

Integrating Research and Practice: Reducing disparities in healthcare

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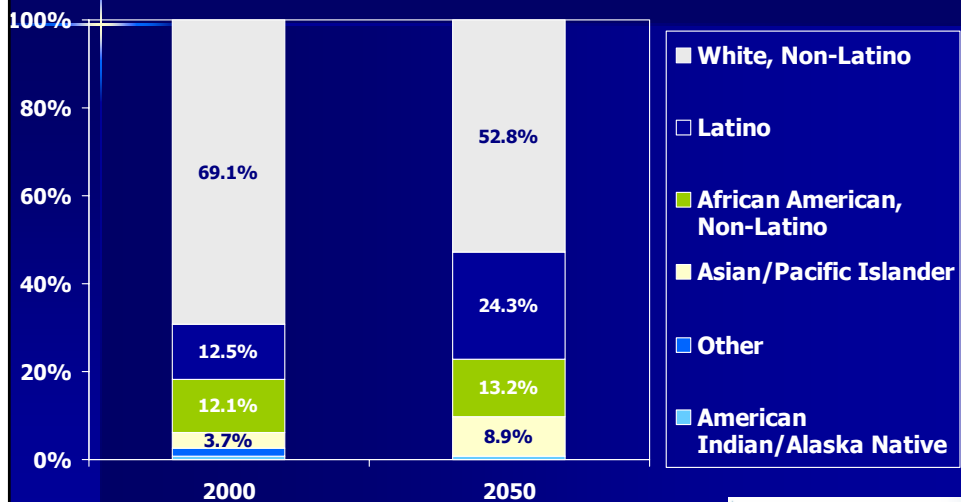
Overview

- Demographic trends
- What is the challenge?
 - IOM report – Unequal Treatment 2003
 - Defining the problem
 - Trends in care
- Interventions to reduce racial disparities
 - IOM report - strategies
 - How are we doing in Wisconsin
- A research agenda



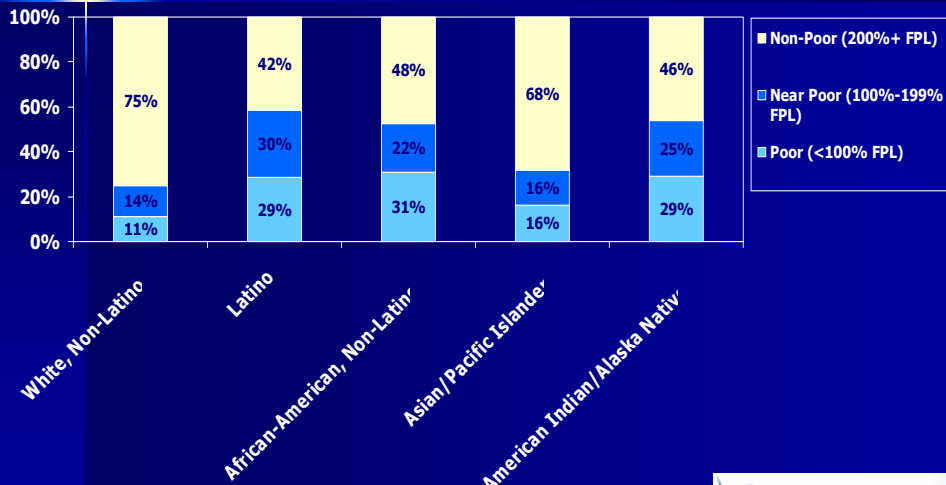
Demographic Trends

Percent Distribution of U.S. Population, by Race/Ethnicity: 2000 & 2050



(Source: US Census Bureau, Census 2000 Redistricting Data and Population Projections Program, Population Division)

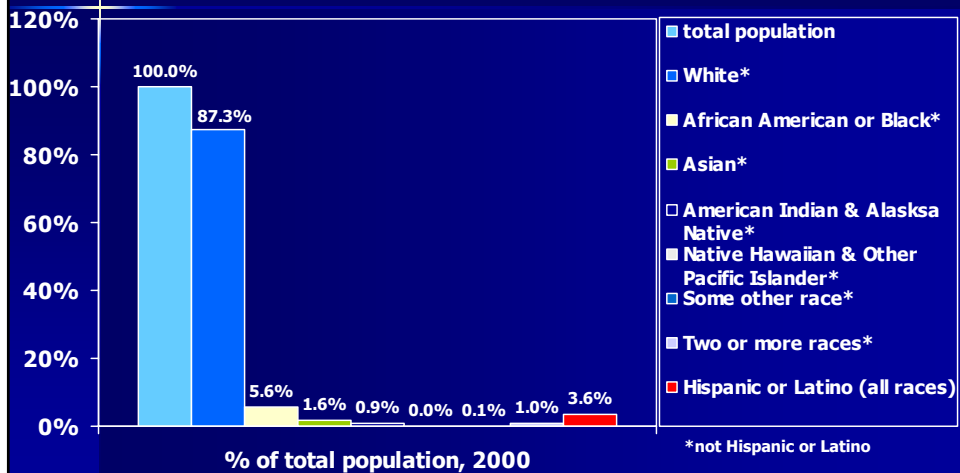
Poverty Status of the Nonelderly Population, by Race/Ethnicity: 2001



(Source: Urban Institute and Kaiser Commission on Medicaid and the Uninsured, analysis of March 2002 Current Population Survey)



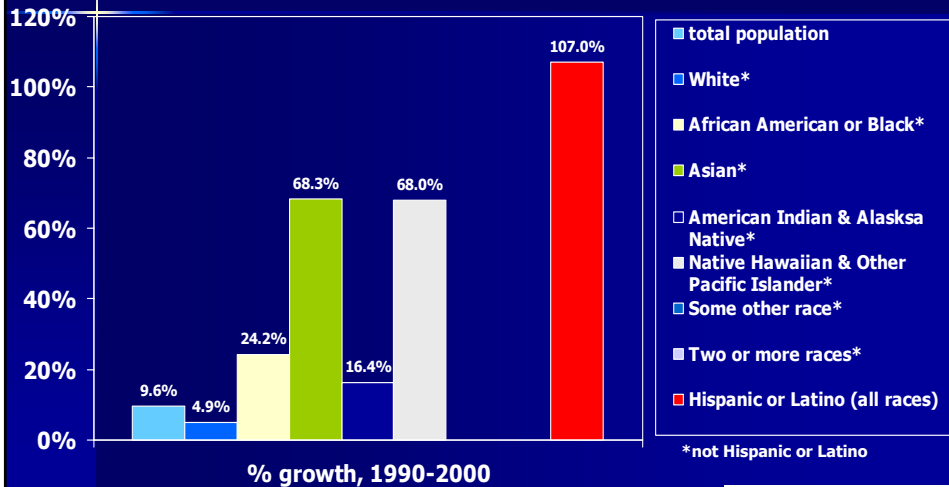
Racial & Ethnic Populations in Wisconsin: 1990-2000



(Source: US Census Bureau, 1990 Census and Census 2000, Summary Tape File L)



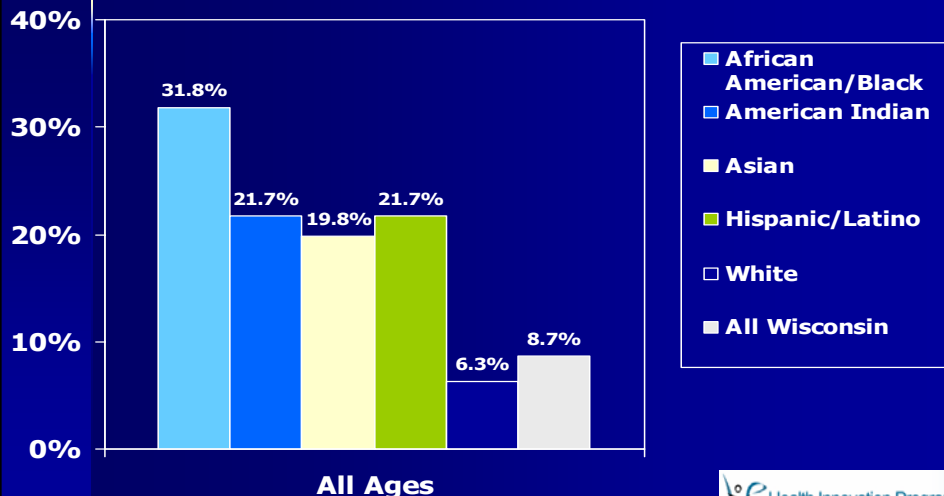
Racial & Ethnic Populations in Wisconsin: 1990-2000



(Source: US Census Bureau, 1990 Census and Census 2000, Summary Tape File L)



Poverty Status by Race & Ethnicity: 1999 Wisconsin

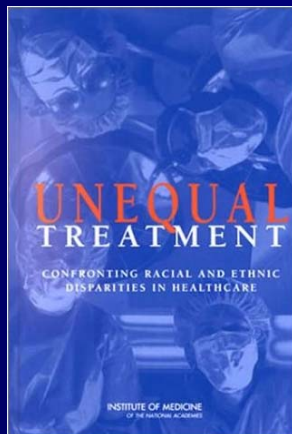


(Source: US Census Bureau, Census 2000, Summary Tape File 3)



What is the challenge?

Unequal Treatment

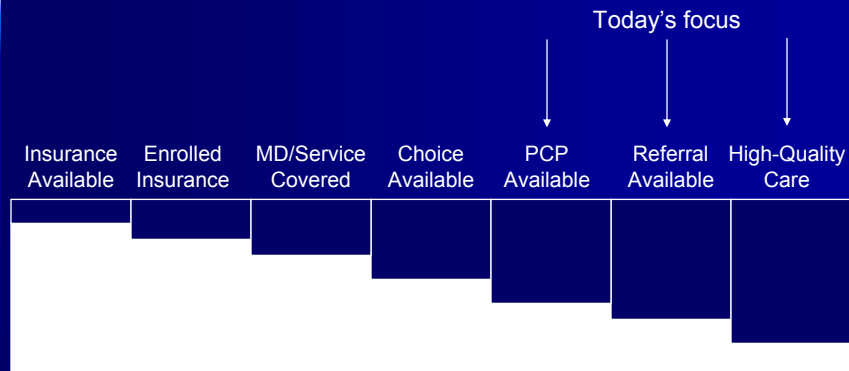


- IOM report in 2003
- Racial/ethnic minorities receive lower quality care
- Setting an agenda
 - Disparities arise from system, providers, patients
 - System strategies
 - Provider/patient education
 - Increase under-represented minority providers

Defining the Problem: Disparities in healthcare

- Focus on racial/ethnic disparities
 - Remain after controlling for insurance, income, education (IOM 2003)
- Disparities in HEALTH CARE
 - Significant disparities in health outcomes
 - Not all disparities could be addressed within the healthcare system
- Source of disparities: access/quality

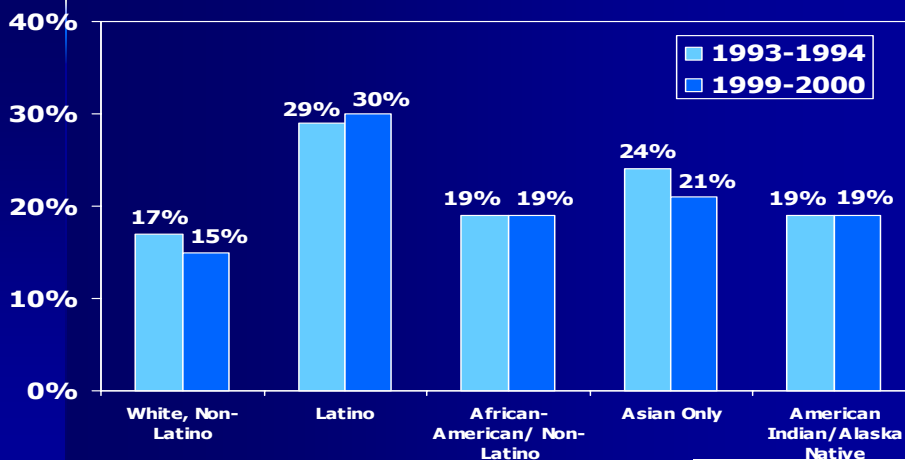
Voltage Drops from Insurance to Quality Health Care



Disparities in Primary and Preventive Care

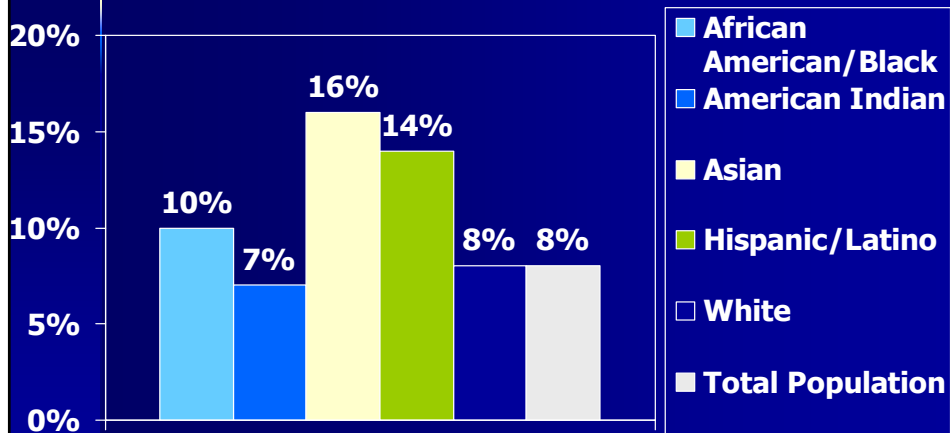
Usual source and visits
Prenatal care
Screening

No Usual Source of Health Care: Adults 18-64, by Race/Ethnicity: 1993-1994 & 1999-2000



(Source: Health, United States, 2002, Table 78)

Source of Healthcare by Race/Ethnicity in Wisconsin: 1996-2000

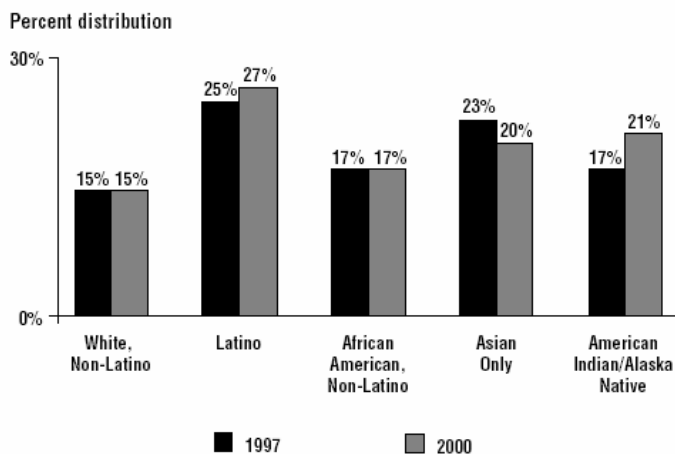


Does not have one place for care

(Source: Wisconsin Family Health Survey, 1996-2000, Wisconsin Department of Health and Family Services, Bureau of Health Information)



No Health Care Visits in the Past Year, by Race/Ethnicity, 1997 and 2000

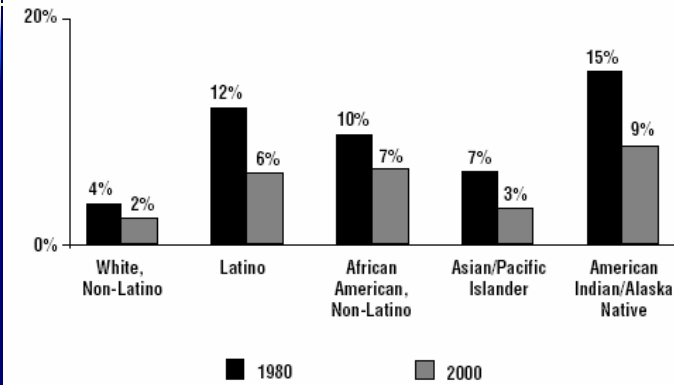


DATA: National Center for Health Statistics, National Health Interview Survey, 1997 and 2000.
SOURCE: Health, United States, 2002, Table 72.



Late or No Prenatal Care, by Race/Ethnicity, 1980 and 2000

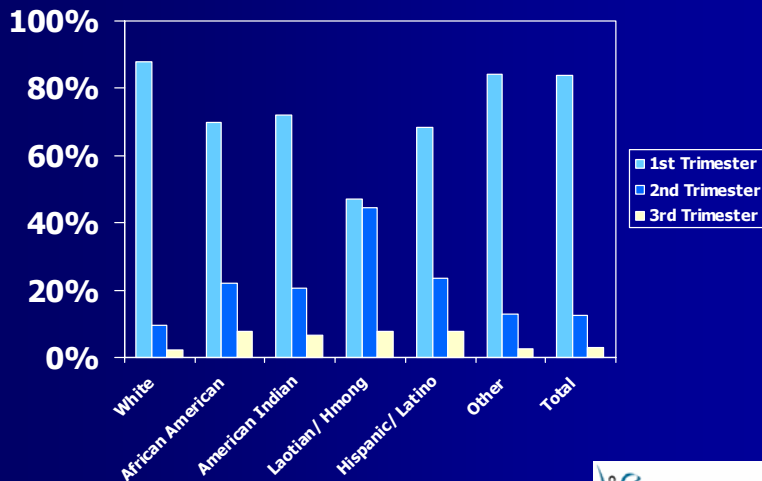
Percent of live births



DATA: National Center for Health Statistics, National Vital Statistics System.

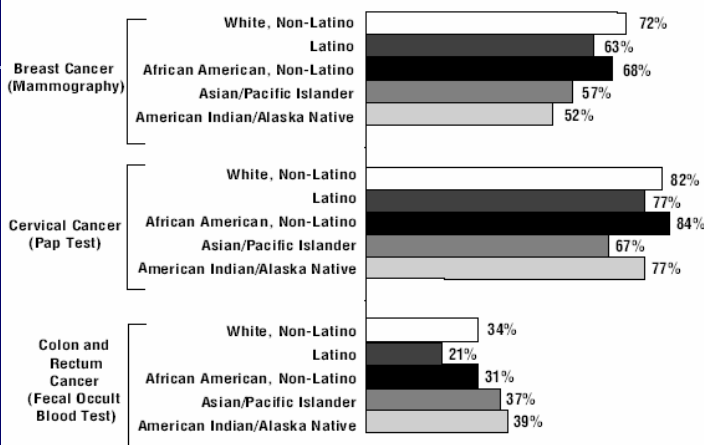
SOURCE: Health, United States, 2002, Table 6.

Trimester of First Prenatal Visit by Race/Ethnicity, Wisconsin, 2000



Source: WI Resident Birth Certificates, WI DHFS

Cancer Screening, by Race/Ethnicity, 2000



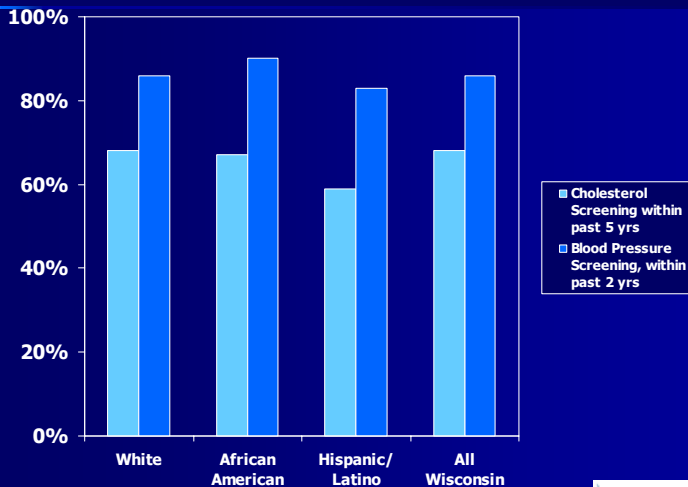
NOTE: Age-adjusted percentages of women 40 and over who reported a mammography within the past two years, women 18 and older who reported a pap test within the past three years, and adults 50 and older (male and female) who reported a fecal occult blood test within the past two years.

DATA: National Center for Health Statistics, National Health Interview Survey, 2000.

SOURCE: American Cancer Society, Cancer Prevention & Early Detection: Facts & Figures 2003.

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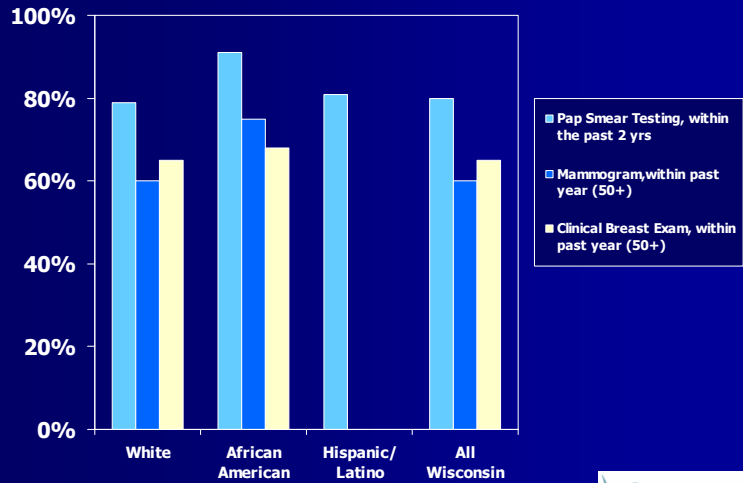
Health Screening Practices by Race/Ethnicity, aged 18 and over, Wisconsin 1996-2000



Source: WI Behavior Risk Factor Surveillance System, 1996-2000, WI DHFS

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Health Screening Practices by Race/Ethnicity, aged 18 and over, Wisconsin 1996-2000



Source: WI Behavior Risk Factor Surveillance System, 1996-2000, WI DHFS

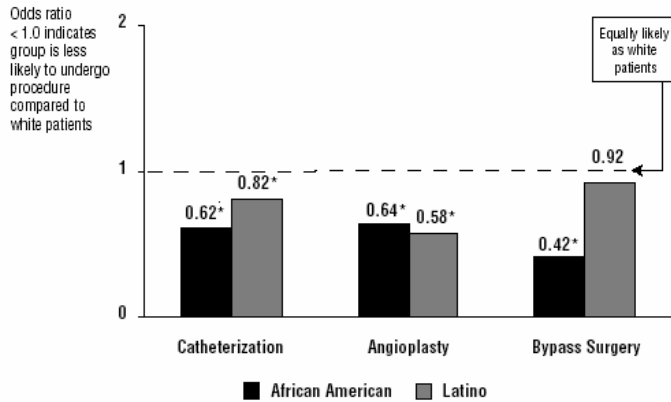


Disparities in Specialty Care

Cardiovascular disease
Cancer
Asthma
HIV



Rate of Cardiac Interventions Among Medicare Patients Hospitalized with an Acute Myocardial Infarction, by Race/Ethnicity, 1994–1995



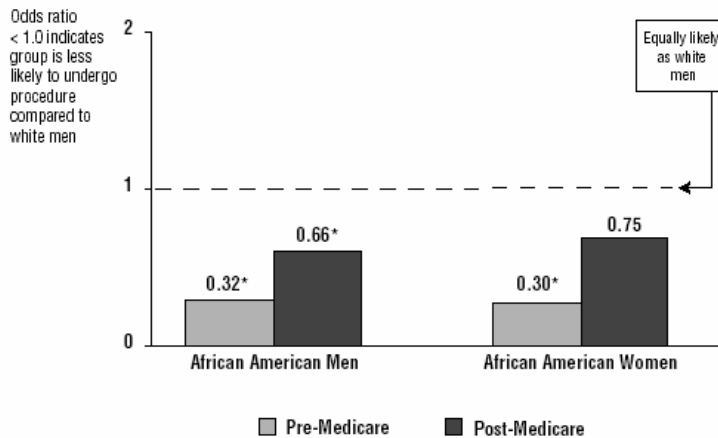
*Difference is statistically significant after adjustment.

NOTE: Odds ratios are adjusted for age, sex, insurance, health status, and disease severity.

SOURCE: Ford et al., 2000.



Cardiac Procedure Use in Chronic Renal Disease Patients, by Race and Gender, 1986–1992



*Difference is statistically significant after adjustment.

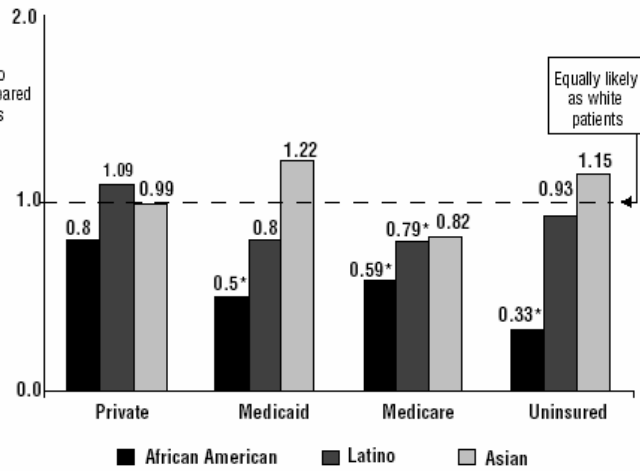
NOTE: Odds ratios are adjusted for age, health insurance, sociodemographic characteristics, and clinical factors.

SOURCE: Daumit and Powe, 2001.



Coronary Artery Bypass Surgery by Race/ Ethnicity and Insurance Status, 1986–1988

Odds ratio
< 1.0 indicates
group is less
likely to undergo
procedure compared
to white patients



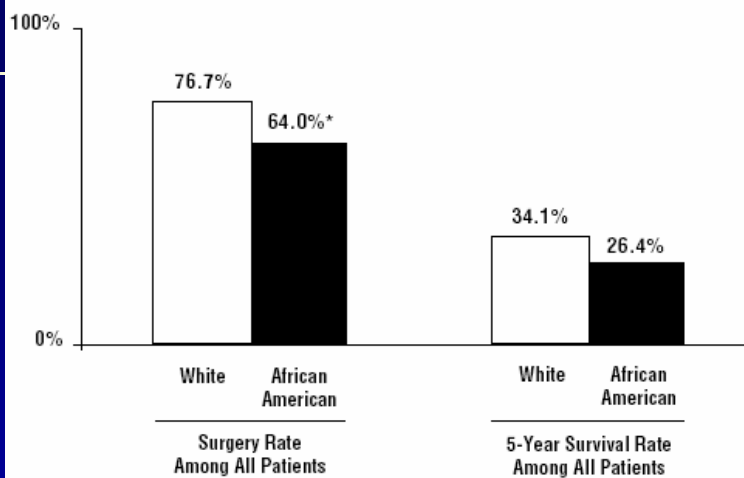
*Difference is statistically significant after adjustment.

NOTE: Odds ratios are adjusted for age, sex, number of co-morbidities, admission type, and hospital procedure volume.

SOURCE: Carlisle et al., 1997.

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Racial Differences in the Treatment of Early-Stage Lung Cancer Among Medicare Patients, 1985–1993



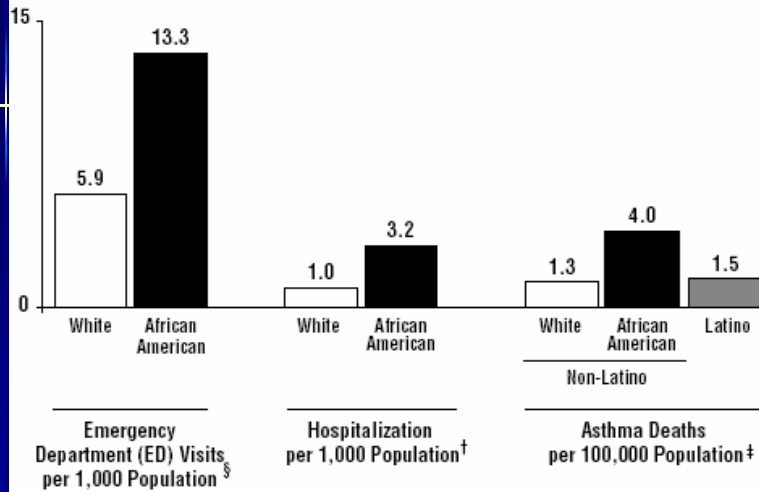
*Difference is statistically significant after adjustment.

DATA: Ten study areas of the SEER (Surveillance, Epidemiology and End Results) Program and linked Medicare inpatient discharge records.

SOURCE: Bach et al., 1999.

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Asthma: Health Care Use and Outcomes, 2000



NOTE: Age-adjusted to the 2000 population.

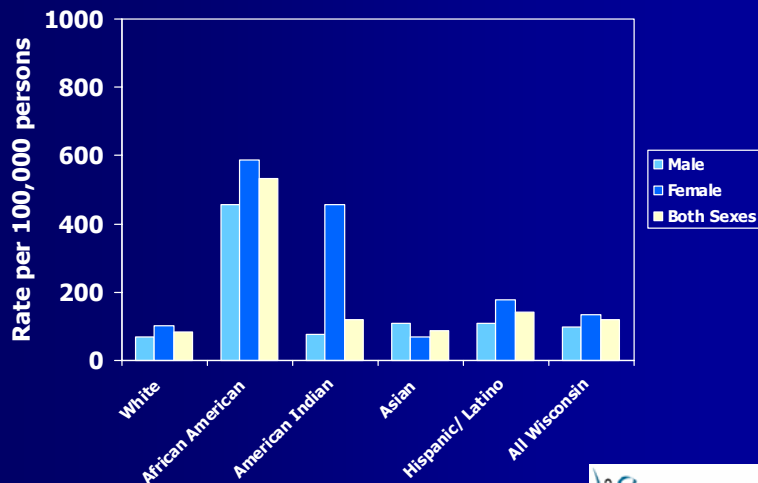
DATA: § National Hospital Ambulatory Medical Care Survey, † National Hospital Discharge Survey,

‡ Mortality Component of the National Vital Statistics System, NCHS, CDC.

SOURCE: CDC, NCHS, 2003.

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Average Annual Age-adjusted Asthma Hospitalization Rates by Race/Ethnicity and Sex, Wisconsin, 2000

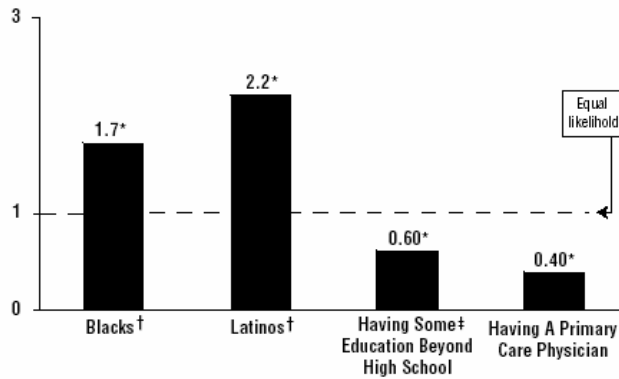


Source: WI Inpatient Discharge Data, WI DHFS

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Underuse of Medication Among Medicaid-Insured Children with Asthma, 1999

Odds of Underuse Given the Characteristic Below



* Difference is statistically significant after adjustment.

† Compared to whites

‡ Compared to families in which the parent had graduated from high school, but had no additional education

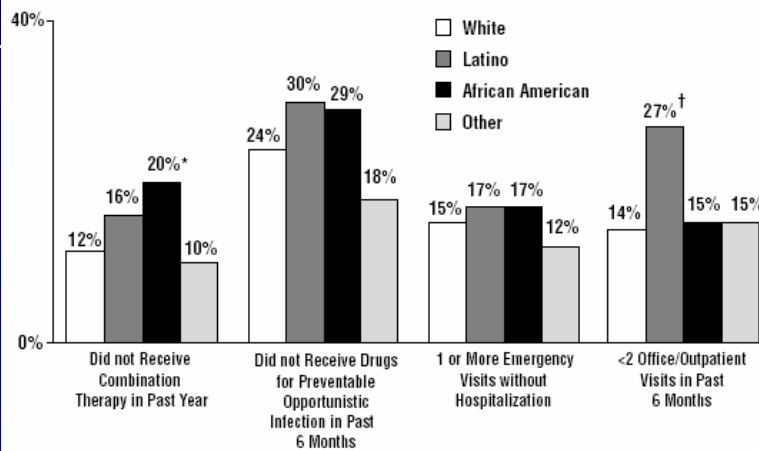
NOTE: Model adjusted for socio-demographic factors, symptom level, and reports of processes of care. The children, ages 2–16, were enrolled in managed care plans located in California, Massachusetts, and Washington state.

SOURCE: Finkelstein et al., 2002.

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Health Services Use Among Persons with HIV/AIDS in Care, by Race/Ethnicity, 1998

Percent



* Results significantly different from whites ($p < .05$) after adjustment for CD4 count.

† Results significantly different from whites and African Americans ($p < .05$) after adjustment for CD4 count.

NOTE: Includes persons 18 years and older.

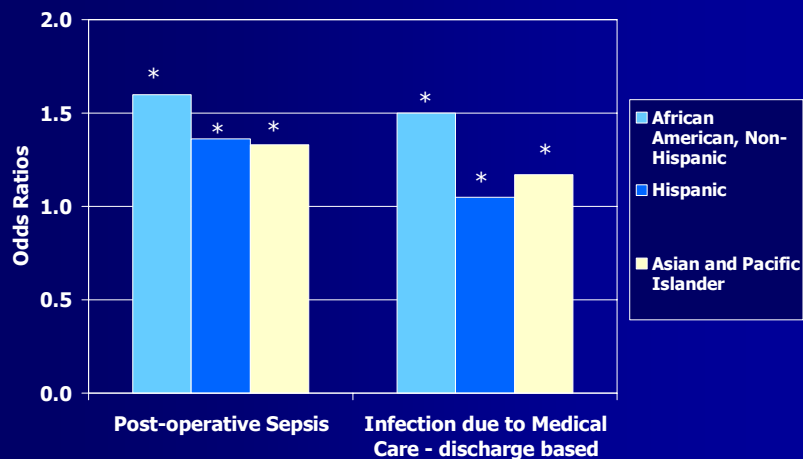
SOURCE: Shapiro et al., 1999.

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Disparities in the Quality of Care

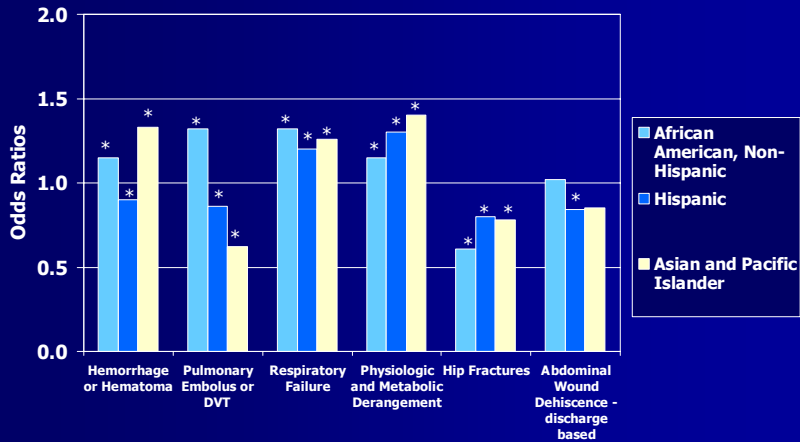
Patient safety

Patient Safety Rates of Minorities Relative to Whites – Nosocomial Infections



* = significant diff between minority group and white at $p < 0.05$, white = 1.0
Source: Coffey et al., Medical Care 43:152, 2005

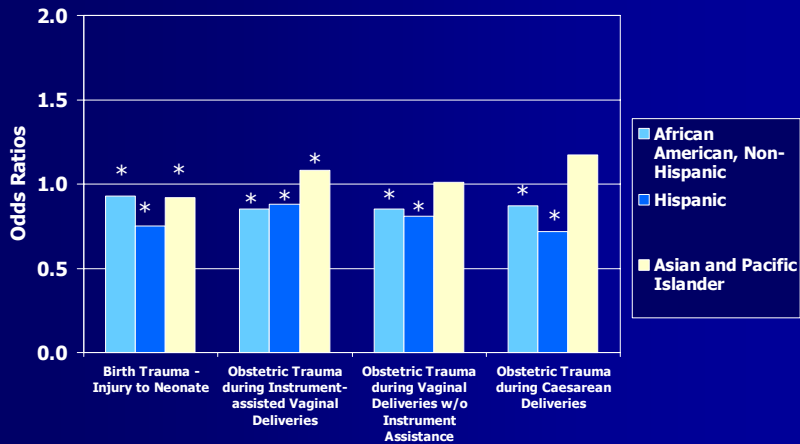
Patient Safety Rates of Minorities Relative to Whites – Post-operative Complications of Care



*= significant diff between minority group and white at $p < 0.05$, white = 1.0
Source: Coffey et al., Medical Care 43:152, 2005



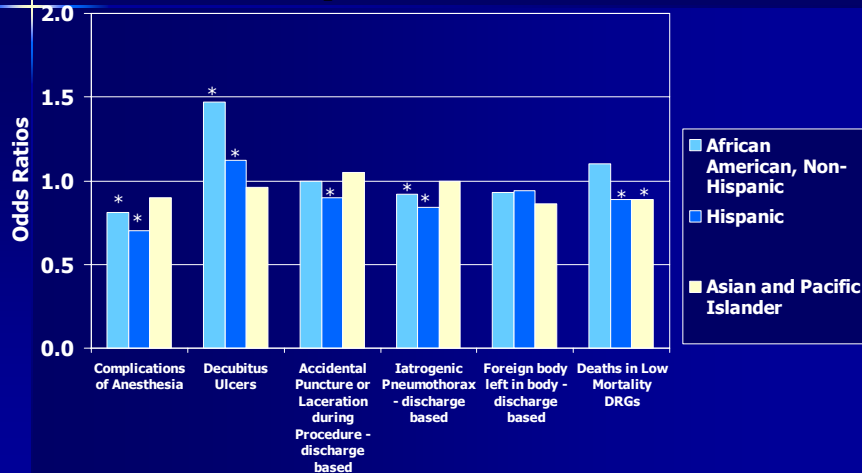
Patient Safety Rates of Minorities Relative to Whites – Obstetric Complications of Care



*= significant diff between minority group and white at $p < 0.05$, white = 1.0
Source: Coffey et al., Medical Care 43:152, 2005



Patient Safety Rates of Minorities Relative to Whites – Other Complications of Care



*= significant diff between minority group and white at $p < 0.05$, white = 1.0
 Source: Coffey et al., Medical Care 43:152, 2005



Summary of Disparities in Healthcare

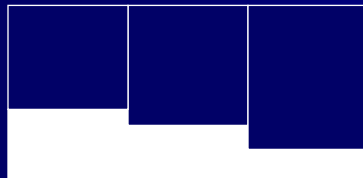
- Less likely to have usual source
 - Nat'l: Latino; WI: Asian/Latino
- Reduced but still existing for prenatal
 - Nat'l: Latino/AA/AI; WI: All groups
- Preventive screening
 - Nat'l: Lower for women; WI: Similar
- Procedures (cardiac, cancer)
 - Nat'l: Lower; WI: Unknown
- Asthma treatment
 - Nat'l: AA; WI: AA/Latino
- AIDS
 - Nat'l: Latino; WI: Unknown
- Patient safety
 - Nat'l: All groups (infections/post-op complication) WI: Unknown



Interventions to reduce disparities in healthcare

Disparities in healthcare

PCP Available Referral Available High-Quality Care



■ Interventions

- System
- Patients
- Providers



IOM Report 2003 Systemic Strategies

Interventions*	Evidence
Avoid fragmentation of plans by SES	Limited
Increase availability of a usual source of care in Medicaid managed care	Limited
Application of clinical guidelines	Limited
Physician financial incentives	Limited
Interpretation services	Mixed
Community health workers	Mod. strong
Multi-disciplinary teams	Slight

* Interventions targeting PCP, specialists, quality



IOM Report 2003 Patient Education

Interventions	Evidence
Increase participation	Limited
Educational material	Limited



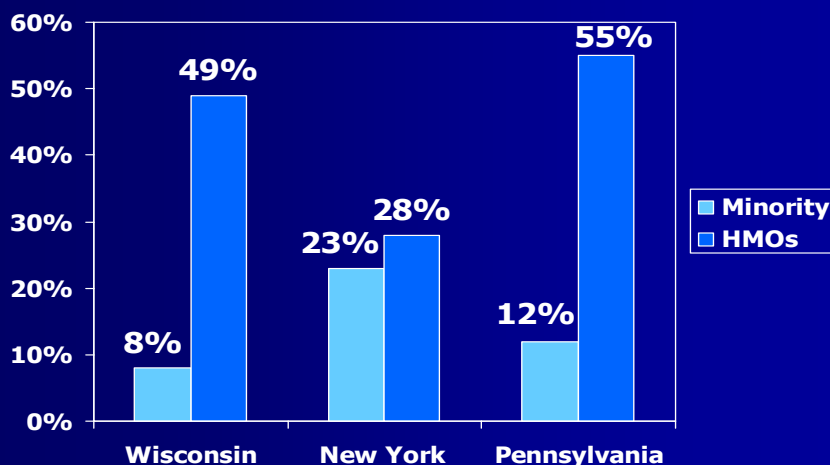
IOM Report 2003 Cross-cultural Education

Interventions	Evidence
Attitudes	Limited
Knowledge	Mixed*
Skills	Mixed

* Effective strategies: community-oriented or specific evidence-based factors

Wisconsin How are we doing?

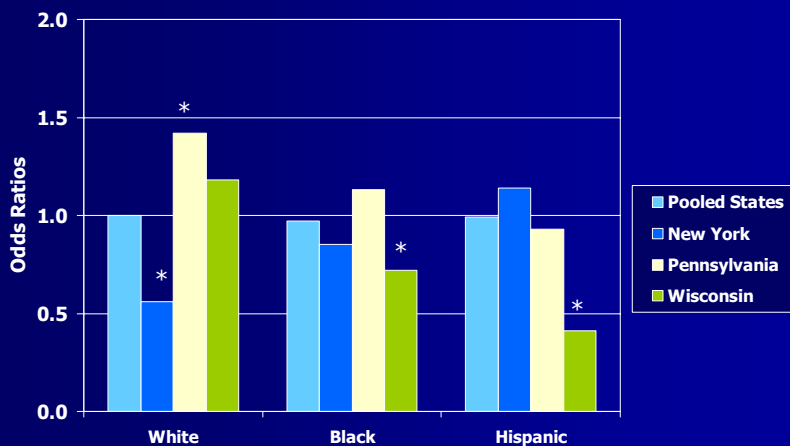
Preventable Hospitalization & Medicaid HMOs: 1997



(Source: Basu, et al. 2006. Journal of Health Care for the Poor and Underserved)



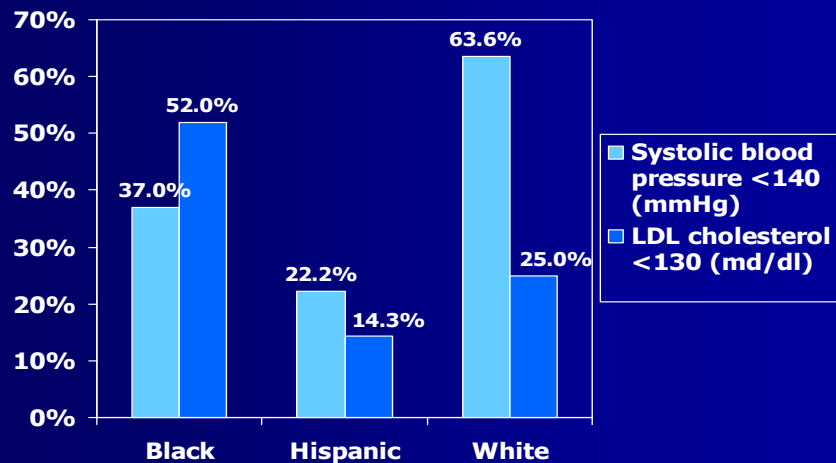
Odds Ratios of Preventable Hospitalizations Relative to Marker Admissions for Adults



*= significant at $p < 0.01$
Source: Reference Group = Medicaid FFS, 1997



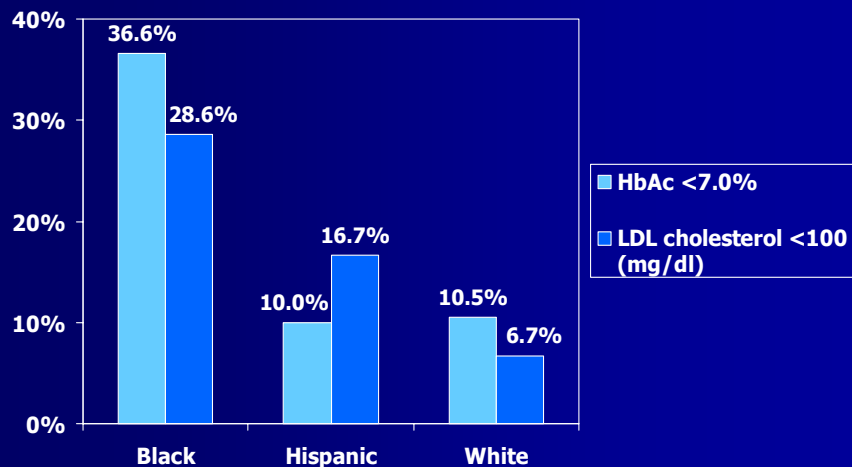
Clinical Outcomes for Patients with Diagnosed Hypertension (n=168)



Baumann et al., 2002. Nursing Research

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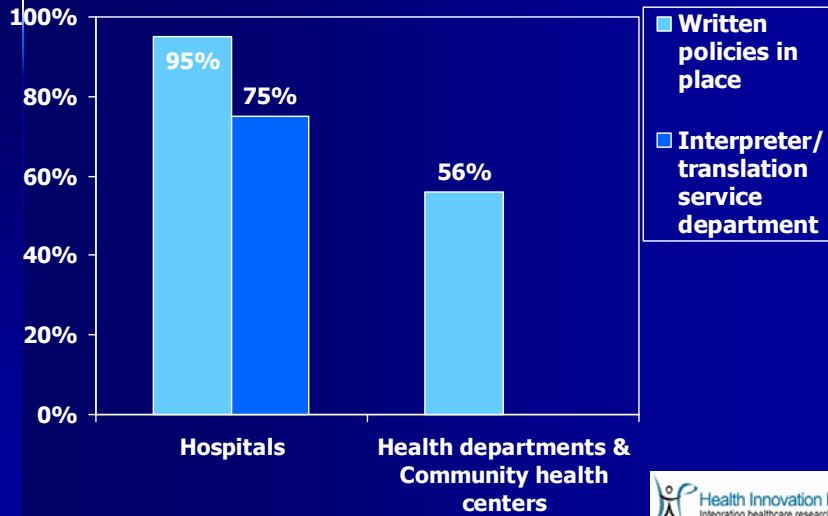
Clinical Outcomes for Patients with Diagnosed Diabetes (n=112)



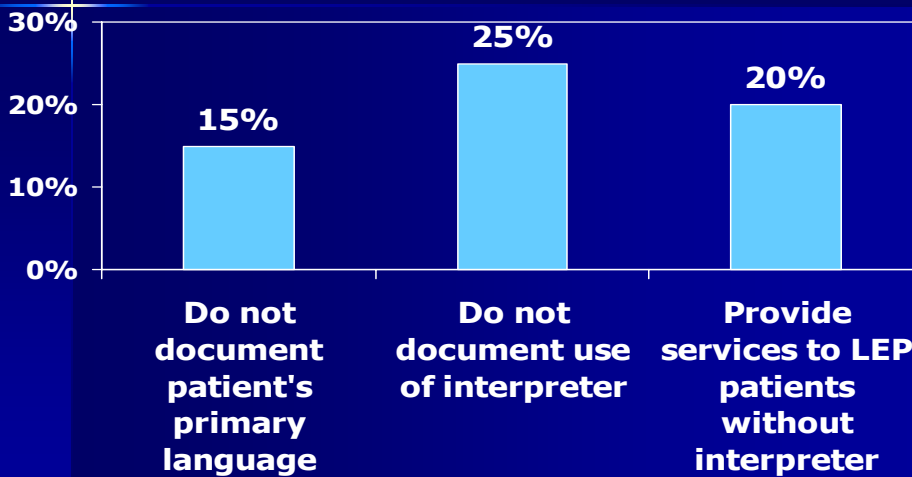
Baumann et al., 2002. Nursing Research

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Services for Limited English Proficient Patients



Wisconsin Consistency of Documentation for LEP Patients

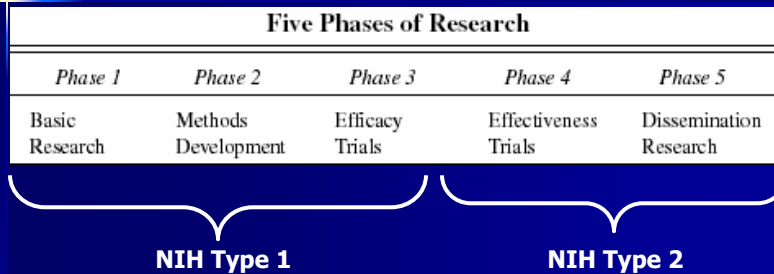


Community Health Workers

- AHEC: 2002-2005 (HRSA funding)
 - Create and expand lay health advocate programs
 - Targeted Latino, Hmong, inner-city Milwaukee adolescents
- No funds for 2006

A Research Agenda

The Continuum of Translational Research



- What is most relevant for disparities in health care?
- What do we need in Wisconsin?

Sussman S. Eval & Health Professions. 2006; 29:7-32



Type 1 Research Agenda

Interventions*	Wisconsin
Increase availability of a usual source of care in Medicaid managed care	Unknown
Application of clinical guidelines	Room to improve
Physician financial incentives	Unknown
Multi-disciplinary teams	Unknown
Patient education/participation	Unknown

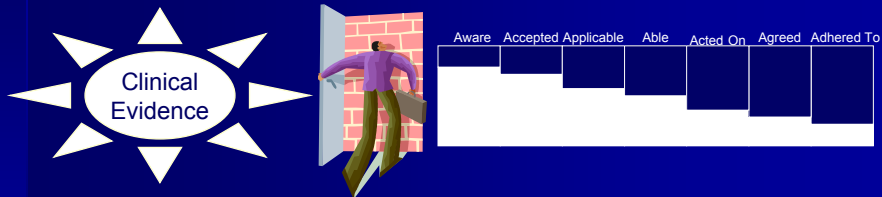
* Interventions targeting PCP, specialists, quality



Bridging between Type 1 and Type 2 research

Type 1 translational research

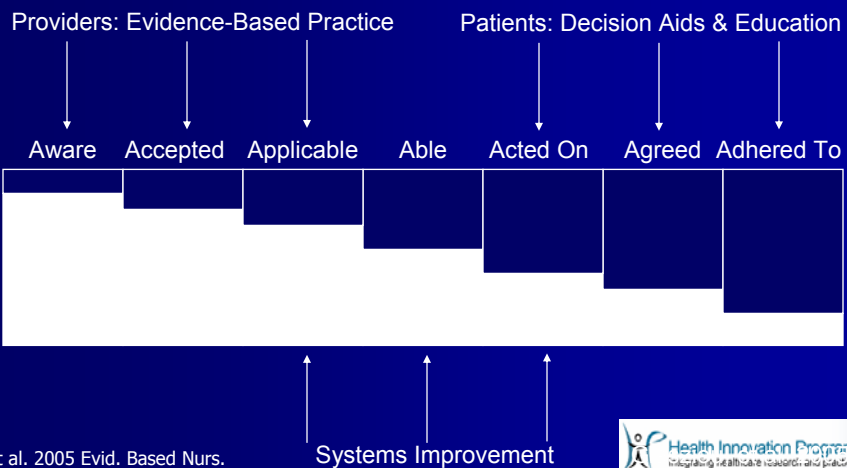
Type 2 translational research



- NIH Roadmap
- Clinical and Translational Sciences Award (CTSA)



Targets of Type 2 Translational Research



Glasziou, et al. 2005 Evid. Based Nurs.



Type 2 research

Interventions	Wisconsin
Avoid fragmentation of plans by SES	Good shape
Interpreter services	Increase standards and access
Community health workers	Increase use?
Cross-cultural education	Expand?



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Your questions?