capital of the state of Bahia. This NIAID-supported longitudinal project was established to primarily study the natural history of leptospirosis and determining the effectiveness of community-based interventions, such as improved sanitation. This research has also led to the collection of basic demographic and health data on blood pressures and cardiovascular disease outcomes relevant to leptospirosis, and has given a unique picture of the burden of hypertension and other noncommunicable diseaeses in this unique population.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): We work closely with the Fiocruz, the research branch of the Brazilian Ministry of Health. Our team also has a longstanding relationship with teh Urban Health Council of the Residents' Association of Pau da Lima.

Summary/Conclusion: The worldwide growth of slums presents a significant challenge to global public health. Limited data suggest that all health outcomes, both communicable and noncommunicable, are worse in slums that are by their nature illegal, comprised of overcrowded and poorly built communities that have limited access to safe water, sanitation, and other services. Yet, accurate health statistics in these communities are difficult to obtain and interventions are limited by their informal relationship to the state. Large investments in the study of disease in these communities may have multiple returns. For instance, the study of rheumatic disease may provide important information on cardiovascular disease outcomes in these communities. The implications of this kind of "double-dipping" challenges certain aspects of research design, but if done responsibly, may also provide a wealth of information where information is sparse, and further draw closer those who study communicable and noncommunicable diseases.

Hypertension in an urban slum in northeastern Brazil

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Background: Developing countries account for the majority of disease burden due to hypertension and cardiovascular disease. Yet, little is known about their distribution within these countries, particularly among the nearly 1 billion people living in slum communities. The purpose of our project was to study the distribution and determinants of hypertension in a slum settlement in the largest city in northeastern Brazil. This work addresses the growing challenge of noncommunicable diseases in poor and informal urban communities such as slums.

Structure/Method/Design: A community-based hypertension survey was conducted in 2003 for 5649 adults 18 years or older from a slum settlement in the city of Salvador, Brazil. Data was collected on basic demographics and clinical outcomes in this population. Hypertension was defined as elevated arterial blood pressure on two separate house visits or the use of anti-hypertensive medications. A multivariate analysis was performed to evaluate risk associations for hypertension.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Our collaborative partners include FIOCRUZ, which is the research branch of the Brazilian Ministry of Health. Since 2003, we have also worked closely with the Urban Health Council of the Residents' Association of Pau da Lima, a large urban slum on the periphery of Salvador, Brazil.

Summary/Conclusion: The overall prevalence of hypertension was 16.8% (95% CI, 15.9-17.8%) for the adult population 18 years or older (15.9% of women [14.7-17.2%] and 18.1% of men [16.5-19.6%]). In addition to age, lack of primary school education (prevalence ratio, 1.49 [1.12-1.98]) was an independent risk factor for hypertension. Among hypertensive individuals, 69.1% were aware of their illness, but only 37.3% received medical care for their hypertension. Men were less likely than women to be aware of their illness, receive medical attention or use anti-hypertensive medications. These findings suggest slums are not spared from the burden of hypertension, and also that there is limited access to the formal health sector for diagnosis and treatment.