Health Disparities as a Quality Measure

State of California Office of the Patient Advocate
John Zweifler, MD MPH Medical Consultant
Cori Reifman, MPH Project Manager

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Overview of Presentation

- Existing data sources
  - Research findings
- Geography and health disparities
- Collecting race/ethnicity data
- Language access measures

Reasons for Disparities

- Environment
- Socioeconomic
  - Education, income, work,…
- Access to care
- Quality of care
  - Providers, type of insurance
- Genetics
- Behaviors
  - Diet, exercise, smoking,…

P4P- IOM Style*

- Timely
- Safe
- Effective
- Efficient
- Patient centered
- Equitable-aka no disparities!
  - * IOM. Crossing the Quality Chasm. 2001

HEDIS

- “Healthcare Effectiveness Data and Information Set”
- Set of performance measures developed by NCQA
- Used in NCQA voluntary accreditation process
- Enables health plans to be compared at state, regional and national level

HEDIS – Research Findings

- Gap between adequate glucose control for black and white Medicare enrollees increased from 4% in 1997 to 7 % in 2003
- Gap in cholesterol control in same groups increased from 14% to 17%
- 2003 gap 1-2% for mammograms,diabetic eye exams and LDL testing, HgBA1C testing, and beta-blocker post MI.
  - Trivedi AN, et al. NEJM 2005;353:692-700
- Blacks in Medicare with lower scores than whites
  - Schneider EC. JAMA 2002;287:1288-1294

Consumer Assessment of Health Plans Study (CAHPS)

- Family of standardized nationwide surveys to assess consumer experience with health/medical care
- Enrollee variables include self-reported health status, age, gender,education, race/ethnicity
- Plan variables include product line, state, and year
- Comparisons without individual or plan identifiers available through National CAHPS Benchmarking Database (NCBD)
- CAHPS global ratings not consistently associated with HEDIS scores
  - Schneider EC. Med Care 2001;39(12):1313-1325

CAHPS – Research Findings*

- Medicaid managed care members in good health rate care higher than members in good health in commercial plans*
- Older, less educated, black, and hispanic members more likely to rate plans higher
- Ratings not affected by health status
  - *Roohan et al. HSR. 2003;38:4:1122-34

CAHPS and Disparities

- Parent age, education, child health status, and race affected pediatric results
  - Kim M. Med Care. 2005;43(1):44-52
- Most racial/ethnic minorities report similar experiences to whites in CAHPS 1.0
  - Asians report worse care
    - Morales LS. HSR. 2001;36(3):595-617
- Medicaid managed care racial/ethnic minorities report worse care than whites in CAHPS 3.0
  - In-plan effect greater than effect of clustering in lower rated plans
  - Weech-Maldonado.JGIM. 2004;19:136-145
- Minorities rate care equal or better than whites, with between plan variation, but report less access
  - Lurie N. Am J Manag Care. 2003;9:502-509

Impact of Racial and Ethnic Diversity on California CAHPS Scores*

- CAHPS survey results case-mix adjusted for age, gender, and self-reported health status
  - *Not* adjusted for race and ethnicity
- California's diverse demographics may significantly impact its CAHPS scores
  - More non-whites than whites in California
  - In 2000 census, 35% Hispanic/Latino, 12% Asian,7% black
  - In 2005 California ranked 2nd in nation for % population Asian

*Zweifler J, Hughes S, Lopez R. Submitted for publication Jan. 2008

Results*

- California adults reports of satisfaction on CAHPS differed from the rest of nation
  - More likely to rate care lower
  - More likely to rate their health plan itself higher
  - More likely to rate their doctor and their interactions lower
- California scores relative to nation did not change after controlling for race/ethnicity
- Consistent differences in CAHPS scores between racial and ethnic groups. In both California and the nation:
  - Blacks more likely to rate their doctor, their plan, and their care higher than whites
  - Asians more likely to rate their care, courtesy, understand, and respect lower than whites
  - Hispanics more likely to rate their plan higher than whites.

*Zweifler J, Hughes S, Lopez R. Submitted for publication Jan. 2008

Odds Ratio for California compared to Nation controlling for age, gender, insurance type, time in plan, education, general health rating with and without race/ethnicity

Characteristic	Including Race/Ethnicity	No Race/Ethnicity
MD rating	0.93	0.94
Plan rating	1.09	1.11
Care rating	0.87	0.85
Courtesy	0.85	0.79
Understand	0.92	0.90
Respect	0.89	0.89

Odds Ratio for California CAHPS responses by race/ethnicity compare to whites controlling for age, gender, insurance type, time in plan, education, and general health rating with significant results bolded

Race/ Ethnicity	Rate MD	Rate plan	Rate care	Courtesy	Understand	Respect
White	1.00	1.00	1.00	1.00	1.00	1.00
Black	**1.56**	**1.53**	**1.39**	1.28	1.22	**1.47**
Asian/PI	**0.81**	0.97	**0.78**	**0.48**	**0.73**	**0.78**
Hispanic	1.11	**1.15**	0.97	0.89	1.02	1.14

Agency for Healthcare Research and Quality (AHRQ)

- Produces annual National Healthcare Disparities Report (NHDR)
- Based on National Healthcare Quality Report (NHQR)
  - Addresses health status and access
  - Includes inpatient, outpatient, and nursing home indicators

NHDR 2006

- Blacks received worse care than whites on 73% of measures
  - 9% received better care
  - Disparities increasing in 30% of categories
    - Decreasing in 20%
- Hispanics received worse care than whites on 77% of measures
  - 18% received better care
  - Disparities increasing in 20% of categories
    - Decreasing in 30%
- 71% of poor people received worse care than whites
  - 6% received better care
  - Disparities increasing in 67% of categories
    - Decreasing in 25%

Behavioral Risk Factor Surveillance System (BRFSS)

- Sponsored by CDC and states
- Telephone survey of 2,000-6,000 adults/state
- Core questions, states can customize
- Targets alcohol and drug use, health status, prevention, utilization, and access
- Collects gender, age, educational attainment, race/ethnicity, household income, employment status, and marital status

2004 Oregon Health Risk Health Status Survey Report

- Personal doctor
  - White 71%, African American 64%, Hispanic 65%
- Needed care, did not get
  - White 18%, African American 27%, Hispanic 23%
- Little racial/ethnic variability for some measures
  - Getting appointments as soon as wanted
  - Physical, and mental composite summary scores

California Health Interview Survey (CHIS)

- Reported by the UCLA Center for Health Policy Research
- Provides information on health and access to health care services
- Telephone survey of 40-50,000 California adults, adolescents, and children
- Conducted every two years since 2001
- CHIS is the largest state health survey in the United States
- Oversamples racial and ethnic minorities with multi-language interviews
- Collaborative project of the UCLA Center for Health Policy Research, the California Department of Health Care Services, and the Public Health Institute
- Funding from state and federal agencies and private foundations

Distribution of Private HMO Enrollees 18 - 64 by Race and Plan: CHIS 2005 (Paringer L.)

	White	African American	Asian	Other
Name of Plan	**%**	**%**	**%**	**%**
Kaiser	56.9	8.5	13.3	21.3
Blue Cross	58.7	7.0	14.5	19.8
PacifiCare	61.4	6.4	15.2	17.0
Blue Shield	67.4	3.8	11.4	17.4
Health Net	61.7	6.1	15.9	16.3
Aetna/US/Prudential	58.7	4.7	15.5	21.1
Cigna	63.8	3.3	15.1	17.8
Other HMO	56.9	4.1	14.8	24.2

Geography and Health Disparities

- Less known about how place/geography impacts health indices than race/ethnicity or socioeconomics
- Attractive because of potential to target resources to poorer performing regions
- Geographic information systems highlight differences
- Geography can be associated with less access to care*
  - May also be associated with lower quality care

*http://ideas.repec.org/p/nbr/nberwo/9513.html

Geographic Disparities-State to State Comparisons

- **AHRQ National Healthcare Quality Report compares states to their region and to other states on performance measures for:**
  - Overall health care quality
  - Types of care (preventive, acute, and chronic)
  - Settings of care (hospitals, ambulatory care, nursing home, and home health)
  - Specific conditions
  - Clinical preventive services
- Similar reports from Commonwealth Fund
  - Aiming Higher. The Commonwealth Fund On a High Performance Health System. June, 2007

Geographic Disparities: Rural-Urban*

- 20% of US population living in rural areas with;
- higher rates of chronic illness and poor overall health compared to urban populations
  - older, poorer, and fewer physicians to care for them
  - less likely to have employer-provided health care coverage
  - If poor, often not covered by Medicaid.

* http://www.raconline.org/info_guides/disparities/ Rural Assistance Center

Geographic Disparities

- Life expectancy in 2001 varied when groups created using county level census data for race, with similar income and murder rates*
- Study created 8 groups: high risk urban, rural Southern poor, or "middle America" blacks; Asian; western Native American; and rural Appalachian,Mississippi, or middle America whites
- Largest disparity 20.7 years between Asian women and high risk urban black men

*Murray CJL, Kulkarni SC, Michaud C, Tomijima N, Bulzacchelli M, et al. (2006) Eight Americas: Investigating mortality disparities across races, counties, and race-counties in the United States. PLoS Med 3(9): e260. DOI: 10.1371/journal.pmed.0030260

Disparities in Mental Health Services*

- CHIS 2001 data
- 16% of Californians, and 20% of Latinos and African Americans reported needing mental health services
- 42% of Californians reporting needing mental health received mental health services
- Minorities 30% less likely to receive mental health services
- LEP 80% less likely to receive mental health services after controlling other variables
- Lack of insurance reduced services by 50%

*Sentell P.California Program on Access to Care Findings. February 10, 2005

Disparities in Medicare*

- HEDIS outcome measures for black enrollees 6.8% to 14.4% white enrollees
- >70% of disparity due to different outcomes for black and white individuals enrolled in same health plan rather than selection of black enrollees into lower-performing plans
  - Only 1 health plan achieved both high quality and low disparity on more than 1 measure.

Conclusions:

- In Medicare health plans, disparities vary widely and are only weakly correlated with overall quality of care.
- Plan-specific performance reports of racial disparities on outcome measures would provide useful information not currently conveyed by standard HEDIS reports.

***Relationship Between Quality of Care and Racial Disparities in Medicare Health Plans** Amal N. Trivedi; Alan M. Zaslavsky; Eric C. Schneider; John Z. Ayanian J*AMA.* 2006;296:1998-2004

Disparities in Surgeries*

- **Objective:** To identify patient characteristics associated with the use of complex surgeries at high-volume hospitals, using California's OSHPD patient discharge database.
- **Findings:**
- Blacks less likely than whites to receive care at high-volume hospitals for 6 of 10 operations.
- Asians and Hispanics less likely to receive care at high-volume hospitals for 5 and 9 respectively.
- Medicaid patients were significantly less likely than Medicare patients to receive care at high-volume hospitals for 7 of the operations.
- **Conclusions:** There are substantial disparities in the characteristics of patients receiving care at high-volume hospitals.

*Jerome H. Liu; David S. Zingmond; Marcia L. McGory; Nelson F. SooHoo; Susan L. Ettner; Robert H. Brook; Clifford Y. Ko *JAMA.* 2006;296:1973-1980

Disparities in Cancer Survival*

- Based on Surveillance, Epidemiology, and End Results (SEER)
- Patient addresses linked to socioeconomic census data
- Findings: blacks with breast cancer have worse all cause survival than whites
  - Comorbidity adjustment reduced disparities 50-75%

*Tammemagi CM. JAMA. 2005;294:1765-1772

Disparities for Medicaid Recipients

- **Objective:** study care received for non–ST-segment elevation acute coronary syndromes
- Methods: 37,345 patients younger than age 65 years and 59,550 patients age 65 years or older.
- **Results:** Compared with privately insured patients, Medicaid patients received fewer guideline-recommended services at admission or discharge
  - Experienced greater delays in receiving invasive procedures
  - In-hospital mortality rate higher

*__Insurance Coverage and Care of Patients with Non–ST-Segment Elevation Acute Coronary Syndromes__ James E. Calvin, Matthew T. Roe, Anita Y. Chen, Rajendra H. Mehta, Gerard X. Brogan, Jr., Elizabeth R. DeLong, Dan J. Fintel, W. Brian Gibler, E. Magnus Ohman, Sidney C. Smith, Jr., and Eric D. Peterson

Disparities in Referrals

- Assessed the association between race and referral to cardiac rehabilitation programs
  - Studied 1933 eligible patients
- RESULTS: Whites more likely to be referred for cardiac rehabilitation than blacks
  - Controlled for age, education, socioeconomic status, and insurance
  - OR = 1.81; 95% CI = 1.22-2.68
- CONCLUSION: Among those patients who were eligible for cardiac rehabilitation, race is independently associated with the likelihood of referral for cardiac rehabilitation.
- Am J Phys Med Rehabil. 2006 Sep;85(9):705-10

Procedures for Whites and Blacks*

- Per 1000 Medicare recipients 2001
  - Aortic Aneurysm: whites 1.59 blacks .51
  - Angioplasty: whites 28.19 blacks 19.67
  - Back Surgery: whites 4.70 blacks 2.51
  - CABG: whites 9.80 blacks 4.11
  - Carotids: whites 4.42 blacks 1.44
  - Total Hip: whites 2.60 blacks 1.08
  - Valve Surgery: whites 1.91 blacks .71
    - *Jha AK et al. NEJM 2005;353:683-91

Management and Mortality Post MI*

- National Registry of MIs: 1994-2002
- Adjusted for medical, personal, and hospital characteristics
- Compared to white men; white women, black men, and black women were:
  - Less likely to have angiography (OR-.91,.86,.76)
  - Less likely to have CABG (OR-.73, .74,.63)
  - Little difference in in-hosp. mortality (1.05,.95,1.11)
    - *Vaccarino et al. NEJM 2005;353:671-82

Disparities in California Patients Admitted for Angina or MI

- OSHPD patient discharge data 1999-2001
- Angiography
  - Whites 23.4%, blacks 20.6%, hispanics 24.6%
- Percutaneous Coronary Intervention
  - Whites 22.9%, blacks 13.4%, hispanics 17.7%
- CABG
  - Whites 5.0%, blacks 2.7%, hispanics 4.4%
- 30 day mortality for MI
  - Whites 13.04%, blacks 12.50%, hispanics 12.91%

Disparities in California Hospitalizations

- Office of Statewide Health Planning and Development (OSHPD)
- Racial and Ethnic Disparities in Healthcare in California. November, 2003
- Blacks with higher admit rates than whites for CHF, asthma, diabetes, and hypertension
- Hispanics with higher admit rates for perforated appy, lower for pneumonia and dehydration

Improving Population Health and Reducing Health Care Disparities*

- Disparities in achieving Healthy People 2010 goals
  - Disparities reduced by 10% or more in 24 of 195 goals
  - Disparities increased by 10% or more in 14 of 195 goals
- Potential Reasons for Little Disparity Progress
  - Resources aimed at general population
    - Regional or local data on disparities unavailable
    - Pressure to allocate available resources broadly
  - Concludes targeted resources to address disparities are needed

*Keppel K et al Health Affairs 26, no. 5 (2007):1281-1292

Health Disparity Interventions in Community Health Centers*

- Based on HRSA Health Disparities Collaborative
- Premise was to reduce disparities by improving all care in settings caring for large numbers of underserved patients
- Intervention included 2 day training in QI techniques, disease registry software, and instruction in the Chronic Care Model
- Found improvements in process measures for diabetes and asthma, not hypertension
  - No improvements in outcome measures found

*Landon BE et al. N Engl J Med 2007:356:921-34

Collecting Race and Ethnicity Data*

- Authorized under Title VI of Civil Rights Act
- CMS charges its state level peer review organizations with reducing disparities
  - Medicare Managed Care companies must identify racial and ethnic disparities in clinical outcomes
- MCH requires prenatal care and deliveries reports by race ethnicity
- Substance Abuse and Mental Health Services Administration requires mental health services reports by race ethnicity
- JCAHO field tested standards for collecting race, ethnicity, and language data, but 2006 standards only reference language
- More than 80% of those surveyed felt health care providers should collect race-ethnicity data
  - Discomfort with how data collected and for what purpose used
- Self report more accurate than staff observation

*Hasnian-Wynia R. Baker DW. Health Research and Educational Trust. DOI: 10.1111/j.1475-6773.2006.00552.x

AHIP Collection and Use of Race and Ethnicity Data for Quality Improvement*

- Based on survey of health plans in 2006
  - 60% of plans with 87 million members responded
- Findings
  - 67% of enrollees in plans collecting race/ethnicity
    - Increase of 500% since 2003
    - More common in Medicaid or Medicare plans
  - 58% in plans collecting data on primary language of enrollees
  - 44% collect race/ethnicity/language of physicians
    - 72% Medicare, 32% commercial

*Gazmararian J. AHIP November 2006. Sponsored by RWJ

AHIP Collection and Use of Race and Ethnicity Data for Quality Improvement*

- Reasons for Collecting Data
  - Support language and culturally appropriate communications to enrollees
  - Identify racial and ethnic disparities
  - Implement or strengthen QI efforts
- Barriers
  - No good method for data collection
  - Costs, IT capability
  - Not commonly collected or enrollee resistance

*Gazmararian J. AHIP November 2006

AHIP Collection and Use of Race and Ethnicity Data for Quality Improvement*

Recommendations

- Develop comprehensive standards on how best to collect race, ethnicity and primary language data from enrollees and providers
- Ensure uniformity in data collection
- Expand cultural competency training
- Conduct research and identify best practices to reduce disparities

*Gazmararian J. AHIP November 2006. Sponsored by RWJ

Limited English Proficiency (LEP)

- Larger negative effect on pediatric CAHPS scores than race/ethnicity
  - Weech-Maldonado. HSR 2001;36(3) 575-594
- 3.4 million adult HMO enrollees in California speak a language other than English at home*
  - Of these, 30% report not being able to speak English well

*Kominski G. Reifman C. Cameron M. Roby D. UCLA Center for Health Policy Research Brief. May 2006.

Department of Managed Health Care (DMHC) Title 28 Revisions

- Drafted in response to SB 853
- Went into effect February 23, 2007
- Section 1300.67.04: Language Assistance Programs
- Every health care service plan and specialized health care service plan shall assess its enrollee population to develop a demographic profile and survey the linguistic needs of individual enrollees, including:
  - Calculating threshold languages and reporting to DMHC

Department of Managed Health Care (DMHC) Title 28 Revisions

- Section 1300.67.04 Cont.
  - Survey enrollees to identify linguistic needs of each of the plan's enrollees, and record in enrollee's file
  - Collect, summarize and document LEP enrollee demographic profile data while maintaining confidentiality
    - Disclose to DMHC on request for regulatory purposes
    - Disclose to providers on request for lawful purposes, language assistance, and quality improvement

Assessing LEP and Language Assistance Services

- In California, MRMIB and OPA have published Health Plan surveys of LEP services
- CAHPS Commercial adult survey inquires about primary language, and need to use someone else to complete survey
  - 4% of enrollees LEP
    - Small numbers limits ability to do meaningful surveys
- Medicaid asks questions regarding use and availability of interpreter services

OPA Cultural and Language Services Survey

- Survey of California health plans
  - Commercial and public
- Data collected and publicly reported since 2001
  - Descriptive data by product line and language
  - Comparative ratings generated for Plans by product line
- OPA Work group
  - Collaboration involving industry and consumer advocate stakeholders informs process

Potential Language Assistance Measures

- Health plan surveys
  - Availability of materials in threshold languages
  - Interpreter services, training, and availability
  - Staff and Provider Training
  - Monitoring
- Member surveys
  - Need for language assistance services
  - Availability and adequacy of language services
- Demographic information
  - Collected from enrollees
  - Reported to oversight agencies

English Language Proficiency by Plan for Private HMO Enrollees 18 – 64, CHIS 2005 (Paringer, L.)

Plan	Only English or English well/very well	Speaks English Poorly/Not at All	N
Name of Plan	%	%	
Kaiser	92.9	7.1	3,709,681
Blue Cross	90.2	9.8	1,456,347
PacifiCare	94.7	5.3	821,666
Blue Shield	93.9	6.1	758.797
Health Net	93.2	6.8	772,902
Aetna/US/Prudential	91.1	8.9	305,859
Cigna	89.3	10.7	216,534
Other HMO	85.6	14.4	914,957

Measuring Racial and Ethnic Health Care Disparities in Massachusetts*

- Boston Public Health Commission and Mass. Div. Of Health Care Finance and Policy require all hospitals in city and state to collect on all patients;
  - Race and ethnicity
  - Preferred language
  - Level of education

*Weinick et al. hlthaff.26.5.1293 2007

MDPH Race-Ethnicity and Language Preference Instrument

- **Last revised November 28, 2006**
- ***Introduction:*** ***In order to guarantee that all patients receive the highest quality of care and to ensure the best services possible, we are asking all patients about their race, ethnicity, and language.***
- **Are you Hispanic/Latino/Spanish?**
- **What is your ethnicity? (You can specify one or more)**
  - 33 options
- What is your race?
  - 7 options
- **4. In what language do you prefer to discuss health-related concerns?**
  - 13 options
- **5. In what language do you prefer to read health-related materials?**

Issues with MDPH Race-Ethnicity and Language Preference Instrument

- Only applies to hospitals at present
- Health plans unsure best way/place to collect data
- Data systems make it difficult to collect more than one race/ethnicity identifier
- Confusing to pts when separate race from ethnicity
- Questions about what data will be used for

Measuring Racial and Ethnic Health Care Disparities in Massachusetts*

- Three principles
  - Patients self identify race and ethnicity
  - Categories reflect Massachusetts population
  - Capable of rolling up data to match federal definitions
- Quarterly reports required
- Legislation ties quality improvement to pay for performance incentives

*Weinick et al. hlthaff.26.5.1293 2007

Some Parting Thoughts

- Disparities are a legitimate quality measure
- Identifying disparities is dependent on collecting demographic information
- Measure development in P4P
  - Standardized measures still in development
  - Explore stratifying existing clinical and member satisfaction data by known demographic variables
  - Transparency promotes accountability and consumer awareness*
    - *IOM- “Crossing the Quality Chasm” 2001