

NEWSLETTER TRANSPLANT

International figures
on donation and
transplantation
2021



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GOBIERNO
DE ESPAÑA

MINISTERIO
DE SANIDAD



INTERNATIONAL FIGURES ON ORGAN, TISSUE & HAEMATOPOIETIC STEM CELL DONATION & TRANSPLANTATION ACTIVITIES. DOCUMENTS PRODUCED BY THE COUNCIL OF EUROPE EUROPEAN COMMITTEE (PARTIAL AGREEMENT) ON ORGAN TRANSPLANTATION (CD-P-TO). YEAR 2021.

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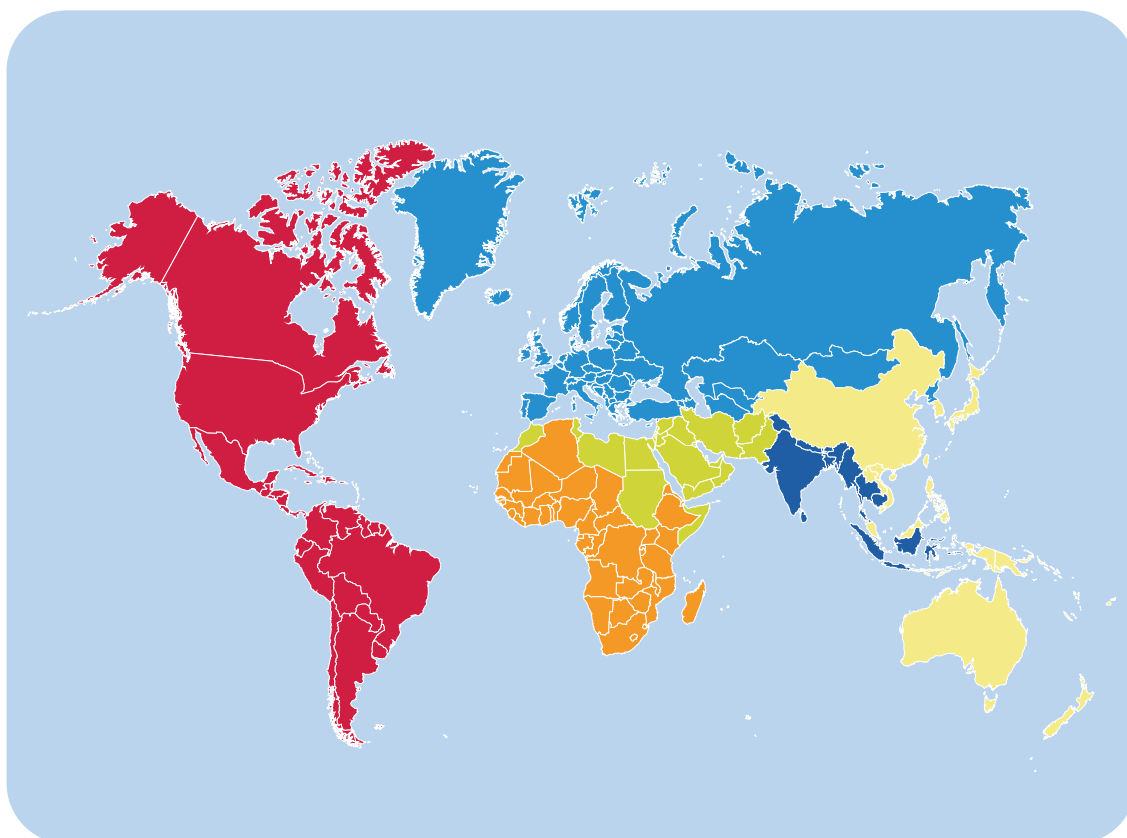
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NEWSLETTER TRANSPLANT 2022



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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 1/1/2021 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 2021	100
Total number of patients ever active on the WL during 2021	300
Patients awaiting for a transplant (only active candidates) on 31/12/2021	50
Patients who died while on the WL during 2021	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 great 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 79 countries throughout the world for the year 2021. The information presented relates to organ donation and transplantation activities, management of the waiting lists, and authorized transplant centres. Donation data are displayed by type of deceased donor (after the neurological or the 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 (<http://www.transplant-observatory.org/>), developed

and maintained by the ONT as collaborating centre of the World Health Organization. The Observatory allows users to download the data and display figures and different types of analyses online.

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.

During 2021, the COVID-19 pandemic continued having 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, because it has imposed major obstacles to these activities. However, transplant programmes worldwide have adapted to this adverse and persistent situation and we have witnessed a progressive return to pre-pandemic figures, as displayed in this issue of the *Newsletter Transplant* in the form of figures and tables that allow easy comparisons of organ donation and transplantation activities (by transplant type) in 2021 versus 2020, for a significant number of countries. The figures reveal that, although to a variable extent, the transplantation activity has increased in most countries (by 13% globally). These results allow us to conclude that our programs have learnt to co-exist with COVID-19, as a result of our increased 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.

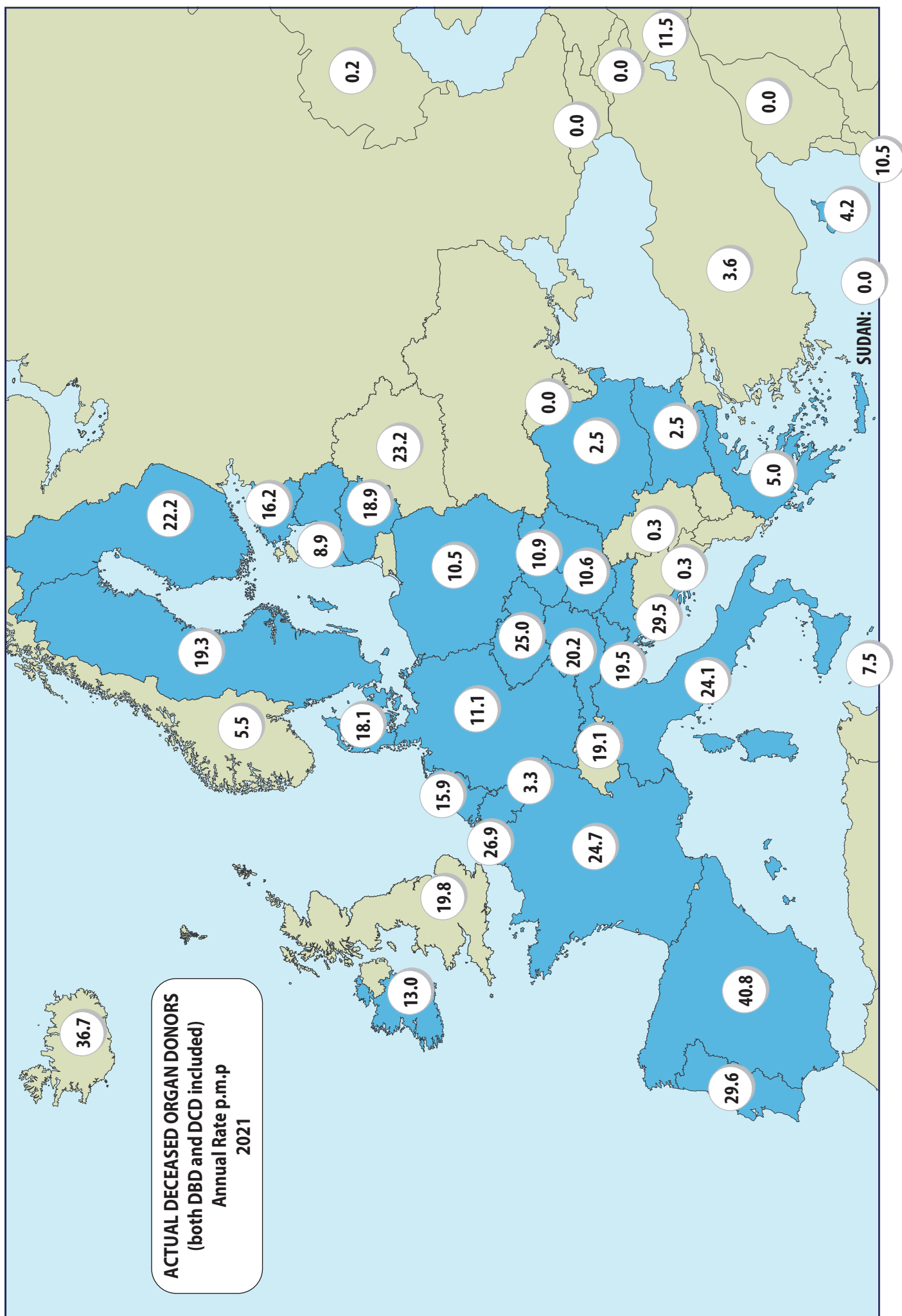
The CD-P-TO, through a number of initiatives, programmes and legal instruments, has over the years actively contributed to the development and implementation of quality and safety standards in the field of donation and transplantation, facilitating the exchange of knowledge between countries and institutions, 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. The 8th Edition of the CoE Guide for the quality and safety of organs for transplantation has indeed just been released and the 5th Edition of the Guide for the quality and safety of tissues and cells for clinical application will be published soon. These are invaluable tools for regulators and health professionals throughout Europe and beyond. The Committee of Ministers of the CoE has also recently adopted one important recommendation, presented in this issue of the *Newsletter Transplant*, urging member states to explore the opportunity of developing programs for donation after the determination of death by circulatory criteria

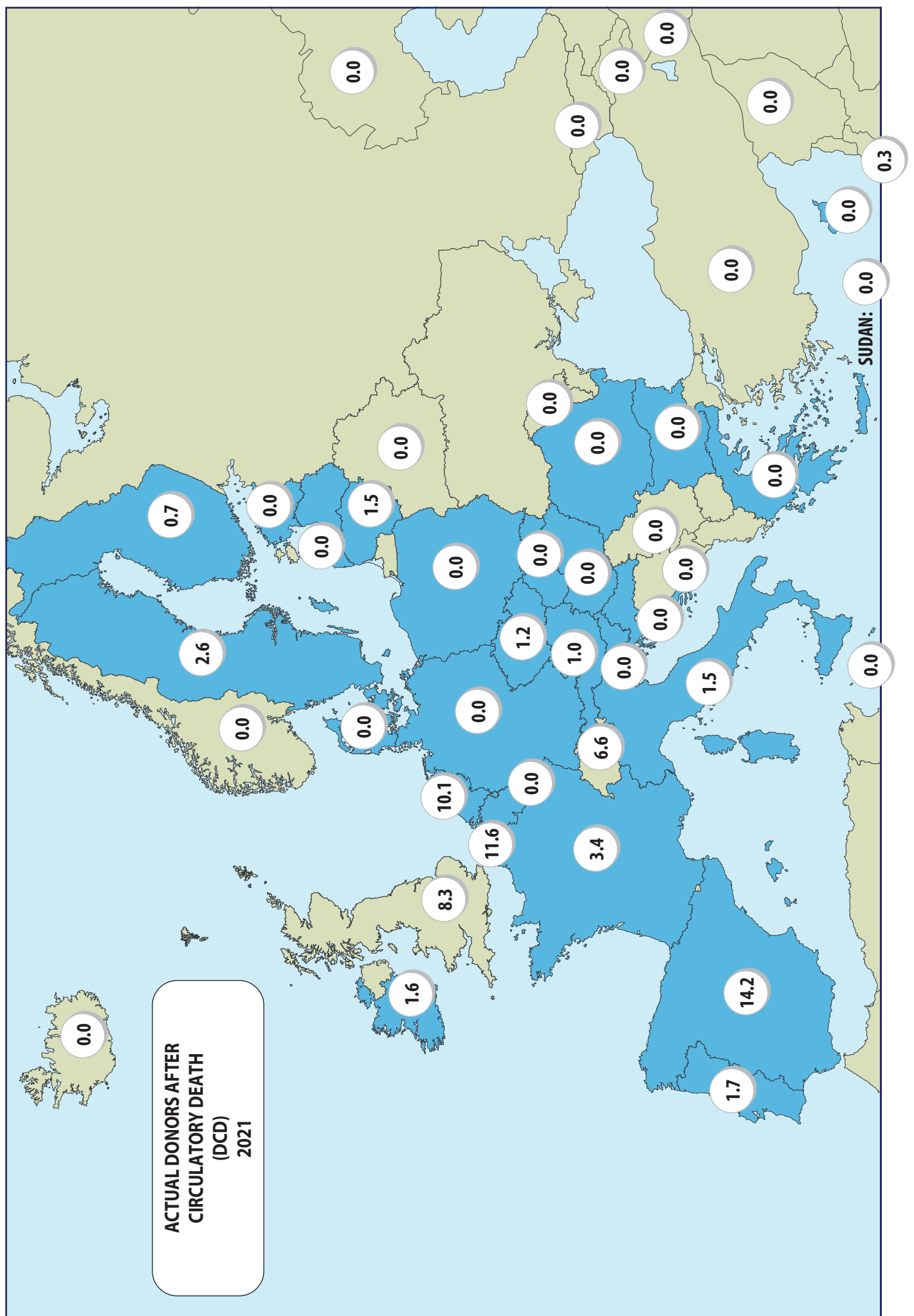
and to take measures to implement this type of donation within their jurisdictions. This is an example of the continuous work of the CD-P-TO in identifying topics of interest and elaborating legal instruments in the field that have subsequently been adopted by the Committee of Ministers of the CoE. These documents have profoundly impacted national legislations, 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.

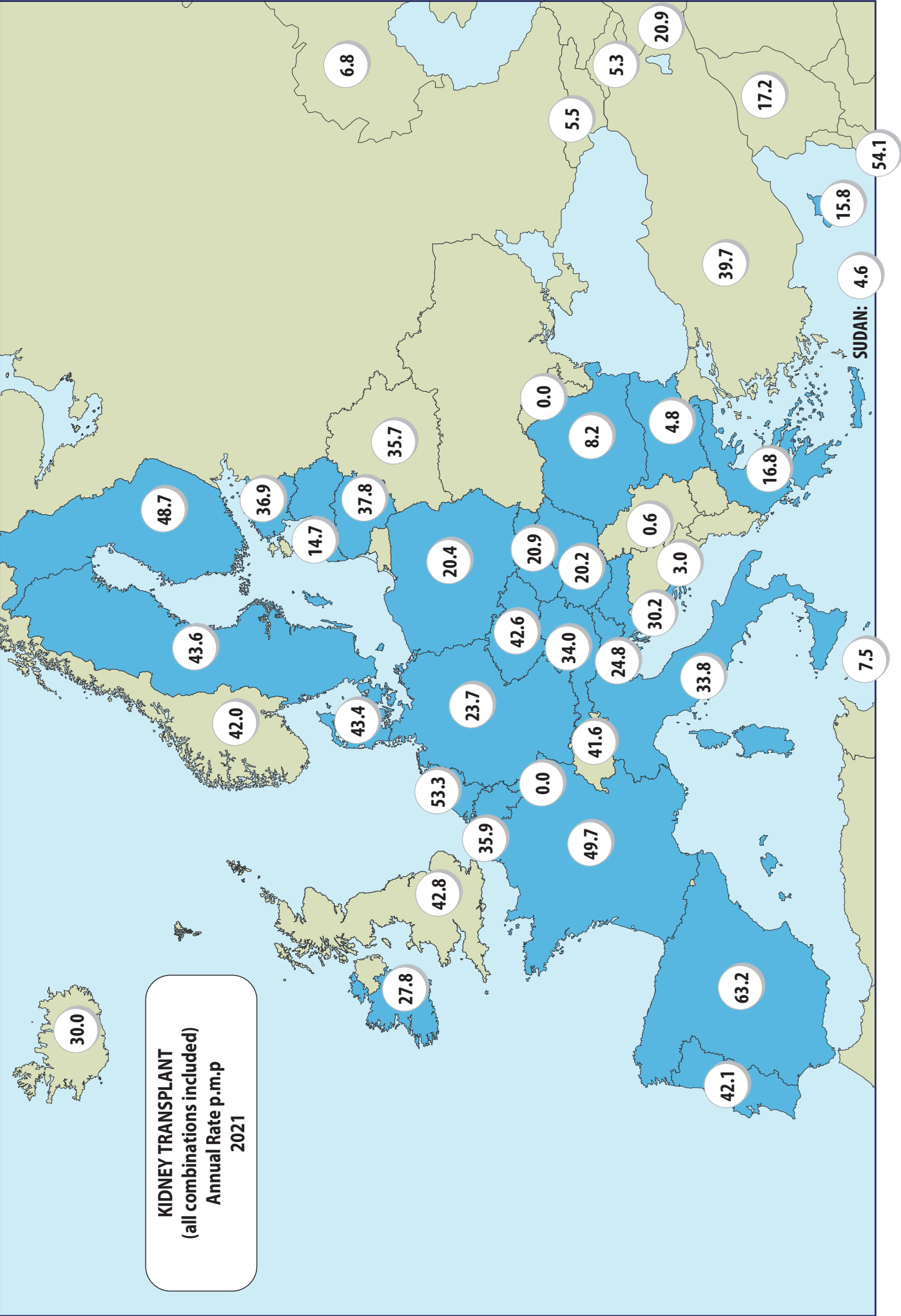
Please allow me to finish this letter by thanking all those who make the *Newsletter Transplant* possible - members of the CD-P-TO, national focal points providing data on a regular basis and the EDQM Secretariat. Let me also thank the members of the ONT whose continuous work, commitment and enthusiasm 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.

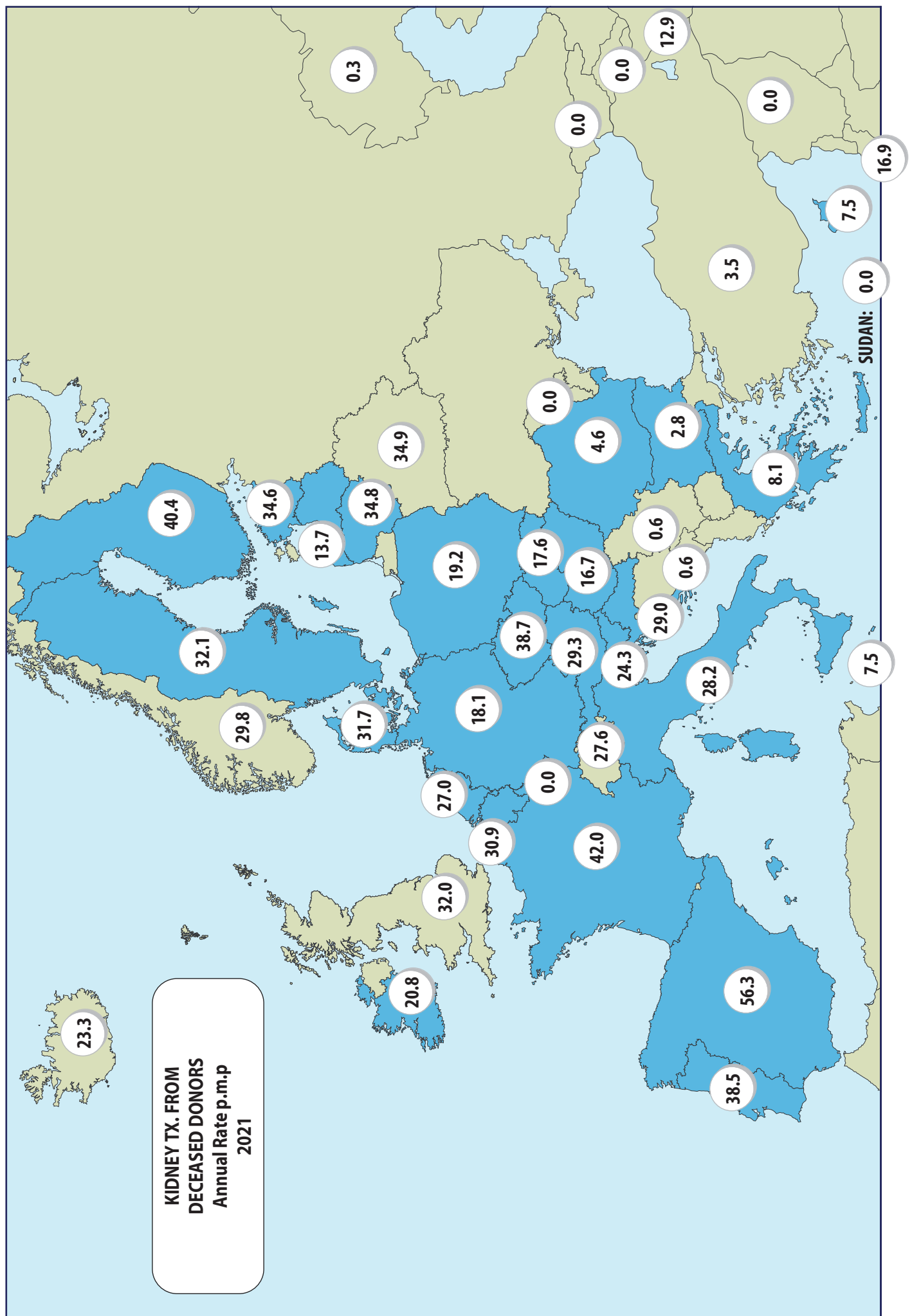
International Figures on Organ Donation and Transplantation Activity. Year 2021

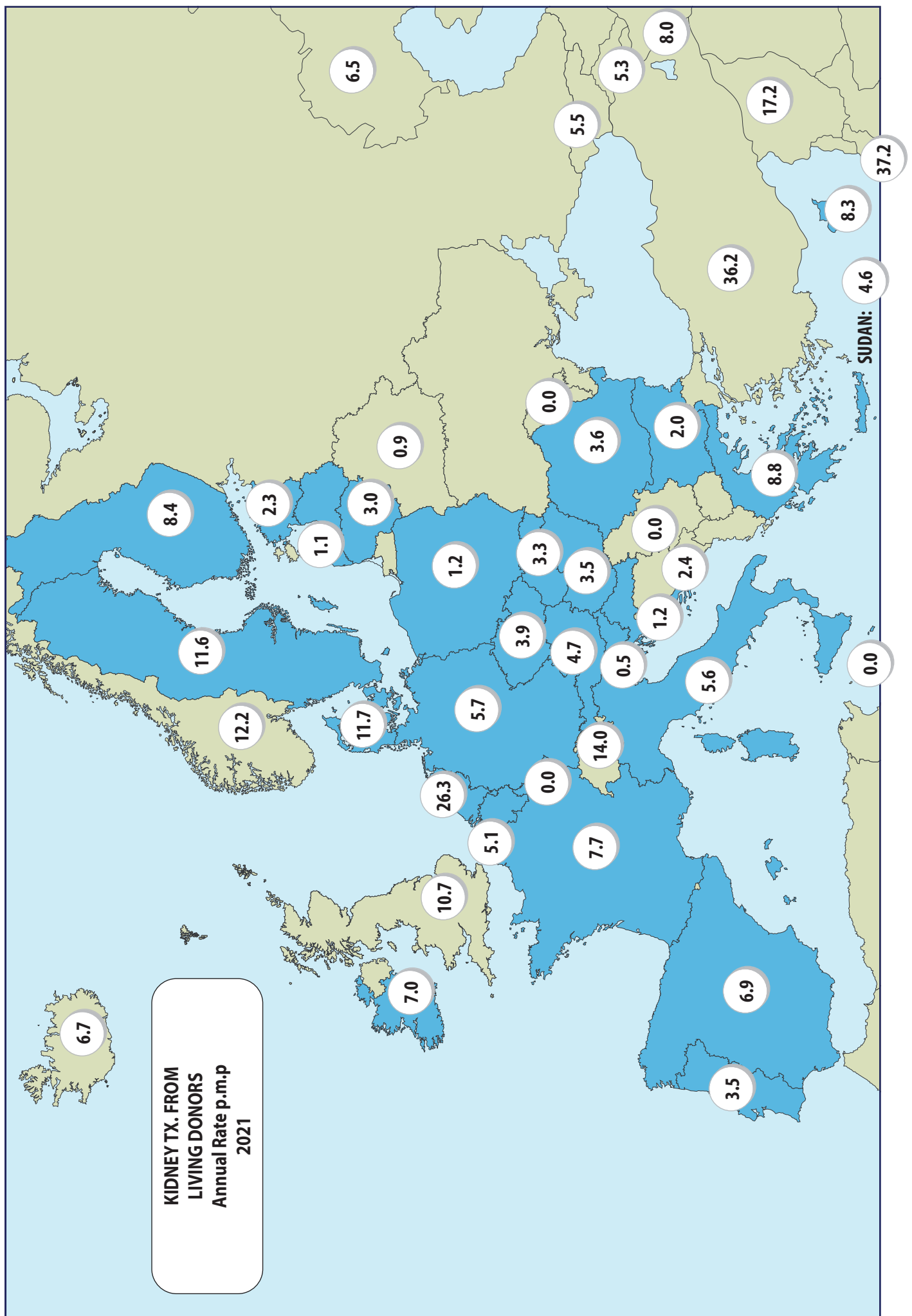


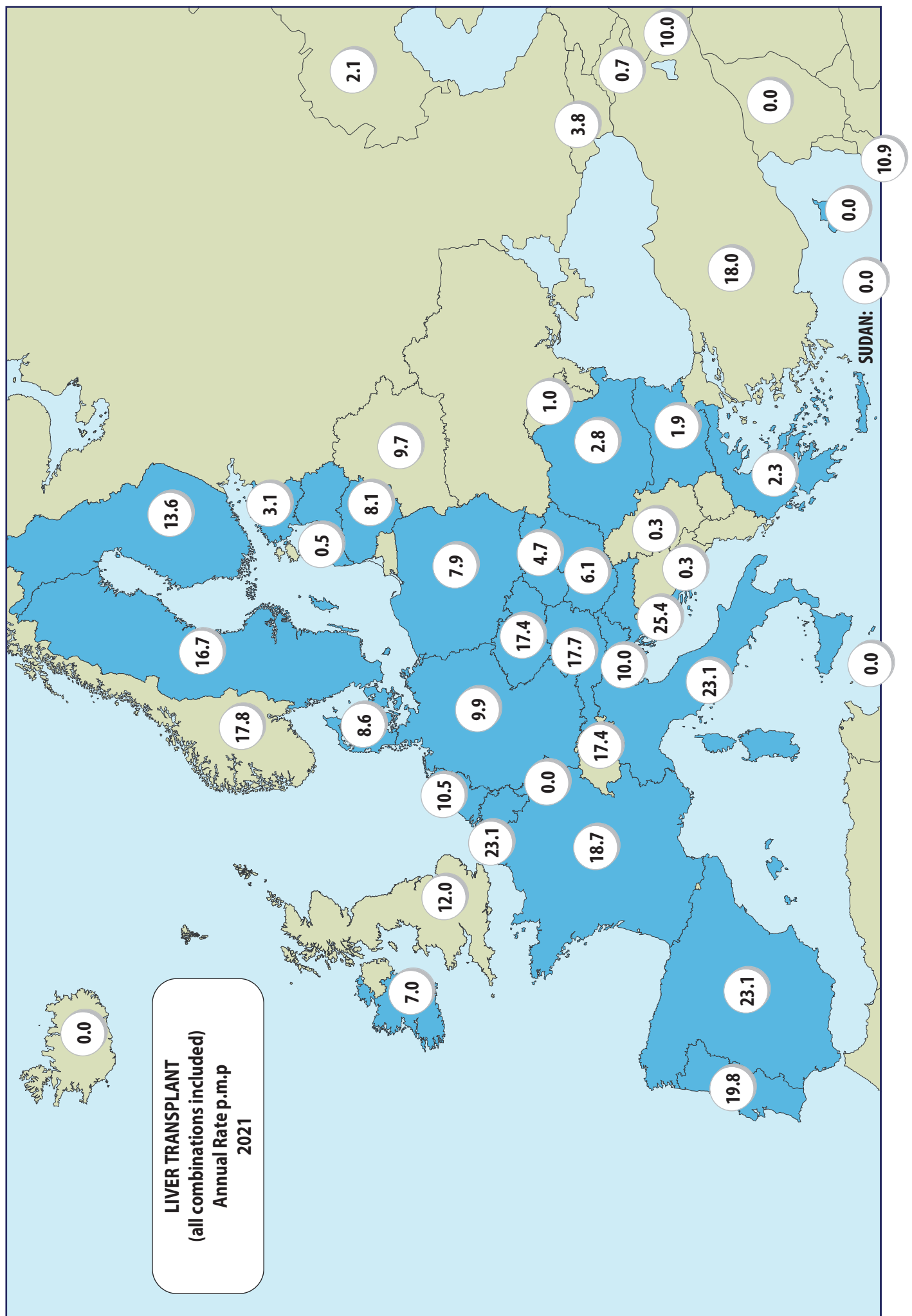


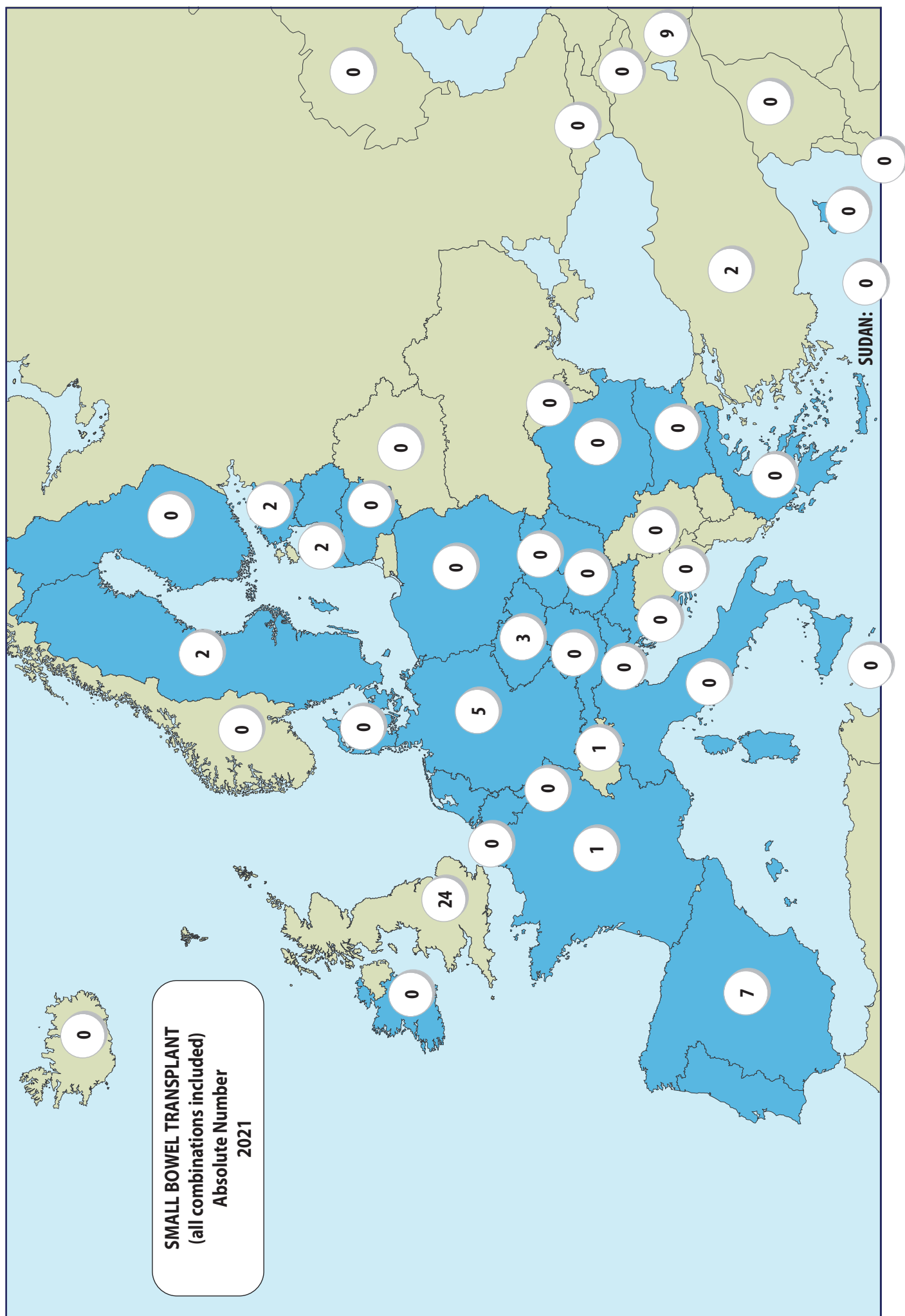


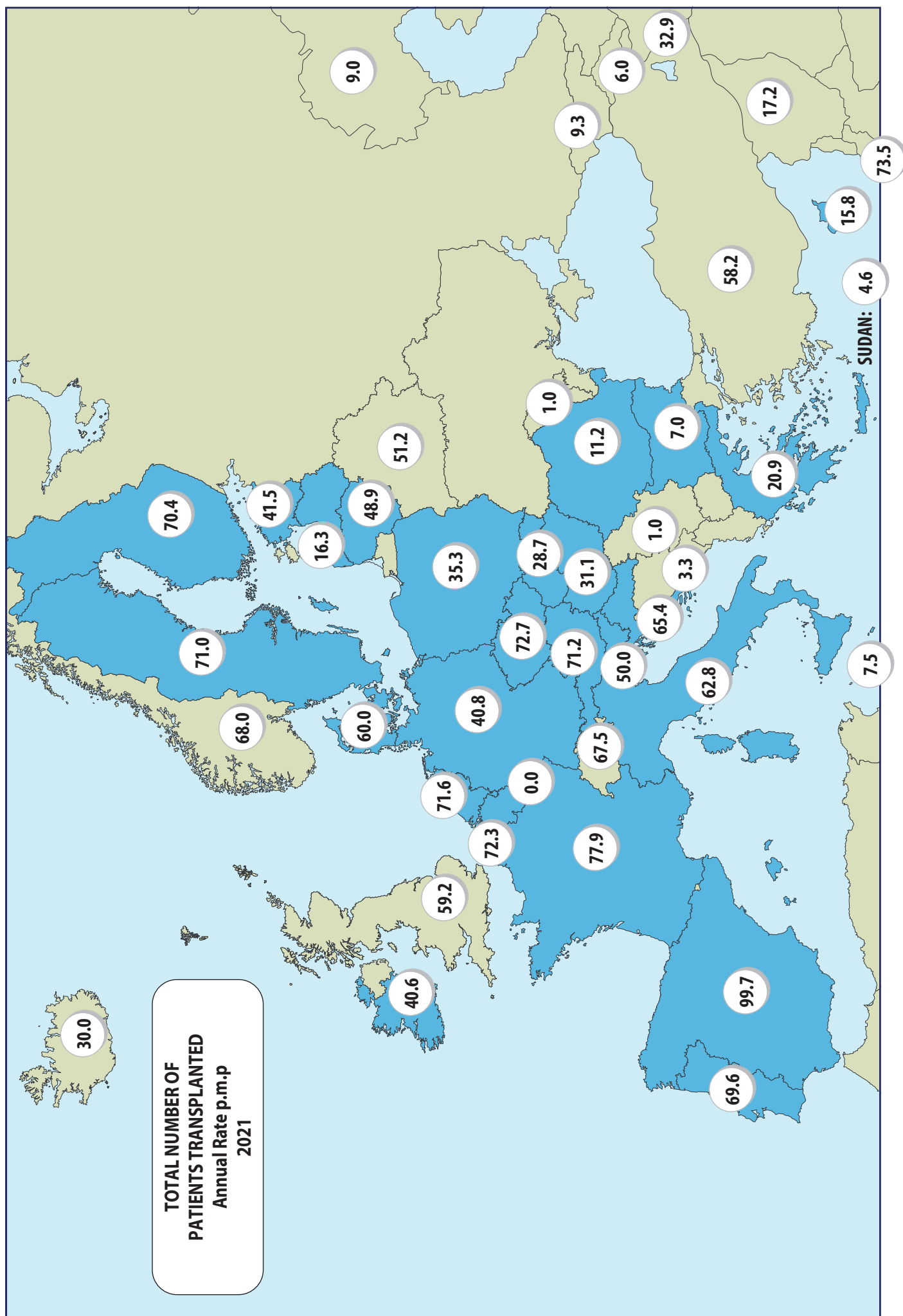




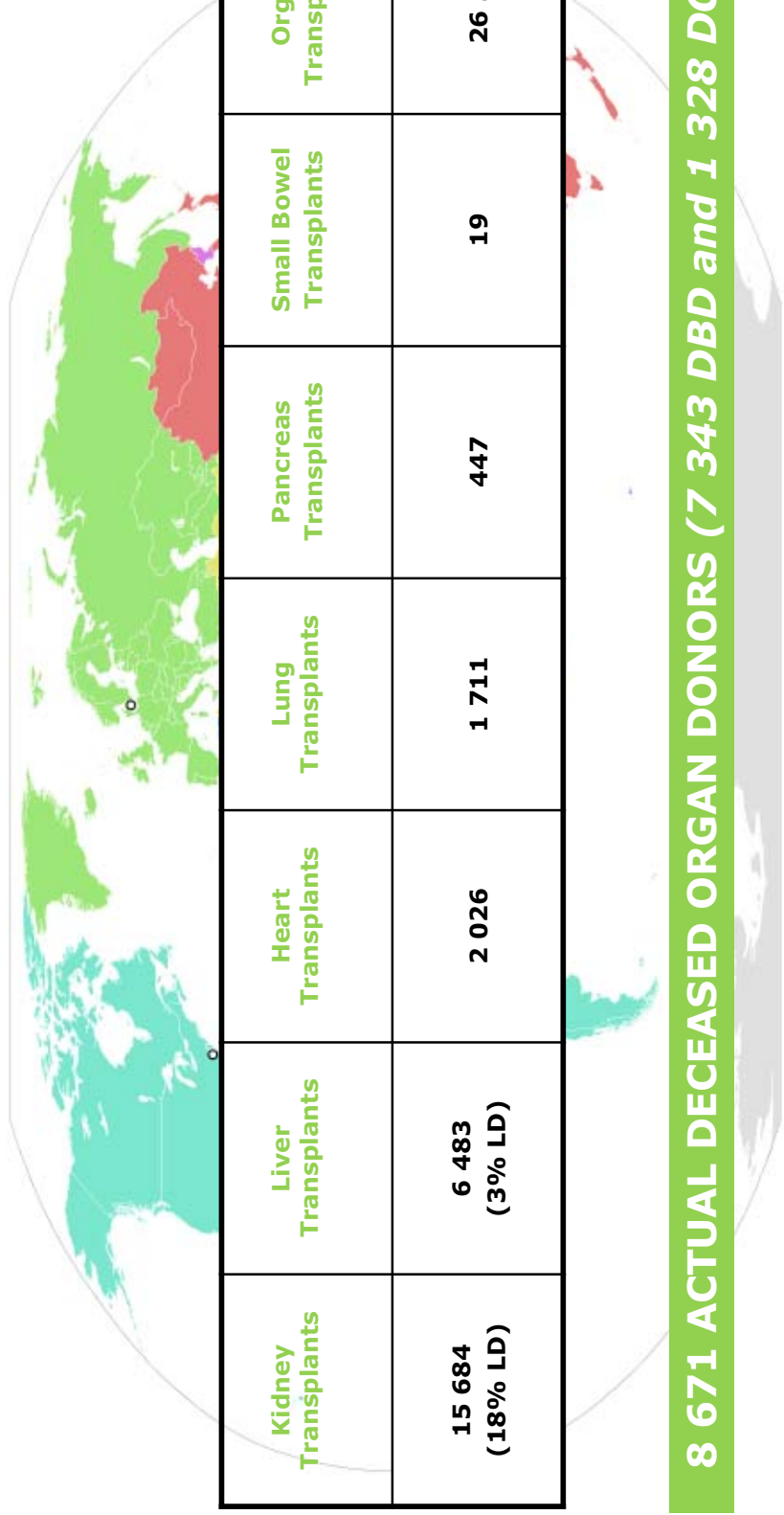








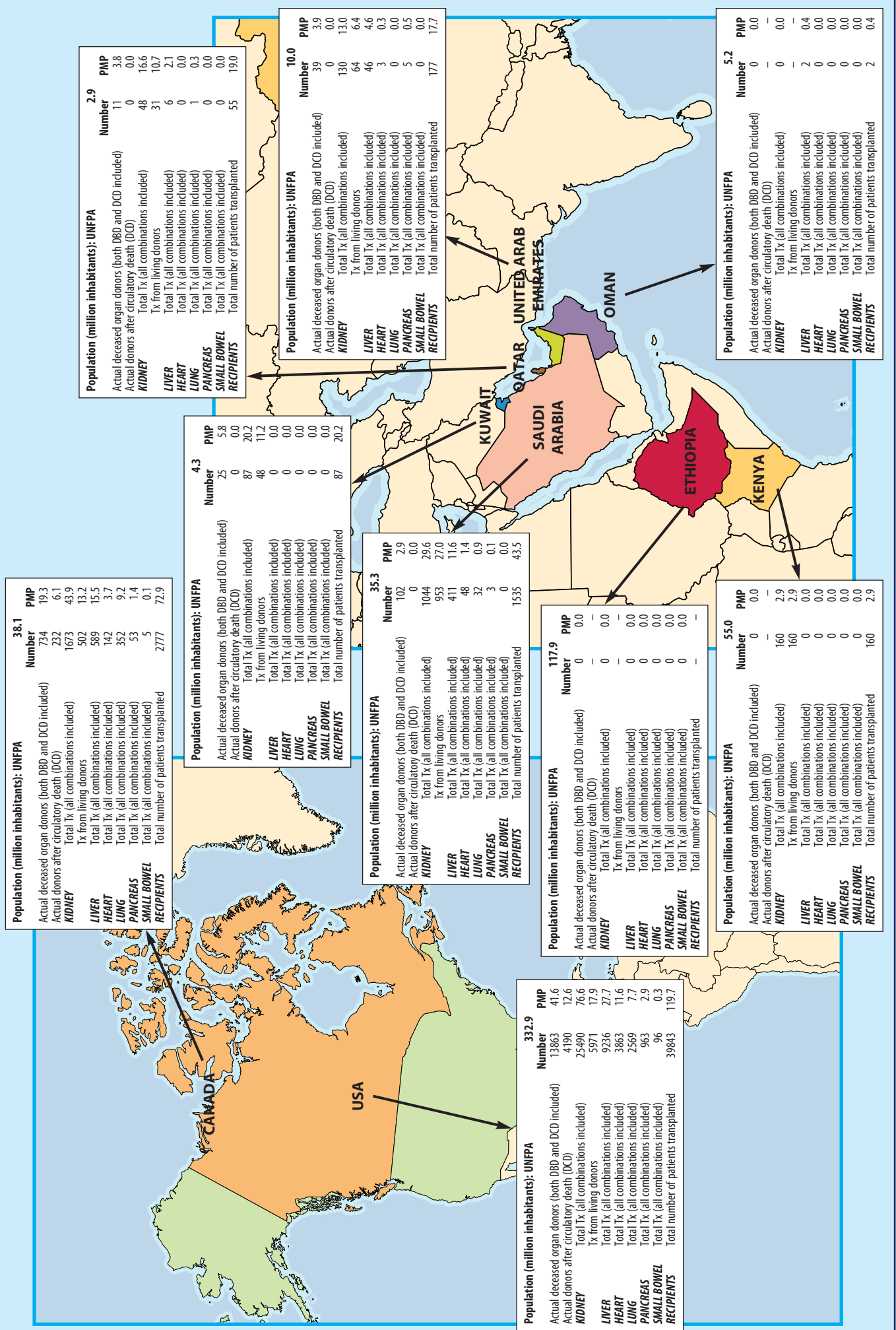
EUROPEAN UNION DATA

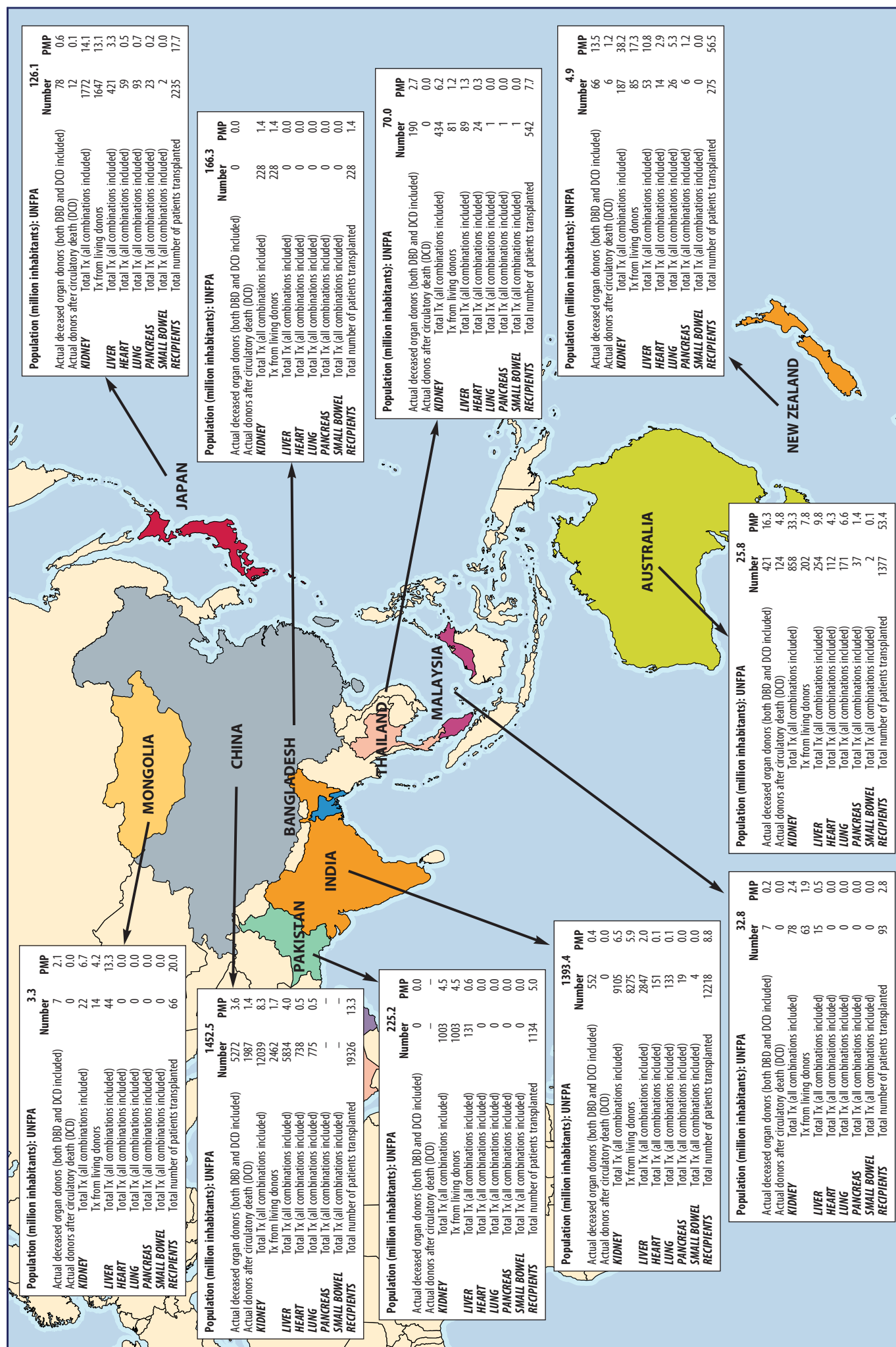


8 671 ACTUAL DECEASED ORGAN DONORS (7 343 DBD and 1 328 DCD)

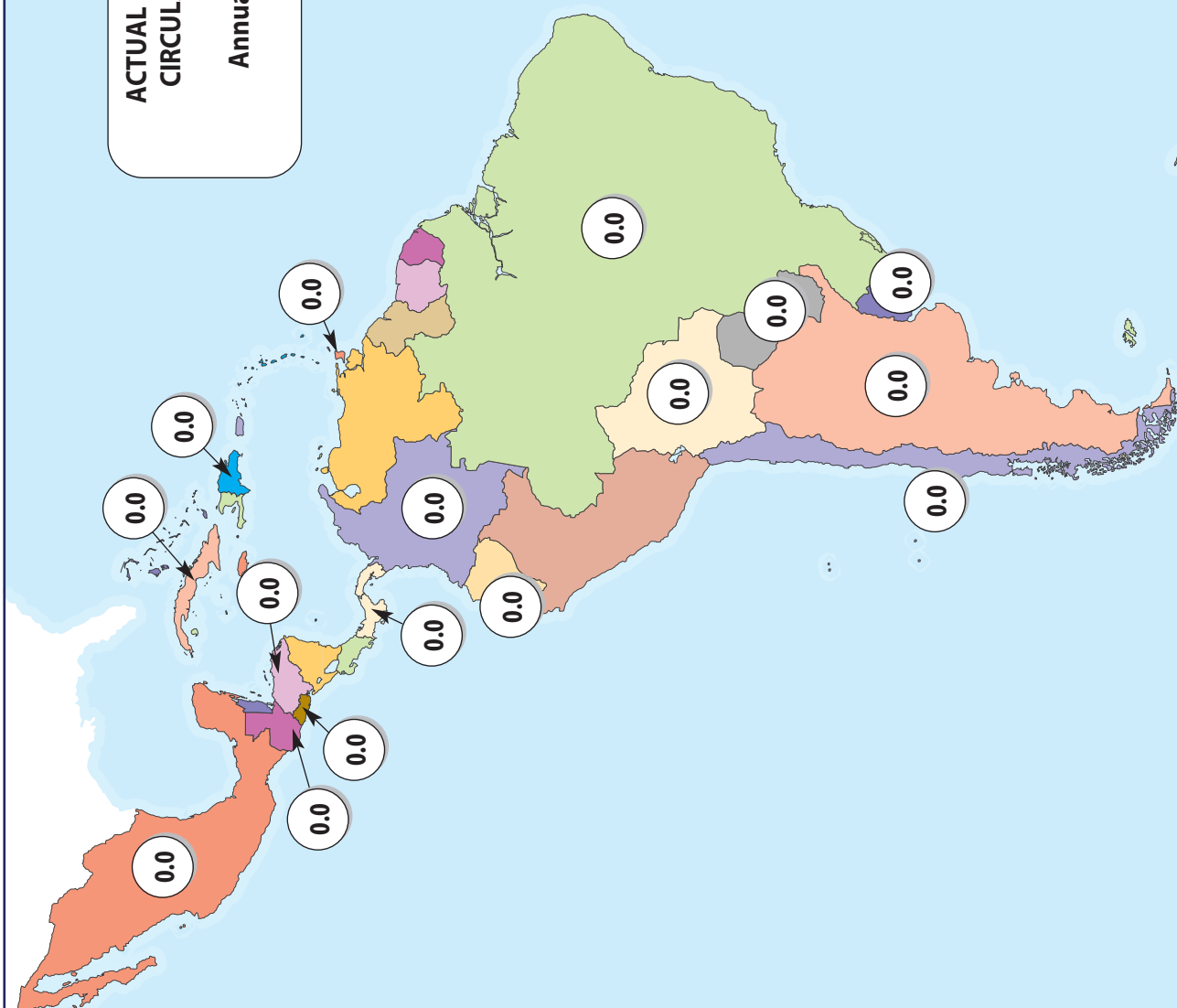
2021 data

N= 27 COUNTRIES (445.2 million inhabitants)

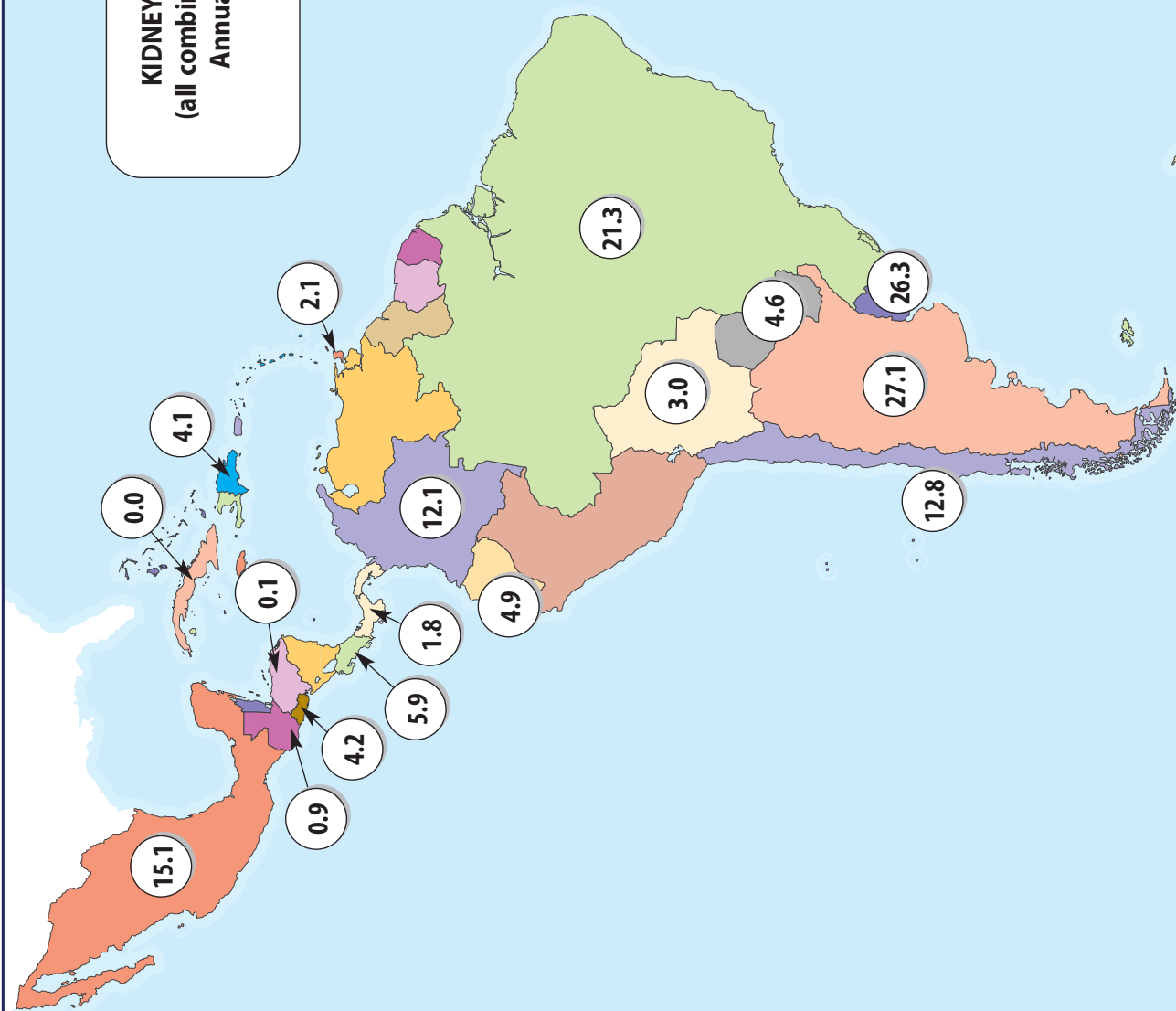




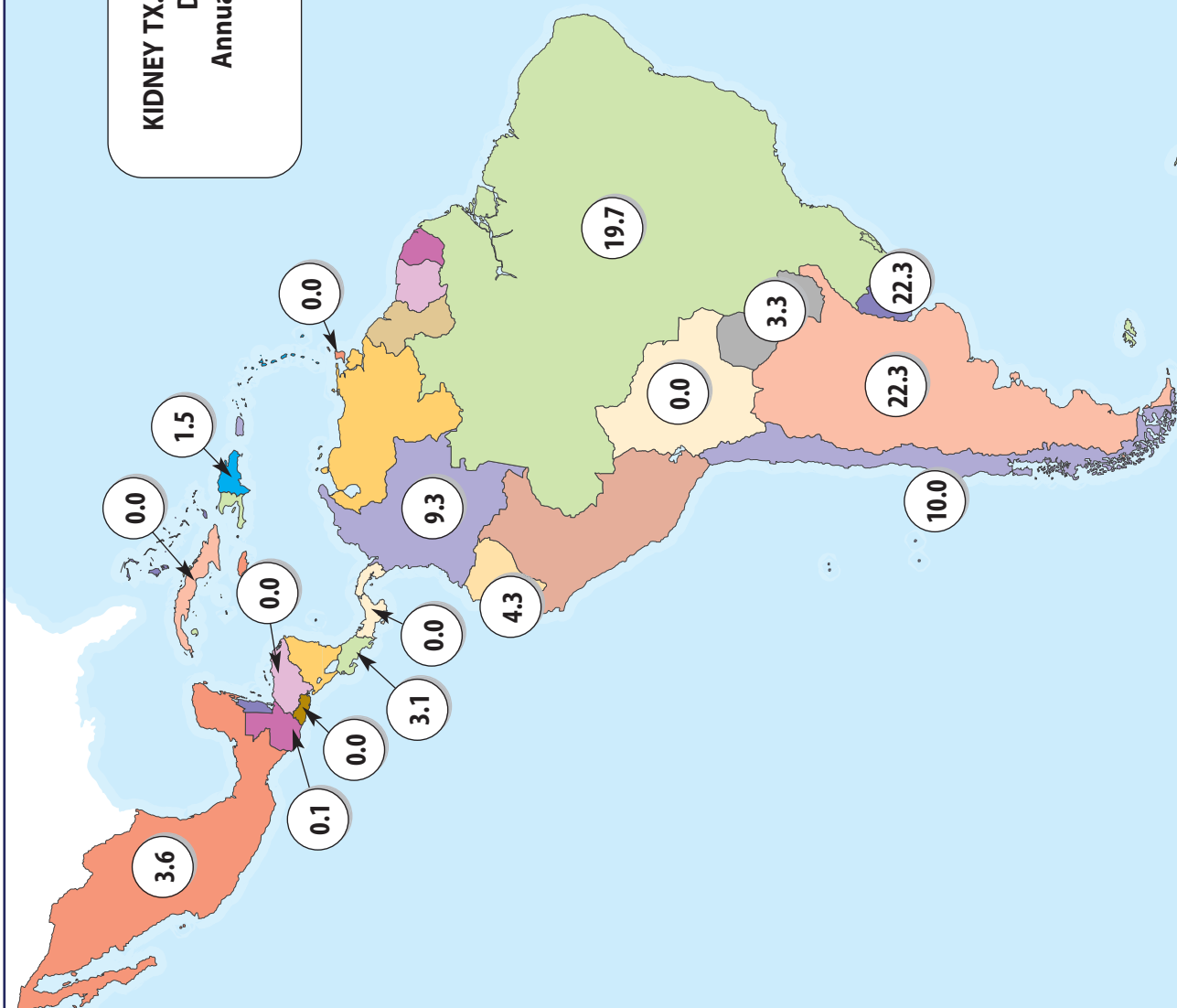
**ACTUAL DONORS AFTER
CIRCULATORY DEATH
(DCD)
Annual Rate p.m.p
2021**



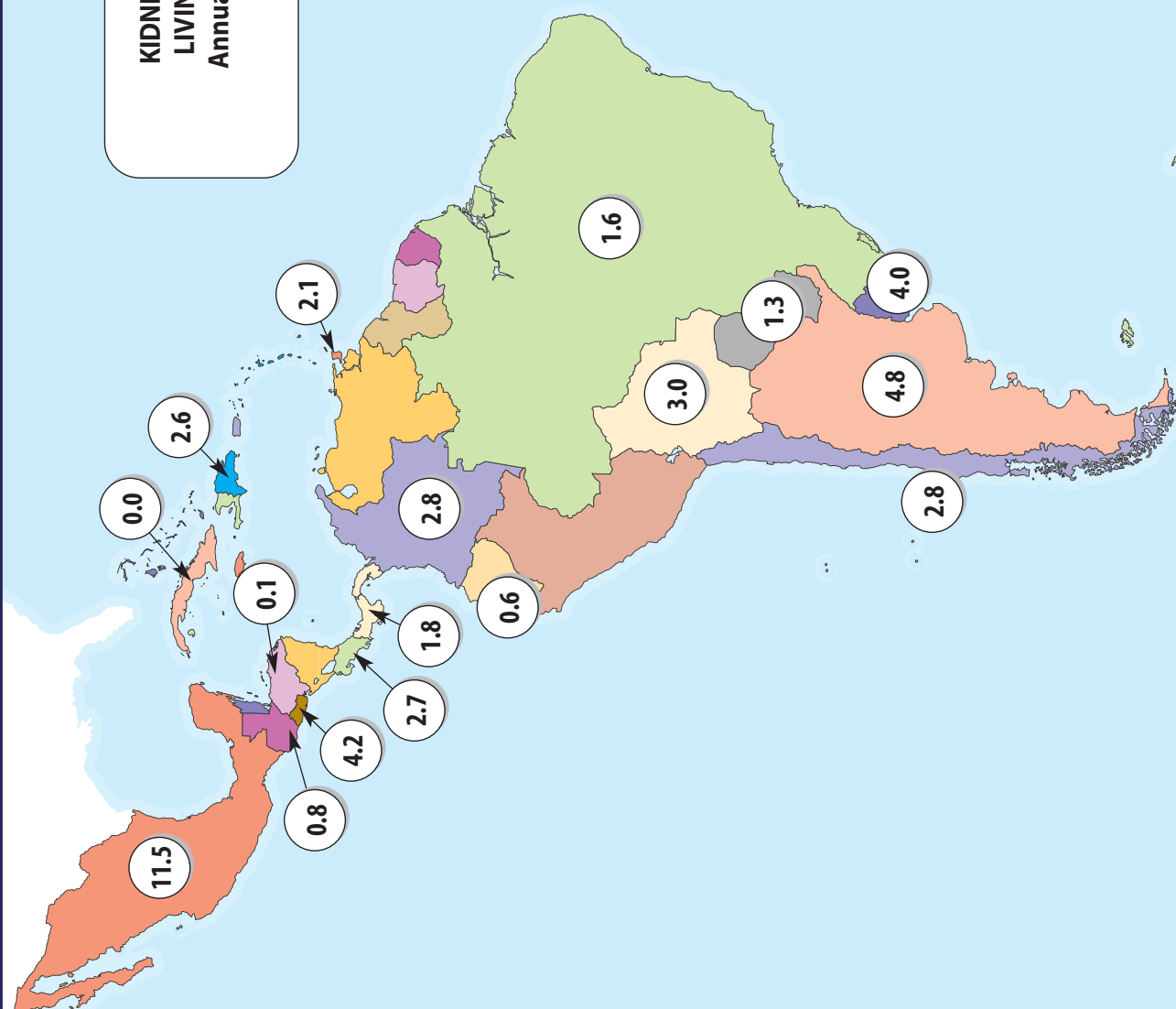
KIDNEY TRANSPLANT
(all combinations included)
Annual Rate p.m.p
2021



**KIDNEY TX. FROM DECEASED
DONORS
Annual Rate p.m.p
2021**

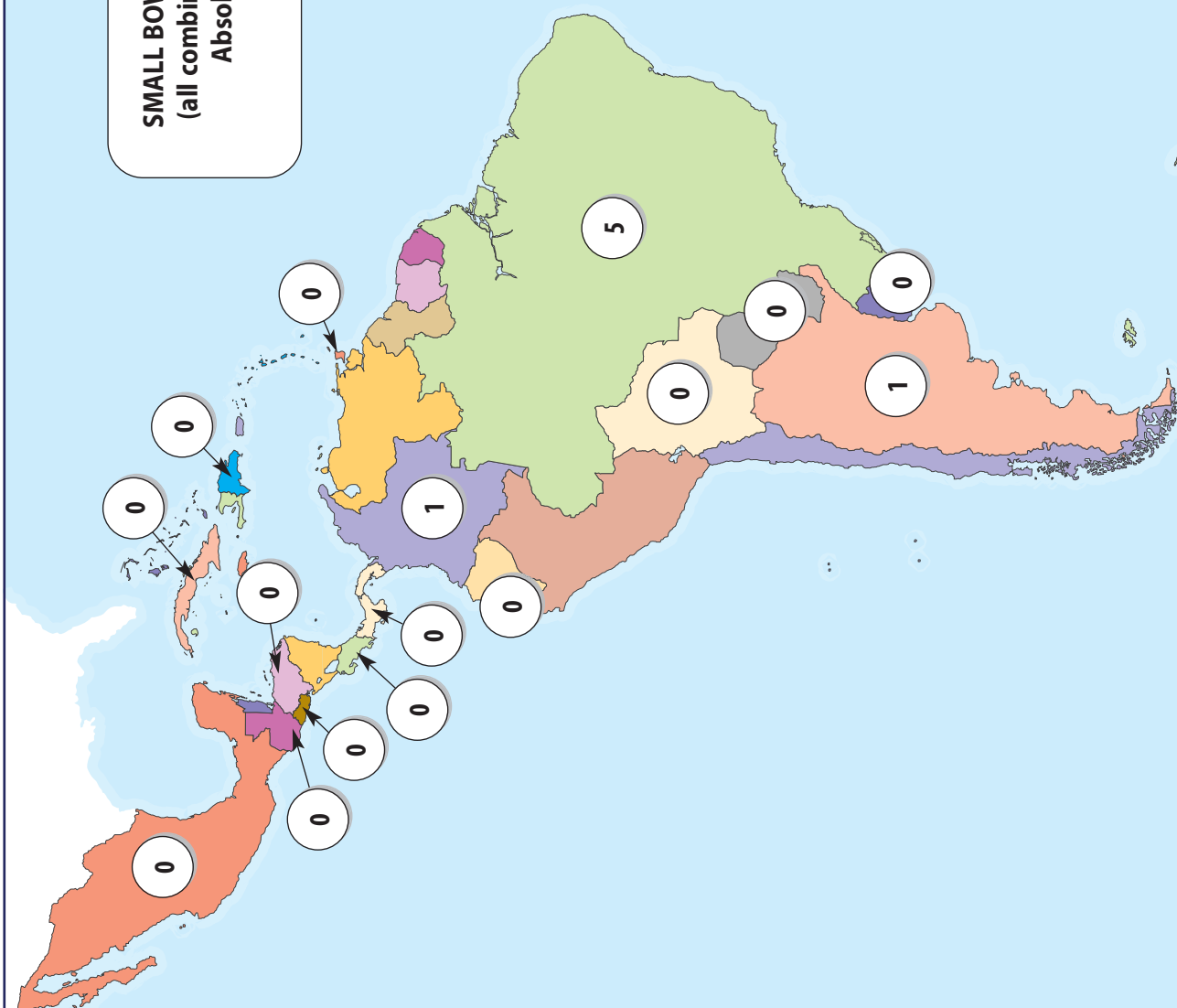


**KIDNEY TX. FROM
LIVING DONORS
Annual Rate p.m.p
2021**

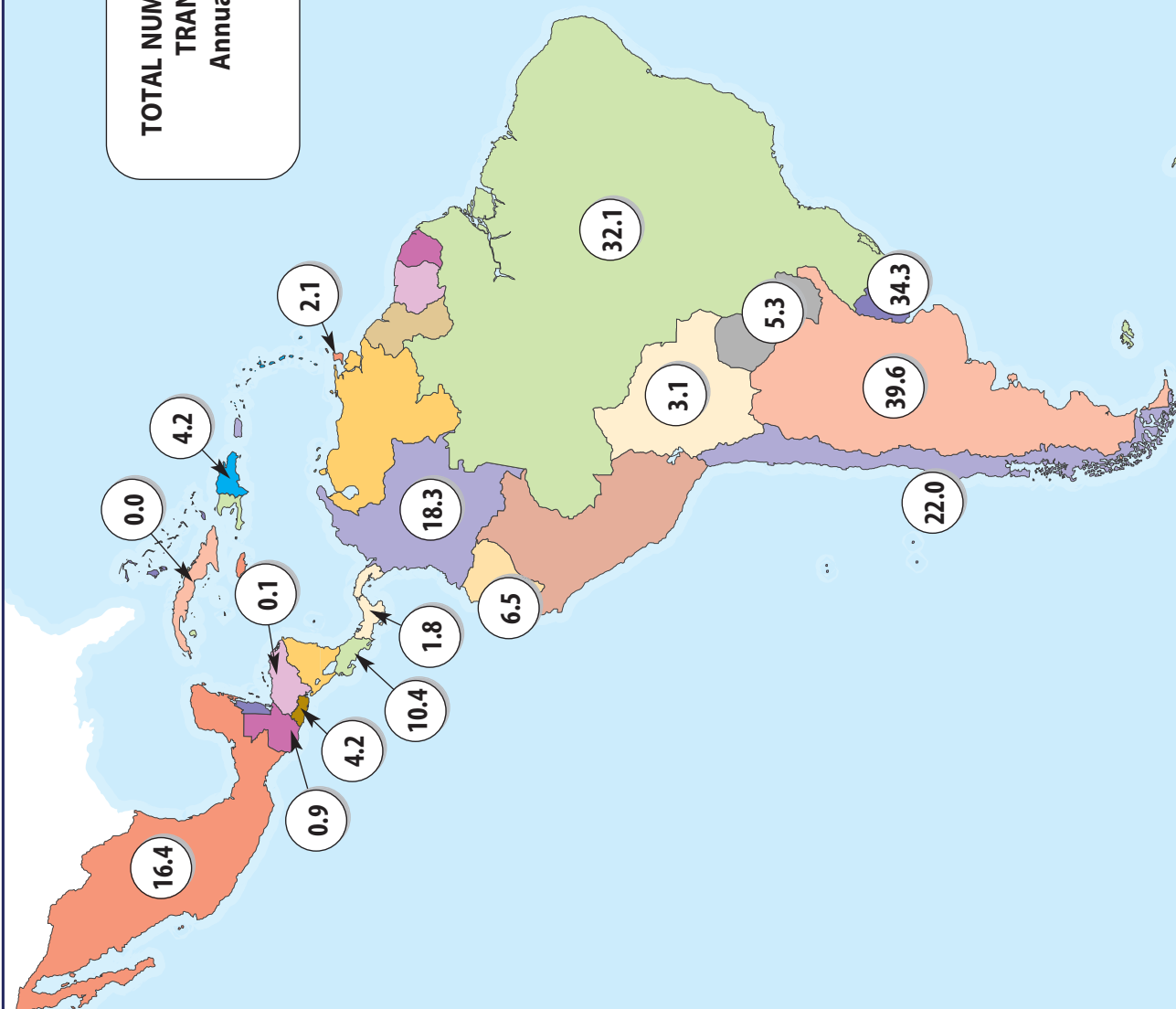




**SMALL BOWEL TRANSPLANT
(all combinations included)
Absolute Number
2021**



**TOTAL NUMBER OF PATIENTS
TRANSPLANTED
Annual Rate p.m.p
2021**



LATINAMERICAN COUNTRIES



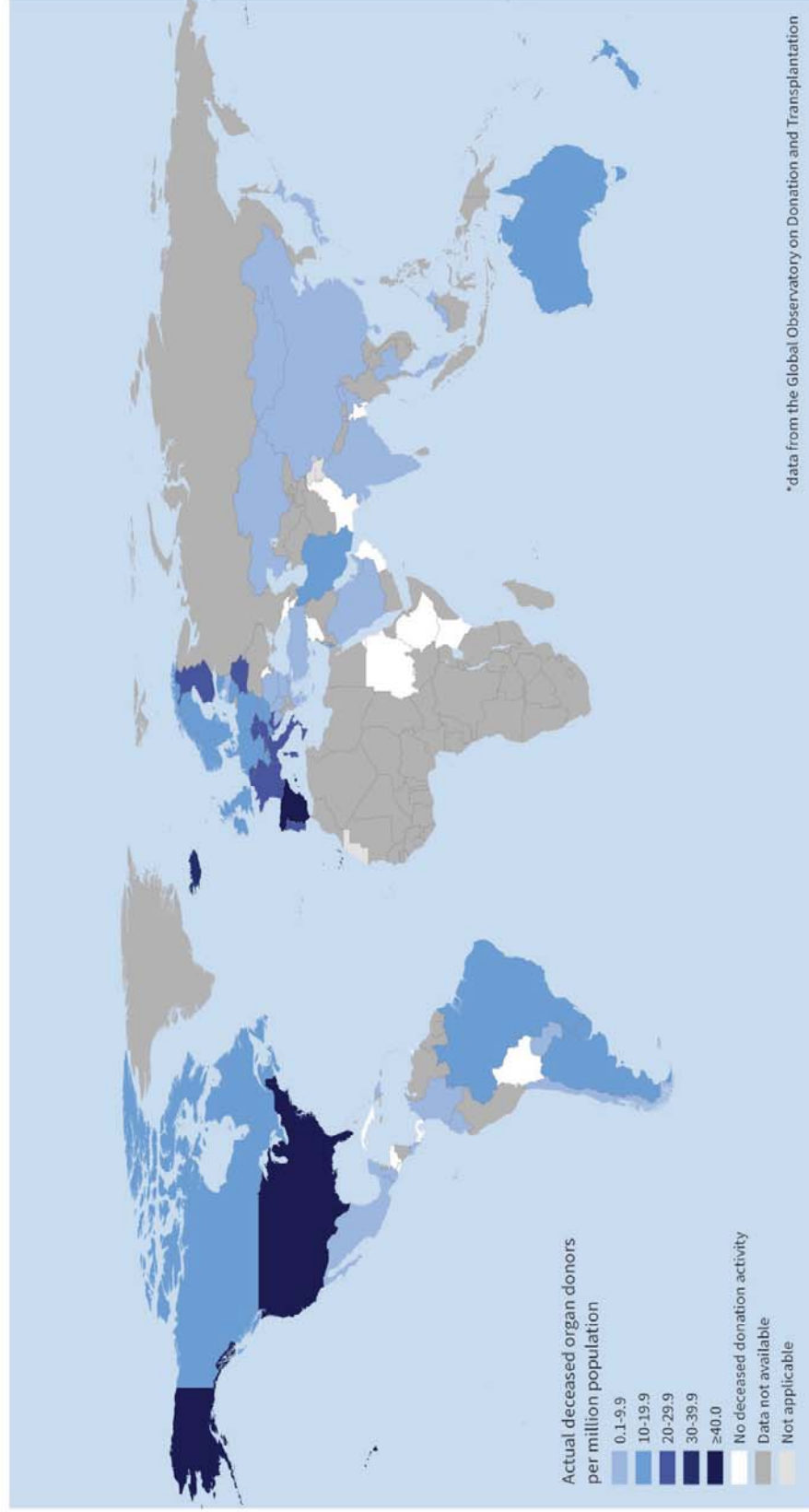
Kidney Transplants	Liver Transplants	Heart Transplants	Lung Transplants	Pancreas Transplants	Small Bowel Transplants	Organs Transplanted
9 014 (27% LD)	2 940 (7% LD)	587	174	217	7	12 939

4 390 ACTUAL DECEASED ORGAN DONORS (4 390 DBD and 0 DCD)

2021 data

N= 16 COUNTRIES (567.4 million inhabitants)

Actual donors from deceased persons, 2021*



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Data Source: Global Observatory on Donation and Transplantation

Map Production: WHO GIS Centre for Health, DTA/DDI

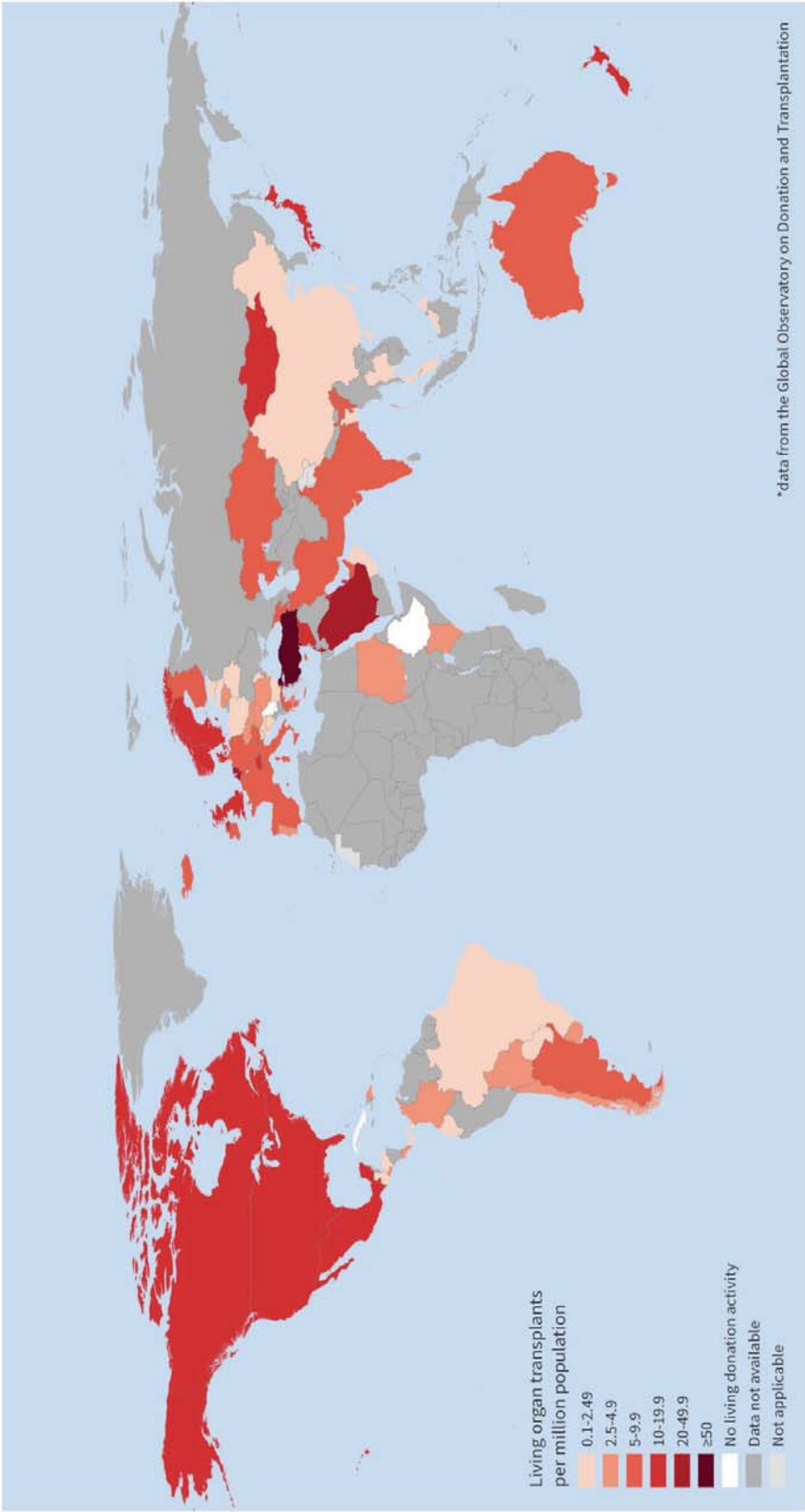
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MINISTERIO DE SANIDAD



Organ transplantation from living donors, 2021*



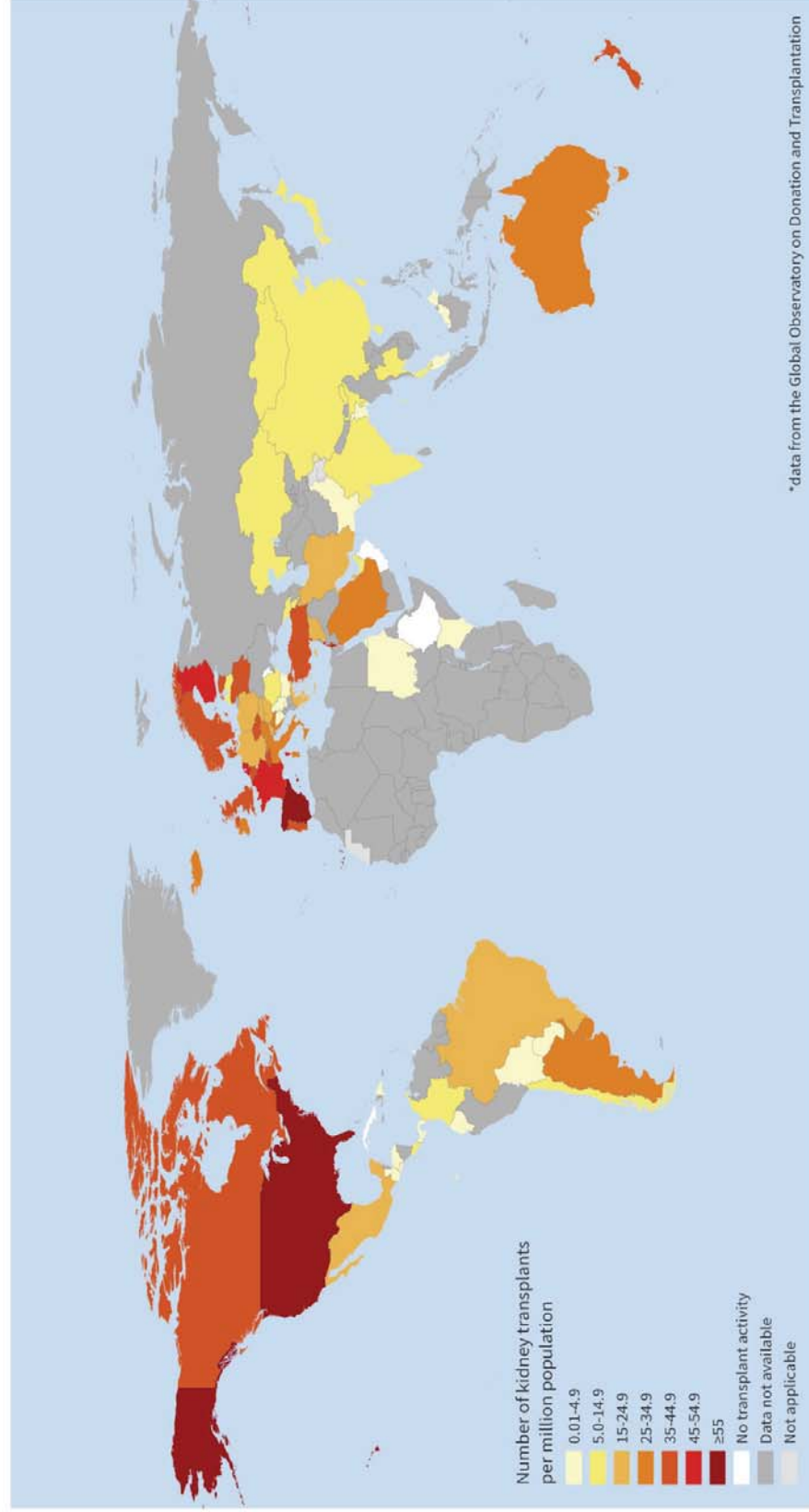
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Data Source: Global Observatory on Donation and Transplantation
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Kidney transplantation activities, 2021*



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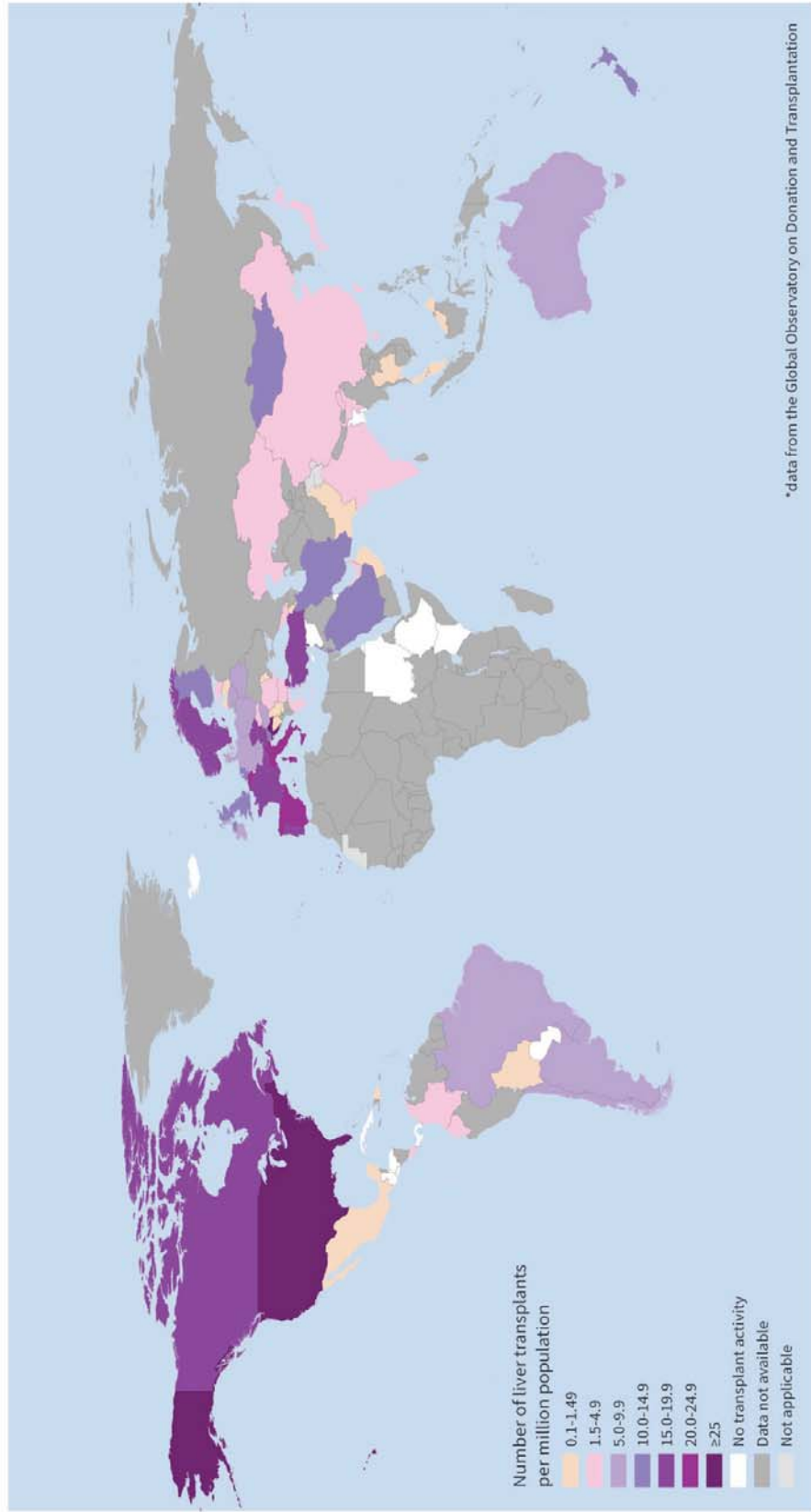
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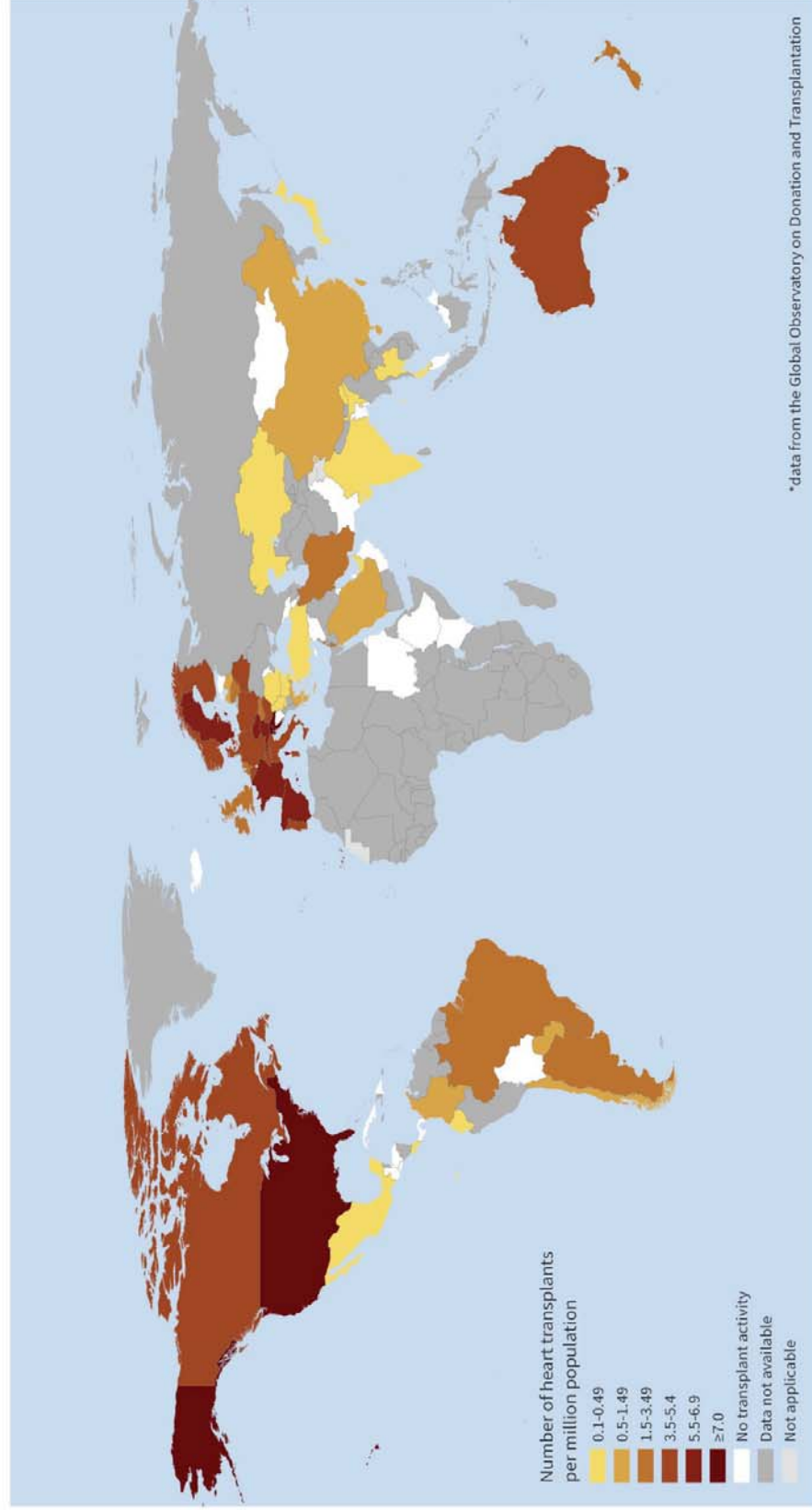
Liver transplantation activities, 2021*



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Data Source: Global Observatory on Donation and Transplantation
Map Production: WHO GIS Centre for Health, DNA/DDI
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Heart transplantation activities, 2021*



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Data Source: Global Observatory on Donation and Transplantation

Map Production: WHO GIS Centre for Health, DNA/DDI

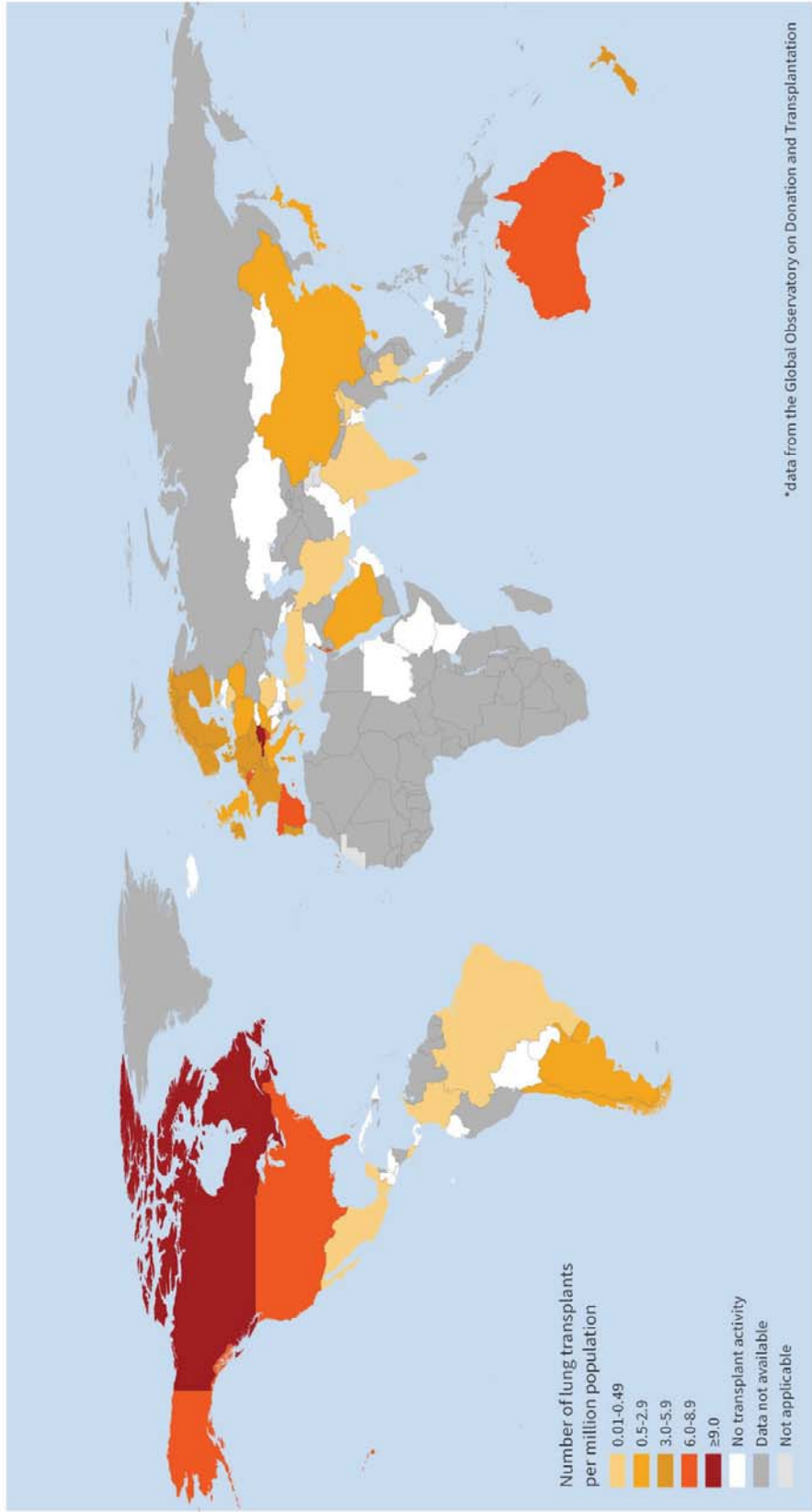
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GOBIERNO DE ESPAÑA

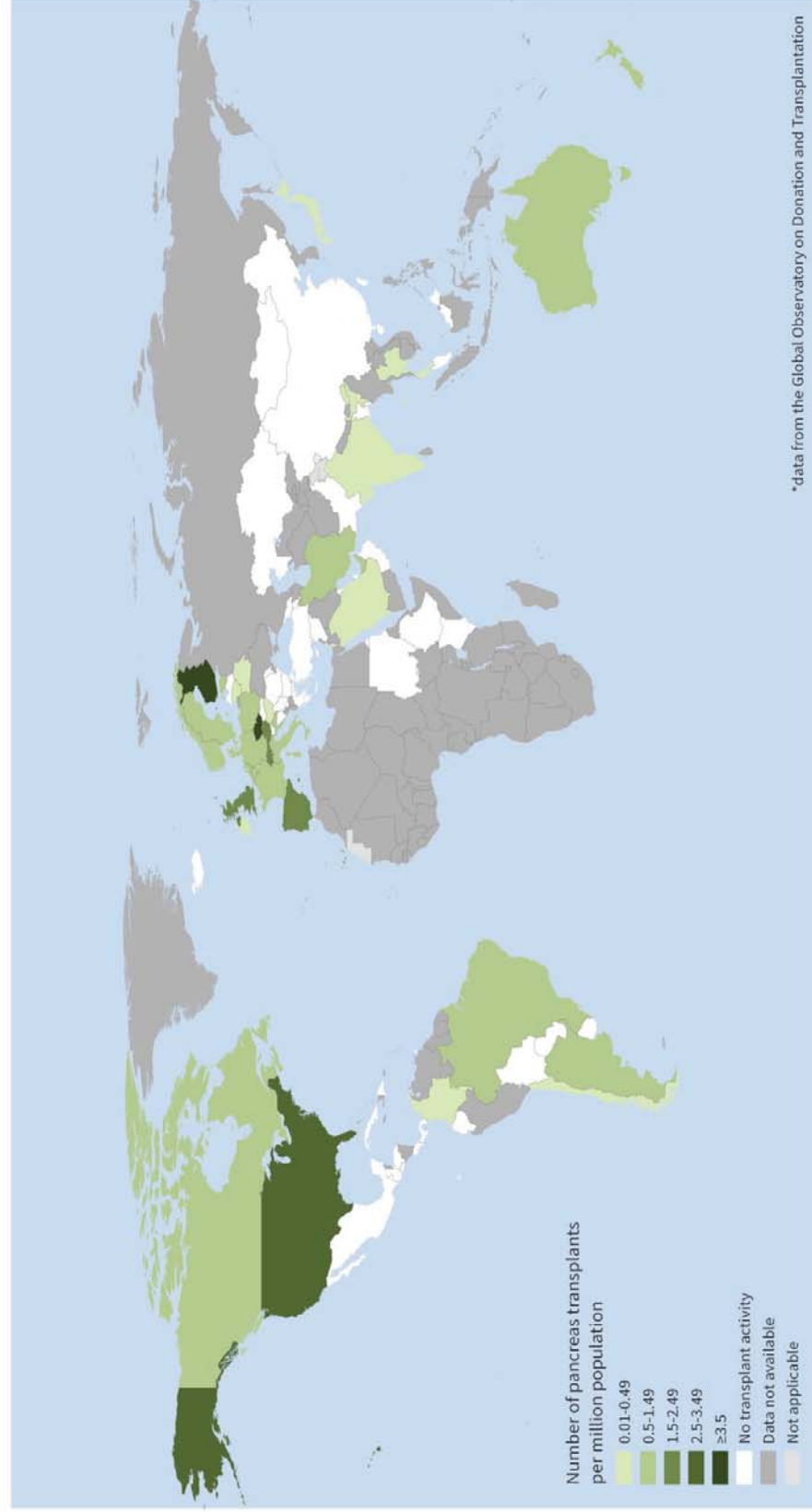


Lung transplantation activities, 2021*



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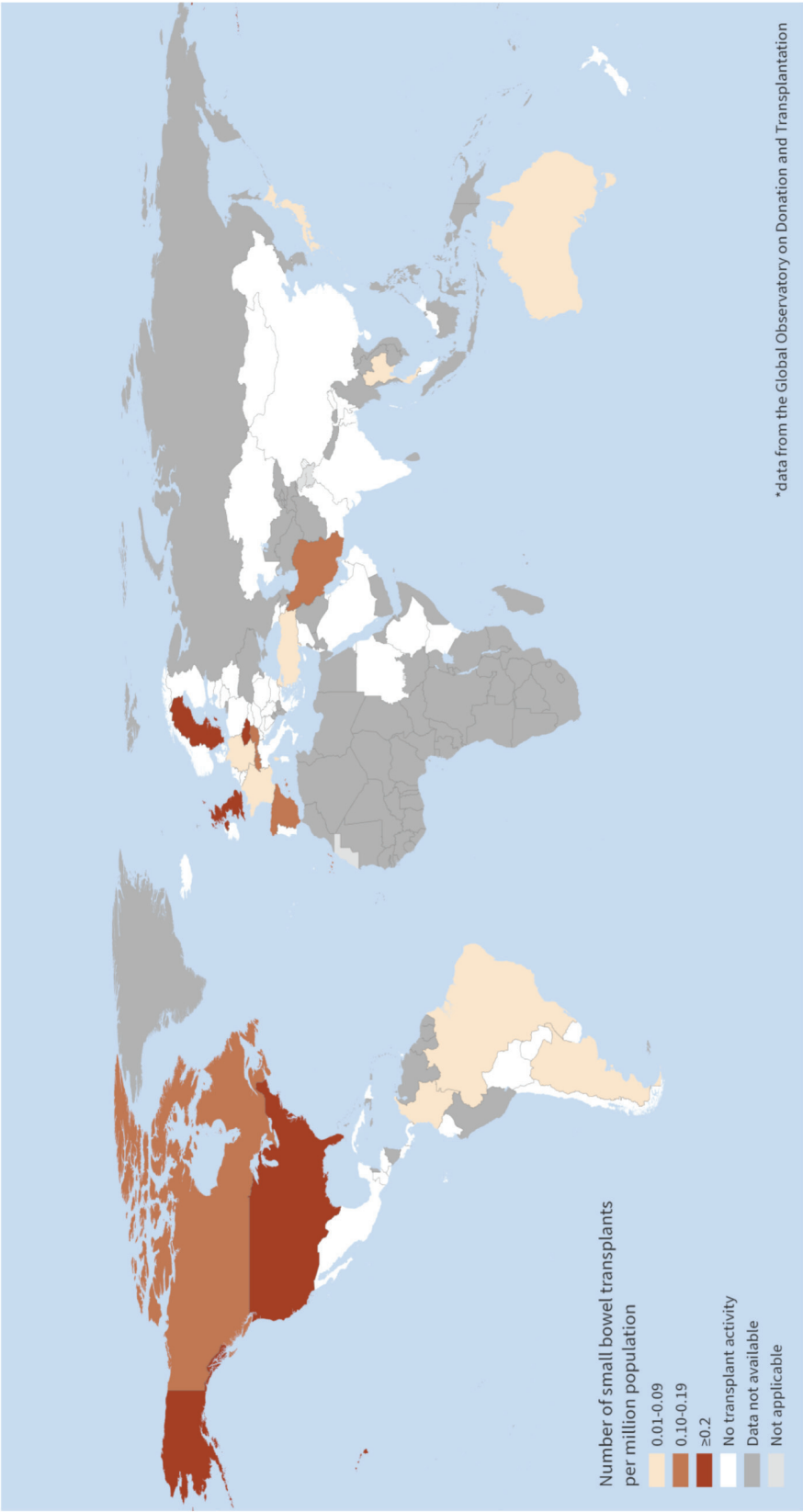
Pancreas transplantation activities, 2021*



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Data Source: Global Observatory on Donation and Transplantation
Map Production: WHO GIS Centre for Health, DANA/DDI
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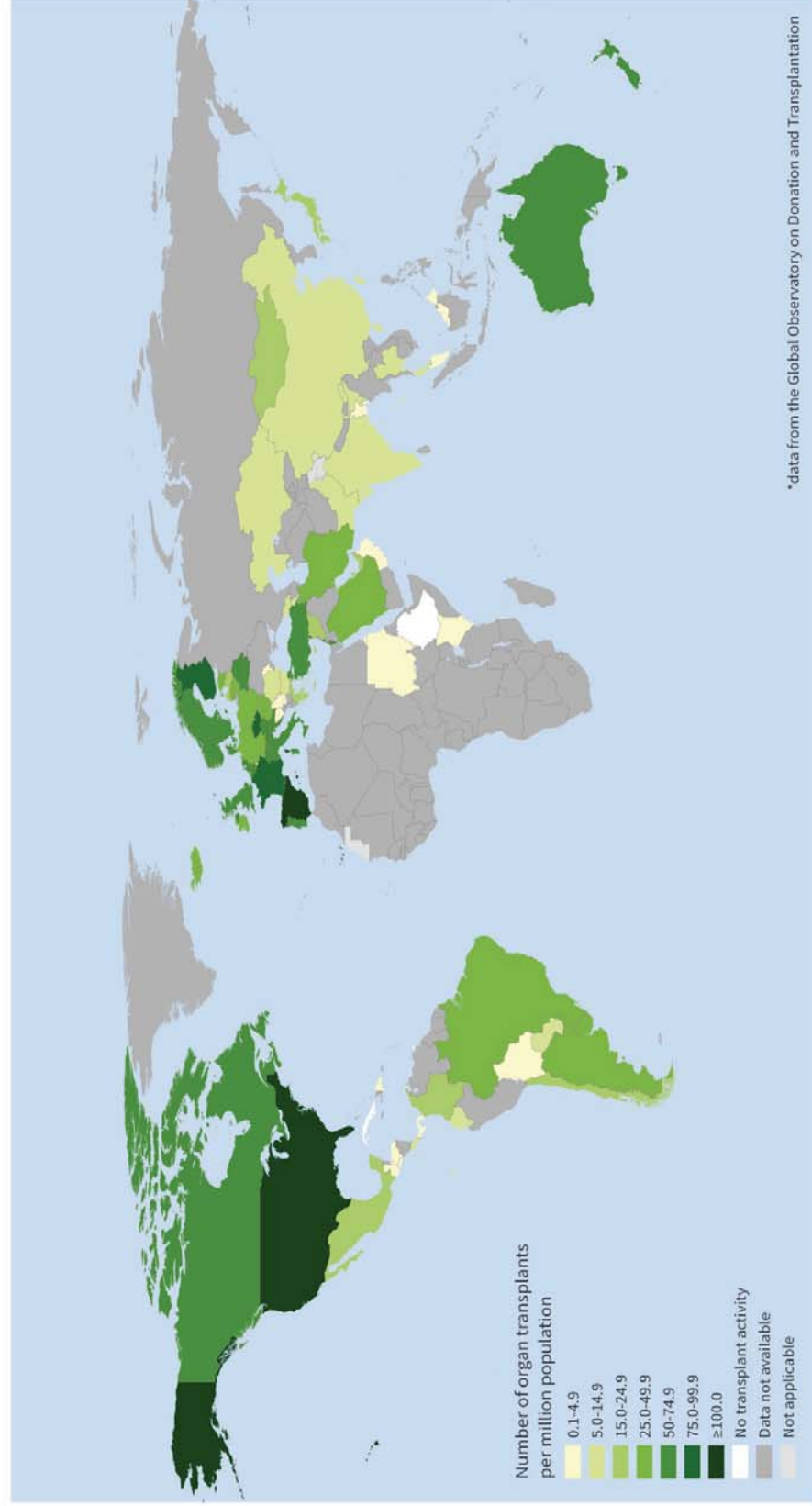
Small bowel transplantation activities, 2021*



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Data Source: Global Observatory on Donation and Transplantation
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Global transplantation activities of solid organs, 2021*



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Data Source: Global Observatory on Donation and Transplantation
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Map Creation Date: **14 September 2022**

International Data on Organ Donation and Transplantation Activity and Waiting List. Year 2021



DONATION ACTIVITY

EUROPEAN UNION COUNTRIES

[illegible]

DONATION ACTIVITY

EUROPEAN UNION COUNTRIES

COUNTRIES	France	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Population (million inhabitants): UNFPA	65.4	83.9	10.4	9.6	5.0	60.4	1.9	2.7	0.6
DONATION									
Actual deceased organ donors	Number	Number	Number	Number	Number	Number	Number	Number	Number
Actual deceased organ donors (both DBD and DCD included)	1614	933	52	102	65	1458	17	51	2
Actual deceased donors (men)	968	510	28	57	41	785	11	32	1
Actual deceased donors (> 60 years)	805	396	19	23	18	836	3	16	2
Actual donors after circulatory death (DCD)	222	0	0	0	8	93	0	4	0
II/ Witnessed cardiac arrest (uncontrolled)	5	0	0	0	0	17	0	4	0
III/ Withdrawal of life-sustaining therapy (controlled)	217	0	0	0	8	76	0	0	0
IV/ Cardiac arrest while brain dead	0	0	0	0	0	0	0	0	0
Utilised deceased organ donors									
Utilised deceased organ donors (both DBD and DCD included)	1589	900	45	101	62	1387	16	51	2
Utilised deceased donors (men)	948	486	24	56	39	746	10	32	1
Utilised deceased donors (> 60 years)	788	375	16	23	17	781	3	16	2
Utilised donors after circulatory death (DCD)	216	0	0	0	8	80	0	4	0
II/ Witnessed cardiac arrest (uncontrolled)	5	0	0	0	0	12	0	4	0
III/ Withdrawal of life-sustaining therapy (controlled)	211	0	0	0	8	68	0	0	0
IV/ Cardiac arrest while brain dead	0	0	0	0	0	0	0	0	0
Living organ donors									
Total living kidney donors	502	475	91	34	35	341	2	8	0
Living kidney donors (men)	174	317	60	22	16	115	1	4	0
Total living liver donors	21	54	0	0	0	36	0	0	0
Living liver donors (men)	12	31	0	0	0	18	0	0	0
Total domino liver donors	1	0	0	0	0	1	0	0	0
Domino liver donors (men)	1	0	0	0	0	1	0	0	0
Total living lung donors	0	0	0	0	0	0	0	0	0
Living lung donors (men)	0	0	0	0	0	0	0	0	0

DONATION ACTIVITY

EUROPEAN UNION COUNTRIES

COUNTRIES	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden									
Population (million inhabitants): UNFPA	0.4	17.2	37.8	10.2	19.1	5.5	2.1	46.7	10.2									
DONATION																		
Actual deceased organ donors Actual deceased organ donors (both DBD and DCD included) Actual deceased donors (men) Actual deceased donors (> 60 years) Actual donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP								
	3	7.5	273	15.9	396	10.5	302	29.6	47	2.5	60	10.9	41	19.5	1905	40.8	197	19.3
	3	7.5	151	8.8	252	6.7	185	18.1	23	1.2	41	7.5	31	14.8	1134	24.3	110	10.8
	1	2.5	117	6.8	76	2.0	139	13.6	11	0.6	10	1.8	19	9.0	1021	21.9	98	9.6
	0	0.0	174	10.1	0	0.0	17	1.7	0	0.0	0	0.0	0	0.0	662	14.2	27	2.6
			0	0.0			17	1.7			6	0.1			6	0.1	0	0.0
Utilised deceased organ donors Utilised deceased organ donors (both DBD and DCD included) Utilised deceased donors (men) Utilised deceased donors (> 60 years) Utilised donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
	3	7.5	271	15.8	386	10.2	288	28.2	47	2.5	55	10.0	39	18.6	1690	36.2	192	18.8
	3	7.5	150	8.7	140	3.7	173	17.0	23	1.2	37	6.7	30	14.3	994	21.3	108	10.6
	1	2.5	116	6.7	72	1.9	130	12.7	11	0.6	9	1.6	18	8.6	868	18.6	95	9.3
	0	0.0	172	10.0	0	0.0	14	1.4	0	0.0	0	0.0	0	0.0	582	12.5	27	2.6
			0	0.0			14	1.4			4	0.1			4	0.1	0	0.0
Living organ donors Total living kidney donors Living kidney donors (men) Total living liver donors Living liver donors (men) Total domino liver donors Domino liver donors (men) Total living lung donors Living lung donors (men)	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
	0	0.0	452	26.3	44	1.2	36	3.5	68	3.6	18	3.3	1	0.5	323	6.9	118	11.6
					17	0.4	22	2.2	42	2.2	7	1.3	1	0.5	126	2.7	60	5.9
	0	0.0	28	1.6	20	0.5	0	0.0	11	0.6	0	0.0	0	0.0	1	0.0	1	0.1
					6	0.2			5	0.3					1	0.0	0	0.0
	0	0.0	1	0.1	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
						1	0.1							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

DONATION ACTIVITY												
OTHER COUNTRIES												
COUNTRIES	Armenia	Australia	Bangladesh	Belarus	Bosnia and Herzegovina	Canada	China	Ethiopia	Georgia	Iceland	India	Iran
Population (million inhabitants): UNFPA	3.0	25.8	166.3	9.4	3.3	38.1	1452.5	117.9	4.0	0.3	1393.4	85.0
DONATION												
Actual deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	0	0.0	421	16.3	0	0.0	218	23.2	1	0.3	734	19.3
Actual deceased donors (men)			225	8.7			130	13.8	0	0.0	4184	2.9
Actual deceased donors (> 60 years)			104	4.0			27	2.9	0	0.0	762	0.5
Actual donors after circulatory death (DCD)			124	4.8			0	0.0	0	0.0	1987	1.4
II/ Witnessed cardiac arrest (uncontrolled)												
III/ Withdrawal of life-sustaining therapy (controlled)												
IV/ Cardiac arrest while brain dead							647	0.4				
Utilised deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Utilised deceased organ donors (both DBD and DCD included)	0	0.0	402	15.6	0	0.0	211	22.4	1	0.3	734	19.3
Utilised deceased donors (men)			213	8.3			124	13.2	0	0.0	4163	2.9
Utilised deceased donors (> 60 years)			96	3.7			26	2.8	0	0.0	755	0.5
Utilised donors after circulatory death (DCD)			112	4.3			0	0.0	0	0.0	1975	1.4
II/ Witnessed cardiac arrest (uncontrolled)												
III/ Withdrawal of life-sustaining therapy (controlled)												
IV/ Cardiac arrest while brain dead							643	0.4				
Living organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total living kidney donors	16	5.3	202	7.8	228	1.4	8	0.9	8	2.4	502	13.2
Living kidney donors (men)	9	3.0	86	3.3	47	0.3	5	0.5	0	0.0	746	0.5
Total living liver donors	2	0.7	1	0.0	0	0.0	4	0.4	0	0.0	93	2.4
Living liver donors (men)	1	0.3	1	0.0			3	0.3			379	0.3
Total domino liver donors	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	0.0
Domino liver donors (men)											7	0.0
Total living lung donors	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

OTHER COUNTRIES

COUNTRIES	Israel	Japan	Kazakhstan	Kenya	Kuwait	Malaysia	Mongolia	New Zealand	Norway	Oman	Pakistan	Qatar
Population (million inhabitants): UNFPA	8.8	126.1	19.0	55.0	4.3	32.8	3.3	4.9	5.5	5.2	225.2	2.9
DONATION												
Actual deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	92	10.5	78	0.6	4	0.2	0	0.0	25	5.8	7	0.2
Actual deceased donors (men)	58	6.6	54	0.4	2	0.1			21	4.9	7	0.2
Actual deceased donors (> 60 years)	39	4.4	15	0.1	1	0.1			0	0.0	1	0.0
Actual donors after circulatory death (DCD)	3	0.3	12	0.1	0	0.0			0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)	3	0.3	12	0.1								
III/ Withdrawal of life-sustaining therapy (controlled)	0	0.0	0	0.0								
IV/ Cardiac arrest while brain dead	0	0.0	0	0.0								
Utilised deceased organ donors												
Utilised deceased organ donors (both DBD and DCD included)	91	10.3	76	0.6	4	0.2	0	0.0	25	5.8	7	0.2
Utilised deceased donors (men)	58	6.6	53	0.4	2	0.1			21	4.9	7	0.2
Utilised deceased donors (> 60 years)	38	4.3	14	0.1	1	0.1			0	0.0	1	0.0
Utilised donors after circulatory death (DCD)	3	0.3	12	0.1	0	0.0			0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)	3	0.3	12	0.1								
III/ Withdrawal of life-sustaining therapy (controlled)	0	0.0	0	0.0								
IV/ Cardiac arrest while brain dead	0	0.0	0	0.0								
Living organ donors												
Total living kidney donors	327	37.2	1647	13.1	124	6.5	160	2.9	48	11.2	63	1.9
Living kidney donors (men)	185	21.0	60	3.2	60	3.2	0	0.0	37	8.6	27	0.8
Total living liver donors	9	1.0	361	2.9	37	1.9	0	0.0	0	0.0	8	0.2
Living liver donors (men)	3	0.3	194	1.5	24	1.3	0	0.0	0	0.0	3	0.1
Total domino liver donors	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Domino liver donors (men)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total living lung donors	0	0.0	37	0.3	0	0.0	0	0.0	0	0.0	0	0.0
Living lung donors (men)	21	0.2	21	0.2	0	0.0	0	0.0	0	0.0	0	0.0

DONATION ACTIVITY																								
OTHER COUNTRIES																								
COUNTRIES	Rep. of Moldova	Saudi Arabia	Serbia	Sudan	Switzerland	Syrian Arab Rep.	Thailand	Trinidad and Tobago	Turkey	United Arab Emirates	United Kingdom	United States of America												
Population (million inhabitants): UNFPA	4.0	35.3	8.7	44.9	8.7	18.3	70.0	1.4	85.0	10.0	68.2	332.9												
DONATION																								
Actual deceased organ donors Actual deceased organ donors (both DBD and DCD included) Actual deceased donors (men) Actual deceased donors (> 60 years) Actual donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP												
	0	0.0	102	2.9	3	0.3	0	0.0	166	19.1	0	0.0	305	3.6	39	3.9	1350	19.8	13863	41.6				
			82	2.3	2	0.2			98	11.3			195	2.3	31	3.1	753	11.0	8660	26.0				
			6	0.2	0	0.0			80	9.2			98	1.2	4	0.4	447	6.6	2185	6.6				
			0	0.0	0	0.0			57	6.6			0	0.0	0	0.0	564	8.3	4190	12.6				
									0	0.0							0	0.0	19	0.1				
								57	6.6							557	8.2	4135	12.4					
								0	0.0							7	0.1	36	0.1					
Utilised deceased organ donors Utilised deceased organ donors (both DBD and DCD included) Utilised deceased donors (men) Utilised deceased donors (> 60 years) Utilised donors after circulatory death (DCD) II/ Witnessed cardiac arrest (uncontrolled) III/ Withdrawal of life-sustaining therapy (controlled) IV/ Cardiac arrest while brain dead	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP												
	0	0.0	102	2.9	3	0.3	0	0.0	161	18.5	0	0.0	165	1.9	39	3.9	1267	18.6	12402	37.3				
			82	2.3	2	0.2			93	10.7			103	1.2	31	3.1	701	10.3	7803	23.4				
			6	0.2	0	0.0			75	8.6			37	0.4	4	0.4	391	5.7	1651	5.0				
			0	0.0	0	0.0			53	6.1			0	0.0	0	0.0	511	7.5	3294	9.9				
									53	6.1							0	0.0	15	0.0				
																504	7.4	3249	9.8					
																7	0.1	30	0.1					
Living organ donors Total living kidney donors Living kidney donors (men) Total living liver donors Living liver donors (men) Total domino liver donors Domino liver donors (men) Total living lung donors Living lung donors (men)	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP												
	0	0.0	953	27.0	0	0.0	205	4.6	122	14.0	315	17.2	81	1.2	3	2.1	3077	36.2	64	6.4	733	10.7	5970	17.9
	0	0.0					86	1.9					28	0.4	1	0.7	1471	17.3	35	3.5	330	4.8	2118	6.4
	4	1.0	355	10.1	0	0.0	0	0.0	3	0.3	0	0.0	32	0.5	0	0.0	1397	16.4	10	1.0	21	0.3	566	1.7
	2	0.5											9	0.1			798	9.4	5	0.5	10	0.1	247	0.7
	0	0.0	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	2	0.0
																	1	0.0					1	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	0.0

DONATION ACTIVITY

LATIN AMERICAN COUNTRIES

COUNTRIES	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic
Population (million inhabitants): UNFPA	45.6	11.8	214.0	19.2	51.3	5.1	11.3	11.0
DONATION								
Actual deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	630	13.8	2953	13.8	147	7.7	0	0.0
Actual deceased donors (men)	384	8.4	1181	5.5	96	5.0	0	0.0
Actual deceased donors (> 60 years)	91	2.0	302	1.4	35	1.8	0	0.0
Actual donors after circulatory death (DCD)	0	0.0	0	0.0	0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)								
III/ Withdrawal of life-sustaining therapy (controlled)								
IV/ Cardiac arrest while brain dead								
Utilised deceased organ donors								
Utilised deceased organ donors (both DBD and DCD included)	571	12.5	2624	12.3	136	7.1	0	0.0
Utilised deceased donors (men)	351	7.7	1579	7.4	91	4.7	0	0.0
Utilised deceased donors (> 60 years)	72	1.6	204	1.0	31	1.6	0	0.0
Utilised donors after circulatory death (DCD)	0	0.0	0	0.0	0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)								
III/ Withdrawal of life-sustaining therapy (controlled)								
IV/ Cardiac arrest while brain dead								
Living organ donors								
Total living kidney donors	221	4.8	337	1.6	54	2.8	0	0.0
Living kidney donors (men)	98	2.1	138	0.6	23	1.2	0	0.0
Total living liver donors	40	0.9	50	0.2	15	0.8	0	0.0
Living liver donors (men)	19	0.4	20	0.1	5	0.3	0	0.0
Total domino liver donors	1	0.0	1	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
Living lung donors (men)								

DONATION ACTIVITY

LATIN AMERICAN COUNTRIES

COUNTRIES	Ecuador	El Salvador	Guatemala	Honduras	Mexico	Panama	Paraguay	Uruguay
Population (million inhabitants): UNFPA	17.9	6.5	18.2	10.1	130.3	4.4	7.2	3.5
DONATION								
Actual deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors (both DBD and DCD included)	47	2.6	0	0.0	260	2.0	15	2.1
Actual deceased donors (men)	36	2.0	0	0.0	166	1.3	10	1.4
Actual deceased donors (> 60 years)	1	0.1	0	0.0	29	0.2	0	0.0
Actual donors after circulatory death (DCD)	0	0.0	0	0.0	0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)								
III/ Withdrawal of life-sustaining therapy (controlled)								
IV/ Cardiac arrest while brain dead								
Utilised deceased organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Utilised deceased organ donors (both DBD and DCD included)	47	2.6	0	0.0	257	2.0	15	2.1
Utilised deceased donors (men)	36	2.0	0	0.0	165	1.3	10	1.4
Utilised deceased donors (> 60 years)	1	0.1	0	0.0	29	0.2	0	0.0
Utilised donors after circulatory death (DCD)	0	0.0	0	0.0	0	0.0	0	0.0
II/ Witnessed cardiac arrest (uncontrolled)								
III/ Withdrawal of life-sustaining therapy (controlled)								
IV/ Cardiac arrest while brain dead								
Living organ donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total living kidney donors	10	0.6	27	4.2	15	0.8	1	0.1
Living kidney donors (men)	3	0.2	10	1.5	9	0.5	0	0.0
Total living liver donors	0	0.0	0	0.0	0	0.0	0	0.0
Living liver donors (men)	0	0.0	0	0.0	0	0.0	0	0.0
Total domino liver donors	0	0.0	0	0.0	0	0.0	0	0.0
Domino liver donors (men)	0	0.0	0	0.0	0	0.0	0	0.0
Total living lung donors	0	0.0	0	0.0	0	0.0	0	0.0
Living lung donors (men)	0	0.0	0	0.0	0	0.0	0	0.0

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
TRANSPLANTATION									
KIDNEY	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx (all combinations included)	306	417	33	124	19	456	252	48	268
Kidney Tx (men)	195	217	24	4.8	14	294	158	1	181
Paediatric (<18 years)	8	9	0	3.5	1	7	4	0.8	11
Tx from deceased donors	264	358	19	0.0	9	414	184	45	222
- Tx from DCD	6	152	0	0.0	0	20	0	0	8
- Single Tx	264	357	0	0.0	9	409	184	45	222
- Double Tx	0	1	0	0.0	0	5	0	0	0
Tx from living donors	42	59	14	2.0	10	42	68	3	46
- Tx from related living donors	39	59	14	1.2	10	31	60	3	43
- Tx from unrelated living donors	3	0	0	0.0	0	11	8	0	3
Paired exchange or cross-over	3	0	0	0.0	0	10	7	0	0
Non-directed altruistic or anonymous	0	0	0	0.0	0	0	1	0	0
Directed altruistic	0	0	0	0.0	0	0	0	0	0
LIVER	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx (all combinations included)	159	268	13	25.4	0	186	50	4	75
Liver Tx (men)	117	130	0	0.0	0	110	27	0	48
Paediatric (<18 years)	11	30	5	0.7	0	9	5	0	6
Split Tx	1	14	1	0.1	0	5	0	0	0
Domino Tx	0	0	0	0.0	0	1	0	0	0
Tx from living donors	9	21	0	0.0	0	0	1	0	0
Tx from DCD	2	103	0	0.0	0	5	0	0	0
HEART	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx (all combinations included)	59	52	2	8.3	0	74	24	0	22
Heart Tx (men)	41	36	2	0.3	0	52	17	0	15
Paediatric (<18 years)	7	1	0	0.0	0	4	0	0	5
Tx from DCD	0	5	0	0.0	0	0	0	0	0
HEART-LUNG	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx	0	1	0	0.0	0	2	0	0	0
Paediatric (<18 years)	0	0	0	0.0	0	0	0	0	0
LUNG	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx (all combinations included)	123	94	0	2.2	0	52	22	2	24
Lung Tx (men)	75	49	0	0.0	0	31	10	0	17
Paediatric (<18 years)	3	0	0	0.0	0	0	0	0	1
Single Tx	9	4	0	0.0	0	50	5	0	0
Double Tx (heart-lung Tx included)	114	90	0	0.0	0	2	17	2	24
Tx from DCD (double + single)	3	32	0	0.0	0	1	0	0	0
PANCREAS	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx (all combinations included)	14	8	0	1.5	0	39	4	1	31
Pancreas Tx (men)	6	8	0	0.7	0	29	3	0	18
Paediatric (<18 years)	0	0	0	0.0	0	0	0	0	0
Pancreas Tx alone	1	0	0	0.0	0	10	1	0	1
Kidney – Pancreas Tx	13	7	0	1.5	0	29	3	1	30
Tx from DCD	0	2	0	0.0	0	0	0	0	0
SMALL BOWEL	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total Tx (all combinations included)	1	0	0	0.0	0	3	0	0	0
Small bowel Tx (men)	0	0	0	0.1	0	1	0	0	0
Paediatric (<18 years)	0	0	0	0.0	0	0	0	0	0
Small bowel Tx alone	1	0	0	0.0	0	0	0	0	0
RECIPIENTS	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total number of patients transplanted	641	839	48	65.4	19	778	348	54	387
Male recipients	43	71.2	27	7.0	14	492	213	1	259
Paediatric (<18 years)	29	4.8	5	3.9	1	20	9	1	22
Patients transplanted from living donors	51	3.2	14	2.0	10	42	69	3	46
		5.7				3.9	11.9		8.4

TRANSPLANTATION ACTIVITY

EUROPEAN UNION COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	France 65.4	Germany 83.9	Greece 10.4	Hungary 9.6	Ireland 5	Italy 60.4	Latvia 1.9	Lithuania 2.7	Luxembourg 0.6	
TRANSPLANTATION										
KIDNEY	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx (all combinations included)	3252	49.7	1992	23.7	175	16.8	194	20.2	139	27.8
Kidney Tx (men)	2059	31.5	1271	15.1	119	11.4	109	11.4	20	10.5
Paediatric (<18 years)	92	1.4	99	1.2	14	1.3	9	0.9	1	0.5
Tx from deceased donors	2750	42.0	1517	18.1	84	8.1	160	16.7	26	13.7
- Tx from DCD	397	6.1	0	0.0	0	0.0	0	0.0	0	0.0
- Single Tx	2740	41.9	1498	17.9	84	8.1	158	16.5	26	13.7
- Double Tx	10	0.2	19	0.2	0	0.0	2	0.2	0	0.0
Tx from living donors	502	7.7	475	5.7	91	8.8	34	3.5	2	1.1
- Tx from related living donors	502	7.7	473	5.6	88	8.5	34	3.5	2	1.1
- Tx from unrelated living donors	0	0.0	2	0.0	3	0.3	0	0.0	0	0.0
Paired exchange or cross-over					0	0.0			0	0.0
Non-directed altruistic or anonymous					3	0.3			0	0.0
Directed altruistic					0	0.0			0	0.0
LIVER	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx (all combinations included)	1225	18.7	834	9.9	24	2.3	59	6.1	1	0.5
Liver Tx (men)	852	13.0	508	6.1	13	1.3	31	3.2	1	0.5
Paediatric (<18 years)	96	1.5	110	1.3	1	0.1	5	0.5	0	0.0
Split Tx	117	1.8	85	1.0	0	0.0	1	0.1	0	0.0
Domino Tx	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tx from living donors	20	0.3	54	0.6	0	0.0	0	0.0	0	0.0
Tx from DCD	130	2.0	0	0.0	0	0.0	0	0.0	0	0.0
HEART	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx (all combinations included)	415	6.3	329	3.9	13	1.3	34	3.5	2	1.1
Heart Tx (men)	307	4.7	228	2.7	10	1.0	21	2.2	1	0.5
Paediatric (<18 years)	30	0.5	48	0.6	0	0.0	9	0.9	0	0.0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
HEART-LUNG	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx	6	0.1	2	0.0	0	0.0	0	0.0	0	0.0
Paediatric (<18 years)	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
LUNG	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx (all combinations included)	322	4.9	283	3.4	5	0.5	14	1.5	0	0.0
Lung Tx (men)	187	2.9	172	2.1	3	0.3	10	1.0	15	3.0
Paediatric (<18 years)	5	0.1	6	0.1	0	0.0	0	0.0	0	0.0
Single Tx	32	0.5	16	0.2	0	0.0	0	0.0	12	2.4
Double Tx (heart-lung Tx included)	290	4.4	267	3.2	5	0.5	14	1.5	8	1.6
Tx from DCD (double + single)	18	0.3	0	0.0	0	0.0	0	0.0	0	0.0
PANCREAS	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx (all combinations included)	67	1.0	65	0.8	0	0.0	4	0.4	2	0.4
Pancreas Tx (men)	35	0.5	37	0.4	0	0.0	2	0.2	2	0.4
Paediatric (<18 years)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pancreas Tx alone	3	0.0	8	0.1	0	0.0	0	0.0	0	0.1
Kidney - Pancreas Tx	64	1.0	53	0.6	0	0.0	4	0.4	2	0.4
Tx from DCD	4	0.1	0	0.0	0	0.0	0	0.0	0	0.0
SMALL BOWEL	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total Tx (all combinations included)	1	0.0	5	0.1	0	0.0	0	0.0	0	0.0
Small bowel Tx (men)	1	0.0	4	0.0	0	0.0	0	0.0	0	0.0
Paediatric (<18 years)	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Small bowel Tx alone	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0
RECIPIENTS	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Total number of patients transplanted	5097	77.9	3422	40.8	217	20.9	299	31.1	203	40.6
Male recipients	3330	50.9	2173	25.9	145	13.9	171	17.8	132	28.5
Paediatric (<18 years)	211	3.2	262	3.1	15	1.4	23	2.4	5	1.9
Patients transplanted from living donors	521	8.0	529	6.3	91	8.8	34	3.5	2	1.1

TRANSPLANTATION ACTIVITY

EUROPEAN UNION COUNTRIES																	
COUNTRIES	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden								
Population (million inhabitants): UNFPA	0.4	17.2	37.8	10.2	19.1	5.5	2.1	46.7	10.2								
TRANSPLANTATION																	
KIDNEY Total Tx (all combinations included) Kidney Tx (men) Paediatric (<18 years) Tx from deceased donors - Tx from DCD - Single Tx - Double Tx Tx from living donors - Tx from related living donors - Tx from unrelated living donors Paired exchange or cross-over Non-directed altruistic or anonymous Directed altruistic	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP							
	3	7.5	916	53.3	770	20.4	429	42.1	156	8.2	115	20.9	2950	63.2	445	43.6	
	1	2.5	571	33.2	473	12.5	252	24.7	102	5.3	68	12.4	1956	41.9	295	28.9	
	0	0.0	17	1.0	39	1.0	14	1.4	11	0.6	3	0.5	63	1.3	16	1.6	
	3	7.5	464	27.0	726	19.2	393	38.5	88	4.6	97	17.6	2627	56.3	327	32.1	
	0	0.0	301	17.5	0	0.0	24	2.4	0	0.0	0	0.0	934	20.0	48	4.7	
	2	5.0	462	26.9	726	19.2	382	37.5	88	4.6	96	17.5	2623	56.2	318	31.2	
	1	2.5	2	0.1	0	0.0	11	1.1	0	0.0	0	0.2	4	0.1	9	0.9	
	0	0.0	452	26.3	44	1.2	36	3.5	18	3.3	68	3.6	323	6.9	118	11.6	
	0	0.0	396	23.0	44	1.2	15	1.5	65	3.4	17	3.1	293	6.3	106	10.4	
0	0.0	56	3.3	0	0.0	21	2.1	21	0.2	1	0.2	30	0.6	12	1.2		
0	0.0	28	1.6	20	0.5	0	0.0	21	0.0	1	0.0	30	0.6	10	1.0		
0	0.0	76	4.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2		
0	0.0	0	0.0	0	0.0	3	0.2	0	0.0	0	0.0	0	0.0	0	0.0		
LIVER Total Tx (all combinations included) Liver Tx (men) Paediatric (<18 years) Split Tx Domino Tx Tx from living donors Tx from DCD	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	
	0	0.0	181	10.5	297	7.9	202	19.8	53	2.8	26	4.7	1078	23.1	170	16.7	
			107	6.2	196	5.2	150	14.7	29	1.5	17	3.1	791	16.9	105	10.3	
			21	1.2	30	0.8	0	0.0	1	0.1	0	0.0	0	1.4	10	1.0	
			0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	36	0.8	13	1.3	
			1	0.1	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	
			28	1.6	20	0.5	0	0.0	11	0.6	0	0.0	1	0.0	1	0.1	
			76	4.4	0	0.0	0	0.0	0	0.0	0	0.0	289	6.2	7	0.7	
	0	0.0	44	2.6	200	5.3	49	4.8	3	0.2	17	3.1	302	6.5	66	6.5	
			30	1.7	167	4.4	35	3.4	3	0.2	10	1.8	216	4.6	47	4.6	
Paediatric (<18 years)		3	0.2	14	0.4	2	0.2	0	0.0	1	0.2	23	0.5	9	0.9		
Tx from DCD		21	1.2	0	0.0	0	0.0	0	0.0	0	0.0	11	0.2	0	0.0		
HEART-LUNG Total Tx Paediatric (<18 years)	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	
	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	
			0	0.0									0	0.0			
	LUNG Total Tx (all combinations included) Lung Tx (men) Paediatric (<18 years) Single Tx Double Tx (heart-lung Tx included) Tx from DCD (double + single)	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
		0	0.0	92	5.3	68	1.8	34	3.3	1	0.1	0	0.0	362	7.8	51	5.0
				49	2.8	38	1.0	26	2.5	0	0.0	10	4.8	222	4.8	26	2.5
				2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	7	0.1	3	0.3
				0	0.0	0	0.0	4	0.4	0	0.0	0	0.0	58	1.2	1	0.1
				92	5.3	68	1.8	30	2.9	1	0.1	15	7.1	304	6.5	51	5.0
				44	2.6	0	0.0	0	0.0	0	0.0	0	0.0	93	2.0	2	0.2
PANCREAS Total Tx (all combinations included) Pancreas Tx (men) Paediatric (<18 years) Pancreas Tx alone Kidney - Pancreas Tx Tx from DCD		Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
		0	0.0	14	0.8	20	0.5	22	2.2	0	0.0	0	0.0	82	1.8	13	1.3
				9	0.5	10	0.3	15	1.5	0	0.0	0	0.0	50	1.1	7	0.7
			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.1	1	0.1	
			0	0.0	3	0.1	1	0.1	0	0.0	0	0.0	6	0.1	4	0.4	
			13	0.8	17	0.4	21	2.1	0	0.0	69	1.5	9	0.9	9	0.9	
			0	0.0	0	0.0	0	0.0	0	0.0	8	0.2	0	0.0	0	0.0	
	SMALL BOWEL Total Tx (all combinations included) Small bowel Tx (men) Paediatric (<18 years) Small bowel Tx alone	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	0.1	2	0.2
														5	0.1	0	0.0
													5	0.1	1	0.1	
													6	0.1	4	0.4	
													69	1.5	9	0.9	
													8	0.2	0	0.0	
													7	0.1	2	0.2	
													5	0.1	0	0.0	
													5	0.1	1	0.1	
												0	0.0	0	0.0		
RECIPIENTS Total number of patients transplanted Male recipients Paediatric (<18 years) Patients transplanted from living donors	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	
	3	7.5	1231	71.6	1333	35.3	710	69.6	213	11.2	158	28.7	4655	99.7	724	71.0	
	1	2.5	756	44.0	869	23.0	463	45.2	134	7.0	95	17.3	3159	67.6	3159	46.0	
	0	0.0	42	2.4	86	2.3	2	0.2	12	0.6	5	0.9	158	3.4	37	3.6	
	0	0.0	480	27.9	64	1.7	36	3.5	79	4.1	18	3.3	324	6.9	119	11.7	

TRANSPLANTATION ACTIVITY

OTHER COUNTRIES

COUNTRIES	Armenia	Australia	Bangladesh	Belarus	Bosnia and Herzegovina	Canada	China	Ethiopia	Georgia	Iceland	India	Iran
Population (million inhabitants): UNFPA	3.0	25.8	166.3	9.4	3.3	38.1	1452.5	117.9	4.0	0.3	1393.4	85.0
TRANSPLANTATION												
KIDNEY	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	16 5.3	858 33.3	228 1.4	336 35.7	10 3.0	1673 43.9	12039 8.3	0 0.0	22 5.5	9 30.0	9105 6.5	1777 20.9
Kidney Tx (men)	12 4.0	469 18.2	203 1.2	198 21.1	6 1.8		8373 5.8		14 3.5	5 16.7	6746 4.8	1066 12.5
Paediatric (<18 years)	1 0.3	29 1.1	3 0.0	21 2.2	0 0.0	73 1.9	680 0.5		1 0.3	0 0.0	220 0.2	258 3.0
Tx from deceased donors	0 0.0	656 25.4	0 0.0	328 34.9	2 0.6	1171 30.7	9577 6.6		0 0.0	7 23.3	830 0.6	1095 12.9
- Tx from DCD		178 6.9		0 0.0	0 0.0	376 9.9	3570 2.5		0 0.0	0 0.0	0 0.0	0 0.0
- Single Tx		644 25.0					9492 6.5			7 23.3	815 0.6	1085 12.8
- Double Tx		12 0.5					85 0.1			0 0.0	15 0.0	10 0.1
Tx from living donors	16 5.3	202 7.8	228 1.4	8 0.9	8 2.4	502 13.2	2462 1.7		22 5.5	2 6.7	8275 5.9	682 8.0
- Tx from related living donors	16 5.3	162 6.3	228 1.4	8 0.9	8 2.4		2462 1.7		22 5.5	2 6.7	6469 4.6	12 0.1
- Tx from unrelated living donors	0 0.0	40 1.6	0 0.0	0 0.0	0 0.0		0 0.0		0 0.0	0 0.0	1806 1.3	670 7.9
Paired exchange or cross-over		38 1.5										
Non-directed altruistic or anonymous		2 0.1										
Directed altruistic		0 0.0									79 0.1	
LIVER	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	2 0.7	254 9.8	0 0.0	91 9.7	1 0.3	589 15.5	5834 4.0	0 0.0	15 3.8	0 0.0	2847 2.0	854 10.0
Liver Tx (men)	2 0.7			40 4.3	0 0.0		4272 2.9		11 2.8		2152 1.5	537 6.3
Paediatric (<18 years)	1 0.3			7 0.7	0 0.0	44 1.2	1156 0.8		1 0.3		212 0.2	44 0.5
Split Tx	0 0.0	31 1.2		1 0.1	0 0.0	5 0.1	502 0.3		0 0.0		9 0.0	14 0.2
Domino Tx	0 0.0	0 0.0		0 0.0	0 0.0		12 0.0		0 0.0		2 0.0	0 0.0
Tx from living donors	2 0.7	1 0.0		4 0.4	0 0.0	93 2.4	811 0.6		15 3.8		2363 1.7	100 1.2
Tx from DCD	0 0.0	17 0.7		0 0.0	0 0.0	71 1.9	1735 1.2		0 0.0		0 0.0	0 0.0
HEART	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	0 0.0	112 4.3	0 0.0	48 5.1	0 0.0	142 3.7	738 0.5	0 0.0	0 0.0	0 0.0	151 0.1	141 1.7
Heart Tx (men)				41 4.4			571 0.4				111 0.1	80 0.9
Paediatric (<18 years)		15 0.6		1 0.1		16 0.4	77 0.1				24 0.0	36 0.4
Tx from DCD				0 0.0		0 0.0	0 0.0				0 0.0	0 0.0
HEART-LUNG	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx	0 0.0	4 0.2	0 0.0	0 0.0	0 0.0	5 0.1	6 0.0	0 0.0	0 0.0	0 0.0	13 0.0	0 0.0
Paediatric (<18 years)							1 0.0				0 0.0	
LUNG	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	0 0.0	171 6.6	0 0.0	6 0.6	0 0.0	352 9.2	775 0.5	0 0.0	0 0.0	0 0.0	133 0.1	10 0.1
Lung Tx (men)				3 0.3			617 0.4				93 0.1	7 0.1
Paediatric (<18 years)				0 0.0		6 0.2	12 0.0				4 0.0	0 0.0
Single Tx		28 1.1		0 0.0		10 0.3	299 0.2				11 0.0	1 0.0
Double Tx (heart-lung Tx included)		143 5.5		6 0.6		341 9.0	476 0.3				122 0.1	9 0.1
Tx from DCD (double + single)		52 2.0		0 0.0		115 3.0	51 0.0				0 0.0	0 0.0
PANCREAS	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	0 0.0	37 1.4	0 0.0	2 0.2	0 0.0	53 1.4		0 0.0	0 0.0	0 0.0	19 0.0	50 0.6
Pancreas Tx (men)		19 0.7		1 0.1							15 0.0	37 0.4
Paediatric (<18 years)				0 0.0		10 0.3					0 0.0	0 0.0
Pancreas Tx alone		2 0.1		0 0.0		43 1.1					1 0.0	6 0.1
Kidney – Pancreas Tx		32 1.2		2 0.2		5 0.1					18 0.0	44 0.5
Tx from DCD		0 0.0		0 0.0							0 0.0	0 0.0
SMALL BOWEL	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	0 0.0	2 0.1	0 0.0	0 0.0	0 0.0	5 0.1		0 0.0	0 0.0	0 0.0	4 0.0	9 0.1
Small bowel Tx (men)		2 0.1				5 0.1					3 0.0	7 0.1
Paediatric (<18 years)		0 0.0				5 0.1					1 0.0	0 0.0
Small bowel Tx alone		0 0.0									4 0.0	9 0.1
RECIPIENTS	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total number of patients transplanted	18 6.0	1377 53.4	228 1.4	481 51.2	11 3.3	2777 72.9	19326 13.3		37 9.3	9 30.0	12218 8.8	2797 32.9
Male recipients	14 4.7		203 1.2	282 30.0	6 1.8		13791 9.5		25 6.3	5 16.7	9091 6.5	1703 20.0
Paediatric (<18 years)	2 0.7		3 0.0	28 3.0	0 0.0	143 3.8	1919 1.3		2 0.5	0 0.0	338 4.0	338 4.0
Patients transplanted from living donors	18 6.0	203 7.9	228 1.4	12 1.3	8 2.4	595 15.6	3273 2.3		37 9.3	2 6.7	10638 7.6	782 9.2

TRANSPLANTATION ACTIVITY

OTHER COUNTRIES

COUNTRIES	Israel	Japan	Kazakhstan	Kenya	Kuwait	Malaysia	Mongolia	New Zealand	Norway	Oman	Pakistan	Qatar
Population (million inhabitants): UNFPA	8.8	126.1	19.0	55.0	4.3	32.8	3.3	4.9	5.5	5.2	225.2	2.9
TRANSPLANTATION												
KIDNEY	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	476	1772	129	160	87	78	22	187	231	0	1003	48
Kidney Tx (men)	309	54.1	63	3.3	57	13.3	18	116	143	0	4.5	32
Paediatric (<18 years)	25	2.8	15	0.8	6	1.4	0	9	10	0	0.2	2
Tx from deceased donors	149	16.9	125	0.3	39	9.1	8	102	164	0	0	17
- Tx from DCD	6	0.7	19	0.0	0	0.0	0	6	1.2	0	0.0	0
- Single Tx	139	15.8	121	0.3	39	9.1	8	96	163	0	0	16
- Double Tx	11	1.3	4	0.0	0	0.0	0	6	1.2	0	0	1
Tx from living donors	327	37.2	1647	13.1	48	11.2	14	85	67	0	1003	31
- Tx from related living donors	98	11.1	1647	6.5	24	5.6	14	69	12.2	0	4.5	30
- Tx from unrelated living donors	229	26.0	0	0.0	24	5.6	0	16	0.0	0	0	1
Paired exchange or cross-over	66	7.5	0	0.0	0	0.0	0	12	0.0	0	0	0
Non-directed altruistic or anonymous	0	0.0	0	0.0	0	0.0	0	4	0.0	0	0	0
Directed altruistic	163	18.5	0	0.0	0	0.0	0	0	0.0	0	0	1
LIVER	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	96	10.9	40	0	0	0.0	15	53	98	2	131	6
Liver Tx (men)	56	6.4	24	1.3	0	0.0	10	26	67	2	0.6	4
Paediatric (<18 years)	19	2.2	2	0.1	0	0.0	0	8	13	0	0	0
Split Tx	5	0.6	0	0.0	0	0.0	0	4	7	0	0.0	0
Domino Tx	0	0.0	0	0.0	0	0.0	0	0	0	0	0.0	0
Tx from living donors	9	1.0	361	1.9	0	0.0	8	2	1	0	0.6	0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	1	0	0	0	0
HEART	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	24	2.7	2	0	0	0.0	0	14	23	0	0	0
Heart Tx (men)	18	2.0	2	0.1	0	0.0	0	0	16	0	0.0	0
Paediatric (<18 years)	4	0.5	0	0.0	0	0.0	0	0	3	0	0	0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0
HEART-LUNG	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx	0	0.0	0	0	0	0.0	0	0	0	0	0	0
Paediatric (<18 years)	0	0.0	0	0	0	0.0	0	0	0	0	0	0
LUNG	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	55	6.3	93	0.7	0	0.0	0	26	24	0	0	1
Lung Tx (men)	41	4.7	55	0.4	0	0.0	0	0	17	0	0.0	0
Paediatric (<18 years)	0	0.0	11	0.1	0	0.0	0	0	1	0	0.0	0
Single Tx	13	1.5	44	0.3	0	0.0	0	26	1	0	0	1
Double Tx (heart-lung Tx included)	42	4.8	30	0.2	0	0.0	0	0	23	0	0.0	0
Tx from DCD (double + single)	0	0.0	0	0.0	0	0.0	0	2	4.2	0	0.0	0
PANCREAS	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	3	0.3	23	0.2	0	0.0	0	6	5	0	0	0
Pancreas Tx (men)	2	0.2	13	0.1	0	0.0	0	4	3	0	0.0	0
Paediatric (<18 years)	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0
Pancreas Tx alone	0	0.0	0	0.0	0	0.0	0	1	1	0	0	0
Kidney – Pancreas Tx	3	0.3	23	0.2	0	0.0	0	5	4	0	0	0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0
SMALL BOWEL	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total Tx (all combinations included)	0	0.0	2	0.0	0	0.0	0	0	0	0	0	0
Small bowel Tx (men)	0	0.0	1	0.0	0	0.0	0	0	0	0	0	0
Paediatric (<18 years)	0	0.0	2	0.0	0	0.0	0	0	0	0	0	0
Small bowel Tx alone	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0
RECIPIENTS	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Total number of patients transplanted	647	73.5	2235	17.7	87	20.2	66	277	374	2	1134	55
Male recipients	422	48.0	89	4.7	57	13.3	37	241	241	2	36	36
Paediatric (<18 years)	48	5.5	17	0.9	6	1.4	1	26	4.7	1	0.2	2
Patients transplanted from living donors	336	38.2	2027	16.1	48	11.2	51	87	68	2	1134	31

TRANSPLANTATION ACTIVITY

OTHER COUNTRIES

COUNTRIES	Rep. of Moldova 4.0	Saudi Arabia 35.3	Serbia 8.7	Sudan 44.9	Switzerland 8.7	Syrian Arab Rep. 18.3	Thailand 70.0	Trinidad and Tobago 1.4	Turkey 85.0	United Arab Emirates 10.0	United Kingdom 68.2	United States of America 332.9
Population (million inhabitants): UNFPA	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
KIDNEY												
Total Tx (all combinations included)	0	1044	5	205	362	315	434	3	3375	130	2917	25490
Kidney Tx (men)	0	0	4	143	263	52	283	1	1654	83	1790	15565
Paediatric (<18 years)	0	0	0	11	6	0	11	0	44	21	135	820
Tx from deceased donors	0	91	5	0	240	0	351	0	298	66	2184	19519
- Tx from DCD	0	0	0	0	76	0	0	0	0	0	878	5724
- Single Tx	0	91	5	0	237	0	345	0	292	66	2149	19190
- Double Tx	0	0	0	0	3	0	2	0	6	0	35	329
Tx from living donors	0	953	0	205	122	315	81	3	3077	64	733	5971
- Tx from related living donors	0	270	0	46	140	172	12	21	362	64	107	5971
- Tx from unrelated living donors	0	784	0	201	115	135	81	1	2545	62	408	4403
- Tx from deceased donors	0	222	0	45	132	74	12	2	532	2	325	1113
Paired exchange or cross-over	0	81	0	4	7	180	0	2	201	2	121	480
Non-directed altruistic or anonymous	0	23	0	0	0.5	9.8	0.0	0	0	0	1.8	440
Directed altruistic	0	0	0	0	0	0	0	2	0	0	156	23
LIVER												
Total Tx (all combinations included)	4	411	3	0	151	0	89	0	1528	46	821	9236
Liver Tx (men)	3	0	2	0	101	0	56	0	887	27	532	5695
Paediatric (<18 years)	1	0	0	0	3	0	33	0	11	2	94	501
Split Tx	0	3	0	0	6	0	0	0	10	0	71	156
Domino Tx	0	0	0	0	1	0	0	0	2	0	0	2
Tx from living donors	4	355	0	0	2	0	32	0	1387	10	21	567
Tx from DCD	0	0	0	0	39	4.5	0	2	0	0	162	915
HEART												
Total Tx (all combinations included)	0	48	1	0	33	0	24	0	24	3	169	3863
Heart Tx (men)	0	27	1	0	25	0	20	0	14	3	104	2763
Paediatric (<18 years)	0	0	0	0	1	0	2	0	6	0	35	488
Tx from DCD	0	0	0	0	0	0	0	0	0	0	37	206
HEART-LUNG												
Total Tx	0	0	0	0	0	0	0	0	0	0	2	45
Paediatric (<18 years)	0	0	0	0	0	0	0	0	0	0	0	2
LUNG												
Total Tx (all combinations included)	0	32	0	0	42	0	1	0	21	0	105	2569
Lung Tx (men)	0	20	0	0	24	0	0	0	10	0	69	1633
Paediatric (<18 years)	0	2	0	0	0	0	0	0	4	0	5	25
Single Tx	0	1	0	0	1	0	0	0	0	0	17	506
Double Tx (heart-lung Tx included)	0	31	0	0	41	4.7	1	0	0	0	88	2063
Tx from DCD (double + single)	0	0	0	0	14	1.6	0	0	0	0	25	198
PANCREAS												
Total Tx (all combinations included)	0	3	0	0	15	0	1	0	0	5	137	963
Pancreas Tx (men)	0	1	0	0	12	0	0	0	0	3	78	572
Paediatric (<18 years)	0	0	0	0	0	0	0	0	0	0	4	21
Pancreas Tx alone	0	0	0	0	2	0	0	0	0	0	10	143
Kidney - Pancreas Tx	0	3	0	0	12	1.4	0	0	0	5	110	820
Tx from DCD	0	0	0	0	1	0.1	0	0	0	0	31	32
SMALL BOWEL												
Total Tx (all combinations included)	0	0	0	0	1	0	1	0	2	0	24	96
Small bowel Tx (men)	0	0	0	0	0	0	0	0	1	0	16	47
Paediatric (<18 years)	0	0	0	0	0	0	0	0	0	0	7	36
Small bowel Tx alone	0	0	0	0	0	0	0	0	2	0	7	50
RECIPIENTS												
Total number of patients transplanted	4	1535	9	205	587	315	542	3	4948	177	4038	39843
Male recipients	3	8	7	143	413	52	356	1	3226	112	2512	24792
Paediatric (<18 years)	1	0	0	11	10	1.1	46	0	542	22	272	1808
Patients transplanted from living donors	4	1308	0	205	124	14.3	113	3	4464	74	753	6536

TRANSPLANTATION ACTIVITY

LATIN AMERICAN COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	Argentina 45.6	Bolivia 11.8	Brazil 214.0	Chile 19.2	Colombia 51.3	Costa Rica 5.1	Cuba 11.3	Dominican Republic 11.0
TRANSPLANTATION								
	Number	PMP	Number	PMP	Number	PMP	Number	PMP
KIDNEY								
Total Tx (all combinations included)	1237	27.1	4559	21.3	246	12.8	0	0.0
Kidney Tx (men)	724	15.9	2777	13.0	150	7.8	0	0.0
Paediatric (<18 years)	112	2.5	321	1.5	27	1.4	0	0.0
Tx from deceased donors	1016	22.3	4222	19.7	192	10.0	0	0.0
- Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0
- Single Tx	1013	22.2	4214	19.7	189	9.8	0	0.0
- Double Tx	3	0.1	8	0.0	3	0.2	0	0.0
Tx from living donors	221	4.8	337	1.6	54	2.8	0	0.0
- Tx from related living donors	206	4.5	303	1.4	54	2.8	0	0.0
- Tx from unrelated living donors	15	0.3	34	0.2	0	0.0	0	0.0
Paired exchange or cross-over							9	1.8
Non-directed altruistic or anonymous							0	0.0
Directed altruistic							0	0.0
LIVER								
Total Tx (all combinations included)	438	9.6	1944	9.1	125	6.5	0	0.0
Liver Tx (men)	262	5.7	1260	5.9	69	3.6	0	0.0
Paediatric (<18 years)	85	1.9	152	0.7	14	0.7	0	0.0
Split Tx	35	0.8	18	0.1	1	0.1	0	0.0
Domino Tx	1	0.0	1	0.0	0	0.0	0	0.0
Tx from living donors	40	0.9	50	0.2	15	0.8	5	1.0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0
HEART								
Total Tx (all combinations included)	114	2.5	334	1.6	28	1.5	0	0.0
Heart Tx (men)	91	2.0	212	1.0	6	0.3	0	0.0
Paediatric (<18 years)	9	0.2	43	0.2	4	0.2	0	0.0
Tx from DCD								
HEART-LUNG								
Total Tx	2	0.0	0	0.0	0	0.0	0	0.0
Paediatric (<18 years)	0	0.0						
LUNG								
Total Tx (all combinations included)	37	0.8	84	0.4	22	1.1	0	0.0
Lung Tx (men)	24	0.5	35	0.2	13	0.7	0	0.0
Paediatric (<18 years)	2	0.0	2	0.0	1	0.1	0	0.0
Single Tx	12	0.3	16	0.1	0	0.0	1	0.2
Double Tx (heart-lung Tx included)	25	0.5	68	0.3	0	0.0	0	0.0
Tx from DCD (double + single)	0	0.0	0	0.0	0	0.0	0	0.0
PANCREAS								
Total Tx (all combinations included)	39	0.9	162	0.8	3	0.2	0	0.0
Pancreas Tx (men)	20	0.4	75	0.4	3	0.2	0	0.0
Paediatric (<18 years)	0	0.0	0	0.0	0	0.0	0	0.0
Pancreas Tx alone	3	0.1	45	0.2	0	0.0	0	0.0
Kidney - Pancreas Tx	36	0.8	117	0.5	3	0.2	0	0.0
Tx from DCD	0	0.0	0	0.0	0	0.0	0	0.0
SMALL BOWEL								
Total Tx (all combinations included)	1	0.0	5	0.0	0	0.0	0	0.00
Small bowel Tx (men)	0	0.0	4	0.0	0	0.0	0	0.00
Paediatric (<18 years)	1	0.0	0	0.0	0	0.0		
Small bowel Tx alone	1	0.0	3	0.0				
RECIPIENTS								
Total number of patients transplanted	1808	39.6	6879	32.1	422	22.0	0	0.0
Male recipients	1088	23.9	4215	19.7	239	12.4	0	0.0
Paediatric (<18 years)	207	4.5	48	2.5	48	2.5	0	0.0
Patients transplanted from living donors	261	5.7	387	1.8	69	3.6	0	0.0

WAITING LIST

EUROPEAN UNION COUNTRIES

COUNTRIES	Austria	Belgium	Bulgaria	Croatia	Cyprus	Czech Republic	Denmark	Estonia	Finland
Population (million inhabitants): UNFPA	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5
KIDNEY									
N. TX CENTRES	4	7	3	4	1	7	3	1	1
Patients included on the WL for the first time in the course of 2021	382	590	97	118	16	403	259	52	273
Total number of patients ever active on the WL during 2021	970		1083	335	88	703	790	103	774
Patients awaiting for a transplant (only active candidates) on 31/12/2021	635	1130	903	150	55		352	36	344
Patients who died while on the WL during 2021	36	33	146	22	1	36	7	3	14
Patients on dialysis on 31/12/2021	4758		868	2500	1000			427	
LIVER									
N. TX CENTRES	3	6	2	2		2	1	1	1
Patients included on the WL for the first time in the course of 2021	202	332	25	151		210	43	9	63
Total number of patients ever active on the WL during 2021	283		69	269			64	12	86
Patients awaiting for a transplant (only active candidates) on 31/12/2021	91	193	44	122		86	10	5	4
Patients who died while on the WL during 2021	22	21	7	26		20	2	2	2
HEART									
N. TX CENTRES	2	7	1	2		2	2	0	1
Patients included on the WL for the first time in the course of 2021	70	73	9	53		96	30		37
Total number of patients ever active on the WL during 2021	112		52	81			46		82
Patients awaiting for a transplant (only active candidates) on 31/12/2021	45	106	42	27		56	16		52
Patients who died while on the WL during 2021	3	8	7	4		13	1		1
LUNG									
N. TX CENTRES	2	5	2	1		1	1	1	1
Patients included on the WL for the first time in the course of 2021	144	110	6	11		44	26	5	40
Total number of patients ever active on the WL during 2021	185		21	12			38	6	70
Patients awaiting for a transplant (only active candidates) on 31/12/2021	47	106	20	3		34	12	4	37
Patients who died while on the WL during 2021	4	11	5	1		9	1	0	6
PANCREAS									
N. TX CENTRES	3	7	0	1	1	1	1	1	1
Patients included on the WL for the first time in the course of 2021	25	18	0	7		36	7	4	30
Total number of patients ever active on the WL during 2021	30		9	14			15	13	48
Patients awaiting for a transplant (only active candidates) on 31/12/2021	11	23	8	3		32	5	8	9
Patients who died while on the WL during 2021	3	1	1	1		4	0	0	0
SMALL BOWEL									
N. TX CENTRES	1	6	0	1		1	0	0	1
Patients included on the WL for the first time in the course of 2021			1	0		0			0
Total number of patients ever active on the WL during 2021			1	0		1			0
Patients awaiting for a transplant (only active candidates) on 31/12/2021			1	0		0			0
Patients who died while on the WL during 2021			0	0		0			0

WAITING LIST

EUROPEAN UNION COUNTRIES

COUNTRIES	France	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg
Population (million inhabitants): UNFPA	65.4	83.9	10.4	9.6	5	60.4	1.9	2.7	0.6
KIDNEY									
N. TX CENTRES	49	38	5	4	1	40	1	2	
Patients included on the WL for the first time in the course of 2021	5371	2653	159	262	170	2078	33	92	
Total number of patients ever active on the WL during 2021	22648	9991	1624	1066	669	8241	52	192	
Patients awaiting for a transplant (only active candidates) on 31/12/2021	9675	6593	1383	788	381	5986	23	74	
Patients who died while on the WL during 2021	638	419	24	56	15	201	1	6	
Patients on dialysis on 31/12/2021	51594		12400	6079	2336		750		
LIVER									
N. TX CENTRES	25	21	2	1	1	22	1	2	
Patients included on the WL for the first time in the course of 2021	1660	1381	49	70	53	1530	5	49	
Total number of patients ever active on the WL during 2021	3302	2272	155	157	74	2577	13	96	
Patients awaiting for a transplant (only active candidates) on 31/12/2021	753	848	71	69	32	1030	9	46	
Patients who died while on the WL during 2021	253	271	15	20	8	112	3	12	
HEART									
N. TX CENTRES	25	20	1	2	1	16	1	2	
Patients included on the WL for the first time in the course of 2021	537	522	12	45	11	367	3	27	
Total number of patients ever active on the WL during 2021	980	1222	37	114	9	1029	15	59	
Patients awaiting for a transplant (only active candidates) on 31/12/2021	287	727	20	61	4	656	12	36	
Patients who died while on the WL during 2021	75	86	4	12	1	71	0	9	
LUNG									
N. TX CENTRES	13	13	1	1	1	11		1	
Patients included on the WL for the first time in the course of 2021	352	381	7	26	29	176	0	2	
Total number of patients ever active on the WL during 2021	534	660	14	34	34	495	1	11	
Patients awaiting for a transplant (only active candidates) on 31/12/2021	144	291	7	14	30	314	1	6	
Patients who died while on the WL during 2021	18	37	2	5	6	39	0	3	
PANCREAS									
N. TX CENTRES	13	27	0	2	1	12	1	0	
Patients included on the WL for the first time in the course of 2021	93	153		10	5	52	0	5	
Total number of patients ever active on the WL during 2021	310	418		39	24	306	0	10	
Patients awaiting for a transplant (only active candidates) on 31/12/2021	107	281		34	23	230	0	2	
Patients who died while on the WL during 2021	9	30		4	1	7	0	1	
SMALL BOWEL									
N. TX CENTRES	5	9	0	0	0	2		0	
Patients included on the WL for the first time in the course of 2021	2			0	0	0	0		
Total number of patients ever active on the WL during 2021	5			0	0	7	0		
Patients awaiting for a transplant (only active candidates) on 31/12/2021	3			0	0	7	0		
Patients who died while on the WL during 2021	0			0	0	0	0		

WAITING LIST

EUROPEAN UNION COUNTRIES

COUNTRIES	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden
Population (million inhabitants): UNFPA	0.4	17.2	37.8	10.2	19.1	5.5	2.1	46.7	10.2
KIDNEY									
N. TX CENTRES	1	10	22	8	4	4	1	40	4
Patients included on the WL for the first time in the course of 2021	21	1535	880	556	480	139	41	394	394
Total number of patients ever active on the WL during 2021	104	2363	2148	2507	5225	383	95	6895	1129
Patients awaiting for a transplant (only active candidates) on 31/12/2021	71	898	1033	1944	4918	237	38	3945	410
Patients who died while on the WL during 2021	8	102	131	35	14	28	4	22	22
Patients on dialysis on 31/12/2021	310		28000	13336	13708		1450	29366	
LIVER									
N. TX CENTRES	0	3	9	3	4	1	1	26	2
Patients included on the WL for the first time in the course of 2021	0	217	375	132	132	45	23	1209	165
Total number of patients ever active on the WL during 2021	0	328	530	282	730	71	38	1641	264
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0	71	151	87	431	22	11	362	72
Patients who died while on the WL during 2021	0	30	37	13	25	9	6	45	2
HEART									
N. TX CENTRES	0	3	6	4	3	1	1	19	2
Patients included on the WL for the first time in the course of 2021	0	73	357	66	18	25	30	347	57
Total number of patients ever active on the WL during 2021	0	206	796	93	44	57	64	495	90
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0	139	420	30	26	31	36	141	14
Patients who died while on the WL during 2021	0	12	91	7	10	11	1	12	1
LUNG									
N. TX CENTRES	0	3	4	1	1	0	1	8	2
Patients included on the WL for the first time in the course of 2021	0	119	134	49	4	0	15	407	55
Total number of patients ever active on the WL during 2021	0	280	301	121	9	0	19	627	96
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0	165	169	76	5	0	2	209	26
Patients who died while on the WL during 2021	0	15	49	11	1	0	0	12	7
PANCREAS									
N. TX CENTRES	0	2	5	2	1	1	1	13	4
Patients included on the WL for the first time in the course of 2021	0	35	38	25	0	0	0	86	17
Total number of patients ever active on the WL during 2021	0	82	95	40	0	0	1	181	44
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0	45	61	28	0	0	1	79	16
Patients who died while on the WL during 2021	0	2	1	0	0	0	0	3	0
SMALL BOWEL									
N. TX CENTRES	0		1		0	0	0	3	1
Patients included on the WL for the first time in the course of 2021	0		0			0	0	5	4
Total number of patients ever active on the WL during 2021	0		0			0	0	16	5
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0		0			0	0	7	3
Patients who died while on the WL during 2021	0		0			0	0	1	0

WAITING LIST

OTHER COUNTRIES

COUNTRIES	Armenia	Australia	Bangladesh	Belarus	Bosnia and Herzegovina	Canada	China	Ethiopia	Georgia	Iceland	India	Iran
Population (million inhabitants): UNFPA	3.0	25.8	166.3	9.4	3.3	38.1	1452.5	117.9	4.0	0.3	1393.4	85.0
KIDNEY												
N. TX CENTRES	1	26	10	7	2	25	143	1	3	1	579	33
Patients included on the WL for the first time in the course of 2021		1102	537	496	27		38363	40			8827	2104
Total number of patients ever active on the WL during 2021		2336	1322	665			97817	80			31010	1710
Patients awaiting for a transplant (only active candidates) on 31/12/2021		1443	650	285	200	1549	77695	20			27565	
Patients who died while on the WL during 2021		2	356	44	20	103	464	3			1097	180
Patients on dialysis on 31/12/2021		15253	17500	2909	1000			65			43158	
LIVER												
N. TX CENTRES	2	8	3	1	1	9	109		2	0	231	12
Patients included on the WL for the first time in the course of 2021		264		109	15		12358				3869	484
Total number of patients ever active on the WL during 2021		425		264			17788				7718	413
Patients awaiting for a transplant (only active candidates) on 31/12/2021		150		163	26	392	6668				5746	
Patients who died while on the WL during 2021		24		10	1	94	989				728	29
HEART												
N. TX CENTRES	0	5		1	1	11	66		0	0	155	11
Patients included on the WL for the first time in the course of 2021		125		57	0		1540				413	106
Total number of patients ever active on the WL during 2021		196		125	14		2096				829	63
Patients awaiting for a transplant (only active candidates) on 31/12/2021		75		64	14	99	886				567	
Patients who died while on the WL during 2021		5		13	0	11	162				57	10
LUNG												
N. TX CENTRES	0	4		2		5	49		0	0	86	4
Patients included on the WL for the first time in the course of 2021		191		9			1076				380	20
Total number of patients ever active on the WL during 2021		291		42			1223				497	11
Patients awaiting for a transplant (only active candidates) on 31/12/2021		103		30		162	205				229	
Patients who died while on the WL during 2021		10		6		37	790				82	
PANCREAS												
N. TX CENTRES	0	3		1		8	46		0	0	56	6
Patients included on the WL for the first time in the course of 2021		57		4							59	60
Total number of patients ever active on the WL during 2021		96		11							155	40
Patients awaiting for a transplant (only active candidates) on 31/12/2021		49		9		63					122	
Patients who died while on the WL during 2021		5		1		5					4	3
SMALL BOWEL												
N. TX CENTRES	0	1		1		2	42		0	0	22	1
Patients included on the WL for the first time in the course of 2021		4		0							11	8
Total number of patients ever active on the WL during 2021		9		0							28	7
Patients awaiting for a transplant (only active candidates) on 31/12/2021		5		0		5					14	
Patients who died while on the WL during 2021		0		0		0					5	

WAITING LIST

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WAITING LIST

OTHER COUNTRIES

COUNTRIES	Rep. of Moldova	Saudi Arabia	Serbia	Sudan	Switzerland	Syrian Arab Rep.	Thailand	Trinidad and Tobago	Turkey	United Arab Emirates	United Kingdom	United States of America
Population (million inhabitants): UNFPA	4.0	35.3	8.7	44.9	8.7	18.3	70.0	1.4	85.0	10.0	68.2	332.9
KIDNEY												
N. TX CENTRES	1	15	4	7	6	6	44	1	78	7	24	234
Patients included on the WL for the first time in the course of 2021	0	2750			374		844	8	3267	164	3194	32594
Total number of patients ever active on the WL during 2021	25	7000	599				5866	18	24983	330	8003	83847
Patients awaiting for a transplant (only active candidates) on 31/12/2021	22	4500			483		4740	15	22491	197	4787	51067
Patients who died while on the WL during 2021	1				32		117	0	2414	3	266	4872
Patients on dialysis on 31/12/2021	1100	21496		8541	377		180000	1000	63808	2019	2623	809103
LIVER												
N. TX CENTRES	1	5	2		3		10		46	1	7	143
Patients included on the WL for the first time in the course of 2021	19	260			215		211		627	70	1013	12548
Total number of patients ever active on the WL during 2021	78	550	64				241		3886	103	1618	23022
Patients awaiting for a transplant (only active candidates) on 31/12/2021	74	335			108		278		2180	44	614	8945
Patients who died while on the WL during 2021	0				28		40		178	0	67	1132
HEART												
N. TX CENTRES	0	3	1		3		5		15	1	7	145
Patients included on the WL for the first time in the course of 2021	0	50			49		41		260	10	210	4626
Total number of patients ever active on the WL during 2021	0	112	40				66		1534	23	609	7659
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0	104			59		32		1232	13	330	2693
Patients who died while on the WL during 2021	0				6		4		278	0	23	248
LUNG												
N. TX CENTRES	0	1			2		5		3	1	6	72
Patients included on the WL for the first time in the course of 2021		75			68		2		84	0	176	2923
Total number of patients ever active on the WL during 2021		80					4		269	2	487	3886
Patients awaiting for a transplant (only active candidates) on 31/12/2021		40			64		4		141	2	277	855
Patients who died while on the WL during 2021					6		0		107	0	37	128
PANCREAS												
N. TX CENTRES	0	2			2		4		8	1	8	120
Patients included on the WL for the first time in the course of 2021		20			23		0		13	9	235	1485
Total number of patients ever active on the WL during 2021		35					2		312	12	448	2446
Patients awaiting for a transplant (only active candidates) on 31/12/2021		25			10		2		274	3	243	996
Patients who died while on the WL during 2021					2		0		38	0	17	113
SMALL BOWEL												
N. TX CENTRES	0	1			2		2		3		4	21
Patients included on the WL for the first time in the course of 2021		3			1		0		4		26	123
Total number of patients ever active on the WL during 2021		5					0		4		46	243
Patients awaiting for a transplant (only active candidates) on 31/12/2021		3			0		0		1		14	148
Patients who died while on the WL during 2021					1		0		1		1	14

WAITING LIST

LATIN AMERICAN COUNTRIES

COUNTRIES	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic
Population (million inhabitants): UNFPA	45.6	11.8	214.0	19.2	51.3	5.1	11.3	11.0
KIDNEY								
N. TX CENTRES	63	8	173	21	28	7	9	5
Patients included on the WL for the first time in the course of 2021	1694	25	12246	339	1258	64	200	24
Total number of patients ever active on the WL during 2021	6846	2	37560	1451	3623	359	350	220
Patients awaiting for a transplant (only active candidates) on 31/12/2021	5006	2	27748	1148	2839	316	350	201
Patients who died while on the WL during 2021	382	3	1993	60	178	43		3
Patients on dialysis on 31/12/2021	28965	5200	110759		43123	742	2800	4265
LIVER								
N. TX CENTRES	35	1	87	11	12	5	3	1
Patients included on the WL for the first time in the course of 2021	767		3609	212	309	18	0	12
Total number of patients ever active on the WL during 2021	2103		4677	160	411	70	16	41
Patients awaiting for a transplant (only active candidates) on 31/12/2021	1412		1226	145	143	34	13	34
Patients who died while on the WL during 2021	185		657	48	46	36	1	6
HEART								
N. TX CENTRES	27	0	61	8	11	1	1	2
Patients included on the WL for the first time in the course of 2021	171		549	43	123	1	0	0
Total number of patients ever active on the WL during 2021	309		821	17	124	1	6	0
Patients awaiting for a transplant (only active candidates) on 31/12/2021	128		319	18	49	0	4	0
Patients who died while on the WL during 2021	31		106	11	6	0	2	0
LUNG								
N. TX CENTRES	8	0	11	4	6	1	0	0
Patients included on the WL for the first time in the course of 2021	86		176	32	39	4	0	
Total number of patients ever active on the WL during 2021	372		394	33	79	6	0	
Patients awaiting for a transplant (only active candidates) on 31/12/2021	291		216	49	48	5	0	
Patients who died while on the WL during 2021	41		53	10	10	1	0	
PANCREAS								
N. TX CENTRES	16	0	39	3	5	1	0	1
Patients included on the WL for the first time in the course of 2021	4		273	7	1	0	0	0
Total number of patients ever active on the WL during 2021	11		568	28	1	0	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2021	7		313	25	1	0	0	0
Patients who died while on the WL during 2021	0		42	2	0	0	0	0
SMALL BOWEL								
N. TX CENTRES	2	0	3	2	4	1	0	0
Patients included on the WL for the first time in the course of 2021	4		4	0	0	0	0	0
Total number of patients ever active on the WL during 2021	16		11	1	1	0	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2021	12		4	1	1	0	0	0
Patients who died while on the WL during 2021	1		0	0	0	0	0	0

WAITING LIST

LATIN AMERICAN COUNTRIES

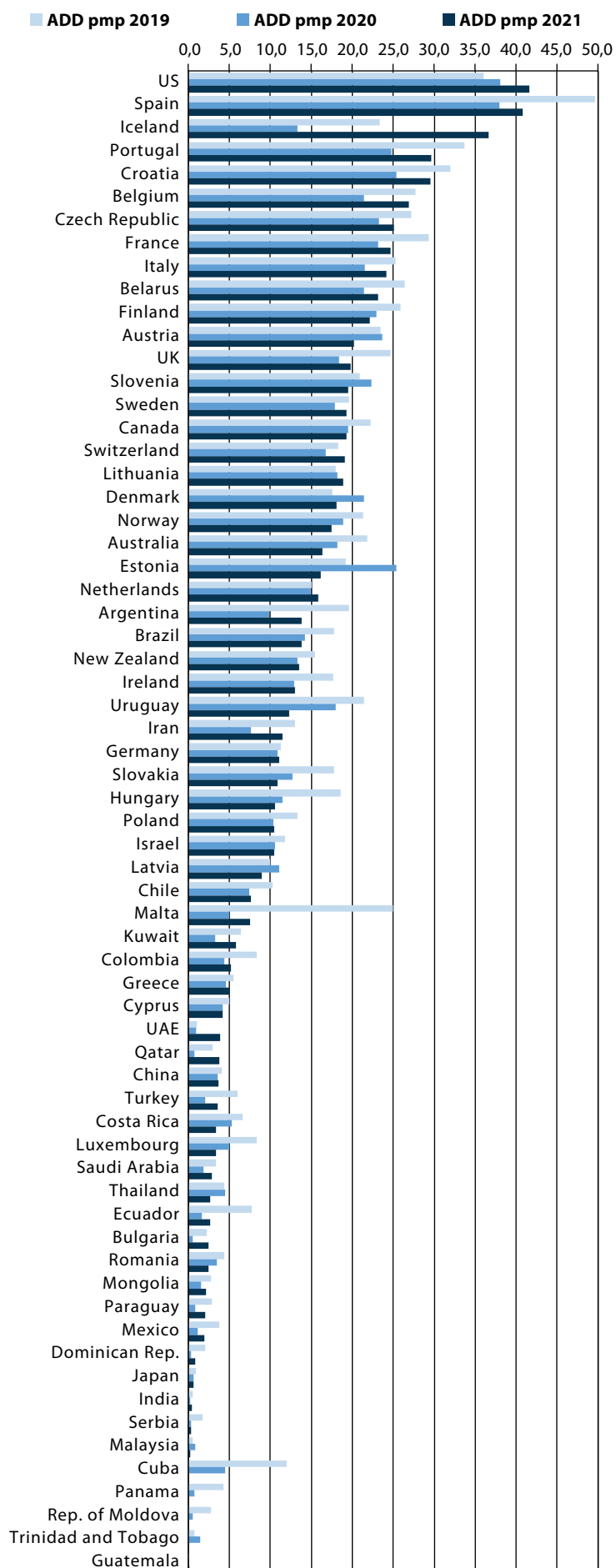
COUNTRIES	Ecuador	El Salvador	Guatemala	Honduras	Mexico	Panama	Paraguay	Uruguay
Population (million inhabitants): UNFPA	17.9	6.5	18.2	10.1	130.3	4.4	7.2	3.5
KIDNEY								
N. TX CENTRES	5	2	4	5	273	2	6	4
Patients included on the WL for the first time in the course of 2021	42				3510	0	38	192
Total number of patients ever active on the WL during 2021	346				20552	80	100	568
Patients awaiting for a transplant (only active candidates) on 31/12/2021	269				17039	80	52	432
Patients who died while on the WL during 2021	38				241		0	24
Patients on dialysis on 31/12/2021	4265	2572		3800		2100	1600	
LIVER								
N. TX CENTRES	3	0	0	0	85	1	1	1
Patients included on the WL for the first time in the course of 2021	32		0		269	0	0	39
Total number of patients ever active on the WL during 2021	142		0		580	5	5	70
Patients awaiting for a transplant (only active candidates) on 31/12/2021	115		0		230	4	4	34
Patients who died while on the WL during 2021	2		0		58	1	1	2
HEART								
N. TX CENTRES	3	0	0	0	61	1	3	3
Patients included on the WL for the first time in the course of 2021	5		0		37		9	26
Total number of patients ever active on the WL during 2021	5		0		87		17	68
Patients awaiting for a transplant (only active candidates) on 31/12/2021	2		0		52		7	50
Patients who died while on the WL during 2021	0		0		4		4	10
LUNG								
N. TX CENTRES	0	0	0	0	16	0	0	1
Patients included on the WL for the first time in the course of 2021	0		0		3		0	7
Total number of patients ever active on the WL during 2021	0		0		6		0	23
Patients awaiting for a transplant (only active candidates) on 31/12/2021	0		0		5		0	18
Patients who died while on the WL during 2021	0		0		2		0	1
PANCREAS								
N. TX CENTRES		0	0	0	28	0	0	
Patients included on the WL for the first time in the course of 2021			0		2		0	
Total number of patients ever active on the WL during 2021			0		8		0	
Patients awaiting for a transplant (only active candidates) on 31/12/2021			0		0		0	
Patients who died while on the WL during 2021			0		0		0	
SMALL BOWEL								
N. TX CENTRES		0	0	0	6	0	0	
Patients included on the WL for the first time in the course of 2021			0		2		0	
Total number of patients ever active on the WL during 2021			0		8		0	
Patients awaiting for a transplant (only active candidates) on 31/12/2021			0		0		0	
Patients who died while on the WL during 2021			0		0		0	

International Data on Organ Donation and Transplantation Activity. Year 2021 vs 2020 vs 2019



2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

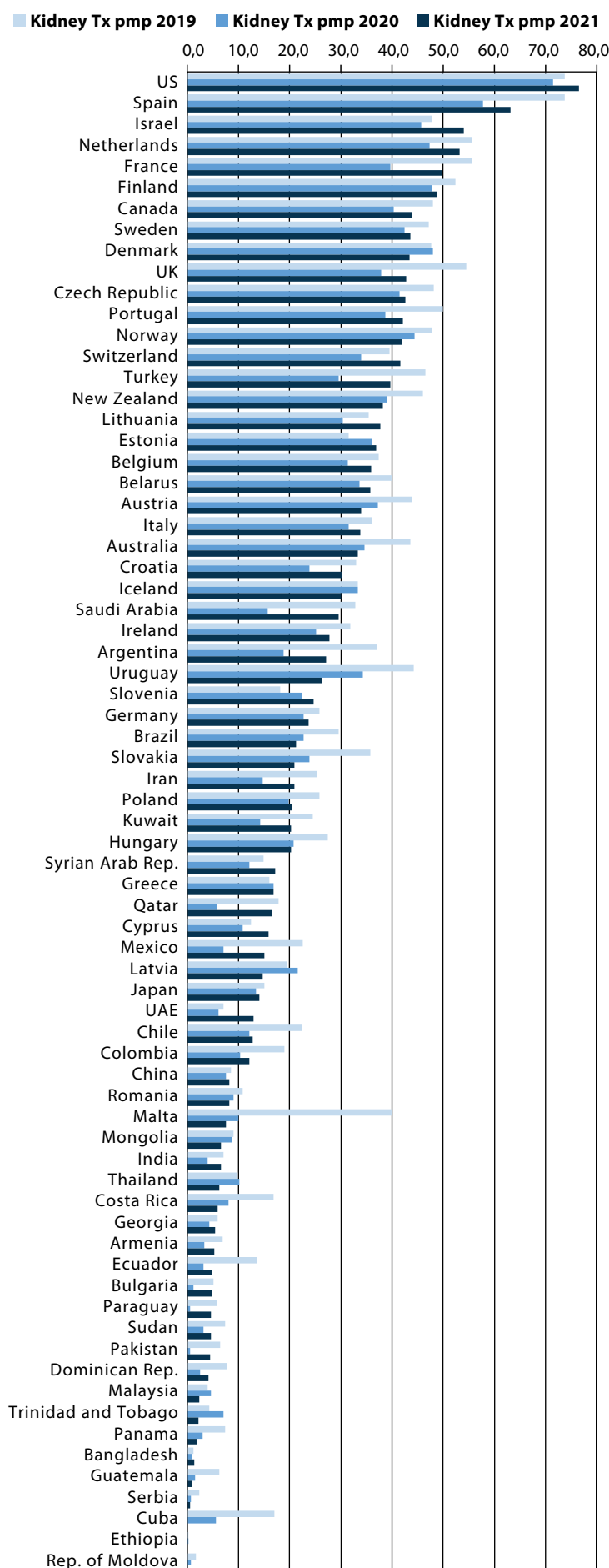
Actual Deceased Donors (ADD)



COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	883	19,6	444	9,8	630	13,8
Australia	548	21,8	463	18,2	421	16,3
Austria	206	23,4	213	23,7	182	20,2
Belarus	248	26,4	201	21,4	218	23,2
Belgium	321	27,7	249	21,5	312	26,9
Brazil	3767	17,7	3027	14,2	2953	13,8
Bulgaria	16	2,3	4	0,6	17	2,5
Canada	828	22,2	734	19,5	734	19,3
Chile	188	10,3	141	7,4	147	7,7
China	5818	4,1	5222	3,6	5272	3,6
Colombia	417	8,4	222	4,4	268	5,2
Costa Rica	33	6,6	27	5,3	17	3,3
Croatia	131	32,0	104	25,4	121	29,5
Cuba	138	12,0	51	4,5	0	0,0
Cyprus	6	5,0	5	4,2	5	4,2
Czech Republic	288	27,2	249	23,3	268	25,0
Denmark	102	17,6	124	21,4	105	18,1
Dominican Rep.	23	2,1	4	0,4	9	0,8
Ecuador	133	7,8	29	1,6	47	2,6
Estonia	25	19,2	33	25,4	21	16,2
Finland	145	25,9	126	22,9	122	22,2
France	1924	29,4	1512	23,2	1614	24,7
Germany	932	11,3	913	10,9	933	11,1
Greece	61	5,5	48	4,6	52	5,0
Guatemala	3	0,2	0	0,0	1	0,1
Hungary	180	18,6	111	11,4	102	10,6
Iceland	7	23,3	4	13,3	11	36,7
India	715	0,5	351	0,3	552	0,4
Iran	1078	13,0	645	7,7	979	11,5
Ireland	85	17,7	63	12,9	65	13,0
Israel	101	11,7	92	10,6	92	10,5
Italy	1495	25,3	1303	21,5	1458	24,1
Japan	125	1,0	77	0,6	78	0,6
Kuwait	27	6,4	14	3,3	25	5,8
Latvia	19	10,0	21	11,1	17	8,9
Lithuania	52	17,9	49	18,1	51	18,9
Luxembourg	5	8,3	3	5,0	2	3,3
Malaysia	16	0,5	28	0,9	7	0,2
Malta	10	25,0	2	5,0	3	7,5
Mexico	500	3,8	152	1,2	260	2,0
Mongolia	9	2,8	5	1,5	7	2,1
Netherlands	258	15,1	255	14,9	273	15,9
New Zealand	74	15,4	64	13,3	66	13,5
Norway	115	21,3	102	18,9	96	17,5
Panama	18	4,3	3	0,7	0	0,0
Paraguay	20	2,9	6	0,8	15	2,1
Poland	504	13,3	393	10,4	396	10,5
Portugal	347	33,7	253	24,8	302	29,6
Qatar	8	3,0	2	0,7	11	3,8
Rep. of Moldova	11	2,8	2	0,5	0	0,0
Romania	85	4,4	66	3,4	47	2,5
Saudi Arabia	114	3,3	65	1,9	102	2,9
Serbia	15	1,7	3	0,3	3	0,3
Slovakia	98	17,8	70	12,7	60	10,9
Slovenia	44	21,0	47	22,4	41	19,5
Spain	2302	49,6	1777	38,0	1905	40,8
Sweden	198	19,6	181	17,9	197	19,3
Switzerland	157	18,3	146	16,8	166	19,1
Thailand	301	4,3	315	4,5	190	2,7
Trinidad and Tobago	1	0,7	2	1,4	0	0,0
Turkey	499	6,0	172	2,0	305	3,6
UAE	10	1,0	9	0,9	39	3,9
UK	1653	24,7	1248	18,4	1350	19,8
Uruguay	75	21,4	63	18,0	43	12,3
US	11870	36,1	12588	38,0	13863	41,6

2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

Kidney Transplants

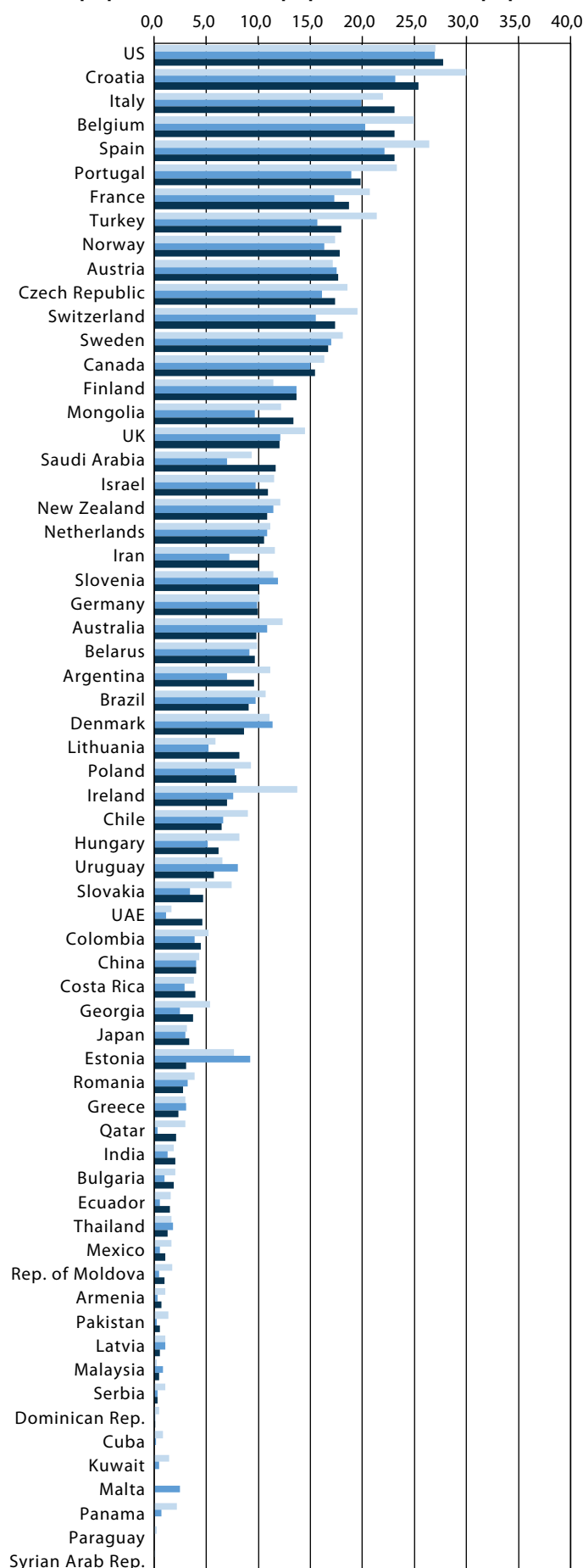


COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	1675	37,1	854	18,9	1237	27,1
Armenia	20	6,9	10	3,3	16	5,3
Australia	1095	43,6	885	34,7	858	33,3
Austria	386	43,9	335	37,2	306	34,0
Bangladesh	205	1,2	155	0,9	228	1,4
Belarus	376	40,0	316	33,6	336	35,7
Belgium	434	37,4	363	31,3	417	35,9
Brazil	6298	29,7	4830	22,7	4559	21,3
Bulgaria	36	5,1	8	1,2	33	4,8
Canada	1790	48,0	1518	40,3	1673	43,9
Chile	410	22,4	233	12,2	246	12,8
China	12124	8,5	11037	7,6	12039	8,3
Colombia	947	19,0	526	10,3	623	12,1
Costa Rica	84	16,8	41	8,0	30	5,9
Croatia	135	32,9	98	23,9	124	30,2
Cuba	195	17,0	64	5,7	0	0,0
Cyprus	15	12,5	13	10,8	19	15,8
Czech Republic	510	48,1	443	41,4	456	42,6
Denmark	276	47,6	278	47,9	252	43,4
Dominican Rep.	86	7,8	28	2,6	45	4,1
Ecuador	234	13,7	57	3,2	87	4,9
Estonia	41	31,5	47	36,2	48	36,9
Ethiopia	35	0,3	8	0,1	0	0,0
Finland	293	52,3	263	47,8	268	48,7
France	3643	55,6	2595	39,7	3252	49,7
Georgia	23	5,9	17	4,3	22	5,5
Germany	2132	25,9	1909	22,8	1992	23,7
Greece	178	16,0	175	16,8	175	16,8
Guatemala	109	6,2	29	1,6	17	0,9
Hungary	266	27,4	202	20,8	194	20,2
Iceland	10	33,3	10	33,3	9	30,0
India	9751	7,1	5486	4,0	9105	6,5
Iran	2101	25,4	1240	14,8	1777	20,9
Ireland	153	31,9	123	25,1	139	27,8
Israel	411	47,8	397	45,6	476	54,1
Italy	2139	36,1	1907	31,5	2043	33,8
Japan	1913	15,1	1697	13,4	1772	14,1
Kuwait	103	24,5	61	14,2	87	20,2
Latvia	37	19,5	41	21,6	28	14,7
Lithuania	103	35,5	82	30,4	102	37,8
Malaysia	130	4,0	153	4,7	78	2,4
Malta	16	40,0	4	10,0	3	7,5
Mexico	2976	22,5	913	7,1	1974	15,1
Mongolia	29	9,1	29	8,8	22	6,7
Netherlands	951	55,6	809	47,3	916	53,3
New Zealand	221	46,0	187	39,0	187	38,2
Norway	258	47,8	240	44,4	231	42,0
Pakistan	1306	6,4	129	0,6	1003	4,5
Panama	31	7,4	13	3,0	8	1,8
Paraguay	40	5,7	4	0,6	33	4,6
Poland	983	25,9	751	19,9	770	20,4
Portugal	514	49,9	394	38,6	429	42,1
Qatar	48	17,8	17	5,9	48	16,6
Rep. of Moldova	7	1,8	3	0,8	0	0,0
Romania	211	10,8	174	9,1	156	8,2
Saudi Arabia	1121	32,9	547	15,7	1044	29,6
Serbia	21	2,4	6	0,7	5	0,6
Slovakia	197	35,8	131	23,8	115	20,9
Slovenia	38	18,1	47	22,4	52	24,8
Spain	3423	73,8	2702	57,7	2950	63,2
Sudan	313	7,4	139	3,2	205	4,6
Sweden	476	47,1	429	42,5	445	43,6
Switzerland	340	39,5	296	34,0	362	41,6
Syrian Arab Rep.	275	14,9	211	12,1	315	17,2
Thailand	679	9,8	712	10,2	434	6,2
Trinidad and Tobago	6	4,3	10	7,1	3	2,1
Turkey	3863	46,5	2498	29,6	3375	39,7
UAE	68	7,0	61	6,2	130	13,0
UK	3649	54,5	2567	37,8	2917	42,8
Uruguay	155	44,3	120	34,3	92	26,3
US	24273	73,8	23644	71,4	25490	76,6

2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

Liver Transplants

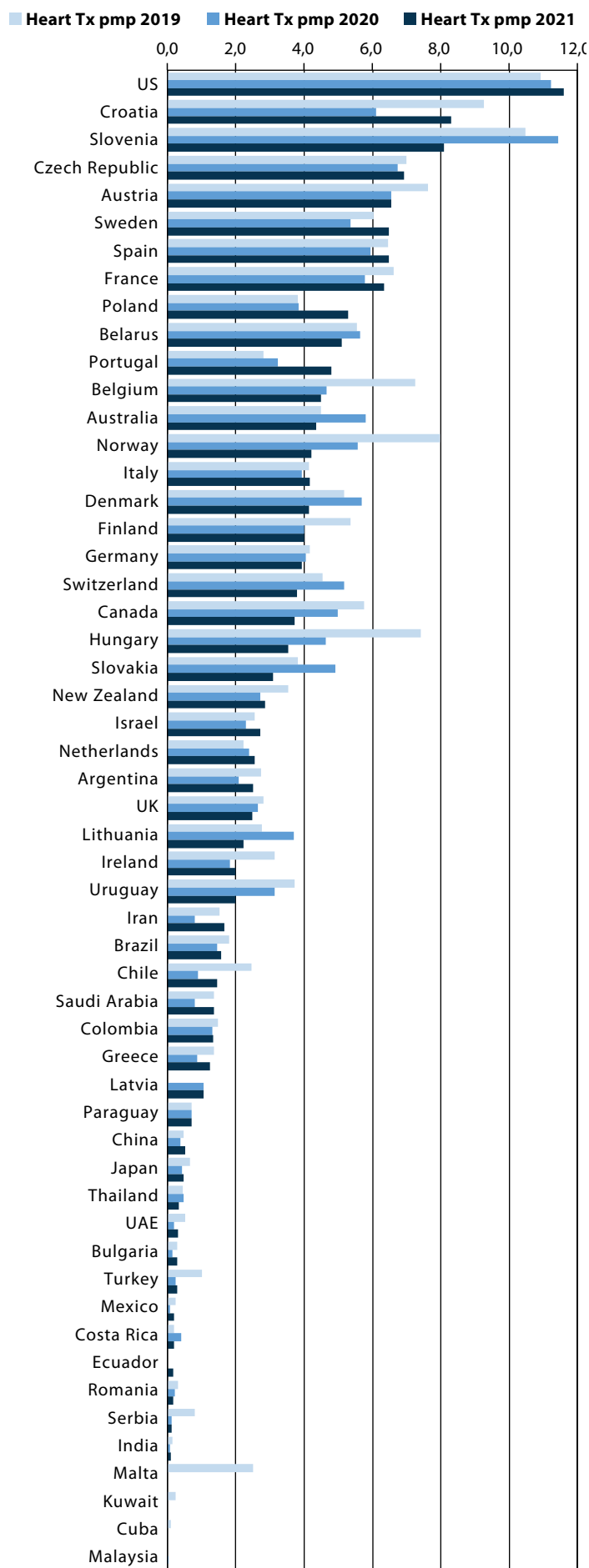
■ Liver Tx pmp 2019 ■ Liver Tx pmp 2020 ■ Liver Tx pmp 2021



COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	504	11.2	316	7.0	438	9.6
Armenia	3	1.0	1	0.3	2	0.7
Australia	310	12.4	277	10.9	254	9.8
Austria	151	17.2	158	17.6	159	17.7
Belarus	93	9.9	86	9.1	91	9.7
Belgium	289	24.9	235	20.3	268	23.1
Brazil	2265	10.7	2075	9.8	1944	9.1
Bulgaria	14	2.0	7	1.0	13	1.9
Canada	609	16.3	565	15.0	589	15.5
Chile	164	9.0	127	6.6	125	6.5
China	6170	4.3	5842	4.0	5834	4.0
Colombia	261	5.2	199	3.9	229	4.5
Costa Rica	19	3.8	15	2.9	20	3.9
Croatia	123	30.0	95	23.2	104	25.4
Cuba	10	0.9	2	0.2	0	0.0
Czech Republic	197	18.6	172	16.1	186	17.4
Denmark	64	11.0	66	11.4	50	8.6
Dominican Rep.	5	0.5	1	0.1	1	0.1
Ecuador	27	1.6	9	0.5	27	1.5
Estonia	10	7.7	12	9.2	4	3.1
Finland	64	11.4	75	13.6	75	13.6
France	1356	20.7	1128	17.3	1225	18.7
Georgia	21	5.4	10	2.5	15	3.8
Germany	831	10.1	826	9.9	834	9.9
Greece	33	3.0	32	3.1	24	2.3
Hungary	79	8.1	50	5.2	59	6.1
India	2592	1.9	1780	1.3	2847	2.0
Iran	961	11.6	606	7.2	854	10.0
Ireland	66	13.8	37	7.6	35	7.0
Israel	99	11.5	85	9.8	96	10.9
Italy	1301	22.0	1202	19.9	1396	23.1
Japan	395	3.1	380	3.0	421	3.3
Kuwait	6	1.4	2	0.5	0	0.0
Latvia	2	1.1	2	1.1	1	0.5
Lithuania	17	5.9	14	5.2	22	8.1
Malaysia	8	0.2	28	0.9	15	0.5
Malta	0	0.0	1	2.5	0	0.0
Mexico	223	1.7	72	0.6	135	1.0
Mongolia	39	12.2	32	9.7	44	13.3
Netherlands	190	11.1	186	10.9	181	10.5
New Zealand	58	12.1	55	11.5	53	10.8
Norway	94	17.4	88	16.3	98	17.8
Pakistan	285	1.4	60	0.3	131	0.6
Panama	9	2.1	3	0.7	0	0.0
Paraguay	2	0.3	0	0.0	0	0.0
Poland	352	9.3	291	7.7	297	7.9
Portugal	240	23.3	193	18.9	202	19.8
Qatar	8	3.0	1	0.3	6	2.1
Rep. of Moldova	7	1.8	2	0.5	4	1.0
Romania	75	3.8	62	3.2	53	2.8
Saudi Arabia	319	9.4	244	7.0	411	11.6
Serbia	9	1.0	3	0.3	3	0.3
Slovakia	41	7.5	19	3.5	26	4.7
Slovenia	24	11.4	25	11.9	21	10.0
Spain	1227	26.4	1034	22.1	1078	23.1
Sweden	183	18.1	172	17.0	170	16.7
Switzerland	168	19.5	135	15.5	151	17.4
Syrian Arab Rep.	1	0.1	0	0.0	0	0.0
Thailand	116	1.7	125	1.8	89	1.3
Turkey	1776	21.4	1320	15.7	1528	18.0
UAE	16	1.6	11	1.1	46	4.6
UK	971	14.5	823	12.1	821	12.0
Uruguay	23	6.6	28	8.0	20	5.7
US	8896	27.0	8906	26.9	9236	27.7

2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

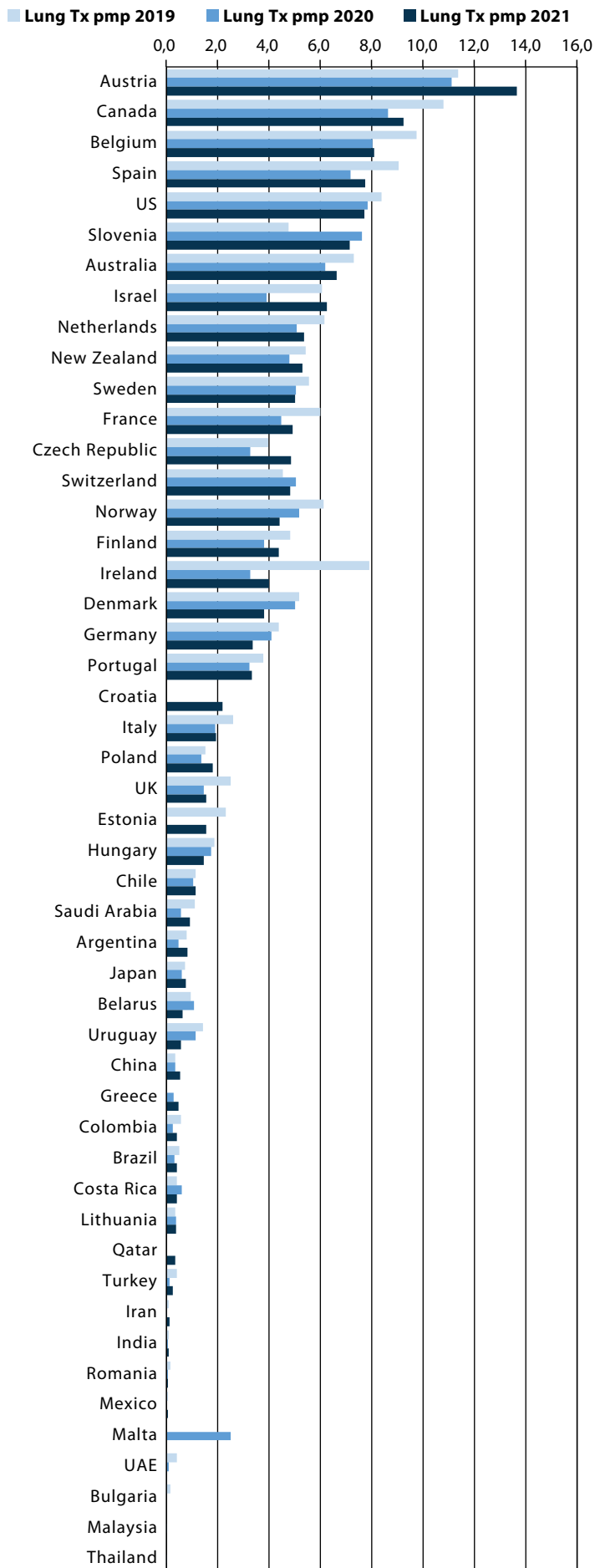
Heart Transplants



COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	124	2,7	94	2,1	114	2,5
Australia	113	4,5	148	5,8	112	4,3
Austria	67	7,6	59	6,6	59	6,6
Belarus	52	5,5	53	5,6	48	5,1
Belgium	84	7,2	54	4,7	52	4,5
Brazil	383	1,8	308	1,4	334	1,6
Bulgaria	2	0,3	1	0,1	2	0,3
Canada	215	5,8	188	5,0	142	3,7
Chile	45	2,5	17	0,9	28	1,5
China	679	0,5	557	0,4	738	0,5
Colombia	74	1,5	67	1,3	69	1,3
Costa Rica	1	0,2	2	0,4	1	0,2
Croatia	38	9,3	25	6,1	34	8,3
Cuba	1	0,1	0	0,0	0	0,0
Czech Republic	74	7,0	72	6,7	74	6,9
Denmark	30	5,2	33	5,7	24	4,1
Ecuador	0	0,0	0	0,0	3	0,2
Finland	30	5,4	22	4,0	22	4,0
France	434	6,6	378	5,8	415	6,3
Germany	344	4,2	339	4,0	329	3,9
Greece	15	1,4	9	0,9	13	1,3
Hungary	72	7,4	45	4,6	34	3,5
India	187	0,1	89	0,1	151	0,1
Iran	126	1,5	67	0,8	141	1,7
Ireland	15	3,1	9	1,8	10	2,0
Israel	22	2,6	20	2,3	24	2,7
Italy	245	4,1	238	3,9	252	4,2
Japan	84	0,7	54	0,4	59	0,5
Kuwait	1	0,2	0	0,0	0	0,0
Latvia	0	0,0	2	1,1	2	1,1
Lithuania	8	2,8	10	3,7	6	2,2
Malaysia	0	0,0	1	0,0	0	0,0
Malta	1	2,5	0	0,0	0	0,0
Mexico	33	0,2	9	0,1	26	0,2
Netherlands	38	2,2	41	2,4	44	2,6
New Zealand	17	3,5	13	2,7	14	2,9
Norway	43	8,0	30	5,6	23	4,2
Paraguay	5	0,7	5	0,7	5	0,7
Poland	145	3,8	145	3,8	200	5,3
Portugal	29	2,8	33	3,2	49	4,8
Romania	6	0,3	4	0,2	3	0,2
Saudi Arabia	46	1,3	28	0,8	48	1,4
Serbia	7	0,8	1	0,1	1	0,1
Slovakia	21	3,8	27	4,9	17	3,1
Slovenia	22	10,5	24	11,4	17	8,1
Spain	300	6,5	278	5,9	302	6,5
Sweden	61	6,0	54	5,3	66	6,5
Switzerland	39	4,5	45	5,2	33	3,8
Thailand	31	0,4	33	0,5	24	0,3
Turkey	84	1,0	21	0,2	24	0,3
UAE	5	0,5	2	0,2	3	0,3
UK	188	2,8	179	2,6	169	2,5
Uruguay	13	3,7	11	3,1	7	2,0
US	3597	10,9	3716	11,2	3863	11,6

2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

Lung Transplants

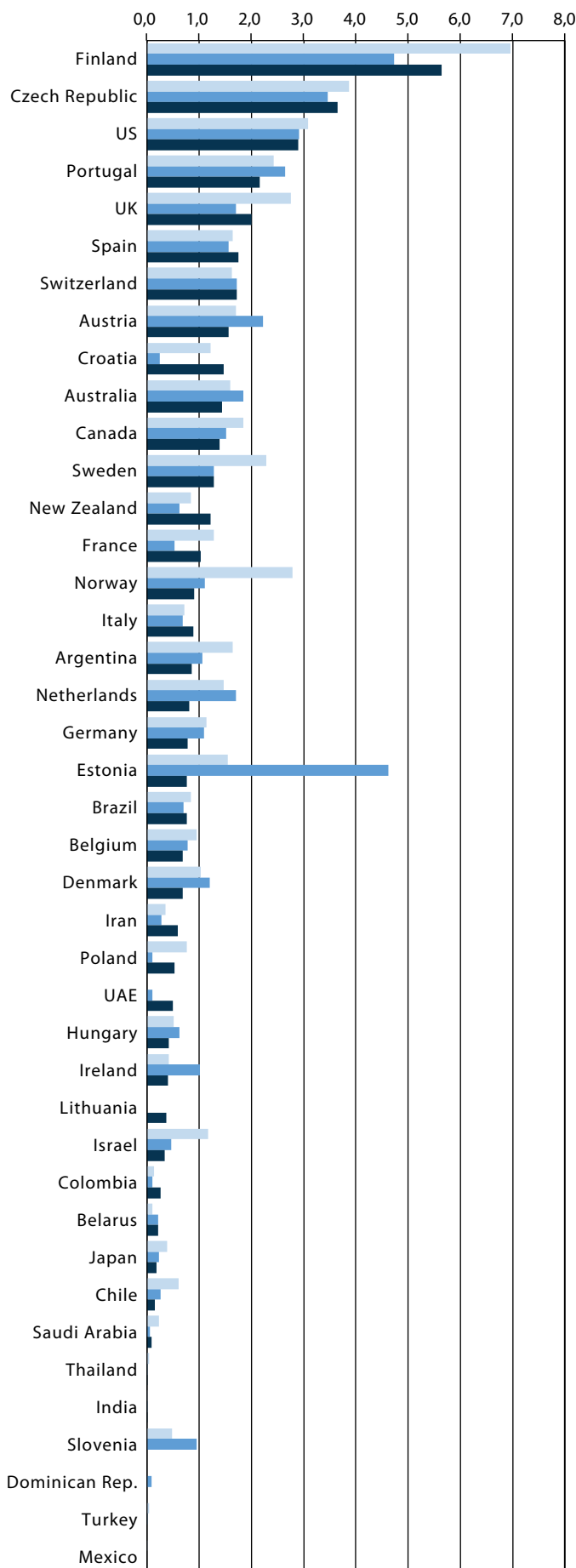


COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	36	0,8	21	0,5	37	0,8
Australia	183	7,3	158	6,2	171	6,6
Austria	100	11,4	100	11,1	123	13,7
Belarus	9	1,0	10	1,1	6	0,6
Belgium	113	9,7	93	8,0	94	8,1
Brazil	106	0,5	65	0,3	84	0,4
Bulgaria	1	0,1	0	0,0	0	0,0
Canada	403	10,8	325	8,6	352	9,2
Chile	21	1,1	20	1,0	22	1,1
China	489	0,3	513	0,4	775	0,5
Colombia	28	0,6	12	0,2	21	0,4
Costa Rica	2	0,4	3	0,6	2	0,4
Croatia	0	0,0	0	0,0	9	2,2
Czech Republic	42	4,0	35	3,3	52	4,9
Denmark	30	5,2	29	5,0	22	3,8
Estonia	3	2,3	0	0,0	2	1,5
Finland	27	4,8	21	3,8	24	4,4
France	393	6,0	291	4,5	322	4,9
Germany	361	4,4	344	4,1	283	3,4
Greece	0	0,0	3	0,3	5	0,5
Hungary	18	1,9	17	1,8	14	1,5
India	114	0,1	67	0,0	133	0,1
Iran	7	0,1	3	0,0	10	0,1
Ireland	38	7,9	16	3,3	20	4,0
Israel	52	6,0	34	3,9	55	6,3
Italy	153	2,6	115	1,9	117	1,9
Japan	92	0,7	75	0,6	93	0,7
Lithuania	1	0,3	1	0,4	1	0,4
Malaysia	0	0,0	1	0,0	0	0,0
Malta	0	0,0	1	2,5	0	0,0
Mexico	7	0,1	0	0,0	6	0,0
Netherlands	105	6,1	87	5,1	92	5,3
New Zealand	26	5,4	23	4,8	26	5,3
Norway	33	6,1	28	5,2	24	4,4
Poland	57	1,5	51	1,3	68	1,8
Portugal	39	3,8	33	3,2	34	3,3
Qatar	0	0,0	0	0,0	1	0,3
Romania	3	0,2	1	0,1	1	0,1
Saudi Arabia	38	1,1	20	0,6	32	0,9
Slovenia	10	4,8	16	7,6	15	7,1
Spain	419	9,0	336	7,2	362	7,8
Sweden	56	5,5	51	5,0	51	5,0
Switzerland	39	4,5	44	5,1	42	4,8
Thailand	0	0,0	1	0,0	1	0,0
Turkey	33	0,4	11	0,1	21	0,2
UAE	4	0,4	1	0,1	0	0,0
UK	167	2,5	99	1,5	105	1,5
Uruguay	5	1,4	4	1,1	2	0,6
US	2759	8,4	2597	7,8	2569	7,7

2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

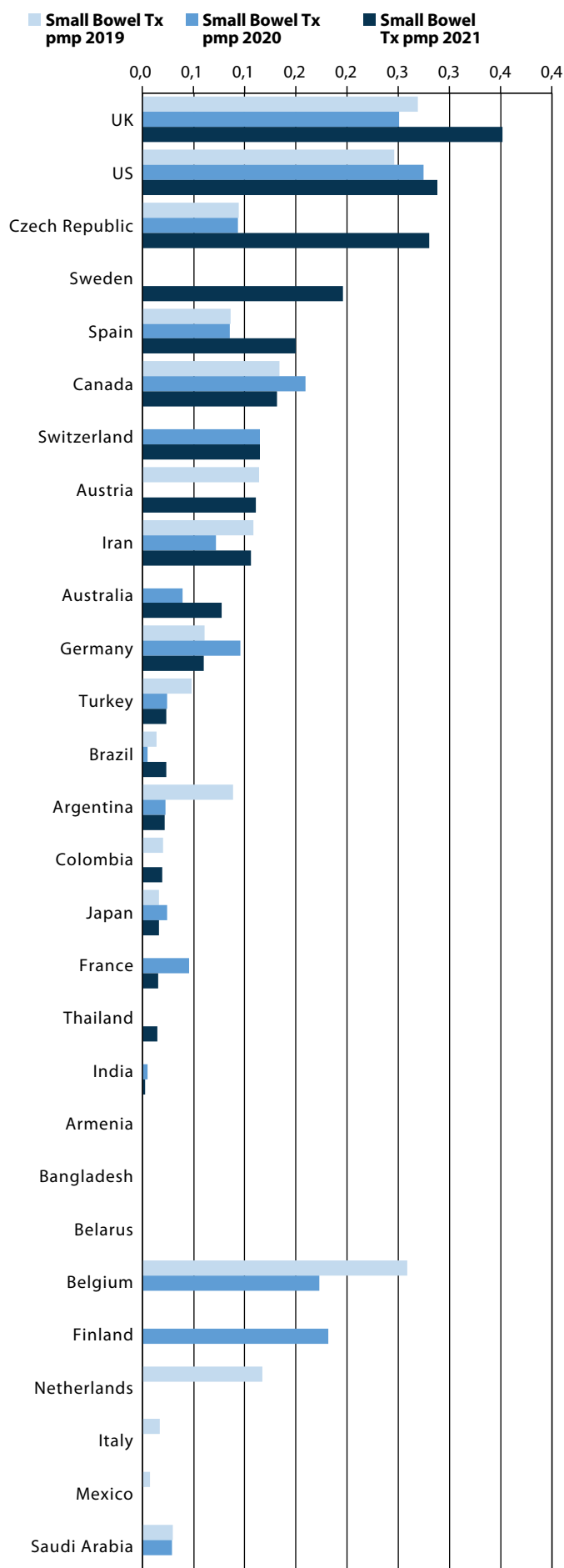
Pancreas Transplants

■ Pancreas Tx pmp 2019 ■ Pancreas Tx pmp 2020 ■ Pancreas Tx pmp 2021



COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	74	1,6	48	1,1	39	0,9
Australia	40	1,6	47	1,8	37	1,4
Austria	15	1,7	20	2,2	14	1,6
Belarus	1	0,1	2	0,2	2	0,2
Belgium	11	0,9	9	0,8	8	0,7
Brazil	177	0,8	148	0,7	162	0,8
Canada	69	1,8	57	1,5	53	1,4
Chile	11	0,6	5	0,3	3	0,2
Colombia	7	0,1	5	0,1	13	0,3
Croatia	5	1,2	1	0,2	6	1,5
Czech Republic	41	3,9	37	3,5	39	3,6
Denmark	6	1,0	7	1,2	4	0,7
Dominican Rep.	0	0,0	1	0,1	0	0,0
Estonia	2	1,5	6	4,6	1	0,8
Finland	39	7,0	26	4,7	31	5,6
France	84	1,3	34	0,5	67	1,0
Germany	94	1,1	92	1,1	65	0,8
Hungary	5	0,5	6	0,6	4	0,4
India	22	0,0	14	0,0	19	0,0
Iran	29	0,4	23	0,3	50	0,6
Ireland	2	0,4	5	1,0	2	0,4
Israel	10	1,2	4	0,5	3	0,3
Italy	42	0,7	41	0,7	54	0,9
Japan	49	0,4	28	0,2	23	0,2
Lithuania	0	0,0			1	0,4
Mexico	2	0,0	0	0,0	0	0,0
Netherlands	25	1,5	29	1,7	14	0,8
New Zealand	4	0,8	3	0,6	6	1,2
Norway	15	2,8	6	1,1	5	0,9
Poland	29	0,8	4	0,1	20	0,5
Portugal	25	2,4	27	2,6	22	2,2
Saudi Arabia	8	0,2	2	0,1	3	0,1
Slovenia	1	0,5	2	1,0	0	0,0
Spain	76	1,6	73	1,6	82	1,8
Sweden	23	2,3	13	1,3	13	1,3
Switzerland	14	1,6	15	1,7	15	1,7
Thailand	3	0,0	1	0,0	1	0,0
Turkey	3	0,0	1	0,0	0	0,0
UAE	0	0,0	1	0,1	5	0,5
UK	185	2,8	116	1,7	137	2,0
US	1015	3,1	962	2,9	963	2,9

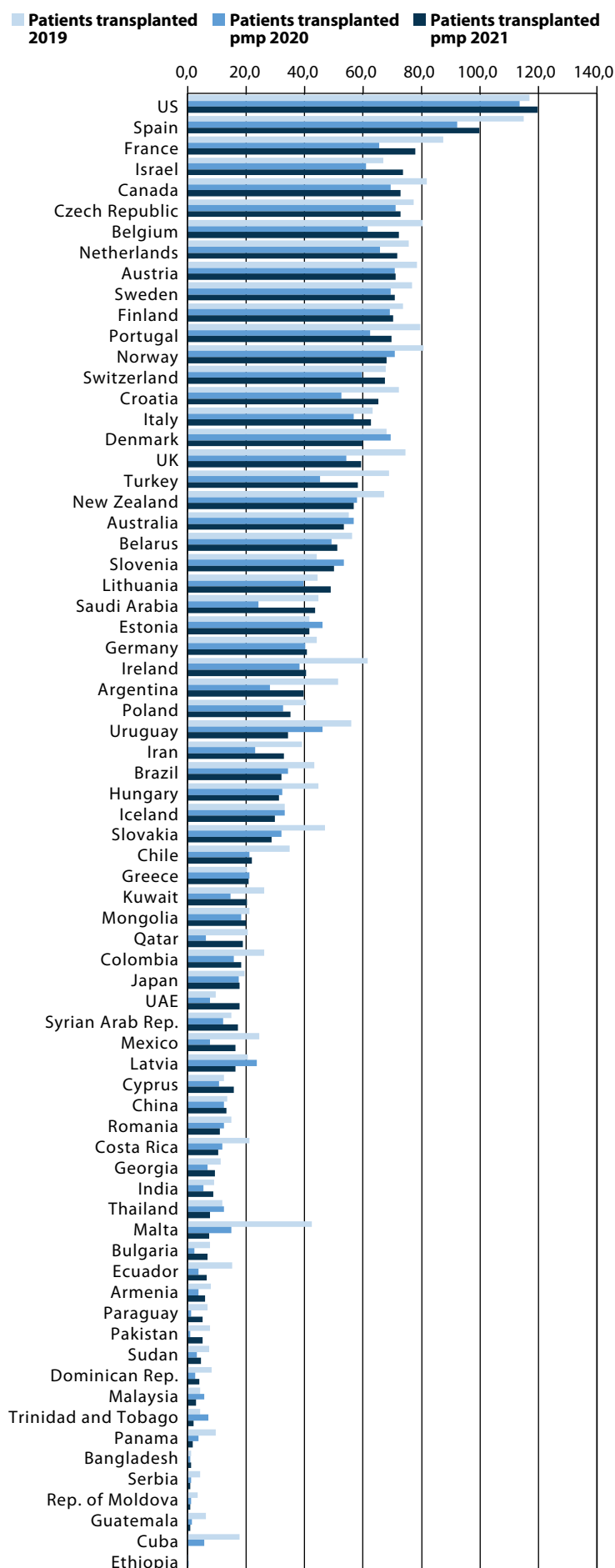
Small Bowel Transplants



COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	4	0,1	1	0,0	1	0,0
Armenia	0	0,0	0	0,0	0	0,0
Australia	0	0,0	1	0,0	2	0,1
Austria	1	0,1	0	0,0	1	0,1
Bangladesh	0	0,0	0	0,0	0	0,0
Belarus	0	0,0	0	0,0	0	0,0
Belgium	3	0,3	2	0,2	0	0,0
Brazil	3	0,0	1	0,0	5	0,0
Canada	5	0,1	6	0,2	5	0,1
Colombia	1	0,0	0	0,0	1	0,0
Czech Republic	1	0,1	1	0,1	3	0,3
Finland	0	0,0	1	0,2	0	0,0
France	0	0,0	3	0,0	1	0,0
Germany	5	0,1	8	0,1	5	0,1
India	0	0,0	7	0,0	4	0,0
Iran	9	0,1	6	0,1	9	0,1
Italy	1	0,0	0	0,0	0	0,0
Japan	2	0,0	3	0,0	2	0,0
Mexico	1	0,0	0	0,0	0	0,0
Netherlands	2	0,1	0	0,0		
Saudi Arabia	1	0,0	1	0,0	0	0,0
Spain	4	0,1	4	0,1	7	0,1
Sweden			0	0,0	2	0,2
Switzerland	0	0,0	1	0,1	1	0,1
Thailand	0	0,0	0	0,0	1	0,0
Turkey	4	0,0	2	0,0	2	0,0
UK	18	0,3	17	0,3	24	0,4
US	81	0,2	91	0,3	96	0,3

2021 VS 2020 VS 2019. GLOBAL DATA ON ORGAN DONATION AND TRANSPLANTATION

Patients transplanted



COUNTRY	2019		2020		2021	
	N	PMP	N	PMP	N	PMP
Argentina	2321	51,5	1273	28,2	1808	39,6
Armenia	23	7,9	11	3,7	18	6,0
Australia	1385	55,2	1449	56,8	1377	53,4
Austria	689	78,3	637	70,8	641	71,2
Bangladesh	205	1,2	155	0,9	228	1,4
Belarus	530	56,4	463	49,3	481	51,2
Belgium	934	80,5	716	61,7	839	72,3
Brazil	9185	43,2	7290	34,3	6879	32,1
Bulgaria	53	7,6	16	2,3	48	7,0
Canada	3047	81,7	2615	69,4	2777	72,9
Chile	640	35,0	402	21,0	422	22,0
China	19454	13,6	17897	12,4	19326	13,3
Colombia	1303	26,2	799	15,7	937	18,3
Costa Rica	106	21,2	61	12,0	53	10,4
Croatia	296	72,2	216	52,7	268	65,4
Cuba	206	17,9	66	5,8	0	0,0
Cyprus	15	12,5	13	10,8	19	15,8
Czech Republic	818	77,2	760	71,0	778	72,7
Denmark	395	68,1	403	69,5	348	60,0
Dominican Rep.	91	8,3	29	2,7	46	4,2
Ecuador	262	15,3	66	3,8	117	6,5
Estonia	54	41,5	60	46,2	54	41,5
Ethiopia	35	0,3	8	0,1	0	0,0
Finland	413	73,8	381	69,3	387	70,4
France	5723	87,4	4283	65,6	5097	77,9
Georgia	44	11,3	27	6,8	37	9,3
Germany	3644	44,2	3384	40,4	3422	40,8
Greece	226	20,4	219	21,1	217	20,9
Guatemala	109	6,2	29	1,6	17	0,9
Hungary	433	44,6	314	32,4	299	31,1
Iceland	10	33,3	10	33,3	9	30,0
India	12625	9,2	7426	5,4	12218	8,8
Iran	3233	39,0	1945	23,2	2797	32,9
Ireland	296	61,7	187	38,2	203	40,6
Israel	575	66,9	530	60,9	647	73,5
Italy	3744	63,2	3437	56,8	3795	62,8
Japan	2483	19,6	2209	17,5	2235	17,7
Kuwait	110	26,2	63	14,7	87	20,2
Latvia	39	20,5	45	23,7	31	16,3
Lithuania	129	44,5	107	39,6	132	48,9
Malaysia	138	4,2	182	5,6	93	2,8
Malta	17	42,5	6	15,0	3	7,5
Mexico	3237	24,5	997	7,7	2139	16,4
Mongolia	68	21,3	61	18,5	66	20,0
Netherlands	1291	75,5	1124	65,7	1231	71,6
New Zealand	322	67,1	278	57,9	278	56,7
Norway	436	80,7	382	70,7	374	68,0
Pakistan	1591	7,8	189	0,9	1134	5,0
Panama	40	9,5	16	3,7	8	1,8
Paraguay	47	6,7	9	1,3	38	5,3
Poland	1541	40,6	1236	32,7	1333	35,3
Portugal	820	79,6	637	62,5	710	69,6
Qatar	56	20,7	18	6,2	55	19,0
Rep. of Moldova	14	3,5	5	1,3	4	1,0
Romania	295	15,1	241	12,6	213	11,2
Saudi Arabia	1530	44,9	840	24,1	1535	43,5
Serbia	37	4,3	10	1,1	9	1,0
Slovakia	259	47,1	177	32,2	158	28,7
Slovenia	93	44,3	112	53,3	105	50,0
Spain	5326	114,8	4315	92,2	4655	99,7
Sudan	313	7,4	139	3,2	205	4,6
Sweden	775	76,7	702	69,5	724	71,0
Switzerland	582	67,7	519	59,7	587	67,5
Syrian Arab Rep.	275	14,9	211	12,1	315	17,2
Thailand	822	11,9	862	12,3	542	7,7
Trinidad and Tobago	6	4,3	10	7,1	3	2,1
Turkey	5729	69,0	3830	45,4	4948	58,2
UAE	93	9,6	75	7,6	177	17,7
UK	4992	74,5	3686	54,3	4038	59,2
Uruguay	196	56,0	162	46,3	120	34,3
US	38433	116,8	37580	113,5	39843	119,7

International Data on Tissues and Haematopoietic Stem Cell Donation and Transplantation Activity. Year 2021



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Letizia Lombardini
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Latvia

Lithuania

Evaldas Valys

Luxembourg

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Sanneke Matlung

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Margarida Ivo da Silva

Romania

Andrei Nica

Slovenia

Slovakia

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Spain

Bibiana Ramos
Marina Álvarez

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Anna Björkland (Tobiasregistret)

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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: parts 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 application. One donation may include many 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 semilunar 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 tissues 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 do 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 fetus 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 application.

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 haematopoietic 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 2021

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, 2021 - in millions)	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.4	83.9	10.4	9.6	5.0	60.4
TYPE OF TISSUE	TYPE OF DATA														
CORNEA	N. of tissue donations		48	407		518	473	23	275	5674					6879
	Tissue donations PMP		7.0	99.3		48.4	81.6	17.7	50.0	86.8					113.9
	N. of tissues retrieved		91	468		1028	946	46	549	11090	12730				13561
	N. of tissues processed (units)		91	472		974	946	47	402	5571	11500				6783
	N. of tissues distributed nationally (units)		72	272		677	946	64	401	5372	9090				6301
	N. of tissues imported (units)		17	0		0	0	0	24	0	1116				0
	N. of tissues exported (units)		0	0		120	0	0	0	70	110				913
	N. of tissues transplanted		99	271		677	688	64		4754					
N. of patients transplanted		93	232		675	685	54	377	4438						
N. of transplant procedures		99	271		677	685			4754					6099	
SKIN	N. of tissue donations		78	0		135		5	29	302					441
	Tissue donations PMP		11.3	0.0		12.6		3.8	5.3	4.6					7.3
	N. of tissues retrieved (cm²)		109603	0		9594		0	0	580048	15522				1085938
	N. of tissues processed (units)		38	0		3106		20	998	423119.72	126748				
	N. of tissues distributed nationally (units)		0	0		291		7	1663	377944.3	150067				4537
	N. of tissues imported (units)		0	0		0		0	10000	0	117000				
	N. of tissues exported (units)		38	0		2410		0	0	65194	10592				
	N. of tissues transplanted		0	0		4		7	1663	377944.3					
N. of patients transplanted		0	0		4		3	24	191						
N. of transplant procedures		0	0		4									1685	
HEART VALVE	N. of tissue donations			3		97	11		42	324					238
	Tissue donations PMP			0.7		9.1	1.9		7.6	5.0					3.9
	N. of tissues retrieved			6		141	71		50	763	640				383
	N. of tissues processed (units)			4		141	71		25	159	486				247
	N. of tissues distributed nationally (units)			7		127	1		27	229	208				243
	N. of tissues imported (units)			0		0	0		0	63	10				
	N. of tissues exported (units)			0		0	0		4	76	42				
	N. of tissues transplanted			7		122	24			229					
N. of patients transplanted			7		120	13		27	228					199	
N. of transplant procedures			7		121										
BLOOD VESSEL	N. of tissue donations			7		9	11		9	6644					262
	Tissue donations PMP			1.7		0.8	1.9		1.6	101.6					4.3
	N. of tissues retrieved			13		17	71		18	7616	359				602
	N. of tissues processed (units)			5		18	71		15	3490	337				410
	N. of tissues distributed nationally (units)			2		19	1		18	3386	113				396
	N. of tissues imported (units)			0		0	0		0	61	0				
	N. of tissues exported (units)			0		0	0		0	96	0				
	N. of tissues transplanted			2		19	24			3386					
N. of patients transplanted			2		17	13		18	2212						
N. of transplant procedures			2		17									349	

PRELIMINARY DATA ON TISSUES - YEAR 2021

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, 2021 - in millions)	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.4	83.9	10.4	9.6	5.0	60.4
TYPE OF TISSUE	TYPE OF DATA														
MUSCULOSKELETAL	N. of tissue donations		3742	221		1218	1726	137	725	30428					1743
	Tissue donations PMP		542.3	53.9		113.8	297.6	105.4	131.8	465.3					28.9
	N. of tissues retrieved		5671	308		4663	2108	156	1474	34308	40042				6125
	N. of tissues processed (units)		255	274		4130	2403	615	614	27616	132210				1556
	N. of tissues distributed nationally (units)		279	196		1523	1806	451	691	88205	73932				11816
	N. of tissues imported (units)		4005	10		37	14	201	0	2996	9223				0
	N. of tissues exported (units)		299	0		1583	0	0	0	13058	42799				26
	N. of tissues transplanted		144	223		607	3116	303		88205					
	N. of patients transplanted		126	146		559	2548	192	622	63372					
	N. of transplant procedures		128	163		592									10684
PLACENTA/AMNIOTIC MEMBRANES	N. of tissue donations		101	9		376	2	2	9	375					347
	Tissue donations PMP		14.6	2.2		35.1	0.3	1.5	1.6	5.7					5.7
	N. of tissues retrieved		101	9		376	2	2	9	375	176				347
	N. of tissues processed (units)		352	182		2673	21	70	154	3185	7709				
	N. of tissues distributed nationally (units)		449	170		1945	48	67	272	6405	4705				1943
	N. of tissues imported (units)		0	0		0	19	0	152	0	0				
	N. of tissues exported (units)		0	0		145	0	0	0	867	160				
	N. of tissues transplanted		348	177		523	48	67		6405					
	N. of patients transplanted		245	132		141	39	54	199	5572					1936
	N. of transplant procedures		333	160		523									
PANCREAS/PANCREATIC ISLETS	N. of tissue donations		0	0		17				14					71
	Tissue donations PMP		0.0	0.0		1.6				0.2					1.2
	N. of tissues retrieved		0	0		17				14	3				68
	N. of tissues processed (units)		0	0		10					3				
	N. of tissues distributed nationally (units)		0	0		10					3				16
	N. of tissues imported (units)		0	0		0					0				
	N. of tissues exported (units)		0	0		0					0				
	N. of tissues transplanted		0	0		10					0				
	N. of patients transplanted		0	0		10				4					
	N. of transplant procedures		0	0		10				8					24
HEPATIC TISSUE	N. of tissue donations		0	0											
	Tissue donations PMP		0.0	0.0											
	N. of tissues retrieved		0	0							0				
	N. of tissues processed (units)		0	0							0				
	N. of tissues distributed nationally (units)		0	0							0				
	N. of tissues imported (units)		0	0							0				
	N. of tissues exported (units)		0	0							0				
	N. of patients transplanted		0	0							0				
	N. of transplant procedures		0	0											

PRELIMINARY DATA ON TISSUES - YEAR 2021

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, 2021 - in millions)	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.4	83.9	10.4	9.6	5.0	60.4
TYPE OF TISSUE	TYPE OF DATA														
ADIPOSE TISSUE	N. of tissue donations			0	5	11									1
	Tissue donations PMP			0,0	0,5	1,9									0,0
	N. of tissues retrieved			0	5	11					47				1
	N. of tissues processed (units)			0	5	10			0		52				
	N. of tissues distributed nationally (units)			0		10			0		10				3
	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		10			0						
	N. of patients transplanted			0		10			0						3
	N. of transplant procedures			0		10									
PARATHYROID	N. of tissue donations			0	0					0					6
	Tissue donations PMP			0,0	0,0					0,0					0,1
	N. of tissues retrieved			0	0					0	0				99
	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	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
	N. of transplant procedures			0						0					
NEURONAL TISSUE	N. of tissue donations			0		0			0						
	Tissue donations PMP			0,0		0,0			0,0						
	N. of tissues retrieved			0					0		0				
	N. of tissues processed (units)			0		0					0				
	N. of tissues distributed nationally (units)			0		3			3		0				
	N. of tissues imported (units)			0	0	12			3		0				
	N. of tissues exported (units)			0	0	0			0		0				
	N. of tissues transplanted			0	0	10									
	N. of patients transplanted			0	0	10			2						
	N. of transplant procedures			0		10			2						
AUTOLOGOUS CRANIECTOMY PIECES				0		46		6	362	0				707	
OTHER TISSUE	N. of tissues retrieved			0				24	42						
	N. of tissue donations	46		0	635			18,5	7,6						
	Tissue donations PMP	6,7		0,0	59,3			24							
	N. of tissues retrieved	46		4	635				77		2374				
	N. of tissues processed (units)			0	189	0			35		3452				
	N. of tissues distributed nationally (units)			0											
	N. of tissues imported (units)			0	1	132			42		399				
	N. of tissues exported (units)			0	0	212			12		13273				
	N. of tissues transplanted			0	0	0			1		242				

PRELIMINARY DATA ON TISSUES - YEAR 2021

Country	EUROPEAN UNION COUNTRIES												OTHER COUNTRIES			
	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	Norway	Republic of Moldova	Switzerland	United Kingdom
Population (Source: UNFPA, State of world population, 2021 - in millions)																
TYPE OF TISSUE																
TYPE OF DATA																
CORNEA	N. of tissue donations	68	113		2218	775	886	22	214		2647	505	357	8	639	
	Tissue donations PMP	25.2	188.3		129.0	20.5	86.9	1.2	38.9		56.7	49.5	64.9	2.0	73.4	
	N. of tissues retrieved	68			4427	1545	866	44	320		5717	1009	339	16	639	
	N. of tissues processed (units)	68			5062	1557	964	44	322		5031	1167	396	14		
	N. of tissues distributed nationally (units)	68			3770	1369	664	44	220		3882	758	245	7		
	N. of tissues imported (units)	0			26	0	287	1	42		45	0	82	0	517	29
	N. of tissues exported (units)	0	113		620	0	0	45	0		6	0	0	0	0	
	N. of tissues transplanted	68			2903		938	44	250		4188	757	416	7	947	26
	N. of patients transplanted	159			2549	1363	931	44	216		4142	801	400	7		
N. of transplant procedures	68					942	44	259		4142	843	419	7			
SKIN	N. of tissue donations				437	47	0		130		359	33	0	4		
	Tissue donations PMP				25.4	1.2	0.0		23.6		7.7	3.2	0.0	1.0		
	N. of tissues retrieved (cm²)				135045	1968	5425		0		968730	51		11098		
	N. of tissues processed (units)				533	2419	0		0		860364	61	0	75		
	N. of tissues distributed nationally (units)				1556	0	8		34		419294	40	0	77		
	N. of tissues imported (units)	0			46	0	0		0		0	0	593	0		0
	N. of tissues exported (units)	0			8156		0		0		59200	0	0	0		
	N. of tissues transplanted	0			1027		0		34		330833	28	588	77		0
	N. of patients transplanted	0			104		0		17		49	24	24	10		0
N. of transplant procedures	0					0		147		49	40	29	10		0	
HEART VALVE	N. of tissue donations		1		251	81	18		0		246	127	18	0	37	
	Tissue donations PMP		1.7		14.6	2.1	1.8		0.0		5.3	12.5	3.3	0.0	4.3	
	N. of tissues retrieved				504		18		0		491	171	18	0	37	
	N. of tissues processed (units)				504	67	20		0		491	171	18	0	0	
	N. of tissues distributed nationally (units)				110	79	5		1		200	85	0	0	0	
	N. of tissues imported (units)	0	1		0	0	0		0		0	0	18	0	9	
	N. of tissues exported (units)	0			19	0	0		0		126	50	0	0	33	
	N. of tissues transplanted	0			161		4		1		60	135	0	0	22	
	N. of patients transplanted	0			119		4		1		60	114	0	0		
N. of transplant procedures	0			119		4		1		60	120	49	0			
BLOOD VESSEL	N. of tissue donations	6			17		0		0		129	230	95	0	8	
	Tissue donations PMP	2.2			1.0		0.0		0.0		2.8	22.5	17.3	0.0	0.9	
	N. of tissues retrieved	6			160				0		290	308	95	0	8	
	N. of tissues processed (units)	6			160	7	0		0		287	318	95	0	0	
	N. of tissues distributed nationally (units)	6	29		35	1	0		8		249	59	61	0	0	
	N. of tissues imported (units)	0	29		0	0	0		0		19	10	0	0	11	
	N. of tissues exported (units)	0			33	0	0		0		6	17	0	0	12	
	N. of tissues transplanted	6			77		0		8		144	76	0	0	11	
	N. of patients transplanted	6			76		0		4		100	67	61	0		
N. of transplant procedures	6			77		0		4		100	70	61	0			

PRELIMINARY DATA ON TISSUES - YEAR 2021

Country	EUROPEAN UNION COUNTRIES													OTHER COUNTRIES		
	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	Norway	Republic of Moldova	Switzerland	United Kingdom
Population (Source: UNFPA, State of world population, 2021 - in millions)	1.9	2.7	0.6	0.4	17.2	37.8	10.2	19.1	5.5	2.1	46.7	10.2	5.5	4.0	8.7	68.2
TYPE OF TISSUE	TYPE OF DATA															
MUSCULOSKELETAL	N. of tissue donations	123			2923	163	257	131	297		1940	1071	339	104	283	31
	Tissue donations PMP	45.6			169.9	4.3	25.2	6.9	54.0		41.5	105.0	61.6	26.0	32.5	0.5
	N. of tissues retrieved	123			4264		76	144	133		21782	1102	431	107	283	
	N. of tissues processed (units)	54			6232	11049	441	144	429		23723	1430	198	475		0
	N. of tissues distributed nationally (units)	54	704		14687	14081	483	97	404		27380	691	95	511		54
	N. of tissues imported (units)	0	3834		0	3733	121	0	0		19	153	120	0	184	212
	N. of tissues exported (units)	0	3130		38009	0	0	0	37		422	3	0	0	0	0
	N. of tissues transplanted	54			5397		427	97	360		24107	665	363	449	592	185
	N. of patients transplanted	54			4398		393	85	197		19928	754	359	167		
	N. of transplant procedures	54					394	85	224		19928	796	366	167		
PLACENTA/AMNIOTIC MEMBRANES	N. of tissue donations	3			10	102	3	21	21		51	3	1	11	196	
	Tissue donations PMP	1.1			0.6	2.7	0.3	3.8	3.8		1.1	0.3	0.2	2.8	22.5	
	N. of tissues retrieved	3			10	102	3	21	21		1984	229	1	11	196	
	N. of tissues processed (units)	33			17	1377		388			11953	312	36	118		
	N. of tissues distributed nationally (units)	33	2		206	1395	186		328		8888	362	67	148		
	N. of tissues imported (units)	0	2		7	0	0	0	0		0	0	5	0	3	15
	N. of tissues exported (units)	0			43	0	0	0	0		0	0	0	0	0	
	N. of tissues transplanted	33			137		49	418	418		1867	314	82	147	139	14
	N. of patients transplanted	33			119		48	314	314		1267	286	71	113		
	N. of transplant procedures	33					49	355			1267	306	80	113		
PANCREAS/PANCREATIC ISLETS	N. of tissue donations	1	1		23	0		0	0			0	0		4	
	Tissue donations PMP	0.4	1.7		1.3	0.0		0.0				0.0	0.0		0.5	
	N. of tissues retrieved	1			11	0		0				0	1		4	
	N. of tissues processed (units)	1			11	0	0	0				0	0			
	N. of tissues distributed nationally (units)	1			11	0	0	0				0	0			
	N. of tissues imported (units)	0			0	0	0	0	0			0	0		6	
	N. of tissues exported (units)	0	1		0	0	0	0	0			0	0		4	
	N. of tissues transplanted	1			11			0	0			0	3		2	
	N. of patients transplanted	9			11			0	0			0	3			
	N. of transplant procedures	1						0	0			0	3			
HEPATIC TISSUE	N. of tissue donations				0			0	0				0			
	Tissue donations PMP				0.0			0.0					0.0			
	N. of tissues retrieved				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		0				0			
	N. of tissues exported (units)	0			0		0		0				0			
	N. of tissues transplanted	0			0			0	0				0			
	N. of patients transplanted	0			0			0	0				0			
	N. of transplant procedures	0						0	0				0			

PRELIMINARY DATA ON TISSUES - YEAR 2021

OTHER COUNTRIES

EUROPEAN UNION COUNTRIES

Country	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	Norway	Republic of Moldova	Switzerland	United Kingdom
Population (Source: UNFPA, State of world population, 2021 - in millions)	1.9	2.7	0.6	0.4	17.2	37.8	10.2	19.1	5.5	2.1	46.7	10.2	5.5	4.0	8.7	68.2
TYPE OF TISSUE	TYPE OF DATA															
ADIPOSE TISSUE	N. of tissue donations				0				51				0	0		
	Tissue donations PMP				0.0				9.3				0.0	0.0		
	N. of tissues retrieved				0				51				0	0		
	N. of tissues processed (units)								51				0	0		
	N. of tissues distributed nationally (units)				0	13	0		51				0	0		
	N. of tissues imported (units)				0	7	0		52				0	0		
	N. of tissues exported (units)	0			0	0	0		0				0	0		
PARATHYROID	N. of tissues processed (units)	0			0	0	0		0				0	0		
	N. of tissues distributed nationally (units)	0			0	0	0		0				0	0		
	N. of tissues imported (units)	0			0	0	0		0				0	0		
	N. of tissues exported (units)	0			0	0	0		0				0	0		
	N. of tissues transplanted	0			0	0	0		1				0	0		
	N. of patients transplanted	0			0				2				0	0		
	N. of transplant procedures	0			0				3				0	0		
NEURONAL TISSUE	N. of tissue donations				0	0			0				0	0		
	Tissue donations PMP				0.0	0.0			0.0				0.0	0.0		
	N. of tissues retrieved				0	0			0				125	125		
	N. of tissues processed (units)				0	0	0		0				125	125		
	N. of tissues distributed nationally (units)				0	0	0		0				0	0		
	N. of tissues imported (units)	0			0	0	0		0				0	0		
	N. of tissues exported (units)	0			0	0	0		0				125	125		
OTHER TISSUE	N. of tissues transplanted	0			0	0			0				0	0		
	N. of patients transplanted	0			0				0				0	0		
	N. of transplant procedures	0			0				0				0	0		
	N. of tissue donations				0	0			0				0	0		
	Tissue donations PMP				0.0	0.0			0.0				0.0	0.0		
	N. of tissues retrieved				0	0			0				0	0		
	N. of tissues processed (units)				0	0	0		11				0	0		
AUTOLOGOUS CRANIECTOMY PIECES	N. of tissues distributed nationally (units)				0	0	0		0				0	0		
	N. of tissues imported (units)	0			0	0	0		0				0	0		
	N. of tissues exported (units)	0			0	0	0		0				0	0		
	N. of tissues transplanted	0			0	0			0				0	0		
	N. of patients transplanted	0			0				0				0	0		
	N. of transplant procedures	0			0				0				0	0		
	N. of tissues retrieved				0	4			155			93	13	0		
OTHER TISSUE	N. of tissue donations				0				2204			9	31	0		
	Tissue donations PMP				0.0				400.7			0.9	5.6	0.0		
	N. of tissues retrieved				0				2206			110	99	0		
	N. of tissues processed (units)				0				2079			0	33	0		
	N. of tissues distributed nationally (units)				0				289				0	0		
	N. of tissues imported (units)	0			0	0			778				16	0		
	N. of tissues exported (units)	0			0	0			135				5	0		
OTHER TISSUE	N. of tissues transplanted	0			0		0		130				0	0		
	N. of patients transplanted	0			0		0		121				0	0		
	N. of transplant procedures	0			0		0		142			0	0	0		

PRELIMINARY DATA ON TISSUES - YEAR 2021

LATIN AMERICAN COUNTRIES

Country	Argentina	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	Panama	Paraguay	Uruguay
<i>Population (Source: UNFPA, State of world population, 2021 - in millions)</i>	45.6	214.0	19.2	51.3	5.1	11.3	11.0	17.9	4.4	7.2	3.5
TYPE OF TISSUE	TYPE OF DATA										
CORNEA	N. of tissue donations	806	26295	90	43	2	15	113	0	92	
	Tissue donations PMP	17.7	122.9	4.7	8.4	0.2	1.4	6.3	0.0	12.8	
	N. of tissues retrieved	1589	25504	177	86	4	30	113	0	92	169
	N. of tissues transplanted	1038	14199	106	80	2	30	77	0	78	169
	N. of patients transplanted	996		106	86	0		77		78	155
	N. of transplant procedures	1038	14199	106	86	2		77	0	78	
SKIN	N. of tissue donations	68	1056	0	6	0		0			
	Tissue donations PMP	1.5	4.9	0.0	1.2	0.0		0.0			
	N. of tissues retrieved (cm ²)	68594	8282460	0	7256	0		0			220000
	N. of tissues transplanted	27118	7506230	11	44	0		0			562
	N. of patients transplanted	38		6	20	0		0			20
	N. of transplant procedures	27118		6	20	0		0			
HEART VALVE	N. of tissue donations	192	189	0	7	0		0			
	Tissue donations PMP	4.2	0.9	0.0	1.4	0.0		0.0			
	N. of tissues retrieved	384	341	0	6	0		0			0
	N. of tissues transplanted	140	120	0	5	0		0			0
	N. of patients transplanted	121			5	0		0			0
	N. of transplant procedures	140			5	0		0			
BLOOD VESSEL	N. of tissue donations		0	0	4	0		0			
	Tissue donations PMP		0.0	0.0	0.8	0.0		0.0			
	N. of tissues retrieved		0	0	9	0		0			0
	N. of tissues transplanted		0	0	2	0		0			12
	N. of patients transplanted				2	0		0			12
	N. of transplant procedures				2	0		0			
MUSCULOSKELETAL	N. of tissue donations	2220	1327	42	2622	30		39			
	Tissue donations PMP	48.7	6.2	2.2	51.1	2.7		2.2			
	N. of tissues retrieved	2220	12296	5	4666	30		39			37
	N. of tissues transplanted	4196	11373	133	13499	40		209			451
	N. of patients transplanted	2157		59	8869	0		201			86
	N. of transplant procedures	4156		56	13349	40		209			

PRELIMINARY DATA ON TISSUES - YEAR 2021

LATIN AMERICAN COUNTRIES

Country	Argentina	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	Panama	Paraguay	Uruguay
Population (Source: UNFPA, State of world population, 2021 - in millions)	45.6	214.0	19.2	51.3	5.1	11.3	11.0	17.9	4.4	7.2	3.5
TYPE OF TISSUE	TYPE OF DATA										
PLACENTA/AMNIOTIC MEMBRANES	N. of tissue donations	76	0	0	78	1	0	8	48		
	Tissue donations PMP	1.7	0.0	0.0	1.5	0.2	0.0	0.4	6.7		
	N. of tissues retrieved	76	0	0	78	1	0	8	48	61	
	N. of tissues transplanted	31 908	0	268	691	16	0	209	206	308	
	N. of patients transplanted	439	71	71	551	16	0	198	206	46	
	N. of transplant procedures	31 908	87	87	575	16	0	209	206		
PANCREAS/ PANCREATIC ISLETS	N. of tissue donations	0	0	0	0	0	0	0			
	Tissue donations PMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	N. of tissues retrieved	0	0	0	0	0	0	0		0	
	N. of tissues transplanted	0	0	0	0	0	0	0		0	
	N. of patients transplanted				0	0	0	0		0	
	N. of transplant procedures				0	0	0	0			
ADIPOSE TISSUE	N. of tissue donations	0	0	0	0	0	0	0			
	Tissue donations PMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	N. of tissues retrieved	0	0	0	0	0	0	0		0	
	N. of tissues transplanted	0	0	0	0	0	0	0		0	
	N. of patients transplanted				0	0	0	0		0	
	N. of transplant procedures				0	0	0	0			
AUTOLOGOUS CRANIECTOMY PIECES	N. of tissues retrieved (units)		0		1	0	0	0		0	
OTHER TISSUE	N. of tissue donations	0	0	0	0	4	0	0			
	Tissue donations PMP	0.0	0.0	0.0	0.0	0.8	0.0	0.0			
	N. of tissues retrieved	0	0	0	1	23	0	0		0	
	N. of tissues transplanted	0	0	0		8	0	0		0	
	N. of patients transplanted				8	8	0	0		0	
	N. of transplant procedures				8	8	0	0			

PRELIMINARY DATA ON HPC CELLS - YEAR 2021

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, 2021 - in millions)</i>															
	9.0	11.6	6.9	4.1	1.2	10.7	5.8	1.3	5.5	65.4	83.9	10.4	9.6	5.0	60.4
CATEGORY OF DATA	TYPE OF DATA														
POTENTIAL FOR DONATION AND SEARCHING IN THE NATIONAL REGISTRIES	N. of potential donors at 31.12	110010		61143		139333			62577	337832					469650
	N. of cord blood units at 31.12	80		3675		7825			3334	38163					38355
	N. of searches requested	352		369		53380			27965	29685					3197
	N. of unrelated donations	93		49		251			130	1283					1057
DONATIONS	N. of donations - Autologous	604		2835	552	1550		299	307	3213	4742				3291
	N. of donations - Allogeneic	205		139	463	123		22	197	1232	7839				7620
	N. of donations - Allogeneic, related	160		36	60	45		22	67	951	949				874
	N. of donations - Allogeneic, unrelated	45		103	403	78		0	130	281	6890				6746
BANKING OF CORD BLOOD	N. of unrelated cord blood units collected		93	384		530		0		431	366				6277
	N. of unrelated cord blood units distributed		0	2		0		0	0	93	0				20
	N. of related cord blood units collected			2727	6	2		24			20				119
	N. of related cord blood units distributed		0	0		1		0	0		0				3
TRANSPLANTS	N. of transplants - Autologous	377		108	187	703		66	277	2921	4538				3393
	N. of patients transplanted - Autologous	324		108	147	596			270	2800	3819				2698
	N. of transplants - Allogeneic	279		46	97	466		30	198	2056	3275				1903
	N. of patients transplanted - Allogeneic	265		46	84	415			198	0	3095				1786
	N. of transplants - Allogeneic, related	129		36	47	147		10	68	934	911				966
	N. of patients transplanted - Allogeneic, related	119		36	37	129			68	0	856				889
	N. of transplants - Allogeneic, unrelated	150		10	50	319		20	130	1122	2364				937
	N. of patients transplanted - Allogeneic, unrelated	146		10	47	286			130	0	2239				897

PRELIMINARY DATA ON HPC CELLS - YEAR 2021

Country	EUROPEAN UNION COUNTRIES												OTHER COUNTRIES			
	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	Norway	Republic of Moldova	Switzerland	United Kingdom
Population (Source: UNFPA, State of world population, 2021 - in millions)	1.9	2.7	0.6	0.4	17.2	37.8	10.2	19.1	5.5	2.1	46.7	10.2	5.5	4.0	8.7	68.2
CATEGORY OF DATA	TYPE OF DATA															
POTENTIAL FOR DONATION AND SEARCHING IN THE NATIONAL REGISTRIES	N. of potential donors at 31.12		13464		364161	2027610	400798		21573		452552	208562	37384		171709	
	N. of cord blood units at 31.12				5191	3924	716		1978		64109	4419	0		5241	
	N. of searches requested		106		645		1673		26678		938	331			562	
	N. of unrelated donations		35		421		1629	131	56		819	311	139		218	
DONATIONS	N. of donations - Autologous		193		1445	1075	585	14104	3005		2154	810	319	53	572	117
	N. of donations - Allogeneic		64		422	1724	161	73	508		1239	658	48	0	198	18
	N. of donations - Allogeneic, related		27		264	263	93	55	58		870	293	18		131	18
	N. of donations - Allogeneic, unrelated		37		158	1461	68	18	450		369	365	30		67	0
BANKING OF CORD BLOOD	N. of unrelated cord blood units collected		10		20	0	0		464		236	156	0		171	0
	N. of unrelated cord blood units distributed				5	0	0		289		115	8	0		7	0
	N. of related cord blood units collected		27		1	0	0		11			191	8	32		0
	N. of related cord blood units distributed				0	0	0		1		1	0	8	0		0
TRANSPLANTS	N. of transplants - Autologous		150		4096	1075	384	150	132		2154	563	132	21	490	117
	N. of patients transplanted - Autologous		113		987		376	146	120		0	513	108		415	
	N. of transplants - Allogeneic		74		1248	747	162	168	73		1466	346	130		289	18
	N. of patients transplanted - Allogeneic		73		567		156	162	72		0	339	14		242	
	N. of transplants - Allogeneic, related		26		426	263	74	65	35		870	96	2		130	18
	N. of patients transplanted - Allogeneic, related		25		188		74	60	34		0	93	2		109	
	N. of transplants - Allogeneic, unrelated		48		822	484	88	103	38		596	250	128		159	
	N. of patients transplanted - Allogeneic, unrelated		48		379		82	102	38		0	246	12		133	

PRELIMINARY DATA ON HPC CELLS - YEAR 2021

LATIN AMERICAN COUNTRIES

Country	Argentina	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	Panama	Paraguay	Uruguay
<i>Population (Source: UNFPA, State of world population, 2021 - 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 SEARCHING IN THE NATIONAL REGISTRIES						0				1494	
	N. of potential donors at 31.12	248724				0					
	N. of cord blood units at 31.12	4124				0				0	
	N. of searches requested	1160			0	0				0	47
BANKING OF CORD BLOOD	N. of unrelated cord blood units at 31.12	4265			0	0				0	0
	N. of related cord blood units at 31.12	942			0	0				0	27
TRANSPLANTS	N. of transplants - Autologous	752		522	64	0				18	86
	N. of patients transplanted - Autologous	705			19	0				18	
	N. of transplants - Allogeneic	425		374	19	0				21	40
	N. of patients transplanted - Allogeneic	373				0				21	
	N. of transplants - Allogeneic, related	321		312	19	0				21	35
	N. of patients transplanted - Allogeneic, related	104				0				21	
	N. of transplants - Allogeneic, unrelated	276		62	0	0				0	5
	N. of patients transplanted - Allogeneic, unrelated	97			0	0				0	

Council of Europe Reference Documents. Year 2021



Recommendation CM/Rec(2022)3 of the Committee of Ministers to member States on the development and optimisation of programmes for the donation of organs after the circulatory determination of death

(Adopted by the Committee of Ministers on 23 February 2022 at the 1426th 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);

Having regard to the Additional Protocol to the Convention on Human Rights and Biomedicine concerning Transplantation of Organs and Tissues of Human Origin (ETS No. 186) and the Explanatory Report thereof, in particular Chapter IV – Organ and tissue removal from deceased persons;

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);

Having regard to the Convention for the Protection of Human Rights and Fundamental Freedoms (ETS No. 005);

Recalling Recommendation Rec(2004)19 of the Committee of Ministers to member States on criteria for the authorisation of organ transplantation facilities;

Recalling Recommendation Rec(2005)11 of the Committee of Ministers to member States on the role and training of professionals responsible for organ donation (transplant “donor co-ordinators”);

Recalling Recommendation Rec(2006)16 of the Committee of Ministers to member States on quality improvement programmes for organ donation;

Recalling Recommendation Rec(2006)15 of the Committee of Ministers to member States on the background, functions and responsibilities of a National Transplant Organisation (NTO);

Recalling its Resolution CM/Res(2015)10 on the role and training of critical care professionals in deceased donation;

Recalling the latest available edition of the Council of Europe Guide to the Quality and Safety of Organs for Transplantation, in particular its chapter dedicated to the donation of organs after the circulatory determination of death;

Considering 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, as well as 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;

Taking into account the World Health Organization (WHO) guiding principles on human cell, tissue and

organ transplantation adopted by the World Health Assembly in May 2010;¹

Taking into account Resolution WHA63.22 of the World Health Assembly on human organ and tissue transplantation;

Taking into account the Madrid Resolution, adopted in 2010,² calling member States of the WHO to strive towards self-sufficiency in transplantation;

Taking into account Resolution 71/322 of the United Nations: Strengthening and promoting effective measures and international cooperation on organ donation and transplantation to prevent and combat trafficking in persons for the purpose of organ removal and trafficking in human organs;

Taking into account the Declaration of Istanbul on Organ Trafficking and Transplant Tourism, adopted in 2008 and updated in 2018,³ in particular principle 11 which states that countries should strive to achieve self-sufficiency in organ donation and transplantation;

Considering that transplantation is the best, if not the only, available treatment for patients with end-stage organ failure and that the shortage of organs is the main obstacle preventing the wider use of transplantation therapies that determines that each year thousands of patients die or endure a poor quality of life while waiting for an organ;

Taking into account that the progressive decline in the pool of potential donors declared dead by neurological criteria makes it increasingly difficult to satisfy the transplantation needs of patients;

Taking into account that donation after the circulatory determination of death (DCDD) may contribute to a greater use of organs with satisfactory post-transplant outcomes;

Considering that decision-making at the end of life should be based not only on medical aspects, but also on moral, welfare and societal considerations and that, within this context, post-mortem donation should be routinely proposed as an option at the end of life;

Aware that programmes for organ donation must guarantee the fairness, transparency and safety of procedures and comply with the national legal framework within member States;

Aware that in European intensive care units many patients die following the decision to withdraw life-sustaining therapies that are no longer deemed beneficial to them, and that those circumstances of death are compatible with DCDD;

Also aware that thousands of patients die every year following an unexpected and witnessed cardiac arrest from which they cannot be resuscitated after advanced cardiopulmonary resuscitation measures fail, and that such circumstances of death are also compatible with DCDD;

Considering that, despite such potential, DCDD programmes have not been developed in all member States;⁴

Acknowledging that legal and ethical aspects are the main obstacles that prevent the development of DCDD programmes in some European jurisdictions and that, to overcome such obstacles, national regulatory frameworks that ensure respect for fundamental human rights, such as the right to human dignity, are required;

Considering that further measures are required to implement robust DCDD programmes in Europe, targeted at public education, continuous professional training, standardisation and monitoring of practices and research in the field,

Recommends to the governments of member States the following:

- I. to explore the opportunity of developing DCDD programmes to offer more patients the option of post-mortem donation and increase the availability of organs for transplantation;
- II. for those countries who decide to follow the practice of DCDD, to develop a comprehensive regulatory framework that is continuously revised and aligned

¹ Available at: <http://www.who.int/transplantation/TxGP08-en.pdf>

² The Madrid Resolution on Organ Donation and Transplantation, 2011, vol. 91 (p. 29-31). Available at: https://www.edqm.eu/sites/default/files/medias/fichiers/Transplantation/Legal_Framework/article_the_madrid_resolution_on_organ_donation_and_transplantation_transplantation_journal_june_2011.pdf

³ Adopted at the International Summit on Transplant Tourism and Organ Trafficking organised by the Transplantation Society and the International Society of Nephrology, Istanbul, Turkey, 30 April-2 May 2008. Available at: <https://www.declarationofistanbul.org/>

⁴ Lomero et al., Donation after circulatory death today: an updated overview of the European landscape, *Transplant International* 2020, 33, p. 76-88.

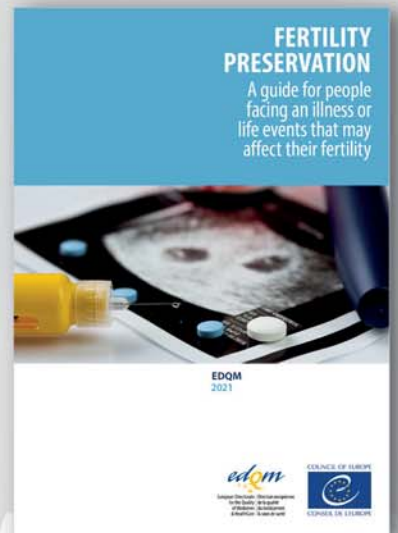
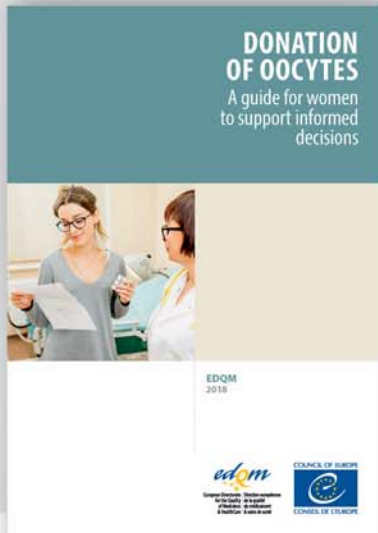
with the advancements of medical science; this regulatory framework should specify, at a minimum:

- a. the independence of decisions related to treatment options of patients from any consideration of organ donation;
- b. that professionals who participate in the recovery or transplantation of DCDD organs are not involved in decisions or actions pertaining to the withdrawal of life-sustaining therapies or the termination of advanced cardiopulmonary resuscitation;
- c. the criteria for determining death prior to the recovery of organs;
- d. the ante- and post-mortem interventions to improve the quality of organs for transplantation

that are deemed acceptable within that jurisdiction;

- III. to provide healthcare professionals and other relevant professional groups and stakeholders with regular training on the practice of DCDD;
- IV. to promote public awareness and understanding of national DCDD programmes;
- V. to register information on DCDD procedures and on the outcomes of transplants performed with organs obtained from DCDD donors in the relevant national registries;
- VI. to promote research in the field of DCDD to optimise practices and improve post-transplant outcomes with DCDD organs.

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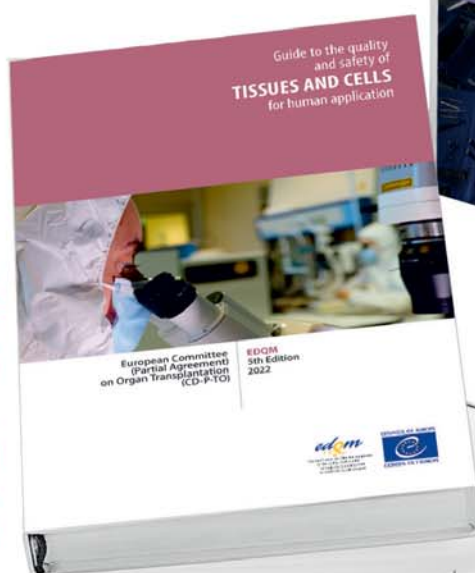
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