Health Insurance and Blood Pressure Control
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"Health insurance does not insure good health, it insures providers get paid.”
Dr. David Martins

Despite being widely recognized for many years as one of the most highly prevalent modifiable risk factors for cardiovascular and related diseases, hypertension remains a leading cause of premature morbidity and mortality in the United States and globally. In 2010, the Global Burden of Disease Study Group identified high blood pressure as the leading risk factor of 67 risk factors studied for worldwide impact on mortality and disability-adjusted life years. In fact, the landscape of global health has shifted over the past 2 to 3 decades, driven by the decline in disability-adjusted life years for communicable diseases, whereas disability-adjusted life years for noncommunicable diseases have been increasing. This has led to the identification of 6 key, global, modifiable, target risk factors for noncommunicable diseases, including 3 behavioral conditions—tobacco use, alcohol use, and high salt intake—and 3 medical conditions—obesity, diabetes mellitus, and elevated blood pressure. Demographic trends suggest that the number of persons with hypertension worldwide is projected to increase to >1.5 billion by 2025. The high rates of hypertension are driven not only by lack of blood pressure control for many persons with known disease but also by a large percentage of persons with hypertension who are unaware of their condition and/or who lack health insurance.

Addressing the awareness and control of hypertension necessitates attention to the social determinants of health including inadequate social and economic policies and unequal distribution of power, income, goods, and services.

In addition, marked variations in the quality of effective policies and functional access to health care leave too many persons—even in developed countries such as the United States—uninsured or underinsured. Although there has been intense focus on improving health care access for uninsured persons, our understanding of the magnitude and nuances of the health problems of underinsured persons is often overlooked.

In this issue of the Journal of the American Heart Association (JAMA), Fang et al advance our understanding of the impact of being underinsured on access to care among persons with hypertension. They examined data from nearly 125 000 adult participants in the 2013 Behavioral Risk Factor Surveillance System (BRFSS) who self-reported having health provider–diagnosed hypertension (excluding those with reported having borderline or prehypertension). They assessed the relationship between self-reported insurance status (stratified into uninsured, underinsured, and adequately insured) and self-reported proxies for health care received (eg, taking antihypertensive medications and visiting a doctor for a routine checkup within the past year). Findings that adequate insurance was more likely among persons who were aged >65 years (likely due to Medicare), were non-Hispanic white, and had greater educational attainment and that increasing degrees of insurance were associated with less likely report of barriers to care were not unexpected, but they provided a degree of internal validity to the study. Of particular interest, the authors found that 26% of the study participants were underinsured, an amount more than twice that of uninsured individuals (12%) in the cohort. They also found that decreasing degrees of insurance were associated with more likely report of barriers to care. Participants who were uninsured (adjusted odds ratio 0.39, 95% CI 0.35–0.43) and underinsured (adjusted odds ratio 0.83, 95% CI 0.76–0.89) were both less likely than insured participants to report using antihypertensive medication, and similar findings were noted for the odds of visiting a doctor for a routine checkup in the past year.

This study has several limitations. First, the BRFSS uses self-reported data and thus is subject to recall bias. Because blood pressure is not actually measured in the BRFSS, the authors were unable to assess blood pressure control. In addition, underinsured status was determined by identifying...
persons with insurance who answered yes to 1 of 4 statements: (1) inability to see a doctor in the past year because of cost, (2) inability to take prescription medication in the past year because of cost, (3) being without health insurance at some point during the past year, or (4) currently having to pay off medical bills. This was in contrast to the more typical assessment of underinsured status, as defined by health care expenditure as a proportion of household income, but the BRFSS optional module did not include a question about out-of-pocket health care expenses.

These limitations are balanced by several strengths. This well-done analysis of 2 important public health issues, insurance status and hypertension using the BRFSS, provides good representation of the civilian, noninstitutionalized population in our nation. The large number of participants using a validated methodology of telephone call–based data collection using both land line and cell phone panels, for which many variables in the BRFSS have been validated, and the high survey response rate (46%) are additional strengths. The fact that uninsured persons (as defined in this study) represent a quarter of the population has important implications from a population health perspective and highlights the magnitude of the issue of underinsurance affecting health outcomes such as blood pressure control. Last, although the 4 statements designed to assess uninsured status may have categorized low-income “fully insured” persons as underinsured, this may in fact capture a more functional description of health care affordability. The designation of underinsured in this article captures the decision making of people with hypertension regarding health care access based on their ability or willingness to pay for health care after considering other financial obligations.

These findings reinforce the necessity of remaining vigilant about truly increasing access to care for all Americans. Among 5 core health-related principles that were recently suggested for the next president to embrace, one was that all Americans have a right to receive health care that meets their needs at every stage of their lives. It is under this premise that the Affordable Care Act (ACA) was introduced in 2010: to make “affordable health care” available to everyone by expanding health care coverage options for low- and moderate-income populations, thereby minimizing the number of uninsured Americans or, more important, minimizing the number of Americans who decline needed health care services because of costs. In June 2012, a Supreme Court ruling upheld a legal counter to the ACA, but in its ruling, the Court essentially made the ACA optional for states. Although the ACA has been generally effective in expanding insurance coverage, it has never reached its full potential based in large part on variable state-level uptake, with 19 states still not adopting the ACA as of October 2016 and creating a coverage gap that mostly affects working poor who live below the poverty line (Figure). Nationally, rates of persons being underinsured have steadily increased as comprehensive coverage plans have decreased, driving up the costs of copays and deductibles and reducing the

Figure. Insurance coverage gap for persons earning too much to qualify for Medicaid but too little for subsidies for marketplace coverage. Reproduced with permission from the Henry J. Kaiser Family Foundation. FPL indicates federal poverty level.
likelihood of patients attending health care provider visits or refill prescribed medications. Many underinsured or low-income privately insured adults have been found to have inadequate diagnosis and control of chronic health conditions, including hypertension. In summary, this study adds to the body of evidence that by shedding further light on why so many people may not have well-controlled blood pressure. The finding that an estimated 25% of the adult population with hypertension is underinsured and more likely to face barriers in accessing needed care than “insured” persons highlights the importance of health care providers needing to be sensitive to the fact that many of their patients, even those with insurance, may face barriers to care. Reducing patient anxieties about the office visit through empathic and trusting patient and health care provider communication has been reported to reduce blood pressure, and this approach may be of particular importance when patient stress is exacerbated by the financial strains of inadequate health insurance coverage. The discussion with patients about functional access to care and ability to pay for medications requires treating patients with sensitivity and respect, which in turn will increase the likelihood of opening lines of effective and honest communication. Then a dialogue about how to best ensure one’s patient can access medication and other health care options may occur with dignity. Effective blood pressure control is a multifactorial issue, and as Fang et al point out, variations in insurance coverage are yet another factor for health care providers to consider in trying to deliver the most effective recommendations and care for blood pressure control. In the end, it still comes down to having an understanding of each patient’s situation and providing the highest quality care that meets patients where they are. This concept is best captured in the aphorism “The patient can access medication and other health care options may occur with dignity.” Effective blood pressure control is a multifactorial issue, and as Fang et al point out, variations in insurance coverage are yet another factor for health care providers to consider in trying to deliver the most effective recommendations and care for blood pressure control. In the end, it still comes down to having an understanding of each patient’s situation and providing the highest quality care that meets patients where they are. This concept is best captured in the aphorism “The patient can access medication and other health care options may occur with dignity.”
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