PREVALENCE OF HYPERTENSION AND ASSOCIATED RISK FACTORS IN SIX NICARAGUAN COMMUNITIES

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INTRODUCTION

The prevalence of noncommunicable diseases like hypertension and diabetes continue rising in developing nations. These diseases affect younger individuals in settings where less health care infrastructure often leads to poorer control of these chronic conditions.

Studies of noncommunicable diseases in Latin America have largely focused on urban populations and upper middle income countries. Previous research demonstrates many established cardiovascular disease risk factors in Latin America: aging, hypertension (HTN), diabetes (DM)/insulin resistance, obesity, dyslipidemia, inactivity, poor diet, and tobacco smoking. Men generally demonstrate lower levels of awareness, treatment and control of cardiovascular risk factors and smoke more while women are more obese. Higher education and (sometimes) increasing wealth have correlated with lower prevalence of disease.

Less is known about hypertension and diabetes in Latin America’s lower middle income nations, especially among rural populations. Previous studies have demonstrated both cost-effective treatment of noncommunicable diseases in resource poor settings and also the potential for economic consequences of treatment without effective prevention in developing economies. Therefore, we set out to describe the prevalence of hypertension and diabetes in one urban and five rural communities given Nicaragua’s status as a low middle income nation, previous research demonstrating poor health/dietary decisions among rural Central Americans, and the availability, via rural clinics, of some hypertension and diabetes medications.

METHODS

Setting and Study Population

Five communities in northwest (León and Chinandega departments) and one community in central Nicaragua (Matagalpa department) were selected representing distinct economies. Data were collected from September 2007 to July 2009. All men and women in these communities aged 20–60 years old were eligible to participate. The study was approved by the Bioethics Committee at UNAN-León. All participants were consented for study procedures.

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