Together we have spent 83 years in health care and blood banking and, we can tell you, 2010 was a year like no other in our experience.

The mile post for the year was the passage of historic health care reform legislation at the federal level. While the full impact of that legislation won’t be felt (and may not even be known) for years, it arrived in the midst of economic upheaval, federal and state budget woes and increased consolidation among hospitals and health systems.

In the face of these changes, Blood Systems reaffirmed our commitment to excellent patient care, measuring our decisions and strategies against this marker throughout 2010. We began a planning initiative to guide us through the next three years. We maintained our outstanding record for quality, regulatory compliance and customer care. We created new efficiencies in the way we work to lower our costs. We collaborated with hospitals to provide services and programs that helped them manage costs, as well as serve their patients better.

Yes, it is our continuing focus on patients—the recipients of the blood products and services we provide—that has been our “true north” in this turbulent year. You will read about our accomplishments in this report and we will introduce to you just four of the hundreds of thousands of patients whose lives we help save or sustain every year.

Look at their faces and read their stories, and you will know why we remain dedicated to this work after all these years and why Blood Systems approaches its 68th year with vigor and passion.

Steven L. Seiler, Chairman

J. Daniel Connor, President and CEO
About Us

Blood Systems is an internationally known leader in blood banking with headquarters in Scottsdale, Ariz. Blood Systems is a 501(c)(3) nonprofit, tax-exempt, charitable organization. We are a “fee-for-service” organization, similar to hospitals. Even though blood is freely given by volunteers, there are significant costs to recruit blood donors and then to collect, test, process, store and deliver blood to hospitals. Blood centers charge hospitals a processing fee to cover these costs.

Because we are a nonprofit, tax-exempt organization, no individuals are owners or shareholders, and no individual benefits financially from the work of the organization. But, like all organizations, for-profit or nonprofit, blood centers must be financially fit to continue to fulfill their lifesaving mission.

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 nearly 70 years.

Blood Systems is a founding member of the AABB and America’s Blood Centers. Both organizations play a major role in communicating advances in transfusion medicine nationwide. Blood Systems is also a member-owner of Blood Centers of America, an organization dedicated to improving the operating effectiveness of its members.

Organization

[Image of an organizational chart showing Blood Systems and its subsidiaries]

Donor Center Locations

Arizona
- Chandler
- Flagstaff
- Glendale
- Goodyear
- Mesa
- Phoenix
- Scottsdale

California
- Cupertino*
- Fairfield*
- Indio
- Millbrae*
- Napa*
- Rancho Mirage
- Redding*
- Redwood City*
- San Francisco*
- San Luis Obispo
- San Rafael*
- Santa Barbara
- Santa Maria
- Ventura
- Walnut Creek*

Colorado
- Durango

Idaho
- Coeur d’Alene‡
- Lewiston‡

Louisiana
- Baton Rouge
- Lafayette
- Morgan City
- Thibodaux

Mississippi
- Hattiesburg
- Meridian
- Tupelo

Montana
- Billings
- Butte

Nevada
- Carson City
- Henderson
- Las Vegas
- Reno
- Sparks

New Mexico
- Albuquerque
- Farmington
- Las Cruces
- Rio Rancho
- Roswell
- Santa Fe

North Dakota
- Bismarck
- Fargo
- Minot

South Dakota
- Aberdeen
- Mitchell
- Rapid City

Texas
- El Paso
- Harlingen
- Lubbock
- McAllen
- Midland
- Odessa
- San Angelo

Washington
- Moses Lake‡
- Spokane‡

Wyoming
- Casper
- Cheyenne

* Blood Centers of the Pacific
‡ Inland Northwest Blood Center

Italics indicate main regional centers.
TODAY, THE THOMPSON FAMILY IS HAPPY and healthy, but that wasn’t the case when their son, Owen, was born. As an infant, Owen was diagnosed with Immune Hydrops Fetalis, a serious condition in which an unknown virus causes abnormal amounts of fluid build up inside a fetus, destroying the baby’s red blood cells. Upon delivery, Owen was completely pale and barely breathing. He was immediately given four transfusions of blood from three generous donors, and they saved his life.

Owen and his family were recently part of the Inland Northwest Blood Center’s first-ever donor-recipient meeting. The three donors, ranging from age 18 to 71, sat in the audience during a brief presentation that introduced an O-negative donation program called “O Baby” that supports infants, like Owen, who need blood transfusions. Then, they met the Thompson family.

These donors donated blood as volunteers and expected nothing in return. They ended up saving a child’s life.
Our Blood Centers Division met the needs of patients in the hospitals we serve by collecting a safe and ample supply of almost 1 million units of red cells in 2010. Customers continue to give the division high marks in the areas of donor and hospital satisfaction. Even so, driven by economic pressures, many hospitals and health systems put their blood supply out for bid. Some Las Vegas hospitals that we’d served for decades belong to a system that chose another blood provider in 2010; meanwhile, we were invited to serve new customers in California. This opened doors to new relationships with other blood centers. In 2010, we bid on several large hospital contracts; for the ones we secure in 2011, opportunities for growth will be significant.

Our business activities may sound like the work of almost any business, but our focus is on patients. Our technology, processes and expertise are state of the art because our commitment remains, always, state of the heart.

2010 Highlights

» Maintained our commitment to quality, hosting 41 FDA inspections systemwide with no warnings and only 10 observations; 36 of those inspections resulted in no observations. We have a comprehensive quality system and closely monitor our quality performance. In 2010, the deviation reports submitted to the FDA declined by 14 percent. Cumulatively, this number has decreased more than 50 percent since 2008, demonstrating our commitment to compliance and continued performance improvement.

» Provided educational opportunities for our hospital customers by hosting 14 sessions of “On Q” for Transfusion Services, serving 208 customers.

» Supported customers’ efficiency and quality initiatives with Regulatory and Compliance Gap Analyses for 30 customers, blood utilization reviews for five customers and Lean operational projects for three customers.

» Transferred the Fort Smith and Texarkana centers to other blood providers in the region to optimize operations. We successfully completed the overall transition.

» Improved efficiency in many areas. For example, our DASH rate (Donations per Staff Hour) increased to 1.21 from 1.09 the previous year, an 11 percent increase in productivity. An increase of .01 reduces our costs by approximately $20,000 per month.

» Initiated conversion to a red cell filtration system that helped us increase plasma yield from 309 ml per unit last year to 315 ml in 2010. When fully implemented, we anticipate an increase in plasma yield of approximately 15 ml per unit. This change will increase our revenue by $750,000 annually, helping to hold down the fees for the products and services we provide.

» Opened a blood distribution center in Los Angeles.

» Signed contract and IT began the 3-year process of converting to a new enterprise manufacturing management computer system.

» Began consolidating Record Review, streamlining the process and reducing the cost of reviewing records before blood is labeled and ready for distribution.

» Completed installation of software that automates reference and transfusion services activities to improve accuracy and reduce manual entry errors.

» Revised our Supervisory Development Program to build the skills of front-line supervisors.

» Worked with CTS and the IRL to increase special typing and strengthen the support for patients who require chronic red cell transfusion and those with red cell antibodies.
We began the year by launching Creative Testing Solutions in a joint venture with Florida Blood Services. Now as one entity with laboratories located in Phoenix, Dallas and Tampa, CTS tests 4.3 million blood donations each year (approximately 25 percent of the U.S. blood supply). CTS provides innovative approaches to meet customers’ service requirements while maintaining a strong regulatory compliance record. Serving more than 100 blood centers and hospital-based blood banks, CTS is committed to delivering exceptional service along with disciplined cost control. In only its first year, this joint venture for testing has proven it can realize economies of scale and client service beyond the level the two entities could achieve individually.

2010 Highlights
» Implemented new tests to improve service to clients, on time and under cost projections, with minimal service interruption. The required negotiation and process design generated significant cost savings, allowing CTS to hold pricing steady for 2011.
» Balanced test volume across the organization, increasing volume, efficiency and productivity.
» Developed and created the CTS strategic plan for 2011-13, forming the foundation for business planning, decision making and performance monitoring.
» Completed transition to new organizational structure by building the management team, moving staff to new roles and responsibilities, streamlining training and document control to allow cross-training of staff and creating the CTS culture.
» Reduced cost per test by 6 percent and improved on-time test result performance by 0.5 percent.

With laboratories located in Phoenix, Dallas and Tampa, Creative Testing Solutions tests 4.3 million blood donations each year, which amounts to approximately 25 percent of the U.S. blood supply.

» IT SEEMED FATED THAT TRACY MANGUM should find the open position of Quality and Audit Specialist for Blood Systems. She was helping her daughter look for a job when she noticed the opening at Central Office. A short time later, BSI welcomed her aboard.

At nearly the same time, Tracy was experiencing fatigue, along with some other nagging symptoms. An annual checkup revealed a low iron count. “My number was so low that my doctor told me I needed a blood transfusion,” Tracy recalls. “I was so scared. I didn’t know anything about transfusions, how safe they were. For months, I tried to boost my levels with iron supplements instead.”

During her first weeks on the job, Tracy spent a good deal of time at Creative Testing Solutions. Getting to know the experienced, thorough staff and seeing firsthand all the testing the blood receives made her feel more and more confident about the blood supply.

A short time later, Tracy found herself in the emergency room with an iron count near 5 (normal is greater than 12). They needed to do the transfusion. She asked where the blood came from. When she heard the words, “United Blood Services,” she began to relax; she was confident in BSI’s processes. When the first bag came in, Tracy glanced at it and realized it carried a new label—one she had approved just weeks before. “It was surreal,” says Tracy. “I realized had I not been thorough and done my job well, it could have meant my life.”

Right: Tracy Mangum, a Quality and Audit Specialist at Blood Systems, received a blood transfusion.
CHAD CRYER, A 38-YEAR-OLD FATHER OF THREE

from Dayton, Nev. feels lucky to be alive today. On Halloween, Chad experienced a nagging pain in his lower back that bothered him throughout the night. While at work the next day at his job with a local car dealership, the pain escalated to an intense spasm pain—so severe that he collapsed a total of three times and co-workers called for an ambulance.

Chad didn’t find out until later that he was bleeding internally, losing massive amounts of blood. Doctors had less than 15 minutes to save his life. Chad informed the doctors that at a young age he was diagnosed with Marfan Syndrome, a disorder of the connective tissue that can eventually cause the aorta to expand and tear itself apart (called aortic dissection). Thanks to this additional information and a staff surgeon who was familiar with aortic dissections and had performed similar surgeries, he got the care he needed.

Chad was lucky because an aortic dissection is often misdiagnosed as a heart attack. That was the case for actor John Ritter who died from it in September 2003. After three surgeries in a row, 44 units of blood and 9 days in an induced coma to stabilize his vitals, Chad emerged from the experience grateful for his doctor’s expertise, and also for the many people whose blood donations turned out to be his lifeline.

“I’ve donated blood in the past but before this happened, I never realized that my blood could mean life or death for someone,” Chad shared. When he returned to work, Chad helped coordinate a blood drive with his co-workers and was impressed by the many local people (including his surgeon) who came to give blood that day. “Even though they were super busy (eventually collecting 35 units of blood), the United Blood Services staff was great to work with and helped keep everyone upbeat as they waited in line,” Chad said. “I have a new appreciation for my life and will always be thankful to those who donate blood.” Chad also wants to spread the word about Marfan Syndrome by encouraging people to visit www.marfan.org. He hopes that more awareness can help reduce future untimely deaths.

Above: Chad Cryer survived an aortic dissection, thanks in part to blood donors. (Photo credit: Jim Grant/Nevada Appeal)

BioCARE fills an important need in the medical community by making lifesaving plasma derivative therapies available to patients in a high-response service model 24 hours a day, 365 days a year. BioCARE is among the leaders in the acute care consignment market. Its reputation for service and expertise in inventory management has allowed the division to emerge as a consignment leader.

The division’s outstanding reputation was further enhanced by its success in earning the Premier Consignment contract. Currently, BioCARE is bidding to expand its services to include plasma products under the Premier contract. The current economic environment drives organizations to choose consignment for pharmaceutical products because it limits their exposure to risk and does not require them to hold an inventory. BioCARE excels at consignment and is in a good position to expand its product portfolio and customer base in the years ahead.

2010 Highlights

» Extended service to 13 new consignment customers.
» Revenue for 2010 was $133.5 million, an 8.2 percent increase over the prior year.
» Contributed $3.5 million in margin to the company as a result of higher sales and aggressive expense management.
» Maintained customer base in 2010; new larger accounts offset the loss of some smaller accounts.
### Results of Operations

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<thead>
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<tr>
<td>Blood component service fees</td>
<td>$379,876</td>
<td>$392,916</td>
<td>$367,909</td>
<td>$337,581</td>
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<td>Laboratory testing services</td>
<td>178,106</td>
<td>119,388</td>
<td>101,825</td>
<td>85,898</td>
<td>67,799</td>
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<tr>
<td>Sale of pharmaceutical products</td>
<td>134,223</td>
<td>123,864</td>
<td>128,240</td>
<td>99,414</td>
<td>81,541</td>
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<tr>
<td>Other services and income</td>
<td>17,083</td>
<td>24,145</td>
<td>21,358</td>
<td>22,520</td>
<td>27,000</td>
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<td><strong>Total Revenues</strong></td>
<td><strong>$709,288</strong></td>
<td><strong>$660,313</strong></td>
<td><strong>$619,332</strong></td>
<td><strong>$545,413</strong></td>
<td><strong>$489,988</strong></td>
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<td>Salaries, wages and benefits</td>
<td>248,159</td>
<td>242,148</td>
<td>218,756</td>
<td>195,940</td>
<td>186,673</td>
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<tr>
<td>Blood collection, testing supplies</td>
<td>195,031</td>
<td>163,756</td>
<td>155,608</td>
<td>131,523</td>
<td>112,880</td>
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<td>Purchase of pharmaceutical products</td>
<td>124,398</td>
<td>114,417</td>
<td>117,059</td>
<td>89,793</td>
<td>71,300</td>
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<tr>
<td>Other costs and expenses</td>
<td>116,405</td>
<td>111,184</td>
<td>110,401</td>
<td>97,823</td>
<td>84,341</td>
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<td><strong>Total Expenses</strong></td>
<td><strong>$683,993</strong></td>
<td><strong>$631,505</strong></td>
<td><strong>$601,824</strong></td>
<td><strong>$515,079</strong></td>
<td><strong>$455,194</strong></td>
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<tr>
<td>Net Income from Operations</td>
<td><strong>$25,295</strong></td>
<td><strong>$28,808</strong></td>
<td><strong>$17,508</strong></td>
<td><strong>$30,334</strong></td>
<td><strong>$34,794</strong></td>
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### Financial Position

<table>
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<tr>
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<tbody>
<tr>
<td>Cash and short-term investments</td>
<td>$173,847</td>
<td>$119,052</td>
<td>$72,291</td>
<td>$103,083</td>
<td>$83,873</td>
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<td>Accounts receivable</td>
<td>87,955</td>
<td>90,720</td>
<td>84,012</td>
<td>74,040</td>
<td>67,274</td>
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<tr>
<td>Inventories</td>
<td>38,884</td>
<td>38,603</td>
<td>37,160</td>
<td>39,906</td>
<td>26,199</td>
</tr>
<tr>
<td>Other current assets</td>
<td>5,196</td>
<td>5,087</td>
<td>4,400</td>
<td>3,682</td>
<td>3,424</td>
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<tr>
<td>Long-term investments and restricted assets</td>
<td>18,729</td>
<td>17,410</td>
<td>21,759</td>
<td>29,039</td>
<td>34,527</td>
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<tr>
<td>Property and equipment (net of depreciation)</td>
<td>111,737</td>
<td>113,429</td>
<td>109,726</td>
<td>106,198</td>
<td>107,386</td>
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<tr>
<td>Deposits and deferred financing costs</td>
<td>13,327</td>
<td>11,463</td>
<td>2,605</td>
<td>1,737</td>
<td>3,742</td>
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<tr>
<td><strong>Total Assets</strong></td>
<td><strong>$449,475</strong></td>
<td><strong>$395,764</strong></td>
<td><strong>$331,953</strong></td>
<td><strong>$357,685</strong></td>
<td><strong>$326,425</strong></td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>44,792</td>
<td>39,774</td>
<td>30,522</td>
<td>43,437</td>
<td>34,764</td>
</tr>
<tr>
<td>Accrued salaries and vacations</td>
<td>22,189</td>
<td>21,483</td>
<td>16,929</td>
<td>15,523</td>
<td>13,096</td>
</tr>
<tr>
<td>Current portion of long-term debt</td>
<td>3,250</td>
<td>2,928</td>
<td>10,384</td>
<td>9,432</td>
<td>5,414</td>
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<tr>
<td>Accrued pension and health benefits</td>
<td>49,327</td>
<td>39,311</td>
<td>57,907</td>
<td>19,827</td>
<td>12,316</td>
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<tr>
<td>Self-insurance reserve</td>
<td>6,733</td>
<td>6,443</td>
<td>6,005</td>
<td>7,253</td>
<td>7,079</td>
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<tr>
<td>Long-term debt</td>
<td>47,564</td>
<td>48,721</td>
<td>43,535</td>
<td>46,174</td>
<td>53,668</td>
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<tr>
<td><strong>Total Liabilities</strong></td>
<td><strong>$173,855</strong></td>
<td><strong>$158,659</strong></td>
<td><strong>$165,282</strong></td>
<td><strong>$141,646</strong></td>
<td><strong>$126,337</strong></td>
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<tr>
<td>Net Assets</td>
<td>$275,620</td>
<td>$237,105</td>
<td>$166,671</td>
<td>$216,039</td>
<td>$200,088</td>
</tr>
<tr>
<td><strong>Total Liabilities and Net Assets</strong></td>
<td><strong>$449,475</strong></td>
<td><strong>$395,764</strong></td>
<td><strong>$331,953</strong></td>
<td><strong>$357,685</strong></td>
<td><strong>$326,425</strong></td>
</tr>
</tbody>
</table>

2010 financial results include Blood Systems and affiliates.

The financial statements of Blood Systems and its affiliates have been audited by Grant Thornton LLP.
A copy of their report can be obtained by writing Susan Barnes, Chief Financial Officer, Blood Systems, 6210 E. Oak Street, Scottsdale, AZ 85257.
Blood Systems Research Institute is among the most respected and productive transfusion-focused research institutes in the world. For more than 50 years, the Institute has sought new knowledge through scientific research aiding the worldwide transfusion community. Among its many services, the Institute provides data and analysis to recommend testing methods to assure the safety of the U.S. blood supply.

In 2010, the Institute published 61 original research articles in major scientific journals, as well as 11 review articles, editorials and book chapters. This year, the Institute completed studies on TRALI (Transfusion Related Acute Lung Injury), reducing the risk of injury from blood donation, donor anemia and iron depletion. It successfully executed new studies on West Nile virus, T. cruzi (Chagas’ disease) and dengue virus (DENV), and continued the work of discovering new human viruses.

**2010 Highlights**

- Led a series of studies to evaluate assays that detect a new human virus (XMRV) that may be linked to chronic fatigue syndrome and prostate cancer, and developed studies to establish whether the virus poses a danger to the blood supply. Our scientists were quoted in national news stories on this topic.
- Recruited leaders for a new program in genetic research relevant to transfusion medicine.
- Launched new studies to address the impact and mechanisms of red cell (RBC) storage age on effectiveness and complications of RBC transfusions.
- Recruited four new scientists for post-doctoral training. Conducted 2-week training in clinical research courses in Brazil and South Africa.
- Selected for six new studies, the Institute exceeded its 2010 budget for grant and contract extramural awards, generating $7.8 million as compared to the $7.5 million budgeted. Increased efficiencies drove expenses 14 percent under budget.

**AS NEW PARENTS TO 5-WEEK-OLD DANIEL,** Paul and Anna Franco never imagined they would be sitting in NICU, praying that a blood transfusion would help their son. Daniel was born without complications, but stopped gaining weight and passing waste when he was about 3 weeks old. It took the doctors 2 weeks to diagnose him with pyloric stenosis, a relatively rare condition of the digestive system where the pylorus, the opening between the stomach and small intestine, narrows or closes off. Surgery is usually uneventful and fixes the condition, but since Daniel had been nutrient deficient for 2 weeks, he was frail and began bleeding internally after the surgery. Two units of O-negative blood saved his life.

“When they told me my baby would need a blood transfusion, my mind was a blur,” recalls Anna. “I remember the doctors going over the risks, but assuring me that the blood supply was safe. That put my mind at ease. Twelve hours after the transfusion, Daniel was fine.”

Anna first donated blood when she was in high school, but never thought someone she loved would be on the receiving end. “Because of the generosity of blood donors, my son is a healthy, vibrant child now,” she says. “My husband and I donate blood every chance we get and encourage others to do the same. You never know when someone you love will need it.”
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