White Paper

Controlling cost and quality through specialized care management

Clinical best practices and Centers of Excellence networks deliver value for payers, employers and plan members.

The crisis in complex condition care

It is the very eye of the U.S. health care hurricane; insurers and plan sponsors nationwide are struggling to deal more effectively with a relatively small number of complex medical conditions which, across populations and plan environments, account for a disproportionate share of both unsatisfactory clinical outcomes and high treatment spend.

Transplantation, congenital heart disease, complex cancers, neonatal care, infertility and bariatric surgery, to name a few of the most problematic conditions, share a handful of distinctive characteristics: they are typically non-emergent, occur at relatively low frequency, are inherently complex in nature, and their treatments display wide variation in clinical success and cost.

This variability has its own tangled roots:

- High rates of successful clinical outcomes and lower treatment costs both correlate with high case volumes and deep levels of provider experience and specialization.
- Specialist providers vary widely in quality and cost. Highly successful practices are a small fraction of the overall population. They are not present in all markets and not equally accessible to all consumers.
- There is a high incidence in these conditions of unnecessary treatments that are not consistent with evidence-based medicine, that exacerbate high costs without improving clinical outcomes.
- Finding the right provider and selecting the right course of treatment can be difficult, even for medical professionals. Consumers need ongoing decision support informed by up-to-the-minute awareness of provider expertise, current best practices and evidence-based medicine standards.
- Engaging consumers is difficult in and of itself. It requires an investment in specialized advisory services and outreach capabilities that is typically beyond the capacity of primary care providers and most insurers and plan sponsors.
- Individual plan managers who deal infrequently with complex conditions are unlikely to have close working relationships with leading specialists, a deep knowledge of cutting-edge treatment practice, a volume of patients that conveys significant pricing leverage, or specialized contracting expertise to optimize care quality while effectively managing financial risk exposure.

In short, individual health plans and employers are at a significant disadvantage in dealing with the specialized management challenges of complex medical conditions. As a result, their members too often endure a bewildering treatment experience, sub-optimal clinical outcomes, and high treatment costs.

A narrow network alternative

As a leading developer of condition management programs, Optum™ has been working since 1986 to identify complex medical conditions with quantifiable variance across treatment providers. We have pioneered a comprehensive and collaborative approach to complex condition management that significantly reduces variability in outcomes, improves the consistency and quality of care, and lowers the costs of treatment.

As a leading developer of condition management programs, Optum has been working since 1986 to identify complex medical conditions with quantifiable variance across treatment providers.

Three important characteristics distinguish this approach:

- A set of narrowly focused provider networks comprising the nation's leading specialists and treatment centers.
- An equally specialized support infrastructure and service portfolio for developing and maintaining the provider networks, creating and evolving care standards, and providing personalized case management and decision support throughout the treatment process.
- Data-driven discipline in the pursuit of excellence in every aspect of clinical care, network management, financial operations and personalized consumer support.

We believe this analytically rigorous yet highly personalized approach offers the best available model for making expert specialist care accessible to the widest possible patient population, for reducing the variability in clinical outcomes, and bringing the runaway costs of complex condition care under sustainable control.

Excellence in clinical care: the Optum Centers of Excellence networks
The Optum Centers of Excellence (COE) program currently includes six focused networks comprising the physicians and hospitals with the greatest levels of specialized medical expertise and the highest rates of clinical success. They include:

- **The Adult Transplant COE network** with 139 facilities under contract, providing access to 710 transplant programs. 95 percent of the U.S. population lives within a 200-mile radius of one or more network facilities. Optum provided 11,677 referrals to network providers during 2010, resulting in 3,827 transplant procedures — a seventeen percent share of the commercial transplant market. We deliver two service programs through the Transplant Solutions network:
  - The Transplant Resource Services program, which provides access to network specialists, facilities, consulting and decision support services.
  - The Managed Transplant program, a cost and risk management solution for insurers and plan sponsors in which Optum pays virtually all claims that result from transplant cases in exchange for a flat monthly premium. The program is coupled with consulting and decision support services.
- ***The Congenital Heart Disease COE network*** with 16 facilities under contract.
- ***The Cancer COE network*** with 30 facilities under contract, 16 of which also provide pediatric oncology services.
- ***The Infertility COE network***, a group of specialized clinical teams whose practices cover 30 major markets nationwide.
- ***The Bariatric Surgery COE network*** with 212 qualifying facilities and 33 facilities under contract for direct access.
- ***The Ventricular Assist Device COE network***, our newest, with 31 providers qualifying at 31 facilities.

More than 9,675 payer groups representing more than 70 million individuals nationwide utilize Optum Center of Excellence networks and services to manage their patients' complex medical conditions.

Excellence in network development and management
To participate in any COE network, every provider must pass an intensive initial credentialing evaluation and detailed annual reviews. The qualification process is developed and maintained in conjunction with the Clinical Sciences Institute, a group of more than 170 employed and empanelled clinical experts. Evaluation criteria are continuously reviewed and revised to incorporate the ongoing evolution of best practices, quality parameters and performance benchmarks as they relate to the applicable field of medicine. Key performance criteria include:

To participate in any COE network, every provider must pass an intensive initial credentialing evaluation and detailed annual reviews.

- Procedure volume and associated outcomes.
- Team experience and stability, and the ability of supporting personnel to manage the program.
- Program practices and standards in the context of current trends and technological advances within the specialty.
- Overall commitment to the specialty as evidenced through the breadth and depth of programs offered.

While the initial credentialing process may sound adversarial, the partner relationships between Optum and its network provider partners are deeply collaborative and mutually beneficial. Providers agree to follow standardized, evidence-based treatment protocols and provide beneficial pricing that lowers the cost of care for insurers, sponsors and consumers. In exchange, Optum delivers a patient volume that supports higher levels of growth and reinvestment in skills development, research, technology and specialized facilities. We also share access to the clinical data repository that aggregates treatment and outcome data from across the network. The overall outcome is expanded access to higher quality care at lower cost and a general elevation of clinical standards and outcomes.

Excellence in medical direction and clinical patient support
Specialized clinical expertise is no less essential to the medical oversight and consulting services that Optum provides to assist consumers in making appropriate provider and treatment selection decisions. Each network is overseen by a medical director and a dedicated staff of physicians with at least 15 years of clinical practice. The medical staff provides expert oversight for all referrals and treatment plans, and for delivering customer value through improved clinical outcomes, lower costs, and better treatment experiences.

At the front line of consumer support services, a dedicated team of nurse consultants assists members with referrals and provider selection, providing orientation and education on diagnoses and conditions so that consumers can make informed treatment decisions. A minimum of 5 years of specialty practice experience is required of all program nurses, and bi-annual assessments of clinical and procedural competency are conducted to identify potential staff knowledge gaps and training opportunities.

Excellence in continuing clinical education
Because clinical best practices are continually evolving at facilities with specialized expertise, specialized education is a precondition for rapidly disseminating new techniques and treatment protocols. Optum Education, an independent educational institution fully accredited by the Accreditation Council for Continuing Medical Education (ACCME) and the American Nurses Credentialing Center (ANCC), provides focused training for clinical professionals with a special emphasis on emerging best practices in complex and chronic condition treatment.

With access to a network of more than 575,000 U.S. health care providers and de-identified medical, pharmacy and laboratory claims data on approximately 30 million lives, Optum Education is uniquely positioned to design educational initiatives based on demographic variances in care. Its activities include a busy schedule of regional and national conferences and symposia, and a growing library on online educational modules that are available on demand.

Excellence in financial analysis and contract development
A less visible but equally differentiating element of all Optum COE programs is the unique combination of advanced financial and clinical analytics supporting the contract development process that formally defines the relationships between Optum and its network provider partners. In the area of transplantation alone, we maintain detailed demographic, clinical and claims records covering more than $3 billion in procedures. The ability to integrate specialized clinical expertise with data-derived insights into the relationships between treatment practices, medical outcomes and economic impacts provides the basis for contracts that reduce risks for payers while incenting provider practices that benefit all stakeholders in the health ecosystem.

The network impact: simultaneous excellence in clinical and financial outcomes
The COE approach to managing complex medical conditions is proving highly successful in all the targeted areas of improvement: expanding access to expert specialty care, standardizing treatment practice based on quantitative evidence, improving clinical outcomes, reducing treatment costs, and improving the consumer experience. Consider the following impacts by network specialty.

Transplantation services

- In 2011, projected Milliman data show a national average billing total of $471,857 per transplant procedure.[1] In 2010, the average total for transplants performed within the Optum COE network was $211,282, an average savings of 51.0 percent.[2] Since 2007, **the average increase in paid costs per transplant within the Optum network is just 3.0 percent**[3] compared to the national Milliman benchmark of 8 percent.

One-year survival rates for heart and liver transplant patients

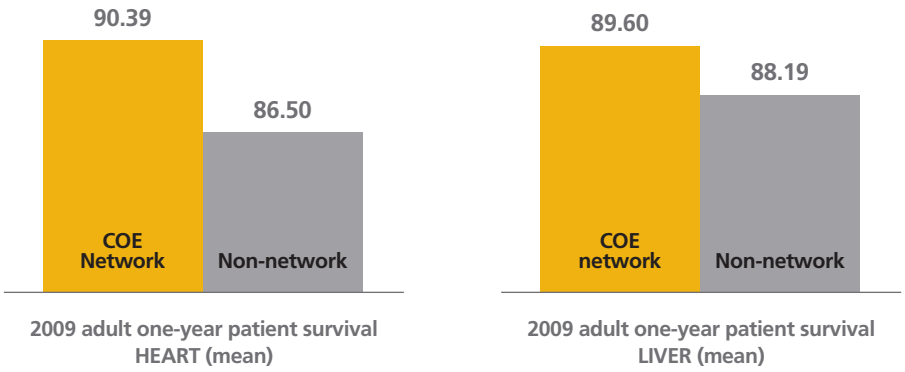

Figure 1: One-year survival rates for heart and liver transplant patients are significantly higher at COE facilities than out of network.

- In 2009, the one-year survival rate for adult heart transplant patients was 90.39 percent within the COE network, versus 86.50 percent for patients treated out-of-network.[4] The one-year survival rate for adult liver transplant patients was 89.60 percent within the COE network, versus 88.19 percent for patients treated out-of-network.

Between 2002 and 2008, transplant patients within the Optum network spent 16 percent fewer days in the hospital than out-of-network patients.[5]

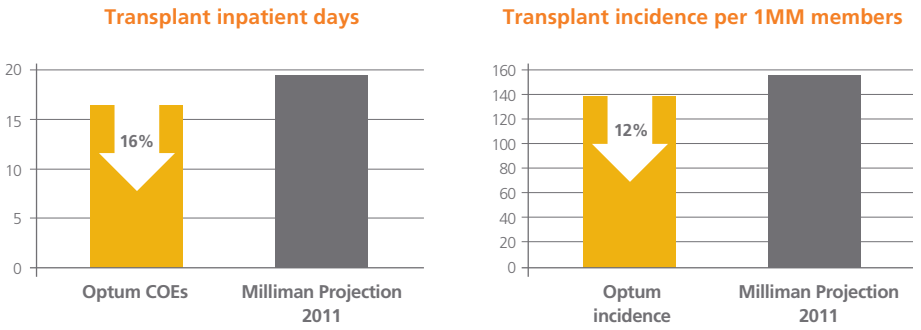

Figure 2: Patients treated in COE facilities underwent fewer transplant procedures and spent fewer inpatient days than patients treated out of network.

- Between 2002 and 2008, transplant patients within the Optum network spent 16 percent fewer days in the hospital than out-of-network patients.[5] Over the same period, the incidence of transplants was 12 percent lower for patients treated within the Optum network than for patients in the U.S. as a whole, a difference achieved through better diagnosis and more appropriate treatment judgments by Optum network specialists.

Congenital heart disease

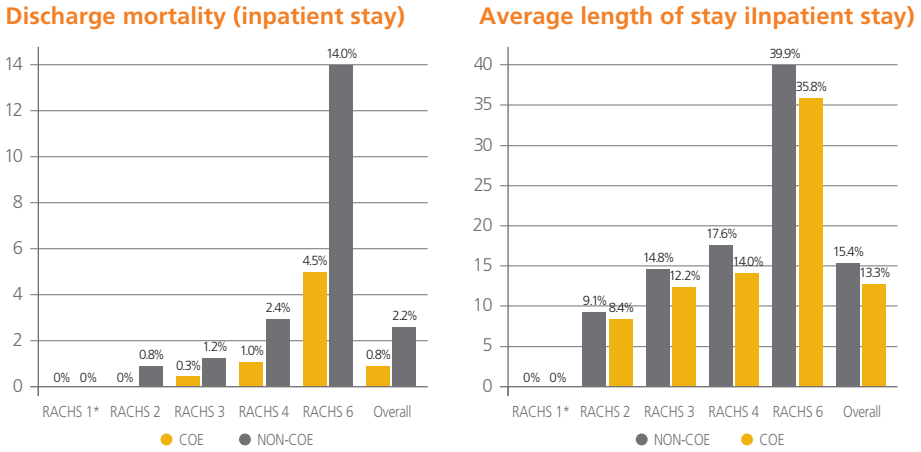

Figure 3: Discharge mortality rates are dramatically lower for patients treated at Optum Congenital Heart Disease COE network facilities than for patients treated out of network, while lengths of stay are significantly shorter.

- Discharge mortality rates (inpatient deaths) for facilities in the Optum Congenital Heart Disease COE network are 65 percent lower overall than those at out-of-network institutions. Of particular note is the fact that at COE institutions performing the most complex procedures (RACH 6), discharge mortality rates are 68 percent lower those out of network.[6]
- Better care also translates into shorter hospital stays. For all CHD cases, patients at COE facilities experienced in-patient stays that were 3.5 days shorter than patients treated out of network, a 25 percent reduction.

Cancer Services

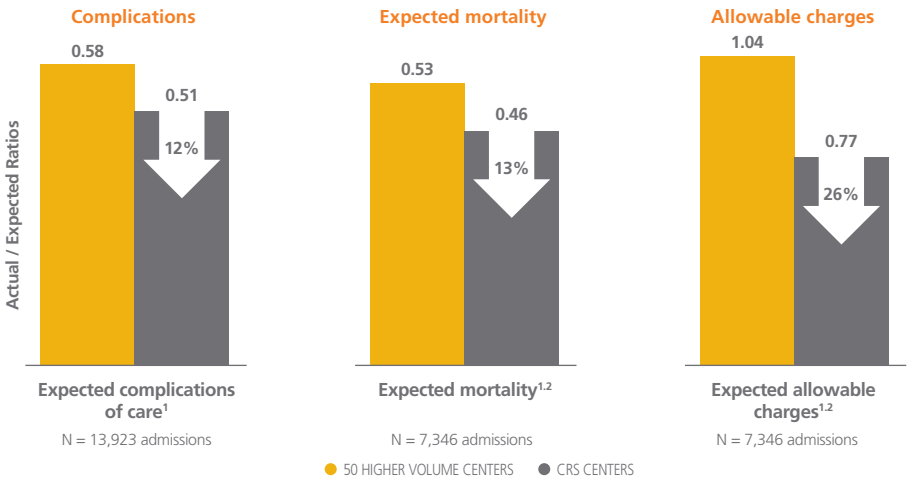

Figure 4: Complications, mortality and costs are all lower for cancer patients treated at Optum Cancer COE facilities.

- A 2004 study by Thomson Medstat of actual versus expected rates of complications, mortality and allowable charges for cancer patients treated by Optum network providers versus 50 higher-volume out-of-network facilities showed 12 percent lower expected rates of complication, 13 percent lower expected rates of mortality, and 26 percent lower expected allowable charges.[7]

Infertility

- Among couples who receive infertility counseling and treatment through the Optum Neonatal Centers of Excellence network, higher-order multiples are reduced through patient education and guidance, nurse consultants and access to the right provider. Together, these resources reduce the desire for multiple births by 70 percent, resulting in a 45 percent lower incidence of triplet or higher-order multiple gestations.[8]

Bariatric Surgery

- The Optum Bariatric Resource Services program can help avoid 5 percent of unnecessary surgical procedures.[9]
- Where surgery is appropriate, average initial procedure costs are $2,377 lower at COE network facilities.[10]
- The lower incidence of post-surgical complications at COE facilities results in $932 lower costs in the 12 months following surgery.[11]
- Total savings per member average $3,474 when bariatric surgical patients are treated within the COE network.

Ventricular assist device

VAD discharge mortality rate

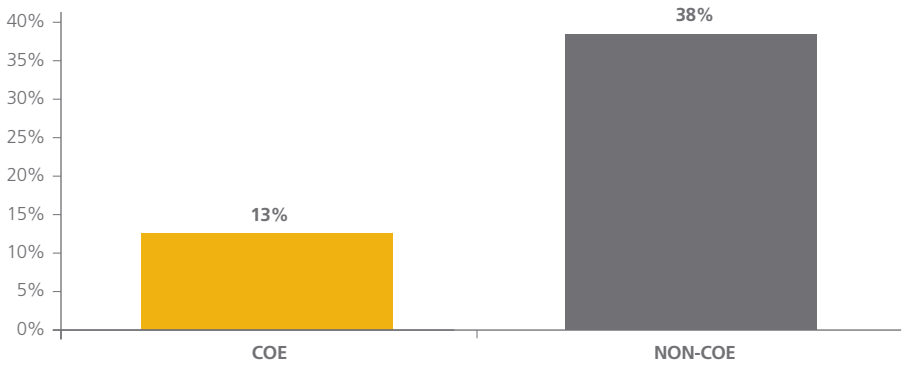

Figure 5: Discharge mortality rates at COE network facilities are one-third those at non-network providers.

- VAD procedures performed at non-COE facilities are nearly three times more likely to result in discharge mortality than those performed at a VAD COE.[12]

A breakthrough in complex condition treatment

The evidence seems conclusive that narrowly focused networks of specialist providers, when delivered to insurers, employers and their plan members as a managed service through a comprehensive overlay of administrative, clinical oversight and consumer consultation services, offer a highly effective strategy for expanding access, standardizing care, improving clinical outcomes and reducing treatment costs.

At Optum, the existing specialty networks and the service infrastructure that has been developed to manage and support patient access are providing the process model and operational foundation from which other complex conditions can be more simply and effectively managed.

To learn more about how Optum Centers of Excellence networks can help improve member health outcomes and reduce your medical costs. Contact us at **1-866-427-6845** or email to **engage@optum.com**.

At Optum, the existing specialty networks and the service infrastructure that has been developed to manage and support patient access are providing the process model and operational foundation from which other complex conditions can be more simply and effectively managed.

About the author

Dr. Karen Babos, DO, MBA

Dr. Babos, a board-certified internist and geriatrician, is the senior national medical director for Optum Complex Medical Conditions. She is active in all aspects of the organization's programs, including case management design. Prior to joining UnitedHealth Group, Dr. Babos was vice president of medical affairs and national medical director for HCR Manorcare, the second largest nursing home chain in the U.S. She also served as a hospice medical director for Vitas Hospice, as chief of geriatrics at two large teaching hospitals, and as associate clinical professor at the University of Illinois in Chicago.

Dr. Babos continues to be active in the community, serving as president of the board of directors and now advisor to the Chicagoland Suburban Area Agency on Aging. She continues to care for patients in her small private practice, serving the needs of the homebound elderly, who have advanced or terminal illness.

Sources

1. Milliman, 2011.
2. Facets Case Data Query, April 2011.
3. Milliman Annual Cost Data, 2006-2011.
4. SRTR data, January 2009.
5. 2002-08 Optum COE transplant data; Milliman, 2005 and 2007.
6. Source: 2008-2010 UnitedHealth Group Claims Database; Commercial population = 17 million lives.
7. 2004 study by Thomson Medstat, a healthcare information business, which analyzed commercially insured admissions data from an industry standard database. Comparisons between CRS centers and 50 higher volume non-CRS facilities are risk adjusted and statistically significant at p<.05; Note: 1. Actual / Expected Ratios < 1 indicated better than expected performance. Expected is derived from Medstat's episode grouper, Disease Staging methodology, and multiple regression analysis.
8. Gleicher et al. 1995.
9. 5% Surgical Avoidance based on 2009 average surgeries avoided across BRS book of business.
10. 10/06 – 9/07, Optum's analytics team reviewed claims data of 9,474 first time surgeries (BRS Book of Business) at our COE's vs. NON-COEs.
11. 2005-2006, Optum's analytics team reviewed claims data of 17,981 first time surgeries (BRS Book of Business) at our COE's vs. NON-COEs.
12. Source: UnitedHealth Group claims database.

Contact us:
Call: 1-866-386-3408
Email: resourcecenter@optum.com
optum.com/resourcecenter

optum.com

11000 Optum Circle, Eden Prairie, MN 55344