CIVIL MONEY PENALTY (CMP) FUNDED PROJECT

FINAL REPORT

Grantee

The Board of Regents of
University of Wisconsin System
Office of Research and Sponsored Programs
Center for Health Systems Research and Analysis (CHSRA)

Project Title

Wisconsin Nursing Home Performance Measurement Report System

Award Amount

$124,140

Grant Period

August 1, 2015-July 31, 2016

Additional Information and Resources

Department of Health Services / Division of Quality Assurance
Quality Assurance and Improvement Committee

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F-01593 (08/2015)

WI Nursing Home Clinical Performance Reporting System - Phase II

Funding is provided, in part, by the Centers for Medicare and Medicaid Services, which returns funds collected from civil money penalties (CMP) to states to develop and implement projects that will benefit nursing home residents

Purpose and Summary:

Wisconsin needs high quality nursing homes to meet the needs of its most vulnerable citizens. In order to achieve high quality nursing home care and to continuously improve it, the Department must first define quality and determine how to measure it. Phase I of this initiative produced a nursing home quality performance measurement system tested for credibility and ready for statewide implementation. Phase II recruited several WI nursing homes to pilot test the reporting system, including selecting which measures are most useful and identifying appropriate resources and protocols to employ to improve or maintain a high level of measured performance. This final report recommends next steps to roll out and maintain the final version of the reporting system for the benefit of all Wisconsin nursing homes. As with the prior phase, the ultimate outcome of this initiative is to improve clinical outcomes for WI nursing home residents, which will also improve their quality of life.

Note on Terminology: During Phase II, we referred to the reporting system as the Clinical Resource Center (CRC) Nursing Home ScoreCard. We use the CRC ScoreCard reference within this report. Prior to Phase III, an official title for the reporting system should be adopted. "Scorecard" is likely to be confused with other reporting systems.

Specific Goals and Results for Phase II:

The Center for Health Systems Research and Analysis (CHSRA) of the University of Wisconsin piloted the Phase I reporting system with 20 to 30 nursing homes over one year. This project was coordinated with efforts by the Wisconsin Department of Health Services staff and solicited the support and participation of the two large provider associations, LeadingAge Wisconsin and the Wisconsin Health Care Association. The key objectives included the following. The reader will find CHSRA's key recommendations for Phase III starting on page 11.

1) Assess the usefulness of the QIQM reporting system as a tool for nursing home staff to identify areas for quality improvement, especially within the context of current or future quality improvement initiatives sponsored by the provider associations or other stakeholders, such as CMS's Quality Assurance & Performance Improvement (QAPI) program.

   Results:

   - The provider associations recruited 21 pilot nursing facility contacts representing 25 facilities. There were two contacts that represented more than one facility each. One pilot withdrew after the kickoff webinar and one after the first webinar feedback form was returned.

   - CHSRA constructed and maintained a ScoreCard section of the Clinical Resource Center (CRC) website available only to the pilot facilities. See Appendix A. The ScoreCard section provided each pilot with access to the ScoreCard reporting spreadsheet and that pilot's performance measure data files, as well as links to ScoreCard training materials and links to CRC content for each ScoreCard measure domain. The training materials included a two-hour video of the training webinar, including a walk-through of the reporting spreadsheet, and PowerPoint slides for the training webinar.

   - CHSRA provided baseline and quarterly ScoreCard reports for each pilot facility. A blank reporting spreadsheet was posted to the ScoreCard website. (Actually, the spreadsheet was pre-loaded with data for a hypothetical nursing facility for use in training.) The reporting spreadsheet contained a macro to load data for the pilot facility from a data file updated each quarter and posted to the website. Pilots only had access to specific data for their facility and to aggregated data for a variety of facility peer groups. Quarterly updates were provided in conjunction with three webinars as follows:

   - Webinar 1 (Nov 20, 2015): Baseline data for 2011Q1 through 2015Q3
     This was a two-hour training webinar for the pilots. Project objectives, roles and timelines were reviewed. The CRC website, the ScoreCard spreadsheet and pilot data files were demonstrated. Much of the time was devoted to exploring the features and content of the reporting spreadsheet, including the presentation of risk-adjusted Quality Indicator Quality Measures (QIQMs), specifying and interpreting comparisons to nursing facility peer groups, viewing tabular/graphical trends over time, expanding/collapsing

results from/to QIQM domains and controlling thresholds used to highlight unusual results.

- Webinar 2 (Feb 26 & Mar 3, 2016): 2015Q4 data update
  CHSRA reviewed a change to the ScoreCard spreadsheet to allow users to switch between the 2015Q4 data and the new 2016Q1 data without needing to reload the data. CHSRA also summarized recent statewide QIQM trends (almost all of which indicated gradual improvement) and announced plans to add two new QIQMs based on PointRight's OnPoint 30-Day Re-Hospitalization Metric with the release of the 2016Q1 ScoreCard update.

  Prior to the webinar, feedback forms were distributed to the pilots asking whether a) the pilots were experiencing any technical issues in downloading and viewing their data, b) the reports were helping in identifying any new care areas of concern, c) the reports were helping with any existing quality improvement efforts, or d) the linked CRC website content was useful in designing QAPI interventions. The feedback forms were collected by the provider associations, recorded to a summary spreadsheet and shared with CHSRA prior to the webinar.

  Feedback was light, implying that many facilities had not had an opportunity to review the ScoreCard or linked content and determine how they could be made more useful in their quality improvement efforts. A few pilots had difficulty unzipping their downloaded data files, which caused problems when they attempted to load the values into the ScoreCard spreadsheet. Aside from this issue, there were no other reports of technical difficulties with the reporting software. Some replies indicated that pilots were concerned about the learning curve related to understanding/using the many ScoreCard QIQMs, while others indicated that they could see potential value in the new QIQMs. There were favorable comments regarding CRC content (especially the AMDA guides), but nothing directly related to the value of links between the QIQMs and the content available on the ScoreCard web page.

  To help reduce the CRC ScoreCard learning curve, CHSRA put together a table of contents for the recording of the initial training webinar – including time points within the two hours that address specific issues (such as how to load data into the Scorecard spreadsheet). With this, new users at the pilot

facilities could review the portions of the training video needed for the task at hand without needing to sit through the entire recording. (See Appendix B.)

To sell the benefits of making the effort to learn the CRC ScoreCard reporting system to new users at the pilot facilities, CHSRA also assembled a 2-page bullet list highlighting things that can be done with the CRC ScoreCard that can't be done (or can't be done as easily) with the CMS CASPER or Nursing Home Compare reporting systems. (See Appendix C.)

- Webinar 3 (Jun 10, 2016): 2016Q1 data update
  Again, CHSRA demonstrated changes to the ScoreCard spreadsheet to allow the user to switch among the three rounds of quarterly data without needing to reload the data.

  CHSRA reviewed five QIQM additions to the ScoreCard, the two re-hospitalization measures plus three new CMS MDS-based measures:
  - WI_TRK1: Percentage of residents discharged to acute hospital within 30 days of entry from same.
  - WI_TRK2: Percentage of stays ending in discharge to acute hospital within 30 days of entry from same.
  - CMS: N036.01 Prevalence of antianxiety or hypnotic medication use (long stay) during the target period.
  - CMS: N035.01 Percent of long-stay residents who experienced a decline in independence of locomotion during the target period.
  - CMS: N037.01 Percentage of short-stay residents who were discharged from the nursing home that gained more independence in transfer, locomotion, and walking during their episode of care.

  See Appendix D for a copy of the ScoreCard Instructions and Executive Summary report, including these new QIQMs.

  Addition of these new QIQMs during the pilot study was a good test of the flexible nature of CHSRA's Oracle-based measure calculation engine. Once MDS-based QIQM definitions were available, it was a simple matter to incorporate the new QIQMs into the ScoreCard reporting system, including historical baseline values. While some new data structures were needed to harvest the appropriate combinations of MDS assessments, these were easily

created and added without needing to rebuild any existing aspects of the system.

The feedback form for the third webinar concentrated on how the ScoreCard and links to CRC content can be made more useful in each aspect of the QAPI process. Using data for the hypothetical nursing home (which was included in each of the three quarterly data releases), samples of completed feedback forms were included along with the blank forms. The examples included specific suggestions for uses of the ScoreCard data and linked CRC content in the QAPI process for the hypothetical facility and showed how these uses might be reported to CHSRA in the feedback form without divulging unnecessary details.

The resulting pilot feedback was again light. Responses and discussion during the webinar made it clear that, while the pilot study period may be adequate to test the mechanics of the ScoreCard reporting process and the links to CRC content, it will require a much longer period of "living with" the new QIQMs to see how they can be used, or improved for use, in QAPI efforts.

- A final survey of the pilot facilities was conducted in November 2016. Each pilot was sent a summary of potential care issues based on QIQM results and trends over the nine quarters ending with 2016Q1. QIQMs which flagged (i.e., were in the worst 10% of values throughout the state) for four or more of the nine quarters, or, which exhibited an unusual deterioration in the statewide percentile ranking from FY15-Q1 (the year ending with the first quarter of 2015) to FY16-Q1 (the year ending with the first quarter of 2016) were summarized. The pilot contact was asked to confirm the tabulated results using the CRC ScoreCard reports provided during the study and then complete an online survey.

  Initial survey questions related to a summary of each pilot's flagging QIQMs. Subsequent questions focused on suggestions for reporting system changes and plans for Phase III.

  Eight of the original 21 pilot facilities responded. Key results of the survey relating to the QAPI process included the following.

The respondents supported the following statements:

- The ScoreCard provides information not conveniently available elsewhere that is useful in identifying and monitoring quality of care issues. (63% agreed)
- ScoreCard content complements other data sources. (88% agreed)
- ScoreCard and linked CRC content is (or is likely to become) a useful resource in QAPI and other quality improvement/assurance efforts. (88% agreed)
- During the gap between Phase II and Phase III, the pilot would be interested in continuing to receive quarterly ScoreCard updates. (88% agreed)
- More pilot testing is needed before Phase III is implemented. (63% agreed)
- Phase III should be postponed until more is known about the evolving QAPI requirements; the ScoreCard and linked CRC content can then be adjusted to best coordinate with QAPI requirements. (88% agreed)

The respondents disagreed with the following statement:

- Phase III should be implemented as soon as possible; any necessary fixes can be implemented as revisions after the initial statewide rollout. (63% disagreed)

Overall, the responding pilots seem to see value (or potential value) in the ScoreCard and linked CRC content as a tool in their future QAPI efforts. They also seem to be very cautious about rolling out any new reporting system prematurely. They would seem to prefer delaying the rollout to minimize post-rollout changes and the associated re-training.

- Comments and suggestions from the nursing home associations are pending at the time of this report. This report will be updated once this information is received by CHSRA.

2) Build linkages to follow-up protocols within the Clinical Resource Center to employ when a QIQM identifies an area of concern. Suggest, if necessary, additional CRC content that would be useful in such situations.

Results:

- CHSRA relabeled the ScoreCard QIQM domains to conform to CRC care areas. (See Appendix A.)

- CHSRA created links to follow-up materials (guidelines, tools and resources) on the ScoreCard webpage broken down by ScoreCard domain.
- The pilot survey requested more CRC material within the falls, pain, functioning, rehabilitation domains.

3) Determine which QIQM values should be retained, removed or modified for future use in the reporting system. Determine which nursing home peer groups should be retained, removed or modified.

   Results:
   - Pilot surveys did not identify any QIQMs to be discontinued; a few recommendations for additional QIQMs were made.
   - Pilot surveys only identified one peer group to be discontinued (hospital-based facilities); one pilot suggested adding nursing facilities with specialized care units (e.g., dementia).
   - Rather than removing QIQMs or peer group options from the reporting system, CHSRA suggests that users be given the ability to disable or hide content. Initially, this could take the form of multiple standard report layouts, ranging in content and simplicity. For some layouts, content might only be displayed if it triggers some test of significance, e.g., QIQMs with high or low percentile rankings would be displayed, while other QIQMs would be hidden. Eventually, this may lead to user profiles which store display preferences.
   - Recommendations for future ScoreCard QIQM additions or revisions should be collected from users (comments to the Help Desk, suggestions form user groups) or others for consideration by a stakeholder oversight committee.
   - Prior to statewide rollout, CHSRA recommends streamlining the myriad of MDS data "harvesting rules" across families of QIQMs. The CMS, MN and QCLI QIQM groupings each have their own specifications to identify which MDS assessments are used in their calculations. To the extent possible, these variations should be eliminated. CHSRA recommends using the CMS specifications, where possible.

4) Estimate the cost and resources necessary to roll out and maintain the reporting system statewide. Suggest approaches to funding the statewide operational system.

   Results:

- CHSRA recommends the following the following time frame for a Phase III statewide rollout of the reporting system:
  - CMP funding request by March 2017
  - Start web-based interface development July 2017
  - Recruit Phase III testing facilities by September 2017
  - Define and recruit a stakeholder oversight CRC sub-committee by December 2017
  - Beta test limited rollout in first half of 2018
  - Statewide rollout in fourth quarter of 2018

  If development and beta testing are completed early, the statewide rollout date may be advanced to the third quarter of 2018.

- CHSRA's anticipated cost for Phase III is $220,000.

Develop web-based version of ScoreCard report (web interface programming, streamlining QIQM calculation rules, user feedback system, internal testing)	$ 90,000
CRC linked content (develop additional content, training modules, internal testing)	15,000
Reporting system management structure (develop oversight sub-committee charter, recruit members, initial meeting, CHSRA reports to Sponsor on rollout progress)	30,000
Statewide rollout (Beta-testing, communication plan, baseline reports, training modules, Help Desk preparation)	40,000
Quarterly reporting cycle (4 quarterly reports and Help Desk support)	35,000
Final report on rollout to Sponsor	10,000
Total CHSRA Cost	$220,000

- CHSRA's anticipated cost for annual system maintenance after Phase III is $50,000. This includes quarterly updates to reports, maintenance of the

ScoreCard portion of the CRC website, ongoing Help Desk support and coordination of quarterly ScoreCard CRC sub-committee meetings.

- CHSRA expects that nursing facility staff who wish to make good use of the ScoreCard report will need to invest a half day each to become familiar with all of the options of the report (e.g., report layouts, peer group options, graphs, exporting data). Additional time will be needed to understand the details of the many QIQM definitions. CHSRA will develop additional training modules to help in this regard. With this training material and depending on the background of the user, it may require an half an hour to understand the definitions of a QIQM's numerator, denominator, exclusions, risk adjustment covariates and how the QIQM differs from similar QIQMs. With 74 QIQMs, it would be reasonable for users to initially focus on only flagging QIQMs for the facility. For a typical facility, this would be eight (about 10%) QIQMs, requiring half a day of study. Other QIQMs could be studied as necessary at a later date. Investigating the CRC content associated with each flagging QIQM could take a couple hours each, depending on whether the material (AMDA guides, etc.) are new to the user. So, when the reports are first made available, users should expect to spend two or three days learning the system, the QIQMs of interest and exploring linked content. Each quarter thereafter, users should expect to spend half a day reviewing the new data, learning any new QIQMs of interest and investigating linked content.

5) Recommend strategies for improving and expanding the scope of the reporting system.

Results:

While we attempted to make the Excel-based Phase II reporting process as simple as possible, it is clear that many would find a web-based interface easier to navigate. CHSRA recommends that a web-based reporting interface be developed for the Phase III statewide implementation of the reporting system. Access to the new reporting system can be made quite simple if it is rolled out as a new CRC website resource. No new login process would need to be learned for those already using CRC.

- The pilot survey respondents identified the following current features of the Excel-based reporting system to be retained in Phase III:
    - Collapsible domains
    - User-selectable highlighting thresholds

    - Supporting tables of recent QIQM values, percentiles and denominators
    - On-demand time-series plots of QIQM values and percentiles
    - Multiple reporting periods (current quarter, year and annual change)
    - User-selectable peer groups
    - On-demand QIQM definitions
    - Ability to save results in Excel format

- The pilot respondents also supported the following new features in for the Phase III web-based reporting system:
    - Direct links to training modules to demo reporting system features
    - Direct links to CRC website content
    - Simpler basic layout, with option to display more dimensions (favorite feature in the pilot survey)
    - User preferences that can be saved
    - Resident-level detail reports
    - Feedback system to curate and share lessons learned
    - More training options (e.g., online demo's)

CHSRA Phase III Recommendations:

Even proactive providers, such as the Phase II pilots, are hard-pressed to devote time to a new resource. This was clear from the modest feedback and survey response rates. While those who made the effort to work with ScoreCard were generally positive about its potential uses, they also clearly indicated that they would prefer a delayed rollout if that would reduce the need for post-rollout adjustments and the need to re-train staff with each round of adjustments.

Again, while the Phase II study period was adequate to test the mechanics of the Scorecard, it will require a much longer period of "living with" the new QIQMs and linked CRC content to see how they can be used, or improved for use, in QAPI efforts. As part of the statewide rollout communication plan, It should be made clear that the use of the CRC ScoreCard reporting system is optional. Hopefully, those who become convinced of its value in QAPI and other quality improvement efforts will convince others that it is a resource worth some investment of time and training. CRC can advertise these successes to accelerate the buy-in process.

To allow nursing home staff to start to use key aspects of the reporting system without needing to spend the time to understand all the other "advanced" features, CHSRA recommends implementing an additional, more basic, summary performance measurement report. In addition, web-based on-demand training modules can be added to help to reduce the effort required to understand the report's basic and advanced layouts and content.

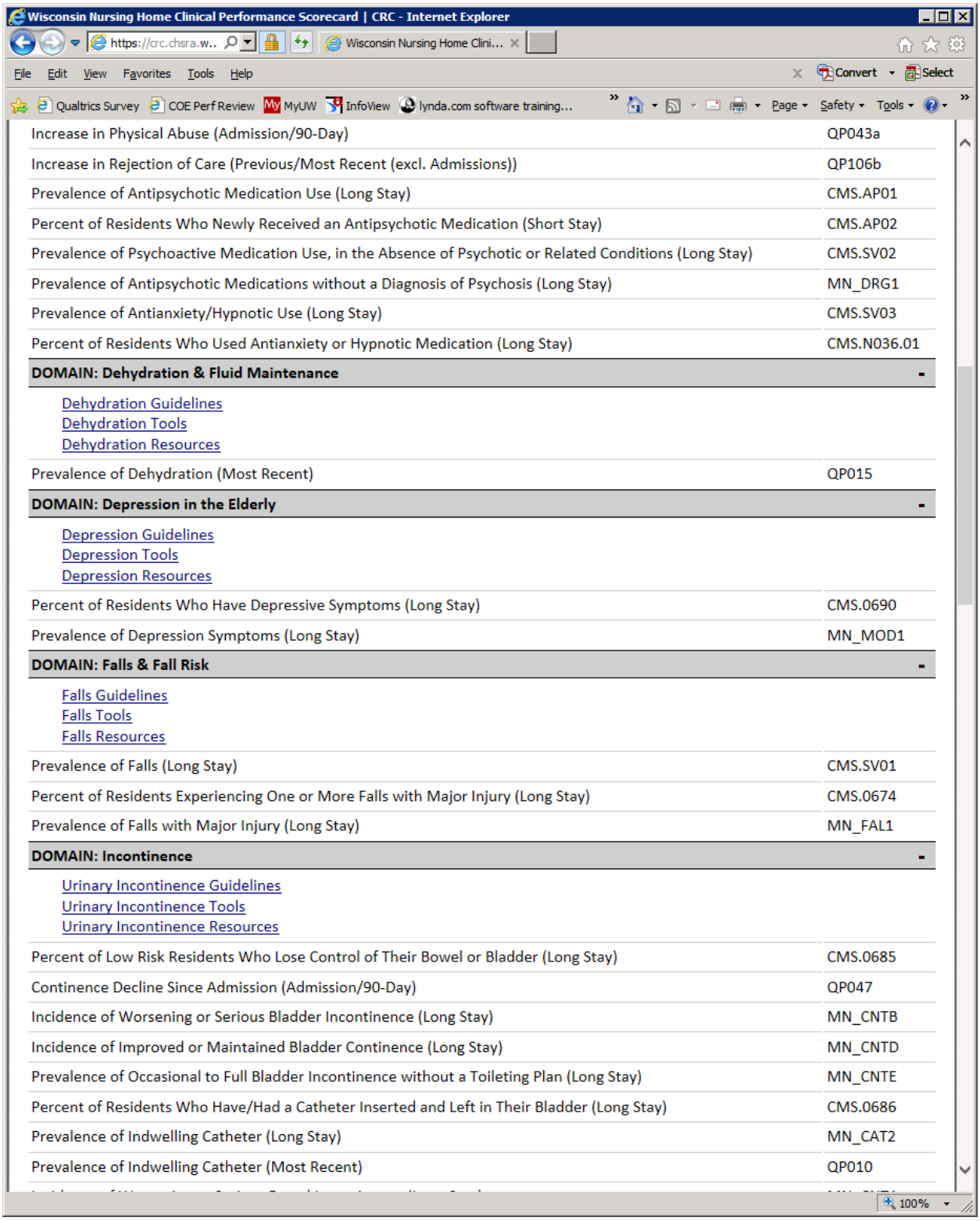
CHSRA will consider incorporating publicly available quality metrics (e.g., Nursing Home Compare) into the CRC ScoreCard report for convenient comparison. The system would then benefit from any claim-based QIQMs, payroll-based staffing measures and survey-based citation information published by CMS that cannot be replicated by CHSRA using MDS data alone. In addition, the ScoreCard's peer grouping features could be used with these public measures. So, for example, a facility could compare its CMS staffing measures to those of other facilities in its selected peer group. This addition only requires routine download of CMS data files, which are currently posted on the NHC website. CHSRA currently downloads these items for other purposes, including maintaining several of the peer grouping options. Issues that may arise include: a) NHC QIQM values are masked (unavailable for download) if the denominator is small, b) CHSRA's Help Desk may receive additional requests relative to understanding the NHC values, and c) NHC does not include all of the QIQMs available to facilities on CASPER.

Harvesting and curating feedback from users is critical in making the system adaptive and responsive to user needs. A web-based interface will allow users to instantly submit comments and questions to the Help Desk. User groups could be facilitated by the CRC website in concert with the provider associations. Suggested report changes from these sources should be reviewed and, if appropriate, prioritized for future development and implementation by a stakeholder oversight panel. This will lead to:

- Additional measures or improvements to existing measures
- New ways to present and understand the measures
- Better understanding of how the system works (or clashes) with other reporting systems
- New CRC content on how to best use the data and the CRC content in quality improvement efforts, e.g., abstracted QAPI success stories

There is interest in resident-level QIQM reports, e.g., a tabulation of residents who trigger one or more of a set of QIQMs of interest to the user. This is a feature available in the CASPER reporting system and a feature with which CHSRA has had experience in prior reporting systems (e-PIP). Such reports could be developed and made available if the authentication system is properly built, maintained and adhered to by the users. Since resident-level data is protected health information (PHI), we must reduce the likelihood that these reports can be accessed by anyone not approved by the nursing facility (the Covered Entity). The authentication mechanism can be built, but its reliability depends on users providing timely updates to the authorized user database. We recommend that resident-level reports be excluded from the initial Phase III statewide rollout. We can consider adding this feature at some point in the future if the users and the stakeholder oversight committee prioritize its development.

Appendix A – CRC ScoreCard Web Page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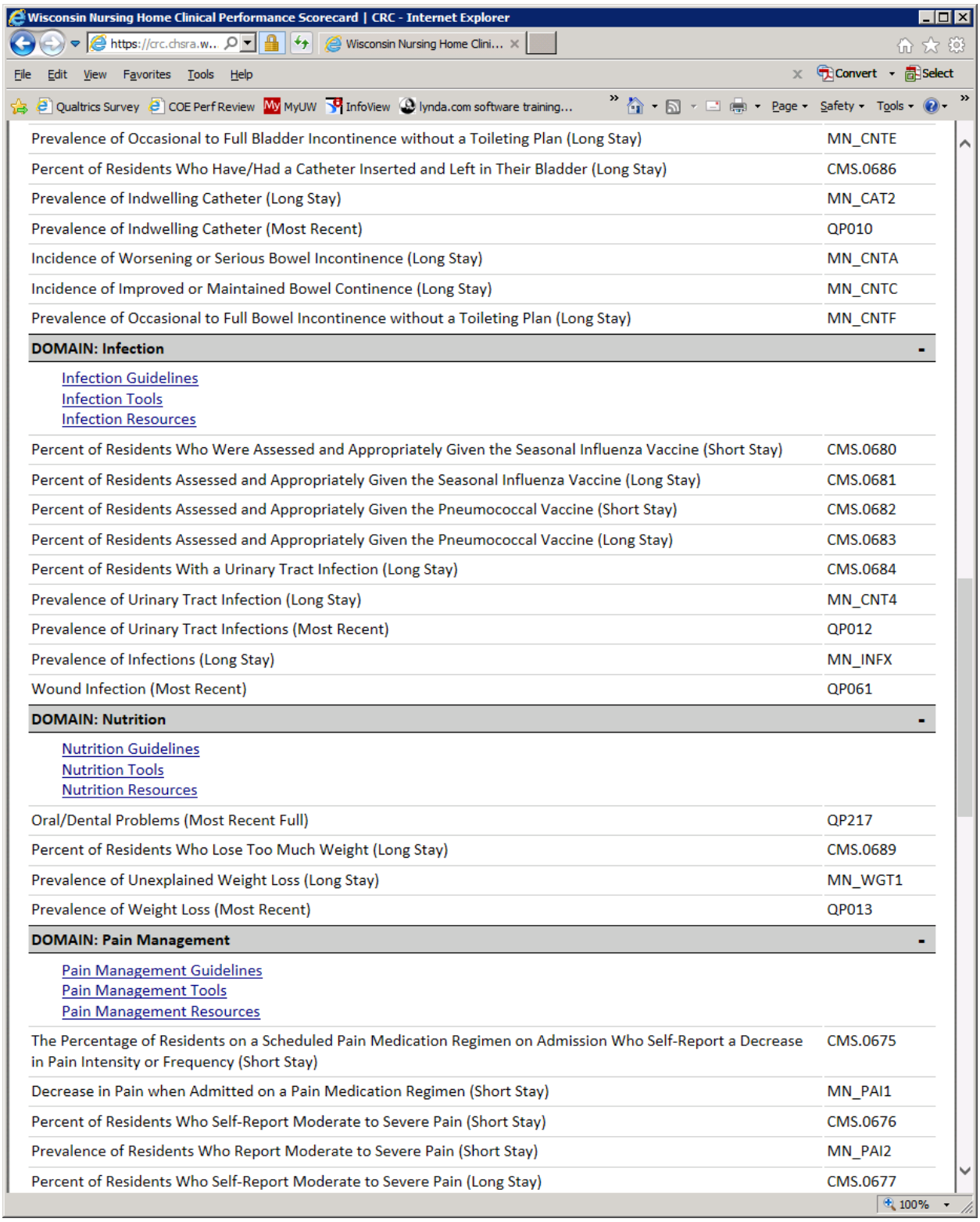
Page Safety Tools
Increase in Physical Abuse (Admission/90-Day) QP043a
Increase in Rejection of Care (Previous/Most Recent (excl. Admissions)) QP106b
Prevalence of Antipsychotic Medication Use (Long Stay) CMS.AP01
Percent of Residents Who Newly Received an Antipsychotic Medication (Short Stay) CMS.AP02
Prevalence of Psychoactive Medication Use, in the Absence of Psychotic or Related Conditions (Long Stay) CMS.SV02
Prevalence of Antipsychotic Medications without a Diagnosis of Psychosis (Long Stay) MN_DRG1
Prevalence of Antianxiety/Hypnotic Use (Long Stay) CMS.SV03
Percent of Residents Who Used Antianxiety or Hypnotic Medication (Long Stay) CMS.N036.01
DOMAIN: Dehydration & Fluid Maintenance -
Dehydration Guidelines
Dehydration Tools
Dehydration Resources
Prevalence of Dehydration (Most Recent) QP015
DOMAIN: Depression in the Elderly -
Depression Guidelines
Depression Tools
Depression Resources
Percent of Residents Who Have Depressive Symptoms (Long Stay) CMS.0690
Prevalence of Depression Symptoms (Long Stay) MN_MOD1
DOMAIN: Falls & Fall Risk -
Falls Guidelines
Falls Tools
Falls Resources
Prevalence of Falls (Long Stay) CMS.SV01
Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) CMS.0674
Prevalence of Falls with Major Injury (Long Stay) MN_FAL1
DOMAIN: Incontinence -
Urinary Incontinence Guidelines
Urinary Incontinence Tools
Urinary Incontinence Resources
Percent of Low Risk Residents Who Lose Control of Their Bowel or Bladder (Long Stay) CMS.0685
Continence Decline Since Admission (Admission/90-Day) QP047
Incidence of Worsening or Serious Bladder Incontinence (Long Stay) MN_CNTB
Incidence of Improved or Maintained Bladder Continence (Long Stay) MN_CNTD
Prevalence of Occasional to Full Bladder Incontinence without a Toileting Plan (Long Stay) MN_CNTE
Percent of Residents Who Have/Had a Catheter Inserted and Left in Their Bladder (Long Stay) CMS.0686
Prevalence of Indwelling Catheter (Long Stay) MN_CAT2
Prevalence of Indwelling Catheter (Most Recent) QP010
100%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Page Safety Tools
Prevalence of Occasional to Full Bladder Incontinence without a Toileting Plan (Long Stay) MN_CNTE
Percent of Residents Who Have/Had a Catheter Inserted and Left in Their Bladder (Long Stay) CMS.0686
Prevalence of Indwelling Catheter (Long Stay) MN_CAT2
Prevalence of Indwelling Catheter (Most Recent) QP010
Incidence of Worsening or Serious Bowel Incontinence (Long Stay) MN_CNTA
Incidence of Improved or Maintained Bowel Continence (Long Stay) MN_CNTC
Prevalence of Occasional to Full Bowel Incontinence without a Toileting Plan (Long Stay) MN_CNTF
DOMAIN: Infection
Infection Guidelines
Infection Tools
Infection Resources
Percent of Residents Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short Stay) CMS.0680
Percent of Residents Assessed and Appropriately Given the Seasonal Influenza Vaccine (Long Stay) CMS.0681
Percent of Residents Assessed and Appropriately Given the Pneumococcal Vaccine (Short Stay) CMS.0682
Percent of Residents Assessed and Appropriately Given the Pneumococcal Vaccine (Long Stay) CMS.0683
Percent of Residents With a Urinary Tract Infection (Long Stay) CMS.0684
Prevalence of Urinary Tract Infection (Long Stay) MN_CNT4
Prevalence of Urinary Tract Infections (Most Recent) QP012
Prevalence of Infections (Long Stay) MN_INFX
Wound Infection (Most Recent) QP061
DOMAIN: Nutrition
Nutrition Guidelines
Nutrition Tools
Nutrition Resources
Oral/Dental Problems (Most Recent Full) QP217
Percent of Residents Who Lose Too Much Weight (Long Stay) CMS.0689
Prevalence of Unexplained Weight Loss (Long Stay) MN_WGT1
Prevalence of Weight Loss (Most Recent) QP013
DOMAIN: Pain Management
Pain Management Guidelines
Pain Management Tools
Pain Management Resources
The Percentage of Residents on a Scheduled Pain Medication Regimen on Admission Who Self-Report a Decrease in Pain Intensity or Frequency (Short Stay) CMS.0675
Decrease in Pain when Admitted on a Pain Medication Regimen (Short Stay) MN_PAI1
Percent of Residents Who Self-Report Moderate to Severe Pain (Short Stay) CMS.0676
Prevalence of Residents Who Report Moderate to Severe Pain (Short Stay) MN_PAI2
Percent of Residents Who Self-Report Moderate to Severe Pain (Long Stay) CMS.0677
100%


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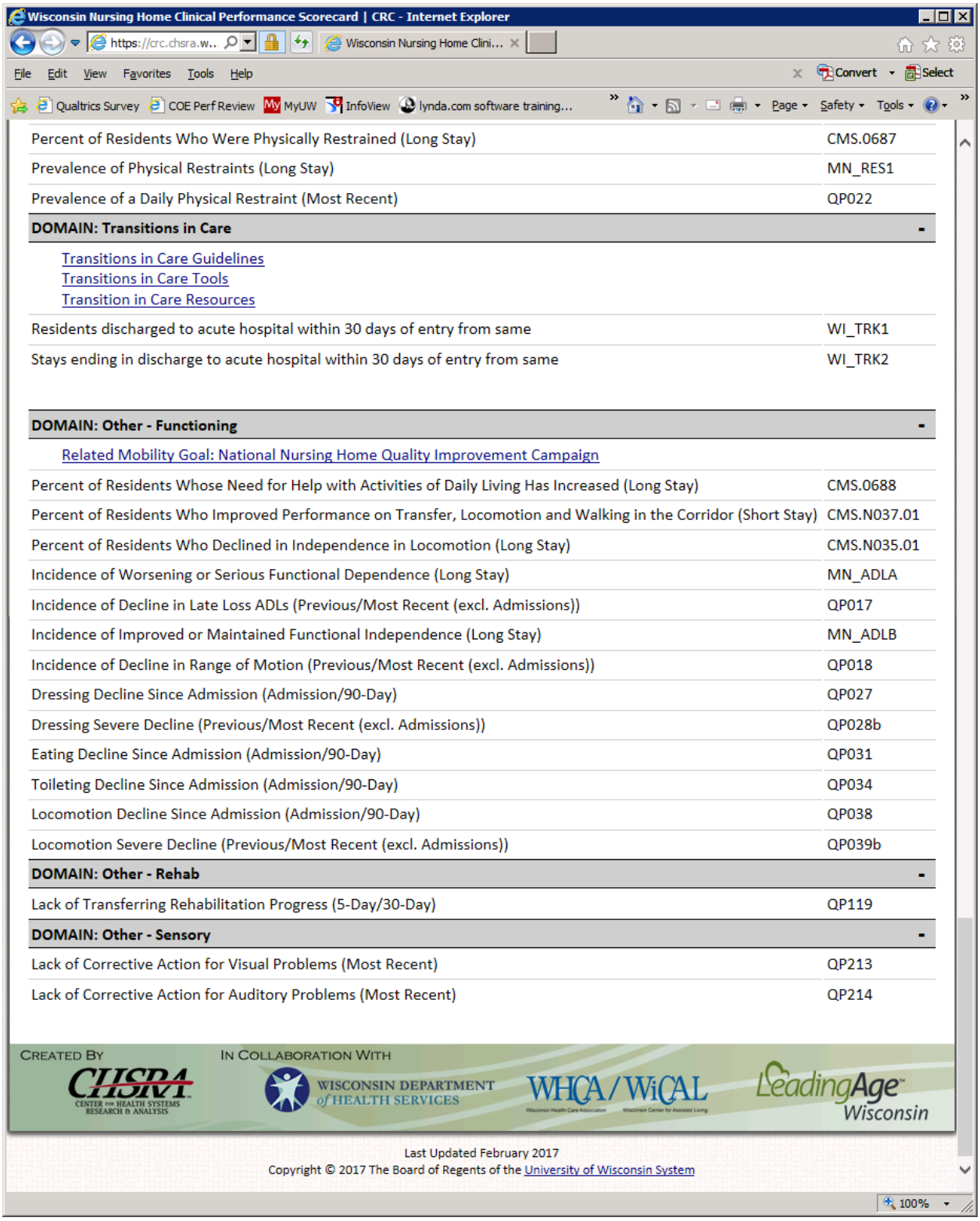
Page Safety Tools
in Pain Intensity or Frequency (Short Stay)
Decrease in Pain when Admitted on a Pain Medication Regimen (Short Stay) MN_PAI1
Percent of Residents Who Self-Report Moderate to Severe Pain (Short Stay) CMS.0676
Prevalence of Residents Who Report Moderate to Severe Pain (Short Stay) MN_PAI2
Percent of Residents Who Self-Report Moderate to Severe Pain (Long Stay) CMS.0677
Prevalence of Residents Who Report Moderate to Severe Pain (Long Stay) MN_PAI3
DOMAIN: Pressure Ulcer Prevention & Treatment
Pressure Ulcers Guidelines
Pressure Ulcers Tools
Pressure Ulcers Resources
Percent of Residents With Pressure Ulcers That Are New or Worsened (Short Stay) CMS.0678
Prevalence of New or Worsening Pressure Ulcers At Discharge (Short Stay) MN_PRUA
Percent of High-Risk Residents With Pressure Ulcers (Long Stay) CMS.0679
Percent of High-Risk Residents With Pressure Ulcers (Long Stay) MN_PRUB
Prevalence of Stage I-IV Pressure Ulcers - High-Risk (Most Recent) QP024_H
Prevalence of Stage I-IV Pressure Ulcers - Low-Risk (Most Recent) QP024_L
Incidence of Healed Pressure Ulcers (Long Stay) MN_PRUC
DOMAIN: Restraints
Restraints Guidelines
Restraints Tools
Restraints Resources
Percent of Residents Who Were Physically Restrained (Long Stay) CMS.0687
Prevalence of Physical Restraints (Long Stay) MN_RES1
Prevalence of a Daily Physical Restraint (Most Recent) QP022
DOMAIN: Transitions in Care
Transitions in Care Guidelines
Transitions in Care Tools
Transition in Care Resources
Residents discharged to acute hospital within 30 days of entry from same WI_TRK1
Stays ending in discharge to acute hospital within 30 days of entry from same WI_TRK2
DOMAIN: Other - Functioning
Related Mobility Goal: National Nursing Home Quality Improvement Campaign
Percent of Residents Whose Need for Help with Activities of Daily Living Has Increased (Long Stay) CMS.0688
Percent of Residents Who Improved Performance on Transfer, Locomotion and Walking in the Corridor (Short Stay) CMS.N037.01
Percent of Residents Who Declined in Independence in Locomotion (Long Stay) CMS.N035.01
Incidence of Worsening or Serious Functional Dependence (Long Stay) MN_ADLA
Incidence of Decline in Late Loss ADLs (Previous/Most Recent (excl. Admissions)) QP017
100%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Page Safety Tools
Percent of Residents Who Were Physically Restrained (Long Stay) CMS.0687
Prevalence of Physical Restraints (Long Stay) MN_RES1
Prevalence of a Daily Physical Restraint (Most Recent) QP022
DOMAIN: Transitions in Care -
Transitions in Care Guidelines
Transitions in Care Tools
Transition in Care Resources
Residents discharged to acute hospital within 30 days of entry from same WI_TRK1
Stays ending in discharge to acute hospital within 30 days of entry from same WI_TRK2
DOMAIN: Other - Functioning -
Related Mobility Goal: National Nursing Home Quality Improvement Campaign
Percent of Residents Whose Need for Help with Activities of Daily Living Has Increased (Long Stay) CMS.0688
Percent of Residents Who Improved Performance on Transfer, Locomotion and Walking in the Corridor (Short Stay) CMS.N037.01
Percent of Residents Who Declined in Independence in Locomotion (Long Stay) CMS.N035.01
Incidence of Worsening or Serious Functional Dependence (Long Stay) MN_ADLA
Incidence of Decline in Late Loss ADLs (Previous/Most Recent (excl. Admissions)) QP017
Incidence of Improved or Maintained Functional Independence (Long Stay) MN_ADLB
Incidence of Decline in Range of Motion (Previous/Most Recent (excl. Admissions)) QP018
Dressing Decline Since Admission (Admission/90-Day) QP027
Dressing Severe Decline (Previous/Most Recent (excl. Admissions)) QP028b
Eating Decline Since Admission (Admission/90-Day) QP031
Toileting Decline Since Admission (Admission/90-Day) QP034
Locomotion Decline Since Admission (Admission/90-Day) QP038
Locomotion Severe Decline (Previous/Most Recent (excl. Admissions)) QP039b
DOMAIN: Other - Rehab -
Lack of Transferring Rehabilitation Progress (5-Day/30-Day) QP119
DOMAIN: Other - Sensory -
Lack of Corrective Action for Visual Problems (Most Recent) QP213
Lack of Corrective Action for Auditory Problems (Most Recent) QP214
CREATED BY CHSRA CENTER FOR HEALTH SYSTEMS RESEARCH & ANALYSIS
IN COLLABORATION WITH WISCONSIN DEPARTMENT of HEALTH SERVICES WHCA / WiCAL LeadingAge Wisconsin
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Appendix B – Training Webinar Table of Contents

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CRC ScoreCard Training Webinar

Recorded Adobe Connect Presentation: http://wisc.adobeconnect.com/p52liciknb8/

Topic	Approximate Time Point
CRC Log-In Screen	0:36
CRC Home Page	1:20
ScoreCard Page	2:23
Domain/QIQM List	4:00
Link to Resources	7:00
QIQM Identifiers	11:15
Downloading Excel Template and .CVS Data File	17:50
ScoreCard Tabs:	
Introduction Tab	27:15
Load Data Tab	54:52
Executive Summary Tab	1:00:00
Documentation Tabs:	
QIQM Comments	1:31:00
QIQM Graphs	1:34:00
QIQMs (Definitions)	1:49:00
Assessment Types	1:51:00
MN Risk Factors	1:52:00

Appendix C - WI Nursing Home Clinical Performance ScoreCard Features

- **Access to 74 QIQMs**, initially taken from CMS Casper/Nursing Home Compare, Minnesota's nursing home reporting system, and from the MDS-based QPI metrics used in the new QIS survey system.
- **QIQMs are ranked, displaying the percentage of peer facilities with better performance, for 19 different peer groups**. Two standard peer groups (statewide and 4/5-star facilities) and 17 user-selectable peer groups (e.g., facilities with the same region, bed count, or case mix) are available.
- **Percentile rankings above or below user-specified thresholds are "flagged"** (i.e., high percentiles are highlighted in red, low percentiles in green).
- **QIQMs are displayed in 14 collapsible care domains with summary percentile rankings to quickly identify domains with possible performance issues.**
- **Users can quickly link to related Clinical Resource Center care areas to obtain resources and guidance.** 11 of the 14 domains currently link to related CRC content.
- **QIQMs values are displayed in tables and graphs over time**, including the most recent 10 quarterly values and the most recent 3 annual values, all with corresponding percentile rankings.
- The change in the most recent two annual QIQM values is displayed, along with the percentage of peer facilities with a better change. This **allows users to identify emerging issues** before the annual or quarterly values flag.
- 28 QIQMs (all 23 MN QIQMs and 5 CMS QIQMs) are risk-adjusted based on resident characteristics. Risk adjustment is presented in two ways:
    - **Actual Minus Expected:** The facility-wide unadjusted ("actual") QIQM value is compared to an "expected" QIQM value based on the mix of resident characteristics. The actual minus expected ("Act. – Exp.") QIQM value is displayed below the unadjusted value. **This approach provides a convenient overall measure of performance that is simpler than, yet consistent with, the risk-adjustment mechanisms used in the CMS and MN reporting systems.**
    - **High vs Low Risk Groups:** The facility residents are split into two groups, "high-risk" and "low-risk", based on the same resident characteristics used to compute the expected QIQM value under the actual-minus-expected approach. The unadjusted QIQM ratios for each risk group are displayed below the facility-wide unadjusted and facility-wide actual-minus-expected QIQMs. **This approach allows the user to assess performance for low-risk and high-risk residents separately, possibly uncovering issues that would not be recognized using a facility-wide average QIQM.**
- High-risk and low-risk resident counts are available over time to **detect trends in the percentage of at-risk residents**.
- **Definitions for each of the QIQMs are available by double-clicking the QIQM label in the report**. These definitions summarize the numerator, denominator, exclusions and risk characteristics use to compute the QIQM.
- QIQM values based on a small number of residents and percentile rankings based on a small number of peer facilities are not displayed. **The user can adjust the masking thresholds.**
- **The ScoreCard reporting system can evolve and respond to the needs of the WI nursing home users**. New or modified QIQMs can be developed as needed by the user base. Likewise, CRC content can be adjusted to fill gaps or better address QIQM issues identified using the ScoreCard.
- **The ScoreCard is provided in Excel format allowing users to easily cut-and-paste information** to other files, as needed, to coordinate with other metrics available to the user or to incorporate into QAPI documents.

ScoreCard Feature Comparison with CMS Casper and Nursing Home Compare

Feature	ScoreCard	CMS Casper	CMS NHC
Number of MDS QIQMs	74	17	18
Claim-Based QIQMs	×	April 2016	April 2016
Risk-Adjusted QIQMs	28	3	3
Display Unadjusted QIQM	✓	✓	×
Display denominator	✓	✓	×
Facility-Wide Values	Actual-Minus-Expected	Adj. to National Risk Profile	Adj. to National Risk Profile
High vs Low Risk Groups	✓	×	×
High vs Low Counts	✓	×	×
Peer Group Averages	19	2 – National & State	2 – National & State
Peer Group Percentiles	19	National percentiles	×
User-Adjustable Flagging	✓	×	×
User-Adjustable Masking	✓	×	×
Care Domains	14	×	×
Collapsible w/ percentiles	✓	×	×
Linked CRC Content	✓	×	×
Historical Values	10 quarters; 3 years	1 quarter (user spec.)	3 quarters; average
Time Series Graphs	✓	×	×
Change in QIQMs	Yes, with percentile rank	×	×
Quick Access to QIQM Defn.	✓	MDS 3.0 QM Users Manual	MDS 3.0 QM Users Manual
Responsive to WI NH Needs	✓	×	×
Excel Format	✓	✓	data.medicare.gov
Resident-Level Detail	×	✓	×

ScoreCard QIQM Summary – Counts by Source

Counts in parentheses are similar to CMS QIQMs

Care Domain	CMS	MN	QIS	Total
Challenging Behaviors	6	2(1)	2	10
Dehydration			1	1
Depression	1	1(1)		2
Falls & Fall Risk	2	1(1)		3
Functioning	3	2(1)	8(1)	13
Incontinence	2	7(1)	2(1)	11
Infections	5	2(1)	2(1)	9
Nutrition	1	1(1)	2(1)	4
Pain Management	3	3(3)		6
Pressure Ulcers	2	3(1)	2(1)	7
Rehab			1	1
Restraints	1	1(1)	1(1)	3
Sensory			2	2
Transitions in Care				2
Total	26	23(12)	23(6)	74

Appendix D – CRC ScoreCard Spreadsheet After Addition of New QIQMs

Double-Click to open embedded Adobe PDF document.

Wisconsin Nursing Home Performance Measures - V004

1 Overview

Data from resident MDS 3.0 assessments is used to construct the performance measures presented in this report. All of the current performance measures take the form of quality indicators / quality measures (QIQM's). Each QIQM is the ratio of the number of residents exhibiting a characteristic of interest (the numerator) to the number of residents in a population of interest (the denominator). For example, CMS.0674 is the percentage of long-stay residents who experienced a fall with a major injury during the reporting period.

The QIQM's in this report are based on those used by CMS on the Nursing Home Compare web site or as part of the CASPER reports, those used by Minnesota in it's nursing home reporting system, or the MDS-based QCLI's used in the new QIS nursing home survey system. There are more than 85 QIQM's available to the reporting system. Of these, 74 are included in this report. The report has a hidden table that can be modified to include or exclude each candidate QIQM. Some of the currently included QIQM's are similar to others, but all differ in some detail of their definition or presentation. As the system matures, it is likely that some of these "redundant" measures will be excluded, others will be refined and new measures will be added.

Of the 74 QIQM's, 28 are risk-adjusted based on characteristics ("factors") of the residents in the denominator. Logistic regression modeling is used to predict a residents likelihood of triggering the QIQM numerator based on that resident's factors. After the model is fit, the expected contribution of each resident to the numerator is summed and divided by the denominator to yield the "expected" QIQM value for the facility. A "risk-adjusted" QIQM is obtained by comparing the unadjusted QIQM value to this expected QIQM value. For this report, we display the unadjusted minus the expected values as the risk-adjusted ("Act.-Exp.") value. A zero "Act.-Exp." value indicates that the facility performed as expected based on its mix of resident factors. Deviations from zero have the same orientation as the unadjusted QIQM value.

Five of the CMS measures are adjusted in this way. The factors and the fitted regression coefficients are published by CMS. All 23 of the Minnesota QIQM's are risk-adjusted. Minnesota publishes the factors used in the regression, but does not publish the fitted coefficients. CHSRA has used WI MDS 3.0 data from 2011Q1 through 2013Q2 to fit the coefficients used to risk adjust these QIQM's in this report. None of the QIS measures are regression adjusted, although many are defined for very specific denominator populations that are less likely to warrant such adjustment.

For each of the 28 regression-based risk-adjusted QIQM's, this report also provides an alternate approach to the adjustment process. Rather than comparing the facility-wide unadjusted QIQM value to the facility-wide expected QIQM, we split the residents in the QIQM denominator into low-risk and high-risk groups. We use the regression-based expected value for each resident to assign them to one group or the other. For the Minnesota QIQM's, we used the statewide mean QIQM value as the boundary between the two groups. Those with expected values above the mean are assigned to the high-risk group; others are assigned to the low-risk group. (For the three CMS QIQM's, we set the boundaries a bit differently. See the analytic report for more details.) The QIQM ratio is then computed separately for each risk group and peer group percentile rankings are separately derived for each risk group. This approach uncovers a good deal of information that is masked when only combined results are used. For example, a facility may do very well with high-risk residents and very poorly with low-risk residents. Under this alternate approach, this would be apparent from the percentile rankings of each risk group. The facility-wide risk-adjusted result, however, is likely to indicate average overall performance, with one group's performance subsidizing the other's performance. Using only the facility-wide risk-adjusted result could result in a missed opportunity to take corrective action with the low-risk group or to learn from the superior performance of the high-risk group.

Note that the orientation of the low-risk and high-risk groupings of residents is the same as the orientation of the underlying QIQM. So, for example, "high-risk" for improved ADL functioning (MN_ADLB), corresponds to an increased likelihood of ADL improvement.

QIQM's have been computed for this edition of the Scorecard for each quarter from 2013Q4 through 2016Q1. In addition to quarterly values, annual values have been computed by summing the numerators and the denominators of the corresponding quarterly values. These annual values provide a more reliable measure that can be used if the quarterly QIQM denominators are small. The report also displays the change in annual QIQM values for the most recent two years. This provides an indication of whether performance is improving or declining and the resulting change can be compared to that of other facilities.

Note that most of the QIQM's are oriented such that larger values are undesirable, e.g., the fall rate with major injury. There are some QIQM's, however, that have the reverse orientation, e.g., the percent of residents appropriately receiving flu immunization shots. To quickly distinguish between the two orientations, QIQM headings in the first group are highlighted in light red, while those in the other group are highlighted in light green.