Practice-Based Research Networks

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Impacting Health Outcomes

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1. History of Practice-Based Research Networks
2. Utility of Practice-Based Research Networks
3. Maryland Research Collaborative

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- Sail forth – steer for the deep waters only, Reckless O Soul, exploring, I with thee, and thou with me, for we are bound where mariner has not yet dared to go, and we will risk the ship, ourselves and ALL.
  - Walt Whitman.

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PBRN

- A group of practices devoted principally to primary care of patients but affiliated with each other for on-going study of clinical practice and the problems of delivering community-based primary care.

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Key Questions to Answer Before Forming a PBRN

1. What are the questions which justify the creation of a network.
2. What are the validity and reliability issues?
3. What are the privacy, security, and confidentiality issues?
4. What denominators are required?
5. Why would practitioners want to be part of a network?
6. What will participants need in order to be an active member for any period of time?

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Financing of PBRNs

- Private Foundations
- Professional Societies
- Academic Institutions
- State Government
- Federal Government

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Types of Research Done by PBRNs

- Observational Studies
- Surveys
- Secondary Data Analysis
- Quantitative Research
- Mixed Methods
- Clinical Trials
- Clinical Systems Research

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Growth of PBRNs

- In 1994 there were 28 PBRNS
- In 2003 there were 111

Source:

http://www.ahrq.gov/research/pbrn/pbrnfact.htm

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The Maryland Research Collaborative

MaRC
Addressing Health Disparities in Maryland

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I. Maryland Demographics

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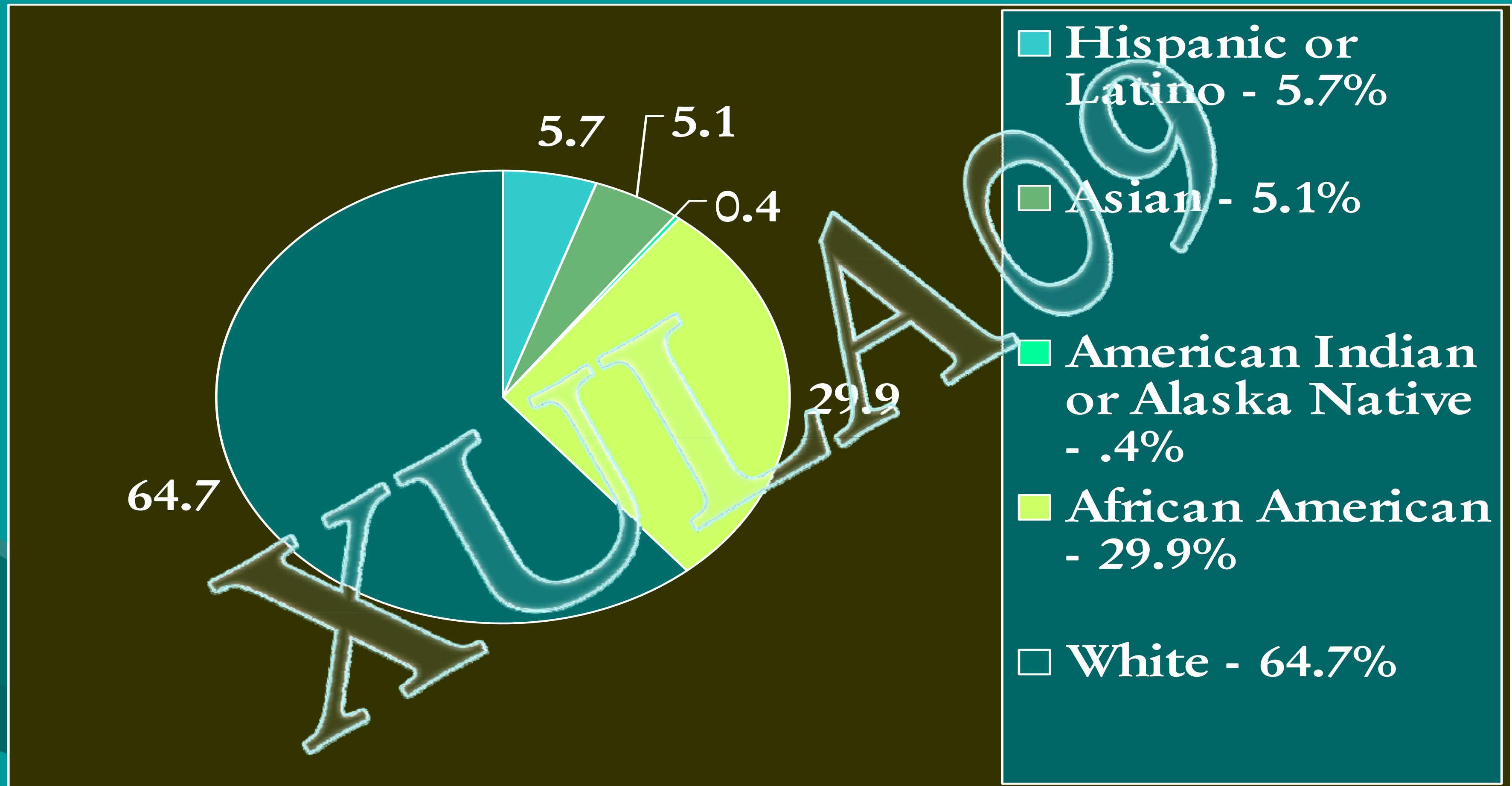
Estimated Race Distribution of Maryland, 2005



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Source: Vital Statistics Administration, MDHMH, Estimated Population July 1, 2005

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Estimated Baltimore Population by Race and Ethnicity, 2005

White Total	White Non-Hispanic	African American	American Indian	Asian or Pacific Islander	Hispanic	All Races
203,405	192,809	416,862	2,493	13,055	14,277	635,815

Source: Vital Statistics Administration, MDHMH, Estimated Population July 1, 2005

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Estimated % of Maryland Residents with Health Insurance, All Ages, by Jurisdiction, 2000

Jurisdiction	Estimated % Insured In Jurisdiction
U.S. Total	85.8
Maryland Total	87.6
Allegany	87.6
Anne Arundel	88.5
Baltimore	90.0
Calvert	89.3
Caroline	84.2
Carroll	92.5
Charles	88.1
Dorchester	84.9
Frederick	91.9
Garrett	85.4

Jurisdiction	Estimated % Insured In Jurisdiction
Harford	90.5
Howard	89.0
Kent	86.9
Montgomery	88.2
Prince George's	84.7
Queen Anne's	90.3
St. Mary's	87.9
Somerset	81.9
Talbot	90.3
Washington	89.6
Wicomico	85.1
Worcester	87.2
Baltimore City	82.3

Source: Small Area Health Insurance Estimates for 2000. United States Census Bureau. Data adapted by the Office of Health Policy & Planning, MDHMH

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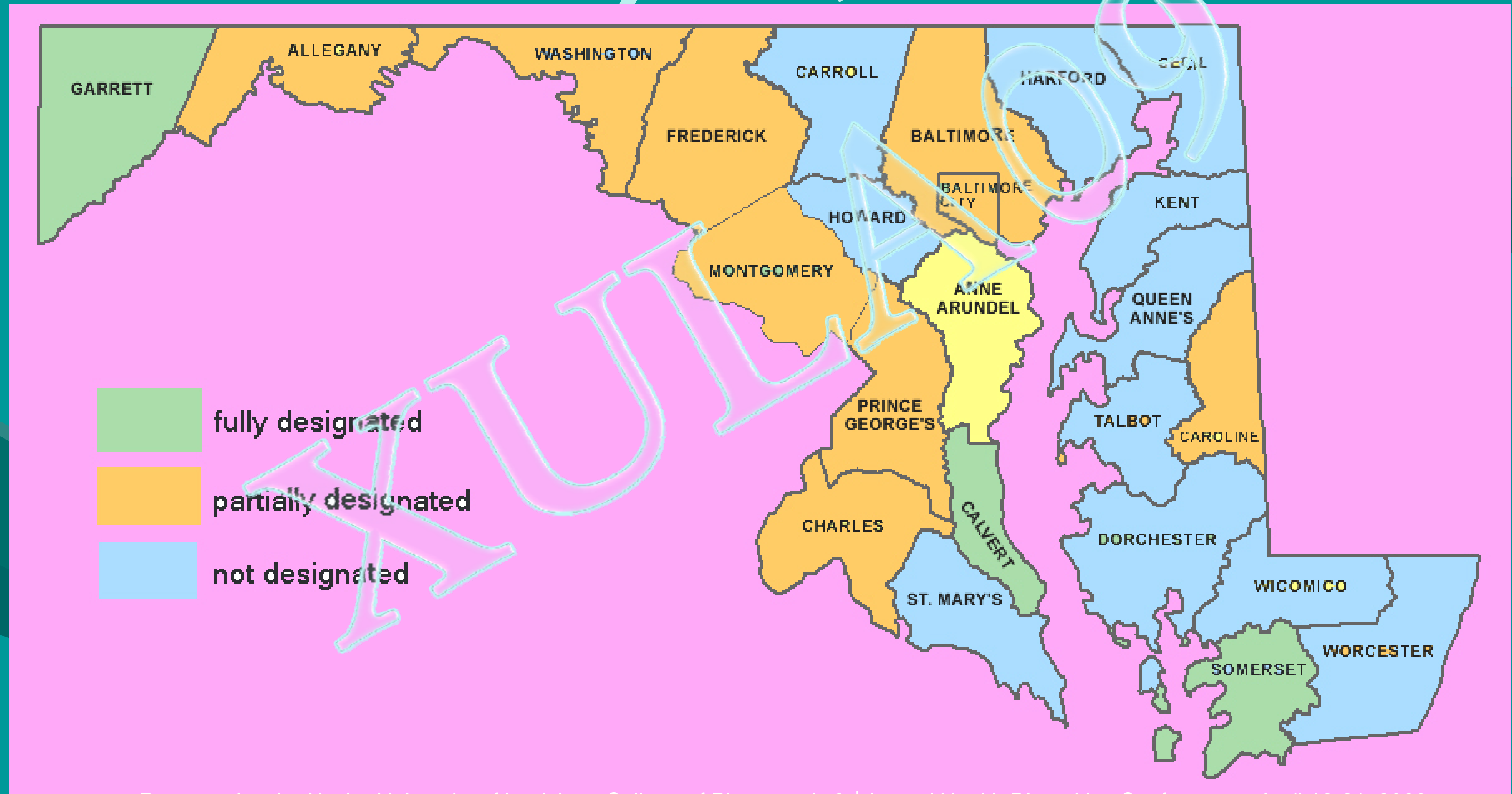
Primary Care, Health Professional Shortage Areas (HPSA) in Maryland, 2005



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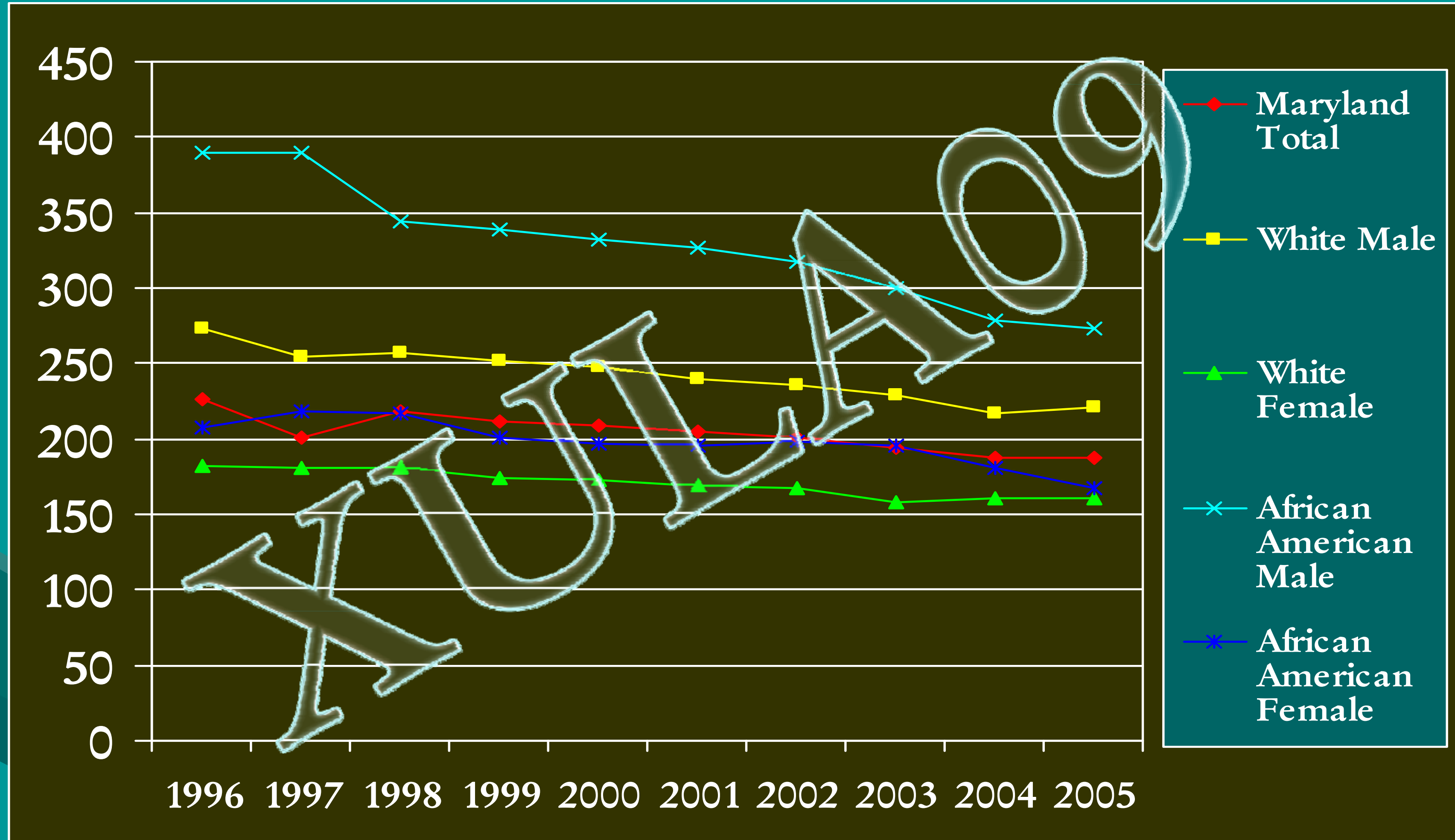
Age-Adjusted Death Rate for Cancers at All Sites, by Race and Gender, Maryland, 1996-2005 (rate per 100,000 population)



Source: Health Maryland Chartbook: May 2007

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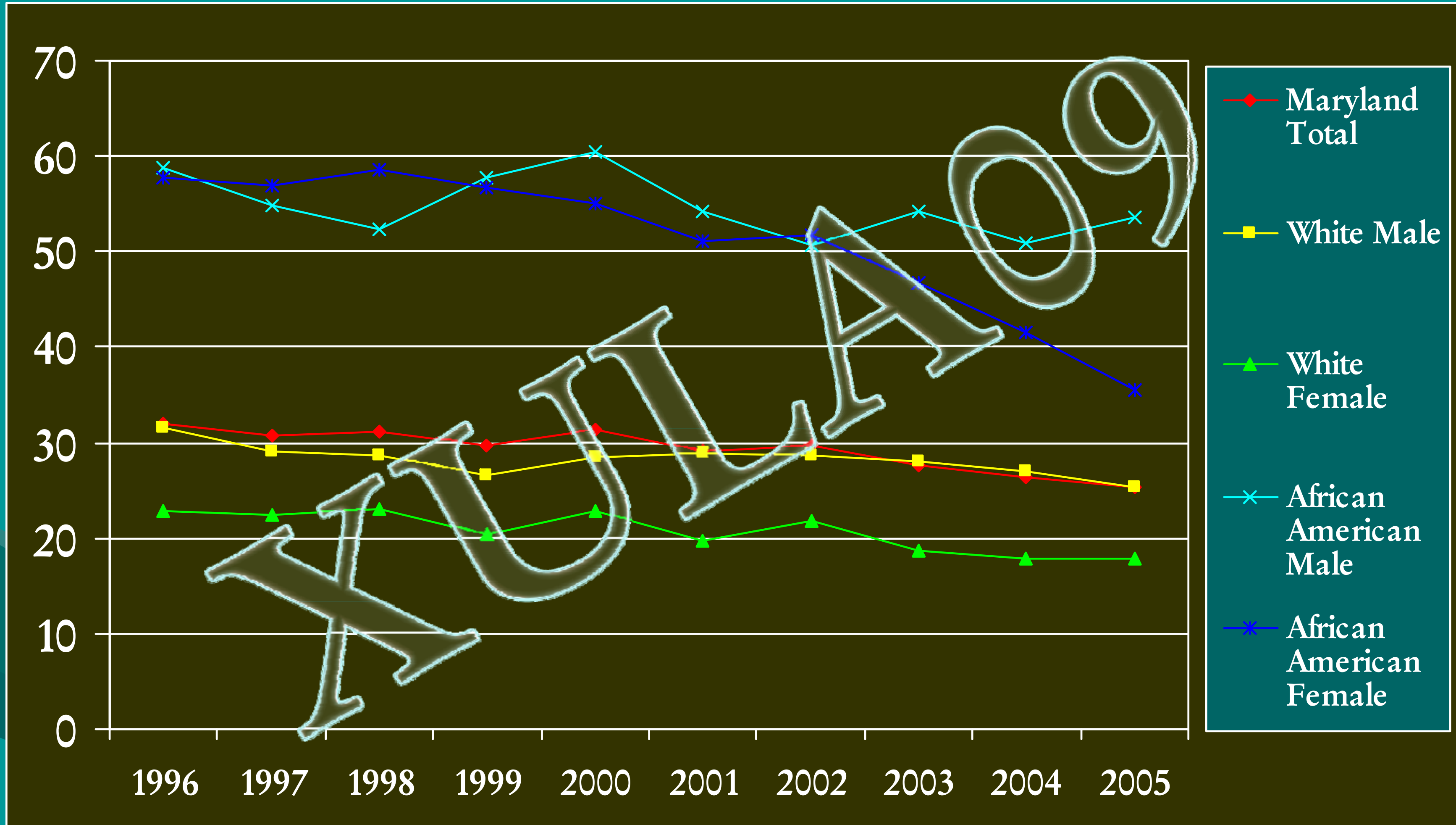
Age-Adjusted Death Rate for Diabetes, by Race and Gender, Maryland, 1996-2005 (rate per 100,000 population)



Source: Health Maryland Chartbook: May 2007

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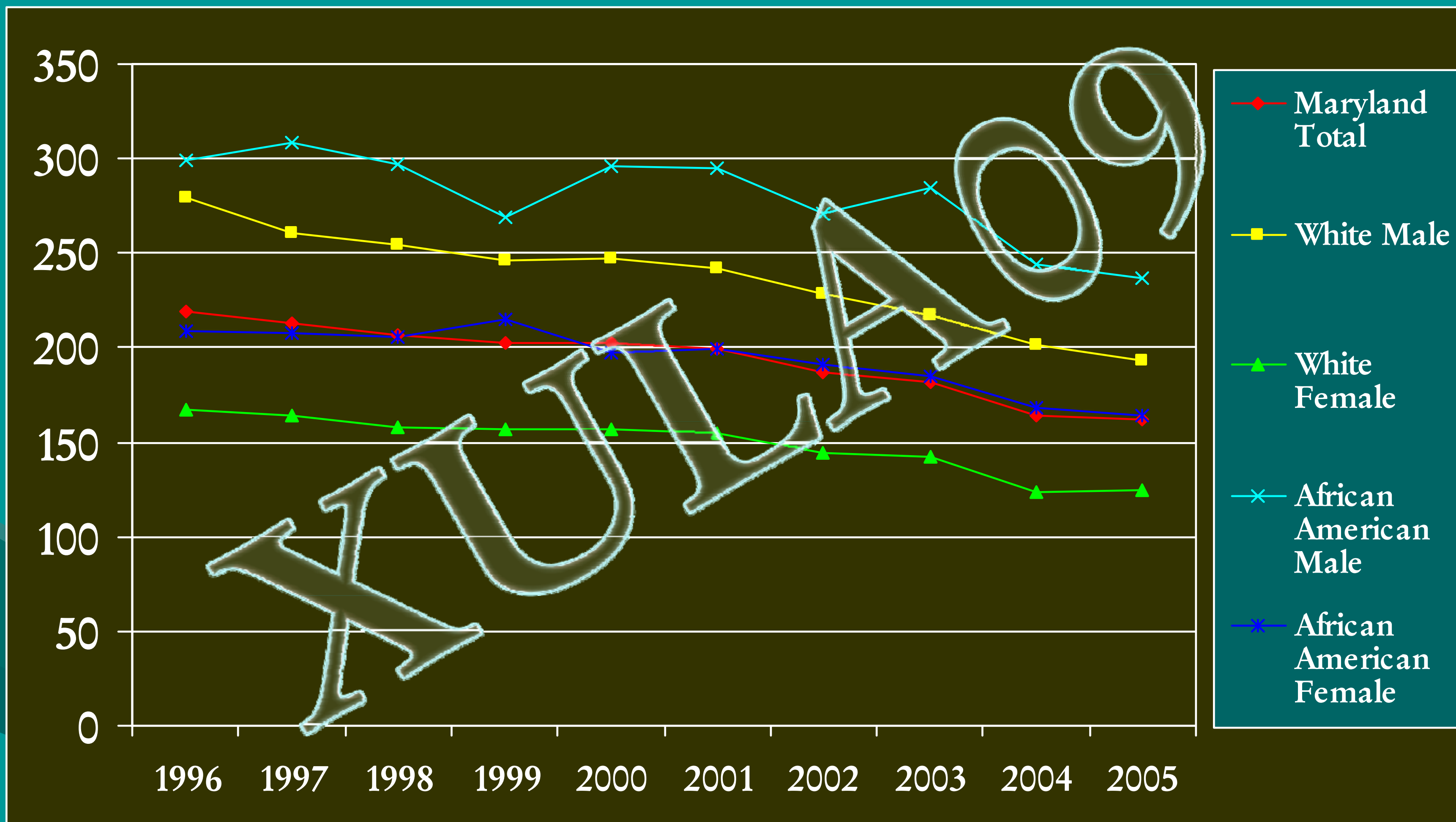
Age-Adjusted Death Rate for Coronary Heart Disease, by Race and Gender, Maryland, 1996-2005 (rate per 100,000 population)



Source: Health Maryland Chartbook: May 2007

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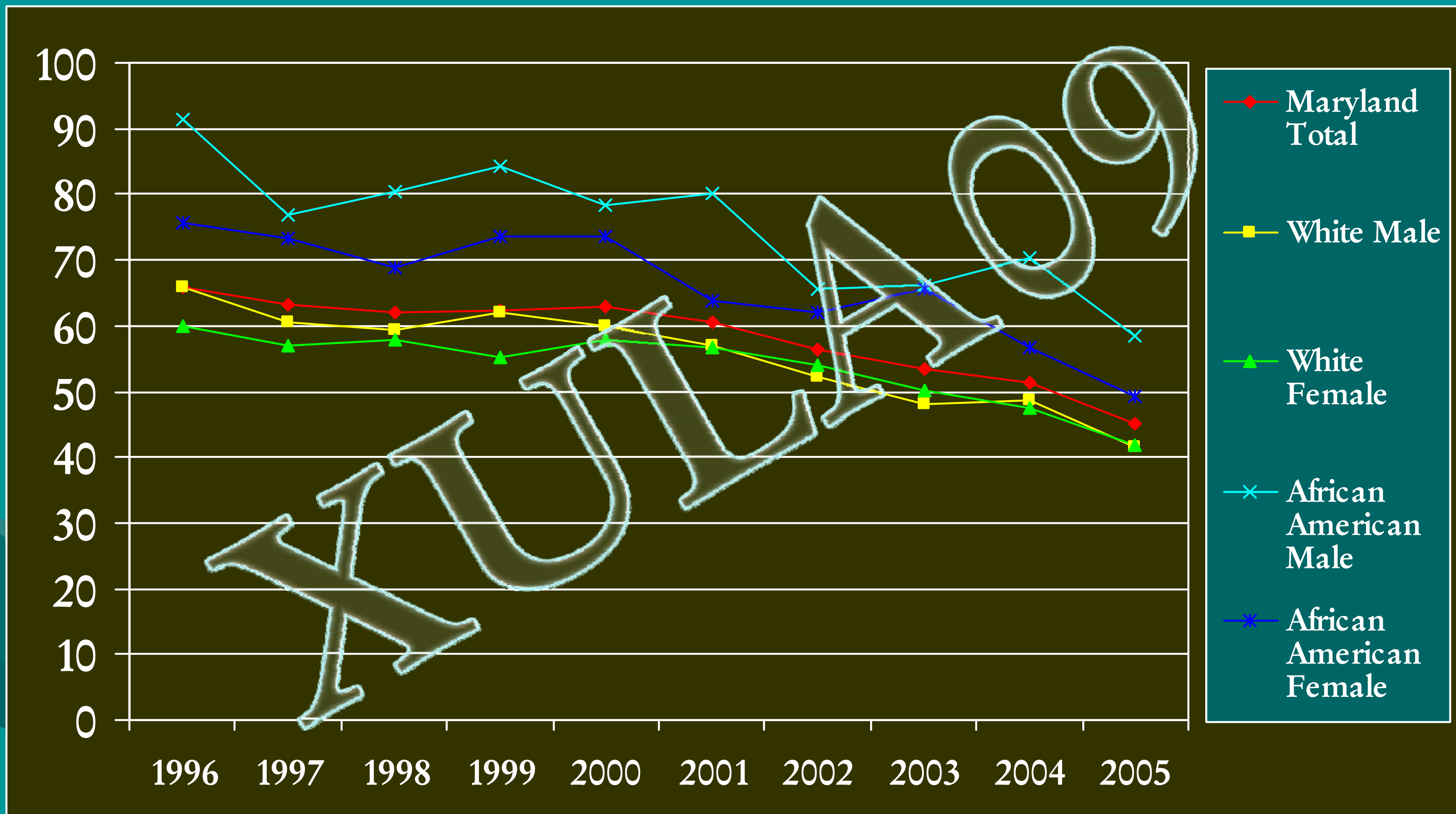
Age-Adjusted Death Rate for Stroke, by Race and Gender, Maryland, 1996-2005 (rate per 100,000 population)



Source: Health Maryland Chartbook: May 2007

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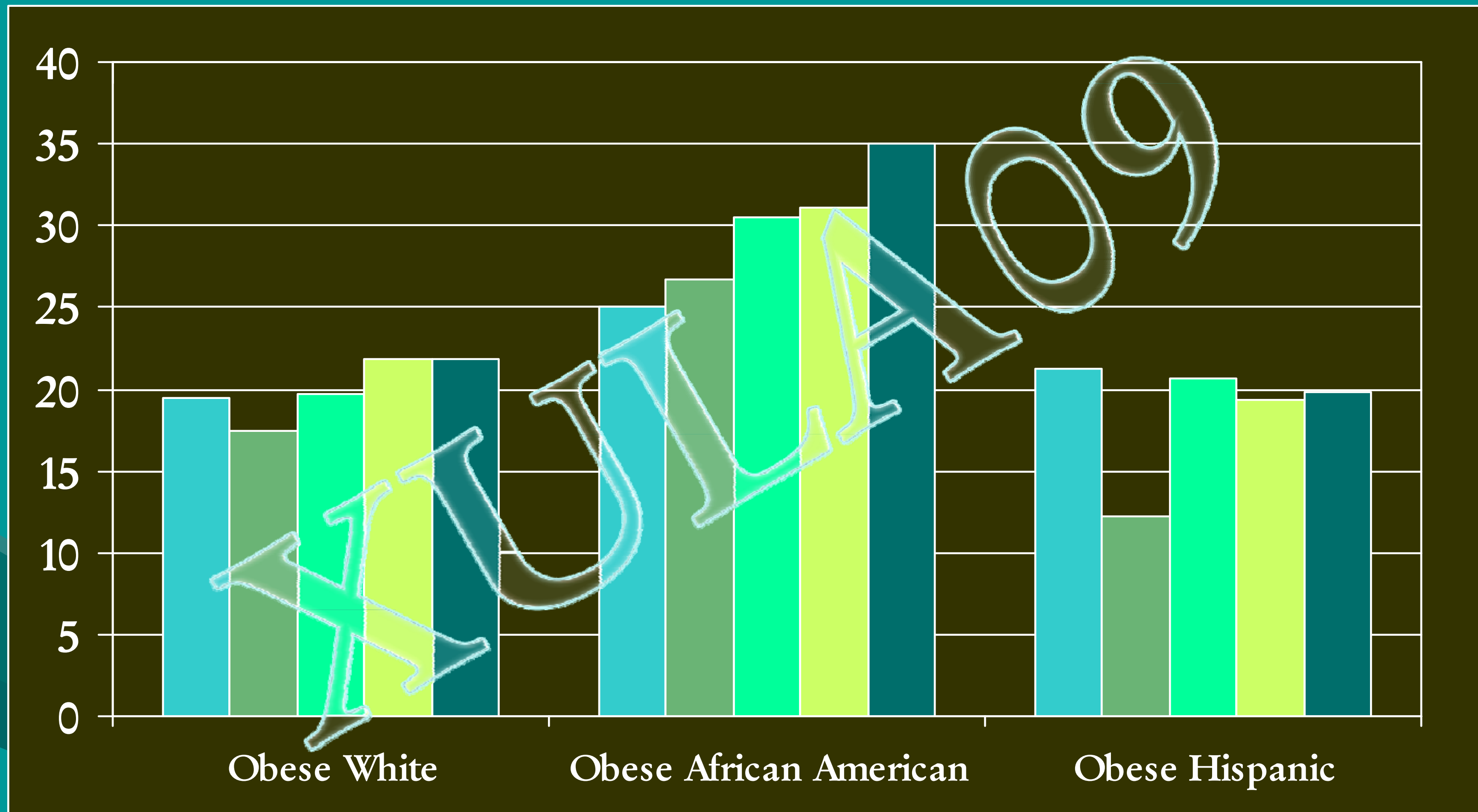
Obesity Based on Body Mass index (BMI) Among Maryland Adults, by Race, 2001-2005 (percent)



Source: Health Maryland Chartbook: May 2007

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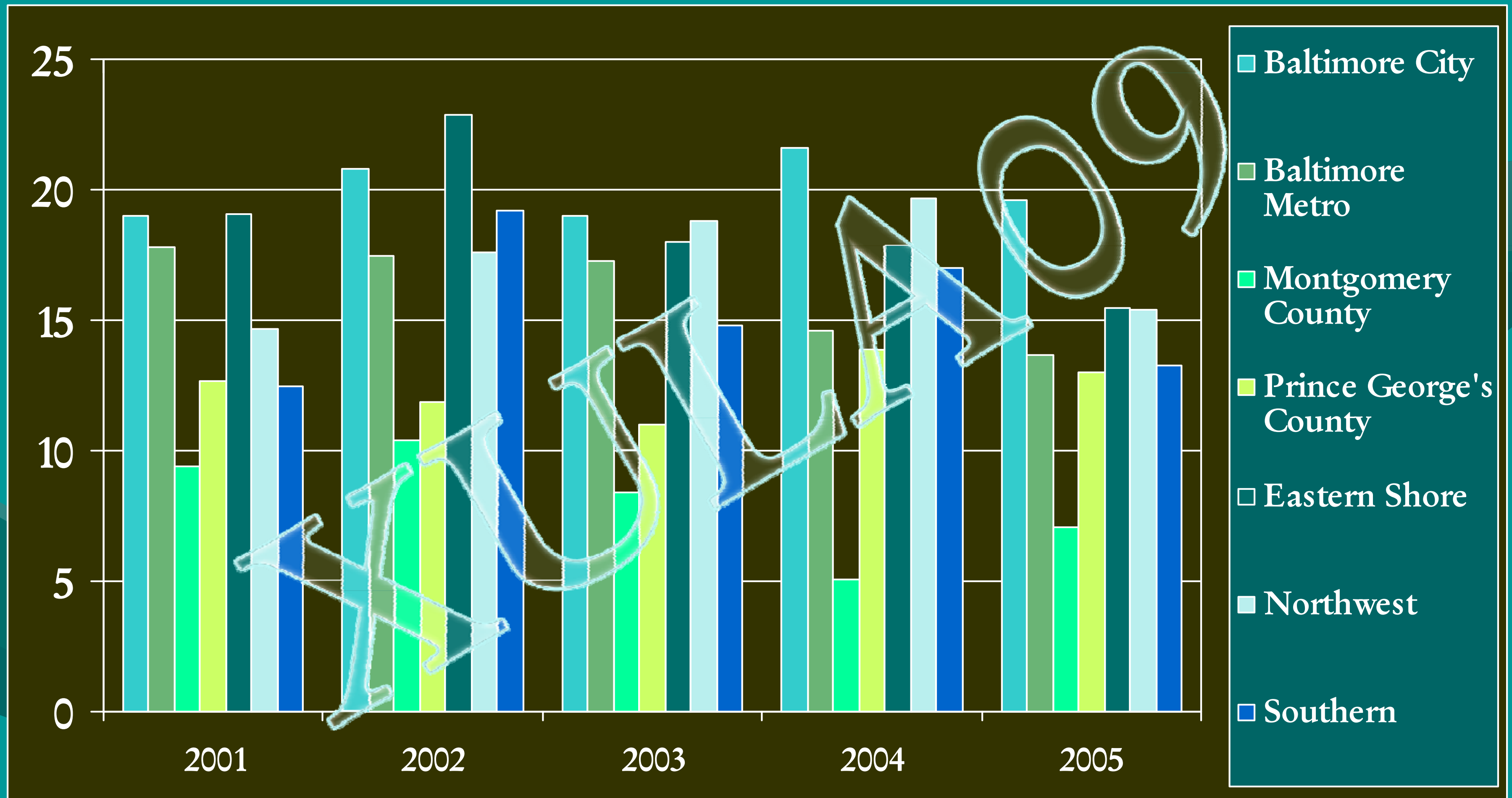
Current Smoking Among Maryland Adults, by Region, 2001-2005 (percent)



Source: Health Maryland Chartbook: May 2007

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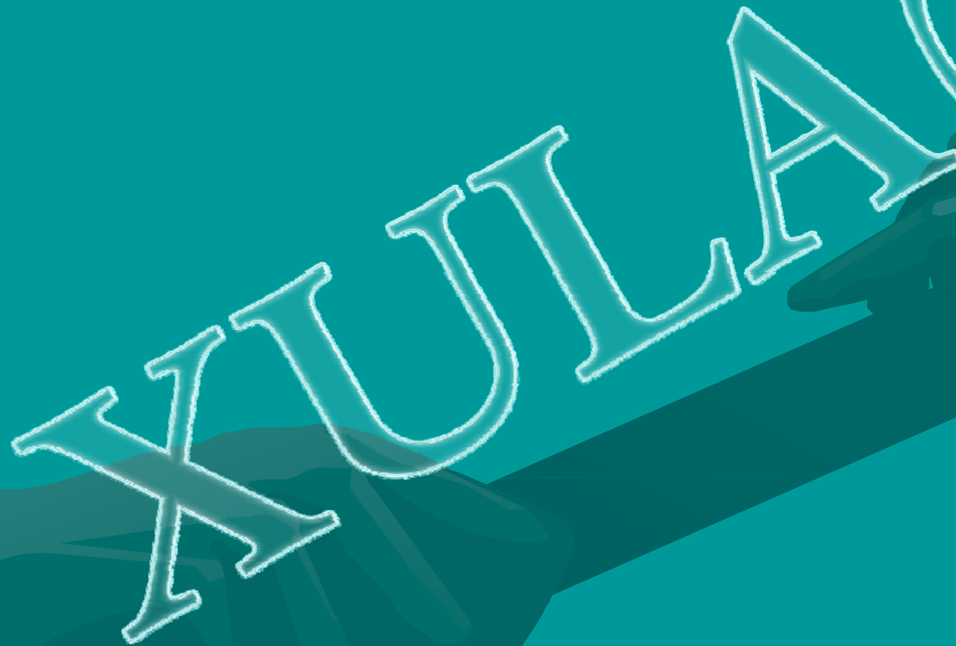
II. Providers of Care



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Community Health Centers Are:

- Community, Migrant, and Homeless Health Centers are non-profit, community-directed providers that remove common barriers to care by serving communities who otherwise confront financial, geographic, language, cultural, and other barriers. Also known as Federally-Qualified Health Centers (FQHCs).

Source: National Association of Community Health Centers

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Community Health Centers Are:

- Located in high-need areas.
- Are open to all residents.
- Tailor services to fit the special needs of their communities.
- Provide comprehensive primary and other health care services.
- Provide high quality care, reducing health disparities and improving patient outcomes.
- Are cost effective.

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Nationally:

- 952 Federally Qualified Health Centers
- 100 Look alike

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Maryland Health Centers

- Number of Organizations 14
- Number of Delivery Sites 93
- Total Patients 194,768
- Number Migrant/
- Seasonal Farmworker Patients 1,403
- Number Homeless Patients 12,091

Source: National Association of Community Health Centers

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- FQHC’s act as a safety net for vulnerable population with the greatest health disparities:
  - Ethnic minorities
  - Government insured
  - Non-insured
  - Rural Dwellers

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% of Vulnerable Maryland Residents Served by Health Centers, 2005

- % of Low Income, Uninsured 12%
- % of Medicaid Beneficiaries 14%
- % of Population at or Below
  100% of Poverty 6%

Sourche: National Association of Community Health Centers

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Vulnerable Populations:

	Health Center Pop.	State Pop.	US Pop.
% at or Below 100% of Poverty, 2006	30%	15%	17%
% Under 200% of Poverty, 2006	46%	28%	36%
% Medicaid, 2006	40%	9%	13%
% Uninsured, 2006	28%	14%	16%
% Hispanic/Latino 2006	8%	6%	15%
% African American, 2006	53%	29%	13%
% Asian/Pacific Islander, 2006	1%	5%	5%
% American Indian/Alaska Native, 2006	0%	0%	1%
% White (non-Hispanic), 2006	31%	64%	80%
% Rural, 2006	43%	4%	16%

Source: National Association of Community Health Centers

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III. Utilization of Maryland FQHC's

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Patient Visits and Patients by Selected Primary Diagnoses and Services

Medical Conditions	*Patient Visits*	*Patients*
Hypertension	60,800	24,157
Diabetes mellitus	37,671	11,858
Heart disease (selected)	9,644	3,543
Asthma	11,911	7,102
Depression & Other Mood Disorders	22,592	7,254
All Mental Health & Substance Abuse	79,364	N/A

Source: National Association of Community Health Centers

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Patient Visits and Patients by Selected Primary Diagnoses and Services, cont.

Preventive Services	*Patient Visits*	*Patients*
Health Supervision Ages 0-11	94,243	39,133
Selected Immunizations	71,183	41,486
Oral Dental Exams	19,011	15,929
Pap Test	27,399	18,624
Mammogram	2,611	2,300
HIV Test	7,913	6,752

Source: National Association of Community Health Centers

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Economic Benefits of Health Centers in Maryland 2006

- Avoidable Emergency Room Visits

  $320,407,972

- Economic Benefits Generated

  $201,502,347

Source: National Association of Community Health Centers

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IV. What Do We Know?

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1

- Translation of scientific advances to Community Health Centers has contributed to Improving Health

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2

- FQHC Balance

1. Lack of practical research.
2. Young clinicians.
3. High turnover.

1. Vulnerable populations.
2. Health disparities.
3. Financial restraints.
4. System issues.

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Health Disparities

- Complex Issues
- Multifactorial
  - Environment
  - Society
  - Culture

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Health Disparities Result from a Complex Interaction of:

- Behaviors
- Socio-Economic Conditions
- Health Service Access
- Health Service Delivery
- Health Service Utilization

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3

- Specific relationships between a university and a health center may be too narrow and lack the capacity to have broad community impact.

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4

- Community Health Centers and University collaborations are challenging to cultivate and take time to develop.

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MaRC

- A partnership between the University of Maryland School of Medicine and Maryland's Federally Qualified Health Centers for Practice-Based Research.

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MaRC is a practice-based research network comprised of:

1. *Total Health Care*
2. *Park West Health System, Inc.*
3. *Baltimore Medical System*
4. *Chase Brexton Health Services*
5. *MidAtlantic Association of Community Health Centers*
6. *University of Maryland School of Medicine Department of Family & Community Medicine*

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MaRC Partners

Partner	Established	Number of Patients	% African American
1) Department of Family & Community Medicine	1969	25,000	60
2) Baltimore Medical System	1985	46,000	47
3) Total Health Care	1973	21,000	91
4) Park West Health System	1972	16,000	91
5) Chase Brexton	1978	10,000	55

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- Together the members of MaRC provide primary Health Care Services to over 120,000 individuals in the Baltimore Metropolitan Area.

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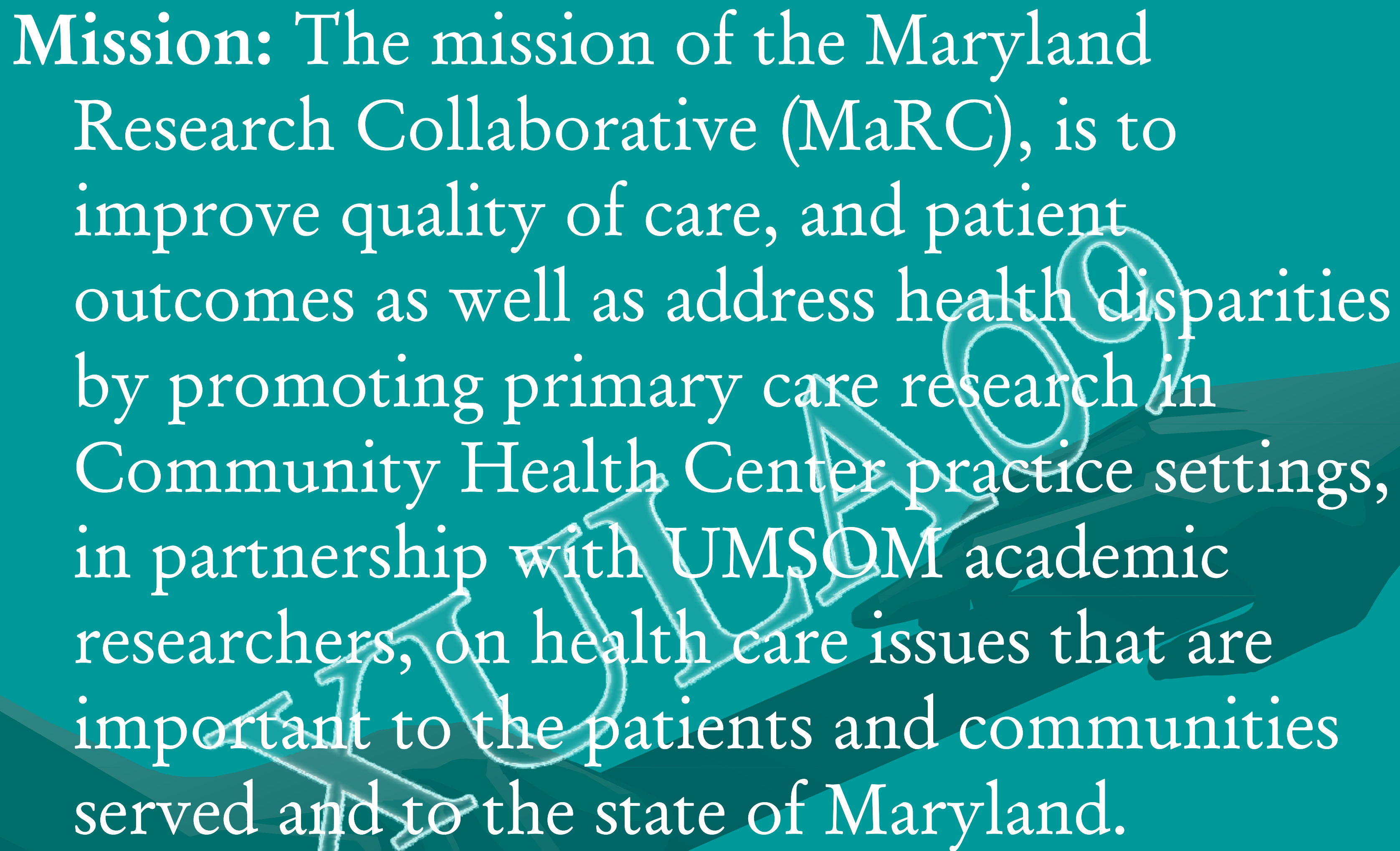

Mission: The mission of the Maryland Research Collaborative (MaRC), is to improve quality of care, and patient outcomes as well as address health disparities by promoting primary care research in Community Health Center practice settings, in partnership with UMSOM academic researchers, on health care issues that are important to the patients and communities served and to the state of Maryland.

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Goals:

1. To identify, develop, and conduct clinical and health services research on questions of importance to CHC members and their patients, and to effectively disseminate these research findings to improve the quality of primary care.
2. To increase research capacity of community-based (CHC) practice clinicians– by offering them research support to enhance their participation in primary care research and promote research translation into practice.
3. To provide continuing education opportunities for CHC clinicians to maintain and improve clinical skills with focus on evidence-based medicine as well as to improve clinician retention.
4. To promote multi-site practice-based research by providing trained study coordinators, technical assistance, including research design, implementation and analyses.
5. To interact with other PBRNs that share clinical, research, and educational mission.

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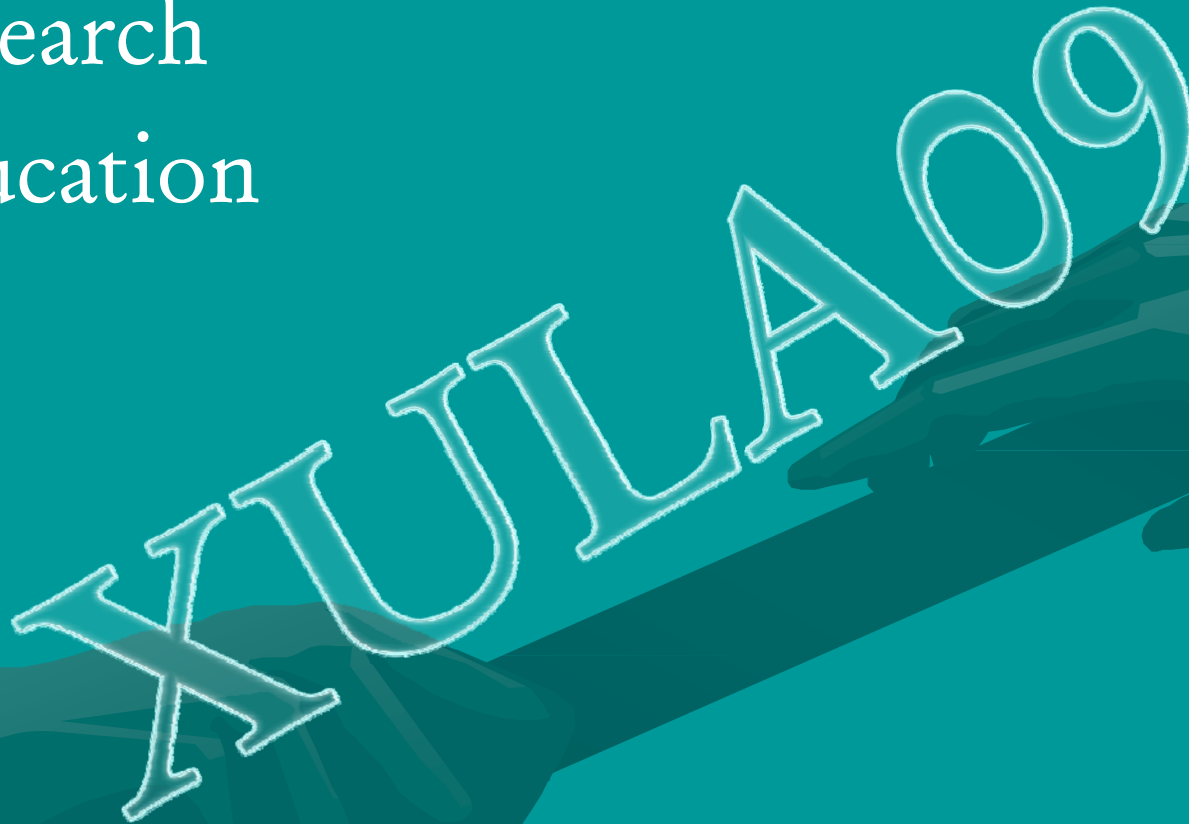
Current Projects

- Research
- Education



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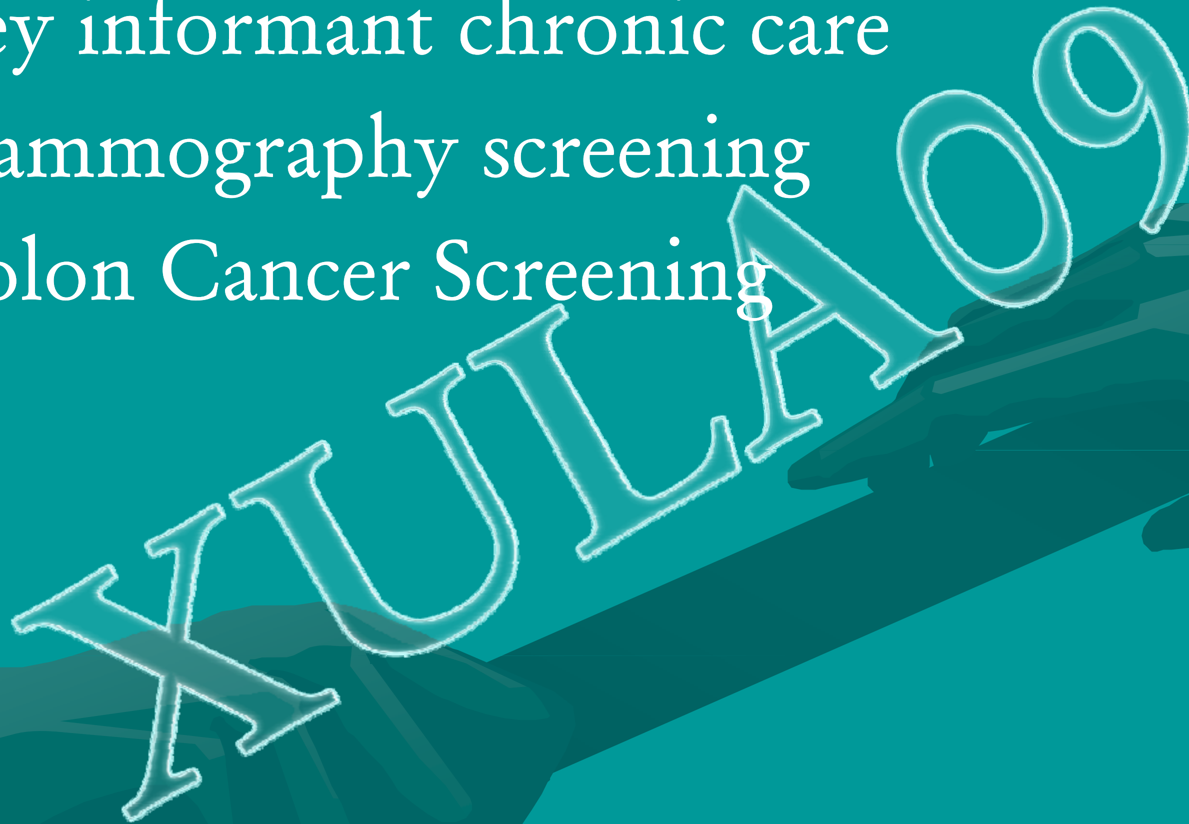
Projects

1. Key informant chronic care
2. Mammography screening
3. Colon Cancer Screening



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Future Direction

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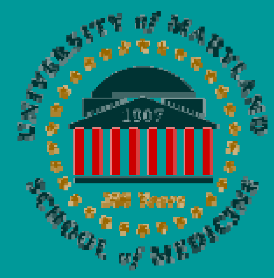

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