

significantly from year to year, we decided to use the most recent 3-year average available rather than just the most recent single year to smooth out this volatility and present a more accurate indication of malpractice premium trends over time.

We collected data on more specialties and from more insurers. We collected data on 20 specialties, rather than on only 3 as in the 1992 through 1994 malpractice GPCIs. The 1992 through 1994 malpractice GPCI data were largely drawn from a single nationwide insurer (St. Paul Fire and Marine) and were supplemented by several State-specific carriers in States in which St. Paul did not offer coverage. Subsequent analyses suggest that these data may not be representative of insurers operating in many States. For the revised malpractice GPCI, data were collected from insurers that, on average, represented 82 percent of the market in each State, with the lowest State market share being 60 percent. We believed that the more recent and much more comprehensive data greatly improved the accuracy of the malpractice GPCIs for 1995 through 1997.

Detailed discussions of the methodology and data sources of the 1995 through 1997 GPCIs can be obtained by requesting the following studies from NTIS by calling 1-800-553-NTIS, or (703) 487-4650 in Springfield, Virginia:

- "Updating the Geographic Practice Cost Index: Revised Cost Shares." Debra A. Dayhoff, John E. Schneider, and Gregory C. Pope. NTIS PB94-161072.
- "Updating the Geographic Practice Cost Index: The Physician Work GPCI." Gregory C. Pope and Deborah A. Dayhoff. NTIS PB94-161080.
- "Updating the Geographic Practice Cost Index: The Practice Expense GPCI." Gregory C. Pope, Deborah A. Dayhoff, Angella R. Merrill, and Killard W. Adamache. NTIS PB94-161098.
- "Updating the Geographic Practice Cost Index: The Malpractice GPCI." Stephen Zuckerman and Stephen Norton. NTIS PB94-161106.

6. Revised 1998 Through 2000 Geographic Practice Cost Indices

The same data sources and methodology used for the 1995 through 1997 GPCIs were also used for the revised 1998 through 2000 GPCIs with a few very minor modifications. No acceptable additional data sources were found. The cost shares were the same as in the 1995 through 1997 GPCIs because no changes were made in the MEI weights. Indices for fee schedule areas were based on the indices for the individual counties within the fee

schedule area. Fee schedule RVUs were again used to weight the county indices (to reflect volumes of services within counties) when mapping to MPFS payment areas and in constructing the national average indices. However, we used more recent data, 1994 rather than 1992 RVUs, in the county, locality, and national mapping for the proposed GPCIs. The payment effect of using more current RVU weights was negligible in most cases and generally resulted in changes at the third decimal point if at all.

a. Work Geographic Practice Cost Indices

The work GPCIs were based on the decennial census. The 1992 through 1994 work GPCIs were based on 1980 census data, because 1990 census data were not yet available. The work GPCIs were revised in 1995 with new data from the 1990 census. New census data will not be available again until sometime after the 2000 census is compiled. We searched for other data that would enable us to update the work GPCIs between the decennial censuses. No acceptable data sources were found. The most promising sources of data were the hospital wage data collected by us to calculate the IPPS hospital wage index and the payroll per worker data collected by the U.S. Bureau of Labor Statistics from State unemployment insurance agencies (the ES-202 data).

The IPPS hospital wage data were examined when we constructed the original GPCIs. They were rejected as a physician fee schedule data source in favor of census data because of their lack of an occupation mix adjustment and their unrepresentative occupational composition (hospital employees rather than professionals or physician office employees). ES-202 data consist of total payroll divided by counts of wage and salary workers. The major disadvantage we identified was that they do not measure hourly earnings, only payroll per employee, and no occupational detail is available. Also, they did not adjust for part-time or full-time and hours worked, and the numbers of workers was too small for certain States, all of which led to unstable estimates of payroll per worker. We compared the changes by State from 1989 to 1993 in the IPPS wage data and the ES-202 data to see if there was any correlation between the two series. The correlation between the two was only moderate, 0.55. The changes indicated by both series were generally small, for example, a few percentage points. The difference between the two series by State was in many cases as large as or greater than the change indicated by either series.

The average difference between the two series (2.1 percent) is as large as the change indicated by either series. In addition, changes for particular States were substantially different between the two series. For example, Indiana relative wages rose by 1.9 percent according to the IPPS data, but fell 5.7 percent according to the ES-202 data.

Since we were unable to find an acceptable data source for updating the work GPCIs, we examined the consequences of not updating the work GPCIs between the decennial censuses. We compared the changes between the 1992 through 1994 work GPCIs, based on the 1980 census, and the 1995 through 1997 GPCIs, based on the 1990 census. On average, the full variation in State work GPCIs changed by about 5 percent. This translates to about a 1.2 percent change in the one-quarter work GPCI calculation prescribed by law. Since work makes up about one-half of the GPCI cost shares, this translated into an average payment change per State of about 0.6 percent from updating the work GPCI based on the 10-year change in relative wages indicated by the census data. Even the maximum change in the full variation in State work GPCIs from the 1992 through 1994 to the 1995 through 1997 GPCIs of 14 percent translates into only about a 1.8 percent change in payments. The largest full work GPCI changes for individual payment areas were from 16 to 20 percent, or about a 4 to 5 percent change in the one-quarter work GPCI, or about a 2.4 percent change in payments. However, 80 percent of payment areas experienced payment changes of less than 1 percent, and 50 percent of payment localities experienced payment changes of less than 0.5 percent as a result of changes in the census data from 1980 to 1990.

We, therefore, made no changes in the 1998 through 2000 work GPCIs from the 1995 through 1997 work GPCIs, other than the generally negligible changes resulting from using 1994, rather than 1992, RVUs for this GPCI update because we were unable to find acceptable data for use between the decennial censuses. We believed it is preferable that we make no changes rather than make inaccurate changes based on inappropriate data. We felt that this was a reasonable position given the generally small magnitude of the changes in payments resulting from the changes in the work GPCIs from the 1980 to the 1990 census data.

b. Practice Expense Geographic Practice Cost Indices

(1) Employee Wage Indices.