Provider reimbursement analytics

David C. Lewis
Charlie Mills, FSA, MAAA

Milliman

Effective provider reimbursement analytics are a critical health plan function. Provider payments represent the large majority of healthcare premiums. Reimbursement can vary significantly among providers for the same services and is heavily impacted by provider negotiations and monitoring. Different claims-based approaches for evaluating provider reimbursement are explored in this paper.

Provider reimbursement analytic approaches

Claims information provides a strong basis for evaluating provider reimbursement. While historical claims data do not always directly address reimbursement components like incentive payments or risk sharing, it does reflect each provider's mix of services and actual payments. Most claims-based provider reimbursement analytics rely on one of two fundamental approaches for evaluating reimbursement levels.

1) PROVIDER CONTRACT MODELING – REPRICING A SINGLE HISTORICAL DATA SET TO ALL PROVIDERS' CONTRACTS

Modeling payment terms in a provider contract is typically done using summarized claims data (e.g., by the contract service categories) or by re-adjudicating a historical claims set to the target contract. Contract modeling is the approach most contract managers turn to when presented with a new contract during negotiations.

The main advantages of the contract modeling approach are:

- Current contracts can be used. This approach is generally used for evaluating specific contracts as of a point in time (e.g., parity audits where contracts are compared to determine relative payment levels).
- Permits a more detailed understanding of the provider's reimbursement. For example, expert review may help identify nonstandard payment provisions, unneeded variation, or overly generous or inconsistent reimbursement terms.
- By using a single claims data set to price the contracts against, case mix differences are eliminated.

The main disadvantages of the contract modeling approach are:

- Labor intensive because each term must be evaluated, especially when multiple contracts need to be reviewed or compared.
- Modeling may not match how contracts are adjudicated in practice.
- Making comparisons across contracts is very difficult, especially if contract structures vary from provider to provider.
- Results may be misleading if providers have very different case mixes because the single data set used for the analysis may not be representative of the typical case mix at each provider.

2) PROVIDER CONTRACT BENCHMARKING - REPRICING ALL PROVIDERS' CLAIMS USING A SINGLE BENCHMARK FEE SCHEDULE

Use of a benchmark fee schedule often provides a more efficient way to evaluate provider reimbursement levels. By repricing the data to a benchmark schedule (e.g., Medicare) for comparison purposes, many of the disadvantages of modeling individual contracts are overcome. Provider reimbursement is evaluated relative to the benchmark and can be compared more easily. The main advantages of repricing claims to a benchmark are:

- The process can be automated (is time efficient).
- Makes comparisons across providers, patient populations, lines of business, and time periods possible.
- Reflects each provider's actual mix of services.
- Facilitates trend analysis.

The main disadvantages of repricing claims to a benchmark are:

- May not reflect current contracts and reimbursement levels. This can be overcome by having the ability to either trend historical claims to the current contracted rates or reprice historical claims to the current contracted rates.
- Requires either historical experience for each provider contract or the ability to reprice historical claims to the target contract.

By having benchmark payment amounts in an enterprise data warehouse (EDW), health plans can separate out unit price differences from utilization and mix differences. This facilitates trend analysis, provider contracting, and accountable care organization (ACO) reporting.

The benchmark fee schedule must be selected carefully to ensure the results are meaningful. Below we focus on selecting the proper benchmark fee schedule and the available Milliman solutions.

Selecting a benchmark fee schedule

For a benchmark fee schedule to be useful, it should have the following two main characteristics:

1. **Wide coverage of service types:** The benchmark fee schedule should cover all or nearly all types of healthcare services that can be delivered.
2. **Adjusts for case mix differences:** The benchmark fee schedule should have relationships between services that are consistent with the actual provider resources required by each service.

The most recognizable benchmark fee schedule is Medicare fee-for-service (FFS) rates. By having Medicare amounts in a health plan's EDW, all provider reimbursement can be compared on a percentage of Medicare basis. The table in Figure 1 provides an example.

FIGURE 1: PROVIDER REIMBURSEMENT COMPARISONS

PROVIDER	HEALTH PLAN ALLOWED	MEDICARE ALLOWED	% OF MEDICARE
HOSPITAL A	$5,000,000	$2,500,000	200%
HOSPITAL B	$3,500,000	$1,500,000	233%
HOSPITAL C	$1,000,000	$750,000	133%

In this example, Hospital B is paid the highest on a percentage of Medicare basis and Hospital C the lowest.

The three main baseline fee schedules used in the industry are discussed below, together with the advantages and disadvantages of each.

I. MEDICARE FFS

Medicare FFS amounts are used to pay for the vast majority of healthcare services delivered to patients over age 65. Because most providers accept Medicare patients, they are familiar with the Medicare fee schedules and payment rates. Most health plans and providers already have a general idea of their payment levels relative to Medicare. Additionally, Medicare FFS allowed amounts are easy to add to an EDW using Milliman's Medicare Repricer software solution.

The specific advantages and disadvantages of using Medicare FFS as a benchmark are listed below.

Advantages

- Familiar point of reference with providers and throughout the healthcare industry.
- Provides some degree of case mix adjustment.
- Schedules are updated annually by the Centers for Medicare and Medicaid Services (CMS).
- Represents actual Medicare FFS payment rates, and therefore provides a meaningful point of reference for users both inside and outside of the organization.
- Medicare-based payment contracts are fairly common for non-Medicare contracting (e.g., commercial, Medicaid, etc.) and are being used more as payers and providers make efforts to standardize contracts.
- Can be assigned to claims using a standard process, and therefore can be used as an analytic in an EDW.

Disadvantages

- Medicare amounts are generally not available for services not covered by Medicare or for prescription drugs, though this problem can be mitigated by adding custom extensions to the Medicare schedules.
- Medicare amounts may not be applicable for some services in commercial populations, e.g., inpatient facility maternity payments. Adjustments to these payment levels may be needed.
- Medicare's adjudication rules are complicated and reflect Medicare's policy goals, which may not be consistent with the goal of adjusting for case mix.
- There are multiple definitions of Medicare. For example, some contracts include indirect medical education (IME) adjustments in the inpatient amounts and others do not.
- Provider-specific fee schedule adjustments can muddle comparisons across providers. However, these adjustments can be removed. Currently, this is primarily an issue for inpatient facilities (e.g., IME adjustments) or when comparing across broad geographic areas. This will become further complicated with the implementation of the Medicare Access and CHIP Reauthorization Act (MACRA), which includes more provider-specific adjustments.

Milliman's Medicare Lite schedule provides a simplified version of Medicare that addresses many of these disadvantages while retaining the familiarity of Medicare for providers.

II. MILLIMAN GLOBALRVUS™

The GlobalRVUs system has relative value units (RVUs) for all healthcare services (medical and prescription drug). Similar to Medicare's Resource-Based Relative Value Scale (RBRVS) for physicians, RVUs represent the expected cost differences among services. Dividing allowed charges by RVUs yields a conversion factor, which is an indicator of the case mix and severity adjusted reimbursement per RVU. Putting historical allowed amounts on a conversion factor basis is a similar type of normalization to comparing allowed amounts with Medicare as shown in the example in Figure 2.

FIGURE 2: RVU COMPARISONS

	ALLOWED	RVUS	ALLOWED/ RVU	RELATIVITY
HOSPITAL A	$5,000,000	62,500	$80.00	1.00
HOSPITAL B	$3,500,000	37,554	$93.20	1.17
HOSPITAL C	$1,000,000	18,797	$53.20	0.67
TOTAL	$9,500,000	118,851	$79.93	1.00

Advantages

- Provides case mix adjustment for all service types and populations. Medicare fee schedules were created for elderly patients and the GlobalRVUs refine Medicare to better deal with maternity, newborns, and other services with low prevalence in the Medicare program. The GlobalRVUs also use outpatient facility RVUs that are specific to the Healthcare Common Procedure Coding System (HCPCS) rather than the broad Ambulatory Payment Classifications (APC) averages used by Medicare.
- An extension of the physician RBRVS fee schedule, GlobalRVUs is grounded in Medicare payment rates and relationships among service categories (inpatient, outpatient, and professional). Therefore, GlobalRVUs provides a meaningful point of reference for users both inside and outside of the organization.
- Assigns RVUs to *all claims* using a standard process to impute RVUs for claims with poor coding. Therefore, this can be used in an EDW for contracting as well as trend and population resource use/efficiency analysis.
- Updated and maintained by Milliman.

Disadvantages

- Requires some education of users on the definition of RVUs. Users who understand the Medicare RBRVS fee schedule will generally be able to translate that understanding to GlobalRVUs.
- Proprietary process.

III. COMPARISON CONTRACT

Using a comparison contract as the benchmark is sometimes required if focusing on the impact or relativity to a single provider. This approach is similar to the contract modeling approach described at the beginning of this paper and generally does not meet the criteria we established above for a benchmark fee schedule because most contracts do not cover all potential service types and because most contracts are not specifically designed to adjust for case mix. While this may be the most accurate way for measuring the impact of changing a specific provider to a new contact, it is generally not feasible for comparing more than two or three providers and does not produce normalized information that can be used as a point of reference across all provider contracts. Thus, it is not generally useful as a point of reference for analytics in an EDW.

Conclusion

Managing provider reimbursement levels is a critical health plan function. Effective provider reimbursement analytics provide the foundation for managing reimbursement. Whether contract analysis or claims analysis is needed, at a minimum, health plans should have a benchmark fee schedule in their EDWs that facilitates provider reimbursement comparisons and trend analysis. Medicare FFS and GlobalRVUs are both effective benchmark fee schedules, each with their advantages and disadvantages.

CONTACT

David C. Lewis
david.lewis@milliman.com

Charlie Mills
charlie.mills@milliman.com

FOR MORE ON MILLIMAN'S PERSPECTIVE ON HEALTHCARE:

Visit milliman.com/insight/healthcare
Visit our blog at healthcaretownhall.com
Follow us at twitter.com/millimanhealth