NBCUS ID \_\_\_\_\_



Form Approved OMB No. 0990-0313 Exp. Date: xx/xx/xxxx

# 2021 National Blood Collection and Utilization Survey

The Office of the Assistant Secretary for Health and the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS), are conducting the 2021 National Blood Collection and Utilization Survey (NBCUS). The NBCUS is a biennial, cross-sectional survey of all US blood collection centers and more than 2,800 hospitals that transfuse blood and blood components. This survey is used to characterize blood and blood component collection and transfusion practices. The information is used to understand blood demand and project future blood needs in the United States.

The 2021 NBCUS covers the period of collection and utilization from January 1, 2020 to December 31, 2021. Questions were added specifically to gain information on the impact of COVID-19 on the blood supply and utilization in 2020. Please assist us by completing the online survey by **June 11, 2022**. The link to complete the survey is included in an email sent to your facility and is unique to your facility. Please do not share the link with personnel outside your institution. Once you click the link (or copy and paste into a browser window) you will be directed to the 2021 NBCUS Portal Page. On the Portal Page, you will find instructions for completing the survey and a brief description of each section. If you are not the appropriate person to complete any portion of the survey or if you do not have all of the requested information, please forward the link to the person in your institution who can best provide the information.

Your responses will remain anonymous in the final dataset. While results of this survey will be released in aggregate form and data may be made available in the form of a de-identified dataset, no specific institutional identifiable information will be included.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0990-0313. The time required to complete this information collection is estimated to average 4 hours/ 0 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to U.S. Department of Health & Human Services, OS/OCIO/PRA, 200 Independence Ave., S.W., Suite 336-E, Washington D.C. 20201, Attention: PRA Reports Clearance Officer.

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Please provide the contact information for the primary person responsible for completing this section. Once you have submitted the survey, a PDF including your responses will be sent to the email address entered below. (\*indicates a required field)

Prefix	
First Name <sup>1</sup>	
Last Name <sup>1</sup>	
Title/Position <sup>1*</sup>	
Work Phone number	
Work Email <sup>1*</sup>	

<sup>1</sup>Denotes fields that were pre-populated in the online survey based on previous correspondence.

Section B. Blood Collection, Processing, Testing, and Inventory Management

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B1a. Does your institution collect blood from donors? (Even if you collect autologous units only, select "Yes.")

- 0 Yes
- 0 No (if 'No', skip to section C)

B1b. If your facility is reporting data based on multiple facilities, please list the name of each facility below:



**Facility Names** 

B2a. During 2021, how many **whole blood collection procedures** were successfully completed by your institution in each of the following categories? Do not count low-volume or incomplete procedures. (\*indicates a required field)

Allogeneic whole blood*	
	Number of collection procedures
Autologous whole blood*	
	Number of collection procedures
Directed whole blood*	
	Number of collection procedures
Total whole blood*	
	Number of collection procedures

B2b. During 2021, how many **apheresis collections procedures**<sup>1</sup> (not components collected) were successfully completed by your institution in each of the following categories? Do not count low volume or incomplete procedures. (\*indicates a required field)

Apheresis red blood cells only*	
	Number of collection procedures
Apheresis platelets only*	
	Number of collection procedures
Apheresis plasma only*	
	Number of collection procedures
Apheresis red blood cells AND platelets*	
	Number of collection procedures
Apheresis red blood cells AND plasma*	

FACILITY NAME	NBCUS ID		
	Number of collection procedures		
Apheresis platelets AND plasma*			
	Number of collection procedures		
Apheresis red blood cells AND platelets AND			
plasma*	Number of collection procedures		
Total apheresis collection procedures (including all			
types of apheresis collections)*	Number of collection procedures		

<sup>1</sup>For example, an apheresis collection that resulted in platelet and plasma units should be counted as a single platelet collection OR a single plasma collection, not counted under both.

B2c. During 2021, from the **whole blood** collection procedures recorded in **B2a**, how many units of **whole blood for distribution as whole blood** were prepared by your institution in each of the following categories?

Allogeneic whole blood		
	Number of units prepared	
Autologous whole blood		
	Number of units prepared	
Directed whole blood		
	Number of units prepared	
Total whole blood		
	Number of units prepared	

B2d. During 2021, from the **whole blood** collection procedures recorded in **B2a**, how many **red blood cell units** were prepared (i.e., separated from a unit of whole blood) by your institution in each of the following categories (\* indicates a required field)?

Allogeneic whole blood-derived red blood cell units*	Number of units prepared
Autologous whole blood-derived red blood cell units*	Number of units prepared
Directed whole blood-derived red blood cell units*	Number of units prepared
Total whole blood-derived red blood cell units*	Number of units prepared

B2e. During 2021, from the **apheresis** collection procedures recorded in **B2b**, how many **red blood cell units** were collected by your institution in each of the following categories? (\*indicates a required field)

# FACILITY NAME \_\_\_\_\_\_\_ NBCUS ID \_\_\_\_\_\_\_ Allogeneic apheresis red blood cell units\* Number of units collected Autologous apheresis red blood cell units\* Number of units collected Directed apheresis red blood cell units\* Number of units collected Total apheresis red blood cell units\* Number of units collected Number of units collected Number of units collected

B2f. During 2021, from the **whole blood** collection procedures recorded in **B2a**, how many **individual platelet units** were prepared (i.e., separated from a unit of whole blood) by your institution?

Individual whole blood-derived platelet units<sup>1</sup>

Number of units prepared

<sup>1</sup>For example, if your institution pooled 5 individual platelet units per pool and manufactured 1000 pools of platelets, 5000 individual whole blood-derived platelet units should be recorded.

B2g. During 2021, from the **apheresis** collection procedures recorded in **B2b**, how many **platelet units** were collected by your institution in each of the following categories? (\* indicates a required field)?

Allogeneic apheresis platelet units	
	Number of units collected
Single	
	Number of units collected
Double <sup>1</sup>	
	Number of units collected
Triple <sup>1</sup>	
	Number of units collected
Directed apheresis platelet units	
	Number of units collected
Total apheresis platelet units*	
	Number of units collected

<sup>1</sup>Count double collections as two units and triple collections as three units.

B2h. During 2021, what was the average number of individual platelet units included per pre-storage pool of whole blood-derived platelets?

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Free text, numeric values only

B2i. During 2021, from the **apheresis** collection procedures recorded in **B2b**, how many **plasma units** were collected by your institution?

Number of units collected

B2j. During 2021, from the **whole blood** collection procedures recorded in **B2a**, how many **plasma units** were successfully prepared (i.e., separated from a unit of whole blood) by your institution?

Total whole blood-derived plasma units

Number of units prepared		

B2k. During 2021, how many units of **group AB plasma** were collected by your institution? (Count apheresis plus whole blood-derived units)

Group AB plasma

Ī	Numb	per of u	nits col	lected	

B2l. During 2021, how many units of **COVID-19 convalescent plasma** were collected by your institution? (Count apheresis plus whole blood-derived units)

COVID-19 convalescent plasma<sup>1</sup>

Number of units collected

<sup>1</sup>Convalescent plasma collected from individuals who have recovered from COVID-19.

B2m. During 2021, from the **whole blood** collection procedures recorded in **B2a**, how many individual **cryoprecipitated AHF units**<sup>1</sup> were successfully prepared by your institution? (\* indicates a required field)

Individual cryoprecipitated AHF units\*

Number of units prepared	Num	ber	of	units	prepared
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<sup>1</sup>For example, if your institution pooled 5 individual cryoprecipitated AHF units per pool and collected 1000 units, 5000 individual cryoprecipitated AHF units should be recorded. If your institution pooled 10 individual cryoprecipitated AHF units per pool and collected 1000 pools, 10,000 individual cryoprecipitated AHF units should be recorded.

B2n. During 2021, what was the average number of cryoprecipitated AHF units per whole blood-derived cryoprecipitated AHF pool?

Free text, numeric values only

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FACILITY NAME	NBCUS ID	
B2o. During 2021, how many <b>granulocytes</b> were <b>collected</b> b	y your institution?	
Granulocyte units	Number of units collected	
B3. During 2021, for each product, what was the total numb combined) <b>discarded</b> for: (*indicates a required field)	er of <b>allogeneic units</b> (non-directed and directed	
Reactive infectious disease testing results		
Whole blood donation <sup>1*</sup>	Number of units discarded	
Apheresis red blood cells*	Number of units discarded	
Apheresis plasma*	Number of units discarded	
Apheresis platelets*	Number of units discarded	
All other reasons (e.g., low volume, broken bag, etc.	) <b>not</b> including outdated components	
Whole blood donation <sup>1*</sup>	Number of units discarded	
Apheresis red blood cells*	Number of units discarded	
Apheresis plasma*	Number of units discarded	
Apheresis platelets*	Number of units discarded	

<sup>1</sup>If any or all components of a whole blood-derived collection are discarded, please record it as one unit. For example, if either an entire whole blood collection or both the plasma and the red blood cells prepared from a single whole blood collection are discarded, it is counted as one unit discarded. If the plasma from a whole blood donation was discarded (i.e., the red blood cells from same donation is successfully distributed), it is also counted as one unit discarded.

B4a. During 2021, how many people **presented to donate** including successful and unsuccessful donations, and those who deferred (\* indicates required field)?

Male

FACILITY NAME	NBCUS ID
	Number presenting to donate
Female	Number presenting to donate
Prefer other self-description <sup>1</sup>	
	Number presenting to donate
Total*	
	Number presenting to donate

<sup>1</sup>"Prefer other self-description" includes anyone who does not identify as male or female and should be included as part of the total donors presenting to donate.

B4b. Please list categories which may be classified under "prefer other self-description":



B5. During 2021, how many **donors** were **deferred** for the following reasons<sup>1</sup>:

Low hemoglobin or low hematocrit

Male

Female

Prefer other self-description<sup>2</sup>

Total

Medication use

Total

Number of donors deferred

Pulse

ACILITY NAME	NBCUS ID
Total	Number of donors deferred
Blood pressure	Number of donors deterred
Total	Number of donors deferred
High-risk behavior (restricted to MSM)	
Total	Number of donors deferred
High-risk behaviors (all other behaviors)	Number of donors defended
Total	Number of donors deferred
Travel and/or residence	
Total	Number of donors deferred
Tattoo/piercing/scarring	
Total	Number of donors deferred
Other non-medical reasons	
Total	Number of donors deferred
Total presenting donors deferred for any reason Male	
Male	Number of donors deferred
Female	Number of donors deferred
Prefer other self-description <sup>2</sup>	Number of donors deferred
Total	
	Number of donors deferred

<sup>1</sup>If donor was deferred for multiple reasons, count all.

<sup>2</sup>"Prefer other self-description" includes anyone who does not identify as male or female and should be included as part of the total donors presenting to donate.

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B6. During 2021, how many of the following types of **donors** did your institution successfully collect blood products from and how many **donations** did they make?

First-time allogeneic donors	
	Number of donors
Donations from first time allogeneic donors	
6	Number of donations
Repeat allogeneic donors (count a single repeat	
donor only once)	Number of donors
Donations from repeat allogeneic donors	
	Number of donations
Directed donors	
	Number of donors
Autologous donors	
	Number of donors

B7. During 2021, how many allogeneic whole blood and apheresis red blood cell donations combined were successfully collected from the following donor age groups?<sup>1</sup>

Donors aged 15 years	
	Number of donations
Donors aged 16 years	
	Number of donations
Donors aged 17 years	
	Number of donations
Donors aged 18 years	
	Number of donations
Donors aged 19-24 years	
	Number of donations
Donors aged 25-44 years	Number of donations
Donors aged 45-64 years	Number of donations
-	
Donors aged 65-74 years	Number of donations
Donors aged ≥75 years	Number of donations

<sup>1</sup>Combine whole blood donations and apheresis red blood cell donations.

<sup>1</sup> More

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B8. During 2021, how many **donations of allogeneic whole blood and red blood cell units** were successfully collected from donors who identify as<sup>1</sup>:

Hispanic or Latino	
	Number of donations
Black or African American	
	Number of donations
Asian	
	Number of donations
Native Hawaiian or Pacific Islander	
	Number of donations
American Indian or Alaska Native	
American inulari of Alaska Native	Number of donations
than one category can be selected for a single donor.	
ow many <b>severe donor-related adverse events</b> <sup>1</sup> w	were experienced by donors during 2021?
	were experienced by donors during 2021?
Whole blood collections	were experienced by donors during 2021?
Whole blood collections	were experienced by donors during 2021?
Whole blood collections	
Whole blood collections All donors	
Whole blood collections All donors Aged ≤18 years	Number of severe reactions
Whole blood collections All donors	Number of severe reactions
Whole blood collections All donors Aged ≤18 years Aged ≥19 years old	Number of severe reactions Number of severe reactions
Whole blood collections All donors Aged ≤18 years Aged ≥19 years old Apheresis collections	Number of severe reactions Number of severe reactions
Whole blood collections All donors Aged ≤18 years Aged ≥19 years old	Number of severe reactions         Number of severe reactions         Number of severe reactions
Whole blood collections All donors Aged ≤18 years Aged ≥19 years old Apheresis collections	Number of severe reactions Number of severe reactions
All donors Aged ≤18 years Aged ≥19 years old Apheresis collections	Number of severe reactions         Number of severe reactions         Number of severe reactions

Aged ≥19 years

Number of severe reactions

<sup>1</sup> AABB Donor Hemovigilance Working Group grade 2 or higher (e.g., adverse event with duration > 2 weeks; resulted in limitation in activities of daily living; or required transport to emergency department, sutures, or antibiotics). See https://www.aabb.org/docs/default-source/default-document-library/resources/severity-grading-tool-for-donor-adverse-events.pdf?sfvrsn=ff563263\_4.

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B10a. During 2021, how many units of **whole blood intended for transfusion as whole blood** were imported, distributed, and outdated by your institution? (\*indicates required fields)

Imported whole blood intended for transfusion as whole blood

Allogeneic	
	Number of units imported
Autologous	
	Number of units imported
Directed	Number of units imported
T-4-1*	
Total*	Number of units imported
Distributed whole blood intended for transfusion as	whole blood <sup>1</sup> (collected and imported)
Allogeneic	
Allogeneic	Number of units distributed
Autologous	
-	Number of units distributed
Directed	
	Number of units distributed
Total*	Number of units distributed
Outdated whole blood intended for transfusion as w	
Allogeneic	Number of units outdated
Autologous	Number of units outdated
Directed	
Directeu	Number of units outdated
Total*	
	Number of units outdated

<sup>1</sup>Units distributed more than once (e.g., because they have been returned) should be counted only once.

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B10b. During 2021, how many units of **whole blood-derived red blood cells** were imported, distributed, and outdated by your institution? (\*indicates a required field)

Imported whole blood-derived red blood cells

Allogeneic	
	Number of units imported
Allogeneic group O+	
	Number of units imported
Allogeneic group O-	
	Number of units imported
Autologous	
	Number of units imported
Directed	
	Number of units imported
Total*	
	Number of units imported

Distributed whole blood-derived red blood cells<sup>1</sup> (collected and imported)

Allogeneic

Allogeneic group O+

Allogeneic group O-

Autologous

Directed

Total\*

Number of units distributed

Outdated whole blood-derived red blood cells (collected and imported)

Allogeneic

Number of units outdated

Allogeneic group O+

Number of units outdated

Allogeneic group O-

FACILITY NAME	NBCUS ID	
	Number of units outdated	
Autologous	Number of units outdated	
Directed	Number of units outdated	ĺ
Total*	Number of units outdated	

<sup>1</sup>Units distributed more than once (e.g., because they have been returned) should be counted only once.

B10c. During 2021, how many units of apheresis red blood cells were imported, distributed, and outdated by your institution? (\* indicates required fields)

Imported apheresis red blood cells

Allogeneic

Allogeneic group O+

Allogeneic group O-

Autologous

Directed

Total\*

Number of units imported

Distributed apheresis red blood cells<sup>1</sup> (collected and imported)

Allogeneic

Allogeneic group O+

Number of units distributed

Number of units distributed

Allogeneic group O-

Autologous

Directed

Number of units distributed

Number of units distributed

Number of units distributed

Total\*

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Number of units distributed

Outdated apheresis red blood cells (collected and imported)

Allogeneic	
C C	Number of units outdated
Allogeneic group O+	
	Number of units outdated
Allogeneic group O-	
	Number of units outdated
Autologous	
	Number of units outdated
Directed	
	Number of units outdated
Total*	
	Number of units outdated

<sup>1</sup>Units distributed more than once (e.g., because they have been returned) should be counted only once.

B10d. During 2021, how many units of **apheresis platelets** were imported, distributed, and outdated by your institution? (\*indicates a required field)

Imported apharosis platalate	
Imported apheresis platelets	
Allogeneic	
Allogeneie	Number of units imported
Directed	
	Number of units imported
Total*	
	Number of units imported
Distributed apheresis platelets (including importe	ed units) <sup>1</sup> (collected and imported)
Allogeneic	
	Number of units distributed
Single collection	
Single collection	Number of units distributed
Double collection <sup>1</sup>	
	Number of units distributed
Triple collection <sup>1</sup>	

FACILITY NAME	NBCUS ID	
	Number of units distributed	
Directed		
	Number of units distributed	
Total*		
	Number of units distributed	
Outdated apheresis platelets (collected and in	nported)	
Allogeneic		
,	Number of units outdated	
Directed		
2.1.0000	Number of units outdated	
Total*		
	Number of units outdated	
310e. During 2021, how many units of <b>whole blood-d</b>		and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field)		and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets		and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field)	erived platelets were imported, distributed, a	and outd
810e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual*		and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets	erived platelets were imported, distributed, a	and outd
Individual*	erived platelets were imported, distributed, a	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup>	erived platelets were imported, distributed, a	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup> Distributed whole blood-derived platelets <sup>2</sup> (co	erived platelets were imported, distributed, a	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup> Distributed whole blood-derived platelets <sup>2</sup> (co	erived platelets were imported, distributed, a Number of units imported Number of pools imported Number of pools imported	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup> Distributed whole blood-derived platelets <sup>2</sup> (co Individual*	erived platelets were imported, distributed, a Number of units imported Number of pools imported Number of pools imported	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup> Distributed whole blood-derived platelets <sup>2</sup> (co Individual*	erived platelets were imported, distributed, a	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup> Distributed whole blood-derived platelets <sup>2</sup> (co Individual* Platelet pools <sup>1</sup>	erived platelets were imported, distributed, a	and outd
310e. During 2021, how many units of <b>whole blood-d</b> by your institution? (*indicates a required field) Imported whole blood-derived platelets Individual* Platelet pools <sup>1</sup> Distributed whole blood-derived platelets <sup>2</sup> (co Individual* Platelet pools <sup>1</sup> Outdated whole blood-derived platelets (colle	erived platelets were imported, distributed, a	and outd

<sup>1</sup>Number of platelet pools prepared from whole blood collections. Do not include the same platelet units in both the individual unit and platelet pool counts. For this question, individual units of whole blood-derived platelets and platelet pools are mutually exclusive. <sup>2</sup>Units distributed more than once (e.g., because they have been returned) should be counted only once.

Number of pools outdated

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B10f. During 2021, how many units of **apheresis plasma** were imported, distributed, and outdated by your institution? (\*indicates a required field)

Imported apheresis plasma	
Total*	
	Number of units imported
Distributed apheresis plasma <sup>1</sup> (collected and import	ed)
FFP <sup>2</sup>	
	Number of units distributed
PF24 <sup>3</sup>	
	Number of units distributed
PF24RT24 <sup>4</sup>	
	Number of units distributed
Liquid	
Liquid	Number of units distributed
Jumbo FFP (>400 mL) <sup>5</sup>	
Sumborri (2400 mL)	Number of units distributed
COVID-19 convalescent plasma <sup>6</sup>	
	Number of units distributed
Total*	Number of units distributed
Outdated apheresis plasma (collected and imported	)
Total*	, []
IULAI	

Number of units outdated

<sup>1</sup>Units distributed more than once (e.g., because they have been returned) should be counted only once.

<sup>2</sup>Fresh frozen plasma (FFP): plasma frozen at -18C or colder within 8 hours of collection.

<sup>3</sup>Plasma frozen within 24 hours of phlebotomy (PF24): plasma separated from the blood of an individual donor and placed at -18C or colder within 24 hours of collection from the donor.

<sup>4</sup>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 -18C or colder.

<sup>5</sup>Plasma, Jumbo: FFP having a volume greater than 400 mL.

<sup>6</sup>Convalescent plasma collected from individuals who have recovered from COVID-19, including units collected under the EUA, units collected and distributed for clinical trials and units disseminated under emergency Investigational New Drug (eIND) application.

Total*       Number of units imported         istributed whole blood-derived plasma <sup>1</sup> (collected and imported)       FFP <sup>2</sup> FFP <sup>2</sup> Number of units distributed         PF24 <sup>3</sup> Number of units distributed         Cryoprecipitate reduced       Number of units distributed         Liquid       Number of units distributed         PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed	mported whole blood-derived plasma	
istributed whole blood-derived plasma <sup>1</sup> (collected and imported) FFP <sup>2</sup> Number of units distributed PF24 <sup>3</sup> Number of units distributed Cryoprecipitate reduced Liquid Number of units distributed PF24RT24 Number of units distributed COVID-19 convalescent plasma Number of units distributed COVID-19 convalescent plasma Number of units distributed utdated whole blood-derived plasma (collected and imported) Total*	Total*	
FFP <sup>2</sup> Number of units distributed         PF24 <sup>3</sup> Number of units distributed         Cryoprecipitate reduced       Number of units distributed         Liquid       Number of units distributed         PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Total*		Number of units imported
PF24 <sup>3</sup> Number of units distributed         Cryoprecipitate reduced       Number of units distributed         Liquid       Number of units distributed         PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Total*	Distributed whole blood-derived plasma <sup>1</sup> (collec	cted and imported)
PF24 <sup>3</sup> Number of units distributed         Cryoprecipitate reduced       Number of units distributed         Liquid       Number of units distributed         PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Total*	FFP <sup>2</sup>	
Number of units distributed         Cryoprecipitate reduced         Liquid         Liquid         PF24RT24         COVID-19 convalescent plasma         Number of units distributed         COVID-19 convalescent plasma         Number of units distributed         Total*         utdated whole blood-derived plasma (collected and imported)         Total*		Number of units distributed
Cryoprecipitate reduced       Number of units distributed         Liquid       Number of units distributed         PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Total*	PF24 <sup>3</sup>	
Liquid       Number of units distributed         PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Total*		Number of units distributed
Liquid Number of units distributed PF24RT24 Number of units distributed COVID-19 convalescent plasma COVID-19 convalescent plasma Total* Number of units distributed utdated whole blood-derived plasma (collected and imported) Total* [	Cryoprecipitate reduced	
PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Number of units distributed         Total*       Imported		Number of units distributed
PF24RT24       Number of units distributed         COVID-19 convalescent plasma       Number of units distributed         Total*       Number of units distributed         utdated whole blood-derived plasma (collected and imported)       Number of units distributed         Total*	Liquid	
Number of units distributed         COVID-19 convalescent plasma         Number of units distributed         Total*         Number of units distributed         Number of units distributed         Image: Number of units distributed         Total*         Number of units distributed         Image: Number of units distributed		Number of units distributed
COVID-19 convalescent plasma Number of units distributed Total* Number of units distributed utdated whole blood-derived plasma (collected and imported) Total*	PF24RT24	
Total*  Total*  Invince of units distributed  Number of units distributed  Number of units distributed  Number of units distributed  Total*  Invince of units distributed  Invince of units distributed  Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units d		Number of units distributed
Total*  Total*  Invince of units distributed  Number of units distributed  Number of units distributed  Number of units distributed  Total*  Invince of units distributed  Invince of units distributed  Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units distributed Invince of units d	COVID-19 convalescent plasma	
Number of units distributed         utdated whole blood-derived plasma (collected and imported)         Total*		Number of units distributed
Number of units distributed         utdated whole blood-derived plasma (collected and imported)         Total*	Total*	
Total*	iotai	Number of units distributed
Total*		
	Outdated whole blood-derived plasma (collecte	d and imported)
	Total*	
		Number of units outdated

NBCUS ID \_\_\_\_\_

2021 HHS National Blood Collection and Utilization Survey (NBCUS)

FACILITY NAME \_\_\_\_\_

B10h. During 2021, how many units of group AB plasma were distributed and outdated by your institution? (collected and imported)

Units distributed<sup>1</sup>

Number of units

FACILITY NAME	NBCUS ID
Units outdated <sup>1</sup> Units distributed more than once (e.g., because they have been returned) should	Number of units d be counted only once.
B10i. During 2021, how many units of <b>cryoprecipitated AH</b> institution? (*indicates a required field)	F were imported, distributed, and outdated by your
Imported cryoprecipitated AHF <sup>1</sup>	
Individual units*	Number of units imported
Cryoprecipitated AHF pools <sup>1</sup>	Number of pools imported
Distributed cryoprecipitated AHF <sup>2</sup> (collected and in	nported)
Individual units*	Number of units distributed
Cryoprecipitated AHF pools <sup>1</sup>	Number of pools distributed
Outdated cryoprecipitated AHF (collected and impo	orted)
Individual units*	Number of units outdated
Cryoprecipitated AHF pools <sup>1</sup>	Number of pools outdated
<sup>1</sup> Number of cryoprecipitated AHF pools prepared from whole blood collections. E unit and cryoprecipitated AHF pool counts. For this question, individual units of c exclusive. <sup>2</sup> Units distributed more than once (e.g., because they have been returned) shoul	ryoprecipitated AHF and cryoprecipitated AHF pools are mutually
B10j. During 2021, how many units of <b>granulocytes</b> were in institution? (*indicates a required field)	nported, distributed, and outdated by your
Imported granulocyte units*	Number of units imported
Distributed granulocyte units <sup>1*</sup> (collected and imported)	Number of units distributed
Outdated granulocyte units <sup>*</sup> (collected and imported)	Number of units outdated

<sup>1</sup> Units distributed more than once (e.g., because they have been returned) should be counted only once.

2021 HHS National Blood Collection and Utilization Survey (N	BCUS)
--------------------------------------------------------------	-------

NBCUS ID

B11a. During 2021, did your institution prepare apheresis platelets using platelet additive solution?

- 0 Yes
- 0 No (if 'No', skip to B12)

B11b. During 2021, how many apheresis platelet units were prepared using platelet additive solution?

B12. During 2021, for each of the following categories, how many units did your institution collect, prepare, or modify to achieve **pre-storage leukoreduction**?

Whole blood units

Whole blood-derived RBC units

Apheresis RBC units

Whole blood-derived platelet units

Number of units leukoreduced

Free text, numeric values only

Number of units leukoreduced

Number of units leukoreduced

Number of units leukoreduced

B13. Does your facility use hematopoietic growth factor mobilization for granulocyte collections?

- 0 Yes
- 0 No
- 0 Not applicable because granulocytes are not collected

B14a. Does your institution type red blood cell antigens using a molecular assay (e.g., genotyping)?

- 0 Yes
- 0 No (if No, skip to B15)

B14b. How many red blood cell donors were typed using a molecular assay (e.g., genotyping)?

Number of donors

B15a. During 2021, which of the following bacterial risk control strategies for platelets did your institution use? (select all that apply; if none are selected, skip to B16)

- □ Primary culture performed no sooner than 24 hours
- □ Large volume, delayed sampling no sooner than 36 hours
- □ Large volume, delayed sampling no sooner than 48 hours
- Pathogen reduction technology

FACILITY NAME \_\_\_\_\_

NBCUS ID \_\_\_\_\_

B15b. During 2021, how many apheresis platelet units were distributed that were subjected to the following bacterial risk control strategies for platelets?

	Primary culture performed no sooner than 24 hours	Number of units distributed
	Large volume, delayed sampling no sooner than 36 hours	Number of units distributed
	Large volume, delayed sampling no sooner than 48 hours	Number of units distributed
	Pathogen reduction technology	Number of units distributed
B16. During 2021	, how many blood drives were cancelle	ed?
		Number of blood drives

B17. During 2021, did your facility experience a shortage of any blood products?

- 0 Yes
- 0 No

Note: The following questions were added specifically to gain information on the impact of COVID-19 on the blood supply in **2020**.

Supplemental Section B: Impact of COVID-19 Pandemic on Blood Collection and Distribution in 2020

SB1. During each month in 2020, how many **whole blood collection procedures** were successfully completed by your institution? Do not count low-volume or incomplete procedures.

January			
<b>F</b> alamanan i		Г	Number of collection procedures
February	•	L	Number of collection procedures
			Number of collection procedures
March			
		L	Number of collection procedures
April			
		L	Number of collection procedures
May		Γ	

### FACILITY NAME \_\_\_\_\_ NBCUS ID \_\_\_\_\_ Number of collection procedures June Number of collection procedures July Number of collection procedures August Number of collection procedures September Number of collection procedures October Number of collection procedures November Number of collection procedures December Number of collection procedures

SB2. During each month in 2020, how many units of apheresis platelets were distributed by your institution?

January	
	Number of units distributed
February	
	Number of units distributed
March	
	Number of units distributed
April	
	Number of units distributed
May	
	Number of units distributed
June	
	Number of units distributed
July	
×	Number of units distributed
August	
	Number of units distributed
September	
	Number of units distributed

### FACILITY NAME \_\_\_\_\_

October

November

December

### NBCUS ID \_\_\_\_\_

Number of units distributed

Number of units distributed

Number of units distributed

SB3. During 2020, did your institution collect convalescent plasma from donors?

- 0 Yes
- 0 No (if 'No', end of section supplemental section B)

SB4. During all months of 2020, how many **COVID-19 convalescent plasma collection units** were collected by your institution? Do not count low-volume or incomplete procedures. (\*indicates a required field)

COVID-19 convalescent plasma<sup>1</sup>

Number	of u	nits	

<sup>1</sup>Convalescent plasma collected from individuals who have recovered from COVID-19

2021 HHS National Blood Collection and	d Utilization Survey (NBCUS)
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NBCUS ID \_\_\_\_\_

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	
The Position	
Work Phone number	
Work Email	

C1. Is your institution directly involved in the transfusion of blood to patients? (NOTE: If your institution is a centralized transfusion service, your participating facilities may have been sent a link to complete the survey. If so, please answer "No" to this question and contact CDC at <a href="mailto:nbcus@cdc.gov">nbcus@cdc.gov</a>.)

0 Yes

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

NBCUS ID \_\_\_\_\_

C2a. During 2021, did your facility transfuse **whole blood**? (i.e., whole blood that has not been separated into red blood cells, plasma, and/or platelets)?\* (indicates a required question)

- 0 Yes
- 0 No (if 'No', skip to C3a)

C2b. During 2021, for **allogeneic whole blood** (i.e. that has not been separated into red blood cell, plasma, and/or platelets), how many units did your institution transfuse, how many recipients were transfused, and how many units were outdated? (\* indicates required fields)

Allogeneic whole blood	
Total units transfused*	Number of units transfused
Total number of recipients	
Total outdated units*	Number of recipients
	Number of units outdated

C3a. During 2021, for **allogeneic red blood cells**, how many units did your institution transfuse, how many recipients were transfused, and how many units were outdated? (\* indicates required fields)

Allogeneic red blood cells (include all blood groups)

Total units transfused*	
	Number of units transfused
Total number of recipients	
	Number of recipients
Total outdated units*	
	Number of units outdated

C3b. During 2021, for **group O+ and O- allogenic red blood cells**, how many units did your institution transfuse and how many units were outdated?

Allogeneic Group O+ red blood cells

Total units transfused

Total outdated units

Number of units transfused

Number of units outdated

FACILITY NAME	NBCUS ID	
Allogeneic Group O- red blood cells		
Total units transfused	Number of units transfused	
Total outdated units	Number of units outdated	

C4. During 2021, for **directed and autologous allogenic whole blood and red blood cells**, how many units did your institution transfuse, how many recipients were transfused, and how many units were outdated? (\* indicates a required field)

Directed whole blood units<sup>1</sup> Number of units transfused to intended Number of units transfused recipient\* Number of recipients Number of recipients Outdated units\* Number of units outdated Directed red blood cell units<sup>1</sup> Number of units transfused to intended recipient\* Number of units transfused Number of recipients Number of recipients Outdated units\* Number of units outdated Autologous whole blood units Number of units transfused to intended recipient\* Number of units transfused Number of recipients Number of recipients Outdated units\* Number of units outdated Autologous red blood cell units Number of units transfused to intended

Number of units transfused to intended recipient\*

Number of units transfused

### 

Outdated units\*

		e		1 A A
Num	her o	funite	s outr	later

<sup>1</sup>Directed units are those which have been donated by a family member or friend of the patient as a result of a patient request to be transfused with blood from a specific donor.

C5a. During 2021, how many units of each of the following components did your institution **transfuse** and how many units were **outdated** while on your shelf including units transfused to pediatric patients? (\* indicates required fields)

Transfusions	
Whole blood-derived platelets (pre-storage pooled and individual platelet concentrates expressed as pooled equivalents) <sup>1*</sup>	Number of units transfused
Apheresis platelet units <sup>2</sup> *	Number of units transfused
Directed platelets to intended recipients <sup>3</sup>	Number of units transfused
Outdates	
Whole blood-derived platelets (pre-storage pooled and individual platelet concentrates expressed as pooled equivalents) <sup>4</sup> *	Number of units outdated
Apheresis platelet units (full unit) <sup>5</sup> *	Number of units outdated
Directed platelets to intended recipients <sup>3</sup>	Number of units outdated

<sup>1</sup>Number of whole blood-derived platelet pools transfused. If any individual units of whole blood-derived platelets were transfused, convert these to a pooled equivalent. For example, if 200 platelet pools and 100 individual whole blood-derived platelet units were transfused and 5 individual platelet units are included per pool, then 220 units (200 + [100/5]) should be recorded.

<sup>2</sup>The number of apheresis platelet units transfused. In contrast to units of whole blood-derived platelets, no conversion calculation is needed. <sup>3</sup>Directed units are those which have been donated by a family member or friend of the patient as a result of a patient request to be transfused with blood from a specific donor.

<sup>4</sup>Number of whole blood-derived platelet pools outdated. If any individual units of whole blood-derived platelets were outdated, convert these to a pooled equivalent. For example, if 200 platelet pools and 100 individual whole blood-derived platelet units were outdated and 5 individual platelet units are included per pool, then 220 units (200 + [100/5]) should be recorded.

<sup>5</sup>The number of apheresis platelet units outdated. In contrast to units of whole blood-derived platelets, no conversion calculation is needed.

NBCUS ID \_\_\_\_\_

C5b. During 2021, how many units of plasma did your institution **transfuse** and how many units were **outdated** while on your shelf including units transfused to pediatric patients? (\* indicates required fields) Transfusions

Total Plasma\*

Number of units transfused

Outdates

Total Plasma\*

Number of units outdated

C5c. Among plasma units included in the response to question C5b, during 2021, how many units of each of the following components did your institution **transfuse** and how many units were **outdated** while on your shelf including units transfused to pediatric patients?

Transfusions	
Thawed plasma <sup>1</sup> (i.e., used within 1-5 days of thaw)	Number of units transfused
Liquid plasma (i.e., never frozen)	
	Number of units transfused
Group AB plasma	
	Number of units transfused
COVID-19 convalescent plasma	
	Number of units transfused
Outdates	
Thawed plasma <sup>1</sup> (i.e., used within 1-5 days of	
thaw)	Number of units outdated
Liquid plasma (i.e., never frozen)	
	Number of units outdated
Group AB plasma	Number of units outdated
	Number of units outdated
COVID-19 convalescent plasma	Number of units outdated

<sup>1</sup>Thawed plasma: FFP, PF24, or PF24RT24 that has been thawed and held at 1 to 6 C for 1 to up to 5 days after thawing.

C5d. During 2021, how many units of each of the following components did your institution **transfuse** and how many units were **outdated** while on your shelf including units transfused to pediatric patients? (\* indicates required fields)

Transfusions

### 

<sup>1</sup>Number of individual cryoprecipitated AHF units transfused. Please convert pools of cryoprecipitated AHF to individual units. For example, if 200 pools of cryoprecipitated AHF were transfused and 5 individual units were included per pool, please record 1000 units (200 pools \* 5 units/pool).

C6a. During 2021, did your facility transfuse blood to pediatric or neonatal patients? (Select all that apply)

□ Yes, pediatric (>4 months old)

- □ Yes, neonatal (<=4 months old)
- □ No (skip to C9a)

C6b. Indicate the total number of units transfused to pediatric and neonatal patients during 2021.

### **Pediatric Transfusions**

Number of units in whole or in part transfused for pediatric (>4 months old) patients<sup>1</sup>

Whole blood

Red blood cells

Plasma

Apheresis platelets

Whole blood-derived platelets

Cryoprecipitated AHF

Number of units transfused

nal Dia od Collectic nd Utilization Surv 

ACILITY NAME	NBCUS ID
Total number of pediatric (>4 months old) reci	pients that received the following blood comp
Whole blood	Number of recipients
Red blood cells	Number of recipients
Plasma	Number of recipients
Apheresis platelets	
Whole blood-derived platelets	Number of recipients
Cryoprecipitated AHF	Number of recipients Number of recipients
Neonatal Transfusions	Number of recipients
Number of units in whole or in part transfused	for neonatal (≤4months old) patients <sup>1</sup>
Whole blood	Number of units transfused
Red blood cells	Number of units transfused
Plasma	Number of units transfused
Apheresis platelets	
Whole blood-derived platelets	Number of units transfused
Cryoprecipitated AHF	Number of units transfused
	Number of units transfused

Total number of neonatal (≤4months old) recipients that received the following blood components

Whole blood	
	Number of recipients
Red blood cells	
	Number of recipients
Plasma	
	Number of recipients

FACILITY NAME	NBCUS ID	
Apheresis platelets		
	Number of recipients	
Whole blood-derived platelets		
	Number of recipients	
Cryoprecipitated AHF		
	Number of recipients	

<sup>1</sup>This should be a subset of data reported in the previous two questions. Pediatric aliquots should be recorded in standard unit equivalents. For example, if the standard red blood cell unit volume is 500mL and the volume of pediatric aliquots are 50mL (10 pediatric aliquots per standard unit), then record 150 pediatric aliquot transfusions as 15 units.

C6c. For neonatal patients, which of the following do you use for aliquots? (check all that apply)

	Aliquots using	syringes	from	full-size	unit
--	----------------	----------	------	-----------	------

□ Pedipacks

C6d. For **neonatal** patients, does your facility attempt to use aliquots from the same full-size unit for every transfusion?

- 0 Yes
- 0 No

C7a. Which of the following methods does your facility use to irradiate components? (check all that apply)

- □ Cesium
- □ X-Ray
- □ Unknown, irradiation performed by another facility

C7b. Indicate how many **irradiated** (by any method) units for each of the following components your institution transfused in 2021. For pediatrics, use the number of adult equivalent units used in whole or part.<sup>1</sup> For components that are irradiated and leukoreduced, include these in the count for both entries.

Whole blood units	
Whole blood units	Number of units irradiated
Red blood cell units	
	Number of units irradiated
Apheresis platelet units	
	Number of units irradiated
Whole blood-derived platelet units	
	Number of units irradiated

<sup>1</sup>Pediatric aliquots should be recorded in standard unit equivalents. For example, if the standard red blood cell unit volume is 500mL and the volume of pediatric aliquots are 50mL (10 pediatric aliquots per standard unit), then record 150 pediatric aliquot transfusions as 15 units. If only part of a standard unit is used and the rest is discarded, please record it as 1 standard unit.

NBCUS ID \_\_\_\_\_

C7c. Indicate how many **leukoreduced** units for each of the following components your institution transfused during 2021. For pediatrics, use the number of adult equivalent units used in whole or part.<sup>1</sup> For components that are irradiated and leukoreduced, include these in the count for both entries.

Before Storage	
Whole blood units	Number of units leukoreduced
Red blood cell units	
	Number of units leukoreduced
Whole blood-derived platelet units	
	Number of units leukoreduced
After Storage (including at the bedside)	
Whole blood units	
	Number of units leukoreduced
Red blood cell units	
	Number of units leukoreduced
Whole blood-derived platelet units	
	Number of units leukoreduced

<sup>1</sup>Pediatric aliquots should be recorded in standard unit equivalents. For example, if the standard red blood cell unit volume is 500mL and the volume of pediatric aliquots are 50mL (10 pediatric aliquots per standard unit), then record 150 pediatric aliquot transfusions as 15 units. If only part of a standard unit is used and the rest is discarded, please record it as 1 standard unit.

C8a. During 2021, among transfused red blood cells, how many units were...

1-35 day(s) old	
	Number of RBC units transfused
36-42 days old	
	Number of RBC units transfused
C8b. During 2021, among transfused whole bl	ood-derived platelets, how many units were
1-3 day(s) old	
	Number of WBD PLT units transfused
	Number of WED PET units transfused

Number of WBD PLT units transfused

C8c. During 2021, among transfused apheresis platelets, how many units were...

FACILITY NAME	NBCUS ID
1-3 day(s) old	
	Number of apheresis PLT units transfused
4-5 days old	
	Number of apheresis PLT units transfused
6-7 days old	
	Number of apheresis PLT units transfused

C9. If your facility pools whole blood-derived platelets, during 2021 at your institution, on average, how many individual platelet units were included in a post-storage **pooled whole blood-derived platelet dose**?

Num	ber o	of individ	ual un	its in	a poo	I	

O Not applicable

C10a. Indicate the number of **red blood cell** units that were transfused in the following inpatient and outpatient settings during 2021. (*This can be determined by location or by physician use.*)

All surgery (including transplant)	
	Number of RBC units transfused
Inpatient medicine (including	
hematology/oncology)	Number of RBC units transfused
Emergency Department	
	Number of RBC units transfused
Obstetrics/Gynecology	
	Number of RBC units transfused
Pediatrics, including critical care	
	Number of RBC units transfused
Neonates, including critical care	
	Number of RBC units transfused
Adult critical care	
× ·	Number of RBC units transfused
Outpatient and non-acute inpatient settings <sup>1</sup>	
	Number of RBC units transfused

<sup>1</sup>E.g., outpatient dialysis, rehabilitation, hospice, long term care, etc.

C10b. Indicate the number of **platelet** units that were transfused in the following inpatient and outpatient settings during 2021. (This can be determined by location or by physician use.) If whole blood-derived platelets were transfused, please convert them to pooled equivalent units.<sup>1</sup>

### FACILITY NAME \_\_\_\_\_

### NBCUS ID \_\_\_\_\_

All surgery (including transplant)	
	Number of PLT units transfused
Inpatient medicine (including	
hematology/oncology)	Number of PLT units transfused
Emergency Department	
	Number of PLT units transfused
Obstetrics/Gynecology	
	Number of PLT units transfused
Pediatrics, including critical care	
	Number of PLT units transfused
Neonates, including critical care	
	Number of PLT units transfused
Adult critical care	
	Number of PLT units transfused
Outpatient and non-acute inpatient settings <sup>2</sup>	
	Number of PLT units transfused

<sup>1</sup> If any individual units of whole blood-derived platelets were transfused, convert these to a pooled equivalent. For example, if 200 platelet pools and 100 individual whole blood-derived platelet units were transfused and 5 individual platelet units are included per pool, then 220 units (200 + [100/5]) should be recorded.

<sup>2</sup>E.g., outpatient dialysis, rehabilitation, hospice, long term care, etc.

C11. During 2021, did your institution routinely order **plasma** transfusions to non-pediatric patients based on:

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

C12a. During 2021, did your institution routinely order **prophylactic platelet** transfusions to non-pediatric patients based on:

- 0 A standard number of units regardless of patient weight (e.g., 4 or 6 units)
- 0 Dosage varies based on level of thrombocytopenia or degree of bleeding
- 0 Number of units ordered is not consistent with either of the above

C12b. During 2021, did your institution routinely order **therapeutic platelet** transfusions to non-pediatric patients based on:

- 0 A standard number of units regardless of patient weight (e.g., 4 or 6 units)
- 0 Dosage varies based on level of thrombocytopenia or degree of bleeding
- 0 Number of units ordered is not consistent with either of the above

### FACILITY NAME \_\_\_\_\_

NBCUS ID \_\_\_\_\_

C13. During 2021, what was the average whole dollar amount your institution paid per unit 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 parenthesis.)

Pad calls laukaradusad (PO014)	
Red cells, leukoreduced (P9016)	\$
	Dollar amount paid per unit
	Not applicable
Apheresis platelets, leukoreduced (P9035)	\$
	Dollar amount paid per unit
	Not applicable
Pathogen-reduced apheresis platelets (9073)	
·	\$
	Dollar amount paid per unit
	Not applicable
Plasma, single donor, frozen within 8 hours of phlebotomy (P9017)	\$
	Dollar amount paid per unit
	Not applicable
Plasma, frozen between 8 and 24 hours of phlebotomy (P9059)	\$
	Dollar amount paid per unit
	Not applicable
Cryoprecipitated AHF (P9012)	·
Cryoprecipitated AHF (P9012)	\$
	Dollar amount paid per unit

C14. During 2021, c

- 0 Yes
- 0 No

C15. During 2021, did your institution have a policy to only transfuse irradiated components?

- 0 Yes
- 0 No

C16. During 2021, did your institution have an established program to manage patients who refuse any or all blood components for religious, cultural, or personal reasons?

0 Yes

FACIL	ΙΤΥ	ΝΔΝ	1F	
				_

NBCUS ID \_\_\_\_\_

Number of TSOs

0 No

C17a. During 2021, did your institution have a transfusion safety officer (TSO)?

- 0 Yes
- 0 No
  - (if no, skip to C18)

C17b. If yes, how many full-time equivalent TSOs? (Consider two part-time employees as a single full-time equivalent)

C17c. Is the TSO employed by your institution or by the blood center?

- □ Institution employee
- □ Blood center employee

C18. During 2021 at your institution, how many whole blood/red blood cell crossmatch procedures were...

Performed by any method	
	Number of crossmatch procedures
Electronic crossmatch	
	Number of crossmatch procedures
Manual serologic crossmatch	
	Number of crossmatch procedures
Automatic serologic crossmatch	
	Number of crossmatch procedures

C19a. Has your institution implemented typing of red blood cell antigens using a molecular assay (e.g., genotyping)?

- 0 Yes
- 0 No (if No, skip to C20)

C19b. How many **red blood cell units** from donors who were **genotyped** (e.g., using a molecular assay) were transfused by your institution in 2021?

Number of units	

C20. How many samples (patient specimens submitted for testing) did your institution receive at the blood bank during 2021?

Number of samples

### FACILITY NAME \_\_\_\_\_

C21. Does your institution have an electronic system for tracking transfusion-related adverse events?

- 0 Yes
- 0 No

C22a. Did your institution collect data on sample collection errors (e.g., wrong blood in tube) during 2021?

- 0 Yes
- 0 No (if no, skip to C23)

C22b. How many transfusion sample collection errors were reported during 2021?

C23. How many transfusion-related adverse reactions were reported to the transfusion service in 2021? (Count only the number of reactions that required any diagnostic or therapeutic intervention.)

**Total reactions** 

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

 $\label{eq:life-threatening} \mbox{ (required major medical intervention $^1$ following transfusion) }$ 

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

Number of reactions

Number of errors

NBCUS ID

Number of reactions

FACILITY NAME	NBCUS ID
	Number of reactions
Post-transfusion purpura	
	Number of reactions
Transfusion-associated dyspnea	
	Number of reactions
Transfusion-associated graft-vs-host disease	
	Number of reactions
Transfusion transmitted bacterial infection	Number of reactions
Transfusion transmitted parasitic infection	Number of reactions
Transfusion transmitted viral infection	
	Number of reactions
Mild to moderate allergic reaction	
-	Number of reactions
Severe allergic reaction	
	Number of reactions
Examples include vasopressors, blood pressure support, intubation, or tran	sfer to the ICU

C24. During 2021, which of the following bacterial risk control strategies were used for platelets by the blood collection facility for platelets transfused at your facility?

- □ Primary culture performed no sooner than 24 hours
- □ Large volume, delayed sampling no sooner than 36 hours without secondary
- □ Large volume, delayed sampling no sooner than 48 hours
- □ Pathogen reduction technology
- □ Unknown

C25a. Does your institution perform any kind of pre-transfusion bacterial testing on platelets? This does not include testing performed by the blood collection facility.

- 0 Yes
- 0 No (if no, skip to C26)

C25b. Indicate what methods are used by your institution to test for bacterial contamination.

Secondary Secondary Rapid test <sup>1</sup> Not tested Not applicable		Secondary		Γαρία τερί		Not applicable
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### FACILITY NAME \_\_\_\_\_

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	culture performed no sooner than Day 3	culture performed no sooner than Day 4		
Apheresis platelets				
WBD platelets, single				
WBD platelets, pooled				

<sup>1</sup>Footnote: FDA cleared rapid tests include PGD Verax and Immunetics BacTx.

C25c. How many confirmed positives and false positives were detected by the following methods during 2021?

### Secondary culture performed no sooner than Day 3

Number tested

Number of confirmed positives

Number of false positives

Number of indeterminate results

Not applicable

### Secondary culture performed no sooner than Day 4

Number tested

Number of confirmed positives

Number of false positives

Number of indeterminate results

Not applicable

Number of confirmed positive

Number tested

Number of false positives

Number of intermediate results

Number tested

Number of confirmed positive

Number of false positives

Number of intermediate results

## 

C26a. During 2021, did your institution transfuse platelets treated with pathogen reduction technology (PRT)?

- 0 Yes
- 0 No (if no, skip to end of section C)

C26b. During 2021, how many PRT-treated apheresis platelet units were transfused?

Note: The following questions were added specifically to gain information on the impact of COVID-19 on blood utilization in **2020**.

Number of units

Supplemental Section C: Impact of COVID-19 Pandemic on Blood Transfusion in 2020

SC1. During each month in 2020, how many units of allogeneic red blood cells did your institution transfuse?

January	
	Number of units transfused
February	
	Number of units transfused
March	
	Number of units transfused
April	
	Number of units transfused
May	
	Number of units transfused

FACILITY NAME	NBCUS ID		
June			
Surre	Number of units transfused		
July			
	Number of units transfused		
August			
	Number of units transfused		
September	Number of units transfused		
	Number of units transfused		
October	Number of units transfused		
Maximula au			
November	Number of units transfused		
December			
December	Number of units transfused		

SC2. During each month in 2020, how many units of **apheresis platelets** did your institution transfuse?

January	
	Number of units transfused
February	
	Number of units transfused
March	
	Number of units transfused
April	
	Number of units transfused
May	
	Number of units transfused
June	
	Number of units transfused
July	
	Number of units transfused
August	
	Number of units transfused
September	
	Number of units transfused
October	

### FACILITY NAME \_\_\_\_\_

November

December

### NBCUS ID \_\_\_\_\_

Number of units transfused

Number of units transfused

Number of units transfused

<sup>1</sup>Exclude whole blood derived platelets from the number of units transfused.

### **Survey Glossary**

**Apheresis collection procedure:** One apheresis collection procedure is one apheresis donation from which multiple units of a single blood products or multiple products can be produced.

Autologous: Self-directed donations.

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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:** Directed units are those which have been donated by a family member or friend of the patient as a result of a patient request to be transfused with blood from a specific donor.

**Distributed:** Units that have fulfilled all processing requirements and have been made available for transfer to customers.

**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.

**High-risk behaviors:** Behaviors associated with an increased risk of bloodborne viral infection (e.g. nonmedical intravenous drug use, incarceration, high-risk sexual contact

**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, leuko-filtration, or production of aliquots of lesser volume).

MSM: Men who have sex with men.

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 at -18 degrees C within 8 hours of collection.
- c) Plasma, Jumbo: FFP having a volume greater than 400 mL.

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- 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.
- e) **Thawed plasma:** FFP, PF24, or PF24RT24 that has been thawed and held at 1 to 6 C from 1 to up to 5 days after thawing.

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

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.<sup>1</sup>

**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 <u>http://www.cdc.gov/nhsn/PDFs/Biovigilance/BV-HV-protocol-current.pdf</u>.

**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.

**Whole blood collection procedure**: One whole blood collection procedure is one donation of whole blood from which red blood cells, plasma, platelets, and cryoprecipitate can be prepared.

<sup>1</sup>AABB Donor Hemovigilance Working Group grade 2 or higher (e.g., adverse event with duration > 2 weeks; resulted in limitation in activities of daily living; or required transport to emergency department, sutures, or antibiotics). See https://www.aabb.org/docs/default-source/default-document-library/ resources/severity-grading-tool-for-donor-adverse-events.pdf?sfvrsn=ff563263\_4.