning of the HIV epidemic. Of the 20 Hispanic/Latinx people diagnoses in 2021, 18 (90%) were males. Hispanic/Latinx people represent 6% of Iowa's population and experienced 16% of HIV diagnoses in 2021, and 10% of new HIV diagnoses on average from 2016 to 2020. Of the 20 Hispanic/Latinx persons diagnosed in 2021, 11 (55%) were non-US born. Diagnoses among U.S-born Hispanic/Latinx people increased from 1 in 2020 to 9 diagnoses in 2021. All of the 9 U.S-born Hispanic/Latinx people diagnosed in 2021 were males, and 8 were MSM. Diagnoses among non-U.S-born Hispanic/Latinx people increased from 4 in 2020 to 11 diagnoses in 2021. Of the 11 non-U.S-born Hispanic/Latinx people diagnosed in 2021, 9 (82%) were males and of these, 7 (78%) were MSM. The 20 Hispanic/Latinx people diagnosed with HIV in 2021 equate to 10 per 100,000 Hispanic/Latinx people, which means that Hispanic/Latinx people were more than 4 times likely to have been diagnosed with HIV in 2021 as those who are White and non-Hispanic.

The number of non-Hispanic Asian people in Iowa who are diagnosed with HIV is low and primarily influenced by immigration. Of all non-Hispanic Asian people diagnosed with HIV since 2011, 82% were non-US born. In 2020, four (67%) of the six non-Hispanic Asian people diagnosed were US-born compared to two (25%) of the eight non-Hispanic Asian persons diagnosed in 2021. The number of non-Hispanic Asian persons diagnosed reached a peak in 2021 at eight diagnoses. Non-Hispanic Asian persons make up about 3% of Iowa's population, but experienced 6% of HIV diagnoses in 2021, higher than the 3% of total HIV diagnoses on average from 2016 to 2020. The eight non-Hispanic Asian persons diagnosed with HIV in 2021 equates to 9.7 diagnoses per 100,000 non-Hispanic Asian people, more than four times higher than for white, non-Hispanic Iowans.

The largest proportion of people diagnosed with HIV in Iowa continues to be White, non-Hispanic Iowans, even though the proportion experienced among this population has dropped significantly in recent years. Of the 124 people diagnosed with HIV in 2021, 63 (51%) were among non-Hispanic white people, compared to the five-year average (2016 through 2020) of 61 (53%). Since the beginning of the epidemic in 1982, non-Hispanic White people made up 69% of all people diagnosed with HIV in Iowa. The 63 non-Hispanic, White people diagnosed in 2021 equate to 2.3 diagnoses per 100,000 non-Hispanic, White people, among the lowest of any racial or ethnic group in Iowa.

As described previously, communities of color in Iowa bear a disproportionate burden of HIV. Numerous national research studies demonstrate that this is *not* because people of color engage in higher rates of behaviors that put them at risk for HIV acquisition. Rather, numerous systemic factors contribute to disproportionate rates of HIV in communities of color. Some of these factors include poverty, residential segregation, historical trauma, immigration status, racism, homophobia, disproportionate rates of incarceration, and stigma. These social determinants of health lead to higher probabilities of having a sexual or needle-sharing partner with transmissible levels of HIV.



## HIV and COVID-19 co-infection

Of the 3,077 people living with HIV in Iowa at the end of 2021, 1,658 (55%) had been tested for COVID-19. Of these, 291 were diagnosed with COVID-19, an 18% positivity rate. Black/African American people living with HIV made up a disproportionate number of people co-infected with COVID-19 at 32% of people with co-infections, compared to 24% of people with HIV. Hispanic/Latinx Iowans accounted for 12% of people with co-infections compared to 10% of people with HIV.

*After a sharp 54% decline in HIV testing at the state's 10 contracted Integrated HIV and Hepatitis C Testing Sites from 2019 to 2020 due to clinic closures and redeployment of staff from HIV/STD initiatives towards the Covid-19 mitigation effort, testing strategies were quickly implemented to increase HIV testing while adapting to the ongoing Covid-19 environment. As a result, HIV tests administered at the integrated testing sites increased by 33% from 6,089 in 2020 to 8,124 in 2021 but remained 34% lower than the 13,141 HIV tests administered in 2019, the pre-pandemic year.*

*Despite the lowest HIV tests administered in 2020 and 2021 at the 10 integrated testing sites, HIV diagnoses increased in these two years compared to 2019 from 17 new cases (0.13 positivity) in 2019, 21 new cases in 2020 and 30 new cases in 2021.*

## Social Determinants of Health

### Social Determinants of Health (SDOH)



Social determinants of health (SDOH) are the conditions in the places where people are born, live, learn, work, play, and age, that affect a wide range of health, functioning, and quality-of-life outcomes and risks.<sup>1</sup> These conditions are in turn shaped by political, social, and economic forces.

The marked health inequities between communities and populations are undergirded by the unequal distribution of power, income, goods, and services, and the consequent unfairness in the immediate, visible circumstances of people's lives.<sup>2</sup> These circumstances influence their access to health care, schools, and education, the conditions of their work and leisure, their homes, communities, towns, or cities.

Healthy People 2030 has identified a place-based framework that identifies five main SDOH focus areas:

Economic stability, healthcare access and quality, neighborhood and built environment, education access and quality, and social and community context.<sup>3</sup>

Studies assessing the relationship between HIV diagnosis rates and social determinants of health have found that HIV diagnosis rates among specific populations increased when the following factors increased: income inequality between the population and the general population, the proportion of a population that is unmarried, the number of uninsured people, the number of vacant housing units, the proportion of people 25 years and older without high school diploma, and the number of households under the federal poverty level.<sup>4</sup>

1. Centers for Disease Control and Prevention (2018). Social Determinants of Health: Know What Affects Health. Retrieved from <https://www.cdc.gov/socialdeterminants/index.htm>
2. Commission of Social Determinants of Health, Final Report, Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health (2008) World Health Organization, WHO Press
3. Healthy People 2030, Social Determinants of Health <https://health.gov/healthypeople/objectives-and-data/social-determinants-health> last accessed 06/11/2021
4. Z. Gant, M. Lomotey, H.J. Hall, X. Hu, X. Guo and R. Song, A County-Level Examination of the Relationship Between HIV and Social Determinants of Health: 40 States, 2006-2008, The Open AIDS Journal, 2012 (6)

### HIV exposure category

Men who have sex with men (MSM) remained the leading exposure category for people with HIV in Iowa. Of the 124 people diagnosed with HIV in 2021, 58 (47%) of diagnoses were among MSM, less than the previous five-year average of 62 (54%). Overall, MSM have experienced more than half of all diagnoses since the beginning of the epidemic in Iowa, and account for 54% of Iowans living with HIV. Considering all MSM (MSM plus MSM/PWID), there were 67 new diagnoses (54%) in 2021 among this group.

The increase in diagnoses among MSM in 2021 was primarily experienced among Latino men, non-Hispanic Black/African-American men, and non-Hispanic White men. Of the 18 Hispanic/Latino males diagnosed in 2021, 15 (75%) were MSM, and of these, 8 are US-born. Of the 21 non-Hispanic Black/African-American males diagnosed in 2021, 10 (48%) were MSM, and all MSM were US born. Similarly, of the 54 non-Hispanic White males diagnosed in 2021, 40 (74%) were MSM and all of the non-Hispanic White people diagnosed in 2021 were US-born. All three non-Hispanic Asian males diagnosed in 2021 were non-US born, and none was MSM.

There was also a slight increase in diagnoses among people who inject drugs in 2021. Diagnoses increased by 8% from 13 in 2020 to 14 in 2021. Historically, this number has remained low in Iowa at around 7% of all diagnoses, but increased to 11% in 2021. This trend will be closely monitored. Considering all PWID (PWID plus MSM/PWID), there were 23 people diagnosed (18% of new diagnoses) in 2021 among this group.

The proportions of other HIV exposure categories of people diagnosed in 2021 were as follows: men who have sex with men and inject drugs (MSM/PWID), 7%; heterosexual contact, 26%; and no identified risk (NIR), 9%. Experience has shown that while newly diagnosed people may initially be reluctant to disclose their likely mode of HIV exposure to their health care provider or to health department staff, they become less reticent as time progresses. Some exposures will be ascertained over time through follow-up calls to care providers. By the end of 2021, exposure category will be ascertained for many of the remaining people diagnosed in 2021. There have been no pediatric HIV diagnoses in Iowa since 2017.

### Transgender Diagnoses

The number of transgender people diagnosed with HIV in Iowa is very small. There have been a total of 24 transgender people diagnosed with HIV in Iowa since the beginning of the epidemic. The highest number of diagnoses among transgender people was in 2020 when 3 transgender people were diagnosed with HIV. Of the 24 transgender people diagnosed, 20 (83%) were Male-to-Female transgender persons, and all 20 were transgender females who had sex with other men.

As of December 31, 2021, there were 38 transgender people with a current address in Iowa who were diagnosed and living with HIV. This means that people who were diagnosed outside of Iowa later moved to the state. Of the 38 transgender people living with HIV in Iowa, 32 (84%) were Male-to-Female transgender persons, and 31 of the 32 were transgender females who had sex with other men.

### Late testers

The proportion of people diagnosed with AIDS within three months of their initial HIV diagnosis ("late testers") decreased by two percentage points from 2020 to 2021 (from 26 to 24%). Overall, late diagnoses have decreased significantly since 2013, when 46% of people diagnosed were considered to be

late testers. In 2021, 24% of people diagnosed were late testers, the third lowest proportion ever reported. This is further confirmation that people at risk for HIV are getting timelier access to testing.

### **HIV prevalence**

As of December 31, 2021, there were 3,077 people with a current address in Iowa who were diagnosed and living with HIV, a prevalence of 96 per 100,000 people. This number includes all people whose current addresses were in Iowa at the end of 2021. It includes people diagnosed in Iowa plus people who were initially diagnosed while living in another state, but who now reside in Iowa. When the number of 3,077 is adjusted for our estimated percentage of undiagnosed persons in Iowa (14%), there may have been as many as 3,578 Iowans living with HIV or AIDS at the end of 2020, with an estimated 501 people undiagnosed.

As of December 31, 2021, 94 of Iowa's 99 counties had at least one resident living with HIV. Prevalence in six counties was greater than 100 per 100,000 people (0.1%). Polk County, with 184 per 100,000, has the highest prevalence, followed by Pottawattamie County (141 per 100,000), and Scott County (133 per 100,000). To add perspective, national and regional prevalence data at the end of 2018, the most recent year available, are as follows: United States, 379.7 per 100,000; Midwest, 183.3 per 100,000; West, 265.1 per 100,000; South, 378.7 per 100,000; and Northeast, 422.5 per 100,000. (Centers for Disease Control and Prevention. *HIV Surveillance Report, 2019*; vol. 32. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2021.)

### **Deaths of People with HIV/AIDS**

The number of deaths among people diagnosed with HIV or AIDS in Iowa continues to decrease since peaking at 101 deaths in 1995. As of December 31, 2021, 1,394 deaths had been reported among people diagnosed with HIV or AIDS in Iowa. Of those deaths, 57% were caused in some part by the underlying HIV disease, 37% of deaths were not HIV related, and the causes of death of 6% were unknown. Additional death information may be obtained after the National Death Index data linkage is completed later in 2022.

### **Continuum of HIV Care**

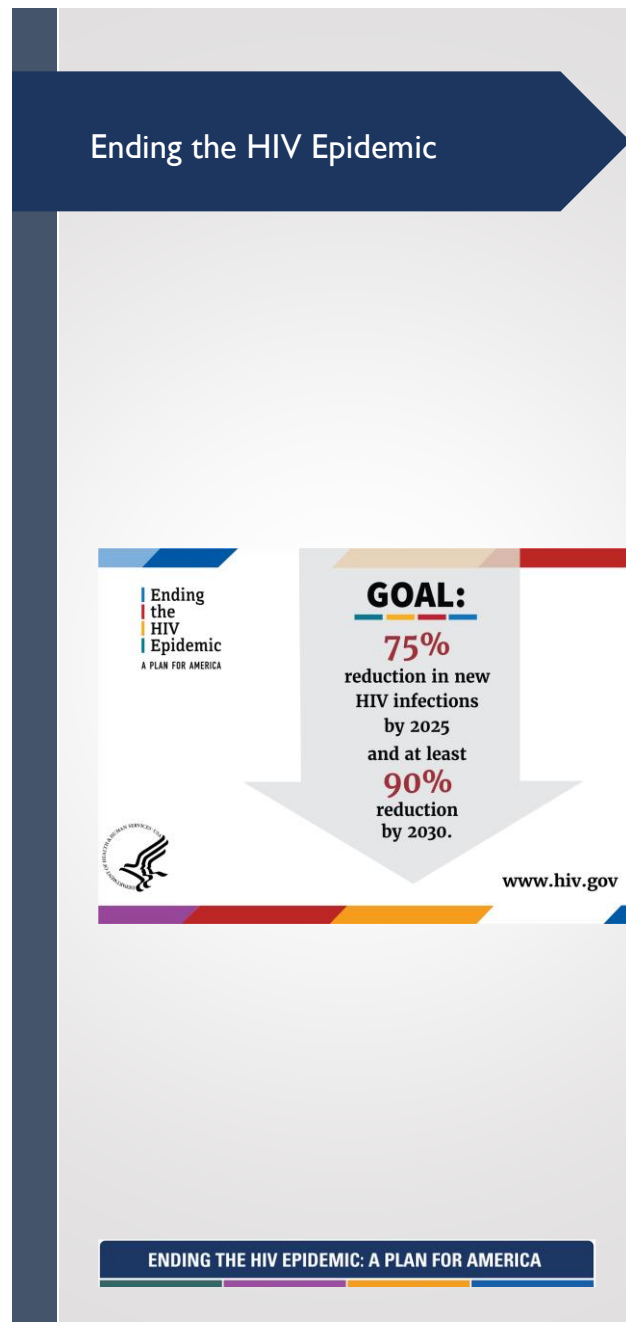
A continuum of HIV care was assessed using 2021 HIV care data for people diagnosed with HIV on or before December 31, 2020. People newly diagnosed with HIV during the course of 2021 are not included in the continuum of care analysis. Therefore, as of December 31, 2020, there were 2,950 people diagnosed with HIV disease and living in Iowa at the end of 2021. Of these, 2,559 (87%) were retained in HIV care (i.e., had at least two visits to an HIV primary medical care provider during year 2021 3 months apart or 1 visit with a suppressed viral load) and 2,429 (82%) were virally suppressed. This is significantly higher than many parts of the country. National estimates vary with around 65% of people with suppressed virus. Among Iowans who are retained in care in 2021, viral suppression is 95%.

### HIV Partner Services

All of the 124 persons newly diagnosed with HIV disease in 2021 were assigned for partner services and all were interviewed by a disease intervention specialist (DIS) from the state or one of four counties (Black Hawk, Linn, Polk, and Scott). The goal of partner services is to have a DIS contact the patient to provide education about HIV care and services, link the patient to care, and offer assistance in notifying and testing sex and needle-sharing partners. The 124 persons assigned for partner services named 177 partners. Of these, 130 were located in Iowa and were of unknown HIV statuses. Of the remaining 47, 26 lived out of state and 21 were already known to be diagnosed with HIV. Of the 130 contacts with unknown HIV statuses, 80 (62%) were subsequently tested, and nine were found to be HIV positive (11% positivity).



## Ending the HIV epidemic



The adverse health impacts of HIV, viral hepatitis, STIs, and TB continue to be an urgent public health priority. The national Ending the HIV Epidemic (EHE) plan prioritizes increased testing and early diagnosis, rapid connection to treatment and medical care, utilization of prevention services to reduce the chances of transmission, and fast response to HIV clusters and outbreaks.

## Section 3: TABLES AND FIGURES

TABLE 3.1 IOWANS DIAGNOSED WITH HIV OR AIDS IN 2021, DYING WITH HIV IN 2021, AND IOWANS LIVING WITH HIV DISEASE AS OF DECEMBER 31, 2021

Characteristics	HIV Disease Diagnoses <sup>1</sup>		AIDS Diagnoses <sup>2</sup>		Deaths <sup>3</sup>		People Living with HIV Disease <sup>4</sup>	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)
<b>Sex at Birth</b>								
Male	98	(79)	38	(72)	24	(77)	2,389	(78)
Female	26	(21)	15	(28)	7	(23)	688	(22)
<b>Age at Diagnosis</b>								
Under 13	0	--	0	--	0	--	54	(2)
13-14	0	--	0	--	0	--	4	--
15-24	18	(15)	9	(17)	3	(10)	570	(19)
25-34	40	(32)	10	(19)	5	(16)	1,085	(35)
35-44	28	(22)	18	(34)	11	(36)	794	(26)
45-54	21	(17)	5	(9)	5	(16)	400	(13)
55-64	11	(9)	7	(13)	5	(16)	141	(5)
65 or older	6	(5)	4	(8)	2	(6)	29	(1)
<b>Ethnicity/Race</b>								
Hispanic/Latinx, All Races	20	(16)	7	(13)	4	(13)	308	(10)
White, Not Hispanic	63	(51)	24	(45)	19	(61)	1,809	(59)
Black/African American, Not Hispanic	30	(24)	19	(36)	7	(23)	732	(24)
Asian, Not Hispanic	8	(6)	2	(4)	1	(3)	78	(3)
Native Hawaiian/Pacific Islander, Not Hispanic	2	(2)	0	--	0	--	7	--
American Indian/Alaska Native, Not Hispanic	0	--	0	--	0	--	9	--
Multi-race, Not Hispanic	1	(1)	1	(2)	--	--	134	(4)
<b>Country of Birth</b>								
United States or Dependency	95	(77)	41	(77)	26	(84)	2,453	(80)
Other Countries	29	(23)	12	(23)	5	(16)	624	(20)
<b>Mode of Exposure<sup>5</sup></b>								
Men who have sex with men (MSM)	58	(47)	23	(44)	11	(36)	1,649	(54)
People who inject drugs (PWID)	14	(11)	0	--	6	(19)	225	(7)
MSM and Injection Drug Use (MSM/PWID)	9	(7)	7	(13)	2	(6)	218	(7)
Heterosexual Contact	32	(26)	15	(28)	7	(23)	595	(19)
Hemophilia/Coagulation disorder	0	--	0	--	0	--	6	--
Receipt of blood or tissue	0	--	0	--	0	--	3	--
Risk not reported/Other (NIR)	11	(9)	8	(15)	5	(16)	330	(11)
Pediatric/Other	0	--	0	--	0	--	51	(2)
<b>TOTALS</b>	<b>124</b>	<b>(100)</b>	<b>53</b>	<b>(100)</b>	<b>31</b>	<b>(100)</b>	<b>3,077</b>	<b>(100)</b>

<sup>1</sup> **HIV disease diagnoses** reflect all people diagnosed with HIV disease for the first time, regardless of AIDS statuses, who were residing in Iowa at time of diagnosis. Some people may also be counted in the AIDS diagnoses column if they received AIDS diagnoses during the same period of time. Age is the age at time of first diagnosis of HIV.

<sup>2</sup> **AIDS diagnoses** reflect all people who first met the criteria for AIDS while residing in Iowa, regardless of where they were residing when first diagnosed with HIV disease or when the diagnosis was reported to Iowa HHS. Age is age at time of first diagnosis of AIDS.

<sup>3</sup> **Deaths** reflect deaths in 2021 of people diagnosed in Iowa with HIV disease. Includes both HIV- and non-HIV-related causes of death. All deaths may not have been reported.

<sup>4</sup> **People living with HIV disease** reflect HIV-diagnosed people (HIV or AIDS) living in the state of Iowa and alive as of December 31, 2021. All deaths may not have been reported.

<sup>5</sup> **Exposure:** A person diagnosed at 13 years of age or older (adult/adolescent) may have had a pediatric exposure. In such an instance, the person would be classified as adult/adolescent at time of diagnosis, but would be listed under pediatric exposures.

**TABLE 3.2 IOWANS DIAGNOSED WITH HIV BY SEX, AGE, RACE AND ETHNICITY, COUNTRY OF BIRTH, AND MODE OF EXPOSURE TO HIV: 2012 THROUGH 2021**

Characteristics	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>Sex at Birth</b>										
Male	98	78	71	85	101	104	97	78	87	97
Female	26	21	27	31	24	32	26	20	32	21
<b>Age in Years at Diagnosis</b>										
Under 13	0	0	0	0	0	4	0	2	0	2
13-14	0	0	0	1	0	0	0	0	0	0
15-24	18	26	22	19	32	28	32	18	16	21
25-34	40	31	24	45	40	43	28	27	29	33
35-44	28	22	27	25	15	28	26	18	24	27
45-54	21	14	8	15	21	20	22	17	28	24
55-64	11	1	13	8	15	12	13	14	17	9
65 or older	6	5	4	3	2	1	1	2	5	2
<b>Ethnicity/Race</b>										
Hispanic/Latinx, All Races	20	5	12	14	15	9	15	10	9	8
White, Not Hispanic	63	55	47	64	64	74	74	68	73	75
Black/African American, Not Hispanic	30	24	29	33	38	44	23	11	23	26
Asian, Not Hispanic	8	6	2	1	3	5	6	1	8	4
Native Hawaiian/Pacific Islander, Not Hispanic	0	2	2	0	0	0	0	0	0	0
American Indian/Alaska Native, Not Hispanic	2	0	1	1	0	0	0	0	0	0
Multi-race, Not Hispanic	1	7	5	3	5	4	4	8	6	5
<b>Country of Birth</b>										
United States or Dependency	95	83	71	94	102	97	94	84	95	98
Other Countries	29	16	27	22	23	39	28	14	24	20
<b>Mode of Exposure – Adult/Adolescent<sup>2</sup></b>										
Men who have sex with men (MSM)	58	55	45	65	71	76	74	60	71	66
People who inject drugs (PWID)	14	13	8	6	7	4	10	8	8	11
MSM and Injection Drug Use (MSM/PWID)	9	6	7	9	10	8	6	5	3	11
Heterosexual Contact	32	18	27	33	28	33	24	20	33	22
Hemophilia/Coagulation disorder	0	0	0	0	0	0	0	0	0	0
Receipt of blood or tissue	0	0	0	0	0	0	0	0	0	0
Risk not reported/Other (NIR)	11	7	11	3	9	11	8	3	4	6
<i>Pediatric/other</i>	0	0	0	0	0	4	0	2	0	2
<b>TOTALS</b>	<b>124</b>	<b>99</b>	<b>98</b>	<b>116</b>	<b>125</b>	<b>136</b>	<b>122</b>	<b>98</b>	<b>119</b>	<b>118</b>

<sup>1</sup> HIV diagnoses reflect all people diagnosed with HIV disease for the first time, regardless of AIDS status, who were residing in Iowa at the time of diagnosis.

<sup>2</sup> People diagnosed as adolescents or adults may have had pediatric exposures. If so, they will be classified as adult/adolescent at time of diagnosis, but listed under pediatric exposures.

TABLE 3.3 IOWA MALES 13 YEARS OF AGE AND OLDER  
DIAGNOSED WITH HIV: 2007 THROUGH 2021

Characteristics	Year of HIV Diagnosis											
	2021		2020		2019		2018		2017		2007 through - 2016	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
<b>Age at Diagnosis</b>												
13-14	0	--	0	--	0	--	0	--	0	--	0	--
15-24	15	(15)	18	(23)	18	(25)	14	(16)	26	(26)	169	(18)
25-34	34	(35)	29	(37)	17	(24)	37	(44)	36	(36)	251	(27)
35-44	19	(19)	19	(24)	18	(25)	15	(18)	10	(10)	227	(24)
45-54	17	(17)	7	(9)	3	(4)	10	(12)	17	(17)	183	(19)
55-64	9	(9)	1	(1)	12	(17)	7	(8)	10	(10)	92	(10)
65 or older	4	(4)	4	(5)	3	(4)	2	(2)	2	(2)	14	(2)
<b>Ethnicity/Race</b>												
Hispanic/Latinx, All Races	18	(18)	5	(6)	8	(11)	11	(13)	13	(13)	88	(9)
White, Not Hispanic	54	(55)	45	(58)	40	(56)	52	(61)	56	(55)	655	(70)
Black/African American, Not Hispanic	21	(21)	15	(19)	16	(23)	20	(24)	24	(25)	127	(13)
Asian, Not Hispanic	3	(3)	6	(8)	2	(3)	1	(1)	3	(3)	25	(3)
Multi-race, Not Hispanic	1	(1)	5	(5)	3	(4)	1	(1)	5	(4)	40	(4)
Other, Not Hispanic	1	(1)	2	(3)	2	(3)	0	--	0	--	1	(1)
<b>Country of Birth</b>												
United States or Dependency	81	(83)	67	(86)	56	(79)	72	(85)	83	(82)	807	(86)
Other Countries	17	(17)	11	(14)	15	(21)	13	(15)	18	(18)	129	(14)
<b>Mode of Exposure</b>												
Men who have sex with men (MSM)	58	(59)	55	(71)	45	(63)	65	(76)	71	(70)	676	(72)
People who injects drugs (PWID)	10	(10)	9	(12)	4	(6)	2	(2)	5	(5)	56	(6)
MSM and Injection Drug Use	9	(9)	6	(8)	7	(10)	9	(11)	10	(10)	68	(7)
Heterosexual Contact	14	(14)	6	(8)	8	(11)	8	(9)	9	(9)	78	(8)
Blood, blood products, tissue	0	--	0	--	0	--	0	--	0	--	0	--
Risk not reported(NIR)/Other	7	(7)	2	(3)	7	(10)	1	(1)	6	(6)	58	(6)
All MSM (MSM + MSM/PWID)	67	(68)	61	(79)	52	(73)	74	(87)	81	(80)	744	(79)
All PWID (PWID + MSM/PWID)	19	(19)	15	(20)	11	(15)	11	(13)	15	(15)	124	(13)
<b>TOTALS</b>	<b>98</b>	<b>(100)</b>	<b>78</b>	<b>(100)</b>	<b>71</b>	<b>(100)</b>	<b>85</b>	<b>(100)</b>	<b>101</b>	<b>(100)</b>	<b>936</b>	<b>(100)</b>

As shown in the Table 3.3, diagnoses among adult and adolescent males increased in 2020 and 2021 among US-born males, but only in 2021 among non-US-born males. Males aged 25 to 44 years experienced more than half (51%) of all adult/adolescent ( $\geq 13$  years of age at time of diagnosis) diagnoses among males from 2007 through 2021. More than 70% of males diagnosed annually since 2011 were mostly exposed through sex with other men. Diagnoses among non-US-born males in 2021 accounted for 17% of all diagnoses among males in 2021, up from 14% in 2020.

TABLE 3.4 IOWA FEMALES 13 YEARS OF AGE AND OLDER  
DIAGNOSED WITH HIV: 2007 THROUGH 2021

Characteristics	Year of HIV Diagnosis											
	2021		2020		2019		2018		2017		2007 through 2016	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
<b>Age at Diagnosis</b>												
13-14	0	--	0	--	0	--	1	(3)	0	(0)	0	--
15-24	3	(3)	8	(40)	4	(15)	5	(16)	6	(25)	43	(19)
25-34	6	(23)	2	(5)	7	(26)	8	(26)	4	(17)	74	(33)
35-44	9	(35)	3	(15)	9	(33)	10	(32)	5	(21)	45	(20)
45-54	4	(15)	7	(35)	5	(19)	5	(16)	4	(17)	38	(17)
55-64	2	(8)	0	--	1	(4)	1	(3)	5	(21)	19	(9)
65 or older	2	(8)	1	(5)	1	(4)	1	(3)	0	--	5	(2)
<b>Ethnicity/Race</b>												
Hispanic, All Races	2	(8)	0	--	4	(15)	3	(10)	2	(8)	15	(7)
Not Hispanic, White	9	(35)	10	(50)	7	(26)	12	(39)	8	(33)	90	(40)
Not Hispanic, Black/African American	9	(35)	9	(45)	13	(48)	13	(42)	14	(58)	93	(41)
Not Hispanic, Asian	5	(19)	0	--	0	--	0	--	0	--	15	(7)
Not Hispanic, Multi-race	0	--	2	(5)	2	(7)	2	(6)	0	--	11	(5)
Other	1	(3)	0	--	1	(4)	1	(3)	0	--	0	--
<b>Country of Birth</b>												
United States or Dependency	14	(54)	16	(80)	15	(56)	22	(71)	19	(79)	140	(62)
Other Countries	12	(46)	5	(20)	12	(44)	9	(29)	5	(21)	84	(38)
<b>Mode of Exposure</b>												
People who inject drugs (PWID)	4	(15)	4	(20)	4	(15)	4	(13)	2	(8)	24	(11)
Heterosexual Contact	18	(70)	12	(40)	19	(70)	25	(81)	19	(79)	175	(78)
Risk not reported/Other (NIR)	4	(15)	5	(40)	4	(15)	2	(6)	3	(13)	25	(11)
<b>TOTALS</b>	<b>26</b>	<b>(100)</b>	<b>21</b>	<b>(100)</b>	<b>27</b>	<b>(100)</b>	<b>31</b>	<b>(100)</b>	<b>24</b>	<b>(100)</b>	<b>224</b>	<b>(100)</b>

Diagnoses among females remained below 30, on average, from 2007 through 2021, as shown in Table 3.4. Females aged 25 to 44 years experienced more than half of all adult/adolescent ( $\geq 13$  years of age at time of diagnosis) diagnoses among females from 2007 through 2021. Diagnoses among non-US-born females in 2021 accounted for 46% of all diagnoses among females, and increased by 140% from 2020 to 2021. Heterosexual contact is the most common mode of exposure for women in Iowa.



TABLE 3.5 IOWANS DIAGNOSED WITH HIV IN 1982 THROUGH 2020 BY DIAGNOSTIC STATUS AT DEATH (HIV OR AIDS) AND UNDERLYING CAUSE OF DEATH (UCD)

Year	HIV <sup>1</sup> Diagnoses	HIV (not- AIDS) Deaths <sup>2</sup>	AIDS Deaths <sup>3</sup>	Total Deaths	UCD <sup>4</sup> (HIV)	UCD (Other)	UCD (Unknown)
1982	1		1	1	0	1	0
1983	1		1	1	0	1	0
1984	25		3	3	0	2	1
1985	56		6	6	0	5	1
1986	61		15	15	0	14	1
1987	64		19	19	14	3	2
1988	69		8	8	6	2	0
1989	81		13	13	10	2	1
1990	111		23	23	13	9	1
1991	134		57	57	44	10	3
1992	125		63	63	51	11	1
1993	98	1	75	76	61	13	2
1994	101	1	83	84	62	18	4
1995	87	2	99	101	76	22	3
1996	104	2	64	66	52	9	5
1997	104	1	29	30	19	9	2
1998 <sup>5</sup>	98	2	17	19	10	8	1
1999	84	2	23	25	15	8	2
2000	89	2	28	30	20	8	2
2001	96	4	32	36	20	14	2
2002	102	2	33	35	27	8	0
2004	87	5	30	35	16	18	1
2004	104	3	30	33	25	7	1
2005	112	6	22	28	18	10	0
2006	109	2	23	25	11	13	1
2007	122	7	29	36	20	14	2
2008	100	5	19	24	16	8	0
2009	127	6	28	34	16	15	3
2010	114	5	22	27	16	8	3
2011	118	8	25	33	18	14	1
2012	118	7	30	37	20	15	2
2013	119	11	35	46	20	24	2
2014	98	5	42	47	22	20	5
2015	122	9	22	31	14	16	1
2016	136	5	29	34	12	21	1
2017	125	11	26	37	17	19	1
2018	116	9	39	48	11	33	4
2019	98	15	37	52	13	38	1
2020	99	8	37	45	11	24	10
2021 <sup>6</sup>	124	5	26	31	4	19	8

<sup>1</sup> Diagnoses reflect all people diagnosed with HIV for the first time, regardless of AIDS statuses, who were residents of Iowa at time of diagnosis.

<sup>2</sup> Data include people whose diagnosis statuses at time of death were HIV (not-AIDS). Fewer than 11% of deaths occur in people whose diagnostic statuses at the time of death are HIV (not-AIDS). People may have been diagnosed in any year up to and including the year of death.

<sup>3</sup> Data include people who have AIDS diagnoses at time of death. Greater than 89% of deaths occur in people who have AIDS diagnoses at the time of death. People may have been diagnosed in any year up to and including the year of death.

<sup>4</sup> The underlying HIV infection is listed on the death certificate as a cause of death in 57% of people diagnosed with HIV in Iowa.

<sup>5</sup> HIV infection became reportable by name in 1998.

<sup>6</sup> Death data for 2021 are incomplete. Matching data to the National Death Index files in 2022 may provide more complete death data.

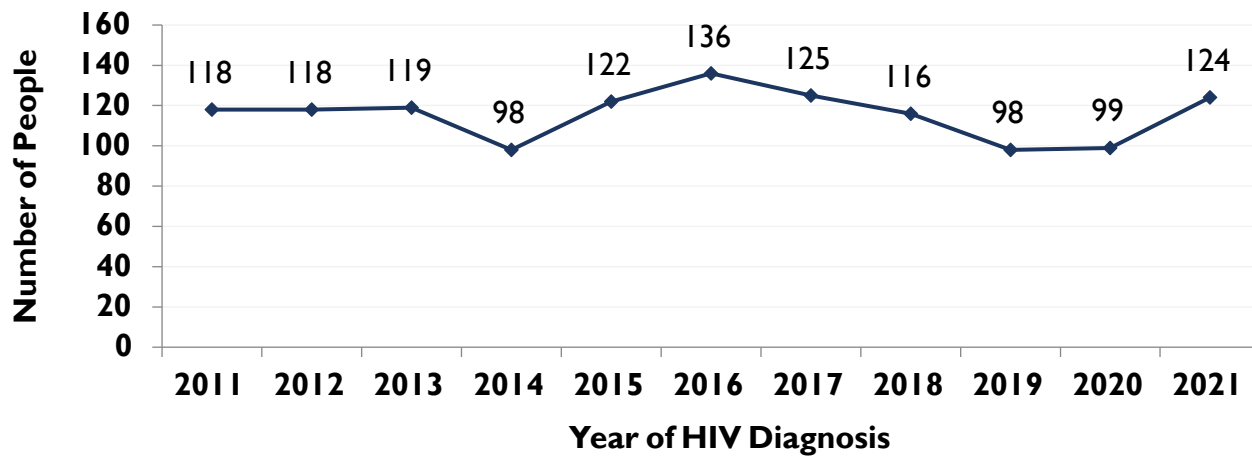
#### TERMS:

**UCD (HIV)** – underlying HIV infection was listed on the death certificate as contributing to the death of the individual.

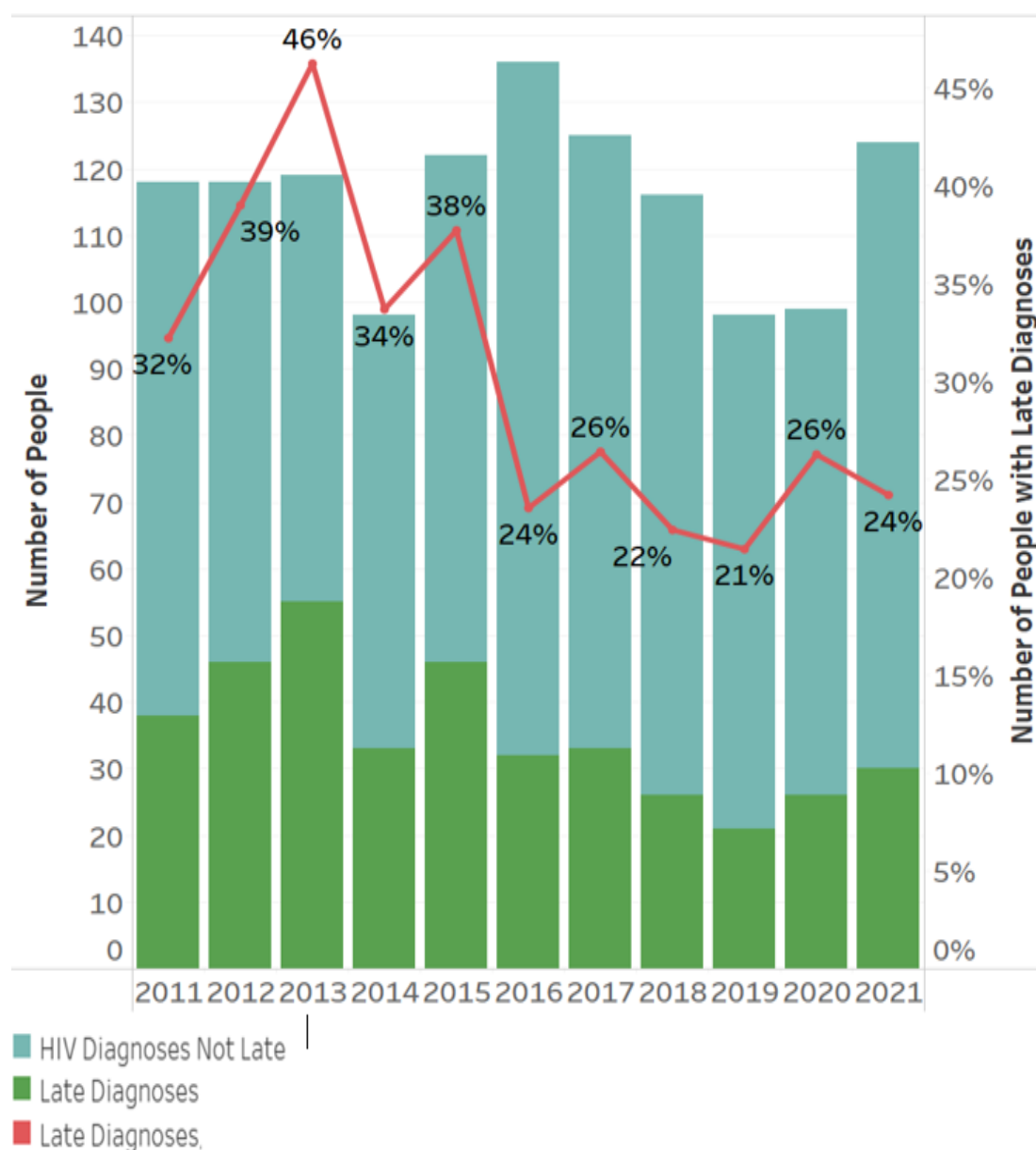
**UCD (Other)** – underlying HIV infection was not listed as contributing to death of the individual.

**UCD (Unknown)** – Cause of death is unknown.

FIGURE 3.1 IOWANS DIAGNOSED WITH HIV: 2011 THROUGH 2021



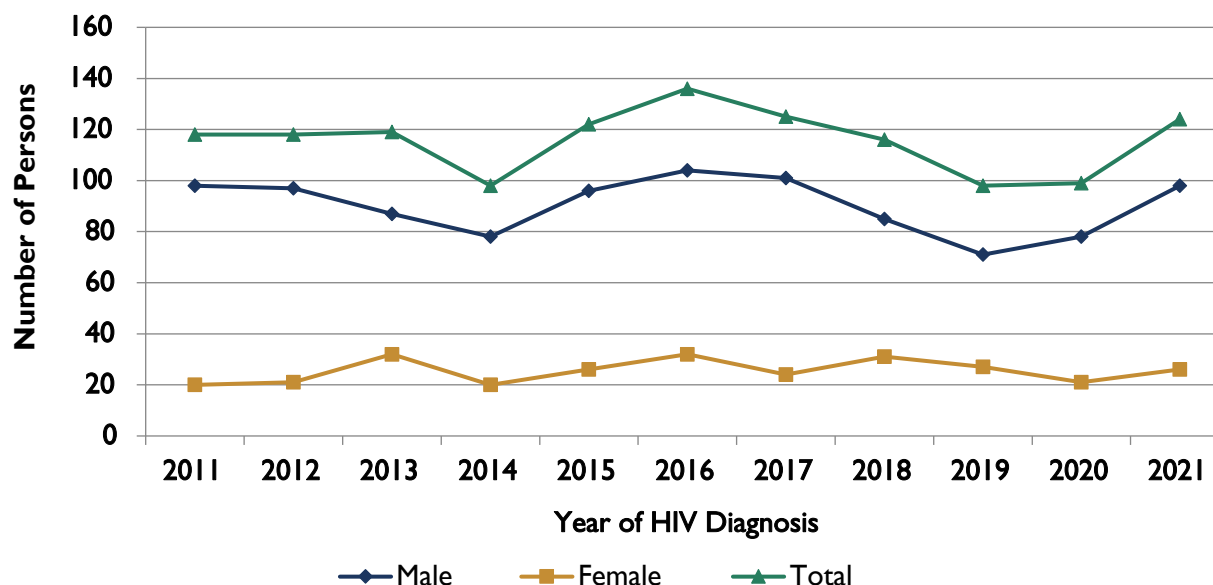
After peaking at 136 diagnoses in 2016, Iowa experienced four consecutive years without increases in diagnoses of HIV through 2020. HIV diagnoses increased 25% from 2020 to 2021.

**FIGURE 3.2 NUMBER AND PERCENTAGE OF IOWANS DIAGNOSED LATE WITH HIV ("LATE TESTERS"): 1998 THROUGH 2021**

“Late testers” are people who receive AIDS diagnoses within three months of their HIV diagnoses. The proportion of late testers has been decreasing and reached its lowest level ever reported at 21% in 2019. Although the proportion of late testers increased to 26% in 2020, it dropped to 24% in 2021. It has remained consistently below 30% since 2015. Over 90% of “late testers” in Iowa were diagnosed with AIDS concurrently, meaning within one month of their HIV diagnoses.

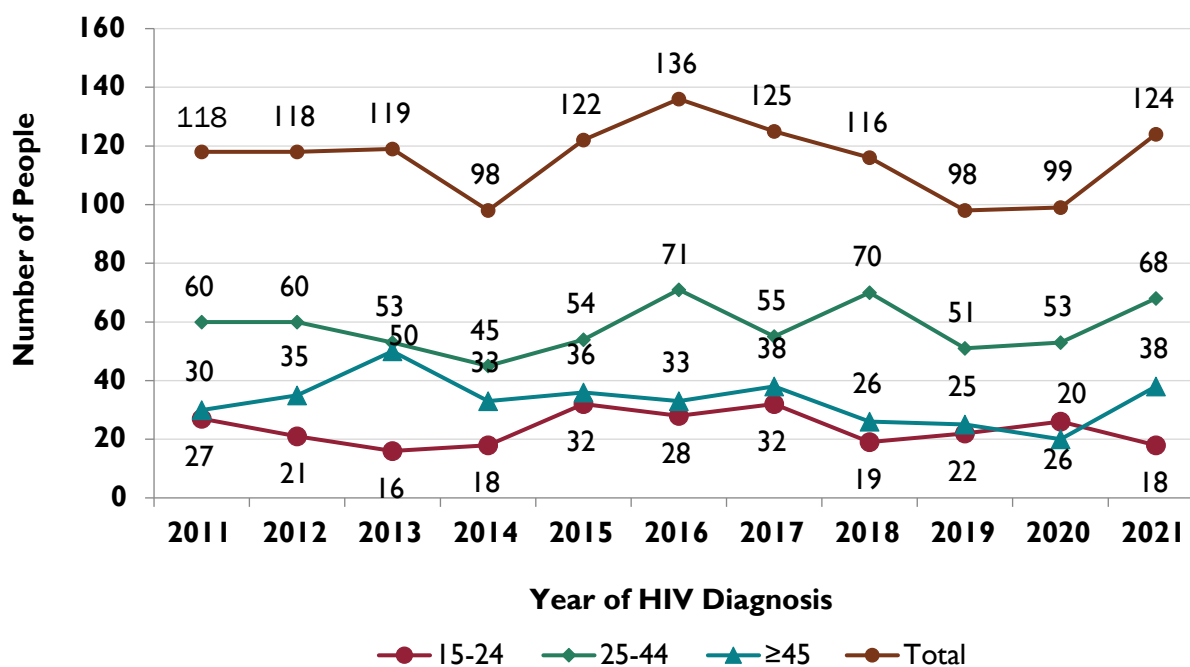
From 2011 through 2021, there were, on average, four males diagnosed for every female diagnosed with HIV. Men experienced a 26% increase in diagnoses in 2021, with the highest percentage increase among non-US-born males (55%) compared to US-born males (21%). Women experienced a 24% increase in diagnoses in 2021, but solely among non-US-born females (140%). US-born women saw a decrease of 13% in diagnoses. Overall, non-US-born persons showed the highest percentage increase in diagnoses (81%) than US-born persons (14%) showed in 2021.

FIGURE 3.3 IOWANS DIAGNOSED WITH HIV BY SEX: 2011 THROUGH 2021



On average, over half of all people diagnosed with HIV annually are between 25 to 44 years of age. Individuals aged between 15 to 24 years experienced a decrease in diagnoses in 2021 (31%), the first annual decrease in diagnoses in this age group since 2018. Those who reported their ages as 45 years or above experienced a highest percentage increase in diagnoses (90%) in 2021. The majority of new diagnoses (55%) was among those 25 to 44 years of age in 2021, and there were twice as many diagnoses among those 45 years as older when compared to those 15 to 24 years of age.

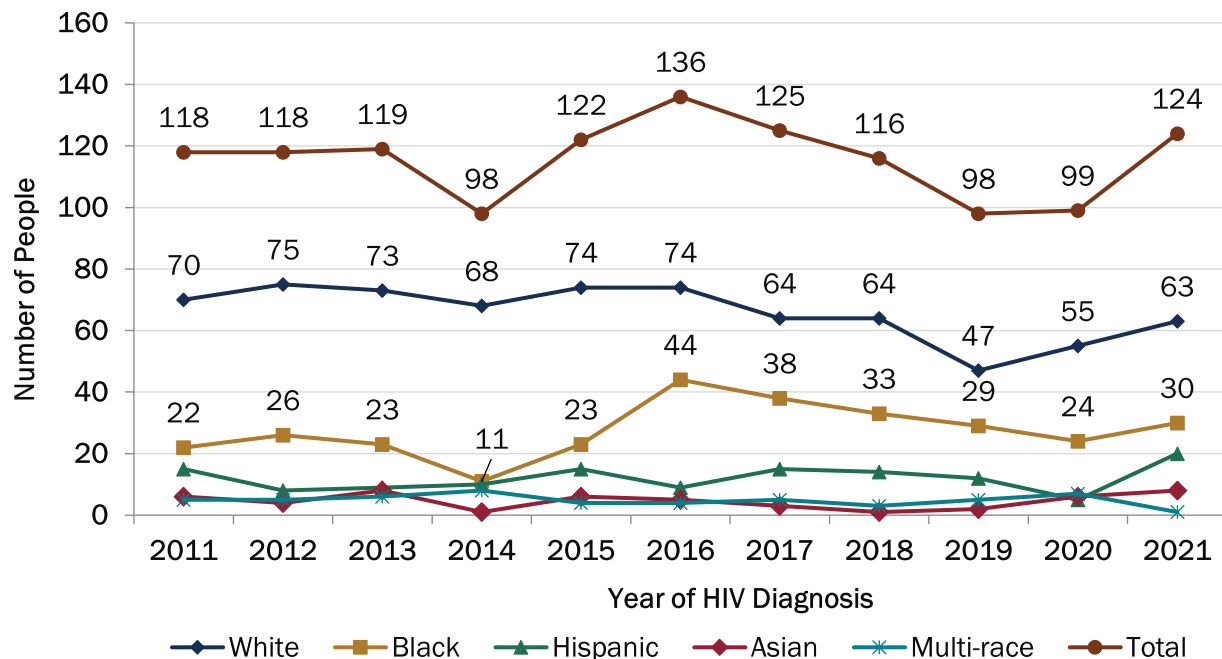
FIGURE 3. IOWANS DIAGNOSED WITH HIV BY 2011 THROUGH 2021





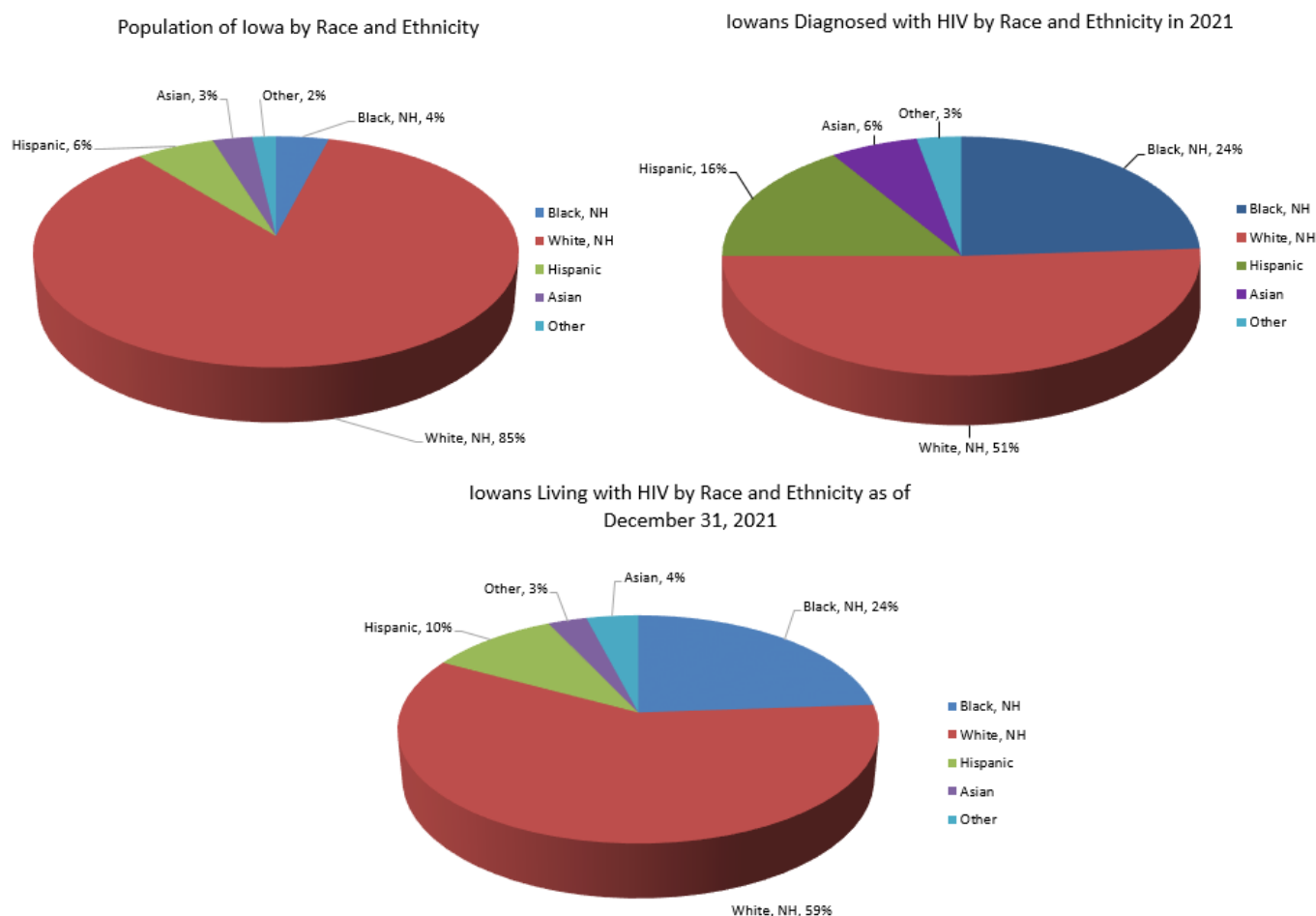
Diagnoses among non-Hispanic Black/African-American people increased 25% in 2021 after consistently decreasing for the four years in a row from a high of 44 (32% of all people diagnosed with HIV) in 2016 to 23 (23% of all diagnoses) in 2020. Twelve (40%) of the 30 non-Hispanic Black/African American people diagnosed in 2021 were non-US born. Of the 20 Hispanic/Latinx people diagnosed in 2021, eleven (55%) were non-US born. Non-Hispanic white people make up the largest proportion of people diagnosed with HIV in Iowa, but this proportion decreased from a high of 75 (64% of all diagnoses) in 2012 to 63 (51% of all diagnoses) in 2021. Despite this, non-Hispanic White Iowans experienced the smallest percentage increase in diagnoses in 2021 (15%) compared to Hispanic/Latinx people, non-Hispanic Black/African American people, and non-Hispanic Asian people.

**FIGURE 3. IOWANS DIAGNOSED WITH HIV BY RACE AND ETHNICITY: 2011 THROUGH 2021**



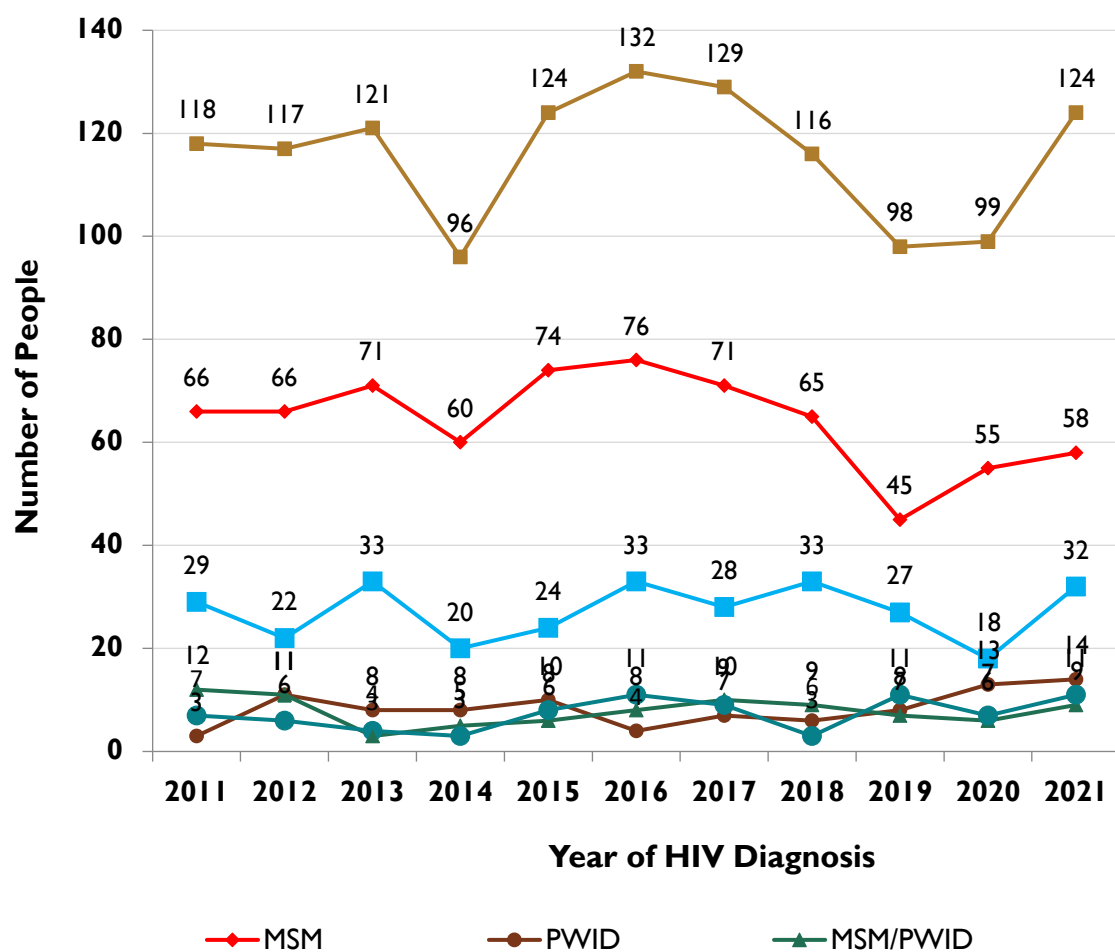
About 85% of Iowa's population is white and non-Hispanic. Hispanic/Latinx, Non-Hispanic Black/African Americans, and non-Hispanic Asian Iowans are over-represented among people diagnosed with HIV in comparison to the sizes of their respective populations in Iowa. Non-Hispanic Blacks/African Americans represent 4% of Iowa's population but experienced 24% of HIV diagnoses reported in 2021. Hispanic/Latinx people were over four times more likely to be diagnosed with HIV than non-Hispanic White people. Non-Hispanic Black/African American people were over ten times more likely to be diagnosed with HIV than non-Hispanic White people, and non-Hispanic Asian people are over four times more likely to be diagnosed than non-Hispanic White people.

**FIGURE 3.6 IOWA POPULATION PERCENTAGE BY ETHNICITY AND RACE COMPARED TO PROPORTION OF HIV DIAGNOSES AND PERCENT LIVING WITH HIV BY RACE AND ETHNICITY AS OF DECEMBER 31, 2021**

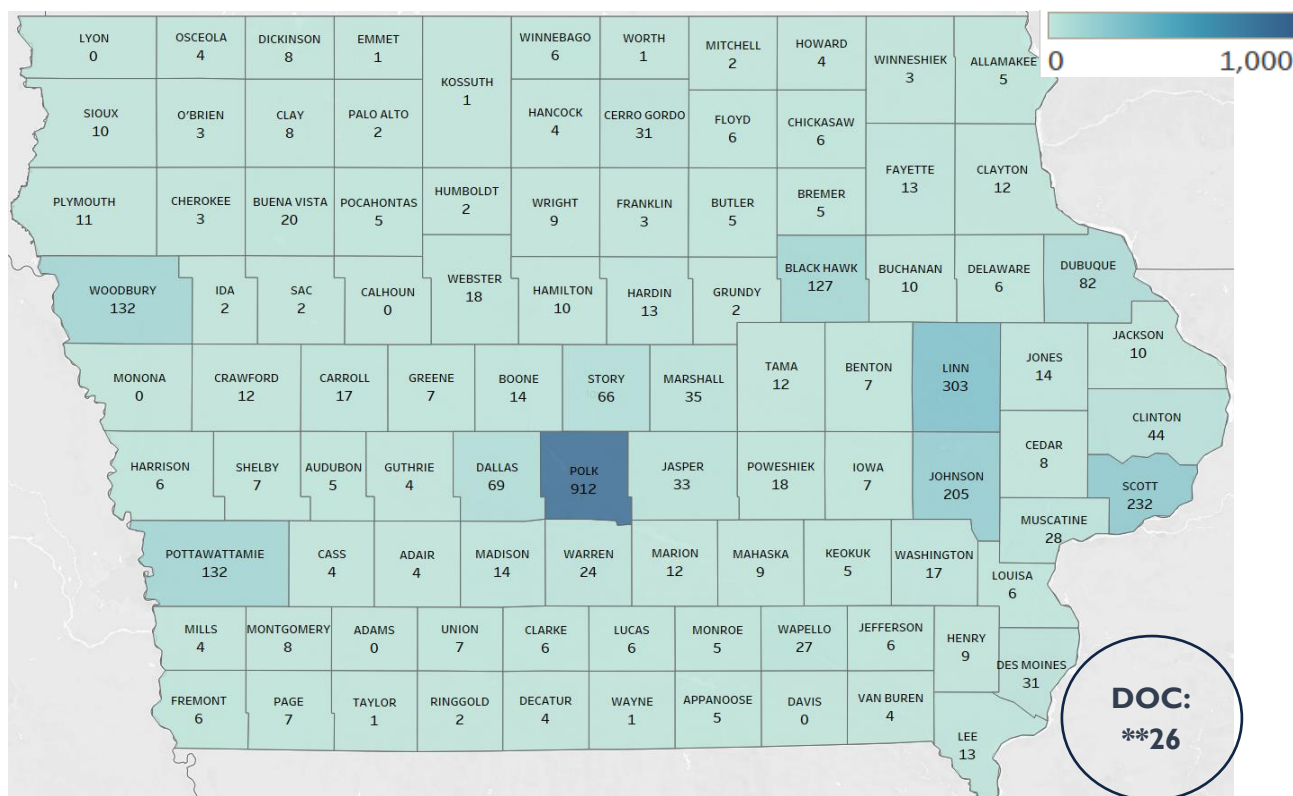


Men who have sex with men (MSM) experienced a 5% increase in HIV diagnoses in 2021 but a 24% decrease since the peak of 78 diagnoses in 2016. People who identified as exposed through heterosexual contact experienced a 78% increase in diagnoses in 2021. The 57% increase in people whose exposure route was not reported reflects the recency of diagnoses. Over time, modes of exposure will be investigated and reported. Still, until this occurs, interpretation of trends related to modes of exposure should be made with caution.

**FIGURE 3.7 IOWA ADULTS DIAGNOSED WITH HIV BY EXPOSURE CATEGORY: 2011 THROUGH 2021**



**FIGURE 3.8 NUMBERS OF IOWANS LIVING WITH DIAGNOSED HIV DISEASE AS OF DECEMBER 31, 2021, BY COUNTY OF CURRENT RESIDENCE**

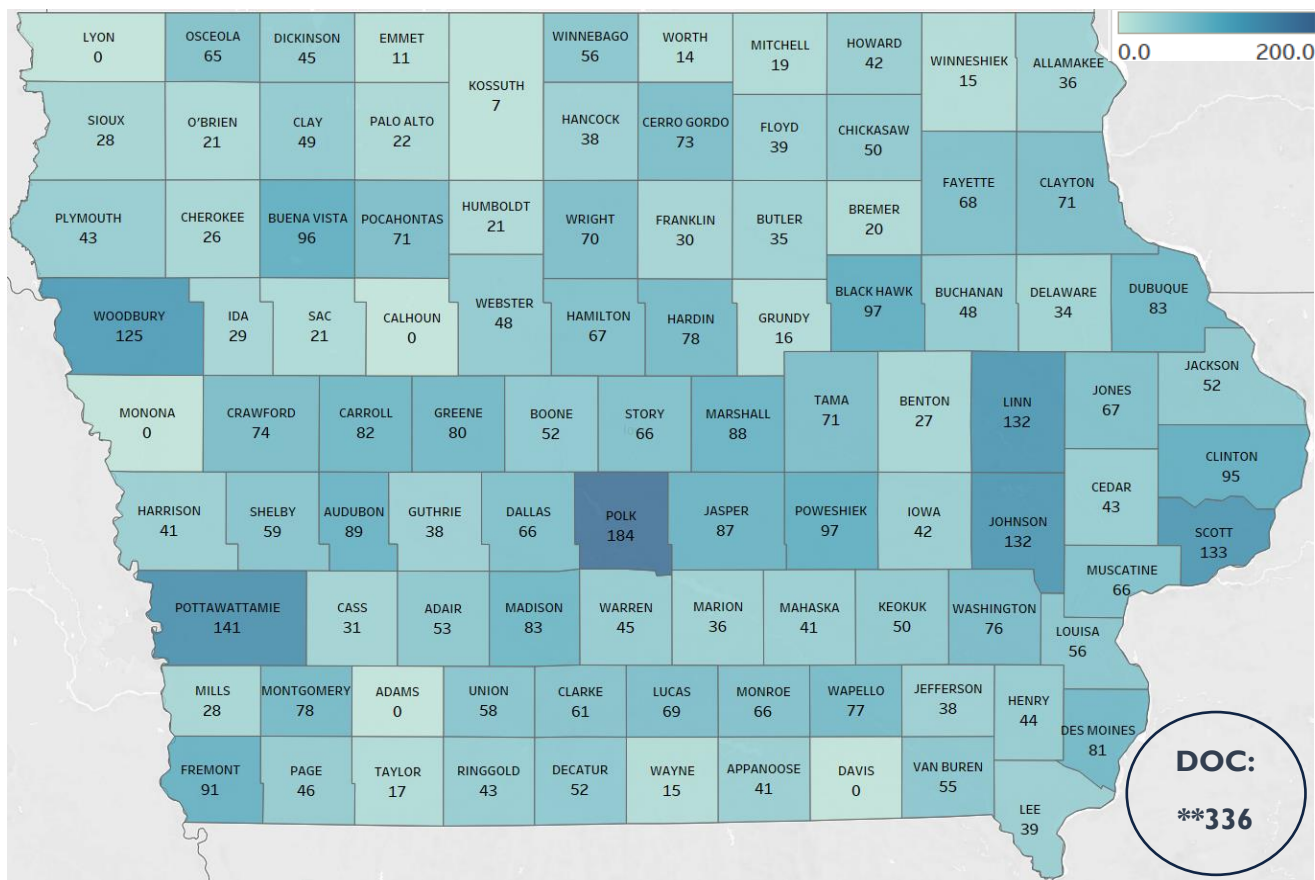


**Total: 3,077**

This map shows the number of people (3,051) living with HIV disease as of December 31, 2021, in each Iowa county. Five Iowa counties have no people living with HIV. Not all deaths may have been reported.

\*\*Twenty-six people were living with HIV in Iowa Department of Corrections (DOC) facilities in the following counties: Henry (3), Jasper (3), Webster (1), Johnson (11), Jones (3), Lee (2), and Page (3). These numbers are excluded from county totals shown on the map.

FIGURE 3.9 PREVALENCE OF HIV DISEASE AT THE END OF 2021  
BY COUNTY OF CURRENT RESIDENCE, NUMBER PER 100,000



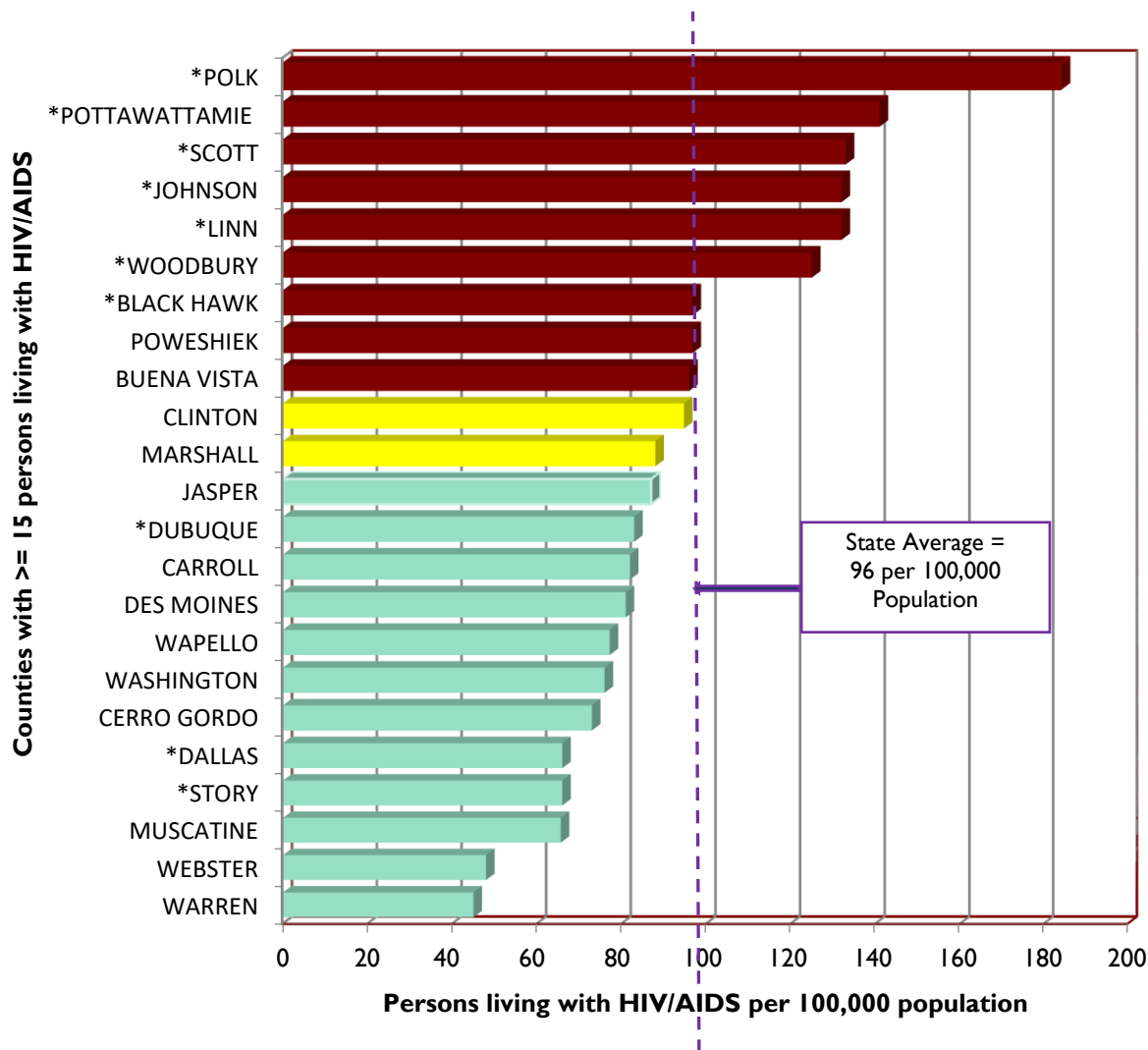
This map shows the rates per 100,000 of people living with HIV disease as of December 31, 2021, in each Iowa County. Not all deaths may have been reported.

\*\*The DOC rate was calculated based on total prison population of Iowa Department of Corrections (DOC) facilities in 2021.

Darker blue indicates a higher prevalence.



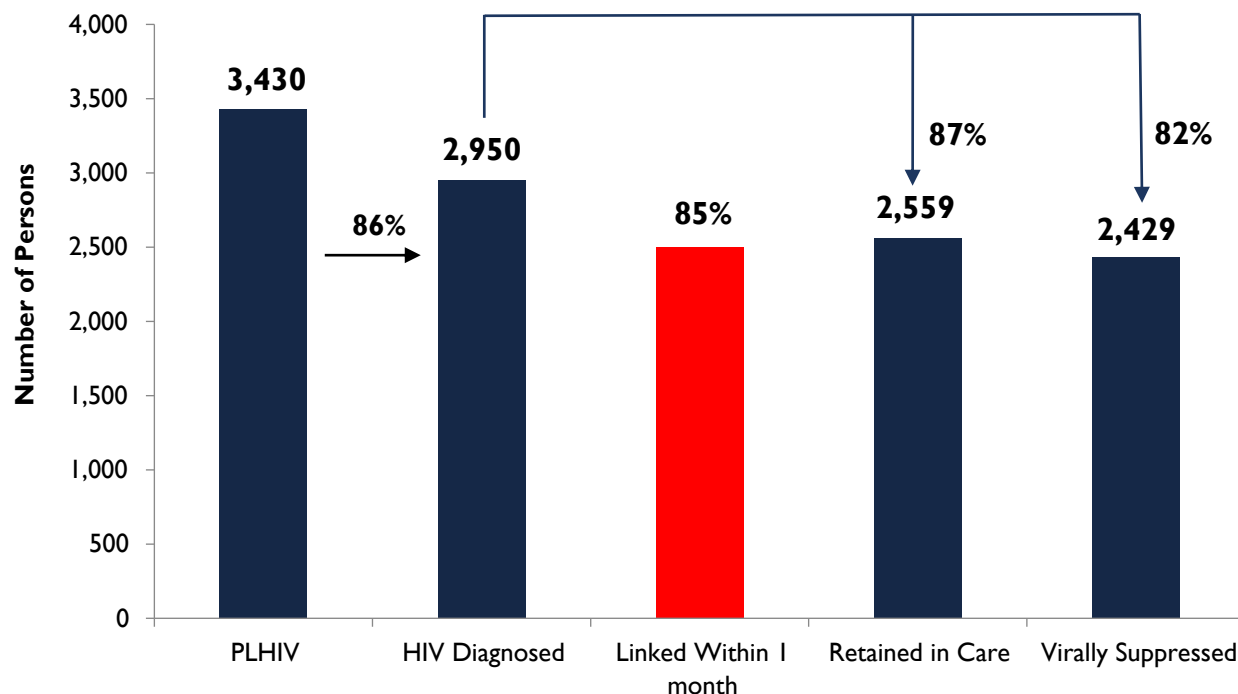
**FIGURE 3.10 PREVALENCE OF HIV DISEASE BY COUNTY OF CURRENT RESIDENCE: IOWANS LIVING WITH DIAGNOSED HIV DISEASE (HIV OR AIDS) PER 100,000 POPULATION AS OF DECEMBER 31, 2021**



**Counties with  $\geq 15$  persons living with HIV/AIDS**

- \* Indicates one of the 10 most populous counties
- County rates do not include people living with HIV in the Iowa Department of Corrections system
- County populations are based on the 2020 U.S. Census estimates

FIGURE 3.11 IOWA HIV CARE CONTINUUM FOR 2021



**People Living with HIV (PLHIV):** Estimated total number of Iowans with HIV, of which 480 are undiagnosed.

**Diagnosed:** People diagnosed with HIV disease as of December 31, 2020, and living in Iowa as of December 31, 2021.

- An estimated 3,430 Iowans were living with HIV disease as of December 31, 2021. Of these, 2,950 had been diagnosed by the end of 2020, and were living in Iowa as of December 31, 2021.

**Linked to Care:** Newly diagnosed people who had a viral load or CD4+ cell count reported within one month after diagnoses.

**Retained in Care:** Diagnosed people who had two or more CD4+ cell counts or viral load lab results at least three months apart in 2021 or who had only one viral load lab result but it demonstrated viral suppression during 2021.

**Viral Suppression:** People retained in care and whose most recent viral load in 2021 was less than 200 copies/mL.

- 2,559 (87%) of the 2,950 diagnosed Iowans had been retained in care at the end of 2021. Of those retained in care, 2,429 (95%) were virally suppressed.
- Viral suppression for all diagnosed people living in Iowa (in care and out of care) was 82%.

## Section 4: REPORTING OF HIV AND AIDS IN IOWA

**What's reportable:** AIDS has been a reportable disease in Iowa since February 1983. HIV became reportable by name in Iowa on July 1, 1998. **Iowa Administrative Code 641—11.6** below, establishes rules for reporting.

### 641—11.6(141A) REPORTING OF DIAGNOSES AND HIV-RELATED TESTS, EVENTS, AND CONDITIONS TO THE DEPARTMENT.

**11.6(1)** The following constitute reportable events related to HIV infection:

- a. A test result indicating HIV infection, including:
  - (1) Confirmed positive results on any HIV-related test or combination of tests, including antibody tests, antigen tests, cultures, and nucleic acid amplification tests.
  - (2) A positive result or report of a detectable quantity on any other HIV detection (non-antibody) tests, and results of all viral loads, including non-detectable levels.
- b. AIDS and AIDS-related conditions, including all levels of CD4+ T-lymphocyte counts.
- c. Birth of an infant to an HIV-infected mother (perinatal exposure) or any (positive, negative, or undetectable) non-antibody detection test (antigen test, viral culture, viral load, or qualitative nucleic acid amplification test) on an infant 18 months of age or younger.
- d. Death resulting from an AIDS-related condition, or death of a person with HIV infection.

**11.6(2)** Within seven days of the receipt of a person's confirmed positive test result indicating HIV infection, the director of a plasma center, blood bank, clinical laboratory or public health laboratory that performed the test or that requested the confirmatory test shall make a report to the department on a form provided by the department.

**11.6(3)** Within seven days of the receipt of a test result indicating HIV infection, which has been confirmed as positive according to prevailing medical technology, or immediately after the initial examination or treatment of a person infected with HIV, the physician or other health care provider at whose request the test was performed or who performed the initial examination or treatment shall make a report to the department on a form provided by the department.

**11.6(4)** Within seven days of diagnosing a person as having AIDS or an AIDS-related condition, the diagnosing physician shall make a report to the department on a form provided by the department.

**11.6(5)** Within seven days of the death of a person with HIV infection, the attending physician shall make a report to the department on a form provided by the department.

**11.6(6)** Within seven days of the birth of an infant to an HIV-infected mother or a receipt of a laboratory result (positive, negative, or undetectable) of a non-antibody detection test (antigen test, viral culture, viral load, or qualitative nucleic acid amplification test) on an infant 18 months of age or younger, the attending physician shall make a report to the department on a form provided by the department.

**11.6(7)** The report shall include:

- a. The person's name, address, date of birth, gender, race/ ethnicity, marital status, and phone number.
  - b. The name, address and telephone number of the plasma center, blood bank, clinical laboratory or public health laboratory that performed or requested the test, if a test was performed.
  - c. The address of the physician or other health care provider who requested the test.
  - d. If the person is female, whether the person is pregnant.
- 11.6(8)** All people who experience a reportable event while receiving services in the state, regardless of state of residence, shall be reported.

*For free postpaid "03 CONFIDENTIAL" envelopes, call Alagie Jatta at 515-281-6918.*

See <http://idph.iowa.gov/hivstdhep/hiv/data> for this report

PREVENTION POPULATIONS	
Population	Description
Black people born in the U.S.	Non-Hispanic, Black, born in the U.S.
Black people born outside the U.S.	Non-Hispanic, Black, born outside of the U.S.
Latino people born in the U.S.	Hispanic, any race, born in the U.S.
Latino people born outside the U.S.	Hispanic, any race, born outside of the U.S.
Men who have sex with men (MSM)	Anyone who identifies as a man or a transgender person who has sex with men
White MSM	Non-Hispanic, White, who identifies as a man or a transgender person who has sex with men
Black MSM	Non-Hispanic, Black, who identifies as a man or a transgender person who has sex with men
Latino MSM	Hispanic, any race, who identifies as a man or a transgender person who has sex with men
People who inject drugs	Anyone who reports ever injecting drugs
Heterosexual people with identified risks	Heterosexual and reports an identified risk including: <ul style="list-style-type: none"> <li>• diagnosed with STI within the past 12 months</li> <li>• exchanges sex</li> <li>• sex with a partner who exchanges sex, is living with HIV, or injects drugs</li> <li>• sex with a bisexual male (assigned 'female' at birth only)</li> </ul>
Transgender	Anyone who identifies as Transgender
Women	Anyone who identifies as a Woman
Black Women born in the U.S.	Non-Hispanic, Black, born in the U.S. and identifies as a woman
Black Women born outside the U.S.	Non-Hispanic, Black, born outside of the U.S. and identifies as a woman
Latina women born in the U.S.	Hispanic, any race, born in the U.S. and identifies as a woman
Latina women born outside the U.S.	Hispanic, any race, born outside of the U.S., and identifies as a woman
Youth 13-24	Youth age 13-24 when diagnosed with HIV or syphilis or tested OR people living with HIV who are age 13-24



## Appendix C: Prevention-Related Factors for Prioritization

PREVENTION-RELATED FACTORS FOR PRIORITIZATION		
Factors	Definition	Why does this matter?
1 Proportion of HIV Diagnoses	The percent of HIV cases diagnosed in a defined population in a specified period of time (2017-2021) (Of the total people diagnosed in Iowa from 2017 to 2021, what proportion belonged to a specific population)	When people know their HIV status, they are able to get early linkage to care and treatment, reduce their viral load, have better health outcomes, and reduce the risk of transmitting HIV to others. The proportion indicates which groups are being most impacted recently.
2 HIV Diagnoses per 100,000 population	The average number of persons diagnosed per 100,000 population (2017-2021)	This is another way to look at recent impact (i.e., transmission), but it standardizes for the size of the population in the state. It's easier to see impacts on minorities and small populations.
3 HIV Prevalence	The number of people living with diagnosed HIV/AIDS in a defined population, at a specified point in time	This is an important statistic for the purposes of resource planning and distribution for HIV treatment and care funding.
4 Late Testers	The average percent diagnosed with AIDS within three months of HIV diagnosis	Late diagnosis of HIV increases one's probability of transmitting HIV to others, as well as the probability of experiencing complications and early death related to HIV disease. The percentage of late testers highlights the need for early testing and prevention efforts in the community.
5 Viral Suppression	Percent of PLHIV with a viral load less than 200 at last test	People who get and keep an undetectable viral load (or remain virally suppressed) can stay healthy for many years and have effectively no risk of transmitting HIV to their sex partners. Low viral suppression may allow transmission to occur.
6 Infectious Syphilis Adjusted Rates	The number of persons diagnosed with infectious syphilis per 100,000 population (2021)	Allows us to understand in which demographic groups STI transmission is occurring, to indicate what populations are most at risk for HIV and to guide planning efforts.
7 PrEP Awareness	The percent of people who received an HIV test at an ITS site that has "heard of PrEP" (2019-2021)	This shows how aware people are of PrEP. The more people who are aware of PrEP the higher likelihood they might use it as a prevention tool.
8 General Iowa Population Size	The estimated number of Iowans	Allows us to understand the total population for each demographic group in Iowa
9 Difficulty of Meeting Population Needs	The complexity of need and whether the population has been reached by current programs, whether service providers have the capacity, etc.	High difficulty may mean that more resources should be devoted to achieve the best outcomes.

## WEIGHTING AND RANKING FACTORS FOR PREVENTION PRIORITIZATION

Weighting Factors— Scale



Less Important	Somewhat Important	Neutral	Important	Very Important
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MY WEIGHTS		
Rank	Factor	Weight (1–5)
	1 - Average HIV Diagnoses	
	2 - HIV Diagnoses per 100,000 Population	
	3 - HIV Prevalence	
	4 - Late Testers	
	5 - Viral Suppression	
	6 - Infectious Syphilis Rates	
	7 - PrEP Awareness	
	8 - General Iowa Population Size	
	9 - Difficulty of Meeting Population Needs	



December 1, 2022

Jalynn Lane  
Health and Resources and Services Administration  
HIV AIDS Bureau

Jessica Gordet-Murray  
Centers for Disease Control and Prevention  
Division of HIV/AIDS Prevention

Dear Jaylynn Lane and Jessica Gordet-Murray,

On behalf of the stateside Iowa HIV and Hepatitis Community Planning Group (CPG), we concur with the following submission by the Bureau of HIV, STI, and Hepatitis within the Iowa Department of Health and Human Services of the Stop HIV Iowa Plan, in response to the guidance set forth by the CDC's Division of HIV/AIDS Prevention (DHAP) and HRSA's HIV/AIDS Bureau (HAB) for the development of an Integrated HIV Prevention and Care Plan, including the Statewide Coordinated Statement of Need (SCSN).

The CPG has reviewed the integrated Prevention and Care Plan submission to the CDC and HRSA to verify that it describes how programmatic activities and resources are being allocated to the most disproportionately affected populations and geographical areas with high rates of HIV. The CPG concurs that the Integrated HIV Prevention and Care Plan submission fulfills the requirements put forth by the CDC's Notice of Funding Opportunity for Integrated Surveillance Prevention Programs for Health Departments and Ryan White HIV/AIDS Program legislation and program guidance.

In June 2019, the Iowa HIV and Hepatitis Community Planning Group (CPG) and bureau staff reviewed the "state of the state" of HIV in Iowa. Notable outcomes, such as a 32% decrease in

## Appendix E: Iowa HIV and Hepatitis Community Planning Group Letter of Concurrence

new diagnoses, an all-time high level of viral suppression, and increased funding that enabled full implementation of most of the strategies identified in the state's 2017-2021 integrated plan, served as the impetus for the CPG to vote to start developing an ending-the-HIV epidemic (EHE) plan. The planning structure was developed with input from CPG, leaders of the bureau, and a steering committee. The steering committee comprised bureau staff, CPG co-chairs (past and present), and leadership of PITCH (Positive Iowans Taking Charge), a group led by and for people living with HIV. This structure was approved by the CPG in November 2019. At this same meeting, CPG members also brainstormed initial areas of focus to help reach the goal of a 75% reduction in HIV acquisitions in 5 years and a 90% reduction in 10 years. Nine focus areas were chosen; Prevention and Diagnosing PLHIV, Medical Care and Support Services for PLHIV, Stigma, Social Determinants of Health, Health Equity, Viral Hepatitis, STIs, Workforce, and Behavioral Health.

The CPG also approved a structure for coordinating the research and engagement around each of these focus areas. Each focus area included three co-chairs consisting of one bureau staff member, one service provider, and one community member. Co-chairs were provided with support and training in order to complete their responsibilities that included: conducting a literature, data, and resource review; developing and implementing a community outreach and engagement process; and developing recommendations to be submitted to the steering committee.

The steering committee developed a draft, which was reviewed by the CPG in September 2019 and posted for public comment. On November 30, 2022, the final plan was reviewed by the CPG, and members voted to concur with the plan submission.

The community co-chair and the department co-chair have been designated by the CPG as signatories to this letter of concurrence. The signatures below confirm the concurrence of the HIV and Hepatitis Community Planning Group with the Integrated HIV Prevention and Care Plan.

Sincerely,



Carter Smith  
Community Co-Chair



Biz McChesney  
Department Co-Chair

## INDICATORS TO MEASURE PROGRESS

### INDICATOR 1: INCREASE KNOWLEDGE OF HIV STATUS

- **Definition:**
  - **Numerator:** Number of persons aged  $\geq 13$  years living with diagnosed HIV at the end of a measurement year.
  - **Denominator:** Estimated number of persons aged  $\geq 13$  years living with diagnosed or undiagnosed HIV at the end of a measurement year.
- **Baseline year:** 2021
- **Baseline result:** 86%
- **Target:** By 2026, increase to 95%.
- **Data source:** eHARS, the enhanced HIV/AIDS Surveillance System (Iowa Department of Health and Human Services (HHS)), and a CDC-created algorithm that uses HIV surveillance data to back calculate the number of Iowans with HIV, including those who are undiagnosed.
- **Data availability:** Data are published annually.

### INDICATOR 2: REDUCE NEW HIV DIAGNOSES

- **Definition:** Number of persons  $\geq 13$  years who have received laboratory or clinical confirmation of HIV in a measurement year.
- **Baseline year:** 2021
- **Baseline result:** 124
  - **Disparity indicator:** MSM - any race or ethnicity - Baseline result: 67
  - **Disparity indicator:** White MSM - Baseline result: 40
  - **Disparity indicator:** People who inject drugs - Baseline result: 23
  - **Disparity indicator:** Black people born in the US - Baseline result: 18
  - **Disparity indicator:** Youth aged 13 to 24 years - Baseline result: 18
  - **Disparity indicator:** Latino/Hispanic MSM - Baseline result: 15
  - **Disparity indicator:** Black people born outside the US - Baseline result: 12
  - **Disparity indicator:** Latino/a people born outside the US - Baseline result: 11
  - **Disparity indicator:** Black/African-American MSM - Baseline result: 10
  - **Disparity indicator:** Black women born outside the US - Baseline result: 7
- **Targets:** By 2026, reduce diagnoses by 75% from baseline.
- **Data source:** eHARS, the enhanced HIV/AIDS Surveillance System (Iowa HHS).
- **Data availability:** Data are published annually.



### INDICATOR 3: INCREASE PREP COVERAGE

- **Definition:**
  - **Numerator:** Number of persons  $\geq 16$  years who were classified as having been prescribed PrEP in a measurement year.
  - **Denominator:** Estimated number of persons with indications for PrEP in a measurement year.
- **Baseline year:** 2020
- **Baseline result:** 31.8%
- **Target:** By 2026, increase to 50%.
  - **Numerator:** IQVIA Real-World Longitudinal Prescriptions database
  - **Denominator:** Uses three data sources:
    1. The American Community Survey from the U.S. Census is used to estimate the number of men who have sex with men (MSM) in a jurisdiction.
    2. Behavioral data from the National Health and Nutrition Examination Survey (NHANES) are used to estimate the proportion of HIV-negative MSM with indications for PrEP.
    3. The National HIV Surveillance System (NHSS) diagnosis data are used. The number of HIV-negative MSM with indications for PrEP are multiplied by the ratio of percentage of HIV diagnoses during the specified year attributed to persons who inject drugs (PWID) and heterosexual transmission risk groups compared to the percentage among MSM. The estimated number of persons with indications for PrEP in the three major transmission risk groups (MSM, heterosexuals, PWID) in each jurisdiction are then summed to yield national estimates.
- **Data availability:** Data are published annually.
- **Note:** Prescriptions for PrEP or having indications for PrEP are not reportable conditions and therefore are not reported through the National HIV Surveillance System. Annual data will be used to measure progress.

### INDICATOR 4: INCREASE LINKAGE TO CARE

- **Definition:**
  - **Numerator:** Number of persons aged  $\geq 13$  years with HIV diagnosed in a measurement year and who had  $\geq 1$  viral load (VL) or CD4 test  $\leq 1$  month after HIV diagnosis.
  - **Denominator:** Number of persons aged  $\geq 13$  years with HIV infection diagnosed during a measurement year.
- **Baseline year:** 2021
- **Baseline result:** 85%
- **Target:** By 2026, increase to 95%.
- **Data source:** eHARS, the enhanced HIV/AIDS Surveillance System (Iowa HHS).
- **Data availability:** Data are published annually.

## INDICATOR 5: INCREASE VIRAL SUPPRESSION

- **Definition:**
  - **Numerator:** Number of persons aged  $\geq 13$  years living with diagnosed HIV and have a viral load test result  $< 200$  copies/mL at the most recent viral load test during a measurement year.
  - **Denominator:** Number of persons aged  $\geq 13$  years living with diagnosed HIV by the end of the year prior to the measurement year and alive at the end of the measurement year.
    - **Example:** Denominator for 2020 viral suppression is the number of persons aged  $\geq 13$  years living with diagnosed HIV by the end of 2019 and alive at the end of 2018.
- **Baseline year:** 2021
- **Baseline result:** 82%
  - **Disparity indicator:** Latino/a people born outside the US - Baseline result: 69%
  - **Disparity indicator:** Latino/Hispanic MSM - Baseline result: 75%
  - **Disparity indicator:** Black women born outside the US - Baseline result: 75%
  - **Disparity indicator:** Youth aged 13 to 24 years - Baseline result: 76%
  - **Disparity indicator:** Black people born outside the US - Baseline result: 76%
  - **Disparity indicator:** Black women born in the US - Baseline result: 78%
  - **Disparity indicator:** Black people born in the US - Baseline result: 79%
  - **Disparity indicator:** People who inject drugs - Baseline result: 80%
  - **Disparity indicator:** Black/ African-American MSM - Baseline result: 81%
  - **Disparity indicator:** Women - Baseline result: 81%
- **Target:** By 2026, increase to 95%.
- **Data source:** eHARS, the enhanced HIV/AIDS Surveillance System (Iowa HHS).
- **Data availability:** Data are published annually.

## INDICATOR 6: DECREASE STIGMA

- **Definition:** The median score of a response to the question: “Since learning I have HIV, I feel set apart or isolated from the rest of the world.”
- **Baseline year:** 2019
- **Baseline result:** 51%
- **Target:** By 2026, decrease to 35%.
- **Data source:** Ryan White Part B Program Consumer Needs Assessment
- **Data availability:** Data are published every 3 to 4 years

## INDICATOR 7: IMPROVE THE GENERAL HEALTH OF PLHIV

- **Definition:** The percent of Ryan White (RW) Part B clients enrolled in case management who reported their health as good, very good, or excellent in the measurement period.
  - **Numerator:** The number of RW Part B case management clients who completed an assessment during the measurement period and rated their health as good, very good, or excellent.
  - **Denominator:** The number of Ryan White Part B case management clients who completed an assessment in the measurement year, as documented in the REMI system.
- **Baseline year:** n/a
- **Baseline result:** n/a
- **Target:** TBD
- **Data source:** REMI System
- **Data availability:** Data are published annually.

## INDICATOR 8: IMPROVE THE MENTAL HEALTH OF PLHIV

- **Definition:** The percent of Ryan White Part B case management clients who reported experiencing depression and/or anxiety.
  - **Numerator:** The number of Ryan White Part B case management clients who completed an assessment during the measurement period and reported experiencing depression and/or anxiety several days, more than half the days, or nearly every day over the past 2 weeks.
  - **Denominator:** The number of Ryan White Part B case management clients who completed an assessment in the measurement year, as documented in the REMI system.
- **Baseline year:** n/a
- **Baseline result:** n/a
- **Target:** TBD
- **Data source:** REMI System
- **Data availability:** Data are published annually.

## INDICATOR 9: DECREASE FOOD INSECURITY AMONG PLHIV

- **Definition:** The percent of Ryan White Part B case management clients who reported ever being hungry and not eating because there wasn't enough money for food in the measurement period.
  - **Numerator:** The number of Ryan White Part B case management clients who completed an assessment during the measurement period and reported ever being hungry and not eating because there wasn't enough money for food.
  - **Denominator:** The number of Ryan White Part B case management clients who completed an assessment in the measurement year, as documented in the REMI system.
- **Baseline year:** n/a
- **Baseline result:** n/a
- **Target:** TBD
- **Data source:** REMI System
- **Data availability:** Data are published annually.

## INDICATOR 10: DECREASE THE PROPORTION OF PLHIV WHO REPORT BEING OUT OF WORK

- **Definition:** The percent of Consumer Needs Assessment (CNA) respondents who reported being out of work at any point in the measurement period.
  - **Numerator:** The number of CNA respondents who reported being out of work at any point in the measurement period.
  - **Denominator:** The total number of CNA respondents
- **Baseline year:** 2019
- **Baseline result:** 13%
- **Target:** By 2026, decrease by 50% to 6.5%
- **Data source:** Consumer Needs Assessment results
- **Data availability:** Data are published annually.

## INDICATOR 11: DECREASE THE PROPORTION OF PLHIV WHO REPORT BEING UNSTABLY HOUSED OR EXPERIENCING HOMELESSNESS

- **Definition:** The percent of Ryan White Part B clients who were unstably housed at any point in the measurement period.
  - **Numerator:** Number of persons living with diagnosed HIV in a measurement year and received a Ryan White Part B services who report having been unstably housed during the measurement year. Unstably housed is defined as emergency shelter or use of an emergency shelter voucher; public or private place not designed for, or ordinarily used as, regular sleeping accommodations including a vehicle, abandoned building, bus/train/subway station, airport, or anywhere outside; or jail, prison, or a juvenile detention facility.
  - **Denominator:** The number of persons living with diagnosed HIV and received a Ryan White Part B services in a measurement year, as documented in CAREWare.
- **Baseline year:** 2020
- **Baseline result:** 6%
- **Target:** By 2026, reduce by 50%.
- **Data source:** CAREWare
- **Data availability:** Data are published annually.

## INDICATOR 12: INCREASE LGBTQ+-SUPPORTIVE SCHOOL POLICIES AND PRACTICES

- **Definition:** This indicator is the median percentage of secondary schools in Iowa that are implementing at least four of seven school policies and practices that are known to improve health outcomes for both LGBTQ youth and all students: (1) having a Gay/Straight Alliance (GSA) or similar club, (2) identifying safe spaces, (3) prohibiting harassment based on sexual orientation or gender identity, (4) encouraging staff to attend professional development; (5) facilitating access to out-of-school health service providers, (6) facilitating access to out-of-school social and psychological service providers, and (7) providing LGBTQ-relevant curricula or supplementary materials.
- **Baseline year:** 2020
- **Baseline result:** 74.4%
- **Target:** By 2026, increase the median percentage of secondary schools that are implementing at least four of seven LGBTQ-supportive policies and practices to 85%.
- **Data source:** CDC School Health Profiles. The School Health Profiles is a system of surveys assessing school health policies and practices in states, large urban school districts, and territories.
- **Data availability:** Data are published bi-annually.

## INDICATOR 13: INCREASE SEXUAL HEALTH EDUCATION IN SECONDARY SCHOOLS

- **Definition:** This indicator is the median percentage of secondary schools in Iowa that provide curricula or supplementary materials that include HIV, STI, or pregnancy prevention information that is relevant to lesbian, gay, bisexual, transgender, and questioning youth.
- **Baseline year:** 2020
- **Baseline result:** 56.1%
- **Target:** By 2026, increase the median percentage of secondary schools that provide curricula or supplementary materials that include HIV, STI, or pregnancy prevention information to 65%.
- **Data source:** CDC School Health Profiles. The School Health Profiles is a system of surveys assessing school health policies and practices in states, large urban school districts, and territories.
- **Data availability:** Data are published bi-annually.

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