Technical Appendix

This technical appendix provides details on the calculations of the indirect effects of type of rehabilitation unit on index stay VHA costs. In our approach, there are three indirect effects of type of rehabilitation unit on index stay VHA costs: [1] the ARBU influence on costs operating through reduced length of stay, [2] the ARBU influence on costs operating through higher guideline compliance, and [3] the ARBU influence on costs operating through LOS, the effect of LOS on compliance, and compliance on costs.

The steps involved in calculating these three indirect effects are shown in Table A1 below. The direct effect of ARBU on LOS is calculated by exponentiating the ARBU coefficient in the length of stay model (-.34) and multiplying by the average length of stay in subacute units (28.6 days), then subtracting the result (20.4 days) from the subacute stay. This yields the -8.24 days shown in Table A1. The other numbers in steps 1 through 3 in Table A1 are taken directly from the coefficients listed in Table 3.

Table A1. Calculation of indirect effects of type of rehabilitation unit on index stay VHA costs

Indirect Effect Description	Step 1	Step 2	Step 3	Dollar Amount
ARBU influence on costs through reduced LOS	-8.24 days	$740.18 / day		-$6,099
ARBU influence on costs through higher guideline compliance	+5.5 guideline points	$103.26 per guideline point		$568
ARBU influence on costs through reduced LOS reducing compliance and hence costs	-8.24 days	0.18 guideline points per day	$103.26 per guideline point	-$154
Sum of Indirect Effects				**-$5,685**

Direct Effect	**-$249 (n.s.)**
Total Effect from Structural Model	**-$5,934**