

Appendix for
“The Market for Blood Donations”

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This document contains the following materials:

- 1) Objective data used in Figures 1 & 2 and Table 1 & 2
- 2) A guide to the variables used in the objective data
(This guide also indicates the references for variables that are common across all countries.)
- 3) A list of all the references for the publically available objective data
- 4) The survey referenced in footnote
- 5) A guide to the variables used in the survey data
- 6) Summary of perceptions of efficiency, safety and fairness from survey
- 7) Registry recruitment and shortage scripts
- 8) Results of the registry

We have included in this appendix the 'objective data' for the figures and tables. The only data discussed in the main text of the paper that we are unable to provide is from the Registry project described in the last section of the paper. This data is unfortunately proprietary to the Australian Red Cross Blood Service and any researcher that would want to access this data would need permission of the Australian Red Cross Blood Service.

1. Objective Data Used in Figures 1 & 2 and Tables 1 & 2

Country	D	Year	Sour	DCat	Daug	Vol	Year	Sour	VolCat	VolAug	AbsPdAug	AbsVolAug	TTI	Year	Sour	WBCat	GNI
Norway				DE	51.7				VE	99	0.517	51.183				WBD	86.13
Qatar				DC	14.6				VC	74.3	3.752	10.848				WBD	71.26
Luxembourg				DE	51.7				VE	99	0.517	51.183				WBD	68.77
Switzerland				DE	51.7				VE	99	0.517	51.183				WBD	66.63
Denmark	56.5	2011	-11	DE	56.5	99	2011	-16	VE	99	0.565	55.935				WBD	58.35
Sweden				DE	51.7				VE	99	0.517	51.183				WBD	48.83
Netherlands				DE	51.7				VE	99	0.517	51.183				WBD	48.59
Austria				DE	51.7				VE	99	0.517	51.183				WBD	46.58
Finland				DE	51.7				VE	99	0.517	51.183				WBD	46.54
US	56.8	2008	-3	DE	56.8	99	2008	-16	VE	99	0.568	56.232	0.73	2008	-3	WBD	46.08
Kuwait				DC	14.6				VC	74.3	3.752	10.848				WBD	45.48
Belgium				DE	51.7				VE	99	0.517	51.183				WBD	44.71
Australia	57.1	2012	-13	DE	57.1	99	2012	-16	VE	99	0.571	56.529				WBD	43.66
France	49.0	2009	-5	DE	49.0	99	2009	-16	VE	99	0.49	48.510				WBD	42.39
Canada	39.5	2011	-10	DE	39.5	99	2011	-16	VE	99	0.395	39.105				WBD	41.89
UK				DE	51.7	99	2009	-16	VE	99	0.517	51.183				WBD	41.22
Iceland				DE	51.7				VE	99	0.517	51.183				WBD	39.23
UAE				DC	14.6				VD	95.8	0.613	13.987				WBD	37.70
Japan				DD	24.4	99	2008	-16	VE	99	0.244	24.156				WBD	37.61
Italy				DE	51.7				VE	99	0.517	51.183				WBD	35.57
Singapore				DB	6.9				VC	74.3	1.773	5.127				WBD	35.20
Spain	37.2	2007	-2	DE	37.2	99	2007	-2	VE	99	0.372	36.828				WBD	32.14
New Zealand				DE	51.7				VE	99	0.517	51.183				WBD	28.99
Greece				DE	51.7				VB	34.3	33.967	17.733				WBD	28.04
Israel				DE	51.7				VE	99	0.517	51.183				WBD	25.51
Slovenia				DE	51.7				VE	99	0.517	51.183				WBD	23.75
Portugal	37.9	2009	-4	DE	37.9	99	2009	-16	VE	99	0.379	37.521				WBD	21.75
South Korea				DE	51.7	99	2008	-16	VE	99	0.517	51.183				WBD	19.65
Oman				DC	14.6				VE	99	0.146	14.454				WBD	18.50
Czech Rep.				DE	51.7				VD	95.8	2.171	49.529				WBD	17.29
Saudi Arabia				DC	14.6				VB	34.3	9.592	5.008				WBD	16.26
Slovakia				DE	51.7				VE	99	0.517	51.183				WBD	15.82
Estonia				DE	51.7				VE	99	0.517	51.183				WBD	14.26
Croatia	41.3	2010	-6	DE	41.3	99	2010	-6	VE	99	0.413	40.887				WBD	13.70
Hungary				DE	51.7				VE	99	0.517	51.183				WBD	12.98
Poland				DD	24.4				VC	74.3	6.271	18.129				WBD	12.19
Lithuania				DD	24.4				VB	34.3	16.031	8.369				WBD	11.70
Latvia				DD	24.4				VC	74.3	6.271	18.129				WBC	12.39
Venezuela	14.7	2002	-1	DC	14.7	11	2008	-1	VA	11	13.083	1.617	2.21	2002	-1	WBC	10.14
Chile	17.1	2002	-1	DC	17.1				VA	16	14.364	2.736	0.70	2002	-1	WBC	9.94
Russian Fed	14.0	2010	-8	DC	14.0				VC	74.3	3.598	10.402				WBC	9.29
Turkey				DC	14.6				VE	99	0.146	14.454				WBC	9.13
Mexico	10.1	2002	-1	DC	10.1				VA	16	8.484	1.616	1.75	2002	-1	WBC	8.42
Romania	18.7	2010	-6	DC	18.7	99	2010	-6	VE	99	0.187	18.513				WBC	8.25
Brazil	17.3	2001	-1	DC	17.3				VC	74.3	4.446	12.854	2.09	2001	-1	WBC	8.14
Gabon				DB	6.9				VA	16	5.796	1.104				WBC	7.88

Lebanon				DA	3.3				VA	16	2.772	0.528					WBC	7.76
Malaysia				DC	14.6				VE	99	0.146	14.454					WBC	7.59
Mauritius				DE	51.7				VC	74.3	13.287	38.413					WBC	7.26
Panama	14.8	2001	-1	DC	14.8				VA	16	12.432	2.368	1.77	2001	-1		WBC	7.10
Montenegro	24.5	2010	-6	DD	24.5	29	2010	-6	VB	29	17.395	7.105					WBC	7.03
Suriname				DD	24.4				VE	99	0.244	24.156					WBC	7.00
Costa Rica	13.7	2002	-1	DC	13.7	63	2008	-16	VC	63	5.069	8.631	1.37	2002	-1		WBC	6.18
Bulgaria	22.1	2010	-6	DD	22.1	94	2010	-6	VD	94	1.326	20.774					WBC	6.08
Serbia	33.8	2010	-6	DE	33.8	99	2010	-6	VE	99	0.338	33.462					WBC	5.74
South Africa	18.2	2010	-7	DC	18.2	99	2010	-17	VE	99	0.182	18.018	3.00	2006	-14		WBC	5.73
Belarus				DD	24.4				VE	99	0.244	24.156					WBC	5.59
Cuba				DE	51.7				VE	99	0.517	51.183					WBC	5.44
Botswana	10.2	2010	-7	DC	10.2	99	2010	-16	VE	99	0.102	10.098	6.00	2006	-14		WBC	5.39
Argentina	22.0	2001	-1	DD	22.0				VA	16	18.48	3.520	5.94	2001	-1		WBC	5.17
Colombia				DC	14.6				VC	74.3	3.752	10.848	3.16	2002	-1		WBC	5.02
Azerbaijan				DA	3.3				VC	74.3	0.848	2.452					WBC	4.80
Bosnia/Herz.	19.8	2010	-6	DC	19.8	48	2010	-6	VB	48	10.296	9.504					WBC	4.66
Domin. Rep				DB	6.9				VA	16	5.796	1.104					WBC	4.64
Jamaica				DB	6.9				VB	34.3	4.533	2.367					WBC	4.51
Macedonia	27.6	2010	-6	DD	27.6				VD	95.8	1.1592	26.441					WBC	4.45
Algeria				DC	14.6	63	2006	-14	VC	63	5.402	9.198	2.00	2006	-14		WBC	4.29
Iran				DD	24.4				VE	99	0.244	24.156					WBC	4.29
Namibia				DC	14.6	99	2010	-17	VE	99	0.146	14.454	2.00	2006	-14		WBC	4.15
Peru	5.6	2002	-1	DB	5.6				VA	16	4.704	0.896	1.69	2002	-1		WBC	4.13
Ecuador				DC	14.6				VB	34.3	9.592	5.008	0.91	2002	-1		WBC	4.06
Jordan				DD	24.4				VB	34.3	16.031	8.369					WBC	3.90
Iraq				DC	14.6				VA	16	12.264	2.336					WBC	3.87
Thailand				DD	24.4	99	2007	-15	VE	99	0.244	24.156					WBC	3.86
Angola				DA	3.3	4	2006	-14	VA	4	3.168	0.132					WBC	3.80
China	8.7	2011	-9	DB	8.7	99	2011	-16	VE	99	0.087	8.613					WBC	3.62
Uruguay	29.9	2002	-1	DD	29.2												WBC	
Belize				DC	14.6				VA	16	12.264	2.336					WBB	4.23
Albania	7.5	2010	-6	DB	7.5				VA	16	6.3	1.200					WBB	4.03
El Salvador	11.2	2002	-1	DC	11.2				VA	16	9.408	1.792	0.89	2002	-1		WBB	3.30
Armenia				DA	3.3				VA	16	2.772	0.528					WBB	3.18
Ukraine				DB	6.9				VC	74.3	1.773	5.127					WBB	2.84
Morocco				DB	6.9				VC	74.3	1.773	5.127					WBB	2.80
Guatemala	5.9	2002	-1	DB	5.9				VA	16	4.956	0.944	3.45	2002	-1		WBB	2.67
Swaziland				DB	6.9	99	2006	-14	VE	99	0.069	6.831	2.00	2006	-14		WBB	2.67
Georgia				DB	6.9				VA	16	5.796	1.104					WBB	2.54
Guyana	10.3	2010	-7	DC	10.3	79	2010	-17	VC	79	2.163	8.137					WBB	2.54
Syria				DC	14.6				VD	95.8	0.613	13.987					WBB	2.45
Paraguay	7.6	2002	-1	DB	7.6				VA	16	6.384	1.216	4.18	2002	-1		WBB	2.38
Egypt				DC	14.6				VC	74.3	3.752	10.848					WBB	2.27
Timor-Leste				DA	3.3	37	2007	-15	VB	37	2.079	1.221					WBB	2.25
Indonesia				DB	6.9	81	2007	-15	VC	81	1.311	5.589					WBB	2.16
Sri Lanka				DC	14.6	75	2007	-15	VC	75	3.65	10.950					WBB	1.97

Congo				DB	6.9	28	2006	-14	VB	28	4.968	1.932	14.00	2006	-14	WBB	1.95
Philippines				DB	6.9				VC	74.3	1.773	5.127				WBB	1.87
Bhutan				DC	14.6	39	2007	-15	VB	39	8.906	5.694				WBB	1.85
Mongolia				DB	6.9				VD	95.8	0.29	6.610				WBB	1.79
Hondurus	6.1	2002	-1	DB	6.1				VA	16	5.124	0.976	2.14	2002	-1	WBB	1.77
Bolivia				DB	6.9				VB	34.3	4.533	2.367	10.80	2002	-1	WBB	1.61
Moldova	20.3	2010	-6	DD	20.3				VA	16	17.052	3.248				WBB	1.57
Nicaragua				DC	14.6				VB	34.3	9.592	5.008	2.14	2002	-1	WBB	1.38
Ghana				DB	6.9	43	2006	-14	VB	43	3.933	2.967	7.00	2006	-14	WBB	1.20
Cote d'Voire	4.9	2010	-7	DA	4.9	99	2010	-16	VE	99	0.049	4.851	11.00	2006	-14	WBB	1.20
Papua New G.				DB	6.9				VC	74.3	1.773	5.127				WBB	1.19
India				DB	6.9	74	2011	-18	VC	83	1.173	5.727				WBB	1.17
Cameroon				DA	3.3	25	2006	-14	VA	25	2.475	0.825				WBB	1.15
Nigeria				DB	6.9	87	2010	-17	VC	87	0.897	6.003				WBB	1.15
Uzbekistan				DA	3.3				VA	16	2.772	0.528				WBB	1.13
Sudan				DB	6.9				VA	16	5.796	1.104				WBB	1.11
Yemen				DA	3.3				VB	34.3	2.168	1.132				WBB	1.11
Lesotho				DA	3.3	99	2006	-14	VE	99	0.033	3.267	7.00	2006	-14	WBB	1.09
Zambia	6.8	2010	-7	DB	6.8	99	2010	-17	VE	99	0.068	6.732	17.00	2006	-14	WBB	1.06
Vietnam				DB	6.9				VC	74.3	1.773	5.127				WBB	1.03
Senegal				DA	3.3	98	2006	-14	VD	98	0.066	3.234	23.00	2006	-14	WBB	1.03
Pakistan				DC	14.6	13	2006	-15	VA	13	12.702	1.898				WBB	
Mauritania				DA	3.3				VA	16	2.772	0.528	27.00	2006		WBA	1.01
Kenya	3.3	2010	-7	DA	3.3	99	2010	-17	VE	99	0.033	3.267	13.00	2006	-14	WBA	0.78
Benin				DB	6.9				VC	74.3	1.773	5.127	6.00	2006	-14	WBA	0.71
Cambodia				DA	3.3				VE	99	0.033	3.267				WBA	0.69
Haiti	1.5	2010	-7	DA	1.5	84	2010	-17	VC	84	0.24	1.260				WBA	0.68
Tajikistan				DA	3.3				VA	16	2.77	0.528				WBA	0.65
Chad				DA	3.3	15	2006	-14	VA	15	2.805	0.495				WBA	0.63
Bangladesh				DA	3.3	29	2007	-15	VB	29	2.343	0.957				WBA	0.62
Mali				DA	3.3				VB	34.3	2.168	1.132	21.00	2006	-14	WBA	0.62
Gambia				DB	6.9	21	2006	-14	VA	21	5.451	1.449				WBA	0.57
Burkina Faso				DA	3.3				VD	95.8	0.139	3.161	16.00	2006	-14	WBA	0.55
Guinea Bissau				DA	3.3	26	2006	-14	VB	26	2.442	0.858	10.00	2006	-14	WBA	0.54
Tanzania	2.1	2010	-7	DB	2.1	95	2010	-17	VD	95	0.105	1.995				WBA	0.50
Nepal				DA	3.3	90	2007	-15	VC	90	0.33	2.970				WBA	0.49
Rwanda	3.9	2010	-7	DA	3.9	99	2010	-17	VE	99	0.039	3.861	11.00	2006	-14	WBA	0.47
Afghanistan				DA	3.3				VC	74.3	0.848	2.452				WBA	0.46
Cent Afr Rep				DA	3.3				VC	74.3	0.848	2.452	21.00	2006	-14	WBA	0.46
Togo				DA	3.3	99	2006	-14	VE	99	0.033	3.267	11.00	2006	-14	WBA	0.45
Sierra Leone				DA	3.3	11	2006	-14	VA	11	2.937	0.363				WBA	0.44
Mozambique	4.5	2010	-7	DA	4.5	61	2010	-17	VC	61	1.755	2.745				WBA	0.42
Madagascar				DA	3.3	25	2006	-14	VA	25	2.475	0.825	9.00	2006	-14	WBA	0.41
Uganda	5.4	2010	-7	DA	5.4	99	2010	-17	VE	99	0.054	5.346	10.00	2006	-14	WBA	0.40
Zimbabwe				DA	3.3	99	2006	-14	VE	99	0.033	3.267	2.00	2006	-14	WBA	0.38
Guinea				DA	3.3	22	2006	-14	VA	22	2.574	0.726	15.00	2006	-14	WBA	0.35
Niger				DA	3.3	5	2006	-14	VA	5	3.135	0.165	20.00	2006	-14	WBA	0.34

Ethiopia	0.5	2010	-7	DA	0.5	24	2010	-17	VA	24	0.38	0.120				WBA	0.34
Malawi				DA	3.3	99	2006	-14	VE	99	0.033	3.267	13.00	2006	-14	WBA	0.32
Eritrea				DA	3.3	71	2006	-14	VC	71	0.957	2.343	8.00	2006	-14	WBA	0.27
Liberia				DA	3.3				VA	16	2.772	0.528				WBA	0.24
Burundi				DA	3.3	99	2006	-14	VE	99	0.033	3.267				WBA	0.18
DRC				DB	6.9	30	2006	-14	VB	30	4.83	2.070	11.00	2006	-14	WBA	0.10
Myanmar				DA	3.3	55	2006	-15	VC	55	1.485	1.815				WBA	

2. Guide to Objective Data

Variable	Explanation	Year of Data	Source
D	Donations per 1000 from national blood agencies	Varied	Varied
Dcat	Categorical variable of donations per 1000, where DA:<5, DB:5-9.9, DC:10-19.9, DD:20-29.9, DE:>=30	2008	WHO-c (WHO GDBS 2011) (in references)
Daug	When available, donations per 1000 from national blood agencies. When unavailable an augmented metric was calculated, where countries were grouped based on the WHO categories (DA, DB, DC, DD, DE). The average for each category was created based on observations where donations per 1000 were available. The average was then used as the value for all countries where donations per 1000 were unavailable.	NA	NA
Vol	% Voluntary donations from national blood agencies	Varied	Varied
Volcat	Categorical variable of voluntary donations, where VA:<25%, VB:25-49.9%, VC:50-89.9%, VD:90-98.9%, VE:>=99%	2008	WHO-c (WHO GDBS 2011) (in references)
VolAug	When available, % voluntary donations from national blood agencies. When unavailable an augmented metric was calculated, where countries were grouped based on the WHO categories (VA, VB, VC, VD, VE). The average for each category was created based on observations where % voluntary donations were available. The average was then used as the value for all countries where % voluntary donations were unavailable.	NA	NA
AbsPaidAug	An estimate of the number of paid donations per 1000. This is calculated by multiplying the donations per 1000 value by the percentage of donations that are non-voluntary	NA	NA
AbsPaidAug	An estimate of the number of voluntary donations per 1000. This is calculated by multiplying the donations per 1000 value by the percentage of donations that are voluntary	NA	NA
TTI	% of donations discarded due to detection of a transfusion transmissible infection (TTI)	Varied	Varied
WBCat	Categorical variable of income, where WBA: Low Income (<=\$1,035; average of \$469) WBB: Lower-Middle Income (\$1,036-\$4,085; average of \$1,965) WBC: Upper-Middle Income (\$4,086-\$12,615; average of \$6172) WBD: High Income (>=\$12616; average of 36,350) Overall average is \$11,695	2012	World Bank Classification Method (in references)
GNI	GNI per capita, Atlas Method (current \$US) in thousands of dollars	2009	World Bank Atlas Method (in references)

Note: each year column refers to the year of the data source in the column to the left

3. References for Objective/National Data

Each row in the data indicates one (or more) of the sources (1-18) listed below.

- (1) <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC544183/>
- (2) Spain 2007 -Blood donation and blood transfusion in Spain (1997 – 2007): the effects of demographic changes and universal leucoreduction
- (3) www.aabb.org/biovigilance/nbcus/Documents/09-nbcus-report.pdf
- (4) http://www.vhpb.org/files/html/Meetings_and_publications/Presentations/LISS61.pdf
- (5) http://ansm.sante.fr/var/ansm_site/storage/original/application/bb2a6b52bdb935954bd985d638e0e734.pdf
- (6) http://www.edqm.eu/site/analysis_seepdf-en-31016-2.html
- (7) <http://www.cdc.gov/mmwr/pdf/wk/mm6046.pdf>
- (8) <http://www.ogilvypr.com/en/case-study/russia-ministry-health-and-social-development-russian-federation-and-federal-medical-biol>
- (9) <http://asiancorrespondent.com/87080/chinas-blood-shortage-by-the-numbers/>
- (10) http://video.bloodservices.ca/Annual2012/cbs_ar2012_page08_en.html
- (11) <http://www.bloddonor.dk/om-bloddonorerne/hvem-er-vi/aarsberetninger/Aarsberetning%202011-2012%20-%20final.pdf>
- (12) <http://www.hema-quebec.qc.ca/publications/rapport-annuel.en.html>
- (13) <http://www.blood.gov.au/pubs/1112report/>
- (14) http://www.afro.who.int/index.php?option=com_docman&task=doc_download&gid=3835
- (15) http://209.61.208.233/LinkFiles/BCT_BTS-SEAR.pdf
- (16) WHO-c, GDBS 2011
- (17) <http://www.cdc.gov/mmwr/pdf/wk/mm6046.pdf>
- (18) http://aidsdatahub.org/dmdocuments/NACO_Annual_Report_2010_11.pdf

The years that the objective/national data were collected:

<u>Year</u>	<u>Number of Countries</u>
2001	3
2002	13
2006	23
2007	8
2008	64
2009	3
2010	24
2011	5
2012	1
All	144
2006-2010	122

4. Survey as Seen Online by Respondents

(We have indicated on the survey the questions that are reported in the appendix.)

Default Question Block

Title of Project: Global Perceptions of Blood Collection

(1) What is the study about?

The study involves completing a survey concerning your perceptions of the blood collection system in your country. It will address your awareness of the blood collection process in your country and your attitudes toward the current practices. You DO NOT need to have ever given blood to participate nor do you need to be especially knowledgeable about the blood system, ALL VIEWS ARE WELCOME. We are interested in your individual responses. There are no right or wrong answers.

(2) Who is carrying out the study?

The study is being conducted by Professors Ellen Garbarino and Robert Slonim of the University of Sydney.

(3) What does the study involve?

The study will involve an on-line questionnaire.

(4) How much time will the study take?

This questionnaire should take approximately 25 minutes to complete.

(5) Can I withdraw from the study?

Participating in this study is completely voluntary – you are not under any obligation to consent. If you do consent, you can withdraw without penalty and without having to give any reason. You can withdraw from this study at any time. There will be no payment to participants who withdraw during the course of the study. Withdrawing from the study will not affect your relationship with the researcher(s) or staff at The University of Sydney now or in the future. Once you have submitted your questionnaire/survey anonymously, your responses cannot be withdrawn.

(6) Will anyone else know the results?

All aspects of the study, including results, will be strictly confidential. Only the researchers will have access to the responses; they will not have to any personal information. The researchers may submit a report of the study for publication. Only aggregated survey information will be presented in the report; no personal information will be made public.

(7) Will the study benefit me?

Respondents who complete the study will receive the posted remuneration into their Mturk accounts.

(8) Can I tell other people about the study?

The researchers request, that for the purpose of maintaining study integrity, you do not share with anybody the nature of the questions asked of you.

(9) What if I require further information about the study or my involvement in it?

If you have specific questions regarding the study, please feel free to contact Ellen Garbarino by email at mikemajormturk@outlook.com

(10) What if I have a complaint or any concerns?

Any person with concerns or complaints about the conduct of a research study can contact The Manager, Human Ethics Administration, University of Sydney on +61 28627 8176 (Telephone); +61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).

Do you agree to participate?

☐ Yes

☐ No

Timing

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Blood and blood products (e.g., plasma) are needed for a wide range of life saving treatments such as cancer treatments, and transfusions related to pregnancy, surgery or accidents. Blood and blood products can only come from people, there is no man-made or animal-based alternative. Hence, every country needs a well functioning blood supply system. This survey asks about your

knowledge of and views on the blood supply system in your country. To make it easier to answer, many questions are not framed at the country level, but rather your area so you can answer for the part of your country you know best. The survey should take about 25 minutes or less to complete and your responses will be kept confidential.

Knowledge of Current Practices in Home Country/Area

We understand that you might not be confident of the answers to some of these questions, but please give your best guess of the response since we are interested in your perception of what the answer might be.

The three most common system by which blood is collected are as follows:

- **Voluntary (unpaid) and undirected donation:** People donate blood without the expectation of receiving a financial benefit and without any necessary relationship to or knowledge of the recipient.
- **Family/replacement (directed donation):** People, often family members or friends, donate blood because someone they know needs blood. A replacement donation involves a friend or family member donating blood to replace the stored blood used in the transfusion to maintain a consistent supply.
- **Paid donation:** People give blood on the understanding that they will be financially compensated.

Which of the blood collection systems above is most common for collecting whole blood in your area?

- ☐ All voluntary donations
- ☐ All family/replacement donations
- ☐ All paid donations
- ☐ Mix of voluntary and family/replacement donations
- ☐ Mix of voluntary and paid donations
- ☐ Mix of paid and family/replacement donations
- ☐ All three systems operate in my area
- ☐ Other

In your area, is there a place to buy blood or to pay someone to give blood for you (including those that are informal or unorganised)?

- ☐ Yes
- ☐ Very likely
- ☐ Probably
- ☐ Possibly
- ☐ Not very likely
- ☐ Very unlikely
- ☐ No
- ☐ Not sure
- ☐ Never heard of such a thing

How do you feel about people getting compensated for donating blood? (Mark all that apply)

- ☐ Rewarding donors with cash or gifts is acceptable
- ☐ Gifts (e.g., movie ticket, T-shirt, hat, lunch coupon) are acceptable but not cash payments
- ☐ Only small gifts of appreciation (e.g., bus token, pen) are acceptable
- ☐ The blood supply system should be voluntary, no gifts or cash given
- ☐ I worry that voluntary donors will stop donating
- ☐ I worry that blood will become more expensive
- ☐ I worry that poor people will be exploited
- ☐ It's morally wrong to buy and sell blood
- ☐ If people get paid, we will have more blood supply
- ☐ If people get paid, the blood supplied might become less safe
- ☐ We already have enough blood supply without paying

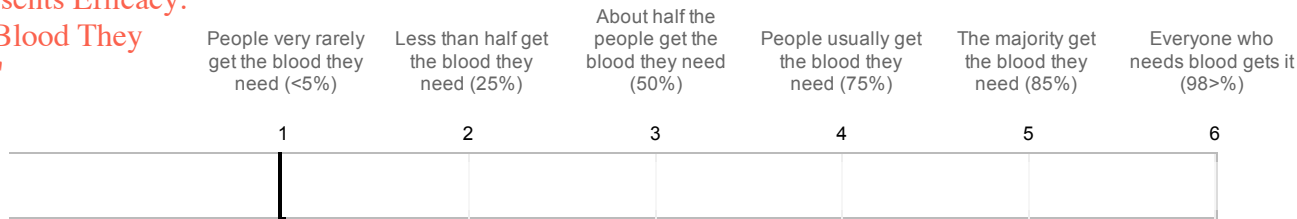
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How many people in your area who need blood get the blood they need?

Represents Efficacy:
"Get Blood They Need"



Where do people in your area who need blood typically get the blood from?

- ☐ Received automatically from hospital/clinic for free or for a fee
- ☐ Received from hospital/clinic but need to arrange blood donations to pay back later
- ☐ Purchased from hospitals or blood banks
- ☐ By paying for strangers to give blood for them
- ☐ From their family/friends/connections (unpaid)
- ☐ From their family/friends/connections (payment involved)
- ☐ Need to stock up their own blood

Do certain people in your area have better access to blood if they need it? (mark all that apply)

- ☐ Most people in need receive blood automatically
- ☐ Most people go through the same procedures to get blood
- ☐ Those who have given blood before get it more easily
- ☐ Those with more money get it more easily
- ☐ Those with higher social status get it more easily
- ☐ Those from more powerful groups in society get it more easily
- ☐ Those with more friends or family get it more easily
- ☐ Other

Represents Unfairness:
"More Money"
"More Status"
"More Powerful Group"
"Given Blood Before"
"More Friends and Family"

Timing

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How common do you think blood shortages are in your area?

Represents Efficacy:
Frequency Blood Shortages



What percentage of cases in your area is the safety or well being of the the blood donor compromised?

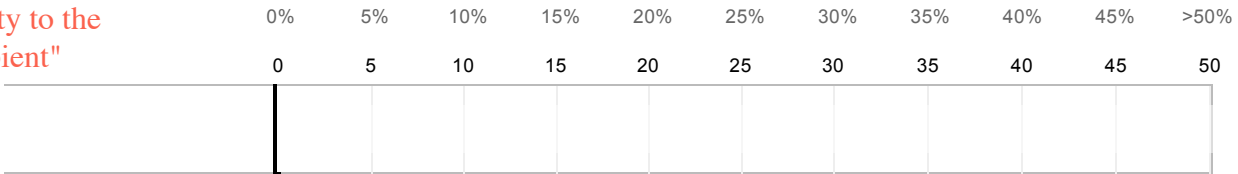
Represents Safety:
"Safety to the Donor"





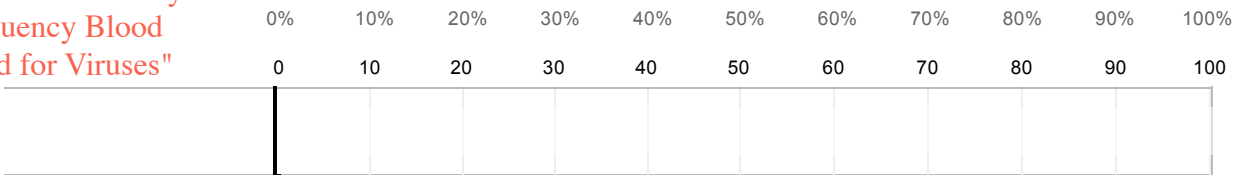
What percentage of cases in your area is the safety or well being of the **the blood recipient** compromised?

Represents Safety:
"Safety to the
Recipient"

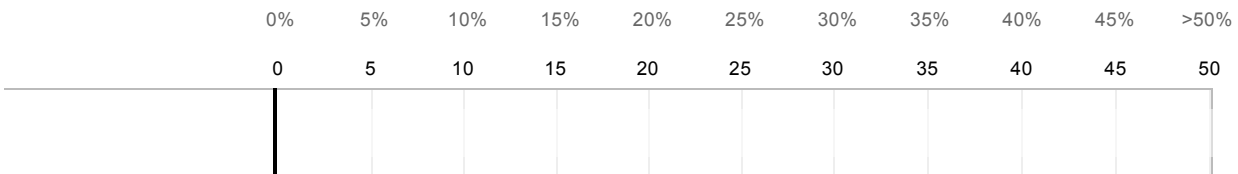


What percentage of blood collected in your area do you think is tested for viruses and infectious diseases?

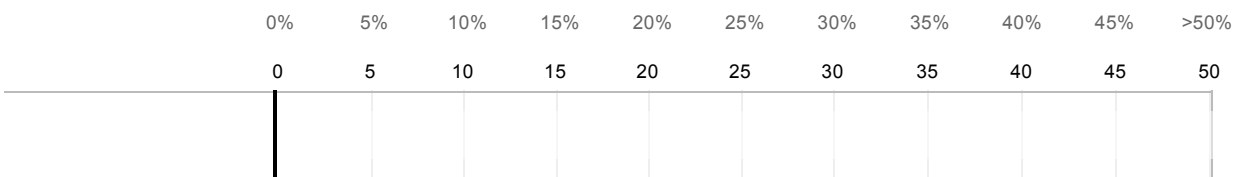
Represents Efficacy:
"Frequency Blood
Tested for Viruses"



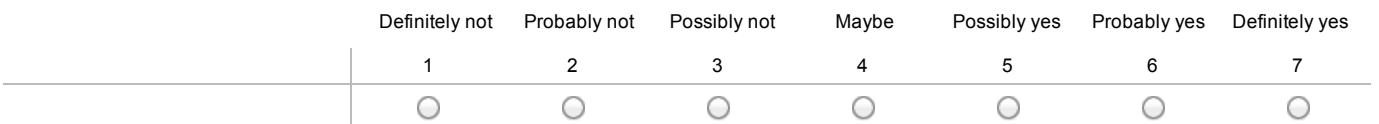
What percentage of the blood collected in your area do you think is discarded due to disease?



What percentage of the blood collected in your area do you think is discarded for any reason (e.g., disease, contamination, inefficiency of the blood service, expiration)?



Are you currently being abducted by space aliens?



Timing

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The next set of questions address [your preferences in a blood collection system](#)

Please rank each of the following goals from most (1) to least (5) important to you in terms of how you think blood should be collected in your area? Give a 1 to the most important goal of the blood supply system, 2 to the next most important goal and so on down to 5.

- ☐ Protect the health and safety of the blood donors
- ☐ Minimize the transmission of viruses and infectious diseases to blood recipients
- ☐ Avoid exploitation of any specific donor group (e.g., poor people)
- ☐ Provide adequate supply for your area/country
- ☐ Be cost effective

The next set of questions list the three main blood collection systems used around the world. For each system, rate how well you think it serves each goal.

Voluntary (unpaid) and undirected donation: People donate blood without the expectation of receiving a financial benefit and without any necessary relationship to or knowledge of the recipient

	Weakly serves the goal				Strongly serves the goal		
	1	2	3	4	5	6	7
Protect the health and safety of the blood donors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Minimize the transmission of viruses and infectious diseases to blood recipients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoid exploitation of any specific donor group (e.g., poor people)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide adequate supply for your area/country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Be cost effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Family/replacement directed donation: People, often family members or friends, donate blood because someone they know needs blood. A replacement donation involves a friend or family member donating blood to replace the stored blood used in the transfusion to maintain a consistent supply.

	Weakly serves the goal				Strongly serves the goal		
	1	2	3	4	5	6	7
Protect the health and safety of the blood donors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Minimize the transmission of viruses and infectious diseases to blood recipients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoid exploitation of any specific donor group (e.g., poor people)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide adequate supply for your area/country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Be cost effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Paid donation: People give blood on the understanding that they will be financially compensated.

	Weakly serves the goal				Strongly serves the goal		
	1	2	3	4	5	6	7
Protect the health and safety of the blood donors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Minimize the transmission of viruses and infectious diseases to blood recipients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoid exploitation of any specific donor group (e.g., poor people)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide adequate supply for your area/country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Be cost effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Finally please rank the three blood collection system in term of your most preferred system (1) to your least preferred system (3)

- ☐ Voluntary (unpaid) and undirected donation
- ☐ Family/replacement direct donation
- ☐ Paid donation

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The next set of questions refers to your attitudes towards giving blood in your area (regardless of whether you have or have not ever given blood).

Thinking about the current blood collection system in your area, please indicate your degree of agreement or disagreement with each of the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Undecided	Somewhat agree	Agree	Strongly agree
	1	2	3	4	5	6	7
I feel a moral obligation to my community to give blood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a personal responsibility to give blood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am morally obligated to give blood to family and friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving blood would make me feel good about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is a social obligation to give blood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving blood would make others think better of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving blood is important to my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who are important to me think I should give blood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my area blood donation is something people feel they ought to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving blood is everyone's responsibility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other people will do it, so giving blood is not my responsibility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your area, who do you think gives blood now? (Mark all that apply)

- ☐ People who are wealthy
- ☐ People who are poor
- ☐ People with more free time
- ☐ People who are healthiest/fittest
- ☐ People who are more willing to give
- ☐ Men give more
- ☐ Women give more
- ☐ Younger adults give more
- ☐ Mature adults give more
- ☐ People from the dominant culture/ethnicity in my country
- ☐ People from the subcultures/ethnicity within my country
- ☐ People who have received blood
- ☐ People who know someone personally who has received blood
- ☐ Other

Timing

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Rate how much each of the following reasons for not giving blood would apply to you?

	Does not apply	Somewhat applies	Tends to apply	Definitely applies
I know that I am not allowed to or physically can't	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have given blood before but not	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I have never thought about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No one ever asked me to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel giving blood is for those who need money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am saving my blood in case someone I care about needs it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't know how to go about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't think it is my responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not like the blood donors in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not like the blood recipients in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is too inconvenient / It takes too much time and effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't believe there is much need for my blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am concerned my blood might be wasted or discarded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to get something for my donation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have had negative experiences with donating blood before	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of the needles/pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of contracting a virus or disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of reducing my own health or strength	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of fainting or getting dizzy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid the space aliens will take my blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of discovering I have an illness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid that I might become reliant on (addicted to) letting blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have heard bad things about donating blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My family or friends don't want me to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other reasons for not giving blood <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rate the following issues on how likely they would be to motivate you to give blood?

	Would not motivate	Somewhat motivates	Tends to motivate	Definitely motivates
How easy/convenient it is to give blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would feel good about myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People need my blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy helping others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to help my community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be helping out a friend or family member who needs blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I or someone I know has needed blood or has received blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I might need blood one day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that's what people should do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People would think I'm a good person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If there is a crisis/disaster in my area (e.g. fire, hurricane, earthquake, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I learned of a shortage in my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I learned of a need for my specific blood type	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being asked by someone I knew	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being asked by a group I belong to (e.g., club, religious group, work, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My friends/family members give blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blood bank keeps contacting me and I don't want to say no	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being given a health check/ disease screening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being given compensation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being given a gift item	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting time off work or school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other reasons you would give blood <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please mark the question as '2' so we (and the space aliens) will know you are paying attention.

1
☐

2
☐

3
☐

4
☐

5
☐

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Demographics

And finally a few questions about yourself...

What is your blood type?

O+
☐

O-
☐

A+
☐

A-
☐

B+
☐

B-
☐

AB+
☐

AB-
☐

Other

☐

Not sure
☐

What is your gender?

☐ Male

☐ Female

What is your age?

What is your highest education obtained?

☐ Primary school

☐ Some high/secondary school

☐ Completed high/secondary school

☐ Some college/university coursework

☐ Completed college/university

☐ Completed a Post-Graduate Degree

How would you rate your **household** income level compared to others in your country?

☐ Top 5% of my country

☐ Top 5-10% of my country

☐ Top 10-20% of my country

☐ Top 20-30% of my country

☐ Just above average for my country

☐ About average (50% above and 50% below my level)

☐ Just below average for my country

☐ Bottom 20-30% of my country

☐ Bottom 10-20% of my country

☐ Bottom 5-10% of my country

☐ Bottom 5% of my country

What racial or ethnic group do you most identify with (mark more than one if necessary):

Caucasian

☐

Asian

☐

Asian Sub-Continent

☐

African

☐

Middle Eastern

☐

Hispanic

☐

Other

☐

What is your nationality?

In what country do you primarily reside? Represents Country

In what state/provenance/admin division do your primarily reside?

How fluent is your English?

	Struggle with English					Native Speaker	
	1	2	3	4	5	6	7
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many times have you given any blood products (for example, whole blood, plasma, platelets) in the last three years?

0	1	2	3	4	5	6	7	8	9	>9
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Roughly how many people do you know personally who have given blood

0	1	2	3	4	5	6	7	8	9	>9
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is the likelihood that you will give blood in the next year?

No chance											Certain
0	10	20	30	40	50	60	70	80	90	100	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

How many times have you volunteered some of your time to a charitable organization, such as a non-profit, charity effort, church and so forth, in the past year?

0 times	1-2 times	3-4 times	5-6 times	7-8 times	9-10 times	>10 times
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Approximately how many hours have you volunteered for charitable organisations in the past year?

0 hrs	1-5hrs	6-10hrs	11-20hrs	21-30hrs	31-50hrs	51-75hrs	75-100hrs	>100hrs
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please enter your Mturk ID Number for tracking purposes

Are there any other comments you would like to add?

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5. Guide to Survey Data

Variable	Explanation (see attached survey for more details)
Subject ID	Arbitrary observation identification for clustering purposes
GetBloodWhenNeeded	7-point ordinal variable in response to “How many people in your area who need blood get the blood they need?”
FrequencyBloodShortages	7-Point ordinal variable in response to “How common do you think blood shortages are in your area?”.
FrequencyBloodTestedFor Viruses	Continuous variable ranging from 0-100 in response to “What percentage of blood collected in your area do you think is tested for viruses and infectious diseases?”.
SafetyToTheDonor	Continuous variable ranging from 0-100 in response to “What percentage of cases in your area is the safety or well being of the blood donor compromised?”.
SafetyToTheRecipient	Continuous variable ranging from 0-100 in response to “What percentage of cases in your area is the safety or well being of the blood recipient compromised?”.
GivenBloodBefore	Binary variable in response to whether those who have given blood before get better access to blood if they need it. (0=No, 1=Yes)
MoreMoney	Binary variable in response to whether those who with more money get better access to blood if they need it. (0=No, 1=Yes)
MoreStatus	Binary variable in response to whether those who with higher social status get better access to blood if they need it. (0=No, 1=Yes)
MorePowerfulGroups	Binary variable in response to whether those from more powerful groups in society get better access to blood if they need it. (0=No, 1=Yes)
MoreFriendsAndFamily	Binary variable in response to whether those with more friends and family get better access to blood if they need it. (0=No, 1=Yes)
Country	Text response to “In what country do you primarily reside?”. (Should we put something here about how we were able to restrict responses to the correct region using MTurk (but not their country)).

6. Summary of Perceptions of Efficiency, Safety and Fairness from Survey

Perceptions of the blood collection system were conducted via a survey of 850 respondents from 78 countries using Amazon's MTurk global labor market in June 2013. Data covered respondents from Western Europe, North America, Eastern Europe, Latin America, Asia, Africa and the Indian Subcontinent. This data was used to explore the respondent's perception of the efficiency safety and fairness of the blood collection system in their area. Table A1 reports the estimates and robust standard errors from regressions on the country's per capita log GNI and the proportion of the country's blood collected from volunteer donors (the same variables as in the text). Columns 1-3 report estimates from the survey's three questions on efficacy, Column 4 reports estimates stacking the data over the survey's two primary safety questions, and Column 5 reports estimates stacking the survey's five dummy variable indicators of unfairness of the distribution of blood. For survey responses that are categorical (Column's 1-2) we estimate ordered probit models, for responses that range from 0 to 100% we estimate tobit models censored at 0 and 100, and for fairness responses that are dummy variables we estimate a probit model.

Table A1 shows that perceptions strongly depend on the income level of the respondent's country. Respondents from wealthier countries believe that blood collection in their country is significantly more efficient (more likely to get blood when needed, has fewer blood shortages and blood is more likely to be tested for viruses), safer for both donors and recipients, and less unfairly distributed (less likely to be directed to those who have given blood before, with more money, with higher social status, from more powerful groups, and with more friends and family). Controlling for a country's income, respondents from countries with a higher proportion of blood collected from volunteer donations are also more likely to believe their country is collecting blood efficiently and with a less unfair distribution. However, respondent perceptions of the safety of their country's blood collections to either the donor or recipient does not vary with the percent of blood collected from volunteers ($p > .85$), similar to the objective data presented in the text (right panel of Figure 3 and Column 2 in Table 1).

Table A1: Perceived Efficacy, Safety and Unfairness

(robust standard errors in parentheses)

	Efficacy			Safety	Unfairness
	Get Blood When Needed	Frequency Blood Shortages	Frequency Blood Tested for Viruses	From 2 Survey Questions ^{1,3}	From 5 Survey Questions ^{2,3}
	Ord. Probit	Ord. Probit	Tobit	Tobit	Probit
Log(GNI)	0.194*** (0.027)	-0.236*** (0.027)	6.96*** (1.07)	4.341*** (0.405)	-0.085*** (0.006)
Percent Volunteer	0.003** (0.001)	-0.003* (0.001)	0.260*** (0.051)	0.003 (0.018)	-0.0009*** (0.0003)
Pseudo R ²	0.029	0.038	0.017	0.020	0.096
Log-likelihood	-1,235.3	-1,210.7	-2,685.3	-6,394.2	-2121.6
Observations	849	850	850	1,700	4,250
Respondents	849	850	850	850	850
S.E.s Clustered by respondent	N.A.	N.A.	N.A.	Yes	Yes
With question dummies	N.A	N.A	N.A	Yes	Yes

¹ Uses responses from two questions: Safety to the recipient and Safety to the donor² Uses responses from five questions measuring unequal access to donated blood: More money, More status, More powerful group, Given blood before, More friends and family.³ Data is stacked so respondent had two and five responses for the safety and unfairness, respectively. We include dummies for each response to control for level effects (not shown) and robust standard errors are clustered at the respondent level.

* p < .10; ** p < .05; *** p < .001.

7. Call Center Scripts

Registry Recruitment Scripts (stage 1)

The Australian Red Cross Blood Service call center contacted a large random sample of participants who had not donated or made a recent appointment and invited them to either make an appointment now or to join the donor registry. There were four possible treatments: Invitation to donate now and then invitation to join registry, Invitation to join registry only, Invitation to donate and join registry, Invitation to donate only. Below is the text for the recruitment calls.

7.1r Invitation to donate immediately, and then invitation to join the donation registry

Greetings [standard Blood Service script]

Invitation to schedule a donation now [standard Blood Service script]

Invitation to join registry:

“I am sorry you are unable to schedule a donation at this time. However, the Blood Service is currently starting a donation registry, where we will only invite donors to donate when the community has a critical need in blood or an emergency situation. We would likely contact registry members only once or twice a year but never more than four times. Would you like to lend your support again and be part of this registry for Australians in need of blood during critical times?”

[if yes] “Thank you so much for recognising the community’s needs for blood. We really appreciate your support.”

[if not yes, ask to put them down to critical shortages only] “I understand. Sometimes we experience critical situations when we have less than 3 days of blood supply left. Would we be able to call on your help during these most critical shortages? We will not contact you in any other case.”

7.2r Invitation to join donation registry only

Greetings [standard Blood Service script]

Invitation to join registry:

“The Blood Service is currently starting a donation registry, where we will only invite donors to donate when the community have a critical need in blood or an emergency situation. We would likely contact registry members only once or twice a year but never more than four times. Would you like to lend your support again and be part of this registry for Australians in need of blood during critical times?”

[if yes] “Thank you so much for recognising the community’s needs for blood. We really appreciate your support.”

[if not yes, ask to put them down to critical shortages only] “I understand. Sometimes we experience critical situations when we have less than 3 days of blood supply left. Would we be able to call on your help during these most critical shortages? We will not contact you in any other case.”

7.3r Simultaneous invitation to donate immediately or join the registry

Greetings

[standard Blood Service script]

Simultaneous Invitation to

(1) Schedule a donation now

[standard Blood Service script]

Or

(2) Join registry:

“The Blood Service is currently starting a donation registry, where we will only invite donors to donate when the community have a critical need in blood or an emergency situation. We would likely contact registry members only once or twice a year but never more than four times. Would you like to lend your support again and be part of this registry for Australians in need of blood during critical times?”

[if yes] “Thank you so much for recognising the community’s needs for blood. We really appreciate your support.”

[if not yes, ask to put them down to critical shortages only] “I understand. Sometimes we experience critical situations when we have less than 3 days of blood supply left. Would we be able to call on your help during these most critical shortages? We will not contact you in any other case.”

7.4r Invitation to donate immediately only (this would be used both immediately as well as later for our control groups).

Greetings

[standard Blood Service script]

Invitation to schedule a donation now

[standard Blood Service script]

[If YES]: “I really appreciate you scheduling a donation.

Standard End to call

Shortage calls Scripts (stage 2)

During a subsequent blood shortage, the Australian Red Cross Blood Service call center contacted (1) participants who registered their availability to donate during specific shortages and (2) a control group who have not been called to invite them to make an appointment. Below are the four shortage call scripts.

7.1s Mild Appeal with Registry Reminder

Hello, this is <AGENT> calling from the Red Cross Blood Service. May I please speak with <DONOR>? This call is recorded for quality and coaching purposes.

<DONOR>, thank you for joining our new blood donation registry a few months back. We really appreciate that you are willing to help when your blood is especially needed. We are calling our registry members today because so many of our regular donors are unable to give due to having colds or the flu around this time, but Australia *continues* to need over 26,000 donations every week just to meet the ongoing needs of patients.

Are you available to help with a blood donation now?

7.2s Mild Appeal with No Registry Reminder

Hello, this is <AGENT> calling from the Red Cross Blood Service. May I please speak with <DONOR>? This call is recorded for quality and coaching purposes.

<DONOR>, we are calling today because so many of our regular donors are unable to give due to having colds or the flu around this time, but Australia *continues* to need over 26,000 donations every week just to meet the ongoing needs of patients.

Are you available to help with a blood donation now?

7.3s Critical Appeal with Registry Reminder

Hello, this is <AGENT> calling from the Red Cross Blood Service. May I please speak with <DONOR>? This call is recorded for quality and coaching purposes.

<DONOR>, thank you for joining our new blood donation registry a few months back. We really appreciate that you are willing to help when your blood is especially needed. We are calling our registry members today because the blood levels are very low and donations of your type <A/O> blood are urgently needed. Many Australians with life-threatening conditions will need blood in the next few weeks to stay alive. You can help them by giving blood today.

Are you available to help with a blood donation now?

7.4s Critical Appeal with No Registry Reminder

Hello, this is <AGENT> calling from the Red Cross Blood Service. May I please speak with <DONOR>? This call is recorded for quality and coaching purposes.

<DONOR>, we are calling today because the blood levels are very low and donations of your type <A/O> blood are urgently needed. Many Australians with life-threatening conditions will need blood in the next few weeks to stay alive. You can help them by giving blood today.

Are you available to help with a blood donation now?

8. Results of the Registry

Attendance on shortage appeal calls in 2012 and 2013		
Marginal effects of probit regressions		
$y = 1$ if attended in 4 weeks after calls	(1) July/Sept 2012	(2) July/Aug 2013
Baseline	5.5%	5.9%
Registry	2.33%** (1.01)	2.69%** (1.18)
Other treatments†	Y	Y
Demographics‡	Y	Y
Observations	4,004	5,337
Log-likelihood	-882.4	-1089

Robust standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$;
Regressions include dummy variables for National Call Center agents

† Other treatment conditions include: critical shortage call scripts during shortage appeal calls (2012 only), whether asked to donate during registry recruitment calls, whether in 2nd call wave in September (2012 only), whether in control condition last year (2013 only)

‡ Demographics include: days after the last donation before lapsed, whether deferred on the last donation before lapsed, total past attendance, days after the first donation, whether attend metropolitan blood centers, donor residential states in Australia, gender, age, blood types.