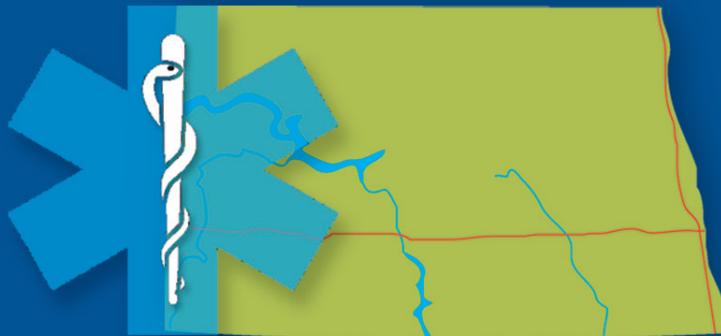


# How Good Is Your Ambulance Service?



## **A BASIC QUALITY KIT FOR RURAL NORTH DAKOTA AMBULANCE SERVICES**

**NORTH DAKOTA RURAL EMS IMPROVEMENT PROJECT  
ACKNOWLEDGES**

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**Janice Gordon for graphic design**

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# WHY Should You Care About QUALITY?

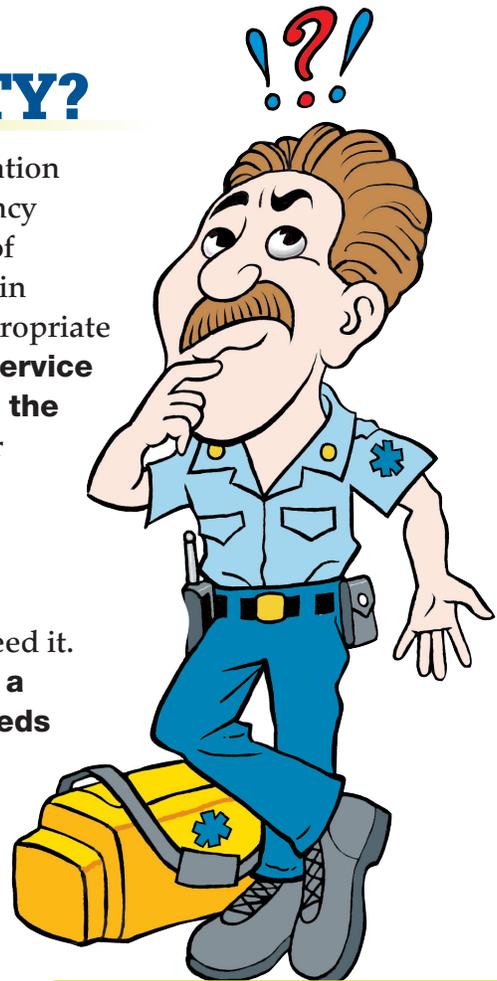
**W**ith the ongoing consolidation and regionalization of healthcare in rural North Dakota, Emergency Medical Services (EMS) continue to be a vital part of the rural healthcare system with an increasing role in ensuring prompt access to emergency care and appropriate transportation to care centers. **As an ambulance service and provider of EMS, you owe your community the highest quality service possible** — whether your patients are in a hotel in Fargo or on the roadside near Fortuna.

## YOUR PATIENTS EXPECT IT!

Most people don't think about EMS until they need it. But **when they do need EMS, they assume that a competent provider equipped to meet their needs will show up in a timely manner** — even in the most rural and remote parts of North Dakota. This expectation assumes that someone in the community is looking after the EMS system and ensuring that vehicles are stocked and fueled, providers are appropriately trained, and ambulances are staffed and ready to be on their way in a moment's notice.

## IN EMS, FAILURE IS NOT AN OPTION!

**For the person in need, failure is not an option.** Quality is the word we use to talk about assuring that the right personnel, equipment, vehicles and radios are always ready to respond and deliver the right care, in the right amount of time, to whomever needs help, whatever the emergency might be. Quality is about knowing how good your ambulance service is and exactly why, and how, you can make the claim that your service is good.



## EMS DEMANDS

- ✓ RIGHT **LEADERSHIP**
- ✓ RIGHT **PEOPLE**
- ✓ RIGHT **BEHAVIORS**
- ✓ RIGHT **ATTITUDE**
- ✓ RIGHT **EQUIPMENT**
- ✓ RIGHT **PROCEDURES**
- ✓ RIGHT **SKILLS**
- ✓ RIGHT **TIME**
- ✓ RIGHT **COST**

## **QUALITY IS...**

***DELIVERING THE SERVICE your community, customers and patients want and need, EVERY TIME.***

## **QUALITY Is Not Just a Buzzword**

**F**or some people quality is just a buzzword used by statisticians, MBA types and CEOs. This may be because quality is difficult to define. Most of us can easily describe the differences between good quality and poor quality when it comes to haircuts, driving skills or cooking. But what about your ambulance service? **How do you know if you are operating a good quality or poor quality ambulance service?**

### **ABOUT THIS KIT**

This Basic Quality Kit was not developed to tell you what good quality EMS should be for your community; rather, it was designed to help you identify some of the basic attributes that will contribute to a good quality ambulance service. **The kit was designed to help you take a look at your service from the perspective of your customers – the patients.** It is also designed to get you thinking about how to ensure that your service is consistently providing the kind of service your patients and customers want and need.

# WHY Should QUALITY Be an IMPORTANT Part of Your Ambulance Service?

**M**ore than 10 years ago, the Institute of Medicine found that 44,000 patients died annually from medical errors in the U.S. In 2006, the Institute of Medicine found that there was a widespread lack of accountability in EMS and provided three recommendations for EMS leaders:

- ① **Develop performance indicators**
- ② **Measure system performance**
- ③ **Disseminate performance information**

Rural ambulance services in North Dakota should use these three recommendations as the basic elements for building a Quality Management Program. Although it may sound complicated or sophisticated, a quality management program need not require a lot of time or effort to be effective. **When a Quality Management Program is applied as a continuous process, the rewards can be great.**



**A QUALITY MANAGEMENT PROGRAM IS THE SIMPLE COMMITMENT TO ENGAGE IN ACTIVITY IN WHICH YOU:**

- **IDENTIFY** what's important
- **MEASURE** what's important
- **INFORM** others about how you are doing with what's important

*Kohn, L., Corrigan, J., Donaldson, M. (Eds.), To Err Is Human: Building a Safer Health System, Washington, DC. National Academies Press, 2000.*

*Future of Emergency Care: Emergency Medical Services at the Crossroads, Washington, DC. National Academies Press, 2006.*

# Performance INDICATORS

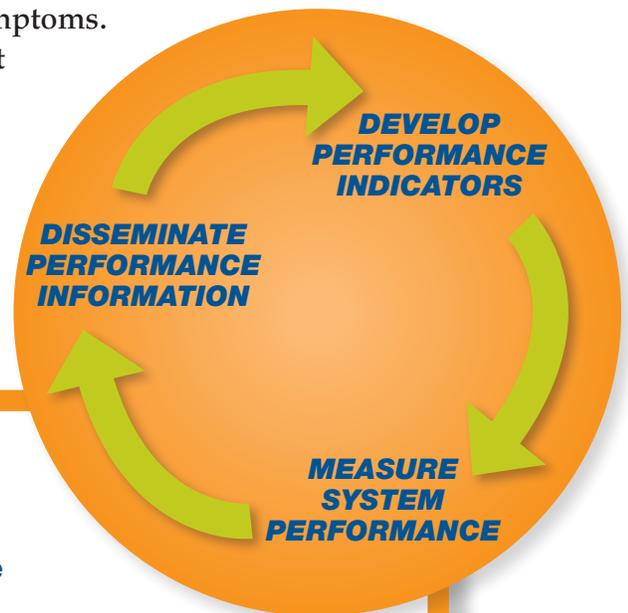
## WHAT'S A PERFORMANCE INDICATOR?

A Performance Indicator is simply something you can measure that gives you information about how well you are doing. Think about this practically. When someone calls for an ambulance, what matters to them? First and foremost they want help to arrive. They may also care about how fast you get there, whether or not you are kind to them, and whether or not the patient and family perceives that the caregivers know what they are doing medically.

We are trained to take care of various emergency medical conditions. We have medical protocols that require us to deliver certain medical treatments for certain medical conditions and then record that these treatments were done. A basic but important Performance Indicator is whether or not required treatments were delivered when indicated by the patient's signs and symptoms. Another basic but important indicator is whether or not treatments were recorded on the Patient Care Report.

## Performance Indicators are often described as goals

For example, a Performance Indicator and goal may be as simple as "The ambulance service responded to all calls for help with at least two trained personnel 100% of the time."



## SOME EMS PERFORMANCE INDICATORS

- **RESPONSE RELIABILITY:** how reliably the ambulance service responds to requests for help
- **CHUTE TIME:** the time from request to ambulance rolling toward call
- **RESPONSE TIME:** time from request to arrival at emergency scene
- **SCENE TIME:** time from arrival on scene to departure from scene
- **COMPLETED PATIENT CARE REPORTS:** report is complete, including vital signs and all times
- **SKILL PERFORMANCE SUCCESS:** a medical skill, such as airway insertion, was successfully performed
- **SERIAL VITAL SIGNS TAKEN ON ALL PATIENTS**
- **PATIENT CARE REPORTS MATCH MEDICAL PROTOCOLS:** PCRs reflect that medical protocols were properly followed
- **CRITICAL VEHICLE FAILURES:** vehicle fails and cannot complete response or transport

# MEASURING Performance

## HOW DO YOU MEASURE PERFORMANCE?

Measuring performance and keeping track of those measurement numbers allow you to compare how you are doing today with how you did in the past. Measuring performance also helps you measure how you are doing in comparison to other ambulance services. Most importantly, measuring performance helps you see how you are doing with a goal you may set. If your goal is to respond to all requests 100% of the time, measuring and recording helps you see how you are doing — especially over time.

How would you measure whether or not the ambulance service responded to all calls with two trained personnel 100% of the time? For most rural ambulance services, this would be measured on a monthly or quarterly basis and would require only two pieces of information:

- ❶ The total number of times the ambulance was requested.
- ❷ The number of times the ambulance actually responded with two trained crewmembers.

These numbers could be obtained from your own records or from your dispatch agency. To calculate your performance, divide the second number into the first number. For example, if you had 36 calls and responded to 35 of them, it would be 35 divided by 36, or 97%. This is 3% short of your goal. By looking at this number for a specific time period, and over time, it can provide a clear numerical picture of your performance.

Performance information can be illustrated with simple graphs to show how well you are or are not doing over time. This ambulance service measured response reliability (*see graphs below*). The first graph shows response reliability for each month. The second graph compares this year with last year.

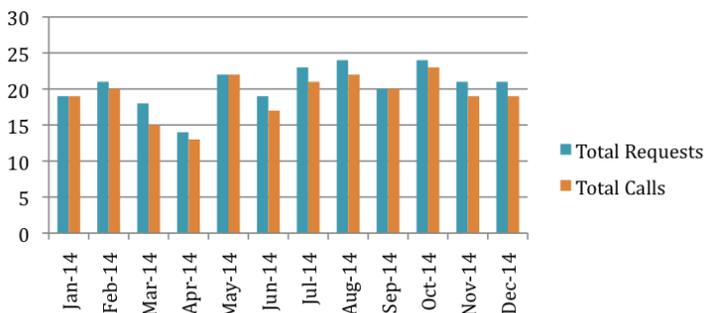
### CALCULATING YOUR PERFORMANCE

[EXAMPLE]

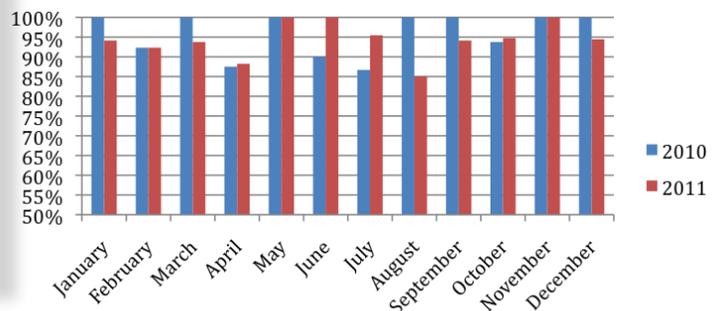
You receive 36 calls  
 You respond to 35 calls

$$35 \overline{) 36} \quad \underline{0.97}$$

**Sample Ambulance Service**  
 2010 Year Call Volume Data



**Sample Ambulance Service**  
 2010 - 2011 Call Reliability Comparison



# DISSEMINATING Performance Information

## HOW DOES DISSEMINATING INFORMATION HELP YOU?

By informing the people within your ambulance service and community about your performance over a period of time, you will be telling a story about your service. If someone asks about your performance, you can specifically say how good you are. If you want to improve your performance, you know exactly how much you have to improve to meet the performance indicators.

## WHO MAY BE INTERESTED IN PERFORMANCE INFORMATION?

- Ambulance service leaders and managers
- Ambulance service members
- Your Medical Director
- The people who rely on you in the community
- Local government officials
- The Division of EMS and Trauma
- Neighboring ambulance services

## A CAUTION:

**SHARING AMBULANCE SERVICE PERFORMANCE INFORMATION** with your community **DOES NOT INCLUDE** sharing **PATIENT INFORMATION** or the details of how your service is addressing **SPECIFIC CLINICAL ISSUES**. All patient information and the details of the specific calls your service or your Medical Director may review should **ALWAYS BE KEPT CONFIDENTIAL**.

## STORYTELLING MATTERS!

### *HERE'S HOW COLLECTING AND DISSEMINATING SPECIFIC DATA ABOUT YOUR SERVICE CAN HELP*

- If your performance is below what the public expects, having concrete numbers can help you know what you have to do to improve.
- Telling an appropriate and convincing story can help you acquire the community resources you need to meet expectations.
- When the community is informed of your agency's performance, the community shares the responsibility of making sure the service can be provided. That responsibility could be in the form of funding, staffing help, approving needed purchases, or in providing other resources that will enable you to improve the service.
- When collection data and reporting occurs continually, you are practicing continuous quality improvement!

# How Can You BUILD A BASIC QUALITY PROGRAM in Your Service?

To consistently know and report on how well you are doing, you need to make quality a part of your regular service activity. **Here's how you can build a basic quality program.**

## ① APPOINT A QUALITY COORDINATOR

Appoint a specific person in the service to be the Quality Coordinator. This person should care about how well the ambulance service is doing and be comfortable in using basic computer tools such as Microsoft Excel and e-mail, but they do not need to be a computer expert!

## ② IDENTIFY AREAS OF PERFORMANCE

Charge the Quality Coordinator with identifying areas of performance that are important to the ambulance service and the community. This can be done by talking with the service members, the Medical Director, the Service Director, elected officials, hospital staff, and the public to identify areas of performance that are locally important. The Quality Coordinator should be given access to any information or tools needed to evaluate the areas of performance that are thought to be important to the community. Areas of performance might be: response reliability, response times, protocol compliance, or certain specific clinical areas, such as trauma, strokes or cardiac arrests.

## ③ START WITH A SIMPLE CHECKLIST

Many Quality Coordinators find a checklist to be a good starting point. A checklist can be very simple and need not require the use of a calculator. A simple checklist asks YES or NO questions about performance. As the quality program is developed, the checklist can be refined and tuned to the individual needs of the ambulance service. To get you going, we have provided a sample rural ambulance service quality checklist.



# The QUALITY CHECKLIST

The North Dakota Rural EMS Improvement Project team has spent considerable time discussing and learning about the areas of performance in North Dakota EMS that are critical to providing quality ambulance services within the state. Based on these discussions and the project team's experience in quality management, the sample checklist presented in this kit has been designed to help you get started in managing the quality within your service. Below is the rationale for some of the items on the checklist.

The checklist addresses key areas of performance from the perspective of the patient and customer. Obviously, when a person calls 911 for an ambulance, the expectation is that an ambulance will respond. But the expectation is for more than just a vehicle with wheels; it is for a competent, trained and equipped crew to arrive to manage the scene and address

the patient's needs in a timely manner appropriate for the location and the actual emergency. Because of volunteer staffing challenges, sometimes an ambulance is unable to respond in a timely manner, or a neighboring ambulance service is required to handle the call.

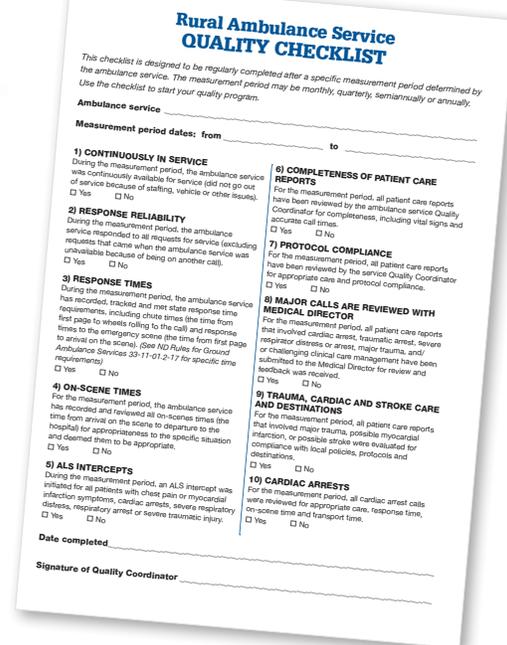
If the patient's needs are above the capabilities of the initial responders, there is an expectation that a higher level of care be requested to intercept and provide that higher level of care. This could be an Advanced Life Support intercept by a ground or helicopter.

On a regular periodic basis (whether monthly or quarterly is appropriate will depend on the call volume and actual events), the Quality Coordinator should review the patient care reports submitted

for all calls to ensure every report reflects the ambulance service's protocols and procedures. Patient care reports with complicated patient care or reports for specific types of patients should be

reviewed with the Medical Director. The resulting findings should be used to revise protocols and procedures (if needed) or provide feedback into the training program of the ambulance service. By doing these few things, you can provide good quality services to your community.

The checklist, or any other tool you use, should be repeated over time to show whether things are improving or need attention. How often this is repeated will depend on the ambulance service and how busy you are. It could be repeated as often as monthly; or for low-call volume services, once per quarter or twice per year may be sufficient. Once you are regularly checking, you are practicing Continuous Quality Improvement!



**Can you consistently answer YES to ALL TEN QUESTIONS on the checklist ?**

# WHAT CAN YOU DO When a Performance Goal Is Not Being Met?

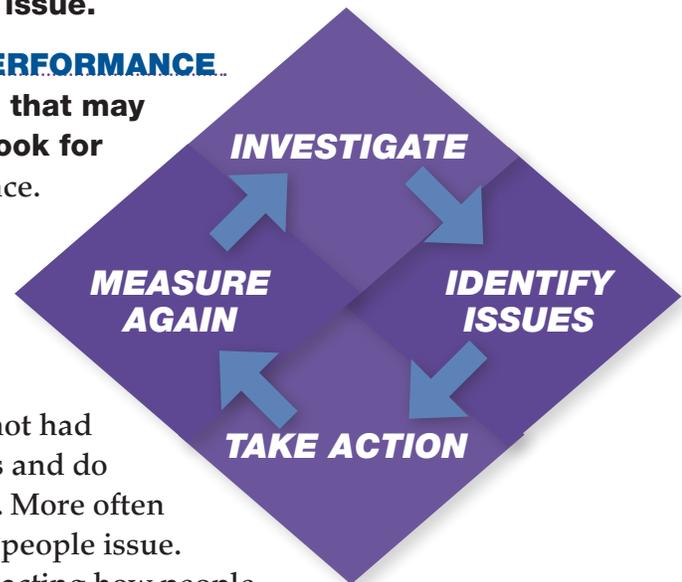
**L**et's suppose you find that Patient Care Reports (PCR) are not being fully completed with response times and vital signs. What should you do? Here is a simple four-step process.

## ① INVESTIGATE THE ISSUE

Make the issue a topic of exploration. **Learn all you can about the issue. Be open-minded.** Don't assume the problem is just people being lazy. Consider all the processes in completing PCRs. Talk to EMTs and paramedics. Ask people for input. Do not make the investigation about blaming people or pointing fingers. **Seek to truly understand the issue.**

## ② IDENTIFY SPECIFIC ISSUES IMPACTING PERFORMANCE

Specifically **identify system or process issues that may be impacting performance and specifically look for people issues** that may be impacting performance. A system or process issue may be that the EMT or paramedic does not have enough time to complete the form after the call because your service has a practice of leaving the hospital immediately after delivering a patient. A people issue may be that the EMTs or paramedics have not had the appropriate education or training about PCRs and do not recognize the importance of completed PCRs. More often than not, the issue is a system issue rather than a people issue. Make sure you look at how system issues are impacting how people respond and behave.



## ③ TAKE APPROPRIATE ACTION

If you discover the performance problem is a system or process issue, **involve the service leadership and staff in changing the system or process.** If the issue is a people or person issue, provide the necessary information, counsel, or education and training to **ensure that people have what is needed to meet the expected performance.**

## ④ MEASURE AGAIN

After taking action and giving the action time to be incorporated, **measure the performance again and see if the action improves performance.** If performance is improved, continue the actions. If performance is not improved, once again investigate, identify issues and take appropriate action.

## CAUTIONS WHEN CONSIDERING PERFORMANCE ISSUES AVOID:

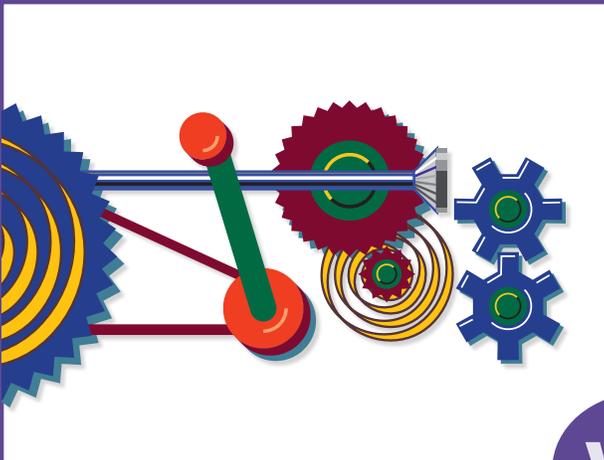
### **KNEE-JERK REACTIONS**

A simple problem can be made much worse if we respond with blame, globalizing or a complicated solution that is not well thought out. Before enacting changes, consider the issue and put into place fixes that are appropriate for the issue. If the issue is a system-wide issue, it will probably require a fix that is applied to the whole system, but, on the other hand, if it is an individual issue, address the individual.

### **10 DOLLAR FIXES FOR 10 CENT PROBLEMS**

Keep in mind the severity of an issue to avoid putting into place a 10 dollar fix for a 10 cent problem. For example, spending a large sum of money and time redesigning your entire PCR reporting system with new computers and software to remind providers to complete their PCRs is the wrong approach when a simple policy change and some education can do the trick.

## IDENTIFY ISSUES



**SYSTEM ISSUES**



**PEOPLE ISSUES**

**VS.**

# Quality Is a CONTINUOUS PROCESS

Remember, quality is a continuous process that involves identifying the features that are important to the quality of the services you provide, measuring those features, and reporting on them.

Using an Excel spreadsheet to record your data can be easy.

This ambulance service recorded its response reliability (how many of the calls for help they were actually able to respond to) on a spreadsheet for one year.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Sample Data	911 Requests	Interfacility Requests	911 Actual	IFT Actual	Total Requests	Total Calls	Percent 911	Percent Made				
2	1/1/11	17	6	16	6	23	22	94%	96%				
3	2/1/11	13	11	12	10	24	22	92%	92%				
4	3/1/11	16	11	15	10	27	25	94%	93%				
5	4/1/11	17	8	15	5	25	20	88%	80%				
6	5/1/11	20	7	20	6	27	26	100%	96%				
7	6/1/11	13	9	13	8	22	21	100%	95%				
8	7/1/11	22	11	21	10	33	31	95%	94%				
9	8/1/11	20	9	17	5	29	22	85%	76%				
10	9/1/11	17	8	16	8	25	24	94%	96%				
11	10/1/11	19	5	18	5	24	23	95%	96%				
12	11/1/11	15	7	15	6	22	21	100%	95%				
13	12/1/11	18	11	17	10	29	27	94%	93%				
14													
15													
16													

Maka a column for the data you wish you record:

**Column A – is the month**

**Column B – is the requests for 911 emergencies they received**

**Column C – is the requests for interfacility transfers**

**Column D – is the 911 requests they were able to fulfill**

**Column E – is the interfacility transfers they were able to fulfill**

**Column F – is the total number of requests for service**

**Column G – is the total number of times the service was able to respond**

**Column H – is the performance percentage for 911 calls**

**Column I – is the performance percentage for interfacility transfers**

## **ADJUSTING THE QUALITY PROGRAM FOR LOCAL NEEDS**

**THE BASIC CHECKLIST SERVES AS A STARTING POINT** for services that do not have a formal quality program. It is not intended to be used one time and forgotten, nor is it intended to become a fixed static checklist used in its original form by everyone forever. With the cooperation of the ambulance service leader, Quality Coordinator, Medical Director and service members, **THE CHECKLIST SHOULD CHANGE OVER TIME AND ADOPT NEW OR CHANGED INDICATORS** of performance that are easily measurable and **IMPORTANT FOR YOUR COMMUNITY.**

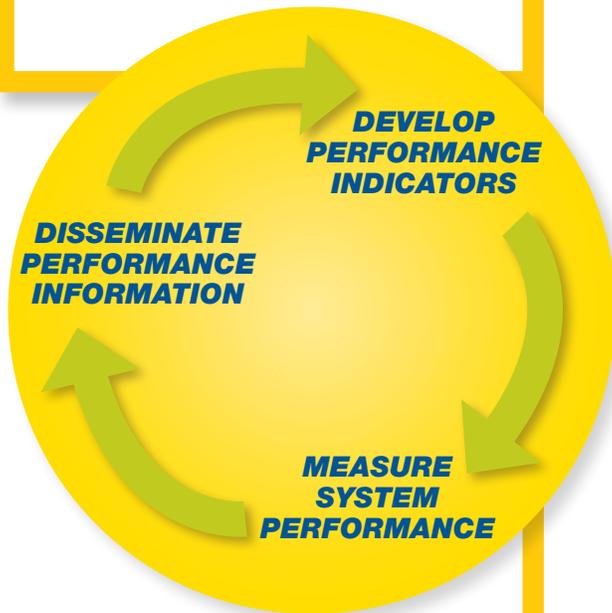


## **TALK TO OTHER AMBULANCE SERVICES**

Each service has its own culture, environment, and own way of finding solutions. However, **MUCH CAN BE LEARNED FROM COMMUNICATING WITH OTHER AMBULANCE SERVICES.** The North Dakota Rural EMS Improvement Project encourages communication between ambulance services to share successes and challenges. Learning from each other often **PROVIDES IDEAS, SHORTCUTS AND BEST PRACTICES FOR IMPROVING YOUR OWN PERFORMANCE.** The North Dakota Rural EMS Improvement Project has established Regional Consultants to provide assistance to ambulance services and facilitate communication between services. Regional Consultants can be accessed through the Division of EMS and Trauma.

*FOR ADDITIONAL HELP CONTACT:*

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