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June 9, 2000

From:
Bonnie
Washington

Nancy-Ann Min DeParle, Administrator
Health Care Financing Administration
Department of Health and Human Services
Hubert H. Humphrey Building, Room 309-G
200 Independence Avenue, S.W.
Washington D.C. 20201

Via Hand Delivery

Re: AHCA Comments on HCFA Proposed Rule: *Medicare Program; Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities – Update*, 65 Federal Register 19188, April 10, 2000

Attention: HCFA-1112-P

Dear Ms. DeParle:

The American Health Care Association (AHCA) appreciates the opportunity to comment on the proposed rule: *Medicare Program; Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities – Update*, 65 Federal Register 19188, April 10, 2000. AHCA is a federation of affiliated associations, representing 12,000 non-profit, assisted living, nursing facility and subacute providers nationally.

We are also appreciative of the Health Care Financing Administration's (HCFA's) recognition that the Resource Utilization Group III (RUG-III) system implemented in July of 1998 was flawed in its ability to appropriately allocate the cost of non-therapy ancillaries. AHCA applauds HCFA's efforts to modify the system and rectify its shortcomings.

We agree that changes must be made to the system as implemented. However, we do not believe that the proposed rule, in its current state, is a document that provides the public, including the skilled nursing facility (SNF) industry, with a fair opportunity to analyze and to compare HCFA's proposed unweighted model (UWIM) and the alternative weighted model (WIM2).

AHCA formally requests that:

- HCFA issue a new proposed rule which will use the most current national prospective payment system data base, reflect completed HCFA research, provide the actual weights and rates, and provide the grouper methodology, so that the proposed rule can be analyzed and its impact on the industry and individual providers assessed;
- Following completion of the above tasks, HCFA provide a new 60 day comment period to enable the public to provide meaningful analysis and input on the two proposed models; and
- HCFA provide a period of six months after the issuance of the final rule to give HCFA, the fiscal intermediaries (FIs), the SNF providers, and the software vendors adequate time to prepare for successful implementation of the modified system.

We are very concerned with HCFA's current inability to provide a proposed rule that indicates the actual weights and rates that will be applied in the alternative models under consideration by the agency. HCFA itself has outlined the many steps, including the use of 1999 PPS data not available for the proposed rule, that it still has to complete to develop the actual weights and rates that will be utilized in the model that HCFA chooses to apply. HCFA has indicated that while it prefers the UWIM model, it is open to suggestions and comments about the application of the WIM2 model instead. However, it is these very comments, suggestions, and comparisons that are impossible for the public, including the SNF industry, to make in a meaningful fashion. HCFA's candor regarding what is left to be done is informative but clearly does not provide the necessary material for making any comparisons or choices.

The use of old data and the incompleteness of the models indicate that the proposed rule does not meet the requirements of the Administrative Procedure Act. In short, the proposed rule does not provide actual information about the refinements but rather presents at best some kind of conceptual framework. This does not provide the statutorily required opportunity for the public to provide meaningful comment. Thus, one major analytical observation is that the final rule could look vastly different from the proposed rule with vastly different weights and rates for both models under consideration.

For example, we note and discuss in our comments that industry data, based upon actual prospective payment system (PPS) claims from six major nursing home multi-facility operators, reflect a Medicare population distribution significantly different from that presented in the proposed rule. Such a material difference in the Medicare population distribution is likely to significantly affect mean costs for each RUG rehabilitation category and extensive and rehabilitation category, as well as the mean value for each index value within the category. A material change in the mean cost will significantly change the medical ancillary weights and the corresponding medical ancillary rates.

Also, we observe that using an overall cost-to-charge ratio to determine medical ancillary costs is also not appropriate. HCFA will incorporate actual PPS claims and possibly the use of medical ancillary-specific cost to charge ratios in the final rule, but the medical ancillary indices and rates resulting from these revisions are likely to be materially different from the indices and rates in the proposed rule. It is, therefore, clear that until revised indices and rates are released, it is impossible for the industry to measure the accuracy of the models in reasonably and adequately compensating for the actual medical ancillary resources and costs of patients that fall into the revised RUG categories.

AHCA and the Alliance for Quality Nursing Home Care requested the Lewin Group (Lewin) to provide an analysis of the Abt Study and the HCFA proposed rule. We have attached the complete Lewin Report as Appendix 3. **It is officially incorporated into our comments with the expectation that HCFA will respond to the issues raised by Lewin.** Briefly, Lewin concluded that:

- While well-executed, the Abt study and resulting refinement models are not sufficiently comprehensive for the design and/or calibration of a final payment system;
- Data limitations include a highly non-representative sample of states and, perhaps, of patients, lack of explanatory power, small cell sizes, missing data, imputation of drug costs, problems with charges not reflecting actual Medicare payment, and data reflecting both different time periods and different aspects of the patients' stay;
- As such, the Abt analysis is adequate for developing theories and hypotheses, but not adequate for supporting final payment weight development;
- Further analysis will be required once a national database becomes available; and
- Abt's technical work concerning the revisions to RUG-III may need to be reconsidered when more complete national data are available.

Given the inaccurate data in the proposed rule, the list of activities that HCFA itself states it must complete, and the observations of the Lewin Group regarding the need for additional research and analysis, the only reasonable conclusion that can be reached is that HCFA should withdraw the proposed rule, complete the work that remains, and reissue the proposed rule. We want to see the RUG system improved, but we believe that the industry must be given an accurate picture of the proposed modifications and allowed a fair and equitable opportunity to comment and work with HCFA to see that the best modifications possible will be implemented.

The inadequacy of the proposed rule as an indicator of the system that will actually be applied further exacerbates the problem of preparation for such systems changes. We question whether HCFA has given adequate consideration to the issue of the difficulty that all parties -- SNFs, software vendors, FIs, and HCFA itself -- will have in trying

to prepare for a very complicated systems revision between August 1 and October 1. 2000. The lack of critical components of the system, such as a revised grouper, which cannot be developed until HCFA completes its data research and further modifications, must be considered. The timeframe required by SNF organizations and software vendors to program and implement a change this massive is a major factor that should not be underestimated.

To date, HCFA has not acknowledged the magnitude of operational and administrative changes that providers will have to undergo. The fact that the Minimum Data Set (MDS) assessment tool will not change is completely irrelevant, and HCFA should stop providing this excuse as a defense to the complexity of the proposed models. Nurses and MDS coordinators are not automatons, blindly filling out MDS assessments in a clinical and intellectual vacuum. They have a right to know -- and must know -- how the entire system (with its complete change in nomenclature) functions. They should be viewed and respected by HCFA as partners in monitoring the clinical accuracy and integrity of the system. One would suppose that HCFA would welcome and encourage the broadest and deepest knowledge possible for all clinicians who touch the system so that the system can be improved from within as well as from the intellectual exercises of the experts and payment methodology specialists. Furthermore, provider clinical staff are held responsible when a medical reviewer decides that a patient has been placed in an inappropriate RUG. Understanding correct RUG placement and the bases of differences of opinion on RUG placement requires knowledge -- not mere mechanics.

And what better way to prevent fraud and abuse -- and mistakes that wind up looking like fraud and abuse -- than to have the clinicians and billers who work with the system on a daily basis understand how it is supposed to function? The Office of the Inspector General, the General Accounting Office, and the Department of Justice all assume or expect that the industry and its employees know what they are doing and should know what they are doing and are held accountable for what they are doing. HCFA presumably makes the same assumption, or should make the same assumption, and give us time to educate our staffs about the new system. Rushing the industry into a situation for which it -- and all involved parties -- are not prepared invites inadvertent, unintentional provider error which results in allegations of fraud. HCFA should take responsibility for minimizing such risks.

And last, but not least, is the major problem of the lack of readiness of the FIs. HCFA knows very well by now that the FIs have not performed well with regard to many aspects of PPS. Initially, the FIs connected to the Arkansas system were not even able to begin paying PPS payments on time. Even now, HCFA has not been able to provide the FIs with the systems changes to effectuate the 20 percent add-ons mandated by the Balanced Budget Refinement Act (BBRA) to start with respect to services provided on or after April 1, 2000. With regard to policy interpretation and application of HCFA's PPS rules, many FIs have performed very poorly and, for the

most part, have not been able to effectively participate in educating either themselves or the providers.

A key factor in the viability of any new system will be the quality of FI medical review. No modifications to the RUG system should be put in place without two essential components: (1) the elimination of hard copy matrices and the use by the FI medical reviewers of the electronic groupers used by providers, and (2) education of the of the medical reviewers so that they will not act as automatons and blindly rearrange medical criteria into other RUGs categories. Just as the provider nurses and MDS coordinators must understand the system, so must the FI medical reviewers. They must be educated, and that takes time.

AHCA asked that the RUG system be improved to accurately reflect the allocation of the cost of non-therapy ancillaries within the spectrum of RUGs. HCFA did respond and undertook research to improve the system. We ask only that HCFA complete its current research and work, consider the recommendations and requests provided in our comments, and provide the public with a model or models that can truly be legitimately analyzed and compared.

Thank you for your attention to these comments. If you have any follow-up questions, please call Elise Smith on my staff at (202) 898-6321.

Sincerely,

Charles H. Roadman II, M.D.
President and CEO

Attachments: AHCA Recommendations
AHCA Comments

AHCA RECOMMENDATIONS

AHCA recommends that HCFA:

- issue a new proposed rule which will use the most current national prospective payment system data base, reflect completed HCFA research, provide the actual weights and rates, and provide the grouper methodology, so that the proposed rule can be analyzed and its impact on the industry and individual providers assessed;

- following completion of the above tasks, HCFA provide a new 60 day comment period to enable the public to provide meaningful analysis and input on the two proposed models;

- provide a period of six months after the issuance of the final rule to give HCFA, the fiscal intermediaries, the skilled nursing facility (SNF) providers, and the software vendors adequate time to prepare for successful implementation of the modified system;

- given that the ancillary weights and rates in the proposed rule are materially flawed, provide in a new proposed rule, weights and rates based on correct and current industry costs and patients distribution, and, as is appropriate in a proposed rule (and not a final rule), raise any "new issues" or "variations of the models" already presented;

- respond to the recommendations and comments prepared by the Lewin Group with regard to the Abt Report and the recommendations outside of the Abt Report. These include the non-representativeness of the data; the overall low explanatory power of the model relative to other payment systems; serious data limitations; the need for more information and analysis on the relative merits of the weighted and unweighted models; necessity for the derivation of the non-therapy ancillary costs to be based on a much larger and more representative number of observations; examination of a more clinically coherent patient categorization system; accurate calibration of the nursing index; reevaluation of the extensive services and rehabilitation categories; accurate completion of the MDS data, etc. (The findings of The Lewin Group Report are briefly summarized in Section III. of AHCA's comments, and the report is included in its entirety in Appendix 3.);

- delay implementation of the RUG modifications as requested in these comments and take the time necessary to train and educate the FIs and the FI medical reviewers regarding the system that HCFA ultimate chooses;

- include in a new and *bona fide* proposed rule, the modifications provided in these comments to the domains for clinical indications/associations with high cost non-therapy ancillaries;

- complete its research and development of a new SNF market basket update factor as soon as possible. Future updates of the SNF market basket, among other factors, must reflect actual increase in nursing home wages as well as other critical elements such as changes in drug costs, and reflect volume and intensity changes;

- work with AHCA to share data and research critical to the development of an adequate market basket update factor;

- adjust the trending of 1995 data to 1998 to reflect cost realities during this period;

- institute an annual survey of SNF wages for inclusion in the SNF market basket calculation. HCFA has a contract with DRI, which could be modified to incorporate such a survey;

- revise its estimate of the cost of extending the 20 percent add-on to reflect the decrease in Medicare days and spending and the elimination of any behavioral effect factor;

- continue to exercise its authority to exclude services from skilled nursing facility consolidated billing that are not within the purview of SNFs;

- continue, under the new Part B midnight rule, to reimburse for Part B services provided to Part B residents on the day that a resident is discharged or departs from the SNF;

- first, complete the process of providing the industry with all the information and current data, and the true weights and rates, in a new proposed rule so that we may have a genuine opportunity to analyze and comment on the proposed modifications; then, following issuance of a new proposed rule, HCFA should closely reexamine the entire set of problems and issues connected with consolidated Part B billing and reconsider whether such a massive change in payment is necessary.

AHCA COMMENTS

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Proposed Rule and Industry Database for WIM2 and Summary by Major Classifications

Appendix 3 -- *Evaluation of the Proposed Refinements to RUG-III Classification System: Comments on the Abt Study and HCFA Proposed Regulations*, Submitted to: American Health Care Association and the Alliance for Quality Nursing Home Care by the Lewin Group, June 7, 2000 Page 53

COMMENTS

I. The Proposed Rule Should Be Withdrawn and Reissued And Implementation Delayed

AHCA formally requests that:

- HCFA issue a new proposed rule which will use the most current national prospective payment system data base, reflect completed HCFA research, provide the actual weights and rates, and provide the grouper methodology, so that the proposed rule can be analyzed and its impact on the industry and individual providers assessed;

- Following the completion of the above tasks, HCFA provide a new 60 day comment period to enable the public to provide meaningful analysis and input on the two proposed models; and

- HCFA provide a period of six months after the issuance of the final rule to give HCFA, the fiscal intermediaries, the skilled nursing facility (SNF) providers, and the software vendors adequate time to prepare for successful implementation of the modified system.

We are asking for the issuance of a new proposed rule and a delay in the implementation of the rule for the many reasons discussed below, including:

- the fact that the proposed rule does not meet the requirements of the Administrative Procedure Act (the APA) in providing an opportunity for meaningful comment;
- the proposed rule does not provide the data and information necessary for the public to be able to analyze and comment on the proposed rule as envisioned by the APA;
- the need for substitution of new data and the magnitude of the tasks that HCFA has yet to perform suggests that changes in the final weights and rates that will be material;
- considerations and problems raised by the Lewin Group regarding mismatched data, time period problems, non-representative states and patients, etc. that more than likely can and should be addressed by HCFA with the industry being provided the opportunity to comment on the outcome of the modifications and the impact of the solutions to the problems raised;
- the necessary consideration and development of critical components of the system currently lacking such as a revised grouper, which cannot be developed until HCFA completes its research;
- HCFA's serious underestimation of the magnitude of the operational and administrative changes that providers will have to make; and
- grave concerns about the ability of fiscal intermediaries and software vendors to prepare for these changes by October 1.

Recommendation: *AHCA requests that HCFA issue a new proposed rule which will use the most current national data base, reflect completed HCFA research, provide the actual rates, and*

provide the grouper, so that the proposed rule can be analyzed and its impact on the industry assessed; following the completion of these tasks, that HCFA provide a new 60 day comment period to enable the public and the industry to provided meaningful analysis and input on the two proposed models; and that HCFA provide a period of six months after the issuance of the final rule to give HCFA, the fiscal intermediaries, the skilled nursing facility (SNF) providers, and the software vendors adequate time to prepare for successful implementation of the modified system.

II. The Proposed Rule Does Not Meet the Requirements of the Administrative Procedure Act

Section 553(b) of the APA requires agencies to publish notices of proposed rulemaking in the Federal Register, as follows:

The notice shall include:

- a statement of the time, place, and nature of public rule making proceedings;
- reference to the legal authority under which the rule is proposed; and
- either the terms or substance of the proposed rule or a description of the subjects and issues involved.

5 U.S.C. § 553(b). The APA requires that interested parties then be allowed an opportunity to comment on the proposed rule. *Id.* § 553(c) ("After notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation. After consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose ....."). Moreover, "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule." *Id.* § 553(c).

Significantly, case law supports the rule that agencies must publish or otherwise make available the critical data so that interested parties may comment on a proposed rule in a meaningful fashion. The agency must provide sufficient factual detail and rationale to permit interested parties to comment meaningfully. *See, e.g., Florida Power & Light Co. v. United States,* 846 F.2d 765 (D.C. Cir. 1988). An agency commits serious procedural error when it fails to reveal portions of the technical basis for a proposed rule in time to allow meaningful comments. *Connecticut Light & Power Co. v. NRC,* 673 F.2d 525 (D.C. Cir. 1982). In addition, where the final rule deviates sharply from the proposed rule, it may be challengeable based upon inadequate notice and comment procedures. *See, e.g., AFL-CIO v. Donovan,* 757 F.2d 330, 338 (D.C. Cir. 1985).

In short, notice and comment rulemaking procedures serve an important purpose which is to ensure that regulatory pronouncements are accurate and fair, and best serve the needs of the populations they seek to protect. The proposed RUG refinement rule does not fulfill this purpose.

A. HCFA Does Not Provide the Data that is Critical For Meaningful Comment

The agency has not provided sufficient factual detail and rationale to permit interested parties to comment meaningfully. In fact, HCFA goes so far as to make it perfectly clear that the proposed rule may not bear much resemblance at all to the final rule and that much work needs to be done before the final rule is issued. HCFA states:

> As noted above, we performed the RUG-III refinement analyses on a research data base rather than on PPS Medicare claims and MDS data. The research data base was appropriate and extremely useful in testing hypotheses and identifying areas where refinements could be introduced. However research data always have limitations and HCFA and contractor staff have identified several areas of concern. Fortunately, since actual PPS claims and MDS data are now available, we are already conducting additional analyses of the unweighted and weighted models to address these concerns and validate the research findings. 65 Federal Register at 9201.

HCFA states further that it has developed certain tables to illustrate the application of the proposed UWIM refinement to the RUG-III classification system on the FY 2001 Federal per diem rates and has provided rate tables for the WIM2 model but that there are limitations that have to be taken into account by the public in reviewing these tables. The limitations are a lengthy list of research and technical activities that must be completed before a final rule can be issued. They include:

- Reworking the Nursing Index: The nursing index is a critical factor in accurately calibrating the system to link payment to acuity levels. The nursing indices shown in Tables 5 through 6 of the proposed rule assume that the distribution of the actual Medicare population is the same as the distribution of the research data base. HCFA must rework these calculations using national PPS data to ensure accurate calibration of the system.

- Adjusting for the Needs of the Short-Stay Population: The research data base utilized MDS assessments from 1995 through 1997, a period when MDSs were not often completed for beneficiaries who were in a SNF for less than 14 days. By contrast, the PPS data base includes short-stay beneficiaries, and HCFA indicates that it will take any special needs of this population into account by using actual PPS data to validate the initial findings.

- Applying New Cost-To Charge Ratios: In addition, the methodology used to adjust non-therapy ancillary charges to cost used the older, non-therapy ancillary charges to cost used the older non-therapy ancillary charges and facility cost-to-charge ratios. In developing the PPS data base, we will use PPS claims data and the latest available cost-to-charge ratios.

- Replacing "Imputed" Data: Using the smaller research data base, it was not always possible to obtain a large number of observations in some of the RUG-III groups to fully determine ancillary costs with the necessary level of precision. For that small number of RUG-III groups, the researchers imputed ancillary costs, and applied these imputed costs to the non-

therapy ancillary index used in the rate-setting projections. Thus, the research findings in this proposed rule include the use of "imputed" data in situations where the cell size (for example, number of records meeting the criteria for a specific RUG-III group, etc.) was too small for accurate measurement. HCFA states that it expects that the use of the national data base, will result in the relevant data cells being adequately populated and that all analyses used in developing in the final rule will be based on actual rather than imputed data.

- Further Modify The MDS Items Used In The Non-Therapy Index: HCFA states that it will continue the process of identifying possible negative incentives associated with MDS items used in the non-therapy ancillary index. We will carefully evaluate each item before incorporating it into the final index. Then, we will develop methods to monitor coding practices and to identify changes in coding patterns for use in medical review, quality assurance and program integrity activities. We will issue clarifications, through program memoranda and other appropriate means, of MDS requirements needed to maintain the integrity of the RUG-III system.

- Recalculate The Distribution Of The Beneficiary Population Across RUG-III Categories: Using the national PPS data base, HCFA will recalculate the distribution of the beneficiary population across RUG-III categories, including the proposed combined Rehabilitation and Extensive Services category. Then, HCFA will perform the necessary analyses and sensitivity tests to compare the results with those derived from the research data base. The agency will reevaluate program options (for example, unweighted vs. weighted non-therapy ancillary index, etc.) based on the additional analyses, and modify the proposed refinements as needed and incorporate them in the final rule to be issued before August 1, 2000.

- Adjust for BBRA Consolidated Billing Exclusions: The projected rates do not reflect the BBRA requirement (section 103) to reduce the Part A SNF payment rates to account for those services that are newly excluded from consolidated billing and, thus, will be separately billable to Part B by the supplier. HCFA admits that because of the complexity of the process and the amount of time needed to implement this requirement, it was unable in the proposed rule to adjust the proposed rates to reflect these legislative changes.

HCFA cautions that is important to understand that the values contained in these tables will likely change in the final rule **and admits that changes may be material**. HCFA states:

> While we are confident that these research findings are based on sound methodology, it is certainly possible that additional testing will identify new issues or support variations of the models to those presented here. We remain open to suggestions during the comment period and will carefully evaluate the validation analyses before proceeding to final rulemaking.

AHCA does not believe that either "new issues" or "variations of the models" presented in the proposed rule belong in a final rule. Aside from the legality of such action, even HCFA must have some sense that this is simply unfair and inappropriate. The industry and the government are not supposed to be engaged in an intellectual debate played out in the Federal Register, and

SNF providers and their patients are not supposed to be part of some payment methodology experiment played out among the giants of the payment methodology universe.

The government knows what services SNFs provide and the government knows what patients SNFs serve. In the proposed rule the government is supposed to tell the providers and the beneficiaries and all other members of the public what they should know: what the SNFs will be paid to provide those services and how the payment system will operate. The government has not done this. It has provided research plans, intriguing methodology discussions, and hypothetical weights and rates. What kind of comments does the government expect?

B. The Medical Ancillary Weights and Rates Are Materially Flawed

As HCFA has already it indicated the medical ancillary weights and rates are materially flawed. They are simply wrong. The critical issue is how wrong and how different will the final weights and final rates be. AHCA believes that they will be very different further nullifying any value to the proposed rule. The weights and rates in the proposed rule are based on an inaccurate Medicare population distribution and utilization of an inappropriate measure to determine mean medical ancillary cost. Such flawed weights and rates do not provide the public with a fair opportunity to analyze the models and verify their accuracy and impact on the industry.

The WIM2 and UWIM medical ancillary weights are based upon the mean costs and population distribution reflected in Tables 4 and 5 respectively, in the Appendix to the proposed rule. The population distribution is based upon the research data base (pre-PPS) with mean costs based upon an overall cost-to-charge ratio for Medicare ancillary services derived from Medicare cost reports.

The medical ancillary weights and the resulting medical ancillary rates are inaccurate and flawed if:

- the research population distribution is not representative of the actual PPS claims distribution and/or;
- the overall ancillary cost to charge ratio materially differs from a cost to charge ratio based exclusively upon medical ancillary specific costs and charges.

Industry data, based upon actual PPS claims from six major nursing home multi-facility operators, reflects a Medicare population distribution significantly different from that presented in the proposed rule.[1] For example, the industry database, representing over one million Medicare PPS days, indicates that almost 60 percent of Medicare days fall into rehabilitation categories as compared to only 44 percent in the research database. (See Table 1 below). When combining rehabilitation with extensive and rehabilitation, the industry's database indicates that almost 76 percent of the Medicare population are either categorized as rehabilitation or rehabilitation and extensive. This compares to only 48 percent in the research

[1] The industry data analysis was performed by Joseph M. Lubarsky, Partner and Director of the Long Term Care Department, B.D.O. Seidman.

(pre-PPS) database. A detailed comparison of the industry's database with that reflected in the proposed rule for the UWIM and WIM2 models are included as Appendices 1 and 2.[2]

Table 1

RUGS Categories	***HCFA DATA***	INDUSTRY DATABASE	
		UWIM	***WIM 2***
Extensive Services with Rehabilitation	4.78%	17.35%	16.58%
Rehabilitation Services	43.66%	59.07%	60.04%
Total Rehab Categories	**48.44%**	**76.42%**	**76.62%**
Extensive Services	8.71%	6.37%	6.09%
Special Care	21.43%	6.63%	6.41%
Clinically Complex	12.95%	7.31%	7.37%
Impaired Cognition	1.68%	0.67%	0.70%
Behavior Problems	0.21%	0.09%	0.08%
Lower 18 categories	6.58%	2.51%	2.73%
Total	100.00%	100.00%	100.00%
Cases/Patient Days	*60,537*	*1,377,398*	*1,141,760*

Such a material difference in the Medicare population distribution is likely to significantly affect mean costs for each "RUG" rehabilitation category and extensive and rehabilitation category, as well as the mean value for each index value (1-5) within the category. A material change in the mean cost will significantly change the medical ancillary weights and the corresponding medical ancillary rates.

Using an overall cost-to-charge ratio to determine medical ancillary costs is also not appropriate. Mark-ups on ancillary services are very different. Unless the mark-ups are the same, the cost allocation to medical ancillary services under this method will produce inaccurate results. Accurately identifying medical ancillary costs require that medical ancillary charges be multiplied by medical ancillary specific cost-to-charge ratios. Again, if mean medical ancillary costs by "RUG" categories are inaccurate based upon using inappropriate cost-to-charge ratios, the medical ancillary weights are inaccurate, as are the corresponding rates.

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[2] Appendix 1 includes a file comparing the distribution of beneficiaries between Table 12 of the Proposed Rule (page 19234) and the industry database which is comprised of 1,377,398 days. The file shows the comparison for all UWIM 178 proposed RUGs categories and a percentage breakdown by all categories. The last column is the percentage difference column between the proposed rule data and the industry data base. The Appendix also includes a second document which compares the major classifications.
Appendix 2 includes a file comparing the distribution of beneficiaries between Table 6 of the Proposed Rule (proposed rule appendix, page 192564) and the industry database which is comprised of 1,141,760 days. The file shows the comparison for all WIM2 258 proposed RUGs categories and a percentage breakdown by all categories. The last column is the percentage difference column between the proposed rule data and the industry data base. The Appendix also includes a second document which compares the major classifications.

The proposed rule indicates that the final rule will incorporate actual PPS claims and possibly the use of a medical ancillary-specific cost to charge ratio. We applaud this. However, the medical ancillary indices and rates resulting from these revisions are likely to be materially different from the indices and rates in the proposed rule. As such, until revised indices and rates are released, it is impossible for the industry to measure the accuracy of the model in reasonably and adequately compensating for the actual medical ancillary resources and costs of patients that fall into the revised "RUG" categories. We already know that statistically, the predictive power of the model is low; much lower than HCFA researchers had hoped. Only by obtaining final medical ancillary indices and rates can the industry properly evaluate whether such a poorly predictive model can work in the "real" world.

Recommendation: *AHCA requests that, given that the ancillary weights and rates in the proposed rule are materially flawed, HCFA provide in a new proposed rule, weights and rates based on correct and current industry costs and patient distribution, and, as is appropriate in a proposed rule (and not a final rule), raise any "new issues" or "variations of the models" already presented.*

III. The Abt Study and HCFA Refinement Models Need Substantial Further Research and Analysis to Support the Design and Calibration of a Final Payment System

AHCA and the Alliance for Quality Nursing Home Care (the Alliance) requested the Lewin Group (Lewin) to provide an analysis of the Abt Study and the HCFA proposed rule. The Lewin Group was commissioned to provide technical assistance that would help AHCA and Alliance members in assessing the methodology supporting the case-mix refinements developed by Abt and recommended for use by HCFA in the April 10, 2000 Federal Register. Lewin was asked to (1) assess the quality of the analysis underpinning the Abt Associates study entitled "Variation in Prescribed Medication Costs: Collection and Impact on Skilled Nursing Facility Case Mix", and (2) provide an evaluation of how the Abt research methodology and findings were translated into the proposed rules revising the RUG-III classification. **We have attached the complete Lewin Report as Appendix 3. It is officially incorporated into our comments with the expectation that HCFA will respond to the issues raised by Lewin.**

A. The Abt Study And Resulting Refinement Models Are Not Sufficiently Comprehensive For The Design And /Or Calibration Of A Final Payment System

Lewin found the Abt Associates study to be a careful and thoughtful analysis, given the available data and that the investigators were thorough in their evaluation of the various options and rigorous in their methodology. (For example, they employed split sample validation of their models.) However, Lewin further observed:

- While well-executed, the Abt study and resulting refinement models are not sufficiently comprehensive for the design and/or calibration of a final payment system;
- Data limitations include a highly non-representative sample of states and, perhaps, of patients, lack of explanatory power, small cell sizes, missing data, imputation of drug costs, exclusion of outliers, problems with charges not reflecting actual Medicare

payment and data reflecting both different time periods and different aspects of the patients' stay;

- As such, the Abt analysis is adequate for developing theories and hypotheses, but not adequate for supporting final payment weight development;
- Further analysis will be required once a national database becomes available; and
- Lewin also noted that Abt's technical work concerning the revisions to RUG III may need to be reconsidered when more complete national data are available.

B. The HCFA Proposed Refinements Do Not Account For A Number Of Limitations In The Analysis And, In Some Cases, Differ From The Findings In The Abt Associates Study

Lewin found that the refinements presented in the proposed rule do not account for a number of limitations in the analysis and, in some cases, differ from the findings in the Abt Associates study. **The following is the summary provided by Lewin of its comments in this area:**

- ***Representativeness of the data***: The states included in the Abt sample do not represent a balanced geographical spread since they lack representation from the west coast and those states where Medicare beneficiaries are prominent. The sample is further limited by Abt not being able to include data that was missing from MDS assessments and cost reports. Despite these and other data limitations, HCFA intends to adopt Abt's refinements with some modification. We agree with HCFA that further analysis is necessary. However, it is most appropriate to withhold judgement on the refinements that have been recommended until analysis can be done that either supports the current proposed refinements or suggests alternative solutions.
- ***HCFA advocated the use of the Un-Weighted Index Model (UWIM) rather than the Weighted Index Model (WIM 2)***: In spite of better statistical performance from the WIM 2 model, HCFA proposes the use of UWIM since this is less complex. We agree with HCFA's intention to more closely evaluate the benefits of WIM 2 versus UWIM, using a national database, as not enough is currently known about either model, to make a definitive decision on which model should be employed.
- ***Inability of refined RUG-III to significantly account for variance in non-therapy ancillary costs***: The WIM 2 and UWIM offer improvement over RUG-III through their ability to explain more of the variation in costs than the RUG-III system. However, the overall explanatory power of the model is low relative to other payment systems. Without additional information on the reasons for this, and without a better understanding of how this explanatory power relates to the explanatory power of other payment systems, the inability of WIM 2 and UWIM to account for much of the variation in costs calls into question whether the current system can adequately account for differences in non-therapy ancillary costs.

- ***Matching MDS assessments with SNF claims data***: The MDS assessment period did not exactly match the SNF claims period, thereby reducing the accuracy of the ancillary costs. In addition, the Abt report faced difficulties in deriving accurate measures of drug costs from

Section U of MDS. HCFA does not make reference to the issue of a temporal mismatch between the MDS assessment with the SNF claims data.

C. Lewin Recommends The Following With Regard to the Abt Report

The following is the summary provided by Lewin of its comments in this area:

- HCFA needs to go beyond recalibration and reconsider the validity of the proposed refinements considered by the Abt study using the new national PPS claims database;
- Further analysis needs to be conducted on the relative merits of weighted and un-weighted non-therapy ancillary indices. The proposed national database analysis could show the relative power of the weighted index (especially with additional development) to be superior to the un-weighted indices. At this time the HCFA proposal is premature;
- The derivation of the non-therapy ancillary costs should be based on a much larger and more representative number of observations;
- When national data are available, more analysis of clinical measures should be conducted. If possible a more clinically coherent patient categorization system might better rationalize the SNF PPS;
- The use of a national database might support the revisiting of the decision not to include RUG III impaired, behavior or physical functions categories in the refinement process;
- The role of short stay patients needs to be considered; and
- HCFA should determine if the low overall explanatory power of the Abt study results suggest that SNF PPS needs either a series of stop-loss mechanisms and/or a state specific adjustment mechanism.

D. Lewin Recommendations Outside of the Abt Report

The following is the summary provided by Lewin of its comments in this area:

- The nursing index needs to be accurately calibrated to link payment to acuity levels. Currently, it is presumed that the distribution of the actual Medicare population is the same as the distribution of the research database. National data should be used to reflect accurate calibration of the data;

- HCFA should evaluate the classification of the extensive services and rehabilitation categories based on different levels of rehabilitation as well as extensive services-- The new category created in the Abt report – Extensive Services and Rehabilitation category – is further broken down into different levels of rehabilitation care. However, this new category does not classify further based on the different levels of extensive services provided. HCFA states that there were no significant correlations found among the groups to necessitate the creation of subcategories based on extensive services, but an explanation of the correlations is not provided in the Abt report and Federal Register. Moreover, differentiating based on the

number of extensive services received could increase the face validity of the system. That is, providers could reasonably expect to receive appropriate payment if they provide adequate care in an efficient manner. Towards achieving such an objective, we believe HCFA should explore other possible options in addition to differentiating the Extended Service and Rehabilitation category by the number of extended services received by residents. These other options could include expanding the ancillary non-therapy cost index into more categories. While such changes would increase the complexity of the payment system, the value of such changes could improve the face validity and payment accuracy of the system as well as the access to and quality of care;

- Changes to the RUG III system be implemented incrementally. Lewin acknowledges HCFA's need to move to try to improve the current system, however the final rule needs to be based upon a thorough analysis using national data. Implementation of a rule along the lines recommended in the Abt report will achieve some improvement to the current system but we concur with HCFA that effective case-mix refinements require more detailed research when the national data base becomes available. The explanatory power of the refined system indicates that more thought needs to be given to this incredibly complex effort;

- The refinement models offered by Abt Associates increased the variance explanation from 9.3 percent to 18 percent. Considering the fact that non therapy ancillary costs comprise 43 percent of the total costs, the variance explanation might not be adequate for most SNFs. Although HCFA has not stated a 'hard and fast' rule for predictive values for case mix classification groups in the past, HCFA probably needs to consider the benefit of case mix classification system based on its statistical performance. A recommended strategy would be to evaluate the refinements proposed in Abt report using the national PPS claims data;

- Further analysis needs to be conducted on the impact of weighted and unweighted non-therapy ancillary indices. The trade-off between the complexity and accuracy should not affect SNFs that are treating residents with more resource intensive non- therapy ancillary costs. Abt report has not provided the rationale for creation of the four new categories in the UWIM model based on MDS item count. As an additional research plan, HCFA could evaluate the benefits of weighted versus unweighted index as well as evaluate the rationale for the creation of categories based on grouping of MDS items associated with non therapy ancillary services;

- The MDS data should be accurately completed and should capture data for the short stay patients. HCFA needs to develop a mechanism to educate SNFs about the importance of MDS data and perhaps, develop a mechanism to audit the MDS assessment data;

- Due to several limitations, Abt excluded MDS assessment data. The derivation of the nontherapy ancillary costs should be based on larger number of observations as the small size of the sample used for calculation of the ancillary costs obviously raises concerns about their statistical validity. As an additional research plan, HCFA could derive the nontherapy ancillary costs based on national PPS claims data;

- A wage index based on skilled nursing facility wage data (as opposed to hospital wage data) should be developed and used to adjust payments for SNF facility services;
- Provision for updating the payment weights in the skilled nursing facility prospective payment system need to be developed; and
- The reliance on outdated time study, such as the Staff Time Measurement Study should be replaced by another approach.

Recommendation: *AHCA requests that HCFA respond to the recommendations and comments prepared by the Lewin Group with regard to the Abt Report and the recommendations outside of the Abt Report -- all briefly summarized above. These include the non-representativeness of the data, the overall low explanatory power of the model relative to other payment systems, serious data limitations, the need for more information and analysis on the relative merits of the weighted and unweighted models, necessity for the derivation of the non-therapy ancillary costs to be based on a much larger and more representative number of observations; examination of a more clinically coherent patient categorization system; accurate calibration of the nursing index; reevaluation of the extensive services and rehabilitation categories; accurate completion of the MDS data, The Lewin Group Report is attached as Appendix 3.*

IV. HCFA Must Prepare the Fiscal Intermediaries (FIs) to Implement the Ultimate RUG Modifications

A further major problem is the readiness of the FIs. HCFA knows very well by now that the FIs have not performed well with regard to many aspects of PPS. For example, initially, the FIs connected to the Arkansas system were not able to begin to pay PPS on time. Even now, HCFA has not been able to provide the FIs with the systems changes to effectuate the 20 percent add-ons mandated by the BBRA to start with respect to services provided on or after April 1, 2000. With respect to policy and interpretation and application of HCFA's PPS rules, the FIs have performed very poorly and for the most part have not been able to effectively participate in educating either themselves or the providers.

In the month of April, HCFA requested a meeting with AHCA regarding the performance of HCFA's third party contractors. AHCA was contacted on behalf of the HCFA FY 2000 Center for Excellence in Government (CEG) Fellows. As part of the
HCFA fellows program, certain of the fellows had been asked by the HCFA Administrator to conduct a project to: "Improve third party relationships with our Medicare contractors and state survey and certification agencies in the administration of our programs." At the meeting HCFA staff explained that the Medicare contractors and state survey agencies are vital to the HCFA health care delivery system. As such, HCFA wants to forge a new partnership with them that will essentially "transform" the present relationship to one where accountability, consistency and fiduciary responsibility in the conduct of HCFA's core business is absolute. HCFA acknowledged that much work needs to occur to make this happen, but it believes that it can be done so that HCFA may begin to close the gap between where it is and where it wants to be.

As part of the project HCFA was meeting with the Office of the Inspector General, General Accounting Office, Congressional staffers, Medicare contractors, survey and certification

agencies, beneficiary advocacy groups, provider associations, and State Health Insurance Assistance Programs. HCFA believes that this approach will allow it to obtain input from a very diverse group of stakeholders. HCFA expressed confidence that the information obtained from these meetings will help it in building its strategic action-oriented plan, with hopefully both short-term as well as long-term results.

AHCA was very pleased to be included in the project. At the meeting with the HCFA fellows, many issues and problems regarding survey and certification teams and FIs were discussed. In a very unbiased fashion the SNF members present tried to explain the frustrations and the agonies of the last few years as the FIs tried to transition over to PPS. The members described the lack of responsiveness, the lack of uniformity in FI interpretation and comprehension of basic Medicare PPS program rules, the tendency of some FIs to blame everything that goes wrong or is not clear on HCFA, and the lack of adherence by some FIs to critical auditing principles. It was clear that there are excellent and responsive FIs and FIs that fall far short of reasonable expectations. It was surmised that the difference may in the end be based simply on the fact that excellent FIs have competent, knowledgeable, responsive, dedicated and helpful FI staff and leadership who feel some responsibility to assist providers in understanding and functioning effectively under the new payment methodology.

AHCA believes that these excellent FIs need HCFA's support in continuing their above average performance. It is inconceivable that even the very best FIs could prepare for a transition to a 178 or 258 RUG system between August 1 and October 1. This is a burden that will push poor performing FIs into catastrophically poor and unacceptable behavior and seriously impair the ability of performing FIs who perform well to sustain their higher standards. One key sector will be medical review. If the FIs do not have the electronic grouper there should be no medical review of such a complex system. However, even with an electronic grouper, the FIs, just as the provider nurses and MDS coordinators, must understand the system and understand what precisely they are doing in reviewing medical criteria and judging RUG placement.

Recommendation: *AHCA requests that HCFA delay implementation of the RUG modifications as requested in these comments and take the time necessary to train and educate the FIs and the FI medical reviewers regarding the system that HCFA ultimately chooses.*

V. The Domains Should be Modified

When HCFA issues a new and *bona fide* proposed rule, AHCA recommends that the following modifications be made to the domains for clinical indications/associations with high cost non-therapy ancillaries:

- A burn is documented on the MDS in Section M4b. Burn care occurs in the SNF setting to a lesser degree than pressure ulcer care. but it does represent high cost items with medical supplies (e.g., sterile gloves, dressings, saline) and topical medications. We recommend research for the addition of burns to the domain- "dressings application plus presence of either ulcers or other skin lesions/wounds."

- Under the domain "oxygen and pneumonia, respiratory infection, COPD, CHF or CAD and shortness of breath," the crosswalk is to the MDS element (section I1ii- Emphysema/COPD). Emphysema should be included in the description of the domain. Also, it is our understanding that CAD will be identified by the crosswalk to MDS element I1d that is arterioscleroitc heart disease. This should be included in the domain description, e.g., CAD (ASHD).

- Asthma (Section I1hh) should be included in the domain "oxygen and pneumonia, respiratory infection, COPD, CHF or CAD and shortness of breath." Asthma is not always a respiratory infection but regardless of the causative factors the resident's care includes high respiratory cost as well as high drug cost. As it is now defined in the domain, the criteria would only be met if the causative factor were infection.

- The IV medication domain will capture IV medications, but we recommend research for adding a new domain of antibiotic resistant infections as noted in the MDS element I12a (antibiotic resistant infection- e.g., Methicillin resistant staph, VRE). This would also address the newly identified antibiotic infections of GRSA/VRSA. Residents with antibiotic resistant infections require high non-therapy ancillary cost which include frequent laboratory monitoring, isolation supplies and medications.

- AHCA requests that research be conducted to add a new domain for ostomy using the MDS elements- ostomy present (Section H3I) and ostomy care (Section P 1f). Residents with an ostomy require costly medical supplies and with the present domain structure the resident would only be identified if there are skin problems at the stoma site (MDS Section M4- other skin problems or lesions present). The domain for pressure ulcer and wound care will address dressing supplies. Medical supplies for ostomy care include skin preparations and appliance items.

- AHCA recommends research regarding a new domain for chemotherapy/radiation (MDS section P1a and h) and vomiting (MDS section J10), as this resident undergoing cancer treatment would require additional drug usage for nausea and vomiting as well as frequent laboratory monitoring.

- Consideration should be given to a new domain for c.diff (clostridum difficile) as this represents laboratory monitoring, drugs and isolation supplies especially for residents with cognitive impairment and the inability to contain secretions.

- Services for residents requiring a ventilator or respirator represent high non-therapy ancillary cost of equipment rental, medical supplies, respiratory, laboratory monitoring and oxygen utilization. Therefore, AHCA recommends research on a new domain for ventilator or respirator identified on the MDS in Section P1L as the domains of suctioning and trachesotomy care would not represent the intensive non- therapy ancillary cost of residents requiring a ventilator or respirator.

- The domain "parenteral/IV plus proportion of calories >75%" is problematic for the capture of the high cost of IV solutions and medical supplies. The definition in the RAI manual is "IV fluids or hyperalimentation given continuously or intermittently."
  For the resident receiving hyperalimentation the caloric requirement would be met, as this is a therapeutic nutritional intervention. The MDS element K5a is checked if the resident is receiving either hyperalimentation or IV solutions. IV solutions are given for fluid replacement, correction of electrolyte imbalance and as a route for the administration of IV medications. Therefore, the criteria of "the proportion > 75%
  Calorie" would not be met. Example: D%W (5%) only provides 170 calories per liter. The resident would still incur the expense of the IV solutions, tubing (medical supplies) as well as frequent laboratory monitoring. There is also a greater potential for a SNF resident to receive IV solutions versus TPN (hyperalimentation). AHCA recommends the elimination of the calorie requirement in the domain " Parenteral/IV plus proportion of calories > 75%".

- The RUG classification criterion for feeding tube is a minimum of 26% calories and 501 ml of fluid. Most of the SNF residents who require tube feedings would meet the domain criteria of > 75% with the exception of the residents who are being weaned from a tube feeding. Example: A new onset CVA and dysphagia (swallowing disorder) with neurological recovery that supports weaning from the feeding tube. In this example, the non-therapy ancillary cost of the feeding formula, and medical supplies are not supported. This scenario would occur during the resident's Part A stay. AHCA recommends that the criteria in the feeding tube domain mirror the RUG criteria (a minimum of 26% calories and 501 ml of fluid.)

- In order to be consistent with the Long Term Care Resident Assessment Instrument User's Manual Version 2.0, the MDS variables for the domain "Dressings application plus presence of either ulcers or other skin lesions/wounds" should be expanded to include M5e (Ulcer Care) and M5f (Surgical Wound Care). The definitions in the User's Manual for both ulcer and surgical wound care are the basis for accurate completion of the MDS. Therefore, the expectation is that the definitions will be followed and that residents with ulcers will be coded as receiving M52 (ulcer care), and residents with surgical wounds will be coded as receiving M5f (surgical wound care). Coding of M5g (application of dressings with or without topical medications) may be used in addition to M5e and f, but cannot be substituted for them. Therefore, even if the MDS has been coded accurately using M5e or f but it does not include M5g, the result would be that no non-therapy ancillary payment would be made even though the MDS was coded correctly and the resident qualified for the RUG III Special care category.

Recommendation: *When HCFA issues a new and bona fide proposed rule, AHCA requests that the modifications provided in these comments be made to the domains for clinical indications/associations with high cost non-therapy ancillaries.*

VI. The Skilled Nursing Facility Market Basket Index is Flawed and Should be Revised

Section 1888(e)(5) of the Social Security Act, as amended by the Balanced Budget Act of 1997 (BBA), provides that the Secretary shall establish a skilled nursing facility (SNF) market basket index that reflects changes over time in the prices of an appropriate mix of goods and services included in covered SNF services. The market basket that HCFA chooses to apply results in inadequate annual indexing of the resources SNFs rely on to care for America's seniors in need of skilled nursing care.

First, the methodology for trending forward the 1995 data to 1997 significantly understates the actual increases observed over this period.[3] Second, the SNF market basket index, which is used to annually update the amounts paid to SNFs, is based on 1992 data that do not reflect the dynamic changes in the health care system that occurred between 1992 and 1997. This is the result of using the RUGS and the SNF input price index together that retroactively removes virtually all case mix and intensity increases that occurred between 1995 and 1998 from the SNF per diem rates, even before the one percentage point per year required by the legislation is removed. Finally, the SNF market basket labor inputs significantly understate the actual increases in labor costs for Medicare SNFs. The proposed rule repeatedly admits many of these problems. In addition, the Federal Register notice of May 12, 1998, recognized that the SNF market basked needed. "a mechanism to adjust future SNF PPS rates for forecast errors." This was not done in the current proposed rule.[4]

The HCFA SNF market basked raised Medicare SNF rates by 5.3 percent between 1995 and 1997. An analysis of audited SNF cost reports filed with HCFA shows that actual costs incurred by SNFs increased by 18.1 percent. Significant increases occurred across both urban and rural facilities. For example, rural facilities showed a 22.6 percent increase in the cost per day.

While cost reports may not be entirely representative of changes in SNF costs according to critics of their use, it is extremely unlikely that an increase of 18.1 percent is due to manipulative changes in industry reporting. The type of manipulation critics of the cost report most often refer to is the allocation of costs within the cost report. The aggregate total costs we are referencing are audited by HCFA. Hence, it is highly probable that the 18.1 percent change represents a real increase of this magnitude in SNF costs.

A second source of evidence that supports the notion that HCFA significantly understated the increase in costs between 1995 and 1998 is documented in an independent annual survey of SNF salary levels conducted for the AHCA by Buck Consultants. This survey, which collected detailed wage data, documented that actual wages increased, on average, 21.9 percent between 1995 and 1998.

A third source of evidence that reinforces the notion that HCFA significantly underestimated the SNF rates is the Bureau of Labor Statistics (BLS) data itself. The BLS data show that salaries in nursing homes increased by 13.5 percent between 1995 and 1998. However, the BLS and Data

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[3] These comments are based in great part on analysis by Donald N. Muse, Ph.D., President, Muse & Associates.
[4] Federal Register, May 12, 1998, Section Table 4.E.

Resources Incorporated (DRI) wage data used by HCFA in the calculation of the market basket confounds increases in SNF wages with increases in wages in extended care facilities, mental retardation hospitals, assisted living facilities and other settings.[5] Industry sources that manage both SNFs and assisted living facilities are emphatic that staff used in assisted living facilities are much less skilled than those in SNFs.

The current HCFA SNF market basket update factor is based entirely on the average rate of change of "input prices." It fails to account for changes in intensity -- or, in other words, changes in the volume of those inputs. This causes the index to fall short of the actual increase in costs to facilities from year to year. For example, increasing the number of staff because of the introduction of a new regulatory requirement or shifting the employee mix toward more skilled staff because of higher patient acuity will cause the average daily costs of SNF care to increase. However, this type of cost increase, as opposed to a change in wages, is not captured or measured by the SNF market basket.

The Medicare Payment Advisory Commission (MedPAC) in its March 2000 Report To Congress also acknowledges that the SNF market basket is inadequate and indicates that it seeks to insure that SNF updates are consistent with an analytically informed judgment about how PPS rates should increase from year to year. It will be addressing the update factor issue and be applying the framework that it has established in the past for payment updates for other provider types such as hospitals. It will be addressing the volume/intensity issue and providing a case-mix adjustment methodology for update recommendations. The update adjustment for changes in inputs and products will also consider an allowance for science and technology. As it does for other provider types such as hospitals, the allowance is intended to provide additional funds for SNFs to adopt health care advances that enhance quality but also raise costs.

HCFA has complete authority to improve the SNF market basket update factor. AHCA has provided HCFA with legal opinions that made clear that HCFA "has ample authority under the statutory language relating to the SNF market basket to make adjustments to the annual updates to take into account cost factors that were not initially included within the market basket index." HCFA Administrator Nancy Ann Min-DeParle agreed with this conclusion in her testimony before the House Labor-HHS Appropriations Subcommittee in February of this year.

HCFA must take action to fix these shortcomings. AHCA has the following recommendations.

Recommendations:

- *HCFA should complete its research and development of a new SNF market basket update factor as soon as possible. Future updates of the SNF market basket, among other factors, must reflect actual increase in nursing home wages as well as other critical elements such as changes in drug costs, and reflect volume and intensity changes;*
- *HCFA should work with AHCA to share data and research critical to the development of an adequate market basket update factor;*

[5] The 1997 cost report data shows that wages and salaries were 45.4 percent of total SNF costs. The BLS web site Table 15 shows that wages and salaries were 75.7 percent of total compensation.

- *The trending of 1995 data to 1998 must be adjusted to reflect cost realities during this period; and*
- *HCFA should institute an annual survey of SNF wages for inclusion in the SNF market basket calculation. HCFA has a contract with DRI, which could be modified to incorporate such a survey.*

VII. HCFA's Estimate of the Impact of Continuing the Balanced Budget Refinement Act (BBRA) 20 Percent Add-on Is Flawed

If HCFA does not implement RUG refinements by October 1, 2000, the 20 percent add-on will remain until implementation of refinements. HCFA has estimated the cost of continuing the 20 percent increase for FY 2001 at $1 billion dollars. 69 Federal Register at 19239. AHCA disagrees with this figure.

Congressional Budget Office (CBO) SNF spending estimates have continued to decline. Indeed, revisions of CBO Post-BBA Medicare spending estimates have dramatically decreased from the original CBO Post-BBA estimate. Obviously, the number of Medicare days has decreased. We believe that HCFA is utilizing the original Post-BBA January 1998 CBO projection spending figures -- and not correcting for the decrease in Medicare days -- to reach its estimate of a $1 billion cost for continuation of the 20 percent add-on.

Further, HCFA states in the preamble that it believes that the add-on will inappropriately affect SNF behavior due to the fact that the 20 percent add-on results in higher payments for certain RUG groups even though they are associated with a lower intensity of services. HCFA comments that this results in a perverse incentive where some facilities may choose to provide less rehabilitation services to beneficiaries in order to receive the higher payments. We believe that they have factored a "behavioral effect" based on these assumptions into their estimate of $1 billion. Again we believe this is inappropriate.

We understand that HCFA may have used a behavioral effect of 30 percent. However, to have an effect of this magnitude or any kind of material affect with regard to such large numbers of patients and dollars, the perverse incentive would have to result in massive fraudulent misplacement of SNF patients. This would require incredible pervasive provider risk taking in corrupting MDS assessments and the assessors. We do not believe that this is happening, and we do not believe that HCFA has a basis for such assertions.

If one removes the behavioral affect and assumes that SNF days will be flat (we are not even assuming that they will continue to decrease) we reach an estimate of $480 million or $40 million per month (an average of $9.60 per day across all Medicare SNF days) for each extended month beyond October 1, 2000.

Recommendation: *AHCA requests that HCFA revise its estimate of the cost of extending the 20 percent add-on to reflect the decrease in Medicare days and spending and the elimination of any behavioral effect factor.*

VIII. HCFA Should Continue to Exercise Its Authority to Exclude Services from SNF Consolidated Billing That Are Not Within the Purview of SNFs

HCFA has the authority to exclude from Part A and Part B consolidated billing services that, under commonly accepted standards of medical practice, do not lie within the purview of SNFs. 63 Federal Register 26298, May 12, 1998. HCFA has chosen to exercise this authority only if the services in question, such as magnetic resonant imaging (MRI) services, are provided in a hospital setting. *Id.*

AHCA, in conjunction with many other organizations, has provided to HCFA in writing and in person identification of specific hospital-based services that are outside the domain of SNF for exclusion from SNF PPS. AHCA again requests that the following services, which are outside of the purview of the SNF and within the domain of the outpatient hospital department, be excluded:

- hyperbaric oxygen treatments;
- doppler studies;
- nuclear medicine;
- gastrointestinal procedures performed in endoscopy rooms;
- outpatient surgery performed in treatment rooms, ambulatory surgical centers; and other hospital locations.

Further, AHCA reiterates its request that HCFA administratively exclude ambulance services connected with chemotherapy and radioioptope services. In its response to AHCA's initial letter of March 20, 2000 requesting exclusion, HCFA stated that the receipt offsite of chemotherapy and radioisotope services does not have the effect of ending a beneficiary's status as a SNF "resident" for purpose of consolidated billing. HCFA stated that the situation was analogous to that of dialysis, which, in HCFA's opinion, required a legislative change to exclude associated ambulance services.

We disagree. AHCA believes that chemotherapy services and radioisotope services are clearly outside the purview of SNFs and that HCFA has the authority to consider these services to be outside the purview of SNFs, and formally declare them as such. Statutory exclusion does not prohibit HCFA from considering the statutorily excluded chemotherapy and radioisotope services to be outside the purview of SNFs and therefore to treat the associated ambulance trips as outside the financial responsibility of SNFs. We reiterate our request that ambulance services associated with chemotherapy and radioisotope services be excluded from consolidated billing.

Lastly, we request that HCFA revisit the issue of mandating that services that are administratively excluded be provided in a hospital outpatient setting to trigger the exclusion. We believe that the critical factor regarding the beneficiary's status under consolidated billing as a SNF "resident" with regard to the particular services is the nature of the service -- whether the service is within the purview of the SNF and not whether it is within the purview of any specific alternative site, such as a hospital setting. The issue should be driven by the inappropriateness of the service to be considered a SNF service.

We understand that HCFA, in the original proposed rule of May 12, 1998, was considering both the nature of the service and the importance of delineating what was to be bundled to the SNF and what was to be bundled to the hospital outpatient department under the upcoming hospital outpatient PPS. In the context of this discussion, HCFA stated that "We recognize that there are certain types of intensive diagnostic or invasive procedures that are specific to a hospital setting and that are well beyond the scope of SNF services." AHCA suggests that in the contemporary health environment certain services such as MRIs and certain ambulatory surgical procedures that traditionally were specific to a hospital setting can now be provided in other ambulatory settings. These other settings may indeed afford more efficient and less costly treatment than hospitals, and in certain geographic areas, such as rural areas, may be more accessible. AHCA recommends that HCFA consider excluding such "hospital" type services from SNF consolidated billing when they can be provided in ambulatory settings that are alternatives to hospital outpatient departments.

Recommendation: *AHCA requests that HCFA continue to exercise its authority to exclude services form SNF consolidated billing that are not within the purview of SNFs.*

IX. Under The New Consolidated Part B Midnight Rule, HCFA Should Reimburse for Part B Services Provided to Part B Residents on the Day That A Resident is Discharged or Departs from the SNF

Under the existing final PPS rule (July 30, 1999), if a beneficiary leaves the SNF and then returns within 24 hours of departure, his or her status as an SNF "resident" (for consolidated billing purposes) continues during the absence, regardless of whether the SNF has effected a formal discharge. This rule would make the SNF responsible for billing Medicare for any services that a beneficiary receives during a temporary absence of up to 24 hours, other than those that are specifically excluded. Since consolidated billing is currently in effect for only Part A beneficiaries, the midnight rule governs, and the beneficiary remains a SNF resident after leaving the SNF only if he or she then returns to the SNF by midnight (the return before midnight making the day of departure a covered Part A stay). Thus, the 24 hour rule could not be applicable to Part A PPS patients.

With respect to Part B, the 24 hour rule has been in abeyance because consolidated billing has not been in effect for Part B. However, once consolidated Part B billing begins, this current approach would have converted the policy regarding services furnished during a beneficiary's temporary absence from the current "midnight rule" to the 24 hour rule with regard to Part B services.

AHCA has argued from the start -- in comments to the interim final rule -- and in other communications to HCFA, that the 24 hour rule makes the SNF responsible for the billing of services for which it has no role in ordering and probably no knowledge. In addition, it makes the SNF responsible for appealing denials of services which the SNF did not know were being provided and, obviously, over which it has had no control. AHCA has consistently asked for the elimination of the 24 hour rule and recently met with HCFA again on the subject.

HCFA has been responsive to our concerns. HCFA indicates in the proposed rule that since the financial incentives for unbundling (one of HCFA's major concerns) are associated with covered Part A stays, it now believes that it may be appropriate to have the same standard with regard to SNF resident status under Part B as that for Part A. Thus, in the proposed regulations, HCFA has provided for continuing a beneficiary's "resident" status during a temporary absence only if he or she returns by midnight of the day of departure. In short, HCFA has proposed eliminating the 24 hour rule for Part B services and substituting the midnight rule. Thus, SNFs would be responsible for billing Part B services received by residents temporarily absent from the facility but only if the residents had returned by midnight.

AHCA expresses its appreciation that HCFA has removed the 24-hour rule. However, we presume that the SNF will be reimbursed for all Part B services provided in the course of the day on which the resident was discharged or departed from the facility, if that resident does not return to the facility by midnight. **Our concern arises from the fact that SNFs are not paid a PPS rate for the day of discharge, contrary to past practice where at least SNFs received payment for ancillaries provided on the day of discharge.** While we believe that SNFs should continue to receive payment for ancillaries on the day of discharge from a Part A stay, the major point that we are making here is that SNFs should be paid for Part B services rendered to Part B residents on the day of departure even if they do not return by midnight.

Recommendation: *AHCA requests that HCFA continue, under the new Part B midnight rule, to reimburse for Part B services provided to Part B residents on the day that a resident is discharged or departs from the SNF.*

X. HCFA Should Postpone Part B Consolidated Billing Until The PPS Refinements Are Completed -- And Then Reconsider The Necessity Of Part B Consolidated Billing

It is self-evident that the SNF industry -- and HCFA's FIs -- will not be able to cope with massive changes in both Part A and Part B payment methodology. HCFA should first complete its remaining tasks with regard to the RUG refinements with a current national data base and reissue the proposed rule. It should then turn its attention again to Part B consolidated billing.

AHCA was very responsive to the requests from HCFA for our concerns regarding Part B consolidated billing and for our recommendations on the development of the new system. We provided these to HCFA in letters of January 18, 2000 and January 19, 2000 to HCFA staff and management. However, increasingly providers across the country are expressing great fears that SNFs will not be able to successfully make all the changes and incur and sustain all the costs connected with Part B billing.

As expressed above we ask you to first complete the process of providing the industry with all the information and current data and true weights and rates in a new proposed rule so that we may have a genuine opportunity to analyze and comment on the proposed modifications. Then, we believe that HCFA should closely reexamine the entire set of problems and issues connected

with consolidated Part B billing and reconsider whether such a massive change in payment is necessary.

Recommendation: *HCFA should first complete the process of providing the industry with all the information and current data, and true weights and rates, in a new proposed rule so that we may have a genuine opportunity to analyze and comment on the proposed modifications. Then, we believe that HCFA should closely reexamine the entire set of problems and issues connected with consolidated Part B billing and reconsider whether such a massive change in payment is necessary.*

XI. Appendices

Appendix 1

Comparison of Beneficiary Distribution between Proposed Rule and Industry Database for UWIM and Summary by Major Classifications

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
JA5	14	0.02%	198	0.01%	0.01%
JA4	91	0.15%	1,623	0.12%	0.03%
JA3	78	0.13%	2,549	0.19%	-0.06%
JA2	0	0.00%	0	0.00%	0.00%
Total RUC+SE	183	0.30%	4,370	0.32%	-0.02%
JB5	9	0.01%	72	0.01%	0.00%
JB4	82	0.14%	2,976	0.22%	-0.08%
JB3	190	0.31%	9,018	0.65%	-0.34%
JB2	0	0.00%	48	0.00%	0.00%
Total RUB+SE	281	0.46%	12,114	0.88%	-0.42%
JC5	0	0.00%	0	0.00%	0.00%
JC4	4	0.01%	336	0.02%	-0.01%
JC3	23	0.04%	1,539	0.11%	-0.07%
JC2	0	0.00%	26	0.00%	0.00%
Total RUA+SE	27	0.05%	1,901	0.13%	-0.08%
Extensive & Ultra High	491	0.81%	18,385	1.33%	-0.52%
KA5	5	0.01%	694	0.05%	-0.04%
KA4	80	0.13%	4,391	0.32%	-0.19%
KA3	75	0.12%	5,841	0.42%	-0.30%
KA2	0	0.00%	72	0.01%	-0.01%
Total RVC+SE	160	0.26%	10,998	0.80%	-0.54%
KB5	2	0.00%	323	0.02%	-0.02%
KB4	77	0.13%	11,486	0.83%	-0.70%
KB3	169	0.28%	27,222	1.98%	-1.70%
KB2	0	0.00%	247	0.02%	-0.02%
Total RVB+SE	248	0.41%	39,278	2.85%	-2.44%
KC5	0	0.00%	14	0.00%	0.00%
KC4	13	0.02%	1,601	0.12%	-0.10%
KC3	18	0.03%	5,791	0.42%	-0.39%
KC2	0	0.00%	38	0.00%	0.00%
Total RVA+SE	31	0.05%	7,444	0.54%	-0.49%
Extensive & Very	439	0.72%	57,720	4.19%	-3.47%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
High					
LA5	12	0.02%	2,376	0.17%	-0.15%
LA4	89	0.15%	27,311	1.98%	-1.83%
LA3	143	0.24%	42,617	3.09%	-2.85%
LA2	0	0.00%	927	0.07%	-0.07%
Total RHC+SE	244	0.41%	73,231	5.31%	-4.90%
LB5	1	0.00%	97	0.01%	-0.01%
LB4	37	0.06%	10,071	0.73%	-0.67%
LB3	91	0.15%	31,015	2.25%	-2.10%
LB2	0	0.00%	476	0.03%	-0.03%
Total RHB+SE	129	0.21%	41,659	3.02%	-2.81%
LC5	0	0.00%	0	0.00%	0.00%
LC4	0	0.00%	1,187	0.09%	-0.09%
LC3	1	0.00%	5,862	0.43%	-0.43%
LC2	0	0.00%	25	0.00%	0.00%
Total RHA+SE	1	0.00%	7,074	0.52%	-0.52%
Extensive & High	374	0.62%	121,964	8.85%	-8.23%
MA5	40	0.07%	1,046	0.08%	-0.01%
MA4	333	0.55%	7,956	0.58%	-0.03%
MA3	376	0.62%	11,114	0.81%	-0.19%
MA2	0	0.00%	255	0.02%	-0.02%
Total RMC+SE	749	1.24%	20,371	1.49%	-0.25%
MB5	5	0.01%	127	0.01%	0.00%
MB4	183	0.30%	4,491	0.33%	-0.03%
MB3	563	0.93%	12,610	0.92%	0.01%
MB2	2	0.00%	178	0.01%	-0.01%
Total RMB+SE	753	1.24%	17,406	1.27%	-0.03%
MC5	0	0.00%	12	0.00%	0.00%
MC4	1	0.00%	433	0.03%	-0.03%
MC3	15	0.02%	2,404	0.17%	-0.15%
MC2	0	0.00%	10	0.00%	0.00%
Total RMA+SE	16	0.02%	2,859	0.20%	-0.18%
Extensive &	1,518	2.50%	40,636	2.96%	-0.46%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
Medium					
NA5	0	0.00%	4	0.00%	0.00%
NA4	12	0.02%	24	0.00%	0.02%
NA3	28	0.05%	86	0.01%	0.04%
NA2	0	0.00%	0	0.00%	0.00%
Total RLB+SE	40	0.07%	114	0.01%	0.06%
NB5	0	0.00%	0	0.00%	0.00%
NB4	4	0.01%	0	0.00%	0.01%
NB3	31	0.05%	102	0.01%	0.04%
NB2	0	0.00%	0	0.00%	0.00%
Total RLA+SE	35	0.06%	102	0.01%	0.05%
Extensive & Low	75	0.13%	216	0.02%	0.11%
Total Extensive & Rehab	2,897	4.78%	238,921	17.35%	-12.57%
UA5	1	0.00%	0	0.00%	0.00%
UA4	63	0.10%	719	0.05%	0.05%
UA3	424	0.70%	4,700	0.34%	0.36%
UA2	300	0.50%	4,084	0.30%	0.20%
Total RUC	788	1.30%	9,503	0.69%	0.61%
UB5	1	0.00%	0	0.00%	0.00%
UB4	106	0.18%	1,543	0.11%	0.07%
UB3	1,100	1.82%	19,106	1.39%	0.43%
UB2	1,584	2.62%	28,824	2.09%	0.53%
Total RUB	2,791	4.62%	49,473	3.59%	1.03%
UC5	0	0.00%	14	0.00%	0.00%
UC4	30	0.05%	486	0.04%	0.01%
UC3	349	0.58%	5,896	0.43%	0.15%
UC2	816	1.35%	11,058	0.80%	0.55%
Total RUA	1,195	1.98%	17,454	1.27%	0.71%
Rehab Ultra High	4,774	7.90%	76,430	5.55%	2.35%
VA5	1	0.00%	0	0.00%	0.00%
VA4	53	0.09%	2,282	0.17%	-0.08%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
VA3	350	0.58%	11,524	0.84%	-0.26%
VA2	289	0.48%	9,959	0.72%	-0.24%
Total RVC	693	1.15%	23,765	1.73%	-0.58%
VB5	0	0.00%	12	0.00%	0.00%
VB4	81	0.13%	5,780	0.42%	-0.29%
VB3	1,091	1.80%	63,353	4.60%	-2.80%
VB2	1,392	2.30%	88,033	6.39%	-4.09%
Total RVB	2,564	4.23%	157,178	11.41%	-7.18%
VC5	0	0.00%	36	0.00%	0.00%
VC4	41	0.07%	1,846	0.13%	-0.06%
VC3	471	0.78%	23,922	1.74%	-0.96%
VC2	840	1.39%	44,455	3.23%	-1.84%
Total RVA	1,352	2.24%	70,259	5.10%	-2.86%
Rehab Very High	4,609	7.62%	251,202	18.24%	-10.62%
WA5	0	0.00%	21	0.00%	0.00%
WA4	75	0.12%	11,182	0.81%	-0.69%
WA3	721	1.19%	71,318	5.18%	-3.99%
WA2	768	1.27%	68,915	5.00%	-3.73%
Total RHC	1,564	2.58%	151,436	10.99%	-8.41%
WB5	0	0.00%	0	0.00%	0.00%
WB4	38	0.06%	3,658	0.27%	-0.21%
WB3	601	0.99%	51,611	3.75%	-2.76%
WB2	1,027	1.70%	80,425	5.84%	-4.14%
Total RHB	1,666	2.75%	135,694	9.86%	-7.11%
WC5	0	0.00%	14	0.00%	0.00%
WC4	23	0.04%	2,930	0.21%	-0.17%
WC3	309	0.51%	24,516	1.78%	-1.27%
WC2	567	0.94%	35,732	2.59%	-1.65%
Total RHA	899	1.49%	63,192	4.58%	-3.09%
Rehab High	4,129	6.82%	350,322	25.43%	-18.61%
XA5	0	0.00%	0	0.00%	0.00%
XA4	205	0.34%	3,757	0.27%	0.07%
XA3	1,601	2.64%	17,365	1.26%	1.38%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
XA2	1,279	2.11%	12,468	0.91%	1.20%
Total RMC	3,085	5.09%	33,590	2.44%	2.65%
XB5	0	0.00%	0	0.00%	0.00%
XB4	160	0.26%	3,034	0.22%	0.04%
XB3	2,487	4.11%	26,777	1.94%	2.17%
XB2	3,742	6.18%	38,238	2.78%	3.40%
Total RMB	6,389	10.55%	68,049	4.94%	5.61%
XC5	0	0.00%	52	0.00%	0.00%
XC4	68	0.11%	1,082	0.08%	0.03%
XC3	801	1.32%	10,449	0.76%	0.56%
XC2	1,541	2.55%	18,390	1.34%	1.21%
Total RMA	2,410	3.98%	29,973	2.18%	1.80%
Rehab Medium	11,884	19.62%	131,612	9.56%	10.06%
YA5	0	0.00%	0	0.00%	0.00%
YA4	18	0.03%	116	0.01%	0.02%
YA3	182	0.30%	512	0.04%	0.26%
YA2	164	0.27%	766	0.06%	0.21%
Total RLB	364	0.60%	1,394	0.11%	0.49%
YB5	0	0.00%	0	0.00%	0.00%
YB4	19	0.03%	42	0.00%	0.03%
YB3	249	0.41%	859	0.06%	0.35%
YB2	400	0.66%	1,630	0.12%	0.54%
Total RLA	668	1.10%	2,531	0.18%	0.92%
Rehab Low	1,032	1.70%	3,925	0.29%	1.41%
Total Rehab	26,428	43.66%	813,491	59.07%	-15.41%
EA5	106	0.18%	3,370	0.24%	-0.06%
EA4	1,021	1.69%	20,311	1.47%	0.22%
EA3	932	1.54%	11,370	0.83%	0.71%
EA2	0	0.00%	85	0.01%	-0.01%
Total SE3	2,059	3.41%	35,136	2.55%	0.86%
EB5	65	0.11%	1,520	0.11%	0.00%
EB4	913	1.51%	17,119	1.24%	0.27%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
EB3	1,934	3.19%	29,870	2.17%	1.02%
EB2	32	0.05%	1,095	0.08%	-0.03%
Total SE2	2,944	4.86%	49,604	3.60%	1.26%
EC5	0	0.00%	0	0.00%	0.00%
EC4	33	0.05%	465	0.03%	0.02%
EC3	227	0.37%	2,066	0.15%	0.22%
EC2	12	0.02%	541	0.04%	-0.02%
Total SE1	272	0.44%	3,072	0.22%	0.22%
Extensive	5,275	8.71%	87,812	6.37%	2.34%
SA5	2	0.00%	26	0.00%	0.00%
SA4	391	0.65%	6,635	0.48%	0.17%
SA3	1,907	3.15%	10,277	0.75%	2.40%
SA2	829	1.37%	1,383	0.10%	1.27%
Total SSC	3,129	5.17%	18,321	1.33%	3.84%
SB5	0	0.00%	87	0.01%	-0.01%
SB4	370	0.61%	9,465	0.69%	-0.08%
SB3	2,168	3.58%	17,998	1.31%	2.27%
SB2	1,060	1.75%	2,780	0.20%	1.55%
Total SSB	3,598	5.94%	30,330	2.21%	3.73%
SC5	0	0.00%	54	0.00%	0.00%
SC4	424	0.70%	7,201	0.52%	0.18%
SC3	3,688	6.09%	29,934	2.17%	3.92%
SC2	2,139	3.53%	5,533	0.40%	3.13%
Total SSA	6,251	10.32%	42,722	3.09%	7.23%
Special Care	12,978	21.43%	91,373	6.63%	14.80%
CA5	0	0.00%	0	0.00%	0.00%
CA4	1	0.00%	49	0.00%	0.00%
CA3	28	0.05%	1,105	0.08%	-0.03%
CA2	29	0.05%	1,173	0.09%	-0.04%
Total CC2	58	0.10%	2,327	0.17%	-0.07%
CB5	0	0.00%	0	0.00%	0.00%
CB4	18	0.03%	477	0.03%	0.00%
CB3	171	0.28%	5,507	0.40%	-0.12%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
CB2	120	0.20%	2,725	0.20%	0.00%
Total CC1	309	0.51%	8,709	0.63%	-0.12%
CC5	0	0.00%	0	0.00%	0.00%
CC4	9	0.01%	218	0.02%	-0.01%
CC3	104	0.17%	3,857	0.28%	-0.11%
CC2	149	0.25%	4,683	0.34%	-0.09%
Total CB2	262	0.43%	8,758	0.64%	-0.21%
CD5	0	0.00%	0	0.00%	0.00%
CD4	36	0.06%	1,087	0.08%	-0.02%
CD3	619	1.02%	18,553	1.35%	-0.33%
CD2	768	1.27%	14,877	1.08%	0.19%
Total CB1	1,423	2.35%	34,517	2.51%	-0.16%
CE5	0	0.00%	0	0.00%	0.00%
CE4	18	0.03%	174	0.01%	0.02%
CE3	319	0.53%	3,747	0.27%	0.26%
CE2	465	0.77%	5,137	0.37%	0.40%
Total CA2	802	1.33%	9,058	0.65%	0.68%
CF5	0	0.00%	0	0.00%	0.00%
CF4	107	0.18%	531	0.04%	0.14%
CF3	2,075	3.43%	16,589	1.20%	2.23%
CF2	2,795	4.62%	20,324	1.47%	3.15%
Total CA1	4,977	8.23%	37,444	2.71%	5.52%
Clinically Complex	7,831	12.95%	100,813	7.31%	5.64%
IA1	60	0.10%	826	0.06%	0.04%
IB1	565	0.93%	4,846	0.35%	0.58%
IC1	12	0.02%	269	0.02%	0.00%
ID1	379	0.63%	3,254	0.24%	0.39%
Impaired cognition	1,016	1.68%	9,195	0.67%	1.01%
BA1	1	0.00%	13	0.00%	0.00%
BB1	52	0.09%	378	0.03%	0.06%
BC1	2	0.00%	150	0.01%	-0.01%
BD1	71	0.12%	641	0.05%	0.07%
Behavior Problems	126	0.21%	1,182	0.09%	0.12%

UWIM Database vs. Federal Register Table 12

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
PA1	41	0.07%	236	0.02%	0.05%
PB1	401	0.66%	4,754	0.35%	0.31%
PC1	119	0.20%	2,397	0.17%	0.03%
PD1	1,184	1.96%	14,814	1.07%	0.89%
PE1	33	0.05%	356	0.03%	0.02%
PF1	342	0.56%	1,766	0.13%	0.43%
PG1	39	0.06%	250	0.02%	0.04%
PH1	602	0.99%	3,230	0.23%	0.76%
PI1	40	0.07%	412	0.03%	0.04%
PJ1	1,185	1.96%	6,396	0.46%	1.50%
Reduced physical func	3,986	6.58%	34,611	2.51%	4.07%
Totals	60,537	100.00%	1,377,398	100.00%	0.00%

Uwim Federal Register vs. Database Percentages			
Rugs	Federal Register	Database	Federal Register
Category	Percentage	Percentage	vs. Database
Extensive & Ultra High	0.81%	1.33%	-0.52%
Extensive & Very High	0.72%	4.19%	-3.47%
Extensive & High	0.62%	8.85%	-8.23%
Extensive & Medium	2.50%	2.96%	-0.46%
Extensive & Low	0.13%	0.02%	0.11%
Total Extensive & Rehab	4.78%	17.35%	-12.57%
Rehab Ultra High	7.90%	5.55%	2.35%
Rehab Very High	7.62%	18.24%	-10.62%
Rehab High	6.82%	25.43%	-18.61%
Rehab Medium	19.62%	9.56%	10.06%
Rehab Low	1.70%	0.29%	1.41%
Total Rehab	43.66%	59.07%	-15.41%
Extensive	8.71%	6.37%	2.34%
Special Care	21.43%	6.63%	14.80%
Clinically Complex	12.95%	7.31%	5.64%
Impaired Cognition	1.68%	0.67%	1.01%
Behavior Problems	0.21%	0.09%	0.12%
Reduced Physical Function	6.58%	2.51%	4.07%
Totals	100.00%	100.00%	0.00%

Appendix 2

Comparison of Beneficiary Distribution between Proposed Rule and Industry Database for WIM2 and Summary by Major Classifications

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
JAA	26	0.04%	131	0.01%	0.03%
JAB	68	0.11%	389	0.03%	0.08%
JAC	47	0.08%	382	0.03%	0.05%
JAD	42	0.07%	301	0.03%	0.04%
JAE	0	0.00%	2,270	0.20%	-0.20%
JAF	0	0.00%	0	0.00%	0.00%
Total RUC+SE	183	0.30%	3,473	0.30%	0.00%
JBA	18	0.03%	79	0.01%	0.02%
JBB	70	0.12%	288	0.03%	0.09%
JBC	48	0.08%	440	0.04%	0.04%
JBD	145	0.24%	787	0.07%	0.17%
JBE	0	0.00%	8,463	0.74%	-0.74%
JBF	0	0.00%	32	0.00%	0.00%
Total RUB+SE	281	0.47%	10,089	0.89%	-0.42%
JCA	0	0.00%	0	0.00%	0.00%
JCB	6	0.01%	39	0.00%	0.01%
JCC	5	0.01%	48	0.00%	0.01%
JCD	16	0.03%	38	0.00%	0.03%
JCE	0	0.00%	1,354	0.12%	-0.12%
JCF	0	0.00%	26	0.00%	0.00%
Total RUA+SE	27	0.05%	1,505	0.12%	-0.07%
Extensive & Ultra High	491	0.82%	15,067	1.31%	-0.49%
KAA	10	0.02%	387	0.03%	-0.01%
KAB	66	0.11%	1,062	0.09%	0.02%
KAC	32	0.05%	680	0.06%	-0.01%
KAD	52	0.09%	771	0.07%	0.02%
KAE	0	0.00%	5,732	0.50%	-0.50%
KAF	0	0.00%	26	0.00%	0.00%
Total RVC+SE	160	0.27%	8,658	0.75%	-0.48%
KBA	11	0.02%	170	0.01%	0.01%
KBB	64	0.11%	1,360	0.12%	-0.01%
KBC	47	0.08%	2,729	0.24%	-0.16%
KBD	126	0.21%	1,982	0.17%	0.04%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
KBE	0	0.00%	27,335	2.39%	-2.39%
KBF	0	0.00%	438	0.04%	-0.04%
Total RVB+SE	248	0.42%	34,014	2.97%	-2.55%
KCA	0	0.00%	29	0.00%	0.00%
KCB	9	0.01%	130	0.01%	0.00%
KCC	3	0.00%	873	0.08%	-0.08%
KCD	19	0.03%	232	0.02%	0.01%
KCE	0	0.00%	5,220	0.46%	-0.46%
KCF	0	0.00%	115	0.01%	-0.01%
Total RVA+SE	31	0.04%	6,599	0.58%	-0.54%
Extensive & Very High	439	0.73%	49,271	4.30%	-3.57%
LAA	17	0.03%	1,226	0.11%	-0.08%
LAB	81	0.13%	4,496	0.39%	-0.26%
LAC	49	0.08%	4,472	0.39%	-0.31%
LAD	96	0.16%	4,872	0.43%	-0.27%
LAE	1	0.00%	41,983	3.68%	-3.68%
LAF	0	0.00%	693	0.06%	-0.06%
Total RHC+SE	244	0.40%	57,742	5.06%	-4.66%
LBA	5	0.01%	50	0.00%	0.01%
LBB	30	0.05%	690	0.06%	-0.01%
LBC	20	0.03%	2,553	0.22%	-0.19%
LBD	73	0.12%	1,127	0.10%	0.02%
LBE	1	0.00%	23,876	2.09%	-2.09%
LBF	0	0.00%	252	0.02%	-0.02%
Total RHB+SE	129	0.21%	28,548	2.49%	-2.28%
LCA	0	0.00%	14	0.00%	0.00%
LCB	0	0.00%	201	0.02%	-0.02%
LCC	0	0.00%	1,173	0.10%	-0.10%
LCD	1	0.00%	155	0.01%	-0.01%
LCE	0	0.00%	5,302	0.46%	-0.46%
LCF	0	0.00%	25	0.00%	0.00%
Total RHA+SE	1	0.00%	6,870	0.59%	-0.59%
Extensive & High	374	0.61%	93,160	8.14%	-7.53%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
MAA	84	0.14%	612	0.05%	0.09%
MAB	242	0.40%	1,532	0.13%	0.27%
MAC	180	0.30%	1,383	0.12%	0.18%
MAD	243	0.40%	1,728	0.15%	0.25%
MAE	0	0.00%	10,809	0.95%	-0.95%
MAF	0	0.00%	190	0.02%	-0.02%
Total RMC+SE	749	1.24%	16,254	1.42%	-0.18%
MBA	21	0.03%	64	0.01%	0.02%
MBB	120	0.20%	638	0.06%	0.14%
MBC	149	0.25%	1,092	0.10%	0.15%
MBD	458	0.76%	480	0.04%	0.72%
MBE	3	0.00%	10,591	0.93%	-0.93%
MBF	2	0.00%	167	0.01%	-0.01%
Total RMB+SE	753	1.24%	13,032	1.15%	0.09%
MCA	0	0.00%	12	0.00%	0.00%
MCB	2	0.00%	106	0.01%	-0.01%
MCC	0	0.00%	328	0.03%	-0.03%
MCD	14	0.02%	100	0.01%	0.01%
MCE	0	0.00%	2,274	0.20%	-0.20%
MCF	0	0.00%	10	0.00%	0.00%
Total RMA+SE	16	0.02%	2,830	0.25%	-0.23%
Extensive & Medium	1,518	2.50%	32,116	2.82%	-0.32%
NAA	0	0.00%	0	0.00%	0.00%
NAB	14	0.02%	0	0.00%	0.02%
NAC	11	0.02%	0	0.00%	0.02%
NAD	15	0.02%	12	0.00%	0.02%
NAE	0	0.00%	54	0.00%	0.00%
NAF	0	0.00%	0	0.00%	0.00%
Total RLB+SE	40	0.06%	66	0.00%	0.06%
NBA	1	0.00%	0	0.00%	0.00%
NBB	1	0.00%	0	0.00%	0.00%
NBC	11	0.02%	0	0.00%	0.02%
NBD	22	0.04%	0	0.00%	0.04%
NBE	0	0.00%	88	0.01%	-0.01%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
NBF	0	0.00%	0	0.00%	0.00%
Total RLA+SE	35	0.06%	88	0.01%	0.05%
Extensive & Low	75	0.12%	154	0.01%	0.11%
Total Extensive & Rehab	2,897	4.78%	189,768	16.58%	-11.80%
UAA	0	0.00%	0	0.00%	0.00%
UAB	1	0.00%	0	0.00%	0.00%
UAC	13	0.02%	14	0.00%	0.02%
UAD	85	0.14%	0	0.00%	0.14%
UAE	388	0.64%	4,394	0.38%	0.26%
UAF	301	0.50%	3,322	0.29%	0.21%
Total RUC	788	1.30%	7,730	0.67%	0.63%
UBA	0	0.00%	0	0.00%	0.00%
UBB	0	0.00%	0	0.00%	0.00%
UBC	32	0.05%	0	0.00%	0.05%
UBD	206	0.34%	120	0.01%	0.33%
UBE	966	1.60%	17,343	1.52%	0.08%
UBF	1,587	2.62%	25,306	2.22%	0.40%
Total RUB	2,791	4.61%	42,769	3.75%	0.86%
UCA	3	0.00%	0	0.00%	0.00%
UCB	6	0.01%	13	0.00%	0.01%
UCC	20	0.03%	0	0.00%	0.03%
UCD	118	0.19%	40	0.00%	0.19%
UCE	232	0.38%	4,633	0.41%	-0.03%
UCF	816	1.35%	9,647	0.84%	0.51%
Total RUA	1,195	1.96%	14,333	1.25%	0.71%
Rehab Ultra High	4,774	7.87%	64,832	5.67%	2.20%
VAA	0	0.00%	0	0.00%	0.00%
VAB	2	0.00%	0	0.00%	0.00%
VAC	10	0.02%	187	0.02%	0.00%
VAD	70	0.12%	84	0.01%	0.11%
VAE	320	0.53%	11,599	1.02%	-0.49%
VAF	291	0.48%	8,521	0.75%	-0.27%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
Total RVC	693	1.15%	20,391	1.80%	-0.65%
VBA	0	0.00%	0	0.00%	0.00%
VBB	2	0.00%	0	0.00%	0.00%
VBC	37	0.06%	208	0.02%	0.04%
VBD	212	0.35%	480	0.04%	0.31%
VBE	919	1.52%	59,451	5.21%	-3.69%
VBF	1,394	2.30%	80,455	7.05%	-4.75%
Total RVB	2,564	4.23%	140,594	12.32%	-8.09%
VCA	1	0.00%	25	0.00%	0.00%
VCB	5	0.01%	50	0.00%	0.01%
VCC	28	0.05%	25	0.00%	0.05%
VCD	164	0.27%	296	0.03%	0.24%
VCE	313	0.52%	21,044	1.84%	-1.32%
VCF	841	1.39%	40,715	3.57%	-2.18%
Total RVA	1,352	2.24%	62,155	5.44%	-3.20%
Rehab Very High	4,609	7.62%	223,140	19.56%	-11.94%
WAA	0	0.00%	0	0.00%	0.00%
WAB	0	0.00%	126	0.01%	-0.01%
WAC	23	0.04%	491	0.04%	0.00%
WAD	119	0.20%	454	0.04%	0.16%
WAE	651	1.08%	69,565	6.09%	-5.01%
WAF	771	1.27%	59,611	5.22%	-3.95%
Total RHC	1,564	2.59%	130,247	11.40%	-8.81%
WBA	0	0.00%	0	0.00%	0.00%
WBB	0	0.00%	0	0.00%	0.00%
WBC	25	0.04%	232	0.02%	0.02%
WBD	155	0.26%	345	0.03%	0.23%
WBE	459	0.76%	40,177	3.52%	-2.76%
WBF	1,027	1.70%	66,339	5.81%	-4.11%
Total RHB	1,666	2.76%	107,093	9.38%	-6.62%
WCA	0	0.00%	0	0.00%	0.00%
WCB	10	0.02%	79	0.01%	0.01%
WCC	20	0.03%	0	0.00%	0.03%
WCD	130	0.21%	395	0.03%	0.18%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
WCE	171	0.28%	18,577	1.63%	-1.35%
WCF	568	0.94%	30,673	2.69%	-1.75%
Total RHA	899	1.48%	49,724	4.36%	-2.88%
Rehab High	4,129	6.83%	287,064	25.14%	-18.31%
XAA	0	0.00%	0	0.00%	0.00%
XAB	3	0.00%	75	0.01%	-0.01%
XAC	57	0.09%	79	0.01%	0.08%
XAD	325	0.54%	170	0.01%	0.53%
XAE	1,418	2.34%	16,367	1.43%	0.91%
XAF	1,282	2.12%	10,580	0.93%	1.19%
Total RMC	3,085	5.09%	27,271	2.39%	2.70%
XBA	0	0.00%	0	0.00%	0.00%
XBB	1	0.00%	0	0.00%	0.00%
XBC	84	0.14%	195	0.02%	0.12%
XBD	564	0.93%	386	0.03%	0.90%
XBE	1,993	3.29%	22,789	2.00%	1.29%
XBF	3,747	6.19%	32,238	2.82%	3.37%
Total RMB	6,389	10.55%	55,608	4.87%	5.68%
XCA	3	0.00%	40	0.00%	0.00%
XCB	23	0.04%	20	0.00%	0.04%
XCC	53	0.09%	26	0.00%	0.09%
XCD	332	0.55%	158	0.01%	0.54%
XCE	456	0.75%	8,315	0.73%	0.02%
XCF	1,543	2.55%	15,880	1.39%	1.16%
Total RMA	2,410	3.98%	24,439	2.13%	1.85%
Rehab Medium	11,884	19.62%	107,318	9.39%	10.23%
YAA	0	0.00%	0	0.00%	0.00%
YAB	1	0.00%	0	0.00%	0.00%
YAC	5	0.01%	0	0.00%	0.01%
YAD	38	0.06%	16	0.00%	0.06%
YAE	155	0.26%	483	0.04%	0.22%
YAF	165	0.27%	562	0.05%	0.22%
Total RLB	364	0.60%	1,061	0.09%	0.51%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
YBA	1	0.00%	0	0.00%	0.00%
YBB	1	0.00%	0	0.00%	0.00%
YBC	13	0.02%	0	0.00%	0.02%
YBD	88	0.15%	0	0.00%	0.15%
YBE	165	0.27%	745	0.07%	0.20%
YBF	400	0.66%	1,398	0.12%	0.54%
Total RLA	668	1.10%	2,143	0.19%	0.91%
Rehab Low	1,032	1.70%	3,204	0.28%	1.42%
Total Rehab	26,428	43.64%	685,558	60.04%	-16.40%
EAA	239	0.39%	1,634	0.14%	0.25%
EAB	785	1.30%	4,696	0.41%	0.89%
EAC	555	0.92%	3,913	0.34%	0.58%
EAD	480	0.79%	4,575	0.40%	0.39%
EAE	0	0.00%	11,943	1.05%	-1.05%
EAF	0	0.00%	73	0.01%	-0.01%
Total SE3	2,059	3.40%	26,834	2.35%	1.05%
EBA	146	0.24%	917	0.08%	0.16%
EBB	683	1.13%	3,774	0.33%	0.80%
EBC	714	1.18%	6,012	0.53%	0.65%
EBD	1,297	2.14%	2,728	0.24%	1.90%
EBE	72	0.12%	26,181	2.29%	-2.17%
EBF	32	0.05%	846	0.07%	-0.02%
Total SE2	2,944	4.86%	40,458	3.54%	1.32%
ECA	7	0.01%	30	0.00%	0.01%
ECB	18	0.03%	222	0.02%	0.01%
ECC	73	0.12%	219	0.02%	0.10%
ECD	155	0.26%	96	0.01%	0.25%
ECE	7	0.01%	1,633	0.14%	-0.13%
ECF	12	0.02%	141	0.01%	0.01%
Total SE1	272	0.45%	2,341	0.20%	0.25%
Extensive	5,275	8.71%	69,633	6.09%	2.62%
SAA	0	0.00%	0	0.00%	0.00%
SAB	11	0.02%	187	0.02%	0.00%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
SAC	92	0.15%	368	0.03%	0.12%
SAD	458	0.76%	260	0.02%	0.74%
SAE	1,738	2.87%	12,571	1.10%	1.77%
SAF	830	1.37%	1,166	0.10%	1.27%
Total SSC	3,129	5.17%	14,552	1.27%	3.90%
SBA	0	0.00%	0	0.00%	0.00%
SBB	5	0.01%	125	0.01%	0.00%
SBC	93	0.15%	317	0.03%	0.12%
SBD	509	0.84%	334	0.03%	0.81%
SBE	1,923	3.18%	21,763	1.91%	1.27%
SBF	1,068	1.76%	2,377	0.21%	1.55%
Total SSB	3,598	5.94%	24,916	2.19%	3.75%
SCA	12	0.02%	100	0.01%	0.01%
SCB	127	0.21%	485	0.04%	0.17%
SCC	306	0.51%	1,305	0.11%	0.40%
SCD	1,191	1.97%	595	0.05%	1.92%
SCE	2,468	4.08%	26,467	2.32%	1.76%
SCF	2,147	3.55%	4,815	0.42%	3.13%
Total SSA	6,251	10.34%	33,767	2.95%	7.39%
Special Care	12,978	21.45%	73,235	6.41%	15.04%
CAA	0	0.00%	0	0.00%	0.00%
CAB	0	0.00%	0	0.00%	0.00%
CAC	0	0.00%	0	0.00%	0.00%
CAD	14	0.02%	14	0.00%	0.02%
CAE	15	0.02%	894	0.08%	-0.06%
CAF	29	0.05%	975	0.09%	-0.04%
Total CC2	58	0.09%	1,883	0.17%	-0.08%
CBA	0	0.00%	0	0.00%	0.00%
CBB	0	0.00%	0	0.00%	0.00%
CBC	6	0.01%	24	0.00%	0.01%
CBD	61	0.10%	54	0.00%	0.10%
CBE	121	0.20%	4,740	0.42%	-0.22%
CBF	121	0.20%	2,297	0.20%	0.00%
Total CC1	309	0.51%	7,115	0.62%	-0.11%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
CCA	0	0.00%	0	0.00%	0.00%
CCB	0	0.00%	0	0.00%	0.00%
CCC	7	0.01%	14	0.00%	0.01%
CCD	49	0.08%	65	0.01%	0.07%
CCE	56	0.09%	3,278	0.29%	-0.20%
CCF	150	0.25%	3,944	0.35%	-0.10%
Total CB2	262	0.43%	7,301	0.65%	-0.22%
CDA	0	0.00%	0	0.00%	0.00%
CDB	0	0.00%	0	0.00%	0.00%
CDC	20	0.03%	86	0.01%	0.02%
CDD	258	0.43%	283	0.02%	0.41%
CDE	374	0.62%	16,293	1.43%	-0.81%
CDF	771	1.27%	13,021	1.14%	0.13%
Total CB1	1,423	2.35%	29,683	2.60%	-0.25%
CEA	0	0.00%	0	0.00%	0.00%
CEB	0	0.00%	0	0.00%	0.00%
CEC	18	0.03%	15	0.00%	0.03%
CED	182	0.30%	42	0.00%	0.30%
CEE	137	0.23%	2,586	0.23%	0.00%
CEF	465	0.77%	4,239	0.37%	0.40%
Total CA2	802	1.33%	6,882	0.60%	0.73%
CFA	0	0.00%	77	0.01%	-0.01%
CFB	0	0.00%	0	0.00%	0.00%
CFC	83	0.14%	12	0.00%	0.14%
CFD	897	1.48%	131	0.01%	1.47%
CFE	1,201	1.98%	13,286	1.16%	0.82%
CFF	2,796	4.62%	17,725	1.55%	3.07%
Total CA1	4,977	8.22%	31,231	2.73%	5.49%
Clinically Complex	7,831	12.93%	84,095	7.37%	5.56%
IAR	60	0.10%	708	0.06%	0.04%
IBR	565	0.93%	4,230	0.37%	0.56%
ICR	12	0.02%	223	0.02%	0.00%
IDR	379	0.63%	2,845	0.25%	0.38%
Impaired cognition	1,016	1.68%	8,006	0.70%	0.98%

WIM2 Industry Database vs. Federal Register's
Table 6

Rugs Category	Federal Register Census	Federal Register Percentage	Industry Database	Database Percentage	Federal Register VS. Database
BAR	1	0.00%	13	0.00%	0.00%
BBR	52	0.09%	331	0.03%	0.06%
BCR	2	0.00%	0	0.00%	0.00%
BDR	71	0.12%	552	0.05%	0.07%
Behavior Problems	126	0.21%	896	0.08%	0.13%
PAR	41	0.07%	203	0.02%	0.05%
PBR	401	0.66%	3,759	0.33%	0.33%
PCR	119	0.20%	2,203	0.19%	0.01%
PDR	1,184	1.96%	13,218	1.21%	0.75%
PER	33	0.05%	314	0.03%	0.02%
PFR	342	0.56%	1,616	0.14%	0.42%
PGR	39	0.06%	196	0.02%	0.04%
PHR	602	0.99%	3,001	0.26%	0.73%
PIR	40	0.07%	366	0.03%	0.04%
PJR	1,185	1.98%	5,693	0.50%	1.48%
Reduced physical func	3,986	6.60%	30,569	2.73%	3.87%
Totals	60,537	100.00%	1,141,760	100.00%	0.00%

Wim2 Federal Register vs. Database Percentages			
Rugs Category	Federal Register Percentage	Database Percentage	Federal Register vs. Database
Extensive & Ultra High	0.82%	1.31%	-0.49%
Extensive & Very High	0.73%	4.30%	-3.57%
Extensive & High	0.61%	8.14%	-7.53%
Extensive & Medium	2.50%	2.82%	-0.32%
Extensive & Low	0.12%	0.01%	0.11%
Total Extensive & Rehab	4.78%	16.58%	-11.80%
Rehab Ultra High	7.87%	5.67%	2.20%
Rehab Very High	7.62%	19.56%	-11.94%
Rehab High	6.83%	25.14%	-18.31%
Rehab Medium	19.62%	9.39%	10.23%
Rehab Low	1.70%	0.28%	1.42%
Total Rehab	43.64%	60.04%	-16.40%
Extensive	8.71%	6.09%	2.62%
Special Care	21.45%	6.41%	15.04%
Clinically Complex	12.93%	7.37%	5.56%
Impaired Cognition	1.68%	0.70%	0.98%
Behavior Problems	0.21%	0.08%	0.13%
Reduced Physical Function	6.60%	2.73%	3.87%
Totals	100.00%	100.00%	0.00%

Appendix 3

Comments on HCFA's Proposed Resource Utilization Group III Refinement Rule (Federal Register, April 10, 2000) as They Relate to Findings of Abt Associates Study of SNF Case Mix Refinement

Prepared By the Lewin Group, June 2, 2000

Evaluation of the Proposed Refinements to RUG-III Classification System: Comments on the Abt Study and HCFA Proposed Regulations

***Submitted to*:**
American Health Care Association and the Alliance for Quality Nursing Home Care

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June 7, 2000

executive summary

Introduction

Following the Balanced Budget Act of 1997, a prospective payment system (PPS) for Medicare Skilled Nursing Facilities (SNFs) was designed and implemented. The system utilized forty-four (44) resource utilization groups and was published as an interim final rule in the *Federal Register* on May 12, 1998, finalized in the *Federal Register* on July 30, 1999 and subsequently revised in the *Federal Register* on April 10, 2000. The Resource Utilization Group III (RUG-III) system utilized data from the Minimum Data Set (MDS), which categorizes residents according to their care needs. Both providers and payers have expressed concern, however, that while RUG-III captures variance in staff and therapy resources, it does not reflect variance in other types of costs, such as non-therapy ancillary costs.

To support the development of refinements to RUG-III, Health Care Financing Administration (HCFA) tasked Abt Associates Inc. (Abt) with reviewing the RUG-III classification system, with particular emphasis on the care needs of medically complex Medicare beneficiaries and the variation in non-therapy ancillary services within RUG-III categories. Using the findings of the Abt study, HCFA developed proposed refinements that were published in the April 10, 2000 *Federal Register.*

The Lewin Group was commissioned by the American Health Care Association and the Alliance for Quality Nursing Home Care to provide technical assistance that would help members in assessing the methodology supporting the case-mix refinements developed by Abt and recommended for use by HCFA. Lewin was asked to (1) assess the quality of the analysis underpinning the Abt Associates study entitled "Variation in Prescribed Medication Costs: Collection and Impact on Skilled Nursing Facility Case Mix", and (2) provide an evaluation of how the Abt research methodology and findings were adopted by HCFA in the proposed rule revising the RUG-III classification.

Abt Associates Study

The objective of the Abt study was to improve the RUG-III system by accounting for variation in ancillary non-therapy costs within and across RUG-III categories. To address this objective, Abt embarked on two tasks. First, Abt evaluated the ability of RUG-III and specific MDS items to predict variance in drug, respiratory or other non-therapy ancillary costs. For example, because of the importance of pharmaceuticals in the treatment of most conditions afflicting Medicare beneficiaries, it is particularly important for HCFA to be able to accurately predict drug costs in order to improve the case mix methodology. Second, Abt designed and tested four potential models for case-mix refinement of RUG-III, which could be used to pay for non-therapy ancillary service costs.

We found the Abt Associates study to be a careful and thoughtful analysis, given the available data. The investigators were thorough in their evaluation of the various options and rigorous in their methodology. (For example, they employed split sample validation of their models.) However, while well-executed, the Abt study and resulting refinement models are not sufficiently comprehensive for the design and/or calibration of a final payment system. Data limitations include a highly non-representative sample of States and, perhaps, patients, small cell sizes,

missing data, imputation of drug costs, exclusion of outliers, problems with charges not reflecting actual Medicare payment and data reflecting both different time periods and different aspects of the patients' stay. As such, the Abt analysis is adequate for developing theories and hypotheses, but not adequate for supporting final payment weight development. Further analysis will be required once a national database becomes available. We also note that Abt's technical work concerning the revisions to RUG-III may need to be reconsidered when more complete national data are available.

HCFA's Proposed Rulemaking on RUG-III Refinement

HCFA's proposed rule, published in the April 10, 2000 *Federal Register*, details their proposed refinements to the SNF PPS case-mix methodology, discusses options for refinements to the RUG-III classification and describes ongoing research and analysis. However, refinements presented in the proposed rule do not account for a number of limitations in the Abt analysis and, in some cases, differ from the findings in the Abt Associates study as noted below.

1. ***Representativeness of the data***: The states included in the Abt sample do not represent a balanced geographical spread since they lack representation from the west coast and those states where Medicare beneficiaries are prominent. The sample is further limited by Abt not being able to include data that was missing from MDS assessments and cost reports. Despite these and other data limitations, HCFA intends to adopt Abt's refinements with some modification. We agree with HCFA that further analysis is necessary. However, it is most appropriate to withhold judgement on the refinements that have been recommended until analysis can be done that either supports the current proposed refinements or suggests alternative solutions.
2. ***HCFA advocated the use of the Un-Weighted Index Model (UWIM) rather than the Weighted Index Model (WIM 2)***: In spite of better statistical performance from the WIM 2 model, HCFA proposes the use of UWIM since this is less complex. We agree with HCFA's intention to more closely evaluate the benefits of WIM 2 versus UWIM, using a national database, as not enough is currently known about either model, to make a definitive decision on which model should be employed.
3. ***Inability of refined RUG-III to significantly account for variance in non-therapy ancillary costs***: The WIM 2 and UWIM offer improvement over RUG-III through their ability to explain more of the variation in costs than the RUG-III system. However, the overall explanatory power of the model is low relative to other payment systems. Without additional information on the reasons for this, and without a better understanding of how this explanatory power relates to the explanatory power of other payment systems, the inability of WIM 2 and UWIM to account for much of the variation in costs calls into question whether the current system can adequately account for differences in non-therapy ancillary costs.

4. ***Matching MDS assessments with SNF claims data***: The MDS assessment period did not exactly match the SNF claims period, thereby reducing the accuracy of the ancillary costs. In addition, the Abt report faced difficulties in deriving accurate measures of drug costs from Section U of MDS. HCFA does not make reference to the issue of a temporal mismatch between the MDS assessment with the SNF claims data.

Conclusions and Recommendations

In designing a prospective payment system, there exists an inherent tension regarding the accuracy of payment at the individual patient level and maintaining the incentives of prospective payment. Prospective payment accuracy is dependent upon relatively small within-group variance. At one end of the spectrum, each individual could represent his, or her, own group. This, however, essentially is cost-based retrospective payment. While extremely accurate, retrospective cost payment systems are inherently inflationary. The other extreme would be a prospective payment system based on just one group. Such a system is very imprecise, because within-group variance is maximized and between group variance is nonexistent. Abt's recommendation to increase the number of RUG-III groups reflects the insufficient level of precision in the current RUG-III patient classification system. We agree that this increased payment precision is warranted. We are not willing to conclude that the findings of the Abt study adopted by HCFA are appropriate for implementation until re-calibration and perhaps a reconsideration of the proposed RUG-III modifications are tested using a national database.

Our recommendations with regard to the Abt report are as follows:

1. HCFA needs to go beyond recalibration and reconsider the validity of the proposed refinements considered by the Abt study using the new national PPS claims database.
2. Further analysis needs to be conducted on the relative merits of weighted and un-weighted non-therapy ancillary indices. The proposed national database analysis could show the relative power of the weighted index (especially with additional development) to be superior to the un-weighted indices.
3. The derivation of the non-therapy ancillary costs should be based on a much larger and more representative number of observations.
4. When national data are available, more analysis of clinical measures should be conducted. If possible a more clinically coherent patient categorization system might better rationalize the SNF PPS.
5. The use of a national database might support the revisiting of the decision not to include RUG-III impaired, behavior or physical functions categories in the refinement process with corresponding changes in federal rates.
6. The role of short stay patients needs to be considered.
7. HCFA should determine if the low overall explanatory power of the Abt study results suggest that SNF PPS needs either a series of stop-loss mechanisms and/or a state-specific adjustment mechanism.

Our general recommendations, outside the framework of the Abt report, include the following:

1. The nursing index needs to be accurately calibrated to link payments to acuity levels.
2. HCFA should evaluate the classification of the extensive services and rehabilitation categories based on different levels of rehabilitation as well as extensive services.
3. A wage index based on skilled nursing facility wage data (as opposed to hospital wage data) should be developed and used to adjust payments for SNF facility services.
4. Provision for updating the payment weights in the skilled nursing facility prospective payment system need to be developed.
5. The reliance on outdated time study, such as the Staff Time Measurement Study, should be replaced by another approach.

We recommend that changes to the RUG-III system be implemented incrementally. We understand the need for HCFA to try to improve the current system, however the final rule needs to be based upon a thorough analysis using national data. Implementation of a rule along the lines recommended in the Abt report will achieve some improvement to the current system but we concur with HCFA that effective case-mix refinements require more detailed research when the national data base becomes available. At this time the HCFA proposal is premature. The explanatory power of the refined system indicates that more thought needs to be given to this incredibly complex effort.

i INTRODUCTION

A. Background / History

Origin of the Report

The Lewin Group was commissioned to provide technical assistance to the American Health Care Association and Alliance for Quality Nursing Home Care that comprised three tasks:

1. Independent assessment of the methodology and findings of the Abt Associates, Inc., study entitled "Variation in Prescribed Medication Costs: Collection and Impact on Skilled Nursing Facility Case Mix."[6]
2. Evaluation of how the Abt Associates, Inc. research methodology and findings were translated by HCFA in the proposed rules published in *Federal Register*, April 10, 2000, revising the RUG classifications.
3. Comments that could assist HCFA in translating statistically valid data into rules that could help in revising RUG classifications.

Background to SNF PPS

Skilled nursing facilities (SNFs) traditionally received Medicare reimbursement according to a retrospective, reasonable cost based system. The reasonable costs of ancillary services and capital-related expenses were paid in full. Routine operating costs (including room, nursing, and minor supplies and facilities) were paid on a reasonable cost basis, subject to per diem limits. Higher limits applied to hospital-based SNFs than to freestanding ones. Over the last decade, Medicare spending increased dramatically, in part due to increases in SNF expenditures. This increased spending burden led to concerns about the future financial viability of the Medicare program. To extend the life of the Medicare Part A Trust Fund and to reduce Medicare spending, the Balanced Budget Act of 1997 among other things required HCFA to implement a prospective payment system (PPS) for reimbursement of care delivered in SNFs. In response to Congressional direction, HCFA designed an all-inclusive per-diem prospective payment approach to replace the cost-based reimbursement methodology. This was first published in the *Federal Register* on May 12, 1998, finalized in the *Federal Register* on July 30, 1999 and then subsequently revised in the *Federal Register* on April 10, 2000.

Background to RUG

The SNF prospective payment system is based on a patient classification system referred to as the Resource Utilization Group system, version III (RUG-III). Resource Utilization Groups are clusters of nursing home residents, defined by resident characteristics, which explain resource use based on minutes of nursing and therapy time. Based on assessment data from the Minimum Data Set and detailed measurement of staff time over a 24-hour period and therapy staff time over a 1-week period, RUG-III groups were created through Automatic Interactions Detection (AID)[7]. In AID clustering, the full set of data points is partitioned recursively into subgroups by a

[6] Abt Associates, Inc, "Variation in Prescribed Medication Costs: Collection and Impact on Skilled Nursing Facility Case Mix" February 28, 2000, submitted to HCFA.

[7] Brant E. Fries, Don P Schneider, et.al., "Refining a Case-Mix Measure for Nursing Homes: Resource Utilization Groups (RUG-III)", Medical Care, 1994, volume 32, number 7, p. 668.

set of splits. Each split is based on the values of a particular independent variable. The predictive power of the dependent variable should be maximized based on the selection of the partitions.

Earlier versions of the RUG-III, the RUG-II and RUG-T18 systems did not include some types of nursing home residents, such as those residents receiving "high tech" parenteral feeding, ventilators or respirators. The predecessors also did not include all of the ADL components and also did not acknowledge the nursing time spent in maintaining residents' ADL function.

The current RUG-III system comprises 44 groups spread across several levels. The first level comprises seven major categories (rehabilitation, extensive services, special care, clinically complex, impaired cognition, behavior only and reduced physical function) representing groups of patients with defined clinical conditions (refer to Exhibit 1). Within the remaining levels, patients are classified based on functional status (measured by an index of activities of daily living or ADL) and the number and types of services used. Patients are assigned to a RUG-III classification group based on an assessment using the Long-Term Care Resident Assessment Instrument (RAI), more commonly referred to as the Minimum Data Set (MDS).

Exhibit 1: Components of the Resource Utilization Group-III Patient Classification System

Patient Categories	Description	Number of RUG-III Groups	Variables
Rehabilitation	Patients requiring any combination of physical, occupational or speech therapy	14	Therapy intensity and type, nurse rehabilitation, ADL therapy type
Extensive Services	Patients with an ADL score of at least 7 and who meet at least one of the following criteria: parenteral feeding, suctioning, tracheostomy, ventilator/respirator	3	Therapy type
Special Care	Patients with an ADL score of at least 7 and who require special care (such as burns, coma, quadriplegia, septicemia, radiation therapy)	3	ADL
Clinically complex	For example, patients with dialysis, aphasia, pneumonia, cerebral palsy	6	ADL, depression
Impaired cognition		4	ADL, nurse rehabilitation
Behavior only	Patients exhibiting symptoms, such as wandering, hallucinations, or physical or verbal abuse or others	4	ADL, nurse rehabilitation
Physical function reduced		10	ADL, nurse rehabilitation
Total		44	

***Source**: MedPac, Report to the Congress: Medicare Payment Policy, March, 1999, p.85.*

Payment for the nursing and therapy components of each RUG-III group is determined by the level of the federal base payment and the skilled nursing and therapy payment weights that are assigned to each classification group. To calculate reimbursement, the skilled nursing and therapy payment weight is multiplied by the applicable urban or rural federal base payment rate

(the same urban or rural rates apply to both freestanding and hospital-based SNFs). In recognition of the fixed costs associated with the care of nursing home patients, the nursing and therapy components are summed with a noncase-mix component rate to account for the average costs of general services and, if applicable, a therapy noncase-mix component rate to account for the low-level rehabilitation services provided to patients not in the rehabilitation category.

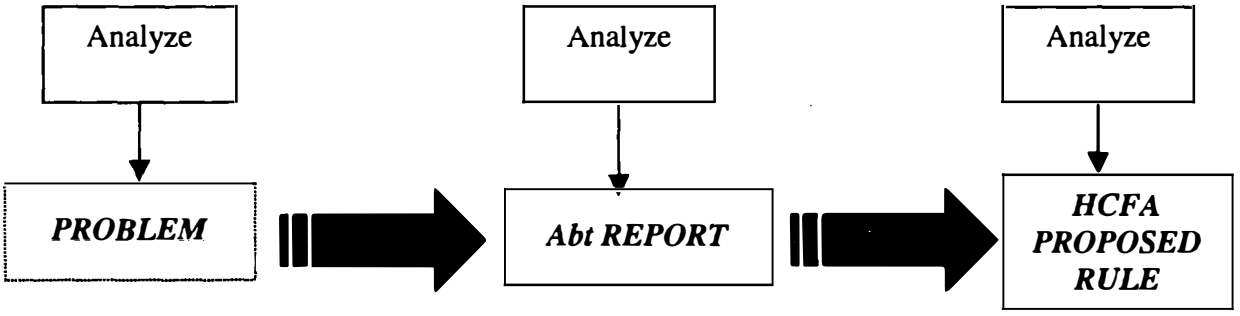
The federal rate for a RUG-III category is then adjusted by the hospital wage index to reflect the wage level in the SNF's market area. The labor-related component that reflects the combined expenditure of the components of the SNF market basket index is multiplied by the wage index for the SNF's location and added to the nonlabor component.

The next section of the report details our study approach and the structure of the report.

study methods

Structure of the Report

The structure of our report and supporting analysis falls into three areas, illustrated by the following schematic:



Our approach addressed three areas:

a. Literature review
b. Analysis of the Abt report and the HCFA proposed rule within the context of the issues identified in the literature review.
c. Recommendations

In the sections that follow, we identify and discuss the statistical and methodological issues generated from the literature (the "problem"). Having done this, we present our review of the Abt Associates, Inc. report and HCFA's proposed rule to identify and critique the statistical and methodological approach used in Abt's analysis and generation of solutions. We then present our independent assessment of the conclusions presented in these reports, and the science that underpins the findings.

Literature Review

Extant Research

The Lewin Group undertook a search of research and other literature relating to the use of RUG-III in the development of the SNF PPS, from a variety of sources, including MedLine, MedStar,

GratefulMed and other search engines. A search was also made for relevant documents on the HCFA, MedPAC and other appropriate web sites. After a review and synthesis of the relevant literature, a list of major statistical and methodological issues concerning SNF PPS and the RUG classification system was compiled. A summary of key issues is presented in Section III, below.

Abt Associates, Inc. Report

As with other case mix-adjusted prospective payment systems, issues have been raised about the ability of the Medicare SNF PPS case-mix system to adequately capture variance in certain types of costs. Although RUG-III captures much of the variance in the staff and therapy resources used to care for SNF residents, RUG-III does not acknowledge other types of resources that contribute to care for the SNF resident, such as prescription medications, oxygen and other non-therapy ancillary services and supplies. HCFA commissioned Abt Associates, Inc. to review the RUG-III classification system with particular emphasis on the care needs of medically complex Medicare beneficiaries and the variation in non-therapy ancillary services within the RUG-III categories. Abt Associates Inc., and its partners, Brown University Center of Gerontology and Health Care Research and the University of Michigan Institute of Gerontology were tasked with improving RUG-III by more accurately capturing non-therapy ancillary costs. Abt Associates, Inc., focused on the following options to potentially improve the RUG-III case mix classification system:

a) Evaluate the ability of the current RUG-III system to predict variance in drug, respiratory or other non-therapy ancillary costs.
b) Evaluate the ability of specific MDS items to predict variance in non-therapy ancillary costs, and identify the MDS items most closely associated with differences in non-therapy ancillary costs.
c) Design potential refinements to the RUG-III methodology.

HCFA Federal Register, April 10, 2000

HCFA published the SNF PPS case-mix classification methodology applicable for FY 2001 in the April 10, 2000 Federal Register. The proposed rule discusses the options for refinements to the RUG-III system, describes ongoing research and analysis, and presents the initial results that it proposes to incorporate into the Medicare PPS system, effective October 1, 2000. Comments are solicited from all interested parties.

Context - Overview of the SNF Market

Background

An estimated thirty percent of SNF revenue was initially put "at risk" as a result of the Balanced Budget Act of 1997 (BBA). As a result, the transition from retrospective cost-based payment to a prospective payment system has had a dramatic effect on SNF revenues. Hospital-based units were affected particularly hard due to their higher cost structure and some of the decisions that underpin the new prospective payment system. An objective of the BBA was to reduce the rate of spending increases and, consequently, its impact was projected to reduce the growth in SNF spending. However, the extent of the spending decrease turned out to be considerably more than had been predicted by HCFA and the Congressional Budget Office (CBO). The actual resulting

shortfall between revenue and costs for SNFs has become so great that the industry is now under extreme financial pressure. This situation is exacerbated by the issues listed below.

Hospital Average Length of Stay decreasing / discharging higher acuity patients to SNFs
As acute care hospitals feel the financial effects of managed care and attempts by other payors to reduce their healthcare outlays, these providers are increasingly taking actions to reduce length of stay. Patients with intensive skilled nursing needs, who previously might have received care in the hospital, are now often discharged to nursing homes. Consequently, patients are being admitted to SNFs with intense medical or surgical conditions, as opposed to rehabilitation needs. This has arguably increased SNF case-mix levels because such patients likely have an increased need for skilled nurse time, physician visits, blood tests and ancillary services and are therefore more costly than previous SNF patients.

Aging Baby Boomers increase demand for nursing home beds
The sector of the population who were born during the Baby Boom years have been progressively impacting every social system as they mature and are now at an age when many need intensive nursing home care. The increasing demand for nursing home beds is just beginning and it will continue to effect the SNF sector for many years.

Assisted Living gaining market share – particularly of lower acuity patients
Those individuals who do not yet require intensive nursing but do require some lower level of care are electing to live in the more attractive environment provided by Assisted Living facilities. These facilities have evolved in recent years to meet the needs of maturing Americans who have a measure of disposable income, who are unable or unwilling to remain at home but are not yet ready to live in a nursing home, and whose custodial care needs are not reimbursed by Medicare. Prior to the emergence of Assisted Living, this population group had no alternative but to enter a nursing home. Now nursing homes are losing their lowest acuity clients to Assisted Living providers. This again increases the SNF case mix intensity.

These conditions have contributed to a change in demand and in the financial profile of most nursing homes. The introduction of the Medicare prospective payment system had multiple effects: 1) it reduced reimbursement to providers, which increased the financial pressure on the industry; 2) it imposed a classification system that did not adequately reflect the intensive nursing, rehabilitation and non-therapy ancillary treatment requirements of the new patient mix; and 3) it did not provide sufficient or equitable reimbursement for medically complex cases.

The introduction of SNF PPS represented a dislocation of considerable magnitude for SNFs. Within an industry that was already experiencing considerable dynamism, the change wrought financial havoc in the industry, as evidenced by the numerous nursing home corporations that have declared bankruptcy over the last eighteen months.

In contrast, the government asserts that the SNF industry was itself responsible for its financial difficulties through financially over-extending itself over the period when it was responding to the increasing demand for beds. In addition to carrying large amounts of debt, the government

also feels that the industry did not respond proactively to the impending BBA payment changes, and suffered from poor management.

Methodological Issues Identified in the Literature

Most case mix systems are not strong enough on their own to support payment systems.
In the past, several researchers have advocated for a long-term care patient classification system, such as RUGs, which is based on staff time as the dependent variable and that describes the relative staffing needs of patients across the spectrum of nursing home facilities. However, a payment system cannot merely rely on the discriminative information provided by a case mix system to function effectively. A sound and effective case mix-based payment system can be achieved only when it is based on: 1) a good resident classification system, and 2) a well-designed payment system, which supports the patient classification system.

A good resident classification system is developed from reliable and valid data and has at its core case-mix measures that recognize the inherent variation in the patient population and their needs. It should display homogeneity within case mix groups and heterogeneity between groups. Well-designed payment systems provide sufficient payment to providers, through the ability to recognize key characteristics of the provider and its patients. In addition, the design of payment systems demands attention to many issues of detail before a case-mix based payment system can be implemented. These issues include:

- Incorporation of quality assurance and audit systems to limit opportunities for providers to inappropriately withhold or provide services.
- Responsiveness of payment to changes in case mix over time driven by changes in care protocols and treatment technology.
- The design of incentives for desired behaviors (e.g. maintaining access to care).
- Processes for the admission of heavy care residents and necessary payment outliers.
- Acknowledgement of regional wage differentials, or facility-specific characteristics.[8]

As early as 1985, researchers warned that work needed to be done on resource-based payment systems to:

- establish the relative weights of the groups,
- establish the stability of groups and weights over time, and
- establish their susceptibility to inappropriate manipulation.[9]

The narrative below identifies and describes our findings from the literature review regarding the methodology underlying the RUG-III classification system and the SNF PPS payment system.

The Patient Classification System (Resource Utilization Groups III)

Case mix indicators and medically complex cases

[8] Refining a Case-Mix Measure for Nursing Homes: Resource Utilization Groups (RUG-III), Fries B.E., Schneider, D.P., Foley, W.J., et al, Medical Care, Volume 32, No. 7, 1994

[9] Validation and Use of Resource Utilization Groups as a Case-mix Measure for Long-term Care, Cooney L.M., Fries B.E., Medical Care, February 1985, Vol 23, No.2

To be effective in providing equitable reimbursement for all patients, a payment system must be able to take patient case mix into consideration – i.e., reimburse for differences among patients that are associated with different service needs. However, it can only do this effectively if the patient classification system that it is linked to adequately reflects differences in medical severity and the varying treatment needs of the more medically complex patients. Many stakeholders believe that RUG III fails to consider the additional resources needed to care for medically complex cases.[10] This is primarily because the RUG system is driven by the number of minutes of care required by each patient, rather than on the need for other resources, or on clinical diagnosis.

RUGs fails to properly account for total staff resources, skilled nursing resource use and respiratory therapy use. Opponents maintain that it is not able to discriminate high acuity patients such as AIDS patients or patients taking very expensive antibiotics. Specific problems include the functional (ADL) subgroups, which do not discriminate among patients with different levels of skilled nursing care needs. In addition, the staff time measurement studies used to establish payment weights have been reported in a manner that is not easily adapted to a "case-mix" profile of facilities. Researchers agree that the current case mix indicators should be adjusted so that sub-acute patients can be classified and their resource requirements appropriately reimbursed. Some of these researchers have suggested the use of a completely separate set of case mix indicators for such patients.[11] Others have suggested refinements to the existing system. These include the addition of new categories for residents who qualify for both traditional nursing home services (i.e., rehabilitation) as well as for extensive services, or extending the available levels and categories by adding additional categories which describe the intensive resource use of medically complex patients.[12]

Potential for case-mix creep

MedPAC has highlighted their concern about the potential for "gaming" that exists in the RUG-III system. If a system is built upon estimations of the amount of nursing and therapy provided, rather than patient diagnosis or function, providers can easily manipulate the RUG-III system to maximize reimbursement. Discrepancies in the patient classification and payment systems that are described in this section will be exacerbated if patient assignments are manipulated to obtain higher payments. MedPAC recommends that the RUG-III weights should change as practice patterns, technology, and payment incentives affect the resources used to furnish facility services. If the weights are not updated periodically, payment inequities and inappropriate financial incentives may develop.[13]

Some commentators have also noted a potential for case-mix creep as coding practices in SNFs improve over time. In response, HCFA is developing a methodology to adjust for changes in the aggregate case-mix of the Medicare patients that are related to coding improvements and not

[10] AHA Regulatory Advisory June 15, 1998.

[11] A Prospective Study of New Case-Mix Indices for Subacute Care, June 1999, Morrison Informatics, Inc., University of Colorado Health Sciences Center.

[12] Variation in Prescribed Medication Cost Method of Collection and Impact on Skilled Nursing Facility Casemix: Technical Expert Panel Briefing Materials, Abt Associates Inc., February 28, 2000

[13] March 1999, Report to the Congress: Medicare Payment Policy, MedPAC, March 99

attributable to actual patient condition or real case-mix change. However, there is concern that 1) the current payment rates would be reduced even further, 2) the methodology may not adequately distinguish coding changes from changes in the mix of patients treated in SNFs. [14]

In conclusion, a reduced emphasis on an estimate of skilled nursing and therapy time would decrease the potential that exists to game the RUG-III system.

The Payment System (Medicare SNF PPS)

The literature identified that the RUG-III based payment system incorporates problematic methodological weaknesses such as:

Federal rate is based on historic costs, excludes outliers and exhibits problems with bundling

First, the formula enacted by Congress to determine federal rates is based on cost reports for periods beginning FY 1995 and is, consequently, five years out of date. HCFA applies a percentage change to the 1995 rates in order to update the market basket index to the midpoint of the current financial year. However, such adjustments are not viewed as adequate. HCFA further reduced the market basket index for SNFs to market basket index minus one. Commentators speculate that the actual market basket for SNFs rose faster than the inflation adjuster because, at the time the update formula was developed, SNFs were not treating the complex patient profile they currently treat and not providing such intensive treatments. As a result, not only is the system in general underpaid, but certain SNFs will be further financially disadvantaged if the casemix system does not adequately reflect high-end patient costs.

Second, the federal rate was set to equal the *average* of all freestanding SNF costs, plus the *average* of all SNF costs. The system makes no adjustments for the outliers that are excluded in the calculation of averages.[15] As a result of this elimination of outliers, through the use of averages SNF PPS is unable to reimburse appropriately for high acuity, complex patients with high resource use.

Additionally, although the federal rate incorporated an estimate of the amounts payable under Part B, HCFA did not include the Part B add-on in the facility-specific rate for the demonstration sites, due to their interpretation of the legislation. (Excluded Part B services include physician, psychologist, dialysis, ER services and blood transfusions.) This withholds a key component of the Part B reimbursement rate for these facilities.[16] In our discussions with government agencies, there seems to be no precise agreement over how much this Part B add-on should have been.

New providers, i.e. those SNFs that did not receive Medicare reimbursement prior to October 1995, are subject to various methodological challenges. First, these new providers were excluded in the calculation of the Federal rate since they have no data for that year. Thus, the adjusted federal rate only uses cost reports from SNFs that were receiving payment from Medicare prior to 1995. This excludes a significant segment of the SNF population and thus may result in an unrepresentative cost sample being used for the federal rate calculation. Second,

[14] AHA Preliminary Comments on PPS and Consolidated Billing for SNFs Interim Final Regulations, 99

[15] AHA view of "Skilled Nursing Facility PPS", December 16, 1997, AHA web site, May 2000.

[16] AHA Preliminary Comments on PPS and Consolidated Billing for SNFs Interim Final Regulations, 1999

these new SNFs are also excluded from the three-year transition rule, where per diems are based on a percentage of the federal rate *in addition* to a percentage of the Facility Specific Rate. SNFs that were not receiving Medicare payments prior to October 1995 only receive the adjusted Federal Rate which, ironically, does not include their costs.

It is thought that additional error was introduced into the federal rate calculation because of the exclusion of cost limit exception payments. These exception payments were an additional payment in the previous retrospective reasonable cost-based payment system, which was provided to SNFs that delivered more intensive care to patients than routine rehabilitation, and covered the cost of care for medically complex patients. Such payments were not included in the calculation of the PPS federal rate and only partially included in the facility-specific rate used in the transition to PPS. According to the AHA, this has resulted in SNFs having to fund all costs for medically complex patients out of their per diem payment. The results of this decision can be extreme in some cases. For example, if a cancer patient breaks a hip, following a brief hospital stay the patient will be discharged to a SNF, specifically for the therapy and nursing care required to rehabilitate the hip. Due to the exception payment exclusions, the $2,000 chemotherapy treatment for the patient's cancer must be paid for by the SNF from the $200 to $300 per diem payment they receive. Following the end of the three-year transition, PPS per diem rates will only accurately represent the costs of treating rehabilitation patients and not the costs of treatment sub-acute patients, since the Federal payment rate excluded cost limit exception payments in the calculation.

Exception payments covered the cost of care for medically complex patients prior to the introduction of PPS. Such payments were not included in the PPS federal rates and only partially included in the facility-specific rate used in the transition to PPS. This has resulted in SNFs having to fund all costs for medically complex patients out of their per diem payment. The results of this decision can be extreme in some cases. For example, if a cancer patient breaks a hip, following a brief hospital stay the patient will be discharged to a SNF, specifically for the therapy and nursing care required to rehabilitate the hip. Due to the exception payment exclusions, the $2,000 chemotherapy treatment for the patient's cancer must be paid for by the SNF from the $200 to $300 per diem payment they receive.

There are other pharmaceutical implications that arise from the methodological questions underlying the calculation of the federal rate. First, because the market basket index does not fully include the rapidly escalating costs of drugs[17], increasing prices exert financial pressure on the SNF industry at a time when SNFs are actually experiencing decreases in revenue. Second, the exclusion of outliers from the federal rate calculation may exclude some pharmaceutical therapies that severely ill patients require. By excluding the costs of outliers, the costs of these drugs have also been excluded and more importantly some RUG-III group weights may be underestimated. Indeed, it may be possible that HCFA's sample may have eliminated whole groups of disease conditions (such as within oncology) so that admitting patients who require expensive drugs (e.g., chemotherapy) can be the difference between solvency and insolvency for institutions with a high proportion of those types of patients.

[17] MedPAC public meeting April 13, 2000

Payment rates exclude non-therapy ancillary costs

A payment methodology that is built exclusively on staff time measurement studies cannot, alone, provide an accurate basis for reimbursement. The Medicare SNF PPS system does not recognize that patients require a range of care components in addition to staff time, such as prescription medications, laboratory tests and x-rays. Furthermore, patients vary systematically in their use of such non-therapy ancillary services and supplies. This non-therapy cost variation also is not captured in the noncase-mix component of the payment because this component is set at the same amount across all classification groups.[18] New or additional case mix groups are needed that reflect non-therapy ancillary treatments. However, HCFA plans no changes in current policy until October 2000, following results of various analytical studies. At that time, case mix refinements, which address the cost of non-therapy treatments, might be made.

With regard to pharmacy costs, the pharmaceutical industry believes that PPS payment methodology contains incentives for decreased utilization of newer drugs that cost more than "traditional" therapies but have more favorable side effect profiles, especially when used in seniors. Further, PPS can only be responsive to resident's medication needs if reporting on Section U of the MDS is accurate. [19]

Payment weights suffer from flaws in construction and no updating methodology

The weights that are used in the calculation of Medicare SNF PPS reimbursement are based on staff time measurement studies undertaken in approximately 350 SNFs. Certain organizational characteristics of these studies affect the accuracy of the data collected. First, the resulting weights may not be representative of a mean, since it is well documented that staff who know they are being studied do not perform as they normally do (the Hawthorne effect). Second, the particular SNFs in the study sample may classify patients more accurately than do other SNFs. Due to these methodological weaknesses, the weights may not reflect the mean cost differences among groups that may be experienced by an "average" provider.[20] Furthermore, there is currently no process in place for updating the payment weights to reflect changes over time.

Representativeness of the wage index used in payment calculations has been questioned

The Balanced Budget Act requires the use of a wage index to adjust payments so that geographic variation in costs of labor are reflected in the payment system. Had a SNF-specific wage index been available, this would have strengthened the system from a methodological perspective. However, in the absence of a SNF wage index, HCFA elected to use the hospital wage index, which is unsuited to SNF calculations since HCFA introduced a degree of error into the federal rate by progressively removing any costs related to long-term and rehabilitation care from this index to ensure that it reflects acute inpatient hospital costs as much as possible.[21]

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[18] March 1999, Report to the Congress: Medicare Payment Policy, MedPAC, March 1999

[19] ASCP Update (Newsletter of the American Society of Consultant Pharmacists), March 1998

[20] March 1999, Report to the Congress: Medicare Payment Policy, MedPAC, March 1999

[21] AHA Preliminary Comments on PPS and Consolidated Billing for SNFs Interim Final Regulations, 1999

Applying hospital wage indexes to SNFs contributes to inequitable payments across providers because nursing facilities have a different skill mix than hospitals and usually employ more aides. Additionally, the relative level of aides' salaries compared with nurses' salaries may not be the same across geographical areas. Geographic differentials in labor prices for SNF employees also differ from those for hospital employees.[22]

Methodological issues concerning prospective payments for capital

With regard to the calculations made for the cost of capital element of the payment system, commentators have a range of concerns:

- The inpatient capital market basket reflects accounting categories rather than the costs of new capital.
- HCFA's approach does not track increases in the replacement costs for new capital.
- HCFA's approach focuses solely on retrospective costs of capital like depreciation and interest.
- HCFA does not use the reclassification methodology for rural hospitals.[23]

[22] March 1999, Report to the Congress: Medicare Payment Policy, MedPAC, March 1999

[23] AHA Preliminary Comments on PPS and Consolidated Billing for SNFs Interim Final Regulations, 1999

analysis

Case-Mix Issues Addressed by Abt Associates Report

The goal of the Abt report was to review the RUG-III classification system with particular emphasis on the care needs of medically complex beneficiaries and the variation in non-therapy ancillary services within RUG-III categories.

As mentioned above, the focus of the Abt report was dictated by the following three objectives:

1) Evaluate the ability of the current RUG-III system to predict variance in drug, respiratory or other non-therapy ancillary costs.
2) Evaluate the ability of specific MDS items to predict variance in non-therapy ancillary costs, and identify the MDS items most closely associated with differences in non-therapy ancillary costs.
3) Design/test potential refinements to the RUG-III methodology.

The results of the Abt Associates' analysis are incorporated to develop the refinement to the current RUG-III system. Abt Associates used a research database comprised of Nursing Home Minimum Data Sets (MDS) and matched it to Medicare SNF claims on a patient by patient basis. They identified variables that were associated with large differences in costs for residents, either overall or within RUG-III categories. They identified a group of variables that were associated with differences in prescription drug, respiratory therapy, or other non-ancillary charges. The study also attempted to address potential interactions between existing RUG-III categories. Each option for refinement that added new terminal splits and created new groups was evaluated using statistical, clinical, incentive and administrative considerations. Abt Associates followed these principles noted below in constructing measures that predict non-therapy ancillary costs.

- **Maintain the integrity of the RUG-III system** by either creating an extra hierarchy category for those residents who qualify for both the Rehabilitation and Extensive Services groups or extending the system with additional "leafy end" splits that increase the explanation of ancillary costs.
- **Modified the "Upper" RUG-III Hierarchy only**: As the utilization of drugs and other non-therapy ancillary costs is relatively lower among RUG-III Impaired, Behavior or Physical Functions categories, Abt did not focus on modifying or altering this part of the RUG-III system.
- **"Leafy End" Splits**: Abt not only maintained the basic RUG-III structure, but also its basis in a tree-based classification.
- **Index-based models**: Regression-derived index models of multiple MDS variables were used rather than AID-derived interactive tree structures based on "indicator variables". Although this adds complexity to the system, the incremental payment would be linked to more than one single resident characteristic or service.
- **Focus on total ancillary charges**: Abt found some overlap and lack of overlap among the predictors of individual ancillary costs, but little interaction among and relatively low predictability of several of these components.

Analytic Methods

The goal of the Abt analysis was to improve RUG-III's predictive power while incorporating clinical and other factors. MDS variables that were associated with large differences in costs for SNF residents were identified. An AID-based branching model was used to determine if strong statistical interactions were present. Abt did not find strong interaction effects, they therefore concluded that the effects of the variables were additive and that regression analysis would be a better approach to create indices than AID based approach. The index was created in the following manner:

a) MDS items that have a significant positive relationship with per diem non-therapy ancillary charges (using t-tests for binary variables and univariate regression analyses for continuous measures) were identified.

b) Resultant variables were evaluated for their clinical validity and potential incentive effects if included in the payment rate.

c) A weighted non-therapy ancillary charge index was calculated for each resident. The weights were obtained as coefficients estimated from an OLS regression of non-therapy ancillary charges. The unweighted ancillary index was created by using a count of the MDS items mentioned below. The weighted and unweighted ancillary charge index is based on the charges associated with the following MDS items:

    - Parenteral IV with more than 75 percent of total caloric intake
    - Suctioning
    - IV Medication
    - Oxygen administration and either pneumonia or respiratory infection with fever; or oxygen with pneumonia, respiratory infection, COPD, CHF, or CAD – all with shortness of breath
    - Feeding tube with the majority of caloric intake (greater than 75 percent) being administered via feeding tube
    - Respiratory infection alone
    - Application of dressing with/without topical medication and with presence of either ulcers or other skin lesions/wounds
    - Skin wound/ulcer care
    - Stage 4 Pressure ulcer

d) The residents were grouped according to their weighted or unweighted index score.

Residents who qualified for both Rehabilitation and Extensive Services had high ancillary charges and were placed in a new category. There were several ways that the index model-based refinement could be implemented, based on the trade-off between statistical performance and increased casemix system complexity.

The four models recommended by Abt Associates were evaluated through a series of statistical performance measures (r-squared, sensitivity and specificity), clinical coherence, and administrative complexity. These models are defined as follows:

a) **Model RUG-III+**: This model adds another category for residents who qualify for Extensive Services and one of the RUG-III Rehabilitation categories (Ultra-high Rehabilitation, High Rehabilitation, Medium Rehabilitation and Low Rehabilitation). This would result in 14 additional Extensive Services and Rehabilitation Groups, that use the same Rehabilitation categories and ADL splits as the current Rehabilitation categories. The purpose of such a model would be to directly include medically complex cases in the RUG-III system.

b) **Model WIM 1**: A weighted index model is applied for Extensive Services residents, Rehabilitation residents as well as the new Extensive Services and Rehabilitation categories (as developed for Model RUG-III+). Using this refinement, the casemix system would have up to 143 groups if the index model were incorporated within RUG-III as new terminal splits.

c) **Model WIM 2**: A weighted index model is applied for Extensive Services residents as well as the new Extensive Services and Rehabilitation categories (as developed for Model RUG-III+), Rehabilitation, Special Care and Clinically Complex residents. There would be up to 258 groups if this model was implemented as new terminal splits rather than as a 6-group ancillary add-on system for these categories.

d) **Model UWIM**: An unweighted index is applied to Extensive Services and Rehabilitation category (as developed for Model RUG-III+), Extensive Services residents, Rehabilitation, Special Care, and Clinically Complex residents. If the categories were implemented as new terminal splits rather than as a 4-group ancillary add-on system, about 178 groups would be created.

The statistical performance of each of the models is described below (refer to Exhibit 2):

Exhibit 2: Statistical Performance of Potential RUG-III Refinements – Model Description

Model	No. Of Groups	R-Square		Predicted "add-on" Ancillary Costs
		Ancillary Charges	Total Costs	
RUG-III	44	3.5%	9.3%	
RUG-III+ (RUG-III with new category "Extensive Services and Rehabilitation"	58	7%	12.3%	For the 58 groups, ranged from $104 to $384
WIM1 Weighted index model applied to Extensive Services residents (includes new category "Extensive Services and Rehabilitation)	143	9%	16%	No additional ancillary "add-on" for residents whose predicted costs are below the 50th percentile in terms of predicted ancillary charges, $17 for those between the 51st and 74th percentile, $34 for those in the 75th – 89th percentile, $56 for those in the 90th-94th percentile, $106 for those in the 95th-98th percentile, and $225 for those in the top one percent
WIM 2 Weighted index model applied to Extensive Services residents (includes new category "Extensive Services and Rehabilitation") & to Rehabilitation, Special Care, and Clinically Complex residents	258	14%	20%	No additional ancillary "add-on" for residents whose predicted costs are below the 50th percentile in terms of predicted ancillary charges, $17 for those between the 51st and 74th percentile, $34 for those in the 75th – 89th percentile, $56 for those in the 90th-94th percentile, $106 for those in the 95th-98th percentile, and $225 for those in the top one percent
UWIM Unweighted index model applied to Extensive Services residents (includes new category "Extensive Services and Rehabilitation") & to Rehabilitation, Special Care, and Clinically Complex residents	178	11%	18%	Residents with no index model items present would receive no ancillary payment, while those with 1-2 items present would receive $19, those with 3-5 items would receive $68 and those with six or more would receive $209.

Critique of the Abt Associates Study

Devising a good prospective payment system is a complex task that must be grounded in sound statistical analysis. Policy makers and researchers face a trade-off between payment accuracy and the degree to which the payment system is prospective. Finding the optimal point that balances these conflicting goals is difficult. Treatment categories associated with a single payment rate must be defined broadly enough to produce the right incentives for efficiency while, at the same time, ensuring that residents of SNFs receive the care that they need. Ideally, designers of the system should balance the benefits of added complexity against the costs.

The goal of the Abt study was to improve RUG-III's predictive power (i.e., payment accuracy) by accounting for differences in non-therapy ancillary services across residents. In doing so, Abt faced most, if not all, of the challenges of designing a payment system. The process pursued by Abt involved identifying variables that were associated with large differences in costs for residents. Having assembled these variables, weighted and unweighted index models were created that could be applied to the refined RUG-III system as an "add-on" to account for non-therapy ancillary costs.

As a research study, the analysis by Abt is thorough and presents a range of refinement options related to non-therapy ancillary costs for HCFA's consideration. However, the limitations of the data and model structure used by Abt suggest that full-scale adoption of their proposed refinements, even with some modification, is premature. Below, we comment on the limitations of the study.

a) **Lack of Explanatory Power**: Abt conducted a thorough and scientifically sound study. However, Abt's refined RUG-III model only accounts for a limited amount of variation in total and ancillary costs. The addition of a new category and a non-therapy ancillary index to the refined RUG-III is an improvement, yet it does not appear to provide adequate explanatory power of the variation in total and ancillary costs to support an entire payment system. This raises a fundamental question about the application of the RUG system for patients whose conditions fluctuate and for whom the predictability of resource use is uncertain. There might be several reasons for this variation.

   First, we suspect that the Medicaid population has relatively homogenous medical care needs in a skilled nursing facility and as a result there might not be a large variation in ancillary and total costs for the Medicaid population within RUG cells. In contrast, the Medicare population may have a higher number of comorbid conditions and also a higher turnover than the Medicaid population. Due to high turnover, the continual replacement of low volume Medicare SNF patient populations creates uncertainty in that Medicare residents exhibit a widely fluctuating demand for therapy and ancillary services. Hence, the refined RUG-III case mix classification system even with the nontherapy ancillary index does not adequately capture the variation in total and ancillary costs for the Medicare population. Given the lack of predictive power of Abt's refined RUG-III model, a payment mechanism to reduce SNF's exposure to abberrant patients (i.e. patients requiring high level of resources) might be needed. Such a mechanism could be particularly important given the relatively small number

of Medicare beneficiaries who enter a SNF in a given time period. In such cases, payments based on mean costs across all SNFs could lead to a gross distortion of payment for any given SNF, where one costly patient could jeopardize its financial stability.

Second, the unexplained variation in resource utilization might also be due to cross state and facility variations. Skilled nursing facilities are heavily regulated by states and there might be a large variation in resource utilization within RUG categories across different states. This raises a question: should the RUG-III case mix classification system adjust for payment across states? HCFA should identify the variation in ancillary and total costs across different states using the national PPS claims database.

HCFA should determine if the low overall explanatory power of the Abt study results suggest that SNF PPS needs either stop-loss measure or a state specific adjustment mechanism.

b) **Non-representative Data**: Abt's analysis is based on MDS data from six states and is therefore unlikely to be representative of the population of providers and Medicare-covered SNF residents. Consequently, the findings reported in the Abt study may not be applicable to the Medicare-covered SNF population. Both HCFA and Abt recognize this limitation of the analysis and HCFA has expressed the need for validating the results using a national database. While we agree with HCFA in this respect, we also believe that HCFA needs to go beyond validating and reconsider the fundamental structure of the case-mix system using national data.

Until such issues are reexamined using a national database, it is not clear that the costs of more complexity in the system outweigh the benefits, since these are unknown. For instance, we cannot concur with HCFA that the cost in terms of complexity of a weighted index system exceed the benefits given the available information. This judgement should be reserved until more complete information becomes available.

c) **Use of Ancillary Charges that did not correspond to MDS assessment:** Ancillary charges were derived from the Medicare claims data. For ancillary charges that are developed using Medicare claims data, it was not possible to identify items with a date of service that corresponds to the period covered by the MDS assessment. To derive a close approximation, per diem ancillary charges were calculated using Medicare claims within a specified range of a date covered by MDS assessment. Thereafter, per diem charges are given by the sum of the costs of the ancillary therapies divided by the number of days covered by claims. Since the procedure could have lead to an overestimation of the true level of reimbursable costs, adjustments were made in the cost calculation. The report does not describe the 'adjustments' applied to rectify the overestimation. As the MDS data does not correspond to the SNF claims data, the allocation of ancillary charges to RUGs-III categories for residents who are classified under different RUGs-III categories over a period of stay in the skilled nursing facilities may overlap across different RUGs-III categories.

d) **Discounting of ancillary charges**: As the covered charges in claims are routinely discounted by the intermediary responsible for processing on the basis of audited reasonable cost, the

ancillary costs were discounted from the claims by a discount factor. Usually the discount rates are computed by cost center in the process of completing the annual SNF cost report and then applied throughout the year. To be as consistent as possible with this practice, an average discount factor was applied (the ratio of total Part A allowed costs to Part A charges) for each facility in each year. Cost report data are facility-specific, whereas claims data are reflect charges to the Medicare program per SNF resident. Hence, the method applied a facility-specific adjustment factor rather than a resident-specific adjustment. The report states that 'This method adjusts ancillary charges downward for most residents."

A proportion of the ancillary charges at skilled nursing facilities are covered by Part B Medicare Supplementary Insurance. Application of facilities' ratio of total Part A cost to Part A charges may not accurately discount the ancillary charges as it is not specific to the ancillary service provided as well as the ratio of Part B cost to Part B charges is not included. Calculation of ancillary services based on ratio of Part B cost to Part B charges might prove to be challenging as there seems to be no agreement between HCFA as well as CBO in terms of the allocation of Part B ancillary services to SNFs.

e) **Imputation of MDS-based Drug Cost Measures (Section U):** The average wholesale price (AWP) was taken from Medispan™ for medication costs. However, to assign an AWP to a drug, both the strength of the drug administered and complete information regarding the frequency with which the medication was administered is required. Unfortunately, many of the codes included in the MDS training manual itself do not include information regarding strength. As a result, the sample included substantial missing data. Due to the extent of missing data, drug costs were imputed as opposed to exclusion of cases. Although the missing data did not vary by RUG group, state, year and type of medication, by imputing missing data, random variations in the data were introduced. Consequently, variables that explain variance in non-missing data will have no explanatory power for imputed data. As a result, the coefficients on these variables will be biased towards zero. The algorithm used for estimation of drug costs was presumed to vary systematically by state owing to different data collection procedures used by states.

f) **Reduction of sample**: The original sample included 733,300 MDS assessments from seven states, representing the years 1995-97. The original sample included MDS data from seven states – Kansas, Maine, Mississippi, Ohio, South Dakota, Texas and New York (New York was later excluded from the sample). The remaining six states do not provide adequate geographic representation. The sample should have included MDS data from bi-coastal states. The sample was reduced using the following criteria:

- Exclusion of all assessments from New York: Assessments from New York were excluded from the analyses that used Medicare claims data because many facilities in the state billed SNF stays using an all inclusive rate. Almost 72 percent of the original sample were eliminated from the original sample. Ironically, a criticism of the RUG-II system was that it represented only New York practice patterns.[24]

[24] Fries, Brant E., "Refining a Case-Mix Measure for Nursing Homes: Resource Utilization Groups (RUG-III)", Medical Care, Volume 32, Number 7, pp. 668-685.

- Exclusion of all assessments for which a cost-to charge ratio could not be calculated: Facilities with missing cost reports for at least two years between 1995 and 1997 were excluded, resulting in exclusion of 93,314 MDS assessments.
- Exclusion of all facilities for which the correlation between a measure of drug costs calculated from Section U of MDS and one calculated from Medicare claims data was less than zero. This resulted in the exclusion of 10,915 MDS assessments.
- All residents with per diem ancillary charges greater than $1,000 were excluded from the case mix refinement analysis. Elimination of ancillary charges greater than $1,000 might not only have decreased the sample size but also lead to lower average ancillary charges. The study does not state the reason for selecting $1,000 as the upper limit.

Finally, only 15 percent of the original sample (103,856 MDS assessments) were included for the refinement analysis. Sixty percent of these – 61,929 assessments- were assigned to the test sample to develop and test potential refinements, whereas 41,927 MDS assessments were assigned to validation sample.

f) **Inaccuracies in MDS data**: MDS assessments from 1995 through 1997 were often not completed for residents who stayed at a SNF for less than 14 days. MDS data did not include short stay patients. The Abt report does not state the magnitude of the inaccuracies in MDS data. However, there is apparently no mechanism to detect inaccuracies in MDS data and it is possible that invalid MDS data might have been included in the analysis.

Several limitations of the study prevented Abt Associates from reaching the objective of this study. Deriving a measure of drug costs from MDS or measures of ancillary charges from Medicare claims data lead to several inaccuracies. MDS forms could have been incorrectly completed leading to erroneous statistical performance.

Evaluation of Abt's Case-mix Refinements

Abt Associates refined the RUG-III system to incorporate 14 additional Extensive Services and Rehabilitation groups, which would use the same Rehabilitation categories and ADL splits as the current Rehabilitation categories.

The Medicare Payment Advisory Commission supported HCFA's efforts to evaluate the problems related to non-therapy ancillary services. MedPAC recommended the creation of a higher-weighted classification group for patients who meet the requirements for both the extensive services and the rehabilitation RUG-III groups.

A case mix classification system should meet three types of criteria: statistical, clinical and incentives.

Statistical: The case-mix system should adequately capture resource use by the percentage of the variance in resource use explained by the classification. Group homogeneity in resource

use (the coefficient of variation) and heterogeneity between groups is also considered. The case-mix system should be able to account for residents with high resource use. An effective case mix refinement should enhance the capability of the classification system to predict costs for a particular category. It should identify homogenous elements based on resource utilization and distinguish heterogeneous elements with dissimilar resource utilization. The stability of the classification relies upon the R-squared value and specificity and sensitivity of the groups. Although the refinement done by Abt Associates to the current RUG-III system increases their R-squared value from 9.3 percent to 18.0 percent, the R-squared values are relatively small compared to other case-mix systems. For instance, the RUG-III system with 44 distinct groups, achieved 55.5% variance explanation of total (nursing and therapy) per diem cost. However, the inclusion of the non-therapy ancillary services reduces the R-squared values to 9.3 percent. Even after the case-mix refinement done by Abt, the R-squared values do not increase substantially. Although HCFA has never stated an appropriate level of predictive value for any of its case-mix classification systems in the past, case-mix classification systems, such as DRGs, have achieved roughly 70 percent variance explanation. As statistical performance is a crucial criterion for good case-mix classification system, it is important to explore options for case-mix refinement till it explains the variance within a group adequately. Current work is short of the mark in this regard.

- **Clinical**: SNF residents within a category should have 'clinical coherence'. In spite of being based on clinical conditions, RUG-III is not classified on the basis of clinical diagnosis or procedures. A true resource utilization based case mix classification system may not have a clinical component. However, such a case-mix classification system is likely to be gamed with a resulting case-mix creep, since it provides incentives to SNFs to spend more nursing and therapy time than what is medically necessary in an attempt to increase the case-mix. Under the SNF PPS, providers may face strong financial incentives to shift patients to higher-weighted classification groups, thereby raising aggregate Medicare spending. On the other hand, if the case-mix classification system were based on clinical diagnosis or procedure, it would be more incentive neutral. The classification system could also be modified to incorporate more patient information, such as diagnosis items from the Nursing Severity Index (NSI), an instrument that predicts in-hospital mortality rates and lengths of stay for hospitalized patients. A strong relationship was found between a subset of 15 NSI diagnoses and SNF costs.

A good case-mix system should create incentives to provide appropriate care through the clinical cohesiveness of the categories. While Abt considered clinical- and incentive-related factors in constructing its non-therapy ancillary cost index, it first considered the statistical importance of an MDS variable before evaluating the variable along other factors. We believe that such an approach limits consideration of the clinical diagnosis of residents as a determination of payment for ancillary services. Such an approach may not greatly increase the explanatory power of the model but could help increase the clinical cohesiveness of the categories and help ensure that appropriate care is provided to residents. Abt acknowledged in its report that a "strong case could be made for incorporating diagnosis-based measures regardless of the effects of their inclusion on the statistical performance of the system based

on such clinical criteria." Using data from the national database, HCFA should explore restructuring Abt's index model in a way that emphasizes the clinical diagnoses of residents.

- **Incentives**: The case-mix system should strike a balance between statistical performance and providing incentives to appropriately utilize a service, the overuse of which might be harmful for the resident as well as being expensive. The refinement to RUG-III provides disincentives for services that might affect the quality of care, such as indwelling catheter. MDS data used for classification has several subjective elements and the classification assignments rely on judgments that are largely influenced by SNFs, such as time spent on therapy. Consequently, providers will face incentives to manipulate patient assignments to maximize reimbursement.

The effectiveness of a case-mix system and its impact upon access and quality can only be evaluated in the context of its application in a payment system. The design of such payment systems is much more complex than the technical incorporation of case mix. Some of the issues include: determination of the cost centers to be adjusted by case mix, the design of incentives for discharge, admission of heavy care residents, or other desired facility behaviors; temporal responsiveness of payment to changes in case mix; acknowledgement of regional wage differentials or facility specific characteristics such as bed size or across state levels.

A critical criterion for a good case-mix system is the ability to recalibrate. In order to update the weights, the staff measurement study needs to be periodically conducted or the average per diem charges need to be periodically recalibrated using the average per diem charges associated with each classification group. For instance, the Diagnosis Resources Group (DRG) is recalibrated every year by law, with a two year lag.

- Update through staff-time measurement studies: Staff-time measurement studies are very time consuming. A replication of the staff-time measurement study in future may not capture accurate data as the staff may not perform normally. A future staff time measurement study is also suspect to intentional discrepancies whereby the providers might try to obtain higher payments even for recalibration. Also, another staff time measurement study would not capture variations associated with factors other than staff time, such as general services and non-therapy ancillary services. The claims data probably would not support recalibration of the skilled nursing facility weights. Skilled nursing charges are subsumed in routine service charges, which are paid at a constant per diem amount. The per diem routine service charges do not reflect variations in skilled nursing intensity among the RUG-III groups. In hospital inpatient care, nursing intensity differences among the DRGs are largely captured by the correlation between nursing intensity and average length of stay and by separate charges for intensive care.

- Update through recalibration of payment weights: Similar to the recalibration of DRG payment weights, the average per diem charges for RUG-III could be recalibrated each year. However, to replicate such a methodology for SNF payments, the relative

charges should correspond to the SNF PPS payment components. Although the existence of separate charges in each SNF claim could enable the calculation of separate weights for therapy and ancillary services, the change in RUG-III classification for a particular SNF patient during their period of stay does not support the recalibration of separate weights. MedPac states that "these data could be used to calculate (or recalibrate) separate weights for therapy services and other ancillary services, but only if the charges for these services were recorded separately for each period corresponding to a different RUG-III assignment. Thus if a patient's RUG-III classification ***changed during the stay – as would be expected for most patients*** – the charges for each type of service would have to be recorded separately for each period."

HCFA Refinement Rules (CMI/Abt and Non-CMI/Abt Issues)

HCFA published a proposed rule setting forth updates to the payment rates used under the prospective payment system for skilled nursing facilities for fiscal year, 2001, on April, 10, 2000 in the Federal Register. The proposed rule also proposed changes to the SNF PPS case-mix methodology. The proposed rule discussed options for refinements to the RUG-III system, described ongoing research and analysis and also published the initial results that HCFA proposed to implement effective October 1, 2000.

HCFA provided a brief synopsis of the Abt Associates report commissioned by them. The objective of this report was to review the RUG-III system with particular emphasis on the care needs of the medically complex Medicare beneficiaries and the variation in non-therapy ancillary services within RUG-III categories.

A complete description of the methodology used by Abt Associates is provided by HCFA. However, the proposed rule differs from the Abt Associates study in several ways.

1. **HCFA advocated the use of UWIM model rather than the WIM 2 model**: In spite of a better statistical performance by the WIM 2 model, the UWIM model is advocated as 'the added complexity of the weighted model offsets any benefits gained.' Compared to the UWIM model, WIM 2 model performs slightly better statistically. However, the statistical performance of the two needs to be evaluated using a national PPS claims data before any inference is made on the basis of study done by Abt Associates. HCFA reports that it plans to research the appropriateness of the weighted versus the unweighted model next year. In the meantime, the use of UWIM might disincentivize SNF that use resource intensive service, such as Stage 4 Pressure ulcer than application of dressing.

Exhibit 3: Components of the Resource Utilization Group-III Patient Classification System with UWIM model

Patient Categories	Description	Number of RUG-III Groups	Variables
Rehabilitation and Extensive Services	Patients requiring any combination of physical, occupational or speech therapy and with an ADL score of at least 7	56	
Rehabilitation	Patients requiring any combination of physical, occupational or speech therapy	56	Therapy intensity and type, nurse rehabilitation, ADL therapy type
Extensive Services	Patients with an ADL score of at least 7 and who meet at least one of the following criteria: parenteral feeding, suctioning, tracheostomy, ventilator/respirator	12	Therapy type
Special Care	Patients with an ADL score of at least 7 and who require special care (such as burns, coma, quadriplegia, septicemia, radiation therapy)	12	ADL
Clinically complex	For example, patients with dialysis, aphasia, pneumonia, cerebral palsy	24	ADL, depression
Impaired cognition		4	ADL, nurse rehabilitation
Behavior only	Patients exhibiting symptoms, such as wandering, hallucinations, or physical or verbal abuse or others	4	ADL, nurse rehabilitation
Physical function reduced		10	ADL, nurse rehabilitation
Total		178	

2. **Matching MDS assessment with SNF claims data**: The Abt report faced difficulties in deriving accurate measures of drug costs from Section U of MDS or measures of ancillary charges from Medicare claims data. The MDS assessment is done over intermittent periods whereas the Medicare SNF claims are submitted over a period of one month. The mismatch between the two data sources does not permit a true allocation of charges to a specific RUG-III category. HCFA does not refer to the issue of mismatch between the MDS assessment with the SNF claims data.

3. **Limitations of Abt Report not adequately addressed by HCFA:** Abt imputed ancillary drug costs in their study due to missing data and HCFA did not refer to the limitations of performing regression analysis on imputed data.

Other issues that remain unresolved after the HCFA proposed rule are as follows:

- **Staff Time Measurement Studies**: The staff time measurement study was used to impute staff time costs for the observation used in the study done by Abt Associates. The refinement rules do not address the issues surrounding the use of staff time measurement study for the PPS refinement.

- **Baseline Calculation**: SNF market basket percentage is defined as the percentage change in the SNF market basket index from the midpoint of the prior fiscal year to the current fiscal year. The facility-specific portion and Federal portion of the SNF PPS rates addressed in the NRPM are based on cost reporting periods beginning in the base year, Federal FY, 1995. Standard and Poor's DRI CC, 4th quarter 1999 historical and forecasted percentage increases for the revised and rebased SNF market basket index for routine, ancillary, and capital related expenses to compute the update factors (refer to Figure X). The adequacy of the method of updating the 1995 costs to 1999 costs has remained controversial. Many speculate that the actual SNF costs rose faster than the inflation adjuster does because SNFs were treating more complex patients and providing more intensive treatments. However, in order to allay congressional concerns of rise in SNF payments, the inflation adjuster used something less than the expected increase in SNF costs, as measured by the market basket index.

Exhibit 4: FY 2001 Labor-Related Share

Cost Category	FY 2000 Relative Importance	FY 2001 Relative Importance
Wages and Salaries	56.647	56.744
Employee Benefits	12.321	12.405
Nonmedical Professional Fees	1.959	1.953
Labor-intensive Services	3.738	3.733
Capital-Related	2.880	2.828
Total	**77.545**	**77.663**

Source: "Medicare Program; Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities-Update; Proposed Rule" Federal Register, Monday, April 10, 2000, p.19230.

The update factor does not include update for nontherapy ancillary charges such as prescription drugs, respiratory therapy. In a recent meeting among the MedPAC Commissioners, several discussions revolved around the inadequacy of the market basket index to capture the costs of new pharmaceutical products in the market.[25] Under the circumstances, where the market is under turmoil due to changes in the payment system, an underestimated market basket index would not adequately provide the 'cushion' necessary to adapt to the new payment changes.

Wage Index Adjustment: Medicare's payments to SNFs are adjusted by the hospital wage index to reflect differences in wage levels across geographic areas. HCFA intends to evaluate a wage index based specifically on SNF data once it becomes available. However, in the meantime, applying an index to SNFs may contribute to inequitable payments as nursing facilities employ a different skill mix than do hospitals.

Recommendations

The principal goal of Abt Associates was to refine the case-mix system to account for medically complex cases with particular emphasis on non-therapy ancillary costs. Abt Associates conducted a scientifically sound study to refine the RUG-III and accommodate the non therapy ancillary costs. Conducting the study posed several challenges ranging from creation of data sources to using the same guiding principles as was used for the creation of RUG-III. The refinement models offered by Abt Associates increased the variance explanation from 9.3 percent to 18 percent. Considering the fact that non therapy ancillary costs comprise 43 percent of the total costs, the amount of variance explained might not be adequate for most SNFs. Although HCFA has not stated a 'hard and fast' rule for predictive values for case mix classification groups in the past, HCFA probably needs to consider the benefits of a case mix classification system based on its statistical performance. A recommended strategy would be to evaluate the refinements proposed in Abt report using the national PPS claims data.

The new category created in the Abt report – Extensive Services and Rehabilitation category – is further broken down into different levels of rehabilitation care. However, this new category does not classify further based on the different levels of extensive services provided. HCFA states that there were no significant correlations found among the groups to necessitate the creation of subcategories based on extensive services, but an explanation of the correlations is not provided in the Abt report or the *Federal Register*. Moreover, differentiating based on the number of extensive services received could increase the face validity of the system. That is, providers could reasonably expect to receive appropriate payment if they provide adequate care in an efficient manner. Towards achieving such an objective, we believe HCFA should explore other possible options in addition to differentiating the Extended Service and Rehabilitation category by the number of extended services received by residents. These other options could include expanding the ancillary non-therapy cost index into more categories. While such changes would increase the complexity of the payment system, the value of such changes could improve the face validity and payment accuracy of the system as well as the access to and quality of care.

[25] MedPac Public Meeting, April 13, 2000.

Further analysis needs to be conducted on the impact of weighted and unweighted non-therapy ancillary indices. The trade-off between the complexity and accuracy should not affect SNFs that are treating residents with more resource intensive non-therapy ancillary costs. The Abt report has not provided the rationale for creation of the four new categories in the UWIM model based on MDS item count. As an additional research plan, HCFA could evaluate the benefits of weighted versus unweighted index as well as evaluate the rationale for the creation of categories based on grouping of MDS items associated with non therapy ancillary services.

The nursing index needs to be accurately calibrated to link payment to acuity levels. Currently, it is presumed that the distribution of the actual Medicare population is the same as the distribution of the research database. National data should be used to reflect accurate calibration of the data.

The MDS data should be accurately completed and should capture data for the short stay patients. HCFA needs to develop a mechanism to educate SNFs about the importance of MDS data and perhaps, develop a mechanism to audit the MDS assessment data.

Due to several limitations, Abt excluded MDS assessment data. The derivation of the nontherapy ancillary costs should be based on larger number of observations as the small size of the sample used for calculation of the ancillary costs obviously raises concerns about their statistical validity. As an additional research plan, HCFA could derive the non-therapy ancillary costs based on national PPS claims data.

Other recommendations based on our analysis are as follows:

1. A wage index based on skilled nursing facility wage data should be developed and used to adjust payments for SNF facility services.

2. Provision for updating the payment weights in the skilled nursing facility prospective payment system should be developed.

3. The reliance on outdated time study, such as the Staff Time Measurement Study should be replaced by another approach.

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October 3, 2000

Christopher C. Jennings
Special Assistant to the President for
Health Policy Development
Old Executive Office Building, Room 212
17th Street and Pennsylvania Avenue, NW
Washington, D.C. 20502

Dear Mr. Jennings,

1199/SEIU extends its thanks to the White House for the commitment to quality of care demonstrated in the President's recent Nursing Home Staffing Initiative. SEIU now represents over 55,000 nursing home workers in New York State, and the impact of staffing shortages on the delivery of quality care has become one of our top priorities. Working together with senior advocates, the families of our residents, and responsible employers in the nursing home industry, we have worked very hard in New York to improve the quality of care our seniors receive in long-term care facilities. Yet, as you are well aware, our members struggle daily with a health care worker shortage that makes it increasingly difficult for nursing homes with fixed reimbursements to recruit and retain high quality staff. In this regard, the revenues contained in the President's Initiative can be of significant benefit to New York's long-term care facilities.

We would like to share with you some concerns we have that might help your staff as it attempts to refine and implement the President's proposal. There are four main areas of our concern:

1) We strongly oppose any attempt to implement the "single task" job classification in nursing homes because we believe that it will reduce already inadequate training requirements, thus directly undermining the objectives that the President has called for in his Initiative. As you are aware, we share this opposition with a wide variety of advocacy groups who also believe that it will work against improving the quality of care in nursing facilities.

2) New York has struggled to provide funding for nursing homes that allow for adequate staffing levels and hence a higher quality of care. It would be unfair to penalize New York for its efforts n

through an allocation mechanism that gives more money to states with lower staffing levels. We believe that a better approach to fund allocation would be on the basis of financial need, as measured by operating margins and low rates of profit. We believe that this will assist facilities that are most in need of funds, while not rewarding those who have taken profits at the expense of providing high quality of care.

3) We are extremely concerned about the impact of the BBA on those nursing homes that have recent capital costs that are not reimbursed under the Medicare SNF PPS. We hope that you can work with the Congress to provide relief for these facilities under the framework of current relief discussions.

4) It is our strong belief that the only way to guarantee quality of care in nursing homes is through the institution of mandatory staffing ratios and contact time. We believe that the President's Initiative would be an excellent starting point to explore the development of such standards and a way to reward those nursing facilities which have made strides in this area. We would be glad to work with your staff on such a mechanism.

Please be assured that my staff and I are prepared to work with your office in any way you might find helpful to deal with these issues. Thank you for your attention to these matters.

Sincerely,

Dennis Rivera, President
1199/SEIU New York's Health & Human Service Union