

Appendix E

Decision Rules for Coding Continuum Scores

Below is a table that facilitates transposing evaluation scores for disciplines to scores on the Charns and Tewksbury continuum, which we call “CaT scores.”

Composite Evaluation scores			Discipline. alone		Discipline with Input from SL mgr.		Joint	SL mgr. with Discipline Input	SL mgr. alone
	0		1		2		3	4	5
	1	2	3	4	5	6	7	8	9
Charns Continuum (CaT score)			Integrator	Task force	Reorganize Department	Team	Matrix	Modified Service Line Division	Service Line Division

- 1) If there is no primary care service line, the CaT score is 1.
- 2) When evaluation scores for all disciplines match, that composite evaluation score is mapped into the CaT score as per the table.
- 3) The score for MAS is dropped for the remaining sites. When evaluation scores for the remaining disciplines (except MAS) match, the composite evaluation score is that value, which is mapped onto the CaT score as per the table.

For the remaining sites, the discipline of the SL manager is also excluded. (E.g. if the manager is a physician, the evaluation score for physicians is not included in the determination). If there is a dyad, disciplines of both dyad members are excluded. Apply the following decision rules to the remaining sites.
- 4) If the evaluation scores for the remaining disciplines match, or only one evaluation score remains, the composite evaluation score is that value.
- 5) When evaluation scores of the disciplines differ by no more than one, the composite score for all SLs with three scores will be the score that appears most often. (Example 4,5,5 = 5 while 2,2,3 = 2.)
- 6) Additionally, when SLs have only two evaluation scores, or in cases where there are four evaluation scores (two of each, e.g. 4,4,5,5), and the manager is NOT a physician or a nurse, the composite score will be determined by the lower of the remaining scores.
- 7) If range of scores is more than 1, the classification is mixed. Except, if the site has a team of at least 3 members including BOTH a physician and a nurse, the composite score for service line = 6.

Appendix F

Patient Satisfaction Survey

Sampling and Distribution

Patient satisfaction data were obtained from the 1997 and 1998 administrations of the annual survey of veterans conducted by the VA National Customer Feedback Center (NCFC). The NCFC ambulatory care satisfaction questionnaire is a paper-and-pencil self-report instrument designed for mail administration and is an adaptation of an instrument developed by researchers at the Picker Institute (Cleary et al., 1991) and widely used in the private sector. The questionnaire consists of 70 multiple-choice items plus an open-ended comment solicitation. These items represent 10 dimensions of ambulatory care: access, emotional support, [attention to patient] preferences, information/education, continuity of care, visit coordination, overall coordination, courtesy, specialist care, and pharmacy. The patient satisfaction analysis could only be performed for primary care service lines because the patients surveyed had not necessarily made any use of mental health services

To be eligible for the survey, a veteran must have had at least one primary care outpatient visit during a two-month target period — in the 1998 instance, between May 18 and July 17, 1998. Based on a statistical power analysis and anticipated response rates, a target of 175 such patients was sought at each ambulatory care site. At those sites where more than 175 veterans met the inclusion criteria, a sample of 175 was randomly selected. At those sites where fewer than 175 veterans met the inclusion criteria, all eligible outpatients were included in the sample. Sampling was accomplished using the VA's central database of computerized outpatient records. For the 1998 survey, this procedure yielded a total sample of 65,141 veterans who had received care at 391 different ambulatory care sites. The 1997 survey was administered in a similar fashion.

The NCFC employed a modified version of the methodology developed by Dillman (1978) for the administration of mail surveys. Veterans selected for the survey received a pre-survey notification letter explaining the nature and goals of the upcoming survey and encouraging their participation. One week later the first questionnaire was mailed to everyone in the sample. One week after that, a thank you/reminder post card was sent, again to the entire sample. Two weeks later a second copy of the questionnaire was mailed, but only to those who had not yet responded. Data collection remained open for two weeks after the second questionnaire was mailed. For the 1998 ambulatory care survey, the data collection was conducted during August and September.

Of the 65,141 veterans in the initial mail-out sample, 2 percent (n=1450) never received a questionnaire. This “unable to contact” group consisted of: (a) 143 cases eliminated prior to the first mailing due to incomplete or incorrect address information; (b) 1245 surveys that were mailed but returned by the postal service as undeliverable; and (c) 62 instances in which the questionnaire was returned by a surviving relative or friend with a message indicating that the intended recipient was deceased. Of the 63,691 veterans who were contacted, 70.4 percent (n=44,821) responded. Questionnaires returned blank were counted as non-respondents.

Scale Construction

Summary scale scores were constructed by the NCFC for each dimension by first dichotomizing responses to the relevant items into “problem” and “no problem” categories. For example, an item from the Preferences scale asks: “Were you involved in decisions about your care as much as you wanted?” Most questions feature response options representing three levels of agreement – for example: yes definitely, yes somewhat and no. In the current example, a response other than “yes definitely” would be coded as a reported problem. A scale score was then computed as the proportion of problem responses. If, for example, a patient reported problems on three of five items in a scale, the scale score would be .60. For each hospital a change score on each of the ten dimensions was calculated by subtracting the 1997 score from the 1998 score.

Appendix G

Primary Care Service Line Regression Results: Standardized Coefficients

	Primary care enrollment	Acute bed day rate	Proportion users w/ 1 or more hospitalizations	Discharge rate	Multi-stay rate	ACSC hospitalization rate	Specialty visit Rate	Urgent care visits/total visits	Urgent care visits/users
97-level variable	-0.57364***	-0.83323***	-0.6608***	-0.69029***	-0.35033***	-0.66399***	-0.41381***	-0.74135***	-1.00132***
size (ftes)	-0.07037	0.167988	0.289788*	0.255529	0.12667	0.154797	-0.17444	-0.04195	0.003848
teaching status	-0.38489	-0.14995	0.09754	0.115422	0.119156	0.418007	-0.13522	0.177279	-0.01335
gm&s	-0.48396	-0.15831	-0.22951	-0.36505	-0.82821	-0.07312	0.135675	0.071356	-0.05283
psychiatric	-0.14357	-0.1813	-0.20293	-0.26109	-0.34401	-0.09361	-0.22152	-0.08698	0.001154
long-term care	-0.46736	0.079837	0.097155	0.054923	-0.22121	-0.08043	-0.06936	-0.33278	-0.05763
west region	0.225782	-0.3688	0.465389	0.457863	0.147096	0.95401**	0.008972	-0.00127	-0.00195
midwest region	0.309332	-0.18998	0.266691	0.150481	-0.47637	0.675271**	0.540513	-0.41865	-0.01904
south region	0.800636	0.019482	0.425547	0.434545	0.291625	0.937776**	0.508272	-0.24068	-0.02303
VERA winner	0.237525	0.181975	-0.09834	-0.13433	-0.17567	-0.20523	0.110029	-0.31819	-0.01751
VERA loser	0.514337	0.294402	0.176553	0.2282	0.159848	0.411708	-0.17053	-0.16573	-0.01329
average age	0.088511	-0.26517*	-0.18991	-0.08514	0.19703	0.13162	0.001281	-0.08629	-0.01188
percent male	0.178739	0.053709	0.188574	0.13416	-0.04754	0.109472	-0.18123	0.06788	0.00096
percent married	0.019717	0.020778	0.149848	0.078961	-0.2224	0.02233	-0.33085	-0.01572	0.018888
percent white	0.020011	0.102994	0.190134*	0.185249*	0.187684	0.279995	0.126078	0.091063	0.00153
ipcs	0.107532	0.159056	0.089343	0.06634	0.018385	-0.02749	0.163218	-0.15617	0.01324
imcs	0.005747	-0.07646	-0.09426	-0.0373	0.222706*	-0.03833	-0.06773	-0.0476	0.003945
young task force	0.001754	0.433907	0.714814* (p=0.501)	0.749893*	0.748844	0.783191* (p=0.510)	-0.50672	0.401457	0.032104
young team	-0.04753	0.299309	0.223665	0.370213	0.707622	0.241909	-0.43143	0.978962*	0.030845
young division	0.036827	-0.19799	0.293789	0.290047	0.156946	0.587263*	-0.57482	0.53764*	0.031007
young mixed	0.255245	0.00215	0.247716	0.312565	0.472603	0.695309**	0.19912	0.343952	0.043287
old task force	-0.0389	-0.07875	0.316205	0.274717	-0.05823	0.572243	0.154097	0.533064	0.030639
old team	0.581176*	-0.02494	0.035107	0.00154	-0.07561	0.048173	0.124525	0.454853	0.034199
old division	0.133084	0.051534	0.264871	0.214702	0.036482	0.253354	0.343197	0.396828	0.026129
old mixed	0.15705	0.216691	0.211348	0.131312	-0.33439	0.28786	0.550086*	-0.33534	0.0279
team lead	-0.19639	-0.09198	-0.07149	-0.08667	-0.13333	-0.10244	-0.4665	-0.1652	-0.0092
budget control	0.152378	-0.00274	0.120264	0.056756	-0.14258	0.000962	0.772964***	-0.14048	-0.00923
F-statistic	1.78431*	10.22523***	3.78166***	4.610225***	2.014837**	4.624506***	3.086427***	6.061345***	2.054106**
Adjusted R ²	0.300771	0.711401	0.476892	0.526379	0.326926	0.52725	0.426622	0.593697	0.331187

Table entries standardized regression coefficients. *p<.05 **p<.01 ***p<.001

Appendix G

Mental Health Service Line Regression Results: Standardized Coefficients

	Psychiatric bed day rate	Total acute bed day rate	Proportion of hospitalizations with no prior PC visit w/in 30 days	Readmission rates	Proportion of hospitalizations followed by PC visit w/in 30 days	Urgent care visit rate
97 level variable	-0.72937***	-0.6806***	-0.63064***	-0.46184**	-0.51187***	-0.47006
size (ftes)	0.101231	0.087135	0.17066	-0.10136	-0.13373	-0.09401
teaching status	-0.07015	0.019744	-0.203	0.03397	0.143011	0.13743
gm&s	0.097888	0.112372	0.586584	0.084161	-0.53183	0.739905
psychiatric	0.124636	0.021516	0.289652	0.091577	0.108592	0.050352
long term care	-0.04575	-0.10087	0.170789	0.732129**	-0.03489	0.068406
VERA winner	0.07536	0.078049	-0.14354	0.085203	0.601238*	-0.08505
VERA loser	-0.15887	-0.17491	0.207819	0.219266	-0.28726	0.07153
midwest region	-0.62496*	-0.45845	-0.27824	-0.1111	-0.47745	-0.14674
south region	-0.37097	-0.08812	-0.26541	-0.22177	-0.50682	0.17935
west region	-0.74317*	-0.62392	-0.10142	0.027415	-0.70752	0.039428
average age	-0.05845	-0.00454	-0.12059	0.06871	-0.00346	-0.08729
percent male	0.021123	-0.0162	0.125717	-0.13108	-0.05334	0.011769
percent white	0.010798	0.07404	-0.08957	-0.1137	0.062975	0.218599
percent married	-0.00934	-0.00616	-0.10114	0.096854	-0.01703	-0.23311
Ipcs	-0.03242	0.077144	-0.36735***	0.183392	-0.17265	-0.02381
Imcs	0.061411	-0.00301	0.071712	-0.09258	0.098584	0.070528
young task force	1.166047*	1.072655*	-1.36339*	-0.09524	-0.9305	0.73178
young team	0.110118	0.030985	0.046257	-0.31532	-0.15583	0.520722
young division	0.242325	0.209734	-0.14205	0.088934	-0.16896	0.552059*
young mixed	-0.00032	-0.13108	0.019731	0.348824	-0.09034	0.243061
old task force	-0.06475	-0.09852	0.238066	0.071502	0.31789	0.195605
old team	-0.13133	-0.21031	0.0773	-0.36454	0.105528	-0.18897
old division	-0.06647	-0.15152	-0.3978	-0.17627	0.155994	0.260317
old mixed	0.090462	-0.12544	0.284846	0.983879**	0.537033*	0.511818
team lead	0.083919	0.098499	0.207934	0.377221	-0.22538	-0.00163
budget control	-0.26662	-0.24349	-0.20974	-0.33978	0.052875	-0.33284
F-statistic	5.865623***	5.000659***	5.354632***	1.867486*	2.759192***	2.014447**
Adjusted R ²	0.585756	0.546591	0.563481	0.310439	.399458	0.326883

Table entries standardized regression coefficients. *p<.05 **p<.01 ***p<.001

Appendix G

Primary Care Regression Results: Standardized Coefficients

	Access	Emotional Support	Patient Preferences	Patient Education	Visit Coordination	Overall Coordination	Continuity of Care	Courtesy
97 level variable	-.93***	.53**	-.78***	-.78***	-.81***	-.84***	-.56***	-.96***
size (ftes)	.16	.07	.00	.05	.00	-.09	-.05	.07
teaching status	-.07	-.45*	-.14	-.12	-.07	.11	-.12	-.35
gm&s	.01	-.06	.02	-.01	.08	.08	.42	.23
psychiatric	-.11	-.32	-.11	-.10	-.09	-.08	.10	-.05
long term care	.08	.18	.01	.02	.01	.06	.10	.16
VERA winner	-.11	-.37*	-.11	-.15	-.11	-.15*	-.11	-.11
VERA loser	-.06	-.76*	-.13	-.15	-.14	-.11	.28	.01
midwest region	-.10	-.15	-.05	.07	-.14	.04	.24	-.21
south region	-.22	-.58	-.15	-.02	-.21	-.09	.03	-.36
west region	.01	-.85*	-.09	.08	-.03	.11	.20	-.14
average age	-.02	-.00	-.05	-.04	-.11	.00	.03	-.14
percent male	.13	.18	.14	.17*	.10	-.04	-.08	.12
percent white	-.54***	-.07	-.21*	-.11	-.17	-.12	-.13	-.42***
percent married	.18	.07	-.01	.02	-.07	-.08	-.04	.10
ipcs	-.15	-.07	-.26**	-.12	-.20*	-.17*	-.11	-.17
imcs -.40***	-.11	-.12	-.14	-.10	-.27***	.09	-.22**	
young task force	.05	.91*	.05	.02	.05	-.01	-.82	.66
young team	.05	.22	-.02	.02	-.02	.13*	-.02	-.48
young division	-.05	-.40	-.19*	-.10	-.05	.05	-.03	-.35
young mixed	.06	-.45	.03	.02	-.01	.01	.17	.40
old task force	-.05	-.47	-.11	-.04	-.11	-.01	1.24**	-.60
old team	-.06	-.08	-.08	-.08	-.06	-.02	-.08	-.47**
old division	-.05	-.55	-.19**	-.11	-.09	-.03	-.15	-.54*
old mixed	.19**	1.03***	.20	.13*	.22***	.18***	.30	.35
team lead	.09	-.08	.06	.08	.10	.00	.39 .21	
budget control	-.04	.07	.10	-.03	.01	-.07	-.29	.36
F-statistic	6.26***	4.41***	6.82***	7.71***	7.09***	12.17***	3.46***	8.62***
Adjusted R ²	.60	.52	.62	.65	.63	.75	.45	.68

Table entries standardized regression coefficients. *p<.05 **p<.01 ***p<.001