Center *for*
Rural Health

University of North Dakota
School of Medicine & Health Sciences

# North Dakota Rural Hospital Quality Improvement Report

Marlene Miller, MSW
Robin Medalen, MSW

June 2006

*Connecting resources and knowledge to strengthen
the health of people in rural communities.*

*North Dakota Rural Hospital*

*Quality Improvement Report*

*June 2006*

**Completed by:**

**North Dakota Medicare Rural Hospital**
**Flexibility Program (Flex)**
**Marlene Miller, MSW**
**Robin Medalen, MSW**

**Center for Rural Health**
**University of North Dakota**
**School of Medicine and Health Sciences**
**Grand Forks, ND 58202-9037**

# Table of Contents

### I.        OVERVIEW

In December 2005 the North Dakota Medicare Rural Hospital Flexibility Program (Flex) administered a statewide rural hospital quality improvement survey.  The survey was sent to all rural hospital administrators and Directors of Nursing.  Each facility was asked to complete and submit one survey.  Eighty-five percent (85%, N=33) of North Dakota's rural hospitals completed this survey; including, 84% (26 of 31) of Critical Access Hospitals (CAH) and 87.5% (7 of 8) of rural non-CAH facilities (including both IHS facilities).

The Flex Program, and its partners (including rural hospitals), are involved in varying quality improvement initiatives throughout North Dakota.  The results of this survey have already been used to inform such initiatives and will continue to be used for planning purposes.  This report is being shared with **all** hospitals in North Dakota, the ND Department of Health, the ND Healthcare Association, the ND Healthcare Review (QIO), and other programmatic areas within the UND Center for Rural Health.  **Special thanks to the ND Healthcare Review, Inc. (QIO) and Dr. Mary Wakefield, Director, Center for Rural Health who assisted with the development and analysis of the survey.**

This report presents data using the format of the original survey.  It provides summary information and aggregate raw frequencies.  The results have been color-coded to depict information from Critical Access Hospitals (green) and rural PPS hospitals (blue).  This is done so that the reader could consider each group; it is not done for the purposes of comparing the two groups.

Questions regarding the survey and this report may be directed to Marlene Miller, Project Director at 701.777.4499 or marlenemiller@medicine.nodak.edu.  An electronic copy is also available at: http://medicine.nodak.edu/crh/pdf/QISurveyHospitalReport6-06.pdf

**II. ORGANIZATIONAL INFORMATION**

**Green: Critical Access Hospital (CAH) Results**
**Blue: Rural PPS Hospital (non-CAH) Results**


**1. Does your hospital's vision or mission statement include a commitment to healthcare quality?**

| Yes | No |
|---|---|
| 84.6% (N=22) | 15.4% (N=4) |
| 100% (N=7) | 0% |


**2. Who in your organization has a <u>defined</u> role in healthcare quality improvement (different from quality assurance) efforts? AND What percentage of their time is spent on quality improvement-related activities?**

In all rural facilities, multiple positions have a defined role in quality improvement activities (for example, Directors of Nursing, risk managers, administrators, department managers, and board members).

Note: *Responses identified both quality assurance and quality improvement activities which made it difficult to interpret the results from this question.*


**3. Has your hospital conducted a patient safety culture survey <u>of staff</u> within the last <u>two</u> years?**

Overall, about 30% (N=10) of those surveyed have conducted a patient safety culture survey of staff.

Of the PPS hospitals, 71% (N=5) have done so.
Of the CAH facilities, 19% (N=5) have done so.

**III.    QUALITY IMPROVEMENT**

**1.    Please explain the quality improvement initiatives that your hospital is currently working on.**

Responses can be grouped into 3 major categories of quality improvement initiatives:

1) **Core/CMS Measures**
The majority (70%, N=23) of respondents are working on quality improvement initiatives involving Core or CMS measures including acute myocardial infarction (AMI), heart failure, pneumonia and/or obstetric care.  The CAH and non-CAH hospitals reported working on Core Measure/CMS topics at a similar rate (CAH = 69%, N=18; non-CAH = 71%, N=5).

2) **Patient Safety**
25% (N=6) of CAHs report working on patient safety quality improvement projects.
100% (N=7) of PPS hospitals report working on patient safety quality improvement projects.

3) **Institute of Healthcare Improvement (IHI) Project**
12% (N=3) of CAHs report working on the IHI Saving 100K Lives campaign.
57% (N=4) of PPS hospitals report working on the IHI Saving 100K Lives campaign.

**2.    Please describe areas that you are NOT currently working on, but are interested in:**

Overall, the most frequently cited topics of interest not being worked on were:

1) CMS measures;
2) Medication reconciliation;
3) Health information technology; and
4) Patient transfer issues.

**3.    Please review each of the areas below and indicate the degree of significance you feel is associated with implementing healthcare quality improvement initiatives:**

**See the table below for specific percentages to each area; overall:**
- About 85% (N=28) of hospitals did not see *obtaining assistance from **statewide organizations*** as a problem.
- More than 75% (N=25) of all hospitals indicated ***financing** quality improvement initiatives* as a problem.
- 46% (N=12) of CAHs reported ***knowledge** of quality improvement* as a problem.
- Fewer than 10% (N=3) of all hospitals saw ***leadership buy-in*** as a significant problem.
- 92% (N=24) of CAHs and 57% (N=4) of PPS hospitals reported that ***staff time*** is a problem with implementing healthcare quality improvement initiatives.

- Nearly 80% (N=26) of all hospitals report a problem with **technology** as a quality improvement initiative.
- **Physician participation** in quality improvement initiatives is reported as a problem by over 70% (N=23) of hospitals.
- The majority (85%, N=28) of hospitals do not perceive **board participation** as a barrier to implementing quality improvement initiatives.

| The Significance of Varying Factors with Implementing Healthcare Quality Improvement Initiatives for North Dakota's Rural Hospitals | | | | | |
|---|---|---|---|---|---|
| **Initiative** | **No Problem** (1) | **Minor Problem** (2) | **Problem** (3) | **Moderate Problem** (4) | **Severe Problem** (5) |
| a. Obtaining assistance from statewide organizations | 38.5% 57.1% | 38.5% 28.6% | 15.4% 14.3% | 3.8% 0% | 0% 0% |
| b. Financing quality improvement initiatives | 0% 0% | 23.1% 28.6% | 15.4% 28.6% | 38.5% 14.3% | 23.1% 28.6% |
| c. Knowledge of quality improvement | 11.5% 57.1% | 42.3% 28.6% | 30.8% 0% | 11.5% 14.3% | 3.8% 0% |
| d. Leadership buy-in | 46.2% 57.1% | 42.3% 42.9% | 3.8% 0% | 3.8% 0% | 3.8% 0% |
| e. Staff time | 0% 14.3% | 7.7% 28.6% | 30.8% 28.6% | 26.9% 14.3% | 34.6% 14.3% |
| f. Technology | 3.8% 0% | 15.4% 28.6% | 42.3% 42.9% | 19.2% 14.3% | 19.2% 14.3% |
| g. Physician participation | 11.5% 0% | 19.2% 14.3% | 46.2% 28.6% | 11.5% 14.3% | 11.5% 42.9% |
| h. Board participation | 34.6% 57.1% | 46.2% 42.9% | 15.4% 0% | 3.8% 0% | 0% 0% |

Center for Rural Health
University of North Dakota
School of Medicine & Health Sciences

### IV.    DATA COLLECTION - MEASUREMENT

1.    **If your hospital collects data on specific measures of healthcare quality, please answer the following questions:**

   a.    **What measures are currently being collected?**

   A large majority of the responding hospitals reported that the measures they are collecting are the CMS/JCAHO Core measures for acute myocardial infarction (AMI), heart failure, pneumonia, etc.  Six (18% of all rural hospitals who answered this question) reported collecting data on national patient safety topics such as falls and medication errors.

   b.    **How are the measures selected?**

   Hospitals most frequently selected their measures consistent with the ND Healthcare Review, Inc. (QIO), CMS, and/or JCAHO initiatives.  As well, a handful reported selecting measures to meet the needs of the State Health Department.

   c.    **What data collection tool(s) do you use?  (e.g., vendor, CART)**

   Many of the hospitals are currently using, or intend to use CART (CMS Abstraction and Reporting Tool) to collect data.  This data collection tool is provided free of charge by CMS. The non-CAH JCAHO hospitals also report using an ORYX vendor tool such as Solucient. A few of the CAHs are using a manual/paper system.

2.    **How does your hospital use its healthcare quality data?**
      **(Check all that apply)**

   Built into your strategic plan
   42.3% (N= 11 CAHs)
   57.1% (N=4 PPS hospitals)

   Posted on CMS Hospital Compare website.
   50.0%  (N=13)
   85.7%  (N=6)

   **If not, why?  Please explain:**
   - Lack of staff time to appropriately follow CMS guidelines
   - Not familiar with CMS usage
   - Staff in process of training for CART- STAR is being done
   - Not mandatory & physicians were not supportive
   - Too small a sample to score
   - Just started
   - Looking for <u>qualified</u> QA Coordinator prior to participating- difficult to find someone who understands <u>quality</u>

Presented at board meetings
76.9%, N=20
100%, N=7

Reviewed by department managers
84.6%, N=22
100%, N=7

Shared at staff meetings
92.3%, N=24
71.4%, N=5

Shared with public
11.5%, N=3
42.9%, N=3

Used to identify areas for improvement
88.5%, N=23
100%, N=7

Used to benchmark internally (i.e. identify your facility's trends)
80.8%, N=21
85.7%, N=6

Used to benchmark with other rural hospitals
53.8%, N=14
71.4%, N=5

3. **Does your hospital use tools such as clinical guidelines to support the practice of evidence-based medicine?**

**Yes**                **No**
65.4% (N=17)      34.6% (N=9)
85.7% (N=6)       14.3% (N=1)

**If yes**, do you validate whether your guidelines are being followed/used?

**Yes**                **No**
65.4% (N=17)      34.6% (N=9)
57.1% (N=4)       28.6% (N=3)

**4.      Is your hospital preparing for future third party reimbursement systems that will link reimbursement to healthcare performance?**

**Yes**                          **No**
30.8%  (N=8)              65.4% (N=18)
71.4%  (N=5)              28.6% (N=2)

**If yes, please describe:**

- The CART program may eventually lead to reimbursement for CAH facilities.

- Just trying to get physician buy-in & implementing standing orders so areas are not neglected.

- Working on educating physicians regarding information technology. Participating with the ND Healthcare Review, Inc. (QIO) Study, trying to use "standing order protocols".

- This is through Trinity and they are beginning the process.

- Starting to measure quality, commit to a program.

- Electronic medical records.

- Have discussed the issue but no action plan developed.

- Becoming more aware of what will be needed and implementing.

- Monitoring this situation and working on internal reporting to match what we are seeing in this area.

- Our GPRA Indicators measure our performance and these are tied to budget.

- Through the actions taken from review/evaluation of studies. Computerization initiated primarily to improve safety and quality.

- By participating in the CMS Quality Initiatives.

- I need assistance in gathering the data. Although we transfer many patients to larger facilities there are still some guidelines that need to be followed prior to transfer such as "aspirin on arrival" for patients experiencing chest pain.

### V.    BOARD OF DIRECTORS

Please review each of the following and indicate the frequency that your board addresses each of the following activities.

**See the table below for specific percentages to each area; overall:**

- Nearly all boards *review a report on the hospital's performance on clinical healthcare quality measures* on at least an occasional basis and 45% (N=15) review them on an on-going basis.

- Less than half of boards (45%, N=15) *establish clinical outcome expectations or targets to ensure healthcare quality improvement* on at least an occasional basis.

- Over 90% (N=30) of boards *review and discuss healthcare quality reports that provide comparative statistical data about the hospital's clinical services and patient care* on at least an occasional basis.

- Nearly 65% (N=21) of boards *receive formal continuing education in the area of healthcare quality assurance/performance* on at least an occasional basis.

| Frequency of Varying Quality Improvement Activities by Rural Hospital Board of Directors | | | | |
|---|---|---|---|---|
| **Activity** | **Never (1)** | **Occasionally (2)** | **Often (3)** | **Ongoing (4)** |
| a. Review a report on the hospital's performance on clinical healthcare quality measures. | 7.7%<br>0% | 34.6%<br>42.8% | 11.5%<br>14.3% | 46.2%<br>42.9% |
| b. Establish clinical outcome expectations or targets to ensure healthcare quality improvement. | 57.7%<br>42.8% | 26.9%<br>14.3% | 3.8%<br>28.6% | 11.6%<br>14.3% |
| c. Review & discuss healthcare quality reports that provide comparative statistical data about the hospital's clinical services and patient care. | 11.5%<br>0% | 50.0%<br>28.6% | 11.5%<br>28.6% | 27%<br>42.8% |
| d. Receive formal continuing education in the area of healthcare quality assurance/performance. | 38.5%<br>28.6% | 50.0%<br>28.6% | 3.8%<br>28.6% | 7.7%<br>14.2% |

### VI.    NETWORKING

1.  **If your facility is a Critical Access Hospital (CAH) please explain how your hospital operationalizes the requirement to network with a tertiary facility around healthcare quality improvement? (If your facility is not a CAH please continue to next question).**

    About 35% (9) of the CAHs responding to this question indicate they have not operationalized working on healthcare quality improvement with their tertiary facility.

2.  **If applicable, please describe the healthcare quality improvement activities that you work on with other hospitals (please include in your description the type of facilities that you are working with, i.e., CAHs, non-CAH rural, tertiary, others from another state):**

    *   Some comparative results/benchmarking in CHI (Catholic Health Initiatives) Regional cluster group; several CHI-CAH do internal benchmarking/score cards.  For our region - majority ND & MN facilities. IHI and National Safety goals: medication reconciliation, rapid response, ventilator bundle, rural critical care, etc. Some issues with quality/standards; Meritcare is our primary tertiary facility and CAH network primary resource- trauma and cardiac.

    *   Have worked on heart services, trauma, and mental health. Currently working on acute myocardial infarction (AMI), Rapid Response and Medication Reconciliation.

    *   Meritcare collaborative grant- you're well aware of- we work with other CAHs per their request for information on an "as needed" basis to "share".  Tertiary is done on at least an annual basis or part of our CAH annual evaluation plan.

    *   Health education to schools/kids on asthma, sex education and diabetes.

    *   Obstetrics review with tertiary facility.

    *   Other CAHs, ND Healthcare Review, Inc. Do not do a lot with other hospitals.

    *   Credentialing, transfers to tertiary centers.

    *   Our referral hospital is Trinity and we are in the beginning phase of the heart care acute myocardial infarction clinical model and project training has already been provided to our physician and mid-levels and we are awaiting the forms to initiate the project; this will standardize the care and improve quality, and hopefully save lives, as well as time.

    *

- Currently utilizing other CAH to implement QA/QI program. Input for program set-up, and on going participation in the CAH network.

- Working with ND Healthcare Review, Inc. in both hospital & home care. Limited with clinic projects.

- Trauma, domestic violence.

- Nothing other than discussions on specific issues that may arise at our network meetings.

- We work with CHI- corporate owners & our affiliated acute care hospitals.

- Trauma/transfer review- through state trauma coordinator & tertiary care center. ACLS consortium with 2 CAHs. LPN education Consortium with CAH & non-CAH.

3.    **Does your hospital currently work with your local EMS providers (EMTs, first responders) on healthcare quality improvement issues?**

**Yes**                                    **No**
69.2%  (N=18 CAHs)              26.9% (N=8 CAHs)
85.7%  (N=6 PPS)                14.3% (N=1 PPS hospital)

**If yes**, please check all that describe your work with EMS:
Joint data review
38.5% (N=10)
42.9% (N=3)

Joint conferences
42.3% (N=11)
42.9% (N=3)

Improvement project planning and development
42.3% (N=11)
57.1% (N=4)

**VII.    STATEWIDE QUALITY INITIATIVES and NEEDS**

1.    **If a statewide rural hospital quality committee were formed around healthcare quality improvement, would your hospital be willing to participate?**

| Yes | No |
|---|---|
| 88.5%  (N=23 CAHs) | 3.8% (N=3 CAHs) |
| 85.7%  (N=6 PPS) | 14.3% (N=1 PPS hospital) |

**Comments included:**
- Yes, depending on location/time involvement - could video conference be done?
- Would be very interested in any information.
- Again time is the issue. BTWAN-option. Cost of travel.
- Depending on structure and time commitment as well as travel. I would suggest use of the BT-WAN.
- Absolutely.

2.    **Please review the following list of educational opportunities/needs and rate the degree to which your health system/board members would be interested in learning more about:**

A.    The following list of educational opportunities/needs were presented to North Dakota's **Critical Access Hospitals.** The following represents the percentage of CAHs interested in each area.

Rural hospital patient safety – 100% (N=26)

How to create an organizational culture of quality – 100% (N=26)

Quality guidelines for rural hospitals – 100% (N=26)

Patient safety – 100% (N=26)

Meeting state survey requirements – 96% (N=25)

Using data to improve quality – 96% (N=25)

Medication reconciliation – 96% (N=25)

Quality improvement methods & models – 92% (N=24)

Medication error reporting – 92% (N=24)

Falls – 92% (N=24)

Information collection & analysis – 92% (N=24)

Information technology – 92% (N=24)

Data collection – 88.5% (N=23)

The role of leadership in system change – 88.5% (N=23)

EMS Patient Transfers – 88.5% (N=23)

Leadership in healthcare quality – 88.5% (N=23)

Pre-hospital EMS care – 81% (N=21)

Intake – 81% (N=21)

Patient transfer within facility – 47% (N=12)

B.    The following list of educational opportunities/needs were presented to North Dakota's **rural PPS hospitals.** The following represents the percentage of rural PPS hospitals interested in each area.

How to create an organizational culture of quality – 86% (N=6)

Quality improvement methods and models – 86% (N=6)

Medication reconciliation – 86% (N=6)

Falls – 86% (N=6)

Medication error reporting – 86% (N=6)

EMS patient transfers – 86% (N=6)

Patient safety – 86% (N=6)

Rural hospital patient safety – 71% (N=5)

The role of leadership in system change – 71% (N=5)

Using data to improve quality – 71% (N=5)

Pre-hospital EMS care – 71% (N=5)

Information collection & analysis – 71% (N=5)

Information technology – 71% (N=5)

Intake – 71% (N=5)

Leadership in healthcare quality – 71% (N=5)

Quality guidelines for rural hospitals – 66% (N= 4.5)

Data collection – 57% (N=4)

Meeting state survey requirements – 57% (N=4)

Patient transfer within facility – 57% (N=4)

C. 96% (N= 25) of **Critical Access Hospitals** reported interest in further education of specific clinical guidelines, and they prioritized them as follows:

Coronary artery disease/MI – 42% (N=11)

Pneumonia – 38.5% (N=10)

Heart failure – 38.5% (N=10)

COPD – 35% (N=9)

Diabetes – 31% (N=8)

Stroke – 27% (N=7)

Cancer – 11.5% (N=3)

Asthma – 0%

HIV-AIDS 0%

86% (N=6) of **rural PPS hospitals** reported interest in further education of specific clinical guidelines, and they prioritized them as follows:

Coronary artery disease/MI – 57% (N=4)

Pneumonia – 57% (N=4)

Diabetes – 57% (N=4)

Cancer – 43% (N=3)

Stroke – 43% (N=3)

COPD – 29% (N=2)

Heart failure – 29% (N=2)

HIV-AIDS – 29% (N=2)

Asthma – 0%

4. **Please provide comments/information on any other issues pertaining to quality that have not been addressed by this survey.**

- Need to look at examples from other states. Need to have State Health Department look at our QI/QA activities as meeting their requirements.

- Physicians have had questions as to where the data chosen came from. Who decides the meds that are appropriate to administer? Maybe something more specific to physicians from NDQIO- BTWAN option as to how these measures are arrived at.

- You have touched on all areas. I would be very thankful & welcome a group effort in learning more & networking with others. Thank You.

- We are so behind!

- A good explanation of difference between Quality Improvement & Quality Assurance/Performance Improvement.

- The survey was excellent- rural hospitals often times have one person wearing many hats. It would be wonderful to have assistance!!!