



Blood Centers Should Position Themselves to Be Agents (Not Victims) of Change



The U.S. blood transfusion industry is undergoing a large-scale consolidation. A number of disparate market and industry forces are making this consolidation inevitable. PYA can help blood centers assess the impact of these forces on their organizations so they may respond appropriately to position themselves to survive and thrive as the blood transfusion industry transforms.

Industry Forces Driving Consolidation

The industry forces driving consolidation include decreased demand and lower prices for blood products, combined with decreased availability and higher costs of obtaining blood products.

Decreased Demand

Decreased demand for blood products is illustrated by statistics from the American Red Cross, which controls 40% of the blood center industry. In the last five years American transfusions decreased from 15 million units to 11 million units per year. In the industry as a whole, blood center revenue over expenses, which was \$5 billion in 2008, is estimated to be only \$1.5 billion in 2014.

This decrease in demand results from market forces such as: changes in clinical practice patterns in light of recent clinical studies supporting less liberal blood transfusion, developments in minimally invasive surgery, and use of less toxic cancer chemotherapy.

The greatest impact on demand for blood products results from clinical trials comparing restrictive blood transfusion protocols to liberal transfusion protocols. The Transfusion Requirements in Critical Care (TRICC) Trial reported in the *New England Journal of Medicine* in 1999 and the Functional Outcomes in CV Patients Undergoing Surgical Hip Fracture Repair (FOCUS) Trial in the same journal in 2011, caused experts to conclude that restrictive protocols that transfuse less blood result in clinical outcomes at least as good as the traditional, more liberal approach.

Similarly, a 2012 Cochrane review of 19 randomized clinical trials involving 6,264 transfusion patients found that a restrictive transfusion strategy was associated with fewer transfusions without any harm to the patients studied. An October 2014 *New England Journal of Medicine* lead article on transfusion thresholds in septic shock patients prompted an editorial in the same issue supporting restrictive transfusion strategies and a transfusion threshold of 7g per deciliter for all critically ill patients.

These and other studies have led to changes in clinical practice that have contributed to dramatic declines in the use of blood products. For example, the Society of Thoracic Surgeons in 2012 changed its guidelines for post-operative care in cardiac bypass patients to recommend blood transfusions only in patients whose hemoglobin levels were 7 or less. In contrast, in the past many surgeons ordered blood transfusions for all patients who underwent the procedure.

Advances in cancer chemotherapy (causing less bone marrow suppression) have also decreased the need for blood transfusions. In addition, studies indicate that new minimally invasive surgery techniques result in less blood loss than traditional open procedure techniques, thus reducing the demand for blood transfusions.

Lower Prices

Numerous factors are also pushing the prices for blood products down. The consolidation of independent hospitals into larger integrated

delivery systems has resulted in more aggressive price negotiation with blood centers. In addition, hospitals have responded to the decreased use of blood products during a time of strong inventories by demanding lower prices per unit of blood. Furthermore, various components of the Affordable Care Act - such as price transparency, Accountable Care Organizations, and bundled payments - are designed to bend the cost curve for healthcare services. As these programs take effect, they will inevitably put downward pressure on blood prices as well.

Decreased Availability

Studies have shown that citizens 24 to 49 years of age are less likely to donate blood. Thus, blood centers have become more dependent on older donors. While the number of individuals in the over-50 age cohort is increasing, this cohort is more susceptible to diseases that limit blood donation. Furthermore, additional donor screening tests and more rigorous safety standards have led to increased deferral rates of blood that cannot be transfused.

Higher Cost of Obtaining Blood Products

The cost of collecting blood also continues to rise. As with the healthcare industry generally, blood centers are subject to strict regulatory requirements. Furthermore, because of transfusion-transmitted HIV and hepatitis concerns, many regulators and blood centers have adopted "blood safety at any cost" policies. Such policies are costly. In fact, blood centers report that compliance costs to meet regulatory requirements typically make up 30% of a blood center's total expenditures.

The Industry's Response

The confluence of all of these factors has led to consolidation of the industry and diversification of services offered. Blood banks are offering new services such as cellular therapies, lab and centralized transfusion services, and source plasma

production in an attempt to develop new revenue streams. Profit margins are low at 1 to 2%, and the cost of doing business is rising faster than revenues from sales. These factors have led to a wave of mergers as blood centers try to respond to the challenging environment by getting bigger. For example:

- The American Blood Centers (a group of independent blood centers) went from 77 to 68 members in the last five years because of merger activity.
- The Blood Center of Wisconsin recently merged with Heartland Blood Center in Aurora, Michigan Blood in Grand Rapids, and Indiana Blood Center in Indianapolis.
- OneBlood, Inc. (providing services in Florida, Georgia, and Alabama) and The Institute for Transfusion Medicine, Inc. (ITxM) (operating in Pittsburgh, Chicago, Virginia, Ohio, and West Virginia) announced an agreement in June 2014 to pursue a merger of the two organizations that would make the combined entity the largest independent, not-for-profit blood center in the United States.
- On October 17, MEDIC Regional, Inc. (operating in East Tennessee) and ITxM announced an affiliation effective October 31, 2014.

Consolidation Will Continue, So What's the Best Fit for the New Paradigm?

While most observers expect consolidation in the industry to continue, there is no agreement on the ideal size of a blood center to service the transformed clinical delivery system that is emerging across the nation. The American Red Cross will probably continue to be the largest supplier of blood products; it presently controls 40% of the market and supplies 3,000 hospitals.

The largest independent centers are BloodSystems of Scottsdale, Arizona; OneBlood of Orlando; the New York Blood Center; and ITxM. The announced merger of OneBlood and ITxM will result in an organization with \$480 million in revenue and 3,500 employees.

Some industry experts believe that just becoming bigger may not create the most efficient organization. Louis M. Katz, MD, Chief Medical Officer of America's Blood Centers believes that the ideal size for the transformed delivery system may be a blood center that has 400,000 to 500,000 whole blood collections a year. If the market followed this logic, the membership in America's Blood Centers would shrink from 68 to about 15 remaining independent blood centers.

Recent performance metrics of nonprofit blood centers suggest that although some consolidation is likely necessary, bigger is not necessarily better. For example, in 2013, one non-profit blood center with more than 3,600 employees had almost 925,000 annual collections, yet lost almost \$11 million in net income from operations.

On the other hand, another nonprofit center with almost 3,500 employees had more than \$4.3 million in net income. Similarly, smaller nonprofit centers' net incomes vary widely despite similar numbers of employees and production levels. Thus, the answer for a blood center trying to discern its optimal size is not necessarily to "super-size it," but instead to "right-size it."

To determine whether, how, and with whom to consolidate, each blood center will need to conduct in-depth analysis of itself and its relevant market. At a minimum, each blood center should analyze its geographic and product market and the demand for blood in that market; its customer concentration and projected revenues; and its cost structure and level of efficiency. Furthermore, blood centers that conclude they must merge with one or more partners will need to conduct the same in-depth analysis of each of their potential partner(s).

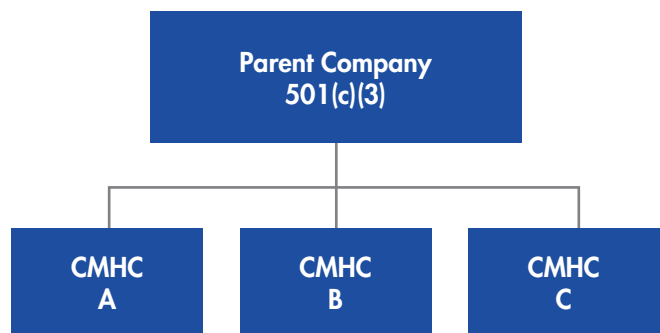
PYA Can Help

PYA is uniquely qualified to assist blood centers with re-positioning themselves in this wave of consolidation. Although consolidation is new to the blood transfusion industry, other segments of the healthcare industry have undergone similar change; and PYA has extensive experience as the trusted advisor assisting affected providers to weather the storm of industry change.

When the mental health industry went through similar consolidation, PYA assisted a number of local, nonprofit community mental health centers (CMHCs) in affiliations with other nonprofit CMHCs to become regional providers, all the while assuring continued availability of care in their respective local communities. (See Vignette on page 5.)

During the mental health industry consolidation, CMHCs primarily evaluated two forms of merger structures—the parent company model and the traditional merger model.

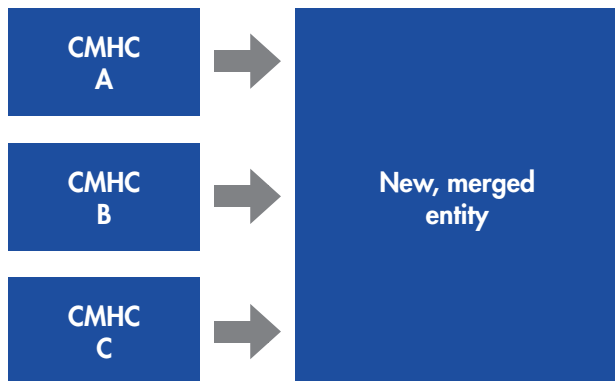
Parent Company Model



In the parent company model, a newly formed non-profit, tax-exempt corporation became the sole member of each participating CMHC. Each CMHC remained a separate legal organization, but the parent company Board of Directors assumed the responsibilities of each local Board. The Boards of the participating CMHCs continued to act in an advisory

capacity. The parent company was responsible for governance and provided administrative support, consolidation of resources, and planning for the CMHCs.

Traditional Merger Model



In the traditional merger model, the individual CMHCs merged into a new CMHC entity and the original CMHCs ceased to exist. The new, combined CMHC entity performed all governance and administrative functions collectively for the consolidated CMHCs. A Board of Directors comprised of representatives from each original CMHC directed the new company. All administrative tasks and personnel were unified.

The determination of which of these (or a number of other affiliation models) is best depends on the facts and circumstances of the participating healthcare organizations. PYA has the resources and experience necessary to evaluate, organize, and facilitate affiliations of blood centers in sustainable models that will be responsive to, and successful in, the newly consolidated blood transfusion industry.

Based on its depth of experience in the healthcare industry generally and experience in the blood center industry specifically, PYA can educate blood center Boards of Directors regarding the direction the industry is going, the pitfalls awaiting

VIGNETTE

Can Blood Centers Benefit from Community Mental Health Centers' Experience?

In the mid-1990's, decreased Medicaid reimbursement caused significant consolidation of Tennessee's CMHCs. Before the changes in reimbursement, over 35 CMHCs provided outpatient mental health services throughout Tennessee. Each CMHC worked autonomously within its defined market.

In response to material decreases in Medicaid reimbursement, CMHCs began to discuss how they could continue to provide local access to care by improving effectiveness and efficiency of their service offerings. Over the course of a few years, Tennessee's CMHCs consolidated to less than ten; however, the number of locations providing services remained substantially the same.

By consolidating governance and operations, the CMHCs were able to continue to provide local access to community mental health services despite lower reimbursement. The pooling of resources and consolidation of overhead structures allowed for a more integrated approach to providing care.

CMHCs using the parent company merger model described in the white paper were able to maintain their local identity while the parent company board created support structures and strategic plans, allowing more efficient use of the organizations' consolidated resources.

The challenge faced by the CMHCs is similar to the challenge now facing independent blood centers. While outsourcing testing and other operational changes may offer blood centers the potential to modestly lower operating costs, coordinated planning and resource allocation through a common governance structure can establish a more sustainable, long-term business model.

those organizations that do not adjust, and the opportunities available to those organizations that pro-actively address the changing market.

PYA can provide logical, empirically based analysis of the potential merger partners and assess the feasibility of mergers or other affiliations between and among potential partners. We can provide business analysis and expertise in organizational dynamics and governance to assist the parties in determining the optimal size for a merged entity and the appropriate organizational structure. PYA can also provide statistical analysis to assess and streamline the logistics of the parties' collection and distribution of blood products.

In short, PYA is well-positioned to assist blood centers facing the uncertainty of consolidation in their industry. Our professionals are committed to doing more than meeting healthcare organizations

where they are; our professionals are able to advise organizations regarding where they need to be in the dynamic healthcare environment.

To discuss how PYA can help your organization be pro-active and responsive to changes in the blood transfusion industry, please contact one of the following:

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