

Current landscape of organ donation and transplantation

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Statistics and Clinical Research

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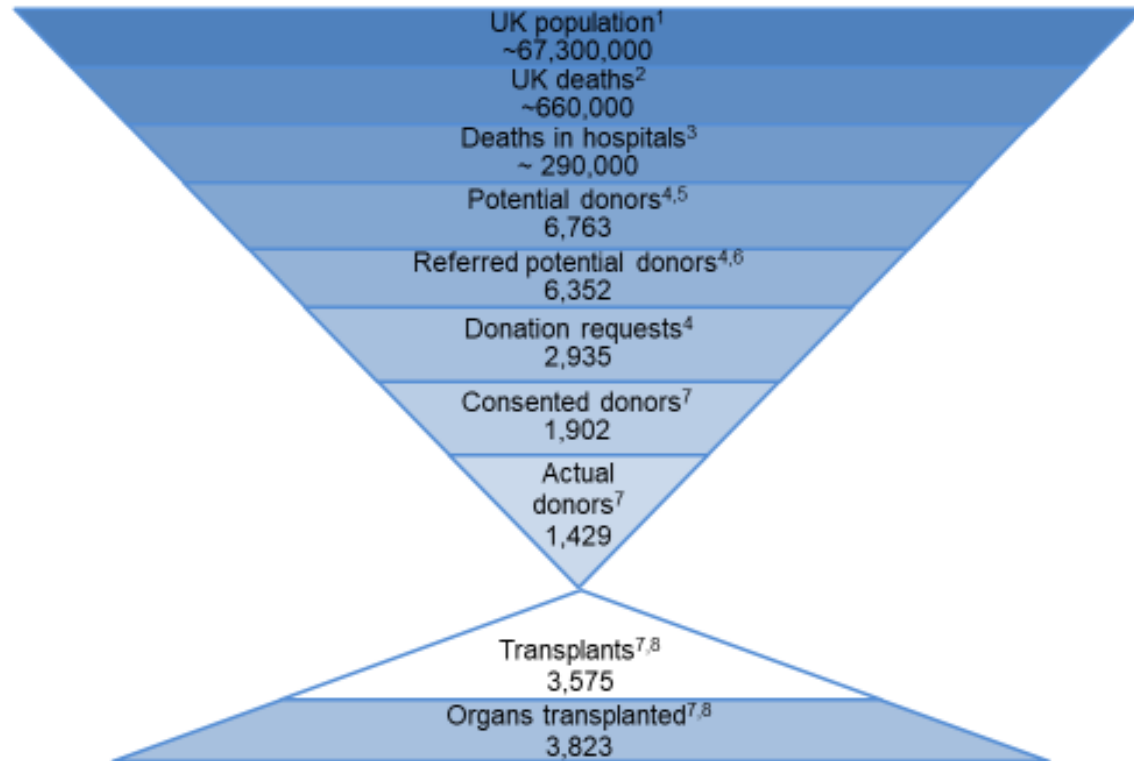
- **Statisticians** (Bristol - Stoke Gifford, 30 staff) —
 - Supporting Organ Donation and Transplantation
 - Organ allocation, multivariable modelling
 - Clinical Trials work
 - Support for studies in blood, transfusion medicine, stem cells, tissues
 - Forecasting long-term demand for blood
- **Clinical Trials Unit** (Cambridge and Oxford, 20 operational staff) —
 - Trials in haematology and organ transplantation
- **R&D**



Overview of organ donation and transplantation in the UK

Overview

UK potential deceased organ donor population, 1 April 2022 – 31 March 2023



Only about 6,700 of 660,000 (1%) people who die each year, die in circumstances suitable to become organ donors

Of these, 1,429 (21%) became organ donors in 2022/23

These organ donors enabled approx. 3,600 deceased donor transplants to happen

In addition, approx. 960 living donor transplants took place in 2022/23

¹ Mid 2021 estimates: www.ons.gov.uk

² 2022 data: England & Wales www.ons.gov.uk; Scotland www.gro-scotland.gov.uk; Northern Ireland www.nisra.gov.uk

³ 2022 data: England & Wales www.ons.gov.uk; Scotland www.isdscotland.org; Northern Ireland www.nisra.gov.uk

⁴ 2022/2023 data: NHSBT, Potential Donor Audit as at 9 May 2023

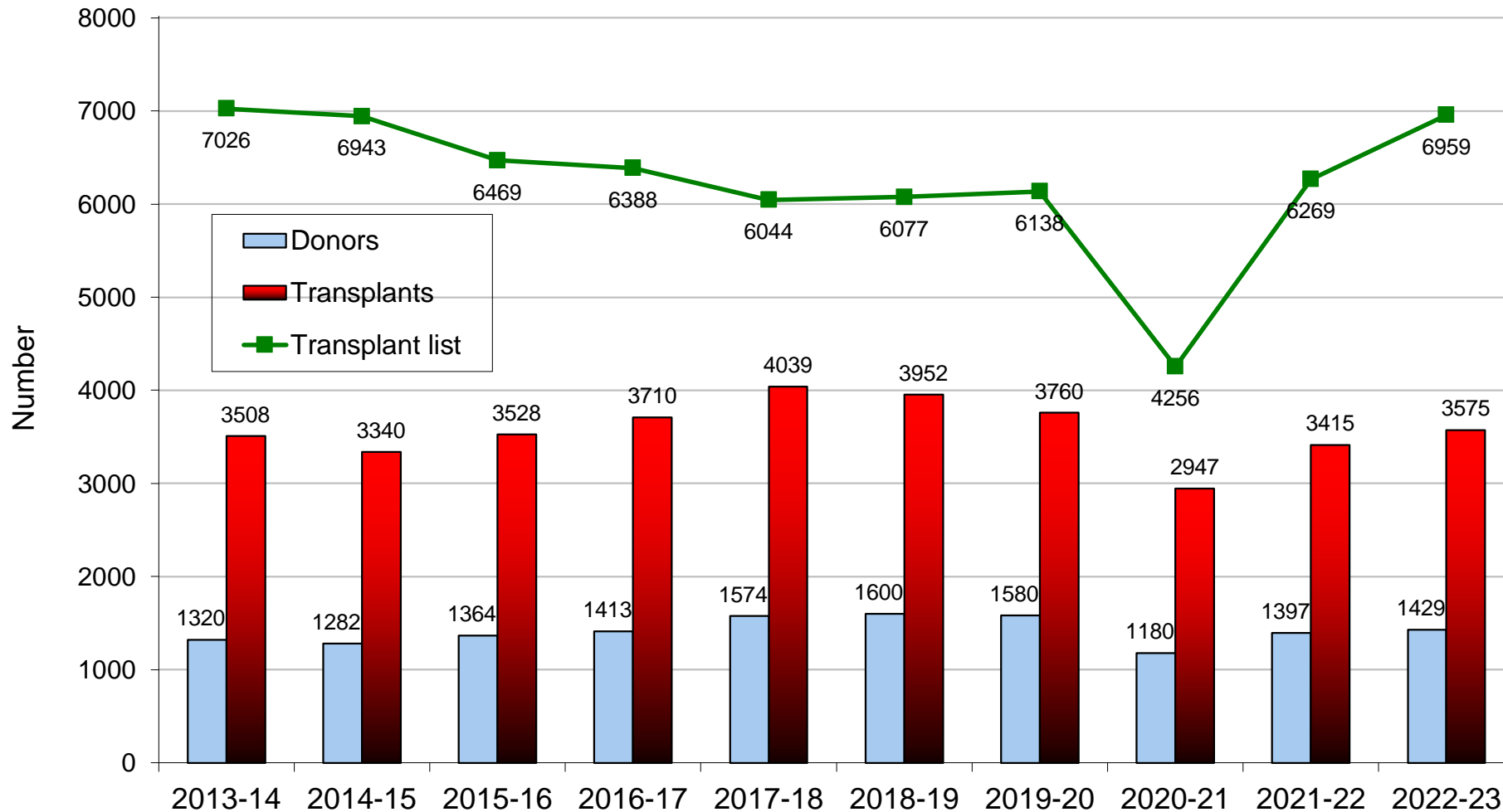
⁵ Potential donor - patients for whom death was confirmed following neurological tests or patients who had treatment withdrawn and death was anticipated within four hours

⁶ Referred potential donor - Potential donor who was discussed with a Specialist Nurse – Organ Donation

⁷ 2022/2023 deceased donor data: NHSBT, UK Transplant Registry

⁸ Using organs from actual donors in the UK

Deceased donors, transplants and transplant waiting list



Over the last
ten years

1% fall in
waiting lists

2% increase in
transplants
(all organs)

8% increase in
deceased
organ donors

Over the last
year

11% increase
in waiting lists

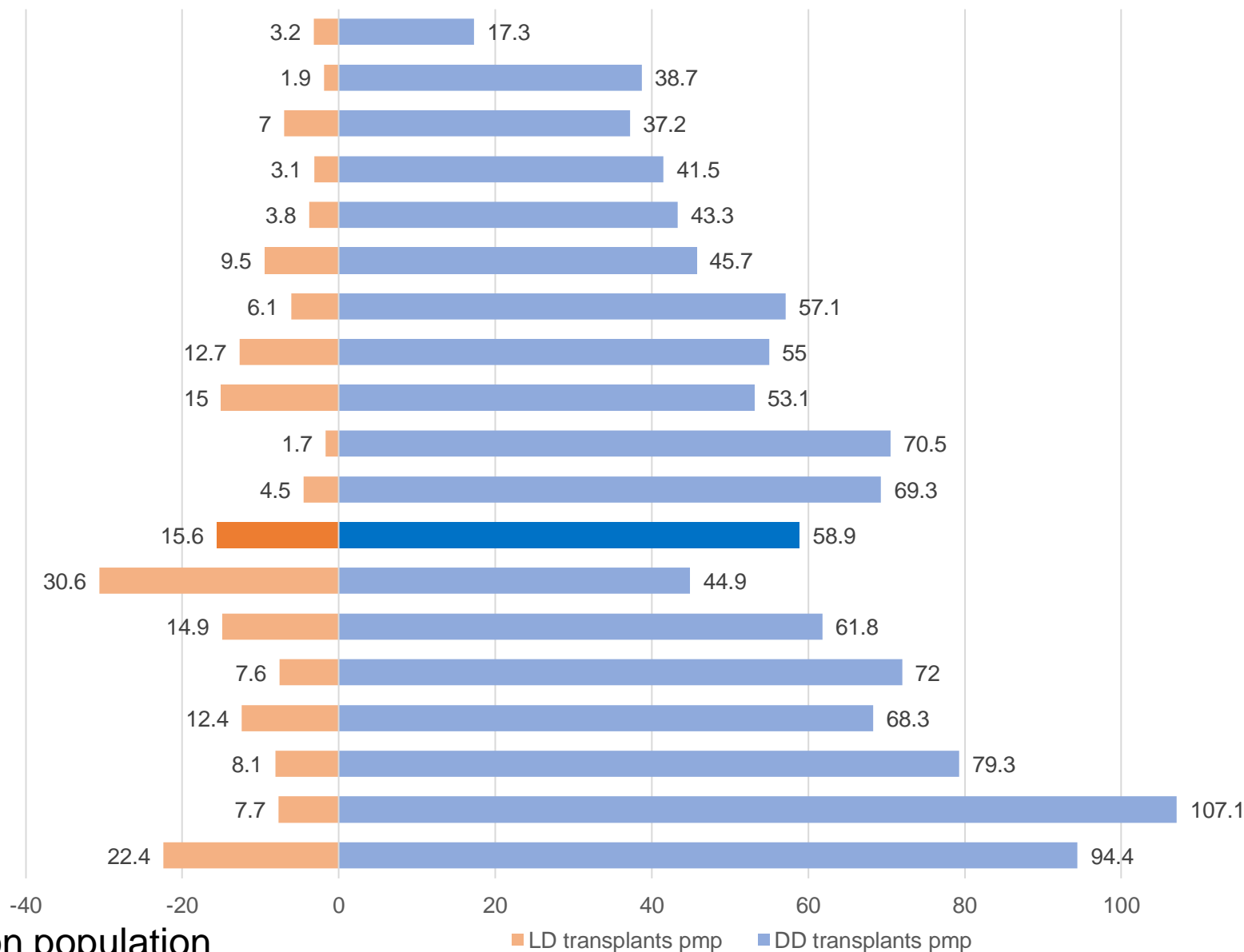
5% increase in
transplants
(all organs)

2% increase in
deceased
organ donors



Yes I donate
ORGAN DONATION

Total transplant rates – international data, 2019



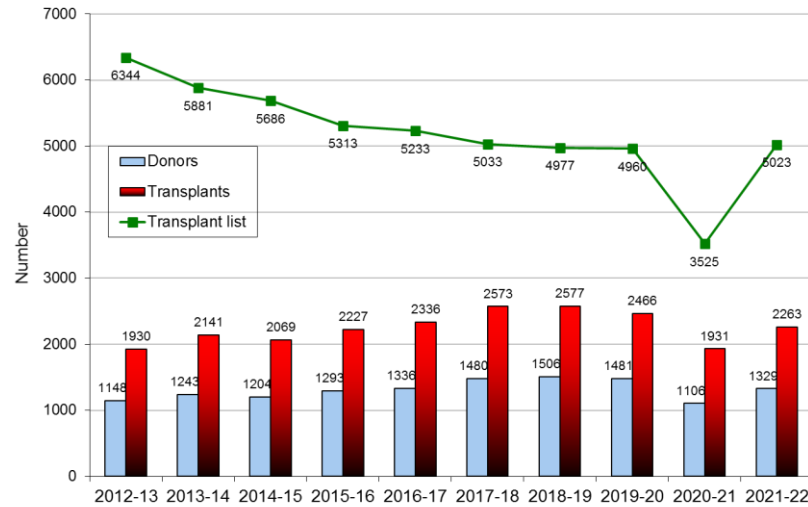
Latvia (20.5)
Poland (40.6)
Germany (44.2)
Hungary (44.6)
Slovakia (47.1)
Australia (55.2)
Italy (63.2)
Switzerland (67.7)
Denmark (68.1)
Croatia (72.2)
Finland (73.8)
UK (74.5)
Netherlands (75.5)
Sweden (76.7)
Portugal (79.6)
Norway (80.7)
France (87.4)
Spain (114.8)
USA (116.8)



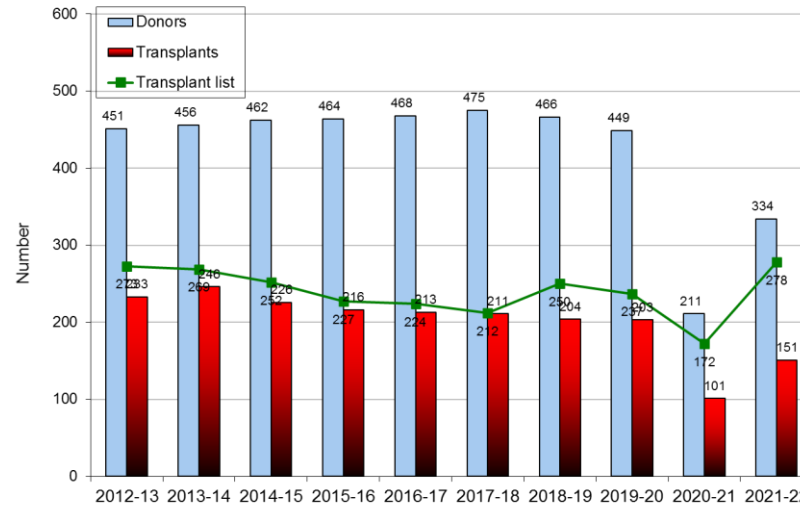
Deceased donors, transplants and transplant lists

Blood and Transplant

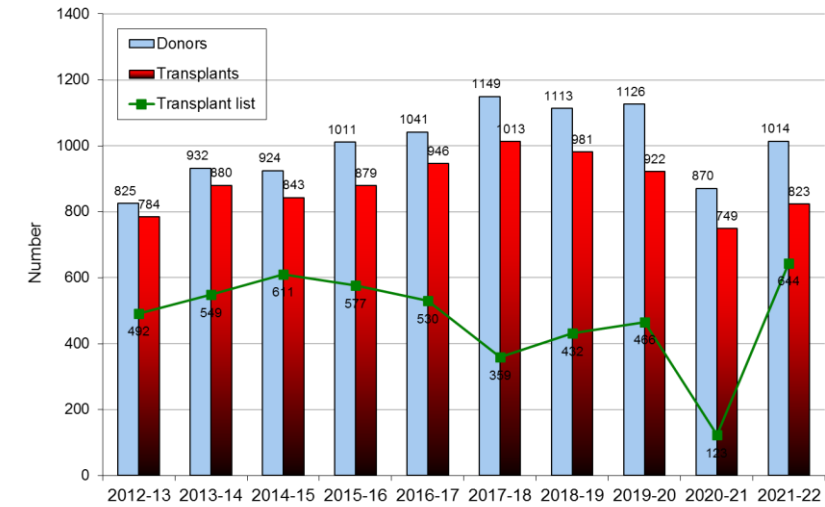
KIDNEY



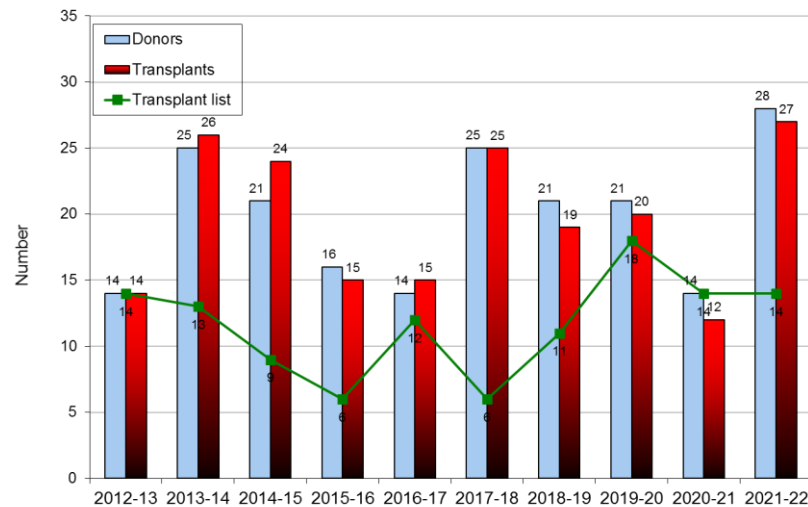
PANCREAS



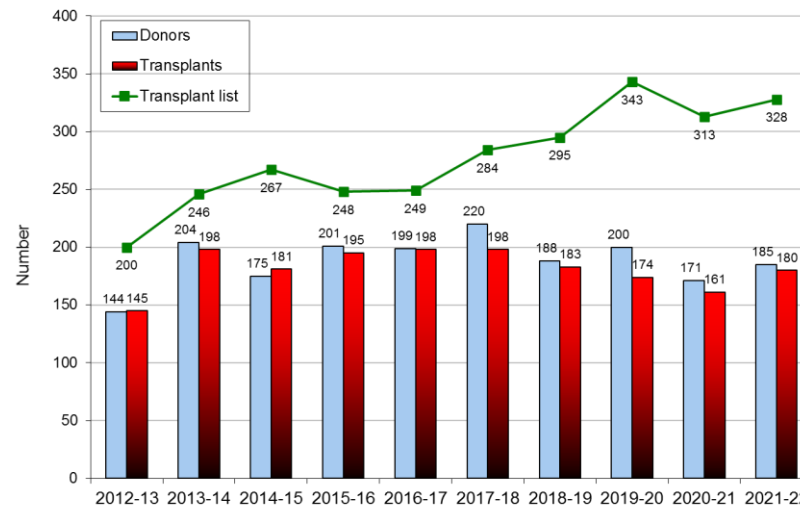
LIVER



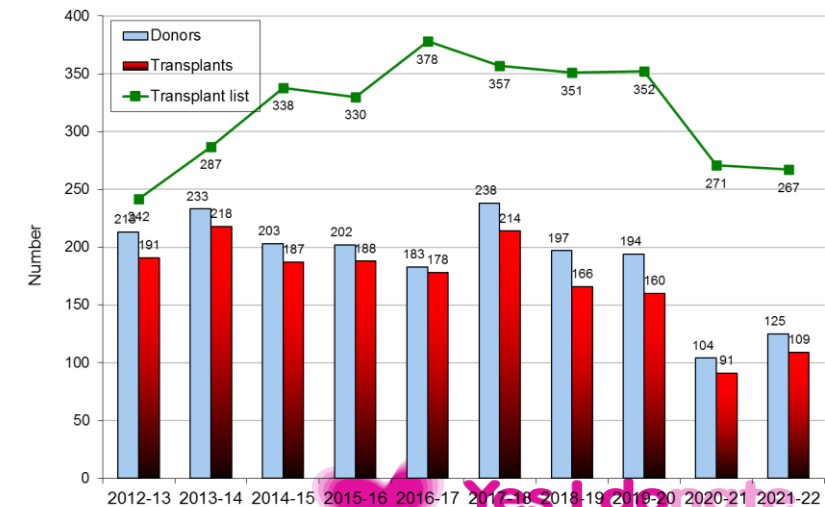
INTESTINAL



HEART



LUNG

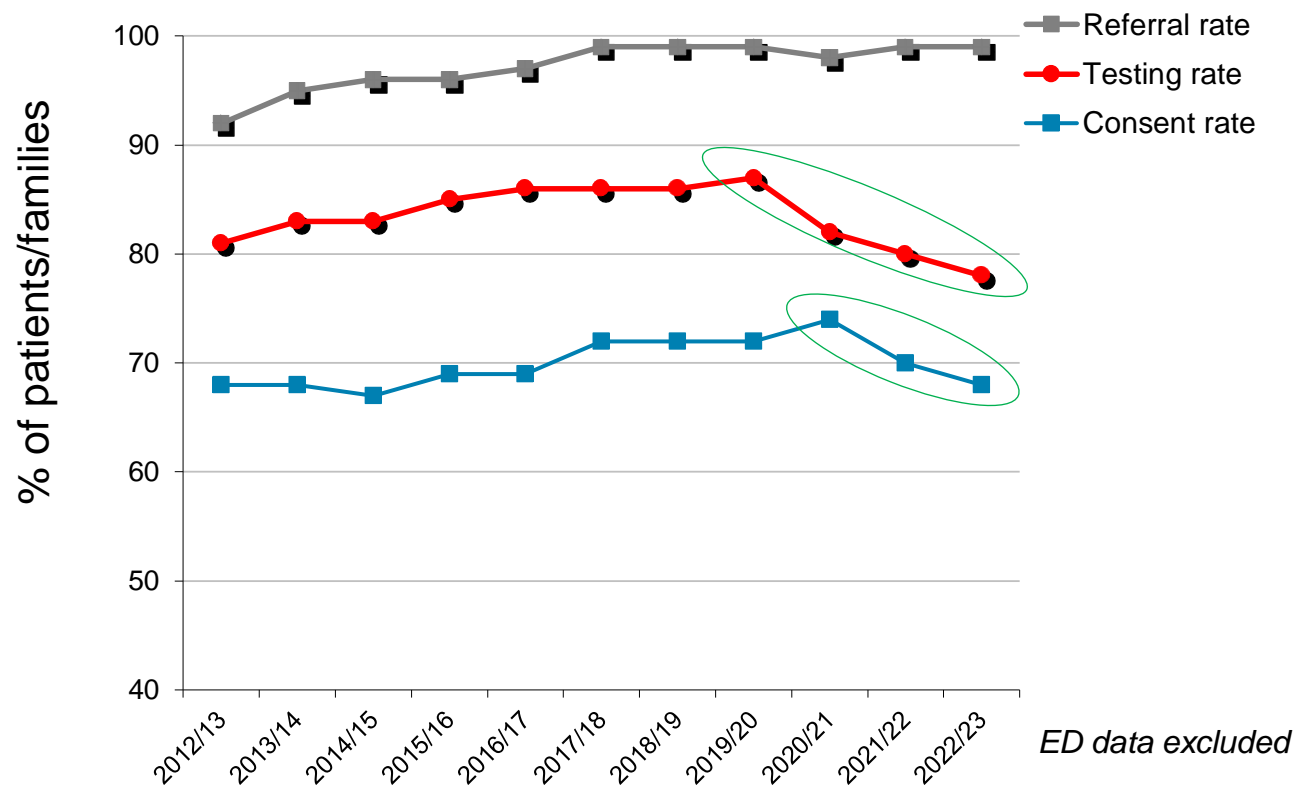


Possible organ donors

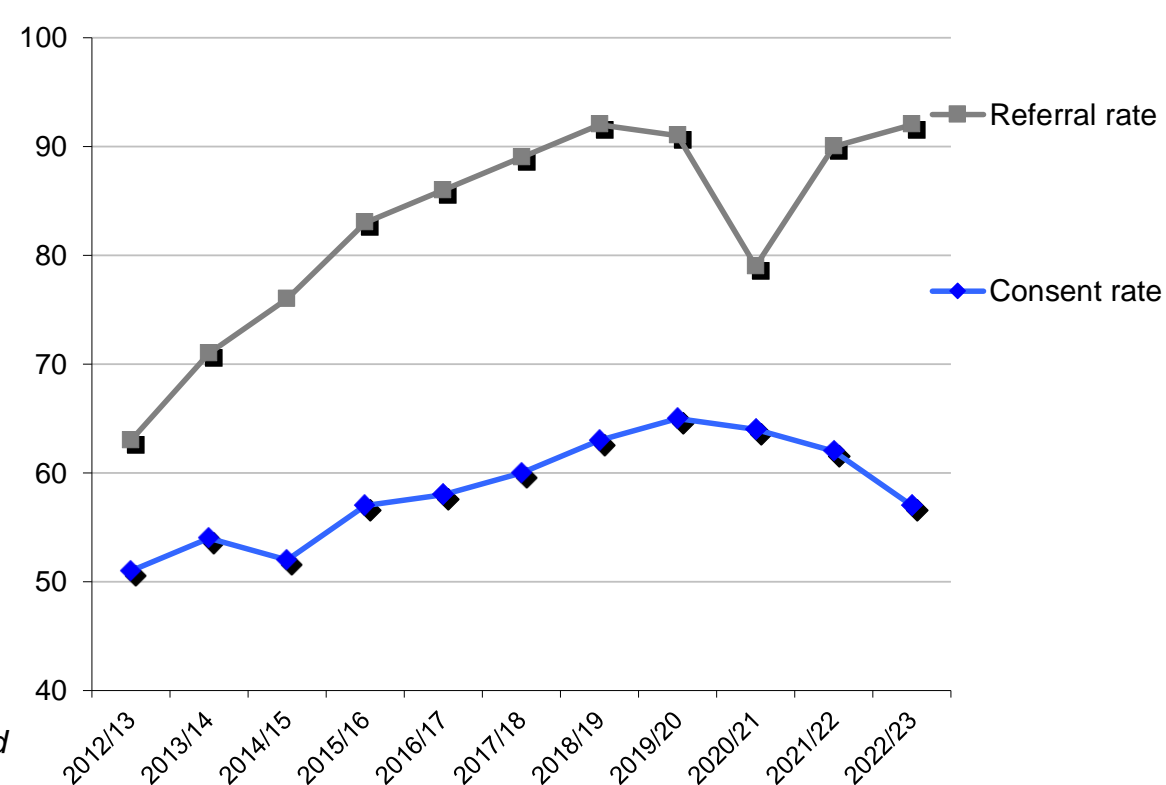
Key rates from the Potential Donor Audit

Blood and Transplant

DBD donation



DCD donation



Referral rate - percentage of neurological death suspected (or imminent death anticipated) patients referred to SN-OD

Testing rate - percentage of neurological death suspected patients tested for brain death

Consent/authorisation rate - percentage of families approached where consent/authorisation for donation was ascertained

Organ offering

Summary of current organ offering schemes

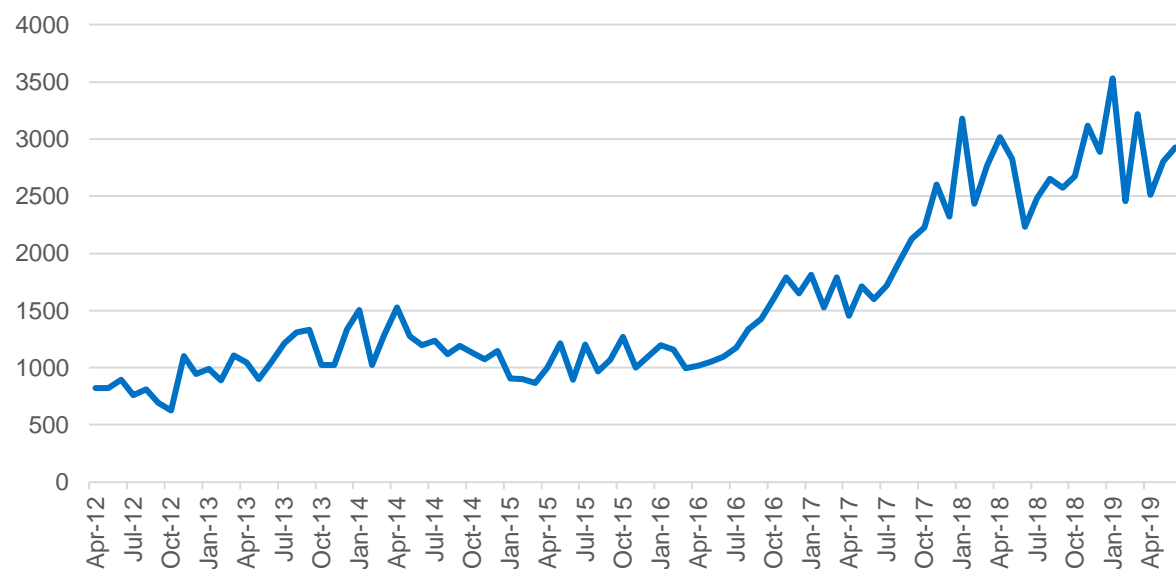
Blood and Transplant

Organ	Patient specific or centre-based offers	Prioritises
Kidney	Patient (DBD: both kidneys >10 years; DCD since 2014)	Long waiting patients, good tissue match, match organ and patient life expectancy
Pancreas	Patient (since 2010)	Difficult to transplant and long waiting patients, good tissue match
Liver	DBD: Patient (since 2018) DCD: Centre based	DBD: Patients predicted to gain most survival benefit from specific donor liver
Heart (DBD)	Patient for urgent groups (>10 years); centre for others	Clinically urgent patients
Lung	Patient for urgent groups (since 2017); centre for others	Clinically urgent patients

Organ offers and decline rate variation

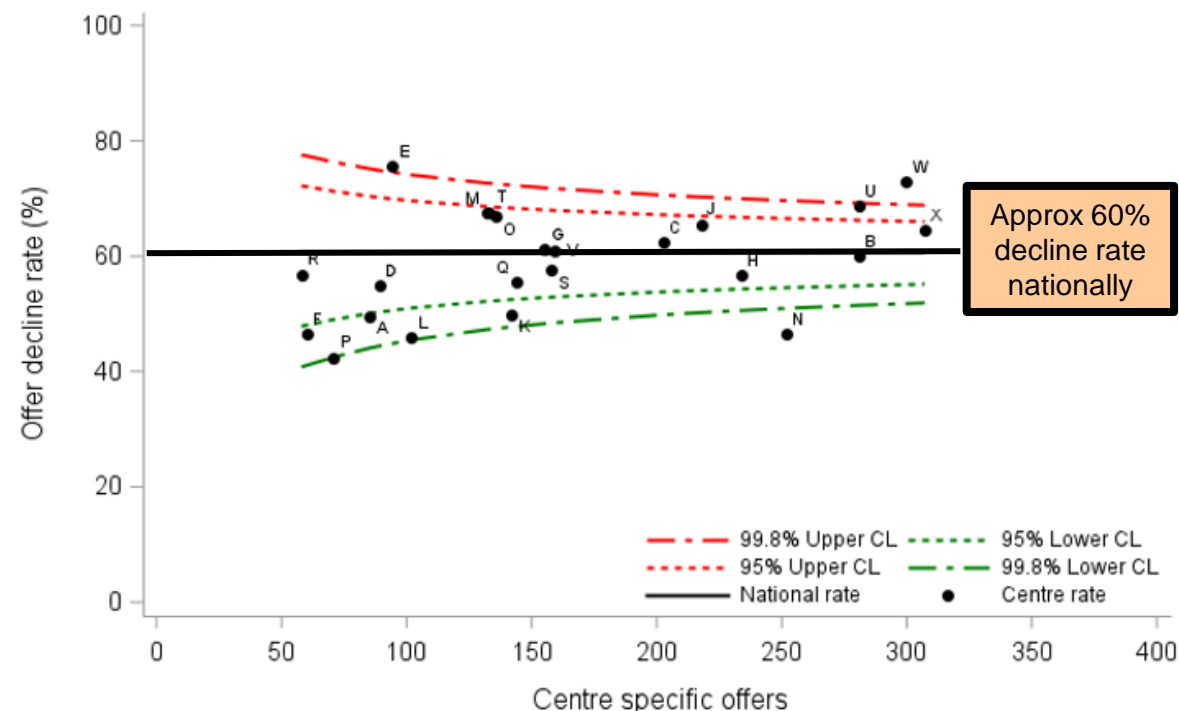
Patient based schemes lead to more (ODT Hub Ops) offers:

Number of ODT Hub Operation offers



Offer decline rates can be high and vary by transplant centre – DBD kidney example -

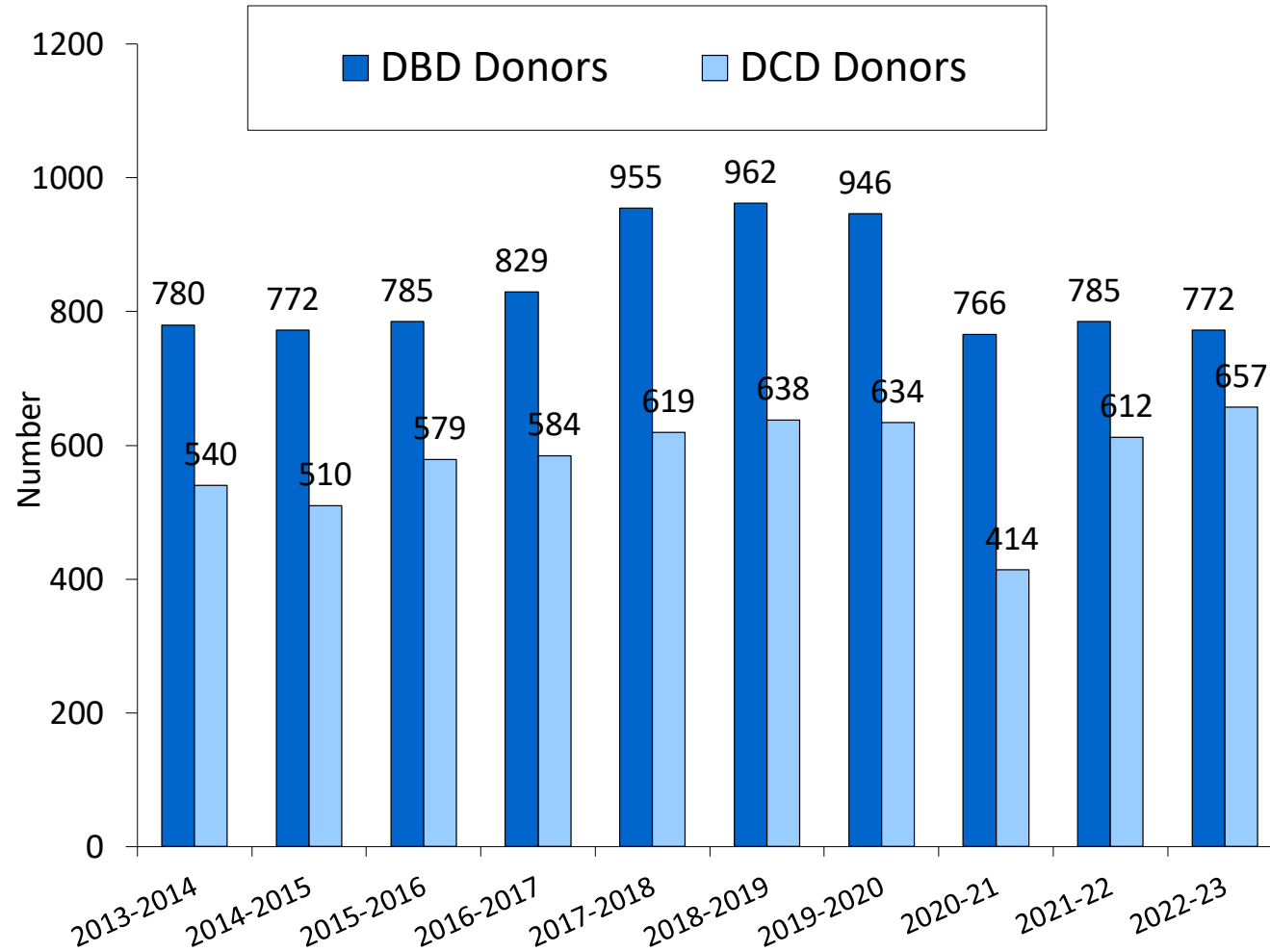
Figure 4.2 Adult extended criteria DBD donor kidney offer decline rates for kidneys that resulted in a transplant, 1 April 2016 and 31 March 2019



Deceased organ donation

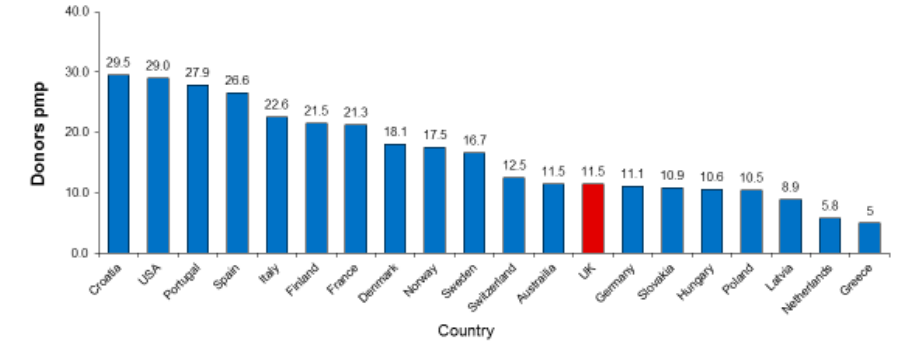
Deceased donors

Blood and Transplant



DBD donor rates

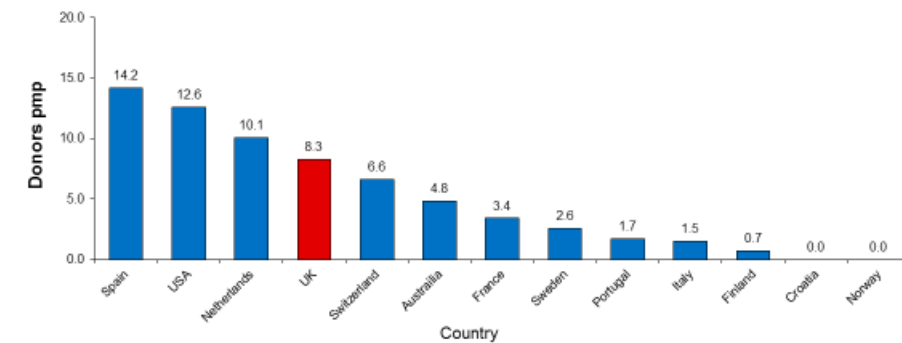
Actual* DBD organ donor rates for Europe, Australia and the USA, 2021



*Actual deceased organ donor 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.

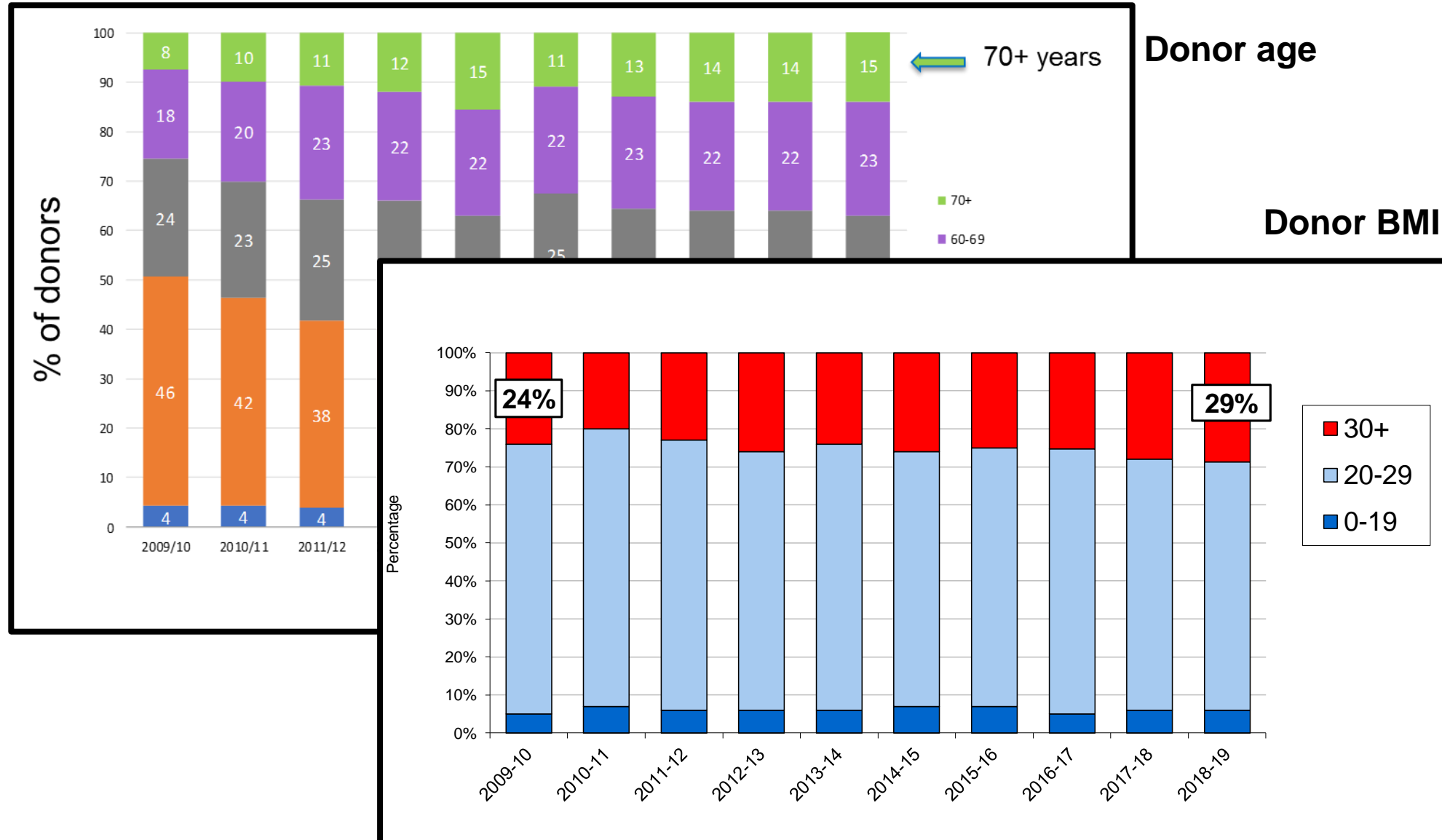
DCD donor rates

Actual* DCD organ donor rates for Europe, Australia and the USA, 2021



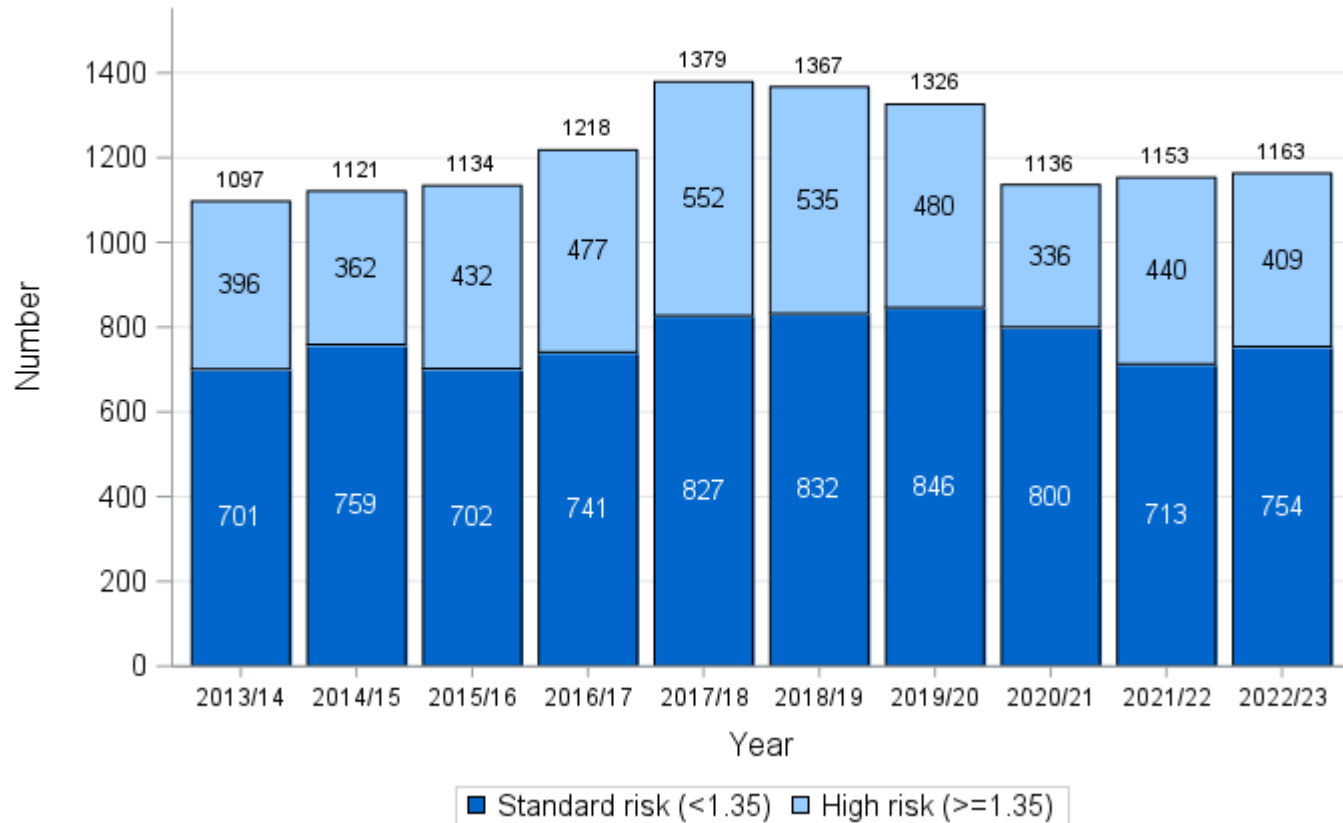
*Actual deceased organ donor at least one organ has been recovered for the purpose of transplantation, in contrast to a utilised donor, who is an actual donor from whom at least one organ has been transplanted. The number of utilised donors is therefore lower or equal than the number of actual donors.

Context: Increasing complexity of deceased donors



Transplant centres increasingly using more complex donor organs...

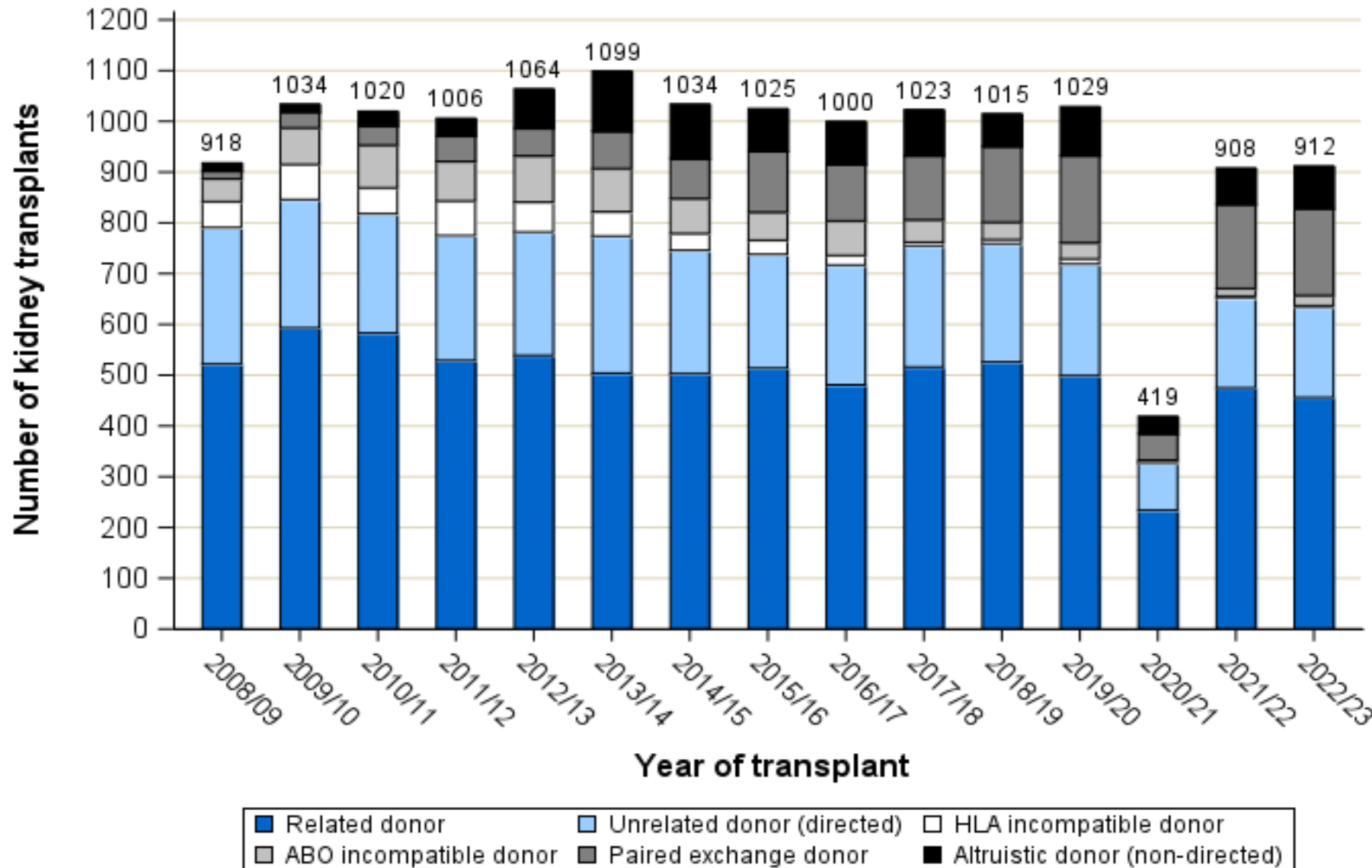
Figure 5.10 UK Kidney Donor Risk Index of transplanted DBD donor kidneys
1 April 2013 - 31 March 2023



Higher
risk
kidneys

Living organ donation

Living donor kidney transplants

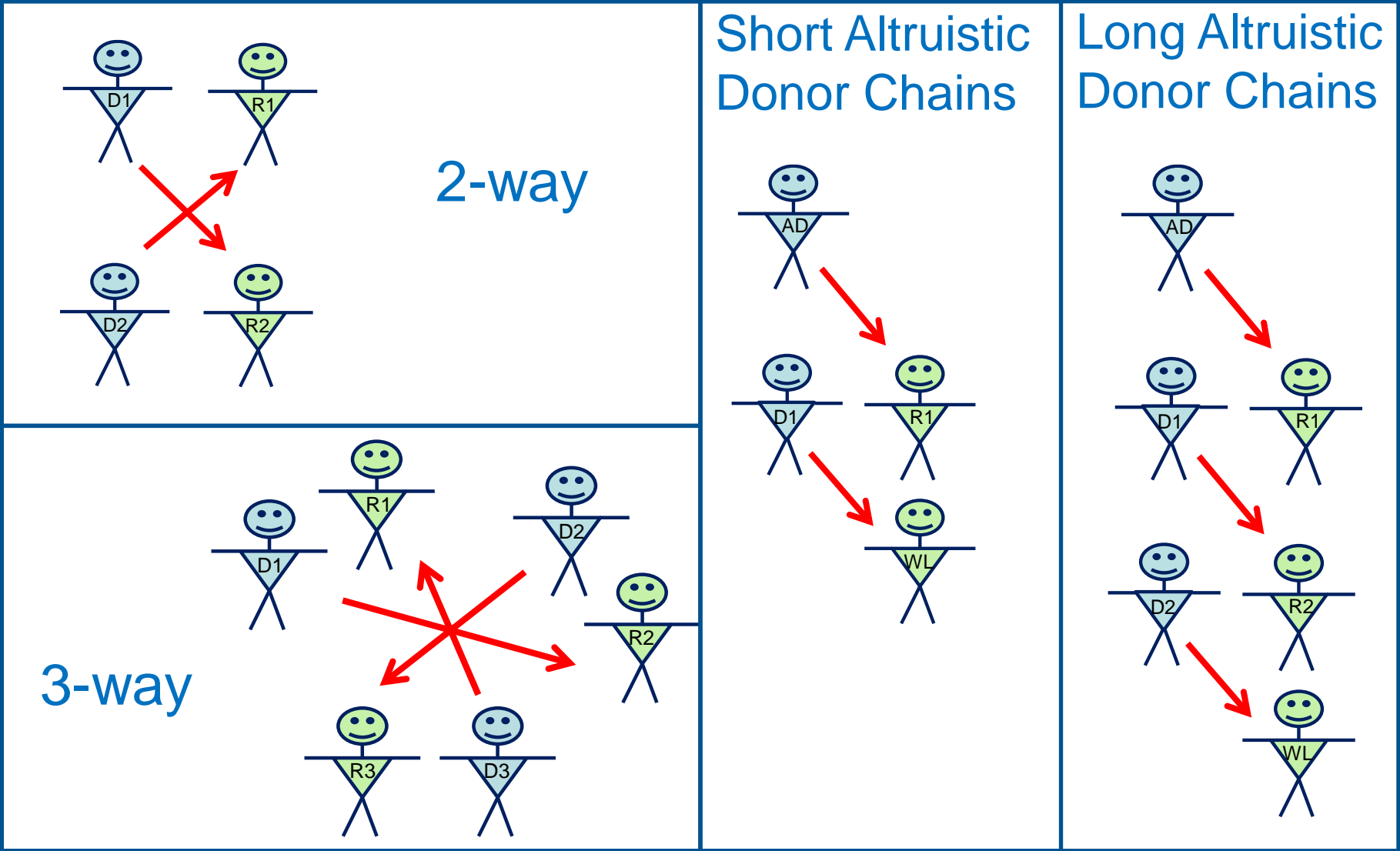


In 2020/21

2/4 UKLKSS matching runs performed

Living transplants ceased between 21 Mar and 27 Apr 2020

Living kidney sharing scheme – exchange types

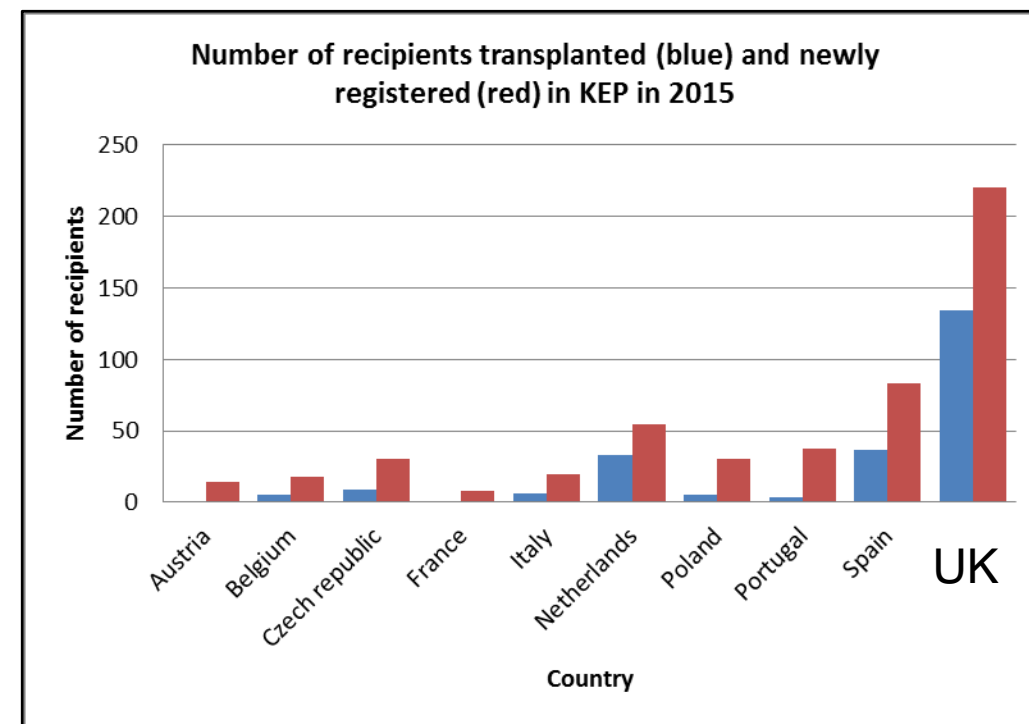
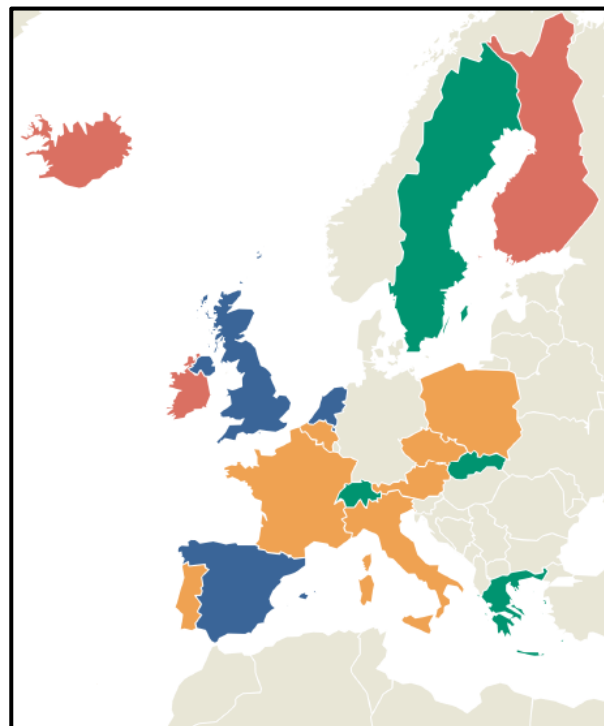


UK scheme - largest in Europe



European Network for Collaboration on Kidney Exchange Programmes (ENCKEP)

- Large, advanced programmes
- New, smaller programmes
- Programmes in development
- Countries with no programme



Transplantation

Building kidney exchange programmes in Europe - An overview of exchange practice and activities

Biró, P. et al. (2018) Building kidney exchange programmes in Europe - An overview of exchange practice and activities. *Transplantation*, (doi:[10.1097/TP.0000000000002432](https://doi.org/10.1097/TP.0000000000002432)) (PMID:[30247314](https://pubmed.ncbi.nlm.nih.gov/30247314/)) (Early Online Publication)

Listing and transplantation

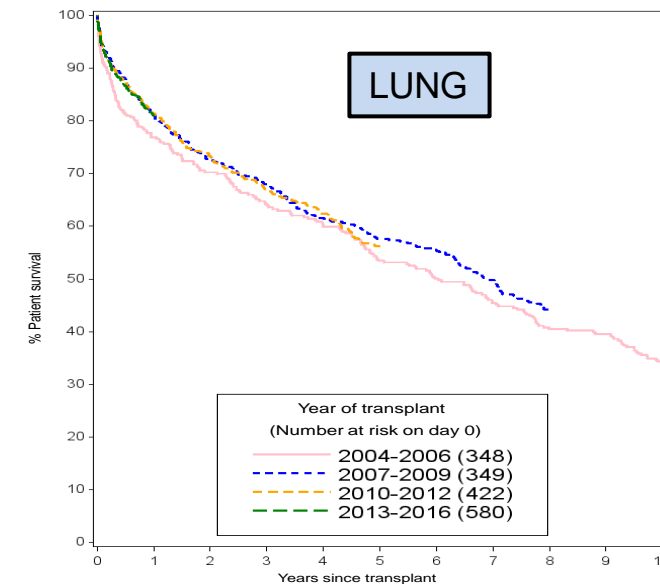
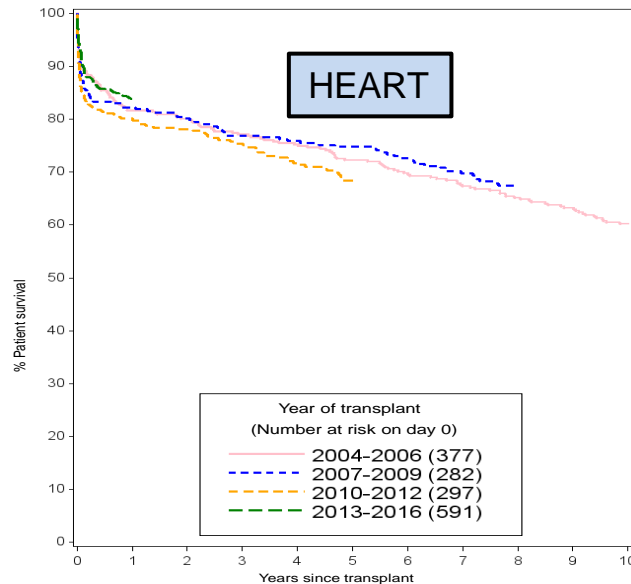
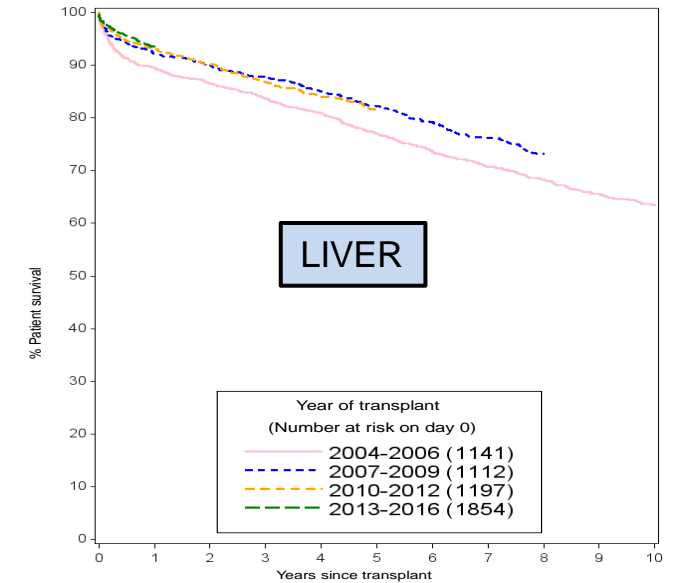
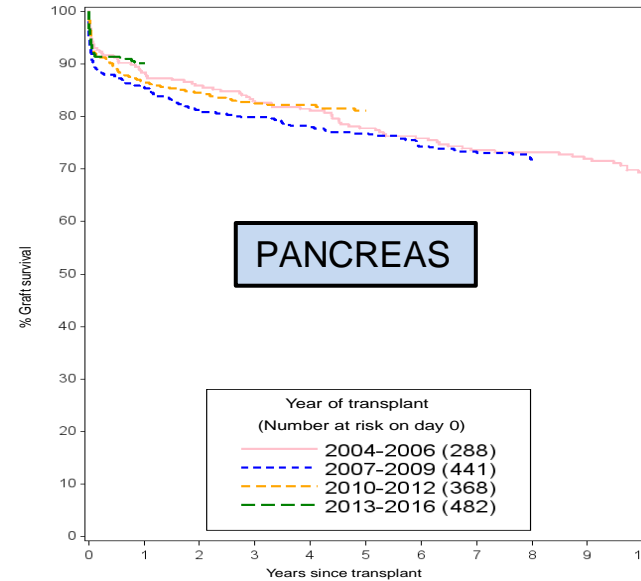
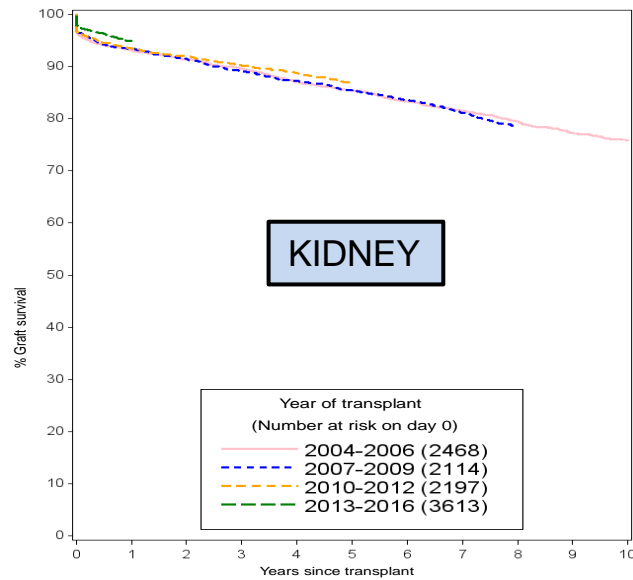
Median waiting times (months) to adult DD organ transplant

Organ	Waiting time - months	
	2012/13 report	2022/23 report
Kidney	38	17
Liver	5	4
Pancreas	12	12
Non-urgent Lung	9.5	15
Non-urgent heart	34*	68
Urgent heart	1*	1



* 2014/15 report

DBD post-transplant outcomes



Thank you
Any questions?



Yes I donate
ORGAN DONATION