

# HYPERTENSION KNOWLEDGE AMONG PATIENTS FROM AN URBAN CLINIC

**Objective:** To determine levels and correlates of hypertension knowledge.

**Design:** Cross-sectional telephone survey.

**Setting:** Urban, public hospital clinic.

**Participants:** 296 adults with hypertension.

**Main Outcome Measure:** Hypertension knowledge was assessed through a 10-item test; respondents received one point for each correct answer.

**Results:** Eighty-nine percent of respondents were Black, 79% were female, 75% had a monthly income <\$1000, and 62% had completed high school. Items with the lowest percentage of correct responses included knowing that hypertension does not cause cancer (41.9% correct), a blood pressure of 130/80 mm Hg is normal (59.8% correct), hypertension lasts a lifetime (60.5% correct), and renal failure is a complication of hypertension (76.4% correct). Overall, 39% answered 9 or 10 questions correctly. Low hypertension knowledge ( $\leq 7$  questions correct) was associated with age  $\geq 60$  years, having less than a high school education, and reporting a first hypertension diagnosis within 9 years before being surveyed.

**Conclusions:** Hypertension knowledge deficits in specific content areas and among certain subgroups were present in this urban population. Educational programs focusing on newly diagnosed hypertensive patients and aimed at filling targeted knowledge deficits may be a cost-effective approach to increase hypertension knowledge in similar populations. (*Ethn Dis.* 2008;18:42–47)

**Key Words:** Hypertension, Knowledge, Minority, Urban, End-stage Renal Disease

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From the Tulane University School of Medicine, Section of General Internal Medicine and Geriatrics (SS, PM, LK, KBD), Tulane University School of Public Health and Tropical Medicine, Department of Epidemiology (PM, AH, KBD), New Orleans, Louisiana, USA.

Address correspondence and reprint requests to: Karen DeSalvo, MD, MPH, MSc; Section of General Internal Medicine and Geriatrics; Tulane University School of Medicine; 1430 Tulane Ave, SL-16; New Orleans, LA 70112; 504-988-7518; 504-988-8252 (fax); kdesalv@tulane.edu

Shane Sanne, BS; Paul Muntner, PhD; Lumie Kawasaki, MD; Amanda Hyre, MPH; Karen B. DeSalvo, MD

## INTRODUCTION

Hypertension is common among US adults, with a prevalence of 28.7%.<sup>1</sup> Despite effective treatments, approximately two thirds of all patients with hypertension in the United States have uncontrolled blood pressure.<sup>1</sup> Racial disparities are also evident; Blacks have lower rates of controlled hypertension than do other ethnic groups.<sup>1,2</sup> In addition, Blacks have an increased risk of hypertension complications, including cardiovascular disease, end-stage renal disease, and stroke.<sup>3–9</sup>

The causes of uncontrolled hypertension are multifactorial.<sup>10</sup> Patient factors associated with hypertension control include demographics, socioeconomic, health beliefs, and the presence of other chronic diseases.<sup>10</sup> An additional potential cause for the high rates of uncontrolled blood pressure and its long-term complications in the urban setting is insufficient hypertension knowledge.<sup>11</sup> However, data supporting this hypothesis are limited.<sup>12,13</sup> We report the results of a study assessing hypertension knowledge and correlates of low hypertension knowledge in an urban setting.

## METHODS

### Target Population

In September 2004, we identified patients from the rosters of four inter-

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nists practicing at the Medical Center of Louisiana in New Orleans, a public hospital-based, faculty-run continuity clinic. The population served in this clinic was largely composed of uninsured or underinsured adult, female patients from the greater New Orleans metropolitan area.

All patients with established hypertension,  $\geq 18$  years of age, were considered eligible for participation. We defined established hypertension as two outpatient diagnoses of hypertension (International Classification of Diseases, Ninth Revision, Clinical Modification code 401.0–401.9), recorded in the clinic's administrative database during the preceding 12 months. Of the 1017 eligible candidates identified, 696 were not surveyed because 1) they had inactive or incorrect telephone numbers listed in the database ( $n=122$ ); 2) they denied a diagnosis of hypertension ( $n=7$ ); 3) they were unreachable despite a working phone number and multiple attempts ( $n=519$ ); or 4) they were not called because the study was interrupted by Hurricane Katrina ( $n=48$ ). Input error led to one survey without documented data. Of the eligible participants eventually contacted, 24 (7%) refused participation. We analyzed data from the 296 participants who completed the survey.

### Survey Administration

The telephone survey was conducted between October 2004 and August 2005. A single trained interviewer administered the survey using a standardized script. Multiple attempts, at varying times of the day and evening and on weekdays and weekends were made to contact patients. Once potential participants were reached and the study introduced, their voluntary participation in completion of the survey was requested.