

Current landscape of organ donation and transplantation

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Statistics and Clinical Research



Yes I donate
ORGAN DONATION

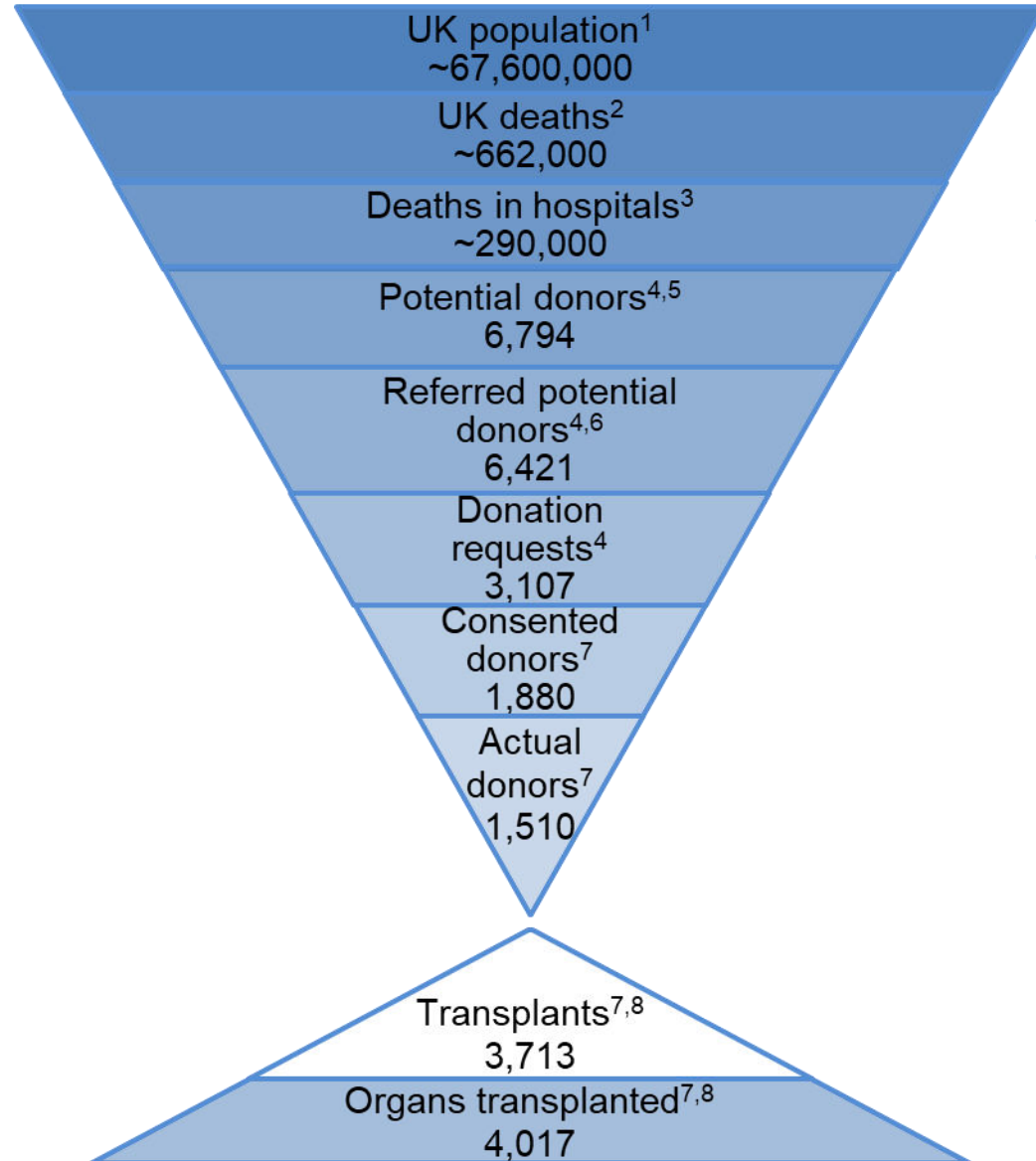
Statistics & Clinical Research

- **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

UK potential deceased organ donor population, 1 April 2023 – 31 March 2024



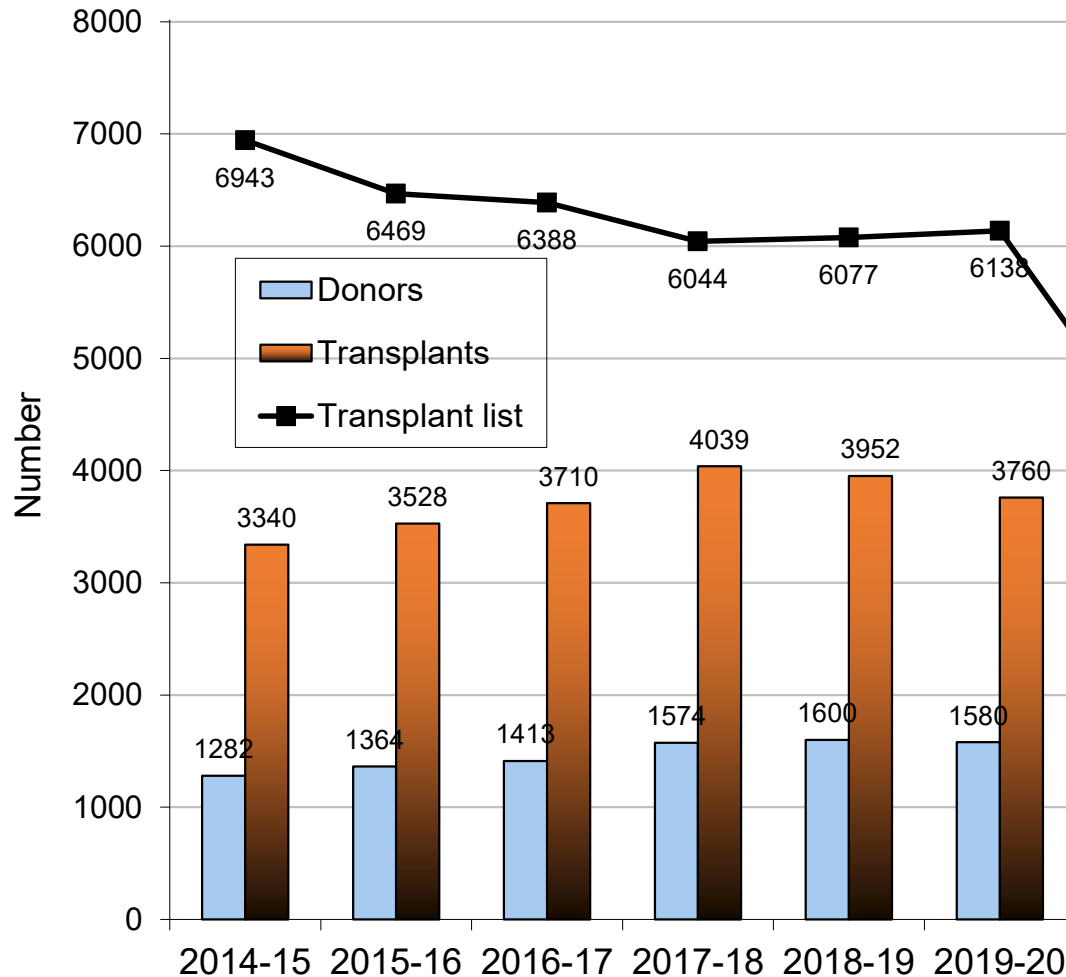
Only about 6,800 of 660,000 (1%) people who die each year, die in circumstances suitable to become organ donors

Of these, 1,510 (22%) became organ donors in 2023/24

These organ donors enabled approx. 3,700 deceased donor transplants to happen

In addition, approx. over 900 living donor transplants took place in 2023/24

Deceased donors, transplants and transplant waiting list



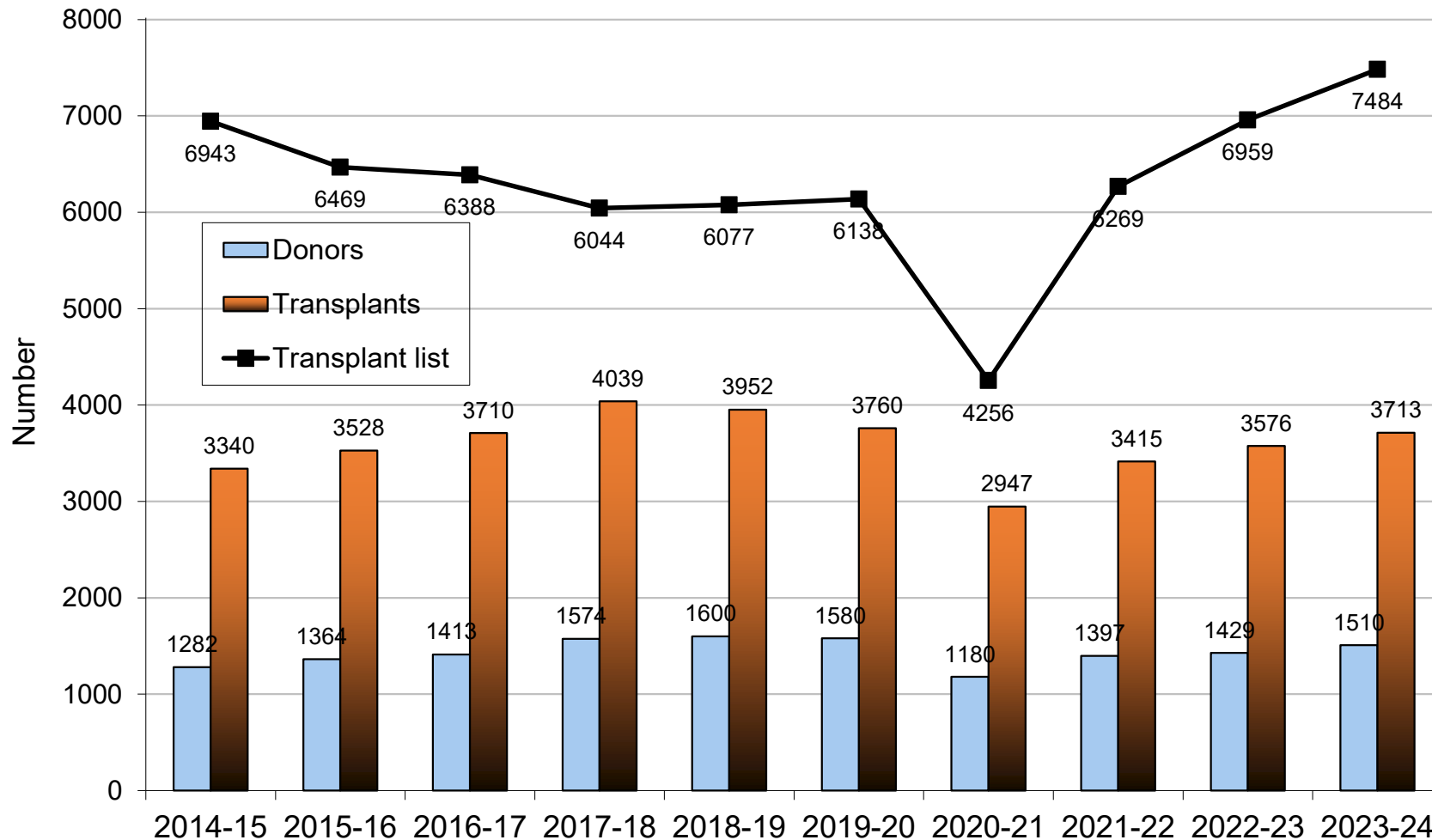
Over the last ten years

8% increase in waiting lists

11% increase in transplants (all organs)

18% increase in deceased organ donors

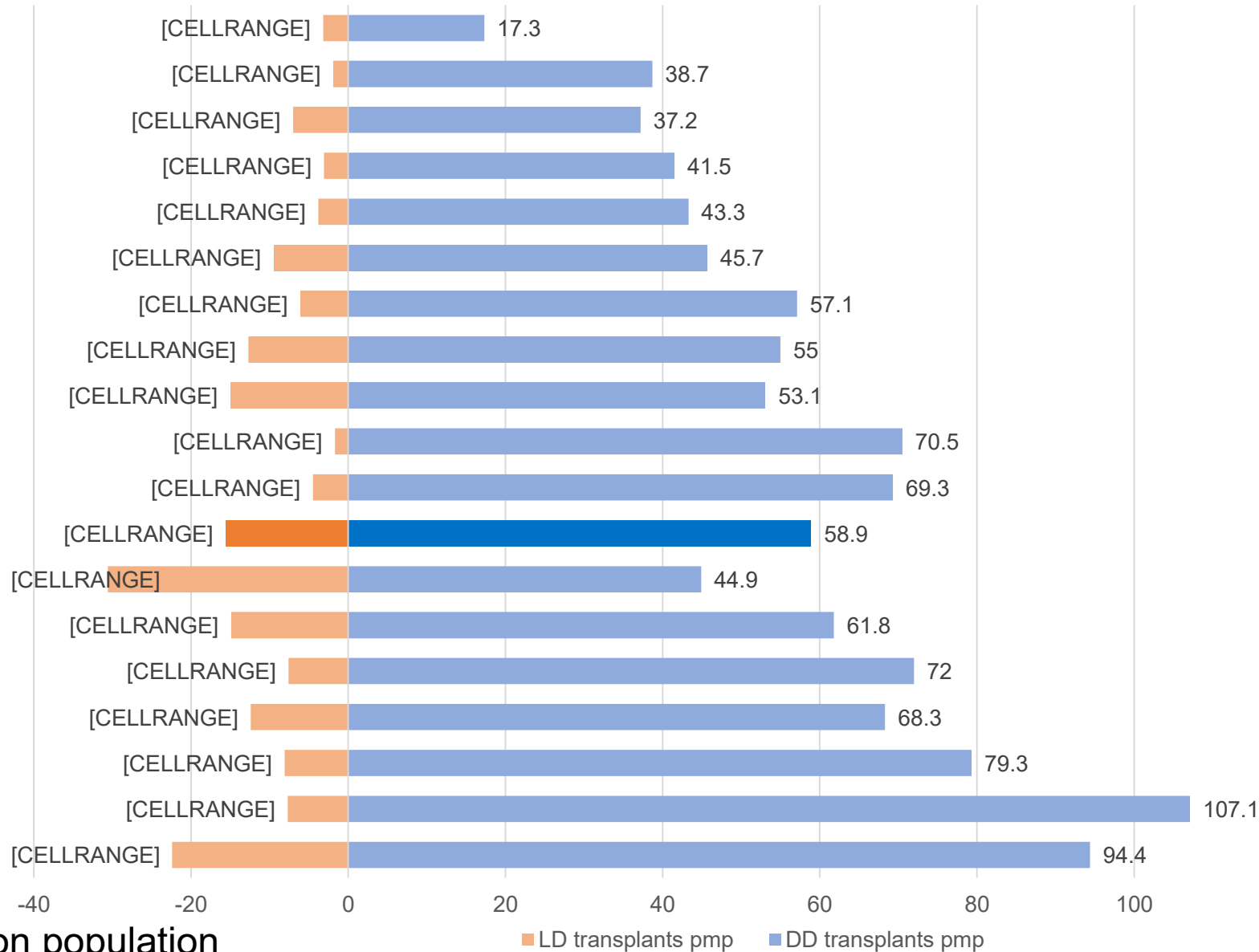
Deceased donors, transplants and transplant waiting list



Proportion of transplant list by organ:

- Kidney - 83%
- Pancreas - 4%
- Liver - 9%
- Heart - 4%
- Lung - 3%

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)



pmp = per million population

Organ offering

Summary of current organ offering schemes

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:

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

Number of ODT Hub Operation offers

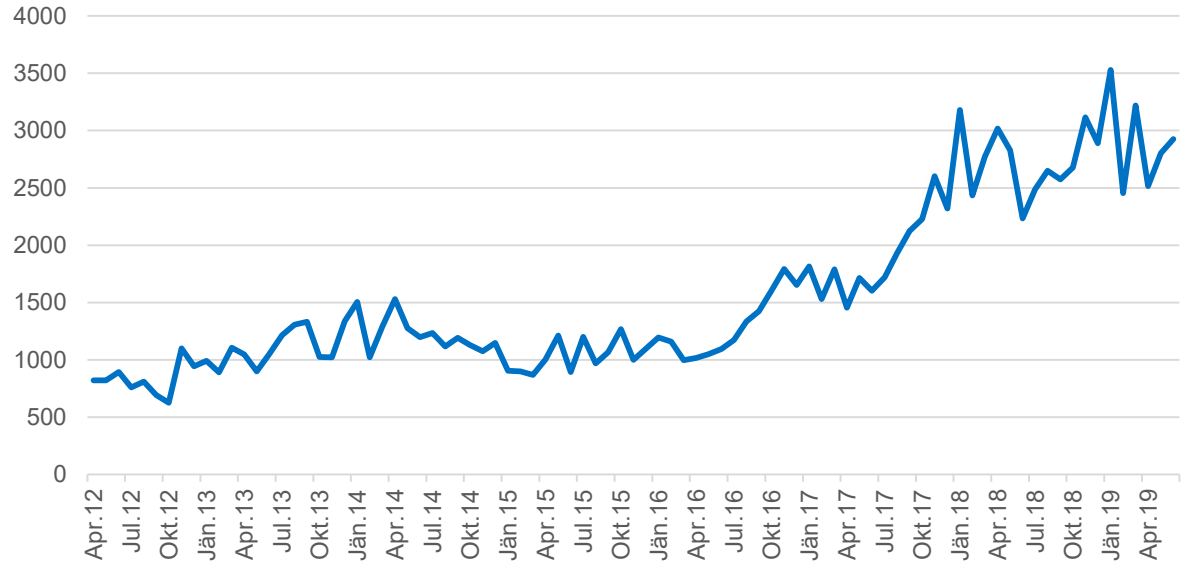
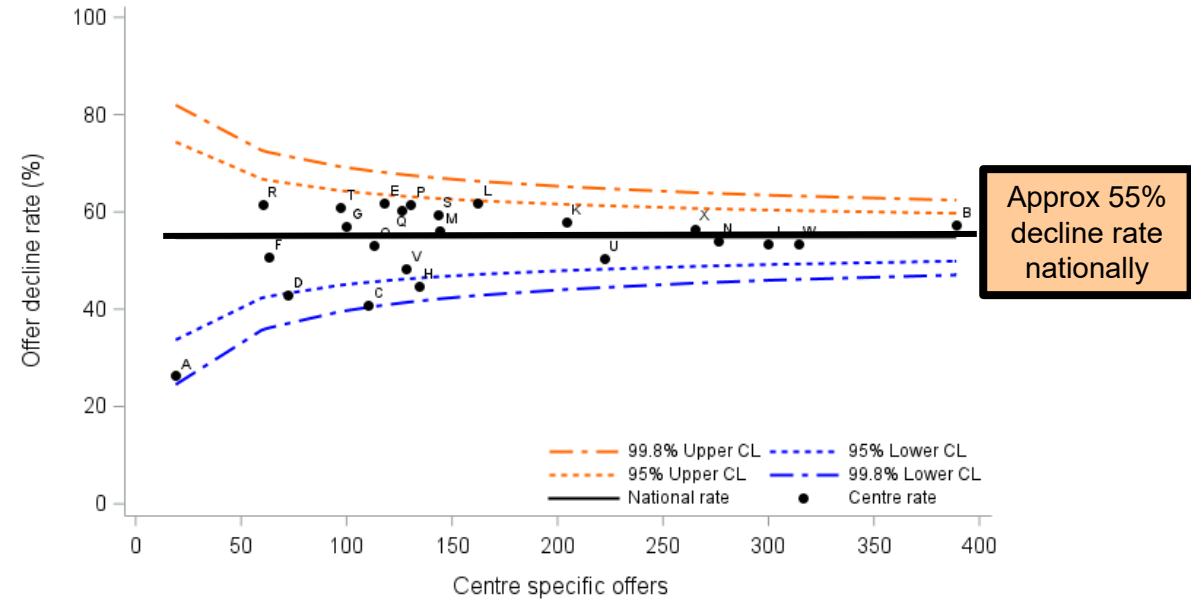
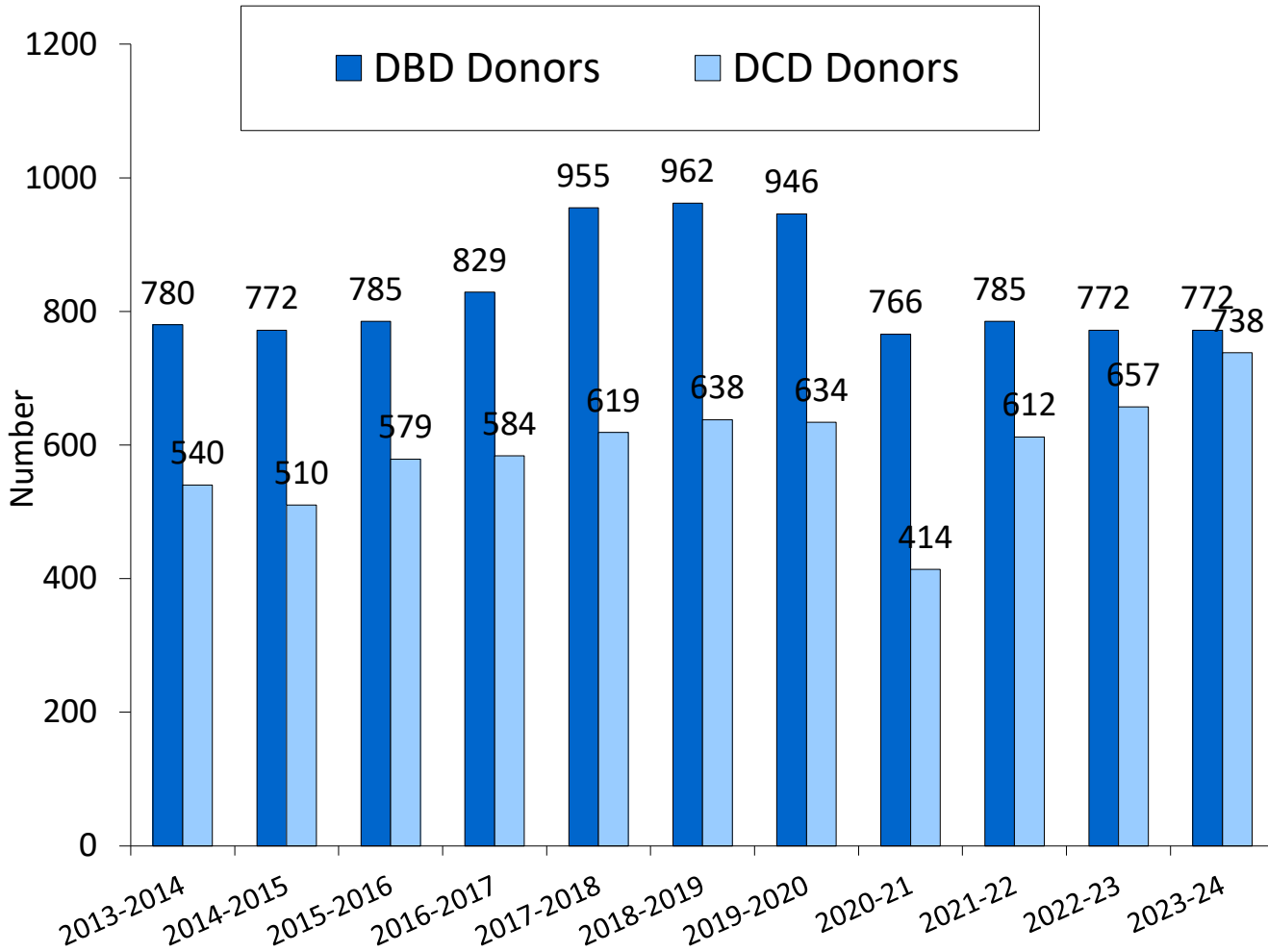


Figure 4.1 Adult standard criteria DBD donor kidney offer decline rates for kidneys that resulted in a transplant, 1 April 2021 and 31 March 2024



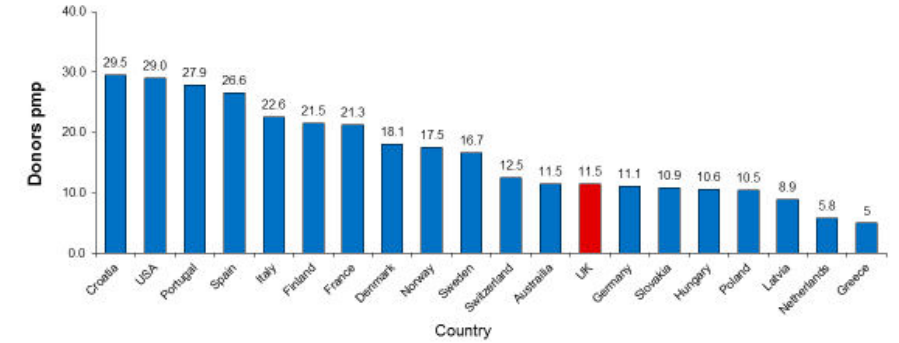
Deceased organ donation

Deceased donors



DBD donor rates

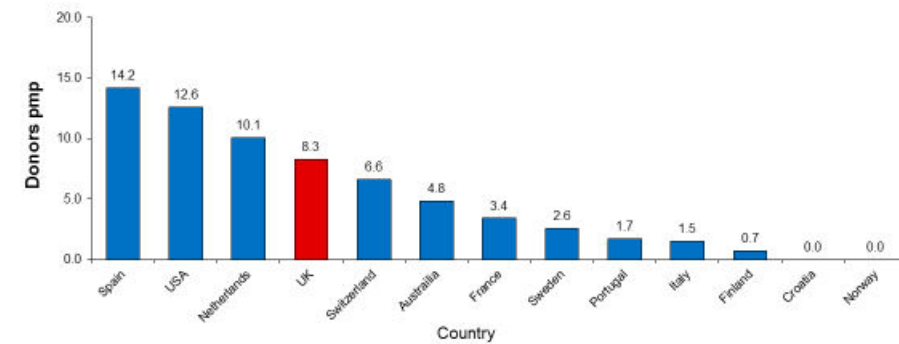
Actual* DBD organ donor rates for Europe, Australia and the USA, 2021



*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.

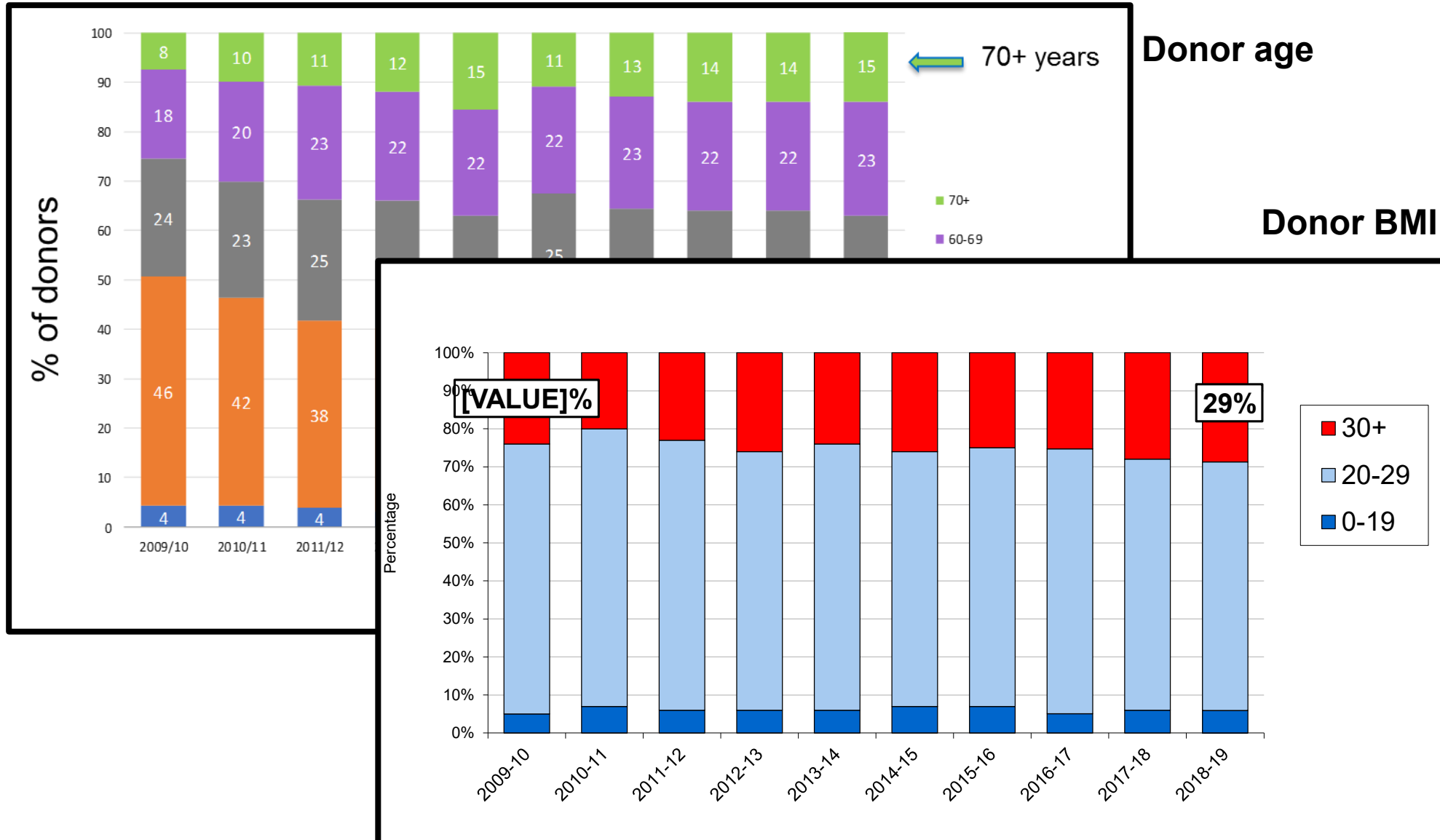
DCD donor rates

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



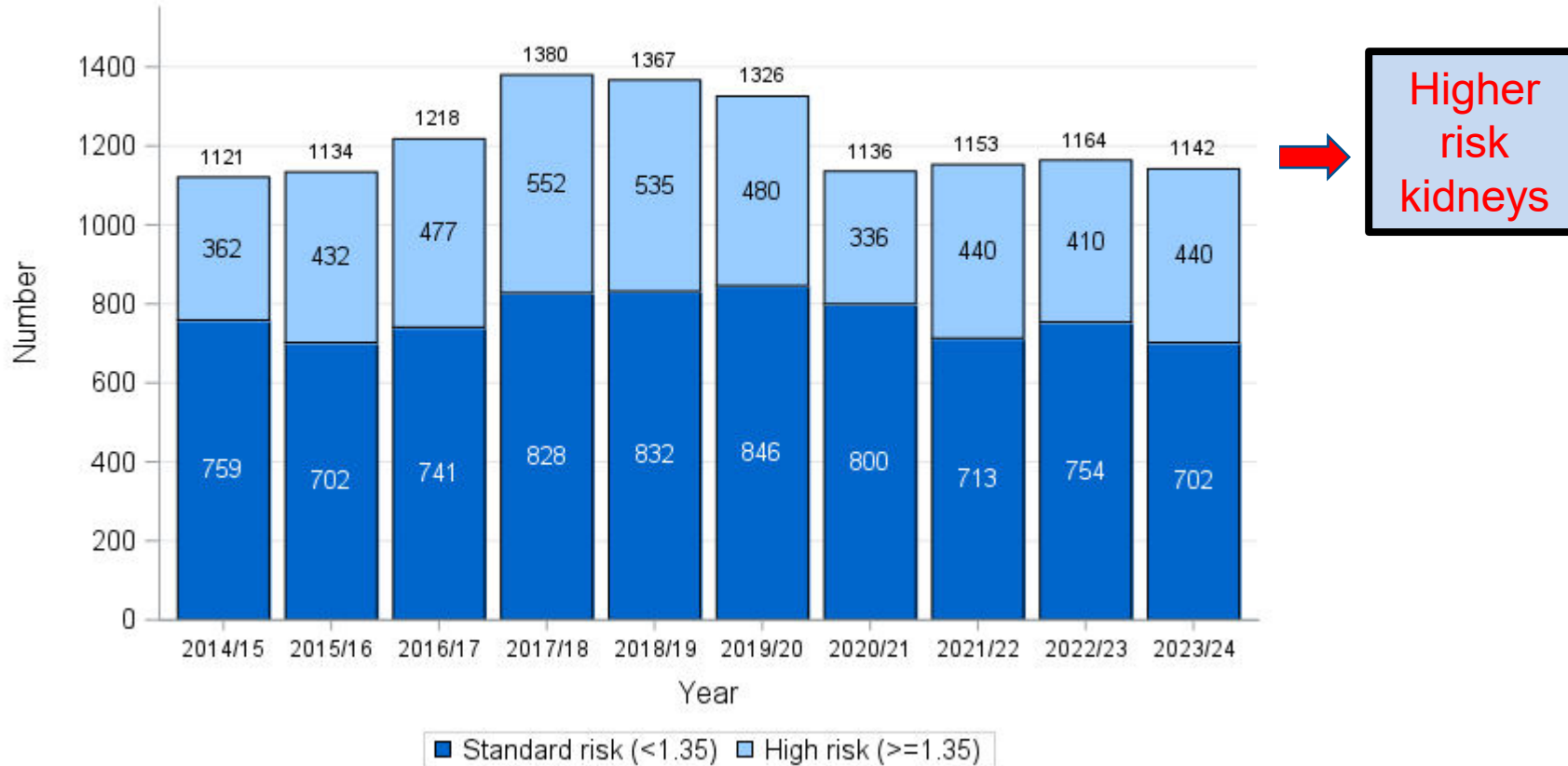
*Actual deceased organ donor at least one organ has been recovered for the purpose of transplantation, in contrast to a utilised donor, who is an actual donor from whom at least one organ has been transplanted. The number of utilised donors is therefore lower or equal than the number of actual donors.

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 2014 - 31 March 2024



Listing and transplantation

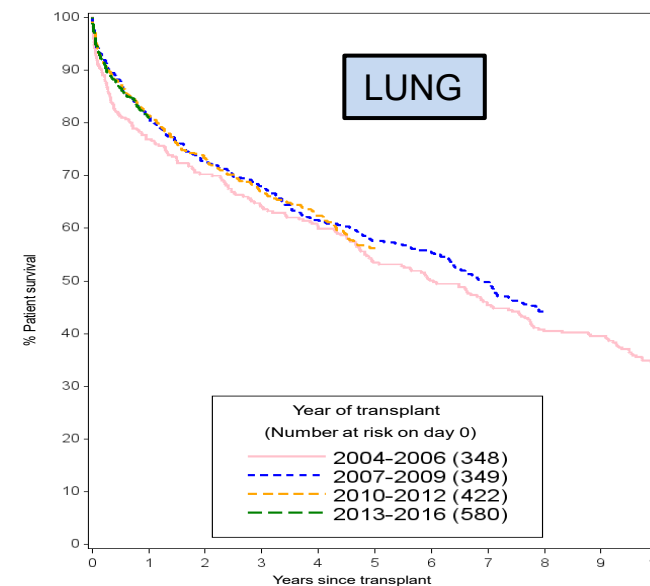
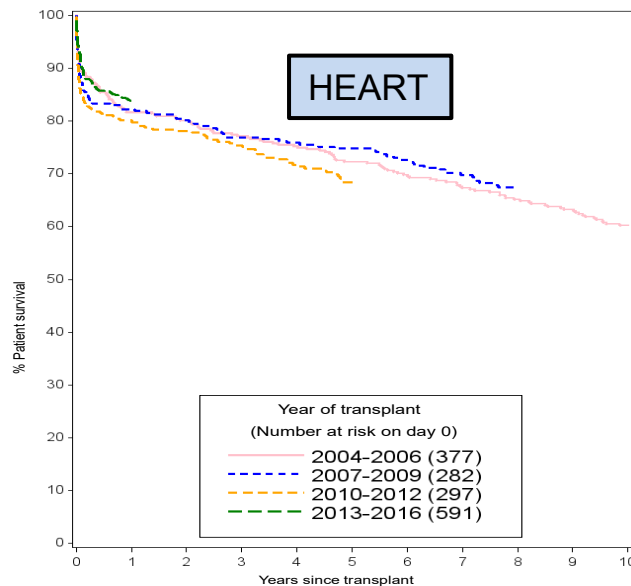
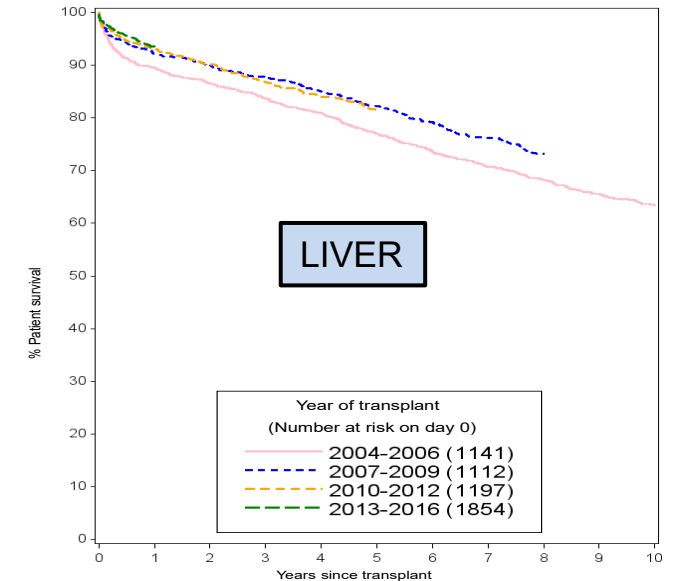
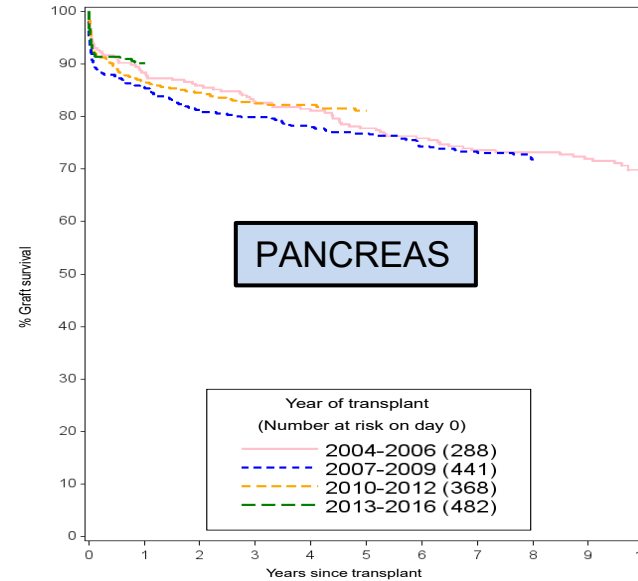
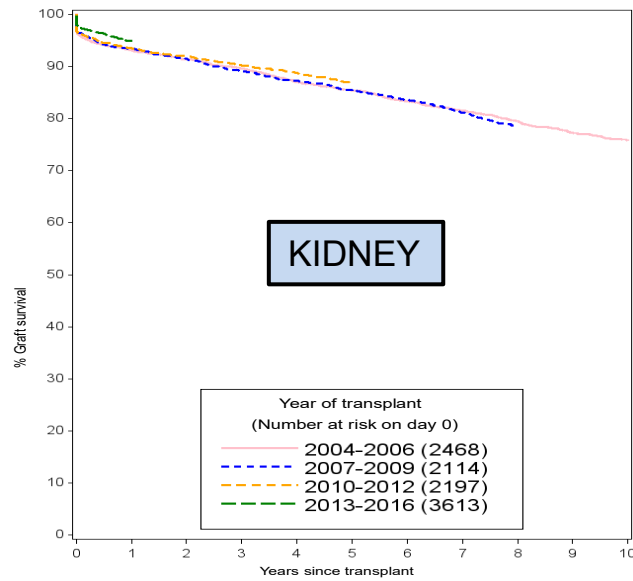
Median waiting times (months) to adult DD organ transplant

Organ	Waiting time - months	
	2012/13 report	2023/24 report
Kidney	38	16
Liver	5	5
Pancreas	12	14
Non-urgent Lung	9.5	18
Non-urgent heart	34*	73
Urgent heart	1*	1



* 2014/15 report

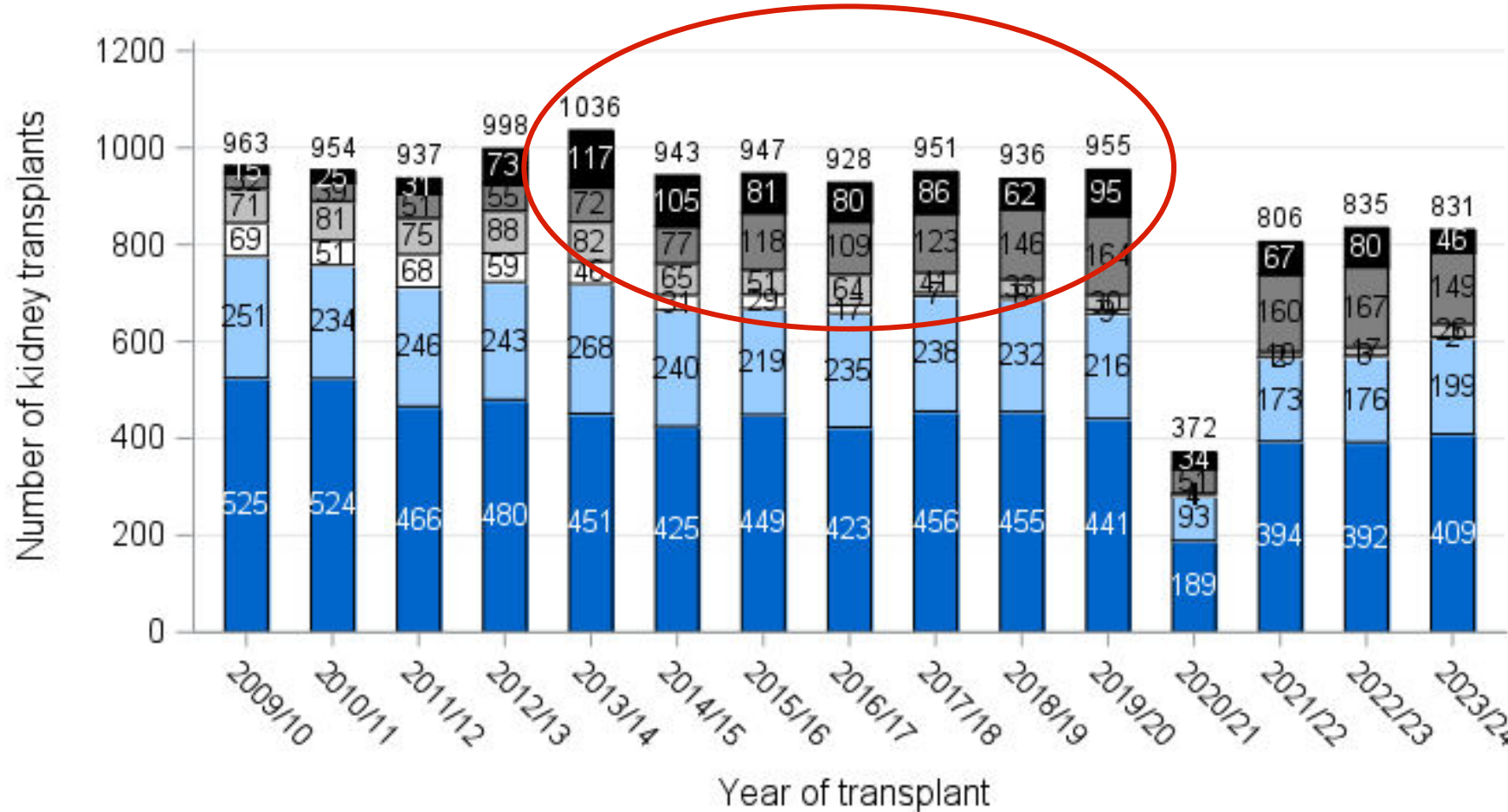
DBD post-transplant outcomes



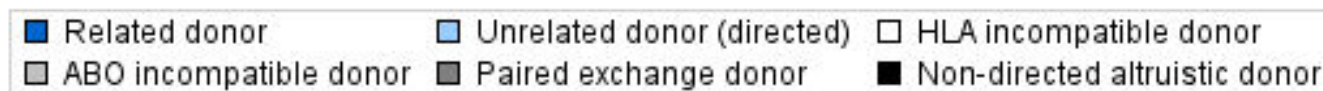
Kidney, Pancreas = graft survival
Liver, Heart, Lung = patient survival

Living organ donation

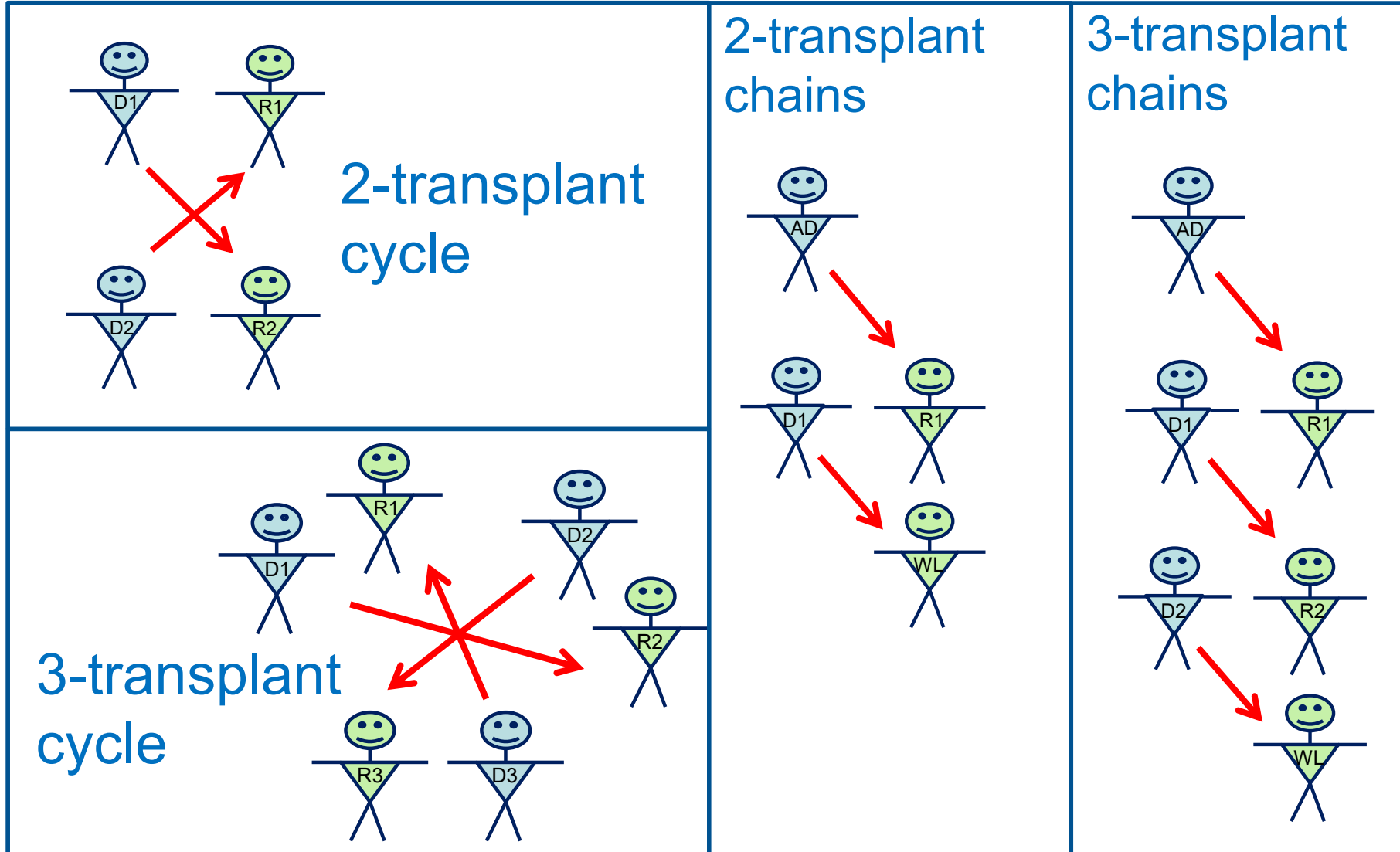
UK Adult Living Donor Kidney Transplants, 1 April 2009 – 31 March 2024



Increase in altruistic and paired exchange donor transplants



UK Living kidney sharing scheme – exchange types

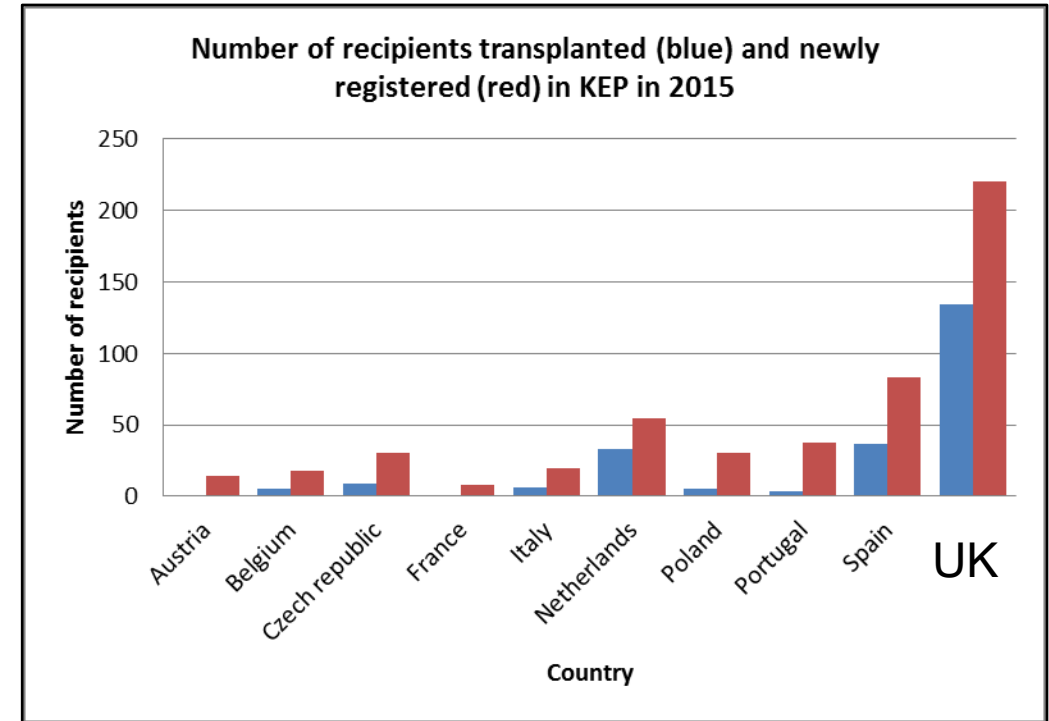
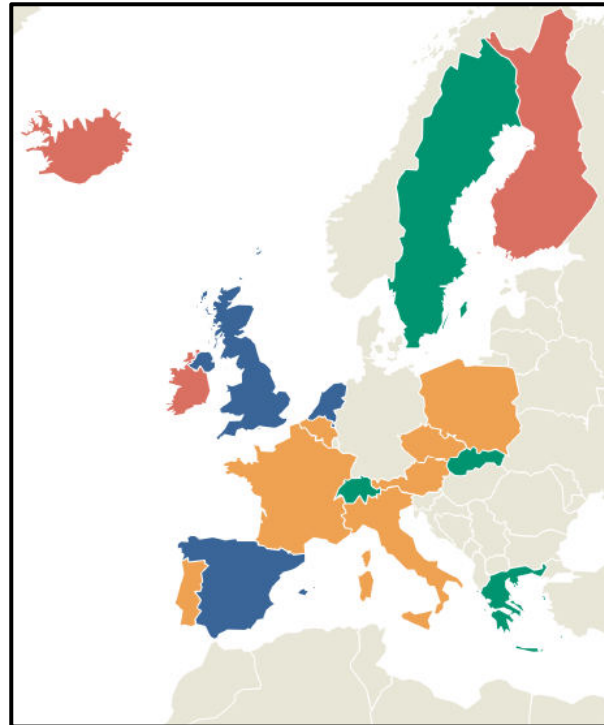


UK scheme - largest in Europe



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) (PMID:30247314) (Early Online Publication)

Thank you
Any questions?



Yes I donate
ORGAN DONATION