CHCS Center for
Health Care Strategies, Inc.

Using Data to Identify High-Volume, High-Opportunity Practice Sites:

A Medicaid Primer

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Using Data to Identify High-Volume, High-Opportunity Practice Sites: A Medicaid Primer

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The **Center for Health Care Strategies** is a nonprofit policy resource center dedicated to improving health care quality for low-income children and adults, people with chronic illnesses and disabilities, frail elders, and racially and ethnically diverse populations experiencing disparities in care. CHCS works with state and federal agencies, health plans, and providers to develop innovative programs that better serve Medicaid beneficiaries. Its program priorities are: advancing health care quality and cost effectiveness, reducing racial and ethnic disparities, and integrating care for people with complex and special needs.

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Contents

Identifying "high-volume/high-opportunity" practices — characterized by high Medicaid membership, high volume of racially and ethnically diverse beneficiaries, and low access/quality scores — can guide states and health plans to improve quality and reduce disparities.

I. Introduction

With increasing attention focused on improving quality and reducing disparities at the point of care, purchasers and plans are working to better understand their primary care provider (PCP) networks. Practice size is a key attribute that can be examined for possible correlation to the capacity to provide high-quality care.

The goal of the Center for Health Care Strategies' (CHCS) *Practice Size Exploratory Project* (PSEP) was to examine the distribution of the size of practices serving Medicaid beneficiaries in four states (Arkansas, Michigan, New York and Pennsylvania) and explore whether practice size may be related to variations in quality of care. The analysis was designed to help Medicaid stakeholders better understand quality of care using data across health plans and/or the state and to use this data to identify "high-opportunity" practices for quality improvement interventions. CHCS' definition of "high-volume/high-opportunity" practices — characterized by high Medicaid membership, high volume of racially/ethnically diverse beneficiaries, and low access/quality scores — can serve as a starting point for state purchasers and health plans to understand the context in which actual patient care is being provided.

This how-to guide was developed to help Medicaid stakeholders learn from the experiences of the four PSEP states in using data to address disparities. It can be used by states operating risk-based managed care programs, enhanced primary care case management programs, or chronic care/disease management programs in which beneficiaries have been assigned to a PCP. The guide:

- Describes the methods undertaken by the four states for aggregating physicians into practices and generating a distribution of practice size;
- Details the methods used to examine quality measures by practice size and race/ethnicity; and
- Highlights the major challenges related to analyzing data to identify high-opportunity practices for quality improvement.

Practice Size Exploratory Project Overview

PSEP sought to describe the distribution of practice settings (i.e., solo, small, medium, large, federally qualified health centers [FQHCs]) serving the Medicaid population in four states. The project involved the aggregation of each state's provider and beneficiary data across multiple health plans, spanning a significant proportion of Medicaid managed care membership in a specific region or an entire state.[1]

PSEP specifically explored the relationship between the size of practice settings and performance on Healthcare Effectiveness Data and Information Set (HEDIS®) quality-of-care measures for racially and ethnically diverse populations. While various *patient* level attributes have typically been looked upon as primary sources of disparities, recent evidence has highlighted the significance of the specific *settings* in which patients are receiving care.[2]

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[1] The exception was Arkansas, which operates a primary care case management (PCCM) program and thus has direct access to all data.

[2] R. Hasnain-Wynia, D. W. Baker, D. Nerenz et al., "Disparities in Health Care Are Driven by Where Minority Patients Seek Care," *Archives of Internal Medicine*, June 25, 2007, 167(12):1233–39; D. J. Gaskin, C. Spencer, and P. Richard, "Do Hospitals Provide Lower-Quality Care to Minorities Than to Whites?," *Health Affairs*, March/April 2008, 27(2):518–27.

II. Methods

PSEP consisted of two phases:

1. Generating a distribution of the size of practices in the target region; and
2. Examining the rates of five common HEDIS measures by *specified practice size categories* (i.e., solo, small, medium, FQHC, etc) and race/ethnicity.

This section outlines the primary activities for each of these phases to help other Medicaid agencies and health plans conduct similar analyses. Subsequent sections detail the considerations for undertaking this type of analysis as well as the variables that might be used to define high-volume, high-opportunity practices. The appendices provide state-by-state detail for the PSEP data analysis undertaken by Arkansas, Michigan, New York, and Pennsylvania. Arkansas and Michigan both performed state-wide analyses. Pennsylvania focused on the southwest region of the state, using data from its three Medicaid plans. New York examined data for Erie County and the Bronx, using data from eight plans in these areas.

Generating a Distribution of the Size of Practices

Beneficiary Inclusion

Inclusion of PCPs in the analysis was based on whether they were assigned to an *eligible* health plan member. Eligible beneficiaries were:

1. Identified as having complete member-level fields for Medicaid beneficiary number, race/ethnicity, and PCP identifier;
2. Under 65 years of age;
3. Eligible for the denominator of one of the specified 2006 HEDIS measures[3] (including continuous enrollment in a Medicaid health plan for 12 months in 2005, allowing a one-month gap); and
4. Assigned to one PCP.

Primary Care Provider Inclusion

The process of practice identification began with identifying each PCP who was:

1. Linked to at least one eligible Medicaid managed care beneficiary (as defined previously); and
2. Located within the specified geographic area.

PCPs included internists, family practitioners, obstetricians/gynecologists, pediatricians, and, in some cases, specialists who serve as a PCP. Two states also chose to include independently practicing nurse practitioners who were serving as PCPs. For the two states that did not choose to include nurse practitioners, one only permits physicians to serve as PCPs, and in the other, contracted health plans differ on policies regarding the assignment of nurse practitioners as PCPs.

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[3] Note: Michigan's and Pennsylvania's baseline study populations only included beneficiaries who qualified for the HEDIS Access to Care measure.

Provider Attribution

Given that the PSEP analysis was focused on PCPs serving Medicaid managed care beneficiaries, states were comfortable with attributing providers to beneficiaries based on their PCP assignment. In Medicaid managed care (both capitated and PCCM), a PCP should be aware of the spectrum of care being provided to his/her patients and subsequently facilitate greater coordination of care. A caveat in taking this approach is that the PCP identified based on assignment may not be the actual service provider. States should consider the degree to which this type of occurrence may be problematic.

In the absence of a contractual arrangement, there are several other attribution options that are typically considered for measuring quality performance. Most of these approaches are algorithmic and are based on factors such as:[4]

- Greatest cost expenditures;
- Greatest number of services provided; and
- Cost/service percentage threshold.

An important consideration is the overall goal of the attribution process (e.g., quality monitoring, implementation of a pay-for-performance program, contracting performance standards, etc.) and how the selected attribution method best supports this goal. The choice of attribution method can be based on factors such as:[5]

- Percentage of members that can be assigned;
- Percentage of members' care assigned;
- Percentage of provider services for care of assigned members;
- Agreement of perceptions (member, provider, payer);
- Longitudinal stability; and
- Extent of actionable shared accountability across providers.

Data Linkage to Define Practice Sites

CHCS' interest in exploring quality with regard to "groups of physicians," as opposed to individual providers, is based on the assumption that leveraging the infrastructure and resources available to physicians practicing together is an effective strategy for supporting quality improvement. The body of literature around "physician organization" and its relation to quality of care varies with regard to the definition of a "practice." In some cases, a practice is viewed as a group of physicians located at a specific geographic location or more specifically, a practice site. A focus on the practice site recognizes that changes in processes of clinical care ultimately occur within a provider's office.

Beyond geographic location, a practice can also be defined as a group of physicians who share resources, such as personnel, information systems, and income. This broader definition of physician practice is used by the National Study of Physician Organizations, which examines physician practice organizations and the likelihood that they have implemented chronic care management processes.[6] The National Committee for Quality Assurance (NCQA™) advises application of its HEDIS Technical Specifications for Physician Measurement at any one of three levels, depending on the user's intended purpose: the individual physician, practice site, or group.[7]

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[4] Medicare Payment Advisory Commission. 2006. Report to the Congress: Increasing the Value of Medicare. Using Episode Groups to Assess Physician Resource Use. Washington, DC: MedPAC.

[5] Approaches to Attribution for Measuring Physician Performance. Hoangmai H. Pham, MD, MPH. RQI Data Collection and Reporting Workgroup. February 25, 2008.

[6] For more information about the surveys conducted by the National Study of Physician Organizations, visit http://nspo.berkeley.edu/Instruments.htm.

[7] NCQA 2007 HEDIS Technical Specifications for Physician Measurement.

In PSEP, provider data were compiled from existing state and health plan provider data files. Ultimately, states aggregated providers into practice groupings based on the availability and reliability of specific provider linkages. Variations in data availability precluded all states from using a uniform approach, although three of the four states used a similar approach. Arkansas, Michigan, and Pennsylvania defined a "practice" as a single geographic location where a physician or group of physicians provides services. New York's approach, described later, involved the aggregation of physicians into a higher unit of analysis.

Arkansas' PCCM program structure allowed the state to bypass many health plan data aggregation challenges encountered by other PSEP states. The state's provider and beneficiary files essentially served as a "master file." The existence of a site-specific billing provider number also allowed fairly simple aggregation of providers into practices based on common linkages such as address or telephone number.

Michigan relied on health-plan-submitted member files with HEDIS information and provider files from the state's Department of Community Health Data Warehouse, while Pennsylvania provided participating health plans with data specifications for the desired provider and patient files. Both Michigan and Pennsylvania merged health-plan-specific provider files into one "master provider file," which was linked to all the patient-level data.

The most challenging activity of the data linkage process involved the aggregation of providers into practice sites. Michigan and Pennsylvania used some combination of the following data elements:

- Site name;
- Practice site address;
- Phone number;
- Tax identification number (TIN);
- National Provider Identifier (NPI) (although not fully implemented during PSEP); and
- Legacy identifier.

Inconsistencies in common data elements across plans often made it necessary to use manual sorting techniques, as well as to make subjective case-by-case decisions. For example, in one state, two practices affiliated with the same overarching organization, but situated in separate geographic locations, would be counted as two different practice sites. In cases where two different practices at the same street address were differentiated only by different suite numbers, but linked together by a common overarching organization, these "suites" were rolled up to a single practice location. In some instances, there were attempts to verify ambiguous information via the internet or communication with health plans or practices.

New York found that the provider data submitted by health plans was too irreconcilable across plans to aggregate providers at the practice-site level. New York therefore analyzed its data at a higher level of aggregation, using TINs as the primary provider linkage. In some cases, this resulted in the collapsing of multiple sites, whereby a "practice group" could represent a multi-site, private practice or practices affiliated with a common entity such as a hospital, academic center, or health system. Given existing knowledge that the distribution of practice settings in New York (especially in the Bronx) is skewed toward larger clinic settings, there was not a concern about the extent to which using this approach may have underestimated the volume of smaller practices. The identification of independent solo practices was not affected (i.e., comparable to other states) using this methodology. However there was some concern about the degree to which using the TIN as the primary linkage element accurately isolated FQHCs from other affiliated practices that may not have FQHC status.

The general multi-step process that states used for compiling the necessary provider and beneficiary-level data is summarized in Figure 1.

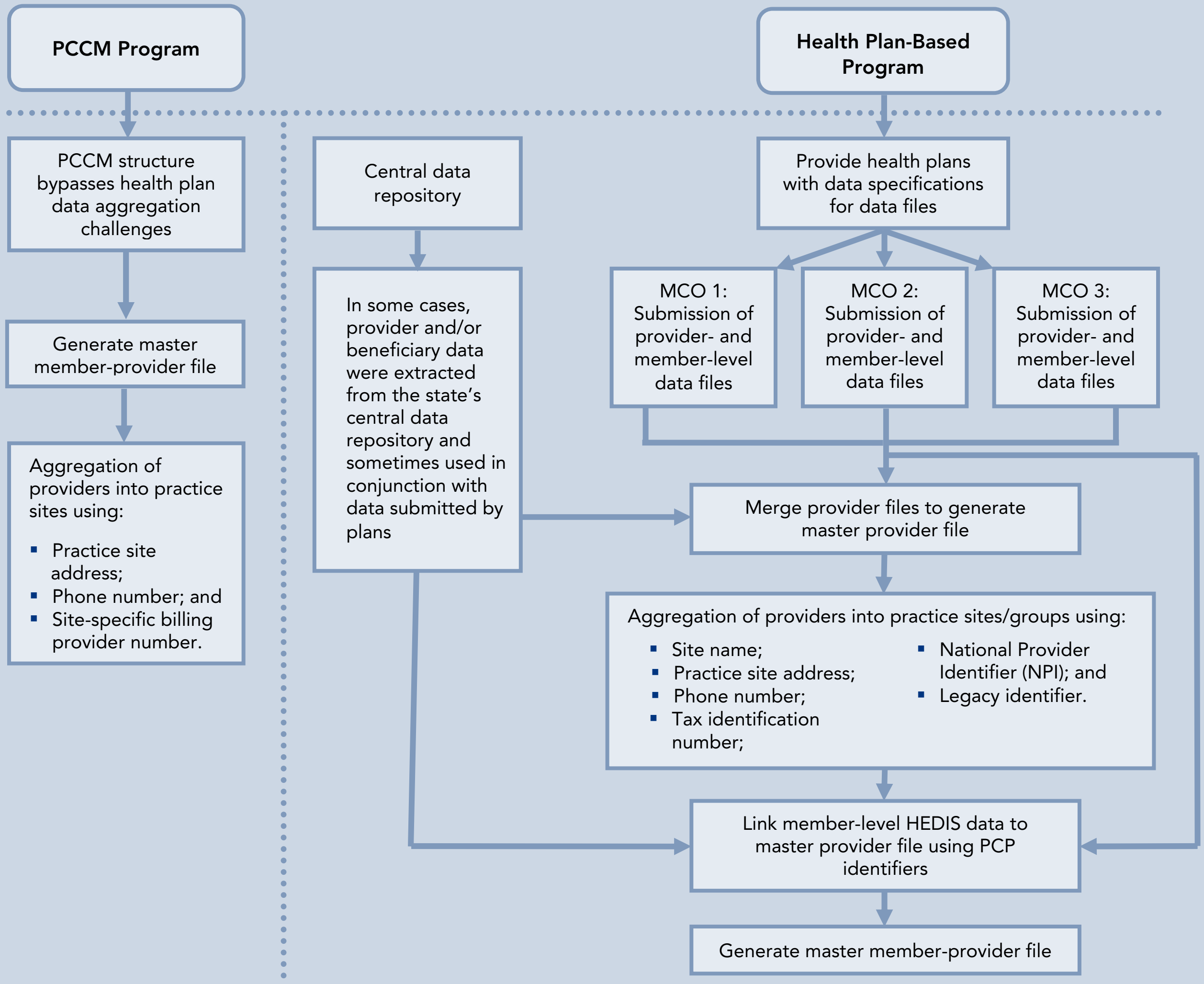
Figure 1. General Data Aggregation Process

Beneficiary Inclusion Criteria

1. Identified as having complete member-level fields for Medicaid beneficiary number, race/ethnicity, and PCP identifier;
2. Under 65 years of age;
3. Eligible for the denominator of one of the specified 2006 HEDIS measures (including continuous enrollment in a Medicaid health plan for 12 months in 2005, allowing a one-month gap); and
4. Assigned to one PCP.

Primary Care Provider Inclusion Criteria

- Linked to at least one eligible Medicaid managed care beneficiary; and
- Located within the specified geographic area.



The number of beneficiaries identified, PCPs included, and practice sites/ groups identified are summarized by state in Figure 2.

Figure 2. Practice Size Exploratory Project Data Overview

Region	AR[b]	MI[a,b]	NY[c]		PA[b]
			Bronx	*Erie*	
PSEP Beneficiaries	384,734	473,416	206,681	51,161	210,991[a]
PCPs	1,627	4,676	1,259	1,093	1,565
Practice sites/groups	853	1,963	247	313	987

[a] Beneficiaries eligible for Access to Care measures
[b] Practice identification based on site address
[c] Practice identification based on TIN

Practice Size Categories

Practice size categories were identified as a means of analyzing and stratifying HEDIS rates. In all states, these categories were determined based on a preliminary examination of how beneficiaries were spread across the distribution of providers. In Arkansas, Michigan, and Pennsylvania, the volume of beneficiaries was significantly skewed toward the lower end of the practice size distribution, making it reasonable to partition the provider count into several small size categories. States also agreed that FQHCs would be designated as a separate category given that their status may distinguish them from other non-FQHC practices. For example, FQHCs may share access to financial or other resources and supports. However, in doing so, FQHC practices had the potential to vary in size. As a result, five practice categories were designated:

- Size 1= a solo practice;
- Size 2= 2-3 physicians;
- Size 3= 4-10 physicians;
- Size 4= 11+ physicians; and
- FQHCs.

In the case of New York, a smaller volume of beneficiaries was linked to practices comprised of three providers or less, making it less appropriate to create as many categories in the lower end of the distribution as in other states. As a result, New York designated six practice categories instead of five, with more categories reflecting larger practices, the setting in which the majority of beneficiaries were distributed in the state.

- Size 1= a solo practice;
- Size 2= 2-5 physicians;
- Size 3= 6-20 physicians;
- Size 4= 21-70 physicians;
- Size 5= 71+ physicians; and
- FQHCs.

Figure 3 outlines the resulting distribution of practices based on the size categories designated by the four states.

Figure 3. Percent of Beneficiaries Linked to Practice Size Categories

	Solo	2-3 PCPs	4-10 PCPs	11+ PCPs	FQHCs	
AR [a]	32%	15%	26%	18%	9%	
MI [a]	24%	29%	25%	8%	14%	
PA [a]	29%	21%	22%	14%	13%	
	Solo	**2-5 PCPs**	**6-20 PCPs**	**21-70 PCPs**	**71+ PCPs**	**FQHCs**
Bronx, NY [b]	16%	7%	6%	2%	25%	44%
Erie Co, NY [b]	13%	22%	14%	35%	11%	5%

[a] Practice identification based on site address
[b] Practice identification based on TIN

Examination of Quality Measures

Measures

Five HEDIS measures were reported by all the PSEP states based on their own recommendations for common measures. Each of the participating states examined additional measures given their own priorities. The common measures included:

1. Use of appropriate medications for people with asthma;
2. Adults' access to care;
3. Children's access to care;
4. Breast cancer screening; and
5. Hemoglobin A1c (HbA1c) test performed.

Rates for the 2006 HEDIS measures, reflecting 2004 and 2005 calendar year data, were generated based on administrative data *only*. This included the HbA1c test performed measure, the lone measure based on the hybrid methodology, which allows health plans to identify the numerator through both administrative and medical record data. States acknowledged the potential for underestimation of performance for this measure based on administrative data only. The fact that the HEDIS hybrid sampling method was not designed to ensure representation across the distribution of practice sizes precluded the inclusion of hybrid data in the analysis without applying additional statistical adjustments.

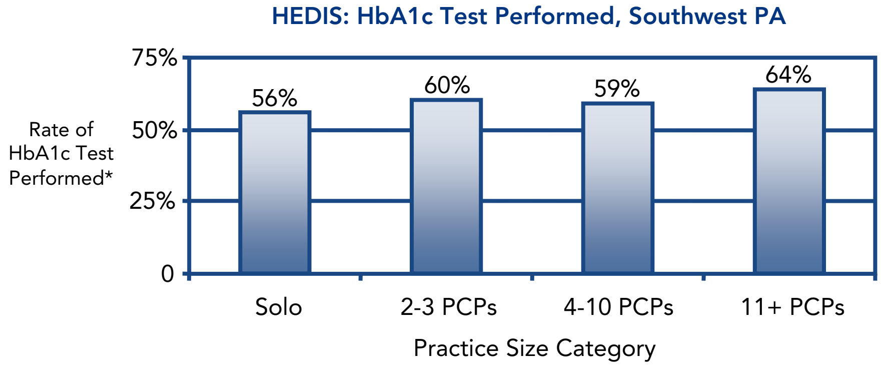
Statistical Analysis

The HEDIS rates stratified by practice size category reflect the aggregate rate of beneficiaries linked to practices of that size, not an average rate of practices. Given the primary goal of understanding whether beneficiaries experienced variations in quality of care in different practice settings, it was appropriate to examine rates in the aggregate. This also minimized the issue of unstable estimates due to small panel sizes.

To test differences by race/ethnicity and by practice size, two-sided tests of differences in proportions were used.[8] The two-sided test, which assumes approximation to the normal distribution, was used only when there were at least five successes (n*p) and five failures (n*(1-p)) for each rate. Caucasians were the reference group for comparisons by race/ethnicity, and solo practices were used as the reference group for comparisons by practice size. All reported p-values reflect two-tailed tests. While some states performed additional and more complex statistical analyses, reported PSEP results focus on the common analysis performed on all states' data.

The PSEP analysis demonstrated a variety of findings of interest when the data was stratified by race and practice size. Figure 4 offers one example of data resulting from the Southwest Pennsylvania analysis. All practice sizes with more than one physician had significantly higher rates than solo practices (for example, 64% in Size 4 vs. 56% in Size 1; p=.001). Complete state-by-state findings are available in the appendices.

Figure 4. Example of PSEP Findings



* Based on administrative data only.

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[8] For reporting purposes, states stratified data into four primary racial/ethnic categories: Caucasian, African American, Hispanic, and other.

III. Considerations and Challenges

Identifying Common and Consistent Physician Identifiers across Plans

For the PSEP states, examining provider files at this level of detail helped identify existing quality gaps. Arriving at common physician identifiers across health plans, however, was a far more difficult task than anticipated. Inconsistent names, numbering, address formats, abbreviations, etc. posed significant challenges to creating linkages among providers to aggregate PCPs into practices. A process that ideally could have been executed via simple programming became much more time- and labor-intensive, given the need for manual examination and sorting of the data.

It is clear that the data quality issues stem, in part, from the fact that provider files from different plans were not originally developed to be systematically linked together. **As states enter into contracts with plans, they should consider ways to encourage standardization so that they have the ability to examine practice-level data across health plans with relative ease.**

While deciding how to attribute providers who serve in multiple locations could potentially be a challenge, this was not a significant barrier to the PSEP analysis since most states' PCP assignment was site-specific.

With the implementation of the National Provider Identifier (NPI) system beginning in May 2007, future data linkage efforts like PSEP may be facilitated, though still not without challenges. The NPI system reflects the administrative simplification provisions of the Health Insurance Portability and Accountability Act of 1996: Public Law 104-191 (HIPAA), which mandated the adoption of standard, unique identifiers for providers and plans to improve the electronic transmission of health information.[9] Data submission for the NPI mandates the inclusion of the provider's "*primary*" practice location. Additional locations cannot be accommodated on the individual provider's NPI application. In cases where physicians practice in multiple locations, it may be difficult to link members to specific locations. Furthermore, an NPI can be assigned not to an individual provider who is not incorporated, as well as to an incorporated organization that provides health care services (e.g., hospital, physician group practice, or nursing facility). In addition, a corporation could have one NPI representing all locations or types of services or it may have multiple NPIs representing *subparts* of the health care organization. Examples of subparts may include different departments of a hospital or separate physical locations of a provider group.[10] Therefore, there may be cases where an incorporated individual would have at least two NPIs — one or more for the organization and one for the individual.

Small Numbers in Performance Measurement

One of the most common challenges in examining performance data at a smaller unit of analysis, i.e., the practice rather than the health plan level, is the ability to ensure a sufficient volume of data to generate reliable quality performance scores. Even in the PSEP analysis, where data were aggregated across an entire practice size category, there were a few instances where the combination of stratifying a clinical measure by a specific age window, practice size/setting category, and race/ethnicity group resulted in a patient volume that was too small to make any valid conclusions or comparisons. However, the pooling of data across all or the majority of Medicaid plans in each of the target PSEP regions maximized the number of eligible events,

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[9] For more information about the National Plan and Provider Enumeration System (NPPES), visit https://nppes.cms.hhs.gov/NPPES/Welcome.do.

[10] Fact Sheet: Guidance on Subpart Determination for Medicare Organization Providers Who Are Covered Entities under HIPAA. March 2006. http://www.cms.hhs.gov/NationalProvIdentStand/downloads/npi_fs_subparts_032106.pdf

thereby largely minimizing this barrier. **This underscores the importance of encouraging the major payers, whether public or private, to collaborate within regional data aggregation efforts.**[11]

Limitations of Examining HEDIS Hybrid Measures Based on Administrative Data

Performance rates of HEDIS hybrid measures derived from administrative data are prone to being underestimated compared to rates based on administrative data supplemented by medical chart reviews.[12] In examining quality performance at the practice level (where data is aggregated across health plans), the pertinent question is whether there may be systematic differences depending on the particular practice-size setting. The examination of only administrative data for the HbA1c test measure could be potentially biased if, for example, smaller practices were more likely to document this care only in medical records. This bias could also be compounded if a specific plan's provider network was predominantly comprised of smaller practices. To the extent that the underestimation was equally true across all settings, there would be less concern around the reliability of any observed patterns in performance rates.

The acquisition of medical chart data, while typically viewed as the "gold standard" for determining quality performance, is made difficult given the associated time and expense, hence the convention of utilizing samples. The relative efficiency of using administrative data makes it unsurprising that many quality performance initiatives have placed an initial focus on administratively based measures. **As practice quality improvement activities evolve, it is important to identify ways to improve the reliability of administrative and chart review data, e.g., by transitioning to automated record systems.**[13]

Lack of Directly Comparable Benchmarks

Availability of benchmark data at the *practice level* is still limited despite the recent burgeoning of this area of work. Futhermore, data produced by existing national efforts vary widely.[14] Currently, data from NCQA's HEDIS Technical Specifications for Physician Measurement are not publicly reported. Some of the more prominent initiatives around performance measurement at the medical group level like the Integrated Healthcare Association, Massachusetts Health Quality Partners (MHQP), and Minnesota Community Measurement have made data available; yet the majority of these efforts report data at the medical group level, often focusing on very large organizations. Nonetheless, these data represent work from which to draw, given the limited availability of comparable data for practice sites. State-specific PSEP data were compared to national health plan NCQA HEDIS rates for Medicaid beneficiaries as well as available state-specific data at the health plan level, although caution was exercised in making any direct comparisons. **State Medicaid agencies can encourage and participate in regional and national efforts to collect and report practice-level data.**[15]

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[11] B.E. Landon and S.T. Normand, "Performance Measurement in the Small Office Practice: Challenges and Potential Solutions," *Annals of Internal Medicine*. March 2008, 148(5):353-357.

[12] L.G. Pawlson, S.H. Scholle, A. Powers, "Comparison of Administrative-only versus Administrative Plus Chart Review Data for Reporting HEDIS Hybrid Measures," *American Journal of Managed Care*, October 2007, 13(10):553-8.

[13] Ibid.

[14] NCQA 2007 HEDIS Technical Specifications for Physician Measurement.

[15] The Robert Wood Johnson Foundation's Aligning Forces for Quality initiative offers an opportunity for 20 regional communities to work on provider-level data collection and public reporting.

IV. High-Volume, High-Opportunity Practices

Medicaid agencies and health plans are challenged to focus limited quality improvement resources. By gaining a clearer picture of the predominant settings in which beneficiaries are receiving care, plans and purchasers can be more strategic in targeting quality improvement interventions at the point of care. PSEP sought to examine whether beneficiaries experience variations in quality of care in different size practices. The natural subsequent step for states is to use this beneficiary data to help identify specific practices for interventions. Stakeholders can use a combination of criteria to identify practices that are good candidates for improvement initiatives, depending on overall quality improvement aims. These may include factors such as high patient volume, high minority patient volume, and low performance rates.

High Medicaid Volume

"High-opportunity" practice characteristics are likely to be variable depending on the marketplace, and therefore different criteria may be appropriate to apply in different regions. For example, data from PSEP demonstrate the diversity in average Medicaid panel size for each practice size category examined (Figure 5). Arkansas, a state that is significantly more rural than other states and has a lower ratio of physicians per capita, not surprisingly has a greater average caseload.

Figure 5. Average PSEP Medicaid Panel Size, by Practice Size Category

	AR	MI	NY (Erie)	NY (Bronx)	PA
Solo practices	205	109	33	179	107
2-3 PCPs	549	253	n/a	n/a	183
4-10 PCPs	1570	429	n/a	n/a	418
2-5 PCPs	n/a	n/a	161	330	n/a

High Volume of Racial/Ethnic Minorities

Similarly, determination of what constitutes a high volume of minority patients may vary largely depending on the racial and ethnic demographics of a region. For example, in PSEP data analyzed for the Bronx, Hispanics make up approximately 60 percent of the beneficiaries served, making it likely that applying a very high percentage threshold for minority volume would still capture a significant number of practices. As such, states may be advised to begin their exploration by focusing on practices that fall in a designated upper percentile, for example those above the median value, or those in the top quartile or decile.

Low Performance

Identifying opportunities for improvement based on performance measures may be somewhat complicated due to the lack of comparable benchmarks.[16] Relative rankings are one option, where the practice is assessed in terms of reaching targets relative to the entire group (e.g., two standard deviations from the mean, the top quartile or the 90th percentile). Attainment of absolute thresholds based on external benchmarks is also a possible option. For example, MHQP uses the following three benchmarks for its medical group performance data:[17]

- The national median (50th percentile) performance rate for all health plans reporting the measure to NCQA;
- The national 90th percentile performance rate for all health plans reporting the measure to NCQA; and
- The Massachusetts statewide rate for all physicians for whom the participating health plans reported the measure to MHQP.

The use of criteria such as beneficiary volume, racial and ethnic diversity, and performance measures to identify high-opportunity practices can equip states with critically important information to strategically guide quality improvement activities. For example, as a participant in PSEP, Michigan identified 26 practices (representing 40,000 enrollees) that met the following criteria:

- Consisted of 1-3 providers;
- Had >60% African-American membership among its Medicaid panel; and
- Had at least 1,000 Medicaid patients.

Twenty-one of these practices had an Access to Care rate of below 75%. Therefore, using these simple criteria, Michigan was able to pinpoint practices with significant opportunity for improvement and potentially improve care for 32,642 beneficiaries. This more strategic use of data to target quality improvement interventions puts Medicaid agencies in a better position to drive and measure change.

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[16] For an example, see NCQA 2007 HEDIS Technical Specifications for Physician Measurement. See also Advancing Quality Through Collaboration: The California Pay for Performance Program, Integrated Health Association, February 2006 (http://www.iha.org/wpapers.htm); and Minnesota Community Measurement 2007 Health Care Quality Report (http://www.mnhealthcare.org/Report/).

[17] For information on statewide rates and national benchmarks used by Massachusetts Health Quality Partners, visit http://www.mhqp.org/quality/clinical/cqMASumm.asp?nav=032400.

V. Conclusion

The examination of practice size and performance data among provider practices serving Medicaid populations can serve a wide spectrum of purposes. The application of such efforts within Medicaid versus a commercial environment warrants additional consideration of how issues like limited provider networks or low consumer literacy may impact the feasibility and/or effectiveness of different activities. Although more analysis is needed to validate the data that would drive such efforts, performance data at the practice level could be used to inform the following: [18]

Short-Term Activities

- Facilitating quality improvement efforts to reduce variation in practice;
- Building the body of data for benchmarking; and
- Developing enhanced payment, pay-for-performance, or pay-for-participation programs directed toward practices.

Long-Term Activities

- Establishing physician-level contract performance standards;
- Managing health plan provider networks;
- Developing high-performance networks; and
- Establishing external reporting for provider improvement and for consumer decision making.

The analysis undertaken through PSEP offers those interested in quality improvement efforts an alternative way to target their investments. Identifying practices that serve a significant number of Medicaid beneficiaries is a critical first step. Drilling down into the racial and ethnic composition of practice patient panels can lead in one direction; understanding the capacity issues associated with size can lead to another set of interventions. Combining these data with information on chronic illness burdens and quality could enable a state and its health plans to further target quality improvement resources. Indeed, this is what CHCS hopes will happen in its follow-up to PSEP, the *Reducing Disparities at the Practice Site Initiative* (RDPS).[19] In the meantime, we hope that the lessons from PSEP enable others to use available data in new ways to design interventions for improving quality and reducing racial and ethnic disparities.

About *Reducing Disparities at the Practice Site*

The *Reducing Disparities at the Practice Site* initiative was developed by the Center for Health Care Strategies to support quality improvement in small practices serving a high volume of racially and ethnically diverse Medicaid beneficiaries. This three-year project, which was launched in October 2008, will help Medicaid agencies and health plans partner with small practices to reduce racial and ethnic disparities and improve overall outcomes. State-led teams within **Michigan**, **North Carolina**, **Oklahoma** and **Pennsylvania** will work to build the quality infrastructure and care management capacity of "high-opportunity" primary care practices.

For more information, visit **www.chcs.org**.

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[18] NCQA 2007 HEDIS Technical Specifications for Physician Measurement.

[19] For information about the *Reducing Disparities at the Practice Site* initiative, visit www.chcs.org/initiatives.

VI. Appendices: State Profiles*

Appendix A: Arkansas

Of the 384,734 members included in Arkansas, 59% were Caucasian, 29% were African American, and 7% were Hispanic. Seventy-seven percent of practice sites in Arkansas were solo practices. Overall, 32% of members were linked to solo practices and 15% were linked to practices with two or three PCPs. Hispanics were less likely to be linked to smaller practices and more likely to be linked to practices of 10 providers or more and to FQHCs than were Caucasians or African Americans.

Racial/ethnic disparities were detected in all adult and children Access to Care measures, with African Americans and Hispanics having lower rates than Caucasians. Disparities often persisted even when stratified by practice size. The greatest absolute difference in Access to Care was observed in the 7-11-year-old category, with Caucasians having an 84% Access to Care rate and African Americans having a rate of 70% (p<.001). A strong pattern of reduced access was observed among larger practices and FQHCs compared to solo practices across Access to Care measures for children 25 months and older. This pattern held true across all racial groups.

For HbA1c testing, African Americans had significantly lower rates than Caucasians overall (62% versus 67%, p=.002). African Americans also had lower rates than Caucasians in Size 1 and 2; however the reverse was true in Size 3 and in FQHCs, with African Americans having higher rates than Caucasians. Overall, members linked to larger practices (Sizes 3 and 4) had higher rates than those linked to solo practices.

For the Use of Appropriate Medications for People with Asthma measure, rates were generally high, slightly above the NCQA mean Medicaid rate. No racial disparities were observed for the overall measure. The larger practices (Size 3 and 4) generally had higher rates compared to solo settings.

For the breast cancer screening measure, African Americans had significantly lower rates than Caucasians overall (34% versus 38%; p<.001) and in Size 2 (28% versus 39%; p=.004). Members linked to FQHCs had significantly higher rates compared to solo settings, overall and across all racial groups (p<.05 for all).

**Please refer to main document for a description of complete methods including a definition of practice size. Results for the HbA1c test measure should be interpreted with caution due to the potential for underestimation of performance for this measure based on administrative data only.*

Arkansas: HEDIS Rates Stratified by Practice Size and Race/Ethnicity

ARKANSAS	OVERALL		SIZE 1 (solo)		SIZE 2 (2-3)		SIZE 3 (4-10)		SIZE 4 (11+)		FQHCs	
		n		n		n		n		n		n
ADULT ACCESS TO CARE												
20-44 years (NCQA Median: 78.8)												
Overall	81	20,681	81	10,482	83 ▲	4,065	80	3,442	79	2,617	63 ▼	3,637
Caucasian	83	12,024	85	5,769	83	1,909	81 ▼	2,249	82 ▼	2,035	68 ▼	1,460
African American	77 ↓	7,798	75 ↓	4,305	82 ▲	2,010	78 ↓	1,051	67 ↓ ▼	421	60 ↓ ▼	2,023
Hispanic	76 ↓	158	83	71	80	20	67	30	68 ↓	37	65 ▼	31
45-64 years (NCQA Median: 84.3)												
Overall	90	12,186	91	6,337	90	2,200	90	2,056	91	1,552	72 ▼	2,244
Caucasian	91	7,061	92	3,480	90	1,104	91	1,306	91	1,139	76 ▼	977
African American	89 ↓	3,472	88 ↓	2,014	90	833	88 ↓	488	89	134	69 ↓ ▼	993
Hispanic	84 ↓	77	91	33	100	12	80	10	71 ↓	21	82	11
CHILDREN'S ACCESS TO CARE												
12-24 months (NCQA Median: 94.6)												
Overall	96	31,876	97	8,846	96 ▼	4,461	97	10,496	96 ▼	5,838	89 ▼	2,180
Caucasian	97	17,893	98	5,372	97	2,674	98 ▲	5,429	97	3,470	92 ▼	933
African American	95 ↓	7,838	97	1,892	96	1,239	97 ↓	3,297	93 ↓ ▼	928	83 ↓ ▼	478
Hispanic	95 ↓	4,230	97	1,183	92 ↓ ▼	293	95 ↓ ▼	1,047	96 ↓	1,030	92 ▼	646
25 months- 6 years (NCQA Median: 84.7)												
Overall	90	68,319	93	19,956	91 ▼	9,240	92 ▼	20,637	87 ▼	13,355	79 ▼	4,997
Caucasian	92	38,628	93	12,009	92 ▼	5,372	93	10,797	91 ▼	8,076	81 ▼	2,306
African American	87 ↓	18,532	92	4,880	91	2,760	90 ↓ ▼	6,981	74 ↓ ▼	2,450	73 ↓ ▼	1,441
Hispanic	87 ↓	6,665	93	1,854	85 ↓ ▼	521	85 ↓ ▼	1,382	86 ↓ ▼	1,929	84 ↑ ▼	937
7-11 years (NCQA Median: 83.9)												
Overall	80	63,086	85	19,237	80 ▼	9,019	82 ▼	17,453	76 ▼	12,728	60 ▼	4,497
Caucasian	84	37,102	87	11,899	83 ▼	5,310	87	9,638	85 ▼	7,880	63 ▼	2,274
African American	70 ↓	18,723	79 ↓	5,246	73 ↓ ▼	2,922	76 ↓ ▼	6,079	48 ↓ ▼	2,906	49 ↓ ▼	1,545
Hispanic	78 ↓	3,753	84 ↓	1,105	75 ↓ ▼	292	73 ↓ ▼	690	79 ↓ ▼	1,215	72 ↑ ▼	431
12-19 years (NCQA Median: 82.1)												
Overall	79	74,497	82	24,701	80 ▼	11,169	84 ▲	17,444	73 ▼	14,519	60 ▼	6,460
Caucasian	82	44,779	84	15,431	81 ▼	6,645	87 ▲	10,454	82 ▼	8,759	64 ▼	3,333
African American	72 ↓	24,027	79 ↓	7,538	78 ↓	3,848	78 ↓	5,741	56 ↓ ▼	4,261	55 ↓ ▼	2,608
Hispanic	74 ↓	2,424	80 ↓	743	65 ↓ ▼	199	76 ↓	450	73 ↓ ▼	781	62 ▼	244
HBA1C TESTING												
18-64 years												
Overall	66	4,636	64	2,428	64	832	69 ▲	749	70 ▲	619	63	886
Caucasian	67	2,446	67	1,187	68	378	65	443	70	431	57 ▼	354
African American	62 ↓	1,615	61 ↓	958	58 ↓	372	75 ↑ ▲	210	68	74	68 ↑ ▲	421
ASTHMA MEDICATIONS												
5-56 years (NCQA Mean: 85.7)												
Overall	88	6,275	86	2,156	87	1,006	91 ▲	1,709	90 ▲	1,395	83	503
Caucasian	88	3,671	86	1,307	87	556	90 ▲	962	88	840	80 ▼	254
African American	89	1,846	86	622	88	308	90 ▲	560	95 ↑ ▲	354	83	196
BREAST CANCER SCREENING												
21-64 years (NCQA Mean: 53.9)												
Overall	37	4,634	36	2,444	34	806	38	774	41	596	46 ▲	799
Caucasian	38	2,492	37	1,233	39	385	38	456	39	408	43 ▲	321
African American	34 ↓	1,286	35	776	28 ↓ ▼	286	41	180	42	43	46 ▲	345

▲▼ Denotes a statistically significant difference between practice size settings. Referent group= solo practices.

↑↓ Denotes a statistically significant difference between racial/ethnic groups. Referent group= Caucasians.

Appendix B: Michigan

Of 473,416 members in Michigan, 50% were Caucasian, 43% were African American, and 5% were Hispanic. Overall, 24% of members were linked to solo practices and 29% were linked to practices with two or three PCPs. Fifty-four percent of practice sites were solo practices, and 28% of sites had two or three PCPs. Fewer Hispanics (46%) were linked to practices of three or fewer PCPs compared to Caucasians (52%) or African Americans (55%). On the other hand, 24% of Hispanics, 11% of African Americans and 16% of Caucasians were linked to FQHCs.

For the Access to Care measures, African Americans had significantly lower rates than Caucasians in almost all age groups and all practice settings (p<.01 for all differences). Absolute differences ranged from 7 percentage points among 12-to-24-month-olds to 14 percentage points among 7-to-11-year-olds. For a few ages and practice sizes, especially for ages 12-19, Hispanics also had significantly lower rates than Caucasians. Among adults ages 20-44, members linked to Sizes 3, 4, and FQHCs had rates significantly above those linked to solo practices. The pattern by size was more mixed for older adults (ages 44-65). For children of all ages, those linked to Size 2 and FQHCs (and often those in Size 4 overall) generally had rates significantly below those linked to solo practices.

Overall and across each practice size grouping, African Americans had significantly lower HbA1c testing rates than Caucasians (p<.001 for all), with an overall difference of 12 percentage points (64% vs. 76%). Rates were higher for members linked to FQHCs or practices with more than one physician than those linked to solo practices, overall, as well as for Caucasians and African Americans individually (p<.001 for all).

For the Use of Appropriate Medications for People with Asthma measures, African Americans had significantly lower rates than Caucasians in Sizes 1 and 2, and overall (p<.001 for all). However, rates for African Americans and overall were significantly higher in Sizes 3, 4 and FQHCs than in solo practices. Rates were above 88% for Caucasians in all practice size settings. African Americans had comparable rates in practices of 4 providers or more and in FQHCs, but in Sizes 1 and 2, rates were 81% and 78%, respectively.

For breast cancer screening, overall and in Sizes 1, 2, and 3, African Americans had significantly lower rates than Caucasians. Caucasians linked to Size 4 or to FQHCs were less likely to have received a screening than Caucasians linked to solo practices (p=.001 for Size 4; p<.001 for FQHCs), while rates for African Americans did not significantly vary by practice size.

Michigan: HEDIS Rates Stratified by Practice Size and Race/Ethnicity

MICHIGAN	OVERALL		SIZE 1 (solo)		SIZE 2 (2-3)		SIZE 3 (4-10)		SIZE 4 (11+)		FQHCs	
		n		n		n		n		n		n
ADULT ACCESS TO CARE												
20-44 years (NCQA Median: 78.8)												
Overall	78	115,158	78	26,955	76 ▼	34,559	80 ▲	26,942	81 ▲	8,884	78 ▲	17,409
Caucasian	82	58,617	82	15,085	82	16,123	84 ▲	14,804	83 ▲	4,482	81	7,811
African American	73 ↓	51,305	71 ↓	10,598	70 ↓	17,136	75 ↓ ▲	11,134	78 ↓ ▲	3,894	77 ↓ ▲	8,466
Hispanic	80 ↓	3,855	80	827	80	885	81	738	82	381	77 ↓	1,005
45-64 years (NCQA Median: 84.3)												
Overall	85	54,205	85	14,389	83 ▼	16,921	85	11,563	86	3,515	86	7,728
Caucasian	88	27,699	88	8,159	88	8,025	89	6,246	89	1,800	85 ▼	3,411
African American	81 ↓	24,168	80 ↓	5,510	78 ↓ ▼	8,224	81 ↓	4,906	83 ↓ ▲	1,532	86 ▲	3,966
Hispanic	87	1,319	87	347	86	316	87	274	89	115	89	266
CHILDREN'S ACCESS TO CARE												
12-24 months (NCQA Median: 94.6)												
Overall	93	24,692	94	5,577	91 ▼	6,116	93	7,568	95	2,311	92 ▼	3,103
Caucasian	95	13,620	96	3,474	95 ▼	3,385	96	4,506	96	972	93 ▼	1,267
African American	89 ↓	9,064	88 ↓	1,579	86 ↓	2,363	89 ↓	2,533	94 ▲	1,194	90 ↓	1,395
Hispanic	95	1,696	98	442	96	268	94 ▼	465	93 ▼	114	94 ▼	406
25 months- 6 years (NCQA Median: 84.7)												
Overall	81	121,954	83	28,571	80 ▼	32,084	83	34,811	80 ▼	10,652	78 ▼	15,745
Caucasian	86	61,640	87	16,511	86 ▼	16,137	87	19,104	86	4,112	80 ▼	5,688
African American	74 ↓	48,728	75 ↓	8,934	71 ↓ ▼	13,560	76 ↓	12,941	75 ↓	5,788	74 ↓ ▼	7,503
Hispanic	85 ↓	9,675	88	2,509	85 ▼	1,749	85 ↓ ▼	2,393	85	596	83 ↑ ▼	2,427
7-11 years (NCQA Median: 83.9)												
Overall	80	68,192	82	16,778	78 ▼	19,832	83	16,319	78 ▼	6,004	76 ▼	9,192
Caucasian	86	34,098	87	9,359	86 ▼	9,651	87	9,742	84 ▼	1,978	81 ▼	3,302
African American	72 ↓	28,187	74 ↓	5,843	69 ↓ ▼	8,696	75 ↓	5,337	74 ↓	3,613	71 ↓ ▼	4,698
Hispanic	85	4,705	87	1,221	84 ▼	1,040	87	1,031	79 ↓ ▼	310	82 ▼	1,103
12-19 years (NCQA Median: 82.1)												
Overall	78	89,215	80	22,416	77 ▼	28,040	81 ▲	19,138	78 ▼	7,608	75 ▼	11,935
Caucasian	85	42,017	85	11,957	85	12,018	86	11,243	84	2,454	81 ▼	4,269
African American	72 ↓	41,131	72 ↓	8,811	69 ↓ ▼	14,360	74 ↓ ▲	6,777	75 ↓ ▲	4,647	71 ↓	6,534
Hispanic	80 ↓	4,363	83 ↓	1,080	81 ↓	1,055	83 ↓	832	77 ↓ ▼	383	74 ↓ ▼	1,013
HBA1C TESTING												
18-64 years												
Overall	71	18,570	66	4,883	69 ▲	5,602	73 ▲	3,870	73 ▲	1,285	76 ▲	2,930
Caucasian	76	9,170	71	2,722	76 ▲	2,678	80 ▲	1,955	79 ▲	611	79 ▲	1,204
African American	64 ↓	8,257	56 ↓	1,816	62 ↓ ▲	2,620	64 ↓ ▲	1,726	68 ↓ ▲	594	73 ↓ ▲	1,501
Hispanic	76	759	73	191	77	176	79	143	65 ↓	60	80	189
ASTHMA MEDICATIONS												
5-56 years (NCQA Mean: 85.7)												
Overall	87	10,704	86	2,553	84	3,172	90 ▲	2,231	90 ▲	1,100	89 ▲	1,648
Caucasian	89	5,883	89	1,552	89	1,708	90	1,407	90	455	89	761
African American	84 ↓	4,345	81 ↓	881	78 ↓	1,340	88 ▲	731	89 ▲	592	88 ▲	801
Hispanic	88	354	86	91	83	82	91	68	95	37	92	76
BREAST CANCER SCREENING												
21-64 years (NCQA Mean: 53.9)												
Overall	55	12,636	57	3,545	55 ▼	4,069	58	2,325	50 ▼	865	50 ▼	1,832
Caucasian	58	7,066	60	2,121	58	2,129	60	1,552	52 ▼	455	52 ▼	809
African American	51 ↓	4,935	51 ↓	1,233	51 ↓	1,755	54 ↓	655	47	367	50	925
Hispanic	56	360	61	101	57	84	52	75	63	30	47	70

▲▼ Denotes a statistically significant difference between practice size settings. Referent group= solo practices.

↑↓ Denotes a statistically significant difference between racial/ethnic groups. Referent group= Caucasians.

Appendix C: Bronx, New York

Of 206,681 members included in the Bronx, 59% were Hispanic, 25% were African American, and 6% were Caucasian. Sixteen percent of members were linked to solo practices; 25% were linked to the largest practices (those with >70 PCPs); and 44% were linked to FQHCs. When data were stratified by race/ethnicity and by practice size, numbers of Caucasians and of those linked to Sizes 3 and 4 were often low, limiting the power to detect differences.

For the Access to Care measures, across all adult and children age groups, Hispanics had significantly higher rates than Caucasians (overall, and sometimes within practice size categories). African Americans also had higher rates than Caucasians among adults and the oldest children. For adults and for children ages 12-24 months, those linked to FQHCs (and sometimes those linked to larger practices) generally had higher rates than those in solo practices. In contrast, among children ages 25 months to 19 years, those linked to FQHCs and often those linked to larger practices had lower rates than those linked to solo practices, overall and among Hispanics.

For HbA1c testing, overall members linked to Sizes 3, 5, and FQHCs had significantly higher rates than those linked to solo practices (absolute differences ranging from 10 to 18 percentage points). This significant difference often held true when the data were stratified by race. Overall and for each racial/ethnic group, rates were lowest in solo practices, though some of the differences were not statistically significant (in some cases due to small sample size).

Use of Appropriate Medications for People with Asthma rates were generally high. No significant racial/ethnic disparities were apparent, and the only significant difference by size was that Hispanics had significantly higher rates in FQHCs than in solo practices.

For breast cancer screening, Hispanics had significantly higher rates than African Americans and Caucasians overall (72% vs. 65%, p=.02 for Caucasians). Members linked to Sizes 2, 4, 5, and FQHCs had significantly higher rates than solo practices overall (absolute differences from 9 to 17 percentage points), and in some cases, also for Hispanics. Rates were generally high in comparison to the NCQA mean.

Bronx, New York: HEDIS Rates Stratified by Practice Size and Race/Ethnicity

BRONX, NY	OVERALL		SIZE 1 (solo)		SIZE 2 (2-5)		SIZE 3 (6-20)		SIZE 4 (21-70)		SIZE 5 (70+)		FQHCs	
		n		n		n		n		n		n		n
ADULT ACCESS TO CARE														
20-44 years (NCQA Median: 78.8)														
Overall	76	36,108	73	3,458	74	1,893	76 ▲	2,127	72	660	73	9,881	78 ▲	18,089
Caucasian	69	2,339	69	245	67	132	71	110	86	21	67	772	70	1,059
African American	75 ↑	9,157	71	801	73	489	74	555	70	164	72 ↑	2,166	77 ↑ ▲	4,982
Hispanic	77 ↑	21,268	75	2,107	75	1,063	77	1,291	72	426	74 ↑	5,803	79 ↑ ▲	10,578
45-64 years (NCQA Median: 84.3)														
Overall	85	18,262	80	1,482	83 ▲	941	85 ▲	855	87 ▲	362	86 ▲	6,384	86 ▲	8,238
Caucasian	80	1,302	69	130	77	65	75	48	85	13	81 ▲	479	82 ▲	567
African American	84 ↑	3,882	77	305	85 ▲	222	84	192	85	65	83 ▲	1,145	85 ↑ ▲	1,953
Hispanic	87 ↑	11,141	83 ↑	890	84	539	88 ↑ ▲	534	88	265	87 ↑ ▲	3,970	88 ↑ ▲	4,943
CHILDREN'S ACCESS TO CARE														
12-24 months (NCQA Median: 94.6)														
Overall	92	4,700	90	761	89	344	92	273	92	145	92	1,346	93 ▲	1,831
Caucasian	91	318	79	34	97	33	92	25	83	6	93 ▲	97	92 ▲	123
African American	90	1,171	85	150	88	66	93	67	86	50	87	316	93 ▲	522
Hispanic	93	2,433	93 ↑	465	89	188	93	147	96	76	93	629	94	928
25 months- 6 years (NCQA Median: 84.7)														
Overall	86	21,563	90	4,187	89	1,595	89	1,244	83 ▼	561	83 ▼	5,556	87 ▼	8,420
Caucasian	85	1,288	86	213	93	122	97	76	90	20	81	400	84	457
African American	83	5,447	84	785	88 ▲	328	86	317	82	220	80	1,293	84	2,504
Hispanic	88 ↑	12,221	92 ↑	2,777	89 ▼	945	89 ▼	734	83 ▼	248	84 ▼	3,033	88 ↑ ▼	4,484
7-11 years (NCQA Median: 83.9)														
Overall	86	15,644	89	3,040	87	1,145	85 ▼	808	83 ▼	283	83 ▼	3,810	87 ▼	6,558
Caucasian	83	564	85	95	77	52	80	30	100	2	77	184	91	201
African American	83	3,842	81	535	84	191	85	210	82	113	78	827	85 ↓ ▲	1,966
Hispanic	88 ↑	9,498	92 ↑	2,127	88 ↑ ▼	766	85 ▼	478	81 ▼	133	86 ↑ ▼	2,287	87 ▼	3,707
12-19 years (NCQA Median: 82.1)														
Overall	82	22,808	86	4,426	83 ▼	1,545	84 ▼	1,091	80 ▼	299	74 ▼	4,939	83 ▼	10,508
Caucasian	76	807	79	115	80	79	80	35	43	7	66 ▼	216	81	355
African American	79 ↑	5,323	82	795	78	282	85	247	84	94	68 ▼	940	82	2,965
Hispanic	84 ↑	14,816	87 ↑	3,241	86	1,059	85	713	80 ▼	158	77 ↑ ▼	3,320	85 ▼	6,325
HBA1C TESTING														
18-64 years														
Overall	46	6,899	34	606	39	423	44 ▲	331	38	130	52 ▲	2,361	45 ▲	3,048
Caucasian	45	445	29	45	38	37	42	24	67	3	51 ▲	143	47 ▲	193
African American	40	1,534	32	133	36	100	39	66	37	41	47 ▲	435	39 ↓	759
Hispanic	47	4,078	33	368	38	227	43 ▲	197	38	77	54 ▲	1,439	47 ▲	1,770
ASTHMA MEDICATIONS														
5-56 years (NCQA Mean: 85.7)														
Overall	89	5,099	87	598	91	274	89	198	86	91	90	1,339	89	2,599
Caucasian	88	151	100	9	80	5	75	8	100	1	91	54	86	74
African American	87	1,211	84	103	90	60	94	36	88	25	86	277	86	710
Hispanic	89	3,259	86	442	90	180	90	133	89	53	90	845	90 ▲	1,606
BREAST CANCER SCREENING														
21-64 years (NCQA Mean: 53.9)														
Overall	70	4,102	60	242	69 ▲	197	63	139	76 ▲	68	71 ▲	1,600	70 ▲	1,856
Caucasian	65	240	64	22	83	12	67	6	0	1	67	90	63	109
African American	65	826	57	37	71	42	54	28	63	16	67	267	64	436
Hispanic	72 ↑	2,618	61	160	68	123	64	86	84 ▲	45	74 ▲	1,084	73 ↑ ▲	1,120

▲▼ Denotes a statistically significant difference between practice size settings. Referent group= solo practices.

↑↓ Denotes a statistically significant difference between racial/ethnic groups. Referent group= Caucasians.

Appendix D: Erie County, New York

Of the 51,161 members included in Erie County, New York, 45% were Caucasian, 39% were African American and 11% were Hispanic. Overall, 13% of members were linked to solo practices and another 22% were linked to practices with three to five PCPs. Forty-five percent of members were linked to the two largest practice settings and FQHCs. The distribution of members across practice sizes varied by race/ethnicity. Forty-eight percent of Caucasians and 23% of African Americans were linked to practices with five or fewer PCPs. Larger percentages of African Americans than Caucasians (61% vs. 28%) were linked to the largest practices (those with 21 or more PCPs). Group comparisons were not possible in some cases for Erie County because of small numbers of people in each category when stratified by practice size and/or race/ethnicity.

For Access to Care measures among adults 20-44 years old and children 25 months and older, African Americans had significantly lower rates then Caucasians overall and often within practice size categories. Significant racial disparities in Access to Care were observed between African Americans and Caucasians for all children aged 25 months and older, with African Americans having lower rates – both overall, and often when stratified by practice size. While strong patterns related to care among Hispanics were not apparent, Hispanics had significantly lower rates than Caucasians among children ages 25 months-6 years and those 7-11 years old.

Among children ages 7-11 and 12-19, overall Access to Care rates in Sizes 4 and 5, and FQHCs were lower compared to solo practices. Differences by race or practice size were not observed in Access to Care rates for the youngest children or for adults ages 44-65 years old.

For HbA1c testing, Caucasians had significantly lower rates than Hispanics overall and in Size 1 (overall- 44% vs. 66% and Size 1- 38% vs. 72%; both p<.001). A consistent pattern by practice size was not apparent, though overall, those linked to Size 5 had the highest rates.

Use of Appropriate Medications for People with Asthma rates were generally high, however low member volume prevented the detection of patterns of significance between racial and ethnic groups and practice sizes. Overall, however, those linked to Sizes 2 and 4 had lower rates than those linked to solo practices.

For breast cancer screening, Caucasians had significantly lower rates than African Americans and Hispanics overall (53%, 64%, 73%). While practice Size 2 had lower screening rates than solo practices, a consistent pattern was not observed across other categories.

Erie County, New York: HEDIS Rates Stratified by Practice Size and Race/Ethnicity

ERIE CO, NY	OVERALL		SIZE 1 (solo)		SIZE 2 (2-5)		SIZE 3 (6-20)		SIZE 4 (21-70)		SIZE 5 (70+)		FQHCs	
		n		n		n		n		n		n		n
ADULT ACCESS TO CARE														
20-44 years (NCQA Median: 78.8)														
Overall	83	9,221	83	1,525	84	1,785	85	1,246	83	3,378	82	937	85	350
Caucasian	85	4,600	85	865	86	1,330	88 ▲	845	83	1,150	84	239	91 ▲	171
African American	80 ↓	3,333	76 ↓	388	79 ↓	290	77 ↓	307	83 ▲	1,909	74 ↓	294	77 ↓	145
Hispanic	86	936	91 ↑	219	76 ↓ ▼	88	79 ▼	43	84 ▼	201	88	362	83	23
45-64 years (NCQA Median: 84.3)														
Overall	89	3,902	90	845	90	727	89	466	88	1,377	87	374	93	113
Caucasian	89	2,044	89	441	90	547	90	306	87	568	90	128	96	54
African American	88	1,281	89	250	90	112	87	115	87	659	84	95	90	50
Hispanic	92	343	94	119	82	22	100	15	92	66	90	117	100	4
CHILDREN'S ACCESS TO CARE														
12-24 months (NCQA Median: 94.6)														
Overall	98	1,368	96	106	98	321	98	240	97	495	100	141	98	65
Caucasian	97	590	96	67	98	187	97	156	99	137	100	19	96	24
African American	98	560	96	27	99	102	98	64	96	281	100	63	100	23
Hispanic	99	163	100	7	100	18	100	12	98	59	100	54	100	13
25 months- 6 years (NCQA Median: 84.7)														
Overall	91	6,288	94	508	94	1,382	93	1,075	89 ▼	2,388	91	641	89 ▼	294
Caucasian	94	2,592	94	309	95	818	95	656	94	602	93	88	92	119
African American	88 ↓	2,614	90	108	92 ↓	414	88 ↓	302	86 ↓	1,366	90	311	83 ↓	113
Hispanic	91 ↓	757	95	55	92	76	93	46	91	318	91	220	90	42
7-11 years (NCQA Median: 83.9)														
Overall	86	4,296	91	400	90	894	90	632	83 ▼	1,621	82 ▼	520	79 ▼	229
Caucasian	91	1,546	94	217	92	508	92	324	89	348	83 ▼	69	89	80
African American	81 ↓	1,895	85 ↓	86	88	276	86 ↓	224	79 ↓	940	79	265	71 ↓ ▼	104
Hispanic	85 ↓	594	87	55	84	51	88	40	85	249	86	165	82	34
12-19 years (NCQA Median: 82.1)														
Overall	85	5,794	88	648	87	1,092	87	726	84 ▼	2,140	84 ▼	853	83 ▼	335
Caucasian	88	2,078	91	351	89	627	89	376	87	487	82 ▼	130	84	107
African American	82 ↓	2,557	79 ↓	152	83 ↓	345	83	255	81 ↓	1,217	84	394	81	194
Hispanic	89	782	94	87	91	65	84	31	89	318	87	263	89	18
HBA1C TESTING														
18-64 years														
Overall	46	1,577	45	376	44	282	48	183	44	561	55 ▲	175	32	41
Caucasian	44	698	38	169	42	187	54 ▲	104	47	193	47	45	42	19
African American	40	582	37	120	51	61	33 ↓	55	40	304	50	42	18	17
Hispanic	66 ↑	214	72 ↑	74	38 ▼	13	57	14	63	40	68 ↑	73	25	4
ASTHMA MEDICATIONS														
5-56 years (NCQA Mean: 85.7)														
Overall	93	861	96	207	89 ▼	156	95	106	91 ▼	254	93	106	100	32
Caucasian	93	342	93	57	89	106	98	57	94	81	93	27	100	14
African American	92	260	90	40	90	31	88	32	91	112	97	30	100	15
Hispanic	96	207	100	101	90	10	100	5	89	46	93	44	100	1
BREAST CANCER SCREENING														
21-64 years (NCQA Mean: 53.9)														
Overall	60	814	63	174	49 ▼	138	65	79	60	321	65	102	64	28
Caucasian	53	389	54	82	47	92	66	50	51	131	56	34	67	15
African American	64 ↑	283	71	51	55	31	63	24	63 ↑	150	63	27	78	9
Hispanic	73 ↑	79	73	30	50	4	50	2	86	14	72	29		2

▲▼ Denotes a statistically significant difference between practice size settings. Referent group= solo practices.

↑↓ Denotes a statistically significant difference between racial/ethnic groups. Referent group= Caucasians.

Appendix E: Southwest Pennsylvania

Of the 210,991 members included in Southwestern Pennsylvania, 71% were Caucasian, and 27% were African American. Sixty-one percent of practice sites were solo practices and 26% of sites had two or three PCPs. Overall, 29% of members were linked to solo practices and 21% were linked to practices with two or three PCPs. The distribution of members across practice sizes varied by race/ethnicity. Fifty-eight percent of Caucasians and 30% of African Americans were linked to practices with three or fewer PCPs. Larger percentages of African Americans than Caucasians were linked to the largest practices (32% vs. 8%) and African Americans were also more likely to be linked to FQHCs than were Caucasians (20% vs. 11%).

Racial disparities in Access to Care were significant in all child and adult age groups (rates for African Americans being lower than Caucasians; p<.001 for all). When members were stratified by practice size, these differences remained significant (p<.01) among members in almost all ages and practice size groupings – except among some of the older adults and children in the youngest age category. Absolute racial disparities were largest among older children/adolescents (9 percentage point differences). Sizes 2 and 3 often had significantly higher access rates than did solo practices, while Size 4 (among adults and children) and FQHCs (among children only) often had rates significantly below solo practices.

For HbA1c testing, African Americans had lower rates than Caucasians overall (57% vs. 60%; p=.015) and in Size 1 (51% vs. 57%; p=.045) and Size 2 (53% vs. 62%; p=.007). FQHCs and all practice sizes with more than one physician had significantly higher rates than solo practices (for example, 64% in Size 4 vs. 56% in Size 1; p=.001).

For the asthma measure, African Americans had significantly lower rates than Caucasians overall (84% vs. 88%; p<.001) and in Sizes 3 and 4. By practice size, those linked to Sizes 2 and 3, and FQHCs had significantly higher rates than those linked to solo practices overall, and in some cases, also when stratified by race.

For breast cancer screening, Caucasians had significantly lower rates than did African Americans overall (58% vs. 63%; p<.001) and in Sizes 3 and 4. In particular, African Americans had high screening rates in the largest practices (60% in Size 1 vs. 72% in Size 4; p<.001).

Southwest Pennsylvania: HEDIS Rates Stratified by Practice Size and Race/Ethnicity

SOUTHWEST PENNSYLVANIA	OVERALL		SIZE 1 (solo)		SIZE 2 (2-3)		SIZE 3 (4-10)		SIZE 4 (11+)		FQHCs	
		n		n		n		n		n		n
ADULT ACCESS TO CARE												
20-44 years (NCQA Median: 78.8)												
Overall	81	62,382	81	19,142	82 ▲	15,677	82 ▲	10,993	79 ▼	7,005	81	9,565
Caucasian	82	46,156	81	15,719	83 ▲	13,010	83 ▲	8,268	80	2,998	82	6,161
African American	79 ↓	15,155	79 ↓	3,117	79 ↓	2,397	79 ↓	2,499	78 ↓	3,874	78 ↓	3,268
45-64 years (NCQA Median: 84.3)												
Overall	85	35,683	85	12,223	85	9,315	86	5,925	84 ▼	3,110	84	5,110
Caucasian	86	27,491	86	10,155	86	7,756	86	4,532	84	1,586	86	3,462
African American	83 ↓	7,563	82 ↓	1,842	83 ↓	1,397	86 ▲	1,257	83	1,476	81 ↓	1,591
CHILDREN'S ACCESS TO CARE												
12-24 months (NCQA Median: 94.6)												
Overall	96	8,922	97	2,255	97	1,683	98	2,650	94 ▼	1,552	94 ▼	782
Caucasian	97	6,226	97	1,877	97	1,383	98 ▲	2,046	97	574	94 ▼	346
African American	94 ↓	2,434	96	321	95	253	96 ↓	503	93 ↓	943	94	414
25 months- 6 years (NCQA Median: 84.7)												
Overall	88	35,573	88	9,247	91 ▲	6,370	91 ▲	10,283	84 ▼	6,224	84 ▼	3,449
Caucasian	91	24,225	89	7,698	91 ▲	5,088	92 ▲	7,737	90	2,199	88 ▼	1,503
African American	82 ↓	10,204	83 ↓	1,317	87 ↓ ▲	1,055	85 ↓	2,131	80 ↓	3,834	81 ↓	1,867
7-11 years (NCQA Median: 83.9)												
Overall	89	27,183	90	7,242	91	4,615	92 ▲	6,925	84 ▼	5,140	87 ▼	3,261
Caucasian	92	18,212	91	5,945	93 ▲	3,664	94 ▲	5,254	91	1,835	91	1,514
African American	83 ↓	8,376	85 ↓	1,158	85 ↓	840	86 ↓	1,471	80 ↓ ▼	3,208	84 ↓	1,699
12-19 years (NCQA Median: 82.1)												
Overall	88	38,104	89	10,490	89	6,541	90	8,792	82 ▼	6,918	87 ▼	5,363
Caucasian	90	25,590	90	8,642	90	5,187	92 ▲	6,638	90	2,359	90	2,764
African American	82 ↓	11,902	84 ↓	1,696	85 ↓	1,262	82 ↓ ▼	1,967	78 ↓ ▼	4,446	84 ↓	2,531
HBA1C TESTING												
18-64 years												
Overall	59	6,947	56	2,196	60 ▲	1,792	59 ▲	1,147	64 ▲	615	62 ▲	1,197
Caucasian	60	5,250	57	1,744	62 ▲	1,494	59	828	65 ▲	297	63 ▲	887
African American	57 ↓	1,593	51 ↓	415	53 ↓	276	59 ▲	297	61 ▲	308	60 ▲	297
ASTHMA MEDICATIONS												
5-56 years (NCQA Mean: 85.7)												
Overall	87	6,120	84	1,872	88 ▲	1,356	88 ▲	1,268	86	803	88 ▲	821
Caucasian	88	4,550	85	1,590	88 ▲	1,134	90 ▲	965	89	360	89 ▲	501
African American	84 ↓	1,469	80	255	87	201	83 ↓	274	83 ↓	430	87 ▲	309
BREAST CANCER SCREENING												
21-64 years (NCQA Mean: 53.9)												
Overall	59	10,164	58	3,559	57	2,672	59	1,725	65 ▲	876	57	1,332
Caucasian	58	7,873	58	2,962	57	2,226	58	1,299	60	445	57	941
African American	63 ↑	2,104	60	530	59	396	64 ↑	382	72 ↑ ▲	419	58	377

▲▼ Denotes a statistically significant difference between practice size settings. Referent group= solo practices.

↑↓ Denotes a statistically significant difference between racial/ethnic groups. Referent group= Caucasians.

CHCS Resources

The Center for Health Care Strategies (CHCS) works with Medicaid stakeholders across the country to design, implement and evaluate programs to address health care disparities and improve quality for all populations. To download these and other CHCS resources, visit H**www.chcs.org/resourcesH**:

From Policy to Action: Addressing Racial and Ethnic Disparities at the Ground-Level: This issue brief reports on practical strategies that purchasers and plans are implementing nationally to address gaps in care. It highlights the need for standardized collection of race, ethnicity and language data, culturally competent approaches, and the involvement and commitment of multiple stakeholders.

Reducing Racial and Ethnic Disparities: Quality Improvement in Medicaid Managed Care Toolkit: This toolkit details the experiences of a collaborative group of Medicaid managed care organizations that worked together to identify racially and ethnically diverse beneficiaries, measure the gaps in their care, and explore ways to reduce disparities and improve overall health care quality.

Using Data on Race and Ethnicity to Improve Health Care Quality for Medicaid Beneficiaries: This issue brief draws on practical examples from across the country to demonstrate how states are using data on race and ethnicity to improve the quality of care for Medicaid beneficiaries.

www.chcs.org

J. Moon, "Using Data to Identify High-Volume, High-Opportunity Practice Sites: A Medicaid Primer." Center for Health Care Strategies, Inc., October 2008.

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