Form approved
OMB # 0990-0313
Expiration Date: July 31, 2013

2011 National Blood Collection and Utilization Survey

Instructions: Please read carefully!

- **This survey can be submitted either online (www.bloodsurvey.org) or by mailing it in the enclosed postage paid envelope to AABB Survey Processing Center, C/o Images to Data, 212 Decatur Street, Suite 102, Doylestown, PA 18901. This will be on the only paper copy of the survey that you receive.**
- **We encourage you to complete the survey online for data accuracy. Check the cover memo for details about an incentive to show our thanks for your participation.**
- **Report all data for the 2011 calendar year, 1/1/11 through 12/31/11, unless otherwise specified (some questions are about current practices only). If your institution cannot provide calendar year data, please report data for the most recent 12-month period that your institution has available.**
- **Answer all questions—DO NOT LEAVE ANY ITEMS BLANK, unless instructed to skip an item.**
- **If your answer is zero, it is important that you enter "0" rather than leaving a blank.**
- **Be sure your responses are printed clearly and legibly.**
- **Consult your records whenever possible to provide the most accurate information available. If records are not available, please provide your best estimate, or that of your most qualified co-worker. It may be necessary for you to forward this questionnaire to another department for completion of some items.**
- **Before you begin, read the glossary on the inside back cover of this booklet. Terms included in the glossary are underlined when first used in the survey.**
- **If you have any questions, please call the toll-free survey helpline at 800-793-9376 or send an e-mail to dataprograms@aabb.org.**
- **Frequently asked questions and answers are listed on AABB's NBCUS web page www.bloodsurvey.org.**
- **Be sure to make and keep a copy of your completed questionnaire before returning it.**

Thank you in advance for your assistance with this important survey!

Section A: General Information

A1. Provide the name, title, telephone number and email address of each person completing the survey and indicate the section(s) each is responsible for completing.

Prefix	First Name	Last Name	Title/Position	Telephone	E-mail	Section

A2. Is your institution [Choose one]:

☐ 1 A **local or regional blood center (non-hospital)** that collects blood from donors and supplies blood and components to other institutions?

☐ 2 A hospital-based **blood bank and <u>transfusion service</u>** that collects blood from donors (may be only autologous or directed) and provides blood and components for transfusion primarily to your own institution?

☐ 3 A **transfusion service** that provides blood and components for transfusion, but does not collect blood from donors?

☐ 4 A **local or regional blood center** that collects blood from donors and supplies blood, components, and cross matched blood products to participating facilities (such as **<u>centralized transfusion service</u>**)? In this category, the service is not limited to reference laboratory work, but includes routine transfusion service work.

☐ 5 An **independent institution** that collects, processes, manufactures, stores, or distributes cellular therapy products?

☐ 6 A **cord blood bank**

A3. Does your institution serve as a transfusion service for other institutions?

☐ Yes
☐ No [*If you are reporting for institutions served, be sure to include their information in A4.*]

A4. List the official name, city, state, and zip code of <u>each and every</u> institution for which data are reported on this questionnaire.

Include institutions for which you serve as a transfusion service. If you are reporting for more than one institution and will not complete a separate survey for each, report each institution's percent of your total reported transfusion activity.

Primary Reporting Institution Name				
Street Address	**City**	**State**	**Zip**	**Percent of total reported transfusions**
a. Institution Name				
Street Address	**City**	**State**	**Zip**	**Percent of total reported transfusions**
b. Institution Name				
Street Address				
c. Institution Name				
Street Address				
d. Institution Name				
Street Address	**City**	**State**	**Zip**	**Percent of total reported transfusions**
e. Institution Name				
Street Address	**City**	**State**	**Zip**	**Percent of total reported transfusions**
				Total: 100 %

PLEASE PROCEED TO SECTION B

Section B. Blood Collection, Processing, and Testing

This section includes questions about blood donors, blood collection and testing.
All institutions should answer question B1.

B1. Does your institution collect blood from donors? [*If you collect autologous units only, check 'YES' and complete this section.]*

- ☐ YES → Complete this section: Go to B2
- ☐ NO → Proceed to Section C

B2. How many collection procedures (and for automated collections, how many products?) were successfully completed by your institution in each of the following categories in 2011? *[Do not count low-volume or incomplete procedures. For collections that result in multiple component types, list the components under the primary intended collection and report the numbers of each component collected.]*

A. Manual Whole Blood Collections	**Number of Collection Procedures**	
1. Allogeneic (Non-directed donations)		
2. Autologous		
3. Directed		
B. Automated Collections	**Number of Collection Procedures**	**Number of Units**
1. Apheresis		
a. A		
b. A		
c. I		
d. C		
e. C		
2. Apheresis		
a. S		
b. I pla		
c. C		
d. C		
e. C		

Automated Collections (Continued)		Number of Procedures	Number of Products
3. Plasmapheresis			
	a. FFP	*[Count double units resulting from double collections as two units.]*	
	b. 24-hour plasma (PF24)		
	c. Jumbo FFP (>400 mL)		

B3. In 2011, how many people presented to donate?

_____ **people**

B4. How many people were deferred for the following reasons:

Reason for deferral	Number of people deferred
Low hemoglobin	
Prescription drug use	
Other medical reasons	
High-risk	
High-risk	
Travel	
Tattoo/pie	
Other, spe	
Total defe	

B5. From how ma
products in 2

1. First-time a
2. Repeat allog *donations from*
3. Directed do
4. Autologous

B6. How many WB/RBC units were collected by your institution at mobile blood drive sites?

_____ **units**

Of the total collected on mobile drives, how many of these WB/RBC units came from automated collections?

_____ **units**

B7. In 2011, how many allogeneic WB/RBC units/donations were successfully collected from the following: [NOTE: categories may overlap.]

Category	Number of Donations
16-18 year-old donors	
19-24 year-old donors	
< 65 year-old donors	
All minority donors (including African America, Asian, and/or Hispanic combined)	
Repeat allogeneic donors	

B8. How many severe donor-related adverse events did you have in 2011?

Type of Collection	Number of Events
From manual whole blood collections	
From automated collections	

Blood Processing/Distribution/Outdates

B9. How many Whole Blood and Red Blood Cell units were processed, distributed, and outdated by your institution in 2011?

Blood or Blood Product	Units Processed	Units Released for Initial Distribution*#	Total Units Distributed*#	Total Units Outdated+
WB for distribution as Whole Blood				
ALL RBCs*				
Group O Positi				
Group O Nega				

*Count double units r
#Units returned and r
+Include only those u
well as any other ins

B10. How many plasma units were produced from whole blood by your institution in 2011?

A. Fresh Frozen Plasma _____units
B. Plasma frozen within 24 hours _____units
C. Plasma cryoprecipitate reduced _____units
D. Liquid Plasma _____units

B11. Are you preparing apheresis platelets using Intersol?

☐ Yes →↓
☐ No

If yes, how many apheresis platelet units were prepared using Intersol in 2011?

_____units

B12. How many plasma units (whole blood derived and plasmapheresis combined) were distributed and/or outdated in 2011?

		Blood Component	Total Units Distributed*#	Total Units Outdated+
A.		Fresh Frozen Plasma~		
B.		Plasma frozen within 24 hours~		
C.		Plasma cryoprecipitate Reduced~		
D.		Liquid plasma~		
E.		Group AB Plasma**		
F.		Plasma for further manufacture		

~Include all blood groups (e.g. AB).
***Count double units resulting from apheresis collections as two units. Include Group AB plasma in total.**
****Include all types of AB plasma in Group AB Plasma total (i.e. FFP+PF24+cryo reduced AB plasma)**
#Units returned and released for distribution multiple times should be counted only once.
+Include only those units that were outdated <u>while on your shelf</u>. Include outdates at your institution as well as any other institutions for which you serve as a transfusion service.

B13. How many of the following components were <u>produced</u> by your institution in 2011? *[Do not include units from autologous collections or therapeutic phlebotomies.]*

Component Category	Number of Units
A. Whole-blood derived platelets	
B. Pooled WBD platelets	
C. Apheresis platelets from single collections	
D. Apheresis platelets from double collections	
E. Apheresis platelets from triple collections	
F. Cryoprecipitate	
G. Pooled cryoprecipitate	
H. Granulocytes	

B14. For each of the following categories, how many units did your institution collect, prepare, or modify to achieve <u>pre-storage leukoreduction</u> in 2011?

Component Category	Number of Units
1. Whole blood	
2. Whole-blood	
3. Apheresis pl	
4. Other compo individually fil	

* Units for pedia

B15. How many of the following components were distributed and/or outdated by your institution in 2011?

Blood Component	Total Units Distributed*#	Total Units Outdated+
1. Whole blood-derived platelets		
2. Apheresis platelets *(Don't include units from autologous or therapeutic collections).*		
3. Cryoprecipitate		
4. Granulocytes		

*** Count double units resulting from apheresis collections as two units.**
#Units returned and released for distribution multiple times should be counted only once.
+Include only those units that were outdated <u>while on your shelf</u>. Include outdates at your institution as well as any other institutions for which you serve as a transfusion service.

B16. What was the total number of allogeneic units (non-directed and directed combined) discarded in 2011 for abnormal disease marker results?

_____ **units**

B17. What was the total number of allogeneic units (non-directed and directed combined) discarded in 2011 for all other reasons (NOT including outdated components)?

_____ **units**

Section C. Blood Transfusion

This section should be completed by transfusion services and includes questions about transfusion, utilization, availability, and hemovigilance. ***All institutions should complete question C1.*** *Any institution transfusing blood or serving as a centralized transfusion service for others should complete this entire section.*

C1. Is your institution directly involved in the transfusion of blood to patients or does it serve as a transfusion service for another institution that transfuses blood?

☐ YES → **COMPLETE THIS SECTION**

☐ NO → **PROCEED TO SECTION D**

C2. In 2011, how many units of allogeneic whole blood and red cells (WB/RBCs) did your institution transfuse either directly or as a transfusion service for another institution? *[Exclude directed units transfused to the intended patients.]*

	Total Number of Units Transfused	Total Number of Recipients
A. Allogeneic Whole Blood		
B. Allogeneic Red Blood Cells*		
C. Group O Positive Red Blood Cells		
D. Group O Negative Red Blood Cells		

*All types, including Group O.

C3. Indic

A. Directed W					
B. Autologous WB/RBC units					

C4. Indicate below the total number of units transfused to the pediatric population (as defined by your institution).

	Number of Adult Equivalent Units Used in Whole or in Part for Pediatric Patients*	Total Number of Pediatric Recipients
A. WB/RBCs		
B. Plasma		
C. Platelets		

*This should be a patients.

C5. In 2011

(1) transfuse, either directly or as a transfusion service for another institution or outpatient service, and (2) how many units were outdated while on your shelf?

Include units transfused to pediatric patients in total.

Component	Total Number of Units Transfused	Total Number of Units Outdated
A. Whole-blood derived platelets [*Individual concentrates and pools expressed as individual concentrate equivalents*]		
B. Apheresis platelet units—full dose (≥3 x 10^{11})		
C. Directed platelets to intended recipients		
D. Fresh frozen plasma (FFP)*		
E. FFP, pediatric size (≤100 mL)*		
F. Plasma, frozen within 24 hours (PF24)*		
G. Jumbo FFP (>400 mL)*		
H. Liquid plasma*		
I. Directed plasma to intended recipients*		
J. Thawed plasma*		
K. Plasma cryoprecipitate reduced*		
L. Group AB Plasma		
M. Cryoprecipitate (all uses) [*Include individual units and pools expressed as unit equivalents*]		
N. Granulocyte Units		

*All types, including Group AB.

C6. Indicate below how many irradiated, leuko-reduced, and leuko-filtered units of each of the following components your institution transfused, either directly or as a transfusion service for another institution in 2011 (for pediatrics, use the number of adult equivalent units used in whole or part). *Components that are **both** irradiated and leuko-reduced should be included in the count for **both** columns.*

	Components Irradiated	Components Leuko-reduced Before or After Storage (not at the Bedside)	Components Leuko-filtered at the Bedside
a. WB/RBCs			
b. Apheres donor pl			
c. Whole-b platelets			
d. Other bl units, inc units			
e. *TOTAL (If the nu compone questions please en number*			

C7. A. Doe leukor

B. If th transf

C8. What appropriate b

	Com
a.	Red Blo
b.	Whole-b platelets
c.	Apheres

C9. In 2011, how many therapeutic platelet doses were transfused?

A. As plateletpheresis products? _____ doses

B. As whole-blood derived platelets? _____ doses

If you indicated a quantity above, select the usual (most common) concentrate dosage at your institution from which the dose was derived: [Check one]

C10. How
2011? *[This*

	Depart
A.	Surgery
B.	Orthope
C.	Cardiac
D.	All surg
E.	Transpl
F.	Trauma
G.	Hematc
H.	Obstetr
I.	Pediatri
J.	Nephro
K.	ICU (in Medica
L.	Genera
M.	Other, s

*Including

C11. Does your institution routinely order plasma transfusions to non-pediatric patients based on (choose one):

- ☐ Weight based dosing (eg 20ml/kg)
- ☐ A standard number of units regardless of patient weight (e.g. 4 or 6 units)
- ☐ Dosage varies based on perceived level of coagulation factor deficiency or degree of bleeding.
- ☐ Number of units ordered is not consistent with any of the above

C12. How many grams of IVIG (not RhIG) were purchased by your institution in 2011?

_____ **grams**

C13. Wha

C14. Wha
the f
parti

a. Plasma, s phlebotomy	
b. Plasma, f phlebotomy (P9059)	
c. Red cells, leukoreduced (P9016)	$
d. Whole-blood-derived platelets, each unit, not leukoreduced, not irradiated (P9019)	$
e. Apheresis platelets, leukoreduced (P9035)	$
f. Cryoprecipitate, each unit (P9012)	$

C15. Were any elective surgeries postponed due to blood inventory shortages in 2011?

- ☐ **Yes**
- ☐ **No**

If yes, on how many days were elective surgeries postponed? _____ **days**

How many elective surgeries were postponed in 2011?

[Do not count any patient's surgery more than once.]

_____ **surgeries**

C16. On how many days in 2011 was your order incomplete:

A. For red cells? _____ days
B. For plasma? _____ days
C. For apheresis platelets? _____ days
D. For whole-blood derived platelets? _____ days

C17. On how many days in 2011 were you unable to meet other non-surgical blood requests (e.g. red cells, platelets)?

_____ days

C18. Does your institution have an established program to treat patients who refuse any or all blood components for religious, cultural, or personal reasons?

- ☐ **Yes**
- ☐ **No**

C19a. Does your healthcare facility have a Transfusion Safety Officer (TSO)?

- ☐ **Yes**
- ☐ **No**

C19b. If C19a is Yes, is the TSO ☐ **Part Time** ☐ **Full Time**

C19c. If C19a is Yes, is the TSO a ☐ **Hospital employee** ☐ **Blood Center employee**

C20. At your facility, how many units of group O red cells are on your shelf on an average weekday?

_____ units

C21. At your facility, what is the maximum number of units of group O positive and group O negative red cells in uncrossmatched inventory considered to be 'critically low' ?

_____ units

C22. How many WB/RBC crossmatch procedures were performed at your facility in 2011 by any method? _____ **procedures**

How many were **electronic** crossmatch procedures? _____

How many were **manual serologic** crossmatch procedures? _____

How many were **automated serologic** crossmatch procedures? _____

C23. How many samples (patient specimens submitted for testing) did your facility receive at the blood bank in 2011?

_____ **samples**

C24. Does your facility have an electronic system for tracking transfusion related adverse events (e.g. unplanned, unexpected, and undesired occurrences)?

- ☐ **Yes**
- ☐ **No**

C25. Does your facility currently collect data on sample collection errors (e.g. wrong blood in tube?)

☐ **Yes**

☐ **No**

If yes, how many were reported in 2011? _____ errors

C26. How many <u>transfusion-related adverse reactions</u> were reported to the transfusion service in 2011? (*count only the number of reactions that required any diagnostic or therapeutic intervention.)*

_____ reactions

Complete the table below to indicate how many of each type of reaction occurred:

	Event Description (categories may overlap)	Number of Reactions
a.	Life-threatening, requiring major medical intervention following the transfusion (e.g. vasopressors, blood pressure support, intubation, or transfer to the intensive care unit)	
b.	Transfusion-related acute lung injury (TRALI)	
c.	Transfusion-associated circulatory overload (TACO)	
d.	Acute hemolytic transfusion reaction (ABO)	
e.	Acute hemolytic transfusion reaction (other antibodies)	
f.	Delayed hemolytic transfusion reaction	
g.	Delayed serologic transfusion reaction	
h.	Febrile, nonhemolytic transfusion reaction	
i.	Hy	
j.	Po	
k.	Tr	
l.	Tr	
m.	Po	
n.	Po	
o.	M	
p.	Se	

Section D: Bacterial Testing in Platelets

D1. Does your institution perform pre-transfusion bacterial testing on platelets?

Method	Number Tested	Number of Confirmed Positives	Number of False Positives	Number with Indeterminate Results
A. Culture-based methods				
B. Rapid immunoassay (e.g. VERAX)				
C. Other Methods, specify: _____				

D2. Indicate wha
[Check all ap

a. Apheresis pla					
b. Whole-blood-derived platelets, singly	☐	☐		☐	☐
c. Whole-blood-derived platelets, pooled	☐	☐		☐	☐

D3. How many
2011?

Section E. Patient Blood Management

E1. Does your institution have a patient blood management (PBM) program?
Please mark only one response box

- ☐ **Yes** → Please continue to question E1a
- ☐ **No** → Please continue to question E5
- ☐ Don't know

E1a. Below is a list of people who may be designated to direct a patient blood management program. Please indicate whether or not each of the following people coordinate the patient blood management program at your institution:

	Yes	No	Don't Know
Medical director	☐	☐	☐
Program coordinator: Nurse	☐	☐	☐
Program coordinator: Non-Nursing	☐	☐	☐
Other. (If yes,) please specify:	☐	☐	☐

E2. Does your institution participate in one or more performance benchmarking programs relating to transfusion medicine?
Please mark only one response box

- ☐ **Yes**
- ☐ **No**
- ☐ Don't know

E3. Does your facility provide formal transfusion training?

☐ **Yes** → Please continue to question E3a
☐ **No** →Please skip to question E4

☐ Don't know

E3a. Below is a list of people who may be receiving formal transfusion training within your facility. Please indicate whether or not each of the following people receives formal transfusion training at your institution:

	Yes	No	Don't Know
Physicians and mid-level providers new to the medical staff	☐	☐	☐
Nurses	☐	☐	☐
Internal Medicine Residents	☐	☐	☐
Family Practice Residents	☐	☐	☐
Surgical Residents	☐	☐	☐
Anesthesia Residents	☐	☐	☐
Ob-Gyn Residents	☐	☐	☐
Pediatrics Residents	☐	☐	☐
Hematology/Oncology Residents	☐	☐	☐
Pathology Residents	☐	☐	☐
Other personnel. (If yes,) please specify:	☐	☐	☐

E4. Does your facility provide formal PBM training?

☐ **Yes** → Please continue to question E4a
☐ **No** → Please skip to question E5

☐ Don't know

E4a. Below is a list of people who may be receiving formal PBM training within your facility. Please indicate whether or not each of the following people receives formal PBM training at your institution:

	Yes	No	Don't Know
Physicians and mid-level providers new to the medical staff	☐	☐	☐
Nurses	☐	☐	☐
Internal Medicine Residents	☐	☐	☐
Family Practice Residents	☐	☐	☐
Surgical Residents	☐	☐	☐
Anesthesia Residents	☐	☐	☐
Ob-Gyn Residents	☐	☐	☐
Pediatrics Specialists	☐	☐	☐
Hematology/Oncology Residents	☐	☐	☐
Pathology Residents	☐	☐	☐
Other personnel. (If yes,) please specify:	☐	☐	☐

E5. Does the institution use any transfusion guidelines?

- ☐ **Yes** → Please continue to question E5a
- ☐ **No** → Please skip to question E6

- ☐ Don't know

E5a. While many institutions have institution specific guidelines, please choose one of the following national transfusion guidelines if they are the predominant basis for your institution's own guidelines. If yours are not based predominantly on one of these, then choose other and describe.

Please check all that apply

- ☐ **CAP**
- ☐ **AABB**
- ☐ **ASA**
- ☐ **ARC**
- ☐ **Other (Please specify):** _____

- ☐ Don't know

E6. Are patients facing elective surgical procedures associated with a high likelihood of blood loss evaluated to assess for factors predictive of pre- and post- operative anemia?

- ☐ **Yes** → Please continue to question E6a
- ☐ **No** → Please skip to question E7

- ☐ Don't know

E6a. Is there a program to manage the patient's anemia before surgery?

- ☐ **Yes**
- ☐ **No**

- ☐ Don't know

E7. Which of the following interventions has your facility put in place to reduce the likelihood of allogeneic transfusions?

Please check all that apply

Preoperative

- ☐ **Clinical assessment for anemia**
- ☐ **Clinical assessment for bleeding risk**
- ☐ **Laboratory assessment for anemia**
- ☐ **Enteral iron supplementation**
- ☐ **Parenteral iron supplementation**
- ☐ **Erythropoietin**
- ☐ **Preoperative autologous blood donation**

- ☐ None
- ☐ Don't know

Intra-operative

- ☐ **Acute normo-volemic hemodilution**
- ☐ **Intra-operative blood recovery**
- ☐ **Use of topical/systemic hemostatic agents**

- ☐ None
- ☐ Don't know

Postoperative

- ☐ **Restrictive use of transfusion**
- ☐ **Restrictive use of phlebotomy**
- ☐ **Use of topical/systemic hemostatic agents**
- ☐ **Judicious use of anticoagulants and platelet inhibitors**
- ☐ **Post-operative cell collection and re-administration**
- ☐ **Post-operative parenteral iron replacement**
- ☐ **Erythropoiesis-Stimulating Agents (ESA)**

- ☐ None
- ☐ Don't know

E8. How does your hospital measure the success of measures implemented to improve patient blood management?

Please check all that apply

- ☐ **Transfusion per medical/surgical admission**
- ☐ **Total components transfused**
- ☐ **Other (Please specify):** ▸

- ☐ None
- ☐ Don't know

E9. Does your hospital require that the ordering provider obtain and document informed consent for transfusion?

- ☐ **Yes**
- ☐ **No**

- ☐ Don't know

E10. Does your hospital require that the physician document the reason or clinical justification for transfusion in the medical record based on transfusion guidelines developed by the hospital transfusion or quality committee?

- ☐ **Yes**
- ☐ **No**

- ☐ Don't know

E11. Does your hospital require that relevant pre-transfusion laboratory results be documented for non-emergent transfusions?

- ☐ **Yes**
- ☐ **No**

- ☐ Don't know

E12. What percentage of patients, undergoing a high blood loss surgical procedure as defined by your hospital, has a type and screen completed before the start of the surgical procedure?

☐ **%**

☐ Don't know

E13. What is the average pre-transfusion laboratory result at your hospital for each the following blood products?

Please indicate for each of the following blood products:	**Enter the average**	Don't Know
a. For red cells, average pre-transfusion hemoglobin:		☐
b. For platelets, average pre-transfusion platelet count:	☐	☐
c. For plasma, average pre-transfusion PT/INR:	☐	
or PTT:	☐	☐
d. For cryoprecipitate, average pre-transfusion:	☐	☐

E14. What is the standard red cell order at your hospital for non-bleeding patients?

Please mark only one response box

☐ **1 unit**
☐ **2 units**
☐ **Other (Please specify): ☐ units**

☐ Don't know

E15. Does your hospital have Computerized Physician Order Entry (CPOE)?

☐ **Yes** ☐ **No**

If yes, does your CPOE include transfusion guidelines or an algorithm to assist with proper transfusion ordering? ☐ **Yes** ☐ **No**

PLEASE PROCEED TO SECTION F

Section F: Human Tissue

This section contains questions about the use of human tissue for transplantation.
Please give this section to the appropriate personnel to complete!

F1. **Does your institution <u>maintain</u> an inventory of, or use human <u>tissue</u> for transplantation?** Refer to the definition of tissue in the Glossary – this differs from the definition of "tissue" used by The Joint Commission in their Standards.

- ☐ Maintain and use human tissue
- ☐ Use but do not maintain human tissue
- ☐ Neither — **PROCEED TO SECTION G**

F2. **In 2011, what was the total number of human tissue implants or grafts that your institution: *[Include acellular dermal matrix products (e.g. AlloDerm®, Repliform®) and consult with specialty departments, if necessary (e.g. Orthopedics, Dermatology, Ophthalmology).]***

A. Used/Implanted? _____ **implants/grafts**
B. Discarded? _____ **implants/grafts**

F3. D **overing?**

F4. **Which one of the following departments has the <u>PRIMARY</u> responsibility for Human Tissue (i.e. ordering, receiving, storage, tracking, and/or issuance)? [Check only one]**

- ☐ Operating Room
- ☐ Surgery Department
- ☐ Blood bank and transfusion service
- ☐ Laboratory Medicine/Pathology
- ☐ Hospital in-house Tissue Bank
- ☐ Infection Control
- ☐ Supply chain/materials management

F5. Which department(s) have some/all responsibility for tissue oversight? [Check all that apply.]

- ☐ Operating Room
- ☐ Surgery Department
- ☐ Blood bank and transfusion service
- ☐ Laboratory Medicine/Pathology
- ☐ Hospital in-house Tissue Bank
- ☐ Infection Control
- ☐ Supply chain/materials management
- ☐ Other Department
- ☐ None

F6. What role does your blood bank/transfusion service have in the use of human tissue in the following areas? [Check all that apply.]

	Involvement	Oversight	None	N/A
Acquisition	☐	☐	☐	☐
Storing	☐	☐	☐	☐
Issuing	☐	☐	☐	☐
Tracking	☐	☐	☐	☐

F7. Tissue Related Adverse Reactions in 2011	Number of Reactions	Number confirmed by authorities (FDA/CDC) as caused by a human tissue implant/graft	Not Available
A. How many adverse reactions have you reported to FDA or to a source tissue establishment that were suspected of being caused by a human tissue implant/graft?			☐
B. How many reported adverse reactions were viral transmissions?			☐
C. How many reported adverse reactions were bacterial infections?			☐
D. How many reported adverse reactions were fungal infections?			☐
E. How many adverse reactions were related to graft failure?			☐
F. How many adverse reactions had unknown causes?			☐

Section G: Cellular Therapy Products

Please give this section to the appropriate cellular therapy collection

or laboratory personnel to complete!

G1. Does your institution collect, process, store, issue, <u>or</u> infuse hematopoietic progenitor cells (HPCs) <u>or</u> other cellular therapy (CT) products?

- ☐ **Yes**
- ☐ → **No** **Proceed to End**

G2. Choose which of the following describes your program. Does your program (check all that apply):

- ☐ Collect HPCs
- ☐ Process HPCs
- ☐ Store HPCs
- ☐ Infuse/transplant HPCs
- ☐ Collect Cord Blood
- ☐ Process Cord Blood
- ☐ Store Cord Blood
- ☐ Other, please describe _____

G3. If your program collects cord blood, is your cord blood collected by: (choose all that apply)

- ☐ A nurse midwife/obstetrician
- ☐ Dedicated cord blood bank collector
- ☐ Other _____

G4. Does your facility hold a cord blood product license?

- ☐ Yes
- ☐ BLA submitted and in progress
- ☐ Preparing BLA
- ☐ Not eligible
- ☐ Not seeking licensure at this time
- ☐ Don't know

G5. Do you collect products for third party vendors (including cord blood banks, NMDP, and other suppliers of CT products)*? [Please count each day of collection from a donor as a separate product]*

☐ No
☐ Yes (If yes, how many did you collect in 2011? Check appropriate boxes below.)

	HPC-A Hematopoietic Progenitor Cells-Apheresis	HPC-M Hematopoietic Progenitor Cells-Marrow	HPC-Hematopoietic Progenitor Cells–Cord	Other
< 10 per year	☐	☐	☐	☐
10-100 per year	☐	☐	☐	☐
101-500 per year	☐	☐	☐	☐
>500 per year	☐	☐	☐	☐

G6. How many of each of the following product types were <u>collected or processed</u> at your facility in 2011? *[For purposes of the survey, autologous cord blood refers to familial use in 1st or 2nd degree relatives. Please count each day of collection from a donor as a separate product]*

		Collected		Processed
		Autologous	Allogeneic	See Glossary
a.	Peripheral blood progenitor cells (HPC-A)			
b.	Marrow collections (HPC-M)			
c.	Cor			
d.	Dor unr peri			
e.	Imr den exc			
f	Her exp			
g.	Nor [me mu			
h.	Oth s			

G7. Indicate the number of infusion episodes and the number of patient recipients of cell therapies by product type at your facility in 2011.

		Autologous Infusions		Allogeneic Infusions	
		Total Number of Episodes	Total Number of Patients	Total Number of Episodes	Total Number of Patients
a.	Peripheral blood progenitor cell collections (HPC-A)				
b.	Marrow collections (HPC-M)				
c.	Cord blood collections (HPC-C)				
d.	Donor lymphocyte infusion (DLI or unmanipulated non-mobilized peripheral blood mononuclear cells)				
e.	Immunotherapies (natural killer cells, dendritic cells, T cells, and others, but excluding DLI)				
f	Hematopoietic stem/progenitor cells, expanded				
g.	Nonhematopoietic stem cells [mesenchymal stem cells (or multipotent stromal cells)				
h.	Other products, Specify _____				

G8. If your facility infuses CT products, were any of them used for other than hematopoietic reconstitutions in 2011?

☐ Yes

Please check all that apply:

☐ Cardiac applications
☐ Orthopedic applications
☐ Autoimmune disease
☐ Immune therapies
☐ Other, please specify _____

☐ No

G9. How many severe HPC donor-related adverse events were reported to you in 2011?
**see glossary for definition of the term 'severe'*

_____ Severe autologous donor adverse events ☐ Do not collect autologous HPCs
_____ Severe allogeneic donor adverse events ☐ Do not collect allogeneic HPCs

G10. How many total (including non-severe reactions) reports of *recipient* adverse events were there in 2011?

_____ Adverse reactions in recipients of autologous infusions ☐ Do not infuse autologous HPCs
_____ Adverse reactions in recipients of allogeneic infusions ☐ Do not infuse allogeneic HPCs
☐ Do not receive adverse reaction reports

G11. Of the adverse reactions in recipients reported above, how many were severe according to your facility's criteria?

_____ Severe adverse reactions in recipients of autologous infusions
_____ Severe adverse reactions in recipients of allogeneic infusions
☐ Do not receive adverse reaction reports

Thank you very much for your help!

Please complete the online questionnaire at www.bloodsurvey.org or return the paper questionnaire in the enclosed postage-paid envelope.

National Blood Collection and Utilization Survey
c/o Images to Data

Survey Glossary

Autologous: Self-directed donations. Autologous cord blood refers to familial use in 1st or 2nd degree relatives.

Centralized transfusion service: A hospital or blood center that collects blood from donors and supplies blood, components, medical services and/or cross matched blood products to multiple transfusing facilities.

Collected: Successful whole blood or apheresis collections placed into production (not QNS, or other removals).

Community: In this survey refers to those allogeneic donations not directed to a specific patient.

Deferrals: The number of donors deferred for specific reasons:
A) Donors deferred for low hemoglobin do not meet the current FDA blood hemoglobin level requirements for blood donation.
B) Deferrals for other medical reasons may include the use of medications on the medication deferral list, growth hormone from human pituitary glands, insulin from cows (bovine, or beef, insulin), Hepatitis B Immune Globulin (HBIG), unlicensed vaccines, or presenting with physical conditions or symptoms that do not qualify a person to be a blood donor.
C) High-risk behavior deferrals include deferrals intended to reduce the risk of transmission of infectious diseases including HIV and hepatitis viruses. Examples of questions intended to identify these risks are sexual contact and needle use questions.
D) Travel deferrals are deferrals for travel to a specific region of the world.

Directed: Allogeneic donations intended for a specific patient.

Donation: The collection of a unit of blood or blood component from a volunteer donor.

Dose/Dosage: a quantity administered at one time, such as a specified volume of platelet concentrates.

Episode or Infusion Episode: infusion of one product type (eg, peripheral blood stem cells) to a patient/recipient. The infusion episode may involve infusion of one or more containers of that product type.

First-time allogeneic donor: A donor who is donating for the first time at your center.

Issuing: Release of a blood or tissue product within a medical facility or institution.

Maintain: Functions to acquire, store, issue, or track human tissue for transplantation.

Modify: used in this survey to refer to procedures applied by a blood center, hospital blood bank, or transfusion service that may affect the quality or quantity of the final product (e.g., irradiation, leukofiltration, or production of aliquots of lesser volume).

Outdated: Units that expire on your shelf.

Patient Blood Management: An evidence-based, multidisciplinary approach to optimizing the care of patients who might need transfusion. PBM encompasses all aspects of patient evaluation and clinical management surrounding the transfusion decision-making process, including the application of appropriate indications, as well as minimization of blood loss and optimization of patient red cell mass.

Performance benchmarking programs: A program designed to compare the performance of an individual hospital on one or more metrics with others on a national, regional, or hospital system-wide basis.

Plasma:

A) Plasma, frozen within 24 hours of phlebotomy: plasma separated from the blood of an individual donor and placed at–18 C or colder within 24 hours of collection from the donor. Sometimes also referred to as PF24.

B) Plasma, Jumbo: for the purposes of this survey, FFP having a volume greater than 400 mL.

C) FFP: fresh frozen plasma. Plasma frozen within 8 hours of collection.

Present to Donate: A person presents to donate when he or she initiates the donation process through appearance and registration at a donation site.

Processed: Subjected, after collection, to any manipulation or storage procedure. One cellular therapy product can be divided and processed in more than one way and would be counted as one collection but as two or more products processed.

Produced: Blood component manufactured from a unit of whole blood.

Recipient: A unique individual patient receiving a transfusion one or more times in a calendar year.

Released for Distribution: units that have fulfilled all processing requirements and have been made available for transfer to customers.

Repeat allogeneic donor: A donor who has previously donated a blood component for community use, using your facility' definition.

Severe Donor-Related Adverse Events: adverse events occurring in donors attributed to the donation process that include, for example, major allergic reaction, arterial puncture, loss of consciousness of a minute or more, loss of consciousness with injury, nerve irritation, etc.

Storing: The maintenance of human cells and tissue for future use.

Tissue: Articles containing or consisting of human cells or tissues that are intended for implantation, transplantation, infusion, or transfer to a human recipient, to include musculoskeletal tissue, skin, ocular tissue, human heart valves, dura mater, reproductive tissues, tissue/device, and other combination therapies. Not included: vascularized human organs, minimally manipulated marrow, xenografts, blood products, hematopoietic stem/progenitor cells, other cellular therapies, human milk, collagen, cell factors, in-vitro diagnostic products, and blood vessels ("conduits") recovered with organs for use in organ transplantation.

Transfusion Related Adverse Reactions: www.cdc.gov/nhsn/PDFs/HemovigModuleProtocol_current.pdf

Transfusion Service: a facility that performs, or is responsible for the performance of, the storage, selection, and issuance of blood and blood components to intended recipients.