Blood Systems exists to make a difference in people’s lives by bringing together the best people, inspiring individuals to donate blood, producing a safe and ample blood supply, advancing cutting edge research and embracing continuous quality improvement.
We always return to our touchstone for stability and balance: our mission.

Equilibrium. Balance. Stability. Calm. With the continuing turbulence in healthcare, those are qualities for which we often long. While 2015 was a year of tremendous change and growth for Blood Systems, it was also a year when we focused a little more on those qualities. It’s not because we see a period of tranquility before us—quite the opposite, in fact. We spent 2015 getting ready.

We began the year with a dramatic reorganization of our United Blood Services® centers, changing from geographic to functional leadership, based on successful supply chain management models. This concentrates leadership and expertise, and gives us a deep and broad view of operations so that we can more effectively balance capacity and demand.

We welcomed four new members to our Blood Centers Division from California, New Jersey, Ohio and Tennessee. As we’ve grown to serve some 700 hospitals in 24 states, these important connections deliver volumes, services, expertise and geographic reach to help us be a more effective blood service provider for regional and national hospital systems and health networks.

Our other divisions reported numerous accomplishments that are highlighted in their sections of this report. BioCARE® made significant inroads in the non-acute GPO segment and continued its growth with exclusive or limited distribution pharmaceutical contracts. Creative Testing Solutions, which we co-own with a number of other leading blood centers, implemented Babesia testing for customers in affected areas and expedited a source plasma testing initiative to fulfill an urgent request from a new customer. And Blood Systems Research Institute® achieved major international recognition when it was named a key collaborator in the newly-established amfAR Institute for HIV Cure Research.

As a large, multi-division, multi-state organization, we focus our annual report on our business activity and our careful stewardship of the resources that sustain our lifesaving mission. Ultimately, our mission is why we’re here: to provide the blood products, services and expertise that save patients’ lives (you’ll see some amazing stories in these pages). To do that, we rely on the support and participation of the communities we serve—and we are grateful for blood drive sponsors and organizers and, of course, the hundreds of thousands of volunteer blood donors who roll up their sleeves every year.

As we go to press, 2016 is well underway. The trends of the past few years continue and amplify. There is growing consolidation in blood banking and in healthcare. Both environments are under tremendous pressure to manage costs while maintaining excellence in the services we provide.

Even though turbulence is in the forecast, we always return to our touchstone for stability and balance: our mission. With our RITE values of respect, integrity, teamwork and excellence, our mission guides our daily work and our long-range decision-making. All of us at Blood Systems are proud that, since our founding in 1943, we make a difference in people’s lives.

John S. Lewis
Chairman

J. Daniel Connor
President & CEO
LifeShare Community Blood Services

LifeShare Community Blood Services of Elyria, Ohio, joined Blood Systems in January 2015. Established in 1948, LifeShare provides blood to approximately 35 healthcare facilities in Cleveland and northeastern Ohio, collecting about 40,000 donations each year. All LifeShare employees became Blood Systems employees and Blood Systems negotiated a 3-year successor collective bargaining agreement between LifeShare and the Office and Professional Employees International Union, Local No. 17. LifeShare’s solid relationships with the communities and hospitals it serves will be a strong asset going forward, particularly when united with Blood Systems’ transfusion expertise, resources and services.

Community Blood Services

Community Blood Services of Montvale, New Jersey, joined the Blood Systems family February 1, 2015. The organization supplies blood and blood products to hospitals in the New Jersey metropolitan region and has been devoted to serving the community’s transfusion medicine needs for more than 60 years. Community Blood Services collects 60,000 donations a year and will play an integral role in increasing Blood Systems’ presence and visibility in the eastern portion of the country. It also operates New Jersey’s only public cord blood bank, known as the New Jersey Cord Blood Bank, as well as the private family cord blood bank under the Elie Katz Umbilical Cord Blood Program. Cord blood stem cells are used to treat more than 70 diseases.

Lifeblood

Lifeblood, located in the heart of the medical district in Memphis, Tennessee, joined Blood Systems in October 2015. The center supplies more than 100,000 units of blood and blood products to that region annually, serving more than 20 hospitals in the 100-mile radius around the Memphis metro area (which includes Tennessee, Arkansas, Mississippi and the Bootheel of Missouri). The relationship with Lifeblood, a longtime Blood Systems neighbor, has improved the cost effectiveness of our services, including resource sharing and various support services.

BloodSource

BloodSource of Sacramento, California joined Blood Systems December 31, 2015, completing a merger with longtime Blood Systems affiliate Blood Centers of the Pacific at the same time. BloodSource donors throughout Northern California provide blood for 40 hospitals and, together with blood donors at Blood Centers of the Pacific, will provide more than 200,000 units of blood to patients in more than 90 hospitals in the Bay Area and the Northern and Central Valley regions of California. BloodSource also opened the first voluntary source plasma donation center in the United States. Source plasma is used to develop medicines for treatment of immune deficiencies, bleeding disorders, neurological disorders and more.
Net Cells Collected

* Collection totals for 2015 do not include new members BloodSource or Lifeblood.
The Blood Centers Division (BCD) grew significantly in scale through the addition of four new blood center members in 2015. We welcomed LifeShare (Ohio) and Community Blood Services (New Jersey) early in 2015 and then added Lifeblood (Tennessee) in September and closed a transaction with BloodSource (California) in late December. As a result of these relationships, we saw a 10.3 percent increase in red cells collected and provided 13.2 percent more red cells for patient care in 2015 than in 2014. We also saw revenue grow by 16.5 percent, despite a continuing national trend of declining blood product use.

In addition to continued growth and the associated integration activities, the BCD began a multi-year process of converting its affiliates and member centers to the eProgesa computer system. Once complete, our conversion to a single operating system will create new opportunities for optimizing product management throughout our system and will facilitate efficiencies. We also completed a Supply Chain Optimization and Performance Excellence (SCOPE) project begun in 2014, resulting in significant savings. Based on favorable results, we launched a second phase of this work, applying the same principles to our affiliates and we will evaluate those results in 2016.

**Highlights**

- Maintained an exceptional compliance record with all external agencies at all locations and integrated LifeShare and Community Blood Services into our Quality Management/Regulatory Affairs operation
- Completed implementation of SCOPE in the United Blood Services centers in a challenging and complex organizational restructure that relied on our employees’ dedication and innovation
- Implemented a fully-integrated sales and operations planning system to improve product management efforts
- Undertook aggressive donor base development efforts intended to stabilize and then grow our donor base to meet the transfusion needs of tomorrow
- Improved collection efficiencies with the implementation of Vista and Trima technologies across the BCD
- Collected 1,140,284 red cell units and 225,756 apheresis platelets for patient care
- Completed conversion to the eProgesa blood establishment computer system at our Blood Centers of the Pacific affiliate and began preparation for implementation at our Inland Northwest Blood Center affiliate, using strategies that halved cutover duration and downtime
- Completed merger transactions with LifeShare in Ohio, Community Blood Services in New Jersey, Lifeblood in Memphis and BloodSource in Sacramento
- Implemented endemic-area donor antibody testing for tick-borne Babesia, a parasite responsible for a sometimes-severe illness similar to malaria
- Developed a strategy with Blood Systems’ new Human Resources Workforce Planning team to fill positions quickly and improve the hiring experience
Charlotte, or "Charlie," was diagnosed with Hypoplastic Left Heart Syndrome (HLHS) before she was even born. Luckily, medical teams were prepared to perform her first open heart surgery shortly after her birth. Charlie has had two open heart surgeries, one at six days of age and the second at five months. Both surgeries required numerous blood transfusions.

Her parents, Andrew and Jos-lynn, organized a large blood drive in Charlie's honor where many of their family and friends were able to donate.

This happy, adorable, little girl will have a third open heart surgery before age four. Learn more about Charlie and Congenital Heart Defects at www.heartsforcharlie.com.
With a reputation for outstanding service and all-hours responsiveness, BioCARE® and its specialty pharmacy, CanyonCARE Rx®, are among the leading distributors of hemophilia products and other limited distribution coagulation pharmaceuticals.

BioCARE achieved extraordinary success in 2015, with a net margin well ahead of budget. A large portion of that growth came from contracts with non-acute group purchasing organizations (GPOs). Building on its 119 percent growth in this segment in 2015, the division expects to continue growing in the non-acute market in 2016. Along with a focus on portfolio expansion, BioCARE also explored a number of contract pharmacy arrangements between CanyonCARE Rx and Phoenix-area facilities and will continue that work in 2016. Managed care contracts offer another opportunity and will allow CanyonCARE Rx to extend pharmacy services to additional groups of health plan participants.

In addition to success with the non-acute GPO market, BioCARE achieved an 80 percent increase in sales of the hemophilia drug FEIBA and represents two exclusive or limited-distribution coagulation products (Obizur™ and Coagadex®). The Obizur contract was awarded in December 2014 and delivered $25 million in revenue for 2015. Obizur is used for treating adults with acquired hemophilia A (AHA), a very rare bleeding disorder. The Coagadex contract was awarded in December 2015 and is expected to bring revenue growth in 2016; the product is used for treating hereditary Factor X deficiency. Only BioCARE and one other distributor are authorized to distribute Coagadex. Industry perception of BioCARE as being highly responsive was instrumental in these contract awards and will help position the division to earn additional limited distribution pharmaceutical contracts in the future.

**Highlights**

- Grew non-acute revenue by 119 percent in 2015 from $58.6 million to $128.4 million
- Under an exclusive contract with Baxalta, began representing Obizur™, which treats acquired hemophilia A (AHA) in adults
- Awarded a contract for Coagadex®, a limited distribution treatment for Factor X deficient patients, in December 2015
- Signed a new contract with intraFUSION, a non-acute GPO, to become its primary distributor
- Contracted with Soleo, a large specialty pharmacy, in August 2015
- Accomplished an 80 percent increase in distribution of the hemophilia drug FEIBA
- Continued exploring contract pharmacy relationships between CanyonCARE Rx and Phoenix-area hospitals and health plan providers
When José gave blood for the first time, he had no idea he’d need it one day himself. Severely crushed in an accident and near death, he received eight transfusions of O-negative blood and survived.

Eventually, José healed and decided to give back in honor of those who helped him. Recently, he gave his 100th platelet donation and now works as a blood center phlebotomist.

“I have come full circle,” José says. “I’m so thankful for my second chance at life.”
Major opportunities were in store for Blood Systems Research Institute in 2015. The Institute continued to thrive, with two of BSRI’s newest investigators receiving their first R01 grants from the National Institutes of Health. BSRI achieved major national recognition when it was named part of the amfAR Institute for HIV Cure Research, teaming up with the J. David Gladstone Institutes and the University of California, San Francisco. The BSRI program is led by Dr. Satish Pillai and is focused on understanding where HIV hides in quiescent cells, which is critical to understanding how to eradicate the virus from the body.

A second major initiative by BSRI was to establish a new campus in Denver at Bonfils Blood Center. Capitalizing on the available high quality research space and a desire to foster developmental research, the Institute recruited Dr. Larry Dumont from the Geisel School of Medicine at Dartmouth. Dr. Dumont brings a long history of product development and applied research in transfusion medicine to lead the new BSRI campus. The Denver team’s initial clinical focus will be on research and development to validate frozen platelets with funding through a contract with the U.S. Department of Defense.

Highlights

- Led research on approximately 25 different projects funded by the National Institutes of Health, the Centers for Disease Control and Prevention, the Bill & Melinda Gates Foundation, amfAR (The Foundation for AIDS Research), other private foundations, and private industry partners such as Grifols Diagnostic Solutions, Inc.; Cellerant Therapeutics, Inc. and Terumo BCT, Inc.
- Began a major FDA-funded program led by Dr. Brian Custer to establish an integrated and comprehensive infectious disease monitoring system for the U.S. blood supply in collaboration with Blood Systems, American Red Cross, New York Blood Center, OneBlood and Creative Testing Solutions
- Continued studies to measure potential adverse effects of red blood cell storage and host genetic, metabolic and other determinants of red blood cell stability during storage
- Demonstrated a novel method of chikungunya virus neutralization by antibodies based on blocking viral budding from the cell surface
- Filed preliminary patents for molecules to protect brain function after traumatic brain injury, and for a method of reactivating HIV that is hiding in a cell’s DNA, with the aim of eradicating the activated virus
- Initiated a series of NIH-funded studies in Brazil and the U.S. to respond to the expanding Zika virus epidemic and inform decisions about donor screening and pathogen reduction to prevent transfusion transmission of Zika and other arboviruses (dengue and chikungunya viruses)
Donor Panels Tested

* Stacked bar for 2015 includes 4.40 million full panels, in addition to 1.9 million partial panels for a specific customer.
Creative Testing Solutions is the largest independent blood donor testing laboratory organization in the United States. CTS tested approximately 4.5 million donor samples in 2015 at four high-volume laboratory facilities located in Dallas, Phoenix, Seattle and Tampa.

Throughout 2015, CTS either met or exceeded its healthcare partners’ expectations by providing on-time test results 92 percent of the time on average. This was a significant improvement from the prior year and was achieved as a result of the operational excellence journey that CTS began in 2014 to solve problems by involving all staff in all locations every day.

Midyear, CTS was approached by a very large source plasma fractionation company to begin testing on an expedited basis. In less than two months, CTS implemented source plasma testing and tested approximately 2 million individual samples by the end of the year.

Finally, due to demand from existing healthcare partners in affected areas, CTS began testing blood donors for antibody to *Babesia microti* under an Investigational New Drug exemption as a release test in October 2015.

**Highlights**

- Maintained impeccable AABB, EU and FDA compliance records
- Received exceptional rating on annual client survey
- Extended 17 existing healthcare partner agreements representing more than 1 million blood donations
- Implemented source plasma testing as a new revenue source and tested 1.9 million samples
- Implemented Babesia testing as a release test for several existing healthcare partners
- Established a wellness program in response to annual employee opinion survey
- Reduced transportation expense and reagent waste by more than $750,000 annually
- Completed a large clinical trial for a U.S. vendor of FDA-approved donor screening assays to help improve the sensitivity and specificity of its offerings
In 2001, Gary needed an emergency appendectomy and was warned of symptoms that could indicate a post-surgical problem. A month later, Gary thought he was coming down with the flu, but a dangerously high fever sent him to the emergency room. Doctors determined that he had a life-threatening bacterial infection that dangerously lowered his platelet counts. Platelet transfusions prevented serious bleeding until powerful antibiotics eventually controlled his infection.

“Words can barely express my gratitude to the donors who give platelets regularly,” Gary said. “I believe I am alive today because of their generosity.” He and his wife, Peggy, regularly donate platelets.

Gary is known as his state’s “Singing Cowboy” and performs for audiences across the state. He recently wrote a song called “A Hero’s On the Way” to share his story and encourage others to give blood.
Blood Systems is one of the nation’s oldest and largest blood service providers. We have been making a difference in people’s lives and advancing the practice of transfusion medicine for more than 70 years. As an internationally known leader in transfusion medicine with headquarters in Scottsdale, Arizona, Blood Systems is a 501(c)(3) nonprofit, tax-exempt, charitable organization.

Hospitals and healthcare systems count on us for exemplary responsiveness and transfusion management expertise across a varied geographic footprint. We offer a unique partnership approach to help hospitals implement strategies that improve patient safety and outcomes, optimize delivery of service and demonstrate quality conformance.

Blood center collaboration with Blood Systems offers regulatory compliance excellence, world-class quality support, reliable donor testing, effective risk management, valuable shared services and economies of scale across multiple regions.

Recognized in 2015 as one of Arizona’s Most Admired Companies by *AZ Business Magazine*, Blood Systems attracts highly skilled and dedicated professionals who want to develop their careers in a mission-driven culture of accountability and opportunity. Blood Systems’ strength, size, scope, reputation and experience position us for success as the future of healthcare continues to unfold.

**Blood Systems Organization**
BioCARE, Research & Laboratory Locations

Map Key
- Blue: BioCARE
- Green Diamond: Blood Systems Research Institute
- Green Circle: Creative Testing Solutions
Leadership

Executive Officers

J. Daniel Connor  
President and  
Chief Executive Officer

David R. Green  
President  
Blood Centers Division

Sally Caglioti  
President  
Creative Testing Solutions

Linda Matthews  
President  
BioCARE

Susan L. Barnes  
Executive Vice President  
Chief Financial Officer

Mary Beth Bassett  
Executive Vice President  
Chief Quality Officer

Bhavi A. Shah  
Executive Vice President  
General Counsel &  
Assistant Secretary

Ralph Vassallo, M.D.  
Executive Vice President  
Chief Medical &  
Scientific Officer

Board of Trustees

John S. Lewis, Chair  
Consultant  
Phoenix, AZ

Heather J. Allen, M.D.  
Oncologist  
Las Vegas, NV

James R. Allen, M.D.  
Healthcare Executive (ret.)  
Raleigh, NC

Linda J. Blessing, Ph.D.  
Executive  
Laclede, ID

William A. Dittman, M.D.  
Internist  
Spokane, WA

Armando B. Flores  
Sports Executive  
Phoenix, AZ

William Gates  
Attorney  
Phoenix, AZ

William G. Green  
Attorney  
Orinda, CA

Michael C. Jensen  
Analyst  
Redlands, CA

F. Leonard Johnson, M.D.  
Pediatric Hematologist/  
Oncologist (ret.)  
La Jolla, CA

Pierre Noel, M.D.  
Hematologist  
Phoenix, AZ

James W. Peterson  
Healthcare Executive  
Irvine, CA

Kathleen Pushor  
Executive  
Phoenix, AZ

Antonio B. Ruiz  
Healthcare Executive (ret.)  
Denver, CO

Mark T. Schieble  
Attorney  
San Francisco, CA

Richard B. Spurlock, M.D.  
Pathologist  
Colorado Springs, CO

Paul E. Stander, M.D.  
Internist  
Phoenix, AZ

Ron W. Waechterlin, M.D.  
Pathologist  
Cheyenne, WY

Gary K. Wilde  
Healthcare Executive  
Ventura, CA
# 3-Year Financial Summary for Blood Systems & Affiliates

## Results of Operations

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood component service fees</td>
<td>$422,370</td>
<td>$363,780</td>
<td>$323,273</td>
</tr>
<tr>
<td>Laboratory testing services</td>
<td>190,008</td>
<td>196,134</td>
<td>208,407</td>
</tr>
<tr>
<td>Sale of pharmaceutical products</td>
<td>305,136</td>
<td>205,510</td>
<td>174,091</td>
</tr>
<tr>
<td>Other services and income</td>
<td>49,355</td>
<td>43,677</td>
<td>37,256</td>
</tr>
<tr>
<td><strong>Total Revenues</strong></td>
<td><strong>$966,869</strong></td>
<td><strong>$809,101</strong></td>
<td><strong>$743,027</strong></td>
</tr>
<tr>
<td>Salaries, wages and benefits</td>
<td>305,739</td>
<td>284,439</td>
<td>250,335</td>
</tr>
<tr>
<td>Blood collection, testing supplies</td>
<td>208,965</td>
<td>196,849</td>
<td>218,246</td>
</tr>
<tr>
<td>Purchase of pharmaceutical products</td>
<td>286,892</td>
<td>191,877</td>
<td>162,713</td>
</tr>
<tr>
<td>Other costs and expenses</td>
<td>162,258</td>
<td>139,912</td>
<td>122,663</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>$963,854</strong></td>
<td><strong>$813,077</strong></td>
<td><strong>$753,957</strong></td>
</tr>
<tr>
<td>Net Income from Operations</td>
<td>3,015</td>
<td>(3,976)</td>
<td>(10,930)</td>
</tr>
</tbody>
</table>

## Financial Position

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and short-term investments</td>
<td>$225,355</td>
<td>$276,433</td>
<td>$204,813</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>165,581</td>
<td>113,953</td>
<td>104,321</td>
</tr>
<tr>
<td>Inventories</td>
<td>83,207</td>
<td>71,573</td>
<td>54,449</td>
</tr>
<tr>
<td>Other current assets</td>
<td>8,808</td>
<td>12,949</td>
<td>5,640</td>
</tr>
<tr>
<td>Long-term investments and restricted assets</td>
<td>26,007</td>
<td>27,280</td>
<td>46,284</td>
</tr>
<tr>
<td>Property and equipment (net of depreciation)</td>
<td>134,470</td>
<td>138,869</td>
<td>114,758</td>
</tr>
<tr>
<td>Deposits and deferred financing costs</td>
<td>11,256</td>
<td>12,595</td>
<td>21,061</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td><strong>$654,684</strong></td>
<td><strong>$653,652</strong></td>
<td><strong>$551,326</strong></td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>72,515</td>
<td>48,259</td>
<td>37,418</td>
</tr>
<tr>
<td>Accrued salaries, wages and vacations</td>
<td>21,730</td>
<td>26,403</td>
<td>22,069</td>
</tr>
<tr>
<td>Current portion of long-term debt</td>
<td>59,171</td>
<td>56,574</td>
<td>25,911</td>
</tr>
<tr>
<td>Accrued pension and health benefits</td>
<td>49,774</td>
<td>61,148</td>
<td>23,437</td>
</tr>
<tr>
<td>Self-insurance reserve</td>
<td>6,243</td>
<td>6,001</td>
<td>6,951</td>
</tr>
<tr>
<td>Long-term debt</td>
<td>43,660</td>
<td>52,670</td>
<td>55,898</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td><strong>$253,093</strong></td>
<td><strong>$251,055</strong></td>
<td><strong>$171,684</strong></td>
</tr>
<tr>
<td>Net Assets</td>
<td>$401,591</td>
<td>$402,597</td>
<td>$379,642</td>
</tr>
<tr>
<td><strong>Total Liabilities and Net Assets</strong></td>
<td><strong>$654,684</strong></td>
<td><strong>$653,652</strong></td>
<td><strong>$551,326</strong></td>
</tr>
</tbody>
</table>

Financial results include Blood Systems and affiliates. Blood Systems is a 501 (c)(3) nonprofit, tax-exempt, charitable organization. The financial statements of Blood Systems and its affiliates have been audited by Grant Thornton LLP.
At 9 months old, Isaiah received his first blood transfusion. He had atypical hemolytic uremic syndrome, an extremely rare condition that causes red cells to break down and can lead to kidney failure.

Isaiah received 10 transfusions in the hospital, each one improving his energy level and appetite. Eventually, he was healthy enough to go home.

“We are incredibly grateful for donors who give blood,” says Riley, Isaiah’s dad. “It’s pretty humbling when people we don’t even know did something to save our son.”