

Using Data to Reduce Disparities and Improve Quality



Unless specifically measured, disparities in health and health care can go unnoticed even as providers, health plans, and governmental organizations (hereafter referred to as health care organizations) seek to improve care.¹ Stratifying quality data by member race, ethnicity, and language and other demographic variables such as age, sex, health literacy, sexual orientation, gender identity, socio-economic status, and geography is an important tool for uncovering and responding to health care disparities.

Using stratified quality data strategically allows healthcare organizations to:

1. **Discover and prioritize differences in care, outcomes, and/or experience across member groups**
2. **Plan equity-focused quality improvement efforts and measure their impact**
3. **Tell (and revise) the story of how members are experiencing health care**

This brief recommends strategies that health care organizations can use to effectively organize and interpret stratified quality data to improve health equity for their members. It is intended for health care organizations that already have quality data stratified by one or more demographic variables. This document does not discuss collecting or stratifying data, as there are other resources available elsewhere. Organizations who are engaged in quality improvement efforts can use data-driven strategies to identify and reduce disparities in their care delivery and health outcomes.

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Advancing Health Equity: Leading Care, Payment, and Systems Transformation

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Using Data to Discover and Prioritize Health and Health Care Disparities

To reduce disparities across member groups, health care organizations must first understand where disparities exist, the magnitude of the disparities, and why these disparities are occurring within their member population. Examining disparities allows organizations to understand differences in how members experience care and improve care processes to ensure appropriate care for all members. Organizations may have pre-existing ideas of how conditions vary in specific member populations based on observations and anecdotal evidence. However, health care organization employees often underestimate the magnitude of disparities in their own member panels, and they may not be aware of the barriers members face during the course of usual care. Health care providers may also have bias, this is another area to explore, and recognition and strategies to address inherent bias are also necessary. Additionally, disparities may exist in different groups or conditions than expected. Closely examining stratified quality and health outcome data is the most reliable way to reveal the type and magnitude of a disparity and thus either verify “hunches” or re-direct the organization’s focus.

Moreover, it may be necessary to develop a strategy to receive data from non-traditional sources (WIC, County Health Department, SNAP benefits) as well. Many services may be delivered through these entities, and valuable data can be overlooked without a sound strategy for capture. **Agree with the entity in advance of program implementation, so the data received is in a usable format for comparative analysis.** The non-traditional provider may not have the capability to provide claims or encounters that can be easily utilized for data capture. However, Medicaid MCOs can help facilitate that data are received in a usable format for comparative analysis.

Medicaid MCOs can consider:

- Providing a resource at the site that can provide coding/billing assistance
- Accept paper encounters and pay the cost of converting to electronic data suitable for capture.
- Accept rosters with identifiable member data that can be loaded into the Medicaid MCOs claims system.

For example, one practice participating in the [Aligning Forces for Quality \(AF4Q\) Equity Improvement Initiative](#)¹ knew anecdotally that they had a very diverse Black member population. They were also aware that some of these members from immigrant communities might need some additional support in navigating care due to their refugee status and low English literacy. However, without a systematic understanding of need, it was difficult to decide where and how to provide additional support. The practice used its Race, Ethnicity, Language (R/E/L)—stratified quality data to identify subgroups based on language and identified a disparity in diabetes outcomes for their Somali immigrant members. They created an intervention targeted to these members, and they periodically revisit their R/E/L-stratified data to monitor progress.

Health care organizations should stratify quality measures that reflect their organizational priorities and that would be most sensitive to disparities. These can include measures of access and care delivery (e.g., missed appointments or immunization rates), clinical outcomes, satisfaction, cost, or others. Because managing data can be time and resource intensive, organizations can reduce this burden by choosing measures that overlap with quality improvement work they are already pursuing (e.g., member-centered medical home certification) or required federal, state, or health plan reporting. Preferably, data also should be easy to collect or readily available through sources such as registries, electronic health records, medical charts, health plan/payor or state data files. Organizations may also want to prioritize domains of care expected to differ the most across demographic groups.

Sexual Orientation and Gender Identity Data:

1. [Guidelines and Tips for Collecting Patient data on sexual orientation and gender identity](#)
2. [Sexual and Gender Minorities: Opportunities for Medicaid Health Plans and Clinicians](#)

Race, Ethnicity, and Language Data:

3. [HRET Disparities Toolkit](#)
4. [AF4Q Race, Ethnicity, and Language \(R/E/L\) Training](#)

The National Quality Forum offers some principles for identifying these “disparities-sensitive” measures:^{ii, iii}

- **Prevalence:** How prevalent is the disease or condition (targeted by the quality measure) in the disparate population?
- **Impact of the condition:** What is the impact of the condition on the health of the disparate population relative to other conditions (e.g., mortality, quality of life, years of life lost, disability, stigma)?
- **Impact of the quality process:** How strong is the evidence linking improvement in the chosen measure and improvement in outcomes? (See also Appendix A for resources regarding disparities-specific performance measures)

¹ Aligning Forces for Quality (AF4Q) is the Robert Wood Johnson Foundation’s signature effort to lift the overall quality of health care in targeted communities, as well as reduce racial and ethnic disparities and provide real models for national reform. The Foundation’s commitment to improve health care in 16 AF4Q communities is the largest effort of its kind ever undertaken by a U.S. philanthropy. AF4Q asks the people who get care, give care and pay for care to work together to improve the quality and value of care delivered locally. The Center for Health Care Quality in the Department of Health Policy at George Washington University School of Public Health and Health Services serves as the national program office. Learn more about AF4Q at www.forces4quality.org. Learn more about RWJF’s efforts to improve quality and equality of care at www.rwjf.org/quality-equality/af4q/.

- **Quality gap:** How large is the gap in quality between the disparate population and the group with the highest quality for that measure?
- **Communication and Subjective Judgements:** Does the process for achieving the outcome depend heavily on member communication/outreach or subjective assessments of clinical conditions or decisions such as assessing pain or a member's potential for optimal adherence to treatment recommendations? SDOH variables should be considered here as adherence to a regime may be dependent on factors outside the simple will of the member to be compliant.

Choosing Strategic Comparisons to Identify Disparities

Correctly identifying disparities requires a two-step process:

1. Identifying how a chosen quality measure is distributed within each demographic group (rather than how the measure is distributed across the whole population);
2. Comparing the distribution in one group against the distribution in another²

Looking at the distribution within each group answers the question: "What is happening within each group?" Comparing across groups answers the question: "How is quality within one group different from quality in another group?" Health care organizations should use the group that is doing the best as a point of comparison, since the highest-performing group indicates what is currently possible in that health care organization. Often, the majority population shows the best overall outcomes, which is why there is a tendency to choose the majority population as a benchmark. Other options for comparison include two minority groups or the all-member average. The end goal is to bring all members up to the same level of good care by identifying meaningful differences. Meaningful differences are often identified through statistical analysis, but organizations do not need to do rigorous statistical analyses to identify meaningful differences. Instead, organizations can identify measurable differences by benchmarking current data against historical data from within their own organization or against comparison data from other organizations.

Recommendation

When possible, stratify measures by demographic data *other than* race, ethnicity, or language to further uncover disparities. Consider insurance status, zip code, income, age, health literacy, gender, sexual orientation, and other determinants of health for identifying disparities.

- **Historical data:** For example, what was it like a year ago for the same group of members? Historical data are relatively easy to collect within an organization, though they may be less appropriate for conditions likely to improve over time regardless of intervention. This historical data can also serve as a control group post intervention, with the non-participating cohort serving as the control. The non-participating cohort is typically those offered the intervention who declined participation.
- **National or local data:** For example, regional quality reports, community needs assessments, and quality data from parent organizations or health plans. External data, show the priorities and performance of other peer health care organizations. They also can indicate whether the quality for an organization's highest-performing members is on par with the quality that generally occurs outside of that organization. National datasets such as U.S. Census, Behavioral Risk Factor Surveillance System (BRFSS), or RWFJ's Country Health Rankings can further provide context to national and state trends and social determinant of health data.

In addition to using appropriate benchmarks to find meaningful differences, organizations may need to examine multiple measures. **Using multiple measures allows organizations to identify disparities and their causes in a way that may not be apparent in a single measure.** For example, an outcome measure may show that an increasing number of members with diabetes are being seen in the emergency room for diabetes-related complications. A process of care measure could reveal that few members with diabetes are being checked for their blood glucose levels. Using these two measures together would give an organization more information about why disparities are occurring than if the organization examined only the single outcome measure.

² (See Appendix B for a step-by-step visual discussion of data comparisons, including how to choose appropriate denominators.)

Additionally, trends in quality among groups can vary across different measures. An organization's African American population could be receiving higher rates of diabetes care but lag behind other populations for rates of cancer screening. Or within the same condition, an organization's Asian population may be screened more often but still experience poorer clinical outcomes than other member groups. **Organizations may need to examine an issue from several angles to identify the root causes of disparities and areas for improvement.**

Using Data to Identify Causes of Disparities and Intervention Opportunities

After using stratified data to identify disparities in care or outcomes, organizations should then determine the causes of the identified disparities and design appropriate interventions and processes in response. While quantitative data are vital to identifying and eliminating disparities, they do not tell the full story. **To get the full story, the quantitative data should be shared with members, community members, and staff via focus groups, surveys, and interviews to collect qualitative insights.** Qualitative data lend a personal voice to the trends in quantitative data and help pinpoint causes of disparities that may not be apparent in quantitative data alone and help guide the development and implementation of potential interventions.

The members and communities living with the identified disparities have critical insights into why disparities exist and therefore what might be the best way to address them. **Be sure members', care-givers, and community members' points of view are represented, either through an advisory panel or some other mechanism with a genuine and sincere desire to learn and incorporate their perspectives into understanding potential reasons for the disparities.** For example, stratified data may show low rates of HbA1C screening among Hispanic members but say little about how to respond. Member input could illuminate transportation difficulties, language barriers, a need for additional member education, or other barriers that the organization can help address. One practice in the AF4Q Equity Improvement Initiative learned that their diabetic members felt they needed more emotional coping support rather than simply additional education on their diabetes. Staff members have practical experience in how care is delivered. For example, staff could report trouble using an automated call system to make Spanish-language appointment reminders as another reason for low screening rates among Hispanic members. Such insight from either members or staff is not "quantifiable" but is necessary for organizations to address disparities.

Some organizations may feel reluctant or concerned about openly sharing their disparities data, fearing it will be perceived as a sign of failure. However, all organizations have disparities in health and health care. Looking for disparities in the data and taking action to reduce and eliminate them once they are discovered is instead a sign that the organization takes quality and health equity seriously. In many ways, actively identifying disparities in health and health care are signals to others, that the organization is not only on the leading edge of quality improvement, but also cares enough about all of the member populations it serves to ensure that they are all receiving high quality care.

Finally, qualitative data are especially useful for organizations where minority populations are small or for organizations with substantial diversity across several racial, ethnic, or language groups resulting in small sample sizes for a given measure. These organizations may find it more difficult to identify quantitative trends but can use qualitative data to respond meaningfully to all populations. Organizations also can look to qualitative data sources outside the organization to find further contextual clues about the causes of disparities. For example, community data can reveal local disease prevalence, common member behaviors in the community (e.g., substance use, smoking), and environmental risk factors in geographic locations where there is a high concentration of minority groups (e.g., availability of providers, food deserts, availability of safe walking spaces).

Thus, using both qualitative and quantitative data helps organizations choose interventions or process improvements that will make the best use of their resources to meaningfully impact disparities in care.

SOURCES OF COMMUNITY DATA	PRIMARY VALUE
Regional newspapers, neighborhood newsletters, public bulletin boards (in libraries, community centers) and culturally-specific news media	Identify local priorities and current events among minority communities
Digital storytelling archives or photo voice projects (often run by community-based organizations or public health campaigns)	Hear first-hand accounts of community needs (potential causes of disparities), particularly among more vulnerable populations
Meetings with local business leaders, cultural or religious figures, social services directors, school superintendents, consumer advocacy groups, and neighborhood coalition members	Promote equity efforts among diverse stakeholders, gain buy-in for future interventions, and access resources such as additional data or other kinds of data
Community needs assessments and health improvement plans, developed by local authorities for public health accreditation or regional planning efforts	Identify community priority issues that could affect your clinical data (e.g., the prevalence of disease, environmental hazards, and behavioral risk factors like smoking rates) Collaborate with public health entities that can help support and spread effective interventions
RWFJ's County Health Rankings https://www.countyhealthrankings.org/	View health behavior and social determinants of health data by county and state. Utilize tools, webinars, and learn from other communities
Community Catalyst https://www.communitycatalyst.org/resources/tools	Access a host of resources, tools, and policy briefs including: - Storybanking Online Tool - Payment Reform Toolkit - Medicaid ACO Checklist for SDOH

Planning Quality Improvement Efforts and Measuring Their Impact

As organizations are choosing a course for reducing disparities, they should establish a cohesive evaluation plan so that using data is an integral part of implementation rather than an afterthought. Such an approach ensures that organizations have the data they need to support claims about the intervention's impact and track implementation progress and challenges.

As organizations develop their strategic plans, there are key steps that they should begin early:

1. **Define goals for improvement and identify appropriate measures;**
2. **Develop a process for reviewing data over the course of the intervention, including gathering a baseline prior to implementing the intervention**

Defining Goals for Improvement and Tracking Appropriate Measures

As with any other quality improvement effort, organizations should define the degree of change they hope to see over time and define measures to track that improvement. Organizations should start with the measures they used to identify disparities in the first place but also should choose other measures that will reflect the intervention's impact and the care members are receiving. Three types of measures are useful for successfully evaluating data: process, outcome, and intervention tracking measures. Process and outcome measures show an impact on members (positive or negative) and are usually the measures organizations stratify to find disparities in the first place.

- **Intervention process measures** evaluate whether the intervention was successfully implemented as planned. **These are new measures specific to the intervention efforts and help organizations avoid wasting time or resources as they adopt new intervention approaches, with implications for staffing, cost, and future sustainability.** For example, an organization may track no-show rates or the number of calls it takes to reach a member in order to show the effort required for "successful" member contact. These data are usually specific to the quality improvement effort and generally come from work plans, staff assignment logs, or other project management tools. Intervention tracking measures can be measured as absolute numbers as well as rates. For

example, an organization that is instituting a new referral program might track the number of people referred (25 people) for resource allocation but also the rates of people referred (80 percent of eligible members) to show improvement over time. See below for a more detailed example.

- **Health Process measures refer to what is done to a member.** Ideally, organizations will use evidence-based process measures that have been demonstrated to improve member outcomes (e.g., administering a flu shot, using an angiotensin-converting enzyme inhibitor medication for a member with systolic heart failure, or eye screening for members with diabetes). Process measures tend to improve faster than outcome measures since they focus on one part of care rather than on the constellation of factors that influence clinical indicators.
- **Outcome measures refer to the actual results for the member.** These include clinical indicators such as blood pressure control in a member with hypertension or hemoglobin A1C as a marker of glucose control in a member with diabetes. Other outcome measures include results like the number of emergency department visits or hospitalizations and survey measures of member experience. Outcome measures can be disease specific or general.

HEALTH PRIORITY	INTERVENTION	EXAMPLE INTERVENTION PROCESS MEASURE
Hard-to-reach members with chronic health conditions were not being properly engaged leading to gaps in care, high utilization of preventable emergency department visits and hospitalizations, and low-quality outcomes	<ul style="list-style-type: none"> -The health plan implemented a community health worker program to target hard-to-reach members. -Established an automated review and analysis of member claims data to capture when a member visited a provider different from their PCP or ED. - Members were flagged based on analyses and followed-up with phone calls, targeted education, and referrals to resources to address high-risk and treatable conditions. -Staff also attended cultural competency training. 	<ul style="list-style-type: none"> -Number of members identified within claims data -Number of staff who attended cultural competency training -Number of members engaged and connected to their PCP. -Barriers to care documented in EHR -Number of providers engaged

For each type of measure, organizations can define goals in terms of:

1. **The same population before and after the intervention** (e.g., 10 percent increase in LDL screening rates),
2. **A comparison to another group** (e.g., equal rates between Hispanic/Latino members and Asian-American members), or
3. **A comparison to a benchmark outside of the organization** (e.g., 80 percent of the national rate for this measure).

A control group can demonstrate change in a compelling way, but a control group may not be feasible or acceptable. A control group could be all members offered participation and those that declined to participate compared to those who chose to participate. (For example, organizations may not wish to exclude members or have them wait to receive the “intervention” care.) In these cases, organizations often choose pre- and post-measurement to show improvement.

Measures can show:

- **Absolute improvement**—a measure improved by 80%.
- **Positive change in trends**—year-over-year emergency department visit rates declined compared to increases in the two years’ pre-intervention.
- **Flattening trends**—year-over-year emergency department visit rates stopped climbing compared to increases in the two years’ pre-intervention.

Each of these examples may be an appropriate goal depending on the inner-and outer-contexts of the organization and the disparity being addressed. Additionally, measuring individual clinics compared to their own baselines and not an aggregated measure across all clinics could be a way to adjust for different clinic contexts that should be taken into account when assessing progress (e.g., member acuity, payer mix, quality improvement infrastructure, significant differences in the status of social determinants of health impacting the member populations served by each clinic).

Developing a Process for Reviewing Data Over the Course of the Equity Intervention

Organizations should determine how often they will review data over the course of the intervention to monitor outcomes and adjust intervention processes as they learn what works and what does not. For example, organizations may measure baseline and then review every six months, quarterly, or monthly. Regularly reviewing data allows organizations to break goals into manageable pieces, ensure accountability among involved staff, and address feasibility challenges before they compromise the intervention.

Regularly reviewing data also ensures that an organization’s efforts are not creating or worsening disparities. Organizations can use several tools for regular data review, including standard quality improvement methodology (i.e., Plan-Do-Study-Act (PDSA) cycles) as well as project management tools (i.e., work plans, staff assignments, and timelines).

All organizations should regularly review data to adjust their intervention processes, and some organizations also may find it helpful to conduct “pilot testing” before the intervention begins. Pilot testing involves implementing change on a smaller scale before expanding the intervention in order to collect data that can suggest future changes. Future changes may include: 1) the scale of the intervention (e.g., more members or more practices), 2) the population or condition of focus, 3) the intervention itself, and 4) stakeholder involvement (who and how to engage). Organizations that lack the staff time or institutional resources to perform dedicated pilot testing should look for ways to improve their intervention efforts within the data they regularly review.

It is important to account for lags in data availability that will impact project timelines. For example, in a setting where it takes six months for data to be fully and accurately entered into a database, accessed, and analyzed the first quarter annual data (January through March) will not be available for review until October.

Telling the Story of How Members Experience Health Care

Organizations should not simply collect and monitor disparities data. As organizations work to reduce disparities, they can improve their success by also sharing the results of the intervention. Personal stories are a great way to generate buy-in—they are not solely based on data, but show the real impact on members individually. Asking staff to submit these stories will keep them more engaged in looking for signs of success. Sharing the results of equity efforts can encourage further action and highlight opportunities for improving implementation.

By sharing results within and outside of the organization, organizations can:

- Receive feedback and ideas for ways to improve equity efforts;
- Celebrate progress (including “quick wins”) in order to maintain momentum;
- Understand why results came out as they did;
- Empower the people and communities who received the intervention by highlighting their improved outcomes;
- Lay the groundwork for future partnerships and encourage action from people not previously involved (e.g., partnerships with additional health plans or community-based organizations); and
- Maintain equity as a top priority by linking clear, compelling results to other high-priority programs in the organization (e.g., member safety or care management).

Organizations can best share their intervention results by developing concise results statements targeted to the interests of their specific audiences. Visual tools such as charts or infographics also can be compelling ways to share results. For each audience, organizations should highlight a few data points and give context to make the results most pertinent to the audience’s priorities and concerns. Organizations might relate the data to national or local trends, to organizational goals, or to possible action. Not all interventions will successfully reduce disparities. Organizations may hesitate to share negative results, but even negative results can carry lessons for success. Where projects fail to have an effect, organizations can learn important lessons that they can incorporate into future implementation efforts.

DATA MESSAGING FOR DIFFERENT STAKEHOLDER GROUPS		
STAKEHOLDER	LIKELY CONCERN	BUILDING THE CASE
Leadership (e.g. Medicaid Agency)	Return on investment	Present data on potential positive financial impact, or flattening of spending trend. Highlight how the initiative satisfies a contractual requirement.
Providers	Office visit efficiency	Describe members’ cultural background as information that, like family history, helps determine the best course of action with the member. Give examples of how culturally tailored approaches enhance member engagement and satisfaction, reducing redundancy or disconnect in visits and outreach.
Front-Line Staff	Clinic flow	Be honest about potential temporary impact but not how changes will ultimately improve flow (for example, reduce member confusion). Solicit input for improvement.
Members	How the clinic will use equity data (e.g. Privacy)? Health status	Discuss the data are private and help the organization make sure that discrimination and stereotyping do not exist and that everyone gets the good care they need.
Community	Access to health care services and general wellness in the community	Emphasize project outcomes that benefit the community and include community partners in developing strategies to reduce disparities.
Everyone	Member outcomes	Explain equity efforts and how activity should affect outcomes.

Using Data to Support Future Sustainability

Equity data can help “prove” the value of a project and make the case for allocating resources to the project. Data also show which aspects of a program are essential for continued impact and which can be altered or minimized to make it easier to maintain efforts. As with other quality improvement efforts, having data allows organizations to best identify opportunities to improve care. Leadership, especially, may expect such data when evaluating their commitment to future disparities efforts. Equity data support sustainability in several ways:

- Equity data to track disparities helps organizations maintain a focus on the importance of reducing disparities and providing equitable care among competing priorities.
- Using equity data helps organizations identify how factors that drive disparities (e.g., race, ethnicity, and language) also drive quality; thus, reducing disparities offers insight into improving other areas of quality. *For example, an organization seeking to reduce emergency room use might find that utilization is being driven by one or a few racial/ethnic groups, suggesting that further research of possible causes and tailored interventions targeted for these groups may be most effective*
- Equity data can help organizations demonstrate their success to external entities, such as state Medicaid programs, the Center for Medicaid & Medicare Services, health plans, and foundations. These entities may have programs, partnerships, or grant opportunities that can support organizations’ efforts— financially or otherwise—to reduce racial and ethnic disparities and thus improve quality and strengthen the business case for equity.

Conclusion

Stratified health care and health outcome data allow organizations to systematically improve care for all members and reduce gaps in the quality of care between groups. Demographically stratified data best support quality improvement when organizations include analyzing and responding to data in the earliest stages of planning and continue throughout intervention implementation. Actively reviewing and responding to data allows organizations to reduce disparities and engage members and the community in ways not possible without data. When used in this way, equity data tell a compelling story that motivates health care stakeholders—members, providers, payers, state officials, community members, and others—to participate in achieving high-quality health care for all.

Disparities-Specific Measures Resources

- Access the National Quality Forum’s document on performance measures and associated policy levers to reduce health and healthcare disparities: [“Roadmap for Promoting Health Equity and Eliminating Disparities: The Four I’s for Health Equity”](#)
- Access Center for Medicare & Medicaid Services full list of measures: [“Measure Inventory Tool”](#)
- To learn how to identify/ develop a new disparity specific measure, access: [“The Disparities Solutions Center’s Healthcare Disparities Measurement”](#)

Appendix A

As discussed earlier, some measures are more sensitive to disparities than others, including those that have previously identified disparities successfully. Organizations may have the most success tracking and improving disparities with measures that have this level of evidence behind them. This table lists a sample of quality measures from the National Quality Forum that have demonstrated disparities in the literature.

SAMPLE NQF-ENDORSED™ NATIONAL PERFORMANCE MEASURES TO ADDRESS HEALTHCARE DISPARITIES	
CONDITION AREAS	MEASURE DESCRIPTION
Infant Mortality	Adverse outcome index Unplanned Maternal Admission to the ICU Neonatal Intensive Care All-Condition Readmissions
Mental Illness	Child and Adolescent Major Depressive Disorder (MDD): Suicide Risk Assessment Child and Adolescent Major Depressive Disorder: Diagnostic Evaluation Preventative Care and Screening: Screening for Depression and Follow Up Plan
Cardiovascular Disease	Controlling High Blood Pressure for People with Serious Mental Illness Heart Failure Symptoms Assessed and Addressed Median Time to ECG
Diabetes/Chronic Kidney Disease	Adherence to ACEIs/ARBs for Individuals with Diabetes Mellitus Controlling High Blood Pressure Member Education Awareness—Physician Level

Appendix B: Choosing the Right Denominator

This document outlines key considerations for organizing, interpreting, and acting on performance data stratified by member demographics and uses race, ethnicity, language, to illustrate specific examples.

Key Consideration 1

Compare the distributions of disease within each racial/ethnic group, not just across the total population. This affects whether or not you can identify disparities because it allows you to compare the burden of disease among groups with different sample sizes.

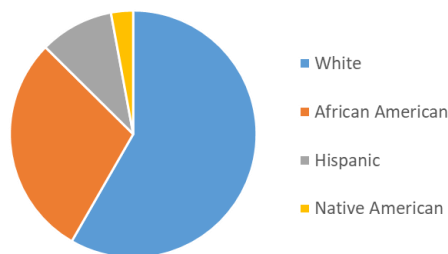
The first example below does not allow you to compare the burden of disease among groups. It shows what your data would look like if you looked across the total population instead of within each racial/ethnic group. This answers the question: Among our diabetic members, how many are White? How many are African American (etc.)?

- Denominator = all members with diabetes
- Numerator = number of members with diabetes in each racial group

MEMBERS WITH DIABETES BY RACE/ETHNICITY			
	MEMBERS WITH DIABETES IN ALL RACIAL/ETHNIC GROUPS	MEMBERS WITH DIABETES WITHIN EACH RACIAL/ETHNIC GROUP	PERCENT OF TOTAL POPULATION
White	515	300	58.3
African American	515	150	29.1
Hispanic	515	50	9.7
Native American	515	15	2.9

Because this analysis compares racial/ethnic groups to the total population of diabetic members in the clinic, the White population appears to have the biggest burden of diabetes; this is not surprising because there are more White individuals in this example.

Members with Diabetes

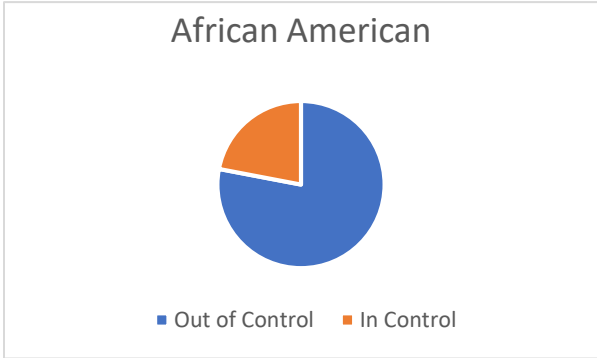
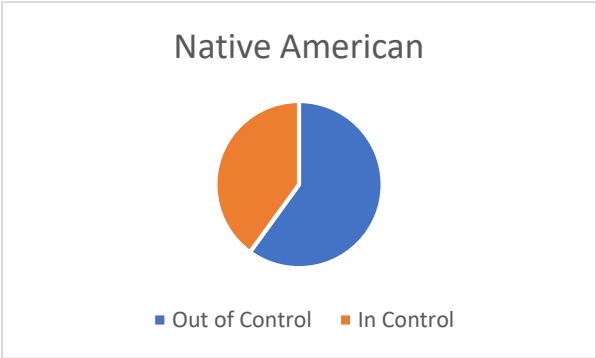


This does not tell us where disparities exist or if they exist at all. In other words, we still do not know which group is most impacted by diabetes. **Instead**, look at the distribution of uncontrolled diabetes within each racial group. This answers the question:

1. Among diabetic white members, how many have HbA1C>7? Among diabetic African American members, how many have HbA1C>7?

- Denominator = number of diabetic White members
- Numerator = number of White members “out of control”

Members with HbA1C>7, by Racial/Ethnic Group				
	Diabetic members in each racial/ethnic groups	Diabetic members with HbA1C>7 by racial/ethnic group	Percent of racial/ethnic group	Percent of total population (N=515)
White	300	200	66.7	58.3
African American	150	117	78.0	29.1
Hispanic	50	43	86.0	9.7
Native American	15	9	60.0	2.9



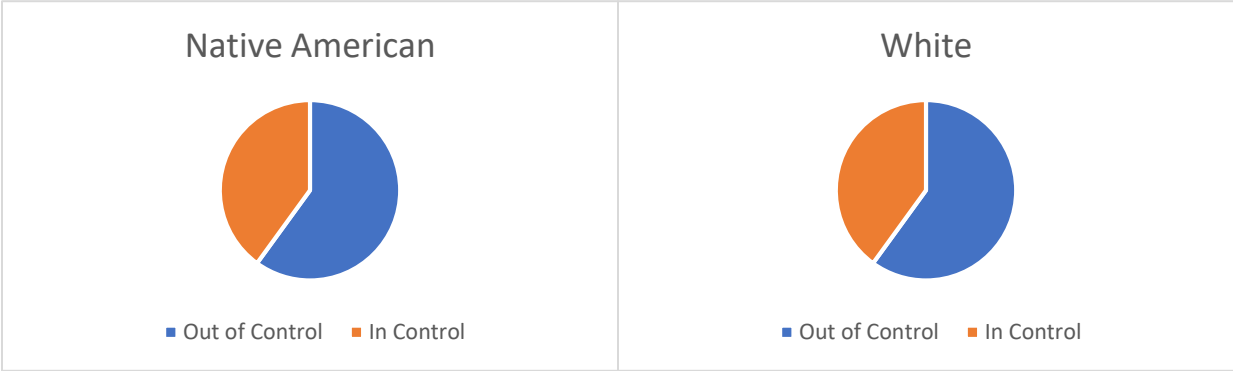
Here it is clear that some groups are more impacted by diabetes than others. Looking at rates relative to each population allows you to compare between groups and know whether a disparity exists or not, and where.

2. Sample Results Statements

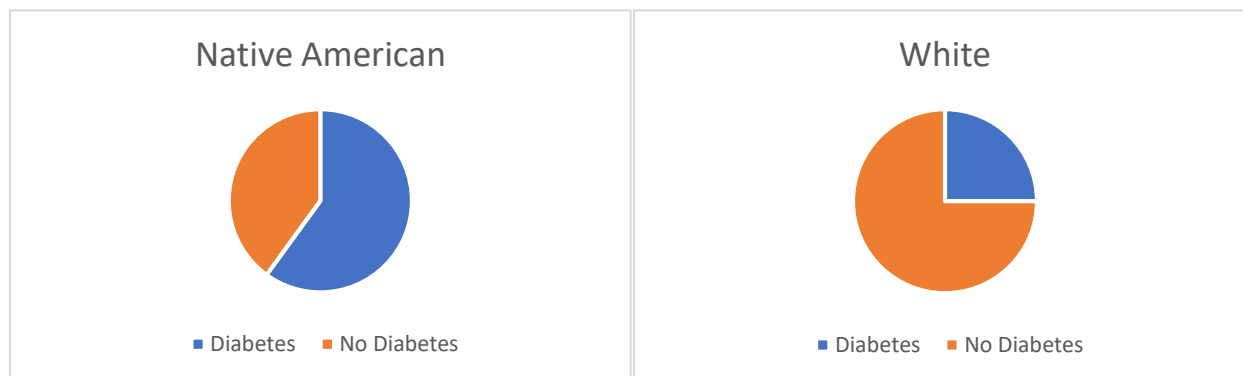
There are 150 diabetic African American members and 78 percent of them are out of control, whereas there are 300 diabetic White members—but only 67 percent are out of control. As a group, our African American members are bearing a greater disease burden than our White members.

Key Consideration 2

Equal Rates of Diabetic Control



Unequal Rates of Diabetic Control



3. Sample Results Statement

White members and Native American members have about the same proportion of members with uncontrolled diabetes (about **60 percent in each**). That is, there does not appear to be a disparity in HbA1C levels between the groups. However, a much greater proportion of Native Americans have diabetes (controlled or uncontrolled) compared to White members—**60 percent** of Native American members vs. only **25 percent** of White members. Given the prevalence of diabetes among our Native American members, we may want to intervene with them, despite their small number.

Key Consideration 3

Monitor the impact on different racial/ethnic groups throughout the project to avoid creating disparities as you intervene. If you choose an intervention that spans multiple groups, it may impact groups differently.

While interventions that are tailored to a population (even if it is a smaller group) are generally most effective, some practices choose to pursue broader interventions to:

- Raise the level of care for all members or multiple groups.
- Impact a larger population, particularly when the sample size of the population not meeting clinical targets is rather small.

This approach may generally work, but it is important to make sure the intervention works well for all groups. If organizations choose not to tailor, they are unlikely to know ahead of time how specific racial/ethnic minority groups will react to the intervention. Monitoring individual groups throughout the intervention will allow organizations to adjust their intervention approaches as needed to avoid creating further disparities.

Key Consideration 4

Assess disparities in processes of care, not just clinical outcomes.

Assessing disparities in processes of care can:

- Help you identify an area to improve if disparities in clinical outcomes aren't readily apparent.
- Allow you to see progress more quickly after beginning interventions, since processes of care generally change more quickly than clinical outcomes. This progress helps maintain momentum. Support funding proposals, and continue leadership and staff buy-in.

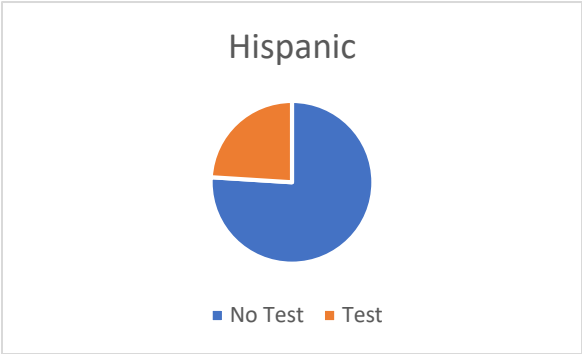
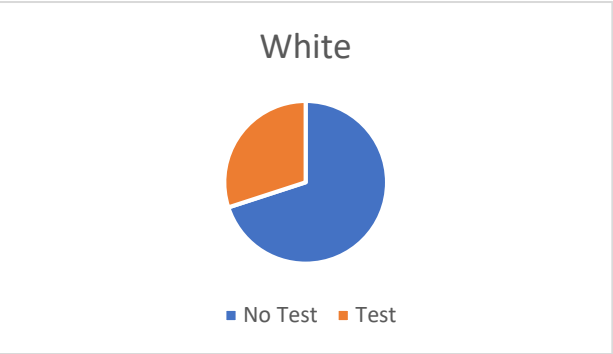
- Give you a greater sample size to work with (a larger population to impact). For example, perhaps you have only five members whose diabetes is out of control, but you have 20 members who aren't getting tested. This could justify an intervention focusing on increasing testing rates.
- Even if you do see disparities in clinical outcomes, reviewing care processes can help you narrow down your intervention approach. For example, if two groups are receiving LDL screening tests at the same rate, but one group has higher cholesterol levels, you will know to rule out access to LDL tests as a source of disparities and consider other possible causes of the disparity.

In looking at care processes, you can look at between-group differences (for example, who is getting tested?) in the same way that we compare clinical outcomes by racial/ethnic group.

4. Among White members, how many completed an HbA1C test? Among Hispanic members, how many completed an HbA1C test?

- Denominator = number of diabetic White members
- Numerator = number of White members who completed a test

Members with Completed HbA1C Tests, by Race/Ethnicity			
	Diabetic members in each racial/ethnic group	Diabetic members in each racial/ethnic group with completed test	%
White	300	100	33.3
Hispanic	50	12	24.0



5. Sample results statement

Only **24 percent of Hispanic members** have completed requested HbA1C tests, whereas **30 percent of white members** have completed tests. Though every individual has different barriers, we would like to identify barriers that may affect a large portion of our Hispanic members, causing them to miss needed tests more often than our White members.

ⁱ Sequist TD, Fitzmaurice GM, Marshall R, et al. "Cultural Competency Training and Performance Reports to Improve Diabetes Care for Black Patients: A Cluster Randomized, Controlled Trial." *Annals of Internal Medicine*, 152(1): 40-46, 2010.

ⁱⁱ A Roadmap for Promoting Health Equity and Eliminating Disparities: The Four I's for Health Equity . (2017, September). Retrieved from http://www.qualityforum.org/Publications/2017/09/A_Roadmap_for_Promoting_Health_Equity_and_Eliminating_Disparities_The_Four_I_s_for_Health_Equity.aspx.

ⁱⁱⁱ National Voluntary Consensus Standards for Ambulatory Care—Measuring Healthcare Disparities: A Consensus Report. Washington, DC: National Quality Forum, 2008, http://www.qualityforum.org/Publications/2008/03/National_Voluntary_Consensus_Standards_for_Ambulatory_Care%E2%80%944Measuring_Healthcare_Disparities.aspx (accessed March 2014).