

90 - Normalization Factor

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Each time CMS calibrates a risk adjustment model, it will produce a fixed set of dollar coefficients that are appropriate to the population and data for that calibration year. When CMS divides the dollar coefficients by the average expected expenditures in a given year, CMS converts the dollar coefficients into relative factors in such a way that CMS ensures that the average risk score in the denominator year is 1.0. When the model with fixed coefficients is used to predict risk scores for other years, predictions for prior years are less than 1.0 and predictions for succeeding years are higher than 1.0. Because average predicted FFS risk scores increase after the model calibration year due to coding and population changes, CMS applies a normalization factor to adjust beneficiaries' risk scores so that the average risk score is 1.0 in subsequent years.

The normalization factor is calculated by first using the model to predict risk scores for the FFS population over a number of years. Next, CMS estimates the annual average trend in the risk scores over these years. This annual trend is then compounded by the number of years between the model denominator year and the payment year to produce the normalization factor for the payment year.

CMS uses a standard of five years of data in the normalization trend. Each year, CMS drops the earliest year and adds a new year of risk scores to the trend data to create the five-year dataset. By using a standard number of years, CMS calculates risk score trends based on recent trends in coding, while maintaining stability in the year-to-year trends used.

Normalization factors are downward adjustments to risk scores and are applied to risk scores when they are calculated (prior to 2007, CMS applied the normalization factor to the ratebook). Risk scores on the Monthly Membership Report (MMR) are always normalized. Each year's normalization factors are announced in that year's Rate

Announcement, published in April prior to the payment year. Table 11 supplies the normalization factor by payment year.

Table 11. Normalization factors used in payment years

	CMS-HCC	RxHCC	Dialysis/Transplant	Functioning Graft
2007	1.029	NA	NA	1.029
2008	1.040	1.065	1.010	1.040
2009	1.030	1.085	1.019	1.058
2010	1.041	1.146	1.039	1.072
2011	1.058	1.029	1.060	1.088