

# **COVID 19, Diabetes, and Hypertension, and Racial Disparities**

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## **Course Description:**

This course will provide the latest information on conditions such as COVID 19, Diabetes, Hypertension that impact racial disparities in eye and health care

## **Goal:**

Provide attendees with the most up-to-date information each disorder and discuss integration of these innovations into clinical practice.

## **Learning Objectives:**

At the conclusion of this course, attendees will be able to:

- 1) Know the connection between diabetes, hypertension, and COVID 19.
- 2) Describe the latest (2023) data for each of the aforementioned conditions.
- 3) Identify risk factors contributing to COVID racial disparities.
- 4) Recognize your role in the prevention and spread of COVID 19, particularly in minority population.

## **Abstract**

Patients with diabetes and hypertension, specifically Blacks patient have been disproportionately impacted by COVID 19, with a higher rate infection and mortality rates. This course will provide the latest information and strategies in addressing health inequality to improve to help clinicians improve patient outcomes and preserve vision.

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## COURSE OUTLINE

### **I. Latest on COVID 19 (2023)**

- Snapshot Coronavirus 2 (SARS-CoV-2)
- Minorities, especially Blacks were at an increased risk for serious illness from COVID-19 due to higher rates of underlying health conditions, such as diabetes, hypertension.
  - Over 60% of COVID-19 cases and nearly 50% of deaths in the US have been have occurred among patients in racial/ethnic minority groups.
  - Mortality rate in the US Black population is more than twice that in the White population.

### **II. Diabetes, Hypertension, and Race Disease Burden: 2023**

- Diabetes:
  - ≥ 133 million Americans are now living with diabetes or prediabetes—an increase of 11 million in the past 2 years.
  - 37.3 million adults with diabetes, 28.7 million were diagnosed, and 8.5 million were undiagnosed. 96 million Americans currently have prediabetes
  - Diabetes and Race
    - 12.1% of non-Hispanic blacks
    - 11.8% of Hispanics
    - Adults with a family income below the federal poverty level had the highest prevalence for both men (13.7%) and women (14.4%).
    - People with less education were more likely to have diagnosed diabetes.
  - COVID-19 and Diabetes
    - Risk of death from COVID-19 4X greater for those with diabetes
    - 40% of people who have died with COVID-19 had diabetes
- Hypertension- 2023
  - 116 million Americans (1 of every 3 adults)
  - HTN and Race
    - The prevalence of hypertension is high among certain racial/ethnic minority groups, particularly African American adults
      - Non-Hispanic black adults (56%)
      - Hispanic adults (39%)

- Individuals with high blood pressure were 2.6 times more likely to require hospital care for severe COVID-19 illness, even when the person had no other serious chronic health condition

### **III. Factors that contribute to racial health disparities**

- Chronic health conditions
- Social determinants of health should be routinely considered in clinical assessment
  - Racism and discrimination
  - Inadequate access to health care
    - Uninsured and to lack a usual source of care
  - Frontline workers
    - Work in industries that expose them to COVID 19
    - more likely to work in the service industries such as restaurants, retail, and hospitality
  - Educational, income, and wealth gaps
  - Live in housing situations, such as multigenerational families or low-income and public housing that make it difficult to social distance or self-isolate

### **IV. COVID-19 Vaccination and Race**

- Data from the Centers for Disease Control and Prevention (CDC) show that 78% of the total population in the United States
- One-dose
  - Blacks- one dose (10%)
  - Hispanics- one dose 21%

### **V. Ocular complications and COVID 19**

- SARS-CoV-2 relates to the binding of the viral spike protein to its cognate receptor on human host cells— the angiotensin-converting enzyme 2 (ACE-2) receptor.
  - Conjunctivitis/ Uveitis
  - Retina/choroidal
  - Plaquenil complications

### **VI. Conclusion**

- Cases of diabetes, hypertension, and COVID 19 are on the rise, and minority communities, specifically Black population have higher rate infection and mortality.
- Optometrists play a vital role in preventing/reducing the spread of COVID-19 with education, and interdisciplinary collaboration in Black populations.
- Early detection and treatment are crucial in preventing and reducing visual impairment from these conditions in minority populations.

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