

## Geographic practice cost indexes

The purpose of this memorandum is to explain how Medicare varies its payments to physicians by geographic area.

Under Medicare’s physician fee schedule, geographic practice cost indexes (GPCIs) adjust payment rates to account for differences in the price of inputs used in furnishing physician services. There are three GPCIs, one corresponding to each component of the relative value scale: physician work, practice expense, and professional liability insurance (PLI) expense (Table 1). The three GPCIs are computed and then applied to determine rates for each of 89 payment areas. Because input prices can rise faster in some areas than in others, the GPCIs are updated every three years.

### How GPCIs are calculated

GPCIs are constructed so that they have national averages of 1.0. Geographic areas that have costs above the national average have index values above 1.0; areas with below-average costs have index values under 1.0.

In order to account for varying input prices, the data sources used to construct the GPCIs must reflect practice costs in all geographic payment areas. The physician work GPCI is based on the earnings of professionals (lawyers, engineers, and others) reported in the decennial census. By law, this GPCI only reflects 25 percent of the national variation in those earnings. For example, if professional earnings in an area are

**Table 1. Geographic practice cost indexes for a moderate complexity office visit, selected payment areas, 2003**

Payment area	Physician work GPCI	Practice expense GPCI	PLI GPCI	Physician work RVU	Non-facility (office) PE RVU	PLI RVU	2003 CF (\$)	Payment amounts (\$)
Alabama	0.978	0.870	0.807	0.670	0.690	0.030	36.79	47.08
Chicago, IL	1.028	1.092	1.797	0.670	0.690	0.030	36.79	55.04
DC & MD/VA suburbs	1.050	1.166	0.909	0.670	0.690	0.030	36.79	56.48
Detroit, MI	1.043	1.038	2.738	0.670	0.690	0.030	36.79	55.08
Houston, TX	1.020	1.007	1.336	0.670	0.690	0.030	36.79	52.18
North Dakota	0.950	0.880	0.657	0.670	0.690	0.030	36.79	46.48
San Francisco, CA	1.068	1.458	0.687	0.670	0.690	0.030	36.79	64.10

Note: PLI (professional liability insurance), RVU (relative value unit), CF (conversion factor).  
 Source: CMS

20 percent above the national average, its physician work GPCI is calculated to be 1.05, not 1.20. This results in a smaller payment increase than if the full reported variation were taken into account. Similarly, if professional earnings in an area are 20 percent below the national average, the physician work GPCI would be 0.95, not 0.80. This results in a smaller decrease in payment than would occur were the full variation taken into account.

The practice expense GPCI is constructed to account for geographic differences in non-physician staff wages, office space costs, and equipment and supplies.

- Staff wages (clerical workers, registered nurses, licensed nurse practitioners, and health technicians) are based on the U.S. census, and account for about 40 percent of practice expenses and thus a similar share of the practice expense GPCI.
- Office space expense, about 27 percent of this GPCI, is based on year 2000 residential apartment rental data from the Department of Housing and Urban Development; there has been insufficient commercial rental data for all geographic areas to employ commercial rather than residential data.
- The remaining third of this GPCI is attributed to medical equipment, supplies, and miscellaneous items. These inputs are assumed to be bought in a national market, so about 33 percent of the practice expense GPCI is 1.0; that is, it pays physicians the same regardless of where they practice.

The PLI GPCI is based on data CMS periodically collects from the largest malpractice insurers in each state. This GPCI now reflects 1996 to 1998 data.

### Physician payment areas

Prior to 1997, there were 210 payment areas, 22 of which consisted of entire states. In order to simplify the payment process, CMS has periodically combined areas with similar input

prices. Currently, there are 89 areas, 34 of which are statewide.

Physicians (usually through the state medical associations) may request that CMS designate their state a statewide area, in order to equalize reimbursement among physicians practicing within the state. However, in this instance, since payments to a given state must remain budget neutral, petitions require substantive support by physicians in that state.

### Calculating 2003 physician payments: an illustration

The payment rate for a service is:  
(work GPCI x work RVU) +  
(practice expense GPCI x practice expense RVU) +  
(PLI GPCI x PLI RVU)  
x conversion factor  
= payment amount

In Houston, TX, the 2003 payment rate for a moderate complexity office visit is:  
(1.020 x 0.670) + (1.007 x 0.690) + (1.336 x 0.030)  
x \$36.79 = \$52.18

### Updating the GPCIs

The law requires that the GPCIs be revised at least every three years. Since the GPCIs were implemented in 1992, there have been three revisions in 1995, 1998, and most recently in 2000; data sources were updated and reviewed. GPCI updates are budget neutral at the national level. Thus, GPCI revisions result in total payments being redistributed among payment areas. The total amount Medicare pays to physicians nationally is determined by the update of the fee schedule's conversion factor.

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