Form Approved
OMB No. 0920-1011
Exp. Date 03/31/2017

2016 Urgent Assessment of Blood Collection and Use in Puerto Rico in Response to the Zika Virus Outbreak

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Section A. General Information

Please provide the contact information for the primary person responsible for completing this section.
Prefix:
First Name:
Last Name:
Title/Position:
Name of Institution:
Address of Institution:
Telephone:
Email:

Please provide the following information for the facility included in the survey.
Facility Name:
Address:
City:
Zip Code:
Facility Identifier (select one):

- o Medicare Provider Number:
- o American Hospital Association (AHA) Number:
- o VA Station Code:
- o FDA Establishment Number (FEI):

Which of the following best describes your institution?

- o A local or regional blood center (non-hospital) that collects blood from donors and supplies blood and components to other institutions, but does not perform transfusion services
- o A hospital-based blood bank and transfusion service that collects blood from donors (may be only autologous or directed) and provides blood and components for transfusion primarily to your own institution
- o A transfusion service that provides blood and components for transfusion, but does not collect blood from donors
- o A local or regional blood center that collects blood from donors and supplies blood, components, and cross matched blood products to participating facilities (e.g., centralized

transfusion services). In this category, the service is not limited to reference laboratory work, but includes routine transfusion service work

Section B. Blood Collection, Processing, and Testing

Please provide the contact information for the primary person responsible for completing this section.
Prefix:
First Name:
Last Name:
Title/Position:
Name of Institution:
Address of Institution:
Telephone:
Email:

1. Does your institution collect blood from donors? (Even if you collect autologous units only, check “Yes.”)

o Yes
o No (if ‘No’, end of section)

2. In 2015, how many collections were successfully completed by your institution in each of the following categories? (* indicate required fields)

	Number of Collection Procedures*	Number of Units
Whole Blood		
Allogeneic (non-directed donations)*		
Autologous*		
Directed*		
Total*		
Red Blood Cells		
Apheresis		
Allogeneic*		
Autologous*		
Directed*		
Concurrent red cells (from apheresis platelets)		
Total Apheresis Red Blood Cells*		
Whole-blood-derived		
Allogeneic*		
Autologous*		
Directed*		
Total WBD Red Blood Cells*		
Platelets		
Apheresis		
Single-donor		
Directed single-donor		
Single collection		
Double collection[1]		
Triple collection[1]		
Total Apheresis Platelets*		

Total apheresis platelet units subjected to pathogen reduction technology		
Whole-blood-derived		
Individual*[2]		
Total whole blood-derived individual units subjected to pathogen reduction technology		
Plasma		
Apheresis		
FFP		
PF24		
PF24RT24		
Jumbo FFP (>400 mL)		
Total Apheresis Plasma*		
Total Apheresis plasma units subjected to pathogen reduction technology		
Whole-blood-derived		
FFP		
PF24		
Cryoprecipitate reduced		
Liquid		
Total WBD Plasma* Total WBD plasma units subjected to pathogen reduction technology		
Cryoprecipitate		
Individual*[3]		
Total Granulocytes*		

[1] Count double collections as two units and triple collections as three units
[2] Enter the number of individual platelet units prepared from whole blood collections
[3] Enter the number of individual cryoprecipitate units prepared from whole blood collections

3. In 2015, from how many of the following types of donors did your institution successfully collect blood products?

	Number of Donors
First-time allogeneic donors	
Repeat allogeneic donors (Count multiple donations from a single repeat donor only once)	
Directed donors	
Autologous donors	

Total number of donors	

4. In 2015, how many units of each product were imported, distributed, and outdated by your institution? (* indicate required fields)

	Total Units Imported	Total Units Distributed (including imported units)[1]	Total Units Outdated
Whole Blood for distribution as Whole Blood			
Allogeneic (non-directed donations)			
Autologous			
Directed			
Total*			
Red Blood Cells			
Apheresis			
Allogeneic			
Autologous			
Directed			
Concurrent red cells (from apheresis platelets)			
Total Apheresis Red Blood Cells*			
Whole-blood-derived			
Allogeneic			
Autologous			
Directed			
Total WBD Red Blood Cells*			
Platelets			
Apheresis			
Single-donor			
Directed single-donor			
Single collection			
Double collection[2]			
Triple collection[2]			
Total Apheresis Platelets*			

Whole-blood-derived			
Individual*			
Pooled[3]			
Plasma			
Apheresis			
FFP			
PF24			
PF24RT24			
Jumbo FFP (>400 mL)			
Total Apheresis Plasma*			
Whole-blood-derived			
FFP			
PF24			
Cryoprecipitate reduced			
Liquid			
Total WBD Plasma*			
Cryoprecipitate			
Individual*			
Pooled[4]			
Total Granulocytes*			

[1] Units returned and distributed more than once should be counted only once
[2] Count double collections as two units and triple collections as three units
[3] Total number of platelet pools prepared from whole blood collections
[4] Total number of cryoprecipitate pools prepared from whole blood collections

5. What was the average whole dollar amount your institution was reimbursed (by hospital or clinical facility) per unit in 2015 for the following components? (Include discounts in your calculations. If you do not use a particular component, select "Not Applicable". CPT/HCPCS codes are in in parenthesis.)

	Average Amount Paid Per Unit ($)
Plasma, single donor, frozen with 8 hours of phlebotomy (P9017)	• Not applicable
Plasma, frozen between 8 and 24 hours of phlebotomy (P9059)	• Not applicable
Red cells, leuko-reduced (P9016)	• Not applicable
Red cells, non-leuko-reduced (P9021)	• Not applicable

WBD platelets, each unit, not leuko-reduced, not irradiated (P9019)	• Not applicable
Apheresis platelets, leuko-reduced (P9035)	• Not applicable
Cryoprecipitate, each unit (P9012)	• Not applicable

6. If your facility does not use pathogen reduction technology for apheresis platelet or plasma collections, what is the estimated total cost of implementation (this includes equipment, capital investment, training, etc)? What is the estimated additional cost per each unit type below if your facility adopted pathogen reduction technology?

Section C. Blood Transfusion

Please provide the contact information for the primary person responsible for completing this section.
Prefix:
First Name:
Last Name:
Title/Position:
Name of Institution:
Address of Institution:
Telephone:
Email:

1. Does the following information match your institution?
   [show the name, address, facility identifier (AHA?) for the facility assigned to the link]

o Yes [users will continue with the section]
o No [users will not be able to continue with the section and will be prompted to contact us]

2. Is your institution directly involved in the transfusion of blood to patients?

o Yes

o No (if 'No', end of section)

3. In 2015, how many units of allogeneic whole blood and red blood cells did your institution transfuse? (Leave the field blank if you do not know the answer).

	Total Number of Units Transfused	Total number of Recipients	Total outdated units
Allogeneic Whole Blood			
Allogeneic Red Blood Cells (include all blood groups)			
Allogeneic Group O Positive RBCs			
Allogeneic Group O Negative RBCs			

4. Indicate the disposition of directed and autologous units in 2015.

	Total Number of Units Transfused to Intended Recipient	Total Number of Recipients	Outdated Units
Directed Whole Blood Units			
Directed RBC Units			
Autologous Whole Blood Units			
Autologous RBC Units			

5. In 2015, how many units of each of the following components did your institution transfuse and how many units were outdated while on your shelf (include units transfused to pediatric patients)? (* indicates required fields)

(include all blood groups)	Total Number of Units Transfused	Total Number of Units Outdated
WBD Platelets (individual concentrates and pools expressed as individual concentrate equivalents)*		
Apheresis Platelet units – Full dose*		
Directed Platelets to intended recipients		
Total Plasma*		
Fresh Frozen Plasma (FFP)		
FFP, pediatric size (≤100 mL)		
Plasma, Frozen within 24 hours (PF24)		
PF24RT24		
Jumbo FFP (>400 mL)		
Liquid plasma		
Directed plasma to intended recipients		
Thawed plasma		
Plasma, cryoprecipitate reduced		
Group AB plasma		
Cryoprecipitate (include individual units and pools expressed as unit equivalents)*		
Granulocytes*		

6. Indicate the total number of units transfused to pediatric populations in 2015.

	Number of Adult Equivalent Units in Whole or in Part for Pediatric Patients[1]	Total Number of Pediatric Recipients
Whole Blood		
RBCs		
Plasma		
Platelets		

[1] This should be a subset of data reported in question 4 and 5 if your hospital transfuses non-pediatric patients.

7. Indicate how many irradiated, leuko-reduced, and leuko-filtered units for each of the following components your institution transfused in 2015. For pediatrics, use the number of adult equivalent units used in whole or part. For components that are irradiated and leuko-reduced, include these in the count for both columns.

	Components Irradiated	Components Leuko-reduced Before or After Storage (not at bedside)	Components Leuko-filtered at the Bedside
a. Whole Blood			
b. RBCs			
c. Apheresis platelets (single donor platelets)			
d. WBD platelets			
Total components (if the number for a-d is 'unknown', enter the total number of components for the modification)			

8. Does your institution have a policy to transfuse only leuko-reduced (LR) components?

o Yes

o No

9a. In 2015, how many total units of RBCs transfused were…

	Number of Units	
1 – 35 day(s) old		• Don't Know
36 – 42 days old		• Don't Know

9b. In 2015, how many total units of WBD platelets transfused were…

	Number of Units	

1 – 3 day(s) old		• Don't Know
4 – 5 days old		• Don't Know

9c. In 2015, how many total units of Apheresis platelets transfused were…

	Number of Units	
1 – 3 day(s) old		• Don't Know
4 – 5 days old		• Don't Know

10. In your institution, on average, how many individual platelet units were included in a pooled WBD platelet dose in 2015?

o < 3
o 3
o 4
o 5
o 6
o 7
o 8
o 9
o 10
o > 10
o Not applicable

11. Indicate the number of units that were transfused in inpatient or outpatient settings.

	Number of RBC Units	Number of Platelet Units	Total	Don't Know
All Surgery (including transplant)				

Inpatient Medicine (including hematology/oncology)				
Emergency Department				
Obstetrics/Gynecology				
• Pregnant females				
Pediatrics				
Neonates				
Critical Care				
Outpatient and non-acute inpatient settings[1]				

[1] E.g., outpatient dialysis, rehabilitation, long term care, etc.

12. Does your institution routinely order plasma transfusions to non-pediatric patients based on:
- o Weight based dosing (e.g., 20mL/kg)
- o A standard number of units regardless of patient weight (e.g., 4 or 6 units)
- o Dosage varies based on perceived level of coagulation factor deficiency or degree of bleeding
- o Number of units ordered is not consistent with any of the above

13a. Does your institution routinely order prophylactic platelet transfusions to non-pediatric patients based on:
- o Weight based dosing (e.g., 20mL/kg)
- o A standard number of units regardless of patient weight (e.g., 4 or 6 units)
- o Dosage varies based on perceived level of thrombocytopenia or degree of bleeding
- o Number of units ordered is not consistent with any of the above

13b. Does your institution routinely order therapeutic platelet transfusions to non-pediatric patients based on:
- o Weight based dosing (e.g., 20mL/kg)
- o A standard number of units regardless of patient weight (e.g., 4 or 6 units)
- o Dosage varies based on perceived level of thrombocytopenia or degree of bleeding
- o Number of units ordered is not consistent with any of the above

14. What was the average whole dollar amount your institution paid per unit in 2015 for the following components? (Include discounts in your calculations. If you do not use a particular component, select "Not Applicable". CPT/HCPCS codes are in in parenthesis.)

	Average Amount Paid Per Unit ($)
Plasma, single donor, frozen with 8 hours of phlebotomy (P9017)	• Not applicable
Plasma, frozen between 8 and 24 hours of phlebotomy (P9059)	• Not applicable
Red cells, leuko-reduced (P9016)	• Not applicable
Red cells, non-leuko-reduced (P9021)	• Not applicable
WBD platelets, each unit, not leuko-reduced, not irradiated (P9019)	• Not applicable
Apheresis platelets, leuko-reduced (P9035)	• Not applicable
Cryoprecipitate, each unit (P9012)	• Not applicable

15a. Were any elective surgeries postponed due to blood inventory shortages in 2015?

- o Yes
- o No
- o Don't know

(if No or Don't know, skip 15b and 15c)

15b. How many days were elective surgeries postponed?

[Free text, numeric values only] day(s)

- Don't know

15c. How many elective surgeries were postponed in 2015?

[Free text, numeric values only] surgeries

- Don't know

16. In 2015, how many days was your institution's order incomplete for the following components?

	Number of days
Whole Blood	
RBCs	

Plasma	
Apheresis platelets	
WBD platelets	

17. In 2015, how many days were you unable to meet other non-surgical blood requests (e.g., red cells, platelets)?

[Free text, numeric values only] day(s)

- Don't know

18. Does your institution have an established program to treat patients who refuse any or all blood components for religious, cultural, or personal reasons?
    - o Yes
    - o No

19a. Does your institution have a Transfusion Safety Officer (TSO)?
    - o Yes
    - o No
      (if No, skip 19b and 19c)

19b. If yes, how many full-time equivalent TSOs? (Consider two part-time employees as a single full-time equivalent)
[Free text, numeric values only] full-time equivalents

19c. Is the TSO employed by your institution or by the blood center?
    - o Institution employee
    - o Blood center employee

20. At your institution, how many units of Group O red cells are on your shelf on an average weekday?

[Free text, numeric values only] units

21. At what number of Group O positive and Group O negative RBC units in uncrossmatched inventory do you consider your inventory to be "critically low"?

[Free text, numeric values only] units

22. How many Whole Blood/RBC crossmatch procedures were…

	Number of Procedures
performed at your institution in 2015 by any method?	
electronic crossmatch procedures?	
manual serologic crossmatch procedures?	
automated serologic crossmatch procedures?	

23a. Does your institution type red blood cell antigens using a molecular assay (e.g., genotyping)?

- o Yes
- o No (if No, skip 23b)

23b. How many red blood cell units from donors who were genotyped (e.g., using a molecular assay) were transfused by your institution in 2015?
[Free text, numeric values only] units

24. How many samples (patient specimens submitted for testing) did your institution receive at the blood bank in 2015?

[Free text, numeric values only] samples

25. Does your facility have an electronic system for tracking transfusion-related adverse events (e.g., unplanned, unexpected, and undesired occurrences)?
    - o Yes
    - o No

26a. Did your institution collect data on sample collection errors (e.g., wrong blood in tube) in 2015?

- o Yes
- o No
  (if No, skip 26b)

26b. How many transfusion sample collection errors were reported in 2015?
[free text, numeric values only] errors

27. How many transfusion-related adverse reactions were reported to the transfusion service in 2015?

[Free text, number values only] reactions

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

	Number of reactions
Life-threatening, required major medical intervention following transfusion (e.g., vasopressors, blood pressure support, intubation, or transfer to the ICU)	
Transfusion-related acute lung injury (TRALI)	
Transfusion-associated circulatory overload (TACO)	
Acute hemolytic transfusion reaction (ABO)	
Acute hemolytic transfusion reaction (other antibodies)	
Delayed hemolytic transfusion reaction	
Delayed serologic transfusion reaction	
Febrile, non-hemolytic transfusion reaction	
Hypotensive transfusion reaction	
Post-transfusion purpura	
Transfusion-associated dyspnea	
Transfusion-associated graft-vs-host disease	
Transfusion transmitted bacterial infection	
Transfusion transmitted parasitic infection	
Transfusion transmitted viral infection	
Mild to moderate allergic reaction	
Severe allergic reaction	

28a. Does your institution perform pre-transfusion bacterial testing on platelets?

- o Yes
- o No (if No, skip 28b and 28c)

28b. Indicate what methods are used by your institution to test for bacterial contamination.

	Culture-based testing	Rapid immunoassay (e.g., VERAX)	Other, specify	Not tested	Not applicable
Apheresis platelets	◻	◻	◻	◻	◻
WBD platelets, singly	◻	◻	◻	◻	◻
WBD platelets, pooled	◻	◻	◻	◻	◻

[Specify other methods, free text, alpha numeric values]

28c. How many confirmed positives and false positives were detected by each method in 2015?

	Number tested	Number of confirmed	Number of false positives	Number of indeterminate	Not applicable

		positives		results	
Culture-based testing					☐
Rapid immunoassay (e.g., VERAX)					☐
Other methods					☐

Survey Glossary

Autologous: Self-directed donations.

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

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

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 (e.g., men who have sex with men (MSM)) and non-medical injection drug 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.

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

Imported: Units not collected by your institution, but obtained by your institution from another institution for distribution to a transfusion facility.

Modify: 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.

Plasma:

a) **Plasma, frozen within 24 hours of phlebotomy (PF24):** plasma separated from the blood of an individual donor and placed at -18 C or colder within 24 hours of collection from the donor.
b) **Fresh frozen plasma (FFP):** Plasma frozen within 8 hours of collection.
c) **Plasma, Jumbo:** FFP having a volume greater than 400 mL.
d) **Plasma frozen within 24 hours of phlebotomy and held at room temperature up to 24 hours after phlebotomy (PF24RT24):** Plasma held at room temperature for up to 24 hours after collection and then frozen at -18 C or colder.

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

Distributed: 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.

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.

Transfusion Related Adverse Reactions: An undesirable response or effect in a patient temporally associated with the administration of blood or blood components. For a list of adverse reaction types and case definitions, visit http://www.cdc.gov/nhsn/PDFs/Biovigilance/BV-HV-protocol-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.