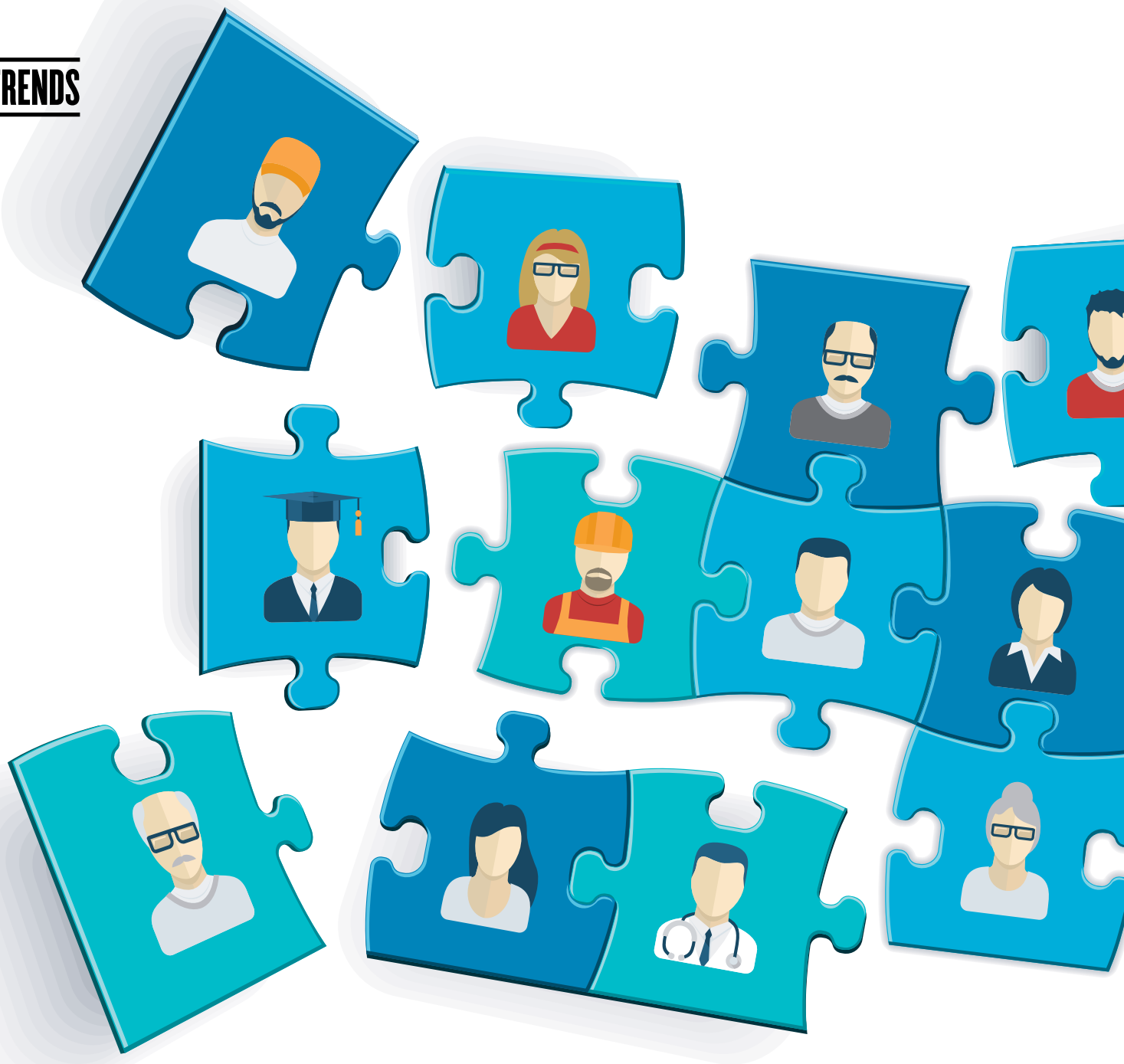

Why Panel Size Matters

Operational considerations and risk adjustment

By Wayne Hartley, Fred Horton, John Cuddeback, M.D., Ph.D., Richard Stempniewicz, and Nikita Stempniewicz

This is the first in a series on panel size determination and acuity adjustment based on research and methodology developed by AMGA Consulting and AMGA Analytics.

With the increasing focus on population health management, medical groups are considering panel size as a measure of physician work activity, particularly for primary care.

Unlike production-based metrics such as work relative value units (wRVUs), which provide "credit" based on the effort for completing each encounter with each patient, panel size attempts to value the number of patients a provider manages overall, regardless of actual utilization. Many medical group leaders believe panel size is a preferable measure of physician work when a primary goal is to meet clinical needs while managing utilization.

This article addresses:

- Panel size definitions
- Operational preparations for panel size models, including patient attribution to providers
- Patient acuity or risk-adjustment considerations

Our findings are based on research conducted by AMGA Analytics and AMGA Consulting to determine appropriate panel size valuation methods and to assess current market norms for actual panel size. We strongly encourage medical groups interested in using panel size as a metric to consider the operational and risk-adjustment issues raised here.

Panel Size

Panel size is commonly defined as the number of unique patients seen by a provider over an 18- or 24-month period. Historically, panel size has been calculated by assigning a weight based on age and sex to each patient seen during the measurement period. The aggregate value of these assigned weights represents the overall adjusted panel size. This measure is based on the premise that age and sex affect the expected effort required for managing the patient, based on historical use of healthcare services.[1] As an example, women of childbearing age are likely higher utilizers of healthcare services, on average, than men in the same age range.

Panel size models credit a provider for managing a population of patients as an alternative to valuing wRVU production. In an environment where appropriate utilization and cost management are highly valued, especially in capitated payment models, many groups are considering aligning provider compensation with panel size.

Because medical group ambulatory service revenue is still largely derived by visits, healthcare leaders often argue that productivity measures such as wRVUs should continue to be key metrics for providers and drive outcomes such as compensation. Without the visit in a fee-for-service model, there is no revenue generation opportunity. In a capitated model, where the provider or group receives a per-member-per-month (PMPM) payment, the potential benefit of rewarding value (i.e., higher quality or lower utilization) based on panel size is obvious.

Another criticism of panel size is that the prevailing adjustment for age and sex does not adequately capture patient acuity, clinical complexity, or resource consumption. As an example, current models may assign the same adjustment factor to all same-sex senior citizens in a five-year age range, such as 75–79. Certainly, some 75-year-olds have multiple chronic conditions and require more physician time and cognitive effort than others. The proportion of healthy versus comparatively unhealthy seniors on a physician's panel will impact frequency of visits and intensity of services. Options to adjust panel size based on clinical complexity and acuity are discussed more fully below.

Operational Preparation

Several operational issues factor into your group's consideration of panel size as a metric. These include:

- Determination of the provider population on which to apply panel size metrics
- Appropriate capture of the primary care physician (PCP) in the practice management system
- Attribution of patients to a primary care provider
- How to attribute patients in unique circumstances, such as when patients are shared between PCPs and advanced practice providers (APPs)

An early step when adopting a panel size approach is to define the applicable provider population. While any provider can have a panel, we most commonly apply panel size comparisons to PCPs. This determination should also consider clinical time commitment. For example, are only full-time providers included? Or, should providers work a minimum number of clinical hours per week to be included in panel size calculations?

Population health (medical home) models of care are centered on a primary care provider who manages the overall care of the panel. Specialists, who are often brought in on a consultative basis, may or may not maintain a long-term relationship with the patient.

In light of these issues, we recommend that medical groups begin with PCPs when implementing panel size measures. Family medicine, general internal medicine, and general pediatrics almost always serve as primary care providers. But there may be some variability, either by group or by individual, for ob/gyn specialists, geriatricians, endocrinologists, and preventive cardiologists, as examples. Conversely, some general internists may have a limited scope of practice (e.g., sports medicine or sleep medicine).

Place-of-service is also a consideration, as a PCP may practice in many locations. While the outpatient office may be the most common location, PCPs also commonly practice in nursing homes, pick up shifts in urgent care, or round on hospital patients if a hospitalist model is not in place. For groups interested in measuring panel

size, it is advisable to clarify which activities are in scope and which are excluded. These will be the activities on which patients will be attributed and panel size will be calculated. Office visits and nursing home visits should be included in panel determination. However, coverage in urgent care might be excluded because that setting is not typically associated with an ongoing physician-patient relationship.

In terms of basic operational considerations, some groups report difficulties with panel size determination because attribution of patients to PCPs is not kept current in the practice management system. Scheduling and registration staff need to be trained on the importance of accuracy with this information. An alternative that we recommend is to avoid practice management system attribution and use provider information from outbound claims data to determine PCP attribution.

Patient Attribution

For many reasons, including patient complexity and patient preferences, multiple providers may see some patients within an 18- to 24-month measurement period. In these cases, a process known as "patient attribution" needs to determine who will be credited with the patient. Commonly, credit is given to the physician who provided the "plurality of care," or the most visits, for the patient during the timeframe. Some groups, though, will credit the last physician who cared for the patient, with the rationale that he or she may be the most likely provider of continuing care. In advanced models, there may be "dual" or "multiple" attribution of patients.

We recommend reserving these advanced approaches for after the medical group has become fluent with basic panel size concepts.

Advanced practice providers (APPs) introduce another level of complexity into panel size determination. In general, if APPs are in a supportive or complementary role to physicians, panel size may not be applicable. If, however, APPs are managing their own panels, a decision needs to be made based on attribution methodology. Some attribution models exclude the APP in favor of a physician receiving credit for the patient unless there was no physician encounter during the time period. Other models might follow the plurality-of-care approach or, at the other end of the spectrum, provide credit to the "supervising" physician, whether he or she saw the patient or not. Some groups are considering models in which attribution is divided among providers for panel size calculation, and APPs and physicians would be considered equal peers for this purpose. Our industry needs to move to a common approach and enhance medical groups' ability to meaningfully compare data against national norms.

Charlson Comorbidity Index (CCI)

The CCI also may be used for risk adjustment. It focuses on fewer than 20 chronic conditions and was originally developed to predict risk of mortality within one year after hospital discharge. But it has been updated to generally reflect the patient's burden of chronic disease.[1] While this method has been in use for many years, the underlying focus on one-year mortality falls short of predicting provider time and cognitive effort required in the ambulatory setting, as well as longer-term resource utilization. We will discuss its use for risk-adjusted panel size in a subsequent article in this series.

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Risk Adjustment

After your medical group addresses operational issues in panel size calculation, there are many factors to consider based on acuity or risk adjustment. These factors include basic patient demographics, clinical risk scores, and actual resource utilization.

As noted above, there are simple, straightforward approaches to adjustment where patients are divided by sex and then stratified into various age groupings. Each of the resulting categories is assigned a weight intended to correspond with the expected provider time and cognitive effort required to care for the patient. However, the weights assigned to different age/sex categories are not adapted to individual patients and actual utilization—they are based on a broad average for the stratified group.

To achieve goals based on risk adjustment for individual patients, a model that mines longitudinal (outbound) claims data—and potentially a few key clinical data elements—is necessary.

Another approach to risk adjustment is HCC (hierarchical condition categories), which the Centers for Medicare & Medicaid Services (CMS) uses for risk adjustment in Medicare. This approach is likely popular because many medical groups are receiving HCC risk data, and reimbursement is linked to the composite HCC profile using CMS-assigned risk adjustment factors (RAFs). HCCs go beyond simple age and sex adjustments to include diagnoses from claims data to adjust for utilization and cost experience.

While this approach adds a clinical dimension to risk scoring, in some cases a diagnosis may not be clear, or a patient may have multiple conditions without a predominant diagnosis to drive risk assessment. Further, the system may not work well for young or relatively healthy populations with no ongoing or chronic conditions, since the RAF scores are normed for Medicare beneficiaries.[2]

There are also various proprietary risk-scoring methodologies. These tools tend to focus on resource consumption, including procedural services and pharmaceutical spend, rather than primary care effort per se. However, they may entail substantial subscription fees and benchmark data. Any given proprietary system may not be widely available for comparative purposes.

AMGA Analytics, AMGA Consulting, and several AMGA member medical group partners are working to develop a new risk-scoring methodology that addresses limitations of current models, especially models primarily driven by age and sex adjustments only. The next *GPJ* article on this topic will detail this research.

Working Together

Medical groups must define which providers and services are in scope for panel size calculations. Then, groups must make a series of operational decisions to consistently produce the data needed for meaningful risk adjustment. To achieve goals based on risk adjustment for individual patients, a model that mines longitudinal (outbound) claims data—and potentially a few key clinical data elements—is necessary.

It is important to engage physicians throughout the process of defining patient attribution, panel size determination, and risk adjustment methods, to ensure credibility of the resulting metrics with front-line clinicians.

As most organizations are interested in benchmarking their own panels to peer group data, it behooves us to work together toward a *common definition* of panel size and *common approach* to risk adjustment. While there may not be a perfect risk-adjustment methodology, a chosen approach that is applied consistently can produce directionally helpful panel size data that improve over time. GPJ

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