AMA
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MEDICAL
ASSOCIATION

April 29, 2008

Kerry N. Weems
Administrator
Centers for Medicare and Medicaid Services
Department of Health and Human Resources
Hubert H. Humphrey Building
200 Independence Ave., S.W.
Washington, DC 20201

Dear Mr. Weems,

On behalf of the American Medical Association/Specialty Society RVS Update Committee (RUC), I am pleased to submit work relative value recommendations and direct practice expense inputs specifically for the Medicare Medical Home Demonstration project to the Centers for Medicare and Medicaid Services (CMS).

The RUC's recommendations are enclosed, along with several supporting documents regarding patient eligibility and physician panel size which served as the basis for the physician work and clinical staff time determinations. The attachments also include two price quotes regarding an electronic medical records system for use in the development of medical equipment inputs for the Tier 3 medical home. In addition to the recommended work relative values and direct practice expense inputs, the RUC is submitting its recommended language for the HCPCS G Code descriptors to be used for reporting the three tiers of medical homes. It is the opinion of the RUC that these recommendations are reasonable in light of the information provided by the Agency and its contractor, Mathematica Policy Research.

At the outset of this request, the RUC engaged in an effort to acquire data from CMS regarding the specific eligibility criteria for Medicare beneficiaries who would be eligible to participate in this demonstration project. Initially, the RUC was given a range of 65-86% of all Medicare beneficiaries. Data regarding the average number of Medicare beneficiaries in a typical primary care physician's practice was not readily available. While this made the process of developing recommendations somewhat more challenging, the RUC was able to use several sources to extrapolate an estimate of 250 enrolled patients per primary care physician within this demonstration. The RUC's recommendations are based on these assumptions. These recommendations may be different in the event that CMS changes the eligibility criteria for the demonstration project or the requirements of a medical home.

In addition to changes in eligibility, medical home care coordination, and/or practice capabilities, changes in the actual participation by Medicare beneficiaries or significant differences in practice costs may have an impact on the recommended valuation of these

services. To address these concerns, the RUC recommends that CMS actively monitor the practice inputs of the medical home demonstration on an ongoing basis to verify the recommendations of the RUC. The RUC also recommends that CMS monitor the number of participating Medicare beneficiaries per physician.

Any significant deviation from the RUC's estimated panel size of 250 enrolled beneficiaries per physician may impact the valuation of the medical home services. With this in mind, the RUC also encourages the Agency to track data that may be used by the RUC or CMS in potential future valuation of medical home services, including but not limited to actual staff type, clinical staff time, physician staff time, medical equipment, and medical supplies. The RUC encourages CMS to utilize the RUC Medical Home Workgroup to provide assistance in the development of an evaluation design.

The RUC strongly encourages the Agency to collect clinical as well as fiscal endpoints to measure the success of this demonstration project. As discussed at the onset of this project, CMS has made it clear that success will be at least partly determined by the cost savings generated. With a large panel size as CMS has proposed, the distribution of patients is likely to be bi-modal based on severity of patient illness. For those that are "sicker," cost savings may well be the primary indicator for success. However, in the larger, "less sick" distribution of patients, the cost savings may not be immediately apparent in a three-year demonstration project. These two populations have markedly different needs; while they each will benefit within a medical home, the outcomes and specific benefits may be vastly different. The RUC requests that CMS consider expanding metrics for success to include increases in preventative services such as number of mammograms, colorectal cancer screening, hemoglobin A1C, and others. Similar to any research project or a clinical trial, it is imperative that CMS define success criteria and clarify primary and secondary endpoints before the demonstration begins.

The RUC appreciates the opportunity to participate in the development of these recommendations and looks forward to a successful demonstration project.

Sincerely,

William L. Rich, III, MD, FACS

Cc: Tim Love
James Coan
Jeff Rich, MD
Edith Hambrick, MD
Ken Simon, MD
Whitney May
RUC Participants

AMA/Specialty Society RVS Update Committee
Medicare Medical Home Demonstration Project
April 25, 2008

Workgroup Members: David Hitzeman, DO (Chairman), Joel Brill, MD, Thomas Felger, MD, Meghan Gerety, MD, Charles Koopman, MD, Barbara Levy, MD, Leonard Lichtenfeld, MD, Chester Schmidt, Jr., MD, Richard Tuck, MD, John Wilson, MD, Robert Zwolak, MD, Alan Lazaroff, MD, (Ex Officio), William L. Rich, III, MD, (Ex Officio), and William Thorwarth, Jr., MD, (Ex Officio),

Introduction

The RUC Medical Home Workgroup was established at the February 2008 RUC Meeting following a request from the Centers for Medicare and Medicaid Services (CMS) based on a legislative mandate resulting from the Tax Relief and Health Care Act of 2006 (TRHCA). Section 204 of the TRHCA directs CMS to conduct a three-year demonstration project of the medical home concept of patient care. This demonstration is to occur in rural, urban, and underserved areas in up to eight states. The legislation describes the medical home as large or small medical practices where a physician provides comprehensive and coordinated patient centered medical care and acts as the "personal physician" to the patient. Based on this directive, CMS designed a three-tiered system of the medical homes based on the capabilities of the physician office serving as medical home. The differentiation of the tiers is based on capabilities of the physician office as determined by CMS and not based on the severity of patient illness. Further, the TRHCA specifically instructs CMS to set a care management fee using the RUC process. Therefore, CMS asked the RUC to recommend a valuation of a management fee by May 1, 2008. The TRHCA also mandates that this demonstration project be "cost neutral," in the sense that the costs of this project are to be offset by the overall savings it generates. This definition of "cost neutrality" is dissimilar to the ordinary meaning of budget neutrality within the payment policy lexicon. Rather, the cost neutrality of the demonstration project will not affect the payment or valuation of any service in the Medicare physician payment schedule and will result in no adjustment to conversion factor.

The Workgroup was charged with the task of researching and facilitating work relative value recommendations and direct practice expense recommendations for services defined in the Medicare Medical Home demonstration project to the RUC at the April 2008 RUC meeting. Given the brief time in which to develop a recommendation, the Workgroup began immediately by initiating an electronic discussion among its members and facilitating conference call meetings on a weekly basis. The Workgroup met 11 times between February 12 and April 21 by conference call. The Workgroup also met face-to-face on Wednesday April 23 immediately preceding the April 2008 RUC Meeting. Based on these discussions, the Workgroup developed the following recommendations for descriptors, physician work, direct practice expense inputs, and professional liability insurance crosswalks for the Medical Home demonstration project. To the extent practicable, the Workgroup utilized the standard RUC processes. However,

based on the information regarding eligibility of beneficiaries and practice requirements, some assumptions were made.

G-Code Descriptors

The Workgroup first worked to develop G code descriptors for each of the three tiers of the Medical Home based on the minimum requirements for inclusions within each tier as provided by Mathematica. Initially, CMS indicated an interest in developing two levels of coding and payment within each of the three tiers based on the complexity and/or number of chronic conditions of eligible beneficiaries. The Workgroup determined that any distinction between complexity of patients and the ability of a practice to designate a beneficiary into one of the categories would be arbitrary. The number of chronic conditions is not a strong indicator for complexity or difficulty of coordinating care. A patient with one chronic condition may require greater intensity of coordination than a patient with several chronic conditions. Therefore, the Workgroup decided, and Medicare representatives agreed, that a single code per tier describing the work for the typical patient would be most appropriate.

To develop the G codes, the Workgroup turned to the Mathematica proposals for the description of a Tier 3 (the most comprehensive) medical home. After reviewing the list of criteria for a Tier 3 medical home, the Workgroup transposed the requirements into a description of the service provided on a monthly basis. The Workgroup repeated this process for each of the tiers. As CMS made changes to the requirements of each tier of the medical home, the Workgroup appropriately revised the G code descriptors. The proposed descriptors represent the most up-to-date CMS-required components for each tier of the medical home. A Tier 1 Medical Home (entry level) requires ten of the designated core capabilities. A Tier 2 Medical Home (typical) requires sixteen of the designated core capabilities. A Tier 3 Medical Home (optimal) requires eighteen of the designated requirements and three of an additional ten requirements. (See "Table 2. Proposed Method for Tiering Medical Home Qualification"). The CMS demonstration is likely to use a modified version of the NCQA Physician Practice Connection - Patient-Centered Medical Home instrument to determine practice eligibility and tier assignment. **The RUC recommends the attached G Code descriptors for the Tier 1, Tier 2 and Tier 3 Medical Home to CMS for the Medicare Medical Home demonstration project.**

The RUC understands that eligible physicians will be designated into a tier level based on CMS recognition of their office capabilities. These capabilities will be monitored by CMS. Practices may and are encouraged to qualify for a higher tier level during the demonstration, but only upon approval by CMS.

Average Panel Size

The Workgroup next addressed the issue of average panel size per primary care physician in order to assist in the development of work and direct practice expense input recommendations. The Workgroup looked to several sources to define total panel size for a primary care physician, Medicare beneficiary portion of that panel, and the portion

of Medicare beneficiaries that would be eligible for the participation in the demonstration project.

- Mathematica provided the Workgroup with a rough estimate of the number of Medicare beneficiaries per primary care physician. They obtained these estimates using 2004-2006 Medicare claims data and the 2000-2002 Community Tracking Study Physician Survey. Mathematica indicated that there are roughly 257 unique Medicare beneficiaries seen by a typical individual primary care physician (family practice, general internal medicine, or general practice) in one year. Mathematica went on to state that a physician typically will not see all patients within a panel in any given twelve months, resulting in a potentially larger total Medicare panel size. They estimate this to be as much as 30% higher, bringing total Medicare panel size 335. CMS has indicated that it will rely on beneficiary eligibility criteria for the demonstration project that will expand inclusion to 86% of all beneficiaries based on the Hwang criteria. Based on this assumption, the panel size of eligible beneficiaries per primary care physician will be between 221 and 284. Based on all Mathematica assumptions and CMS-stated patient eligibility criteria, a panel size of 250 is a reasonable estimate.
- Staff requested information from the Medical Group Management Association (MGMA) on average total panel size per primary care physician. The MGMA does not benchmark "panel size," primarily because there are many variables that can skew these figures. However, the organization does track one related metric from the "Cost Survey Report" – that of "Patients per Physician," from the data table titled: "Staffing, RVUs, Patients, Procedures and Square Footage." That table reports data for unique patients seen in the previous year. Based on this the "Cost Survey for Single-specialty Practices: 2007 Report Based on 2006 Data," for Family Practice, the average number of patients per FTE physician is 2,362. U.S. Census data indicate that 12% of the population are 65 years of age or older. The number of family medicine patients would therefore be approximately 283. If 86% were eligible for the demonstration (per CMS current criteria), 245 patients per family physician would be eligible. The review of MGMA data, census data, and CMS assumptions again concludes that 250 is a reasonable estimate for eligible patients per physician.
- Lastly, the Workgroup looked to current "medical homes" as a source of information on total panel size and Medicare panel size. Specifically, the Geisinger Health System, very generously shared a wealth of its data with the Workgroup. In January 2007, Geisinger implemented an intensive medical home project in two practice sites. The description of this project resembles a Tier 3 Medical Home. In these two initial sites, the Geisinger representatives indicated that there were 250 Medicare "medical home" patients per physician.

Reviewing all available data and assumptions, the RUC developed recommendations assuming that each physician may have approximately 250 Medicare patients who will be eligible and who will agree to participate in the practice's medical home.

Physician Work

Tier 3 Medical Home

The Workgroup estimates that for the "very sick" patients, the physician will typically spend 15 minutes per patient per month. This estimate is based on two other estimates. One is that the physician will spend approximately 12.5 minutes per patient per month in interaction with the case manager and the rest of the clinical staff team; this estimate is derived from the PACE data previously discussed by the Workgroup.

The 12.5 minutes includes the following coordination of care activities described by Total Longterm Care, a PACE program provider in Denver, CO:

- Intake and Assessment: This occurs twice weekly. 1-2 new participants and 15 reassessments are reviewed at each meeting. (Complete reassessments are done every six months). Each meeting lasts about 2.5 hours.
- Morning meeting: this occurs every morning. About 10-15 patients are discussed. Issues for the day are reviewed, including interim progress reports and care planning and follow-up. Duration about 45 minutes daily.
- Nursing home review meeting. This occurs weekly. The program uses nursing homes (and sends in its own staff to augment the NH services) for short term "medical respite" as an alternative to avoid or shorten hospital stays. The meeting lasts about 30-60 minutes, during which the progress and transition plans for about 10 patients are reviewed and developed.
- End-of-life nurse meeting. The physician meets weekly for about thirty minutes with a nurse whose focus is end-of-life care. This typically involves perhaps 4 patients.
- Ad-hoc family meetings occur irregularly, typically involve multiple staff members including the physician, and generally last more than 30 minutes.

The remaining 2.5 minutes per patient per month is estimated to be the time the physician will spend in other medical home responsibilities not included within the PACE program, such as review of registry information, or other daily interactions with the health care team.

For the blend of other "sick" patients, it is estimated that the physician will spend only 10 minutes per patient per month. This recognizes that these patients will require less physician interaction with the case manager and other members of the clinical staff team and is similar to the reduction in clinical staff time associated with "sick" and "very sick" patients (discussed within practice expense section).

The Workgroup also assumed, based on data from the Wolff study[i] (see page 9-10 for discussion), that the typical patient in the demonstration project will have seven evaluation and management (E/M) visits per year. The Workgroup concluded that 2.8 of these visits will be at the level of 99214 and 4.2 will be at the level of 99213. This assumption is based on the 2007 Medicare utilization data that show a total utilization of

99213 and 99214 with a relationship between them of roughly 1.5 : 1. Extrapolated to the seven E/M visits, this correlates to 4.2 : 2.8. Finally, half of the post-service physician time associated with each of these visits will otherwise duplicate the physician time related to the proposed care management code and, thus, should be deducted from the physician time per patient per month otherwise attributable to the proposed codes. The post-service physician time for 99214 is 10 minutes, and for 99213, it is 5 minutes.

2007 Medicare Utilization Data			
Code	**Family Medicine**	**Internal Medicine**	**Total**
99213	21,382,656	26,581,566	103,587,751
99214	13,467,111	18,564,247	65,129,891

The physician time per patient per month before accounting for the overlap with existing E/M services is 11.25 minutes, which is calculated as a weighted average of the time spent with each patient cohort as follows: (15 minutes x 0.25) + (10 minutes x 0.75) = 11.25 minutes. The overlap with existing E/M services is calculated as 2.1 minutes per patient per month as follows: ((10 minutes x 2.8 99214 visits) + (5 minutes x 4.2 99213 visits)) / 2 = 24.5 minutes per patient per year; 24.5 minutes / 12 months = 2.04 minutes per patient per month. The unduplicated physician time per patient per month is calculated as follows: 11.25 minutes – 2.04 minutes = 9.21 minutes per patient per month.

The RUC recommends an intra-service time per patient per month of 9.2 minutes for a Tier 3 Medical Home.

The Workgroup used a modified building block methodology to develop a recommendation for physician work. Relying on the same ration of 99213 to 99214 visits for this population of patients, the Workgroup agreed that a similar intensity of medical home services was appropriate. The Workgroup instead used a total intensity of the time by calculating the total work per unit of total time. For 99213, the total work per unit of time is equal to 0.92 work RVUs divided by 23 total minutes, resulting in 0.040 work RVUs per minute. For 99214, the total work per unit of time is equal to 1.42 work RVUs divided by 40 total minutes, resulting in 0.0355 work RVUs per minute. The Workgroup then applied the same 4.2 : 2.8 ratio it used to develop physician time overlap from associated E/M work. Thus, 0.040 was multiplied by 4.2 and 0.0355 was multiplied by 2.8 and the sum was divided by 7. This resulted in a weighted work RVU per minute of 0.0382. The Workgroup then multiplied 0.0382 by 9.2 minutes to come to a work RVU recommendation of 0.35144.

The Workgroup noted that 99339, *Individual physician supervision of a patient (patient not present) in home, domiciliary or rest home; 15-29 minutes*, with a work RVU of 1.25 is an appropriate reference service, comparing the 40 minutes of total time with the 9.2 minutes of time in the Tier 3 Medical Home, resulting in a comparable work RVU of .31.

The RUC recommends a work RVU per patient per month of 0.35 for a Tier 3 Medical Home.

Tier 2 Medical Home

The Workgroup estimates that for the "very sick" patients, the physician will spend 12.5 minutes per patient per month. This estimate assumes that, at lower tiers, the physician will spend less time per patient per month consistent with the decreased capability of the practice as a medical home. This estimate is also consistent with assumptions made with respect to clinical staff time (i.e., staff will spend less time per patient per month at lower tiers of the medical home).

For the blend of other "sick" patients, it is estimated that the physician will spend only 9 minutes per patient per month. This recognizes that these patients will require less physician interaction with the case manager and other members of the clinical staff team and is similar to the reduction in clinical staff time associated with "sick" and "very sick" patients (discussed within practice expense section).

The Workgroup also assumed, based on data from the Wolff study[i] (see page 9-10 for discussion), that the typical patient in the demonstration project will have seven evaluation and management (E/M) visits per year. The Workgroup concluded that 2.8 of these visits will be at the level of 99214 and 4.2 will be at the level of 99213. This assumption is based on the 2007 Medicare utilization data that show a total utilization of 99213 and 99214 with a relationship between them of roughly 1.5 : 1. Extrapolated to the seven E/M visits, this correlates to 4.2 : 2.8. Finally, half of the post-service physician time associated with each of these visits will otherwise duplicate the physician time related to the proposed care management code and, thus, should be deducted from the physician time per patient per month otherwise attributable to the proposed codes. The post-service physician time for 99214 is 10 minutes, and for 99213, it is 5 minutes.

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The physician time per patient per month before accounting for the overlap with existing E/M services is 9.875 minutes, which is calculated as a weighted average of the time spent with each patient cohort as follows: (12.5 minutes x 0.25) + (9 minutes x 0.75) = 9.875 minutes. The overlap with existing E/M services is calculated as 2.1 minutes per patient per month as follows: ((10 minutes x 2.8 99214 visits) + (5 minutes x 4.2 99213 visits)) / 2 = 24.5 minutes per patient per year; 24.5 minutes / 12 months = 2.04 minutes per patient per month. The unduplicated physician time per patient per month is calculated as follows: 9.875 minutes – 2.04 minutes = 7.835 minutes per patient per month.

The RUC recommends an intra-service time per patient per month of 7.8 minutes for a Tier 2 Medical Home.

The Workgroup used a modified building block methodology to develop a recommendation for physician work. Relying on the same ration of 99213 to 99214 visits for this population of patients, the Workgroup agreed that a similar intensity of medical home services was appropriate. The Workgroup instead used a total intensity of the time by calculating the total work per unit of total time. For 99213, the total work per unit of time is equal to 0.92 work RVUs divided by 23 total minutes, resulting in 0.040 work RVUs per minute. For 99214, the total work per unit of time is equal to 1.42 work RVUs divided by 40 total minutes, resulting in 0.0355 work RVUs per minute. The Workgroup then applied the same 4.2 : 2.8 ratio it used to develop physician time overlap from associated E/M work. Thus, 0.040 was multiplied by 4.2 and 0.0355 was multiplied by 2.8 and the sum was divided by 7. This resulted in a weighted work RVU per minute of 0.0382. The Workgroup then multiplied 0.0382 by 7.8 minutes to come to a work RVU recommendation of 0.29796.

The Workgroup noted that 99339, *Individual physician supervision of a patient (patient not present) in home, domiciliary or rest home; 15-29 minutes*, with a work RVU of 1.25 is an appropriate reference service, comparing the 40 minutes of total time with the 7.8 minutes of time in the Tier 2 Medical Home, resulting in a comparable work RVU of .31.

The RUC recommends a work RVU per patient per month of 0.30 for a Tier 2 Medical Home.

Tier 1 Medical Home

The Workgroup estimates that for the "very sick" patients, the physician will spend 10 minutes per patient per month. This estimate again assumes that, at lower tiers, the physician will spend less time per patient per month consistent with the decreased capability of the practice as a medical home. This estimate is also consistent with assumptions made with respect to clinical staff time (i.e., staff will spend less time per patient per month at lower tiers of the medical home).

For the blend of other "sick" patients, it is estimated that the physician will spend only 8 minutes per patient per month. This recognizes that these patients will require less physician interaction with the case manager and other members of the clinical staff team and is similar to the reduction in clinical staff time associated with "sick" and "very sick" patients (discussed within practice expense section).

The Workgroup also assumed, based on data from the Wolff study[i] (see page 9-10 for discussion), that the typical patient in the demonstration project will have seven evaluation and management (E/M) visits per year. The Workgroup concluded that 2.8 of these visits will be at the level of 99214 and 4.2 will be at the level of 99213. This assumption is based on the 2007 Medicare utilization data that show a total utilization of 99213 and 99214 with a relationship between them of roughly 1.5 : 1. Extrapolated to the seven E/M visits, this correlates to 4.2 : 2.8. Finally, half of the post-service physician time associated with each of these visits will otherwise duplicate the physician time related to the proposed care management code and, thus, should be deducted from

the physician time per patient per month otherwise attributable to the proposed codes. The post-service physician time for 99214 is 10 minutes, and for 99213, it is 5 minutes.

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Code	**Family Medicine**	**Internal Medicine**	**Total**
99213	21,382,656	26,581,566	103,587,751
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The physician time per patient per month before accounting for the overlap with existing E/M services is minutes, which is calculated as a weighted average of the time spent with each patient cohort as follows: (10 minutes x 0.25) + (8 minutes x 0.75) = 8.5 minutes. The overlap with existing E/M services is calculated as 2.1 minutes per patient per month as follows: ((10 minutes x 2.8 99214 visits) + (5 minutes x 4.2 99213 visits)) / 2 = 24.5 minutes per patient per year; 24.5 minutes / 12 months = 2.04 minutes per patient per month. The unduplicated physician time per patient per month is calculated as follows: 8.5 minutes – 2.04 minutes = 6.46 minutes per patient per month.

The RUC recommends an intra-service time per patient per month of 6.5 minutes for a Tier 1 Medical Home.

The Workgroup used a modified building block methodology to develop a recommendation for physician work. Relying on the same ratio of 99213 to 99214 visits for this population of patients, the Workgroup agreed that a similar intensity of medical home services was appropriate. The Workgroup instead used a total intensity of the time by calculating the total work per unit of total time. For 99213, the total work per unit of time is equal to 0.92 work RVUs divided by 23 total minutes, resulting in 0.040 work RVUs per minute. For 99214, the total work per unit of time is equal to 1.42 work RVUs divided by 40 total minutes, resulting in 0.0355 work RVUs per minute. The Workgroup then applied the same 4.2 : 2.8 ratio it used to develop physician time overlap from associated E/M work. Thus, 0.040 was multiplied by 4.2 and 0.0355 was multiplied by 2.8 and the sum was divided by 7. This resulted in a weighted work RVU per minute of 0.0382. The Workgroup then multiplied 0.0382 by 6.5 minutes to come to a work RVU recommendation of 0.2483.

It was noted that the work RVU for 99441, *Telephone evaluation and management service provided by a physician; 5-10 minutes*, is 0.25, which appeared to the Workgroup to be an appropriate floor for the medical home physician work.

The RUC recommends a work RVU per patient per month of 0.25 for a Tier 1 Medical Home.

Summary

In sum, the following times and work RVUs are proposed for each tier:

Tier	Physician Time	Work RVUs
1	6.5 minutes	0.25
2	7.8 minutes	0.30
3	9.2 minutes	0.35

Direct Practice Expense Inputs

Clinical Staff Type

Based on the G-Code descriptors, the workgroup agreed that the minimum competency for clinical staff should be no less than a registered nurse or licensed practical nurse and recommends using the blended Medicare clinical staff type of registered nurse/licensed practical nurse (RN/LPN). The clinical staff type is consistent across all tiers and the blended staff type is recommended in each of the three medical home tiers. Although Geinsinger reported that only RNs would be hired, the Workgroup understood that many practiced may not be able to hire RNs. Concurrently, the Workgroup recognized that in some states, medical assistants (MAs) may not be licensed to perform many of the activities inherent in the medical home service. As such, the Workgroup agreed that a RN/LPN blend is appropriate. **The RUC recommend to CMS that it use a clinical staff type of RN/LPN for the practice expense inputs for the Tier 1, Tier 2 and Tier 3 Medical Homes.**

Clinical Staff Time

The Workgroup arrived at a typical amount of staff time by employing both top-down and bottom-up approaches. After an extensive review of medical home and care management literature and discussions with practitioners in the medical home clinical settings, the Workgroup found that the mode for caseload per nurse in a Tier 3 setting is 125, Tier 2 setting is 150, and Tier 1 setting is 200.

The workgroup next arrived at a similar number by dividing patient complexity into two groups, "sick" and "sicker." Rather than split the medical home G codes into two categories as originally recommended, the workgroup noted that patients will move in and out of the two groups regularly and to assign an individual patient to a group is not realistic. However, risk-adjusting the groups under the assumption that at any given time only 25% of an eligible patient mix require extensive care management ("sicker") and the remaining 75% require less extensive care management ("sick") is a more accurate and efficient way to allot clinical staff time. Further, the workgroup assumed that the typical medical home patient in all three tiers will have 7 evaluation and management (E/M) visits per year, based on the Wolff study[i] and the Partnership for Solutions report[ii], which relies on the Agency for Healthcare Research and Quality (AHRQ) Medical Expenditure Panel Survey of 2001 summarized below:

Number of Conditions	E/M Visits per Year	% of Medicare population	Visits x Medicare %	Weighted Average
Medicare Pts. with 1 condition	3.5	0.173	0.210976	0.738415
Medicare Pts. with 2 conditions	5.7	0.218	0.265854	1.515366
Medicare Pts. with 3 conditions	7.9	0.188	0.229268	1.81122
Medicare Pts. with 4 or more conditions	9.4	0.241	0.293902	2.762683
Average # of Medicare Visits		0.82		**6.827683**

The workgroup then reduced the clinical staff time by 3 minutes per patient in each of the three tiers to account for overlap of one phone call per month due to the E/M services provided. Each E/M (7 annually) requires 2 nurse follow-up phone calls per the implemented practice expense input data, leading to approximately 14 calls per year. The Workgroup agreed that these phone calls should not be duplicated and removed one from each month. (14/12 = approximately 1 call or 3 minutes per month.) The clinical staff time based on this methodology for each of the three tiers is included in the attached spreadsheet.

	Pts per RN/LPN	**Time spent per Bene min/mo**	**Sum min/month**
Tier 3			
Sick Patients (75%)	94	60	5625
Very Sick Pts (25%)	31	236	4775
	125	83	10400
Remove 3 minute call		**80**	
Tier 2			
Sick Patients (75%)	112.5	40	4500
Very Sick Pts (25%)	37.5	157	5900
	150	69	10400
Remove 3 minute call		**66**	
Tier 1			
Sick Patients (75%)	150	30	4500
Very Sick Pts (25%)	50	118	5900
	200	52	10400
Remove 3 minute call		**49**	

The RUC recommend to CMS that it use clinical staff time of 80 minutes per patient per month for a Tier 3 medical home, 66 minutes per patient per month for a Tier 2

medical home, and 49 minutes per patient per month for a Tier 1 medical home. The RUC acknowledges that these recommendations are estimates based on information that was available to the Workgroup regarding patient eligibility and nurse case manager caseload. These data may be highly variable by practice. The RUC strongly urges CMS to monitor the actual resource costs during the demonstration project. At a minimum, the RUC recommends that CMS survey participating practices regarding their nurse case manager caseload.

Medical Supplies

Over the course of a complete year, the workgroup agreed that the typical medical home patient will receive three patient education brochures. Divided over twelve months, the total number of booklets per month is 0.25. **The RUC recommend to CMS 0.25 of a patient education booklet as a practice expense input for the Tier 1, Tier 2 and Tier 3 Medical Homes.**

Medical Equipment

The legislation mandating the Medical Home Demonstration Project calls for use of an electronic medical records system. The Tier 3 medical home G-Code includes implementation and use of an EMR system and the workgroup discussed at length the type and capabilities of such a system. Based on these discussions, review of literature, and preliminary findings of the ongoing physician practice information survey, and a detailed invoice, the workgroup has developed a recommendation for the necessary elements of an appropriate EMR system. The system should include the following elements, listed below. For several of these components, CMS currently maintains a pricing input. For those line items that are not included within the CMS list of equipment, a price from the attached invoice has been included.

The RUC recommend to CMS that the Tier 3 Medical Home include direct practice expense inputs for an Electronic Medical Records system consistent with the system element descriptions below.

EMR System Elements for a Tier 3 Medical Home
Software: Comprehensive electronic health record software system that includes the following:

a. Disease Management
b. Point of care evidence-based decision support
c. Electronic prescribing
d. Laboratory test result tracking
e. Automatic problem lists
f. Referral History
g. Diagnostic Imaging Storage
h. Statistical Analysis
i. Patient Registries
j. Medication lists

k. Reporting
l. Patient Education Materials
m. Workflow coordination
n. Secure Electronic Communication with patients

Hardware: Using a server model, the electronic health record would require:

a. One server
b. One desktop computer with monitor
c. Router
d. Firewall
e. Cable/DSL Modem

Other practice expenses related to the electronic health record include:

a. Maintenance/service contract for hardware, software, internal network, and Internet connections (i.e., system support)
b. Training services
c. Data backup and recovery services
d. Interfaces to practice management system, laboratory, etc.
e. Data conversion/migration from existing systems
f. Licensing of commercial databases (e.g., First Data Bank, Multum, CPT)

EMR System Costs for a Tier 3 Medical Home

Element	CMS Code	Time[1]	Life	Price
Software; license	(new)	60 minutes RN/LPN + 4 minutes physician	3 years[2]	$7,995 (per provider)[3]
Software; updates, upgrades, and support	(new)	60 minutes RN/LPN + 4 minutes physician	3 years[2]	$3,198[3]
Computer, server	ED022	60 minutes RN/LPN + 4 minutes physician	5 years[4]	-[4]
Computer, desktop, with monitor	ED021	60 minutes RN/LPN + 4 minutes physician	5 years[4]	-[4]
System support (hardware, network, Internet connection)	(new)	60 minutes RN/LPN + 4 minutes physician	5 years[5]	$1,253[6]
Interfaces	(new)	60 minutes RN/LPN + 4 minutes physician	3 years[7]	$550[3]

Notes

1. Time is assumed equal to seventy-five percent of clinical staff time plus slightly less than half of the estimated physician time, since the EHR is an integral part of care management in the Tier 3 medical home and will be in use whenever the RN/LPN or physician is providing care management for the patient.
2. Based on IRS amortization rules for computer software (see instructions Line 16 on IRS Form 4562 online at http://www.irs.gov/pub/irs-pdf/i4562.pdf)
3. Based on proposal for e-MDs provided by the Oklahoma QIO, attached. E-MDs is one of three systems expected to be capable of meeting the needs of a Tier 3 medical home; the other two are eClinicalWorks and NextGen. An invoice for eClinicalWorks is pending.
4. See CMS equipment list
5. Corresponding to lifetime of hardware
6. Assumed to be 5% of hardware costs
7. Corresponding to lifetime of software

The RUC recommend to CMS the above line items for implementation and use of electronic medical records system within the PE inputs for the Tier 3 medical home. Invoices are attached.

The Workgroup agreed that the Tier 2 Medical Home includes a desktop computer and patient registry software. The medical home practice capabilities required by CMS cannot be implemented by a physician office without the use of a separate dedicated desktop top computer with monitor. Further, the management of a panel of medical home patients at the Tier 2 level of sophistication requires, at the least, the use of a software system to track patient status.

The RUC recommend to CMS that the Tier 2 Medical Home include one ED021 Desk top computer with monitor and patient registry software. For the registry software, the RUC agrees that this software should allow the directing of multiple disease states and allow for the creation of reports to better track patients. DocSite is an example of such a registry. The pricing information for DocSite is available at: http://www.docsite.com/help/pricing.

The Tier 1 medical home contains no medical equipment.

PLI Crosswalk

The Workgroup discussed the professional liability insurance (PLI) crosswalk methodology used by CMS noting that CMS relies on a service within the family or somewhat comparable with a similar work RVU. **The RUC recommends that a suitable service with a similar work RVU is either 92025, *Computerized corneal topography, unilateral or bilateral, with interpretation and report*, which has a work RVU of 0.35 and a PLI RVU of 0.02 or 99441, *Telephone evaluation and management service provided by a physician; 5-10 minutes*, which has a work RVU of 0.25 and a PLI RVU of 0.02.**

References

[i] Wolff, JL, Starfield, B, Anderson, G. Prevalence, Expenditures, and Complications of Multiple Chronic Conditions in the Elderly. Arch. Intern. Med. 2002; 162:2269-2276.

[ii] Agency for Healthcare Research and Quality. *Medical Expenditure Panel Survey*. 2001. Cited by Anderson G, Herbert R, Zeffiro T, and Johnson N, for the Partnership for Solutions. *Chronic Conditions: Making the case for ongoing care.* September 2004 Update. Available at: http://www.partnershipforsolutions.org/DMS/files/chronicbook2004.pdf. Accessed January 23, 2008.

Attachments

G Code Tier 1 Descriptors
G Code Tier 2 Descriptors
G Code Tier 3 Descriptors
CMS Method for Tiering Medical Home (Table 2)
Mathematica Eligibility Information
Mathematica Panel Size Information
MGMA Panel Size Information
Geisinger Report
EMR Description Tier 3
EMR Quote Tier 3
EMR Quote2 Tier 3

G Code for Medical Home Demonstration (Tier 1)

This code is to be used for Medicare Fee For Service patients enrolled in Medicare's Medical Home Demonstration Project. Appropriate E/M codes may be also submitted as they occur.

GXXXX1:

Short Description: Coordination of care across all of a patient's healthcare needs, provided in a Tier 1 medical home, per month,

Long Description: Direct physician supervision and management of the comprehensive and coordinated health care of a patient having one or more chronic conditions or prolonged illnesses as included on the CMS eligible disease list. These services are separate from and in addition to those provided as part of E/M services that may occur during the service period. Coordination of care across all of a patient's healthcare needs and responsibilities will occur whether or not an E/M service is provided and reported during the service period. Services include all of the following as necessary within a calendar month:

- Obtains mutual agreement on role of medical home between physician and patient
- Ongoing support, oversight, and guidance by a physician-led health care team
- Integrated coherent planning for ongoing medical care including communication and coordination with other physicians and healthcare professionals furnishing care
- Regular physician development and/or revision of documented care plans, including integration of new information and/or adjustment of medical therapy
- Approval and tracking of medication changes initiated by pharmacy benefit plans
- Medication reconciliation
- Reviews all medications including prescriptions, over the counter medications, and herbal therapies/supplements.
- Use of integrated care plan to plan and guide patient care.
- Review of reports of patient status from other physicians or health care professionals
- Review results of laboratory and other studies
- Seven day per week, 24-hour access to phone triage
- Communication with the patient, family, and caregivers for purposes of assessment or care decisions
- Use of health assessment to characterize patient needs and risks
- Identify age, gender and medical condition appropriate preventive medicine services.
- Organizes and trains staff in roles for coordination of care across all of a patient's healthcare needs. (including staff feedback).

The following services should not be reported in the same month as this reported service for the medical home demonstration.

Anticoagulant Management (CPT Codes 99363 and 99364)
Medical Team Conference (CPT Codes 99366-99368)
Care Plan Oversight (99339-99340, 99374-99380)
Counseling Services (99401-99420)
Telephone Services (99441-99443; 98966-98968)
On-Line Medical Evaluation (99444; 98969)
Education and Training for Patient Self-Management (98960-98962; 99078)
Review of Data/Preparation of Special Reports (99080, 99090, 99091)
Medication Therapy Management Services (99605-99607)

G Code for Medical Home Demonstration (Tier 2)

This code is to be used for Medicare Fee For Service patients enrolled in Medicare's Medical Home Demonstration Project. Appropriate E/M codes may be also submitted as they occur.

GXXXX2:

Short Description: Coordination of care across all of a patient's healthcare needs, provided in a Tier 2 medical home, per month,

Long Description: Direct physician supervision and management of the comprehensive and coordinated health care of a patient having one or more chronic conditions or prolonged illnesses as included on the CMS eligible disease list. These services are separate from and in addition to those provided as part of E/M services that may occur during the service period. Coordination of care across all of a patient's healthcare needs and responsibilities will occur whether or not an E/M service is provided and reported during the service period. Services include all of the following as necessary within a calendar month:

- Obtains mutual agreement on role of medical home between physician and patient
- Ongoing support, oversight, and guidance by a physician-led health care team
- Integrated coherent planning for ongoing medical care including communication and coordination with other physicians and healthcare professionals furnishing care
- Regular physician development and/or revision of documented care plans, including integration of new information and/or adjustment of medical therapy
- Approval and tracking of medication changes initiated by pharmacy benefit plans
- Medication reconciliation
- Reviews all medications including prescriptions, over the counter medications, and herbal therapies/supplements
- Review of reports of patient status from other physicians or health care professionals
- Review results of laboratory and other studies
- Documented use of evidence-based medicine and clinical decision support tools to facilitate diagnostic test tracking, pre-visit planning, and after-visit/test follow-up
- Seven day per week, 24-hour access to phone triage
- Communication (including telephone calls, secure web sites, etc.) with the patient, family, and caregivers for purposes of assessment or care decisions
- Use of patient self-management plan (including end-of-life planning, home monitoring)
- Patient, family, and caregiver education and support

- Use of health assessment to characterize patient needs and risks
- Monitoring, arranging, and evaluating appropriate and/or evidence informed preventive services
- Organizes and trains staff in roles for coordination of care across all of a patient's healthcare needs (including staff feedback)

The following services should not be reported in the same month as this reported service for the medical home demonstration.

Anticoagulant Management (CPT Codes 99363 and 99364)
Medical Team Conference (CPT Codes 99366-99368)
Care Plan Oversight (99339-99340, 99374-99380)
Counseling Services (99401-99420)
Telephone Services (99441-99443; 98966-98968)
On-Line Medical Evaluation (99444; 98969)
Education and Training for Patient Self-Management (98960-98962; 99078)
Review of Data/Preparation of Special Reports (99080, 99090, 99091)
Medication Therapy Management Services (99605-99607)

G Code for Medical Home Demonstration (Tier 3)

This code is to be used for Medicare Fee For Service patients enrolled in Medicare's Medical Home Demonstration Project. Appropriate E/M codes may be also submitted as they occur.

GXXXX3:

Short Description: Coordination of care across all of a patient's healthcare needs, provided in a Tier 3 medical home, per month,

Long Description: Direct physician supervision and management of the comprehensive and coordinated health care of a patient having one or more chronic conditions or prolonged illnesses as included on the CMS eligible disease list. These services are separate from and in addition to those provided as part of E/M services that may occur during the service. Coordination of care across all of a patient's healthcare needs and responsibilities will occur whether or not an E/M service is provided and reported during the service period. Services include all of the following as necessary within a calendar month:

- Obtains mutual agreement on role of medical home between physician and patient
- Ongoing support, oversight, and guidance by a physician-led health care team
- Integrated coherent planning for ongoing medical care including communication and coordination with other physicians and healthcare professionals furnishing care
- Regular physician development and/or revision of documented care plans, including integration of new information and/or adjustment of medical therapy
- Coordinates care and follow-up for patients who receive care in inpatient and outpatient facilities.
- Approval and tracking of medication changes initiated by health plans or pharmacy benefit plans
- Medication reconciliation to avoid interactions or duplications. Reviews all medications including prescriptions, over the counter medications, and herbal therapies/supplements
- Review of reports of patient status from other physicians or health care professionals
- Review results of laboratory and other studies
- Staff monitoring to ensure use of evidence-based medicine and clinical decision support tools to facilitate diagnostic test tracking, pre-visit planning, and after-visit/test follow-up
- Seven day per week, 24-hour access to phone triage
- Communication (including telephone calls, secure web sites, etc.) with the patient, family, and caregivers for purposes of assessment or care decisions

- Use of patient self-management plan (including end-of-life planning, home monitoring)
- Patient, family, and caregiver education and support
- Use of health assessment to characterize patient needs and risks
- Use of health information technologies, such as patient registries, to monitor and track patient health status or generate point of care clinical reminders
- Use of secure systems that provide for patient access to personal health information
- Use of secure electronic communication between the patient and the healthcare team
- Use of an electronic health record
- Use of an electronic prescribing system
- Measuring performance regarding clinical quality and patient experience and taking action to improve care and processes
- Monitoring, arranging, and evaluating appropriate evidence based and/or evidence informed preventive service
- Organizes and trains staff in roles for coordination of care across all of a patient's healthcare needs (including staff feedback)

The following services should not be reported in the same month as this reported service for the medical home demonstration.

Anticoagulant Management (CPT Codes 99363 and 99364)
Medical Team Conference (CPT Codes 99366-99368)
Care Plan Oversight (99339-99340, 99374-99380)
Counseling Services (99401-99420)
Telephone Services (99441-99443; 98966-98968)
On-Line Medical Evaluation (99444; 98969)
Education and Training for Patient Self-Management (98960-98962; 99078)
Review of Data/Preparation of Special Reports (99080, 99090, 99091)
Medication Therapy Management Services (99605-99607)

Table 2. Proposed Method for Tiering Medical Home Qualification 3-25-08

Tier 1: Entry Level	Tier II: Typical	Tier III: Optimal	
All 10 of the Following	All 16 of the Following Requirements (16 Core)	All 18 of the Following Requirements	Three of the 10 Additional Requirements
Continuity			
Obtains mutual agreement on role of medical home between physician and patient	Obtains mutual agreement on role of medical home between physician and patient	Obtains mutual agreement on role of medical home between physician and patient	Uses scheduling process to promote continuity with clinician
Clinical Information Systems			
Uses data to identify and track medical home patients	Uses data to identify and track medical home patients	Uses data to identify and track medical home patients via an EMR	Uses electronic prescribing tools to reduce medication errors, promote use of generics, and assist in medication management Use of secure electronic communication between the patient and the healthcare team Use of secure systems that provide for patient access to personal health information
Delivery System Redesign			
Implements processes to promote access and communication Organizes and trains staff in roles for care management (incl. staff feedback) Organizes clinical data for individual patients (problem lists, medication lists, risk factors, structured progress notes) Uses health assessment to characterize patient needs and risks Uses integrated care plan to plan and guide patient care	Implements processes to promote access and communication Measures implementation of access and communication processes Organizes and trains staff in roles for care management (incl. staff feedback) Organizes clinical data for individual patients (problem lists, medication lists, risk factors, structured progress notes) Provides pre-visit planning and after-visit follow-up for medical home patients Uses health assessment to characterize patient needs and risks Uses integrated care plan to plan and guide patient care	Implements processes to promote access and communication Measures implementation of access and communication processes Organizes and trains staff in roles for care management (incl. staff feedback) Organizes clinical data for individual patients (problem lists, medication lists, risk factors, structured progress notes) Provides pre-visit planning and after-visit follow-up for medical home patients Uses health assessment to characterize patient needs and risks Uses integrated care plan to plan and guide patient care	Measures performance on clinical quality and patient experiences Reports to physicians on performance Uses data to set goals and take action to improve performance

Tier 1: Entry Level	Tier II: Typical	Tier III: Optimal	
All 10 of the Following	All 16 of the Following Requirements (16 Core)	All 18 of the Following Requirements	Three of the 10 Additional Requirements
Decision Support			
	Adopts evidence-based clinical practice guidelines on preventive and chronic care	Adopts evidence-based clinical practice guidelines on preventive and chronic care	Uses searchable electronic data to generate lists of patients and remind patients and clinicians of services needed Implements system to generate reminders (papers based or electronic) about preventive services at the point of care Implements system to generate reminders (paper based or electronic) about chronic care needs at the point of care
Patient/Family Engagement			
	Documents patient self-management plan (including end-of-life planning, home monitoring) Provides patient education and support Encourages family involvement	Documents patient self-management plan (including end-of-life planning, home monitoring Provides patient education and support Encourages family involvement	
Coordination			
Tracks tests and provides follow-up Tracks referrals including referral plan and patient report on self referrals Reviews all medications a patient is taking including prescriptions, over the counter medications and herbal therapies/supplements	Tracks tests and provides follow-up Tracks referrals including referral plan and patient report on self referrals Reviews all medications a patient is taking including prescriptions, over the counter medications and herbal therapies/supplements	Tracks tests and provides follow-up Tracks referrals including referral plan and patient report on self referrals Reviews all medications a patient is taking including prescriptions, over the counter medications and herbal therapies/supplements Coordinates care and follow-up for patients who receive care in inpatient and outpatient facilities Uses medication reconciliation post discharge to avoid interactions or duplications	

From: Mai Pham [mailto:MPham@hschange.org]
Sent: Thursday, April 17, 2008 1:57 PM
To: Deborah Peikes; Myles Maxfield; Coan, James F. (CMS/ORDI); Sherry Smith
Subject: FW: # of benes

just fyi --
for a different project, we checked the average number of Medicare benes treated by CTS PCPs in the year 2005 with new claims data. Updated numbers are higher than in 2000. The avg is 300 (compared to 257 prior). I am cc'ing Sherry Smith at the RUC in case this update is useful in fee setting for the medical home demo.

thanks,
Mai

-----Original Message-----
From: Saiontz-Martinez, Cynthia [mailto:CMartinez@s-3.com]
Sent: Thursday, April 17, 2008 2:02 PM
To: Mai Pham
Subject: RE: # of benes

Hi Mai, this is a proc univariate of the number of bene's for the 2,284 PCPs.

HSC35.02.9081: Physicians' Peer Networks
Larger 2005 100% Physician Supplier File
Who Age 65 Years or Older as of 01/01/2005, NonESRD/Disablity
CTS PCP (w/ TAXID) - All Visits
Excluding physicians seeing GT 900 pts
Descriptive stats on number of bene's per PCP
Using CTS definition for PCP

The UNIVARIATE Procedure
Variable: BENE_CNT (Number of Benes, all visits)

Weight: PHNATLWT (PH4:CV:Weight, Natl.Est. full sample)

Weighted Moments

N	2284	Sum Weights	100898.667
Mean	300.364474	Sum Observations	30306374.9
Std Deviation	2476.88904	Variance	6134979.33
Skewness	13.6231258	Kurtosis	306.237459
Uncorrected SS	2.31091E10	Corrected SS	1.40062E10
Coeff Variation	824.627831	Std Error Mean	7.7976518

Weighted Basic Statistical Measures

Location		Variability	
Mean	300.3645	Std Deviation	2477
Median	223.0000	Variance	6134979
Mode	1.0000	Range	9498
		Interquartile Range	293.00000

Weighted Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------
Student's t	t 38.51986	Pr > |t|	<.0001

Weighted Quantiles

Quantile	Estimate
100% Max	9499
99%	1290
95%	786
90%	617
75% Q3	395
50% Median	223
25% Q1	102
10%	36
5%	11
1%	1
0% Min	1

Extreme Observations

----Lowest----		----Highest---	
Value	Obs	Value	Obs
1	2150	1865	1823
1	2076	2026	619
1	2048	3099	33
1	2041	4299	698
1	2017	9499	135

Larger 2005 100% Physician Supplier File
Who Age 65 Years or Older as of 01/01/2005, NonESRD/Disablity
CTS PCP (w/ TAXID) - All Visits
Excluding physicians seeing GT 900 pts
Contents

The CONTENTS Procedure

Data Set Name	T9081.PCP_BENE_COUNT_05	Observations	2284
Member Type	DATA	Variables	5
Engine	V9	Indexes	0
Created	Wednesday, April 09, 2008 04:01:18 PM	Observation Length	33
Last Modified	Wednesday, April 09, 2008 04:01:18 PM	Deleted Observations	0
Protection		Compressed	CHAR
Data Set Type		Reuse Space	NO
Label		Point to Observations	YES
Data Representation	WINDOWS_32	Sorted	NO
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information

Data Set Page Size	4096
Number of Data Set Pages	24
Number of Data Set Repairs	0
File Name	\\hsc5\e_hsc5\hsc1\t9081\data\pcp_bene_count_05.sas7bdat
Release Created	9.0101M3
Host Created	XP_PRO

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Informat	Label
3	BENE_CNT	Num	8			Number of Benes, all visits
4	PCP	Num	3			PH4:CV:Questionnaire def of PCP
5	PHNATLWT	Num	8			PH4:CV:Weight, Natl.Est. full sample
2	PHYSID	Num	8	BEST12.	12.	Physician ID
1	PRF_UPIN	Char	6			Carrier Line Performing UPIN Number

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MEMORANDUM

TO: Jim Coan, Project Officer

FROM: Hoangmai Pham, Deborah Peikes, Myles Maxfield

DATE: 2/21/2008
6245

SUBJECT: Prevalence estimates for medical home design

This memo responds to your request for estimates of the number of patients in a physician's panel likely to be eligible for the Medical Home Demonstration, and the number of eligible physicians. In summary, we estimate that a typical non-pediatrician primary care physician will have between 100-150 FFS Medicare patients who are eligible for the demonstration, and that approximately 102,000 primary care physicians see FFS Medicare patients in a given year. We cannot directly estimate the number of eligible physician practices, but suggest several other potential sources for these data.

A. Number of Eligible Beneficiaries Per Physician

We do not yet know which conditions CMS will include for patient eligibility criteria for the demonstration. Spike Duzer at CMS estimates that 44 percent of FFS Medicare beneficiaries have one or more of 9 conditions among those listed in the Chronic Condition Warehouse (colorectal cancer, breast cancer, chronic kidney disease, COPD, diabetes, heart failure, hip fracture, ischemic heart disease, and stroke). These beneficiaries accounted for 85% of total Medicare expenditures in 2005. We believe they were identified as eligible in 2003 and 2004, but have not confirmed that with Spike.

We examined data from the 2000-2001 Community Tracking Study Physician Survey for a representative sample of non-Federal, non-pediatrician primary care physicians who completed training and were active in patient care at least 20 hours per week, and found that they billed for encounters with an average of 257 unique FFS beneficiaries in one year. However, we expect that their total FFS Medicare panel will be larger (not all patients get seen in the same year), by as much as 30%. We thus made the following calculations based on both the (a) 257 and (b) 335 patients/PCP figures.

Applying Spike Duzer's estimate of 44% above, we estimate that the typical primary care physician will have approximately 100-150 (113-147) FFS Medicare patients eligible for the demonstration. Of course, these figures should be interpreted as lower bounds, and will shift upward with the number of chronic conditions that CMS includes in its patient eligibility criteria.

The attached table provides another indication of the prevalence rates for specific chronic conditions is the attached table, but this table does not take into account that beneficiaries often have more than one condition. We hope to have more information on prevalence of specific conditions within the next two weeks.

B. Number of Eligible Physicians

Based on the 2004-2005 Community Tracking Study Physician Survey, we estimate that there are 113,013 primary care physicians in the U.S., of whom approximately 90% see at least one FFS Medicare patient in a given year, implying that roughly 101,700 primary care physicians may be eligible for the demonstration.

Estimates of the number of physicians in particular primary care specialties follow. We suggest that the RUC ask specialty societies for estimates of the number of physicians in non-primary care specialties who participate in Medicare.

Specialty	Total number of physicians	Number of physicians with Medicare patients
General internal medicine	45,427	40,884
General practice	4,646	4,181
Family practice	60,277	54,249
Geriatrics	2,390	2,151
Internal medicine/pediatrics combined specialty	1,718	1,546

We are not aware of a readily accessible source of data on the number of physician practices participating in Medicare. The Medical Group Management Association may be able to suggest some. It may also be possible to derive these estimates from the National Plan and Provider Enumeration System, based on the number of organizational National Provider Identification (NPIs) numbers that are associated with physician NPIs.

Hi Sherry,

Happy to chat about this and our data. A few points to clarify (I'm cc'ing Jim Coan, Bill Rich, and Myles Maxfield, to close the loop):

1. Please interpret the 257 number as the median number of unique Medicare beneficiaries seen by a typical **individual PCP** (FP/GIM/GP) in **ONE** year. As a physician won't see all of his/her patients in any given 12 months, their total Medicare panel may be larger, by as much as 30% (bringing it to 335). It is possible for us to run numbers for their total Medicare panel over 3 years (for more recent years 2004-06), but not sure if we would need programming support.

2. The typical practice will have several fold this number of beneficiaries, but you can pick the multiplier based on assumptions about the number of docs per practice.

3. The 100-150 number was our early estimate of how many of the 257-335 patients would be eligible for the demo based on prevalence counts for **only 8 chronic conditions**. We therefore strongly suspect that the number of eligibles per PCP will actually be much closer (or higher) than the 200 range, as more conditions are added to the eligibility list.

4. The numbers are from the Community Tracking Study Physician Survey, linked to Medicare claims data for years 2000-2002 for the beneficiaries those physicians treated. We just got the 2004-2006 claims data in hand, and have linked that to our 2005 survey respondents.

Please let me know if helpful to discuss further.

thanks,
Mai

Hoangmai Pham, MD, MPH
Senior Health Researcher
Center for Studying Health System Change
600 Maryland Ave., SW, Suite 550
Washington, DC 20024
202-554-7571; fax: 202-484-9258
mpham@hschange.org

From: Devon Broderick [dbroderick@mgma.com]
Sent: Friday, February 15, 2008 11:51 AM
To: David Barrett
Subject: benchmark data for panel size

Hi, David. This is an excerpt of the message sent to the original member who inquired about panel size. Please review it and, if you have any questions, feel free to contact the Information Center at infocenter@mgma.com.

Thanks,

Devon

MGMA's Survey Reports do not benchmark "panel size" benchmarks, primarily because there are many variables that can affect these figures.

Having said that, you may want have in mind one related metric from the "Cost Survey Report" -- that of "Patients per Physician," from the data table titled: "Staffing, RVUs, Patients, Procedures and Square Footage."
That table reports data for unique patients seen in the previous year.

For example, of those respondents to the "Cost Survey for Single-specialty Practices: 2007 Report Based on 2006 Data," for Family Practice, the average number of patients per FTE physician is 2.362; the median is 2,115. The table containing this patient data appears in the survey for each specialty reported.

In addition, the articles listed below provide guidance on how to determine Panel Size. Specifically, from the article reference below, titled: "Panel Size" by Dr. Mark Murray, et.al, (Family Practice Management, Nov 2007), this formula is provided:

"Panel size × visits per patient per year (demand) = visits per provider per day × number of days worked per year (supply).

For example, if a physician provides 20 visits per day, 220 days per year, and his or her patient population averages two visits per patient per year, the ideal panel size would be 2,200."

The article (shown below) provides background context and explanation for the formula.

~~~~~~~~~~
These article citations come from the EBSCO Health Business Database, available as a benefit of MGMA membership. The links will take you to article descriptions with the option to download a full-text PDF or HTML version of the article.

PANEL SIZE. By: Murray, Mark; Davies, Mike; Baoshan, Barbara.
Family Practice Management
Nov2007, Vol. 14 Issue 10, p29-32, 4p; (AN 27745524) Persistent link to this record:
http://search.ebscohost.com/login.aspx?direct=true&db=nhh&AN=27745524&site=ehost-live

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PANEL SIZE How Many Patients Can One Doctor Manage?
By: Murray, Mark; Davies, Mike; Baoshan, Barbara.
~~~~~~~~~~

Family Practice Management
Apr2007, Vol. 14 Issue 4, p44-51, 8p; (AN 24908473) Persistent link to this record:
http://search.ebscohost.com/login.aspx?direct=true&db=nhh&AN=24908473&site=ehost-live

---

Performance Metrics for Advanced Access.
By: Gupta, Diwakar; Potthoff, Sandra; Blowers, Donald; Corlett, John.
Journal of Healthcare Management
Jul/Aug2006, Vol. 51 Issue 4, p246-258, 13p; (AN 21816928) Persistent link to this record:
http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=21816928&site=ehost-live

~~~~~~~~~~
I hope these data and articles will be of help. Please let me know if I can assist further.

Thank you!

Marti Cox, MLIS
Information Center
Medical Group Management Association
104 Inverness Terrace East
Englewood, CO 80112
toll-free (877)275-6462, ext. 1887
www.mgma.com

Please take a couple minutes to complete this short questionnaire regarding the Medical Group Management Association (MGMA) Information Center e-mail service. Your input is greatly appreciated to help medical group practice professionals excel in their activities.
~~~~~~~~~~
Click on the link below to begin.
http://www.mgma.com/surveypro/content/06SatisfactionQuestions_1.htm

If you have questions about this questionnaire, please call toll-free 877.275.6462, ext. 1887 or e-mail infocenter@mgma.com.

>>> <L.Logel@FMHospital.com> 1/15/2008 12:39 PM >>>
Hi

Recently we developed and implemented a full hospitalist program so our

providers no longer complete hospital rounds. Based on the fact that they are now in the office more hours and not in the hospital I'm wondering

what MGMA data is for best practice panel size for primary care.

Thank you in advance for your help.

Leslie Logel, CMPE
Director of Operations
Department of Primary Care
Frisbie Memorial Hospital

335-8812

RUC Medical Home Workgroup / Geisinger Health System Conference Call

Members of the RUC Medical Home Workgroup met with representatives of the Geisinger Health System on Thursday, April 3, 2008 via conference call to better understand the Geisinger role in the ongoing Medicare Physician Group Practice Demonstration Project and to ascertain any information that would be useful to the Workgroup's ongoing discussion.

Doctors David Hitzeman, Leonard Lichtenfeld, Thomas Felger, and William Rich participated. The Geisinger participants included Doctors Steve Pierdon, Beverly Blaisure, Duane Davis and Janet Tomcavage. Doctor James Blankenship facilitated the meeting and listened in as an observer.

Doctors Rich and Hitzeman summarized the RUC's role in the Medicare Medical Home Demonstration project. The representatives from Geisinger explained their role in current Medicare demonstration projects, however most of the discussion focused on a specific medical home project currently running in two Geisinger practices.

Electronic Health Records and IT Infrastructure

Geisinger fully implemented electronic health records (HER) in 2001. This highly sophisticated system uses EpicCare as a foundation, enhanced with homegrown software and programming. It was acknowledged that the Geisinger model could not be used to predict EHR costs for the typical medical home as their IT costs include all lines of business, including their insurance component. The entire HER system cost $80 million, or $114,000 per individual physician. Geisinger has nearly 700 physicians in their system, of which 200 are primary care focused. Geisinger's ongoing IT budget is 4% of the system's annual revenue. The Geisinger representatives encouraged the Workgroup members to consider other sources to determine the appropriate EHR cost estimate.

Medicare Patient Panel Size

Statistics included on Geisinger's website, www.geisinger.org/about/stats.html, indicate that the system serves more than 2 million patients throughout Pennsylvania, with 210,000 enrolled in the Geisinger health plan. Other relevant statistics:

Clinical Staff Breakdown in 2007

- Physicians/scientists: 679
- Residents/fellows: 257
- Registered nurses: 1,949
- Licensed practical nurses: 316

It is estimated that the 200 Geisinger primary care physicians serve a total of 350,000 patients, which translates to 1,750 patients per physician. Medicare patients represent

25% of this estimated panel size or 440 patients. This varies from the overall Geisinger physician panel sizes. The Geisinger representatives quoted that that their overall average load of patient to physicians is 2,500, of which 700-800 are Medicare.

The RUC participants inquired about whether the system has risk-adjusted data, dependent upon the number of chronic condition or other risk criteria. Geisinger does risk adjust by the number of chronic conditions and also use a 1-5 risk rating, with the highest risk at rated at 5. Approximately 15-20% require intensive case management, as at least 15% of patients are rated at a 5.

Patient Caseload per Nurse Case Manager

In addition to the sophisticated EMR system, Geisinger has utilized a number of medical home concepts across their entire patient population for some time. Patient registries; use of best practices/evidence-based medicine for chronic care and preventive medicine; and patient reminders are already a component of the system.

In January 2007, an intensive medical home project was initiated in two practice sites. The description of this project resembles the Tier 3 medical home. Approximately 3,000 Medicare patients are served by these two practice sites. The program has recently been expanded to 20,000 patients in eleven practice sites.

In these two initial sites, the Geisinger representatives indicated that there were 250 Medicare "medical home" patients per physician. This is lower than the overall Geisinger Medicare patient to primary care physician estimate of 440 described above.

In these two initial practices, four Registered Nurse (RN) case managers were hired to exclusively coordinate the care for the patients. It is estimated that each case manager was able to coordinate the care of 125 high risk patients. LPNs are also involved in this medical home model, as individuals integrating the care coordination input into the practice.

Physician Involvement

The physicians in these two practices attend at least one hour to ninety minute team meeting per month to discuss the sickest patients. In addition, the physicians spend, on average, three hours per week in non face-to-face patient care coordination activities.

PROPOSED ELECTRONIC HEALTH RECORD FOR TIER 3 MEDICAL HOME

System Elements

Software
Comprehensive electronic health record software system that includes the following:

a. Disease Management
b. Point of care evidence-based decision support
c. Electronic prescribing
d. Laboratory test result tracking
e. Automatic problem lists
f. Referral History
g. Diagnostic Imaging Storage
h. Statistical Analysis
i. Patient Registries
j. Medication lists
k. Reporting
l. Patient Education Materials
m. Workflow coordination
n. Secure Electronic Communication with patients

Hardware
Using a server model, the electronic health record would require:

a. One server
b. One desktop computer with monitor
c. Router
d. Firewall
e. Cable/DSL Modem

Other
Other practice expenses related to the electronic health record include:

a. Maintenance/service contract for hardware, software, internal network, and Internet connections (i.e., system support)
b. Training services
c. Data backup and recovery services
d. Interfaces to practice management system, laboratory, etc.
e. Data conversion/migration from existing systems
f. Licensing of commercial databases (e.g., First Data Bank, Multum, CPT)

System Costs

Element	CMS Code	Time[1]	Life	Price
Software; license	(new)	80 minutes + physician time	3 years[2]	$7,995 (per provider)[3]
Software; updates, upgrades, and support	(new)	80 minutes + physician time	3 years[2]	$3,198[3]
Computer, server	ED022	80 minutes + physician time	5 years[4]	$22,567[4]
Computer, desktop, with monitor	ED021	80 minutes + physician time	5 years[4]	$2,501[4]
System support (hardware, network, Internet connection)	(new)	80 minutes + physician time	5 years[5]	$1,253[6]
Interfaces	(new)	80 minutes + physician time	3 years[7]	$550[3]
Total				**$38,064**

Notes:

1. Time is assumed equal to clinical staff time plus physician time, since the EHR is an integral part of care management in the Tier 3 medical home and will be in use whenever the RN/LPN or physician is providing care management for the patient.
2. Based on IRS amortization rules for computer software (see instructions Line 16 on IRS Form 4562 online at http://www.irs.gov/pub/irs-pdf/i4562.pdf)
3. Based on proposal for e-MDs provided by the Oklahoma QIO, attached. E-MDs is one of three systems expected to be capable of meeting the needs of a Tier 3 medical home; the other two are eClinicalWorks and NextGen. An invoice for eClinicalWorks is pending.
4. From CMS equipment list
5. Corresponding to lifetime of hardware
6. Assumed to be 5% of hardware costs
7. Corresponding to lifetime of software

P.O. Box 2889
Cedar Park, TX 78630
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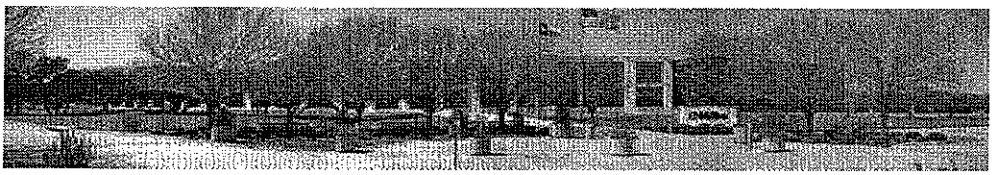
F: (512) 335-4375
www.e-MDs.com



Prepared By: Scott Perkins
Direct Line: (817) 455-1304
e-Mail: sperkins@e-mds.com

Proposal Valid Until: 30-Jan-00
Date Proposal Prepared:

Prepared For: e-MDs quote for a 2 Provider clinic
Address:
City: **ST** **Zip:**
e-Mail: **Tel:** **Fax:**

	Count	Unit Price	Line Total	Totals
Software Licenses Per Provider (MD, DO, PA, NP, etc.)				**15,990.00**
e-MDs Solution Series	2	7,995.00	15,990.00	
Includes: Chart, Bill, DocMan, Schedule, Tracking Board, TaskMan, E&M Coding, ICD Coder, CPT/HCPCS Search, Code Linker, Prescriptions, Order Tracking, Fax Management, Medical Art, Patient Education, Template Editor, Forms, Referrals, Collections Module, CCI Edits, Graphing, Check In Module, etc.				
Updates/Upgrades and Support				**3,198.00**
Annual software updates, upgrades, and support as a % of software licenses (1)				
Third Party Software				**680.00**
MS SQL Server 2005 - Standard Edition (per workstation)	8	65.00	520.00	
AMA CPT Code Files (per workstation)	8	20.00	160.00	
EDI Clearinghouse				**300.00**
Gateway EDI				
Interface setup and registration per site - billed by e-MDs	1	300.00	300.00	
Interface annual support fee billed in year 2	1	250.00		
Training & Implementation - See item (3), (4) and (5) below - **Travel expenses are not included**				**7,455.00**
e-MDs facility for e-MDs Bill - 2 1/2 days - per person	4	495.00	1,980.00	
Bill and Schedule modules taught in a classroom setting (approx. 12 students per class), at the e-MDs corporate headquarters in Austin, Texas. Geared toward Office Managers, Billing and Scheduling Supervisors, and general scheduling/billing staff. Upon completion, participants will be able to schedule, reschedule, and cancel appointments; check in patients; build invoices manually and from Chart; post payments; and send electronic claims.				
e-MDs facility for e-MDs Chart- 2 1/2 days - per person	4	495.00	1,980.00	
Chart, DocMan, Tracking Board, Lab Tracking, Refill Requests, and TaskMan modules taught in a classroom setting (approx. 12 students per class), at the e-MDs corporate headquarters in Austin, Texas. Geared toward Providers, Nursing, and Clinical staff, as the functions of the Classroom participants can be from various medical specialties. Upon completion, participants will be able to track the patient from waiting room to exam room; create doctor's and nurse's notes; enter vitals, past M/F/S history, medications; create and edit templates, pre-clicks, and shortcuts; create, edit, use flow sheets; create, authorize, and deny refill requests; and track send-out labs, tests, and procedures.				
e-MDs QuickStart setup - up to 8 hours	1	995.00	995.00	
QuickStart setup creates a solid foundation for clinic to build their database. A wide variety of information is entered by an e-MDs staff member, including all of the clinic's staff and their logins, providers, internal facilities (if clinic has more than 1 location), and schedules. After the QuickStart is installed and after training has been completed, the clinic's staff will be able to customize the database further to meet the clinic's individual needs.				
On Site Installation Services - per day	1	1,250.00	1,250.00	
An e-MDs IT professional travels to the clinic's location to install e-MDs software and set-up (if available) the Fax Server, scanners, DigiCams, insurance card scanners, tablets, PDAs (if Companion is purchased), and Lab Interfaces. Hardware/Network must be purchased and installed before e-MDS IT tech arrives to install software.				

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e-Mail: sperkins@e-mds.com

Proposal Valid Until: 30-Jan-00
Date Proposal Prepared:

Prepared For: e-MDs quote for a 2 Provider clinic
Address:
City: **ST** **Zip:**
e-Mail: **Tel:** **Fax:**

	Count	Unit Price	Line Total	Totals
Project Management - per hour A dedicated e-MDs Project Manager is assigned to offer guidance, create a custom implementation project plan, and to make recommendations for successful implementation. If needed, clinic will purchase additional hours at $125/hr.	8	125.00	1,000.00	
e-Prescribing (SureScripts) Set-Up Fee Per Database	1	250.00	250.00	
Shipping (3 Day Ground)		25.00		**25.00**
			Total:	**27,648.00**
			***Grand Total:**	**27,648.00**

Financing Options (Through ACI Financial)

Term	3 Year	5 Year
Payment	$1,015	$680
Optional 3 month deferred:	$1,045	$705
Optional 6 month deferred:	$1,067	$722

*** Applicable sales tax will be added at the time of invoicing. If you are exempt from Sales Tax, please provide a valid exemption certificate when submitting your order.**

(1) You must have the ability to download minor updates via the internet
(2) Data Imports require a separate agreement
(3) Related travel expenses including airfare, hotel, rental car, and meals are extra. An estimate will be provided for your approval before any expenses are incurred.
(4) Training cancellation policy: 30 days written notice for onsite training and Go Live cancellations; 15 days written notice for classroom training cancellations; and 10 days written notice for online training cancellations.
(5) Training expiration policy: All training must be scheduled and taken within 12 months of the date of purchase.

Purchase Schedule - Page 1 of 2

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Prepared By:
Direct Line:
e-Mail:

Proposal Valid Until: 09-Aug-07
Date Proposal Prepared: 10-Jul-07

Prepared For:
Address:
City State: Zip:
e-Mail: Tel: Fax:

	Count	Unit Price	Line Total	Totals
Software Licenses Per Provider (MD, DO, PA, NP, etc.)				27,982.50
e-MDs Solution Series Includes: Chart, Bill, DocMan, Schedule, Tracking Board, TaskMan, E&M Coding, ICD Coder, CPT/HCPCS Search, Code Linker, Prescriptions, Order Tracking, Fax Management, Medical Art, Patient Education, Template Editor, Forms, Referrals, Collections Module, CCI Edits, Graphing, Check In Module, etc.	3	7,995.00	23,985.00	
e-MDs Solution Series - Part Time Provider (16 hours per week or less)	1	3,997.50	3,997.50	
e-MDs Chart Includes: Chart, DocMan, Schedule, Tracking Board, TaskMan, E&M Coding, ICD Coder, CPT/HCPCS Search, Code Linker, Prescriptions, Order Tracking, Fax Management, Medical Art, Patient Education, Forms, Referrals, Check In Module, Template Editor, etc.	0	4,495.00	0.00	
e-MDs Bill Includes: Bill, Schedule, TaskMan, ICD and CPT/HCPCS Coders, Code Linker, CCI and Other Claim Edits, Forms, Referral Management, Customizable Check In Module, Collections Module, Collections Tickler Notes, Appointment Instructions, Work Lists, Master Person Index, Electronic Claims and Remittances, etc.	0	4,495.00	0.00	
e-MDs Docman Includes: DocMan, TaskMan, Document Filing Cabinet, Document Search, Graphing, Audit Trails, Fax Management, Customizable Folders, etc.	0	1,495.00	0.00	
e-MDs Schedule Includes: Schedule, TaskMan, Forms, Check In Module, Customizable Check In Tasks, Referrals, Appointment Reminders Work List, Daily Work List, Appointment Instructions, etc.	0	695.00	0.00	
e-MDs Companion Mobile Scheduling and Charge Capture Solution	0	395.00	0.00	
Interfaces				0.00
Quest Lab Interface Lab interface between Quest and e-MDs Chart	0	3,000.00	0.00	
Labcorp Lab Interface Lab interface between Labcorp and e-MDs Chart	0	3,000.00	0.00	
Custom Lab Interface Lab interface between Spectrum and e-MDs Chart	0	3,000.00	0.00	

Purchase Schedule - Page 2 of 2

Updates/Upgrades and Support				5596.50
Annual software updates, upgrades, and support as a percentage of software licenses (1)				
Third Party Software - Per Workstation				1,955.00
MS SQL Server 2000 - Standard Edition	23	65.00	1,495.00	
AMA CPT Code Files	23	20.00	460.00	
Dragon Naturally Speaking V.9	0	695.00	0.00	
EDI Clearinghouse				300.00
Gateway EDI				
Interface setup and registration per site - billed by e-MDs	1	300.00	300.00	
Interface annual support fee billed in year 2	1	250.00	250.00	
Conversions (2)				0.00
Basic Conversion - Demographics	0	2,995.00	0.00	
Financial Conversion - Demographics + Balance Forwards	0	4,995.00	0.00	
Training & Implementation - See item (3) below - Travel expenses are not included				12,965.00
On-Site EMR training per instructor - per day	2	1,250.00	2,500.00	
On-Site PM training per instructor - per day	2	1,250.00	2,500.00	
e-MDs facility for e-MDs Bill - 2 1/2 days - per person	2	495.00	990.00	
e-MDs facility for e-MDs Chart- 2 1/2 days - per person	2	495.00	990.00	
e-MDs Internet or telephone training - per hour	8	125.00	1,000.00	
e-MDs QuickStart setup - up to 8 hours	1	995.00	995.00	
On Site Installation Services - per day	1	995.00	995.00	
Go Live Support - per person - per day	1	995.00	995.00	
Project Management - per hour	16	125.00	2,000.00	
e-MDs Portal Set-up	0	495.00	0.00	
e-MDs Portal 12-month Subscription ($75/provider/month)	0	900.00	0.00	
e-Prescribing (SureScripts) Set-Up Fee Per Database	0	250.00	0.00	
Shipping (3 Day Ground)		20.00		20.00
			Total:	48,819.00
MANAGEMENT APPROVAL REQUIRED >>>>>			Approved Discount:	2,798.25
Management Approved Discount				3,000.00
			***Grand Total:**	43,020.75

* Applicable sales tax will be applied at the time of invoice

(1) You must have the ability to download minor updates via the internet

(2) Data imports require a separate agreement

(3) Related travel expenses including airfare, hotel, rental car, and meals are extra. An estimate will be provided for your approval before any expenses are incurred.

Initials_____