Assessment of Hospital Community Outreach Awareness of the Stroke Symptoms and Signs and Intent to Call 9-1-1
Michigan Ongoing Stroke Registry to Accelerate Improvement of Care (MOSAIC)

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Michigan Department of Health and Human Services
Lansing, Michigan

Prepared by
Ghada Ibrahim, Stroke Data Analyst
ibrahimg@michigan.gov
The MOSAIC Team, along with our partners is working to assess and improve community awareness regarding stroke signs and symptoms, and the importance of calling 9-1-1. Historically, the promotion of evidence-based public awareness initiatives regarding stroke risk factors (i.e., tobacco use, hypertension), signs and symptoms, and the need to call 9-1-1 has been inconsistently tracked in Michigan. Understanding and improving community awareness activities will benefit Michigan residents, aid us in our sustainability planning, and will encourage hospitals to leverage resources to work with local communities to increase knowledge of stroke risk factors, signs and symptoms and importance of calling 911.

METHODOLOGY

A survey was developed for the twenty six participating hospitals in the stroke registry system. The survey asked for general information about the hospital, and asked specific questions about the efforts and barriers each hospital encountered, along with possible initiatives and help provided by MOSAIC team to promote the community awareness. The survey included open-ended questions asking for recommendations on how to better promote the community awareness and the educational materials each hospital needs. Results are presented separately below.

The survey was programmed for electronic data collection. To help support participating hospitals in community awareness interventions, the MOSAIC team offered small grant opportunities to participating hospitals to develop and implement community based stroke awareness and prevention messaging based on evidence based strategies.

Each hospital was e-mailed an explanation of the purpose of the survey and an invitation to complete the survey. This initial contact was followed by a reminder e-mail two weeks later to encourage participation.

Twenty-six hospitals were invited to complete the survey, with 16 valid responses received. This is a 62 percent response rate; however, because the universe of potential respondents is small, the margin of error (19 percent at the 95 percent confidence interval) is higher than typically expected.
Hospital Community Outreach Survey

INFORMATION ABOUT THE HOSPITALS

The twenty-six hospitals were asked if they have provided in the past three years, currently providing, planning to provide in the next year, community education to promote stroke signs and symptoms and the importance to call 9-1-1.

- All hospitals (100 percent) have provided community education in the past three years AND are planning to do it in the next year.
- Almost all (93 percent) respondents are currently working to provide community education.

The Educational Materials Used in the Past Three Years:

- Most of respondents (88 percent) report adopting *FAST campaign materials*
- About (44 percent) used *OTHER materials* like educational presentations provided quarterly and hospital-tailored materials.
- About one-third (31 percent) of respondents were using *National Stroke Association (NSA) materials*.
- About one-quarter (25 percent) of respondents were using *AHA materials*.
- The other educational materials like STROKE MAGNET, ASA, KRAINES, SUDDEN, HOMEGROWN PPP represent less than one fifth of all respondents (19 percent), (13 percent), (6 percent), (6 percent), (6 percent) respectively.

![Educational Materials Used to Promote Community Awareness in the Past Three Years](chart)

The Educational Materials Used Currently:

- The majority (63 percent) used the access to Local Community Events to promote community awareness.
- About two-fifth (44 percent) promoted the awareness through Health Fairs.
About one-third (31 percent) gave lectures to groups (retirement centers, church, rotary clubs, etc...)
One-quarter used Stroke Support Group
Other materials like videos, marketing department and publication, mailing, news stories represent less than one-fifth each.

THE BARRIERS TO PROVIDING COMMUNITY EDUCATION HOSPITALS HAVE EXPERIENCED:

Hospitals were asked about the barriers they have experienced in three fields:

- **Initiating education efforts:** All hospitals (100 percent) responded.
  - About one-quarter (25 percent) of respondents said it is Not Applicable.
  - More than one-third (38 percent) indicated Time away from hospital care and some rural and geographic area needed more time than the others as main barriers.
  - Less than one-fifth (19 percent) needed new materials and funds.
  - About (13 percent) indicated the unworthiness of the efforts.
  - And lastly, about (19 percent) found no barriers.

- **Implementing education efforts:** Almost all hospitals (94 percent) responded.
  - Less than one-fifth (19 percent) of respondents said it is NOT APPLICABLE.
  - About one-quarter (25 percent) indicated that TIME volunteered by staff is very limited.
  - Less than one-third (31 percent) indicated that COST of educational materials and giveaways is limited.
  - About (6 percent) reported the UNWORTHINESS of the efforts.
  - And lastly, about (13 percent) found NO barriers.

- **Continued education efforts:** Almost all hospitals (94 percent) responded.
  - About one-quarter (25 percent) of the respondents said it is NOT APPLICABLE.
  - About one-quarter (25 percent) indicated that TIME for recruiting new individuals to commit to providing community education as an important barrier.
Less than one-fifth (19 percent) indicated that COST of educational materials and giveaways is limited.
Also about (6 percent) indicated the UNWORTHINESS of the efforts.
And lastly, about (19 percent) found NO barriers.

**COLLABORATION WITH EMS AGENCIES:**

Hospitals were asked if they have worked on stroke community education, have they collaborated with EMS agencies on a) Awareness activities and b) Messaging.

The majority (63 percent) of respondents reported yes on Awareness activities and about (44 percent) on Messaging.

**ASSISTANCE PROVIDED BY MOSAIC/AHA IN PROVIDING COMMUNITY EDUCATION AND OUTREACH:**

Hospitals were asked how MOSAIC team and their partners (including AHA) could assist your hospital in providing: a) Community education and b) Outreach.

Three-quarter (75 percent) of hospitals responded to this question.
Half (50 percent) of respondents reported that free materials (handout material regarding stroke blood pressure, smoking cessation, atrial fibrillation...etc.) along with other materials were needed for Community education and Outreach

About (42 percent) of respondents indicated that access to events, list of attendees, and partnership with MOSAIC staff were needed for Community education and about (58 percent) of the respondents were asking for lists of participating hospitals/contact information to medical control protocol authorities, develop community lay educators, Radio/TV locally in Spanish, and etc.)
INITIATIVES TO PROMOTE COMMUNITY AWARENESS:

Hospitals were asked to choose any initiatives to promote community awareness of the signs and symptoms and the intent of call 9-1-1 and if they were given the option, what types of educational materials would they prefer.

To promote community awareness, on average, almost all hospitals (90 percent) chose Stroke Awareness Month, about (81 percent) chose Community Health Fairs, about (59 percent) chose Contacting/working with local news outlets, about (56 percent) chose Educating staff, patients, and families at local nursing homes, about (53 percent) chose World Stroke Day, about (53 percent) chose Billboards, and about (19 percent) chose CDC’s Million Hearts Initiative.

They also suggested community education in schools, Girls Scouts, Lion Clubs, medical minutes on local radio.

As for their preference of the educational materials, all of the respondents (100 percent) reported educational handouts, about one-third (31 percent) reported videos and soundbites. The same percent (31 percent) suggested non-English materials and social media outlets.

HOSPITALS COLLECTING DATA:

Hospitals were asked if they have been collecting data in the population they served.

About (13 percent) said yes and the majority (56 percent) did not know. When they asked how they collected the data, the majority said through surveys.

RESPONDENT RECOMMENDATIONS:

Hospitals included that they have been implementing community awareness activities and almost all agreed on that time and free materials were the most important barriers that hindered them from implementing those activities effectively. They also emphasized the need for public outreach in schools and clubs using events and media outlets. Also the need for exchanging knowledge with all participating hospitals to know what they can offer.
Survey Response Report

1. Hospital’s Name:

1. St Mary Mercy Hospital Livonia
2. St. Joseph Mercy Hospital
3. ProMedica Bixby & Herrick
4. Sparrow
5. Detroit Receiving Hospital
6. HFHS
7. Munson Medical Center
8. McLaren Flint Medical Center
9. Mercy Health Saint Mary’s
10. Lakeland Regional Health System
11. Metro Health Hospital
12. McLaren Oakland
13. McLaren Port Huron
14. McLaren Northern Michigan
15. Genesys Regional Medical Center
16. St. Mary’s of Michigan

2. Has your hospital provided community education in the past 3 years to promote?

<table>
<thead>
<tr>
<th>knowledge of stroke signs and symptoms and importance of calling 9-1-1</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>16</td>
</tr>
</tbody>
</table>

3. If so, what educational materials were used? (I.e. FAST campaign materials, SUDDEN campaign materials, a document your team developed, etc.)

- FAST materials, Stroke magnets, educational leaflets
- FAST
- FAST
- document developed by Sparrow, Krames & NSA
- AHA material, NSA material.
- FAST Campaign materials, SUDDEN campaign materials. Other documents
- A combination of the FAST campaign and our own documents.
- The stroke continuum of care committee composed of therapy services (OT/PT/SLP) RN’s, Social workers, case managers and have created a community stroke awareness program that is targeted toward healthcare providers employed in: Assisted Living Communities and ECF. Focus is FAST, and posterior S&S of Stroke. IV-tPA and Neuro Interventional Services Provided. Educational presentations are provided quarterly.
- FAST, website materials from ASA/AHA and from NSA, also we have developed some of our own materials
- FAST
• Fast refrigerator Magnet
• Campaign materials
• FAST campaign
• FAST campaign materials, AHA refrigerator magnets, National Stroke Assoc
  Stroke Reducing Risk and Recognizing Sym
• FAST materials, materials from NSA. Homegrown PPP.
• ACT FAST materials, ASA materials, St. Mary's documents

4. Is your hospital currently working to provide community education to promote?

<table>
<thead>
<tr>
<th>Knowledge of stroke signs and symptoms and importance of calling 9-1-1</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of stroke signs and symptoms and importance of calling 9-1-1</td>
<td>92.9</td>
<td>13</td>
</tr>
<tr>
<td>None</td>
<td>7.1</td>
<td>1</td>
</tr>
</tbody>
</table>

5. If so, please explain what you have worked on to provide community education:

• Every year we host a Senior Expo we have a Stroke table with educational resources along with the ability to answer questions. We have also provided the public with a glimpse of the Tele-medicine robot. We have also attended several outside community venues providing Stroke awareness. We have developed a magnet with instructions on step by step instruction of how to call 911 in case of emergency. It also reviews how to prepare for their arrival. We also have developed a checklist delivered by EMS upon entry into a nursing facility that focuses on the "last time normal"
• Stroke support group every year - sharing materials at local community events
• We produced a DVD that was mailed to homes years ago, and continue to use it for public education
• Patient education provided to TIA or stroke patients & families. Monthly education during Stroke Support group meeting.
• Health fair at City of Detroit Recreation Department -- BP screening, hypertension r/t stroke, diet Stroke Education, BP and cholesterol screening @ Bangla New Year
  Community talk to senior citizen group by neurology resident -- FAST
• A weekend camp experience where patients and their families/friends stay to learn and participate in activities that help them to recover and understand more about their disease. They also like to share their experience so others can learn from them.
• Multiple health fairs in the region. Stroke Awareness Video contest for middle and high school students to create a public service announcement about signs and symptoms of stroke, FAST, and calling 911. Presentations to 4th graders in the region to recognize the signs and symptoms of stroke and how to call 911.
• presentations to various community groups (schools, businesses, churches, etc.) in the area; stroke walk events with materials for hand out there; stroke support group
• Community education via classes, 1:1 contacts, and billboards and other marketing materials.
• Blood pressure clinics at local farmers markets. RN present to take BP and answer questions about stroke prevention.
• At health fairs have booth with stroke information and talk to participants.
• We have mailings that go out to all high risk patients after discharge that provide information on signs and symptoms and when to call 911, our hospital website provides this information, and i do several community events and hand this information out.
• Completed 2015 community programs and health fairs.
• Health fairs; lectures to groups (retirement centers, church, rotary clubs etc.); news stories; organizational-marketing department and publications; stroke support group
• Information provided at health fairs and community speaking events

6. Do you plan to provide community education in the next year to promote?

<table>
<thead>
<tr>
<th>Knowledge of stroke signs and symptoms and importance of calling 9-1-1</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of stroke signs and symptoms and importance of calling 9-1-1</td>
<td>100.0</td>
<td>16</td>
</tr>
</tbody>
</table>

7. What barriers to providing community education have you experienced in: (Please indicate N/A if these questions do not apply to your work)

<table>
<thead>
<tr>
<th>Barriers to Providing Education Efforts</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Initiating education efforts</td>
<td>100.0</td>
<td>16</td>
</tr>
<tr>
<td>b) Implementing education efforts</td>
<td>93.8</td>
<td>15</td>
</tr>
<tr>
<td>c) Continued education efforts</td>
<td>93.8</td>
<td>15</td>
</tr>
</tbody>
</table>

a) Initiating education efforts
• time and resources
• Time to get it done
• Finding for new materials and incentives.

b) Implementing education efforts
• Not many, marketing is helpful but getting people to attend a program is more difficult than going to them I’ve found
• Volunteer staff hours

C) Continued education efforts
• time and resources
• Continuing education provided before discharge, Lunch with a Doctor (May), & support group.
• Assistance
• Poor turnout at many community programs
• Educational materials
• Keeping the staff that volunteer for the Health Fairs excited and motivated.

• Time away from hospital care
• Many Health Fairs charge fees to vendors and our budget is very limited so we must be selective.
• Recruiting individuals to committee to providing community education.

• Some schools are difficult to convince that the materials and subject are important and to allow an outsider in to educate.
• Often attendance is small for scheduled community educational events
• restricted by lack of FTEs

• Dedicated allocated time for individuals to leave their job during work hours and provide community education.
• only restricted by our lack of enough FTEs
• none

• We have been doing BP checks frequently every year, no barriers
• none
• Metro Physician office also do BP checks

• Time
• We use volunteer RNs - Farmers markets on hospital property, also 30 second spots on TV
• Time
• Same as a and b

• Hospital has rural and geographic barriers that result in significant time and expenditures for dedicate staff
• Time to do this.
• Cost of educational materials and giveaways. Limited, dedicated staff to provide community education.
• time and resources

• none

8. If you have worked on stroke community education, have you collaborated with EMS agencies on?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Awareness activities</td>
<td>62.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>b) Messaging</td>
<td>43.8%</td>
<td>56.3%</td>
</tr>
</tbody>
</table>

Assessment of Community Awareness of Stroke Signs and Symptoms and Intent to Call 9-1-1
9. How could the MOSAIC team and their partners (including AHA) assist your hospital in providing?

<table>
<thead>
<tr>
<th></th>
<th>% of hospitals</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Community education</td>
<td>75.0</td>
<td>12</td>
</tr>
<tr>
<td>b) Outreach</td>
<td>75.0</td>
<td>12</td>
</tr>
</tbody>
</table>

**Community Education**

- Can help us with our next community event and share any resources they have at their disposal
- Provide free materials like Massachusetts
- venues that provide attendance & have allow us to provide lecture opportunities
- Participate with us so the community learns about AHA and may access their website to learn more.
- Handout materials regarding: Stroke, blood pressure, smoking cessation, atrial fibrillation...etc.
- Partner in attending and providing community educational events. Large events such as summer downtown events, Ann Arbor Art Fair.
- focus on high risk populations with minimal resources
- no needs
- Provide additional events for education or materials to be handed out.
- Funding for educational materials
- providing PowerPoint or Lecture templates that can be individualized to our organizations; providing resources to handout to public

**Outreach**

- Can help us with our next community event and share any resources they have at their disposal
- Provide free materials like Massachusetts
- To outlying areas & include the EMS folks in the outreach education
- Provide tools for outreach
- Networking with resources we may not be aware of.
- Develop/Create standard educational materials to be distributed by individual hospitals as they provide education. Standardize handouts, message, etc.
- develop community lay educators and care givers
- Would be good to purchase more Radio/TV locally and in Spanish
- Provide additional events for education or materials to be handed out.
- Stroke screening. Provide easy to read materials and program to address health disparities e.g. food banks, churches, businesses
- Providing list of participating hospitals/contact info. to medical control protocol authorities; counties to assist with contacts-letting them know we are available and willing to provide education

10. Please choose any initiatives to promote community awareness of stroke signs and symptoms that interest you: Please check all that apply

<table>
<thead>
<tr>
<th>Initiative</th>
<th>% of hospitals</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Stroke Awareness Month</td>
<td>87.5</td>
<td>14</td>
</tr>
<tr>
<td>2) World Stroke Day</td>
<td>50.0</td>
<td>8</td>
</tr>
<tr>
<td>3) CDC’s Million Hearts Initiative</td>
<td>18.8</td>
<td>3</td>
</tr>
</tbody>
</table>
4) Billboards 50.0 8
5) Educating staff, patients, and families at local nursing homes 56.3 9
6) Community Health Fairs 87.5 14
7) Contacting/working with local news outlets 56.3 9

- We have done some 'medical minutes' on local radio too
- Great ideas. We will definitely do some of the things we don't do already.
- Elementary and High school students.
- Speak to service clubs i.e. Rotary, Lions Club, Girls Scouts...
- National Stroke Education on CNN, evening news in local areas, local newspapers etc.
- Regional TV ad time

11. Please choose any initiatives to promote community awareness of intent to call 9-1-1 that interest you: Please check all that apply

<table>
<thead>
<tr>
<th>Initiative</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke Awareness Month</td>
<td>93.8</td>
<td>15</td>
</tr>
<tr>
<td>World Stroke Day</td>
<td>56.3</td>
<td>9</td>
</tr>
<tr>
<td>CDC's Million Hearts Initiative</td>
<td>18.8</td>
<td>3</td>
</tr>
<tr>
<td>Billboards</td>
<td>56.3</td>
<td>9</td>
</tr>
<tr>
<td>Educating staff, patients, and families at local nursing homes</td>
<td>56.3</td>
<td>9</td>
</tr>
<tr>
<td>Community Health Fairs</td>
<td>75.0</td>
<td>12</td>
</tr>
<tr>
<td>Contacting/working with local news outlets</td>
<td>62.5</td>
<td>10</td>
</tr>
</tbody>
</table>

- Elementary and High school students.
- Speak to service clubs i.e. Rotary, Lions Club, Girls Scouts
- Community education in schools

12. If given the option, what types of educational materials would you prefer? Please check any that interest your team:

<table>
<thead>
<tr>
<th>Material</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational handouts</td>
<td>100.0</td>
<td>16</td>
</tr>
<tr>
<td>Videos</td>
<td>31.3</td>
<td>5</td>
</tr>
<tr>
<td>Soundbites</td>
<td>31.3</td>
<td>5</td>
</tr>
</tbody>
</table>

- All venues are great!
- People sharing their experience.
- Need more non-English language literature
- In Spanish and English
• Funding of 800 number for Ask the Expert during community education program. The hospital serves a 22 county region in lower northern MI and Upper MI.

• Social media recommendations - what is working in other "rural" communities?

13. To your knowledge, have data been collected in the population you serve to assess:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.5%</td>
<td>31.3%</td>
<td>56.3%</td>
</tr>
</tbody>
</table>

14. If you answered yes to Q13, please answer the following:

<table>
<thead>
<tr>
<th>Data to assess knowledge of stroke signs and symptoms: WHEN and HOW was it collected?</th>
<th>%</th>
<th># of hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data to assess importance of calling 9-1-1: WHEN and HOW was it collected?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>25.0</td>
<td>4</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Data to assess knowledge of stroke signs and symptoms: WHEN and HOW was it collected?</th>
<th>Data to assess importance of calling 9-1-1: WHEN and HOW was it collected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• We collect data thru survey of our patients when coming to clinic visit after stroke.</td>
<td>• We did an informal observation as well as survey and determined that the public was not aware of what they need to do to prepare</td>
</tr>
<tr>
<td>• surveys</td>
<td>• We collect data thru survey of our patients when coming to clinic visit after stroke.</td>
</tr>
<tr>
<td>• never collected</td>
<td>• surveys</td>
</tr>
<tr>
<td></td>
<td>• never collected</td>
</tr>
</tbody>
</table>

15. Additional Comments:

• We could collect the data upon follow up visit and phone calls to patients/families.

• Our program for community education has been in place for many years and utilize only volunteers. We reach out to many groups using age appropriate materials. One obstacle we have is budget to accomplish what we would like to do.