

# MICHIGAN

## Map of Stroke and Stroke Centers

BY CONGRESSIONAL DISTRICT & COUNTY  
119<sup>th</sup> CONGRESS

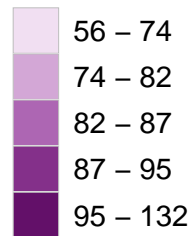
Timely access to stroke care is critical to save lives and reduce stroke-related disabilities. However, stroke centers are not evenly distributed throughout the United States.

This map highlights county-level patterns in stroke death rates and stroke centers in this congressional district and can be used to improve timely access to stroke care.

## DISTRICT 11

### Stroke Death Rate

By county, per 100,000 persons  
Ages 35 years and older, 2021 – 2023

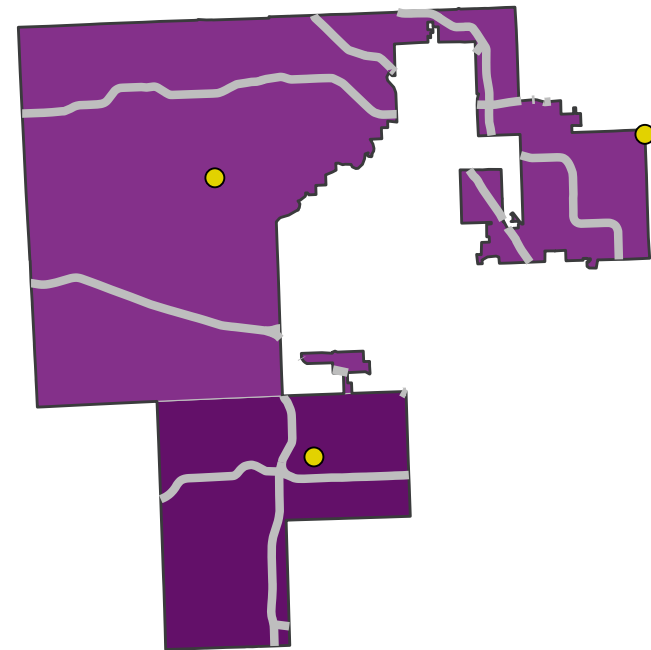


County\*  
Highway

### Stroke Centers

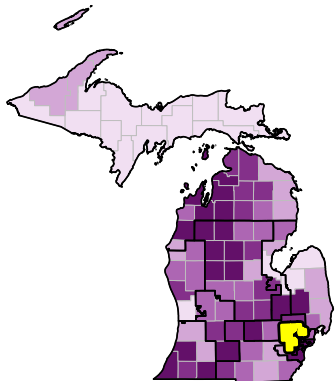
Level of Stroke Services

- Acute Stroke Ready Hospital (ASRH)**  
Rapid Stroke Assessment, CT Scans, Stroke Drugs (IV tPA)
- Primary Stroke Center (PSC)**  
ASRH + Stroke Unit Coordinator, Designated Stroke Beds
- Thrombectomy-Capable (TC)**  
PSC + Designated ICU Beds, Mechanical Thrombectomy
- Comprehensive Stroke Center (CSC)**  
TC + Neurological ICU, Treats Multiple Complex Stroke Patients, Research



### Stroke Death Rate | Michigan

86 per 100,000 persons



Congressional District 11

\*Congressional district boundaries do not align with county boundaries. Therefore, some counties may be partially included in this district.



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### Congressional Districts

#### Which congressional boundaries are used to define the Congressional Districts on the map?

The Congressional Districts represent the 119th Congress of the United States. These congressional boundaries are in effect from January 2025 until the new congress begins.

### Stroke Centers

The four major types of stroke centers provide increasingly advanced levels of stroke care.

#### What is an Acute Stroke Ready Hospital (ASRH)?

An ASRH is a hospital or emergency center with a dedicated stroke-focused program. An Acute Stroke Team is available 24/7 and at the bedside within 15 minutes. Computed tomography (CT) and labs are available 24/7. A neurologist is available at all times (in person or via telemedicine), and neurosurgical services can be provided within 3 hours via transfer. IV thrombolytics can be administered with a plan to transfer patients to a higher level stroke center.

#### What is a Primary Stroke Center (PSC)?

A PSC is a hospital that meets all requirements of an Acute Stroke Ready Hospital and offers more advanced services. PSCs have a stroke unit coordinator and designated beds for the acute care of stroke patients. Computed tomography angiography (CTA), an advanced imaging method is also available. Neurosurgical services can be provided within hospital or within 2 hours with transfer. IV thrombolytics and medical management of stroke is available with transfers for neurosurgical emergencies.

### Map Description: Michigan Congressional District 11

The map for Congressional District 11 in Michigan shows that stroke death rates (ages 35+, 2021 – 2023) for counties (or partial counties) in the district range from 87 – 95 per 100,000. For Michigan and the United States, stroke death rates are 86 and 80 per 100,000, respectively.

There are a total of 3 stroke centers in District 11 (3 Primary).

#### What is a Thrombectomy–Capable (TC) Stroke Center?

A TC Stroke Center is a hospital that meets all requirements of a Primary Stroke Center and has the ability to perform mechanical thrombectomy and meet the minimum required number of procedures annually. A neurointensive care unit or designated intensive care beds are present for complex stroke patients and on-site critical care coverage 24/7. MRI, CTA, and magnetic resonance angiography are available 24/7.

#### What is a Comprehensive Stroke Center (CSC)?

A CSC is a hospital that meets all requirements of a Thrombectomy–Capable Stroke Center and has the ability to treat the most complex stroke cases and meet requirements for number of advanced stroke treatment procedures performed. There is 24/7 availability for a neurointerventionist, neuroradiologist, neurologist, and neurosurgeon. Hospitals are able to treat multiple complex stroke patients at once and have on-site 24/7 neurointerventionist coverage in the stroke unit. These hospitals also participate in patient-centered research.

### Stroke Death Rates

#### What is the geographic unit for the stroke death rates?

Stroke death rates are mapped for the counties within each congressional district. When county boundaries overlap congressional districts, any portion outside the boundary of the congressional district is not displayed.

#### How are the Stroke death rates calculated?

For each county, stroke death rates are calculated per 100,000 adults, ages 35 and older, averaged over 3 years (2021–2023) and displayed by quintile. For more details, see CDC's Atlas of Heart Disease and Stroke.