

# Trends in Stroke Prevalence among the USA population: American Analysis Report : Stroke Prevalence among the USA population

Mohammad Alsakka<sup>1</sup>, Bisher Sawaf<sup>2</sup>, Yusuf Hallak<sup>2\*</sup>, Nezam Altorok<sup>3</sup>

<sup>1</sup>Resident, Department of Neurology, 3000 Artlington Avenue, The University of Toledo, Toledo OH 43615

<sup>2</sup>Internal Medicine Resident, Department of Medicine, 3000 Artlington Avenue, The University of Toledo, Toledo OH 43615

<sup>3</sup>Assistant Professor, Division of Gastroenterology, Department of Medicine, 3000 Arlington Avenue, The University of Toledo, Toledo OH 43615

**Email:** yusufhallak99@gmail.com

**Received:** 2024-08-19

**Accepted:** 2024-09-16

**Published:** 2025-06-30

**Background:** Analyzing stroke prevalence can guide interventions to ease the burden of stroke, improve patient outcomes, and reduce financial strain in the region. This study aimed to investigate the prevalence of stroke among the American population from 1996 to 2022 and explore multiple factors and their associations with stroke occurrence during this period.

**Methods:** This investigation employed data obtained from the Behavioral Risk Factor Surveillance System (BRFSS), focusing on individuals aged 18 years and above who participated in surveys administered by the BRFSS between 1996 and 2022 and were diagnosed with stroke. Univariate and multivariate logistic regression analyses were used to examine the factors influencing the prevalence of stroke.

**Results:** The study examined a cohort comprising 313,463 individuals, revealing a stroke prevalence of 3.73% within the United States population from 1996 to 2022. The prevalence of stroke has increased from 2.7% to 4.4% between 1996 and 2019, followed by a decrease of 4.1% from 2020 to 2022. The identified stroke risk factors included age > 65 years (odds ratio [OR]: 8.16-10.29), black and non-Hispanic ethnicity (OR: 1.25-1.78), retirement (OR: 2.1-16.84), smoking (OR: 1.4-2.25), and diabetes mellitus (OR: 1.67-3.84) ( $p < 0.05$ ).

**Conclusion:** Our study demonstrates a significant increase in stroke prevalence in the US population from 1996 to 2022. Longitudinal studies are essential to inform evidence-based policies and clinical practices for effective stroke prevention and management.

**Keywords:** Stroke, Behavioral Risk Factor Surveillance System, USA