

Medicare IME

IME costs are incremental patient care costs observed in teaching hospitals compared with non-teaching hospitals. They are identified through statistical analysis and are not tied to specific expenditures per se. Nonetheless, it is widely understood that IME represents longer hospital stays and additional diagnostic tests associated with the teaching function, performance of procedures with higher technology costs, standby costs of trauma and quaternary services almost exclusively provided by teaching hospitals, losses associated with a high proportion of poor and uninsured patients, and other costs concentrated in teaching hospitals.

The methodology for identifying IME costs is to compare the average cost per case among hospitals after standardizing those costs by payment adjustments made for other sources of cost variation, such as wage index, case mix, and outlier adjustments. The residual cost variation is then parsed between teaching and other costs using regression analysis, where the explained variable is each hospital's standardized cost per case and the explanatory variable is the hospital's ratio of interns and residents to beds (IRB). The IRB is the longstanding measure of teaching intensity.

The IME cost function is expressed as: $(1+IRB)IME \text{ coefficient} - 1$. So, for example, if a hospital had 100 residents and 400 beds, and the IME coefficient was 0.405, the hospital's IRB would be $100 \div 400 = 0.25$, and its teaching program would be estimated to increase its average cost per case by $1.25 \times 0.405 - 1$, or about 9.5%.

The IME Coefficient

The empirically derived IME coefficient has changed since the IPPS' inception in 1983. The first estimate was derived by HCFA in 1982 at 0.579. The second estimate was derived by the Congressional Budget Office in 1985 to be 0.405, and it remains the estimate embedded in the current Medicare IME payment formula. MedPAC re-estimated the coefficient at 0.22 in 2007, and the Assistant Secretary for the Office of Planning and Evaluation (ASPE) in the Department of Health and Human Services re-estimated the coefficient at 0.188 in 2011.

Although the IME cost function has an exponential form, most people describe it as the coefficient multiplied by 10 per 10% increment in the IRB. Using the current payment coefficient of 0.405, the function would be expressed as:

IME increases cost per case by 4.05% per 10% increment in the IRB.

Medicare IME Payment Policy

The Medicare IPPS includes an IME adjustment to the wage- and case-mix adjusted operating payment rate. The formula for this adjustment is the IME cost function described above multiplied by a constant that is set in statute and reflects an increase to the empirical adjustment to provide extra support for teaching hospitals. The constant started at 2, meaning it doubled the empirical adjustment, but has been reduced by Congress several times since 1983 to achieve budgetary savings. It is currently 1.35.

Hence the formula for the IME payment adjustment is $[(1+IRB)^{0.405} - 1] \times 1.35$. Using the example above, where a hospital had an IRB of 0.25, its IME adjustment would be:

$$((1+0.25)^{0.405} - 1) \times 1.35 = 12.8\%.$$

Further, if the hospital's average wage- and case-mix adjusted payment was \$8,300, its IME payment would be 12.8% of \$8,300, or \$1,060.

In 2009, Medicare IME payments totaled \$6.8 billion.