

# NEWSLETTER TRANSPLANT

International figures  
on donation and  
transplantation  
2014



**EDQM**  
Volume 20  
2015



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE SANIDAD, SERVICIOS SOCIALES  
E IGUALDAD



ORGANIZACIÓN NACIONAL DE TRASPLANTES



European Directorate  
for the Quality  
of Medicines  
& HealthCare

Direction européenne  
de la qualité  
du médicament  
& soins de santé

COUNCIL OF EUROPE



CONSEIL DE L'EUROPE

# INTERNATIONAL FIGURES ON ORGAN, TISSUE & HEMATOPOIETIC STEM CELL DONATION & TRANSPLANTATION ACTIVITIES. DOCUMENTS PRODUCED BY THE COUNCIL OF EUROPE EUROPEAN COMMITTEE (PARTIAL AGREEMENT) ON ORGAN TRANSPLANTATION (CD-P-TO). YEAR 2014

Editor: Rafael Matesanz

## NATIONAL DATA PROVIDED BY:

### AUSTRIA

Dave Green (ET)

### BELGIUM

Luc Colenbie

Dave Green (ET)

### BULGARIA

Violetta Marinkova

### CROATIA

Martina Anušić Juričić

Dave Green (ET)

### CYPRUS

Michael Hadjigavriel

### CZECH REPUBLIC

Michael Vrbová

### DENMARK

Ilse Duus Weinreich (SKT)

### ESTONIA

Peeter Dmitriev

### FINLAND

Ilse Duus Weinreich (SKT)

### FRANCE

Christelle Cantrelle

### GERMANY

Dave Green (ET)

### GREECE

Georgia Menoudakou

### HUNGARY

Dave Green (ET)

### IRELAND

Ciara Norton

### ITALY

Andrea Ricci

Paola Di Ciaccio

### LATVIA

Jānis Jušinskis

### LITHUANIA

Vita Petronytė

### LUXEMBURG

Dave Green (ET)

### MALTA

Paul Calleja

### NETHERLANDS

Dave Green (ET)

### POLAND

Piotr Malanowski

### PORTUGAL

Catarina Bolotinha

### ROMANIA

Dan Adrian Luscalov

### SLOVAKIA

Danile Kuba

Magdaléna Krátka

### SLOVENIA

Dave Green (ET)

### SPAIN

Elisabeth Coll

Carmen Martín

David Uruñuela

Silvia Martín

### SWEDEN

Ilse Duus Weinreich (SKT)

### UNITED KINGDOM

Stephen Hope

### (ET) EUROTRANSPLANT

*Austria, Belgium, Croatia, Germany, Hungary, Luxemburg, Netherlands and Slovenia*

### (SKT) SCANDIATRANSPLANT

*Denmark, Finland, Norway, Sweden and Iceland*

### ALGERIA

Maurizio Di Fresco (MTN)

### ARMENIA

Ashot Sarkissian

### AUSTRALIA

Byron Arcia

### AZERBAIJAN

Shahlar Nasirov

### BELARUS

Nikolay Yakovets

### BOSNIA AND HERZEGOVINA

Lada Sarajlić

### CANADA

[www.giftoflife.on.ca](http://www.giftoflife.on.ca)

### GEORGIA

Gia Tomadze

### ICELAND

Ilse Duus Weinreich (SKT)

### IRAN

Katayoun Najafzadeh

### ISRAEL

Tamar Ashkenazi

### MACEDONIA

Goce Spasovski

### MALAYSIA

Hirman Ismail

### MOLDOVA

Igor Codreanu

### MONTENEGRO

Marina Ratkovic

### NEW ZEALAND

Kylie Hurst

### NORWAY

Ilse Duus Weinreich (SKT)

### RUSSIAN F.

Gabbasova Laylay

### SUDAN

Mahmoud Obeid

### SWITZERLAND

Franziska Beyeler

### SYRIA

Bassam Saeed

Maurizio Di Fresco (MTN)

### TURKEY

Mehmet Ali Aydin

Zehra Uzundurukan

### USA

Sarah Taranto

### UKRAINA

Alexandr Nikonenko

Vitaliy Sobokar

### VIETNAM

Phuc H. Nguyen

### (MTN) MEDITERRANEAN

### TRANSPLANT NETWORK

*Algeria, Cyprus, Egypt, France,*

*Greece, Israel, Italy, Lebanon,*

*Lybia, Malta, Morocco,*

*Palestine, Spain, Syria, Tunisia*

*and Turkey*

### ARGENTINA

Carlos Soratti

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### BRAZIL

Heder Murari Borba

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### CHILI

Jose Luis Rojas

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### COLOMBIA

Maria Angélica Salinas Nova

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### COSTA RICA

Roselyn Serrano

César A. Gamboa Peñaranda

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### CUBA

Antonio Enamorado

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### DOMINICANA

Fernando Raúl Morales Billini

Alexander Altman

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### ECUADOR

Diana Almeida

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### GUATEMALA

Rudolf García-Gallont

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### MEXICO

J. Salvador Aburto

Luis Antonio Meixueiro Daza

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### PANAMA

Cesar J. Cuero Zambrano

Camilo Chong

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### PARAGUAY

Hugo A. Espinoza C.

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### PERU

Mariela Delgado

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### URUGUAY

Milka Bengochea

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### VENEZUELA

Xiomara Ramírez

Evelyn Alonzo

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### GRUPO PUNTA CANA

*Argentina, Bolivia, Brazil, Chili,*

*Colombia, Costa Rica, Cuba,*

*Dominicana, Ecuador, El*

*Salvador, España, Guatemala,*

*Honduras, México, Nicaragua,*

*Panamá, Paraguay, Perú,*

*Portugal, Puerto Rico, Uruguay y*

*Venezuela*

[www.grupopuntacana.org](http://www.grupopuntacana.org)

### Organización Nacional de Trasplantes (ONT) – Spain

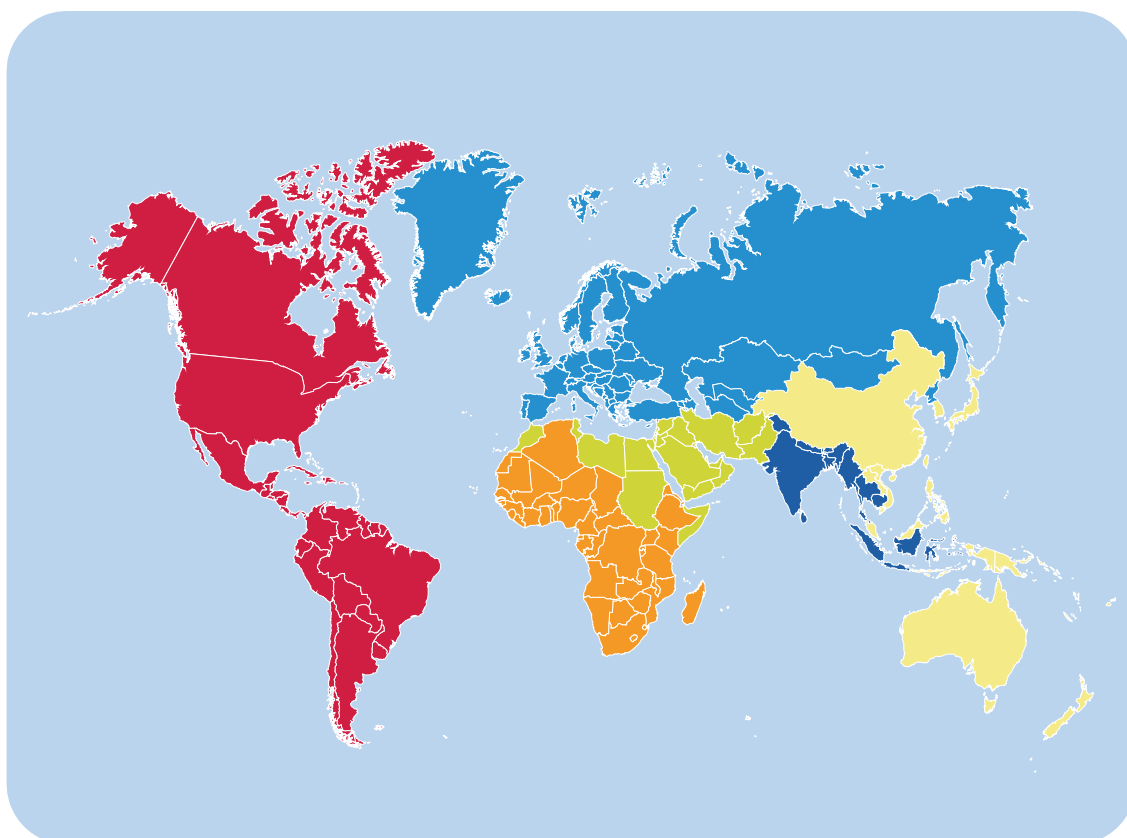
Rafael Matesanz

Beatriz Mahillo

Marina Álvarez

Mar Carmona

# NEWSLETTER TRANSPLANT 2015



## CONTENTS

- **International Figures On Organ Donation And Transplantation Activity. Year 2014. .... 3**
- **International Data On Organ Donation And Transplantation Activity, Waiting List And Family Refusals. Year 2014. .... 33**
- **International Data On Tissues And Hematopoietic Stem Cell Donation And Transplantation Activity. Year 2014. .... 49**
- **Council of Europe Reference Documents 2015. .... 57**
  - Position Paper On Transplantation And Physical Activity ..... 58
  - Position Paper On The Long-Term Outcome Of Living Kidney Donors ..... 62

## FOR THE PURPOSES OF THIS NEWSLETTER THE FOLLOWING DEFINITIONS WERE USED:

### Actual deceased organ donor

An actual deceased organ donor is a person from whom at least one organ has been recovered for the purpose of transplantation, in contrast to a utilised donor, who is an actual donor from whom at least one organ has been transplanted. The number of utilised donors is therefore lower or equal than the number of actual donors.

### 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.

### Multiorgan donor

A multiorgan donor is an actual donor from whom at least two different types of organs have been recovered for the purpose of transplantation.

### Total TX. (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 TX. is counted as 1 TX.

### 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:

##### A1/ Genetically Related:

1<sup>st</sup> Degree Genetic Relative: Parent, Sibling, Offspring

2<sup>nd</sup> Degree genetic relative, e.g. grandparent, grandchild, aunt, uncle, niece, nephew,

Other than 1<sup>st</sup> or 2<sup>nd</sup> degree genetically related, for example cousin

##### A2/ Emotionally Related: Spouse (if not genetically related); in-laws; Adopted; Friend

#### B/ Unrelated = Non Related: Not Genetically or Emotionally Related

### Heart-lung TX.

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

### Double-lung TX.

One double-lung TX. is counted as 1 TX.

### Total number of patients transplanted

For more than one organ transplanted into the same recipient: kidney-liver-heart TX. = counted as one recipient.

### Absolute number

Include all figures corresponding to all donors/ patients adults and children.

### Paediatric

Includes only paediatric activity (patients aged < 15 years).

### Waiting List

**Example:** At 1/1/2011 there were 200 patients active on the 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 were transplanted (number recorded in a different questionnaire), 50 patients remain 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 2014	100
Total number of patients ever active on the WL during 2014	300
Patients awaiting for a transplant (only active candidates) on 31/12/2014	50
Patients who died while on the WL during 2014	25

(\*The United Nations Fund report (UNFPA: <http://www.unfpa.org/public/>) is used as the data source for estimates of population size)

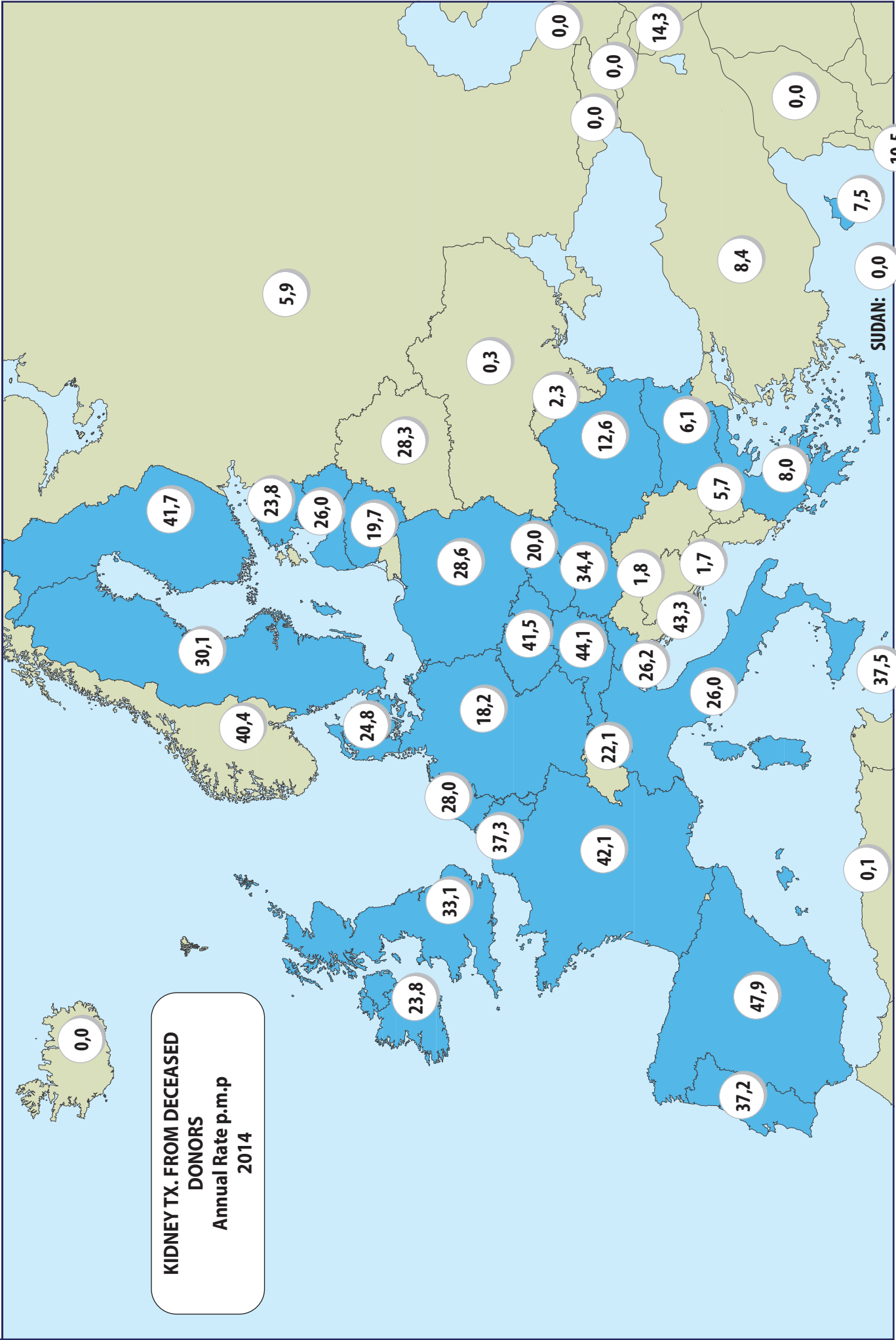
**International Figures  
On Organ Donation  
And Transplantation Activity.  
Year 2014.**





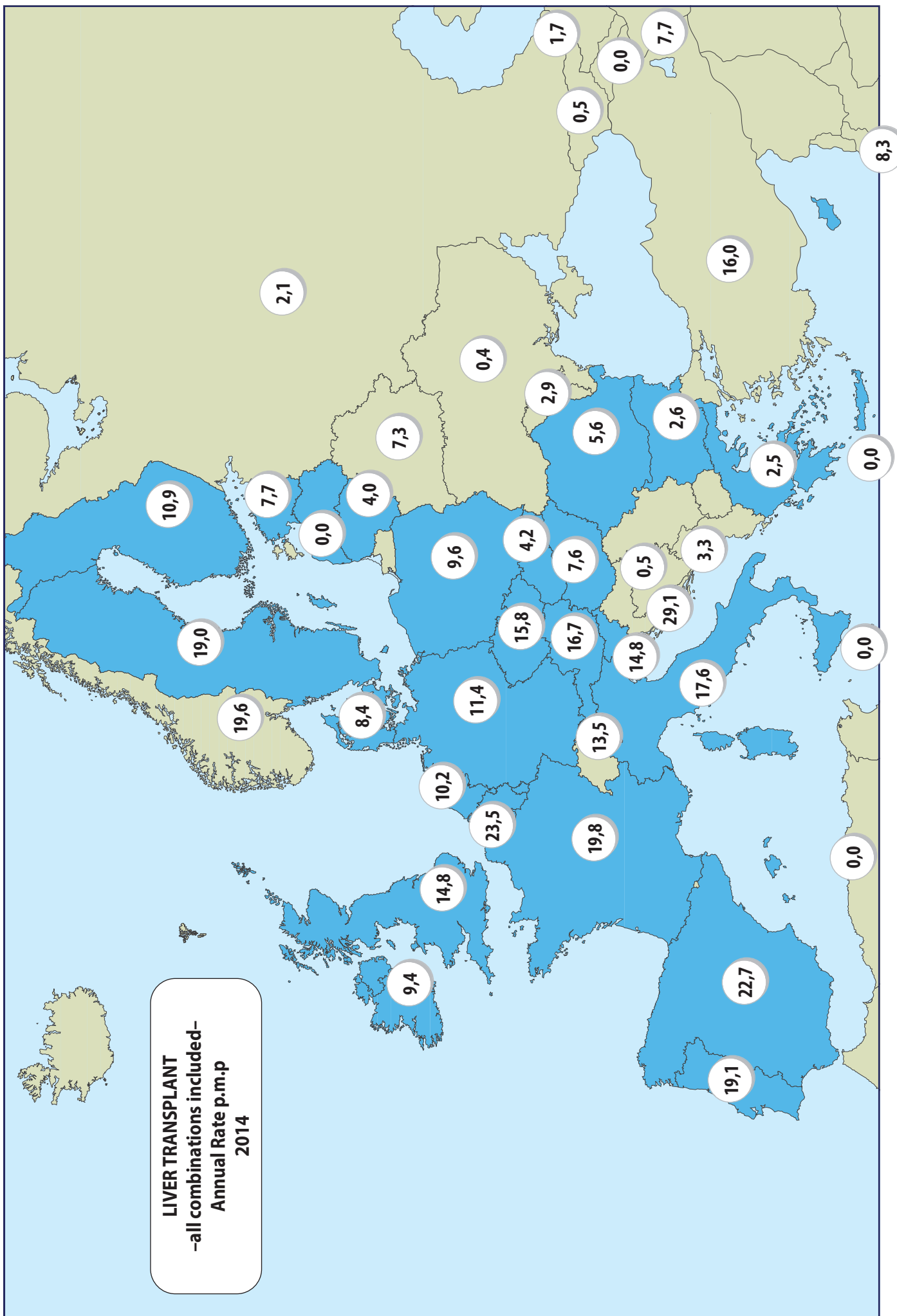


**KIDNEY TX. FROM DECEASED DONORS**  
Annual Rate p.m.p  
2014

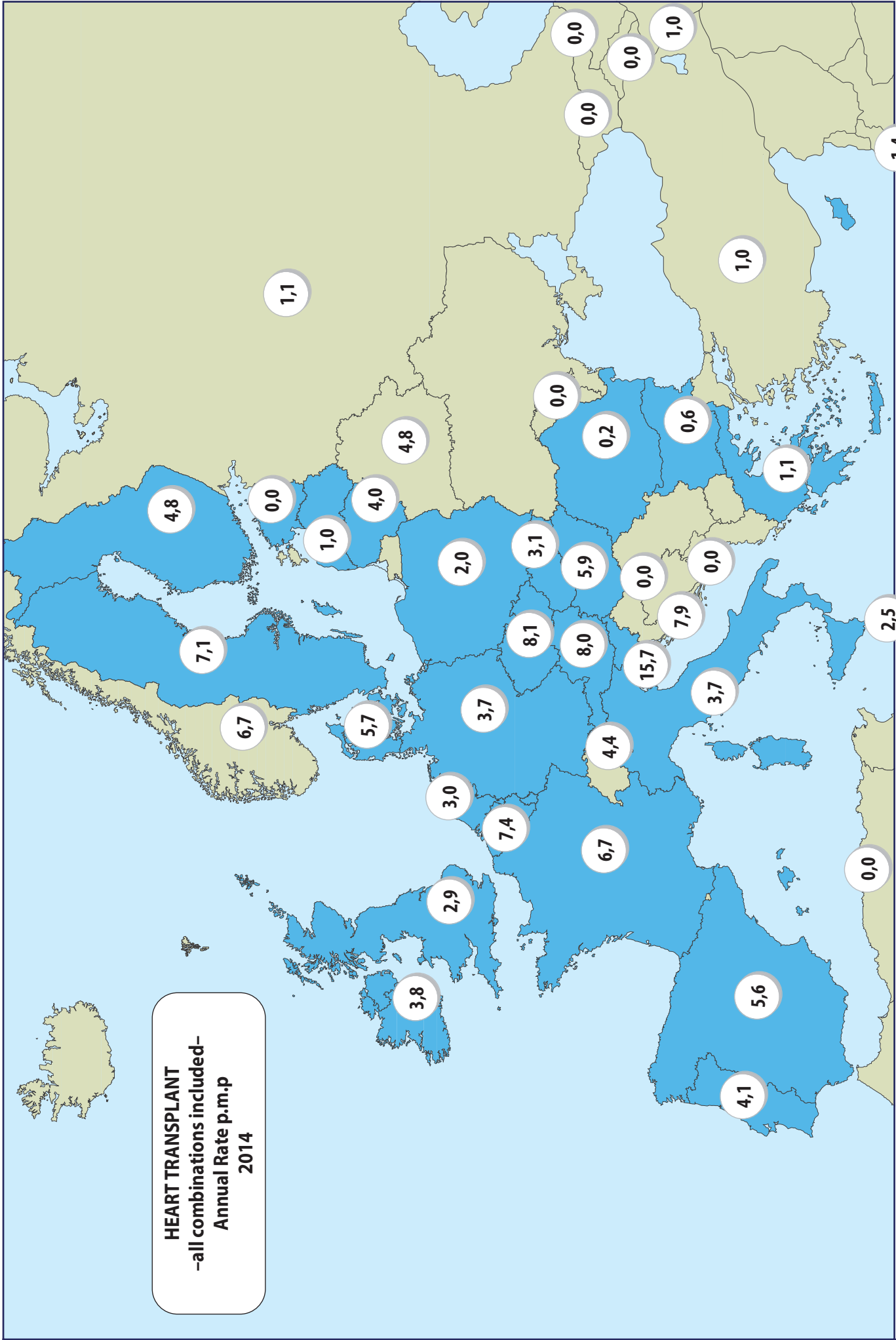




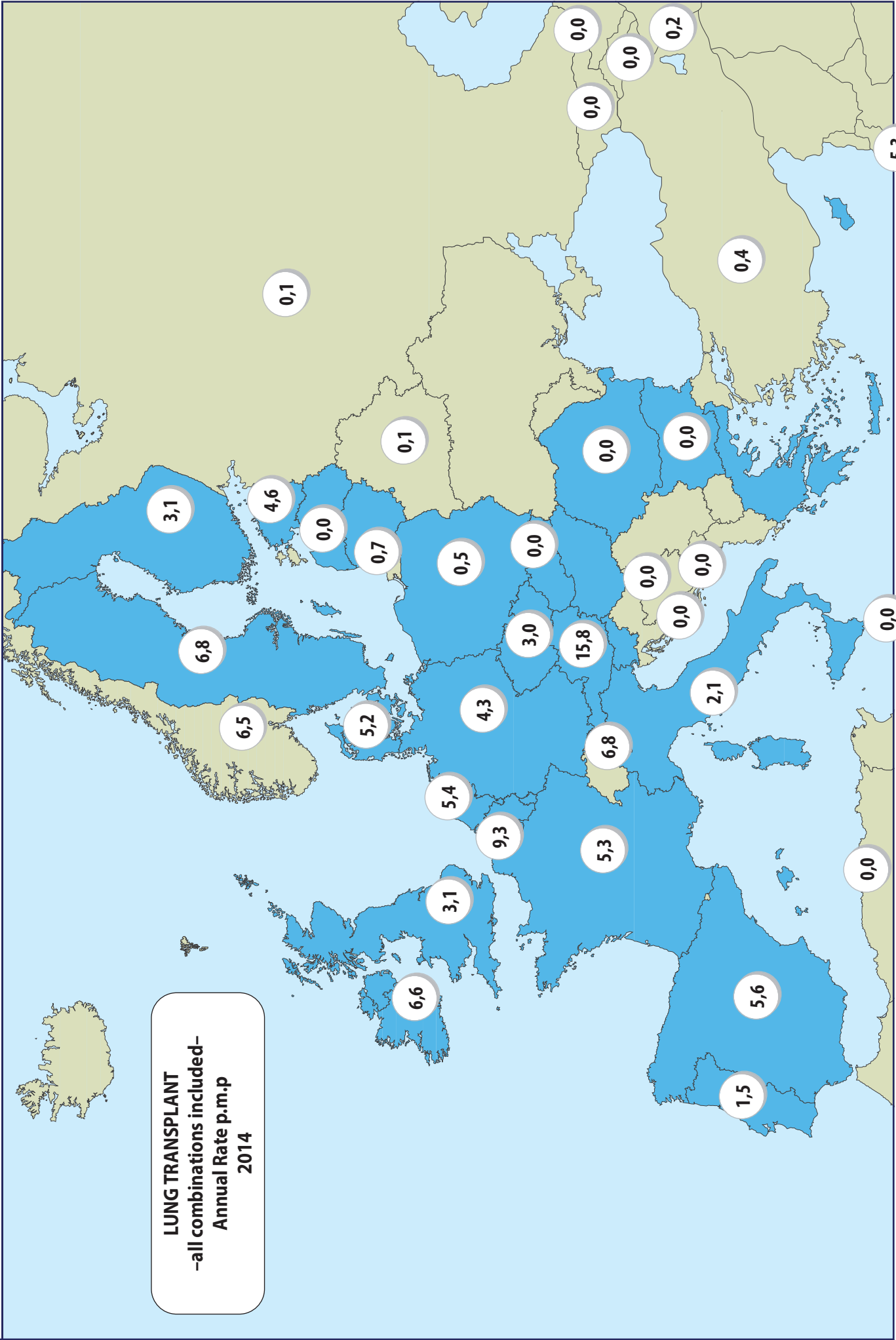


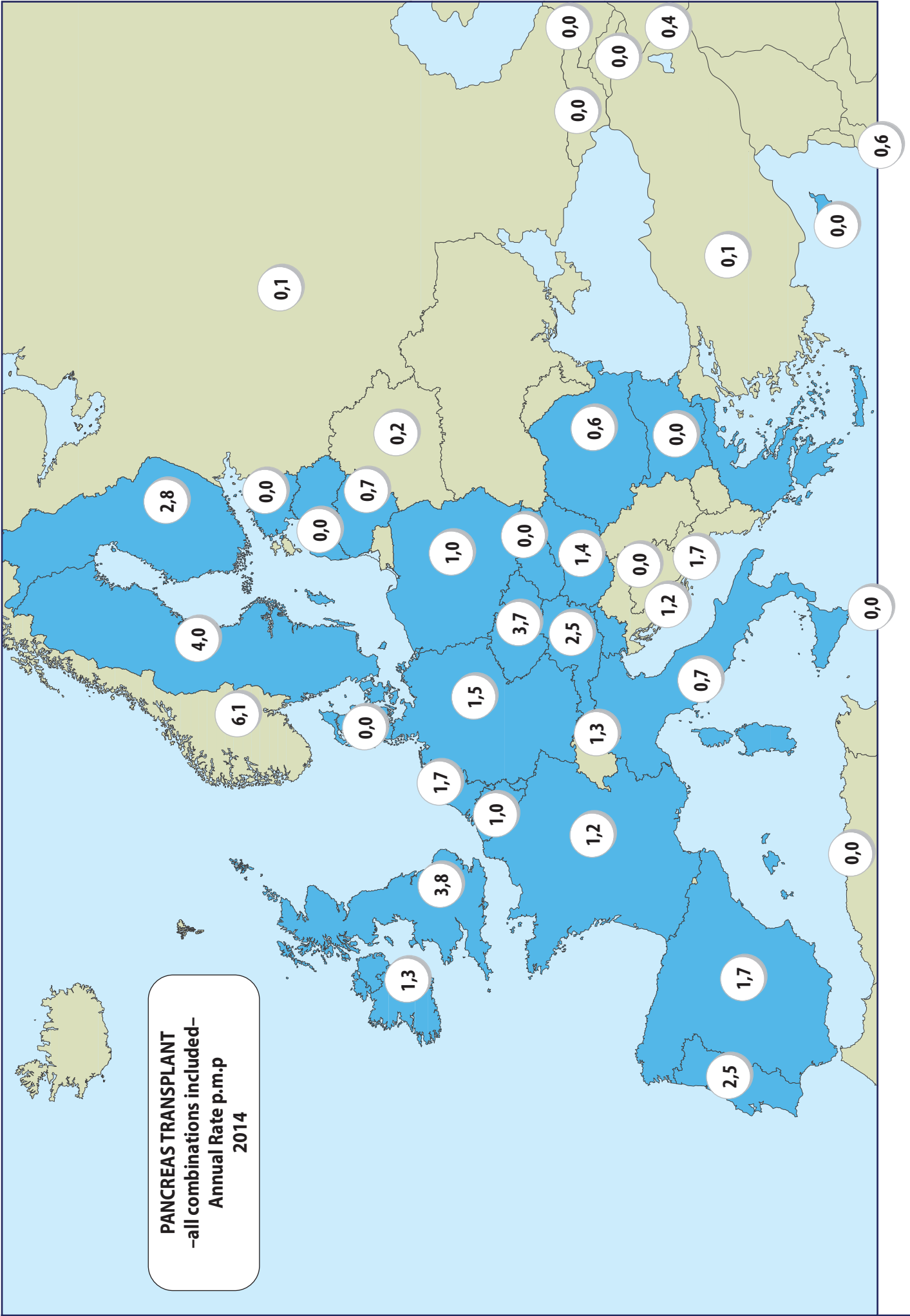


**HEART TRANSPLANT**  
 --all combinations included--  
 Annual Rate p.m.p  
 2014

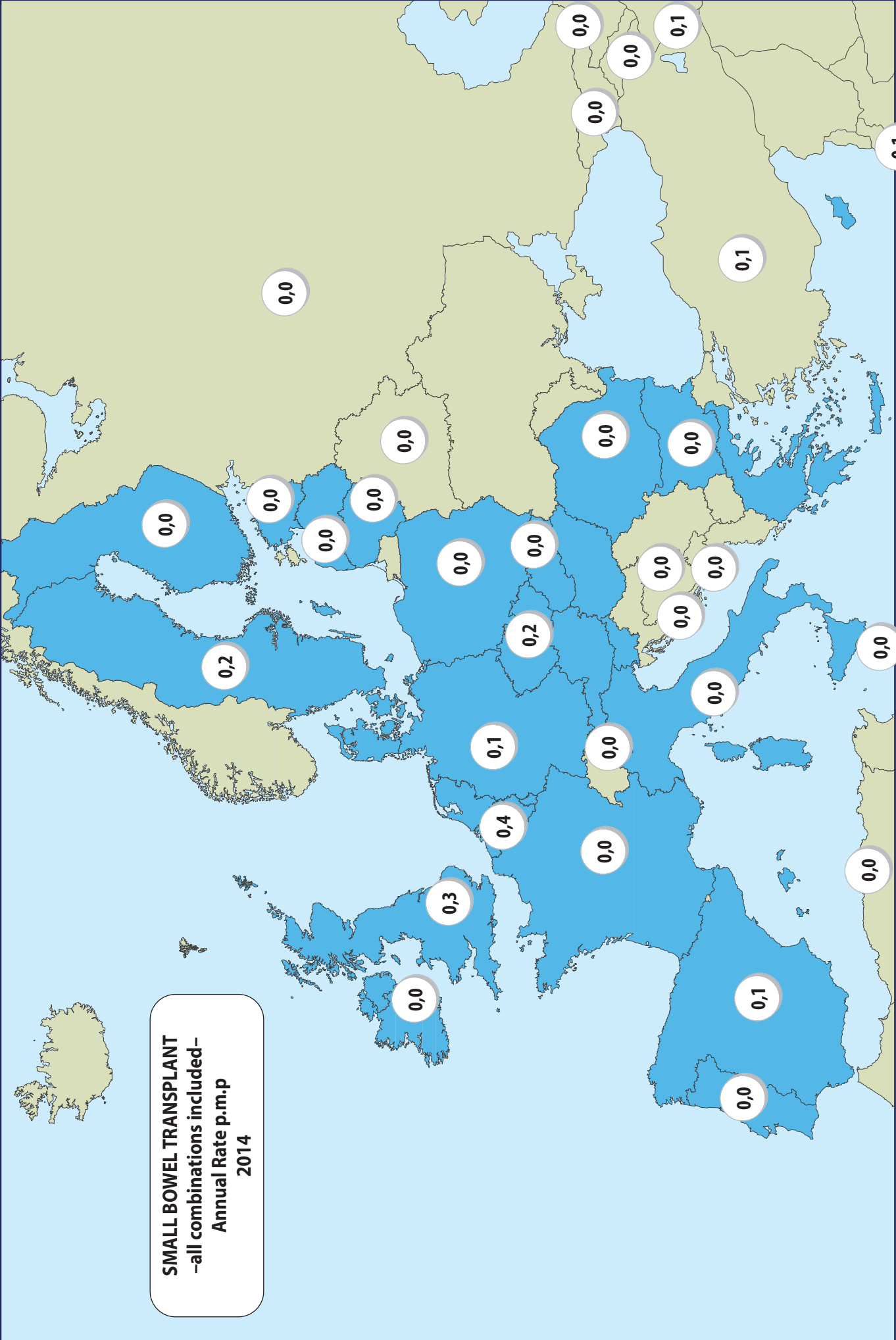


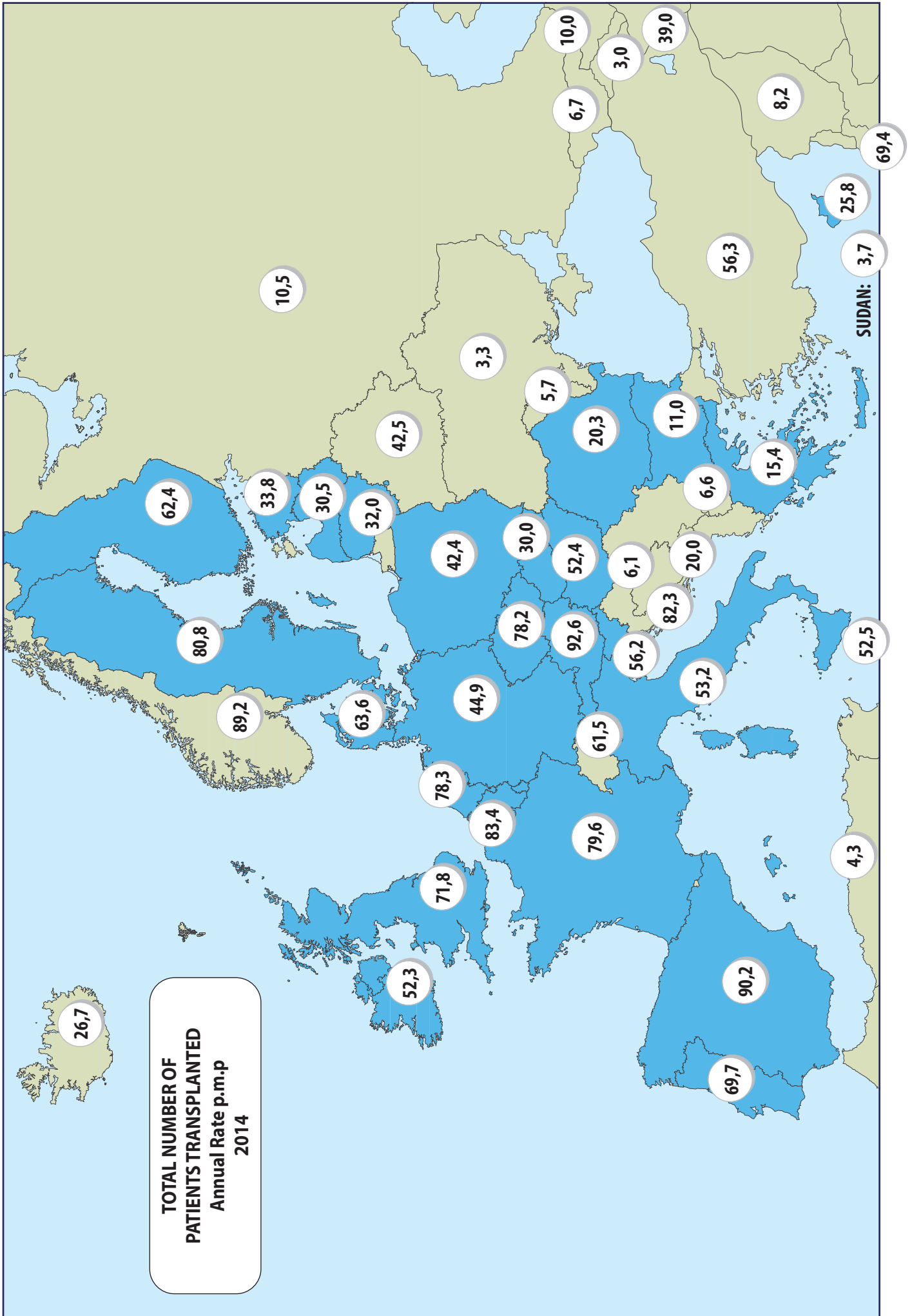
**LUNG TRANSPLANT**  
 -all combinations included-  
 Annual Rate p.m.p  
 2014





**SMALL BOWEL TRANSPLANT**  
-all combinations included-  
Annual Rate p.m.p  
2014





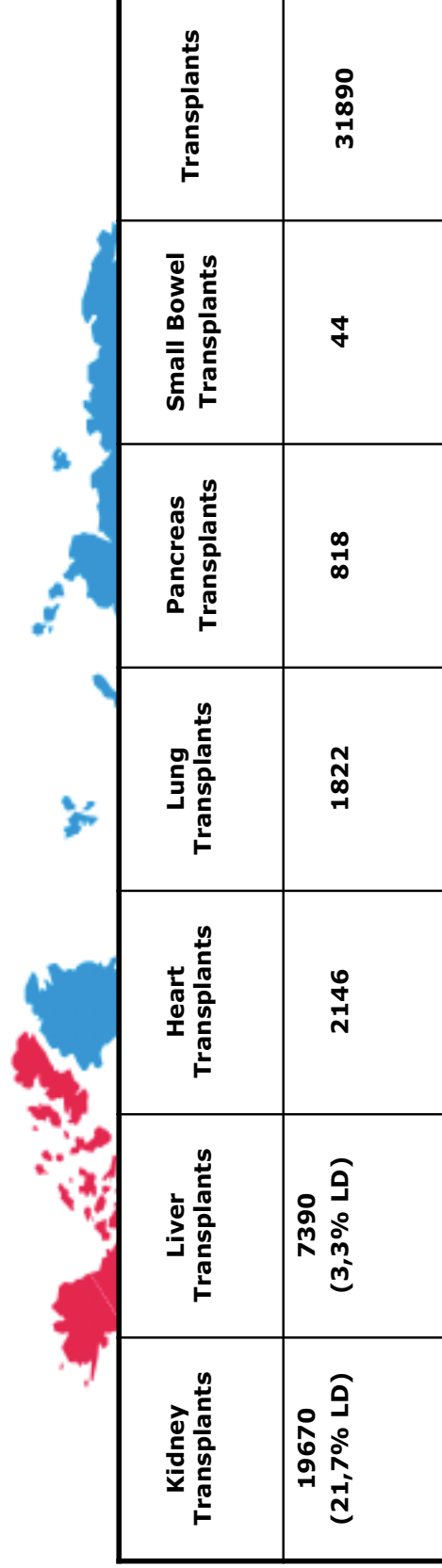


Global Observatory on  
Donation & Transplantation

In collaboration with  
World Health  
Organization



## EUROPEAN UNION DATA



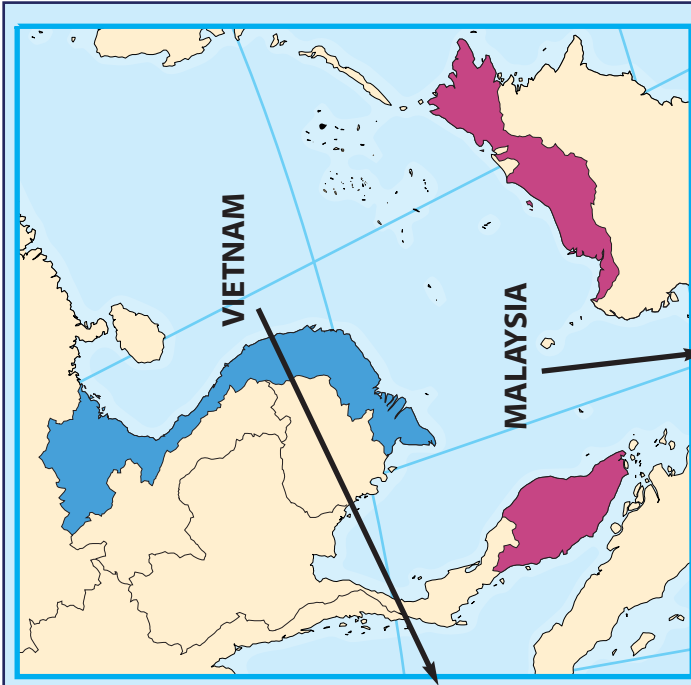
Kidney Transplants	Liver Transplants	Heart Transplants	Lung Transplants	Pancreas Transplants	Small Bowel Transplants	Transplants
19670 (21,7% LD)	7390 (3,3% LD)	2146	1822	818	44	31890

**10033 ACTUAL DECEASED ORGAN DONORS (both DBD and DCD included)**

**\*2014 data**

**N= 28 COUNTRIES (510,3 million inhabitants)**





**Population (million inhabitants): UNFPA**

Actual deceased organ donors – both DBD and DCD included–	Number	PMP
<b>KIDNEY</b> Total TX. –all combinations included–	22	0.7
TX. from living donors	68	2.3
<b>LIVER</b> Total TX. –all combinations included–	29	1.0
TX. from living donors	9	0.3
<b>HEART–LUNG</b> Total TX.	1	0.0
TX. from living donors	0	0.0
<b>PANCREAS</b> Total TX. –all combinations included–	0	0.0
<b>SMALL BOWEL</b> Total TX. –all combinations included–	0	0.0
<b>RECIPIENTS</b> Total number of patients transplanted	78	37.1

**Population (million inhabitants): UNFPA**

Actual deceased organ donors –both DBD and DCD included–	Number	PMP
<b>KIDNEY</b> Total TX. –all combinations included–	46	10.0
TX. from living donors	138	30.0
<b>LIVER</b> Total TX. –all combinations included–	72	15.7
TX. from living donors	43	9.3
<b>HEART–LUNG</b> Total TX.	17	3.7
TX. from living donors	0	0.0
<b>PANCREAS</b> Total TX. –all combinations included–	17	3.7
<b>SMALL BOWEL</b> Total TX. –all combinations included–	2	0.4
<b>RECIPIENTS</b> Total number of patients transplanted	211	45.9

**Population (million inhabitants): UNFPA**

Actual deceased organ donors –both DBD and DCD included–	Number	PMP
<b>KIDNEY</b> Total TX. –all combinations included–	17	0.2
TX. from living donors	270	2.9
<b>LIVER</b> Total TX. –all combinations included–	261	2.8
TX. from living donors	8	0.1
<b>HEART–LUNG</b> Total TX.	2	0.0
TX. from living donors	0	0.0
<b>PANCREAS</b> Total TX. –all combinations included–	1	0.0
<b>SMALL BOWEL</b> Total TX. –all combinations included–	2	0.0
<b>RECIPIENTS</b> Total number of patients transplanted	281	3.0

**Population (million inhabitants): UNFPA**

Actual deceased organ donors –both DBD and DCD included–	Number	PMP
<b>KIDNEY</b> Total TX. –all combinations included–	584	16.5



**Population (million inhabitants): UNFPA**

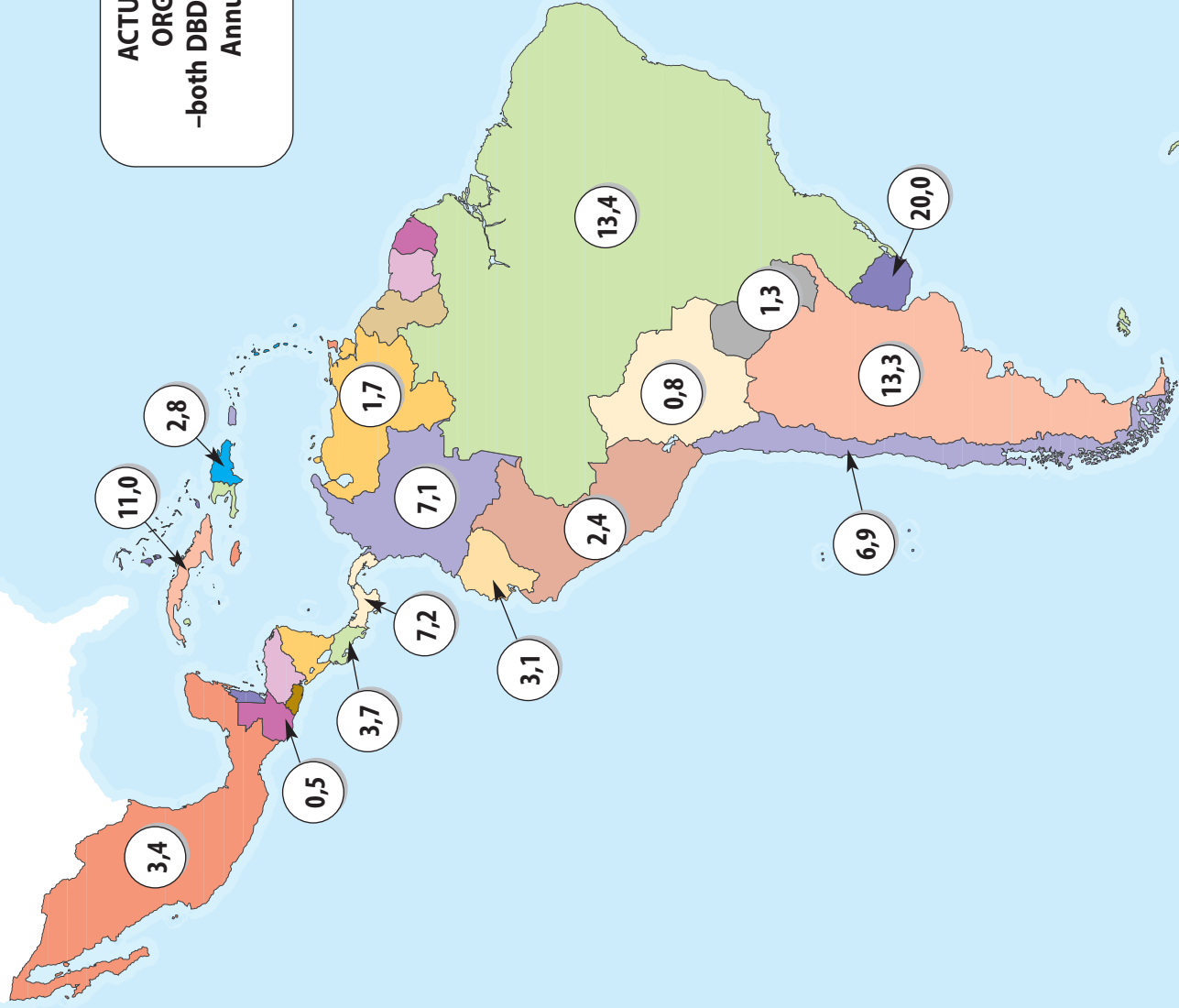
Actual deceased organ donors –both DBD and DCD included–	Number	PMP
<b>KIDNEY</b> Total TX. –all combinations included–	8596	26.6
TX. from living donors	17815	55.2
<b>LIVER</b> Total TX. –all combinations included–	5536	17.2
TX. from living donors	6729	20.9
<b>HEART–LUNG</b> Total TX.	2679	8.3
TX. from living donors	24	0.1
<b>PANCREAS</b> Total TX. –all combinations included–	1949	6.0
TX. from living donors	954	3.0
<b>SMALL BOWEL</b> Total TX. –all combinations included–	139	0.4
<b>RECIPIENTS</b> Total number of patients transplanted	28523	88.4

**Population (million inhabitants): UNFPA**

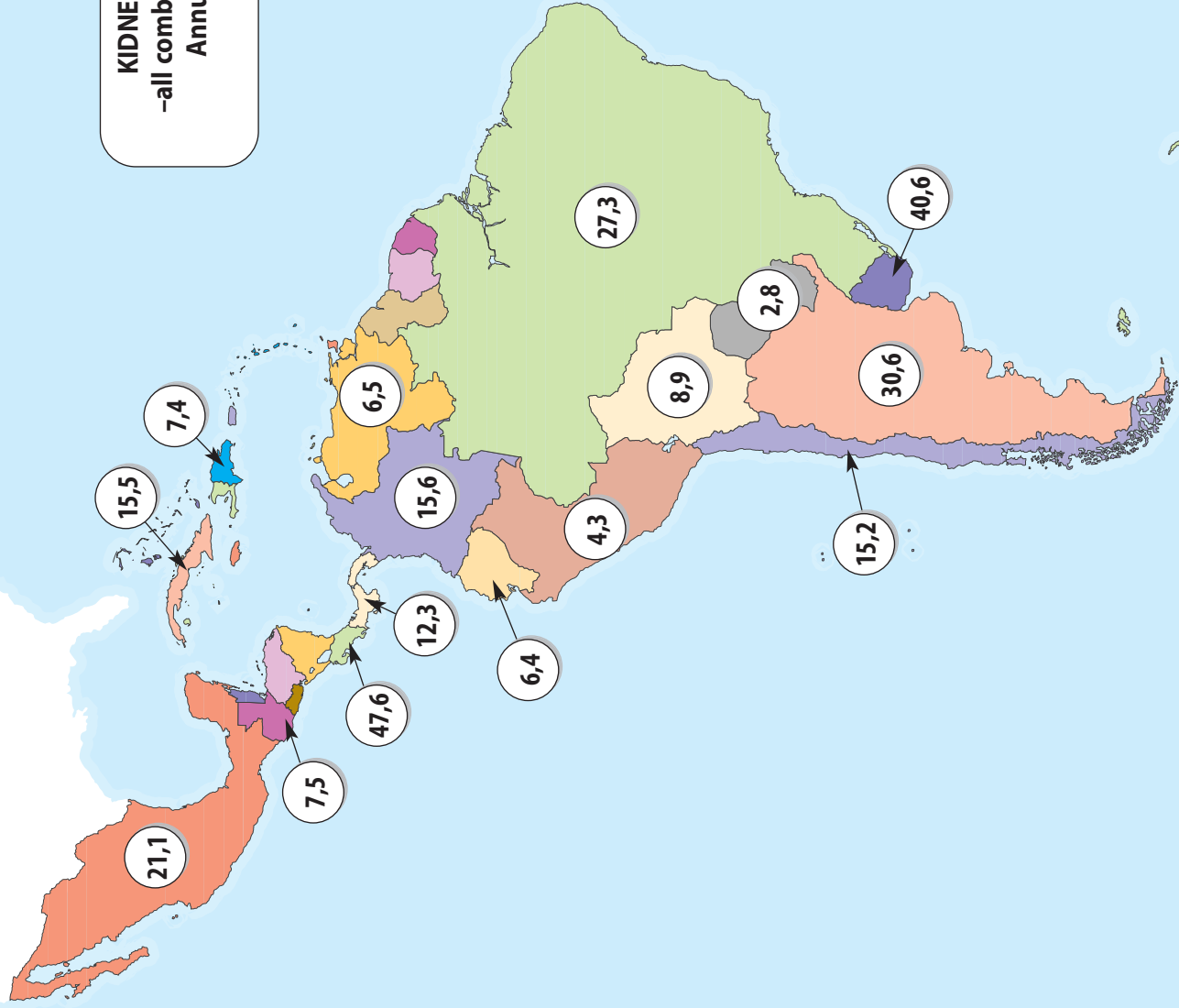
Actual deceased organ donors –both DBD and DCD included–	Number	PMP
<b>KIDNEY</b> Total TX. –all combinations included–	378	16.0
TX. from living donors	904	38.3
<b>LIVER</b> Total TX. –all combinations included–	267	11.3
TX. from living donors	235	10.0
<b>HEART–LUNG</b> Total TX.	83	3.5
TX. from living donors	5	0.2
<b>PANCREAS</b> Total TX. –all combinations included–	166	7.0
TX. from living donors	45	1.9
<b>SMALL BOWEL</b> Total TX. –all combinations included–	1	0.0
<b>RECIPIENTS</b> Total number of patients transplanted	1384	58.6



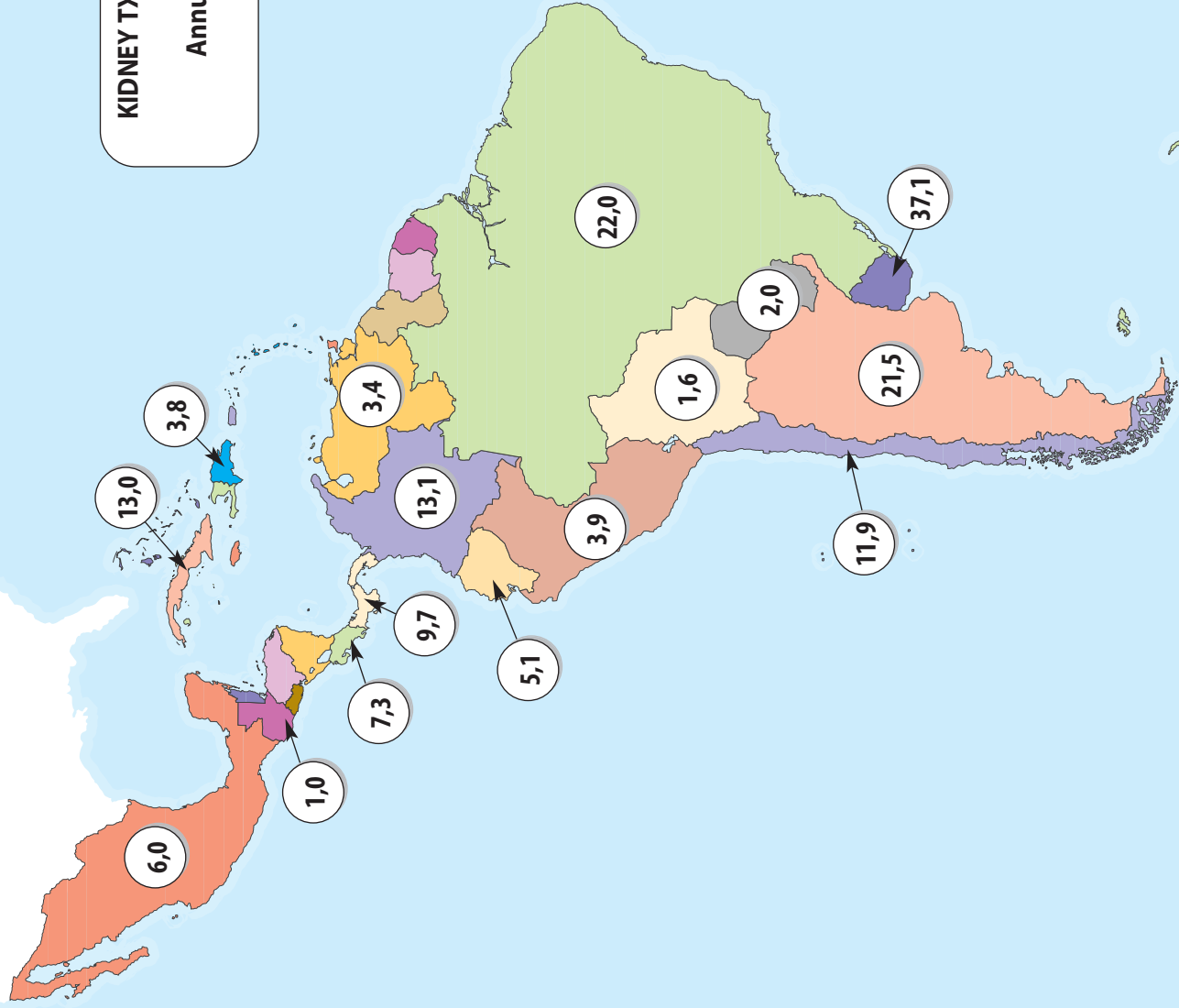
**ACTUAL DECEASED  
ORGAN DONORS  
-both DBD and DCD included-  
Annual Rate p.m.p  
2014**



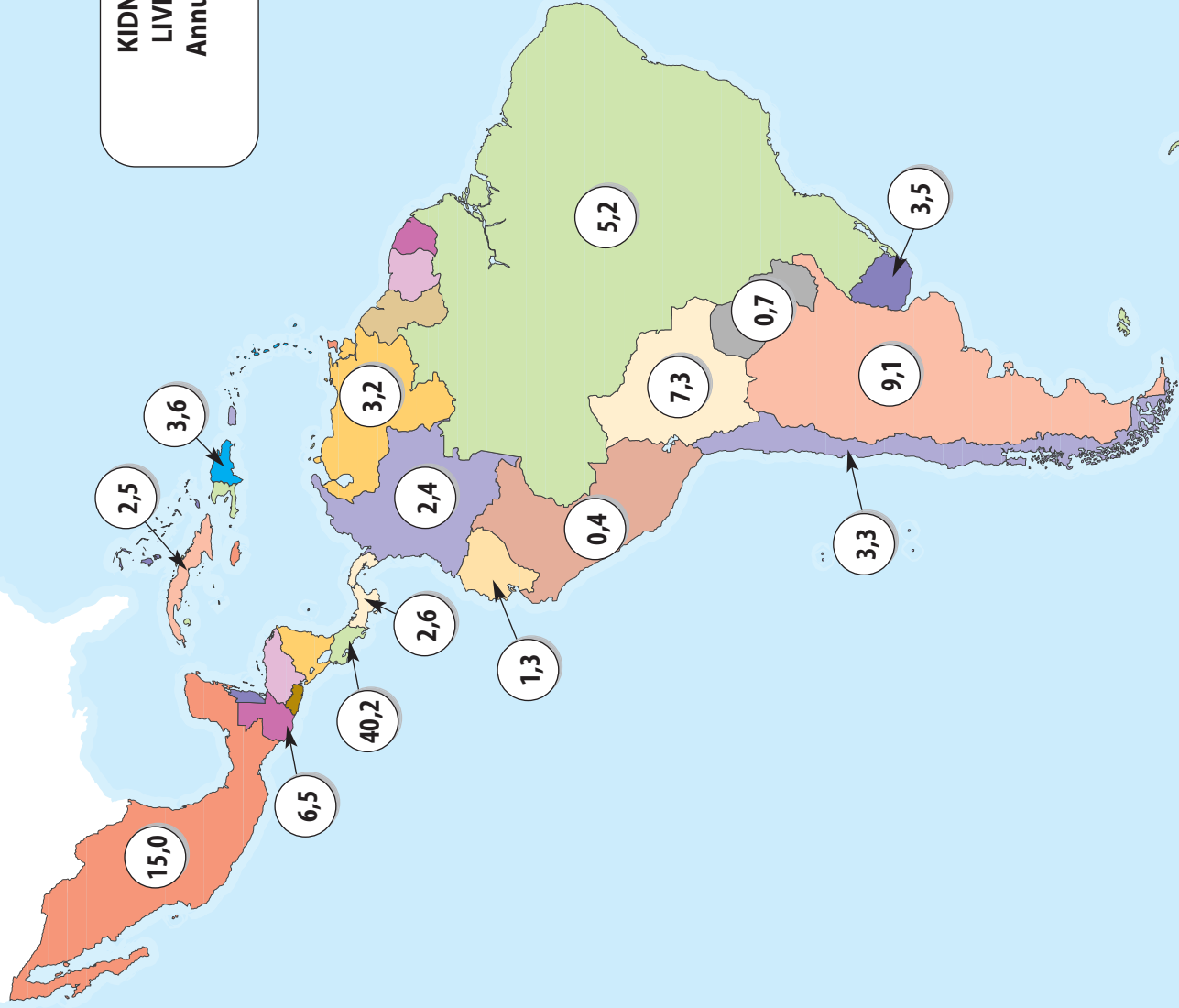
**KIDNEY TRANSPLANT**  
 -all combinations included-  
 Annual Rate p.m.p  
 2014



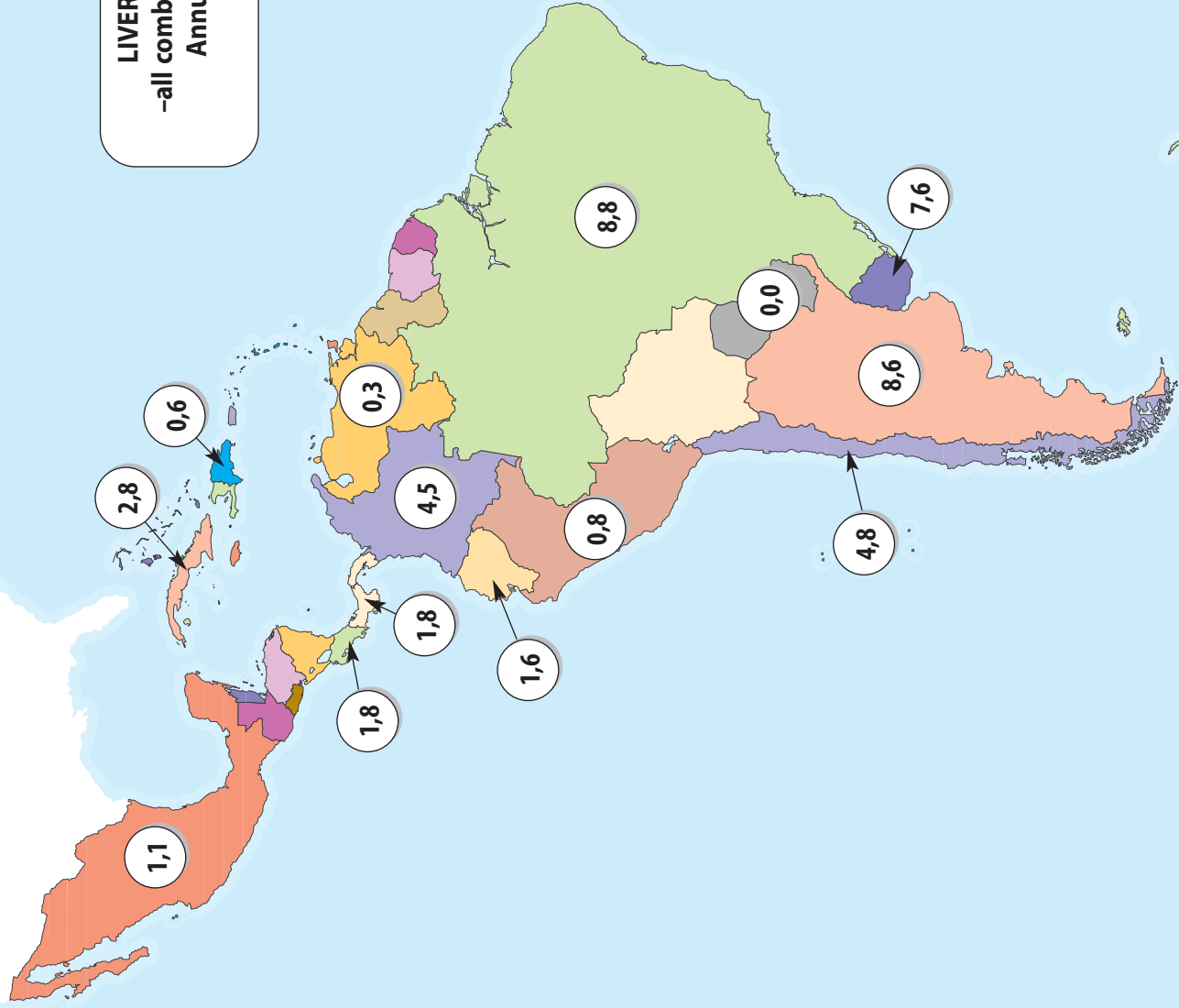
**KIDNEY TX. FROM DECEASED  
DONORS  
Annual Rate p.m.p  
2014**



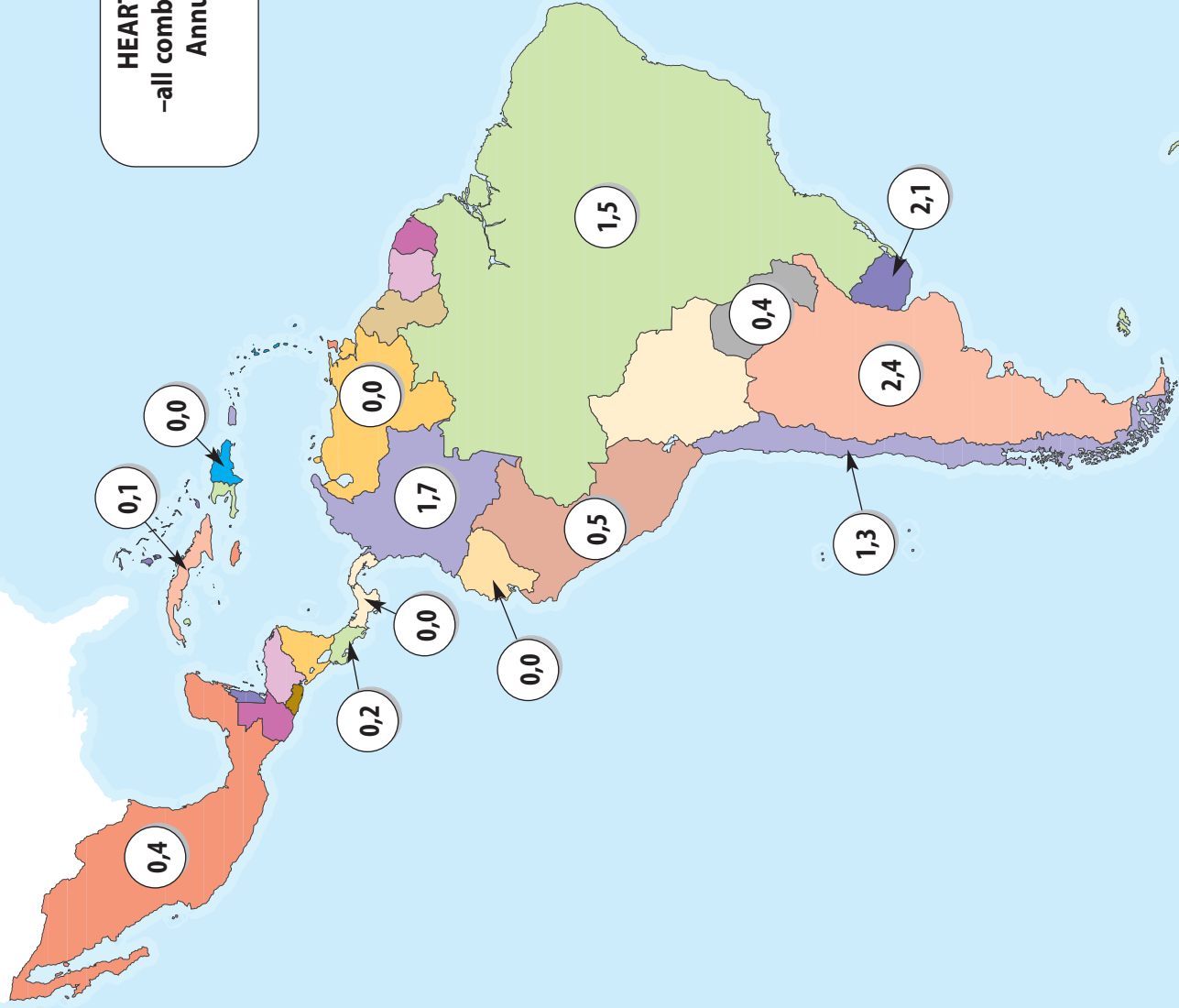
**KIDNEY TX. FROM LIVING DONORS**  
**Annual Rate p.m.p**  
**2014**



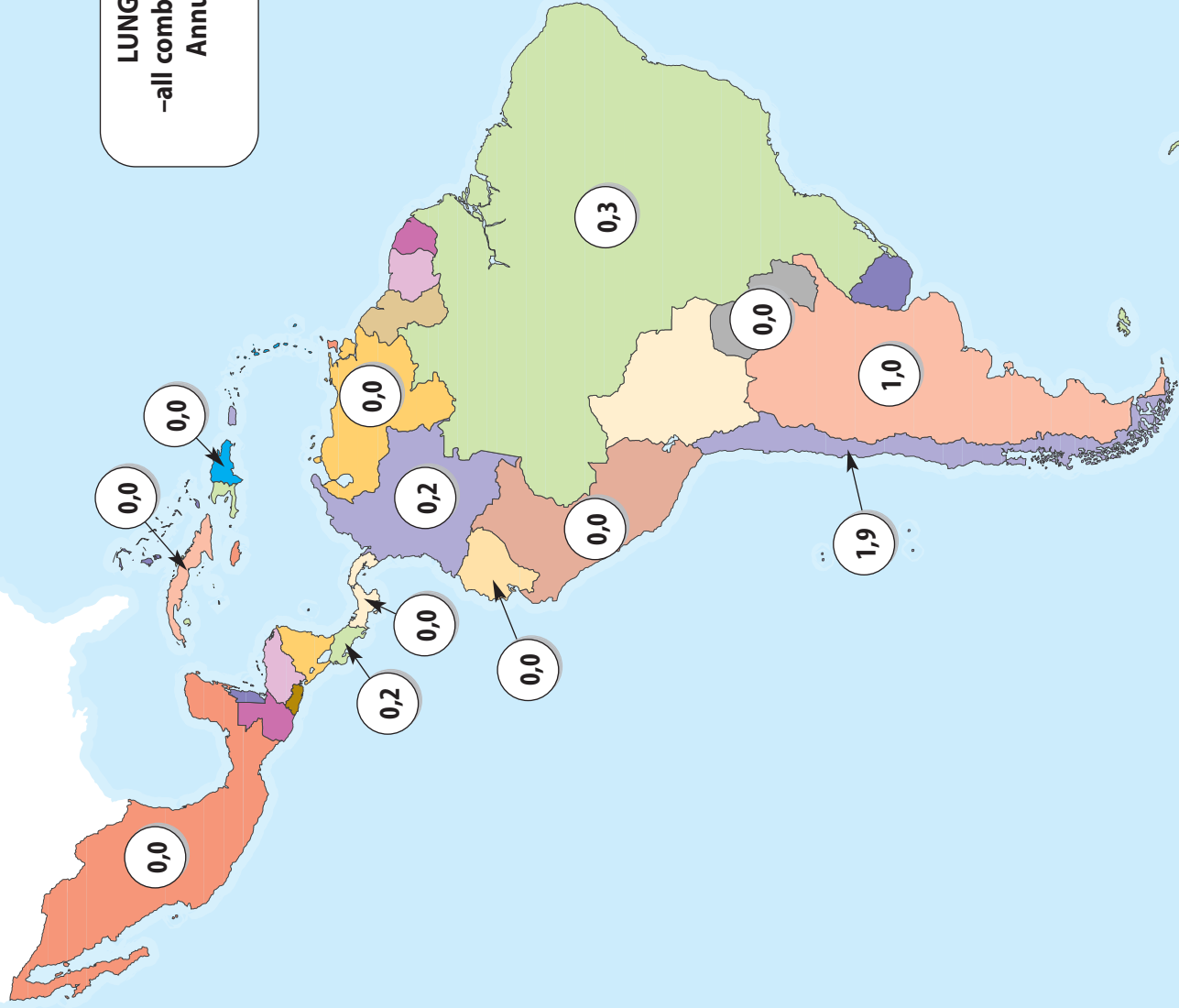
**LIVER TRANSPLANT**  
-all combinations included-  
Annual Rate p.m.p  
2014



**HEART TRANSPLANT**  
-all combinations included-  
Annual Rate p.m.p  
2014

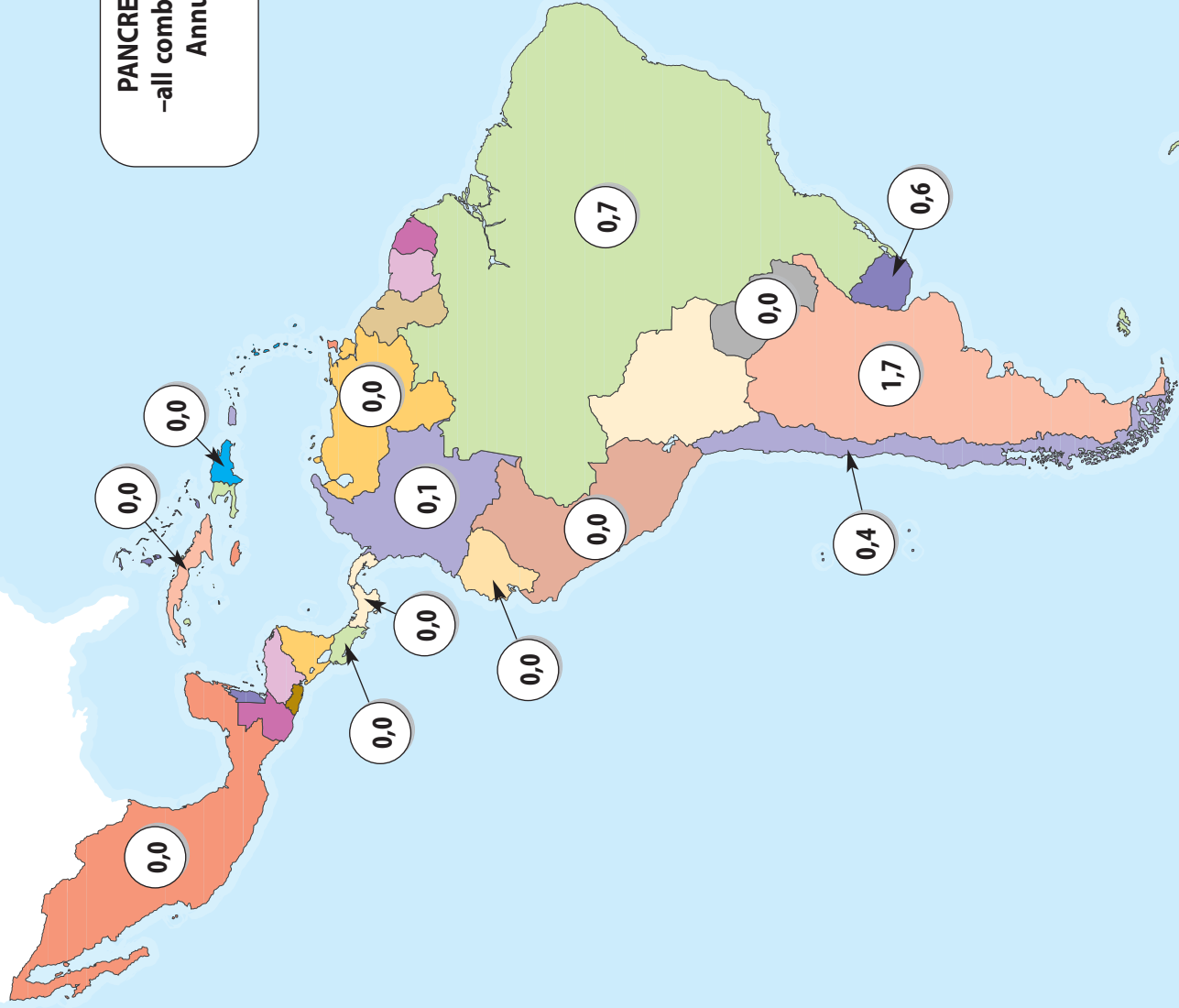


**LUNG TRANSPLANT**  
-all combinations included-  
Annual Rate p.m.p  
2014

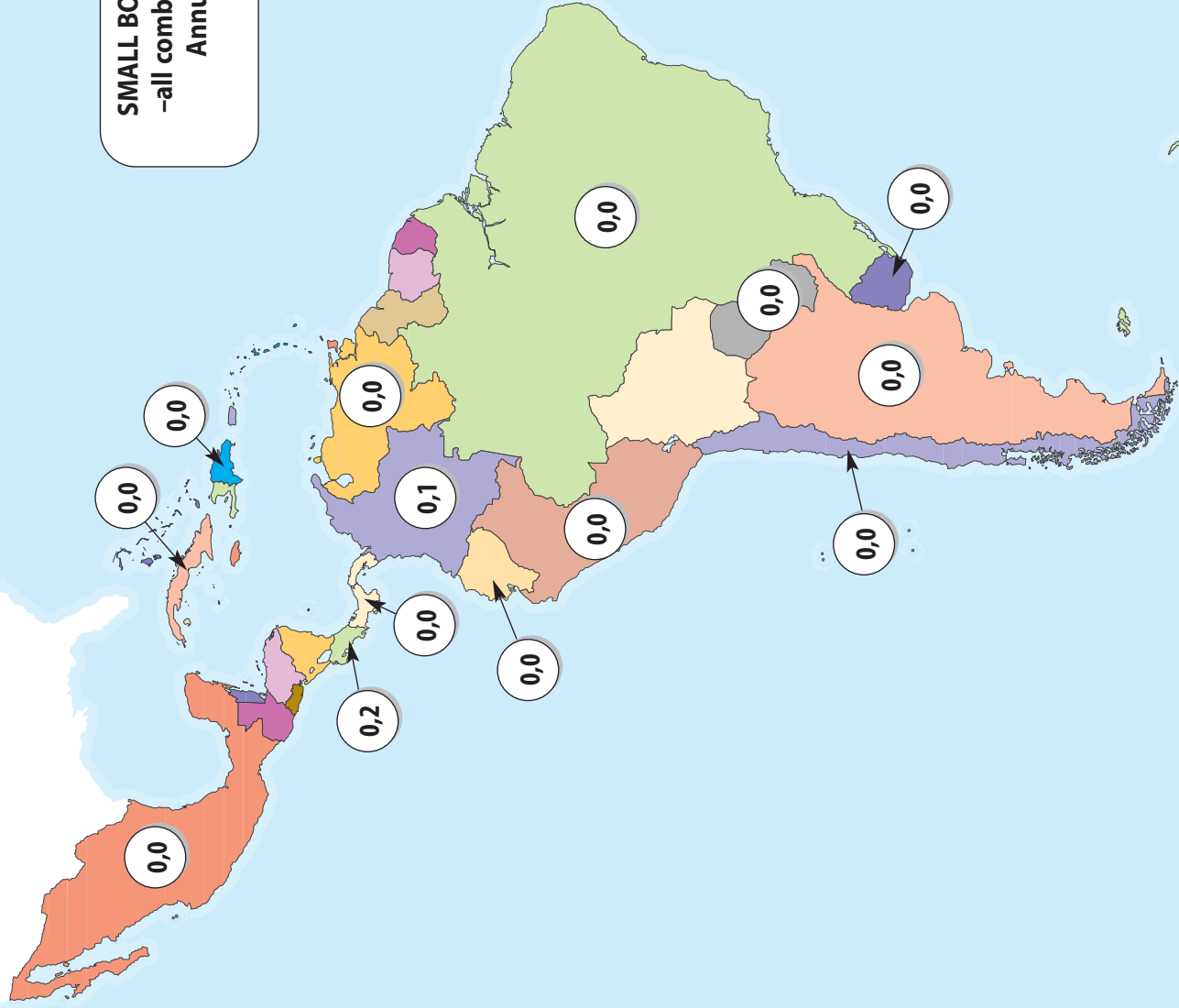




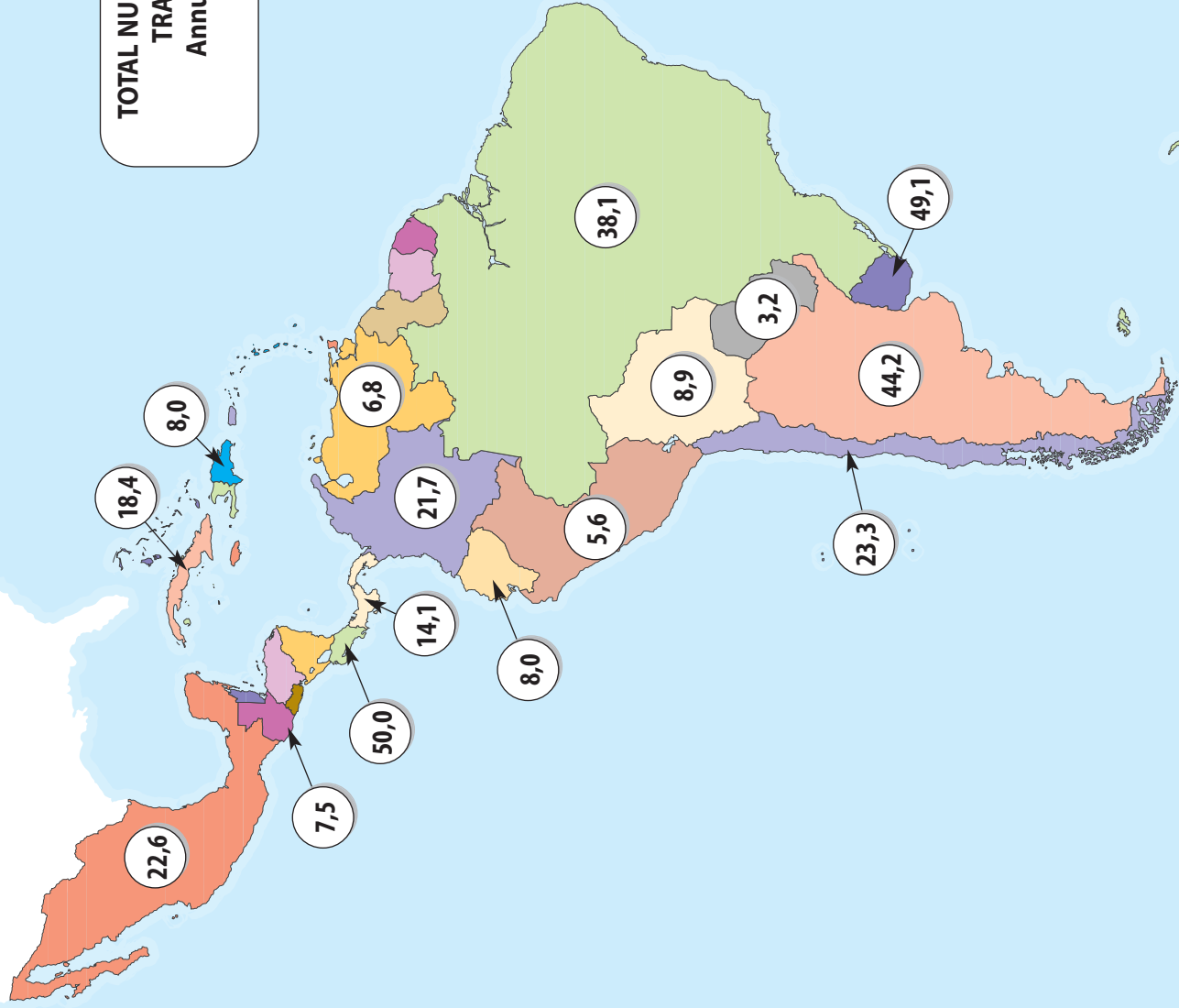
**PANCREAS TRANSPLANT**  
-all combinations included-  
Annual Rate p.m.p  
2014



**SMALL BOWEL TRANSPLANT**  
-all combinations included-  
Annual Rate p.m.p  
2014

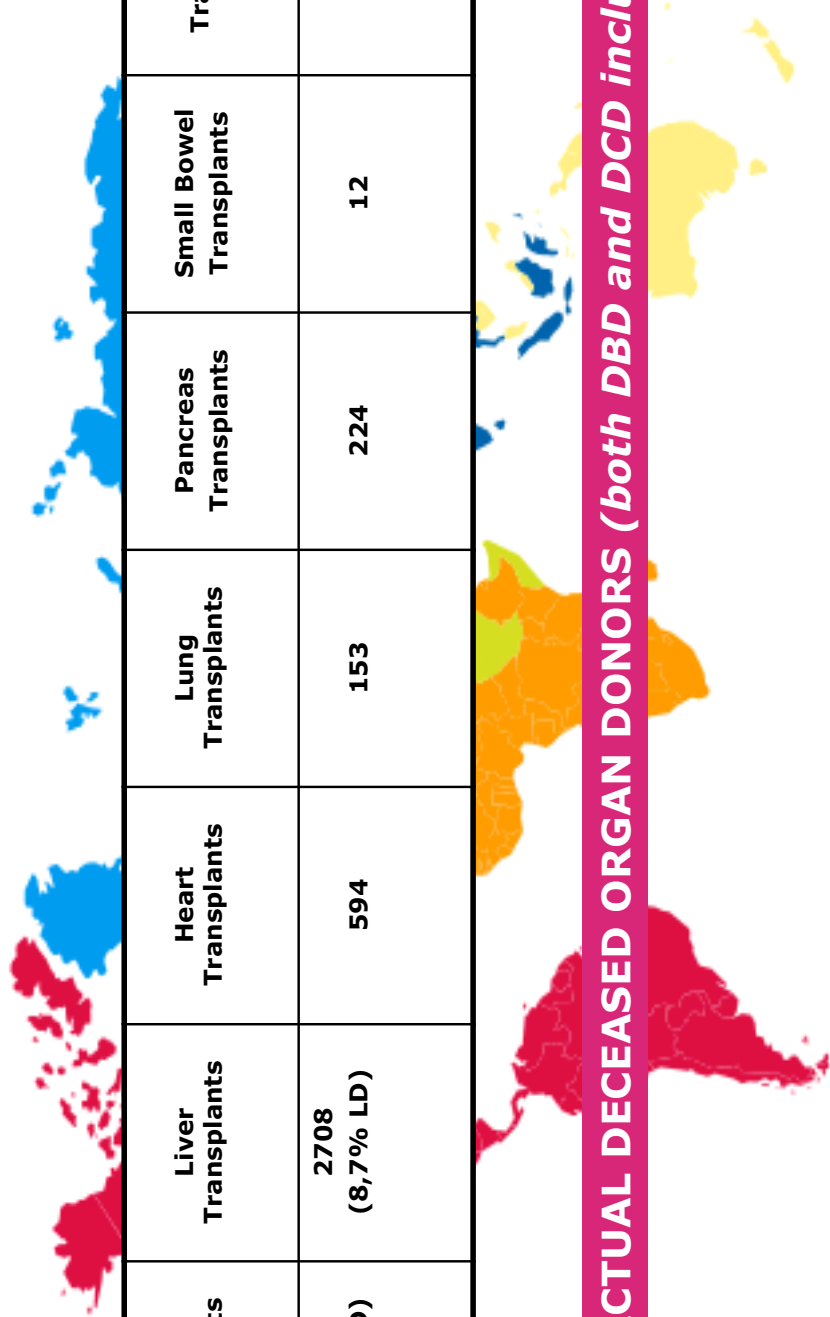


**TOTAL NUMBER OF PATIENTS  
TRANSPLANTED  
Annual Rate p.m.p  
2014**





**LATINAMERICAN COUNTRIES**



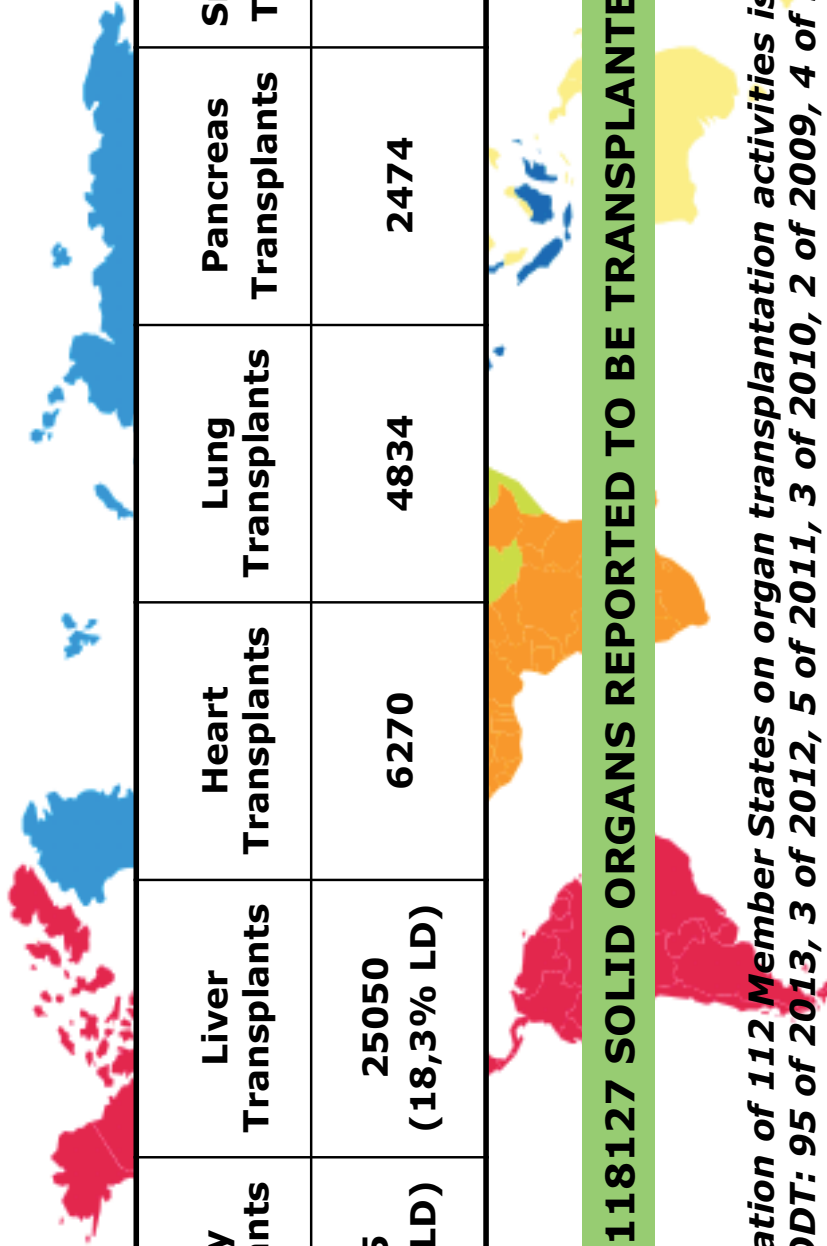
Kidney Transplants	Liver Transplants	Heart Transplants	Lung Transplants	Pancreas Transplants	Small Bowel Transplants	Transplants
11770 (34,6% LD)	2708 (8,7% LD)	594	153	224	12	15461

**4620 ACTUAL DECEASED ORGAN DONORS (both DBD and DCD included)**

**\*2014 data**

**N= 16 COUNTRIES (579,6 million inhabitants)**

**GLOBAL ACTIVITY IN ORGAN TRANSPLANTATION  
2013 ESTIMATES**

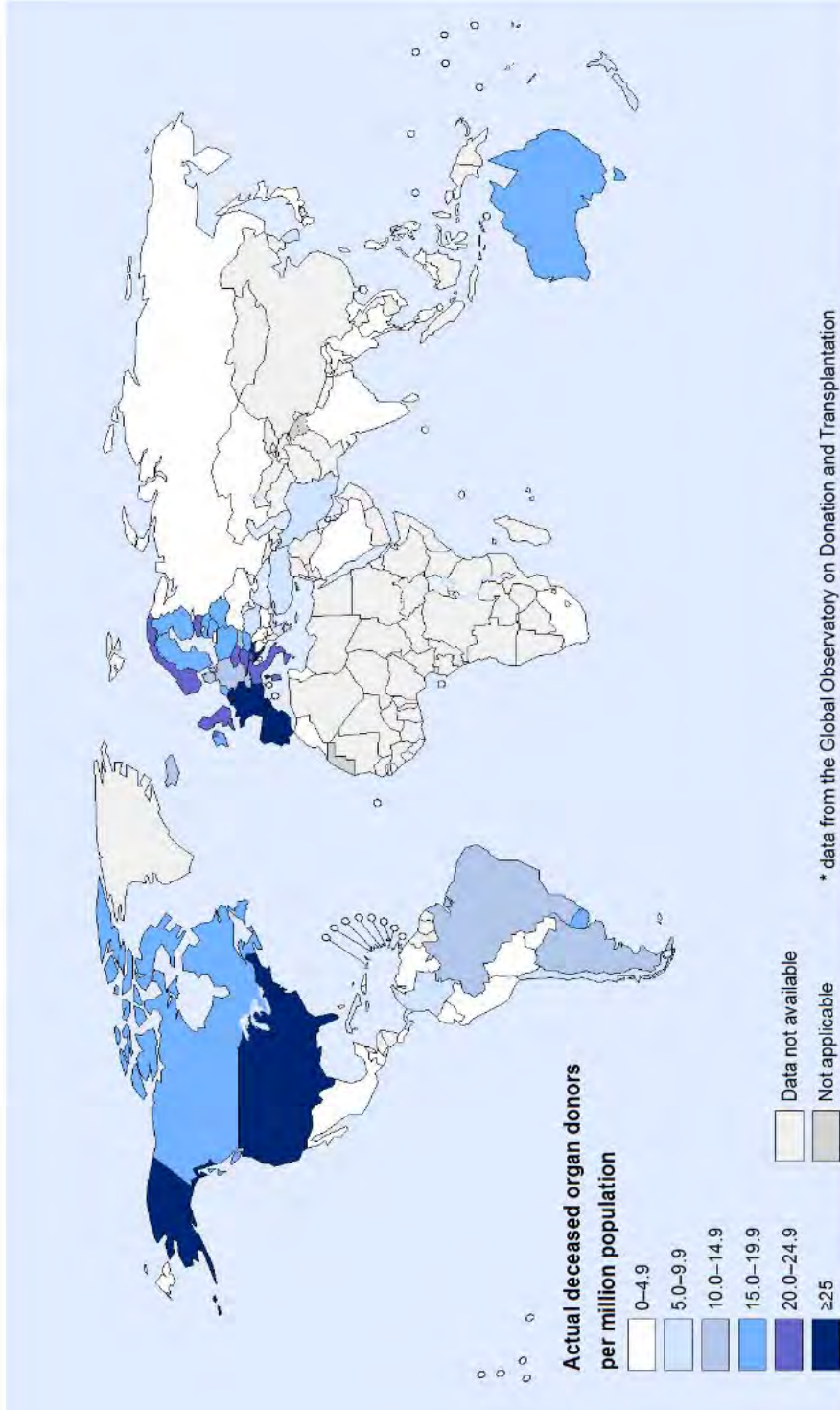


Kidney Transplants	Liver Transplants	Heart Transplants	Lung Transplants	Pancreas Transplants	Small Bowel Transplants
79325 (41,9% LD)	25050 (18,3% LD)	6270	4834	2474	174

**118127 SOLID ORGANS REPORTED TO BE TRANSPLANTED**

*- Information of 112 Member States on organ transplantation activities is included in the GODT: 95 of 2013, 3 of 2012, 5 of 2011, 3 of 2010, 2 of 2009, 4 of 2008.*

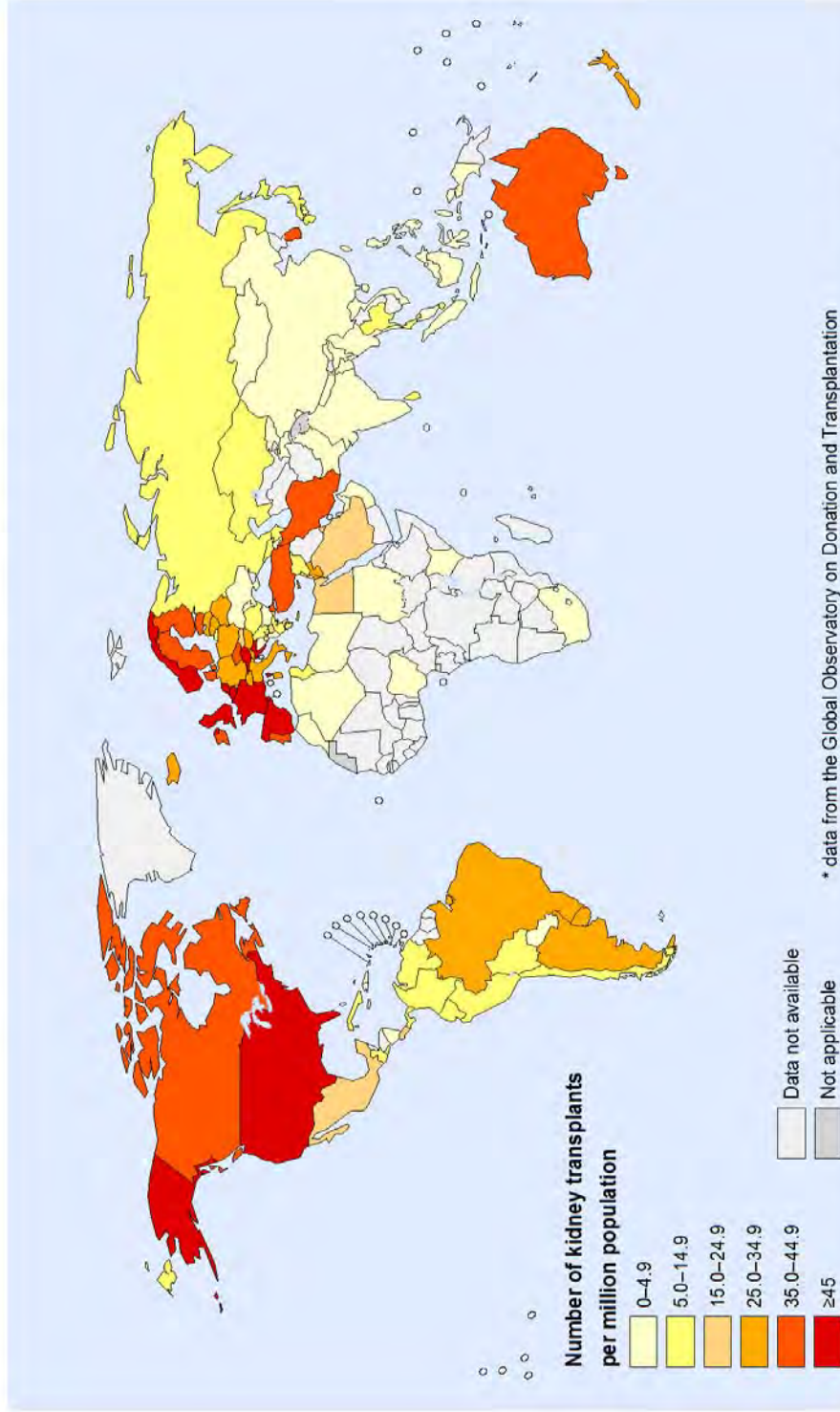
## Actual donors from deceased persons, 2013\*



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Observatory on Donation & Transplantation. Map Production: Health Statistics and Information Systems (HSI), World Health Organization

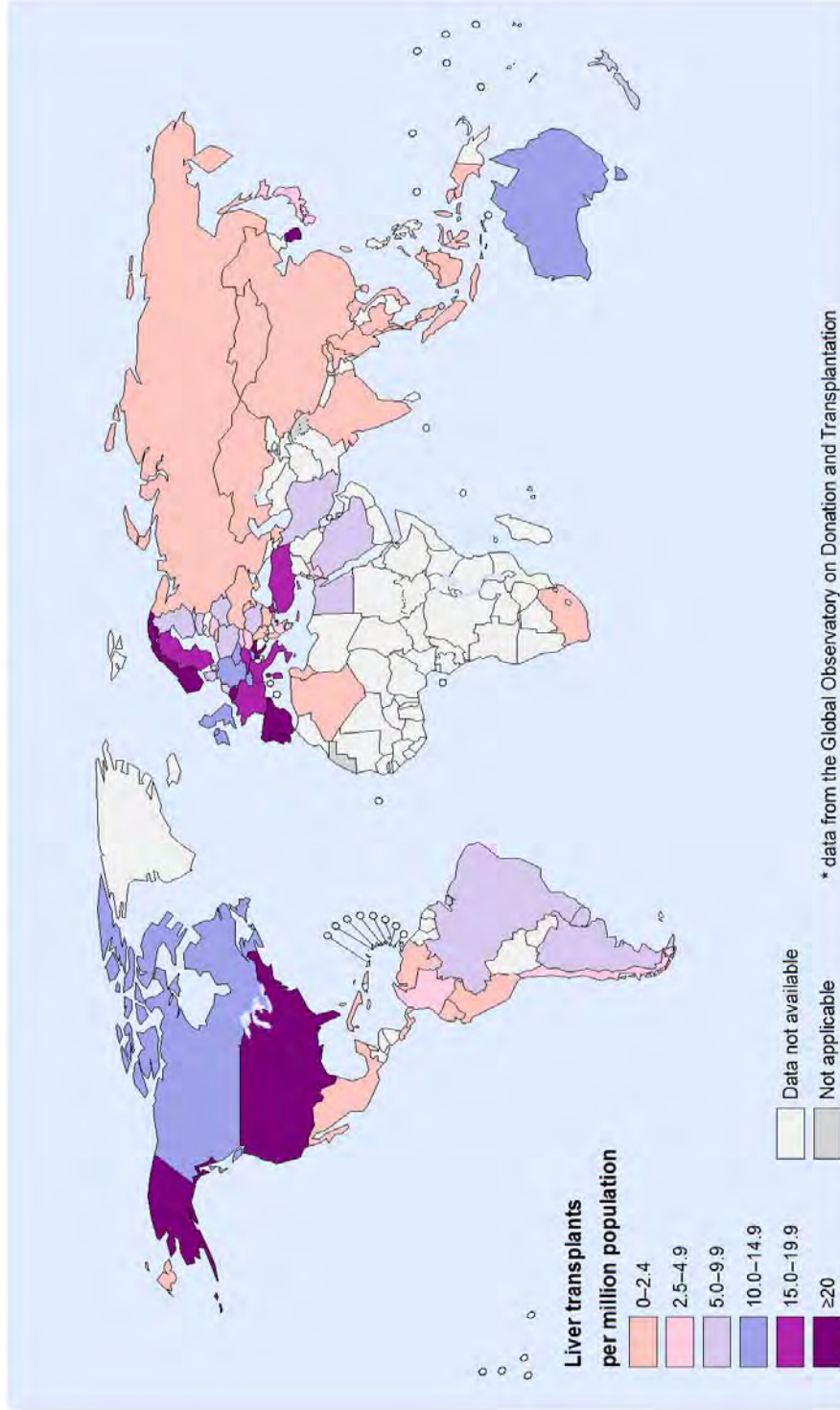
## Kidney transplantation activities, 2013\*



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Observatory on Donation & Transplantation. Map Production: Health Statistics and Information Systems (HSI), World Health Organization

## Liver transplantation activities, 2013\*

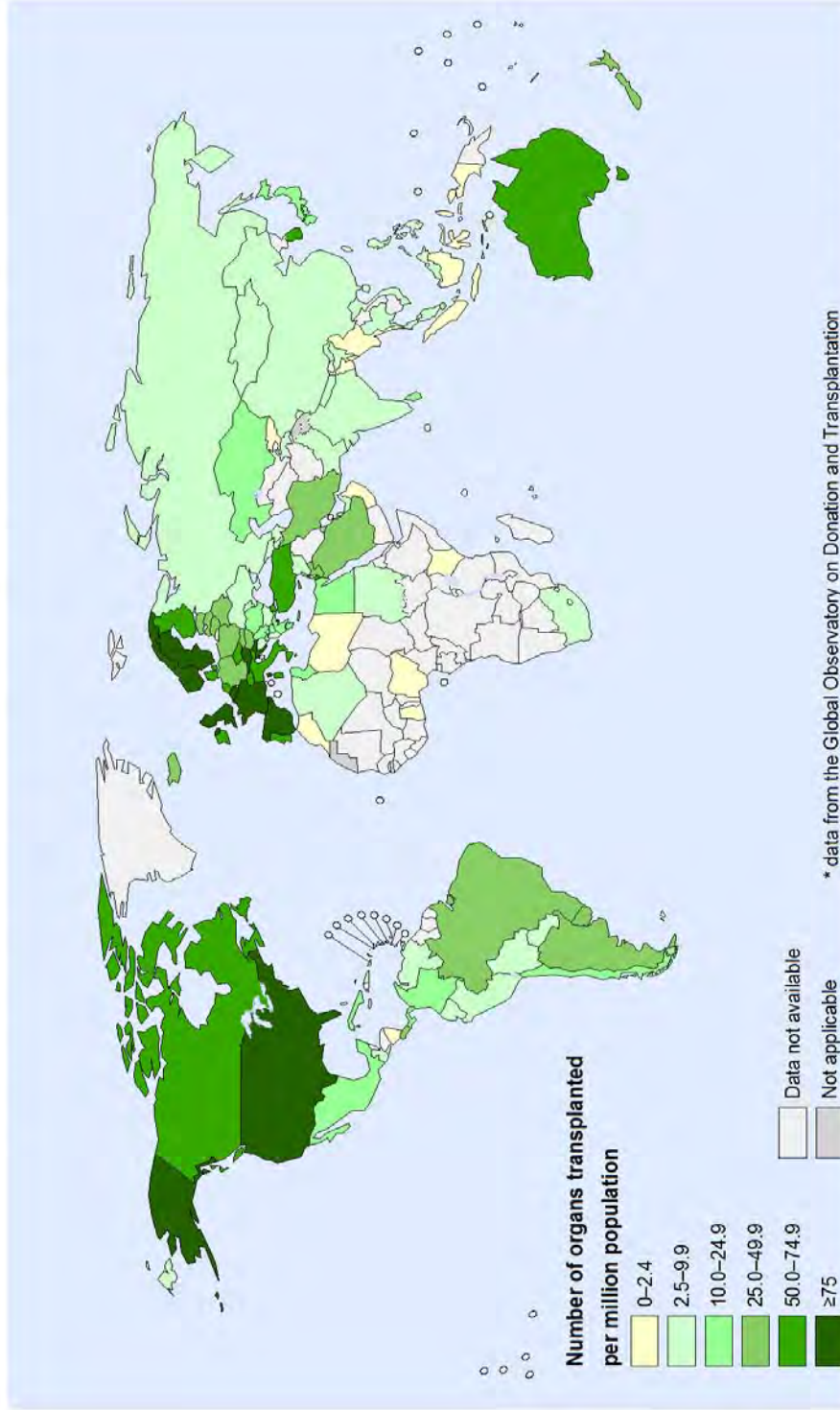


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Observatory on Donation & Transplantation. Map Production: Health Statistics and Information Systems (HSI), World Health Organization



## Global transplantation activities of solid organs, 2013\*



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Observatory on Donation & Transplantation. Map Production: Health Statistics and Information Systems (HSI), World Health Organization



**International Data On Organ Donation And  
Transplantation Activity, Waiting List And  
Family Refusals. Year 2014.**



## DONATION AND TRANSPLANTATION ACTIVITY

## EUROPEAN UNION COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	AUSTRIA 8,5		BELGIUM 11,1		BULGARIA 7,2		CROATIA 4,3		CYPRUS 1,2		CZECH. R. 10,7		DENMARK 5,6		ESTONIA 1,3		FINLAND 5,4		FRANCE 64,6	
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors -both DBD and DCD included-	212	24,9	299	26,9	38	5,3	151	35,1	5	4,2	261	24,4	80	14,3	23	17,7	121	22,4	1635	25,3
Actual donors after circulatory death -DCD-	4	0,5	83	7,5	0	0,0	0	0,0	0	0,0	4	0,4	0	0,0	0	0,0	0,0	0,0	40	0,6
Multiorgan donors	175	20,6	230	20,7	22	3,1	22	5,0	0	0,0	163	15,2	64	11,4	17	13,1	66	12,2	1573	24,3
<b>DONATION</b>																				
<b>TRANSPLANTATION</b>																				
<b>KIDNEY</b>	446	52,5	481	43,3	56	7,8	197	45,8	31	25,8	507	47,4	249	44,5	32	24,6	240	44,4	3232	50,0
Total TX. -all combinations included-	15,9																			
% (TX. from living d. / Total TX.)	21,4																			
Paediatric <15 years	7	0,8	13	1,2	0	0,0	0	0,0	1	0,8	3	0,3	7	1,3	0	0,0	12	2,2	58	0,9
TX. from deceased donors	375	44,1	414	37,3	44	6,1	186	43,3	9	7,5	444	41,5	139	24,8	31	23,8	225	41,7	2718	42,1
-TX. from DCD	26	3,1	76	6,8	0	0,0	0	0,0	0	0,0	6	0,6	0	0,0	0	0,0	0,0	0,0	54	0,8
-Single TX.	367	43,2	412	37,1	44	6,1	0	0,0	9	7,5	442	41,3	138	24,6	31	23,8	225	41,7	2681	41,5
-Double TX.	8	0,9	2	0,2	0	0,0	0	0,0	0	0,0	2	0,2	1	0,2	0	0,0	0	0,0	37	0,6
TX. from living donors	71	8,4	67	6,0	12	1,7	11	2,6	22	18,3	63	5,9	110	19,6	1	0,8	15	2,8	514	8,0
-TX. from Related living donors	71	8,4	42	3,8	12	1,7	11	2,6	22	18,3	40	3,7	110	19,6	1	0,8	15	2,8	512	7,9
-TX. from Unrelated living donors	0	0,0	25	2,3	0	0,0	0	0,0	0	0,0	23	2,1	0	0,0	0	0,0	0	0,0	2	0,0
<b>LIVER</b>	142	16,7	261	23,5	19	2,6	125	29,1	0	0,0	169	15,8	47	8,4	10	7,7	59	10,9	1280	19,8
Total TX. -all combinations included-	1,1																			
Paediatric <15 years	9	1,1	38	3,4	0	0,0	0	0,0	0	0,0	7	0,7	4	0,7	0	0,0	4	0,7	70	1,1
Split TX.	0	0,0	10	0,9	0	0,0	0	0,0	0	0,0	7	0,7	2	0,4	0	0,0	0	0,0	85	1,3
Domino TX.	0	0,0	2	0,2	0	0,0	0	0,0	0	0,0	1	0,1	0	0,0	0	0,0	0	0,0	5	0,1
TX. from living donors	6	0,7	40	3,6	1	0,1	1	0,2	0	0,0	2	0,2	0	0,0	0	0,0	0	0,0	12	0,2
TX. from DCD	0	0,0	50	4,5	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	4	0,1
<b>HEART</b>	68	8,0	82	7,4	4	0,6	34	7,9	0	0,0	87	8,1	32	5,7	0	0,0	26	4,8	436	6,7
Total TX. -all combinations included-	0,5																			
Paediatric <15 years	4	0,5	2	0,2	0	0,0	0	0,0	0	0,0	2	0,2	2	0,4	0	0,0	2	0,4	16	0,2
<b>HEART-LUNG</b>	0	0,0	0	0,0	0,0	0,0	0	0,0	0	0,0	1	0,1	0	0,0	0	0,0	2	0,4	13	0,2
Total TX.	0	0,0	0	0,0	0,0	0,0	0	0,0	0	0,0	0,0	0,0	0	0,0	0	0,0	0	0,0	2	0,0
Paediatric <15 years	0	0,0	0	0,0	0,0	0,0	0	0,0	0	0,0	0,0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
<b>LUNG</b>	134	15,8	103	9,3	0	0,0	0	0,0	0	0,0	32	3,0	29	5,2	6	4,6	17	3,1	340	5,3
Total TX. -all combinations included-	0,8																			
Paediatric <15 years	7	0,8	1	0,1	0	0,0	0	0,0	0	0,0	2	0,2	0	0,0	0	0,0	0	0,0	8	0,1
-Single TX.	2	0,2	5	0,5	0	0,0	0	0,0	0	0,0	1	0,1	0	0,0	3	2,3	0	0,0	39	0,6
-Double TX. (heart-lung TX. included)	132	15,5	98	8,8	0	0,0	0	0,0	0	0,0	31	2,9	29	5,2	3	2,3	17	3,1	301	4,7
TX. from living donors	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
TX. from DCD (double + single)	3	0,4	17	1,5	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
<b>PANCREAS</b>	21	2,5	11	1,0	0	0,0	5	1,2	0	0,0	40	3,7	0	0,0	0	0,0	15	2,8	79	1,2
Total TX. -all combinations included-	0,2																			
Paediatric <15 years	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
Pancreas TX. Alone	2	0,2	1	0,1	0	0,0	1	0,2	0	0,0	7	0,7	0	0,0	0	0,0	0	0,0	8	0,1
Kidney - Pancreas TX.	19	2,2	7	0,6	0	0,0	4	0,9	0	0,0	33	3,1	0	0,0	0	0,0	15	2,8	70	1,1
TX. from DCD	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
<b>SMALL BOWEL</b>	0	0,0	4	0,4	0	0,0	0	0,0	0	0,0	2	0,2	0	0,0	0	0,0	0	0,0	3	0,0
Total TX. -all combinations included-	0,0																			
Paediatric <15 years	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	1	0,0
Small bowel TX. Alone	0	0,0	4	0,4	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
<b>RECIPIENTS</b>	787	92,6	926	83,4	79	11,0	354	82,3	31	25,8	837	78,2	356	63,6	44	33,8	337	62,4	5141	79,6
Total number of patients transplanted	3,2																			
Paediatric <15 years	27	3,2	54	4,9	0	0,0	0	0,0	1	0,8	14	1,3	13	2,3	0	0,0	18	3,3	146	2,3
Patients transplanted from living donors	77	9,1	107	9,6	13	1,8	12	2,8	22	18,3	65	6,1	110	19,6	1	0,8	15	2,8	526	8,1

**DONATION AND TRANSPLANTATION ACTIVITY**

**EUROPEAN UNION COUNTRIES**

COUNTRIES Population (million inhabitants): UNFPA	GERMANY 82,7		GREECE 11,1		HUNGARY 9,9		IRELAND 4,7		ITALY 61,1		LATVIA 2,0		LITHUANIA 3,0		LUXEMBOURG 0,5		MALTA 0,4	
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors -both DBD and DCD included- Actual donors after circulatory death –DCD- Multiorgan donors	864 26 779	10,4 0,3 9,4	50 0 42	4,5 0,0 3,8	203 0 143	20,5 0,0 14,4	63 4 52	13,4 0,9 11,1	1384 2 790	22,7 0,0 12,9	29 9 2	14,5 4,5 1,0	31 0 19	10,3 0,0 6,3	4 3	10,4 9,4	12 0 7	30,0 0,0 17,5
<b>TRANSPLANTATION</b>																		
<b>KIDNEY</b>	2128	25,7	131	11,8	387	39,1	152	32,3	1840	30,1	59	29,5	72	24,0			20	50,0
Total TX. -all combinations included- % (TX. from living d. / Total TX.)	29,1		32,3		7,0		26,3		13,6		11,9		18,1			25,0		
Paediatric <15 years	81	1,0	6	0,5	7	0,7	19	4,0	36	0,6	1	0,5	1	0,3		0	0,0	
TX. from deceased donors	1508	18,2	89	8,0	341	34,4	112	23,8	1589	26,0	52	26,0	59	19,7		15	37,5	
-TX. from DCD			0	0,0			8	1,7	0	0,0	18	9,0	0	0,0		0	0,0	
-Single TX.	1489	18,0			340	34,3	111	23,6	1494	24,5	51	25,5	59	19,7		15	37,5	
-Double TX.	19	0,2			1	0,1	1	0,2	95	1,6	1	0,5	0	0,0		0	0,0	
TX. from living donors	620	7,5	42	3,8	46	4,6	40	8,5	251	4,1	7	3,5	13	4,3		5	12,5	
-TX. from Related living donors	620	7,5			46	4,6	39	8,3	145	2,4	7	3,5	13	4,3		4	10,0	
-TX. from Unrelated living donors	0	0,0					1	0,2	106	1,7	0	0,0	0	0,0		1	2,5	
<b>LIVER</b>	941	11,4	28	2,5	75	7,6	44	9,4	1075	17,6	0	0,0	12	4,0		0	0,0	
Total TX. -all combinations included-	122	1,5					0	0,0	50	0,8	0	0,0	0	0,0		0	0,0	
Paediatric <15 years	90	1,1					0	0,0	57	0,9	0	0,0	0	0,0		0	0,0	
Split TX.	4	0,0					0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
Domino TX.	58	0,7					0	0,0	16	0,3	0	0,0	0	0,0		0	0,0	
TX. from living donors			0	0,0			0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
TX. from DCD																		
<b>HEART</b>	304	3,7	12	1,1	58	5,9	18	3,8	227	3,7	2	1,0	12	4,0		1	2,5	
Total TX. -all combinations included-	27	0,3			4	0,4	0	0,0	21	0,3	0	0,0	1	0,3		0	0,0	
Paediatric <15 years																		
<b>HEART-LUNG</b>	9	0,1	0	0,0	0	0,0	0	0,0	1	0,0	0	0,0	1	0,3		0	0,0	
Total TX.																		
Paediatric <15 years																		
<b>LUNG</b>	352	4,3					31	6,6	126	2,1	0	0,0	2	0,7		0	0,0	
Total TX. -all combinations included-	3	0,0					0	0,0	2	0,0	0	0,0	0	0,0		0	0,0	
Paediatric <15 years	46	0,6			5	1,1	5	1,1	33	0,5	0	0,0	0	0,0		0	0,0	
-Single TX.	297	3,6			26	5,5	26	5,5	93	1,5	0	0,0	2	0,7		0	0,0	
-Double TX. (heart-lung TX. included)							0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
TX. from living donors							0	0,0	1	0,0	0	0,0	0	0,0		0	0,0	
TX. from DCD (double + single)							0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
<b>PANCREAS</b>	120	1,5			14	1,4	6	1,3	43	0,7	0	0,0	2	0,7		0	0,0	
Total TX. -all combinations included-							0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
Paediatric <15 years	14	0,2			14	1,4	1	0,2	14	0,2	0	0,0	0	0,0		0	0,0	
Pancreas TX. Alone	104	1,3					5	1,1	29	0,5	0	0,0	2	0,7		0	0,0	
Kidney – Pancreas TX.							0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
TX. from DCD							0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
<b>SMALL BOWEL</b>	6	0,1					0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
Total TX. -all combinations included-							0	0,0	0	0,0	0	0,0	0	0,0		0	0,0	
Paediatric <15 years							0	0,0	0	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	
<b>RECIPIENTS</b>	3710	44,9	171	15,4	519	52,4	246	52,3	3252	53,2	61	30,5	96	32,0		21	52,5	
Total number of patients transplanted	230	2,8	6	0,6	11	1,1	19	4,0	106	1,7	1	0,5	2	0,7		0	0,0	
Paediatric <15 years	682	8,2	42	3,8	46	4,6	40	8,5	267	4,4	7	3,5	13	4,3		5	12,5	
Patients transplanted from living donors																		

## DONATION AND TRANSPLANTATION ACTIVITY

## EUROPEAN UNION COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	NETHERLANDS 16,8		POLAND 38,2		PORTUGAL 10,6		ROMANIA 21,6		SLOVAKIA 5,5		SLOVENIA 2,1		SPAIN 47,1		SWEEDEN 9,6		U. K. 63,5			
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP		
Actual deceased organ donors -both DBD and DCD included- Actual donors after circulatory death –DCD- Multiorgan donors	282 132 221	16,8 7,9 13,2	594 0 379	15,5 0,0 9,9	289 0 194	27,3 0,0 18,3	138 0 107	6,4 0,0 5,0	0 0 29	0,0 0,0 5,3	64 0 29	11,6 0,0 5,3	44 37	21,0 17,0	1682 193 1276	35,9 4,1 27,0	166 505 946	17,3 8,0 14,9		
<b>KIDNEY</b>																				
Total TX. -all combinations included- % (TX. from living d. / Total TX.)	1004 53,2	59,8	1149 4,9	30,1	448 12,1	42,3	310 11,9	14,3	125 8,4	22,7	55 0,0	26,2	2678 15,8	57,1	440 34,3	45,8	3201 34,3	50,4		
Paediatric <15 years	19	1,1	30	0,8	6	0,6	1	0,0	2	0,4	2	0,4	58	1,2	12	1,3	98	1,5		
TX. from deceased donors	470	28,0	1094	28,6	394	37,2	273	12,6	110	20,0	55	26,2	2255	47,9	289	30,1	2104	33,1		
-TX. from DCD	220	13,1	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	251	5,3	287	29,9	760	12,0		
-Single TX.	465	27,7	1090	28,5	366	34,5	273	12,6	105	19,1	55	26,2	2246	47,7	287	29,9	1845	29,1		
-Double TX.	5	0,3	4	0,1	28	2,6	0	0,0	5	0,9	0	0,0	9	0,2	2	0,2	73	1,1		
TX. from living donors	534	31,8	55	1,4	54	5,1	37	1,7	15	2,7	0	0,0	423	9,0	151	15,7	1097	17,3		
-TX. from Related living donors	534	31,8	55	1,4	54	5,1	37	1,7	15	2,7	0	0,0	423	9,0	151	15,7	1097	17,3		
-TX. from Unrelated living donors	0	0,0	0	0,0	0	0,0	0	0,0	6	1,1	0	0,0	44	0,9	1	0,1	189	3,0		
<b>LIVER</b>																				
Total TX. -all combinations included- Paediatric <15 years	172 22	10,2 1,3	366 45	9,6 1,2	202 20	19,1 1,9	122 7	5,6 0,3	23 0	4,2 0,0	31 0	14,8 0,0	1068 51	22,7 1,1	182 15	19,0 1,6	937 85	14,8 1,3		
Split TX.	9	0,5	0	0,0	0	0,0	4	0,0	0	0,0	0	0,0	12	0,3	6	0,6	112	1,8		
Domino TX.	0	0,0	0	0,0	8	0,8	0	0,0	0	0,0	0	0,0	6	0,1	5	0,5	3	0,0		
TX. from living donors	3	0,2	30	0,8	5	0,5	14	0,6	0	0,0	0	0,0	21	0,4	6	0,6	32	0,5		
TX. from DCD	47	2,8	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	32	0,7	0	0,0	172	2,7		
<b>HEART</b>																				
Total TX. -all combinations included- Paediatric <15 years	51 2	3,0 0,1	76 7	2,0 0,2	43 2	4,1 0,2	4 0	0,2 0,0	17 0	3,1 0,0	33 0	15,7 0,0	265 11	5,6 0,2	68 4	7,1 0,4	186 29	2,9 0,5		
<b>HEART-LUNG</b>																				
Total TX.	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	3	0,1	1	0,1	4	0,1		
Paediatric <15 years	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0		
<b>LUNG</b>																				
Total TX. -all combinations included- Paediatric <15 years	91 0	5,4 0,0	19 0	0,5 0,0	19 0	1,8 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	262 1	5,6 0,0	65 1	6,8 0,1	194 6	3,1 0,1		
-Single TX.	13	0,8	8	0,2	14	1,3	0	0,0	0	0,0	0	0,0	101	2,1	8	0,8	32	0,5		
-Double TX. (heart-lung TX. included)	78	4,6	11	0,3	5	0,5	0	0,0	0	0,0	0	0,0	161	3,4	57	5,9	162	2,6		
TX. from living donors	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0		
TX. from DCD (double + single)	20	1,2	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	7	0,1	0	0,0	35	0,6		
<b>PANCREAS</b>																				
Total TX. -all combinations included- Paediatric <15 years	28 0	1,7 0,0	37 0	1,0 0,0	27 0	2,5 0,0	12 0	0,6 0,0	0 0	0,0 0,0	0 0	0,0 0,0	81 6	1,7 0,1	38 1	4,0 0,1	239 6	3,8 0,1		
Pancreas TX. Alone	1	0,1	9	0,2	3	0,3	2	0,1	0	0,0	0	0,0	9	0,2	3	0,3	27	0,4		
Kidney – Pancreas TX.	27	1,6	28	0,7	24	2,3	10	0,5	0	0,0	0	0,0	66	1,4	33	3,4	171	2,7		
TX. from DCD	4	0,2	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	53	0,8		
<b>SMALL BOWEL</b>																				
Total TX. -all combinations included- Paediatric <15 years	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	6 2	0,1 0,0	2 1	0,2 0,1	21 6	0,3 0,1		
Small bowel TX. Alone	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	3	0,0		
<b>RECIPIENTS</b>																				
Total number of patients transplanted Paediatric <15 years	1315 43	78,3 2,6	1619 82	42,4 2,1	739 28	69,7 2,6	438 8	20,3 0,4	165 2	30,0 0,4	118 0	56,2 0,0	4247 118	90,2 2,5	776 32	80,8 3,3	4561 219	71,8 3,4		
Patients transplanted from living donors	537	32,0	85	2,2	59	5,6	52	2,4	15	2,7	0	0,0	444	9,4	162	16,9	1129	17,8		

**DONATION AND TRANSPLANTATION ACTIVITY**

**OTHER COUNTRIES**

COUNTRIES	ALGERIA	ARMENIA	AUSTRALIA	AZERBAIJAN	BELARUS	BOSNIA AND HERZEGOVINA	CANADA	GEORGIA	ICELAND	IRAN	ISRAEL	MACEDONIA	MALAYSIA
Population (million inhabitants): UNFPA	39,9	3,0	23,6	9,5	9,3	3,8	35,5	4,3	0,3	78,5	7,8	2,1	30,2
	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP	Number PMP
Actual deceased organ donors	1	0	378	0	165	4	584	0	3	659	63	10	22
-both DBD and DCD included-	0	0	107	0	0	0	16,5	0	10,0	0	3	4	1
Actual donors after circulatory death -DCD-	0	0	284	0	126	4		0	0,0	0	45	1,9	0,0
Multiorgan donors	0	0		0	0	1,1		0	0,0	0	0	5,8	0,3
<b>DONATION</b>													
<b>TRANSPLANTATION</b>													
<b>KIDNEY</b>													
Total TX. -all combinations included-	170	9	904	95	286	21		27	8	2325	217	41	68
% (TX. from living d. / Total TX.)	98,8	100,0	29,5	100,0	8,0	66,7		100,0	100,0	51,7	62,2	70,7	42,6
Paediatric <15 years	12	0	31	0	14	0		2	0	0	17	1	4
TX. from deceased donors	2	0	637	0	263	7		0	0	0	82	12	39
-TX. from DCD	0	0	172	0	0	0		0	0	0	4	4	2
-Single TX.	2	0	615	0	263	7		0	0	1122	4	1,9	0,1
-Double TX.	0	0	0	0	0	0		0	0	77	99	12	38
TX. from living donors	168	9	267	95	23	14		27	8	1203	5	29	1,0
-TX. from Related living donors	168	9	219	95	22	14		27	8	105	135	25	29
-TX. from Unrelated living donors	0	0	48	0	1	0		0	0	30	3,8	4	0
<b>LIVER</b>													
Total TX. -all combinations included-	1	0	235	16	68	2		2		605	65		9
Paediatric <15 years	0	0	28	0	7	0		0		18	2,3		1
Split TX.	0	0	33	0	2	0		0		12	0,2		0
Domino TX.	0	0	0	0	0	0		0		0	0,0		0
TX. from living donors	1	0	1	16	5	0		2		35	0,4		0
TX. from DCD	0	0	14	0	0	0		0		0	1,8		0
<b>HEART</b>													
Total TX. -all combinations included-	0	0	83	0	45	0		0		82	1,0		1
Paediatric <15 years	0	0	8	0	0	0		0		3	0,4		0
<b>HEART-LUNG</b>													
Total TX.	0	0	5	0	0	0		0		0	0,0		0
Paediatric <15 years	0	0	0	0	0	0		0		0	0,1		0
<b>LUNG</b>													
Total TX. -all combinations included-	0	0	166	0	1	0		0		14	0,2		0
Paediatric <15 years	0	0	2	0	0	0		0		8	0,1		0
-Single TX.	0	0	7	0	0	0		0		6	0,1		0
-Double TX. (heart-lung TX. included)	0	0	159	0	0	0		0		0	2,1		0
TX. from living donors	0	0	0	0	0	0		0		0	0,0		0
TX. from DCD (double + single)	0	0	41	0	0	0		0		0	0,0		0
<b>PANCREAS</b>													
Total TX. -all combinations included-	0	0	44	0	2	0		0		31	0,4		
Paediatric <15 years	0	0	1	0	0	0		0		8	0,1		
Pancreas TX. Alone	0	0	1	0	0	0		0		23	0,3		
Kidney - Pancreas TX.	0	0	43	0	2	0		0		0	0,0		
TX. from DCD	0	0	1	0	0	0		0		0	0,0		
<b>SMALL BOWEL</b>													
Total TX. -all combinations included-	0	0	1	0	0	0		0		7	0,1		
Paediatric <15 years	0	0	1	0	0	0		0		7	0,1		
Small bowel TX. Alone	0	0	0	0	0	0		0		0	0,0		
<b>RECIPIENTS</b>													
Total number of patients transplanted	171	9	1384	95	395	23		29	8	3064	333	41	78
Paediatric <15 years	12	0	68	0	21	0		0	0	38	7,9	1	5
Patients transplanted from living donors	169	9	268	95	28	14		29	8	1238	149	29	29

## DONATION AND TRANSPLANTATION ACTIVITY

## OTHER COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	MOLDOVA 3,5	MONTENEGRO 0,6	NEW ZEALAND 4,6	NORWAY 5,1	RUSSIAN F. 142,5	SUDAN 38,8	SWITZERLAND 8,2	SYRIA 22	TURKEY 75,8	UKRAINE 44,9	USA 322,6	VIETNAM 92,5		
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors	11	3,1	7	11,7	114	22,4	117	14,3	407	5,4	8596	26,6	17	0,2
-both DBD and DCD included-	0	0,0	0	0,0	2	0,4	18	2,2	0	0,0	1291	4,0	0	0,0
Actual donors after circulatory death -DCD-	3	0,9	1	1,7			117	14,3			7894	24,5	0	0,0
Multiorgan donors														
<b>TRANSPLANTATION</b>														
<b>DONATION</b>														
<b>KIDNEY</b>														
Total TX. -all combinations included-	10	2,9	9	15,0	274	53,7	301	36,7	2932	38,7	17815	55,2	270	2,9
% (TX. from living d. / Total TX.)	20,0		88,9		24,8		39,9		78,6		31,1		96,7	
Paediatric <15 years	0	0,0	1	1,7	8	1,6	8	1,0	150	2,0	466	1,4	17	0,2
TX. from deceased donors	8	2,3	1	1,7	206	40,4	181	22,1	634	8,4	12279	38,1	9	0,1
-TX. from DCD	0	0,0	0	0,0	4	0,8	24	2,9	0	0,0	2033	6,3	0	0,0
-Single TX.	8	2,3	0	0,0	204	40,0	176	21,5	0	0,0	11988	37,2	9	0,1
-Double TX.	0	0,0	0	0,0	2	0,4	5	0,6	0	0,0	291	0,9	0	0,0
TX. from living donors	2	0,6	8	13,3	72	15,7	120	14,6	2298	30,3	5536	17,2	261	2,8
-TX. from Related living donors	2	0,6	8	13,3	68	13,3	120	14,6	2094	27,6	4683	14,5	7	0,1
-TX. from Unrelated living donors	0	0,0	0	0,0	0	0,0	0	0,0	204	2,7	853	2,6	254	2,7
<b>LIVER</b>														
Total TX. -all combinations included-	10	2,9	2	3,3	100	19,6	111	13,5	1212	16,0	6729	20,9	8	0,1
Paediatric <15 years	0	0,0	0	0,0	2	0,4	6	0,7	185	2,4	466	1,4	0	0,0
Split TX.	0	0,0	0	0,0	6	1,2	2	0,2	20	0,3	135	0,4	0	0,0
Domino TX.	0	0,0	0	0,0	0	0,0	1	0,1	0	0,0	12	0,0	0	0,0
TX. from living donors	4	1,1	0	0,0	0	0,0	3	0,4	892	11,8	268	0,8	3	0,0
TX. from DCD	0	0,0	0	0,0	0	0,0	12	1,5	0	0,0	360	1,1	0	0,0
<b>HEART</b>														
Total TX. -all combinations included-	0	0,0	0	0,0	34	6,7	36	4,4	78	1,0	2679	8,3	2	0,0
Paediatric <15 years	0	0,0	0	0,0	4	0,8	3	0,4	7	0,1	342	1,1	0	0,0
<b>HEART-LUNG</b>														
Total TX.	0	0,0	0	0,0	0	0,0	1	0,1	0	0,0	24	0,1	0	0,0
Paediatric <15 years	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	5	0,0	0	0,0
<b>LUNG</b>														
Total TX. -all combinations included-	0	0,0	0	0,0	33	6,5	56	6,8	33	0,4	1949	6,0	1	0,0
Paediatric <15 years	0	0,0	0	0,0	0	0,0	1	0,1	0	0,0	33	0,1	0	0,0
-Single TX.	0	0,0	0	0,0	0	0,0	0	0,0	33	0,4	613	1,9	0	0,0
-Double TX. (heart-lung TX. included)	0	0,0	0	0,0	33	6,5	56	6,8	0	0,0	1336	4,1	0	0,0
TX. from living donors	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
TX. from DCD (double + single)	0	0,0	0	0,0	0	0,0	5	0,6	0	0,0	44	0,1	0	0,0
<b>PANCREAS</b>														
Total TX. -all combinations included-	1	1,7	0	0,0	31	6,1	11	1,3	10	0,1	954	3,0	1	0,0
Paediatric <15 years	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	35	0,1	0	0,0
Pancreas TX. Alone	0	0,0	0	0,0	14	2,7	3	0,4	8	0,1	168	0,5	0	0,0
Kidney + Pancreas TX.	0	0,0	0	0,0	17	3,3	8	1,0	2	0,0	709	2,2	0	0,0
TX. from DCD	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	26	0,1	0	0,0
<b>SMALL BOWEL</b>														
Total TX. -all combinations included-	0	0,0	0	0,0	1	0,0	0	0,0	5	0,1	139	0,4	0	0,0
Paediatric <15 years	0	0,0	0	0,0	1	0,0	0	0,0	0	0,0	52	0,2	0	0,0
Small bowel TX. Alone	0	0,0	0	0,0	0	0,0	0	0,0	5	0,1	57	0,2	0	0,0
<b>RECIPIENTS</b>														
Total number of patients transplanted	20	5,7	12	20,0	455	89,2	504	61,5	4264	56,3	28523	88,4	281	3,0
Paediatric <15 years	0	0,0	1	1,7	14	2,7	17	2,1	342	4,5	1288	4,0	17	0,2
Patients transplanted from living donors	6	1,7	10	16,7	68	13,3	123	15,0	3190	42,1	5805	18,0	264	2,9



**DONATION AND TRANSPLANTATION ACTIVITY**

**LATINAMERICAN COUNTRIES**

COUNTRIES Population (million inhabitants): UNFPA	ARGENTINA 41,8		BOLIVIA 10,8		BRAZIL 202,0		CHILE 17,8		COLOMBIA 48,9		COSTA RICA 4,9		CUBA 11,3		DOMINICANA 10,5	
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors -both DBD and DCD included- Actual donors after circulatory death -DCD- Multiorgan donors	555 0 319	13,3 0,0 7,6	9 0	0,8 0,0	2710 0 1797	13,4 0,0 8,9	123 0 80	6,9 0,0 4,5	346 0 280	7,1 0,0 5,7	18	3,7	124 0 38	11,0 0,0 3,4	29 0 8	2,8 0,0 0,8
<b>TRANSPLANTATION</b>																
<b>KIDNEY</b>	1277	30,6	96	8,9	5507	27,3	271	15,2	761	15,6	233	47,6	175	15,5	78	7,4
Total TX. -all combinations included- % (TX. from living d. / Total TX.)	298		82,3		19,1		21,8		15,5		84,5		16,0	48,7		
Paediatric <15 years	69	1,7					21	1,2			3	0,6	5	0,4	0	0,0
TX. from deceased donors	897	21,5	17	1,6	4453	22,0	212	11,9	643	13,1	36	7,3	147	13,0	40	3,8
-TX. from DCD	0	0,0			0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
-Single TX.	892	21,3			4427	21,9	200	11,2	627	12,8			147	13,0		
-Double TX.	5	0,1			26	0,1	12	0,7	16	0,3			0	0,0		
TX. from living donors	380	9,1	79	7,3	1054	5,2	59	3,3	118	2,4	197	40,2	28	2,5	38	3,6
-TX. from Related living donors	371	8,9	67	6,2			59	3,3					28	2,5	29	2,8
-TX. from Unrelated living donors	9	0,2	12	1,1	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	9	0,9
<b>LIVER</b>	361	8,6			1769	8,8	86	4,8	222	4,5	9	1,8	32	2,8	6	0,6
Total TX. -all combinations included- Paediatric <15 years	73	1,7					17	1,0	46	0,9	0	0,0	8	0,7	0	0,0
Split TX.	12	0,3					0	0,0	2	0,0	0	0,0	0	0,0	0	0,0
Domino TX.	0	0,0					0	0,0			0	0,0	0	0,0	0	0,0
TX. from living donors	34	0,8			154	0,8	9	0,5	21	0,4	0	0,0	2	0,2	0	0,0
TX. from DCD	0	0,0			0	0,0	0	0,0			0	0,0	0	0,0	0	0,0
<b>HEART</b>	101	2,4			309	1,5	24	1,3	82	1,7	1	0,2	1	0,1	0	0,0
Total TX. -all combinations included- Paediatric <15 years	4	0,1					3	0,2	6	0,1	0	0,0	0	0,0	0	0,0
<b>HEART-LUNG</b>	1	0,0			0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
Total TX. -all combinations included- Paediatric <15 years	42	1,0			67	0,3	33	1,9	10	0,2	1	0,2	0	0,0	0	0,0
Paediatric <15 years	1	0,0					0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
-Single TX.	17	0,4			19	0,1	33	1,9	3	0,1	1	0,2	0	0,0	0	0,0
-Double TX. (heart-lung TX. included)	25	0,6			47	0,2	0	0,0	7	0,1	0	0,0	0	0,0	0	0,0
TX. from living donors	0	0,0			1	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
TX. from DCD (double + single)	0	0,0			0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
<b>PANCREAS</b>	69	1,7			140	0,7	7	0,4	3	0,1	0	0,0	0	0,0	0	0,0
Total TX. -all combinations included- Paediatric <15 years	0	0,0					0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
Pancreas TX. Alone	6	0,1			42	0,2	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
Kidney – Pancreas TX.	63	1,5			98	0,5	7	0,4	3	0,1	0	0,0	0	0,0	0	0,0
TX. from DCD	0	0,0			0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
<b>SMALL BOWEL</b>	2	0,0			4	0,0	0	0,0	5	0,1	1	0,2	0	0,0	0	0,0
Total TX. -all combinations included- Paediatric <15 years	1	0,0					0	0,0	0	0,0	0	0,0	0	0,0	0	0,0
Small bowel TX. Alone	1	0,0					0	0,0	5	0,1	0	0,0	0	0,0	0	0,0
<b>RECIPIENTS</b>	1847	44,2	96	8,9	7694	38,1	414	23,3	1059	21,7	245	50,0	208	18,4	84	8,0
Total number of patients transplanted	148	3,5	79	7,3	1209	6,0	68	3,8	99	2,0	3	0,6	13	1,2	0	0,0
Paediatric <15 years	414	9,9							139	2,8	197	40,2	30	2,7	38	3,6
Patients transplanted from living donors																

## DONATION AND TRANSPLANTATION ACTIVITY

## LATINAMERICAN COUNTRIES

COUNTRIES Population (million inhabitants): UNFPA	ECUADOR 16,0		GUATEMALA 15,9		MEXICO 123,8		PANAMA 3,9		PARAGUAY 6,9		PERU 30,8		URUGUAY 3,4		VENEZUELA 30,9	
	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP	Number	PMP
Actual deceased organ donors -both DBD and DCD included- Actual donors after circulatory death -DCD- Multiorgan donors	50 0 0	3,1 0,0 0,0	8 0	0,5 0,0	416 29 155	3,4 0,2 1,3	28 0 4	7,2 0,0 1,0	9 2 3	1,3 0,3 0,4	73 0 31	2,4 0,0 1,0	68 28	20,0 8,2	54 1 1	1,7 0,0 0,0
<b>KIDNEY</b> Total TX. -all combinations included- % (TX. from living d. / Total TX.) Paediatric <15 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	103 20,4 9 82 0 82 0 21 21 0	6,4 0,6 5,1 0,0 5,1 0,0 1,3 1,3 0,0	120 86,7 14 16 16 104 98 6	7,5 0,9 1,0 1,0 6,5 6,2 0,4	2610 71,3 142 748 743 5 1862 1347 515	21,1 1,1 6,0 6,1 0,0 15,0 10,9 4,2	48 20,8 0 38 38 0 10 10 0	12,3 0,0 9,7 9,7 2,6 2,6 0,0	19 26,3 1 14 14 0 5 5 0	2,8 0,1 2,0 2,0 0,0 0,7 0,7 0,0	132 9,8 7 119 0 118 1 13 13 0	4,3 0,2 3,9 3,8 0,0 0,4 0,4 0,0	138 8,7 4 126 12 12 0	40,6 1,2 37,1 3,5 3,5 0,0	202 48,5 19 104 104 0 98 98 0	6,5 0,6 3,4 3,4 0,0 3,2 3,2 0,0
<b>LIVER</b> Total TX. -all combinations included- Paediatric <15 years Split TX. Domino TX. TX. from living donors TX. from DCD	25 4 0 0 2 0	1,6 0,3 0,0 0,0 0,1 0,0	131 17 0 0 6 0	1,8 0,0 0,0 0,0 0,0 0,0	131 0,1 0,0 0,0 0,0 0,0	7 0 0 0 0 0	1,8 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	26 1 0 0 0 0	0,8 0,0 0,0 0,0 0,0 0,0	26 1 0 0 0 0	7,6 0,3 0,0 0,0 0,0 0,0	8 3 0 7 0	0,3 0,1 0,0 0,2 0,0 0,0
<b>HEART</b> Total TX. -all combinations included- Paediatric <15 years	0 0	0,0 0,0	51 6	0,4 0,0	0 0	0,0 0,0	0 0	0,0 0,0	3 3	0,4 0,4	15 1	0,5 0,0	7 0	2,1 0,0	0 0	0,0 0,0
<b>HEART-LUNG</b> Total TX. Paediatric <15 years	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0	0 0	0,0 0,0
<b>LUNG</b> Total TX. -all combinations included- Paediatric <15 years -Single TX. -Double TX. (heart-lung TX. included) TX. from living donors TX. from DCD (double + single)	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 0,0	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 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
<b>PANCREAS</b> Total TX. -all combinations included- Paediatric <15 years Pancreas TX. Alone Kidney – Pancreas TX. TX. from DCD	0 0 0 0	0,0 0,0 0,0 0,0	2 1 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 0,0	1 0 1 0	0,0 0,0 0,0 0,0	2 0 2 0	0,6 0,0 0,6 0,0	0 0 0 0	0,0 0,0 0,0 0,0
<b>SMALL BOWEL</b> Total TX. -all combinations included- Paediatric <15 years Small bowel TX. Alone	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 0,0	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
<b>RECIPIENTS</b> Total number of patients transplanted Paediatric <15 years Patients transplanted from living donors	128 13 23	8,0 0,8 1,4	120 14 104	7,5 0,9 6,5	2794 165 1868	22,6 1,3 15,1	55 0 10	14,1 0,0 2,6	22 4 5	3,2 0,6 0,7	173 9 13	5,6 0,3 0,4	167 5 12	49,1 1,5 3,5	210 22 105	6,8 0,7 3,4

**WAITING LIST**

**EUROPEAN UNION COUNTRIES**

COUNTRIES	AUSTRIA 8,5	BELGIUM 11,1	BULGARIA 7,2	CROATIA 4,3	CYPRUS 1,2	CZECH. R. 10,7	DENMARK 5,6	ESTONIA 1,3	FINLAND 5,4	FRANCE 64,6
<b>POPULATION (million inhabitants): UNFPA</b>										
<b>KIDNEY</b>										
<b>N° TX CENTRES</b>	5	7	3	4	1	7	3	1	1	
Patients included on the WL for the first time in the course of 2014	366	566	157	226	8	444	328	29	251	4695
Total number of patients ever active on the WL during 2014	1211		1106	356	75	966	675	82	565	15470
Patients awaiting for a transplant (only active candidates) on 31/12/2014	673	878	998	117	55	409	342	41	304	6978
Patients who died while on the WL during 2014	41	26	40	8	3	29	16	1	11	257
Patients on dialyses on 31/12/2014			833	2658	591			350		
<b>LIVER</b>										
<b>N° TX CENTRES</b>	3	6	3	2		2	1	1	1	
Patients included on the WL for the first time in the course of 2014	188	323	44	138		172	49	8	60	1786
Total number of patients ever active on the WL during 2014	266		82	201		238	70	13	74	3053
Patients awaiting for a transplant (only active candidates) on 31/12/2014	86	187	35	62		54	16	3	8	1297
Patients who died while on the WL during 2014	24	41	21	14		18	3	1	2	214
<b>HEART</b>										
<b>N° TX CENTRES</b>	4	7	2	2		2	2		1	
Patients included on the WL for the first time in the course of 2014	65	108	11	41		102	33		34	570
Total number of patients ever active on the WL during 2014	152		46	64		174	54		55	906
Patients awaiting for a transplant (only active candidates) on 31/12/2014	57	89	32	14		74	21		25	253
Patients who died while on the WL during 2014	7	19	7	8		7	1		3	74
<b>LUNG</b>										
<b>N° TX CENTRES</b>	2	5		0		1	1	1	1	
Patients included on the WL for the first time in the course of 2014	130	108	6	0		57	31	7	20	361
Total number of patients ever active on the WL during 2014	224		12	0		110	60	9	28	527
Patients awaiting for a transplant (only active candidates) on 31/12/2014	72	82	10	0		61	26	6	7	142
Patients who died while on the WL during 2014	9	7	1	0		17	5	0	3	29
<b>PANCREAS</b>										
<b>N° TX CENTRES</b>	3	6		1	1	1	1	1	1	
Patients included on the WL for the first time in the course of 2014	22	29	7	10	0	29	0	1	14	128
Total number of patients ever active on the WL during 2014	61		7	16	4	100	0	1	19	306
Patients awaiting for a transplant (only active candidates) on 31/12/2014	33	70	7	7	4	38	0	1	4	94
Patients who died while on the WL during 2014	1	4	0	1	0	4	0		0	
<b>SMALL BOWEL</b>										
<b>N° TX CENTRES</b>		6		1		1	0		1	
Patients included on the WL for the first time in the course of 2014			1	0		2			2	
Total number of patients ever active on the WL during 2014			1	0		0			11	
Patients awaiting for a transplant (only active candidates) on 31/12/2014			1	0		1			1	
Patients who died while on the WL during 2014			0	0		0			5	

## WAITING LIST

## EUROPEAN UNION COUNTRIES

COUNTRIES	GERMANY	GREECE	HUNGARY	IRELAND	ITALY	LATVIA	LITHUANIA	LUXEMBOURG	MALTA
Population (million inhabitants): UNFPA	82,7	11,1	9,9	4,7	61,1	2,0	3,0	0,5	0,4
<b>KIDNEY</b>									
<b>N° TX CENTRES</b>	42	5	4	1	41	1	2		
Patients included on the WL for the first time in the course of 2014	3096	182	468	226	1950	47	125		20
Total number of patients ever active on the WL during 2014	11004	1471	1290		8750	152	238		105
Patients awaiting for a transplant (only active candidates) on 31/12/2014	7961	1301	717	544	6670	37	147		80
Patients who died while on the WL during 2014	400	40	48	0	154	21	16		
Patients on dialyses on 31/12/2014		1289		3960		600	1400		265
<b>LIVER</b>									
<b>N° TX CENTRES</b>	24	1	1	1	21		2		
Patients included on the WL for the first time in the course of 2014	1530	59	103	74	1324		42		2
Total number of patients ever active on the WL during 2014	3064	139	238		2309		69		4
Patients awaiting for a transplant (only active candidates) on 31/12/2014	1351	75	108	39	1033		43		2
Patients who died while on the WL during 2014	322	37	31	3	154		9		0
<b>HEART</b>									
<b>N° TX CENTRES</b>	24	1	2	1	17	1	2		
Patients included on the WL for the first time in the course of 2014	517	24	76	18	377	5	35		2
Total number of patients ever active on the WL during 2014	1446	41	114		1063	18	55		5
Patients awaiting for a transplant (only active candidates) on 31/12/2014	858	17	34	16	707	9	33		2
Patients who died while on the WL during 2014	151	12	7	1	71	2	8		1
<b>LUNG</b>									
<b>N° TX CENTRES</b>	15	0		1	11		1		
Patients included on the WL for the first time in the course of 2014	412		46		200		4		1
Total number of patients ever active on the WL during 2014	906				561		13		2
Patients awaiting for a transplant (only active candidates) on 31/12/2014	432		37		373		9		2
Patients who died while on the WL during 2014	79		20		52		2		1
<b>PANCREAS</b>									
<b>N° TX CENTRES</b>	28	0	3	1	17		1		
Patients included on the WL for the first time in the course of 2014	141		18	4	63		6		
Total number of patients ever active on the WL during 2014	412		26		274		10		
Patients awaiting for a transplant (only active candidates) on 31/12/2014	244		8	6	222		7		
Patients who died while on the WL during 2014	22		2	0	4		4		
<b>SMALL BOWEL</b>									
<b>N° TX CENTRES</b>		0		0	3		0		
Patients included on the WL for the first time in the course of 2014				0	0		0		
Total number of patients ever active on the WL during 2014				0	26		0		
Patients awaiting for a transplant (only active candidates) on 31/12/2014	10			0	25		0		
Patients who died while on the WL during 2014				0	1		0		

WAITING LIST

EUROPEAN UNION COUNTRIES

COUNTRIES	NETHERLANDS	POLAND	PORTUGAL	ROMANIA	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	U. K.
Population (million inhabitants): UNFPA	16,8	38,2	10,6	21,6	5,5	2,1	47,1	9,6	63,5
<b>KIDNEY</b>									
<b>N° TX CENTRES</b>	11	21	8	4	4	1	40	4	28
Patients included on the WL for the first time in the course of 2014	1210	1278	609	739	166	77	40	508	2714
Total number of patients ever active on the WL during 2014	1945	2635	2519	4349	561	146	4530	951	9234
Patients awaiting for a transplant (only active candidates) on 31/12/2014	650	959	1970	4015	368	77	437	437	5664
Patients who died while on the WL during 2014	81	50	43	24	31	3	27	254	3358
Patients on dialyses on 31/12/2014		20000	12085	9800	4000		27083		
<b>LIVER</b>									
<b>N° TX CENTRES</b>	3	6	3	2	2	1	25	2	7
Patients included on the WL for the first time in the course of 2014	166	437	142	241	30	34	1460	219	489
Total number of patients ever active on the WL during 2014	332	570	280	768	69	45	2127	247	1750
Patients awaiting for a transplant (only active candidates) on 31/12/2014	109	137	143	615	39	9	751	57	592
Patients who died while on the WL during 2014	25	28	22	31	5	2	97	1	80
<b>HEART</b>									
<b>N° TX CENTRES</b>	3	6	4	3	1	1	16	2	7
Patients included on the WL for the first time in the course of 2014	80	239	58	32	36	36	364	81	165
Total number of patients ever active on the WL during 2014	175	559	78	159	68	69	482	99	556
Patients awaiting for a transplant (only active candidates) on 31/12/2014	91	356	19	152	32	21	143	30	284
Patients who died while on the WL during 2014	11	90	12	3	9	5	21	2	36
<b>LUNG</b>									
<b>N° TX CENTRES</b>	3	5	1	0	0	0	8	2	6
Patients included on the WL for the first time in the course of 2014	121	52	17	0	0	0	365	69	206
Total number of patients ever active on the WL during 2014	305	97	62	0	0	0	601	92	588
Patients awaiting for a transplant (only active candidates) on 31/12/2014	180	55	40	0	0	0	287	22	318
Patients who died while on the WL during 2014	18	19	3	0	0	0	22	3	56
<b>PANCREAS</b>									
<b>N° TX CENTRES</b>	6	5	2	2	1	1	13	3	12
Patients included on the WL for the first time in the course of 2014	48	42	78	29	0	18	107	30	203
Total number of patients ever active on the WL during 2014	89	65	56	108	0	26	214	50	519
Patients awaiting for a transplant (only active candidates) on 31/12/2014	43	28	24	93	0	8	111	13	226
Patients who died while on the WL during 2014		0	1	3	0	2	3	0	23
<b>SMALL BOWEL</b>									
<b>N° TX CENTRES</b>		1	0	0	0	0	3	1	4
Patients included on the WL for the first time in the course of 2014		1	0	0	0	0			0
Total number of patients ever active on the WL during 2014		2	0	0	0	0			34
Patients awaiting for a transplant (only active candidates) on 31/12/2014	1	2	0	0	0	0			7
Patients who died while on the WL during 2014		0	0	0	0	0			1



**WAITING LIST**

**OTHER COUNTRIES**

COUNTRIES	MOLDOVA	MONTENEGRO	NEW ZEALAND	NORWAY	RUSSIAN F.	SUDAN	SWITZERLAND	SYRIA	TURKEY	UKRAINE	USA	VIETNAM
Population (million inhabitants): UNFPA	3,5	0,6	4,6	5,1	142,5	38,8	8,2	22,0	75,8	44,9	322,6	92,5
<b>KIDNEY</b>												
<b>N° TX CENTRES</b>	2	1	3	1	36	7	6	8	65	7	240	13
Patients included on the WL for the first time in the course of 2014	26	12	362	362	1523		421		5265		32013	
Total number of patients ever active on the WL during 2014	46	40	631	631	4636		1417		500		116343	
Patients awaiting for a transplant (only active candidates) on 31/12/2014	33	29	298	298	3554		1062		21239		62752	
Patients who died while on the WL during 2014	1	2	12	12	56		24		1427		5255	
Patients on dialyses on 31/12/2014	470	185	2584		29000	7120	778	5000	56205	5000	671851	
<b>LIVER</b>												
<b>N° TX CENTRES</b>	2	12	1	1	14		3		40	2	141	5
Patients included on the WL for the first time in the course of 2014	59	12	56	131	623		171		1837		11042	
Total number of patients ever active on the WL during 2014	68	12	75	147	949		311				26505	
Patients awaiting for a transplant (only active candidates) on 31/12/2014	56	7	18	31	559		162		1929		12722	
Patients who died while on the WL during 2014	4	3	2	5	88		21		516		2456	
<b>HEART</b>												
<b>N° TX CENTRES</b>	1	0	1	1	9		3		11	2	134	3
Patients included on the WL for the first time in the course of 2014		0	18	43	257		65		410		4167	
Total number of patients ever active on the WL during 2014		0	28	61	428		124				7861	
Patients awaiting for a transplant (only active candidates) on 31/12/2014		0	8	18	221		69		472		3127	
Patients who died while on the WL during 2014		0	0	0	45		8		197		572	
<b>LUNG</b>												
<b>N° TX CENTRES</b>	0	0	1	1	3		2		6		67	0
Patients included on the WL for the first time in the course of 2014		0	18	37	4		62		68		2528	
Total number of patients ever active on the WL during 2014		0	31	90	71		122				4201	
Patients awaiting for a transplant (only active candidates) on 31/12/2014		0	13	47	49		54		22		1377	
Patients who died while on the WL during 2014		0	1	4	10		8		20		367	
<b>PANCREAS</b>												
<b>N° TX CENTRES</b>	0	0	1	1	5		2		4		141	1
Patients included on the WL for the first time in the course of 2014		0	3	45	16		36		14		1503	
Total number of patients ever active on the WL during 2014		0	10	78	82		95				3848	
Patients awaiting for a transplant (only active candidates) on 31/12/2014		0	4	39	63		65		244		1319	
Patients who died while on the WL during 2014		0	1	0	0		1		13		196	
<b>SMALL BOWEL</b>												
<b>N° TX CENTRES</b>	0	0	0	0	1		2		4		41	0
Patients included on the WL for the first time in the course of 2014		0					0		7		201	
Total number of patients ever active on the WL during 2014		0					2				452	
Patients awaiting for a transplant (only active candidates) on 31/12/2014		0					2		1		186	
Patients who died while on the WL during 2014		0					0		1		28	

## WAITING LIST

## LATINAMERICAN COUNTRIES

COUNTRIES	ARGENTINA	BOLIVIA	BRAZIL	CHILI	COLOMBIA	COSTA RICA	CUBA	DOMINICANA
Population (million inhabitants): UNFPA	41,8	10,8	202,0	17,8	48,9	4,9	11,3	10,5
<b>KIDNEY</b>								
<b>N° TX CENTRES</b>	60	9	126	22	25	5	9	8
Patients included on the WL for the first time in the course of 2014	1961		7162	460	1327	60		61
Total number of patients ever active on the WL during 2014	8040		23826		2989	300		219
Patients awaiting for a transplant (only active candidates) on 31/12/2014	6141		17696	1210	1991	244	406	169
Patients who died while on the WL during 2014	396		721		42	20		10
Patients on dialyses on 31/12/2014	28452	2231	100397	19350	23478	1200	3085	2264
<b>LIVER</b>								
<b>N° TX CENTRES</b>	26	1	54	8	8	2	3	2
Patients included on the WL for the first time in the course of 2014	788		2317	146	266	26	30	4
Total number of patients ever active on the WL during 2014	1777		3697		363	78	40	10
Patients awaiting for a transplant (only active candidates) on 31/12/2014	1152		1315	124	118	55	11	6
Patients who died while on the WL during 2014	180		613		20	14		2
<b>HEART</b>								
<b>N° TX CENTRES</b>	26	0	36	7	8	1	1	2
Patients included on the WL for the first time in the course of 2014	184		414	34	104	6	5	0
Total number of patients ever active on the WL during 2014	288		666	60	135	11	6	9
Patients awaiting for a transplant (only active candidates) on 31/12/2014	120		248	16	27	3	3	4
Patients who died while on the WL during 2014	42		109		10	5	3	5
<b>LUNG</b>								
<b>N° TX CENTRES</b>	9	0	7	5	3	1	1	0
Patients included on the WL for the first time in the course of 2014	109		115	50		3	0	0
Total number of patients ever active on the WL during 2014	283		301	119		5	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	188		205	60	16	2	0	0
Patients who died while on the WL during 2014	32		29		0	1	0	0
<b>PANCREAS</b>								
<b>N° TX CENTRES</b>	16	0	18	3	6	0	1	0
Patients included on the WL for the first time in the course of 2014	111		37	11		0	0	0
Total number of patients ever active on the WL during 2014	248		61	16		0	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	160		17	9	14	0	0	0
Patients who died while on the WL during 2014	13		2		0	0	0	0
<b>SMALL BOWEL</b>								
<b>N° TX CENTRES</b>	4	0	2	1	3	1	0	0
Patients included on the WL for the first time in the course of 2014	6		3	1		2	0	0
Total number of patients ever active on the WL during 2014	15		8	1		2	0	0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	10		8	1	1	0	0	0
Patients who died while on the WL during 2014	1				0	1	0	0



WAITING LIST

LATINAMERICAN COUNTRIES

COUNTRIES	ECUADOR	GUATEMALA	MEXICO	PANAMA	PARAGUAY	PERU	URUGUAY	VENEZUELA
Population (million inhabitants): UNFPA	16,0	15,9	123,8	3,9	6,8	30,8	3,4	30,9
<b>KIDNEY</b>								
<b>N° TX CENTRES</b>	7	3	237	1	5	9	3	15
Patients included on the WL for the first time in the course of 2014	338		4575	56	71	218	135	385
Total number of patients ever active on the WL during 2014	441		14641	210	148	512	610	1612
Patients awaiting for a transplant (only active candidates) on 31/12/2014	357		11320	170	129	375	438	1185
Patients who died while on the WL during 2014	2		138	2		1	35	79
Patients on dialyses on 31/12/2014	321		59754	2005	1152		2497	17723
<b>LIVER</b>								
<b>N° TX CENTRES</b>	2		68	1	1	5	1	2
Patients included on the WL for the first time in the course of 2014	31		269	5		41	35	7
Total number of patients ever active on the WL during 2014	33		674	14		49	54	24
Patients awaiting for a transplant (only active candidates) on 31/12/2014	8		396	3		9	23	8
Patients who died while on the WL during 2014	2		39	4		3	4	8
<b>HEART</b>								
<b>N° TX CENTRES</b>	1		45	0	3	4	3	1
Patients included on the WL for the first time in the course of 2014	2		66	0	12	17	11	0
Total number of patients ever active on the WL during 2014	4		116	0	16	22	37	0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	4		43	0	11	4	19	0
Patients who died while on the WL during 2014	0		5	0	2	2	3	0
<b>LUNG</b>								
<b>N° TX CENTRES</b>	0		8	0		3		0
Patients included on the WL for the first time in the course of 2014	0		0	0		0	8	0
Total number of patients ever active on the WL during 2014	0		1	0		0	12	0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	0		1	0		0	9	0
Patients who died while on the WL during 2014	0		0	0		0	2	0
<b>PANCREAS</b>								
<b>N° TX CENTRES</b>	1		19	0		2		0
Patients included on the WL for the first time in the course of 2014	0		4	0		1		0
Total number of patients ever active on the WL during 2014	0		23	0		1		0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	0		17	0		0		0
Patients who died while on the WL during 2014	0		2	0		0		0
<b>SMALL BOWEL</b>								
<b>N° TX CENTRES</b>	0		3	0		0		0
Patients included on the WL for the first time in the course of 2014	0		0	0		0		0
Total number of patients ever active on the WL during 2014	0		0	0		0		0
Patients awaiting for a transplant (only active candidates) on 31/12/2014	0		0	0		0		0
Patients who died while on the WL during 2014	0		0	0		0		0

## FAMILY REFUSALS

## EUROPEAN UNION COUNTRIES

<b>COUNTRIES</b>	<b>AUSTRIA</b>	<b>BELGIUM</b>	<b>BULGARIA</b>	<b>CROATIA</b>	<b>CYPRUS</b>	<b>CZECH. R.</b>	<b>DENMARK</b>	<b>ESTONIA</b>	<b>FINLAND</b>	<b>FRANCE</b>
<b>Population (million inhabitants): UNFPA</b>	<b>8,5</b>	<b>11,1</b>	<b>7,2</b>	<b>4,3</b>	<b>1,2</b>	<b>10,7</b>	<b>5,6</b>	<b>1,3</b>	<b>5,4</b>	<b>64,6</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	396	38	190	8	32	6 (118,8)	716
	49 (12,4)	6 (15,8)	39 (20,5)	3 (37,5)	6 (18,8)		

<b>COUNTRIES</b>	<b>GERMANY</b>	<b>GREECE</b>	<b>HUNGARY</b>	<b>IRELAND</b>	<b>ITALY</b>	<b>LATVIA</b>	<b>LITHUANIA</b>	<b>LUXEMBOURG</b>	<b>MALTA</b>
<b>Population (million inhabitants): UNFPA</b>	<b>82,7</b>	<b>11,1</b>	<b>9,9</b>	<b>4,7</b>	<b>61,1</b>	<b>2,0</b>	<b>3,0</b>	<b>0,5</b>	<b>0,4</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	2349	24	86	13	728 (31,0)	7 (29,2)	37 (43,0)	1 (7,7)
	728 (31,0)	7 (29,2)	37 (43,0)	1 (7,7)				

<b>COUNTRIES</b>	<b>NETHERLANDS</b>	<b>POLAND</b>	<b>PORTUGAL</b>	<b>ROMANIA</b>	<b>SLOVAKIA</b>	<b>SLOVENIA</b>	<b>SPAIN</b>	<b>SWEDEN</b>	<b>U. K.</b>
<b>Population (million inhabitants): UNFPA</b>	<b>16,8</b>	<b>38,2</b>	<b>10,6</b>	<b>21,6</b>	<b>5,5</b>	<b>2,1</b>	<b>47,1</b>	<b>9,6</b>	<b>63,5</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	782	284	99	2049	3336	1401 (42,0)
	100 (12,8)	83 (29,2)	12 (12,1)	367 (17,9)		

## OTHER COUNTRIES

<b>COUNTRIES</b>	<b>ALGERIA</b>	<b>ARMENIA</b>	<b>AUSTRALIA</b>	<b>AZERBAIJAN</b>	<b>BELARUS</b>	<b>BOSNIA AND HERZEGOVINA</b>	<b>CANADA</b>	<b>GEORGIA</b>	<b>ICELAND</b>	<b>IRAN</b>	<b>ISRAEL</b>	<b>MACEDONIA</b>	<b>MALAYSIA</b>
<b>Population (million inhabitants): UNFPA</b>	<b>39,9</b>	<b>3,0</b>	<b>23,6</b>	<b>9,5</b>	<b>9,3</b>	<b>3,8</b>	<b>35,5</b>	<b>4,3</b>	<b>0,3</b>	<b>78,5</b>	<b>7,8</b>	<b>2,1</b>	<b>30,2</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	10	488	12	68	125	18	60 (48,0)	6 (33,3)	44 (64,7)
	4 (40,0)	200 (50,0)	8 (66,7)						

<b>COUNTRIES</b>	<b>MOLDOVA</b>	<b>MONTENEGRO</b>	<b>NEW ZEALAND</b>	<b>NORWAY</b>	<b>RUSSIAN F.</b>	<b>SUDAN</b>	<b>SWITZERLAND</b>	<b>SYRIA</b>	<b>TURKEY</b>	<b>UKRAINE</b>	<b>USA</b>	<b>VIETNAM</b>
<b>Population (million inhabitants): UNFPA</b>	<b>3,5</b>	<b>0,6</b>	<b>4,6</b>	<b>5,1</b>	<b>142,5</b>	<b>38,8</b>	<b>8,2</b>	<b>22,0</b>	<b>75,8</b>	<b>44,9</b>	<b>322,6</b>	<b>92,5</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	77	7	303	1810	9248	2028 (21,9)
	36 (46,8)	7 (100,0)	175 (57,8)	1403 (77,5)		

## LATINAMERICAN COUNTRIES

<b>COUNTRIES</b>	<b>ARGENTINA</b>	<b>BOLIVIA</b>	<b>BRAZIL</b>	<b>CHILI</b>	<b>COLOMBIA</b>	<b>COSTA RICA</b>	<b>CUBA</b>	<b>DOMINICANA</b>
<b>Population (million inhabitants): UNFPA</b>	<b>41,8</b>	<b>10,8</b>	<b>202,0</b>	<b>17,8</b>	<b>48,9</b>	<b>4,9</b>	<b>11,3</b>	<b>10,5</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	1174	8228	662	21	43	29 (67,4)
	571 (48,6)	3457 (42,0)	135 (52,1)	3 (14,3)	25 (16,8)	

<b>COUNTRIES</b>	<b>ECUADOR</b>	<b>GUATEMALA</b>	<b>MEXICO</b>	<b>PARAGUAY</b>	<b>PERU</b>	<b>URUGUAY</b>	<b>VENEZUELA</b>
<b>Population (million inhabitants): UNFPA</b>	<b>16</b>	<b>15,9</b>	<b>123,8</b>	<b>6,8</b>	<b>30,8</b>	<b>3,4</b>	<b>30,9</b>

Number of interviews, asking for consent to donation  
Number of family refusals (%)

	104	185	147	36 (24,5)
	41 (39,4)	12 (30,0)	16 (13,4)	115 (62,2)

**International Data On Tissue And  
Hematopoietic Stem Cell Donation And  
Transplantation Activity.  
Year 2014.**



**Data provided by National Competent Authorities:**

**EUROPE**

**Austria**

**Belgium**

**Bulgaria**

Yordan Peev

**Cyprus**

Carolina Stylianou

**Czech Republic**

Eva Křemenová  
Ivana Koblihová

**Germany**

**Denmark**

**Estonia**

Siim Suutre

**Spain**

Bibiana Ramos  
Marina Álvarez

**Finland**

Anne Tammiruusu

**France**

Candide Font-Sala

**Greece**

**Croatia**

Milena Ivanković

**Hungary**

Lilla Tokár

**Ireland**

**Italy**

Fiorenza Bariani  
Letizia Lombardini

**Lithuania**

Dainora Medeisiene

**Luxembourg**

Gérard Scharll

**Latvia**

Ieva Bekere

**The Republic of Moldova**

Igor Codreanu  
Tatiana Timbalari

**Macedonia**

**Malta**

Patricia Galea

**Netherlands**

Frank Van Linden

**Norway**

Zaheer Rana

**Poland**

Izabela Uhrynowska- Tyszkiewicz  
Artur Kaminski

**Portugal**

Paulo Severino

**Romania**

Andrei Nica

**Sweden**

Mona Hansson

**Slovenia**

**Slovakia**

Magdaléna Krátka  
Daniel Kuba

**Turkey**

Yavuz Elbaş

**United Kingdom**

Sarah Kelly

**LATINAMERICA**

**Argentina**

Carlos Soratti

**Brasil**

Heder Murari Borba

**Chile**

Jose Luis Rojas

**Colombia**

M<sup>a</sup> Angélica Salinas

**Costa Rica**

Roselyn Serrano  
Cesar Gamboa

**Cuba**

Antonio Enamorado

**Dominicana**

Fernando R. Morales

**Ecuador**

Diana Almeida

**Mexico**

J. Salvador Aburto

**Panama**

César J. Cuero

**Paraguay**

Hugo A. Espinoza C.

**Peru**

Mariela Delgado

**Uruguay**

Mika Bengochea

**Venezuela**

Xiomara Ramirez

PRELIMINARY DATA ON TISSUES - YEAR 2014

EUROPEAN UNION COUNTRIES

Country	AUSTRIA	BELGIUM	BULGARIA	CROATIA	CYPRUS	CZECH REPUBLIC	DENMARK	ESTONIA	FINLAND	FRANCE	GERMANY	GREECE	HUNGARY	IRELAND	ITALY	
Population (Font: eurostat)	8,506,889	11,203,992	7,245,677	4,246,809	858,000	10,512,419	5,627,235	1,315,819	5,451,270	65,835,579	80,767,463	10,903,704	9,877,365	4,605,501	60,782,668	
TYPE OF TISSUE	NO DATA															
TYPE OF DATA	NO DATA															
CORNEA	N. of tissue donations	71	143	0	0	925	18	123	5,416	312	7,499					
	Tissue donation PMP	9/8	33/7	0	0	88/0	13/7	22/6	0	0	123/4					
	N° of tissue retrieved	136	283	0	0	1,122	36	0	10,742	316	123/4					
	N° of tissue processed (units)	136	288	0	0	1,133	37	0	10,742	623	14,435					
	N° of tissue distributed (units)	108	186	0	0	763	38	0	4,804	606	NA					
	N° of tissue imported (units)	1	46	0	0	0	0	0	0	76	6,453					
	N° of tissue exported (units)	109	2/8	41	0	203	0	0	175	0	0					
	N° of tissues transplanted	109	2/8	41	0	506	37	0	4,804	76	0					
	N° of patients transplanted	109	228	41	0	550	43	0	4,271	246	NA					
	N° of transplants	109	228	41	0	566	48	0	4,271	276	5,279					
BLOOD VESSEL	N. of tissue donations	0	9	0	0	28	15	0	5,133	52	722					
	Tissue donation PMP	0/0	2/1	0	0	2/7	11/4	0	78/0	5/3	11/9					
	N° of tissue retrieved	0	16	0	0	84	19	0	5,685	52	1,174					
	N° of tissue processed (units)	0	16	0	0	99	42	0	5,685	56	NA					
	N° of tissue distributed (units)	0	0	0	0	33	36	0	1,694	7	396					
	N° of tissue imported (units)	0	0	0	0	0	0	0	41	0	0					
	N° of tissue exported (units)	0	0	0	0	0	0	0	19	0	0					
	N° of tissues transplanted	0	0	0	0	21	9	0	1,694	43	NA					
	N° of patients transplanted	0	0	0	0	21	36	0	1,247	38	NA					
	N° of transplants	0	0	0	0	26	36	0	1,247	38	254					
CARDIAC TISSUE	N. of tissue donations	0	10	0	0	127	0	54	238	65	249					
	Tissue donation PMP	0/0	2/4	0	0	12/7	0/0	9/9	3/6	6/6	4/1					
	N° of tissue retrieved	0	15	0	0	127	0	0	454	65	459					
	N° of tissue processed (units)	0	15	0	0	127	0	152	454	65	NA					
	N° of tissue distributed (units)	0	0	0	0	0	0	111	186	30	185					
	N° of tissue imported (units)	0	0	0	0	0	0	0	57	0	0					
	N° of tissue exported (units)	0	0	0	0	0	0	3	60	0	2					
	N° of tissues transplanted	0	0	0	0	78	0	0	186	14	NA					
	N° of patients transplanted	0	0	0	0	71	0	0	146	14	NA					
	N° of transplants	0	0	0	0	71	0	0	146	14	139					
MUSCULOSKELETAL	N. of tissue donations	1,811	209	0	0	905	151	1,086	23,376	161	3,102					
	Tissue donation PMP	249/9	49/2	0	0	86/1	114/8	199/2	351/1	16/3	51/0					
	N° of tissue retrieved	1,811	367	0	0	2,818	207	0	23,592	161	7,743					
	N° of tissue processed (units)	1,811	367	0	0	2,818	207	0	23,592	161	7,743					
	N° of tissue distributed (units)	1,690	229	0	0	2,344	291	0	33,003	1,244	NA					
	N° of tissue imported (units)	141	0	0	0	0	0	13	282	0	1,127					
	N° of tissue exported (units)	2,216	0	0	0	452	0	0	4,661	0	0					
	N° of tissues transplanted	137	229	0	0	760	192	0	33,003	NA	NA					
	N° of patients transplanted	132	213	0	0	646	254	0	26,034	NA	NA					
	N° of transplants	132	224	0	0	790	290	0	26,034	NA	8,346					
SKIN	N. of tissue donations	57	7	0	0	45	2	29	179	10	409					
	Tissue donation PMP	7/9	1/6	0	0	4/3	1/5	5/3	2/7	1/0	6/7					
	N° of tissue retrieved	91,039	113	0	0	45	0	0	325,930	10	1,094,329					
	N° of tissue processed (units)	31	246	0	0	634	8	1,259	UK	37,140	NA					
	N° of tissue distributed (units)	36	236	0	0	761	0	960	UK	37,080	4,844					
	N° of tissue imported (units)	13	0	0	0	0	0	0	17,160	0	0					
	N° of tissue exported (units)	0	0	0	0	761	0	0	0	0	0					
	N° of tissues transplanted	0	236	0	0	0	0	960	245,779	NA	NA					
	N° of patients transplanted	0	4	0	0	0	0	19	97	NA	NA					
	N° of transplants	0	5	0	0	0	0	0	97	NA	2,003					
PLACENTA/AMNIOTIC MEMBRANE	N. of tissue donations	12	3	0	0	6	34	8	UK	0	214					
	Tissue donation PMP	1/7	0/7	0	0	0/6	25/8	1/5	UK	0	0					
	N° of tissue retrieved	53	3	0	0	60	104	193	109	0	3/5					
	N° of tissue processed (units)	51	85	0	0	173	88	186	3,203	117	153					
	N° of tissue distributed (units)	0	0	0	0	0	0	0	2,818	87	NA					
	N° of tissue imported (units)	0	0	0	0	17	0	34	7	0	1,239					
	N° of tissue exported (units)	76	118	0	0	14	3	0	2,818	81	0					
	N° of tissues transplanted	76	118	0	0	14	72	NA	1,850	67	NA					
	N° of patients transplanted	76	118	0	0	14	88	186	UK	73	865					
	N° of transplants	0	0	0	0	30	0	0	UK	137	111					
OTHER TISSUES	Tissue donation PMP	0/0	0/0	0	0	2/9	0/0	0/0	0	0	1/8					
	N° of tissue retrieved	0	0	0	0	32	0	0	13	137	508					
	N° of tissue processed (units)	0	0	0	0	0	0	0	UK	151	NA					
	N° of tissue distributed (units)	0	0	0	0	0	0	0	8	65	81					
	N° of tissue imported (units)	0	0	0	0	0	0	3	0	0	0					
	N° of tissue exported (units)	0	0	0	0	5	0	0	0	0	0					
	N° of tissues transplanted	0	0	0	0	0	0	0	8	0	NA					
	N° of patients transplanted	0	0	0	0	0	0	0	NA	NA	NA					
	N° of transplants	0	0	0	0	0	0	5	UK	UK	60					

## PRELIMINARY DATA ON TISSUES - YEAR 2014

Country	EUROPEAN UNION COUNTRIES											OTHER COUNTRIES			
	LATVIA	LITHUANIA	LUXEMBOURG	MALTA	NETHERLANDS	POLAND	PORTUGAL	ROMANIA	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	UNITED KINGDOM	TURKEY	NORWAY
Population (Font: eurostat)	2,001,468	2,943,472	549,680	425,384	16,829,289	38,017,856	10,427,301	19,947,311	5,415,949	2,061,085	46,512,199	9,644,864	64,308,261	7,667,864	5,107,970
TYPE OF TISSUE	TYPE OF DATA														
CORNEA	N. of tissue donations	5	18	19	12	0	614	489	102	60	2,799	558	NA	1,632	61
	Tissue donation PMP	2,5	6,1	34,6	28,2	0,0	16,2	46,9	18,8	29,1	60,2	57,9	NA	213	11,9
	N° of tissue retrieved	10	36	NA	1,2	0	1,219	937	194	120	5,575	1,134	6,076	3,264	122
	N° of tissue processed (units)	0	36	0	1,2	3,531	1,185	629	0	118	4,625	1,134	5,901	3,264	122
	N° of tissue distributed (units)	0	0	0	1,0	2,930	988	677	0	143	3,191	870	3,896	2,968	60
	N° of tissue imported (units)	0	0	0	0	102	0	211	72	0	1	0	852	624	135
	N° of tissue exported (units)	0	0	0	0	0	0	0	0	0	0	0	3,896	0	0
	N° of tissues transplanted	NA	35	0	10	2,216	0	883	174	197	3,539	969	NA	NA	192
	N° of patients transplanted	NA	34	0	10	2,205	0	860	174	176	3,488	777	NA	NA	130
	N° of transplants	NA	35	0	10	2,216	0	884	174	179	3,488	795	NA	NA	196
BLOOD VESSEL	N. of tissue donations	NE	NE	4	0	0	0	0	0	38	130	164	NA	0	0
	Tissue donation PMP	NE	NE	7,3	0,0	0,0	0,0	0,0	0,0	38,4	170	170	NA	0,0	0,0
	N° of tissue retrieved	NE	NE	4	0	71	0	0	0	38	243	243	0	0	0
	N° of tissue processed (units)	NE	NE	0	0	22	0	0	0	38	249	289	0	0	0
	N° of tissue distributed (units)	NE	NE	0	0	0	2	0	0	3	233	30	108	0	0
	N° of tissue imported (units)	NE	NE	0	0	0	0	0	0	4	0	0	0	0	0
	N° of tissue exported (units)	NE	NE	0	0	17	0	0	0	9	0	0	0	0	0
	N° of tissues transplanted	NE	NE	0	0	32	0	0	0	0	147	20	NA	0	0
	N° of patients transplanted	NE	NE	0	0	32	0	0	0	0	98	13	NA	0	0
	N° of transplants	NE	NE	0	0	32	0	0	0	0	NA	13	NA	0	0
CARDIAC TISSUE	N. of tissue donations	NE	NE	4	0	0	153	22	3	0	153	178	NA	0	0
	Tissue donation PMP	NE	NE	7,3	0,0	0,0	4,0	2,1	0,6	0,0	3,3	18,5	NA	0,0	0,0
	N° of tissue retrieved	NE	NE	4	0	398	306	22	6	0	283	319	564	0	0
	N° of tissue processed (units)	NE	NE	0	0	398	187	20	6	0	283	321	736	0	0
	N° of tissue distributed (units)	NE	NE	0	0	90	147	8	11	0	134	181	450	0	0
	N° of tissue imported (units)	NE	NE	0	0	0	0	0	0	0	0	0	0	0	0
	N° of tissue exported (units)	NE	NE	0	0	18	2	0	0	0	0	61	0	0	0
	N° of tissues transplanted	NE	NE	0	0	97	0	9	11	0	76	182	NA	0	0
	N° of patients transplanted	NE	NE	0	0	97	0	9	11	0	69	103	NA	0	0
	N° of transplants	NE	NE	0	0	97	0	9	11	0	69	103	NA	0	0
MUSCULOSKELETAL	N. of tissue donations	4	NA	94	0	0	242	41	284	95	2,639	1,787	NA	0	596
	Tissue donation PMP	2,0	NA	171,0	0,0	0,0	6,4	3,9	14,2	46,1	567	185,3	NA	0,0	116,7
	N° of tissue retrieved	16	NA	94	0	3,286	2,235	65	284	96	1,843	1,806	1,942	0	181
	N° of tissue processed (units)	44	NA	0	0	8,498	9,121	209	140	96	18,437	1,806	1,942	0	399
	N° of tissue distributed (units)	59	NA	0	0	3,016	3,144	249	111	84	18,437	1,806	1,942	0	163
	N° of tissue imported (units)	0	NA	0	0	306	0	0	55	0	6,712	1,030	26,744	0	57
	N° of tissue exported (units)	0	NA	0	0	37,724	0	0	2,855	0	33	48	31,486	0	0
	N° of tissues transplanted	NA	NA	0	0	8,488	0	389	270	4	15,013	1,066	NA	0	269
	N° of patients transplanted	NA	NA	0	0	2,488	0	248	225	4	11,447	1,017	NA	0	274
	N° of transplants	NA	NA	0	0	NA	0	345	234	4	NA	1,031	NA	0	298
SKIN	N. of tissue donations	NE	NE	0,0	0,0	0,0	41	0	18	17	201	86	NA	0	0
	Tissue donation PMP	NE	NE	0,0	0,0	0,0	1,1	0,0	0,9	8,2	4,3	8,9	NA	0,0	0,0
	N° of tissue retrieved	NE	NE	0	0	1,739,500	77,605	0	24,950	3,560	3,452,217	69	325	0	0
	N° of tissue processed (units)	NE	NE	0	0	4,970	636	0	0	89	NA	794	391	0	0
	N° of tissue distributed (units)	NE	NE	0	0	1,265	498	0	0	42	NA	24	3,664	0	0
	N° of tissue imported (units)	NE	NE	0	0	590	0	79	0	0	0	29	3,143	0	0
	N° of tissue exported (units)	NE	NE	0	0	16,215	0	0	0	0	53	0	4,145	0	0
	N° of tissues transplanted	NE	NE	0	0	1,265	0	79	21,050	23	150,481	24	NA	0	0
	N° of patients transplanted	NE	NE	0	0	NA	0	12	18	27	37	61	NA	0	0
	N° of transplants	NE	NE	0	0	NA	0	18	18	34	NA	125	NA	0	0
PLACENTA/AMNIOTIC MEMBRANE	N. of tissue donations	59	16	0	0	0	128	17	0	2	72	6	NA	0	2
	Tissue donation PMP	29,5	5,4	0,0	0,0	0,0	3,4	1,6	0,0	2	1,5	0,6	NA	0,0	0,4
	N° of tissue retrieved	59	16	0	0	2	128	17	0	2	1,5	0,6	NA	0	2
	N° of tissue processed (units)	NE	NE	0	0	2	1,530	206	0	2	1,679	366	56	0	2,5
	N° of tissue distributed (units)	NE	NE	0	0	64	1,162	187	0	2	1,979	374	793	0	9,5
	N° of tissue imported (units)	NE	NE	0	0	0	0	0	0	0	0	0	233	0	0
	N° of tissue exported (units)	NE	NE	0	0	14	0	0	0	0	0	0	0	0	22
	N° of tissues transplanted	NE	NE	0	0	54	0	169	32	32	1,302	364	NA	0	9
	N° of patients transplanted	NE	NE	0	0	50	0	152	32	32	1,237	177	NA	0	9
	N° of transplants	NE	NE	0	0	50	0	168	32	32	NA	210	NA	0	9
OTHER TISSUES	N. of tissue donations	154	4	0	0	0	1,098	0	0	18	0	0	NA	0	NA
	Tissue donation PMP	76,9	1,4	0,0	0,0	0,0	28,9	0,0	0,0	33,4	0,0	0,0	NA	0,0	NA
	N° of tissue retrieved	154	4	0	0	220	1,104	0	0	180	0	0	8,828	0	NA
	N° of tissue processed (units)	NE	NE	0	0	49	1,073	0	0	6	0	0	6,033	0	98
	N° of tissue distributed (units)	NE	NE	0	0	7,157	95	0	0	6	0	0	1,791	0	NA
	N° of tissue imported (units)	NE	NE	0	0	4	0	0	0	0	0	0	2,186	0	0
	N° of tissue exported (units)	NE	NE	0	0	446	0	0	0	0	0	0	2,057	0	0
	N° of tissues transplanted	NE	NE	0	0	393	0	0	0	68	0	0	NA	0	NA
	N° of patients transplanted	NE	NE	0	0	393	0	0	0	30	0	0	NA	0	NA
	N° of transplants	NE	NE	0	0	393	0	0	0	30	0	0	NA	0	NA

PRELIMINARY DATA ON TISSUES - YEAR 2014

LATINAMERICAN COUNTRIES

Country	ARGENTINA	BRAZIL	CHILI	COLOMBIA	COSTA RICA	CUBA	DOMINICANA	ECUADOR	MEXICO	PANAMA	PARAGUAY	PERU	URUGUAY	VENEZUELA
<b>Population (Font: UNFPA, state of world population, Nov 2014 - Million)</b>														
	41,8	202,0	17,8	48,9	4,9	11,3	10,5	16,0	123,8	3,9	6,9	30,8	3,4	30,9
<b>TYPE OF TISSUE</b>														
<b>CORNEA</b>														
N. of tissue donations	1.589	12.460	93	981	143	NA	28	0	2.978	36	75	341	75	58
Tissue donation PMP	38,0	61,7	5,2	20,1	29,2	NA	2,7	0,0	24,1	9,2	10,9	11,1	22,1	1,9
N° of tissue retrieved	1.589	24.919	179	1.436	86	NA	28	0	2.978	NA	76	220	197	108
N° of tissues transplanted	906	13.456	NA	1.510	NA	NA	331	0	3.204	36	75	341	217	99
N° of patients transplanted	906	NA	162	NA	143	538	NA	0	3.204	36	75	341	NA	99
N° of transplants	906	13.456	162	NA	NA	538	331	0	3.204	36	75	341	205	99
<b>BLOOD/VESSEL</b>														
N. of tissue donations	0	0	0	NA	8	0	0	0	0	0	0	0	18	0
Tissue donation PMP	0,0	0,0	0,0	NA	1,6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,3	0,0
N° of tissue retrieved	0	0	0	54	22	0	0	0	0	0	0	0	38	0
N° of tissues transplanted	69	0	0	10	NA	0	0	0	0	0	0	0	32	0
N° of patients transplanted	69	0	0	NA	6	0	0	0	0	0	0	0	NA	0
N° of transplants	69	0	0	NA	NA	0	0	0	0	0	0	0	24	0
<b>CARDIAC TISSUE</b>														
N. of tissue donations	176	167	7	80	6	0	0	0	5	0	0	0	0	5
Tissue donation PMP	4,2	0,8	0,4	1,6	1,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2
N° of tissue retrieved	NA	277	14	97	8	0	0	0	38	0	0	0	0	20
N° of tissues transplanted	230	207	0	113	NA	0	0	0	2	0	0	0	2	NA
N° of patients transplanted	230	207	0	NA	1	0	0	0	2	0	0	0	NA	NA
N° of transplants	230	207	0	NA	NA	0	0	0	2	0	0	0	2	NA
<b>MUSCULOSKELETAL</b>														
N. of tissue donations	116	1.432	7	1.500	0	0	0	0	261	0	0	0	0	0
Tissue donation PMP	2,8	7,1	0,4	30,7	0,0	0,0	0,0	0,0	2,1	0,0	0,0	0,0	0,0	0,0
N° of tissue retrieved	NA	25.215	0	2.102	0	0	0	0	261	0	0	0	28	0
N° of tissues transplanted	7.034	21.639	0	12.484	0	0	0	0	NA	0	0	0	718	0
N° of patients transplanted	7.034	NA	0	NA	0	0	0	0	NA	0	0	0	NA	0
N° of transplants	7.034	NA	0	NA	0	0	0	0	NA	0	0	0	151	0
<b>SKIN</b>														
N. of tissue donations	11	191	1	23	14	NA	0	0	38	0	0	0	11	0
Tissue donation PMP	0,3	0,9	0,1	0,5	2,9	NA	0,0	0,0	0,3	0,0	0,0	0,0	3,2	0,0
N° of tissue retrieved	NA	74.528	0	23	11.184	NA	0	0	NA	0	0	0	19.200	0
N° of tissues transplanted	45	62.863	0	311	NA	NA	0	0	NA	0	0	0	13.000	0
N° of patients transplanted	45	NA	0	NA	36	107	0	0	NA	0	0	0	NA	0
N° of transplants	45	NA	0	NA	NA	107	0	0	NA	0	0	0	6	0
<b>PLACENTA/AMNIOTIC MEMBRANE</b>														
N. of tissue donations	0	0	0	19	0	0	0	0	0	0	0	0	94	0
Tissue donation PMP	0,0	0,0	0,0	0,4	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,76	0,0
N° of tissue retrieved	0	0	0	19	0	0	0	0	0	0	0	0	42	0
N° of tissues transplanted	531	0	0	218	NA	0	0	0	0	0	0	0	16.950	0
N° of patients transplanted	531	0	0	NA	15	0	0	0	0	0	0	0	NA	0
N° of transplants	531	0	0	NA	NA	0	0	0	0	0	0	0	42	0
<b>OTHER TISSUES</b>														
N. of tissue donations	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tissue donation PMP	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
N° of tissue retrieved	0	0	0	0	0	0	0	0	0	0	0	0	7	0
N° of tissues transplanted	0	0	0	25	0	0	0	0	0	0	0	0	7	0
N° of patients transplanted	0	0	0	NA	0	0	0	0	0	0	0	0	0	0
N° of transplants	0	0	0	NA	0	0	0	0	0	0	0	0	7	0

## PRELIMINARY DATA ON HPC CELLS - YEAR 2014

## MEMBER STATES OF THE EUROPEAN UNION

Country	AUSTRIA	BELGIUM	BULGARIA	CROATIA	CYPRUS	CZECH REPUBLIC	DENMARK	ESTONIA	FINLAND	GERMANY	GREECE	FRANCE	HUNGARY	IRELAND	ITALY
<b>Population (Font: eurostat)</b>	8.506.889	11.203.992	7.245.677	4.246.809	858.000	10.512.419	5.627.235	1.315.819	5.451.270	80.767.463	10.903.704	65.835.579	9.877.365	4.605.501	60.782.668
CATEGORY OF DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
TYPE OF DATA															
POTENTIAL DONATION AND SEARCHING IN THE NATIONAL REGISTRIES															
N° of potential donors at 31.12	NA	40.722	NA	40.722	132.383	74.082	NA	NA	25.660	NA	235.486	NA	NA	348.380	
N° of cord blood unit at 31.12	NA	2.831	NA	2.831	2.626	4.110	NE	NE	3.358	NA	33.519	31.495	NA	33.009	
N° of searches requested	33	554	33	554	19.929	34.607	NE	NE	21.633	NA	23.561	NA	NA	3.327	
N° of unrelated donation	6	31	6	31	30	186	NE	NE	0	NA	1.496	NA	NA	744	
DONATION															
N° of donation - Autologous	107	672	107	672	0	325	16	16	285	NA	3.245	5.865	NA	6.851	
N° of donation - Allogenic	93	1.857	93	1.857	22	96	4	4	65	NA	1.379	NA	NA	21.466	
N° of donation - Allogenic, related	9	49	9	49	0	62	4	4	23	NA	819	NA	NA	1.308	
N° of donation - Allogenic, unrelated	84	1.808	84	1.808	22	34	0	0	42	NA	560	NA	NA	20.158	
BANKING of CORD BLOOD															
N° of unrelated cord blood units collected	84	1.801	84	1.801	1.682	39	0	0	0	NA	2.642	0	NA	1.964	
N° of unrelated cord blood units distributed	0	1	0	1	0	0	0	0	4	NA	319	0	NA	69	
N° of unrelated cord blood units at 31.12	84	3.024	84	3.024	2.953	5.537	0	0	3.358	NA	33.519	0	NA	38.437	
N° of related cord blood units collected	1.830	13	1.830	13	1.673	7	0	0	1	NA	0	5.699	NA	286	
N° of related cord blood units distributed	1.172	0	1.172	0	1	0	0	0	0	NA	0	1	NA	11	
N° of related cord blood units at 31.12	1.830	185	1.830	185	14.513	162	0	0	0	NA	0	31.495	NA	3.498	
TRANSPLANT															
N° of transplants - Autologous	71	154	71	154	20	439	13	13	NA	NA	3.119	123	NA	3.199	
N° of patients transplanted - Autologous	66	131	66	131	20	325	NA	NA	NA	NA	3.006	121	NA	2.562	
N° of transplants - Allogenic	29	56	29	56	0	257	19	19	NA	NA	1.954	99	NA	1.759	
N° of patients transplanted - Allogenic	27	56	27	56	0	242	NA	NA	NA	NA	NA	82	NA	1.656	
N° of transplants - Allogenic, related	13	27	13	27	0	66	4	4	NA	NA	844	36	NA	1.020	
N° of patients transplanted - Allogenic, related	11	27	11	27	0	62	NA	NA	NA	NA	NA	30	NA	952	
N° of transplants - Allogenic, unrelated	16	29	16	29	0	191	15	15	NA	NA	1.110	63	NA	739	
N° of patients transplanted - Allogenic, unrelated	16	29	16	29	0	180	NA	NA	NA	NA	NA	52	NA	704	



PRELIMINARY ON HPC CELLS - YEAR 214

Country	MEMBER STATES OF THE EUROPEAN UNION													OTHER COUNTRIES	
	LATVIA	LITHUANIA	LUXEMBOURG	MALTA	NETHERLANDS	POLAND	PORTUGAL	ROMANIA	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	UNITED KINGDOM	TURKEY	NORWAY
<b>Population (Font: eurostat)</b>	2.001.468	2.943.472	549.680	425.384	16.829.289	38.017.856	10.427.301	19.947.311	5.415.949	2.061.085	46.512.199	9.644.864	64.308.261	76.667.864	5.107.970
CATEGORY OF DATA	TYPE OF DATA														
POTENTIAL DONATION AND SEARCHING IN THE NATIONAL REGISTRIES	N° of potential donors at 31.12	UK	10.028	0	0	53.441	NA	362.424	15.432	5.851	16.032	164.749	NA	NA	31.143
	N° of coord blood unit at 31.12	UK	1.221	0	0	3.515	NA	8.747	14.773	1.734	245	60.437	4.467	NA	NA
	N° of searches requested	UK	72	0	0	549	NA	2.917	336	21.174	23	3.916	NA	NA	NA
	N° of unrelated donation	UK	38	0	0	306	NA	157	60	49	30	681	273	NA	24
	N° of donation - Autologous	UK	293	0	0	15.101	NA	478	3.849	6.943	NA	1.843	696	NA	265
DONATION	N° of donation - Allogenic	UK	20	0	0	288	NA	1.014	19	61	NA	1.398	495	NA	89
	N° of donation - Allogenic, related	UK	13	0	0	234	NA	70	19	45	NA	721	102	NA	41
	N° of donation - Allogenic, unrelated	UK	7	0	0	54	NA	944	0	16	NA	677	393	NA	48
	N° of unrelated coord blood units collected	UK	0	0	0	284	337	812	2.358	26	NA	3.124	337	20.943	NA
	N° of unrelated coord blood units distributed	UK	0	0	0	91	0	1	0	0	NA	286	9	4.123	NA
BANKING of CORD BLOOD	N° of unrelated coord blood units at 31.12	UK	0	0	0	NA	4.097	8.750	8.742	10	NA	60.437	4.467	238.794	NA
	N° of related coord blood units collected	UK	182	0	0	7	8	10.245	9.406	14	NA	3	1	0	104
	N° of related coord blood units distributed	UK	0	0	0	1	0	3	0	0	NA	3	0	0	NA
	N° of related coord blood units at 31.12	UK	1.144	0	0	NA	135	111.687	93.536	14	NA	0	175	0	775
	N° of transplants - Autologous	UK	111	0	0	2.352	NA	382	162	157	0	1.843	523	NA	66
TRANSPLANT	N° of patients transplanted - Autologous	UK	87	0	0	652	NA	371	160	139	0	NA	466	NA	19
	N° of transplants - Allogenic	UK	62	0	0	585	NA	136	74	83	29	1.167	278	NA	76
	N° of patients transplanted - Allogenic, related	UK	56	0	0	509	NA	136	44	82	27	NA	271	NA	72
	N° of transplants - Allogenic, unrelated	UK	15	0	0	218	NA	63	18	35	0	721	97	NA	12
	N° of patients transplanted - Allogenic, related	UK	14	0	0	184	NA	63	18	34	0	NA	87	NA	11
OTHER COUNTRIES	N° of transplants - Allogenic, unrelated	UK	47	0	0	367	NA	73	56	48	29	446	181	NA	64
	N° of patients transplanted - Allogenic, unrelated	UK	42	0	0	325	NA	73	26	48	27	NA	184	NA	61

## PRELIMINARY DATA ON HPC CELLS - YEAR 2014

## LATINAMERICAN COUNTRIES

Country	ARGENTINA	BRAZIL	CHILI	COLOMBIA	COSTA RICA	CUBA	DOMINICANA	ECUADOR	MEXICO	PANAMA	PARAGUAY	PERU	URUGUAY	VENEZUELA
<b>Population (Font: UNFPA, state of world population, Nov 2014 - Million)</b>	41,8	202,0	17,8	48,9	4,9	11,3	10,5	16,0	123,8	3,9	6,9	30,8	3,4	30,9
POTENTIAL DONATION AND SEARCHING IN THE NATIONAL REGISTRIES														
N° of potential donors at 31.12	36.335	3.493.779	0	0	0	0	0	0	0	0	0	0	284	633
N° of cord blood unit at 31.12	2.672	11.572	0	0	0	0	0	0	0	0	0	0	0	0
N° of searches requested	625	20.150	0	0	0	0	0	0	0	0	0	0	42	0
N° of unrelated donation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BANKING of CORD BLOOD														
N° of unrelated cord blood units at 31.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N° of related cord blood units at 31.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRANSPLANT														
N° of transplants - Autologous	522	0	0	331	16	0	0	0	0	26	16	59	21	34
N° of patients transplanted - Autologous	506	1.057	0	331	10	0	0	0	0	26	16	59	0	34
N° of transplants - Allogenic	295	NA	0	250	44	0	0	0	0	8	32	24	78	6
N° of patients transplanted - Allogenic	256	764	0	250	31	0	0	0	0	8	32	24	3	6
N° of transplants - Allogenic, related	188	NA	0	212	36	0	0	0	0	8	16	24	75	6
N° of patients transplanted - Allogenic, related	162	492	0	212	25	0	0	0	0	8	16	24	0	6
N° of transplants - Allogenic, unrelated	107	NA	0	38	8	0	0	0	0	0	16	0	3	0
N° of patients transplanted - Allogenic, unrelated	94	272	0	38	6	0	0	0	0	0	16	0	3	0

# **Council of Europe Reference Documents 2015**



# Position Paper on Transplantation and Physical Activity

Carella, C., Fattinger, B., Avsec, D., Simeonova, M., Mosconi, G., Roi, G.S., Totti, V., Trerotola, M., Nanni Costa, A.

*on behalf of the European Committee on Organ Transplantation (CD-P-T0),  
Council of Europe, Strasbourg (France)*

## INTRODUCTION

Physical inactivity is an important risk factor for cardiovascular disease, which has recently been defined both as a pandemic threat with repercussions on health care, and as the fourth leading risk factor for global mortality<sup>(1)</sup>. According to WHO, physical inactivity levels are rising in many countries<sup>(2)</sup>. This not only has major implications for the prevalence of non-communicable diseases (NCDs) and the general health of the population worldwide, but it also adds to the burden on Health-care Systems which now have to cope with the additional cost of treating NCDs. Several studies report the positive impact of regular physical activity in the prevention of primary and secondary cardiovascular disease as well as stroke, diabetes, hypertension, colon cancer, breast cancer and depression.

It has been demonstrated that transplant patients may develop medical complications such as metabolic syndrome, susceptibility to infection and chronic diseases which may compromise the outcome of transplantation and graft survival in the long-term. Immunosuppressive therapy may play a role in the development of such complications, but the psychological response to post-transplant treatments must also be taken into consideration when dealing with this type of complication.

The solid organ transplant population is characterised by an increased risk of developing cardiovascular disease after receiving a transplant, and the analysis of available post-transplant data shows a high number of complications including an increased incidence of diabetes, weight gain possibly leading to obesity, and dyslipidaemia. It is now known that the key factors affecting weight gain in transplant recipients are the post-transplant treatment itself, which alters metabolic function, and the hunger induced by the improvement patients experience in their physical condition after the transplant. Quality of life is known to have a major influence on the success of a transplant, and is evaluated by vari-

ous social indicators including returning to work or resuming studies, becoming a parent, participating in social activities in general, and social reintegration. Physical activity and exercise are meaningful indicators for social reintegration since they help organ transplant patients adjust to the changes in their lives brought about by a transplant, develop their body awareness and enhance their physical and mental condition.

From a public health standpoint, it is important to recognise that cardiovascular disorders are currently the leading cause of death in the transplant population and that, in order to reverse this trend, appropriate medical and behavioural counter measures are urgently required. Exercise capacity is a more powerful predictor of mortality among men than other established risk factors for cardiovascular disease<sup>(3)</sup>, with each 1MET (metabolic equivalent) increase in exercise capacity conferring a 12 percent improvement in survival (*Table 1*). Another aspect to be taken into account is that regular exercise reduces the risk of chronic metabolic and cardiorespiratory diseases, in part because exercise exerts anti-inflammatory effects. The anti-inflammatory effects of regular exercise may be mediated via both a reduction in visceral fat mass (with a subsequent decrease in adipokine release) and the introduction of an anti-inflammatory environment with each bout of exercise<sup>(4,5)</sup>.

## PRESENT SITUATION IN EUROPE

A survey was conducted among the Council of Europe member states to check for similar projects or programs on the quality of life of transplanted patients focussing on physical activity. Although follow-up data for transplanted patients are registered and monitored in all the countries surveyed there are no general national rules on how and what to measure apart from standard clinical parameters, blood values, immunosuppression levels, and general health status, etc.

Physical activity has been recognised as an added value but is not regularly included in most of the programmes. Physiotherapy is prescribed by National Health Systems when needed, with some countries providing a few weeks of rehabilitation after liver, heart and lung transplantation. However, no funding is provided for further physical activity as a means of improving quality of life.

While the importance of physical activity is widely recognised, the majority of National Health Systems have not yet been able to develop a system for promoting physical activity in general and for transplanted patients in particular.

The survey found that, in one member state, the national health insurance scheme covers the cost of physical activities prescribed by a follow-up physician, but that patients were required to pay for physiotherapy themselves. It also found that in many member states, rehabilitation with physiotherapy is provided after heart, liver and lung transplantation and, in most cases, is covered by national health insurance bodies.

## OUR RECOMMENDATIONS

National Authorities should educate, advise and heighten the awareness of physicians performing transplants and caring for transplanted patients about the importance of prescribing regular physical activity after transplantation, depending on individual needs and health status. Such activities may be started very soon after surgery and should continue under supervision after the patient is discharged from hospital.

National Authorities should encourage research to develop a reliable and simple “rehabilitation after transplant” model programme for use by transplant recipients under the supervision of Sports Medicine doctors.

National Authorities should start specific campaigns for transplanted patients, through patient organisations, scientific societies and health foundations in both the public and private sectors, to promote regular physical activity as part of the social reintegration of transplanted patients.

Physicians should recommend regular physical activity for transplant recipients, even those with chronic disease, as a healthy habit that will improve their quality of life.

Health institutions, National Authorities and specialists should create common rehabilitation guidelines for post-transplant patients.

National Health Systems should recognise the importance of prescribing physical activity as an adjunct to

immunosuppressive therapy for transplanted patients and provide appropriate funding.

Health institutions, National Authorities and specialists should raise awareness on an international level of the importance and benefits of introducing prescribed physical activity in conjunction with immunosuppressive therapy for transplanted patients. This would be of benefit not only to the patients, whose quality of life would improve, but also to member states themselves since it would reduce the cost of post-transplant follow-up (economic impact), expedite patients’ return to the workplace (socio-economic impact), improve their quality of life, confirm the efficacy of transplantation as a life-saving therapy, increase confidence in the transplant system and raise awareness of donation culture (public and social impact), all of which are aspects that Governments should take into account.

## THE ITALIAN EXPERIENCE

In 2008, the Italian National Transplant Centre (*Centro Nazionale Trapianti, CNT*) began a study on a group of transplant athletes taking part in national and international sports competitions in order to verify the effects of sporting activity on solid-organ transplant recipients<sup>(6)</sup>. The results for physiological response, energy expenditure, kidney function and endurance of physical strain in the group were comparable to those obtained for non-transplant athletes. On the basis of these results for athletes, a research protocol was established in 2010 to measure exercise effectiveness in transplant patients as post-transplant therapy for use alongside pharmacological treatments. This provided a unique opportunity to study the outcomes of a personalised prescription of organised and supervised physical activity for solid-organ transplant patients.

During the Italian Winter Transplant Games organised by the Italian Association of Dialysis and Transplant Patients (ANED sport) in 2009<sup>(7)</sup>, solid-organ transplant recipients’ abilities during physical activity and their perception of their physical and mental state were studied. A team of experts in sports medicine and transplants performed specific tests on 16 transplanted skiers to measure body mass index, body fat percentage (plicometer), explosive power in the lower limbs (the Bosco test), energy expenditure (armband) and the perception of personal state of health (SF-36).

Another study, the “*NoveColli Life*” study, involved transplanted cyclists and aimed to check certain aspects of renal function in transplant recipients during a 130-kilometre cycling-race, and to compare the data obtained with those of non-transplant cyclists competing in the

same event. Twenty transplanted athletes covered the in an average of six hours and 37 minutes versus six hours and 15 minutes for the 44 non-transplanted subjects. All the athletes gave venous blood and urine samples the day before the race (Pre), immediately after the race (Post) and 24 hours after competing (24h). Urea, creatinine, micro albuminuria, urinary proteins and urine specific gravity were measured to assess renal function. A significant increase was found between Pre and Post values and a significant decrease between Post and Post 24h values in both groups.

The results indicate a significant difference in renal function between transplanted cyclists and the non-transplant subjects at these three times (before, during and 24hrs after the race). Non-transplanted cyclist values remained within the normal range. A similar trend was observed in the transplant recipient cyclists and the variations were comparable to those measured in the non-transplanted group, although the values of the transplanted group were higher, slightly above the normal range.

## CLINICAL TRIAL

To support scientific research and information on physical activity and transplants, the Italian National Transplant Centre and the University of Bologna, in collaboration with the Isokinetic Education & Research Department, sponsored the Research Protocol "A transplant...and now it's time for sport", the first scientific study designed to measure the effects of exercise in patients after solid organ transplantation. The primary endpoint of this study was to demonstrate, through scientific measurements, that physical activity is essential for all transplant recipients. Promoting the prescription of regular physical activity as supportive therapy for patients with chronic conditions would not only help prevent many diseases, but would also alleviate the financial burden of disease on public healthcare systems. In particular, supervised exercise can help control the overall physical (and mental) well-being of transplant recipients, leading to significant improvements in post-transplant quality of life<sup>(8)</sup>.

Preliminary data indicate that, twelve months after recruitment, transplanted patients who performed physical activity showed an improvement in body composition (decrease in the percentage of adipose tissue) and an increase in work capacity (+15% increase in muscle strength and +17% in cardio-respiratory endurance)<sup>(9)</sup>. These effects are accompanied by an improvement in the self-perception of physical health (+8%) and overall health (+10%). The preliminary results of the study are therefore very encouraging and

confirm the hypothesis that exercise has drug-like effects.

The "A transplant...and now it's time for sport" protocol was established in 2010 by a team of transplant experts and sport physicians employed by different Italian Local Health Authorities. The premise of this study was that cardiovascular disorders are the leading cause of death in transplant recipients and that physical exercise is essential not only for "transplant athletes" but for all transplant recipients receiving anti-rejection treatments (cortisone and immunosuppressive drugs) which encourage changes in lipid metabolism and can cause serious heart disorders.

The Italian National Transplant Centre and the FITOT foundation jointly trained 250 doctors and graduates in physical education and recruited 45 transplant clinicians in ten Italian regions to the study. A total of 148 Italian transplant patients were enrolled in the study, 83 in the clinical group and 54 in the control group. Twelve-month results were obtained from two pilot regions (Emilia Romagna and Veneto) where respectively 21 and 33 recipients were taking part in the study.

The parameters of the patients improved with physical activity, the percentage of body fat tended to decrease (-1% as a trend), lower and upper limbs strength increased by 3% up to 25% and aerobic capacity increased by an average 14%.

Over the one year period, the *improvement* in self-perception of health status was as follows: physical health status +8%, general health status +10%, psychological well-being +6%.

## CONCLUSION

The Italian protocol "A transplant...and now it's time for sport" shows that, in transplanted patients, regular physical activity and supervised physical exercise are largely positive in terms of patient safety and have beneficial effects on quality of life.

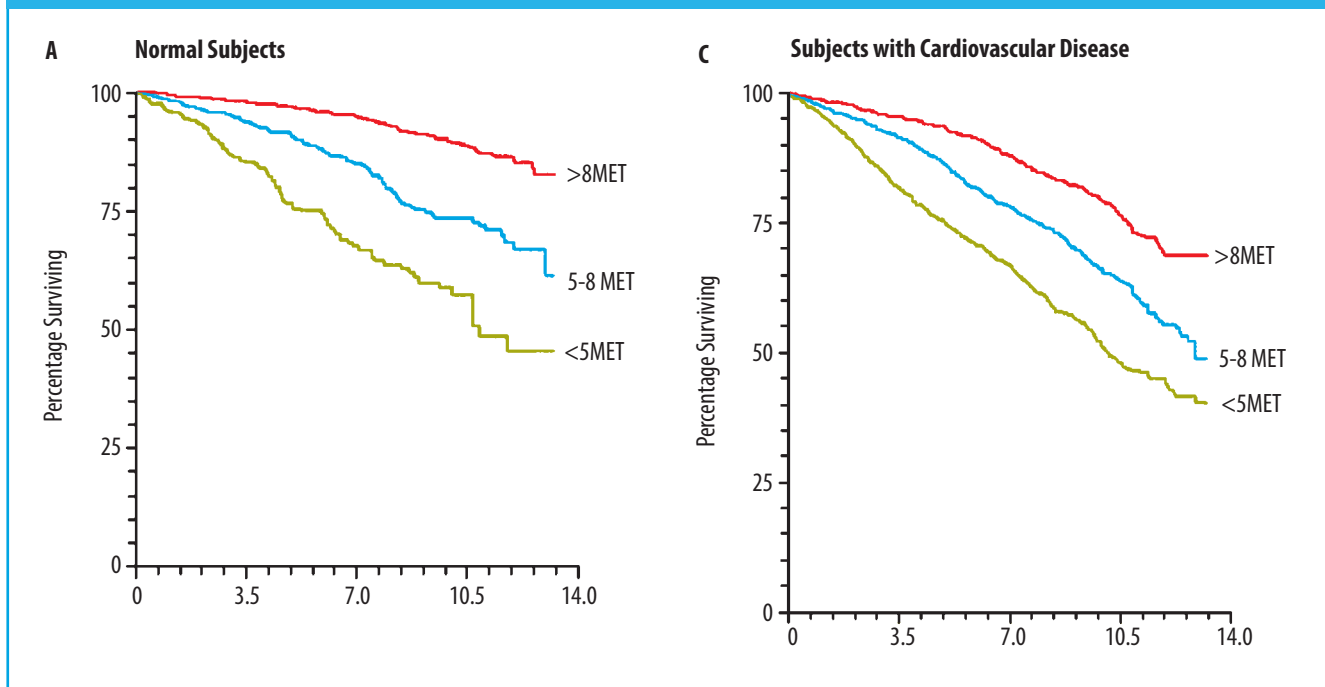
Regular physical activity of moderate intensity, such as walking, cycling, or any kind of bodily movement produced by skeletal muscles that requires energy expenditure, has significant benefits for health<sup>(10)</sup>.

Furthermore the *Action Plan for the Global Strategy for the prevention and control of non-communicable diseases* (issued by WHO through Resolution WHA61.14) urges Member States to implement national guidelines on physical activity for health and encourages them to develop and put into practice policies and interventions targeting the importance of physical activity for health.

The CD-P-TO (European Committee – partial agreement – on organ transplantation) recommends that all Council of Europe countries promote specific physical activity programs as a complementary treatment for trans-

planted patients and a means of improving quality of life, and encourages Governments to act on this suggestion to improve the general health of their national population.

**TABLE**



**Table 1:** Myers et al., *NEJM* 2002, 346:793-801

## REFERENCES

1. Kohl HW3, Craig CL, Lambert EV et al: "The pandemic of physical inactivity: global action for public health". *Lancet* 2012;380:294-305.
2. World Health Organisation: "Global recommendations on physical activity for health". WHO Library Cataloguing-in-Publication Data, WHO 2010.
3. Myers J Prakash et al: "Exercise capacity and mortality among men referred for exercise testing". *N Engl J Med* 2002;346:793-801.
4. Gleeson M et al: "The anti-inflammatory effects of exercise: mechanism and implications for the prevention and treatment of disease". *Nat rev Immunol* 2011;11:607-615.
5. Kwon H et al: "Adipokines mediate inflammation and insulin resistance". *Front Endocrinol (Lusanne)* 2013;4:71.
6. Trerotola M, Grasso E, Storani D, Totti V, Roi GS, Mosconi G, Nanni Costa A: "A Transplant... and Now It's Time for Sport: The Importance of Physical Activity for Transplant Recipients". *Organs Tissues & Cells* 2013; 16(3):175-182.
7. Mosconi G, Cuna V, Tonioli M, Totti V, Roi GS, Sarto P, Stefoni S, Trerotola M, Nanni Costa A: "Physical activity in solid organ transplant recipient: preliminary results of the Italian Project". *Kidney Blood Press Res* 2014; 39:0-0; published on line: May 31, 2014.
8. Didsbury M, McGee RG, Tong A, Craig JC, Chapman JR, Chadban S, Wong G: "Exercise Training in Solid Organ Transplant Recipients: A Systematic Review and Meta-Analysis". *Transplantation* 2013;95: 679-687.
9. Roi GS, Stefoni S, Mosconi G, Burra P, Granito M, Macini P, Mastrosimone S, Nacchia F, Brugin E, Rigotti P, Sarto P, Sella G, Tamè MR, Sgarzi S, Totti V, Trerotola M, Tripi F, Ermolao A, Nanni Costa A: "Physical Activity in Solid Organ Transplant Recipients: Organisational Aspects and Preliminary Results of the Italian Project. *Transplantation Proceedings*, in press.
10. Heiwe S, Jacobson SH: "Exercise training for adults with chronic kidney disease" (Review). *The Cochrane Library* 2011, Issue 10

# Long-term outcome of living kidney donation

*Position paper of the European Committee on Organ Transplantation (CD-P-TO),  
Council of Europe*

Rapporteurs: Cozzi, E., Biancone, L., López-Fraga, M., Nanni-Costa, A.

*With the endorsement of the European Society for Organ Transplantation (ESOT), the International Society of Nephrology (ISN) and The Transplantation Society (TTS)*

Among the therapeutic options for end stage renal disease (ESRD), kidney transplantation from living donors currently represents the best treatment, giving superior results in terms of patient survival and quality of life when compared with deceased donor kidney transplantation or dialysis [1,2]. Organ shortage and limited expansion of the deceased donor pool in the last decade have multiplied demand for living kidney donation all over the world. Yearly, more than 27,000 living kidney donations are performed worldwide, accounting for almost 40% of all kidney transplants.

Living kidney donation requires a healthy volunteer to undergo nephrectomy, a procedure reported to have the extremely low perioperative mortality rate of 3.1 cases per 10,000 kidney donation procedures, which is 6 times lower than the surgical mortality reported for laparoscopic cholecystectomy [3]. However, the choice of life with a single kidney is also associated with an unavoidable degree of reduction in renal function [4].

Therefore, the European Committee on Organ Transplantation (CD-P-TO) believes that it is imperative for the transplant community to define precisely the risks associated with living donation, to identify potential living donors who are at increased risk of long term complications following kidney donation, and to communicate these shortcomings upfront and clearly to candidate donors primarily through direct doctor-patient relationship.

In all cases, the CD-P-TO emphasises that free life-long monitoring should be offered to all living donors following kidney donation. Particular consideration should be given to donors travelling from overseas to donate, especially those from developing countries, as these individuals may have limited resources or access to

health care in the longer term. In addition, the establishment of national or even supranational registries to monitor live donation and its consequences should be regarded as highly desirable [5].

To date, the risk of ESRD for living donors has been considered to be lower than, or no different to, that of the general population (180 vs 268 cases/10<sup>6</sup> person-years) since living donors are thoroughly screened and reportedly healthier than controls who have had no screening [6].

However, two recent studies published in the last year where long-term risks have been analysed in large cohorts of healthy living kidney donors and compared to those of matched healthy controls, have come to challenge the conclusions of such earlier reports.

In a first study from Norway, 1,901 living kidney donors were compared to 32,621 potentially eligible kidney donors [7]. The study showed that, amongst donors there was a significantly increased long-term risk for ESRD (0.47% vs 0.067%; hazard ratio 11.38), cardiovascular, and all-cause mortality (cumulative incidence at 25 years of 18% in donors vs. 13% in controls). It should be noted, however, that in this study a considerable proportion of the living donors were on average 8 years older and had a longer follow up compared to controls, resulting in a potential age-derived bias with regard to the development of ESRD or the incidence of death in the donor group.

Moreover, all donors with ESRD (n=9) were biologically related to their recipients and the renal disease was immunologic, suggesting the possibility of a hereditary factor. In addition, the control group derived from a restricted geographic area within Norway and was selected in a survey conducted in a limited period of



time (1984-1987), raising doubts about the appropriateness of controls.

In a second study conducted in the USA, a cohort of 96,217 living kidney donors was compared with a population of 9,364 healthy-matched non-donor controls [8]. In this study, kidney donors had an increased risk of ESRD (7 times) over a median of 7.6 years, although the magnitude of the absolute risk increase was small (0.9% vs 0.14%). In this regard, however, the absolute risk for ESRD was not based on the actual number of ESRD cases recorded during the study but was the ultimate result of a complex statistical elaboration. The 15-year cumulative incidence of ESRD was higher among older donors and African-American donors. Increased incidence in the latter group could be due to either genetic factors or to increased risk of developing comorbidities after donation (e.g. hypertension). Nevertheless, when compared to the general unselected population, living donors had much lower estimated lifetime risk of ESRD (90 cases per 10,000 in living donors vs 326 cases per 10,000 in healthy matched controls, i.e. 3.6 times lower).

In summary, a higher risk of developing ESRD among kidney donors is documented in these recent studies conducted in two large cohorts of living donors compared to their matched non-donor counterparts. The chances for living donors to develop ESRD during their lifetime appear to be marginally increased (incidence lower than 1%) though the magnitude of the absolute risk increase is small and is much lower than that of the general population. In addition, the data suggest that such an increased risk may be primarily confined to African-American donors and to a selected subgroup of biologically related donors whose recipient's ESRD was the consequence of an immune-mediated process. Moreover, both these studies present several methodological shortcomings that may have contributed to a slight overestimation of the said risk.

However, the risk of developing ESRD among kidney donors evidenced by these reports cannot be hurriedly dismissed. Furthermore, the long-term mortality risk is still controversial among studies.

Prior to any intervention, living kidney donors must be given comprehensive information as to the purpose and nature of the surgery to remove a kidney, as well as on its consequences and risks, to enable the donor to give her/his informed and free consent. Therefore, based on these recent observations, the CD-P-TO believes that complete and updated information to living donors should reflect that:

- 1) Living kidney donation is the best option for ESRD in terms of patient and graft survival, and is supe-

rior to deceased-donor kidney transplantation or dialysis;

- 2) Among all types of surgical procedures, the peri-operative mortality of kidney donation is extremely rare, occurring in 3.1 per 10,000 cases, which is 6 times less than the surgical mortality for a low risk procedure such as laparoscopic cholecystectomy;
- 3) Analysis of large donor populations in North America and Europe are not conclusive in defining the possible adjunctive long-term risk of death for living kidney donors with respect to healthy-matched non-donors;
- 4) Living kidney donor candidates should be selected among the individuals who carry the lowest risk of developing ESRD in their lifetime. While two studies have shown that this risk may increase by several fold after kidney donation (7-11 fold compared with controls), the percentage of risk still remains low (0.47% vs 0.067% [7] and 0.9% vs 0.14% [8] in living donors and controls, respectively), the absolute risk being 3.6 times less than that of developing ESRD in the general population. Such a risk appears to be primarily confined to a selected portion of the donor population that includes donors who are biologically related to recipients with immune-mediated kidney disease and black donors.
- 5) Possible factors that may predict a risk of developing ESRD in the lifetime of living kidney donors include donor co-morbidities (such as obesity, hypertension and ethnic genetic association) and age at the time of nephrectomy. In this regard, it should be noted that predicting long term outcome is more difficult in younger donors compared with older donors where the assessment of residual renal function and subsequent decline over time is more predictable. Whatever the case, the possible impact of risk factors that were identified during the evaluation process must be carefully explained to the potential donor.

Based on these data, the current opinion at the CD-P-TO is that living kidney donation should continue to be considered as a safe, acceptable and effective procedure, allowing transplantation to go ahead against a background of profound shortage of organs from deceased donors. It should also be regarded as an expression of respect for the autonomy of the donor.

It is the view of the CD-P-TO that recent studies reinforce the need for life-long follow up of donors so that risk factors for ESRD that accumulate over a lifetime can be properly assessed. Health professionals and administrations should make all efforts to increase the available evidence on the risks of donating a kidney during one's lifetime to provide potential donors with the necessary

data for properly informed consent. It is only in a climate of complete trust and transparency that healthcare professionals will increase confidence in living donation.

In this light, the CD-P-TO recommends that the above information is incorporated into discussions with donors about the risks and benefits of this generous gift, and is included in the provisions of the informed consent.

## REFERENCES

1. CTS Collaborative Transplant Study, available at [www.ctstransplant.org](http://www.ctstransplant.org)
2. Wolfe RA, Ashby VB, Milford EL, et al. Comparison of mortality in all patients on dialysis, patients on dialysis awaiting transplantation, and recipients of a first cadaveric transplant. *N Engl J Med* 1999; 341:1725.
3. Segev DL, Muzaale AD, Caffo BS, et al. Perioperative mortality and long-term survival following live kidney donation. *JAMA* 2010;303:959.
4. Dols LF, Kok NF, Roodnat JI, et al. Living kidney donors: impact of age on long-term safety. *Am J Transplant* 2011;11:737.
5. Rudge CJ. Long-term follow-up of living donors. *Transplantation* 2009;88:861.
6. Ibrahim HN, Foley R, Tan L, et al. Long-term consequences of kidney donation. *N Engl J Med* 2009;360:459.
7. Mjøen G, Hallan S, Hartmann A, et al. Long-term risks for kidney donors. *Kidney Int* 2014;86:162.
8. Muzaale AD, Massie AB, Wang MC, et al. Risk of end-stage renal disease following live kidney donation. *JAMA* 2014;311:579.

# Members of the European Committee (Partial Agreement) on Organ Transplantation (CD-P-TO)(31/03/2015)

## **Chair**

HAASE-KROMWIJK Bernadette

## **Vice-Chair**

PORTA Eliana

## **Members**

### **AUSTRIA**

MUEHLBACHER Ferdinand  
FATTINGER Bernhard  
WOREL Nina (TC)

### **BELGIUM**

COLENBIE Luc  
MUYLLE Ludo (secondment)

### **BULGARIA**

GICHEVA Maria  
DOITCHINOVA-SIMEONOVA Maryana  
AVRAMOVA Boryana (TC)

### **CROATIA**

BUSIC Mirela  
ANUSIC JURICIC Martina  
GOBULIC CEPULIC Branka (TC)

### **CYPRUS**

HADJIGAVRIEL Michalis

### **CZECH REPUBLIC**

BREZOVSKY Pavel

### **DENMARK**

CARLSEN Jorn

### **ESTONIA**

DMITRIEV Peeter  
KAARE Ain (TC)

### **FINLAND**

MAKISALO Heikki

### **FRANCE**

LAOUABDIA-SELLAMI Karim  
TESKRAT Fewzi (secondment) (TC)

### **GERMANY**

SIEPMANN Claudia  
SCHLEICHER Christina  
RAHMEL Axel  
TONJES Ralf Reinhard (TC)

### **GREECE**

MPOLETIS Ioannis

### **HUNGARY**

MIHALY Sandor

### **ICELAND**

HEIMISDOTTIR Jorlaug

### **IRELAND**

EGAN Jim  
SHERIDAN Gerard (TC)

### **ITALY**

NANNI COSTA Alessandro  
COZZI Emanuele  
MORRESI Assunta

### **LATVIA**

JUSINSKIS Janis  
LEJNIECE Sandra (TC)

### **LUXEMBURG**

JOME Laurent

### **MALTA**

ZARB ADAMI Joseph  
ABELA Carmel (TC)  
CALLEJA Paul (TC)

### **MONTENEGRO**

RATKOVIC Marina (TC)

### **NORWAY**

OYEN Ole

### **POLAND**

DANIELEWICZ Roman  
KAMINSKI Artur (TC)

### **PORTUGAL**

FRANCA Ana  
PITEIRA Rita (TC)  
BOLOTINHA Catarina (secondment)

### **ROMANIA**

ZOTA Victor  
TURCU Rosana Maria Cristina (TC)

### **SERBIA**

LONCAR Zlatibor (TC)

### **SLOVAK REPUBLIC**

DANNINGER Filip

### **SLOVENIA**

AVSEC Danica

### **SPAIN**

MATESANZ Rafael  
DOMINGUEZ-GIL Beatriz (secondment)

### **SWEDEN**

FRANZEN Carin  
STROM Helena (TC)

### **SWITZERLAND**

MOREL Philippe  
VOLZ Alexandra (TC)  
IMMER Franz

### **TURKEY**

AYDIN Mehmet Ali  
ATES Utku (TC)

### **UKRAINE**

NYKONENKO Oleksandr  
SOBOKAR Vitaliy

### **UNITED KINGDOM**

NEUBERGER James  
NORMAN Triona (TC)

## **Observers**

### **ARMENIA**

SARKISSIAN Ashot  
DAGHBASHYAN Smbat (TC)

### **BELARUS**

RUMO Aleh

### **CANADA**

AGBANYO Francisca

### **DH-BIO (BIOETHICS COMMITTEE, COUNCIL OF EUROPE)**

ARIAS-DIAZ Javier

### **DTI FOUNDATION**

MANYALICH Marti

### **EATB (EUROPEAN ASSOCIATION OF TISSUE BANKS)**

JASHARI Ramadan

### **ESOT (EUROPEAN SOCIETY FOR ORGAN TRANSPLANTATION)**

PLOEG Rutger

### **EUROPEAN COMMISSION**

LE-BORGNE H el ene  
SISKA Ioana-Raluca (TC)

### **GEORGIA**

TOMADZE Gia

### **HOLY SEE**

Mgr RALLO Vito

### **ISRAEL**

ASHKENAZI Tamar

### **MOLDOVA**

CODREANU Igor

### **RUSSIAN FEDERATION**

GABBASOVA Lyalya  
NIKOLAEV German

### **SAT (SOUTH-EUROPE ALLIANCE FOR TRANSPLANTS)**

CHATZIXIROU Efstratios

### **SCANDIATRANSPLANT**

HOCKERSTEDT Krister

### **TTS (THE TRANSPLANTATION SOCIETY)**

DELMONICO Francis  
KUYPERS Dirk

### **UNOS (UNITED NETWORK FOR ORGAN SHARING)**

PRUETT Timothy

### **USA**

WITTEN Celia

### **WHO (WORLD HEALTH ORGANISATION)**

NU EZ Jose R.

The Council of Europe Newsletter Transplant provides international figures on organ, tissue and haematopoietic stem cell donation and transplantation, waiting lists and family refusals. This work is carried out under the aegis of the European Committee on Organ Transplantation (CD-P-TO) and co-ordinated by the Spanish National Transplant Organisation (ONT). The information is collected annually through a worldwide network of officially designated individuals (focal points) nominated by their national Ministries of Health.

For many years, the Newsletter Transplant has been the only international registry of its kind. The first edition, published in 1996, included information from 16 countries. Nowadays, data from over 70 countries provide a comprehensive overview of the donation and transplantation field in Europe and beyond, being a reliable source of information for health professionals in the field and allowing for analysis of the evolution of donation and transplantation activities and the effect of policy changes. In addition, the Newsletter Transplant provides data to the World Health Organization (WHO) Global Observatory on Donation and Transplantation (GODT) and the Action Plan Indicator Exercise from the European Commission.

ENG

[www.edqm.eu](http://www.edqm.eu)

The EDQM is a directorate of the Council of Europe, an international organisation founded in 1949 that covers almost the entire continent of Europe. The Council of Europe aims to develop common democratic and legal principles based on the European Convention on Human Rights and other reference texts on the protection of individuals.

ISSN 2171-4118

Free copies of the paper version can be ordered at <https://store.edqm.eu>

