NCQA

**Measuring quality.
Improving health care.**

📋 Summary Report

NCQA Race and Ethnicity Stratification
Data Learning Network

CONTENTS

✚ EXECUTIVE SUMMARY

Health plans are increasing their focus on leveraging member race/ethnicity data, to understand and improve outcomes and to reduce health disparities in the populations they manage. When stratified by race and ethnicity, quality measures, such as NCQA's Healthcare Effectiveness Data and Information Set (HEDIS®[a]), can be an important tool for plans to assess for disparities and track closing gaps over time.

To answer key questions about collecting and reporting on race and ethnicity for quality measurement, NCQA collaborated with 14 health plans in the Race and Ethnicity Stratification Data Learning Network to gather insights on how plans are overcoming challenges in these areas and putting data into practice, and to get an early look at quality performance data stratified by race and ethnicity. This report describes the Learning Network's approach and methods, and walks through findings in three areas:

1. Status of race and ethnicity data collection and data management.

Learning Network participants highlighted best practices for improving overall collection, management and use of race/ethnicity data. While some plans struggle to report direct-sourced data, many have been able to accomplish this. Key takeaways focus on tips for assessing relative strengths and weaknesses of usable sources, prioritizing between source options and investing resources in obtaining direct (member-reported) data. These findings underscore that despite challenges to data collection, health plans are discovering ways to report quality metrics.
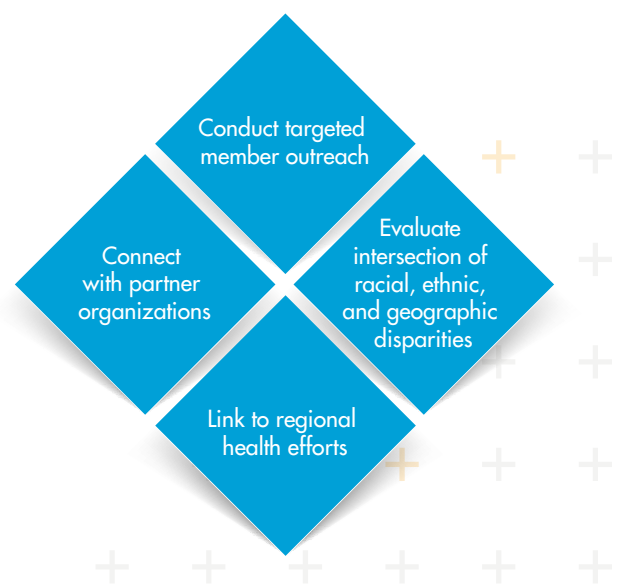
2. Insights into how plans link race/ethnicity information to quality performance.

Plans described their experiences linking race/ethnicity data to quality performance metrics. Highlights include modifications to data utilization processes, and opportunities for health plan departments to collaborate and facilitate data connection and reportability, particularly for direct data. Learning Network data underscore that by linking race and ethnicity data to quality performance, plans can visualize where inequities exist in a measure and can mobilize resources to close gaps in treatment and outcomes.

3. How health plans are leveraging stratified data for quality improvement.

Organizations shared a range of success stories about linking race, ethnicity and quality data to target outreach, services and partnerships. They also highlighted the importance of evaluating race/ethnicity in the context of other social drivers of health. Moving data into quality improvement practice will be crucial to closing disparities. In line with other reports, both absolute and relative differences between race/ethnicity groups were observed across all quality measures in Learning Network data. This highlights the importance of understanding data, and acting to achieve equitable health care and outcomes for all.[2]

Race and ethnicity data in action for quality improvement: Examples from the Learning Network

Conduct targeted member outreach

Evaluate intersection of racial, ethnic, and geographic disparities

Connect with partner organizations

Link to regional health efforts

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[a] HEDIS is a registered trademark of the National Committee for Quality Assurance.

Readers can use this report to increase their knowledge of best practices for collecting, managing and using race/ethnicity data, and to improve their understanding of the practical considerations of putting race/ethnicity data into quality improvement and reporting. Findings can be leveraged by a wide audience, including health plans, data and quality vendors, quality improvement organizations and policymakers.

INTRODUCTION

Addressing racial and ethnic disparities is an important step toward resolving inequities in our health care system. Equity is a central aim of health care quality, and the National Committee for Quality Assurance (NCQA) believes there cannot be high-quality care without equitable care.[1,2,3] Quality measurement is an important tool to help achieve this goal. Health plans have a significant role in addressing disparities by identifying gaps in care, working with clinicians and patients to identify the cause of disparities and providing inclusive services and coverage to everyone.

To help plans address disparities, NCQA developed and implemented a race and ethnicity stratification in the Healthcare Effectiveness Data and Information Set (HEDIS), a health-plan quality measure set used by over 90% of America's health plans, representing over 200 million covered lives.[4] Measure stratification provides transparency into health plan performance by race/ethnicity*, enabling transparency both on where disparities exist (opportunities for improvement) and where they do not (opportunities to learn from successful equity strategies). NCQA implemented race/ethnicity stratification into 5 HEDIS measures in Measurement Year (MY) 2022 and added 8 measures in MY 2023. Measures cover prevention and screening, respiratory, cardiovascular, diabetes, behavioral health, access/ availability to care and utilization—and NCQA intends to continue expanding the stratification to additional measures in the coming years.

With the rollout of the HEDIS stratification, questions arose as to how plans should collect member race/ethnicity data. There were concerns about the feasibility of getting members to self-report race/ethnicity data ("direct" data) and about a flexible timeline for collecting such data; the best approaches for managing multiple sources and values for individual members; and the ability of health plans to implement imputation methods ("indirect" data).[5] Plans and other stakeholders (e.g., health systems, quality auditors) also requested guidance on best practices for self-reported data collection.[1]

In response to these questions, NCQA created the Race and Ethnicity Stratification Data Learning Network ("Learning Network") to provide insight into the ability of health plans to report on the stratified rates in HEDIS measures, illuminate preliminary performance trends and share best practices for collection, management and use of race/ ethnicity data for quality improvement. By exploring, understanding and developing robust processes to manage race/ ethnicity data, plans will be able to better meet the needs of their populations, measure disparities over time and continue to implement QI efforts that can close gaps in care and improve outcomes.

NCQA partnered with 14 health plan organizations from across the country to discuss insights from their journeys to harness race/ethnicity data for quality reporting. In interviews, network participants discussed how they collect and manage race/ethnicity data, and the challenges, successes and best practices in working the stratification into their systems to inform QI efforts. Plans also shared preliminary data on the first 5 stratified HEDIS measures, to provide early insight into data completeness, measure reportability and performance trends.

This report highlights the key qualitative and quantitative insights from the Learning Network, including strategies identified by participants that facilitate successful collection, management and use of race/ ethnicity data. Additional

Note to readers: Although we use "race/ethnicity" throughout this report, we acknowledge that these are in fact two different concepts.

data visualizations are available on the Race/Ethnicity Stratification Data Learning Network dashboard.

◤ Approach and Methods

The Learning Network took a mixed methods approach, with the goal of linking quantitative analysis of performance data and qualitative insights on how the stratification was achieved and leveraged. NCQA recruited organizations that report HEDIS measures, resulting in 14 participants. Each organization contributed multiple health plan contracts, which represented different product lines. Although participants could opt into either the qualitative interviews or quantitative analyses, the majority (10) chose to participate in both.

Interviews: NCQA led 1-hour, semi-structured interviews with 13 participant organizations. Participants were given the topics in advance and were asked to identify up to 5 representatives, with no constraints on which parts of their organization were represented. This led to a variety of represented perspectives from a variety of staff, including quality measurement, data analytics and equity. Questions focused on how health equity is defined and operationalized; how race/ethnicity data are sourced; processes for collecting and integrating the data into existing workflows; challenges to reporting on the data; and how data inform QI efforts. Interviews were recorded and transcribed for summary analysis. In certain cases, follow-up was conducted via email or phone, for clarification.

Performance Data Analysis: Participants were asked to submit stratified data on the following five HEDIS measures (first stratified in HEDIS MY 2022):

- Breast Cancer Screening (BCS).
- Colorectal Cancer Screening (COL).
  - ▸ Participants also submitted data on COL-E, a measure that is functionally identical to COL, but relies on electronic clinical data rather than on the traditional administrative or hybrid approach. For simplicity, we present only data from COL in this report.
- Hemoglobin A1c Control for Patients With Diabetes (HBD).
  - ▸ This measure has two indicators: HbA1c control (<8.0%) and HbA1c poor control (>9.0%).
- Prenatal and Postpartum Care (PPC).
  - ▸ This measure has two indicators: Timeliness of Prenatal Care and Postpartum Care.
- Child and Adolescent Well-Care Visits (WCV).

Structured data collection templates matched to HEDIS reporting tables were used to facilitate data collection, including collection of numerator and denominator by measure, race/ethnicity category and data source (direct or indirect). HEDIS measures are specified to use one or more data collection methods. Learning Network participants could report using either the Administrative Method (data are gathered from claims, encounter, enrollment and provider systems) or the Hybrid Method (data are gathered from administrative and medical record data).

Data derived purely from administrative sources reflect rates that consider every eligible member and occurrence of the event calculated by the measure. All other data are based on members and services drawn from a sample. This has implications for both denominator size and measure performance rates. In this report, analyses of race/ethnicity data completeness and evaluation of denominator size includes participants who submitted measures collected from both administrative and hybrid sources. Analyses of performance rates consider submissions using the Hybrid Method only, because this method facilitates comparison with other publicly reported performance rates.

The categories reported for race and ethnicity are as follows, and align with HEDIS specifications as of MY 2022.

Race

- American Indian and Alaska Native [AI/AN]
- Asian
- Black or African American [Black]
- Native Hawaiian or Other Pacific Islander [NH/OPI]
- White
- Some Other Race [SOR]
- Two or More Races [TOMR]
- Asked but No Answer [ABNA]
- Unknown

Ethnicity

- Hispanic/Latino [H/L]
- Not Hispanic/Latino [Not H/L]
- Asked but No Answer [ABNA]
- Unknown

Data submissions were reviewed for completeness (presence of all anticipated contracts and data elements) and balance. Because race and ethnicity are categorized separately, a balanced submission had the same total count of members by race as it did for ethnicity in a given measure. Analysis was performed after data checks were complete. Sample size and reporting feasibility were evaluated, including the plan's ability to meet the minimum HEDIS denominator for HEDIS reporting (n=30). Submissions were then evaluated on data completeness, the ability to identify a race and ethnicity for each member (presence or absence of the Unknown category) and data sourcing (the extent to which a plan used direct vs. indirect data sources). Associations between data completeness/sourcing and product line were made using ANOVA.[b] Performance outcomes were described by measure and race/ethnicity category, including absolute and relative differences between groups for each measure.

◣Learning Network Characteristics

Of the 14 Learning Network participants, 11 provided data representing between 1 and 20 plan contract submissions each. These submissions spanned all product lines and all major geographic regions of the United States (Table 1, Figures 1, 2). Findings reflect 101 contracts across commercial (27%), Medicaid (41%), Medicare (24%) and Exchange (9%) product lines, representing over 19 million covered lives.

Table 1. Count of Plan Submissions by Product Line and Region

	Central	Northeast	South	West
Commercial	2	12	8	5
Exchange	1	5	0	3
Medicaid	10	6	8	17
Medicare	5	12	0	7

[b] ANOVA (Analysis of Variance) is a statistical technique used for comparing the means of groups along some consistent dimension. A statistically meaningful difference indicates that at least one group is different from the others by more than random probability would allow.

Figure 1. Count of Covered Lives by Product Line, by Measure

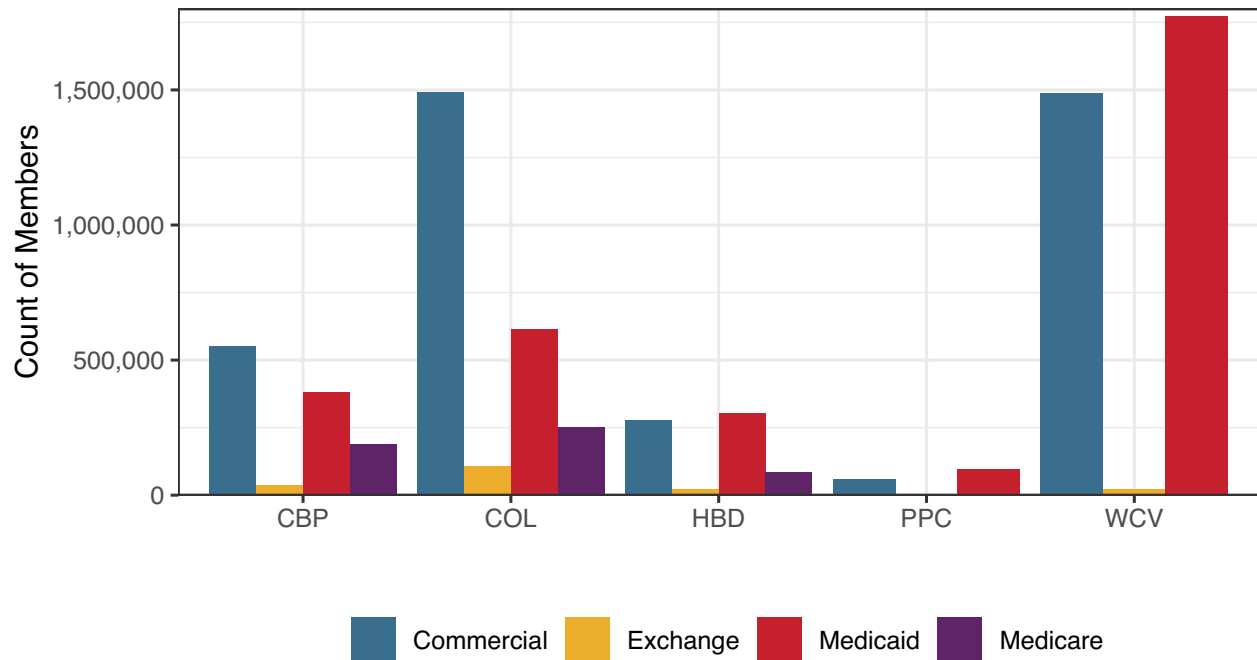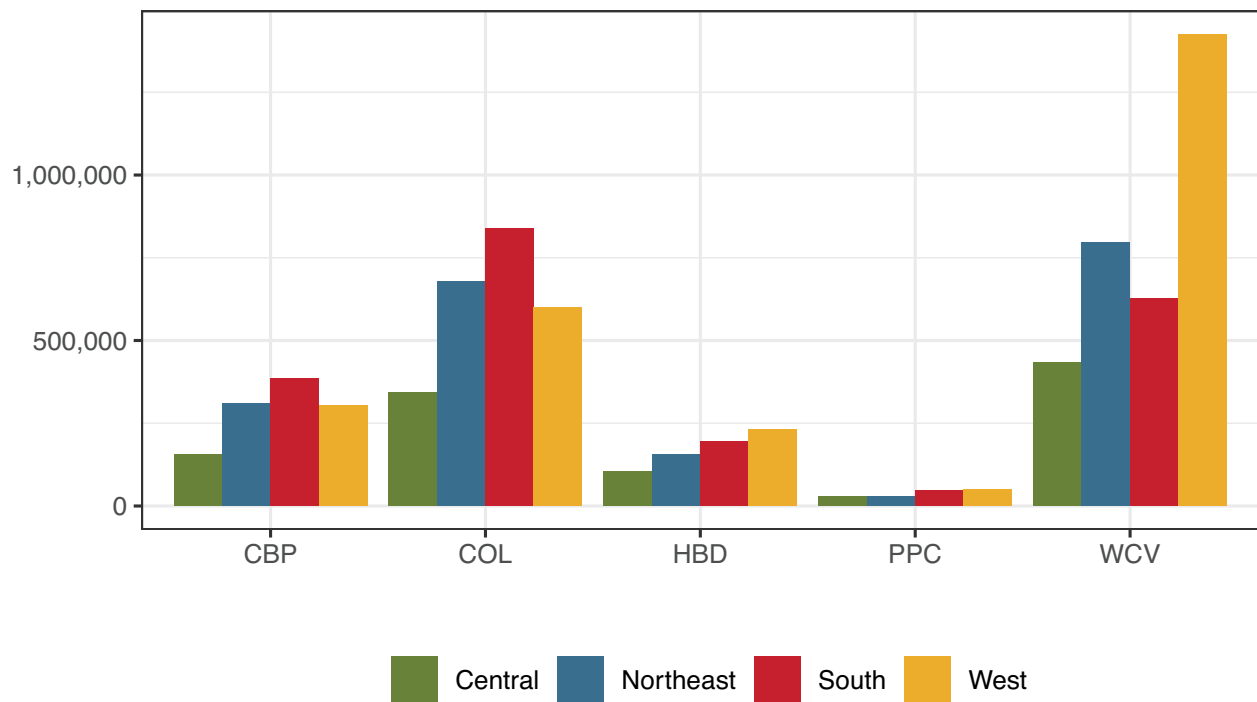## Figure 2. Count of Covered Lives by Region, by Measure

Learning Network data also represent broad population demographics. Refer to Figures 3 and 4 for the proportion of members in each race and ethnic group, by measure. Refer to Appendix A for additional descriptive information.

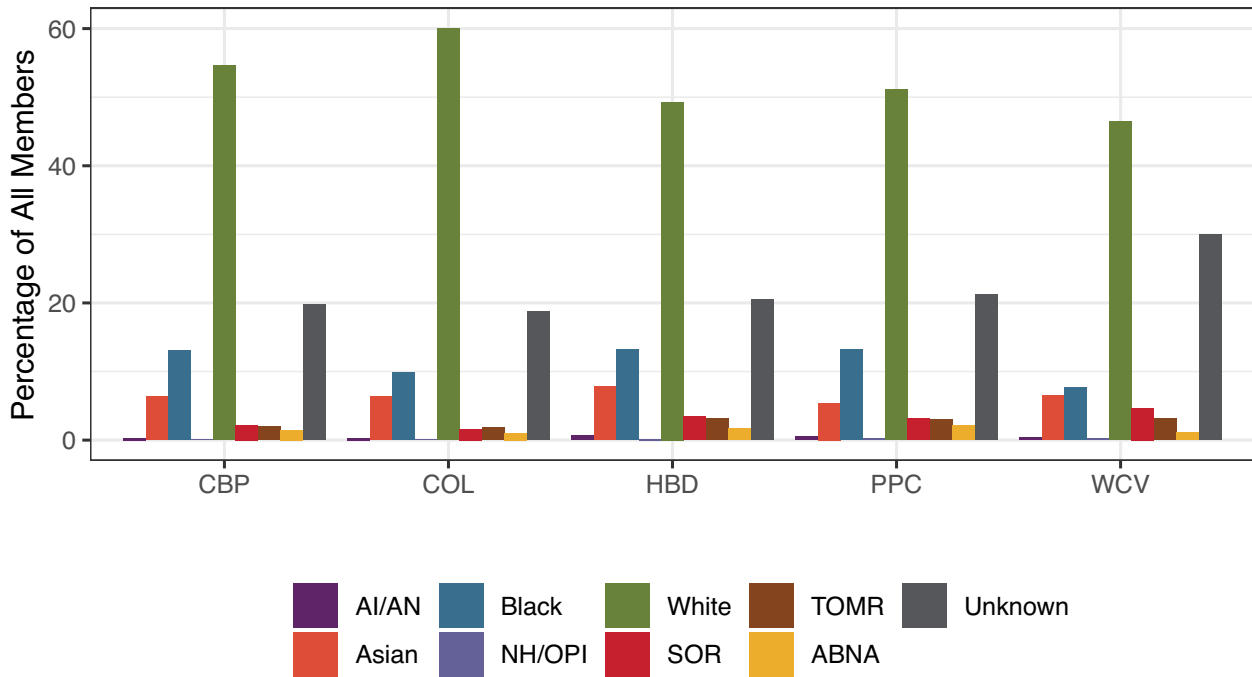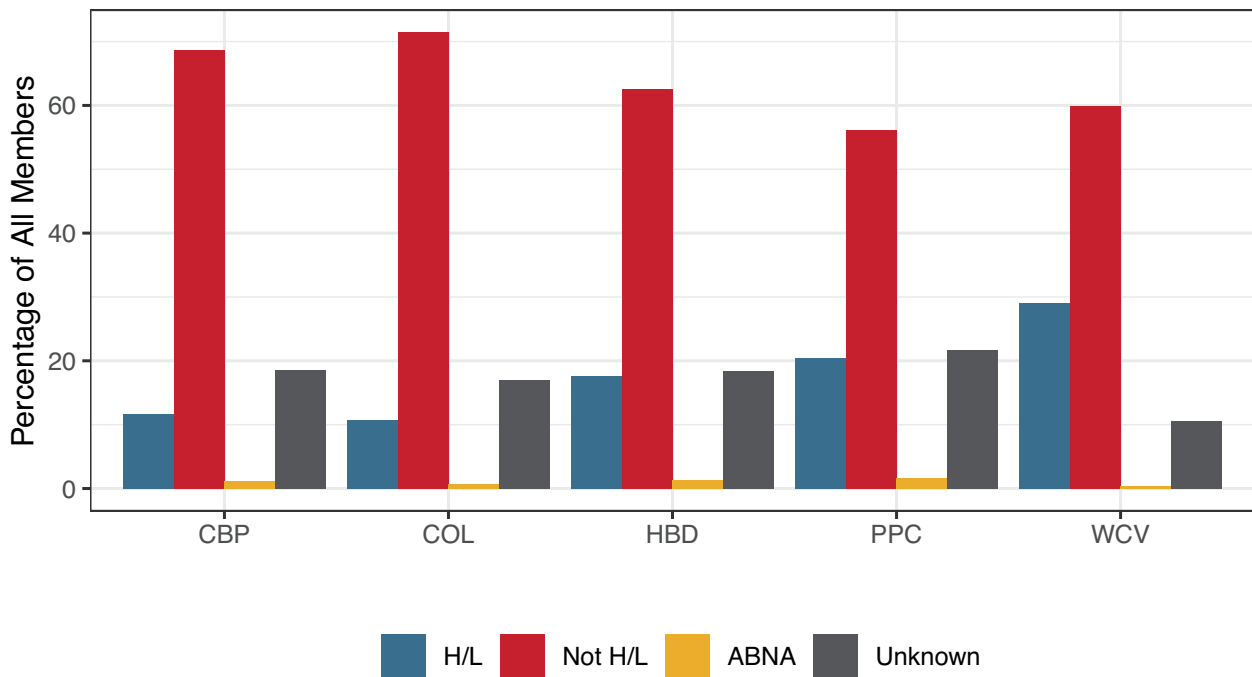Figure 3. Proportion of Membership by Racial Group, by Measure

Figure 4. Proportion of Membership by Ethnicity Group, by Measure

✚ STATUS OF RACE/ETHNICITY DATA COLLECTION AND MANAGEMENT

To maximize the utility of race/ethnicity data, health plans must continuously adapt to changing factors in the data environment, such as external policy requirements and data standards, and must determine how to efficiently engage resources to collect the most complete and accurate data possible. Plans are building their capacity to improve intake and collection of race/ethnicity data in a variety of ways: taking stock of available data sources, assessing benefits and drawbacks of different data and strategizing how to manage data feeds to support internal and external use of race/ethnicity information for QI.

▶ Overview of Data Sources

Learning Network participants described numerous data sources they are leveraging, or want to integrate in the future (Table 2). Some collect race/ethnicity data through multiple sources; others rely solely on enrollment data feeds (e.g., state Medicaid enrollment files). Overall, participants expressed an eagerness to explore additional options for collecting and harnessing race/ethnicity for quality measurement.

A collective goal articulated by participants was to reduce the proportion of unknown and inaccurate race/ethnicity information, noting challenges to assessing where disparities exist when data are missing. All participants prioritize collection and intake of direct, member-reported data, though a handful of participants noted they supplement with indirect methodologies when necessary. Several plans highlighted—and NCQA agrees—that direct member-reported data are the "gold standard" for which all plans should strive. One Learning Network participant stated that member-reported data should be considered the gold standard only in cases where the organization collected the data (e.g., through a member portal), not when data are routed through an intermediary or third-party source (e.g., provider or state immunization registry). The participant noted how relying on an intermediary might result in uncertainty about how data were gathered, or if sources such as observer reports introduced bias into race/ethnicity values.

Table 2: Participant-Identified Sources for Race/Ethnicity Data, by Source Type

Direct: Internal or Enterprise Records	Direct: State Records	Direct: Other	Indirect
Health risk assessments	State enrollment files	Vendor files	RAND Corporation[6] Bayesian Improved Surname Geocoding
Electronic health records	Immunization registries		Third-party vendor solutions (e.g., Acxiom[7,8])
Member surveys	Supplemental state race/ethnicity files		
Member portals	Risk corridor files		
Case management systems	Social services records		
Provider organization feeds	State Children's Services files		
Health plan marketing campaigns	Supplemental Nutrition Assistance Program repositories		
Health plan call center logs			

External sources such as state enrollment data may be another option for plans that have not implemented direct data collection methods. Plans that rely on external sources might communicate with data-hosting agencies to try aligning (where possible) information received with information they will need to meet external policy and reporting requirements (e.g., for HEDIS stratification, state contractual reporting). Learning Network participants shared that when plans leverage more than one source, the organizations may need to assess the range of race/ethnicity values reflected in their data and develop tools to systematically map to the values required for specific reporting needs (see example below in Table 3). A few plans that rely solely on data collected from external sources also suggested investigating the possibility of receiving race/ethnicity data through alternative feeds; for example, some state agencies may have supplemental feeds that can be accessed separately from enrollment systems.

Table 3: Example of Race Value Mapping Between Collection Source Categories and Reporting Requirement Categories

Value in Collection Source	Mapped Value for Reporting
Asian	Asian
Black	Black or African American
Native American	American Indian or Alaska Native
Pacific Islander	Native Hawaiian or Other Pacific Islander
White	White
NULL	Unknown Race
(blank)	
Unknown	
Black and White	Two or More Races*
Native American and Pacific Islander	
Black and Pacific Islander	
Asian and Black	
Black, Native American and Pacific Islander	

Note: Network participants shared additional "Two or More Races" options; NCQA highlighted a handful in this report.

◤ Data Source Attributes and Management Strategies

Among Learning Network participants' biggest challenges to obtaining member-reported data was identifying and investing resources to improve data quality, and developing data governance processes to track data provenance, completeness and accuracy. Participants noted the critical importance of conducting an inventory and comparison of all race/ethnicity sources at their disposal, noting a number of characteristics that should be assessed for each source when determining relative quality and prioritization:

- Source name and description.
- Data generation process (where the source comes from, including all parties that touch the data before the data enter a plan's system).
- Source update cadence.
- Race/ethnicity values collected.

- Instructions on mapping race/ethnicity values collected to fulfill specific reporting or policy requirements.
- Guidance on using data (internal/external programs to which data should be applied).
- Access (how much effort is needed to obtain the data).
- Data completeness.
- Accuracy.

Participants mentioned that data source characteristics and their associated race/ethnicity values can change, however; for example, because of updates to data standards and policy requirements. After conducting an inventory, plans should have a process to keep track of sources used or under consideration for future use. An inventory tool that allows investigation of all sources is critical. Participants recommend that plans create a "living document" to reference when exploring additional sources. This tool should also be referenced and updated when reassessing sources currently in use.

Data Source Prioritization

Learning Network participants that rely on multiple data sources shared thoughts on how to prioritize data for assessing disparities and/or reporting for quality programs. Several stated that they created logic documents or algorithms that prescribe use of data from certain sources. Each algorithm prioritizes member self-reported data first and imputed information last. (Refer to the *Example* below.) Participants highlighted that a prioritization workflow may be useful if there are several—or conflicting—values for race and/or ethnicity across different sources, or where there are no external data standards to reference. In general, plans find it helpful to prioritize several data sources to fill information gaps when sources have incomplete data.

Example of logic flow:

1. Member self-reported data collected from privacy preferences in plan's member rights archive.
2. Member self-reported data collected from plan's health risk assessment.
3. Member self-reported data collected from Medicaid enrollment files.
4. Estimated data computed using imputation algorithm 1.
5. Estimated data computed using imputation algorithm 2.

Once a plan has access to high-quality (accurate, reliable, complete) data, it should consider how to get the most out of the source. For some plans, this might involve strategizing how to increase engagement with prioritized data sources. Several Learning Network participants stated that they gather race and ethnicity data through online member portals, and shared suggestions for improving collection of demographic data through portals: Work with marketing staff to advertise that members can add their information to the portal; train membership and registration staff to show members how to navigate demographic web pages on the portal; refine the portal so members can easily share their information.

Race/Ethnicity Value Mapping

In addition to the inventory tool, health plans should create mapping rules to account for nuances and differences in race/ethnicity values collected and/or received. For example, a plan that uses sources that collect granular race/ethnicity values (e.g., Cambodian, Vietnamese) should develop a process to systematically map up to higher-level aggregate categories (e.g., Asian) for different reporting cases. This will give the plan flexibility to assess for racial/ethnic disparities at both the granular and aggregate levels for a variety of use cases.

Learning Network participants that have implemented mapping directions emphasized their usefulness in reflecting the needs and unique experiences of members with biracial or multiracial heritage in reported data. If a source allows a member to choose multiple values, the plan should have a mechanism in place to map the values to "Two or More Races." Some use cases, such as the HEDIS stratification, require reporting of this category, but the collection of a specific "Two or More Races" category is not recommended; rather, granular data and mapping directions can generate member inclusion in such a category.

Many participants referenced management of race/ethnicity data as part of larger enterprise data warehouses, highlighting the importance of creating and maintaining a central location to warehouse data coming from across sources, as well as source metadata (e.g., accuracy, completeness, provenance), to ease access by staff across functional units. The breadth, flexibility and internal access to such systems can vary by organization type. Among those where enterprise-wide solutions do not exist, centralized databases collating race/ethnicity data across sources were created and managed separately. Participants suggested that when investigating relative strengths and weaknesses of potential new sources, newer sources be housed separately from data the organization relies on before ingesting it into the pool of "usable" sources.

◣ Data Source Evolution

Some Learning Network participants have begun tracking the impact of improvements to race/ethnicity sources (e.g., completeness and reliability), and noted the importance of emphasizing refinements in race/ethnicity reports when disseminating data reflecting year-over-year analyses. For example, one plan noted that year-over-year analyses changed as a result of ongoing improvements to the RAND Bayesian imputation model. The plan determined how to account for these changes when visualizing the data on its equity dashboard and in reports.

Sharing the impact of data evolution may require collaboration between a plan's QI staff and data visualization, marketing and information technology units. It is therefore vital that plans have processes for interacting and facilitating data reporting across the organization. Learning Network participants shared examples of processes for QI staff to connect with and brief marketing teams on the data's meaning and how to disseminate certain messages. In line with this, participants underscored the value of having the support of leadership, to ensure that teams involved in reporting race/ethnicity data have the resources necessary to understand what the data show; know how to translate the data; and are able to continuously assess and visualize how the data might evolve over time, in terms of results and soundness (completeness, validity, reliability).

Plans that have engaged in external reporting on race/ethnicity highlighted the importance of having management systems in place to facilitate transparent reporting to consumers. If a source has been updated, plan staff should be able to log the update in a data inventory and be able to subsequently access the information when preparing to publish results. Supporting staff in this way shows consumers not only that the plan monitors gaps in care, but that it is also working to ensure that data improve over time, to reflect the realities of the member population and, by extension, the long-term impact of the plan's investment in addressing disparities.

◣ Team Engagement

Making strategic decisions about how to drive traffic toward specific sources and how to harness various data feeds requires engaging functional units across the organization. Plans shared a number of teams that collect and intake race/ethnicity data (Table 4).

Table 4. Teams in Health Plans Engaged with Race/Ethnicity Data, as Identified by Learning Network Participants

▸ Business Intelligence	▸ Information Technology & Business Solutions
▸ Clinical	▸ Member Services
▸ HEDIS Operations	▸ Quality and Risk Management
▸ Health Economics	▸ Quality Measurement
▸ Health Equity	▸ Social Services

Engaging stakeholders (both internal and external) involves considering the sources involved and the data use cases. Participating plans are at different stages with regard to this effort. In some, most of the intake and management of race/ethnicity data is the responsibility of a handful of staff focused on equity in quality measurement (e.g., HEDIS operations and quality teams). In others, a variety of business units touch the data—ranging from clinicians, to quality management, to information technology. Several plans shared that prior to developing an interdepartmental strategy for supporting intake and use of race/ethnicity, few hands interacted with the data. After training departments on tracking and leveraging data, functional areas that previously did not connect (e.g., equity and business intelligence) now interact on a regular basis.

Learning Network participants noted that because different departments are likely to have different motivations for engaging with data, it is important to ensure that all staff understand why the organization is collecting or handling the data, and the importance of collaboration. There can be staff resistance to collecting (or improving the collection of) race and ethnicity data; some staff might not initially understand why they should be involved in the process. Ensuring that everyone understands their contributions to the overarching workflow and equity strategy is key.

> ### Best Practices for Improving Race/Ethnicity Data Collection and Management:
>
> 1. Build the capacity to continuously inventory all race and ethnicity data sources. This process should enable staff to compare strengths and weaknesses of sources, and should allow centralized data mapping, to accommodate different use cases.
>
> 2. Develop processes to prioritize data sources based on attributes such as access, completeness and accuracy. This may involve creating logic documents to facilitate prioritization of sources based on criteria set by the plan.
>
> 3. Determine how to engage functional units in the plan to support data collection and storage.
>
> 4. Focus resources on obtaining known member-reported data by driving member traffic to sources such as member portals.
>
> 5. Allow members to choose more than one field, when possible. This option can help reflect the unique needs and experiences of members with multiracial backgrounds.
>
> 6. Organizations that rely on external data should determine the possibility of receiving data through alternative channels, such as supplemental state sources or additional race and ethnicity feeds. This may require negotiating with external entities to receive improved race and ethnicity information.

◥ Insights from Learning Network Data

Data value completeness and data source completeness must be considered. "Data value completeness" refers to the presence or absence of values in the Unknown category for either race or ethnicity. Unknown indicates a level of missingness, and influences a plan's ability to draw conclusions about performance. "Data source completeness" refers to the presence or absence of values from direct (self-reported) sources.

In terms of data value completeness, on average in each measure (across product lines), around 1 in 4 race values and 1 in 5 ethnicity values were Unknown, though a handful of submissions had much higher Unknown proportions. The lowest average proportion of Unknown race was in PPC (21.4%). In contrast, WCV had the lowest proportion of Unknown ethnicity (16.8%), while COL had the highest (23.3%). Figure 5 shows the distribution of percentage of Unknown by plan submission, indicating a wide range of ability to minimize missingness. (Refer to Appendix B for complete distribution tables.) Violin plots are similar to histograms in that thicker areas show a greater concentration of entities reporting similar values. We can see, for example, that more plans have lower proportions of Unknown ethnicity than Unknown race.

Figure 5. Distribution of Proportion of Unknown Race and Ethnicity Data
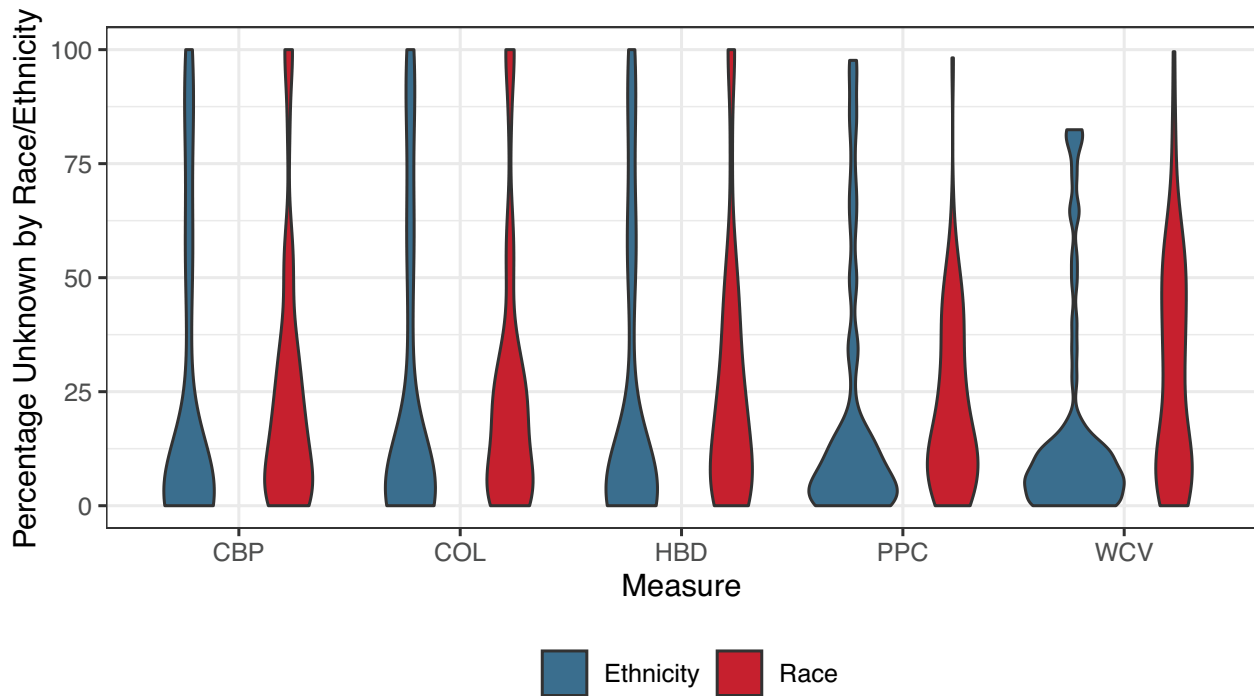
Table 5 shows data completeness (percentage of known race/ethnicity) by product line. Statistically meaningful differences were found for race by product line across all measures. No statistical differences were observed by product line for ethnicity. In general, commercial and Medicaid plans have more complete race data than Medicare and Exchange plans.

Table 5. Data Value Completeness by Product Line

Category	Measure	Commercial	Exchange	Medicaid	Medicare
Ethnicity	CBP	90.7	69.0	73.5	71.2
	COL	90.0	68.2	72.8	70.7
	HBD	89.6	69.1	74.0	72.3
	PPC	89.2	77.8	74.6	—
	WCV	84.9	67.5	86.8	—
Race	CBP	86.7	59.5	83.1	56.6
	COL	86.5	59.0	82.9	55.9
	HBD	84.2	58.9	81.9	54.4
	PPC	84.0	69.1	77.1	—
	WCV	80.4	57.6	65.6	—

In contrast to data value completeness, data source completeness looks at the presence or absence of values coming from direct sources. Many plans report only direct data (Table 6). Among members for whom race or ethnicity is known, an average of 73%–79% of data come from direct sources for most measures (Table 7). The WCV measure is an outlier, with an average of around 60% direct race and ethnicity data. Plans' ability to report direct data is not uniform, but appears to be bimodal in distribution (Figure 6): Many plans have a high rate of direct-sourced data, while a sizeable number struggle in this area. Most plans that participated in the Learning Network were able to report at least some direct data.

Table 6. Proportion of Plans Reporting Indirect/Direct Data (after excluding "Unknown")

Measure	Indirect Data		Direct Data	
	Ethnicity	Race	Ethnicity	Race
CBP	24.8	25.3	99.0	99.0
COL	26.3	26.3	97.9	97.9
HBD	25.0	25.3	99.0	99.0
PPC	29.9	29.9	100	100
WCV	36.5	36.5	98.4	98.4

Table 7. Distribution of the Proportion of Direct Data, by Measure*

Category	Measure	Mean	SD	Min	p5	p10	p25	p50	Max
Ethnicity	CBP	79.1	35.5	9.4	12.0	15.2	64.7	100	100
	COL	77.7	35.9	10.2	12.6	15.4	30.5	100	100
	HBD	78.8	35.9	9.4	11.9	14.6	64.5	100	100
	PPC	73.5	39.3	5.4	8.9	13.4	19.7	100	100
	WCV	60.8	48.9	0.0	0.04	0.05	0.09	100	100
Race	CBP	79.1	35.4	9.7	11.7	15.7	65.5	100	100
	COL	77.8	35.8	9.5	12.5	15.5	30.8	100	100
	HBD	78.3	36.0	9.5	12.1	14.8	27.0	100	100
	PPC	73.6	39.1	5.3	8.8	13.2	21.4	100	100
	WCV	60.7	48.9	0.0	0.04	0.05	0.08	100	100

*SD: standard deviation, p: percentile

Figure 6. Distribution of Proportion of Race and Ethnicity Data from a Direct Source
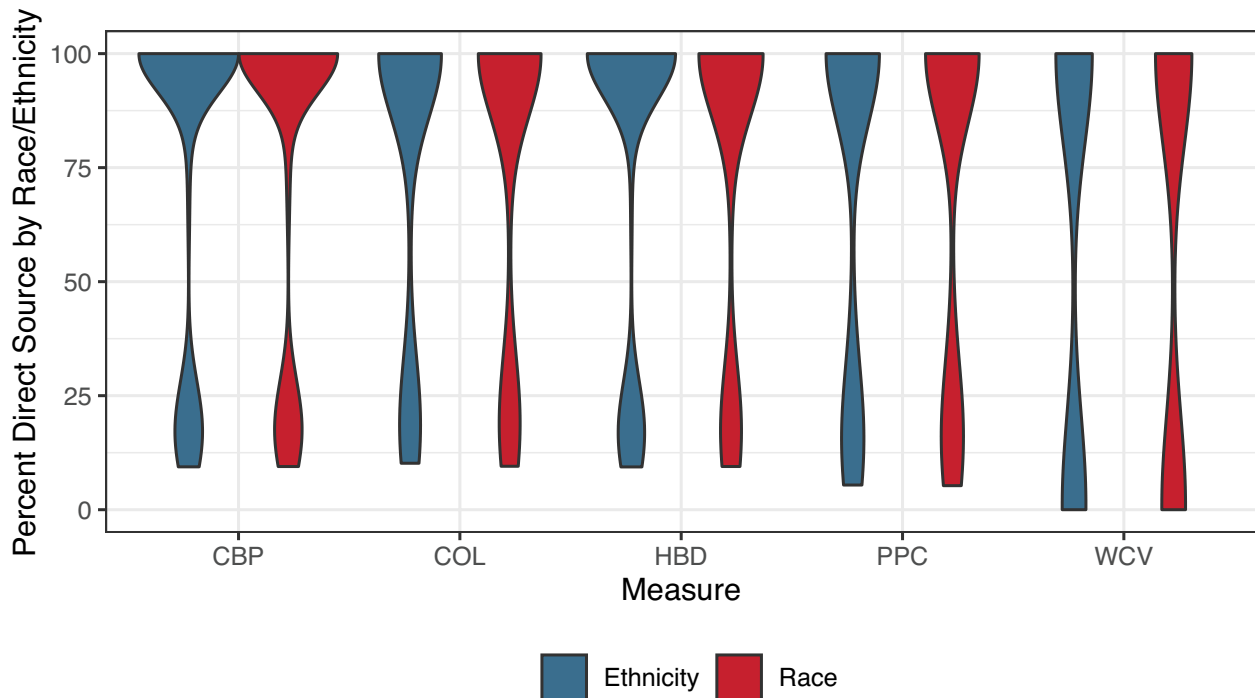
Direct reporting varies by race/ethnicity group (Table 8). The "Hispanic/Latino" ethnicity category has consistently higher rates of data from direct sources (across all measures) than the "Not Hispanic/ Latino" category. This may be a result of collection methods that used combined questions (collect race and ethnicity together), where having a race value on record may result in a missing ethnicity value. With the exception of WCV, the race categories "American

Indian/Alaska Native," "Native Hawaiian/ Other Pacific Islander" and "Two or More Races" have the highest rates of data from direct sources.

All categories are from direct sources for CBP, COL, HBD and PPC. This may be due to imputation methods being unable to input values (for "American Indian/Alaska Native," "Native Hawaiian/Other Pacific Islander," "Two or More Races"), either because of small sample sizes or a category where such methods were designed to predict ("Two or More Races"). "Some Other Race" follows a similar pattern, achieving nearly 100% direct sourcing on CBP, COL, HBD and PPC; however, these categories also have much smaller totals than Asian, Black or White populations.

Table 8. Aggregate Proportion of Each Category that Comes from Direct Data

Category	Group	CBP	COL	HBD	PPC	WCV
Ethnicity	H/L	73.3	62.5	81.3	85.3	88.0
	Not H/L	58.7	52.2	63.8	61.9	46.8
Race	AI/AN	100.0	99.99	100.0	100.0	99.7
	Asian	85.3	76.6	85.6	75.1	70.3
	Black	66.9	64.4	71.8	84.5	69.5
	NH/OPI	100.0	100.0	100.0	100.0	99.9
	White	56.1	49.0	61.6	62.1	36.8
	SOR	99.6	99.8	99.6	98.8	89.7
	TOMR	99.97	100.0	99.98	99.96	99.6

Looking specifically at the Asian, Black and White racial groups, Asian has the next highest rate of direct data for all measures except WCV. White has the highest rate of indirect data for all measures (including WCV) and across all categories (for both race and ethnicity). Most racial groups in the WCV measure (with the exception of White) have direct data proportions between 50% and 55%, which is more tightly distributed than seen in other measures.

Table 9 shows data source completeness (percentage of direct source) by product line; associations were found to have statistically significant differences. Commercial plans have more difficulty with direct sourcing than other product lines (Medicaid has 100% completion; Medicare plans are nearly as high, though this is after excluding members categorized as Unknown race or ethnicity). Taken together, Tables 5 and 9 reveal that commercial plans in the Learning Network tend to have more complete data (fewer Unknowns) than other product lines, but rely more often on indirect sources.

Table 9. Data Source Completeness by Product Line

Category	Measure	Commercial	Exchange	Medicaid	Medicare
Ethnicity	CBP	34.9	90.2	100	98.4
	COL	36.0	90.3	100	98.5
	HBD	34.3	90.2	100	98.8
	PPC	32.8	89.5	100	—
	WCV	19.2	89.4	100	—
Race	CBP	35.2	90.1	100	97.9
	COL	36.3	90.2	100	98.3
	HBD	34.7	90.2	100	98.3
	PPC	33.1	89.5	100	—
	WCV	19.2	89.4	100	—

+LINKING RACE/ETHNICITY AND QUALITY PERFORMANCE

Effectively linking race/ethnicity data with quality performance data requires several components to operate in concert. First, and most fundamental, a plan needs a high-quality source of race/ethnicity data, coupled with clear specifications and definitions of the race/ethnicity categories to include. Strong communication channels across units facilitate this by articulating the purpose and need for such data, and ensuring that the myriad needs and uses of such data are met. Clear objectives for how the plan will use the race/ethnicity stratification in performance outcomes can also aid in this process, particularly if objectives include improving equitable quality outcomes across all members served by the plan.

◢ The Role of Policy and Institutional Requirements

Although a few Learning Network participants have collected race and ethnicity data for some time, many noted multiple external policy drivers for leveraging race/ethnicity data for quality purposes. This includes new HEDIS stratified reporting requirements as well as accreditation programs (such as NCQA Health Equity Accreditation). Numerous participants also noted the impact of state and federal regulators. Several states are starting to ask for race/ethnicity breakouts on key metrics; in some cases, states collect and pass these data to health plans. One challenge, however, is inconsistent definitions of race/ethnicity categories between regulatory bodies.

Internal stakeholders may also identify the need for, or request, quality performance analysis by race and ethnicity. Overall, there is growing interest from multiple directions in better understanding and addressing racial disparities in health care. Most participants noted routine reporting of stratified quality analytics to senior leadership. One mentioned that its board of directors asks for this information specifically; another indicated the interest of some employer groups it serves. Several participants noted that these efforts are being incorporated into standard internal QI efforts.

Integrating race/ethnicity and quality data faces operational challenges. Many plans contract with an external vendor to process quality data, particularly for regulatory reporting. If a vendor's processes do not account for race/ethnicity links, or do so differently from what the plan needs or wants, negotiations and adjustments are necessary. Even plans

that do not contract quality reporting and programming must ask whether their systems can handle such a change. Several participants discussed how external forces led them to update their case management systems to better track members' race and ethnicity.

Data Linking Success Stories

Among plans linking race/ethnicity data with performance outcomes, strong cross-unit communication and clearly defined policies for using the data are most likely to generate success. These components are deeply interrelated. A plan's units can potentially use race/ethnicity stratification, and consistent quality data are important to ensure aligned aims and similar interpretations. It is equally important to understand how different units may want to use the data. One Learning Network participant referenced a dashboard it developed to streamline output for end users. Cross-unit communication is explored further in Performance Reporting.

Having clearly defined objectives serves an additional purpose. Knowing how the data will be used—such as for QI efforts or to address drivers behind uneven performance—can give purpose to gathering and linking data. This is often more motivating than a simple external mandate. Several participants mentioned using data to address important questions, and suggested that being able to answer those questions gave further motivation to collecting high-quality, consistent race/ethnicity data.

Data Linking Barriers and Challenges

Barriers to linking race/ethnicity data with performance data fell into three broad categories: sourcing the data; specifying the categories; and data management and utilization. The challenge of data sourcing is perhaps the most fundamental, and also the most straightforward. Without a high-quality data source, any effort to understand performance outcomes by race and ethnicity is moot. Data completeness must also reach critical mass to be of use in quality or equity improvement efforts. Even with data that are mostly complete, plans with very small member counts in certain groups may struggle with actionable decisions, due to the difficulty of making meaningful comparisons between groups.

Because race and ethnicity are socially constructed phenomena, there are multiple ways to meaningfully define them. This leads to a need for clear and consistent specification of race/ethnicity categories, both across and within a health plan. How these groups are specified has implications for multiple arenas: meaningful comparisons between groups and across health plans, consistent and reliable identification of members who may change plans, understanding catch-all categories like "Other"—and even grappling with how understanding and definitions of different groups may evolve over time.

It is important to have all units on board with the process of managing and working with race/ethnicity data. Training unit representatives to carry out their own analyses can reduce burden on key staff, as well. Teams might help build processes, including changing tables and workflows. Some participants noted the important role of the information technology team in creating consistent access to race/ethnicity breakouts.

Potential Process Changes

Integrating race/ethnicity into performance data may require updates and modifications to both data intake and data utilization. Several Learning Network participants mentioned the need to update data handling procedures with quality vendors (both for claims and measure specification). Others noted a reliance on multiple data sources, and described a need to both integrate sources and have consistent rules for mapping to race/ethnicity categories. Some participants with a high number of members in the Unknown category emphasized a need to better engage with members in an effort to get more complete and accurate data.

It might be necessary to make adjustments beyond data collection, because data utilization and reporting may be inconsistent across units. Some participants described needing to develop clear and consistent governance for how race/ethnicity data are used. This includes ensuring that all data users are properly trained, and possibly developing rules for how data are reported, to avoid resistance from members, providers and stakeholders.

In some cases, data integration has driven further efforts. A few participants emphasized that making these efforts on a small set of initial measures (e.g., those required by programs or regulators) facilitated applying the race/ethnicity stratification to other measures or driving internal QI efforts.

> ### Best Practices for Linking Race/Ethnicity with Quality Performance Data:
>
> 1. Create and refine existing processes to match and link race and ethnicity with quality measurement data. This should involve training all staff who interact with the data, so they fully understand the motivation behind linking the data, as well as developing consistent rules for mapping to race and ethnicity categories from multiple sources.
>
> 2. Consider how your organization might engage additional functional units—information technology, in particular—in linking race and ethnicity with quality metrics and analyzing identified gaps. This may require training a range of business units to link such data.
>
> 3. Develop a set of clearly defined objectives for analyzing race and ethnicity data, in the wider context of quality metrics. Staff must understand why they are working with the data, and the specific use case(s).

▶ Insights from Learning Network Data

Feasibility of Reporting Measure Stratification

NCQA uses a standard minimum threshold of 30 members for measure reporting. This threshold allows reasonable comparisons and reliable point estimates. Based on data submitted through the Learning Network, we use this threshold to examine whether plans can produce reportable rates when measures are stratified. Table 10 shows the count and proportion of plans that met the threshold for each measure, and the race/ethnicity group configuration. Across all measures, plans were able to meet the threshold for Asian, Black and White members, but often struggled to do so for other racial groups. Rates were relatively high for Hispanic/Latino and Non-Hispanic/Latino members, though higher for members who were not Hispanic/Latino.

Table 10. Plans With a Denominator of ≥30 for Each Race and Ethnicity Group, by Measure (n, %)

Group	CBP	COL	HBD	PPC	WCV
H/L	74 (75.5%)	72 (78.3%)	71 (74%)	48 (63.2%)	53 (84.1%)
Not H/L	91 (90.1%)	86 (90.5%)	88 (88%)	61 (79.2%)	60 (95.2%)
ABNA Ethnicity	20 (22.5%)	19 (22.9%)	18 (20.5%)	13 (18.1%)	15 (25.9%)
Unknown Ethnicity	72 (80%)	70 (82.4%)	71 (78.9%)	45 (62.5%)	49 (84.5%)
AI/AN	24 (24.7%)	37 (40.7%)	25 (26%)	8 (10.5%)	27 (43.5%)
Asian	70 (71.4%)	70 (76.1%)	66 (68.8%)	40 (51.9%)	53 (85.5%)
Black	78 (78.8%)	73 (79.3%)	71 (72.4%)	44 (57.9%)	53 (84.1%
NH/OPI	8 (8.6%)	11 (12.5%)	8 (8.6%)	1 (1.3%)	13 (21.3%)
White	91 (91.9%)	88 (92.6%)	90 (90.9%)	68 (88.3%)	58 (92.1%)
TOMR	27 (28.1%)	30 (33.3%)	25 (26.6%)	17 (22.1%)	30 (47.6%)
SOR	31 (34.1%)	30 (34.5%)	31 (34.4%)	18 (25%)	23 (39.7%)
ABNA Race	30 (33.7%)	28 (33.7%)	29 (33%)	15 (20.8%)	23 (39.7%)
Unknown Race	87 (86.1%)	84 (88.4%)	85 (85%)	56 (72.7%)	57 (90.5%)

Perhaps more important is whether plans can meet the threshold across all race/ethnicity categories (Table 11). As some categories show very low reportability due to small member counts, three configurations of "all categories met" are considered:

- **Absolute** takes "all" as an absolute condition; it evaluates whether a plan met the denominator threshold of ≥30 members in all groups for the category (2 for ethnicity, 7 for race).

- Some plans did not report on certain categories. In those cases, the **All Reported** classification exempts a plan from having to meet the denominator threshold for that category. This might be worded as "all categories met, for which at least one person was reported in that group."

- **Aggregated** collapses several race groups into one combined category (applies only to race): White, Black, Asian and All Other Races (which includes American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, Two or More Races, Some Other Race).

Between half and three-quarters of plans met all ethnicity categories on most measures. Plans had a more difficult time meeting the threshold for all race categories. By the most stringent standards (Absolute), typically between 3% and 6% met all categories, with the notable exception, WCV, for which approximately one-eighth did so. When conditions are relaxed (All Reported and Aggregated), between one-sixth and one-half of plans met the threshold for all categories.

Achievement patterns varied by product line. Commercial plans were generally more likely than other product lines to meet the threshold in all categories for race. For ethnicity, Medicaid plans tended to be more likely to meet all categories than commercial plans, which tended to be more likely to do so than Exchange or Medicare plans.

Table 11: Network Participant Achievement of Completeness Criteria Across Race and Ethnicity Groups, by Measure

Completeness Criteria	CBP	COL	HBD	PPC	WCV
Absolute (Race)	3 (3.0%)	6 (6.3%)	4 (4.0%)	0 (0.0%)	10 (15.9%)
Absolute (Ethnicity)	69 (68.3%)	68 (71.6%)	66 (66.0%)	44 (57.1%)	52 (82.5%)
All Reported (Race)	28 (28.3%)	33 (34.7%)	25 (25.3%)	12 (15.6%)	33 (52.4%)
All Reported (Ethnicity)	73 (72.3%)	73 (76.8%)	69 (69.0%)	46 (59.7%)	53 (84.1%)
Aggregated (Race)	44 (44.4%)	45 (47.4%)	38 (38.4%)	12 (15.6%)	30 (47.6%)

▶ Performance Trends by Measure

Overall plan performance and distribution for each measure are described below (Figures 7–13; Appendix C). Table 12 shows overall performance rates (not stratified by race or ethnicity) for data submitted by Learning Network participants, with all product lines combined. Performance rates from HEDIS MY 2021 are also presented by product line for comparison on a similar performance period. Overall Learning Network average performance was lower than MY 2021 HEDIS performance; however, this should not be over-interpreted, as Learning Network performance represents QI-focused data.

Measure performance distributions reflect all plans across product lines, with product line-specific means shown as dots in each distribution. Rates are reported separately by race and ethnicity, and reflect values from all available data sources (both direct and indirect). Sensitivity analyses compared performance calculated with direct data only with performance calculated using all available data sources. In Learning Network data, direct-only performance was never more than 2.5 percentage points different from performance calculated on all (direct and indirect) data, and often varied by less than 1 percentage point. Rate distributions between direct and indirect sources also showed considerable overlap.

For measures where HEDIS allows both Hybrid and Administrative data collection methods (CBP, COL, HBD, PPC), performance rates reflect only plan submissions that used the Hybrid Method. This facilitates comparison with externally reported rates. Submissions with fewer than 30 members in a category (the minimum denominator requirement) were excluded from all calculations.

Table 12. Overall Measure Performance Rates, Leaning Network Participants and HEDIS MY 2021

Measure	Learning Network (all product lines)			HEDIS MY 2021								
				Commercial			Medicare			Medicaid		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
CBP	30	61.8	8.1	418	56.3	16.4	249	58.6	10.2	623	70.3	9.2
COL	25	62.8	10.9	419	62.8	8.4	—	—	—	607	70.1	12
HBD-Ctrl	29	57.2	11	418	55.3	13.2	237	48.3	9.9	632	67.2	10.7
HBD-Poor	29	30.1	12.2	406	35.5	15.5	241	42.3	11.5	632	23	11.4
PPC-Post	14	62.4	22.2	396	78.9	13.5	237	76.2	8.6	—	—	—
PPC-Pre	14	75.8	9.9	403	79	15.2	237	83.5	9	—	—	—
WCV	63	47.4	11.6	400	57.5	10.9	238	49.6	11.4	—	—	—

Controlling High Blood Pressure (CBP)

Asian members experienced the highest observed outcomes on CBP, followed closely by Two or More Races and White members. Native Hawaiian/Other Pacific Islander members and members of Some Other Race experienced the worst aggregate outcomes of any racial group. Hispanic/Latino and Non-Hispanic/Latino members experienced similar average rates overall, though the Hispanic/Latino group had a greater overall spread of member experience.

Figure 7. Performance Distribution, Controlling High Blood Pressure

a. Race

b. Ethnicity
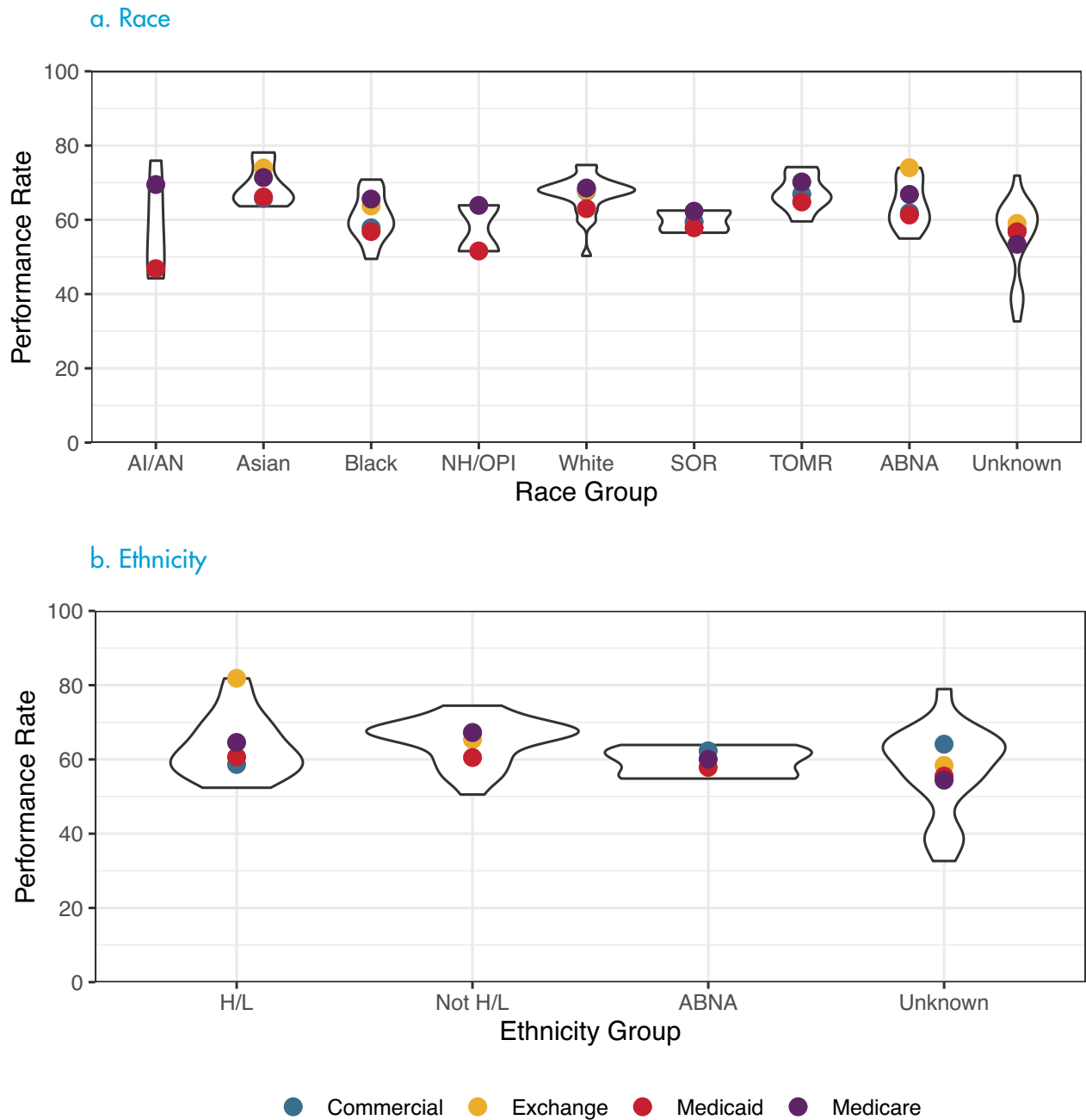
Dots represent mean rate by product line.

Colorectal Cancer Screening (COL)

Generally, Asian and White members experienced better rates of colorectal cancer screening than other groups. The rate for Black members was close behind, though with a much wider distribution, indicating that experiences for this group had high variation. On the whole, Non-Hispanic/Latino members experienced higher rates on COL than Hispanic/Latino members. American Indian/Alaska Native members experienced the worst overall performance outcomes of all racial groups.

Figure 8. Performance Distribution, Colorectal Cancer Screening

a. Race

b. Ethnicity
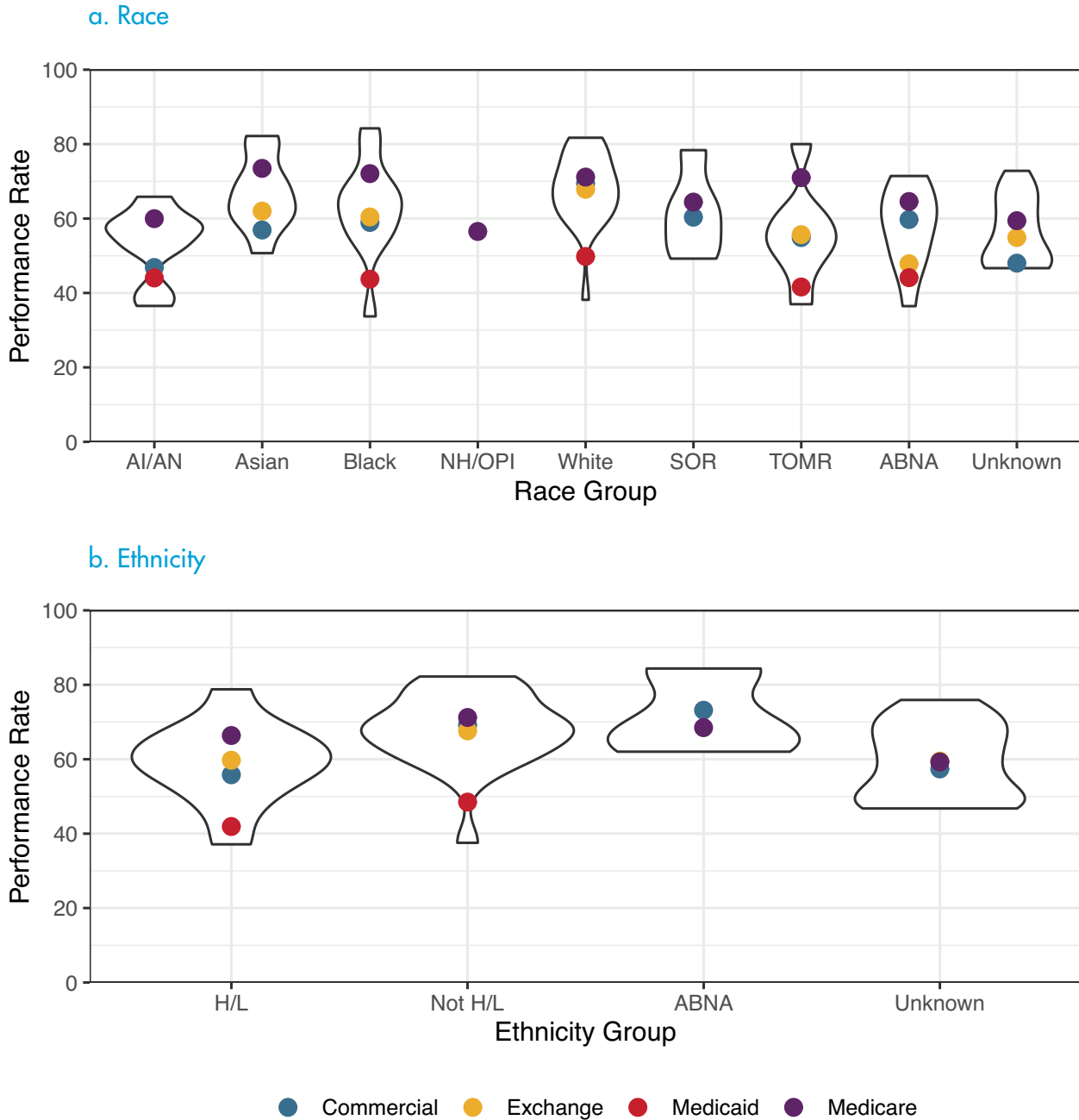
Dots represent mean rate by product line.

Adequate HbA1c Control & Poor HbA1c Control (HBD)

Fewer plans were able to meet minimum reporting thresholds on HBD than on other measures of adult chronic illness (e.g., CBP, COL), though the trends are similar to those seen in CBP. Of note, though very few plans could report on these groups, Adequate HbA1c Control rates were lowest for American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander members than for any other racial group. On Poor HbA1c Control (a lower-is-better metric), Native Hawaiian/Other Pacific Islander members saw the best outcomes, followed by Asian members. The range of experience for most other racial groups was much wider, though Black members and those identifying with Two or More Races experienced higher rates of poor control overall. Non-Hispanic/Latino members experienced much better overall outcomes (on both indicators) than Hispanic/Latino members.

Figure 9. Performance Distribution, Adequate HbA1c Control

a. Race

b. Ethnicity
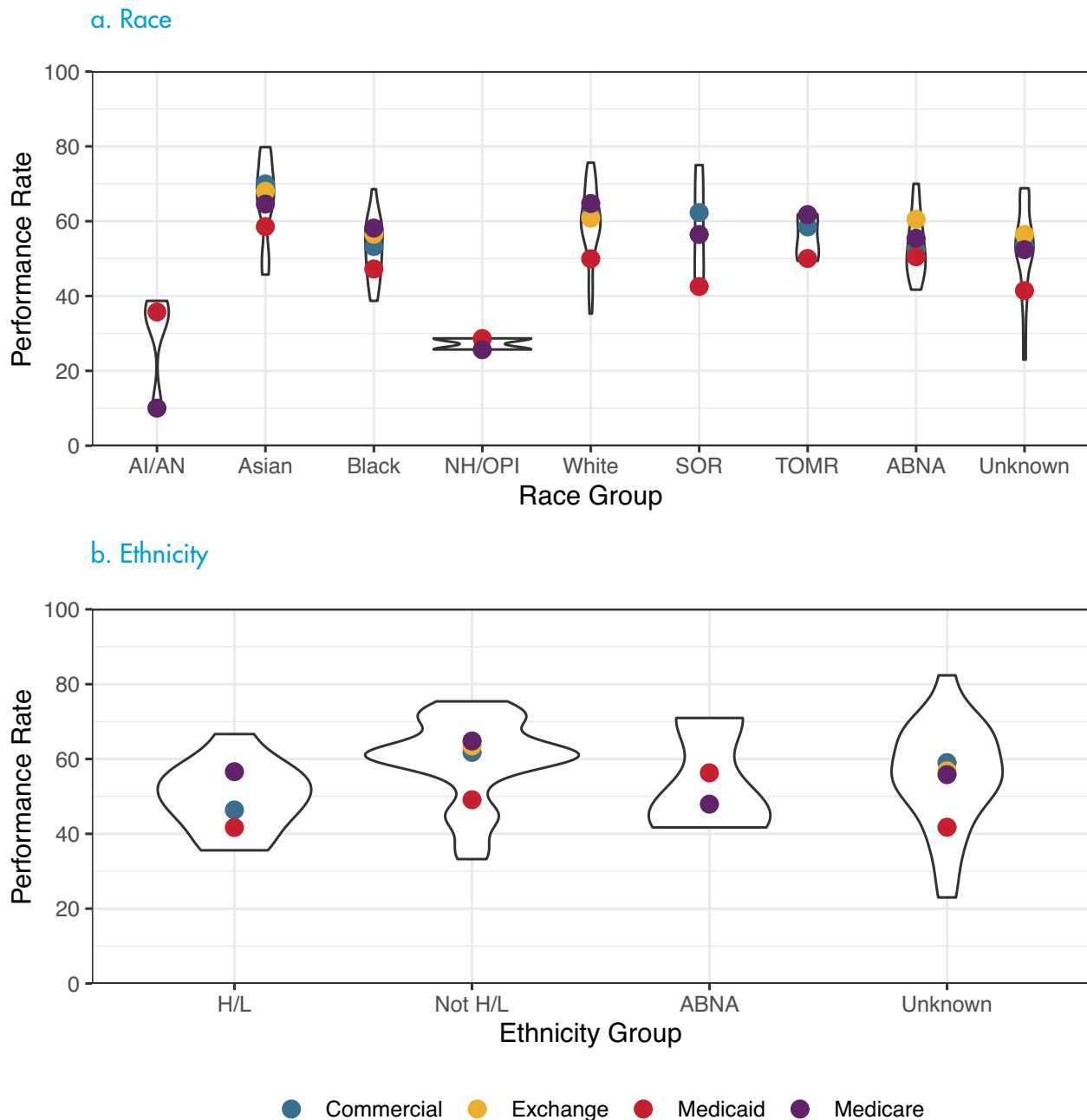
Dots represent mean rate by product line.

Figure 10. Performance Distribution, Poor HbA1c Control

a. Race

b. Ethnicity
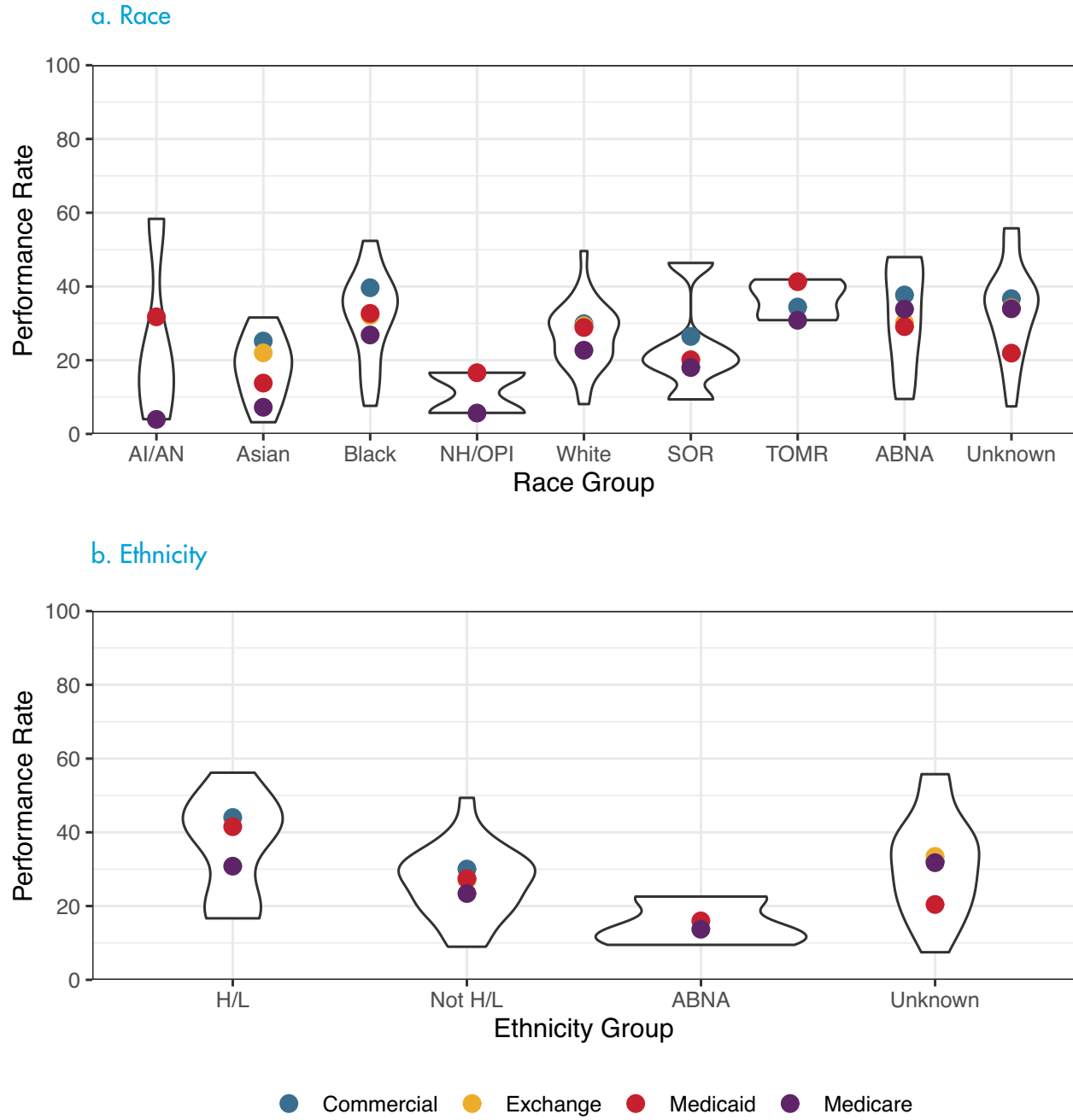
Dots represent mean rate by product line.

Timeliness of Prenatal Care & Postpartum Care (PPC)

PPC saw the lowest ability to report of any measure, so performance trends should be interpreted with caution. Outcomes on this measure vary by product line and group, though of those racial groups with the smallest dispersion, White members tend to experience the best outcomes on both prenatal and postpartum care. Outcomes for Hispanic/ Latino and non-Hispanic/Latino members appear to be similar, though also with a wide range of performance.

Figure 11. Performance Distribution, Timeliness of Prenatal Care

a. Race

b. Ethnicity
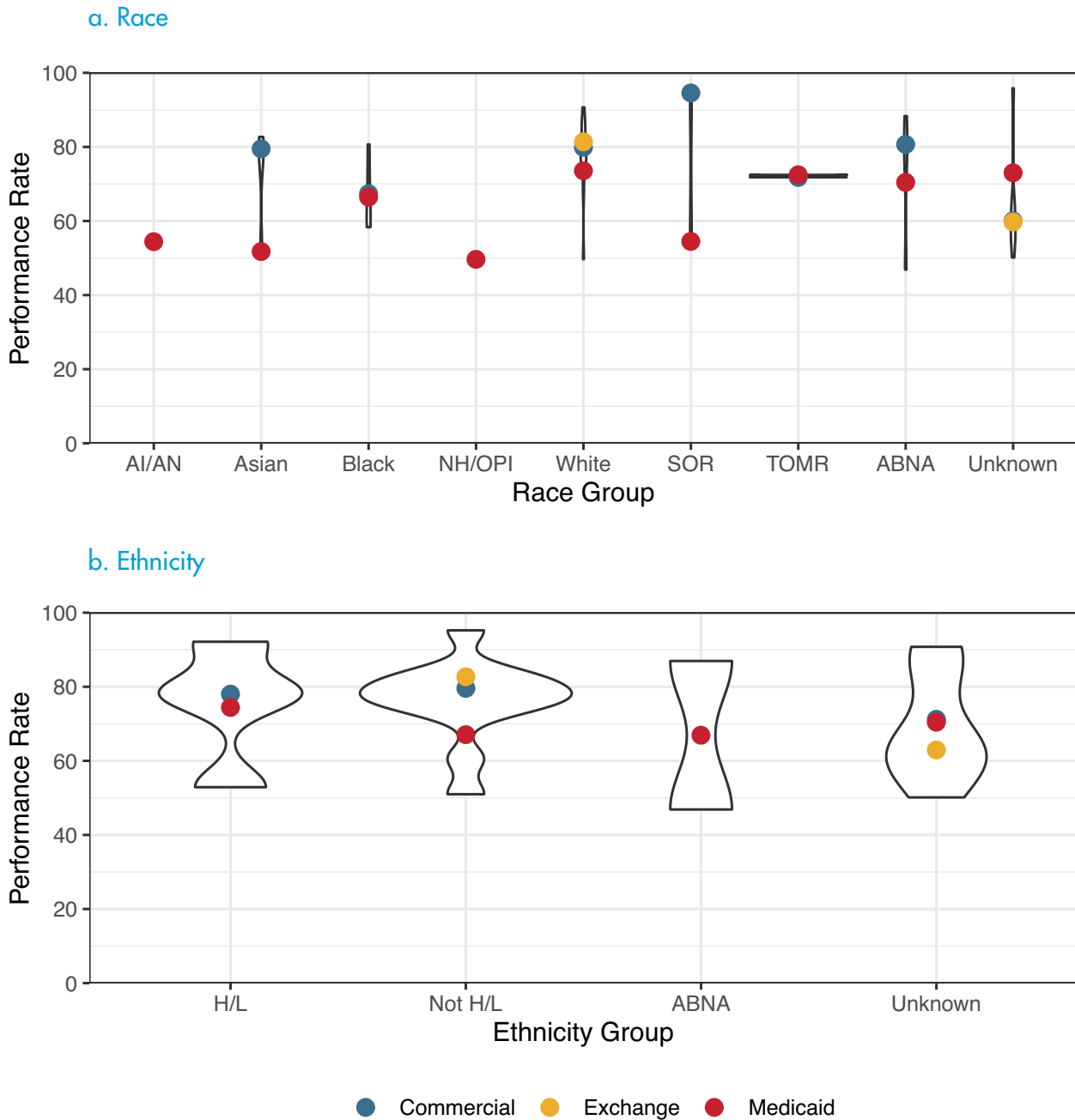
Dots represent mean rate by product line.

Figure 12. Performance Distribution, Timeliness of Postpartum Care

a. Race

b. Ethnicity
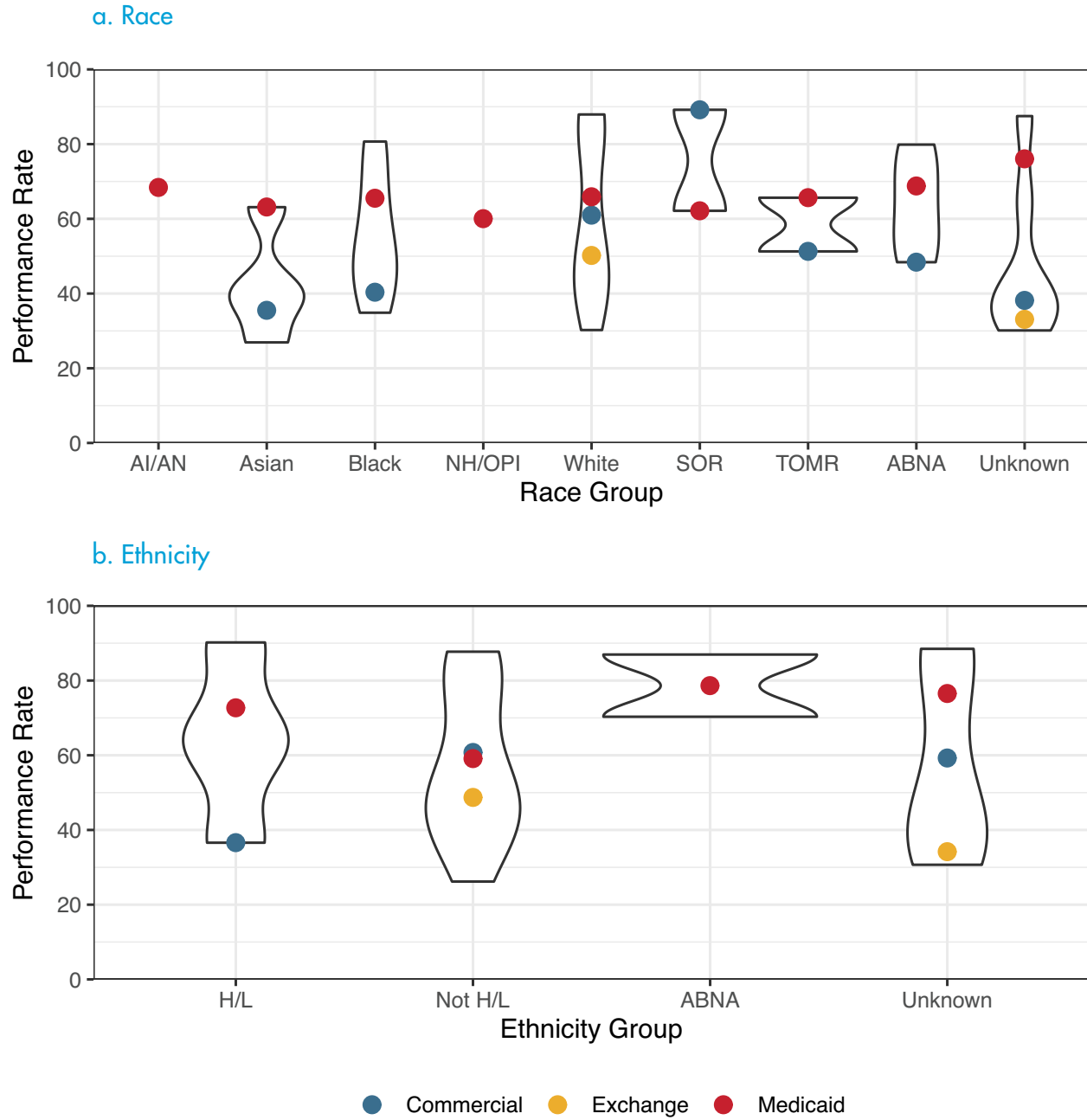
Dots represent mean rate by product line.

Child and Adolescent Well-Care Visits (WCV)

Several groups tend to experience relatively high rates of well-care visits (Asian, White, Some Other Race, Two or More Races). Black and American Indian/Alaska Native members experience rates slightly behind these groups (and similar to each other), and Native Hawaiian/Other Pacific Islander members experience some of the lowest rates. Hispanic/Latino and Non-Hispanic/Latino members have similar experiences overall, though the rates for Hispanic/Latino members are less spread out than for Non-Hispanic/Latino members.

Figure 13. Performance Distribution, Child and Adolescent Well-Care Visits

a. Race

b. Ethnicity
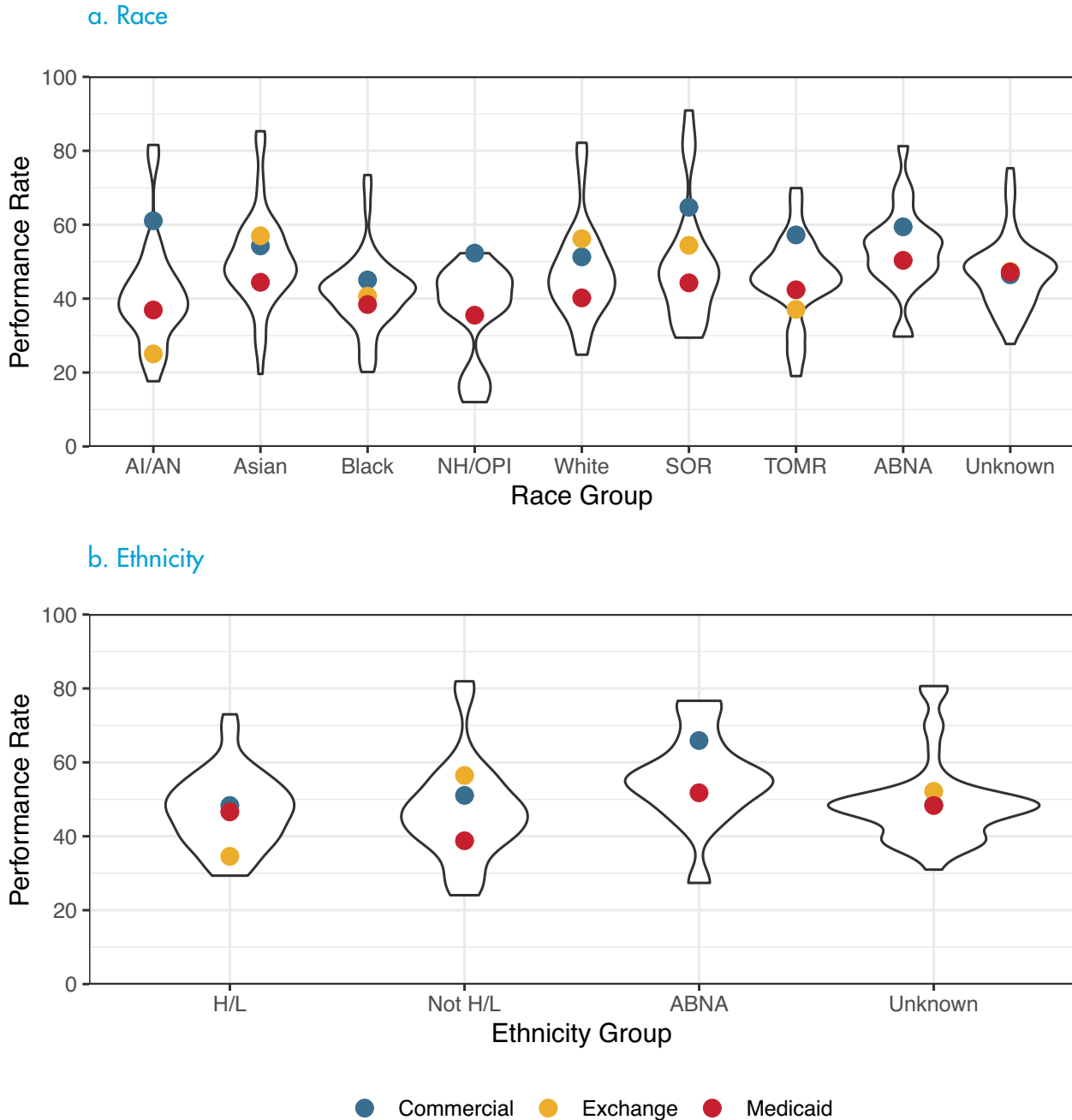
Dots represent mean rate by product line.

╋LEVERAGING STRATIFIED DATA FOR QUALITY IMPROVEMENT

After identifying gaps in quality, the next step is determining how to use the findings to reduce disparities. Learning Network participants shared challenges to influencing equity targets, and opportunities to address those challenges. Challenges included small sample sizes (and drawing valid inferences from disparities observed in small populations), equipping health plan staff with the resources necessary to effect meaningful change and maintaining trust with members and stakeholders that view reported results. In tackling these areas, organizations have begun to pave unique ways to address the needs of their member populations.

◣Performance Reporting

Although not all plans in the Learning Network have begun using race/ethnicity data to inform specific QI efforts, all have started to report on the information for internal and/or external purposes. As part of internal business operations, they share results with a broad range of staff, including providers, enterprise leadership, senior management, administrators, utilization management staff, QI teams and business intelligence representatives. Externally, plans share results with state and federal agencies, CMS, NCQA and, in some cases, accountable health model partners. One participant has begun reporting on these data through its public website. A few noted that they also share these data with third-party vendors used by partners (e.g., Federally Qualified Health Centers, county health departments), which may then use the information to conduct their own analysis of disparities.

Despite the broad set of use cases, participants stressed that reporting on race/ethnicity data can be difficult. For instance, participants responsible for rural populations shared that they often return small denominators when applying the stratification to certain racial and ethnic groups (e.g., American Indian), and questioned how to draw meaningful conclusions for small populations. Several stated that they partner with disparity-focused statisticians to understand the utility of combining smaller groups for reporting, when possible, but that categories may be combined for reporting only when the recipient of the results allows it, so flexibility in how data are displayed on reporting interfaces is important. Refer to Table 10 in *Status of Race/Ethnicity Data Collection and Management*.

Health plans should consider investing resources in understanding the feasibility of combining race/ ethnicity categories for reporting, and create a process to allow reporting cases involving combined or separate categories. Participants stressed that small numbers do not mean that disparities in smaller populations should not be addressed; plans should invest resources in reducing disparities for smaller groups even if data are not reportable. Participants cautioned that careful consideration should be given to collapsing "Other" with other smaller populations, and the impact of QI efforts on community members. For example, one participant noted community concerns about how data were presented or collapsed, and whether labeling data as "Other" undermined inequities in the Black community due to the lack of statistical significance. As a result, the plan changed its approach toward presenting the data, regardless of statistical significance.

Learning Network participants reiterated the importance of prioritizing collection of complete data, and shared that reporting is challenging if a significant portion of data is marked Unknown. One plan noted the difficulties of targeting initiatives when the largest denominator represented is Race–Unknown. Another shared that some external bodies do not request reporting results because of the expectation of a high proportion of Unknowns. Refer to Data Source Prioritization.

Plans underscored the importance of building and maintaining trust, both with stakeholders that will use performance data to act and with members whose data are reflected in analyses. Some participants noted that explaining specific equity-driven data goals to members can be useful in building transparency—emphasizing to members that race/ ethnicity responses will not be used to determine eligibility for services or treatment, but instead will help create

initiatives to reduce gaps in treatment and outcomes.

It is important to ensure that resources are available to support staff who have direct contact with members. This may require developing training materials to educate staff on how to speak with members about equity and the use of equity-driven data. One Learning Network participant mentioned that it provides motivational interview training to make staff comfortable with having these discussions with members. It may be helpful to notify members that they can view results, as well; for example, on the plan's dashboard or in a member newsletter. This shows that the plan is transparent about its findings and goals.

Another participant emphasized the importance of training staff (and retraining, if necessary) on how to use race/ethnicity data, including educating data recipients about the meaning and interpretation of the information. Educating staff on working with race/ethnicity data provides greater knowledge and deeper understanding of goals.

◤ Success Stories: Using Race/Ethnicity Data for Quality Improvement

Many Learning Network participants have begun using race/ethnicity data findings to create or adjust initiatives to reduce disparities based on identified gaps. Some are strategizing how the data can inform QI efforts; others have seen long-term effects of using results to transform responses to gaps in equity. Key themes and examples of QI efforts are outlined below.

Conduct targeted member outreach

Some plans that are newer at leveraging race and ethnicity use the data to inform targeted outreach campaigns, with a focus on increasing uptake of services. One participant used race/ethnicity data to evaluate COVID-19 vaccination rates and found that Black members had significantly lower rates than all other racial/ethnic populations. It used this information to partner with community health workers to conduct outreach at community centers serving Black members, to provide education and resources on the importance of vaccination. Within 3 months of initiating outreach, the vaccination gap showed evidence of closing, and COVID immunization rates among Black members rose from 48.7% to 54.8%.

Evaluate intersection of racial/ethnic and geographic, language disparities

Some plans have begun recognizing the power of examining race/ethnicity data with other data. One participant began leveraging stratified quality measure data to evaluate the intersection of racial/ethnic and geographic disparities in the regions where it operates. By applying stratification to the HEDIS Asthma Medication Ratio measure, it identified groups in specific geographic areas where asthma medication disparities exist. The plan intends to use this information to increase delivery of resources (e.g., staff, outreach efforts) to certain groups or clinics where disparities are greatest.

Some plans are investigating how race and ethnicity might intersect with other equity domains. One participant recently began to collect and link member-preferred language with race/ethnicity data and measure performance data. This gave it a better understanding of how race, ethnicity and language can be considered when developing equity initiatives. Since building race/ethnicity and language collection into QI processes, the plan has identified disparities across a variety of measures. In particular, it saw that Spanish speaking members had significantly lower Breast Cancer Screening rates than other groups. Consequently, staff developed health education materials in Spanish and increased the number of Spanish-speaking staff in plan facilities, to educate members on the importance of undergoing breast cancer screening.

Connect with partner organizations

One plan has connected with other companies, such as the National Healthy Start Association, to learn how to form meaningful community connections and focus on key needs from the health plan perspective. Another plan presents data findings at public community meetings, where members provide suggestions on which clinical areas should be prioritized. The plan adjusted how it channels resources to address needs and align with community requests. One plan hired engagement specialists for Native American patients and developed partnerships with resource centers focused on Indigenous women, to help members find needed resources when gaps are identified.

Link to regional public health efforts

One participant incorporates race/ethnicity data into performance improvement projects led jointly with county-level health entities. The plan and county set target metrics that focus on improving care for specific groups. Using race/ethnicity data to visualize specific access pain points, they found that rural and Hispanic members tend to have greater disparities than other groups. With this knowledge, the plan and county organizations are working on innovative ways to tailor interventions toward disadvantaged groups.

Each of these participants highlighted the need to ensure that staff engage with the community in ways that are culturally responsive, noting that staff at all levels support community connections by recognizing the need for external partnerships. Plans stressed the importance of creating avenues for staff to engage with communities so members have an active voice in shaping equity-focused QI efforts.

▶ Assumptions About and Challenges to Using Race/Ethnicity Data for Quality Improvement

Several Learning Network participants face data assumptions and challenges in QI efforts. Some explained how relying on race/ethnicity data to shape initiatives can prove or disprove assumptions about a segment of the member population. Prior to leveraging race/ethnicity data, one plan's staff assumed that Latino members generally received lower-quality care than other groups. Stratified data revealed, however, that other groups have relatively lower scores, on average. Thus, the plan gained a better understanding of where to route resources and QI efforts to reduce disparities. The plan emphasized how "leaning into" the data can clarify where resources should be invested to disseminate interventions. Similarly, another plan corrected its initial assumptions about which groups were most underserved, particularly for breast cancer screenings, and opened mammography clinics in areas where historically marginalized groups experienced low screening rates. While these breakthroughs are relatively new, they show that the race/ethnicity data can improve visions into unmet needs.

A few Learning Network participants have not yet used race/ethnicity data to shape specific initiatives; they are deciding which measures are the most critical to focus on for monitoring disparities. For some, this means collaborating with accountable health partners and quality outcomes committees. For others, it means instigating community collaborations, from partnering with community connectors and social services organizations to creating member advisory councils.

Although assumptions and challenges exist, plans can find ways to adapt. At any point in a plan's journey to use race/ethnicity data, targeted member outreach, understanding how race/ethnicity data can be used with other factors (such as geography) and working with community and public health stakeholders can highlight member needs and have an important impact.

> **Best Practices for Leveraging Stratified Data for Quality Improvement:**
>
> 1. Consider how to use and report on data when sample sizes are small. Where possible, leverage category flexibility (e.g., combine the smallest categories) to creatively evaluate performance and make data more actionable.
>
> 2. Develop processes that allow flexibility of reporting race and ethnicity for different audiences. This might mean reporting race and ethnicity values reflecting higher-level categories (e.g., OMB standard) and more granular categories.
>
> 3. Consider opportunities to collaborate with external partners in the community, such as accountable health partners, county organizations, community health entities and member committees. Soliciting input from external voices can ensure a focus on the most critical community needs.
>
> 4. Leverage opportunities to build and maintain trust with members, and with all stakeholders that might view results. Ensure that staff have the resources to appropriately present the importance of the data and how results inform quality improvement efforts.

Insights from Learning Network Data

As the examples indicate, one reason to collect performance data stratified by race and ethnicity is to compare performance outcomes between groups. Doing so systematically requires selecting a reference group. Insights from Learning Network participants did not reveal consensus on a standard approach. An evaluation of the literature shows two primary options: disparities centered and equity centered.[9] A disparities-centered approach acknowledges that racist systems and structures exist, and seeks to close the gaps created through centering White/Non-Hispanic persons. This approach uses White and Non-Hispanic persons as reference groups. An equity-centered approach seeks to decenter White colonial perspectives and hold everyone to the highest standards; it uses the category experiencing the highest overall performance outcomes as the reference group.

This report uses a modified equity-centered approach, with the group experiencing the highest performance rate as the reference group, as long as the total sample size was at least 30. Average performance is calculated for each group and then compared to the reference group in terms of absolute (the mean for the reference group minus the mean for the group in question) and relative (the percentage change between reference and comparator values) differences.

Appendix D includes complete results for each measure by product line. Overall, we found that Asian members most often met criteria for being the reference group (highest performance, combined sample size of at least 30), followed by White members. Among groups with a sample size of at least 30, Black members experienced the lowest rates most frequently (on nearly all measures for commercial plans), followed by Native Hawaiian/Other Pacific Islander members (particularly for Medicaid and Medicare plans). Absolute differences between the reference group and the next best performing group were often no more than a few percentage points, but absolute differences between groups with the best and worst outcomes were often between 10 and 25 percentage points, and in one case as high as 40 percentage points (excluding comparisons with groups smaller than 30). Non-Hispanic/Latino members were more often the reference group on ethnicity (with the highest outcome). Only one-quarter of the scenarios show Hispanic/Latino members as the reference group, but the absolute difference was typically fewer than 10 percentage points between groups.

Table 13 draws on commercial and Medicaid plans for WCV, including the mean rate for each group, followed by

the absolute and relative differences between that group and the group experiencing the highest performance. The table shows that among Medicaid plans, Asian members experienced the best care (rate of 50.8%). The score for White members was over 6 percentage points lower (relative difference: 12.6%) and was just under 8 percentage points lower for Black members (relative difference: 15.2%). However, among commercial plans, members identified as Some Other Race experienced the highest performance outcome, with much wider gaps in both absolute and relative differences compared to other racial groups.

Table 13. Equity-Centered Differences in Child and Adolescent Well-Care Visits by Race and Product Line*

Commercial Plans					Medicaid Plans			
Group	Rate	Absolute	Relative		Group	Rate	Absolute	Relative
Asian	58.5	-12.4	-17.5		SOR	48.2	-2.6	-5.1
NH/OPI	55.9	-15.0	-21.2		TOMR	46.6	-4.2	-8.3
TOMR	55.8	-15.1	-21.3		White	44.4	-6.4	-12.6
White	54.4	-16.5	-23.3		Black	43.1	-7.7	-15.2
AI/AN	49.2	-21.8	-30.6		AI/AN	39.7	-11.1	-21.9
Black	43.3	-27.6	-38.9		NH/OPI	39.2	-11.6	-22.8
SOR (ref)	70.9	—	—		Asian (ref)	50.8	—	—

All groups had sample sizes of at least 30.

+ CONCLUSION

Learning Network participants demonstrated a variety of capabilities for using race/ethnicity data to inform QI initiatives; however, collecting and managing these data remain the focus. Given the evolving data environment and data sources, plans are still determining how best to achieve complete and accurate race/ethnicity data. This requires engaging a plan's departments, making strategic decisions about selecting and prioritizing data sources and developing a central location where data can be housed and accessed throughout the plan.

While some plans are in the early stages of understanding data to inform QI efforts, others have been doing this for several years, and have developed processes and initiatives that lead to meaningful impacts in addressing inequities. Although there is no single solution to the issue of inequitable health outcomes, stratified performance measures are a tool for evaluating and acting on disparities. Plans must understand their resources and continually strive to improve their processes for collecting, storing and leveraging race/ethnicity data to create initiatives that address gaps in care and outcomes.

Overall, data that plans provided on the first 5 stratified HEDIS measures gave insight into data completeness, measure reportability and performance trends. Across all product lines 1 in 4 race values and 1 in 5 ethnicity values were Unknown, on average in each measure—and some plans' data had even greater proportions of Unknown values. In terms of measure reportability, across all measures, plans were able to meet NCQA's minimum threshold of 30 members for Asian, Black and White groups, but were often unable to do so for other racial groups. While denominator achievement was relatively high for both Hispanic/Latino and Non-Hispanic/Latino members, Non-Hispanic/Latino members generally experienced higher performance rates. Ability to achieve minimum denominators across race/ethnicity groups also varied by measure: Fewer plans were able to meet the minimum thresholds on HBD, compared to CBP or COL.

This report highlights what works, and where organizations can focus efforts for continued improvement. NCQA hopes plans will use the findings to act on reducing disparities. This includes determining where best practices fit into workflows and creating new partnerships for effective action. While previous efforts led by NCQA focused primarily on collecting race/ethnicity data, this report provides some of the first insights into data management and use. NCQA believes this is an important step to building greater confidence in the data.

Regardless of where a plan is on its journey to use race/ethnicity data, there is always room for growth. Strategies shared by Learning Network participants, including examples of successfully leveraging the data to improve quality of care, show how empowered plans can overcome barriers to effect meaningful changes in their populations. The preliminary information on measure performance can guide them as they seek to evaluate their populations and decide where to focus on closing gaps, with the understanding that performance data *are not* formal benchmarks, and *should not* be interpreted as such.

NCQA plans to continue evaluating quality performance over time, for these and other measures, and will continue to share information as it becomes available, with the hope that future reports will highlight more successes in reducing inequities and achieving the goal of high-quality, equitable care for all.

Update: Report revised 05 May 2023 to clarify tables in Appendices C and D.

✛ ACKNOWLEDGMENTS

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+ APPENDICES

Appendix A: Count of Membership by Measure

Table A-1. Total Members Included by Measure and Product Line

Measure	Commercial	Exchange	Medicaid	Medicare	Total
CBP	552,694	34,595	380,187	186,836	1,154,312
COL	1,489,527	104,970	615,514	251,579	2,461,590
HBD	278,552	21,965	302,333	83,586	686,436
PPC	59,670	1,452	95,866	—	156,988
WCV	1,485,895	21,331	1,774,147	—	3,281,373

Table A-2. Total Members Included by Measure and Region

Measure	Central	Northeast	South	West
CBP	155,611	310,219	385,556	302,926
COL	342,660	679,168	838,754	601,008
HBD	105,035	155,819	194,192	231,390
PPC	30,005	28,737	47,172	51,074
WCV	433,107	797,105	626,308	1,424,853

Table A-3. Total Members Included by Measure and Race Category

Race	CBP	COL	COL-E	HBD	PPC	WCV
AI/AN	3,723	7,753	8,022	4,311	809	12,115
Asian	73,505	157,404	165,989	53,895	8,498	211,685
Black	150,899	242,434	246,751	90,601	20,697	251,308
NH/OPI	1,165	1,395	1,423	1,186	301	6,868
White	631,011	1,478,355	1,722,342	338,351	80,262	1,522,560
SOR	25,459	40,381	67,287	23,500	4,960	153,589
TOMR	23,544	45,543	45,482	21,529	4,714	104,545
ABNA	16,841	25,606	25,776	11,973	3,372	35,203
Unknown	228,165	462,719	484,032	141,090	33,375	983,500

Table A-4. Total Members Included by Measure and Ethnicity Category

Ethnicity	CBP	COL	COL-E	HBD	PPC	WCV
H/L	134,688	264,872	271,890	120,572	32,057	952,812
Not H/L	792,378	1,758,361	2,008,603	429,864	88,256	1,965,560
ABNA	12,814	18,855	19,680	9,236	2,683	15,345
Unknown	214,432	419,502	466,931	126,764	33,992	347,656

Appendix B: Missingness Distribution Tables

Table B-1. Distribution of Proportion Unknown Race

Measure	Mean	St Dev	Min	p5	p10	p25	p50	p75	p90	p95	Max
CBP	24.3	27.5	0	0.03	0.8	3.9	15.5	32.4	56.8	99.3	100.0
COL	25.2	28.2	0	0.2	1.2	4.1	19.0	32.8	62.7	99.7	100.0
HBD	25.9	27.2	0	0.01	1.1	4.9	18.2	38.4	58.2	99.5	100.0
PPC	21.4	18.9	0	0.0	0.1	7.5	14.4	33.8	46.2	53.4	98.2
WCV	29.2	23.9	0	0.0	3.7	7.7	27.5	47.5	57.3	63.6	99.6

Table B-2. Distribution of Proportion Unknown Ethnicity

Measure	Mean	St Dev	Min	p5	p10	p25	p50	p75	p90	p95	Max
CBP	22.8	32.8	0	0	0	1.4	4.2	41.4	83.6	94.6	100.0
COL	23.3	32.6	0	0	0	1.9	5.1	42.9	86.1	95.7	100.0
HBD	22.6	31.9	0	0	0	1.3	4.8	42.4	83.4	94.8	100.0
PPC	19.9	27.7	0	0	0	2.5	7.5	17.6	69.2	88.4	97.7
WCV	16.8	23.6	0	0	0	3.1	7.9	12.9	64.3	78.4	82.4

Appendix C: Performance Distribution Tables

Note: *N represents counts of contracts achieving sample size ≥30. All product lines are represented. Data reflect the hybrid collection method only.*

Table C-1: Rate Distribution by Race and Ethnicity for CBP

Category	Group	N	Mean	SD	Min	p25	p50	p75	Max
Ethnicity	H/L	15	63.5	8.2	52.4	57.2	60.9	69	81.8
	Not H/L	27	65.2	6.1	50.6	60.9	66.9	68.4	74.5
	ABNA	5	59.2	4.2	54.8	55	60	62.3	63.9
	Unknown	22	57.6	11.5	32.6	53.6	61.2	64.4	78.9
Race	AI/AN	4	58.2	14.3	44.2	46.8	56.2	69.5	75.9
	Asian	11	69.1	5.3	63.6	65.2	67.5	74	78.1
	Black	18	60.8	6.1	49.5	57.2	60	64.8	70.8
	NH/OPI	2	57.7	8.7	51.6	51.6	57.7	63.9	63.9
	White	26	67	5.1	50.3	65.4	67.9	69.6	74.8
	TOMR	4	59.8	3.1	56.5	57.2	60.1	62.4	62.5
	SOR	7	67.2	4.9	59.6	64.6	66.9	72.5	74.2
	ABNA	14	64.3	6.2	55	59.4	63	72	74
	Unknown	20	55.7	10.3	32.6	52.9	58.1	62.7	71.9

Table C-2: Rate Distribution by Race and Ethnicity for COL

Category	Group	N	Mean	SD	Min	p25	p50	p75	Max
Ethnicity	H/L	12	59.1	10.8	37.1	53.5	60	66.7	78.8
	Not H/L	22	67.9	10.1	37.5	62.6	69.3	76.4	82.2
	ABNA	3	71.6	11.5	62	62	68.5	84.4	84.4
	Unknown	20	58.9	10.1	46.8	48.4	59.5	68.5	75.9
Race	AI/AN	9	53.5	9.5	36.5	51.5	56.7	58.1	65.9
	Asian	9	66.7	10	50.7	60.1	65.6	70	82.2
	Black	12	63.1	12.9	33.7	56.7	64.4	68.9	84.2
	NH/OPI	1	56.5	NA	56.5	56.5	56.5	56.5	56.5
	White	22	68	9.8	38.2	61.7	68.5	76.4	81.7
	TOMR	5	61.2	11.4	49.2	53	60.9	64.4	78.4
	SOR	8	55.7	12.6	37	49.1	54.5	60.8	80
	ABNA	11	58	10.7	36.5	49.6	60.6	68.5	71.4
	Unknown	17	56.3	9.1	46.7	47.8	54.7	66	72.8

Table C-3: Rate Distribution by Race and Ethnicity for HBD (Adequate HbA1c Control)

Category	Group	N	Mean	SD	Min	p25	p50	p75	Max
Ethnicity	H/L	12	49.9	9.1	35.6	43.8	50.2	56.8	66.7
	Not H/L	25	59.6	11.2	33.2	57.8	61.4	66.8	75.4
	ABNA	3	53.5	15.4	41.7	41.7	47.9	71	71
	Unknown	21	55.4	14.1	23	50	55.2	66.8	82.4
Race	AI/AN	4	29.3	13.1	10	21.4	34.3	37.2	38.7
	Asian	9	65.8	11.2	45.7	62.8	67.3	71.4	79.8
	Black	15	52.7	8.3	38.7	46.9	53.7	59.8	68.6
	NH/OPI	2	27.2	2.1	25.7	25.7	27.2	28.7	28.7
	White	25	59.8	9.9	35.3	55	60.8	67.3	75.6
	TOMR	5	57.2	14.5	42.6	43.5	56.5	68.4	75
	SOR	5	55.7	5.9	49.4	50.7	55	61.7	61.9
	ABNA	13	53.5	8.4	41.7	47.5	51.2	58	70
	Unknown	20	52.4	12.1	23	47.8	53.5	59.6	68.8

Table C-4: Rate Distribution by Race and Ethnicity for HBD (Poor HbA1c Control)

Category	Group	N	Mean	SD	Min	p25	p50	Max
Ethnicity	H/L	12	36.6	13.6	16.7	21.9	41.1	56.2
	Not H/L	25	26.5	9.5	9	19.7	26.6	49.4
	ABNA	3	15.3	6.7	9.5	9.5	13.7	22.6
	Unknown	21	31.1	13.3	7.5	21.5	30.7	55.8
Race	AI/AN	4	24.9	23.6	4	9.3	18.5	58.3
	Asian	9	17.9	9.1	3.2	11.4	18.4	31.6
	Black	15	32.1	12.2	7.6	24.5	32.6	52.4
	NH/OPI	2	11.2	7.7	5.7	5.7	11.2	16.6
	White	25	26.9	8.8	8.1	20.5	29.3	49.6
	TOMR	5	23.5	13.8	9.4	18	20.1	46.4
	SOR	5	36.5	5.1	30.9	31.4	37.5	41.9
	ABNA	13	32.3	13.7	9.5	25.7	30.2	48
	Unknown	20	33.5	12.6	7.5	24.6	35.4	55.8

Table C-5: Rate Distribution by Race and Ethnicity for PPC (Timeliness of Prenatal Care)

Category	Group	N	Mean	SD	Min	p25	p50	p75	Max
Ethnicity	H/L	4	75.3	16.4	52.9	65.5	78.2	85.2	92.2
	Not H/L	12	76.2	11.3	51	73.9	77.9	82.5	95.2
	ABNA	2	66.9	28.3	46.9	46.9	66.9	87	87
	Unknown	9	69.2	14.6	50.1	61.4	63.6	82.9	90.8
Race	AI/AN	1	54.4	—	54.4	54.4	54.4	54.4	54.4
	Asian	4	72.6	14.1	51.8	64.1	77.9	81.1	82.7
	Black	5	66.8	9.3	58.3	60.3	63.2	71.6	80.7
	NH/OPI	1	49.6	—	49.6	49.6	49.6	49.6	49.6
	White	13	77.8	10.3	49.7	77	77.8	84.4	90.7
	TOMR	2	74.6	28.3	54.5	54.5	74.6	94.6	94.6
	SOR	2	72.1	0.5	71.8	71.8	72.1	72.4	72.4
	ABNA	4	73	18.1	46.9	61.5	78.4	84.5	88.3
	Unknown	7	63.6	15.1	50.1	55.6	58.6	65	95.8

Table C-6: Rate Distribution by Race and Ethnicity for PPC (Postpartum Care)

Category	Group	N	Mean	SD	Min	p25	p50	p75	Max
Ethnicity	H/L	4	63.7	22.1	36.6	48.6	64	78.8	90.2
	Not H/L	12	57.2	20.6	26.2	40.9	51	77.5	87.7
	ABNA	2	78.6	11.8	70.3	70.3	78.6	87	87
	Unknown	9	57.5	24.6	30.7	37.7	44.9	87.2	88.5
Race	AI/AN	1	68.4	—	68.4	68.4	68.4	68.4	68.4
	Asian	4	42.4	15.1	26.9	32.8	39.8	52.1	63.1
	Black	5	55.5	17.8	34.9	45.9	50.8	65	80.7
	NH/OPI	1	60	—	60	60	60	60	60
	White	13	60.4	21.6	30.2	42.5	52.8	84.9	87.9
	TOMR	2	75.7	19.1	62.1	62.1	75.7	89.2	89.2
	SOR	2	58.5	10.2	51.3	51.3	58.5	65.6	65.6
	ABNA	4	63.7	14.1	48.4	52.3	63.3	75.1	79.9
	Unknown	7	47.5	20.9	30.1	34.2	40	64.6	87.5

Table C-7: Rate Distribution by Race and Ethnicity for WCV

Category	Group	N	Mean	SD	Min	p25	p50	p75	Max
Ethnicity	H/L	53	47	9.8	29.3	39.9	47.2	52.2	73
	Not H/L	60	46.7	12.8	24.1	39.2	45.7	52.7	81.9
	ABNA	15	55.5	12.3	27.4	48.7	55.1	62.9	76.7
	Unknown	49	49	11.1	31	41.3	47.9	50.4	80.6
Race	AI/AN	27	41	14.4	17.6	34.1	39.1	45.6	81.6
	Asian	53	50.6	12.7	19.6	44	49	57	85.3
	Black	53	41.7	10.2	20.2	36.5	42.2	45.6	73.4
	NH/OPI	13	36.8	12.8	12	36.7	38.4	45.5	52.3
	White	58	47.3	12.7	24.8	39.2	45.4	52.9	82.2
	TOMR	23	49.1	16.2	29.4	38.3	46.6	53.4	90.9
	SOR	30	45.5	11.3	19	42.4	45.9	51.1	69.9
	ABNA	23	53.1	11.5	29.7	48.3	54.1	57.3	81.2
	Unknown	57	46.8	9.5	27.7	40.9	47.2	50.6	75.3

Appendix D: Differences between Groups by Measure & Product Line

Note: *Findings represent population rates summed across plans. Race and ethnicity groups with a total sample size of <30 are marked with an asterisk (*).* Data on the Controlling High Blood Pressure (CBP), Colorectal Cancer Screening (COL), Hemoglobin A1c Control for Patients with Diabetes (HBD), and Prenatal and Postpartum Care (PPC) *reflect the hybrid collection method only.* Data on Child and Adolescent Well-Care Visits (WCV) *reflect the administrative data collection method.*

Table D-1: Equity-Centered Differences for CBP by Race

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
White	66.2	-0.3	-0.5	Asian	64.2	-0.6	-0.9
Asian	65.1	-1.4	-2.1	White	62.1	-2.7	-4.2
SOR	64.4	-2.1	-3.2	SOR	57.8	-7.0	-10.8
AI/AN	61.9	-4.6	-6.9	Black	53.7	-11.1	-17.1
Black	58.3	-8.2	-12.3	NH/OPI	52.3	-12.5	-19.3
NH/OPI *	64.7	-1.8	-2.7	AI/AN	50.2	-14.6	-22.5
TOMR (ref)	66.5	—	—	TOMR (ref)	64.8	—	—
	Exchange				Medicare		
Asian	73.2	-4.9	-6.3	TOMR	70.6	-1.0	-1.4
White	68.3	-9.8	-12.5	NH/OPI	68.1	-3.5	-4.9
Black	62.2	-15.9	-20.4	Black	67.5	-4.1	-5.7
NH/OPI *	66.7	-11.4	-14.6	Asian	66.9	-4.7	-6.6
SOR *	51.9	-26.2	-33.5	AI/AN	65.5	-6.1	-8.5
AI/AN *	33.3	-44.8	-57.4	SOR	62.7	-8.9	-12.4
TOMR (ref)	78.1	—	—	White (ref)	71.6	—	—

Table D-2: Equity-Centered Differences for CBP by Ethnicity

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
H/L	58.8	-7.0	-10.6	H/L	58.8	-2.1	-3.4
Not H/L (ref)	65.8	—	—	Not H/L (ref)	60.9	—	—
	Exchange				Medicare		
Not H/L	68.0	-3.9	-5.4	H/L	62.4	-8.7	-12.2
H/L (ref)	71.9	—	—	Not H/L (ref)	71.1	—	—

Table D-3: Equity-Centered Differences for COL by Race

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
White	62.1	-1.2	-1.9	Black	40.4	-3.1	-7.1
Black	57.5	-5.8	-9.2	TOMR	40.3	-3.2	-7.4
SOR	56.0	-7.3	-11.5	AI/AN	38.9	-4.6	-10.6
Asian	55.0	-8.3	-13.1	White (ref)	43.5		
TOMR	54.2	-9.1	-14.4	—	—	—	—
AI/AN	48.0	-15.3	-24.2	—	—	—	—
NH/OPI (ref)	63.3	—	—	—	—	—	—
	Exchange				Medicare		
White	63.3	-3.4	-5.1	White	73.2	-4.7	-6.0
Asian	62.4	-4.3	-6.4	Black	71.0	-6.9	-8.9
Black	60.9	-5.8	-8.7	TOMR	67.6	-10.3	-13.2
TOMR	56.5	-10.2	-15.3	SOR	64.7	-13.2	-16.9
NH/OPI *	55.6	-11.1	-16.6	AI/AN	60.6	-17.3	-22.2
AI/AN *	45.0	-21.7	-32.5	NH/OPI	57.4	-20.5	-26.3
SOR (ref)	66.7	—	—	Asian (ref)	77.9	—	—

Table D-4: Equity-Centered Differences for COL by Ethnicity

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
H/L	55.3	-6.6	-10.7	H/L	39.4	-3.4	-7.9
Not H/L (ref)	61.9	—	—	Not H/L (ref)	42.8	—	—
	Exchange				Medicare		
H/L	60.2	-3.0	-4.7	H/L	65.1	-8.0	-10.9
Not H/L (ref)	63.2	—	—	Not H/L (ref)	73.1	—	—

Table D-5: Equity-Centered Differences for HBD (Adequate HbA1c Control) by Race

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
TOMR	60.4	-7.1	-10.5	Asian	48.1	-2.0	-4.0
White	59.7	-7.8	-11.6	White	44.3	-5.8	-11.6
SOR	55.8	-11.7	-17.3	Black	43.6	-6.5	-13.0
AI/AN	53.3	-14.2	-21.0	SOR	42.6	-7.5	-15.0
Black	52.4	-15.1	-22.4	AI/AN	37.4	-12.7	-25.3
NH/OPI *	70.0	2.5	3.7	NH/OPI	29.9	-20.2	-40.3
Asian (ref)	67.5			TOMR (ref)	50.1		
	Exchange				Medicare		
White	61.4	-8.7	-12.4	White	63.4	-3.5	-5.2
Black	57.8	-12.3	-17.5	Asian	61.6	-5.3	-7.9
NH/OPI *	100	29.9	42.7	Black	60.7	-6.2	-9.3
TOMR *	63.0	-7.1	-10.1	SOR	57.3	-9.6	-14.3
SOR *	62.5	-7.6	-10.8	AI/AN	36.6	-30.3	-45.3
AI/AN *	50.0	-20.1	-28.7	NH/OPI	26.7	-40.2	-60.1
Asian (ref)	70.1	—	—	TOMR (ref)	66.9	—	—

Table D-6: Equity-Centered Differences for HBD (Adequate HbA1c Control) by Ethnicity

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
H/L	49.7	-9.8	-16.5	H/L	37.7	-6.9	-15.5
Not H/L (ref)	59.5	—	—	Not H/L (ref)	44.6	—	—
	Exchange				Medicare		
Not H/L	61.3	-7.0	-10.2	H/L	55.0	-7.7	-12.3
H/L (ref)	68.3	—	—	Not H/L (ref)	62.7	—	—

Table D-7: Equity-Centered Differences for HBD (Poor HbA1c Control) by Race

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
AI/AN	30.0	2.6	9.5	NH/OPI	16.2	6.2	62.0
White	31.8	4.4	16.1	SOR	20.1	10.1	101
TOMR	32.1	4.7	17.2	AI/AN	30.2	20.2	202
SOR	34.4	7.0	25.5	TOMR	40.4	30.4	304
Black	39.9	12.5	45.6	White	40.5	30.5	305
NH/OPI *	30.0	2.6	9.5	Black	44.4	34.4	344
Asian (ref)	27.4	—	—	Asian (ref)	10	—	—
	Exchange				Medicare		
White	28.9	8.3	40.3	SOR	17.8	10.4	140.5
Black	31.2	10.6	51.5	NH/OPI	20.0	12.6	170.3
NH/OPI *	0	-20.6	-100	AI/AN	22.3	14.9	201.4
TOMR *	22.2	1.6	7.8	White	26.5	19.1	258.1
SOR *	25.0	4.4	21.4	TOMR	27.5	20.1	271.6
AI/AN *	33.3	12.7	61.7	Black	31.7	24.3	328.4
Asian (ref)	20.6	—	—	Asian (ref)	7.4	—	—

Table D-8: Equity-Centered Differences for HBD (Poor HbA1c Control) by Ethnicity

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
H/L	39.5	7.3	22.7	Not H/L	40.8	7.5	22.5
Not H/L (ref)	32.2			H/L (ref)	33.3		
	Exchange				Medicare		
Not H/L	29.3	6.0	25.8	H/L	32.0	5.4	20.3
H/L (ref)	23.3	—	—	Not H/L (ref)	26.6	—	—

Table D-9: Equity-Centered Differences for PPC (Timeliness of Prenatal Care) by Race

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
White	79.8	-2.6	-3.2	White	70.2	-1.3	-1.8
Asian	79.6	-2.8	-3.4	Black	61.3	-10.2	-14.3
TOMR	71.4	-11.0	-13.3	Asian	59.1	-12.4	-17.3
Black	67.2	-15.2	-18.4	AI/AN	57.6	-13.9	-19.4
NH/OPI *	71.4	-11.0	-13.3	SOR	54.5	-17.0	-23.8
AI/AN *	66.7	-15.7	-19.1	NH/OPI	49.6	-21.9	-30.6
SOR (ref)	82.4	—	—	TOMR (ref)	71.5	—	—

Group	Exchange		
SOR *	100	19.9	24.8
Black *	85.7	5.6	7.0
Asian *	79.3	-0.8	-1.0
TOMR *	66.7	-13.4	-16.7
AI/AN *	50.0	-30.1	-37.6
White (ref)	80.1	—	—

Table D-10: Equity-Centered Differences for PPC (Timeliness of Prenatal Care) by Ethnicity

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
Not H/L	79.0	-1.4	-1.7	H/L	63.3	-5.4	-7.9
H/L (ref)	80.4	—	—	Not H/L (ref)	68.7	—	—

Group	Exchange		
H/L *	70.0	-10.9	-13.5
Not H/L (ref)	80.9	—	—

Table D-11: Equity-Centered Differences for PPC (Postpartum Care) by Race

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
TOMR	55.4	-10.3	-15.7	TOMR	65.3	-2.0	-3.0
Asian	47.2	-18.5	-28.2	SOR	62.1	-5.2	-7.7
White	47.1	-18.6	-28.3	AI/AN	62.0	-5.3	-7.9
Black	40.9	-24.8	-37.7	NH/OPI	60.0	-7.3	-10.8
NH/OPI *	14.3	-51.4	-78.2	Black	55.8	-11.5	-17.1
AI/AN *	0	-65.7	-100	White	55.5	-11.8	-17.5
SOR (ref)	65.7	—	—	Asian (ref)	67.3	—	—

Group	Exchange		
SOR *	80	31.9	66.3
TOMR *	66.7	18.6	38.7
Black *	61.9	13.8	28.7
AI/AN *	50	1.9	4
Asian *	34.5	-13.6	-28.3
White (ref)	48.1	—	—

Table D-12: Equity-Centered Differences for PPC (Postpartum Care) by Ethnicity

Group	Commercial			Group	Medicaid		
	Rate	Absolute	Relative		Rate	Absolute	Relative
Not H/L	46.7	-8.2	-14.9	Not H/L	55.0	-11.2	-16.9
H/L (ref)	54.9	—	—	H/L (ref)	66.2	—	—

Group	Exchange		
H/L *	80.0	34.0	73.9
Not H/L (ref)	46.0	—	—

Table D-13: Equity-Centered Differences for WCV by Race

Group	Commercial				Group	Medicaid		
	Rate	Absolute	Relative			Rate	Absolute	Relative
Asian	58.5	-12.4	-17.5		SOR	48.2	-2.6	-5.1
NH/OPI	55.9	-15.0	-21.2		TOMR	46.6	-4.2	-8.3
TOMR	55.8	-15.1	-21.3		White	44.4	-6.4	-12.6
White	54.4	-16.5	-23.3		Black	43.1	-7.7	-15.2
AI/AN	49.2	-21.7	-30.6		AI/AN	39.7	-11.1	-21.9
Black	43.3	-27.6	-38.9		NH/OPI	39.2	-11.6	-22.8
SOR (ref)	70.9	—	—		Asian (ref)	50.8	—	—
	Exchange							
Black	42.7	-5.6	-11.6					
Asian	42.6	-5.7	-11.8					
SOR	40.0	-8.3	-17.2					
AI/AN	37.7	-10.6	-21.9					
TOMR	37.0	-11.3	-23.3					
NH/OPI *	14.3	-34.0	-70.4					
White (ref)	48.3	—	—					

Table D-14: Equity-Centered Differences for WCV by Ethnicity

Group	Commercial				Group	Medicaid		
	Rate	Absolute	Relative			Rate	Absolute	Relative
H/L	47.2	-6.7	-12.4		Not H/L	45.0	-5.5	-10.9
Not H/L (ref)	53.9				H/L (ref)	50.5	—	—
	Exchange							
H/L	34.8	-14.5	-29.4					
Not H/L (ref)	49.3	—	—					