A CONSUMER ANALYSIS OF THE NORTH DAKOTA DEPARTMENT OF HEALTH, DIVISIONS OF EMERGENCY HEALTH SERVICES, HEALTH FACILITIES, AND FOOD AND LODGING

September 3, 2003

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

http://medicine.nodak.edu/crh

Where: Grand Forks, ND
When: Established over 20 years ago

Focused on Access, Financing & Quality Through:
- Health services research
- Health policy
- Education
- State & community health services development
- Information Resource

How: Through partnerships
FORMAT

• Present overall findings from each survey
• Compare responses by urban/rural location, facility/agency type, license type
• Recommendations

Attitude

• “.. a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related” (Allport, 1935)

• “.. lasting evaluations of various aspects of the social world--evaluations that are stored in memory” (Baron & Byrne, 1997)

• Subject to change
Attitudes and Behavior

▲ Attitudes are more likely to influence behavior more when:

• Situational factors are weak
• One is aware of attitudes
• Attitudes are strong

Source: Myers, 1999

2003 ND EMS Squad Leader Survey
Methodology

- Survey period: July 2003
- All (n=350) ND EMS squads were selected for participation: 144 ambulance services, 123 rescue services, and 83 quick response units
- As of 08/15/03, 116 respondents completed and returned the survey (33.1% response rate)
- Estimated representative sample size (95% confidence level, 5% error rate)

Squad Leaders’ Demographics
FIGURE 1. Position within the Squad

- Leader/Pres/VP: 81%
- Instructor/Trainer: 6%
- Member: 4%
- Treasurer/Sec: 9%

FIGURE 2. Squads’ Rural-Urban (Town) Location

- Small rural: 85%
- Large rural: 6%
- Urban: 9%
FIGURE 3. EMS Squad Type

- BLS: 33%
- QRU: 21%
- RESCUE: 17%
- FIRE: 17%
- ALS: 12%

Squad Leaders’ Access to and Use of Computer Technology
FIGURE 4. Squads’ Access to a Computer and Internet

![Bar chart showing access to a computer and internet.](image)

FIGURE 4a. Squads’ Access to a Computer and Internet, By Rural/Urban Location

![Bar chart showing access to a computer and internet by rural and urban location.](image)
FIGURE 4b. Squads’ Access to a Computer and Internet, by BLS/ALS

FIGURE 5. PC Location
FIGURE 6. Reasons for not having Internet

Squad Leaders’ Awareness of DEHS Services
FIGURE 7a. Awareness of DEHS Services/Products

Mean Awareness Rating

- Service Licensing: 4.57
- CISD: 4.53
- Initial Testing: 4.22
- ND Spring Conference: 4.19
- ‘EMS Today’ Video: 4.15
- Training Grant Program: 4.14
- ND Fall Conference: 4.11
- Ambulance Data Collect: 4.01
- Equipment Inspection: 3.97

FIGURE 7b. Awareness of DEHS Services/Products (Cont.)

Mean Awareness Rating

- EVOC: 3.96
- Course Authorization: 3.9
- Vehicle Inspection: 3.88
- Adult Treatment Protocols: 3.82
- Adult Equip Guidelines: 3.8
- Pediatric Treat Protocols: 3.65
- TA-general: 3.57
- CE VHS: 3.56
FIGURE 7c. Awareness of DEHS Services/Products (Cont.)

<table>
<thead>
<tr>
<th>Service/Products</th>
<th>BLS</th>
<th>ALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA-BLS</td>
<td>3.56</td>
<td></td>
</tr>
<tr>
<td>Ped Equip Guidelines</td>
<td>3.47</td>
<td></td>
</tr>
<tr>
<td>EMSC</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>TA-ALS</td>
<td>3.28</td>
<td></td>
</tr>
<tr>
<td>Trauma Registry</td>
<td>3.21</td>
<td></td>
</tr>
<tr>
<td>Trauma Program</td>
<td>3.15</td>
<td></td>
</tr>
<tr>
<td>CE Internet</td>
<td>3.05</td>
<td></td>
</tr>
<tr>
<td>Injury Surveillance/Prevention</td>
<td>2.58</td>
<td></td>
</tr>
</tbody>
</table>

FIGURE 8a. Awareness of DEHS Services/Products, by BLS/ALS

<table>
<thead>
<tr>
<th>Service/Products</th>
<th>BLS</th>
<th>ALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Licensing</td>
<td>4.82</td>
<td></td>
</tr>
<tr>
<td>CISD</td>
<td>4.86</td>
<td></td>
</tr>
<tr>
<td>Initial Testing</td>
<td>4.86</td>
<td></td>
</tr>
<tr>
<td>Training Grant Program</td>
<td>4.86</td>
<td></td>
</tr>
<tr>
<td>ND Spring Conference</td>
<td>4.82</td>
<td></td>
</tr>
<tr>
<td>Ambulance Data Collect</td>
<td>4.82</td>
<td></td>
</tr>
<tr>
<td>EMS Today</td>
<td>4.82</td>
<td></td>
</tr>
<tr>
<td>ND Fall Conference</td>
<td>4.77</td>
<td></td>
</tr>
<tr>
<td>Eqpt Inspection</td>
<td>4.82</td>
<td></td>
</tr>
</tbody>
</table>

Mean Awareness Rating
Squad Leaders’ Use of DEHS Services

FIGURE 9a. Use of DEHS Services/Products

- Service Licensing: 83.8%
- EMS Today: 67%
- ND Spring Conference: 64.7%
- Ambulance Data Collect: 64.5%
- Course Authorization: 63.6%
- Training Grant Prog: 60.4%
- Initial EMT-B, I P Testing: 58.6%
- ND Fall Conference: 55%
- Adult Treat Protocols: 52.3%
FIGURE 10a. Use of DEHS Services/Products, by BLS/ALS

FIGURE 10b. Use of DEHS Services/Products, by BLS/ALS (Cont.)
FIGURE 10c. Use of DEHS Services/Products, by BLS/ALS (Cont.)

<table>
<thead>
<tr>
<th>Service</th>
<th>BLS</th>
<th>ALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMSC</td>
<td>27.5</td>
<td>54.5</td>
</tr>
<tr>
<td>CISD</td>
<td>27.5</td>
<td>54.5</td>
</tr>
<tr>
<td>EVOC</td>
<td>27.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Trauma Registry</td>
<td>54.5</td>
<td>63.6</td>
</tr>
<tr>
<td>Trauma Program</td>
<td>54.5</td>
<td>63.6</td>
</tr>
<tr>
<td>TA-ALS</td>
<td>54.5</td>
<td>63.6</td>
</tr>
<tr>
<td>CE Internet</td>
<td>54.5</td>
<td>63.6</td>
</tr>
<tr>
<td>Injury Surveill/Prevent</td>
<td>54.5</td>
<td>63.6</td>
</tr>
</tbody>
</table>

Squad Leaders’ Quality Ratings of Local Prehospital EMS
FIGURE 11a. Squad Leaders’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources

Mean Quality Rating

1  2  3  4  5

Reliability of unit's resp. 4.06
Adult trauma equip. 4.04
Adult trauma care 4.04
Adult non-trauma care 4.01
Response time 3.99
Adult non-trauma equip. 3.98
Safety practices 3.93
Ped trauma care 3.92
Medical direction 3.90

FIGURE 11b. Squad Leaders’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources (Cont.)

Mean Quality Rating

1  2  3  4  5

Non-trauma ped. care 3.67
Ped non-trauma equip. 3.78
911 service 3.77
Trauma transport decisions 3.75
‘EMS vehicles 3.7
Ped. trauma equip. 3.67
Resource management 3.66
Billing efficiency 3.66
CE 3.6
Quantity of personnel 3.52
FIGURE 11c. Squad Leaders’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources (Cont.)

Mean Quality Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Quality Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>3.37</td>
</tr>
<tr>
<td>Communic systems</td>
<td>3.36</td>
</tr>
<tr>
<td>Access to CE</td>
<td>3.33</td>
</tr>
<tr>
<td>Access to PC</td>
<td>3.23</td>
</tr>
<tr>
<td>Training equipment</td>
<td>3.19</td>
</tr>
<tr>
<td>Personnel retention</td>
<td>3.04</td>
</tr>
<tr>
<td>PC literacy</td>
<td>2.97</td>
</tr>
<tr>
<td>Fundraising</td>
<td>2.87</td>
</tr>
<tr>
<td>PC use</td>
<td>2.85</td>
</tr>
<tr>
<td>Personnel recruitment</td>
<td>2.72</td>
</tr>
</tbody>
</table>

FIGURE 12a. Squad Leaders’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources, by BLS/ALS

Mean Quality Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Quality Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Reliability</td>
<td>4.69</td>
</tr>
<tr>
<td>Response time</td>
<td>4.56</td>
</tr>
<tr>
<td>Safety practices</td>
<td>4.1</td>
</tr>
<tr>
<td>Equip-trauma adult</td>
<td>4.65</td>
</tr>
<tr>
<td>Trauma care-adult</td>
<td>4.55</td>
</tr>
<tr>
<td>Equip-med adult</td>
<td>4.5</td>
</tr>
<tr>
<td>Med care-adult</td>
<td>4.47</td>
</tr>
<tr>
<td>Medical direction</td>
<td>4.2</td>
</tr>
<tr>
<td>Dial 911</td>
<td>4.35</td>
</tr>
<tr>
<td>Trauma care-child</td>
<td>4.35</td>
</tr>
</tbody>
</table>
FIGURE 12b. Squad Leaders’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources, by BLS/ALS (Cont.)

Mean Quality Rating

- Vehicle(s)
- Med care-child
- Resource mgmnt
- Equip-med child
- Trauma transp decisions
- Equip-trauma child
- Billing
- CE
- Quantity personnel
- Computer tech access

FIGURE 12c. Squad Leaders’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources, by BLS/ALS, (Cont.)

Mean Quality Rating

- Buildings
- CE access
- Commun nic systems
- Training equip
- Comput tech knowledge
- Fundraising
- Personnel retention
- Computer tech use
- Personnel recruitment

[Bar charts showing quality ratings for various services and resources by BLS and ALS]
Squad Leaders’ Satisfaction with DEHS Services

FIGURE 13a. Satisfaction with DEHS Services/Products

<table>
<thead>
<tr>
<th>Service</th>
<th>Mean Satisfaction Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Licensing</td>
<td>4.26</td>
</tr>
<tr>
<td>CISD</td>
<td>4.22</td>
</tr>
<tr>
<td>TA-general</td>
<td>4.14</td>
</tr>
<tr>
<td>Equipment Inspection</td>
<td>4.13</td>
</tr>
<tr>
<td>ND Spring Conference</td>
<td>4.13</td>
</tr>
<tr>
<td>Vehicle Inspection</td>
<td>4.11</td>
</tr>
<tr>
<td>Adult Treat Protocols</td>
<td>4.09</td>
</tr>
<tr>
<td>Training Grant Prog</td>
<td>4.09</td>
</tr>
<tr>
<td>Pediatric Treat Protocols</td>
<td>4.03</td>
</tr>
</tbody>
</table>
FIGURE 14a. Squad Leaders’ Satisfaction with DEHS Services/Products, by BLS/ALS

FIGURE 14b. Squad Leaders’ Satisfaction with DEHS Services/Products, by BLS/ALS (Cont.)
FIGURE 14c. Squad Leaders’ Satisfaction with DEHS Services/Products, by BLS/ALS (Cont.)

Mean Satisfaction Rating

12345

Ambul Data Collect
Trauma Registry
Injury Surveill/Prevent
CE Internet
Trauma Program
Course Authorization
EVOC
CE VHS

FIGURE 15. Overall Awareness and Satisfaction with DEHS Products/Services (grand mean across all items of each category)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>110</td>
<td>1</td>
<td>5</td>
<td>3.74</td>
<td>1.05</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>83</td>
<td>1</td>
<td>5</td>
<td>3.89</td>
<td>.65</td>
</tr>
</tbody>
</table>
Squad Leaders’ Need for DEHS Services

**FIGURE 16a. Assessment of DEHS Service/Product Needs**

<table>
<thead>
<tr>
<th>Service/Product</th>
<th>Degree of Need (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Grant Prog.</td>
<td>4.3</td>
</tr>
<tr>
<td>Computer Software</td>
<td>3.69</td>
</tr>
<tr>
<td>ND Spring Conference</td>
<td>3.58</td>
</tr>
<tr>
<td>TA-Personnel R&amp;R</td>
<td>3.56</td>
</tr>
<tr>
<td>Course Authorization</td>
<td>3.52</td>
</tr>
<tr>
<td>Computer Training/TA</td>
<td>3.49</td>
</tr>
<tr>
<td>Initial EMT Testing</td>
<td>3.47</td>
</tr>
<tr>
<td>Computer Hardware</td>
<td>3.47</td>
</tr>
<tr>
<td>TA on BLS</td>
<td>3.47</td>
</tr>
<tr>
<td>Init. Certif Training</td>
<td>3.47</td>
</tr>
<tr>
<td>EVOC</td>
<td>3.47</td>
</tr>
</tbody>
</table>
FIGURE 16b. Assessment of DEHS Service/Product Needs (Cont.)

Degree of Need (Mean)

No High

1 2 3 4 5

ND Fall Conference 3.46
TA-General 3.45
Service Licensing 3.44
EMS Today 3.35
EMSC 3.32
Trauma Program 3.26
CISD 3.22
CE VHS 3.2
Adult Treat Protocols 3.17
CE Internet 3.16

FIGURE 16c. Assessment of DEHS Service/Product Needs (Cont.)

Degree of Need (Mean)

No High

1 2 3 4 5

Ped Treat Protocols 3.16
Web data collection 3.14
Adult Equip Guidelines 3.13
Ped Equip Guidelines 3.11
TA on ALS 3.09
Injury surveill/prevent 3.02
Trauma Registry 2.78
Equipment inspection 2.7
Ambul data collection 2.6
Vehicle Inspection 2.59
FIGURE 17a. Assessment of DEHS Service/Product Needs, by BLS/ALS

FIGURE 17b. Assessment of DEHS Service/Product Needs, BLS/ALS (Cont.)
FIGURE 17c. Assessment of DEHS Service/Product Needs, by BLS/ALS (Cont.)

2003 ND ED/ER MANAGER Survey
Methodology

- Survey period: July 2003
- All 50 ND ED/ER managers were selected for participation
- Only one mailing of the survey was conducted
- As of 08/15/03, 35 respondents (70%) completed and returned the survey

ED Managers’ Demographics
FIGURE 18. Position Within the Facility

- Head Nurse: 41%
- Director/Manager: 59%

FIGURE 19. EDs’ Rural-Urban (Town) Location

- Small rural: 71%
- Large rural: 13%
- Urban: 16%
ED Managers’ Access to and Use of Computer Technology

**FIGURE 20. ED Managers’ Access to PC and Internet Availability**

<table>
<thead>
<tr>
<th></th>
<th>PC</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>75.0%</td>
<td>75.0%</td>
</tr>
<tr>
<td>No</td>
<td>25.0%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>
FIGURE 20a. ED Managers’ Access to a Computer and Internet, By Rural/Urban Location

- Computer: Rural 70.4%, Urban 70.4%
- Internet: Rural 100%, Urban 100%

FIGURE 21. PC Location

Of the 75% who reported having access to a PC, the following locations were specified:
- ED 49%
- Hospital 35%
- Office 12%
- Other 4%
FIGURE 22. Reasons for not Having Internet Access

Of the 26.7% who reported not having access to the Internet, the following reasons were noted:

- Expense: 56%
- No Need: 33%
- Other: 11%

ED Managers’ Quality Ratings of Local Prehospital EMS
FIGURE 23a. ED Managers’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources

FIGURE 23b. ED Managers’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources (Cont.)
Figure 23c. ED Managers’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources (Cont.)

- Medical direction: 3.52
- Training equipment: 3.42
- PC literacy: 3.4
- Billing efficiency: 3.38
- Access to CE: 3.28
- Access to PC: 3
- Personnel retention: 2.9
- PC use: 2.85
- Fundraising: 2.5
- Personnel recruitment: 2.42

Figure 24a. ED Managers’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources, by Rural/Urban

- Medical care-adult: [Rural] 4.2, [Urban] 4.4
- Trauma care-adult: [Rural] 4.4, [Urban] 4.4
- Equip-trauma adult: [Rural] 4.2, [Urban] 4.4
- Equip-med adult: [Rural] 4.1, [Urban] 4.4
- Dial 911: [Rural] 4.1, [Urban] 4.4
- Response time: [Rural] 4, [Urban] 4.4
- Vehicle(s): [Rural] 4, [Urban] 4.4
- Service Reliability: [Rural] 4, [Urban] 4.4
- Trauma care-child: [Rural] 4, [Urban] 4.4
FIGURE 24b. ED Managers’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources, by Rural/Urban (Cont.)

FIGURE 24c. ED Managers’ Quality Ratings of Local Prehospital Emergency Medical Services and Resources, by Rural/Urban (Cont.)
FIGURE 25a. Quality Ratings of Local Prehospital Emergency Medical Services and Resources, as Evaluated by Squad Leaders and ED Managers

FIGURE 25b. Quality Ratings of Local Prehospital Emergency Medical Services and Resources, as Evaluated by Squad Leaders and ED Managers (Cont.)

*P<.05
FIGURE 25c. Quality Ratings of Local Prehospital Emergency Medical Services and Resources, as Evaluated by Squad Leaders and ED Managers (Cont.)

2003 ND TRAUMA SYSTEMS SURVEY: SECONDARY ANALYSIS
Methodology

- Survey Period: Spring 2003
- Study Population: Trauma Systems Stakeholders from across the state
- A total of 60 individuals completed and returned the questionnaire to the ND Division of Emergency Health Services

FIGURE 26. Affiliation with a Designated Trauma Center
Stakeholders’ Quality Ratings of Local Trauma Systems Program

FIGURE 27. The Department is a good resource on Administrative Rules/Century Code
FIGURE 28. The Department facilitates or encourages participation in the State Trauma System

FIGURE 29. The Department has provided you with the tools and information necessary to participate in the Statewide Trauma System
FIGURE 30. The Department provides adequate assistance in filling out forms, applications

FIGURE 31. Materials distributed from the Department to you in a timely manner
FIGURE 32. Quality of distributed materials from the Department

FIGURE 33. Trauma meetings are informational and productive
<table>
<thead>
<tr>
<th>FIGURE 34. ND Trauma Survey Item</th>
<th>% Indicating Good to Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Department is a good resource on Administrative Rules/Century Code.</td>
<td>86.2</td>
</tr>
<tr>
<td>The Department facilitates or encourages participation in State Trauma System.</td>
<td>84.4</td>
</tr>
<tr>
<td>The Department has provided you with the tools and information necessary to participate in the Statewide Trauma System.</td>
<td>77.7</td>
</tr>
<tr>
<td>The Department provides adequate assistance in filling out forms, applications.</td>
<td>73.2</td>
</tr>
<tr>
<td>Materials distributed from the Department to you in a timely manner.</td>
<td>70.0</td>
</tr>
<tr>
<td>Quality of distributed materials from the Department.</td>
<td>64.0</td>
</tr>
<tr>
<td>Trauma meetings are informational and productive.</td>
<td>59.5</td>
</tr>
</tbody>
</table>

2003 ND HEALTH FACILITY ADMINISTRATOR Survey
Methodology

- Survey period: July 2003
- 195 administrators were targeted for participation
- Two mailings of the survey
- As of 8/14/03, 83 individuals (42.6%) had completed and returned a questionnaire

FIGURE 35. Position Within the Facility

- Administrator/CEO: 86%
- Division Manager: 10%
- Vice President: 4%
FIGURE 36. Facility Type

- LTC: 72%
- Hospital: 28%

FIGURE 37. Facility’s Rural-Urban (Town) Location

- Small rural: 76%
- Large rural: 17%
- Urban: 7%
FIGURE 38. Number of Months Since Last Survey/Evaluation

- 0-6 months: 48%
- 7-12 months: 37%
- 13-18 months: 4%
- 19-24 months: 5%
- > 24 months: 6%

FIGURE 39. Contacted DoH in Past 12 Months

- Yes: 73%
- No: 27%
FIGURE 40. Administrators’ Quality Ratings of DoH Survey/Inspection Services

- Introduced themselves: 4.61
- Explanation given: 4.52
- Survey was courteous professional: 4.52
- Professional to residents patients: 4.49
- Professional to provider staff: 4.44
- Provider staff were informed: 4.38
- Sufficient explanation and assistance: 4.38
- Questions were addressed: 4.23
- Concerns stated clear concise: 4.14
- Opportunity to discuss findings: 4.11
- Opportunity to provide additional info: 4.11

Mean Quality Rating

FIGURE 41. Administrators’ Quality Ratings of DoH Survey/Inspection Services, by Rural/Urban (Town) Location

- Introduced themselves: Rural 4.6, Urban 4.8
- Explanation given: Rural 4.5, Urban 4.8
- Survey was courteous professional: Rural 4.5, Urban 4.8
- Professional to residents patients: Rural 4.48, Urban 4.75
- Professional to provider staff: Rural 4.4, Urban 4.6
- Provider staff were informed: Rural 4.2, Urban 4.39
- Sufficient explanation and assistance: Rural 4.2, Urban 4.39
- Questions were addressed: Rural 4.19, Urban 4.8
- Concerns stated clear concise: Rural 4.12, Urban 4.6
- Opportunity to discuss findings: Rural 4.06, Urban 4.6
- Opportunity to provide additional info: Rural 3.97, Urban 4.6
FIGURE 42. Administrators’ Quality Ratings of DoH Survey/Inspection Services, by Facility Type

- Introduced themselves: Mean Quality Rating 4.61
- Survey was courteous professional: Mean Quality Rating 4.48
- Explanation given: Mean Quality Rating 4.41
- Professional to residents patients: Mean Quality Rating 4.40
- Provider staff were informed: Mean Quality Rating 4.37
- Questions were addressed: Mean Quality Rating 4.35
- Concerns stated clear concise: Mean Quality Rating 4.33
- Sufficient explanation and assistance: Mean Quality Rating 4.32
- Professional to provider staff: Mean Quality Rating 4.26
- Opportunity to discuss findings: Mean Quality Rating 4.13
- Opportunity to provide additional info: Mean Quality Rating 4.13

FIGURE 43. Administrators’ Effectiveness Ratings of DoH Consultation/Training Resources

- Contacting by telephone: Mean Effectiveness Rating 4.05
- Presentations/training programs: Mean Effectiveness Rating 3.99
- Newsletter: Mean Effectiveness Rating 3.9
- RAI assistance: Mean Effectiveness Rating 3.82
- Website: Mean Effectiveness Rating 3.75
FIGURE 44. Administrators’ Effectiveness Ratings of DoH Consultation/Training Resources, by Rural/Urban (Town) Location

- Contacting by telephone: Rural 4.04, Urban 4.17
- Presentations/training programs: Rural 3.83, Urban 4
- Newsletter: Rural 2.67, Urban 3.96
- RAI assistance: Rural 3.86, Urban 3.8
- Website: Rural 3.8, Urban 4

FIGURE 45. Administrators’ Effectiveness Ratings of DoH Consultation/Training Resources, by Facility Type

- Contacting by telephone: Hospital 4.09, LTC 4.03
- Newsletter: Hospital 3.87, LTC 3.95
- Presentations/training programs: Hospital 4, LTC 4
- Website: Hospital 3.8, LTC 3.73
- RAI assistance: Hospital 3.56, LTC 3.88
**FIGURE 46. Administrators’ Preference of Various Methods for Receiving DoH Consultation/Training**

<table>
<thead>
<tr>
<th>Method</th>
<th>Mean Preference Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone</td>
<td>2.26</td>
</tr>
<tr>
<td>Presentation or workshop</td>
<td>2.32</td>
</tr>
<tr>
<td>Newsletter or bulletin</td>
<td>3.23</td>
</tr>
<tr>
<td>Website</td>
<td>3.29</td>
</tr>
<tr>
<td>Consult during survey</td>
<td>3.53</td>
</tr>
</tbody>
</table>

**FIGURE 47. Administrators’ Preference of Various Methods for Receiving DoH Consultation/Training, by Rural/Urban (Town) Location**

<table>
<thead>
<tr>
<th>Method</th>
<th>Rural</th>
<th>Urban</th>
<th>Mean Preference Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone</td>
<td>1.5</td>
<td></td>
<td>2.32</td>
</tr>
<tr>
<td>Presentation or workshop</td>
<td>2</td>
<td></td>
<td>2.34</td>
</tr>
<tr>
<td>Newsletter or bulletin</td>
<td></td>
<td>3.6</td>
<td>3.21</td>
</tr>
<tr>
<td>Website</td>
<td></td>
<td></td>
<td>3.33</td>
</tr>
<tr>
<td>Consult during survey</td>
<td></td>
<td></td>
<td>3.48</td>
</tr>
</tbody>
</table>

Legend: Rural, Urban
FIGURE 48. Administrators’ Preference of Various Methods for Receiving DoH Consultation/Training, by Facility Type

<table>
<thead>
<tr>
<th>Method</th>
<th>Mean Preference Rating</th>
<th>MOST Preferred</th>
<th>LEAST Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone</td>
<td>2.7</td>
<td>2.09</td>
<td>4</td>
</tr>
<tr>
<td>Presentation or workshop</td>
<td>2.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newsletter or bulletin</td>
<td>2.96</td>
<td>3.35</td>
<td>3</td>
</tr>
<tr>
<td>Website</td>
<td>2.96</td>
<td>3.44</td>
<td>3</td>
</tr>
<tr>
<td>Consult during survey</td>
<td>3.38</td>
<td>3.91</td>
<td>3</td>
</tr>
</tbody>
</table>

HCF staff value patient care
Poor quality resides with HCFs
Pt safety resides with HCFs
Thoroughness of inspections
Freq of inspections
Positive views of DoH
Know how DoH can assist
Welcome inspections
HCF staff don’t speak neg of DoH
Inspections critical for care quality
HCF staff informs pts re DoH
DoH staff well-qualified
DoH is fair re deficiencies
Deficiencies are valid
Not just for ‘compliance’
FIGURE 50. Administrators’ Level of Agreement Toward Statements on DoH & Facility Service Quality, by Rural/Urban (Town) Location

FIGURE 51. Administrators’ Level of Agreement Toward Statements on DoH & Facility Service Quality, by Facility Type
FIGURE 54. Administrators’ Level of Awareness Regarding DoH Services, by Facility Type

FIGURE 55. Administrators’ Effectiveness Ratings of DoH Impact on Promoting/Ensuring High Quality of Care in:
FIGURE 56. Administrators’ Effectiveness Ratings of DoH Impact on Promoting/Ensuring High Quality of Care, by Rural/Urban (Town) Location

FIGURE 57. Administrators’ Effectiveness Ratings of DoH Impact on Promoting/Ensuring High Quality of Care, by Facility Type
NORTH DAKOTA ‘PROVIDER SURVEY’: SECONDARY ANALYSIS

FIGURE 58. Number of Inspections per Month (Jan 1999-July 2003)
FIGURE 59. Quality Ratings of Various Aspects of the Most Recent Survey

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Mean Quality Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1=Introduced</td>
<td>4.75</td>
</tr>
<tr>
<td>Q2=Explained process</td>
<td>4.69</td>
</tr>
<tr>
<td>Q3=Informed re info</td>
<td>4.65</td>
</tr>
<tr>
<td>Q4=Suffic. Assistance</td>
<td>4.60</td>
</tr>
<tr>
<td>Q5=Concern stated</td>
<td>4.48</td>
</tr>
<tr>
<td>Q6=Opport to discuss</td>
<td>4.58</td>
</tr>
<tr>
<td>Q7=Opport to discuss defic</td>
<td>4.54</td>
</tr>
<tr>
<td>Q8=Questions addressed</td>
<td>4.63</td>
</tr>
<tr>
<td>Q9=Professional</td>
<td>4.78</td>
</tr>
<tr>
<td>Q9a=Prof w/ HCF staff</td>
<td>4.73</td>
</tr>
<tr>
<td>Q9b=Prof w/ HCF patients</td>
<td>4.75</td>
</tr>
</tbody>
</table>

FIGURE 60. Quality Ratings of Various Aspects of the Most Recent Survey, by Geographic Location

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Mean Quality Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1=Introduced</td>
<td>4.75</td>
</tr>
<tr>
<td>Q2=Explained process</td>
<td>4.69</td>
</tr>
<tr>
<td>Q3=Informed re info</td>
<td>4.65</td>
</tr>
<tr>
<td>Q4=Suffic. Assistance</td>
<td>4.60</td>
</tr>
<tr>
<td>Q5=Concern stated</td>
<td>4.48</td>
</tr>
<tr>
<td>Q6=Opport to discuss</td>
<td>4.58</td>
</tr>
<tr>
<td>Q7=Opport to discuss defic</td>
<td>4.54</td>
</tr>
<tr>
<td>Q8=Questions addressed</td>
<td>4.63</td>
</tr>
<tr>
<td>Q9=Professional</td>
<td>4.78</td>
</tr>
<tr>
<td>Q9a=Prof w/ HCF staff</td>
<td>4.73</td>
</tr>
<tr>
<td>Q9b=Prof w/ HCF patients</td>
<td>4.75</td>
</tr>
</tbody>
</table>

Legend:
- Rural
- Urban
FIGURE 61. Overall Mean Quality Ratings of Inspection Aspects, by Year/Quarter (Jan 2000-July 2003)

FIGURE 62a. Mean Quality Ratings of Inspection Aspects, by Year/Quarter (Jan 2000-July 2003)
FIGURE 62d. Mean Quality Ratings of Inspection Aspects, by Year/Quarter (Jan 2000-July 2003)

FIGURE 62e. Mean Quality Ratings of Inspection Aspects, by Year/Quarter (Jan 2000-July 2003)
2003 FAMILY MEMBER Survey

Methodology

• Survey period: July, 2003
• Surveys sent to facility administrators with a request to give to family members of patients/residents
• Cross-section of ND facilities, using these factors:
  – Geography
    • Rural/Urban
  – Facility type
    • Hospital, Nursing home, Basic care facility
• Total N=271 as of 8/20/03
FIGURE 63. Facility Type

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>24</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>201</td>
</tr>
<tr>
<td>Basic Care Facility</td>
<td>44</td>
</tr>
</tbody>
</table>

FIGURE 64. Facility Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>68</td>
</tr>
<tr>
<td>Large Rural</td>
<td>127</td>
</tr>
<tr>
<td>Small Rural</td>
<td>50</td>
</tr>
<tr>
<td>Undetermined</td>
<td>24</td>
</tr>
</tbody>
</table>
FIGURE 65. Relationship to Patient

![Bar chart showing frequencies of different relationships to patients: Spouse - 51, Parent - 59, Sibling - 19, Other (child, etc) - 137.]

FIGURE 66. Have you visited the patient?

![Pie chart showing that 97% said yes and 3% said no.]

Yes 97%
No 3%
FIGURE 67. Do you know how to contact ND DoH?

- No: 37%
- Yes: 63%

FIGURE 68. Have you contacted ND DoH in past 12 months?

- No: 97%
- Yes: 3%
FIGURE 69. Reason for contacting ND DoH (N=8)

- Rate Increase: 49%
- Lack of Communication with Family: 13%
- Neglect of Patient: 13%
- Other: 25%

FIGURE 70. DoH Performance in Addressing Family Member’s Issue (N=8)

- Very Satisfied: 37% (3)
- Very Unsatisfied: 37% (3)
- Satisfied: 13% (1)
- Neutral: 13% (1)
FIGURE 71. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality

Mean Agreement

1 2 3 4 5

Inspections are critical 4.45
Admin should welcome inspections 4.44
Staff does not speak negatively of DoH 4.31
Patient care is top priority 4.14
Poor care is fault of HC facilities/provider 3.99
My views of DoH mostly positive 3.99
Thoroughness of inspections is adequate 3.85
Safety is responsibility of facility, not DoH 3.89
Frequency of inspections is adequate 3.78
Agency is qualified to inspect 3.7
DoH is fair regarding deficiencies 3.5
Deficiencies are valid 3.5
Role of agency was explained 3.12
I understand how agency can help 2.86
Care not attributed to compliance 2.85

FIGURE 71a. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality

Mean Agreement

1 2 3 4 5

Inspections are critical 4.45
Admin should welcome inspections 4.44
Staff does not speak negatively of DoH 4.31
Patient care is top priority 4.14
Poor care is fault of HC facilities/provider 3.99

66
FIGURE 71b. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality (Cont.)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>My views of DoH mostly positive</td>
<td>3.88</td>
</tr>
<tr>
<td>Thoroughness of inspections is adequate</td>
<td>3.85</td>
</tr>
<tr>
<td>Safety is responsibility of facility, not DoH</td>
<td>3.63</td>
</tr>
<tr>
<td>Frequency of inspections is adequate</td>
<td>3.79</td>
</tr>
<tr>
<td>Agency is qualified to inspect</td>
<td>3.7</td>
</tr>
</tbody>
</table>

FIGURE 71c. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality (Cont.)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>DoH is fair regarding deficiencies</td>
<td>3.5</td>
</tr>
<tr>
<td>Deficiencies are valid</td>
<td>3.35</td>
</tr>
<tr>
<td>Role of agency was explained</td>
<td>3.12</td>
</tr>
<tr>
<td>I understand how agency can help</td>
<td>2.85</td>
</tr>
<tr>
<td>Care not attributed to compliance</td>
<td>2.06</td>
</tr>
</tbody>
</table>
FIGURE 72. Administrators' and Family Members' Level of Agreement Toward Statements on DoH & Facility Service Quality

FIGURE 72a. Administrators' and Family Members' Level of Agreement Toward Statements on DoH & Facility Service Quality
FIGURE 72b. Administrators’ and Family Members’ Level of Agreement Toward Statements on DoH & Facility Service Quality

<table>
<thead>
<tr>
<th>Statement</th>
<th>Administrators</th>
<th>Family Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive views of DoH</td>
<td>3.8</td>
<td>3.89</td>
</tr>
<tr>
<td>Know how DoH can assist</td>
<td>3.72</td>
<td>3.77</td>
</tr>
<tr>
<td>Welcome inspections</td>
<td>3.72</td>
<td>4.43</td>
</tr>
<tr>
<td>HCF staff don’t speak neg of DoH</td>
<td>3.6</td>
<td>4.31</td>
</tr>
<tr>
<td>Inspections critical for care quality</td>
<td>3.38</td>
<td>4.46</td>
</tr>
</tbody>
</table>

FIGURE 72c. Administrators’ and Family Members’ Level of Agreement Toward Statements on DoH & Facility Service Quality

<table>
<thead>
<tr>
<th>Statement</th>
<th>Administrators</th>
<th>Family Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCF staff informs pts re DoH</td>
<td>3.22</td>
<td>3.12</td>
</tr>
<tr>
<td>DoH staff well-qualified</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>DoH is fair re deficiencies</td>
<td>2.99</td>
<td>3.5</td>
</tr>
<tr>
<td>Deficiencies are valid</td>
<td>2.99</td>
<td>3.5</td>
</tr>
<tr>
<td>Not just for ‘compliance’</td>
<td>2.06</td>
<td>2.65</td>
</tr>
</tbody>
</table>
FIGURE 73. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Rural/Urban Location

Mean Agreement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin should welcome inspection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Inspections are critical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff doesn’t speak negat of DoH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient care is top priority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor care is the fault of facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly positive of NDDoH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety is responsibility of facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection thoroughness-adequate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection frequency-adequate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency is qualified to inspect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DoH is fair with deficiencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deficiencies are valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role of agency was explained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand how agency can help me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care not attributed to compliance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Anova: F=3.94, p=.048.

FIGURE 73a. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Rural/Urban Location

Mean Agreement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin should welcome inspection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Inspections are critical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff doesn’t speak negat of DoH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient care is top priority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor care is the fault of facility</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Anova: F=3.94, p=.048.
FIGURE 73b. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Rural/Urban Location (Cont.)

Mostly positive of NDDoH
Safety is responsibility of facility
Inspection thoroughness-adequate
Inspection frequency-adequate
Agency is qualified to inspect

FIGURE 73c. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Rural/Urban Location (Cont.)

DoH is fair with deficiencies
Deficiencies are valid
Role of agency was explained
Understand how agency can help me
Care not attributed to compliance
FIGURE 74. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Facility Type

- *Patient care is top priority*
- Admin should welcome inspections
- Inspections are critical
- Staff doesn’t speak negat of DoH
- Inspection thoroughness-adequate
- Inspection frequency-adequate
- Poor care is fault of HCFs/providers
- Agency is qualified to inspect
- My views are mostly positive
- Safety is responsibility of facility
- I understand how agency can help
- DoH is fair with deficiencies
- Role of agency was explained
- Deficiencies are valid
- Care not attributed to compliance

ANOVA: F=3.12, p=.046. LSD post-hoc: hospitals vs. nursing homes (p=.024). Tukey/other post-hocs: No differences at .05.

FIGURE 74a. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Facility Type

- *Patient care is top priority*
- Admin should welcome inspections
- Inspections are critical
- Staff doesn’t speak negat of DoH
- Inspection thoroughness-adequate

ANOVA: F=3.12, p=.046. LSD post-hoc: hospitals vs. nursing homes (p=.024). Tukey/other post-hocs: No differences at .05.
FIGURE 74b. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Facility Type (Cont.)

1 2 3 4 5

- Hospitals - Nursing Homes - BCFs

- Inspection frequency - adequate
- Poor care is fault of HCFs/providers
- Agency is qualified to inspect
- My views are mostly positive
- Safety is responsibility of facility

FIGURE 74c. Family Members’ Level of Agreement Toward Statements on NDDoH & Facility Service Quality, by Facility Type (Cont.)

1 2 3 4

- Hospitals - Nursing Homes - BCFs

- I understand how agency can help me
- DoH is fair with deficiencies
- Role of agency was explained
- Deficiencies are valid
- Care not attributed to compliance
FIGURE 75. Family Members’ Level of Awareness Regarding NDDoH Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Mean Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing home inspections</td>
<td>3.41</td>
</tr>
<tr>
<td>Basic care facility inspections</td>
<td>3.29</td>
</tr>
<tr>
<td>Hospital inspections</td>
<td>3.1</td>
</tr>
<tr>
<td>Consultation to Staff</td>
<td>3.07</td>
</tr>
<tr>
<td>Investigation of complaints</td>
<td>2.99</td>
</tr>
<tr>
<td>Consultation to family</td>
<td>2.96</td>
</tr>
<tr>
<td>Consultation to patients</td>
<td>2.69</td>
</tr>
<tr>
<td>Hospital program &amp; certification</td>
<td>2.75</td>
</tr>
<tr>
<td>Providing copies of deficiencies</td>
<td>2.68</td>
</tr>
<tr>
<td>Community needs assessments</td>
<td>2.52</td>
</tr>
<tr>
<td>RAI assistance</td>
<td>2.46</td>
</tr>
<tr>
<td>Data analysis</td>
<td>2.42</td>
</tr>
<tr>
<td>Floor plan review</td>
<td>2.38</td>
</tr>
<tr>
<td>New systems design</td>
<td>2.36</td>
</tr>
<tr>
<td>Loan repayment programs</td>
<td>2.06</td>
</tr>
</tbody>
</table>

FIGURE 75a. Family Members’ Level of Awareness Regarding NDDoH Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Mean Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing home inspections</td>
<td>3.41</td>
</tr>
<tr>
<td>Basic care facility inspections</td>
<td>3.29</td>
</tr>
<tr>
<td>Hospital inspections</td>
<td>3.1</td>
</tr>
<tr>
<td>Consultation to Staff</td>
<td>3.07</td>
</tr>
<tr>
<td>Investigation of complaints</td>
<td>2.99</td>
</tr>
</tbody>
</table>

74
FIGURE 75b. Family Members’ Level of Awareness Regarding NDDoH Services (Cont.)

Mean Awareness

1 2 3 4 5

- Consultation to family: 2.86
- Consultation to patients: 2.82
- Hospital program & certification: 2.75
- Providing copies of deficiencies: 2.68
- Community needs assessments: 2.52

FIGURE 75c. Family Members’ Level of Awareness Regarding NDDoH Services (Cont.)

Mean Awareness

1 2 3 4 5

- RAI assistance: 2.46
- Data analysis: 2.42
- Floor plan review: 2.38
- New systems design: 2.36
- Loan repayment programs: 2.06
FIGURE 76. Administrators' and Family Members' Level of Awareness Regarding DoH Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Mean Awareness Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH inspections</td>
<td>4.59</td>
<td></td>
<td></td>
<td>3.42</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Complaints investigation</td>
<td>4.56</td>
<td></td>
<td></td>
<td>4.42</td>
<td>4.42</td>
<td>4.42</td>
</tr>
<tr>
<td>BCF inspections</td>
<td>4.26</td>
<td></td>
<td></td>
<td>3.29</td>
<td>3.29</td>
<td>3.29</td>
</tr>
<tr>
<td>Provide deficiency copies</td>
<td>4.21</td>
<td></td>
<td></td>
<td>3.11</td>
<td>3.11</td>
<td>3.11</td>
</tr>
<tr>
<td>Hospital inspections</td>
<td>3.78</td>
<td></td>
<td></td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
</tr>
<tr>
<td>Floor plan review</td>
<td>3.68</td>
<td></td>
<td></td>
<td>3.68</td>
<td>3.68</td>
<td>3.68</td>
</tr>
<tr>
<td>RAI</td>
<td>3.68</td>
<td></td>
<td></td>
<td>3.68</td>
<td>3.68</td>
<td>3.68</td>
</tr>
<tr>
<td>Hospital program/certification</td>
<td>3.68</td>
<td></td>
<td></td>
<td>3.68</td>
<td>3.68</td>
<td>3.68</td>
</tr>
<tr>
<td>Loan repayment</td>
<td>3.04</td>
<td></td>
<td></td>
<td>3.04</td>
<td>3.04</td>
<td>3.04</td>
</tr>
<tr>
<td>Consult patients on patient care</td>
<td>2.62</td>
<td></td>
<td></td>
<td>2.62</td>
<td>2.62</td>
<td>2.62</td>
</tr>
<tr>
<td>Consult family on patient care</td>
<td>2.87</td>
<td></td>
<td></td>
<td>2.87</td>
<td>2.87</td>
<td>2.87</td>
</tr>
<tr>
<td>Community needs assessments</td>
<td>2.87</td>
<td></td>
<td></td>
<td>2.87</td>
<td>2.87</td>
<td>2.87</td>
</tr>
<tr>
<td>Data analysis</td>
<td>2.66</td>
<td></td>
<td></td>
<td>2.66</td>
<td>2.66</td>
<td>2.66</td>
</tr>
<tr>
<td>Assist in design/implementation</td>
<td>2.48</td>
<td></td>
<td></td>
<td>2.48</td>
<td>2.48</td>
<td>2.48</td>
</tr>
</tbody>
</table>

FIGURE 76a. Administrators' and Family Members' Level of Awareness Regarding DoH Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Mean Awareness Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH inspections</td>
<td>4.59</td>
<td></td>
<td></td>
<td>3.42</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Complaints investigation</td>
<td>4.56</td>
<td></td>
<td></td>
<td>4.42</td>
<td>4.42</td>
<td>4.42</td>
</tr>
<tr>
<td>BCF inspections</td>
<td>4.26</td>
<td></td>
<td></td>
<td>3.29</td>
<td>3.29</td>
<td>3.29</td>
</tr>
<tr>
<td>Provide deficiency copies</td>
<td>4.21</td>
<td></td>
<td></td>
<td>3.11</td>
<td>3.11</td>
<td>3.11</td>
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<tr>
<td>Hospital inspections</td>
<td>3.78</td>
<td></td>
<td></td>
<td>3.74</td>
<td>3.74</td>
<td>3.74</td>
</tr>
</tbody>
</table>

[Administrators] [Family Members]
FIGURE 77b. Family Members’ Level of Awareness Regarding DoH Services, by Rural/Urban Location (Cont.)

<table>
<thead>
<tr>
<th>Service</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation to family</td>
<td>2.61</td>
<td>2.95</td>
</tr>
<tr>
<td>Consultation to patients</td>
<td>2.62</td>
<td>2.88</td>
</tr>
<tr>
<td>Providing copies of deficiencies</td>
<td>2.82</td>
<td>2.64</td>
</tr>
<tr>
<td>*Hospital program &amp; certification</td>
<td>3.03</td>
<td>2.62</td>
</tr>
<tr>
<td>RAI assistance</td>
<td>2.35</td>
<td>2.61</td>
</tr>
</tbody>
</table>

* P<.05

FIGURE 77c. Family Members’ Level of Awareness Regarding DoH Services, by Rural/Urban Location (Cont.)

<table>
<thead>
<tr>
<th>Service</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community needs assessments</td>
<td>2.61</td>
<td>2.51</td>
</tr>
<tr>
<td>Data analysis</td>
<td>2.41</td>
<td>2.42</td>
</tr>
<tr>
<td>New systems design</td>
<td>2.41</td>
<td>2.31</td>
</tr>
<tr>
<td>Floor plan review</td>
<td>2.61</td>
<td>2.25</td>
</tr>
<tr>
<td>Loan repayment programs</td>
<td>2.11</td>
<td>2.61</td>
</tr>
</tbody>
</table>
FIGURE 78. Family Members’ Level of Awareness Regarding DoH Services, by Facility Type

FIGURE 78a. Family Members’ Level of Awareness Regarding DoH Services, by Facility Type
FIGURE 78b. Family Members’ Level of Awareness Regarding DoH Services, by Facility Type (Cont.)

FIGURE 78c. Family Members’ Level of Awareness Regarding DoH Services, by Facility Type (Cont.)
FIGURE 79. Family Members’ Effectiveness Rating of NDDoH in Promoting/Ensuring Patient Care Quality in Health Care Facilities

Mean effectiveness rating

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>3.96</td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>3.89</td>
</tr>
<tr>
<td>Basic Care Facilities</td>
<td>3.81</td>
</tr>
</tbody>
</table>

FIGURE 80. Family Members’ Effectiveness Rating of NDDoH in Promoting/Ensuring Patient Care Quality in Health Care Facilities, by Rural/Urban Location of Patients’ Facility

Mean effectiveness rating

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>3.86</td>
<td>3.98</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>3.9</td>
<td>3.92</td>
</tr>
<tr>
<td>BCFs</td>
<td>3.76</td>
<td>3.85</td>
</tr>
</tbody>
</table>
FIGURE 81. Family Members’ Effectiveness Rating of NDDoH in Promoting/Ensuring Patient Care Quality in Health Care Facilities, by Patients’ Facility Type

*Anova, $F=3.04$, $p=.051$. Post hocs: difference is between hospitals and nursing homes only (LSD, $p=.015$; Tukey, $p=.037$; Bonferroni, $p=.045$).

2003 ND FOOD AND LODGING Survey
Methodology

- Survey period: July 2003
- Stratification of mailing labels by license type
- As of 8/20/03, 252 (30%) of 848 establishment personnel had completed and returned the survey

Food/Lodging Managers’ Demographics
License Type

- Respondents were categorized into one of five license types:

1. **Food production and distribution**
   - including retail food stores, meat markets, food processors, and vending operations.

2. **Foodservice establishments**
   - including restaurants, limited restaurants, pushcarts, salvage food operations, bars, and taverns.

3. **Lodging establishments**
   - including hotels, motels, boarding houses, and bed & breakfasts.

4. **Grounds**
   - including campgrounds, mobile home parks, and trailer parks.

5. **Multiple establishments**
FIGURE 83. Type of Establishment License

- Foodservice: 49%
- Lodging: 19%
- Grounds: 10%
- Multiple estab.: 10%
- Food production/distribution: 12%

Figure 84. Respondents’ Rural/Urban Location

- Small Rural: 72%
- Large Rural: 18%
- Urban: 10%
Food/Lodging Managers’ Assessment of Most Recent Inspection

FIGURE 85. Do you feel the license fee is:

- Fair: 89%
- Overpriced: 11%
FIGURE 86. Do you feel the license fee is:

- Rural: 23% Fair, 77% Overpriced
- Urban: 182% Fair, 19% Overpriced

FIGURE 87. Do you feel the license fee is:

- Food distrib: 4% Fair, 22% Overpriced
- Foodservice: 16% Fair, 87% Overpriced
- Lodging: 1% Fair, 40% Overpriced
- Grounds: 2% Fair, 18% Overpriced
- Multiple: 2% Fair, 20% Overpriced
FIGURE 88. Have you had difficulties in the licensing process?

Yes 3%
No 97%

FIGURE 89. Have you had difficulties in the licensing process?

<table>
<thead>
<tr>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>198</td>
<td>22</td>
</tr>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
FIGURE 90. Have you had difficulties in the licensing process?

- Food dist: 25 No, 1 Yes
- Foodserv: 97 No, 5 Yes
- Lodging: 40 No, 1 Yes
- Grounds: 22 No, 0 Yes
- Multiple: 21 No, 0 Yes

FIGURE 91. How often is your establishment inspected?

- Yearly: 76%
- Every 2 Years: 5%
- Other: 19%
FIGURE 92. How often is your establishment inspected?

FIGURE 93. How often is your establishment inspected?
FIGURE 94. How would you assess the frequency of inspection?

- About Right: 90%
- Too Often: 6%
- Not Enough: 4%

FIGURE 95. How would you assess the frequency of inspection?

- About Right: 185%
- Too Often: 1%
- Not Enough: 2%

Rural: 185
Urban: 20
FIGURE 96. How would you assess the frequency of inspection?

- **About Right**
- **Too Often**
- **Not Enough**

<table>
<thead>
<tr>
<th>Sector</th>
<th>About Right</th>
<th>Too Often</th>
<th>Not Enough</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food dist</td>
<td>21</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Foodserv</td>
<td>95</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Lodging</td>
<td>38</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grounds</td>
<td>17</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Multiple</td>
<td>20</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

FIGURE 97. Did you or anyone else accompany the inspector during the inspection?

- **Yes** 62%
- **No** 38%
FIGURE 98. Did you or anyone else accompany the inspector during the inspection?

*\(p=.014\)

FIGURE 99. Did you/anyone else accompany the inspector during the inspection?

*\(p=.026\)
FIGURE 100. Is your inspection a fair appraisal of your establishment?

Yes
99%

No
1%

FIGURE 101. Is your inspection a fair appraisal of your establishment?

Rural Urban

Yes 199 22

No 3 0
FIGURE 102. Is your inspection a fair appraisal of your establishment?

FIGURE 103. Following the inspection, is the form reviewed with you?
FIGURE 104. Following inspection, is the inspection form reviewed with you?

![Bar chart showing the percentage of Yes and No responses for rural and urban areas.]

FIGURE 105. Following inspection, is the inspection form reviewed with you?

![Bar chart showing the percentage of Yes and No responses for different categories: Food dist, Foodserv, Lodging, Grounds, and Multiple. A p-value of 0.020 is indicated.]

*p=0.020
FIGURE 106. Were your questions completely answered?

Yes 98%

No 2%

FIGURE 107. Were your questions on the inspection completely answered?

Rural

Urban

*p=.022
FIGURE 108. Were your questions on the inspection completely answered?

*\( p = 0.013 \)

FIGURE 109. Was the inspector’s handwriting legible?
FIGURE 110. Was the inspector’s handwriting legible?

- Rural: 197 Yes, 4 No
- Urban: 22 Yes, 0 No

FIGURE 111. Was the inspector’s handwriting legible?

- Food dist: 26 Yes, 0 No
- Foodserv: 100 Yes, 0 No
- Lodging: 40 Yes, 1 No
- Grounds: 17 Yes, 0 No
- Multiple: 21 Yes, 0 No
FIGURE 112. Did the inspector introduce himself/show credentials?

Yes 92%
No 8%

FIGURE 113. Did the inspector introduce himself/show credentials?

<table>
<thead>
<tr>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>183</td>
<td>21</td>
</tr>
</tbody>
</table>

Legend: ☐ Yes ☐ No
FIGURE 114. Did the inspector introduce himself/show credentials?

FIGURE 115. Was the inspector knowledgeable & helpful during the inspection?
FIGURE 116. Was the inspector knowledgeable and helpful?

![Bar chart showing the percentage of rural and urban inspectors who were knowledgeable and helpful.]

FIGURE 117. Was the inspector knowledgeable and helpful during the inspection?

![Bar chart showing the percentage of inspections conducted in different sectors by the inspector's helpfulness.]

- Rural
- Urban
- Food dist
- Foodserv
- Lodging
- Grounds
- Multiple
FIGURE 118. Did the inspector fully explain the inspection and any deficiencies during the exit interview?

Yes 98%
No 2%

FIGURE 119. Did the inspector fully explain the inspection and any deficiencies during the exit interview?

<table>
<thead>
<tr>
<th>Rural</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>198</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Urban</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
<td>0</td>
</tr>
</tbody>
</table>
FIGURE 120. Did the inspector fully explain the inspection and any deficiencies during the exit interview?

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food dist</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>Foodserv</td>
<td>102</td>
<td>1</td>
</tr>
<tr>
<td>Lodging</td>
<td>41</td>
<td>1</td>
</tr>
<tr>
<td>Grounds</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Multiple</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

2003 NORTH DAKOTA CITIZENS’ ASSESSMENT OF LOCAL SERVICES
Methodology

- Survey period: July 2003
- Sample stratified by community size and ND region (N=960)
- Two mailings
- As of 8/14/03, 304 individuals (31.7%) completed and returned the questionnaire

Citizens’ Demographics
FIGURE 121. Rural-Urban (Town) Location

- Urban: 42%
- Small rural: 47%
- Large rural: 11%

FIGURE 122. Age

- Number of Respondents: 25, 33, 61, 57, 47, 42, 24, 7
- Range = 20-99; mean = 54.2; median = 54; mode = 48; standard deviation = 18
FIGURE 123. Mean Age, by Rural/Urban (Town) Location

![Bar chart showing mean age by residential location: Small rural 58.88, Large rural 57.13, Urban 50.25.]

FIGURE 124. Gender

![Pie chart showing gender distribution: Female 53%, Male 47%.]
FIGURE 125. Marital Status

- **Married**: 67%
- **Div/Sep/Wid**: 24%
- **Unmarried**: 9%

FIGURE 126. Education

- **Some HS/grade**: 7%
- **Diploma/GED**: 41%
- **Associate's**: 17%
- **Bachelor's**: 20%
- **Master's**: 11%
- **Doctoral**: 4%
FIGURE 127. Highest Education Level, by Rural/Urban (Town) Location

FIGURE 128. Gross Annual Income
Citizens’ Awareness of Local Emergency Medical Services
Citizens’ Use of Local Emergency Medical Services

**FIGURE 132. Household Use of Local Emergency Medical Services in the Past 2 Years**
FIGURE 133. Household Use of Local Emergency Medical Services in the Past 2 Years, by Rural/Urban (Town) Location

Citizens’ Quality Ratings of Local Emergency Medical Services
FIGURE 134. Citizens’ Quality Ratings of Local Emergency Medical Services

FIGURE 135. Citizens’ Quality Ratings of Local Emergency Medical Services, by Rural/Urban (Town) Location
Citizens’ Satisfaction with Local Emergency Medical Services

FIGURE 136. Citizens’ Satisfaction Ratings of Local Emergency Medical Services
FIGURE 137. Citizens’ Satisfaction Ratings of Local Emergency Medical Services, by Rural/Urban (Town) Location

Citizens’ Awareness of Local Health Facilities
FIGURE 138. Citizens’ Awareness of Local Health Facilities

FIGURE 139. Citizens’ Awareness of Local Health Facilities
Citizens’ Use of Local Health Facilities

FIGURE 140. Household Use of Local Health Facilities in the Past 2 Years
FIGURE 141. Household Use of Local Health Facilities in the Past 2 Years, by Rural/Urban (Town) Location

Citizens’ Quality Ratings of Local Health Facilities
FIGURE 142. Citizens’ Quality Ratings of Local Health Facilities

FIGURE 143. Citizens’ Quality Ratings of Local Health Facilities, by Rural/Urban (Town) Location
Citizens’ Satisfaction with Local Health Facilities

FIGURE 144. Citizens’ Satisfaction Ratings of Local Health Facilities

- **Home Health**: Mean Quality Rating 4.1
- **Clinics**: Mean Quality Rating 4.02
- **Hospice**: Mean Quality Rating 3.97
- **ESRDs**: Mean Quality Rating 3.96
- **ASCs**: Mean Quality Rating 3.85
- **Hospitals**: Mean Quality Rating 3.81
- **Nursing Homes**: Mean Quality Rating 3.73
- **Basic Care Facilities**: Mean Quality Rating 3.69
FIGURE 145. Citizens’ Satisfaction Ratings of Local Health Facilities, by Rural/Urban (Town) Location

Citizens’ Awareness of Local Food and Lodging Services
FIGURE 146. Citizens’ Awareness of Local Food/Lodging Services

FIGURE 147. Citizens’ Awareness of Local Food/Lodging Services
Citizens’ Use of Local Food and Lodging Services

FIGURE 148. Household use of Local Food & Lodging Services in the Past 2 Years
FIGURE 149. Household use of Local Food & Lodging Services in the Past 2 Years, by Rural/Urbán (Town) Location

FIGURE 150. Mean Number of Services Used in Past 2 Years, by Rural/Urbán (Town) Location
Citizens’ Quality Ratings of Local Food and Lodging Services

FIGURE 151. Citizens’ Quality Ratings of Local Food & Lodging Services

Mean Quality Rating

1 2 3 4 5

Retail Food/Grocery 3.84
Bakeries 3.82
Full Serv. Rest. 3.78
Meat Markets 3.77
Asst. Living 3.75
Campgrounds 3.62
Hotel/motel 3.6
Bars/Taverns 3.55
Ltd. Serv. Rest. 3.52
Bed & Breakfast 3.38
FIGURE 152. Citizens’ Quality Ratings of Local Food & Lodging Services, by Rural/Urban (Town) Location

Citizens’ Satisfaction with Local Food and Lodging
FIGURE 153. Citizens’ Satisfaction Ratings of Local Food & Lodging Services

Mean Quality Rating

1 2 3 4 5

Bakeries
Meat Markets
Retail Food/Grocery
Campgrounds
Full Serv. Rest.
Hotel/motel
Asst. Living
Ltd. Serv. Rest.
Bars/Taverns
Bed & Breakfast

FIGURE 154. Citizens’ Satisfaction Ratings of Local Food & Lodging Services, by Rural/Urban (Town) Location

Mean Quality Rating

1 2 3 4 5

Campgrounds
Retail Food/Grocery
Bakeries
Hotel/motel
Full Serv. Rest.
Meat Markets
Asst. Living
Ltd. Serv. Rest.
Bars/Taverns
Bed & Breakfast

Rural Urban
CONCLUSIONS

• Respondents’ quality assessments and levels of satisfaction with NDDoH services/products were, generally, quite positive

• Regarding awareness of NDDoH services/products/programs, some groups appeared to need additional information on the nature and extent of available technical assistance

• Access to personal computers and Internet among squad leaders and ED managers appeared relatively high, but those in rural areas reported lower access

RECOMMENDATIONS

FOOD AND LODGING

• Promote findings of this study to the Industry and the state food and lodging associations
• Promote study findings to policymakers
• Increased use of resources such as the Rural Assistance Center to locate and disseminate information pertaining to rural economic development, etc.
RECOMMENDATIONS (Cont.)

HEALTH FACILITIES

• Increased efforts to promote the technical assistance/services that are available to health care facility administrators, patients/residents, and family members.
• Promote lesser known services, such as data analysis, loan repayment assistance and community needs assessment.
• Study results should be disseminated to the population groups from which the respondents were selected. This action would serve to assure respondents that their input has been systematically reviewed by the NDDoH and appropriate action steps will be developed and implemented, based on the analysis findings.
• Promote study findings to policymakers (highlight positive aspects of current services and gaps due to NDDoH personnel and funding shortages, etc.)
• Expand use of the annual State Healthcare Association conference as a means for disseminating information on NDDoH roles, functions, and services
• Consider the possibility of convening an internal workgroup or ‘task force’ to address consumer survey information on the certification/inspection process
• Increased use of resources such as the Rural Assistance Center to locate and disseminate information pertaining to rural health service viability, grant opportunities, etc.

RECOMMENDATIONS (Cont.)

EMERGENCY HEALTH SERVICES

• Expanded DEHS programmatic efforts to promote and provide increased access to and availability of education/training programs regarding prehospital EMS personnel recruitment and retention.
• Continued and expanded DEHS programmatic efforts to increase access to and availability of training equipment for prehospital EMS squads, particularly those located in rural areas of the state.
• Continued and expanded DEHS programmatic efforts to promote and provide increased access to and availability of continuing education for EMS providers, particularly those located in rural areas of the state.
• Expanded DEHS programmatic efforts to promote and provide increased access to and availability of training programs regarding EMS grant-writing, program development and fund-raising.
• Continued and expanded DEHS programmatic efforts to increase access to and availability of state-of-the-art telecommunications technology/equipment for prehospital EMS squads, particularly those located in rural areas of the state.
• Continued and expanded DEHS programmatic efforts to promote and provide increased access to and availability of high-grade personal computers for prehospital EMS squads, particularly those located in rural areas.
• Expanded DEHS programmatic efforts to increase access to and availability of education/training programs regarding personal computer knowledge/use for prehospital EMS squad leaders and members. For example, a workshop could be conducted at the state EMS Conference to address the basics of personal computer and Internet literacy.
• Continued and expanded DEHS programmatic efforts to promote and provide increased access to high-speed Internet technology, equipment and connectivity in the state’s EMS community.
RECOMMENDATIONS (Cont.)

EMERGENCY HEALTH SERVICES

• Continued and expanded EMSC programmatic efforts to promote and provide increased access to and availability of education/training programs regarding state-of-the-art pediatric EMS care provision and equipment.
• Promotion and demonstration of the importance and function of data collection and analysis.
• Consider convening a Focus Group for discussion on DEHS services that appear to be least satisfying to EMS squad leaders. This action could serve to further define the problems and their sources, and provide ideas for preventing/addressing the problems in the future.
• Promote study findings to all ND prehospital and in-hospital EMS agencies.
• Promote findings to state policymakers (highlight the positive aspects and the service gaps due to shortages of NDDoH personnel and funding, etc.)
• Promote greater awareness among rural EMS units regarding the Critical Access Hospital (CAH) grant program and the benefits of partnering with a CAH (e.g., access to federal funds to develop EMS systems, networking, etc.)
• Promote greater awareness and utilization of the state’s Blue Cross/Blue Shield rural grant program.
• Increased use of resources such as the Rural Assistance Center to locate and disseminate information pertaining to rural health service viability, EMS grant opportunities, etc.

Improved EMS Data Collection/Analysis

~Benefits~

• Assist in assessing injury prevention needs at the county and community level
• Assess the EMS care needs for the vulnerable: children and elders
• Provides implications for EMS education and curriculum development/configuration
• Reduced paperwork for providers and DEHS
• Provides opportunities for improved quality assurance/improvement efforts
• Assess the appropriateness of trauma treatment/transport patterns
• Provides valuable information for Federal and State grant proposals
• Improves opportunities for linking EMS care to hospital patient outcomes
• Serves as documentation of the value of EMS to society
For more information contact:

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

701-777-3848

http://medicine.nodak.edu/crh