

# NEWSLETTER TRANSPLANT

International figures  
on donation and  
transplantation  
2020



**EDQM**  
Volume 26  
2021



# INTERNATIONAL FIGURES ON ORGAN, TISSUE & HEMATOPOIETIC STEM CELL DONATION & TRANSPLANTATION ACTIVITIES. DOCUMENTS PRODUCED BY THE COUNCIL OF EUROPE EUROPEAN COMMITTEE (PARTIAL AGREEMENT) ON ORGAN TRANSPLANTATION (CD-P-TO). YEAR 2020.

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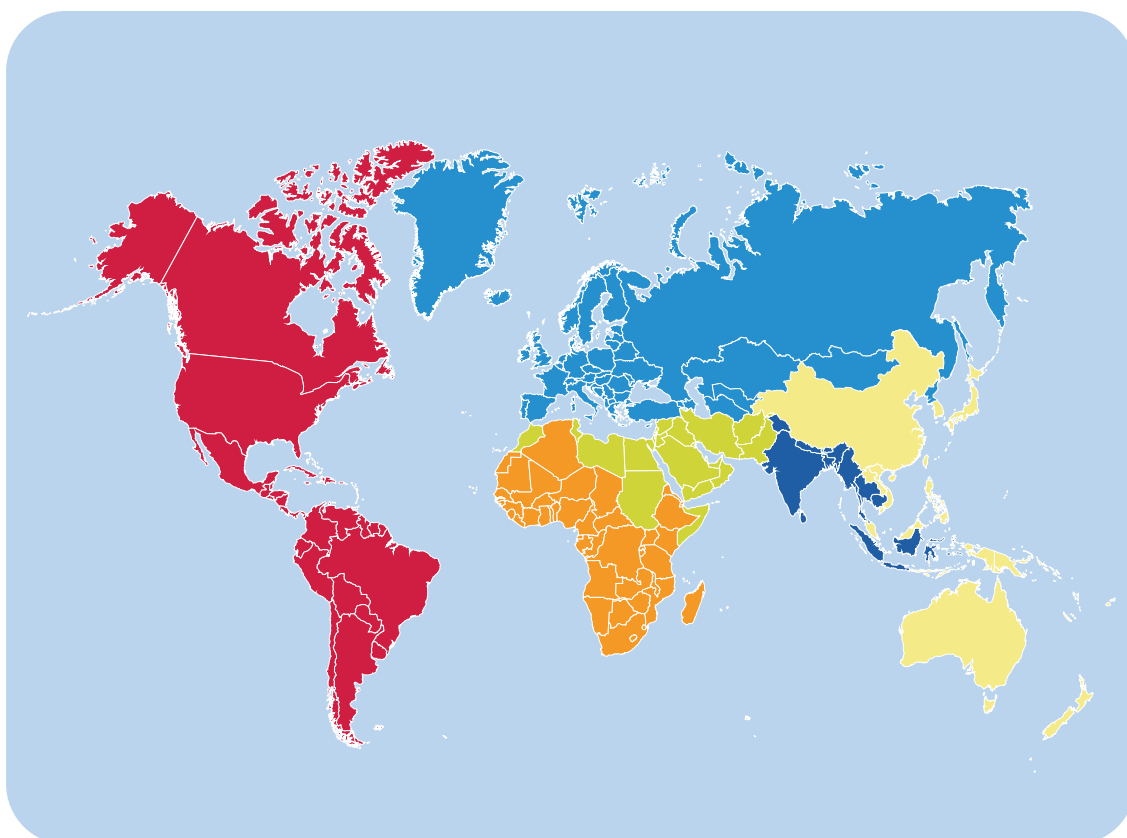
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# NEWSLETTER TRANSPLANT 2021



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**FOR THE PURPOSES OF THIS NEWSLETTER, THE FOLLOWING DEFINITIONS ARE USED:**

**ACTUAL DECEASED ORGAN DONOR**

A deceased person from whom at least one organ was recovered for the purpose of transplantation.

**DONOR AFTER BRAIN DEATH**

A donor after brain death (DBD) is a deceased organ donor in whom death has been determined by neurologic criteria.

**DONOR AFTER CIRCULATORY DEATH**

A donor after circulatory death (DCD) is a deceased organ donor in whom death has been determined by circulatory and respiratory criteria.

Modified Maastricht Categories (Paris 2012) of DCD donors:

II/ Witnessed cardiac arrest (uncontrolled): Sudden unexpected irreversible cardiac arrest, with unsuccessful attempt at resuscitation by a medical team.

III/ Withdrawal of life-sustaining therapy (controlled DCD): Planned withdrawal of life-sustaining therapy with an expected cardiac arrest.

IV/ Cardiac arrest while brain dead (uncontrolled or controlled): Sudden or planned cardiac arrest after brain death diagnosis, but before organ recovery.

**UTILISED DECEASED ORGAN DONOR**

An actual donor from whom at least one organ was transplanted.

**ORGAN TRANSPLANTS**

The transfer (engraftment) of human organs from a donor to a recipient with the aim of restoring function (s) in the body.

**TOTAL TRANSPLANTS (ALL COMBINATIONS INCLUDED)**

Includes the transplantation of the corresponding organ with or without the simultaneous transplant of a different type of organ (s).

**DOUBLE-KIDNEY TX.**

One double-kidney transplant is counted as 1 transplant.

**TX. FROM LIVING DONORS**

A living donor is a living human being from whom organs have been recovered for the purpose of transplantation. A living donor has one of the following three possible relationships with the recipient:

**A – Related:** The donor is genetically and/or emotionally related to the recipient.

A1/ Genetically related: A genetic relation exists between donor and recipient (e.g. brother/sister, parent/offspring). Therefore, a certain immunological compatibility exists too.

A2/ Emotionally related: The donor is a genetically unrelated family member (e.g. spouse) of the recipient or a friend (to be considered as a family member).

**B – Unrelated:** The donor has no genetic or emotional relationship with the recipient. The relation between donor and recipient must be outlined further by a sub-specification. Immunological compatibility exists only by chance.

B1/ Paired exchange or cross-over: By a controlled programme, unrelated donor and recipient pairs exchange grafts beyond any emotional or genetic relation, with the aim of overcoming immunological restrictions.

B2/ Non-directed altruistic or anonymous: By a controlled programme, the donor can provide a graft to society which allocates this to a previously unknown recipient by defined rules.

B3/ Directed altruistic: By a controlled programme, the donor provides a graft to a recipient of the donor's choice.

**DOMINO DONOR**

Patient who undergoes organ transplantation from a deceased donor and whose organ is suitable for transplant to another transplant candidate.

**DOMINO TRANSPLANT**

A procedure in which an organ is removed from one transplant candidate and immediately transplanted into a second patient, with the first patient receiving a new organ from a deceased donor.

**HEART-LUNG TX.**

One heart-lung transplant is counted as 1 lung transplant, 1 heart transplant and 1 heart-lung transplant.

**DOUBLE-LUNG TX.**

One double-lung transplant is counted as 1 transplant.

**TOTAL NUMBER OF PATIENTS TRANSPLANTED**

The recipient of more than one organ (e.g. combined kidney-liver) is counted as one recipient.

**PAEDIATRIC**

Includes only paediatric activity (patients aged < 18 years).

**WAITING LIST**

**Example:** At 1/1/2020 there were 200 patients active on the waiting list (WL). Along the year, 100 patients are newly included on the WL (first row). In total, 300 patients have been ever active on the WL during the year (second row). Along the year, 200 patients received an organ transplant, 50 patients remained active at the end of the year (third row), 25 patients died (fourth row) and 25 patients were excluded (number not to be reported, but derived from previous figures).

Patients included on the WL for the first time in the course of 2020	100
Total number of patients ever active on the WL during 2020	300
Patients awaiting for a transplant (only active candidates) on 31/12/2020	50
Patients who died while on the WL during 2020	25

**FAMILY REFUSALS**

*Numbers of interviews to pose the option of organ donation:* Number of interviews to present families with the option of donating the organs of the deceased person.

*Number of family refusals:* Number of negative responses to donate after holding interviews with the families.

# Letter from the Editor



# Letter from the Editor

*Beatriz Domínguez-Gil, MD, PhD*  
*Director Organización Nacional de Trasplantes, Spain*  
*Editor of Newsletter Transplant*

Dear friends,

It is with pleasure that I introduce a new issue of the *Newsletter Transplant*, one of the most valuable tools produced by the European Committee of Organ Transplantation of the Council of Europe (CD-P-TO) in conjunction with the Spanish Organización Nacional de Trasplantes (ONT). Since 1996, this publication has allowed the CD-P-TO to share information on donation and transplantation activities in member states of the Council of Europe (CoE) – and beyond – and to present some of the projects developed by this committee, as well as other documents of relevance to the field. The *Newsletter Transplant* is in itself an opportunity to demonstrate the active contribution of the CD-P-TO to secure fundamental human rights and freedoms, as well as to increase organ availability, improve the effectiveness of transplantation systems and enhance the quality and safety of organs, tissues and cells for clinical use.

Without doubt, monitoring of practices in donation and transplantation of substances of human origin in member states is essential for the sake of transparency and international benchmarking. This is the main aim of the *Newsletter Transplant* and the reason it has become an international reference. In this new issue, the *Newsletter Transplant* provides data from more than 80 countries throughout the world for the year 2020. The information presented relates to organ donation and transplantation activities, management of the waiting lists, and transplant centres. Donation data are displayed by type of deceased donor (after neurological or circulatory determination of death, and Maastricht categories) and type of living donor (related or unrelated to the recipient, specified or unspecified). Data are also presented by age group and gender for both organ donors and recipients. Let me take this opportunity to remind you that the underlying data collection is also hosted by the Global Observatory on Organ Donation and Transplantation ([\[observatory.org/\]\(http://www.transplant-observatory.org/\)\), developed and maintained by the ONT by designation of the World Health Organization. The Observatory allows users to download the data and display figures and different types of analyses online.](http://www.transplant-</a></p></div><div data-bbox=)

Information presented in the *Newsletter Transplant* is not limited to the organ field, but also includes data collected via the Eurocet platform by the Centro Nazionale di Trapianti (CNT) in Italy on the donation, procurement, processing, distribution and clinical use of tissues and cells from a significant number of countries.

2020 was a highly complex year due to the COVID-19 pandemic, which unfortunately continues to have a profound impact on all countries in terms of health, social life and economic activities. Donation and transplantation programmes across the world have also suffered during this terrible pandemic, which has imposed major obstacles to these activities. To evaluate the precise impact of the COVID-19 health crisis on transplant programmes, this issue of the *Newsletter Transplant* displays a set of figures and tables that allows easy comparisons of organ donation and transplantation activities (by transplant type) in 2020 versus 2019, the pre-pandemic year, for a significant number of countries. The figures reveal that, although to a variable extent, the transplantation activity has decreased in most countries (by 18% globally), which identifies our patients as collateral victims of the COVID-19 pandemic. The positive message is that we have been able to make our programs co-exist with COVID-19 within a very short period of time, by increasing our knowledge about testing and selection of potential donors and recipients with regard to the infection caused by SARS-CoV-2, the impact of the disease on transplant recipients, the management of transplant programmes and the way we protect and treat our patients. International co-operation has been critical to these achievements. Thanks to these efforts, along with our commitment

and continued work, we will hopefully be able to return to normal – and continue improving – in the years to come.

The CD-P-TO, through a number of initiatives, programmes and legal instruments, has over the years actively contributed to the development and implementation of quality and safety standards in the field of donation and transplantation, facilitating the exchange of knowledge between countries and institutions, securing fundamental rights and ensuring respect for the human body. I would like to remind you of the importance and usefulness of the [technical guides](#) in the fields of organs, tissues and cells that are regularly updated by ad hoc working groups. These are invaluable tools for regulators and health professionals throughout Europe and beyond. The Committee of Ministers of the CoE has recently adopted two recommendations, presented in this issue of the *Newsletter Transplant*, to recommend member states to take all necessary measures and steps to ensure that quality and safety standards in the fields of organs, tissues and cells are carried out in accordance with these two technical guides. The adoption of these recommendations by the CoE Committee of Ministers represents an acknowledgment of the important work carried out by the EDQM and the CoE in this area and provides the CD-P-TO and relevant ad hoc working groups with the legal basis to continue elaborating and updating these guides.

In addition, the CD-P-TO has continued to identify topics of interest and elaborate legal instruments in the field that have subsequently been adopted by the Committee of Ministers of the CoE. These documents have profoundly impacted national legislation, ethical frameworks, strategic plans on organisational aspects of donation and transplantation, and professional practices, supporting countries to address the many challenges posed by transplantation practices in a uniform manner. In this issue, we include a new recommendation to member states targeted at the protection of donors of haematopoietic progenitor cells. This recommendation provides guidance based on the most robust scientific evidence available to ensure harmonised protection measures for both related and unrelated donors. The new guidance addresses the screening and evaluation of potential donors, the short- and long-term post-donation follow-up, and the need to collect data to enable professionals in the field to learn from experience and maximise the safety of future donors.

Please allow me to finish this letter by thanking all those who make the *Newsletter Transplant* possible - members of the CD-P-TO, national focal points providing data on a regular basis and the EDQM Secretariat. Let me also thank the members of the ONT whose continuous work, commitment and enthusiasm are essential for an exercise that every year showcases the outcomes of the efforts undertaken all over the world in the fascinating field of transplantation.

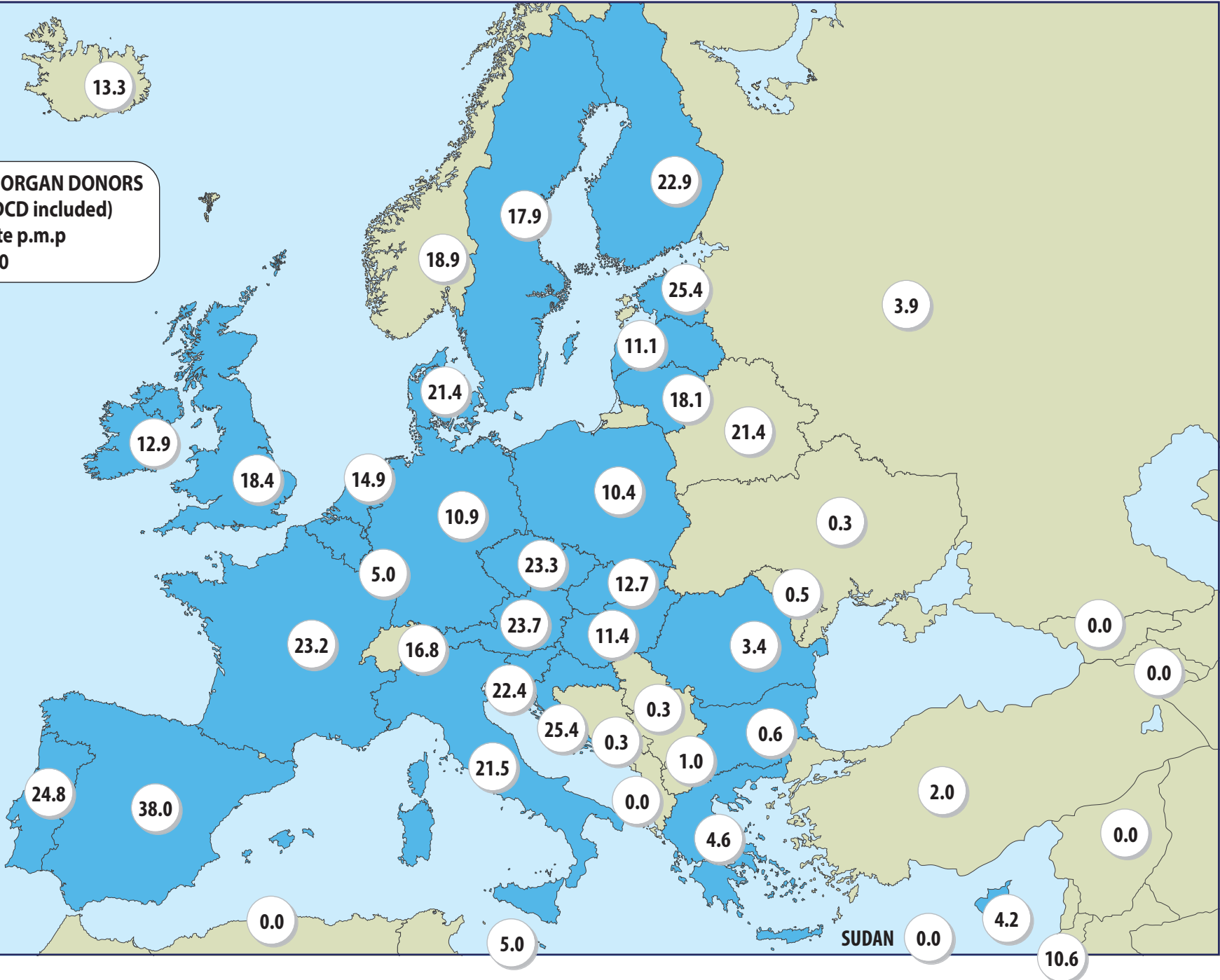




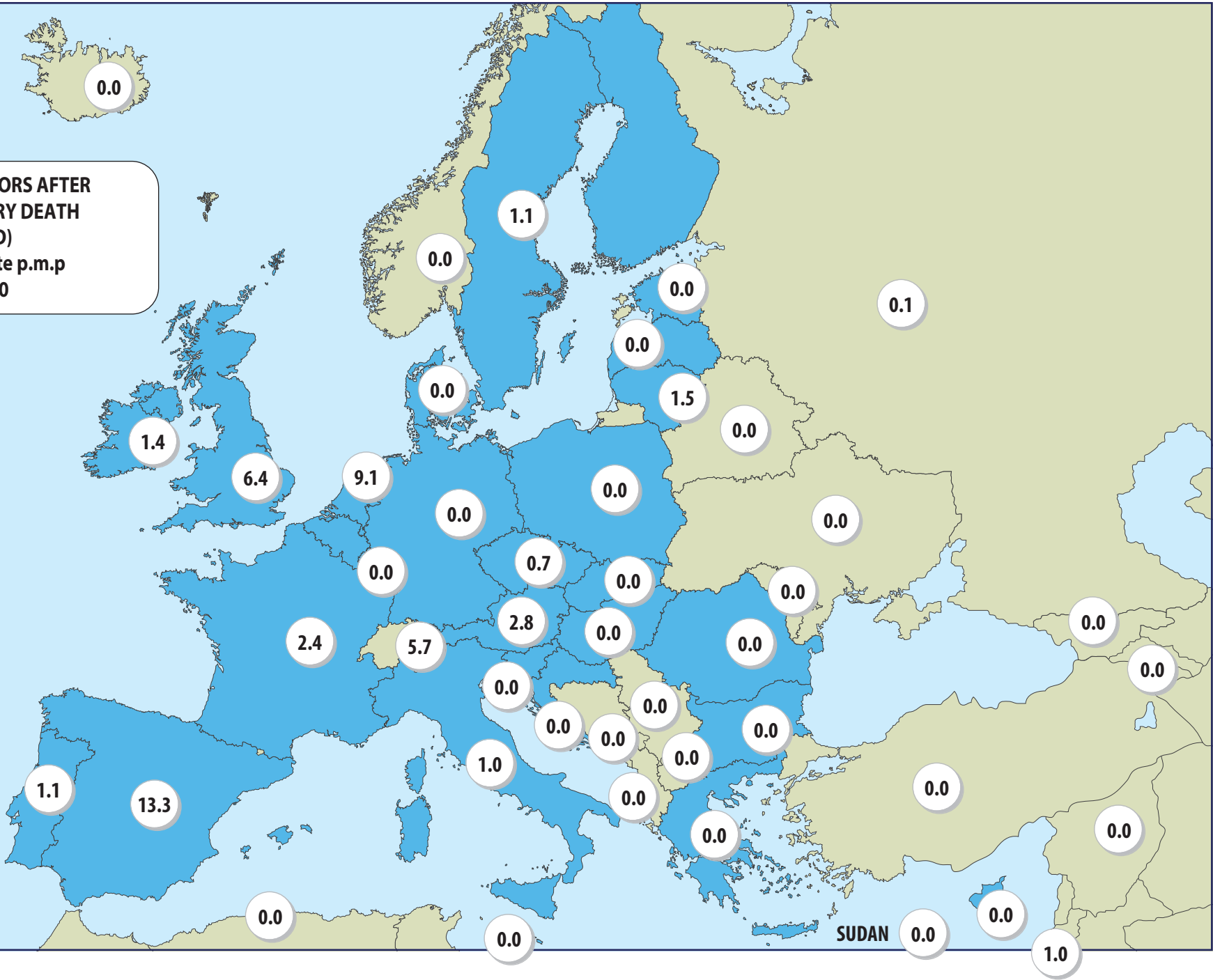
# **International Figures on Organ Donation and Transplantation Activity. Year 2020**



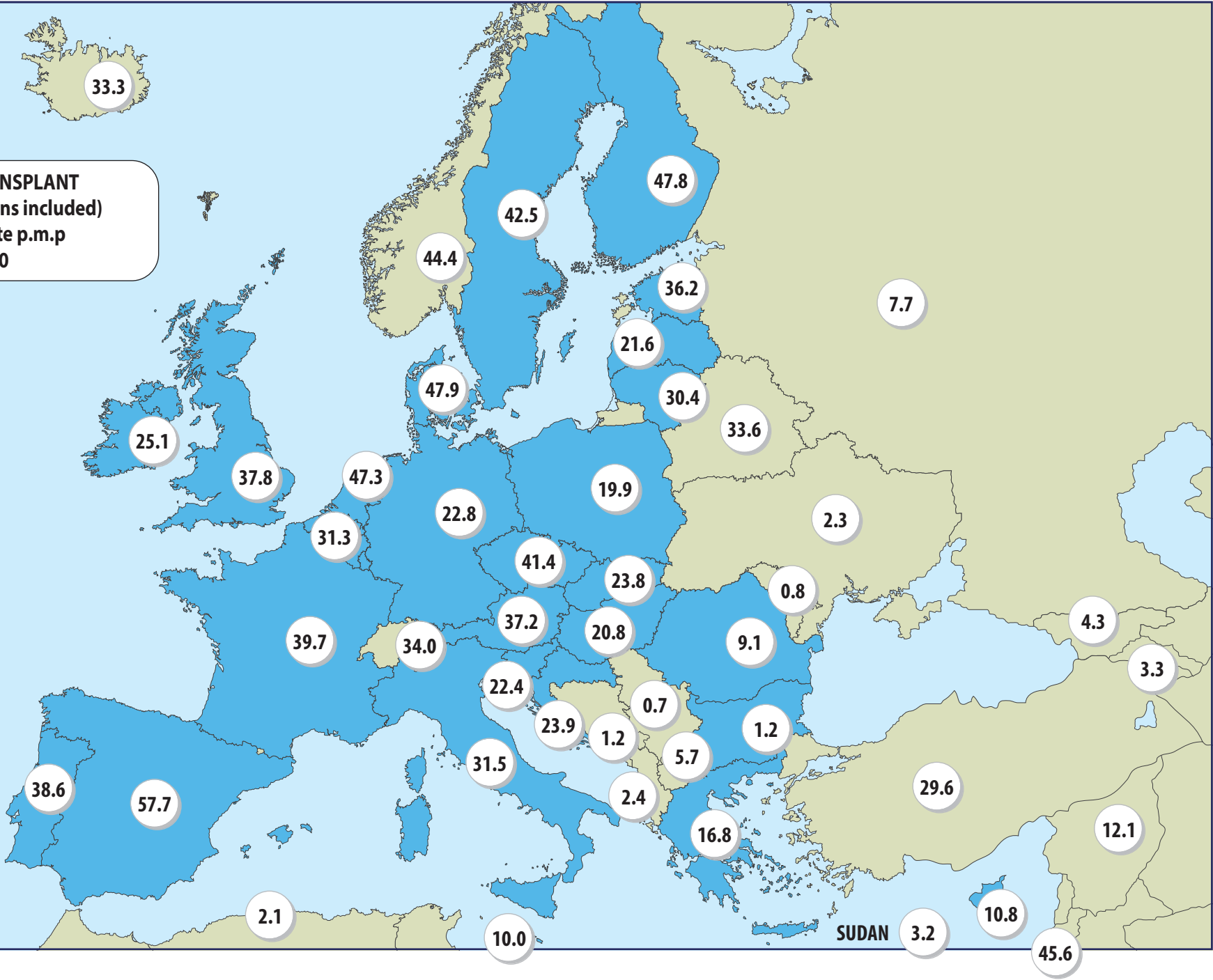
**ACTUAL DECEASED ORGAN DONORS**  
(both DBD and DCD included)  
Annual Rate p.m.p  
2020



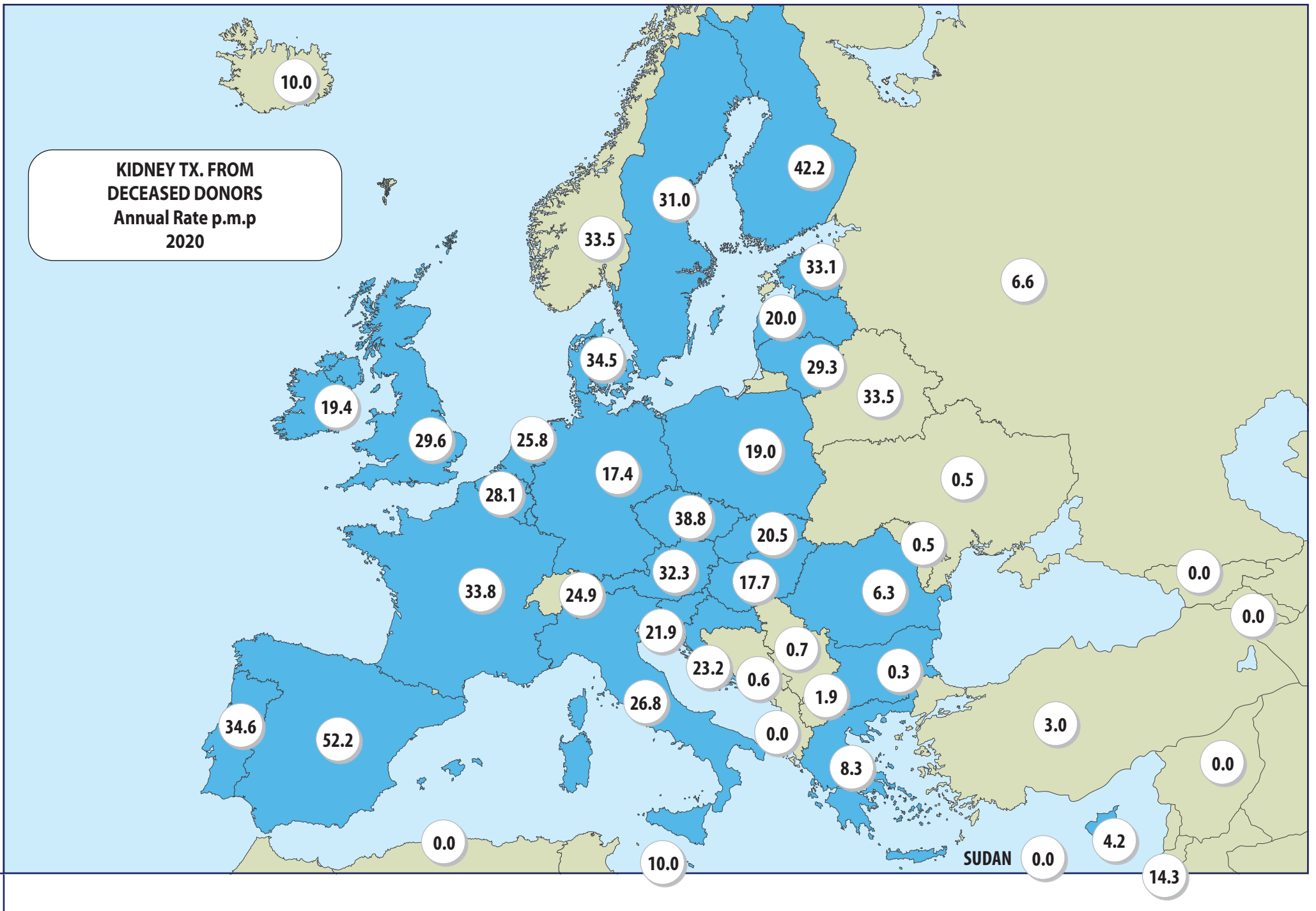
**ACTUAL DONORS AFTER  
CIRCULATORY DEATH  
(DCD)  
Annual Rate p.m.p  
2020**



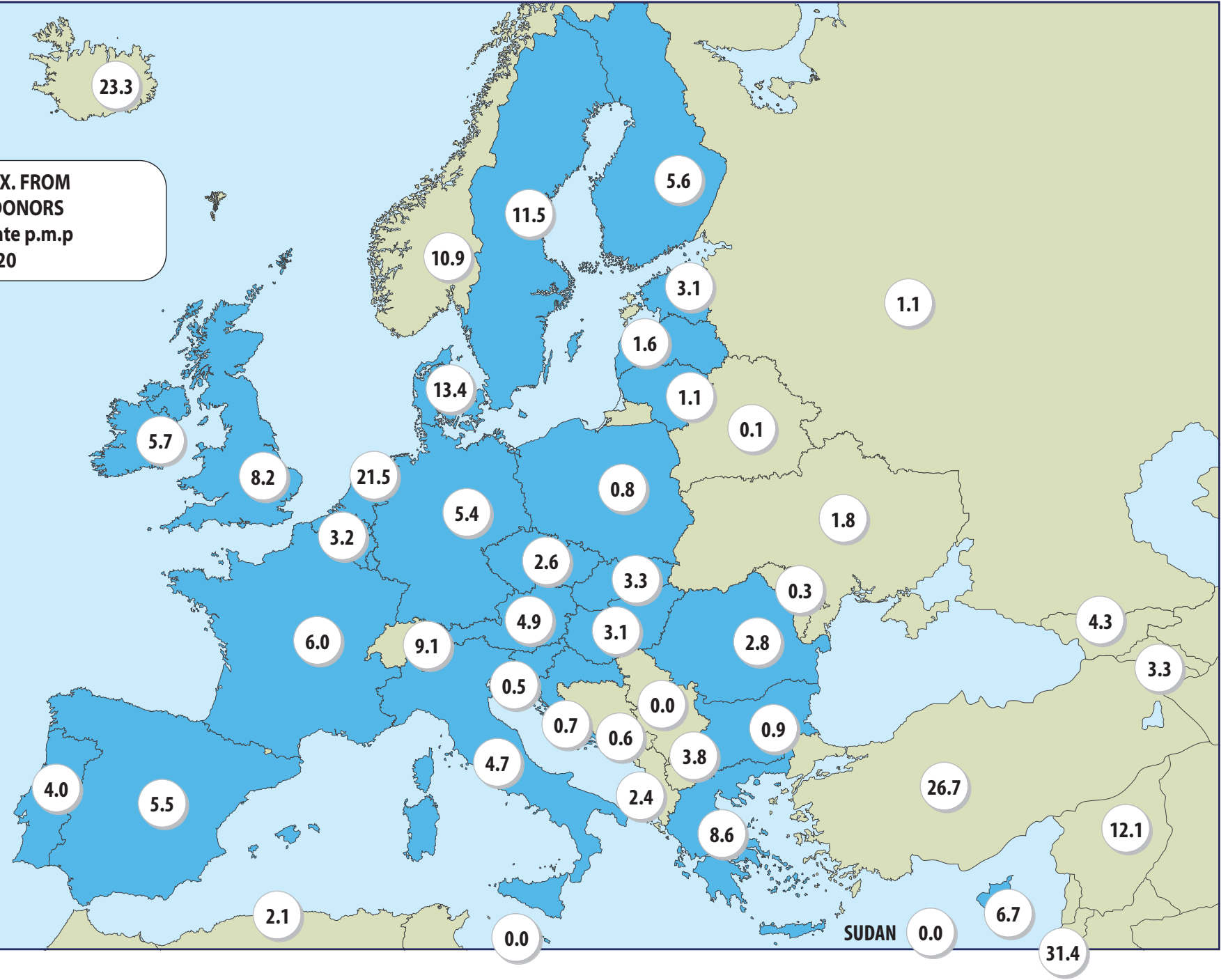
**KIDNEY TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020



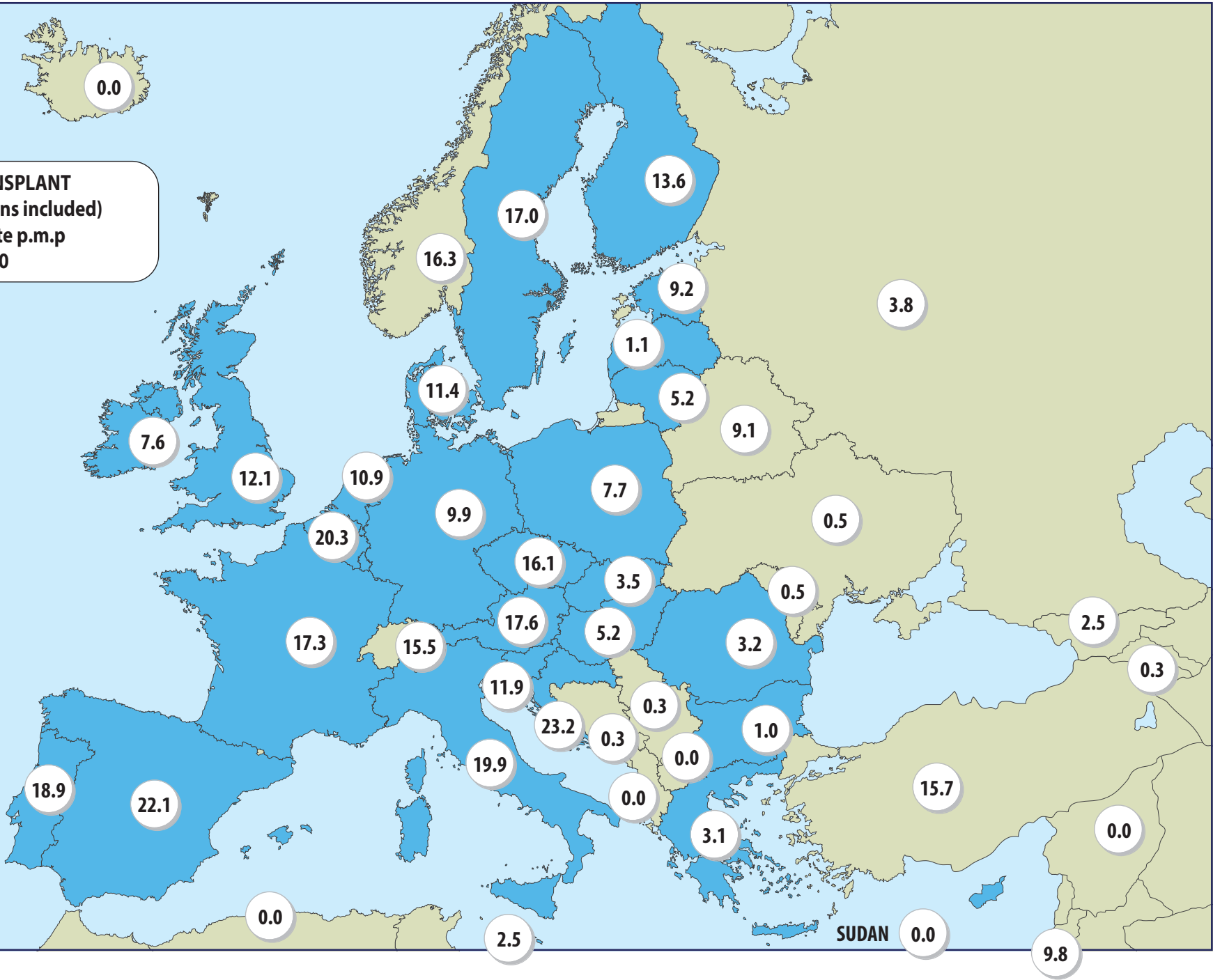
**KIDNEY TX. FROM  
DECEASED DONORS  
Annual Rate p.m.p  
2020**



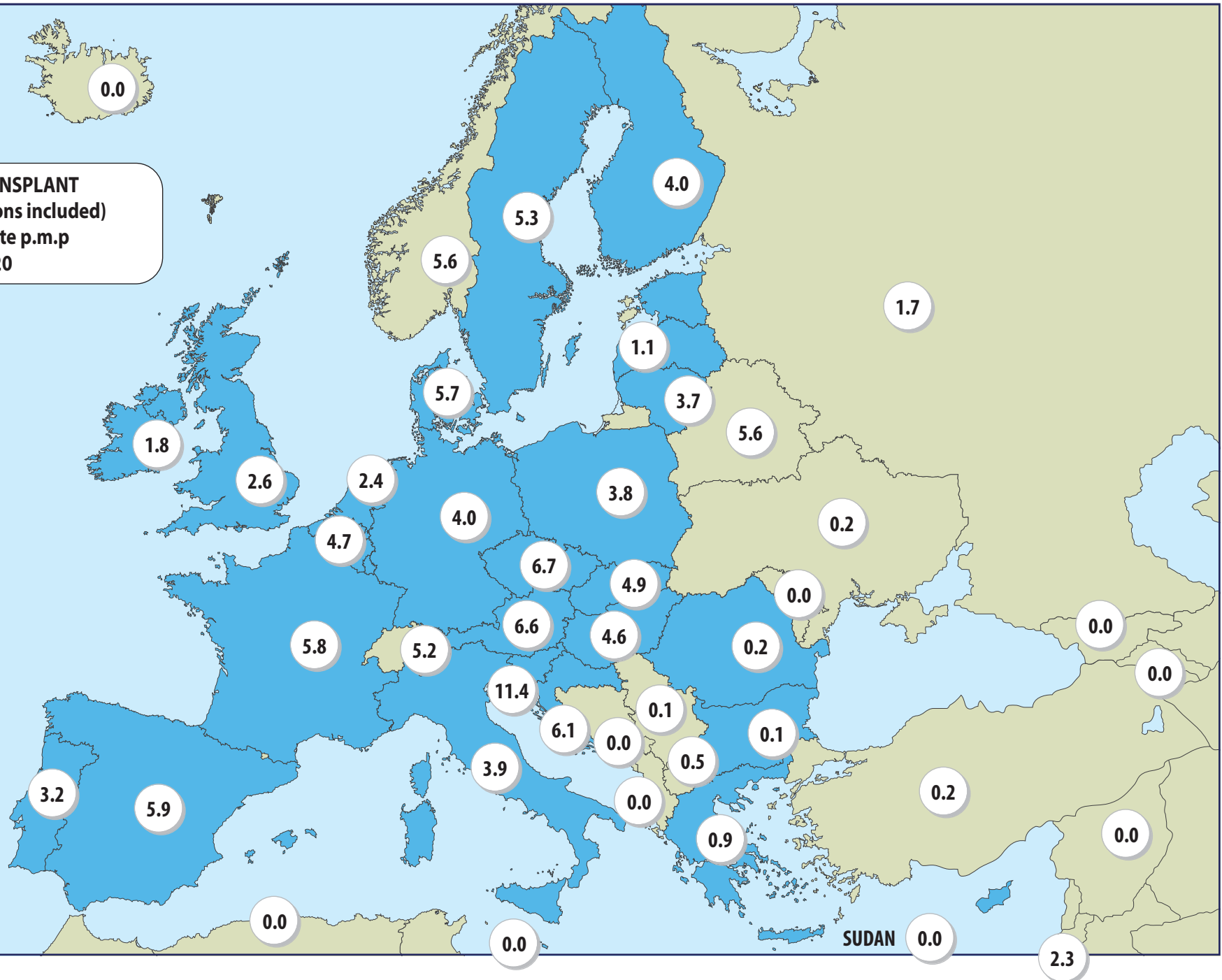
**KIDNEY TX. FROM LIVING DONORS**  
Annual Rate p.m.p  
2020



**LIVER TRANSPLANT**  
 (all combinations included)  
 Annual Rate p.m.p  
 2020



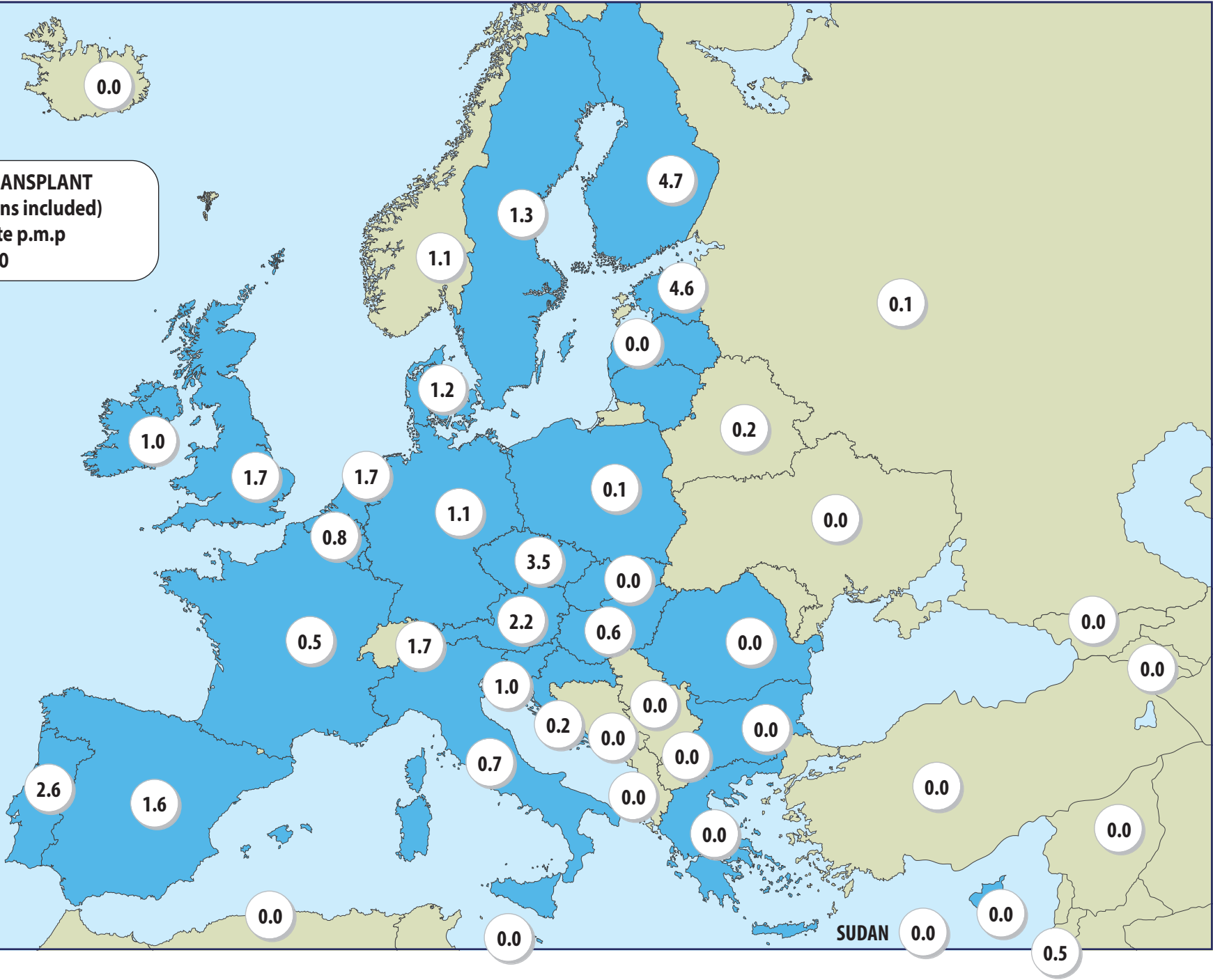
**HEART TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020



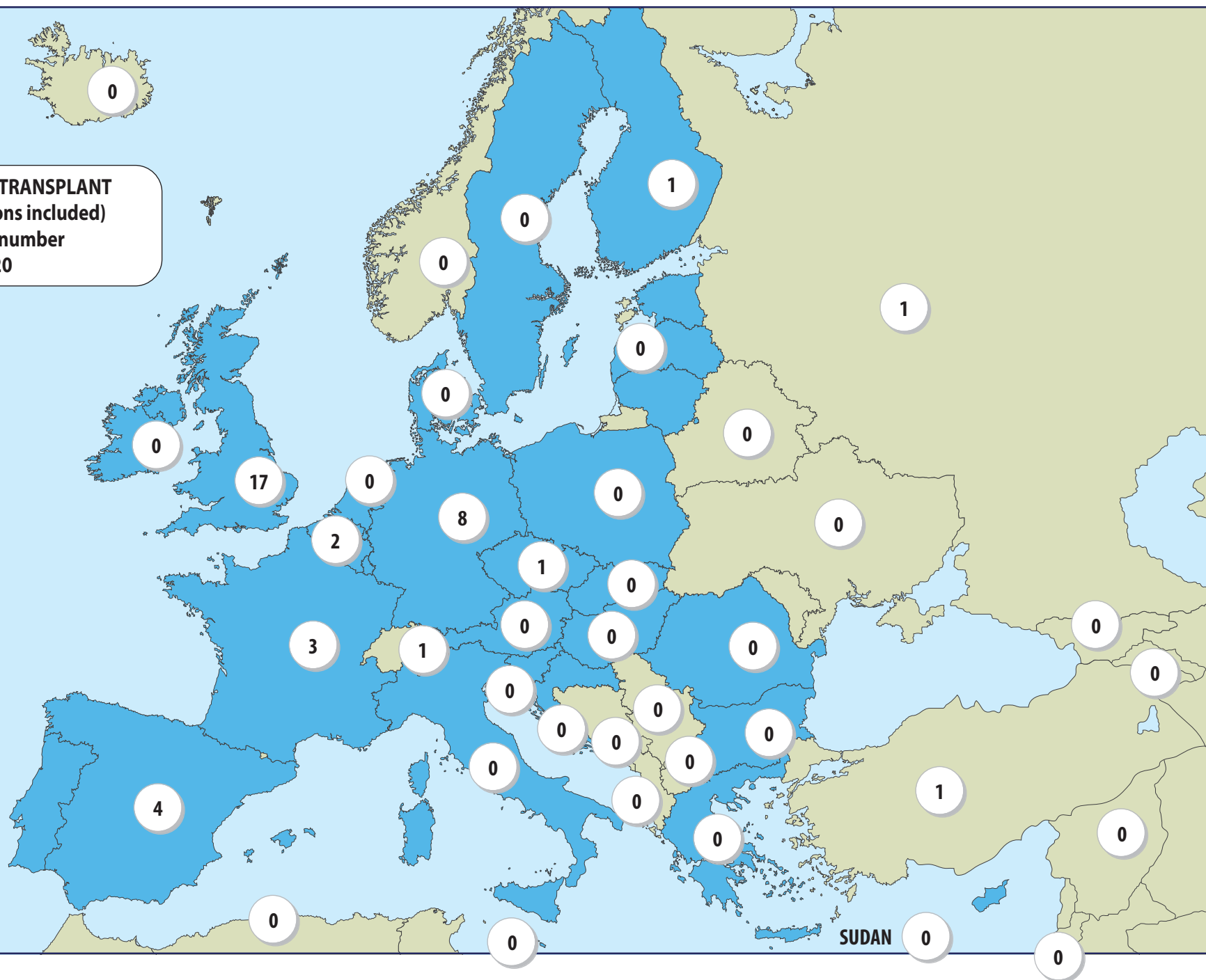




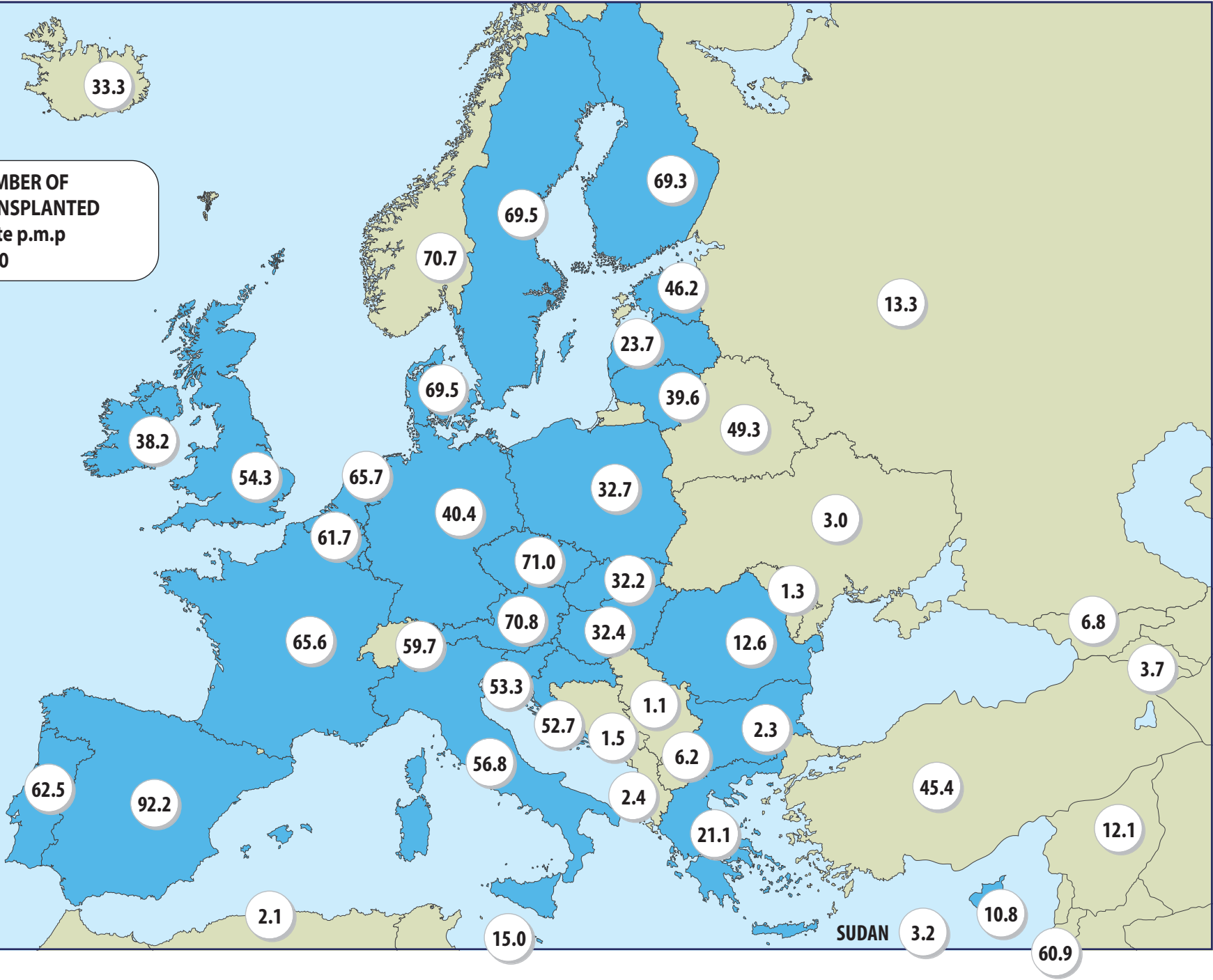
**PANCREAS TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020



**SMALL BOWEL TRANSPLANT**  
**(all combinations included)**  
**Absolute number**  
**2020**



**TOTAL NUMBER OF PATIENTS TRANSPLANTED**  
Annual Rate p.m.p  
2020



SUDAN

3.2

10.8

12.1

45.4

3.7

6.8

1.3

3.0

13.3

69.3

69.5

70.7

69.5

38.2

54.3

65.7

40.4

61.7

71.0

32.2

49.3

65.6

59.7

70.8

32.4

12.6

53.3

52.7

1.5

1.1

6.2

2.3

56.8

2.4

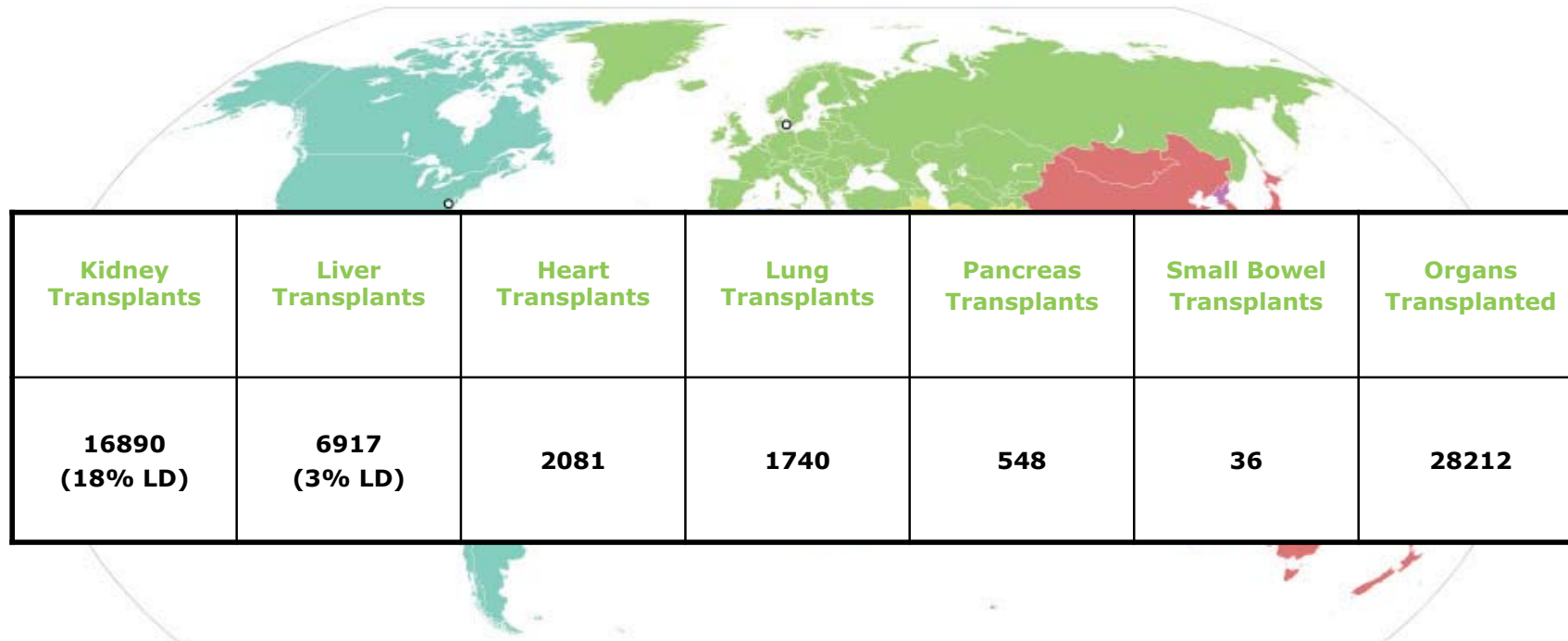
21.1

2.1

15.0

60.9

**EUROPEAN UNION DATA**

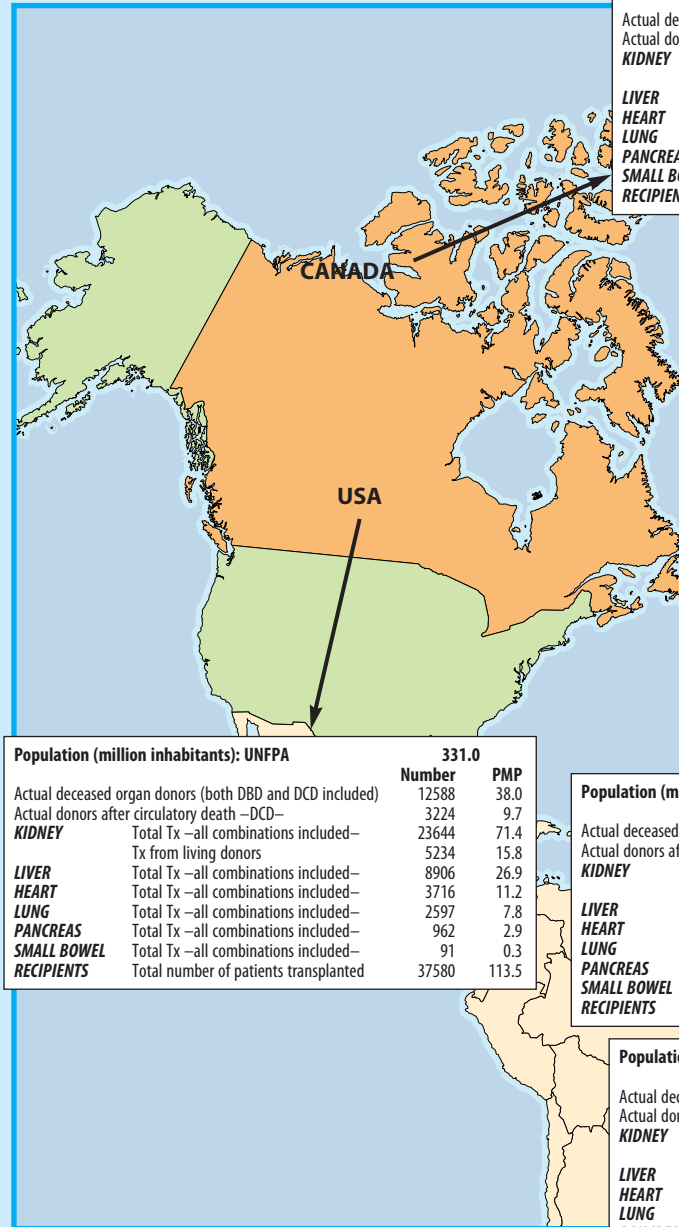


Kidney Transplants	Liver Transplants	Heart Transplants	Lung Transplants	Pancreas Transplants	Small Bowel Transplants	Organs Transplanted
<b>16890</b> (18% LD)	<b>6917</b> (3% LD)	<b>2081</b>	<b>1740</b>	<b>548</b>	<b>36</b>	<b>28212</b>

**9447 ACTUAL DECEASED ORGAN DONORS**  
*(7833 DBD and 1614 DCD donors)*

**2020 data**

**N= 28 COUNTRIES (513 million inhabitants)**



**Population (million inhabitants): UNFPA** 37.7

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	-	-
Actual donors after circulatory death -DCD-	-	-
<b>KIDNEY</b>		
Total Tx -all combinations included-	1518	40.3
Tx from living donors	396	10.5
<b>LIVER</b>		
Total Tx -all combinations included-	565	15.0
<b>HEART</b>		
Total Tx -all combinations included-	188	5.0
<b>LUNG</b>		
Total Tx -all combinations included-	325	8.6
<b>PANCREAS</b>		
Total Tx -all combinations included-	57	1.5
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	6	0.2
<b>RECIPIENTS</b>		
Total number of patients transplanted	2615	69.4

**Population (million inhabitants): UNFPA** 4.3

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	14	3.3
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	61	14.2
Tx from living donors	37	8.6
<b>LIVER</b>		
Total Tx -all combinations included-	2	0.5
<b>HEART</b>		
Total Tx -all combinations included-	0	0.0
<b>LUNG</b>		
Total Tx -all combinations included-	0	0.0
<b>PANCREAS</b>		
Total Tx -all combinations included-	0	0.0
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	0	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	63	14.7

**Population (million inhabitants): UNFPA** 34.8

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	65	1.9
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	547	15.7
Tx from living donors	477	13.7
<b>LIVER</b>		
Total Tx -all combinations included-	244	7.0
<b>HEART</b>		
Total Tx -all combinations included-	28	0.8
<b>LUNG</b>		
Total Tx -all combinations included-	20	0.6
<b>PANCREAS</b>		
Total Tx -all combinations included-	2	0.1
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	1	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	840	24.1

**Population (million inhabitants): UNFPA** 331.0

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	12588	38.0
Actual donors after circulatory death -DCD-	3224	9.7
<b>KIDNEY</b>		
Total Tx -all combinations included-	23644	71.4
Tx from living donors	5234	15.8
<b>LIVER</b>		
Total Tx -all combinations included-	8906	26.9
<b>HEART</b>		
Total Tx -all combinations included-	3716	11.2
<b>LUNG</b>		
Total Tx -all combinations included-	2597	7.8
<b>PANCREAS</b>		
Total Tx -all combinations included-	962	2.9
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	91	0.3
<b>RECIPIENTS</b>		
Total number of patients transplanted	37580	113.5

**Population (million inhabitants): UNFPA** 115.0

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	0	0.0
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	8	0.1
Tx from living donors	8	0.1
<b>LIVER</b>		
Total Tx -all combinations included-	0	0.0
<b>HEART</b>		
Total Tx -all combinations included-	0	0.0
<b>LUNG</b>		
Total Tx -all combinations included-	0	0.0
<b>PANCREAS</b>		
Total Tx -all combinations included-	0	0.0
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	0	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	8	0.1

**Population (million inhabitants): UNFPA** 53.8

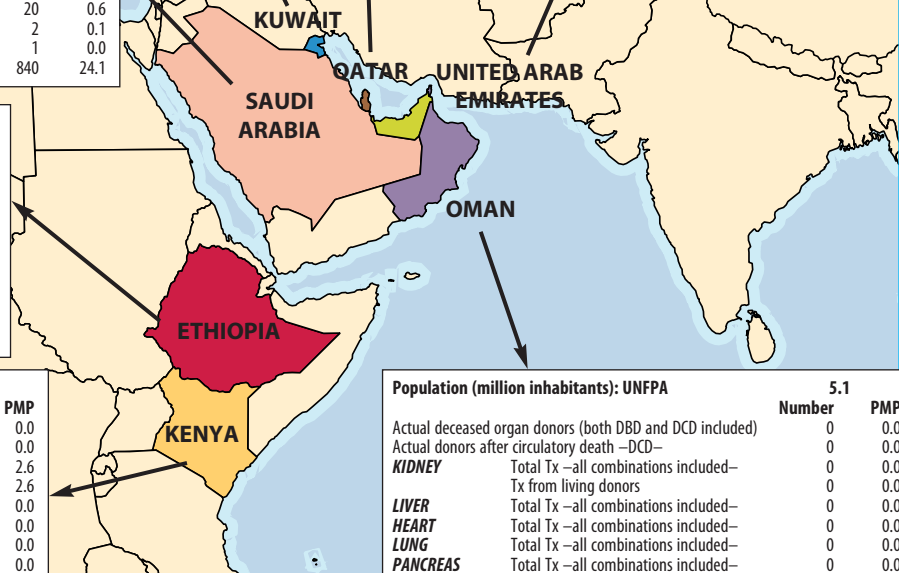
	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	0	0.0
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	142	2.6
Tx from living donors	142	2.6
<b>LIVER</b>		
Total Tx -all combinations included-	0	0.0
<b>HEART</b>		
Total Tx -all combinations included-	0	0.0
<b>LUNG</b>		
Total Tx -all combinations included-	0	0.0
<b>PANCREAS</b>		
Total Tx -all combinations included-	0	0.0
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	0	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	142	2.6

**Population (million inhabitants): UNFPA** 2.9

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	2	0.7
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	17	5.9
Tx from living donors	13	4.5
<b>LIVER</b>		
Total Tx -all combinations included-	1	0.3
<b>HEART</b>		
Total Tx -all combinations included-	0	0.0
<b>LUNG</b>		
Total Tx -all combinations included-	0	0.0
<b>PANCREAS</b>		
Total Tx -all combinations included-	0	0.0
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	0	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	18	6.2

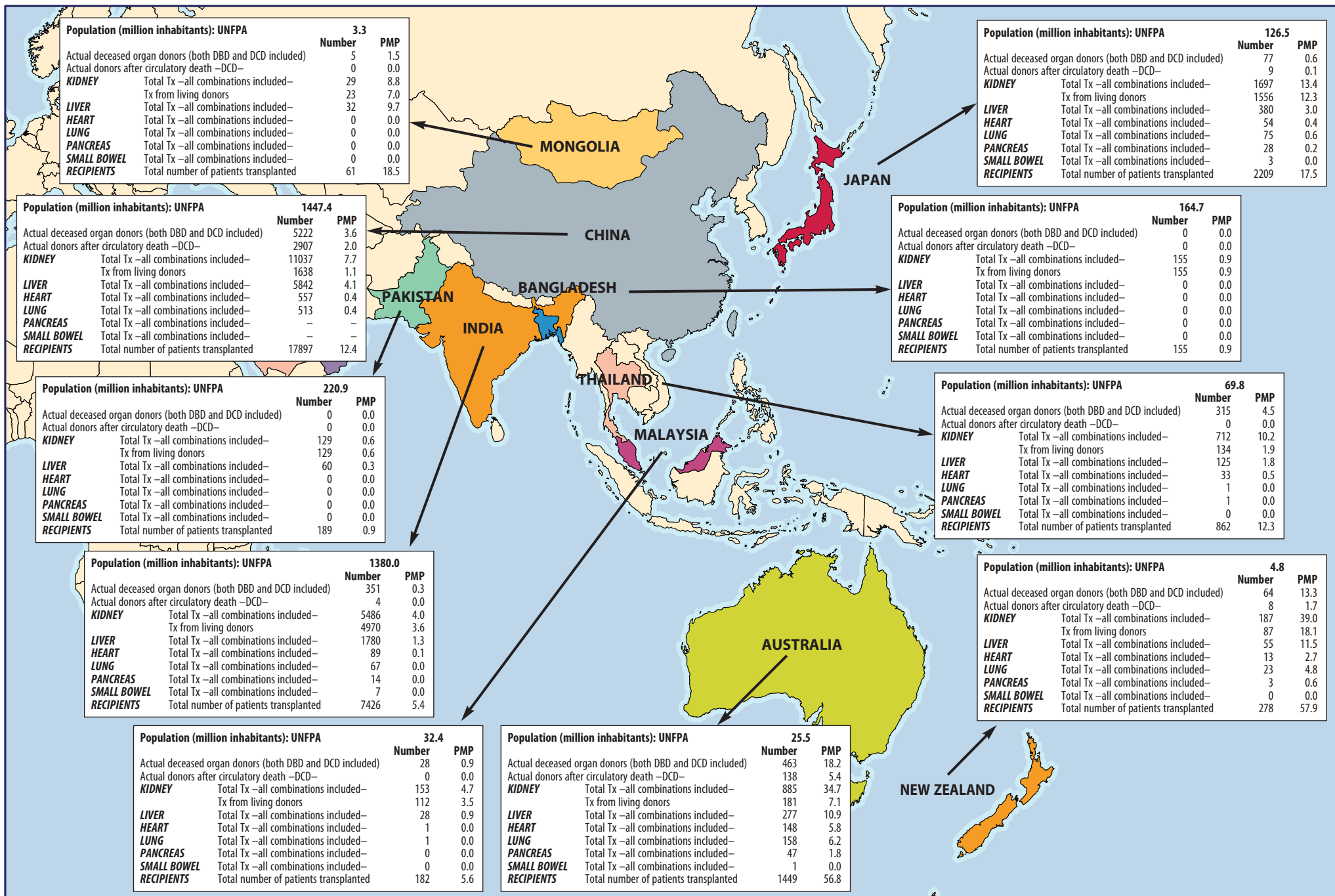
**Population (million inhabitants): UNFPA** 9.9

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	9	0.9
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	61	6.2
Tx from living donors	45	4.5
<b>LIVER</b>		
Total Tx -all combinations included-	11	1.1
<b>HEART</b>		
Total Tx -all combinations included-	2	0.2
<b>LUNG</b>		
Total Tx -all combinations included-	1	0.1
<b>PANCREAS</b>		
Total Tx -all combinations included-	1	0.1
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	0	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	75	7.6



**Population (million inhabitants): UNFPA** 5.1

	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	0	0.0
Actual donors after circulatory death -DCD-	0	0.0
<b>KIDNEY</b>		
Total Tx -all combinations included-	0	0.0
Tx from living donors	0	0.0
<b>LIVER</b>		
Total Tx -all combinations included-	0	0.0
<b>HEART</b>		
Total Tx -all combinations included-	0	0.0
<b>LUNG</b>		
Total Tx -all combinations included-	0	0.0
<b>PANCREAS</b>		
Total Tx -all combinations included-	0	0.0
<b>SMALL BOWEL</b>		
Total Tx -all combinations included-	0	0.0
<b>RECIPIENTS</b>		
Total number of patients transplanted	0	0.0

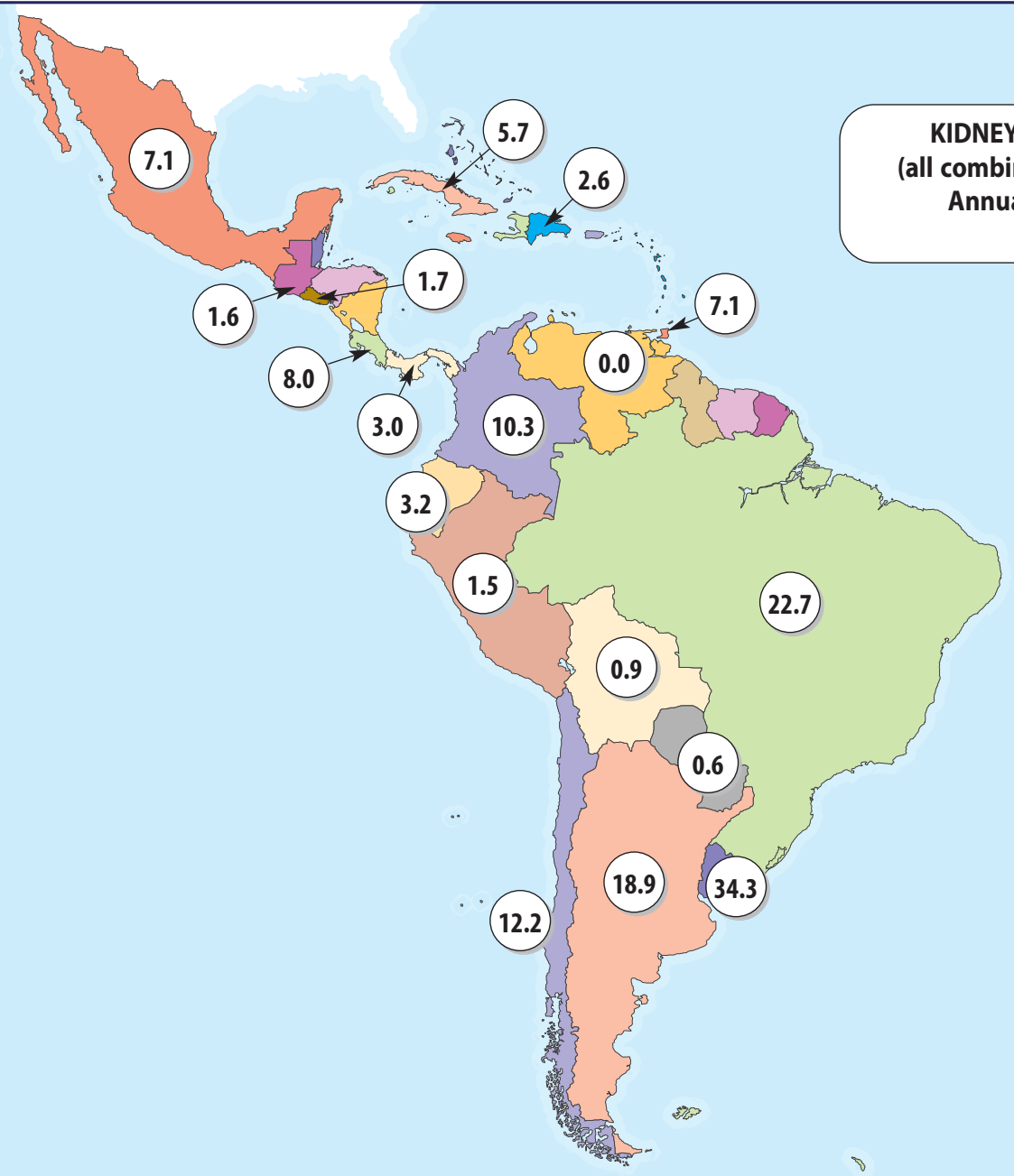




**ACTUAL DECEASED ORGAN DONORS**  
**(both DBD and DCD included)**  
**Annual Rate p.m.p**  
**2020**

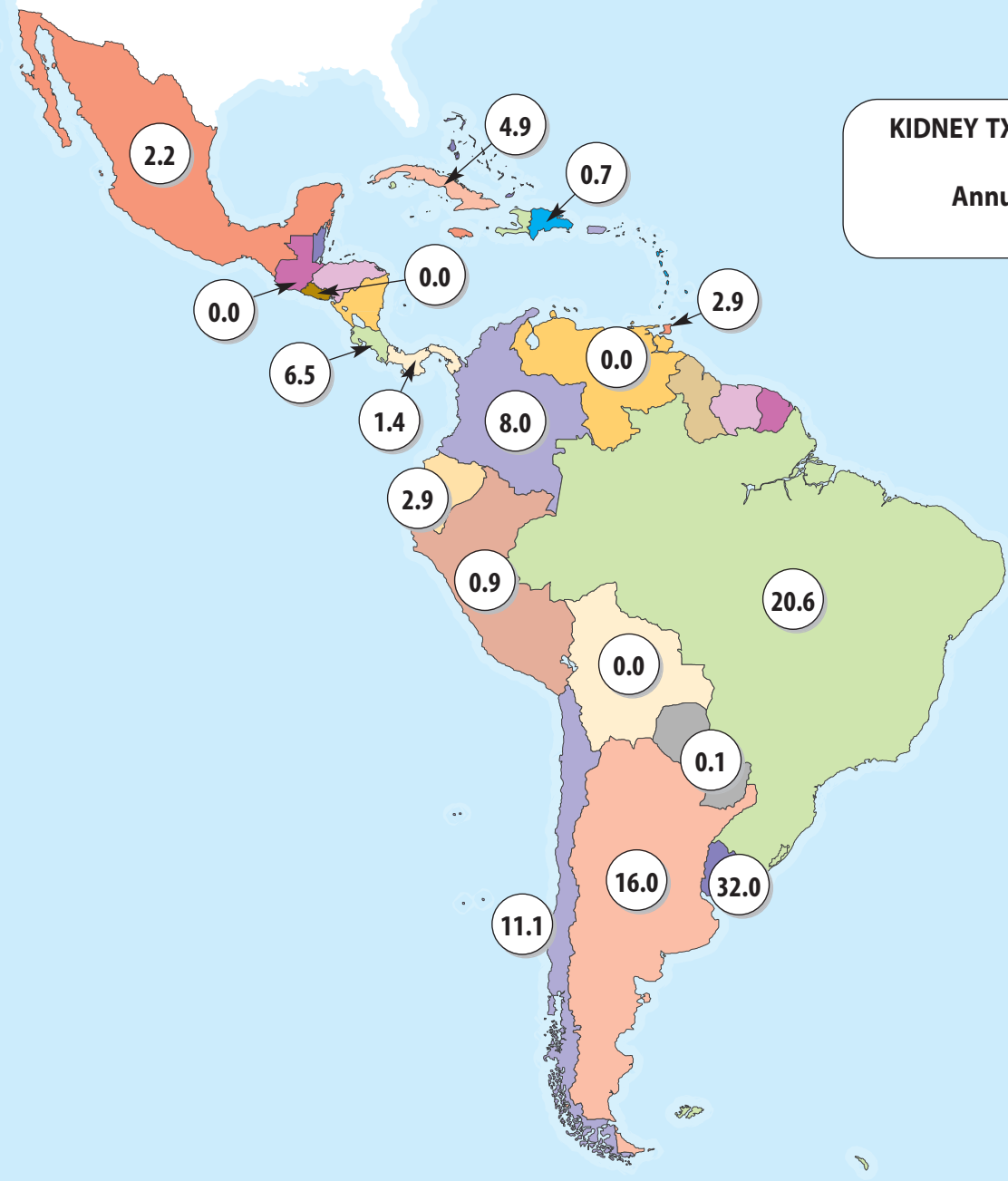






**KIDNEY TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020

**KIDNEY TX. FROM DECEASED DONORS**  
**Annual Rate p.m.p**  
**2020**





**KIDNEY TX. FROM LIVING DONORS**  
**Annual Rate p.m.p**  
**2020**

**LIVER TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020





**HEART TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020

**LUNG TRANSPLANT**  
**(all combinations included)**  
**Annual Rate p.m.p**  
**2020**



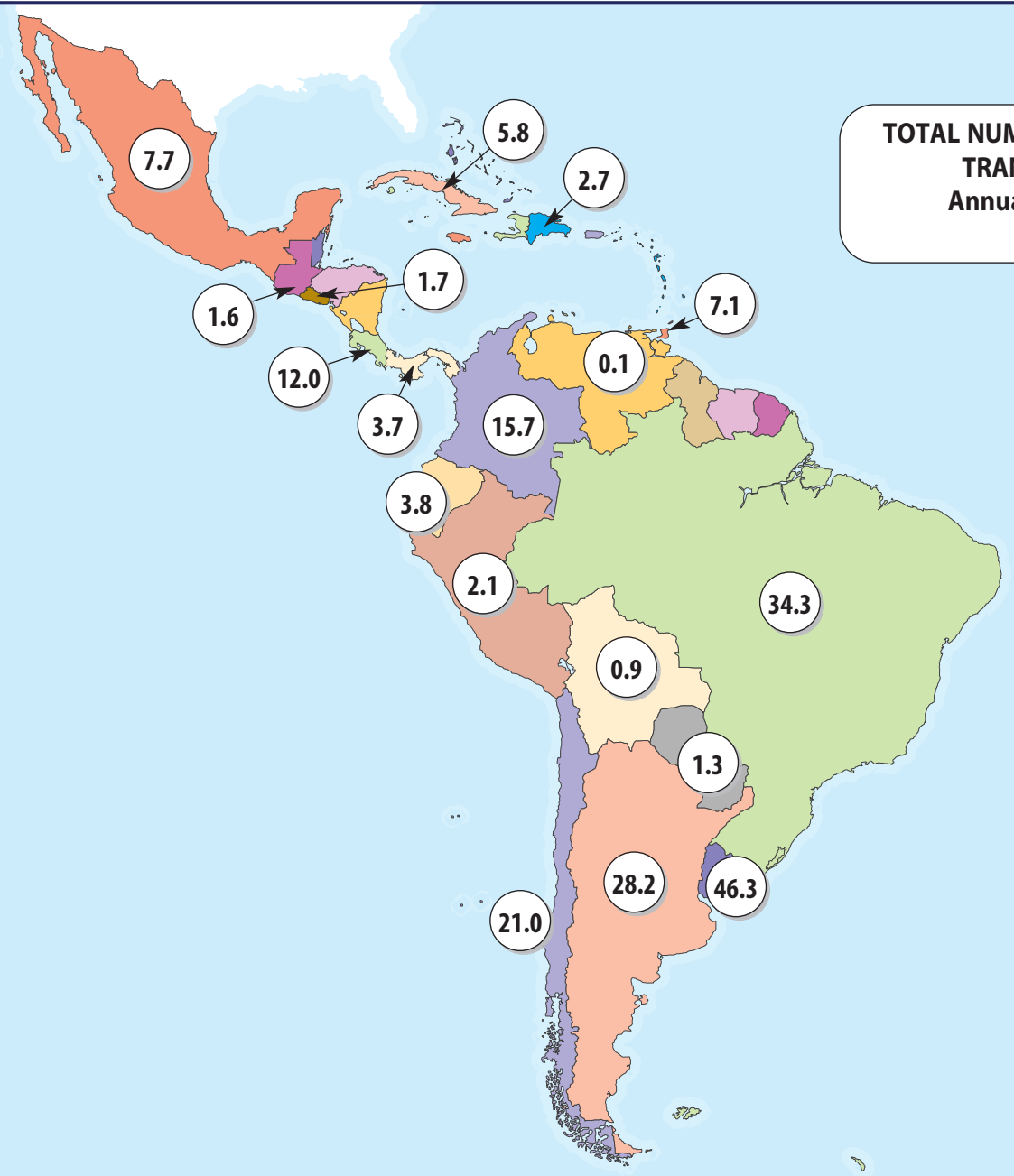


**PANCREAS TRANSPLANT**  
(all combinations included)  
Annual Rate p.m.p  
2020



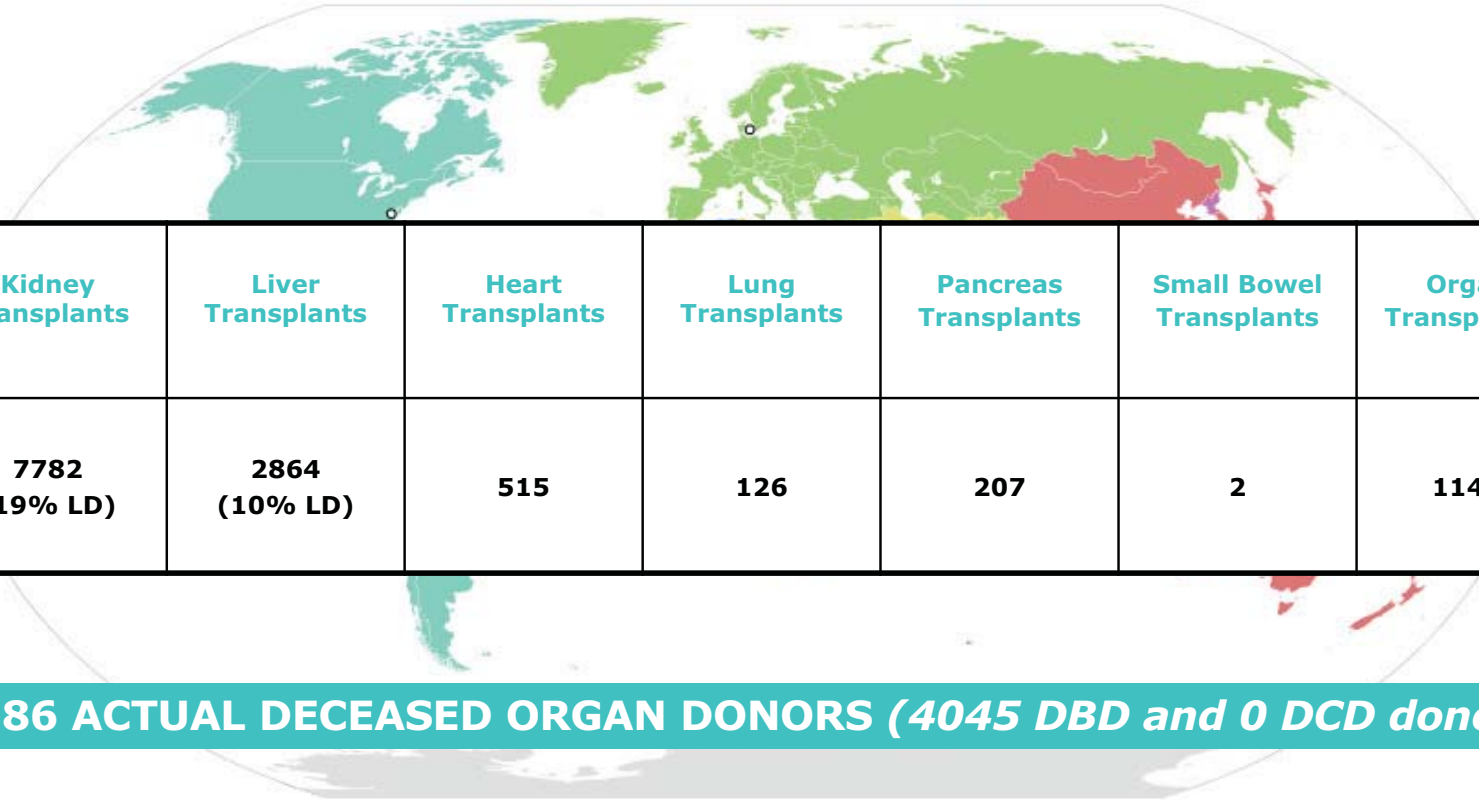
**SMALL BOWEL TRANSPLANT  
(all combinations included)  
Absolute number  
2020**





**TOTAL NUMBER OF PATIENTS TRANSPLANTED**  
**Annual Rate p.m.p**  
**2020**

## LATINAMERICAN COUNTRIES

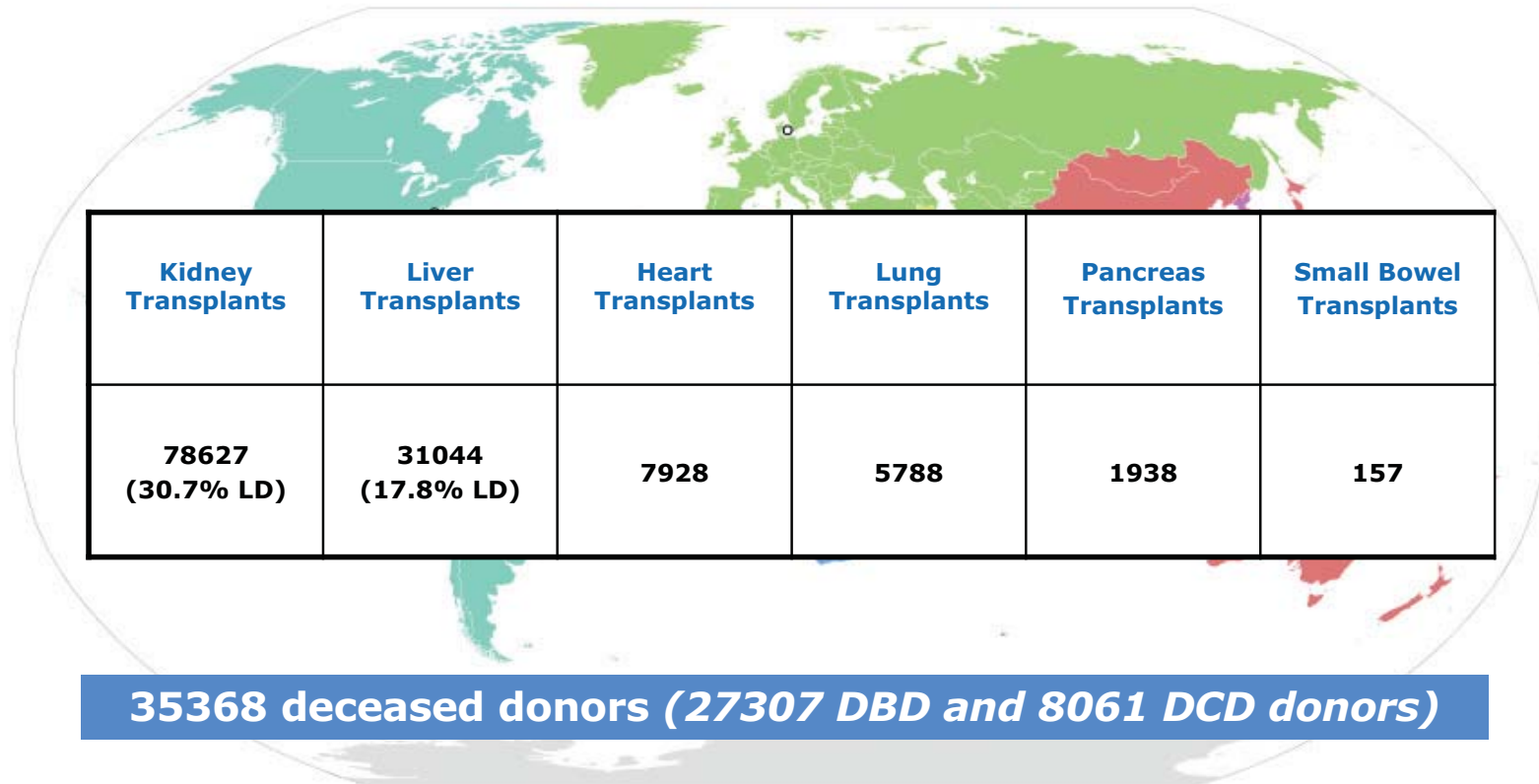


Kidney Transplants	Liver Transplants	Heart Transplants	Lung Transplants	Pancreas Transplants	Small Bowel Transplants	Organs Transplanted
7782 (19% LD)	2864 (10% LD)	515	126	207	2	11496

**4186 ACTUAL DECEASED ORGAN DONORS (4045 DBD and 0 DCD donors)**

**2020 data**  
**N= 17 COUNTRIES (613,9 million inhabitants)**

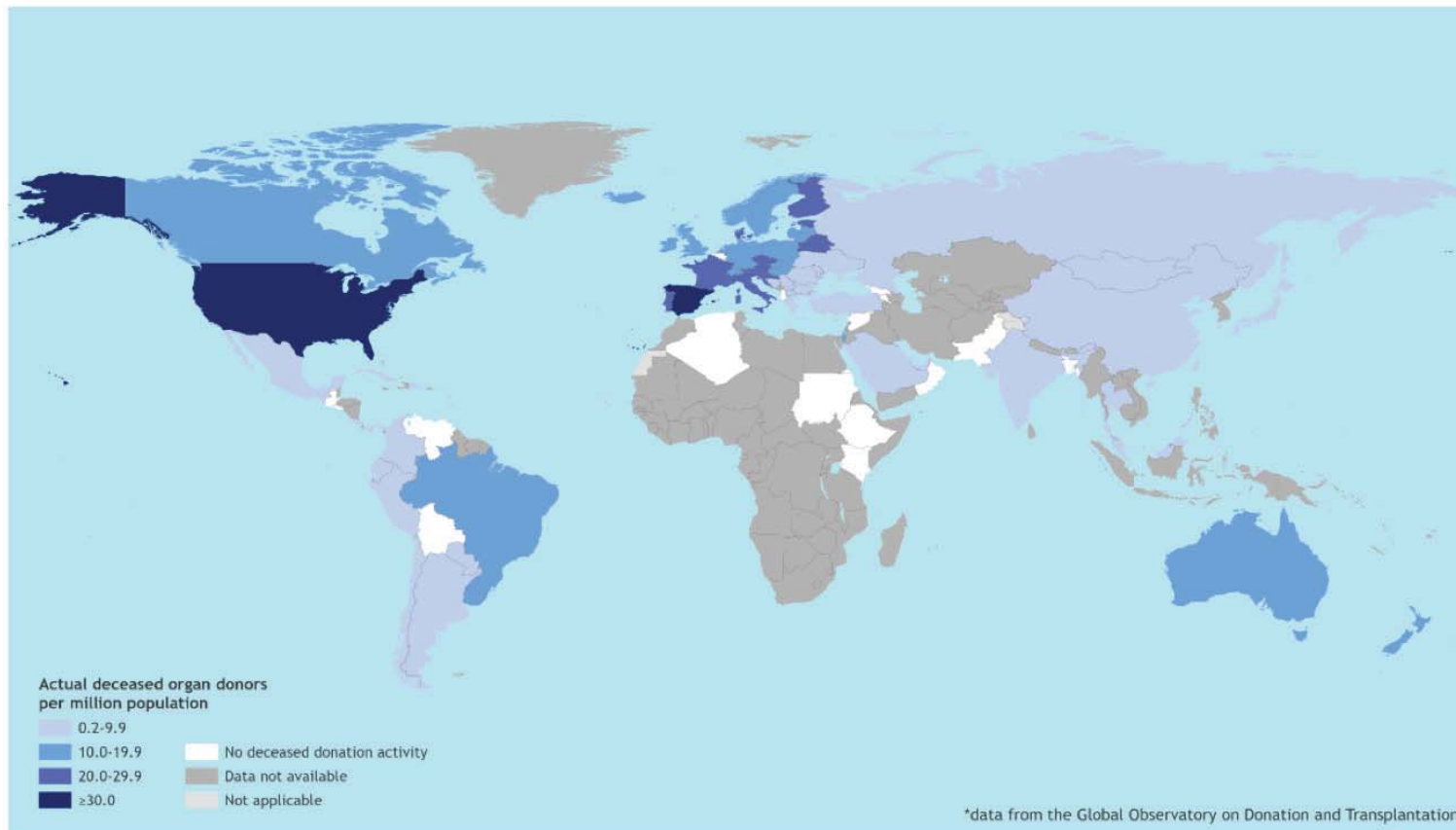
## GLOBAL ACTIVITY IN ORGAN TRANSPLANTATION 2020 ESTIMATES



**35368 deceased donors (27307 DBD and 8061 DCD donors)**

**Information of 90 Member States on organ transplantation activities  
(78.7% of the global population)**

## Actual donors from deceased persons, 2020\*

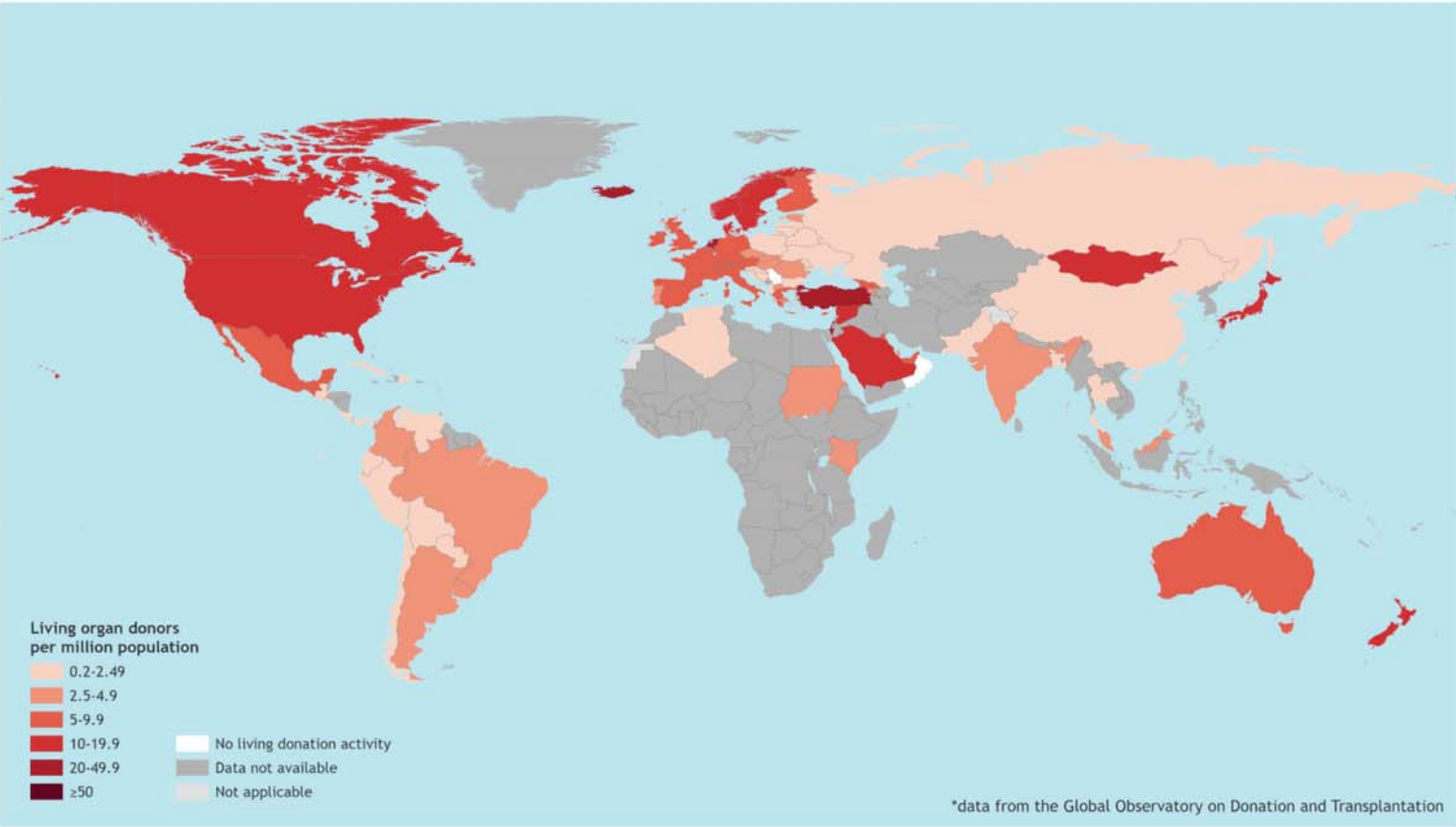


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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI

Map Creation Date: 07 September 2021

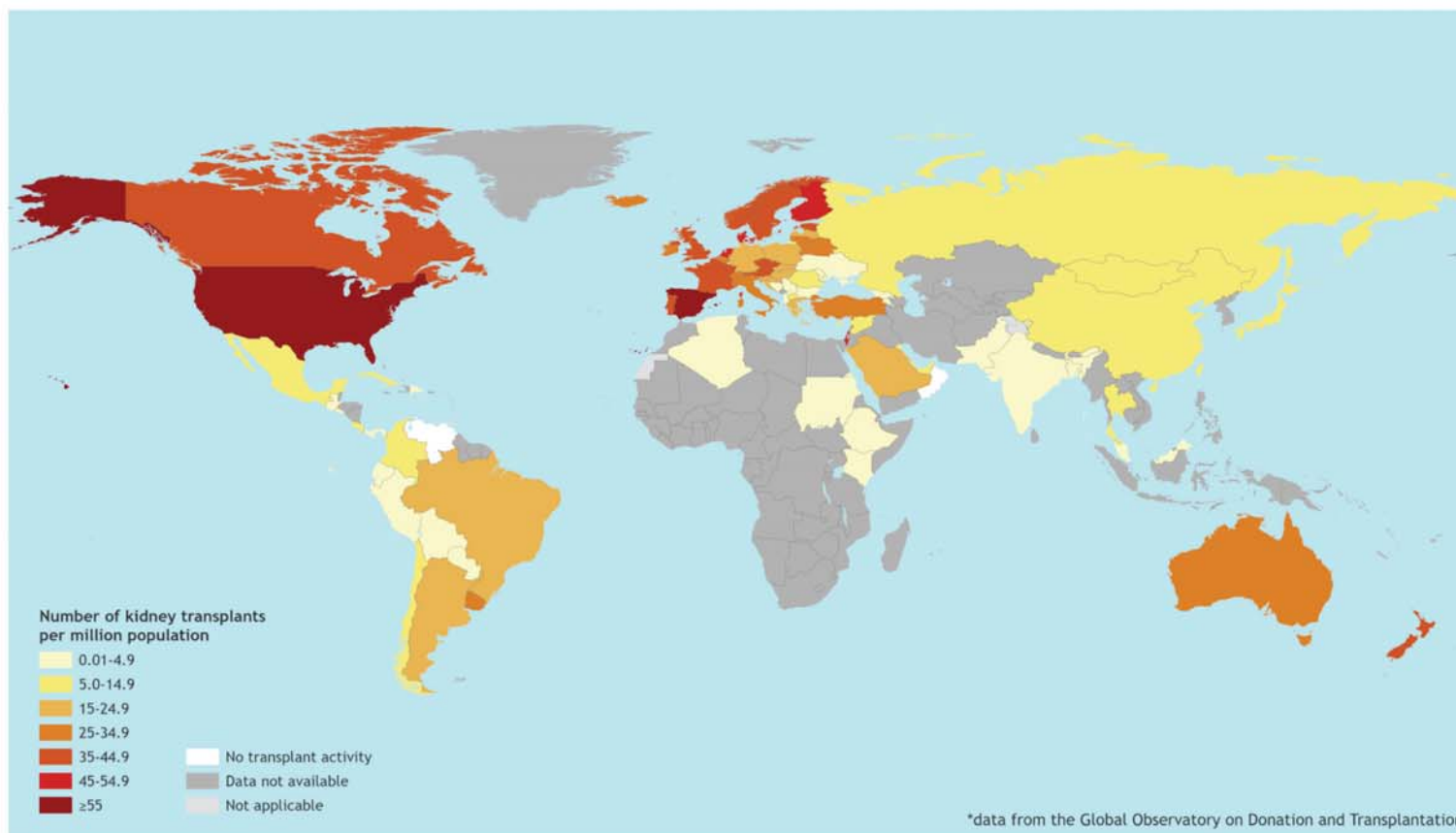
## Living donation, 2020\*



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Map Creation Date: 07 September 2021

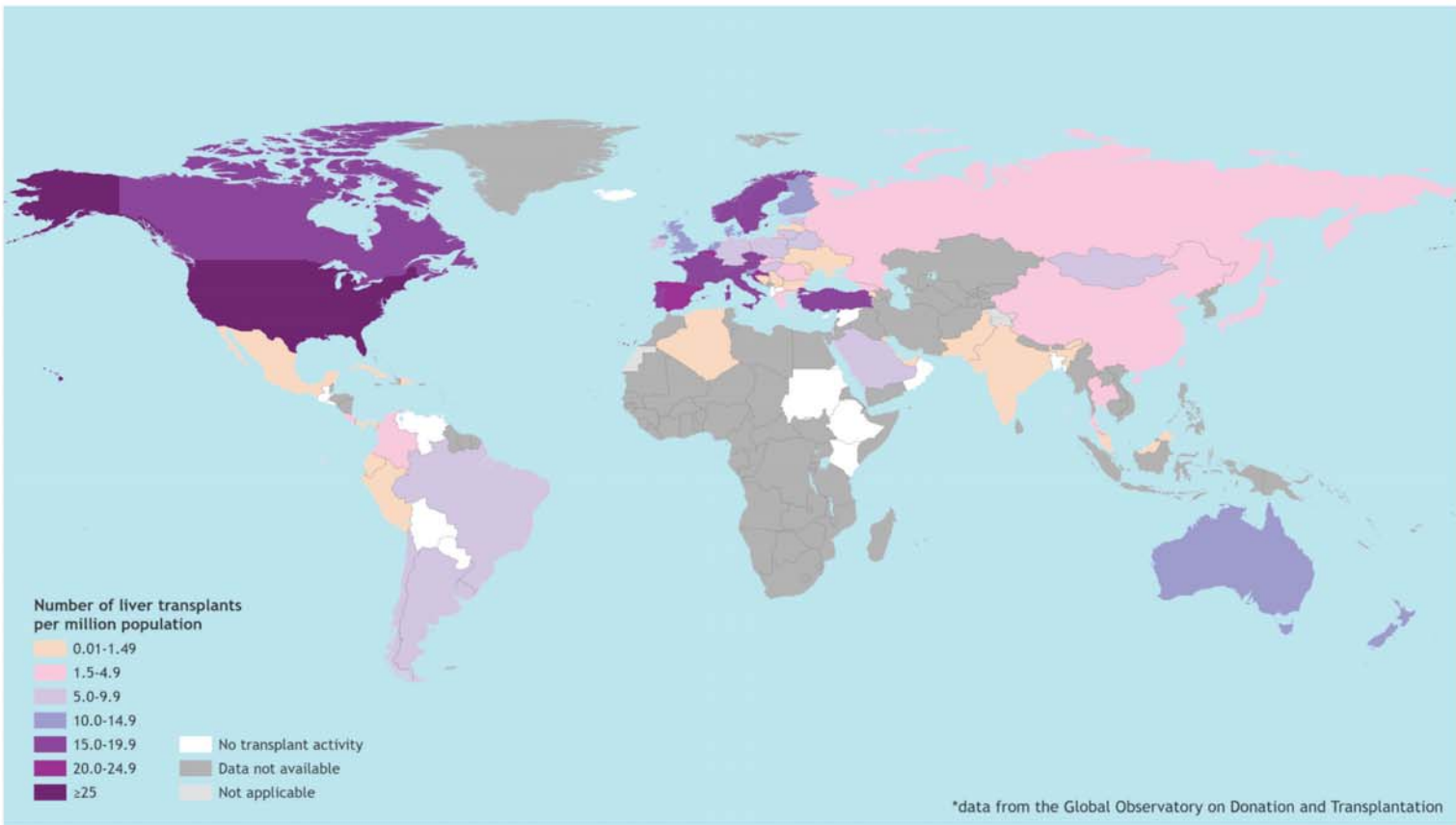
## Kidney transplantation activities, 2020\*



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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 07 September 2021

### Liver transplantation activities, 2020\*



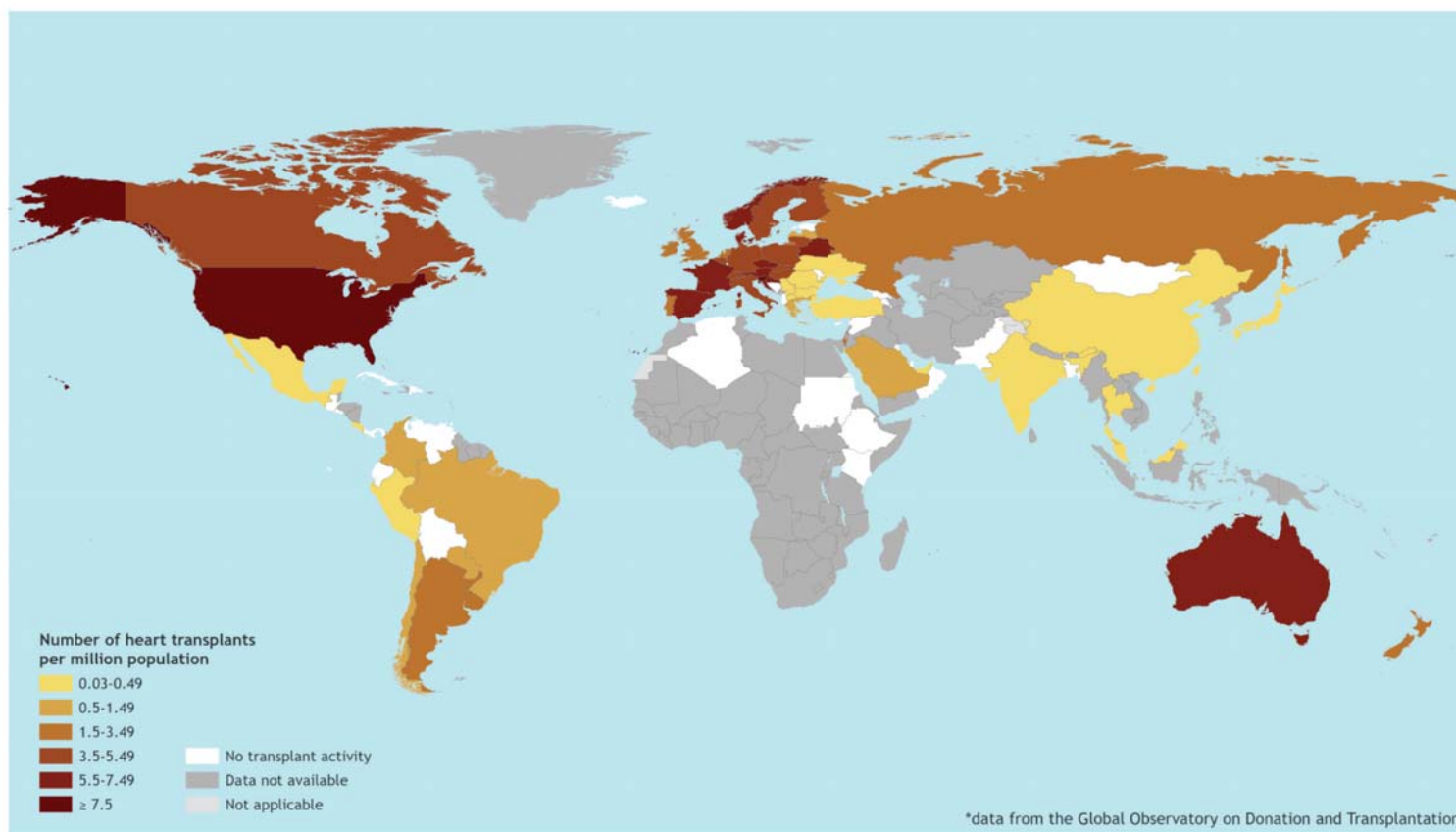
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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 07 September 2021





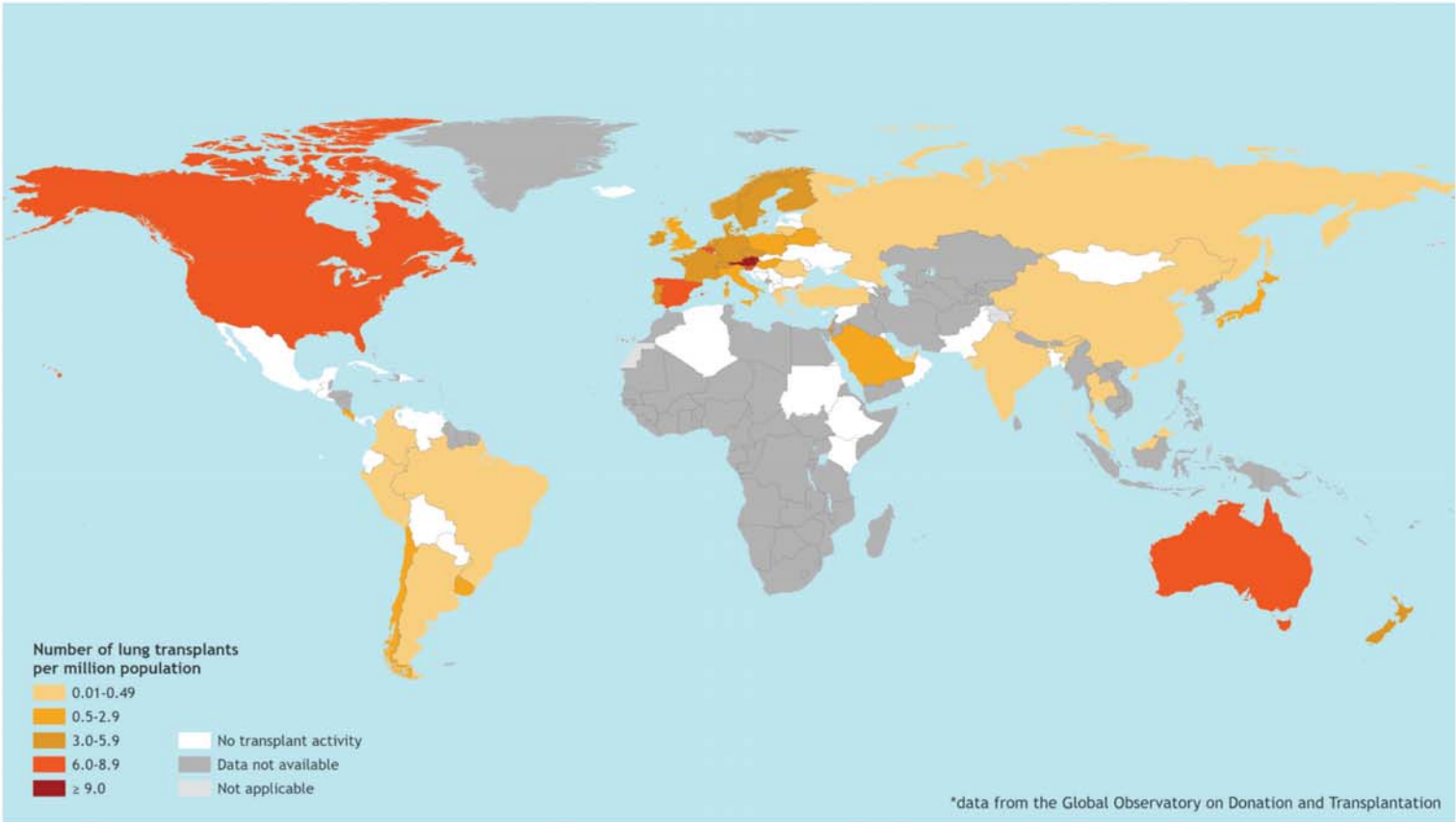
## Heart transplantation activities, 2020\*



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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 07 September 2021

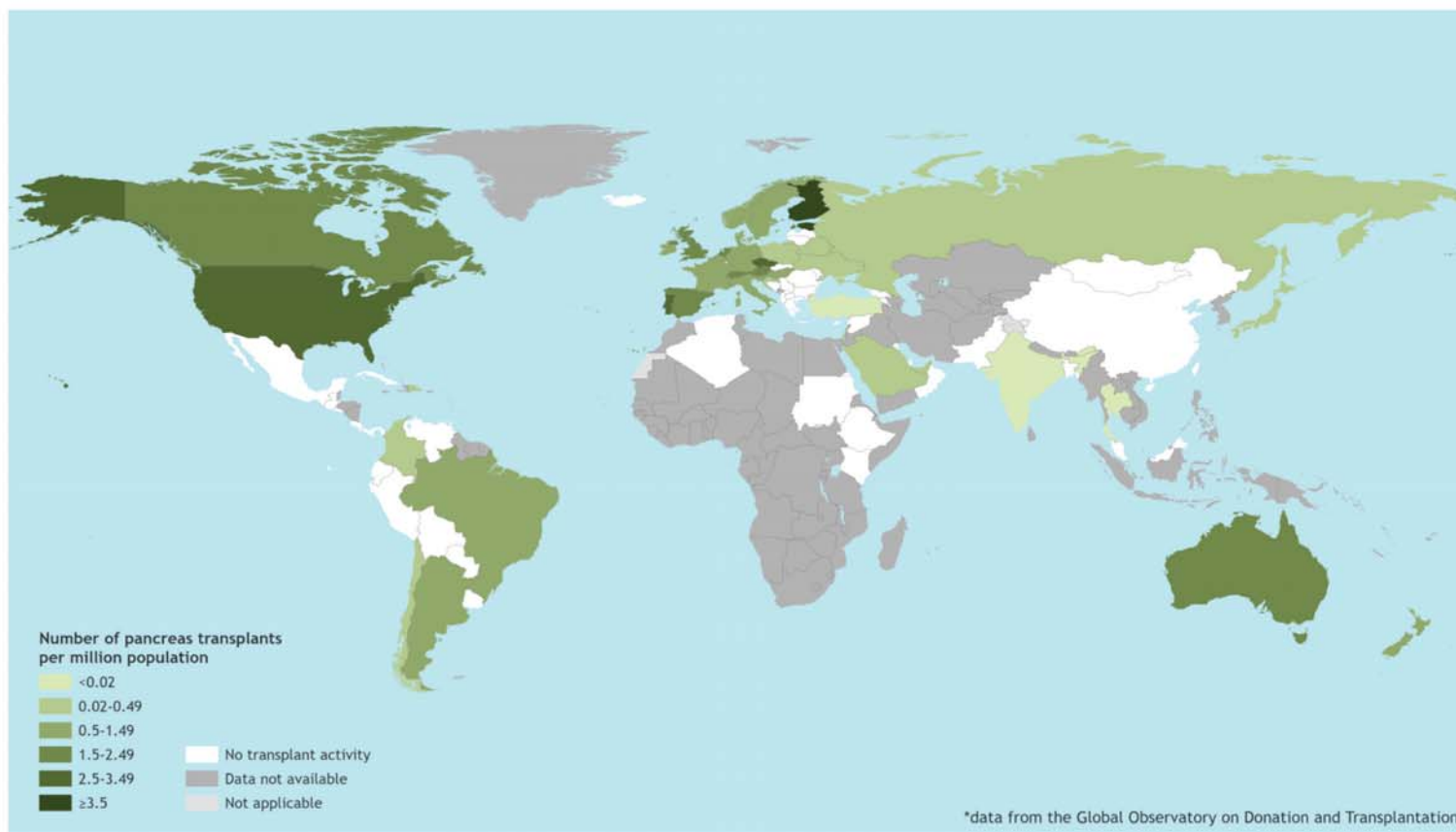
## Lung transplantation activities, 2020\*



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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 07 September 2021

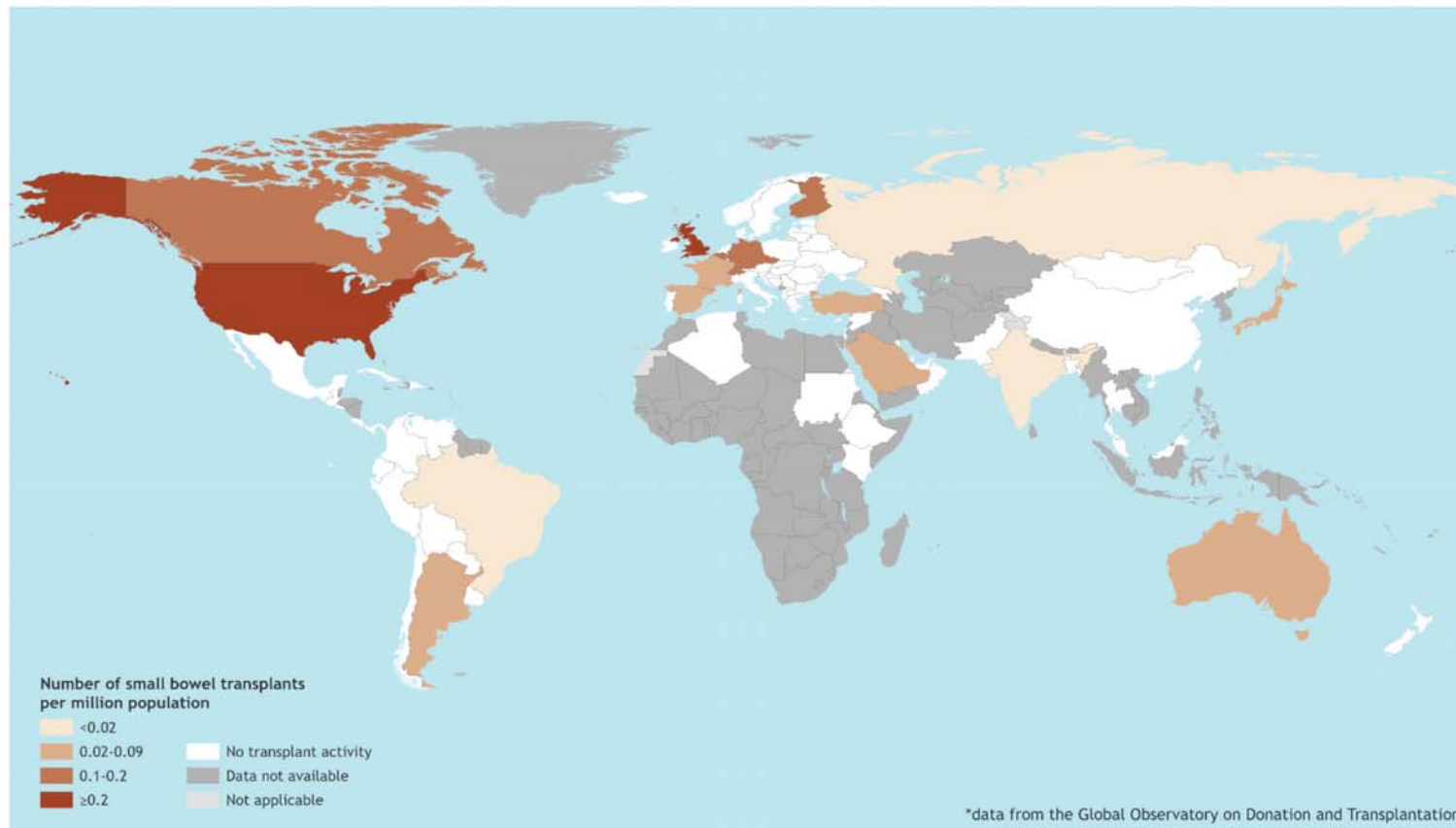
## Pancreas transplantation activities, 2020\*



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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 07 September 2021

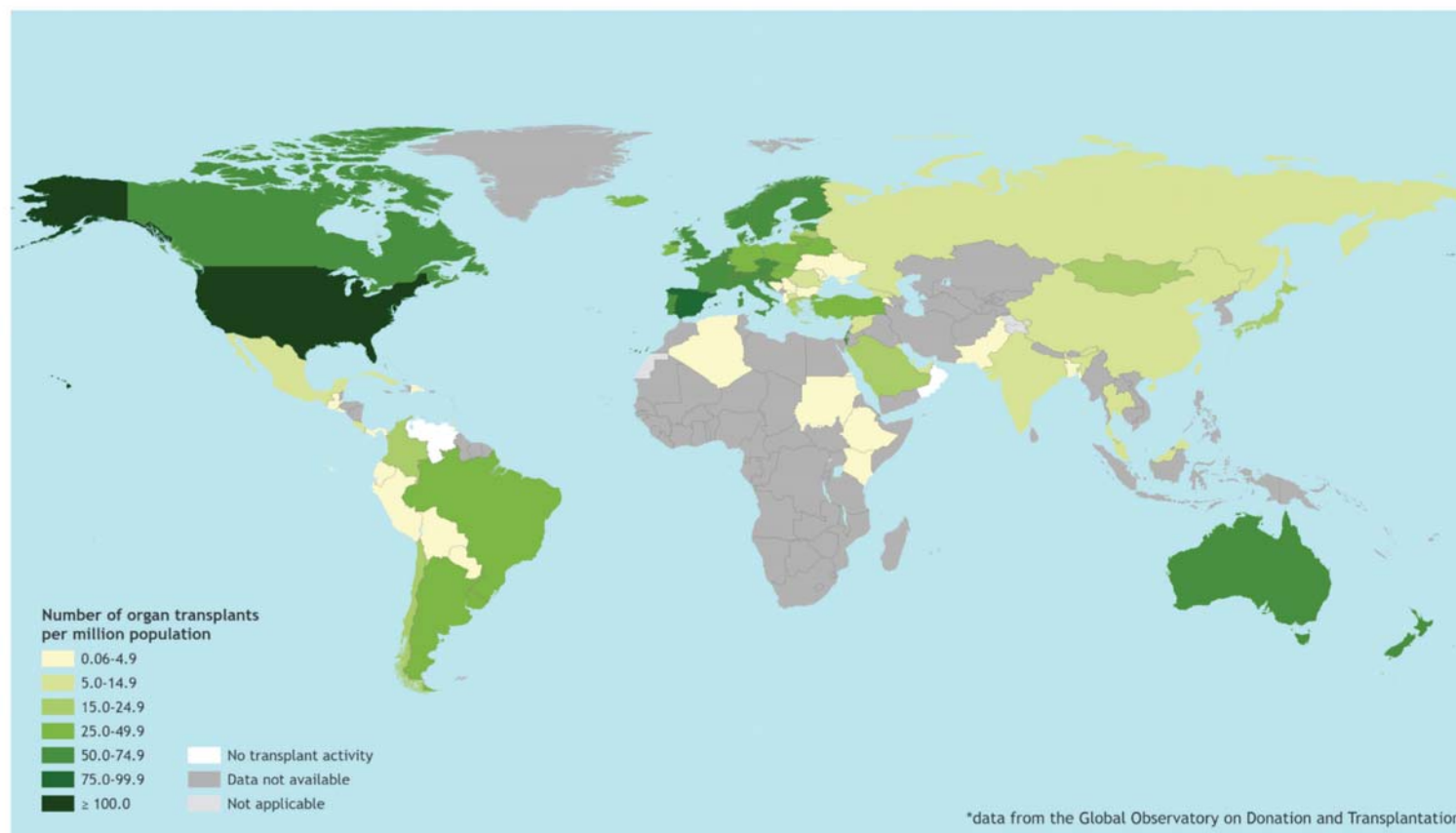
## Small bowel transplantation activities, 2020\*



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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 08 September 2021

## Global transplantation activities of solid organs, 2020\*



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Data Source: Global Observatory on Donation and Transplantation  
Map Production: WHO GIS Centre for Health, DNA/DDI  
Map Creation Date: 07 September 2021



**International Data on Organ Donation and  
Transplantation Activity and Waiting List.  
Year 2020**







## DONATION ACTIVITY

### EUROPEAN UNION COUNTRIES

COUNTRIES	Germany		Greece		Hungary		Ireland		Italy		Latvia		Lithuania		Luxembourg		Malta	
Population (million inhabitants): UNFPA	883.8		10.4		9.7		4.9		60.5		1.9		2.7		0.6		0.4	
DONATION																		
Actual deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	913	10.9	48	4.6	111	11.4	63	12.9	1303	21.5	21	11.1	49	18.1	3	5.0	2	5.0
Actual deceased donors (men)	459	5.5	29	2.8	65	6.7	37	7.6	710	11.7	13	6.8	29	10.7	3	5.0	0	0.0
Actual deceased donors (> 60 years)	396	4.7	19	1.8	22	2.3	10	2.0	729	12.0	1	0.5	13	4.8	0	0.0	0	0.0
Actual donors after circulatory death (DCD)	0	0.0	0	0.0	0	0.0	7	1.4	63	1.0	0	0.0	4	1.5	0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)							0	0.0	17	0.3			3	1.1				
III/ Withdrawal of life-sustaining therapy (controlled)							7	1.4	45	0.7			0	0.0				
IV/ Cardiac arrest while brain dead							0	0.0	1	0.0			1	0.4				
<b>Utilised deceased organ donors</b>																		
Utilised deceased organ donors (both DBD and DCD included)	887	10.6	46	4.4	108	11.1	60	12.2	1235	20.4	20	10.5	49	18.1	3	5.0	2	5.0
Utilised deceased donors (men)	447	5.3	28	2.7	63	6.5	32	6.5	673	11.1	12	6.3	29	10.7	3	5.0	0	0.0
Utilised deceased donors (> 60 years)	373	4.5	17	1.6	21	2.2	9	1.8	680	11.2	0	0.0	13	4.8	0	0.0	0	0.0
Utilised donors after circulatory death (DCD)	0	0.0	0	0.0	0	0.0	7	1.4	53	0.9	0	0.0	4	1.5	0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)							0	0.0	10	0.2			3	1.1				
III/ Withdrawal of life-sustaining therapy (controlled)							7	1.4	42	0.7			0	0.0				
IV/ Cardiac arrest while brain dead							0	0.0	1	0.0			1	0.4				
<b>Living organ donors</b>																		
Total living kidney donors	450	5.4	89	8.6	30	3.1	28	5.7	284	4.7	3	1.6	3	1.1			0	0.0
Living Kidney donors (men)	174	2.1	29	2.8	9	0.9	11	2.2	91	1.5	3	1.6	1	0.4				
Total living liver donors	52	0.6	0	0.0	0	0.0	0	0.0	19	0.3	0	0.0	0	0.0			0	0.0
Living liver donors (men)	28	0.3							11	0.2								
Total domino liver donors	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0			0	0.0
Domino liver donors (men)									1	0.0								
Total living lung donors	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0			0	0.0
Living lung donors (men)																		



**DONATION ACTIVITY**

**OTHER COUNTRIES**

<b>COUNTRIES</b>	<b>Albania</b>	<b>Algeria</b>	<b>Armenia</b>	<b>Australia</b>	<b>Bangladesh</b>	<b>Belarus</b>	<b>Bosnia and Herzegovina</b>	<b>Canada</b>	<b>China</b>	<b>Ethiopia</b>	<b>Georgia</b>	<b>Iceland</b>	<b>India</b>
<b>Population (million inhabitants): UNFPA</b>	<b>2.9</b>	<b>43.9</b>	<b>3.0</b>	<b>25.5</b>	<b>164.7</b>	<b>9.4</b>	<b>3.3</b>	<b>37.7</b>	<b>1447.4</b>	<b>115.0</b>	<b>4.0</b>	<b>0.3</b>	<b>1380.0</b>

**DONATION**

	<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>													
<b>Actual deceased organ donors</b>																																
Actual deceased organ donors (both DBD and DCD included)	0	0.0	0	0.0	0	0.0	463	18.2	0	0.0	201	21.4	1	0.3			5222	3.6	0	0.0	0	0.0	4	13.3	351	0.3						
Actual deceased donors (men)							280	11.0			118	12.6	1	0.3			4224	2.9					2	6.7	242	0.2						
Actual deceased donors (> 60 years)							111	4.4			22	2.3	0	0.0			633	0.4					3	10.0	58	0.0						
Actual donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead							138	5.4			0	0.0	0	0.0			2907	2.0					0	0.0	4	0.0	4	0.0				
																	857	0.6					0	0.0	0	0.0	0	0.0				
<b>Utilised deceased organ donors</b>																																
Utilised deceased organ donors (both DBD and DCD included)	0	0.0	0	0.0	0	0.0	440	17.3	0	0.0	192	20.4	1	0.3	734	19.5	5185	3.6	0	0.0	0	0.0	4	13.3	348	0.3						
Utilised deceased donors (men)							265	10.4			110	11.7	1	0.3			4200	2.9					2	6.7	241	0.2						
Utilised deceased donors (> 60 years)							105	4.1			19	2.0	0	0.0			625	0.4					3	10.0	57	0.0						
Utilised donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead							128	5.0			0	0.0	0	0.0	196	5.2	2882	2.0					0	0.0	4	0.0	4	0.0	0	0.0	0	0.0
																	852	0.6					0	0.0	0	0.0	0	0.0	0	0.0		
<b>Living organ donors</b>																																
Total living kidney donors	7	2.4	91	2.1	10	3.3	181	7.1	155	0.9	1	0.1	2	0.6	396	10.5	1638	1.1	8	0.1	17	4.3	7	23.3	4970	3.6						
Living Kidney donors (men)	1	0.3	35	0.8	5	1.7	124	4.9	44	0.3	0	0.0					543	0.4	6	0.1	11	2.8	4	13.3	1618	1.2						
Total living liver donors	0	0.0	2	0.0	1	0.3	1	0.0	0	0.0	7	0.7	0	0.0	91	2.4	874	0.6	0	0.0	10	2.5	0	0.0	1489	1.1						
Living liver donors (men)			1	0.0	0	0.0	1	0.0			4	0.4					388	0.3			6	1.5			657	0.5						
Total domino liver donors	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0			13	0.0	0	0.0	0	0.0	0	0.0	2	0.0						
Domino liver donors (men)																	8	0.0							2	0.0						
Total living lung donors	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0				
Living lung donors (men)																																



**DONATION ACTIVITY**

**OTHER COUNTRIES**

<b>COUNTRIES</b>	<b>Russian Federation</b>	<b>Saudi Arabia</b>	<b>Serbia</b>	<b>Sudan</b>	<b>Switzerland</b>	<b>Syrian Arab Rep.</b>	<b>Thailand</b>	<b>Trinidad and Tobago</b>	<b>Turkey</b>	<b>Ukraine</b>	<b>United Arab Emirates</b>	<b>United States of America</b>
<b>Population (million inhabitants): UNFPA</b>	<b>145.9</b>	<b>34.8</b>	<b>8.7</b>	<b>43.8</b>	<b>8.7</b>	<b>17.5</b>	<b>69.8</b>	<b>1.4</b>	<b>84.3</b>	<b>43.7</b>	<b>9.9</b>	<b>331.0</b>

**DONATION**

	<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>		<b>Number PMP</b>			
<b>Actual deceased organ donors</b>																								
Actual deceased organ donors (both DBD and DCD included)	572	3.9	65	1.9	3	0.3	0	0.0	146	16.8	0	0.0	315	4.5	2	1.4	172	2.0	11	0.3	9	0.9	12588	38.0
Actual deceased donors (men)	418	2.9	56	1.6					89	10.2	0	0.0	244	3.5	1	0.7	107	1.3	8	0.2	6	0.6	7802	23.6
Actual deceased donors (> 60 years)	116	0.8	2	0.1	0	0.0			57	6.6	0	0.0	12	0.2	0	0.0	50	0.6	0	0.0	0	0.0	1811	5.5
Actual donors after circulatory death (DCD)	19	0.1	0	0.0	0	0.0			50	5.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3224	9.7
II/ Witnessed cardiac arrest (uncontrolled)	12	0.1							0	0.0													26	0.1
III/ Withdrawal of life-sustaining therapy (controlled)	0	0.0							50	5.7													3170	9.6
IV/ Cardiac arrest while brain dead	7	0.0							0	0.0													28	0.1
<b>Utilised deceased organ donors</b>																								
Utilised deceased organ donors (both DBD and DCD included)	564	3.9	63	1.8	3	0.3	0	0.0	136	15.6	0	0.0	304	4.4	2	1.4	148	1.8	11	0.3	9	0.9	11578	35.0
Utilised deceased donors (men)	412	2.8	54	1.6					81	9.3			235	3.4	1	0.7	88	1.0	8	0.2	6	0.6	7231	21.8
Utilised deceased donors (> 60 years)	115	0.8	2	0.1	0	0.0			51	5.9			11	0.2	0	0.0	43	0.5	0	0.0	0	0.0	1426	4.3
Utilised donors after circulatory death (DCD)	17	0.1	0	0.0	0	0.0			41	4.7			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2682	8.1
II/ Witnessed cardiac arrest (uncontrolled)	11	0.1							0	0.0													17	0.1
III/ Withdrawal of life-sustaining therapy (controlled)	0	0.0							41	4.7													2649	8.0
IV/ Cardiac arrest while brain dead	6	0.0							0	0.0													16	0.0
<b>Living organ donors</b>																								
Total living kidney donors	157	1.1	477	13.7	0	0.0	139	3.2	79	9.1	211	12.1	134	1.9	6	4.3	2249	26.7	79	1.8	45	4.5	5234	15.8
Living Kidney donors (men)	64	0.4	343	9.8			53	1.2					53	0.8	2	1.4	1051	12.5			21	2.1	1824	5.5
Total living liver donors	169	1.2	193	5.5	0	0.0	0	0.0	3	0.3	0	0.0	31	0.4	0	0.0	1189	14.1	17	0.4	6	0.6	486	1.5
Living liver donors (men)	73	0.5	135	3.9			0	0.0					7	0.1			711	8.4			5	0.5	205	0.6
Total domino liver donors	0	0.0			0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	2	0.0	0	0.0	0	0.0	5	0.0
Domino liver donors (men)																	2	0.0					1	0.0
Total living lung donors			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0
Living lung donors (men)																							0	0.0



## DONATION ACTIVITY

### LATIN AMERICAN COUNTRIES

COUNTRIES	El Salvador		Guatemala		Mexico		Nicaragua		Panama		Paraguay		Peru		Uruguay		Venezuela	
<b>Population (million inhabitants): UNFPA</b>	<b>6.5</b>		<b>17.9</b>		<b>128.9</b>				<b>4.3</b>		<b>7.1</b>		<b>33.0</b>		<b>3.5</b>		<b>28.4</b>	
DONATION																		
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
<b>Actual deceased organ donors</b>																		
Actual deceased organ donors (both DBD and DCD included)	0	0.0	0	0.0	152	1.2			3	0.7	6	0.8	17	0.5	63	18.0	0	0.0
Actual deceased donors (men)					95	0.7			2	0.5	5	0.7	11	0.3	33	9.4	0	0.0
Actual deceased donors (> 60 years)					10	0.1			0	0.0	0	0.0	2	0.1	15	4.3	0	0.0
Actual donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead					0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Utilised deceased organ donors</b>																		
Utilised deceased organ donors (both DBD and DCD included)	0	0.0	0	0.0	150	1.2			3	0.7	6	0.8	15	0.5	63	18.0	0	0.0
Utilised deceased donors (men)					94	0.7			2	0.5	5	0.7	10	0.3	33	9.4		
Utilised deceased donors (> 60 years)					10	0.1			0	0.0	0	0.0	2	0.1	15	4.3		
Utilised donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead					0	0.0			0	0.0	0	0.0	0	0.0	0	0.0		
<b>Living organ donors</b>																		
Total living kidney donors	11	1.7	29	1.6	630	4.9			7	1.6	3	0.4	20	0.6	8	2.3	3	0.1
Living Kidney donors (men)			16	0.9	290	2.2			3	0.7	1	0.1	7	0.2	4	1.1	2	0.1
Total living liver donors	0	0.0	0	0.0	10	0.1							6	0.2	1	0.3		
Living liver donors (men)					3	0.0			0	0.0	0	0.0	6	0.2	1	0.3	0	0.0
Total domino liver donors	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Domino liver donors (men)																		
Total living lung donors	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Living lung donors (men)																		

## TRANSPLANTATION ACTIVITY

## EUROPEAN UNION COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	Austria 9.0		Belgium 11.6		Bulgaria 6.9		Croatia 4.1		Cyprus 1.2		Czech Republic 10.7		Denmark 5.8		Estonia 1.3		Finland 5.5		France 65.3	
	TRANSPLANTATION																			
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
<b>KIDNEY</b>																				
Total Tx (all combinations included)	335	37.2	363	31.3	8	1.2	98	23.9	13	10.8	443	41.4	278	47.9	47	36.2	263	47.8	2595	39.7
Kidney Tx (men)	217	24.1			7	1.0	67	16.3	10	8.3	272	25.4	175	30.2	23	17.7	155	28.2	1622	24.8
Paediatric (<18 years)	11	1.2	9	0.8	0	0.0	0	0.0	0	0.0	6	0.6	7	1.2	3	2.3	9	1.6	83	1.3
Tx from deceased donors	291	32.3	326	28.1	2	0.3	95	23.2	5	4.2	415	38.8	200	34.5	43	33.1	232	42.2	2205	33.8
- Tx from DCD	19	2.1	126	10.9	0	0.0	0	0.0	0	0.0	11	1.0	0	0.0	0	0.0	0	0.0	260	4.0
- Single Tx	286	31.8	325	28.0							410	38.3	200	34.5	43	33.1	232	42.2	2195	33.6
- Double Tx	5	0.6	1	0.1							5	0.5	0	0.0	0	0.0	0	0.0	10	0.2
Tx from living donors	44	4.9	37	3.2	6	0.9	3	0.7	8	6.7	28	2.6	78	13.4	4	3.1	31	5.6	390	6.0
- Tx from related living donors	43	4.8	32	2.8	6	0.9	2	0.5	8	6.7	23	2.1	72	12.4	4	3.1	30	5.4	390	6.0
- Tx from unrelated living donors	1	0.1	5	0.4	0	0.0	1	0.2	0	0.0	5	0.5	6	1.0	0	0.0	1	0.2	0	0.0
Paired exchange or cross-over	1	0.1					0	0.0			5	0.5	6	1.0			0	0.0		
Non-directed altruistic or anonymous	0	0.0					0	0.0			0	0.0	0	0.0			1	0.2		
Directed altruistic	0	0.0					1	0.2			0	0.0	0	0.0			0	0.0		
<b>LIVER</b>																				
Total Tx (all combinations included)	158	17.6	235	20.3	7	1.0	95	23.2			172	16.1	66	11.4	12	9.2	75	13.6	1128	17.3
Liver Tx (men)	113	12.6			3	0.4	25	6.1			108	10.1	38	6.6	8	6.2	46	8.4	794	12.2
Paediatric (<18 years)	10	1.1	27	2.3	3	0.4	6	1.5			18	1.7	8	1.4	2	1.5	8	1.5	81	1.2
Split Tx	2	0.2	6	0.5	0	0.0	8	2.0			12	1.1	5	0.9	0	0.0	0	0.0	70	1.1
Domino Tx	0	0.0	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Tx from living donors	8	0.9	21	1.8	5	0.7	1	0.2			0	0.0	3	0.5	0	0.0	0	0.0	15	0.2
Tx from DCD	6	0.7	88	7.6	0	0.0	0	0.0			2	0.2	0	0.0	0	0.0	0	0.0	74	1.1
<b>HEART</b>																				
Total Tx (all combinations included)	59	6.6	54	4.7	1	0.1	25	6.1			72	6.7	33	5.7			22	4.0	378	5.8
Heart Tx (men)	46	5.1	35	3.0	1	0.1	18	4.4			55	5.1	16	2.8			17	3.1	262	4.0
Paediatric (<18 years)	10	1.1	5	0.4	0	0.0	1	0.2			5	0.5	3	0.5			5	0.9	27	0.4
Tx from DCD	2	0.2	6	0.5	0	0.0	0	0.0			0	0.0	0	0.0			0	0.0	0	0.0
<b>HEART-LUNG</b>																				
Total Tx	0	0.0	0	0.0	0	0.0	0	0.0			2	0.2	1	0.2			0	0.0	8	0.1
Paediatric (<18 years)											0	0.0	0	0.0					0	0.0
<b>LUNG</b>																				
Total Tx (all combinations included)	100	11.1	93	8.0	0	0.0	0	0.0			35	3.3	29	5.0	0	0.0	21	3.8	291	4.5
Lung Tx (men)	66	7.3									0	0.0	14	2.4			14	2.5	160	2.5
Paediatric (<18 years)	2	0.2	0	0.0							0	0.0	0	0.0			0	0.0	10	0.2
Single Tx	5	0.6	4	0.3							1	0.1	4	0.7			0	0.0	26	0.4
Double Tx (heart-lung Tx included)	95	10.6	89	7.7							34	3.2	25	4.3			21	3.8	265	4.1
Tx from DCD (double + single)	4	0.4	27	2.3							1	0.1	0	0.0			0	0.0	15	0.2
<b>PANCREAS</b>																				
Total Tx (all combinations included)	20	2.2	9	0.8	0	0.0	1	0.2	0	0.0	37	3.5	7	1.2	6	4.6	26	4.7	34	0.5
Pancreas Tx (men)	14	1.6					0	0.0			21	2.0	5	0.9	4	3.1	13	2.4	22	0.3
Paediatric (<18 years)	0	0.0	0	0.0			0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pancreas Tx alone	3	0.3	2	0.2			0	0.0			6	0.6	0	0.0	1	0.8	1	0.2	4	0.1
Kidney - Pancreas Tx	17	1.9	7	0.6			1	0.2			31	2.9	7	1.2	5	3.8	25	4.5	30	0.5
Tx from DCD	0	0.0	2	0.2			0	0.0			37	3.5	0	0.0	0	0.0	0	0.0	0	0.0
<b>SMALL BOWEL</b>																				
Total Tx (all combinations included)	0	0.0	2	0.2	0	0.0	0	0.0			1	0.1	0	0.0			1	0.2	3	0.0
Small bowel Tx (men)											1	0.1					1	0.2	2	0.0
Paediatric (<18 years)			0	0.0							0	0.0					0	0.0	0	0.0
Small bowel Tx alone											0	0.0					0	0.0	1	0.0
<b>RECIPIENTS</b>																				
Total number of patients transplanted	637	70.8	716	61.7	16	2.3	216	52.7	13	10.8	760	71.0	403	69.5	60	46.2	381	69.3	4283	65.6
Male recipients	431	47.9			11	1.6	110	26.8	10	8.3	479	44.8	240	41.4	32	24.6	231	42.0	2772	42.5
Paediatric (<18 years)	33	3.7	34	2.9	3	0.4	7	1.7	0	0.0	29	2.7	17	2.9	5	3.8	22	4.0	197	3.0
Patients transplanted from living donors	52	5.8	58	5.0	11	1.6	4	1.0	8	6.7	28	2.6	81	14.0	4	3.1	31	5.6	405	6.2



**TRANSPLANTATION ACTIVITY**

**EUROPEAN UNION COUNTRIES**

<b>COUNTRIES</b> Population (million inhabitants): UNFPA	<b>Germany</b> 83.8		<b>Greece</b> 10.4		<b>Hungary</b> 9.7		<b>Ireland</b> 4.9		<b>Italy</b> 60.5		<b>Latvia</b> 1.9		<b>Lithuania</b> 2.7		<b>Luxembourg</b> 0.6		<b>Malta</b> 0.4	
<b>TRANSPLANTATION</b>																		
	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>
<b>KIDNEY</b>																		
Total Tx (all combinations included)	1909	22.8	175	16.8	202	20.8	123	25.1	1907	31.5	41	21.6	82	30.4			4	10.0
Kidney Tx (men)	1211	14.5	115	11.1	115	11.9	73	14.9	1192	19.7	28	14.7	43	15.9			3	7.5
Paediatric (<18 years)	80	1.0	10	1.0	10	1.0	9	1.8	67	1.1	1	0.5	1	0.4			0	0.0
Tx from deceased donors	1459	17.4	86	8.3	172	17.7	95	19.4	1623	26.8	38	20.0	79	29.3			4	10.0
- Tx from DCD	0	0.0	0	0.0	0	0.0	14	2.9	66	1.1			4	1.5			0	0.0
- Single Tx	1445	17.2	86	8.3			81	16.5	1451	24.0			79	29.3			4	10.0
- Double Tx	14	0.2	0	0.0			0	0.0	111	1.8			0	0.0			0	0.0
Tx from living donors	450	5.4	89	8.6	30	3.1	28	5.7	284	4.7	3	1.6	3	1.1			0	0.0
- Tx from related living donors	449	5.4	89	8.6			27	5.5			3	1.6	3	1.1				
- Tx from unrelated living donors	1	0.0	0	0.0			1	0.2			0	0.0	0	0.0				
Paired exchange or cross-over							1	0.2										
Non-directed altruistic or anonymous							0	0.0										
Directed altruistic							0	0.0										
<b>LIVER</b>																		
Total Tx (all combinations included)	826	9.9	32	3.1	50	5.2	37	7.6	1202	19.9	2	1.1	14	5.2			1	2.5
Liver Tx (men)	524	6.3	23	2.2	36	3.7	28	5.7	868	14.3	1	0.5	12	4.4			1	2.5
Paediatric (<18 years)	111	1.3	0	0.0	4	0.4	0	0.0	77	1.3	0	0.0	0	0.0			0	0.0
Split Tx	72	0.9	0	0.0	0	0.0	0	0.0	90	1.5	0	0.0	0	0.0			0	0.0
Domino Tx	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0			0	0.0
Tx from living donors	52	0.6	0	0.0	0	0.0	0	0.0	19	0.3	2	1.1	0	0.0			0	0.0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0	45	0.7	0	0.0	0	0.0			0	0.0
<b>HEART</b>																		
Total Tx (all combinations included)	339	4.0	9	0.9	45	4.6	9	1.8	238	3.9	2	1.1	10	3.7			0	0.0
Heart Tx (men)	231	2.8	8	0.8	30	3.1	4	0.8	167	2.8	1	0.5	10	3.7				
Paediatric (<18 years)	28	0.3	0	0.0	3	0.3	1	0.2	0	0.0	0	0.0	1	0.4				
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0				
<b>HEART-LUNG</b>																		
Total Tx	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0			0	0.0
Paediatric (<18 years)	0	0.0							1	0.0								
<b>LUNG</b>																		
Total Tx (all combinations included)	344	4.1	3	0.3	17	1.8	16	3.3	115	1.9	0	0.0	1	0.4			1	2.5
Lung Tx (men)	189	2.3	3	0.3	8	0.8	11	2.2	72	1.2			0	0.0			1	2.5
Paediatric (<18 years)	14	0.2	0	0.0	1	0.1	0	0.0	5	0.1			0	0.0			0	0.0
Single Tx	25	0.3	0	0.0	0	0.0	8	1.6	12	0.2			0	0.0				
Double Tx (heart-lung Tx included)	319	3.8	3	0.3	17	1.8	8	1.6	103	1.7			1	0.4				
Tx from DCD (double + single)	0	0.0	0	0.0	0	0.0	1	0.2	3	0.0			0	0.0			0	0.0
<b>PANCREAS</b>																		
Total Tx (all combinations included)	92	1.1	0	0.0	6	0.6	5	1.0	41	0.7	0	0.0					0	0.0
Pancreas Tx (men)	51	0.6			3	0.3	3	0.6	27	0.4			0	0.0				
Paediatric (<18 years)	0	0.0			0	0.0	0	0.0	0	0.0								
Pancreas Tx alone	5	0.1			0	0.0	2	0.4	6	0.1								
Kidney - Pancreas Tx	80	1.0			6	0.6	3	0.6	33	0.5								
Tx from DCD	0	0.0			0	0.0	0	0.0	0	0.0								
<b>SMALL BOWEL</b>																		
Total Tx (all combinations included)	8	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0			0	0.0
Small bowel Tx (men)	4	0.0											0	0.0			0	0.0
Paediatric (<18 years)	0	0.0															0	0.0
Small bowel Tx alone	2	0.0															0	0.0
<b>RECIPIENTS</b>																		
Total number of patients transplanted	3384	40.4	219	21.1	314	32.4	187	38.2	3437	56.8	45	23.7	107	39.6			6	15.0
Male recipients	2136	25.5	149	14.3	189	19.5	118	24.1	2281	37.7	30	15.8	65	24.1			5	12.5
Paediatric (<18 years)	228	2.7	10	1.0	18	1.9	10	2.0	165	2.7	1	0.5	2	0.7			0	0.0
Patients transplanted from living donors	502	6.0	89	8.6	30	3.1	28	5.7	303	5.0	3	1.6	3	1.1			0	0.0

## TRANSPLANTATION ACTIVITY

## EUROPEAN UNION COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	Netherlands 17.1		Poland 37.8		Portugal 10.2		Romania 19.2		Slovakia 5.5		Slovenia 2.1		Spain 46.8		Sweden 10.1		United Kingdom 67.9	
TRANSPLANTATION																		
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
<b>KIDNEY</b>																		
Total Tx (all combinations included)	809	47.3	751	19.9	394	38.6	174	9.1	131	23.8	47	22.4	2702	57.7	429	42.5	2567	37.8
Kidney Tx (men)	495	28.9	486	12.9	235	23.0	120	6.3	96	17.5	31	14.8	1770	37.8	276	27.3	1570	23.1
Paediatric (<18 years)	9	0.5	21	0.6	8	0.8	15	0.8	4	0.7	0	0.0	88	1.9	20	2.0	98	1.4
Tx from deceased donors	442	25.8	720	19.0	353	34.6	120	6.3	113	20.5	46	21.9	2443	52.2	313	31.0	2009	29.6
- Tx from DCD	269	15.7	0	0.0	17	1.7	0	0.0	0	0.0	0	0.0	894	19.1	22	2.2	709	10.4
- Single Tx	441	25.8	720	19.0	352	34.5	118	6.1	113	20.5	46	21.9	2435	52.0	311	30.8	1986	29.2
- Double Tx	1	0.1	0	0.0	1	0.1	2	0.1	0	0.0	0	0.0	8	0.2	2	0.2	23	0.3
Tx from living donors	367	21.5	31	0.8	41	4.0	54	2.8	18	3.3	1	0.5	259	5.5	116	11.5	558	8.2
- Tx from related living donors	327	19.1	31	0.8	36	3.5	53	2.8	18	3.3	1	0.5	240	5.1	107	10.6	455	6.7
- Tx from unrelated living donors	40	2.3	0	0.0	5	0.5	1	0.1	0	0.0	0	0.0	19	0.4	9	0.9	103	1.5
Paired exchange or cross-over					5	0.5	0	0.0					19	0.4	7	0.7		
Non-directed altruistic or anonymous					0	0.0	0	0.0					0	0.0	2	0.2		
Directed altruistic					0	0.0	1	0.1					0	0.0	0	0.0		
<b>LIVER</b>																		
Total Tx (all combinations included)	186	10.9	291	7.7	193	18.9	62	3.2	19	3.5	25	11.9	1034	22.1	172	17.0	823	12.1
Liver Tx (men)	116	6.8	168	4.4	135	13.2	49	2.6	13	2.4	15	7.1	756	16.2	110	10.9	479	7.1
Paediatric (<18 years)	22	1.3	38	1.0	8	0.8	0	0.0	0	0.0	1	0.5	77	1.6	18	1.8	108	1.6
Split Tx	8	0.5			4	0.4	0	0.0	0	0.0	0	0.0	26	0.6	19	1.9	80	1.2
Domino Tx			0	0.0	3	0.3	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0
Tx from living donors	24	1.4	28	0.7	1	0.1	9	0.5	0	0.0	0	0.0	11	0.2	0	0.0	22	0.3
Tx from DCD	71	4.2	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	279	6.0	1	0.1	131	1.9
<b>HEART</b>																		
Total Tx (all combinations included)	41	2.4	145	3.8	33	3.2	4	0.2	27	4.9	24	11.4	278	5.9	54	5.3	179	2.6
Heart Tx (men)	26	1.5	117	29.6	24	2.4	2	0.1	20	3.6	20	9.5	186	4.0	38	3.8	107	1.6
Paediatric (<18 years)	6	0.4	5	0.1	0	0.0	0	0.0	1	0.2	1	0.5	29	0.6	9	0.9	37	0.5
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.1	0	0.0	18	0.3
<b>HEART-LUNG</b>																		
Total Tx	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.0	0	0.0	2	0.0
Paediatric (<18 years)	0	0.0											0	0.0			0	0.0
<b>LUNG</b>																		
Total Tx (all combinations included)	87	5.1	51	1.3	33	3.2	1	0.1	0	0.0	16	7.6	336	7.2	51	5.0	99	1.5
Lung Tx (men)	50	2.9	36	1.0	21	2.1	0	0.0			10	4.8	221	4.7	28	2.8	56	0.8
Paediatric (<18 years)	2	0.1	4	0.1	0	0.0	0	0.0			1	0.5	10	0.2	1	0.1	2	0.0
Single Tx	4	0.2	4	0.1	1	0.1	0	0.0			2	1.0	77	1.6	13	1.3	3	0.0
Double Tx (heart-lung Tx included)	83	4.9	47	1.2	32	3.1	1	0.1			14	6.7	259	5.5	38	3.8	95	1.4
Tx from DCD (double + single)	40	2.3	0	0.0	0	0.0	0	0.0			0	0.0	95	2.0	0	0.0	17	0.3
<b>PANCREAS</b>																		
Total Tx (all combinations included)	29	1.7	4	0.1	27	2.6	0	0.0	0	0.0	2	1.0	73	1.6	13	1.3	116	1.7
Pancreas Tx (men)	19	1.1	2	0.1	12	1.2					1	0.5	47	1.0	7	0.7	62	0.9
Paediatric (<18 years)	0	0.0	0	0.0	0	0.0					0	0.0	4	0.1	0	0.0	5	0.1
Pancreas Tx alone	3	0.2	1	0.0	0	0.0					0	0.0	6	0.1	3	0.3	5	0.1
Kidney - Pancreas Tx	21	1.2	3	0.1	27	2.6					2	1.0	63	1.3	10	1.0	97	1.4
Tx from DCD	12	0.7	0	0.0	0	0.0					0	0.0	6	0.1	0	0.0	24	0.4
<b>SMALL BOWEL</b>																		
Total Tx (all combinations included)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.1	0	0.0	17	0.3
Small bowel Tx (men)													4	0.1			10	0.1
Paediatric (<18 years)													4	0.1			7	0.1
Small bowel Tx alone													0	0.0			3	0.0
<b>RECIPIENTS</b>																		
Total number of patients transplanted	1124	65.7	1236	32.7	637	62.5	241	12.6	177	32.2	112	53.3	4315	92.2	702	69.5	3686	54.3
Male recipients	686	40.1	805	21.3	405	39.7	171	8.9	129	23.5	76	36.2	2908	62.1	450	44.6	2220	32.7
Paediatric (<18 years)	39	2.3	68	1.8	16	1.6	15	0.8	5	0.9	3	1.4	201	4.3	48	4.8	247	3.6
Patients transplanted from living donors	391	22.9	59	1.6	42	4.1	63	3.3	18	3.3	1	0.5	270	5.8	116	11.5	580	8.5







## TRANSPLANTATION ACTIVITY

## LATIN AMERICAN COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	Argentina 45.2		Bolivia 11.7		Brazil 212.6		Chile 19.1		Colombia 50.9		Costa Rica 5.1		Cuba 11.3		Dominican Republic 10.8		Ecuador 17.6	
TRANSPLANTATION																		
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
<b>KIDNEY</b>																		
Total Tx (all combinations included)	854	18.9	10	0.9	4830	22.7	233	12.2	526	10.3	41	8.0	64	5.7	28	2.6	57	3.2
Kidney Tx (men)	475	10.5	4	0.3	2920	13.7	131	6.9	313	6.1	28	5.5	45	4.0	15	1.4	31	1.8
Paediatric (<18 years)	69	1.5	1	0.1	269	1.3	20	1.0	35	0.7	4	0.8	2	0.2	0	0.0	2	0.1
Tx from deceased donors	724	16.0	0	0.0	4385	20.6	212	11.1	406	8.0	33	6.5	55	4.9	8	0.7	51	2.9
- Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
- Single Tx	722	16.0	0	0.0	4376	20.6	212	11.1	404	7.9	33	6.5	55	4.9	8	0.7	51	2.9
- Double Tx	2	0.0	0	0.0	9	0.0	2	0.1	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tx from living donors	130	2.9	10	0.9	445	2.1	21	1.1	120	2.4	8	1.6	9	0.8	20	1.9	6	0.3
- Tx from related living donors	123	2.7	10	0.9	410	1.9	21	1.1	97	1.9	8	1.6	9	0.8	20	1.9	6	0.3
- Tx from unrelated living donors	7	0.2	0	0.0	35	0.2	0	0.0	23	0.5	0	0.0	0	0.0	0	0.0	0	0.0
Paired exchange or cross-over																		
Non-directed altruistic or anonymous																		
Directed altruistic																		
<b>LIVER</b>																		
Total Tx (all combinations included)	316	7.0	0	0.0	2075	9.8	127	6.6	199	3.9	15	2.9	2	0.2	1	0.1	9	0.5
Liver Tx (men)	176	3.9			1401	6.6	58	3.0	88	1.7	7	1.4	1	0.1	0	0.0	4	0.2
Paediatric (<18 years)	71	1.6			208	1.0	28	1.5	79	1.6	4	0.8	2	0.2	0	0.0	0	0.0
Split Tx	20	0.4			18	0.1	2	0.1	14	0.3	0	0.0	0	0.0	0	0.0	0	0.0
Domino Tx	0	0.0			1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tx from living donors	30	0.7			141	0.7	23	1.2	71	1.4	1	0.2	2	0.2	0	0.0	0	0.0
Tx from DCD					0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>HEART</b>																		
Total Tx (all combinations included)	94	2.1	0	0.0	308	1.4	17	0.9	67	1.3	2	0.4	0	0.0	0	0.0	0	0.0
Heart Tx (men)	73	1.6			201	0.9	14	0.7	54	1.1	2	0.4						
Paediatric (<18 years)	16	0.4			45	0.2	3	0.2	7	0.1	0	0.0						
Tx from DCD					0	0.0	0	0.0	0	0.0	0	0.0						
<b>HEART-LUNG</b>																		
Total Tx	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Paediatric (<18 years)																		
<b>LUNG</b>																		
Total Tx (all combinations included)	21	0.5	0	0.0	65	0.3	20	1.0	12	0.2	3	0.6	0	0.0	0	0.0	0	0.0
Lung Tx (men)	11	0.2			35	0.2	13	0.7	7	0.1	0	0.0						
Paediatric (<18 years)	2	0.0			5	0.0	2	0.1	0	0.0	0	0.0						
Single Tx	5	0.1			17	0.1	20	1.0	2	0.0	0	0.0						
Double Tx (heart-lung Tx included)	16	0.4			48	0.2	0	0.0	10	0.2	3	0.6						
Tx from DCD (double + single)	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0						
<b>PANCREAS</b>																		
Total Tx (all combinations included)	48	1.1	0	0.0	148	0.7	5	0.3	5	0.1	0	0.0	0	0.0	1	0.1	0	0.0
Pancreas Tx (men)	22	0.5			67	0.3	2	0.1	2	0.0					0	0.0		
Paediatric (<18 years)	0	0.0			0	0.0	0	0.0	1	0.0					0	0.0		
Pancreas Tx alone	3	0.1			40	0.2	0	0.0	0	0.0					0	0.0		
Kidney - Pancreas Tx	45	1.0			108	0.5	5	0.3	4	0.1					1	0.1		
Tx from DCD	0	0.0			0	0.0	0	0.0	0	0.0					0	0.0		
<b>SMALL BOWEL</b>																		
Total Tx (all combinations included)	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Small bowel Tx (men)	0	0.0			1	0.0												
Paediatric (<18 years)	0	0.0			0	0.0												
Small bowel Tx alone	1	0.0			1	0.0												
<b>RECIPIENTS</b>																		
Total number of patients transplanted	1273	28.2	10	0.9	7290	34.3	402	21.0	799	15.7	61	12.0	66	5.8	29	2.7	66	3.8
Male recipients	727	16.1	4	0.3	4544	21.4	218	11.4	458	9.0	33	6.5	45	4.0	15	1.4	35	2.0
Paediatric (<18 years)	158	3.5	1	0.1	523	2.5	53	2.8	120	2.4	8	1.6	4	0.4	0	0.0	2	0.1
Patients transplanted from living donors	160	3.5	10	0.9	586	2.8	44	2.3	191	3.8	9	1.8	11	1.0	20	1.9	6	0.3

**TRANSPLANTATION ACTIVITY**

**LATIN AMERICAN COUNTRIES**

<b>COUNTRIES</b> Population (million inhabitants): UNFPA	<b>El Salvador</b> 6.5		<b>Guatemala</b> 17.9		<b>Mexico</b> 128.9		<b>Nicaragua</b>		<b>Panama</b> 4.3		<b>Paraguay</b> 7.1		<b>Peru</b> 33.0		<b>Uruguay</b> 3.5		<b>Venezuela</b> 28.4	
<b>TRANSPLANTATION</b>																		
	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>	<b>Number</b>	<b>PMP</b>
<b>KIDNEY</b>																		
Total Tx (all combinations included)	11	1.7	29	1.6	913	7.1			13	3.0	4	0.6	49	1.5	120	34.3	0	0.0
Kidney Tx (men)			15	0.8	585	4.5			7	1.6	3	0.4	33	1.0	73	20.9	2	0.1
Paediatric (<18 years)	0	0.0	3	0.2	69	0.5			0	0.0	1	0.1	18	0.5	8	2.3	0	0.0
Tx from deceased donors	0	0.0	0	0.0	283	2.2			6	1.4	1	0.1	29	0.9	112	32.0	0	0.0
- Tx from DCD	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
- Single Tx	0	0.0	0	0.0	278	2.2			6	1.4			29	0.9	112	32.0	0	0.0
- Double Tx	0	0.0	0	0.0	5	0.0			0	0.0			0	0.0	0	0.0	0	0.0
Tx from living donors	11	1.7	29	1.6	630	4.9			7	1.6	3	0.4	20	0.6	8	2.3	3	0.1
- Tx from related living donors			25	1.4	630	4.9			7	1.6	3	0.4	20	0.6	8	2.3	3	0.1
- Tx from unrelated living donors			4	0.2	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Paired exchange or cross-over																		
Non-directed altruistic or anonymous																		
Directed altruistic																		
<b>LIVER</b>																		
Total Tx (all combinations included)	0	0.0	0	0.0	72	0.6			3	0.7	0	0.0	17	0.5	28	8.0	0	0.0
Liver Tx (men)					37	0.3			1	0.2			9	0.3	21	6.0		
Paediatric (<18 years)					17	0.1			0	0.0			10	0.3	2	0.6		
Split Tx					0	0.0			0	0.0			0	0.0	0	0.0		
Domino Tx					0	0.0			0	0.0			0	0.0	0	0.0		
Tx from living donors					10	0.1			0	0.0			6	0.2	1	0.3		
Tx from DCD					0	0.0			0	0.0			0	0.0	0	0.0		
<b>HEART</b>																		
Total Tx (all combinations included)	0	0.0	0	0.0	9	0.1			0	0.0	5	0.7	2	0.1	11	3.1	0	0.0
Heart Tx (men)					8	0.1					5	0.7	0	0.0	6	1.7		
Paediatric (<18 years)					2	0.0					2	0.3	0	0.0	0	0.0		
Tx from DCD					0	0.0					0	0.0	0	0.0	0	0.0		
<b>HEART-LUNG</b>																		
Total Tx	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Paediatric (<18 years)																		
<b>LUNG</b>																		
Total Tx (all combinations included)	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	1	0.0	4	1.1	0	0.0
Lung Tx (men)					3	0.0							1	0.0	2	0.6		
Paediatric (<18 years)													0	0.0	2	0.6		
Single Tx					3	0.0									0	0.0		
Double Tx (heart-lung Tx included)					1	0.0									4	1.1		
Tx from DCD (double + single)					0	0.0							0	0.0	0	0.0		
<b>PANCREAS</b>																		
Total Tx (all combinations included)	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pancreas Tx (men)																		
Paediatric (<18 years)																		
Pancreas Tx alone																		
Kidney – Pancreas Tx																		
Tx from DCD																		
<b>SMALL BOWEL</b>																		
Total Tx (all combinations included)	0	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Small bowel Tx (men)																		
Paediatric (<18 years)																		
Small bowel Tx alone																		
<b>RECIPIENTS</b>																		
Total number of patients transplanted	11	1.7	29	1.6	997	7.7			16	3.7	9	1.3	69	2.1	162	46.3	3	0.1
Male recipients			15	0.8	633	4.9			8	1.9	8	1.1	43	1.3	101	28.9	2	0.1
Paediatric (<18 years)	0	0.0	3	0.2	88	0.7			0	0.0	3	0.4	28	0.8	12	3.4	0	0.0
Patients transplanted from living donors	11	1.7	29	1.6	640	5.0			7	1.6	3	0.4	26	0.8	9	2.6	3	0.1

## WAITING LIST

## EUROPEAN UNION COUNTRIES

COUNTRIES	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
<b>Population (million inhabitants): UNFPA</b>	<b>9.0</b>	<b>11.6</b>	<b>6.9</b>	<b>4.1</b>	<b>1.2</b>	<b>10.7</b>	<b>5.8</b>	<b>1.3</b>	<b>5.5</b>	<b>65.3</b>
<b>KIDNEY</b>										
<b>N. TX CENTRES</b>	4	7	3	4	1	7	3	1	1	47
Patients included on the WL for the first time in the course of 2020	389	433	102	191	17	386	261	58	277	4697
Total number of patients ever active on the WL during 2020	1020		1146	251	77	742	835	105	785	20855
Patients awaiting for a transplant (only active candidates) on 31/12/2020	588	952	987	225	63	435	373	41	360	8926
Patients who died while on the WL during 2020	32	33	122	12	1	29	11	1	15	579
Patients on dialysis on 31/12/2020	4642		1105			930		421		
<b>LIVER</b>										
<b>N. TX CENTRES</b>	3	6	2	2		2	1	1	1	20
Patients included on the WL for the first time in the course of 2020	187	285	19	112		226	63	11	73	1838
Total number of patients ever active on the WL during 2020	288		68	118		126	84	20	98	3384
Patients awaiting for a transplant (only active candidates) on 31/12/2020	81	181	38	115		105	14	4	15	840
Patients who died while on the WL during 2020	32	39	19	20		24	1	1	1	257
<b>HEART</b>										
<b>N. TX CENTRES</b>	2	7	1	2		2	2	0	1	24
Patients included on the WL for the first time in the course of 2020	60	82	10	27		70	34		31	543
Total number of patients ever active on the WL during 2020	108		49	32		98	54		68	936
Patients awaiting for a transplant (only active candidates) on 31/12/2020	42	110	42	27		50	13		42	299
Patients who died while on the WL during 2020	3	10	6	5		15	3		1	68
<b>LUNG</b>										
<b>N. TX CENTRES</b>	2	5	2	1		1	1	1	1	9
Patients included on the WL for the first time in the course of 2020	124	84	2			60	23	1	22	321
Total number of patients ever active on the WL during 2020	184		22			59	45	4	57	502
Patients awaiting for a transplant (only active candidates) on 31/12/2020	41	106	19			45	7	2	29	155
Patients who died while on the WL during 2020	2	10	3	1		13	3	1	1	16
<b>PANCREAS</b>										
<b>N. TX CENTRES</b>	3	7	0	1	1	1	1	1	1	12
Patients included on the WL for the first time in the course of 2020	15	12	0	7		43	7	9	35	70
Total number of patients ever active on the WL during 2020	27		9	7		66	16	16	44	285
Patients awaiting for a transplant (only active candidates) on 31/12/2020	5	22	8	7		40	6	7	12	98
Patients who died while on the WL during 2020	0	0	1	1		0	0	0	0	10
<b>SMALL BOWEL</b>										
<b>N. TX CENTRES</b>	1	6	0	1		1	0	0	1	10
Patients included on the WL for the first time in the course of 2020			1	0		3			0	5
Total number of patients ever active on the WL during 2020			1	0		3			1	8
Patients awaiting for a transplant (only active candidates) on 31/12/2020			1	0		3			0	3
Patients who died while on the WL during 2020			0	0		0			0	1



## WAITING LIST

### EUROPEAN UNION COUNTRIES

COUNTRIES	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta
<b>Population (million inhabitants): UNFPA</b>	<b>83.8</b>	<b>10.4</b>	<b>9.7</b>	<b>4.9</b>	<b>60.5</b>	<b>1.9</b>	<b>2.7</b>	<b>0.6</b>	<b>0.4</b>
<b>KIDNEY</b>									
<b>N. TX CENTRES</b>	38	5	4	1	40	1	2		1
Patients included on the WL for the first time in the course of 2020	2926	142	285	152	1800	26	86		21
Total number of patients ever active on the WL during 2020	10074	1530	1109	661	8298	60	216		87
Patients awaiting for a transplant (only active candidates) on 31/12/2020	7338	1192	804	421	6123	19	119		93
Patients who died while on the WL during 2020	400	10	67	12	225	0	8		8
Patients on dialysis on 31/12/2020		12425	5877	2310		700			296
<b>LIVER</b>									
<b>N. TX CENTRES</b>	21	2	1	1	22	1	2		0
Patients included on the WL for the first time in the course of 2020	1416	57	90	57	1487	7	36		
Total number of patients ever active on the WL during 2020	2284	137	170	70	2466	11	121		
Patients awaiting for a transplant (only active candidates) on 31/12/2020	891	57	87	30	1079	8	90		
Patients who died while on the WL during 2020	217	31	18	4	100	1	12		
<b>HEART</b>									
<b>N. TX CENTRES</b>	22	1	2	1	16	1	2		1
Patients included on the WL for the first time in the course of 2020	528	22	65	16	346	3	19		
Total number of patients ever active on the WL during 2020	1250	61	125	24	984	14	62		
Patients awaiting for a transplant (only active candidates) on 31/12/2020	700	25	69	8	670	12	44		
Patients who died while on the WL during 2020	92	3	11	2	39	0	8		
<b>LUNG</b>									
<b>N. TX CENTRES</b>	13	1	1	1	11	0	1		0
Patients included on the WL for the first time in the course of 2020	433	7	14	34	176	0	1		
Total number of patients ever active on the WL during 2020	709	10	29	54	490	1	9		
Patients awaiting for a transplant (only active candidates) on 31/12/2020	279	7	8	30	320	1	8		
Patients who died while on the WL during 2020	49	0	2	5	37	0	0		
<b>PANCREAS</b>									
<b>N. TX CENTRES</b>	27	1	2	1	7	1	0		0
Patients included on the WL for the first time in the course of 2020	158	0	7	9	59	0	2		
Total number of patients ever active on the WL during 2020	425	0	41	20	313	0	10		
Patients awaiting for a transplant (only active candidates) on 31/12/2020	265	0	29	19	252	0	6		
Patients who died while on the WL during 2020	22	0	2	0	4	0	0		
<b>SMALL BOWEL</b>									
<b>N. TX CENTRES</b>	9	0	0	0	2	0	0		0
Patients included on the WL for the first time in the course of 2020				0	2	0			
Total number of patients ever active on the WL during 2020				0	10	0			
Patients awaiting for a transplant (only active candidates) on 31/12/2020				0	5	0			
Patients who died while on the WL during 2020				0	1	0			

## WAITING LIST

## EUROPEAN UNION COUNTRIES

COUNTRIES	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom
<b>Population (million inhabitants): UNFPA</b>	<b>17.1</b>	<b>37.8</b>	<b>10.2</b>	<b>19.2</b>	<b>5.5</b>	<b>2.1</b>	<b>46.8</b>	<b>10.1</b>	<b>67.9</b>
<b>KIDNEY</b>									
<b>N. TX CENTRES</b>	10	22	8	4	4	1	40	4	24
Patients included on the WL for the first time in the course of 2020	831	776	370	366	131	27		386	2491
Total number of patients ever active on the WL during 2020	2196	2169	2381		389	33	6564	1229	7241
Patients awaiting for a transplant (only active candidates) on 31/12/2020	828	1060	1951	4792	244	54	3864	426	3879
Patients who died while on the WL during 2020	80	97	40		54	1		24	313
Patients on dialysis on 31/12/2020		23000	13375			1300	27985		
<b>LIVER</b>									
<b>N. TX CENTRES</b>	3	9	3	4	1	1	25	2	7
Patients included on the WL for the first time in the course of 2020	135	364	241	206	34	28	1236	198	898
Total number of patients ever active on the WL during 2020	379	511	329		51	46	1628	277	1459
Patients awaiting for a transplant (only active candidates) on 31/12/2020	111	145	118	401	26	15	404	70	490
Patients who died while on the WL during 2020	31	39	11	31	5	1	41	7	58
<b>HEART</b>									
<b>N. TX CENTRES</b>	3	6	4	2	1	1	18	2	7
Patients included on the WL for the first time in the course of 2020	116	246	46	7	30	29	338	50	248
Total number of patients ever active on the WL during 2020	188	734	77		69	71	486	101	624
Patients awaiting for a transplant (only active candidates) on 31/12/2020	133	423	33	27	32	34	148	28	362
Patients who died while on the WL during 2020	8	82	11	4	10	2	16	7	29
<b>LUNG</b>									
<b>N. TX CENTRES</b>	3	4	1	1	0	1	8	2	6
Patients included on the WL for the first time in the course of 2020	172	116	57	3	0	8	350	61	158
Total number of patients ever active on the WL during 2020	289	262	122		0	16	615	94	507
Patients awaiting for a transplant (only active candidates) on 31/12/2020	161	175	64	5	0	4	221	33	327
Patients who died while on the WL during 2020	17	36	9	2	0	0	16	4	70
<b>PANCREAS</b>									
<b>N. TX CENTRES</b>	2	5	2	1	1	1	13	4	8
Patients included on the WL for the first time in the course of 2020	46	28	36	0	0	1	90	24	160
Total number of patients ever active on the WL during 2020	80	74	56	0	0	2	205	42	332
Patients awaiting for a transplant (only active candidates) on 31/12/2020	47	64	29	0	0	0	95	15	116
Patients who died while on the WL during 2020	1	3	0	0	0	0	4	1	17
<b>SMALL BOWEL</b>									
<b>N. TX CENTRES</b>		1		0	0	0	3	1	4
Patients included on the WL for the first time in the course of 2020		0		0	0	0	8	0	27
Total number of patients ever active on the WL during 2020		0		0	0	0	19	2	43
Patients awaiting for a transplant (only active candidates) on 31/12/2020		0		0	0	0	11	1	17
Patients who died while on the WL during 2020		0		0	0	0	0	0	4

WAITING LIST

OTHER COUNTRIES

COUNTRIES	Albania	Algeria	Armenia	Australia	Bangladesh	Belarus	Bosnia and Herzegovina	Canada	China	Ethiopia	Georgia	Iceland	India
<b>Population (million inhabitants): UNFPA</b>	<b>2.9</b>	<b>43.9</b>	<b>3.0</b>	<b>25.5</b>	<b>164.7</b>	<b>9.4</b>	<b>3.3</b>	<b>37.7</b>	<b>1447.4</b>	<b>115.0</b>	<b>4.0</b>	<b>0.3</b>	<b>1380.0</b>
<b>KIDNEY</b>													
<b>N. TX CENTRES</b>	1	14	1	26	10	7	2	25	132	1	3	1	560
Patients included on the WL for the first time in the course of 2020				903		349	2		29038				4437
Total number of patients ever active on the WL during 2020				2185	1097	536		1704	78324	80			27074
Patients awaiting for a transplant (only active candidates) on 31/12/2020		350		1163	785	169	241	96	59454	20			23076
Patients who died while on the WL during 2020				3	157	51	13		493	3			1337
Patients on dialysis on 31/12/2020		25052		14595	16500	3079				61			35492
<b>LIVER</b>													
<b>N. TX CENTRES</b>	0	3	2	8	3	1	1	9	103	0	1	0	186
Patients included on the WL for the first time in the course of 2020				331		103	7		11157				2133
Total number of patients ever active on the WL during 2020				466		257			15991				6324
Patients awaiting for a transplant (only active candidates) on 31/12/2020				131		155	22	398	5430				4470
Patients who died while on the WL during 2020				7		16	5	116	923				773
<b>HEART</b>													
<b>N. TX CENTRES</b>	0	0	0	5	0	1	0	11	56	0	0	0	151
Patients included on the WL for the first time in the course of 2020						63			1084				220
Total number of patients ever active on the WL during 2020						136			1423				607
Patients awaiting for a transplant (only active candidates) on 31/12/2020						68	14	97	556				418
Patients who died while on the WL during 2020						15		11	108				57
<b>LUNG</b>													
<b>N. TX CENTRES</b>	0	0	0	4	0	2	0	5	43	0	0	0	78
Patients included on the WL for the first time in the course of 2020						12	0		723				144
Total number of patients ever active on the WL during 2020						47	0		812				217
Patients awaiting for a transplant (only active candidates) on 31/12/2020						33	0	164	147				87
Patients who died while on the WL during 2020						4	0	36	50				46
<b>PANCREAS</b>													
<b>N. TX CENTRES</b>	0	0	0	3	0	1	0	8	45	0	0	0	50
Patients included on the WL for the first time in the course of 2020				32		1	0						26
Total number of patients ever active on the WL during 2020				159		13	0						102
Patients awaiting for a transplant (only active candidates) on 31/12/2020				49		7	0	58					80
Patients who died while on the WL during 2020				2		4	0	10					3
<b>SMALL BOWEL</b>													
<b>N. TX CENTRES</b>	0	0	0	1	0	1	0	2	42	0	0	0	17
Patients included on the WL for the first time in the course of 2020				1		0	0						6
Total number of patients ever active on the WL during 2020				4		0	0						16
Patients awaiting for a transplant (only active candidates) on 31/12/2020				3		0	0						7
Patients who died while on the WL during 2020				0		0	0	0					1



**WAITING LIST**

**OTHER COUNTRIES**

<b>COUNTRIES</b>	<b>Russian Federation</b>	<b>Saudi Arabia</b>	<b>Serbia</b>	<b>Sudan</b>	<b>Switzerland</b>	<b>Syrian Arab Rep.</b>	<b>Thailand</b>	<b>Trinidad and Tobago</b>	<b>Turkey</b>	<b>Ukraine</b>	<b>United Arab Emirates</b>	<b>United States of America</b>
<b>Population (million inhabitants): UNFPA</b>	<b>145.9</b>	<b>34.8</b>	<b>8.7</b>	<b>43.8</b>	<b>8.7</b>	<b>17.5</b>	<b>69.8</b>	<b>1.4</b>	<b>84.3</b>	<b>43.7</b>	<b>9.9</b>	<b>331.0</b>
<b>KIDNEY</b>												
<b>N. TX CENTRES</b>	44	16	4	7	6	5	44	1	78	10	6	233
Patients included on the WL for the first time in the course of 2020	1433	2073			378		1127	6	4195		113	28804
Total number of patients ever active on the WL during 2020	6929	5856					6635	14	27399		207	81913
Patients awaiting for a transplant (only active candidates) on 31/12/2020	5680	5311			511		5022	10	22076		146	54761
Patients who died while on the WL during 2020	125				21		185	0	2593		0	4415
Patients on dialysis on 31/12/2020	60000	21568	60	9725	450		164191	1127	62755		1260	746557
<b>LIVER</b>												
<b>N. TX CENTRES</b>	29	6	2	0	3	0	10	0	49	3	1	142
Patients included on the WL for the first time in the course of 2020	780	240			216		196		1836		36	11725
Total number of patients ever active on the WL during 2020	2237	540					421		3496		48	22644
Patients awaiting for a transplant (only active candidates) on 31/12/2020	1554	296			119		213		1616		36	9299
Patients who died while on the WL during 2020	124				39		30		518		1	1080
<b>HEART</b>												
<b>N. TX CENTRES</b>	16	3	1	0	3	0	5	0	15	4	1	144
Patients included on the WL for the first time in the course of 2020	303	75			55		45		357		8	4188
Total number of patients ever active on the WL during 2020	708	120					78		1520		17	7431
Patients awaiting for a transplant (only active candidates) on 31/12/2020	404	92			60		25		1213		6	2597
Patients who died while on the WL during 2020	53				0		14		266		0	239
<b>LUNG</b>												
<b>N. TX CENTRES</b>	3	1	0	0	2	0	5	0	4	0	1	69
Patients included on the WL for the first time in the course of 2020	46	65			61		1		95		2	2482
Total number of patients ever active on the WL during 2020	94	70					6		159		4	3850
Patients awaiting for a transplant (only active candidates) on 31/12/2020	76	50			39		4		109		3	754
Patients who died while on the WL during 2020	7				4		2		29		0	149
<b>PANCREAS</b>												
<b>N. TX CENTRES</b>	3	2	0	0	2	0	4	0	8	0	1	124
Patients included on the WL for the first time in the course of 2020	14	10			6		1		8		3	1339
Total number of patients ever active on the WL during 2020	114	25					2		286		3	2359
Patients awaiting for a transplant (only active candidates) on 31/12/2020	98	23			5		2		266		2	954
Patients who died while on the WL during 2020	0				2		0		19		0	110
<b>SMALL BOWEL</b>												
<b>N. TX CENTRES</b>	0	1	0	0	2	0	2	0	2	0	0	21
Patients included on the WL for the first time in the course of 2020	1	4			1				2			116
Total number of patients ever active on the WL during 2020	1	6							2			248
Patients awaiting for a transplant (only active candidates) on 31/12/2020	0	5			0				0			148
Patients who died while on the WL during 2020	0				0				1			9

## WAITING LIST

## LATIN AMERICAN COUNTRIES

COUNTRIES	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador
<b>Population (million inhabitants): UNFPA</b>	<b>45.2</b>	<b>11.7</b>	<b>212.6</b>	<b>19.1</b>	<b>50.9</b>	<b>5.1</b>	<b>11.3</b>	<b>10.8</b>	<b>17.6</b>
<b>KIDNEY</b>									
<b>N. TX CENTRES</b>	61	10	171	21	27	7	9	5	9
Patients included on the WL for the first time in the course of 2020	1182	25	9774		1067	121	200	22	127
Total number of patients ever active on the WL during 2020	6721		34920		4039	295	400	216	538
Patients awaiting for a transplant (only active candidates) on 31/12/2020	5116		25314		2741	340	400	191	165
Patients who died while on the WL during 2020	454		1567		196	32		17	81
Patients on dialysis on 31/12/2020	29213	5200	108611		34568	624	3500	4267	18000
<b>LIVER</b>									
<b>N. TX CENTRES</b>	33	0	87	11	12	4	3	1	6
Patients included on the WL for the first time in the course of 2020	616		3175		145	63	14	14	20
Total number of patients ever active on the WL during 2020	1994		4388		423	43	22	43	28
Patients awaiting for a transplant (only active candidates) on 31/12/2020	1395		1068		160	39	13	34	9
Patients who died while on the WL during 2020	187		562		37	29	23	8	10
<b>HEART</b>									
<b>N. TX CENTRES</b>	27	0	59	8	10	1	1	2	1
Patients included on the WL for the first time in the course of 2020	160		475		39	1	6		0
Total number of patients ever active on the WL during 2020	298		761		113	9	12		0
Patients awaiting for a transplant (only active candidates) on 31/12/2020	134		272		25	2	8		0
Patients who died while on the WL during 2020	43		95		10	0	8		0
<b>LUNG</b>									
<b>N. TX CENTRES</b>	8	0	8	4	6	1	0	0	1
Patients included on the WL for the first time in the course of 2020	88		134		33	3	0		0
Total number of patients ever active on the WL during 2020	345		324		69	9	0		2
Patients awaiting for a transplant (only active candidates) on 31/12/2020	291		218		47	1	0		0
Patients who died while on the WL during 2020	25		39		6	0	0		0
<b>PANCREAS</b>									
<b>N. TX CENTRES</b>	16	0	41	3	5	1	0	1	0
Patients included on the WL for the first time in the course of 2020	65		204		1	0	0		0
Total number of patients ever active on the WL during 2020	231		617		3	0	0		0
Patients awaiting for a transplant (only active candidates) on 31/12/2020	151		295		3	0	0		0
Patients who died while on the WL during 2020	14		42		0	0	0		0
<b>SMALL BOWEL</b>									
<b>N. TX CENTRES</b>	2	0	3	2	4	1	0	0	0
Patients included on the WL for the first time in the course of 2020	11		5		1	0	0		0
Total number of patients ever active on the WL during 2020	22		10		2	0	0		0
Patients awaiting for a transplant (only active candidates) on 31/12/2020	16		7		2	0	0		0
Patients who died while on the WL during 2020	3		0		0	0	0		0

WAITING LIST

LATIN AMERICAN COUNTRIES

COUNTRIES	El Salvador	Guatemala	Mexico	Nicaragua	Panama	Paraguay	Peru	Uruguay	Venezuela
Population (million inhabitants): UNFPA	6.5	17.9	128.9		4.3	7.1	33.0	3.5	28.4

<b>KIDNEY</b>									
<b>N. TX CENTRES</b>		4	270		2	6	12	4	8
Patients included on the WL for the first time in the course of 2020			1729		30	10	48	143	25
Total number of patients ever active on the WL during 2020			18798		40	60	1012	540	870
Patients awaiting for a transplant (only active candidates) on 31/12/2020			16990		120	41	944	375	870
Patients who died while on the WL during 2020			240		10	1	68	20	
Patients on dialysis on 31/12/2020		9245			2310	1600	12773		10325

<b>LIVER</b>									
<b>N. TX CENTRES</b>		1	82		1	1	4	1	3
Patients included on the WL for the first time in the course of 2020			152			0	5	37	0
Total number of patients ever active on the WL during 2020			469			5	42	64	6
Patients awaiting for a transplant (only active candidates) on 31/12/2020			307			5	12	31	6
Patients who died while on the WL during 2020			38			0	13	3	0

<b>HEART</b>									
<b>N. TX CENTRES</b>			58		1	4	3	3	1
Patients included on the WL for the first time in the course of 2020			23			9	3	22	0
Total number of patients ever active on the WL during 2020			66			17	9	69	0
Patients awaiting for a transplant (only active candidates) on 31/12/2020			50			8	3	42	0
Patients who died while on the WL during 2020			3			3	4	7	0

<b>LUNG</b>									
<b>N. TX CENTRES</b>			13		0	0	2	1	0
Patients included on the WL for the first time in the course of 2020			3			0	1	4	0
Total number of patients ever active on the WL during 2020			7			0	13	20	0
Patients awaiting for a transplant (only active candidates) on 31/12/2020			2			0	1	16	0
Patients who died while on the WL during 2020			0			0	4	0	0

<b>PANCREAS</b>									
<b>N. TX CENTRES</b>			24		0	0	2	0	0
Patients included on the WL for the first time in the course of 2020			1			0	2	0	0
Total number of patients ever active on the WL during 2020			6			0	2	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2020			6			0	2	0	0
Patients who died while on the WL during 2020			0			0	0	0	0

<b>SMALL BOWEL</b>									
<b>N. TX CENTRES</b>			4		0	0	0	0	0
Patients included on the WL for the first time in the course of 2020			0			0	0	0	0
Total number of patients ever active on the WL during 2020			0			0	0	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2020			0			0	0	0	0
Patients who died while on the WL during 2020			0			0	0	0	0





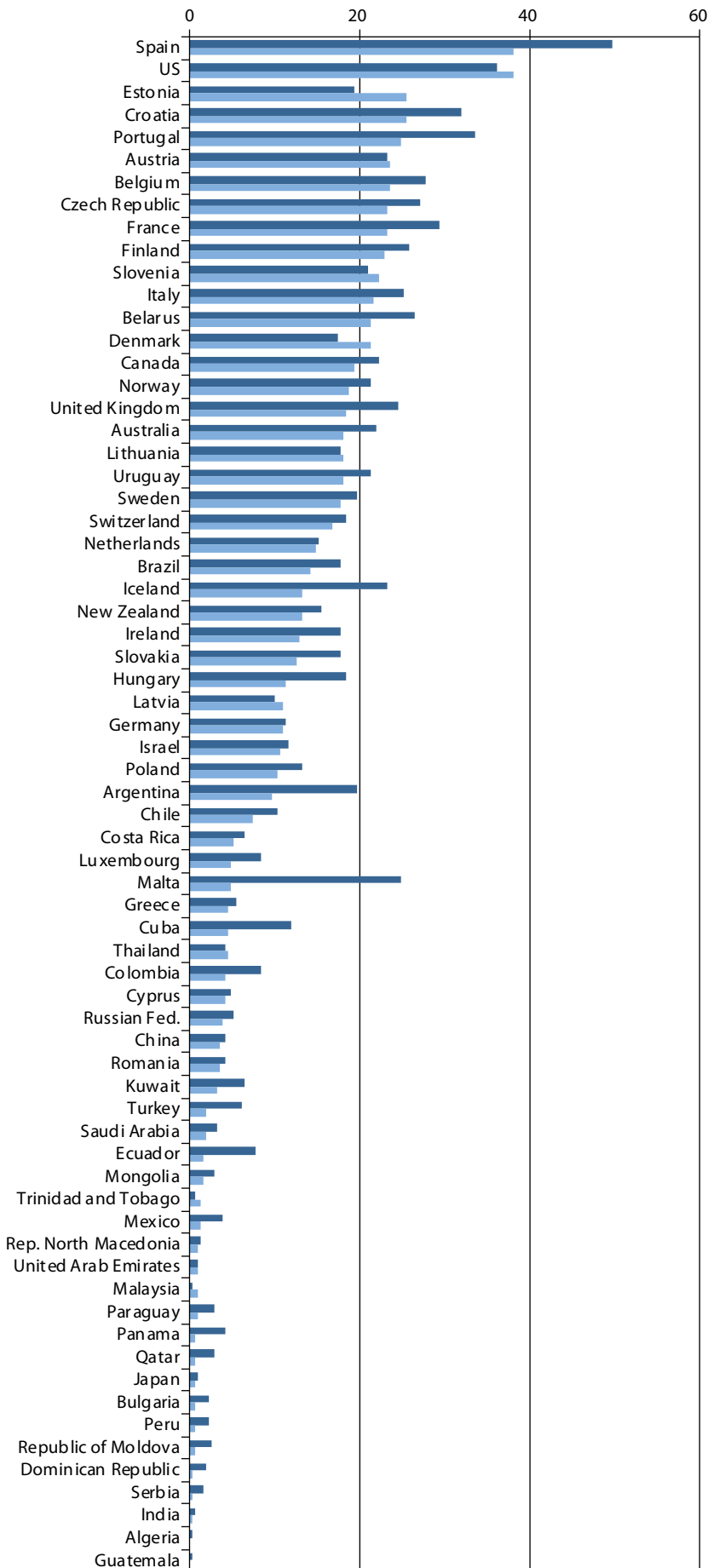
# **International Data on Organ Donation and Transplantation Activity. Year 2020 vs 2019**



# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Deceased Donation

■ Actual Deceased Donors pmp 2019 ■ Actual Deceased Donors pmp 2020

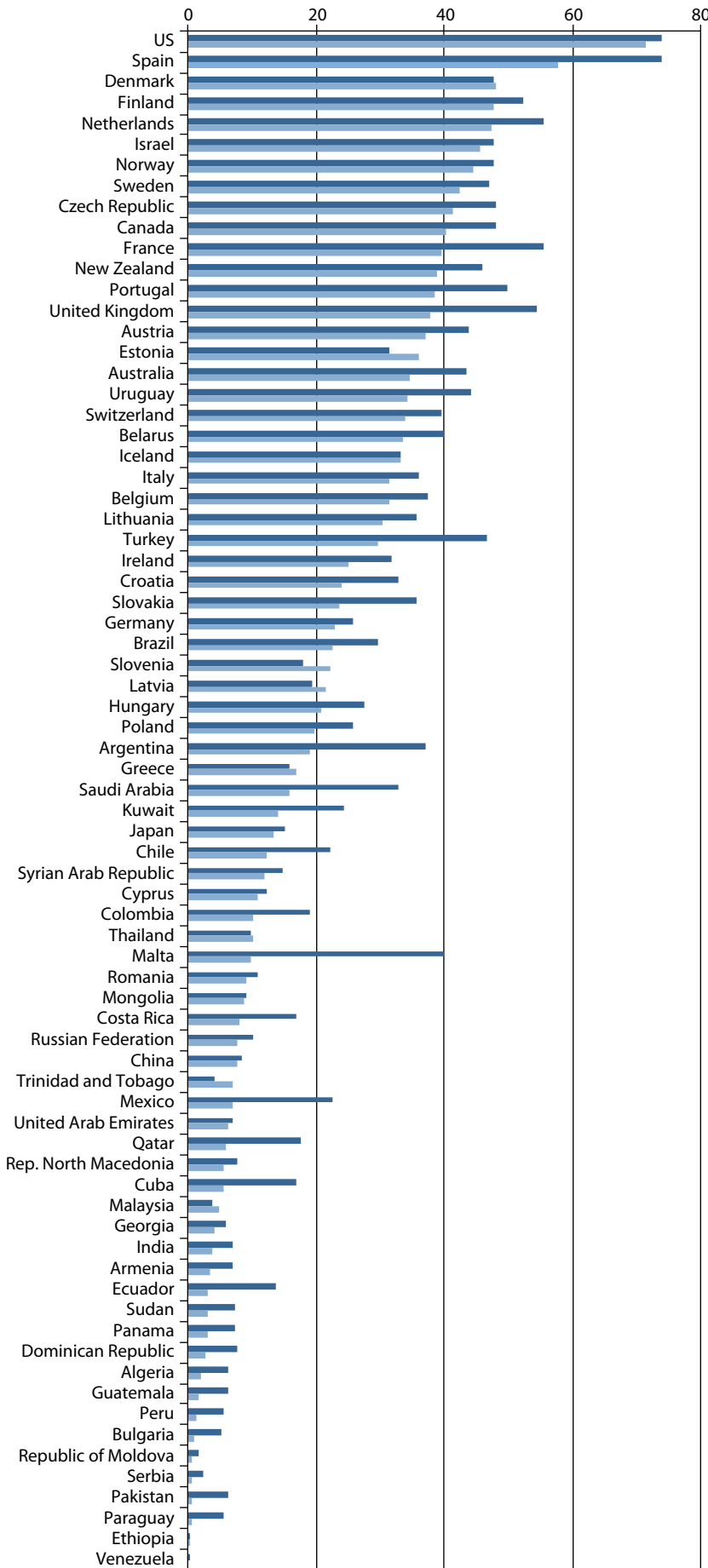


COUNTRY	2019		2020	
	N	PMP	N	PMP
Algeria	1	0.0	0	0.0
Argentina	883	19.6	444	9.8
Australia	548	21.8	463	18.2
Austria	206	23.4	213	23.7
Belarus	248	26.4	201	21.4
Belgium	321	27.7	274	23.6
Brazil	3767	17.7	3027	14.2
Bulgaria	16	2.3	4	0.6
Canada	828	22.2	734	19.5
Chile	188	10.3	141	7.4
China	5818	4.1	5222	3.6
Colombia	417	8.4	222	4.4
Costa Rica	33	6.6	27	5.3
Croatia	131	32.0	104	25.4
Cuba	138	12.0	51	4.5
Cyprus	6	5.0	5	4.2
Czech Republic	288	27.2	249	23.3
Denmark	102	17.6	124	21.4
Dominican Republic	23	2.1	4	0.4
Ecuador	133	7.8	29	1.6
Estonia	25	19.2	33	25.4
Finland	145	25.9	126	22.9
France	1924	29.4	1512	23.2
Germany	932	11.3	913	10.9
Greece	61	5.5	48	4.6
Guatemala	3	0.2	0	0.0
Hungary	180	18.6	111	11.4
Iceland	7	23.3	4	13.3
India	715	0.5	351	0.3
Ireland	85	17.7	63	12.9
Israel	101	11.7	92	10.6
Italy	1495	25.3	1303	21.5
Japan	125	1.0	77	0.6
Kuwait	27	6.4	14	3.3
Latvia	19	10.0	21	11.1
Lithuania	52	17.9	49	18.1
Luxembourg	5	8.3	3	5.0
Malaysia	16	0.5	28	0.9
Malta	10	25.0	2	5.0
Mexico	500	3.8	152	1.2
Mongolia	9	2.8	5	1.5
Netherlands	258	15.1	255	14.9
New Zealand	74	15.4	64	13.3
Norway	115	21.3	102	18.9
Panama	18	4.3	3	0.7
Paraguay	20	2.9	6	0.8
Peru	75	2.3	17	0.5
Poland	504	13.3	393	10.4
Portugal	347	33.7	253	24.8
Qatar	8	3.0	2	0.7
Rep. North Macedonia	3	1.4	2	1.0
Republic of Moldova	11	2.8	2	0.5
Romania	85	4.4	66	3.4
Russian Fed.	740	5.1	572	3.9
Saudi Arabia	114	3.3	65	1.9
Serbia	15	1.7	3	0.3
Slovakia	98	17.8	70	12.7
Slovenia	44	21.0	47	22.4
Spain	2302	49.6	1777	38.0
Sweden	198	19.6	181	17.9
Switzerland	157	18.3	146	16.8
Thailand	301	4.3	315	4.5
Trinidad and Tobago	1	0.7	2	1.4
Turkey	499	6.0	172	2.0
United Arab Emirates	10	1.0	9	0.9
United Kingdom	1653	24.7	1248	18.4
Uruguay	75	21.4	63	18.0
US	11870	36.1	12588	38.0

# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Kidney Transplants

■ Kidney Tx pmp 2019 ■ Kidney Tx pmp 2020

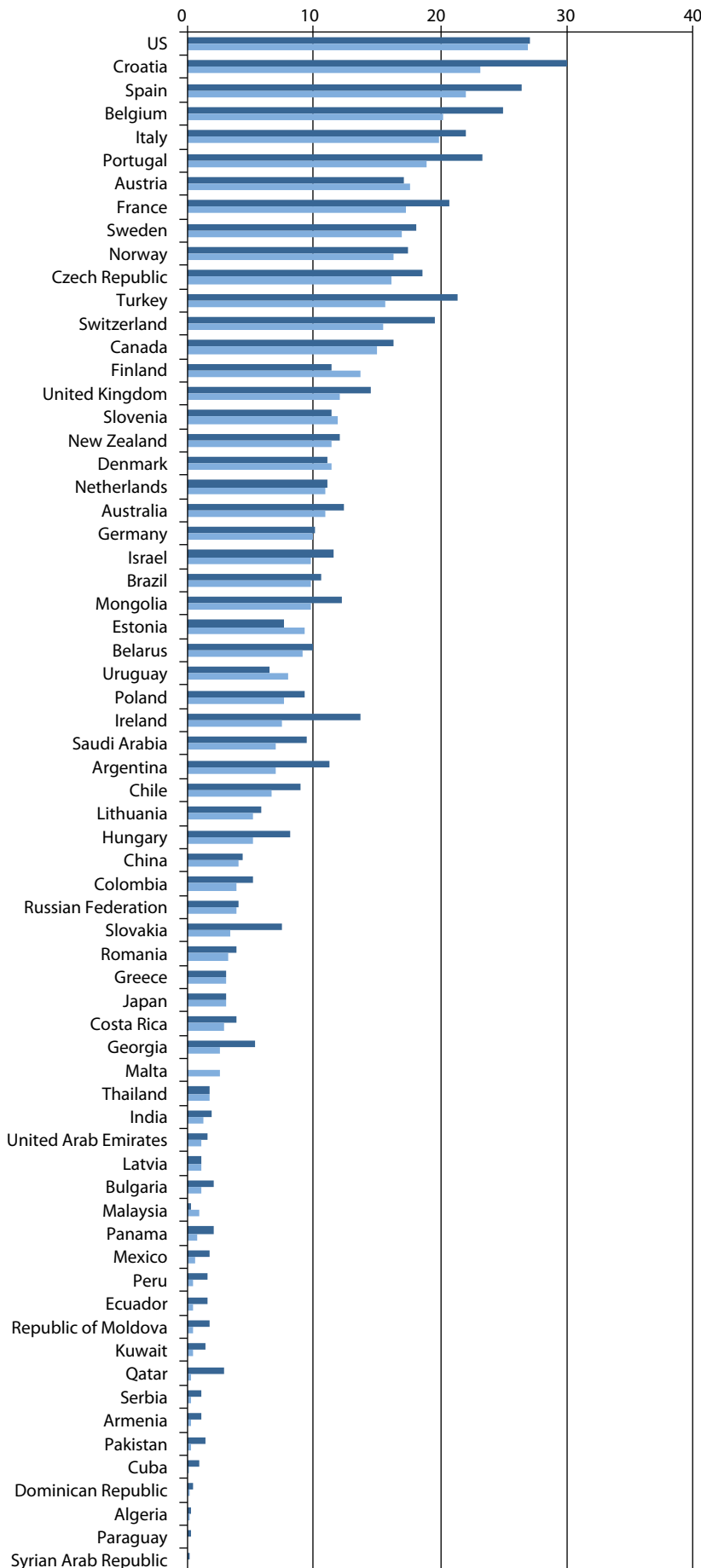


COUNTRY	2019		2020	
	N	PMP	N	PMP
Algeria	270	6.3	91	2.1
Argentina	1675	37.1	854	18.9
Armenia	20	6.9	10	3.3
Australia	1095	43.6	885	34.7
Austria	386	43.9	335	37.2
Belarus	376	40.0	316	33.6
Belgium	434	37.4	363	31.3
Brazil	6298	29.7	4830	22.7
Bulgaria	36	5.1	8	1.2
Canada	1790	48.0	1518	40.3
Chile	410	22.4	233	12.2
China	12124	8.5	11037	7.6
Colombia	947	19.0	526	10.3
Costa Rica	84	16.8	41	8.0
Croatia	135	32.9	98	23.9
Cuba	195	17.0	64	5.7
Cyprus	15	12.5	13	10.8
Czech Republic	510	48.1	443	41.4
Denmark	276	47.6	278	47.9
Dominican Republic	86	7.8	28	2.6
Ecuador	234	13.7	57	3.2
Estonia	41	31.5	47	36.2
Ethiopia	35	0.3	8	0.1
Finland	293	52.3	263	47.8
France	3643	55.6	2595	39.7
Georgia	23	5.9	17	4.3
Germany	2132	25.9	1909	22.8
Greece	178	16.0	175	16.8
Guatemala	109	6.2	29	1.6
Hungary	266	27.4	202	20.8
Iceland	10	33.3	10	33.3
India	9751	7.1	5486	4.0
Ireland	153	31.9	123	25.1
Israel	411	47.8	397	45.6
Italy	2139	36.1	1907	31.5
Japan	1913	15.1	1697	13.4
Kuwait	103	24.5	61	14.2
Latvia	37	19.5	41	21.6
Lithuania	103	35.5	82	30.4
Malaysia	130	4.0	153	4.7
Malta	16	40.0	4	10.0
Mexico	2976	22.5	913	7.1
Mongolia	29	9.1	29	8.8
Netherlands	951	55.6	809	47.3
New Zealand	221	46.0	187	39.0
Norway	258	47.8	240	44.4
Pakistan	1306	6.4	129	0.6
Panama	31	7.4	13	3.0
Paraguay	40	5.7	4	0.6
Peru	189	5.7	49	1.5
Poland	983	25.9	751	19.9
Portugal	514	49.9	394	38.6
Qatar	48	17.8	17	5.9
Rep. North Macedonia	16	7.6	12	5.7
Republic of Moldova	7	1.8	3	0.8
Romania	211	10.8	174	9.1
Russian Federation	1473	10.2	1124	7.7
Saudi Arabia	1121	32.9	547	15.7
Serbia	21	2.4	6	0.7
Slovakia	197	35.8	131	23.8
Slovenia	38	18.1	47	22.4
Spain	3423	73.8	2702	57.7
Sudan	313	7.4	139	3.2
Sweden	476	47.1	429	42.5
Switzerland	340	39.5	296	34.0
Syrian Arab Republic	275	14.9	211	12.1
Thailand	679	9.8	712	10.2
Trinidad and Tobago	6	4.3	10	7.1
Turkey	3863	46.5	2498	29.6
United Arab Emirates	68	7.0	61	6.2
United Kingdom	3649	54.5	2567	37.8
Uruguay	155	44.3	120	34.3
US	24273	73.8	23644	71.4
Venezuela	6	0.2	0	0.0

# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Liver Transplants

■ Liver Tx pmp 2019 ■ Liver Tx pmp 2020

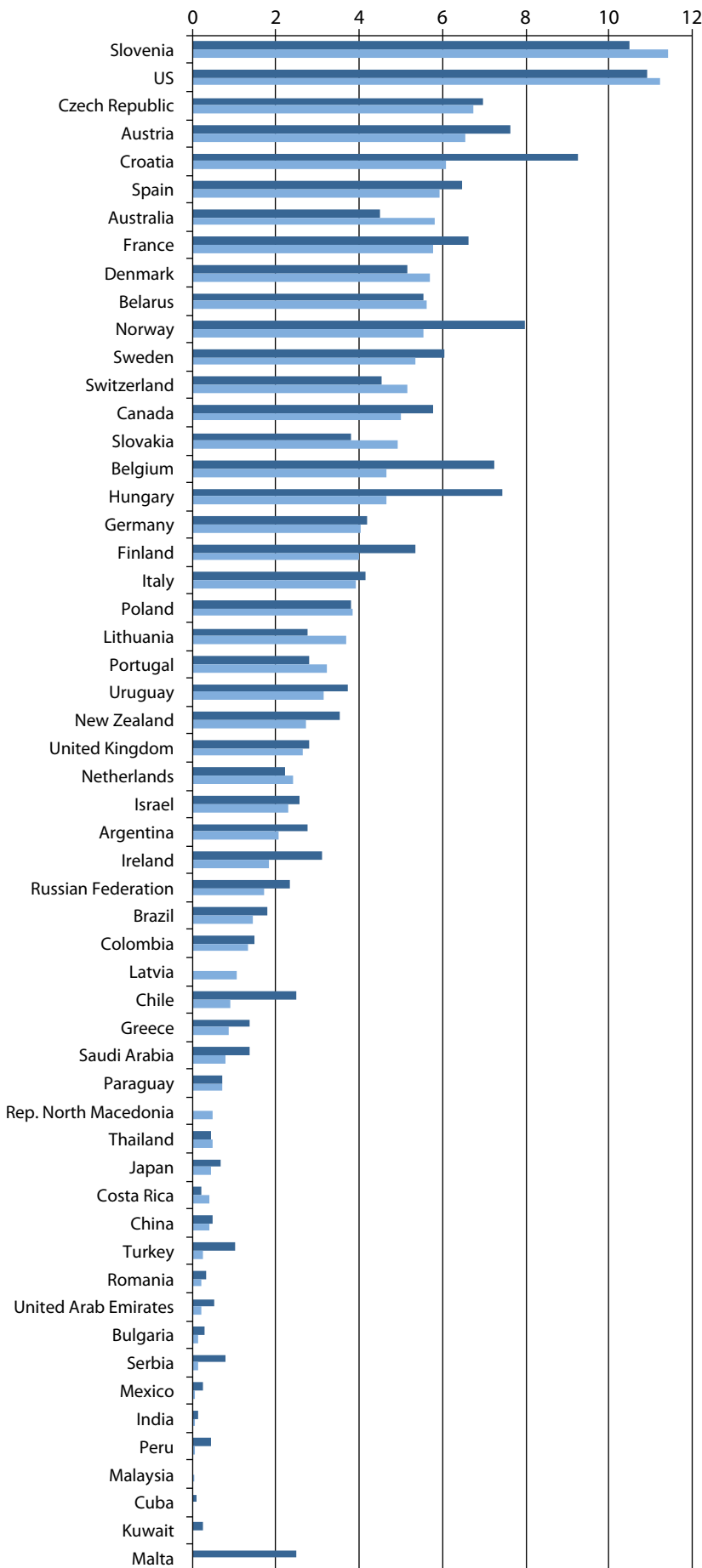


COUNTRY	2019		2020	
	N	PMP	N	PMP
Algeria	12	0.3	2	0.0
Argentina	504	11.2	316	7.0
Armenia	3	1.0	1	0.3
Australia	310	12.4	277	10.9
Austria	151	17.2	158	17.6
Belarus	93	9.9	86	9.1
Belgium	289	24.9	235	20.3
Brazil	2265	10.7	2075	9.8
Bulgaria	14	2.0	7	1.0
Canada	609	16.3	565	15.0
Chile	164	9.0	127	6.6
China	6170	4.3	5842	4.0
Colombia	261	5.2	199	3.9
Costa Rica	19	3.8	15	2.9
Croatia	123	30.0	95	23.2
Cuba	10	0.9	2	0.2
Czech Republic	197	18.6	172	16.1
Denmark	64	11.0	66	11.4
Dominican Republic	5	0.5	1	0.1
Ecuador	27	1.6	9	0.5
Estonia	10	7.7	12	9.2
Finland	64	11.4	75	13.6
France	1356	20.7	1128	17.3
Georgia	21	5.4	10	2.5
Germany	831	10.1	826	9.9
Greece	33	3.0	32	3.1
Hungary	79	8.1	50	5.2
India	2592	1.9	1780	1.3
Ireland	66	13.8	37	7.6
Israel	99	11.5	85	9.8
Italy	1301	22.0	1202	19.9
Japan	395	3.1	380	3.0
Kuwait	6	1.4	2	0.5
Latvia	2	1.1	2	1.1
Lithuania	17	5.9	14	5.2
Malaysia	8	0.2	28	0.9
Malta	0	0.0	1	2.5
Mexico	223	1.7	72	0.6
Mongolia	39	12.2	32	9.7
Netherlands	190	11.1	186	10.9
New Zealand	58	12.1	55	11.5
Norway	94	17.4	88	16.3
Pakistan	285	1.4	60	0.3
Panama	9	2.1	3	0.7
Paraguay	2	0.3	0	0.0
Peru	53	1.6	17	0.5
Poland	352	9.3	291	7.7
Portugal	240	23.3	193	18.9
Qatar	8	3.0	1	0.3
Republic of Moldova	7	1.8	2	0.5
Romania	75	3.8	62	3.2
Russian Federation	584	4.1	559	3.8
Saudi Arabia	319	9.4	244	7.0
Serbia	9	1.0	3	0.3
Slovakia	41	7.5	19	3.5
Slovenia	24	11.4	25	11.9
Spain	1227	26.4	1034	22.1
Sweden	183	18.1	172	17.0
Switzerland	168	19.5	135	15.5
Syrian Arab Republic	1	0.1	0	0.0
Thailand	116	1.7	125	1.8
Turkey	1776	21.4	1320	15.7
United Arab Emirates	16	1.6	11	1.1
United Kingdom	971	14.5	823	12.1
US	8896	27.0	8906	26.9
Uruguay	23	6.6	28	8.0

# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Heart Transplants

■ Heart Tx pmp 2019 ■ Heart Tx pmp 2020

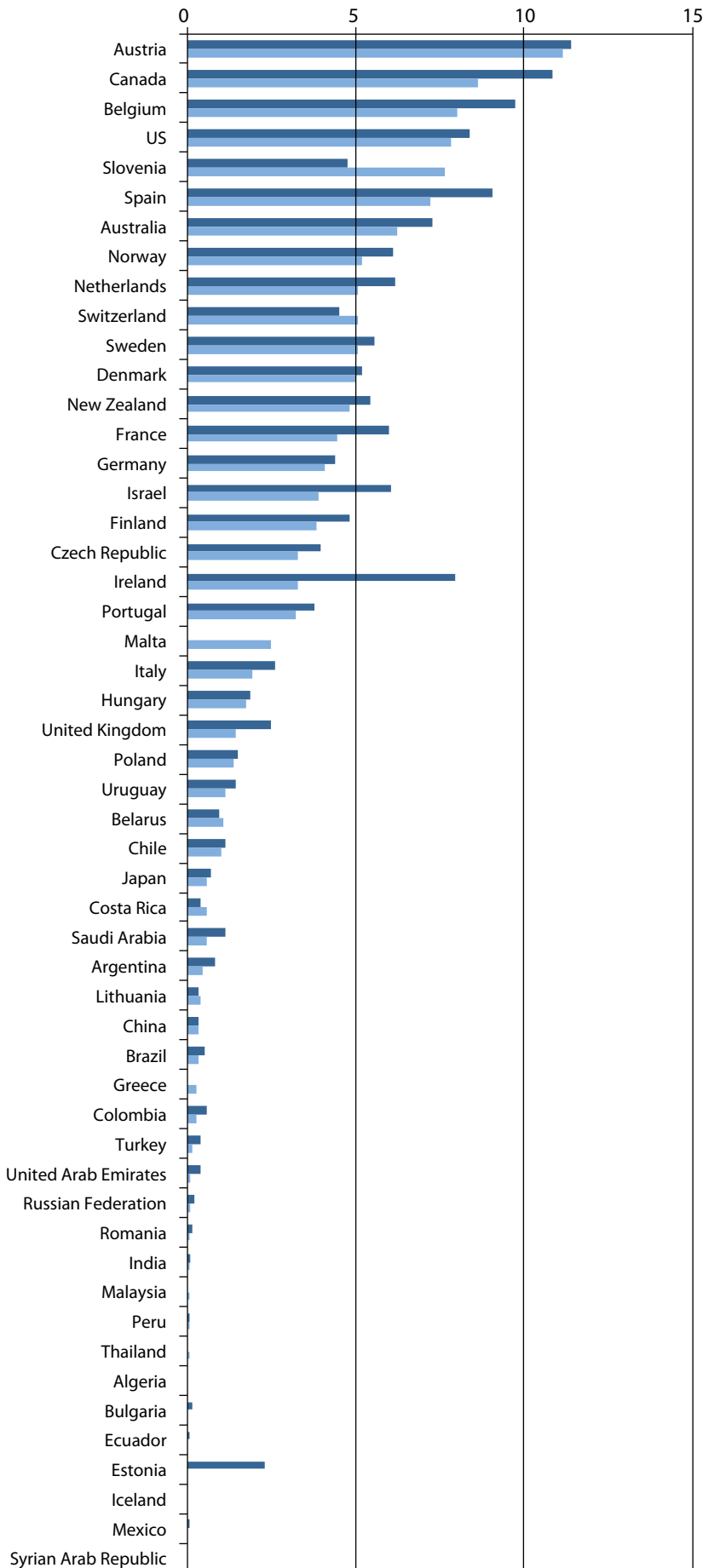


COUNTRY	2019		2020	
	N	PMP	N	PMP
Argentina	124	2.7	94	2.1
Australia	113	4.5	148	5.8
Austria	67	7.6	59	6.6
Belarus	52	5.5	53	5.6
Belgium	84	7.2	54	4.7
Brazil	383	1.8	308	1.4
Bulgaria	2	0.3	1	0.1
Canada	215	5.8	188	5.0
Chile	45	2.5	17	0.9
China	679	0.5	557	0.4
Colombia	74	1.5	67	1.3
Costa Rica	1	0.2	2	0.4
Croatia	38	9.3	25	6.1
Cuba	1	0.1	0	0.0
Czech Republic	74	7.0	72	6.7
Denmark	30	5.2	33	5.7
Finland	30	5.4	22	4.0
France	434	6.6	378	5.8
Germany	344	4.2	339	4.0
Greece	15	1.4	9	0.9
Hungary	72	7.4	45	4.6
India	187	0.1	89	0.1
Ireland	15	3.1	9	1.8
Israel	22	2.6	20	2.3
Italy	245	4.1	238	3.9
Japan	84	0.7	54	0.4
Kuwait	1	0.2	0	0.0
Latvia	0	0.0	2	1.1
Lithuania	8	2.8	10	3.7
Malaysia	0	0.0	1	0.0
Malta	1	2.5	0	0.0
Mexico	33	0.2	9	0.1
Netherlands	38	2.2	41	2.4
New Zealand	17	3.5	13	2.7
Norway	43	8.0	30	5.6
Paraguay	5	0.7	5	0.7
Peru	15	0.5	2	0.1
Poland	145	3.8	145	3.8
Portugal	29	2.8	33	3.2
Rep. North Macedonia	0	0.0	1	0.5
Romania	6	0.3	4	0.2
Russian Federation	337	2.3	251	1.7
Saudi Arabia	46	1.3	28	0.8
Serbia	7	0.8	1	0.1
Slovakia	21	3.8	27	4.9
Slovenia	22	10.5	24	11.4
Spain	300	6.5	278	5.9
Sweden	61	6.0	54	5.3
Switzerland	39	4.5	45	5.2
Thailand	31	0.4	33	0.5
Turkey	84	1.0	21	0.2
United Arab Emirates	5	0.5	2	0.2
United Kingdom	188	2.8	179	2.6
US	3597	10.9	3716	11.2
Uruguay	13	3.7	11	3.1

# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Lung Transplants

■ Lung Tx pmp 2019 ■ Lung Tx pmp 2020

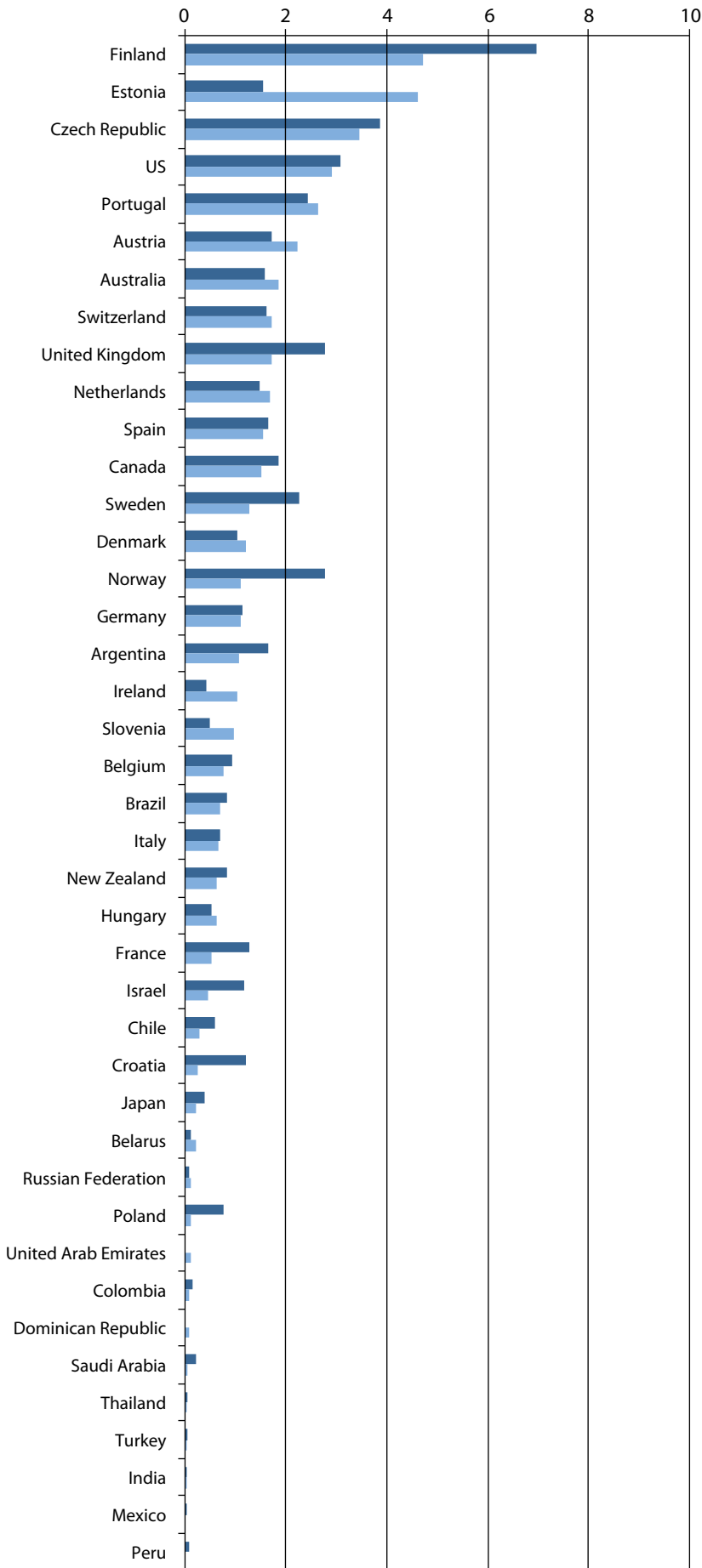


COUNTRY	2019		2020	
	N	PMP	N	PMP
Algeria	0	0.0	0	0.0
Argentina	36	0.8	21	0.5
Australia	183	7.3	158	6.2
Austria	100	11.4	100	11.1
Belarus	9	1.0	10	1.1
Belgium	113	9.7	93	8.0
Brazil	106	0.5	65	0.3
Bulgaria	1	0.1	0	0.0
Canada	403	10.8	325	8.6
Chile	21	1.1	20	1.0
China	489	0.3	513	0.4
Colombia	28	0.6	12	0.2
Costa Rica	2	0.4	3	0.6
Czech Republic	42	4.0	35	3.3
Denmark	30	5.2	29	5.0
Ecuador	1	0.1	0	0.0
Estonia	3	2.3	0	0.0
Finland	27	4.8	21	3.8
France	393	6.0	291	4.5
Germany	361	4.4	344	4.1
Greece	0	0.0	3	0.3
Hungary	18	1.9	17	1.8
Iceland	0	0.0	0	0.0
India	114	0.1	67	0.0
Ireland	38	7.9	16	3.3
Israel	52	6.0	34	3.9
Italy	153	2.6	115	1.9
Japan	92	0.7	75	0.6
Lithuania	1	0.3	1	0.4
Malaysia	0	0.0	1	0.0
Malta	0	0.0	1	2.5
Mexico	7	0.1	0	0.0
Netherlands	105	6.1	87	5.1
New Zealand	26	5.4	23	4.8
Norway	33	6.1	28	5.2
Peru	1	0.0	1	0.0
Poland	57	1.5	51	1.3
Portugal	39	3.8	33	3.2
Romania	3	0.2	1	0.1
Russian Federation	25	0.2	11	0.1
Saudi Arabia	38	1.1	20	0.6
Slovenia	10	4.8	16	7.6
Spain	419	9.0	336	7.2
Sweden	56	5.5	51	5.0
Switzerland	39	4.5	44	5.1
Syrian Arab Republic	0	0.0	0	0.0
Thailand	0	0.0	1	0.0
Turkey	33	0.4	11	0.1
United Arab Emirates	4	0.4	1	0.1
United Kingdom	167	2.5	99	1.5
Uruguay	5	1.4	4	1.1
US	2759	8.4	2597	7.8

# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Pancreas Transplants

■ Pancreas Tx pmp 2019 ■ Pancreas Tx pmp 2020

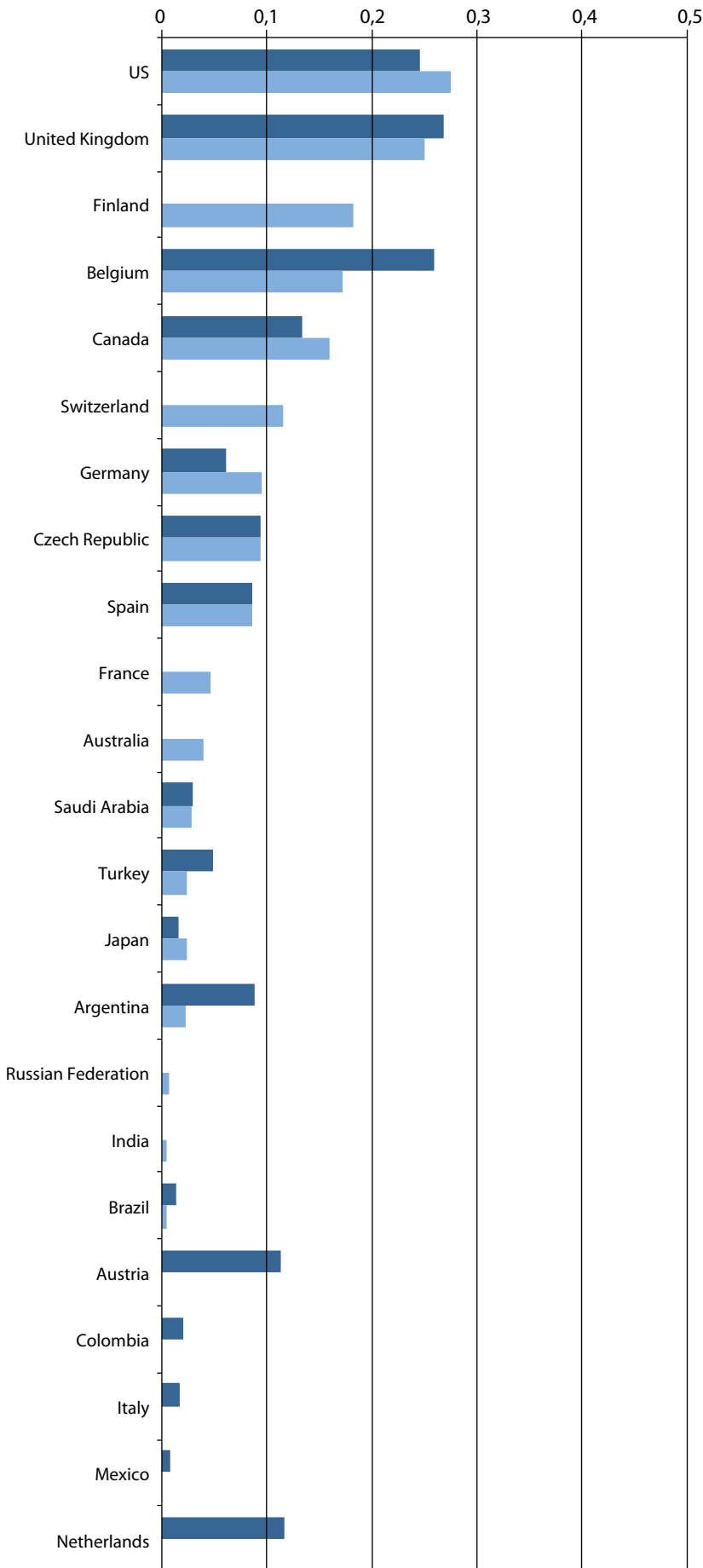


COUNTRY	2019		2020	
	N	PMP	N	PMP
Argentina	74	1.6	48	1.1
Australia	40	1.6	47	1.8
Austria	15	1.7	20	2.2
Belarus	1	0.1	2	0.2
Belgium	11	0.9	9	0.8
Brazil	177	0.8	148	0.7
Canada	69	1.8	57	1.5
Chile	11	0.6	5	0.3
Colombia	7	0.1	5	0.1
Croatia	5	1.2	1	0.2
Czech Republic	41	3.9	37	3.5
Denmark	6	1.0	7	1.2
Dominican Republic	0	0.0	1	0.1
Estonia	2	1.5	6	4.6
Finland	39	7.0	26	4.7
France	84	1.3	34	0.5
Germany	94	1.1	92	1.1
Hungary	5	0.5	6	0.6
India	22	0.0	14	0.0
Ireland	2	0.4	5	1.0
Israel	10	1.2	4	0.5
Italy	42	0.7	41	0.7
Japan	49	0.4	28	0.2
Mexico	2	0.0	0	0.0
Netherlands	25	1.5	29	1.7
New Zealand	4	0.8	3	0.6
Norway	15	2.8	6	1.1
Peru	3	0.1	0	0.0
Poland	29	0.8	4	0.1
Portugal	25	2.4	27	2.6
Russian Federation	10	0.1	16	0.1
Saudi Arabia	8	0.2	2	0.1
Slovenia	1	0.5	2	1.0
Spain	76	1.6	73	1.6
Sweden	23	2.3	13	1.3
Switzerland	14	1.6	15	1.7
Thailand	3	0.0	1	0.0
Turkey	3	0.0	1	0.0
United Arab Emirates	0	0.0	1	0.1
United Kingdom	185	2.8	116	1.7
US	1015	3.1	962	2.9

## 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

### Small Bowel Transplants

■ Small Bowel Tx pmp 2019 ■ Small Bowel Tx pmp 2020



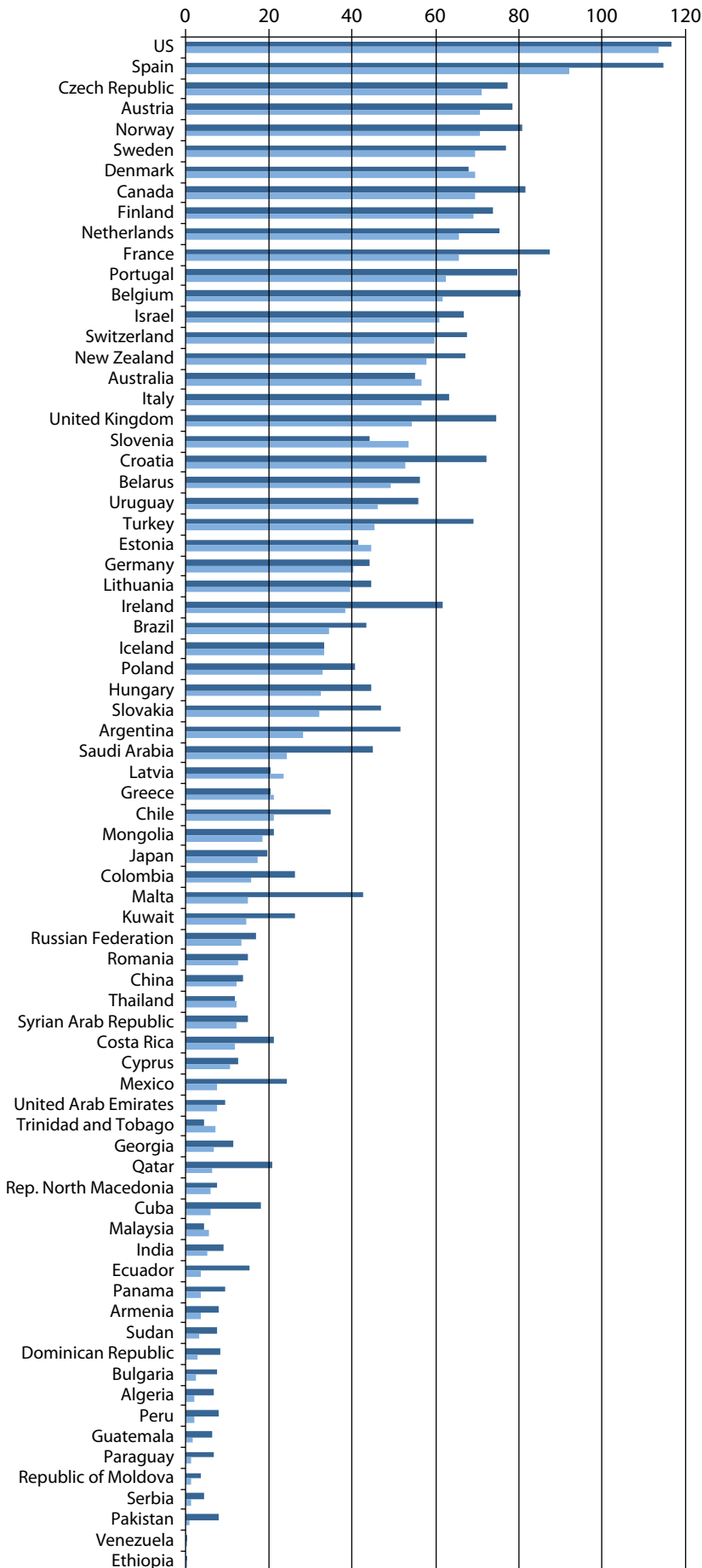
COUNTRY	2019		2020	
	N	PMP	N	PMP
Argentina	4	0.1	1	0.0
Australia	0	0.0	1	0.0
Austria	1	0.1	0	0.0
Belgium	3	0.3	2	0.2
Brazil	3	0.0	1	0.0
Canada	5	0.1	6	0.2
Colombia	1	0.0	0	0.0
Czech Republic	1	0.1	1	0.1
Finland	0	0.0	1	0.2
France	0	0.0	3	0.0
Germany	5	0.1	8	0.1
India	0	0.0	7	0.0
Italy	1	0.0	0	0.0
Japan	2	0.0	3	0.0
Mexico	1	0.0	0	0.0
Netherlands	2	0.1	0	0.0
Russian Federation	0	0.0	1	0.0
Saudi Arabia	1	0.0	1	0.0
Spain	4	0.1	4	0.1
Switzerland	0	0.0	1	0.1
Turkey	4	0.0	2	0.0
United Kingdom	18	0.3	17	0.3
US	81	0.2	91	0.3



# 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

## Patients transplanted

■ Patients transplanted pmp 2019 ■ Patients transplanted pmp 2020



COUNTRY	2019		2020	
	N	PMP	N	PMP
Algeria	282	6.6	93	2.1
Argentina	2321	51.5	1273	28.2
Armenia	23	7.9	11	3.7
Australia	1385	55.2	1449	56.8
Austria	689	78.3	637	70.8
Belarus	530	56.4	463	49.3
Belgium	934	80.5	716	61.7
Brazil	9185	43.2	7290	34.3
Bulgaria	53	7.6	16	2.3
Canada	3047	81.7	2615	69.4
Chile	640	35.0	402	21.0
China	19454	13.6	17897	12.4
Colombia	1303	26.2	799	15.7
Costa Rica	106	21.2	61	12.0
Croatia	296	72.2	216	52.7
Cuba	206	17.9	66	5.8
Cyprus	15	12.5	13	10.8
Czech Republic	818	77.2	760	71.0
Denmark	395	68.1	403	69.5
Dominican Republic	91	8.3	29	2.7
Ecuador	262	15.3	66	3.8
Estonia	54	41.5	58	44.6
Ethiopia	35	0.3	8	0.1
Finland	413	73.8	381	69.3
France	5723	87.4	4283	65.6
Georgia	44	11.3	27	6.8
Germany	3644	44.2	3384	40.4
Greece	226	20.4	219	21.1
Guatemala	109	6.2	29	1.6
Hungary	433	44.6	314	32.4
Iceland	10	33.3	10	33.3
India	12625	9.2	7426	5.4
Ireland	296	61.7	187	38.2
Israel	575	66.9	530	60.9
Italy	3744	63.2	3437	56.8
Japan	2483	19.6	2209	17.5
Kuwait	110	26.2	66	14.7
Latvia	39	20.5	45	23.7
Lithuania	129	44.5	107	39.6
Malaysia	138	4.2	182	5.6
Malta	17	42.5	6	15.0
Mexico	3237	24.5	997	7.7
Mongolia	68	21.3	61	18.5
Netherlands	1291	75.5	1124	65.7
New Zealand	322	67.1	278	57.9
Norway	436	80.7	382	70.7
Pakistan	1591	7.8	189	0.9
Panama	40	9.5	16	3.7
Paraguay	47	6.7	9	1.3
Peru	258	7.8	69	2.1
Poland	1541	40.6	1236	32.7
Portugal	820	79.6	637	62.5
Qatar	56	20.7	18	6.2
Republic of Moldova	14	3.5	5	1.3
Rep. North Macedonia	16	7.6	13	6.2
Romania	295	15.1	241	12.6
Russian Federation	2420	16.8	1944	13.3
Saudi Arabia	1530	44.9	840	24.1
Serbia	37	4.3	10	1.1
Slovakia	259	47.1	177	32.2
Slovenia	93	44.3	112	53.3
Spain	5326	114.8	4315	92.2
Sudan	313	7.4	139	3.2
Sweden	775	76.7	702	69.5
Switzerland	582	67.7	519	59.7
Syrian Arab Republic	275	14.9	211	12.1
Thailand	822	11.9	862	12.3
Trinidad and Tobago	6	4.3	10	7.1
Turkey	5729	69.0	3830	45.4
United Arab Emirates	93	9.6	75	7.6
United Kingdom	4992	74.5	3686	54.3
US	38433	116.8	37580	113.5
Uruguay	196	56.0	162	46.3
Venezuela	6	0.2	3	0.1



**International Data on Tissues  
and Haematopoietic Stem Cell  
Donation and Transplantation  
Activity. Year 2020**



**Data provided by National Competent Authorities:**

**EUROPEAN UNION**

**Austria**

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**Belgium**

**Bulgaria**

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**Ireland**

**Italy**

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**Latvia**

Ieva Bekere

**Lithuania**

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**Luxembourg**

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Nina Lundmark

**United Kingdom**

Rita Barallon

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Tatiana Timbalari

**Norway**

**Switzerland**

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Milka Bengochea

**Venezuela**

## Glossary (Tissues)

### A

**Adipose tissue:** loose connective tissue, composed of adipocytes and stromal vascular fraction, which serves as energy storage and endocrine organ.

**Amniotic membrane:** the innermost layer of the placenta consisting of a thick basement membrane and an avascular stromal matrix.

**Autologous:** refers to tissues or cells removed from and applied in the same individual.

### B

**Blood vessels:** part of the circulatory system that transport blood throughout the body. They include arteries (ducts transporting blood from the heart to the periphery) and veins (ducts transporting blood from the periphery to the heart).

### C

**Cornea:** the transparent anterior part of the outer fibrous coat of the eye. A collagenous tissue bounded by an outer stratified epithelium and an inner monolayer of endothelial cells. The major refractive component of the eye.

**Craniectomy:** the surgical removal of a portion of the skull.

### D

**Distribution:** the transportation and delivery of tissues and cells intended for human application to other tissue establishments or the organisation responsible for human application in the EU. It does not include the issuing of tissues and cells for immediate transplantation.

**Donation:** donating human tissues or cells intended for human applications. One donation may include more units of the same tissue.

### E

**Export:** the transportation and delivery of tissues and cells intended for human application to a tissue establishment or an organisation responsible for human application outside the EU (third country).

### H

**Heart valve:** one of the four structures within the heart that prevent backflow of blood by opening and closing with each heartbeat. They include two semi-lunar valves (aortic and pulmonary), the mitral (or bicuspid) valve, and the tricuspid valve. They permit blood flow in only one direction.

### I

**Import:** the act of bringing tissues or cells into a EU Member State from a country outside the EU (third country) for the purpose of human application, further processing or storage.

### M

**Musculoskeletal:** tissues that are part of the skeleton and muscular system, including muscles, bones, cartilage, tendons and ligaments, which function in the support and movement of the body.

### N

**Number of tissues distributed:** number of tissue transported and delivered for human application.

**Number of tissues processed:** number of tissues that were declared suitable for human application after having undergone the required operations (preparation, manipulation, preservation, storage and packaging).

**Number of tissue procured:** the number of donated tissue made available through the process of procurement.

**Number of recipients for each type of tissues:** the total number of patients who had at least one unit of tissues or cells applied during the year concerned in a given country.

### O

**Ocular tissue:** tissue from the eye ball such as corneal tissue, scleral tissue or limbal tissue procured from a donor for human application.

**Other tissue:** all human tissues for human application that does not have a dedicated row on the form.

### P

**Pancreas:** a large lobulated gland that in humans lies in front of the upper lumbar vertebrae and behind the stomach and is somewhat hammer-shaped and firmly attached anteriorly to the curve of the duodenum with which it communicates through one or more pancreatic ducts.

**Pancreatic islets:** preparation of a group of heterogeneous cells containing functional insulin-producing cells (beta cells) and glucagon-producing cells (alpha cells) for human application.

**Parathyroid:** endocrine glands producing and secreting parathyroid hormone.

**Placenta:** an organ that connects the developing foetus to the uterine wall to allow nutrient uptake, waste elimination and gas exchange via the mother's blood supply.

### R

**Recipient:** person to whom human tissues, cells or reproductive cells and embryos are applied.

**Retrieval or procurement:** a process by which tissues or cells are made available for banking or human application. This process includes donor identification, evaluation, obtaining consent for donation, donor maintenance and retrieval of tissues, cells or organs.

## S

**Skin:** an allograft comprising of the epidermis and part or all of the dermis.

## T

**Tissue:** an aggregate of cells joined together by, for example, connective structures and performing a particular function.

**Tissue donation (effective):** when tissue intended for human application is retrieved from a human body.

**Transplantation/implantation/grafting:** transfer (en-graftment) of human tissues or cells from a donor to a recipient with the aim of restoring function(s) in the body.

## U

**Unit:** a single piece of tissue or a packaging containing a defined amount of tissue ready for distribution.

## Glossary (Haematopoietic Progenitor Cells)

### A

**Allogeneic:** refers to tissues or cells removed from one individual and applied to another of the same species.

**Autologous use:** refers to tissues or cells removed from and applied in the same individual.

### B

**Banking:** processing, preservation, storage and distribution of cells for human application or other purposes, including research and training.

### C

**Collection:** any procedure for procuring a cellular therapy product regardless of technique or source (Synonym: harvest).

**Cord blood:** blood collected from placental vessels and umbilical cord blood vessels after the umbilical cord is clamped and/or severed as a source of haematopoietic progenitor cells.

**Cord blood bank:** a specific type of tissue establishment in which haematopoietic progenitor cells collected from placental and umbilical cord blood vessels are processed, cryopreserved and stored. It may also be responsible for collection, testing or distribution.

### D

**Distribution:** the transportation and delivery of tissues and cells intended for human application to other tissue establishments or the organisation responsible for human application in the EU. It does not include the issuing of tissues and cells for immediate transplantation.

**Donation:** donating human tissues or cells intended for human applications.

**Donor:** a person who is the source of cells or tissue for a cellular therapy product.

**Donor registry:** an organisation responsible for coordinating the search for hematopoietic cells from donors (including cord blood) unrelated to the potential recipient.

### H

**Haematopoietic Progenitor Cells (HPC):** primitive haematopoietic cells capable of self-renewal as well as maturation into any of the haematopoietic lineages, including committed and lineage-restricted progenitor cells, unless otherwise specified and regardless of tissue source. Also referred to as "haematopoietic stem cells".

### R

**Recipient:** person to whom human tissues, cells or reproductive cells and embryos are applied.

**Related:** existence of a genetic relationship between donor and recipient.

### S

**Search:** the process of identifying a suitable stem cell source for a patient in need of a transplant.

### T

**Transplantation:** the administration of allogeneic, autologous, or syngeneic HPC with the intent of providing transient or permanent engraftment in support of therapy of disease.

### U

**Unrelated:** where there exists no genetic relationship between donor and recipient.

## PRELIMINARY DATA ON TISSUES - YEAR 2020

## EUROPEAN UNION COUNTRIES

Country	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
Population (Source: UNFPA, State of world population, 2020 - in millions)	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.3	83.8	10.4	9.7	4.9	60.5
TYPE OF TISSUE	TYPE OF DATA														
CORNEA	N. of tissue donations		77	329		515		27	187				115		6279
	Tissue donation PMP		11.2	80.2		48.1		20.8	34.0				11.9		103.8
	N. of tissues retrieved		153	393		1022		54	373		11443		185		12273
	N. of tissues processed (units)	683		153	236		966		55	250		10713		160	
	N. of tissues distributed nationally (units)			144	250		618		53	276		8400		129	5301
	N. of tissues imported (units)	0		7	0		0		0	26		1100		0	
	N. of tissues exported (units)			0	0		139		0	0		65		0	791
	N. of tissues transplanted			132	249		756		61					144	
	N. of patients transplanted	552		128	230		756		60	260				144	
N. of transplant procedures			132	245		756							144	4730	
SKIN	N. of tissue donations		120	0		116		3	29				0		407
	Tissue donation PMP		17.4	0.0		10.8		2.3	5.3				0.0		6.7
	N. of tissues retrieved (cm <sup>2</sup> )	0		160928	0		307400		12	182673		21933		0	1150427
	N. of tissues processed (units)	0		27	0		1982		16	1083		202515		0	
	N. of tissues distributed nationally (units)			0	0		255		0	810		188217		0	4157
	N. of tissues imported (units)	0		0	0		0		0	0		132000		0	46
	N. of tissues exported (units)			27	0		1479		0	0		7081		0	2
	N. of tissues transplanted			0	0		233		16	810				0	
	N. of patients transplanted			0	0				4	23				0	
N. of transplant procedures			0	0									0	1437	
HEART VALVE	N. of tissue donations			1		86			67				2		210
	Tissue donation PMP			0.2		8.0			12.2				0.2		3.5
	N. of tissues retrieved	4			0		144		57		581		0		484
	N. of tissues processed (units)	27		0	0		144		40		440		2		
	N. of tissues distributed nationally (units)			0	0		119		48		207		2		220
	N. of tissues imported (units)	0		0	0		0		0		9		0		
	N. of tissues exported (units)			0	0		0		14		50		0		
	N. of tissues transplanted			0	0		115						5		
	N. of patients transplanted			0	0		112			36			5		
N. of transplant procedures			0	0		112						2		171	
BLOOD VESSEL	N. of tissue donations			0		17		19	10				0		249
	Tissue donation PMP			0.0		1.6		14.6	1.8				0.0		4.1
	N. of tissues retrieved	0			0		24		44	26	286		0		581
	N. of tissues processed (units)	0		0	0		12		44	19	270		0		
	N. of tissues distributed nationally (units)			0	0		10		33	19	110		0		337
	N. of tissues imported (units)	0		0	0		0		0	0	0		0		
	N. of tissues exported (units)			0	0		0		0	0	2		0		
	N. of tissues transplanted			0	0		10		33				0		
	N. of patients transplanted			0	0		8		30	13			0		
N. of transplant procedures			0	0		8						0		186	



PRELIMINARY DATA ON TISSUES - YEAR 2020

EUROPEAN UNION COUNTRIES

Country	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
Population (Source: UNFPA, State of world population, 2020 - in millions)	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.3	83.8	10.4	9.7	4.9	60.5
TYPE OF TISSUE	TYPE OF DATA														
MUSCULOSKELETAL	N. of tissue donations		3263	160		1426		137	758				865		1810
	Tissue donation PMP		472.9	39.0		133.3		105.4	137.8				89.2		29.9
	N. of tissues retrieved	2025	6147	203		5472		171	1505		13489		833		6301
	N. of tissues processed (units)	45851	324	156		3142		398	1351		86516		4004		1495
	N. of tissues distributed nationally (units)		225	97		1839		408	1402		66615		3819		9480
	N. of tissues imported (units)	6248	3174	1		20		197	0		9183		0		
	N. of tissues exported (units)		1725	0		1799		0	0		23522		0		
	N. of tissues transplanted		151	127		1371		236						668	
	N. of patients transplanted		114	98		601		162	1230					664	
	N. of transplant procedures			120	115		1349							664	
PLACENTA/AMNIOTIC MEMBRANES	N. of tissue donations		40	2		130		2	8				1		317
	Tissue donation PMP		5.8	0.5		12.1		1.5	1.5				0.1		5.2
	N. of tissues retrieved	41	40	2		130		2	8		183		1		323
	N. of tissues processed (units)	391		67		2359		61	162		6136		122		
	N. of tissues distributed nationally (units)		52	84		637		42	299		4385		77		3915
	N. of tissues imported (units)	0	0	0		0		0	164		8		0		
	N. of tissues exported (units)		0	0		48		0	0		98		0		
	N. of tissues transplanted		440	104		571		42						106	
	N. of patients transplanted	323	351	93		154		39	265					89	
	N. of transplant procedures		440	103		571								94	
PANCREAS/ PANCREATIC ISLETS	N. of tissue donations			0		23							0		46
	Tissue donation PMP			0.0		2.1							0.0		0.8
	N. of tissues retrieved	0		0		0				7			0		46
	N. of tissues processed (units)	0		0		5				7			0		46
	N. of tissues distributed nationally (units)			0		0				7			0		8
	N. of tissues imported (units)	0		0		0				0			0		
	N. of tissues exported (units)			0		0				0			0		
	N. of tissues transplanted			0		5							0		
	N. of patients transplanted			0		5							0		
	N. of transplant procedures			0		5							0		
HEPATIC TISSUE	N. of tissue donations			0									1		0
	Tissue donation PMP			0.0									0.1		0.0
	N. of tissues retrieved			0						0			0		0
	N. of tissues processed (units)			0						0			0		0
	N. of tissues distributed nationally (units)			0						0			0		0
	N. of tissues imported (units)			0						0			0		
	N. of tissues exported (units)			0						0			0		
	N. of tissues transplanted			0									0		
	N. of patients transplanted			0									0		
	N. of transplant procedures			0									0		

## PRELIMINARY DATA ON TISSUES - YEAR 2020

## EUROPEAN UNION COUNTRIES

Country	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.3	83.8	10.4	9.7	4.9	60.5
TYPE OF TISSUE	TYPE OF DATA														
ADIPOSE TISSUE	N. of tissue donations			0		0			0				0		
	Tissue donation PMP			0.0		0.0			0.0				0.0		
	N. of tissues retrieved	0		0		0			0		28		0		
	N. of tissues processed (units)	0		0		0			0		0		0		
	N. of tissues distributed nationally (units)			0		0			0		0		0		
	N. of tissues imported (units)	0		0		0			0		0		0		
	N. of tissues exported (units)			0		0			0		0		0		
	N. of tissues transplanted			0		0			0				0		
	N. of patients transplanted			0		0			0				0		
N. of transplant procedures			0		0							0			
PARATHYROID	N. of tissue donations			0		0							0		7
	Tissue donation PMP			0.0		0.0							0.0		0.1
	N. of tissues retrieved	26		0		0					0		0		7
	N. of tissues processed (units)	26		0		0					0		0		7
	N. of tissues distributed nationally (units)			0		0					0		0		0
	N. of tissues imported (units)	0		0		0					0		0		
	N. of tissues exported (units)			0		0					0		0		
	N. of tissues transplanted			0		0							0		
	N. of patients transplanted	1		0		0							0		
N. of transplant procedures			0		0							0		7	
NEURONAL TISSUE	N. of tissue donations			0					0				0		
	Tissue donation PMP			0.0					0.0				0.0		
	N. of tissues retrieved	0		0		0			0		0		0		
	N. of tissues processed (units)	0		0		0					0		0		
	N. of tissues distributed nationally (units)			0					3		0		0		
	N. of tissues imported (units)	0		0		0			3		0		0		
	N. of tissues exported (units)			0		0			0		0		0		
	N. of tissues transplanted			0		0			3				0		
	N. of patients transplanted	5		0		0			3				0		
N. of transplant procedures			0		0			3				0			
AUTOLOGOUS CRANIECTOMY PIECES	N. of tissues retrieved	224		0		141			19		0		5		736
OTHER TISSUE	N. of tissue donations		36	750		536		11	67				5		
	Tissue donation PMP		5.2	182.9		50.1		8.5	12.2				0.5		
	N. of tissues retrieved	8	36	750		537		11	80		2092		3283		
	N. of tissues processed (units)	7		750		112			55		3214		2886		
	N. of tissues distributed nationally (units)			46332		0			55		650		0		
	N. of tissues imported (units)	0		0		0			5		3		0		
	N. of tissues exported (units)			0		1			0		4		0		
	N. of tissues transplanted			0		9							0		
	N. of patients transplanted			364		9			37				0		
N. of transplant procedures			0		9							0			

PRELIMINARY DATA ON TISSUES - YEAR 2020

		EUROPEAN UNION COUNTRIES												OTHER COUNTRIES			
Country		Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Norway	Republic of Moldova	Switzerland
<b>Population (Source: UNFPA, State of world population, 2020 - in millions)</b>		<b>1.9</b>	<b>2.7</b>	<b>0.6</b>	<b>0.4</b>	<b>17.1</b>	<b>37.8</b>	<b>10.2</b>	<b>19.2</b>	<b>5.5</b>	<b>2.1</b>	<b>46.8</b>	<b>10.1</b>	<b>67.9</b>	<b>5.4</b>	<b>4.0</b>	<b>8.7</b>
TYPE OF TISSUE	TYPE OF DATA																
CORNEA	N. of tissue donations	17	25			1756		350	26	98		2246	486	3788		8	315
	Tissue donation PMP	8.9	9.3			102.7		34.3	1.4	17.8		48.0	48.1	55.8		2.0	36.2
	N. of tissues retrieved	32	48			3519		679	52	134		4405	797	3788		15	559
	N. of tissues processed (units)	32	48			3904		616		272		4332	921	3978		13	636
	N. of tissues distributed nationally (units)	46	47			3270		597		129		3099	536	192		15	216
	N. of tissues imported (units)	13	0			737		264		102		14	8	329		0	400
	N. of tissues exported (units)	0	0			442		0		0		35	7	0		0	0
	N. of tissues transplanted		47			3375		712	46	226		3423	543	3939		15	749
	N. of patients transplanted		47			2630		712	46	228		3421	576			15	714
N. of transplant procedures		47			3375		712	46	231			605			15	759	
SKIN	N. of tissue donations					379		0		105		271	65	126		0	
	Tissue donation PMP					22.2		0.0		19.1		5.8	6.4	1.9		0.0	
	N. of tissues retrieved (cm <sup>2</sup> )					150000		0		13850		751353	65	126		0	
	N. of tissues processed (units)					15840		0		0		645332	94	177		0	
	N. of tissues distributed nationally (units)					2426		24		61		268089	22	2230		116	
	N. of tissues imported (units)					33		24		0		0	0	2479		0	
	N. of tissues exported (units)					14363		0		0		288130	0	834		0	
	N. of tissues transplanted		0			2194		0		166		258531	2	3866		116	
	N. of patients transplanted		0			268		0		135		40	16			11	
N. of transplant procedures		0					0		135			49			9		
HEART VALVE	N. of tissue donations					191		6		2		200	133	661		0	44
	Tissue donation PMP					11.2		0.6		0.4		4.3	13.2	9.7		0.0	5.1
	N. of tissues retrieved					424		24		2		395	316	661		0	46
	N. of tissues processed (units)					424		10		2		395	316	621		0	0
	N. of tissues distributed nationally (units)					108		5		1		50	138	25		0	0
	N. of tissues imported (units)					14		0		0		2	0	266		0	19
	N. of tissues exported (units)					13		0		0		116	77	166		0	42
	N. of tissues transplanted		0			133		4		1		38	215	698		0	22
	N. of patients transplanted		0			132		4		1		38	174			0	21
N. of transplant procedures		0			133		4		1			180			0	22	
BLOOD VESSEL	N. of tissue donations		7			15		0		3		107	156	610		1	16
	Tissue donation PMP		2.6			0.9		0.0		0.5		2.3	15.4	9.0		0.3	1.8
	N. of tissues retrieved		7			127		0		13		246	213	610		4	28
	N. of tissues processed (units)		3			127		0		13		245	213	13		0	0
	N. of tissues distributed nationally (units)		3			37		0		8		231	6	38		0	0
	N. of tissues imported (units)					2		0		0		7	0	30		0	13
	N. of tissues exported (units)					25		0		0		28	0	12		0	22
	N. of tissues transplanted		3			86		0		6		165	6	128		0	14
	N. of patients transplanted		3			85		0		6		120	6			0	9
N. of transplant procedures		3			86		0		6			6			0	9	

## PRELIMINARY DATA ON TISSUES - YEAR 2020

EUROPEAN UNION COUNTRIES															OTHER COUNTRIES		
Country	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweeden	United Kingdom	Republic of Moldova	Norway	Switzerland	
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>	1.9	2.9	0.6	0.4	17.1	38.0	10.3	19.5	5.5	2.1	46.4	10.1	67.0	4.0	5.4	8.6	
TYPE OF TISSUE	TYPE OF DATA	NO DATA		NO DATA										NO DATA			
MUSCULOSKELETAL	N. of tissue donations	72			2637		60	161	404		1783	1050	2604		32	239	
	Tissue donation PMP	26.7			154.2		5.9	8.4	73.5		38.1	104.0	38.4		8.0	27.5	
	N. of tissues retrieved	105			3419		410	170	631		18543	1061	2604		46	262	
	N. of tissues processed (units)	105			6165		363	170	950		21710	1362	2956		198	248	
	N. of tissues distributed nationally (units)	53			9398		435	88	613		22468	692	14563		205	46	
	N. of tissues imported (units)	0			651		26	0	0			96	28445		0	90	
	N. of tissues exported (units)	0			30254		0	0	392		784	2	18980		0	0	
	N. of tissues transplanted	53			5087		443	88	476		22853	771	34069		193	279	
	N. of patients transplanted	44			4862		328	85	317		18659	725			65	245	
N. of transplant procedures	44					414	85	318			664			65	279		
PLACENTA/AMNIOTIC MEMBRANES	N. of tissue donations	0	3				3		87		45	6	246		5	15	
	Tissue donation PMP	0.0	1.1				0.3		15.8		1.0	0.6	3.6		1.3	1.7	
	N. of tissues retrieved	0	46		2		3		81		1237	304	246		5	132	
	N. of tissues processed (units)		44		22		124		346		1237	385	59		36	198	
	N. of tissues distributed nationally (units)	44			209		140		275		1097	283	796		129	60	
	N. of tissues imported (units)	0			0		0		0		0	0	161		0	8	
	N. of tissues exported (units)	0			27		0		0		34	0	417		0	0	
	N. of tissues transplanted	44			105		148		350		1494	321	1555		129	132	
	N. of patients transplanted	39			97		144		294		1416	330			81	129	
N. of transplant procedures	39			105		144		325			232			114	134		
PANCREAS/ PANCREATIC ISLETS	N. of tissue donations				317				0			14	74			21	
	Tissue donation PMP				18.5				0.0			1.4	1.1			2.4	
	N. of tissues retrieved				37				0			14	74			21	
	N. of tissues processed (units)				5				0			14	59			21	
	N. of tissues distributed nationally (units)				5				0			8	16			0	
	N. of tissues imported (units)				0				0			0	0			12	
	N. of tissues exported (units)				0				0			0	0			5	
	N. of tissues transplanted		0		5				0			8	19			15	
	N. of patients transplanted		0		5				0			8				13	
N. of transplant procedures		0		5				0			8				15		
HEPATIC TISSUE	N. of tissue donations				0								14				
	Tissue donation PMP				0.0								0.2				
	N. of tissues retrieved				0								14				
	N. of tissues processed (units)				0								11				
	N. of tissues distributed nationally (units)				0								0				
	N. of tissues imported (units)				0								0				
	N. of tissues exported (units)				0								0				
	N. of tissues transplanted		0		0								0				
	N. of patients transplanted		0		0								0				
N. of transplant procedures		0		0								0					

**PRELIMINARY DATA ON TISSUES - YEAR 2020**

PRELIMINARY DATA ON TISSUES - YEAR 2020																	
EUROPEAN UNION COUNTRIES														OTHER COUNTRIES			
Country		Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Republic of Moldova	Norway	Switzerland
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>		1.9	2.9	0.6	0.4	17.1	38.0	10.3	19.5	5.5	2.1	46.4	10.1	67.0	4.0	5.4	8.6
TYPE OF TISSUE	TYPE OF DATA	NO DATA				NO DATA							NO DATA				
ADIPOSE TISSUE	N. of tissue donations	0	6			0				77				191			0
	Tissue donation PMP	0.0	2.2			0.0				14.0				2.8			0.0
	N. of tissues retrieved	0	6			0				77				191			0
	N. of tissues processed (units)		0			0				77				41			0
	N. of tissues distributed nationally (units)		0			0				76				61			0
	N. of tissues imported (units)		0			0				0				0			0
	N. of tissues exported (units)		0			0				0				0			0
	N. of tissues transplanted		0			0				75				0			0
	N. of patients transplanted		0			0				76							0
N. of transplant procedures		0			0				77							0	
PARATHYROID	N. of tissue donations									0							
	Tissue donation PMP									0.0							
	N. of tissues retrieved					0				0							
	N. of tissues processed (units)					0				0							
	N. of tissues distributed nationally (units)					0				0							
	N. of tissues imported (units)					0				0							
	N. of tissues exported (units)					0				0							
	N. of tissues transplanted		0			0				0							
	N. of patients transplanted		0			0				0							
N. of transplant procedures		0			0				0								
NEURONAL TISSUE	N. of tissue donations																0
	Tissue donation PMP																0.0
	N. of tissues retrieved					0											0
	N. of tissues processed (units)					0								0			0
	N. of tissues distributed nationally (units)					0								39			0
	N. of tissues imported (units)					0								35			0
	N. of tissues exported (units)					0								0			0
	N. of tissues transplanted		0			0								58			0
	N. of patients transplanted		0			0											0
N. of transplant procedures		0			0											0	
AUTOLOGOUS CRANIECTOMY PIECES	N. of tissues retrieved					179				86			107	27			0
OTHER TISSUE	N. of tissue donations	208	3			2		0		1799			0	144			0
	Tissue donation PMP	109.5	1.1			0.1		0.0		327.1			0.0	2.1		0.0	
	N. of tissues retrieved	208	8			0		0		1806			0	898			0
	N. of tissues processed (units)	0				150		0		1711			0	737			0
	N. of tissues distributed nationally (units)	0				13		0		180				237			0
	N. of tissues imported (units)	0				0		0		792				905			0
	N. of tissues exported (units)	0				0		0		156				2810			0
	N. of tissues transplanted		5			143		6		140				2874			0
	N. of patients transplanted		4			138		6		127							0
	N. of transplant procedures		4					6		133			0				0

## PRELIMINARY DATA ON TISSUES - YEAR 2020

## LATIN AMERICAN COUNTRIES

Country		Argentina	Brazil	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	Mexico	Paraguay	Peru	Uruguay
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>		45.2	212.6	50.9	5.1	11.3	10.8	17.6	128.9	7.1	33.0	3.5
TYPE OF TISSUE	TYPE OF DATA											
CORNEA	N. of tissue donations	501	10754	936	66		17	98	1120	68	24	
	Tissue donation PMP	11.1	50.6	18.4	12.9		1.6	5.6	8.7	9.6	0.7	
	N. of tissues retrieved	988	10240	1853	58		17	113	1113	53	46	237
	N. of tissues transplanted	650	7432	1818	52		175	103	1328	53	136	198
	N. of patients transplanted	650		1760				103	1328	53	137	187
	N. of transplant procedures	650		1808				175	103	1328	53	136
SKIN	N. of tissue donations	28	565	45	12			9	68	0		
	Tissue donation PMP	0.6	2.7	0.9	2.4			0.5	0.5	0.0		
	N. of tissues retrieved (cm <sup>2</sup> )	19338	8668695						51			155200
	N. of tissues transplanted	17484	10723550	772	12			9			18000	768
	N. of patients transplanted	26		38				1			16	20
	N. of transplant procedures	17484		43				1			105	
HEART VALVE	N. of tissue donations	90	215	4	5			0	3	0		
	Tissue donation PMP	0.1	1.0	0.1	1.0			0.0	0.0	0.0		
	N. of tissues retrieved	182	119	5	5			0	4			0
	N. of tissues transplanted	157	92	16	5			0	3			
	N. of patients transplanted	139		16	5			0	3			0
	N. of transplant procedures	157		16				0	3			
BLOOD VESSEL	N. of tissue donations		0	11	5			0		0		
	Tissue donation PMP		0.0	0.2	1.0			0.0		0.0		
	N. of tissues retrieved		0	34	12			0				19
	N. of tissues transplanted			34				0				
	N. of patients transplanted			20	5			0				6
	N. of transplant procedures			20				0				
MUSCULOSKELETAL	N. of tissue donations	535	836	1311	7			173	179	0		
	Tissue donation PMP	11.8	3.9	25.8	1.4			9.8	1.4	0.0		
	N. of tissues retrieved	1918	7293	2590	20			182	181			22
	N. of tissues transplanted	3615	0	11961	7			158				
	N. of patients transplanted	1934		471	7			128				78
	N. of transplant procedures	3615		502				158				

PRELIMINARY DATA ON TISSUES - YEAR 2020

LATIN AMERICAN COUNTRIES

Country		Argentina	Brazil	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	Mexico	Paraguay	Peru	Uruguay
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>		45.2	212.6	50.9	5.1	11.3	10.8	17.6	128.9	7.1	33.0	3.5
TYPE OF TISSUE	TYPE OF DATA											
PLACENTA	N. of tissue donations	20	0	66	5			8				
	Tissue donation PMP	0.4	0.0	1.3	1.0			0.5				
	N. of tissues retrieved	20	0	66	5			113				38
	N. of tissues transplanted		5878		51			142				367
	N. of patients transplanted							135				38
	N. of transplant procedures							142				
PANCREATIC TISSUE/ PANCREAS	N. of tissue donations		0	0				0		0		
	Tissue donation PMP		0.0	0.0				0.0		0.0		
	N. of tissues retrieved		0					0				0
	N. of tissues transplanted		0					0				0
	N. of patients transplanted							0				0
	N. of transplant procedures							0				
ADIPOSE TISSUE	N. of tissue donations		0	0				0		0		
	Tissue donation PMP		0.0	0.0				0.0		0.0		
	N. of tissues retrieved		0					0				0
	N. of tissues transplanted		0					0				0
	N. of patients transplanted							0				0
	N. of transplant procedures							0				
AUTOLOGOUS CRANIECTOMY PIECES	N. of tissues retrieved (units)		148					0				0
OTHER TISSUE	N. of tissue donations		0	0				0		0		
	Tissue donation PMP		0.0	0.0				0.0		0.0		
	N. of tissues retrieved		0					0				
	N. of tissues transplanted		0	11				0				0
	N. of patients transplanted			11				0				0
	N. of transplant procedures			11				0				

## PRELIMINARY DATA ON HPC CELLS - YEAR 2020

## EUROPEAN UNION COUNTRIES

Country		Austria	Belgium	Bulgaria	Croatia	Cyprus	Czechia	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>		9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.3	83.8	10.4	9.7	4.9	60.5
CATEGORY OF DATA	TYPE OF DATA															
POTENTIAL FOR DONATION AND SEARCHES IN THE NATIONAL REGISTRIES	N. of potential donors at 31.12	91879		59783			133175			55100				170		460902
	N. of cord blood units at 31.12	83		3656			7496			3335				0		38120
	N. of searches requested	348		378			51009			26724						2938
	N. of unrelated donations	83		65			202			127						969
DONATIONS	N. of donations - Autologous	553		2581	522		1022		73	318		4836		310		3924
	N. of donations - Allogeneic	155		116	442		208		8	101		8542		144		7108
	N. of donations - Allogeneic, related	129		32	64		57		8	55		999		106		1078
	N. of donations - Allogeneic, unrelated	26		84	378		151		0	46		7543		38		6030
BANKING OF CORD BLOOD	N. of unrelated cord blood units collected			84	366		370		0			426		0		5742
	N. of unrelated cord blood units distributed			0	0		2			0		0		0		30
	N. of related cord blood units collected			2462	10		15		11			17		4418		123
	N. of related cord blood units distributed			0	0		0			0		0		0		3
TRANSPLANTS	N. of transplants - Autologous	352		119	199		450		68	263		4726		290		3431
	N. of patients transplanted - Autologous	307		116	167		341			258		3952		237		2718
	N. of transplants - Allogeneic	368		55	97		238		28	147		3293		140		1908
	N. of patients transplanted - Allogeneic	0		55	92		215			146		3112		124		1808
	N. of transplants - Allogeneic, related	238		32	39		80		9	55		916		98		1033
	N. of patients transplanted - Allogeneic, related	0		32	34		71			54		851		84		961
	N. of transplants - Allogeneic, unrelated	130		23	58		158		19	92		2377		42		875
	N. of patients transplanted - Allogeneic, unrelated	0		23	58		144			92		2261		40		847



**PRELIMINARY DATA ON HPC CELLS - YEAR 2020**

EUROPEAN UNION COUNTRIES															OTHER COUNTRIES		
Country	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Norway	Republic of Moldova	Switzerland	
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>	1.9	2.9	0.6	0.4	17.1	38.0	10.3	19.5	5.5	2.1	46.4	10.1	67.0	4.0	5.4	8.6	
CATEGORY OF DATA	TYPE OF DATA																
POTENTIAL FOR DONATION AND SEARCHES IN THE NATIONAL REGISTRIES	N. of potential donors at 31.12	13188		342359		402864		50304		20368		431703		162164			
	N. of cord blood units at 31.12	0		4770		0		0		1822		64338		5077			
	N. of searches requested	71		718		1654		321		25449		920		491			
	N. of unrelated donations	13		513		114		50		56		641		211			
DONATIONS	N. of donations - Autologous	27		2765		471		204		3245		2049		737		10071	
	N. of donations - Allogeneic	213	34	599		144		45		411		998		606		14770	
	N. of donations - Allogeneic, related	213	21	216		67		35		39		867		246		10081	
	N. of donations - Allogeneic, unrelated	13		383		77		10		372		131		360		4689	
BANKING OF CORD BLOOD	N. of unrelated cord blood units collected	0	0	88		0		0		452		195		11737			
	N. of unrelated cord blood units distributed	0	0	85		0		0		147		552		3		4	
	N. of related cord blood units collected	213	38	4		0		100011		13		147		5323		3	
	N. of related cord blood units distributed	0	0	3		0		148		1		1		0		0	
TRANSPLANTS	N. of transplants - Autologous	148		3343		322		123		160		2049		539		0	
	N. of patients transplanted - Autologous	111		1010		307		115		127		0		500		0	
	N. of transplants - Allogeneic	52		1254		110		106		79		1326		301		0	
	N. of patients transplanted - Allogeneic	40		666		109		99		74		0		289		0	
	N. of transplants - Allogeneic, related	21		323		46		26		31		867		87		0	
	N. of patients transplanted - Allogeneic related	16		163		46		23		30		0		79		0	
	N. of transplants - Allogeneic, unrelated	31		931		64		80		48		459		214		0	
	N. of patients transplanted - Allogeneic, unrelated	24		503		63		76		44		0		210		0	

## PRELIMINARY DATA ON HPC CELLS - YEAR 2020

## LATIN AMERICAN COUNTRIES

Country		Argentina	Brazil	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	Mexico	Paraguay	Peru	Uruguay
<i>Population (Source: UNFPA, State of world population, 2020 - in millions)</i>		45.2	212.6	50.9	5.1	11.3	10.8	17.6	128.9	7.1	33.0	3.5
CATEGORY OF DATA	TYPE OF DATA											
POTENTIAL FOR DONATION AND SEARCHES IN THE NATIONAL REGISTRIES	N. of potential donors at 31.12	61246	5238393								43642	1546
	N. of cord blood units at 31.12	96	18008								0	
	N. of searches requested	893	13389				0				2	47
BANKING OF CORD BLOOD	N. of unrelated cord blood units at 31.12	4276	17665				0				0	0
	N. of related cord blood units at 31.12	909					0				0	4
TRANSPLANTS	N. of transplants - Autologous	641	1213	439	29	13				22	84	90
	N. of patients transplanted - Autologous	611			6					22	84	
	N. of transplants - Allogeneic	358	984	149	35					4	71	38
	N. of patients transplanted - Allogeneic	311	273		0					4	71	
	N. of transplants - Allogeneic, related	272	706	121	35					4	71	31
	N. of patients transplanted - Allogeneic, related	234			0					4	71	
	N. of transplants - Allogeneic, unrelated	86	278	28	0						0	7
	N. of patients transplanted - Allogeneic, unrelated	77	273		0						0	

# **Council of Europe Reference Documents. Year 2020**



# Recommendation CM/Rec(2020)4<sup>1</sup> of the Committee of Ministers to member States on the quality and safety of organs for transplantation

(Adopted by the Committee of Ministers on 7 October 2020 at the 1385th meeting of the Ministers' Deputies)

The Committee of Ministers, under the terms of Article 15.b of the Statute of the Council of Europe,

Considering that the aim of the Council of Europe is to achieve greater unity between its member States and that this aim may be pursued, *inter alia*, by the adoption of common action in the health field;

Having regard to its Resolution Res(78)29 on harmonisation of legislations of member States relating to removal, grafting and transplantation of human substances and the final declaration of the 3rd Conference of European Health Ministers (Paris, 16-17 November 1987);

Having regard to Articles 3, 21 and 22 of the Convention on Human Rights and Biomedicine (ETS No. 164) and Articles 3 and 4 of the Additional Protocol to the Convention on Human Rights and Biomedicine concerning the Transplantation of Organs and Tissues of Human Origin (ETS No. 186);

Having regard to the Council of Europe Convention on Action against Trafficking in Human Beings (CETS No. 197) and the Council of Europe Convention against Trafficking in Human Organs (CETS No. 216);

Recalling its recommendations to member States Rec(2001)5 on the management of organ transplant waiting lists and waiting times, Rec(2003)12 on organ donor registers, Rec(2004)19 on criteria for the authorisation of organ transplantation facilities, Rec(2005)11 on the role and training of professionals

responsible for organ donation (transplant “donor coordinators”), Rec(2006)15 on the background, functions and responsibilities of a National Transplant Organisation (NTO) and Rec(2006)16 on quality improvement programmes for organ donation;

Recalling its resolutions Res(78)29 on harmonisation of legislations of member States relating to removal, grafting and transplantation of human substances, CM/Res(2008)4 on adult-to-adult living donor liver transplantation, CM/Res(2013)55 on establishing procedures for the collection and dissemination of data on transplantation activities outside a domestic transplantation system, CM/Res(2013)56 on the development and optimisation of live kidney donation programmes, CM/Res(2015)10 on the role and training of critical care professionals in deceased donation, CM/Res(2015)11 on establishing harmonised national living donor registries with a view to facilitating international data sharing, CM/Res(2017)1 on principles for the selection, evaluation, donation and follow-up of the non-resident living organ donors and CM/Res(2017)2 on establishing procedures for the management of patients having received an organ transplant abroad upon return to their home country to receive follow-up care;

Having regard to 63<sup>rd</sup> World Health Assembly (WHA) Resolution WHA63.22 on human organ and tissue transplantation and the World Health Organization (WHO) guiding principles on human cell, tissue and organ transplantation, as endorsed by 63<sup>rd</sup> WHA Resolution WHA63.22, May 2010;

<sup>1</sup> When adopting this recommendation, the Permanent Representative of Germany indicated that, in accordance with Article 10.2c of the Rules of Procedure for the meetings of the Ministers' Deputies, he reserved the right of his government to comply or not with the recommendation.

Taking into account Directive 2010/53/EU of the European Parliament and of the Council of 7 July 2010 on standards of quality and safety of human organs intended for transplantation and Commission Implementing

Directive 2012/25/EU of 9 October 2012 laying down information procedures for the exchange, between member States, of human organs intended for transplantation;

Considering the importance of life-saving organ transplantation and acknowledging that clinical requirement far outweighs availability of donated organs;

Considering that the misuse of organ transplantation may endanger human life, well-being and dignity and violate the principle of justice (including equity and fairness);

Considering that, as with all material of human origin, transplanted organs carry the risk of disease transmission that should be controlled by the application of scrupulous quality and safety requirements;

Considering the importance of guidelines and standards to protect the health of living donors; Considering the importance of registries to follow up recipients and donors;

Considering the importance of training and education of healthcare professionals in the field of organ donation and transplantation to optimise care for donors and patients;

Taking into account the need for harmonisation of principles and practices in member States;

Recognising, therefore, the need to provide health authorities, transplant organisations and clinical users with uniform standards for the quality and safety of organs for transplantation;

Recognising that the Guide to the quality and safety of organs for transplantation provides professionals with the most recent advances in the field, as well as technical guidance to ensure the quality and safety of human organs, ultimately improving the rate of successful and safe organ transplantation and ensuring the protection of living donors;

Aware that the Guide published by the Council of Europe has already become the generally accepted European standard and that it is therefore appropriate to give a legal reference to this Guide;

Considering that this Guide is regularly updated by the Council of Europe European Committee on Organ Transplantation or, if necessary, a subordinate body;

Recommends that the governments of member States, having due regard to their national laws, rules and administrative provisions, take all necessary measures and steps to ensure that quality and safety standards for organ donation and transplantation are set in place in accordance with the guidelines set out in the appendix<sup>2</sup> to this recommendation;

Agrees that the Council of Europe European Committee on Organ Transplantation or, if necessary, a subordinate body, will regularly update this appendix.

<sup>2</sup> The appendix is available for free download at the EDQM website under the reference "*Guide to the Quality and Safety of Organs for Transplantation*". Any reference to this appendix should be read as referring to the most up-to-date version of this Guide.

# Recommendation CM/Rec(2020)5<sup>1</sup> of the Committee of Ministers to member States on the quality and safety of tissues and cells for human application

(Adopted by the Committee of Ministers on 7 October 2020 at the 1385th meeting of the Ministers' Deputies)

The Committee of Ministers, under the terms of Article 15.b of the Statute of the Council of Europe,

Considering that the aim of the Council of Europe is to achieve greater unity between its member States and that this aim may be pursued, *inter alia*, by the adoption of common action in the health field;

Having regard to its Resolution Res(78)29 on harmonisation of legislations of member States relating to removal, grafting and transplantation of human substances and the final declaration of the 3rd Conference of European Health Ministers (Paris, 16-17 November 1987);

Having regard to Articles 3, 21 and 22 of the Convention on Human Rights and Biomedicine (ETS No. 164) and Articles 3 and 4 of the Additional Protocol to the Convention on Human Rights and Biomedicine concerning the Transplantation of Organs and Tissues of Human Origin (ETS No. 186);

Having regard to the Council of Europe Convention on Action against Trafficking in Human Beings (CETS No. 197) and the Council of Europe Convention against Trafficking in Human Organs (CETS No. 216);

Recalling its recommendations to member States Rec(94)1 on human tissue banks, Rec(98)2 on provision of haematopoietic progenitor cells and Rec(2004)8 on autologous cord blood banks (and its Explanatory Memorandum);

Having regard to 63rd World Health Assembly (WHA) Resolution WHA63.22 on human organ and tissue transplantation and the World Health Organisation (WHO) guiding principles on human cell, tissue and organ transplantation, as endorsed by 63rd WHA Resolution WHA63.22, May 2010;

Taking into account Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 on setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells; Commission Directive 2006/86/EC of 24 October 2006 implementing Directive 2004/23/EC of the European Parliament and of the Council as regards traceability requirements, notification of serious adverse reactions and events and certain technical requirements for the coding, processing, preservation, storage and distribution of human tissues and cells; Commission Directive 2006/17/EC of 8 February 2006 implementing Directive 2004/23/EC of the European Parliament and of the Council as regards certain technical requirements for the donation, procurement and testing of human tissues and cells; Commission Directive (EU) 2015/565 of 8 April 2015 amending Directive 2006/86/EC as regards certain technical requirements for the coding of human tissues and cells; Commission Directive (EU) 2015/566 of 8 April 2015 implementing Directive 2004/23/EC as regards the procedures for verifying the equivalent standards of quality and safety of imported tissues and cells; and Commission Directive 2012/39/EU of 26 November 2012 amending Directive 2006/17/EC as

<sup>1</sup> When adopting this recommendation, the Permanent Representative of Germany indicated that, in accordance with Article 10.2c of the Rules of Procedure for the meetings of the Ministers' Deputies, he reserved the right of his government to comply or not with the recommendation.

regards certain technical requirements for the testing of human tissues and cells;

Taking into account the Barcelona Principles on the use of human donated tissue for ocular transplantation, research and future technologies;

Considering that human tissues and cells can restore essential functions or, in some cases, save lives, but that the demand for some tissues and cells far outweighs the available supply;

Considering that human tissues and cells can be derived only from the body of a person – hence the ethical challenges associated with their use;

Considering that tissues from one deceased donor may be transplanted into as many as 100 patients and that some other tissues and cells can be provided only by living donors, as long as this procedure does not risk serious harm to the donor or endanger the donor's life;

Considering that, as with all material of human origin, human tissues and cells carry the risk of disease transmission that must be controlled by the application of scrupulous quality and safety requirements and by ensuring that comprehensive quality systems are in place;

Considering the importance of guidelines and standards to protect the health of living donors; Considering the importance of registries to follow up recipients and donors;

Considering that haematopoietic progenitor cells need specific matching between a donor and recipient requiring international co-operation;

Considering the importance of training and education of health care professionals in the field of tissue and cell donation and transplantation to optimise care for donors and patients;

Considering that some tissues and cells are used practically unaltered from the condition in which they were removed from the donor but that others are processed into products that are almost unrecognisable as bodily material;

Taking into account that the rapid development of novel processing methods and clinical applications requires well-defined quality and safety criteria on which to base regulatory requirements;

Taking into account the need for harmonisation of principles and practices in member States;

Recognising, therefore, the need to provide health authorities, transplant organisations, tissue establishments, organisations responsible for human application of tissues and cells, including clinical users, with uniform standards for the quality and safety of tissues and cells for human application;

Recognising that the Guide to the quality and safety of tissues and cells for human application provides professionals with the most recent advances in the field, as well as technical guidance to ensure the quality, safety and efficacy of tissues and cells, ultimately improving the rate of successful and safe human application and ensuring the protection of living donors;

Aware that the Guide published by the Council of Europe has already become the generally accepted European standard and that it is therefore appropriate to give legal reference to this Guide;

Considering that this Guide is regularly updated by the Council of Europe European Committee on Organ Transplantation or, if necessary, a subordinate body;

Recommends that the governments of member States, having due regard to their national laws, rules and administrative provisions, take all necessary measures and steps to ensure that quality and safety standards for the donation, preparation and clinical application of tissues and cells are carried out in accordance with the guidelines set out in the appendix<sup>2</sup> to this recommendation.

Agrees that the Council of Europe European Committee on Organ Transplantation or, if necessary, a subordinate body, will regularly update this appendix.

<sup>2</sup> The appendix is available for free download at the EDQM website under the reference "Guide to the Quality and Safety of Organs for Transplantation". Any reference to this appendix should be read as referring to the most up-to-date version of this Guide.

# Recommendation CM/Rec(2020)6<sup>1</sup> of the Committee of Ministers to member States on establishing harmonised measures for the protection of haematopoietic progenitor cell donors

(Adopted by the Committee of Ministers on 7 October 2020 at the 1385th meeting of the Ministers' Deputies)

The Committee of Ministers, under the terms of Article 15.b of the Statute of the Council of Europe,

Considering that the aim of the Council of Europe is to achieve greater unity between its member States and that this aim may be pursued, *inter alia*, by the adoption of common action in the health field;

Having regard to Resolution Res(78)29 on harmonisation of legislations of member States relating to removal, grafting and transplantation of human substances and the final text of the 3rd Conference of European Health Ministers (Paris, 16-17 November 1987);

Having regard to the Convention on Human Rights and Biomedicine (ETS No. 164), in particular to Articles 19, 20 and 21 thereof, and its Additional Protocol concerning Transplantation of Organs and Tissues of Human Origin (ETS No. 186), in particular Chapter III – Organ and tissue removal from living persons, Article 9, and Chapter VI – Prohibition of financial gain;

Having regard to the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (ETS No. 108, as amended by Protocol CETS No. 2232) and its Additional Protocol regarding supervisory authorities and transborder data flows (ETS No. 181);

Recalling Recommendation CM/Rec(2019)2 of the Committee of Ministers to member States on the protection of health-related data which replaces Recommendation Rec(97)5 of the Committee of Ministers to member States on the protection of medical data;

Recalling Recommendation Rec(98)2 of the Committee of Ministers to member States on provision of haematopoietic progenitor cells;

Taking into account the latest available edition of the Council of Europe Guide to the Quality and safety of tissues and cells for human application, in particular the Chapters on “Recruitment of potential donors, identification and consent” and on “Haematopoietic progenitor cells from bone marrow and peripheral blood”;

Taking into account the World Health Organization Guiding Principles on Human Cell, Tissue and Organ Transplantation as endorsed by the 63rd World Health Assembly in May 2010, in Resolution WHA63.22, and in particular Guiding Principles 10 and 11, which call for health authorities to oversee that transplant programmes ensure traceability and vigilance and to monitor outcomes of both living donation and transplantation;

Taking into account Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 on setting

<sup>1</sup> When adopting this recommendation, the Permanent Representative of Germany indicated that, in accordance with Article 10.2c of the Rules of Procedure for the meetings of the Ministers' Deputies, he reserved the right of his government to comply or not with the recommendation.

<sup>2</sup> The Protocol amending Convention No. 108 (CETS No. 223) was opened for signature on 10 October 2018 and the revised convention has yet to enter into force.



standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells, and Directive 2006/17/EC of 8 February 2006 implementing Directive 2004/23/EC of the European Parliament and of the Council as regards certain technical requirements for the donation, procurement and testing of human tissues and cells;

Taking into account Commission Directive 2006/86/EC of 24 October 2006 implementing Directive 2004/23/EC of the European Parliament and of the Council as regards traceability requirements, notification of serious adverse reactions and events and certain technical requirements for the coding, processing, preservation, storage and distribution of human tissues and cells, and in particular Article 5(1)(a) and Article 7;

Taking into account Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), and in particular Article 9, paragraph 2, points (a), (h) and (i), which contain provisions permitting the processing of health data;

Considering the observation included in the Evaluation of the European Union legislation on blood, tissues and cells (SWD(2019) 376 final) Chapter 6, point iv, that there are insufficient provisions in place to protect haematopoietic progenitor cell donors;

Considering that haematopoietic progenitor cell transplantation represents one of the most widely used forms of cell therapy and haematopoietic progenitor cells are one of the most exchanged biological materials for transplantation;

Considering that the application of haematopoietic progenitor cells for the treatment of different haematological diseases has increased extensively in the past half-century in developed countries and that many low- and middle-income countries are now establishing autologous and allogeneic haematopoietic progenitor cell transplantation programmes;

Considering that all haematopoietic progenitor cell donors are living donors, either genetically related or genetically unrelated to their recipient and that, in many cases, unrelated donors are identified across national borders;

Considering that, in exceptional situations as defined in the Convention on Human Rights and Biomedicine,

in some member States, minors can become related donors;

Considering that donation of haematopoietic progenitor cells carries certain risks, which require robust legislative and operational measures to be in place to safeguard the health and rights of donors;

Considering that, to protect the health of haematopoietic progenitor cell donors, an appropriate framework should include adequate selection criteria, from both the medical and psychosocial perspective, proper informed consent, guarantee of follow-up care, as well as the collection of data on the donor's health status in the short and long term;

Considering, in particular, that the prohibition of financial gain or comparable advantage under the terms of the Convention on Human Rights and Biomedicine does not prevent compensation of living donors for loss of earnings and reimbursement of any other justifiable expenses related to the removal of organs, tissues or cells or to the related medical examinations, as well as compensation in case of undue damage (e.g. disability) resulting from the removal of organs, tissues or cells;

Recognising that, in enabling transplantation of haematopoietic progenitor cells in the interest of patients in Europe, there is a need to protect individual rights and freedoms and to prevent the commercialisation of haematopoietic progenitor cells;

Considering that eligibility criteria for related donors (adults and minors) are less stringent and established compared to eligibility criteria for unrelated donors in most of the member States;

Considering that few member States have taken action to ensure insurance coverage of related donors at the same level as unrelated donors, especially when the related donor is a non-resident;

Considering that the technique for the collection of haematopoietic progenitor cells is the same irrespective of whether the donor is related or unrelated, and that the vast majority of donors need to undergo mobilisation of haematopoietic progenitor cells with growth factors (peripheral blood stem cell donation), whereas others require general anaesthesia (bone marrow donation), and thus an inherent risk of complications associated with the donation does exist and potential donors should be duly informed;

Considering that the requirements for the follow-up of haematopoietic progenitor cell donors and the

registration of data also differ significantly between member States, and that donor outcome data for both related and unrelated haematopoietic progenitor cell donors (adults and minors), including their health status and short-, medium- and long-term complications (e.g. malignancies, autoimmune disorders, thromboembolic disorders), should be collected, notified to health authorities and managed to help prevent these risks in the future;

Considering that the management of related and unrelated haematopoietic progenitor cell donors, including selection criteria and follow-up, should guarantee an equal level of donor safety and protection;

Considering that only through compilation of harmonised data on the outcome of haematopoietic progenitor cell donors (related and unrelated, adults and minors) by health authorities or other officially designated bodies will it be possible to obtain sufficient information to define and secure the proper follow-up of haematopoietic progenitor cell donors, to document prognoses (safety/morbidity) of these donors, to investigate causal relationships between pre-donation comorbidities and the incidence of complications during and after the donation process, and advise on possible preventive measures, and to inform future haematopoietic progenitor cell donors on the risks related to the donation process,

Recommends the governments of member States establish harmonised haematopoietic progenitor cell donor protection measures, which should be identical irrespective of the type of donor (related or unrelated, adult or minor), including the following:

- i. to develop recommendations for the assessment of donor medical suitability and on eligibility criteria for haematopoietic progenitor cell donation, as set out in Appendix 1 to this resolution;
- ii. to ensure that, before consent, donors (related and unrelated) receive appropriate information on the type(s) of tissues or cells to be donated, the collection procedures, the consequences and possible side-effects of donation and the purpose or final use of the donated cells to ensure a free and informed decision, including the right to withdraw consent at any time;
- iii. to ensure that no haematopoietic progenitor cell donation is carried out on a person who does not have the capacity to consent. Exceptionally, and depending on the age and the degree of maturity, a minor may become a family donor only in very

specific circumstances and provided they do not object to the donation and with the support of an advocate. The authorisation of a representative, authority or person or body provided for by law should be given specifically and in writing and with the approval of the competent body;

- iv. to ensure that donors (related and unrelated, adults and minors) having donated haematopoietic progenitor cells are offered both appropriate psychological support in the event of post-donation difficulties, and medical care, including, short- and long-term follow-up that takes into account the actual health status and possible complications related to donation;
- v. to set up procedures and methods for the collection of a minimum set of data on all haematopoietic progenitor cell donors (related and unrelated, adults and minors; peripheral blood stem cells and bone marrow) as specified in Appendix 2;
- vi. to ensure that haematopoietic progenitor cell donors (related and unrelated) receive financial compensation for loss of earnings and reimbursement of any justifiable expenses associated with the donation and related medical examinations, as well as in the event of undue damage as a direct result of the donation;

Agrees that the Council of Europe European Committee on Organ Transplantation or, if necessary, a subordinate body, may revise the appendices of this recommendation in the future in keeping with developments in the field.

**Appendix 1 to Recommendation CM/Rec(2020)6 of the Committee of Ministers to member States Recommendations for the medical suitability assessment and eligibility criteria for haematopoietic progenitor cell donors**

The European Committee on Organ Transplantation (CD-P-TO) of the Council of Europe, using as a scientific basis the Council of Europe Guide to the quality and safety of tissues and cells for human application, has prepared these recommendations to guide the medical suitability assessment and eligibility criteria for haematopoietic progenitor cell donors (adults and, when applicable, minors):

1. during the recruitment/registration of related and unrelated haematopoietic progenitor cell donors, certain diseases and risk behaviours that pose a

risk to the donor or the potential recipient should be identified through a dedicated questionnaire checking for:

- a. malignancy;
  - b. cardiovascular disease;
  - c. any chronic disease (immune-mediated, allergic, thrombo-embolic disease, etc.);
  - d. risk of infectious diseases related to behaviour;
  - e. inherited genetic disease;
2. during the selection stage for related and unrelated haematopoietic progenitor cell donors, potential contraindications for one of the two collection methods should be identified; information about potential transmissible diseases and any relevant issue should be provided to the transplant centre through:
- a. history/questionnaire, updating the information from the previous stage, specifically with regard to:
    - i. the risk of infectious diseases (e.g. risk behaviour, trips, planned invasive procedures);
    - ii. any planned medical procedure;
    - iii. serious psychosocial or psychiatric disease with impact on the capacity to undergo a donation procedure;
    - iv. medication;
    - v. non-prescription drug use;
    - vi. height and weight;
    - vii. blood pressure;
    - viii. pregnancy or pregnancy planning and breastfeeding;
  - b. blood tests for infectious disease markers (depending on national laws and requirements [e.g. HIV, HBV, HCV, HTLV, syphilis, cytomegalovirus]);
3. prior to HLA typing (related donors), in order to save time and disappointment and before

concluding that the related donor is the best match, information on all aspects highlighted above should be obtained to identify any contraindication to donation and consent to donation should be confirmed;

4. donor work-up should include:
- a. a full record of the donor's history, looking for any signs of undiagnosed diseases (including emerging diseases);
  - b. complete physical examination;
  - c. psychological evaluation by a trained professional (if appropriate);
  - d. laboratory tests:
    - i. infectious disease markers;
    - ii. full blood count;
    - iii. ABO and Rh typing;
    - iv. biochemistry;
    - v. chest X-ray (if appropriate);
    - vi. electrocardiogram (if appropriate).

#### **Appendix 2 to Recommendation CM/Rec (2020)6 of the Committee of Ministers to member States Recommendation for the collection of minimum data on all haematopoietic progenitor cell donors and donations**

With the aim of facilitating harmonised data collection for haematopoietic progenitor cell donors and donations (related and unrelated; adult and minor; peripheral haematopoietic progenitor cells and bone marrow) and to ensure that all donors are offered the same medical care after donation, including follow-up according to professional standards that takes into account their actual health status and possible complications related to donation, this appendix includes the minimum data set that should be collected from each donor:

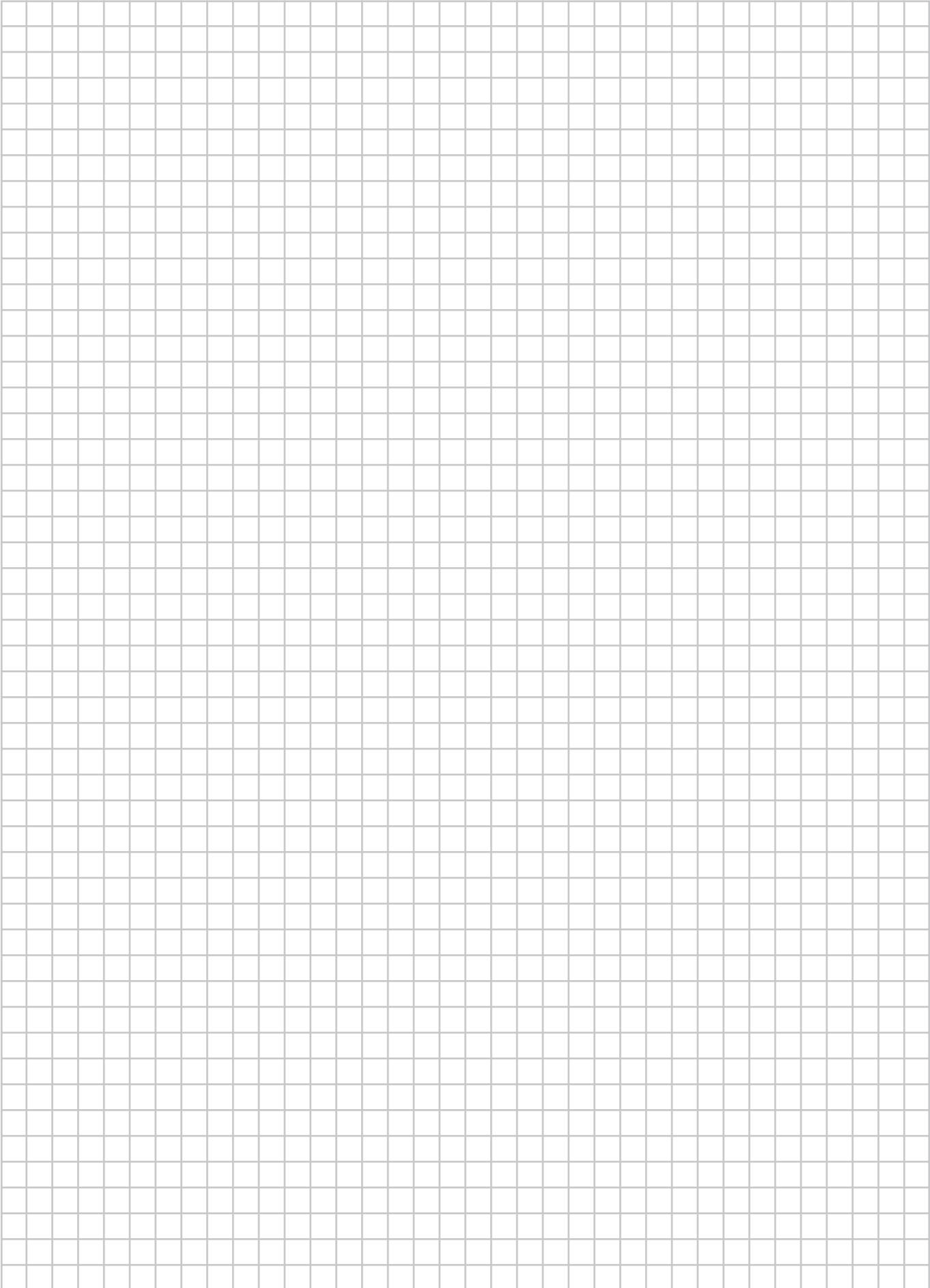
1. donor information:
  - a. identification number;
  - b. date of birth/age;

- c. gender;
- d. country of residence;
- 2. donation data:
  - a. date of donation;
  - b. donation centre;
  - c. type of donor:
    - i. related (HLA-identical/haplo-identical)/unrelated;
    - ii. peripheral haematopoietic progenitor cell;
    - iii. bone marrow;
    - iv. unstimulated leukocytes;
  - d. number of haematopoietic progenitor cell collection procedures in the donation cycle concerned;
  - e. total number of procedures during the donor's lifetime;
  - f. type of mobilising agents, doses and administration route, if appropriate;
- 3. post-donation/follow-up data:
  - a. short-term follow-up;
    - i. severe adverse reactions during and in the first 30 days after donation, related to:
      - a). the collection procedure;
      - b). haematopoietic progenitor cell mobilisation;
  - b. long-term follow-up
 

The first long-term follow-up report should be submitted one year after the last haematopoietic progenitor cell donation and, subsequently, every two years up to 10 years after the last donation procedure<sup>3</sup>. These follow-up reports should contain the following:

    - i. information about newly diagnosed diseases covering at a minimum:
      - a). severe or systemic autoimmune disorders;
      - b). malignancies (haematological, oncological);
    - ii. new long-term medication prescriptions;
    - iii. survival and, if applicable, cause of death.

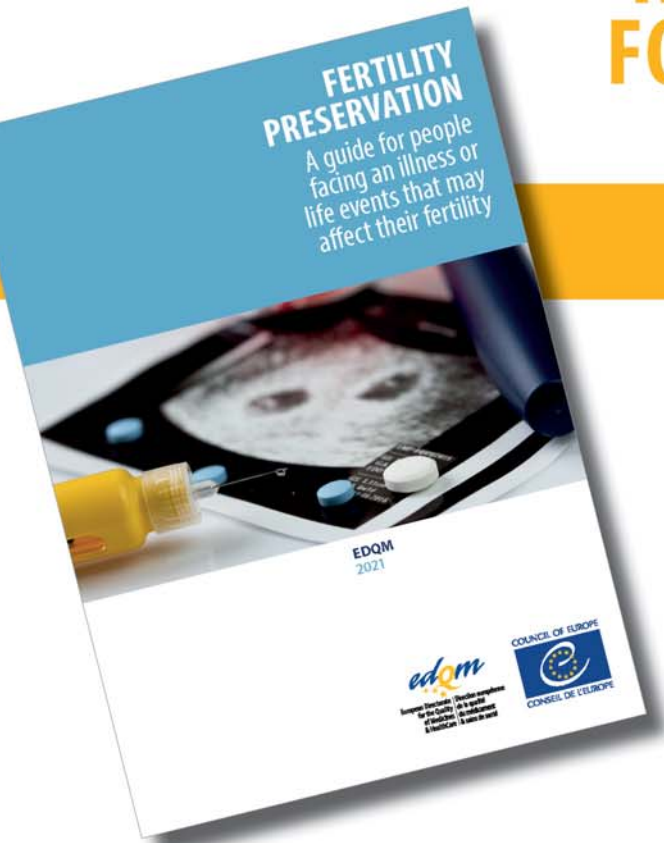
<sup>3</sup> According to the recommendations of the European Society for Blood and Marrow Transplantation (EBMT), available at [https://www.ebmt.org/sites/default/files/migration\\_legacy\\_files/document/Donor%20Outcome%20Manual.pdf](https://www.ebmt.org/sites/default/files/migration_legacy_files/document/Donor%20Outcome%20Manual.pdf) [last accessed 25 June 2020]



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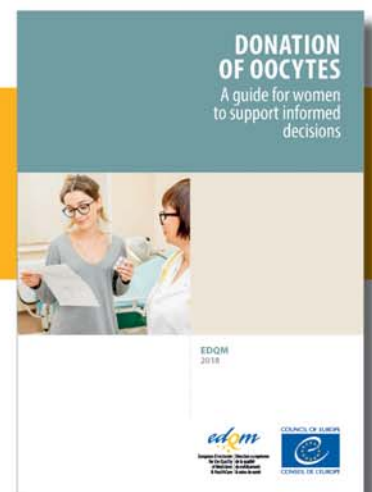


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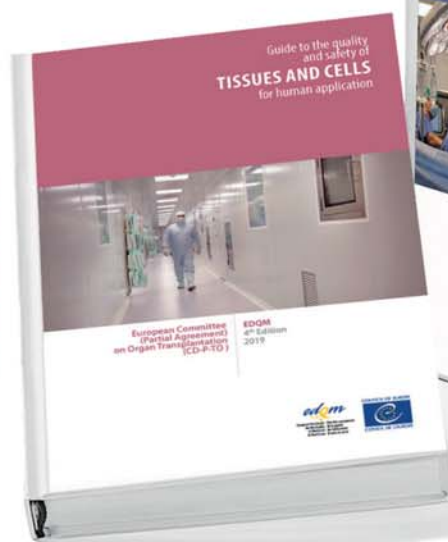
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