



play a crucial role in the delivery of healthcare services to patients. The management of these networks is a complex task that involves balancing the needs of patients, providers, and payers. One critical challenge is developing an approach to network sizing that ensures patients have access to a wide range of providers including specialists and primary care physicians in order to receive the most comprehensive care available. The network of providers must provide sufficient geographic coverage, measurable quality services, negotiated contracts, manageable reimbursable rates and managed costs. This paper proposes strategies for network sizing utilizing data analytics, provider incentives and patient engagement.



Sizing

- · Geographic Coverage/Necessity
- Drive Times by Specialty/Category, Taxonomy Ratios, Provider Capacities

GOAL

Develop provider network size and composition decision support tools incorporating agency/customer/industry requirements and capable of addressing specific contract requirements, performance goals and penalties and generating internal performance metrics tied to network size and composition.

Specific aspects of provider network design that must be considered include:

- Incorporate present and forecasted future beneficiary population size, geographic distribution, health status, and the scope, magnitude, and timing of health care service demands.
- 2. Calculate the number of providers required.
- 3. Determine the minimum ratio of providers required
- 4. Determine the types of providers required.

- Incorporate appointment availability (maximum wait times), drive times (maximum drive times), provider quality and value into decision calculus.
- Includes capabilities for managing potential shifts in the supply of providers in specific regions, and for closing the loop with respect to monitoring and reacting to actual network performance.

Current Network Sizing Process

The network sizing process utilizes extensive, historic healthcare data to develop and project statistically stable estimates of beneficiary utilization and provider volume within a region that can also accommodate other customer furnished data to apply to these estimates. Our experience and access to a wide array of healthcare data lead to the design of a sizing process that provides two distinct approaches for a comprehensive perspective of requirements, one based on historical provider-to-population ratios, and another based on projected population utilization fit to historical provider workloads.

The network sizing process estimates provider requirements, based (1) on utilization rates by population demography projected to the population profile (age, gender, and enrollee type). We then fit the data on projected utilization to a statistical model that estimates provider targets for each specialty/region, based on estimated provider volumes. Additionally, the network sizing process includes (2) the ability to provide an alternate perspective on provider requirements

based on provider productivity estimates, by specialty, for statistically relevant provider ratio estimates that are applied to the demographic profile of covered enrollees. Specifically:

1. Ratio Based Target

The network sizing process uses recent historical ratio of beneficiaries to network providers by specialty, along with the number of beneficiaries residing in each region, to determine the corresponding number of network providers for each specialty. Since this uses a current network of beneficiaries to network providers submitting claims, it reflects the overall network build – including any deficiencies and redundancies.

2. Visit Based Target

The network sizing process then uses the demographic breakouts for each region along with the average annual demand for those breakouts, to calculate the expected annual demand for that region, and then applies the base-line of annual visits per network provider needed to meet that annual demand.

The result is network sizing process that is bounded by upper and lower bound estimates for nuanced considerations of population requirements and value-based approaches to meet our requirements.



Harmony works with existing partners and your organization's existing datasets to ensure solutions are aligned with your network and overall systems/capabilities. We have a proven history of integrating existing products for complex, data-intensive investigation of how the network design relates to covered lives on Geo-coded drive time estimates, a crucial component of considerations of the network sizing process. Two models are shown above as "Ratio Based Target" and "Visit Based Target" shaped to accommodate the criteria surrounding optimized networks for cost, quality, access, and convenience.

Provider Network Optimization

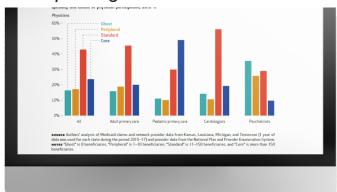
Ensuring Network Adequacy requires more than a baseline calculation of network sizing. A review cycle and approach to overall Network Optimization should be the goal of high performing payer organizations.

Just having a provider in a network should not in itself count for adequacy, they are listing providers that may not be performing. As Ludomirsky et al. Shows "taken together, our findings suggest that providing network directories may overstate the availability of physicians in the Medicaid program" (Ludomirsky et al., 2022, p. 765).



Network Adequacy with Claims Data

Improving Network Performance



Overall, 16.3 percent of physicians listed in Medicaid managed care plan provider network directories in a year qualified as ghost physicians, meaning they saw zero Medicaid beneficiaries over the course of the year in an outpatient setting" (Ludomirsky et al., 2022, p.763). The problem is not narrow to one region or type of plan. "The share of ghost physicians ranged from 1.4 percent to 24.9 percent" across various states in the study (Ludomirsky et al., 2022, p.763). Ludomirsky et al also found that of the physicians that stayed in the plan network a second year "... 94.6 percent remained ghost or peripheral physicians." (Ludomirsky et al., 2022, p.763).

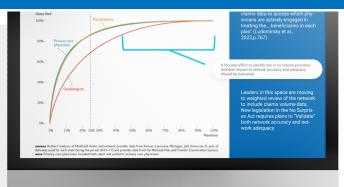
New Approach

A new approach will require a continuous cycle of evaluation of Network Accuracy & Adequacy against Claims and Beneficiary Data. "Ghost" providers should not be blindly eliminated, but a review and engagement process should be pro-actively put into place.

"By counting all physicians the same way, network adequacy standards only incentivize plans to include a sufficient number of physicians, instead of encouraging plans to contract with physicians who are both valued by.....beneficiaries and are willing to treat them" (Ludomirsky et al., 2022,p767).

"Use of broader administrative claims data to access which physicians are actively engaged in treating the....beneficiaries in each plan" (Ludomirsky et al., 2022,p.767).

Leaders in this space are moving to weighted review of the network to include claims volume data. New legislation in the No Surprises Act requires plans to "Validate" both network accuracy and network adequacy.



25% of physicians accounted for **86.2%** of Claims (Ludomirsky et al., 2022,p.767).

Conclusion

Harmony has devoted significant attention and resources to meet and exceed requirements to design and size provider networks that incorporate the principles of value-based care, exploit our proven performance with data, and promote greater internal and external partnerships to shape our approach that supports the modern healthcare payer objectives. We are enhancing our partnerships, to bring the widest variety of perspectives, expertise, and experience that will optimize our approaches to network sizing moving forward.

Call to Action

Provider Analytics

Upgraver Conditions to Activate Energies
Use in Cybe. Sudden.

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continued and continu

Contact us for an initial discussion on your needs.

APPENDIX

Objective and Prescriptive Action Models



Sizing

Objective

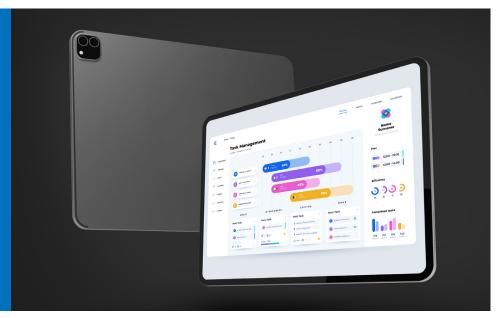
Correctly Size the "Contracted and Credentialed" HMO or PPO Network of Providers that meet access, provider ratios, provider capacities, quality, value, volume of claims and ease of access for beneficiaries based on distance and travel times



Curation

Objective

Establish a process to improve the underlying administrative performance of the contracted provider network by fortifying referral value and improving Medicare/Medicaid/ACA/ administrative standards.



High Performance Network

Objective

Develop a High-Performing Network of Providers using APM's and Value Based Principles. Negotiate with Providers to create full provider network optimization. Focus on Beneficiary Attribution, Quality, Discount and Medical Expense Reductions.



RESOURCES





Authors



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David Moore is a leader, innovator, award-winning scholar, and award-winning educator with over 30 years of private consulting experience including 17 years focused on healthcare decision support, care delivery innovation, and analytics.



Dr. Thomas Williams PH.D.

Dr Williams contributes insight, advice, and technical expertise that demonstrates current health system performance, important opportunities to improve health, healthcare delivery, and client tactical and strategic aims needed for improved value.

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References

Ludomirsky, A. B., Schpero, W. L., Wallace, J., Lollo, A., Bernheim, S., Ross, J. S., & Ndumele, C. D. (2022). In Medicaid Managed Care Networks, Care Is Highly Concentrated Among A Small Percentage Of Physicians. Health affairs (Project Hope), 41(5), 760–768. https://doi.org/10.1377/hlthaff.2021.01747

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