Stroke Education Toolkit
Introduction

The purpose of the Stroke Education Toolkit is to have stroke education resources in one easy to find place for use during Stroke Month (May) and throughout the year to educate patients, the public, and staff about stroke. Intended users are staff at healthcare facilities and services, emergency medical services, and community services. The emphasis is on acute stroke but some information about risk factors and prevention is included. It is not intended to include every stroke education resource available.

Thanks go to Valerie Lyttle, RN, MSN, CEN, CNRN, SCRN, Stroke Program Coordinator, MultiCare Good Samaritan Hospital, for the original Toolkit produced in 2012, and the American Heart Association. This update is provided by the WA State Department of Health, WA Coverdell Acute Stroke Program.

For information about the toolkit, contact:

Kim Kelley, MSW
Coverdell Stroke Program Coordinator
WA State Department of Health
360-236-2807
Kim.kelley@doh.wa.gov

This publication was supported by the Grant or Cooperative Agreement Number, DP006075, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Facts and Messages</td>
<td>4</td>
</tr>
<tr>
<td>Statistics</td>
<td>6</td>
</tr>
<tr>
<td>Resources for Patient/Community Education</td>
<td>7</td>
</tr>
<tr>
<td>Videos</td>
<td>8</td>
</tr>
<tr>
<td>Tweets</td>
<td>8</td>
</tr>
<tr>
<td>Stroke Proclamations</td>
<td>11</td>
</tr>
<tr>
<td>Sample Press Releases</td>
<td>13</td>
</tr>
<tr>
<td>Sample Article</td>
<td>17</td>
</tr>
<tr>
<td>Public Service Announcements</td>
<td>19</td>
</tr>
<tr>
<td>Examples of Stroke Education/Awareness Activities</td>
<td>20</td>
</tr>
</tbody>
</table>
Key Facts and Messages

- **Stroke is a “brain attack”**
  Stroke is often called a “brain attack” because it affects the arteries leading to and within the brain. A stroke happens when an artery that carries oxygen and nutrients to the brain is either blocked by a clot or ruptures. When that happens, part of the brain cannot get the blood and oxygen it needs and starts to die.

- **Ischemic stroke**, about 80 percent of all strokes, is caused by a severe blockage of blood to part of the brain. Most commonly, blood flow through an artery is blocked by atherosclerosis (narrowed arteries).

- **Hemorrhagic stroke** occurs when arteries leak or rupture, causing bleeding into or around the brain.

- Every 40 seconds someone has a stroke.

- Stroke is the leading cause of serious long-term disability in adults.

- Be a Stroke Hero: learn the signs and symptoms of stroke and call 9-1-1 immediately if you think you or someone you’re with is having a stroke.

- **Signs of stroke**
  - Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
  - Sudden confusion, trouble speaking or understanding.
  - Sudden trouble seeing in one or both eyes.
  - Sudden trouble walking, dizziness, loss of balance or coordination.
  - Sudden severe headache with no known cause.

- If you see even one of these signs, call 9-1-1 immediately! Minutes matter!

- **Time is brain** – there is a short period of time after the symptoms start, when serious damage can be prevented. Rehabilitation after a stroke helps people overcome disabilities that result from damage to the brain.

- Think F.A.S.T for the most common signs and symptoms of stroke, and call 9-1-1 immediately if you or someone you’re with has signs of a stroke

  - **FACE** Ask the person to smile. Does one side of the face droop?
  - **ARMS** Ask the person to raise both arms. Does one arm drift downward or not move?
  - **SPEECH** Ask the person to repeat a simple sentence. Is speech slurred or hard to understand? Are they unable to speak?
  - **TIME** Time to call 911 if you see any one of these signs. Note the time symptoms started, or when the person was last known to be normal and tell the medics.
• The faster stroke is treated, the more likely the patient will recover. Patients who are treated within 90 minutes of their first symptoms are almost three times more likely to recover with little or no disability.

• Calling 911 at the first sign of stroke is critical. Our state’s system is activated the moment you call. Emergency medical service responders are specially trained on stroke assessment and they alert the hospital in advance so stroke patients get seen and treated faster.

• A stroke can happen to anyone, at any time and at any age. Learn to recognize a stroke, because in a stroke emergency, time lost is brain lost. For every minute you don’t get help, more brain cells die.

• High blood pressure is the leading cause of stroke and the most important controllable risk factor for stroke.

• 80% of strokes are preventable.

• You can reduce your risk of stroke by addressing these modifiable risk factors:
  o High blood pressure
  o Overweight
  o Cigarette smoking
  o High cholesterol
  o Diabetes
  o Physically inactive
  o Poor diet

• Many people in Washington die or are disabled from stroke because they do not get lifesaving treatment in time. The sooner you’re treated, the better your chances of recovery and getting back to your normal activities. Calling 9-1-1 when you or someone else is experiencing stroke symptoms activates the Washington State Emergency Cardiac and Stroke System. The system is designed to get you to the right place, in time for the right treatments. To learn more about Washington’s Emergency Cardiac and Stroke System, visit www.doh.wa.gov/ecs.

• People who experience stroke benefit from rehabilitation services. Rehabilitation helps improve function and quality of life.
Statistics

National Statistics
Source: American Stroke Association 2017

- Someone in the US has a stroke about once every 40 seconds.
- Stroke accounts for 1 of every 20 deaths in the US.
- Stroke kills someone in the US about every 4 minutes.
- When considered separately from other cardiovascular diseases, stroke ranks No. 5 among all cause of death in the US, killing nearly 133,000 people a year.
- From 2004 to 2014, stroke death rate decreased 28.7 percent, and the actual number of stroke deaths declined 11.3 percent.
- Each year, about 795,000 people experience a new or recurrent stroke. Approximately 610,000 of these are first attacks, and 185,000 are recurrent attacks.
- Stroke is a leading cause of serious long-term disability in the US.
- In 2013, worldwide prevalence of stroke was 25.7 million, with 10.3 million people having a first stroke.
- Stroke was the second-leading global cause of death behind heart disease in 2013, accounting for 11.8 percent of total deaths worldwide.
- A recent study estimated financial cost of strokes in the U.S. will soar to more than $2.2 trillion over the next 45 years if no action is taken to improve preventive care or treatment.

AHA National Heart and Stroke Statistics
2017 Statistics at a glance
2017 Statistics at a glance Spanish

Washington State Statistics
Source: WA State Department of Health

- Stroke is the 6th leading cause of death in Washington, with 2,693 dying from stroke in 2015 (about 7 deaths per day), and the leading cause of preventable disability for adults.
- Black and American Indian/Alaskan Native populations in Washington are more likely to die from stroke than whites.
- The rate of death from stroke is higher in areas with higher poverty levels.
- There were over 15,000 hospitalizations for stroke in 2015.
- Hospital charges for stroke in 2015 were over $820 million, an average of $54,000 per stroke.
- About 8% of all ischemic stroke patients get t-PA. This includes patients who are not eligible for t-PA because they arrive too late or have other contra-indications.
- The number of people experiencing strokes is expected to increase as baby boomers age, putting them at increased risk of premature death and disability from stroke, and trends show more younger people are having strokes.
- More than a quarter of Washingtonians are living with obesity, hypertension or high cholesterol, major risk factors for stroke. Whereas,
Resources for Patient/Community Education

There are numerous brochures, flyers, banners, tweets, infographics, etc. on these sights.

American Heart Association/American Stroke Association:

- Stroke Month Campaign
- American Stroke Association Stroke Resource Center
- One simple dual purpose flyer Life’s Simple Seven to Prevent a Stroke (page 1; FAST messaging on page 2)

National Stroke Association Stroke Awareness Resources

Centers for Disease Control Stroke Patient Education Handouts

National Institute of Health Downloadable posters, toolkits for order (including Spanish)

Million Hearts Education Tools

DOH Blood Pressure Materials - type “blood pressure” in the search field and it will bring up brochures and posters that can be requested from DOH (see below) or downloaded and printed locally. Most are available in multiple languages (Chinese, English, Spanish, Vietnamese)

Marissa Floyd
Washington State Department of Health
Email: Marissa.Floyd@doh.wa.gov
Phone: 360-236-3677
Videos

Hip hop, fun for all ages (AHA/ASA):  https://www.youtube.com/watch?v=oyzwfsdd4AE
Younger kids:  http://www.youtube.com/watch?v=YHzzcXBqGk
AHA 2017 FAST Video:  
http://www.strokeassociation.org/STROKEORG/AboutStroke/AmericanStrokeMonth/FASTVideo/2017-FAST-Video-and-Treatment_UCM_493177_Article.jsp#.WP-CHGxTFzl
CDC stroke signs and symptoms, nice simple graphics:  
https://www.youtube.com/watch?v=mkpbbWZvYmw
Spanish:  https://www.youtube.com/watch?v=jZGfyIUPi0k&nohtml5=False
Edgy:  https://www.youtube.com/watch?v=DPsTqR31bWc&nohtml5=False
Other CDC stroke videos:  https://www.cdc.gov/stroke/media/videos.htm

Tweets

If you think you’re having a stroke, call 911 FIRST and FAST.  www.heart.org/call911  [71 characters]

May is American Stroke Month. Every 40 seconds someone has a stroke. Learn the warning signs and call 911.  [122 characters] Signs of Stroke

Saving a life starts with you. Think F.A.S.T to identify the stroke warning signs.  Signs of Stroke  [98 characters]

Before you get in your car or call a friend, call 911 FIRST and FAST if you suspect a stroke.  Signs of Stroke  [110 characters]

Suspect a stroke? Don’t wait! Fast care is a matter of life and death. Call 911 FIRST and FAST!  Signs of Stroke  [111 characters]

Care starts immediately with Washington’s Emergency Cardiac & Stroke System. Call 911 FIRST and FAST!  www.heart.org/call911  [117 characters]

Saving a life starts with you. Learn more about stroke warning signs – the life you save could be yours.  Signs of Stroke  [120 characters]

Emergency services determine if it’s a stroke, starts immediate care, and gets you to a medical facility. Call 911 FIRST and FAST!  Signs of Stroke  [125 characters]

Up to 80% of strokes can be prevented. Prevent #stroke in your community with tools from @CDCgov.  http://bit.ly/2modCVD  #StrokeMonth

Every 40 seconds, someone in the U.S. has a #stroke. Be prepared: Learn the signs & symptoms.  http://bit.ly/208s3wk  #StrokeMonth
#Stroke is preventable & treatable. This #StrokeMonth, take action to lower your risk for stroke. 

#Stroke is more common as you get older, but can happen at any age. #StrokeChat 
http://bit.ly/1KcSwyZ

1 American dies from #stroke every 4 minutes, but many strokes are preventable. Learn more for #StrokeMonth. http://1.usa.gov/1IJzORa

Know the facts about #stroke. Visit @CDCgov for info on #stroke, risk factors, and treatment. 
http://1.usa.gov/1Hwea3C #StrokeMonth

Prince Quire was blindsided by his #stroke. Hear his advice on how you can prevent a stroke. 
http://bit.ly/1WSvDaU #StrokeMonth

Find out how the @CDCgov Coverdell Program works to improve access and care for #stroke patients.  http://bit.ly/1LAR2ka #StrokeMonth

Stroke systems of care improve care & support for patients. Learn how from @CDCgov Coverdell Program:  http://bit.ly/2nLzZI #StrokeMonth

Time lost is brain lost; every minute counts! If you or someone you know shows symptoms of a stroke, call 911 right away. #StrokeMonth

**What is a stroke? #StrokeTalk**

- #Stroke is a “brain attack” that occurs when blood flow to the brain becomes interrupted. #StrokeChat http://1.usa.gov/1Gqfjt4
- #Stroke is the 5th leading cause of death in the U.S. & kills nearly 130,000 Americans a year. #StrokeChat http://1.usa.gov/1IJzORa
- On average, one American dies from #stroke every 4 minutes. #StrokeChat http://1.usa.gov/1IJzORa

**What are the symptoms of a stroke? #StrokeTalk**

- FAST is a good way to help you remember the signs and symptoms of a #stroke. #StrokeChat http://bit.ly/1zwwHdb
- Recognize signs & act FAST: Face drooping, Arm/leg weakness, Speech difficulty, Time to call 9-1-1. #StrokeChat. http://1.usa.gov/1yWgVSa
- Signs of #stroke: numbness, confusion, trouble seeing, trouble walking, & headache. #StrokeChat http://1.usa.gov/1yWgVSa
- Every 40 seconds someone in the US has a #stroke. Be prepared, learn the signs & symptoms. VIDEO: http://bit.ly/208s3wk#StrokeChat
- Numbness, confusion, blurred vision, & headache are all symptoms of a #stroke. VIDEO → http://bit.ly/208s3wk#StrokeChat

**What should you do if you or someone you know is having a stroke? #StrokeTalk**
• When a #stroke happens, it is important to recognize the symptoms & call 9-1-1. VIDEO → http://bit.ly/208s3wk#StrokeChat
• If you or someone you know shows any symptoms of a #stroke, get to a hospital quickly to begin treatment. #StrokeChat
• Every minute counts. Act FAST if you recognize signs of #stroke. Call 9-1-1 & get to a hospital quickly. #StrokeChat
• Women have unique stroke risk factors. Learn more with our women & stroke #infographic. http://1.usa.gov/1ej35GR#StrokeChat

**What are the treatable stroke risk factors? #StrokeTalk**
• You can take small steps toward preventing #stroke, like eating better & exercising. Little things add up. #StrokeChat
• Reduce the risk of stroke by remembering your ABCS when you talk to your doctor. #StrokeChat http://1.usa.gov/1KBqVfT
• The ABCS: Aspirin for people at risk, blood pressure control, cholesterol management & smoking cessation. #StrokeChat
• If #BloodPressure is higher than 140/90, talk w/ your doctor about how to get it under control. #StrokeChat http://1.usa.gov/1QreFyq

**How can we keep our brains healthy? #StrokeTalk**
• Ask your doctor for tips on managing #BloodPressure, including annual checkups. #StrokeChat http://1.usa.gov/1giM8Xw
• Brain food: Maintain a healthy diet that is low in salt, saturated fat & cholesterol, and rich in vegetables & fruit. #StrokeChat
• Get Moving! Phys. activity is healthy for your brain & can reduce your risk of #stroke. Aim for 150 mins/wk. #StrokeChat

**Where can you get more information about stroke prevention and treatment? #StrokeTalk**
• Know the facts about #stroke. Visit @CDCgov for info on #stroke, risk factors, & treatment. #StrokeChat http://1.usa.gov/1Hwea3C
• Make control your goal with our #BloodPressure toolkit! #StrokeChat http://1.usa.gov/1GEo1VD
• Check out @CDCgov’s website to learn more about what your #BloodPressure numbers mean: http://www.cdc.gov/bloodpressure/measure.htm
Stroke Proclamations

Washington State 2017

Whereas, stroke is the 6th leading cause of death in Washington, with 2,693 dying from stroke in 2015 (about 7 deaths per day), and the leading cause of preventable disability for adults.

Whereas, the number of people experiencing strokes is expected to increase as baby boomers age, putting them at increased risk of premature death and disability from stroke, and trends show more younger people are having strokes.

Whereas, more than a quarter of Washingtonians are living with obesity, hypertension or high cholesterol, major risk factors for stroke. Smoking, unhealthy diet and physical inactivity also increase risk for stroke.

Whereas, a recent study estimated financial cost of strokes in the U.S. will soar to more than $2.2 trillion over the next 45 years if no action is taken to improve preventive care or treatment.

Whereas, time is critical for treating stroke—lifesaving treatment must start within 3-4 hours of symptoms starting, but less than 10% of patients get to the hospital in time.

Whereas, acting “F.A.S.T.” is an easy way to tell if someone might be having a stroke:

- **FACE** Ask the person to smile. Does one side of the face droop?
- **ARMS** Ask the person to raise both arms. Does one arm drift downward or not move?
- **SPEECH** Ask the person to repeat a simple sentence. Does the speech sound slurred or strange?
- **TIME** Time to call 911 if you see any one of these signs. Note the time symptoms started, or when the person was last known well and tell the medics.

Whereas, calling 911 and arriving at the hospital by ambulance significantly speeds treatment because emergency medical services personnel are trained to identify stroke, take patients to stroke centers, and call ahead to notify them so staff can get prepared to rapidly treat patients.

Now, therefore, I, Jay Inslee, Governor of the state of Washington, do hereby proclaim May 2017 to be

**American Stroke Month**

in Washington and urge all citizens to take action to reduce their risk of stroke, know the signs and symptoms, and act F.A.S.T. so we can save lives and help each other to avoid long term disability and the social and economic impact it can have on families and communities. Together, we can end stroke.
AHA Proclamation 2017

WHEREAS, stroke is a leading cause of serious long-term disability and the fifth leading cause of death in the United States, killing nearly 133,000 each year and [X] citizens of [STATE] each year; and
WHEREAS, projections show that by 2030, an additional 3.4 million US adults 18 and older will have had a stroke, a 20.5% increase in prevalence from 2012, with the highest increase (29%) projected for Hispanic men; and
WHEREAS, the direct medical costs for treating stroke are expected to almost triple, from 71.6 billion to 184.1 billion by 2030; and
WHEREAS, more than 85 million Americans have high blood pressure* which is the leading controllable risk factor for stroke; and
WHEREAS, new and effective treatments have been developed to treat and minimize the severity and damaging effect of strokes when administered in the early hours; and
WHEREAS, In the U.S. between 2014 and 2015, stroke mortality increased 3 percent after years of decline; and
WHEREAS, the F.A.S.T. warning signs and symptoms of stroke include face drooping, arm weakness, speech difficulty and time to call 9-1-1; and beyond F.A.S.T., additional stroke warning signs and symptoms include sudden numbness or weakness of the face, arm or leg, especially on one side of the body; sudden confusion, trouble speaking or understanding; sudden trouble seeing in one or both eyes; sudden trouble walking, dizziness, loss of balance or coordination; and sudden severe headache with no known cause; and
WHEREAS, during American Stroke Month in May, and year-round, the American Stroke Association's Together to End Stroke initiative encourages Americans to manage their blood pressure, memorize and share the stroke warning signs, and call 911 at the first sign of a stroke; and
WHEREAS, much more research and education is needed to help Americans prevent, treat and stroke;
NOW, THEREFORE, I Governor [NAME], do hereby proclaim May 2017 to be

AMERICAN STROKE MONTH

in [STATE] and urge all the citizens of our state to familiarize themselves with the risk factors associated with stroke, recognize the warning signs and symptoms, and on first sign of a stroke dial 9-1-1 immediately so that we might begin to reduce the devastating effects of stroke on our population.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of [STATE] this ____day of May 2017.

________________________
Governor [NAME]
FOR IMMEDIATE RELEASE

Think and act F.A.S.T. in case of a stroke

Strokes kill more than 2,500 Washington residents each year. Others survive, but with significant, costly disabilities. That’s why it’s important to think and act F.A.S.T. when someone near you displays stroke symptoms.

What does F.A.S.T. mean? It’s an acronym for a simple way to determine whether a person might be having a stroke:

- **Face**  Ask the person to smile. Does one side of the face droop?
- **Arms**  Ask the person to raise both arms. Does one arm drift downward or not move?
- **Speech** Ask the person to repeat a simple sentence. Is speech slurred or hard to understand? Are they unable to speak?
- **Time**  Time to call 911 if you see any one of these signs. Note the time symptoms started, or when the person was last known to be normal and tell the medics or hospital staff.

The signs and symptoms of a stroke include:

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
- Sudden confusion, trouble speaking or understanding.
- Sudden trouble seeing in one or both eyes.
- Sudden trouble walking, dizziness, loss of balance or coordination.
- Sudden, severe headache with no known cause.

Acting fast is crucial. Many people experiencing stroke die or are disabled because they don’t get the appropriate medical treatment in time. For stroke, that means within three hours, or in some situations up to six hours. The sooner people are treated, the higher the chances they’ll
recover and return to normal activities. Activating Washington’s Emergency Cardiac and Stroke System by calling 9-1-1 speeds treatment, but fewer than half of stroke patients use 9-1-1 to get to the hospital. Patients arriving by ambulance get treated faster in part because medics call ahead so the hospital is ready for the patient when they arrive.

“Calling 9-1-1 is essential,” said State Health Officer Dr. Kathy Lofy. “Friends and family members may have good intentions when they take people with stroke symptoms to the hospital, but it’s much better to get emergency medical personnel on the scene as soon as possible. Lost time often leads to a worse outcome.”

The Washington State Department of Health participates in the Paul Coverdell National Acute Stroke Program. This initiative builds on the improvements achieved through the Emergency Cardiac and Stroke System, and will further improve stroke care and outcomes.

Stroke is the fifth leading cause of death nationwide, and the sixth leading cause in Washington. It is also a leading cause of severe, long-term disability. The number of strokes is projected to increase by 20.5 percent between 2016 and 2030, and the direct medical costs for treating stroke are expected to almost triple, from $71.6 billion to $184.1 billion by 2030, according to the American Stroke Association, a division of the American Heart Association.

May is Stroke Awareness Month, with a focus on improving the number of stroke patients who receive lifesaving treatment in time. Stroke Awareness Month is the American Stroke Association’s and the National Stroke Association’s call to increase awareness of stroke, and to inspire citizens to learn about the signs of stroke and how to react.
FOR IMMEDIATE RELEASE
Date

MEDIA CONTACT:
Name
Phone
Email

May is American Stroke Month – think and act F.A.S.T. in case of a stroke

CITY, WA — Washington Governor [name] has proclaimed May as “Stroke Awareness Month” as part of a statewide call to increase awareness of stroke warning signs and improving the number of stroke patients that receive lifesaving treatment in time.

Many people in Washington die or are disabled from stroke because they do not get the appropriate medical treatment within the recommended time window, which is three hours for the most common type of stroke. Increasing the number of stroke patients who get timely treatment is one of the goals of Washington’s Emergency Cardiac and Stroke System. To activate the system, citizens must be more vigilant about recognizing the stroke warning signs and immediately calling 9-1-1 when they or someone else is experiencing stroke symptoms.

Stroke is the fourth leading cause of death nationwide and a leading cause of severe, long-term disability, according to the American Stroke Association. “Stroke is a life-threatening medical emergency. For every minute you don’t get help, more brain cells die, increasing the likelihood of permanent disability or even death. The best way to get medical treatment quickly is to call 9-1-1,” said SPOKESPERSON NAME, TITLE.

An easy way to recognize stroke is to think F.A.S.T.:

- FACE Ask the person to smile. Does one side of the face droop?
- ARMS Ask the person to raise both arms. Does one arm drift downward or not move?
- SPEECH Ask the person to repeat a simple sentence. Is speech slurred or hard to understand? Are they unable to speak?
- TIME Time to call 911 if you see any one of these signs. Note the time symptoms started, or when the person was last known to be normal and tell the medics.

Face droop, Arm weakness, and Speech difficulty are the most common signs and symptoms of stroke. Additional signs and symptoms are sudden numbness or weakness of the face, arm or leg, especially on one side of the body; sudden confusion or trouble understanding; sudden trouble seeing in one or both eyes; sudden trouble walking, dizziness, loss of balance or coordination; and sudden severe headache with no known cause.

Washington has changed the way emergency medical services (EMS) respond to cardiac and stroke patients. With the new Washington State Emergency Cardiac and Stroke
System, modeled after the state's trauma system, standard guidelines for EMS call for patients to be taken directly to a hospital that can provide specialized care. If there isn't one close by, patients will be rapidly assessed by the local hospital and transferred immediately to the treating hospital. The public can help by learning heart attack and stroke symptoms and calling 9-1-1 immediately when they or someone else is experiencing these symptoms.

Stroke Awareness Month is the American Stroke Association’s and the National Stroke Association’s call to increase awareness of stroke and to inspire citizens to learn about the signs of stroke and how to prevent a stroke. To learn more about Washington’s Emergency Cardiac and Stroke System, visit www.doh.wa.gov/ecs.

# # #
Sample Article

NOTE this article is from 2012, but including it if you want to focus on the stroke system in your area.

Pierce County Benefits from New Comprehensive Stroke System
By Teresa McCallion, East Pierce Fire and Rescue, 2012 or before

Early recognition of stroke signs and 9-1-1 transport to a designated stroke center crucial for patient survival and recovery

Pierce County is one of the first in the state to implement a new comprehensive system of care for stroke patients. The system involves 911 dispatchers, firefighters and paramedics and a system of designated primary and comprehensive stroke hospitals that can provide focused stroke patient assessment and treatment, in-hospital and rehabilitation services.

It all starts with calling 9-1-1. Dispatchers quickly process 9-1-1 calls and assess whether a patient is having possible stroke symptoms, providing an early heads-up for responding fire and EMS units.

Firefighters and paramedics arrive and quickly assess the patient for possible stroke and consult with the base station hospital for the appropriate destination. It’s equally crucial that the time the patient’s “last normal” is identified (i.e. “two hours ago” or “it started at 2:30 p.m.”) since this will impact what treatments may be available for the patient, and may determine to which hospital the patient is taken. Paramedics also notify the hospital with a “Stroke Alert” radio contact, giving the hospital time to assemble a team so they can be prepared for the arrival of the patient.

Pierce County is fortunate to have three specialized physicians, called “stroke interventionalists” who provide around the clock advanced treatment opportunities for stroke patients. The stroke patient system of care is reducing time to treatment and helping to improve outcomes for many patients. However, the system can’t work, if patients don’t recognize the signs and symptoms of a stroke and call 9-1-1.

What is a stroke?

Strokes take a terrible toll each year in the United States. Almost 795,000 people will suffer a stroke, and 129,000 people die annually. Strokes are the leading cause of disability in the U.S. Nearly one-quarter of strokes occur in people under the age of 65.

A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or the blood vessel ruptures. When that happens, part of the brain cannot get the blood (and oxygen) it needs, so it starts to die.

The signs and symptoms of a stroke include:

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden, severe headache with no known cause

A drug called tPA is the only FDA-approved medication for the treatment of stroke—but it has to be given within three hours of the start of stroke symptoms. Some stroke interventionists can use other treatments, such as guiding thin wires from the femoral artery up into the brain to try to open the arteries.

[Updated 2016] Time is crucial—time lost equals brain lost. Up to 2 million brain cells die every minute during a stroke. Acting FAST means many patients can be effectively treated, minimizing the impact of a stroke. Every minute counts, so “when in doubt—check it out!” and call 9-1-1.
Public Service Announcements

To be added.
Examples of Public and Employee Education Activities for Stroke Month

- Play stroke videos in strategic locations (see section above with links to videos)
- Staff in-services
- Educate through employee wellness programs like SmarthHealth and give points
- Do FAST awareness education to hospital valet, housekeeping, transport, and food service teams.
- Post FAST/blood pressure/Life’s Simple Seven posters in exam rooms, waiting rooms, bathrooms, by drinking fountains, on fridges
- Stickers on the café’s plan java jackets
- Printed java jackets
- Give out FAST bags and have a table at farmers markets
- Get FAST on school digital boards
- Neuroanatomy class for non-neuro nurses with edible teaching aids (body part gummies include brains, Oriental Trading; Google gummy brains; there are even life-size gummy brains, and chocolate and jello molds)
- Daily internet messages on hospitals website
- Tweets and retweets
- Facebook messages, Facebook live events – interview EMS, stroke coordinators, neurologists, etc.
- Infographics
- Health fairs
- Table tents in cafeterias
- Ambulance wraps
- Messaging on buses
- Media outreach
- physician talk
- Get interview or PSAs on local radio
- Info tables, blood pressure checks at health fairs
- Presentation/handouts/blood pressure checks at the local senior center on S/S of a stroke, prevention, and general stroke information
- FAST flyers in hospital/other billing statements
- Hospitals and hospital systems often have thousands of employees so even internal promotion can reach wide audience.
- Collaborate with local public health
- Work with area agencies on aging to reach the senior population through their vast network
- EMS councils and regions who have a role in prevention and education, although no dedicated resources for cardiac and stroke education.