

UNIVERSITY OF CALIFORNIA
Umbilical Cord Blood Collection Program (UCBCP)

The University of California administers the statewide cord blood collection program at the Stem Cell Program located on UC Davis' Sacramento campus. This report to the Assembly and Senate Committees on Health is in accordance with the Health and Safety Code 1629.5 requirement for the University of California, Office of the President (UCOP), and due on or before Jan. 1, 2022.

It covers the following information.

- (1) The number of cord blood units collected and registered under the program, disaggregated by race and ethnicity.
- (2) The number of registered units transplanted as a result of the program, disaggregated by race and ethnicity.
- (3) The number of California residents receiving a transplant as a result of the program.
- (4) The number of units made available for research and a summary of key research findings as a result of the program.
- (5) Annual budget information on the program, including revenues, spending, and beginning- and end-of-year balances.
- (6) Budget information for each participating cord blood bank, including collection and storage costs and available revenue to cover those costs.
- (7) Fees charged by participating cord blood banks for collecting, storing, handling, and providing units, and a summary of how these fees were determined.
- (8) Nationwide data on cord blood units collected, registered, and transplanted, disaggregated by race and ethnicity.
- (9) A summary of available cell sources for a hematopoietic stem cell transplant and research on the ability of underrepresented groups to find a suitable match for a transplant.
- (10) Any other outcomes or data regarding the impact of the program.

Data used in this report is through Oct. 31, 2021, unless stated otherwise.

Background

The California Umbilical Cord Blood Collection Program (CA-UCBCP) was established through California Health and Safety Code (HSC) 1627-1630 in 2010. It was extended via AB114 (2017) and is set to expire Jan. 1, 2023, unless legislation is passed to extend or remove the expiration date. It is supported by a two-dollar special fee assessed on the cost of birth certificate copies purchased in California.

The primary aim of the CA-UCBCP is to increase representation of California residents in the national inventory of cord blood units available for unrelated transplant. An additional aim of the program is to make available non-clinical grade units for use in research.

Umbilical cord blood cells

Cord blood is newborn baby whole blood left over after birth. It contains special cells that for the rest of life will be found only in the bone marrow, where the red and white blood cells are created. Cord blood is stored frozen at public cord blood banks. Each unit is listed on the national registry, currently maintained by Bethematch.org and/or on other searchable registries.

Umbilical cord blood stem cells are an FDA-approved source of cells for hematopoietic stem cell transplant, that provides cell grafts for about 10% of hematopoietic stem cell transplant recipients. Like bone marrow and bone marrow-derived peripheral blood stem cells (BM/PBSC), cord blood is approved to treat over 80 diseases and disorders (Appendix 1) that impact the function of the bone marrow, including hematologic cancers (such as leukemia and lymphoma), severe anemias, hemoglobinopathies, immune deficiencies and other failures of the bone marrow compartment.

Cord blood cells are immunologically immature and cause less graft-versus-host-disease (GVHD) - a severe immunological disease - than BM/PBSC. GVHD occurs after a hematopoietic stem cell transplant and can be severe when cells from adult donors attack recipient tissues seen as 'non-self'. As a result, cord blood that isn't as well-matched to the recipient can still be utilized for transplant.

Cell grafts for hematopoietic stem cell transplants must match the transplant patient at specific genes that can be influenced by racial and ethnic ancestry. The rarer a patient's ancestry, the more difficult it can be to find an appropriately matched, suitable living donor.

California's population has high ancestral diversity and ranks second among the states in number of residents with multiple race heritage. Because many California residents represent national minorities, California residents are less likely to find a suitable matched donor and more likely than others to use cord blood as a graft source for hematopoietic stem cell transplants. The only way to increase representation of Californians in the national cord blood inventory is for Californians to donate cord blood.

The CA-UCBCP is critical to the further development and maintenance of a representative California cord blood inventory. This program is a commitment to, and celebration of, the great diversity of California's residents.

Within ten years of operation, CA-UCBCP staff established contracts with qualified umbilical cord blood banks, identified appropriate California birthing hospitals, and provided outreach and education to both the public sector and clinical professionals. They have played a key role in the development, support, and establishment of donation sites in California.

Currently, CA-UCBCP supports 12 active collection sites and three more collection sites are under development in the state. A list of participating hospitals is located on the last page of this document.

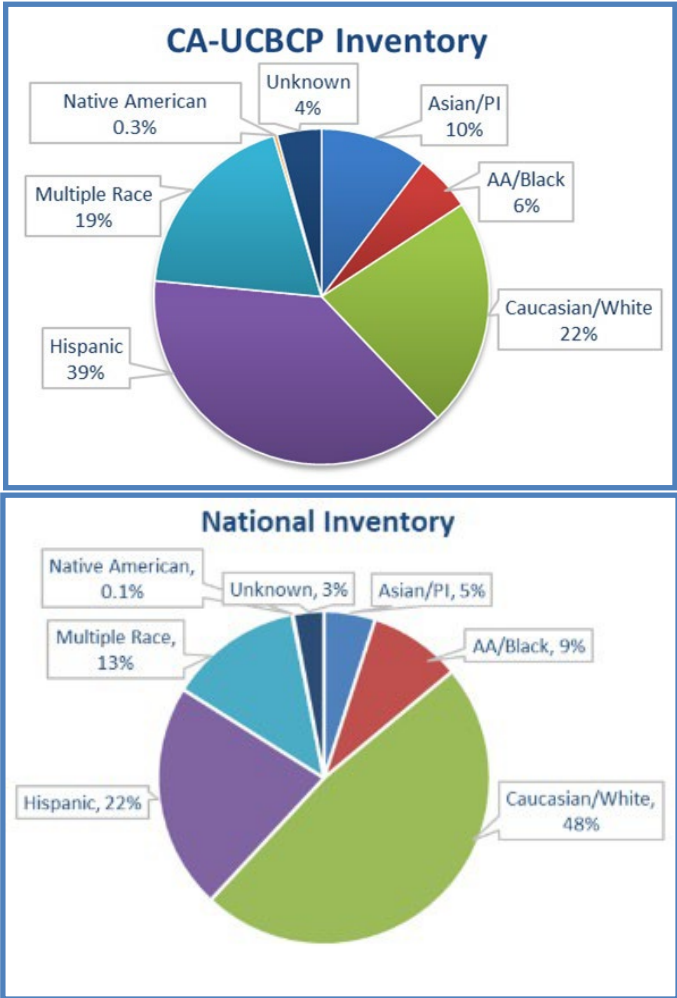
Prior to the CA-UCBCP statute, three California hospitals were active donation sites for public banking, and these sites have expanded operations since joining the CA-UCBCP. Currently, a total of thirteen collection hospitals are listed in California and all but one of those are supported by the CA-UCBCP.

(1) The number of cord blood units collected and registered under the program, disaggregated by race and ethnicity.

Broad race and ethnicity designations are assigned by the relevant registry using donor-reported data and a registry-specific algorithm and are limited to registered units.

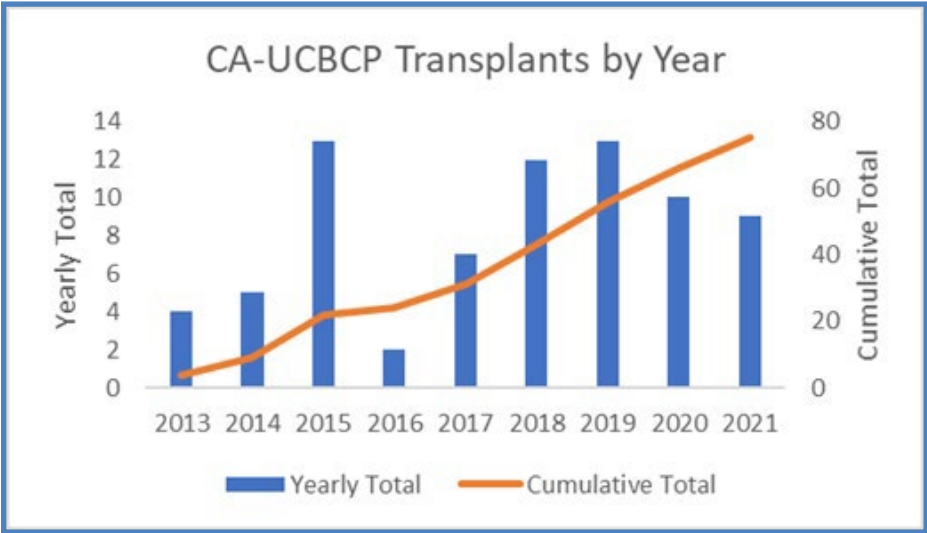
The Umbilical Cord Blood Collection Program has over 3,200 cord blood units registered on public registries. Of those, 74% are of minority race/ethnicity, 22% Caucasian, and 4% unknown. The percentage of units that are clinically relevant and registered ranges from approximately 5%-15% of collections.

Shown below are the UCBCP and national cord blood inventories, disaggregated by broad race and Hispanic ethnicity. Note the UCBCP inventory is a small subset of the national inventory.

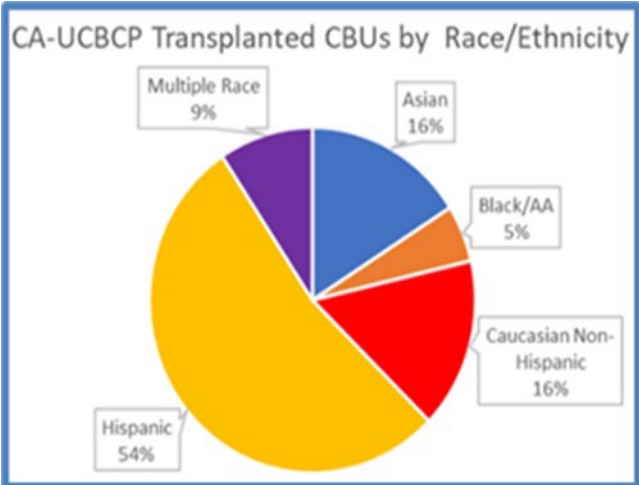
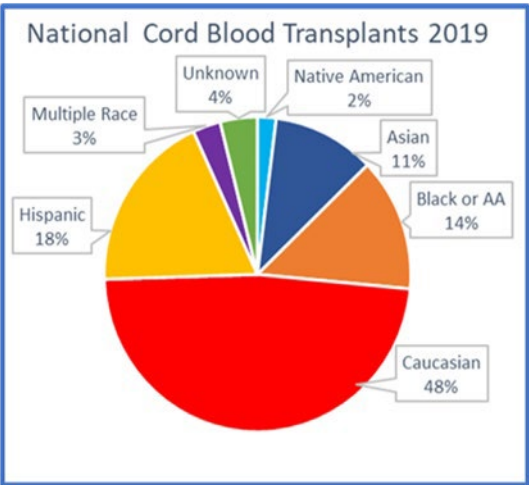


(2) The number of registered units transplanted as a result of the program, disaggregated by race and ethnicity.

The CA-UCBCP has had a total of 75 clinical-grade cord blood units selected and transplanted.

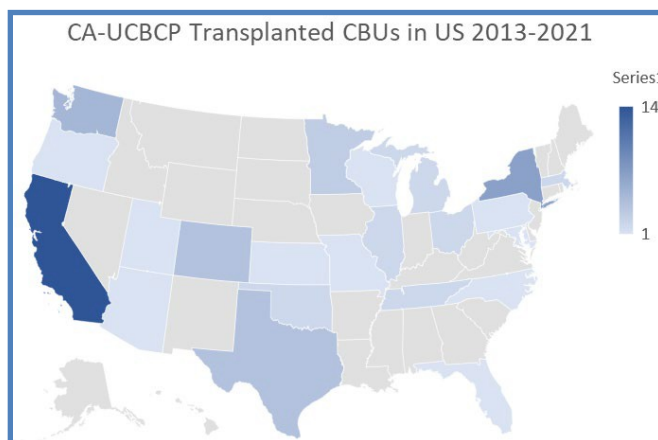
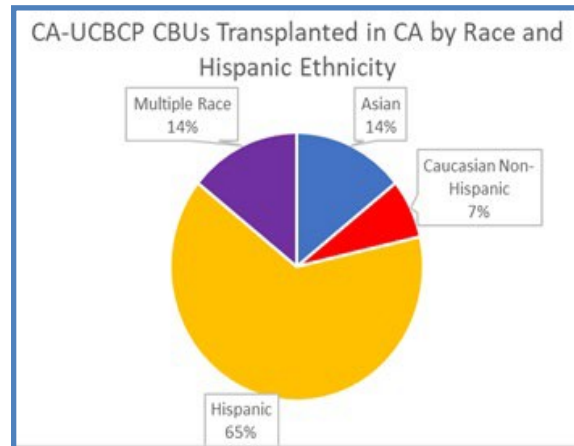


Importantly, 84% of transplanted cord blood units were from minority race or Hispanic ethnicity births, with only 16% of units collected from Caucasian births. In comparison, national transplants disaggregated by race and ethnicity, reveal that in 2019, 48% of transplants were for Caucasian patients, with 48% of recipients falling under minority race or Hispanic ethnicity categories. This data indicates that the CA-UCBCP CBUs fill a need for more diverse patients.



(3) The number of California residents receiving a transplant as a result of the program.

Fourteen umbilical cord blood units (19% of total transplants) have been transplanted in California, with the race and ethnicity breakdown shown below. Of those, 93% were listed in the public registries as minority race/ethnicity. Since patients often travel out-of-state for cancer treatment, it is not possible to determine if past or present California residents received a CA-UCBCP unit in another state or country.



(4) The number of units made available for research and a summary of key research findings as a result of the program.

In November 2021, the Umbilical Cord Blood Collection Program released its 1,000th cord blood unit for approved research. These cord blood units have been used in:

- testing gene-therapy vectors for anti-HIV cell therapy clinical trials, ‘bubble baby disease’, and sickle cell disease and other conditions,
- the formation of new blood vessels for bioengineering,
- testing effect of human milk oligosaccharides on the immune response of newborns’ cells,
- the development and FDA-approval of next-generation platform for purification of cord blood cells with greatly improved quality and efficiency.

(5) Annual budget information on the program, including revenues, spending, and beginning- and end-of-year balances.

UMBILICAL CORD BLOOD COLLECTION PROGRAM
Report for the Assembly and Senate Health Committees on Health
2011- June 2021: Allocations, Revenues, Expenses, Beginning and End of Year Balances

HSC 1629.5, Subsection (a), (5): Annual budget information on the program, including revenues, spending, and beginning - and end-of-year balances.

Description	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	July - Aug 2021 2021-2022	Total
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	
Allocation/Budget												
UCOP/UCBCP Allocation	\$3,700,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$28,700,000
Revenue												
Sustainability Account												
Reimbursement: Research CBU's + Released CBU's		\$5,936	\$27,001	\$82,658	\$110,635	\$84,276	\$70,521	\$53,711	\$63,696	\$4,412	\$9,100	\$511,946
Organizations												
University	\$389,438	\$648,867	\$1,184,827	\$835,375	\$1,164,884	\$1,117,289	\$1,264,236	\$1,156,892	\$1,121,336	\$1,336,747	\$199,912	\$10,419,803
San Diego Blood Bank			\$803,725			\$71,429	\$289,138	\$207,197	\$172,129	\$220,877	\$61,888	\$1,826,383
Southern California Permanente Medical			\$346,470						\$291,869	\$110,330	\$33,141	\$781,810
StemCyte			\$30,600	\$347,300	\$121,000	\$322,288	\$243,900	\$233,300	\$467,575	\$155,322	\$45,231	\$1,966,516
Lucille Packard Children's Hospital				\$25,413	\$44,565							\$69,978
Fresno Community Hospital & Medical Center				\$24,864	\$99,032	\$57,666	\$69,908	\$53,793	\$5,784			\$311,047
University of Colorado				\$15,855	\$3,197		\$390					\$19,442
Cleveland Cord Blood Center					\$3,202	\$83,503	\$290,874	\$256,672	\$343,137	\$328,739	\$67,317	\$1,373,444
New York Blood Center									\$26,919			\$26,919
Total Expenses	\$389,438	\$648,867	\$2,365,622	\$1,208,088	\$1,435,880	\$1,652,175	\$2,158,446	\$1,907,854	\$2,428,749	\$2,152,015	\$407,489	\$16,795,342
End of Year Balances												
This table represents the allocation and expenses of that year. It does not represent activity within a certain fund/account as each allocation carry's over for a total of 3 years. Contracts are established at any time of the year and do not sync with the fiscal year calendar. Unexpended funds are reverted to the UCBCP account for later use.	\$3,310,562	\$1,851,133	\$134,378	\$1,291,912	\$1,064,120	\$847,825	\$341,554	\$592,146	\$71,251	\$347,985	\$2,092,511	\$11,945,377

(6) Budget information for each participating cord blood bank, including collection and storage costs and available revenues to cover those costs.

Budget information

StemCyte, Inc.: StemCyte operates a public umbilical cord blood banking program and a private banking program. The public umbilical cord blood bank is supported in part by the capital assets and investments of the private umbilical cord blood bank operation. The operating budget for the public umbilical cord blood bank is about \$1,990,000, including collection (\$970,000), human resource/administration, (\$220,000) and storage/facility costs (\$800,000).

Cleveland Cord Blood Center: The Cleveland Cord Blood Center's annual operating budget for the public umbilical cord blood bank is \$4.8M (human resources/administration), \$800,000 storage/facility costs.

San Diego Blood Bank: Declined to state the budget of collection and storage costs and available revenue to cover those costs.

Revenues to cover costs

StemCyte Inc.: The public umbilical cord blood bank covers operational costs through the sale of:

- Clinical grade cord blood units for transplantation
- Research grade umbilical cord blood units to qualified researchers

Total annual revenue from these sources are estimated to be \$860,000 and demonstrate the financial gap in the public cord blood banking business model that most, if not all, public cord blood banks manage. The continued support from the State of California's Umbilical Cord Blood Collection Program is essential for the solvency of the public cord blood bank.

Cleveland Cord Blood Center: The public umbilical cord blood bank covers operational costs through the sale of:

- Clinical grade cord blood units for transplantation
- Research grade umbilical cord blood units to qualified researchers
- Health Resources Services and Administration (HRSA) reimbursement for cord blood units that meet criteria of ethnically underrepresented populations identified by HRSA.

Total annual revenue from these sources are estimated to be \$2.5M and demonstrate the financial gap in the public cord blood banking business model that most, if not all, public cord blood banks manage. The continued support from the State of California's Umbilical Cord Blood Collection Program is essential for the solvency of the public cord blood bank.

San Diego Blood Bank: Declined to state the budget of collection and storage costs and available revenues to cover those costs.

UMBILICAL CORD BLOOD COLLECTION PROGRAM
Report for the Assembly and Senate Health Committees on Health

Bank/Collection Hospital	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
San Diego Blood Bank											
Budget Contributions from UCBCP											
<input type="checkbox"/> Personnel (Annual Not To Exceed Amount)			\$180,000	\$180,000	\$180,000	\$180,000	\$220,000	\$220,000	\$220,000	\$220,000	\$220,000
<input type="checkbox"/> Supplies (Annual Not To Exceed Amount)			\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
<input type="checkbox"/> Transportation (Annual Not To Exceed Amount)			\$0	\$0	\$0	\$0	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
<input type="checkbox"/> Training/Travel/Lodging/Per Diem (Annual Not To Exceed Amount)			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<input type="checkbox"/> Operational Software for Remote Collection Sites plus Service Agreement			\$0	\$100,000	\$15,000	\$15,000	\$15,000	\$0	\$0	\$0	\$0
<input type="checkbox"/> Reimbursement of costs for listed CBUs (Annual Not To Exceed Amount)											\$100,000
Total Budget			\$250,000	\$350,000	\$265,000	\$265,000	\$335,000	\$320,000	\$320,000	\$320,000	\$420,000
StemCyte, Inc.											
Budget Contributions from UCBCP											
<input type="checkbox"/> Personnel (Annual Not To Exceed Amount)									\$300,000	\$482,000	\$357,400
<input type="checkbox"/> Supplies (Annual Not To Exceed Amount)									\$85,000	\$105,000	\$111,000
<input type="checkbox"/> Transportation (Annual Not To Exceed Amount)									\$20,000	\$50,000	\$53,000
<input type="checkbox"/> Training/Travel/Lodging/Per Diem (Annual Not To Exceed Amount)											
<input type="checkbox"/> Reimbursement of costs for listed CBUs (Annual Not To Exceed Amount)		\$500,000	\$500,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$200,000	\$200,000	
Total Budget		\$500,000	\$500,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$605,000	\$837,000	\$521,400
Cleveland Cord Blood Center											
Budget Contributions from UCBCP											
<input type="checkbox"/> Personnel (Annual Not To Exceed Amount)								\$289,175	\$298,350	\$459,525	\$630,700
<input type="checkbox"/> Supplies (Annual Not To Exceed Amount)								\$6,000	\$57,500	\$72,500	\$128,900
<input type="checkbox"/> Transportation (Annual Not To Exceed Amount)									\$80,000	\$89,000	\$106,000
<input type="checkbox"/> Training/Travel/Lodging/Per Diem (Annual Not To Exceed Amount)						\$10,000	\$5,000	\$5,000	\$50,000	\$15,000	\$30,000
<input type="checkbox"/> Reimbursement of costs for listed CBUs (Annual Not To Exceed Amount)						\$45,000	\$45,000	\$45,000	\$60,000	\$60,000	\$60,000
Total Budget						\$55,000	\$50,000	\$345,175	\$545,850	\$696,025	\$955,600
New York Blood Center											
New York Blood Center #6: N/A New York Blood Center rescinded the agreement due to business restructuring											
New York Blood Center #7: N/A New York Blood Center rescinded the agreement due to business restructuring											
<input type="checkbox"/> Personnel (Annual Not To Exceed Amount)							\$239,000	\$355,000			
<input type="checkbox"/> Supplies (Annual Not To Exceed Amount)							\$59,600	\$59,600			
<input type="checkbox"/> Transportation (Annual Not To Exceed Amount)								\$82,000	\$82,000		
<input type="checkbox"/> Training/Travel/Lodging/Per Diem (Annual Not To Exceed Amount)							\$14,000	\$14,000			
<input type="checkbox"/> Reimbursement of costs for listed CBUs (Annual Not To Exceed Amount)											
Total Budget							\$394,600	\$510,600			
University of Colorado, Public Cord Blood Bank											
University of Colorado, Public Cord Blood Bank #6: N/A Contract expired 2018											
University of Colorado, Public Cord Blood Bank #7: N/A Contract expired 2018											
Budget Contributions from UCBCP											
<input type="checkbox"/> Personnel (Annual Not To Exceed Amount)											
<input type="checkbox"/> Supplies (Annual Not To Exceed Amount)			\$9,500	\$9,500	\$9,500	\$9,500	\$9,500				
<input type="checkbox"/> Transportation (Annual Not To Exceed Amount)											
<input type="checkbox"/> Training/Travel/Lodging/Per Diem (Annual Not To Exceed Amount)			\$4,500	\$4,500	\$4,500	\$4,500	\$4,500				
Total Budget			\$14,000	\$14,000	\$14,000	\$14,000	\$14,000				

(7) Fees charged by participating cord blood banks for collecting, storing, handling, and providing units, and a summary of how these fees were determined.

StemCyte, Inc.: The public umbilical cord blood bank does not have a mechanism to charge fees to individuals or agencies for collecting, storing, handling, and providing units. StemCyte makes an investment into the public bank by paying for these costs on the front end. The investment costs are offset through:

- the sale of clinical grade cord blood units at \$29,480 - \$32,800 per unit
- the sale of research grade umbilical cord blood units at \$150-\$1050 per unit
- the CA-UCBCP that reimbursed the public bank for collection activities including collection staff, collection supplies, transportation of units from the collection site to the lab at the public bank.

Cleveland Cord Blood Center: The public umbilical cord blood bank does not have a mechanism to charge fees to individuals or agencies for collecting, storing, handling, and providing units. The Cleveland Cord Blood Center was established through a generous philanthropic donation. From that financial foundation, the Cleveland Cord Blood Center makes an investment into the public bank by paying for these costs on the front end.

The investment costs are offset through:

- The sale of clinical grade cord blood units at \$40,000 - \$45,000 per unit,
- The sale of research grade umbilical cord blood units at average of \$304 per unit,
- HRSA reimbursement for cord blood units that meet criteria for ethnically underrepresented populations identified by at an average of \$2,000 per unit, and
- The Umbilical Cord Blood Collection Program that reimbursed the public bank for collection activities including collection staff, collection supplies, transportation of units from the collection site to the lab at the public bank.

San Diego Blood Bank: Declined to state fees charged for collecting, storing, handling, and providing units, and summary of how these fees were determined.

(8) Nationwide data on cord blood units collected, registered, and transplanted, disaggregated by race and ethnicity.

Over 300,000 cord blood units are registered nationally and over 800,000 are registered globally. The race and ethnicity aggregate for the national inventory is 48% Caucasian, 3% unknown, and 49% minority races and ethnicities, as shown above for answer to (1). There is no known data source tracking the number of umbilical cord blood units collected nationally for public banking.

(9) A summary of available cell sources for a hematopoietic stem cell transplant and research on the ability of underrepresented groups to find a suitable match for a transplant.

According to the National Marrow Donor Program, a patient's likelihood of finding a matching BM/PBSC donor or cord blood unit on the Be The Match Registry® currently ranges from 29% to 79% depending on ethnic background (Black/African American, 29%; Asian, Pacific Islander or Caucasian Hispanic, 48%;

Native American, 60%; White/Caucasian, 79%). Therefore, it is critical to continue accruing new potential matched grafts through cord blood collections.

Transplant physicians have a number of options when it comes to hematopoietic stem cell transplant graft selection for their patients that require an allogeneic transplant (i.e. the cells originate from another person).

For adults, the majority of hematopoietic stem cell transplants are performed with bone marrow stem cells that have been mobilized into the donor bloodstream by drug treatments (peripheral blood stem cells) and less often, bone marrow isolated from bone is preferred.

For children, bone marrow is used more often than mobilized peripheral blood stem cells. For both children and adults, hematopoietic stem cell transplants have been extended by the use of cells from relatives that are half-matched (haplo-identical) to the recipient's HLA genes. Haplo-identical hematopoietic stem cell transplants are associated with increased risks that can be improved with the co-infusion of a matched cord blood unit, and this approach is being utilized more often.

A final graft source and the only off-the-shelf product available for hematopoietic stem cell transplant is cord blood, used in single or multiple-unit infusions, depending on the application and recipient characteristics. As discussed above, cord blood stem cells are immunologically naïve and are less likely to cause severe graft-versus-host-disease, even in the setting of mismatched HLA genes.

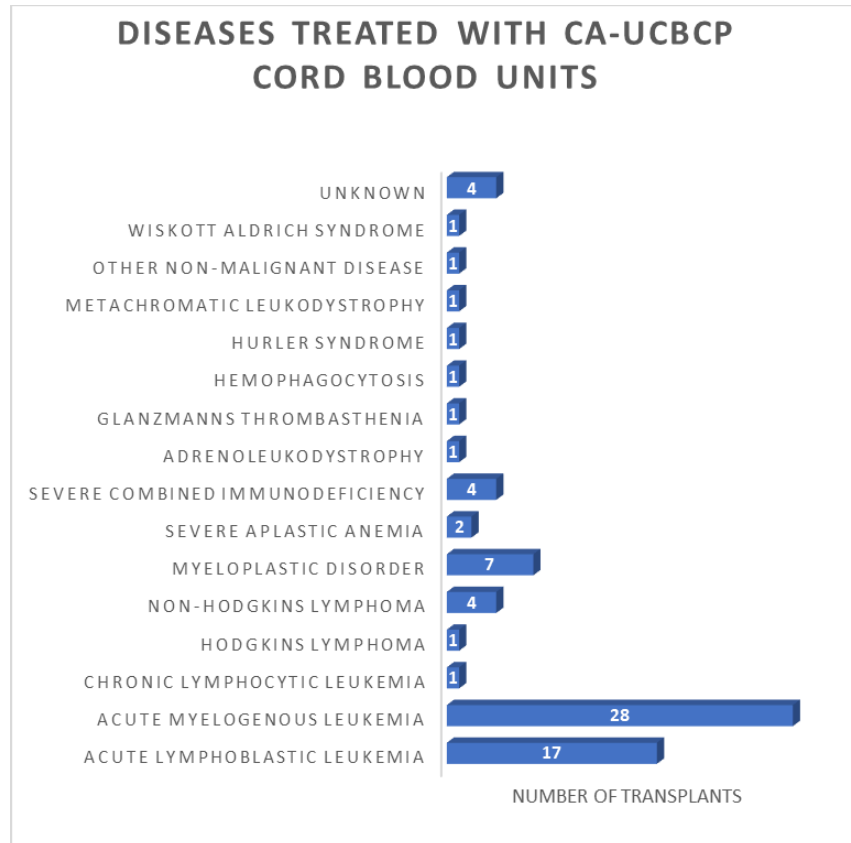
Therefore, cord blood provides grafts for patients that are difficult to match. Units stored today will be available to transplant someone that has not yet been born, even decades from now. The unique diversity of California's residents needs to be captured for these purposes now and into the future, so that when a patient match is needed, it can be found.

(10) Any other outcomes or data regarding the impact of the program.

As a result of this program, 75 hard-to-match patients without bone marrow donors were given an opportunity to live, potentially cured of their treated disease.

Cord blood units were selected to treat the diseases listed in the table below. These units were utilized in single and multiple unit cord blood transplants and in mixed haplo-identical bone marrow/cord blood transplant. CA-UCBCP cord blood units treated both pediatric and adult patients.

Of the 14 collections sites that have operated under the CA-UCBCP umbrella, 10 have had cord blood units transplanted. Given the vast number of cord blood units available globally, the CA-UCBCP transplant record demonstrates the importance of California-derived cord blood to the national inventory.



The partnership between University of California and the state made it possible to develop and execute the public CA-UCBCP, the only avenue to achieving representation of Californians in the national cord blood inventory.

- the essential services and expertise from contract development and execution,
- legal counsel,
- facilities,
- equipment,
- financial management infrastructure,
- human resources expertise,
- human resources management,
- public affairs, marketing materials, web design, social media design, press releases, public relations (TV and Radio interviews), and video production

These resources have been necessary and critical to the development of the program.

In the last ten years, approximately \$17.2 million of the UCBCP funds have directly supported human capital, supplies, and transportation of umbilical cord blood units from California birthing hospitals to public cord blood banks. These expenditures are required to operate the state-wide procurement of diverse California umbilical cord blood units for public use. Without the support of the \$2 fee, the operations of the CA-UCBCP would not be possible.

The University and California state partnership optimizes public resources for the benefit of Californians.

Cost: Through HSC 1627-1630, UCOP receives a \$2.5 million allocation annually, and the allocation expires three years post allocation date.

Savings: The UCBCP funds are spent on all necessary components to procure umbilical cord blood. The program partners with public umbilical cord blood banks that process, store, list on the public registry, and release the umbilical cord blood units for transplantation. The average annual costs associated with operating these public umbilical cord blood banks is \$4.1 million.

A one-time capital investment of \$10-\$25 million plus 2-5 years would be needed to build a public bank. Public umbilical cord blood banks are consistently under the threat of insolvency. The CA-UCBCP leverages resources to save California the cost of building and operating a public umbilical cord blood bank and offsets costs for established public umbilical cord blood banks.

Appendix 1

PUBLIC Umbilical Cord Blood Used to Treat Over 83 Types of Diseases and Conditions

Leukemias

Acute Lymphoblastic Leukemia
Acute Myelogenous Leukemia
Acute Biphentotypic Leukemia
Chronic Lymphocytic Leukemia
Chronic Myelogenous Leukemia
Chronic Myelomonocytic Leukemia
Juvenile Chronic Myelogenous Leukemia
Juvenile Mono-myelocytic Leukemia
Leukemia, Unspecified

Immune Deficiencies

Common Variable Immune Deficiency
Congenital Immune Deficiency
DiGeorge syndrome
Griscelli Syndrome
Lymphocyte Adhesion Disease
Nezelof Syndrome
Omenn Syndrome
Severe Combined Immune Deficiency (SCID)
Wiskott-Aldrich Syndrome
X-linked Hyper-IgM Syndrome
X-linked Immune Dysregulation Polyendocrine Enteropathy

Histiocytosis

Familial Erythrophagocytic Lymphohistiocytosis
Hemophagocytic Lymphohistiocytosis
Hemophagocytic Syndrome
Histiocytosis
Langerhans Cell Histiocytosis (Histiocytosis-X)
X-Linked Lymphoproliferative Disease

Lymphomas

Non-Hodgkin's Lymphoma
Hodgkin's Disease
Epstein-Barr Virus / Lymphoproliferative Disease
Autoimmune Lymphoproliferative disease
Lymphoma, unspecified

Neutrophil Disorders

Chediak-Higashi Syndrome
Chronic Granulomatous Disease (CGD)
Congenital Neutropenia
Kostmann Syndrome

Porphyria

Congenital Erythropoietic Porphyria

Autoimmune diseases

Systemic Lupus (SLE)

Hemoglobinopathies

Sickle Cell Disease
Thalassemia

Metabolic/Storage Diseases

MPS, not specified
Hurler Disease (MPS type IH)
Hurler-Scheie Disease (MPS type IS)
Hunter's Syndrome (MPS type II)
Sanfilippo Disease (MPS type III)
Morquio Syndrome (MPS type IV)
Maroteaux-Lamy Syndrome (MPS type VI)
Adrenoleukodystrophy
Alpha-mannosidosis
Amyloidosis
Aspartylglucosaminuria
Austin's Disease (Multiple Sulfatase Deficiency)
Fucosidosis
Gangliosidosis
Gaucher's Disease
I-cell Disease (Inclusion Cell Disease)
Infantile Ceroid Lipofucoscinosis
Krabbe Disease
Lesch-Nyhan Syndrome
Metachromatic Leukodystrophy
Neiman-Pick Disease
Osteopetrosis
Sandhoff Disease
Sialidosis
Tay Sach Disease
Wolman Disease

Other Malignancies

Breast Cancer
Multiple Myeloma (Plasma Cell Disorder)
Neuroblastoma
Other Malignancy

Myelodysplasias

Myelodysplastic Syndrome
Myelofibrosis

Bone Marrow Failure Syndromes

Amegakaryocytic Thrombocytopenia
Diamond-Blackfan Anemia
Dyskeratosis Congenita
Fanconi's Anemia
Parxysmal Nocturnal Hemoglobinuria
Reticular Dysgenesis
Severe Aplastic Anemia, Unspecified
Shwachman-Diamond Syndrome
Sideroblastic Anemia

Platelet Disorders

Congenital Thrombocytopenia
Glanzmann's Thrombasthenia

Other

Epidermolysis Bullosa

National Marrow Donor Program's List of Public Donation Hospitals in California

Participating hospitals	Cord blood bank to contact
Scripps Mercy Hospital San Diego, California	San Diego Blood Bank (619) 400-8304 http://www.sandiegobloodbank.org/
UC Davis Medical Center Sacramento, California	San Diego Blood Bank (619) 400-8304 http://www.sandiegobloodbank.org/
Scripps Memorial La Jolla La Jolla, California	San Diego Blood Bank (619) 400-8304 http://www.sandiegobloodbank.org/
Kaiser Permanente Roseville Medical Center Roseville, California	San Diego Blood Bank (619) 400-8304 http://www.sandiegobloodbank.org/
White Memorial Medical Center Los Angeles, California	StemCyte Inc. (626) 646-2500 (866) 389-4659 http://www.stemcyte.com/
Long Beach Memorial Center Long Beach, California	StemCyte Inc. (626) 646-2500 (866) 389-4659 http://www.stemcyte.com/
Sharp Mary Birch Hospital for Women and Newborns San Diego, California	StemCyte Inc. (626) 646-2500 (866) 389-4659 http://www.stemcyte.com/
Kaiser Los Angeles Medical Center Los Angeles, California	StemCyte Inc. (626) 646-2500 (866) 389-4659 http://www.stemcyte.com/
Kaiser Fontana Fontana, California	StemCyte Inc. (626) 646-2500 (866) 389-4659 http://www.stemcyte.com/
Kaiser Ontario Ontario, California	StemCyte Inc. (626) 646-2500 (866) 389-4659 http://www.stemcyte.com/
Cedars-Sinai Medical Center Los Angeles, California	Cryo-Cell International (800) 786-7235 http://www.cryo-cell.com/
Kaiser Permanente San Leandro Medical Center San Leandro, California	Cleveland Cord Blood Center (216) 896-0360 (866) 922-3668 http://www.clevelandcordblood.org/
Kaiser Permanente San Francisco Medical Center San Francisco, California	Cleveland Cord Blood Center (216) 896-0360 (866) 922-3668 http://www.clevelandcordblood.org/

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