

Whose patient is it? Patient attribution in ACOs



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As healthcare costs continue to increase at rates exceeding inflation and the Consumer Price Index,¹ numerous healthcare initiatives aimed at bending the cost curve have been proposed. Accountable care organizations (ACOs), among these initiatives, have received significant interest from both the payor and provider communities. The Patient Protection and Affordable Care Act (PPACA) includes a Medicare pilot ACO program that takes effect in January 2012. The commercial market has also taken note—several ACO pilot programs have begun and many more are at various stages of the implementation process.

ACOs utilize many features of health maintenance organizations (HMOs) such as care coordination, performance measures, and provider risk sharing. HMOs experienced rapid growth during the 1980s and 1990s.² Since 2000, HMO enrollment has declined as certain features have come to be viewed unfavorably by consumers, most notably the primary care physician (PCP) gatekeeper role. Most HMOs require members to choose a PCP. Members are then required to get a referral from their PCP before they can go to a specialist or receive certain other services.

The theory is that the gatekeeper PCP, who is responsible for coordinating care, promotes a more efficient healthcare system while at the same time increasing quality and reducing cost. PCPs are often paid bonuses based on cost efficiencies achieved in conjunction with improving certain quality metrics. However, many consumers place a high value on the ability to move freely through the healthcare system with no constraints, which has led to diminishing enrollment in HMOs that use a PCP gatekeeper feature.

The foundation of the ACO model, similar to an HMO, is provider accountability for care coordination; providers are incentivized via reimbursement based on their ability both to reduce costs through achieving efficiencies and to meet certain quality metrics. However, ACOs do not utilize a PCP gatekeeper and members are able to seek care from any provider they choose. Therefore, in order to measure a provider's performance, members must be attributed, or assigned, to a provider through an analysis of healthcare claims.

Another related healthcare delivery model, the patient-centered medical home (PCMH), typically requires members to choose a PCP. The PCP coordinates care and receives additional reimbursement for these services. However, because the PCP does not perform the gatekeeper role and members have open access to see providers of their choice, attribution methods may still be necessary to produce meaningful cost and quality reports.

Attribution: Assigning a provider, or providers, who will be held accountable for a member based on an analysis of that member's claim data. The attributed provider is deemed to be responsible for the patient's cost and quality of care, regardless of which providers actually deliver the services.

SELECTING AN ATTRIBUTION METHOD

Choosing an attribution method begins with several decisions about the characteristics of the desired model. Results under the various methodologies can produce a wide range of consequences. Therefore, an organization should choose a methodology that achieves its stated objectives.

PATIENT-BASED VS. EPISODE-BASED ATTRIBUTION

Patient-based attribution assigns the costs of each patient to a provider or providers. This approach is used to hold providers accountable for the entire spectrum of care for a patient. Patient-

1 2010 Milliman Medical Index (May 2010). Retrieved December 27, 2010, from <http://publications.milliman.com/periodicals/mmi/pdfs/milliman-medical-index-2010.pdf>.
2 Managed Care Fact Sheet 2010. National HMO enrollment. MCOL. Retrieved December 27, 2010, from <http://www.mcareol.com/factsheets/factnati.htm>

based attribution is currently the more common method for ACO performance measurement.

Episode-based attribution assigns each episode to a provider or providers. An episode is defined as all clinical services for one patient from onset of symptoms until treatment is complete. Several algorithms are currently available to define episodes based on claim data. This approach is used to hold providers accountable for discrete episodes of care. Some chronic conditions, such as diabetes management, may result in an episode being defined as a 12-month period, rather than the entire course of treatment.

SINGLE ATTRIBUTION VS. MULTIPLE ATTRIBUTION

Single attribution assigns the patient or episode to the provider with the highest percentage of services or total cost. Typically, there is a minimum threshold that must be achieved to ensure that the provider has been sufficiently involved in the patient’s care to be held accountable. If the highest percentage is below this minimum threshold, the patient or episode is not attributed to any provider. Common minimum thresholds range from 25% to 35%.

Because patients often see more than one provider, it may not be equitable to assume that a single provider is responsible for a patient’s care. Multiple attribution is designed to allocate the patient/episode to more than one provider. Multiple attribution methods will result in more patients/episodes being assigned to providers than single attribution methods because many patients/episodes will not reach the minimum threshold required under the single attribution method.

Other considerations when attributing members to a provider:

- The allocation method may be based on visits or provider payments.
- The attribution method can include evaluation and management (E&M) codes only or all physician claims.
- The attribution method can be based on a majority or plurality methodology. Attribution using a majority approach assigns the patient to the provider that accounts for 50% or more of the visits or costs. If no provider accounts for over 50% of the costs, the patient is not attributed. Attribution using a plurality methodology assigns patients to the provider with the highest proportion of visits or costs, usually subject to a minimum threshold.
- The attribution method can limit assignment to PCPs or allow assignment to any physician specialty.

Medicare members have significantly more office visits on average than commercial members. Therefore, it is not surprising that Medicare members see more providers, resulting in a lower percentage of office visits with their plurality provider. In contrast, even for the high-utilizing commercial members (defined as

members with 11 or more office visits in a year), the majority of visits are with the plurality provider. The high number of annual office visits combined with multiple providers for Medicare members will add complexity to patient attribution for the Medicare population. Figure 1 illustrates the significant variation between the commercial and Medicare populations.

FIGURE 1: COMMERCIAL VS. MEDICARE UTILIZATION

	COMMERCIAL	MEDICARE
AVERAGE NUMBER OF ANNUAL OFFICE VISITS	3.1	7
PERCENTAGE OF MEMBERS WITH 70% OR MORE OF ANNUAL VISITS WITH PLURALITY PROVIDER	77.6%	27.8%
PERCENTAGE OF HIGH-UTILIZING MEMBERS* WITH 70% OR MORE OF ANNUAL VISITS WITH PLURALITY PROVIDER	59.0%	8.2%

* High-utilizing members are defined as members with 11 or more office visits in a year.

Source: Based on an analysis of E&M codes from 2008 MedStat MarketScan database³ and 2008 Medicare 5% Sample.⁴

PROSPECTIVE ATTRIBUTION VS. RETROSPECTIVE ATTRIBUTION

Prospective attribution methodologies assign members based on historical claim data. This method also allows patient and physician notification. Although members do not choose a gatekeeper PCP, payors may choose to disclose the physician assignment to the member. Inherent in the prospective attribution method is the assumption that most members will use the same providers in the future as they have in the past. The biggest advantage of the prospective attribution approach is that quality and cost reports are available on a timely basis. These reports provide valuable information to providers on performance and allow them to implement the changes necessary to be successful.

A retrospective attribution methodology has the advantage of assigning patients based on their actual utilization. A disadvantage of this method is the inability to provide timely reporting to providers. The ability to provide timely reports enables providers to monitor experience and make prudent adjustments. Many industry leaders believe that timely reporting is essential to the success of the ACO model. Additionally, providers have voiced concerns that they will not know which patients are assigned to them under a retrospective attribution methodology. Supporters of the retrospective attribution methodology argue that a provider should treat all patients in the most efficient manner so advance notification of their patients is unnecessary.

An analysis of Medicare claims from 2007 and 2008 shows that, using a common attribution algorithm, approximately 50% of members would be attributed to different providers using a prospective or retrospective

3 Based on an analysis of Thomson Reuters MedStat MarketScan database. This dataset contains all paid claims generated by over 20 million commercially insured lives, which include claims for self-insured employers and insurers. MedStat is widely used by health services researchers. Contributors are mostly large self-insured employers. For the figures in this report, we used 2008 MedStat and included PPO members only.

4 Based on an analysis of 2008 Medicare 5% sample. This limited dataset contains all Medicare-paid claims generated by a statistically balanced sample of beneficiaries. Information includes diagnosis codes, procedure codes, and diagnosis-related group (DRG) codes.

approach. Therefore, under a prospective approach, about 50% of providers would be accountable for patients that received the majority of their services from other providers. It may be necessary to perform a retrospective attribution and eliminate patients who chose significantly different providers than in prior years. However, these patients would be included in the monthly cost and quality reports, causing them to be less useful.

OTHER CONSIDERATIONS

The following are some of the other considerations when developing an attribution method.

Duration: In a commercial population, members may not be enrolled for an entire year. Partial years are less credible so it may be prudent to assign only members with 12 months of experience. In the Medicare population, many members who are not enrolled for an entire year would be members who died. Because medical costs are higher in the last year of life,⁵ consideration should be given to creating cost and quality reporting tools specifically addressing these members, in addition to the standard reports.

Members with no claims: Using a prospective attribution methodology, if a member has no claims during the attribution period, the member will not be assigned to a provider. These members can be excluded or attributed retrospectively. Those members with no claims but receiving email consultations or active nurse assistance via telephone may be attributed to the provider offering these services. The provider may have avoided unnecessary office visits using these initiatives, and an attribution method should reward and encourage these types of services.

Member or family unit: Some attribution methods assign the family unit to the same ACO rather than by member. Because families often enter and exit the ACO simultaneously, it may be administratively easier to process the edits and deletes. However, family members may receive services from different providers, resulting in a smaller proportion of claims to each provider.

Credibility: Providers will need a minimum number of attributed members to produce credible results. The PPACA defines a minimum of 5,000 members necessary to form an ACO. Commercial ACOs, with lower average per member per month (PMPM) medical costs, will require a higher number of members to be credible.

Multiple methods: Different specialties have different patterns of care. An organization may choose to use different methods for different specialties.

In order to succeed, an organization should consider the following key elements while defining its attribution methodology:

- Sensitivity testing of various attribution methodologies on historical claims will identify the variability for the specific population and may provide insight into possible inequities in the methodology.
- Aligning the attribution with organizational goals: A multiple attribution approach may be better suited for organizations that want to promote more coordination across physicians. A single attribution approach may be better suited for organizations that want to increase single provider accountability.
- A risk adjustment methodology will be required to adjust for differences in case mix or patient morbidity across providers.
- The approach should be understandable to providers and other users of the cost and quality reports.

CONCLUSION

Providers will be increasingly measured using cost and quality metrics. In many cases, the provider will be accountable for patients without being the sole provider. The attribution methodology is designed to answer the question, "Who is primarily responsible for the continuum of healthcare services for this patient?" Providers may become frustrated if they are penalized based on metrics that include patients who saw multiple providers, because this would limit their ability to manage healthcare.

Attribution methods will be necessary to support these measurements. Attribution methods that support valid and actionable cost and quality metrics will be a crucial element in the development of an accountable relationship between provider and patient.

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5 Barnato, A.E., McClellan, M.B., Kagay, C.R., & Garber, A.M. (2004). Trends in inpatient treatment intensity among Medicare beneficiaries at the end of life. *Health Serv Res.*;39(2): 363-375.

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