



Haemochromatosis and blood donation

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Ready. Anytime, anywhere.

Introduction: haemochromatosis

- hereditary disorder of the iron metabolism
- affecting predominantly people of Northern European origin
 - survival advantage in regions with iron-poor diets
 - mutations spread by migratory activities of Vikings

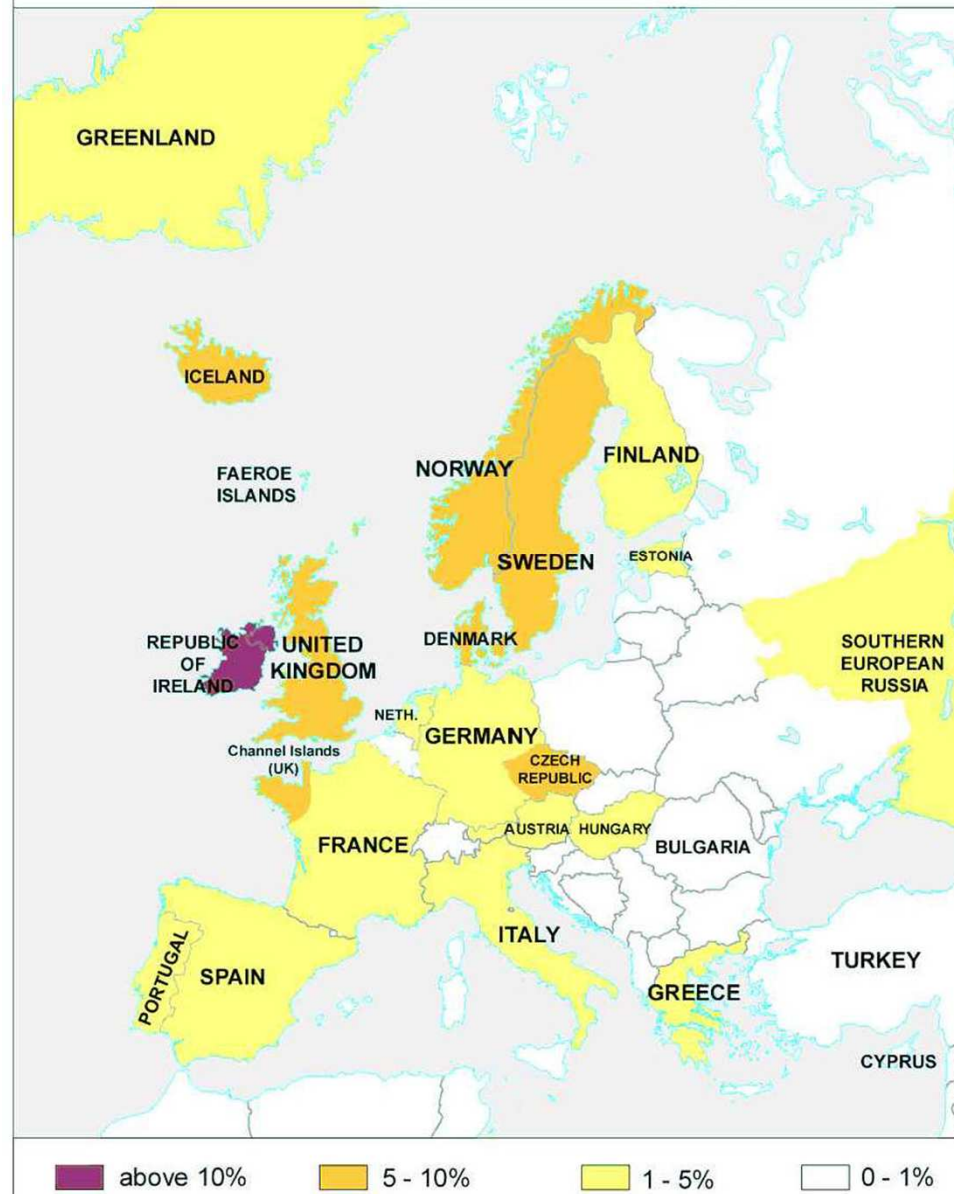


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- requiring frequent phlebotomies to normalise serum iron levels

European C282Y allele frequencies



Introduction: haemochromatosis

- Currently no consensus on using the blood from carriers with a documented mutation and/or patients as blood donor for red cell transfusion
- Issues are:
 - Can the donation be considered voluntary ?
 - Is this blood safe for transfusion?



Questions addressed

- **Question 1:** What is the current policy in different countries with a primarily Caucasian population?
- **Question 2:** Is blood of uncomplicated haemochromatosis patients safe and effective for blood transfusion?



QUESTION 1

What is the current policy in different countries with a primarily Caucasian population?

Methodology & Results

- Cross-sectional survey
 - Using a web-based questionnaire (SurveyMonkey® software)
 - 8 questions on current policy concerning haemochromatosis patients and blood donation
 - Respondents:
 - representatives of of the European Blood Alliance (EBA) and/or Alliance of Blood Operators (ABO)
 - 44 representatives of blood services in 41 countries
- Response rate
 - 80 %
 - 35 respondents representing blood services in 33 countries (*next slide*)

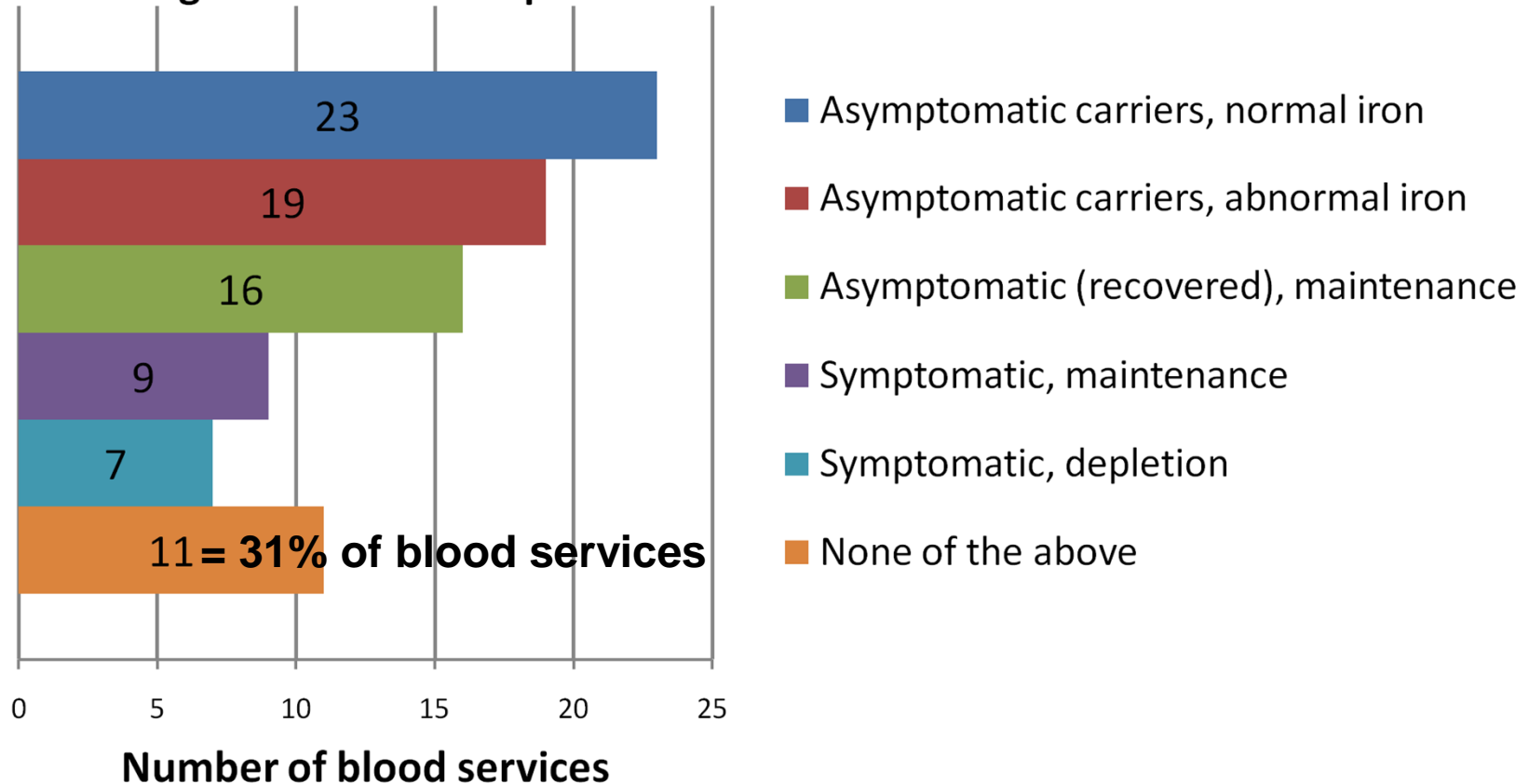
Methodology: participants

Last name and first name of respondent(s)	Country	Affiliation
Anderson Laurel	South-Africa	South African National Blood Services (SANBS)
Aquilina Alex	Malta	National Blood Transfusion Centre
Barnes Susan M and Williamson Lorna	UK - England	National Blood Service
Benjamin Richard	USA	American Red Cross
Blanco Lydia	Spain	Centros de Transfusión Sanguínea de Castilla Y León
Bricl Irena	Slovenia	Blood Transfusion Centre of Ljubljana
Bux Jürgen	Germany	German Red Cross Blood Service West
Cameron-Choi Keltie and Sher Graham	Canada	Canadian Blood Services
Courrier Paul	Luxembourg	Red Cross Luxembourg
Wim De Kort, Jeroen De Wit and Ed Slot	The Netherlands	Sanquin Blood Supply Foundation
Delage Gilles	Canada	Héma-Québec
Dobrota Alina Mirella	Romania	Regional Blood Transfusion Centre
Drillat Philippe and Charpak Yves	France	French National Blood Service
Franklin Ian	Ireland	Irish Blood Transfusion Service
Georgsen Jørgen	Denmark	OTCD (Odense University Hospital)
Guðmundsson Sveinn	Iceland	Blood Bank
Hervig Tor	Norway	Haukeland University Hospital
Kullaste Riin	Estonia	North Estonia Medical Center's Blood Center
Lin CK	Hong Kong	Hong Kong Red Cross Blood Transfusion Service
Macpherson Jim	USA	America's Blood Centers

Last name and first name of respondent(s)	Country	Affiliation
Matsuzaki Koji	Japan	Japanese Red Cross Tokyo Blood Centre
Mayr Wolfgang	Austria	Medical University of Vienna
Martinez-Riqué Gunilla	Sweden	Klinisk immunologi och transfusionsmedicin (KIT), Labmedicin Skåne
Mansouri Behrouz and Schwabe Rudolf	Switzerland	Blood donation service of the Swiss Red Cross
Morris Kieran	UK - Northern Ireland	Northern Ireland Blood Transfusion Service
Muon Mário	Portugal	Portuguese Institute of Blood
Nemceva Gita	Latvia	State Blood Donor Center
Niemelä Matti and Krusius Tom	Finland	Finnish Red Cross Blood Service
Norda Rut	Sweden	Uppsala University Hospital
Poole Geoff and Field Stephen	UK - Wales	Welsh Blood Service
Rehacek Vit	Czech Republic	Transfusion Department, University Hospital
Shinar Eilat	Israel	Magen David Adom Blood Services
Turner Marc and Wells Angus	UK - Scotland	Scottish National Blood Transfusion Service
Vandekerckhove Philippe	Belgium	Belgian Red Cross-Flanders
Velati Claudio and Grazzini Giuliano	Italy	Italian National Blood Centre
Williams Jennifer and Bell Barbara	Australia	Australian Red Cross Blood Service

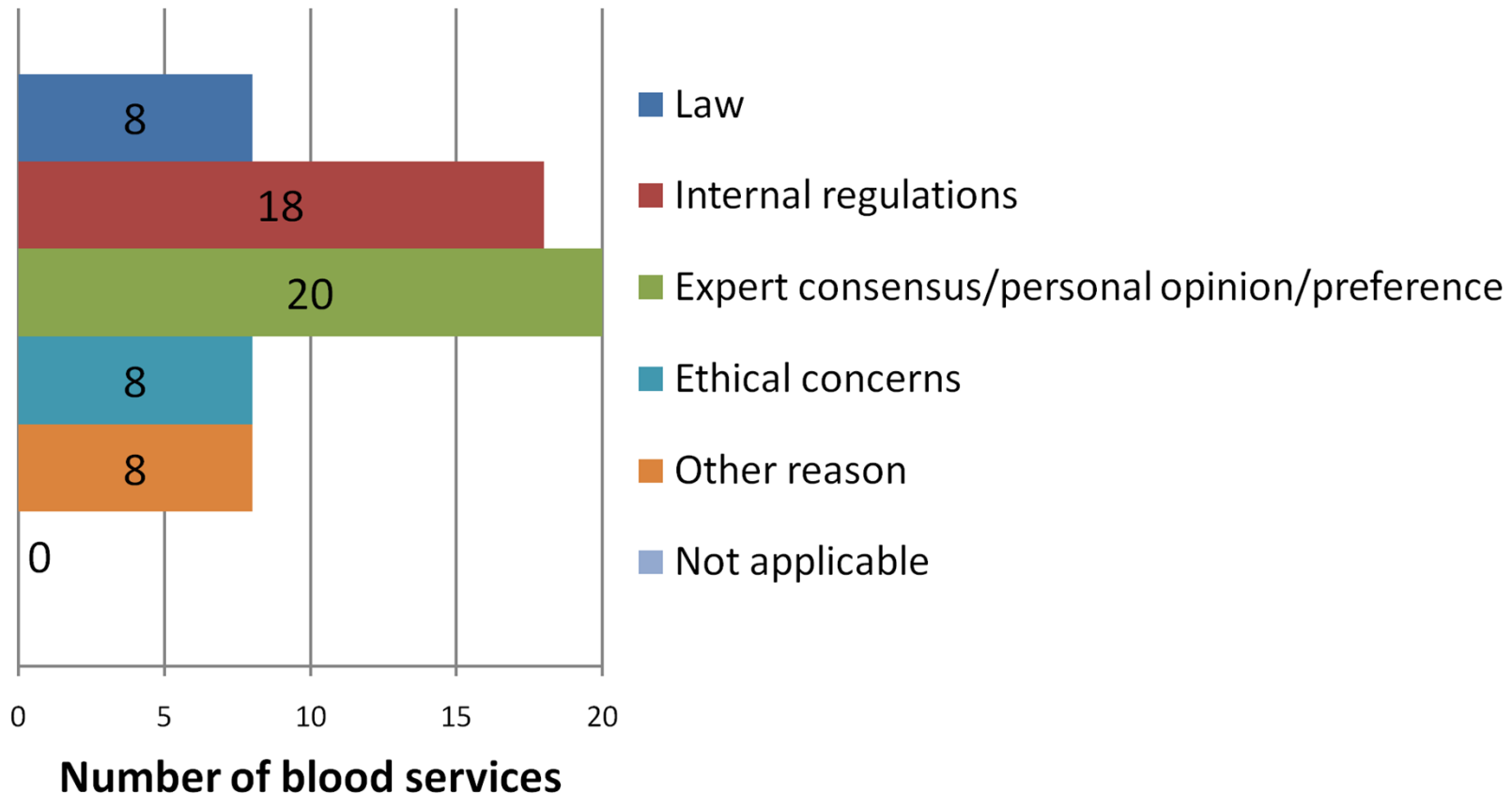
Results: Question 1

How many blood services accept the following individuals as blood donors, assuming that all other requirements for blood donation are fulfilled?



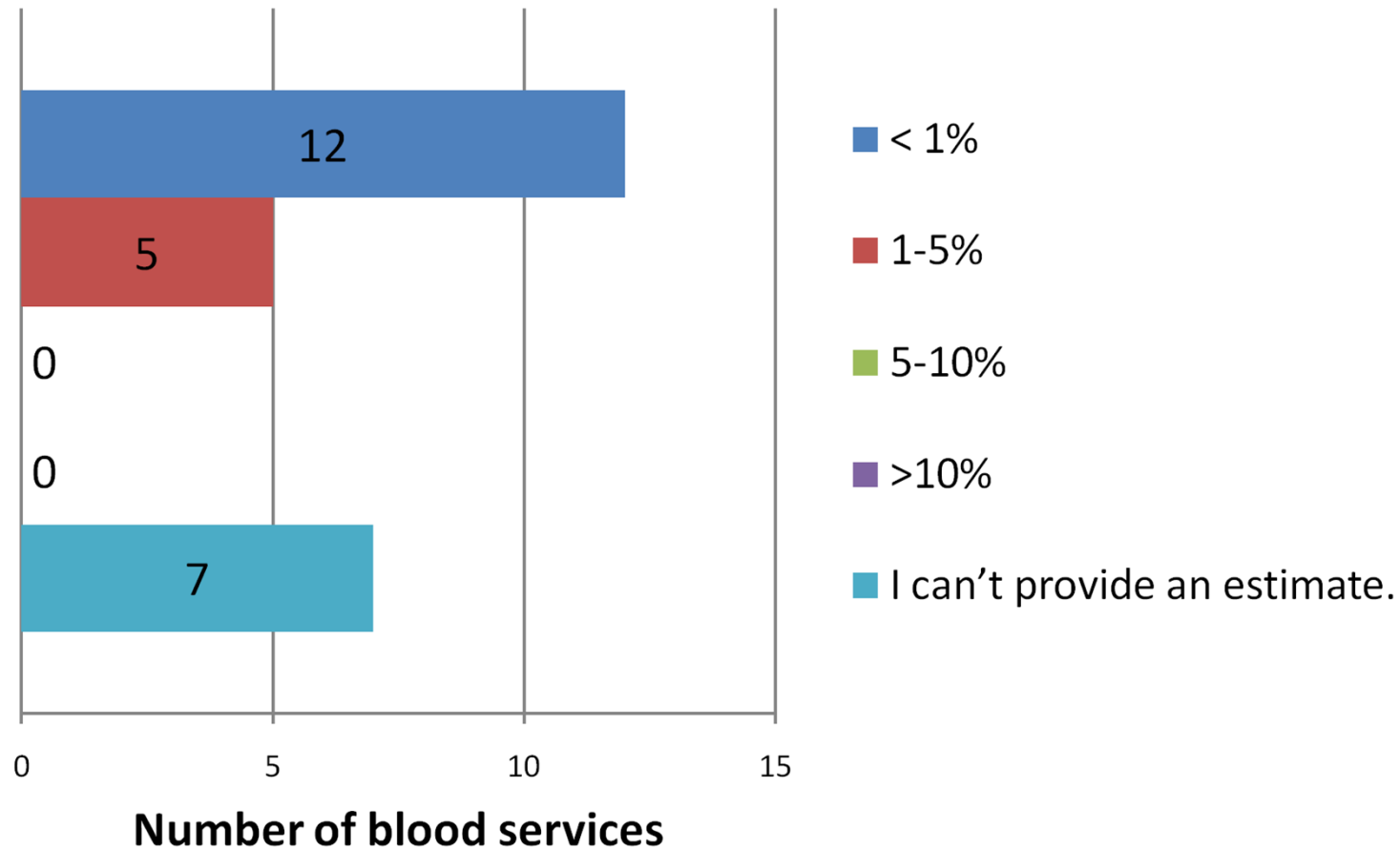
Results: Question 2 and 3

Why do blood services accept/refuse (some) haemochromatosis carriers or patients as blood donors?



Results: Question 4

What is the contribution of blood donors with a documented HFE mutation?

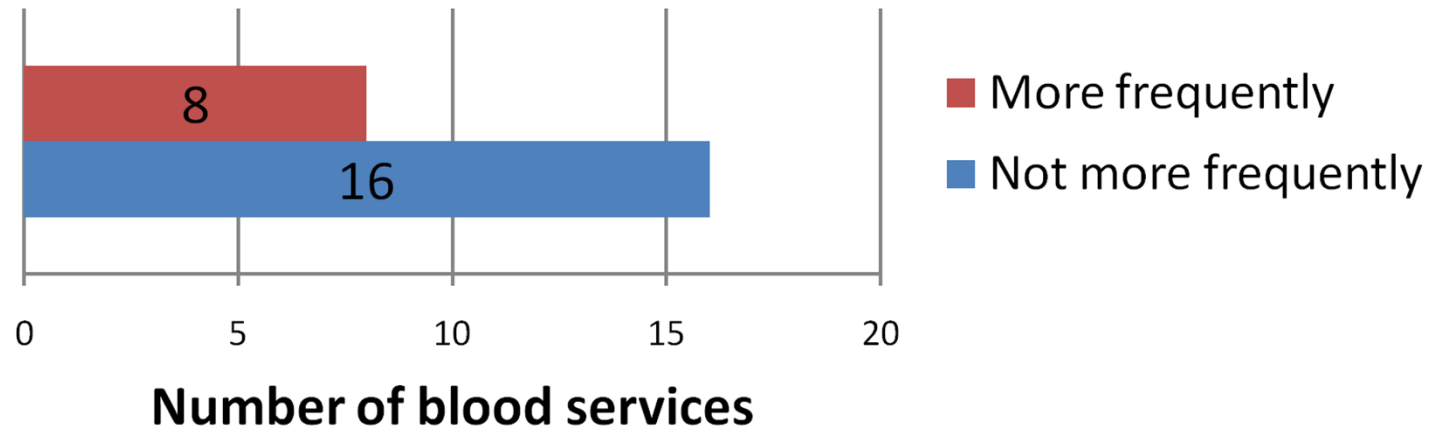


Total: 24 blood services

Belgian Red Cross-Flanders

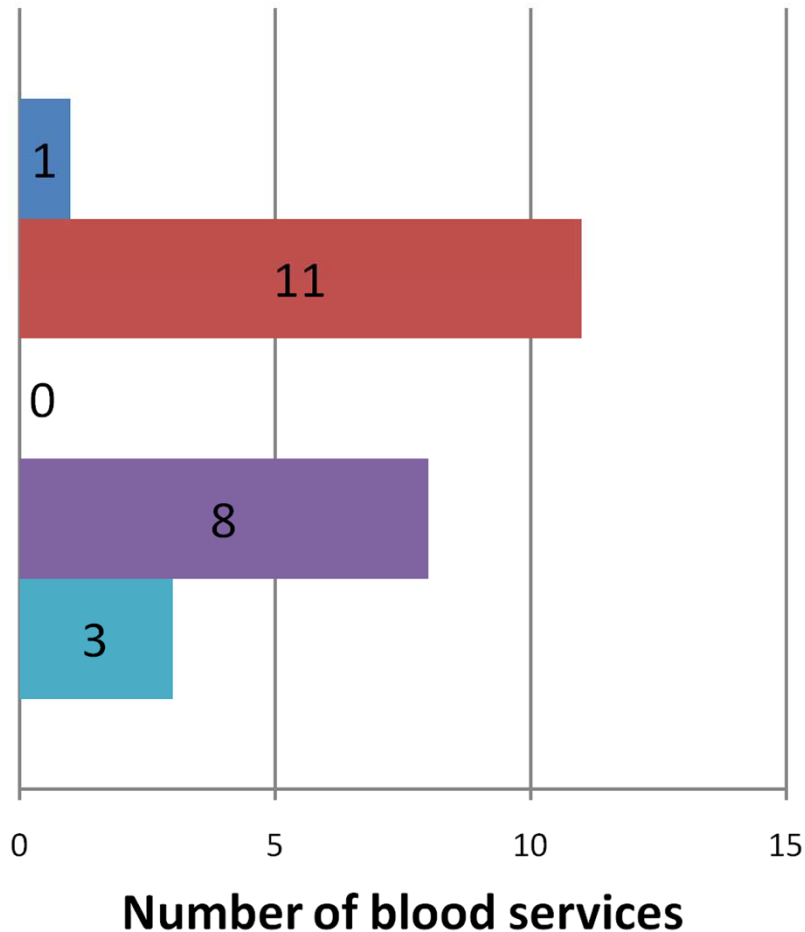
Results: Question 5

Frequency of donation (compared to regular donors)?



Results: Question 6

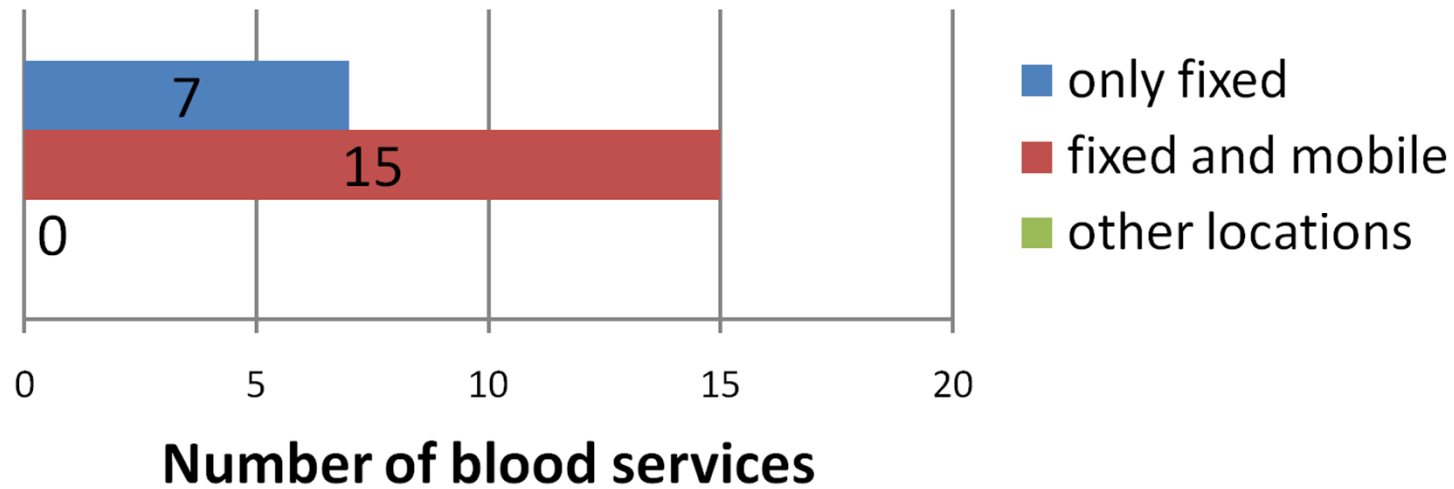
Guidance by physician?



- prescription from treating physician
- approval of donor physician
- prescription from treating physician OR approval donor physician
- prescription from treating physician AND approval donor physician
- without prescription or approval

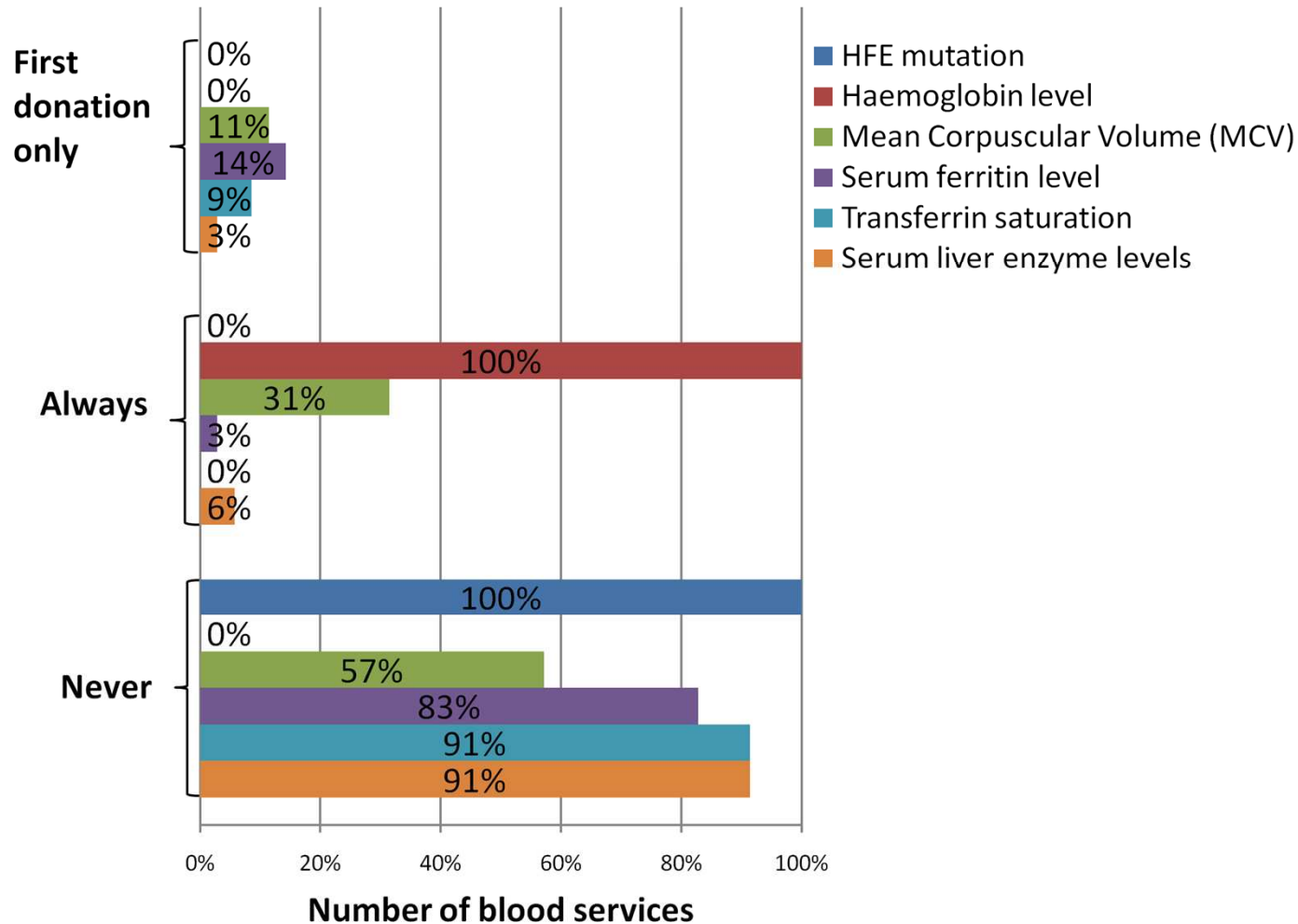
Results: Question 7

Place of blood donation?



Results: Question 8

Which tests are performed on blood from blood donors?



Results: Common policies

Are some carriers/patients with HC accepted as blood donors?	Are carriers/patients with HC allowed to donate more frequently than regular donors?	Is prescription/approval of a physician (treating and/or donor physician) obligatory for carriers/patients with HC to donate blood?	At which location are carriers/patients with HC allowed to donate blood?	The location (country) where the surveyed blood service is located in
YES	YES	Treating physician	Only fixed	/
			Fixed + mobile	/
		Donor physician	Only fixed	France
			Fixed + mobile	Norway, England (UK)
		Donor physician + treating physician	Only fixed	Northern Ireland (UK), Republic of Ireland, USA** (Portland [OR])
			Fixed + mobile	Australia, Sweden (Uppsala)
		NO	Only fixed	/
			Fixed + mobile	/
	NO	Treating physician	Only fixed	South Africa
			Fixed + mobile	/
		Donor physician	Only fixed	Austria, Czech Republic
			Fixed + mobile	Israel, Italy, Germany, Malta, Wales (UK)
		Donor physician + treating physician	Only fixed	/
			Fixed + mobile	Scotland (UK), Switzerland, Finland
NO		Only fixed	/	
		Fixed + mobile	Canada (Ottawa and Montréal), The Netherlands	
NO	Hong Kong, Belgium, Denmark, Estonia, Iceland, Latvia, Luxembourg, Portugal, Romania, Slovenia, Sweden (Skåne)			

Data of blood service in Japan and Spain is not included due to inconsistency of the answers

/ = no blood service was identified with this policy
 **USA: data of Red Cross in Portland (OR) is presented here.