



# Evaluation of health disparities and risk factors among hypertensive patients

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## Background

- Hypertension (HTN) affects > 30% of the U.S. adult population<sup>1</sup>
  - HTN uncontrolled in > 50%<sup>2</sup>
  - Racial minorities and low socioeconomic status most affected<sup>3</sup>
- HTN is an important modifiable risk factor for CV disease<sup>1</sup>
- HTN contributes to the burden of heart disease, stroke, kidney disease, and premature mortality and disability<sup>4</sup>
- It is well established that health status, access to care, and quality of care are not equal among all populations in the U.S.<sup>5</sup>
- Healthy People 2020 overarching goals include:
  - Achieving health equity
  - Eliminating health disparities
  - Improving the health of all groups
- Reducing health disparities remains a major public health challenge<sup>6</sup>
- Increasing our understanding of disparities in hypertension prevalence, awareness, and management is warranted<sup>5</sup>

## Objectives

- To identify patients with diagnosed HTN (ICD 10 code) and undiagnosed HTN (BP > 140/90 mmHg with no ICD 10 code)
- To identify comorbid risk factors among the three participating ambulatory clinics within the UR Medicine Health System

## Methods

- **Study Design:** Retrospective analysis
- **Study Population:** Electronic medical records (EMRs) for all adult patients (≥ 18 years of age) in the three participating UR Medicine ambulatory clinics will be queried from April 1, 2015 – April 1, 2016
- **Data to be collected:**
  - Race/ethnicity
  - Sex
  - Socioeconomic status (median annual income based on zip code)
  - Geographic location (zip code)
  - Diagnosed HTN (ICD 10 Code: I10, I11.9, I11.0, I12.9, I12.0, I13.0, I13.2, I13.10, I13.11)
  - Undiagnosed HTN (BP > 140/90 mmHg with no ICD 10 code)
- **Cardiovascular Risk Factors:**
  - BMI (≥ 30 kg/m<sup>2</sup>)
  - Elevated total cholesterol (≥ 200 mg/dL)
  - LDL (≥ 130 mg/dL)
  - Triglycerides (≥ 150 mg/dL)
  - HbA1c > 7%
  - Kidney disease (eGFR < 60 mL/min/1.73m<sup>2</sup>)
  - Tobacco use (yes/no)
  - Alcohol use (yes/no)

### Timeline for Completion:



### Data Analysis:

- Descriptive statistics will be utilized to report the prevalence of diagnosed HTN (ICD 10 code) and undiagnosed HTN (BP > 140/90 mmHg with no ICD 10 code)
- Univariate logistic regression
  - All relevant risk factors
- Multivariate logistic regression
  - Inclusion of variables with p<0.20 from univariate analysis

## Conclusion

- It is expected that data generated in this analysis will be instrumental in the development, planning, implementation, and evaluation of interventions designed to improve BP control in the three participating ambulatory clinics

### REFERENCES:

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**DISCLOSURE:** Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Amber Crowley: Nothing to disclose; Angela Nagel: Nothing to disclose; Nabila Ahmed-Sarwar: Nothing to disclose; Thomas Carroll: Nothing to disclose