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Policy Forum
What Good Is Hypertension Screening If You Don't Do Anything about It?
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Introduction
Hypertension, or high blood pressure, one of the most common diseases worldwide, has special significance in the United States. Nearly one-third of Americans are hypertensive, and approximately half of them don't realize they should seek medical intervention [1]. Because it affects so many individuals and frequently contributes to other morbidities (and potential mortalities), hypertension represents a high cost to society and a major public health challenge. Research has shown that hypertension is the most significant—and modifiable—risk factor for coronary heart disease (the leading cause of death in North America), stroke (the third leading cause), congestive heart failure, end-stage renal disease, and peripheral vascular disease [2].

So-called "primary" hypertension is generally caused by lifestyle factors, such as excess weight; lack of exercise; poor diet with an excess of fats and deficiency of grains, fruits, and vegetables; stress; and use of tobacco products. "Secondary" hypertension is often the result of comorbidities such as kidney disease, underproduction or overproduction of adrenal hormones (including epinephrine, norepinephrine, aldosterone, and corticosteroids), and diseases of the heart and aorta [3]. There is also a growing body of evidence that many people are genetically predisposed to hypertension, regardless of healthy diet and lifestyle, and researchers are working to develop drugs specific to these predispositions [4, 5].

Screening Guidelines
Early detection of hypertension is key to effective disease management. Educational efforts by government agencies, health promotion foundations, and specialty medical societies have urged both patients and physicians to start screening early and to formulate preventive lifestyle and treatment strategies. These educational efforts have led to a wide availability of blood pressure testing, often at little or no cost outside a physician's office or clinic. Both screening and treatment guidelines in the United States are issued by the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (JNC), an independent group organized by the National Heart, Lung, and Blood Institute. According to the JNC, everyone should have a blood pressure check at least every 2 years. People at increased risk for hypertension may need more frequent readings. Elderly people should be screened for hypertension at every health care visit and at least annually. Those with certain risk factors, including being overweight, having a family history of hypertension or heart disease, or being of African American or Hispanic heritage,

should be screened more frequently. Before a diagnosis of hypertension is determined, an individual should have a high reading on at least 2 separate occasions with at least 2 separate measurements on each occasion [6].

The Gap between Screening and Treatment

A sizable gap remains between recommendations for screening and the ability to offer subsequent treatment to many of those whose results indicate that they should have follow-up care. In many cases lifestyle changes are not sufficient to reduce hypertension and its associated comorbidities, and physicians must prescribe 1 or more of the several classes of antihypertensive medications. These include diuretics; beta blockers and alpha blockers; calcium channel blockers; angiotensin-converting enzyme (ACE) inhibitors; and angiotensin II receptor blockers. Since hypertension screening is simple to conduct and inexpensive, medical authorities feel justified in recommending universal screening. But the cost of follow-up care—in particular, antihypertension medications—makes it difficult for many to make the transition from screening to treatment. Uninsured adults, particularly African Americans and Hispanics, with common chronic conditions such as hypertension, suffer serious, identifiable gaps in needed medical care. Among the key messages in the JNC report: "The most effective therapy prescribed by the most careful clinician will control hypertension only if patients are motivated. Motivation improves when patients have positive experiences with, and trust in, the clinician" [6]. Many of the populations most at risk are also populations least likely to be able to afford therapy, regardless of "motivation" due to lack of health insurance and, therefore, lack of access to treatment. In essence, health policy makers need to ask the question, "What good is hypertension screening if you don't do anything about it?"

Limited access for the uninsured and minority populations

Regardless of what the guidelines suggest for postscreening follow-up, lack of insurance puts a damper on patients' ability to purchase needed medications. It is well known that those without health insurance or those with coverage inadequate for necessary care will be far less likely than those with sufficient insurance coverage to seek out medical services and purchase prescription drugs [7]. According to the National Center for Health Statistics, nearly half of all uninsured adults with chronic conditions have reported forgoing needed medical care or prescription drugs due to cost; one-third reported unmet need for medical care, and 1 of 3 reported an unmet need for prescription drugs. These individuals are also far less likely to take advantage of low-cost means to reduce their risk for chronic health conditions through better nutrition, higher rates of exercise, lower alcohol consumption, and tobacco-use cessation [7]. For example, smokers in the lowest income brackets are less likely to quit than those in higher income brackets, in part because higher income is correlated with greater health knowledge, a receptivity to new health information, and ability to take advantage of health-enhancing opportunities [8].

A recent study notes that annual deaths from 3 leading causes—heart disease, cancer, and stroke—are significantly greater in minority populations. These illnesses and related chronic conditions—hypertension, diabetes, and obesity—are the key

contributors to excess levels of ill health, premature mortality, and disability among African Americans and Hispanics [9]. In addition, the National Health Interview Survey, a program sponsored by the Centers for Disease Control and Prevention, estimated that approximately 30 percent of Hispanic persons and 20 percent of African Americans in the US are uninsured [7]. It's not difficult to see from these findings that many in the most susceptible population will be unable to afford treatment should screening reveal hypertension.

Although whites make up the largest group (59 percent) of uninsured adults with chronic conditions, a significantly larger proportion of African Americans and Hispanics with chronic conditions are uninsured [10]. These economically disadvantaged African Americans and Hispanics are, on the whole, less likely to reduce high-risk behavior or to initiate new health-enhancing practices that would help reduce hypertension and its associated comorbidities. About a third of uninsured African American adults and a slightly higher percentage of Hispanics with chronic conditions lack a consistent source for health care [7]. About half of uninsured African American adults who had a chronic condition also had an unmet need for either medical care or prescription drugs; 35 percent reported an unmet need for medical care; 36 percent reported an unmet need for prescription drugs.

The underinsured and prescription drug formularies

Even insured individuals face restrictions in the classes of medications for which their insurers will pay. Most physicians adhere to the JNC when prescribing first-line therapies to patients with uncomplicated hypertension. In their most recent report, the JNC recommends that, "because diuretics and beta blockers are the only classes of drugs that have been used in long-term controlled clinical trials and [have been] shown to reduce morbidity and mortality, they are recommended as first-choice agents unless they are contraindicated or unacceptable, or unless there are special indications for other agents" [6]. In individuals with several coexisting diseases including type 1 diabetes, some kidney diseases, heart failure, and a history of myocardial infarction, newer, more expensive classes of antihypertensive drugs (including ACE inhibitors and angiotensin-receptor blockers) may be more effective [4]. Other evidence suggests that the newer classes are highly effective in persons of a certain age or racial or ethnic background [11, 12]. Sometimes insurers do not designate the newest or more expensive medications as part of their "formulary." More frequently, insurers will create tiers of several copayments, where newer antihypertensive medications cost more out-of-pocket for patients [13]. This can lead patients to choose drugs that their physicians believe are less effective. While having insurance dramatically reduces the problem of unmet need for services, it does not eliminate it entirely.

Dovetailing Screening and Treatment

Straightforward screening and treatment guidelines ignore the inconsistencies in the ability for uninsured populations to follow-up on postscreening recommendations. Certainly it is outside the purview of a clinical practice oversight body such as the JNC to make policy recommendations. Any clinician or public health improvement

group should be troubled, however, if follow-up care is not available to the populations that need it most. Barring substantive reforms to the American health insurance system, piecemeal and politically feasible policies could be implemented to address hypertension in the most at-risk groups. Some studies have suggested that expanding government-sponsored health coverage to nonelderly, low-income persons with hypertension and associated multiple comorbidities (eg, diabetes and heart disease) will not only greatly improve their health past age 50, but will also save money in the long term by paying for preventive therapies "up front" rather than for costly long-term care near the end of life [14]. Patient-assistance programs (PAPs) sponsored by major pharmaceutical companies have been another helpful way to provide prescription drugs free of charge to low-income patients who meet certain requirements. But most uninsured patients—and many medical professionals—are not aware that such programs exist. Further, because PAPs are administered at health care facilities, it can be difficult for uninsured individuals who don't have a consistent source for health care to stay on those programs. National pharmacy chains, pharmaceutical manufacturers, and the government could work together to set up a program whereby individuals, once registered for a PAP, could pick up their medications at any participating pharmacy. Patients would be required, as they are currently, to renew their medication each year at an office visit with a physician or other qualified medical professional.

Lifestyle education, though, remains the best and least expensive way to control hypertension. In the case of diabetes, directed, comprehensive patient education not only improves health outcomes but reduces overall costs associated with the disease, including medications [15, 16]. Such programs are now available in clinics, hospitals, and through nonprofit educators, either free or at low cost to patients. Creating incentives for clinicians to direct their hypertensive patients to these programs—and follow-up to make sure they've attended—is a sound way to promote individual health, especially for those unable to afford medications on a regular basis.

Conclusion

Clear guidelines for screening chronic health conditions are important. Such guidelines, especially when crafted by consensus of top advocates for prevention and treatment of a particular disease, are powerful ways to publicize the need for early and persistent care. Hypertension guidelines developed by the JNC have set a standard of care that aims to provide the best prognosis for all patients. But these guidelines become moot when populations such as the uninsured or underinsured lack access to the treatments recommended within them. Hypertension, in particular, remains a disease that is disproportionately prevalent among the uninsured and underinsured. Because screening for hypertension is widely available at little or no cost, many hypertensive individuals know they are at risk for worse disease conditions later in life. But those without insurance generally lack the ability to follow up on physician-recommended treatments that would reduce the instance of dangerous comorbidities because of the costs involved, predominantly the expense of antihypertension medications. Some underinsured may find that formularies set by

insurers restrict the class of medications available to them, even when their physician suggests a restricted class as a first-line therapy. While clinical practice oversight bodies, such as the JNC, are not socioeconomic policy makers, there must be a better connection between making clinical policy and providing a means to get care to at-risk populations. This serious gap between screening for and treating hypertension leaves the populations most at risk without a way to improve their health and live their life to a fuller potential.

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