



Paired Exchange Results Quarterly Report

As of March 31, 2013

Table of Contents

Message From the Founder.....	3
Matching Efficiency	4
Match Conversion Rates.....	4
Wait Times >1 year by cPRA.....	5
Patients Waiting >12 Months By Center	5
NKR Patient Referrals Per Month	6
New Pair Registrations Per Month	6
Transplants Facilitated by Year.....	7
2012 Transplants by Wait Time	7
Number of Transplanted Patients with cPRA >80%	8
Transplanted Patient Average Wait Time	8
Enrolled Patient Average Wait Time	9
Cumulative Pool Distribution by Status.....	9
Cumulative Pool Transplanted by Year	10
Transplanted Patients by Year by cPRA	11
Average cPRA of Transplanted Patients by Year	11
Transplants by cPRA	12
Pool Composition by cPRA	12
Broken Chains by Year - Summary.....	13
Broken Chains by Year - Detail	14
Summary of Broken Chains	14
NKR Program Statistics	15
Medical Board	16
Member Centers	18



Message From the Founder

2013 is off to a great start with the successful completion of 63 paired exchange transplants during the first quarter. This brings us to 678 transplants since we started organizing swaps five years ago.

We continue to facilitate transplants for an increasing number of patients with cPRA scores greater than 80%. Based on our first quarter run rate, we are on track to facilitate 76 transplants this year for these hard to match patients. This is great progress but we have much more to work to do since 86% of our patients that have been waiting for more than 1 year in our system have cPRA scores greater than 98%

We are seeing a dramatically improved ability to transplant hard to match pairs when the Toolbox functionality is used in conjunction with the exploratory cross match and the donor pre-select. Over the past six months, Saint Barnabas, in collaboration with the NJ Sharing Network has used these tools to successfully transplant many of their hardest to match patients, reducing the number of patients waiting in our system for more than 1 year to a historic low of only two patients (page 5). We believe these impressive results can be replicated at many of our member centers as lab directors collaborate with clinicians to focus on finding matches for highly sensitized patients.

Another area of intense focus has been our match conversion rates. In the first quarter the cross match to transplant conversion rate was only 26% meaning 74% of screening cross matches did not result in a transplant. We must improve this conversion rate so that we can provide a more reliable service to the patients that rely on our system. To this end, we are now capturing comprehensive information related to why swaps fail and we plan to organize conference calls with our member centers to better understand the root cause and corrective action for these swap failures so that we can increase the reliability of our service.

None of this success would be possible without the effort and dedication of the medical professionals at our Member Centers. Thank you - and keep up the great work.

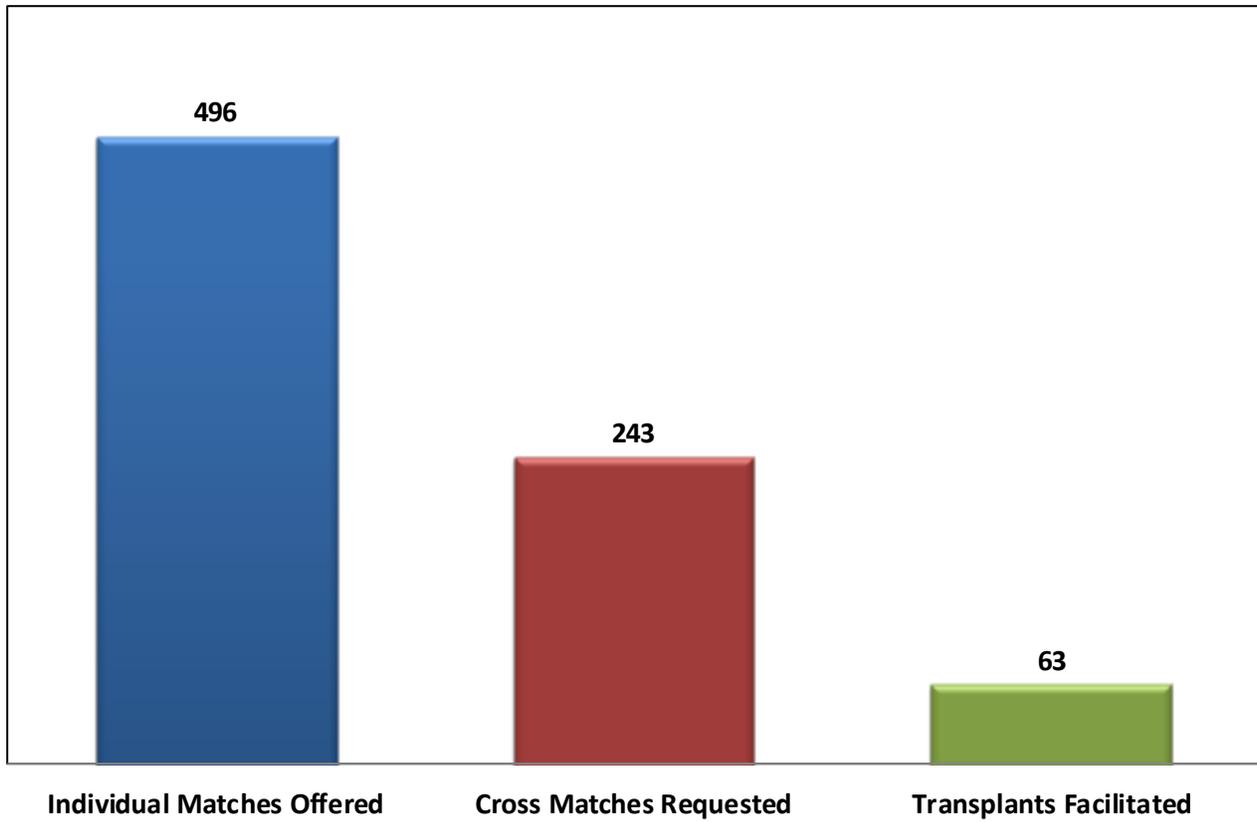
Sincerely

A handwritten signature in blue ink, appearing to read 'G. Hil'.

Garet Hil
Founder & President
National Kidney Registry

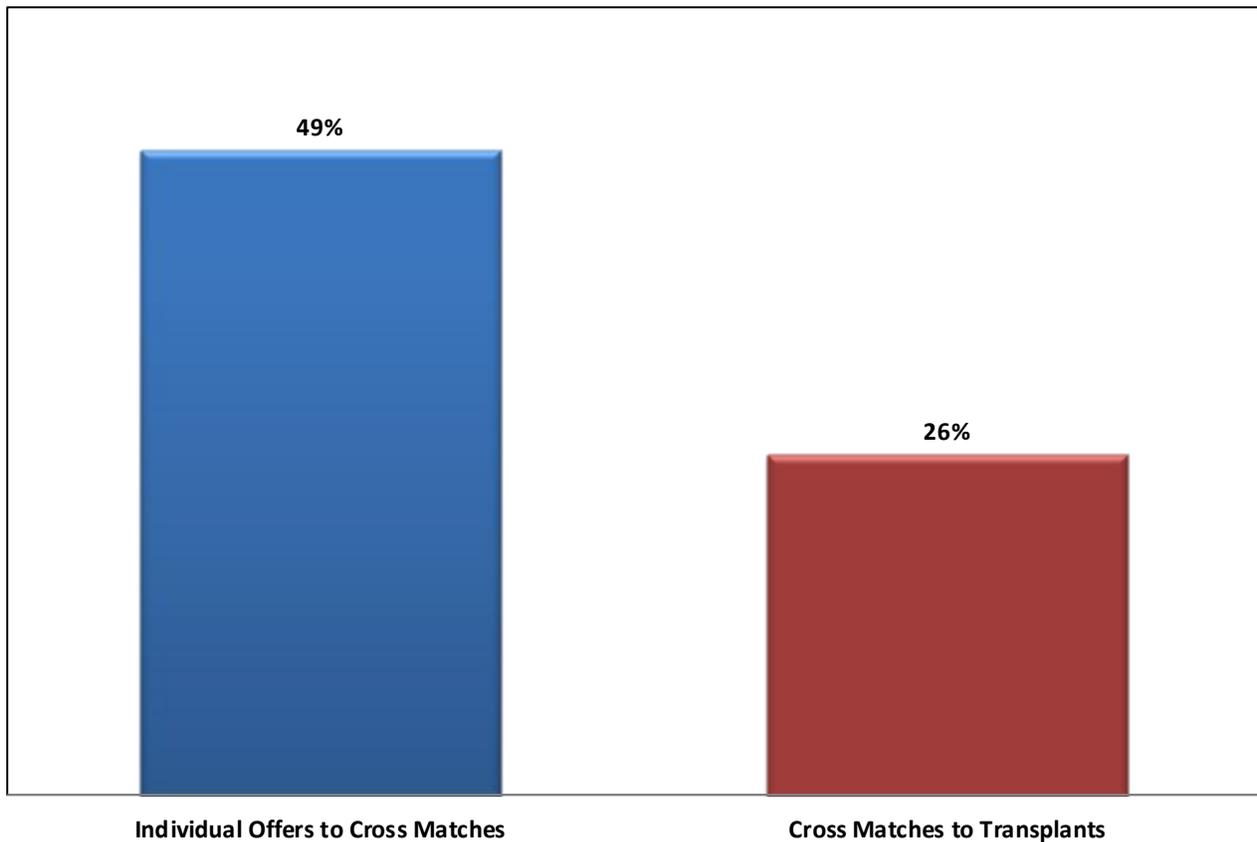
Matching Efficiency

1/1/2013 - 3/31/2013

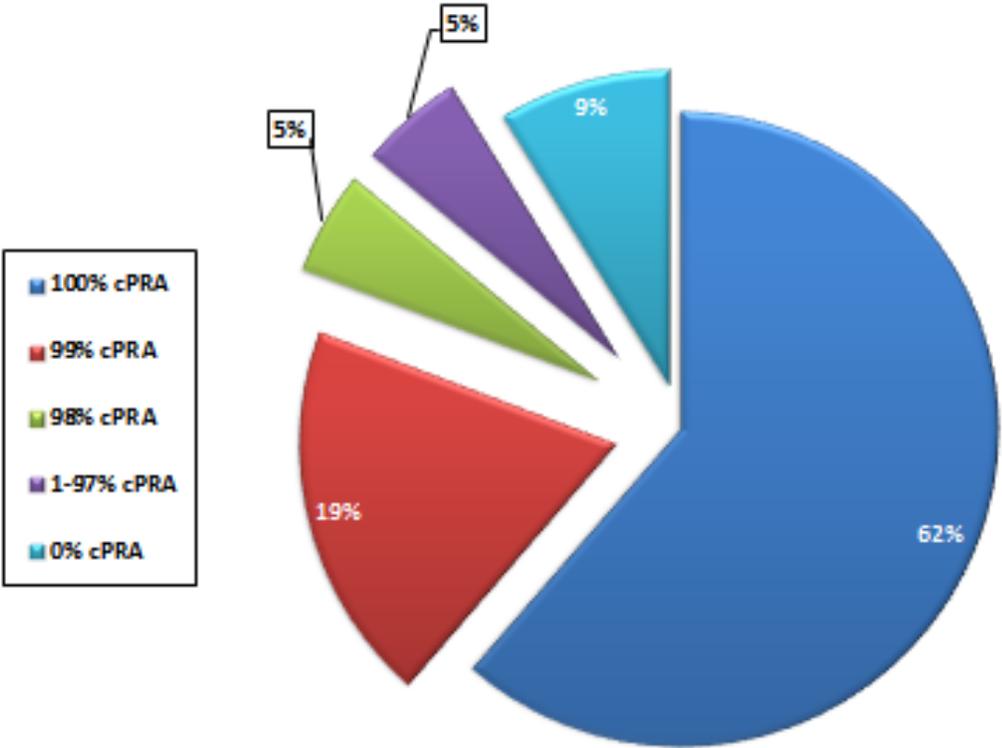


Match Conversion Rates

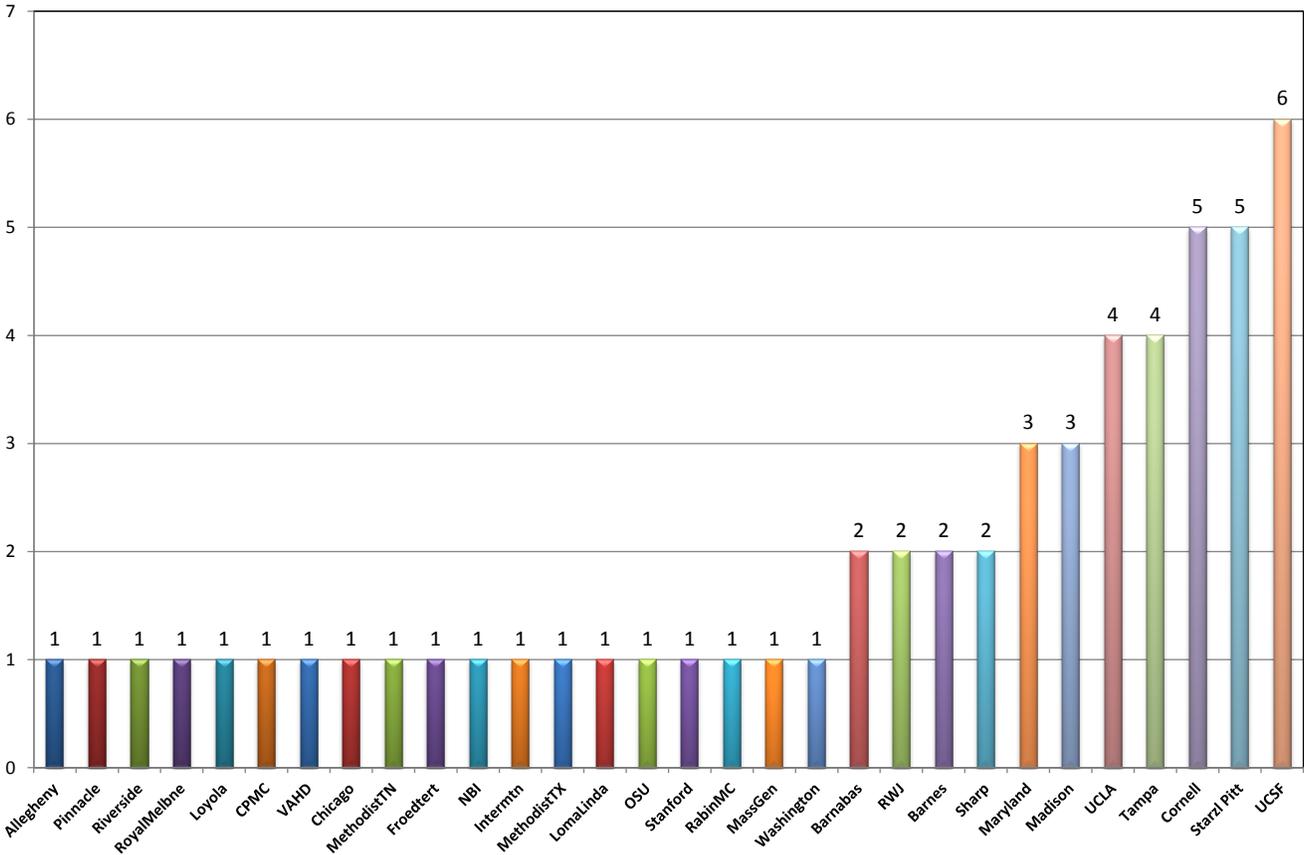
1/1/2013 - 3/31/2013



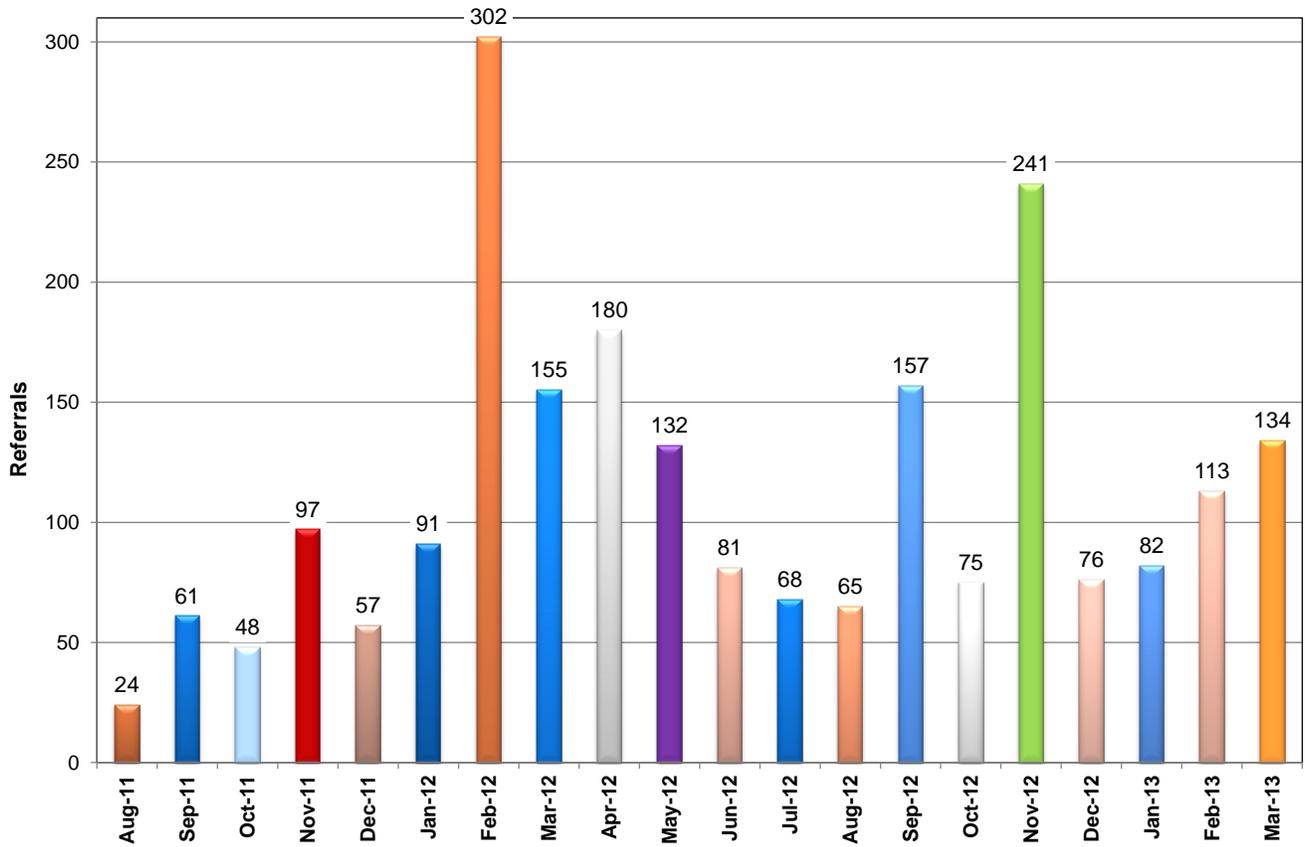
Wait Times >1 Year by cPRA



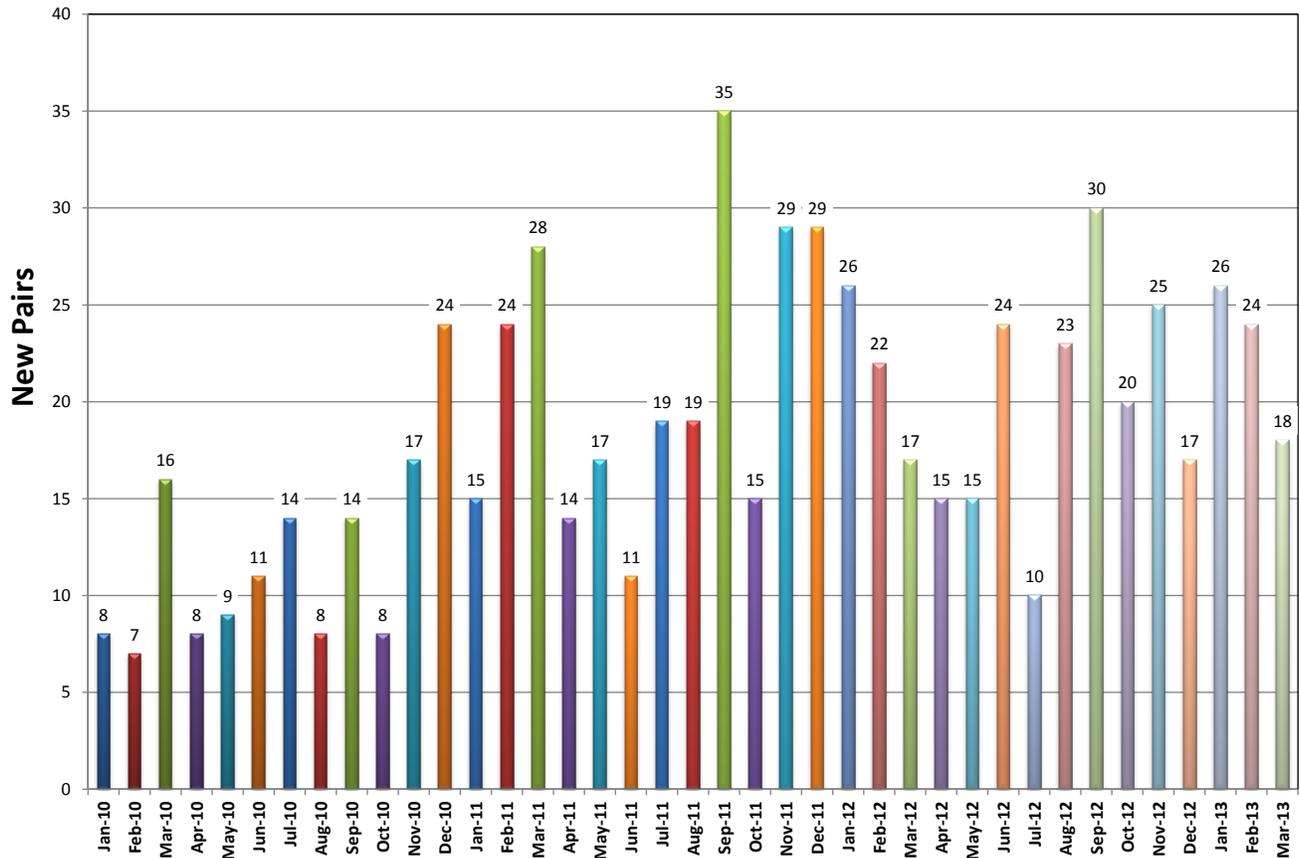
Patients Waiting >12 Months By Center



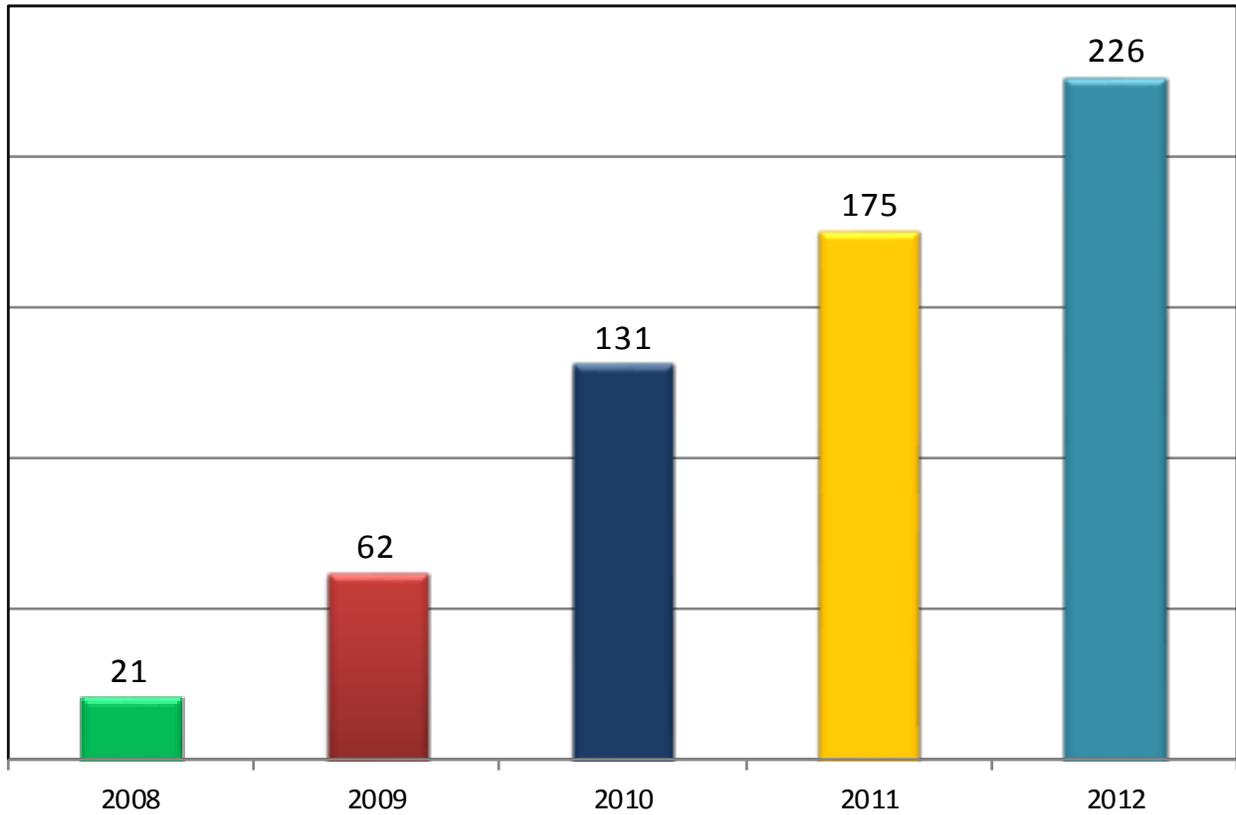
NKR Patient Referrals



New Pair Registrations Per Month

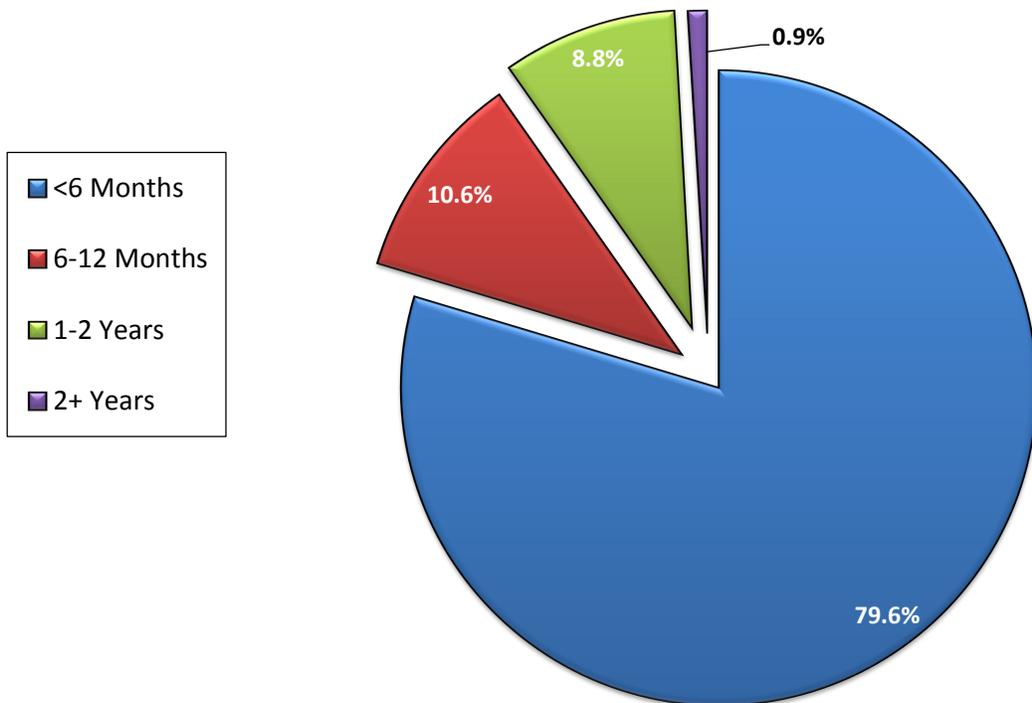


Transplants Facilitated by Year

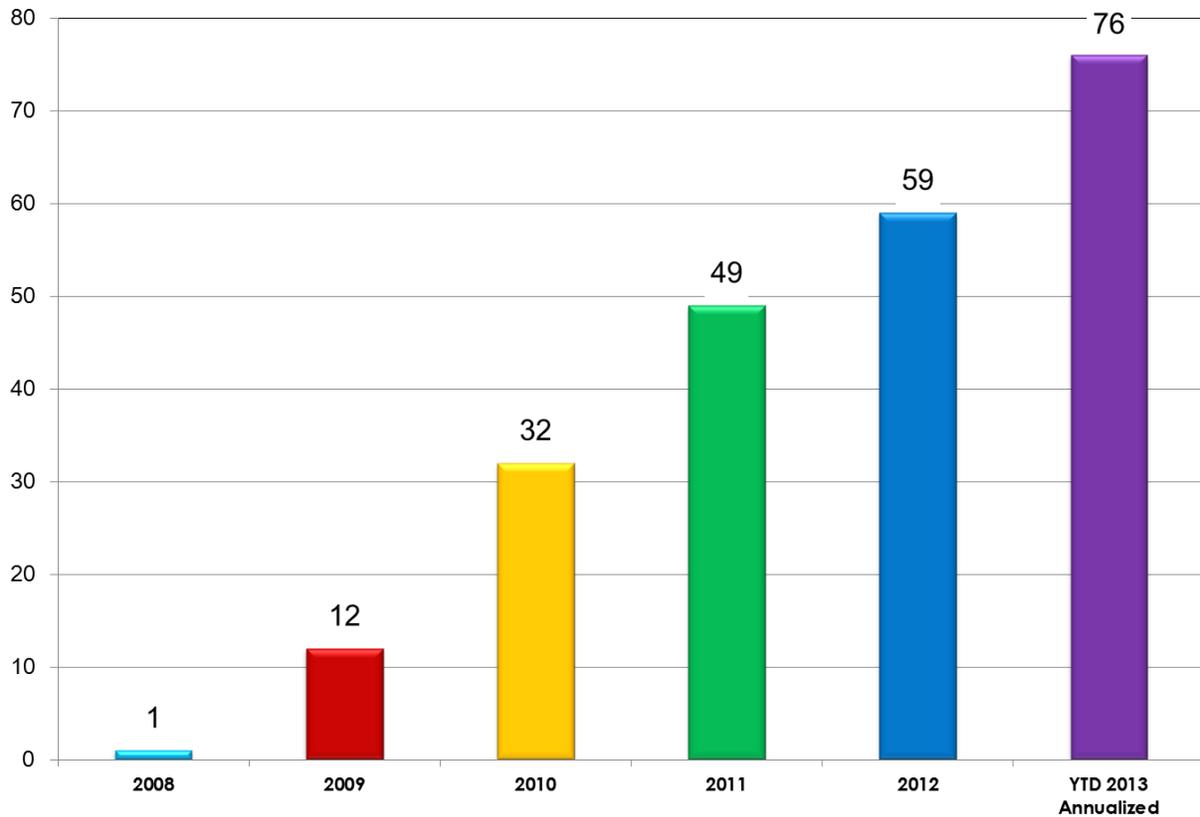


2012 Transplants by Wait Time

90% of transplanted patients waited < 12 months

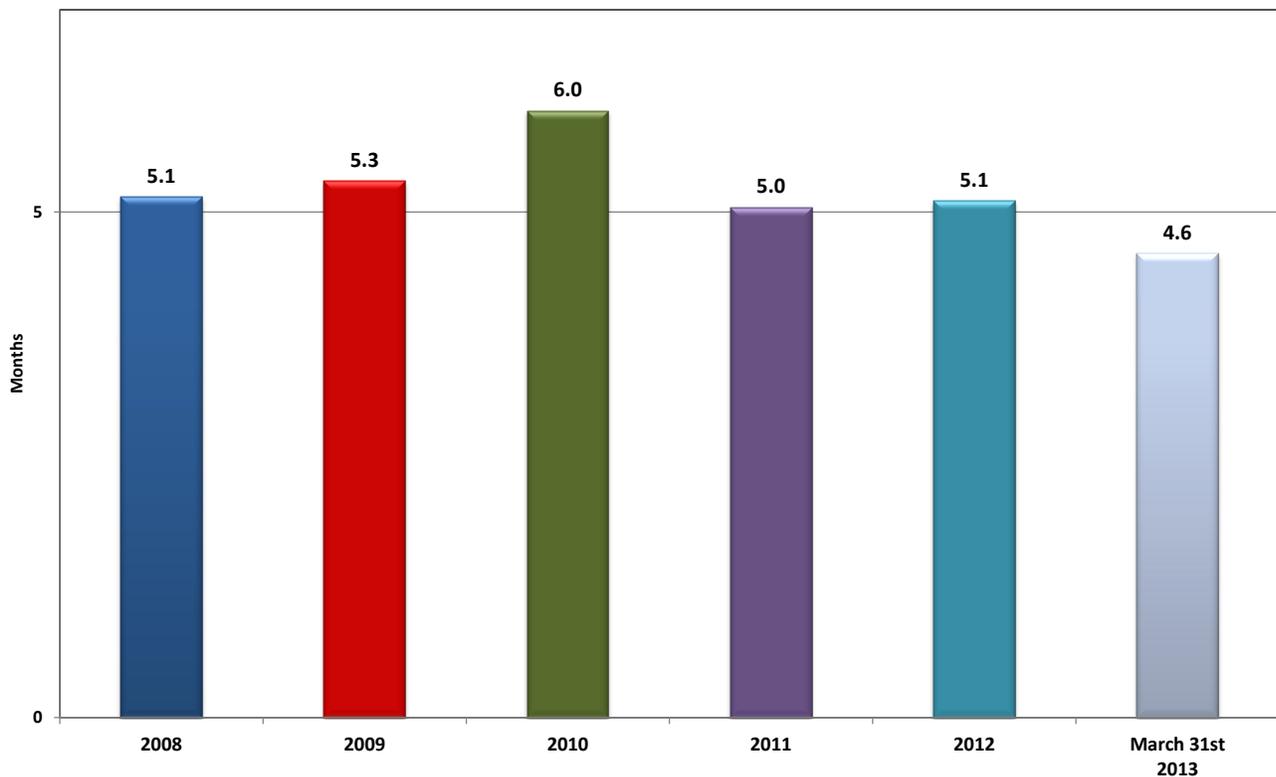


Number of Transplanted Patients with cPRA >80%



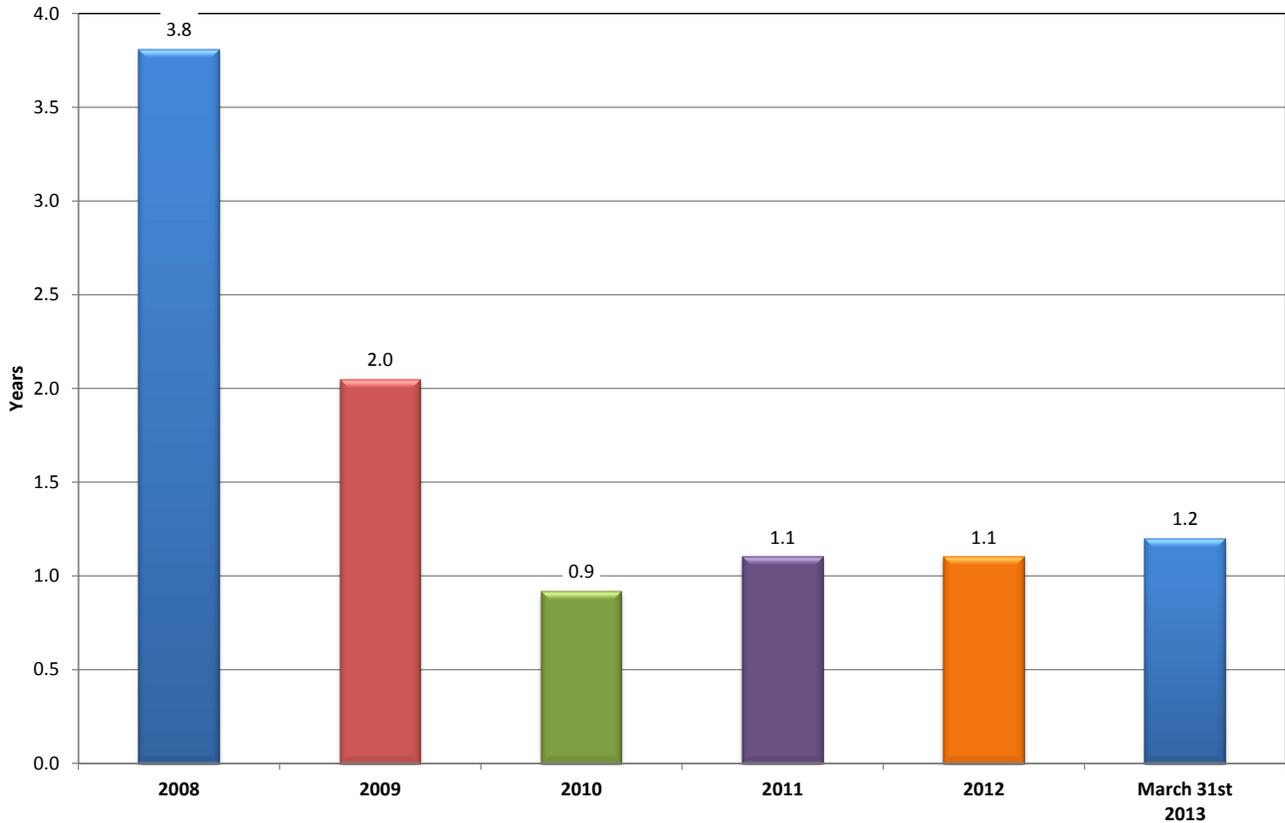
Transplanted Patient Average Wait Time

The average of the actual wait times of patients transplanted during the year
(wait time = transplant date – enrollment date)



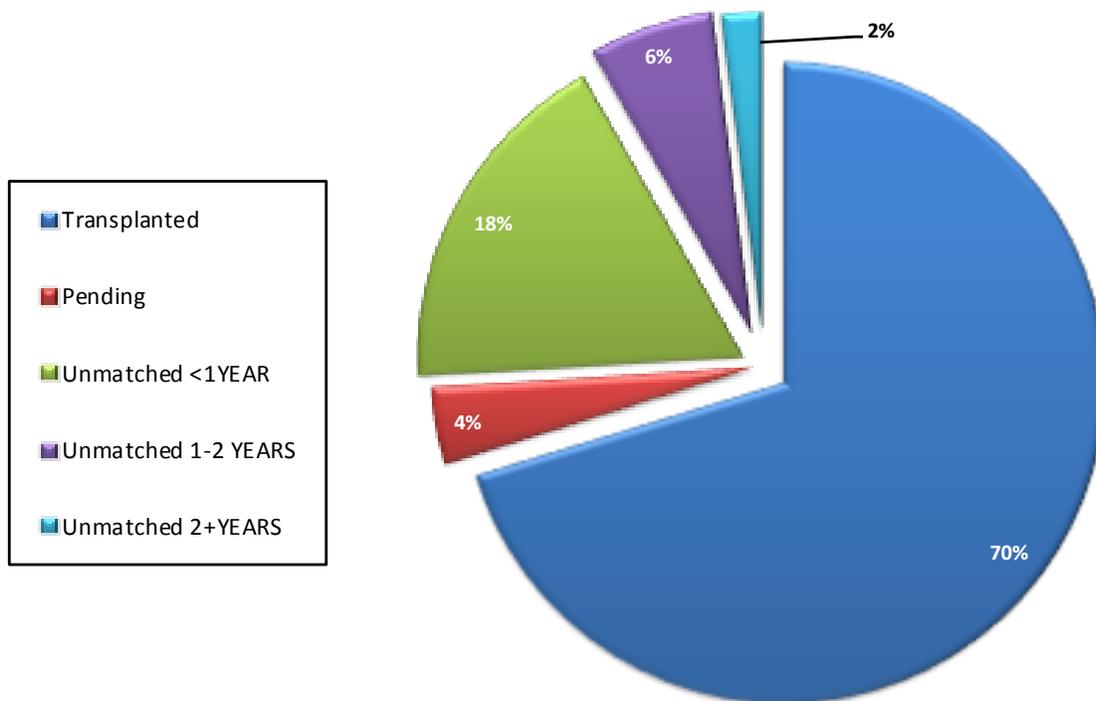
Enrolled Patient Average Wait Time

Ending unmatched patient pool/annual transplant run rate

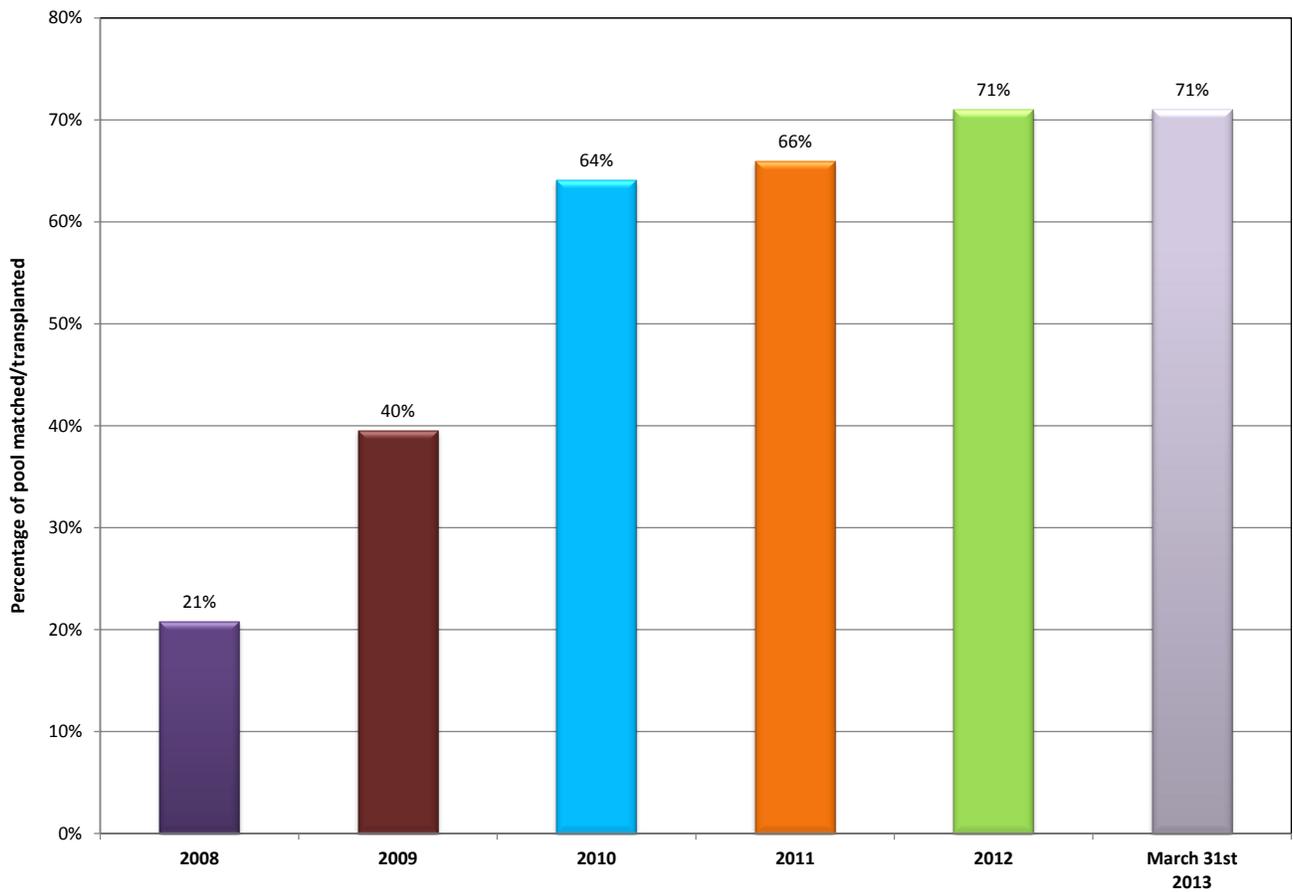


Cumulative Pool Distribution by Status

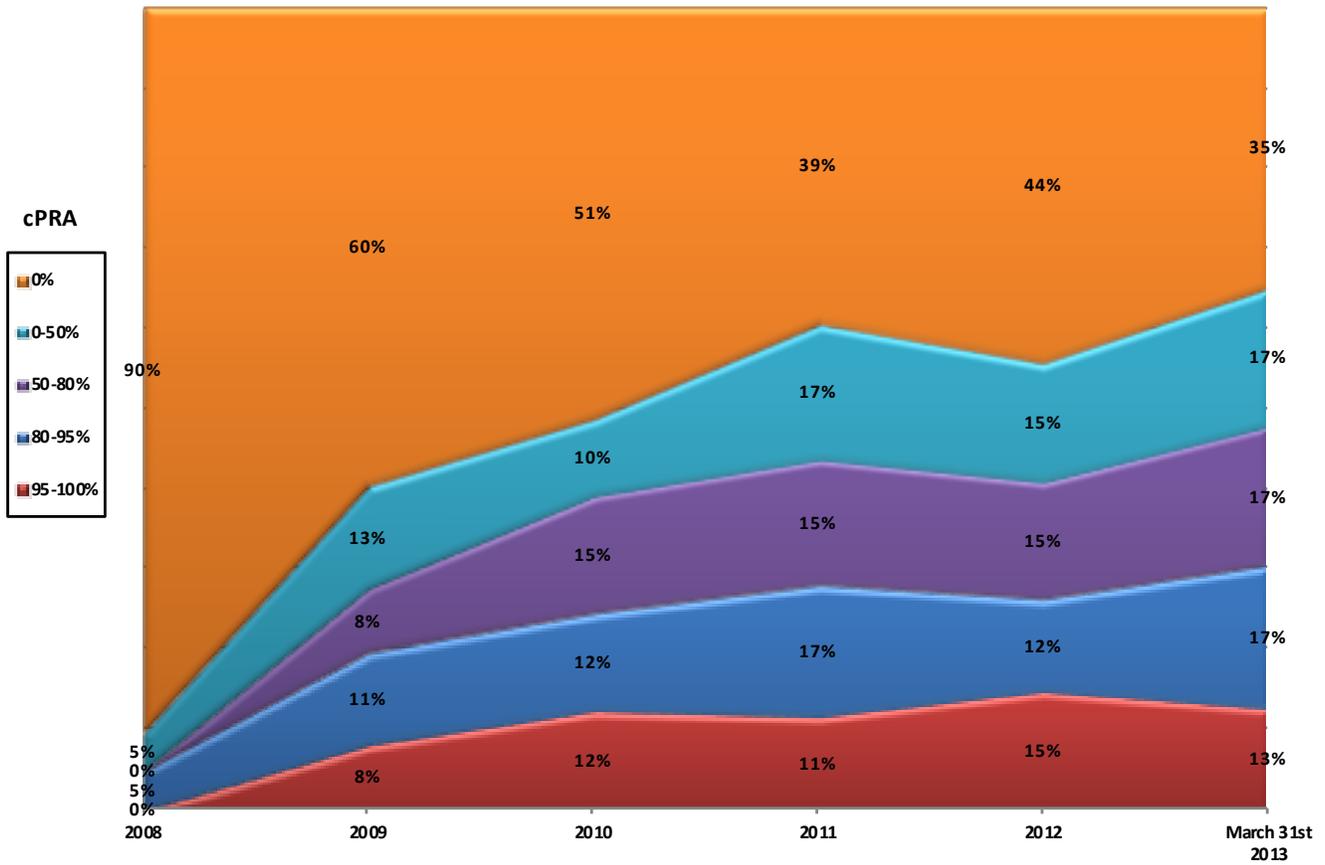
As of 3/31/2013



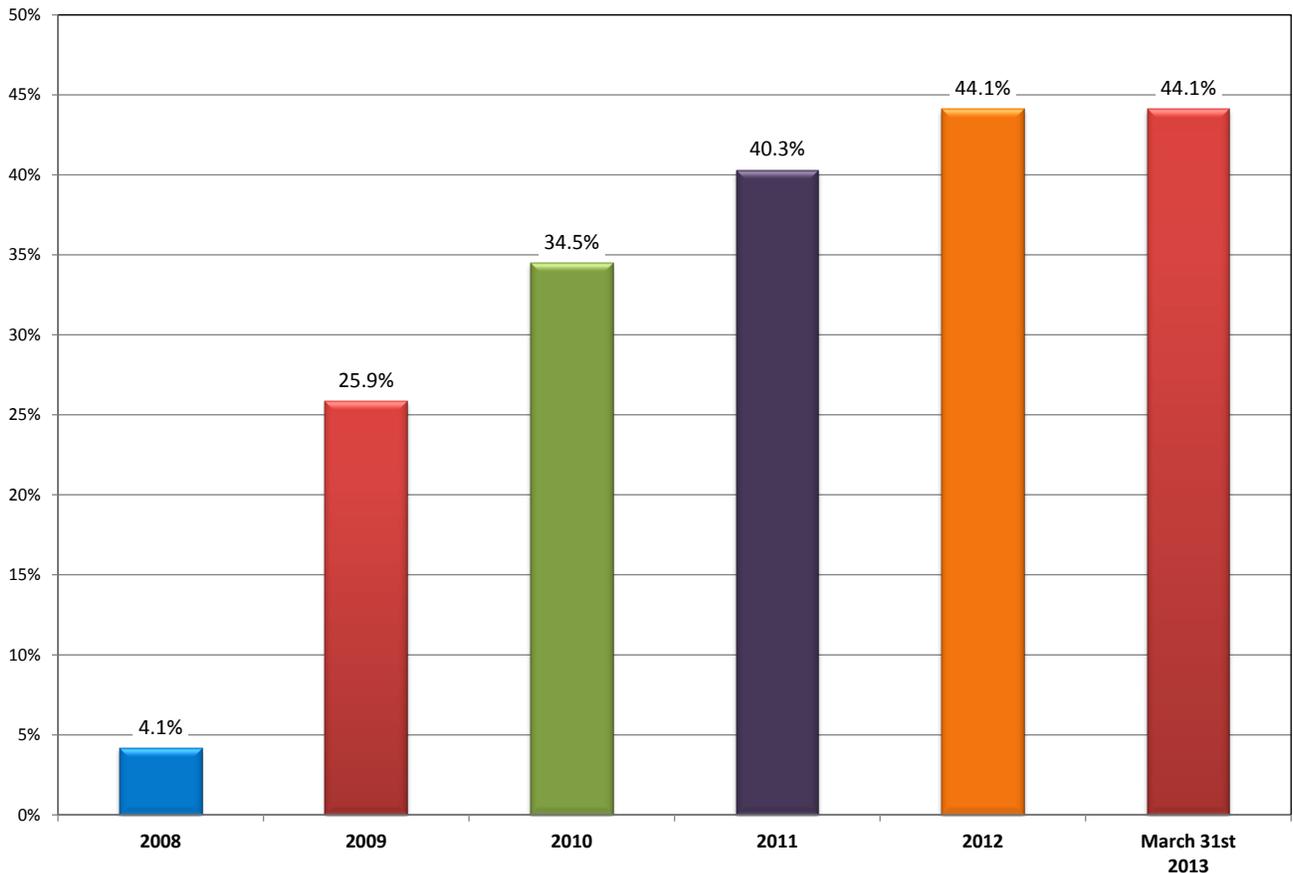
Cumulative Pool Transplanted by Year



Transplanted Patients by Year by cPRA



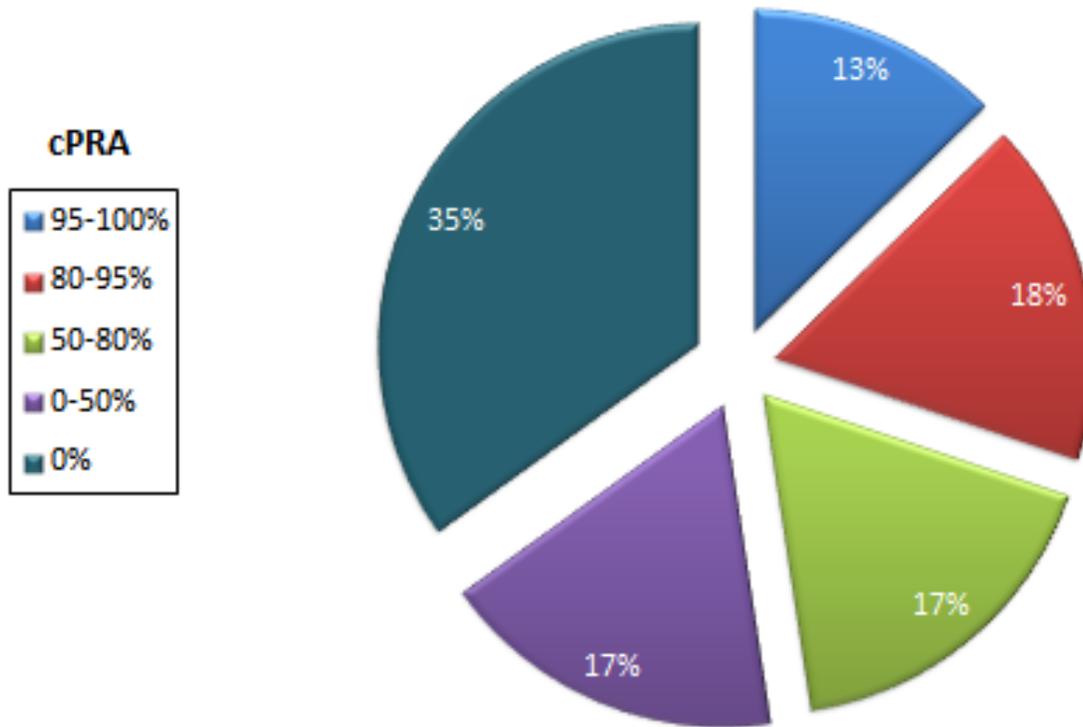
Average cPRA of Transplanted Patients by Year



Transplants by cPRA

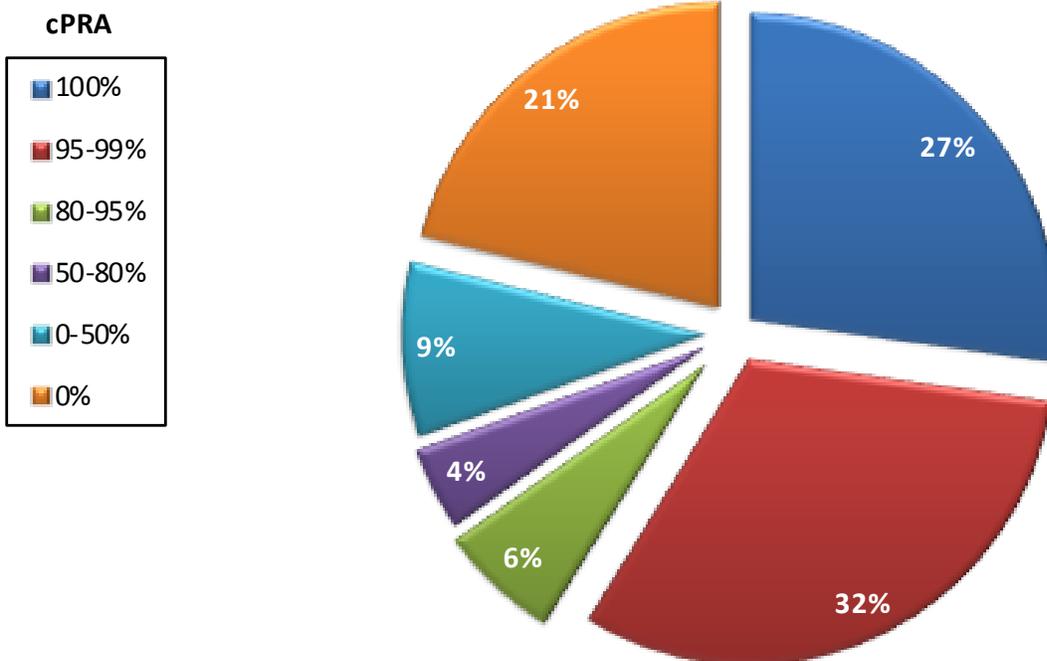
26% of transplanted patients >80% cPRA

1/1/2013 - 3/31/2013

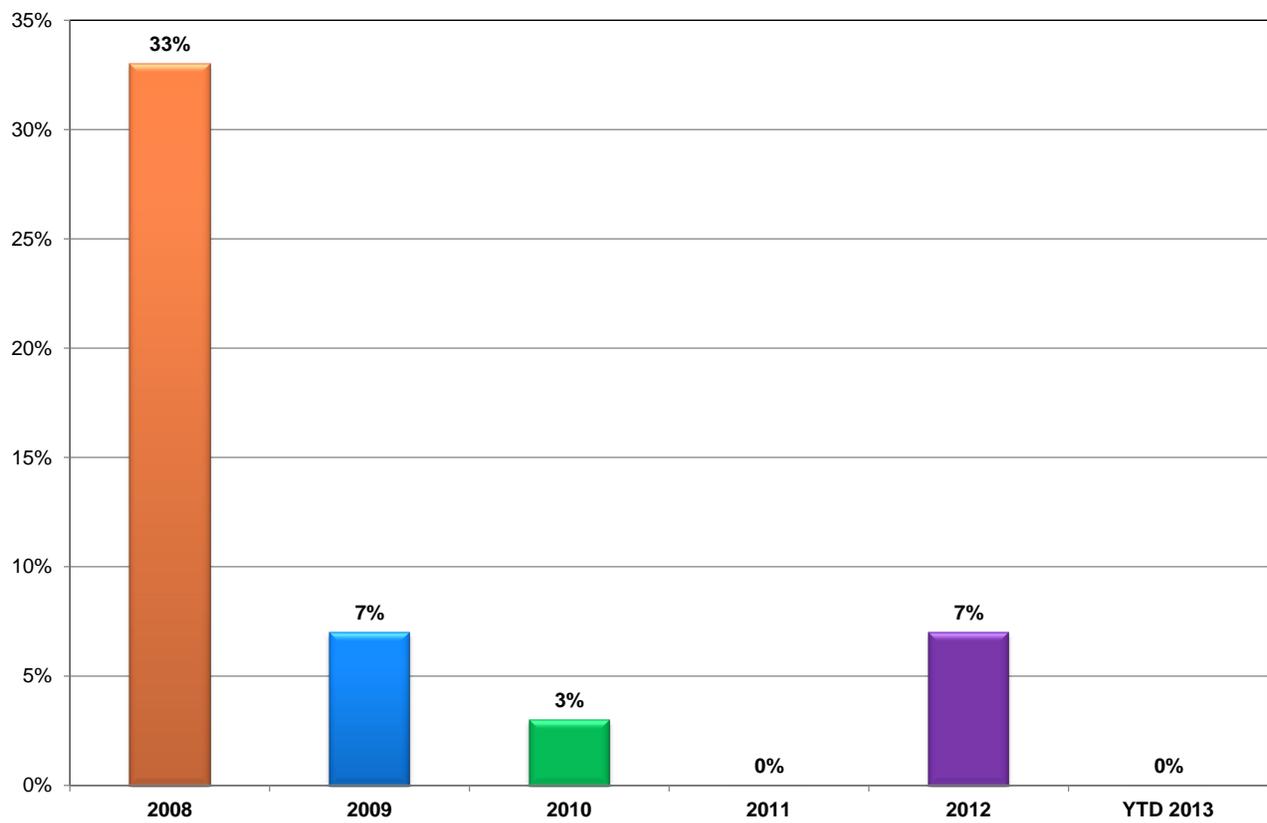


Pool Composition by cPRA

As of 3/31/2013



Broken Chains by Year - Summary



Broken Chains by Year - Detail

Year	# Bridge Donors	# Broken Chains	% Broken Per Year
2008	9	3	33%
2009	29	2	7%
2010	61	2	3%
2011	75	0	0%
2012	54	4	7%
2013 Est.	32	0	0%
Total Bridge Donors	228	11	

Summary of Broken Chains

#	Reason Given	Center	Date
1	Job Issues/ long wait time/ many failed XMs	Cornell	5/1/2008
2	No Reason	Cornell	8/21/2008
3	No Reason	CPMC	11/19/2008
4	Two cancelled swaps/ long wait time	UTMC	6/9/2009
5	Medical	UCSF	11/10/2009
6	Medical	UCLA	3/16/2010
7	Second nuclear GFR test < 80 (79 down from 82)	AGH	9/16/2010
8	No Reason	MethodistTX	2/3/2012
9	No Reason	UCSF	4/4/2012
10	Medical	UCLA	6/28/2012
11	Medical/Surgical	Washington	11/5/2012

NKR Program Statistics

		2008	2009	2010	2011	2012	March 31st 2013
1	Transplants Facilitated	21	62	131	175	226	63
2	Paired Transplants Facilitated	21	39	91	131	164	52
3	Chip Transplants Facilitated	0	23	40	44	62	11
4	Ending Unmatched Patient Pool	80	127	120	201	241	250
5	Cumulative Transplants	21	83	214	389	615	678
6	Cumulative Paired Transplants	21	60	150	280	526	578
7	Cumulative Chip Transplants	0	23	64	109	89	100
8	Cumulative Paired Patient Pool	101	210	334	590	805	863
9	Percent of Pool Transplanted (Paired Recipients)	21%	40%	64%	66%	71%	71%
10	Enrolled Patient Average Wait Time (years)	3.8	2.0	0.9	1.1	1.1	1.2
11	Transplanted Patient Average Wait Time(months)	5.1	5.3	6.0	5.0	5.1	4.6
12	Average cPRA of Transplanted Patients	4.1%	25.9%	34.5%	40.3%	44.1%	44.1%
13	Number of Transplants Completed by cPRA						
14	100%	0	1	4	10	4	0
15	95-100%	0	4	12	10	29	8
16	80-95%	1	7	16	29	26	11
17	50-80%	0	5	19	27	33	11
18	0-50%	1	8	13	30	34	11
19	0%	19	37	67	69	100	22
20	Sub-total	21	62	131	175	226	63
21	Percent of Transplants Completed by cPRA						
22	100%	0%	2%	3%	6%	2%	0%
23	95-100%	0%	6%	9%	6%	13%	13%
24	80-95%	5%	11%	12%	17%	12%	17%
25	50-80%	0%	8%	15%	15%	15%	17%
26	0-50%	5%	13%	10%	17%	15%	17%
27	0%	90%	60%	51%	39%	44%	35%
28	Sub-total	100%	100%	100%	100%	100%	100%
29	Number of Transplanted Patients with cPRA >80%	1	12	32	49	59	19
30	Percent of Transplanted Patients with cPRA >80%	5%	19%	24%	28%	26%	30%
31	Number of Unmatched Patients by cPRA (12/31/2012)						
32	100%					73	68
33	95-99%					73	79
34	80-95%					15	16
35	50-80%					11	11
36	0-50%					10	23
37	0%					59	53
38	Sub-total					241	250
39	Percent of Unmatched Patients by cPRA (12/31/2012)						
40	100%					30%	27%
41	95-99%					30%	32%
42	80-95%					6%	6%
43	50-80%					5%	4%
44	0-50%					4%	9%
45	0%					24%	21%
46	Sub-total					100%	100%
47	Number of Transplants Completed by Wait Time (12/31/2012)						
48	< 6 months	21	42	74	106	180	51
49	6-12 months	0	10	14	19	24	10
50	1-2 years	0	4	15	14	20	2
51	2+ years	0	0	2	2	2	0
52	Sub-total	21	56	105	141	226	63
53	Percent of Transplants Completed by Wait Time (12/31/2012)						
54	< 6 months	100.0%	75.0%	70.5%	75.2%	79.6%	81.0%
55	6-12 months	0.0%	17.9%	13.3%	13.5%	10.6%	15.9%
56	1-2 years	0.0%	7.1%	14.3%	9.9%	8.8%	3.2%
57	2+ years	0.0%	0.0%	1.9%	1.4%	0.9%	0.0%
58	Sub-total	100%	100%	100%	100%	100%	100%
59	Total Chains Started	3	8	28	38	54	14
60	Total Loops Completed	0	3	2	3	12	7
61	Number of broken chains	3	2	2	0	4	0
62	Bridge Donors Held (2013 estimated)	9	29	61	75	54	32
63	Percent of broken chains	33%	7%	3%	0%	7%	0%

Medical Board

Yolanda Becker, MD

Chicago, IL

Professor of Surgery
Director, Kidney and Pancreas Program
University of Chicago

Michael Cecka, PhD

Los Angeles, CA

NKR Immunogenetics Director
Professor, Department of Pathology at UCLA
Director of Clinical Research, UCLA Immunogenetics Center
Chair NKR Histocompatibility Committee

Marian Charlton, RN

New York, NY

Chief Transplant Coordinator
New York Presbyterian Hospital/Cornell University Medical Center
Chair NKR Operations Committee

Gabriel Danovitch, MD

Los Angeles, CA

Medical Director UCLA Kidney & Pancreas Program
Ronald Reagan UCLA Medical Center
Professor, David Geffen School of Medicine at UCLA

Stuart Flechner,

Cleveland, OH

Surgical Director & Professor of Surgery
Cleveland Clinic

Howard Gebel, PhD

Atlanta, GA

Professor Department of Pathology
Co-Director, Histocompatibility and Molecular Immunogenetics Lab
Emory University Hospital

Pam Heckathorn Hale,

Los Angeles, CA

Kidney Transplant Recipient
Public Member

Valerie Johnson, MD, PhD

New York, NY

Chief, Division of Pediatric Nephrology
New York Presbyterian Hospital/Cornell University Medical Center
Associate Professor of Clinical Pediatrics Cornell University

Sandip Kapur, MD

New York, NY

Chief Transplantation, Surgical Director Kidney & Pancreas Program
New York Presbyterian Hospital/Cornell University Medical Center
Associate Professor of Surgery Cornell University

Steven Katznelson, MD

San Francisco, CA

Medical Director, Kidney & Pancreas Transplant Programs
Vice Chairman, Barry Levin Department of Transplantation
California Pacific Medical Center

Dixon Kaufman, MD, PhD

Madison, WI

Chief Division of Transplantation
University of Wisconsin, Madison

David Leeser, MD

Baltimore, MD

Chief of Kidney & Pancreas Transplantation
University of Maryland

Medical Board

Debbie Mast
Palo Alto, CA

Database Administrator/Financial Manager
Solid Organ Transplant/VAD Program
Stanford Hospital and Clinics

Suzanne McGuire, RN
Los Angeles, CA

High Risk & Living Donor Exchange Transplant Coordinator
Kidney and Pancreas Transplant Program
Ronald Reagan UCLA Medical Center

Marc Melcher, MD, PhD
Palo Alto, CA

Chair, NKR Research Committee
Assistant Professor of Surgery
Stanford University Medical Center
Lucile Packard Children's Hospital

Karen Miller, RN
Madison, WI

Transplant Coordinator
Lead Paired Exchange Coordinator
University of Wisconsin, Madison

John Milner, MD
Chicago, IL

Associate Professor of Surgery Loyola
Director of Living Donor and Chain/Paired Exchange Transplantation
Loyola University Medical Center

Marie Morgievlch, APN
Livingston, NJ

Transplant Nurse Practitioner, Living Donor Institute
Saint Barnabas Medical Center

Kenneth Newell, MD, PhD
Atlanta, GA

Surgical Director & Professor of Surgery
Emory University School of Medicine

David Serur, MD
New York, NY

NKR Medical Director
Medical Director, Kidney & Pancreas Transplant, Rogosin
Associate Professor Medicine & Surgery Cornell University
Attending Physician & Surgeon New York Presbyterian Hospital

Helen Spicer, RN
Richmond, VA

Director, Kidney Transplant Services
Virginia Transplant Center
Henrico Doctors' Hospital

Angela Stimpson
Schenectady, NY

Good Samaritan Donor
Public Member

Barry Straube, MD
Washington, DC

Nephrologist & Transplant Physician
Former Chief Medical Officer Centers for Medicare & Medicaid

Jeffrey Veale, MD
Los Angeles, CA

Director Donor Exchange Program & Surgeon
Ronald Reagan UCLA Medical Center
Assistant Professor, David Geffen School of Medicine at UCLA

Member Centers

Allegheny General Hospital	Pittsburgh	PA
Barnes-Jewish Hospital	St. Louis	MO
Brigham and Women's Hospital	Boston	MA
California Pacific Medical Center	San Francisco	CA
Cedars-Sinai Medical Center	Los Angeles	CA
Centura Porter Adventist Hospital	Denver	CO
Children's Hospital of Pittsburgh	Pittsburgh	PA
Christ Hospital of Cincinnati	Cincinnati	OH
Christiana Care Health System	Newark	DE
Cleveland Clinic	Cleveland	OH
Crozer-Chester Medical Center	Upland	PA
Dartmouth-Hitchcock MC	Lebanon	NH
Emory Transplant Center	Atlanta	GA
Fletcher Allen Health Care	Burlington	VT
Froedtert	Milwaukee	WI
Indiana University Health Transplant	Indianapolis	IN
Intermountain Medical Center	Murray	UT
Keck Medical Center of USC	Los Angeles	CA
Lahey Clinic	Burlington	MA
Lankenau Medical Center	Wynnewood	PA
Loma Linda Medical Center	Loma Linda	CA
Loyola University Medical Center	Maywood	IL
Lucile Packard at Stanford	Palo Alto	CA
Massachusetts General Hospital	Boston	MA
Medical College of Virginia Hospitals	Richmond	VA
Medical University of South Carolina	Charleston	SC
Methodist Transplant Center	Houston	TX
Methodist University Transplant-TN	Memphis	TN
Mount Sinai Medical Center	New York	NY
Newark Beth Israel Medical Center	Newark	NJ
New York-Presbyterian Columbia	New York	NY
NYP-Weill Cornell Living Donor Kidney Center	New York	NY
Ohio State University Medical Center	Columbus	OH
Our Lady of Lourdes	Haddon Heights	NJ
Penn State Hershey Medical Center	Hershey	PA
Pinnacle Health Systems	Harrisburg	PA

Member Centers

Riverside Community Hospital Transplant Center	Riverside	CA
Robert Wood Johnson University Hospital	New Brunswick	NJ
Rush University Medical Center	Chicago	IL
Saint Barnabas Medical Center	Livingston	NJ
Seattle Children's	Seattle	WA
Sentara Norfolk General Hospital	Norfolk	VA
Sharp Memorial Hospital	San Diego	CA
St Louis Children's Hospital	St Louis	MO
St. Davids North Austin Medical Center	Austin	TX
St. Joseph Hospital	Orange	CA
St. Luke's Transplant Center	New York	NY
St. Vincent Medical Center	Los Angeles	CA
Stanford University Medical Center	Palo Alto	CA
Starzl Transplantation Institute/UPMC	Pittsburgh	PA
Tampa General Hospital	Tampa	FL
Thomas Jefferson University Hospital	Philadelphia	PA
UC Davis Medical Center	Sacramento	CA
UCLA Medical Center	Los Angeles	CA
UCSF Medical Center	San Francisco	CA
University of Chicago Medicine	Chicago	IL
University of Cincinnati Hospital	Cincinnati	OH
University of Maryland Medical Center	Baltimore	MD
University of Pennsylvania Hospital	Philadelphia	PA
University of Rochester Medical Center	Rochester	NY
University of Virginia Transplant Center	Charlottesville	VA
University of Utah Medical Center	Salt Lake City	UT
University of Washington Medical Center	Seattle	WA
University of Wisconsin, Madison	Madison	WI
Virginia Transplant Center	Richmond	VA
Walter Reed National Military MC	Bethesda	MD
Yale New Haven Hospital	New Haven	CT



P.O. Box 460 • Babylon • NY 11702-0460



www.kidneyregistry.org

800-936-1627