

Employing Visual Analytics to Understand Worldwide Prevalence & Impact of Diabetes Epidemic

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International Diabetes Federation (IDF) has declared diabetes to be one of the largest global health emergencies of the 21st century (International Diabetes Federation). IDF estimates about 415 million adults to have diabetes currently and about 318 million adults having impaired glucose tolerance making them highly susceptible to develop diabetes. As per the estimate in the year 2012, 29.1 million Americans or 9.3% of population had diabetes and diabetes was the 7th leading cause of death in the United States (American Diabetes Association). Also, the United States has the 3rd largest number of confirmed cases of diabetes after China and India (Albert Einstein College of Medicine). Diabetes is dangerous because it engenders gradual long-term complications like cardiovascular disease, nerve and kidney damage, blindness, hearing loss, and Alzheimer's disease (Mayoclinic).

In this study, we employ visual analytics to analyze and understand the prevalence and impact of diabetes worldwide and the United States. Our analysis uncovers countries and the counties in the United States that are at higher risk of diabetes where preventive measures and early detection can help save lives and reduce medical expenses.

Reference:

Albert Einstein College of Medicine <https://www.einstein.yu.edu/centers/diabetes-research/facts-statistics/>

American Diabetes Association <http://www.diabetes.org/diabetes-basics/statistics/>

International Diabetes Federation <http://www.diabetesatlas.org/resources/2015-atlas.html>

MayoClinic <http://www.mayoclinic.org/diseases-conditions/diabetes/basics/complications/con-20033091>