A Statewide Assessment of Quality of Care and Quality of Life for Residents of Texas Medicaid-Certified Nursing Facilities

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Preface

Approach to Assessing the Quality of Texas Nursing Facilities

State law directs the Texas Department of Aging and Disability Services (DADS) to conduct a survey of individuals in nursing facilities to assess how satisfied they are with their quality of care and quality of life and to perform on-site case reviews. DADS contracted with the Nurse Aid Competency Evaluation Services Plus Foundation, Inc. (NACES) to perform on-site assessments and surveys of individuals in nursing facilities.

The Nursing Facility Quality Review (NFQR) includes a valid random sample of individuals across the state living in nursing facilities who were assessed and interviewed. Analysis of the NFQR data allows DADS to assess individuals’ quality of care, quality of life and formulate strategies throughout DADS programs to continuously improve outcomes for individuals who reside in nursing facilities.
1.0 EXECUTIVE SUMMARY

The Nursing Facility Quality Review (NFQR) is a statewide process used by DADS to benchmark and trend the quality of care and the quality of life for individuals in nursing facilities across the state. NFQR data collected over time helps DADS track progress in quality improvement activities and formulate strategies to improve both the quality of long-term services and supports and clinical outcomes of individuals.

Between September 1, 2008 and December 31, 2008 of the 114,153 individuals (including those with Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid-certified nursing facilities in Texas, a subset of 2,164 individuals was randomly selected, assessed and interviewed. Key findings from this year’s evaluation are noted below.

1.1 Quality of Care and Quality of Life Key Findings

Only statistically significant increases or declines from 2008 to 2009 are included in this section. For information regarding statistical significance, refer to Section 2.4 Data Analysis.

Observed improvements from 2008 to 2009 include (Figure 1.1):

- More individuals had treatment plans for repositioning to address risk factors for pressure ulcers;
- More care plans addressed risk factors for pressure ulcers;
- More individuals were assessed using a valid pain assessment tool and were assessed daily;
- More individuals received the influenza and pneumococcal vaccinations;
- More individuals received care consistent with advance directives;
- More advance care plans addressed artificial nutrition and hydration;
- More individuals were assessed for risk factors for weight loss and dehydration;
- More individuals had clinical indications for prescribed typical antipsychotics; and
- More individuals felt safe and secure and that their possessions were safe.

Observed declines from 2008 to 2009 (Figure 1.1):

- Fewer individuals diagnosed with an anxiety disorder had an ongoing symptom assessment every two weeks;
- More individuals on sleep medication reported continued sleep problems;
- Fewer individuals could make a private phone call; and
- Fewer individuals could find a place to visit in private.
Figure 1.1 – Quality of Care & Quality of Life Key Findings

Quality Improvement Process

Notable improvements

- More individuals that are incontinent had a continence promotion plan
- More individuals had treatment plans for repositioning to address risk factors for pressure ulcers
- More care plans addressed risk factors for pressure ulcers
- More individuals were assessed using a valid pain assessment tool and were assessed daily
- More individuals received the influenza and pneumococcal vaccination
- More individuals received care consistent with advance directives
- More advance care plans addressed artificial nutrition and hydration
- More residents were assessed for risk factors for weight loss and dehydration
- More individuals presented clinical indication for prescribed typical antipsychotics
- More residents felt safe and secure and that their possessions were safe

Notable declines or needed improvements

- More individuals with urinary tract infections
- Fewer individuals diagnosed with anxiety disorder had an ongoing symptom assessment every two-weeks
- More individuals on sleep medication reported continued sleep problems
- Fewer individuals could make a private phone call
- Fewer individuals could find a place to visit in private

Survey conducted: March – June 2009  
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
2.0 METHODS

2.1 The 2009 Nursing Facility Quality Review Instrument

DADS contracted with Nurse Aide Competency Evaluation Service Plus Foundation, Inc. (NACES) to collect data about the quality of care and quality of life for individuals who lived in nursing facilities in 2009. NACES reviewers were registered nurses and pharmacists. Reviewers used the 2009 NFQR assessment (Appendix A) to collect data from the individual, the individual’s family member or guardian and the individual’s medical records.

The 2009 NFQR assessment includes a section which asks for the individual’s identifying information (i.e., name, date of birth, gender) and 14 sections with questions related to the following: Urinary Incontinence; Indwelling Bladder Catheters; Pressure Ulcers; Infectious Illnesses; Pain Assessment and Control; Fall Risk Management; Immunizations; Advance Care Planning; Artificial Nutrition and Hydration; Nutrition, Unintended Weight Loss and Hydration; Medication Practice and Safety; Psychoactive Medications; Restraints; and Quality of Life.

2.2 Sampling

The random sample was developed using the latest facility census data collected from each nursing facility. The census was used to determine facility size. The sample size for each facility was based on the proportion of individuals per facility over a four-month period and each individual had an equal chance of being selected into the sample.

A list of random numbers was used to determine which individual(s) would be selected into the sample. When the NACES interviewer arrived at the facility, the interviewer was instructed to obtain an alphabetized roster of individuals. If the roster was not numbered, the interviewer was instructed to sequentially number the alphabetized roster. The pre-determined randomly selected number was used to identify which individual(s) on the list would be interviewed (i.e., if the random number was 23 then the 23rd person on the roster was selected). If the randomly selected individual refused to participate, was not present at the facility, or was deceased, the interviewer used another pre-determined random number to select an individual for the sample. The same sampling methodology was used in 2008. In years prior to 2008, only individuals from nursing facilities who had Minimum Data Set (MDS 2.0) assessments were included in the sample. The MDS is part of the federally mandated process for clinical assessment of all individuals in Medicare or Medicaid certified nursing homes. The MDS provides a comprehensive assessment of each individual’s functional capabilities and health problems. The MDS assessment information assists nursing home staff to develop specific plans of care to address the needs of each individual (Centers for Medicare and Medicaid Services 2009). Reliance on MDS tended to limit the individuals included in the survey to those who had been in a facility for more than two weeks.
2.3 Data Collection

Thirty-three registered nurses and five pharmacists from NACES completed the NFQR individual assessments this year. NACES submitted all completed NFQR individual assessments to DADS for data analysis.

2.4 Data Analysis

DADS staff analyzed the 2009 NFQR data collected by NACES. Statistical software was used to test for differences in responses to questions asked each year.¹ Most of the quantitative results documented in this report were derived directly from the 2009 NFQR individual assessments. The exception includes data which were obtained from the individual’s Medication Administration Record (MAR) and data from CMS.

¹ Statistically significant differences not likely due to chance are indicated by an asterisk and corresponding p-value throughout this report. A p-value of <.01 means there is a 1% chance that the observed difference is likely due to chance and a 99% chance that the observed difference is due to a real effect.
3.0 FINDINGS

3.1 Demographics

Eighty-six percent of the individuals surveyed were age 65 years or older and 14% were under age 65. Sixty-nine percent were female and 31% were male. Most of the individuals had lived in the nursing facility for a year or more. The distribution of the duration of residency in the nursing facility was as follows:

<table>
<thead>
<tr>
<th>Amount of time individual lived in nursing facility</th>
<th>Proportion of individuals (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 months</td>
<td>15.6</td>
</tr>
<tr>
<td>3-6 months</td>
<td>8</td>
</tr>
<tr>
<td>6-9 months</td>
<td>7.3</td>
</tr>
<tr>
<td>9-12 months</td>
<td>5.9</td>
</tr>
<tr>
<td>1-2 years</td>
<td>20.9</td>
</tr>
<tr>
<td>More than 2 years</td>
<td>42.4</td>
</tr>
</tbody>
</table>

Findings from this year’s NFQR are presented in the order the questions appear in the 2009 NFQR individual assessment. The 14 sections include:

- 3.2 Urinary Incontinence
- 3.3 Indwelling Bladder Catheter Use
- 3.4 Pressure Ulcers
- 3.5 Infectious Illnesses
- 3.6 Pain Assessment and Control
- 3.7 Fall Risk Management
- 3.8 Immunizations
- 3.9 Advance Care Planning
- 3.10 Artificial Nutrition and Hydration
- 3.11 Nutrition, Unintended Weight Loss, and Hydration
- 3.12 Medication Practice and Safety
- 3.13 Psychoactive Medications Usage
- 3.14 Restraints
- 3.15 Quality of Life/Consumer Satisfaction
Evidence of urinary incontinence?

- The interviewers were asked to determine if they saw, smelled, or felt evidence of urinary incontinence. Forty-six percent answered this question “yes” and 54% answered “no” [Q2.1].

- Other questions revealed that:
  - 36% of individuals were always continent and did not need a continence plan [Q2.3]
  - 5% of individuals were unresponsive (i.e., comatose, semi-comatose, stuporous, persistent vegetative state, unarousable, etc.) and were not expected to be continent [Q2.4]

Of those incontinent (46%)

- Did the individuals have a continence plan [Q2.6]?
  - 13% Yes, had a continence plan
  - 17% Had a precluding medical condition [Q2.5]
  - 16% Individuals refused to use the bathroom [Q2.10]

- Of those who had a continence plan (13%)

- Did their continence plan work? [Q2.6 and Q2.8]
  - 7% Yes
  - 88% Had two or more episodes of urinary incontinence in the past two weeks [Q2.8], most episodes (89%) occurred during normal waking hours [Q2.9].

Survey conducted: March – June 2009  [Q#.##] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.2 Urinary Incontinence

Urinary incontinence affects more than 16 million Americans. Although nearly one-half of older individuals in America have episodes of urinary incontinence, it is not a normal consequence of aging. The prevalence of urinary incontinence in individuals of nursing facilities is over 50% nationwide (DHHS AHRQ, 2005) and is a major cause of institutionalization of older individuals (Zimmern, 2001).

Although the causes of urinary incontinence in long-term care are usually multifactorial, dementia and functional impairments are frequent contributors. Potentially modifiable factors include poor pelvic floor muscle contraction, constipation, poorly controlled diabetes, delirium, systolic hypertension, parkinsonism, arthritis, back problems, hearing and visual impairments, recurrent urinary tract infections, some medications (e.g., benzodiazepines, tranquilizers, antidepressants, hypnotics, and diuretics), high caffeine intake, smoking and obesity (Holroyd-Leduc, Sen, Bertenthal, Sands, Palmer, Kresevic, Covinsky, Landefeld, 2007). Environmental factors can also influence the prevalence of incontinence. The distance to reach a commode and the availability of a bedside commode are common environmental challenges. Urinary incontinence may cause embarrassment and may lead to social isolation and depression. Urinary incontinence is associated with a lower quality of life. Hence, promoting urinary continence provides both medical and psychosocial benefits.

Proportion with Urinary Incontinence

When NACES nurses evaluated the urinary continence status of people in nursing facilities, the results for Texas indicate that:

- Forty-six percent of people in nursing facilities were observed to be incontinent in 2009 (Figure 3.2). This was compared to previous years and was significantly more than 2006.2

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>40%</td>
</tr>
<tr>
<td>2005</td>
<td>42%</td>
</tr>
<tr>
<td>2006</td>
<td>40%</td>
</tr>
<tr>
<td>2007</td>
<td>43%</td>
</tr>
<tr>
<td>2008</td>
<td>44%</td>
</tr>
<tr>
<td>2009</td>
<td>46%</td>
</tr>
</tbody>
</table>

- Of the 67% of individuals who were incontinent this year, 13% had a plan for urinary incontinence and 54% did not. Continence promotion plans include scheduled and prompted voiding (i.e., based on a pre-determined schedule of voiding, prompting the individual to toilet and assisting the individual to the bathroom at times when the individual is most likely to need to void) and bladder retraining (i.e., teaching the individual to suppress the urge to void) (Cortés & Chou, 2007).

Note: The below only accounts for 67% (54% + 13%) of incontinent individuals in 2009. Thirty-three percent of individuals who did not have a plan either had a precluding medical condition or refused to use the bathroom (Figure 3.2).

2 Statistically significant at p<.01.
The proportion of incontinent individuals who did not have a continence promotion plan improved to 54% in 2009 compared to 64% in 2008 and 73% in 2007 and 2006.3

<table>
<thead>
<tr>
<th>Of individuals who were incontinent:</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had a continence promotion plan</td>
<td>18%</td>
<td>15%</td>
<td>8%</td>
<td>12%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>No incontinence plan in place</td>
<td>67%</td>
<td>71%</td>
<td>73%</td>
<td>73%</td>
<td>64%</td>
<td>54%</td>
</tr>
</tbody>
</table>

**Reasons for Incontinence**

Medical reasons, such as a terminal condition or an acute urinary tract infection, may explain why an individual has urinary incontinence. At times, the individual may choose not to participate in a continence promotion plan. Urinary incontinence can also occur if the individual refuses help to go to the bathroom or refuses to use toileting devices (such as urinals, bedpans or bedside commodes). Staff knowledge and understanding about continence promotion plans such as conducting a prompted or scheduled voiding plan is important in addressing urinary incontinence.

- A higher number of individuals (17%) had a documented precluding medical condition compared to every other year.4 Also this year, significantly more individuals (16%) refused to use the bathroom compared to all other years:5

<table>
<thead>
<tr>
<th>Reason for urinary incontinence:</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had a precluding medical condition</td>
<td>7%</td>
<td>11%</td>
<td>7%</td>
<td>8%</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>Refused to use the bathroom</td>
<td>9%</td>
<td>4%</td>
<td>12%</td>
<td>8%</td>
<td>10%</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Effective Urinary Continence Promotion**

Some individuals with urinary incontinence may benefit from medical testing to diagnose and treat the causes of urinary incontinence. Other people may benefit from an individualized continence plan that addresses the cause of urinary incontinence (DHHS AHRQ, 1996).

- Of the individuals with urinary incontinence who had a continence promotion plan (13% in 2009), the plan was effective for 7% of those individuals (Figure 3.2).

<table>
<thead>
<tr>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>5%</td>
<td>9%</td>
<td>3%</td>
<td>6%</td>
<td>7%</td>
</tr>
</tbody>
</table>

3 Statistically significant at p<.01.
4 Statistically significant at p<.01 except 2008.
5 Statistically significant at p<.01 except 2006.
The findings suggest continence promotion approaches are effective for only a limited proportion of individuals. Progress in continence promotion will be difficult to achieve until the barriers described below are addressed. Reasons why continence promotion plans were ineffective may include and are not limited to the following (Cortés, 2007):

1. Poorly targeted intervention (i.e., a process is needed to purposefully target individuals most likely to benefit from a continence promotion plan);
2. Continence promotion plans were not individualized (i.e., continence promotion plans should be tailored to the voiding pattern of each person);
3. An inappropriately designed plan (i.e., having an every-two-hour voiding plan even though the person did not need to go every two hours or needed to go more frequently);
4. Staff lack of awareness that the person had a continence promotion plan;
5. Continence promotion plans that were not consistently implemented;
6. Staff turnover;
7. Disproportionate staff-to-resident ratio; and
8. Cognitive and physical abilities of the person.
Figure 3.3 – Indwelling Bladder Catheters

Indwelling bladder catheter in place?

Does the resident have an indwelling bladder catheter?

Yes 6%
No 94%

Medically Proven Need?

57% Yes

The medical record contains a documented need for its initial placement and use.

[Q3.1, 3.2 and 3.3]

If they have a catheter (6%)

Do they also have a serious (i.e., stage III or IV) pressure ulcer?

Yes 23%
No 77%

[Q3.1 and 3.9]

For those with catheter > 6 weeks

Do they have an indication for chronic usage?

Yes 50%
No 50%

[Q3.3, 3.7 and 3.9]

Residents with an indwelling bladder catheter inserted either through the urethra (Foley catheter) or through the abdominal wall (suprapubic catheter).

- Of the 6% of residents with a catheter:
  - 75% have had one in place for more than six weeks [Q3.2], indicating chronic use
  - 18% were prescribed by physicians to accurately record urine output [Q3.3]
  - 2% have a catheter to perform a diagnostic test [Q3.4].

Survey conducted: March – June 2009  [Q#.#] = Survey question number (Appendix A)  
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.3 Indwelling Bladder Catheter Use

An indwelling bladder catheter is a closed sterile system (soft flexible tube) inserted into the bladder through the urethra that remains there to allow urinary drainage. Indwelling bladder catheters are used for a variety of reasons:

- To accurately record urine output;
- For specific diagnostic evaluation;
- To administer a prescribed medication;
- For individuals with urethral obstruction;
- For individuals with ineffective bladder emptying;
- For individuals with pressure ulcers that are not healing because of continual urine leakage; and
- When irreversible medical conditions are present and bed, clothing and absorbent product changes may be painful or disruptive (e.g., metastatic terminal disease, coma, end stages of other conditions).

Proportion with an Indwelling Bladder Catheter

The 2009 survey results indicate that six percent of the individuals had an indwelling bladder catheter.

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>6%</td>
<td>5%</td>
<td>4%</td>
<td>NA</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

- Seventy-six percent of the individuals with an indwelling bladder catheter have had the catheter for more than six weeks (Figure 3.3).

Documented Medical Reason for Catheter Placement

- Of the individuals with indwelling catheters (six percent), 57% have a documented medical reason for the initial placement and use (Figure 3.3).

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>27%</td>
<td>45%</td>
<td>50%</td>
<td>50%</td>
<td>NA</td>
<td>57%</td>
<td></td>
</tr>
</tbody>
</table>

Documented Medical Reason for Chronic Catheter Use

Individuals with chronic (in place for more than six weeks) indwelling bladder catheters have an increased risk for urinary tract infections (UTI), systemic infections and death (Holroyd-Leduc et al., 2007). Catheter-associated complications occur frequently among people living in nursing facilities.

---

6 Data not collected in 2008.
• Of individuals with chronic indwelling bladder catheters, 50% had a documented medical reason for its extended use (Figure 3.3).

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>27%</td>
</tr>
<tr>
<td>2005</td>
<td>45%</td>
</tr>
<tr>
<td>2006</td>
<td>27%</td>
</tr>
<tr>
<td>2007</td>
<td>37%</td>
</tr>
<tr>
<td>2008</td>
<td>NA</td>
</tr>
<tr>
<td>2009</td>
<td>50%</td>
</tr>
</tbody>
</table>

UTI is the most common complication associated with chronic use of indwelling bladder catheters. Urosepsis can result from frequent and repeated UTIs and may lead to sepsis and death. Other complications may include urethritis, or inflammation of the urethral meatus, due to frequent insertion of catheters. Erosion of the urethra may occur, especially in men who have had an indwelling bladder catheter for a long period of time.

People with indwelling bladder catheters should be reevaluated periodically to determine whether a voiding trial or bladder retraining program may be effective in eliminating the need for the indwelling bladder catheter.
**Figure 3.4 – Pressure Ulcers**

**Pressure ulcers**

Did the individual have any pressure ulcers?

- **Yes** 9%
- **No** 91%

**Pressure ulcer location**

Where was the highest stage pressure ulcer located?

- Buttock or sacrum: 48%
- Legs or feet: 43%
- Other: 7%
- Arms or hands: 2%

**If the individual had more than one pressure ulcer (31%)**

Was there a treatment plan for this pressure ulcer?

- **Yes** 92%
- **No** 8%

**What was the lowest stage pressure ulcer? [Q4.10]**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Proportion of individuals (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>40%</td>
</tr>
<tr>
<td>Stage II</td>
<td>45%</td>
</tr>
<tr>
<td>Stage III</td>
<td>2%</td>
</tr>
<tr>
<td>Stage IV</td>
<td>2%</td>
</tr>
</tbody>
</table>

**If the individual had more than one pressure ulcer (31%)**

Was there a treatment plan for the lowest stage pressure ulcer?

- **Yes** 87%
- **No** 13%

---

*Survey conducted: March – June 2009 [Q#.(#) = Survey question number (Appendix A)]
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.
For further information, contact the NFQR Project Lead at 512-438-3472*
3.4 Pressure Ulcers

The National Pressure Ulcer Advisory Panel (NPUAP) defines a pressure ulcer as “a localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction” (NPUAP, 2007). Incidence rates in nationwide long-term care settings range from 2.2% to 23.9% (Lyder, 2003; Duncan, 2007).

Pressure ulcers develop when capillaries supplying the skin and subcutaneous tissues are compressed enough to impede perfusion, leading ultimately to tissue death (necrosis). Pressure ulcers can develop within three to four hours (Merck Manual 2008). Therefore, the key to preventing pressure ulcers is to accurately identify at risk individuals quickly, so that preventive measures may be implemented.

Risk Factors for Pressure Ulcers

The NPUAP (2007) identifies risk factors for pressure ulcers as:
- Inability to perceive pressure;
- Incontinence/moisture;
- Decreased activity level;
- Inability to reposition;
- Poor nutritional intake; and
- Friction and shear.

NACES interviewers found that 67% of people in nursing facilities had risk factors for pressure ulcers and 9% of individuals with a high risk and low risk for pressure ulcers had pressure ulcers during the period the survey was conducted. However, according to the MDS 2.0 Quality Measure/Indicator Report regarding skin care for April to June 2009, 14% of individuals in Texas with high risk for pressure ulcers had pressure ulcers (Stage I-IV). In the same time period, 1.8% of individuals in Texas with low risk for pressure ulcers had pressure ulcers (Stage I-IV) (total 15.8%) (DHHS, MDS, 2008). The national incidence was 13.1% and 2.5% respectively (total 15.5%). The difference in prevalence observed between NFQR and MDS may be due to differences in the way data is collected for each report. For example, NFQR data were collected March through June 2009 and MDS data were collected April through June 2009. The MDS is self-reported by facilities while NACES reviewers collected the NFQR data.

Treatment Plans for Pressure Ulcers

A treatment plan for pressure ulcers should address risk factors for pressure ulcers. Treatment plans for individuals who were at risk for pressure ulcers in 2009 included the following:

---

7 MDS data is self-reported by Medicare or Medicaid certified nursing facilities
8 MDS data is self-reported by Medicare or Medicaid certified nursing facilities
Treatment plan to address risk factors for pressure ulcers

<table>
<thead>
<tr>
<th>Treatment Plan</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedridden and repositioned every two hours (minimum)</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>In chair and able to self-shift weight every 15 minutes</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>In chair and repositioned by staff every hour</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>No plan to address risk factors for pressure ulcers</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Other treatment plans</td>
<td>41%</td>
<td>34%</td>
</tr>
</tbody>
</table>

**Location of Highest Stage Pressure Ulcer**

Nine percent of individuals had a pressure ulcer this year compared to 19% in 2008. For individuals who had a pressure ulcer, the location of the highest stage pressure ulcer was as follows: 48% were located on the buttock or lower back, 43% were located on the legs or feet, six percent were in the other locations of the body and two percent were located on the arms or hands (Figure 3.4). Ninety-two percent of these individuals had a treatment plan in place. If the individual had one pressure ulcer, it will be classified as the highest stage. The distribution of the highest stage pressure ulcer documented was:

<table>
<thead>
<tr>
<th>Highest stage pressure ulcer</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>34%</td>
<td>18%</td>
</tr>
<tr>
<td>Stage II</td>
<td>42%</td>
<td>44%</td>
</tr>
<tr>
<td>Stage III</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Stage IV</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Unstageable</td>
<td>NA</td>
<td>15%</td>
</tr>
</tbody>
</table>

All stages of pressure ulcers for 2008 were 19% and in 2009 it was 9%.

If the individuals had more than one pressure ulcer, the interviewers documented both the highest and lowest staged pressure ulcer. Of the nine percent of individuals who had a pressure ulcer, 31% had more than one pressure ulcer.

**Lowest Stage Pressure Ulcer**

Of the individuals with multiple stages of pressure ulcers, 87% had a treatment plan for the lowest stage pressure ulcer (Figure 3.4). The distribution of the lowest stage pressure ulcer documented was:

---

9 In 2008, this question was only asked for people at high risk for pressure ulcers. In 2009, we asked for all people with or without risk for pressure ulcers. When 2009 data was analyzed only for people who were high risk for pressure ulcer, there were still a significant lower proportion of people with pressure ulcers (13%).
<table>
<thead>
<tr>
<th>Lowest stage pressure ulcer</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Stage II</td>
<td>42%</td>
<td>45%</td>
</tr>
<tr>
<td>Stage III</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Stage IV</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Unstageable</td>
<td>NA</td>
<td>12%</td>
</tr>
</tbody>
</table>

**Prevention Strategies**

Prevention strategies are critical to prevent the development of pressure ulcers in the high-risk group. The high risk group of individuals includes people with impaired mobility, decreased mental status, bladder or bowel incontinence, poor nutrition or chronic medical conditions. Development of a plan of care should include the person receiving treatment and the family (if available). The plan of care may include a designated person responsible for the plan of care; an individual’s overall treatment plan and goals; consultation from an appropriate professional discipline (i.e. physical therapy, occupational therapy and registered dietician); staff education and individualized plan of care for the individual and family (DHHS AHRQ, 2008).
Figure 3.5 – Infectious Illnesses

Did the individual have an infection in the past seven days?

- Yes: 13%
- No: 87%

Antibiotic resistance

Infectious agents are becoming increasingly resistant to antibiotics; two of the most prevalent are:

- Methicillin-resistant Staphylococcus aureus (MRSA)
- Vancomycin-resistant Enterococcus (VRE)

How many infections were MRSA?

<table>
<thead>
<tr>
<th>Year</th>
<th>MRSA Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.4%</td>
</tr>
<tr>
<td>2007</td>
<td>0.3%</td>
</tr>
<tr>
<td>2008</td>
<td>0.5%</td>
</tr>
<tr>
<td>2009</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

How many infections were VRE?

<table>
<thead>
<tr>
<th>Year</th>
<th>VRE Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.1%</td>
</tr>
<tr>
<td>2007</td>
<td>0.0%</td>
</tr>
<tr>
<td>2008</td>
<td>0.4%</td>
</tr>
<tr>
<td>2009</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Survey conducted: March – June 2009  
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.5 Infectious Illnesses

Prevention of the spread of infectious illnesses is especially important for frail or medically compromised individuals. When an individual with a resistant organism is treated with an ineffective antibiotic, the organism continues to infect the person, and can potentially spread to other people, further compounding the antibiotic resistance problem (Tenover, 2008). Widespread antibiotic use increases the risk of acquiring diseases caused by drug resistant bacteria such as methicillin resistant Staphylococcus aureus (MRSA) and vancomycin resistant Enterococcus (VRE). Individuals have varying susceptibility to develop an infection after exposure to a pathogenic organism. Some may develop symptomatic disease and others may only retain the organism as a carrier.

Types and Rates of Infection in Nursing Facilities

Results from the NFQR assessment indicate that the proportion of individuals with an infectious illness, including single or multiple infections in a single individual, leveled off in 2009 at 13% (Figure 3.5):

- **Proportion of individuals with an infectious illness in the past seven days:**

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary tract infection</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Skin infections</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>0.7%</td>
<td>0.9%</td>
<td>2%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Diarrhea and fever</td>
<td>0%</td>
<td>0.1%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Other infections</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Organisms are spread to other individuals through four common routes of transmission: contact (direct or indirect), respiratory droplets (coughing, sneezing, talking), airborne spread (small organisms like chicken pox) and common vehicle (contaminated food, water, devices). Use of infection control and prevention strategies can reduce infection and the spread of infections among individuals. Infectious illnesses occur frequently in nursing facilities. Common infections in nursing facilities include urinary tract infections, skin and soft tissue infections, or pneumonia (Nicolle, 2001).

The NFQR individual assessment indicates a slight increase in urinary tract infections in 2009 compared to previous years. Skin infections, pneumonia, diarrhea and fever have decreased in 2009 compared to previous years:

- **Proportion of individuals with infectious illness:**

- Urinary tract infection
- Skin infections
- Pneumonia
- Diarrhea and fever
- Other infections
Resistant Infectious Agents

The use of broad spectrum antibiotics has been attributed to the development of antibiotic-resistant microorganisms (Weiner, 1999). “Antibiotic resistance occurs when bacteria change in some way that reduces or eliminates the effectiveness of drugs, chemicals, or other agents designed to treat or prevent infections” (CDC, Antibiotic Resistance, 2009).

Two of the most prevalent bacteria exhibiting antibiotic resistance are MRSA and VRE. These types of resistant infections are most commonly found in skin infections, deep tissue wounds or abscesses. This year, reported cases of antibiotic-resistant illnesses from MRSA remained unchanged while VRE decreased from the previous year (Figure 3.5):

<table>
<thead>
<tr>
<th>Antibiotic-resistant infection</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRSA Infection</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>VRE Infection</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.4%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Prevention of Antibiotic Resistant Infections

The CDC’s campaign Prevent Antimicrobial Resistance centers on four main strategies: prevent infection, diagnose and treat infections, use antimicrobials wisely and prevent transmission (CDC, Campaign to Prevent, 2005).

The CDC presents basic steps that may be implemented to prevent infections and antimicrobial resistance among individuals in nursing homes (CDC, Campaign to Prevent, 2005):

- Plan and implement influenza and pneumococcal vaccine campaigns to prevent pneumonia;
- Use indwelling catheters only when necessary and follow appropriate insertion techniques to reduce urinary tract infections;
- Reposition individuals frequently and inspect pressure points for redness or skin irritation to prevent pressure ulcers;
- Use recommended infection control precautions to prevent transmission of infectious agents from individual to individual; and
- Practice hand hygiene and promote hand hygiene among individuals and visitors.
What was the individual’s level of pain on the Wong-Baker FACES Pain Scale [Q6.1]?

- No pain: 60%
- Mild pain: 10%
- Moderate pain: 7%
- Severe pain: 2%
- Very Severe pain: 1%
- Worst pain: 1%
- Unable to determine: 18%

Reliability of pain assessment

Was a validated pain assessment tool used consistently with a specific individual?

- Yes: 66%
- No assessment tool used: 34%

Of individuals in moderate to worse pain (11%)

Was the individual satisfied with the level of pain relief in the past 24 hours?

- Yes: 56%
- No: 26%
- Unable to determine: 18%

Survey conducted: March – June 2009  [Q#.#] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.
For further information, contact the NFQR Project Lead at 512-438-3472
3.6 Pain Assessment and Pain Control

Pain is a complex, subjective and unpleasant sensation derived from sensory stimuli and modified by memory, expectations and emotions. Diagnosis is made by history, assessment and physical examination. Treatment may include pharmacological and non-pharmacological interventions.

Clinicians tend to underestimate pain intensity and individuals in long-term care often underreport symptoms. Pain intensity can be rated quantitatively using various pain scales. Eighty percent of individuals in long-term care, including those with significant cognitive impairment, can provide meaningful information when appropriate scales are used. Clinicians now have access to pain assessment scales that have been validated.

Pain is more common among the elderly than among younger adults. In one study, pain prevalence in older individuals ranged from 36% to 88%. The older individuals in nursing homes may have a higher occurrence of pain (Merck Manual of Geriatrics 3rd Edition, Pain, 2005).

A structured program for routine pain assessment is a key element in effective pain management (Ferrell, 1995). The NFQR survey has been designed to more closely examine pain assessment and pain control for people in nursing facilities. Two key elements of successful pain assessment are use of a validated pain assessment tool and consistent use of the same validated pain assessment tool for each individual.

Use of Pain Assessment Tools

NACES interviewers reviewed medical charts to determine if validated pain assessment tools were being used. Interviewers found that nursing facilities used both observational and self-reported assessment tools. Observational assessment tools included either the Pain Assessment in Advanced Dementia (PAINAD) Scale or the Assessment of Discomfort in Dementia (ADD). Self-reported pain assessment tools included the Wong-Baker Faces Pain Scale, Pain Thermometer, Verbal Description Tool or a Numeric 0-10 Rating Scale.

- In 2009, people were more likely to have their pain assessed with a validated assessment tool compared to previous years (Figure 3.6).

The proportion of individuals assessed for pain using a validated assessment tool:

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>56%</td>
</tr>
<tr>
<td>2005</td>
<td>59%</td>
</tr>
<tr>
<td>2006</td>
<td>40%</td>
</tr>
<tr>
<td>2007</td>
<td>71%</td>
</tr>
<tr>
<td>2008</td>
<td>70%</td>
</tr>
<tr>
<td>2009</td>
<td>74%</td>
</tr>
</tbody>
</table>
**Consistent Use of Pain Assessment Tools**

Using a validated pain assessment tool consistently is important because repeated use of the same tool each time an individual is assessed for pain increases the reliability of the assessment.

- Survey results indicate consistent use of a validated assessment tool (observational or self-reported) has increased compared to previous years.\(^{10}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>42%</td>
<td>39%</td>
<td>35%</td>
<td>64%</td>
<td>64%</td>
<td>66%</td>
</tr>
</tbody>
</table>

**Reliable Pain Assessment Results**

- Interviewers used the Wong-Baker tool to measure individuals’ current level of pain. Excluding the individuals for whom interviewers were unable to determine pain levels, 73% reported no pain. Significantly more people (14%) reported moderate to worse pain than people in previous years.\(^{11}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7%</td>
<td>7%</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
<td>14%</td>
</tr>
</tbody>
</table>

**Proportion of Individuals Satisfied with their Pain Management**

- The proportion of individuals with moderate to worst pain who were satisfied with their pain management (56%) has decreased compared to previous years.

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009(^ {12})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>64%</td>
<td>55%</td>
<td>63%</td>
<td>60%</td>
<td>65%</td>
<td>56%</td>
</tr>
</tbody>
</table>

**Frequency of Pain Assessment**

- 2009 results indicate that 45% of all individuals in nursing facilities who reported moderate to worse pain were assessed for pain every shift. Twenty seven percent of individuals were assessed for pain before pain medications were administered and ten percent were assessed after pain medications were administered:

<table>
<thead>
<tr>
<th>Year</th>
<th>Every shift</th>
<th>Every day</th>
<th>Once a week</th>
<th>Once a month</th>
<th>Before pain medications</th>
<th>After pain medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>54%</td>
<td>4%</td>
<td>4%</td>
<td>9%</td>
<td>21%</td>
<td>7%</td>
</tr>
<tr>
<td>2009</td>
<td>45%</td>
<td>16%</td>
<td>3%</td>
<td>8%</td>
<td>27%</td>
<td>10%</td>
</tr>
</tbody>
</table>

\(^{10}\) Statistically significant at p<.01.

\(^{11}\) Statistically significant at p<.01

\(^{12}\) This survey did not include a question why more individuals are not satisfied with pain management.
Ideally, each individual would be assessed for pain both before and after pain medications are administered.

**Pain: The 5th Vital Sign™**

The American Pain Society has coined the phrase “Pain: The 5th Vital Sign™” to elevate awareness of pain treatment among healthcare professionals. James Campbell, MD in giving his presidential address to the American Pain Society on November 11, 1996, pointed out that if pain was assessed with the same zeal as vital signs (temperature, pulse, respiration and blood pressure), pain would have a much better chance of being treated properly (VHA, 2000).
Figure 3.7 – Fall Risk Management Practices

Impact of falls

- Fall prevention strategies can reduce pain and suffering.*
- The 2009 fall rate in Texas nursing facilities is 11.2%.+ 
- Falls and injuries related to falls present a serious health problem for people 65 and older.
- By 2020, the annual direct and indirect costs of falls in the elderly are expected to reach $54.9 billion.
- In 2006, 16,650 fall-related deaths of individuals 65 and older were reported.

For individuals currently in nursing facilities

Has there been a fall in the past 30 days?

- Yes 9%
- No 91%

Of individuals who fell in the past 30 days (9%)

Was a fall assessment done within 24 hours of the fall?

- Yes 52%
- No 48%

---

*Centers for Disease Control (www.cdc.gov/nceh/dls/osteoporosis.htm)
+ Minimum Data Set
3.7 Fall Risk Management Practices

Falls and injuries related to falls remain a serious health problem for people aged 65 and older. Falls are the leading cause of non-fatal injuries, as well as injury-related deaths in this age group (CDC, NCIP, 2009).

Falling may be related to a variety of health problems. People in nursing facilities are typically more frail than older adults living in the community. They are generally older, have more chronic medical conditions and have impaired mobility. Cognitive changes tend to be more prevalent in people in nursing facilities compared to community-dwelling older adults. All of these factors contribute to an increased risk for falls and subsequent injury (Feightner, Norris, Patterson, Walton, 2003).

Most falls occur as the result of multiple contributing factors. Managing the risk for falls and fall-related injuries requires identifying the individual and environmental factors that contribute to fall risk (Josephson, Rubenstein, 2006; American Geriatric Society, 2001; Registered Nurses’ Association of Ontario, 2001).

Fall Rates

- Nine percent of individuals in nursing facilities fell during the past 30 days (Figure 3.6). The proportion of individuals in nursing facilities who fell during the past 30 days increased from seven percent in 2008 to nine percent in 2009.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>9%</td>
</tr>
<tr>
<td>2005</td>
<td>10%</td>
</tr>
<tr>
<td>2006</td>
<td>8%</td>
</tr>
<tr>
<td>2007</td>
<td>8%</td>
</tr>
<tr>
<td>2008</td>
<td>7%</td>
</tr>
<tr>
<td>2009</td>
<td>9%</td>
</tr>
</tbody>
</table>

Preventing Falls: The Fall Risk Assessment

A successful fall risk management program requires a comprehensive clinical assessment of the individual and his/her environment. Each individual should be assessed for fall risk within 24 hours of admission, with any significant change in condition and at least annually. At a minimum, the fall risk assessment should address the following risk factors (American Geriatric Society, 2001; American Medical Directors Association, 2003; Rubenstein, 2006; Vu M., Rubenstein, A., Weintraub, A., 2006; Lyons, 2004; Agostini, Baker & Bogardus, 2001):

- Deficit in gait, balance and lower extremity strength;
- Medication regimen, specific medication classes that could increase the risk of falls, and polypharmacy;
- Changes in orthostatic blood pressure; and
- Environmental factors that could increase the risk for falls.

The risk of fall-related injuries must also be considered. People with osteoporosis or a history of prior fracture are at greater risk for subsequent fractures. In addition, people with an intrinsic or
acquired coagulation disorder (e.g., taking blood thinners) may have a greater risk of serious bleeding from an injury (Josephson & Rubenstein, 2006; Gray-Micelli, 2008).

When a fall occurs, the initial fall risk assessment should be repeated, along with a thorough investigation of the circumstances of the fall (AMDA, 2003; RNA of Ontario, 2005). The post-fall investigation should also determine whether the fall affected the individual’s gait confidence. Fear of falling has been associated with poorer health status and functional decline (Josephson & Rubenstein, 2006; Friedman, Munoz, West, 2002; Legeters, 2002).

The proportion of individuals assessed for fall risk within 14 days of admission or within 14 days of most recent full MDS assessment (2009):

<table>
<thead>
<tr>
<th>When assessment performed</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 14 days of admission</td>
<td>44%</td>
</tr>
<tr>
<td>Within 14 days of readmission</td>
<td>3%</td>
</tr>
<tr>
<td>Within 14 days of change in condition</td>
<td>2%</td>
</tr>
<tr>
<td>Quarterly</td>
<td>46%</td>
</tr>
<tr>
<td>Annually</td>
<td>5%</td>
</tr>
</tbody>
</table>

Reassessment after a Fall

- Of the nine percent of people living in nursing facilities who fell within the past 30 days (Figure 3.7), 52% were reassessed for fall risks within 24 hours to determine if contributing factors for falling were addressed in the care plan.

<table>
<thead>
<tr>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>31%</td>
<td>48%</td>
<td>36%</td>
<td>46%</td>
<td>51%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Significantly more individuals were reassessed within 24 hours of a fall in 2009 compared to previous years. While the proportion of individuals who were reassessed after a fall has increased during the past four years, these results indicate that 48% of all individuals still need to be reassessed after a fall.

---

13 Statistically significant at p<.01
Figure 3.8 – Immunization Practices

### Annual flu vaccine

Documentation of yearly flu vaccine given to individuals who had been in a facility at least three months?

- **Yes**: 76%
- **9%**: Not vaccinated: Refused or had a contraindication
- **14%**: Not vaccinated: Had no contraindication and did not refuse

**Not vaccinated**: Had no contraindication and did not refuse

### Flu vaccine trends

#### Annual flu vaccination

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>59</td>
</tr>
<tr>
<td>2005</td>
<td>62</td>
</tr>
<tr>
<td>2006</td>
<td>76</td>
</tr>
<tr>
<td>2007</td>
<td>75</td>
</tr>
<tr>
<td>2008</td>
<td>74</td>
</tr>
<tr>
<td>2009</td>
<td>76</td>
</tr>
</tbody>
</table>

**Goal**: 80%

### Pneumococcal vaccine trends

#### Pneumococcal vaccination ever given?

- **Yes**: 71%
- **29%**: No

**Not vaccinated**: Had no contraindication and did not refuse

### Pneumonia vaccine (after age 65)

Survey conducted: March – June 2009

Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.8 Immunization Practices

In April 2008, a National Vital Statistics Report ranked influenza (flu) and pneumonia the eighth leading cause of death among the total population in the United States (Gorina, Kelly, Lubitz, and Hines, 2008). The Centers for Disease Control and Prevention (CDC) states the best way to prevent flu is to get vaccinated for flu each year. Age is an important risk factor for mortality because the death rate for flu and pneumonia rises sharply with age. In 2005, 63,000 deaths were caused by flu and pneumonia, and more than 88% of those deaths were among persons 65 years of age and over (DHHS, Deaths: Final data for 2005, 2008).

In the United States, annual epidemics of flu typically occur during the fall or winter months, but the peak of flu activity can occur as late as April or May (DHHS, Influenza 2009-10 Influenza Prevention, 2009). One of the Healthy People 2010 objectives is to achieve a target of 90% of all people living in nursing homes to be immunized for flu and pneumonia. Increasing vaccination coverage among people who have high risk conditions and are over 65 years old is the highest priority for expanding flu vaccine use (DHHS, Healthy People 2010, 2009).

The flu vaccine can prevent illness from flu or lessen the severity of illness, prevent complications and reduce the risk of hospitalization and death. High rates of flu vaccination of individuals and staff prevent flu outbreaks in nursing homes. The flu vaccine is recommended to be given annually because flu viruses change from year to year. The vaccine given in a particular year is protective only against the strain of flu for that season.

Prevalence data from 2008 of Texans age 65 and older who had a flu shot within the past year was 71% (CDC, Prevalence and Trends Data, 2008). In the first quarter of 2009, national prevalence of adults age 65 and older in the general population who had a flu shot within the past 12 months was 71% (CDC, Early Release, 2009).

Pneumococcal pneumonia is the most common clinical presentation of pneumococcal disease among adults. One dose of pneumococcal vaccine is recommended for all adults 65 years and older. A second dose is recommended for adults 65 years and older when they received the first dose when younger than 65 and it has been 5 years or more since their first dose (CDC Recommends Pneumonia Vaccine, 2009).

The national prevalence data of adults age 65 to 74 who had ever received a pneumococcal vaccination was 56% and 69% for persons 75 years and older (CDC, Early Release, 2009).

Influenza Vaccinations

The flu is a highly contagious respiratory illness. The flu is spread easily from person to person primarily when an infected person coughs or sneezes. Studies have shown the flu virus can survive on environmental surfaces and can infect a person for two to eight hours after being deposited on the surface (CDC Questions and Answers H1N1, 2009).
Individuals in nursing facilities (who have resided in the nursing facility for 3 months or longer) who received the flu shot in 2009 increased by 2% compared to last year (Figure 3.8):

<table>
<thead>
<tr>
<th>Year</th>
<th>Flu Shot Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>59%</td>
</tr>
<tr>
<td>2005</td>
<td>62%</td>
</tr>
<tr>
<td>2006</td>
<td>76%</td>
</tr>
<tr>
<td>2007</td>
<td>75%</td>
</tr>
<tr>
<td>2008</td>
<td>74%</td>
</tr>
<tr>
<td>2009</td>
<td>76%</td>
</tr>
</tbody>
</table>

The proportion of individuals in nursing facilities who received the flu shot was higher than the state and national vaccination prevalence rate for the general population (Figure 3.8). Of the individuals who were not vaccinated in 2009 (24%): 63% had no contraindication, did not refuse and were therefore eligible to receive the flu vaccine; 37% refused the vaccine or had a contraindication.

Compared to previous years, the proportion of people living in nursing facilities who refused the flu shot or who had a contraindication in 2009 were as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Flu Shot Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>12%</td>
</tr>
<tr>
<td>2005</td>
<td>16%</td>
</tr>
<tr>
<td>2006</td>
<td>31%</td>
</tr>
<tr>
<td>2007</td>
<td>41%</td>
</tr>
<tr>
<td>2008</td>
<td>44%</td>
</tr>
<tr>
<td>2009</td>
<td>37%</td>
</tr>
</tbody>
</table>

Since October 2005, CMS has required nursing homes participating in the Medicare and Medicaid programs to offer all individuals flu and pneumococcal vaccines and to document the results. According to the requirements, each individual is to be vaccinated unless contraindicated medically, the individual or a legal representative refuses vaccination or the vaccine is not available because of shortage.

**Pneumococcal Vaccinations**

CDC data from 2006 indicate that 5,000 people die from invasive pneumococcal disease each year and nearly half are older adults. The pneumococcal vaccine is effective in preventing 60-70% of invasive disease. As many as 175,000 hospitalizations from pneumococcal pneumonia are estimated to occur annually in the United States.

The proportion of individuals over age 65 with documentation that a pneumococcal vaccination was given was significantly greater in 2009 than in 2004 and 2005 (FIGURE 3.8).  

<table>
<thead>
<tr>
<th>Year</th>
<th>Pneumococcal Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>27%</td>
</tr>
<tr>
<td>2005</td>
<td>40%</td>
</tr>
<tr>
<td>2006</td>
<td>59%</td>
</tr>
<tr>
<td>2007</td>
<td>67%</td>
</tr>
<tr>
<td>2008</td>
<td>67%</td>
</tr>
<tr>
<td>2009</td>
<td>71%</td>
</tr>
</tbody>
</table>

Statistically significant at p<.01.
Figure 3.9 – Advance Care Planning

Do individuals have an advance care document (for individuals who have been in facilities for three months or more)?

- Yes 66%
- No 34%

Types of advance care documents:
- Out-of-hospital do-not-resuscitate
- Durable medical power of attorney
- Directive to physicians

General types of advance care choices:
- “I want everything done.”
- “I want only medications, and no CPR or intubation.”
- “I want to allow a natural death; no heroic measures, only comfort medications.”

Was care consistent with individual’s advance care document (includes all individuals)?

- Yes 99%
- No 1%

Of all Individuals with a DNR order

- 51% Out-of-hospital DNR
- 40% DNR order

Did the individuals have a durable medical power of attorney (includes all individuals)?

- Yes 31%
- No 69%

Survey conducted: March – June 2009  [Q#.##] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.9 Advance Care Planning

Advance care planning (ACP) is a process of informed decision-making that acknowledges a person's autonomy and right of choice. The ACP process helps to bring the person's and family's values to bear on all care decisions in order to avoid unwanted medical interventions, particularly near the end of life (i.e., last six months). While advance care planning is often discussed in the context of end-of-life care, the underlying concept is relevant to all clinical decisions.

ACP involves making decisions regarding the use of life- or organ-sustaining measures such as cardio-pulmonary resuscitation, artificial ventilation and artificial nutrition and hydration. ACP may also address other medical interventions such as hospitalization, chemotherapy, dialysis and antibiotic therapy. Decisions made during the ACP process should be recorded in specific documents in order to ensure that the person's decisions will have the support of the law. In Texas, these documents include Directive to Physicians and Family or Surrogates, Medical Power of Attorney, and Out-of-Hospital Do-Not-Resuscitate that specify which interventions (e.g., cardiopulmonary resuscitation, hospitalization and artificial nutrition and hydration), if any, a person has chosen to forego (DADS, Advance Care Planning, 2009).

Proportion with an Advance Care Planning Document

- Nursing facility individuals who had an advance care document decreased by 1% from 2008.

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>68%</td>
<td>69%</td>
<td>67%</td>
<td>66%</td>
</tr>
</tbody>
</table>

Care is Consistent with Individual’s Advance Directive Care Documents

- Advance care plans which addressed artificial nutrition and hydration in 2009 significantly increased compared to previous years.\(^{15}\)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>16%</td>
<td>24%</td>
<td>29%</td>
</tr>
</tbody>
</table>

- Of the nursing facility individuals with advance care directives, care consistent with the directive increased from 97% in 2008 to 99% in 2009.\(^{16}\)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>98%</td>
<td>99%</td>
<td>96%</td>
<td>99%</td>
<td>97%</td>
<td>99%</td>
</tr>
</tbody>
</table>

\(^{15}\) Statistically significant at p<.0001
\(^{16}\) Statistically significant at p<.01
Out-of-Hospital Do-Not-Resuscitate (OOHDNR)

This form is for use when an individual is not in the hospital. It lets the individual tell the healthcare workers, including Emergency Medical Service workers, NOT to do certain interventions if the individual stops breathing or the individual’s heart stops.

- More than half of all individuals with an advance care document had an OOHDNR (Figure 3.9).

Directives to Physician

The directive to physician document allows an individual to instruct a physician not to use artificial methods to extend the natural process of dying.

- The proportion of individuals with a directive to physician document increased by 3% in 2009 compared to 2008.

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>6%</td>
<td>26%</td>
<td>24%</td>
<td>27%</td>
</tr>
</tbody>
</table>

The Durable Medical Power of Attorney

The durable medical power of attorney document identifies whom an individual chooses to make medical decisions when that individual is no longer able to make decisions for him or herself. The proportion of individuals with a durable medical power of attorney document increased by 1% in 2009 compared to 2008.

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>29%</td>
<td>29%</td>
<td>30%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Advance care planning is a 5-step process:

- The individual needs to think about what he or she would want if he/she is unable to talk or communicate with anyone.
- The individual needs to decide what choices will need to be made if the individual becomes very ill at home, in a nursing home or in a hospital.
- The individual needs to talk to family and physicians about treatment desires.
- The individual needs to complete the papers that spell out wishes in case of an accident or illness.
- The individual needs to inform others of the decisions made.
Figure 3.10 – Artificial Nutrition & Hydration

**Tube feeding**

Did the individual receive tube feedings?

- Yes 7%
- No 93%

**Of individuals who received tube feedings > 30 days**

Were their nutritional goals regularly assessed?

- Yes 66%
- No 26%
- 9% Answered "not applicable"

**Of individuals who received tube feedings**

Proportion with late-stage dementia or end-stage illness related to advanced cancer

Survey conducted: March – June 2009  [Q#.#] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.10 Artificial Nutrition and Hydration

As many as 65% of persons in nursing homes experience unintended weight loss and undernutrition (American Dietetic Association, 2005). Artificial nutrition and hydration is a medical treatment that allows a person to receive food and fluids when no longer able to take them by mouth. Artificial nutrition and hydration may be provided through intravenous administration or by putting a tube in the stomach. The most common method of administering artificial feeding and hydration is to use a percutaneous endoscopic gastrostomy tube. The tube is surgically inserted through an opening in the abdomen directly into the stomach.

Proportion with a Feeding Tube

- Review of the NFQR data indicates that the proportion of nursing facility individuals who received artificial nutrition and hydration through a feeding tube is relatively low and has changed very little over the past five years. Seven percent of individuals received tube feedings this year (Figure 3.10).

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>8%</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
</tr>
</tbody>
</table>

- Of the individuals who had a feeding tube, 44% had experienced aspiration pneumonia or pressure ulcers with late-stage dementia prior to the insertion of the feeding tube. This was significantly higher in 2009 than 2006.\(^\text{17}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>51%</td>
<td>21%</td>
<td>27%</td>
<td>45%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Of the seven percent of nursing facility individuals provided tube feedings, 38% of these individuals (or the individual’s representative) were provided with information regarding the risks and benefits of tube feeding.\(^\text{18}\)

Use of a Feeding Tube for More Than 30 Days

Individuals with a feeding tube in place for 30 days or longer need to be assessed every 30 days to ensure that nutrition and hydration goals are being met and that the necessity for artificial nutrition and hydration is reevaluated.

- In 2009, 66% of nursing facility individuals with a feeding tube in place for 30 days or longer were reassessed in the past 30 days (Figure 3.10).

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>41%</td>
<td>17%</td>
<td>56%</td>
<td>59%</td>
<td>66%</td>
</tr>
</tbody>
</table>

\(^{17}\) Statistically significant at p<.01
\(^{18}\) Question revised to clarify risks and benefits of tube feedings instead of consent for surgical placement of feeding tube.
Feeding Tube in Place but Not Used

For some people, feeding tubes may be left in place but not used. In this way, individuals retain the option of using the feeding tube in the event that the individual is unable to eat or drink by mouth. In 2009, five percent of individuals had a feeding tube in place but were not tube fed for more than 30 days.19

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6%</td>
<td>2%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Feeding Tubes and Individuals who have Dementia or are at the End of Life

As with the previous five years, NFQR 2009 evaluated whether individuals with the following conditions had a feeding tube:

- Late stage dementia (e.g., non-verbal or non-ambulatory);
- End-stage metastatic cancer or organ failure (end-stage heart failure, renal failure, liver failure); or
- Poor performance status on Eastern Cooperative Oncology Group (ECOG) performance scale.
  - The ECOG scale is used “to assess how a patient’s disease is progressing, how the disease affects the daily living activities of the patient, and determines appropriate treatment and prognosis” (ECOG, 2006).

Results indicate the proportion of individuals receiving artificial nutrition and hydration with late-stage dementia or end-stage illness organ failure increased by close to four percent from last year to 44% this year (Figure 3.10):

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38%</td>
<td>31%</td>
<td>31%</td>
<td>40%</td>
<td>44%</td>
</tr>
</tbody>
</table>

19 This question was not asked in 2005 and 2006.
Figure 3.11 – Nutrition, Unintended Weight Loss & Hydration

Did the individual have an initial or annual nutritional assessment?

- Unintended weight loss can directly affect overall endurance and resistance to disease.

For all individuals

Did the initial or annual assessment include estimating the individual’s nutritional needs?

- [Q11.1]
  - Yes: 93%
  - No: 7%

Assessing risk factors

- [Q11.2]
  - For unintended weight loss: 71% Yes, 29% No

- [Q11.3]
  - For dehydration: 70% Yes, 30% No

Survey conducted: March – June 2009  [Q#.#] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.11 Nutrition, Unintended Weight Loss and Hydration

Nutritional assessments are intended to ensure that nutritional needs are met and to prevent unintended weight loss. Unintended weight loss can contribute to an overall medical condition called sarcopenia, which is the loss of muscle and strength, and is linked to poor balance, decline in gait speed and increased falls and fractures (Castillo, Doodman-Gruen, Kritz-Silverstein, Morton, Wingard, Barrett-Conner, 2003). Malnutrition and unintended weight loss are also associated with increased hospitalizations, risk of pressure ulcers, infection rates, heart failure and mortality. The most common causes of unintended weight loss are cancer, gastrointestinal disorders, endocrine diseases, infections, medications, cardiovascular disease and nervous system disorders, including depression (Hall, Cohen, 2003).

Proportion with a Comprehensive Nutritional Assessment

- The proportion of individuals in 2009 who had a comprehensive nutritional assessment completed on admission or annually did not change from previous years.

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
</tr>
</tbody>
</table>

- The proportion of individuals whose nutritional assessment included estimating nutritional needs increased by 2% from 2008 (Figure 3.11).

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>89%</td>
<td>97%</td>
<td>99%</td>
</tr>
</tbody>
</table>

Risk Factors for Weight Loss and Dehydration

Risk factors for weight loss include confusion, dementia, poor oral hygiene or missing teeth, dysphagia (difficulty swallowing) and an inability to feed oneself. Risk factors for dehydration include difficulty holding a glass or swallowing, swallowing only thickened liquids, age greater than 85 years, use of diuretics, confusion and dementia.

- The proportion of individuals with unintentional weight changes.

<table>
<thead>
<tr>
<th>Weight Change</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>4%</td>
<td>10%</td>
<td>9%</td>
</tr>
</tbody>
</table>

- The proportion of individuals who were assessed for risk factors for weight loss increased two percent in 2009.

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>65%</td>
<td>69%</td>
<td>71%</td>
</tr>
</tbody>
</table>
• The proportion of individuals with care plans addressing risk of weight loss is 65%.\textsuperscript{20}

The proportion of individuals who were assessed for risk factors for dehydration increased significantly in 2009 compared to previous years.\textsuperscript{21}

\begin{tabular}{ccc}
2007 & 2008 & 2009 \\
53\% & 63\% & 70\%
\end{tabular}

The proportion of individuals with care plans addressing dehydration is 63%.\textsuperscript{22}

\textsuperscript{20} New question for 2009.
\textsuperscript{21} Statistically significant at p<.01
\textsuperscript{22} New question for 2009.
Figure 3.12 – Medication Practice & Safety

Prescribed medications

Average number of prescribed medications, per individual, per day:

```
<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
```

List of top 10 drug interactions*

How many individuals' medication was from the list?

```
<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>12</td>
<td>12</td>
<td>11</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>
```

*Medications associated with adverse outcomes

Most commonly used drug from the list:

ACE-I plus K+ = 10%  
(Angiotensin converting enzyme inhibitor plus potassium)

Not mitigated by a diuretic = 2%

Beers List**

How many individuals received at least one medication on this list?

```
<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>16</td>
<td>15</td>
<td>17</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>
```

**Medications generally avoided in the elderly

Most common medication used on the Beers List:

Digoxin

Survey conducted: March – June 2009  
Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.
For further information, contact the NFQR Project Lead at 512-438-3472
3.12 Medication Practice and Safety

Medication Administration Record (MAR)

The MAR is a record of drugs administered to an individual at a facility by a nurse or other health care professional. The nurse or health care professional signs off on the record at the time that the drug is administered.

The individual’s physician determines and orders the specific prescriptions and over-the-counter substances needed and delegates administration of the prescribed items to the nursing facility staff. Staff annotates every prescription and over-the-counter substance given to the individual, including the route, dosage, date and time of administration on the MAR.

3.12.1 Prescribed Medicines

NACES pharmacists reviewed MARs for data regarding medications administered in a nursing facility.

Number of Medications Including Over-the-Counter Medications

In 2009, the average number of prescribed medications including over-the-counter medications by a physician increased by one.

- When NACES pharmacists counted the medications on this year’s MARs, the data indicated that physicians prescribed an average of 12 medications including over-the-counter medications per resident, per day:

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Prescribed Medications

Each individual was prescribed an average of eight medications per day excluding over-the-counter medications.

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Number of Active Ingredients in Prescribed Medicines

Prescribed medications may have more than one active ingredient in a single pill or tablet to treat two conditions such as hypertension and hypercholesterolemia. The actual number of active ingredients per resident, per day was nine. The number of medications an individual received has not changed over the years (Figure 3.12).

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>
3.12.2 Potential for Drug Interactions and the Top 10 List

The Top 10 List of Drug Interactions with the Potential for Adverse Outcomes

The American Medical Directors Association and the American Society of Consultant Pharmacists established an advisory committee to explore strategies for improving the use of medications in long-term care settings. The initiative is called the Multidisciplinary Medication Management Project. The goal of the project is to foster collaboration among consultant pharmacists, medical directors, attending physicians and other health professionals in long-term care to improve prescribing, monitoring and use of medications for individuals living in nursing homes.

The Medication Management Project Advisory Committee undertook to identify ten drug interactions that are commonly regarded as important, and involve medications that are commonly used in older adults in long-term care settings. The committee believes that if health professionals in long-term care can focus on preventing or managing these ten drug interactions, a significant impact can be made on improving care for these older adults (Brown, 2008). The Top 10 List of Drug Interactions is as follows:

1. Warfarin – Nonsteroidal anti-inflammatory drug (NSAIDS)
2. Warfarin – Sulfur drugs
3. Warfarin – Macrolides
4. Warfarin – Quinolones
5. Warfarin – Phenytoin
6. Angiotensin converting enzyme (ACE) inhibitors – potassium supplements
7. ACE inhibitors – Spironolactone
8. Digoxin – Amiodarone
9. Digoxin – Verapamil
10. Theophylline – Quinolones

- The proportion of individuals whose medication regimen included at least one combination from the Top 10 list this year was 12% (Figure 3.12):

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11%</td>
<td>12%</td>
<td>11%</td>
<td>12%</td>
<td>12%</td>
</tr>
</tbody>
</table>

The most common Top 10 drug interaction observed was with ACE inhibitors (a blood pressure medicine) combined with a potassium supplement.

- This year ten percent of individuals were noted to be on an ACE inhibitor/potassium supplement combination (Figure 3.12):

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
<td>10%</td>
</tr>
</tbody>
</table>
The adverse effects of the ACE inhibitor/potassium supplement combination can be mitigated by using a diuretic. The proportion of individuals reported to be on the combination ACE inhibitor/potassium supplement not mitigated by a diuretic in 2009 was 2%, 1% higher than in 2005, 2006, 2007 and unchanged from 2008.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Number of Prescribed Medications and the Potential for Drug Interactions

The number of prescribed medicines is important because the potential for drug interactions and adverse drug reactions increases with the number of medications taken. Statistically, if a person takes six different drugs, the person has an 80% chance of at least one drug-drug interaction (Brown, 2008).

- The proportion of people living in nursing homes with any Top 10 drug interaction who also had a prescription for nine or more active ingredients in 2009 was nine percent (Figure 3.12):

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

3.12.3 Beers List

The Beers list, named for its originator Mark H. Beers, MD, is a list of medications that are potentially inappropriate for use in older adults (Fick, 2003). Part of normal aging includes changes in body composition (e.g., percent of fats and fluids) and organ functioning (e.g., how efficiently the stomach absorbs a substance, how the liver processes it or how effectively the kidneys clear it from the bloodstream). These changes can directly affect how an individual will respond or react to a medication. Because of these physiological changes, some medications are known to be potentially troublesome for older adults. Adverse drug effects may go unrecognized in the aging individual because they are nonspecific (e.g., confusion, lethargy, falls). Many of the drugs on the Beers list are included because of sedative and anticholinergic adverse effects. Central nervous system depressants can cause sedation and cognitive impairment, resulting in difficulty with self-care and falls. Anticholinergics can cause cognitive problems, constipation and urinary retention. Drugs on the list are not contraindicated, but should be used cautiously, with consideration for alternatives.

- When the MARs were reviewed this year the proportion of individuals receiving at least one medication from the Beers list was 15% (Figure 3.13).

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16%</td>
<td>15%</td>
<td>17%</td>
<td>14%</td>
<td>15%</td>
</tr>
</tbody>
</table>
The most commonly used medication from the Beers list this year was digoxin, a drug commonly prescribed for heart failure. Digoxin dosing requires individualized regimens to ensure optimal drug levels. Inappropriate elevated digoxin levels can lead to increased adverse effects due to drug toxicity.
### Nursing Facility Quality Review
#### 2009 Findings

#### Figure 3.13 – Psychoactive Medication Usage

<table>
<thead>
<tr>
<th></th>
<th>Antipsychotics</th>
<th>Accepted indication?</th>
<th>Not have an indication?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of individuals who received antipsychotic drugs:</td>
<td>32%</td>
<td>67%</td>
<td>32%</td>
</tr>
<tr>
<td>Of those who received an antipsychotic drug, how many had an accepted indication?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Of those who received an atypical antipsychotic drug, how many did not have a clinical indication?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medical diagnosis of anxiety?</th>
<th>Anxiolytics</th>
<th>Regular reassessment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of all individuals, how many had a medical diagnosis of anxiety?</td>
<td>16%</td>
<td>39%</td>
</tr>
<tr>
<td>Proportion of individuals who received anxiolytic drugs:</td>
<td>23%</td>
<td>[Q12.1 and 12.4]</td>
</tr>
<tr>
<td>Of those diagnosed with anxiety, how many were reassessed at least every two weeks?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reported sleep problems?</th>
<th>Sleep medications</th>
<th>Medication effective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of all individuals, how many reported sleep problems?</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Proportion of individuals with medication for sleep problems available:</td>
<td>16%</td>
<td>[Q13.4]</td>
</tr>
<tr>
<td>Of individuals on sleep medications, who reported continued sleep problems?</td>
<td></td>
<td>[Q13.4 and 13.5]</td>
</tr>
</tbody>
</table>

**Survey conducted:** March – June 2009  
**Survey sample:** 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the **NFQR Project Lead** at **512-438-3472**
3.13 Psychoactive Medication Usage

Psychoactive medications include the medication classes of antipsychotics, anxiolytics (anti-anxiety) and sedative/hypnotics (sleep) medications. While there are valid medical indications to prescribe these medicines, caution is urged for use in the elderly, especially in those with cognitive impairment. These medicines can affect alertness which can lead to falls, fractures, hemorrhage or delirium (Gurwitz, Field, Harrold, Rothschild, Debellis, Seger, Cadoret, Fish, Garber, Kelleher, Bates, 2000).

3.13.1 Antipsychotic Medications

Antipsychotic medications are appropriate for persons with psychosis, such as persons with schizophrenia, or persons with serious personality disorders and other organic syndromes.

Proportion on Antipsychotic Medication(s)

- In 2009, 32% of all individuals were prescribed at least one antipsychotic medication (Figure 3.13):

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>34%</td>
</tr>
<tr>
<td>2006</td>
<td>33%</td>
</tr>
<tr>
<td>2007</td>
<td>32%</td>
</tr>
<tr>
<td>2008</td>
<td>30%</td>
</tr>
<tr>
<td>2009</td>
<td>32%</td>
</tr>
</tbody>
</table>

Documented Medical Indication for Antipsychotic Medication

Appropriate use of an antipsychotic medication is based on the clinical indication(s) for its use. The definition of an appropriate clinical indication for antipsychotic use includes the CMS accepted indications (psychosis, delusions, schizophrenia, specific personality disorders, Tourette’s disorder, Huntington’s disease, or specified organic brain syndromes) and non-CMS reported indications (paranoia, obsessive-compulsive disorder, impulse-control personality disorder, hemiballismus and Meige’s syndrome).

Specific behaviors which are not appropriate for antipsychotic use may include:

- Wandering;
- Poor self-care;
- Restlessness;
- Memory impairment;
- Anxiety;
- Depression without psychosis;
- Insomnia;
- Unsociability;
- Indifference to surroundings;
- Fidgeting or nervousness;
- Uncooperativeness; and
- Agitated behaviors not causing a danger to him or her or to others.
NACES pharmacists found that of those who received an antipsychotic medication this year, 67% had an accepted indication.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td>58%</td>
<td>59%</td>
<td>71%</td>
<td>65%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Typical and Atypical Antipsychotic Medications

Antipsychotic medications are divided into two major subgroups: typical and atypical. The typical antipsychotics are older medicines and, while effective, are associated with many side effects. The newer atypical antipsychotics have fewer side effects and are now used more commonly than typical antipsychotic medications.

- Of the individuals on antipsychotic medications, 18% were on a typical antipsychotic medication and 89% were on an atypical antipsychotic medication. (Note that the percent of typical and atypical medications sum to more than 100% because individuals may have been on both types simultaneously):

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td>14%</td>
<td>14%</td>
<td>13%</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>Atypical</td>
<td>93%</td>
<td>94%</td>
<td>92%</td>
<td>92%</td>
<td>89%</td>
</tr>
</tbody>
</table>

Behavioral symptoms, such as hitting, yelling or screaming are observed to occur in people who have dementia or who are experiencing pain. Atypical antipsychotic medicines have been used by some physicians in an off-label fashion to control behavioral symptoms (the term “off-label” means a medicine is prescribed for a different medical condition that it was approved for by the Food and Drug Administration [FDA]). Off-label atypical antipsychotic medications used to control behavioral symptoms have been associated with an increased risk of sudden death (U.S. FDA, 2005).

This year, the proportion of individuals on at least one atypical antipsychotic medication without a clinical indication is 32%. The proportion of individuals on at least one typical antipsychotic medication without a clinical indication is 33%.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atypical</td>
<td>41%</td>
<td>41%</td>
<td>29%</td>
<td>33%</td>
<td>32%</td>
</tr>
<tr>
<td>Typical</td>
<td>47%</td>
<td>41%</td>
<td>33%</td>
<td>45%</td>
<td>33%</td>
</tr>
</tbody>
</table>

3.13.2 Anti-Anxiety Medications

Anxiety

---

23 Note that this percentage was reported incorrectly in the 2007 NFQR report. The reported percent was 82% in 2007. The correct percent for 2007 is 71%.  

- 46 -
With a prevalence of 5% to 20%, anxiety disorders are common among aging individuals. Anxiety disorders cause people to approach daily life with apprehension and fear. Manifestations of anxiety, including motor tension, autonomic hyperactivity (e.g., elevated blood pressure and heat rate, dilated pupils and diaphoresis) and hyper attentiveness, can impair normal function and cause injuries (DADS, QMP Resource, 2004).

**Medical Diagnosis of Anxiety**

While anxiolytic medications are appropriate for managing medically diagnosed anxiety disorders, previous NFQR surveys have noted that these medications were administered to individuals without a documented diagnosis for an anxiety disorder.

- NFQR results indicate that in 2009, 16% of all individuals had a documented diagnosis of an anxiety disorder (Figure 3.13).

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion on Anti-Anxiety Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>17%</td>
</tr>
<tr>
<td>2005</td>
<td>12%</td>
</tr>
<tr>
<td>2006</td>
<td>7%</td>
</tr>
<tr>
<td>2007</td>
<td>7%</td>
</tr>
<tr>
<td>2008</td>
<td>16%</td>
</tr>
<tr>
<td>2009</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Proportion on Anti-Anxiety Medications**

- CMS data indicate the proportion of individuals on anti-anxiety medications in 2009 was 23%, an increase of two percent compared to last year (Figure 3.13):\(^{24}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion on Anti-Anxiety Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>20%</td>
</tr>
<tr>
<td>2008</td>
<td>21%</td>
</tr>
<tr>
<td>2009</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Reassessment of Anxiety Symptoms**

- Analysis of NFQR data reveals that of the individuals diagnosed with an anxiety disorder (16%), 39% had an ongoing symptom assessment at least every two weeks in order to evaluate their stated goals for anti-anxiety therapy (Figure 3.13).

<table>
<thead>
<tr>
<th>Year</th>
<th>Reassessment of Anxiety Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>45%</td>
</tr>
<tr>
<td>2005</td>
<td>23%</td>
</tr>
<tr>
<td>2006</td>
<td>6%</td>
</tr>
<tr>
<td>2007</td>
<td>19%</td>
</tr>
<tr>
<td>2008</td>
<td>54%</td>
</tr>
<tr>
<td>2009</td>
<td>39%</td>
</tr>
</tbody>
</table>

Of the individuals diagnosed with anxiety, significantly fewer individuals were assessed at least every two weeks for goals of anti-anxiety therapy this year than in the previous year.\(^{25}\)

\(^{24}\) Note that the reported proportion of individuals diagnosed with an anxiety disorder is independent of the reported proportion of individuals on anti-anxiety medications. The proportion diagnosed with anxiety was calculated specifically on NFQR data. The proportion on anti-anxiety medications is based on self-reported CMS data from nursing facilities during different times each year. Since the data source, methodology, and sample population are different for the proportion diagnosed with an anxiety disorder and the proportion on anti-anxiety medications, inferences should not be drawn between the two proportions.

\(^{25}\) Statistically significant at p<.01.
3.13.3 Sedative/Hypnotic (Sleep) Medications

Proportion of Individuals who Reported Sleep Problems

Daytime sleepiness and nighttime sleep disturbances are common problems of individuals living in nursing facilities (Martin, Webber, Alam, Harker, Josephson, Alessi, 2006). More than two-thirds of persons older than 65 years living in long-term care facilities have sleep disturbances. Sleep problems often go unrecognized by health care providers because recognition depends in large part on self-report and older adults may accept changes in sleep patterns as part of normal aging or be reluctant to report them to a provider unless they perceive resulting symptoms as severe (Hoffman, 2003).

In 2009, eight percent complained of sleep problems in the past 14 days. This proportion is unchanged from last year (Figure 3.13).

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion of Individuals on Sleep Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>8%</td>
</tr>
<tr>
<td>2005</td>
<td>9%</td>
</tr>
<tr>
<td>2006</td>
<td>6%</td>
</tr>
<tr>
<td>2007</td>
<td>5%</td>
</tr>
<tr>
<td>2008</td>
<td>8%</td>
</tr>
<tr>
<td>2009</td>
<td>8%</td>
</tr>
</tbody>
</table>

Proportion on Sleep Medications

Normal aging is accompanied by changes in sleep patterns. These changes may result in sleepiness during the day and alterations in quality of life.

- Compared to 2004, significantly more individuals were reported to be on sleep medications this year:26

<table>
<thead>
<tr>
<th>Year</th>
<th>Proportion of Individuals on Sleep Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>11%</td>
</tr>
<tr>
<td>2005</td>
<td>16%</td>
</tr>
<tr>
<td>2006</td>
<td>13%</td>
</tr>
<tr>
<td>2007</td>
<td>13%</td>
</tr>
<tr>
<td>2008</td>
<td>15%</td>
</tr>
<tr>
<td>2009</td>
<td>16%</td>
</tr>
</tbody>
</table>

Some of the most serious adverse effects associated with these drugs are delirium, falls and respiratory depression. The elderly may have daytime sedation, dependency, slowed reaction time, impaired memory, rebound insomnia and chronic sleep disorders (Hoffman, 2003).

Effectiveness of Sleep Medications

Fourteen percent of people receiving sleep medications continued to complain of sleep problems. This is the first year this question has been included, so comparisons to previous years are unavailable.

26 Statistically significant at p<.01.
Figure 3.14 – Restraints

Restraints

Was the person restrained in the past 30 days?

- Yes 26%
- No 68%
- Unknown 6%

Of those restrained in the past 30 days (27%)

Did the individual’s family or guardian request use of restraints?

- Yes 31%
- No 62%
- No answer 7%

Of those restrained in the past 30 days (27%)

What alternatives were tried to prevent the use of restraints?

- Full bed rails: 51%
- Other types of bed rails: 39%
- Chair prevents rising: 9%
- Trunk restraints: 5%
- Limb restraints: 0.3%

What types of mechanical restraints were used?

- Full bed rails: 51%
- Other types of bed rails: 39%
- Chair prevents rising: 9%
- Trunk restraints: 5%
- Limb restraints: 0.3%

Response*

* Sums to > 100% because more than one response was possible for each individual

Survey conducted: March – June 2009  [Q#.##] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.14 Restraints

CMS defines restraint as “…any manual method or physical or mechanical device, material, or equipment attached or adjacent to the individual’s body that the individual cannot remove easily which restricts freedom of movement or normal access to one’s body” (CMS, State Operations Manual, 2008). Physical restraints include, but are not limited to, leg restraints, arm restraints, hand mitts, soft ties or vests, lap cushions and lap trays that an individual cannot remove. Wheelchair safety bars, chairs, Geri chairs and bedrails that prevent the individual from voluntarily rising are also considered physical restraints. This definition is important because it states that whether or not an object is classified as a restraint depends upon the effect the object has on the individual. CMS defines a chemical restraint as “…any drug that is used for discipline or convenience and (is) not required to treat medical symptoms.”

Use of Restraints

The data show that in the last 30 days 26% of individuals were restrained and 68% of individuals were not restrained. Reviewers were not able to determine whether the remaining six percent of individuals were restrained or not. Data analysis also reveals that of those restrained in the last 30 days, 31% of individuals were restrained at the request of the individual’s family or guardian mostly using full or other types of bed rails as restraints (Figure 3.14).

The proportion of individuals restrained decreased from 2008. This suggests an increased awareness of the risks of restraint use by the nursing facility staff, family members and guardians.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>29%</td>
</tr>
<tr>
<td>2009</td>
<td>26%</td>
</tr>
</tbody>
</table>

Types of Restraint Used

Of the 27% of individuals who were restrained, 68% were mechanically restrained. Chemical restraints were used in 3.3% of the individuals. Of these individuals, 3% received chemical restraint via intravenous route (Figure 3.14).

- The proportion of individuals with mechanical restraints decreased in 2009.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>87%</td>
</tr>
<tr>
<td>2009</td>
<td>68%</td>
</tr>
</tbody>
</table>

Alternative Restraints

The restraint reduction literature identifies adverse effects of restraint use including: loss of physical independence, loss of cardiovascular tone, decreased respiratory efficiency, loss of muscle tone and strength, increased risk of falls and injuries, depression and aggressive behaviors, new-onset cognitive impairment, urinary incontinence and pressure ulcers (Terpstra, Terpstra, and Van Doren, 1998; Morse and McHutchion, 1991).
A review of nursing facility records indicated that for 33% of the individuals placed in a restraint no alternative method was attempted to prevent the use of restraint this year. Verbal de-escalation or redirection was tried in four percent of individuals, environmental remediation was tried in six percent of individuals, interpersonal physical separation was tried in one percent of individuals and other methods were tried in four percent of individuals to prevent the use of restraints. There was no documentation if an alternative method was used in 52% of the individuals who had a restraint (Figure 3.14).
Figure 3.15 – Quality of Life / Consumer Satisfaction

Overall, how satisfied are you with your or your family member’s experience and health care services in this nursing facility (only individuals and family; excludes no answer)?

Who completed the survey?
- Individual: 69%
- Family member or guardian: 8%
- Neither the individual nor a family member (not counted in results): 23%

Survey conducted: March – June 2009  [Q15.1] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.
For further information, contact the NFQR Project Lead at 512-438-3472
Nursing Facility Quality Review
2009 Findings

Figure 3.15a – Quality of Life – Dining Experience

*Do you like the food here?* [Q15.11]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>80%</td>
<td>78%</td>
<td>84%</td>
<td>85%</td>
</tr>
</tbody>
</table>

*Do you enjoy mealtimes here?* [Q15.12]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>85%</td>
<td>85%</td>
<td>87%</td>
<td>87%</td>
</tr>
</tbody>
</table>

*Can you get your favorite foods here?* [Q15.13]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>64%</td>
<td>64%</td>
<td>67%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Figure 3.15b – Quality of Life – Activities

*Do you participate in religious activities here?* [Q15.7]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>64%</td>
<td>66%</td>
<td>60%</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Do the religious observances have personal meaning for you?* [Q15.8]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>70%</td>
<td>67%</td>
<td>66%</td>
<td>70%</td>
</tr>
</tbody>
</table>

*Do you enjoy the organized activities here at the nursing home?* [Q15.9]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>65%</td>
<td>66%</td>
<td>64%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*Outside of religious activities, do you have enjoyable things to do at the nursing home during the weekends?* [Q15.10]

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent (%) who responded “yes”</td>
<td>40%</td>
<td>37%</td>
<td>40%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Survey conducted: March – June 2009  [Q#.##] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
Figure 3.15c – Quality of Life – Socialization & Privacy

“Can you find a place to be alone when you wish?” [Q15.3]  
“Can you make a private phone call?” [Q15.4]  
“When you have a visitor, can you find a place to visit in private?” [Q15.5]  
“Can you be together in private with another individual (other than your roommate)?” [Q15.6]

Figure 3.15d – Quality of Life – Safety & Possessions

“Do you feel that your possessions are safe at this nursing home?” [Q15.15]  
“Have your clothes gotten lost or damaged in the laundry in the past month?” [Q15.16]  
“Do you feel safe and secure?” [Q15.17]

Survey conducted: March – June 2009  [Q#.#] = Survey question number (Appendix A)  
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
Figure 3.15e – Quality of Life – Safety & Security

Safety and Security

“Do you feel safe and secure?”

- Yes 98%
- No 2%

[Q15.17]

“Do you ever have concerns that the facility does not address?” [Q15.19]

- Yes 13%
- No 87%

“In the past month, have you had a concern that you did not express because you were afraid of retaliation?” [Q15.24]

- Yes 6%
- No 94%

Figure 3.15f – Quality of Life – Ombudsman

Have you heard of the Ombudsman Program?

- Yes 17%
- No 81%
- Not applicable 2%

[Q15.20]

Survey conducted: March – June 2009  [Q#.#] = Survey question number (Appendix A)
Survey sample: 2,164 from 114,153 individuals (Medicare, Medicaid, or any other payer source) living in the 1,048 Medicaid certified nursing facilities in Texas.

For further information, contact the NFQR Project Lead at 512-438-3472
3.15 Quality of Life/Consumer Satisfaction

Quality of life (QOL) is “… [a]n important consideration in medical care… [and] refers to a person’s ability to enjoy normal life activities” (MedicineNet.com, 2007). Feeling safe and secure, eating food that is enjoyable in an enjoyable setting, and socializing in activities or choosing private times are basic elements that affect an individual’s overall well-being.

Every individual was asked to complete NFQR questions regarding QOL. If after a reasonable attempt the individual was not able to respond, then an individual’s family member or guardian was asked to answer the QOL questions. This year, the proportion of individuals that responded to the survey is listed below (Figure 3.15):

- Individual: 69%
- Family member or guardian: 8%
- Neither the individual or a family member responded: 23%

Overall Satisfaction with Experience in Nursing Facility

Eighty-nine percent of individuals reported being very satisfied, satisfied or somewhat satisfied with their overall experience (Figure 3.15). Nine percent reported being somewhat dissatisfied, dissatisfied or very dissatisfied this year. Two percent reported being neither satisfied nor dissatisfied and one percent did not answer this question.

<table>
<thead>
<tr>
<th>Overall satisfaction with experience in nursing facility</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied, satisfied or somewhat satisfied</td>
<td>91%</td>
<td>91%</td>
<td>84%</td>
<td>87%</td>
<td>89%</td>
<td>89%</td>
</tr>
<tr>
<td>Neither (i.e. neither satisfied nor dissatisfied)</td>
<td>1%</td>
<td>2%</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Somewhat dissatisfied, dissatisfied or very dissatisfied</td>
<td>8%</td>
<td>7%</td>
<td>9%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>No answer</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Overall Satisfaction with Health Care Services

Individuals’ overall satisfaction with health care services mirrored results of individuals’ overall satisfaction with experience in a nursing facility. Ninety percent of individuals were very satisfied, satisfied or somewhat satisfied with their health care services. Eight percent were somewhat dissatisfied, dissatisfied or very dissatisfied with their health care services. Two percent were neither satisfied nor dissatisfied.

<table>
<thead>
<tr>
<th>Overall satisfaction with health care services</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied, satisfied, or somewhat satisfied</td>
<td>87%</td>
<td>90%</td>
</tr>
<tr>
<td>Neither</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Somewhat dissatisfied, dissatisfied, or very dissatisfied</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>No answer</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Satisfaction with Food and Dining Experience

NFQR survey asked individuals three questions regarding food and mealtimes. The response to choices regarding food and mealtimes, activities, socialization, privacy, safety and possessions were answered using a Likert scale (i.e., “always”, “sometimes”, “rarely”, “never”, and “no answer”). In order to compare data across the years of data collected, “always” and “sometimes” were combined into a single response and the combined response was coded as “yes.” Responses to mealtimes remain unchanged from last year (Figure 3.15a).

<table>
<thead>
<tr>
<th>Food and dining experience</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you like the food here?</td>
<td>80%</td>
<td>78%</td>
<td>84%</td>
<td>85%</td>
</tr>
<tr>
<td>Do you enjoy mealtimes here?</td>
<td>85%</td>
<td>85%</td>
<td>87%</td>
<td>87%</td>
</tr>
<tr>
<td>Can you get your favorite foods here?</td>
<td>64%</td>
<td>64%</td>
<td>67%</td>
<td>67%</td>
</tr>
</tbody>
</table>
Satisfaction with Activities at Nursing Facility

Individuals responded to questions regarding religious and organized activities. In 2009, the proportion of individuals who responded “yes” to the following questions was as follows (Figure 3.15b):

<table>
<thead>
<tr>
<th>Activities</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you participate in religious activities here?</td>
<td>64%</td>
<td>66%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Do the religious observances here have personal meaning for you?</td>
<td>70%</td>
<td>67%</td>
<td>66%</td>
<td>70%</td>
</tr>
<tr>
<td>Do you enjoy the organized activities here at the nursing home?</td>
<td>65%</td>
<td>66%</td>
<td>64%</td>
<td>62%</td>
</tr>
<tr>
<td>Outside of religious activities, do you have enjoyable things to do at</td>
<td>40%</td>
<td>37%</td>
<td>40%</td>
<td>44%</td>
</tr>
<tr>
<td>the nursing home during the weekends?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data reveals no change in individuals participating in religious activities at nursing facilities in Texas. However, individuals who reported religious observations to have personal meaning did increase. The percentage of individuals who enjoy organized activities decreased and satisfaction regarding nonreligious activities during weekends increased.

Satisfaction with Socialization and Privacy

With respect to socialization and privacy, individuals of nursing facilities responded “yes” to the following questions (Figure 3.15c):

<table>
<thead>
<tr>
<th>Socialization and privacy</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you find a place to be alone when you wish?</td>
<td>82%</td>
<td>72%</td>
<td>78%</td>
<td>78%</td>
</tr>
<tr>
<td>Can you make a private phone call?</td>
<td>84%</td>
<td>80%</td>
<td>80%</td>
<td>76%</td>
</tr>
<tr>
<td>When you have a visitor, can you find a place to visit in private?</td>
<td>88%</td>
<td>81%</td>
<td>86%</td>
<td>83%</td>
</tr>
<tr>
<td>Can you be together in private with another individual (other than your</td>
<td>76%</td>
<td>64%</td>
<td>73%</td>
<td>72%</td>
</tr>
<tr>
<td>roommate)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This year, more individuals reported in 2009 compared to 2007 being able to find a place to be alone (78%), finding a place to visit with a friend in private (83%), and being together in private with another individual (72%).

---

27 Statistically significant at p<.01
28 Statistically significant at p<.01
29 Statistically significant at p<.01
Satisfaction with Safety, Possessions and Security

The proportion of individuals from 2006 to 2009 who responded “yes” to the questions regarding safety and possessions are as follows (Figure 3.15d):

<table>
<thead>
<tr>
<th>Safety and possessions</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you feel that your possessions are safe at this nursing home?</td>
<td>79%</td>
<td>79%</td>
<td>89%</td>
<td>89%</td>
</tr>
<tr>
<td>Have your clothes gotten lost or damaged in the laundry in the last month?</td>
<td>38%</td>
<td>36%</td>
<td>36%</td>
<td>31%</td>
</tr>
<tr>
<td>Do you feel safe and secure?</td>
<td>94%</td>
<td>94%</td>
<td>97%</td>
<td>98%</td>
</tr>
</tbody>
</table>

Safety indicators remained high. This year, individuals reported they felt their possessions were safer compared to previous years. 31 Significantly more individuals also reported feeling safe and secure this year compared to previous years. 32

Satisfaction with Feeling Safe and Secure

Individuals who reported feeling unsafe and insecure were asked if they felt unsafe and insecure because of direct care staff, other individuals, non-care staff, environmental concerns, or other reasons. Of the 2% of individuals who reported feeling unsafe and insecure, most reported feeling unsafe and insecure because of direct care staff or other individuals:

<table>
<thead>
<tr>
<th>Individuals feel unsafe and insecure because of</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct care staff</td>
<td>21%</td>
</tr>
<tr>
<td>Other individuals</td>
<td>37%</td>
</tr>
<tr>
<td>Non-care staff</td>
<td>11%</td>
</tr>
<tr>
<td>Environmental concerns</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>22%</td>
</tr>
</tbody>
</table>

When individuals were asked if they ever had concerns that their facility did not address, 87% reported having no concerns for the facility to address. Ninety-four percent reported not being afraid to express a concern because they were afraid of retaliation. Five percent were afraid to express a concern because they were afraid of retaliation (Figure 3.15e).

30 This question was changed in 2008. The comparable question from 2006 and 2007 was, “Do your clothes get lost or damaged in the laundry?”
31 Statistically significant at p<.01
32 Statistically significant at p<.01
33 Note that the percentages sum to more than 100% because question 14.17 on the NFQR survey instructed individuals to “mark all that apply.”
Satisfaction with Ombudsman Program

Individuals were asked if they had heard of the Long-Term Care Ombudsman Program, if they knew how to contact an ombudsman or if they had used the services of an ombudsman in the past 12 months. The proportion of individuals who responded “yes” to each question was as follows:

<table>
<thead>
<tr>
<th>Question</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you heard of the Ombudsman Program</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Do you know how to contact an ombudsman</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Have you used the services of an ombudsman in the last 12 months</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Of the individuals asked if they had heard of the Ombudsman Program, 81% reported they had not heard of the program, 17% reported hearing of the program and 2% of the responses were not applicable (Figure 3.15f).
4.0 DADS INITIATIVES AND COLLABORATIVE EFFORTS

Reported findings from the 2009 NFQR assessment indicate whether or not individuals’ quality of care and quality of life have improved, stayed the same, or declined over time. The Department of Aging and Disability Services (DADS) will use these findings to update and improve long-term services and supports (LTSS) in Texas. Forums for exchange of information involve DADS collaborative efforts described in this section.

Early Warning System

Chapter 255, Health & Safety Code requires the Texas Department of Aging and Disability Services (DADS) to report on the Quality Monitoring Program Early Warning System (EWS) for Long-Term Care Facilities. The EWS identifies nursing facility providers at risk for a poor inspection (survey or complaint investigation). The statute directs the department to evaluate the effectiveness of the EWS and report its findings annually to the Governor, Lieutenant Governor, and Speaker of the House of Representatives. This report fulfills that obligation for 2009.

The EWS model has been used since January 2003 to prioritize Quality Monitoring Program visits to nursing facilities. The EWS is a statistical model that uses information about the facility and people who live in it to predict the risk (high or low) that the facility’s next inspection (survey or complaint investigation) will have a poor outcome. The current model uses data from sources such as DADS Regulatory Services and assessments of people living in facilities. Examples of information used to create the score include:

- Regulatory findings from the most recent annual survey and complaint investigations in the last six months;
- Care quality indicators such as the percentage of people in a facility with a low risk for needing anti-psychotic medicines who are taking them; and
- The number of substantiated complaints and incidents over the past 12 months.

The EWS is an effective tool used to focus the Quality Monitoring Program resources on the nursing facilities in most need of improvement. The current model was developed by ranking facilities in terms of survey performance over the course of a year. Data from the previous year were used to create a model to predict which facilities will perform well or poorly. The model successfully predicted facility performance 67% of the time. Because this model is a strong predictor, the decision was made to retain it for 2009. As part of ongoing efforts to continually improve the predictive power of the EWS model, additional data are being collected and analyzed for use in future models.

Quality Monitoring Program

DADS collaborates with providers, medical directors, directors of nursing and other staff members of nursing facilities through several ongoing programs. One ongoing effort is the DADS Quality Monitoring Program (QMP), where DADS staff works directly with nursing
facility staff to provide information on evidence-based best practice guidelines that cover 15 focus areas.

The QMP, created by Senate Bill 1839, 77th Legislature, Regular Session, 2001, represents an educational, rather than a regulatory approach to enhancing quality improvement at nursing facilities. The mission of the QMP is to achieve optimal individual outcomes through the consistent application of evidence-based best practices. QMP staff provides technical assistance offered by registered nurses, pharmacists and dieticians. Focus areas include those described in this report:

- Improving continence promotion for individuals who experience urinary incontinence;
- Improving assessment and management of individuals who have pain;
- Managing fall risks;
- Improving influenza and pneumococcal vaccination rates;
- Ensuring that artificial nutrition and hydration is used only when it will benefit individuals;
- Improving routine hydration practices and preventing unintended weight loss;
- Reducing polypharmacy;
- Reducing the use of unnecessary psychoactive medications; and
- Restraint reduction.

In 2010, QMP plans to deploy two new focus areas including:

- Prevention of pressure ulcers; and
- Advance care planning.

**Long-Term Care Ombudsman Program**

The Ombudsman Program advocates for individuals on a variety of issues related to quality of care and quality of life in nursing facilities. The Long-Term Care ombudsmen educate individuals, families, and staff of nursing facilities on subjects such as individual rights, care plans, and communication. Long-Term Care ombudsmen are trained on “culture change” to promote individual freedom and choice for individuals.

This year’s NFQR survey assessed whether individuals had ever heard of the Ombudsman Program, if they knew how to contact an ombudsman, and if they had used the services of an ombudsman in the last 12 months. Results suggest that individuals who live in nursing facilities are not familiar with the term “ombudsman” and do not know how to contact an ombudsman if needed.

As a result, in 2010, the Long-Term Care Ombudsman Program will update the program’s posters, brochures, and other educational materials in an effort to build program awareness in facilities. Nursing facilities are required to provide educational materials created by the Long-Term Care Ombudsman Program to individuals upon admission. Additional educational materials are distributed directly to individuals by the ombudsman during visits to facilities.
These materials reinforce a connection between the term “ombudsman” and the purpose of the Long-Term Care Ombudsman Program.

**Advance Care Planning Pilot Project**

The DADS Advance Care Planning Pilot Project (Senate Bill 27, 80th Legislature, Regular Session, 2007) will inform and provide data to review and analyze the outcome of education on advance care planning provided to individuals and families of individuals in nursing facilities. This also includes intermediate care facilities for persons with mental retardation. A report on the pilot project is due to the Governor and the Legislature by October 2010.

**Texas Falls Prevention Coalition**

DADS Quality Assurance and Improvement Unit (QAI) sponsors a partnership with the Texas Association of Area Agencies on Aging (T4A) called the Texas Falls Prevention Coalition (TFPC). The TFPC began in June 2007 and is charged with improving fall prevention and changing attitudes and behaviors that predispose older persons to falls.

Quality Assurance and Improvement is contracted with T4A and TFPC through August 31, 2010, to allow TFPC to augment program reach and increase the impact on the health of aging Texans. The original contract included 17 Area Agencies on Aging (AAA) and 147 counties. As of August 31, 2009, TFPC and the evidence-based “A Matter of Balance,” a fall prevention program, is now available in 25 of the 28 AAA regions. The falls prevention program has expanded to 220 of the 254 counties in Texas.

A Matter of Balance is a structured group intervention, which utilizes a variety of activities to address physical, social and cognitive factors affecting fear of falling and to learn fall prevention strategies. The program is disseminated statewide through a train-the-trainer effort and now reaches local communities and seniors.

**Geriatric Symposium**

In September 2009, DADS QAI unit held its 9th annual Geriatric Symposium. This year’s theme was “Standing Strong: Falls Prevention & Management”. Health care professionals covered the role of vitamin D, medications, fall risk assessment, prevention, management and falls in the elderly. Over 380 nursing facility administrators, directors of nursing, social workers, therapists, and physicians participated in this symposium. This year’s NFQR will help DADS identify topic areas for future educational efforts.
Nursing Home Quality Improvement Coalition (NHQIC)

The NHQIC is a group of nursing home-related organizations in Texas focused on improving the quality of care for all individuals living in nursing facilities. Results from the NFQR will be shared with NHQIC. DADS will collaborate with NHQIC to develop strategies to improve quality of care and quality of life for individuals living in nursing facilities.

Members of the NHQIC include:

- Texas Health Care Association
- Texas Association of Homes and Services for the Aging
- Texas Department of Aging and Disability Services
- AARP/Texas (formerly known as American Association of Retired People/Texas)
- Texas Medical Directors Association
- TMF Health Quality Institute (formerly known as the Texas Medical Foundation)
- Membership from the provider community
5.0 CONCLUSION

The 2009 Nursing Facility Quality Review assessed the quality of care and quality of life of a sample of more than 2,000 individuals who resided in nursing facilities in Texas in 2009.

Quality of care improvements achieved this year compared to past years indicate more individuals had treatment plans for repositioning to address risk factors for pressure ulcers; more care plans addressed risk factors for pressure ulcers, more individuals were assessed with a valid pain assessment tool and assessed daily; more individuals received the influenza and pneumococcal vaccinations, more individuals received care consistent with advance directives; more advance care plans addressed artificial nutrition and hydration; more individuals were assessed for risk factors for weight loss and dehydration; quality of life improvements included increased feeling safe and secure; more received care consistent with advance directives and artificial nutrition and dehydration needs were addressed.

Quality of care areas that showed declines included more individuals were diagnosed with urinary tract infections; fewer individuals diagnosed with anxiety disorder had an on-going symptom assessment every two weeks; individuals with sleep medications reported continued sleep problems; fewer individuals could make a private phone call and fewer individuals could find a place to visit in private.

DADS Quality Monitoring Program will provide guidance to nursing facility staff in focus areas that need improvement. Technical assistance will be provided by the Quality Monitoring Program staff through, educational materials, quality monitoring visits, webinars, the Texas Quality Matters web site and other available sources.

This review contributes to the knowledge base that helps inform policy making for the growing aging population. This information is shared not only internally at DADS but also with providers and stakeholders fostering the goal of open communication and collaboration to improve the quality of care and quality of life for the people nursing facilities.
6.0 REFERENCES


Brown, K. Top Ten Dangerous Drug Interactions in Long-Term Care. Retrieved from http://www.scoup.net/m3project/topten/


Zimmern PE. (2001). Urinary incontinence in elderly women: The right assessment will tailor the correct treatment. *Contemporary Long-Term Care*. 

Appendix A 2009 Nursing Facility Quality Review Survey

Department of Aging and Disability Services

Nursing Facility Quality Review
Resident Assessment

NOTE: Some values will be greater than 100% due to rounding up.
Instructions: CHOOSE ONLY ONE ANSWER FOR EACH QUESTION that offers a choice unless otherwise indicated. All Questions MUST be answered. Follow all Skip patterns as indicated. When text is required, please print clearly.

Part 1. Identifying Information

1.1 Date of Assessment    ___ ___/___ ___/2009
1.2 Facility’s Texas Vendor Number  ___________________________
1.3 Quality Review Nurse’s Identifier Number  ___ ___ ___ ___
1.4 Resident’s DADSID    ___________________________
1.5 Resident’s Name  ____________________ ____ __________________
                      First Name     MI     Last Name
1.6 Resident’s Date of Birth   ___ __/__ __/__ __ __ ___
                               (Day)     (Mo)    (Year)
1.7 Resident’s Gender
                               O 1 Male (31%)        O 2 Female (69%)
1.8 How long has the resident lived in this facility?
                               O 6 6-9 months (07%)
                               O 9 9-12 months (06%)          O 12 1-2 years (21%)
                               O 0 0-3 months (16%)        O 24 more than 2 years (42%)
1.9 Is this person receiving Hospice services?
                               O 1 Yes (08%)        O 2 No (92%)

NOTE: For most questions in Parts 2 through 15, with a few exceptions that are noted explicitly in the guidance, each question is meant to be answered independently of all other questions.
Part 2. Assessment of Urinary Continence

NOTE: Perform a continence check (ITEM 2.1) on every resident in the sample prior to collecting the remaining data items for any resident.

2.1 Did you find (see, smell, or feel) evidence of urinary incontinence?

-1 Yes (46%)
-2 No (54%)

- - - - ASK Resident question 2.2 and document response if “yes” - - - -

2.2 Is there any special help that you need to get to or to use the bathroom?

-1 Yes (49%)
-2 No (51%)

Response: _________________________________________________________

--------- If item 2.2 is answered “NO”, then skip to 2.3 ---------

2.2.5 Review response above and then code as appropriate below.

-1 Needs help from another person (97%)
-2 Does not need help from another person (03%)
-8 Unclear response (0%)
-9 No response (0%)

2.3 Is the resident usually continent without needing a continence promotion plan (toileting), incontinence products or a catheter?

-1 Yes (36%)
-2 No (65%)

--------- If item 2.3 is answered “YES”, then skip to Part 3 ---------

2.4 Is the resident unresponsive (usual baseline level of responsiveness is comatose, semicomatose, stuporous, persistent vegetative state, unarousable, etc.)? (This does NOT mean, “Is the resident cognitively impaired.” One can be very impaired and still be responsive.)

-1 Yes (05%)
-2 No (95%)

2.5 Does the resident have a terminal condition or palliative plan of care that precludes a continence promotion plan (toileting)?

-1 Yes (17%)
-2 No (83%)
2.6 Is a continence promotion plan (toileting plan) (prompted voiding-PV, scheduled voiding-SV or bladder retraining-BR) specifically documented as part of the resident’s care plan? (NOTE: If more than one applies, answer with first answer from the list that applies to this resident)

- Yes-PV (04%)
- Yes-SV (12%)
- Yes-BR (01%)
- No (84%)

2.7 Is the plan based on the individual’s voiding pattern and needs?

- Yes (12%)
- No (04%)
- There is no plan (84%)

2.8 Have there been two or more episodes of urinary incontinence each week in the last two weeks?

- Yes (89%)
- No (11%)

2.9 Have any episodes occurred during normal waking hours?

- Yes (89%)
- No (11%)

2.10 Does the resident refuse to use the toilet and all toileting devices? (e.g. BSC, urinal, bedpan)

- Yes (18%)
- No (82%)

--- ASK Resident question 2.11 & 2.12 ---

2.11 Do you ever refuse help to use the bathroom when you need to?

- Yes (05%)
- No (95%)
- Unsure (0%)
- Unclear response (0%)
- No response (0%)

2.12 Is this because help is offered when it’s not convenient for you?

- Yes (02%)
- No (98%)
- Unsure (0%)
- Unclear response (0%)
- No response (0%)

- 74 -
Part 3. Use of Indwelling Bladder Catheter

3.1 Does the resident have an indwelling bladder catheter?

- Yes (06%)
- No (94%)

--------- If item 3.1 is answered “NO”, then skip to Part 4 ---------

3.2 Has the resident had a catheter longer than 6 weeks?

- Yes (76%)
- No (24%)

3.3 Does the resident's medical therapy prescribed by a physician require an indwelling catheter for an accurate intake and output?

- Yes (18%)
- No (82%)

3.4 Does the resident have an indwelling catheter for the purpose of completing a specific diagnostic evaluation?

- Yes (02%)
- No (98%)

3.5 Does the resident have an indwelling catheter that is being used to administer a prescribed medication? (Do not count routine GU irrigant solutions.)

- Yes (01%)
- No (99%)

3.6 Was the resident admitted or transferred into the facility within the last 6 weeks?

- Yes (25%)
- No (75%)

3.7 Does this resident have evidence of obstructive uropathy, bladder outlet obstruction, hydronephrosis, detrusor areflexia, detrusor hypo- or hyperreflexia, detrusor-sphincter dyssynergia, vesicoureteral reflux, or infravesical obstruction due to stricture or prostate pathology? (Answer YES only if there is documentation that urological, urodynamic, or imaging evaluation has shown one or more of the diagnoses.)

- Yes (24%)
- No (76%)

3.8 Does the medical record report two or more post-voiding residual (PVR) urine volumes greater than 200cc?

- Yes (05%)
- No (95%)

3.9 Does the resident have active, Stage III or IV pressure sores that would be vulnerable to urinary moisture? (Regardless of location if urine would affect the sores)

- Yes (23%)
- No (77%)
Part 4. Pressure Ulcers

4.1 Does the resident have risk factors for a pressure ulcer?

1 Yes (68%) 2 No (33%)

--------If item 4.1 is answered “NO”, then skip to 4.3. --------

4.2 Does the treatment plan address risk factors for a pressure ulcer? (check one):

1 Bedridden and repositioned every 2 hours? (23%)
2 In chair and able to self shift weight every 15 minutes? (19%)
3 In chair and repositioned by staff every 1 hour? (09%)
4 There is no plan (not in chart or treatment book) (15%)
5 Other_____________________________ (34%)

4.3 Does the resident have any pressure ulcers?

1 Yes (09%) 2 No (91%)

--------If item 4.3 is answered NO, then skip to Part 5.--------

4.4 When was the pressure ulcer first documented?

1 Admission (35%) 2 Readmission (05%) 3 Developed while in facility (60%)

4.5 What is the highest stage pressure ulcer they have had for the longest?

1 Stage I (18%) 2 Stage II (44%) 3 Stage III (09%)
4 Stage IV (14%) 5 Unstageable (16%)

4.6 If multiple pressure ulcers at this stage, document where the highest stage pressure ulcer that they have had the longest is located?

1 Arms or hands (02%) 2 Legs or feet (43%)
3 Buttocks or Sacrum (48%) 4 Other (07%)

4.7 How long has this person had this highest stage pressure ulcer?

___ ___ ___ days (70 days)

4.8 How long has this highest stage pressure ulcer been at this stage?

___ ___ ___ days (59 days)
4.9 Is there a treatment plan for this highest stage pressure ulcer?

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<tbody>
<tr>
<td>1</td>
<td>Yes (92%)</td>
</tr>
<tr>
<td>2</td>
<td>No (08%)</td>
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4.10 If the resident has multiple pressure ulcers, what is the lowest stage pressure ulcer?

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<tbody>
<tr>
<td>1</td>
<td>Stage I (12%)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Stage II (14%)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Stage IV (01%)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Stage IV (01%)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Unstageable (04%)</td>
<td></td>
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<tr>
<td>6</td>
<td>no other ulcers (69%)</td>
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-------- If the answer to 4.10 is “6, NO OTHER ULCERS”, then skip to Part 5. --------

4.11 How long ago was the most recent lowest stage pressure ulcer documented?

___ ___ ___ days (47 days)

4.12 Where is this most recent lowest stage pressure ulcer located?

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<tbody>
<tr>
<td>1</td>
<td>Arms or hands (02%)</td>
</tr>
<tr>
<td>2</td>
<td>Legs or feet (55%)</td>
</tr>
<tr>
<td>3</td>
<td>Buttocks or sacrum (40%)</td>
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<tr>
<td>4</td>
<td>Other (03%)</td>
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4.13 Is there a treatment plan for this lowest stage pressure ulcer?

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<tbody>
<tr>
<td>1</td>
<td>Yes (87%)</td>
</tr>
<tr>
<td>2</td>
<td>No (13%)</td>
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4.14 Does the MDS section M 2. accurately reflect the highest stage of existing pressure ulcers the person was treated for the last 7 days prior to the assessment? (Refer to question 4.5)

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<tr>
<td>1</td>
<td>Yes (58%)</td>
</tr>
<tr>
<td>2</td>
<td>No (42%)</td>
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Part 5. Infectious Illnesses

5.1 Has the resident had a urinary tract infection at any time in the last 7 days?

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<tbody>
<tr>
<td>1</td>
<td>Yes-MRSA (01%)</td>
</tr>
<tr>
<td>2</td>
<td>Yes-VRE (0%)</td>
</tr>
<tr>
<td>3</td>
<td>Yes-other (05%)</td>
</tr>
<tr>
<td>4</td>
<td>No (94%)</td>
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</table>

5.2 Has the resident had a skin or wound infection at any time in the last 7 days?

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<tbody>
<tr>
<td>1</td>
<td>Yes-MRSA (0%)</td>
</tr>
<tr>
<td>2</td>
<td>Yes-VRE (0%)</td>
</tr>
<tr>
<td>3</td>
<td>Yes-other (03%)</td>
</tr>
<tr>
<td>4</td>
<td>No (97%)</td>
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5.3 Has the resident had pneumonia at any time in the last 7 days?

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<tbody>
<tr>
<td>1</td>
<td>Yes-MRSA (0%)</td>
</tr>
<tr>
<td>2</td>
<td>Yes-VRE (0%)</td>
</tr>
<tr>
<td>3</td>
<td>Yes-other (01%)</td>
</tr>
<tr>
<td>4</td>
<td>No (99%)</td>
</tr>
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</table>
5.4 Has the resident had diarrhea AND fever at any time in the last 7 days?
- 1 Yes-C. dif (0%)
- 2 Yes-other (0%)
- 3 No (100%)

5.5 Has the resident had any other infection at any time in the last 7 days?
- 1 Yes-MRSA (0%)
- 2 Yes-VRE (0%)
- 3 Yes-other (03%)
- 4 No (97%)

Part 6. Pain Assessment

--- ASK Resident question 6.1 ---

6.1 What is the resident’s current level of pain? Perform the assessment with the Wong-Baker tool provided. (Note: Unable to determine means that you cannot determine the resident’s level of pain because the resident cannot tell you.)
- 1 no pain (60%)
- 2 mild (10%)
- 3 moderate (07%)
- 4 severe (02%)
- 5 very severe (01%)
- 6 worst (01%)
- 7 Unable to determine (18%)

6.2 According to the last 7 days of documentation in the clinical records, what has the resident’s most severe level of pain been? (Note: Unable to determine means that the clinical record does not address the presence or absence of pain.)
- 1 no pain (56%)
- 2 mild (08%)
- 3 moderate (08%)
- 4 severe (02%)
- 5 very severe (02%)
- 6 worst (01%)
- 7 Unable to determine (23%)

6.3 Is an observational pain assessment tool (e.g., PAINAD, DS-DAT [Discomfort Scale for Dementia of the Alzheimer’s Type] Pain Scale) being used to assess the resident’s pain?
- 1 Yes (37%)
- 2 No (63%)

6.4 Is the same assessment tool (used for 6.3) used every time the resident is assessed for pain? (Answer this item NA if 6.3 is answered “NO”.)
- 1 Yes (88%)
- 2 No (12%)
- 8 Not applicable (0%)

6.5 Is a validated self-report pain assessment tool used to assess the resident’s pain? (e.g., Wong-Baker Scale, Pain thermometer, a six-step verbal description scale or a numeric 0-10 rating scale)
- 1 Yes (66%)
- 2 No (34%)
6.6 Is the same assessment tool (used for 6.5) used every time the resident is assessed for pain? (Answer this item NA if 6.5 is answered “NO”.)

- 1 Yes (89%)  2 No (10%)  8 Not applicable (01%)

--- ASK Resident question 6.1 ---

6.7 Is the resident (or family) satisfied with his/her level of pain relief during the last 24 hours? (Note: Unable to determine means that neither the resident nor family can tell you.)

- 1 Yes (95%)  2 No (06%)  3 Unable to determine (0%)

6.8 How often is pain assessed? (mark all that apply)
(Note: results may not equal 100% since pain may be assessed more than once due to individual’s pain.)

- 1 every shift (39%)  2 every day (15%)
- 3 once a week (06%)  4 once a month (10%)
- 5 before pain meds (17%)  6 after pain meds (07%)
- 7 no record of assessment (10%)  8 N/A (no pain) (20%)

--- ASK Resident question 6.1 ---

6.9 Is the resident unable to ambulate or sit for ANY of the following due to pain?
(mark all that apply)

- 1 ADLs Yes (92%) No (08%)
- 2 recreation in the facility Yes (95%) No (05%)
- 3 recreation outside the facility Yes (95%) No (05%)
- 4 excursions Yes (95%) No (05%)
- 5 religious activities Yes (98%) No (02%)
- 6 Other Yes (60%) No (40%)

If 6.1 or 6.2 are moderate to worst answer these questions.

--- ASK Resident questions 6.10, 6.11, & 6.12 ---
(if resident unable to answer, obtain information from the chart)

6.10 Do you tell a facility staff member when you’re in pain?

- 1 Yes (92%)  2 No (08%)
6.11 What usually helps your pain?
(mark all that apply)

- 1 pain medicine Yes (92%) No (08%)
- 2 repositioning Yes (26%) No (74%)
- 3 environment (music, temperature, light, etc.) Yes (01%) No (99%)
- 4 alternative therapy (aroma therapy, massage, etc.) Yes (01%) No (99%)
- 5 Other: ___________________________________________Yes (10%) No (90%)

6.11.5 Responses for 6.10 6.11 were provided by:

- 1 resident (81%)
- 2 chart (19%)

6.12 How long does it take after you request pain medications to get the medication?

___ ___ ___ minutes (if unable to respond write in [0-9]) (20 minutes)

Part 7. Fall Risk Assessment

7.1 Is there evidence that the resident was assessed for fall risks within 14 days of admission or within 14 days of the most recent FULL MDS assessment?
(Use most recent event.)

- 1 within 14 days of admission (44%)
- 2 within 14 days of readmission (03%)
- 3 within 14 days of change in condition (02%)
- 4 quarterly (46%)
- 5 annually (05%)

7.2 Is there evidence that the resident fell in the past 30 days?

- 1 Yes (09%)  
- 2 No (91%)

---------- If item 7.2 is answered “NO”, then skip to Part 8 ----------

7.3 How many times in the last 30 days has the person fallen in the facility?

#____ ___ (02)

7.4 If the resident fell in the facility in the last 30 days, and was not transferred to an ER or hospital, (did not leave the facility), is there documentation that the resident was reassessed for fall risks within 24 hours after the fall?

- 1 Yes (52%)  
- 2 No (48%)
7.5 Does the care plan address risk factors for falls?

- O 1 Yes (92%)
- O 2 No (09%)

7.6 Does the MDS section J 4.a accurately reflect the person’s falls in the 30 days prior to the assessment? (Refer to question 7.2)

- O 1 Yes (68%)
- O 2 No (32%)

Part 8. Immunizations

8.1 Is there any documentation that the resident has ever received polyvalent (including trivalent) Pneumococcal vaccine? (Any form of documentation is acceptable.)

- O 1 Yes (66%)
- O 2 No (34%)

---- If item 8.1 is answered “NO”, then skip to 8.3 ----

8.2 Is there proper documentation of the pneumococcal vaccine that the resident received? (Look for documentation of Pneumovax or Pneu-Immune or Pneumococcal vaccine. Documentation must be by the entity that actually gave it and must include date, name of vaccine, and signature. “Received at hospital,” is not sufficient. The documentation of the event must be from the hospital, clinic or doctor’s office itself, and the same data elements must be present.)

- O 1 Yes (52%)
- O 2 No (48%)

8.3 Is there any documentation that Influenza vaccine for the 2008 (September 2008 thru May 2009) Influenza Season was given? Any form of documentation is acceptable.

- O 1 Yes (71%)
- O 2 No (29%)

---- If item 8.3 is answered “NO”, then skip to 8.6 ----

8.4 Is there proper documentation that Influenza vaccine for the 2008 Influenza Season was given? (Documentation must be by the entity that actually gave it and must include date, name of vaccine, and signature. “Received at hospital,” is not sufficient. The documentation of the event must be from the hospital, clinic or doctor’s office itself, and the same data elements must be present.)

- O 1 Yes (70%)
- O 2 No (30%)

- 81 -
8.5 In what month did the resident receive a 2008 Influenza Season Vaccine?

- Aug ’08 (01%)
- Sep ’08 (06%)
- Oct ’08 (66%)
- Nov ’08 (17%)
- Dec ’08 (03%)
- Jan ’09 (02%)
- Feb ’09 (01%)
- Mar ’09 (01%)
- Apr ’09 (0%)
- May ’09 (0%)
- Influenza vaccine was Not Given (05%)

8.6 Is there evidence that the resident is allergic to either eggs or a previous Influenza shot or has had Guillain-Barré syndrome (GBS)?

- Yes (01%)
- No (99%)

8.7 Is there documentation that the resident (or family) REFUSED the influenza shot?

- Yes (12%)
- No (88%)

Part 9. Advance Care Planning

To answer 9.1 and 9.4 correctly, you must do the following:

1. Look at your watch.
2. Pick up the chart.
3. Start looking for and identifying ACP documents beginning in the chart section where the Facility told you to look in order to find these documents.
4. After 30 seconds, note the time. Did you find all ACP documents within 30 seconds?
5. Continue searching the chart for ACP documents until you have looked at the entire chart (flipped all the pages).

9.1 After a thorough search of the clinical record, which of the following ACP documents did you find?

9.1a Out of Hospital DNR (OOHDNR)

- Yes (51%)
- No (49%)

9.1b Directive to Physicians

- Yes (27%)
- No (73%)

9.1c Durable Medical Power of Attorney

- Yes (31%)
- No (70%)

9.1d DNR order

- Yes (40%)
- No (60%)

9.1e Other intervention-limiting orders

- Yes (09%)
- No (91%)
9.2 According to facility documents, when did the facility staff first discuss advance care planning with the resident or family?

- Prior to admission (15%)
- Within 21 days of admission (61%)
- Within the first 90 days of admission (03%)
- 90 or more days after admission (10%)
- Advance Care Planning has not been discussed with the resident or family (11%)

9.3 On first accessing the chart, were you able to find all of the existing advance directives and care limiting order documents within 30 seconds?

- Yes (89%)
- No (11%)

- If items 9.1a, 9.1b, 9.1c, 9.1d 9.1e are ALL answered NO, then skip to Part 10 -

9.4 Is the care being provided consistent with the instructions in the advance care planning documents?

- Yes (99%)
- No (01%)

9.5 Does the Advance Care Plan address artificial nutrition and hydration?

- Yes (29%)
- No (71%)

Part 10. Tube Feeding

10.1 Is the resident receiving tube feedings? (Includes NG tube, PEG, or other enteral tube providing artificial nutrition and/or hydration)

- Yes (07%)
- No (93%)

---------- If item 10.1 is answered “NO”, then skip to Part 11 ----------

10.2 Is the reason for tube feeding the occurrence of aspiration pneumonia or pressure sores in the context of late-stage dementia (non-verbal, non-ambulatory)?

- Yes (44%)
- No (56%)

10.3 Does the resident have late-stage dementia (non-verbal, non-ambulatory) or end-stage illness such as metastatic cancer or organ failure or poor performance status (ECOG performance score 3 or greater) related to advanced cancer?

- Yes (44%)
- No (56%)
10.4 Is there evidence that the resident or resident’s representative was provided information about the risks and benefits of tube feeding? *(not surgical form for placement)*

- O 1 Yes (38%)
- O 2 No (62%)

10.5 Have tube feedings been provided for more than 30 days?

- O 1 Yes (90%)
- O 2 No (10%)

-------- If item 10.5 is answered “NO”, then skip to Part 10.7 --------

10.6 If the resident has been receiving tube feedings for more than 30 days, has there been a reassessment of the effectiveness of the feeding tube in the last 30 days? *(Reassessment must be based on progress toward specific measurable goals.)*

- O 1 Yes (66%)
- O 2 No (26%)
- O 8 Not applicable (09%)

10.7 Does the resident have a feeding tube in place that has not been used for more than 30 days for nutrition or hydration?

- O 1 Yes (05%)
- O 2 No (92%)
- O 8 Not applicable (03%)

Part 11. Nutrition

11.1 Is there a comprehensive nutritional assessment completed for the resident? *(This may be an initial assessment done on admission or an annual if the resident has been in the facility for a year. You need to review the most recent.)*

- O 1 Yes (93%)
- O 2 No (07%)

-------- If item 11.1 is answered “NO”, then skip to 11.3 --------

11.2 Does the nutritional assessment include estimating resident nutritional needs?

- O 1 Yes (99%)
- O 2 No (01%)

11.3 Has the person experienced an unintentional 10% weight change in the last six months? *(explanation in guidance)*

- O 1 weight gain (> than 10%) (04%)
- O 2 weight loss (< than 10%) (09%)
- O 3 NA (if no change or weight loss or gain was < 10%) (79%)
- O 4 Unable to determine from chart (08%)

11.4 Have risk factors for weight loss been identified?

- O 1 Yes (71%)
- O 2 No (29%)

- 84 -
11.5 Have risk factors for the potential of dehydration been identified?

- 1 Yes (70%)
- 2 No (30%)

11.6 Does the person’s care plan address the risks for weight loss?

- 1 Yes (65%)
- 2 No (35%)

11.7 Does the person’s care plan address the risks for dehydration?

- 1 Yes (63%)
- 2 No (37%)

Part 12. Use of Anti-anxiety Medications

Each of these questions must be answered independently (For examples, see items 12.3 through 12.5 “If there is no valid anxiety diagnosis…” in the Guidance).

12.1 Is there documentation of a diagnosis of generalized anxiety disorder, panic disorder, social anxiety disorder, agoraphobia, PTSD, or anxiety due to a medical illness that is not Dementia?

- 1 Yes (16%)
- 2 No (84%)

12.2 Is there documentation of one or more anxiety symptoms characteristic of the disorder identified in 12.1? (If item 12.1 is answered NO, then answer 12.2 Not Applicable. If 12.1 is answered YES, then refer to the symptom list in the guidance.)

- 1 Yes (12%)
- 2 No (09%)
- 8 Not applicable (79%)

12.3 Is there documentation that the resident has been assessed for anxiety symptoms using a Beck Anxiety Inventory or Hamilton Anxiety Scale in the past 6 months?

- 1 Yes (04%)
- 2 No (96%)

12.4 Is there documentation of ongoing anxiety symptom assessment (at least every 2 weeks) for the stated, measurable therapeutic goals of anti-anxiety therapy? (Answer N/A if the person has no anxiety symptoms and not taking medications)

- 1 Yes (08%)
- 2 No (08%)
- 8 Not applicable (i.e., no measurable goals) (84%)
Part 13. Use of Hypnotic Medications

13.1 Is there documentation in the chart that the resident complained of sleep problems within the last 14 days?

- 1 Yes (08%)
- 2 No (92%)

- - - - ASK Resident question 13.2 - - - -

13.2 What usually causes you to miss sleep?

- 1 uncomfortable bed (02%)
- 2 too much noise (06%)
- 3 interruptions (02%)
- 4 worry (04%)
- 5 sad (01%)
- 6 diet (0%)
- 7 medicine (01%)
- 8 unable to respond (22%)
- 9 N/A (63%)

13.3 Has the resident had a hospitalization, experienced a sudden loss of physical functioning or independence, experienced the death of a loved one, or had a significant change in personal environment in the last 14 days prior to the sleep problem? (e.g., a change in personal environment can be new admission to the facility, loss of roommate, new roommate, or conflict with family)

- 1 Yes (07%)
- 2 No (93%)

13.4 Does the MAR show an active prescription for sleep problems in last 14 days?

- 1 Yes (16%)
- 2 No (84%)

13.5 Does the resident continue to have sleep problems after receiving sleep medications?

- 1 Yes (03%)
- 2 No (97%)

13.6 Is there evidence that the resident has been evaluated for sleep hygiene including all of the following: diet history, daytime habits, sleeping habits, and sleeping environment?

- 1 Yes (12%)
- 2 No (89%)

13.7 Has the resident’s sleep pattern been consistently monitored during the last 14 days?

- 1 Yes (30%)
- 2 No (71%)
Part 14. Restraints

(Physical restraints are defined as any manual method or physical or mechanical device, material, or equipment attached or adjacent to the resident’s body that the individual cannot remove easily which restricts freedom of movement or normal access to one’s body.

14.1 Has the person been restrained in the last 30 days?

○ 1 Yes (26%) ○ 2 No (68%) ○ 3 Unknown (06%)

--- If item 14.1 is answered “NO” or “UNKNOWN”, then skip to Part 15 ----

14.2 What type(s) of restraints were used? (mark all that apply)

○ 1 Mechanical Yes (68%) No (32%)
    ○ 1a Full bed rails Yes (51%) No (49%)
    ○ 1b Other types of bed rails Yes (39%) No (61%)
    ○ 1c Trunk restraints Yes (05%) No (95%)
    ○ 1d Limb restraints Yes (0%) No (100%)
    ○ 1e Chair prevents rising Yes (09%) No (91%)
○ 2 Personal Yes (05%) No (95%)
○ 3 Chemical Yes (03%) No 97%)
    ○ 3a Topical Yes (03%) No (97%)
    ○ 3b Injectable Yes (0%) No (100%)
    ○ 3c Oral Yes (0%) No (100%)
    ○ 3d IV Yes (03%) No (97%)
    ○ 3e Other Yes (0%) No (100%)
○ 4 NACES evaluator unable to determine from record No (100%)

14.3 Why were restraints used? (mark all that apply)

○ 1 To control disruptive behavior Yes (01%) No (99%)
○ 2 To control person from wandering Yes (03%) No (97%)
○ 3 To control from getting up at night Yes (13%) No (87%)
○ 4 Other __________ Yes (70%) No (30%)
○ 5 NACES evaluator unable to determine from record why restraint was used. Yes (15%) No (85%)

14.4 Did the resident’s family or guardian request the use of restraints?

○ 1 Yes (31%) ○ 2 No (63%) ○ 8 Not applicable (07%)
14.5 What alternatives were tried to prevent the use of restraints?  
(mark all that apply)

1. Verbal de-escalation or redirection Yes (04%) No (96%)
2. Interpersonal physical separation Yes (01%) No 99%
3. Environmental remediation Yes (06%) No (94%)
4. Other Yes (04%) No (96%)
5. None (33%)
6. NACES evaluator unable to determine from record (52%)

14.6 Does the MDS section P 4 accurately reflect the use of devices and restraints with the person in the last 7 days prior to the assessment?  (Refer to question 14.2)

1. Yes (68%)  2. No (32%)

14.7 Does the MDS section B 4 accurately reflect the person’s cognitive skills for daily decision making in the time period prior to the assessment?  (Use your professional judgment)

1. Yes (91%)  2. No (09%)

Part 15. Quality of Life / Consumer Satisfaction

Question 15.1 MUST BE ANSWERED. If the resident is unable to answer, then a family member or guardian may answer Question 15.27 and 15.28. No other individual may answer for the resident. Only the resident may answer 15.3-15.26. If ANY question from 15.3 to 15.26 is answered, then EVERY question in this section must be answered.

15.1 Who is responding to this survey?

1. Resident (69%)  2. Family member or guardian (08%)
3. Neither (23%)

15.2 Was a translator used for this survey?

1. Yes (03%)  2. No (97%)

-- If 15.1 is answered, “Family member or guardian” then SKIP to 15.27—

-------- If item 15.1 is answered, “Neither” then STOP --------

15.3 Can you find a place to be alone when you wish?

1. Always (48%)  2. Sometimes (23%)  3. Rarely (07%)
4. Never (13%)  5. No answer (09%)
15.4 Can you make a private phone call?

1 Always (51%)  2 Sometimes (17%)  3 Rarely (06%)
4 Never (15%)  5 No answer (10%)

15.5 When you have a visitor, can you find a place to visit in private?

1 Always (51%)  2 Sometimes (25%)  3 Rarely (07%)
4 Never (09%)  5 No answer (09%)

15.6 Can you be together in private with another resident (other than your roommate)?

1 Always (35%)  2 Sometimes (24%)  3 Rarely (08%)
4 Never (15%)  5 No answer (18%)

15.7 Do you participate in religious activities here?

1 Always (32%)  2 Sometimes (26%)  3 Rarely (10%)
4 Never (29%)  5 No answer (03%)

15.8 Do the religious observances here have personal meaning for you?

1 Always (43%)  2 Sometimes (21%)  3 Rarely (07%)
4 Never (21%)  5 No answer (08%)

15.9 Do you enjoy the organized activities here at the nursing home?

1 Always (29%)  2 Sometimes (32%)  3 Rarely (14%)
4 Never (22%)  5 No answer (03%)

15.10 Outside of religious activities, do you have enjoyable things to do at the nursing home during the weekends?

1 Always (10%)  2 Sometimes (29%)  3 Rarely (23%)
4 Never (27%)  5 No answer (11%)

15.11 Do you like the food here?

1 Always (38%)  2 Sometimes (45%)  3 Rarely (09%)
4 Never (06%)  5 No answer (03%)

15.12 Do you enjoy mealtimes here?

1 Always (49%)  2 Sometimes (35%)  3 Rarely (08%)
4 Never (04%)  5 No answer (04%)

- 89 -
15.13 Can you get your favorite foods here?

1. Always (17%)  
2. Sometimes (42%)  
3. Rarely (17%)  
4. Never (12%)  
5. No answer (12%)

15.14 Can you get snacks and drinks when you want them?

1. Always (45%)  
2. Sometimes (32%)  
3. Rarely (08%)  
4. Never (08%)  
5. No answer (07%)

15.15 Do you feel that your possessions are safe at this nursing home?

1. Always (65%)  
2. Sometimes (19%)  
3. Rarely (04%)  
4. Never (07%)  
5. No answer (05%)

15.16 Have your clothes gotten lost or damaged in the laundry in the last month?

1. Always (06%)  
2. Sometimes (22%)  
3. Rarely (10%)  
4. Never (52%)  
5. No answer (10%)

15.17 Do you feel safe and secure?

1. Always (89%)  
2. Sometimes (06%)  
3. Rarely (01%)  
4. Never (01%)  
5. No answer (03%)

------- If item 15.17 is answered “ALWAYS”, then skip to 15.19 -------

15.18 Do you feel unsafe and insecure because of?

(mark all that apply)

1. Direct care staff No (88%) Yes (13%)  
2. Non care staff No (93%) Yes (07%)  
3. Other residents No (78%) Yes (23%)  
4. Environmental concerns No (95%) Yes (05%)  
5. Other___________________________ No (58%) Yes (42%)

15.19 Do you ever have concerns that the facility does not address?

1. Yes (13%)  
2. No (87%)

15.20 Have you heard of the Ombudsman Program?

1. Yes (17%)  
2. No (81%)  
3. Not applicable (02%)

15.21 Do you know how to contact an Ombudsman?

1. Yes (08%)  
2. No (79%)  
3. Not applicable (12%)
15.22 Have you used the services of an Ombudsman in the last 12 months?

- 1 Yes (02%)  - 2 No (98%)

-------- If item 15.21 is answered NO, then skip to 15.24 --------

15.23 How helpful has your Ombudsman been to you?

- 1 Not helpful (04%)  - 2 Neutral (70%)  - 3 Very helpful (25%)

15.24 In the last month, have you had a concern that you did not express because you were afraid of retaliation?

- 1 Yes (06%)  - 2 No (94%)

15.25 (ONLY ASK IF THE PERSON IS A HOSPICE PATIENT) Have you been given a choice of hospice care?

- 1 Yes (24%)  - 2 No (10%)  - 3 Don’t know (66%)

15.26 (ONLY ASK IF THE PERSON IS A HOSPICE PATIENT) Does your facility offer a variety of hospice agency providers from which to choose?

- 1 Yes (13%)  - 2 No (13%)  - 3 Don’t know (74%)

15.27 Overall, how satisfied are you with your (your family member's) experience in this nursing facility?

- 1 Very dissatisfied (04%)  - 2 Dissatisfied (02%)  
- 3 Somewhat dissatisfied (03%)  - 4 Neither (02%)  
- 5 Somewhat satisfied (12%)  - 6 Satisfied (51%)  
- 7 Very satisfied (26%)  - 8 Not applicable (01%)

15.28 Overall, how satisfied are you (your family member's) with your health care services?

- 1 Very dissatisfied (03%)  - 2 Dissatisfied (02%)  
- 3 Somewhat dissatisfied (03%)  - 4 Neither (02%)  
- 5 Somewhat satisfied (12%)  - 6 Satisfied (53%)  
- 7 Very satisfied (25%)  - 8 Not applicable (01%)

I certify by my signature below that the DADSID number of the resident has been doubled-checked for accuracy, and that the information in this document is an accurate assessment of the resident.

QR Nurse Signature ___________________________ Date ___________________
Appendix B Pressure Ulcer Staging System

The National Pressure Ulcer Advisory Panel (NPUAP) revised the pressure ulcer staging system. Basically the higher the stage, the more serious the pressure ulcer. NPUAP defines pressure ulcer stages as:

- **Stage I**: “Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area” (NPUAP, 2007).
• **Stage II:** Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough (i.e. a mass of dead tissue separating from an ulcer). May also present as an intact or open/ruptured serum-filled blister (NPUAP, 2007).
• **Stage III:** “Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon, or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling” (NPUAP, 2007).
• **Stage IV:** Full thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar (i.e. a scab formed especially after a burn or cauterization) may be present on some parts of the wound bed. Often include undermining and tunneling (NPUAP, 2007).
• **Unstageable:** Full-thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. (NPUAP 2007)
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antipsychotics</td>
<td>any of the powerful tranquilizers (as the phenothiazines or butyrophenones) used especially to treat psychosis</td>
</tr>
<tr>
<td>Anxiolytic</td>
<td>a drug that relieves anxiety</td>
</tr>
<tr>
<td>Anxiolytics</td>
<td>a drug that relieves anxiety</td>
</tr>
<tr>
<td>Benign prostatic hypertrophy</td>
<td>adenomatous hyperplasia of the periurethral part of the prostate gland that occurs especially in men over 50 years old and that tends to obstruct urination by constricting the urethra -- abbreviation BPH</td>
</tr>
<tr>
<td>Capillary</td>
<td>any of the smallest blood vessels connecting arterioles with venules and forming networks throughout the body</td>
</tr>
<tr>
<td>Central Nervous System</td>
<td>the part of the nervous system which in vertebrates consists of the brain and spinal cord, to which sensory impulses are transmitted and from which motor impulses pass out, and which supervises and coordinates the activity of the entire nervous system</td>
</tr>
<tr>
<td>Colonize</td>
<td>to become established in a habitat (as a host or a wound)</td>
</tr>
<tr>
<td>Delirium</td>
<td>mental disturbance characterized by confusion, disordered speech, and hallucinations</td>
</tr>
<tr>
<td>Dementia</td>
<td>a usually progressive condition (as Alzheimer's disease) marked by the development of multiple cognitive deficits (as memory impairment, aphasia, and inability to plan and initiate complex behavior)</td>
</tr>
<tr>
<td>DNR</td>
<td>Do not resuscitate</td>
</tr>
<tr>
<td>Dysphagia</td>
<td>Difficulty swallowing</td>
</tr>
<tr>
<td>Hemiballismus</td>
<td>violent uncontrollable movements of one lateral half of the body usually</td>
</tr>
<tr>
<td>Hypnotics</td>
<td>a sleep-inducing agent</td>
</tr>
<tr>
<td>Incontinence</td>
<td>inability of the body to control the evacuative functions</td>
</tr>
<tr>
<td>Invasive</td>
<td>tending to spread</td>
</tr>
</tbody>
</table>
Lethargy abnormal drowsiness
Necrosis death of a portion of tissue differentially affected by local injury
Nocturia urination at night especially when excessive
Parkinson’s disease a chronic progressive neurological disease chiefly of later life that is linked to decreased dopamine production in the substantia nigra and is marked especially by tremor of resting muscles, rigidity, slowness of movement, impaired balance, and a shuffling gait
Parkinsonism any of several neurological conditions that resemble Parkinson's disease and that result from a deficiency or blockage of dopamine caused by degenerative disease, drugs, or toxins
Perfusion the pumping of a fluid through an organ or tissue
Polypharmacy the use of 5 or more medications
Psychoactive affecting the mind or behavior
Psychosis serious mental disorder (as schizophrenia) characterized by defective or lost contact with reality often with hallucinations or delusions
Resistance power or capacity to resist; especially : the inherent ability of an organism to resist harmful influences (as disease, toxic agents, or infection) : the capacity of a species or strain of microorganism to survive exposure to a toxic agent (as a drug) formerly effective against it due to genetic mutation and selection for and accumulation of genes conferring protection from the agent especially as a result of overuse of the agent which selectively destroys individual microorganisms lacking the protective genes
Subcutaneous under the skin
Ureter either of the paired ducts that carry away urine from a kidney to the bladder
Ureteritis inflammation of a ureter
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urethra</td>
<td>the canal that in most mammals carries off the urine from the bladder</td>
</tr>
<tr>
<td>Urosepsis</td>
<td>a toxic condition caused by the extravasation of urine into bodily tissue</td>
</tr>
<tr>
<td>Void</td>
<td>to discharge or emit</td>
</tr>
</tbody>
</table>
## Appendix D  Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AARP/Texas</td>
<td>Formerly known as American Association of Retired People/Texas</td>
</tr>
<tr>
<td>ACE</td>
<td>Angiotensin converting enzyme</td>
</tr>
<tr>
<td>ACP</td>
<td>Advance Care Planning</td>
</tr>
<tr>
<td>ADD</td>
<td>Assessment of Discomfort in Dementia</td>
</tr>
<tr>
<td>AHCCPR</td>
<td>Agency for Health Care Policy and Research</td>
</tr>
<tr>
<td>AHRQ</td>
<td>Agency for Healthcare Research and Quality</td>
</tr>
<tr>
<td>ATW</td>
<td>Aging Texas Well</td>
</tr>
<tr>
<td>BRFSS</td>
<td>Behavioral Risk Factor Surveillance System</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CMS</td>
<td>Centers for Medicare and Medicaid</td>
</tr>
<tr>
<td>CPR</td>
<td>Cardiopulmonary Resuscitation</td>
</tr>
<tr>
<td>DADS</td>
<td>Department of Aging and Disability Services</td>
</tr>
<tr>
<td>DHHS</td>
<td>United States Department of Health and Human Services</td>
</tr>
<tr>
<td>DNR</td>
<td>Do-Not-Resuscitate</td>
</tr>
<tr>
<td>ECOG</td>
<td>Easter Cooperative Oncology Group</td>
</tr>
<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
</tr>
<tr>
<td>LTC</td>
<td>Long-term care</td>
</tr>
<tr>
<td>LTSS</td>
<td>Long-Term Services and Supports</td>
</tr>
<tr>
<td>MAR</td>
<td>Medication Administration Record</td>
</tr>
<tr>
<td>MDS</td>
<td>Minimum Data Set</td>
</tr>
<tr>
<td>MRSA</td>
<td>Methicillin Resistant Staphylococcus Aureus</td>
</tr>
</tbody>
</table>
NACES  Nurse Aid Competency Evaluation Services Plus Foundation, Inc
NFQR  Nursing Facility Quality Review
NPUAP  National Pressure Ulcer Advisory Panel
NSAID  Nonsteroidal anti-inflammatory drug
OOHDNR  Out-Of-Hospital-Do-Not-Resuscitate
OBRA  Omnibus Budget Reconciliation Act
PAINAD  Pain Assessment in Advanced Dementia
PEG  Percutaneous Endoscopic Gastrostomy
QAI  Quality Assurance and Improvement
QMP  Quality Monitoring Program
QOL  Quality of Life
TMF Health Quality Institute  Formerly known as the Texas Medical Foundation
VRE  Vancomycin Resistant Enterococcus