

CY 2021 and CY 2022 HVL-AD Summary Report

June 2024



Table of Contents

1. Executive Summary	1-1
Background Information on HIV in Arizona	1-2
Methodology	1-5
High-Level Findings.....	1-6
Strengths	1-6
Challenges	1-8
Calculation and Reporting.....	1-9
Conclusions	1-9
Opportunities	1-10
2. Methodology	2-1
Measure	2-1
HIV Viral Load Suppression.....	2-1
Data Sources.....	2-1
Claim/Encounter Data	2-1
HIV Surveillance Data	2-2
Supplemental Demographic Data.....	2-2
Cross-Matching Process and Results	2-2
Performance Measure Stratifications	2-5
Racial and Ethnic Categories	2-5
Age	2-6
County	2-6
Urbanicity.....	2-6
Data Limitations and Caveats.....	2-6
Measure Specification Changes	2-6
Cross-Matching Process	2-7
Demographic Data Completeness	2-7
3. Findings	3-1
Calculation and Reporting.....	3-1
Conclusions	3-2
Opportunities	3-2
Statewide Results	3-3
Strengths.....	3-5
Challenges	3-5
LOB-Specific Results.....	3-7
ACC.....	3-7
ALTCS-DD	3-11
ALTCS-EPD	3-11
ACC-RBHA/RBHA Integrated SMI.....	3-14
Appendix A. Raw HVL-AD Rates	A-1

1. Executive Summary

Arizona Health Care Cost Containment System (AHCCCS) contracted with Health Services Advisory Group, Inc. (HSAG) to calculate calendar year (CY) 2021 (i.e., January 1, 2021–December 31, 2021) and CY 2022 (i.e., January 1, 2022–December 31, 2022) *Human Immunodeficiency Virus (HIV) Viral Load Suppression (HVL-AD)* performance measure rates. The *HIV Viral Load Suppression (HVL-AD)* measure assesses the percentage of members 18 years of age and older who had a diagnosis of HIV and had an HIV viral load less than 200 copies per milliliter at the last HIV viral load test during the measurement year. Please note that suppression was applied to this report for some subgroups when the numerator was less than 11. When appropriate, HSAG combined subgroups with small numerators into a single category to avoid numerators less than 11. HSAG applied suppression in alignment with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule’s de-identification standard and the Centers of Medicare & Medicaid Services’ (CMS’) cell suppression policy.¹⁻¹

HIV is an infection transmitted from person-to-person by the exchange of certain bodily fluids (i.e., blood, breast milk, sexual fluids).^{1-2,1-3} Once in the body, HIV replicates and destroys the body’s white blood cells, which weakens the immune system and makes the body susceptible to disease and infection.^{1-4,1-5} Untreated HIV will continue to replicate and can lead to more advanced stages of the infection, including acquired immunodeficiency syndrome (AIDS). Individuals with AIDS are more susceptible to opportunistic infections, which are severe illnesses that occur more frequently or are more severe in individuals with weakened immune systems (e.g., invasive cervical cancer, lymphoma, tuberculosis, pneumonia).^{1-6,1-7} While HIV is incurable, HIV can be treated through the use of antiretroviral therapy (ART). When taken as prescribed, ART reduces the amount of HIV in the body (i.e., viral load) to a level that allows the immune system to strengthen and fight off other illnesses and infections. When treating an individual with HIV, the goal is to reach viral load suppression (i.e., less than 200 copies of HIV per milliliter of blood). Consistent viral load suppression over time can make a person’s viral load so low that a viral load test does not detect HIV (i.e., undetectable viral load), and reduces the risk of transmitting HIV to others.¹⁻⁸

¹⁻¹ United States Department of Health & Human Services. CMS Cell Suppression Policy. Available at: <https://www.hhs.gov/guidance/document/cms-cell-suppression-policy>. Accessed on: Jun 14, 2024.

¹⁻² Centers for Disease Control and Prevention (CDC). HIV Basics: Bodily Fluids that Transmit HIV. Available at: <https://www.cdc.gov/hiv/basics/hiv-transmission/body-fluids.html>. Accessed on: Apr 4, 2024.

¹⁻³ World Health Organization (WHO). Fact Sheet: HIV and AIDS. Jul 13, 2023. Available at: <https://www.who.int/news-room/fact-sheets/detail/hiv-aids>. Accessed on: Apr 4, 2024.

¹⁻⁴ Ibid.

¹⁻⁵ CDC. HIV Basics: About HIV. Available at: <https://www.cdc.gov/hiv/basics/whatishiv.html>. Accessed on: Apr 4, 2024.

¹⁻⁶ WHO. Fact Sheet: HIV and AIDS. Jul 13, 2023. Available at: <https://www.who.int/news-room/fact-sheets/detail/hiv-aids>. Accessed on: Apr 4, 2024.

¹⁻⁷ CDC. HIV Basics: AIDS and Opportunistic Infections. Available at: <https://www.cdc.gov/hiv/basics/hiv-transmission/body-fluids.html>. Accessed on: Apr 4, 2024.

¹⁻⁸ WHO. Fact Sheet: HIV and AIDS. Jul 13, 2023. Available at: <https://www.who.int/news-room/fact-sheets/detail/hiv-aids>. Accessed on: Apr 4, 2024.

Background Information on HIV in Arizona

According to the Arizona Department of Health Services’ (ADHS’) 2022 and 2023 HIV/AIDS in Arizona Annual Reports, there were 19,435 people living with HIV in Arizona in 2021, and 19,894 people in 2022.^{1-9,1-10} In 2021, 65 percent of the HIV population was virally suppressed at their last viral load test, while in 2022 this rate decreased to approximately 62 percent. Based on ADHS’ reports, the following are some high-level demographic characteristics about Arizonans living with HIV in 2021 and 2022:

- Approximately 50 percent were 50 years of age and older.
- Approximately 45 percent were White; however, the Black population had the highest prevalence rate, demonstrating that the Black population was disproportionately affected by HIV compared to other racial groups.
- Approximately 86 percent were male.
- Approximately 68 percent resided in Maricopa County.

Please refer to ADHS’ reports for more information on HIV in Arizona.

For this report, HSAG identified AHCCCS members within the Arizona HIV surveillance data (i.e., the same data source that ADHS used for its annual HIV/AIDS reports). Table 1.1 displays the count and percentage of AHCCCS members 18 years of age and older living with HIV in CY 2021 and CY 2022 stratified by race, ethnicity, age, county, and urbanicity.

Table 1.1—AHCCCS Members Within the HIV Surveillance Data in CY 2021 and CY 2022

Stratification	CY 2021	CY 2022
Total	8,616 (100.0%)	8,777 (100.0%)
Race		
White	3,850 (44.7%)	3,888 (44.3%)
Black or African American	1,378 (16.0%)	1,426 (16.2%)
American Indian or Alaska Native	631 (7.3%)	633 (7.2%)
Asian	100 (1.2%)	108 (1.2%)

¹⁻⁹ ADHS. HIV/AIDS in Arizona 2022 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2022/annual-report.pdf>. Accessed on: Apr 1, 2024.

¹⁻¹⁰ ADHS. HIV/AIDS in Arizona 2023 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2023/hiv-annual-report-2023.pdf>. Accessed on: Apr 1, 2024.

Stratification	CY 2021	CY 2022
Native Hawaiian or Other Pacific Islander	18 (0.2%)	18 (0.2%)
Some Other Race and Unknown*	2,639 (30.6%)	2,704 (30.8%)
Ethnicity		
Hispanic or Latino	119 (1.4%)	114 (1.3%)
Unknown	8,497 (98.6%)	8,663 (98.7%)
Age		
18–24 years^	273 (3.2%)	212 (2.4%)
25–29 years	704 (8.2%)	645 (7.3%)
30–34 years	1,030 (12.0%)	1,080 (12.3%)
35–39 years	956 (11.1%)	991 (11.3%)
40–44 years	971 (11.3%)	1,000 (11.4%)
45–49 years	830 (9.6%)	851 (9.7%)
50–54 years	1,142 (13.3%)	1,070 (12.2%)
55–59 years	1,221 (14.2%)	1,236 (14.1%)
60–64 years	828 (9.6%)	946 (10.8%)
65 years and older	661 (7.7%)	746 (8.5%)
18–64 years (subtotal)	7,955 (92.3%)	8,031 (91.5%)
County		
Apache	102 (1.2%)	95 (1.1%)
Cochise	99 (1.1%)	96 (1.1%)
Coconino	99 (1.1%)	99 (1.1%)
Gila	31 (0.4%)	33 (0.4%)
Graham	21 (0.2%)	22 (0.3%)
Greenlee	S	S
La Paz	S	S
Maricopa	5,855 (68.0%)	5,975 (68.1%)
Mohave	162 (1.9%)	162 (1.8%)
Navajo	99 (1.1%)	99 (1.1%)
Pima	1,478 (17.2%)	1,514 (17.2%)

Stratification	CY 2021	CY 2022
Pinal	214 (2.5%)	223 (2.5%)
Santa Cruz	30 (0.3%)	31 (0.4%)
Yavapai	174 (2.0%)	176 (2.0%)
Yuma	141 (1.6%)	154 (1.8%)
Unknown	96 (1.1%)	81 (0.9%)
Urbanicity		
Urban	7,720 (89.6%)	7,865 (89.6%)
Rural	636 (7.4%)	626 (7.1%)
Unknown	260 (3.0%)	286 (3.3%)

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

**indicates that the Some Other Race and Unknown groups were combined due to small numerators.*

^indicates that the 18–19 and 20–24 years age groups were combined due to small numerators.

Based on HSAG’s methodology for identifying AHCCCS members in the Arizona HIV surveillance data, approximately 44 percent of Arizona’s HIV population in 2021 and 2022 were Medicaid members. The following are some high-level demographic characteristics about AHCCCS members living with HIV in 2021 and 2022:

- The racial distribution for AHCCCS members with HIV is similar to the overall statewide population, with the exception of the Unknown racial group and the Hispanic or Latino ethnic group. Approximately 31 percent and 1 percent of the AHCCCS population is part of the Unknown racial group and Hispanic or Latino ethnic group, respectively.¹⁻¹¹ However, approximately 32 percent of the overall statewide population are part of the Hispanic or Latino ethnic group.¹⁻¹²
- Approximately 92 percent of AHCCCS members with HIV are between 18 and 64 years of age. This differs from the overall statewide population given that approximately 87 percent of Arizonans with HIV are 64 years of age and younger.¹⁻¹³
- The geographic location for AHCCCS members with HIV is similar to the overall statewide population, with the majority of Arizonans with HIV living in Maricopa County.

¹⁻¹¹ Please see the Data Limitations and Caveats section in the Methodology for further details regarding the completeness of the demographic data.

¹⁻¹² ADHS. HIV/AIDS in Arizona 2023 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2023/hiv-annual-report-2023.pdf>. Accessed on: Apr 1, 2024.

¹⁻¹³ Ibid.

Methodology

HSAG calculated statewide, line of business (LOB), and managed care organization (MCO) specific HVL-AD administrative rates, including rates stratified by race, ethnicity, age, county, and urbanicity, where applicable, for CY 2021 and CY 2022 following CMS’ Adult Core Set Technical Specifications and Resource Manual (Adult Core Set). The Federal Fiscal Year (FFY) 2022 Technical Specifications were used for CY 2021 calculations and the FFY 2023 Technical Specifications were used for CY 2022 calculations. The HVL-AD technical specifications limit the eligible population to those who have at least one medical visit during the measurement year. Due to this, there may be AHCCCS members with HIV who are not included in the measure eligible population. For the statewide calculations, HSAG included the Arizona Department of Child Safety Comprehensive Health Plan (Arizona DCS CHP) and fee-for-service (FFS) populations; however, HSAG did not calculate separate DCS CHP or FFS LOB rates.

Table 1.2 lists the different populations and the corresponding MCOs for each that HSAG calculated HVL-AD CY 2021 and CY 2022 performance measure rates.

Table 1.2—List of Populations and MCOs

ACC Contractors (7 plans)	ALTCS-DD Contractor (1 plan)	ALTCS-EPD Contractors (3 plans)	ACC-RBHA/RBHA Integrated SMI (4 plans)†
<ul style="list-style-type: none"> • Arizona Complete Health–CCP • Banner-University Family Care • Care1st Health Plan • Health Choice Arizona • Molina Complete Care • Mercy Care Plan • UnitedHealthcare Community Plan 	<ul style="list-style-type: none"> • DDD 	<ul style="list-style-type: none"> • Banner-University Family Care LTC • Mercy Care Plan LTC • UnitedHealthcare Community Plan LTC 	<ul style="list-style-type: none"> • Arizona Complete Health–CCP • Care1st Health Plan[^] • Health Choice Arizona[^] • Mercy Care

[^]As of October 1, 2022, Care1st Health Plan replaces Health Choice Arizona as a RBHA. Therefore, the Health Choice Arizona measure rate for CY 2022 is reflective of performance from January 1, 2022–September 30, 2022, and the Care1st Health Plan measure rate for CY 2022 is reflective of performance from October 1, 2022–December 31, 2022.

†As of October 1, 2022, AHCCCS expanded three ACC contracts to include RBHA services under the ACC-RBHA LOB. Prior to October 1, 2022, this program was known as the RBHA LOB.

ACC = AHCCCS Complete Care; ACC-RBHA = AHCCCS Complete Care-Regional Behavioral Health Agreement; CCP = Complete Care Plan; ALTCS = Arizona Long-Term Care System; DD = Developmental Disabilities; DDD = Division of Developmental Disabilities; EPD = Elderly and Physical Disabilities; LTC = Long Term Care; RBHA = Regional Behavioral Health Authority; SMI = Serious Mental Illness

High-Level Findings

Table 1.3 presents the statewide and LOB aggregate HVL-AD performance measure results for CY 2021 and CY 2022.

Table 1.3—Statewide and LOB Aggregate HVL-AD Rates

LOB	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
ACC Aggregate	4,193	3,270	78.0%	4,386	3,087	70.4%
ALTCS-DD Aggregate	S	S	S	S	S	S
ALTCS-EPD Aggregate	123	105	85.4%	119	86	72.3%
ACC-RBHA/RBHA Integrated SMI	409	300	73.3%	401	262	65.3%
Statewide*	4,876	3,798	77.9%	5,042	3,540	70.2%

*Statewide rates also include members in the DCS CHP LOB as well as FFS.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

Based on the results in Table 1.3, as well as the statewide and LOB stratified rates and MCO-level rates presented in Section 3, HSAG summarized the strengths and challenges for the CY 2021 and CY 2022 HVL-AD rates. Please note, there are no strengths and challenges for the ALTCS-DD LOB given the rates were suppressed.

Strengths

Statewide and LOB Demographics

- At the statewide level, American Indian or Alaska Native members had the highest rates compared to other racial groups with reportable rates in CY 2021 and CY 2022 (79.2 and 77.1 percent, respectively). Similarly, rates for Hispanic or Latino members were slightly above the statewide rates in CY 2021 and CY 2022 (by 4.8 and 7.1 percentage points, respectively); however, please exercise caution when interpreting results for these members as the data are incomplete for this group.¹⁻¹⁴
- Members 65 years of age and older had higher rates compared to members 18 to 64 years of age at the statewide level during CY 2021 and CY 2022 (by 7.0 and 4.5 percentage points, respectively), indicating that older members with HIV were more likely to have viral load suppression compared to younger members. This finding also persisted within the ACC and ACC-RBHA/RBHA Integrated SMI LOBs.

¹⁻¹⁴ Please see the Data Limitations and Caveats section in the Methodology for further details regarding the completeness of the demographic data.

- At the statewide level, the rates for Pima County were above the statewide rates in both CY 2021 and CY 2022 (by 9.7 and 15.7 percentage points, respectively). There are similar findings when comparing the Pima County rate within the ACC, ALTCS-EPD, and ACC-RBHA/RBHA Integrated SMI LOBs to the respective LOB aggregate rate. At the statewide level, Yavapai had the highest rate in CY 2021 (95.0 percent), while Coconino had the highest rate in CY 2022 (93.2 percent), indicating a strength for the Northern region of Arizona. This finding also persisted within the ACC LOB.
- Rural members had higher rates compared to Urban members at the statewide level in CY 2021 and CY 2022 (by 4.9 and 2.9 percentage points, respectively), indicating a strength for AHCCCS since rural Americans are more likely to experience barriers to obtaining healthcare (e.g., transportation issues, lack of providers in the member's area, longer travel distances) compared to urban Americans.¹⁻¹⁵ This finding also persisted within the ACC LOB.

LOB Aggregates and MCO

- The ACC LOB aggregate rates were slightly higher than the statewide rates in CY 2021 and CY 2022 (by 0.1 and 0.2 percentage points, respectively). Of note, the ACC LOB comprises approximately 86 percent of the overall HVL-AD statewide eligible population, indicating the performance of the ACC LOB is driving overall statewide performance.
 - For the ACC LOB, Banner-University Family Care had the highest rate for CY 2021, while Care1st had the highest rate for CY 2022. Additionally, only Banner-University Family Care and Care1st Health Plan had rate increases from CY 2021 to CY 2022 (by 0.8 and 3.7 percentage points, respectively).
- The ALTCS-EPD aggregate rates were higher than the statewide rates in CY 2021 and CY 2022 (by 7.5 and 2.1 percentage points, respectively).
 - For the ALTCS-EPD LOB, UnitedHealthcare Community Plan LTC had the highest rate in CY 2021 (90.0 percent), while Banner-University Family Care LTC had the highest rate in CY 2022 (79.2 percent). Of note, the ALTCS-EPD MCOs had small denominators; therefore, caution should be exercised when interpreting results.
- For the ACC-RBHA/RBHA Integrated SMI LOB, Arizona Complete Health–CCP had the highest reportable rate in CY 2021 (84.3 percent) and was the only MCO to have a rate above the ACC-RBHA/RBHA Integrated SMI aggregate rate in CY 2021 (by 11.0 percentage points). Of note, the ACC-RBHA/RBHA Integrated SMI MCOs had small denominators; therefore, caution should be exercised when interpreting results.

¹⁻¹⁵ CDC. About Rural Health. Available at: <https://www.cdc.gov/ruralhealth/about.html>. Accessed on: Feb 29, 2024.

Challenges

Statewide and LOB Demographics

- The statewide HVL-AD rate declined from CY 2021 to CY 2022 (by 7.7 percentage points). Additionally, the aggregate rates for all LOBs also declined from CY 2021 to CY 2022. Of note, regardless of changes in technical specifications between CY 2021 and CY 2022, viral load suppression rates declined for Medicaid members and the overall statewide population from CY 2021 to CY 2022.^{1-16,1-17} Please see Table A.1 in the Appendix for the HVL-AD raw rates for CY 2021 and CY 2022.
- Black or African American members had the lowest rates compared to other racial groups with reportable rates at the statewide level in CY 2021 and CY 2022 (75.0 and 65.2 percent, respectively). This finding persisted within the ACC, ALTCS-EPD, and ACC-RBHA/RBHA Integrated SMI LOBs.
 - Of note, approximately 26 and 98 percent of members in the statewide eligible population for HVL-AD had an Unknown race and ethnicity, respectively, indicating that there may be gaps in the quality of AHCCCS' demographic data. AHCCCS and the MCOs should work to improve data collection for race and ethnicity to improve the ability to better understand how HIV viral load suppression varies by demographic stratifications.
- Members 25 to 29 years of age (71.4 and 60.2 percent, respectively) and members 30 to 34 years of age (60.2 and 63.2 percent, respectively) had the lowest rates compared to other age groups with reportable rates at the statewide level in CY 2021 and CY 2022, indicating that members in the middle age groups were less likely to have viral load suppression compared to the youngest and oldest age groups. This finding also persisted within the ACC and ACC-RBHA/RBHA Integrated SMI LOBs.
- At the statewide level, the rates for Maricopa County were below the statewide rates in CY 2021 and CY 2022 (by 3.6 and 5.7 percentage points, respectively). There are similar findings when comparing the Maricopa County rate within the ACC and ACC-RBHA/RBHA Integrated SMI LOBs to the respective LOB aggregate rate.
- Members with Unknown urbanicity had substantially lower rates than both Urban and Rural members at the statewide level in CY 2021 and CY 2022. This finding also persisted within the ACC LOB.¹⁻¹⁸

¹⁻¹⁶ ADHS. HIV/AIDS in Arizona 2022 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2022/annual-report.pdf>. Accessed on: Apr 4, 2024.

¹⁻¹⁷ ADHS. HIV/AIDS in Arizona 2023 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2023/hiv-annual-report-2023.pdf>. Accessed on: Apr 4, 2024.

¹⁻¹⁸ Please reference the Performance Measure Stratifications section in the Methodology for further information regarding how Unknown urbanicity is determined.

LOB Aggregates and MCO

- For the ACC LOB, Health Choice Arizona had the lowest rate in CY 2021, while Mercy Care Plan had the lowest rate in CY 2022. Additionally, Mercy Care Plan and UnitedHealthcare Community Plan had large rate declines from CY 2021 to CY 2022 (by 9.5 and 10.5 percentage points, respectively). Of note, Mercy Care Plan and UnitedHealthcare Community Plan accounted for approximately 26 and 29 percent, respectively, of the ACC LOB aggregate eligible population. Regardless of changes in technical specifications between CY 2021 and CY 2022, viral load suppression rates declined for both of these MCOs.
- For the ALTCS-EPD LOB, Mercy Care Plan LTC had the lowest rate in CY 2021 (83.6 percent), while UnitedHealthcare Community Plan LTC had the lowest rate in CY 2022 (68.0 percent). Additionally, two of the three ALTCS-EPD MCOs had rate declines of at least 12 percentage points from CY 2021 to CY 2022. Of note, the ALTCS-EPD MCOs had small denominators; therefore, caution should be exercised when interpreting results.
- The ACC-RBHA/RBHA Integrated SMI aggregate rates were below the statewide aggregate rates for CY 2021 and CY 2022 (by 4.6 and 4.9 percentage points, respectively).
 - For the ACC-RBHA/RBHA Integrated SMI LOB, Mercy Care Plan had rates below the ACC-RBHA/RBHA SMI Integrated aggregate rates in CY 2021 and CY 2022 (by 4.2 and 3.6 percentage points, respectively). Since Mercy Care Plan accounted for approximately 70 percent of the ACC-RBHA/RBHA Integrated SMI HVL-AD eligible population, this indicates that low performance for Mercy Care Plan substantially impacted the ACC-RBHA/RBHA Integrated SMI LOB aggregate rates. Of note, the ACC-RBHA/RBHA Integrated SMI MCOs had small denominators; therefore, caution should be exercised when interpreting results.

Calculation and Reporting

This section provides the conclusions and opportunities for improvement for AHCCCS and ADHS related to HVL-AD measure calculation and reporting.

Conclusions

- AHCCCS, ADHS, and HSAG coordinated effectively to ensure that lines of communication were open throughout the process of calculating the HVL-AD measure.
- ADHS submitted the supplemental HIV surveillance data to HSAG promptly when requested. Additionally, after data diagnostics were performed on the data and HSAG determined that resubmission was needed, ADHS resubmitted the data to HSAG within one week, which ensured that there were no delays in the project timeline.
- HSAG was able to complete the cross-matching process by utilizing protected health information (PHI) shared by ADHS. ADHS' willingness to share this information made it possible for HSAG to match as many AHCCCS members to the ADHS HIV surveillance data as possible.
- AHCCCS, ADHS, and HSAG met several times to prepare and discuss the calculation of the HVL-AD measure (i.e., data fields that would be needed, timeframe for receipt of data, discussion of

results). This was a necessary step in the process of calculating the HVL-AD measure and all teams ensured that meetings were held when needed.

Opportunities

- AHCCCS' demographic data does not currently capture ethnicity separately from race due to system limitations. Therefore, the rates for the Hispanic or Latino group are likely underrepresented given that the majority of members had an Unknown ethnicity. Given that ADHS has relatively complete race and ethnicity data in comparison, AHCCCS may consider utilizing ADHS' race and ethnicity data to calculate the HVL-AD measure in the future to ensure that more complete demographic data is leveraged and results for demographic stratifications are more accurate.
- Opportunities exist for ADHS to provide additional information (e.g., all laboratory results from the calendar year) within the HIV surveillance data beyond the most recent information within each calendar year of data. Additional information would allow HSAG to potentially include additional members in the eligible population for the measure.
- To improve the accuracy and efficiency of the cross-matching process, ADHS could assess whether collecting more complete Medicaid ID information is feasible (e.g., revision of the provider submission process to emphasize the importance of providers providing this data more frequently).
 - If ADHS is unable to provide more complete Medicaid ID information, ADHS could assess whether providing more complete social security number (SSN) information (i.e., providing the entire SSN instead of the last four digits) would be possible to improve the accuracy of the cross-matching process.
- Given that HSAG received a number of fields in the HIV surveillance data that were not used, opportunities exist for ADHS to limit the number of fields to what is pertinent to improve efficiency of the cross-matching process.
- While HSAG received data from both AHCCCS and ADHS to calculate the HVL-AD measure, AHCCCS was unable to share specific data with ADHS (e.g., enrollment data). Given that the calculation of the HVL-AD measure requires the collaboration and cooperation of several separate entities, AHCCCS and ADHS may consider assessing whether improving its data-sharing capabilities would be feasible to ensure the HVL-AD measure is calculated efficiently.
- Given that declines in HVL-AD rates from CY 2021 to CY 2022 were seen statewide, HSAG recommends AHCCCS consider calculating this measure in the future to see if the trend continues.

The section provides information on the measure, data sources, cross-matching process, performance measure stratifications, and limitations.

Measure

HIV Viral Load Suppression

The *HIV Viral Load Suppression* (HVL-AD) measure assesses the percentage of members 18 years of age and older with a diagnosis of HIV who had an HIV viral load less than 200 copies per milliliter at their last HIV viral load test during the measurement year. Additionally, given this measure does not have any continuous enrollment requirements, HSAG only included members if they were enrolled in Medicaid for at least one day during the measurement period.

HSAG calculated this measure for CY 2021 using CMS' FFY 2022 Adult Core Set Specifications and for CY 2022 using the FFY 2023 Adult Core Specifications. CMS made updates to the eligible population for this measure from FFY 2022 to FFY 2023. For FFY 2022, members were included in the eligible population if they had a diagnosis of HIV and had at least one medical visit during the measurement year. However, for FFY 2023, members were included in the eligible population if they were diagnosed with HIV prior to the start of the measurement year or within the first 90 days of the measurement year. Additionally, members had to have at least one medical visit within the first 240 days of the measurement year to be included in the eligible population for FFY 2023.

For the LOB and MCO-specific rate calculations, HSAG attributed members to an LOB/MCO based on which LOB/MCO the member was enrolled with on dates of services for the numerator/denominator events. HSAG first attributed members to the LOB/MCO the member was enrolled with on the date of the viral load test used to determine numerator compliance. If the member either did not have a viral load test or was not enrolled on the date of the viral load test, then HSAG attributed the member to the LOB/MCO the member was enrolled with on the date of the most recent qualifying medical visit used to determine eligible members for the denominator.

Data Sources

Claim/Encounter Data

HSAG received demographic and enrollment data, as well as claim/encounter data from AHCCCS to calculate the HVL-AD measure. Upon receipt of the data, HSAG performed data diagnostic checks to confirm the reasonability and completeness of the data received (e.g., comparing monthly

claim/encounter and enrollment counts for the measurement period to the counts for historical data, ensuring all members in the claim/encounter data were in the enrollment data).

HIV Surveillance Data

ADHS provided HIV surveillance data that was used in combination with administrative Medicaid claim/encounter data to calculate the HVL-AD measure. This supplemental HIV data included identifying information that could be used to match members to the Medicaid data from AHCCCS, such as date of birth (DOB), SSN, and address information. Historical information regarding HIV diagnoses and results of the most recent viral load tests were included for determining each member's numerator and denominator eligibility for the CY 2021 and CY 2022 measures specifications. Some ADHS date information, such as HIV diagnosis dates and date of viral load testing, were submitted to HSAG with missing month or day information. HSAG imputed the month of December when month was missing and the first of the month when day was missing.

Supplemental Demographic Data

To support the cross-matching of HIV surveillance data and AHCCCS' administrative data, AHCCCS provided supplemental demographic information (i.e., SSN, address information) for all members with enrollment during CY 2021 or CY 2022.

Cross-Matching Process and Results

HSAG first performed data checks on ADHS' HIV surveillance data and the supplemental demographic data submission from AHCCCS and prepared them for cross-matching. HSAG identified inconsistencies in address field entry and subsequently standardized member addresses within both data sources to align with the United States Postal Service Coding Agency Support System (USPS CASS) and ensure consistent address formatting. HSAG also adjusted the date formatting of DOB and removed any non-numeric characters from SSN to achieve consistency of additional matching variables.

To identify Medicaid members in the HIV surveillance data, HSAG utilized four different linking methods:

- 1) *Deterministic Matching*—HSAG performed a deterministic match between members in the HIV surveillance data and members in AHCCCS' demographic data. If members matched on SSN and either DOB or the first three letters of the members' first and last names, then they were included as a match. HSAG matched 7,050 members in the HIV surveillance data to the AHCCCS demographic data using the deterministic matching approach.
- 2) *Probabilistic Matching*—HSAG performed probabilistic matching on first name, last name, DOB, SSN, and address using Link Plus software downloaded from the Centers for Disease Control and Prevention (CDC) to produce probability matching scores. Any assigned probability scores over 40.0 out of a maximum of 58.0 were accepted as reliable matches. Please note that

the maximum value for Link Plus is not documented; therefore, HSAG used the maximum score from the probability matching scores. Manual review of probability scores below this threshold assisted in matching additional members. This approach provided 941 additional matches that were not already identified by deterministic matching, resulting in a combined total of 7,991 AHCCCS members matched to the HIV surveillance data.

- 3) *Fuzzy Matching*—HSAG then used SAS[®] software²⁻¹ to perform fuzzy matching to find additional matches between the HIV surveillance data and AHCCCS demographic data that may not have been identified previously due to inconsistencies in data entry between data sets (e.g., incorrectly recorded year of birth, misspelled name, incorrectly entered SSN). Members were first matched by the first three letters of the first name, the first three letters of the last name, and gender. The COMPGED function in SAS was then used to compute a “generalized edit distance” for the DOB and SSN from the AHCCCS and ADHS files for matched members, which summarizes the degree of difference between two text strings.²⁻² If the generalized difference between the variables from each data source was small, then they were assumed to be the same. Upon manual review, HSAG determined that a COMPGED distance of less than or equal to 200, coupled with a match on the last four digits of SSN, represented reliable matches between data sources. HSAG deduplicated matched members based on AHCCCS Member ID, keeping those with matches on the last four digits of SSN, followed by those with the lowest COMPGED distances for SSN, DOB, and then last name. The fuzzy matching method produced an additional 115 member matches for a total of 8,106 matches.
- 4) *Use of Claim/Encounter Data and Fuzzy Matching*—HSAG used AHCCCS-provided administrative claim/encounter data to identify any members with a diagnosis of HIV/AIDS prior to March 31, 2022. Of the 10,765 AHCCCS members in the claim/encounter data diagnosed with HIV, HSAG identified 4,127 that had not been matched to the HIV surveillance data. HSAG linked these members to demographic information provided by AHCCCS to assess whether additional Medicaid enrollees could be matched to the ADHS HIV surveillance data. HSAG then performed matching between the unmatched members with an HIV diagnosis from the administrative claim/encounter data to patients from the HIV surveillance data who had not yet been matched to the supplemental AHCCCS demographic file based on an exact match on DOB and the first three letters of first and last name. The matches were then deduplicated by AHCCCS Member ID with matches that had the lowest COMPGED distance for first name being kept. These matches were manually reviewed for reliability. HSAG performed one final check for members who were not yet matched between the claim/encounter data and HIV surveillance data based on the first three letters of first and last names. These matches were then deduplicated, keeping the match that had the lowest computed COMPGED distance for DOB, and reviewed for reliability. HSAG was able to link an additional 1,086 AHCCCS members to

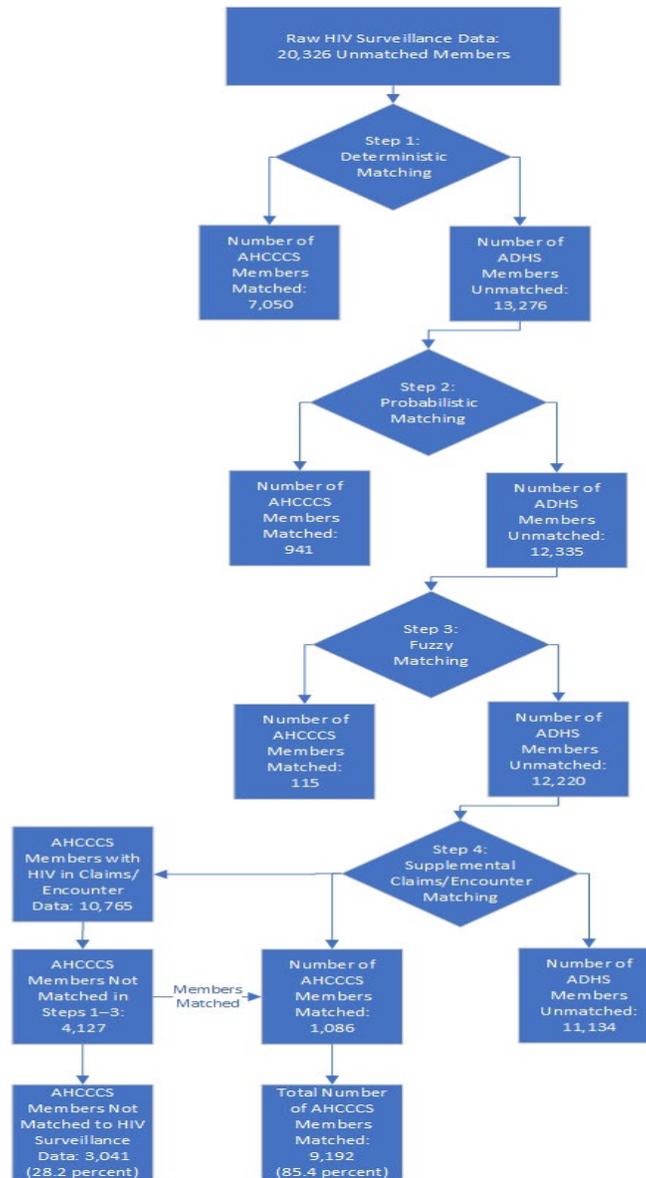
²⁻¹ SAS[®] is a registered trademark of the SAS Institute, Inc.

²⁻² Staum, PW. Fuzzy Matching using the COMPGED Function. Available at: <https://www.lexjansen.com/nesug/nesug07/ap/ap23.pdf>. Accessed on: Apr 11, 2024.

the HIV surveillance data with the administrative data, resulting in a total of 9,192 unique AHCCCS members matched to the ADHS HIV surveillance data across both years.²⁻³

Figure 2.1 displays the results of each of the four cross-matching methods, including the total number of AHCCCS members matched and unmatched to the HIV surveillance data, as well as the total number of ADHS members unmatched.

Figure 2.1—Cross-Matching Methods



²⁻³ Please note, 3,041 out of 10,765 (28.2 percent) AHCCCS members with HIV claims/encounters were not found in the ADHS HIV surveillance data.

Performance Measure Stratifications

HSAG stratified the CY 2021 and CY 2022 HVL-AD performance measure results by race, ethnicity, age, county, and urbanicity. Please note that suppression was applied to this report for some subgroups when the numerator was less than 11. When appropriate, HSAG combined subgroups with small numerators into a single category to avoid numerators less than 11. Subgroups were combined by summing the numerators and denominators for each subgroup and then dividing the summed numerators by the summed denominators to calculate a combined subgroup rate.

Racial and Ethnic Categories

Table 2.1 displays the race and ethnicity categories that were used for the statewide and LOB measure rate stratifications, along with the individual racial and ethnic groups that comprise each category derived from AHCCCS’ demographic data. The final categories were based on cross walking AHCCCS’ race and ethnicity data to the National Committee for Quality Assurance’s (NCQA’s) race and ethnicity categories. Please note, race and ethnicity category stratifications are dependent on the availability of data.

Table 2.1—Racial and Ethnic Categories and Groups

NCQA Category	AHCCCS Groups Included
Race	
White	Caucasian/White
Black or African American	Black
American Indian or Alaska Native	Native American
Asian	Asian Indian, Other Asian, Asian/Pacific Islander, Asian/Unknown, Chinese, Filipino, Japanese, Korean, Vietnamese
Native Hawaiian or Other Pacific Islander	Guam/Chamorro, Native Hawaiian, Native Hawaiian or Other Pacific Islander Unknown, Other Pacific Islander, Samoan
Some Other Race	Other
Unknown	Cuban/Haitian, Hispanic, Unknown, Unspecified
Some Other Race and Unknown ²⁻⁴	Other, Cuban/Haitian, Hispanic, Unknown, Unspecified

²⁻⁴ Table 3.1 (i.e., statewide results) and Table A.1 (i.e., HVL-AD raw rates) use this combined group due to small numerators (i.e., less than 11).

NCQA Category	AHCCCS Groups Included
Ethnicity	
Hispanic or Latino	Cuban/Haitian, Hispanic
Unknown	Asian Indian, Other Asian, Asian/Pacific Islander, Asian/Unknown, Black, Chinese, Caucasian/White, Filipino, Guam/Chamorro, Native Hawaiian, Japanese, Korean, Native American, Native Hawaiian or Other Pacific Islander Unknown, Other Pacific Islander, Other, Samoan, Unknown, Unspecified, Vietnamese

Age

HSAG stratified the HVL-AD statewide and LOB measure rates by the following age ranges: 18–19 years, 20–24 years, 25–29 years, 30–34 years, 35–39 years, 40–44 years, 45–49 years, 50–54 years, 55–59 years, 60–64 years, 65 years and older, and 18–64 years (subtotal). Please note that suppression was applied to this report for some age groups when the numerator was less than 11. When appropriate, HSAG combined age groups into a single category to avoid numerators less than 11 (e.g., 18–19 years and 20–24 years).

County

HSAG stratified the HVL-AD statewide and LOB measure rates by the following counties: Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, and Yuma.

Urbanicity

Using the U.S. Department of Agriculture Rural-Urban Commuting Area (RUCA) Codes, HSAG classified each member’s ZIP Code as urban or rural. If a member’s ZIP Code was missing, the member had Unknown urbanicity. HSAG stratified the HVL-AD statewide and LOB measure rates by the following urbanicity categories: Urban, Rural, and Unknown.

Data Limitations and Caveats

Measure Specification Changes

From the FFY 2022 to FFY 2023 Adult Core Set Technical Specifications, CMS made updates to the eligible population for HVL-AD. For FFY 2022, members were included in the eligible population if they had a diagnosis of HIV and had at least one medical visit during the measurement year. However,

for FFY 2023, members were included in the eligible population if they were diagnosed with HIV prior to the start of the measurement year or within the first 90 days of the measurement year. Additionally, members had to have at least one medical visit within the first 240 days of the measurement year to be included in the eligible population for FFY 2023. To determine the impact of the measure specification changes on the HVL-AD rates, HSAG calculated the CY 2021 rates using both the FFY 2022 and FFY 2023 specifications. While the difference in specifications did impact the number of members included in the denominator, the statewide rate decreased by only 1.6 percent (i.e., the statewide rate was 77.9 percent using the FFY 2022 specifications and 76.3 percent using the FFY 2023 specifications). Given these results, HSAG is not concerned about the changes in measure specifications impacting comparisons between CY 2021 and CY 2022.

Cross-Matching Process

The cross-matching process used to link the administrative data provided by AHCCCS to the HIV surveillance data provided by ADHS was limited based on the consistency of data quality between the two sources. Since Medicaid ID was not a well-populated field in the HIV surveillance data, HSAG relied on other demographic data elements to determine possible matches (e.g., SSN, member name, and member address). Clerical errors (e.g., misspelled names, incomplete dates, and partial SSNs) required the use of multiple linking methods for identifying potential matches, including the use of fuzzy matching techniques. While every effort was taken to ensure accurate linking, some members were linked based on being the highest likely match.

Demographic Data Completeness

The race and ethnicity data used in this analysis was incomplete as AHCCCS' demographic data does not currently capture ethnicity separately from race due to system limitations. Therefore, the rates for the Hispanic or Latino group are likely underrepresented given that the majority of members had an Unknown ethnicity. Please exercise caution when drawing conclusions based on the findings in this report due to incomplete demographic data.

This section presents a summary of the process HSAG undertook with AHCCCS and ADHS to calculate and report on the HVL-AD performance measure, as well as the CY 2021 (i.e., January 1, 2021–December 31, 2021) and CY 2022 (i.e., January 1, 2022–December 31, 2022) HVL-AD performance measure calculation results at the statewide, LOB, and MCO levels, including rates stratified by race, ethnicity, age, county, and urbanicity, where applicable. Within this report, HSAG suppressed results for a specific subgroup when the numerator value was less than 11. When appropriate, HSAG combined subgroups with small numerators into a single category to avoid numerators less than 11.

Calculation and Reporting

This section presents a summary of the decision points made between HSAG, AHCCCS, and ADHS regarding data collection, key challenges that HSAG encountered and solutions that HSAG, AHCCCS, and ADHS implemented, and a summary of the key decision points for reporting HVL-AD performance measure information.

- Due to data sharing limitations between AHCCCS and ADHS, HSAG was required to perform the cross-matching process between the Medicaid administrative data and the HIV surveillance data.
- ADHS indicated that while a Medicaid ID field was present in the HIV surveillance data, it was not well populated. As a result, HSAG used other demographic fields (i.e., SSN, member name, member address) to identify Medicaid members within the HIV surveillance data. AHCCCS provided a supplemental demographic information to provide the additional fields (i.e., SSN and address) needed to perform the cross-match.
- HSAG developed a hierarchical linking process (as described in the Methodology section) based on limitations found in the data. For example, some members only had the last four digits of their SSN available in the HIV surveillance data. These members were matched based on the last four digits of their SSN in addition to other demographic information. Additionally, HSAG only received the most recent address information for CY 2021 and CY 2022 from AHCCCS and ADHS which potentially limited HSAG's ability to find a match based on address differences between the administrative and HIV surveillance data.
- ADHS limited the data that HSAG received to only the most recent information within each calendar year of data for members ADHS identified with a confirmed HIV diagnosis. Additional historical data could improve the linking process by providing additional demographic information (e.g., previous addresses, maiden names, complete SSNs) and medical visit information.
- The FFY 2022 HVL-AD specifications required that members with an HIV diagnosis during CY 2021 be included in the denominator. HSAG used administrative data to identify members with a diagnosis during CY 2021 and supplemented this information with the HIV surveillance data. Since the HIV surveillance data only included the original HIV diagnosis date, HSAG used additional testing fields within the HIV surveillance data as a proxy for an HIV diagnosis for CY 2021. HSAG utilized the date of the first CD4 test, which is a test ordered by providers at regular intervals (i.e.,

every few months) to monitor immune health and response to HIV medications, after HIV diagnosis or the date of the most recent test result if the HIV/AIDS diagnosis date was missing or was earlier than CY 2021.³⁻¹

- AHCCCS requested that HSAG calculate the CY 2021 rates using both the FFY 2022 and FFY 2023 HVL-AD specifications to determine the impact of the specifications on the results. These results were only used for comparison purposes at the statewide level. Only the FFY 2022 specifications were used to calculate the CY 2021 rates for all other stratifications.

Conclusions

- AHCCCS, ADHS, and HSAG coordinated effectively to ensure that lines of communication were open throughout the process of calculating the HVL-AD measure.
- ADHS submitted the supplemental HIV surveillance data to HSAG promptly when requested. Additionally, after data diagnostics were performed on the data and HSAG determined that resubmission was needed, ADHS resubmitted the data to HSAG within one week, which ensured that there were no delays in the project timeline.
- HSAG was able to complete the cross-matching process by utilizing PHI shared by ADHS. ADHS' willingness to share this information made it possible for HSAG to match as many AHCCCS members to the ADHS HIV surveillance data as possible.
- AHCCCS, ADHS, and HSAG met several times to prepare and discuss the calculation of the HVL-AD measure (i.e., data fields that would be needed, timeframe for receipt of data, discussion of results). This was a necessary step in the process of calculating the HVL-AD measure and all teams ensured that meetings were held when needed.

Opportunities

- AHCCCS' demographic data does not currently capture ethnicity separately from race due to system limitations. Therefore, the rates for the Hispanic or Latino group are likely underrepresented given that the majority of members had an Unknown ethnicity. Given that ADHS has relatively complete race and ethnicity data in comparison, AHCCCS may consider utilizing ADHS' race and ethnicity data to calculate the HVL-AD measure in the future to ensure that more complete demographic data is leveraged and results for demographic stratifications are more accurate.
- Opportunities exist for ADHS to provide additional information (e.g., all laboratory results from the calendar year) within the HIV surveillance data beyond the most recent information within each calendar year of data. Additional information would allow HSAG to potentially include additional members in the eligible population for the measure.
- To improve the accuracy and efficiency of the cross-matching process, ADHS could assess whether collecting more complete Medicaid ID information is feasible (e.g., revision of the provider submission process to emphasize the importance of providers providing this data more frequently).

³⁻¹ CD4 Lymphocyte Count. MedlinePlus. Available at: <https://medlineplus.gov/lab-tests/cd4-lymphocyte-count/>. Accessed on: May 14, 2024.

- If ADHS is unable to provide more complete Medicaid ID information, ADHS could assess whether providing more complete SSN information (i.e., providing the entire SSN instead of the last four digits) would be possible to improve the accuracy of the cross-matching process.
- Given that HSAG received a number of fields in the HIV surveillance data that were not used, opportunities exist for ADHS to limit the number of fields to what is pertinent to improve efficiency of the cross-matching process.
- While HSAG received data from both AHCCCS and ADHS to calculate the HVL-AD measure, AHCCCS was unable to share specific data with ADHS (e.g., enrollment data). Given that the calculation of the HVL-AD measure requires the collaboration and cooperation of several separate entities, AHCCCS and ADHS may consider assessing whether improving its data-sharing capabilities would be feasible to ensure the HVL-AD measure is calculated efficiently.
- Given that declines in HVL-AD rates from CY 2021 to CY 2022 were seen statewide, HSAG recommends AHCCCS consider calculating this measure in the future to see if the trend continues.

Statewide Results

Table 3.1 displays the statewide CY 2021 and CY 2022 HVL-AD results stratified by race, ethnicity, age, county, and urbanicity.

Table 3.1—CY 2021 and CY 2022 HVL-AD Performance Measure Results—Statewide

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Statewide Aggregate	4,876	3,798	77.9%	5,042	3,540	70.2%
Race						
White	2,464	1,942	78.8%	2,519	1,807	71.7%
Black or African American	843	632	75.0%	897	585	65.2%
American Indian or Alaska Native	231	183	79.2%	223	172	77.1%
Asian	61	46	75.4%	71	50	70.4%
Native Hawaiian or Other Pacific Islander	13	11	84.6%	S	S	S
Some Other Race and Unknown*	1,264	984	77.8%	S	S	S
Ethnicity						
Hispanic or Latino	98	81	82.7%	88	68	77.3%
Unknown	4,778	3,717	77.8%	4,954	3,472	70.1%

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Age						
18–24 years [^]	168	130	77.4%	142	105	73.9%
25–29 years	374	267	71.4%	352	212	60.2%
30–34 years	571	409	71.6%	589	372	63.2%
35–39 years	508	384	75.6%	525	347	66.1%
40–44 years	587	439	74.8%	619	438	70.8%
45–49 years	468	362	77.4%	494	340	68.8%
50–54 years	697	560	80.3%	640	470	73.4%
55–59 years	690	557	80.7%	741	536	72.3%
60–64 years	493	420	85.2%	554	433	78.2%
65 years and older	320	270	84.4%	386	287	74.4%
18–64 years (subtotal)	4,556	3,528	77.4%	4,656	3,253	69.9%
County						
Apache	26	21	80.8%	21	15	71.4%
Cochise	48	44	91.7%	63	53	84.1%
Coconino	46	38	82.6%	44	41	93.2%
Gila	19	18	94.7%	21	17	81.0%
Graham	S	S	S	S	S	S
Greenlee	0	0	N/A	0	0	N/A
La Paz	S	S	S	S	S	S
Maricopa	3,383	2,512	74.3%	3,487	2,250	64.5%
Mohave	96	72	75.0%	83	56	67.5%
Navajo	42	29	69.0%	36	24	66.7%
Pima	905	793	87.6%	958	823	85.9%
Pinal	102	86	84.3%	114	85	74.6%
Santa Cruz	19	18	94.7%	20	17	85.0%
Yavapai	101	96	95.0%	95	82	86.3%
Yuma	75	59	78.7%	79	61	77.2%
Urbanicity						
Urban	4,475	3,489	78.0%	4,657	3,283	70.5%

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Rural	292	242	82.9%	274	201	73.4%
Unknown	109	67	61.5%	111	56	50.5%

A Subtotal refers to an Adult Core Set Total.

N/A indicates a rate could not be calculated.

*indicates that the Some Other Race and Unknown groups were combined due to small numerators.

^indicates that the 18–19 and 20–24 years age groups were combined due to small numerators.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

Strengths

- American Indian or Alaska Native members had the highest rates compared to other racial groups with reportable rates in CY 2021 and CY 2022 (79.2 and 77.1 percent, respectively). Additionally, rates for White members were slightly above the statewide rates in CY 2021 and CY 2022 (by 0.9 and 1.5 percentage points, respectively). Similarly, rates for Hispanic or Latino members were slightly above the statewide rates in CY 2021 and CY 2022 (by 4.8 and 7.1 percentage points, respectively); however, please exercise caution when interpreting results for these members as the data are incomplete for this group.³⁻²
- Members 60 to 64 years of age had the highest rates in CY 2021 and CY 2022 (85.2 and 78.2 percent, respectively). Of note, members 65 years of age and older had higher rates compared to members 18 to 64 years of age during CY 2021 and CY 2022 (by 7.0 and 4.5 percentage points, respectively), indicating that older members with HIV are more likely to have viral load suppression compared to younger members.
- The rates for Pima County were above the statewide rates in both CY 2021 and CY 2022 (by 9.7 and 15.7 percentage points, respectively). Of note, Pima County had the second largest population of HIV members. Yavapai had the highest rate in CY 2021 (95.0 percent), while Coconino had the highest rate in CY 2022 (93.2 percent), indicating a strength for the Northern region of Arizona.
- Rural members had higher rates compared to Urban members in CY 2021 and CY 2022 (by 4.9 and 2.9 percentage points, respectively), indicating a strength for AHCCCS since rural Americans are more likely to experience barriers to obtaining healthcare (e.g., transportation issues, lack of providers in the member’s area, longer travel distances) compared to urban Americans.³⁻³

Challenges

- The statewide HVL-AD rate declined from CY 2021 to CY 2022 (by 7.7 percentage points). Of note, regardless of changes in technical specifications between CY 2021 and CY 2022, viral load

³⁻² Please see the Data Limitations and Caveats section in the Methodology for further details regarding the completeness of the demographic data.

³⁻³ CDC. About Rural Health. Available at: <https://www.cdc.gov/ruralhealth/about.html>. Accessed on: Feb 29, 2024.

suppression rates declined for Medicaid members and the overall statewide population from CY 2021 to CY 2022.^{3-4,3-5} Please see Table A.1 in the Appendix for the raw HVL-AD rates for CY 2021 and CY 2022.

- Black or African American members had the lowest rates compared to other racial groups with reportable rates in CY 2021 and CY 2022 (75.0 and 65.2 percent, respectively). Additionally, approximately 26 and 98 percent of members in the eligible population for HVL-AD had Some Other Race and Unknown race, and Unknown ethnicity, respectively, indicating that there may be gaps in the quality of AHCCCS' demographic data. AHCCCS and the MCOs should work to improve data collection for race and ethnicity to improve the ability to better understand how HIV viral load suppression varies by demographic stratifications.
- Members 25 to 29 years of age (71.4 and 60.2 percent, respectively) and members 30 to 34 years of age (60.2 and 63.2 percent, respectively) had the lowest rates compared to other age groups with reportable rates in CY 2021 and CY 2022. Of note, members 25 to 49 years of age had lower rates compared to members 24 years of age and younger and members 50 years of age and older, indicating that members in the middle age groups were less likely to have viral load suppression compared to the youngest and oldest age groups.
- The rates for Maricopa County were below the statewide rates in CY 2021 and CY 2022 (by 3.6 and 5.7 percentage points, respectively). Since Maricopa County comprised approximately 70 percent of the overall HVL-AD eligible population, this indicates that performance in Maricopa was substantially lower than other counties.
- Members with Unknown urbanicity had substantially lower rates than both Urban and Rural members in CY 2021 and CY 2022.³⁻⁶ As a result, the rates for both the Urban and Rural groups may be impacted if AHCCCS' demographic data were more complete.

³⁻⁴ ADHS. HIV/AIDS in Arizona 2022 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2022/annual-report.pdf>. Accessed on: Mar 26, 2024.

³⁻⁵ ADHS. HIV/AIDS in Arizona 2023 Annual Report. Available at: <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/disease-integrated-services/hiv-epidemiology/reports/2023/hiv-annual-report-2023.pdf>. Accessed on: Mar 26, 2024.

³⁻⁶ Please reference the Performance Measure Stratifications section in the Methodology for further information regarding how Unknown urbanicity is determined.

LOB-Specific Results

ACC

Table 3.2 displays the ACC LOB CY 2021 and CY 2022 HVL-AD results stratified by race, ethnicity, age, county, and urbanicity.

Table 3.2—CY 2021 and CY 2022 HVL-AD Performance Measure Results—ACC LOB

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
ACC Aggregate	4,193	3,270	78.0%	4,386	3,087	70.4%
Race						
White	2,217	1,742	78.6%	2,276	1,641	72.1%
Black or African American	759	574	75.6%	812	532	65.5%
American Indian or Alaska Native	85	66	77.6%	92	72	78.3%
Asian	59	45	76.3%	68	48	70.6%
Native Hawaiian or Other Pacific Islander	S	S	S	S	S	S
Some Other Race	S	S	S	S	S	S
Unknown	1,060	833	78.6%	1,129	789	69.9%
Ethnicity						
Hispanic or Latino	85	70	82.4%	76	59	77.6%
Unknown	4,108	3,200	77.9%	4,310	3,028	70.3%
Age						
18–24 years [^]	156	120	76.9%	130	97	74.6%
25–29 years	344	250	72.7%	323	199	61.6%
30–34 years	507	368	72.6%	526	340	64.6%
35–39 years	441	335	76.0%	471	311	66.0%
40–44 years	496	372	75.0%	526	370	70.3%
45–49 years	396	310	78.3%	429	290	67.6%
50–54 years	602	480	79.7%	567	417	73.5%
55–59 years	569	455	80.0%	615	444	72.2%
60–64 years	419	357	85.2%	478	377	78.9%

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
65 years and older	263	223	84.8%	321	242	75.4%
18–64 years (subtotal)	3,930	3,047	77.5%	4,065	2,845	70.0%
County						
Apache	S	S	S	S	S	S
Cochise	46	42	91.3%	59	50	84.7%
Coconino	31	26	83.9%	30	28	93.3%
Gila	19	18	94.7%	20	17	85.0%
Graham	S	S	S	S	S	S
Greenlee	0	0	N/A	0	0	N/A
La Paz	S	S	S	S	S	S
Maricopa	2,932	2,177	74.2%	3,055	1,967	64.4%
Mohave	85	64	75.3%	74	51	68.9%
Navajo	S	S	S	17	13	76.5%
Pima	776	685	88.3%	830	720	86.7%
Pinal	85	70	82.4%	99	73	73.7%
Santa Cruz	19	18	94.7%	20	17	85.0%
Yavapai	96	91	94.8%	89	77	86.5%
Yuma	69	54	78.3%	74	58	78.4%
Urbanicity						
Urban	3,885	3,031	78.0%	4,088	2,881	70.5%
Rural	227	188	82.8%	211	161	76.3%
Unknown	81	51	63.0%	87	45	51.7%

A Subtotal refers to an Adult Core Set Total.

N/A indicates a rate could not be calculated.

^ indicates that the 18–19 and 20–24 years age groups were combined due to small numerators.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

Strengths

- The ACC LOB aggregate rates were slightly higher than the statewide rates in CY 2021 and CY 2022 (by 0.1 and 0.2 percentage points, respectively). Of note, the ACC LOB comprised approximately 86 percent of the overall HVL-AD statewide eligible population, indicating the performance of the ACC LOB was driving overall statewide performance.

- The rates for White members were above the ACC aggregate rates in CY 2021 and CY 2022 (by 0.6 and 1.7 percentage points, respectively). The rate for American Indian or Alaska Native members was above the ACC aggregate in CY 2022 (by 7.9 percentage points). Of note, the rate for American Indian or Alaska Native members was the only racial group rate that improved from CY 2021 to CY 2022 (by 0.7 percentage points).
- The rates for members 60 to 64 years of age were above the ACC aggregate rates in CY 2021 and CY 2022 (by 7.2 and 8.5 percentage points, respectively). Of note, members 65 years of age and older had higher rates compared to members 18 to 64 years of age during CY 2021 and CY 2022 (by 7.3 and 5.4 percentage points, respectively), indicating that older ACC members with HIV were more likely to have viral load suppression compared to younger ACC members.
- The rates for Pima County were above the ACC aggregate rates in both CY 2021 and CY 2022 (by 10.4 and 16.5 percentage points, respectively). Of note, Pima County had the second largest population of HIV members for the ACC LOB.
- Rural members had higher rates compared to Urban members in CY 2021 and CY 2022 (by 4.8 and 5.8 percentage points, respectively).

Challenges

- The ACC aggregate rate declined from CY 2021 to CY 2022 (by 7.6 percentage points).
- The rates for Black or African American members were below the ACC aggregate rates in CY 2021 and CY 2022 (by 2.4 and 4.9 percentage points, respectively). Additionally, approximately 26 and 98 percent of members in the ACC HVL-AD eligible population had an Unknown race and ethnicity, respectively, indicating that there may be gaps in the quality of AHCCCS' demographic data.
- The rates for members 25 to 29 years of age were below the ACC aggregate rates in both CY 2021 and CY 2022 (by 5.3 and 8.8 percentage points, respectively). Similarly, the rates for members 30 to 34 years of age were below the ACC LOB aggregate rates in both CY 2021 and CY 2022 (by 5.4 and 5.8 percentage points, respectively).
- The rates for Maricopa County were below the ACC aggregate rates in CY 2021 and CY 2022 (by 3.8 and 6.0 percentage points, respectively). Since Maricopa County comprised approximately 70 percent of the ACC HVL-AD eligible population, this indicates that performance in Maricopa was substantially lower than other counties.
- Urban members had lower rates compared to Rural members in CY 2021 and CY 2022. Of note, ACC members with an Unknown urbanicity had substantially lower rates than both Urban and Rural ACC members in CY 2021 and CY 2022. As a result, the rates for both the Urban and Rural groups may be impacted if AHCCCS' demographic data were more complete.

Table 3.3 displays the ACC MCO CY 2021 and CY 2022 HVL-AD results.

Table 3.3—CY 2021 and CY 2022 HVL-AD Performance Measure Results—ACC MCOs

MCO	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Arizona Complete Health-CCP	649	508	78.3%	799	574	71.8%
Banner-University Family Care	514	421	81.9%	602	498	82.7%
Care1st Health Plan	256	208	81.3%	107	91	85.0%
Health Choice Arizona	355	258	72.7%	351	237	67.5%
Mercy Care Plan	1,109	840	75.7%	1,159	751	64.8%
Molina Complete Care	103	80	77.7%	101	54	53.5%
UnitedHealthcare Community Plan	1,207	955	79.1%	1,267	882	69.6%
ACC Aggregate	4,193	3,270	78.0%	4,386	3,087	70.4%

Strengths

- Banner-University Family Care had the highest rate for CY 2021, while Care1st had the highest rate for CY 2022.
- Only Banner-University Family Care and Care1st Health Plan had rate increases from CY 2021 to CY 2022 (by 0.8 and 3.7 percentage points, respectively). Of note, despite Care1st Health Plan having a rate increase in CY 2022, their eligible population decreased by half from CY 2021 to CY 2022.

Challenges

- Health Choice Arizona had the lowest rate in CY 2021, while Mercy Care Plan had the lowest rate in CY 2022.
- Mercy Care Plan and UnitedHealthcare Community Plan had large rate declines from CY 2021 to CY 2022 (by 9.5 and 10.5 percentage points, respectively). Of note, Mercy Care Plan and UnitedHealthcare Community Plan accounted for approximately 26 and 29 percent, respectively, of the ACC LOB aggregate eligible population. Regardless of changes in technical specifications between CY 2021 and CY 2022, viral load suppression rates declined for both of these MCOs.
- While Molina Complete Care had the largest rate decline from CY 2021 to CY 2022 (by 24.2 percentage points), this MCO also had the smallest population of HIV members for the ACC LOB. As a result, small changes in performance for this MCO had large impacts on rates.

ALTCS-DD

The ALTCS-DD LOB results are not presented as a table due to the small numerator and denominator values.

ALTCS-EPD

Table 3.4 displays the ALTCS-EPD LOB CY 2021 and CY 2022 HVL-AD results stratified by race, ethnicity, age, county, and urbanicity.

Table 3.4—CY 2021 and CY 2022 HVL-AD Performance Measure Results—ALTCS-EPD LOB

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
ALTCS-EPD Aggregate	123	105	85.4%	119	86	72.3%
Race						
White	44	41	93.2%	39	31	79.5%
Black or African American	19	15	78.9%	24	17	70.8%
American Indian or Alaska Native	S	S	S	S	S	S
Asian	0	0	N/A	0	0	N/A
Native Hawaiian or Other Pacific Islander	0	0	N/A	0	0	N/A
Some Other Race	0	0	N/A	0	0	N/A
Unknown	S	S	S	S	S	S
Ethnicity						
Hispanic or Latino	0	0	N/A	0	0	N/A
Unknown	123	105	85.4%	119	86	72.3%
Age						
18–19 years	0	0	N/A	0	0	N/A
20–24 years	0	0	N/A	0	0	N/A
25–44 years [^]	24	23	95.8%	18	13	72.2%
45–54 years ^{^^}	32	26	81.3%	23	21	91.3%
55–59 years	27	23	85.2%	32	24	75.0%
60–64 years	17	16	94.1%	18	13	72.2%
65 years and older	23	17	73.9%	28	15	53.6%

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
18–64 years (subtotal)	100	88	88.0%	91	71	78.0%
County						
Apache	0	0	N/A	0	0	N/A
Cochise	0	0	N/A	0	0	N/A
Coconino	S	S	S	S	S	S
Gila	0	0	N/A	0	0	N/A
Graham	0	0	N/A	0	0	N/A
Greenlee	0	0	N/A	0	0	N/A
La Paz	0	0	N/A	0	0	N/A
Maricopa	96	80	83.3%	93	67	72.0%
Mohave	S	S	S	0	0	N/A
Navajo	0	0	N/A	S	S	S
Pima	16	15	93.8%	17	13	76.5%
Pinal	S	S	S	S	S	S
Santa Cruz	0	0	N/A	0	0	N/A
Yavapai	S	S	S	0	0	N/A
Yuma	S	S	S	S	S	S
Urbanicity						
Urban	113	99	87.6%	111	82	73.9%
Rural	S	S	S	S	S	S
Unknown	S	S	S	S	S	S

A Subtotal refers to an Adult Core Set Total.

N/A indicates a rate could not be calculated.

^indicates that the 25–29, 30–34, 35–39, and 40–44 years age groups were combined due to small numerators.

^^indicates that the 45–49 and 50–54 years age groups were combined due to small numerators.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

Strengths

- The ALTCS-EPD aggregate rates were higher than the statewide rates in CY 2021 and CY 2022 (by 7.5 and 2.1 percentage points, respectively).
- The rates for White members were above the ALTCS-EPD aggregate rates in CY 2021 and CY 2022 (by 7.8 and 7.2 percentage points, respectively).

- The rates for Pima County were above the ALTCS-EPD aggregate rates in CY 2021 and CY 2022 (by 8.4 and 4.2 percentage points, respectively). Of note, Pima County had the second largest population of HIV members for the ALTCS-EPD LOB.

Challenges

- The ALTCS-EPD aggregate rate declined from CY 2021 to CY 2022 (by 13.1 percentage points).
- The rates for Black or African American members were below the ALTCS-EPD aggregate rates in CY 2021 and CY 2022 (by 6.5 and 1.5 percentage points, respectively). Of note, the Black or African American racial group had small denominators; therefore, small changes in performance had large impacts on rates. Additionally, approximately 45 and 100 percent of members in the ALTCS-EPD HVL-AD eligible population had an Unknown race and ethnicity, respectively, indicating that there may be gaps in the quality of AHCCCS’ demographic data.
- Members 65 years of age and older had lower rates compared to members 18 to 64 years of age during CY 2021 and CY 2022 (by 14.1 and 24.4 percentage points, respectively), indicating that older ALTCS-EPD members with HIV were less likely to have viral load suppression compared to younger ALTCS-EPD members.
- The rates for Maricopa County were below the ALTCS EPD aggregate rates in CY 2021 and CY 2022 (by 2.1 and 0.3 percentage points, respectively).

Table 3.5 displays the ALTCS-EPD MCO CY 2021 and CY 2022 HVL-AD results. Please note, the ALTCS-EPD MCOs had small denominators; therefore, caution should be exercised when interpreting results.

Table 3.5—CY 2021 and CY 2022 HVL-AD Performance Measure Results—ALTCS-EPD MCOs

MCO	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Banner-University Family Care LTC	20	17	85.0%	24	19	79.2%
Mercy Care Plan LTC	73	61	83.6%	70	50	71.4%
UnitedHealthcare Community Plan LTC	30	27	90.0%	25	17	68.0%
ALTCS-EPD Aggregate	123	105	85.4%	119	86	72.3%

Strengths

- UnitedHealthcare Community Plan LTC had the highest rate in CY 2021 (90.0 percent), while Banner-University Family Care LTC had the highest rate in CY 2022 (79.2 percent).

Challenges

- Mercy Care Plan LTC had the lowest rate in CY 2021 (83.6 percent), while UnitedHealthcare Community Plan LTC had the lowest rate in CY 2022 (68.0 percent).
- Two of the three ALTCS-EPD MCOs had rate declines of at least 12 percentage points from CY 2021 to CY 2022. Although UnitedHealthcare Community Plan LTC had the highest rate in CY 2021, it experienced the largest rate decline from CY 2021 to CY 2022 (by 22.0 percentage points).

ACC-RBHA/RBHA Integrated SMI

Table 3.6 displays the ACC-RBHA/RBHA Integrated SMI LOB CY 2021 and CY 2022 HVL-AD results stratified by race, ethnicity, age, county, and urbanicity.

Table 3.6—CY 2021 and CY 2022 HVL-AD Performance Measure Results—ACC-RBHA/RBHA Integrated SMI LOB

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
ACC-RBHA/RBHA Integrated SMI	409	300	73.3%	401	262	65.3%
Race						
White	198	155	78.3%	199	133	66.8%
Black or African American	64	42	65.6%	60	35	58.3%
American Indian or Alaska Native	S	S	S	S	S	S
Asian	S	S	S	S	S	S
Native Hawaiian or Other Pacific Islander	S	S	S	S	S	S
Some Other Race	S	S	S	S	S	S
Unknown	131	92	70.2%	126	87	69.0%
Ethnicity						
Hispanic or Latino	S	S	S	S	S	S
Unknown	S	S	S	S	S	S
Age						
18–29 years [^]	30	20	66.7%	30	12	40.0%
30–34 years	40	23	57.5%	40	18	45.0%
35–39 years	44	30	68.2%	37	24	64.9%
40–44 years	59	39	66.1%	62	42	67.7%

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
45–49 years	45	32	71.1%	39	28	71.8%
50–54 years	58	46	79.3%	48	33	68.8%
55–59 years	72	57	79.2%	77	52	67.5%
60–64 years	43	36	83.7%	42	31	73.8%
65 years and older	18	17	94.4%	26	22	84.6%
18–64 years (subtotal)	391	283	72.4%	375	240	64.0%
County						
Apache	S	S	S	S	S	S
Cochise	S	S	S	S	S	S
Coconino	S	S	S	S	S	S
Gila	0	0	N/A	0	0	N/A
Graham	S	S	S	S	S	S
Greenlee	0	0	N/A	0	0	N/A
La Paz	0	0	N/A	0	0	N/A
Maricopa	287	200	69.7%	283	173	61.1%
Mohave	S	S	S	S	S	S
Navajo	S	S	S	S	S	S
Pima	92	75	81.5%	86	69	80.2%
Pinal	S	S	S	S	S	S
Santa Cruz	0	0	N/A	0	0	N/A
Yavapai	S	S	S	S	S	S
Yuma	S	S	S	S	S	S
Urbanicity						
Urban	378	277	73.3%	369	247	66.9%
Rural	S	S	S	S	S	S
Unknown	S	S	S	S	S	S

A Subtotal refers to an Adult Core Set Total.

N/A indicates a rate could not be calculated.

^ indicates that the 18–19, 20–24, and 25–29 years groups were combined due to small numerators.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

Strengths

- The rates for White members were above the ACC-RBHA/RBHA Integrated SMI aggregate rates in CY 2021 and CY 2022 (by 5.0 and 1.5 percentage points, respectively).
- Members 65 years of age and older had substantially higher rates than members 18 to 64 years of age (by 22.0 and 20.6 percentage points, respectively), indicating that older ACC-RBHA/RBHA Integrated SMI members with HIV were more likely to have viral load suppression compared to younger members.
- The rates for Pima County were above the ACC-RBHA/RBHA Integrated SMI aggregate rates in CY 2021 and CY 2022 (by 8.2 and 14.9 percentage points, respectively). Of note, Pima County had the second largest population of HIV members for the ACC-RBHA/RBHA Integrated SMI LOB.

Challenges

- The ACC-RBHA/RBHA Integrated SMI aggregate rates were below the statewide rates for CY 2021 and CY 2022 (by 4.6 and 4.9 percentage points, respectively). Further, the ACC-RBHA/RBHA Integrated SMI aggregate rate declined from CY 2021 to CY 2022 (by 8.0 percentage points).
- The rates for Black or African American members were below the ACC-RBHA/RBHA Integrated SMI aggregate rates in CY 2021 and CY 2022 (by 7.7 and 7.0 percentage points, respectively). Additionally, approximately 32 and 97 percent of members in the ACC-RBHA/RBHA Integrated SMI HVL-AD eligible population had an Unknown race and ethnicity, respectively, indicating that there may be gaps in the quality of AHCCCS’ demographic data.
- The rates for Maricopa County were below the ACC-RBHA/RBHA Integrated SMI aggregate rates in CY 2021 and CY 2022 (by 3.6 and 4.2 percentage points, respectively). Since Maricopa County comprised the majority of the ACC-RBHA/RBHA Integrated SMI HVL-AD eligible population (approximately 70 percent), this indicates that performance in Maricopa County was substantially lower than other counties.
- The rate for Urban members declined from CY 2021 to CY 2022 (by 6.4 percentage points).

Table 3.7 displays the ACC-RBHA/RBHA Integrated SMI MCO CY 2021 and CY 2022 HVL-AD results. Please note, the ACC-RBHA/RBHA Integrated SMI MCOs had small denominators; therefore, caution should be exercised when interpreting results.

Table 3.7—CY 2021 and CY 2022 HVL-AD Performance Measure Results—ACC-RBHA/RBHA Integrated SMI MCOs

MCO	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Arizona Complete Health–CCP	102	86	84.3%	S	S	S
Care1st Health Plan [^]	0	0	N/A	0	0	N/A
Health Choice Arizona [†]	22	17	77.3%	S	S	S

MCO	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Mercy Care Plan	285	197	69.1%	282	174	61.7%
ACC-RBHA/RBHA Integrated SMI LOB	409	300	73.3%	401	262	65.3%

[^]As of October 1, 2022, Care1st Health Plan replaced Health Choice Arizona as a RBHA. Therefore, the Care1st Health Plan measure rate for CY 2022 is reflective of performance from October 1, 2022–December 31, 2022.

[†]As of October 1, 2022, Care1st Health Plan replaced Health Choice Arizona as a RBHA. Therefore, the Health Choice Arizona measure rate for CY 2022 is reflective of performance from January 1, 2022–September 30, 2022.

N/A indicates a rate could not be calculated.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule’s de-identification standard and CMS’ cell suppression policy.

Strengths

- Arizona Complete Health–CCP had the highest reportable rate in CY 2021 (84.3 percent) and was the only MCO to have a rate above the ACC-RBHA/RBHA Integrated SMI aggregate rate in CY 2021 (by 11.0 percentage points).

Challenges

- Mercy Care Plan had rates below the ACC-RBHA/RBHA Integrated SMI aggregate rates in CY 2021 and CY 2022 (by 4.2 and 3.6 percentage points, respectively). Since Mercy Care Plan accounted for approximately 70 percent of the ACC-RBHA/RBHA Integrated SMI HVL-AD eligible population, this indicates that low performance for Mercy Care Plan substantially impacted the ACC-RBHA/RBHA Integrated SMI LOB aggregate rates.

Appendix A. Raw HVL-AD Rates

Table A.1 presents the raw HVL-AD rates for CY 2021 and CY 2022. Raw rates were calculated using only the HIV Surveillance data provided by ADHS. Please note that suppression was applied for some subgroups when the numerator was less than 11. Additionally, some subgroups were combined due to small numerators.

Table A.1—HVL-AD Raw Rates for CY 2021 and CY 2022

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
Total	8,639	5,831	67.5%	8,797	5,391	61.3%
Race						
White	3,850	2,638	68.5%	3,888	2,425	62.4%
Black or African American	1,390	838	60.3%	1,438	758	52.7%
American Indian or Alaska Native	632	439	69.5%	634	440	69.4%
Asian	102	69	67.6%	109	73	67.0%
Native Hawaiian or Other Pacific Islander	18	13	72.2%	S	S	S
Some Other Race and Unknown*	2,647	1,834	69.3%	S	S	S
Ethnicity						
Hispanic or Latino	119	97	81.5%	114	83	72.8%
Unknown	8,520	5,734	67.3%	8,683	5,308	61.1%
Age						
Under 15–17 years [^]	23	20	87.0%	20	17	85.0%
18–24 years ^{^^}	273	192	70.3%	212	139	65.6%
25–29 years	704	421	59.8%	645	334	51.8%
30–34 years	1,030	606	58.8%	1,080	560	51.9%
35–39 years	956	603	63.1%	991	545	55.0%
40–44 years	971	641	66.0%	1,000	616	61.6%
45–49 years	830	541	65.2%	851	505	59.3%
50–54 years	1,142	822	72.0%	1,070	685	64.0%
55–59 years	1,221	867	71.0%	1,236	821	66.4%

Stratification	CY 2021			CY 2022		
	Denom	Num	Rate	Denom	Num	Rate
60–64 years	828	636	76.8%	946	661	69.9%
65 years and older	661	482	72.9%	746	508	68.1%
County						
Apache	103	64	62.1%	96	56	58.3%
Cochise	99	77	77.8%	96	76	79.2%
Coconino	99	70	70.7%	99	73	73.7%
Gila	31	25	80.6%	33	22	66.7%
Graham	21	16	76.2%	22	12	54.5%
Greenlee	S	S	S	S	S	S
La Paz	S	S	S	16	12	75.0%
Maricopa	5,873	3,786	64.5%	5,990	3,407	56.9%
Mohave	162	109	67.3%	162	94	58.0%
Navajo	99	60	60.6%	99	63	63.6%
Pima	1,482	1,142	77.1%	1,518	1,142	75.2%
Pinal	214	149	69.6%	223	144	64.6%
Santa Cruz	30	27	90.0%	31	20	64.5%
Yavapai	174	136	78.2%	81	41	50.6%
Yuma	141	94	66.7%	176	130	73.9%
Unknown	96	65	67.7%	S	S	S
Urbanicity						
Urban	7,742	5,271	68.1%	7,884	4,910	62.3%
Rural	637	446	70.0%	627	392	62.5%
Unknown	260	114	43.8%	286	89	31.1%

*i indicates that the Some Other Race and Unknown groups were combined due to small numerators.

^ indicates that the Under 15 and 15–17 years age groups were combined due to small numerators.

^^ indicates that the 18–19 and 20–24 years age groups were combined due to small numerators.

S indicates the rate was suppressed to satisfy the HIPAA Privacy Rule's de-identification standard and CMS' cell suppression policy.