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June 30, 2009

Ms. Charlene Frizzera  
Acting Administrator  
Centers for Medicare & Medicaid Services  
U.S. Department of Health & Human Services  
200 Independence Avenue, SW, Room 314-G  
Washington, DC 20201

***Re: CMS-1410-P: Comments on Medicare Program; Prospective Payment Systems and Consolidated Billing for Skilled Nursing Facilities for FY 2010; Minimum Data Set, Version 3.0 for Skilled Nursing Facilities and Medicaid Nursing Facilities, Proposed Rule, 74 Federal Register 22208, (May 12, 2009)***

Dear Ms. Frizzera:

The American Health Care Association (AHCA) appreciates the opportunity to comment on the proposed rule, *Medicare Program; Prospective Payment Systems and Consolidated Billing for Skilled Nursing Facilities for FY 2010; Minimum Data Set, Version 3.0 for Skilled Nursing Facilities and Medicaid Nursing Facilities, Proposed Rule, 74 Federal Register 22208, (May 12, 2009)*.

AHCA is the nation's leading long term care organization. AHCA and our membership of nearly 11,000 non-profit and proprietary facilities are dedicated to continuous improvement in the delivery of professional and compassionate care provided daily by millions of caring employees to more than 1.5 million of our nation's frail, elderly, and disabled citizens who live in nursing facilities, assisted living residences, subacute centers, and homes for persons with mental retardation and developmental disabilities.

AHCA furnishes an executive summary below, followed by our specific recommendations and detailed analysis. We stand ready to respond to any questions that you might have with respect to our research and the findings provided to you in these comments. We would also be pleased to answer any questions you might have regarding any of our recommendations.

Sincerely,

Bruce Yarwood  
President & CEO

## **EXECUTIVE SUMMARY**

AHCA is pleased to provide these comments to the Centers for Medicare & Medicaid Services (CMS) on its Skilled Nursing Facilities Prospective Payment System (SNF PPS) proposed rule for both fiscal year (FY) 2010 and FY 2011. The proposed rule comes at a critical juncture for skilled nursing facilities, especially as Congress and the Administration take on the tough job of overall health care reform. Today's nursing homes are far different from their predecessors. We are proud that our patients are returning home more often and more quickly even as SNFs now provide more intensive services to an increasingly frail and disabled population. Yet, we are extremely concerned that cuts to Medicare funding contained in this proposed rule – as well as the potential cuts that health care reform will require across the health care spectrum – will affect the profession's ability to care for these older, sicker, and more medically-complex patients.

Once again, CMS is proposing to substantially cut SNF Medicare reimbursements by recalibration of the parity adjustment, which in effect would siphon \$1.05 billion from skilled nursing in FY 2010 alone. Some projections estimate that this proposal would eliminate \$18 billion from quality skilled nursing care over the next 10 years. In addition to the cuts from CMS' proposed rule, we are concerned about legislative proposals, which would reduce the annual SNF market basket update provided in the proposed rule. The market basket update is intended to keep Medicare payments in line with increases in the cost of providing quality care, which is especially critical as long term care providers rely on these annual updates to pay for labor-related expenditures such as salaries and benefits, which compromise over 70 percent of SNF costs. Reducing or eliminating the market basket update makes the financial viability of nursing homes all the more challenging when the full market basket already fails to keep up with the annual cost of inflation and as State Medicaid budgets continue to dwindle given the current economic downturn. Between the massive Medicare cuts for so-called "projection errors" made by CMS in 2005 and proposals to significantly reduce the crucial annual market basket update, this profession is facing a "double barreled assault" on funding that could jeopardize the health of the entire sector.

CMS' proposed refinements to the Minimum Data Set (MDS) resident assessment instrument and the Resource Utilization Group (RUG) SNF resident classification and payment system represent an opportunity to substantially improve the quality of care delivered to SNF patients, quality measurement, and payment for SNF services—though we believe that implementation of such refinements is premature. AHCA has major concerns about the lack of key data and the quality of the data that has been used in developing the proposed RUG-IV payment system.

AHCA recommends that CMS delay implementation of RUG-IV for two years in order to undertake an independent national time study using the revised MDS 3.0 to obtain critical, unbiased, and nationally representative data, and collect actual resident data. We believe that such an updated time study, along with key resident data, is critical to getting

the RUG-IV system right from the start. Without this vital information, we are concerned that RUG refinement as outlined will destabilize the sector and yield the kind of unintended consequences that we saw when implementation of the SNF PPS resulted in mass bankruptcies in the late 1990s and early 2000s. We strongly encourage CMS to take the time that a short delay would afford to get RUG-IV right from the start.

### **Inadequate & Flawed Data**

On June 2, 2009, AHCA requested a postponement of the comment period regarding FY 2011 changes contained in the SNF PPS proposed rule. Our request to CMS was denied even though our request was based on the fact that there was neither adequate time nor sufficient data to analyze, replicate, examine, and evaluate the impact of certain fundamental, highly-complex, and potentially controversial elements of the proposed rule.

Despite the need for updated data and CMS' good intentions, the Staff Time Resource Intensity Verification (STRIVE) project has failed to collect sufficient and accurate data upon which to base a major refinement to the RUG system. The lack of real universal MDS 3.0 data upon which to construct nursing and therapy weights that underlie RUG-IV represents an even greater concern and barrier to properly analyzing its impact and applying such an adjustment. What data exists appears to be biased and unrepresentative and should not be used as a basis for refining the RUG system. CMS should not move forward with the implementation of RUG-IV until better data have been collected.

Based on our experience since the inception of the skilled nursing facility prospective payment system, a 60-day comment period is simply inadequate for affected parties to respond to complex Medicare payment methodology changes that CMS has taken years to research and develop. We note that there is no statutory or other legal mandate for CMS to issue the FY 2011 RUG-IV changes at this time, nor to require that comments be received within 60 days.<sup>1</sup> The only statutory mandate is that the SNF PPS rates for FY 2011 be provided by August 1, 2010.<sup>2</sup> Moreover, there is precedent for Health & Human Services (HHS) to extend a comment period in response to industry concerns that the complexity of an issue warranted an extension of time to comment on the proposed rule (e.g., <http://edocket.access.gpo.gov/2005/05-23077.htm><sup>3</sup>).

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<sup>1</sup> There is no limitation of 60 days provided in the Administrative Procedure Act (APA, Title 5, USC).

<sup>2</sup> Section 1888(e)(4)(H) of the Social Security Act provides that the Secretary shall provide for publication in the Federal Register **before the August 1 preceding each succeeding fiscal year** of the unadjusted Federal per diem rates to be applied to days of covered skilled nursing facility services furnished during the fiscal year,

<sup>3</sup> In 2005, HHS provided an extension of 60 days to a comment period for a proposed rule that recommended the adoption of a set of standards to facilitate the electronic exchange of clinical and administrative data to further improve the claims adjudication process when additional documentation is required. The extension notice stated that "Due to the very technical nature of this rule, the industry is asking for additional time to conduct a more comprehensive and thorough review in order to provide comments to the Standards Development Organizations as well as to CMS." HHS granted the extension stating that "Due to the highly technical nature of the materials, and the size (length) of the technical documents being reviewed, we want to provide additional time for the industry to review and comment upon all of the technical documents (implementation guides, specifications, code sets, modifiers), and the policies proposed in the September 23, 2005 proposed rule." 70 Federal Register 70574, November 22, 2005.

We respectfully ask that the agency provide a more extensive comment period in the future – 120 days at a minimum – for proposed rules that offer such substantial changes to the SNF PPS. We also ask that, in addition to the proposed rule, CMS provide all government and contractor data, information, and files connected with the proposed changes up front. If transparency is to work, it is imperative that the government be transparent and act as an example of the transparency it expects from the private sector.

Notwithstanding issues with the lack of data and the lack of sufficient time to analyze the proposed RUG-IV, we offer comments regarding the strengths and weaknesses of the proposed changes and hope that they will help in a constructive way to get the RUG-IV system right at implementation. AHCA has accomplished what was possible with the information that we possess and with the time constraints imposed. We will provide additional comment in the coming months should information and data come to light that substantively impacts our recommendations and our current understanding of the CMS modifications.

We have analyzed and commented on many of the numerous issues raised by CMS' proposals for both FY 2010 and 2011. Our recommendations, which immediately follow this Executive Summary, provide an overview of the issues that we address in our detailed analysis and comments. Five issues stand out as critical, including: proposed recalibration of parity adjustment; SNF wage index adjustment; market basket forecast error; and implementation of both MDS 3.0 and RUG-IV.

### **FY 2010 Proposed Changes – Critical Issues**

#### ***Proposed Recalibration of Parity Adjustment: CMS Appears To Be Confusing Case-Mix Changes With Something Called Projection Error***

In this year's proposed rule, CMS has again proposed a recalibration of the parity adjustment to the case-mix indexes that underlie the SNF PPS for budget neutrality. CMS estimates that this year's proposed recalibration would cut reimbursements to SNFs by 3.3%, which results in a sizable "take back" of \$1.05 billion or about \$16 per patient day. CMS believes that an unexpected large increase in SNF expenditure in 2006 was due to a projection error in estimating the budget neutrality factor that was caused by the migration from the RUG-44 to the RUG-53 classification system. We disagree. We argue below, and we believe our analysis of the data support, that most of the increase in SNF expenditure through 2006 was a result of Medicare policy changes and the powerful incentives unleashed by RUG refinement that led SNFs to invest and provide services to Medicare beneficiaries with the higher acuity. In essence, the agency appears to be confusing case-mix change with something called "projection" error. CMS should continue to pay for real case-mix change. If CMS moves forward with the proposed recalibration, CMS should undertake any such recalibration after taking real case-mix change into account.

- ***Real Case-Mix Change Is Not Projection Error; CMS Should Continue To Pay for Real Case-Mix Change***

As detailed below, what CMS believes to be a projection error from 2006 is rather primarily the result of a significant increase in the real acuity of SNF residents. SNF acuity has been increasing over time – an increase bolstered by changes in the flow and acuity mix of patients to SNFs encouraged by incentives related to CMS’ own changes in Medicare policy. With its proposed recalibration, CMS dismisses the increase in acuity and real case-mix change that occurred between 2001 and 2006, and consequently, proposes to “take back” payments from providers who care for higher acuity patients. Such a proposal is fundamentally flawed, and inconsistent with the basic premise of a prospective payment system. We believe that most of this case-mix change is real. CMS has developed methodologies in other settings for identifying real case-mix change and there is ample precedent that CMS does pay for real change in acuity and medical practice. Therefore, we assert that CMS should continue to pay providers for real case-mix change.

- ***Incentives Induced by Medicare Policy Changes Have Generated Medicare Savings***

In testimony before Congress in 2007, CMS officials remarked that re-imposition of the Inpatient Rehabilitation Facility (IRF) 75% rule, as well as other Medicare payment policy improvements, represent significant factors in achieving Medicare program savings. After a brief suspension of the rule that was created to ensure that IRFs were treating an appropriate and distinct category of patient, the 75% rule was re-implemented in May 2004, generating Medicare savings as patients were treated in more appropriate, cost-effective post-acute care settings. A United Hospital Fund report documents the increased role that SNFs have had in generating these savings to Medicare, and research by the Moran Group shows that IRF Medicare volume fell significantly with the decline most heavily concentrated in those patient categories covered by the 75% rule. A press release from CMS’ Center for Medicare Management also noted that the rule was working as intended, stating that, “Nobody is being denied care. What’s happening is that people are going to other settings for care.”

SNFs have responded to the incentives CMS’ policy offers by investing in the necessary clinical infrastructure to provide the services needed by higher acuity and higher cost patients, many of which might have otherwise received the services in a more expensive IRF. Research by Avalere Health shows that Medicare post-acute care payment policies that have contributed to the shifting of patients from IRFs to SNFs and Home Health Agencies (HHAs) such as the 75% rule and SNF Resource Utilization Group (RUG) refinement generated about \$780 million in savings to the Medicare program in 2006 alone, and approximately \$1.7 billion between 2006 and 2007. Moving forward with the recalibration of the parity adjustment will unquestionably undermine such savings and long-standing Medicare program goals of increased efficiency and effectiveness in the delivery of long term care services.

- ***Parity Adjustment + Increased Acuity + State Medicaid Shortfalls = A Recipe for Disaster***

In addition to being an inappropriate reduction in SNF funding, which puts providers entirely at risk for real acuity increases, the timing of the proposed recalibration of the parity adjustment along with other recession-induced payment policy changes from state and local governments will place the SNF sector in financial peril. States already are under significant fiscal pressures. Research by the Center for Budget and Policy Priorities<sup>4</sup> indicates that the combined state budget gaps for the remainder of FY 2009 - 2011 are estimated to total between \$350 billion to \$370 billion prior to any accounting for various gap-closing measures. These budget deficits will add to the tremendous pressure on states to reduce spending, particularly for high cost entitlement programs such as Medicaid, where program costs increase substantially during economic slowdowns.

Overall margins for nursing facilities are being constrained on multiple fronts in every direction—from an estimated Medicaid reimbursement shortfall of nearly \$13 per patient day<sup>5</sup> to the nearly \$16 per patient day reduction in Medicare payments induced by CMS' proposed parity adjustment recalibration. Many states have already flattened or reduced Medicaid payment rates for nursing home services as austere budgetary measures have taken effect while other states are now freezing, cutting, or rescinding rate increases, and delaying payments. As a result, we anticipate that nursing facility margins – already the lowest across the health care sector – will decline even further as payment delays cause cash flow problems and other issues that could jeopardize the entire long term care sector.

It is important to recognize that Medicare continues to play an important role in cross-subsidizing low Medicaid payments where the losses from treating one category of patient are underwritten by payments generated by another category of patient. In the case of hospitals, the cross-subsidization occurs across departments, and most importantly across public and commercial payers. By contrast, in the freestanding SNF setting, the cross-subsidization occurs across government payers. Though the form of cross-subsidization is different, the dynamics and operational realities are very much the same. The cross-subsidization of Medicaid by Medicare is very much a reality in the SNF setting. While we recognize that such cross-subsidization does not represent good public policy over the long term, it is a current reality and existing necessity to ensure the adequacy and quality of patient care provided to the elderly, frail, and disabled residents in our nation's nursing homes.

- ***Real Case-Mix Change and Recalibration Of Projection Error***

With its proposed parity adjustment recalibration, CMS is, in essence, normalizing the difference in case-mix indices (CMIs) between RUG-44 and RUG-53 using 2006 data, as

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<sup>4</sup> McNichol, Elizabeth and Lav, Iris J. State Budget Troubles Worsen. Center for Budget and Policy Priorities. Updated May 18, 2009.

<sup>5</sup> Eljay LLC. A Report on Shortfalls in Medicaid Funding for Nursing Home Care. October 2008.

if all of the changes in utilization that occurred between 2001 and 2006 were related to so-called “code creep.” Notwithstanding our belief that the proposed forecast error adjustment is the wrong approach and inappropriately “takes back” payment for real acuity change, using post-RUG refinement data for such a recalibration is both unfortunate and unsuitable.

Using 2006 data for the proposed recalibration is inappropriate. The 2006 data reflects, in part, the general increase in acuity that was brought on by refinement-induced incentive changes - changes that encouraged providers to invest in clinical infrastructure and to serve higher acuity patients and residents. A more appropriate approach, if one exists for such recalibration, would be to use data available immediately preceding the RUG refinement. In theory, in order to sort out real from apparent case-mix change, the “recalibration” effect should be based upon the patient mix immediately before implementation of RUG refinement, *i.e.*, December 31, 2005. In practice, however, such an adjustment must account for the fact that case-mix varies throughout the year.

If CMS moves forward with the proposed recalibration, CMS should undertake any such recalibration after taking real case-mix change into account. We believe that most of this case-mix change is real. The Lewin Group estimated that about 43% of the proposed \$1.05 billion recalibration of the parity adjustment reflects case-mix change over the 2001 to 2005 period before RUG refinement. Research from other prospective payment systems during 2005 – 2006 further suggests that one quarter or more of a change in case-mix system is related to real case-mix change. CMS has developed methodologies in other settings for identifying real case-mix change, and there is ample precedent that CMS will pay for real change in acuity and medical practice. Therefore, we ask that if CMS moves forward with any proposed recalibration, the agency should undertake any such recalibration after taking real case-mix change into account. CMS should continue to pay providers for real case-mix change.

***Incorrect Application of the SNF Wage Index Adjustment: Immediate Correction Is Needed***

Section 1888(e)(4)(G)(ii) of the *Social Security Act* requires that CMS apply a wage index in a manner that does not result in aggregate payments that are greater than or less than would otherwise be made in the absence of the wage adjustment. Using the AHCA SNF reimbursement simulation model, AHCA estimated SNF reimbursements using both the FY2010 SNF wage index in the proposed rule and no wage adjustment. AHCA found that aggregate SNF reimbursement was about \$400 million lower with the wage index adjustment than without it.

After reviewing the statute, and the CMS and AHCA methodologies, AHCA believes that CMS is utilizing a wage index budget neutrality adjustment methodology that is inconsistent with the statute. We estimate that the continued application of the methodology used by CMS will under reimburse SNFs by about \$400 million in FY 2010, and has under-reimbursed SNFs by over \$2 billion since the implementation of the SNF PPS.

We ask CMS to review its payment simulation methodology and also make any necessary corrections to the wage index calculation, so that aggregate payments to SNFs are the same with and without the wage index adjustment, as required by statute. Further, we request CMS to review its wage index calculations over the past 5 years. If we are correct, we request that CMS make a one time adjustment to reimburse SNFs for the cumulative underpayment due to the observed non-budget neutral wage index adjustment methodology, or implement another reasonable and acceptable alternative.

### **Market Basket Forecast Error Adjustment Improvements Needed**

In 2003, CMS instituted an adjustment to account for the market basket forecast error.<sup>6</sup> The initial adjustment applied to the update of the FY 2003 rate for FY 2004, and took into account the cumulative forecast error for the period from FY 2000 through FY 2002.

The adjustment resulted in a 3.26 percentage point addition to the market basket update. CMS also provided for subsequent adjustments in succeeding fiscal years. These adjustments factor in the forecast error from the most recently available fiscal year for which there is final data, and apply whenever the difference between the forecasted and actual change in the market basket exceeds a specified annual threshold. For FY 2003 through FY 2005, the threshold was set at 0.25%. The threshold was raised to 0.5% beginning with FY 2006. While we did not favor the 0.25% threshold, nor do we agree with the existing 0.5% threshold, the industry has accepted the process and the chosen thresholds.

While well intended, the market basket forecast error adjustment has not worked as it should. Year after year, the predicted market basket increase has fallen short of the actual increase in the SNF market basket. Consequently, year after year, SNF reimbursement falls further behind the actual cumulative SNF market basket increase. Since the last cumulative market basket update correction took place in FY 2002 and the cumulative market basket forecasting error has grown to 1.0% between 2003 and 2008, it is time for CMS to make another cumulative market basket update correction.

We ask that CMS adhere to the precedent followed in its 2003 actions, which underscored the critical importance of accuracy in payment decisions, by acting decisively when the cumulative impact of market basket forecasting errors erode SNF payment rates. Specifically, we ask that CMS provide an increase in the forecast error correction of 1.0% for FY 2010, which would represent the cumulative loss for the industry since 2003, and modify the agency's threshold policy to apply a cumulative correction whenever the 0.5% threshold is reached on a cumulative basis.

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<sup>6</sup> CMS proposed the adjustment in the June 10, 2003, supplemental proposed rule (68 Federal register 34768) and finalized it in the August 4, 2003, final rule (68 Federal Register 46067). See 42 CFR 413.337(d)(2).

## **FY 2011 Proposed Changes – Critical Issues**

### **MDS 3.0: Problems With Non-Tested Version**

For many years, AHCA has advocated for, and supported, updating the current MDS 2.0. AHCA also has worked closely with CMS in the development of the MDS 3.0. In our comments to CMS on last year's SNF PPS proposed rule, we applauded the agency for its efforts to make critical improvements in the MDS, expressing our belief that the January 2008 draft MDS 3.0 represented an excellent modification of the current MDS.

Indeed, the January 2008 draft MDS 3.0 was tested and piloted as AHCA continued to work closely with CMS to evaluate and provide feedback on MDS 3.0 and companion RAI Manual. While we looked forward to a comprehensive CMS plan for maximizing the benefits of the MDS 3.0 tool that minimized disruption for facilities, such a plan has not materialized. In fact, the latest version of MDS 3.0 now includes many changes that have not been pilot tested.

We remain appreciative of CMS' efforts to improve the MDS but are nonetheless concerned that the current version that the agency is recommending for use will yield limited improvements. We had provided detailed comments regarding the tested and piloted January 2008 version. However, it has since undergone changes that may bring into question the validity and reliability of data elements.

For example, evaluating the effectiveness of the latest version of the tool has been difficult without an updated RAI Manual which contains assessment schedules, coding direction and discussion, definitions, payment algorithms, and planning direction. Without an updated manual it is difficult to evaluate the effectiveness of the tool. Our understanding of the potential meaning of data elements, common definitions, and reimbursement system issues, therefore, is based on the guidelines developed for MDS 2.0 and lacks any interpretive assistance for evaluating new data or deciphering confusing coding directions.

To accurately comment on the proposed MDS 3.0 we need to evaluate the resources that support coding decisions as well. Without such additional explanatory material, our comments are influenced by our experience with the current tool and the pilot tested draft MDS 3.0 that has changed significantly from the existing proposal, as well as our perceptions with respect to CMS' intended policy direction.

We hope that CMS will pay close attention to the series of recommendations that AHCA has made and seek ways to correct deficiencies in the latest version. As part of this effort, CMS should simplify the MDS 3.0 manual, making it intuitive and a component of the RAVEN system so that coding updates with alerts are immediately available to clinicians during MDS completion. In addition, CMS needs to work with providers in setting-up a more timely and responsive MDS-use evaluation and troubleshooting process to capture issues associated with the additional OMRA and End of Medicare assessments.

**RUG-IV Implementation Should Be Delayed: National Validation Study & MDS 3.0 Data Needed**

- ***STRIVE Data Are Invalid: National Validation Study Needed***

AHCA has grave concerns about the representativeness and accuracy of the updated nursing and therapy weights that were developed based on data from the CMS Staff Time Resource Intensity Verification (STRIVE) Project, as well as CMS' analysis of the impact of the proposed rule.

At AHCA's request, the Lewin Group conducted a detailed analysis of the sampling and representativeness of STRIVE (both sample and data), as well as CMS' RUG-IV impact analysis. In reviewing the STRIVE sampling protocol, the Lewin Group found a number of issues of concern that may have introduced sampling bias, including bias related to the sampling of states, facilities, and units within facilities. This sampling bias may have contributed to the observed lack of representativeness of the STRIVE data within the SNF sector overall. Regression analysis by the Lewin Group indicates that RUGs costs, both overall and by RUG-53 category are different in STRIVE states when compared to non-STRIVE states. This finding suggests that the STRIVE relative weight structure could be non-representative. This lack of representativeness calls into question the validity and appropriateness of the updated weights and the re-categorization of residents who were key to the STRIVE project and critical to the design of RUG –IV.

Analysis by AHCA and the Lewin Group also found that the STRIVE project failed to capture resource use for a critical population – specifically those residents with very short SNF stays, and in particular, very short stay residents who were readmitted to the hospital. This unstable SNF resident population, which is being readmitted to the hospital, has substantially higher acuity, and according to our clinical experts, has significantly higher resource utilization. As data for very short stay (less than 7 days) SNF residents are not generally captured in the STRIVE data, omission of this sizable and expensive population has likely skewed both nursing time and the nursing index, while raising questions about the appropriateness of the reclassification of SNF residents within the RUG hierarchy.

We have even more serious reservations regarding the STRIVE therapy data. AHCA and others on the STRIVE Technical Expert Panel (TEP) have repeatedly expressed major concerns about the collection of therapy minutes and the proposed "fix" for overcoming related issues. Clearly, data collected using the paper tool are seriously flawed and should not be used. In addition, the "fix" to the therapy minutes may "force" the STRIVE data to approximate existing distributions of therapy minutes across RUG categories without reflecting the underlying delivery of services. AHCA believes that, taken together, these two issues largely invalidate the therapy data collected through the STRIVE project. These issues also impact the reorganization of residents within the RUG hierarchy and invalidate the therapy and nursing weights and the subsequent budget neutrality adjustment.

Given the issues with the sampling methodology, the representativeness of the data, omission of a key SNF resident population, and problems with both the STRIVE therapy data and proposed fix, AHCA concludes that the STRIVE data in total is invalid. Since the time study data is critical to categorizing residents within the RUG system and in calculating the nursing and therapy weights that underlie the SNF PPS, clear evidence that the STRIVE data is not sufficiently representative of current care practices and resource requirements overall demands that CMS set aside funding to conduct an independent national validation study to obtain representative, reliable, and accurate time study data to update the SNF PPS. Since CMS will be moving forward with implementation of MDS 3.0, and the new RUG system will be based on data obtained from MDS 3.0, we also urge CMS to conduct a national validation study using the new MDS 3.0 resident assessment instrument.

- ***RUG-IV Impact Analysis Flawed: National Validation Study & MDS 3.0 Data Needed Before RUG-IV Implementation***

As our detailed comments describe, AHCA believes that the STRIVE Medicare resident sample size is too small and insufficiently accurate to develop RUG-IV day distributions and estimate its impact. Unlike most other prospective payment systems that are built upon the universe of patient data, the proposed RUG-IV system relies on data from a insubstantial number of residents and facilities.

Unlike the change from RUG-44 to RUG-53, the estimate of distribution of days under the proposed RUG-IV is not directly calculated based on a linked MDS/claims data file, but rather inferred, using a probabilistic approach. The probabilistic approach hinges critically on a Medicare transition matrix that again is built upon the critically flawed, small STRIVE Medicare resident sample. In fact, we believe that payment impact analysis based on the proposed RUG-IV system using the small STRIVE Medicare resident sample is unlikely to be even reasonably accurate. Without MDS 3.0 data and a RUG-66 grouper, it is not possible to assess the impact of the implementation of RUG-IV. Precise and detailed impact analysis can not be conducted until FY 2011 MDS 3.0 data are available.

In addition, the budget neutral calculations produced by CMS, which are based on the flawed RUG-66 day distribution, are of unknown precision. Use of the RUG-IV Medicare day distribution probabilistic approach – coupled with the lack of representativeness and the small sample size of the STRIVE Medicare resident sample – suggest that impact analysis estimates will be biased and of unknown magnitude. As a result, future parity adjustments, which would be based on an unknown and imprecise baseline, may be necessary. Clearly, such a scenario is of great concern to AHCA. We do not want to live through another recalibration experience.

Given issues with the STRIVE sample and data, and related issues with the estimation of the impact of RUG-IV, AHCA believes that the proposed implementation of RUG-IV in FY 2011 is premature. It does not and cannot support a precise and detailed impact analysis because the current MDS does not contain critical elements that are needed.

Before RUG-IV can be accurately simulated, MDS 3.0 should first be implemented so that critical data can be collected to estimate the effect of RUG-IV on resident classification, and to estimate the impact and apply the appropriate budget neutrality adjustment to ensure the stability of the SNF sector.

To avoid a return to the mass bankruptcies resulting from the disastrous implementation of the SNF PPS in the late 1990s, we believe that CMS should take the necessary steps now to get the system right before implementation of RUG-IV and improve access to care for Medicare beneficiaries. We recommend that CMS undertake an independent national validation study using MDS 3.0 to help ensure that the classification of residents is correct and that the nursing and therapy weights that underlie the SNF PPS are right before RUG-IV is implemented to avoid a series of harmful unintended consequences. The data from the national validation study along with one year of MDS 3.0 data will make detailed impact analysis possible, and allow CMS to appropriately adjust the system to ensure that the transition from RUG-III to RUG-IV is budget neutral.

## **Conclusion**

The significant changes and unintended consequences that could result from premature implementation of RUG-IV, which we believe is based on insufficient and potentially biased data, are cause for deep concern. That concern is reflected in the complexity of the analysis and discussion that we offer in these comments.

Transitioning from cost-based reimbursement to today's prospective payment system may have represented an opportunity to save Medicare dollars in the short-term. What we fear has been lost in that transition over time is the connection between reimbursement policy and the very real business of providing care to America's seniors and people with disabilities. Providing high quality care requires stability, which is compromised when reimbursement for services rendered is given in one year and taken away in the next year. This is especially true in long term care where seventy percent of providers' costs are labor-related.

Congress mandated prospective payment systems, but did not foresee that such systems could become silos. As we all struggle to support health care reform, and reasonable changes to the current SNF PPS, we ask CMS to exercise exquisite care in executing its responsibility for the well-being of Medicare and Medicaid beneficiaries and those who care for them. We recognize that this is an enormous responsibility for CMS, and we appreciate the opportunity to share our thoughts. Specifically, we ask that CMS carefully consider:

- The comments of long term care clinicians regarding implementation of MDS 3.0 -- There is nothing more important than their clinical expertise and perspectives on this important care tool. We look forward to a detailed response to the valuable insights offered by the blue ribbon group of clinicians from across the United States who have provided such valuable input to CMS to date.

- AHCA’s arguments on the recalibration of the parity adjustment -- Against all precedent, CMS is refusing to recognize and pay for real case-mix change captured by the agency’s so-called “projection error.” Providers should not be held at risk for real case-mix change and CMS should continue to pay for it. AHCA’s considered analysis of this “adjustment” deserves a point-by-point response. CMS should not remove such dollars from a system without offering data that supports beyond a reasonable doubt that such an adjustment would not cause tremendous harm to Medicare and Medicaid beneficiaries who rely on the long term care and services provided.
- The totally destabilizing impact that future parity adjustments could have -- Authority for such retrospective parity adjustments exists nowhere in statute. Moreover, such retroactive adjustments were never envisioned as part of a prospective payment system and, in fact, run counter to the concept of prospectivity. This is an important observation as such retroactive “corrections” have the potential to have devastating, if unintended, consequences for both care givers and beneficiaries alike.
- The ongoing losses borne by the long term care profession based on incorrect market basket estimates -- There is no statutory mandate or approval for short-changing the health care system when the annual update is miscalculated – even by a little bit. Incremental shortages can add up to a quite sizeable impact.
- The wage index budget neutrality adjustment -- We believe that the wage index budget neutrality adjustment is incorrect and contrary to statute.
- AHCA’s recommendation for a delay in the implementation of RUG-IV -- AHCA recommends that CMS delay the implementation of RUG-IV to undertake an independent national validation time study in order to overcome critical problems with the STRIVE study and data, and to allow for the collection of a year of universal MDS 3.0 data, which will provide critical information to help get the RUG-IV system right from the start. We believe that we have clearly articulated our concerns and ask that each of these concerns be addressed specifically. We believe that when CMS reviews each point that the agency will agree with our assessment, which calls for a short delay in implementing RUG-IV.

We look forward to working with CMS to achieve RUG-IV in a sensible and correct manner. We hope that RUG-IV will provide consistency and stability as we progress toward the future.

## ***AHCA Recommendations For FY 2010 in Brief***

### ***AHCA Recommendations on the Proposed Recalibration of the Projection Error:***

- *CMS should recognize that case-mix change is **not** “projection error;”*
- *CMS should implement any required adjustment for case-mix change in a way that is consistent with the basic premise of prospective payment; and*
- *CMS should continue to pay for real case-mix change resulting from increases in the acuity of SNF residents – any required recalibration related adjustment should take into account real case-mix change and continue to follow this prospective payment principle*

### ***AHCA Recommendations on a SNF Wage Index Adjustment:***

- *CMS should review its SNF wage index adjustment methodology, adjust its methodology as necessary to ensure that it is applied correctly as per statute in a manner that does not result in aggregate payments that are greater than or less than would otherwise be made in the absence of the wage adjustment, and make any necessary adjustments to make up for past wage index related underpayments.*

### ***AHCA Recommendations on a Cumulative Market Basket Forecast Error Correction:***

- *CMS should adhere to the precedent followed in its 2003 actions, which underscored the critical importance of accuracy in payment decisions, by acting decisively when the cumulative impact of market basket forecasting errors erode SNF payment rates by:*
  - *Providing an increase in the forecast error correction of 1.0% for FY 2010, which would represent the cumulative loss for the industry since 2003; and*
  - *Modify the agency’s threshold policy to apply a cumulative correction whenever the 0.5% threshold is reached on a cumulative basis in the future.*

### ***AHCA Recommendations on Non-Therapy Ancillary Services (NTAS):***

- *As part of its research efforts to improve reimbursement for NTAS, AHCA recommends that CMS explore the development of an outlier policy and the development of a methodology to exclude all high costs drugs from consolidated billing.*

### ***AHCA Recommendations on the Collection of Electronic Payroll Data:***

- *In partnership with stakeholders, CMS should move forward with the development of an electronic payroll data collection process (including contract labor) for all post-acute care settings including SNFs, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals that provides the minimum data needed to support quality measurement and improvement efforts and research needs, while balancing administrative burden, confidentiality, privacy, and anti-competitiveness concerns among others ; and*
- *CMS should explore, and if feasible, develop in partnership with stakeholders, a SNF-specific wage index using electronic payroll data.*

### ***AHCA Recommendations on Consolidated Billing:***

- *AHCA requests that CMS exclude from the Part A bundle high cost and low probability cytotoxic chemotherapy drugs recommended for exclusion by AHCA;*
- *AHCA requests that CMS support SNFs in our efforts to achieve legislation that would support the highest quality cancer treatment for Medicare beneficiaries; i.e., that CMS support us in our effort to have Congress provide the Secretary with the broadest authority to exclude high cost and low probability drugs that are used in the treatment of cancer including antineoplastic antiemetics, and supportive medications;*
- *CMS should remove the medical treatment, hyperbaric oxygen therapy, from the SNF Part A bundle;*
- *AHCA requests that CMS within the coming year revisit its consolidated billing policy regarding the role of the hospital. We ask that the agency determine if freestanding facilities can perform the services in question as safely and effectively as hospitals. If the answer is yes, we ask that the agency consider a single prong SNF PPS exclusion test and that is whether or not the service is within the scope of the SNF. If it is not, then the SNF should be permitted to choose any entity – any hospital or freestanding facility - for whom Medicare is a payor without risking the loss of the Part A SNF exclusion.*
- *AHCA requests CMS' support for the legislative exclusion of all ambulance services from consolidated billing under the SNF PPS.*

### ***AHCA Recommendation On Swing-Bed Hospitals:***

- *CMS should expand swing-bed MDS reporting requirements to apply the quality monitoring mechanism in place for all other SNF PPS facilities to rural swing-bed hospitals.*

## ***AHCA Recommendations For FY 2011 in Brief***

### ***AHCA Recommendations on MDS 3.0 Set Draft Version 0.26:***

- *CMS should complete the tool manual and obtain manual feedback from clinicians. Manual feedback is needed to better evaluate our specific comments on MDS 3.0 and proposed care planning changes;*
- *CMS should simplify the MDS 3.0 manual, make it intuitive and make it a component of the RAVEN system so that coding updates with alerts are immediately available to clinicians during MDS completion;*
- *CMS needs to work with providers in setting-up a more timely and responsive MDS-use evaluation and troubleshooting process to capture issues associated with the additional OMRA and End of Medicare assessments and within a shortened submission timeframe and the impact of coding changes on reliability, accuracy and validity. CMS should also study the impact on clinical workforce satisfaction and retention from requiring professional staff to complete additional assessment specifically for non-clinical purposes;*
- *CMS should monitor the time needed to complete MDS 3.0 and if the time burden on clinicians is found to be more than the time reported with the testing of MDS 3.0, work to implement immediate corrections.*
- *CMS should work jointly with provider groups, surveyor and other stakeholders in planning, organizing and conducting MDS 3.0 training. We strongly recommend that surveyors and providers receive training together to ensure consistency in direction;*
- *CMS should continue to work with the case-mix states to better integrate federal and state systems so that complexity and excessive provider burden are eliminated; and*
- *CMS should retain restorative nursing therapy in the RUG-IV model and work with provider groups and state audit contractors to streamline and set parameters for required documentation that is needed to justify the provision of restorative therapy;*

### ***AHCA Recommendations on Care Planning:***

- *CMS should form a Technical Expert Panel, including nursing educators, long term care nurses, providers and surveyors to identify best practices for care planning and develop strategies to improve the current process;*

- *CMS should re-evaluate RAI Manual direction for care planning and work with nursing educators and long term care nurses to ensure direction is clearly articulated and consistent with all the steps of the nursing process; and*
- *CMS should consider changing the acronym CAT since it is used widely to mean Computer Adaptive Test.*

***AHCA Recommendations on RAPs Used Under the MDS:***

- *CMS should not remove the listing of specific MDS domains and common definitions from regulation at 42 CFR 483.315 (e), (1) through (18);*
- *CMS should retain the current MDS domains and common definitions language in §483.315 (e); and*
- *CMS should focus efforts in developing an electronic-based and intuitive assessment manual for the MDS and/or the CARE tool.*

***AHCA Recommendations on MDS 3.0 Relationship to HIT:***

- *CMS should increase its efforts and involvement in federally mandated initiatives to adopt and implement cost-effective use of information technology in Long Term Care and all other healthcare or provider settings;*
- *CMS should consider present and future health data use and exchange requirements to format/exchange MDS 3.0 data as specified in the “Implementation Guide for CDA Representation of the MDS 3.0 Questionnaire Assessment” (based on CDA release 2) OR most recent approved standard;*
- *CMS should incorporate all CHI, ONC, NIST or ANSI approved standardized terminology/vocabularies in all HIT projects; and*
- *CMS should consider and incorporate all available approved terminology and exchange standards for use in all Health Information Exchange (HIE) or HIT projects. IF CMS is not willing or able to carry out this federally mandated approach for the MDS 3.0, perhaps all efforts should be placed on the CARE tool rather than the MDS 3.0 project.*

***AHCA Recommendations on the Implementation of RUG-IV:***

- *In order to address issues with the sampling methodology, representativeness of the STRIVE data, omission of key SNF resident populations, problems with the STRIVE therapy data and the proposed “fix”, and the impact of these issues on the proposed recategorization of SNF residents and nursing and therapy weights, CMS should delay the implementation of RUG-IV for two years in order to:*

- *Undertake an independent national STRIVE validation study using a revised MDS 3.0 resident assessment instrument to obtain representative, reliable, and accurate time study data to update the SNF PPS; and*
- *Allow for the collection of actual MDS 3.0 data to undertake a detailed impact analysis, and appropriately adjust the SNF PPS so that the transition from RUG-III to RUG-IV is budget neutral;*
- *Given problems with the time study based approach to updating the SNF PPS, CMS should work with SNF stakeholder groups to develop a new, simpler, more frequently updated, and more representative methodology for updating the relative weights and resident classification categories that are the basis for the SNF PPS.*

***AHCA Recommendations On The Concurrent Therapy Adjustment to Resident Therapy Minutes:***

- *Since the underlying therapy weights reflects therapist time and has already been adjusted for concurrent and group therapy, CMS should not proceed with the downward adjustment in resident therapy minutes on MDS 3.0;*
- *If CMS is concerned that concurrent therapy is being overprovided, CMS should:*
  - *Work with stakeholders to undertake comparative effectiveness research that defines concurrent therapy and establishes clear and simple parameters for its provision, which are consistent with professional standards and best practices;*
  - *Test the proposed model with limitations on the utilization of concurrent therapy as part of an independent national validation study; and*
  - *Update the therapy weights to reflect the provision of therapy services under the revised concurrent therapy payment model.*

***AHCA Recommendations On The Application Of Adjustment For Budget Neutrality Between RUG-III and RUG-IV:***

- *Rather than apply the adjustment for budget neutrality between RUG-III and RUG-IV only to the nursing weight, CMS should:*
  - *Apply equal and appropriate adjustment to both the nursing weight and the therapy weight to reflect the needed adjustment for budget neutrality; and*
  - *Apply an adjustment for the variability in non-therapy ancillary services which was established for FY 2006 to the nursing weight.*

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## **I. Recalibration for Projection Error**

### ***AHCA Recommendations on the Proposed Recalibration for Projection Error:***

- *CMS should recognize that case-mix change is **not** “projection error;”*
- *CMS should implement any required adjustment for case-mix change in a way that is consistent with the basic premise of prospective payment; and*
- *CMS should continue to pay for real case-mix change resulting from increases in the acuity of SNF residents – any required recalibration related adjustment should take into account real case-mix change and continue to follow this prospective payment principle*

### **A. Real Case-Mix Changes Is NOT Projection Error**

#### **1. Introduction**

As AHCA described in our comments last year, the proposed data and methodology used by CMS for the implementation of the purported case-mix projection error adjustment for FY 2009 is inappropriate, undermines the construct of prospectivity, and is just bad policy. CMS should continue to pay for real case-mix change.

#### **2. Background**

In 2005, CMS used existing and dated time study data and computed payment weights for the then proposed RUG-53 system. CMS then used 2001 linked SNF MDS-claims data to estimate the distribution of days by RUG category under the RUG-44 system and the RUG-53 system. CMS further adjusted the new RUG-53 CMIs upward to ensure that the RUG-53 system would be implemented in a budget neutral manner.

CMS has found that actual utilization patterns in 2006 “differed significantly” from those it had projected using the 2001 data. In particular, CMS notes that the proportion of patients grouped into the highest paying RUG categories – the nine new Rehabilitation plus Extensive Services categories – greatly exceeded projections. CMS used this information to create a revised adjustment to the RUG-53 CMIs so that payments under RUG-44 and RUG-53 would be budget neutral for FY 2006. CMS asserts that the difference between the original budget neutral estimate using 2001 data and the more recent budget neutrality estimate based on 2006 data was a projection error. CMS proposes to recalibrate the CMI budget neutrality adjustment for FY 2010. The agency estimates the impact at \$1.05 billion or about 3.3% of total SNF Part A reimbursement.

As we describe below, the proposed data and methodology used by CMS for the implementation of the purported case-mix parity adjustment for FY 2010 is inappropriate

and undermines the construct of prospectivity. It makes CMS SNF payment policy unpredictable and decidedly non-prospective. CMS should continue to pay for real case-mix change.

As noted previously, the past ten years have been a turbulent period for long term care. The flawed implementation of the SNF PPS system with the *Balanced Budget Act of 2007 (BBA)*, led to significant instability and numerous bankruptcies of individual nursing homes and nursing home chains. With the assistance of Congress, the profession has sought to bring about some financial stability and predictability to long term care over the intervening years. With the *Balanced Budget Refinement Act of 1999 (BBRA)* and the *Benefits Improvement & Patient Protections Act of 2000 (BIPA)*, Congress established a number of temporary add-ons to SNF reimbursement rates to help bring some temporary financial stability to the system so that CMS could implement a number of improvements to the SNF PPS. For FY 2004, a one-time 3.26% adjustment was made to the market-basket to address cumulative market-basket forecast-errors, and a mechanism introduced to the SNF PPS to make adjustments to the market-basket to correct for future forecasting errors.

For FY 2006, CMS created nine new Resource Utilization Group (RUG) categories for Rehabilitation and Extensive Services SNF residents to better account for medically complex patients, and introduced an adjustment to nursing case-mix weights to better account for significant variability in NTAS costs. CMS indicated that it was implementing the refinement to the RUG system under its authority in Section 101(a) of the BBRA to establish case-mix refinements, and that the changes would represent the final adjustment made under that authority. In our comments, AHCA agreed that CMS could not make further adjustments to the SNF PPS under Section 101(a), and noted our disappointment that CMS had not taken this opportunity to make substantial changes to significantly improve the SNF PPS.

With the refinements to the SNF PPS, the long term care profession was looking forward to a period of relative financial stability and moving forward with a renewed and heightened focus on improving quality, serving patients with higher acuity levels, and enhancing customer satisfaction in our nation's nursing homes. Or so we thought. The proposed projection error adjustment, however, draws attention to the inherent deficiencies of the current SNF PPS RUG system that drives instability, and once again puts in jeopardy the increasingly fragile financial stability of SNFs. In the discussion below, we draw CMS' attention to the impact of these inherent outstanding issues, and strenuously urge CMS not to implement the proposed \$1.05 billion reduction so as to retain sufficient funds in the system and allow time for the SNF PPS to be improved.

### **3. Real Case-Mix Change is NOT Projection Error**

Policy and non-policy related factors have contributed to an increase in the clinical acuity of SNF patients, particularly those in the nine new Rehabilitation and Extensive Services RUG categories. The proposed implementation of the forecast error has placed providers

at risk for **real** changes in case-mix resulting from increases in the acuity of SNF resident that are both reflected and not reflected in the SNF PPS. This is not appropriate. CMS should and must continue to pay SNF providers for real changes in case-mix resulting from increases in the acuity of SNF residents.

In its April 1990 report, RAND Health discussed the recalibration of weights due to grouper changes in the IPPS. The RAND report notes that “although the weights for a new grouper are normed on a prior years’ case-mix in an effort to make the change neutral, if the case distribution changes among DRGs, a new grouper will produce a different CMI from the old grouper.”<sup>7</sup> Such change would be expected if technology changes, or other post-acute providers change their behaviors in response to Medicare policy changes (e.g., the Medicare 75% rule), more severely ill patients may be treated. This reflects a “real” change in case-mix. If medical records are more completely filled out, these coding changes could also increase case-mix. CMS has traditionally attempted to separate out coding related case-mix change from real case-mix change after a new grouper is implemented. Since IPPS was first put in place in FY 1984, CMS has paid for real case-mix change, but not for coding-related change.

In describing the recalibration methodology, RAND notes that CMS normalizes new grouper weights “so that the CMI payouts using the new grouper are equal to those based on the old grouper on the latest available data.”<sup>8</sup> Thus, the weight calibration is designed so that the CMI payouts will be the same under the new grouper as under the old grouper. RAND also notes that all grouper revisions will lead to case distribution changes over time after implementation stating “different groupers usually give different CMIs when they are used on an annual data set other than that used by calibration.”<sup>9</sup>

Given RAND’s analysis, it would have been surprising if the implementation of the RUG-53 grouper had produced the original CMI forecasted expenditure estimate using data from later periods. For instance, in 1984, the IPPS saw CMI rise by 8.4% relative to 1981. CMS had predicted a 3.4% increase. Thus, Medicare paid 4.9% more per admission than had been planned. CMS at the time did not cite this as forecast error and attempt to take back the entire difference. Instead the agency commissioned the RAND Corporation to conduct a study of the “components of the increase in CMI.”<sup>10</sup> RAND noted that real case-mix change can result from changes in medical practices, changes in the location of treatment and the aging of the population. Coding practices also can affect the CMI. RAND found that 2.1% of the 8.4% change was due to medical practice changes while the remaining 6.2% change was due to changes in documentation and coding.

MedPAC over the years has tracked the components of IPPS CMI changes. It stands to reason, as seen in Exhibit 1, that as grouper changes are introduced, coding change

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<sup>7</sup> RAND Health (1990). How Much Change in the Case-mix Index is DRG Creep. April.

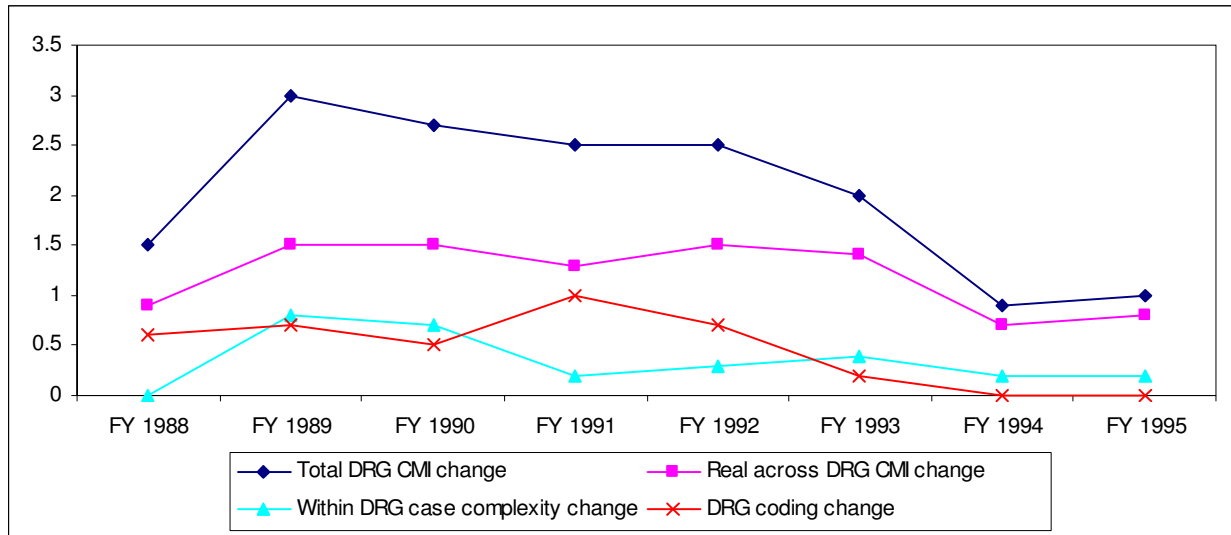
<sup>8</sup> Ibid., p3.

<sup>9</sup> Ibid., p17.

<sup>10</sup> Ibid., p1.

predominates; as experience with a grouper is gained, real case-mix change predominates.

Exhibit 1: Changes in CMI (FY 1988-1995)



Source: Lewin Group analysis of MedPAC reports.

The unexpected change in utilization patterns in the SNF setting between 2001 and 2006 is not the result of some type of projection error. It reflects changes in the CMI, both pre- and post- refinement. Some, and we believe most of this change, is real and there is ample precedent that CMS should appropriately pay for this real change in medical practice. Some of the change could be coding related and not associated with changes in patient acuity, which CMS has said it will not pay for and in practice does not.

It is curious that CMS has proposed this projection error adjustment in only the SNF setting. As noted above, CMS has made adjustments in the IPPS to pay for only real case-mix change when moving from one DRG system to another. CMS has also made adjustments in the IRF PPS for real and coding related changes (See 70 Federal Register 47879). Yet for the SNF PPS, paying for real case-mix change appears to have been expediently abandoned and replaced with something called “projection error”. CMS should continue to pay for real case-mix change.

The \$1.05 billion so-called projection error<sup>11</sup> correction in the FY 2010 SNF PPS is unusual in its definition, but not in its magnitude of 3.3%. It is unusual in that CMS breaks two decades of precedent by not attempting to differentiate out real change from unexplained change. It is also unusual in that the recalibration of the new grouper is

<sup>11</sup> There are instances where pure forecast errors occur, such as with the SNF market basket or for wage index changes. In these instances, update factors are revisited after the fact and forecast errors are accounted for. But these instances of forecast error have no real and coding components. The two concepts (update vs. case-mix measurement) are conceptually distinct and should not be treated comparably. As such it is inappropriate to apply a forecast error concept to case-mix measurement because real changes in acuity have been and should be paid for under a PPS such as the SNF PPS.

attempted after grouper implementation. Use of post-refinement 2006 data defies logic and goes against the principal of prospectivity. In addition to the CMI effect described above, it incorrectly reflects changes in non-SNF provider behavior in response to Medicare policy changes and changes in the acuity of residents resulting from the refinement-induced incentive changes to the RUG system that encouraged and continues to encourage providers to invest in clinical infrastructure, and accept and provide services to higher acuity residents. CMS' approach is inconsistent with the facts as one would expect a change in the patient population after a new grouper is implemented as well as changes in coding practices. This is why new groupers are developed – to better pay for sicker more costly patients.

This break in precedent by CMS (to recalibrate payments post- implementation rather than pre- implementation) moves sharply away from prospective payment methodology which pays for changes in a “different mix of illness or a different mix of procedures”<sup>12</sup> to a system where an industry is at risk for changes in acuity (case-mix) of its patient population after a new grouper is implemented. This attempt on CMS' part is entirely inconsistent with the fundamental precepts of prospectivity where payments track patient acuity and are prospectively set and paid when care is provided. Thus, the very essence of prospective payment, where payments track changes in patient acuity is violated by the CMS forecast error provision.

It is unreasonable for CMS not to require that Medicare continue to pay for real change in acuity as it always has in the past. To not pay for this change in patient severity is to not pay for a change in case-mix prospectively. This violates the central premise of prospective payment which is to not put the provider at risk for real case-mix changes.

### **B. The Acuity of SNF Residents Is Increasing**

As noted above, the acuity of residents in both skilled and non-skilled nursing facilities has increased dramatically since the implementation of the SNF PPS for a number of reasons. First, home- and community-based post-acute and long term care options have seen tremendous growth in the past few years. Less sick or higher functioning individuals are opting to receive post-acute or personal assistance services at home or in their community. The greater availability of case-management and managed care options for both Medicare and Medicaid beneficiaries, as well as for privately insured individuals, helped many to receive services in a home- and community-based setting, while the most frail and severely ill still require services in institutional settings. Medicare payment policy seeks to provide appropriate and cost-effective care for a particular Medicare beneficiary's condition and acuity level. The result of these and other reinforcing policies and preferences is a larger proportion of elderly, and particularly frail, disabled, and severely ill individuals, in SNFs.

The increase in SNF resident acuity also has accelerated since the implementation of RUG refinement. At AHCA's request, the Lewin Group examined changes in the acuity of SNF residents. Lewin's analysis examined the change in average case-mix of SNF

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<sup>12</sup> RAND Health, p27.

residents using RUG-53 base weights during 2001 through 2006. Lewin found that average CMIs increased by about 1.6% per annum over the period, with about half of the change in case-mix (or 3.86%) occurring before refinement (between 2001 and 2005), and about half (or 3.85%) occurring post refinement (in 2006). The Lewin Group research also showed that despite its relative lack of explanatory power, the RUG-53 system is a better “reflector” of changing patient acuity than the RUG-44 system.

As shown in Table 1, which is discussed further below, the increase in acuity of SNF residents is real, both pre- and post- refinement. Furthermore, the increase in acuity accelerated in 2006 due to post-refinement changes in incentives that encouraged SNFs to treat higher acuity Medicare beneficiaries. The analysis below, based on 5-day Medicare beneficiary MDS assessments, examines changes in resident acuity on MDS items that are indicative of heavy resource use - particularly staff time - in providing associated services. The indicators examined below are also primarily not payment related, in order to illustrate that the change in acuity is real and not potentially influenced by payment influenced improved coding.

- ***Physical Functioning And Structural Problems***

Analysis of Activity of Daily Living indicators on the MDS shows that there has been an increase in the need for extensive assistance, which is defined as weight-bearing support provided three or more times or full staff performance of activity three or more times during part of the last seven days. Areas in which patients needed extensive assistance include bed mobility, transferring, walking, dressing, toileting, and personal hygiene.

Extensive assistance for dressing (i.e., how a resident puts on, fastens, and takes off all items of street clothing to include donning and removing a prosthesis) has increased by 7.7% per year from 35.7% of residents in 2001 to 49.5% of residents in 2006. Extensive assistance for personal hygiene (i.e., how resident maintains personal hygiene, including combing hair, brushing teeth, shaving, applying makeup, washing/drying face, hands, and perineum) has increased by 8.7% per year from 27.96% of residents in 2001 to 40.1% of residents in 2006.

There has also been an increase in SNF residents who require two or more persons to assist with bed mobility, transferring, walking, dressing, eating, toileting, and for personal hygiene. Two-plus person assistance for bed mobility (i.e., how resident moves to and from lying position, turns side to side, and positions body while in bed) has increased 12.4% per year from 18.1% of residents in 2001 to 29.4% of residents in 2006. Two-plus person assistance with transferring (i.e., how a resident moves between surfaces – whether to or from a bed, chair, wheelchair or standing position) also increased 6.7% per year from 27.7% of residents in 2001 to 33.3% of residents in 2006.

Resource use is generally high when supporting residents with these ADL related issues. Staff activities often include ongoing assessment to determine changes in resident conditions; direct care staff assistance; coaching and monitoring residents in support of maintenance of self care; interdisciplinary care planning and identification of necessary

**Table 1: Annual Change of Selected MDS Acuity Related Measures  
Pre- and Post- Refinement**

	2001 - 2005	2005 - 2006	2001 - 2006
<b>Physical Functioning And Structural Problems</b>			
Extensive Assistance			
Walk In Room	1.82%	8.74%	16.67%
Walk In Corridor	3.75%	12.60%	29.50%
Locomotion On Unit	8.62%	12.08%	50.71%
Locomotion Off Unit	11.00%	11.54%	60.60%
Dressing	7.00%	8.26%	38.58%
Personal Hygiene	7.35%	10.92%	43.53%
Two-Plus Persons Assist			
Walk In Corridor	-0.49%	11.78%	9.58%
<b>Continence</b>			
Frequently Incontinent - Bowel	2.64%	6.50%	17.74%
Frequently Incontinent - Bladder	3.13%	5.30%	18.48%
<b>Diseases And Infections</b>			
Diseases			
Congestive Heart Failure	0.35%	3.73%	5.16%
Peripheral Vascular Disease	0.03%	6.99%	7.09%
Depression	6.07%	9.18%	35.67%
Emphysema/COPD	1.78%	2.88%	10.21%
Infections			
Antibiotic Resistant Infection	3.01%	10.26%	23.53%
Urinary Tract Infection In Last 30 Days	1.93%	8.73%	17.13%
<b>Health Conditions</b>			
Fell In Past 30 To 180 Days	3.06%	23.54%	38.67%
Other Fracture In Last 180 Days	3.14%	3.60%	16.60%
Conditions/Diseases Make Resident's Cognitive, ADL, Mood, Or Behavior Pattern Unstable	3.73%	4.43%	19.98%
<b>Oral And Nutritional Status</b>			
Chewing Problem	4.25%	5.27%	23.16%
Swallowing Problem	0.64%	6.77%	9.49%
On A Planned Weight Change Program	4.30%	12.53%	31.86%
<b>Skin Condition</b>			
Rashes	3.25%	3.86%	17.37%
Skin Desensitized To Pain Or Pressure	1.69%	9.04%	16.39%
Skin Tears Or Cuts (Other Than Surgery)	0.60%	3.62%	6.10%
Other Preventive Or Protective Skin Care (Other Than To Feet)	3.10%	6.01%	19.15%
Resident Has One Or More Foot Problems	4.21%	8.56%	26.86%
Received Preventive Or Protective Foot Care	5.65%	15.24%	41.28%
<b>Medications</b>			
16+ Medications	16.59%	17.22%	94.99%
Antipsychotic Medications – 7 Days	8.80%	12.89%	52.64%
Antianxiety Medications – 7 Days	3.74%	17.33%	34.85%
Antidepressant Medications – 7 Days	8.29%	17.27%	56.14%
Hypnotic Medications – 7 Days	6.46%	20.09%	51.10%
Diuretic Medications – 7 Days	4.33%	10.06%	29.13%
<b>Special Treatments And Procedures</b>			
Ostomy Care	-0.52%	14.67%	12.29%

staff resources for related needs; and regular assessment of bony prominences for skin breakdown.

- ***Continence***

The percentage of residents who were frequently incontinent or had a scheduled toileting plan increased from 2001 to 2006. The percentage of residents who were frequently incontinent increased by 3.5% per year (bowel) and by 3.7% per year (bladder). The percentage of residents with a scheduled toileting program increased by 2.6% per year over the period.

SNF staff undertakes a variety of activities to support residents with continence issues. These activities can include regular assessment of resident for level of bowel and bladder continence and reflecting that continence in their care plan; monitoring of incontinence and assistance to residents to prevent skin breakdown; reviewing resident medications for potential side effects and interactions contributing to incontinence; care planning for toileting program and schedule; arranging for and using incontinence products; addressing resident psychosocial needs related to withdrawal as a result of incontinence; and addressing safety concerns related to positioning of commode, call light, access to bathroom, and lighting, to prevent injury and falls associated with residents' efforts to prevent incontinence.

- ***Diseases And Infections***

The percentage of residents with chronic conditions such as diabetes mellitus, congestive heart failure, peripheral vascular disease, cerebral palsy, multiple sclerosis, depression, manic depression (bipolar disease), schizophrenia, asthma, and emphysema/COPD increased between 2001 and 2006. Diabetes among SNF residents has increased by about 4.2% per year, up from 28.4% in 2001 to 34.3% in 2006. Similarly, the percentage of residents with emphysema/COPD has increased by 2.0% per year from 20.8% to 22.9% over the same period. The percentage of residents with infections, including antibiotic resistant infections, clostridium difficile, septicemia, urinary tract infections, and viral hepatitis also increased over that same period. For example, the percentage of residents with antibiotic resistant infections and septicemia increased by 4.7% and 1.9% per year, respectively.

The increasing prevalence of chronic conditions among primarily short-stay and often rehabilitation focused SNF residents also contributes to increased provision of services. For example, direct care staff caring for diabetic residents often need to develop individual care plans that balance diet, exercise, and medication; consult closely with physicians in setting targets for blood glucose goals; manage and document blood glucose levels and communicate with physicians to obtain oral or insulin medication dose; monitor and ensure maintenance of adequate nutritional status; identify and reduce risks for lower extremity infections, ulcers, and limb loss; educate residents and families about diabetes management including adherence to diet; set targets for blood pressure

management; attend to foot hygiene including moisturizing, nail cutting, and callus trimming; facilitate regular eye examinations; and maintain good oral hygiene.<sup>13</sup>

Support services can be even greater for SNF residents with infections. Services can include identification of date, causative action and site of infection; monitoring for symptoms of infection and obtaining appropriate lab work; monitoring dressing drainage, temperature, wound odor, and other signs of infection; offering and providing immunizations (influenza, pneumonia) as preventative techniques and to help minimize the risk of death if infections occur; ensuring proper infection control care processes and infectious waste disposal; utilization of barrier protection, isolation, or managing exposure to other residents; active facility-level infection control monitoring to ensure infection does not or is not spreading; monitoring antibiotic and/or antiviral therapy including adverse drug reactions; monitoring for side effects like nausea, vomiting, diarrhea, rash and interactions with other drugs like blood thinners; regular review of antibiotic use for new residents; and ordering laboratory services such as blood, wound, throat, and sputum cultures, and blood counts. For elderly individuals, objective symptoms often are less indicative of infection than regular subjective behavioral changes, which can be significant in identifying infections.<sup>14</sup>

- ***Health Conditions***

The health condition of SNF residents also declined between 2001 and 2006. These declines in conditions are reflected through increases in residents with delusions; edema; falls; non-hip related fractures; conditions and diseases that make a resident's cognitive, ADL, mood, or behavior pattern unstable; and residents experiencing an acute episode or a flare-up of a recurrent or chronic problem. Based on 5-day MDS data, the percentage of residents that fell within the past 31 to 180 days increased by 7.7% per annum, up from 11.9% to 38.7% over the period; while residents that experienced an acute episode or a flare-up of a recurrent or chronic problem increased by 8.5% per year from 33.4% to 47.6% during that same period.

- ***Oral And Nutritional Status***

The proportion of SNF residents with oral and nutritional issues such as chewing and swallowing problems, obesity, parenteral/IV feeding methods, and weight change programs increased over the period as well. Although a small portion of the overall SNF population, the percentage of residents weighing more than 300 pounds increased substantially over the period (11.9% per year) from 0.7% of residents in 2001 to 1.1% of residents in 2006, while the percentage of residents on a planned weight change program increased by 6.4% per year. Though a payment related item, the percentage of residents fed by parenteral/IV methods increased dramatically over the period (12.6% per annum) from 9.0% of residents in 2001 to 14.7% of residents in 2006.

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<sup>13</sup> American Medical Director Association (AMDA). Managing Diabetes In Long Term Care Settings Clinical Practice Guidelines.

<sup>14</sup> AMDA. Common Infections In Long Term Care Settings Clinical Practice Guidelines

SNF residents with oral or nutritional issues require greater direct care staff support for monitoring weight, height, and body mass index; additional laboratory work; assessment of history of recent weight loss, swallowing and chewing problems, oral and dental problems and ability of resident to independently feed themselves; monitoring of the amount of food eaten; reviewing medications for effects on appetite and food and drug interactions; evaluation of the risk and benefits of tube feeding and providing tube feeding if indicated; educating family of nutritional goals and the use of tube feeding as a temporary measure, etc. For residents with swallowing problems, the increases in services can include care planning for special diet (thickened liquids, pureed solids) and assistance with feedings and/or feeding set-up and coaching, and watching for choking and aspiration.<sup>15</sup>

- ***Skin Condition***

Residents who have skin issues have increased from 2001 to 2005, as illustrated by the increase in frequency of stage 4 pressure ulcers, stage 4 stasis ulcers, abrasions and bruises, rashes, skin desensitization to pain or pressure, skin tears or cuts (other than surgery), the use of pressure relieving devices for chair and bed, nutrition or hydration intervention to manage skin problems, applications of ointments/medications (other than to feet), other preventative or protective skin care (other than to feet), residents that have one or more foot problems, and preventative or protective foot care.

Services for residents with skin conditions that can include determination of resident risk for pressure ulcers; monitoring of peripheral pulses in lower extremities, signs of incontinence, mobility, presence of contractures, and ability to sense pain; performing skin assessments; managing urinary and fecal incontinence; ensuring adequate nutrition and hydration; (re)positioning resident (while in bed or sitting) to alleviate pressure over bony prominences; teaching and encouraging resident how to shift weight every 15 minutes while sitting; cleaning stage 2 wounds and healing stage 3 and 4 wounds. In addition, wounds with extensive tissue damage require surgical debridement, dressing changes, or application of wet-to-dry dressings.<sup>16</sup>

- ***Medications***

Medication use increased dramatically between 2001 and 2006. For example, the percentage of residents who require 16 or more medications increased by 19.0% per year from 10.4% in 2001 to 20.2% in 2006. The percentage of residents that receive injections 7 days per week also increased from 10.5% in 2001 to 17.4% in 2006, by about 13.2% per year.

The increase in the frequency of medications has also caused an increase in services that can include monitoring for side effects and adverse reactions; monitoring for drug to drug interactions; determining whether current drug regimen could be causing or contributing

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<sup>15</sup> AMDA. Altered Nutritional Status Clinical Practice Guidelines and AMDA Dehydration And Fluid Maintenance Clinical Practice Guidelines

<sup>16</sup> AMDA. Pressure Ulcer Clinical Practice Guidelines

to resident symptoms; charting medications given including dose, administration route, and time; documenting the result of medication (such as reduction in pain) and how well resident tolerated the drug; and requesting physician and pharmacy review of medications and considerations of drug half-life, etc.<sup>17</sup>

- ***Special Treatments And Procedures***

SNF residents increasingly receive special treatments and procedures such as dialysis, intravenous medication, transfusions, and rehabilitation therapy. For example, the percentage of residents that are being monitored for acute medical conditions has increased by 3.0% per year from 68.5% in 2001 to 78.9% in 2006.

Analysis of hospital discharge and MDS data confirms that SNF residents are increasingly more clinically complex, fragile, and unstable. The data strongly suggests that much of the change in CMI is real. This real change should and must be paid for. The CMS forecast error correction makes absolutely no provision for this basic attribute of the SNF PPS. So, in addition to being legally and logically flawed, the proposed CMS forecast error correction also does not fit the facts.

As acuity increase, so too must direct care staff support services. As shown in Table 1 above and in Appendix A, acuity of SNF residents has been increasing for some time. These residents need more assistance in performing typical activities of daily living, including transferring, dressing, and help with personal hygiene. Many residents have an unsteady gait, fall more easily, and have more fractures due to loss of bone mass. They often receive special skin care to protect skin that is now thinner, less elastic, and more prone to break down due to loss of muscle under the skin. The dramatic increase in post-refinement acuity levels, particularly demonstrated by the non-payment related MDS items, speaks well of the impact that RUG refinement as well as other Medicare payment policies can have in generating Medicare program savings as SNFs respond to incentives to provide services to higher acuity residents.

### **C. Medicare Payment Policy Changes Are Generating Medicare Savings**

The long term care profession is proud of our contribution to realizing savings that are helping to preserve the long-term solvency of the Medicare program by providing high quality, effective, and efficient care and services for higher acuity residents. The average cost to the Medicare program of providing similar post-acute care services in Long Term Care Hospitals (LTCHs), IRFs, and SNFs varies tremendously. Early research by MedPAC found that per case payments in LTCH and IRFs were significantly higher than in SNFs. (See Table 2). Additional research conducted for MedPAC by RAND Health found that Medicare payments for IRF patients were about \$4,500 higher than those of SNF residents with the same conditions. AHCA has long been a proponent of providing the highest quality of care in the most appropriate cost-effective setting and remains

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<sup>17</sup> AMDA. Pharmacotherapy Companion

concerned that the silo approach to post-acute care services is inefficient and costly to the Medicare program.

**Table 2: Per Case Payment by Post-Acute Care Setting, FY 2004**

<b>Principal Diagnosis</b>	<b>LTCHs</b>	<b>IRFs</b>	<b>SNFs</b>
Tracheotomy with ventilator 96+ hours	\$115,463	\$26,051	\$10,051
Respiratory system with ventilator	\$74,689	\$26,051	\$7,897
Major joint and limb replacement, lower extremity	\$67,104	\$17,135	\$6,165
Skin graft and wound debridement	\$48,595	N/A	\$8,111
Amputation	\$44,983	\$33,245	\$9,590
Hip fracture	\$44,633	\$18,487	\$10,618
Stroke	\$31,496	\$34,196	\$8,905
Skin ulcers	\$34,708	N/A	\$8,111
Septicemia	\$34,240	N/A	\$8,974
Osteomyelitis	\$29,563	N/A	\$10,410

Source: MedPAC (2004). Report to the Congress: New Approaches in Medicare. June.

## **1. LTC Medicare Policy Changes and Program Savings: IRFs**

A significant factor in achieving Medicare program savings appears to be related to the re-imposition of the IRF 75% rule, as well as other Medicare payment policy improvements. AHCA has lauded CMS and the Congress for introducing the 75% rule to ensure that IRFs were treating an appropriate and distinct category of patient. With the suspension of the enforcement of the 75% rule in June 2002, IRFs treated many patients that could have received the same quality care in a more cost-effective setting such as in SNFs. In May 2004, CMS revised the regulation and expanded the categories of residents who could receive rehabilitation services in an IRF setting. Congress affirmed its support for the regulatory rule in the Deficit Reduction Act of 2005 which phased in compliance with the regulation over three years to allow adequate time for IRFs to adjust their patient mix.

The phased implementation of the 75% rule (now set at 60% by Congress) is generating savings to the Medicare program as patients are more appropriately treated in other post-acute care settings. Studies confirm that SNFs provide post-acute rehabilitation to dramatically more patients than in the past – and at a significant savings to the Medicare program. A United Hospital Fund report documents the increased role that SNFs play in this arena. Research by the Moran Group<sup>18</sup> showed that IRF Medicare volume fell significantly with the decline most heavily concentrated in those patient categories covered by the 75% rule. Further, the CMS Center for Medicare Management has noted in a press release that the rule was working as intended, and that “Nobody is being denied care. What’s happening is that people are going to other settings for care.”

<sup>18</sup> The Moran Group (2007). Utilization and Trends in Inpatient Rehabilitation.

## **2. LTC Medicare Policy Changes and Program Savings: SNFs**

The implementation of the nine new Rehabilitation and Extensive Services RUG categories in FY 2006, was another major step in helping to reduce Medicare program expenditures. As the data show, SNFs have responded to the incentive by investing in the necessary clinical infrastructure to provide the services needed by higher acuity and higher cost patients, many of which might have otherwise received the services in a more expensive IRF. CMS has long argued that post-acute rehabilitative care in SNFs is often more appropriate for Medicare beneficiaries and more cost effective for the federal government than care in other settings. For example, in June 2007, CMS stated that Medicare payment policies “have the desired effect of ensuring that the most appropriate Medicare beneficiaries have access to care in IRFs, while those with lower acuity cases are increasingly being served in settings that are both less intensive and less costly.” The savings are significant. Research by Avalere Health shows that Medicare post-acute care payment policies that have contributed to the shifting of patients from IRFs to SNFs and HHAs like the Medicare 75% rule and SNF RUG refinement have generated about \$780 million in savings to the Medicare program in 2006 alone, and about \$1.7 billion over the two years 2006 to 2007.

### **D. If Not Real Acuity Increases, Where Are the Windfall Profits?**

In the proposed rule, CMS notes that “... the purpose of the refinements was to allocate payments more accurately rather than reduce overall expenditures,” and so CMS “adjusted the new case-mix indexes (CMIs) upward in order to ensure that [their] implementation of the case-mix refinements would achieve ‘parity’ between the old and new models (that is, would not cause any change in overall payment levels).” However, as noted by CMS in last year’s proposed rule, the analysis of post implementation 2006 claims data “showed that actual utilization patterns under the refined case-mix system differed significantly from the previous projections. As a consequence, rather than simply achieving parity, the 2006 adjustment inadvertently triggered a significant increase in overall payment levels, representing substantial overpayments to SNFs.” (74 Federal Register 22214)

As noted above, we contend that most if not all of the so-called “recalibration” is not due to an error in projecting the parity adjustment between RUG-44 and RUG-53, but rather is due to an increase in the absolute number and relative proportion of high acuity SNF residents. Furthermore, the growth in SNF acuity has increased further since 2004 when the 75% rule was reinstated, and jumped even more in 2006 due to not only the introduction of the upper 9 Rehabilitation plus Extensive Services RUG categories, but because of the greater incentives established by the refinement for SNFs to accept and provide services to an increasingly acute and more costly to treat Medicare population. Were CMS correct in its contention that the 2006 parity adjustment led to substantial overpayments without a concomitant increase in the acuity of SNF residents then we would expect SNFs to have received “windfall profits,” particularly for those facilities

that serve a high proportion of Medicare patients. As discussed below, there have been no windfall profits. The increase in acuity is real and should be paid.

AHCA asked the Lewin Group to examine the relationship between the SNF costs, revenues, and margins before and after RUG refinement in 2006 to determine if the RUG refinement had led to “windfall profits.” Based on publicly available information, the Lewin Group found that while SNF revenues increased between 2005 and 2006 so too did SNF costs, such that there was an estimated net increase in SNF margins of 0.4 percentage points between the periods, which is “not at all reflective of ‘windfall profits’ in the range of 3.35%”, nor does it support the contention that the increase in case-mix (is) unrelated to an increase in patient acuity.

### **E. Parity Adjustment + Increased Acuity + State Medicaid Shortfalls Places Providers At Financial Risk**

In addition to being a baseless reduction in SNF funding that puts providers at risk for real acuity increases, the timing of the proposed recalibration of the parity adjustment together with other recession induced payment policy changes by state and local governments will place the SNF sector into financial jeopardy. States are under significant fiscal pressures currently. Research by the Center for Budget and Policy Priorities<sup>19</sup> indicates that states have faced or are facing significant fiscal stress in FY 2009 and/or FY 2010. As of May 2009, states were estimated to have budget gaps of about \$59.9 billion as of mid-year FY 2009 (about 9.2% of their general budget), and were projecting budget gaps of \$133.4 billion in FY 2010 (about 18.9%). The combined budget gaps for the remainder of state FY 2009 through FY 2011 were estimated to total between \$350 billion to \$370 billion before accounting for various gap-closing measures. These budget deficits will put tremendous pressure on states to control spending, particularly for high costs entitlement programs whose costs increase substantially during economic slowdowns, such as Medicaid.

The parity adjustment recalibration induced reduction in Medicare payments of nearly \$16 per patient day, coupled with a growing shortfall between nursing home Medicaid costs and reimbursement rates estimated at nearly \$13 per patient day back in FY 2008<sup>20</sup> and flat or reduced Medicaid payments rates for nursing home services resulting from state budget austerity measures, will further squeeze the overall margins of nursing facilities. States will continue to grapple with their budget deficits by freezing, cutting, or rescinding rate increases, or delaying payments. Nursing facility margins, already the lowest in the health care sector, will decline further and coupled with payment delay induced cash flow issues, may put the sector at significant financial risk.

Medicare has also historically played an important role in cross-subsidizing low Medicaid payments. This cross-subsidization takes place in most health care settings. Losses generated by treating one category of patient are underwritten by payments

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<sup>19</sup> McNichol, Elizabeth and Lav, Iris J. State Budget Troubles Worsen. Center for Budget and Policy Priorities. Updated May 18, 2009.

<sup>20</sup> Eljay LLC. A Report on Shortfalls in Medicaid Funding for Nursing Home Care. October 2008.

generated by another category of patient. In the case of hospitals, the cross-subsidization occurs across departments, and most importantly across public and commercial payers. By contrast, in the freestanding SNF setting, the cross-subsidization occurs across government payers. Though the form of cross-subsidization is different, the dynamics and operational realities are very much the same. The cross-subsidization of Medicaid by Medicare is a reality in the SNF setting. Empirical evidence and hard data show that it is occurring. While no one would advocate that one entitlement subsidizing another is good long-term policy, it is a current reality and necessity to help ensure the adequacy and quality of patient care provided to the elderly, frail, and disabled residents in our nation's nursing homes.

#### **F. Real Case-Mix Change and Recalibration Of Projection Error**

The proposed implementation of the forecast error has placed providers at risk for **real** changes in the CMI brought on by increases in the acuity of SNF resident that are both reflected and not reflected in the SNF PPS. With the proposed implementation, CMS is in essence seeking to normalize the difference in CMIs between RUG-44 and RUG-53 using 2006 data, and assuming that all of the change in utilization between 2001 and 2006 should not be paid for by the SNF PPS. This is inappropriate from a payment perspective. CMS has and should continue to pay SNF providers for real changes in case-mix brought on by the increase in acuity of SNF residents.

With the proposed parity adjustment, CMS is in essence normalizing the difference in CMIs between RUG-44 and RUG-53 using 2006 data, and assuming that all of the change in utilization between 2001 and 2006 should not be paid for by the SNF PPS. Notwithstanding our belief that the proposed forecast error adjustment is not aligned with the SNF PPS as it inappropriately “takes back” payment for real acuity change, recalibration based solely on post-refinement period data is also not appropriate. In addition to reflecting the general increase in acuity, the 2006 data reflects acuity increases brought on by refinement-induced incentive changes that encouraged and continues to encourage providers to invest in clinical infrastructure, and accept and provide services to higher acuity residents.

A more appropriate approach would have been to base the recalibration on data immediately preceding the refinement. In theory, the recalibration should be done based on the patient mix immediately before implementation, i.e. on December 31, 2005. However since Medicare utilization and case-mix varies over the year, it would be desirable to use a full year of data, say patient data for calendar year 2005. This data would not be influenced by the implementation of the refinement to the RUG-III system on January 1, 2006.

If CMS moves forward with the proposed recalibration, CMS should undertake any such recalibration after taking real case-mix change into account. We believe that most of this case-mix change is real. The Lewin Group estimated that about 43% of the proposed \$1.05 billion recalibration of the parity adjustment reflects case-mix change over the 2001 to 2005 period before RUG refinement. Research from other prospective payment

systems during 2005 – 2006 further suggests that one quarter or more of a change in case-mix system is related to real case-mix change. CMS has developed methodologies in other settings for identifying real case-mix change and there is ample precedent that CMS will pay for real change in acuity and medical practice. Therefore, we ask that if CMS moves forward with any proposed recalibration, then CMS should undertake any such recalibration after taking real case-mix change into account. CMS should continue to pay providers for real case-mix change.

AHCA believes that the proposed projection error adjustment methodology is inappropriate as it “takes back” or strips away appropriate payments for real changes in acuity, as well as any error that CMS may have made in forecasting utilization of SNF services that happened between 2001 and 2005. As noted above, this goes against prospectivity and holds providers at risk for real acuity change.

CMS should continue to pay SNF providers for **real** changes in case-mix brought on by increases in the acuity of SNF residents who occurred between 2001 and 2005, as well as between 2005 and 2006. We have not attempted to estimate this for CMS. Medicare should however pay for this real change in acuity. To not pay for this change in patient severity is to not pay for a change in case-mix prospectively. This violates the central premise of prospective payment which is to not put the provider at risk for real case-mix changes.

While we are hopeful that the eventual implementation of RUG-IV will help to appropriately and adequately reimbursing SNFs for the costs of providing care, deficiencies in current payment policy put the sector at risk.

### **G. Halt the Implementation of the Cut**

SNFs have been and continue to be buffeted by deficiencies in the SNF PPS and policy and program changes. Inherent problems with a SNF PPS that does not appropriately reimburse for costs both overall and with respect to NTAS in particular, and a SNF market basket that fails on a cumulative basis to keep up adequately with inflation, are among the concerns.

SNFs have been supportive of Medicare payment policy changes such as the 75% rule and the establishment of the upper nine SNF RUG categories that seek to provide Medicare beneficiaries with appropriate services in the appropriate setting in an effective and efficient manner. As the research from the Lewin Group and Avalere Health shows, SNFs have responded to these incentives and have helped to achieve significant savings to the Medicare program. Inadequate reimbursement for Medicaid beneficiaries in nursing homes however continues to be an important issue.

SNFs have also moved forward with an aggressive agenda to further enhance excellence in the nation’s nursing homes. Though there is still more to do -- particularly with respect to the survey process, customer and staff satisfaction is increasing as are many of the CMS publicly reported quality measures.

CMS has made important strides in reducing Medicare spending by developing policies and establishing incentives that provide Medicare beneficiaries with the services they need in the appropriate setting, both effectively and efficiently. The proposed \$1.05 billion reduction in payments to SNFs will have a significant impact on SNF operations. The cut threatens the financial stability of SNFs that contend on a daily basis with the failure of the SNF PPS to reimbursing appropriately for costs and insufficient reimbursement for services provided to Medicaid beneficiaries. The cut also threatens to impede the aggressive quality agenda that the long term care profession has embraced. We ask CMS to not implement the proposed cuts and thereby keep the incentives in place that help to drive and achieve Medicare savings while still providing high quality services to Medicare beneficiaries.

## **II. CMS Wage Index Budget Neutrality Adjustment Methodology Appears To Be Inconsistent With The Statute**

### ***AHCA Recommendations on a SNF Wage Index Adjustment:***

- *CMS should review its SNF wage index adjustment methodology, adjust its methodology as necessary to ensure that it is applied correctly as per statute in a manner that does not result in aggregate payments that are greater than or less than would otherwise be made in the absence of the wage adjustment, and make any necessary adjustments to make up for past wage index related underpayments.*

Section 1888(e)(4)(G)(ii) of the *Act* requires that CMS apply a wage index in a manner that does not result in aggregate payments that are greater than or less than would otherwise be made in the absence of the wage adjustment. As part of our analysis of the proposed rule, AHCA estimated SNF reimbursements using both the FY2010 SNF wage index in the proposed rule and in the absence of a wage adjustment using the AHCA SNF reimbursement simulation model. AHCA found that aggregate SNF reimbursement were about \$400 million lower with the wage index adjustment then without it.

After reviewing the statute, and the CMS and AHCA methodologies, AHCA believes that CMS is utilizing a wage index budget neutrality adjustment methodology that is inconsistent with the statute.

The provisions of Section 1888(e)(4)(G)(ii) of the Social Security Act are as follows:

- (ii) Adjustment for geographic variations in labor costs. – The Secretary shall adjust the portion of such per diem rate attributable to wages and wage-related costs for the area in which the facility is located compared to the national average of such costs using an appropriate wage index as determined by the Secretary. Such adjustment shall be done in a manner that does not result in aggregate payments under this subsection that are greater or less than would otherwise be made if such adjustment had not been made.

As part of our analysis of the wage index, we utilized 2007 patient days from the CMS claims files, and information on the federal rates, nursing and therapy weights, and wage indexes from the proposed rule for fiscal year 2010, to determine total SNF Medicare reimbursement. We ran the calculations using the proposed FY 2010 wage index, the FY 2009 wage index from last year, and without a wage index adjustment (setting the wage index to 1.0000). A comparison of the total SNF Medicare reimbursement using the FY 2010 wage index and without a wage index adjustment showed a shortfall in SNF reimbursement of over \$400 million when the FY 2010 wage index was applied. The results were consistent whether we used CY 2010 or FY 2010 Medicare Part A SNF LDS data.

We next ran similar calculations covering the period FY 2002 through FY 2009. Based on our preliminary analysis, we estimate that the inappropriate application of the budget-neutral wage index adjustment has under-reimbursed SNFs by over \$2 billion over the period from 2002 through 2009.

We ask CMS to review their and our payment simulation methodologies and make any necessary corrections to the wage index calculation, so that aggregate payments to SNFs are the same with and without the wage index adjustment for FY 2010, as required by statute. Further, we request CMS to review its wage index calculations since implementation of the SNF PPS. If we are correct, we request that CMS make a one time adjustment to reimburse SNFs for the cumulative underpayment due to the observed non-budget neutral wage index adjustment methodology, or implement another reasonable and acceptable alternative.

### **III. Cumulative Market Basket Forecast Error Correction**

***AHCA Recommendations on a Cumulative Market Basket Forecast Error Correction:***

- *CMS should adhere to the precedent followed in its 2003 actions, which underscored the critical importance of accuracy in payment decisions, by acting decisively when the cumulative impact of market basket forecasting errors erode SNF payment rates by:*
  - *Providing an increase in the forecast error correction of 1.0% for FY 2010, which would represent the cumulative loss for the industry since 2003; and*
  - *Modify the agency’s threshold policy to apply a cumulative correction whenever the 0.5% threshold is reached on a cumulative basis in the future.*

In 2003, CMS instituted an adjustment to the market basket to account for market basket forecasting errors. The adjustments take into account the forecast error from the most recently available fiscal year for which there is final data, and apply whenever the difference between the forecasted and actual change in the market basket exceeds a specified annual threshold. For FY 2003 through FY 2005, the threshold was set at 0.25%, and for FY 2006 onwards the threshold was raised to 0.5%. Since FY 2003, the cumulative market basket forecasting error has been 1.0% (See Table 3). Indeed in our analysis of the proposed rule, AHCA has reached the conclusion that even a 0.25% threshold, much less a 0.5% threshold, is tolerable only if a correction is made when the forecast error cumulatively reaches the specified threshold.

**Table 3: Annual Market Basket Forecasting Error Since Correction in FY 2002**

<b>Federal Register Providing Actual Market Basket Update</b>	<b>Fiscal Year</b>	<b>Predicted Market Basket Update</b>	<b>Actual Market Basket Update</b>	<b>Percentage Point Difference</b>
July 30, 2004 69 FR 45778	FY 2003	3.1%	3.3%	0.2%
May 19, 2005 70 FR 29074	FY 2004	3.0%	3.1%	0.1%
July 31, 2006 71 FR 43162	FY 2005	2.8%	2.9%	0.1%
May 4, 2007 72 FY 25530	FY 2006	3.1%	3.4%	0.3%
May 7, 2008 73 FR 25922	FY 2007	3.1%	3.1%	0.0%
May 12, 2009 74 FR 22212	FY 2008	3.3%	3.6%	0.3%

In the June 10, 2003 supplemental proposed rule, CMS acknowledged that the agency had the authority under Section 1888 to adjust for forecast errors in the market basket.<sup>21</sup> It pointed to three provisions which, taken together, provide the authority for CMS to compute the payment rate for a fiscal year again after the end of a fiscal year to reflect later acquired, actual data regarding changes in the market basket, and that this recomputed rate could then be used in determining updates to the SNF payment rate for the subsequent fiscal year.<sup>22</sup> In addition, it supported the need for accuracy:

We believe that establishing an adjustment factor for forecast error in prior years could help to further ensure that the payment rates appropriately reflect changes over time in the price of goods and services (68 Federal Register 34769).

The fact that forecast errors have been smaller after FY 2002 than before should not change CMS' position that there is a need for appropriate payments and that CMS has the authority and the responsibility to be accurate.

In 2003, CMS chose a threshold of 0.25%, and raised it to 0.5% in 2006, contrary to AHCA's position in public comments. The threshold has functioned as CMS intended, and forecast errors less than the threshold have been permitted to remain standing. While not in favor of the 0.25% threshold then and especially not in favor of the 0.5% threshold now, the industry has accepted the process and the threshold.

At the same time, we believe CMS in the 2003 rule making set a precedent that the agency understood the cumulative erosive impact of forecast errors over time, and by its actions adjusting for the cumulative impact of multi-year errors acknowledged the agency's obligation to correct errors. We further believe that the policy adopted in 2003 recognized the cumulative impact of forecast errors in prior years, and set the precedent for corrective action when over a multi-year period the errors compound.

As such we ask that CMS adhere to the precedent followed in its 2003 actions that underscored the critical importance of accuracy in payment decisions and act decisively when the cumulative impact of errors erode rates by providing a forecast error correction of 1.0% for FY 2010 (approximately \$330 million), representing the cumulative loss for the industry since 2003, and apply a cumulative correction when the 0.5% threshold is reached on a cumulative basis.

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<sup>21</sup> 68 Federal Register 34769.

<sup>22</sup> See 68 Federal Register 34969.

## **IV. Non-Therapy Ancillary Services (NTAS)**

### ***AHCA Recommendations on Non-Therapy Ancillary Services (NTAS):***

- *As part of its research efforts to improve reimbursement for NTAS, AHCA recommends that CMS explore the development of an outlier policy, and the development of a methodology to exclude all high costs drugs from consolidated billing.*

As requested in the proposed rule, AHCA is pleased to comment on the research project that CMS is undertaking related to payment for Non-Therapy Ancillary (“NTA”) Services. The current system for reimbursing NTA is through the nursing component of the SNF PPS rate. Dollars have been allocated to each component based on nursing weights developed through time studies.

The current system is systemically inadequate as there is little correlation between payment rates and provision (and resulting cost) of NTA. On page 184 of the June, 2008 MedPAC report, it notes “the current design explains only 5% of stay level NTA costs per day”. This lack of explanation is very important given the weight of the NTA in the nursing payment. NTA costs represent 43.4% of the urban costs and 42.7% of the rural costs paid with the nursing component of the Medicare rate in 2003.<sup>23</sup> The Lewin Group has prepared an analysis for AHCA on this issue. Their findings mirror the lack of correlation between NTA costs and nursing weights.

The Lewin Group findings also show that NTA costs were 18.9% of the total Medicare SNF cost in 2006, and 17.5% of the total cost in 2007. Pharmacy costs were the largest segment of NTAS cost, comprising 66.2% of the total. By way of comparison, therapy costs were 23.1% of total Medicare SNF costs in 2006 and 22.7% of total Medicare SNF costs in 2007. Therefore, NTA costs are a very important part of SNF costs, and, consequently, SNF payments.

The concept outlined where available claims and MDS data would be used and case-mix adjustments would be made appears appropriate. Consideration of an add-on NTA index, a minimum number of payment groups, and the use of payment groups that are clinically intuitive and readily understandable is a reasonable goal.

Although the components and methodology outlined in the proposed rule may be appropriate, we believe that a resulting payment system could be clinically complex, administratively burdensome, and perhaps not very accurate.

The Lewin Group has prepared an analysis that arrayed the NTAS cost and identified the cost at the 95<sup>th</sup> through 99<sup>th</sup> percentiles. The findings of this analysis was that the top 5% of NTAS cases, by cost per stay, represents 39.9% of NTAS expenses incurred by

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<sup>23</sup> MedPAC (2008). Report to the Congress: Reforming the Delivery System (June), p 185.

nursing facilities. Given the high percentage of NTAS cost that is incurred for drugs (66.2%), specific research needs to be developed to determine if the drug cost is for 1 or 2 high cost drugs, or if it is the cumulative effect of a number of drugs. We believe that the cost is associated with 1 or 2 high cost drugs, not the number of drugs.

We request that you expand the research effort to include the development of an outlier payment, and a methodology to exclude all high cost drugs from consolidated billing. AHCA is willing and ready to work with CMS to resolve this issue.

## **V. Collection of Electronic Payroll Data**

### ***AHCA Recommendations on the Collection of Electronic Payroll Data:***

- *In partnership with stakeholders, CMS should move forward with the development of an electronic payroll data collection process (including contract labor) for all post-acute care settings including SNFs, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals that provides the minimum data needed to support quality measurement and improvement efforts and research needs, while balancing administrative burden, confidentiality, privacy, and anti-competitiveness concerns among others ; and*
- *CMS should explore, and if feasible, develop in partnership with stakeholders, a SNF specific wage index using electronic payroll data.*

AHCA appreciates the opportunity to comment on “a possible requirement for nursing homes to report nursing staffing data to CMS on a quarterly basis, through an electronic system, based on nursing home payroll data (for regular nursing employees) and invoices (for contract and agency nursing staff).

We strongly believe that adequate and appropriate collection of staffing data is critical to understanding and improving the long term care profession’s chronic supply and demand workforce shortage. High quality long term care and services are only achieved with a stable, well-trained workforce. We encourage the U.S. Department of Health and Human Services (HHS) to take workforce data collection a step further, however, and establish a national healthcare workforce database that tracks all professional and paraprofessional workers, so that healthcare supply and demand trends can be identified early and compared across all settings.

We agree with CMS’ assessment that an electronic system using payroll data would greatly improve the staffing data currently collected on CMS Form 671 which, as outlined in the proposed rule, can be inaccurate, incomplete and only represents facility staffing during a limited period of time. It is critical, however, that if/when CMS moves to a new system, the reporting mechanism be standardized and easily manageable. The data collection tool should be established so that participants can easily crosswalk the data from the electronic payroll systems to the data collection instrument used by CMS.

AHCA suggests that the agency provide clear guidelines on issues such as: 1) identifying the specific staffing positions included in the data collection; 2) how to record non-productive time (e.g., vacation and sick time); and 3) how to accurately record non-employees (e.g., contract agency nurses and therapists). CMS’ suggestion to use invoices to track contract and agency nursing staff needs further research and development. Currently, all of the non-employee data about positions and shifts on invoices would have to be sorted and submitted manually by the provider, and would be a significant administrative burden.

In the proposed rule, CMS specifically mentions its Five Star rating system that “uses nursing staffing data and nursing home census data in rating nursing homes for quality.” Nursing staffing data for an individual nursing home is adjusted for the case-mix of the residents in the facility and are divided by the nursing home census to establish the average number of hours of care per day provided by the staff. Optimal hours of care (case –mix adjusted) and average hours of care for each case-mix group are used as a basis for rating the staffing of the nursing facility. CMS states that the data currently used for these calculations is included in the CMS Online Survey Certification and Reporting System (OSCAR). CMS also states that the OSCAR data is significantly limited. More troubling than the problems with the limited OSCAR data, however, is that the Five Star rating system uses minimum staffing ratios as a measure of whether a facility meets the staffing needs of its patients.

Under the current Five Star system, facilities are now evaluated based on a specific staffing ratio that CMS never adopted and, on multiple occasions, expressly rejected adopting. Although the CMS link referenced in the proposed rule provides text that expressly states that “there is no current federal standard for the best nursing home staffing levels;” CMS’ Five Star system effectively imposes a minimum staffing ratio. A facility cannot receive a five star rating in staffing unless it meets the threshold of 4.08 nurse staffing hours per resident day (including a minimum of .55 registered nurse hours).

AHCA strongly objects, and respectfully asks the agency to refrain from using the staffing calculation used in the Five Star ranking system as we question the legality of the imposed standard without going through a formal rulemaking process. Further, AHCA agrees with what CMS has said in the past, “we do not believe sufficient evidence exists to warrant minimum nurse staffing ratio requirements...the level of care needed and the resident acuity level varies from facility to facility, which limits the utility of those data.” (70 Federal Register 62065, 62068).

AHCA believes that the information collected through electronic payroll data (for employees) and invoices (for contract nurses and therapists) could be used for the Five Star Rating System, Nursing Home Compare, and the development of a SNF-specific wage index. The information collected should include each department in the nursing facility. The wage rate information gathered should be available for analysis purposes on an aggregate basis so that no individual employee’s pay rate or confidential information such as social security number can be identified.

The burden to the facility for the payroll data can be minimized through established, clearly-defined instructions to crosswalk the information from the payroll system to the required CMS data collection tool. Issues surrounding the collection of the agency nursing staff and therapy time need to be reviewed.

## **VI. Consolidated Billing**

### ***AHCA Recommendations on Consolidated Billing:***

- *AHCA requests that CMS exclude from the Part A bundle high cost and low probability cytotoxic chemotherapy drugs recommended for exclusion by AHCA;*
- *AHCA requests that CMS support SNFs in our efforts to achieve legislation that would support the highest quality cancer treatment for Medicare beneficiaries; i.e., that CMS support us in our effort to have Congress provide the Secretary with the broadest authority to exclude high cost and low probability drugs that are used in the treatment of cancer including antineoplastic antiemetics, and supportive medications;*
- *CMS should remove the medical treatment, hyperbaric oxygen therapy, from the SNF Part A bundle;*
- *AHCA requests that CMS within the coming year revisit its consolidated billing policy regarding the role of the hospital. We ask that the agency determine if freestanding facilities can perform the services in question as safely and effectively as hospitals. If the answer is yes, we ask that the agency consider a single prong SNF PPS exclusion test and that is whether or not the service is within the scope of the SNF. If it is not, then the SNF should be permitted to choose any entity – any hospital or freestanding facility - for whom Medicare is a payer without risking the loss of the Part A SNF exclusion.*
- *AHCA requests CMS' support for the legislative exclusion of all ambulance services from consolidated billing under the SNF PPS.*

### **A. Chemotherapy**

In the proposed rule, CMS invites public comment in identifying codes for further exclusions from PPS consolidated billing of services within four categories specified by Section 103 of the BBRA: chemotherapy items, chemotherapy administration services, radioisotope services, and customized prosthetic devices. CMS also believes that, given the related report language of the BBRA legislation, the services must be characterized by high cost and low probability in the SNF setting and must represent recent medical advances.

CMS has asked in past SNF PPS update proposed rules for exclusion recommendations, and AHCA has consistently responded. However, CMS has taken the position that it does not have the statutory authority to exclude many of the recommended services such as antineoplastic antiemetics and supportive medications used in the treatment of cancer.

In 1999, Congress in Section 103 of the Balanced Budget Refinement Act (BBRA),<sup>24</sup> excluded from the SNF PPS numerous chemotherapeutic items, as identified by their respective “J Codes,” as well as numerous chemotherapy administration services, also as identified by their respective HCPCS codes.

The BBRA provided the Secretary no guidance in expanding the list of items or services to be excluded in the future from the PPS. The Conference Report accompanying the legislation, however, noted that the specific chemotherapy items were excluded from PPS because “these drugs are not typically administered in a SNF, or are exceptionally expensive, or are given as infusions, thus requiring special staff expertise to administer.” H. Conf. Rep. 479, 106<sup>th</sup> Cong., 1<sup>st</sup> Sess. 854 (1999).

Congress also explicitly recognized that items “may have been inadvertently excluded from the [exclusion] list[.]” (H.R. Conf. Rep. 479, 106 Cong., 1<sup>st</sup> Sess. 854 (1999)) and therefore, BBRA authorized the Secretary to identify “any additional chemotherapy items” and “any additional chemotherapy administration services” to be excluded from PPS. BBRA § 103(a)(2), amending the Act by adding new paragraphs at 1888(e)(2)(A)(iii)(I) and (II), codified at 42 U.S.C. § 1395yy(e)(2)(A)(iii)(I) and (II).

In a subsequent rulemaking, the Secretary, building on the report language, indicated that items or services that were of the same type as described in one of the four categories in Section 103, including chemotherapy and chemotherapy services, could qualify for exclusion from SNF PPS if (i) “they also meet the same standards of high cost and [ii] low probability [of being used] in the SNF setting.” 70 Federal Register 29098 quoting 65 Federal Register 46791. However, CMS did not recognize that the BBRA authorized the Secretary to identify “any additional chemotherapy items” and “any additional chemotherapy administration services” to be excluded from PPS in the event that items . “may have been inadvertently excluded from the [exclusion] list.” Thus, CMS requires that chemotherapy drugs recommended for exclusion had to have come on the market after April 20, 2000.

We disagree with CMS’ statutory interpretation regarding the lack of eligibility for exclusion of drugs that were on the market in April of 2000 but not excluded by Congress. We believe that Congress did “inadvertently exclude” several very expensive drugs which the Secretary has the authority to exclude. However, within the context of CMS’ interpretation and request for public comment in identifying codes for further exclusions from PPS consolidated billing of services within four categories specified by Section 103 of the BBRA, we provide the recommendations below that we believe meet all current CMS criteria.

## **1. Chemotherapy Agents**

We recommend that CMS add the following chemotherapy drugs to the excluded chemotherapy list. Where we can, we identify the drug by code. These are “traditional” cytotoxic chemotherapies that meet the criteria for high cost and low probability. In

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<sup>24</sup> Pub. L. 106-113.

addition, they came on to the market after April 2000, the year of Congress' action. Thus, they meet all of CMS' criteria for exclusion. We ask that CMS address these individual drug exclusion recommendations in the final rule and specify the reason for exclusion or non-exclusion.

**Chemotherapy Drugs Proposed for Exclusion**

<b>Brand Name</b>	<b>Generic Name</b>	<b>HCPCS</b>	<b>Date Available</b>	<b>ASP</b>
Afinitor	Everolimus	G0290	03/30/09	*
Anastrozole	Arimidex	J3490	*	*
Bicalutamide	Casodex	J3490	*	*
Dacogen	Decitabine	J0894	05/02/06	\$28.03
Estramustine	Emcyt	J3490	*	*
Fulvestrant	Faslodex	J3490	*	*
Gleevec 400mg	Imatinib	*	05/10/01	\$150.71 / dose
Iressa 250 mg	Gefitinib	J8565	05/05/03	\$70.91 / dose
Letrozole	Femara	J3490	*	*
Nexavar 200 mg	Sorafenib	*	*	\$58.68 / dose
Sprycel 100 mg	Dasatinib	*	06/28/06	\$250.93 / dose
Supprelin LA	Supprelin LA (Histrelin)	J9226	*	*
Sutent 50 mg	Sunitinib	J3490	01/26/06	\$318.20 / dose
Tarceva 150 mg	Erlotinib	J3490	*	\$151.89 / dose
Tasigna 200 mg	Nilotinib	*	*	\$70.36 / dose
Trelstar Depot/LA	Triptorelin	J3315	06/15/00	\$163.96
Tykerb 250 mg	Lapatinib	*	03/13/07	\$26.09 / dose
Zolinza	Vorinostate	*	10/09/06	\$82.53 / dose

\* Information not available

**2. Additional Cancer Treatment Drugs -- Antineoplastic Antiemetics and Supportive Medications**

CMS interprets the BBRA to prohibit it from:

- (1) excluding antineoplastic antiemetics and supportive medications which while not chemotherapeutic agents in themselves are necessary to the treatment of cancer, and

(2) excluding chemotherapy drugs that were in existence at the time of the effective date, April 1, 2000,<sup>25</sup> of Section 103 of the BBRA but not excluded by Congress.

CMS' interpretation of the statute results not only in CMS' inability to exclude certain traditional chemotherapy drugs that have cytotoxic properties but were in existence in April of 2000 but also in its inability to exclude other critical categories of drugs important in the treatment of cancer. These other drugs include antineoplastics which are new chemotherapeutic agents which are not cytotoxic but target cancer cells at various stages of reproduction and proliferation. They also include drugs that are traditionally used in combination with chemotherapy, such as antiemetics and supportive care drugs.

Antiemetics are those high-cost drugs used to treat the extreme nausea caused by chemotherapy and not general antiemetics used for other types of nausea. These drugs represent standards of care in oncology practice and are considered part of the chemotherapy regimen by oncologists. Supportive medications maintain blood cells, rescue healthy cells from toxic effects of antineoplastic drugs, and counteract the effects of cancer disease processes that spill over to other, nonmalignant organ systems (example: zoledronic acid to treat bone lesions affected by solid tumors).

To exclude chemotherapy from consolidated billing without excluding the drugs and biologicals needed in conjunction with this treatment is to place a financial burden on SNFs, as their costs far exceed the payment received under the PPS. Additionally, hospital outpatient departments are paid extra for these drugs and biologicals, since many are given a separate ambulatory payment classification (APC). In essence, these drugs and biologicals are unbundled for hospitals, but bundled for SNFs. These drugs are administered by injection: intravenously, intramuscularly or subcutaneously.

Given CMS' positions on the limitations of its statutory authority, legislation will be needed to provide coverage for excluding antineoplastic antiemetics and supportive medications and to provide the Secretary with full flexibility to determine exclusions in these areas without any statutory code constraints. We ask that CMS support SNFs in our efforts to achieve legislation.

### **B. Hyperbaric Oxygen Therapy**

CMS should remove the following HCPCS code for hyperbaric oxygen therapy from the list of non-excluded outpatient surgery and related procedures.<sup>26</sup> It meets the criteria of being an intensive invasive procedure that is specific to the hospital setting” and under

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<sup>25</sup> The amendments made by the section shall apply to payments made for items furnished on or after April 1, 2000.

<sup>26</sup> CMS should remove the following HCPCS code for hyperbaric oxygen therapy from the list of non-excluded outpatient surgery and related procedures in CMS Manual System, Pub. 100-04, Medicare Claims Processing, Transmittal 360, November 5, 2004, Major Category I, F., Outpatient Surgery and Related Procedures.

commonly accepted standards of medical practice lie exclusively within the purview of hospitals rather than SNFs. (63 Federal Register 26298).

<b>HCPCS</b>	<b>Descriptor</b>	<b>Pricing**</b>	<b>Comments</b>
99183	Hyperbaric Oxygen therapy	\$10,000-\$40,000	This procedure meets the criteria of beyond the scope of SNF care, and within the purview of the hospital setting

\*CMS indicates that inclusions, rather than exclusions, are provided regarding outpatient surgery and related procedures because of the great number of surgery procedures that are excluded and can only be safely performed in a hospital operating room setting.

\*\* Pricing is based on actual invoices from hospitals for hyperbaric oxygen therapy.

Section 4432(b) of the Balanced Budget Act of 1997 (BBA), Pub. L. 106-113, established a consolidated billing requirement that places with the SNF the Medicare billing responsibility for virtually all of the services that the SNF’s residents receive, except for a small number of services that the statute specifically identifies as being excluded from this provision. CMS early on recognized that some services that patients could receive while in a SNF Part A stay were outside the scope of SNF services.

These were, according to CMS, “intensive diagnostic or invasive procedures that are specific to the hospital setting.” (63 Federal Register 26298). CMS determined that these services, “under commonly accepted standards of medical practice lie exclusively within the purview of hospitals rather than SNFs, and thus were “not subject to consolidated billing.” (Id.)

Over time, under this standard, CMS has excluded magnetic resonance imaging (MRI), computerized tomography (CT) scans, ambulatory surgery involving the use of an operating room, cardiac catheterization, hospital outpatient radiation therapy, hospital outpatient angiography, and certain lymphatic and venous procedures. However, in order to be excluded from PPS, the services must be provided in a hospital.

Hyperbaric Oxygen (HBO) is a medical treatment in which the patient is entirely enclosed in a pressure chamber breathing 100% oxygen at greater than one atmosphere pressure. It is an intensive invasive procedure that is specific to the hospital setting and under commonly accepted standards of medical practice lie exclusively within the purview of hospitals rather than SNFs. Indeed HBO is generally available in university hospital settings since such hospitals have a tertiary patient population referrals base for this specialized treatment university hospital settings. The procedure without question meets the criteria of beyond the scope of SNF care.

It should be noted that the treatment can cost over \$1,500, and treatments can be provided on a daily basis over a number of days. Recently, a provider reported a hospital charge of \$11,900 for a daily treatment (at \$1700 per treatment) for over 7 days. To the best of our knowledge, given the fact that this procedure was not historically performed by SNFs, the cost of these procedure, like the cost of MRIs and CT scans is not in the SNF PPS base.

HBO does the following:

- Increases the concentration of dissolved oxygen in the blood, which enhances perfusion;
- Stimulates the formation of a collagen matrix so that new blood vessels may develop;
- Replaces inert gas in the bloodstream with oxygen, which is then metabolized by the body; and
- Works as a bactericide.

This modality is used primarily to treat decompression illness, carbon monoxide poisoning, and gas gangrene. HBO is also considered acceptable in treating acute vascular compromise and as adjuvant therapy in the management of disorders that are refractory to standard medical and surgical care. The following are the wound care modalities covered:

- Preparation and preservation of compromised skin grafts (not for primary management of wounds – excludes artificial skin graft). Preservation of compromised skin grafts utilizes HBO therapy for graft or flap salvage in cases where hypoxia or decreased perfusion has compromised viability. HBO therapy enhances flap survival. Should a graft or flap fail, HBO therapy may be used to prepare the already-compromised recipient site for a new graft or flap. HBO therapy is not covered for the initial preparation of a skin graft site and is not considered medically-necessary for the preservation of normal, uncompromised skin grafts or flaps;
- Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management. Chronic refractory osteomyelitis is an infection in bone that persists or recurs, following appropriate interventions. Such interventions include the use of antibiotics, aspiration of abscess, immobilization of the affected extremity, and surgery. Medicare Part A can cover the use of HBO for chronic refractory osteomyelitis that has been demonstrated to be unresponsive to conventional medical and surgical management;
- Treatment of osteoradionecrosis and soft tissue radionecrosis. HBO is one part of an overall plan of care, along with debridement or resection of nonviable tissues, in conjunction with antibiotic therapy;
- Treatment of soft tissue radionecrosis as an adjunct to conventional treatment; and
- Diabetic wound of the lower extremities in patients who meet the following three indications:

- Patient has type I or type II diabetes and has a lower extremity wound that is due to diabetes;
- Patient has a wound classified as Wagner grade III or higher; and
- Patient has failed an adequate course of standard wound care.

The use of HBO therapy is covered as an adjunctive therapy only after there are no measurable signs of healing for at least 30 days of treatment with standard wound therapy and must be used in addition to standard wound care.

HBO is generally available in university hospital settings since such hospitals have a tertiary patient population referrals base for this specialized treatment. Residents can be treated in the SNF setting for their wound therapy and receive HBO as adjunctive therapy, as indicated above.

It is clear that excluding hyperbaric oxygen therapy is squarely within the confines of CMS' current interpretation of its regulatory authority to exclude items and services from the SNF Part A bundle that are beyond the scope of a SNF and within the scope of a hospital.

### **C. Site of Service Consolidated Billing Rule**

As indicated above, CMS has excluded magnetic resonance imaging (MRI), computerized tomography (CT) scans, ambulatory surgery involving the use of an operating room, cardiac catheterization, hospital outpatient radiation therapy, hospital outpatient angiography, and certain lymphatic and venous procedures. However, in order to be excluded from PPS, the services must be provided in a hospital. If they are provided in a freestanding clinic, such as a radiation therapy clinic, they are not excluded.

In 1998, the advent of PPS, CMS was reflecting then current medical practice in its development of the regulatory PPS exclusions. However, medical practice has changed, and the services in question are no longer exclusively within the purview of hospitals. Radiation therapy is now commonly provided in freestanding radiation therapy clinics, and MRIs are available from freestanding entities. Our understanding is that freestanding ambulatory surgery clinics have also been growing.

AHCA has consistently requested that CMS examine current medical practice and modify its policy of permitting certain services to be excluded only if provided in a hospital but not if provided suitably and appropriately in sites other than hospitals, chiefly freestanding clinics. This policy change should be considered, at a minimum, for ambulatory surgery, MRIs, and radiation therapy services.

CMS created its exclusion policy based on two factors:

- That these services(magnetic resonance imaging (MRI), computerized tomography (CT) scans, ambulatory surgery involving the use of an operating room, cardiac catheterization, hospital outpatient radiation therapy, hospital outpatient angiography, and certain lymphatic and venous procedures) that patients could receive while in a SNF Part A stay were outside the scope of SNF services; and
- That at the time of implementation of the PPS, these were “intensive diagnostic or invasive procedures that [were] specific to the hospital setting.” (63 Federal Register 26298).

We fully understand that this is a two-pronged test. With regard to the second prong, in the final rule for FY 2006, CMS indicated that the exclusion of certain outpatient hospital services ... is targeted specifically at those services...that, under commonly accepted standards of medical practice, lie *exclusively* within the purview of hospitals... that is, services which generally require the intensity of the hospital setting in order to be furnished safely and effectively.” (70 Federal Register 45026 at 45049).

However, the second prong is in many cases no longer feasible. Certain of these intensive diagnostic or invasive procedures “under the commonly accepted standards of medical practice” are no longer specific to the hospital setting because of changes in medical practice and technology. Ambulatory surgery, MRIs and radiation therapy services are now being furnished safely and effectively in freestanding clinics. If this is not the case, why is Medicare paying for these freestanding facility services?

It does not follow, however, that if the services are now within the scope of freestanding facilities, that they are within the scope of SNF services. To our knowledge all these exclusions remain beyond the scope of SNF comprehensive care plans. We know of no evolution of SNF care that has enabled SNFs to perform these services. And yet, CMS suggests that if medical technology has improved to the point of performing these services in a less intensive setting such as freestanding facilities, the logical conclusion would be to cease exclusion and consider these all SNF services. CMS’ exact language is as follows:

Thus, to the extent that advances in medical practice over time may make it feasible to perform such a service more widely in a less intensive, nonhospital setting, this would not argue in favor of excluding the nonhospital performance of the service from consolidated billing under these regulations, but rather, would call into question whether the service should continue to be excluded from consolidated billing at all, even when performed in the hospital setting. Id.

This statement in effect says that while such services are beyond the scope of SNF comprehensive care plans and should be excluded from consolidated billing, since they are now within the scope of freestanding facilities they should be included in SNF

consolidated billing -- regardless of the fact that they are not within the scope of SNF care.

In addition, the rule as it now stands has other unintended consequences. Some SNFs continue to have a problem with MRIs and CT scans performed in acute care hospital outpatient departments under contract with independent MRI/CT scan companies. Even though these tests are in the acute hospital outpatient department and would appear to be an excludable item under Medicare PPS consolidated billing, the fact that the services are not being billed by the hospital has caused Medicare Part B to reject the claims as submitted by the contractor, rendering the services bundled back to the SNF.

CMS supports this result relying on the criteria for valid arrangements for services provided to beneficiaries. For the hospital's "arrangement" with the other entity to be a valid one, the hospital cannot act merely as a billing conduit, but must actually exercise professional responsibility and control over the arranged-for service. Therefore, in a situation where the other, non-hospital entity assumes the Medicare billing role, a valid arrangement between the hospital and that entity would no longer exist, so that the hospital effectively relinquishes its professional responsibility and control over the service to the other entity. In such circumstances, exclusion is precluded, and the SNF is responsible for payment.<sup>27</sup>

We understand CMS' position on valid arrangements. However, we feel that the growing denials based on the lack of a "valid arrangement" underscores the basic flaw that has developed in CMS' insistence on the role of the hospital in exclusion – CMS' refusal to acknowledge medical transformation.

When medical technology marches on, payer coverage sooner or later tries to accommodate. Old less efficacious drugs are replaced by newer more efficacious drugs; old CT technology is replaced by new CT scans. And now, we are learning how crucial comparative effectiveness research<sup>28</sup> is becoming in our search for what works best and

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<sup>27</sup> ... [t]his underlying concept of service intensity also affects the manner in which a hospital can involve another entity in the actual performance of an excluded outpatient hospital service. Sections 1832(a)(2)(B) and 1861(s)(2)(C) of the Act authorize a hospital to furnish outpatient diagnostic procedures under arrangements with another entity; moreover, MRIs or CT scans that are furnished in this manner are excluded from SNF consolidated billing, and would be separately billable *by the hospital* under Part B. However, in order for the hospital's "arrangement" with the other entity to be a valid one, the hospital cannot act merely as a billing conduit, but must actually exercise professional responsibility and control over the arranged-for service, as specified in the guidelines on arrangements that appear in the CMS Internet-Only Manual, Pub. 100–1, Chapter 5, section 10.3, available online at <http://www.cms.hhs.gov/Manuals/IOM/list.asp>. Therefore, in a situation where the other, non-hospital entity assumes the Medicare billing role, a valid arrangement between the hospital and that entity would no longer exist, so that the hospital effectively relinquishes its professional responsibility and control over the service to the other entity. In this situation, because the service is no longer being furnished by the hospital itself—either directly, or under a valid arrangement with another entity—it would not qualify for the administrative exclusion from consolidated billing as a high-intensity outpatient *hospital* service, and the billing responsibility for the service would remain with the SNF.

<sup>28</sup> *What Work in Health Care? What Doesn't?* The Commonwealth Fund, June 18, 2009.

<http://www.commonwealthfund.org/Content/Newsletters/Purchasing-High-Performance/2009/June-18-2009/Feature-Articles/>

what can truly help in health care reform.<sup>29</sup> While not precisely related to the comparative effectiveness of health care strategies, insisting on service delivery in what might be an outmoded environment for such services runs entirely counter to the spirit of progress, best practices, and health care reform. In this new health reform environment, threatening the loss of SNF PPS exclusions because freestanding facilities can perform MRIs, CT scans, ambulatory surgery and radiation therapy services is unproductive -- and very difficult to understand.

AHCA asks that CMS within the next year mount an effort to revisit its consolidated billing policy regarding the role of the hospital. We ask that the agency to determine if freestanding facilities can perform the services in question as safely and effectively as hospitals. If the answer is yes, we ask that the agency consider a single prong SNF PPS exclusion test and that is whether or not the service is within the scope of the SNF. If it is not, then the SNF should be permitted to choose any entity – any hospital or freestanding facility - for whom Medicare is a payor without risking the loss of the Part A SNF exclusion. We would like to work with CMS on this effort and provide whatever information that might be helpful to CMS.

#### **D. Ambulance Services**

AHCA asks for CMS' support for the exclusion of ambulance services from consolidated billing under the SNF PPS. Ambulance services are fundamentally a Part B service and should be billed by Part B ambulance providers. This overall exclusion will remove consolidated billing as a source of confusion and error and thus contribute to greater focus on SNF and ambulance provider compliance with fundamental Medicare Part B ambulance coverage rules. We believe that the bulk of ambulance trips for SNF Medicare Part A beneficiaries are excluded from consolidated billing. However, those remaining cause incorrect billing and administrative waste for carriers, fiscal intermediaries, ambulance providers, and SNFs.

SNFs have to be alert to the general Medicare ambulance rules in order to assure that use of an ambulance for transport is covered under the federal regulations and meets the test for emergency and non-emergency trips. However, there is the added set of arcane and complex rules that determine whether an ambulance trip can be billed to Medicare under Part B by the ambulance service provider or whether payment for the trip must be made to the ambulance provider by the SNF under SNF consolidated billing rules.

There are various sources of exclusion in both regulation and statute. In most cases, exclusion depends on whether the individual being transported is considered by CMS to be a SNF “resident” at the time of transport. If the individual is not considered to be a SNF “resident” then the ambulance trip is excluded from the SNF PPS and the ambulance

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<sup>29</sup> Congressman Kurt Schrader (OR-5) -- along with 10 House New Democratic colleagues -- have introduced the 'Comparative Effectiveness Research (CER) Act.' The legislation creates a independent, non-governmental, non-profit corporation for Comparative Effectiveness Research (CER) The Institute is funded by private and public funds. The purpose of the Institute is to improve the quality of health care delivered in the U.S. by advancing the quality of evidence concerning how health conditions can best be prevented, diagnosed, treated, and managed.

provider can bill Medicare directly under Part B. Determination of whether or not a SNF is a resident for the purposes of ambulance billing can be extremely complicated, and it is easy to err.

We applaud CMS' efforts to clarify the governing rules and provide very reasonable exclusion within their authority. However, we believe that a thorny and unnecessarily arcane aspect of Medicare should be simplified at what we believe would be little cost to the Medicare program. We ask for CMS' support in this effort.

### **E. Expanded Statutory Authority for the Secretary of HHS**

AHCA is cognizant of CMS' interpretation of the limits of its authority regarding consolidated billing and, as CMS is aware, AHCA worked with lawmakers in the 110<sup>th</sup> Congress to have legislation, *The Long Term Care Quality And Modernization Act*, introduced to broaden CMS' authority.<sup>30</sup> The legislation would have required CMS to update the consolidated billing rules periodically to:

- Take into account the changing practice of medicine and clarify that Medicare may provide PPS-excluded services (such as MRI and radiation therapy) to SNF patients in freestanding clinics;
- Provide the Secretary with the authority to exclude high cost and low probability drugs that are used in the treatment of cancer, including antineoplastic antiemetics and supportive medications; remove the coding ranges currently in statute and provide the Secretary with full flexibility to determine exclusions in these areas without any statutory code constraints; and
- Exclude ambulance services from consolidated billing under the SNF PPS.

AHCA will introduce this legislation again and hopes that CMS will support us in our efforts.

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<sup>30</sup> See H.R. 4082 – Introduced by Representatives Earl Pomeroy (D-ND), Shelley Moore Capito (R-WV) and Tom Allen (D-ME), and S. 1980 – Introduced by Senators Gordon Smith (R-OR), Blanche Lincoln (D-AR) and Susan Collins (R-ME).

## **VII. Quality Monitoring of Swing-Bed Hospitals**

### ***AHCA Recommendation On Swing-Bed Hospitals:***

- *CMS should expand swing-bed MDS reporting requirements to apply the quality monitoring mechanism in place for all other SNF PPS facilities to rural swing-bed hospitals.*

CMS is soliciting comments on expanding swing-bed MDS reporting requirements to apply the quality monitoring mechanism in place for all other SNF PPS facilities to rural swing-bed hospitals. CMS explains that the limited use of the MDS for quality monitoring was established because CMS believed that swing-bed units, as parts of rural hospitals, were already subject to the hospital quality review process. Thus, in the FY 2002 final rule, (65 Federal Register 39590) CMS decided that it would not “require swing-bed facilities to perform the care planning and quality monitoring components included in the full MDS...” at that time. At the same time, CMS explained its intention of including an analysis of swing-bed requirements in its comprehensive reevaluation of all post acute data needs, and in the design of any future assessment and data collection tools.

However, CMS is now considering a change in the swing bed MDS (SB–MDS) reporting requirements that would go into effect with the introduction of the MDS 3.0. Since the current SB–MDS does not include the items needed to evaluate quality in the same way as for other nursing facilities, it is proposing to eliminate the SB–MDS, and replace it with the MDS 3.0 equivalent of the Medicare Payment Assessment Form (MPAF) that captures all of the items used in determining quality measures. It provides the following reasons:

- The current SB–MDS does not include the items needed to evaluate quality in the same way as for other nursing facilities;
- Since its original decision regarding the MDS and swing beds, CMS has expanded its quality analysis in a variety of settings, and has made SNF information publicly available through Nursing Home Compare and other initiatives; and
- While developing ways to monitor and compare quality across swing-bed facilities and between swing-bed facilities and other SNFs would increase swing-bed facility data requirements, it would also increase the information available to patients, families, and oversight agencies for making placement decisions and evaluating the quality of care furnished by swing-bed facilities.

We agree with CMS. As planning for health care reform proceeds, it is clear that we are progressing to an era of far more integration and coordination of health care services. Indeed, integrated systems like the Geisinger Health System are being held up as models

for health care reform. The concept of bundling services will more than likely be tested in a variety of forms with a focus on bundling physician, acute care hospital, and post acute care services.

Underlying this progression is the necessity of being able to compare outcomes and costs. To this end, Congress mandated and CMS developed a post-acute care (PAC) payment reform demonstration (PRD) the purpose of which is to understand costs and outcomes across different post-acute care sites.<sup>31</sup> As part of the demonstration, CMS developed an assessment tool, the CARE tool, a discharge and treatment instrument that contains assessment elements that can be shared across several care settings, that aims to improve care transitions, and that may even allow stakeholders to evaluate beneficiary care outcomes and cost comparisons.

We note that a similar CARE tool concept is an integral part of AHCA's post-acute reform plan. AHCA's proposal for a new payment system would base payments on each beneficiary's condition and service needs and not on the service setting; service needs would be determined using a new patient assessment tool that accounts for a range of factors, including acuity of needs, resource use, diagnoses, comorbidities, and age.

It is clear that now is not the time to exclude any entities from relevant quality measurement. Rather it is the time to make all modifications possible to further the capacity to compare outcomes and costs and to promote the delivery of the highest possible quality services. These are the first steps to a more streamlined, effective, efficient, and integrated post-acute universe.

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<sup>31</sup> Section 5008 of the DRA.

## **VIII. MDS Elements, Common Definitions, and Resident Assessment Protocols (RAPs) Used Under MDS**

### **A. MDS 3.0 Set Draft Version 0.26**

#### ***AHCA Recommendations on MDS 3.0 Set Draft Version 0.26:***

- *CMS should complete the tool manual and obtain manual feedback from clinicians. Manual feedback is needed to better evaluate our specific comments on MDS 3.0 and proposed care planning changes;*
- *CMS should simplify the MDS 3.0 manual, make it intuitive and make it a component of the RAVEN system so that coding updates with alerts are immediately available to clinicians during MDS completion;*
- *CMS needs to work with providers in setting-up a more timely and responsive MDS-use evaluation and troubleshooting process to capture issues associated with the additional OMRA and End of Medicare assessments and within a shortened submission timeframe and the impact of coding changes on reliability, accuracy and validity. CMS should also study the impact on clinical workforce satisfaction and retention from requiring professional staff to complete additional assessment specifically for non-clinical purposes;*
- *CMS should monitor the time needed to complete MDS 3.0 and if the time burden on clinicians is found to be more than the time reported with the testing of MDS 3.0, work to implement immediate corrections;*
- *CMS should work jointly with provider groups, surveyor and other stakeholders in planning, organizing and conducting MDS 3.0 training. We strongly recommend that surveyors and providers receive training together to ensure consistency in direction;*
- *CMS should continue to work with the case-mix states to better integrate federal and state systems so that complexity and excessive provider burden are eliminated; and*
- *CMS should retain restorative nursing therapy in the RUGs IV model and work with provider groups and state audit contractors to streamline and set parameters for required documentation that is needed to justify the provision of restorative therapy;*

## **1. General Comment**

The Omnibus Budget Reconciliation Act (OBRA) of 1987 intended to achieve a comprehensive and accurate assessment that increases the clinical relevance, accuracy and efficiency of assessments. Over the last several years, AHCA has identified the need to update the MDS 2.0; in 2002 in comments requested by the Secretary of Health and Human Services (HHS) on Regulatory Reform and directly to CMS, via meetings and letters, in 2003, 2004 and 2005. We cited problems with the tool's ability to achieve the OBRA intent to produce accurate assessments. In 2008, AHCA reported to CMS the dysfunction conditions of the MDS-driven care planning process (RAPs).

While we appreciate CMS effort to update the MDS to version 3.0, and were pleased to see the changes in the January 2008 draft of MDS 3, we believe the MDS 3.0 Item Set Draft Version 0.26 contains changes that have resulted in a number of untested data elements and with no significant care planning changes that will improve the care planning process. In addition, we have heard from clinicians, participating in tool pilot testing, that testing direction changes occurred that may have impacted tool reliability, accuracy and validity and underestimated the tool time burden on clinicians.

The MDS has evolved to serve many masters and has become mostly a descriptive database. Clinicians have identified and reported to CMS that the MDS has significant drawbacks in being used to make clinical decisions since the tool captures minimal medication information and offers little support for verifying and validating that information. MDS does not show sequence and chronology between events and does little in determining the link between symptom causes, consequences and complications.

In fact, in a May 2003 study, *Toward A National Health Information Infrastructure: A key Strategy for Improving Quality in Long-Term Care*, prepared for the Office of the Assistant Secretary of Planning and Evaluation (ASPE), the report describes the MDS as “an enumerated coding scheme that was designed to meet predefined needs for clinical data and information.” This report also concluded that the MDS provides very limited coverage of terms suggested by experts as needed to understand nursing home quality in selected domains like pain and incontinence.

While we appreciate CMS' efforts to improve the MDS, we are concerned that the current version recommended for use will yield limited improvements. Even though MDS 3.0 contains resident interviews, clinicians believe this change is not enough to consider the tool for clinical assessment purposes. In fact, there are few items that cannot be collected directly from the medical record. One could legitimately argue that having accurate responses to almost all the MDS items does not require the assessment skills of a professional but those from an individual trained in medical record review. In essence, the MDS 3.0 version 0.26 continues to be a manual driven assessment process requiring several hundred pages of directions to complete what should be a clinically-driven assessment.

It is difficult to evaluate the effectiveness of the recommended assessment tool when the RAI Manual containing assessment schedules, coding direction and discussion, definitions, payment algorithms, care planning direction, etc is not available. Our understanding of the potential meaning of data elements, common definition and reimbursement system is based on the guidelines developed for MDS 2.0, which provides no interpretive assistance when evaluating new data elements like A0310 A (20) Entry Transaction or interpreting confusing coding direction at D0200 Resident Mood Interview and D0500 Staff Assessment or Resident Mood.

To accurately comment on the proposed MDS 3.0, the resource supporting coding decisions need to be evaluated as well. Without the additional explanatory material, our comments will be influenced by our experience with the current tool, experience with pilot testing a draft MDS 3 that has changed significantly from the now proposed draft, and our perception of CMS' intended policy direction. We strongly urge CMS to complete the tool manual and obtain manual feedback from clinicians. Manual feedback is needed to better evaluate our specific comments on MDS 3.0 and proposed care planning changes.

## **2. Specific Issues With The Current Version Of The MDS And RAI Manual**

### **a. Complexity of the RAI Manual**

Complex definitions for some items do not allow bedside clinicians to code accurately despite manual instructions to the contrary. The RAI manual is cumbersome and is not designed to be use at the bedside. Facilities spend inordinate energy to devise and use complex and ineffective data-gathering flow-sheets to back-up actual coding. The RAI Manual asserts that the MDS is not meant to be an extra or onerous burden but clinicians disagree. We are concerned that the basic issues of coding complexity coupled with using a cumbersome manual will only continue to foster inefficiencies and coding error.

The original MDS 3.0 (January 2008) tested and piloted has undergone changes bringing into question the validity and reliability of data elements. MDS 3 pilot testing used a 5 day look-back. However, the general timeframes are now the past 7 days. For example, Section M of MDS 0.26 will ask for the number of venous and arterial ulcers and other ulcers, wounds and skin problems using a 7-day look-back. The current MDS version lengthens the look-back by 2-days and increases the time for wound reporting. We need to explore the impact of the extended look-back on quality measurement, reliability and validity.

### **b. OMRA**

The addition of the End of Medicare Coverage (EMCA) and OMRA assessment for therapy adds additional assessments, and these additions will pose a hardship on facilities, particularly those with high Medicare utilization and those primarily providing care to short stay residents. Some providers have estimated that the additional assessments will increase the number of Medicare assessments by 34%. For example,

any time a patient has a minor illness and missed more than a few days of rehab due to illness, a discharge OMRA would be required. Five to 7-days later, a rehab readmission OMRA would be due to capture the restart of rehab. In this instance, the proposed OMRA assessment add at least 2 additional assessments, and at the same time and based on payment methodology, would lower the patient to a nursing RUG for 2-days.

The additional assessments would also place an increased burden on facility billing, particularly when submission time frames have been shortened to 14 days. The requirement to transmit within 14 days may also pose a hardship on smaller facilities that are transmitting once per month. In practice, this is burdensome for small facilities where the Director of Nursing (DON) is the only management nurse and additional duties or requirements on time are difficult.

Revisions would require the UB-04 to accommodate the start and stop date of rehab along with new HIPPS codes for billing. This reality disputes what CMS has published in the proposed rule stating “While this proposed rule is considered economically significant, its relative impact on SNFs is small because Medicare is a relatively minor payer source for nursing home care.” We believe that additional assessments are not only burdensome but will now become an unfunded mandate that increases administrative workload while cutting reimbursement. A pilot study evaluating the specific impact on providers from the additional recommended assessment is needed – particularly when professional staff is being asked to complete additional assessment with a shortened reporting time frame just to satisfy reimbursement and other CMS administrative purposes such as quality measurement.

CMS needs to compute the cost to the facility in using professional staff for purposes related to non-clinical functions. While there may be a supposed Medicare savings from the additional OMRA assessments, it will result in a huge cost to the facility and demoralize the professional staff whose attention is being further drawn away from patients and patient care.

The coding of concurrent therapy is already difficult for the assessor to interpret MDS coding rules. Adding one more item to consider will likely increase error rates to a section that already has a potential for errors. ADL calculations do not take into account ADL coding for activity that occurred less than 3 times although the patient may have required total assistance for those 2 occurrences. If the MDS is already going to calculate a therapy and non therapy RUG calculation, then why is it necessary to complete an OMRA after the discontinuance of therapy since CMS will already have access to the non- therapy RUG which could be used to determine the case-mix index (CMI)? CMS needs to work with providers in setting-up a more timely and responsive MDS-use evaluation and troubleshooting process to capture issues associated with the coding changes and impact on reliability, accuracy and validity.

### **c. Time Involved In Completing the MDS**

Completing the MDS 3.0 will involve more time and efforts than the times reported from MDS 3 (January 2008 draft) testing. During time study testing, testers were asked to complete the MDS 2.0 prior to completing the MDS 3.0. As a result, the MDS 3.0 pilot/time studies did not show the time involved gathering chart data. The addition of different assessment types will require extra time to manage the overall assessment process – like completing the more complicated Section G. AHCA recommends that CMS monitor the time needed to complete MDS 3.0 and if the time burden on clinicians is found to be more than reported, work to implement immediate corrections.

### **d. Clinical Issues Regarding STRIVE**

AHCA members participating in the STRIVE project have reported and identified a number of concerns that challenge the reliability, accuracy and validity of pilot results. Participating centers completed 2 assessments; the STRIVE addendum and about 1/3 of the current MDS. Center concerns include the following:

- The STRIVE Addendum for data collection changed 5 times during the data gathering period. The associated instructions for completing the assessment changed at least twice.
- The assessment items gathered for the study were altered at least twice.
- The MDS User's Guide was modified 3 times during the data collection period. The changes were noted in definitions in Section T, Section H3a, and Section P1ac; all RUG-related items.
- Almost half of the items to be used on the MDS 3.0 were not used in the STRIVE data collection process and these items remain untested for implementation.
- The data collection was not conducted in a geographically diverse fashion in that no high volume east or west coast states participated in the study.
- The patients sampled were not stratified to capture 5, 14, 30, etc, day assessments proportionally to the frequency of billing.
- The participating centers did not select the Assessment Reference Date (ARD) for the assessments completed for STRIVE. As a result, the assessment did not represent the patients' greatest burden of care for any given period of time. The assessment was simply a point in time. The ARD date was set for Thursday of the data-gathering week in each center. Centers believe this will have a negative impact on the stratification of patients for the RUGs IV levels.
- The sampling methodology created an imbalance in the types of patients studied. There was limited sampling of the normal high acuity that exists at the time of admission to the center since the 5 and 14-day assessments represent the vast majority of days billed to Medicare. These patients are the most clinically complex.
- The items not tested as components of the STRIVE data collection include Mood and Behavior, Changes in ADL coding, Skin Conditions, Changes in OMRA requirements, and concurrent therapy. All these untested items have been modified for the RUG's IV grouper.

#### **e. Resident Interviews**

Additional staff training will be needed to better prepare staff in conducting resident interviews. For example, Section D (Mood), interview question D0200 – “Thoughts that you would be better off dead” or “thoughts of hurting yourself in some way,” RAND reported nurses were not comfortable in asking residents these sensitive questions which leaves doubt about the validity of MDS responses overtime and those not associated with pilot testing. Open-ended questions can also be left to the interpretation of patients, the Ombudsman, or surveyors to define.

For example the data element in Section F - Preference for Customary Routine, and Activities - F0400, the assessment option of “Important, but can’t do or no choice” is unclear. What is implied by “no choice?” Coding options (1) “Important,” (2) “Not important,” and (3) “Important, but can’t do or no choice,” do not identify what the patient preference is, whether or not the preference has been stated, and whether a stated preference is or is not met. More importantly, response 3 does not differentiate between perceived or actual lack of ability or choice. AHCA recommends that CMS work jointly with provider groups, surveyor and other stakeholders in planning, organizing and conducting MDS 3.0 training. We strongly recommend that surveyors and providers receive training together to ensure consistency in direction.

#### **f. Interaction With The States**

The proposed changes will have MDS assessments sent directly to CMS and no longer sent to the states. Several states have developed their own payment system based on MDS data. Considering the proposed change, who will be responsible for making sure that states timely receive the needed information – CMS or the provider? Will CMS also be responsible for purging records that both the state and federal government do not have the right to receive without permission from the patient? AHCA would support the centralization of the data gathering as long as it does not create an administrative burden for providers to also submit data to Medicaid case-mix states.

While we understand that CMS intends that the MDS is a stand-alone data collection tool, more than 20 states with case-mix type reimbursement will continue to create additional administrative burden in required provider documentation to support the MDS related to state Medicaid. Some states have documentation requirements that exceed 50-pages to support the MDS. Failure to meet these strict documentation requirements (like in Indiana, Kentucky and North Carolina) results in a re-RUG of the MDS and financial fines. AHCA recommends that CMS continue to work with the case-mix states to better integrate federal and state systems so that complexity and excessive provider burden are eliminated.

### **g. Restorative Nursing**

The STRIVE analysis raises concern over the discrepancy between reported nursing therapy services and nursing minutes. Clinicians report that unlike physical, occupational, and speech and hearing therapy, it is difficult to collect nursing therapy minutes since smaller increments of therapy time are provided throughout the day (not during one specific scheduled time) and by various direct care workers. Due to the administrative paperwork burden in collecting daily times from staff and the level of paperwork needed to substantiate services, particularly in case-mix states, many nursing centers may not be capturing restorative nursing on the MDS.

For some providers, the time needed to collect and justify the provision of restorative nursing outweighs the reimbursement potential. Clinicians believe restorative services are beneficial to patients and because of data collection, paperwork burden, and reimbursement justification challenges, it is not being coded but is being provided at a greater rate than indicated on the STRIVE study. AHCA recommends that CMS retain nursing therapy in the RUGs IV model and work with provider groups and state audit contractors to streamline and set parameters for required documentation that is needed to justify the provision of restorative therapy.

### **h. Specific Comments on MDS 3.0 Data Elements**

For specific comments on the MDS 3.0 Data Elements please see Appendix B.

## **B. Care Planning**

### ***AHCA Recommendations on Care Planning:***

- *CMS should form a Technical Expert Panel, including nursing educators, long term care nurses, providers and surveyors to identify best practices for care planning and develop strategies to improve the current process;*
- *CMS should re-evaluate RAI Manual direction for care planning and work with nursing educators and long term care nurses to ensure direction is clearly articulated and consistent with all the steps of the nursing process; and*
- *CMS should consider changing the acronym CAT since it is used widely to mean Computer Adaptive Test.*

In June 2008, AHCA released a report with recommendations to CMS identifying issues with the Resident Assessment Protocols (RAPs) and the RAI, care planning process (See Appendix C). The report was based on a provider survey that showed similar findings as those found by the Agency for Health Research and Quality (AHRQ) in an October 2004 survey on the RAI, care planning process. Both surveys found that RAPs are poorly understood and utilized by clinicians. Based on our survey findings, AHCA recommended to CMS the following:

1. Do not update RAP Utilization Guidelines and RAP Summary for MDS 3.0.
2. Go ‘back to the basics’ for care planning, a process supported by OBRA regulation, that is, encourages the use of the interdisciplinary care planning process.
3. Consider retaining and revising the RAP Trigger Legend for the purpose of clinical resource only and renaming it “Triggers for Analysis and Planning.” (TAPS)
4. To help clinicians make decisions about care planning and for support of clinical approaches, steer the interdisciplinary team toward using current, evidence-based clinical practice resources like the American Medical Directors Association (AMDA) Clinical Practice Guidelines (CPGs), resources found on [medqic.org](http://medqic.org) , [www.nhqualitycampaign.org](http://www.nhqualitycampaign.org), and other recognized professional resources.

AHCA appreciates CMS’ effort to improve care planning by eliminating the requirement for RAPs, allowing clinicians to use other evidence-based clinical practice resources to support care plans, and to retain the MDS triggers that CMS is now referring to as Care Area Triggers (CATs).

However, we are disappointed that CMS did not consider our concerns related to fundamental issues with the care planning process. As a result, the CMS CAT change falls short in bringing care planning back to the interdisciplinary team, in making the process more dynamic to respond to changing resident needs, in making the process less burdensome to clinicians, and in refining the survey oversight of care planning.

Numerous articles have been written about care planning in nursing homes; the issues and limitations with the current process. While, researches acknowledge the potential of standardized, computerized care plans, they identify there are problem with translating the care plan into daily practice. In a 2008 study by Adams-Wendling, L., Piamjariyakul, U., Bott, M., and Taunton, R.L., published in the Journal of Gerontological Nursing, Vol. 34, NO. 8 titled *Strategies for Translating the Resident Care Plan into Daily Practice* researchers found that issues with the current care plans included:

- Length of the care plan, 18 to 20 pages, makes it difficult and inefficient for caregivers, especially CNAs to find the essentials of care.
- The listing of routine assessments parameters or describing fundamental elements of nursing practice in the care plan rather than in facility policy and procedure or job descriptions adds to the length and ineffectiveness of the written plan.
- Redundancy in plan interventions relevant to multiple problems like the repetitive direction to observing sign of hyper and hypoglycemia for three different problems like diabetes, nutrition and falls.
- Variability in the language used for care plan problems.

- Fragmentation in location of daily care documents.

Unfortunately, the researchers found that the automation of resident care plans only increases the length of the care plan without empirical evidence to support improvement in resident outcomes.

Many of the issues found by the researchers are influenced by regulatory oversight that focuses on a care planning associated with information derived from MDS assessments. Surveyors look at care plan triggers to determine if centers included information related to the trigger in care plans and if not, why. As a result, staff involved with care plan development spend a great deal of time developing plans (for a specific assessment that most likely will need to be immediately revised) and documenting the rationale for omissions just to satisfy survey and avoid citation rather than spending more time in finding ways to communicate the essential information to those who need it. The March 2009 Online Survey, Certification, and Reporting system (OSCAR) shows that care planning deficiencies are common. In fact, 22.4% of surveyed facilities were found deficient in having a comprehensive care plan with objectives and timetables.

This finding is consistent with several previous studies since 2000, looking at and using data from OSCAR survey citations for nursing center care plans. Obviously, our current system of care planning, reinforced by oversight, has done little in achieving results and improvements since care plan issues remain problematic. AHCA recommends that CMS pull together a Technical Expert Panel, including nursing educators, long term care nurses, providers and surveyors to identify best practices for care planning and develop strategies to improve the current process.

To get a better sense of what nurses' struggle with in developing care plans that will satisfy regulators, one only needs to look at the various MDS list serves. In many centers and due to the amount of needed work and allocation of resources, the MDS coordinators' role has evolved to having sole ownership of the care plans. In these centers, staff nurses no longer are considered responsible for care plans even though nurses are taught to update care plans whenever they note new orders. Some nurses have commented that each triggered items needs its' own care plan like for "nine or more medications" – a condition needing to be considered in all triggered areas, not independently.

AHCA believes that current care planning issues stem from having a mandated process that is imbedded in regulation. The OBRA care planning intent, interpreted by surveyor guidance, unfortunately shifted the focus from optimizing the use of the interdisciplinary team to completing tools with documentation associated with the RAI process. Facility desire to avoid survey scrutiny, challenge and possible citation has unintentionally reinforced compliance with the prevailing approach rather than using clinical problem-solving and interdisciplinary team approaches.

As identified in the AHCA June 2008 Care Planning survey report, the RAI manual terminology and descriptors may be contributing to the issues with care planning. The

RAI manual fails to sufficiently integrate nursing process into the RAI process. The frequent use of descriptors like “organizing”, “examining”, and “assessment” has led many clinicians to believe that the RAPs are an extension of the assessment process. As a result, clinicians may overlook the important “diagnosis” or “decision-making” step in the process. AHCA recommends that CMS re-evaluate RAI Manual direction for care planning and work with nursing educators and long term care nurses to ensure RAI and CAT direction are clearly articulated and consistent with all the steps of the nursing process.

In addition, AHCA recommends that CMS not use the acronym CAT. CAT also means Computer Adaptive Test and is an acronym widely used outside of healthcare. Computer Adaptive Testing (CAT) is currently being considered in correlation with the CARE tool development and testing.

### **C. Resident Assessment Protocols (RAPs) Used Under the MDS**

#### ***AHCA Recommendations on RAPs Used Under the MDS:***

- *CMS should not remove the listing of specific MDS domains and common definitions from regulation at 42 CFR 483.315 (e), (1) through (18);*
- *CMS should retain the current MDS domains and common definitions language in §483.315 (e); and*
- *CMS should focus efforts in developing an electronic-based and intuitive assessment manual for the MDS and/or the CARE tool.*

AHCA is concerned about the proposal to remove language identifying MDS domains and common definitions from the regulations at §§ 483.315 (e) (1) through (18) and instead only reference the domain requirements at §483.20 (b) (1) (i) through (xviii) and use the RAI manual for specifics regarding the MDS domains and common definitions. Even though the MDS domains are listed at §483.20, this proposed action would delete all reference to the definitions in the regulations, thus allowing CMS flexibility to make future changes in the common definitions of the MDS domains through manual revision rather than rulemaking. While we understand the need for more timely MDS changes and updates, we oppose CMS removing MDS definitions from §483.315.

We believe the CMS proposal would result in future MDS changes that could impact assessment reliability, consistency, accuracy and validity as well as reimbursement levels. This action, if adopted, would circumvent the need for public notice, comment and rulemaking on future changes, and in doing so, deny the public a meaningful voice in offering credible information challenging proposed changes or in offering official recommendations that may be better than those recommended and result in beneficial improvements.

As identified in the propose rule, Sections 1819 (F) (G) (B) and 1919 (f) (6) (A)-(B) of the Act, as amended by OBRA 1987, require that the Secretary specify an MDS of core elements and common definitions for use by Medicare and Medicaid participating nursing homes in conducting required assessments of their residents. These guidelines consist of instruction for 1) the elements of the MDS must include: 2) using the RAI; and 3) directing facilities to conduct further assessments of any care area triggered by the MDS. Since the MDS provides information related to clinical assessment and care planning and is also used for research, reimbursement, survey, administrative and quality measurement purposes, any recommended changes that effect MDS elements and definitions and assessment parameters need careful scrutiny and provider/public consideration and input before changes are adopted.

It is a concern that CMS believes that by simply updating the RAI Manual, this action will suffice in ensuring that clinicians adopt MDS definition changes. The RAI Manual is lengthy -- basically a paper resource for use in the facility -- and it is not conducive for use during patient assessments. Further, the RAI Manual is plagued by frequent changes and updates that are missed by many clinicians and as a result, are not timely integrated into clinical practices and processes. CMS cannot assume the RAI manual is or will be an adequate means to communicate MDS domain and common definition changes. Indeed, since CMS believed it was important to include both the domains and definitions in the rulemaking process from the outset, there is no basis for removing these items from the notice and comment rulemaking process going forward.

AHCA strongly recommends that CMS reduce the complexity of the MDS and develop a better method to communicate MDS changes and updates. The CARE tool demonstration, if successful, offers an opportunity to simplify the assessment and develop a better and more user-friendly assessment and coding resource. Until then, however, the domains and the definitions must remain in the regulations, and any changes in these aspects of the MDS must go through the public rulemaking process.

#### **D. MDS 3.0 Relationship to Health Information Technology (HIT)**

##### ***AHCA Recommendations on MDS 3.0 Relationship to HIT:***

- *CMS should increase its efforts and involvement in federally mandated initiatives to adopt and implement cost-effective use of information technology in Long Term Care and all other healthcare or provider settings;*
- *CMS should consider present and future health data use and exchange requirements to format/exchange MDS 3.0 data as specified in the "Implementation Guide for CDA Representation of the MDS 3.0 Questionnaire Assessment" (based on CDA release 2) OR most recent approved standard;*
- *CMS should incorporate all CHI, ONC, NIST or ANSI approved standardized terminology/vocabularies in all HIT projects; and*

- *CMS should consider and incorporate all available approved terminology and exchange standards for use in all Health Information Exchange (HIE) or HIT projects. IF CMS is not willing or able to carry out this federally mandated approach for the MDS 3.0, perhaps all efforts should be placed on the CARE tool rather than the MDS 3.0 project.*

## **1. Cost-Effective Use Of Information Technology**

HIT, when successfully implemented, associates closely with improved care quality and reduced overall care cost.

- “Implementation” requires stakeholders to electronically document, store, protect, query, compare, and share/transmit patient information/data.
- “Successful implementation” requires stakeholders to use software (proprietary, “open-source”, or vendor prepared) incorporating the most recent, currently accepted, appropriate, and flexible health information terminology, vocabulary, and exchange standards for each process.
- The “Federal Health IT Strategic Plan (ONC): 2008-2012, June 3, 2008”<sup>32</sup> describes the Office of the National Coordinator’s (ONC) plan to meet our four (4) national goals/objectives. The “Plan” also lists the involvement/initiatives of federal advisory committees and each federal agency or department in these efforts. CMS has identified its initiatives for physician adoption of EHRs, e-prescribing, and ICD 10 implementation.
- CMS should add another initiative to this “Plan” – to identify, and require use of, beginning October 10, 2010:
  - appropriate accepted / endorsed standardized terminology and vocabulary to encode/store MDS data; and
  - appropriate accepted / endorsed standardized document structure to exchange and interpret MDS data.

## **2. Implementation Guide for CDA Representation of the MDS 3.0 Questionnaire Assessment**

- Standardized representation and standardized data exchange structure, at this time, will lessen costs to meet future criteria mandated/required by the LTC EHR-S Functional Profile and expected CCHIT Certification.
- HL7 XML messaging is widely used to communicate / exchange individual data items, such as laboratory results.
- CDA (Clinical Document Architecture) is a formal implementation of XML. Release 2.0 is the ANSI approved standard used to exchange “static” or

<sup>32</sup> [http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS\\_0\\_10741\\_848083\\_0\\_0\\_18/HITStrategicPlan508.pdf](http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_10741_848083_0_0_18/HITStrategicPlan508.pdf)

“snapshot” assessment information or clinical notes. CDA specific implementations are frequently used in health care communications. HL7 Release 3 is available, but not yet ANSI approved.

CCD (Continuity of Care Document) standards are an even more specific implementation of CDA (and therefore of XML) used to communicate health information summaries or assessments. CCD is already the national and certified standard for communicating such summaries or assessments. Specific guidance for supporting electronic transmission of patient assessment questionnaires such as MDS, OASIS as well as non-regulatory assessments, is now available from HL7<sup>®</sup> Patient Assessment Questionnaire framework, and LOINC<sup>®</sup> terminology.

At a technical level, there is no difference between supporting CDA based transmission or XML based information. CDA is XML. Testing platforms already exist for CDA documents, therefore, CMS may realize a lower cost for validating and testing provider transmissions. We believe that the CDA will be the standard employed in “certified” EHR products. Unless assessment information is communicated in a standardized format, it cannot be understood or used by other healthcare providers.

### **3. Incorporation of All CHI, ONC, NIST Or ANSI Approved Standardized Terminology/Vocabularies In All HIT Projects**

- *Storage and Transmission*
  - CDA implementation will produce larger files than a customized CMS XML design. In the scope of things, the impact on storage and transmission capacities will remain reasonable and small compared with other document types (i.e. claims attachments). It is our estimate that total storage and transmission costs will add as little as one penny per MDS.
  
- *CMS SNOMED CT<sup>®</sup> Terminology Concerns*
  - The use of SNOMED CT<sup>®</sup> in patient assessments can provide/link additional, supporting, and implied information between clinical and assessment contexts. SNOMED CT<sup>®</sup> “matches” are identified and provided in addition to LOINC<sup>®</sup> coded assessment questions and responses. As such, CMS will not need to rely on, interpret, or even store SNOMED<sup>®</sup> coding that may accompany standards-based MDS transmissions.
  
  - Several areas of the MDS 3.0 do “exact” match to SNOMED CT<sup>®</sup>. These include diagnoses, certain symptoms, certain direct observations and others. Including SNOMED CT<sup>®</sup> would allow other portions of the EHR to “flow” into the MDS, and vice versa. “Usefully related” matches are not meant to communicate exact information, therefore do not need to be included.

- SNOMED CT<sup>®</sup> “exact” matches are “rare” because the CMS question/answer pairings have multiple combinations of “and/or.” Some responses require A, B, AND C; some responses require A, B, OR C. Not only does this make the responses difficult to express in other standard terminology, it makes the response difficult to understand by those completing or reading the MDS.
- ***CMS LOINC<sup>®</sup> Code Concerns***
  - LOINC<sup>®</sup> encoding occurs as exactly one to one matches with MDS questions and answers. This means that there is no possibility of a difference in pricing and quality results. In fact, standards-based transmissions can be translated back to whatever input format CMS’ internal algorithms expect.
  - At the present time, templates for all federally mandated assessments (and associated LOINC<sup>®</sup> codes) are maintained at the Regenstrief Institute. Additional template registries/repositories will be available in the near future.
  - CMS must include other HIPAA mandated data and security use of standardized IDC 9 and ICD 10 terminology.

## **XI. RUG-IV Implementation Should Be Delayed: National Validation Study & MDS 3.0 Data Needed Before RUG-IV**

### ***AHCA Recommendations on the Implementation of RUG-IV:***

- *In order to address issues with the STRIVE project sampling methodology, the representativeness of the STRIVE data, omission of key SNF resident populations, problems with the STRIVE therapy data and the proposed “fix”, and the impact of these issues on the proposed recategorization of SNF residents, the calculation of the updated nursing and therapy weights, and the impact analysis and budget neutrality adjustments for RUG-IV, CMS should delay the implementation of RUG-IV for two years in order to:*
  - *Undertake an independent national STRIVE validation study using a revised MDS 3.0 resident assessment instrument to obtain representative, reliable, and accurate time study data to update the SNF PPS; and*
  - *Allow for the collection of actual MDS 3.0 data to undertake a detailed impact analysis, and appropriately adjust the SNF PPS so that the transition from RUG-III to RUG-IV is budget neutral;*

### **A. Introduction**

AHCA has grave concerns about the proposed implementation of RUG-IV. The implementation for FY 2011 appears to be premature. AHCA has serious concerns with the STRIVE project sampling methodology, representativeness of the STRIVE data, omission of key SNF resident populations, problems with the STRIVE therapy data and the proposed “fix”, and the impact of these issues on the proposed recategorization of SNF residents, the calculation of the updated nursing and therapy weights, and the impact analysis and budget neutrality adjustments for RUG-IV.

Given issues with MDS 3.0 and our recommendation to pilot test the proposed and substantially revised MDS 3.0 version 0.26 for inter-rater reliability, accuracy and validity, we recommend that CMS delay implementation of RUG-IV until an independent national STRIVE validation study can be undertaken to obtain representative, reliable, and accurate time study data to update the SNF PPS, and to obtain actual MDS 3.0 data to undertake a detailed impact analysis, and appropriately adjust the SNF PPS so that the transition from RUG-III to RUG-IV is budget neutral. AHCA, like CMS, would like to avoid a return to the mass bankruptcies that resulted from the implementation of the SNF PPS in the late 1990s.

## **B. Serious Concerns With The Sampling Methodology And Representativeness Of The STRIVE Data**

### **1. Introduction**

As noted above, AHCA has concerns about the representativeness and accuracy of the updated nursing and therapy weights that were developed for CMS based on data from the Staff Time Resource Intensity Verification (STRIVE) project. AHCA is concerned about issues in the sampling of SNFs and the resulting unrepresentativeness of the STRIVE sample. In reviewing the STRIVE sampling protocol, the Lewin Group has found several problems that may have introduced sampling bias, which contributed to problems associated with the lack of representativeness of the STRIVE sample with the SNF sector. The lack of representativeness of the STRIVE data with the SNF sector overall draws into question the representativeness of the care practices observed and time study data collected by the STRIVE project, which in turn suggests issues with the validity of the nursing and therapy weights derived from the STRIVE time study data, as well as the validity of the recategorization of the residents based the STRIVE data that are the basis for the proposed RUG-IV.

It is critical that CMS do what it takes to get the system right before implementation of RUG-IV and not introduce any unintended consequences. As such, CMS should undertake an independent national validation study to help ensure that the classification of residents is correct and that the nursing and therapy weights that underlie the SNF PPS are right before implementation of RUG-IV. Furthermore, given problems with the time study based approach required to update the SNF PPS, CMS should work with SNF stakeholder groups to develop a new, simpler, more frequently updated, and more representative methodology for updating the relative weights and resident classification categories that are the basis for the SNF PPS.

### **2. Background**

In first implementing the SNF PPS, CMS developed the RUG case-mix classification system, which tied the amount of payment to resident resource use in combination with resident characteristic information. The governing statute had specified that the Secretary was to make adjustments to reflect both a resident classification system that the Secretary establishes to account for the relative resource use of different patient types, as well as resident assessment and other data that the Secretary considered appropriate. Staff time measurement (STM) studies conducted in 1990, 1995, and 1997 provided information on resource use (time spent by staff members on residents) and resident characteristics that enabled CMS not only to establish RUG, but also to create CMIs.

Over the years, AHCA has been active in encouraging CMS to update the time studies to help ensure SNF PPS payment rates more fully reflect current care practices and resource utilization. AHCA has argued that the old staff time measurements are likely outdated given acuity and technological changes in the post-acute care market place, and thereby

the relative nursing and therapy times required for patient care across RUG categories may not fully or accurately reflect resource utilization.

In the fall of 2005, CMS initiated the STRIVE project and retained the Iowa Foundation for Medical Care to update the national staff time measurement study that would provide data and analysis to update the Medicare SNF PPS. Information collected in STRIVE includes the amount of time that staff members spend on resident care and information on residents' physical and clinical status derived from MDS assessment data. Two hundred and five nursing homes from fifteen states and jurisdictions participated in the STRIVE project. CMS has used the STRIVE study data to develop the proposed RUG-IV resident classification system and the nursing and therapy weights that underlie the SNF PPS.

In last year's proposed rule, CMS noted that "calculating CMI, based upon STRIVE data for use within a RUG model constructed over a decade ago would create methodological challenges, and therefore, could only be considered an interim step, as we would have to reexamine the relative weights after changes to the structural model are finalized."<sup>33</sup> AHCA agreed with that assessment. Under the current SNF PPS structure, there is no point in introducing instability into the system by updating the relative weights that underlie the SNF PPS without enacting and more appropriately regrouping residents within the resident classification system.

AHCA would like to commend CMS on opening the STRIVE project up to more scrutiny and making the process that has led to the proposed RUG-IV more transparent. The STRIVE process to date has been remarkably open for public review and comment with a December 2005 open door forum, a series of technical expert panel (TEP) meetings, and the establishment of a technical analytic panel (TAP) to assist the STRIVE project in its analysis. AHCA is represented on the STRIVE TEP by Mary Ousley, and by Peter Gruhn on the STRIVE TAP. Barry Lazarus of HCR Manor Care and Al Dobson of Dobson-DaVanzo were also represented on the STRIVE TEP. As we discuss below, improved transparency unfortunately was not sufficient to proactively identify serious flaws in the sampling and data collection methodology that have put the STRIVE project findings into question.

Based on the proposed rule as well as STRIVE TEP meetings, a number of issues have come to light that are of grave concern to AHCA. In particular these issues include: 1) issues with the sampling protocol that appear to have introduced bias into the time study data, 2) small sample size and other issues that have compromised the representativeness of the STRIVE data and effectively prevent its use in implementing the proposed RUG-IV, 3) problems with the collection of therapy minutes and the proposed imputation methodology for overcoming the issues that put into question the accuracy of the therapy minutes and the validity of the nursing and therapy weights, and 4) the STRIVE data fails to capture staff resource use of very short stay residents. Given these numerous and critical problems with the time study data collected by the STRIVE project that would appear to be serious, CMS should undertake an independent national validation study to

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<sup>33</sup> Insert Reference

help ensure that the classification of residents is correct and that the nursing and therapy weights that underlie the SNF PPS are correct before implementation of RUG-IV.

### **3. STRIVE Project Sampling Design Introduced Sampling Bias**

Based on research conducted by the Lewin Group, AHCA is concerned that the use of voluntary and convenience sampling has led to bias in the STRIVE sample which in turn has put into question the validity of the time study data for recategorizing residents and updating the nursing and therapy weights. As part of their research, the Lewin Group identified a number of issues in the sampling protocol that indicate potential problems for the representativeness of the sample and sampling bias. See Appendix D for the Lewin Group report.

The first issue with the sampling protocol arises out of the selection of 15 states to participate in the STRIVE project. The sampling here was dependent on the voluntary participation of states, which raises the chance of potential bias. In reviewing the states that participated in the study, the sample of states appears to be hardly representative. Obvious omissions include California and Oregon, the entire mid-section of the country, and all of New England, where there is particular reason to suspect that relative resource use and costs may differ significantly from that in the STRIVE states as well as the nation overall. As will be demonstrated further below, the operating characteristics of the facilities in the STRIVE states do not appear to be representative of the characteristics of the facilities in the other states.

The second issue with the sampling protocol arises out of the geographic restrictions that were applied in some states (i.e. Florida, Illinois, Louisiana, and Texas). The geographic restrictions were imposed for travel and budget restrictions and as a condition for state participation with the STRIVE project. In the four states affected, approximately 1,200 facilities out of 5,900 (or about 1 in 5 facilities) were excluded from the sampling frame. The geographic restrictions could introduce bias in two ways: 1) self selection by individuals or data units being investigated within the state and 2) facility differences across geographic regions.

The third issue with the sampling protocol arises out of the selection of facilities based on the number of facilities the data monitors were able to visit. This indicates that the sample size within the state was driven by resource constraints on how many facilities could be visited, which could introduce bias.

The fourth issue with the sampling protocol arises out of the STRIVE projects selection of facilities until enough facilities agreed to participate. As the Lewin Group report notes, “voluntary sampling again plays a role here, (as) the sample is dependent on facility participation.” Bias could be introduced here when such factors as resources or staff availability could influence the decision of a facility to agree or not agree to participate.

A fifth issue is related to subsampling within large facilities. Due to a lack of PDAs and data monitors, data collection would be limited to a portion of the facility – be it a one or more floors, or one or more units. The subsample was selected by the project staff in consultation with facility management. These subsamples were however not randomly selected and may have introduced bias to the sample and data collection. This unit selection does not appear to have been considered in the creation of the sampling weights.

The report by the Lewin Group also raises concerns about the high non-response rate. Of the 837 sampled facilities, 100 were dropped by state agencies or CMS regional offices. Of the 737 eligible facilities, 523 were invited to participate, 214 (about 40%) agreed to participate, and 205 (about 39%) participated in the study.

#### **4. The STRIVE Sample Is Not Representative of SNFs Overall**

As part of their analysis of the data, the STRIVE project conducted a series of tests on the representativeness of the sample. Based on their analysis, the STRIVE project concluded that the STRIVE states and facilities were representative of the nation overall. However, given the lack of face validity in state representativeness, AHCA asked the Lewin Group to examine the representativeness of the STRIVE states in comparison to the non-STRIVE states in a variety of dimensions.

The Lewin Group first developed an analytic database and estimated a regression model that examined the effect of service utilization by RUG category and whether residents receiving care in a STRIVE state received a different amount of care in non-STRIVE states (on the cost (charge) per stay).<sup>34</sup> Separate regressions were run with total cost (charges), therapy costs, NTAS costs, and pharmacy costs per stay as dependent variables (See Table 4). The results indicate that STRIVE states have significantly lower case-mix adjusted case costs (charges) than non-STRIVE states. Although these results do not reflect the representativeness of the actual facilities that are in the STRIVE sample (due to CMS’ refusal to disclose said facilities), they do reflect the representativeness of the STRIVE states vis-à-vis the rest of the nation overall, in terms of cost levels.

**Table 4: Difference between STRIVE States per Diem Cost (Charges) as Compared to Non-STRIVE States**

	<b>\$ Value</b>	<b>Percent of National per Diems Cost (Charge)</b>
Total Charges per Case	-47.08	-10.3%
Therapy CPC	-8.02	-9.2%
NTAS CPC	-23.25	-36.7%
Pharmacy CPC	-11.17	-25.5%

The Lewin Group also conducted a test of the correlation of per diem total charges, therapy costs, and NTAS costs between STRIVE and non-STRIVE states. For this test, the Lewin Group calculated the per diem costs per RUG for STRIVE and non-STRIVE

<sup>34</sup> Cost (charge) per stay = f(Medicare days by RUG category, STRIVE state dummy variable)

states. These per diems were then converted to a set of relative values by dividing each RUG per diem rate by the overall average within STRIVE and non-STRIVE states. The resultant RUG relative weights for STRIVE states and non-STRIVE states were then correlated.

As shown in Table 5, RUG cost/charge relatives across the STRIVE states are correlated with comparable relatives for non-STRIVE states. This is expected. Of concern however is how highly they are correlated. Given that representativeness would imply nearly perfect correlation between the STRIVE and non-STRIVE states, correlation coefficients in the high 70s is cause for some concern.

**Table 5: Correlation of Relative Costs between STRIVE and Non-STRIVE States**

Category	Coefficient	Significance
Total charges	0.79	Yes (p<.05)
Therapy relative cost	0.93	Yes (p<.05)
NTAS relative cost	0.77	Yes (p<.05)

The Lewin Group also tested whether the relative weights for the RUG categories based on the claims data for the STRIVE versus the non-STRIVE states were different. In order to test this hypothesis, the Lewin Group ran separate sets of regression for the STRIVE and non-STRIVE states with the same model specifications, as mentioned above. Relative RUG weights were derived using the parameter estimates of the RUG categories in the model. The set of relative payment weights for each regression (STRIVE and non-STRIVE) were compared. A paired t-test for each couplet of RUG category (e.g.  $RUX_{STRIVE}$  versus  $RUX_{non-STRIVE}$ ) was used to test the statistical significance of the difference between the relative weights. As shown in Table 5, the relative weights between STRIVE and non-STRIVE states are generally different, thereby raising further concerns about the representativeness of the STRIVE states to the nation overall for the development of new case-mix weights. This means that the relative weight structure of RUGs is very likely not representative of the post-acute SNF population.

With the release of the proposed rule, CMS also made publicly available a data file of selected STRIVE project resident level data. We commend CMS for making this type of information available to improve the transparency of the process that affect the SNF sector and to assist stakeholders to replicate, examine, and evaluate the RUG refinement and nursing and therapy weight updating processes.

We had hoped to be able to utilize the STRIVE resident level file to analyze the representativeness of the STRIVE data. The STRIVE data however did not have identifiers for states, providers, patient demographics, or other relevant items, making it impossible to accurately compare the representativeness of STRIVE resident data with similar MDS data for facilities not included in the STRIVE study. Nevertheless, AHCA requested the Lewin Group to utilize our linked MDS/claims databases to examine the representativeness of the STRIVE sample using resident level data.

As part of their analysis of the strength of the STRIVE Medicare sample, the Lewin Group examined the distribution of STRIVE data under RUG-53. The Lewin Group found that 1,380 cases (weighted) and 2,052 cases (unweighted) of the 9,721 cases in the sample were Medicare residents. They further found that only 17 of 53 RUGs had sample sizes greater than 50, and 23 of 53 RUGs had sample sizes greater than 30, which is approximately where issues of small sample size related issues kick in. Furthermore, even in cases where the STRIVE sample has sufficient sample size, the distribution of cases between the STRIVE Medicare sample and Medicare MDS data can be substantially different. For example, the weighted proportion of residents in the STRIVE Medicare sample in the RML RUG-53 category is about 4%, while about 9% of cases based on Medicare MDS data fall in the RML category.

Furthermore, the STRIVE Medicare sample did not have any data for residents in 12 RUG-53 groups. We understand that the STRIVE project took the undistributed days of service for the 10 RUG-III groups and simply added the RUG-III days of service to a corresponding RUG-IV groups. A better approach might have been to utilize the STRIVE non-Medicare sample to estimate the distribution and impact for these relatively rarer Medicare RUG-III groups.

The Lewin Group also compared resident characteristics from the STRIVE Medicare and non-Medicare samples against Medicare MDS data in STRIVE and non-STRIVE states. For a number of the indicators, comparative response rates were substantially different between the STRIVE Medicare sample and the STRIVE state Medicare, non-STRIVE state Medicare and national Medicare MDS data.

## **5. STRIVE Project Failed to Capture Critical Data on Very Short Stay Residents**

Time data were collected by the STRIVE project on a Tuesday afternoon through Thursday morning schedule or a Wednesday afternoon through Friday morning schedule. While time data was collected for all residents in the SNF or SNF unit, residents who were admitted after the data collection phase began or were discharged before the data collection phase was completed were rightly omitted from the analysis because of incomplete data. As a result of this approach however, one critical population that would have been excluded from the data collection and analysis phase is the very short term SNF population, and in particular the very short-term SNF population that was readmitted to the hospital. This short-stay SNF resident population has substantially higher acuity, and substantially higher resource utilization.

In order to investigate this phenomenon, AHCA asked the Lewin Group to examine and compare the characteristics of very short stay SNF residents. Table 6 shows the inpatient hospital MS-DRG based CMI for patients that were admitted to a SNF and discharged to various sites such as the inpatient hospital (IP) – a hospital readmission, home, expired (passed away in the SNF), or were discharge to another setting by their length of stay in the SNF. The table clearly demonstrates that the acuity level of SNF residents discharged within 7 days is generally higher and often significantly higher than SNF residents overall. Furthermore, for those short stay residents readmitted to the hospital, the acuity

level is substantially higher than SNF residents who went home, were discharge to other settings, or those that died in the SNF.

Given their short length of stay, the small STRIVE data sample size, and the Friday admission phenomena, few very short stay residents would have been captured by the time study. And given that very short stay SNF resident’s account for over 21.0% of SNF stays, the omission of this critical population has clearly underestimated and skewed the reclassification of SNF residents and the nursing and therapy weights that underlies the proposed RUG-IV system.

Furthermore, given that these very short stay higher acuity residents would not (generally) be captured in the STRIVE data, the conclusion of the STRIVE project that resource utilization of SNF residents who received extensive services in the hospital may be wrong. Based on these findings and anecdotal evidence from clinical experts about the very short stay residents who are not reflected in the STRIVE data, the lookback into the hospital stay may be a necessary proxy for medical complexity and staff resource utilization and should be reflected in the SNF PPS. As data for very short stay SNF residents are not (generally) captured in the STRIVE data, it raises questions about the appropriateness of the reclassification of SNF residents within the RUG hierarchy, as well as the relative weights. In support of appropriate and accurate payment for SNF services, we ask that CMS do what is necessary to classify **all** SNF resident correctly, have the relative weights reflect resource use properly, and get the SNF PPS system right before implementation of RUG-IV.

**Table 6: CMIs of SNF Residents by Length of Stay and Discharge Site**

<b>SNF LOS (Days)</b>	<b>Stays Total</b>	<b>IP-SNF-IP CMI</b>	<b>IP-SNF-Expired CMI</b>	<b>IP-SNF-Home CMI</b>	<b>IP-SNF-Other CMI</b>
<b>1</b>	80,313	1.7558	1.6226	1.5357	1.5898
<b>2</b>	72,116	1.7159	1.6014	1.4860	1.5254
<b>3</b>	80,373	1.7105	1.5640	1.5188	1.5128
<b>4</b>	88,805	1.7002	1.5773	1.5450	1.5342
<b>5</b>	91,928	1.6931	1.5330	1.5460	1.4720
<b>6</b>	85,424	1.6655	1.5648	1.5831	1.5376
<b>7</b>	94,101	1.6638	1.4964	1.5686	1.5098
<b>Total</b>	<b>2,823,159</b>	<b>1.6290</b>	<b>1.5443</b>	<b>1.6071</b>	<b>1.4960</b>

Source: Lewin Group analysis of 2007 CMS SNF PPS Medicare Part A LDS claims data.

**6. A Severely Flawed Data Collection Design for Therapy Has Made Therapy Time and Weight Estimates Invalid**

AHCA and others on the STRIVE TEP have repeatedly expressed concerns with the collection of therapy minutes and the proposed data imputation methodology for overcoming the data collection flaws. As part of the STRIVE project, two methods were used to collect therapy data: PDA data collection (a handheld electronic data input device) and traditional paper data collection. As shown in Table 8, the percentage of weekly total therapy time collected using the PDA represents about 21% to 30% of total

**Table 7: Statistical Significance of the Differences in the Relative Weights by RUG Categories and Between STRIVE and non-STRIVE States**

	Cost			Total Charges		
	Relative Weight (STRIVE)	Relative Weight (Non-STRIVE)	Difference Statistically Significant	Relative Weight (STRIVE)	Relative Weight (Non-STRIVE)	Difference Statistically Significant
RUX	1.25	0.77	Y	1.248	1.151	Y
RUL	0.96	0.70	Y	1.214	1.151	Y
RVX	1.32	0.91	Y	1.144	1.040	Y
RVL	1.06	0.89	Y	1.116	1.074	Y
RHX	1.84	1.79	N	0.903	1.159	Y
RHL	0.92	2.40	Y	0.850	1.680	Y
RMX	1.30	1.35	Y	1.007	1.078	Y
RML	1.24	1.74	Y	0.978	1.222	Y
RLX	1.19	3.18	Y	0.838	1.334	Y
RUC	0.69	0.47	Y	1.120	0.991	Y
RUB	0.60	0.40	Y	1.136	0.970	Y
RUA	0.66	0.45	Y	1.156	0.952	Y
RVC	0.73	0.44	Y	0.984	0.849	Y
RVB	0.66	0.39	Y	1.014	0.853	Y
RVA	0.75	0.47	Y	1.010	0.845	Y
RHC	0.91	0.58	Y	0.934	0.809	Y
RHB	0.90	0.65	Y	0.949	0.874	Y
RHA	0.95	0.78	Y	0.874	0.844	Y
RMC	0.87	0.59	Y	0.795	0.700	Y
RMB	0.87	0.64	Y	0.844	0.750	Y
RMA	0.91	1.07	Y	0.802	0.841	Y
RLB	0.27	0.38	N	0.603	0.561	N
RLA	0.17	0.78	Y	0.591	0.565	N
SE3	1.68	2.43	Y	0.856	1.166	Y
SE2	1.57	2.01	Y	0.833	1.037	Y
SE1	1.31	0.81	Y	0.716	0.683	N
SSC	0.81	0.28	Y	0.623	0.453	Y
SSB	1.02	0.42	Y	0.657	0.488	Y
SSA	1.40	1.44	Y	0.693	0.835	Y
CC2	0.58	0.15	Y	0.505	0.509	N
CC1	0.57	0.12	Y	0.590	0.463	Y
CB2	0.64	0.22	Y	0.529	0.515	N
CB1	0.72	0.19	Y	0.598	0.456	Y
CA2	0.77	0.42	Y	0.565	0.581	N
CA1	0.89	0.47	Y	0.595	0.553	Y
IB2	0.09	-0.04	N	0.509	0.281	Y
IB1	0.50	0.13	Y	0.491	0.451	Y
IA2	0.37	0.01	N	0.615	0.288	Y
IA1	0.53	0.26	Y	0.571	0.477	Y
BB2	0.19	-0.02	N	0.506	0.340	N
BB1	0.89	0.26	Y	0.582	0.445	N
BA2	0.33	-0.20	N	0.689	0.141	Y
BA1	0.77	0.48	Y	0.820	0.482	Y
PE2	0.01	-0.10	N	0.346	0.205	Y
PE1	0.29	-0.04	Y	0.427	0.392	Y
PD2	0.01	-0.08	N	0.346	0.263	Y
PD1	0.23	-0.01	Y	0.412	0.424	N
PC2	-0.04	-0.21	N	0.293	0.298	N
PC1	0.15	0.01	N	0.469	0.438	N
PB2	-0.02	-0.12	N	0.305	0.347	N
PB1	0.40	0.09	Y	0.467	0.470	N
PA2	0.63	0.05	Y	0.582	0.243	Y
PA1	0.63	0.23	Y	0.472	0.495	N

time, while data collected using paper for weekdays represents between 10% and 12% of weekly total times. The issue with the method of data collection is most striking on Fridays, where paper data collection represents 12% of weekly total times while PDA data collection represents 21%. As it seems unlikely that facilities surveyed would vary this much on Friday and Tuesday therapy minutes, STRIVE analysts determined that paper data collection grossly under-counted minutes.<sup>35</sup>

**Table 8: Determining Therapy Times**

Collection Schedule	N	Tu	We	Th	Fr	Sa	Su	Mo	Tu
<b>A</b>	8012	<b>26%</b>	<b>25%</b>	<b>22%</b>	12%	2%	1%	12%	-
<b>B</b>	1193	<b>25%</b>	<b>27%</b>	<b>26%</b>	12%	1%	0%	10%	-
<b>C</b>	516	-	<b>30%</b>	<b>26%</b>	<b>21%</b>	1%	1%	12%	9%
<b>Total</b>	9721	24%	26%	23%	13%	2%	1%	12%	1%

Source: STRIVE Project Technical Expert Panel Slides, February 13, 2008.

Note: Bold text indicates PDA data collection

To address these issues, the STRIVE project developed a methodology that adjusted therapy minutes collected from the PDAs. By design, the adjustment method forced the distribution of therapy minutes by RUG to largely reflect the distribution of therapy minutes across RUG-53 rehabilitation groups approximated that of Part A claims. Of concern, of course, is that this approach “forced” the STRIVE data to approximate existing distributions of therapy minutes across RUG categories. Thus nothing new was learned. It also raises the question of to what extent STRIVE therapy minutes may not reflect patient needs so much as they do RUG payment incentives. This would suggest that the distribution of the rehabilitation RUG groups may need to be reconsidered such that RUGs more accurately reflect potential therapy needs. The above logic strongly suggests that STRIVE therapy minutes data leaves the fundamental question of how therapy minutes should be ideally distributed across RUG groups largely unanswered.

Notwithstanding the PDA data based adjustment to estimate therapy minutes, it is our understanding that the STRIVE project nevertheless used paper survey collected data as part of its adjustment to therapist time for concurrent therapy as part of its calculation of the therapy weights. If correct, we are very concerned. Since the paper based data collection was thrown out as invalid, it is inconceivable that it would be used to adjust the minutes for concurrent therapy. We urge CMS to revise its methodology for adjusting therapist time for concurrent therapy to exclude any data derived from the paper survey.

Also of concern is the use of the time collection paper tool by nursing and ancillary staff. Per the STRIVE Resource Manual, non-therapy ancillary staff may include dieticians, social workers, clergy, transportation aides, bath aides, restorative aides, activities staff, dietician (feeding) assistants, etc. For the STRIVE data collection process, nursing staff were to have priority over ancillary staff in using the PDAs to collect time data, as they provide the bulk of hands-on care in SNFs. Ancillary staff, by contrast, were more likely

<sup>35</sup> The paper data collection technique may have under reported therapy minutes because the individuals responsible for the data collection were not adequately trained and monitored.

to need to use the time collection paper tool in facilities when there were not enough PDAs available for all staff or where staff was not physically able to use a PDA. Given issues with the use of the time collection paper tool in capturing therapy time, one must assume that similar unidentified issues arose in the collection of time data by nursing and ancillary staff when they used the time collection paper tool.

## **7. Proposed Wage Data for WWST Calculation May Not Be The Most Appropriate**

AHCA also has some concerns on the choice of the wage data that is used with the STRIVE data to calculate relative wages, wage weighted staffing time (WWST), (re)categorize patients within the RUG hierarchy, and compute the nursing and therapy weights.

CMS proposes to use the Occupational Employment Statistics (OES) survey which is a semiannual mail survey of employers that measures occupational employment and occupational wage rates for wage and salary workers in non-farm establishments, by industry. Forms are mailed to approximately 200,000 establishments in May and November of each year for a 3-year period. The May 2006 OES survey estimates are based on all data collected from establishments in the May 2006, November 2005, May 2005, November 2004, May 2004, and November 2003 semiannual samples.<sup>36</sup>

Unfortunately, there are a number of issues with this data set that impact its use in the SNF setting and for the development of RUG-IV. Definitions of some occupations are problematic in that they do not reflect current nursing home job categories. For an example, CMS uses ‘Nursing Aides, Orderlies, and Attendants’ as the equivalent of Certified Nursing Aide (CNA). However, this occupation category does not distinguish certified from non-certified aides, nor restorative from non-restorative CNAs that are on the front lines for delivering care in nursing homes. CMS has also chosen to use all industry wage data rather than the SNF specific wage data in the computation of WWST. This can have the affect of dramatically skewing wage rates both because of sampling issues but also because of differences in job classifications in the various acute, post-acute, and long-term care settings. For example, the Nursing Aides, Orderlies, and Attendants wage data used for the SNF CNA wage are distorted, perhaps overwhelmingly so, by wage data from nursing aides in the home health or assisted living setting, from orderlies in the hospital setting, and attendants from HCBS settings among others. Similar issues exist for many of the other position categories.

In addition, analysis conducted by Eljay LLC on behalf of AHCA using data from a survey of national and regional nursing home and therapy companies found significant relative wage variation across job classifications, and significant differences with the relative wages used by the STRIVE project from the BLS data. These differences further highlight the critical role that the sampling frame, sample, and job classifications have on the computation of wage rates and relative wages. While part of the difference from the BLS data and the Eljay study data may be related to sampling differences and issues and

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<sup>36</sup> Bureau of Labor Statistics. *Appendix B. Survey Methods and Reliability Statement for the May 2006 Occupational Employment Statistics Survey.*

analysis methodologies, the magnitude of the difference suggests that there are issues that need further exploration and appropriate resolution before RUG-IV is implemented. Given how critical the relative wage data are to the categorization of residents and the computation of the nursing and therapy weights, AHCA recommends that CMS work with SNF stakeholders to identify the most appropriate data so that the most accurate relative wage information is used to develop RUG-IV. As an initial step CMS, AHCA and other stakeholders should examine whether the proposed collection of SNF payroll data might not be a good and more accurate source of relative wage data to develop RUG-IV. The proposed delay in implementation of RUG-IV would allow the use of payroll data to be collected, evaluated, and, if appropriate, used to refine the development of RUG-IV before implementation.

### **8. STRIVE Data Are Not Representative: Independent National Validation Study is Needed**

As per above and described in more detail in Appendix D, the Lewin Group has found major issues that may have introduced sampling bias, which appears to have contributed to issues associated with the lack of representativeness of the STRIVE sample with the SNF sector. The lack of representativeness of the STRIVE Medicare data with the SNF sector overall draws into question the representativeness of the care practices observed and time study data collected by the STRIVE project, which in turn suggests issues with the validity of the nursing and therapy weights derived from the STRIVE time study data, as well as the validity of the recategorization of the residents based the STRIVE data.

Given the importance of time study data in categorizing residents within the RUG system and its importance in calculating the nursing and therapy weights that underlie the SNF PPS, and clear evidence that the STRIVE data is not sufficiently representative of current care practices and resource requirements overall, AHCA urges CMS to set aside funding to conduct an independent national validation study to obtain representative, reliable and accurate time study data to update the SNF PPS.

Furthermore, given that CMS is moving forward with the implementation of MDS 3.0 in FY 2011 and that the new RUG system will be based on data obtained from MDS 3.0, CMS should conduct the national validation study using the new MDS 3.0 resident assessment instrument.

Lastly, given problems with the time study based approach to updating the SNF PPS, CMS should work with SNF stakeholder groups to develop a new, simpler, more frequently updated, and more representative methodology for updating the relative weights and resident classification categories that are the basis for the SNF PPS in the future.

## **C. Serious Concerns With The RUG-IV Impact Analysis: Implementation Of RUG-IV Is Premature**

### **1. Introduction**

As discussed below, AHCA is seriously concerned about the basis for the STRIVE weights and the methodology used to estimate the impact of RUG-IV on the SNF sector and the RUG-IV budget neutrality adjustment.

We believe that data are not currently available to conduct a reasonably accurate impact analysis based on a valid estimate of RUG-66 day distributions nor to properly gauge the budget neutrality adjustment required to equalize Medicare SNF payments under RUG-53 and RUG-66.

### **2. Background**

In 2005, CMS proposed a refinement to the SNF PPS. The proposed refinement expanded the 44 group RUG-III classification system (RUG-44) with an improved 53 group RUG-III classification system (RUG-53). As part of the refinement, CMS used 2001 Medicare SNF MDS and claims data to estimate the impact of the implementation of RUG-53 and to recalibrate the weights that underlie the SNF PPS for budget neutrality. At the time, the Lewin Group on behalf of AHCA was able to replicate the CMS RUG-53 day distribution including an estimate of the migration of resident to the newly established Upper-9 Rehabilitation and Extensive Services RUG categories, and to estimate the budget neutrality adjustment required to equalize payments between RUG-44 and RUG-53 using a linked 2001 MDS/claims dataset.

Similarly, in 2008, the Lewin Group on behalf of AHCA was able to replicate and analyze the impact of CMS' proposed recalibration adjustment for FY 2009. In both instances, CMS and SNF stakeholders were able to use common data from the universe of SNF residents to replicate and analyze reform proposals and to have an informed discussion on the estimated impact of the CMS proposals. This however is not possible with the CMS proposal to implement RUG-IV because the data required to conduct these analysis do not exist in any form.

Under RUG-IV, the CMS RUG-66 day distributions can not be replicated using the universe of linked 2007 SNF MDS/claims data. Because RUG-IV uses new and revised elements in MDS 3.0 that do not exist in the current MDS 2.0, the old approach of estimating day distributions and to conduct impact analysis with the universe of data can not be used. Without good and complete data, a 66 group RUG-IV grouper can not be constructed. As such the RUG-66 day distributions developed by CMS (which we have replicated) and impact analysis based upon it cannot be undertaken with any degree of precision. Consequently, the STRIVE project on behalf of CMS utilized the small, non-representative STRIVE Medicare resident sample to estimate RUG-66 day distributions and conduct impact analysis.

### **3. The STRIVE Medicare Resident Sample Size Is Too Small and Insufficiently Accurate To Develop RUG-IV and Estimate Its Impact**

As noted above, we believe that the STRIVE Medicare sample is too small to recalibrate the SNF PPS, and in estimating nursing and therapy weights. We recognize that patient categorization systems are often developed based on samples. The weights for the IPPS DRG system were initially developed using information on over a million cases. Most PPS updates however are typically undertaken using data from the full universe of patients. RUG-IV by contrast is developed on a STRIVE Medicare resident sample of 1,381 cases (weighted) and 2,052 cases (unweighted). In addition, sample sizes for 30 RUG categories are below the threshold for the law of large numbers properties to hold. This small STRIVE sample is totally out of alignment with the precision associated with the use of universe data in other PPS systems.

For example, the inpatient hospital PPS is built on data from approximately 11 million observations from over 3,500 facilities, and the home health PPS is built on data from about 98 million observations from over 9,000 facilities (See Table 9). The proposed SNF PPS RUG-IV system by contrast is built on data from about 2,000 residents in 205 facilities. Given concerns with the representativeness of the sample, the small sample size gives us serious concerns about the reclassification of residents, the relative nursing and therapy weights, and the estimation of the impact of RUG-IV on the SNF sector and the RUG-IV budget neutrality adjustment. It also raises an issue that the RUG framework may be outdated and not viable.

**Table 9: Number of Facilities and Observations Used to Update Case Weights By Setting**

<b>Setting</b>	<b>No. of Facilities</b>	<b>No. of Observations</b>
<b>SNF</b>	205	9,791 (2,052 Medicare cases)
<b>Home Health</b>	9,227	~ 98 million
<b>IRF</b>	1,200	369,000
<b>LTCH</b>	400	130,160
<b>IPPS</b>	3,592	~ 11 million

Source: MedPAC, Report to Congress: Medicare Payment Policy, March 2009

### **4. The Critical Role of the STRIVE Medicare Transition Matrix**

On behalf of AHCA, the Lewin Group replicated the STRIVE Medicare resident based Medicare transition matrix based on the STRIVE methodology. The Medicare transition matrix is built upon the STRIVE Medicare resident sample. Using this sample, the STRIVE project and the Lewin Group used a RUG-53 index maximization grouper to calculate an index maximized RUG-III category for each Medicare resident and a RUG-66 grouper to calculate a hierarchically maximized RUG-IV category for each Medicare resident as per the STRIVE methodology. A weighted RUG-III to RUG-IV crosswalk was then constructed that links each RUG-III category in the STRIVE Medicare resident sample to a percentage distribution in each RUG-IV category. When applied to the

distribution of RUG-53 days based on 2007 SNF claims data, CMS and the Lewin Group were able to come up with an estimate of the distribution of RUG-IV days for their impact analysis and budget neutrality adjustment estimate.

We have identified a couple critical issues with the STRIVE methodology. First, we understand that the RUG-66 grouper is based on hierarchical maximization rather than index maximization, because the RUG-66 grouper is **not** index maximized. As the new system will be index maximized, the use of hierarchical maximization rather than index maximization will likely underestimate CMS payments under RUG-IV. This is because the index maximized grouper for the SNF PPS may produce a higher payment than the hierarchical grouper. Furthermore, since not all RUG-III categories are represented in the STRIVE Medicare resident sample, CMS took the undistributed days of service for these 10 RUG-III groups and simply added the RUG-III days of service to their corresponding RUG-IV groups. The Lewin Group by contrast developed and utilized a non-Medicare case transition matrix to proportionately allocate the days in the 10 RUG-III groups to the appropriate RUG-IV groups. With this approach some of the days for the 10 RUG-III groups will be placed into higher RUG-IV groups. Given that there are relatively few days in these RUG categories, the impact on Medicare spending is likely to be small.

## **5. Concerns With The CMS RUG-IV Impact Analysis**

As described above, the estimate of distribution of days under the proposed RUG-IV is not directly calculated based on linked MDS/claims data, but rather inferred using a probabilistic approach that links cases to days in ways that may not be distributionally correct. This approach appears to be logically necessary because available MDS 2.0 data will not support a RUG-IV grouper as it needs key information on concurrent therapy and modified “look back” information that is only available on the forthcoming and proposed MDS 3.0. This approach, coupled with the lack of representativeness and the small sample size of the STRIVE Medicare resident sample, means that the estimated distribution of Medicare days under RUG-IV is not likely to match up well with the final RUG-IV grouper using the actual MDS 3.0 data. This information will likely not be available until 2013 if MDS 3.0 is implemented in 2011 with a 2 year lag.

The estimate of the impact of RUG-66 by implication can not be accurate, and we believe is certainly not accurate enough to support an entire payment system. Based on the estimate provided by CMS, about 3.6% of days fall into the upper 9 rehabilitation + extensive services RUG categories. Given the extensive regrouping and limiting the lookback to only the SNF stay for payment purposes this estimate does not seem plausible. First, there are no residents with infection control in the sample, and even if there were, we suspect relatively few would be able to receive rehabilitation therapy. Second, SNF residents on ventilator are also unlikely to be receiving much rehabilitation therapy either. Which leaves resident’s receiving tracheostomy care. Our analysis of 5 day MDS 2.0 assessments in 2007 shows that only about 1% of SNF residents received tracheostomy care within the last 14 days in as part of either the hospital stay or the SNF stay. As such, having 3.6% of days falling in the Upper 9 rehabilitation + extensive services RUG categories driven by less than 1% of SNF residents who received

tracheostomy care in the SNF seems somewhat implausible. We suspect this may be a result of a combination of the small STRIVE sample size, and the overweighting of ventilator facilities in the STRIVE sample.

AHCA further believes that payment impact analysis based on the proposed RUG-IV system using the STRIVE Medicare resident sample are unlikely to be even reasonably accurate, particularly as one examines the impact on different SNF provider types, provider organization, or state Medicaid systems. Precise and detailed impact analysis can not be conducted until FY 2011 MDS 3.0 data are available, likely not until 2013. Such uncertainty is of considerable concern to the SNF sector, particularly if it contributes to financial instability in a period of significant reform to the health care delivery sector. The uncertainty in CMS calculations is not acceptable in its current form.

Furthermore, the budget neutral calculations produced by CMS are of unknown precision. Use of the RUG-IV Medicare day distribution probabilistic approach, coupled with the lack of representativeness and the small sample size of the STRIVE Medicare resident sample, suggests that impact analysis estimates will be biased and of unknown magnitude. This also applies to the budget neutrality adjustment. This means that any future parity adjustments will be based on an unknown and imprecise baseline. This would seem to put RUGs-66 implementation off to a highly uncertain start. The degree of uncertainty is inconsistent with prospectivity and in light of the uncertainty of health care reform, places the SNF sector in an unstable business condition.

## **6. Because of the Underling STRIVE Data, Implementation of RUG-IV is Critically Flawed**

The proposed implementation of RUG-IV is critically flawed. It does not and cannot support a precise and detailed impact analysis because the current MDS does not contain the critical concurrent therapy and look back period elements that are needed. Before RUG-IV can be accurately simulated, MDS 3.0 must first be implemented so that critical data can be collected to estimate the effect of RUG-IV on resident classification, and to estimate the impact and apply the appropriate budget neutrality adjustment to ensure the stability of the SNF sector.

It is imperative that the industry not be subjected to both the uncertainties of a RUG-IV implementation and the losses associated with the possible retraction of the market basket. The implementation of RUG-IV needs to be delayed until the new MDS 3.0 data are available for input into RUG IV impact analyses and budget neutrality adjustments.

## **X. Concurrent Therapy Adjustment To Resident Therapy Minutes Is Inappropriate**

### ***AHCA Recommendations On The Concurrent Therapy Adjustment to Resident Therapy Minutes:***

- *Since the underlying therapy weights reflect therapist time and have already been adjusted for concurrent and group therapy, CMS should not proceed with the downward adjustment in resident therapy minutes on MDS 3.0; and*
- *If CMS is concerned that concurrent therapy is being overprovided, CMS should:*
  - *Work with stakeholders to undertake comparative effectiveness research that defines concurrent therapy and establishes clear and simple parameters for its provision, which are consistent with professional standards and best practices;*
  - *Test the proposed model with limitations on the utilization of concurrent therapy as part of an independent national validation study; and*
  - *Update the therapy weights to reflect the provision of therapy services under the revised concurrent therapy payment model.*

### **A. Background**

In the CMS FY 2002 SNF PPS final rule, CMS noted that “we continue to believe, ...that concurrent therapy has a legitimate place in the spectrum of care options available to therapists treating Medicare beneficiaries. Our goals are to safeguard the health and safety of beneficiaries and assure that they are provided the most effective, skilled care available. We agree that, at times, such care can be provided concurrently with another therapy patient, as long as the decision to do so is driven by valid clinical considerations” (66 Federal Register 39562). In this year’s proposed rule, CMS reiterates “[in] the SNF Part A setting, concurrent therapy can be a legitimate mode of delivering therapy services when used properly based on individual care needs as determined by the therapist’s professional judgment” (74 Federal Register 22223).

CMS further explains however that concurrent therapy “should be an adjunct to individual therapy (and) not the primary mode of delivery of care, and should represent an exception rather than the standard of care (74 Federal Register 22223). CMS also remarks that the agency is “concerned that the incentives of the current RUG-III classification model have created changes in the way therapy services are delivered in SNFs,” and that “there has been a shift from one-on-one therapy to concurrent therapy that may not represent optimal clinical practice” (74 Federal Register 22222).

CMS is using payment policy as a means to discourage what the agency believes to be sub-optimal clinical practice. CMS is proposing to downward adjust resident therapy time recorded on the MDS by allocating concurrent therapy minutes between the residents receiving therapy concurrently. For example, “a therapist who is treating patients concurrently would allocate the total minutes among the patients based on the therapist’s clinical judgment of how much therapist time was actually provided to each patient” (74 Federal Register 22222).

AHCA would argue that concurrent therapy is a valid clinical practices, and disagrees with the agency’s approach in attempting to change its practice.

**B. Concurrent Therapy Is A Legitimate, Effective, And Efficient Mode For Delivering Therapy Services And Its Use Should Be Determined By The Professional Judgment Of The Therapist and The Needs Of The Patient For An Appropriate And Desired Outcome**

Individual therapy is the cornerstone of an appropriate, effective and efficient rehabilitation program for the specific needs of SNF residents. All therapy services – including concurrent therapy – that are tailored to address the specific needs of the SNF resident begin with individual therapy. AHCA agrees with CMS that concurrently provided therapy is a legitimate mode of delivering therapy services that is consistent with accepted standards of practice when used properly and appropriately based on the clinical goals and the needs of the SNF resident. Concurrent therapy is one of the care options available to therapists in providing appropriate, effective, and efficient rehabilitation services based on the professional judgment of the attending therapist and based on the needs and treatment goals of the patient.

AHCA also believes that the choice of the mode of delivering therapy services provided by or under the supervision of a qualified therapist should be left up to the professional judgment of the individual therapist as part of the individualized treatment plan that may include a combination of procedures, modalities, and activities that lead to a successful clinical outcome. The choice should include concurrent therapy.

AHCA disagrees that concurrent therapy is becoming or has become the standard of care as CMS infers. Indeed, concurrent therapy is not the standard of care, but one option along the spectrum of care options (i.e. procedures, modalities, activities, etc.) from which a professional therapist may select in providing for a patient’s successful rehabilitation. We would encourage CMS to review the National Association for the Support of Long Term Care’s (NASL) comments which offer a number of examples of clinical situations where concurrent therapy is the most efficacious way of providing therapy services.

We also takes issue with CMS’ supposition that there has been a shift from one-on-one to concurrent therapy, and that such a shift may not represent optimal clinical practice. First, it remains unclear that such a shift has occurred in the delivery of therapy services. CMS’ proposed rule asserts that two-thirds of all therapy services are provided

concurrently in the SNF setting (74 Federal Register 22223). Whether it is a definitional issue of what is or how one counts concurrent therapy or a result of the well documented problem with the poor quality of the STRIVE therapy data or the proposed “fix” to the therapy minutes that may be unrelated to underlying service delivery, the assertion is inconsistent with standard therapy delivery practices and general accounts of industry practices.

To suggest that such a purported shift in the provision of therapy concurrently is responsible for the supposed sub-optimal clinical outcomes is to ignore the host of factors that do affect resident outcomes—including various procedures, modalities, activities, intensities prescribed by the therapy professional as well as the resident’s compliance with what has been prescribed. We believe that the agency’s concern may warrant some comparative effectiveness research – not a change in payment for what the agency has already said is legitimate clinical practice.

CMS’ proposal effectively penalizes therapists and SNFs that utilizing concurrently provided therapy, calling into question the professional judgment of therapists who use this treatment mode without any research or clinical justification to substantiate the agency’s assertions. In essence, CMS is injecting government into the medical decision making process in determining the most appropriate, effective and efficient mode of delivering therapy services for SNF residents.

The induced effect of the proposed adjustment to resident therapy minutes for concurrently provided therapy is inefficient. CMS, in this proposed rule, is effectively mandating that one-on-one therapy be substituted for concurrent therapy, in an environment where there is already a shortage of qualified therapists. Such a mandate will yield inefficiency that is contrary to good management and business practices, Medicare policy and health reform goals, and most importantly, may be inconsistent with the needs of the resident and the professional judgment of the therapist. Instead, encouraging effective, efficient outcome-driven therapy should be a key goal of CMS.

More practically, the proposed adjustment to resident therapy minutes is not the best way to resolve this supposed issue. Rather, CMS’ proposal will be burdensome to therapists and providers, devalues the usefulness of the MDS data for clinical purposes, and because of the difficulty in calculating resident minutes for concurrent therapy, will unnecessarily raise the suspicions of state survey agencies, OIG, and the RACs.

Lastly, the proposed adjustment to resident therapy minutes, coupled with the adjustment for concurrent therapy in the calculation of the therapy weights, amounts to an inappropriate double hit to the SNF PPS for concurrently provided therapy that improperly skews reimbursement in the SNF PPS.

### **C. CMS is Adjusting Payments for Concurrent Therapy Twice: This is Harmful To Rehabilitation Care**

CMS' proposed rule would effectively downward adjust payment for therapy services twice. First, by reducing therapy services weights, and second, by means of the adjusting resident therapy time for concurrent therapy on the MDS. This two-time adjustment for therapy services results in lower than appropriate payment for these services. CMS should correct this error.

SNF residents who qualify for rehabilitation services under the SNF PPS are grouped into 5 broad rehabilitation RUG groups (Ultra High, Very High, High, Medium, and Low). These rehabilitation RUG groups use minimum levels of days and minutes of therapy per week as qualifiers (also known as thresholds or cut points) for classification into each group. Researchers who developed these thresholds have indicated that the cut points were developed based on expert input on therapy delivery practices and the distribution of resident minutes for the level of services that define each RUG group using data from the SNF PPS demonstration projects. The SNF PPS was designed to group residents based on the minutes of therapy they receive (resident therapy time), and pay for those groups based on the minutes of therapist time using the prevailing system for delivering therapy services at the time.

In calculating wage-weighted therapist time which is used in developing therapy weights, CMS adjusted the time study data to reflect the actual time the therapist worked so as not to double count therapist time for residents receiving concurrent or group therapy. As such, both the therapy weights used at the implementation of the SNF PPS as well as the therapy weights derived from the STRIVE data reflect therapist time (wage-weighted therapist time actually) and reflect the prevailing modes of delivering therapy services (which includes the utilization of both concurrent and group therapy). CMS alleges that the proportion of therapy services provided concurrently in the 10 years between the time studies has increased and perhaps too much so. Regardless, it is important to note that the weights developed from the old time studies (as well as the proposed weights derived from the STRIVE study) reflect wage-weighted therapist time based on the prevailing mode of delivering therapy services at the time of the respective studies, including concurrent and group therapy.

Though not discussed in the proposed rule, we assume that CMS has made similar adjustments in the calculation of the nursing weights to reflect the provision of concurrent nursing services – whether those services are provided by a CNA who is assisting multiple residents with eating, or to a Registered Nurse who is administering medications to several patients while observing those that received these medications.

CMS' proposed rule notes that “[the] data showed that under our current RUG-III methodology, which does not allocate time, patients treated concurrently are typically assigned to higher therapy groups (with higher payments) than appropriate based on the therapy resources actually used to provide care for those patients.” This supposition is

incorrect. As discussed above, the rehabilitation group thresholds reflect the distribution of resident therapy minutes for the level of services that define each RUG group using data from the SNF PPS demonstration projects. By contrast, the therapy weights within each rehabilitation group reflect payment for therapist time which reflects a blend of individual, concurrent and group therapy. Since adjustments for concurrent therapy have already been made, no additional allocation of resident therapy time for concurrently provided therapy is necessary as it is already reflected in the weights.

There is also a key equity issues. The downward adjustment in resident minutes for the provision of concurrent therapy seeks to circumvent base payment rates for therapy services that were enshrined in law by the Congress. The NPRM redirects payments to nursing services without correcting fundamental flaws in the payment system (i.e. poor reimbursement for non-therapy ancillary services, insufficient reimbursement for capital, etc.) under the guise of reducing concurrent therapy. The Medicare Payment Advisory Committee (MedPAC) and others have expressed concerns that nursing services were undercompensated under the current RUG-III system. However, if the issue were truly related to staff time resource use, and if the STRIVE project has done its job properly, then the proposed RUG-IV system coupled with the updating of the nursing and therapy weights should appropriately address any misallocation of resources between therapy and nursing services. If so, no further realignment in payments, including the adjustment to resident therapy time for concurrent therapy is necessary.

#### **D. CMS Should Undertake Comparative Effectiveness Research To Enhance The Delivery Of Therapy Services and Further Improve Rehabilitation Outcomes**

Despite CMS' apparent concern that concurrent therapy is being over utilized to the detriment of SNF residents receiving rehabilitation services, no research is offered by the agency to support this assertion. Numerous factors determine clinical outcome. Concurrent therapy is but one factor influencing the success of patients' rehabilitative outcomes. To better understand what drives clinical outcomes – both optimal and sub-optimal - AHCA recommends that CMS undertake or support comparative effectiveness research into improving resident rehabilitative outcomes, controlling for the mode of therapy as well as other factors. With this research, CMS could work with stakeholders to develop and disseminate best practice guidelines designed to improve outcomes, and the effectiveness and efficiency in delivering therapy services. AHCA is ready and willing to provide assistance in such an effort.

If CMS determines, based on comparative effectiveness research, that concurrent therapy is being overused to the detriment of patient outcomes, CMS then may decide to reduce or eliminate concurrent therapy as a mode of delivering therapy services. Since both the current therapy weight and the proposed STRIVE-based therapy weight include adjustments for concurrent therapy, CMS would need to make adjustments to the calculations of the weights to reflect the greater use of one-on-one therapy.

**Box: Adjustments To Therapy Weights For Concurrent Therapy**

To illustrate this issue, consider a simple payment system for a therapist who's rate is \$20 per hour and provides all therapy concurrently at a ratio of 2 patients to 1 therapist. If one splits the time between each resident receiving concurrent therapy (as was done previously) according to the proposed rule, the therapist provides one hour of therapy and each resident receives an hour of therapy for a total of 2 hours of patient therapy, and the therapy weight would be 0.5 (or 1 therapy hour / 2 patient hours). If 1 hour of concurrent therapy is provided to 2 patients, the therapist does not receive \$40 for one hour of work, but rather \$20 (= \$20 per therapy hour \* 0.5 therapy hours per patient hours \* 2 patients). Under this system with a therapy weight of 0.5, a therapist providing one hour of one-on-one therapy, would receive \$10 for that hour. Because of the adjustment to the payment rate by the therapy weight, the therapist (by construction of the therapy weight) will only receive \$20 per hour when providing concurrent therapy.

This in essence is how the current and proposed therapy portion of provider's cost and the payment system is constructed. If the therapist were receiving \$20 per hour for both patients (i.e. \$40 per hour), then CMS would be correct that it is overpaying for therapist time. By discounting the minutes of therapy provided to a resident in a concurrent fashion as described in the proposed rule, CMS is already downward adjusting the weights and payments to reflect the current model of delivering therapy services which includes concurrent therapy. Because of the downward adjustment in weights, the therapist can only receive the applicable one-on-one hourly rate, if services are provided under the current model of delivering therapy services.

If the comparative effectiveness research could be completed quickly enough, and if restrictions on the utilization of concurrent therapy are called for, CMS could work with stakeholders to develop and test a delivery model with restrictions on the use of concurrent therapy as part of the independent national validation study. The therapy weights derived from such a national validation study then would reflect a therapy model that represents best practices, without inappropriately penalizing therapists and providers as the agency's proposed rule does by grouping them into a lower RUG category that insufficiently reimburses for the therapy services delivered.

## **XI. RUG-IV Budget Neutrality Adjustment Should Be Applied To Both The Nursing And Therapy Indexes**

### ***AHCA Recommendations On The Application Of Adjustment For Budget Neutrality Between RUG-III and RUG-IV:***

- *Rather than apply the adjustment for budget neutrality between RUG-III and RUG-IV only to the nursing weight, CMS should:*
  - *Apply equal and appropriate adjustment to both the nursing weight and the therapy weight to reflect the needed adjustment for budget neutrality; and*
  - *Apply an adjustment for the variability in non-therapy ancillary services which was established for FY 2006 to the nursing weight.*

### **A. CMS Correctly Proposes To Implement RUG-IV In A Budget Neutral Manner**

AHCA is pleased to see that CMS proposes to implement RUG-IV in a budget neutral manner as such implementation is critical to maintaining the financial stability of the SNF sector that ensures Medicare beneficiaries may continue to access the skilled nursing and therapy services they need. AHCA is however puzzled that the adjustment to ensure parity between RUG-III and RUG-IV was applied to only the nursing index. If one were to assume that the STRIVE project had done its job correctly then the nursing and therapy weights should be right relative to each individual component as well as relatively right to each other. If the relative nursing and therapy weights are right, then application of a large budget neutrality adjustment to only one weight would throw off the relativeness between the indexes and dramatically and inappropriately skew payments toward nursing services. Rather than apply the budget neutrality adjustment to only the nursing index, AHCA believes that an equal adjustment should be made to both indexes so as not to throw off the relativity of the nursing and therapy indexes both within each index, but also across the indexes.

In the CMS FY 2009 SNF PPS proposed rule, CMS discussed its implementation of RUG-53 group and clarified its methodology for ensuring that estimated total payments under the RUG-53 group would be the same as what it would have been under the RUG-44 group. CMS also clarified that the agency had “adjusted the new (nursing) CMIs upward by applying a parity adjustment factor, in order to ensure that the RUG-III model was expanded in a budget neutral manner (73 Federal Register 25923).” CMS also noted that it applied a “second adjustment to the CMIs to account for the variability in the use of NTA services. These two adjustments resulted in a combined 17.9% increase in the CMIs that went into effect on January 1, 2006, as part of the case-mix refinement implementation. (73 Federal Register 25923).” In the FY 2005 final rule, CMS noted

that the NTAS adjustment was 8.51% (70 Federal Register 45033), and noted that the parity adjustment factor was 8.65%.

In establishing budget neutrality and adding the adjustment for the variability of NTAS, CMS applied both adjustments to the nursing weight as part of the implementation of RUG-53. It is our understanding that CMS applied the NTAS adjustment to the nursing index because NTAS are part of the nursing case-mix base rate component. It is our understanding that CMS applied the budget neutrality adjustment to the nursing index because the establishment of the upper nine Rehabilitation plus Extensive Services RUG categories had no effect on the therapy weights, with all of the adjustment for the upper nine RUGs affecting the nursing weights. As the implementation of RUG-53 did not impact the therapy component, CMS applied the budget neutrality adjustment to only the nursing component. AHCA understands and agrees with CMS' decision to apply both adjustments to the nursing index in the switch from RUG-44 to RUG-53.

In moving to RUG-III to RUG-IV, CMS notes that "projections of future utilization patterns under the new case-mix system indicated that the 66-group RUG-IV model would produce lower overall payments than under the original RUG-III 53-group model," and that "consistent with the policy in place when (CMS) transitioned to the RUG-III 53-group model in FY 2006," CMS proposes "to provide for an adjustment to the nursing CMI that would achieve 'parity' between the old and new models (that is, would not cause any change in overall payment levels). The adjustment to the nursing weights necessary to achieve 'parity' is an upward adjustment of 52.6%.

While the application of both adjustments to the nursing index made sense in moving from RUG-44 to RUG-53, it does not make sense in the transition from RUG-53 to RUG-66. Applying the budget neutrality adjustment to only the nursing index throws off the relativity between the nursing and therapy indexes and dramatically and inappropriately skew payments and the SNF payment rate toward nursing services. AHCA proposes that CMS apply an equal adjustment to both the nursing and therapy indexes so as not to throw off the relativity of the nursing and therapy indexes to each other.

### **B. Application Of The 52.6% Adjustment For Budget Neutrality To The Base Nursing Index Inappropriately Skews SNF Payment Rates**

In the proposed rule, CMS remarks that the agency "believes that overall expenditures under the RUG-IV model should maintain parity with overall expenditures under the RUG-III 53-group model" (74 Federal Register 22237). AHCA is pleased to see that CMS proposes to implement RUG-IV in a budget neutral manner. A budget neutral implementation of RUG-IV is critical to maintain the financial stability of the SNF sector, for the provision of services in SNFs, and maintain Medicare beneficiary access to skilled nursing and therapy services. Further, AHCA agrees that CMS should implement RUG-IV in such a way that aggregate payments under RUG-IV would be the same as what it would have been under RUG-III, and believes that any such adjustment should be made based on pre-implementation data that would not reflect changes in provider behavior caused by the change in incentives.

CMS further notes that its “intent in implementing RUG-IV is to allocate payments more accurately based on current medical practice and updated staff resource data obtained during the STRIVE study, and not to decrease or increase overall expenditures” (74 Federal Register 22237). AHCA also agrees that that accurate allocation of payments is important, not only for the implementation of RUG-IV but especially on its foundation, the underlying data and basis for the categorization of residents and the relativeness of the nursing and therapy indexes (both within each index, but also between the indexes).

AHCA, however, has concerns with the application of 52.6% adjustment to the nursing index for parity in Medicare payments between RUG-III and RUG-IV (i.e. the budget neutrality adjustment). AHCA believes that the application of the 52.6% adjustment to the nursing index is contrary to CMS’ goal of achieving accuracy in the allocation of payments with the implementation of RUG-IV. Applying this very large adjustment to only the nursing component dramatically and inappropriately skews SNF rates toward the nursing component, throwing the relativity of the nursing and therapy indexes off balance. Having the weights and associated rates and payments about right is important for payment accuracy and adequacy, to prevent the introduction of perverse incentives, and for operational purposes. Providers and business that rely on the accuracy and appropriateness of the therapy portion of the payment rate, for example for therapy contracting purposes, may be significantly disadvantaged. The application of the proposed adjustment for budget neutrality to only the nursing index is inappropriate.

### **C. Payment Accuracy Is Better Served By Applying A Equal Budget Neutrality Adjustment Factor To Both The Nursing and Therapy Indexes**

Rather than only adjusting the nursing index for budget neutrality, AHCA proposes that CMS apply an equal percentage adjustment to both the nursing index and the therapy index which would maintain the relativity of the nursing and therapy indexes to each other and to improve the accuracy and adequacy of the payment rate components. Given that the 52.6% adjustment includes an adjustment to SNF payments for the variability in NTAS, we believe that budget neutrality between RUG-III and RUG-IV should be established before any additional adjustment is made for the variability of NTAS. Furthermore, since the proportion of the SNF rate for NTAS is embedded in the nursing case-mix base rate component, we would expect that CMS apply an adjustment for the variability of NTAS to the nursing component. Based on modeling with the AHCA SNF reimbursement model, we estimate that a 30.4% adjustment should be applied to both the nursing and therapy base weights to bring about budget neutrality between RUG-IV and RUG-III, with an additional adjustment of 9.2 % applied to the nursing index for the variability of NTAS.<sup>37</sup>

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<sup>37</sup> For the purposes of the AHCA SNF reimbursement model and calculation of the budget neutrality and variability of NTAS adjustments, we estimated the variability of NTAS to be \$750 million plus five market basket increases from FY 2007 through FY 2011 (estimated).

## **Appendix**

**Appendix A:**

**Changes In Resident Characteristics: 2001 - 2006**

Changes In Resident Characteristics – 2001 To 2006 – Used In RUG Grouper								
MDS Cell		Annual Percentage Change 2001 To 2005	Percentage Of Residents 2001	Percentage Of Residents 2005	Annual Percentage Change 2005 To 2006	Percentage Of Residents 2005	Percentage Of Residents 2006	Percentage Change 2001 To 2006
<b>Section G. Physical Functioning And Structural Problems</b>								
Extensive Assistance								
G1aA	Bed Mobility	7.62%	29.94%	39.06%	13.11%	39.06%	44.18%	47.56%
G1bA	Transfer	4.98%	34.15%	40.95%	9.62%	40.95%	44.89%	31.45%
G1iA	Toilet Use	6.84%	31.55%	40.18%	9.73%	40.18%	44.09%	39.75%
Two-Plus Persons Assist								
G1aB	Bed Mobility	8.27%	18.10%	24.09%	21.83%	24.09%	29.35%	62.15%
G1bB	Transfer	3.84%	27.72%	31.98%	15.57%	31.98%	36.96%	33.33%
G1iB	Toilet Use	7.37%	13.98%	18.10%	21.16%	18.10%	21.93%	56.87%
<b>Section H. Continence</b>								
H3a	Any Scheduled Toileting Pattern	1.87%	16.87%	18.13%	5.35%	18.13%	19.10%	13.22%
<b>Section I. Diseases</b>								
I1a	Diabetes Mellitus	3.43%	28.38%	32.27%	6.38%	32.27%	34.33%	20.97%
<b>Section I. Infections</b>								
I2g	Septicemia	0.85%	2.65%	2.74%	5.84%	2.74%	2.90%	9.43%
<b>Section J. Health Conditions</b>								
J1e	Delusions	5.07%	1.43%	1.72%	6.40%	1.72%	1.83%	27.97%
<b>Section K. Oral And Nutritional Status</b>								
K5a	Nutrition Delivery - Parenteral/IV	8.93%	9.02%	12.24%	20.10%	12.24%	14.70%	62.97%
<b>Section M. Skin Condition</b>								
M2a	Pressure Ulcer – Stage 4	2.05%	3.18%	3.44%	17.73%	3.44%	4.05%	27.36%
M5a	Pressure Relieving Device(s) For Chair	6.75%	27.94%	35.48%	15.02%	35.48%	40.81%	46.06%
M5b	Pressure Relieving Device(s) For Bed	3.35%	59.99%	68.03%	9.64%	68.03%	74.59%	24.34%
M5d	Nutrition Or Hydration Intervention To Manage Skin Problems	1.54%	16.92%	17.96%	9.63%	17.96%	19.69%	16.37%
M5e	Ulcer Care	1.41%	18.99%	20.06%	5.98%	20.06%	21.26%	11.95%
M5h	Applications Of Ointments/Medications (Other Than To Feet)	2.98%	30.23%	33.83%	7.74%	33.83%	36.45%	20.58%

Changes In Resident Characteristics – 2001 To 2006 – Used In RUG Grouper								
MDS Cell		Annual Percentage Change 2001 To 2005	Percentage Of Residents 2001	Percentage Of Residents 2005	Annual Percentage Change 2005 To 2006	Percentage Of Residents 2005	Percentage Of Residents 2006	Percentage Change 2001 To 2006
Section O. Medications								
O3	Injections – Number Of Days – 7	10.96%	10.47%	15.06%	15.34%	15.06%	17.37%	65.90%
Section P. Special Treatments And Procedures								
P1ab	Dialysis	3.08%	2.76%	3.10%	19.68%	3.10%	3.71%	34.42%
P1ac	IV Medication	0.99%	49.85%	51.83%	20.10%	51.83%	62.25%	24.87%
P1ak	Transfusions	0.65%	7.29%	7.48%	8.56%	7.48%	8.12%	11.39%
P1baA	Speech Therapy – 4+ Days Per Week	16.76%	4.43%	7.40%	26.49%	7.40%	9.36%	112.87%
P1bbA	Occupational Therapy – 4+ Days Per Week	7.33%	32.22%	41.66%	10.08%	41.66%	45.86%	42.33%
P1bcA	Physical Therapy – 4+ Days Per Week	2.11%	44.05%	47.76%	6.72%	47.76%	50.97%	15.71%
P8	Physician Order Changes Within Last 14 Days – 4 Or More Days	0.23%	26.75%	26.99%	5.59%	26.99%	28.50%	6.54%

Changes In Resident Characteristics – 2001 To 2006 – Not Used In RUG Grouper								
MDS Cell		Annual Percentage Change 2001 To 2005	Percentage Of Residents 2001	Percentage Of Residents 2005	Annual Percentage Change 2005 To 2006	Percentage Of Residents 2005	Percentage Of Residents 2006	Percentage Change 2001 To 2006
<b>Section G. Physical Functioning And Structural Problems</b>								
Extensive Assistance								
G1cA	Walk In Room	1.82%	15.36%	16.48%	8.74%	16.48%	17.92%	16.67%
G1dA	Walk In Corridor	3.75%	11.66%	13.41%	12.60%	13.41%	15.10%	29.50%
G1eA	Locomotion On Unit	8.62%	16.19%	21.77%	12.08%	21.77%	24.40%	50.71%
G1fA	Locomotion Off Unit	11.00%	13.78%	19.84%	11.54%	19.84%	22.13%	60.60%
G1gA	Dressing	7.00%	35.74%	45.75%	8.26%	45.75%	49.53%	38.58%
G1jA	Personal Hygiene	7.35%	27.96%	36.18%	10.92%	36.18%	40.13%	43.53%
Two-Plus Persons Assist								
G1dB	Walk In Corridor	-0.49%	3.55%	3.48%	11.78%	3.48%	3.89%	9.58%
G1gB	Dressing	8.71%	3.33%	4.49%	17.59%	4.49%	5.28%	58.56%
G1jB	Personal Hygiene	7.55%	2.65%	3.45%	19.13%	3.45%	4.11%	55.09%
<b>Section H. Continence</b>								
Frequently Incontinent								
H1a	Bowel	2.64%	6.54%	7.23%	6.50%	7.23%	7.70%	17.74%
H1b	Bladder	3.13%	9.90%	11.14%	5.30%	11.14%	11.73%	18.48%
<b>Section I. Diseases</b>								
I1f	Congestive Heart Failure	0.35%	26.16%	26.52%	3.73%	26.52%	27.51%	5.16%
I1j	Peripheral Vascular Disease	0.03%	10.44%	10.45%	6.99%	10.45%	11.18%	7.09%
I1ee	Depression	6.07%	23.49%	29.19%	9.18%	29.19%	31.84%	35.67%
I1hh	Asthma	4.62%	3.14%	3.72%	5.11%	3.72%	3.91%	24.52%
I1ii	Emphysema/COPD	1.78%	20.77%	22.25%	2.88%	22.25%	22.89%	10.21%
<b>Section I. Infections</b>								
I2a	Antibiotic Resistant Infection	3.01%	3.74%	4.19%	10.26%	4.19%	4.62%	23.53%
I2b	Clostridium Difficile	18.66%	1.38%	2.41%	17.43%	2.41%	2.83%	105.07%
I2j	Urinary Tract Infection In Last 30 Days	1.93%	19.03%	20.50%	8.73%	20.50%	22.29%	17.13%
<b>Section J. Health Conditions</b>								
J1g	Edema	1.69%	33.88%	36.17%	0.94%	36.17%	36.51%	7.76%
J4b	Fell In Past 31 To 180 Days	3.06%	11.92%	13.38%	23.54%	13.38%	16.53%	38.67%
J4d	Other Fracture In Last 180 Days	3.14%	7.41%	8.34%	3.60%	8.34%	8.64%	16.60%
J5a	Conditions/Diseases Make Resident's Cognitive, ADL, Mood, Or Behavior Pattern Unstable	3.73%	47.39%	54.45%	4.43%	54.45%	56.86%	19.98%
J5b	Resident Experiencing An Acute Episode Or A Flare-Up Of A Recurrent Or Chronic Problem	8.40%	33.38%	44.60%	6.73%	44.60%	47.60%	42.60%

Changes In Resident Characteristics – 2001 To 2006 – Not Used In RUG Grouper								
MDS Cell		Annual Percentage Change 2001 To 2005	Percentage Of Residents 2001	Percentage Of Residents 2005	Annual Percentage Change 2005 To 2006	Percentage Of Residents 2005	Percentage Of Residents 2006	Percentage Change 2001 To 2006
Section K. Oral And Nutritional Status								
K1a	Chewing Problem	4.25%	16.71%	19.55%	5.27%	19.55%	20.58%	23.16%
K1b	Swallowing Problem	0.64%	17.28%	17.72%	6.77%	17.72%	18.92%	9.49%
K2b	Weight In Pounds – 300 Or More	13.06%	0.67%	1.02%	4.90%	1.02%	1.07%	59.70%
K3b	Weight Gain – 5% Or More In Last 30 Days, 10% Or More In Last 180 Days	-0.20%	3.86%	3.83%	18.54%	3.83%	4.54%	17.62%
K5h	On A Planned Weight Change Program	4.30%	8.38%	9.82%	12.53%	9.82%	11.05%	31.86%
Section M. Skin Condition								
M4d	Rashes	3.25%	11.92%	13.47%	3.86%	13.47%	13.99%	17.37%
M4e	Skin Desensitized To Pain Or Pressure	1.69%	5.49%	5.86%	9.04%	5.86%	6.39%	16.39%
M4f	Skin Tears Or Cuts (Other Than Surgery)	0.60%	8.36%	8.56%	3.62%	8.56%	8.87%	6.10%
M5i	Other Preventive Or Protective Skin Care (Other Than To Feet)	3.10%	44.59%	50.12%	6.01%	50.12%	53.13%	19.15%
M6a	Resident Has One Or More Foot Problems	4.21%	13.59%	15.88%	8.56%	15.88%	17.24%	26.86%
M6e	Received Preventive Or Protective Foot Care	5.65%	18.63%	22.84%	15.24%	22.84%	26.32%	41.28%
Section O. Medications								
O1	Number Of Medications – 16 Or More	16.59%	10.37%	17.25%	17.22%	17.25%	20.22%	94.99%
O4a	Antipsychotic – 7 Days	8.80%	5.68%	7.68%	12.89%	7.68%	8.67%	52.64%
O4b	Antianxiety – 7 Days	3.74%	4.62%	5.31%	17.33%	5.31%	6.23%	34.85%
O4c	Antidepressant – 7 Days	8.29%	14.09%	18.76%	17.27%	18.76%	22.00%	56.14%
O4d	Hypnotic – 7 Days	6.46%	1.82%	2.29%	20.09%	2.29%	2.75%	51.10%
O4e	Diuretic – 7 Days	4.33%	17.37%	20.38%	10.06%	20.38%	22.43%	29.13%
Section P. Special Treatments And Procedures								
P1ae	Monitoring Acute Medical Condition	3.13%	68.50%	77.06%	2.35%	77.06%	78.87%	15.14%
P1af	Ostomy Care	-0.52%	5.29%	5.18%	14.67%	5.18%	5.94%	12.29%
P1an	Alzheimer's/Dementia Care Unit	19.52%	1.14%	2.03%	3.94%	2.03%	2.11%	85.09%

**Appendix B:**

**Specific Comments On MDS 3.0 By Section And Data Element**

MDS Item Number	Item Title	Issue	Discussion
A0310B	Type of assessment: PPS (0.26)	Instructions-clarity	need clear definitions of
A0310C	Type of assessment--EMCA-end of MC coverage	New item--not tested	A (20) definition unknown. C - Why is this needed if B (05) marked?
^^^	Type of assessment: TRICARE	Missing response	See comment at bottom of page.
A0310D	PPS--OMRA--ver .26	New item--not tested	New definition/time requirement/frequency of the OMRA--more resources--staff/billing--more opportunity for error
A0310E	State MA required--ver .26	Query for information	Some States require more documentation than what is stated in RAI Manual to code an item like flowsheet signoffs or other for "back up", which the RAI Manual specifically states are not required. Can documentation required for Medicaid payment be greater than that required for Medicare payment? CMS needs to clearly re-state that the MDS is a source document.
A0310F	First assessment since most recent entry (ver .26 re-numbered)	Query for information	Definition of "re-entry" is unknown. Definition of Entry Transaction is unknown. Is MDS now going to track Medicare Spell of Illness? This will be laborious for the clinical staff, when already tracked by business office and Common Working File. Cannot comment appropriately without definition of terms. This also applies to A2400. It is not clear what F. is asking.
A0410	Submission requirement (ver 0.26)	Query for information	If electronically submitting MDS files directly to CMS, the facility should not be responsible to submit file to state as well and particularly timely to ensure state reimbursement. In addition, the facility should not be responsible for purging files not accepted by the state or CMS.
A0800	Gender	Missing response	Missing--transgender
A1000	Race/Ethnicity	Terminology/wording	<a href="#">Though the categories chosen are allowed under current directive 15, they are the minimum acceptable categories rather than the recommended. See below.</a>
A1000A	Ethnicity: American Indian or Alaska Native	Instructions-clarity	<p>I. Categories and Definitions--</p> <ul style="list-style-type: none"> <li>American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.</li> </ul>
A1000B	Ethnicity: Asian	Instructions-clarity	<ul style="list-style-type: none"> <li>Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.</li> </ul>
A1000C	Ethnicity: Black or African American	Instructions-clarity	<ul style="list-style-type: none"> <li>Black or African American. A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."</li> </ul>
A1000D	Ethnicity: Hispanic or Latino	Instructions-clarity	<ul style="list-style-type: none"> <li>Hispanic or Latino. A person of Cuban, Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."</li> <li>Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.</li> </ul>
A1000E	Ethnicity: Native Hawaiian/Pacific Islander	Instructions-clarity	<ul style="list-style-type: none"> <li>White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. Respondents shall be offered the option of selecting one or more racial designations. Recommended forms for the instruction accompanying the multiple response question are "Mark</li> </ul>

<p>one or more" and "Select one or more."  2. Data Formats  The standards provide two formats that may be used for data on race and ethnicity. <u>Self-reporting or self-identification using two separate questions is the preferred method for collecting data on race and ethnicity. In situations where self-reporting is not practicable or feasible, the combined format may be used.</u></p> <p>In no case shall the provisions of the standards be construed to limit the collection of data to the categories described above. The collection of greater detail is encouraged; however, any collection that uses more detail shall be organized in such a way that the additional categories can be aggregated into these minimum categories for data on race and ethnicity.</p> <p>With respect to tabulation, the procedures used by Federal agencies shall result in the production of as much detailed information on race and ethnicity as possible. However, Federal agencies shall not present data on detailed categories if doing so would compromise data quality or confidentiality standards.</p> <p>a. Two-question format  To provide flexibility and ensure data quality, separate questions shall be used wherever feasible for reporting race and ethnicity. When race and ethnicity are collected separately, ethnicity shall be collected first. If race and ethnicity are collected separately, the minimum designations are:</p> <p>Ethnicity:  -- Hispanic or Latino  -- Not Hispanic or Latino</p> <p>Race:  -- American Indian or Alaska Native  -- Asian  -- Black or African American  -- Native Hawaiian or Other Pacific Islander  -- White</p> <p>When data on race and ethnicity are collected separately, provision shall be made to report the number of respondents in each racial category who are Hispanic or Latino.</p> <p>When aggregate data are presented, data producers shall provide the number of respondents who marked (or selected) only one category, separately for each of the five racial categories. In addition to these numbers, data producers are strongly encouraged to provide the detailed distributions, including all possible combinations, of multiple responses to the race question. If data on multiple responses are collapsed, at a minimum the total number of respondents reporting "more than one race" shall be made available.</p>	<p>Instructions-Clarity</p>	<p>Ethnicity: White</p>	<p>one or more" and "Select one or more."  2. Data Formats  The standards provide two formats that may be used for data on race and ethnicity. <u>Self-reporting or self-identification using two separate questions is the preferred method for collecting data on race and ethnicity. In situations where self-reporting is not practicable or feasible, the combined format may be used.</u></p> <p>In no case shall the provisions of the standards be construed to limit the collection of data to the categories described above. The collection of greater detail is encouraged; however, any collection that uses more detail shall be organized in such a way that the additional categories can be aggregated into these minimum categories for data on race and ethnicity.</p> <p>With respect to tabulation, the procedures used by Federal agencies shall result in the production of as much detailed information on race and ethnicity as possible. However, Federal agencies shall not present data on detailed categories if doing so would compromise data quality or confidentiality standards.</p> <p>a. Two-question format  To provide flexibility and ensure data quality, separate questions shall be used wherever feasible for reporting race and ethnicity. When race and ethnicity are collected separately, ethnicity shall be collected first. If race and ethnicity are collected separately, the minimum designations are:</p> <p>Ethnicity:  -- Hispanic or Latino  -- Not Hispanic or Latino</p> <p>Race:  -- American Indian or Alaska Native  -- Asian  -- Black or African American  -- Native Hawaiian or Other Pacific Islander  -- White</p> <p>When data on race and ethnicity are collected separately, provision shall be made to report the number of respondents in each racial category who are Hispanic or Latino.</p> <p>When aggregate data are presented, data producers shall provide the number of respondents who marked (or selected) only one category, separately for each of the five racial categories. In addition to these numbers, data producers are strongly encouraged to provide the detailed distributions, including all possible combinations, of multiple responses to the race question. If data on multiple responses are collapsed, at a minimum the total number of respondents reporting "more than one race" shall be made available.</p>
<p>A1000Z</p>	<p>Missing response</p>	<p>Ethnicity: unable to determine/unknown</p>	<p>This was dropped in 0.26--needs to be re-instated--item records what the person considers him/herself to be. If comatose with no family or significant other, there may be an appropriate response.</p>
<p>A1100A</p>	<p>General comment</p>	<p>Does the resident need or want an interpreter</p>	<p>Must place emphasis on use of braille or ASL as languages.</p>
<p>A1100B</p>	<p>General comment</p>	<p>Preferred language</p>	<p>Must place emphasis on use of braille or American Sign Language as languages.</p>
<p>A1200</p>	<p>Missing response</p>	<p>Marital status</p>	<p>Need Unknown. What is the real purpose for gathering this info now? For research purposes?  More importance is who is significant in this person's life? What if the person refuses to answer?  Some persons may find this question unacceptable.</p>

A1200	Marital status	Missing response	Need--life partner
A1500	Resident evaluated by PASRR	Missing response	Add to 9 "Not a Medicaid certified unit or bed." Some facilities have units which contain certified/non-certified beds on same unit.
A1600	Entry date (date of admission/reentry in facility)	Query for information	Definition unknown
A1700	Type of entry	Query for information	What is the definition of "reentry?"
A1800	Entered from	Missing response	Need definition to answer with certainty. There can be a combination of responses like a person could be in a 02 nursing home, as well as 07 hospice. Or they could be 01 community combined with 07 hospice, unless this refers only to the physical setting. Needs clarification.
A1800	Entered from	Instructions-clarity	Some states have a level of care known as Chronic Hospital. Is this recorded as acute hospital?
A1800	Entered from	Instructions-clarity	For 01, would this also include a homeless shelter or "the street?" For 99, would this include jail or correctional facility?
A2100	Discharge status	Instructions-clarity	For 01, would this also include a homeless shelter, or "the street?" For 99, would this include jail or correctional facility?
A2100	Discharge status	Missing response	A lot more printing if discharge tracker includes clinical items. Some states have a level of care known as CHRONIC HOSPITAL--is this recorded as ACUTE HOSPITAL
A2400A	Has resident had Medicare-covered stay	Query for information	Terminology containing more familiar wording to facility staff would be "for this current admission/entry" or "in this current admission/entry" or "during this current admission/entry". The word "since" is confusing. Use the terminology as noted at A1600--"Date of this admission/entry". The element would read, "Has the resident had a Medicare covered stay in this most recent admission/entry?" A person can have several Medicare payment periods in a SNF in one admission/entry for the same spell of illness. The instruction is not clear. Is the intent to record the date which begins the spell of illness?
A2400B	Start date of most recent Medicare stay	Instructions-clarity	See above. Is this date going to be linked somehow to the assessment type? "Medicare Stay" requires further definition.
A2400C	End date of most recent Medicare stay	Instructions-clarity	See above. Is this date going to be linked somehow to the assessment type? "Medicare Stay" requires further definition.
B0100	Comatose		
B0700	Makes self understood	Instructions-clarity	IF the intent is to capture how the person makes needs known (even though this is in the Hearing, Speech ,and Vision section) and by any means, then this should be noted in the instructions. Suggest adding "written" or RAI Manual instructions which clarify that non-verbal expression equals written communication or communication via a picture board. Instructions should also clarify that this is how the person expresses him/herself in this/her native language.
B0800	Ability to understand others	Instructions-clarity	Again, the intent of this item is important. Is the intent is to record whether or not a person can hear? If the intent is to record if a person understands (if the person is deaf) and can understand by lip reading or by reading the written word, then careful directions will be necessary.
B1200	Corrective lenses	Terminology/wording	Does this include lens implants?

C0100	BIMS: should resident interview be conducted	Instructions-clarity	Instructions conflict whether or not to interview, attempt to interview all residents or whether not to interview if the resident is rarely or never understood. The interviews should determine if "rarely/never understood" instead of vice versa.
C0100	BIMS: should resident interview be conducted	Missing response	Options should include response "not applicable," and/or "client refused to respond." Bims interview is irrelevant and may not be appropriate for the relatively young, working adult who is admitted only for post-surgical rehab where in most cases is expected with discharge within 10 days.
C0100	BIMS: should resident interview be conducted	Instructions-clarity	Instructions must clarify whether or not BIMS can be conducted in written form. As it now stands, conducting this interview is based on whether or not resident is understood using verbal or non-verbal expression; not using his/her own method of communication. If a person cannot speak, he/she would not be understood.
C0500	BIMS res interview: summary score	Instructions-clarity	Scoring requires clarification. "Unable to complete" is not the same as an incorrect answer. Is "unable to complete" the same as "no answer."
C0600	Staff asmt mental status: conduct asmt		Needs to address whether or not staff should complete this area. Consider inclusion of Not Applicable.
C0700	Staff asmt mental status: short-term memory OK	Terminology/wording	"Seems or appears to recall" is very subjective.
C0800	Staff asmt mental status: long-term memory OK	Terminology/wording	"Seems or appears to recall" is very subjective.
C0900A	Staff asmt mental status: recall current season	Instructions-clarity	Instructions need to tell the person to ask the resident, "what is the current season?"
C0900B	Staff asmt mental status: recall location of room	Instructions-clarity	Instructions need to tell the person to ask staff if person can go to his/her own room. Would not expect a new admission to know the room.
C0900C	Staff asmt mental status: recall staff names/faces	Instructions-clarity	Need clear instructions. Would not expect new admission to know staff names.
C0900D	Staff asmt mental status: recall in nursing home	Instructions-clarity	Instructions need to tell the person to ask the resident, "where are you now?"
C1000	Cognitive skills for daily decision making	Instructions-clarity	This is a carry over from MDS 2.0, and is very subjective.
C1300C	Signs of delirium: altered level of consciousness	Terminology/wording	Remove the word Comatose from "comatose--could not be aroused." If person is comatose, this section is skipped, as noted in B0100-1 (Persistent vegetative state/no discernable level of consciousness, skip to G--ADL's)
C1600	Acute onset mental status change	Instructions-clarity	Would there also be a Yes if the person had a positive change from baseline? From comatose to alert? Or if delirium clears?
C1600	Acute onset mental status change	Instructions-clarity	Instructions must clearly define "baseline." How can staff know "baseline" on day 4 of admission? What constitutes baseline on a new admission?
D0100	PHQ: should resident mood interview be conducted	Instructions-clarity	Instructions must clarify whether or not PHQ9 can be conducted in written form. As it now stands, conducting this interview is based on whether or not resident is understood using verbal or non-verbal expression, not using his/her own method of communication. Currently, if a person cannot speak, he/she would not be understood. Should the item include response Not Applicable, and/or Client refused to respond. PHQ interview is irrelevant and may not be appropriate to the relatively young, working adult who is admitted only for post-surgical Rehab and 1 most cases expected with discharge within 10 days. Delicate questions and social concern and requires staff training.

D0100	PHQ: should resident mood interview be conducted	Instructions-clarity	Conflicting instructions whether or not to interview, attempt to interview all and do not interview if rarely/never understood. The interviews should determine if "rarely/never understood" instead of vice versa.
D0100	PHQ: should resident mood interview be conducted	Item sequence, letter, number	This is the PHQ9, not the PHQ "A through I". Collaboration amongst facility clinicians and other professionals will be easier if the MDS items are numbered, not lettered. If the questions are numbered, the columns (Symptom presence and symptom frequency) could be lettered as Column A and Column B.
D0200A1	PHQ res: little interest or pleasure - presence	General comment	The PHQ-9 does not include a symptom frequency of 0 to 1 days. Why are we making our PHQ more difficult? Is there any clinical value in doing so? Use the original terminology, "not at all" having 2 week lookback.
D0200A2	PHQ res: little interest or pleasure - frequency	General comment	The PHQ 9 does not indicate the actual number of days. Listing the actual number of days increases staff burden, and can lead to confusion.
D0200I1	PHQ res: thoughts better off dead - presence	Instructions-clarity	This response will require extensive staff training from a qualified source (psychiatrist, psych nurse, etc.) how to ask and handle response.
D0200I2	PHQ res: thoughts better off dead - frequency	Instructions-clarity	This response will require extensive staff training from a qualified source (psychiatrist, psych nurse, etc.) how to ask and handle response.
D0300	PHQ res: total mood severity score	Instructions-clarity	Need clear instructions. What does "adjusted" mean?
D0350	PHQ res: safety notification	General comment	Why is this included? Not many would answer No. Depending on how the questionnaire is completed, it may require a staff member to go into MDS twice; once to fill-in questionnaire, and once to respond to this item.
D0500	PHQ: should staff mood interview be conducted	Instructions-clarity	When to complete is not clear.
D0500	PHQ: should staff mood interview be conducted	Item sequence, letter, number	This is the PHQ9-OV, with 10 items, not the PHQ "A through I with J". Collaboration amongst facility clinicians and other professionals will be easier if the MDS items are numbered, not lettered. If the questions are numbered, the columns (symptom presence and symptom frequency) could be lettered as Column A and Column B. Should include response: not applicable, and/or client refused to respond. PHQ9-OV interview may be irrelevant to the relatively young, working adult who is admitted only for post-surgical rehab where in most cases discharge is expected within 10 days.
E0100A	Psychosis: hallucinations	New item--not tested	Hallucinations/Illusions were combined during research. Does separation add any value to the findings? "Real" needs defining.
E0100B	Psychosis: illusions	New item--not tested	Hallucinations/Illusions were combined during research. Does separation add any value to the findings? "Real" needs defining.
E0200A	Physical behav symptoms directed toward others	General comment	Sections E200, E800, and E900 specifically state number of days. This places an undue burden on staff to document and count. More acceptable terminology could be: never, rarely, frequently, and daily.
F0300	Conduct res interview for daily/activity prefs	Questionable validity/reliability	See separate comments re: possible answer "important but can't do or no choice." This response is not helpful in developing care plan problem or approach.
F0300	Conduct res interview for daily/activity prefs	Instructions-clarity	Conflicting instructions whether or not to interview, attempt to interview all, and do not interview if rarely/never understood. Seems like the interviews should determine if "rarely/never understood" instead of vice versa. Once again, should include response Not Applicable, Client Refused to Answer. Most of these questions may not be relevant to the young, short term rehab client.

F0300	Conduct res interview for daily/activity prefs	Instructions-clarity	Instructions must clarify whether or not this interview for preferences can be conducted in written form. Conducting this interview is based on whether or not resident is understood using verbal or non-verbal expression, not using his/her own method of communication. Currently, if a person cannot speak, he/she would not be understood. What does "take care of your personal belongings or things" mean?
F0400C	Res interview: choose tub, bath, shower, sponge	Questionable validity/reliability	This does not help to actually identify the preference.
F0800A	Staff assessment: choosing clothes to wear	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800B	Staff assessment: caring for personal belongings	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800C	Staff assessment: receiving tub bath	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800D	Staff assessment: receiving shower	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800E	Staff assessment: receiving bed bath	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800F	Staff assessment: receiving sponge bath	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800G	Staff assessment: snacks between meals	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800H	Staff assessment: staying up past 8PM	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800K	Staff assessment: place to lock personal things	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800M	Staff assessment: listening to music	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800N	Staff assessment: being around animals/pets	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800O	Staff assessment: keeping up with news	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800Q	Staff assessment: participate favorite activities	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800R	Staff assessment: spend time away from nursing home	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800S	Staff assessment: spend time outdoors	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.
F0800T	Staff assessment: participate religious activities	Questionable validity/reliability	Staff assessment of "preference" is frequently made on what is Offered or Done. This is not a true preference at all.

G	ADL	General comment	An additional coding method has been added. In (2) activity occurred 3 or more times and (7) activity occurred 2 or fewer times. This only makes coding more confusing not clearer. Since this area relates directly to RUG ADL score, changes and will also affect reimbursement. More clarity is needed. Response "7" is not included in ADL calculations. If it is not used, then why is the item needed? If assistance is provided by a family member, is it coded? Is it coded even if the assistance is not needed?
G0100D	ADL: walk in corridor	Terminology/wording	On Unit is a stringent definition that does not allow accurate description of resident ability. How does this differ from E?
G0100J	ADL: personal hygiene assistance	Terminology/wording	Does this also include removing and cleaning dentures?
G0120	ADL: bathing assistance	Instructions-clarity	Again, different coding requirements instead of simplicity
G0400A	ROM limitation: upper extremity	Instructions-clarity	Element should clarify how to code if no extremity present, rather than require manual definition.
G0400B	ROM limitation: lower extremity	Instructions-clarity	form should clarify how to code if no extremity present, rather than require manual definition.
G0600D	Mobility devices: limb prosthesis	Missing response	Changed from previous version. However, should have "lower" and "upper."
H0100C	Appliances: ostomy	Terminology/wording	Simplify to "Excretory Ostomy."
H0300	Urinary continence		Occasionally incontinent, it changed from "2 or more times a week but not daily" to "less than 7 episodes." Does this mean daily? It could be on the same day?
H0300	Urinary continence		Usually continent is now "occasionally incontinent," from once a week or less to "less than 7 episodes." Does this mean daily, or could be on the same day?
H0300	Urinary continence		Frequently incontinent - may have self-control to "7 or more episodes of urinary incontinence." Does this mean daily, or could be on the same day?
H0300	Urinary continence	General comment	New definitions (from MDS 2.0) for each category. All need clarification.
I	Active Disease	General Comment	Does Active Diagnosis mean under current treatment? What if the disease is inactive but under monitoring?
I2300	Urinary tract infection (UTI)		UTI needs a clear definition that is based on evidence.
I2900	Diabetes mellitus (DM)		Need explanation for clarifying elements.
I5600	Malnutrition (protein, calorie)/risk for malnutrit	Instructions-clarity	Instructions must clearly state objective basis for noting patient "at risk." A physician diagnosis? If triggered? If receiving tube feeding? If has 4 stage 4 ulcers? If has ulcerative colitis? If missing 1/2 of small or large intestine? If has cancer?
J0100A	Pain: been on scheduled pain med regimen	General comment	What is the significance of the 5-day look back?
J0100B	Pain: received PRN pain medications	General comment	What is the significance of a 5-day look back?
J0100C	Pain: received non-medication intervention	General comment	What is the significance of a 5-day look back?
J0200	Should pain assessment interview be conducted	General comment	What is the significance of a 5-day look back?
J0200	Should pain assessment interview be conducted	Instructions-clarity	Conflicting instructions whether or not to interview, attempt to interview all, and do not interview if rarely/never understood. Seems like the interviews should determine if "rarely/never understood"

			instead of vice versa.
J0200	No	Instructions-clarity	Instructions must clarify whether or not this interview for pain can be conducted in written form. Conducting this interview is based on whether or not resident is understood using verbal or non-verbal expression, not using his/her own method of communication. Currently, if a person cannot speak, he/she would not be understood.
J0800	Staff assessment for pain	New item--not tested	Instructions confusing. Is important that the interview can be conducted in writing, using Braille, or with interpreter. Is the staff assessment look back 5 or 7 days?
J1100A	Short breath/trouble breathing: with exertion	Instructions-clarity	Instructions must clarify how these symptoms are to be gathered, whether by patient interview or staff observation, or both.
J1100B	Short breath/trouble breathing: sitting at rest	Instructions-clarity	Instructions must clarify how these symptoms are to be gathered, whether by patient interview or staff observation, or both.
J1100C	Short breath/trouble breathing: lying flat	Instructions-clarity	Instructions must clarify how these symptoms are to be gathered, whether by patient interview or staff observation, or both.
J1100Z	Short breath/trouble breathing: none of above	Instructions-clarity	Instructions must clarify how these symptoms are to be gathered, whether by patient interview or staff observation, or both.
J1400	Prognosis: life expectancy of less than 6 months	Missing response	Need response "Not able to ascertain" (or similar verbiage).
J1500D	Problem conditions: dehydrated	Terminology/wording	This reliability of responses for this condition was found to be poor, yet it is back on this draft form.
J1700	Fall history on admission	Instructions-clarity	What is definition of a Fall? Need to include definition on the form.
J1700A	Fall history: fall during month before entry	Instructions-clarity	Be clear what date is used for prior to admission? as noted at A1600, how about a question for fall history during hospitalization?
J1700B	Fall history: fall during 2 TO 6 months before entry	Instructions-clarity	Be clear what date is used for prior to admission? As noted at A1600, Is this question excessive?
J1700C	Fall history: fracture from fall 6 month pre entry		It is confusing to flip back to 6 months. Why is this required if it is not an "active" problem?
J1800	Falls since admit/prior asmt: any falls	Instructions-clarity	Be clear on admission date or more recent.
J1900 A, B, C	Falls since admit/prior assessment	Instructions-clarity	Instructions must clearly indicate how falls are to be counted, by the number of falls, or by the number of injuries. Each fall should be counted only once, by the most serious injury and entered into A,B, or C.
J1900B	Falls since admit/prior asmt: injury (not major)	Terminology/wording	Lacerations cannot be categorically called "not major."
K0100C	Swallow disorder: cough/choke with meals/meds	Terminology/wording	Should also include "immediately after."
K0500B	Nutritional approaches: feeding tube	Instructions-clarity	Esophagostomy tubes and jejunostomy tubes are also used for enteral feedings.
K0500C	Nutritional approaches: mechanically altered diet	Instructions-clarity	Instructions should clarify if this also includes "chopped", or "ground".
L0200	Oral/Dental	Missing response	Should add "mouth odor". Frequently a patient may not allow a "formal" exam (L0200G=X), but odor is indicative of a minor/major problem.
M0100	Determination of pressure ulcer risk	New item--not tested	This item was not tested/researched. B and C are adding additional assessments to the MDS.

M0100	Determination of pressure ulcer risk	General comment	This item adds nothing to RUG, QI/QM and adds only to time required to complete MDS.
M0100A	Risk determination: has ulcer, scar, or dressing	New item--not tested	This item adds nothing to RUG, QI/QM and adds only to time required to complete MDS.
M0100B	Risk determination: formal assessment	New item--not tested	Why is the MDS requiring another assessment methodology? The MDS, itself, has numerous data elements which can comprise a "risk" assessment - the items which can trigger the Pressure Ulcer RAP. If one uses the MDS items, is this clinical judgment, or a formal assessment? This item adds nothing to RUG, QI/QM and adds only to time required to complete MDS.
M0100C	Risk determination: clinical judgment	New item--not tested	This item adds nothing to RUG, QI/QM and adds only to time required to complete MDS.
M0100Z	Risk determination: none of the above	New item--not tested	This response should only be allowed on the first assessment.
M0150	Is resident at risk of developing pressure ulcer	New item--not tested	This item adds nothing to RUG, QI/QM and adds only to time required to complete MDS. It is already derived from the MDS via a trigger.
M0210	Have ulcers?	Instructions-clarity	"Does have" - as of what date? ARD, or in past 7 days?
M0300/M0610		Item sequence, letter, number	These two sections should be together, rather than breaking out number from measurements. It takes more time to code when set up this way.
M0600	Dimensions of unhealed Stage 3 or Stage 4 pressure ulcers...	Spelling error	Explain the significance of only measuring the largest pressure ulcer.
M0700	Tissue type for ulcer at most advanced stage	Terminology/wording	Most severe tissue type? Is this the correct terminology?
M0800	Worsening in Pressure Ulcer Status	Terminology/wording	Suggest changing word "lesser" to "lower" to match M210 "higher"
M0800A	Worsened since prior asmt: Stage 2 pressure ulcers		If an ulcer worsens, it is re-classified into next stage, except a 4, right?
M1040B	Other skin probs: diabetic foot ulcer(s)	Terminology/wording	Not sure why this is worthy of special classification. A diabetic foot ulcer is caused by arterial disease.
M1040	Other skin probs: surgical wound(s)	General comment	How does one code if the surgical wound is on the foot? There is no place to record it in foot problems.
M1100	Number of venous and arterial ulcers	Terminology/wording	This is problematic, as diabetic foot ulcers are also arterial ulcers. Instructions say to record only if M1020 (venous or arterial ulcers) is checked. Although NPUAP differentiates these types of ulcers, a diabetic foot ulcer is still an arterial ulcer.
M1200	Treatments	General comment	This section, as in MDS 2.0, makes unnecessary distinctions between treatments to foot versus other areas. Items are frequently miscoded or double-coded. Is there a reason why surgical wounds are also divided this way?
N0350	Insulin/orders for insulin		N0350 is a new item – what happens if the individual has more than one type of insulin and the order changes are different for both during the assessment timeframe?
N0400A	Medications: antipsychotic	Instructions-clarity	Why only since admission? These are important for clinical care!
N0400B	Medications: antianxiety	Instructions-clarity	Why only since admission? These are important for clinical care!
N0400C	Medications: antidepressant	Instructions-clarity	Why only since admission? These are important for clinical care!
N0400D	Medications: hypnotic	Instructions-clarity	Why only since admission? These are important for clinical care!

N0400E	Medications: anticoagulant	Instructions-clarify	Why only since admission? These are important for clinical care!
N0400F	Antibiotic	Instructions-clarify	Why only since admission? These are important for clinical care!
N0400G	Diuretic	Instructions-clarify	Why only since admission? These are important for clinical care!
O0100	Special treatments and programs	Terminology/wording	Do not use word "procedures" since the section is titled Treatments and Programs. Hospice care, for example, is not a procedure. Suggest change to: Indicate whether or not the following treatment or program occurred during the last 14 days. In addition, how does one code if the resident was in the emergency room during the last 14 days and receiving treatment? Are they still considered a resident while under extended observation stay?
O0100	Special treatments and programs	Terminology/wording	Suggest change to "Code column 1 only if the treatment/program occurred before the most current admission/re-entry and this most current admission or re-entry is in the last 14 days. If this admission or re-entry occurred more than 14 days ago, leave this column blank." Suggest change to "Code for all residents. Code column 2 if treatment/program occurred during this current admission/re-entry AND within the last 14 days."
O0100	Special treatments and programs	Terminology/wording	Suggest labeling column 1 as: Before this admission/re-entry. Suggest labeling column 2: During this admission/re-entry
O0100L1	Treatment: respite care - while not resident	Terminology/wording	Not sure that this is even possible. What is the significance?.
O0250	If influenza vaccine not received, state reason	Instructions-clarify	Would answer B9 "none of the above" also be used if reason is unknown?
O0400	Therapies	Instructions-clarify	Instructions should clearly state that the therapies recorded must be "during this current admission/re-entry."
O0400A3	Speech-language/audiology: start date	New item--not tested	This item was not tested. It is also open to much misunderstanding by coders.
O0400A4	Speech-language/audiology: end date	New item--not tested	This item was not tested. It is also open to much misunderstanding by coders, to record the last date of therapy? Or date on which resident no longer receives therapy?
O0400B3	Occupational therapy: start date	New item--not tested	This item was not tested. It is also open to much misunderstanding by coders.
O0400B4	Occupational therapy: end date	New item--not tested	This item was not tested. It is also open to much misunderstanding by coders to record the last date of therapy? Or date on which resident no longer receives therapy?
O0400C3	Physical therapy: start date	New item--not tested	This item was not tested. It is also open to much misunderstanding by coders.
O0400C4	Physical therapy: end date	New item--not tested	This item was not tested. It is also open to much misunderstanding by coders to record the last date of therapy? Or date on which resident no longer receives therapy?
O0400D1	Respiratory therapy: number of minutes	New item--not tested	Although included in MDS 2.0, this item was not tested. It is unclear what value it will add to the assessment. Unless the RUGs are changed to include this service based on minutes, collecting this data seems time consuming and unreasonable.
O0400D3	Respiratory therapy: start date	New item--not tested	This item was not tested. Collecting this data is time consuming and used for RUGs classification.
O0400D4	Respiratory therapy: end date	New item--not tested	This item was not tested. Collecting this data is time consuming and used for RUGs classification.

O0400E1	Psychological therapy: number of minutes	New item--not tested	Although included in MDS 2.0, this item was not tested. It is unclear what value it will add to this assessment. Unless the RUGs are changed to include this service, collecting this data seems time consuming and unreasonable. A provider usually does not indicate in the medical record how many minutes of therapy were provided. The only way to collect this information is from the provider billing, which the facility usually does not have access.
O0400E2	Psychological therapy: number of days		Although included in MDS 2.0, this item was not tested. It is unclear what value it will add to the assessment. Unless the RUGs are changed to include this service, collecting this data seems time consuming and unreasonable.
O0400E3	Psychological therapy: start date	New item--not tested	This item was not tested. Collecting this data seems time consuming and unreasonable.
O0400E4	Psychological therapy: end date	New item--not tested	This item was not tested. Collecting this data seems time consuming and unreasonable.
O0400F1	Recreational therapy: number of minutes	New item--not tested	This item was not tested/researched. It is unclear what value it will add to the assessment. Unless the RUGs are changed to include this service, collecting this data seems time consuming and unreasonable.
O0400F2	Recreational therapy: number of days	General comment	This item was a different MDS 2.0 item, Anticipated days/minutes. It is unclear what value it will add to the assessment. Unless the RUGs are changed to include this service, collecting this data seems time consuming and unreasonable.
O0400F3	Recreational therapy: start date	New item--not tested	This item was not tested. Collecting this data seems time consuming and unreasonable.
O0400F4	Recreational therapy: end date	New item--not tested	This item was not tested. Collecting this data seems time consuming and unreasonable.
O0500	Nursing Rehabilitative/Restorative	Instructions-clarity	Should include clarification - 'during this current admission/re-entry in last 7 days'
O0600	Physician examinations: number of days	Instructions-clarity	Should include clarification - "during this current admission/re-entry in last 14 days"
O0700	Physician orders: number of days	Instructions-clarity	Should include clarification - "during this current admission/re-entry in last 14 days"
P0100D	Restraints used in bed: other	Instructions-clarity	Will require instructional examples
Q0100C	Guardian		Will the facility have to include the guardian in the assessment process. It is often very hard to get in touch with guardians and they may not have very much input since they may have been appointed without any prior knowledge of the individual.
Q0300B	Resident's goals: source for information	Instructions-clarity	Believe the instructions should say: Indicate Information source for item A (above)
Q0300B	Resident's goals: source for information	Missing response	Believe an additional response is needed "No one able to provide information." Remove "Not resident, family, or significant other." This is unclear
Qo600	Referral made?/	General comment	Why necessary? What is agency referred to?
T0100	Ordered therapies	Terminology/wording	This comment applies to these instructions as well as to any instructions asking whether or not this is a Medicare required PPS assessment-- TRICARE, a military insurance, requires assessments according to the PPS schedule and/or monthly. Depending on the type of TRICARE coverage, the person can be on the PPS schedule and subsequent monthly assessments "for life" if he/she requires daily skilled service. The coding of this section and other sections must allow for these assessments. A0300B states that these are "PPS Scheduled Assessments for a Medicare Part A stay", or "Not PPS assessment." If a

			person has exhausted his/her Medicare Part A benefits and switches over to TRICARE, the person must re-start the PPS assessment schedule following any hospitalization, then monthly PPS assessments to validate the RUG billed. How can this schedule be followed, or this section completed, unless the coding and responses are changed.
T0100B	Have therapy evaluations been completed	New item--not tested	This item is unnecessary if instructions for T0100 C and T0100D clearly state that these items can only be completed if therapy evaluation is completed. Or, if the item states: "Based on the completed therapy evaluation.."
T0100C	Estimated number of days of therapy	Instructions-clarity	Suggest re-word to: "Based on the completed therapy evaluation, what are the ...." and delete item T0100B.
T0100D	Estimated number of minutes of therapy	Instructions-clarity	Suggest re-word to: "Based on the completed therapy evaluation, what are the ...." and delete item T0100B

**Appendix C:**

**Should RAPs Be Updated For MDS 3.0?:**

**AHCA Clinical Practice Committee Recommendations**

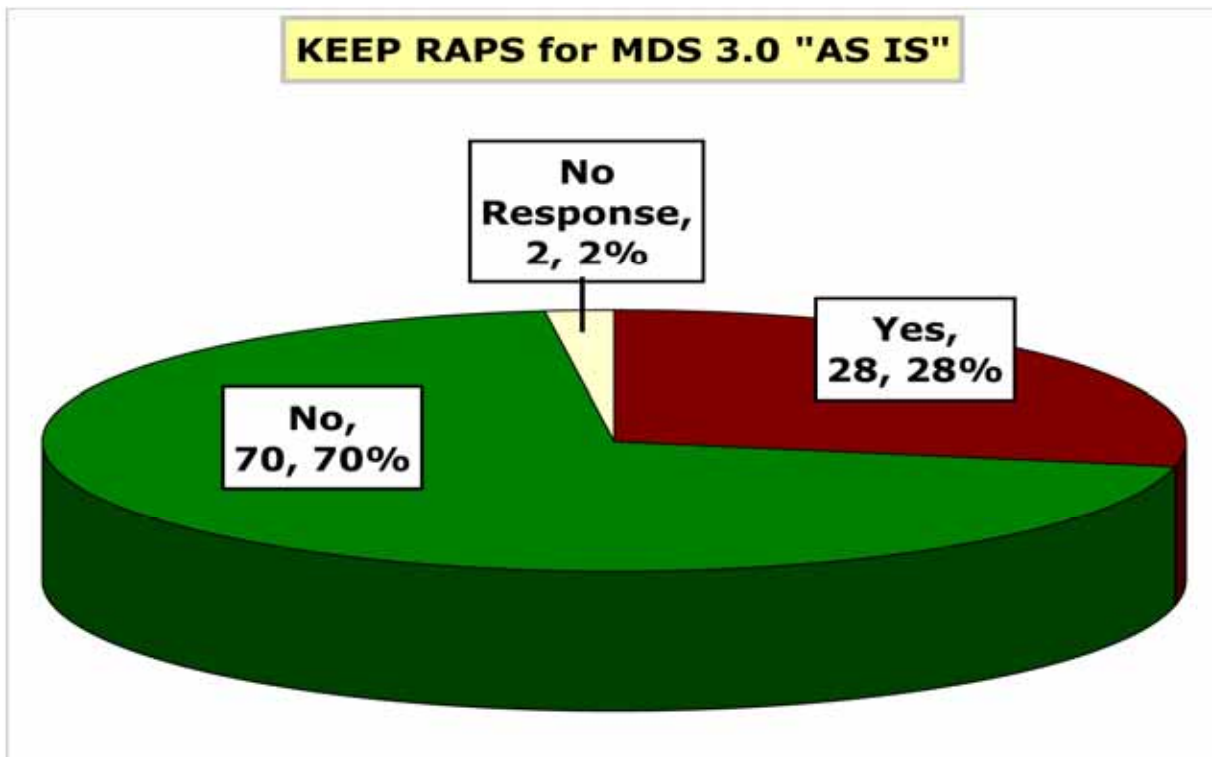
## **SHOULD RAPS BE UPDATED FOR MDS 3.0? AHCA CLINICAL PRACTICE COMMITTEE RECOMMENDATIONS**

### **Introduction**

On February 28, 2008, representatives from the Centers for Medicare and Medicaid Services (CMS) attended an American Health Care Association (AHCA) Clinical Practice Committee meeting and provided an update on the Minimum Data Set (MDS) 3.0. At that time, CMS announced that the agency did not have any plans or funding to update the Resident Assessment Protocols (RAPs) for use with MDS 3.0. Meeting discussion revealed that RAPs are poorly understood and under-utilized by long term care clinicians. CMS asked the committee if RAPs should be updated and, if not, what are the other processes or resources that could be used to assist clinicians in developing care plans? Based on the RAP discussion, AHCA recommended that committee members survey their company/client members and other clinicians in their state associations to obtain a broader perspective on the utility of RAPs. A non-scientific survey was developed and shared. Responses to the survey questionnaire along with other written responses have been analyzed and factored into the recommendations for care planning.

### **Recommendations to CMS**

RAP recommendations to CMS are primarily based on survey responses. AHCA did receive additional RAP feedback, sent via email, which proved to be consistent with survey results. Using only survey responses, results show that 70% of respondents do not recommend updating the RAPs while only 28% recommend RAP updates with MDS 3.0. Two percent of the respondents did not make a specific “keep” or “don’t keep” RAP recommendation but offered other comments.



Based on survey results, the AHCA Clinical Practice Committee recommends that CMS consider the following actions for care planning associated with the use of the MDS 3.0:

5. Do not update RAP Utilization Guidelines and RAP Summary for MDS 3.0.
6. Go ‘back to the basics’ for care planning, a process supported by OBRA regulation, that is, encourages the use of the interdisciplinary care planning process.
7. Consider retaining and revising the RAP Trigger Legend for the purpose of clinical resource only and renaming it “Triggers for Analysis and Planning.” (TAPS)
8. To help clinicians make decisions about care planning and for support of clinical approaches, steer the interdisciplinary team toward using current, evidence-based clinical practice resources like the American Medical Directors Association (AMDA) Clinical Practice Guidelines (CPGs), resources found on [medqic.org](http://medqic.org) and [www.nhqualitycampaign.org](http://www.nhqualitycampaign.org), and other recognized professional resources.

### **Regulation and RAPs**

Title 42 of the Public Health Law, Part 483 - Requirements for States and Long Term Care Facilities, Subpart B-Requirements for Long Term Care Facilities, at Section 483.20 Resident Assessment, (K) (1) Comprehensive Care Plans, states: *The facility must develop a comprehensive care plan for each resident that includes measurable objectives and timetables to meet a resident’s medical, nursing, and mental and psychosocial needs that are identified in the comprehensive assessment.* Section (K) (2) (ii) defines comprehensive care plan as: *Prepared by an interdisciplinary team that includes attending physician, a registered nurse with responsibilities for the resident, and other appropriate staff and disciplines as determined by the resident’s needs, and to the extent practicable, the participation of the resident, the resident’s family or the resident’s legal representative.* Section (K) (2) (iii) also calls for periodic review and revision of care plans by a team of qualified persons after each assessment. As noted above, nursing home law supports the use of an interdisciplinary team approach to care planning and does not mandate the use of a specific tool, like the RAP, for care planning.

By emphasizing the use of the interdisciplinary approach, the team can consult on clinical and care problems and coordinate strategies to address the physical, functional, and mental needs of the resident. This approach does not segment the resident’s needs into independent pieces; an approach often fallen into over the years and likely, in part, due to the segmented RAP process.

Even though nursing home law does not specify the use of RAPs, CMS identifies the RAP as the recommended (the interpretive guidance states “should,” not “must”) nursing home care planning tool and Resident Assessment Instrument User’s Manual (RAI) component in memorandum, interpretive guidance, and RAI manual.

- The April 24, 2001 Health Care Financing Administration (HCFA) memorandum to Associate Regional Administrators, Division of

Medicaid and State Operations (DMSO) State Survey Directors on Hospice, Questions and Answers – HCFA responded to Question 11 by stating that SNF/NF assessment (MDS) and RAP requirements apply when the resident elects the hospice benefit.

- CMS specifically identifies the use of RAPs in F279 - Interpretive Guidance for 483.20 (K): *An interdisciplinary team, in conjunction with the resident, as appropriate, should develop quantifiable objectives for the highest level of functioning the resident may be able to attain, based on the comprehensive assessment. The interdisciplinary team should show evidence in the RAP summary or clinical record of the following: Triggered RAPs, facility rationale for deciding to proceed with care planning, and evidence that facility considered the development of care planning interventions for all RAPs triggered.*
- CMS's *Long-Term Care Facility Resident Assessment Instrument User's Manual (RAI), Version 2.0, Revised January 2006*, Section 1.6, page 1-7, Statutory and Regulatory Basis for the RAI in Nursing Facilities states that *Section 1819 (F)(6)(A-B) for Medicare and 1919 (F)(6)(A-B) for Medicaid in the Social Security Act as amended by Omnibus Budget Reconciliation Act of 1987 requires the Secretary of the Department of Health and Human Services to specify a minimum data set of care elements for use in conducting comprehensive assessment. It further requires the Secretary to designate one or more resident assessment instruments based on the minimum data set.*

The AHCA Clinical Practice Committee does not interpret RAPs to be a necessary part of this requirement, the MDS, itself, contains the care elements and is a resident assessment instrument. RAPs are NOT an assessment instrument since they are designed as a tool to assist the clinician in analyzing assessment findings and care planning decision-making.

**AHCA believes that adding, changing, or eliminating RAPs require no change in law.**

**AHCA recommends that CMS encourage the use of the interdisciplinary team for analysis and decision-making by recognizing the interdisciplinary approach as the primary method for care planning in the Resident Assessment Instrument User's Manual for MDS Version 3.0 and in the Interpretive Guidance for surveyors.**

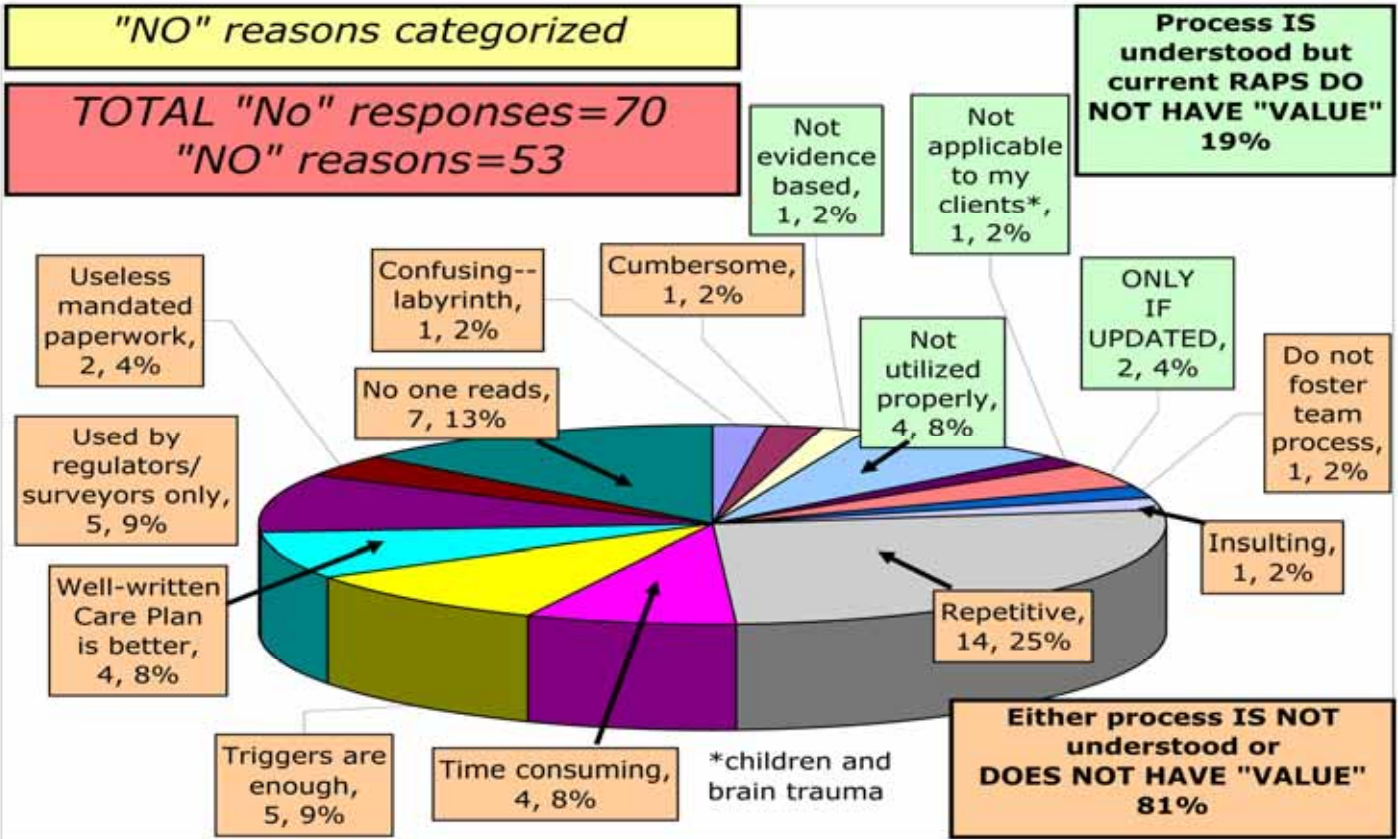
### **RAPs – From the Clinician's Viewpoint**

The Agency for Health Research and Quality (AHRQ) conducted a RAP workgroup meeting and released a final report to workgroup members titled *Nursing Home Care Planning Expert Meeting*, AHRQ, October 12 and 13, 2004. A RAP survey, conducted as part of the workgroup's efforts confirmed that RAPs in their current form are not being used and are not helpful to the majority of nursing home interdisciplinary teams. The survey of 1,835 American Association of Nurse Assessment Coordinators (AANAC) and 56 Veterans Administration (VA) respondents confirmed problems in RAP use. For example, the AHRA survey results showed that:

- 76% of respondents found RAPs are somewhat, rarely or never helpful.
- RAPs completion does not usually involve interdisciplinary team as they are often completed separately by multiple individuals (30%) or by individuals who do not participate in care (26%) like MDS Coordinators having no clinical responsibilities.
- 31% saw RAPs as too time consuming.
- 27% stated RAPs are done for paper compliance.
- Physicians are often uninvolved in the RAP and do not consider the care plan when making resident treatment decisions.
- Certified Nursing Assistant (CNA) work is not reflected in resident care plans.

Consistent with the AHRQ survey, the AHCA survey found continued widespread dissatisfaction and frustration with the current RAPs and care planning process. The AHCA RAP survey findings show:

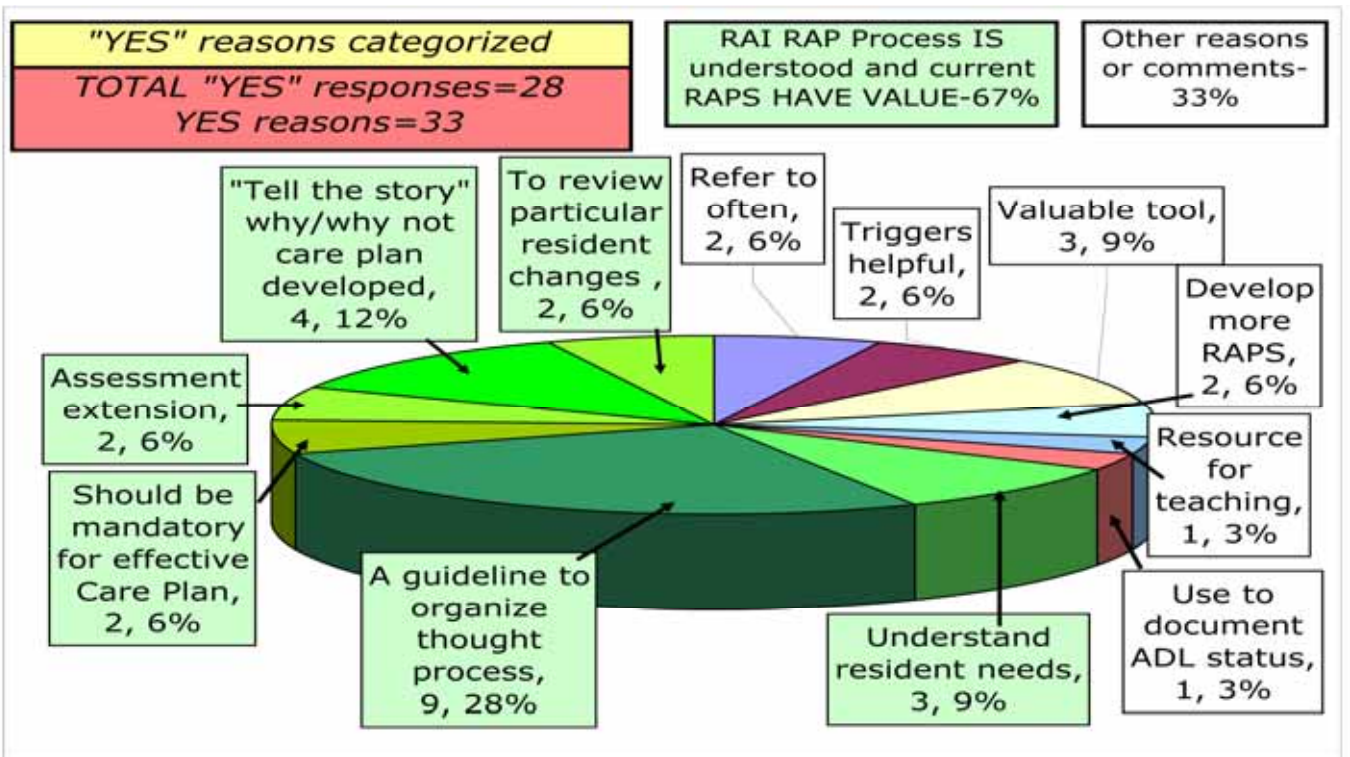
- 81% of the respondents reported that the RAPs have no value and/or they offered a response that suggested that the RAP process is not understood. The other 19% of the Do Not Update RAP group provided responses indicating an understanding of the intended use of RAPs.



March 2008 RAP "survey/questionnaire"

AHCA Clinical Practice Committee--ed

- Only 28% of the respondents favored keeping and updating the RAPs. Of this group, 67% provided feedback indicating a response showing understanding of the RAP care planning process.



March 2008 RAP "survey/questionnaire"

8

AHCA Clinical Practice Committee-ed

Survey results show that RAPs confuse some clinicians, in purpose, use, and sequencing. The RAI Users Manual discusses RAPs in several different sections. The AHCA survey results find that clinicians are unsure whether the RAPs are part of the comprehensive resident assessment or an analytical step in nursing process where MDS assessment findings are analyzed for care plan development. AHCA believes some of the confusion stems from inconsistent use of RAP descriptors in the RAI Manual. Additionally, some clinicians see that survey team members focus on completing the required paperwork, rather than on critical thinking and timely analysis of RAP information.

### **RAP and the Nursing Process**

The RAI User's Manual attempts to define the RAPs as a component of the nursing process. Page 1.1, paragraph 4 States: *"Clinicians are generally taught a problem identification process as part of their professional education. For example, the nursing profession's problem identification model is called the nursing process, which consists of assessment, planning, implementation and evaluation. The RAI simply provides a structure, standardized approach for applying a problem identification process in long-term care facilities."* Unfortunately, this RAI descriptor omits a key nursing process step that supports the concept of RAP. According to American Nurses Association (ANA), *The Nursing Process: A Common Thread Amongst All Nurses*, <http://www.nursingworld.org/EspeciallyForYou/StudentNurses/TheNursingProcess.aspx>,

there are five stages of nursing process, not four. The stages include Assessment, Diagnosis, Outcomes/Planning, Implementation, and Evaluation.

The RAI Manual then clarifies/contradicts information presented on page 1.1, by presenting a 5 step process model on page 1-2. These steps are the same as the 5 step nursing process; however, “diagnosis” has been changed to “problem identification.” The manual places the RAPs in this step of the process and does not name it what it is, The Nursing Process.

Additional RAP descriptors in the RAI manual further:

- “Clarify” that the RAPs are “Structured, problem-oriented frameworks for organizing MDS information and examining additional clinically relevant information about an individual. (page 1-4).
- “Identify possible causes for each problem area and guidance for further assessment and resolution or intervention”. (Page 1-6)

The terms “organizing”, “examining”, and “assessment” lead many clinicians to believe that the RAPs are an extension of the assessment process. Given this, clinicians may overlook the important “diagnosis” or “decision-making” step in the process.

Attention to process is one of the major efforts of the Advancing Excellence Campaign. Resource materials prepared by the campaign’s Technical Advisory Workgroup (TAW) clearly identified all process steps. All campaign partners agreed to use process as the format for all subsequent resources and to emphasize that all process steps are required to achieve quality care and quality outcomes.

**AHCA believes that by renaming RAP Triggers to Triggers for Analysis and Planning (TAP), CMS can help support the interdisciplinary team in addressing all the steps of nursing process.**

### **RAP Utilization Guidelines, Trigger Legend and RAP Summary Sheets**

RAP Utilization Guidelines, Trigger Legend and Summary Sheets are components of the RAP completion. However, clinicians view these components as not being helpful, burdensome, repetitive, time consuming, insulting and completed only to meet regulatory requirements. Many clinicians participating in the AHCA survey commented that RAPs do not foster the interdisciplinary process, do not lend themselves to being completed in the most appropriate manner or utilized for their intended purpose. According to the survey results, clinicians find the RAP Guidelines to be out of date, not applicable, not evidence-based and not all information and triggered guidelines are relevant to current skilled nursing facility clients. Contributing to the complexity and time consuming

properties of the framework, the RAP Summary Sheet requires documentation to prove irrelevant information was considered and not care planned.

Currently there is no mechanism to ensure that RAP Guideline information is kept current. Most problematic is that the current care planning process that includes the use of the RAPs detracts from the need for critical thinking by, and with, all facility clinicians.

RAPs have evolved to focus clinician attention on the required documents for care planning. The current process does not lend itself to supporting the interdisciplinary approach or alternative care planning models like the “I” Care plan, a culture change care planning approach and structure.

**AHCA recommends that CMS:**

- 1. Advocate and describe the use of the interdisciplinary team care planning in conjunction with the MDS 3.0.**
- 2. Advocate the use of current, evidence-based clinical practice resources (such as those found at [www.medqic.org](http://www.medqic.org), [www.nhqualitycampaign.org](http://www.nhqualitycampaign.org), [www.AMDA.org](http://www.AMDA.org), or other recognized professional organizations) to aid in formulating a problem/diagnosis and in supporting clinical approaches.**

**Survey Methodology**

The AHCA Clinical Practice Committee Workgroup, staffed by Sandra Fitzler, was formed and headed by Debbie Afasano from the Florida Health Care Association and included Sharon Colling from Belle Terrace in NE, Eileen Doll from Efficiency Driven Healthcare Consulting in MD, Pat Newberry from UHS-Pruitt Corporation in GA, Diane Peters from Pathway Health Services in MN, and Gail Rader from Care perspectives Inc in NJ. The workgroup utilized various data collection methods to obtain feedback from clinicians. Two surveys were distributed. (See Attachment 1)

**Conclusion**

MDS 3.0 is scheduled to be implemented in the fall of 2009. The new tool will contain many changes which will update, standardize, and improve resident clinical assessment. AHCA believes that any resources or time spent to update the current RAPs for MDS 3.0 will not yield a process and tools having better value and utilization. Instead, AHCA believes that outcomes will be achieved by focusing on an interdisciplinary team assessment and care planning process.

The AHCA Clinical Practice Committee hopes CMS will consider the care planning recommendations for MDS 3.0. We look forward to any future care planning discussions and efforts to improve the current process.

## **ATTACHMENT 1**

### **AHCA CLINICAL PRACTICE SURVEY COMMENTS ON RAP USE SAMPLE SURVEYS**

CMS has requested feedback regarding the forthcoming MDS 3.0. The following two surveys were sent out to MDS coordinators and IDCPT members.

#### **SURVEY 1, QUESTIONNAIRE:**

1. Do you work the RAPS using RAP materials and the RAI manual when you complete the assessments?
2. Do you think the RAPS are a valuable tool for care planning?
3. If you could, would you keep or delete the entire RAP Process as a required MDS component?
4. If you were to delete RAPS as a required MDS component, do you feel they should remain as an educational resource too, (decision support tool), or be deleted entirely?
5. Do you think using the RAPS has significantly improved the accuracy and completeness of the current care plan process?
6. Do you have any additional comments to add in regards to RAP utilization in the 3.0?

#### **SURVEY 2, QUESTIONNAIRE:**

1. Do you “work” the RAPS using the RAP materials in the RAI manual or included in your MDS software when you complete assessments?
2. Do you think the RAPS are a valuable tool for development of an individualized care plan?
3. Do you refer to the RAPS when looking at a resident problem (other than when required to do so)?
4. If RAPS are no longer a requirement for MDS completion, do you think they should be available as a resources tool? Please comment on WHY or WHY NOT.
5. How long have you been working with the RAI/RAPS?

In addition to feedback received via surveys, RAP recommendation(s) were offered by multi-facility corporations, state healthcare associations and other individuals.

#### **Appendix D:**

**The Lewin Group:**

**Critique of STRIVE Sampling Methodology and Implications for the 2010 SNF NPRM**



# **Critique of STRIVE Sampling Methodology and Implications for the 2010 SNF NPRM**

*Final Report*

*Prepared for:*

**American Health Care Association & Alliance for  
Quality Nursing Home Care**

*June 30, 2009*



# **Critique of STRIVE Sampling Methodology and Implications for the 2010 SNF NPRM**

*Final Report*

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Quality Nursing Home Care**

**Prepared by:**

Soumita Lahiri  
Al Dobson  
Namrata Sen  
Nikolay Manolov  
Brian Simonson

*June 30, 2009*

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## I. INTRODUCTION

The Resource Utilization Group (RUG) is a classification system to group individuals with similar patterns of resource use based on factors such as physical and cognitive function, clinical characteristics. This form of classification system was developed as a solution to rising concerns about quality of care and costs at nursing homes. The Staff Time Resource Intensity Verification (STRIVE) project's data is used for updating the payments for Medicare skilled nursing facilities (SNF) and refine the existing RUG system.

STRIVE information provided important input into the 2010 SNF NPRM. For example, STRIVE data were used to refine RUG ADL splits, recast therapy payments, create a new RUG-66 systems, produce a RUG-66 day distribution across 60 million SNF days, create a budget neutrality adjustment and to support impact analysis. To the extent that STRIVE information is not accurate or cannot otherwise be imported into the 2007 SNF linked claims and assessment file the NPRM's results and methodology is not supportable.

This paper is divided into three major sections. First the discussion focuses on the STRIVE sampling design and the sample representativeness. After that the discussion turns to the precision of RUG-66 day distribution estimates. We conclude the paper with a section on the accuracy of estimating a RUGs-66 day distribution based on STRIVE data and a final discussion on the implications of STRIVE and RUGs-66 analyses as they relate to the NPRM's proposed MDS 3.0 and RUGs-66 implementation, as well as the possibility that the NPRM's impact analysis and budget-neutral assumptions may be flawed.

## II. STRIVE SAMPLING DESIGN AND SAMPLE REPRESENTATIVENESS OF THE SNF MEDICARE UNIVERSE

In this section we discuss the STRIVE sampling design and how it can lead to potential bias. In addition, we also conduct several independent analyses to test the representativeness of the STRIVE data. These studies include a comparison of the distribution of RUGs-53 days between STRIVE and non-STRIVE states, a comparison of distribution of MDS characteristics between STRIVE states and national and non-STRIVE states and regressions designed to estimate the impact of being in a STRIVE state on per diem costs/charges both overall and within RUG category.

The discussion is divided into two main sections. In the first half we present a qualitative discussion on how the sampling protocol might lead to potential bias and inconsistency. The second part of the discussion is a quantitative analysis testing the representativeness of the STRIVE data (STRIVE 2007 and MDS 2007 data have been used for this purpose).

### A. Survey Sampling Design and sample representativeness - a brief introduction

In the study of large populations like Medicare and Medicaid, it is not feasible to collect survey data for each and every case in the universe. Resorting to some sampling technique to get a small portion of the universe and use it to get an idea of the overall effects being studied is

frequently used. It is very important that the sample selected is representative of the universe. Cochran (1977)<sup>1</sup> presents methods to determine sample size. Using the sample size determination techniques, it can be shown that for a nationwide survey even a small portion (say about 0.001%) of the population can produce a representative sample and an estimate (of the parameter of interest in the study) with reasonable precision.

However an important criterion determining the “representativeness” of the sample is the sampling design. It has been widely discussed in sample survey literature that even a large sample might give incorrect answers if the survey sample is systematically biased. In practice sample selection is biased for three common reasons – first, self-selection by individuals or data units being investigated and second, sample selection decisions by analysts or data processors. Item response rates represent a third potential source of bias. The National Center for Education Statistics standards specifies, “Any survey stage of data collection with a unit or item response rate less than 85 percent must be evaluated for the potential magnitude of nonresponse bias before the data or any analysis using the data may be released”. The sample survey literature indicates that voluntary response samples are biased since people with strong opinions or atypical institutions tend to respond<sup>23</sup>. A well known example of bias due to voluntary response and used as a popular example is the survey by Literary Digest in 1936 to find what proportion supported the presidential candidate Franklin Roosevelt and what proportion supported Alf Landon. The response from the survey showed a 57% support for Alf Landon. However history narrates something different – Franklin Roosevelt won the election with almost 60% support.

The STRIVE data have a sample of 205 facilities and 9721 cases – a reasonable sample size to conduct a study if there are no apparent bias issues. The Medicare portion of the sample though is just 2,052 cases (see **Exhibit 1** below). STRIVE uses the Medicare portion of the sample to refine the existing Resource Utilization Group (RUG) classification system.

**Exhibit 1: Count and % of Medicare and Non-Medicare cases (actual sample) using STRIVE 2007 data**

<b>Medicare Flag :</b> 0 = No; 1 = Yes	<b>COUNT</b>	<b>PERCENT</b>
0	7,669	78.89%
1	2,052*	21.11%
<b>Overall</b>	<b>9,721</b>	<b>100.00%</b>

\* In practice this sample size is weighted down to 1381 cases.

In addition, the sampling technique used to collect the STRIVE data is heavily dependent on the voluntary participation and convenience sampling which can lead to potential bias. In STRIVE 14 states out of 50 states agreed to participate in the study as well as Washington DC for a total of 15 “state” participants. Even for the facilities sampled from the 15 states, only 40.9% of the

1 Cochran, W.G. (1977). Sampling Techniques. 3rd Edition. John Wiley and Sons, New York.

2 Heckman, Joseph J. 1979. “Sample Selection Bias as a Specification Error.” *Econometrica* 47:153-161.

3 Groves, Robert. 1989. *Survey Errors and Survey Costs*. New York: John Wiley.

facilities invited agreed to participate (refer to **Exhibit 6** below taken from STRIVE TEP presentation). Thus, on the face of the criterion by The National Center for Education Statistics stated above, the STRIVE sample could have a very large and unknown sampling bias.

**B. Comparison of the STRIVE sample to other PPS recalibration and refinement efforts**

While patient categorization systems are often developed on samples (for example, PPS DRG weights were initially developed on over a million cases), PPS systems’ updates are typically conducted on universe data (see **Exhibit 2**). The update of RUGs, based on 2052 cases (which as we note later are down-weighted to 1380 case) is totally out of alignment with the precision associated with the use of universe data in other PPS systems. This, as much as anything else speaks to a basic flaw in the use of a RUGs system based on nursing minutes to support SNF IPPS.

**Exhibit 2: Number of facilities and case observations used to update case weights by setting**

Setting	No. of Facilities	No. of Observations
SNF	206	9,791 (2,052 Medicare cases out of 9,791)
Home Health	9,227	98M (approximately)
IRF	1,200	369,000
IPPS	3,000	5M (approximately)
LTCH	400	130,160

Source: Report to Congress MEDPAC March 2009

**C. STRIVE Sampling Design Critique - chance of potential bias as reflected in the eleven (11) step STRIVE sampling plan**

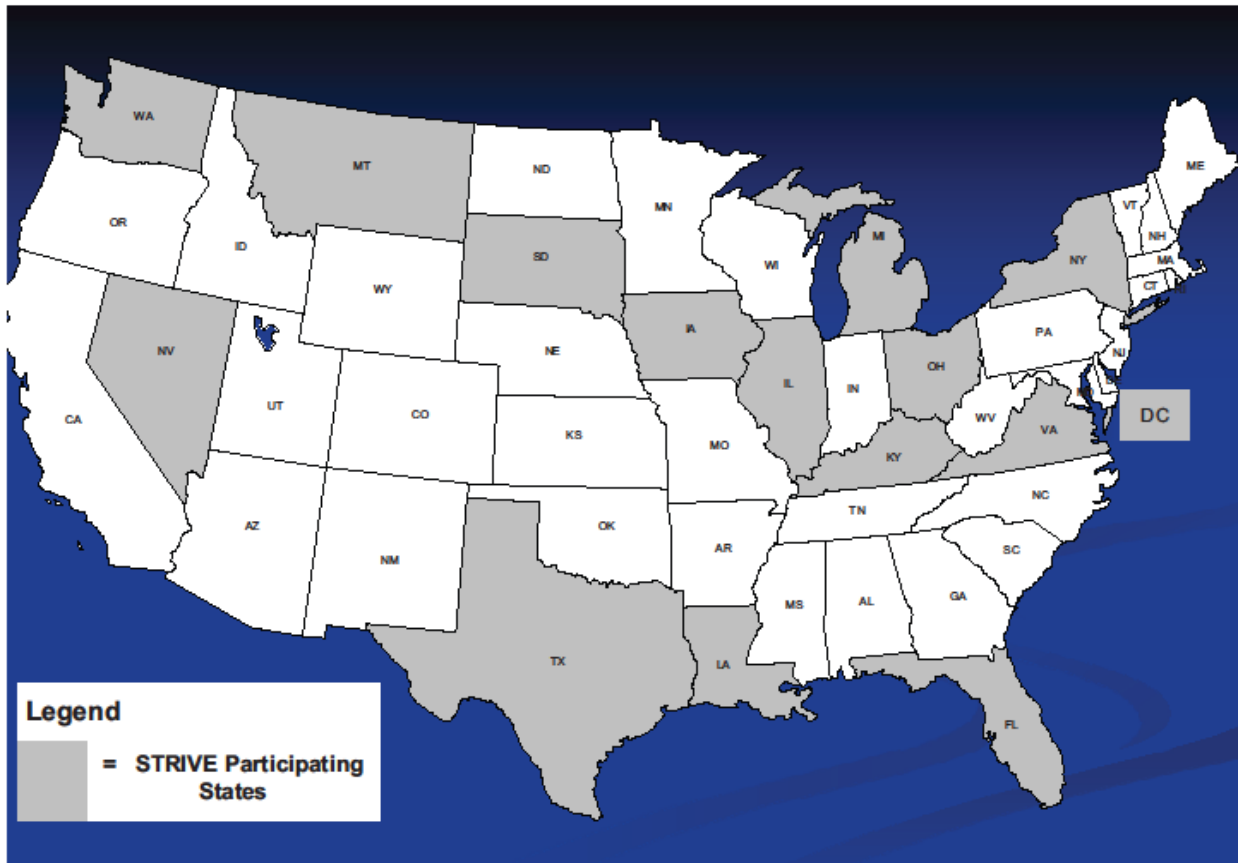
In this section we present a discussion on how the STRIVE sampling protocol resorts to voluntary and convenience sampling which might lead to potential bias. The sampling method used to collect the STRIVE data follows an eleven step sampling protocol (see Appendix A for STRIVE sample protocol) for a three stage cluster sampling with stratification. Of the eleven steps, four may pose potential problems for representativeness and sampling bias. The four “problem” steps are addressed below.

*Step 2 – “Identified 15 states that agreed to participate” –*

In this STRIVE sampling stage a subsample of states from the 50 states (plus District of Columbia) is selected. The sampling here is dependent on voluntary participation by states. This raises the chance of potential bias. It can also be seen that most of the mountain, mid west and New England states, California were not involved in the study (refer to **Exhibit 3** showing the STRIVE states below). These omissions reflect obvious problems with representativeness.

Another factor to consider is the operating characteristics of the facilities in the STRIVE states. A key question is “do these states’ facilities operating characteristics represent those in all remaining states?” For example, do the characteristics of facilities in STRIVE participating states represent the facility characteristics of non-STRIVE states such as California or Maine?

### Exhibit 3: STRIVE states



Source: STRIVE TEP notes, March 11, 2009 (exact replication)

#### *Step 4 – “Applied geographic restrictions for some states”*

This Step 4 restriction was applied to only 4 states – Florida, Illinois, Louisiana and Texas. That is, for some states, due to travel convenience of data monitors, only facilities in close geographic proximity to the data monitors were selected. From **Exhibit 4** it can be seen that out of the 5930 statewide eligible facilities, 1153 (approximately 19%) facilities in the 4 states were outside the favored geographic study area. The geographic restrictions were imposed for travel and budget restrictions and the states “agreed to participate but only if the study area was restricted to certain sections of the state”. It can be observed that there are two factors playing part in the sample selection process and the potential bias problem. The first being the study area was chosen by the state (self selection by individuals or data units being investigated). The second factor is due to facility difference by geographic region. For instance in Florida, for the Miami greater metropolitan region, there are more and perhaps different types of urban facilities than in the Jacksonville greater metropolitan region, or for Illinois, the nature of facilities in the Chicago metropolitan area might be different from the Champaign metropolitan region or rural areas of the state.

Exhibit 4: Count of eligible facilities in the 15 STRIVE states study area

## Facility Sample Fulfillment

Population Group	Facilities	Percent of Total
Certified facilities -15 states	6,493	100.0%
Data exclusions (poor quality)	563	8.7%
Statewide eligible	5,930	91.3%
Facilities outside of geographic study areas (FL, IL, LA, TX)	1,153	17.8%
Eligible facilities in study areas	4,777	73.6%

Source: STRIVE TEP notes, March 11, 2009 (exact replication)

*Step 6 – “Targets were based on .... Number of facilities the data monitors were able to visit ... ”*

This indicates that the sample size was driven by how many facilities could be visited. This type of “convenience sampling” can also lead to potential bias.

*Step 10 – “until enough facilities **agreed** to participate”*

Voluntary sampling again plays a role here in Step 10. The sample is dependent on facility participation. There can be multiple reasons a facility might or might not agree to participate – funding and staff availability. If these types of characteristics are at play then the facility representativeness can be questioned. From **Exhibit 5** it can be seen that out of the 4,777 eligible facilities (after exclusions in Step 3 and geographic restrictions in Step 4 of the sampling plan) 837 facilities were sampled. The 837 sampled facilities went through another screening (Step 9) where 100 facilities were dropped. Out of the 737 eligible facilities, 523 were invited for participation. From **Exhibit 6**, it can be seen that out of the 523 facilities invited, 214 (almost 40%) agreed to participate and out of those 205 (39%) completed the process – showing a low

agreement rate or high non-response rate. This high non-response rate raises concerns that call for further investigation of representativeness of the overall sample.<sup>4</sup>

**Exhibit 5: Number of facilities initially sampled in STRIVE Step 8 sampling protocol and number of facilities eligible for participation after Step 9 elimination**

## Facility Sample Fulfillment

State/Regional Office Review Results		
Facility Group	Facilities	Percent
Randomly selected for review	837	100.0%
Eliminated by State agencies/ CMS regional offices	100	11.9%
Remaining: eligible for invitation	737	88.1%

Source: STRIVE TEP notes, March 11, 2009 (exact replication)

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<sup>4</sup> 837 facilities were initially sampled (refer to Exhibit 5). Facilities were invited to participate “until enough facilities agreed”. From Exhibit 5 and Exhibit 6 it can be seen that the process of inviting was stopped when 214 facilities agreed to participate (523 out of the 837 initially selected were invited). Hence it seems the target sample size was 214, however almost four times the required sample size was initially selected. One question raised – the high rejection rate and the underlying reasons for such behavior.

Exhibit 6: Facility participation rates from the sampled facilities invited

## Facility Sample Fulfillment

Facility Participation		
Facility Group	Facilities	Percent
Invited to participate	523	100.0%
Declined to participate	309	59.1%
Agreed to participate	214	40.9%
Facilities with completed studies	205	39.2%

Source: STRIVE TEP notes, March 11, 2009 (exact replication)

In addition to the detailed comments presented above on the 4 steps which could result in bias, we have 3 more concerns. First in the sampling process, there are 2 steps where facilities are dropped based on the quality of the facility – in Step 3 before the sample selection and then later in Step 9 after sample selection. The second concern is, that STRIVE may not capture a representative sample of 5 – 14 – 30 day etc. assessments. The sampling process selects a certain number of facilities within a stratum (strata are created based on the type of staffing pattern, cost structure, treatment provided and so on) for a state. All the cases for the facility are then the sample cases for STRIVE. This form of selection which does not explicitly call for examination of assessment type will not ensure an appropriate representation of the distribution of cases by assessment. This is problematic as long stay cases are different than short stay cases on many dimensions which is a reasonable assumption. Short stay patients tend to have higher case mix index and have higher cost per diem. The third concern is in Step 11 for some facilities that are too large, only a subsample of the facilities has been considered. The subsample (nursing units to be included in the study) was selected by the project staff in consultation with the nursing home management. The same selection logic was used for all large facilities. However it needs to be noted that the subsamples were not randomly selected and instead depend on the judgment of STRIVE project staff and nursing home management.

## D. Appraising the STRIVE sample

This section presents a series of quantitative analyses for the representativeness of the STRIVE data. The STRIVE case data do not have any identifier for state, provider, or patient demographics. They also do not have an identifier for the day assessment type. Hence directly comparing the STRIVE data with similar MDS data for non-sampled facilities is impossible. However, as discussed before we have been able to conduct a variety of comparative analyses.

### a) *Comparison of STRIVE states and Non-STRIVE states on count of facilities, count of residents, percent of Medicare residents, urban-rural percentages and percent of multifacilities*

Lewin received some key identifier variables from OSCAR data. This section presents some of the observations using these OSCAR data. **Exhibit 7** below provides a summary of the count of facilities, total residents, % of urban and rural facilities and percent of multi-facilities in each of the 51 states arranged in descending order of the number of facilities per state.

It can be observed that California has the largest number of facilities and is not a STRIVE participant. Florida has a comparatively large number of facilities and is also the state with the largest percent of Medicare resident (20%). However due to geographic restrictions only 4 facilities have been sampled from Florida. Another interesting factor that can be noticed is – CA, FL, MA, NJ, MD, RI have more than 90% of their facilities in urban region (for all other states the urban to rural ratio is about 70% to 30%). Except for FL, none of the states are STRIVE participants, and even for FL there are geographical restrictions and only 4 sampled facilities.

**Exhibit 7: Summary results by state from OSCAR data**

State  (* indicates the STRIVE participating states)	From OSCAR Data							Number of sample facilities (from TEP presentation)
	Count of facilities	Total count of residents	% of Medicare residents	% of urban and rural facilities		Multi facility		
				urban	rural	% Yes	% No	
California	1,321	106,805	12.7%	96.4%	3.6%	51.9%	48.2%	
Texas *	1,273	94,693	13.9%	65.3%	34.7%	63.6%	36.5%	14
Ohio *	1,017	83,754	13.8%	72.9%	27.1%	60.0%	40.0%	20
Illinois *	834	78,863	13.5%	67.9%	32.1%	47.1%	52.9%	15
Pennsylvania	738	81,077	11.6%	79.3%	20.7%	52.7%	47.3%	
Florida *	693	72,548	19.6%	91.6%	8.4%	56.0%	44.0%	4
New York *	665	112,169	12.7%	85.0%	15.0%	12.9%	87.1%	21
Missouri	547	39,543	12.3%	57.2%	42.8%	48.6%	51.4%	
Indiana	537	40,981	15.3%	66.9%	33.1%	63.3%	36.7%	
Iowa *	478	27,579	6.4%	34.9%	65.1%	49.6%	50.4%	21
Massachusetts	459	45,107	13.5%	99.3%	0.7%	53.2%	46.8%	
Michigan *	449	42,256	16.5%	69.5%	30.5%	51.7%	48.3%	5
North Carolina	429	38,177	15.3%	60.1%	39.9%	67.8%	32.2%	

State  (* indicates the STRIVE participating states)	From OSCAR Data							Number of sample facilities (from TEP presentation)
	Count of facilities	Total count of residents	% of Medicare residents	% of urban and rural facilities		Multi facility		
				urban	rural	% Yes	% No	
Wisconsin	411	33,847	13.2%	57.2%	42.8%	43.1%	56.9%	
Minnesota	402	32,131	10.0%	48.8%	51.2%	50.3%	49.8%	
Kansas	380	20,656	8.4%	36.1%	63.9%	50.0%	50.0%	
Oklahoma	379	22,193	10.6%	42.2%	57.8%	30.3%	69.7%	
New Jersey	370	46,178	17.1%	100.0%	0.0%	35.1%	64.9%	
Georgia	364	35,828	11.1%	61.3%	38.7%	72.3%	27.8%	
Tennessee	337	33,243	15.4%	58.8%	41.2%	60.5%	39.5%	
Louisiana *	307	27,677	11.0%	63.2%	36.8%	47.9%	52.1%	10
Kentucky *	299	23,827	15.2%	48.5%	51.5%	61.2%	38.8%	12
Virginia *	290	28,997	16.8%	71.4%	28.6%	68.6%	31.4%	17
Arkansas	264	19,245	10.9%	48.5%	51.5%	48.5%	51.5%	
Washington *	250	19,679	16.1%	79.6%	20.4%	60.8%	39.2%	15
Connecticut	245	27,279	15.7%	89.4%	10.6%	46.9%	53.1%	
Maryland	238	25,629	15.9%	91.6%	8.4%	54.2%	45.8%	
Alabama	235	23,580	13.5%	62.6%	37.4%	58.7%	41.3%	
Nebraska	232	13,614	10.2%	25.0%	75.0%	46.6%	53.5%	
Colorado	222	17,106	11.1%	71.2%	28.8%	59.0%	41.0%	
Mississippi	216	17,231	13.0%	31.0%	69.0%	43.5%	56.5%	
South Carolina	181	16,969	16.3%	70.7%	29.3%	71.3%	28.7%	
Oregon	141	8,240	12.9%	70.9%	29.1%	68.8%	31.2%	
Arizona	139	12,581	12.5%	84.9%	15.1%	59.0%	41.0%	
West Virginia	133	9,974	13.4%	45.9%	54.1%	46.6%	53.4%	
South Dakota *	114	6,696	7.3%	26.3%	73.7%	56.1%	43.9%	18
Maine	114	6,666	15.9%	46.5%	53.5%	54.4%	45.6%	
Utah	98	5,593	19.0%	82.7%	17.3%	64.3%	35.7%	
Montana *	97	5,282	10.3%	20.6%	79.4%	38.1%	61.9%	9
Rhode Island	90	8,195	8.9%	100.0%	0.0%	32.2%	67.8%	
New Hampshire	86	7,225	14.4%	53.5%	46.5%	48.8%	51.2%	
Idaho	84	4,827	15.5%	54.8%	45.2%	58.3%	41.7%	
North Dakota	83	5,922	7.4%	24.1%	75.9%	44.6%	55.4%	
New Mexico	76	6,194	11.0%	43.4%	56.6%	65.8%	34.2%	
Hawaii	51	3,980	9.0%	58.8%	41.2%	51.0%	49.0%	
Nevada *	48	4,715	13.9%	75.0%	25.0%	62.5%	37.5%	15
Delaware	47	4,022	15.5%	74.5%	25.5%	55.3%	44.7%	
Vermont	41	3,131	13.9%	19.5%	80.5%	41.5%	58.5%	
Wyoming	39	2,394	10.8%	20.5%	79.5%	38.5%	61.5%	

State  (* indicates the STRIVE participating states)	From OSCAR Data							Number of sample facilities (from TEP presentation)
	Count of facilities	Total count of residents	% of Medicare residents	% of urban and rural facilities		Multi facility		
				urban	rural	% Yes	% No	
Washington D.C. *	20	2,807	10.6%	100.0%	0.0%	25.0%	75.0%	9
Alaska	15	627	10.7%	20.0%	80.0%	33.3%	66.7%	

***b) STRIVE sample representativeness by Medicare and Non-Medicare cases***

Lewin received a Medicare case identifier variable for STRIVE data. Using the Medicare case identifier variable it was determined that out of the 9721 cases, only 2052 cases are Medicare (approximately 21% - see **Exhibit 8**). STRIVE data do not have a provider identifier and hence it is not possible to check if the 21% is consistently represented across all providers, and know, for instance, if all the strata have Medicare sample cases. That is, from the variables available in the STRIVE data there is no way to identify how the Medicare cases are distributed – across states, strata (of selection), types of facilities. This would seem to be problematic in that we are asked to take it on faith that the Medicare sample is indeed representative.

The case weights for STRIVE represent the inverse of the probability of selection of a case scaled to the sample. The probability of selection for each facility is product of: A) Probability facility selected for initial list; B) Probability facility selected for inclusion in study; C) Probability each resident within facility included in study. Since the weights have been scaled to the sample size, Lewin checked to see if the projected number of cases in Medicare is close to the actual sample size. Using the case weights in STRIVE data, the Medicare portion of the data projects to 1381 (see **Exhibit 8** below) cases instead of 2052 (about a 30% reduction). Computationally this is a valid representation given the STRIVE sample (which maybe otherwise biased), since the case weights were developed on the overall sample. However, this indicates that the Medicare cases in the STRIVE 2007 data have been down weighted to reflect the fact that some Medicare cases were sampled with greater probability<sup>5</sup> than the overall sample. Any statistical projections or inferences using a survey data entail using the weights to appropriately project to the overall universe. It can be observed that the Medicare cases thus effectively represent 14% of the overall STRIVE cases. From **Exhibit 8** using MDS 2007 data it can be observed that Medicare cases comprise about 35% of all the cases. This finding is highly important when considering how the RUGs-66 day distribution was developed and used for impact analysis and budget neutrality calculations.

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<sup>5</sup> STRIVE over-sampled some high cost special population to construct a cost model for this population. These cases are down-weighted with the weighting process.

**Exhibit 8: Count and % of Medicare and Non-Medicare cases (actual sample and weighted) using STRIVE 2007 and MDS 2007 data**

Medicare Flag : 0 = No; 1 = Yes	Unweighted (actual STRIVE sample)		Weighted (using STRIVE case weights)		Using MDS 2007 data	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
0	7,669	78.89%	8,421.50	85.91%	10,554,053	64.86%
1	2,052	21.11%	1,380.80	14.09%	5,719,114	35.14%
<b>Overall</b>	<b>9,721</b>	<b>100%</b>	<b>9,802.30</b>	<b>100%</b>	<b>16,273,167</b>	<b>100%</b>

**c) STRIVE sample by RUG category**

*(i) Sample size by hierarchical RUG-53 and RUG-66 patient category*

Exhibit 9 provides the sample size for the Medicare and all (Medicare and Non-Medicare) cases in each of RUGs-53 and RUGs-66 based on the STRIVE 2007 data. It can be seen that the sample sizes are widely disparate and some categories do not even have any samples and many categories have less than 30 cases (approximately 44 RUGs-66 categories have less than the 30 cases and 3 have no samples). Some RUG groups have less sample size even at the overall level (e.g. RLX, RLA, for RUG-53 grouper; RUX, RUL, RVX, RVL, RHX, RML for RUG-66 grouper). Thus making any statistical inference based on the sample would be theoretically less stable.

**Exhibit 9: Count of Medicare and total cases in the STRIVE 2007 sample data by RUGs-53 (hierarchical grouper) and RUGs-66 (hierarchical grouper)**

Count of cases by RUG 53 (hierarchy grouper)			Count of cases by RUG 66 (hierarchy grouper)		
RUG 53	Count of Medicare Cases	Overall Count in STRIVE data	RUG 66	Count of Medicare Cases	Overall Count in STRIVE data
RUX	64	79	RUX	4	8
RUL	142	155	RUL	2	2
RVX	53	65	RVX	6	10
RVL	137	164	RVL	9	11
RHX	82	120	RHX	8	11
RHL	45	60	RHL	15	17
RMX	63	102	RMX	12	21
RML	52	82	RML	10	13
RLX	3	4	RUC	31	46
RUC	58	70	RUB	31	41
RUB	170	194	RUA	25	30
RUA	38	47	RVC	84	101
RVC	49	65	RVB	117	130

Count of cases by RUG 53 (hierarchy grouper)			Count of cases by RUG 66 (hierarchy grouper)		
RUG 53	Count of Medicare Cases	Overall Count in STRIVE data	RUG 66	Count of Medicare Cases	Overall Count in STRIVE data
RVB	170	203	RVA	106	127
RVA	86	104	RHC	109	134
RHC	116	164	RHB	167	200
RHB	91	119	RHA	239	283
RHA	56	78	RMC	104	169
RMC	45	106	RMB	159	240
RMB	86	183	RMA	229	339
RMA	51	108	RLB	7	17
RLB	5	25	RLA	7	30
RLA	4	23	ES3	21	200
SE3	62	171	ES2	8	101
SE2	89	596	ES1	16	41
SE1	9	58	HE2	4	21
SSC	21	204	HE1	22	100
SSB	17	205	HD2	8	48
SSA	47	375	HD1	27	139
CC2	5	81	HC2	9	45
CC1	12	199	HC1	31	146
CB2	11	172	HB2	12	40
CB1	30	586	HB1	18	124
CA2	6	140	LE2	6	62
CA1	31	523	LE1	20	235
IB2		71	LD2	15	111
IB1	4	466	LD1	29	306
IA2		14	LC2	10	101
IA1	4	372	LC1	27	278
BB2		4	LB2	4	43
BB1		13	LB1	24	163
BA2		1	CE2	3	18
BA1		50	CE1	6	44
PE2		130	CD2	4	39
PE1	6	588	CD1	18	135
PD2	2	246	CC2	7	66
PD1	17	1051	CC1	14	206
PC2		26	CB2	3	34
PC1	2	121	CB1	15	94
PB2		20	CA2	7	85
PB1	4	195	CA1	48	366

Count of cases by RUG 53 (hierarchy grouper)			Count of cases by RUG 66 (hierarchy grouper)		
RUG 53	Count of Medicare Cases	Overall Count in STRIVE data	RUG 66	Count of Medicare Cases	Overall Count in STRIVE data
PA2		38	BB2	1	101
PA1	6	671	BB1	13	527
BC1	1	14	BA2		34
			BA1	14	598
			PE2		37
			PE1	2	225
			PD2		94
			PD1	15	469
			PC2	1	160
			PC1	39	757
			PB2	1	67
			PB1	26	390
			PA2	1	51
			PA1	21	825
			AAA	1	14
			Missing		1

*(ii) Distribution of cases by index maximized RUG-53 categories - comparative analysis using STRIVE and MDS Medicare data for STRIVE and non-STRIVE states*

STRIVE data do not have enough Medicare sample cases for all RUG groups for making reasonable inferences based on the sample (refer to **Exhibit 11** below). Only 17 out of the 53 RUGs have samples greater than 50. Six additional RUG groups have sample size greater than 30, however still less than 50 (Column I in Exhibit 11 identifies the RUGs which have STRIVE Medicare sample size less than 30<sup>6</sup>). These sample sizes are not consistent with precision in RUG weight estimation.

A test of difference in proportion of cases between the STRIVE and the Non-STRIVE states for each RUG based on the MDS Medicare data showed that for most RUGs, the proportion of cases is different (a comparison between column A and column B in exhibit 11, column D shows the RUGs that have significant difference). This indicates that the distribution of cases by RUG categories is different for the STRIVE and the Non-STRIVE states.

Even for the RUG categories that have sufficient sample size, it can be seen that the proportion of cases is different between the MDS and the STRIVE data. For example, consider the RUG

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<sup>6</sup> Federal Register / Vol. 67, No. 56 / Friday, March 22, 2002 / Proposed Rules, pg. 13427, 42 CFR, Part 412 discusses for LTC-CMS-DRG model all DRG groups with less than 25 cases were grouped together.

category RML which has 130 cases in the STRIVE 2007 data. The STRIVE data has approximately 6% of the sample in this category. The projected proportion (using case weights) is only 4%. From the MDS data it can be seen that the RML RUG category has approximately 9% of Medicare cases in the STRIVE states. Consider RUG RHA as another example. STRIVE states (using MDS data) has 2.78% cases in this group. STRIVE sample has 2.73% cases, while projected STRIVE sample have 3.19% of cases.

**Exhibit 10** below shows **some** of the RUG categories with sufficient Medicare sample cases in STRIVE data. However, the proportion of cases represented in the STRIVE data is different from the proportion in MDS data for STRIVE states. **Exhibit 11** lists **all** the 53 RUG groups (index maximized for the STRIVE 2007 data), the count of cases by each group (actual sample and weighted – Medicare and overall), % of cases by RUG group for STRIVE Medicare and Overall and MDS Medicare by STRIVE states and Non-Strive states.

It can be observed that even if overall STRIVE has a reasonable sample size of 9,721 cases – some RUG groups still do not have sufficient sample size (including Medicare and non-Medicare cases) (see for instances IA2, PB2, PC2, RLA, RLB, RLX).

This raises a concern regarding the state level representativeness of STRIVE data.

**Exhibit 10: Example of RUG categories with sufficient STRIVE sample size, but different proportion of cases in comparison to MDS data and also in the projected (using STRIVE case weights)**

RUG	% cases using MDS Medicare data		STRIVE data sample (Medicare ONLY)		STRIVE Data weighted (Medicare ONLY)	
	STRIVE States	Non-STRIVE States	Count	% of cases	Count	% of cases
RHA	2.78%	2.83%	56	2.73%	44.06	3.19%
RHB	4.59%	3.95%	91	4.43%	92.49	6.70%
RHC	6.35%	5.83%	116	5.65%	79.71	5.77%
RML	9.11%	8.87%	130	6.34%	54.02	3.91%
RMX	10.13%	10.35%	135	6.58%	83.22	6.03%
RVB	9.21%	9.41%	170	8.28%	93.26	6.75%

**Exhibit 11: Comparative proportion of cases by RUG category using MDS and STRIVE data**

RUG-53 (index max for STRIVE)	% cases using MDS Medicare				STRIVE data sample (Medicare ONLY)		STRIVE Data weighted (Medicare ONLY)		STRIVE Medicare sample < 30 indicator	All STRIVE data sample		All STRIVE Data weighted	
	STRIVE States	Non- STRIVE States	Overall	Ho : (A) = (B), vs. Ha: (A) not equal (B) significance indicator	Count of cases	% of cases	Count of cases	% of cases		Count of cases	% of cases	Count of cases	% of cases
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)		(I)	(J)	(K)	(L)
RUX	2.95%	3.16%	3.07%	Y	64	3.12%	36.9	2.67%		79	0.81%	42.1	0.43%
RUL	5.89%	5.49%	5.67%	Y	142	6.92%	63.3	4.58%		155	1.59%	67.9	0.69%
RVX	2.89%	3.24%	3.08%	Y	53	2.58%	31.1	2.25%		65	0.67%	34.6	0.35%
RVL	5.85%	6.05%	5.96%	Y	114	5.56%	63.2	4.58%		136	1.40%	71.3	0.73%
RHX				N/A	0	0.00%	0.0	0.00%	Y	0	0.00%	0.0	0.00%
RHL				N/A	0	0.00%	0.0	0.00%	Y	0	0.00%	0.0	0.00%
RMX	10.13%	10.35%	10.25%	Y	135	6.58%	83.2	6.03%		204	2.10%	113.5	1.16%
RML	9.11%	8.87%	8.98%	Y	130	6.34%	54.0	3.91%		188	1.93%	94.6	0.97%
RLX	0.04%	0.04%	0.04%		1	0.05%	0.3	0.02%	Y	2	0.02%	0.4	0.00%
RUC	2.46%	2.80%	2.65%	Y	58	2.83%	49.8	3.61%		70	0.72%	57.1	0.58%
RUB	7.85%	7.35%	7.58%	Y	170	8.28%	122.0	8.83%		194	2.00%	145.4	1.48%
RUA	2.67%	2.35%	2.49%	Y	38	1.85%	20.7	1.50%		47	0.48%	35.4	0.36%
RVC	2.45%	2.85%	2.67%	Y	49	2.39%	36.0	2.61%		65	0.67%	48.3	0.49%
RVB	9.21%	9.41%	9.32%	Y	170	8.28%	93.3	6.75%		203	2.09%	109.7	1.12%
RVA	3.75%	3.80%	3.78%	Y	86	4.19%	68.4	4.95%		104	1.07%	87.8	0.90%
RHC	6.35%	5.83%	6.06%	Y	116	5.65%	79.7	5.77%		164	1.69%	111.3	1.14%
RHB	4.59%	3.95%	4.24%	Y	91	4.43%	92.5	6.70%		119	1.22%	111.3	1.14%
RHA	2.78%	2.83%	2.81%	Y	56	2.73%	44.1	3.19%		78	0.80%	53.0	0.54%
RMC	2.17%	2.11%	2.14%	Y	45	2.19%	14.9	1.08%		106	1.09%	73.1	0.75%
RMB	3.30%	2.81%	3.03%	Y	86	4.19%	63.1	4.57%		183	1.88%	123.5	1.26%
RMA	1.65%	1.59%	1.62%	Y	51	2.49%	31.5	2.28%		108	1.11%	72.0	0.73%
RLB	0.08%	0.09%	0.09%		5	0.24%	2.6	0.19%	Y	25	0.26%	29.7	0.30%
RLA	0.09%	0.08%	0.08%		4	0.19%	7.3	0.53%	Y	23	0.24%	25.7	0.26%
SE3	2.17%	2.17%	2.17%		64	3.12%	40.9	2.96%		173	1.78%	130.3	1.33%
SE2	3.49%	3.50%	3.50%		89	4.34%	66.9	4.85%		596	6.13%	503.6	5.14%
SE1	0.19%	0.19%	0.19%		9	0.44%	3.7	0.27%	Y	58	0.60%	43.4	0.44%
SSC	0.83%	0.78%	0.80%	Y	21	1.02%	19.5	1.41%	Y	204	2.10%	262.5	2.68%
SSB	0.84%	0.84%	0.84%		17	0.83%	8.8	0.64%	Y	205	2.11%	216.0	2.20%
SSA	1.60%	1.77%	1.69%	Y	47	2.29%	24.5	1.77%		375	3.86%	281.0	2.87%
CC2	0.15%	0.17%	0.16%	Y	5	0.24%	0.9	0.07%	Y	81	0.83%	94.7	0.97%
CC1	0.42%	0.46%	0.44%	Y	12	0.58%	3.5	0.26%	Y	199	2.05%	245.4	2.50%
CB2	0.33%	0.40%	0.37%	Y	11	0.54%	7.2	0.52%	Y	172	1.77%	171.3	1.75%
CB1	1.05%	1.18%	1.12%	Y	30	1.46%	23.6	1.71%		586	6.03%	696.2	7.10%
CA2	0.32%	0.38%	0.35%	Y	6	0.29%	15.9	1.15%	Y	140	1.44%	124.9	1.27%
CA1	1.01%	1.19%	1.11%	Y	31	1.51%	37.6	2.72%		523	5.38%	486.2	4.96%

RUG-53 (index max for STRIVE)	% cases using MDS Medicare				STRIVE data sample (Medicare ONLY)		STRIVE Data weighted (Medicare ONLY)		STRIVE Medicare sample < 30 indicator	All STRIVE data sample		All STRIVE Data weighted	
	STRIVE States	Non- STRIVE States	Overall	Ho : (A) = (B), vs. Ha: (A) not equal (B) significance indicator	Count of cases	% of cases	Count of cases	% of cases		Count of cases	% of cases	Count of cases	% of cases
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)		(I)	(J)	(K)	(L)
IB2	0.02%	0.02%	0.02%	Y	0	0.00%	0.0	0.00%	Y	71	0.73%	164.7	1.68%
IB1	0.16%	0.23%	0.20%	Y	4	0.19%	20.3	1.47%	Y	466	4.79%	890.1	9.08%
IA2	0.01%	0.01%	0.01%		0	0.00%	0.0	0.00%	Y	14	0.14%	22.1	0.23%
IA1	0.14%	0.17%	0.15%	Y	4	0.19%	2.2	0.16%	Y	372	3.83%	388.2	3.96%
BB2	0.00%	0.00%	0.00%		0	0.00%	0.0	0.00%	Y	4	0.04%	6.8	0.07%
BB1	0.01%	0.01%	0.01%	Y	0	0.00%	0.0	0.00%	Y	13	0.13%	15.2	0.16%
BA2	0.00%	0.00%	0.00%	Y	0	0.00%	0.0	0.00%	Y	1	0.01%	0.2	0.00%
BA1	0.03%	0.03%	0.03%	Y	0	0.00%	0.0	0.00%	Y	50	0.51%	43.5	0.44%
PE2	0.03%	0.04%	0.03%	Y	0	0.00%	0.0	0.00%	Y	130	1.34%	249.1	2.54%
PE1	0.21%	0.32%	0.27%	Y	6	0.29%	3.5	0.26%	Y	588	6.05%	791.1	8.07%
PD2	0.05%	0.08%	0.07%	Y	2	0.10%	1.7	0.12%	Y	246	2.53%	439.3	4.48%
PD1	0.37%	0.57%	0.48%	Y	17	0.83%	22.2	1.61%	Y	1051	10.81%	1103.6	11.26%
PC2	0.01%	0.01%	0.01%	Y	0	0.00%	0.0	0.00%	Y	26	0.27%	44.0	0.45%
PC1	0.06%	0.08%	0.07%	Y	2	0.10%	0.4	0.03%	Y	121	1.24%	158.2	1.61%
PB2	0.01%	0.01%	0.01%	Y	0	0.00%	0.0	0.00%	Y	20	0.21%	20.6	0.21%
PB1	0.07%	0.09%	0.08%	Y	4	0.19%	2.2	0.16%	Y	195	2.01%	221.0	2.25%
PA2	0.01%	0.01%	0.01%	Y	0	0.00%	0.0	0.00%	Y	38	0.39%	49.9	0.51%
PA1	0.16%	0.23%	0.20%	Y	6	0.29%	1.4	0.10%	Y	671	6.90%	395.1	4.03%
BC1				N/A	1	0.05%	16.0	1.16%	Y	14	0.14%	36.6	0.37%

From **Exhibit 11** it can be seen that the STRIVE Medicare sample did not exist for some of the RUGs-53 categories. For those groups where the sample size is small, less than 30, even less than 10 we have concerns about precision.

**d) Comparative study of behavioral and clinical patterns between STRIVE Medicare and STRIVE non-Medicare groups and MDS Medicare cases**

Another quantitative analysis that has been performed compares MDS characteristic variables in the STRIVE data, to MDS estimates for Strive states and at national level. STRIVE data (all cases including Medicare and Non-Medicare) has case-weights based on the complete data. The nursing weights are also computed using all the cases. Hence analysis was done to test for similarity of behavioral and clinical characteristics between the Medicare and the Non-Medicare cohorts in STRIVE. A comparative analysis was also done to check if the characteristic pattern for the STRIVE Medicare cohort is similar to the Medicare universe (from MDS data – by

STRIVE states, Non-STRIVE states and overall). The Iowa Care Foundation has presented such a comparative study for selected characteristics. Lewin has run tests for all the characteristics (like ADLs, Cognitive patterns, Communication/Hearing patterns, diseases and likewise) that are available both in the STRIVE and the MDS data. We present some of the results in the tables and figures below. These results were determined using MDS 2007 and STRIVE 2007 data.

**Exhibit 12 - 35** shows the results for response to some (12 characteristics) behavioral characteristics in MDS (Medicare) and STRIVE data. We note that for STRIVE, the response is different for the two cohorts (Medicare and Non-Medicare) (compare columns A and B) – indicating a behavioral difference between the two groups for most characteristics. Also the response proportion for STRIVE Medicare cohort is different from the response proportion from MDS Medicare (compare columns A and C). For most behavioral patterns, the distribution of responses for a characteristic is not different between the STRIVE states and the Non-STRIVE states when looking at the universe MDS data (compare columns C and D). Chi-square test for association between two categorical variables (row variable - characteristics and column variable-Medicare/Non-Medicare identifier) was performed for each of the characteristics on the STRIVE sample data. The tests showed that most behavioral patterns are dependent on whether a case is a Medicare or a Non-Medicare case. This supports the observations that the responses for the characteristics are different between the Medicare and non-Medicare cohorts in the STRIVE sample.

For example, in case of Self bed mobility (refer Exhibit 12 and 13) 36% of the STRIVE Medicare cases reported “Extensive Assistance” while for STRIVE Non-Medicare this figure is 28% and for MDS STRIVE states it is 45%. Consider the next ADL characteristics displayed – G1BA (how does a resident move between surfaces like bed and chair) (refer Exhibit 14 and 15). 4.4% of STRIVE Medicare cases reported independence while 18% of Non-Medicare STRIVE cases reported independence. From the MDS Medicare data for STRIVE states, 5.6% reported independence. Similar observations can be made for the different response levels of the variable.

Some characteristics like incidence of disease like Diabetes Mellitus are not dependent on if a case is Medicare or Non-Medicare (and chi-square test also indicated the same). However even for those variables, the incidence rates between the Medicare cohort and the Non-Medicare STRIVE cohorts are different. The incidence rate is also different between the STRIVE Medicare cohort and incidence rate for STRIVE states from MDS data (for example refer to exhibit 20 and 21).

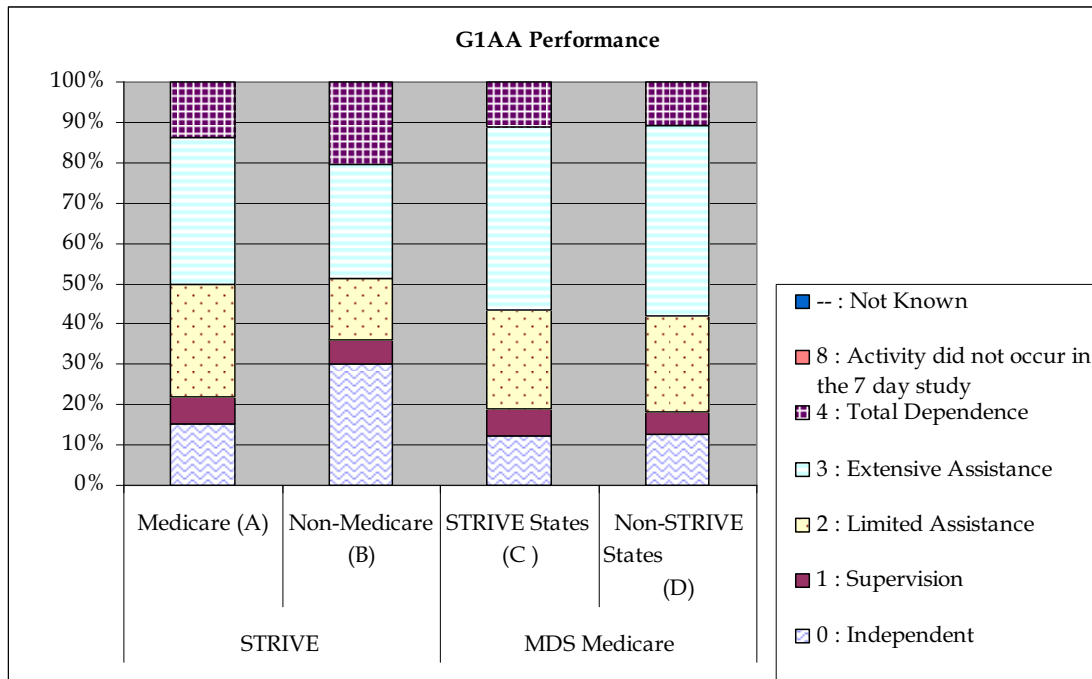
This shows that Medicare and Non-Medicare cohorts have different behavioral and clinical patterns (in most cases). Also the difference in behavioral and clinical patterns between the STRIVE Medicare and MDS Medicare data raises a concern about the representativeness of the STRIVE sample data. This may suggest that the RUG weights based on the entire STRIVE sample may not reflect Medicare patients as much as Non-Medicare patients.

The behavioral patterns are not different for most cases between the STRIVE and the non-STRIVE states from the MDS Medicare data.

**Exhibit 12: Comparative response for Self Bed mobility Performance (G1AA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (TABLE)**

Self Bed mobility Performance (G1AA)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
0 : Independent	208.52	15.28%	2515.48	29.94%	12.12%	12.70%	12.44%
1 : Supervision	89.93	6.59%	522.40	6.22%	6.82%	5.68%	6.19%
2 : Limited Assistance	380.96	27.91%	1256.99	14.96%	24.72%	23.54%	24.06%
3 : Extensive Assistance	498.19	36.50%	2373.13	28.25%	45.11%	47.35%	46.35%
4 : Total Dependence	186.81	13.69%	1731.10	20.61%	11.19%	10.70%	10.92%
8 : Activity did not occur in the 7 day study	0.35	0.03%	1.85	0.02%	0.03%	0.02%	0.03%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	264.0088						
DF for Chi-Square	5						
P-value for Chi-Square	< 0.0001						

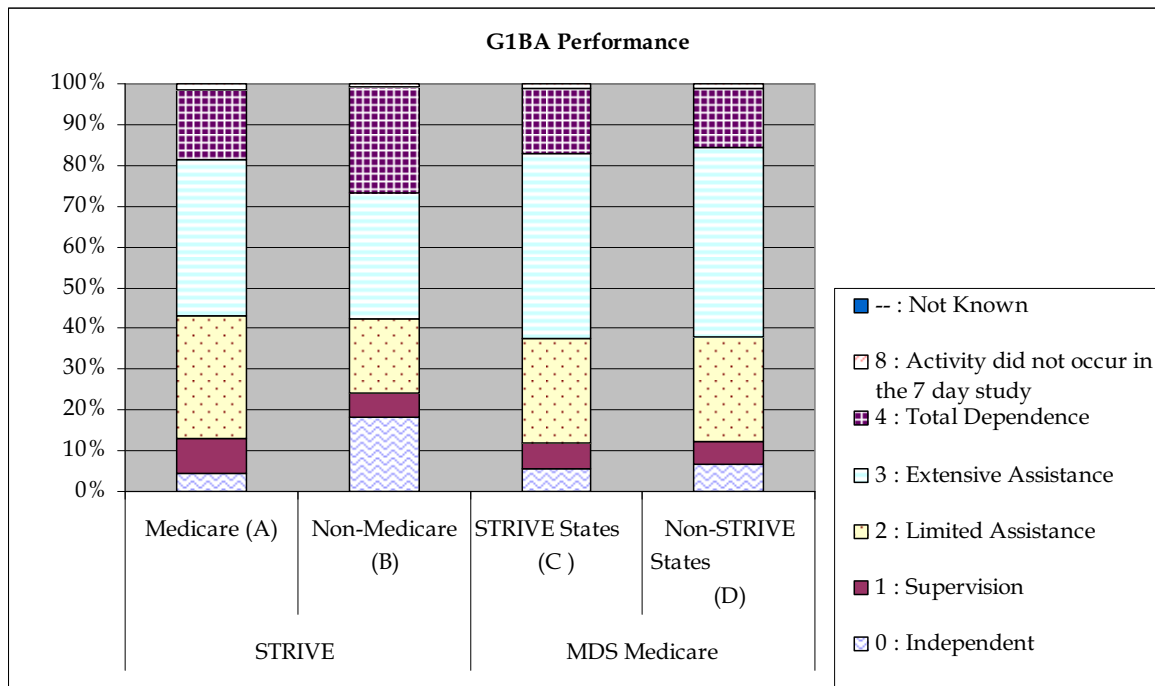
**Exhibit 13: Comparative response for Self Bed mobility Performance (G1AA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 14: Comparative response for Transfer Self Performance (G1BA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (TABLE)**

Transfer Self Performance (G1BA)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
0 : Independent	60.70	4.45%	1538.91	18.32%	5.58%	6.53%	6.10%
1 : Supervision	115.71	8.48%	486.29	5.79%	6.15%	5.72%	5.91%
2 : Limited Assistance	410.47	30.08%	1535.96	18.28%	25.67%	25.51%	25.58%
3 : Extensive Assistance	523.65	38.37%	2591.12	30.84%	45.67%	46.58%	46.17%
4 : Total Dependence	236.28	17.31%	2173.97	25.88%	15.96%	14.61%	15.21%
8 : Activity did not occur in the 7 day study	17.94	1.31%	74.70	0.89%	0.97%	1.05%	1.01%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	291.5956						
DF for Chi-Square	5						
P-value for Chi-Square	< 0.0001						

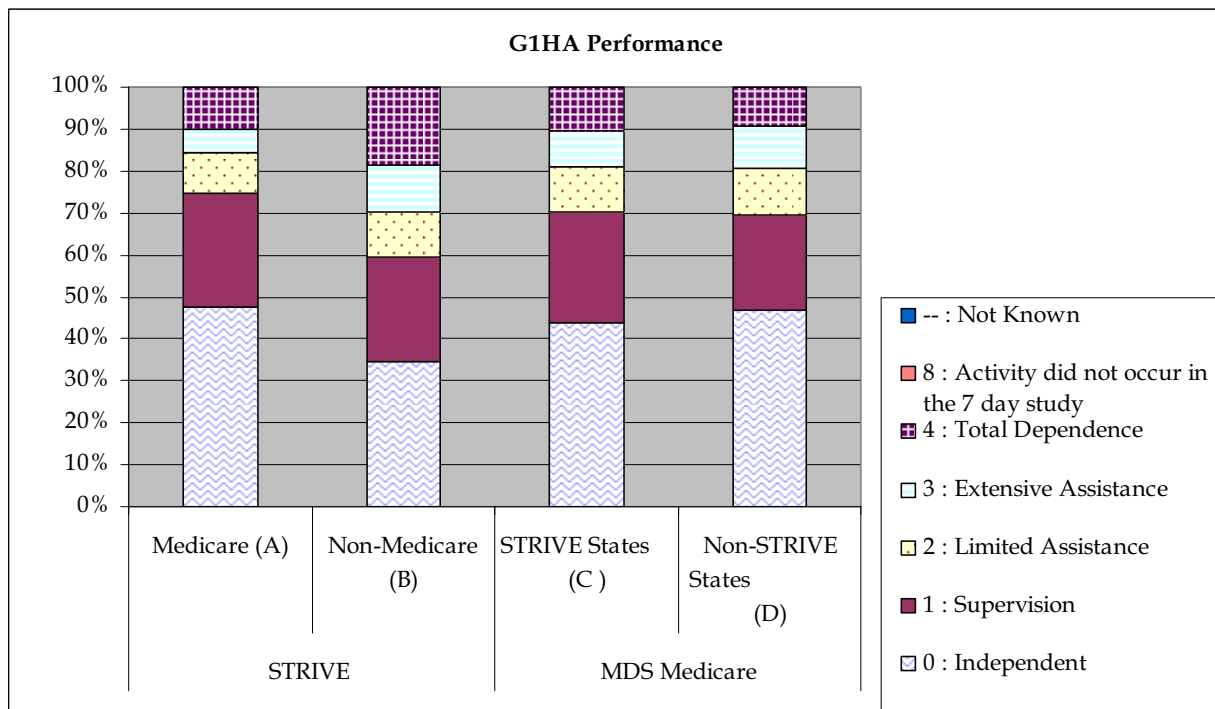
**Exhibit 15: Comparative response for Transfer Self Performance (G1BA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 16: Comparative response for Eating Self Performance (G1HA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (TABLE)**

Eating Self Performance (G1HA)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
0 : Independent	651.85	47.76%	2904.40	34.57%	43.99%	46.81%	45.55%
1 : Supervision	366.44	26.85%	2081.74	24.78%	26.35%	22.64%	24.29%
2 : Limited Assistance	133.20	9.76%	912.45	10.86%	10.60%	11.26%	10.96%
3 : Extensive Assistance	74.73	5.48%	944.37	11.24%	8.52%	9.86%	9.26%
4 : Total Dependence	138.24	10.13%	1557.27	18.54%	10.41%	9.26%	9.77%
8 : Activity did not occur in the 7 day study	0.30	0.02%	0.72	0.01%	0.13%	0.16%	0.14%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>		<b>Value</b>					
Chi-Square		144.8189					
DF for Chi-Square		5					
P-value for Chi-Square		< 0.0001					

**Exhibit 17: Comparative response for Eating Self Performance (G1HA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



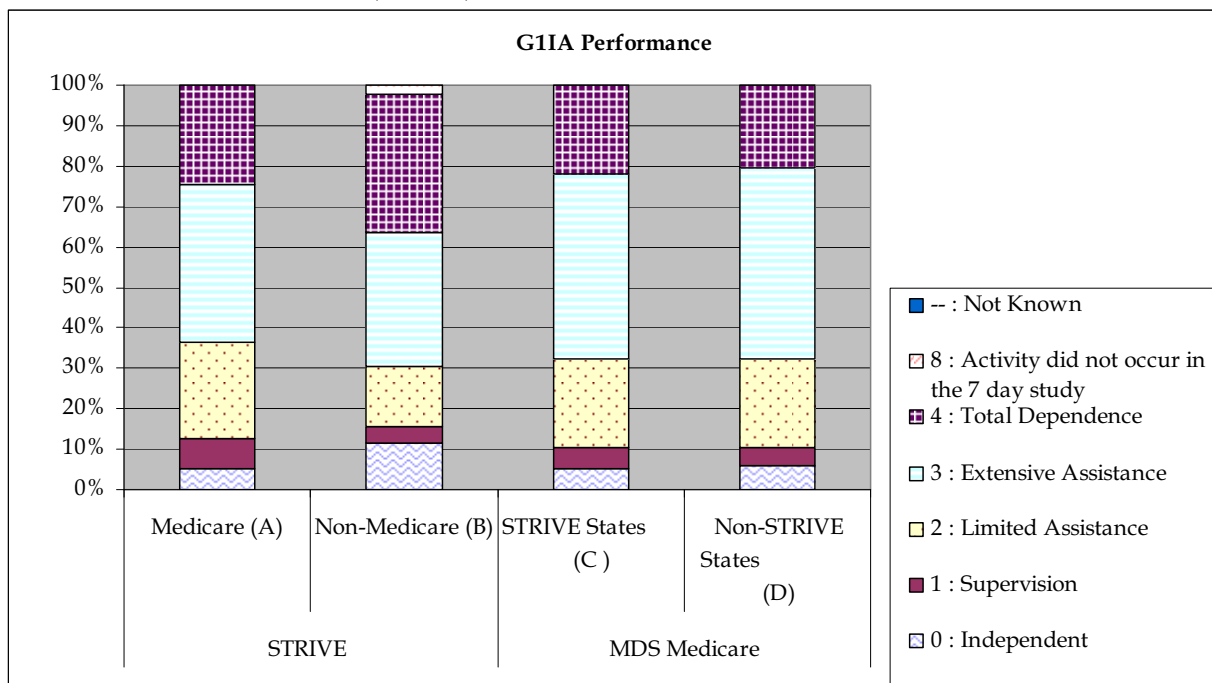
**Exhibit 18: Comparative response for Toilet Use Self Performance (G1IA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (TABLE)**

Toilet Use Self Performance (G1IA)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
0 : Independent	70.17	5.14%	977.58	11.64%	5.10%	5.81%	5.49%
1 : Supervision	104.28	7.64%	345.91	4.12%	5.15%	4.76%	4.94%
2 : Limited Assistance	324.43	23.77%	1224.01	14.57%	21.97%	21.66%	21.80%
3 : Extensive Assistance	531.50	38.94%	2806.28	33.40%	45.89%	47.33%	46.69%
4 : Total Dependence	334.37	24.50%	2846.71	33.89%	21.74%	20.28%	20.93%
8 : Activity did not occur in the 7 day study	0.00	0.00%	200.46	2.39%	0.15%	0.13%	0.14%

Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)	
Statistics	Value
Chi-Square	215.3271
DF for Chi-Square	5
P-value for Chi-Square	< 0.0001

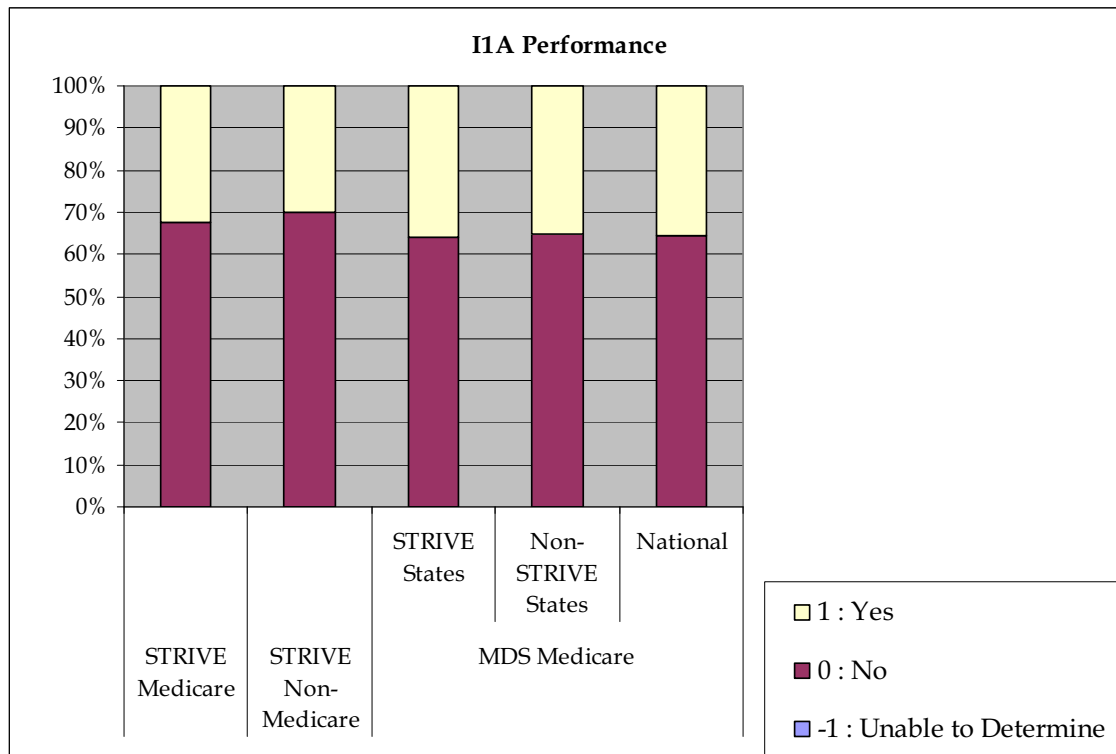
**Exhibit 19: Comparative response for Toilet Use Self Performance (G1IA) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 20: Comparative response for Diabetes Mellitus (I1A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

Diabetes Mellitus (I1A)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-1 : Unable to Determine	0.67	0.05%	0.67	0.01%	0.05%	0.05%	0.05%
0 : No	931.71	67.48%	5892.77	69.99%	64.10%	64.89%	64.54%
1 : Yes	448.42	32.48%	2526.40	30.01%	35.85%	35.06%	35.41%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	4.8758						
DF for Chi-Square	2						
P-value for Chi-Square	0.0873						

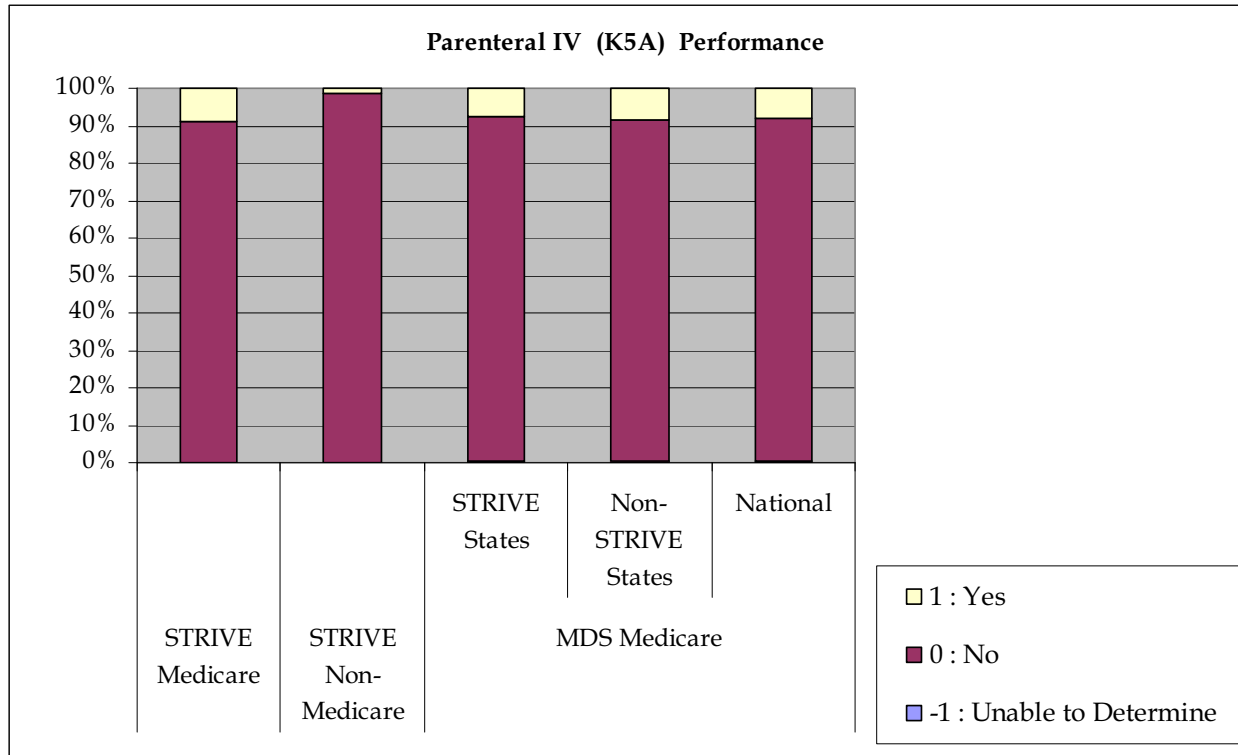
**Exhibit 21: Comparative response for Diabetes Mellitus (I1A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 22: Comparative response for Parenteral IV (K5A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

Parenteral IV (K5A)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-1 : Unable to Determine	1.73	0.13%	1.10	0.01%	0.37%	0.53%	0.46%
0 : No	1253.71	90.80%	8301.30	98.59%	91.94%	90.93%	91.38%
1 : Yes	125.35	9.08%	117.44	1.39%	7.69%	8.55%	8.16%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	295.2303						
DF for Chi-Square	2						
P-value for Chi-Square	< 0.0001						

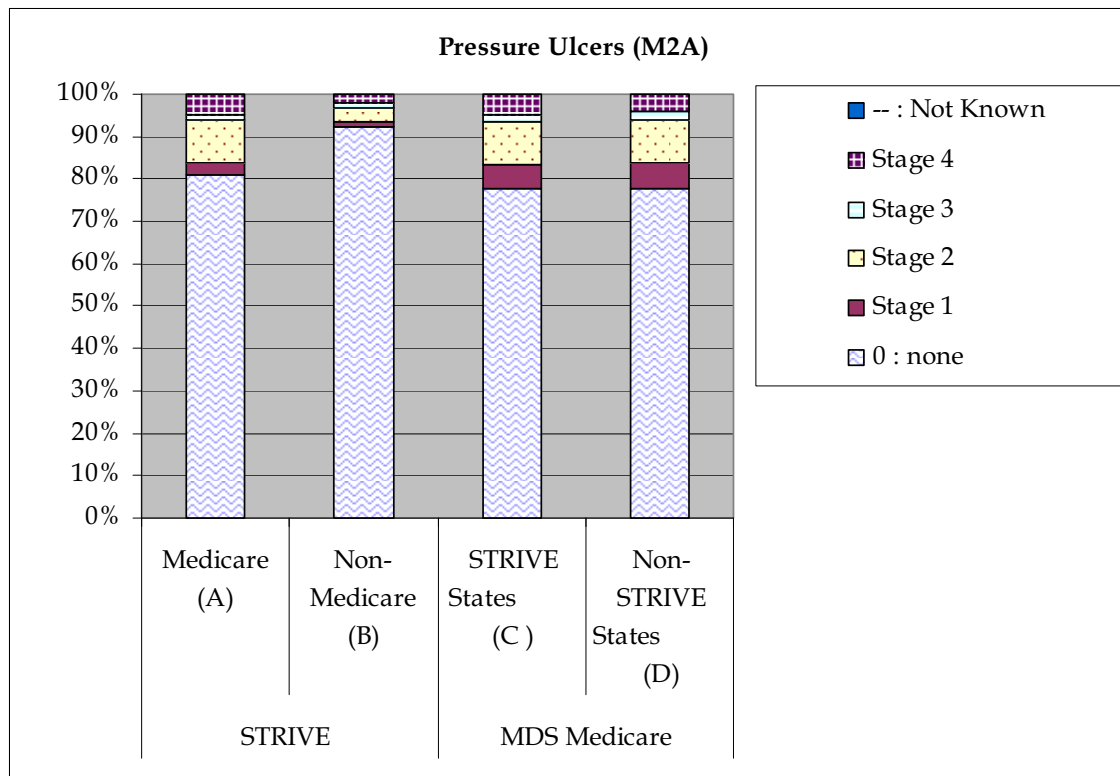
**Exhibit 23: Comparative response for Parenteral IV (K5A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 24: Comparative proportion of cases for Pressure ulcers (M2A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

Pressure Ulcers (M2A) - Stages	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
0 : none	1102.39	80.78%	7742.17	92.14%	77.62%	77.93%	77.79%
1	39.93	2.93%	110.63	1.32%	5.67%	6.01%	5.86%
2	141.80	10.39%	282.33	3.36%	10.07%	10.17%	10.12%
3	16.56	1.21%	94.35	1.12%	1.82%	1.88%	1.85%
4	64.07	4.69%	172.94	2.06%	4.74%	4.00%	4.33%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	203.8108						
DF for Chi-Square	4						
P-value for Chi-Square	< 0.0001						

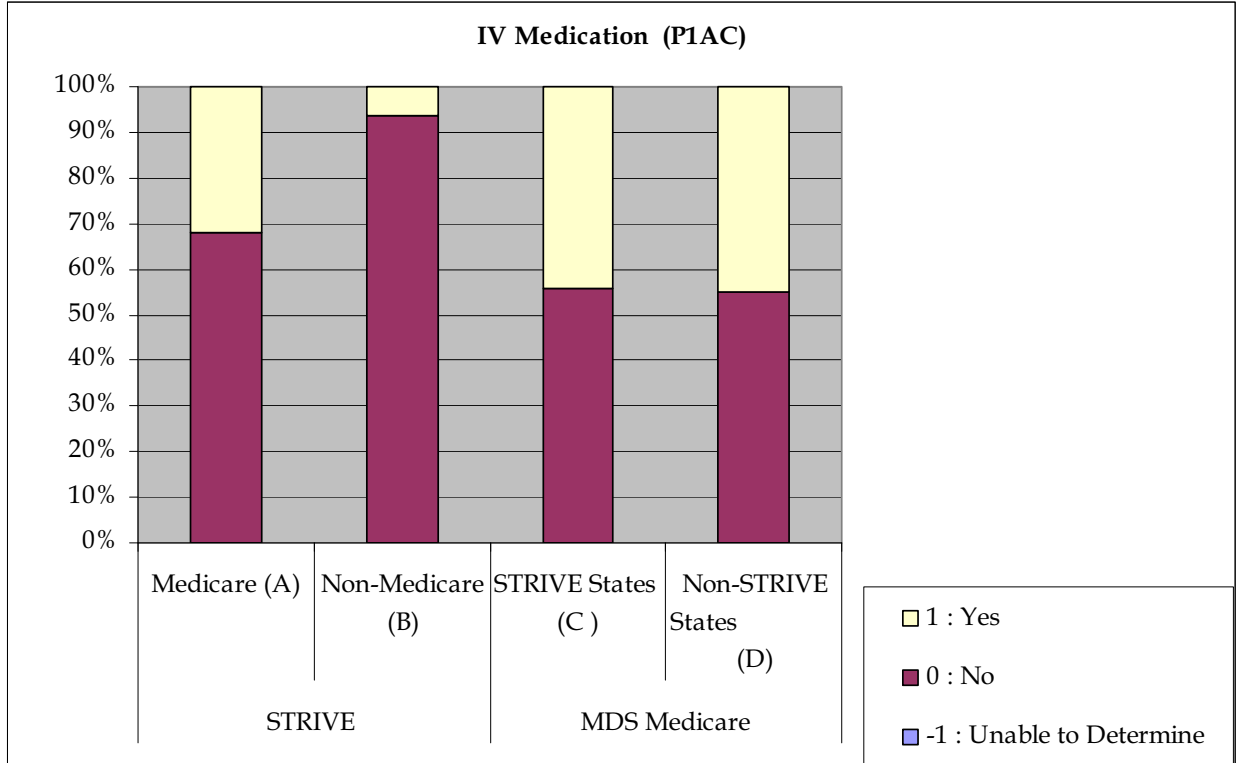
**Exhibit 25: Comparative proportion of cases for Pressure ulcers (M2A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 26: Comparative response for IV Medication (P1AC) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

IV Medication (P1AC)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-1 : Unable to Determine	0.95	0.07%	0.95	0.01%	0.01%	0.01%	0.01%
0 : No	935.92	67.78%	7875.06	93.53%	55.80%	54.99%	55.35%
1 : Yes	443.91	32.15%	543.83	6.46%	44.18%	44.99%	44.63%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	866.3351						
DF for Chi-Square	2						
P-value for Chi-Square	< 0.0001						

**Exhibit 27: Comparative response for IV Medication (P1AC) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



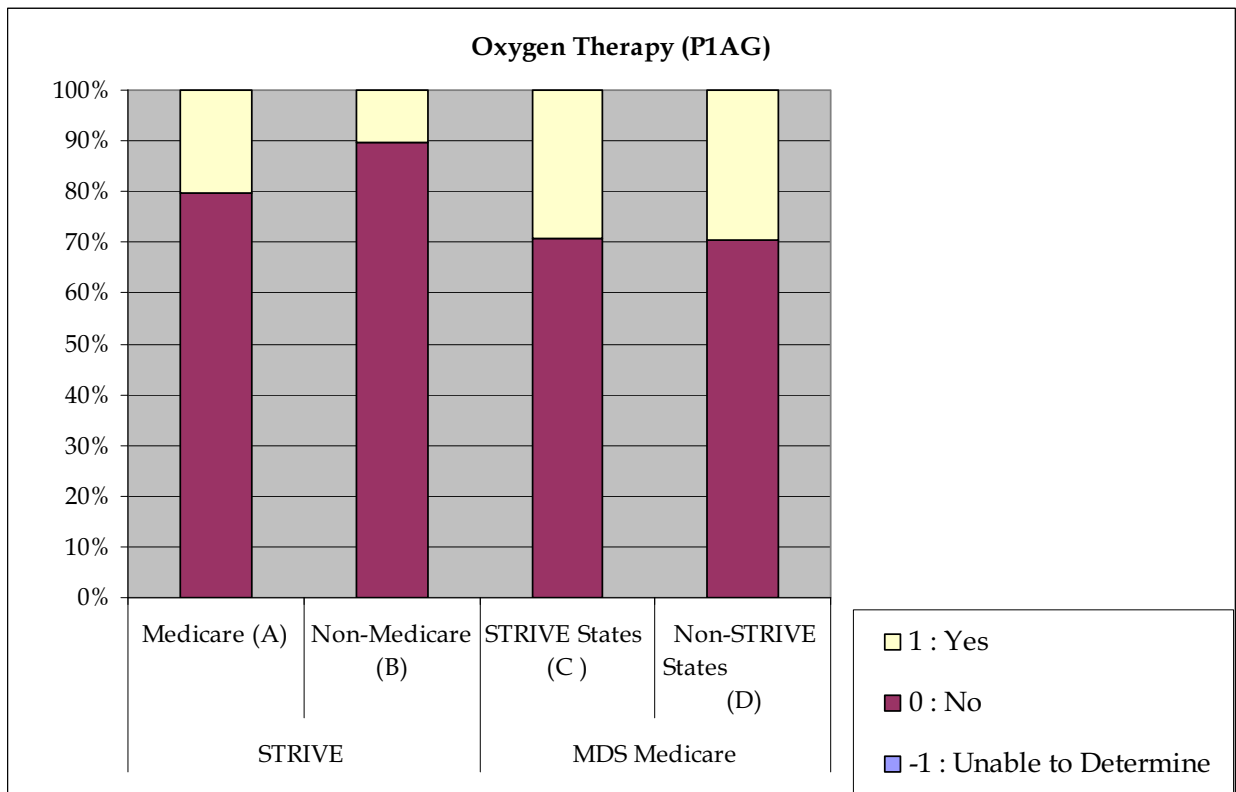
**Exhibit 28: Comparative response for Oxygen Therapy (P1AG) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

Oxygen Therapy (P1AG)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-1 : Unable to Determine	0.95	0.07%	0.95	0.01%	0.01%	0.01%	0.01%
0 : No	1097.91	79.51%	7558.22	89.77%	70.76%	70.30%	70.50%
1 : Yes	281.92	20.42%	860.67	10.22%	29.23%	29.69%	29.49%

Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)	
Statistics	Value
Chi-Square	121.9218
DF for Chi-Square	2
P-value for Chi-Square	< 0.0001

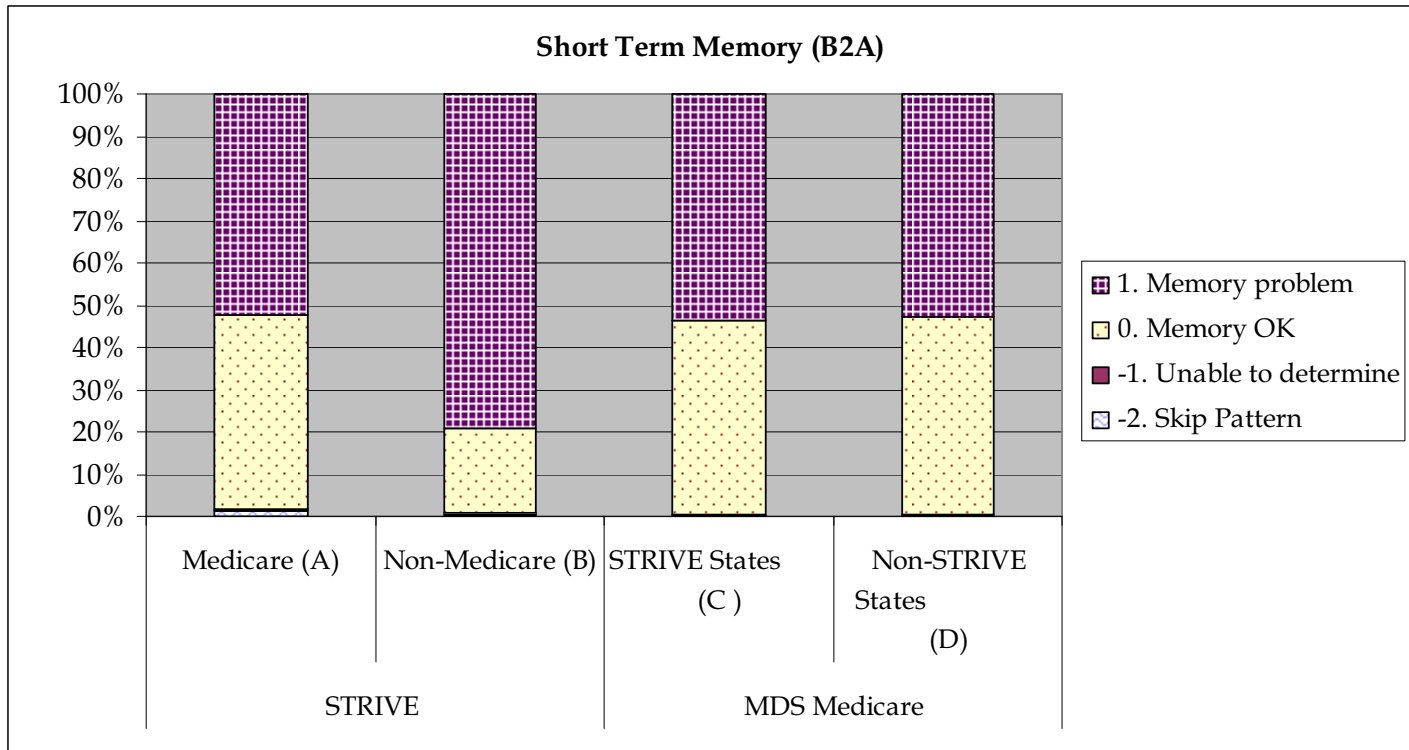
**Exhibit 29: Comparative response for Oxygen Therapy (P1AG) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 30: Comparative response for Short Term Memory (B2A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

Short Term Memory (B2A) (Memory OK = Seems to recall in 5 minutes)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-2. Skip Pattern	17.78	1.29%	52.29	0.62%	0.00%	0.00%	0.00%
-1. Unable to determine	4.85	0.35%	21.31	0.25%	0.48%	0.52%	0.50%
0. Memory OK	638.14	46.22%	1690.84	20.08%	46.10%	46.54%	46.34%
1. Memory problem	720.02	52.15%	6655.40	79.04%	53.42%	52.95%	53.16%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	462.7912						
DF for Chi-Square	3						
P-value for Chi-Square	< 0.0001						

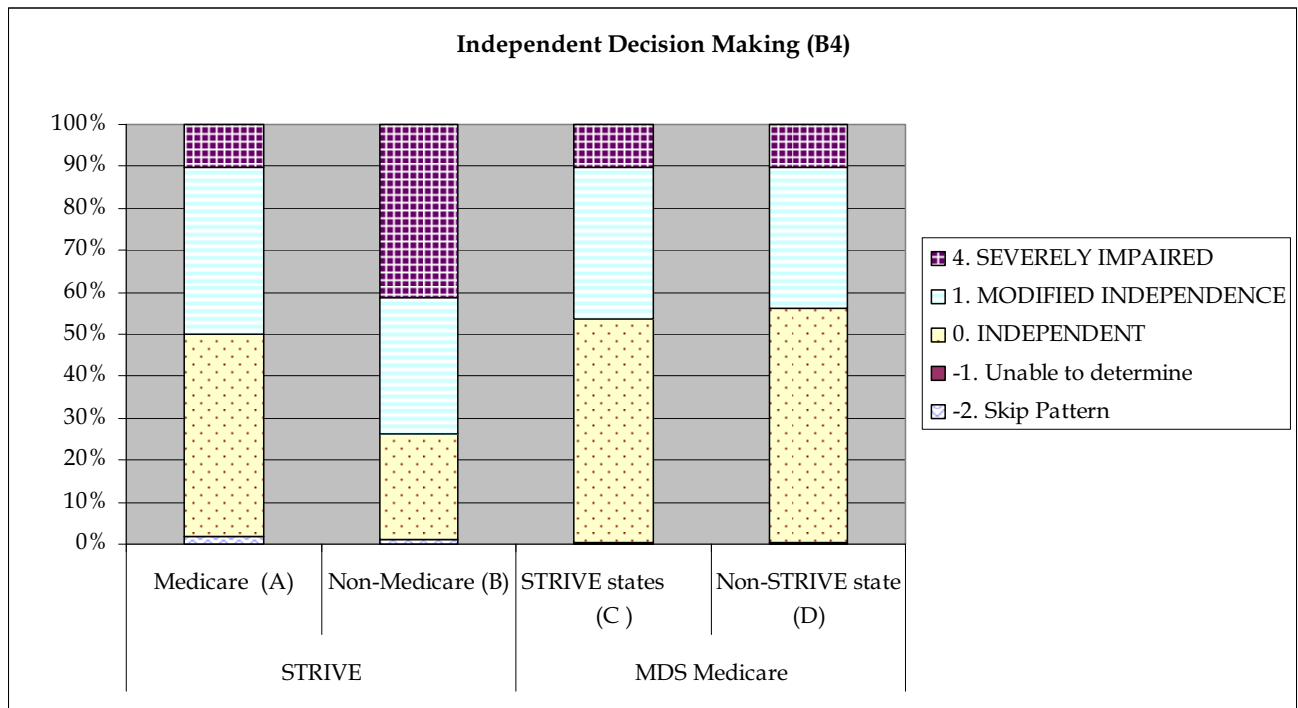
**Exhibit 31: Comparative response for Short Term Memory (B2A) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**Exhibit 32: Comparative response for Independent Decision making (B4) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare**

Cognitive Skills for independent decision making (B4)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-2. Skip Pattern	17.78	1.29%	52.56	0.62%	0.00%	0.00%	0.00%
-1. Unable to determine	0.00	0.00%	0.26	0.00%	0.20%	0.13%	0.16%
0. INDEPENDENT	456.37	33.05%	1192.72	14.17%	37.60%	39.87%	38.85%
1. MODIFIED INDEPENDENCE	375.88	27.22%	1531.24	18.19%	25.60%	23.77%	24.58%
2. MODERATELY IMPAIRED	434.33	31.46%	3690.62	43.83%	29.42%	28.91%	29.14%
4. SEVERELY IMPAIRED	96.42	6.98%	1952.44	23.19%	7.18%	7.33%	7.26%
<b>Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)</b>							
<b>Statistics</b>	<b>Value</b>						
Chi-Square	500.7398						
DF for Chi-Square	5						
P-value for Chi-Square	< 0.0001						

**Exhibit 33: Comparative response for Independent Decision making (B4) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



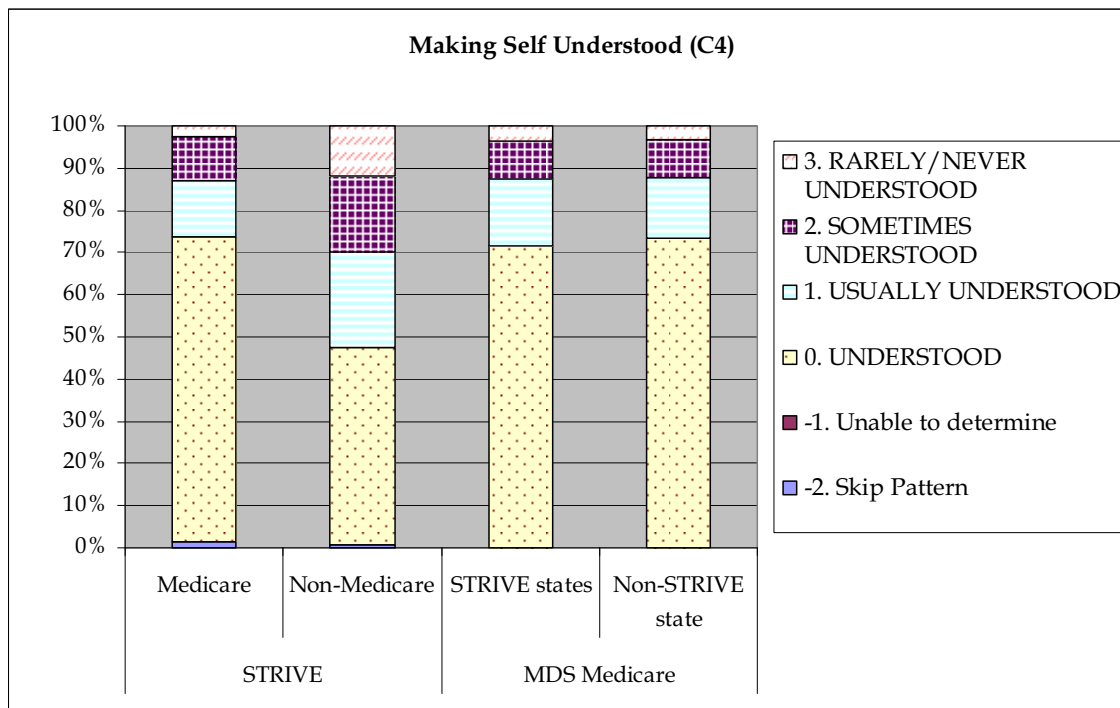
**Exhibit 34: Comparative response for Making Self understood (C4) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**

Communication skills - Making Self Understood (C4)	STRIVE Medicare		STRIVE Non-Medicare		MDS (Medicare only) % of cases		
	count of cases	% of cases (A)	count of cases	% of cases (B)	STRIVE states (C)	Non-STRIVE states (D)	All Medicare
-2. Skip Pattern	17.78	1.29%	52.16	0.62%	0.00%	0.00%	0.00%
-1. Unable to determine	0.00	0.00%	7.46	0.09%	0.16%	0.07%	0.11%
0. UNDERSTOOD	1002.46	72.60%	3930.69	46.68%	71.32%	73.29%	72.41%
1. USUALLY UNDERSTOOD	183.94	13.32%	1922.18	22.83%	15.82%	14.47%	15.08%
2. SOMETIMES UNDERSTOOD	143.96	10.43%	1496.30	17.77%	9.17%	8.82%	8.98%
3. RARELY/NEVER UNDERSTOOD	32.65	2.36%	1011.06	12.01%	3.53%	3.35%	3.43%

Test Ho : Characteristics independent of Medicare/Non-Medicare (based on STRIVE data)	
Statistics	Value
Chi-Square	358.6808
DF for Chi-Square	5
P-value for Chi-Square	< 0.0001

**Exhibit 35: Comparative response for Making Self understood (C4) between STRIVE Medicare and Non-Medicare (weighted), MDS Medicare STRIVE States and Non-STRIVE States and Overall Medicare (GRAPH)**



**e) Nursing time - comparative study between STRIVE Medicare and Non-Medicare cohorts**

Each RUG has associated nursing and therapy weights. These weights are used to compute the SNF PPS payment for each group. The computation of RUG nursing weights uses the wage weighted nursing minutes. Two tests were performed to test for the wage weighted nursing time between the Medicare and the Non-Medicare cohorts in the STRIVE sample – Kolmogorov Smirnov (KS) test and two sample t-test. The KS test is a non-parametric analysis which tests if for the two samples (Medicare and Non-Medicare nursing time) the data comes from same distribution. The two sample test for difference in mean is a parametric t-test to test for difference in mean nursing time between the Medicare and the Non-Medicare groups by each RUG. **Exhibit 36** shows the results for the two tests. It can be seen that for most RUGs the nursing time is similar between the Medicare and the Non-Medicare groups. However, for some groups like RUX, RLX the nursing times are statistically different (last column in **Exhibit 36** with “\*” indicate a statistically significant difference between the Medicare and Non-Medicare groups). This would indicate that some RUG weights may not be reflective of Medicare patients. Since the computation of nursing weights use all the cases, a difference in the Medicare and Non-Medicare cohorts nursing time (average time or distribution) questions the use of all cases for creation of the weights.

**Exhibit 36: Results of T-test for difference in mean Nursing time and difference in distribution (Kolmogorov-Smirnov) of nursing time between Medicare and Non-Medicare cohorts for STRIVE sample (assumed 95% confidence level for tests)**

RUG - 53 (index maximized)	Nursing time (by RUG category for Medicare cohort in STRIVE)		Nursing time (by RUG category for Non-Medicare cohort in STRIVE)		p-value for T-test for difference in mean (p-value for KS test for difference in distribution)
	Average Nursing time	Std. Dev. Of nursing time	Average Nursing time	Std. Dev. Of nursing time	
RUX	237.20	70.49	315.71	63.14	0.0181* ( 0.0573 )
RUL	200.02	74.26	184.84	64.77	0.6698 ( 0.9878 )
RVX	212.67	74.40	235.74	73.00	0.5806 ( 0.5098 )
RVL	223.19	118.52	185.71	58.49	0.3682 ( 0.9943 )
RHX					
RHL					
RMX	261.72	111.63	285.44	96.34	0.2962 ( 0.7387 )
RML	195.05	72.13	169.48	81.83	0.1035 ( 0.7160 )
RLX	287.84	0	409.62	0	
RUC	213.48	80.02	247.67	65.42	0.2718 ( 0.9650 )
RUB	179.45	92.33	130.38	57.67	0.0153* ( 0.2601 )
RUA	181.37	81.85	139.92	60.16	0.1287 ( 0.8544 )
RVC	235.09	74.48	150.01	60.85	0.0006* ( 0.9963 )
RVB	150.21	52.82	117.70	41.23	0.0185* ( 0.0373* )
RVA	107.37	56.78	120.80	31.75	0.3308 ( 0.9617 )

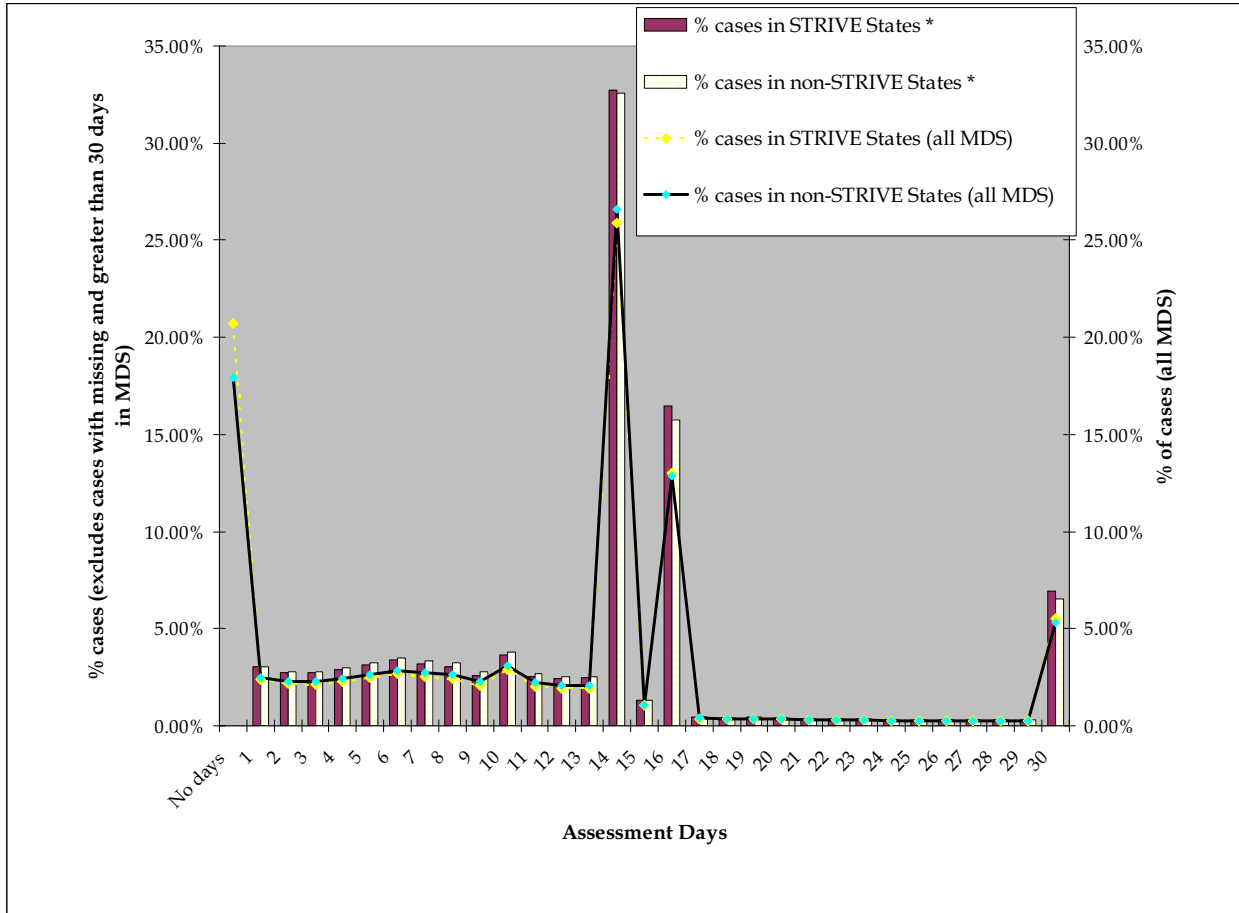
RUG - 53 (index maximized)	Nursing time (by RUG category for Medicare cohort in STRIVE)		Nursing time (by RUG category for Non-Medicare cohort in STRIVE)		p-value for T-test for difference in mean (p-value for KS test for difference in distribution)
	Average Nursing time	Std. Dev. Of nursing time	Average Nursing time	Std. Dev. Of nursing time	
RHC	207.67	68.89	199.86	64.84	0.5843 ( 0.7473 )
RHB	144.74	66.54	122.32	44.87	0.1573 ( 0.0567 )
RHA	156.00	89.39	87.06	36.69	0.0192* ( 0.1022 )
RMC	227.95	75.02	176.92	66.60	0.0140* ( 0.3738 )
RMB	150.16	60.75	150.85	59.68	0.9492 ( 0.3806 )
RMA	118.33	61.84	67.09	51.79	0.0002* ( 0.2519 )
RLB	159.69	67.49	178.78	82.00	0.7166 ( 0.9639 )
RLA	131.86	223.16	117.34	44.53	0.7270 ( 0.8341 )
SE3	258.27	128.54	236.38	123.81	0.3571 ( 0.0698 )
SE2	231.42	100.46	211.90	118.68	0.2010 ( 0.4239 )
SE1	280.79	93.97	166.98	105.99	0.0488* ( 0.9346 )
SSC	181.34	68.78	170.96	70.27	0.5301 ( 0.4544 )
SSB	226.89	45.97	160.62	76.81	0.0107* ( 0.1060 )
SSA	229.04	62.74	126.63	65.15	0.0000* ( 0.0003* )
CC2	223.43	19.76	197.32	76.97	0.7393 ( 0.4241 )
CC1	214.10	58.52	162.75	66.93	0.1509 ( 0.2970 )
CB2	202.95	53.48	154.84	65.60	0.0526 ( 0.4602 )
CB1	212.74	61.13	140.64	64.15	0.0000* ( 0.0000* )
CA2	335.70	111.83	130.81	77.77	0.0000* ( 0.3763 )
CA1	105.36	55.65	92.20	53.58	0.1495 ( 0.0360* )
IB2					
IB1	112.65	173.79	98.14	75.58	0.3995 ( 0.1191 )
IA2					
IA1	92.43	47.10	61.00	45.90	0.3127 ( 0.2021 )
BB2					
BB1					
BA2					
BA1					
PE2					
PE1	214.18	37.02	147.43	69.28	0.0708 ( 0.0382* )
PD2	171.12	11.43	115.45	80.43	0.3722 ( 0.3388 )
PD1	125.58	39.45	123.65	69.31	0.8963 ( 0.3225 )
PC2					
PC1	142.68	70.87	82.96	42.98	0.3883 ( 0.7480 )
PB2					
PB1	151.92	29.32	78.87	50.32	0.0334* ( 0.1226 )
PA2					

RUG - 53 (index maximized)	Nursing time (by RUG category for Medicare cohort in STRIVE)		Nursing time (by RUG category for Non-Medicare cohort in STRIVE)		p-value for T-test for difference in mean (p-value for KS test for difference in distribution)
	Average Nursing time	Std. Dev. Of nursing time	Average Nursing time	Std. Dev. Of nursing time	
PA1	95.98	25.48	56.24	33.05	0.1551 ( 0.1101 )
BC1	185.44		115.47	87.45	0.0334* ( 0.9506 )

**f) Distribution of assessment days between STRIVE and Non-STRIVE states**

Assessment days indicate how long a case has been under treatment. A case with a larger number of assessment days (long stay) might have different characteristics than a case with fewer assessment days (short stay). STRIVE data does not have the assessment day variable. Hence it is not possible to check if the STRIVE sample captures sufficient samples to represent the assessment day distribution. Analysis was performed to compare assessment days (e.g., 5, 14, 30 and so on) distributions between the STRIVE states and non-STRIVE states using MDS 2007 data. MDS 2007 data has overall 5,719,114 Medicare cases. Lewin was able to match 4,623,366 cases to claims data. It was observed that for the STRIVE states, almost 21% of the cases could not be matched to claims data to get assessment days and for the non-STRIVE states 18% of the cases could not be matched. **Exhibit 37** shows the distribution (proportion of cases) for assessment days (missing to 30 days). It can be observed that the maximum proportion of cases have days 14, 16, 30 days assessment – both for STRIVE and non-STRIVE states. The shape and spread of distribution for both STRIVE and non-STRIVE states are same. Further nonparametric and T-tests were done on the data to test if the assessment day distributions are different for STRIVE and non-STRIVE states. From **Exhibit 38** and **Exhibit 39** it can be observed that the p-value for all the tests is less than 0.05 (standard assumption for level of significance). Hence it can be concluded that even though the spread is same, the distribution of assessment days for STRIVE and non-STRIVE states are not statistically similar. Also, it is possible that STRIVE does not reflect the national distribution of assessment times because the STRIVE sample design was not designed to account for this variable.

**Exhibit 37: Figure showing distribution of assessment days for STRIVE and non-STRIVE states (both excluding the cases with no or greater than 30 assessment days and all MDS (displaying only till day 30))**



**Exhibit 38: Result for nonparametric test (Wilcoxon Signed Rank and Kolmogorov Smirnov) to test Ho: distribution of assessment days same for STRIVE and non-STRIVE states**

Wilcoxon Scores (Rank Sums) for Variable AssessmentDays Classified by Variable strive_flag					
strive_flag	N	Sum of Scores	Expected Under H0	Std Dev Under H0	Mean Score
Non-STRIVE State	2587272	5.91287E12	5.95568E12	1386525178	2285369.84
STRIVE State	2016559	4.68476E12	4.64195E12	1386525178	2323144.94

Average scores were used for ties.

Wilcoxon Two-Sample Test

Statistic	4.68476E12
Normal Approximation	
Z	30.8753
One-Sided Pr > Z	<.0001
Two-Sided Pr >  Z	<.0001

t Approximation			
One-Sided Pr > Z			<.0001
Two-Sided Pr >  Z			<.0001
Kolmogorov-Smirnov Test for Variable AssessmentDays Classified by Variable strive_flag			
strive_flag	N	EDF at Maximum	Deviation from Mean at Maximum
Non-STRIVE State	2587272	0.391846	9.765327
STRIVE State	2016559	0.377986	-11.061204
Total	4603831	0.385775	
Maximum Deviation Occurred at Observation 43 Value of AssessmentDays at Maximum = 13.0			
Kolmogorov-Smirnov Two-Sample Test (Asymptotic)			
KS	0.006877	D	0.013860
KSa	14.755062	Pr > KSa	<.0001

**Exhibit 39: Result for t-test to test Ho: distribution of assessment days same for STRIVE and non-STRIVE states**

The TTEST Procedure Statistics									
Variable	strive_flag	N	Lower CL Mean	Mean	Upper CL Mean	Std Dev	Std Err	Minimum	Maximum
Assessmen tDays	Non-STRIVE State	259E4	12.983	12.991	12.999	6.7142	0.0042	1	30
Assessmen tDays	STRIVE State	202E4	13.151	13.161	13.17	6.7814	0.0048	1	30
Assessmen tDays	Diff (1-2)		-0.182	-0.17	-0.157	6.7437	0.0063		
T-Tests									
Variable	Method		Variances	DF	t Value	Pr >  t			
AssessmentDays	Pooled		Equal	46E5	-26.77	<.0001			
AssessmentDays	Satterthwaite		Unequal	43E5	-26.74	<.0001			
Equality of Variances									
Variable	Method	Num DF	Den DF	F Value	Pr > F				
AssessmentDays	Folded F	202E4	259E4	1.02	<.0001				

**g) Analysis of selected STRIVE participating providers**

AHCA identified 83 providers participating in the STRIVE study. **Exhibit 40** shows some observations based on this list of 83 providers. It can be observed that there were some facilities which did not have any Medicare residents. Another observation is the distribution of urban-rural and distribution of multi-facility in the sample in comparison to the OSCAR data. The sample distribution is different from the OSCAR distribution.

**Exhibit 40: Number of STRIVE provider participants, proportion of urban and rural facilities in the sample and from OSCAR data, proportion of multi facility for the sample and OSCAR data**

State	Sample Size	Number of list of providers from AHCA	Number of providers with no Medicare residents	% of urban and rural facilities		Multi facility		Hospital Based	
				Urban	Rural	% Yes	% No	% Yes	% No
<b>Based on list of 93 providers participating in STRIVE study</b>									
Louisiana	10	9	1	55.6%	44.4%	33.3%	66.7%	11.1%	88.9%
Montana	9	10	1	40.0%	60.0%	60.0%	40.0%	30.0%	70.0%
New York	21	18	2	94.4%	5.6%	11.1%	88.9%	11.1%	88.9%
Ohio	20	19	0	84.2%	15.8%	63.2%	36.8%	5.3%	94.7%
Virginia	17	15	1	86.7%	13.3%	53.3%	46.7%	13.3%	86.7%
Washington	15	14	2	71.4%	28.6%	50.0%	50.0%	14.3%	85.7%
Washington D.C.	9	8	0	100.0%	0.0%	0.0%	100.0%	12.5%	87.5%
<b>From OSCAR data</b>									
Louisiana				63.2%	36.8%	47.9%	52.1%	7.49%	92.51%
Montana				20.6%	79.4%	38.1%	61.9%	37.11%	62.89%
New York				85.0%	15.0%	12.9%	87.1%	10.53%	89.47%
Ohio				72.9%	27.1%	60.0%	40.0%	5.11%	94.89%
Virginia				71.4%	28.6%	68.6%	31.4%	6.55%	93.45%
Washington				79.6%	20.4%	60.8%	39.2%	7.60%	92.40%
Washington D.C.				100.0%	0.0%	25.0%	75.0%	25.00%	75.00%

**h) Regression model to measure impact of being in a STRIVE state on NTAS costs/charges**

For the first test, total case charges, therapy case costs, and pharmacy costs were calculated for each case in the database. Lewin constructed four case cost (charges) regressions which estimated the impact of being in a STRIVE state on costs/charges where:

$$\text{Cost (charge) per case} = f(\text{RUG-III specific days and a STRIVE data dummy variable})$$

This regression is run for each of routine cost (charges) and therapy costs per case dependent variables. The results of these regressions are shown in **Exhibit 41**.

**Exhibit 41: Difference between STRIVE States per Diem Cost (Charges) as Compared to Non-STRIVE States (using 2006 MDS and claims data)**

	\$ Value	Percent of National per Diems Cost (Charge)
Total Charges per Diem	-47.08	-10.33%
Therapy Cost per Diem	-8.02	-9.24%
Pharmacy Cost Per Diem	-11.17	-25.48%

While these results do not reflect the actual facilities within a given state entered into the STRIVE sample, they do reflect overall state representativeness.

In the next test, we calculate the per diem cost per RUG for STRIVE and non-STRIVE states. The per diems were then converted to a set of relative values by dividing each RUG's per diem rate by the overall average within STRIVE and non-STRIVE states. The resultant RUG relative weights for STRIVE states and non-STRIVE states were then correlated. These results are presented below. From **Exhibit 42** and **43** it can be observed that most RUGs have a significant impact on the per diem costs both for the STRIVE states and the Non-STRIVE states.

**Exhibit 42: Coefficient estimates for Routine Cost by each RUG category for STRIVE and Non-STRIVE States**

Parameters	STRIVE States	Non-STRIVE States
R-Square for model fit	0.7148	0.7002
<b>RUG - 53</b>		
RUX	182.31*	220.38*
RUL	195.23*	241.26*
RVX	197.93*	233.86*
RVL	208.56*	243.82*
RHX	225.93*	273.72*
RHL	228.06*	520.13*
RMX	219.80*	264.05*
RML	230.08*	279.67*
RLX	308.91*	339.45*
RUC	191.65*	220.33*
RUB	198.44*	224.39*
RUA	193.24*	215.02*
RVC	204.67*	231.78*
RVB	211.86*	224.90*
RVA	191.77*	219.59*
RHC	258.90*	233.35*
RHB	267.22*	236.27*
RHA	214.62*	235.27*
RMC	266.93*	249.41*
RMB	304.90*	246.50*
RMA	261.22*	250.43*
RLB	247.69*	212.68*
RLA	258.29*	199.47*
SE3	248.05*	298.82*
SE2	258.25*	298.62*
SE1	247.11*	258.61*
SSC	239.62*	219.48*
SSB	246.63*	224.40*
SSA	232.40*	272.71*

Parameters	STRIVE States	Non-STRIVE States
CC2	207.42*	249.88*
CC1	247.52*	233.10*
CB2	195.67*	276.35*
CB1	252.43*	248.67*
CA2	202.66*	288.92*
CA1	245.48*	271.00*
IB2	298.94*	188.72*
IB1	221.00*	279.97*
IA2	339.45*	167.81*
IA1	220.72*	268.34*
BB2	110.04*	172.49*
BB1	161.38*	208.53*
BA2	329.53*	8.37
BA1	301.43*	251.86*
PE2	168.19*	135.49*
PE1	217.60*	296.68*
PD2	188.37*	197.81*
PD1	216.00*	287.30*
PC2	171.19*	252.74*
PC1	214.85*	275.51*
PB2	330.18*	98.98*
PB1	172.95*	295.84*
PA2	196.03*	165.41*
PA1	205.60*	294.00*

**Exhibit 43: Coefficient estimates for Therapy Cost by each RUG category for STRIVE and Non-STRIVE States**

Parameters	STRIVE States	Non-STRIVE States
R-Square for model fit	0.8508	0.8226
<b>RUG - 53</b>		
RUX	129.57*	137.02*
RUL	125.10*	139.64*
RVX	104.81*	108.10*
RVL	102.79*	114.43*
RHX	59.25*	149.68*
RHL	58.42*	163.13*
RMX	77.60*	91.74*
RML	76.78*	99.29*
RLX	33.29*	59.80*
RUC	131.41*	137.14*
RUB	128.30*	135.33*
RUA	131.48*	137.48*

Parameters	STRIVE States	Non-STRIVE States
RVC	99.67*	96.99*
RVB	100.08*	101.69*
RVA	100.67*	102.02*
RHC	80.51*	78.57*
RHB	84.62*	85.40*
RHA	74.49*	80.06*
RMC	46.55*	43.20*
RMB	54.82*	56.04*
RMA	46.75*	52.71*
RLB	0.41	17.02*
RLA	11.21*	15.37*

The STRIVE data will be ultimately utilized to develop payment weights for nursing and therapy. Given this purpose, we tested the hypothesis that the relative weights for the RUG categories based on the claims data for the STRIVE versus the non-STRIVE states are different. The results of this hypothesis test are shown in **Exhibit 44**.

In order to test this hypothesis, we ran separate set of regression for the STRIVE and non-STRIVE states with the same model specifications, as mentioned above. Relative weights were derived using the parameter estimates of the RUG categories in the model. The set of relative weights for each regression (STRIVE and non - STRIVE) were compared. A paired t-test for each couplet of RUG category (e.g. RUX<sub>STRIVE</sub> versus RUX<sub>non-STRIVE</sub>) was used to test the statistical significance of the difference between the relative weights.

**Exhibit 44: Statistical Significance for the Differences Between the Relative Weights by RUG Categories for the STRIVE versus non-STRIVE states**

RUG - 53	2007 Routine Cost Relative Weights			2007 Therapy Cost Relative Weights		
	Relative weights		Statistically significant difference indicator	Relative weights		Statistically significant difference indicator
	STRIVE States	Non-STRIVE States		STRIVE States	Non-STRIVE States	
RUX	0.824	0.828	N	1.443	1.295	Y
RUL	0.882	0.906	Y	1.393	1.320	Y
RVX	0.894	0.879	Y	1.167	1.022	Y
RVL	0.942	0.916	Y	1.145	1.082	Y
RHX	1.021	1.028	N	0.660	1.415	Y
RHL	1.030	1.954	Y	0.651	1.542	Y
RMX	0.993	0.992	N	0.864	0.867	N
RML	1.039	1.051	Y	0.855	0.939	Y
RLX	1.396	1.275	N	0.371	0.565	Y
RUC	0.866	0.828	Y	1.463	1.296	Y
RUB	0.896	0.843	Y	1.429	1.279	Y
RUA	0.873	0.808	Y	1.464	1.300	Y
RVC	0.925	0.871	Y	1.110	0.917	Y
RVB	0.957	0.845	Y	1.115	0.961	Y

RUG - 53	2007 Routine Cost Relative Weights			2007 Therapy Cost Relative Weights		
	Relative weights		Statistically significant difference indicator	Relative weights		Statistically significant difference indicator
	STRIVE States	Non-STRIVE States		STRIVE States	Non-STRIVE States	
RVA	0.866	0.825	Y	1.121	0.964	Y
RHC	1.170	0.877	Y	0.897	0.743	Y
RHB	1.207	0.888	Y	0.942	0.807	Y
RHA	0.970	0.884	Y	0.830	0.757	Y
RMC	1.206	0.937	Y	0.518	0.408	Y
RMB	1.377	0.926	Y	0.611	0.530	Y
RMA	1.180	0.941	Y	0.521	0.498	Y
RLB	1.119	0.799	N	0.005	0.161	Y
RLA	1.167	0.749	Y	0.125	0.145	N
SE3	1.121	1.123	N			
SE2	1.167	1.122	Y			
SE1	1.116	0.972	Y			
SSC	1.083	0.825	Y			
SSB	1.114	0.843	Y			
SSA	1.050	1.025	Y			
CC2	0.937	0.939	N			
CC1	1.118	0.876	Y			
CB2	0.884	1.038	Y			
CB1	1.140	0.934	Y			
CA2	0.916	1.085	Y			
CA1	1.109	1.018	Y			
IB2	1.351	0.709	N			
IB1	0.998	1.052	N			
IA2	1.534	0.630	Y			
IA1	0.997	1.008	N			
BB2	0.497	0.648	N			
BB1	0.729	0.783	N			
BA2	1.489	0.031	Y			
BA1	1.362	0.946	Y			
PE2	0.760	0.509	Y			
PE1	0.983	1.115	Y			
PD2	0.851	0.743	Y			
PD1	0.976	1.079	Y			
PC2	0.773	0.950	N			
PC1	0.971	1.035	N			
PB2	1.492	0.372	Y			
PB1	0.781	1.111	Y			
PA2	0.886	0.621	N			
	0.929	1.105	Y			
PA1						

AHCA identified 83 providers from 7 states. STRIVE sampling heavily based on voluntary participation of facilities. Hence, similar cost model was built with the STRIVE participants on

the data for the 7 states to test for any difference in behavior of a STRIVE participant to a non-participant. Considering the data for only 7 states and for the STRIVE participants, some RUGs do not have sufficient sample size. Hence model was built to compare the effect for the important RUGs with high therapy times or the special services. **Exhibit 45** below shows that for some RUGs the relative weights are significantly different between the participants and the non-participants.

**Exhibit 45: Statistical Significance for the Differences Between the Relative Weights by RUG Categories for the STRIVE participant versus STRIVE non-participants for 7 STRIVE states**

RUG - 53	2007 Routine Cost Relative Weights			2007 Therapy Cost Relative Weights		
	Relative weights		Statistically significant difference indicator	Relative weights		Statistically significant difference indicator
	STRIVE participants	STRIVE Non-participants		STRIVE participants	STRIVE Non-participants	
RUX	0.92	0.83	N	1.48	1.65	Y
RUL	0.85	0.88	N	1.46	1.56	Y
RVX	0.93	0.87	N	1.25	1.26	N
RVL	0.94	0.93	N	1.19	1.25	Y
RHX	0.20	1.34	N	1.64	0.39	Y
RHL	(0.65)	1.25	N	0.25	0.55	N
RMX	1.01	1.05	N	0.86	0.91	Y
RML	0.96	1.07	Y	0.87	0.89	Y
RLX	3.45	1.44	Y	0.31	0.36	N
RUC	0.85	0.84	N	1.40	1.61	Y
RUB	1.03	0.85	Y	1.39	1.58	Y
RUA	0.74	0.78	N	1.38	1.56	Y
RVC	0.96	0.91	N	1.10	1.21	Y
RVB	0.95	0.96	N	1.11	1.23	Y
RVA	0.67	0.82	Y	1.02	1.18	Y
RHC	1.18	1.22	N	1.00	0.99	N
RHB	1.28	1.27	N	1.09	1.05	Y
RHA	1.03	0.99	N	1.02	0.91	Y
RMC	1.66	1.37	Y	0.67	0.60	Y
RMB	1.69	1.39	Y	0.90	0.67	Y
RMA	1.69	1.25	Y	0.83	0.57	Y
RLB	1.75	1.17	Y	0.06	(0.01)	N
RLA	1.24	1.14	N	0.24	0.00	N
SE3	1.74	1.55	Y			
SE2	1.50	1.47	N			
SE1	2.59	1.31	Y			

**i) Distribution of Therapy minutes across seven day study period**

The determination of therapy times has been problematic for STRIVE analysts because these data were collected using two methods: PDA data collection (a handheld electronic data entering system) and paper data collection. The PDA data collection results do not match the paper data collection results.

**Exhibit 46**, as taken from STRIVE TEP materials, shows that as a percent of the weekly total times, PDA daily (week day only) data collection represents between 21 percent and 30 percent. By way of comparison, paper data collection times for weekdays represent between 10 and 12 percent of weekly total times. Most telling is that for Friday, paper data collection represents 12 percent of weekly total times while PDA data collection represents 21 percent. As it seems unlikely that facilities surveyed would vary this much on Friday therapy minutes, STRIVE analysts determined that paper data collection under-counted minutes.<sup>7</sup> Accordingly, they decided to increase Monday and Friday paper data collection minutes to reflect PDA data collection levels as observed on Tuesday, Wednesday, Thursday and partially on Friday.

**Exhibit 46: Determining Therapy Times**

Collection Schedule	N	Tu	We	Th	Fr	Sa	Su	Mo	Tu
A	8012	26%	25%	22%	12%	2%	1%	12%	-
B	1193	25%	27%	26%	12%	1%	0%	10%	-
C	516	-	30%	26%	21%	1%	1%	12%	9%
<b>Total</b>	9721	24%	26%	23%	13%	2%	1%	12%	1%

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<sup>7</sup> The paper data collection technique may have under reported therapy minutes because the individuals responsible for the data collection were not adequately trained and monitored

### III. DISCUSSION

This paper indicates that the STRIVE sample is minimally adequate to create a revision to MDS. We pointed to numerous instances where the STRIVE sample is subject to biases.

In addition to our concerns with STRIVE sampling procedures, we have an over-arching strategic concern. The RUGs based SNF PPS system is based on a set of nursing and therapeutic case time relationships (case relative) that are expensive to replicate and because of this expense, are rarely updated. To date these nursing times have been derived from a relatively small sample as compared to the universe of SNF facilities and SNF claims. This places SNF IPPS apart from all other IPPS systems where the relative weights are updated on an annual basis using the universe of claims data. As compared to SNF PPS, other PPS systems are advantaged by annual revisions, using in many cases millions of case level observations. The SNF PPS might be well served to be placed on an entirely different platform (i.e., DRGs) so that all of its millions of cases could contribute to annual updates of case weights. This is all the more plausible as SNFs become more like acute care settings and less like traditional long term care settings.

## APPENDIX A

### Overview of STRIVE sampling procedure

Step	Description	Sampling Procedure
1	Identified all certified facilities in the nation.	Definition of population
2	Identified 15 states that agreed to participate in the study.	Self-selection (not random)
3	Applied data-based exclusions using QI/QM data and survey deficiency data. Eliminated poorest quality facilities in each state (5% to 10% of all facilities). Population defined as all remaining facilities (referred to as “eligible facilities”).	Redefinition of population
4	Applied geographic restrictions in certain states.	Redefinition of population
5	Stratified eligible facilities within each state into five strata. Some strata were not represented in some states.	Stratification
6	Set targeted number of facilities for each stratum within each state. Targets were based upon number of available facilities, number of facilities data monitors were able to visit, and overall study targets.	Sample size determination (no selection involved)
7	Within each stratum within each state, selected the target number of facilities with probability proportional to size (where size was defined by the number of residents in the facility on a given day). Selected an over-sample allowing for deletions and refusals.	Sample with probability proportional to size
8	Each list of sampled facilities (for each stratum within each state) was put in random order.	Randomization
9	Sample lists within each state were reviewed by stakeholders who eliminated facilities that were closed, unable to participate, or were known to be of very poor quality.	Exclusions based on judgment (not random)