

Annual report 2014



Founded 1969 by the Nordic Council

Scandiatransplant office

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Introduction

This annual report 2014 from the Scandiatransplant Office is intended to present a summary of the activities within the Association Scandiatransplant in 2014. It was a good year with an increase in number of donors and transplantations.

Organisation

Scandiatransplant is the Organ Exchange Organisation (OEO) of the five Nordic countries: Iceland, Norway, Sweden, Finland, and Denmark. It is an association and the members are the 10 hospitals performing organ transplantation in these countries. According to the articles the objectives of the association is to:

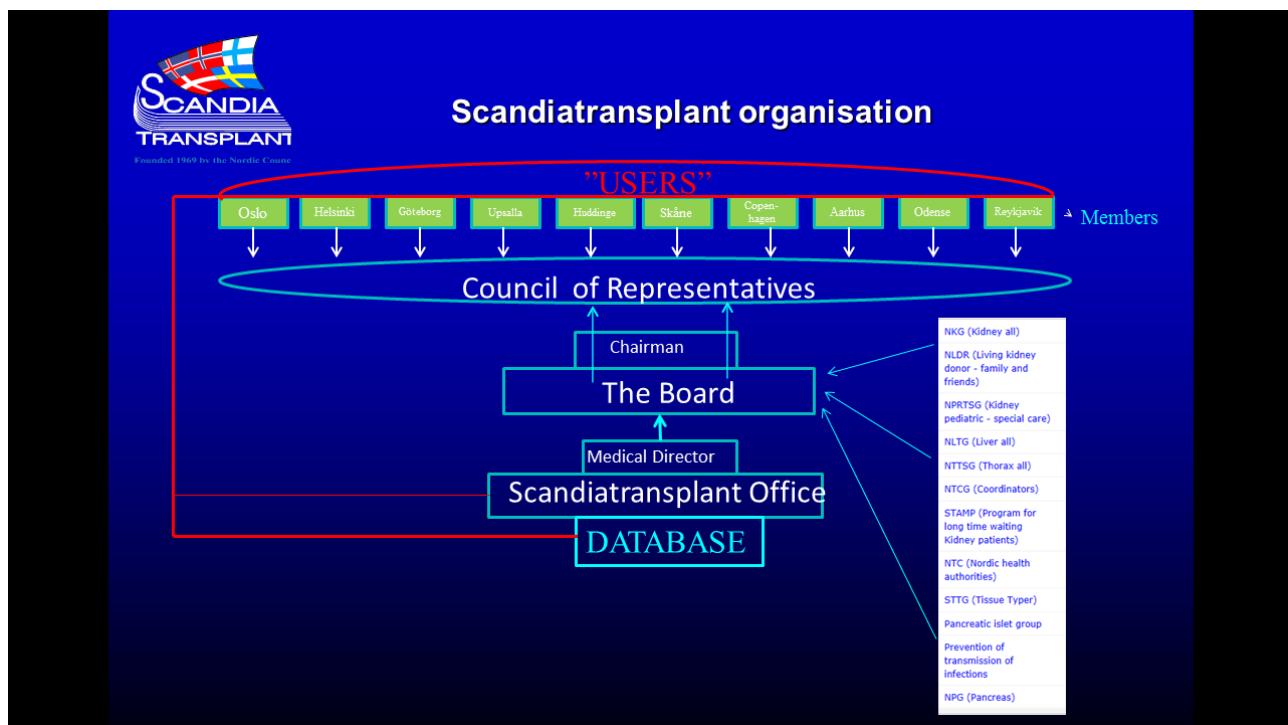
- to operate as an intermediary in the exchange of human organs and tissue for use by the Association's members in connection with transplantation,
- to develop European cooperation on organ donation and transplantation through maintenance of contacts with other European organ exchange organisations,
- to maintain dialogue with the health authorities in the Nordic countries concerning organ donation and transplantation,
- to operate a database on organ donation and transplantation and communicate optimum information from the database to the Association's members,
- to contribute to promoting the provision of human organs and tissue for use by the Association's members in connection with transplantation,
- to support scientific activities in accordance with the above-mentioned objectives subject to the guidelines laid down by the Council of Representatives.

The members elect representatives to the Council, which is the association's supreme authority. It approves the members of the board, which represent all the countries, and is responsible for the day to day operations of the association. Suggestions for the activity and allocation rules are brought forward to the board from a number groups and committees.

During 2014 the council had 35 representatives. The chairman of the board was Krister Höckerstedt, Finland and the board members were: Lars Wennberg, Sweden; Helena Isoniemi, Finland; Pål-Dag Line, Norway; Finn Gustafsson, Denmark; and Runólfur Pálsson, Iceland until September when Margrét Andrésdóttir, Iceland again joined the board after her leave.

The Scandiatransplant Office is located at Aarhus University Hospital, Denmark. At the end of 2014 the staff consisted of 8 people in all, 4 full-time, 3 part-time and 1 student programmer. Our programmer through many years, the man who kept the “old system” running, Christian Mondrup, left the Office on August 31st for retirement. The primary task of the office is to maintain and develop the database holding data on all patients enlisted for organ transplantation in the Nordic countries. The database is accessible 24/7 for all health personnel at the member hospital performing organ retrieval and transplantation ensuring correct allocation of organs. In addition to this primary task the Scandiatransplant Office takes care many other tasks such as running follow-up registries, educate and support users, arranged meetings for council, board, groups and committees, comply with demands from owners, researchers, authorities and the public, participate in meetings with local health competent authorities, EU-commission and EU projects.

The total expenses (5.172 mill. DDK) were kept within the 2014 budget of 5.5 mill. DDK (737.000 EUROS) financed by the member hospitals.



The organisation of the Association Scandiatransplant.

Activities in the organisation in 2014

At the 2014 meeting of the Council of Representatives May 7th a mandate was given to form a working group to make a thorough revision of the Articles of the Association Scandiatransplant. The original Articles were adopted at the founding Assembly of Representatives in Copenhagen on 25 August 1993 and only minor revisions have been done since then. The working group was formed and consisted of the board, Lars Bäckman (Nordic Kidney Group), Allan Rasmussen (Nordic Transplant Liver Group), Martin Iversen (Nordic Thoracic Transplant Study Group), Bjarne Møller (Nordic Tissue Typer Group), Kaj Anker Jørgensen (group secretary, Medical Director, Scandiatransplant), Peder Christian Nørgaard (Scandiatransplant programmer) and two lawyers to assist with legal questions: Rasmus Grønbæk Jacobsen (Central Region Denmark) and Michael Sommer, who is an expert on legal matters regarding associations. The group had their first meeting on December 9th. The mandate is to come with suggestions for alterations of the articles to the council meeting in 2016, but a status of the groups work should be given and discussed at a council meeting May 2015.

The chairman of the board, the board, the Medical Director, and members of the staff at the office have all participated in meetings with the EU-commission, about EU-projects, and with the competent healthy authorities (CA) of the 5 Nordic countries. The board has made a proposal to CA to let Scandiatransplant be the place, where serious adverse events and adverse events related to organ donation and transplantation are registered and thereafter sent to the local competent authorities. The proposal has not yet been accepted by the CA.

The chairman, board and Medical Director have had meetings with the health competent authorities, the leadership of Aarhus University Hospital and EU to clarify their relationship to Scandiatransplant.

At the Office the top priority has been given developing the new Scandiatransplant user interface, which has been named "YASWA". At the same time effort is still put into keeping everything functioning 24/7

Transplantation and organ procurement activity

The year 2014 has been a good year for organ transplantation in the five Nordic countries due the increase in the number of utilized deceased donors. In this report we have chosen to present some key figures and compare some of them with data from 2005 and onwards showing the last ten year period.

First we looked at the total number of transplanted patients and compared with the number of patients on the waiting list at the end of the year. Although 2014 was the year with most transplantations, the demand has also increased so that at the end of 2014, there was also the highest number of patients on the waiting list.

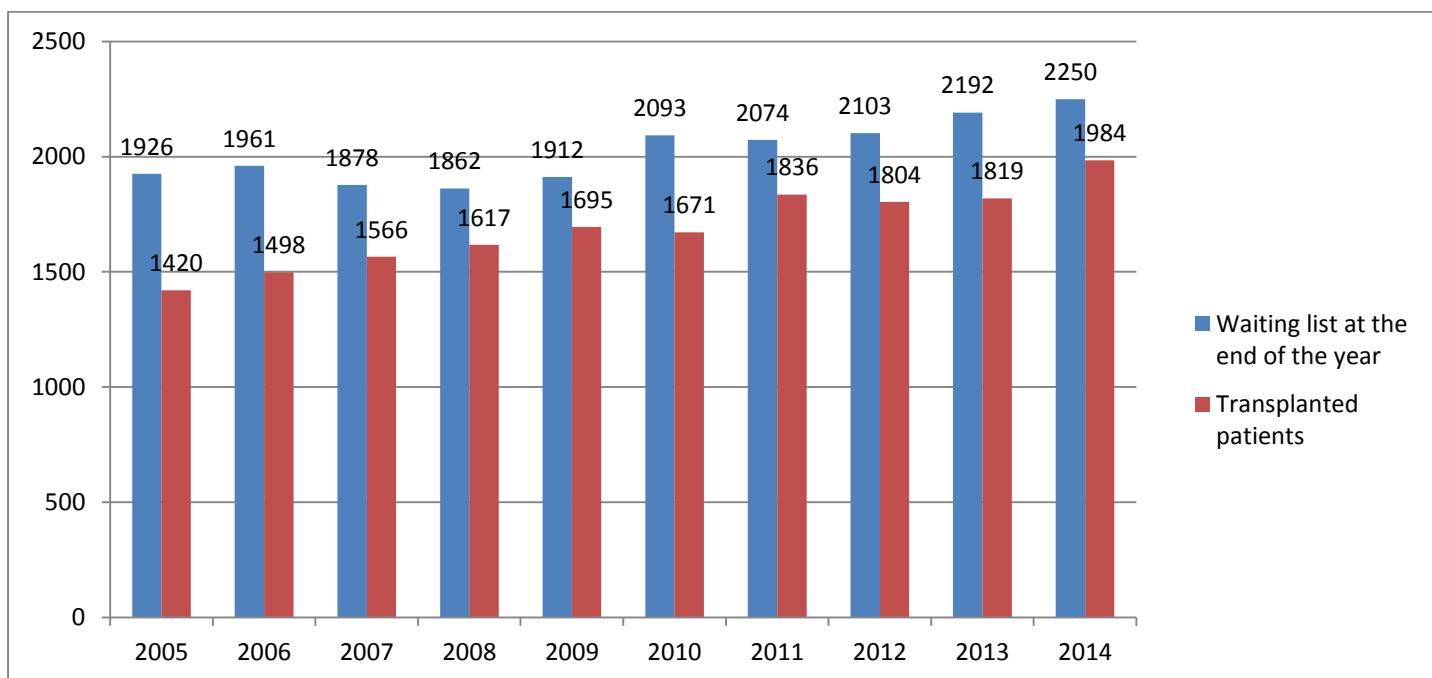
In 2014 the number utilized donors was the highest in the 10-year period for the whole Scandiatransplant area and for all the Nordic countries except Iceland in actual numbers and PMP (per million population). The number organs used per donor, the age and demographics of the donors have not changed significantly during the ten year period. Thereafter we present data for the different organs.

Further presentation of Scandiatransplant data is available in the annual slideshow:

http://www.scandiatransplant.org/resources/dias2014_v2.pdf

Total transplanted and waiting patients¹ within Scandiatransplant

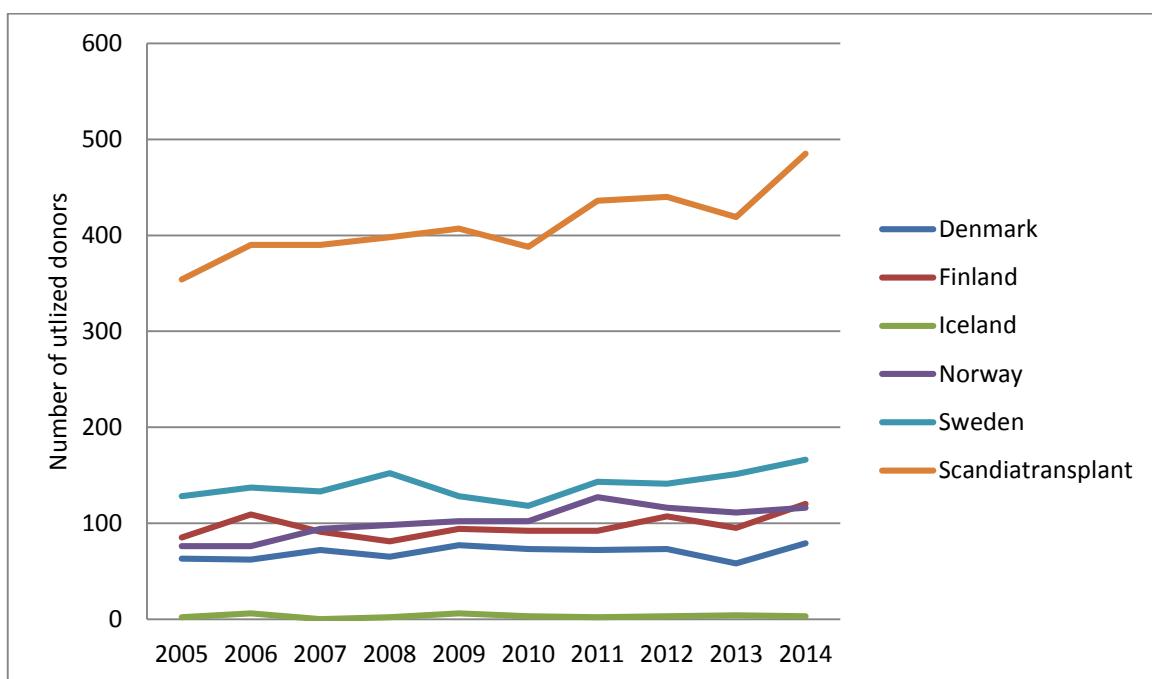
	Waiting	Transplanted
2005	1926	1420
2006	1961	1498
2007	1878	1566
2008	1862	1617
2009	1912	1695
2010	2093	1671
2011	2074	1836
2012	2103	1804
2013	2192	1819
2014	2250	1984



¹ Including transplantation and waiting list figures for kidney, heart, liver, lung and pancreas.

Utilized deceased donors² in numbers in Scandiatransplant

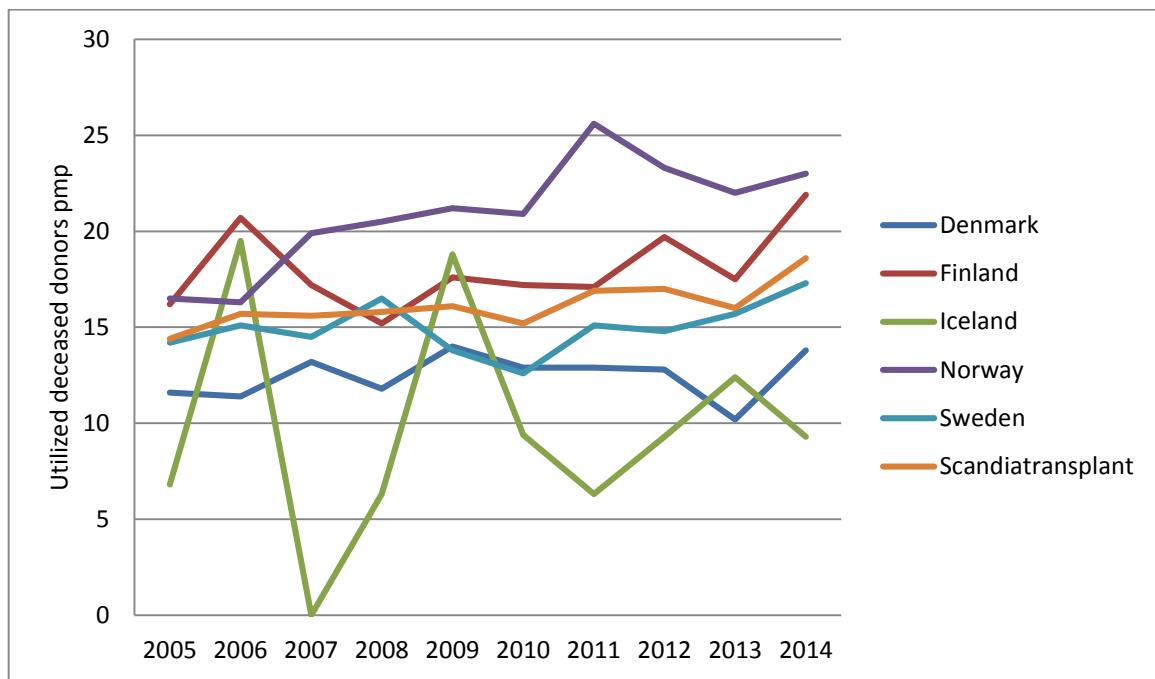
	Denmark	Finland	Iceland	Norway	Sweden	Scandiatransplant
2005	63	85	2	76	128	354
2006	62	109	6	76	137	390
2007	72	91	0	94	133	390
2008	65	81	2	98	152	398
2009	77	94	6	102	128	407
2010	73	92	3	102	118	388
2011	72	92	2	127	143	436
2012	73	107	3	116	141	440
2013	58	95	4	111	151	419
2014	79	120	3	116	166	485
2013/2014	+36,21%	+26,32%	-25,00%	+4,50%	+9,93%	+15,75%



²Definition of utilized donor: An actual donor from whom at least one solid organ was transplanted.
http://www.scandiatransplant.org/news/News_ticker_1_ver_2.pdf

Utilized deceased donors pmp³ in Scandiatransplant

	Denmark	Finland	Iceland	Norway	Sweden	Scandiatransplant
2005	11,6	16,2	6,8	16,5	14,2	14,4
2006	11,4	20,7	19,5	16,3	15,1	15,7
2007	13,2	17,2	0	19,9	14,5	15,6
2008	11,8	15,2	6,3	20,5	16,5	15,8
2009	14,0	17,6	18,8	21,2	13,8	16,1
2010	12,9	17,2	9,4	20,9	12,6	15,2
2011	12,9	17,1	6,3	25,6	15,1	16,9
2012	12,8	19,7	9,3	23,3	14,8	17,0
2013	10,2	17,5	12,4	22,0	15,7	16,0
2014	13,8	21,9	9,3	23,0	17,3	18,6



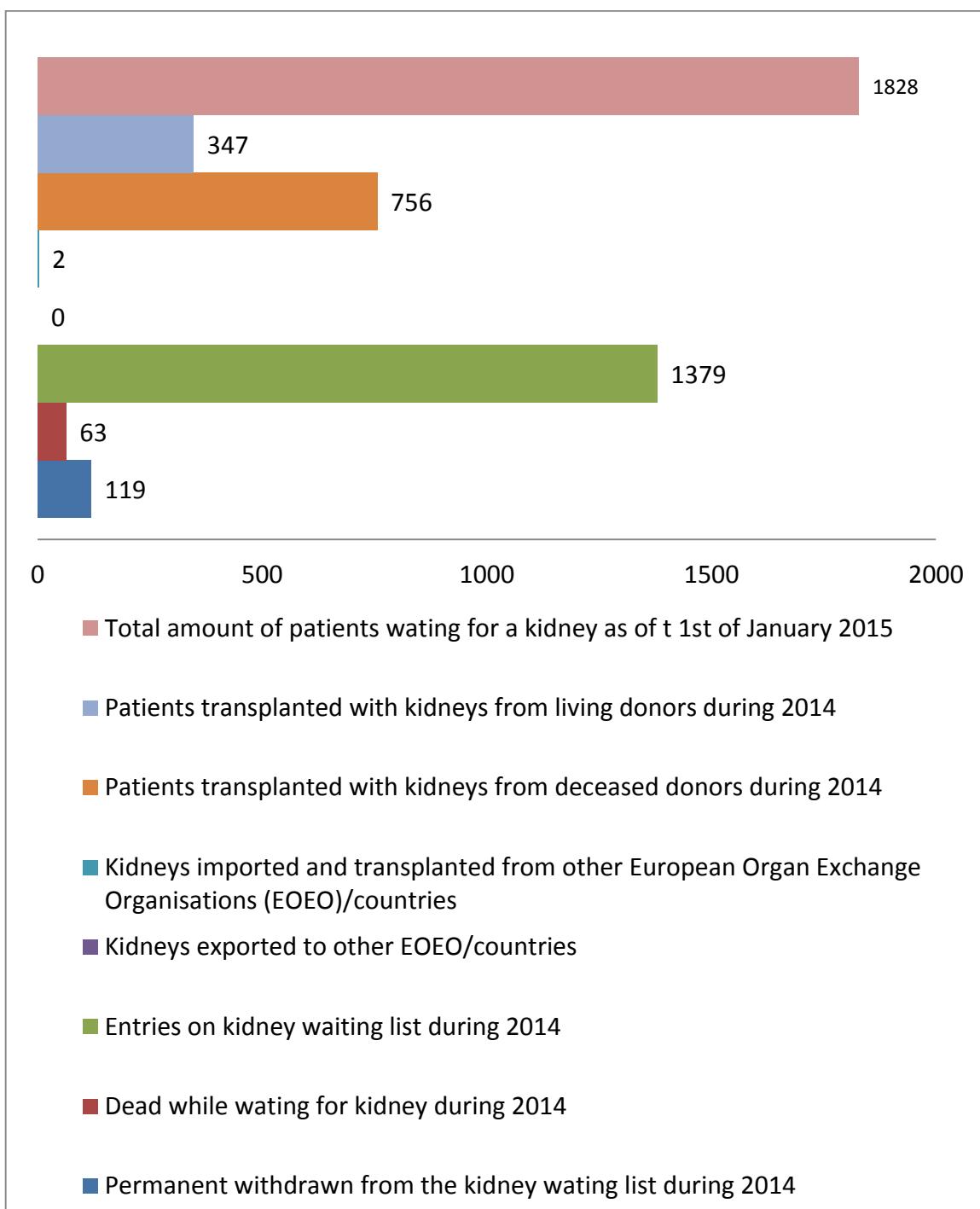
³ pmp: per million population

Deceased donor demographics

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Organs transplanted per donor⁴	4,0	3,8	4,0	4,1	4,2	4,3	4,2	4,1	4,3	4,1
Age (Years)										
Median	54	52	53	54	54	53	55	56	57	57
Min	1	1	0	1	1	0	0	0	1	3
Max	84	83	86	83	88	81	86	88	86	86
ABO blood type (%)										
A	48	46	44	46	49	47	39	44	46	46
B	12	11	10	9	10	11	13	8	13	11
AB	6	2	4	4	5	4	5	4	5	3
O	35	41	42	41	35	38	43	43	37	40
Weight (Kg)										
Median	75	75	75	75	75	75	75	75	77	75
Min	12	11	8	9	13	4	5	4	12	13
Max	135	200	197	130	217	200	140	195	140	185
Height (cm)										
Median	173	172	175	174	172	175	175	174	175	174
Min	70	85	67	73	90	55	55	60	84	60
Max	200	200	200	204	195	205	196	202	200	198
Gender (%)										
Female	47	45	46	46	48	46	43	45	45	45
Male	53	55	54	54	52	54	57	55	55	55

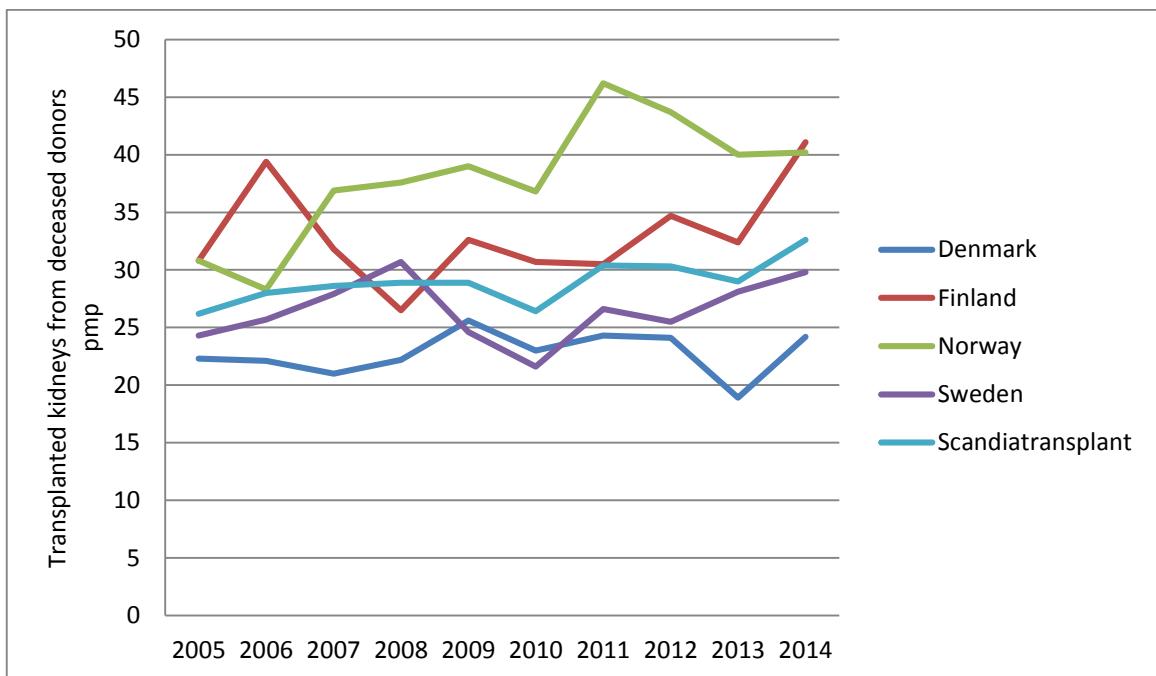
⁴ Organs included Kidneys, Hearts, lungs (each single lung transplanted are counted), livers (each split liver transplanted are counted) and pancreas.

Kidneys 2014



Transplanted kidneys pmp⁵ from deceased donors per year

	Denmark	Finland	Norway	Sweden	Scandiatransplant
2005	22,3	30,8	30,8	24,3	26,2
2006	22,1	39,4	28,3	25,7	28,0
2007	21,0	31,8	36,9	27,9	28,6
2008	22,2	26,5	37,6	30,7	28,9
2009	25,6	32,6	39,0	24,6	28,9
2010	23,0	30,7	36,8	21,6	26,4
2011	24,3	30,5	46,2	26,6	30,4
2012	24,1	34,7	43,7	25,5	30,3
2013	18,9	32,4	40,0	28,1	29
2014	24,2	41,1	40,2	29,8	32,6



⁵ pmp: per million population

Demographics of recipients transplanted with kidney from deceased donor

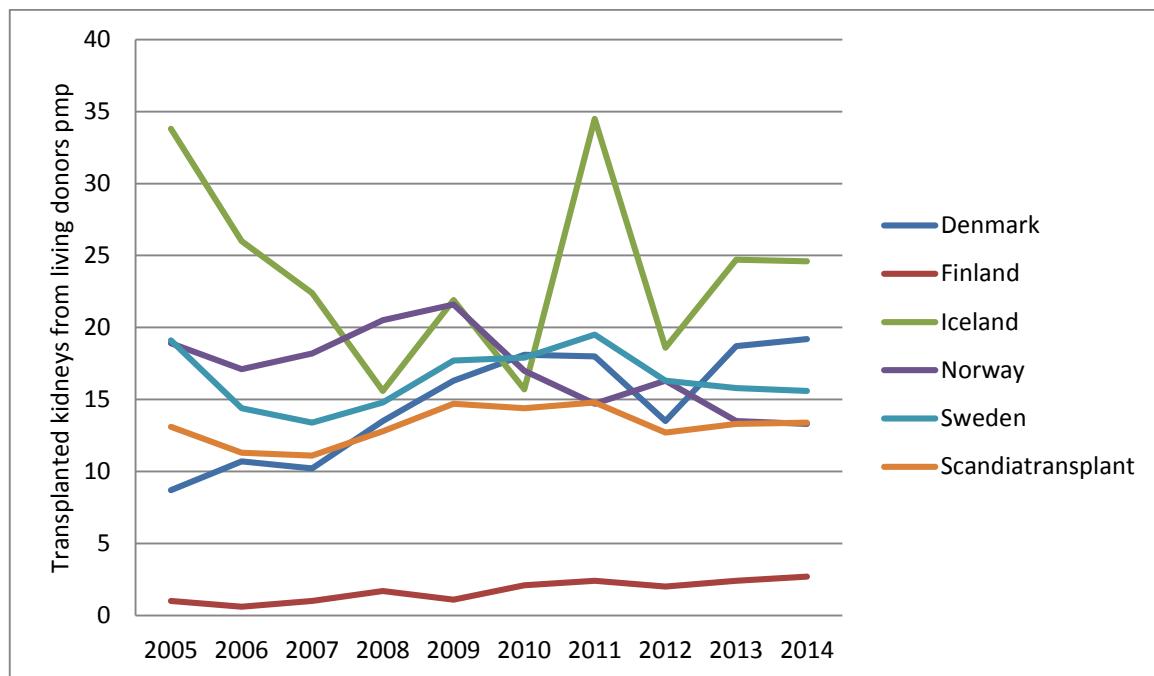
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Age at transplantation (Years)										
Median	53	52	53	54	55	55	55	56	57	55
Min	1	1	1	1	1	2	2	1	1	1
Max	80	82	82	82	81	81	83	81	81	80
ABO blood group (%)										
A	49	45	43	46	48	48	39	45	45	46
B	13	10	11	10	12	11	17	9	14	13
AB	6	5	7	6	7	7	7	5	8	5
O	33	41	39	37	32	34	36	41	33	36
Transplantation number (%)										
1	84,8	84,4	85,8	83,9	83,5	87,7	84,7	83,1	85,9	83,1
2	12,4	12,7	11,1	13,3	12,9	9,9	13,1	13,5	11,6	13,6
3	2,3	2,4	2,5	2,0	3,3	1,6	1,7	2,4	1,9	2,8
4	0,5	0,1	0,6	0,6	0,3	0,6	0,6	0,8	0,4	0,5
5	0,0	0,3	0,0	0,1	0,0	0,2	0,0	0,1	0,1	0,0
Latest HLA immunization before transplantation⁶ (%)										
High immunized	4,2	5,7	4,0	3,9	5,6	4,1	6,1	9,1	7,3	9,1
Immunized	17,0	18,6	16,4	19,5	15,9	11,8	16,1	12,6	13,4	13,0
Low immunized ⁷	0,0	0,0	0,0	0,0	0,0	0,0	0,3	6,0	5,9	6,9
Not immunized	70,3	69,6	73,1	71,0	71,4	75,3	71,7	64,3	65,3	58,6
Previous immunized	7,5	7,5	6,6	5,6	7,1	8,8	5,9	8,1	8,1	12,5
Gender (%)										
Female	36	35	37	35	35	35	36	35	35	36
Male	67	65	63	65	65	65	64	65	65	64

⁶ Antibodies towards tissue types

⁷ Low immunized was introduced in 2011, before this date these were counted as ‘Not immunized’

Transplanted kidneys pmp⁸ from living donors per year

	Denmark	Finland	Iceland	Norway	Sweden	Scandiatransplant
2005	8,7	1,0	33,8	18,9	19,1	13,1
2006	10,7	0,6	26,0	17,1	14,4	11,3
2007	10,2	1,0	22,4	18,2	13,4	11,1
2008	13,5	1,7	15,6	20,5	14,8	12,8
2009	16,3	1,1	21,9	21,6	17,7	14,7
2010	18,1	2,1	15,7	17,0	17,9	14,4
2011	18,0	2,4	34,5	14,7	19,5	14,8
2012	13,5	2,0	18,6	16,3	16,3	12,7
2013	18,7	2,4	24,7	13,5	15,8	13,3
2014	19,2	2,7	24,6	13,3	15,6	13,4

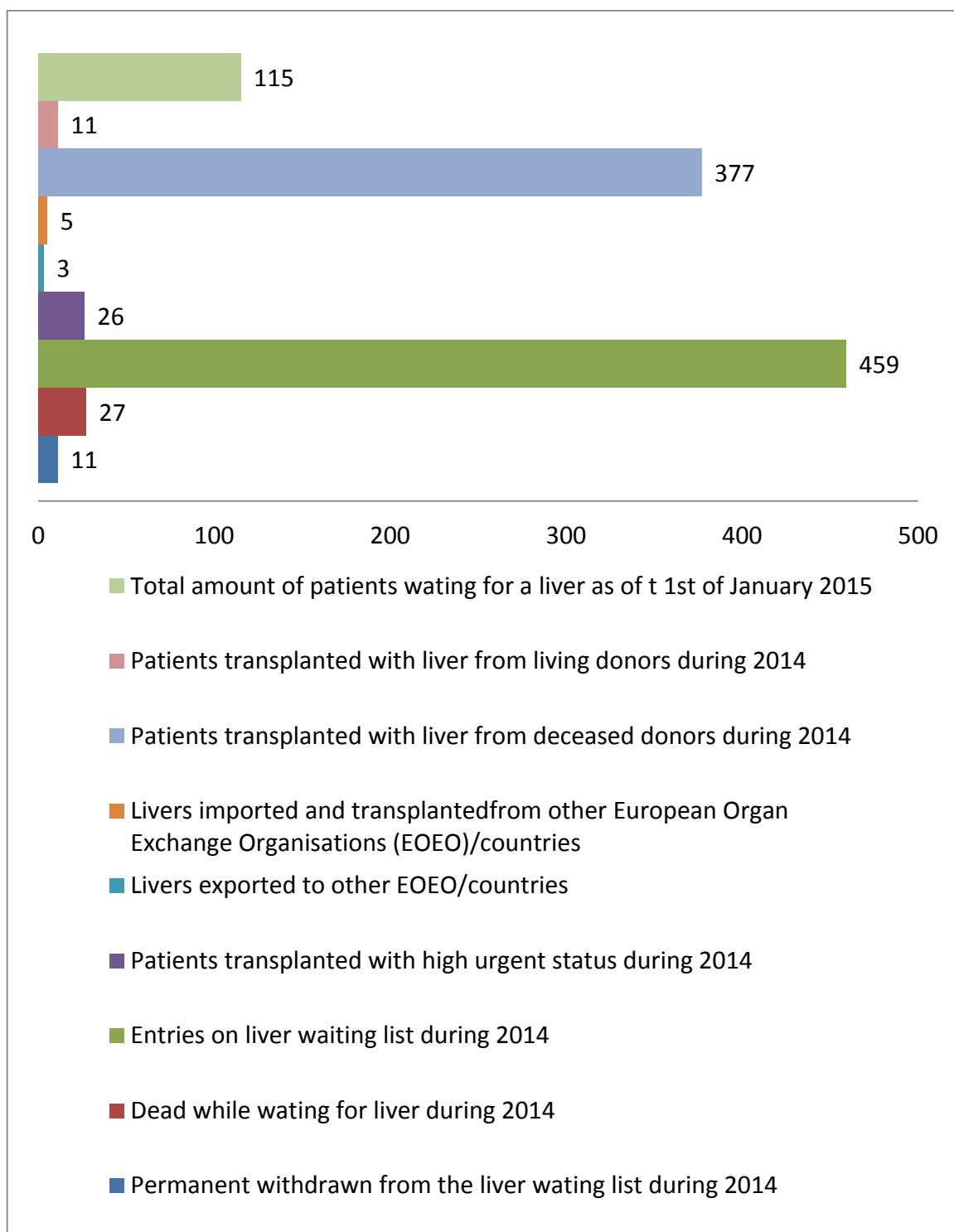


⁸ pmp: per million population

Demographics of recipients transplanted with kidney from living donors

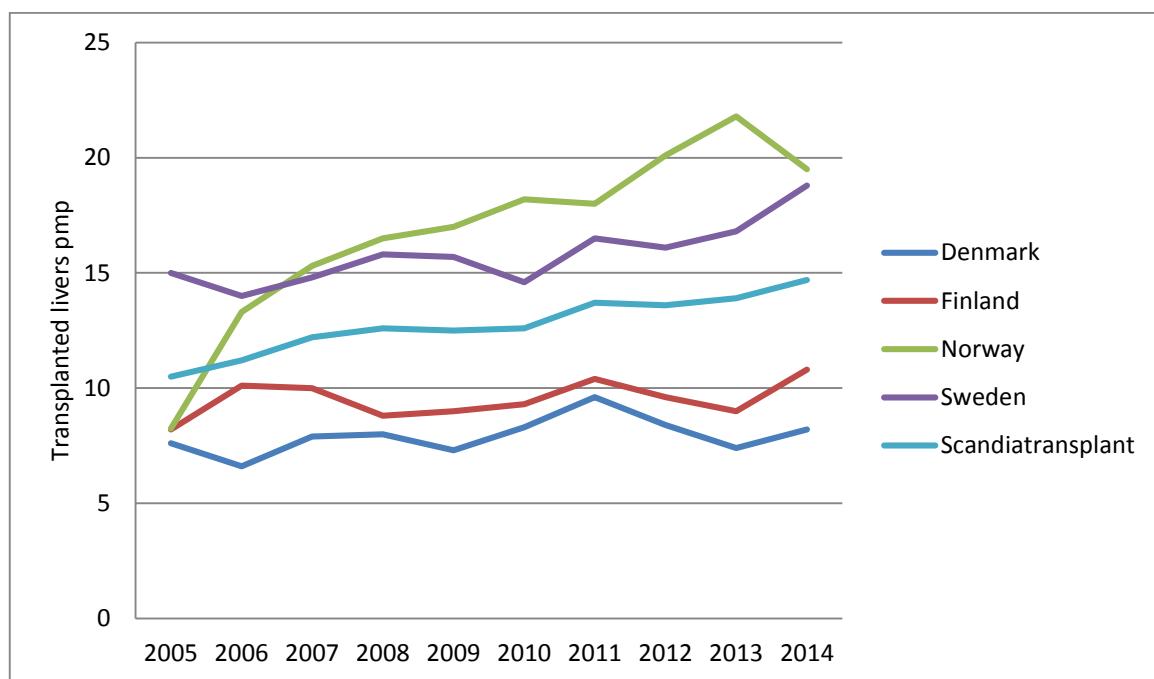
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Age at transplantation (Years)										
Median	42	41	42	44	46	45	44	46	46	47
Min	1	0	1	0	1	1	1	1	0	0
Max	75	75	73	74	78	79	72	77	77	79
ABO blood group (%)										
A	40	44	43	46	47	44	45	45	44	48
B	10	13	11	11	12	11	10	11	11	8
AB	6	4	4	3	5	4	4	5	6	5
O	44	39	42	40	36	41	41	39	39	39
Transplantation number (%)										
1	92,0	89,2	89,1	87,0	90,8	88,6	88,2	90,6	90,2	90,2
2	7,3	10,0	8,0	10,6	7,3	8,7	10,0	6,4	8,1	6,9
3	0,6	0,4	2,5	1,9	1,4	2,7	1,6	2,4	1,4	2,9
4	0,0	0,4	0,4	0,6	0,5	0,0	0,3	0,6	0,0	0,0
5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,0
Gender (%)										
Female	37	33	38	38	33	38	33	34	34	34
Male	63	67	62	62	67	62	67	66	66	66

Livers 2014



Transplanted livers (Deceased and living donors) pmp⁹ per year

	Denmark	Finland	Norway	Sweden	Scandiatransplant
2005	7,6	8,2	8,2	15,0	10,5
2006	6,6	10,1	13,3	14,0	11,2
2007	7,9	10,0	15,3	14,8	12,2
2008	8,0	8,8	16,5	15,8	12,6
2009	7,3	9,0	17,0	15,7	12,5
2010	8,3	9,3	18,2	14,6	12,6
2011	9,6	10,4	18,0	16,5	13,7
2012	8,4	9,6	20,1	16,1	13,6
2013	7,4	9,0	21,8	16,8	13,9
2014	8,2	10,8	19,5	18,8	14,7



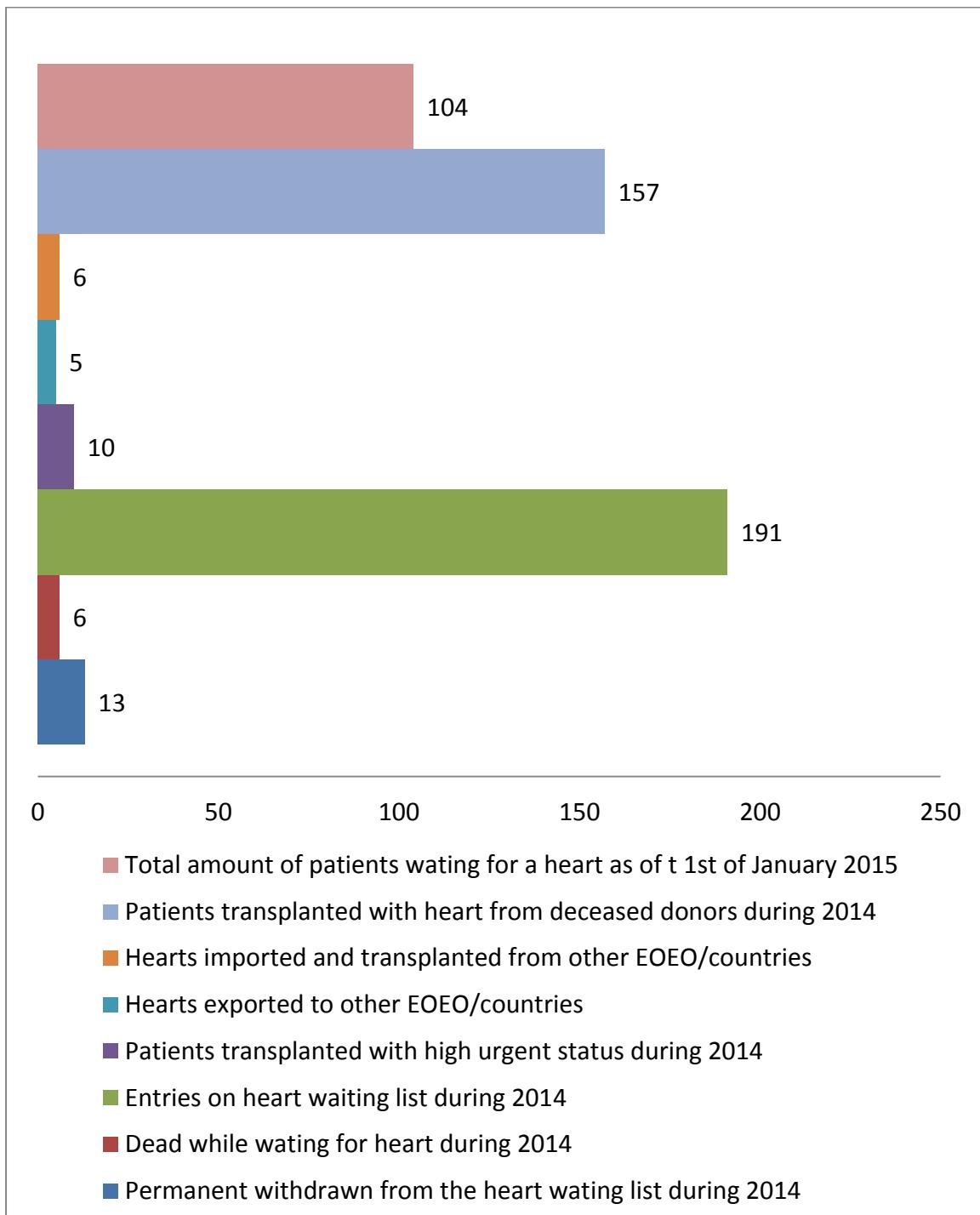
⁹ pmp: per million population

Demographics of recipients transplanted with liver

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Age at transplantation (Years)										
Median	51	49	51	52	50	53	52	50	54	53
Min	0	0	0	0	0	0	0	0	0	0
Max	73	71	73	71	73	73	75	72	72	73
ABO blood group (%)										
A	54	44	44	54	51	40	40	48	47	44
B	11	9	16	9	13	14	14	12	15	13
AB	5	8	6	4	6	7	6	7	6	3
O	30	39	34	33	30	39	40	33	32	40
Transplantation number (%)										
1	87,3	89,8	91,5	89,2	88,7	87,9	87,5	92,0	89,8	91,6
2	12,3	7,9	6,1	9,2	9,0	9,8	10,2	7,2	9,1	7,1
3	0,4	2,3	2,0	1,6	1,9	1,9	1,7	0,6	0,8	1,3
4	0,0	0,0	0,3	0,0	0,3	0,3	0,6	0,6	0,3	0,0
Donor type (%)										
Deceased	95,5	96,2	97,3	95,7	96,8	95,3	97,9	96,9	96,9	97,1
Living	1,2	2,3	1,0	2,0	0,6	2,5	1,2	2,0	1,4	1,6
Domino	3,3	1,5	1,7	2,3	2,6	2,2	0,9	1,1	1,7	1,3
Urgency¹⁰ (%)										
High urgent	8	14	10	10	9	10	9	9	8	7
Gender (%)										
Female	44	41	37	45	44	42	36	44	34	39
Male	56	59	63	55	56	58	64	56	66	61

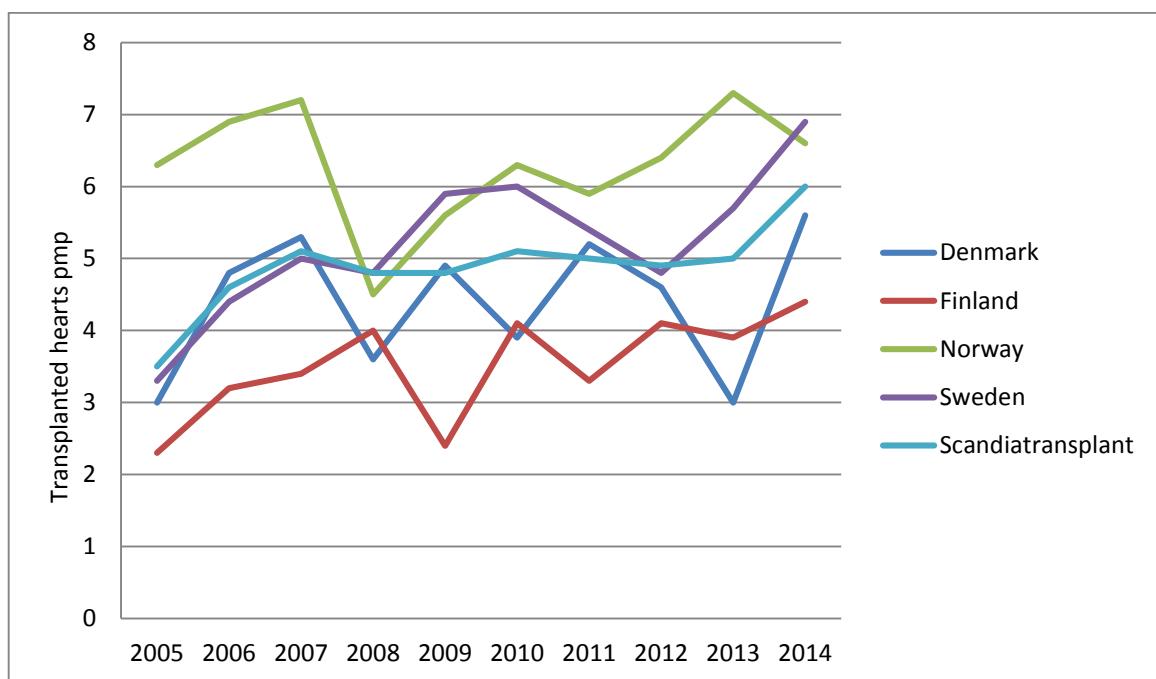
¹⁰ Liver exchange guidelines and urgency definitions: http://www.scandiatransplant.org/organ-allocation/liver_rotation_manual_27jun2011.pdf

Hearts 2014



Transplanted hearts pmp¹¹ per year

	Denmark	Finland	Norway	Sweden	Scandiatransplant
2005	3,0	2,3	6,3	3,3	3,5
2006	4,8	3,2	6,9	4,4	4,6
2007	5,3	3,4	7,2	5,0	5,1
2008	3,6	4,0	4,5	4,8	4,8
2009	4,9	2,4	5,6	5,9	4,8
2010	3,9	4,1	6,3	6,0	5,1
2011	5,2	3,3	5,9	5,4	5,0
2012	4,6	4,1	6,4	4,8	4,9
2013	3,0	3,9	7,3	5,7	5,0
2014	5,6	4,4	6,6	6,9	6,0



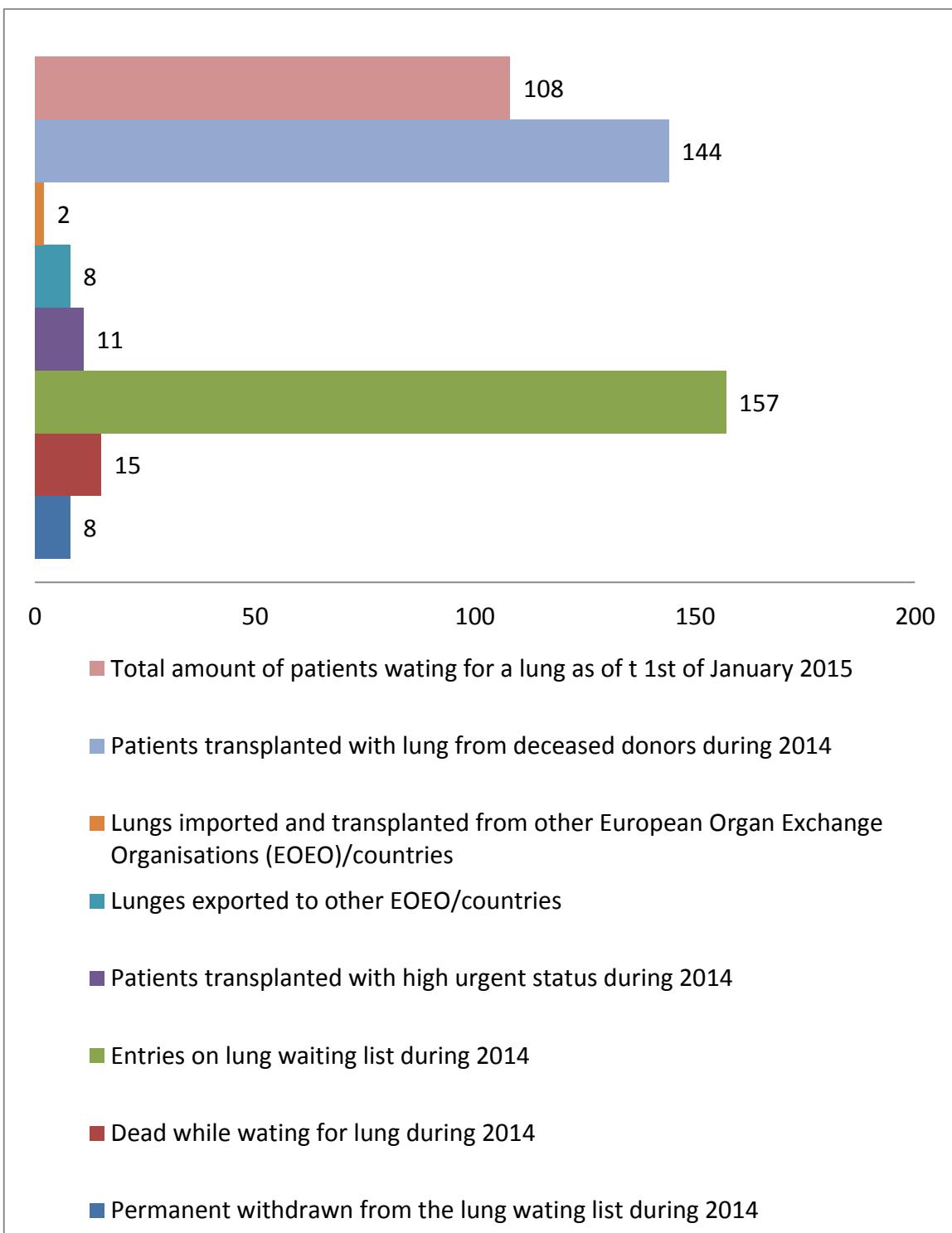
¹¹ pmp: per million population

Demographics of recipients transplanted with heart

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Age at transplantation (Years)										
Median	48	53	49	48	50	51	51	51	52	51
Min	0	0	0	0	0	0	1	1	1	0
Max	67	68	65	70	67	69	68	70	70	71
ABO blood group (%)										
A	44	49	50	48	53	38	49	42	50	48
B	17	13	9	16	12	13	14	10	16	12
AB	7	3	8	6	7	8	6	6	7	7
O	32	35	33	30	28	41	31	42	27	33
Transplantation number (%)										
1	98,9	99,1	95,6	97,5	95,9	96,2	98,4	99,2	99,2	96,2
2	1,1	0,9	5,4	2,5	4,1	3,8	1,6	0,8	0,8	3,8
Urgency¹² (%)										
High Urgent (Priority 0)	12	5	11	8	15	9	8	9	7	8
Gender (%)										
Female	22	33	27	36	25	32	29	28	28	42
Male	78	67	73	64	75	68	71	72	72	58

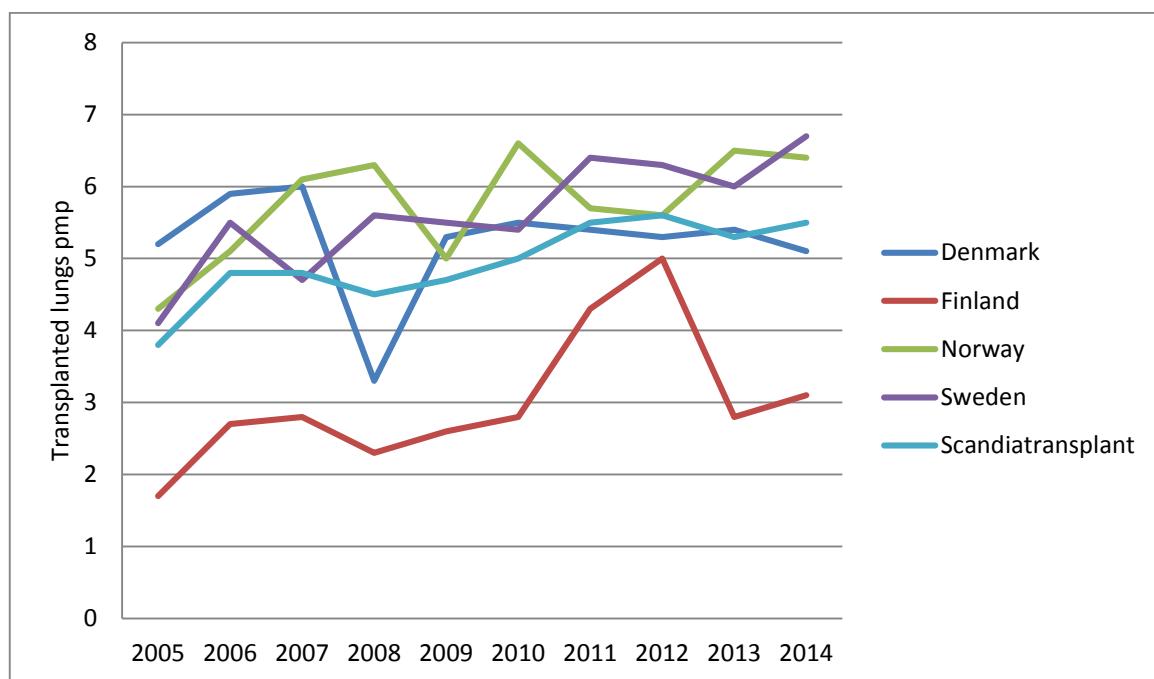
¹² Heart exchange guidelines and urgency definitions: <http://www.scandiatransplant.org/organ-allocation/GuidelinesforThoraxOrganExchangeintheScandiatransplantArea.pdf>

Lungs 2014



Transplanted lungs (Double, single and heart-lung) pmp¹³ per year

	Denmark	Finland	Norway	Sweden	Scandiatransplant
2005	5,2	1,7	4,3	4,1	3,8
2006	5,9	2,7	5,1	5,5	4,8
2007	6,0	2,8	6,1	4,7	4,8
2008	3,3	2,3	6,3	5,6	4,5
2009	5,3	2,6	5,0	5,5	4,7
2010	5,5	2,8	6,6	5,4	5,0
2011	5,4	4,3	5,7	6,4	5,5
2012	5,3	5,0	5,6	6,3	5,6
2013	5,4	2,8	6,5	6,0	5,3
2014	5,1	3,1	6,4	6,7	5,5



¹³ pmp: per million population

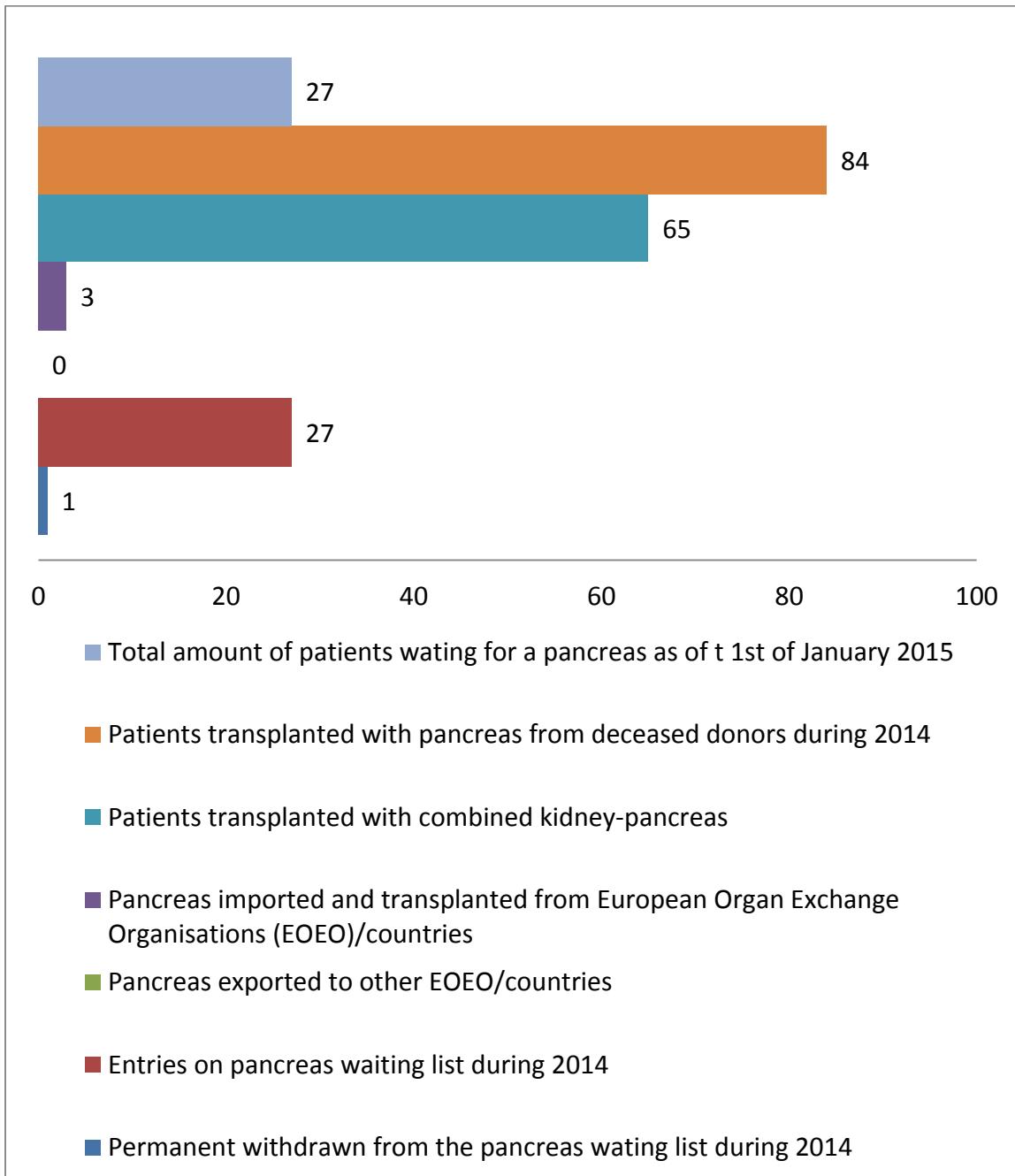
Demographics of recipients transplanted with lung

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Age at transplantation (Years)										
Median	55	52	54	56	52	53	54	54	55	55
Min	13	14	14	20	12	16	17	11	13	8
Max	70	66	67	69	73	67	70	68	68	69
ABO blood group (%)										
A	44	51	48	51	55	53	44	43	52	47
B	13	9	9	7	8	8	11	12	11	13
AB	6	1	3	5	5	6	8	5	5	7
O	37	39	40	37	32	33	37	40	32	33
Transplantation number (%)										
1	96,8	98,3	95,9	93,7	91,5	96,1	94,3	93,7	94,9	93,1
2	3,2	1,7	3,3	6,3	8,5	3,9	5,0	6,3	5,1	6,9
3	0,0	0,0	0,8	0,0	0,0	0,0	0,7	0,0	0,0	0,0
Urgency ^{14 15}										
High urgent (Priority 0)					1,7	0,8	1,4	3,5	3,6	4,2
Urgent (Priority 1)					3,4	4,7	6,4	6,3	5,8	3,5
Gender (%)										
Female	61	47	48	42	48	49	51	45	45	51
Male	39	53	52	58	52	51	49	55	55	49

¹⁴ The urgent lung list was introduced in 2009

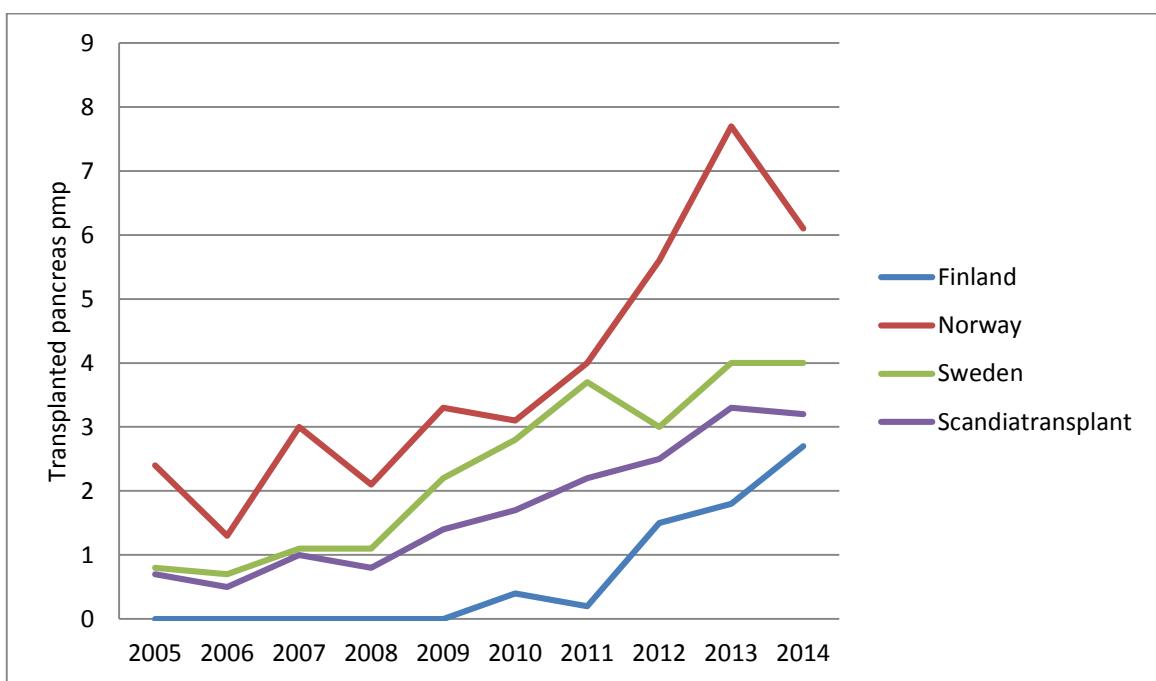
¹⁵ Lung exchange guidelines and urgency definitions: <http://www.scandiatransplant.org/organ-allocation/GuidelinesforThoraxOrganExchangeintheScandiatransplantArea.pdf>

Pancreas 2014



Transplanted pancreas pmp¹⁶ per year

	Finland	Norway	Sweden	Scandiatransplant
2005	0	2,4	0,8	0,7
2006	0	1,3	0,7	0,5
2007	0	3,0	1,1	1,0
2008	0	2,1	1,1	0,8
2009	0	3,3	2,2	1,4
2010	0,4	3,1	2,8	1,7
2011	0,2	4,0	3,7	2,2
2012	1,5	5,6	3,0	2,5
2013	1,8	7,7	4,0	3,3
2014	2,7	6,1	4,0	3,2



¹⁶ pmp: per million population

Demographics of recipients transplanted with pancreas

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Age at transplantation (Years)										
Median	39	45	40	44	43	42	43	42	44	43
Min	25	36	20	27	27	24	27	16	20	12
Max	58	59	49	55	56	56	63	61	67	63
ABO blood group (%)										
A	38	58	43	55	44	40	36	41	44	43
B	6	9	5	25	9	7	15	14	13	17
AB	0	0	0	0	9	7	2	6	9	2
O	56	33	52	20	38	47	47	39	34	38
Transplantation number (%)										
1	100	100	100	100	100	100	96,4	98,4	100	97,6
2	0,0	0,0	0,0	0,0	0,0	0,0	3,6	1,6	0,0	2,4
Gender (%)										
Female	25	25	43	30	41	26	42	36	40	38
Male	75	75	57	70	59	74	58	64	60	62

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