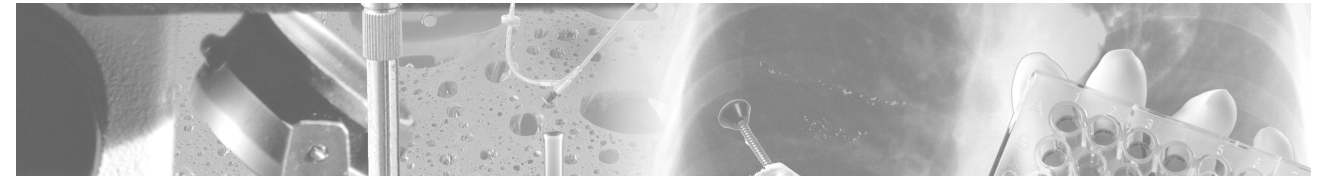


**NATIONAL BLOOD SYSTEMS
IN THE CARIBBEAN AND
LATIN AMERICAN
COUNTRIES:
BASIC INDICATORS OF THEIR
STATUS IN 2004**

**Technology and Health Services
Delivery Area**

**Essential Medicines, Vaccines
and Health Technologies**





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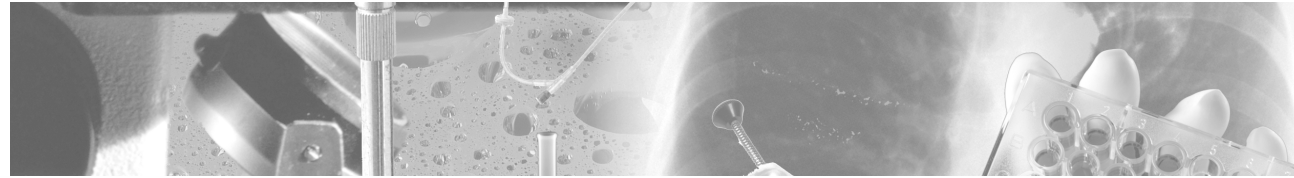
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TABLE OF CONTENTS

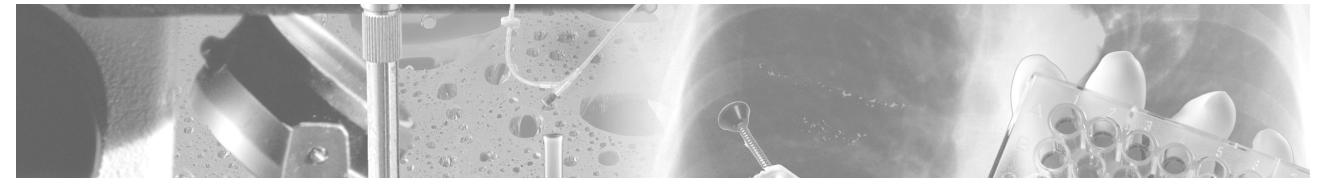
INTRODUCTION	1
SUMMARY	3

CARIBBEAN COUNTRIES

BLOOD COLLECTION	5
COVERAGE (%) OF SCREENING FOR INFECTIOUS MARKERS	5
UNITS (N) NOT TESTED FOR INFECTIOUS MARKERS	6
PROPORTION (%) OF UNITS REACTIVE/POSITIVE FOR INFECTIOUS MARKERS	6
BLOOD COMPONENTS	7
BLOOD SYSTEM ORGANIZATION	7

LATIN AMERICAN COUNTRIES

BLOOD COLLECTION	11
COVERAGE (%) OF SCREENING FOR INFECTIOUS MARKERS	11
UNITS (N) NOT TESTED FOR INFECTIOUS MARKERS	11
PROPORTION (%) OF UNITS REACTIVE/POSITIVE FOR INFECTIOUS MARKERS	12
BLOOD COMPONENTS	13
BLOOD SYSTEM ORGANIZATION	13
DIRECTORY OF NATIONAL CONTACTS	16
ANNEX	22



INTRODUCTION

The present document summarizes the status of the national blood systems in the Caribbean and Latin American countries in 2004. The data were collected by the National Blood Programs using a structured standardized form, and submitted to the Pan American Health Organization (PAHO) as part of the Regional Blood Safety Initiative approved by the Ministries of Health of the Region of the Americas in 1999. The Regional Plan (Annex) tasked PAHO to monitor the progress of the national blood programs in the pursuit of four expected results:

1. 100% coverage of screening of blood units for HIV, HBV, HCV and syphilis in the Region, and 100% coverage of screening for Chagas' disease in continental Latin America by the end of 2001.
2. 100% of blood banks that screen blood for transfusion will participate in programs of external evaluation of performance of serological tests for HIV, HBV, HCV, syphilis, and Chagas' disease by the end of 2001.
3. By the end of 2001, at least 50% of blood donors in each country of the Region will be voluntary, altruistic and non-remunerated.
4. By the end of 2001, high-risk groups for transfusion transmitted infections will be identified and monitored for evidence of HCV infection.

In this document information on the number of blood banks, number and type of donors, percentage of units screened for HIV, HBV, HCV, syphilis, *T. cruzi* and, in the Caribbean countries, HTLV I-II, and the percentage of positive markers of infection are presented by country. Countries with all their blood banks participating in programs of external evaluation of performance are listed in the summary. Additionally, information on blood units separated into its components, and number of units not screened are also given. The last section of the document provides a brief description of each country' national blood system, and a list of personnel responsible for submitting the information.

Activities to identify and monitor HCV high-risk groups were not undertaken by the National Blood Programs, but by research groups from Argentina, Brazil, Colombia, Cuba, Honduras, Mexico, Nicaragua, Peru and Uruguay that participated in a multi-center study designed by PAHO. The results of work carried out in Argentina, Brazil, Colombia, Cuba, Honduras, Peru and Uruguay were published as full length articles in Supplement 2 of the December 2005 issue of the Journal of Clinical Virology.

ABBREVIATIONS**COUNTRIES WITH REPORTS, 2004**

ANU	Anguilla
ANI	Antigua and Barbuda
ARG	Argentina
BAH	Bahamas
BLZ	Belize
BOL	Bolivia
BRA	Brazil
VIB	British Virgin Islands
CAY	Cayman Islands
CHI	Chile
COL	Colombia
COR	Costa Rica
CUB	Cuba
DOM	Dominica
CUR	Curacao
DOR	Dominican Republic
ECU	Ecuador
ELS	El Salvador
GRA	Grenada
GUT	Guatemala
GUY	Guyana
HAI	Haiti
HON	Honduras
JAM	Jamaica
MEX	Mexico
MOT	Montserrat
NIC	Nicaragua
PAN	Panama
PAR	Paraguay
PER	Peru
SCN	Saint Kitts and Nevis
SAL	Saint Lucia
SAV	Saint Vincent and the Grenadines
SUR	Suriname
URU	Uruguay
VEN	Venezuela

COUNTRIES WITHOUT REPORTS, 2004

ARU	Aruba
BAR	Barbados
BER	Bermuda
TRT	Trinidad and Tobago
TCA	Turks and Caicos Islands

OTHERS

CRYO	Cryoprecipitate
FFP	Fresh Frozen Plasma
FP	Frozen Plasma
HBsAg	Hepatitis B Surface Antigen
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HTLV I/II	Human T Cell Lymphotropic Virus types I and II
NA	Not Applicable
NR	Not Reported
NT	Not Tested
PL	Platelets
RBC	Red Blood Cells
-	0.00
TTI	Transfusion - Transmitted Infections

SUMMARY

Total number of blood units collected	7,545,861
Caribbean countries	67,801
Latin American countries	7,478,060

COUNTRIES THAT REPORT ACHIEVING EXPECTED RESULTS

100% SCREENING FOR INFECTIOUS MARKERS	AT LEAST 50% VOLUNTARY BLOOD DONORS	100% BLOOD BANKS IN EXTERNAL EVALUATION OF PERFORMANCE
BAHAMAS BRAZIL CAYMAN ISLANDS COSTA RICA CUBA CURACAO ECUADOR EL SALVADOR GRENADA JAMAICA ST. LUCIA ST. VINCENT AND THE GRENADINES SURINAME URUGUAY VENEZUELA	CAYMAN ISLANDS COLOMBIA COSTA RICA CUBA CURACAO ST. LUCIA SURINAME URUGUAY	ANGUILLA BOLIVIA BRITISH VIRGIN ISLANDS CUBA DOMINICA ECUADOR EL SALVADOR GRENADA JAMAICA MEXICO ST. KITTS AND NEVIS PANAMA ST. VINCENT AND THE GRENADINES SURINAME

BLOOD COLLECTION

COUNTRY	# BANKS	# UNITS	REMUNERATED DONORS (%)	VOLUNTARY DONORS (%)	REPLACEMENT DONORS (%)	AUTOLOGOUS DONORS (%)	UNITS / BANK	UNITS/ DAY (260 DAYS)
ANU	1	78	0	10.0	90.0	0.0	78	0.3
ANI	2	1,227	0	12.1	87.8	0.2	614	2.4
BAH	3	5,521	0	24.3	75.3	0.4	1,840	7.1
BLZ	7	2,978	0	8.7	91.3	0.0	425	1.6
VIB	1	343	0	20.7	79.3	0.0	343	1.3
CAY	2	702	0	100.0	0.0	0.7	351	1.4
CUR	1	6,595	0	100.0	0.0	0.2	6,595	25.4
DOM	1	804	0	3.5	96.3	0.3	804	3.1
GRA	1	703	0	34.6	64.9	0.6	703	2.7
GUY	5	4,887	0	18.8	81.2	0.2	977	3.8
HAI	8	9,513	0	5.4	94.5	0.0	1,189	4.6
JAM	10	23,600	0	11.0	88.9	0.2	2,360	9.1
MOT	1	83	0	0.0	100	0.0	83	0.3
SCN	1	347	0	6.0	93.9	0.3	347	1.3
SAL	3	1,782	0	83.0	16.7	0.3	594	2.3
SAV	1	942	0	15.3	77.8	6.9	942	3.6
SUR	1	7,696	0	100.0	0.0	0.04	7,696	29.6

Official information provided by the National Blood Programs

CARRIBEAN COUNTRIES**COVERAGE (%) OF SCREENING FOR INFECTIOUS MARKERS**

COUNTRY	HIV	HBsAg	HCV	SYPHILIS	HTLV I-II
ANU ¹	100	100	0	100	0
ANI	100	100	11 ²	100	0
BAH	100	100	100	100	100
BLZ	100	100	0	100	0
VIB	100	100	100	100	0
CAY	100	100	100	100	100
CUR	100	100	100	100	100
DOM	100	100	0	100	100
GRA	100	100	100	100	100
GUY	100	100	100	100	0
HAI	100	100	93.2	100	0
JAM	100	100	100	100	100
MOT	100	100	0	100	0
SCN	100	100	0	100	0
SAL	100	100	100	100	100
SAV	100	100	100	100	100
SUR	100	100	100	100	100

Official information provided by the National Blood Programs

¹Numbers based on donors screened (238) not on units collected. ²HCV testing started in Septembre 2004

UNITS (N) NOT TESTED FOR INFECTIOUS MARKERS

COUNTRY	HIV	HBsAg	HCV	SYPHILIS	HTLV I-II
ANU ¹	0	0	238	0	238
ANI	0	0	1,092	0	1,227
BAH	0	0	0	0	0
BLZ	0	0	2,978	0	2,978
VIB	0	0	0	0	343
CAY	0	0	0	0	0
CUR	0	0	0	0	0
DOM	0	0	804	0	0
GRA	0	0	0	0	0
GUY	0	0	0	0	4,887
HAI	0	0	647	0	9,513
JAM	0	0	0	0	0
MOT	0	0	83	0	83
SCN	0	0	347	0	347
SAL	0	0	0	0	0
SAV	0	0	0	0	0
SUR	0	0	0	0	0
TOTAL	0	0	6,189	0	19,526

Official information provided by the National Blood Programs

¹Numbers based on donors screened (238) not on units collected**PROPORTION (%) OF UNITS REACTIVE/POSITIVE FOR INFECTIOUS MARKERS**

COUNTRY	HIV	HBsAg	HCV	SYPHILIS	HTLV I-II
ANU	0.00	0.42	NT	0.00	NT
ANI	0.16	2.60	0.00	0.81	NT
BAH	0.25	0.78	0.42	0.83	0.71
BLZ	0.26	2.30	NT	1.70	NT
VIB	0.00	0.60	0.00	0.00	NT
CAY	0.00	0.14	0.00	0.14	0.00
CUR	0.00	0.00	0.00	0.00	0.08
DOM	0.00	0.50	NT	1.70	1.90
GRA	0.14	1.90	0.00	1.60	2.40
GUY	0.68	1.90	0.55	1.90	NT
HAI	1.80	4.10	0.62	1.80	NT
JAM	0.60	1.10	0.30	2.30	1.70
MOT	0.00	1.20	NT	0.00	NT
SCN	0.00	5.50	NT	0.29	NT
SAL	0.00	1.10	0.05	0.30	0.50
SAV	0.00	1.40	0.50	1.80	1.80
SUR	0.02	0.19	0.08	0.01	0.01

Official information provided by the National Blood Programs

BLOOD COMPONENTS

COUNTRY	% SEPARATION INTO COMPONENTS					% DISCARDED BLOOD AND BLOOD COMPONENTS					
	RBC	FFP	FP	CRYO	PL	WB	RBC	FFP	FP	CRYO	PL
ANU	38.5	NR	NR	NR	NR	20.8	0.0	NR	NR	NR	NR
ANI	29.5	1.6	0.17	0.0	1.9	14.7	0.0	0.0	0.0	NA	0.0
BAH ¹	93.7	27.3	0.0	0.0	30.4	41.9	4.6	12.1	NA	NA	47.9
BLZ	28.5	10.6	9.6	0.0	0.0	17.9	8.8	18.4	29.0	NA	NA
VIB ²	0.0	0.0	0.0	0.0	0.0	6.0	NR	NR	NR	NR	NA
CAY	76.8	37.7	0.0	0.0	0.0	18.7 ³	NR	80.7	NA	NA	25.2 ⁴
CUR	100	53.1	0.0	0.0	12.2	0.0	2.3	0.0	NA	NA	18.8
DOM	78.1	67.4	NR	10.7	23.1	6.3	4.6	5.4	NA	3.5	3.2
GRA	100	100	0	0.0	1.6	0.0	18.6	84.9	NA	NA	0.0
GUY	79.7	79.7	1.2	0.0	1.2	2.6	12.3	8.8	100.0	NA	20.0
HAI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
JAM	54.0	23.3	6.3	5.7	9.1	1.9	7.9	9.9	25.8	NR	3.3
MOT	0.0	0.0	0.0	0.0	0.0	46.9	NA	NA	NA	NA	NA
SCN	42.4	NR	0.29	NR	NR	10.0	NR	NR	0.0	NR	NR
SAL	97.8	17.1	0.0	1.4	44.2	15.4	8.0	17.7	NA	NR	65.1
SAV	97.7	22.8	0.0	0.0	9.0	50.0	13.3	18.6	NA	NA	35.3
SUR	87.3	14.8	0.0	0.0	11.2	3.0	1.2	0.7	NA	NA	47.5

Official information provided by the National Blood Programs

¹Data reported from 2/3 blood banks. ²Platelets are imported. ³Includes wasted RBC. ⁴Components are purchased, not made.**BLOOD SYSTEM ORGANIZATION**

COUNTRY	SPECIFIC LAW	UNIT AT MOH	SPECIFIC BUDGET	NATIONAL POLICY	NATIONAL COMMISSION
ANU	-	-	-	-	-
ANI	-	YES	-	-	YES
BAH	-	-	-	-	YES
BLZ	-	-	-	-	-
VIB	-	-	-	-	-
CAY	-	-	-	-	-
CUR	YES	-	-	YES	YES
DOM	-	-	-	-	-
GRA	-	-	-	-	-
GUY	-	YES	YES	YES	YES
HAI	NR	NR	NR	NR	NR
JAM	YES	YES	YES	YES	YES
MOT	-	-	-	-	-
SCN	-	-	-	-	YES
SAL	-	-	-	-	YES
SAV	-	-	-	-	YES
SUR	-	-	-	-	-

Official information provided by the National Blood Programs

BLOOD SYSTEM ORGANIZATION

COUNTRY	REFERENCE BANK	NATIONAL PLAN	DONOR STANDARDS	OPERATIONS STANDARDS	GUIDELINES USE OF BLOOD	BLOOD BANK REGISTRATION
ANU	-	-	YES	YES	-	-
ANI	-	-	YES	YES	-	-
BAH	-	-	-	YES	-	-
BLZ	-	-	YES	YES	YES	-
VIB	-	-	-	YES	-	-
CAY	-	-	-	-	-	-
CUR	YES	YES	YES	YES	YES	-
DOM	-	-	YES	-	-	-
GRA	-	-	-	-	-	-
GUY	YES	YES	YES	YES	-	-
HAI	NR	NR	NR	NR	NR	NR
JAM	YES	YES	YES	YES	-	-
MOT	-	-	YES	-	-	-
SCN	-	-	YES	YES	YES	-
SAL	YES	-	YES	YES	-	-
SAV	-	-	YES	-	-	-
SUR	-	YES	YES	YES	-	YES

Official information provided by the National Blood Programs

BLOOD SYSTEM ORGANIZATION

COUNTRY	QUALITY ASSURANCE POLICY	EXTERNAL EVALUATION SEROLOGY-TTI	EXTERNAL EVALUATION IMMUNOHEMATOLOGY	BLOOD BANK INSPECTION PROGRAM	NATIONAL PROGRAM OF CONTINUED EDUCATION
ANU	-	YES	YES	-	YES
ANI	YES	YES	YES	-	-
BAH	-	YES	YES	-	-
BLZ	-	YES	YES	-	-
VIB	-	-	YES	-	-
CAY	-	YES	YES	-	YES
CUR	YES	YES	YES	YES	YES
DOM	NR	YES	YES	-	NR
GRA	-	YES	YES	-	-
GUY	-	YES	YES	-	-
HAI	NR	NR	NR	NR	NR
JAM	YES	YES	YES	YES	YES
MOT	-	YES	YES	-	-
SCN	YES	YES	YES	-	YES
SAL	-	YES	YES	-	-
SAV	-	YES	YES	-	-
SUR	YES	YES	YES	YES	-

Official information provided by the National Blood Programs

BLOOD SYSTEM ORGANIZATION

COUNTRY	PERSONNEL CERTIFICATION	BLOOD BANK ACCREDITATION
ANU	-	-
ANI	-	-
BAH	YES	-
BLZ	-	-
VIB	-	-
CAY	YES	-
CUR	YES	-
DOM	-	-
GRA	-	-
GUY	-	-
HAI	NR	NR
JAM	YES	-
MOT	-	-
SCN	-	-
SAL	-	-
SAV	-	-
SUR	YES	-

Official information provided by the National Blood Programs

BLOOD COLLECTION

COUNTRY	# BANKS	# UNITS	REMUNERATED DONORS (%)	VOLUNTARY DONORS (%)	REPLACEMENT DONORS (%)	AUTOLOGOUS DONORS (%)	UNITS / BANK	UNITS/DAY (260 DAYS)
ARG	578	751,412	0.0	7.0	93.0	NR	1,300	5.0
BOL ¹	25	40,910	3.1	23.2	73.5	0.23	1,636	6.3
BRA	562	3,044,493	0.0	46.0	53.7	0.70	5,417	20.8
CHI ²	52	186,292	0.0	6.7	93.2	0.12	3,583	13.8
COL	123	502,065	0.0	50.5	49.3	0.37	4,082	15.7
COR	31	54,258	0.0	57.0	42.9	0.12	1,750	6.7
CUB	47	528,026	0.0	100.0	0.0	0.0	11,235	43.2
ECU	39	98,695	0.0	29.3	70.7	0.0	2,531	9.7
ELS	32	79,368	0.0	11.4	88.6	<0.01	2,480	9.5
GUT	46	60,638	0.0	2.3	97.6	0.04	1,316	5.1
HON	29	47,679	2.2	15.7	95.8	0.17	1,644	6.3
MEX	724	1,225,688	0.0	3.7	96.00	0.23	1,693	6.5
NIC	24	49,416	0.0	41.6	58.4	0.0	2,059	7.9
PAN	25	44,323	42.6	2.2	55.2	0.11	1,773	6.8
PAR	45	41,846	0.1	5.6	94.2	0.07	930	3.6
PER	172	183,489	0.28	3.9	95.4	0.39	1,067	4.1
DOR	66	61,745	5.9	19.7	74.3	0.15	936	3.6
URU	67	96,993	0.0	100.0	0.0	0.90	1,448	5.6
VEN	270	380,724	0.0	7.0	93.0	0.0	1,410	5.4

Official information provided by the National Blood Programs

¹Only 25/38 blood banks reported data. ²Only 52/110 blood banks included in the national report

LATIN AMERICAN COUNTRIES

COVERAGE (%) OF SCREENING FOR INFECTIOUS MARKERS

COUNTRY	HIV	HBsAg	HCV	SYPHILIS	<i>T. cruzi</i>
ARG	100.0	100.0	99.4	100.0	100.0
BOL ¹	98.8	98.8	93.2	98.7	83.2
BRA	100.0	100.0	100.0	100.0	100.0
CHI	100.0	100.0	100.0	100.0	68.4
COL	99.9	99.9	99.9	100.0	99.9
COR	100.0	100.0	100.0	100.0	100.0
CUB	100.0	100.0	100.0	100.0	NA
ECU	100.0	100.0	100.0	100.0	100.0
ELS	100.0	100.0	100.0	100.0	100.0
GUT	99.1	99.1	99.1	99.1	99.1
HON	99.8	99.8	99.8	99.8	99.8
MEX	96.4	95.9	96.5	89.8	32.2
NIC	100.0	100.0	84.6	100.0	100.0
PAN	100.0	100.0	100.0	100.0	86.2
PAR	99.0	98.9	98.9	98.8	99.0
PER	74.1	73.8	74.3	73.1	75.0
DOR	99.9	99.9	99.9	99.9	NA
URU	100.0	100.0	100.0	100.0	100.0
VEN	100.0	100.0	100.0	100.0	100.0

Official information provided by the National Blood Programs

¹Only 25/38 blood banks reported data.

UNITS (NUMBER) NOT TESTED FOR INFECTIOUS MARKERS

COUNTRY	HIV	HBsAg	HCV	SYPHILIS	CHAGAS
ARG	0	0	4,508	0	0
BOL ¹	409	409	2,864	409	8,182
BRA	0	0	0	0	0
CHI	0	0	0	0	58,911
COL	41	41	41	0	35
COR	0	0	0	0	0
CUB	0	0	0	0	NA
ECU	0	0	0	0	0
ELS	0	0	0	0	0
GUT	54	54	54	54	54
HON	116	116	116	116	116
MEX	43,625	49,619	41,909	124,577	830,317
NIC	0	0	7,593	0	0
PAN	0	0	0	0	6,116
PAR	422	452	454	500	421
PER	47,610	48,131	47,147	49,416	46,954
DOR	34	37	32	21	NA
URU	0	0	0	0	0
VEN	0	0	0	0	0
TOTAL	92,311	98,859	104,718	175,093	950,106

Official information provided by the National Blood Programs

¹Only 25/38 blood banks reported data**PROPORTION OF UNITS (%) REACTIVE/POSITIVE FOR INFECTIOUS MARKERS**

COUNTRY	HIV	HBsAg	HCV	SYPHILIS	CHAGAS
ARG	0.27	0.44	0.76	0.90	3.60
BOL ¹	0.13	0.62	0.60	1.08	2.72
BRA	0.43	0.59	0.60	0.99	0.71
CHI	0.03	0.03	0.03	0.39	0.36
COL	0.30	0.38	0.56	1.51	0.44
COR	0.02	0.08	0.11	0.07	0.25
CUB	0.01	0.52	0.60	0.70	NR
ECU	0.21	0.26	0.22	0.44	0.07
ELS	0.14	0.25	0.25	0.87	2.87
GUT	0.82	1.06	0.98	1.90	1.41
HON	0.25	0.33	1.24	0.97	1.56
MEX	0.23	0.29	0.64	0.30	0.48
NIC	0.28	0.43	0.53	1.45	0.49
PAN	0.11	0.43	0.54	0.21	0.16
PAR	0.21	0.52	0.49	4.34	3.30
PER	0.54	0.63	0.97	1.58	0.65
DOR	0.56	1.50	0.60	0.63	NR
URU	0.04	0.31	0.40	0.76	0.34
VEN	0.27	0.66	0.52	1.30	0.50

Official information provided by the National Blood Programs

¹Only 25/38 blood banks reported data**BLOOD COMPONENTS**

COUNTRY	% SEPARATION INTO COMPONENTS					% DISCARDED BLOOD AND BLOOD COMPONENTS					
	RBC	FFP	FP	CRYO	PL	WB	RBC	FFP	FP	CRYO	PL
ARG	94.0	23.4	70.6	6.9	21.2	NR	NR	NR	NR	NR	NR
BOL ¹	59.6	33.1	12.2	4.4	15.1	6.6	6.4	20.2	24.9	21.2	33.9
BRA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CHI	95.7	53.3	27.7	28.2	46.5	18.2	4.5	12.7 ²		3.2	25.1
COL	93.6	71.1	12.5	7.5	39.2	25.5	8.1	55.1 ²		14.7	27.9
COR	88	12.7	75.8	11.9	75.3	24.8	11.6	6.3	30	6	31.3
CUB	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ECU	84.1	58.9	16.1	16.9	27.4	2.6	2.1	6.9	3.2	2.7	8.3
ELS	83.8	61.4	NR	9.4	51.8	71.8	NR	21.9	NR	1.3	11.3
GUT	84.0	NR	62.3	6.4	35.9	NR	25.2	NR	NR	NR	NR
HON ³	33.5	25.4	NR	3.9	28.0	NR	NR	NR	NR	NR	NR
MEX	87.9	62.5	21.8	7.6	35.4	19.7	6.4	31.5	89.8	14.8	24.4
NIC	72.3	56.4	2.0	2.5	49.9	17.2	4.7	1.2	0.0	0.0	2.2
PAN ⁴	32.8	0.0	6.3	2.6	9.1	NR	NR	NR	NR	NR	NR
PAR	54.5	31.3	1.4	2.6	19.9	25.8	7.3	20.8	NR	0.9	45.1
PER	71.8	0.0	53.7	8.0	39.3	9.0	9.2	NA	26.9	9.9	37.6
DOR	37.4	13.0	7.0	0.2	8.9	5.6	1.8	17.2	0	0	4.8
URU	NR	NR	NR	NR	NR	3.7 ⁵		0.82	NR	NR	8.6
VEN	83.1	72.1	10.2	7.0	39.2	NR	NR	NR	NR	NR	NR

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¹Only 25/38 blood banks reported data²Includes all types of plasma³One sector only reported data for a 5-month period⁴Only 1/25 blood banks reported data⁵Includes whole blood and red blood cells**BLOOD SYSTEM ORGANIZATION**

COUNTRY	SPECIFIC LAW	UNIT AT MOH	SPECIFIC BUDGET	NATIONAL POLICY	NATIONAL COMMISSION
ARG	YES	YES	YES	YES	-
BOL	YES	YES	YES	YES	-
BRA	YES	YES	YES	YES	YES
CHI	-	YES	-	-	-
COL	YES	YES	-	YES	YES
COR	YES	YES	YES	YES	YES
CUB	YES	YES	-	YES	YES
ECU	YES	YES	YES	YES	YES
ELS	-	YES	-	YES	YES
GUT	YES	YES	YES	YES	YES
HON	YES	YES	YES	YES	YES
MEX	YES	YES	YES	YES	YES
NIC	YES	YES	YES	YES	-
PAN	YES	YES	-	-	YES
PAR	YES	YES	-	YES	YES
PER	YES	YES	-	YES	-
DOR	YES	YES	-	YES	YES
URU	YES	YES	YES	YES	-
VEN	NR	NR	NR	NR	NR

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BLOOD SYSTEM ORGANIZATION

COUNTRY	REFERENCE BANK	NATIONAL PLAN	DONOR STANDARDS	OPERATIONS STANDARDS	GUIDELINES USE OF BLOOD	BLOOD BANK REGISTRATION
ARG	-	YES	YES	YES	-	YES
BOL	-	YES	YES	YES	YES	YES
BRA	-	YES	YES	YES	YES	YES
CHI	-	-	YES	YES	YES	-
COL	-	YES	YES	YES	YES	YES
COR	YES	YES	YES	YES	YES	YES
CUB	YES	YES	YES	YES	YES	YES
ECU	YES	YES	YES	YES	YES	YES
ELS	YES	NR	YES	YES	YES	YES
GUT	-	YES	-	-	-	YES
HON	YES	YES	YES	YES	YES	YES
MÉX	YES	YES	YES	YES	YES	YES
NIC	YES	-	YES	YES	-	YES
PAN	YES	-	-	YES	-	YES
PAR	YES	YES	-	YES	YES	YES
PER	-	YES	YES	YES	-	YES
DOR	-	YES	YES	YES	-	YES
URU	YES	YES	YES	YES	YES	YES
VEN	NR	NR	NR	NR	NR	NR

Official information provided by the National Blood Programs

BLOOD SYSTEM ORGANIZATION

COUNTRY	QUALITY ASSURANCE POLICY	QUALITY ASSURANCE PROGRAM	EXTERNAL EVALUATION SEROLOGY-TTI	EXTERNAL EVALUATION IMMUNOHEMATOLOGY	BLOOD BANK INSPECTION PROGRAM
ARG	YES	YES	-	-	YES
BOL	YES	YES	-	YES	YES
BRA	-	YES	YES	YES	YES
CHI	-	YES	-	-	-
COL	-	YES	-	YES	YES
COR	YES	YES	-	YES	YES
CUB	YES	YES	YES	YES	YES
ECU	YES	YES	YES	YES	YES
ELS	YES	YES	YES	-	YES
GUT	-	YES	-	YES	-
HON	-	YES	YES	-	YES
MEX	YES	YES	YES	YES	YES
NIC	NR	YES	YES	-	YES
PAN	-	YES	YES	YES	YES
PAR	-	-	-	YES	YES
PER	-	-	YES	-	-
DOR	YES	YES	-	YES	-
URU	YES	YES	YES	YES	YES
VEN	NR	NR	NR	NR	NR

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NATIONAL BLOOD SYSTEM ORGANIZATION

COUNTRY	PERSONNEL CERTIFICATION	BLOOD BANK ACCREDITATION
ARG	NR	NR
BOL	-	YES
BRA	YES	YES
CHI	-	-
COL	YES	-
COR	YES	YES
CUB	YES	YES
ECU	YES	YES
ELS	-	-
GUT	YES	-
HON	-	-
MEX	-	YES
NIC	-	-
PAN	-	-
PAR	-	YES
PER	YES	YES
DOR	-	-
URU	YES	YES
VEN	NR	NR

Official information provided by the National Blood Programs

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ANNEX