



**NATIONAL KIDNEY REGISTRY®**  
FACILITATING LIVING DONOR TRANSPLANTS

# Quarterly Report

## Q2 2023

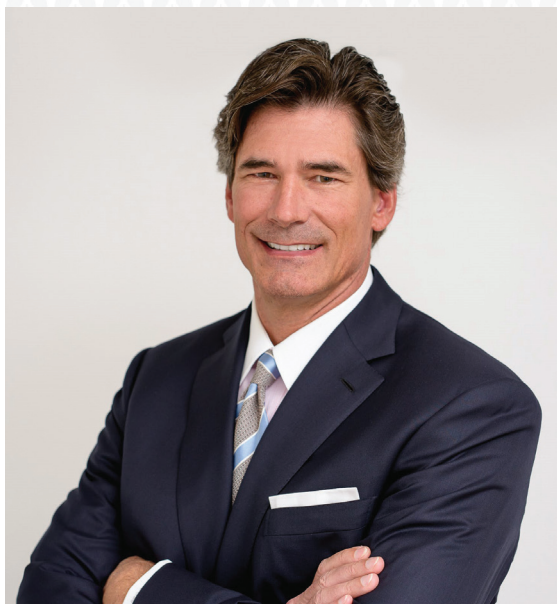
All data ranges cut off at the end of Q2 (6/30/2023)  
All annualizations based on 1/1/2023 – 6/30/2023

# Table of Contents

Actual Wait Times to Transplant Compatible Pairs who Received a Low Eplet Mismatch Transplant . . . . .	19	Kidney for Life Results One Year Antibody Screening . . . . .	20	Pool Composition by cPRA Unmatched Paired and Voucher Patients . . . . .	37
Death Censored Graft Failure Comparisons . . . . .	22	Living Donors Supported and Protected By Donor Type . . . . .	31	Remote Donations by Donor Type . . . . .	33
Decoupling Trend Transition from Paired to Standard Voucher Donation . . . . .	36	Living Kidney Donations Resulting from NKR Donor Referrals . . . . .	27	Resources . . . . .	46
Dialysis Patients Waiting More Than One Year Due to High cPRA . . . . .	42	Low Eplet Mismatch Transplants Percentage of Voucher & Paired Recipients Receiving a Low Eplet Mismatch Transplant . . . . .	21	Swap Failure Rates . . . . .	44
Donor Registration Type Kidney Registrations Across All DASH Intake Platforms . . . . .	24	Median Wait Time by Blood Type From Exportability to Transplant . . . . .	41	Swaps Saved by Swap Saver Voucher Donors . . . . .	45
Donor Shield Reimbursements The NKR is Reimbursing over \$5M Annually to Eliminate Disincentives . . . . .	32	Median Wait Time to Transplant From Exportability to Transplant . . . . .	40	Top 10 Centers in the U.S.2022 Living Donor Kidney Transplants . . . . .	6
Good Samaritan Donor Candidate Registrations Kidney Registrations Across All DASH Intake Platforms . . . . .	25	Message from the Founder & CEO . . . . .	3	Top 10 Centers in the U.S.2022 Living Donor KPD Kidney Transplants . . . . .	7
Higher Conversion Rates with Donor Connect Private Label DASH Donations / Average Registrations . . . . .	29	Microsite Centers . . . . .	14	Top 10 Centers Most Active Microsites . . . . .	11
Home Blood Draw Requests . . . . .	34	Microsite Donor Registrations . . . . .	12	Top 10 Centers NKR Facilitated Transplants – Last 12 months . . . . .	5
Kidney for Life Centers . . . . .	23	Microsite Enrollment Success Percentage of Waitlist Patients with Microsites . . . . .	10	Total Eplet Mismatch Transplants by Type All Patient Types . . . . .	18
Kidney for Life Low Eplet Mismatch Transplants Compatible and Incompatible Pairs . . . . .	15	Microsite Growth . . . . .	8	Transition to Family Voucher Donation . . . . .	35
Kidney for Life Low Eplet Mismatch Transplants Compatible and Incompatible Pairs 7/1/2022 – 6/30/2023 . . . . .	16	Microsite Patient Referrals . . . . .	13	Transplanted Recipients by cPRA . . . . .	43
Kidney for Life Low Eplet Mismatch Transplants Compatible Pairs 7/1/2022 – 6/30/2023 . . . . .	17	Microsite Patients Receiving Living Donor Transplants . . . . .	9	Wait Time Distribution – Incompatible Pairs Exportability to Transplant – Paired & Voucher Wait Times . . . . .	39
Kidney for Life Patient Referrals . . . . .	30	New Exportable Patients Paired and Standard Voucher . . . . .	38		
		NKR Donor Conversion Rates Donations Divided by Average Referrals . . . . .	28		
		NKR Facilitated Transplant Growth . . . . .	4		
		NKR Kidney Donor Referrals Completed Online Screening, Medical History and Labs . . . . .	26		



# Message from the Founder & CEO



The National Kidney Registry facilitated 675 transplants in the first half of this year, up 21% over the 560 transplants facilitated in the first half of 2022. The growth in NKR-facilitated transplants was primarily driven by increases in microsite patient transplants, strong growth in NKR donor candidates referred to Member Centers and an increase in compatible pairs seeking low eplet mismatched donors through our Kidney for Life platform.

During Q2, the NKR helped to launch ImmunoFree Inc., a newly formed biotech company whose mission is to eliminate the need for lifelong immunosuppressive medications for transplant recipients, thus enabling them to live longer, healthier lives. ImmunoFree purchased the transplant tolerance business of Talaris Therapeutics in July and will commence a new clinical trial in the next 6–12 months following FDA-approved modifications to the protocol. The new protocol will include an improved conditioning regimen, a focus on delayed tolerance and better donor-recipient genetic matching achieved by leveraging the NKR's Kidney for Life Expert System. These protocol changes are designed to reduce the risk of graft versus host disease and maximize the number of transplant recipients that can be weaned off immunosuppressive medications.

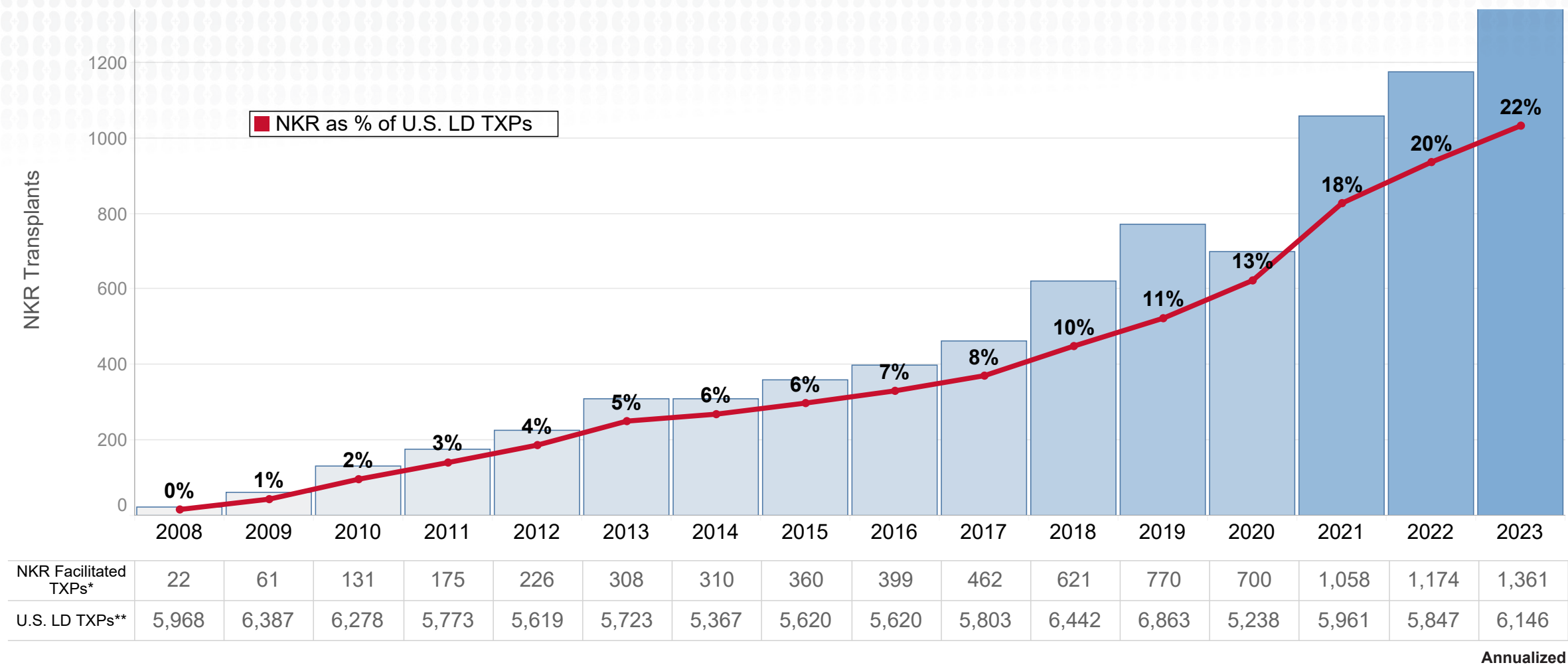
ImmunoFree intends to lead with delayed tolerance, a protocol that allows patients to recover from their kidney transplant for several months prior to undergoing the associated conditioning protocol and tolerance-inducing stem-cell transplant. The clinical trial data indicate that the genetic match between the donor and recipient is critical, so the initial trial enrollment criteria will likely limit enrollment to patients who have received a low eplet mismatch transplant in the past 5 years and have a bone marrow transplant (BMT) HLA mismatch of 0–4 (allele level matching on A, B, C and DR). We will implement the BMT HLA mismatch information in the KFL Expert System within the next 30 days so that centers can give their patients the best opportunity to participate in the ImmunoFree delayed tolerance program in the future.

Sincerely,

A handwritten signature in blue ink, appearing to read 'G Hil', written in a cursive, fluid style.

**Garet Hil**  
Founder & CEO  
National Kidney Registry  
Living Kidney Donor

# NKR Facilitated Transplant Growth



\*NKR facilitated transplants (TXPs) include voucher, paired, remote directs, KFL remote directs, NKR internal direct, microsite internal direct, and WLP transplants.

Total transplants subject to change due to delayed reporting. NKR data captured 6/30/2023.

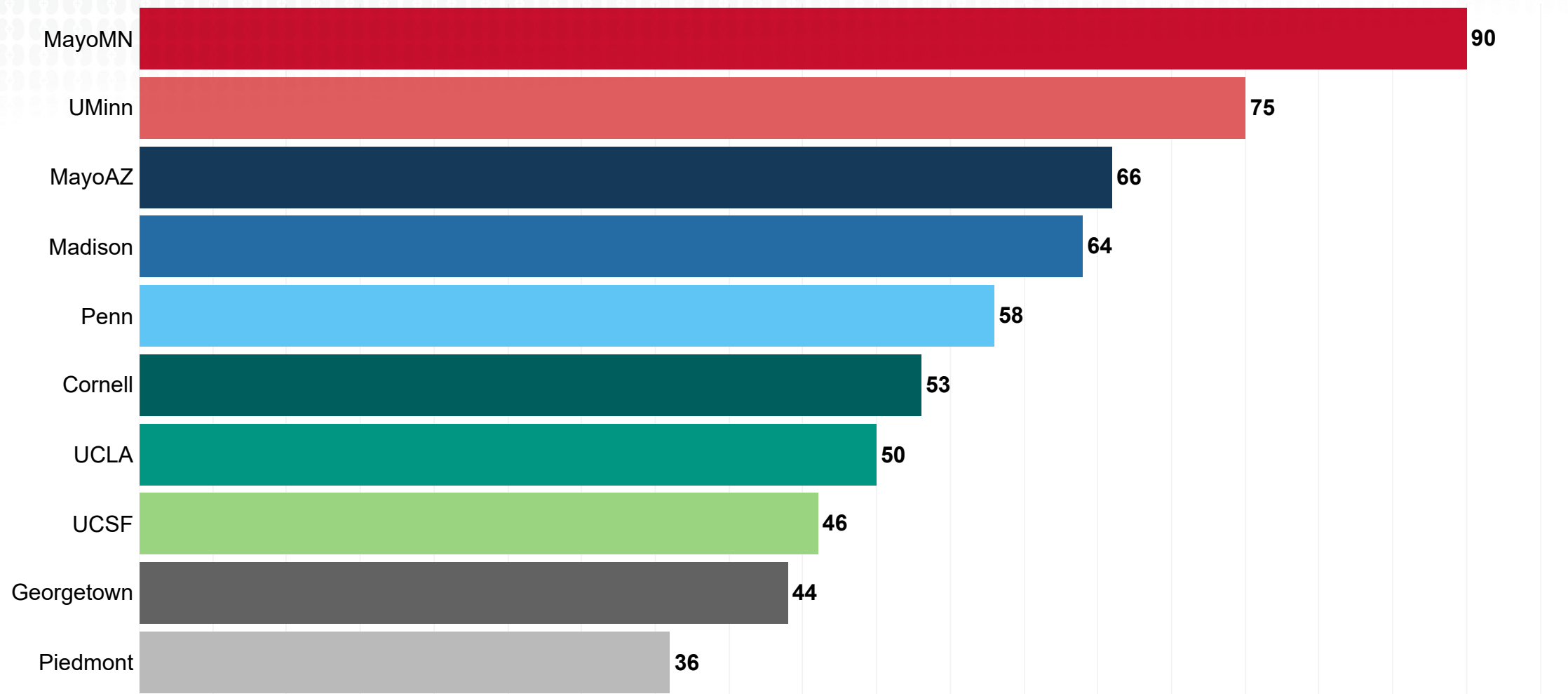
\*\*<https://optn.transplant.hrsa.gov/data/> U.S. Living Donor (LD) Transplants Performed: Data for OPTN 1/1/2008 – 6/18/2023.





# Top 10 Centers

NKR Facilitated Transplants – Last 12 months

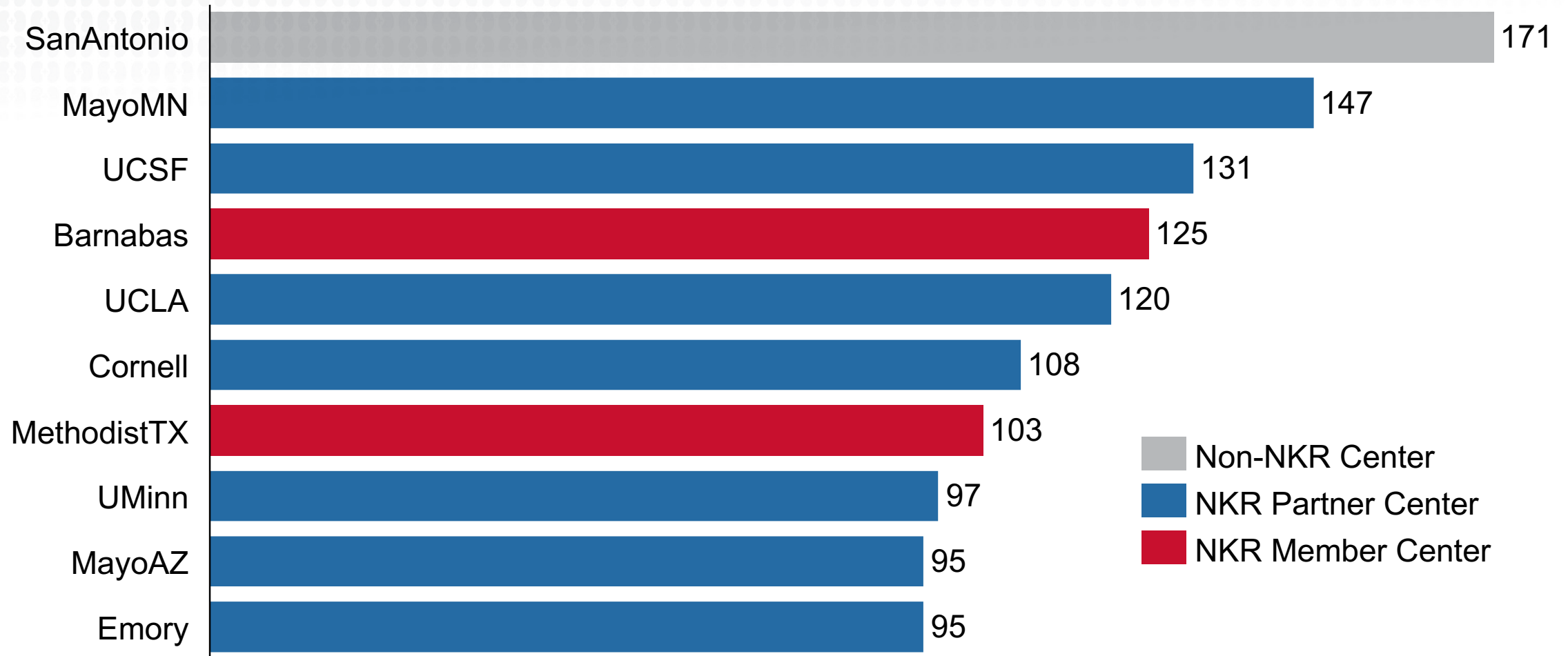


*NKR facilitated transplants include voucher, paired, remote directs, Kidney for Life remote directs, NKR internal direct, microsite direct transplants, and waitlist patient transplants. As of 7/1/2023.*



# Top 10 Centers in the U.S.

2022 Living Donor Kidney Transplants

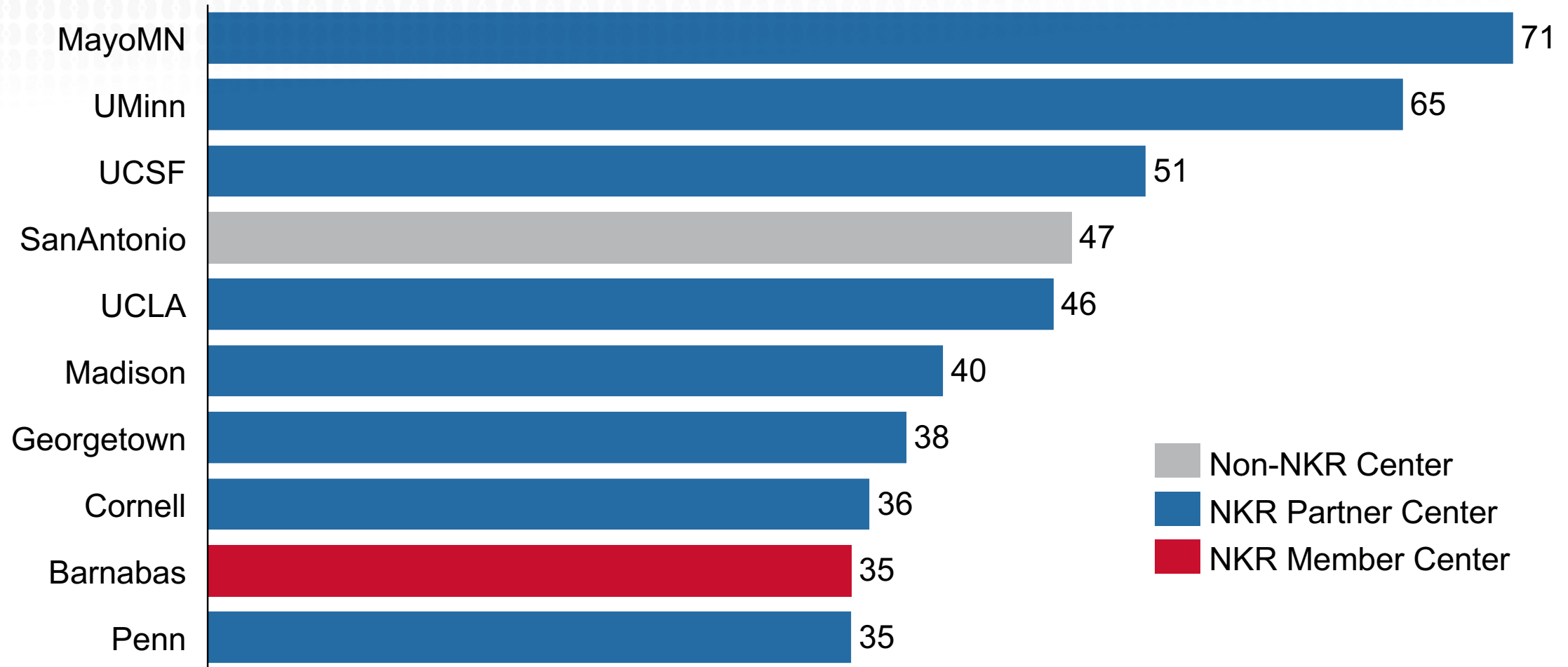


2022 UNOS Data.



# Top 10 Centers in the U.S.

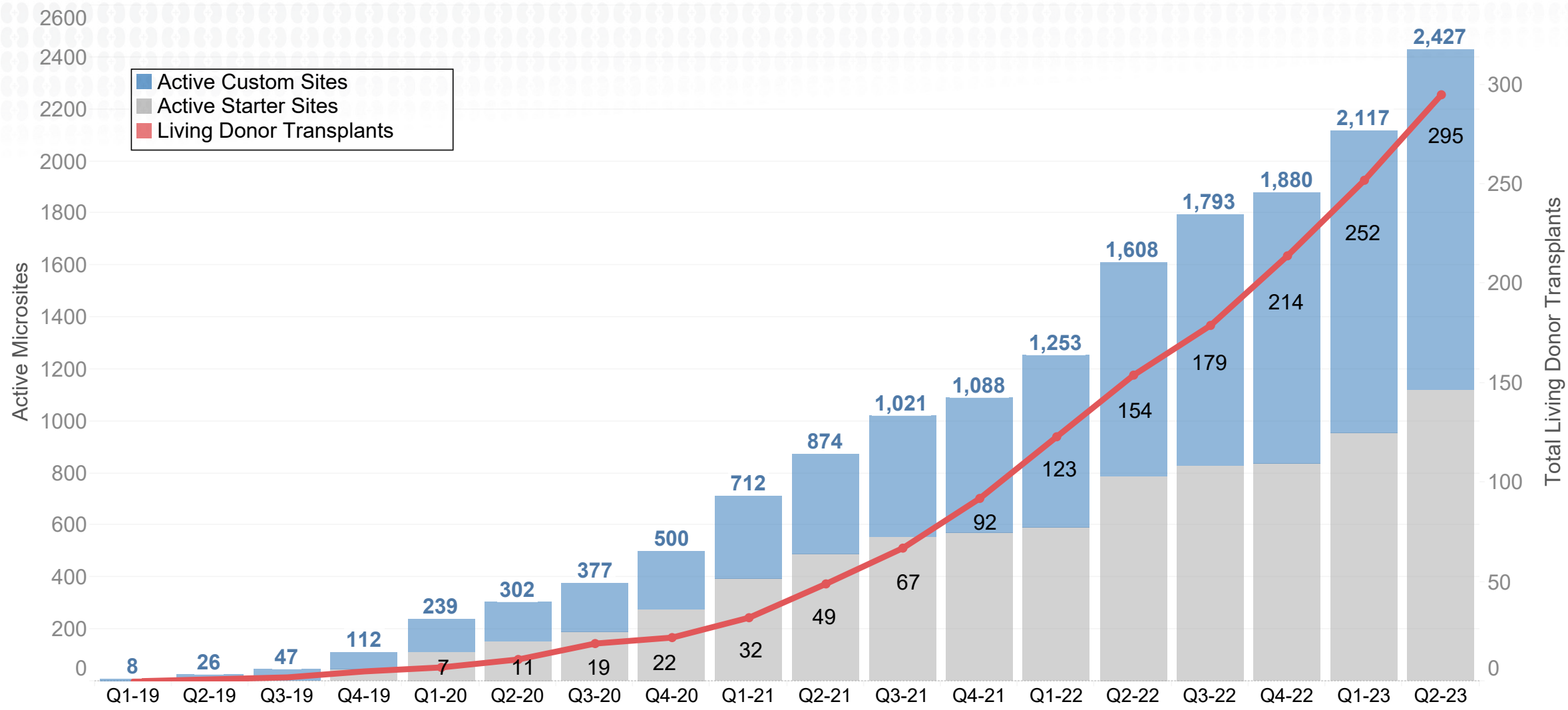
2022 Living Donor KPD Kidney Transplants



2022 UNOS Data.



# Microsite Growth

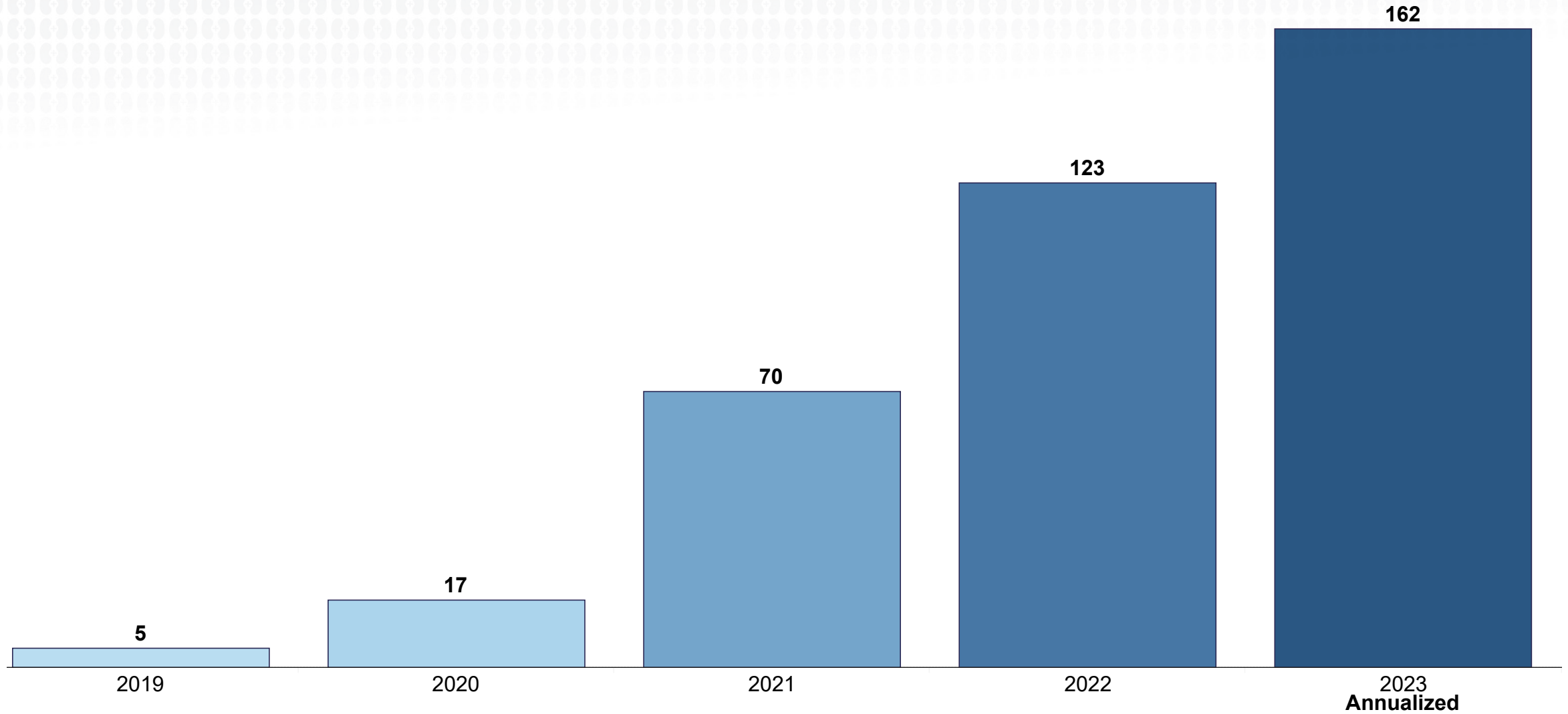


As of 7/1/2023.





# Microsite Patients Receiving Living Donor Transplants

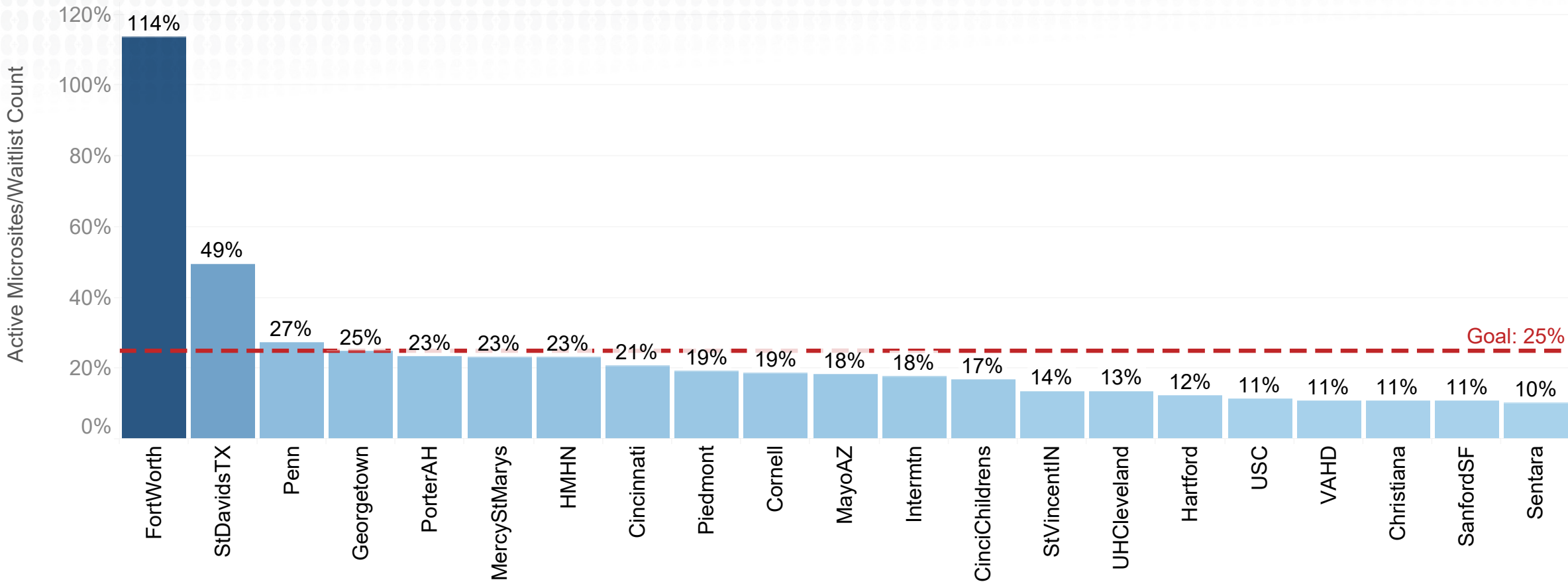


As of 7/1/2023. 2023 under-reported due to delay in TXP Centers reporting.



# Microsite Enrollment Success

Percentage of Waitlist Patients with Microsites



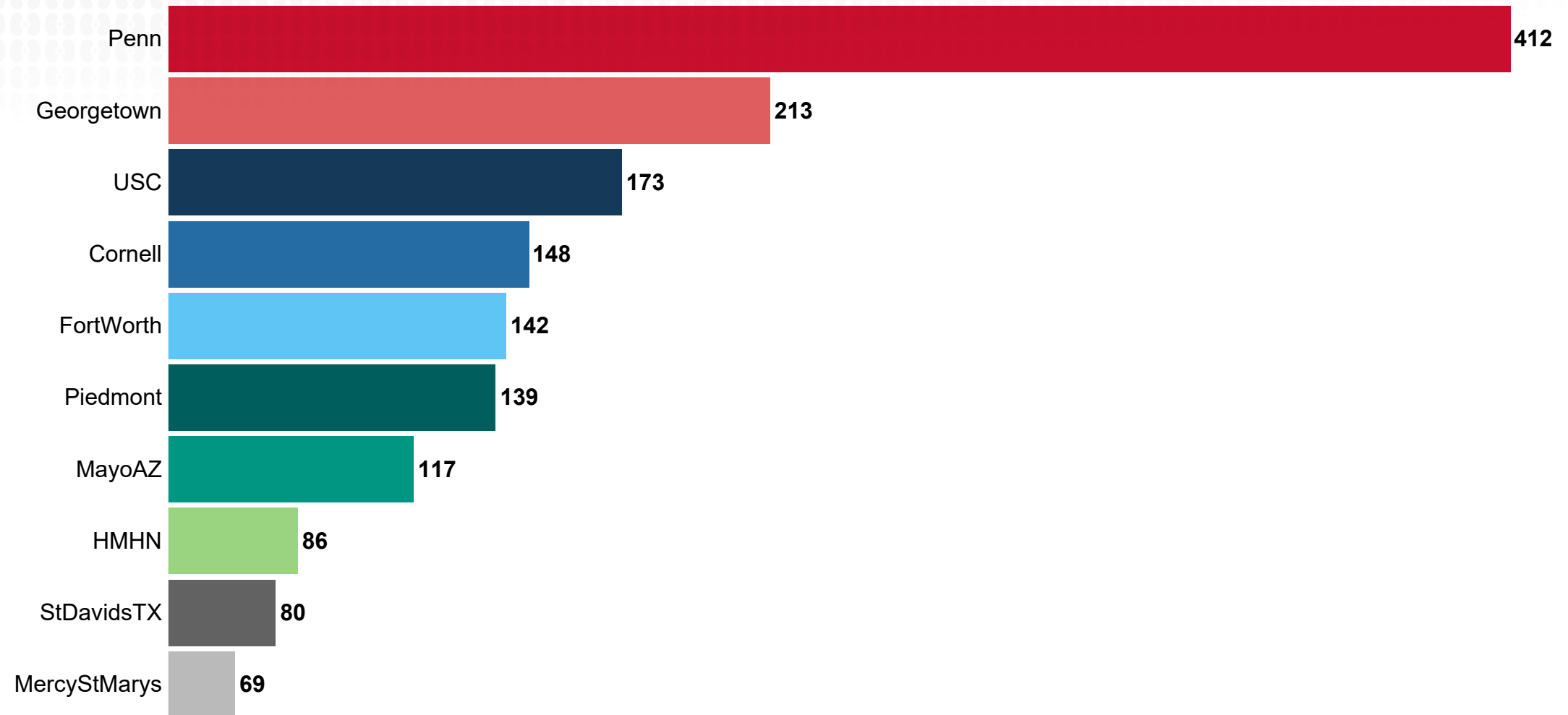
Active MS	142	80	412	213	59	69	86	61	139	148	117	65	3	44	49	45	173	15	16	8	49
Waitlist	125	162	1,505	855	252	298	375	295	730	793	635	366	18	325	365	365	1,523	138	149	75	480

NKR Microsite Date for 7/1/2023. Latest OPTN Waitlist data for 3/2023. **Formula:** Active Microsites / Total Waitlist. Minimum 10%



# Top 10 Centers

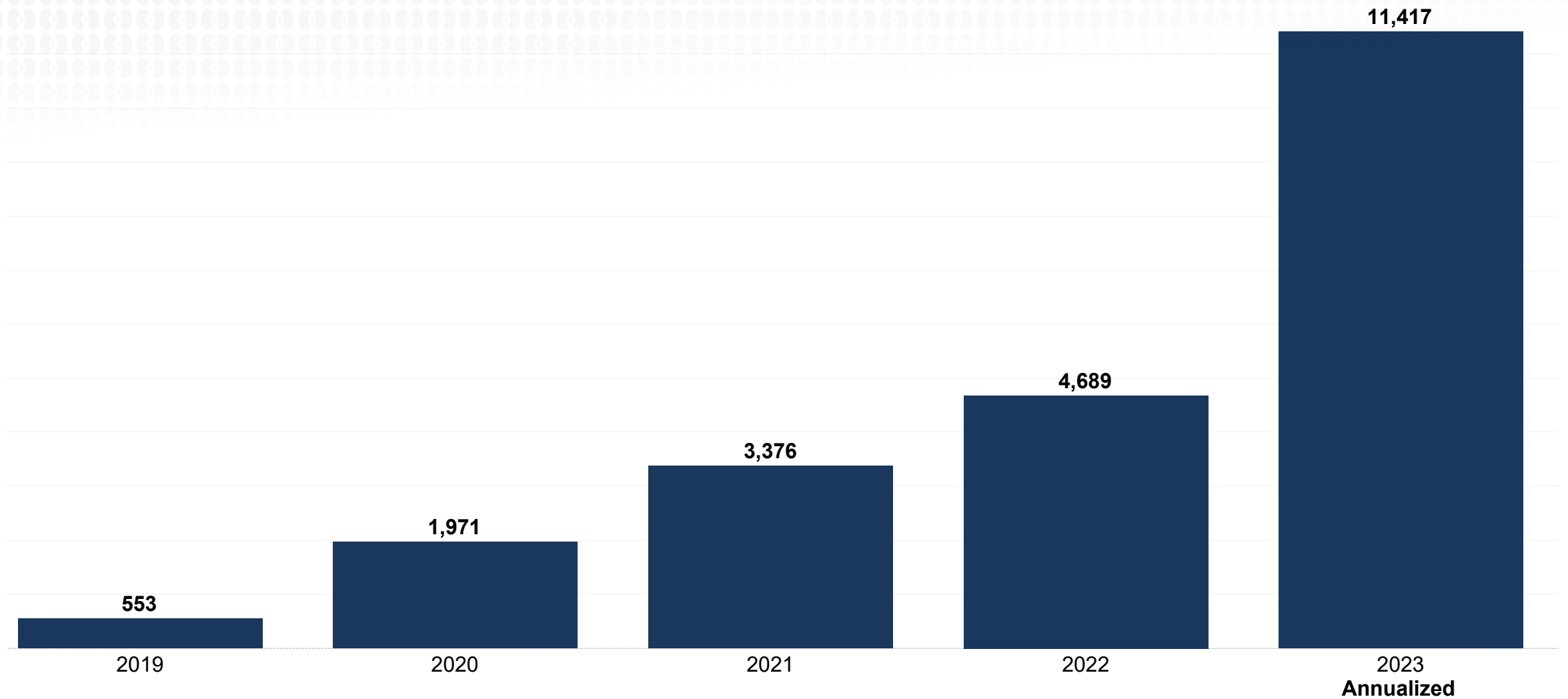
## Most Active Microsites



*Kidney only. As of 7/1/2023.*



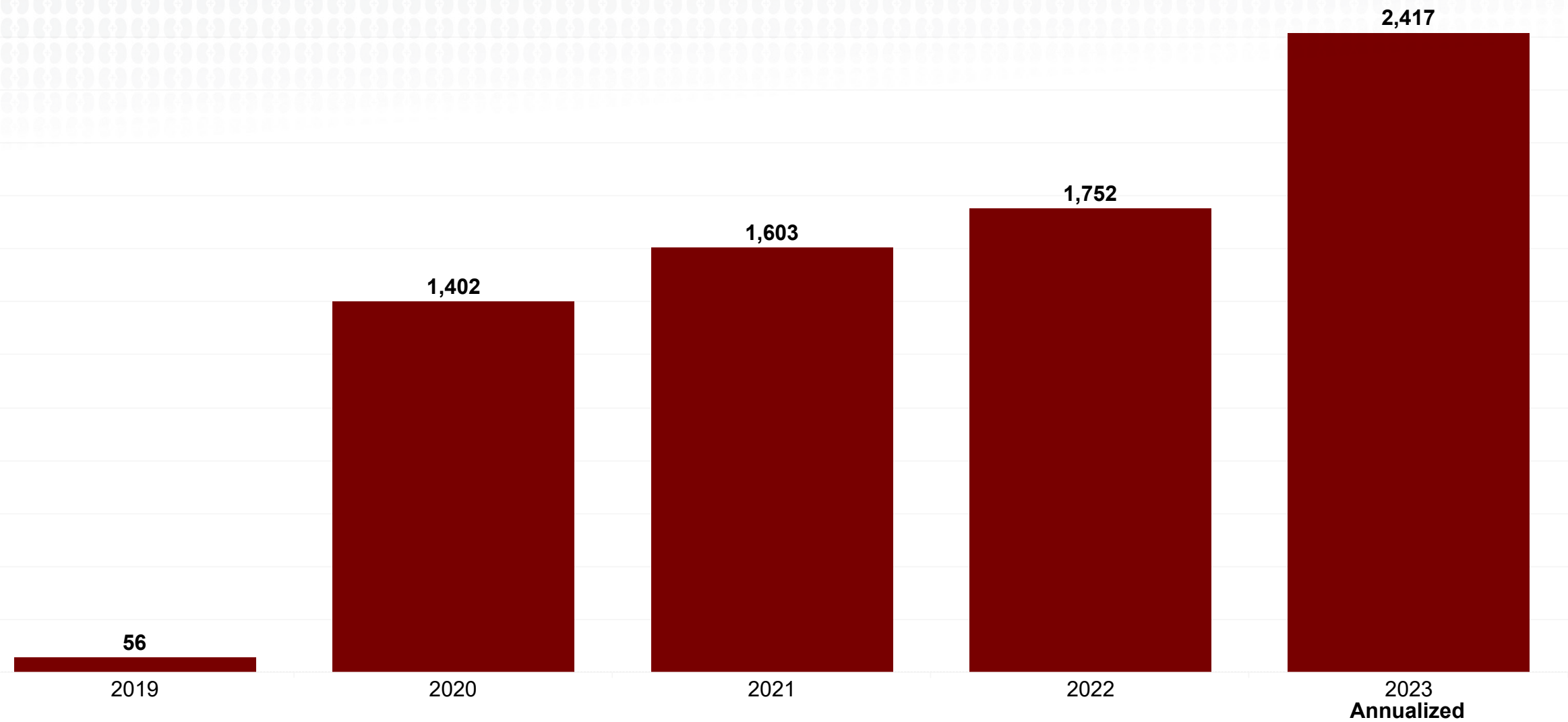
# Microsite Donor Registrations



*Kidney only. As of 7/1/2023.*



# Microsite Patient Referrals

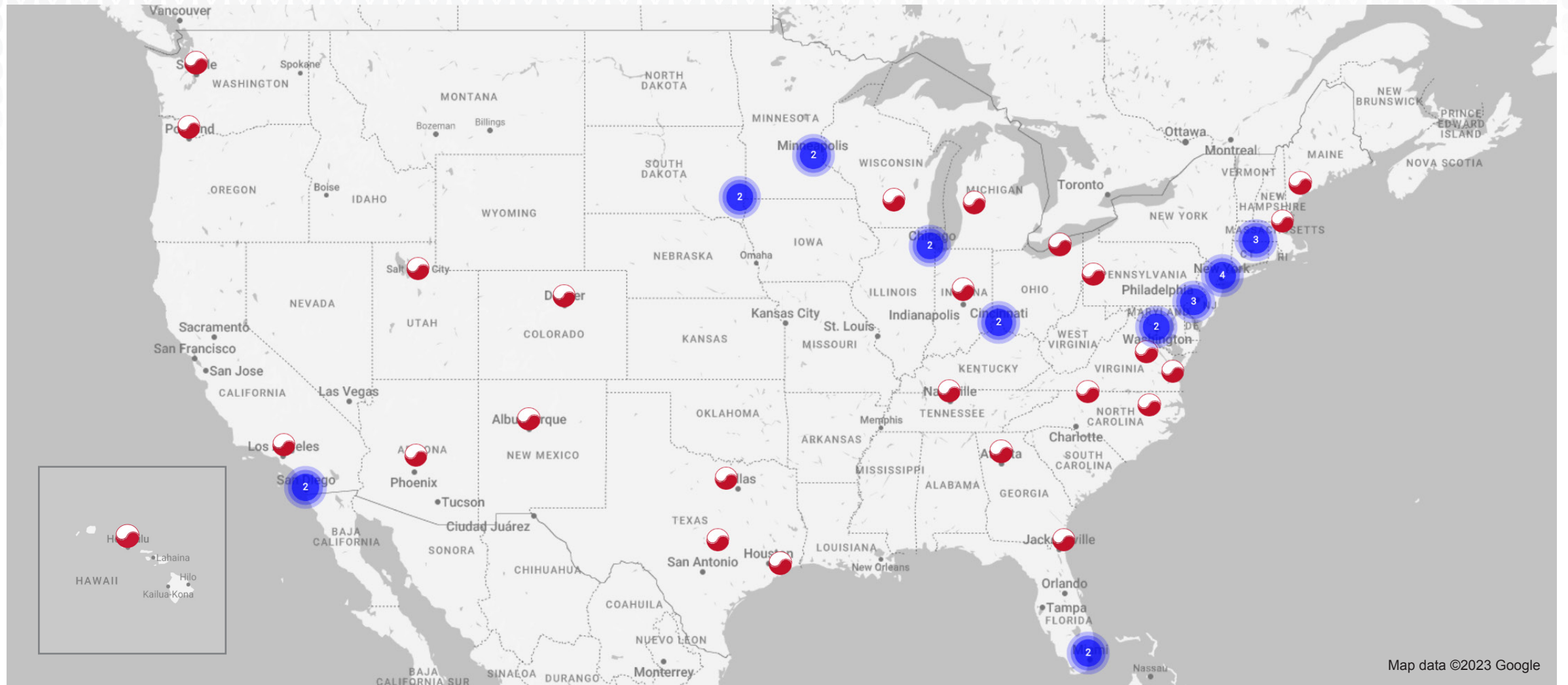


As of 7/1/2023.





# Microsite Centers

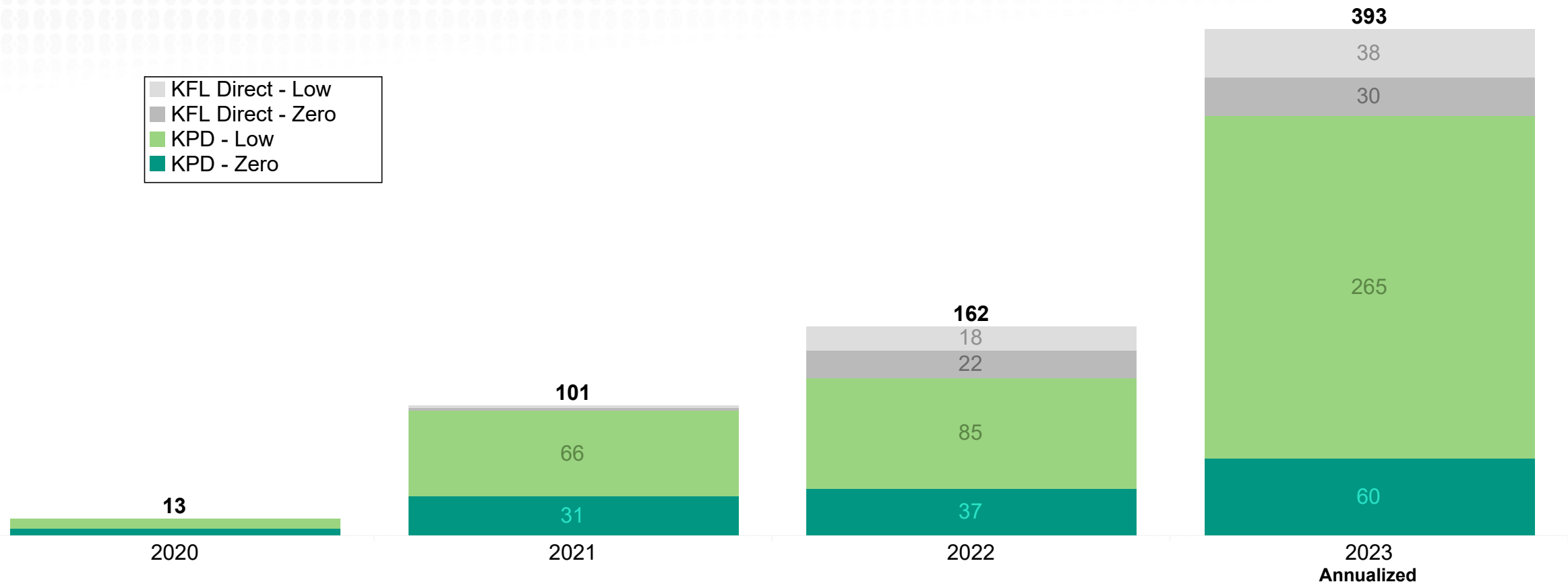


As of 8/3/2023.  
To see the latest microsite participating centers [click here](#).



# Kidney for Life Low Eplet Mismatch Transplants

Compatible and Incompatible Pairs

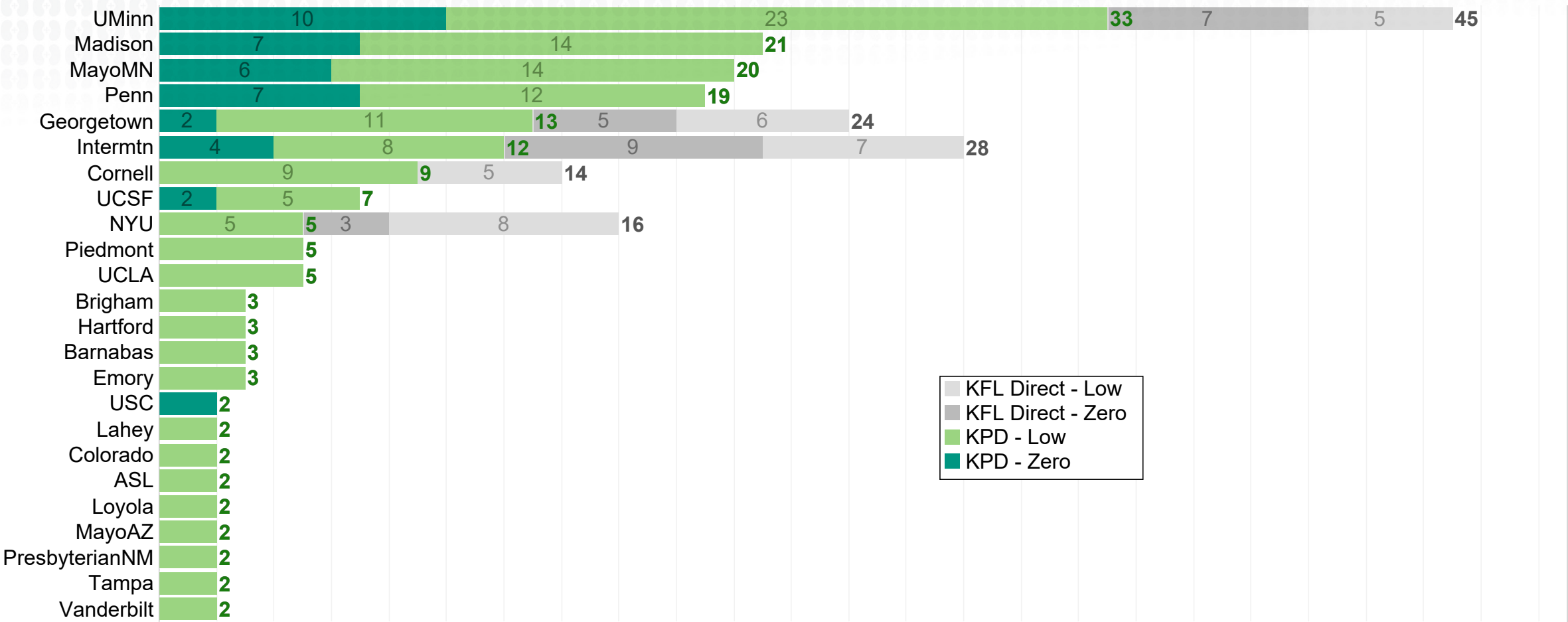


Excludes waitlist and remote direct. As of 7/1/2023.  
Eplet mismatch categories are based on the definition provided by Wiebe C, Kosmoliaptsis V, Pochinco D, et al. HLA-DR/DQ molecular mismatch: a prognostic biomarker for primary alloimmunity. Am J Transplant. 2019;19:1708–1719. <https://doi.org/10.1111/ajt.15177>



# Kidney for Life Low Eplet Mismatch Transplants

Compatible and Incompatible Pairs 7/1/2022 – 6/30/2023

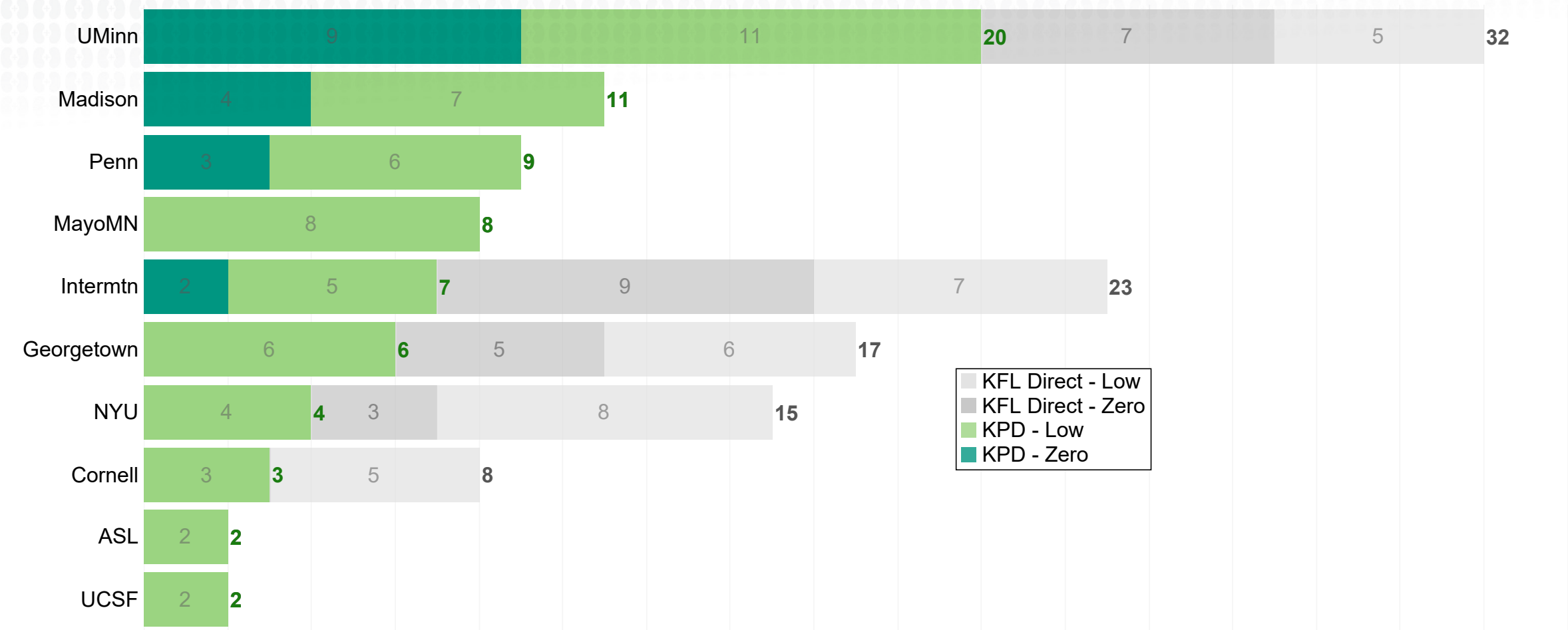


Excludes waitlist and remote direct. As of 7/1/2023. Minimum 2 Transplants.  
Eplet mismatch categories are based on the definition provided by Wiebe C, Kosmoliaptsis V, Pochinco D, et al. HLA-DR/DQ molecular mismatch: a prognostic biomarker for primary alloimmunity. Am J Transplant. 2019;19:1708–1719. <https://doi.org/10.1111/ajt.15177>



# Kidney for Life Low Eplet Mismatch Transplants

Compatible Pairs 7/1/2022 – 6/30/2023

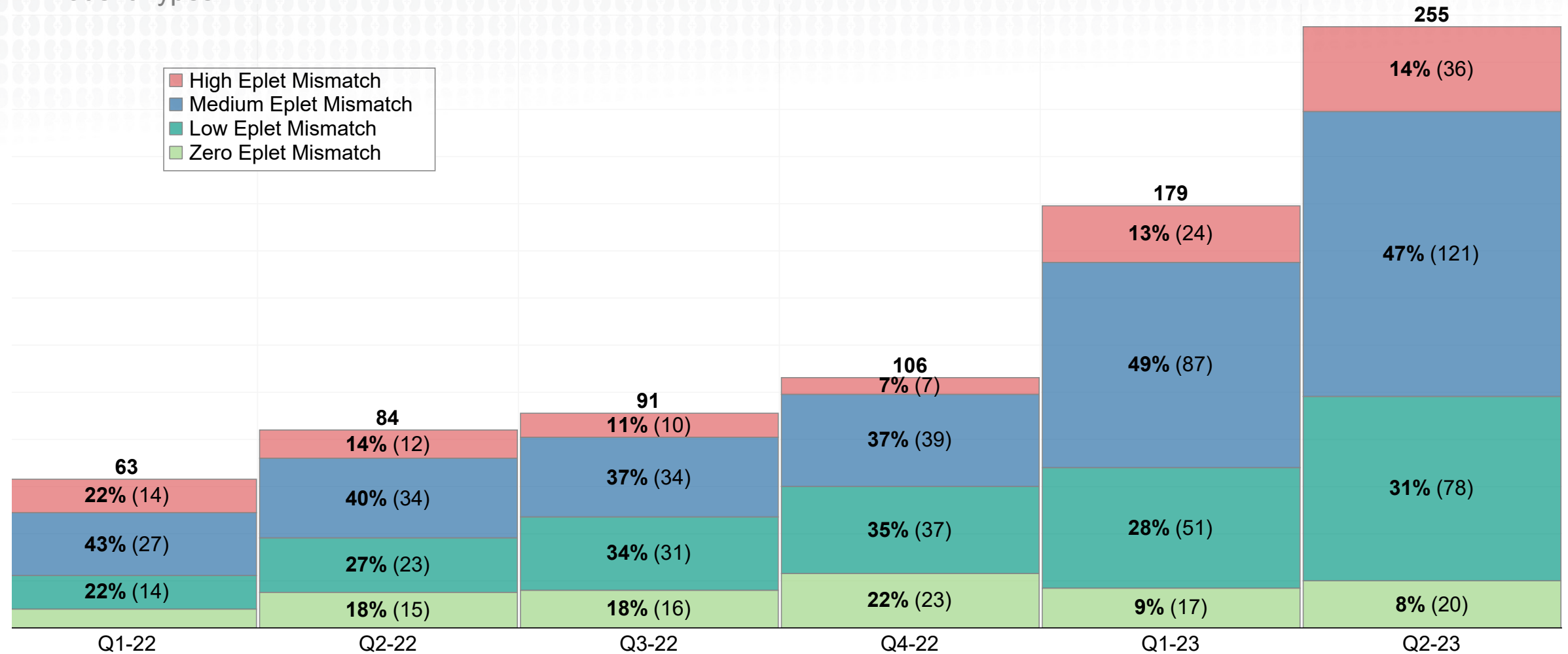


Excludes waitlist and remote direct. Minimum 2 transplants. As of 7/1/2023.  
Eplet mismatch categories are based on the definition provided by Wiebe C, Kosmoliaptsis V, Pochinco D, et al. HLA-DR/DQ molecular mismatch: a prognostic biomarker for primary alloimmunity. Am J Transplant. 2019;19:1708–1719. <https://doi.org/10.1111/ajt.15177>



# Total Eplet Mismatch Transplants by Type

All Patient Types



As of 7/1/2023.

Eplet mismatch categories are based on the definition provided by Wiebe C, Kosmoliaptsis V, Pochinco D, et al. HLA-DR/DQ molecular mismatch: a prognostic biomarker for primary alloimmunity.

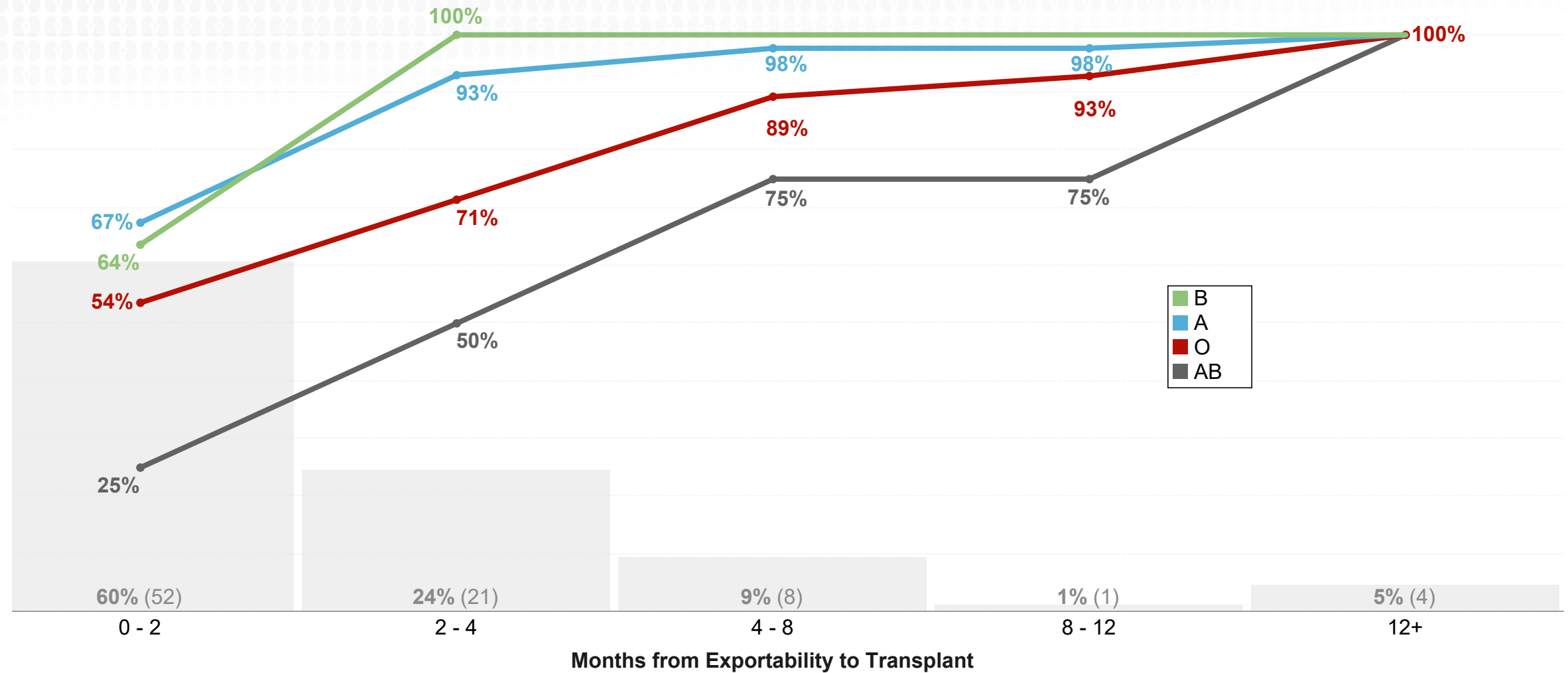
Am J Transplant. 2019;19:1708–1719. <https://doi.org/10.1111/ajt.15177>





# Actual Wait Times to Transplant

Compatible Pairs who Received a Low Eplet Mismatch Transplant

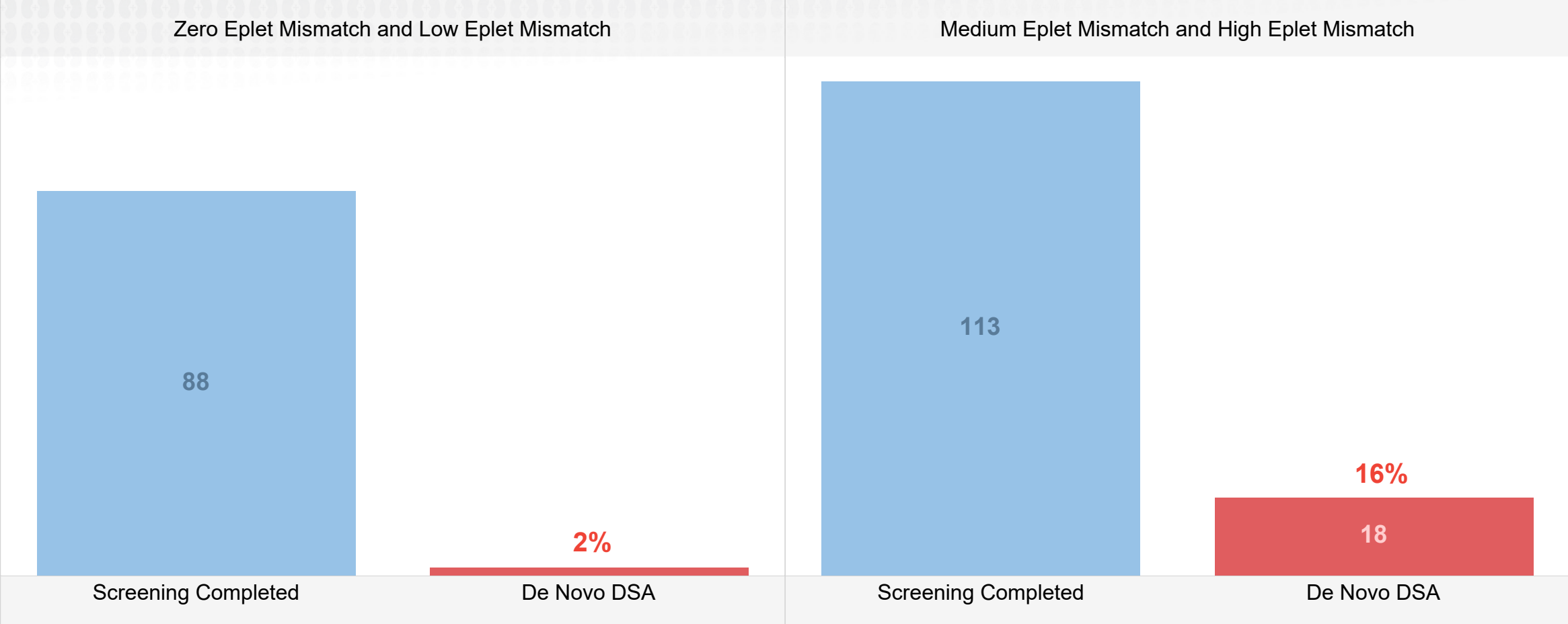


Data for 7/1/2022 – 6/30/2023. cPRA ≤ 99.



# Kidney for Life Results

## One Year Antibody Screening

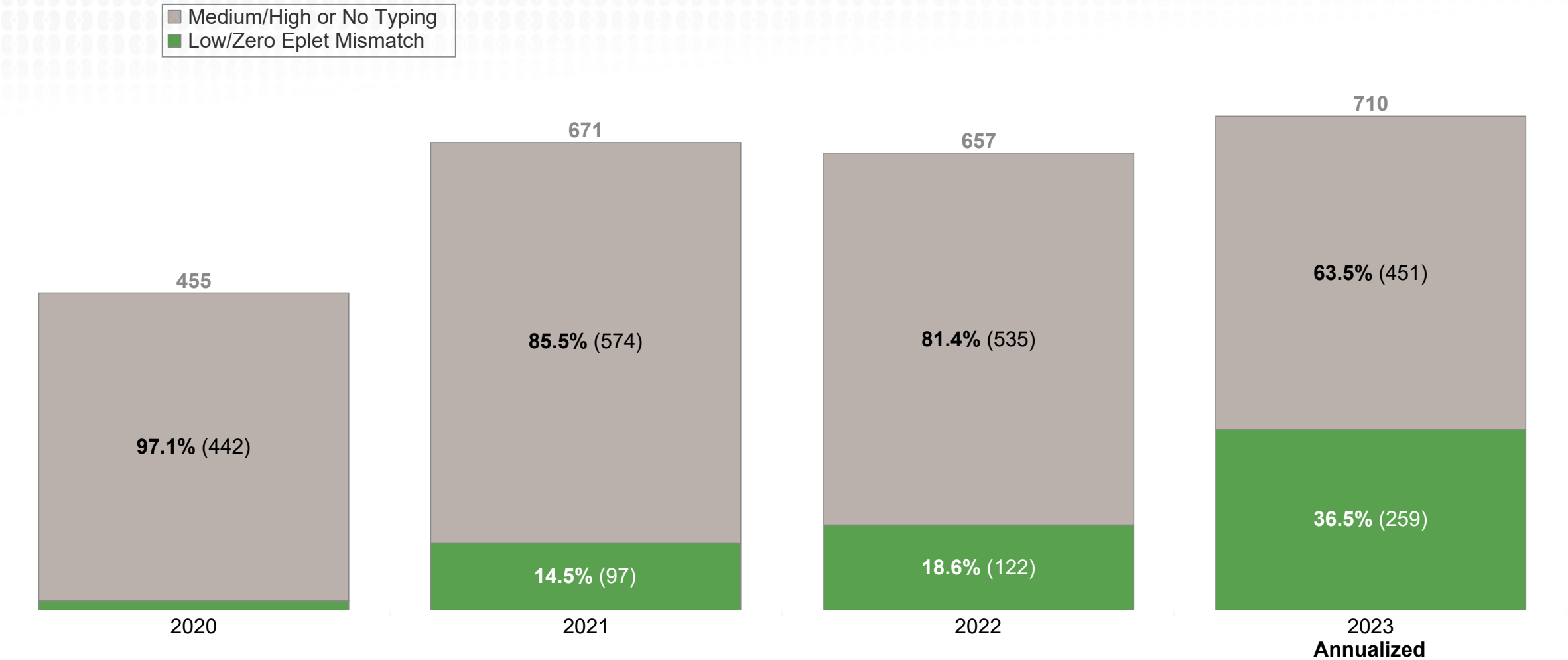


De Novo DSA is defined by MFI > 1000 but may not be clinically significant.  
Data for last 12 months as of 7/1/2023.



# Low Eplet Mismatch Transplants

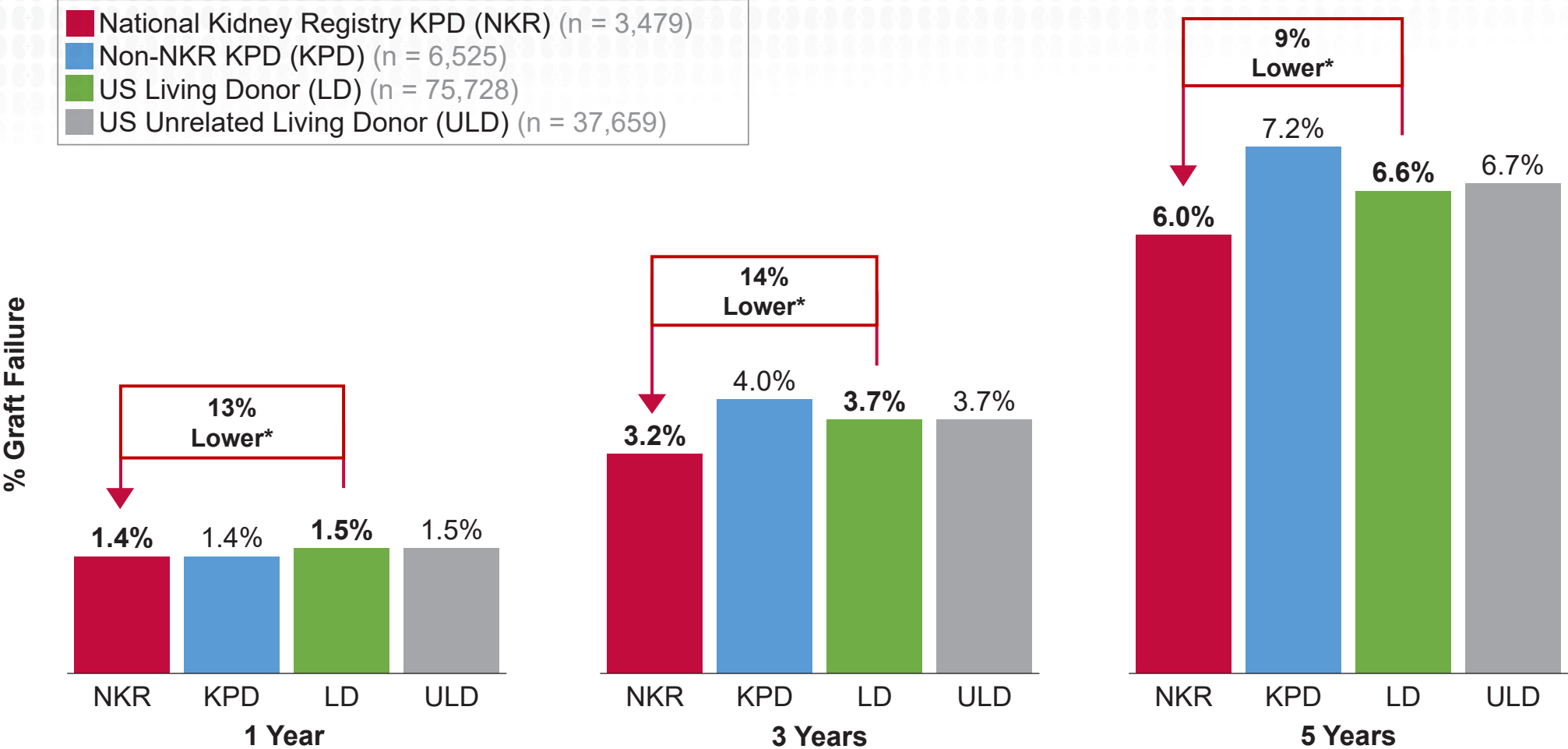
Percentage of Voucher & Paired Recipients Receiving a Low Eplet Mismatch Transplant



Excludes non-KPD and waitlist patient transplants. As of 7/1/2023.



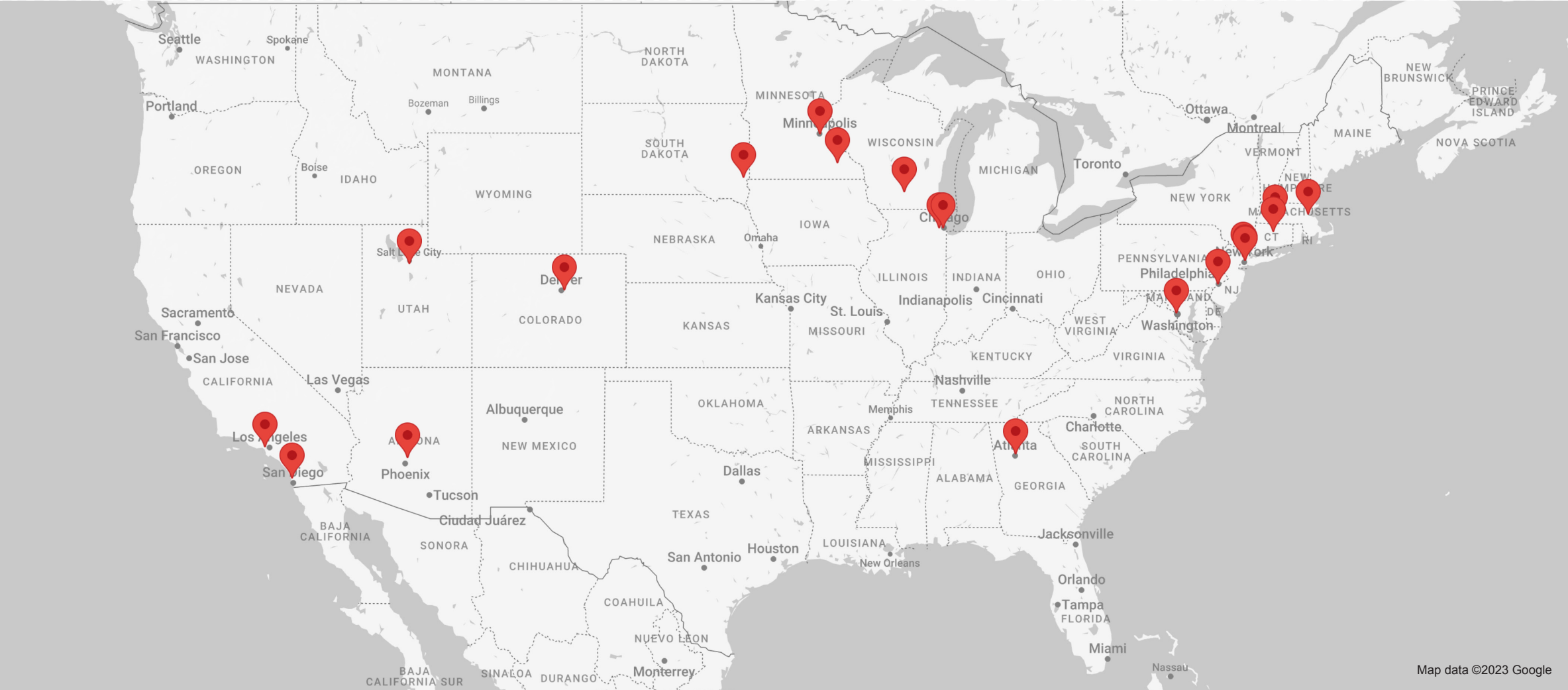
# Death Censored Graft Failure Comparisons



*\*Statistically significant*  
Provided courtesy of NYU Grossman School of Medicine, Department of Surgery \*Not including waitlist patients; Kaplan-Meier GS Rates for Transplants Performed: 02/2008-12/2021 with follow-up through 3/31/2022. <https://www.str.org/SRTR> data as of June 2022.



# Kidney for Life Centers



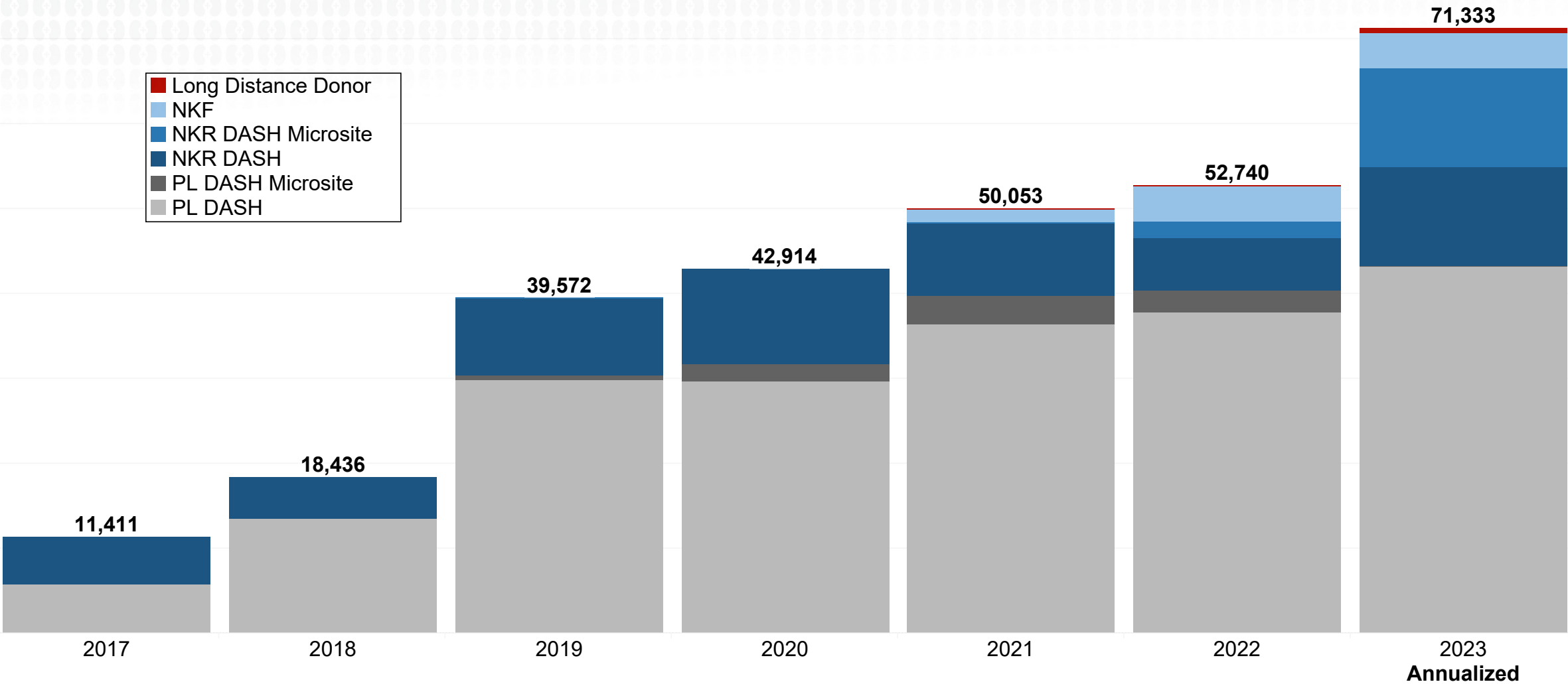
As of 8/3/2023.  
To see the latest Kidney for Life participating centers [click here](#).





# Donor Registration Type

Kidney Registrations Across All DASH Intake Platforms

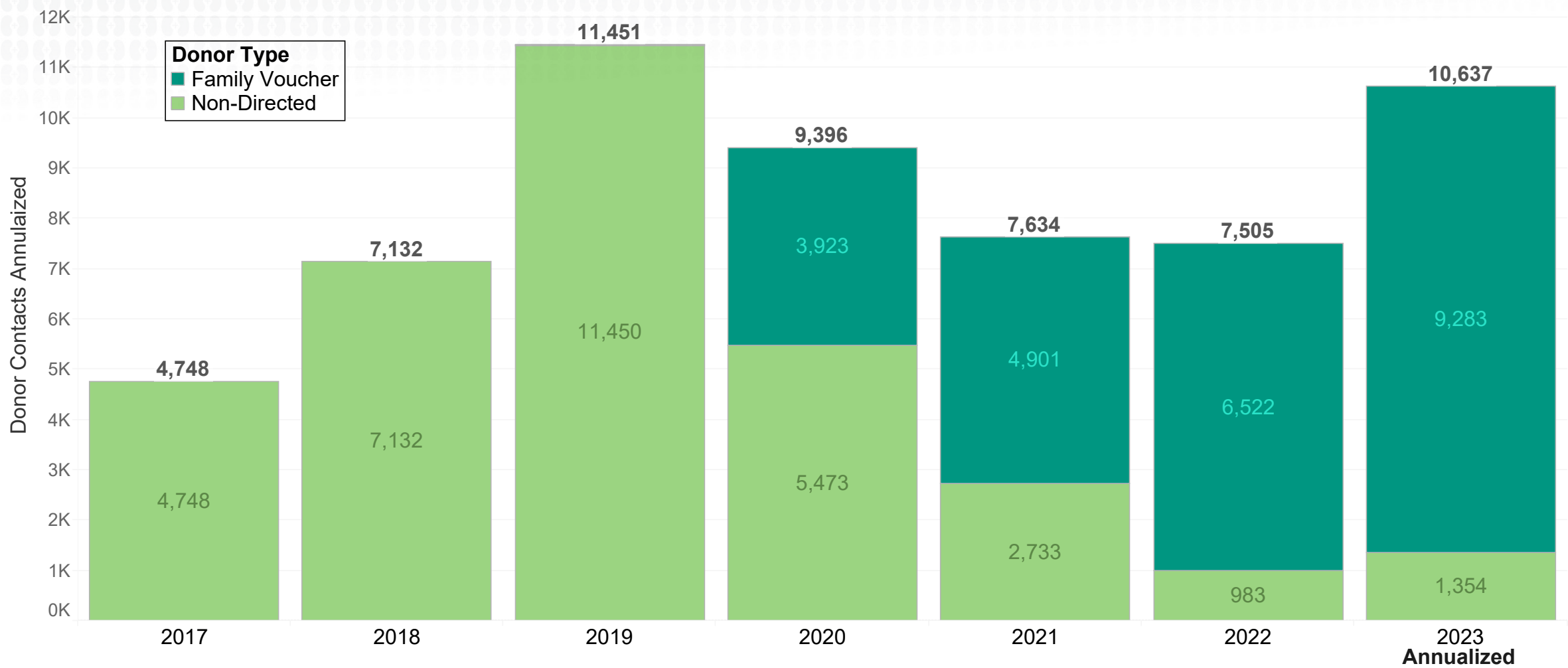


As of 7/7/2023.



# Good Samaritan Donor Candidate Registrations

Kidney Registrations Across All DASH Intake Platforms

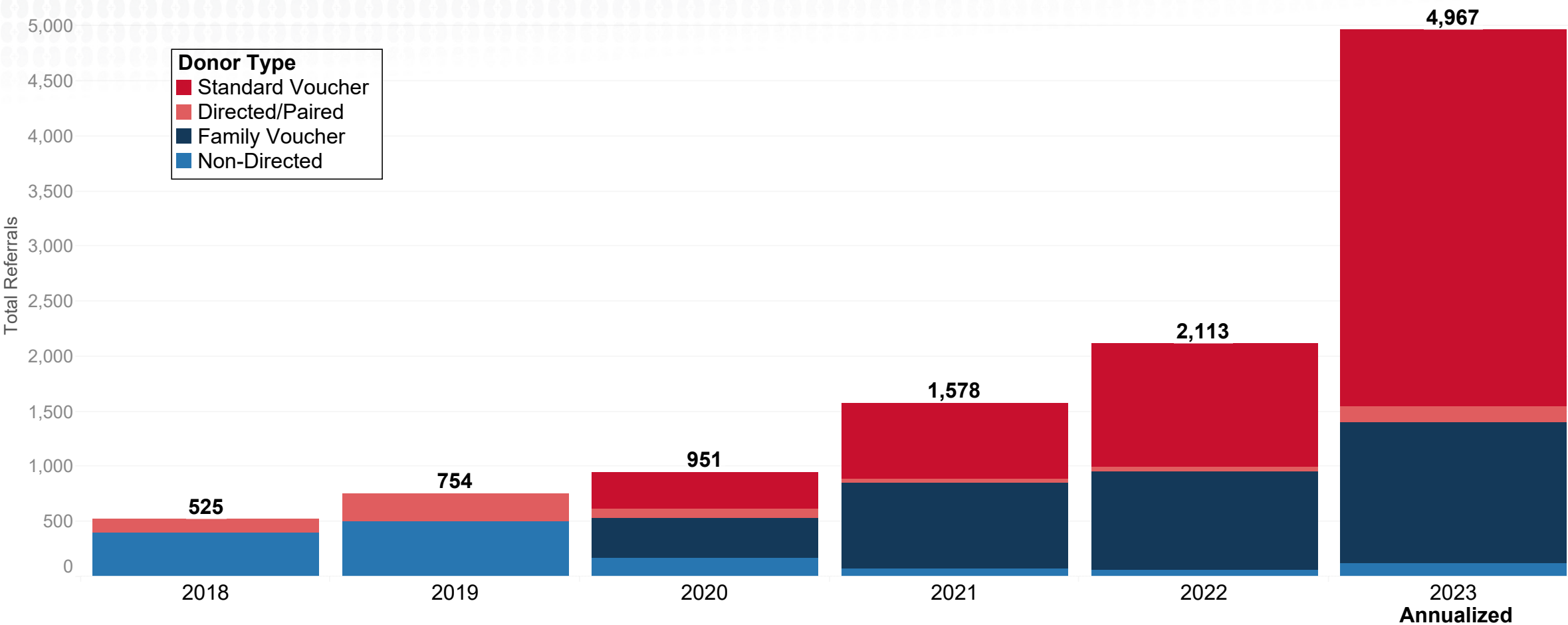


As of 7/1/2023.



# NKR Kidney Donor Referrals

Completed Online Screening, Medical History and Labs

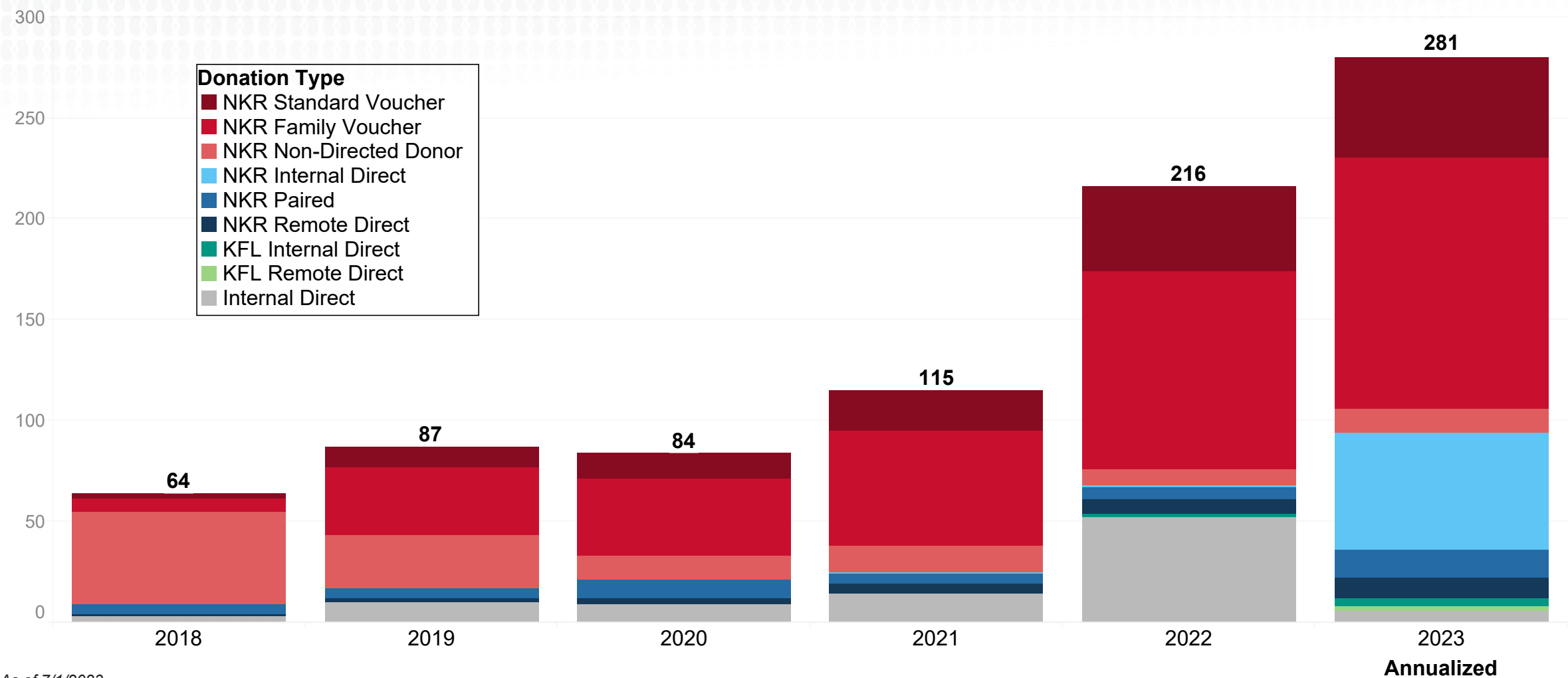


As of 7/1/2023.  
Includes donor registrants from all NKR websites.



# Living Kidney Donations

Resulting from NKR Donor Referrals

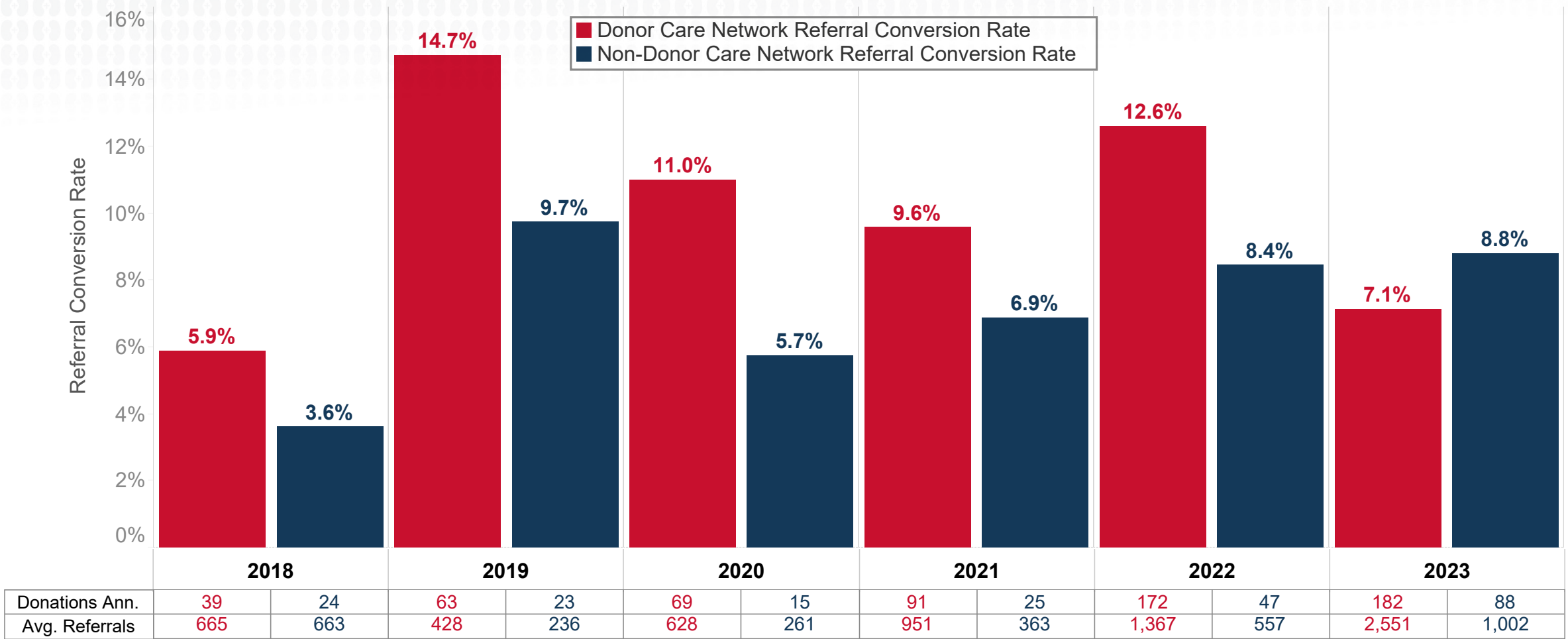


As of 7/1/2023.  
To avoid lag-effect, the chart counts donation date which does not reflect the date the donor registered.



# NKR Donor Conversion Rates

Donations Divided by Average Referrals



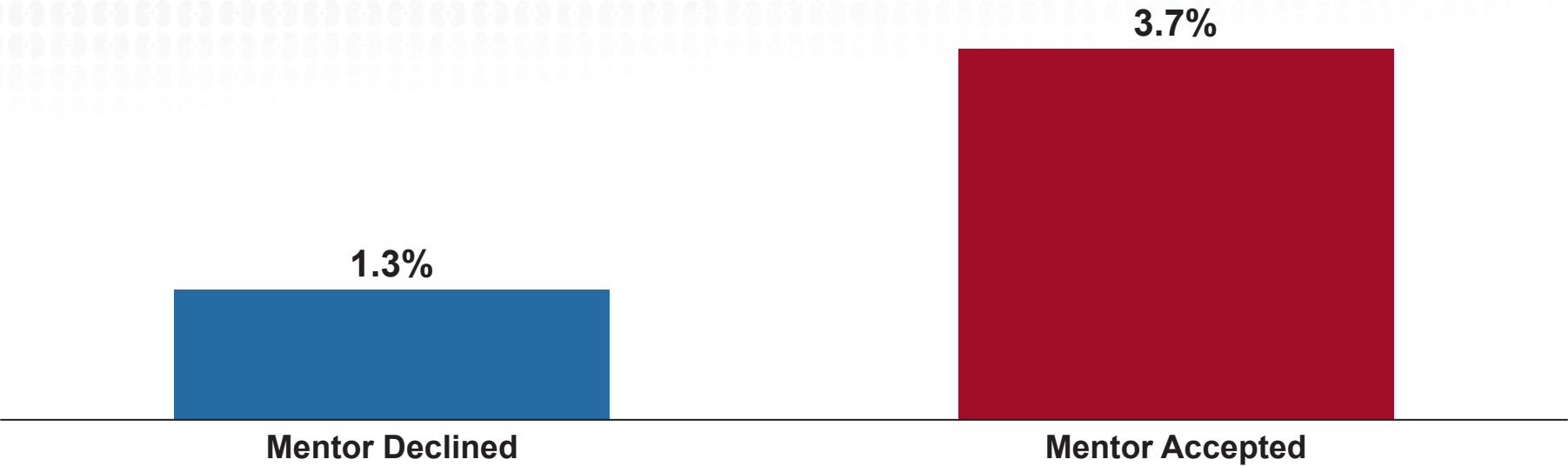
As of 7/1/2023.  
**Formula:** Donations / Average Referrals  
**Average Referrals:** (Annualized Current Year Referrals + Prior Year Referrals) / 2





# Higher Conversion Rates with Donor Connect

Private Label DASH Donations / Average Registrations

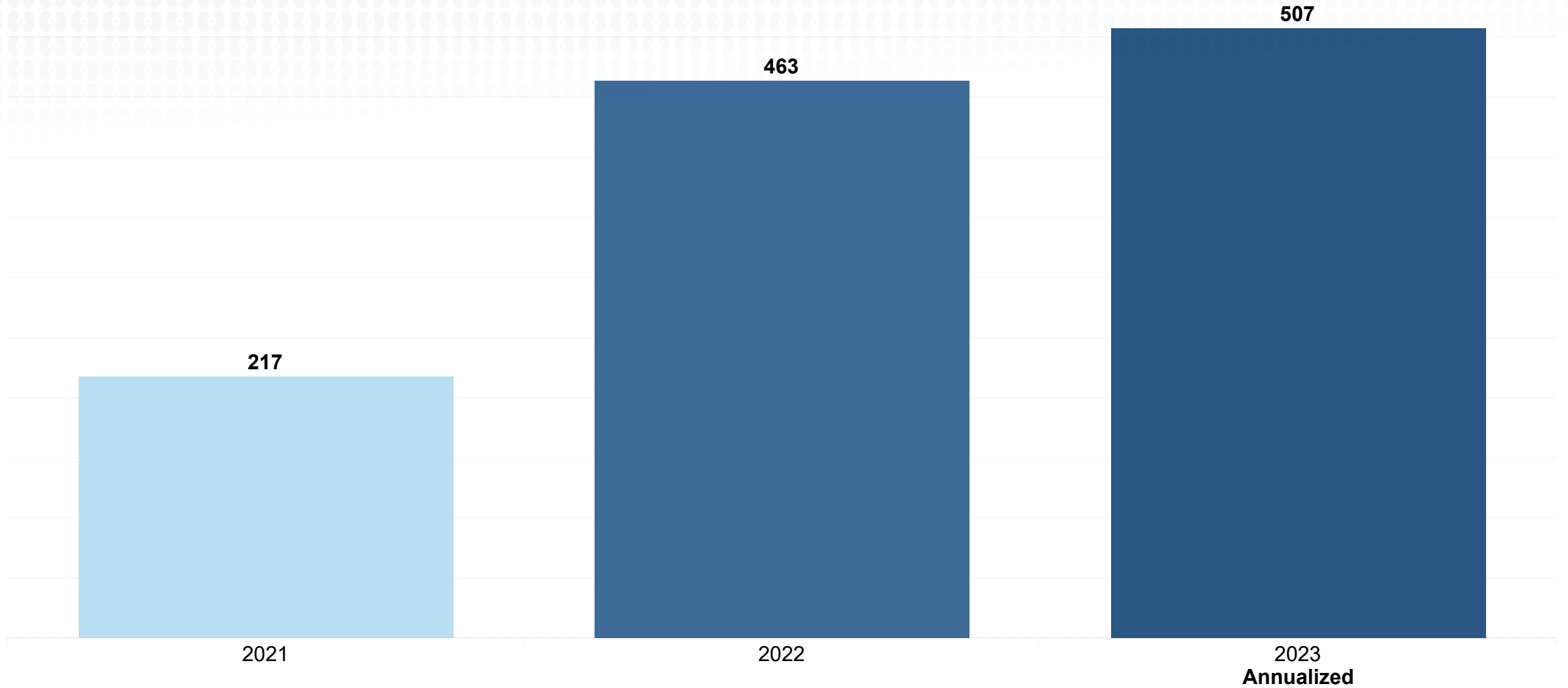


	Mentor Declined	Mentor Accepted
2023 Donations (Annualized)	124	554
2023 Registrations (Annualized)	11,720	18,398
2022 Registrations	7,863	11,618
Average Registrations	9,792	15,008
Registration to Donation Rate	1.3%	3.7%

Data for all private-label DASH registrants across all centers who were offered a mentor during registration (43% in 2022). 1/1/2023 – 6/30/2023.



# Kidney for Life Patient Referrals

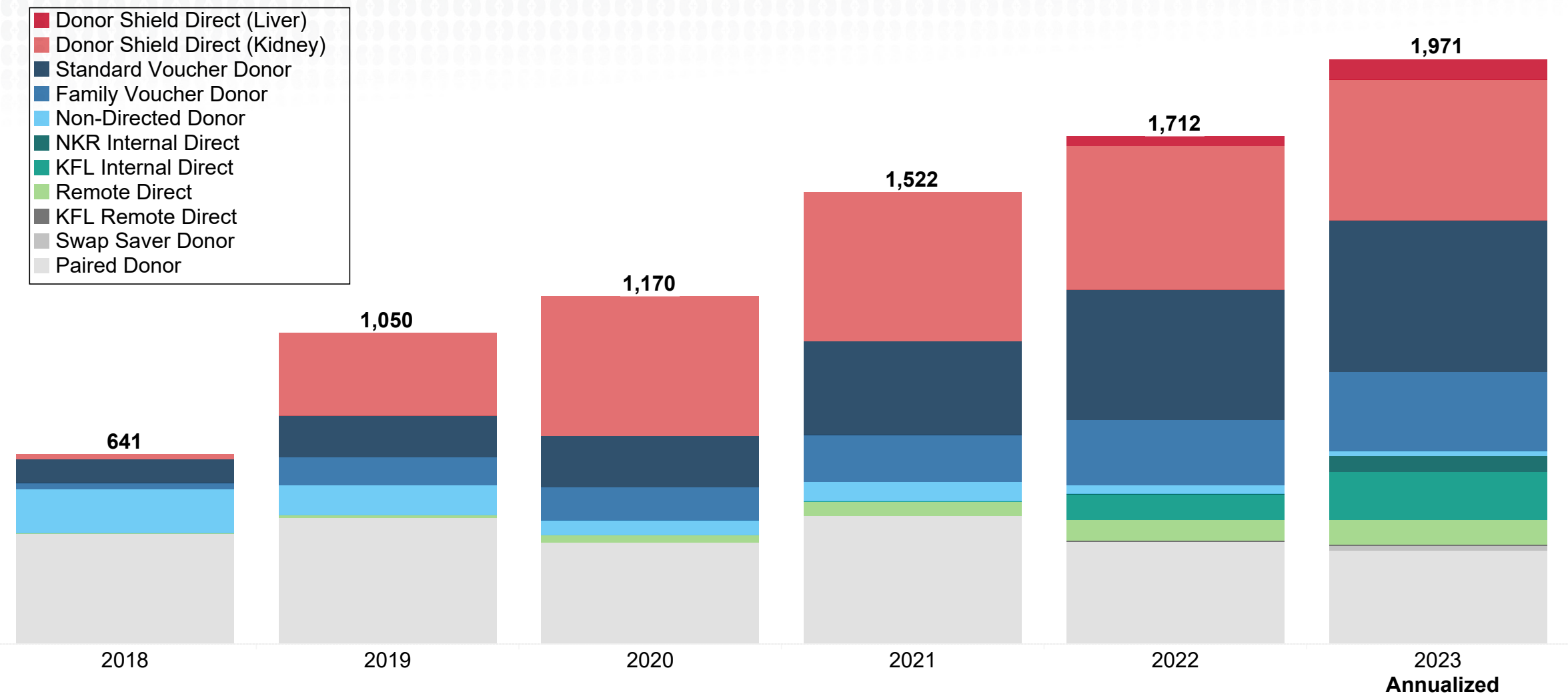


As of 7/1/2023.



# Living Donors Supported and Protected

By Donor Type

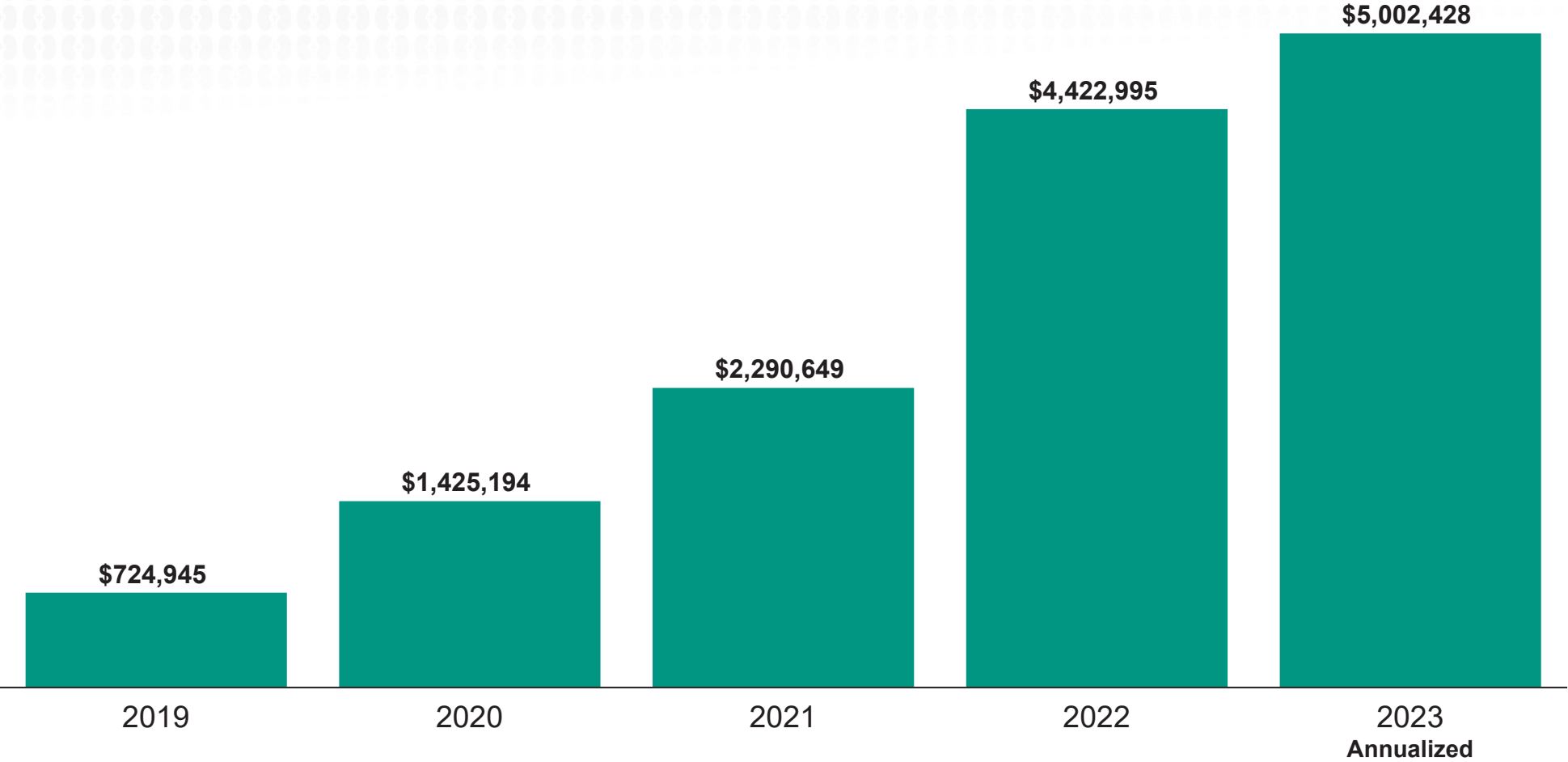


As of 7/1/2023. Living donor prioritization excluded for DSD kidney and liver cases.



# Donor Shield Reimbursements

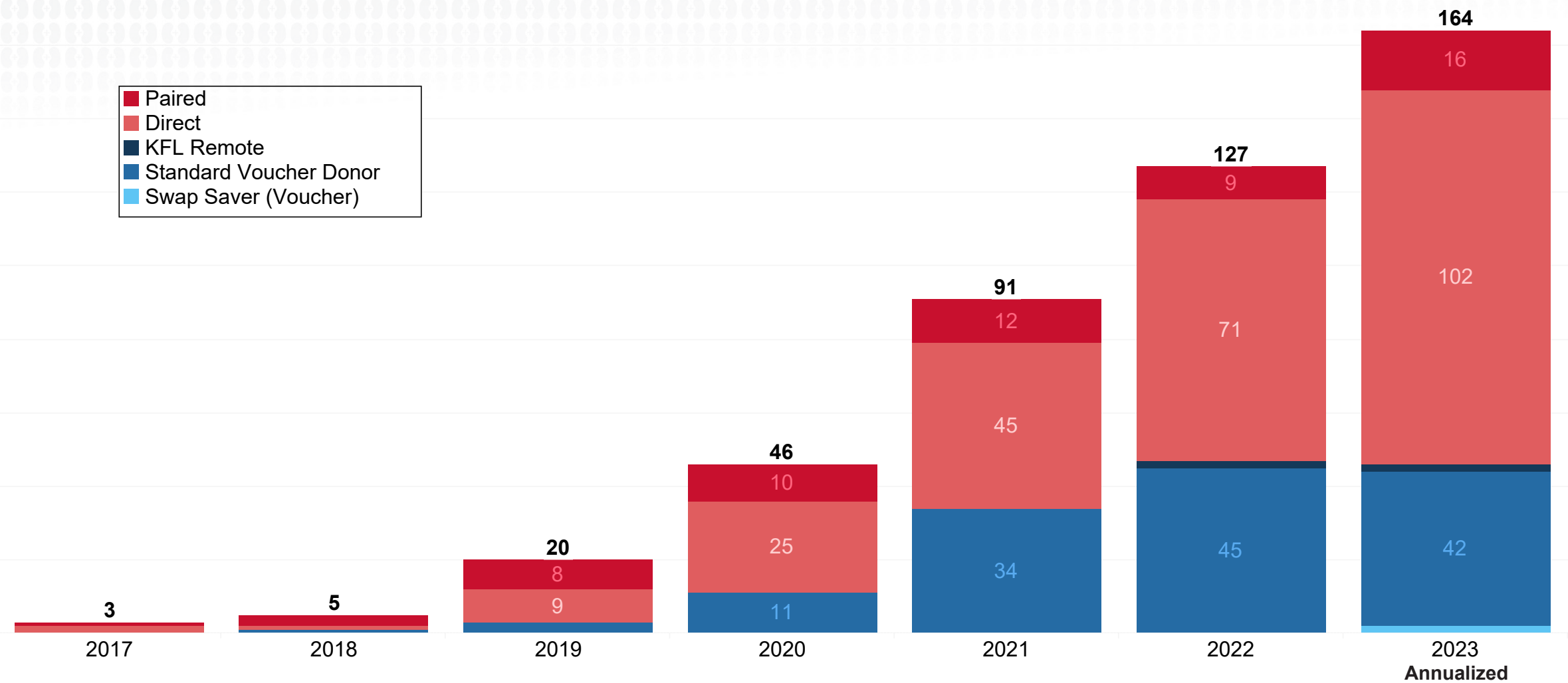
The NKR is Reimbursing over \$5M Annually to Eliminate Disincentives



As of 7/1/2023.  
Primary costs related to lost wage and travel/lodging reimbursements.  
Learn more at [www.donor-shield.org](http://www.donor-shield.org)



# Remote Donations by Donor Type

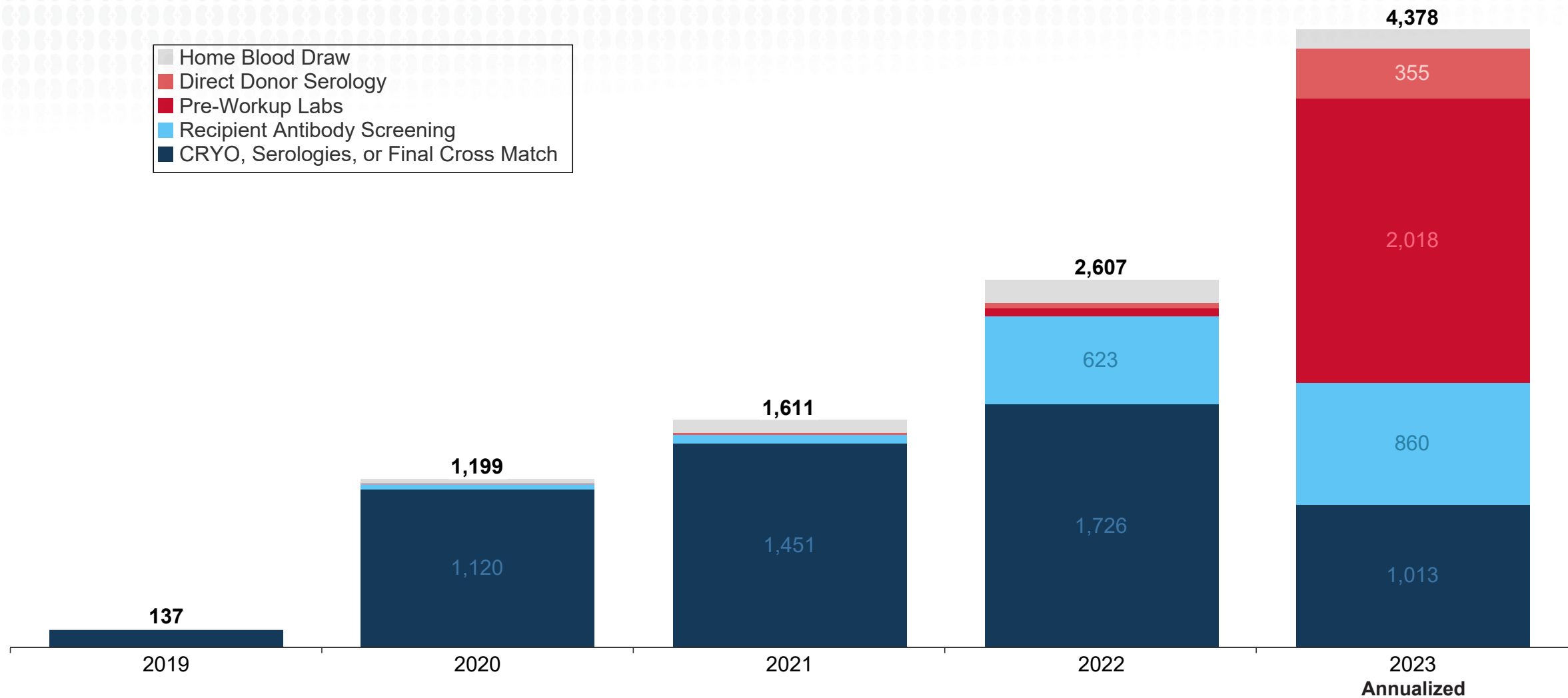


As of 7/1/2023.





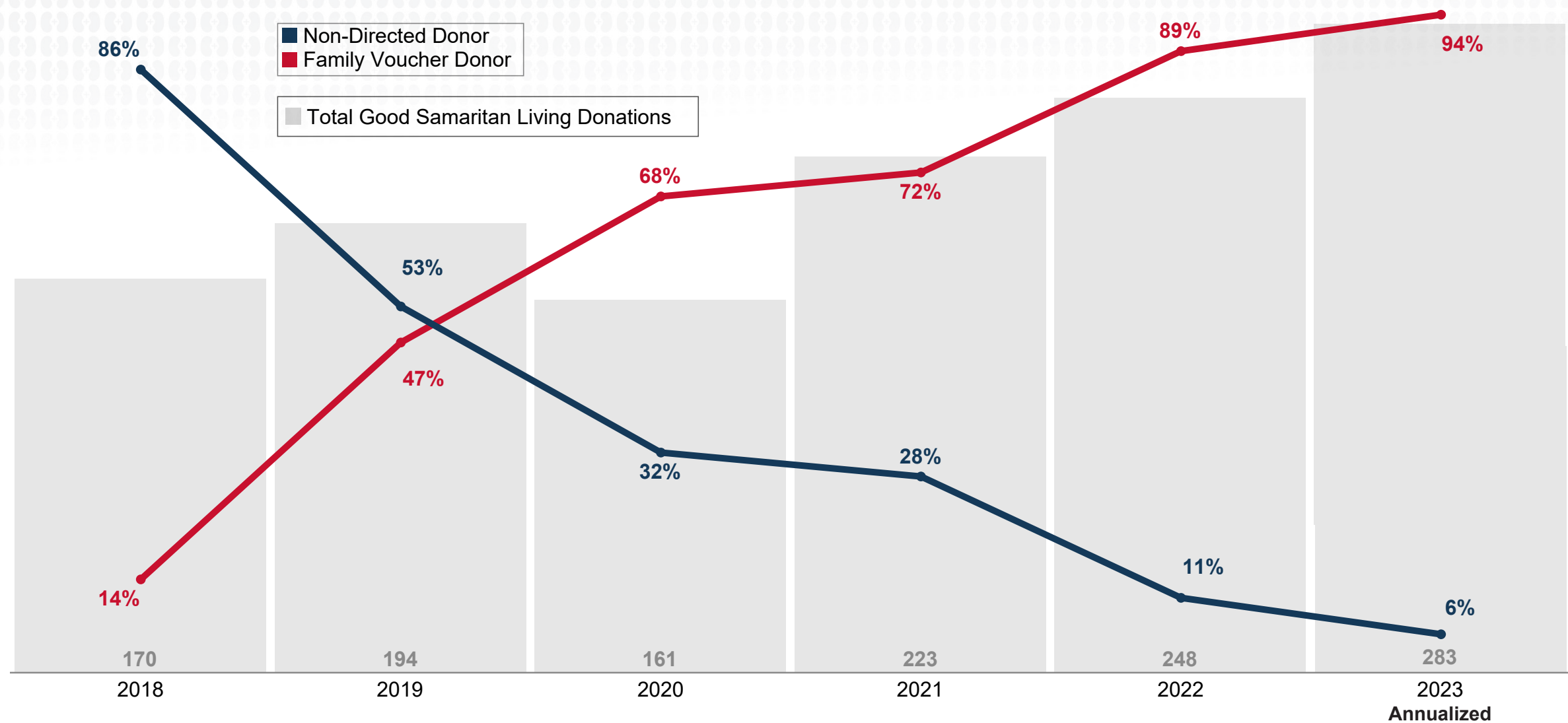
# Home Blood Draw Requests



As of 7/1/2023.



# Transition to Family Voucher Donation

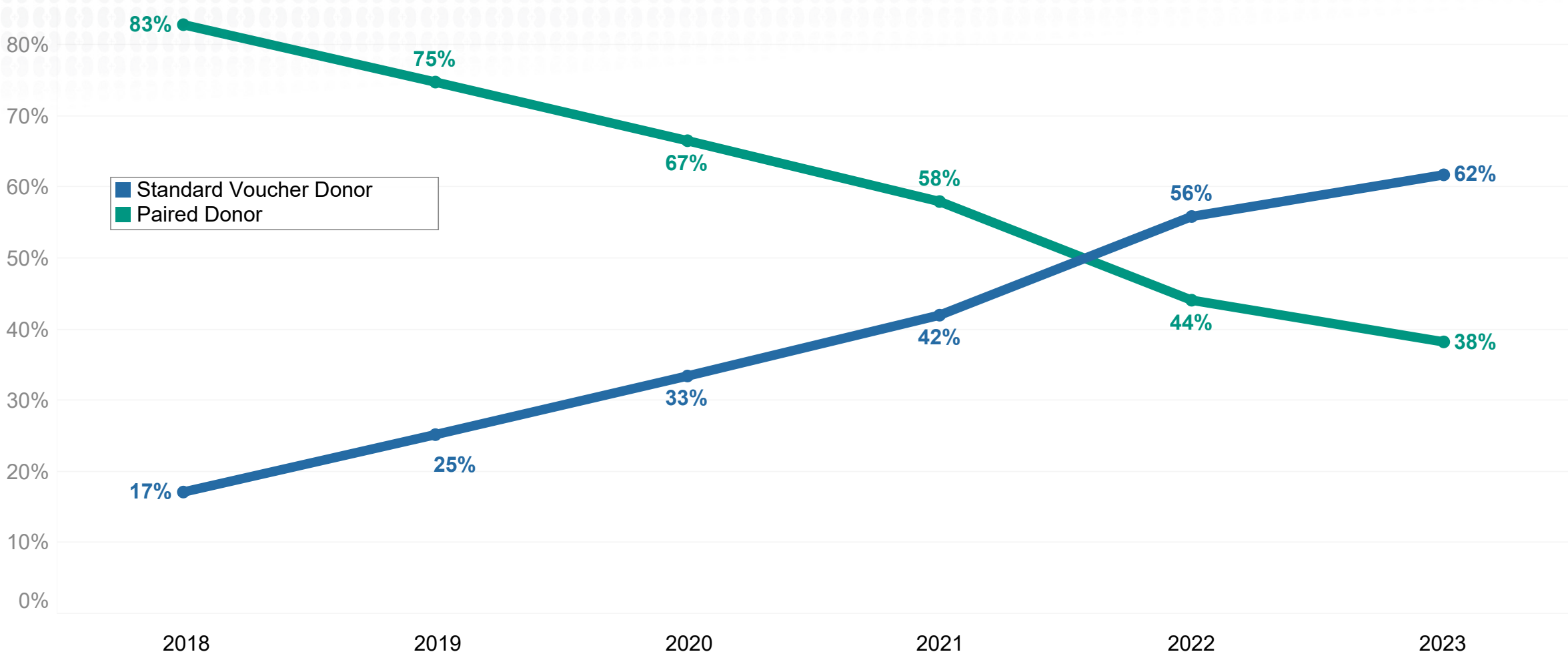


As of 7/1/2023.



# Decoupling Trend

Transition from Paired to Standard Voucher Donation

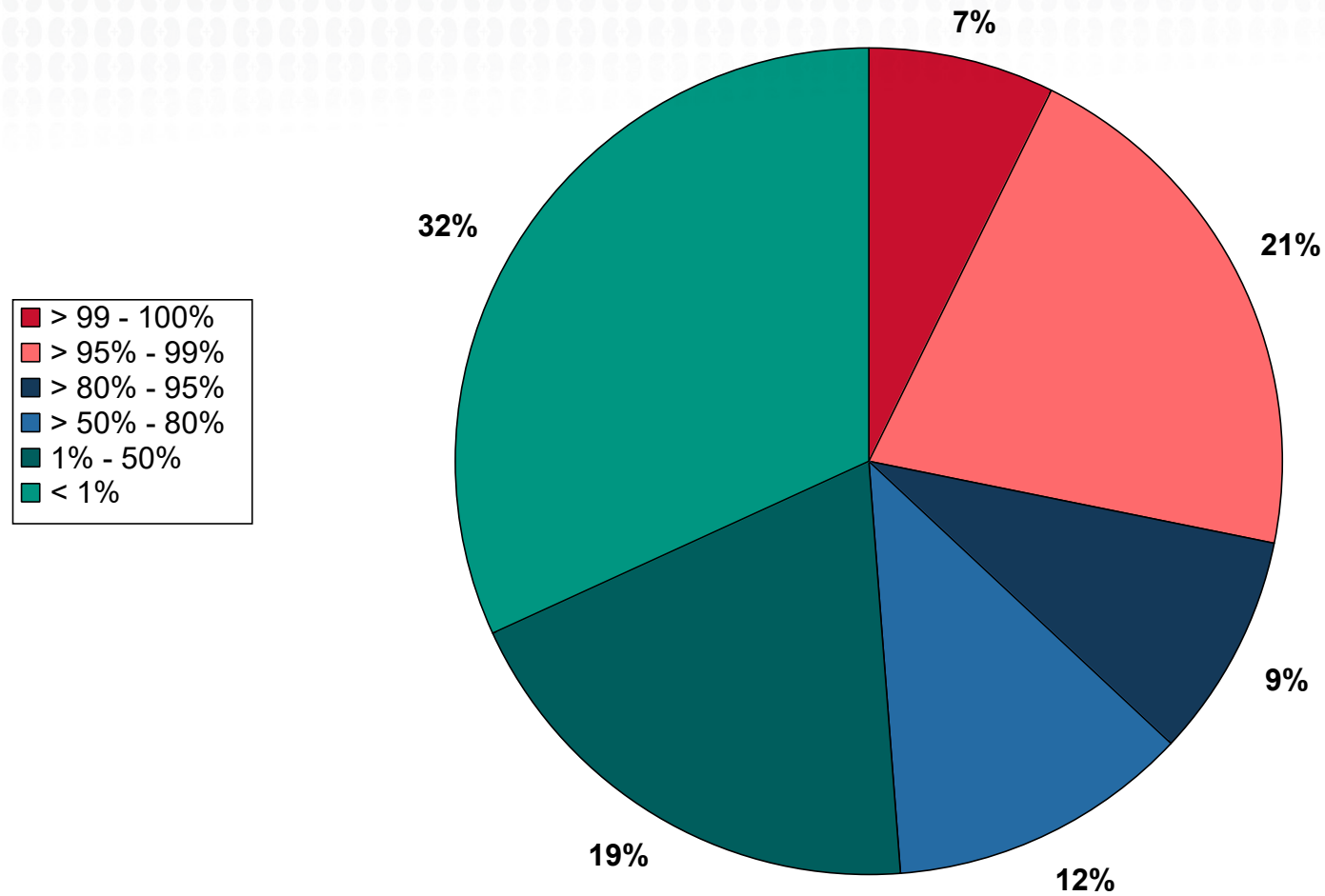


As of 7/1/2023.



# Pool Composition by cPRA

Unmatched Paired and Voucher Patients

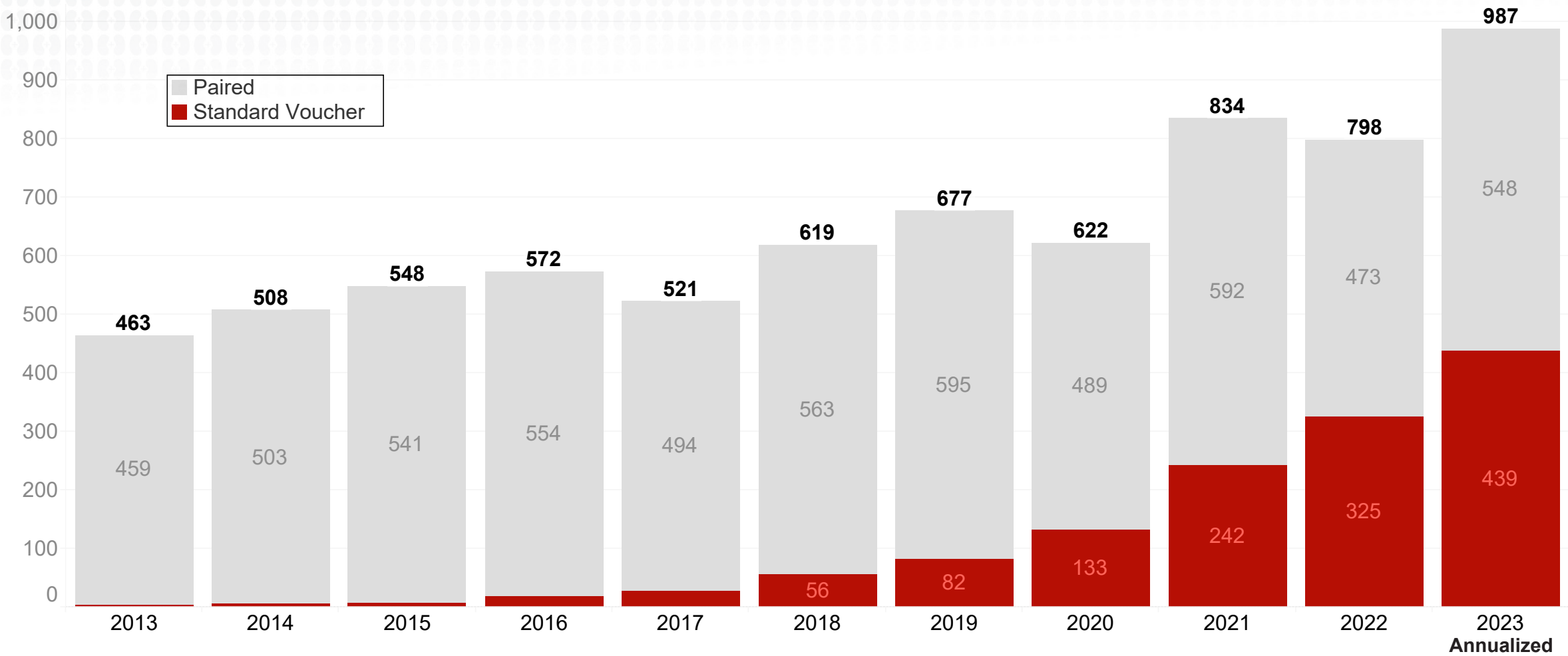


As of 7/1/2023.



# New Exportable Patients

Paired and Standard Voucher



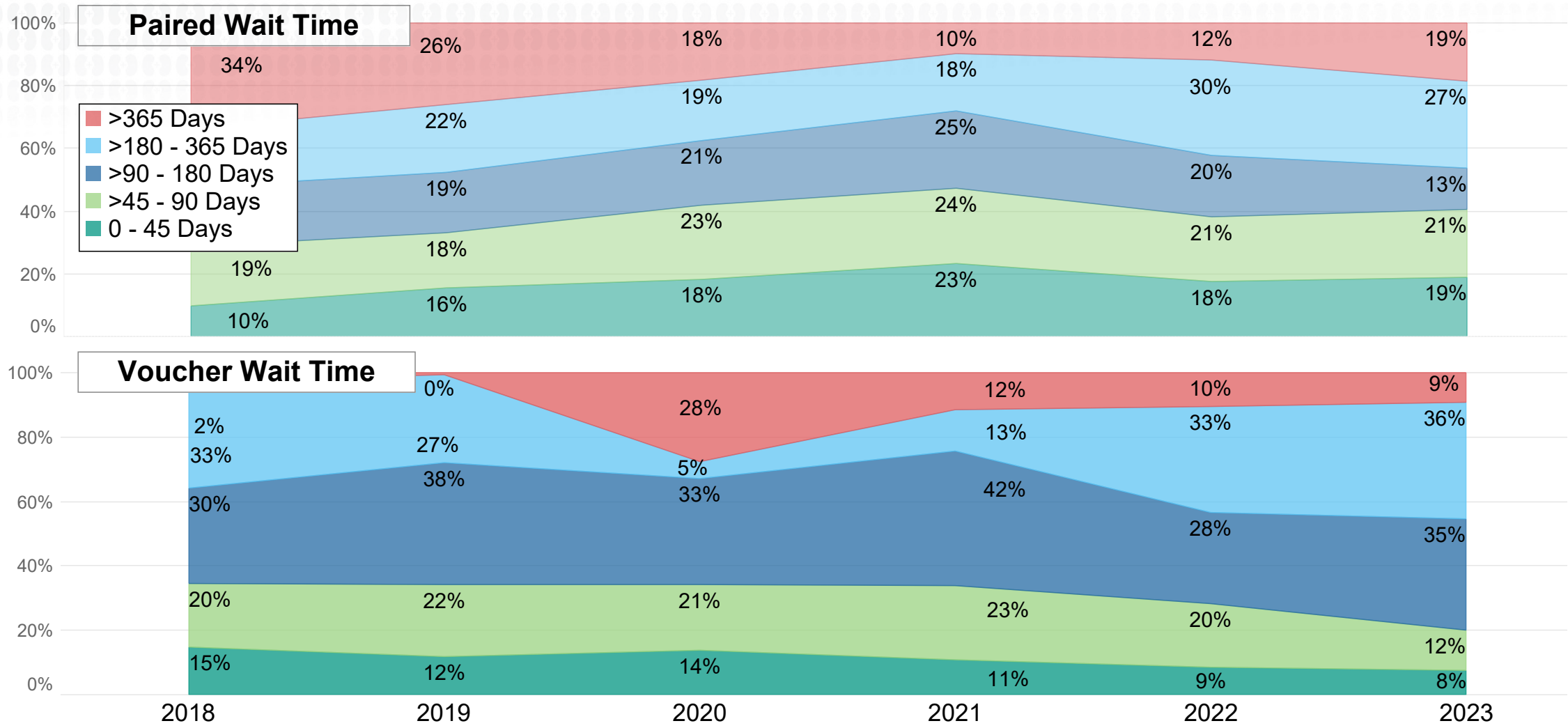
Data for paired and standard voucher patients only. As of 7/1/2023.





# Wait Time Distribution – Incompatible Pairs

## Exportability to Transplant – Paired & Voucher Wait Times

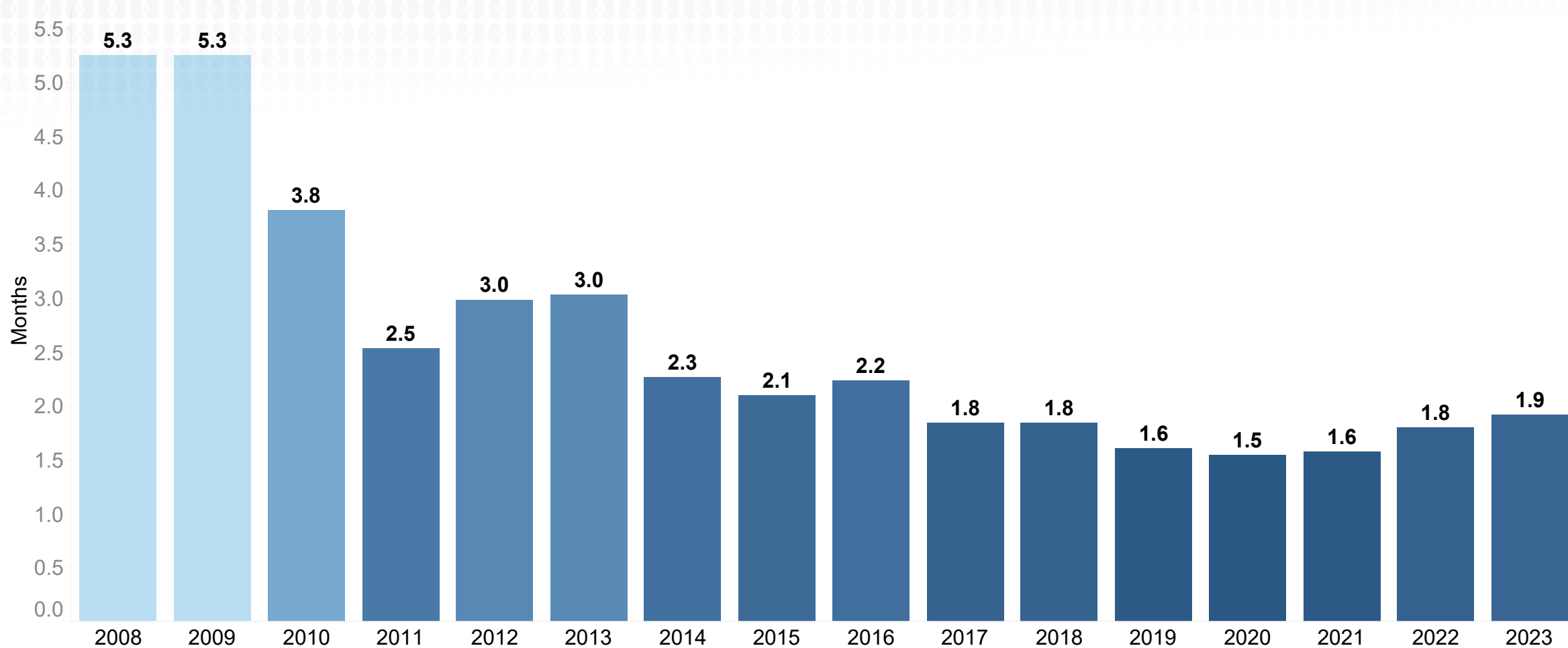


All cPRA groups. As of 7/1/2023.



# Median Wait Time to Transplant

From Exportability to Transplant

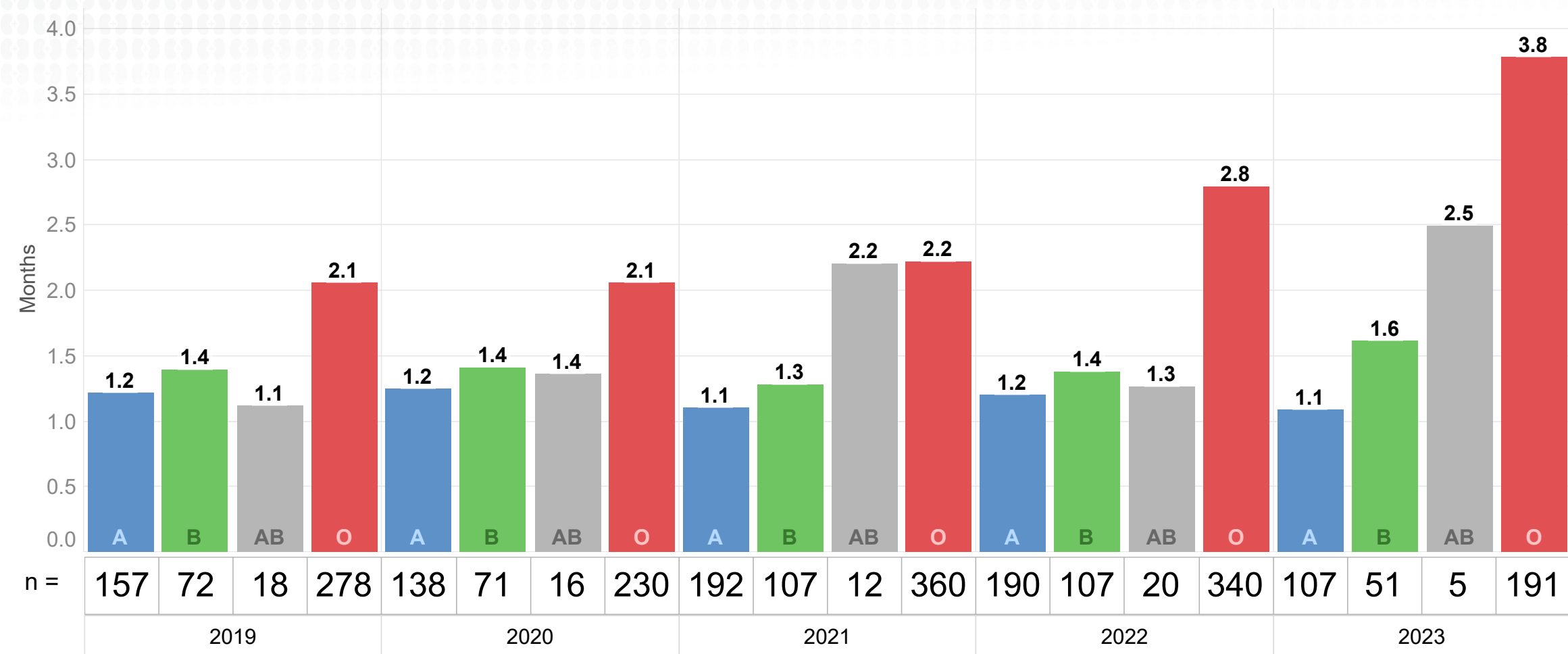


*Total wait time including paired and voucher. Excludes non-KPD and waitlist patient transplants.  
As of 7/1/2023.*



# Median Wait Time by Blood Type

From Exportability to Transplant



Total wait time including paired and voucher. Excludes non-KPD and waitlist patient transplants.  
As of 7/1/2023.



# Dialysis Patients Waiting More Than One Year

Due to High cPRA

## Paired Patients

#	Patient ID	Patient ABO	cPRA	Months Wait
1	5501	B	100.00	90
2	12411	A	100.00	33
3	10569	A	100.00	24
4	10275	B	100.00	21
5	14941	O	100.00	19
6	15355	O	100.00	17
7	15347	A	100.00	17
8	15219	B	100.00	17
9	15582	O	100.00	14
10	10986	O	99.99	41
11	16200	O	99.99	13
12	12565	O	99.98	26
13	15238	O	99.97	17
14	15282	O	99.96	17
15	13846	A	99.90	20
16	12531	O	99.74	25
17	14093	O	99.52	22
18	15904	O	99.33	15

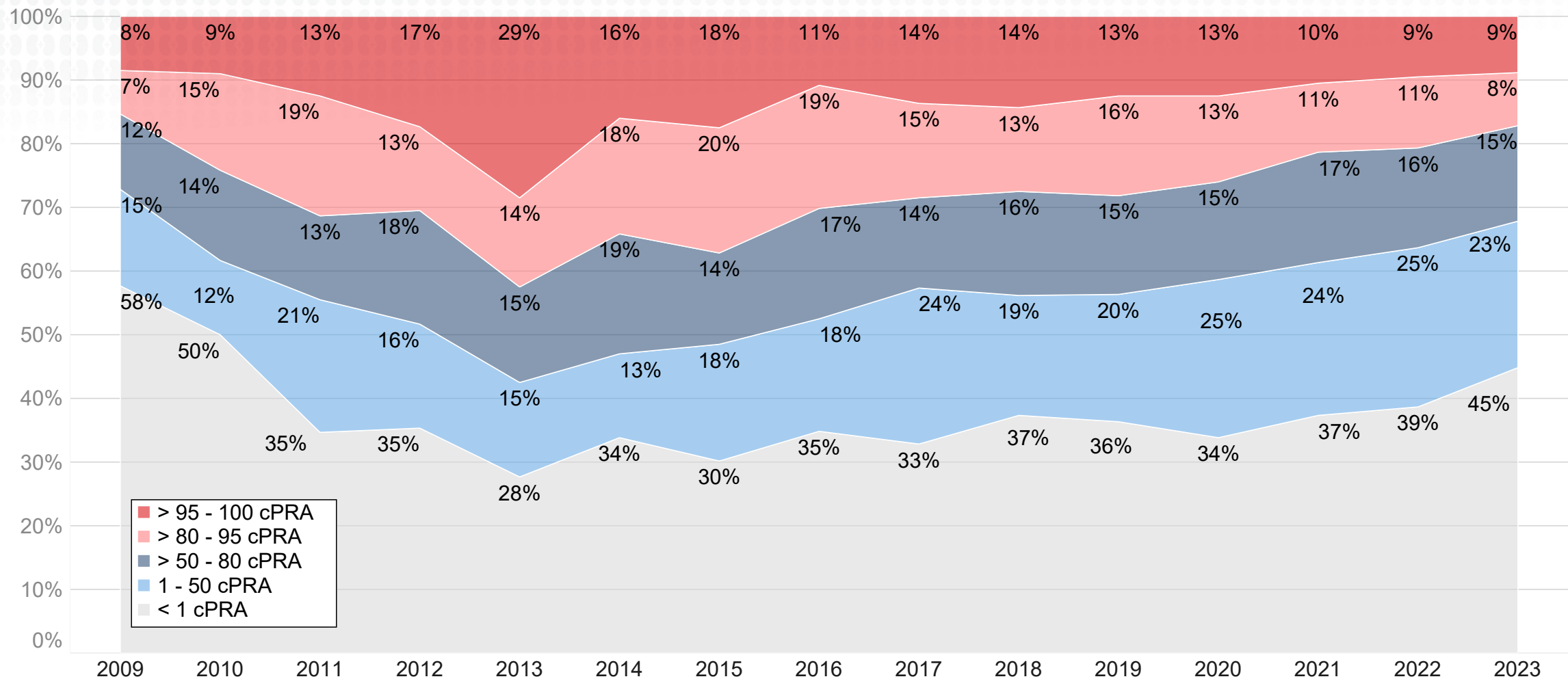
## Voucher Patients

#	Patient ID	Patient ABO	cPRA	Months Wait
1	13055	O	100.00	30
2	10069	A	99.99	45
3	12712	B	99.97	24
4	16062	O	99.84	13
5	14307	O	99.49	12

As of 7/1/2023. Includes all patients on dialysis & exportable in the NKR pool with a cPRA >99.00.



# Transplanted Recipients by cPRA

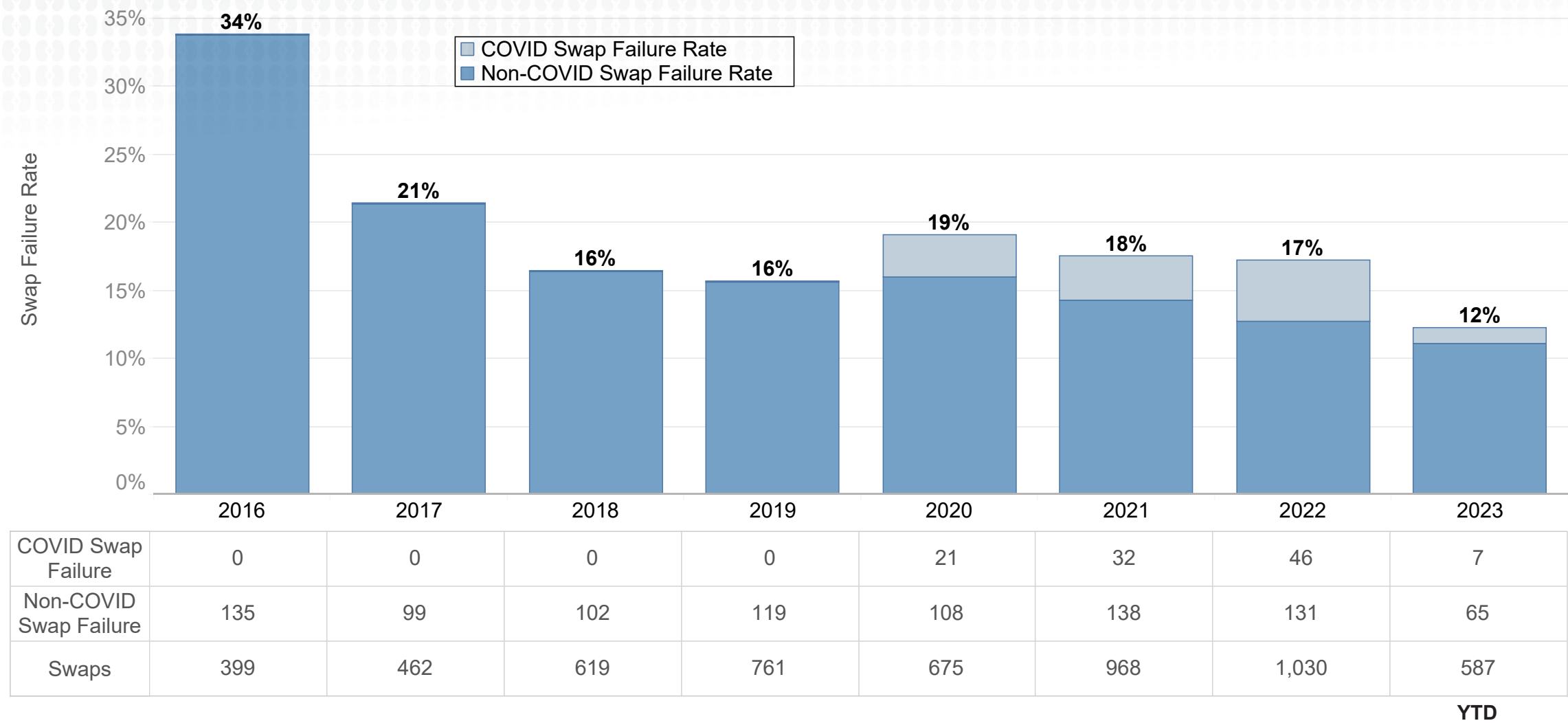


As of 7/1/2023.  
Excludes all non-KPD and waitlist patient transplants.





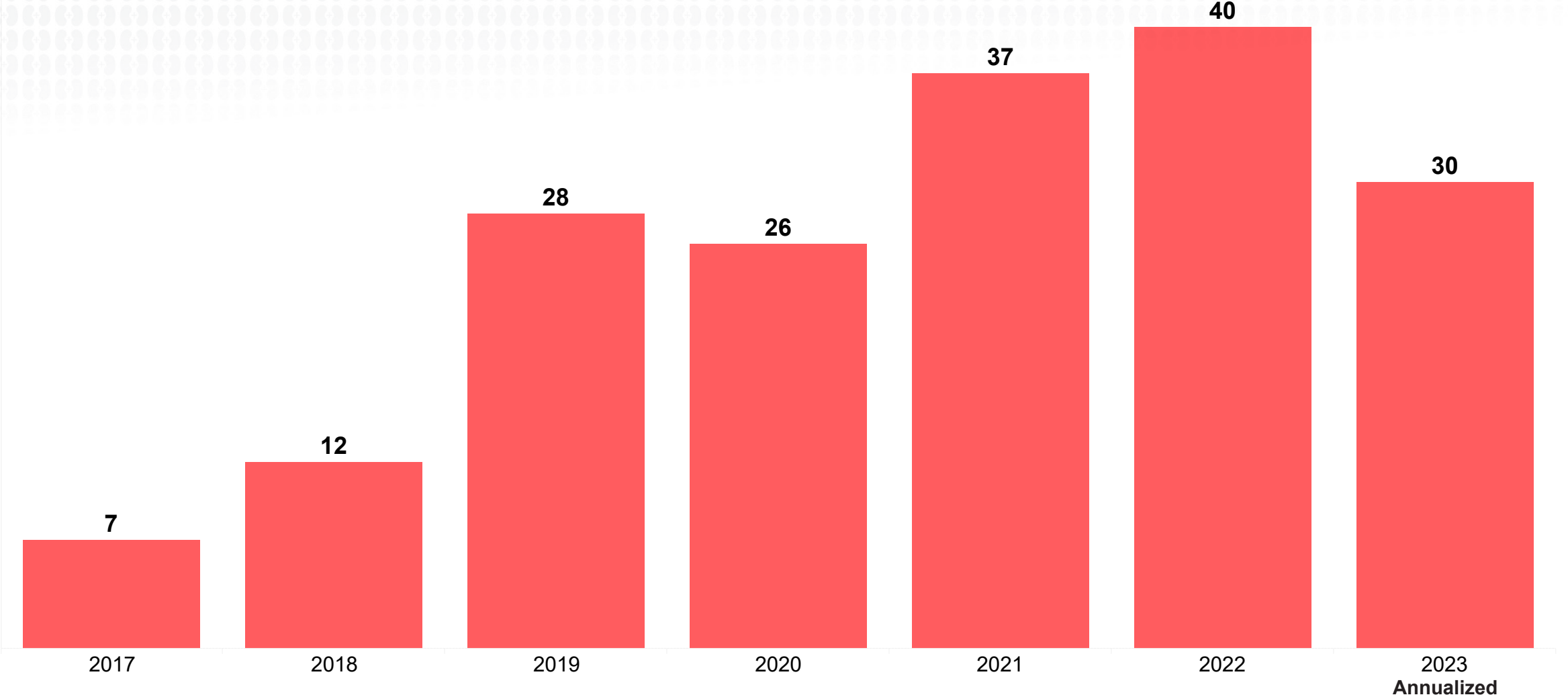
# Swap Failure Rates



As of 7/1/2023.



# Swaps Saved by Swap Saver Voucher Donors



As of 7/1/2023.



# Resources

**NATIONAL KIDNEY REGISTRY**  
Facilitating Well-Matched Living Kidney Donor Transplants, Protecting and Supporting Living Donors.

The National Kidney Registry is dedicated to increasing the number of kidney transplants from living donors, improving donor-recipient matches for longer-lasting transplants, and offering protection and support to living kidney donors to make the kidney donation process safer, easier and more convenient.

**7,643**  
NKR-Facilitated Transplants

**Better Matches, Better Outcomes, Longer-Lasting Transplants**

Death Concerned Graph Factors

Factor	1 Year	5 Year	10 Year
Best Match (NKR)	1.0	1.0	1.0
Best Match (NKR)	1.0	1.0	1.0
Best Match (NKR)	1.0	1.0	1.0
Best Match (NKR)	1.0	1.0	1.0
Best Match (NKR)	1.0	1.0	1.0

**Leading the World in Comprehensive Donor Support & Protections**

Donors Supported and Protected

Year	2019	2020	2021	2022	2023
Donors Supported and Protected	1,600	1,770	1,802	1,770	1,858

Click here for more details on NKR outcomes

Click here for more details on Donor Shield

Donors who donate as part of a National Kidney Registry swap, including the Voucher Program, are protected and supported by Donor Shield.

kidneyregistry.org

**DONOR SHIELD**

**Protecting & Supporting Living Kidney and Liver Donors**

Thank you for considering becoming a living donor! Donor Shield protections are available to qualifying living kidney donors and living liver donors to make the donation process easier and more convenient.

To learn more about donor support and protections, find participating transplant centers and find out if you qualify, click the corresponding donor type below.

**Donor Shield for Kidney Donors**

**Donor Shield for Liver Donors**

donor-shield.org

**KIDNEY TRANSPLANT CENTERS**  
Compare the performance and services of all kidney transplant centers in the U.S.

Transplant Centers Search by State

Rank Center Name State

Rank	Center Name	State
1	Mayo Clinic Rochester	MI
2	University of Minnesota Medical Center	MI
3	University of Wisconsin-Madison	WI
4	Mayo Clinic Arizona	AZ
5	NewYork-Presbyterian/Columbia University Medical Center	NY
6	Hennepin County Hospital	MI
7	UCLA Medical Center	CA
8	UCSF Medical Center	CA
9	Mayo Clinic Jacksonville	FL
10	University of Michigan Medical Center	MI
11	University of Washington Medical Center	WA
12	University of California San Francisco	CA
13	University of Texas Medical Branch	TX
14	University of Wisconsin-Madison	WI

Find a center within 100 miles (zip code or city)

Filters: Donor Shield Through NKR, Remote Donation Available, Voucher Program Available, NKR Member Center, Kidney for Life Participant, Donor Care Network Center

Apply Filters

kidneytransplantcenters.org

**DONOR CARE NETWORK**

Why DCN DCN Centers Donor Protections About Considering Kidney Donation?

**Donor Care Network Centers of Excellence**

An elite group of transplant centers offering the highest level of care and support to living kidney donors.

**Improved Living Donor Experience**

Best Practices & Continuous Improvement, Donor Shield Protections, Easy Online Screening, Local Testing & Workshop, Remote Donation

donorcarenet.org

**KIDNEY FOR LIFE**

**Kidney for Life Initiative**  
Better matches, fewer graft failures, opportunity for reduced immunosuppressive medications

**Why Kidney for Life?**  
Better Donor-Recipient Matches

Reduced Risk Of De Novo Antibodies, Lower Risk Of Rejection, Less Risk Of Graft Failure, Opportunity For Safely Reducing Immunosuppression, Fewer Side Effects From Immunosuppressive Medication

kidneyforlife.org

**FIND A KIDNEY**

**Helping Patients Learn How to Find a Living Kidney Donor**

If you are in need of a kidney transplant, the free, personalized microsites offered by the National Kidney Registry can help you find a living donor.

20% of patients with a microsite achieve a living donor transplant **within 12 months**.

**329**  
Microsite Patients Transplanted

**Get Help Finding a Living Kidney Donor**

Living kidney donor transplants last longer than deceased donor transplants, yet of the 18,000 annual kidney transplants, only 6,000 are from living donors. Meanwhile, 100,000 people wait on the deceased donor waitlist every year. FindAKidney.org aims to end that imbalance by giving kidney patients the tools and information they need to find a living donor, from instructions and advice on how to search for a donor to personalized donor search websites.

findakidney.org

**Donor Games**

Competitions Athletes Workouts News 36/24 50 State Summits Be a Donor

**ARE YOU UP FOR THE CHALLENGE OF THE DONOR GAMES?**

In a general population survey, 75% of respondents felt that donating a kidney would negatively affect their health. The Donor Games refutes this widely held misconception by showcasing the impressive health and fitness of donors from around the country.

There are four different ways to compete. Click the images below for details on each event.

**THE OPEN THE CHAMPIONSHIP THE REGIONALS THE ATHLETES**

livingdonorgames.org

