

# FOR THE PATIENT

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## HEALTH CARE USE BY OLDER MEXICAN AMERICANS

Older Hispanics are one of the fastest growing groups of the older population. By 2050 they will be 16% of the older US population. Most older Hispanics are expected to be of Mexican origin. Many older Mexican Americans have low income, few years of formal education, and high rates of diabetes, obesity, and disability. While older Mexican Americans have poorer health than older Whites, they are expected to live as long or longer than older Whites.

Earlier studies have found that many Hispanics do not have health insurance. This lack of insurance is related to low income and educational levels. Hispanics also use hospitals as often as others, but are somewhat less likely to see a doctor. Other researchers have found that Puerto Ricans are more likely than Cubans and Mexican Americans to be covered by Medicaid. It has also been found that Puerto Ricans are more likely to have seen a doctor than Mexican Americans.

To understand the factors that make an older patient report for medical care, we did a study. We interviewed 1,987 older Mexican Americans from five states in the southwestern United States. Interviewers visited these elders at their homes to collect information. This included health conditions, psychosocial characteristics, and use of medical services. The interviewers asked questions such as the following. How many times in the past 12 months have you visited with a medical doctor? Did you experience an illness or injury that required staying overnight or longer in a hospital in the last year? How many total nights did you stay in the hospital in the last year?

We found that more than 90% of those interviewed had insurance coverage. Of these, 41.7% had Medicare only. In addition to their Medicare coverage, 18.2% had private insurance and 33.5% had Medicaid. Those who used healthcare services most often were

older women with insurance and a medical condition.

Knowing that insurance coverage and these other factors were important for using healthcare services may help to direct healthcare policy. Insured elderly are more likely to receive preventive care, seek care for serious symptoms, and have a continuing source of care. Finally, understanding interventions and health conditions such as diabetes, hip fracture, and disability in the elderly, is very important.

*Source: Predictors of Healthcare Utilization Among Older Mexican Americans*

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## DOES YOUR HOSPITAL MEET STANDARDS OF CARE FOR HEART DISEASE PATIENTS?

For many years, we have known about the disparity, or racial gap, in health care between African Americans and Whites. This gap can be seen in the higher death rate for heart disease in African Americans, when compared to Whites. African Americans with heart disease, compared to Whites, die at a younger age. They are more frequently hospitalized. They also have lower rates of special care like angioplasty or cardiac catheterization. For example, the average African American man is much more likely to die in his 50s of heart disease, than a 50-year-old White man who may survive to his 70s.

This disparity may be caused by many factors. Some include limited access to a doctor, the patient not returning to the doctor for follow-up, poor treatment by the doctor, cost of health care, and possible biological differences. It is believed that the biological differences are of least importance. Hopefully, focusing on improving the patient and physician behavior can lead to better outcomes for African Americans.

In the last 10 years, there has been growing attention paid to improving the quality of health care in the United States. Hospitals are now using new

strategies for improvement and new measures for the success of these improvements. This is called the Continuous Quality Improvement approach. It includes clinical guidelines and clinical pathways as some of the more popular tools used by hospitals. They work by placing patients with a well-defined diagnosis and treatment plan. They help to hold doctors and nurses accountable for compliance to standards of care established through research and national consensus by opinion leaders.

This paper looks at whether the use of clinical guidelines and clinical path-

ways for the treatment of patients with heart attacks can reduce the disparity in care and outcomes observed between African Americans and Whites. The idea is that both African Americans and Whites would benefit equally in treatment and outcomes. This small study found that there was no difference in the types of treatments and the ultimate outcomes between African Americans and Whites who presented with a heart attack. Both experienced a very low mortality rate and had equal access to aggressive interventions such as cardiac catheterization and coronary bypass surgery.

This study is too small to be conclusive but it raises an important question. If we can standardize the delivery of health care for our most important and well-defined diseases, could we also see a decrease in the widening racial gap in health care? We have overwhelming data that supports the use of guidelines and pathways to improve the quality of health care, especially in our hospitals. Therefore, the public should know how their local community hospital has done in complying with national standards and guidelines for illnesses such as a heart attack. Many hospitals receive a national

or local grade or score on how well they do. Their results are published on national websites. Also, if you ask, your community hospital can inform you as to whether they adhere to recommended guidelines. Those hospitals that comply are more likely to provide equal and effective care, regardless of race.

*Source: The Impact of an Acute Myocardial Infarction Guideline and Pathway on Racial Outcomes at a University Hospital*

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## IS CORONARY ANGIOGRAPHY UNDERUSED IN AN INNER-CITY POPULATION?

Heart disease remains the number one killer of Americans. Some studies have reported racial/ethnic or sex disparities in heart disease treatment. Most of these studies use medical record information collected years earlier or analyze data that are generally used for billing the patient or insurance companies. These data sets often have limited clinical information. Few studies have examined whether any of the racial/ethnic or sex differences in heart disease treatments might be appropriate based on standard clinical criteria.

The main goal of this study was to identify and follow patients with symptoms of heart disease (such as chest pain or angina). We wanted to find out if there were any racial/ethnic or sex differences in referral to, or use of, coronary angiography, a procedure that identifies if blood vessels to the heart are blocked. We also wanted to find out if any harmful events occurred among

persons who should have undergone angiography, but, for various reasons, did not have the procedure done.

We identified 153 patients, 40 years or older who underwent evaluation for heart disease from December 1998 to November 1999 at a large public hospital. This hospital does not have angiography services and provides care to mostly Medicaid patients or those without health insurance. Patients who need angiography are referred to a nearby academic teaching hospital, where most of the patients who are admitted have private insurance or Medicare.

In our study group, 78% were Blacks and Hispanics and half were men. The patients' ages ranged from 48–68 years. The most common reason for angiography was chest pain. About two-thirds of the group had two or more risk factors for heart disease, such as diabetes and high blood pressure. Angiography was recommended for

75% of patients; of these, 66.2% had the procedure. Among those undergoing angiography, two-thirds of the patients were found to have heart disease with 50% blockage of a major heart artery. Twenty-six patients, although angiography was recommended, did not have the procedure and, after 18 months of followup, there were no deaths among this patient group.

We did not find any racial/ethnic or sex differences in the use of angiography. However, based on the national criteria, the procedure was underused in this publicly insured population since almost one-third of the patients that should have had angiography did not get it. Improving access to angiography in minority populations is still needed.

*Source: Is Coronary Angiography Underused in an Inner-City Population?*

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## HOW EXERCISE AFFECTS HIGH BLOOD PRESSURE

High blood pressure is a deadly disease because it can increase the chance for heart disease. The use of salt

and how the body uses salt can contribute to high blood pressure. Specific biological factors can influence

how blood pressure is affected by salt retention. Examples of two of these biological factors are angiotensinogen

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(AGT) and angiotensin converting enzyme (ACE).

Genes are important in the development of high blood pressure and because AGT and ACE are factors that influence blood pressure, the genes for AGT and ACE may be important. There are many variations, called polymorphisms, of the AGT and ACE genes. One polymorphism of the AGT gene is the AGT M235T. It has been linked with an increase in AGT levels. This could lead to an increase in salt retention and possibly high blood pressure. One polymorphism of the ACE gene is the ACE I/D. It has been linked with an increase in ACE levels. It could lead to an increase in salt retention and possibly high blood pressure.

Every person gets two copies of the gene polymorphism, one from their mother and one from their father. Thus, a person can get one of three different combinations of the gene polymorphism, also called genotypes. The three possible combinations for the AGT M235T polymorphism are TT, MT and MM. For the ACE I/D polymorphism the possible genotypes are

II, ID and DD. The genotype that a person inherits from their parents is important because it may be associated with greater or lesser functioning of the gene.

Exercise can reduce blood pressure. Both the AGT M235T and ACE I/D polymorphisms have been associated with blood pressure reduction due to exercise but it has not been determined if a reduction in salt retention may have helped in the gene associated reduction in blood pressure.

The purpose of the current study was to determine if the ACE I/D and the AGT M235T polymorphisms were associated with a reduction in salt retention and blood pressure for those in an exercise program. Eight days of exercise for 50 minutes reduced salt retention in African American with hypertension. It was also found that the ACE I/D polymorphism was important in the reduction of salt retention and blood pressure. Individuals that were in ACE II genotype group retained less sodium with exercise than the ACE ID and DD genotype groups and this was related to their reduction in blood pressure with exercise. The AGT

M235T polymorphism was not related to any changes in blood pressure and salt retention for those in the exercise program.

This study suggests that exercise may benefit African Americans with high blood pressure by decreasing the amount of salt they retain. Another important finding is that genes may have an important role in how African Americans with high blood pressure respond to exercise.

Despite this, one gene cannot be entirely responsible for reducing blood pressure and salt retention with exercise. One gene polymorphism may work with other polymorphisms within the same gene or in other genes to contribute to these changes.

*Source: Renin-Angiotensin System Genes and Exercise Training-Induced Changes in Sodium Excretion in African American Hypertensives*

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## DEFINING THE AFRICAN AMERICAN MULTIPLE RISK PATIENT (AAMRP)

Cardiovascular disease includes heart attacks, strokes, and blockage in the arteries of the legs. Cardiovascular disease accounts for about 1 in 2 deaths in the United States. Heart attacks account for about 1 in 3 deaths. Downward trends in heart disease have not persisted and deaths from heart disease, stroke, and blockage in the arteries of the legs remain higher in African Americans than in Whites.

Many African American and White adults and adolescents have increased

rates of physical inactivity, smoking, and obesity. The combination of high blood pressure, high cholesterol, diabetes and/or being overweight is called metabolic syndrome. About 47 million Americans have metabolic syndrome. Each of these risk factors, alone and combined, increases the chances for death from heart disease.

At any given level of weight, African Americans are more insulin resistant (a state leading to diabetes) than Whites and have higher blood pressures. In

addition, African American women are more overweight than White women.

Since African Americans tend to be diagnosed later, and have more risk factors that place them at great risk, we propose the term "African-American Multiple Risk Patient (AAMRP)." The AAMRP poses clinical and public health challenges for healthcare providers. If untreated, the AAMRP will experience more cardiovascular diseases and premature death. In this article, we provide clinical and public health strategies for

early detection and aggressive management of the AAMRP.

*Source: High-Risk African Americans with Multiple Risk Factors for Cardio-*

*vascular Disease: Challenges in Prevention, Diagnosis, and Treatment*

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## THE EFFECT OF A WALKING PROGRAM ON WEIGHT AND BLOOD PRESSURE

Obesity exists in epidemic proportion in the American society, with more African American women overweight or obese than White women. Obesity occurs when people consume more energy (food) than they use. Since physical activity causes a person to use more energy (increases the metabolic rate), obese individuals would appear to greatly benefit from physical activity. The purpose of this study was to examine the effects of a 16-week program of brisk walking on weight and blood pressure in non-active, obese African American and White women.

Fifty-two women volunteered to participate in this study. Fifteen African American and 13 White women were in the group who walked. Twelve African American and 12 White women did not walk and served as comparison persons for the study. Those in the walking group walked three miles for each of three days a week for a period of 16 weeks. The average walking pace of 3.57 miles per hour (3.54 mph for the

African American, and 3.61 mph for the White walkers) for all exercisers indicates that the walk was brisk and there were no real differences in walking pace between the races.

The results showed that following the walking intervention, the White exercisers lost an average of 3.4 kg (6.9 pounds), which was approximately 4.2% of their body weight at the beginning of the program. The walking program did not result in weight loss for the African American exercisers. However, the energy intake (amount of food eaten) of the African Americans increased from about 1586 kcals at the beginning of the program 1839 kcals at week 16 of the walking program. In contrast, the energy intake of the White exercisers decreased by 12.7% at week nine and was still down by 5.1% at week 16.

The walking program produced lower resting systolic (SBP) and diastolic blood pressures (DBP) in both the African American and White

groups. The African American walkers resting SBP decreased an average of 5.7 mm Hg, while the resting SBP of the White walkers decreased an average of 11.3 mm Hg. All exercisers experienced decreases in resting DBP (African American -3.0 mm Hg; White -3.6 mm Hg). Resting SBP and DBP of the control groups remained unchanged during the program.

This study shows that a brisk walking program has different blood pressure and body composition responses for African American and White women and that cultural and racial issues related to energy consumption patterns appear to be important when designing walking programs for African American women.

*Source: Walking, Body Composition, and Blood Pressure Dose-Response in African American and White Women*

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## HOW THE BODY PROCESSES FOOD AND HOW IT MAY BE LINKED TO DIABETES

Some studies have found that the rate at which the stomach empties ingested food into the intestines may be more rapid in certain ethnic groups compared with others. Differences in the rate of stomach emptying between different ethnic groups could explain the increased risks that certain ethnic groups have for developing diabetes.

Many studies now show that the rate at which a person's stomach empties ingested food is linked to how high their blood glucose levels go up after a meal. This is particularly true for meals that are high in carbohydrate content. Those who have relatively high blood glucose levels after a meal also have an increased risk of developing

diabetes and heart disease. In patients who already have diabetes, higher elevations of blood glucose after a meal have been associated with an increased likelihood of developing complications of diabetes such as blindness and foot infections.

Our research group has shown that non-diabetic Mexican Americans have

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a more rapid rate of stomach emptying than non-diabetic non-Hispanic Caucasians. Other studies suggest that rapid stomach emptying may be occurring in American Indian populations and other ethnic groups as well.

In addition to diabetes, one report has shown that subjects with high blood pressure also have rapid stomach emptying compared with normal subjects. Although the precise relationships are not entirely clear, hypertension appears to have some relationship to the body's levels of glucose and insulin, the hormone that controls glucose levels. It is possible that the faster absorption of carbohydrates following rapid emptying of the stomach in these ethnic groups could also be a contributing factor to the increased risk of development of

high blood pressure and heart disease in certain ethnic groups.

Why is there a difference in the rate of stomach emptying between different ethnic groups? One possible explanation could be found in specific ethnic diets. Ethnic populations eating more highly processed foods may have developed a more controlled stomach emptying of these foods, while other ethnic populations that eat a less-processed diet might not have adapted their stomach emptying rate to a modern, more highly processed food diet.

More studies comparing stomach emptying rates in different ethnic populations will help to better understand these factors. Additional studies are needed to know if the stomach in certain ethnic populations is indeed

emptying faster than in other populations. It will also be important to learn about the rate of stomach emptying in other ethnic groups such as African Americans and Asian Indians. These ethnic populations have a higher risk of developing diabetes and heart disease.

Several medications that are now available to treat diabetes have been shown to slow the rate of stomach emptying and reduce glucose levels after a meal. These new agents may be particularly helpful in ethnic populations.

*Source: Gastric Emptying in Ethnic Populations: Possible Relationship to Development of Diabetes and Metabolic Syndrome*

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