Rusk County WI
Sustainability Assessment
May 2017

Aarron Reinert, MA, NRP
Ben Wasmund, BA, NRP
Tom Fennell, BA EMT
Introduction

• Who we are
• About this project
  – Assessing sustainability/reliability
  – Limitations
• About this presentation
• Executive report
• Our methodology
5 Recommendations

• Create a vision for a single integrated EMS service that serves all community needs (all stakeholders, transfers, assess willingness to pay)

• Create detailed design and implementation plan (long-term sustainable, reliable, efficient, performance and data driven)

• Identify possible and appropriate funding resources (leverage community support, account for donated labor)

• Identify an appropriate home for EMS (healthcare focus, possible revenue streams, business infrastructure, long-term sustainable)

• Resolve any conflicts and operational short falls that prevent interfacility transfers
10 Key Observations

1. EMS is a vital, desirable, and expected element of healthcare and quality of life in Rusk County, WI.

2. Today there appears to be four independent services within Rusk County with their own rules, customs, norms and cultures.

3. EMS has always been and will likely need to be subsidized going forward.

4. There are already significant EMS resources (some tapped, some untapped) within Rusk County.

5. The current EMS system design is inefficient and not providing a significant community need and revenue stream – ALS interfacility transfer.

6. The organizational culture and service leadership does not support a “best workplaces” environment.

7. As operating today, Rusk County Ambulance Service is not sustainable, may be out of compliance with state requirements, and is not meeting the needs of the community.

8. There is a lack of clarity around what residents are willing to pay.

9. Financial resources are not fully maximized.

10. The relationship between the hospital and the ambulance appears to be harming both organizations.
# EMS Resources in Rusk Co WI

**Operational Resources**

<table>
<thead>
<tr>
<th>Calls (2016)</th>
<th>1346</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce</td>
<td>207</td>
</tr>
<tr>
<td>Hawkins</td>
<td>39</td>
</tr>
<tr>
<td>Ladysmith</td>
<td>783</td>
</tr>
<tr>
<td>Ladysmith 2nd truck</td>
<td>76</td>
</tr>
<tr>
<td>Sheldon</td>
<td>241</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employees</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors</td>
<td>0.2 FTE</td>
</tr>
<tr>
<td>Biller</td>
<td>0.5 FTE</td>
</tr>
<tr>
<td>Paramedic</td>
<td>0 active</td>
</tr>
<tr>
<td>AEMT</td>
<td>1</td>
</tr>
<tr>
<td>EMT</td>
<td>39</td>
</tr>
<tr>
<td>EMR</td>
<td>13</td>
</tr>
</tbody>
</table>

**Financial Resources**

<table>
<thead>
<tr>
<th>Billing Financial Resources</th>
<th>$715,613.55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Expenses</td>
<td>$783,067.68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vehicles</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce</td>
<td>1</td>
</tr>
<tr>
<td>Hawkins</td>
<td>1</td>
</tr>
<tr>
<td>Ladysmith</td>
<td>2</td>
</tr>
<tr>
<td>Sheldon</td>
<td>1</td>
</tr>
</tbody>
</table>
Historical Call Volume

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladysmith</td>
<td>625</td>
<td>777</td>
<td>822</td>
<td>778</td>
<td>783</td>
</tr>
<tr>
<td>Ladysmith 2nd</td>
<td>192</td>
<td>178</td>
<td>145</td>
<td>81</td>
<td>76</td>
</tr>
<tr>
<td>Sheldon</td>
<td>200</td>
<td>358</td>
<td>322</td>
<td>329</td>
<td>241</td>
</tr>
<tr>
<td>Bruce</td>
<td>283</td>
<td>350</td>
<td>207</td>
<td>165</td>
<td>207</td>
</tr>
<tr>
<td>Hawkins</td>
<td>72</td>
<td>113</td>
<td>87</td>
<td>81</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>1372</td>
<td>1776</td>
<td>1583</td>
<td>1434</td>
<td>1346</td>
</tr>
</tbody>
</table>

Data Source: WARDS
Historical Call Volume with Transfers

Data Source WARDs
ALS Transfers ended in 2013
1. EMS is a vital, desirable, and expected element of healthcare and quality of life in Rusk County, WI.

   • Demographics, geography, climate, distances, and the limits of local medical specialties create an important need for EMS in Rusk Co WI.

   • Overwhelming support within the community
     – Quality of care
     – Felt it is needed
     – Expressed a willingness to pay for it
2. Today there appears to be four independent services within Rusk County with their own rules, customs, norms and cultures.

- Employees report they are only trained to work at a specific location
- Location specific training and meetings
- Some employees reported not knowing employees at other locations
- Base specific norms, culture, expectations
- Possible geographic restrictions
3. EMS has always been and will likely need to be subsidized going forward.

- Donated labor continues to be the largest subsidy of the system
- It is unlikely that fee for transport will provide enough financial resources to close the gap between expenses and revenues
- As volunteerism continues to decline, and clinical and operational expectations continue to grow, they will be the need for more paid staff
Current Clinical Salary Costs

- 2012: $300,000.00
- 2013: $290,000.00
- 2014: $300,000.00
- 2015: $310,000.00
- 2016: $320,000.00
Total Clinical Labor Costs with Donated Labor

Year | Salary Costs | Donated Labor | Total Labor Costs
--- | --- | --- | ---
2012 | $200,000.00 | $400,000.00 | $600,000.00
2013 | $200,000.00 | $400,000.00 | $600,000.00
2014 | $200,000.00 | $400,000.00 | $600,000.00
2015 | $200,000.00 | $400,000.00 | $600,000.00
2016 | $200,000.00 | $400,000.00 | $600,000.00
Current system is highly subsidized

Donated Labor vs Current Labor Costs (2016)

$1,359,195.22

$256,849.58

SafeTech Solutions, LLP
4. There are already significant EMS resources (some tapped, some untapped) within Rusk County.

- Current expenses vs revenues
- National averages for ambulances rates
- Outsourcing billing
  - Revenue per call
  - AR days
  - Aging report
  - Percent collected per call

SafeTech Solutions, LLP
Revenue vs Expenses

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Revenue</th>
<th>Total Expenses</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$932,273.55</td>
<td>$996,975.04</td>
<td>($64,701)</td>
</tr>
<tr>
<td>2013</td>
<td>$947,198.53</td>
<td>$961,679.37</td>
<td>($14,481)</td>
</tr>
<tr>
<td>2014</td>
<td>$920,744.46</td>
<td>$1,034,329.85</td>
<td>($113,585)</td>
</tr>
<tr>
<td>2015</td>
<td>$808,970.76</td>
<td>$1,186,280.28</td>
<td>($377,310)</td>
</tr>
<tr>
<td>2016</td>
<td>$715,613.55</td>
<td>$783,067.68</td>
<td>($67,454)</td>
</tr>
</tbody>
</table>

SafeTech Solutions, LLP
True Costs

Cost

Revenue per call

Cost per call

Cost with true labor


SafeTech Solutions, LLP
## Charges as Compared to National Averages

<table>
<thead>
<tr>
<th>Billing Levels</th>
<th>Current Rates</th>
<th>National Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mileage</td>
<td>$15/ mile</td>
<td>$30 - $40</td>
</tr>
<tr>
<td>ALS non-emergency</td>
<td>Not in use</td>
<td></td>
</tr>
<tr>
<td>ALS emergency</td>
<td>Not in use</td>
<td>$2,500 - $3,500</td>
</tr>
<tr>
<td>BLS non-emergency</td>
<td>$750</td>
<td></td>
</tr>
<tr>
<td>BLS emergency</td>
<td>$750</td>
<td>$1,000 - $2,000</td>
</tr>
<tr>
<td>ALS2 emergency</td>
<td>Not in use</td>
<td>$3,000 - $4,000</td>
</tr>
<tr>
<td>Specialized Critical Transport (SCT)</td>
<td>Not in use</td>
<td>$3,500 - $4,500</td>
</tr>
</tbody>
</table>

Quick math: Total expenses of $1,616,044.80 / 1346 responses = $1,200.63

But…You don’t get 100% back and you don’t transport 100% of patients

Your payer mix is 45% Non-gvt and 55% gvt = on average $0.45 on the dollar returned

Transport % is often 14% treat no transport, so...

Better math: Total expenses of $ 1,616,044.80 / 741 responses = $2,180.90 + 55% = $3,380.40 (doesn’t account for revenue possible from ALS transfers)
5. The current EMS system design is inefficient and not providing a significant community need and revenue stream – ALS interfacility transfer.
• Ladysmith 859 responses
  – 2 ambulances
  – 2.3 calls a day 2.4 calls a day
  – With ALS transfers 3.2 calls a day
  – In service 100%
• Bruce 207 responses
  – 1 ambulance
  – 0.6 calls a day
  – In service 62%

• Hawkins 39 responses
  – 1 ambulance
  – 0.1 call a day
  – In service 32%
• Sheldon 241 responses
  – 1 ambulance
  – 0.7 calls a day
  – In service 94%
  – One person covering 600+ hours a month

2016 Data
6. The organizational culture and service leadership does not support a “best workplaces” environment.

- Current leader is a 0.2 FTE
- There appears to be some tension within each location and between locations
- The long-term vision for the future is unclear
- Currently just sustaining
- Not everyone may trust the current leaders
- There might be unreasonable barriers to work and advancement
7. As operating today, Rusk County Ambulance Service is not sustainable, may be out of compliance with state requirements, and is not meeting the needs of the community

- Current system is unsustainable even with donated labor
- Number of locations not justified by current run volume
- WI law does not allow for part time ambulance services
- May be inconsistent with current operational plan
8. There is a lack of clarity around what residents are willing to pay

- The current volume and staffing model in several locations is not sustainable
- There are times when several locations are not available to respond to emergency calls
- It may not be necessary to staff four locations
- A group of concern citizens could be formed to gather information and communicate the challenges and costs in both locations.
Possible Future Model

- Ladysmith 1346 responses
  - Ladysmith 859
  - Bruce 207
  - Hawkins 39
  - Sheldon 241
- ALS Transfers 300
- Total 1646 per year
  - 2.3 calls a day per ambulance

- Two ALS Ambulances 24 hours a day
  - $750,000 per ambulance
  - 1.5 million total per year

- Current Revenues
  - $716,000 current patient revenue
  - $968,000 ALS transfer revenues
  - $1.6 million in possible revenue
  - Possible ALS 911 calls
  - Cost savings
9. Financial resources are not fully maximized

- Current rates
- Current internal billing practices
- Missing revenue from ALS transfers
  - Approx 300 ALS transfers
  - $2,500 base rate / $35 a mile (60 miles)
  - $967,500
- Consider researching if being part of a CAH Hospital might provide the ambulance with cost based reimbursement
10. The relationship between the hospital and the ambulance appears to be harming both organizations.

• As operating today, there can be significant delays for ALS transfers
• Delays and or the inability to provide timely transfers could have negative outcomes on patient care
• There seems to be a resistance to discussing possible solutions
• Collaboration between the two agencies is very limited
5 Recommendations

• Create a vision for a single integrated EMS service that serves all community needs (all stakeholders, transfers, assess willingness to pay)

• Create detailed design and implementation plan (long-term sustainable, relievable, efficient, performance and data driven)

• Identify possible and appropriate funding resources (leverage community support, account for donated labor)

• Identify an appropriate home for EMS (healthcare focus, possible revenue streams, business infrastructure, long-term sustainable)

• Resolve any conflicts and operational short falls that prevent interfacility transfers
5 Recommendations

1. Create a vision for a single integrated EMS service that serves all community needs (all stakeholders, transfers, assess willingness to pay)
   – Convene a facilitated committee of concerned citizens charged with creating a vision for a collaborative county wide EMS system, that is:
     • Data driven
     • Maximizes patient revenues
     • Is one organization, one culture, one structure
     • Creates a home/structure responsible for long-term sustainability, reliability, and viability
5 Recommendations

2. Create detailed design and implementation plan (long-term sustainable, relievable, efficient, performance and driven)
   – Ensure the system is designed as a business
   – See all transfers as important as 911
   – Develop meaningful roles within the system
   – Place leadership as important as clinical
   – Consider the “3 questions”
5 Recommendations

3. Identify possible and appropriate funding resources (leverage community support, account for donated labor)
   – Maximize current revenues
   – Resolve barriers to ALS transfers
   – Consider CAH EMS reimbursement
   – Consider direct community support
   – Account for true costs
   – Tell a powerful story
5 Recommendations

4. Identify an appropriate home for EMS (healthcare focus, possible revenue streams, business infrastructure, long-term sustainable)

   - Aligned for long-term sustainability, reliability, and viability
   - Needed business functions
     • HR, Billing, IT, AP, AR, etc
   - New and emerging revenue streams
   - Financial reserves to both transition from current model and weather reimbursement storms
5. Resolve any conflicts and operational short falls that prevent interfacility transfers

- No law prevents RNs from providing ALS care on ambulances
- Common throughout WI and nationally
- On the surface it's about laws, regulations, and liability, down deeper it's about a disconnect between EMS, hospital, and overall ownership of the organizations
- The disconnect is a major factor affecting the EMS agencies future