

Prevention and Control of CVD RF Policy Level, Health Systems and Community: Main Issues and Perspectives-Hypertension

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Cardiovascular Disease Facts in African Americans

- Hypertension highly prevalent, frequently undetected, often uncontrolled
- 25% of all African Americans have high-risk lipid profiles
- Sudden death from CVD up to 3 times higher among African American men than white men

Cardiovascular Risk Factors for Hispanics

- Obesity
- HTN
- Dyslipidemia
- Type 2 diabetes mellitus
- Lifestyle
 - Lack of physical activity
 - Smoking
 - Excessive drinking

Laffer et al. *Hypertension* 1995;26:1079-84. Stern and Haffner. *Diabetes/Metabolism Reviews*. 1990;6:29-45. Crespo et al. *Public Health Rep*. 1996;3(suppl 2):7-10.

Heart Disease Is the Leading Cause of Death Among Hispanics

White non-Hispanics

1. Heart disease
2. Cancer
3. Unintentional injuries
4. Stroke
5. COPD
6. Pneumonia & influenza
7. Diabetes
8. Suicide
9. Liver disease & cirrhosis
10. Homicide and legal intervention

Hispanics

1. Heart disease
2. Cancer
3. Unintentional injuries
4. Stroke
5. Diabetes
6. Liver disease & cirrhosis
7. Homicide & legal intervention
8. Pneumonia & influenza
9. COPD
10. HIV
11. Suicide

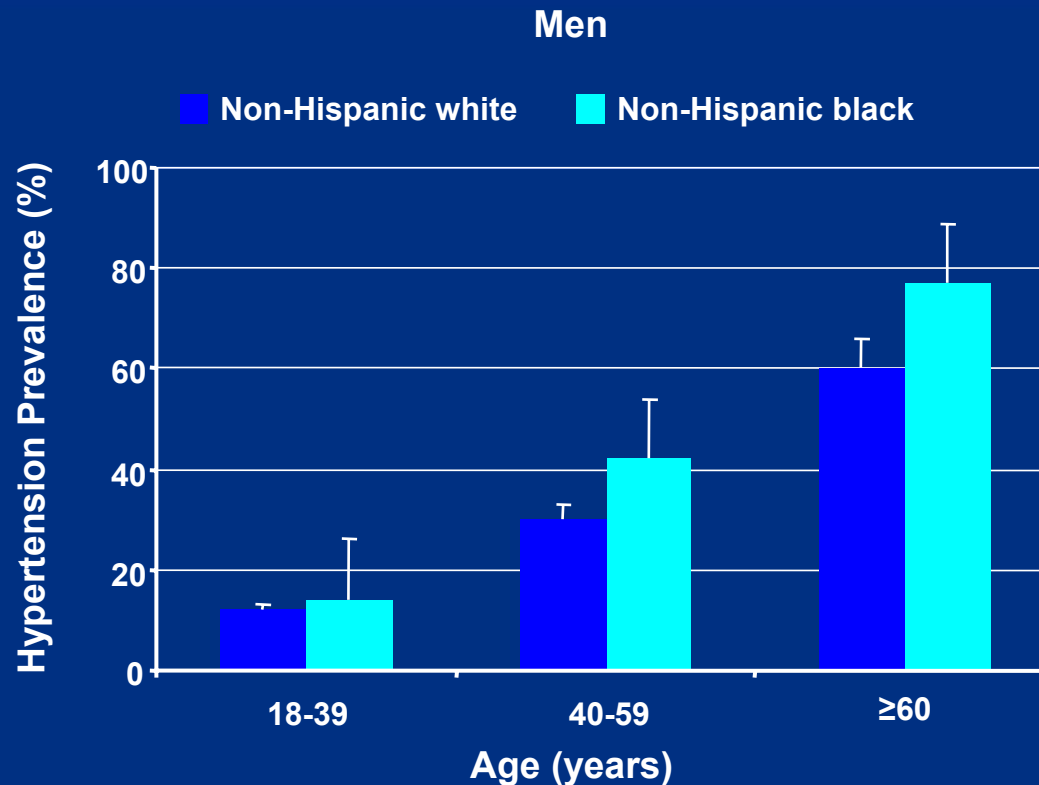
Cardiovascular Disease Facts in Hispanic Americans

- Less improvement in cardiovascular mortality compared with whites and African Americans
- Overall, Hispanic American women have higher hypertension awareness, treatment, control than Hispanic American men
- Prevalence of dyslipidemia in Mexican Americans:
 - TC \geq 240 mg/dL: 18% of males; 17% of females
 - TC \geq 200 mg/dL (borderline): 53% of males; 48% of females

TC = total cholesterol.

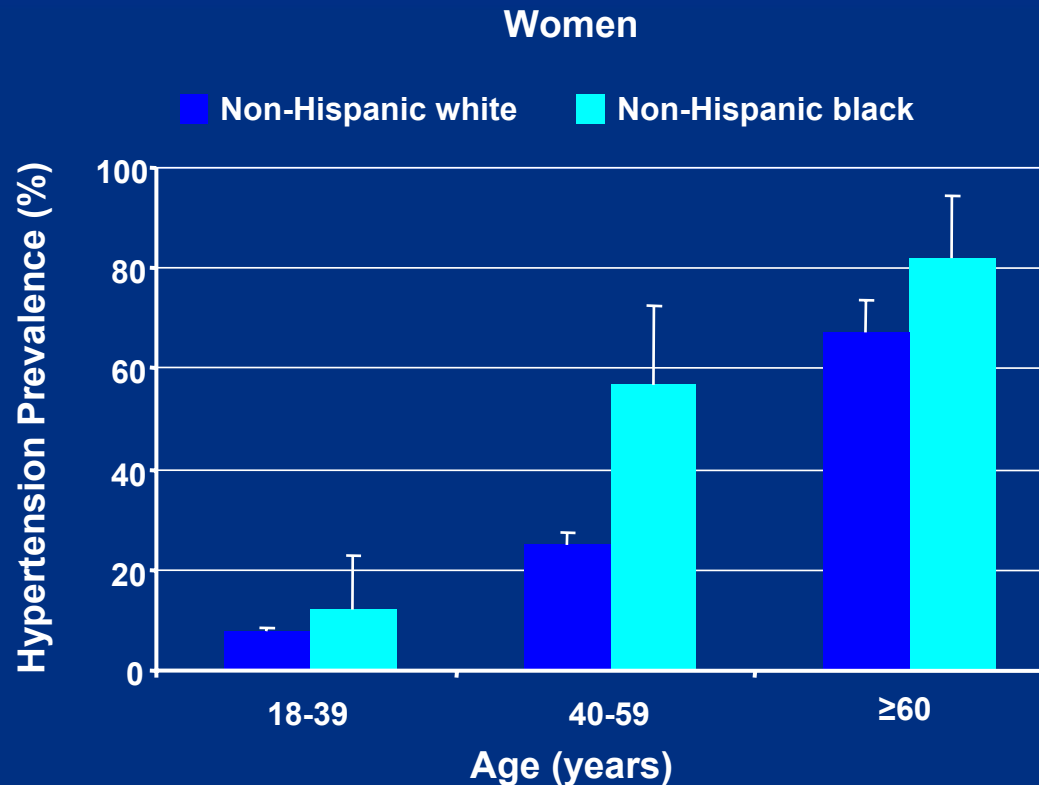
Laffer and Elijevich. *Hypertension*. 1995;26:1079-1084; Crespo et al. *Public Health Rep*. 1996;3(suppl 2):7-10; American Heart Association. *Heart Disease and Stroke Statistics — 2003 Update*.

Hypertension Is More Prevalent in Black Men Than in White Men



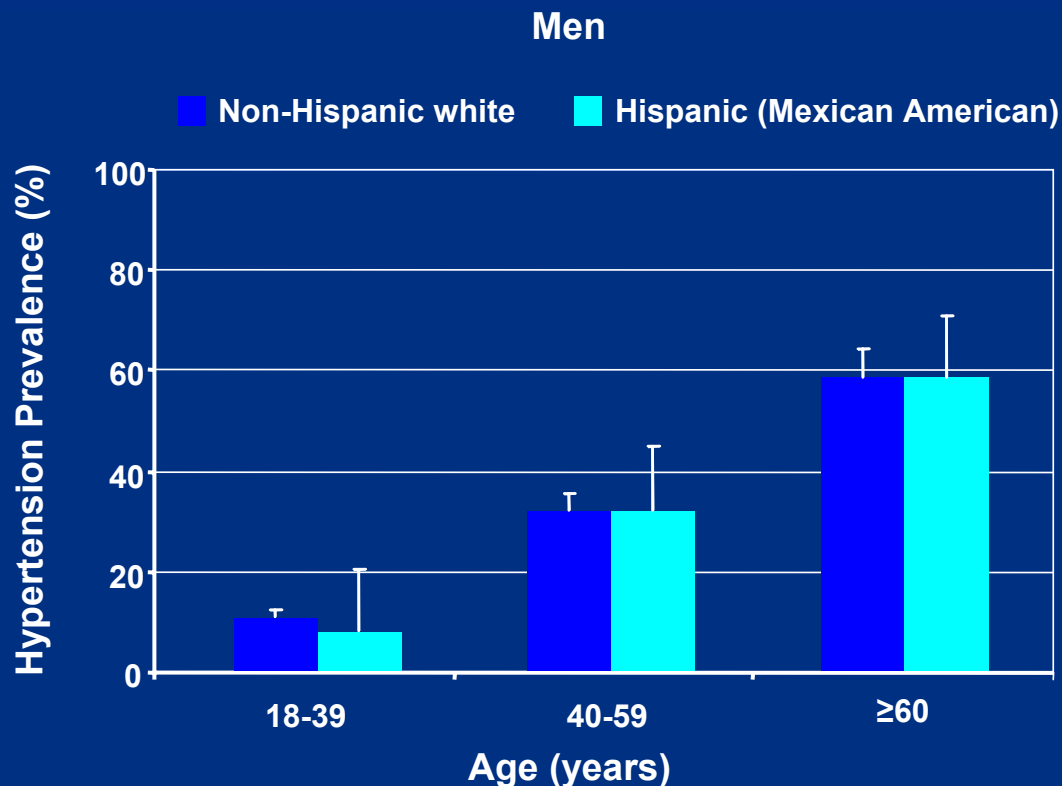
Error bars indicate 95% confidence intervals. Data are weighted to the US population. Hajjar and Kotchen. *JAMA*. 2003;290:199-206.

Hypertension Is More Prevalent in Black Women Than in White Women



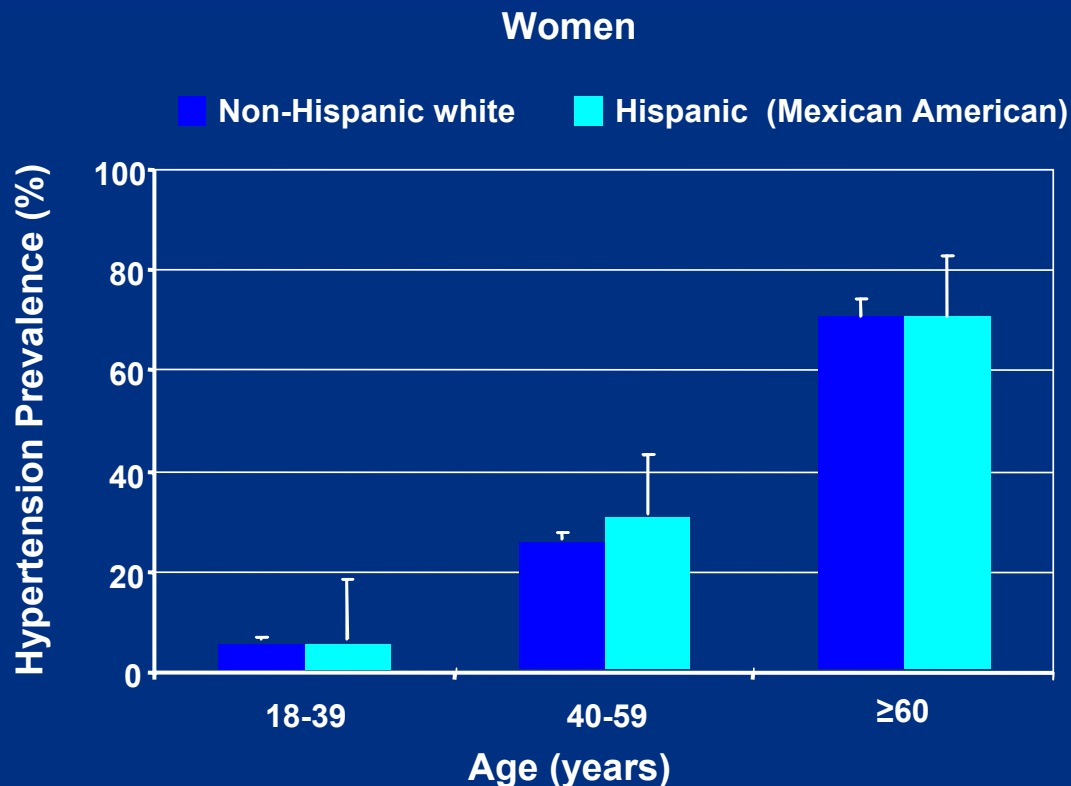
Error bars indicate 95% confidence intervals. Data are weighted to the US population.
Hajjar and Kotchen. *JAMA*. 2003;290:199-206.

Hypertension Is as Prevalent in Hispanic Men as in White Men



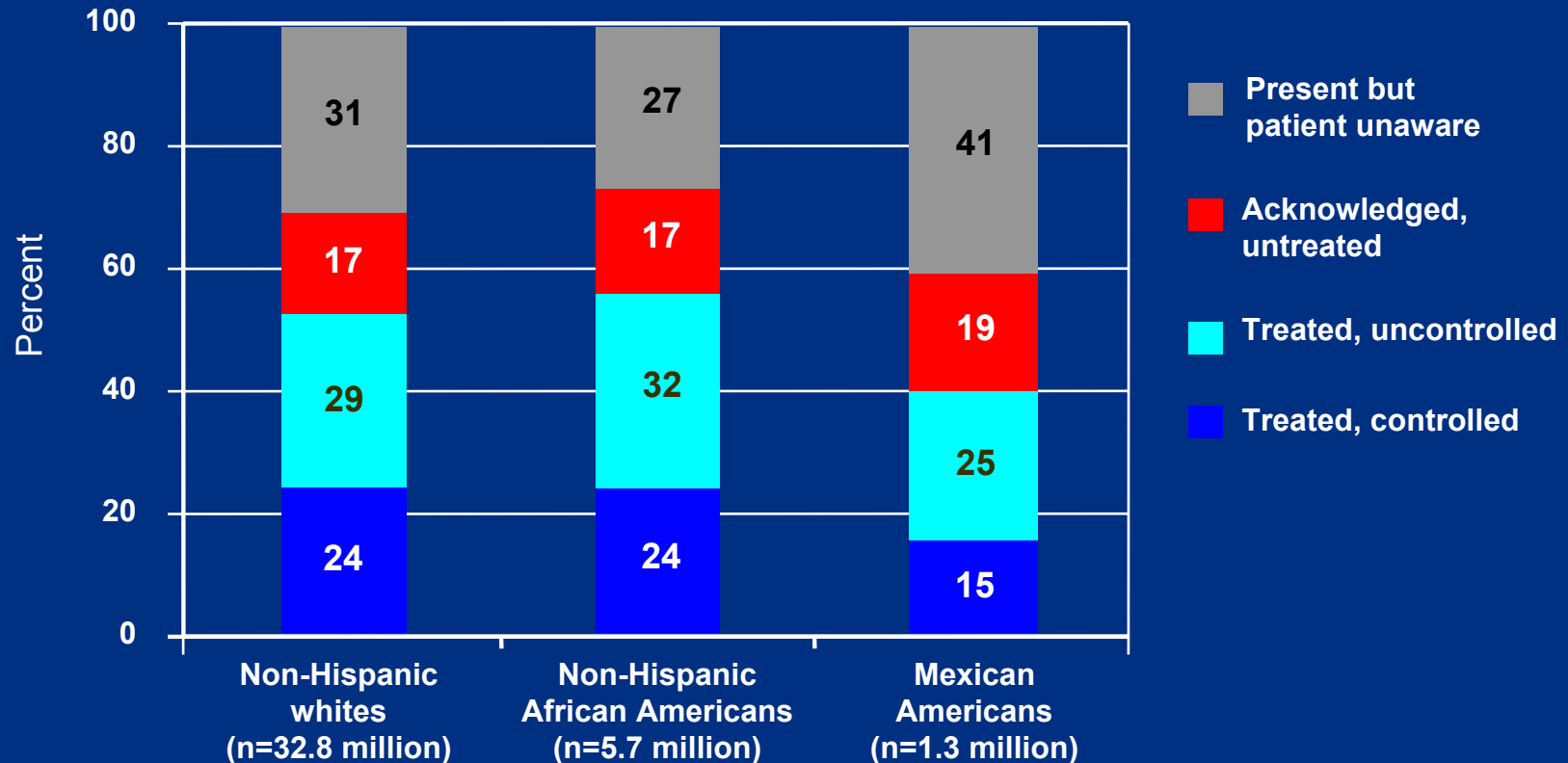
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Hypertension Is as Prevalent in Hispanic Women as in White Women



Error bars indicate 95% confidence intervals. Data are weighted to the US population. Hajjar and Kotchen. *JAMA*. 2003;290:199-206.

Hypertension Is Largely Uncontrolled Across Ethnic Groups



Awareness, Treatment, Control of Hypertension in Whites, African Americans, and Hispanics (Mexican Americans)

Flack et al. *J Clin Hypertens*. 2003;5(suppl 1):5-11.

Overview of Cardiac Morbidity and Mortality Among Hispanics

- Puerto Ricans have worse CV health status than Mexican- or Cuban-Americans
- Less improvement in CV morbidity compared with whites and African Americans
- Hispanic American women have higher HTN awareness, treatment, control than Hispanic-American men
- High prevalence of dyslipidemia

JNC 7 Blood Pressure (BP) Classification

BP Classification	Systolic BP, mm Hg*		Diastolic BP, mm Hg	Lifestyle Modification
Normal	<120	and	<80	Encourage
Prehypertension	120-139	or	80-89	Yes
Stage 1 hypertension	140-159	or	90-99	Yes
Stage 2 hypertension	≥160	or	≥100	Yes

JNC 7 = seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure.

*Classification for ages 18 years and older.

JNC 7. *JAMA*. 2003;289:2560-2572.

JNC 7 Recommends Lower BP Goals for Patients at Higher Risk for CVD

Patient type	Goal
Patients with diabetes	<130/80 mm Hg
Patients with chronic kidney disease	<130/80 mm Hg

- For the general population, BP goal remains unchanged (<140/90 mm Hg)

JNC 7: Considerations for Special Populations

- Treatment generally similar for all demographic groups
- Socioeconomic factors and lifestyle important barriers to BP control
- Prevalence, severity of hypertension increased in blacks

JNC 7: Considerations for Special Populations (cont'd)

- Reduced BP responses to monotherapy with beta-blockers, ACE inhibitors, or ARBs, versus diuretics or CCBs, in blacks
- Adding adequate doses of a diuretic usually eliminates these differences

ACE = angiotensin-converting enzyme; ARBs = angiotensin-receptor blockers;
CCBs = calcium-channel blockers.
JNC 7. *JAMA*. 2003;289:2560-2672.

JNC 7: Compelling Indications for Individual Drug Classes

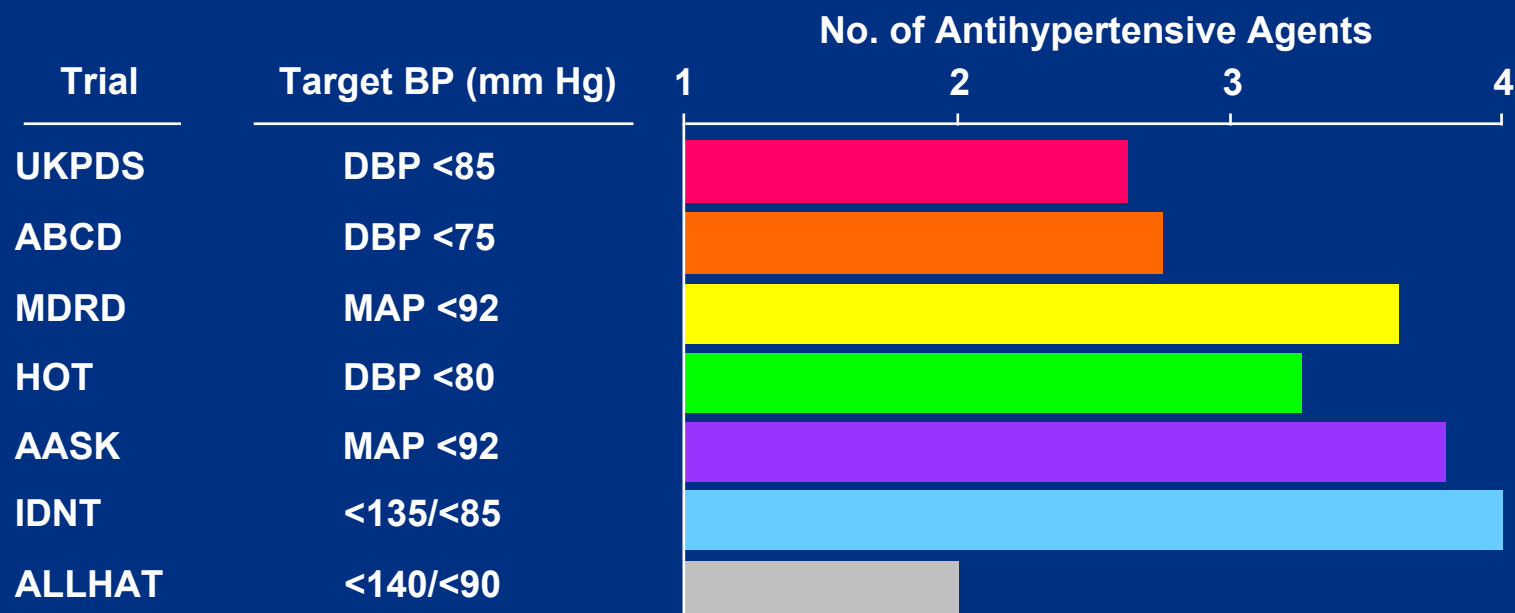
High-Risk Condition With Compelling Indication*	Recommended Drugs					
	Diuretic	Beta-Blocker	ACE Inhibitor	ARB	CCB	Aldo Ant
Heart failure	x	x	x	x		x
Post-MI		x	x			x
High CAD risk	x	x	x		x	
Diabetes	x	x	x	x	x	
Chronic kidney disease			x	x		
Recurrent stroke prevention	x		x			

MI = myocardial infarction; CAD=coronary artery disease; Aldo Ant = aldosterone antagonist.

*Based on benefits from outcome studies or existing guidelines, the compelling indication is managed in parallel with the BP.

JNC 7. *JAMA*. 2003;289:2560-2672.

Multiple Antihypertensive Agents Are Needed to Achieve Target BP



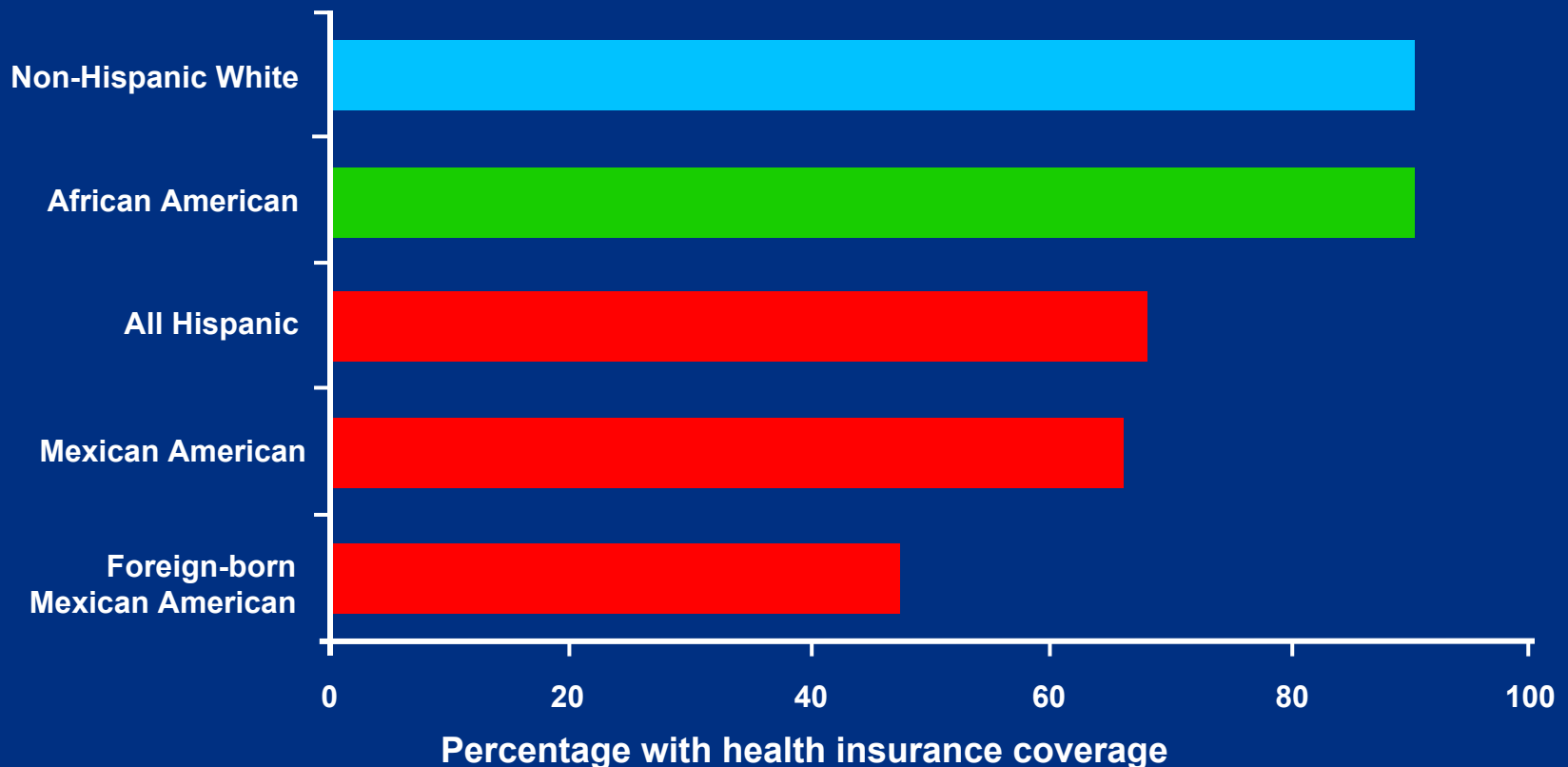
UKPDS = United Kingdom Prospective Diabetes Study; ABCD = Appropriate Blood Pressure Control in Diabetes; MDRD = Modification of Diet in Renal Disease; HOT = Hypertension Optimal Treatment ; AASK = African American Study of Kidney Disease and Hypertension; IDNT = Irbesartan Diabetic Nephropathy Trial; ALLHAT = Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial; MAP = mean arterial pressure.

Bakris et al. *Am J Kidney Dis.* 2000;36:646-661; Lewis et al. *N Engl J Med.* 2001;345:851-860; ALLHAT Officers. *JAMA.* 2002;288:2981-2997.

JNC 7: Treatment Recommendations for Minority Populations

- Blacks: diuretics, calcium antagonists
- Hispanic Americans: follow guidelines for obesity and diabetes

Minorities Have Less Health Insurance Coverage



Mills. Health Insurance Coverage: 2000. US Census Bureau: Washington, DC; 2001.
Harris. *Diabetes Care*. 2001;24:454-459; Camarota. *Immigration from Mexico*. Center for Immigration Studies: Washington, DC; 2001.

Hispanics Have Less Access to Care

- In the elderly population, Mexican Americans less likely than other Hispanics to have seen a physician
- Non–English-speaking Hispanics less likely than English-speaking Hispanics to have had a physician visit
- Hispanics less likely than African Americans or whites to use antihypertensive medication

Effective Cultural-Based Programs Should Consider a Number of Variables

- Adherence to therapy depends on
 - Social, economic, and personal circumstances
 - Empathetic and nonjudgmental assistance from providers
 - Financial concerns and employment
 - Drug addiction

Salud Para Su Corazon (Health for Your Heart) A Latino Focused Initiative

Latino CVD Profile:

- ❖ CVD leading cause of death among Latinos
- ❖ Youthful: Opportunity for early intervention
- ❖ Acculturation to unhealthy lifestyles

Public Health Dilemma:

- ❖ English only CVH materials not reaching Spanish speaking communities
- ❖ Literal Spanish translation inefficient -cultural translation needed



Who is Behind Salud Para su Corazón?



Promotores (lay health workers)

- Leaders and movers
- Trusted and respected
- Role models
- Champions
- A Passion for improving the health of their community
- Willingness to be trained as outreach workers

Conclusions

- Hypertension is underdiagnosed and undertreated in African Americans and Hispanics
- CVD is the leading cause of death in both populations

Conclusions (cont'd)

- New guidelines recommend pharmacotherapy to lower BP in both populations
- Multiple medications are usually required
- More aggressive screening and comprehensive, culturally sensitive risk management may increase BP control and decrease cardiovascular morbidity and mortality in African Americans and Hispanics