Meeting Agenda

**ECG Vendor Demonstrations**

10:00 a.m. – 10:30 a.m.  
Zoll

10:40 a.m. – 11:10 a.m.  
Phillips

11:20 a.m. – 11:50 a.m.  
Physio-Control

<<<<<<<<<<<<<<12:00 p.m. – 12:30 p.m.>>>>>>>>>>>>

1. **Welcome and Introductions**  
   12:30 – 12:45

2. **Scope of Project Mission: Lifeline Rural MN**  
   12:45 – 1:30

   Year 1
   Year 2
   Year 3

3. **Mission: Lifeline Rural MN Taskforce and Committee Development**  
   1:30-2:00

   ………………………..Afternoon Break………………………………  
   2:00 – 2:10

4. **Breakout Discussions**  
   2:10 – 2:50
   • PCI receiving and Non-PCI referring Health care systems
   • Emergency Medical Services

   2: 50 – 3:00
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# Mission: Lifeline History 2004 - Present

## MAY 2004 – JUNE 2007
- AHA recruited Advisory Working Group
- Price Waterhouse Coopers presents its market research to AWG
- AWG Consensus Statement appears in *Circulation*
- Eleven manuscripts are published in *Circulation*
- **Mission: Lifeline was formally launched**
- AWG develops a set of guiding principles

## 2008 - 2009
- Affiliate Staff Kick-Off was held
- Completion of a national EMS Assessment for STEMI Systems represents 91% of US population

## 2010 - 2011
- Hospital recognition program and reports are released
- AHA collaborates with SCPC and hospital accreditation program released

## 2012 AND BEYOND
- Mission: Lifeline Cardiac resuscitation Program was launched
- Plans to add a Mission: Lifeline Pre-Hospital Recognition Program
- **2014 – Add Mission: Lifeline EMS Recognition Program**
Mission: Lifeline is the American Heart Association’s national initiative to advance the systems of care for patients with ST-segment elevation myocardial infarction (STEMI) and Out of Hospital Cardiac Arrest. The overarching goal of the initiative is to reduce mortality and morbidity for STEMI and OOHCA patients to and improve their overall quality of care.
• **Mission: Lifeline will:**
  – Promote ideal STEMI systems of care
  – Help STEMI patients get the life-saving care they need in time
  – Bring together healthcare resources into an efficient, synergistic system
  – Improve overall quality of care

• **The initiative is unique in that it:**
  – Addresses the continuum of care for STEMI patients
  – Preserves a role for the local STEMI-referral hospital
  – Understands the issues specific to rural communities
  – Promotes different solutions/protocols for rural vs. urban/suburban areas
  – Recognizes there is no “one-size-fits-all” solution
  – Knows the issues of implementing national recommendations on a community level
What is a Mission: Lifeline STEMI System?

At Least One EMS Agency

At Least One Referral Center

At Least one Receiving Center

…working together to decrease time to reperfusion and to reduce death and disability by improving patient outcomes.
Publications to Support STEMI System Development

Development of Systems of Care for ST-Elevation

Executive Summary

Endorsed by Aetna, the American Ambulance Association, the American Association of Critical-Care Nurses, the American College of Emergency Physicians, the Emergency Nurse Association, the National Association of Emergency Medical Technicians, the National Association of EMS Physicians, the National Association of State EMS Officials, the National EMS Inform System Project, the National Rural Health Association, the Society for Cardiovascular Angiography and Interventions, the Society of Chest Pain Centers, and UnitedHealth Newsmarket.

Alice K. Jacobs, MD, FAHA, Chair; Elliott M. Antman, MD, FAHA; David P. Faxon, MD, FA
Tammy Gregory; Penelope Solis, JD

8/28/2013
3.4. Community Preparedness and System Goals for Reperfusion Therapy

3.4.1. Regional Systems of STEMI Care, Reperfusion Therapy, and Time-to-Treatment Goals: Recommendations

See Figure 2.

Class I

1. All communities should create and maintain a regional system of STEMI care that includes assessment and continuous quality improvement of EMS and hospital-based activities. Performance can be facilitated by participating in programs such as Mission: Lifeline and the D2B Alliance.\(^\text{71,76–78}\) (Level of Evidence: B)

2. Performance of a 12-lead ECG by EMS personnel at the site of first medical contact (FMC) is recommended in patients with symptoms consistent with STEMI.\(^\text{70–72,79,80}\) (Level of Evidence: B)

3. Reperfusion therapy should be administered to all eligible patients with STEMI with symptom onset within the prior 12 hours.\(^\text{81,82}\) (Level of Evidence: A)

4. Primary PCI is the recommended method of reperfusion when it can be performed in a timely fashion by experienced operators.\(^\text{82–84}\) (Level of Evidence: A)

5. EMS transport directly to a PCI-capable hospital for primary PCI is the recommended triage strategy for patients with STEMI, with an ideal FMC-to-device time system goal of 90 minutes or less.\(^\text{870–72}\) (Level of Evidence: B)

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How is STEMI Defined?

ST elevation at the J point in at least 2 contiguous leads of ≥2 mm (0.2 mV) in men or ≥1.5 mm (0.15 mV) in women in leads V2–V3 and/or of ≥ 1 mm (0.1 mV) in other contiguous chest leads or the limb leads.

New or presumably new LBBB at presentation occurs infrequently, may interfere with ST-elevation analysis, and should not be considered diagnostic of acute myocardial infarction (MI) in isolation.

ECG demonstrates evidence of ST depression suspect of a Posterior MI
The most significant findings:

- **32%** of EMS systems have 12-lead electrocardiograms (ECGs), used to detect STEMI, on **75%** or more of their vehicles.

- Of EMS systems with 12-lead ECGs: - Most lacked a standard method for EMS to communicate the 12-Lead ECG results to the hospital.

Although, **47%** do interpret by reading or by a computer algorithm and phone/radio

- EMS field personnel remotely activate hospital catheterization labs **29%** of the time.

- Destination protocols are only used **30%**, or less, of the time to enable EMS to take STEMI patients directly to a hospital capable of providing angioplasty/stenting 24 hours a day, seven days a week.
EMS System Assessment and Improvement – Minnesota 2009

Additional significant findings:

- Less than 2% of EMS agencies do not transport acute MI patients
- **25%** of EMS agencies have **75%** or more staff trained to read 12 lead ECGs;
- More than 50% of EMS agencies purchased 12-lead ECG devices on their own or through a grant;
- More than 50% do not receive training on 12-lead ECG devices
- Approximately 70% of EMS do not use pre-hospital fibrinolysis and 27% of agencies did not know.

**Type of Provider:**

35.5% Other agency – Volunteer
16.4% Other agency – not for profit
14.3% Fire
12.8% Third Service
Transport of Acute MI Patients

98.4% indicated yes 1.16% indicated no

12 Lead ECG @ scene for 80% of chest pain patients?

36.6% indicated yes 63.4% indicated no

Percent of vehicles w/ 12 lead devices @ scene

26.9% have 10% or less of vehicles with 12 leads
1.1% have 11-25% of vehicles with 12 leads
2.2% have 26-50% of vehicles with 12 leads
3.2% have 51-75% of vehicles with 12 leads
31.7% have 75% or more of vehicles with 12 leads
EMS Staffing

- **59.9%** EMT-Basic and Intermediate
- **24.1%** EMT-Paramedic
- **9.9%** non-transporting first responder
- **6.1%** helicopter transport

Percentage of responders trained to read 12 lead ECG?

- **10% or less** of responders - 47.6%
- **11-25%** of responders - 7.1%
- **26-50%** of responders – 4.8%
- **51-75%** of responders – 10.3%
- **76-100%** of responders – 23.6%

Est. **43%** of respondents have at least half or more of their staff trained to read a 12-lead
123 Ambulance Service Responses

54% ambulance units reported to be 12 L ECG equipped

33% ambulance units reported 12 L ECG Equipment needed

76% ambulance units reported transmission method support needed

Level of MN Providers

77% BLS Providers

23% ALS Providers

66% reported a need for 12 L ECG training

Pre-Hospital STEMI Activation

20% report Yes pre-hospital STEMI Activation

53% report yes to capable but No pre-hospital STEMI Activation

27% report unable to perform
6.5 Million Grant 2013 – 2016

- The Leona M. and Harry B. Helmsley Charitable Trust - $4.6 million gift
- Medtronic Foundation/Philanthropy - $300,000 gift
- Otto Bremer Foundation - $200,000 gift
- Shakopee Mdewakanton Sioux Community - $100,000 gift

Additional Funders:

- Karla and Tim O’Donnell
- Fred C. and Katherine B. Andersen Foundation
- Thom Family Foundation
- St. Luke’s Hospital and its Foundation

Dakota Medical Foundation
John F. Rooney Family Charitable Foundation
Mayo Clinic Health System Mankato

Additional in-kind gifts from the American Heart Association and many additional partners will total over $1 million
• Acute Coronary Syndrome (ACS) will strike 935,000 people a year in the United States, an estimated 250,000 of those will be STEMI.

• In 2011, 2,284 Minnesotans suffered a STEMI, according to the Minnesota Department of Health.

• Cardiovascular disease is the #2 leading cause of death in MN.

• While the state has a significantly lower mortality rate for Myocardial Infarction, we still have 18/73 counties in the defined Rural MN Mission Lifeline Project that have higher than national average mortality for Acute Myocardial Infarction.

<table>
<thead>
<tr>
<th>County</th>
<th>Acute Myocardial Infarction Death Rate per 100,000, 35+, All Race, All Gender, 2008-2010</th>
<th>Acute Myocardial Infarction Hospitalization Rate per 1,000 Medicare Beneficiaries, 65+, All Race, All Gender, 2008-2010</th>
<th>Acute Myocardial Infarction Hospitalization, Medicare Beneficiaries, Percentage Died before discharge, All Race, All Gender, 2008-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>State AVERAGE</td>
<td>40.2</td>
<td>7.5</td>
<td>7</td>
</tr>
<tr>
<td>National AVERAGE</td>
<td>75.7</td>
<td>8.5</td>
<td>7.9</td>
</tr>
</tbody>
</table>
The MN state average for patients who die during hospitalization for acute myocardial infarction is lower than the national average. However, 44/73 counties still have higher than the state average of patients who die while hospitalized for acute myocardial infarction.

Age 35+ STEMI Death Rate per 100,000 by County (2000-2006)

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2006. CDC WONDER On-line Database. ICD 10 I21 - I22.
2004-2008 Acute Myocardial Infarction (ICD10 I21 & I22)
35+ Age Adjusted Death Rate per 100,000

Opportunities for Improvement

• Are patients not aware of S&S and calling 911, thus causing a delay in treatment/out of hospital death prior to treatment? This supports the need for enhanced public awareness/education.

• Access to care? Do we currently have systems in place in which patients are not able to get to the appropriate facility in a timely fashion, thus supporting the need to improve systems of care so that patients are transported to a facility with a plan in place to treat based on guidelines.
Scope of Project: Year 1

- Taskforce engagement and committee structure development
- Bi-Annual Face to Face Taskforce Meeting
- Annual MN STEMI Conference – April 2014
- EMS Equipment Allocation and placement, 12 L ECG curriculum and training plan development
- PCI Capable Hospital Pre-hospital activation plan support through 12 L ECG Transmission receiving system, computer interpretation or paramedic recognition
- PCI Receiving Hospital ACTION-GWTG registry participation
North Dakota News & Views
July 2013

Update From The Director

The Second Annual ND Mission: Lifeline Stroke and STEMI conference held May 29 -30 in Bismarck was a success with 272 in attendance. Thank you to speakers, task force members, those that attended and everyone who assisted with the planning. At the conference a state of the state presentation provided highlights of progress to date and next steps ahead. We have much to be proud of and much work yet to do! The full presentation is available on the website www.heart.org/NDMissionflation. Here are a few highlights:

- EMS ALS and BLS transport guidelines and EMS field toolkit materials including 12L ECG placement guides were developed and approved by the task force. Tool kit materials are being provided by EMS trainers along with the phase II curriculum, and are available to re-order free of charge.
- The EMS 12 L Training Curriculum II, is being delivered by a team of volunteer educators to the 125 ambulance services in ND. Phase II training will be completed by September of 2013. EMS phase III will be developed and delivered this fall.
- In ND, approximately 2636 12-lead EMS transmissions occurred from May 2012-April 2013.
- 50% of 44 hospitals have fully implemented 12 L receiving systems and executed grant contracts. $12,000 in Grant funding is available now to each ND Hospital to support 12 L ECG transmission receiving systems. Please contact me for additional information or questions.
- ND M:1 RUSH Referring Hospital STEMI protocol was updated and approved based on the 2013 ACC/AHA STEMI Guidelines.
- The Referring Hospital Education Curriculum and toolkit materials have been developed and approved by the taskforce. They are being provided by PCI hospital trainers with the phase I curriculum, and are available to re-order free of charge.
- Volunteer physicians and nurse educators from each of the 6 PCI facilities are scheduling and presenting this curriculum developed by the hospital committee to all 38 non-PCI hospitals in ND now.

We look forward to continued progress in fully implementing acute heart attack systems of care in and improving outcomes in North Dakota. A key goal in the next few months is to increase the number of hospitals with grant contracts and 12 L ECG transmission receiving system. It would be great to reach >90% hospital participation by this fall.

Mindy Cook,
Director of Mission: Lifeline - North Dakota & Minnesota

MARK YOUR CALENDAR

ND M:1 Task Force Conference Call
July 23, Noon to 1:00 p.m.
1-888-455-4135 Passcode 84750

ND M:1 EMS Committee Face to Face Meeting
August 12, 2013 10:00 am - 2:00 pm Jamtenton Regional Medical Center

ND M:1 Task Force Committee Face to Face Meeting
October 22, 10:00 am - 2:00 pm Quality Inn and Suites 507 25th St SE Jamtenton, ND

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Public Education Campaign Launch:
"Your Life is On the Line"

ND Mission Lifeline public education campaign will launch in mid-August with focus on rural counties.

The campaign will include direct mail, newspaper, radio and social media in addition to collateral materials and resources for local hospital and EMS use in their communities.

An online toolkit is available August 1 and includes an order form for collateral materials including posters, bookmarks, magnets, and tri-panel display boards. EMS and hospitals are encouraged to work together to create a plan to spread the message in their communities.

The two outcome goals of the campaign is to increase those that call 911 and decrease the median time from symptom onset to first medical contact in ND from 109 minutes to national median time of 50 minutes.

Rural Minnesota Mission: Lifeline
On June 13, 2013, the American Heart Association, announced more than $6.5 million in funding to launch Minnesota’s Mission: Lifeline heart attack patient care initiative. The unprecedented collaboration will bring together a variety of funders including Hennepin Charitable Trust, Medtronic Philanthropy, Otto Bremer Foundation, Shakopee Mdewakanton Sioux Nation, American Heart Association, Karla and Tim D’onnell, Dakota Medical Foundation, Fred C. and Katharina B. Anderson Foundation, Mayo Clinic Health System Maslen, Teske Family Foundation, John F. Roseskey Family Charitable Foundation, and St. Luke’s Hospital in Duluth and its Foundation.
EMS Year 1

- EMS Advisory Committee Role
  - Eligibility, Funding, and Equipment Implementation
    - EMS Regions: Application process and timeline
    - Scoring and Award notifications
  - EMS Education Plan Development
Pre-hospital ECG Interpretation Strategies

1. Automated computer algorithm
2. Direct paramedic interpretation
3. Wireless transmission with Physician Interpretation
• 8 MN EMS Regions

• Applications Closed!

Northwest and West Central Region
Round 1, NW & WC regions

- Open – July 26, 2013
- Close – Aug 23, 2013
- Final Review and Award – Sept. 13, 2013

Round 2, NE & Central regions

- Open – Oct. 7th, 2013
- Close – Nov. 8th, 2013
- Final Review and Award – Week of December 9th, 2013
Round 3, SW & Metro

- Open – February 3rd, 2014
- Close – March 3rd, 2014
- Final Review and Award – Week of April 7th, 2014

Round 4, SC & SE Regions

- Open – April 28th, 2014
- Close – May 30th, 2014
- Final Review and Award – Week of June 30th, 2014
Rural MN Mission: Lifeline EMS Application and Allocations

http://form.jotform.us/form/
• PCI Receiving Hospitals – MN Hospitals
  • 5 Rural PCI Receiving Hospitals eligible for up to $25,000 to be utilized towards a ECG Receiving Station 5 year license and Training
  • 3 Metro Hospitals may utilize this funding for FTE support in lieu of a transmission receiving system.

• ACTION Registry Get With The Guidelines
  • 8 Rural MN PCI Receiving Hospitals eligible for annual license reimbursement
  • Annual Quality Improvement Webinar focused on Mission: Lifeline Achievement measures and objectives

• ACTION GWTG FTE Support
  • 5 Rural MN Hospitals Eligible for up to $75,000 over 3 years
Rural MN Primary PCI Capable Hospitals

- Bemidji
- Duluth (2)
- Mankato
- St. Cloud
National surveillance system for high-risk AMI patients admitted with STEMI/NSTEMI:

- Assess characteristics, treatments, and outcomes of this patient population
- Optimize outcomes and management of AMI patients through implementation of ACC/AHA evidence-based guideline recommendations in clinical practice
- Facilitate efforts to improve quality and safety of ACS patient care; and investigate QI methods
The History

- ACTION Registry transitioned from CRUSADE and NRMI Registries
- January 2007 ACTION was established
- May 2008 ACTION merged with AHA GWTG CAD to become ACTION - GWTG
Registry Updates

ACTION Registry-GWTG
Records Submitted
Acute Myocardial Infarctions- STEMI & NSTEMI only

Patient must present to 1st Facility with symptoms of ACS, within 24 hours of arrival

Patient must have positive ECG- ST elevation, new LBBB, or documented Posterior MI

OR

Positive Biomarkers- Troponin or CK-MB

Transfer In patients- STEMI must arrive within 72 hours, NSTEMI within 24 hours

If presents with any other symptoms, or procedures, the patient is excluded
Mission: Lifeline Involvement

PARTICIPATION
- M:L Hospital Registration
- M:L System Registration
- Mission: Lifeline Social Community
- Quality Improvement/Data Analysis
- Mission: Lifeline Reports

RECOGNITION

ACCREDITATION

2012 SCIENTIFIC SESSIONS QUALITY ACHIEVEMENT AWARDS

American Heart Association
Mission: Lifeline

2012 GOLD RECEIVING

2012 SILVER RECEIVING 2012 SILVER REFERRAL

2012 BRONZE RECEIVING 2012 BRONZE REFERRAL

American Heart Association
Mission: Lifeline

American Heart Association Accreditation
Mission: Lifeline
Heart Attack Referring Center
Mission: Lifeline Measure:

- Mission: Lifeline First Medical Contact to Primary PCI ≤ 90 Minutes Variable (%) – All STEMI admissions who receive a primary PCI within 90 minutes from first medical contact prior to arrival at the Receiving Center.

- FMC = First Medical Contact
- Includes patients arriving by AMBULANCE only and Primary PCI is the reperfusion strategy
- Air Transport patients from the field are EXCLUDED
- STEMI’s dx on Subsequent ECG AND Transfer patients are excluded
### ACTION REGISTRY-GWTG PERFORMANCE ACHIEVEMENT AWARD REQUIREMENTS
- ASA at Arrival
- DTN \(< 30\) Minutes
- DTB \(< 90\) Minutes
- ASA on Discharge
- Discharge beta-blocker
- Discharge ACE-I/ARB (ideal patients)
- Discharge statin
- Smoking Cessation
- Cardiac Rehabilitation

### MISSION: LIFELINE RECEIVING CENTER RECOGNITION MEASURES FOR STEMI SYSTEMS OF CARE
- Door to first device \(< 90\) Minutes, non-transfer patients
  - **FMC to first device \(< 90\) Minutes, non-transfer patients**
  - Eligible patients receiving any reperfusion (PCI or Lytics)
- ASA within 24 hours
- ASA at Discharge
- Beta-blocker at Discharge
- Statins or lipid lowering drugs
- ACEI/ARB at discharge
- Smoking Cessation

### MISSION: LIFELINE REFERRING CENTER RECOGNITION MEASURES FOR STEMI SYSTEMS OF CARE
- **Door to first ECG time \(< 10\) Minutes**
- Eligible patients receiving any reperfusion (PCI or Lytics)
- Door to Needle \(< 30\) Minutes
- Door In – Door Out \(< 45\) Minutes
- ASA within 24 hours
- ASA at Discharge
- Beta-blocker at Discharge
- Statins or lipid lowering drugs
- ACEI/ARB at discharge
- Smoking Cessation
Questions?
Thank You!
PCI Referring Hospitals

- 120 Rural MN Referring Hospitals eligible for funding
- 12 L transmission or recognition equipment funding may be available starting in January of 2014
- Referring Hospital Education Plan Development will begin Fall of 2013 with delivery to begin in Spring of 2014
1. **Will all Hospitals be eligible to receive grant funding?**

- All rural MN hospitals with the exception of the Minneapolis/ St. Paul and Rochester metropolitan areas are included. Please see EMS FAQ for excluded counties. There may be an opportunity for a limited number of metro PCI receiving centers to be eligible based upon referral patterns and available funds.

- Each Rural MN non-PCI capable Referring hospital is eligible for up to $12,000 in grant funding to be utilized toward a 12 L receiving or transmission system.

- Each Rural MN PCI Receiving hospital (Bemidji, Duluth (2), St. Cloud, Mankato) is eligible for grant funding towards partial FTE support to abstract data for the ACTION GWTG Registry and for 12 L ECG receiving software for approximately $100,000 in total grant funding over the next 3 yrs.
DOOR IN DOOR OUT Goal
45 minutes or less!

- Observed in-hospital mortality was significantly higher among patients with DIDO times >30 minutes than among those with DIDO times ≤30 minutes.

**Association of Door-In to Door-Out Time With Reperfusion Delays and Outcomes Among Patients Transferred for Primary Percutaneous Coronary Intervention**

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Alice K. Jacobs, MD
David R. Holmes, MD
Eric D. Peterson, MD, MPH
Henry H. Ting, MD, MBA

**Context**
Patients with ST-elevation myocardial infarction (STEMI) requiring interhospital transfer for primary percutaneous coronary intervention (PCI) often have prolonged overall door-to-balloon (DTB) times from first hospital presentation to second hospital PCI. Door-in to door-out (DIDO) time, defined as the duration of time from arrival to discharge at the first or STEMI referral hospital, is a new clinical performance measure, and a DIDO time of 30 minutes or less is recommended to expedite reperfusion care.

**Objective**
To characterize time to reperfusion and patient outcomes associated with a DIDO time of 30 minutes or less.

**Design, Setting, and Patients** Retrospective cohort of 14821 patients with STEMI transferred to 298 STEMI receiving centers for primary PCI in the ACTION Registry-G multiple hospitals between January 2007 and March 2010.

**Main Outcome Measures** Factors associated with a DIDO time greater than 30 minutes, overall DTB times, and risk-adjusted in-hospital mortality.

**Results**
Median DIDO time was 68 minutes (interquartile range, 48-120 minutes), and only 1627 patients (11%) had DIDO times of 30 minutes or less. Significant factors associated with a DIDO time greater than 30 minutes included older age, female sex, off-hours presentation, and non-emergency medical services transport to the first hospital. Patients with a DIDO time of 30 minutes or less were significantly more likely to have an overall DTB time of 90 minutes or less compared with patients with DIDO times greater than 30 minutes (60% [95% confidence interval [CI], 57.5%-62%] vs 13% [95% CI, 12%-13%]; P < .001). Among patients with DIDO times greater than 30 minutes, only 1.6% (95% CI, 0.5%-3.8%) had an absolute contraindication to fibrinolysis. Observed in-hospital mortality was significantly higher among patients with DIDO times greater than 30 minutes vs patients with DIDO times of 30 minutes or less (5.9% [95% CI, 5.5%-6.3%] vs 2.7% [95% CI, 1.9%-3.5%]; P < .001; adjusted odds ratio for in-hospital mortality, 1.56 [95% CI, 1.15-2.12]).

**Conclusion**
A DIDO time of 30 minutes or less was observed in only a small proportion of patients transferred for primary PCI but was associated with shorter reperfusion delays and lower in-hospital mortality.
4. Will Hospitals be able to choose what brand of 12 L ECG receiving equipment they purchase? Yes, All brands of 12-lead receiving systems are eligible for grant funding. Hospitals should collaborate with the EMS agencies in their areas to choose the most appropriate receiving system. The American Heart Association is vendor neutral; awards will be made based on the decisions of the statewide advisory committee and resources available.

5. Will hospitals be eligible for reimbursement for equipment or software already purchased? No, hospitals must have a signed contract with the American Heart Association in place prior to any purchases. Memorandum of Understanding documents will be available soon.

6. Will hospitals only be able to apply for 12-lead receiving systems? No, There will be flexibility, although determinations on hospital level funding will be based on the statewide taskforce’s recommendations.

7. Will there be education for referring hospitals? Yes development of a hospital education curriculum and implementation plan will begin in the spring of 2014. With implementation in year 2 of the grant cycle.
7. **Will hospitals be required to participate in any data collection tool?**

   - Yes, included Rural MN Primary PCI capable Receiving hospitals must participate in the ACTION GWTG Registry to be eligible for grant funding.

8. **Are all hospitals required to participate in pre-hospital 12 L ECG transmission and receiving systems for example Lifenet, Rescuenet, or Telemedicine Server?**

   No, decisions on a method to best bridge the pre-hospital STEMI Recognition and communication gaps in care will be developed by the statewide taskforce committees on both a local and regional level.

9. **What is the timeline for the grant process?**

   - EMS Applications will be opened by regions starting in the August of 2013. Corresponding hospitals in those EMS awarded areas will be eligible for funding starting in January of 2014.
Scope of Project: Year 2

- Bi-Annual Face to Face Taskforce Meeting
- Annual MN STEMI Conference
- Local, Regional, and State STEMI system of care development, optimizing the destination plans, rural protocols and feedback recommendation development.
- Referring Hospital and EMS Education Curriculum Development and Delivery – Learn Rapid STEMI ID and STEMI Provider Manual
- Public Awareness Campaign Assessment, Development, and Delivery
Scope of Project: Year 3

- Bi-Annual Face to Face Taskforce Meeting
- Annual MN STEMI Conference
- EMS/Hospital education
- Data Analysis and Quality Improvement
- Model sharing
- Public Media and Awareness campaign
- Sustainability Plan Development
Questions?
MN Mission: Lifeline Taskforce Engagement

MN Mission: Lifeline Taskforce 2013-2014

• **Composition:** All interested volunteers: Nurses/Nursing leaders, EMS Providers, Leadership & Medical Directors, Rural and Urban health care providers from Emergency medicine and Cardiology. Other medical professionals interested in improving emergency cardiovascular care in Minnesota.

• **Time Commitment:** 1 hr. monthly teleconferences with two bi-annual face to face meeting

• **Meeting Schedule:** Monthly teleconference or Net Meeting the 4th Thursday from 12:00 pm – 1:00 pm starting September 26 2013, Face to Face Meeting from 10:00 am – 2:00 pm March 20 2014

• **Task Assignment:**
  • Regional updates and sharing statewide on activities and efforts
  • To volunteer to participate in committee work as needed throughout the project
  • To receive reports of committee recommendations and outcomes

• **Please add Heart.org to your allowed list at your facility to receive meeting invitations and summaries**

• **Indicate your interest to join the Taskforce or any committees to Ngia Mua @ ngia.mua@heart.org or Phone: 952-278-7934**
M:L  MN Meetings and Conferences

Biannual MN M:L Taskforce in person meetings
  • Monthly Teleconferences
  • Subcommittee meetings

Annual ND STEMI Summit Conference:
  • Highlight MN successes and Lessons learned
  • Hear from clinical experts about new science
  • Network with peers to advance collaboration
  • STEMI Survivor Celebration
  • Recognize System excellence and award achievements
MN Mission: Lifeline Taskforce Chairs 2013-2014

- **Composition:** 1 ED physician, 1 Cardiologist, 1 STEMI Coordinator

- **Time Commitment:** 4-6 hrs. Quarterly for strategic planning and monthly teleconference participation, bi-annual face to face Taskforce Meetings, and Annual STEMI Conference attendance required.

- **Term:** AHA appointed in Year 1, with annual nominations and majority vote by the taskforce thereafter.

- **Meeting Schedule:** Monthly Teleconference or Net Meeting as needed the 3rd Thursday monthly from 8:00 am to 9:00 am

- **Task Assignment:**
  - Champion MN M:L Rural STEMI System Development
  - Strategic planning of agendas/meetings
  - Support a portion of agenda during Taskforce calls, meetings and committees as appropriate
  - Identify possible guest speakers to present on topics for larger group calls
  - Assist with project oversight, vision, and implementation
  - Lead discussion regarding clinical standard of practice experts
  - Identify and bring forward project successes, barriers, and challenges
MN Mission: Lifeline Taskforce Executive Leadership Committee

**Composition:** 15-20 members including the MN M:L Chair(s)
Annual nominations will be asked for and majority vote of the taskforce will determine appointment.

**Time commitment:** 4-6 hrs. Quarterly for strategic planning and monthly teleconference participation, bi-annual face to face Taskforce Meetings, and Annual STEMI Conference participation

**Meeting Schedule:** Quarterly Teleconference or Net Meeting as needed the 2nd Tuesday quarterly from 7:00 am to 8:00 am beginning October 8 2013, Jan 7-2014, April 8 2014, July 8 2014, October 7 2013…

Facilitated by: Mindy Cook and MN M: L Chair(s)

**Task Assignment:**
**Planning agendas/meetings**
- Be responsible for a portion of agenda presentation
- Identify possible guest speakers to present on topics for larger group calls
- Develop conversation prompting questions
- Lead Discussion

Identify successes, barriers, challenges and solutions
Grant implementation oversight and strategic planning
Receive reports of committee recommendations and outcomes
MN Mission: Lifeline Taskforce STEMI Hospital Advisory Committee

Composition: at least 1 nursing and 1 physician representative from each included PCI Hospital, at least 1 representative from each regional non-PCI Hospital area, and at least 2 EMS representatives (40 member maximum)

Time commitment: Quarterly conference calls with biannual face-to-face meetings

Meeting Schedule: Quarterly Teleconference or Net Meeting as needed the 3rd Wednesday quarterly from 12:00 pm to 1:00 pm beginning October 16, 2013, Jan 15-2014, April 16 2014, July 16 2014, October 15 2014…

Facilitated by: Mindy Cook, Katie Watkins, and MN M: L Chair(s)

Task Assignment:
- Create a Rural MN Hospital Education Plan and Curriculum
- Identification and cultivation of hospital education providers
- Guidance of Regional STEMI System quality improvement and performance measurement
- Facilitation of Regional and Local STEMI System Champion support and engagement
- Create recommendations for MN STEMI Protocols and Transport Guidelines
Composition:
Volunteer representatives from each EMS region
Volunteer medical directors
Other EMS representatives
(max 30 members)

Facilitated by: Gary Myers

Time commitment: 4-6 hrs. per quarter. Monthly teleconferences with a minimum of Quarterly Face to Face meetings as needed to guide EMS equipment allocation and education throughout the grant project.

Task Assignment:
- EMS equipment application oversight
- Input on statewide ECG 12L EMS training curriculum and implementation plan
- Create recommendations for pre-hospital treatment and transport guidelines
MN Mission: Lifeline Taskforce Quality Committee 2013-2014

Composition: Quarterly teleconference with Hospital Participants involved in Cardiovascular Care Quality improvement and/or the ACTION-GWTG Registry tool. 10-20 members.

Facilitated by: Katie Watkins MN Quality Improvement Director

Time commitment: 1 hr. monthly teleconferences or webinars for the first 6 months then quarterly teleconferences or webinars thereafter

Task Assignment:
• Discuss ways to creatively utilize data to drive process change and protocol development.
• Review Case studies
• Review Mission: Lifeline ACTION GWTG reports and features to increase knowledge and understanding of data analysis and how it relates to quality improvement
• Suggest agenda items and talking points for monthly calls
• Contribute to discuss and share lessons learned with statewide partners
Quality Subcommittee Teleconference Schedule

- **Sept 19th, 2013**
  - Mission Lifeline 101: Basics, Review goals/objectives timeline of quality committee. Look for volunteers for future meetings as we get into data reporting. Starting with Jan Meeting we will have 1 PCI Center share case studies. All will be given opportunity to present (5 Rural PCI Centers and 3 metro PCI Centers)

- **October 17th, 2013**
  - Data definitions, comparison of ACTION vs. ML
  - Limited versus premier forms

- **November 21st, 2013**
  - Review Baseline Reports
  - Understanding Individual Reports
  - Understanding System Reports

- **December 19th, 2013**
  - Topics to be determined on input from participants, what more information is needed?
  - Review Project Updates from other committee work.
Structure of Quarterly Conference Calls:

- Welcome/Sharing of Successes for Hospitals (10 minutes)
  - Include sharing of information from other committee reports as it relates to data/quality
  - 1 Hospital Volunteer to present case studies that presented challenge to system (10 minutes)
- Review of Mission Lifeline Regional System Report (35 minutes)
  - Review data from baseline, note progress/areas of concern
  - Create recommendations/talking points to bring back to hospital advisory and executive leadership teams
  - Review any updates to data elements/definitions/guidelines/latest literature
- Wrap Up (5 minutes)
  - Agenda topics for next meeting
MN Mission: Lifeline Taskforce STEMI Conference Planning Committee 2013-2014

Composition:
• 3 Volunteer EMS Representatives
• 3 Volunteer PCI hospital representatives
• 3 Volunteer Non-PCI hospital representatives
• 3 Other representatives interested in improving emergency cardiovascular care in MN
• 8-15 members.

Facilitated by: Mindy Cook, Katie Watkins, MN M: L Chair (s)

Time commitment: Quarterly teleconference and 6 months prior monthly teleconferences 2nd Wednesday of every month from 1:30 pm – 2:30 pm starting September 10 2013

Task Assignment:
• Annual MN M: L STEMI Conference Agenda planning
• Identify Location and Facility for Event
• Assist with CEU approval required documents
• Identify and Secure Speakers
  o Obtain Contact information, Bio’s, Pictures. Disclosures and Objectives for each
• Assist with day of event conference activities
  o Introduction of speakers
  o Assist with time maintenance during event
  o Facilitate breakout Sessions as needed
  o Assist with Conference Registration as needed
  o Assist with Conference Evaluation collection as needed
Goal: Activate partnership 2013

- Mission: Lifeline participation in partner group discussions. Collaboration with existing Heart, Stroke, Sudden Cardiac Arrest and Trauma systems of care

Facilitated by: Justin Bell AHA and Al Tsai MN DOH

Composition: Quarterly; 1-2 representatives from each group

Task Assignment:
- M:L Grant Implementation reporting
- Collaborative tool design
Consensus Based Decision Making

• A consensus based decision-making process is an effort in which affected parties (taskforce members) seek to reach agreement on a course of action to address an issue or set of related issues. In a consensus process, the stakeholders work together to find a mutually acceptable solution.

• Each consensus process is unique because the parties design their agreement to fit their circumstances. However, successful consensus processes follow several guiding principles
Elements of a Consensus-Based Decision

- All parties agree with the proposed decision and are willing to carry it out;
- No one will block or obstruct the decision or its implementation; and
- Everyone will support the decision and implement it.

Levels of Consensus

1. I can say an unqualified “yes!”
2. I can accept the decision.
3. I can live with the decision.
4. I do not fully agree with the decision, however, I will not block it and will support it.
Consensus Based Decision Making

- **Consensus Decision-Making**—Participants make decisions by agreement rather than by majority vote.

- **Inclusiveness**—To the extent possible, all necessary interests are represented or, at a minimum, approve of the decision.

- **Accountability**—Participants usually represent stakeholder groups or interests. They are accountable both to their constituents and to the process.

- **Facilitation**—An impartial facilitator accountable to all participants manages the process, ensures the ground rules are followed, and helps to maintain a productive climate for communication and problem solving.
Consensus Based Decision Making

- **Flexibility** – Participants design a process and address the issues in a manner they determine most suitable to the situation.

- **Shared Control/Ground Rules** – Participants share with the facilitator responsibility for setting and maintaining the ground rules for a process and for creating outcomes.

- **Commitment to Implementation** – All stakeholders commit to carrying out their agreement.
Consensus Based Decision Making

Sample Ground Rules

1. **It’s Your Show:** We understand that this is our process. The facilitators are resources to take us where we agree to go. We determine the agenda, ground rules, issues and process. We agree to attend and fully participate in all meetings.

2. **Everyone is Equal:** We agree that all participants in the process are equal.

3. **No Relevant Topic is Excluded:** We agree that no relevant topics are excluded from consideration unless we agree they are. This is our opportunity to bring up and thoroughly discuss issues that concern us.

4. **No Discussion is Ended:** We agree that no discussion is ended, including process discussion, ground rules and rule of decision. Agreements reached at prior meetings, unless implemented, are always open for further consideration.

5. **Respect Opinions:** We agree to respect each other’s opinions. We will use gentle candor in comments to each other and will not interrupt.

6. **Respect the Time:** We all understand the time constraints we face and agree to respect the time. No one will dominate the discussions, and all participants will have an opportunity to express their opinions.
Consensus Based Decision Making

7. **Silence Is Agreement**: We agree that silence on decisions is agreement. The facilitators and other participants cannot read our minds. If it appears that the group is reaching a consensus on an issue, if no one voices disagreement, it is assumed that all are in agreement.

8. **Keep the Facilitator Accurate**: We agree to make certain that the facilitators capture what we meant to say. We will keep the facilitators accurate.

9. **Non-attribution**: We agree that we will not attribute ideas or comments made by participants to others outside of this process.

10. **Rule of Decision**: We agree that the rule of decision is Consensus, as described above. We agree to strive for consensus. If agreement by all participants on an issue is not possible, we will seek to develop a clear and balanced statement of the areas of disagreement. Neutrality by any participant does not constitute a lack of consensus.

11. **Media**: We agree that all of our meetings are open to the media and to the public unless we close all or a portion of them by consensus.

12. **Substitutes/Proxies**: We agree that we will not send substitutes or proxies. We may send observers to meetings, but they will not have participant status.

13. **Have Fun**: We agree to do our best to enjoy the process and to help other participants do so as well.
Consensus Based Decision Making

• In simple terms, consensus refers to agreement on some decision by all members of a group, rather than a majority or a select group of representatives. The consensus process is what a group goes through to reach this agreement. The assumptions, methods and results are very different from traditional parliamentary procedure or majority voting methods.

• In the traditional political/legal processes, one side wins and one side loses. Some issues come back time and again, or an issue may be so contentious that it is simply never resolved. By contrast, a public policy consensus dialogue is framed and agreements developed in a mutually beneficial way ensuring that no issue is “off limits” and that all essential stakeholders are on board.

• Acting according to consensus guidelines enables a group to take advantage of all group members’ ideas. By combining their thoughts, people can often create a higher-quality decision than a vote decision or a decision by a single individual. Further, consensus decisions can be better than vote decisions because voting can actively undermine the decision. People are more likely to implement decisions they accept, and consensus makes acceptance more likely.
Consensus Based Decision Making

What the Consensus Process Requires

• Consensus demands a high level of trust among the members of the group. People need to believe that each member is a fair and reasonable person of integrity who has the organization’s best interests at heart. There are no perfect groups or perfect individuals, but for consensus to work the members must believe that everyone is honestly doing their best.

Key Guidelines for Consensus Decision-Making

• Consensus building processes require active listening, open communications and patience. Participants are usually asked to agree to operate by consensus, use gentle candor, put interests and concerns on the table, attend meetings faithfully, remain flexible and demonstrate willingness to listen to proposals of other participants.
Variations on Basic Consensus

• No matter how well the discussion is carried forward, how good the facilitator and how much integrity and trust exist in the group, there sometimes comes a point where all are in agreement but one or two. At this point there are a few possible courses of action.

• One is to ask if the individuals are willing to be “neutral.” They may not agree with the decision, but they also do not feel that it is wrong, so they may be willing to have the decision go forward. Depending on the size and nature of the group, if more than one or two people want to remain neutral on a decision, the group should probably take another look at it.

• Another possibility is to lay aside the issue for another time. Although this alternative may create some difficulties, the world will likely continue to turn with or without a decision being made right now. The need to make a decision promptly is often not as important as the need to ultimately come to unity around a decision that has been well-crafted, taking the time it needs to do it right.
Consensus Based Decision Making

- A third possibility is that one or two people may simply stop the group from moving forward. At this time there are several key considerations. Most important, the group should see those who are withholding consensus as doing so out of their highest understanding and beliefs.

- Next, the individual(s) who are preventing the group from making the decision should also examine themselves closely to assure that they are not withholding consensus out of self-interest, bias, vengeance, or any other such feeling. A refusal to enter consensus should be based on a very strong belief that the decision is wrong--and that the dissenter(s) would be doing the group a great disservice by allowing the decision to go forward.

- This is always one of those times when feelings can run high, and it's important for the group not to put pressure on those who differ. It's hard enough to feel that you are stopping the group from going forward, without feeling coerced to go against your examined reasons and deeply felt understandings.
Consensus Based Decision Making

Some groups operate under a modified consensus approach called “Consensus-Minus-One.” What this means is that it takes more than one dissenting members to block consensus. One voice at odds with the rest is considered a workable way to go forward, but more than one is a sign that the decision should be re-thought. Consensus-Minus-One can be a reassuring arrangement for people who are new to the process of consensus decision-making, or in groups where members are not well acquainted enough to have the level of trust needed to commit to achieving full consensus. In practice, many groups have found that Consensus-Minus-One serves as a safety valve that rarely gets used. If even one member has strong reservations about a decision, it's often enough to keep the group searching for a better answer.
Breakout Discussion
Where is your system in development of an internal STEMI protocol?

- EMS Agencies able to do 12 L ECG. Pre hospital activation is in place. Established education for providers is in place.
- One Call system in place at PCI receiving facilities
- ALS/BLS rural hospitals and PCI hospitals. ALS services have STEMI Protocols. Part ALS have STEMI protocols and use them usually. 1 BLS services currently transmits 2 do not have the capability to do 12 L
- Rural hospital ED diagnose and transfer to PCI facility
- Mayo, Alex, Montevideo, SW White earth – most EMS services have Internal STEMI protocols. Hospitals have STEMI protocols in place in duration of 1-4 yrs.
- IHS - Reservation – providers are trained on 12 L ECG, no unified protocol yet
Where is your system in development of an internal STEMI protocol now?

- Not all clinics have bought into a need for STEMI Protocol yet
- Duluth – pre-hospital protocol in place since 2010, Hospitals since 2008
- ALS – existing STEMI protocols now. Medic Dx in the field and calls ahead to 1 call.
- Part-ALS – existing STEMI Protocol w/ Medic Dx and cath lab activation
- BLS – No STEMI protocol. Tx as a “chest pain” only.
  - 2 in this referral area have 12 L and transmission capability and do tx now including transfer to heart hosp.
  - 3 have 12 L no Dx or transmission available.
- Hospital – Madelia – EKG dx send to Mankato for 24 hr ER doc overview
- Dawson – acute coronary syndrome algorithm in place.
Is Pre-Hospital Activation of STEMI Response Team the standard of care at your facility, and what does that look like? Successes and Barriers.

- PCI (Mankato) hospital – Yes use “one call”
- Madelia – No pre-hospital, Dawson – Yes ACS algorithm
- Barriers: EMS Hesitate to call from the field
  - “fake STEMI” =FEMI
  - Unable to ID STEMI’s in the field
  - Vague Symptoms and unable to Dx due to lack of 12 Lead ECG
  - Small referring hospitals hesitate to send pts for PCI
  - Transportation barriers – Air unavailable, BLS unable to leave town etc.
  - Education piece: mindset change needed regarding 10 min scene time.
  - Rural MN Cell phone connectivity limitations
Is Pre-Hospital Activation of STEMI Response Team the standard of care at your facility, and what does that look like?

**Successes and Barriers:**

- **Barriers:** Community/Public education to utilize 911 system instead of use of family car
- Education of clinics as well as hospitals that Time is Muscle
- Field Identification of STEMI
- Equip all trucks in community with upgrades for 12 L and education.
Is Pre-Hospital Activation of STEMI Response Team the standard of care at your facility, and what does that look like?

Success and Barriers:

- **Successes**: Culture of “no blame” for making the call
- Feedback to EMS ASAP
- SC Region will establish a M: L taskforce including EMS and clinics
- North EMS 10 min from First medical contact to dx and hospital notification
- Education piece: mindset change needed regarding 10 min scene time.
- Mayo, St Cloud, Fargo, Duluth, Grand Forks, Sioux Falls, Bemidji all have STEMI Teams in place
What are your do expect to accomplish personally or/and as a group through this project?

- Collaboration with OOCA work in MN
- Rural EMS Providers and how to best help them with protocols and equipment needs
- Outlying patient destination plan development – how to best help them triage those patients to the most appropriate facility
- BLS Service 12 L equipment capabilities
- Community Education Need – when to call 911?? AED role in MN
- Standardized Care for STEMI and Cardiac Arrest patients
- Improved coordination in 1 call system activation
- Shared Practices
What are your do expect to accomplish personally or/and as a group through this project?

- Breaking down barriers and increasing buy-in among the Native American reservation communities that time is muscle.
- Preserving a role for Rural Hospitals in the plan and guideline development.
- MN Standardized protocols – past experiences. Twin Cities protocol recommendations couldn’t be brought to consensus.
- A rural STEMI Protocol recommendation – to stand beside the Metro recommendations.
- Community education and decreasing the time from symptom onset to First medical contact.
- Increase Confidence and Competence for Smaller EMS agencies.
- Data Sharing and Feedback Loop Communication.
What are your do expect to accomplish personally or/and as a group through this project?

- Guideline based Best Practice for Destination Protocols supported by Legislation
- No one wants to be wrong, and no one wants to be yelled at.
- Better training for EMS
- Better partnering…. All players in System of Care, including competitors
- Better and more consistent Data Feedback
- (Example, in referring hospitals is sending to more than one PCI center the data feedback is in different levels or different format.)
What are your do expect to accomplish personally or/and as a group through this project?

- Smaller and larger hospitals need more resources to enter and use the data
- ACTION Registry limitations
- Desire to eliminate duplicate data collection and duplicate efforts in general for anything STEMI
- Need a Long Term Plan for sustainability for this project, well beyond the 3 year grant.
  - Will the MN Dept. of Health be in on it, and help sustain it?
  - What will the AHA do for us down the road?
- Discussed legislative barriers for EMS to transport to certain hospitals, with lack of clarity for bypass, or lack of bypass protocols and legal/financial support.
- Some small hospitals don't want to give up their patients.
What are your do expect to accomplish personally or/and as a group through this project?

- Do we need a metro protocol and a Rural STEMI Protocol?
  - Desire to standardize destination protocols.
  - Standardize a STATE protocol?
- More public education.
- Reduce symptom onset to 911
- To not lose site of the hard work that was already done in Minnesota several years ago.
- To motivate participation and representation from all areas of the state
- To allow this project to be successful and sustained
PCI Receiving Hospitals

• What mechanism is your facility currently utilizing for STEMI Data Collection, Quality Improvement, Outreach and Feedback?
  
  – What is the level of support for ACTION GWTG – ARG Participation at your facility?

• What are the greatest barriers within your network to achieving a 90 - 120 min FMC to Primary PCI reperfusion in your area?

• How do we break down political barriers and develop a unified voice for MN?
What are the barriers to implementing pre-hospital 12 L ECG with a mechanism for field recognition and hospital pre-activation of STEMI patients?

What do you think the greatest barrier will be in working with your local hospital and medical directors to developing pre-hospital STEMI identification method?

Where are the greatest needs in training and understanding STEMI recognition and Prehospital activation among the EMS community?
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