

LUNG ALLOCATION SCORE SYSTEM UPDATE

Current Lung Allocation System

- System was implemented on May 4, 2005
- The Lung Allocation Score (LAS) is based on a combination of
 - Expected survival in next year without a transplant and
 - Expected survival during 1st year with a transplant
- Details of calculation and allocation can be found in Policy 3.7.6

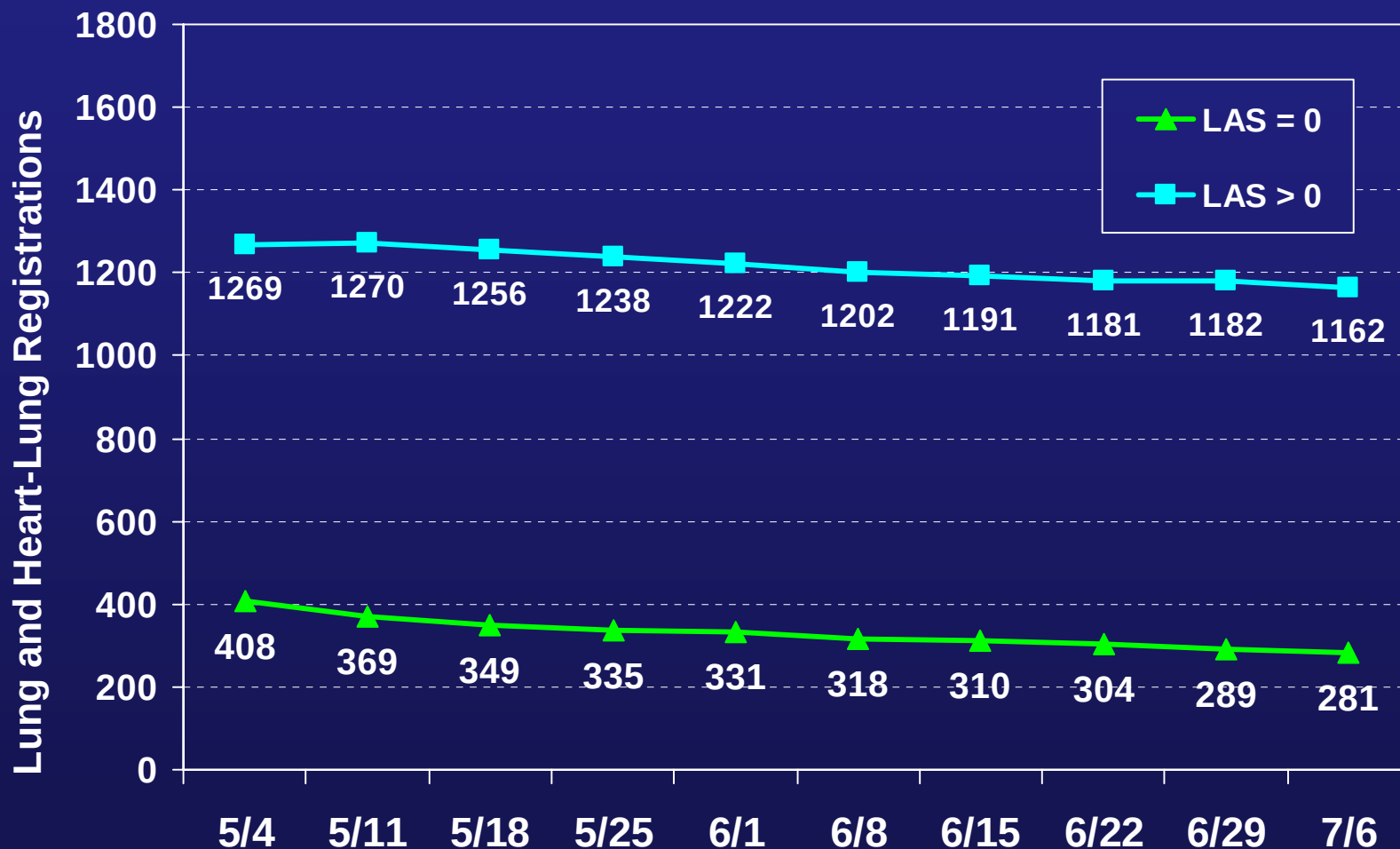
Components Of Current Lung Allocation System:

Diagnosis Groups

Diagnosis group	Diagnoses
A	COPD/Emphysema; Alpha-1 Antitrypsin Deficiency; Bronchiectasis; LAM; Sarcoidosis with PA mean < 30; Primary Ciliary Dyskinesia
B	PPH; Eisenmenger's; Scleroderma (primarily Pulmonary HTN)
C	CF; Hypogammaglobulinemia
D	IPF; Sarcoidosis with PA mean > 30; Lung retransplant; Obliterative Bronchiolitis (OB); Pulmonary Fibrosis (not IPF); Eosinophilic granuloma; Amyloidosis; Mixed Connective Tissue Disease; Scleroderma (primarily restrictive)

Number Of Lung And Heart-lung Registrations By LAS Status

Active Registrations 12+ Years

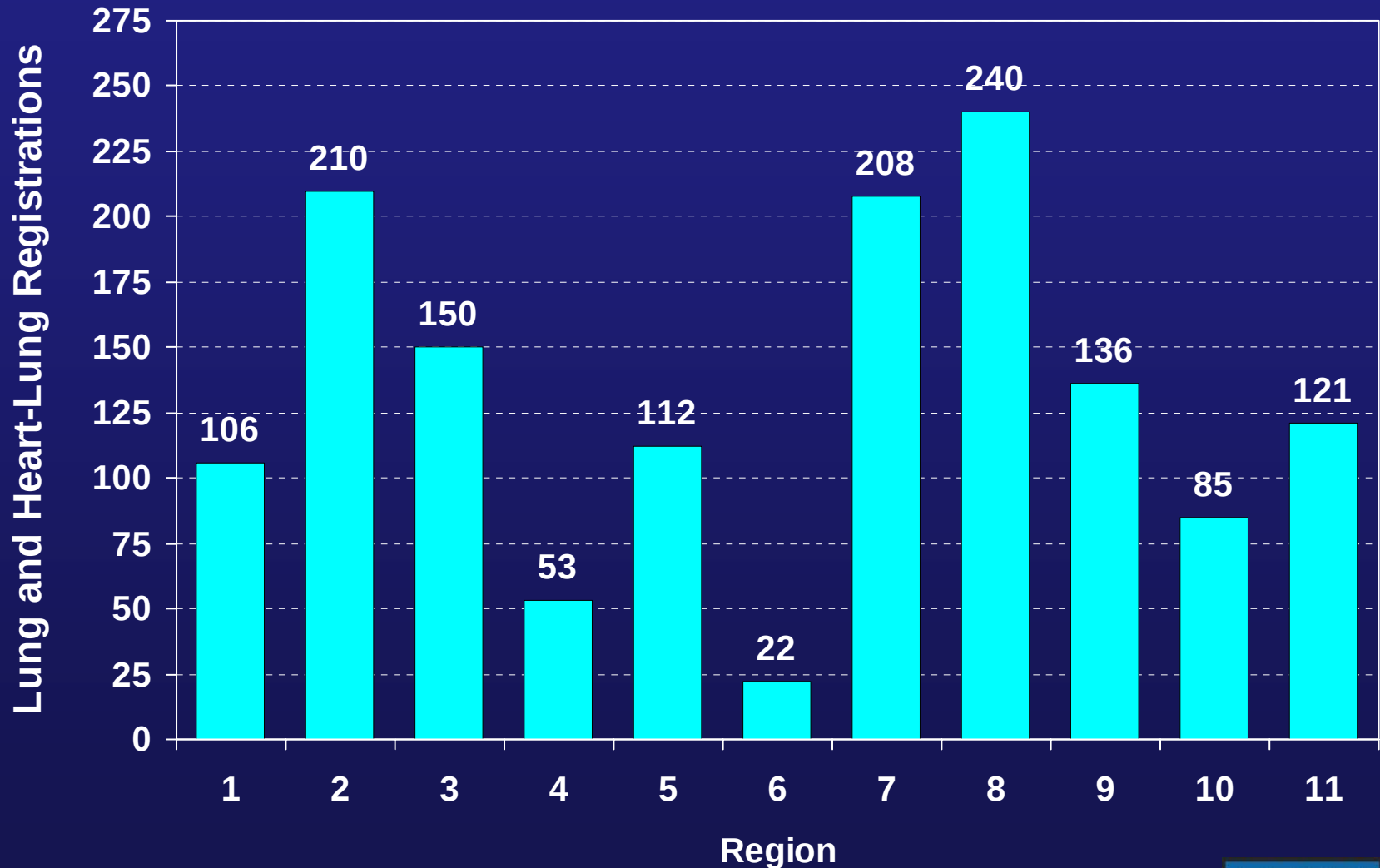


N = 1667

N = 1443

Active Lung And Heart-Lung Registrations (12+)

On July 6, 2005, By Region



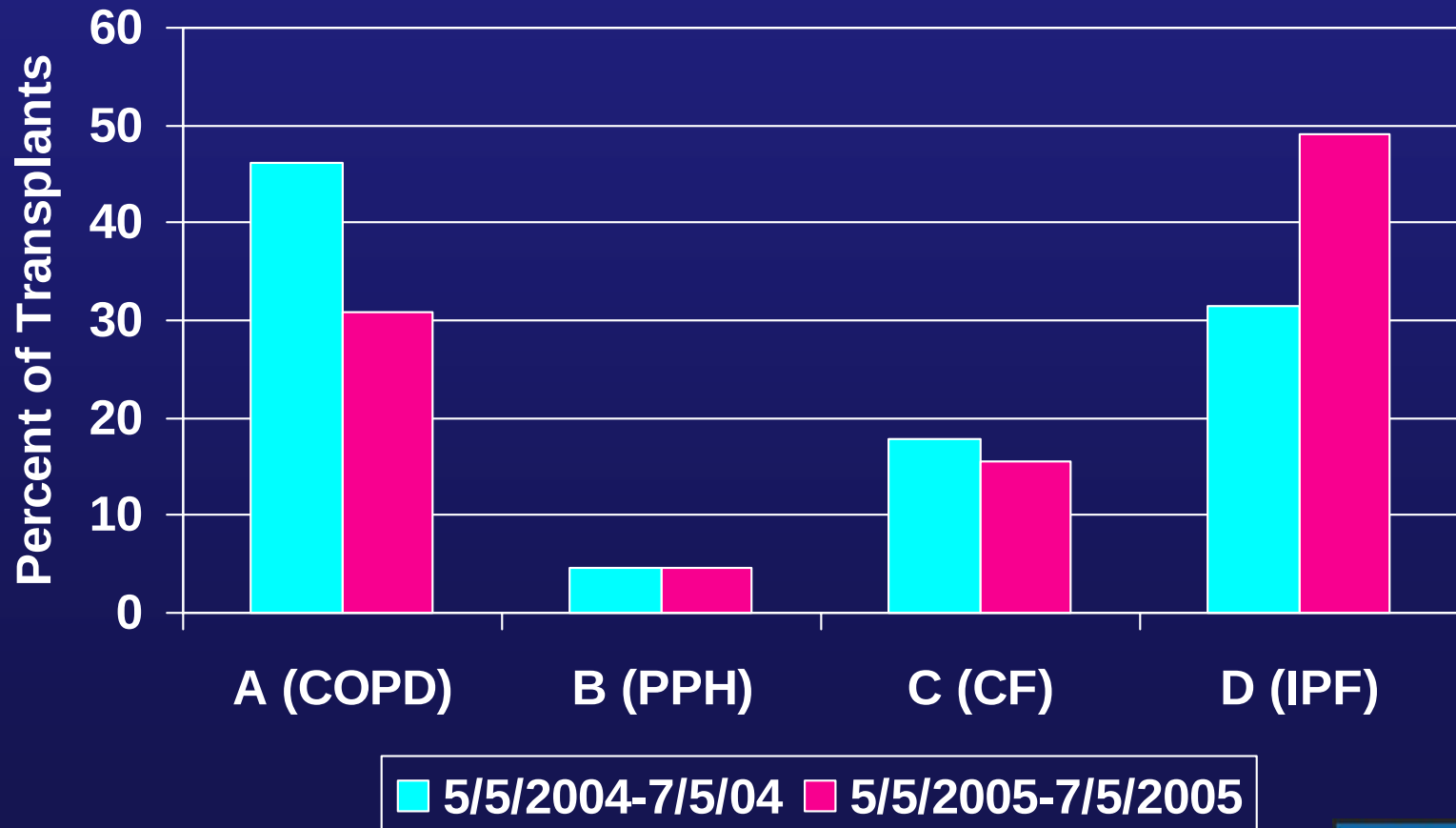
LAS for Active Lung And Heart-Lung Registrations (12+) With Nonzero Scores

On July 6, 2005, by Diagnosis Group

Age Group	Diagnosis Group	N	Median Score
Adult (18+)	ALL	1104	33.12
	A (COPD)	506	32.16
	B (PPH)	115	32.39
	C (CF)	163	34.21
	D (IPF)	320	36.26
Pediatric (12-17)	ALL	58	33.54
	A (COPD)	4	32.13
	B (PPH)	13	31.49
	C (CF)	31	33.95
	D (IPF)	10	36.46

Percent Of Lung and Heart-Lung Transplants Pre- And Post- Policy Implementation

By Diagnosis group

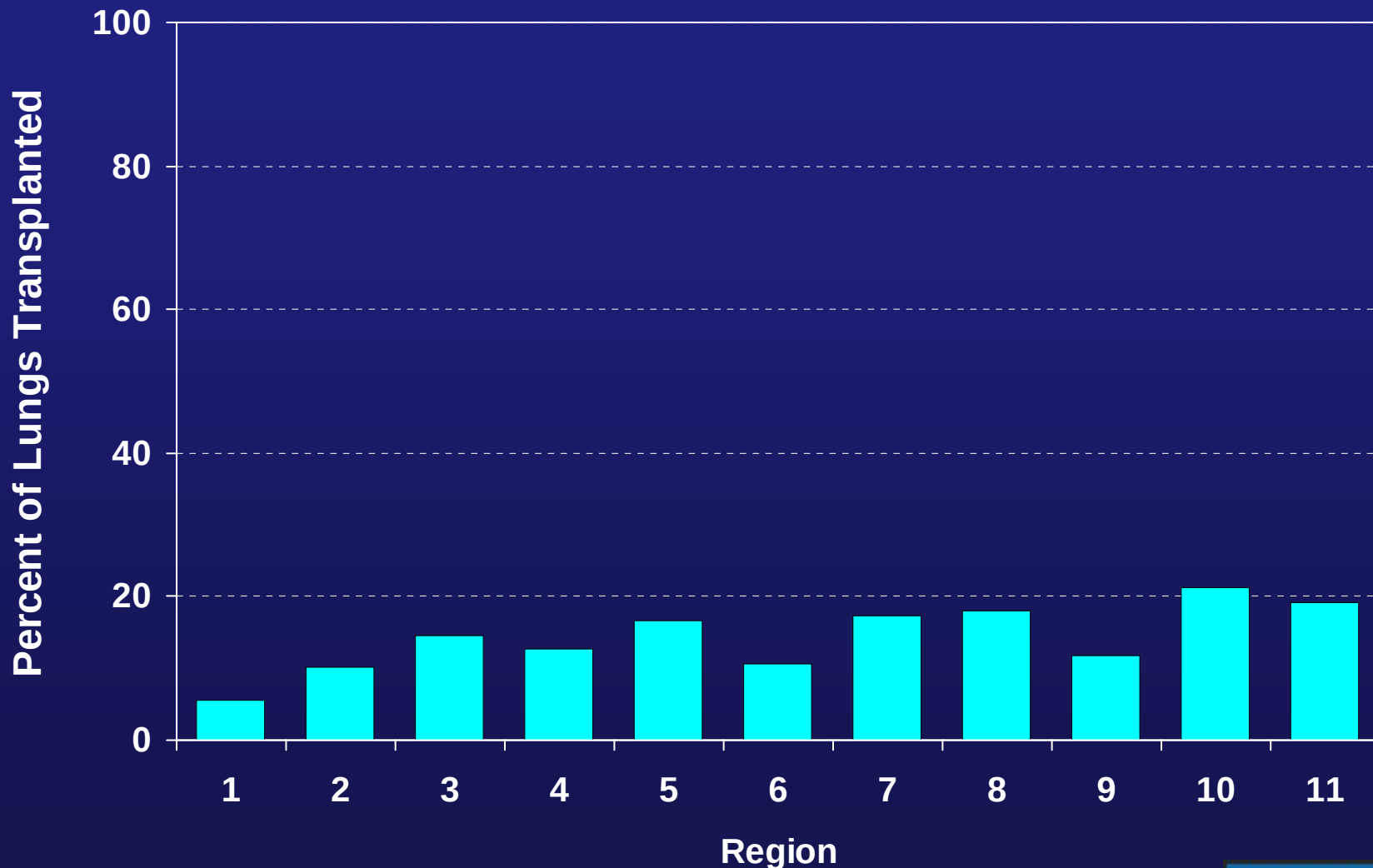


Lung Utilization

		May 4, 2004 – June 3, 2004		May 4, 2005 – June 3, 2005	
		N	% of donors	N	% of donors
Deceased donors	Donors	606	100.0	671	100.0
	Donors with at least 1 lung transplanted	82	13.5	113	16.8
		N	% of lungs	N	% of lungs
Deceased donor lungs	Lungs (2*donors)	1212	100.0	1342	100.0
	Lungs transplanted	149	12.3	205	15.3

Percent of Lungs Transplanted*

May 4, 2005 – June 3, 2005



* Percent = # Lungs transplanted / donors*2

***Evaluation of National Kidney
Allocation Policy
after the Elimination of
HLA-B Matching Points***

Background

- On May 7, 2003, the kidney allocation system was modified so that:
 - No points for HLA-B matches
 - 2 points for zero HLA-DR mismatches
 - 1 point for one HLA-DR mismatches.
- Previously:
 - 7 points for zero HLA-BDR mismatch
 - 5 points for one HLA-BDR mismatch

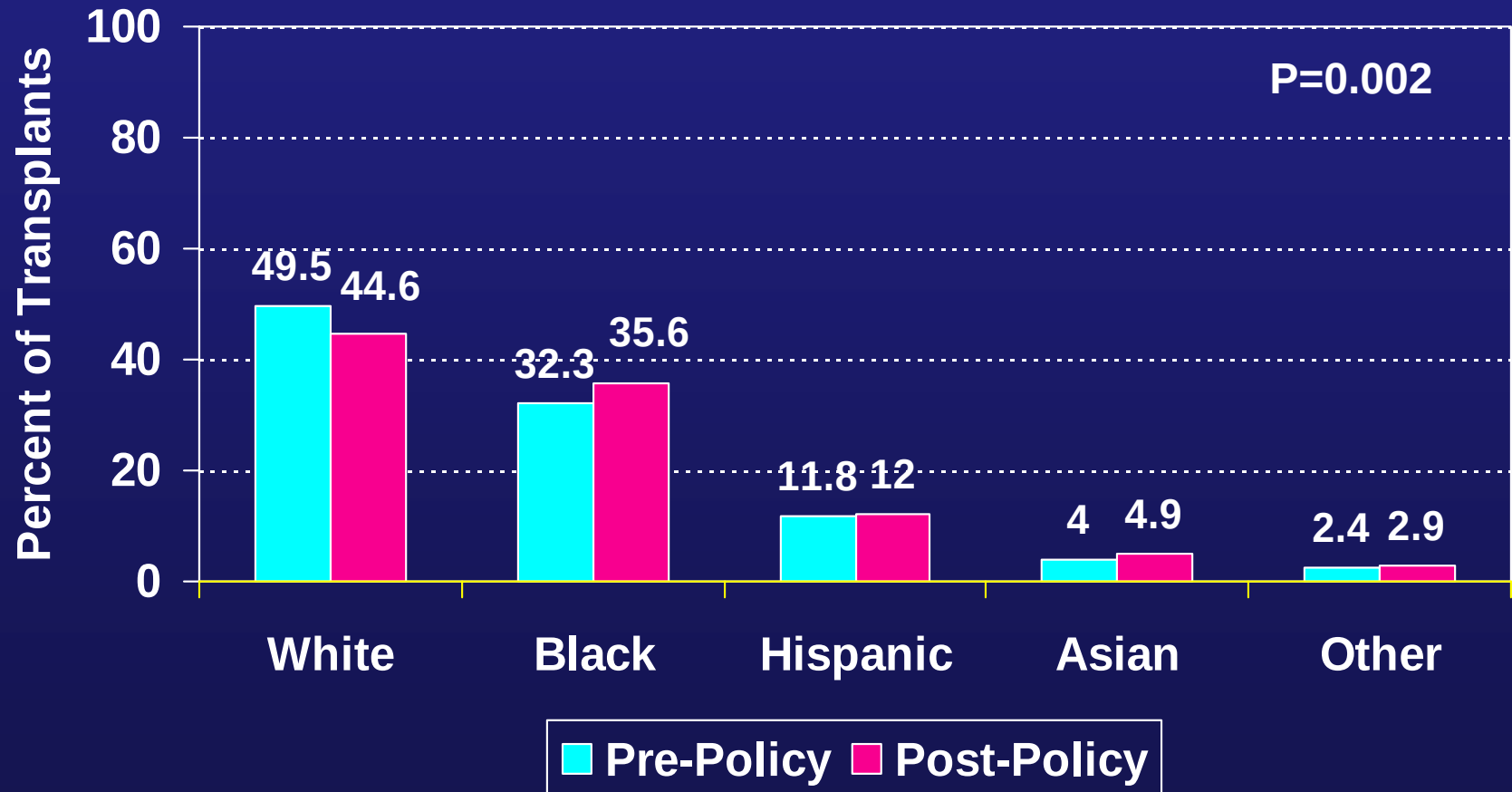
Data/Methods

- Deceased donor kidney alone transplants performed at 35 DSA's (with standard HLA points) between 5/7/02 and 5/6/04 were included.
- Pediatric recipients and recipients of expanded criteria donor (ECD) kidneys were excluded from the analysis.

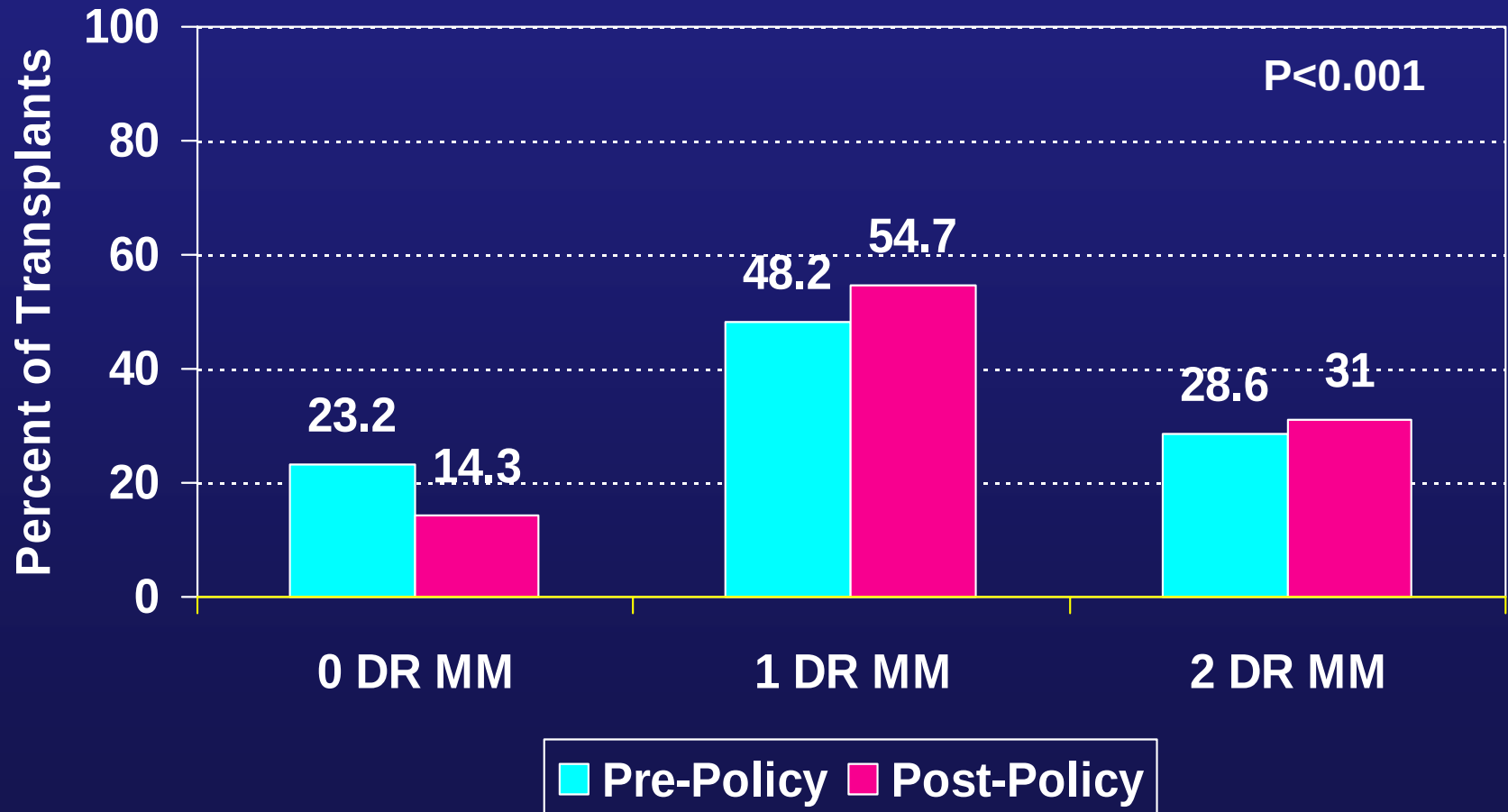
Data/Methods

- Compare percentage of transplants by ethnicity, HLA MM level, PRA, wait time, and graft survival in two periods:
 - Pre-policy period: 5/7/02-5/6/03
N = 3,236
 - Post-policy period: 5/7/03-5/6/04
N = 3,001

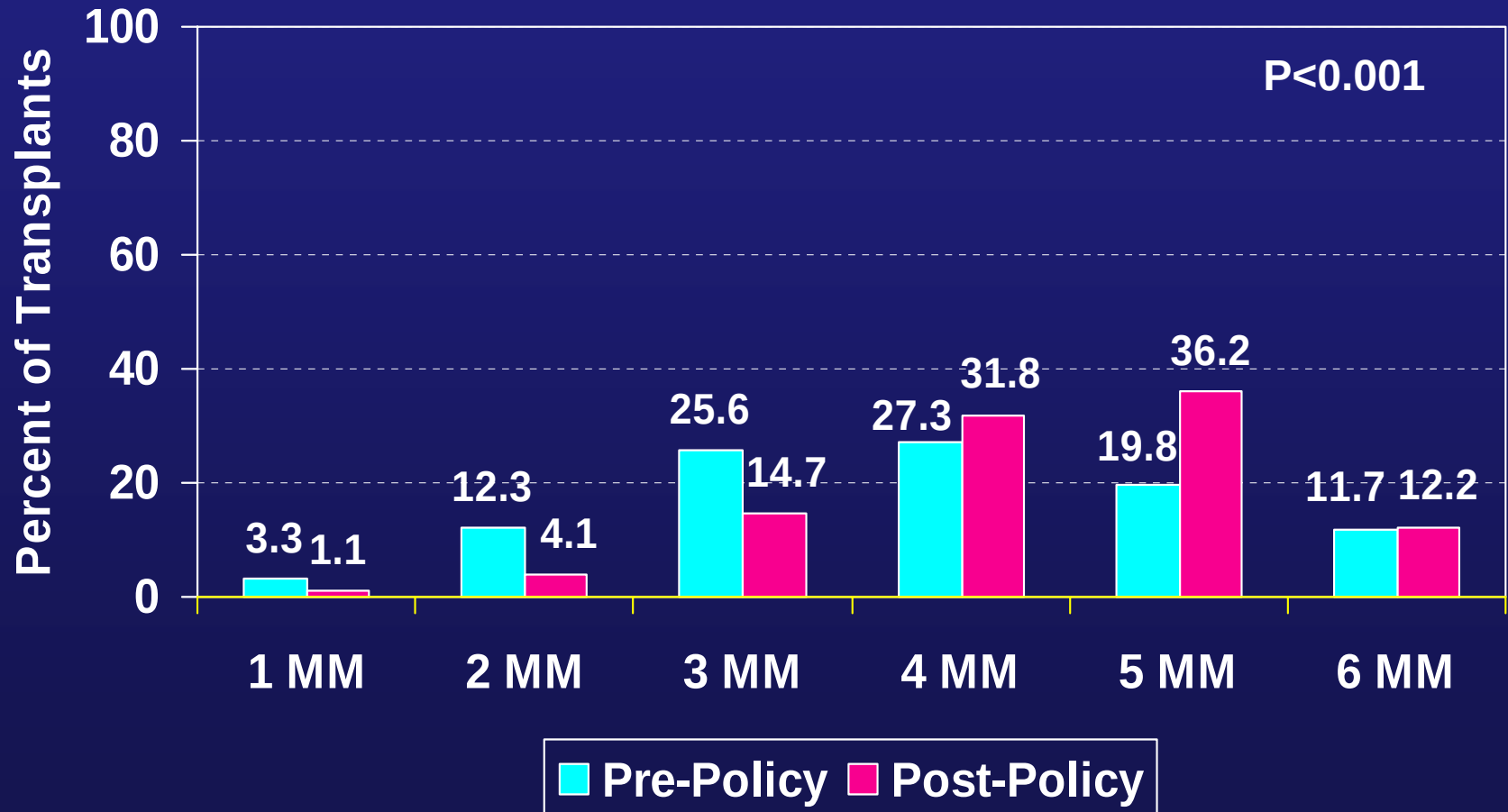
Non-Zero MM Transplants by Policy Period and Ethnicity



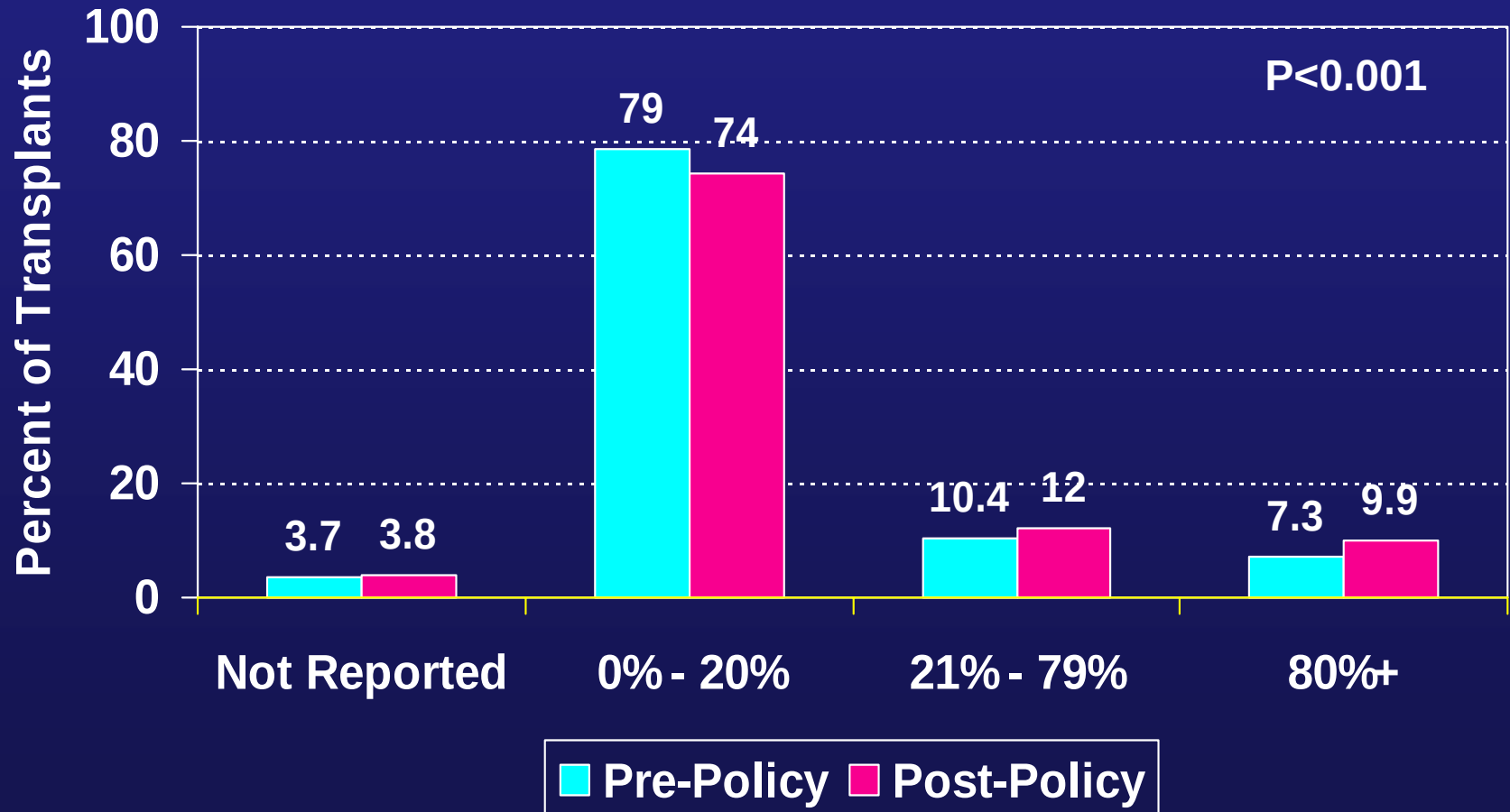
Non-Zero MM Transplants by Policy Period and HLA DR MM



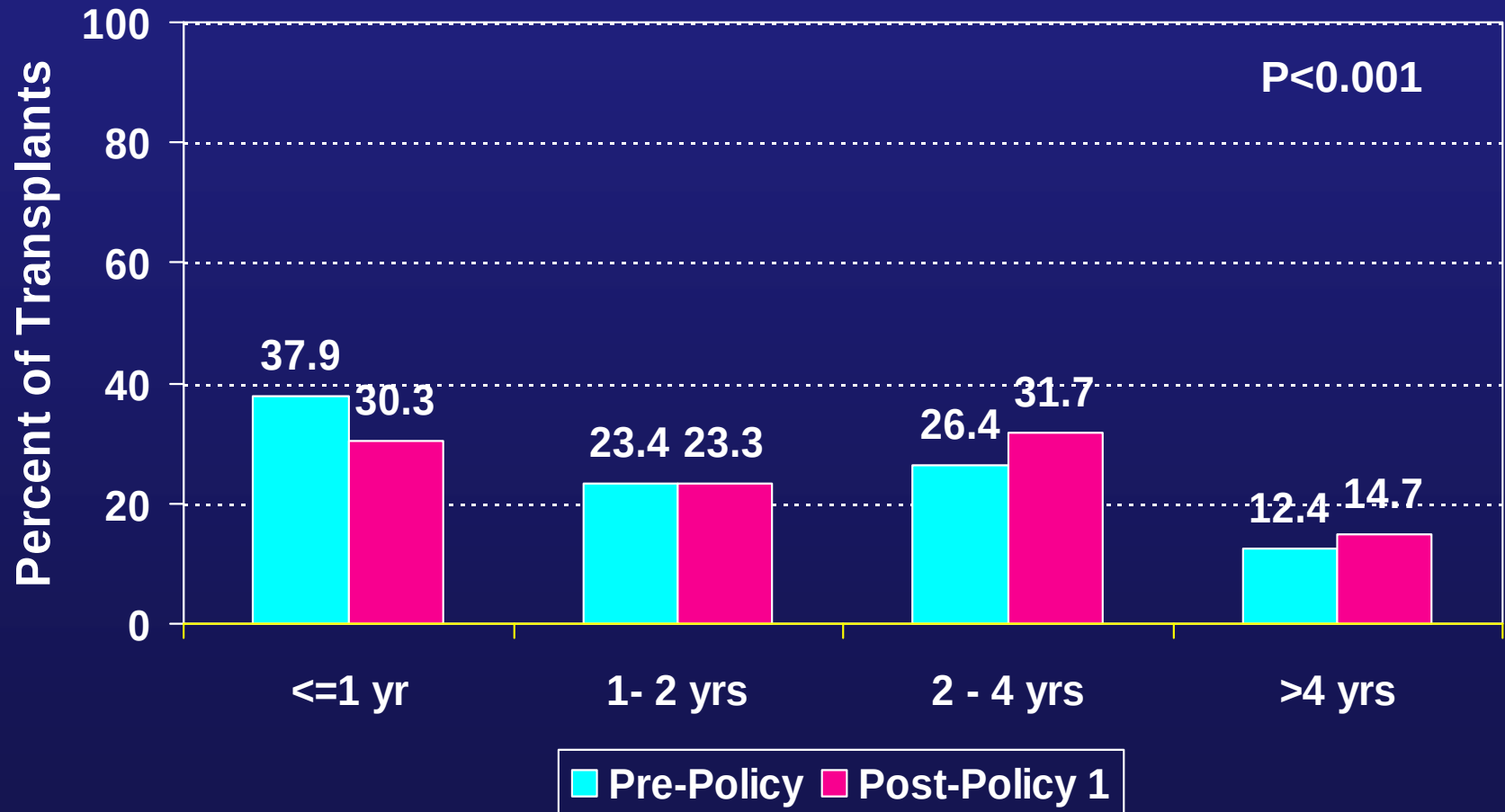
Non-Zero MM Transplants by Policy Period and HLA MM



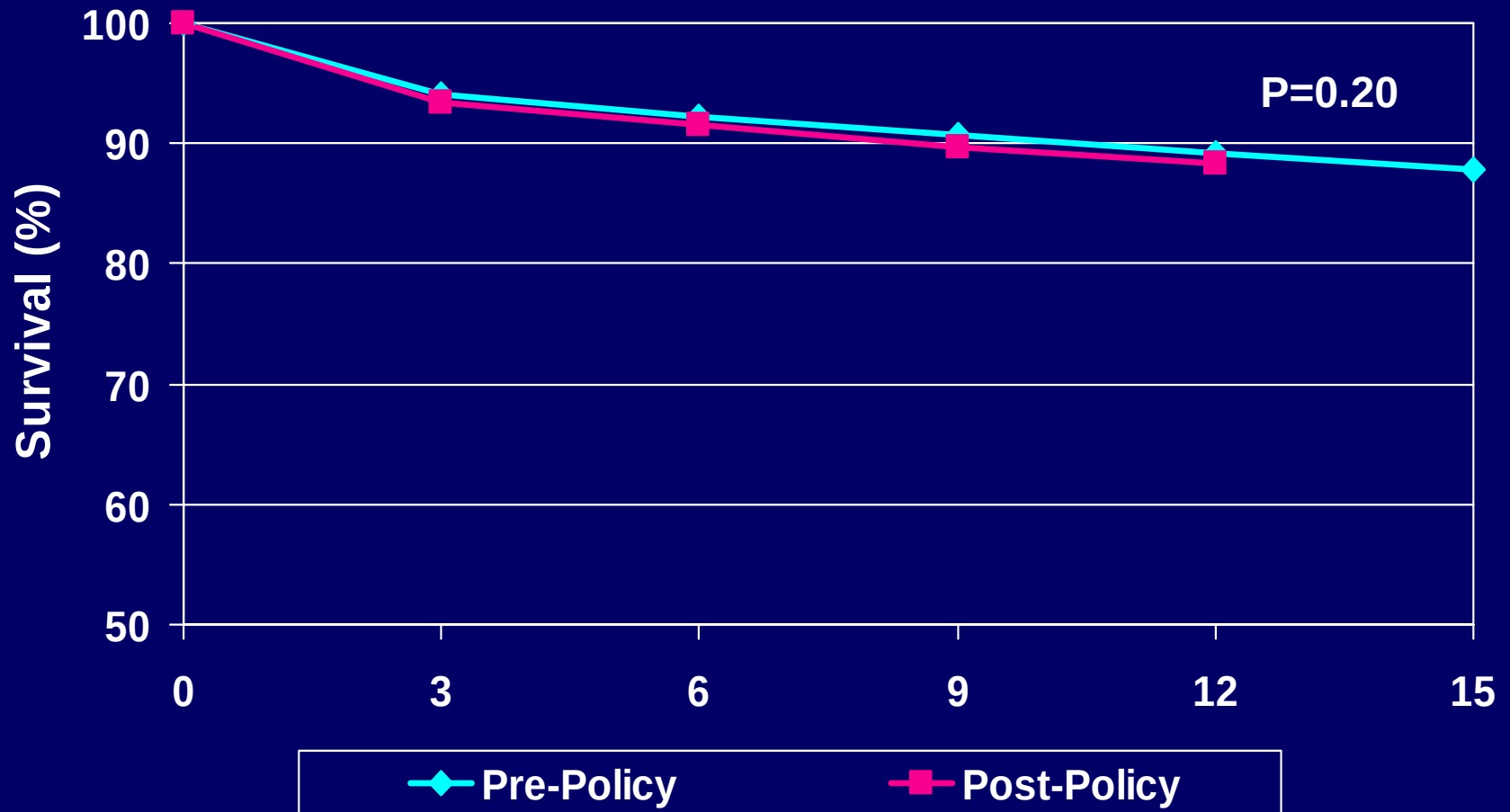
Non-Zero MM Transplants by Policy Period and Peak PRA (%)



Non-Zero MM Transplants by Policy Period and Wait Time



Kaplan-Meier Graft Survival by Policy Period



Summary

Compared with pre-policy period:

- **More minority candidates received a non-zero MM kidney transplant.**
- **More transplants with worse HLA DR MM.**
- **More transplants with PRA $\geq$ 80%.**
- **More transplants with longer waiting times.**
- **Graft survival rates were similar.**

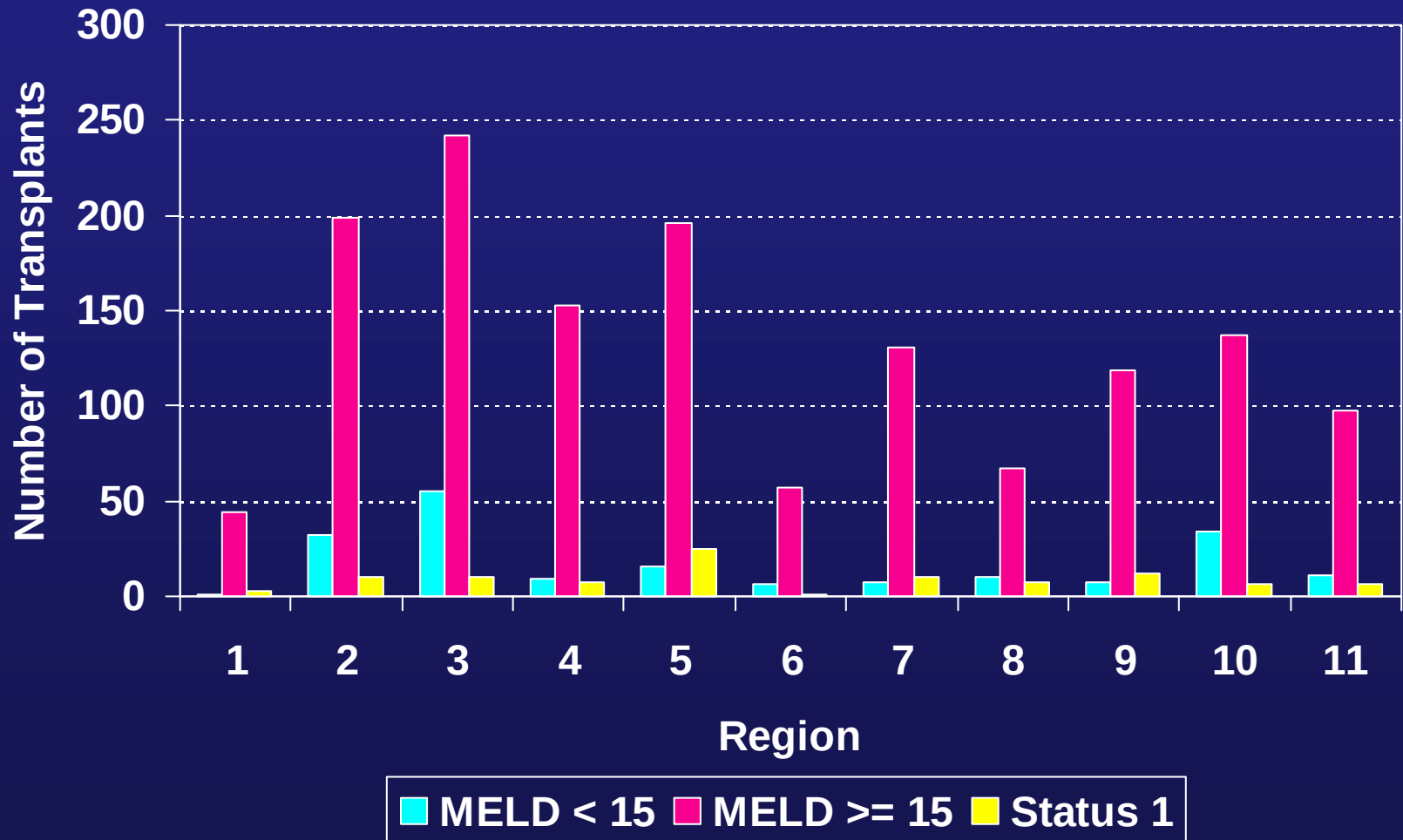
***Evaluation of National Liver
Allocation Policy
after the Implementation of
Share 15 Policy***

Background

- On January 12, 2005, the liver allocation system was modified:
 - Local – Status 1A, Status 1B
 - Regional – Status 1A, Status 1B
 - Local – MELD/PELD ≥ 15
 - Regional – MELD/PELD ≥ 15
 - Local – MELD/PELD < 15
 - Regional – MELD/PELD < 15
 - National – Status 1A, Status 1B, MELD/PELD
- Previously:
 - Local – Status 1A, Status 1B
 - Regional – Status 1A, Status 1B
 - Local – MELD/PELD
 - Regional – MELD/PELD
 - National – Status 1A, Status 1B, MELD/PELD

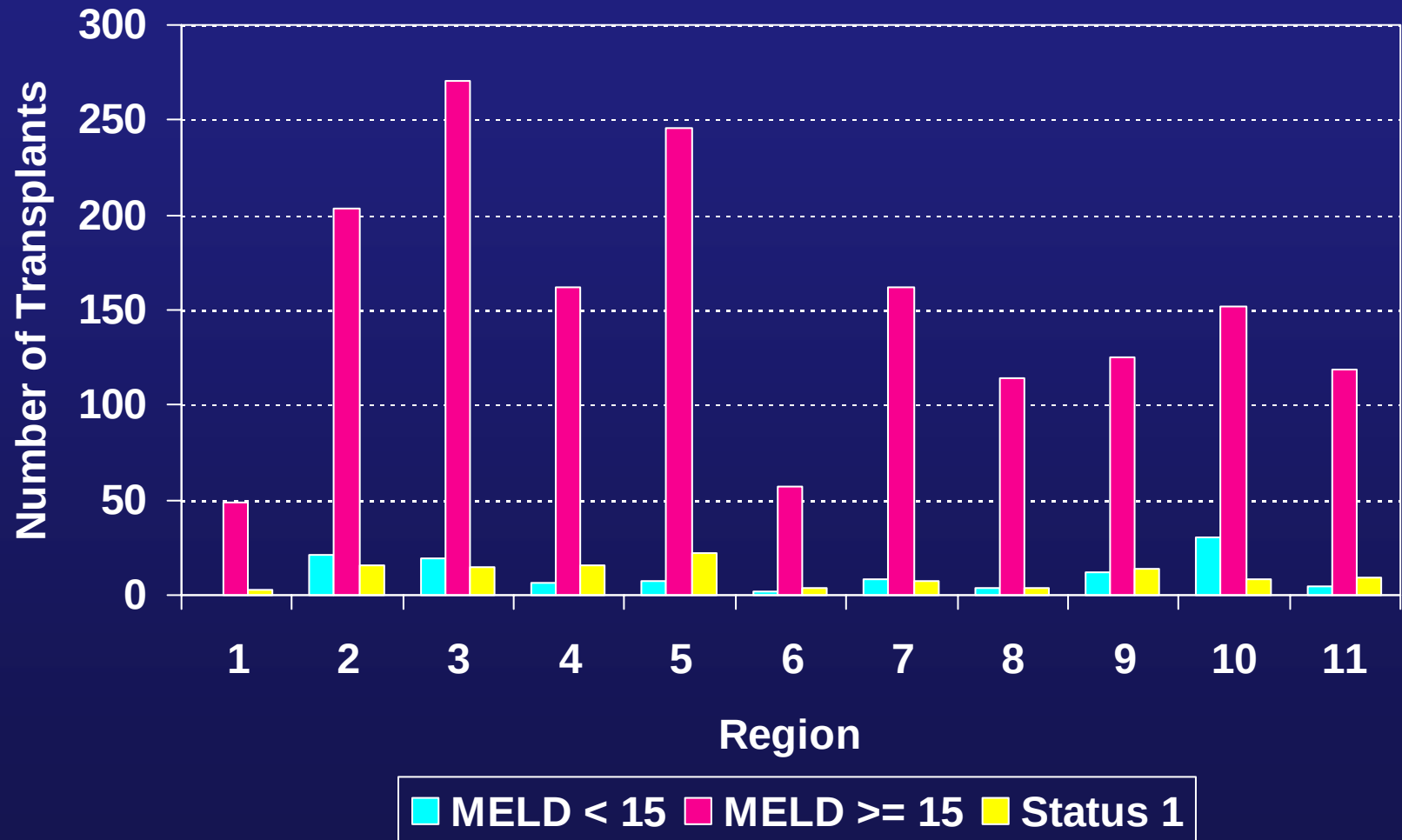
Adult Deceased Donor Liver Transplants

Pre-Policy Period: 1/12/04 – 5/11/04



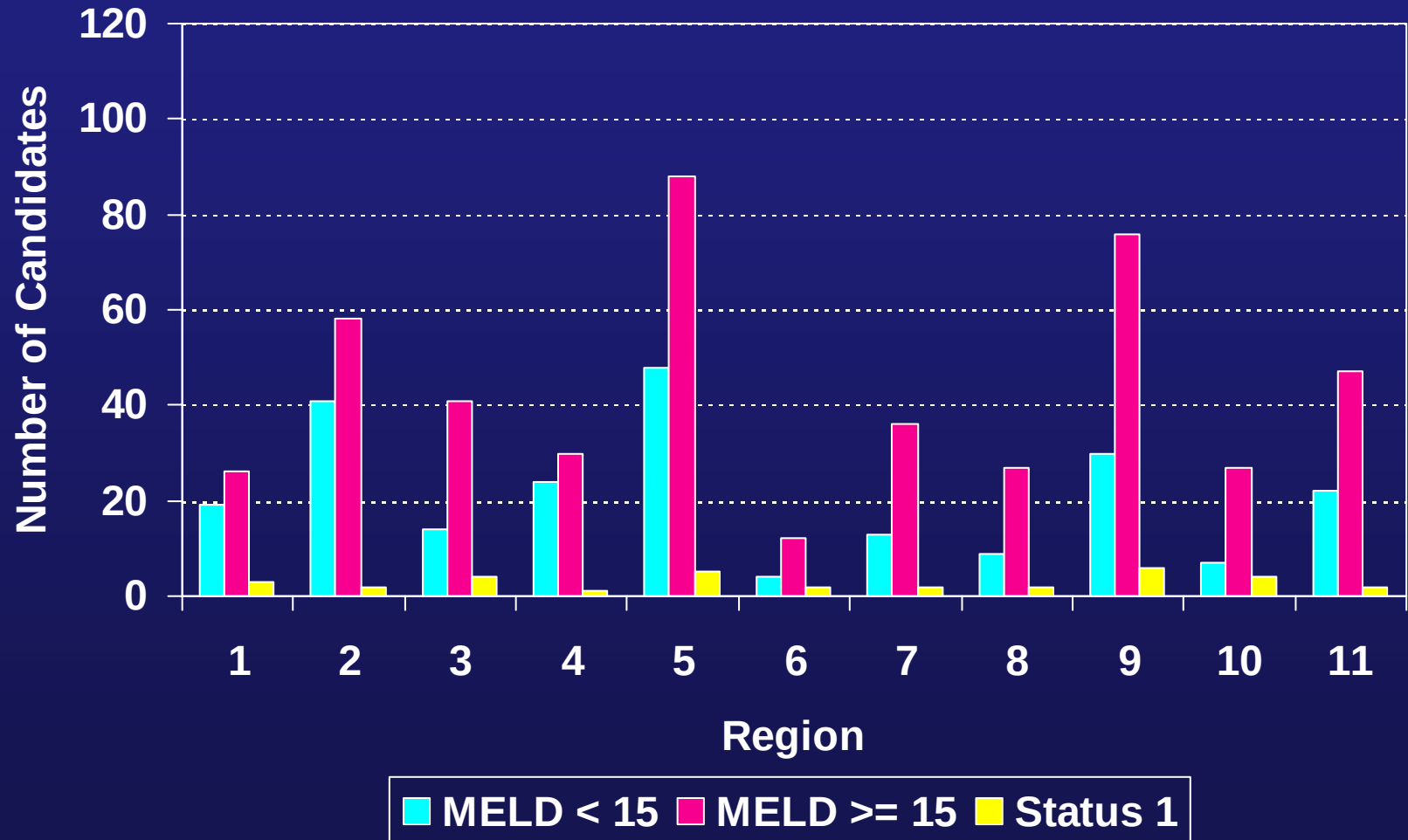
Adult Deceased Donor Liver Transplants

Post-Policy Period: 1/12/05 – 5/11/05



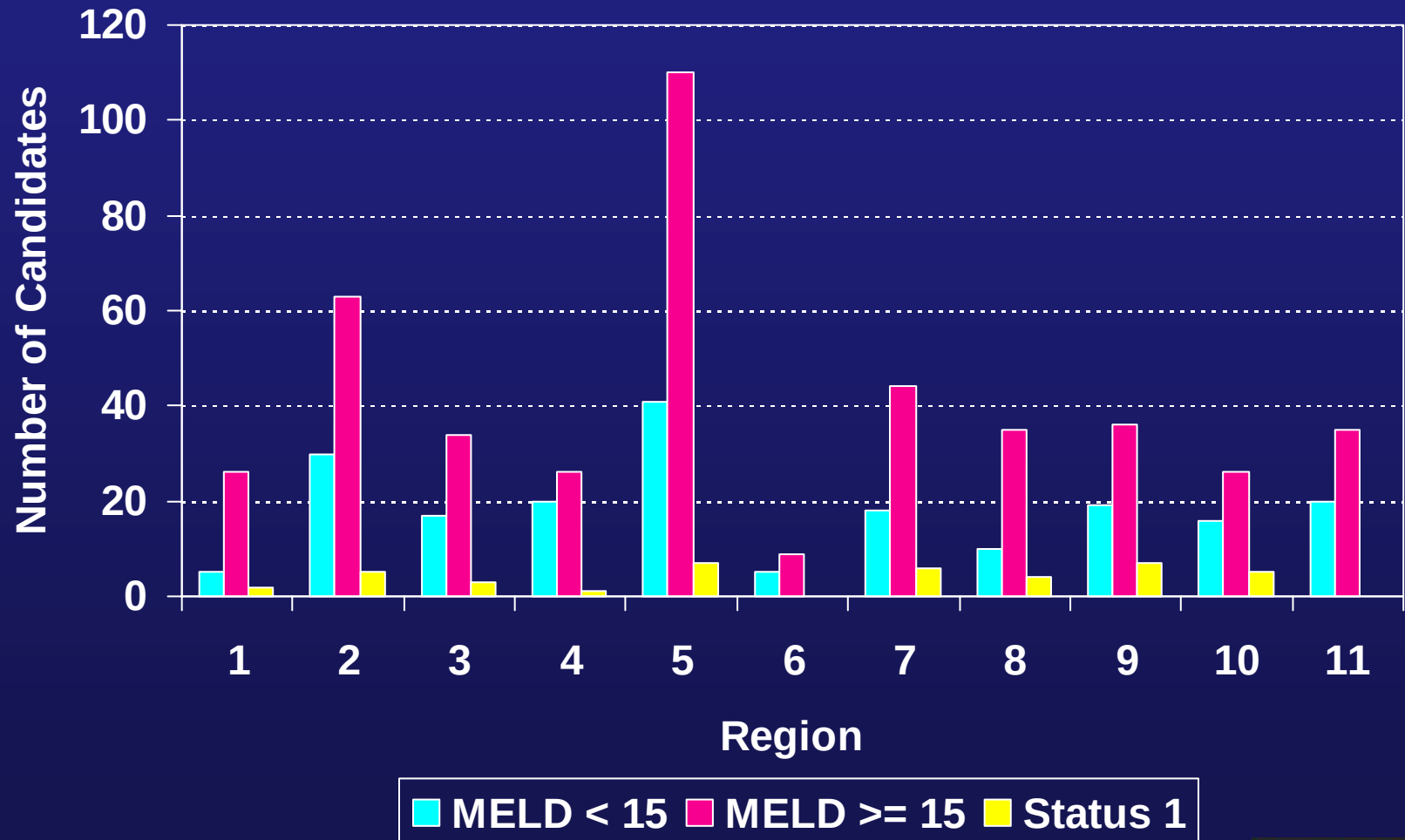
Adults Removed for Death/Too Sick from Liver Waiting List

Pre-Policy Period: 1/12/04 – 5/11/04

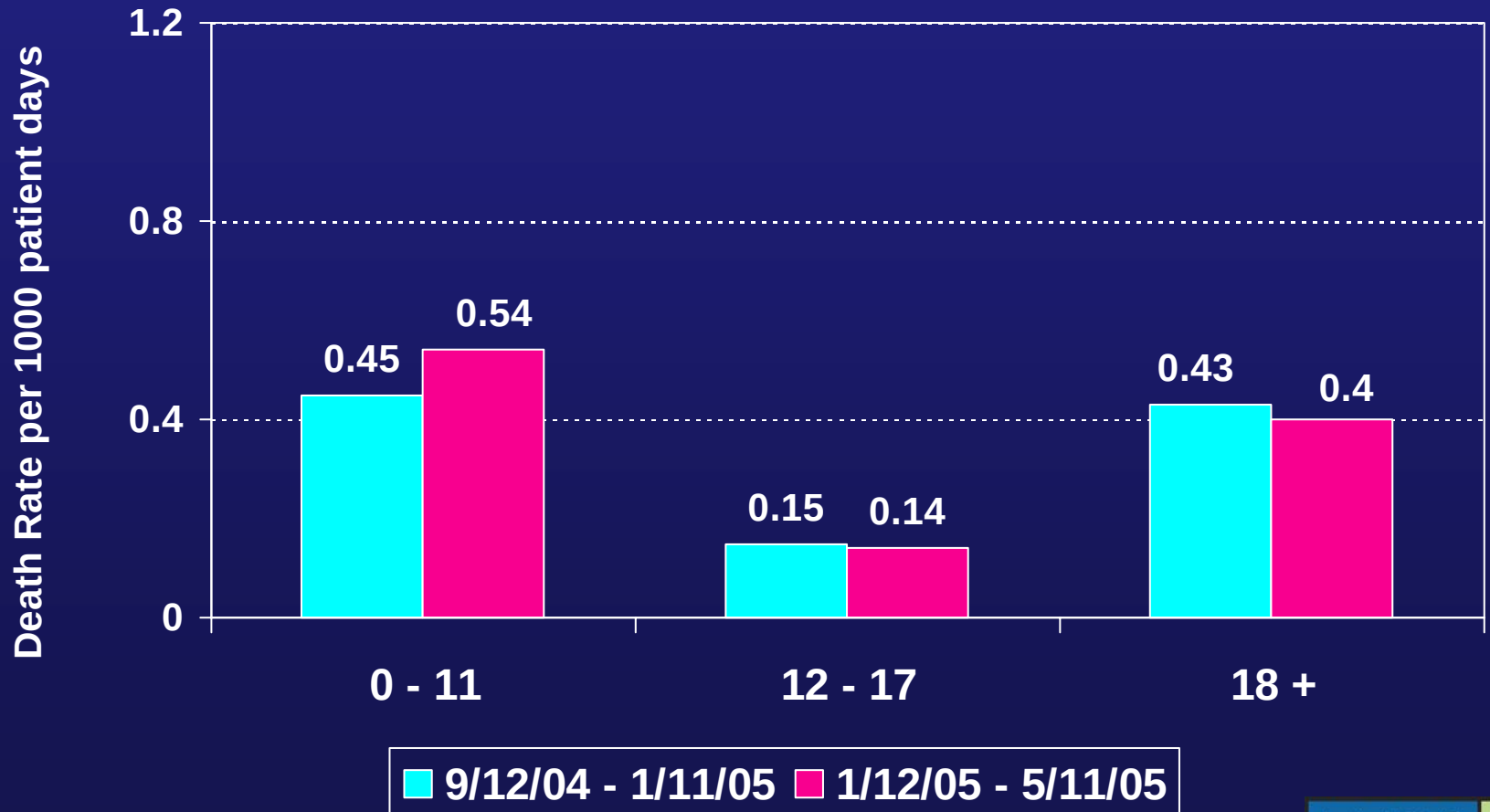


Adults Removed for Death/Too Sick from Liver Waiting List

Post-Policy Period: 1/12/05 – 5/11/05



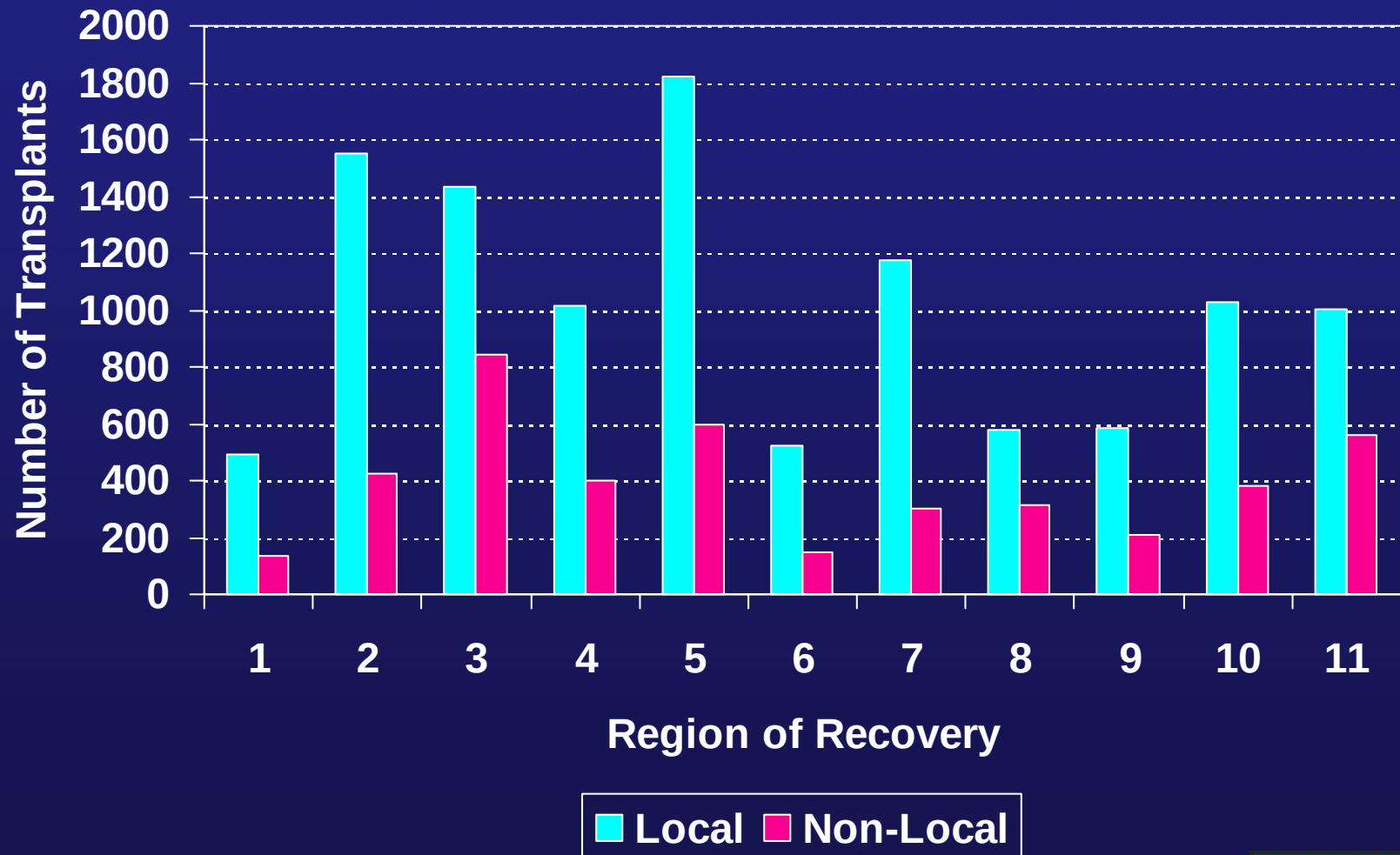
Death Rates per 1000 Patient Days Liver Candidates on the Waiting List During 9/12/04 - 5/11/05 By Age at Listing and Policy Period



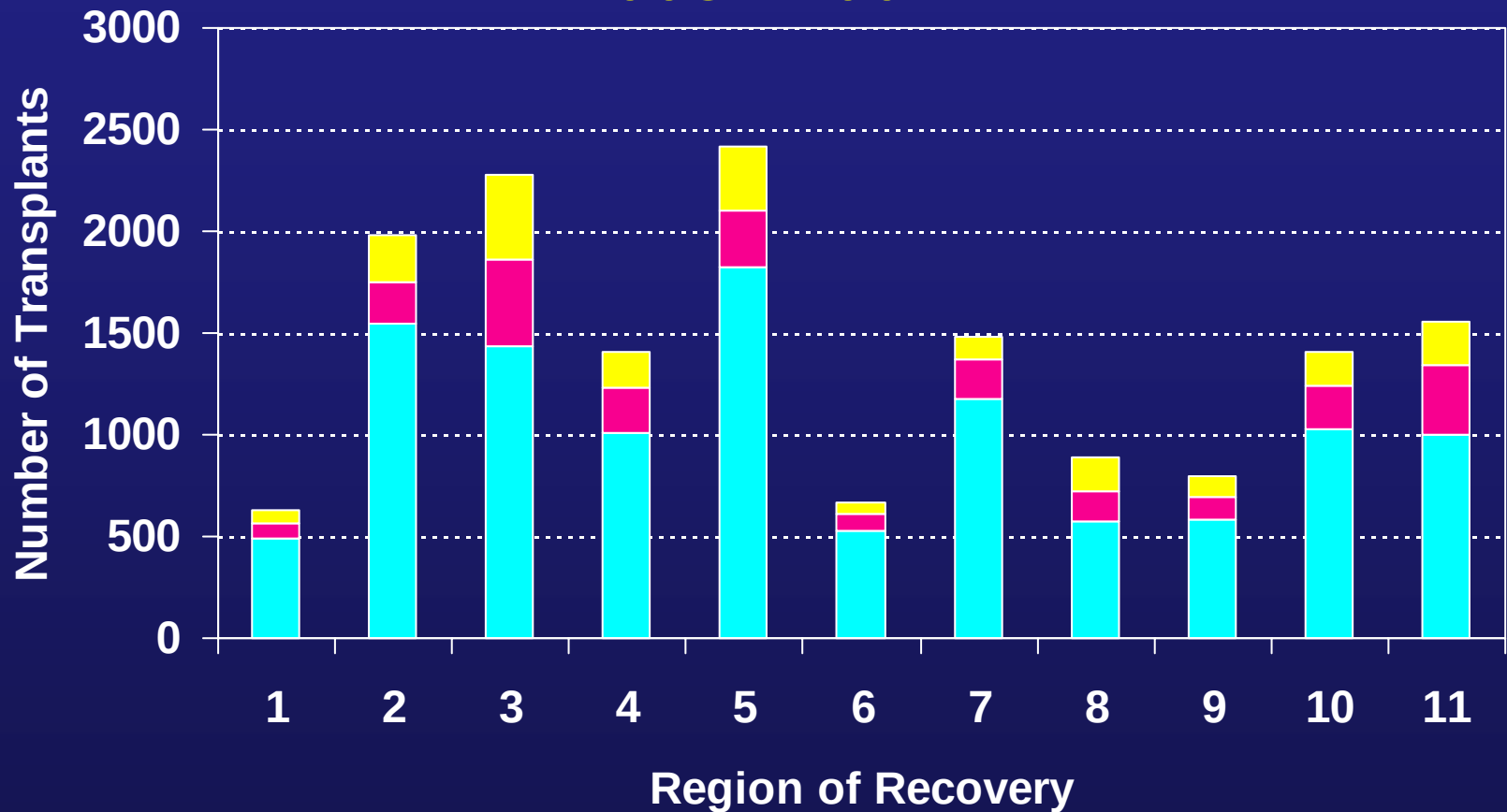
Organs Transplanted Locally vs. Non-Locally

- What percentage of organs are transplanted outside the DSA?
 - Some are offered and refused locally, but are ultimately transplanted outside the DSA
 - Others are offered outside the DSA first (no local patients, Status 1 liver shares, OMM kidneys, Statewide shares, etc.)
- How well do these organs function?
 - UNetsm Utility for Recovering OPOs
 - Overall survival rates shown here (adult donors, excluding repeat txs and multiorgan txs)

Kidney Transplants from Adult Donors by Region of Recovery 2003 - 2004

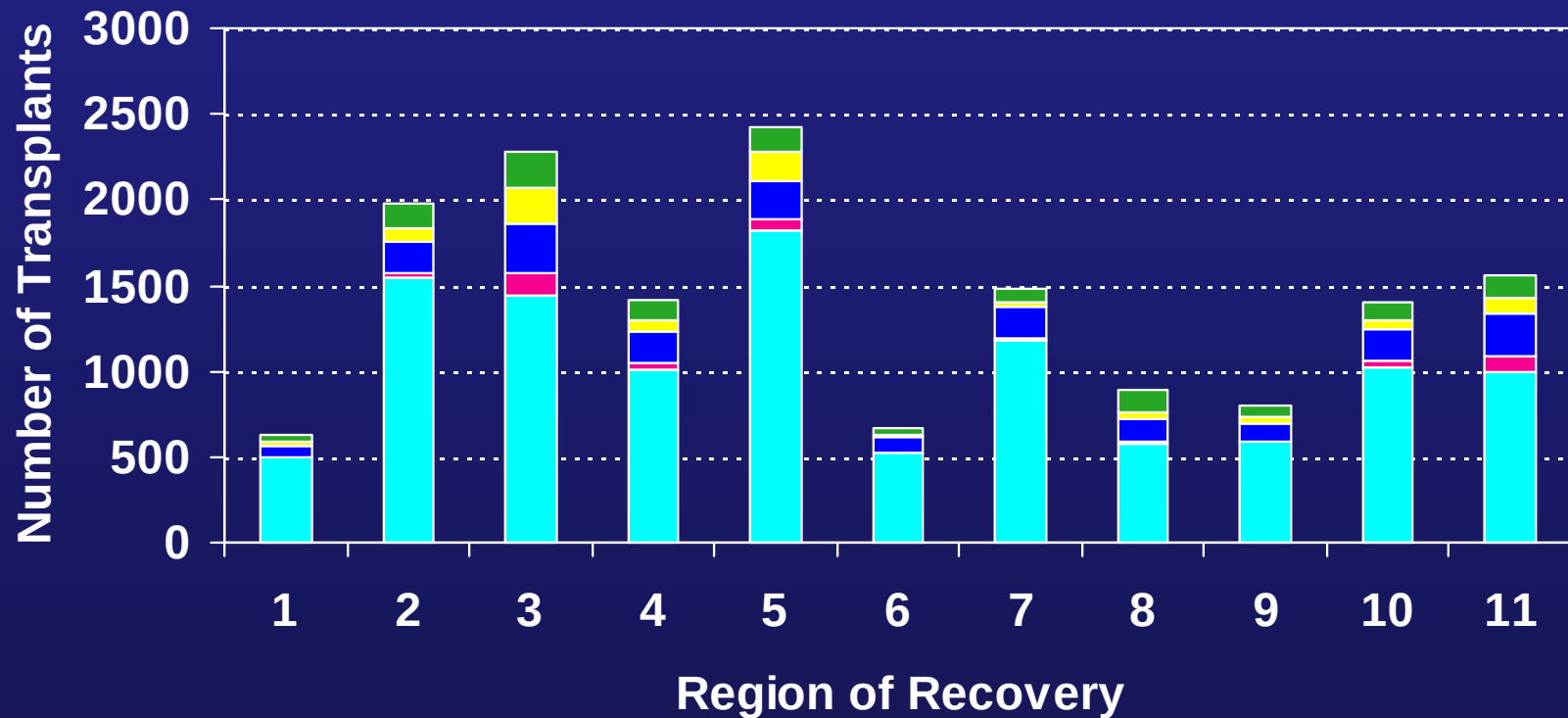


Kidney Transplants from Adult Donors by Region of Recovery 2003 - 2004

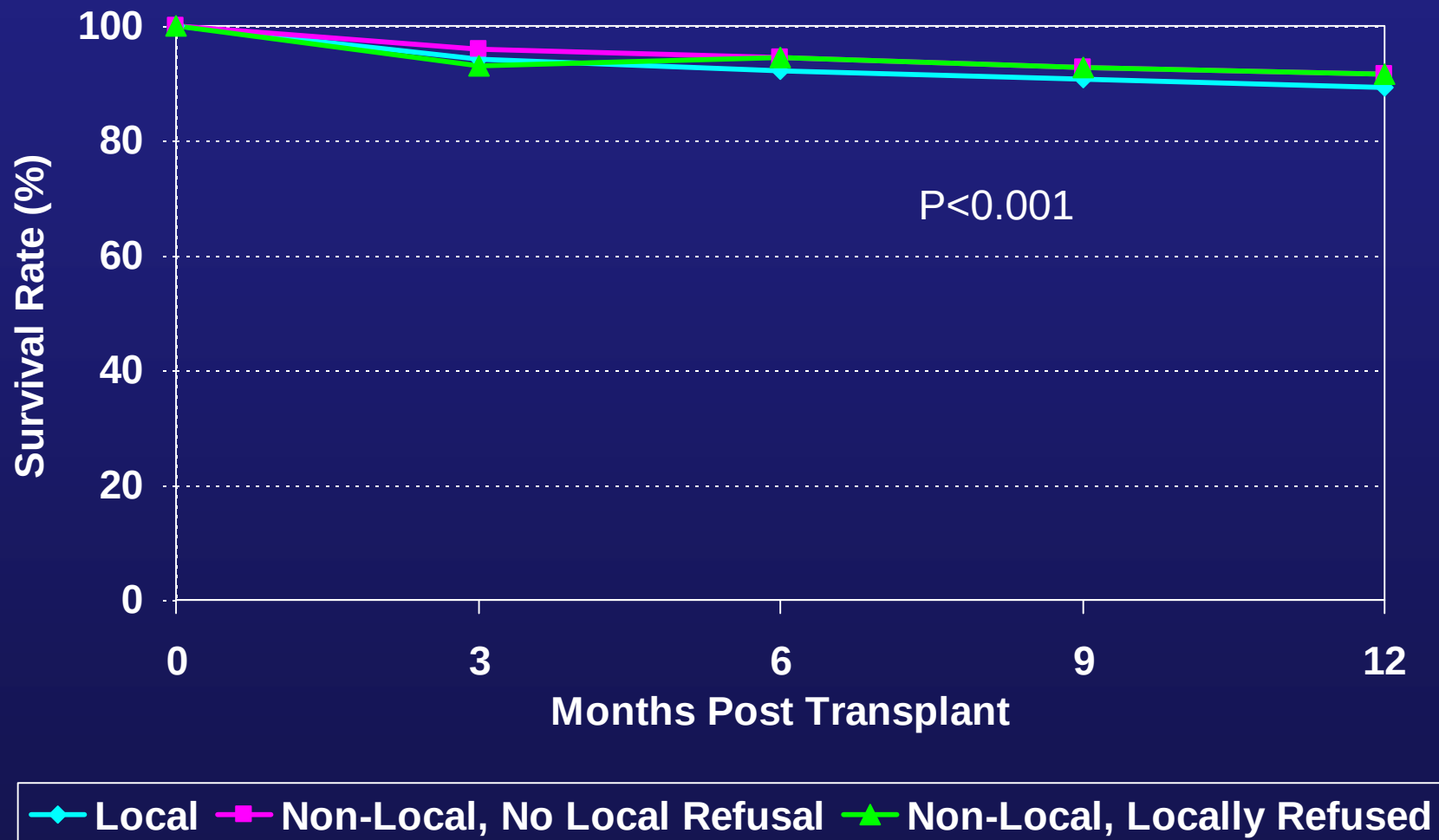


■ Local ■ Non-Local, No Local Refusals ■ Non-Local, Locally Refused

Kidney Transplants from Adult Donors by Region of Recovery 2003 - 2004

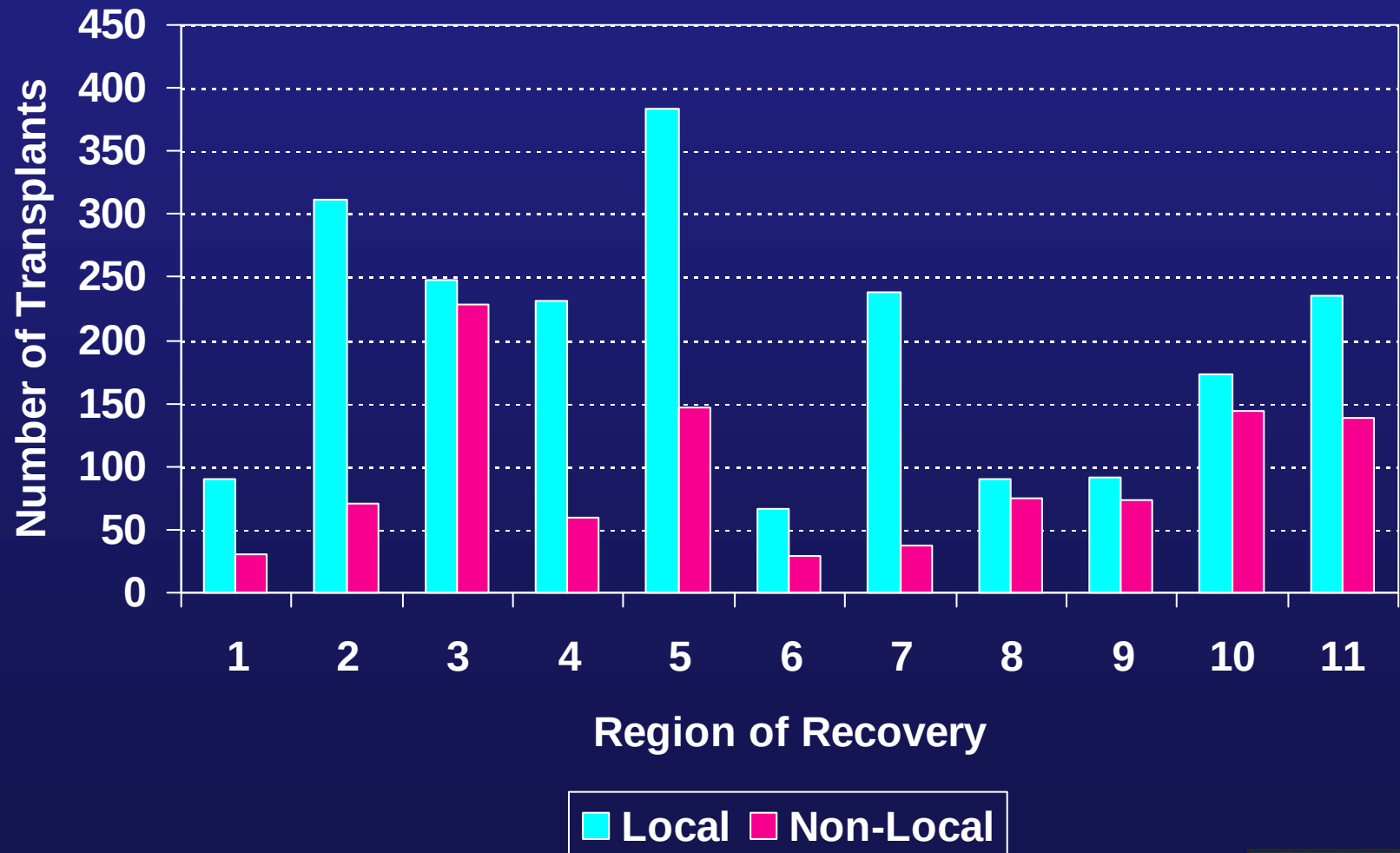


Kidney Transplant* Graft Survival 2003-2004

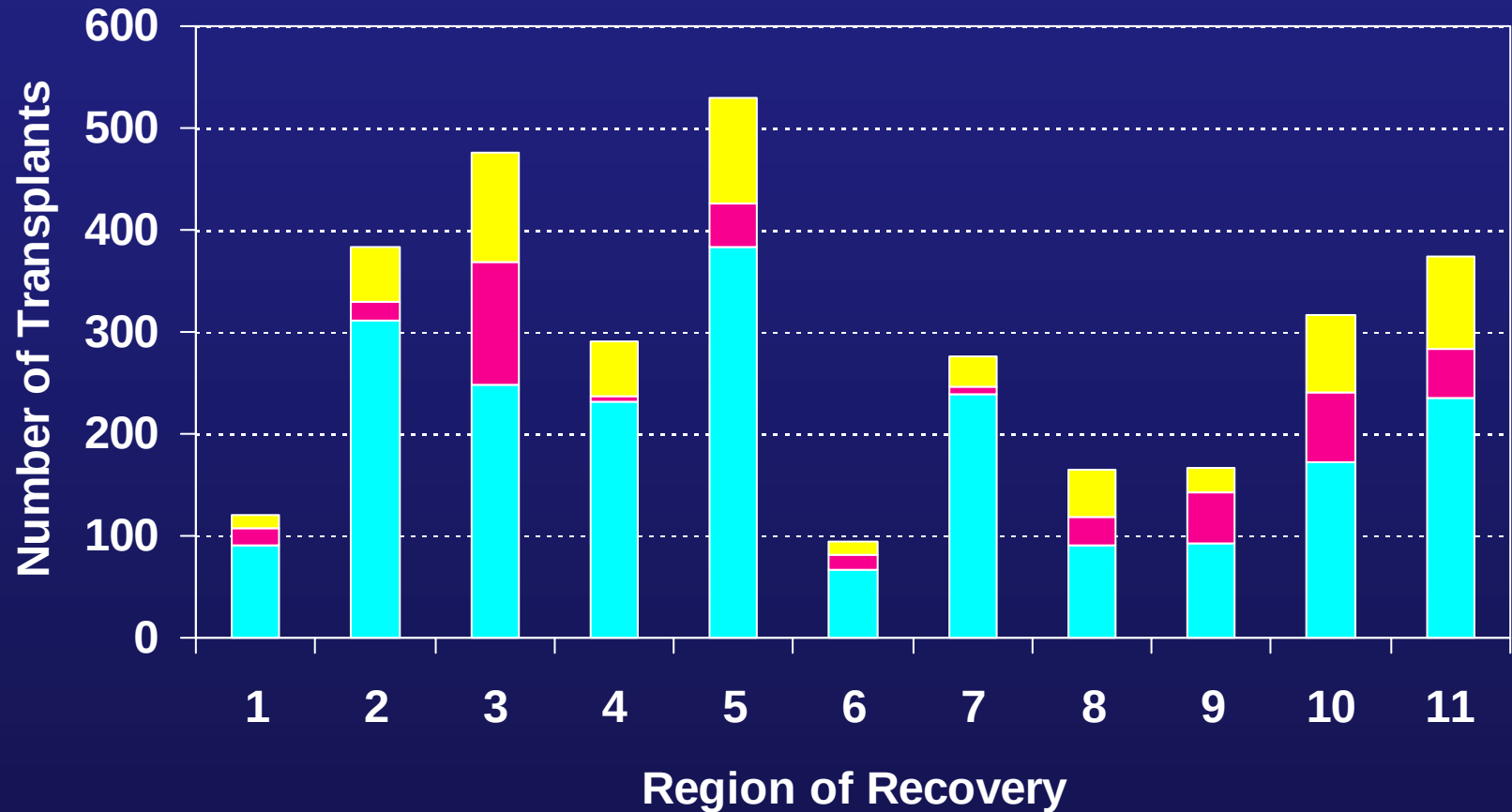


* Adult donors only, excluding multiorgan and repeat transplants.

Heart Transplants from Adult Donors by Region of Recovery 2003 - 2004

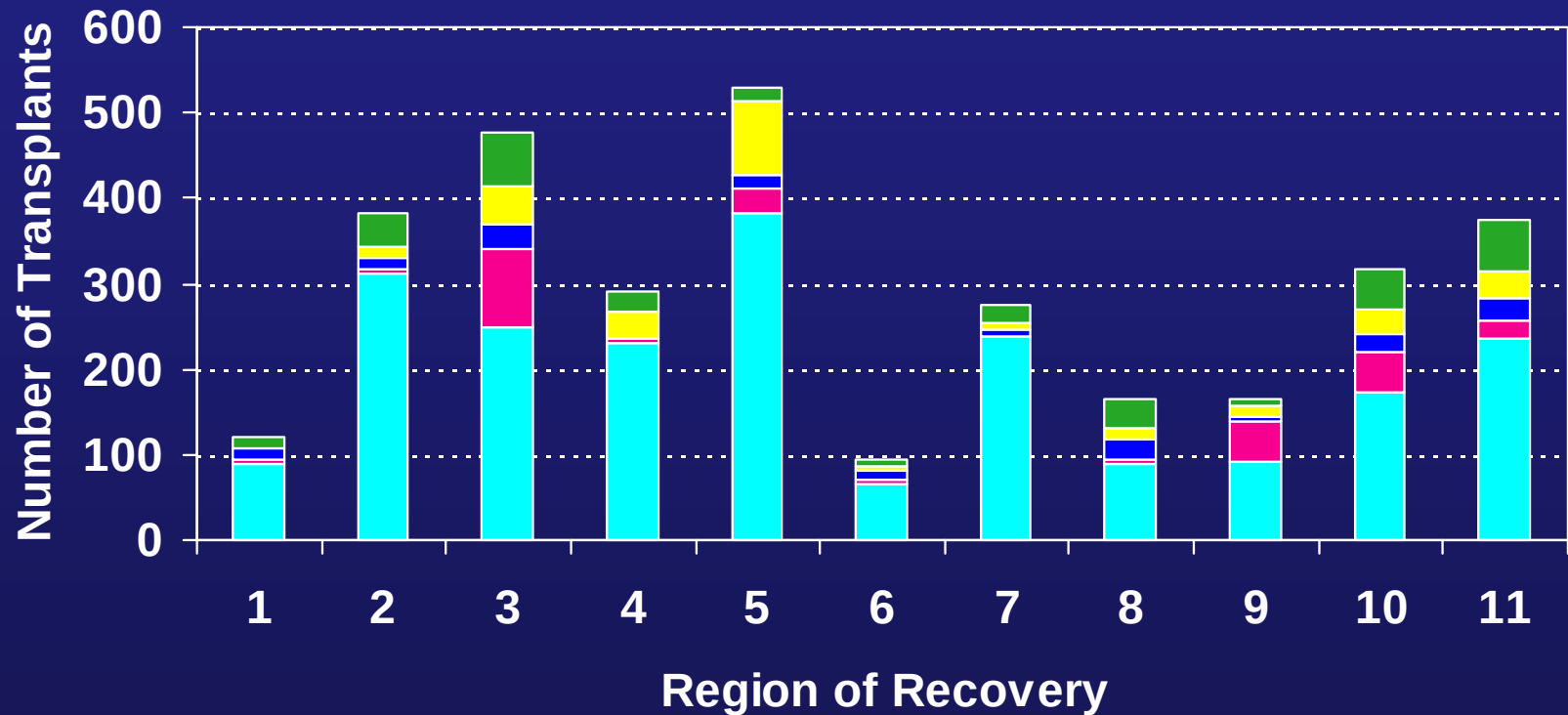


Heart Transplants from Adult Donors by Region of Recovery 2003 - 2004

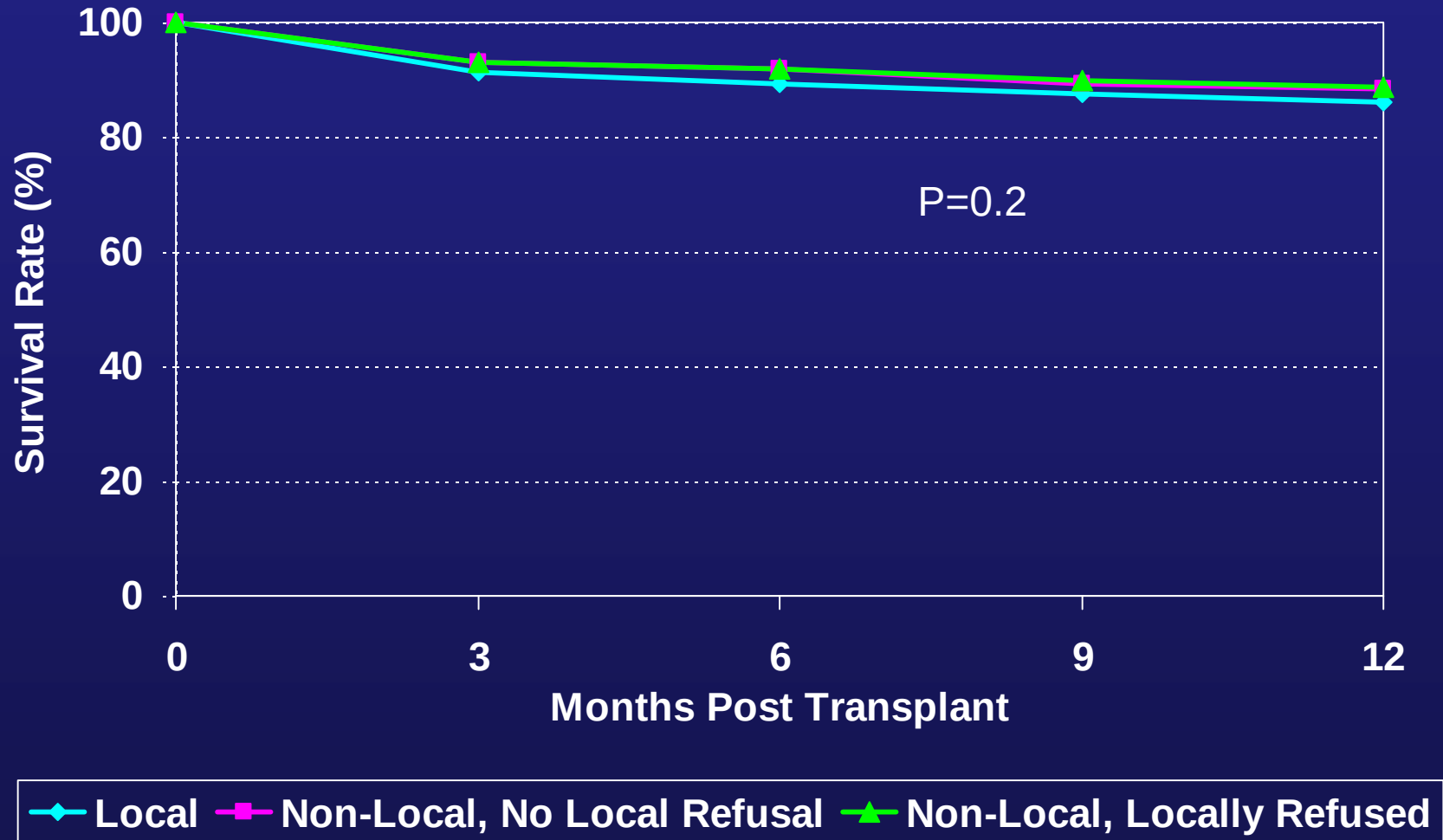


■ Local ■ Non-Local, No Local Refusals ■ Non-Local, Locally Refused

Heart Transplants from Adult Donors by Region of Recovery 2003 - 2004

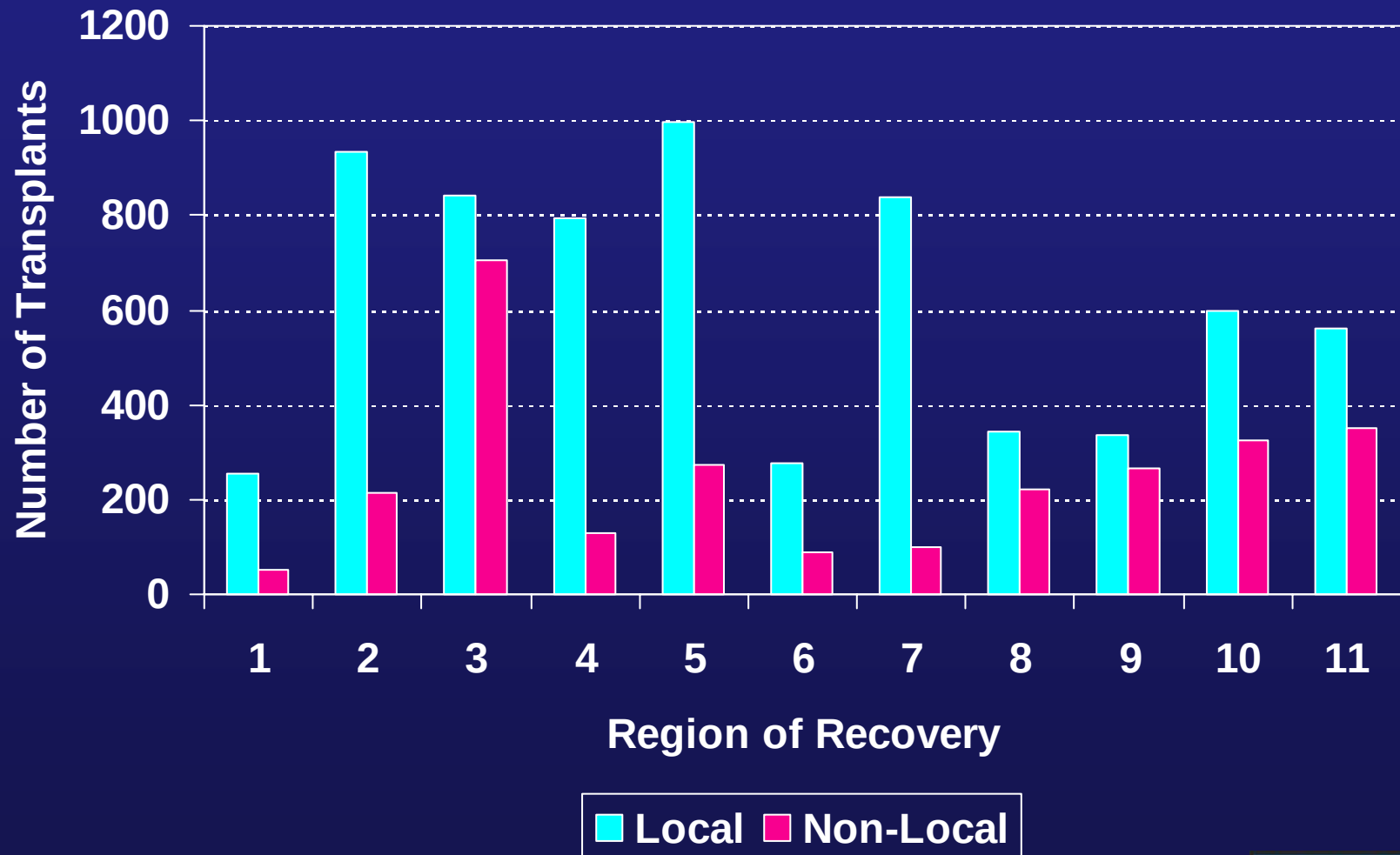


Heart Transplant* Patient Survival 2003-2004

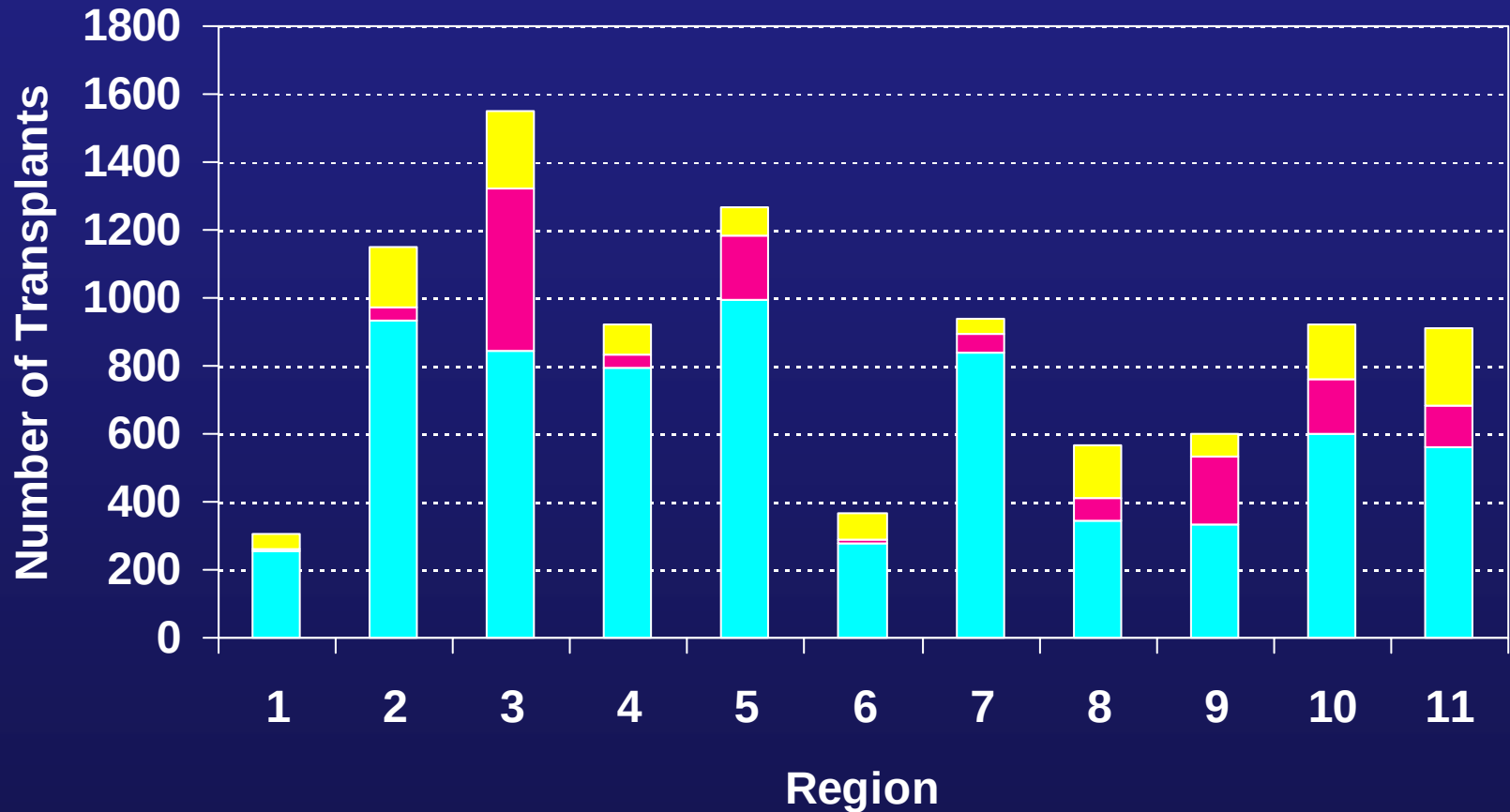


* Adult donors only, excluding multiorgan and repeat transplants.

Liver Transplants from Adult Donors by Region of Recovery 2003 - 2004

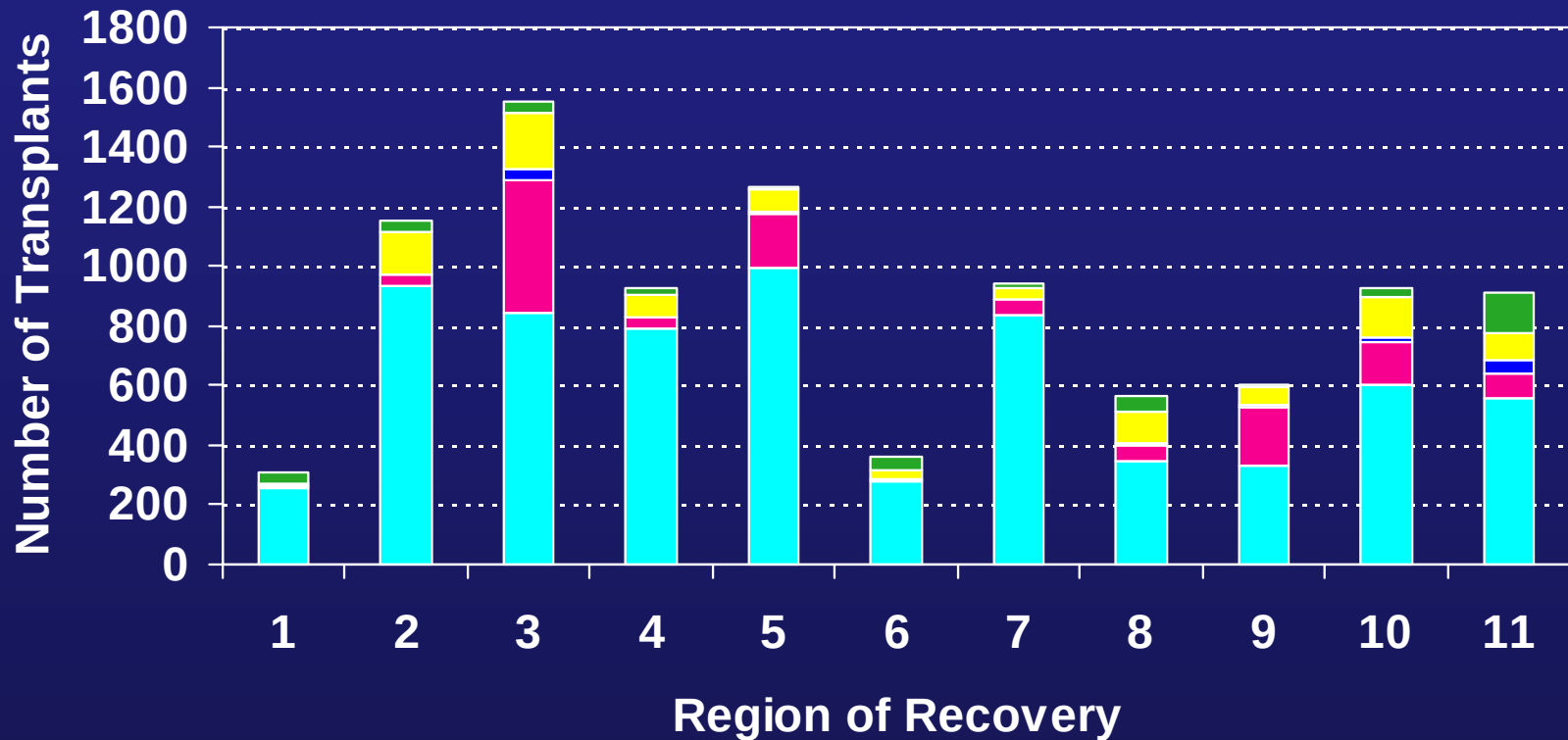


Liver Transplants from Adult Donors by Region of Recovery 2003 - 2004

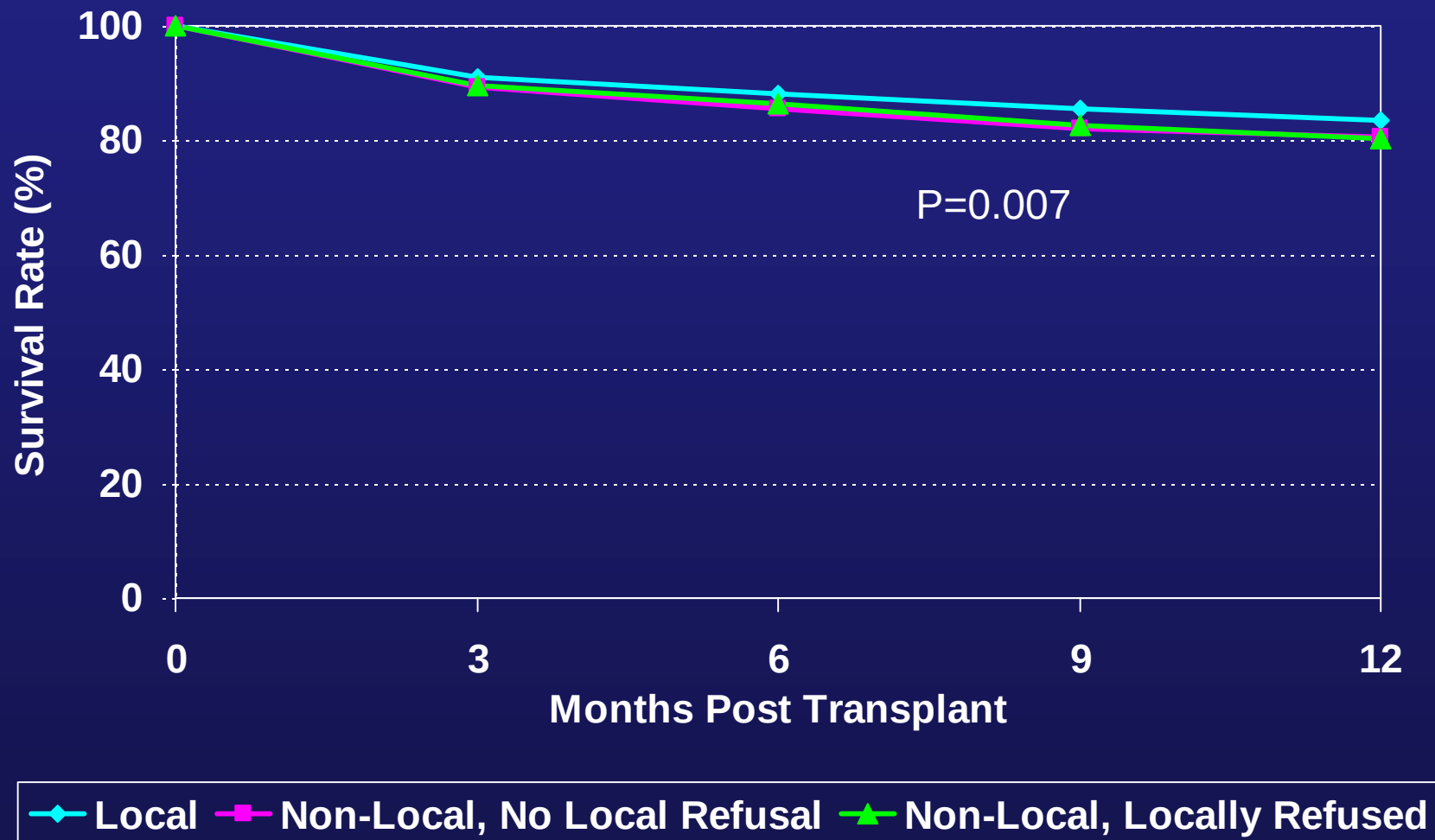


■ Local ■ Non-Local, No Local Refusals ■ Non-Local, Locally Refused

Liver Transplants from Adult Donors by Region of Recovery 2003 - 2004

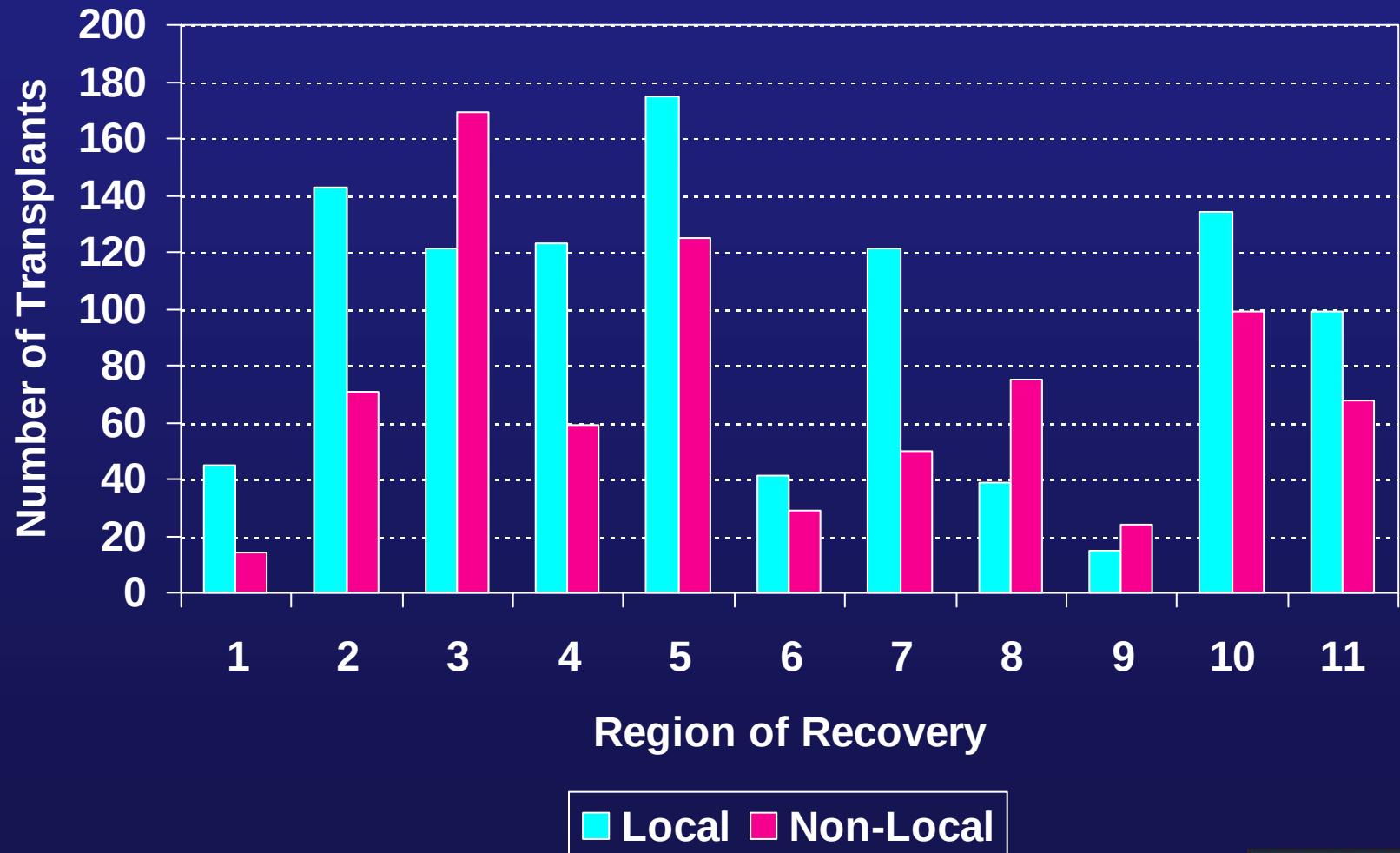


Liver Transplant* Graft Survival 2003-2004

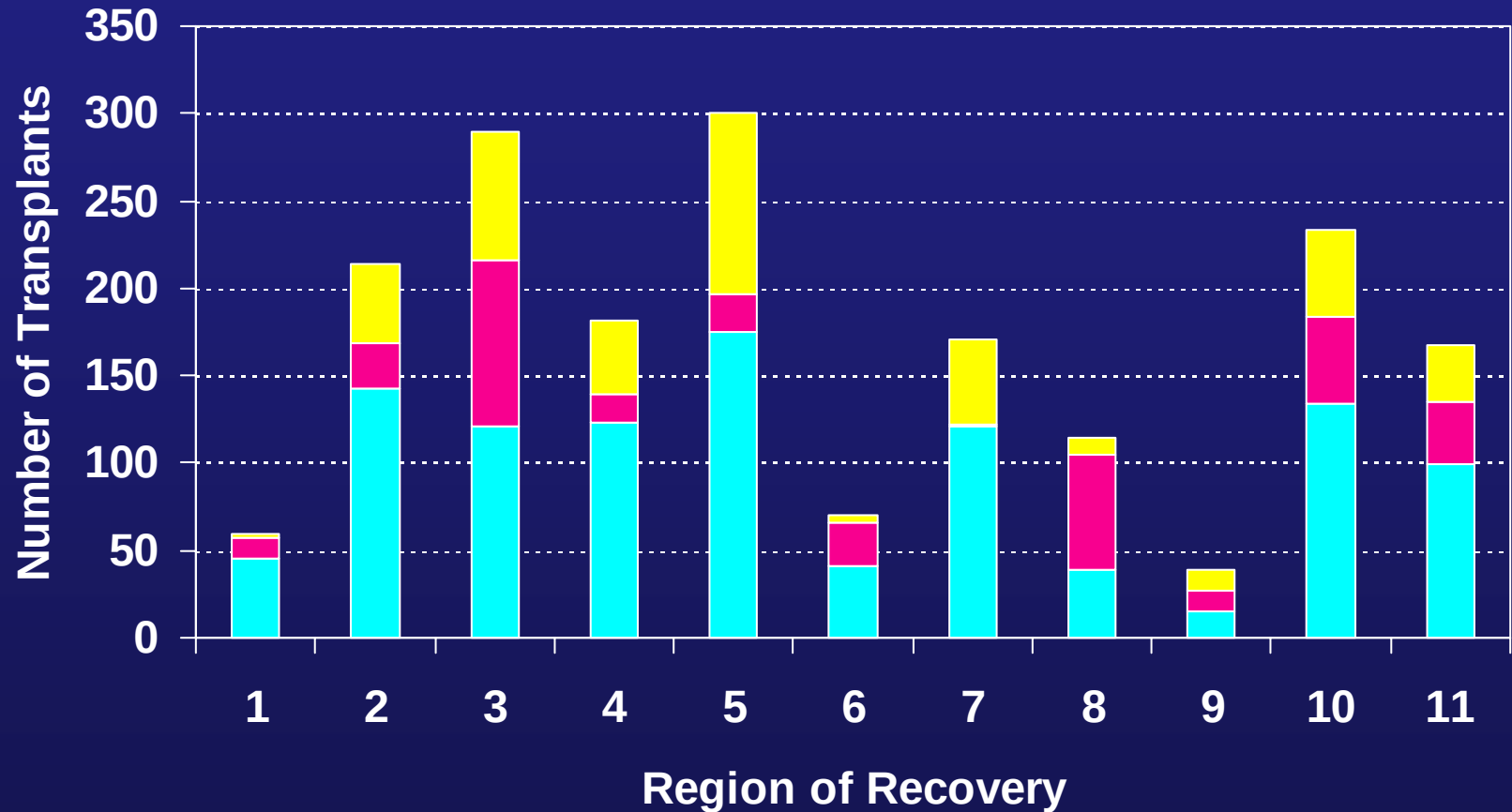


* Adult donors only, excluding multiorgan and repeat transplants.

Lung Transplants from Adult Donors by Region of Recovery 2003 - 2004

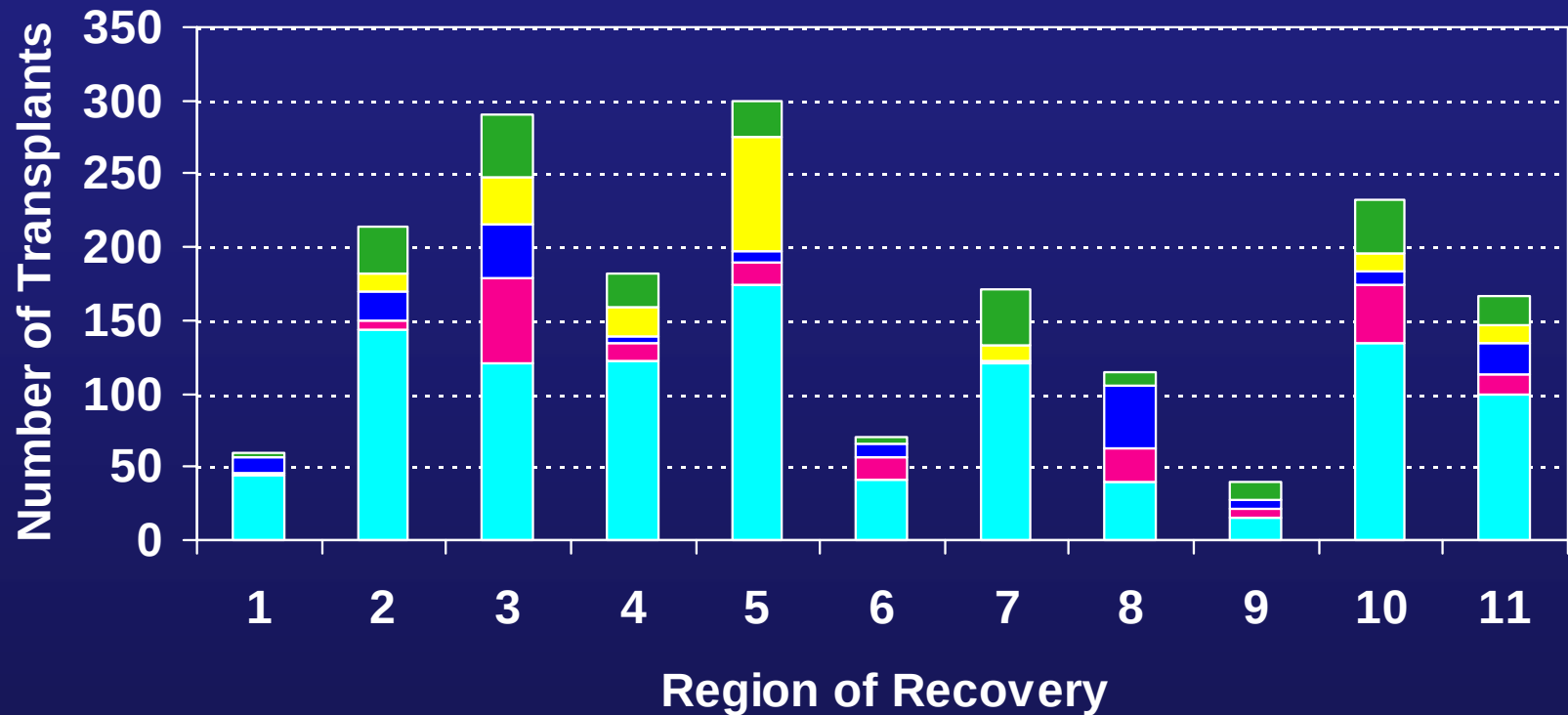


Lung Transplants from Adult Donors by Region of Recovery 2003 - 2004

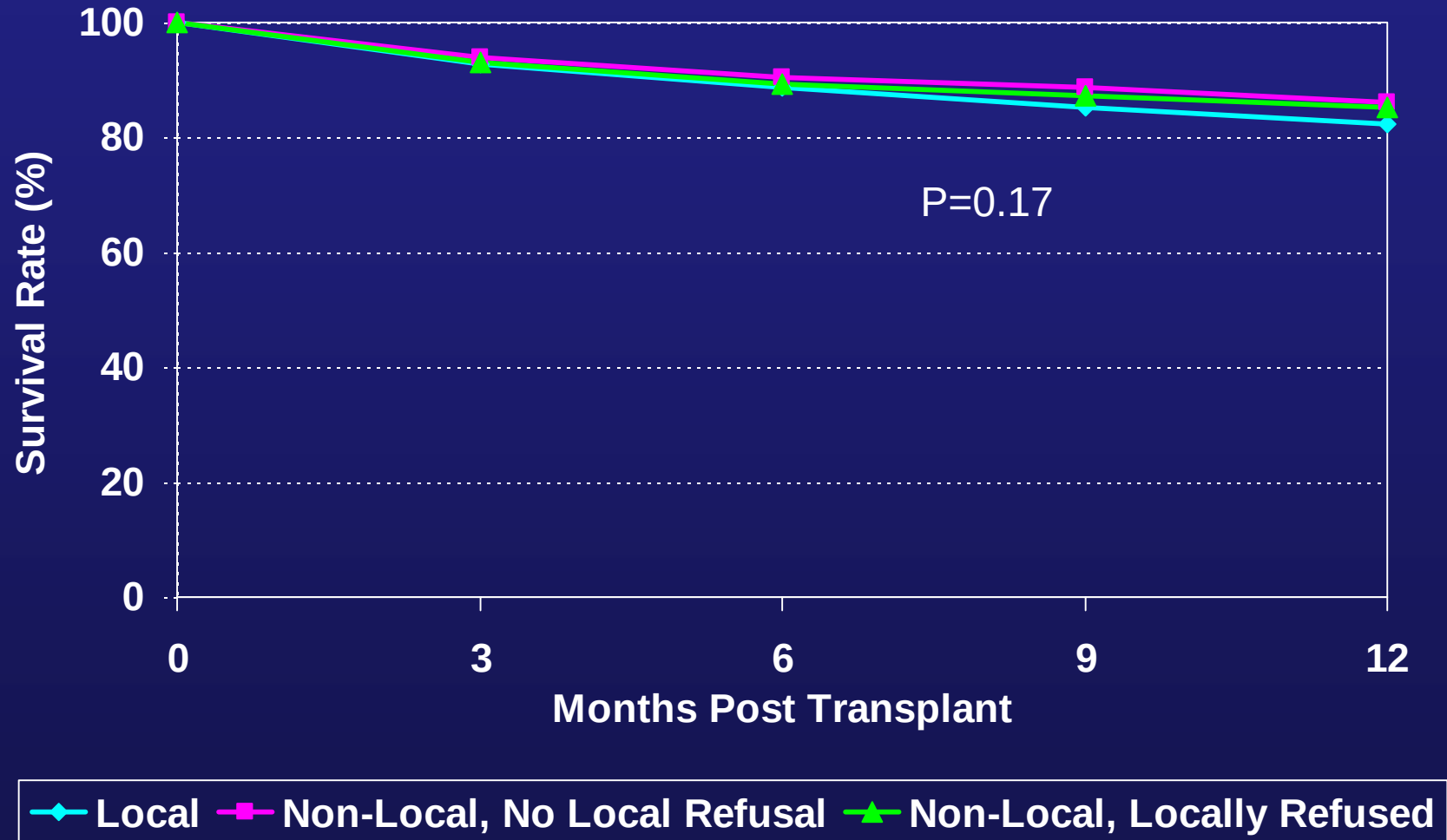


■ Local ■ Non-Local, No Local Refusals ■ Non-Local, Locally Refused

Lung Transplants from Adult Donors by Region of Recovery 2003 - 2004



Lung Transplant* Patient Survival 2003-2004

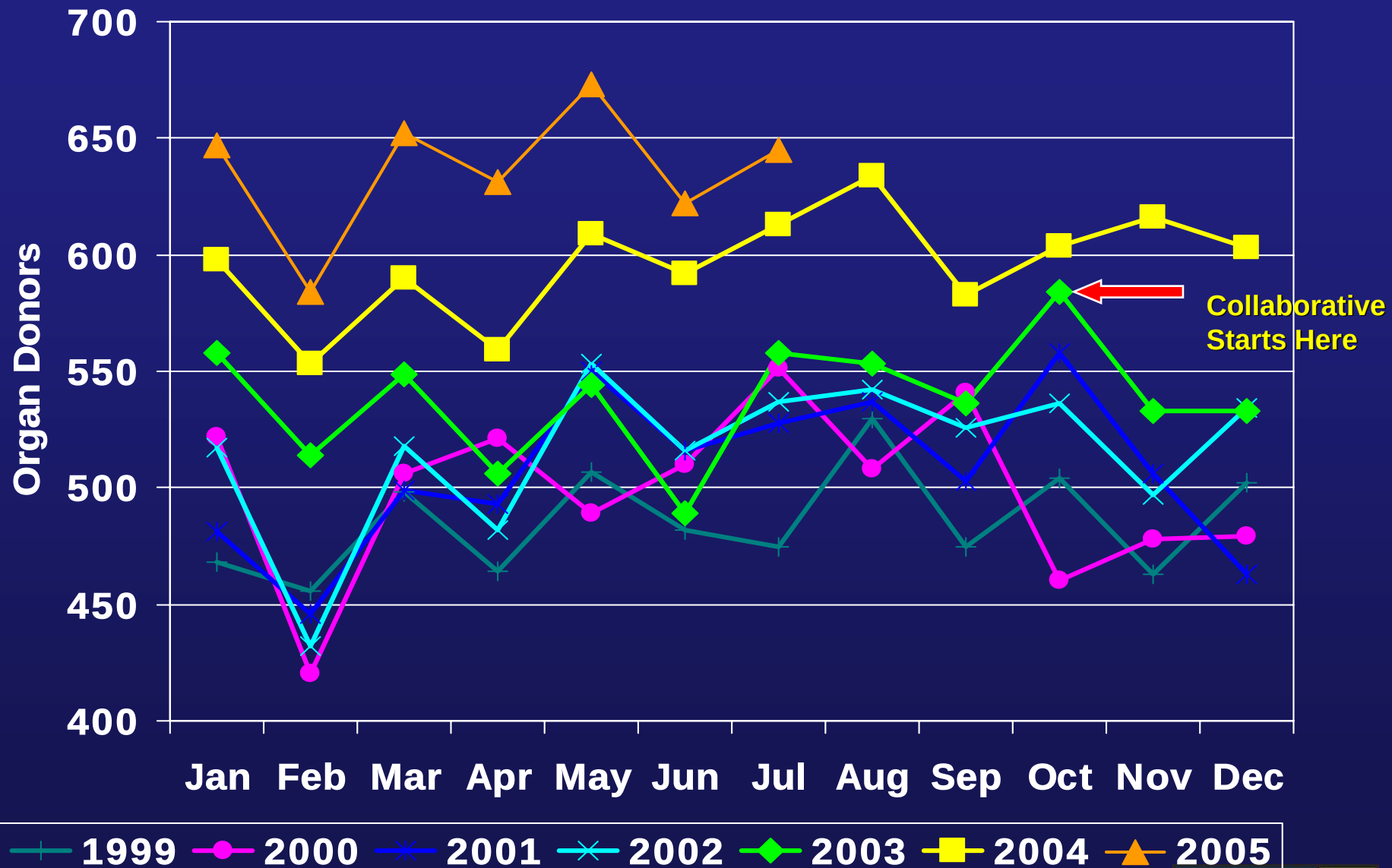


* Adult donors only, excluding multiorgan and repeat transplants.

HHS PART Goals

- Performance Assessment and Review Tool (PART)
- 10 year and annual programmatic goals
- Increase donors, transplants, life years gained for kidney tx, reduce costs per tx
- Very aggressive annual goals

Monthly National Donation Rates

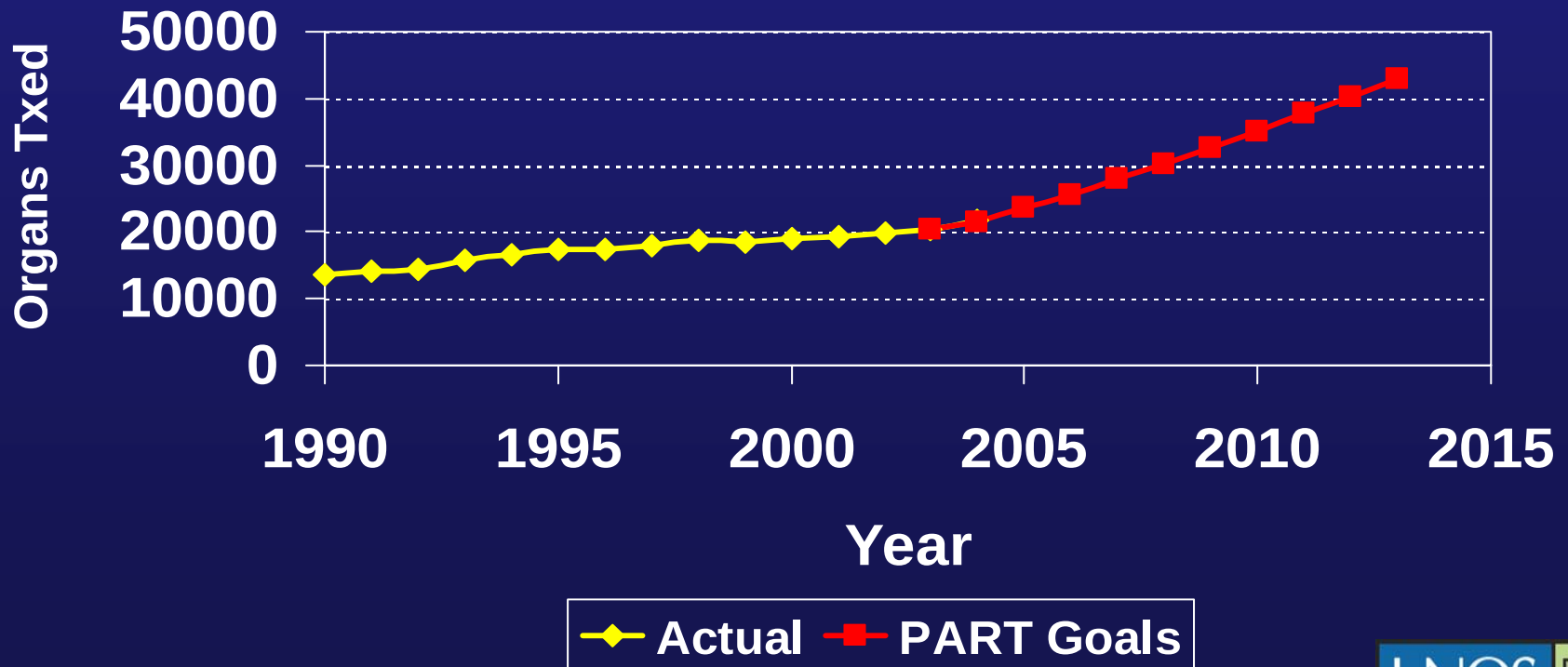


HRSA'S PART Goals

- Increase the number of deceased donor organs transplanted
- Increase the number of non-DCD donors
- Increase the number of DCD donors
- Increase the average number of organs transplanted per non-DCD donor
- Increase the average number of organs transplanted per DCD donors

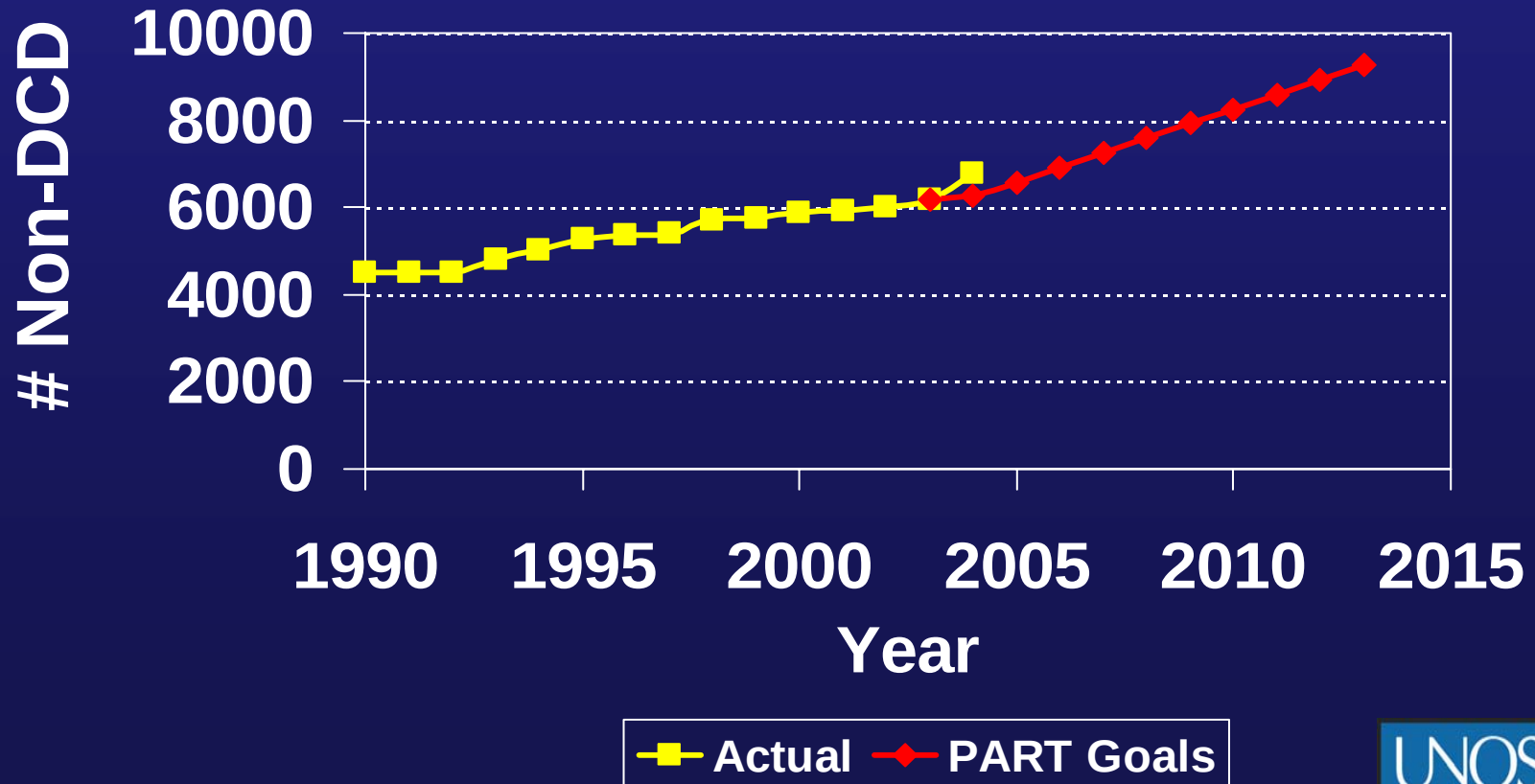
HRSA's PART GOALS

- Increase the number of deceased donor organs transplanted each year until 42,800 are transplanted in 2013



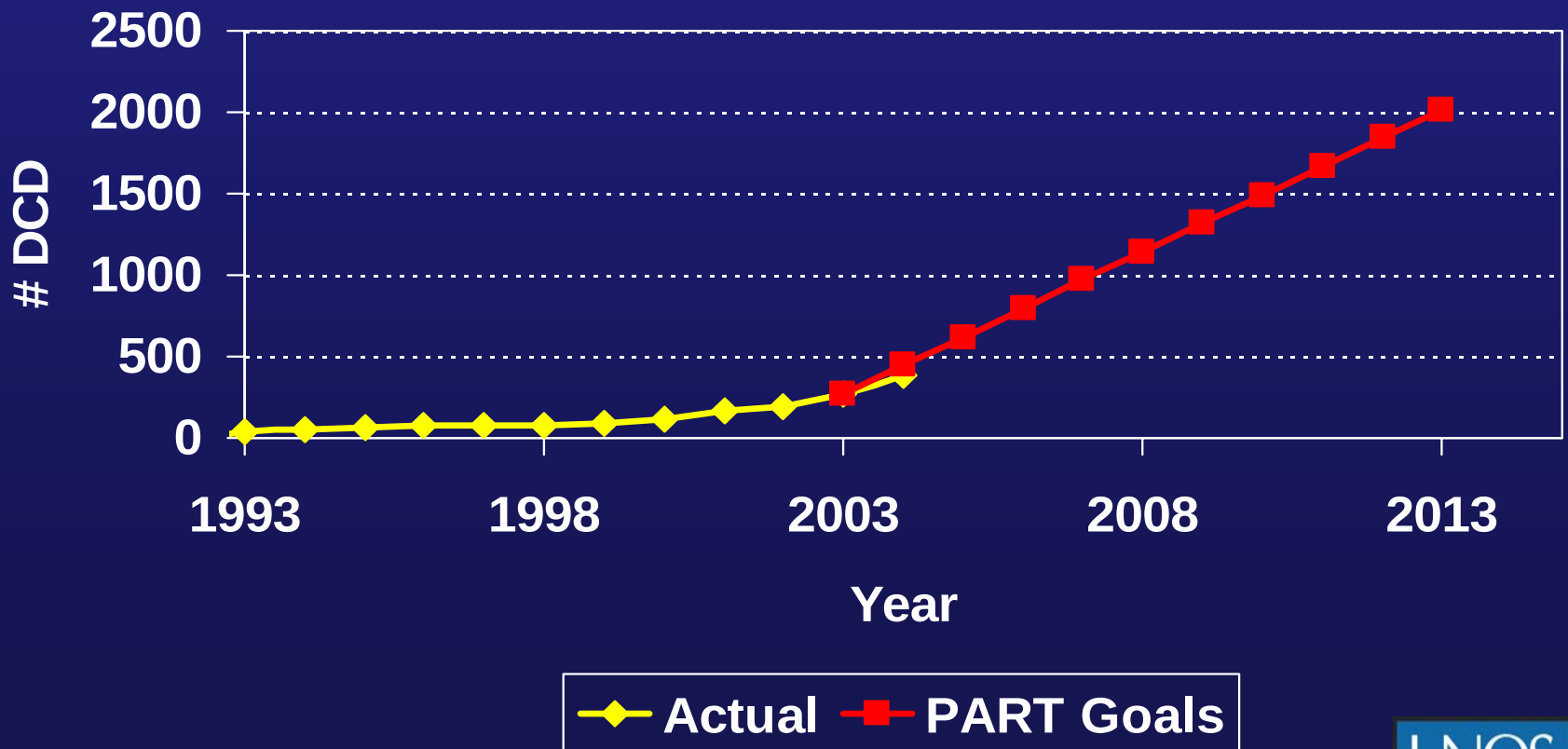
HRSA's PART GOALS

- Increase the number of non-DCD donors each year until 9251 is achieved in 2013



HRSA's PART GOALS

- Increase the number of DCD donors each year until 2018 is achieved in 2013



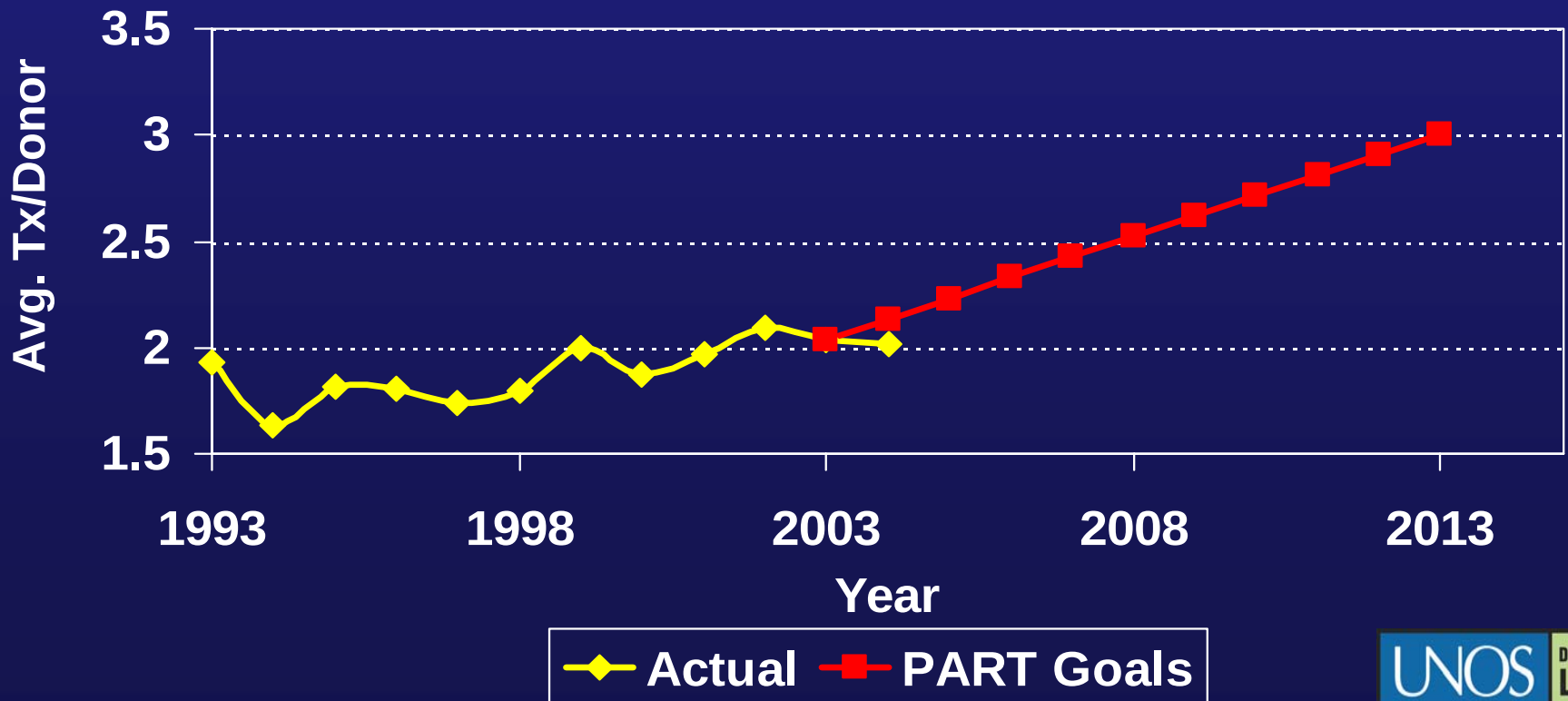
HRSA's PART GOALS

- Increase the average number of organs transplanted per non-DCD donors each year by 0.080 to reach 4.0 in 2013



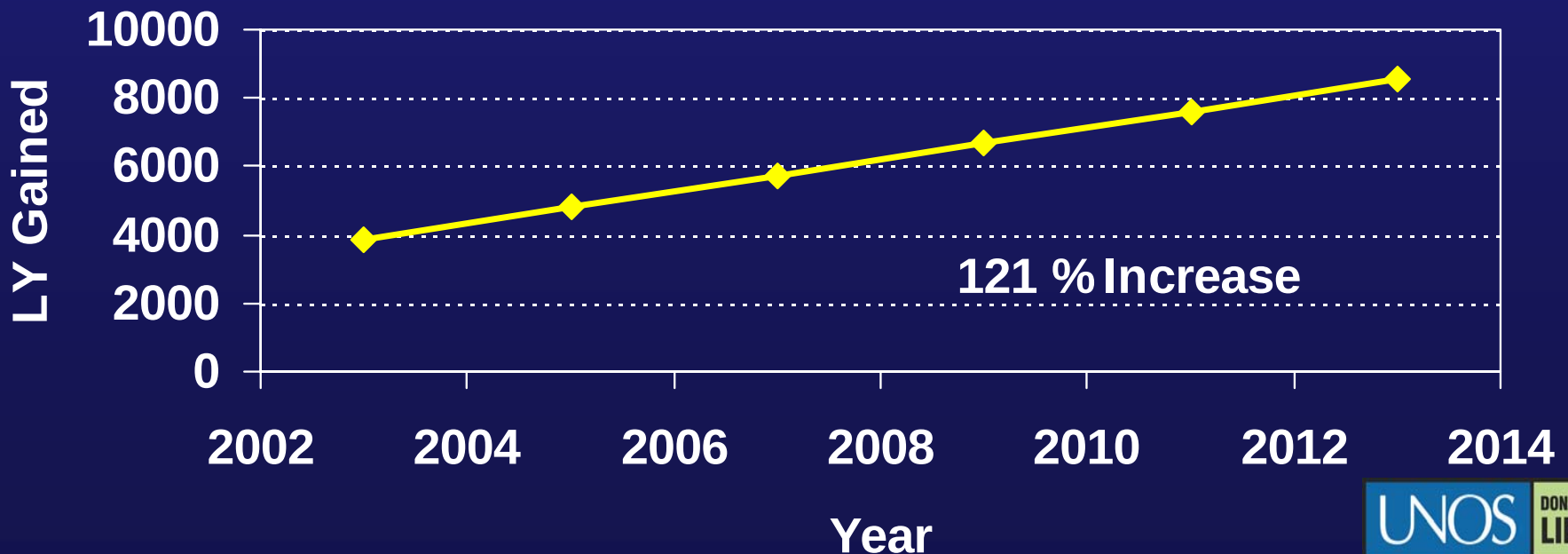
HRSA's PART GOALS

- Increase the average number of organs transplanted per DCD donors each year by 0.096 to reach 3.0 in 2013



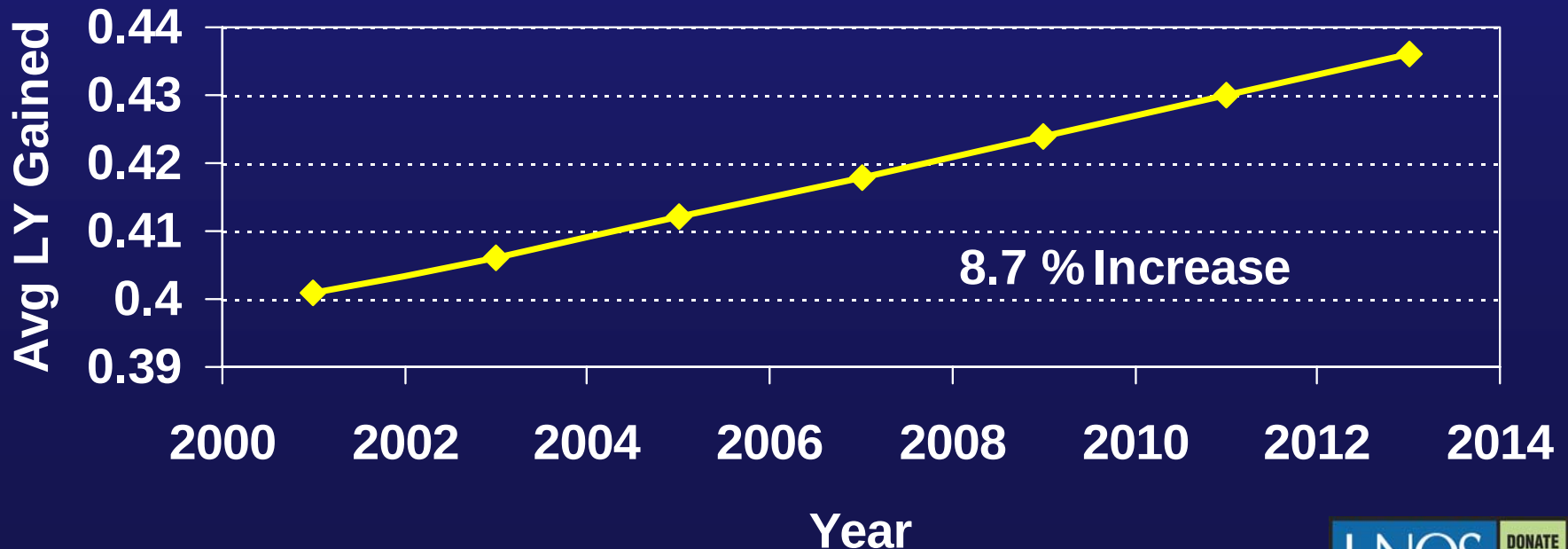
HRSA's PART GOALS

- Increase the total expected life-years gained for kidney transplant recipients in the first 5 years after transplant compared to what would be expected had they remained on the waiting list



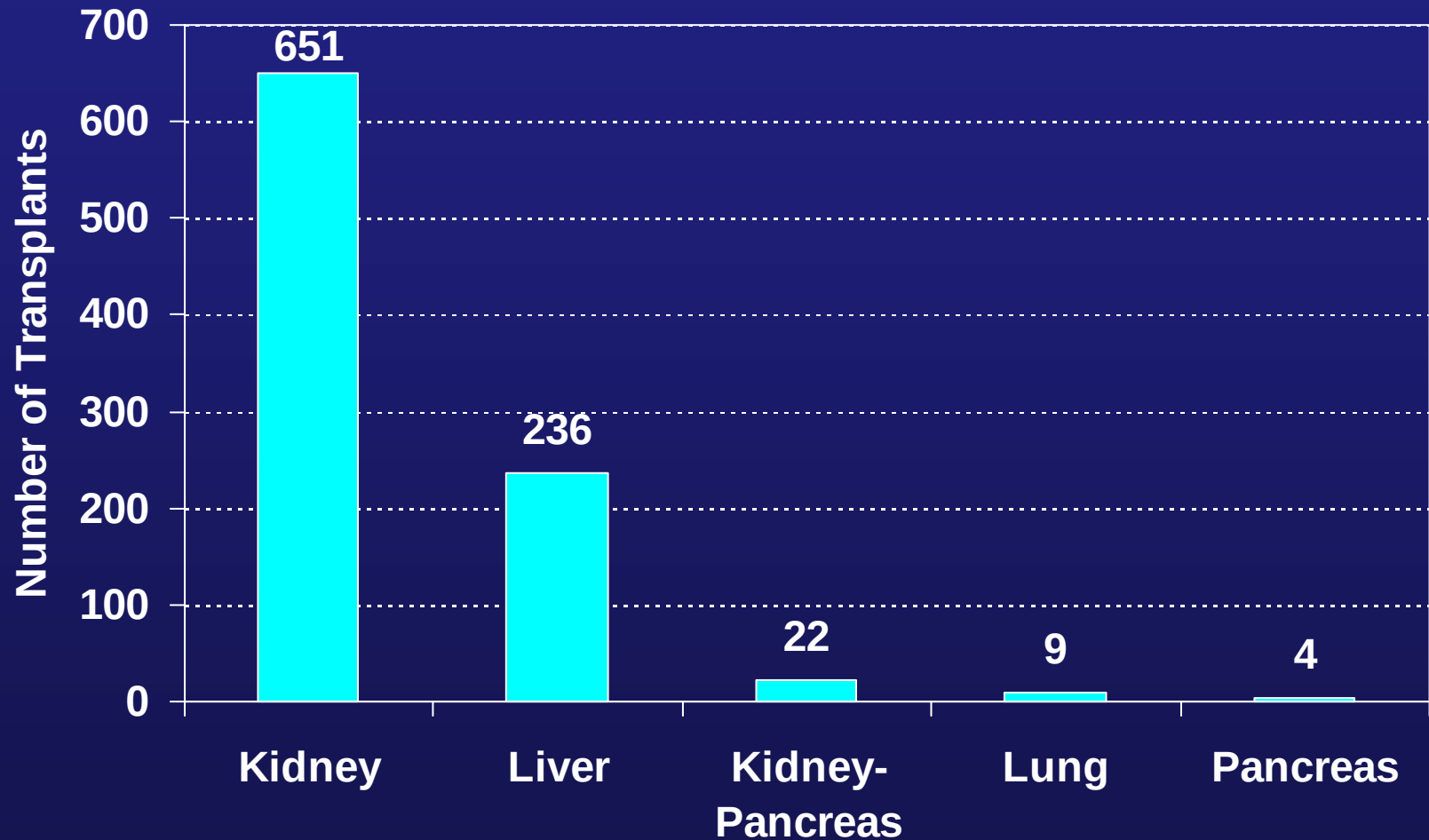
HRSA's PART GOALS

- Increase the average number of years of life gained in the first 5 years after the transplant for deceased kidney/kidney-pancreas transplanted by 0.003 life-years until the goal of 0.436 life-years gained per transplant is achieved in 2013



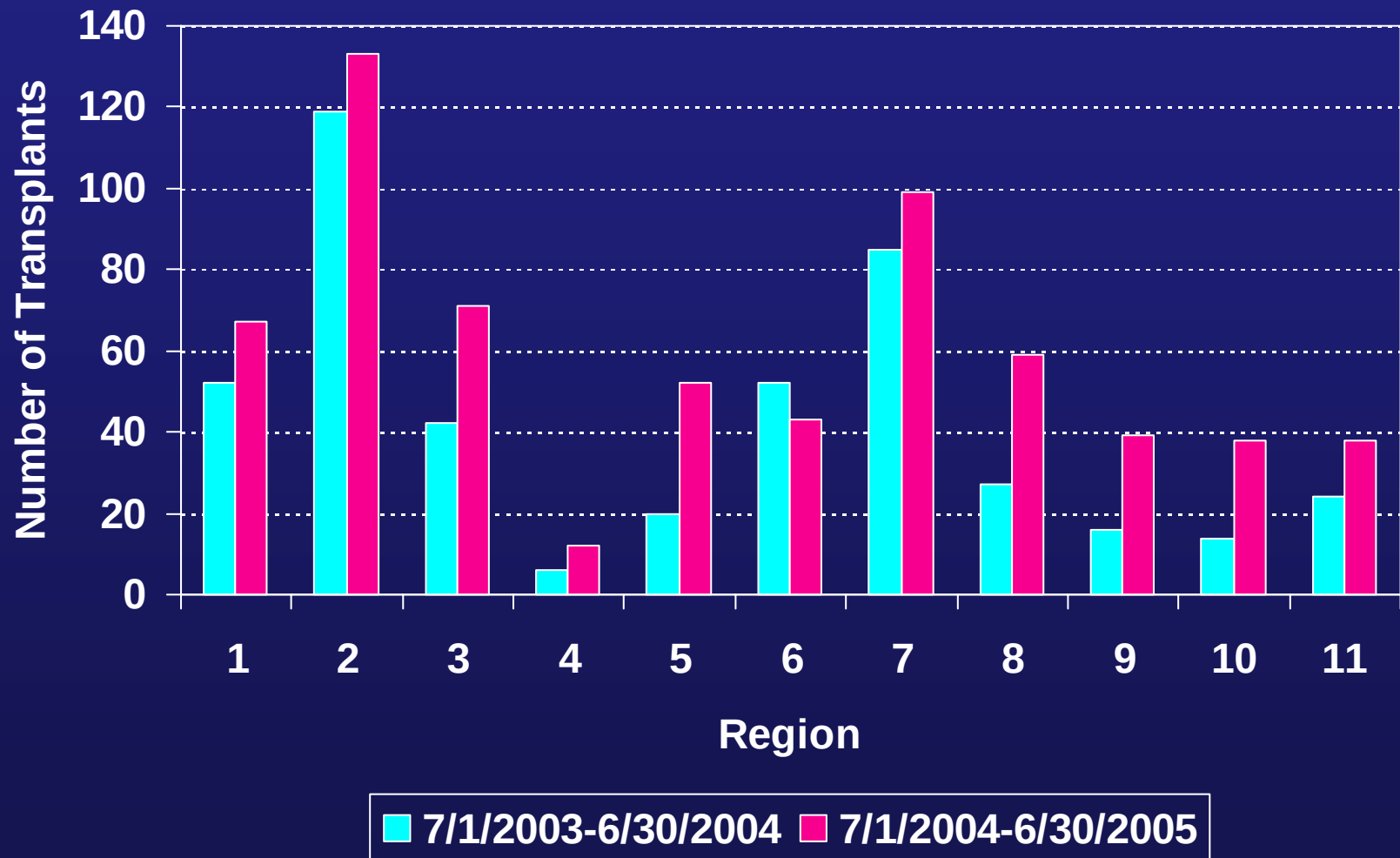
Transplants from DCD Donors

July, 2004 – June, 2005



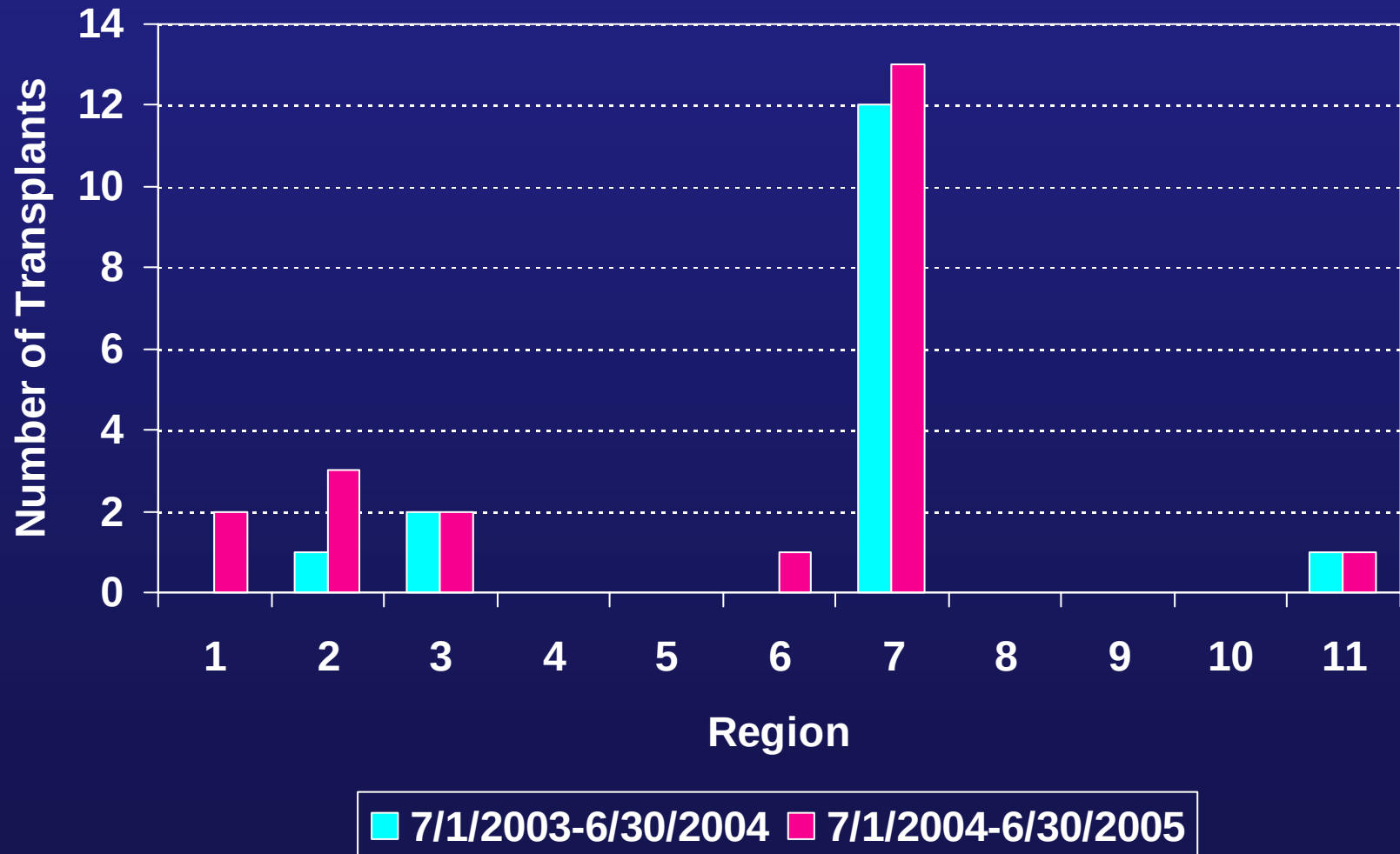
DCD Kidney Transplants

July, 2003 – June, 2005



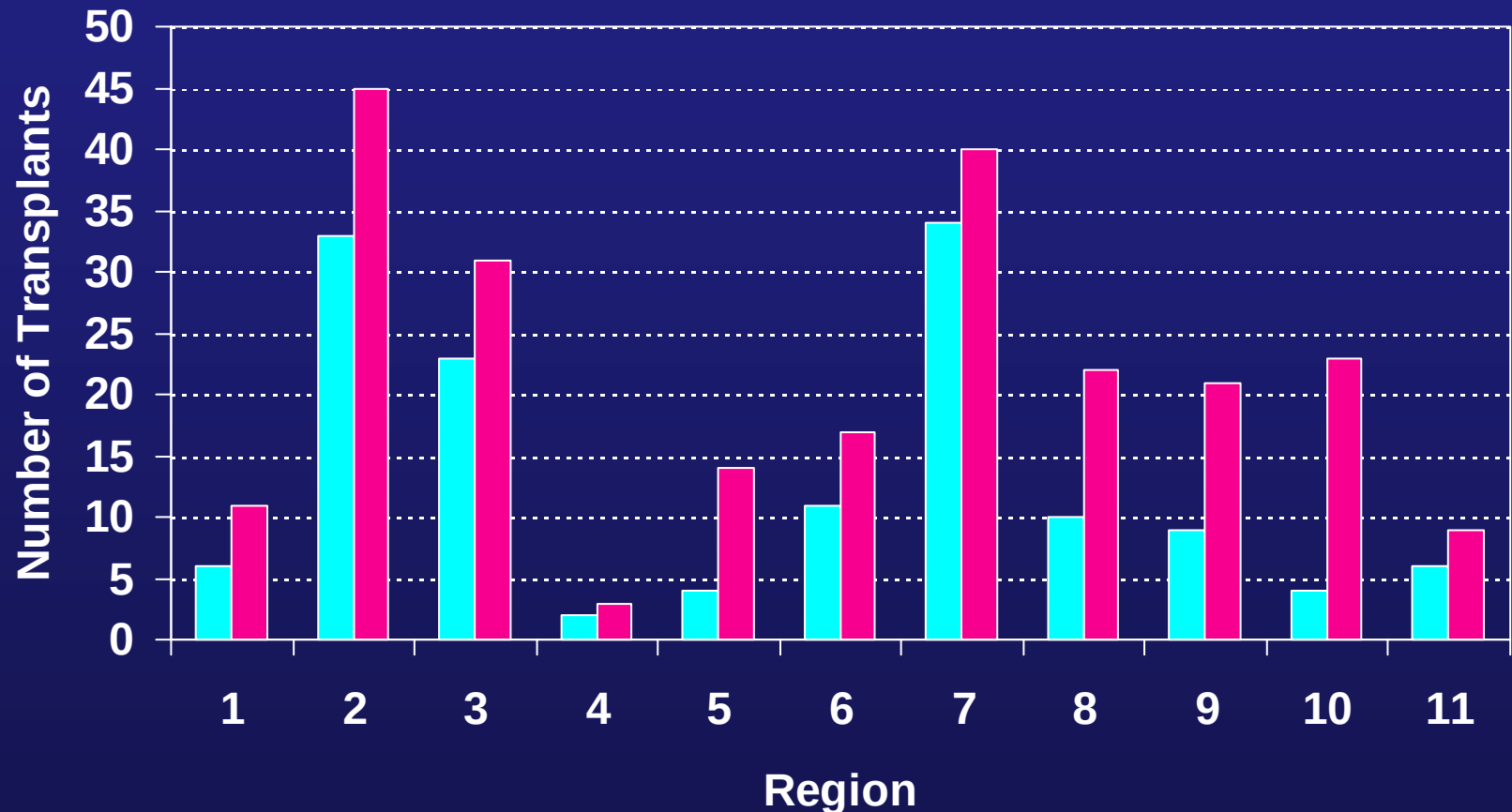
DCD Kidney-Pancreas Transplants

July, 2003 – June, 2005



DCD Liver Transplants

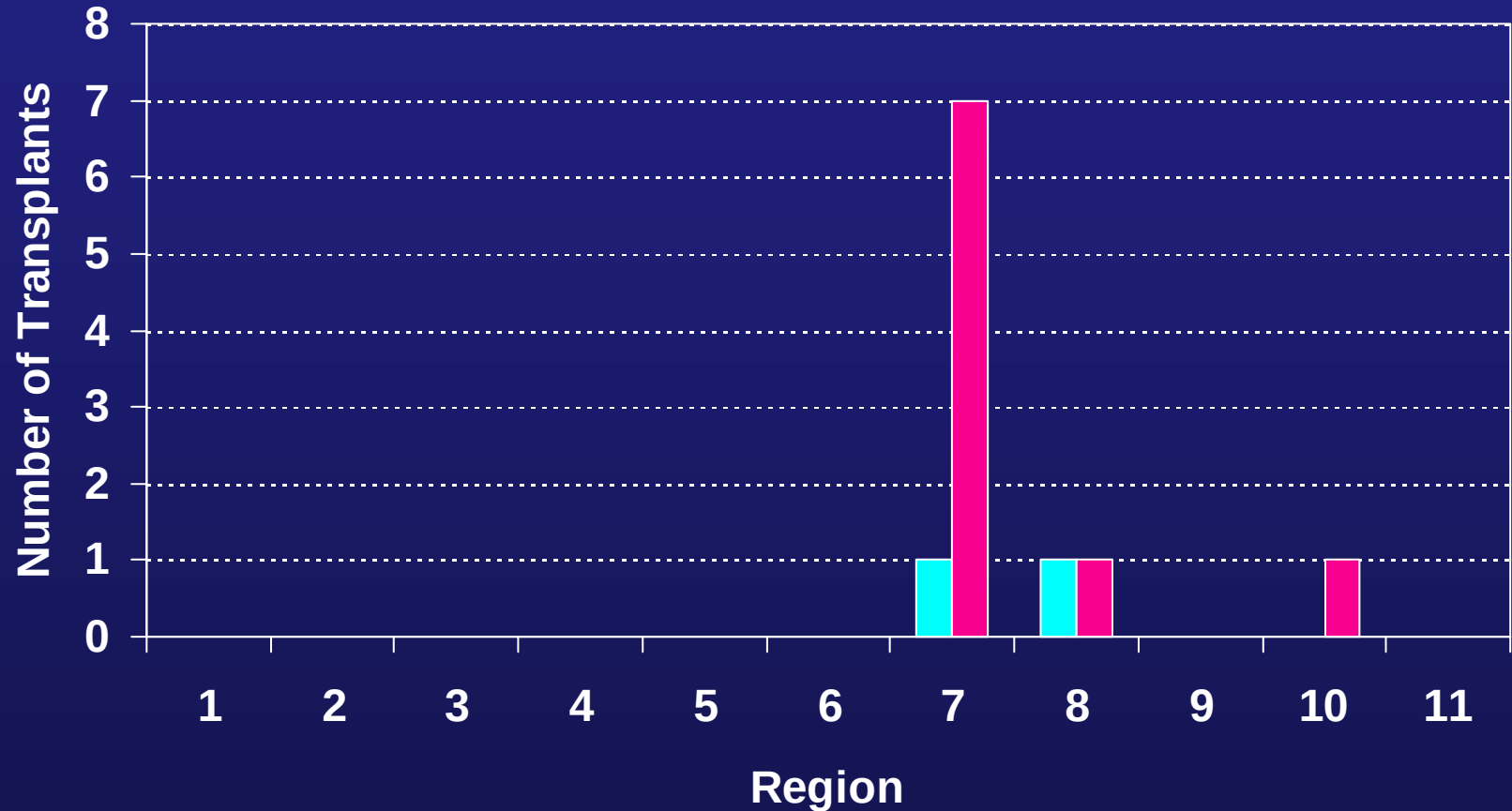
July, 2003 – June, 2005



■ 7/1/2003-6/30/2004 ■ 7/1/2004-6/30/2005

DCD Lung Transplants

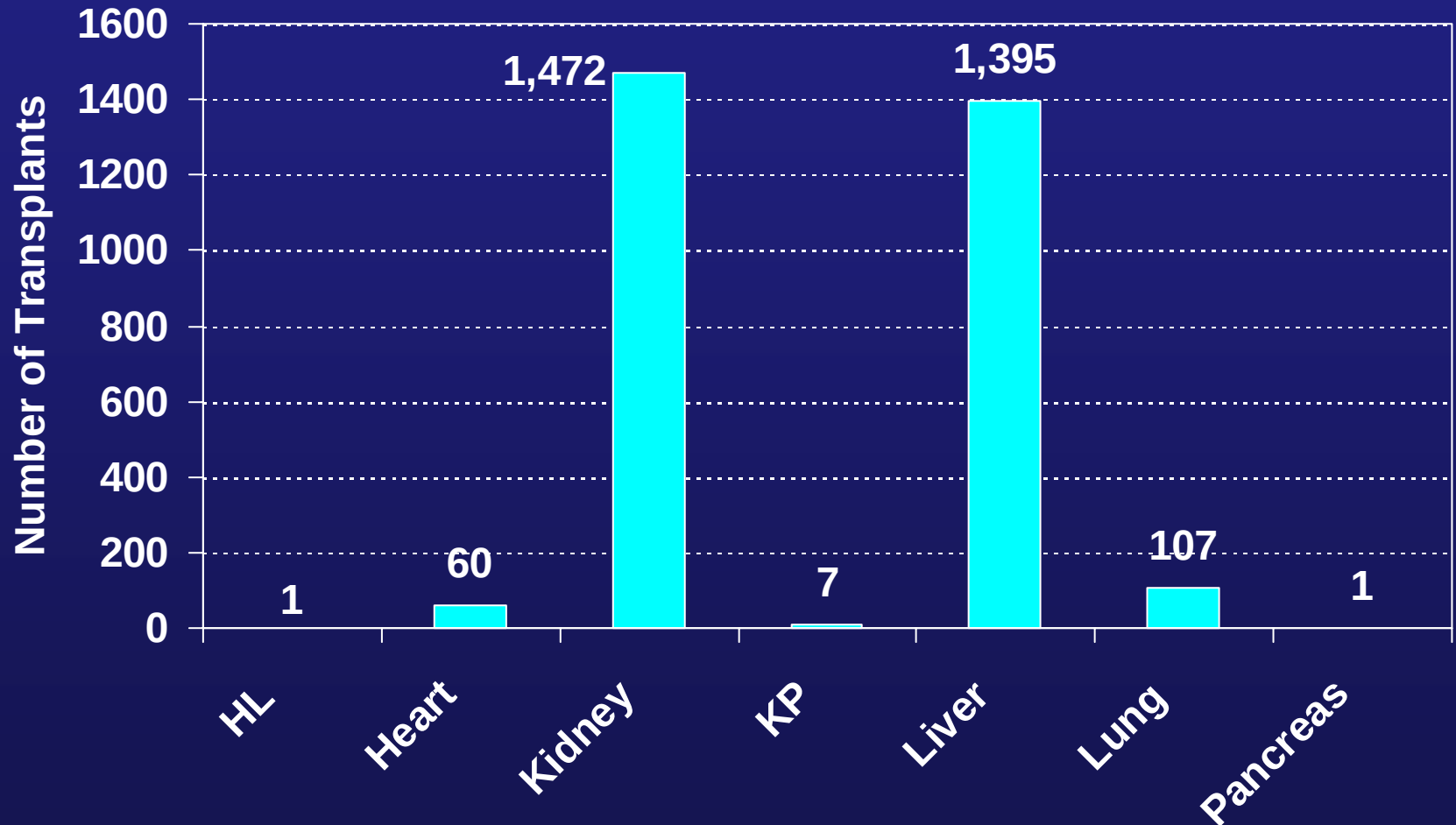
July, 2003 – June, 2005



■ 7/1/2003-6/30/2004 ■ 7/1/2004-6/30/2005

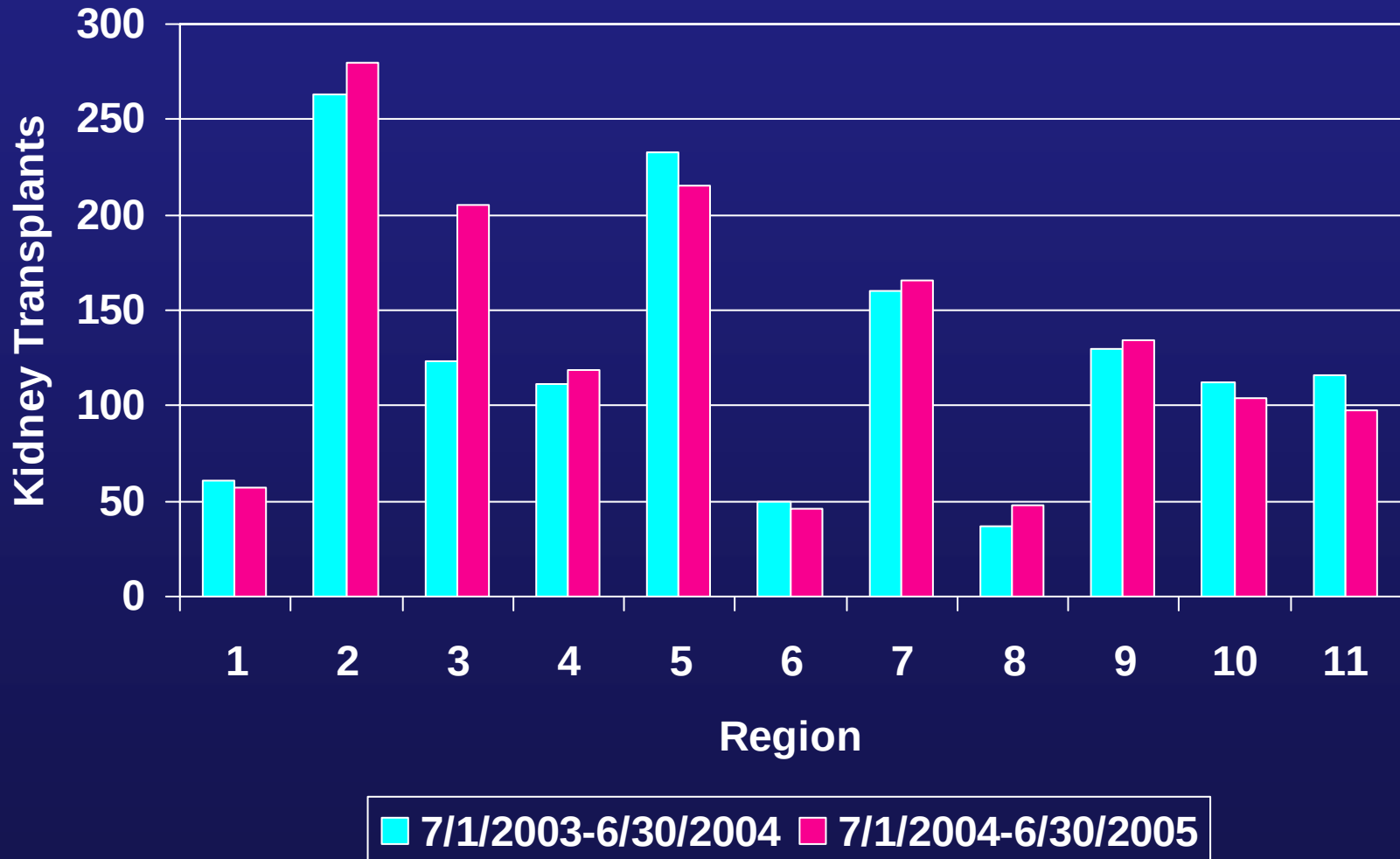
Transplants from ECD Donors

July, 2004 – June, 2005



ECD Kidney Transplants

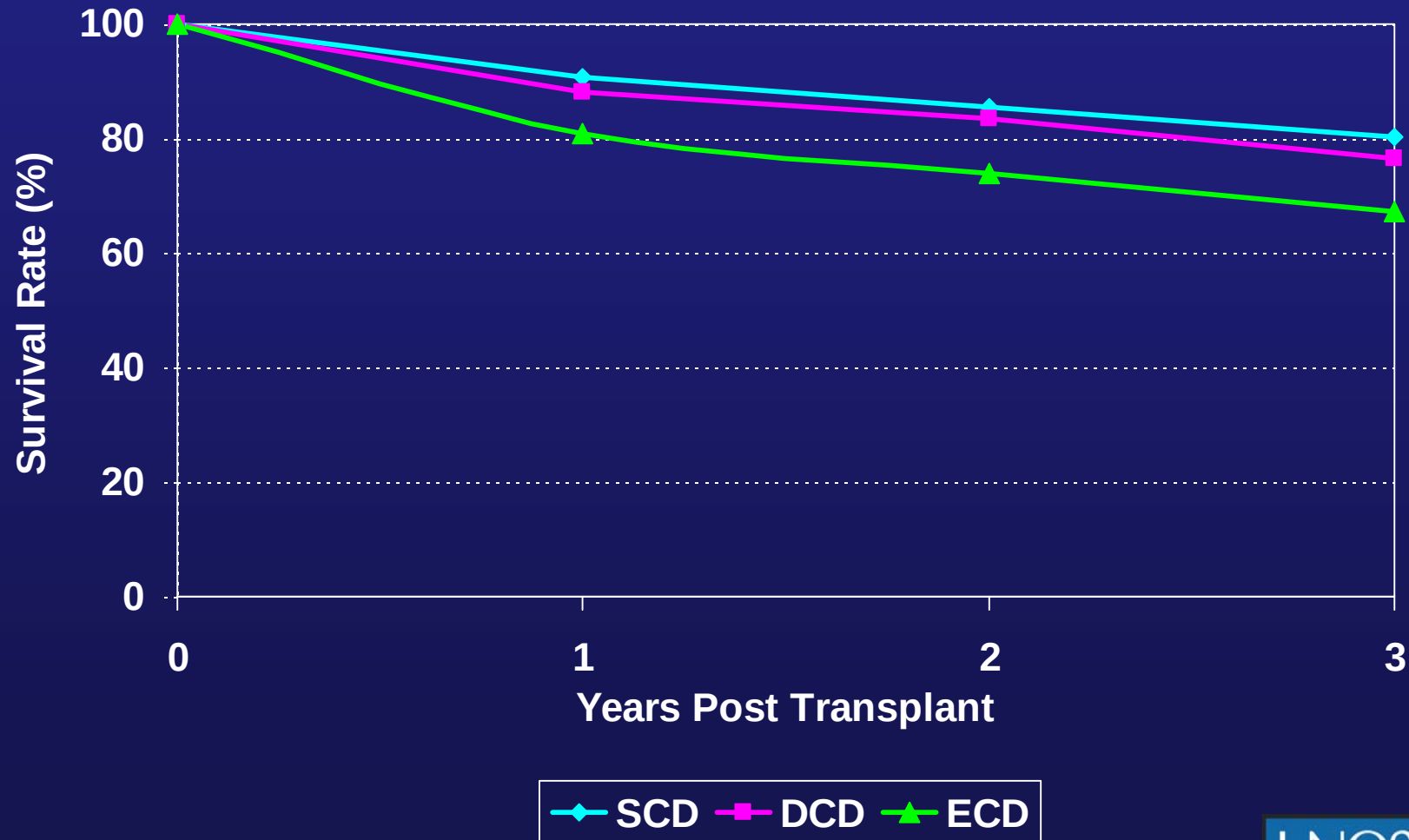
July, 2003 – June, 2005



Kidney Transplant Graft Survival

2000-2003

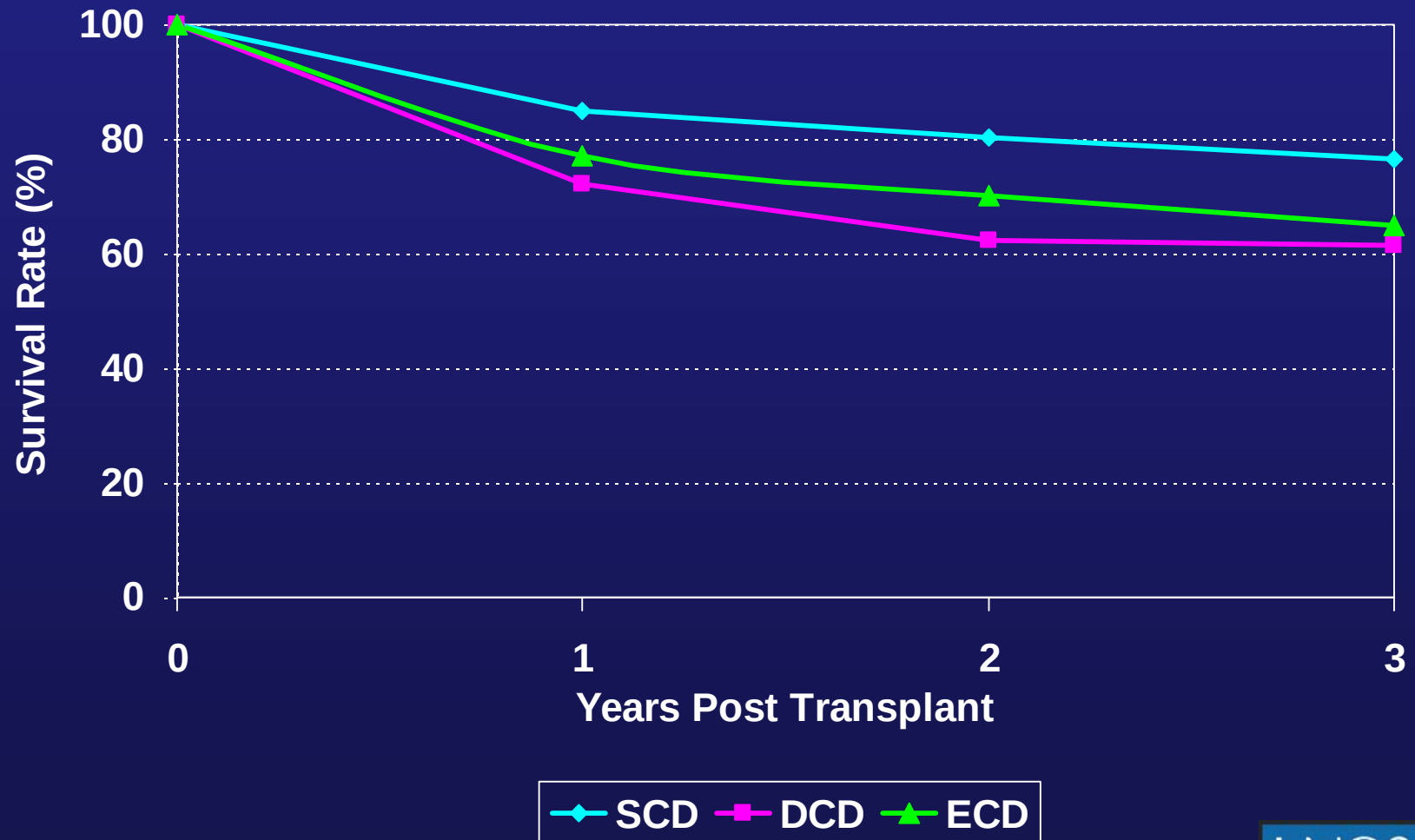
U.S.



Liver Transplant Graft Survival

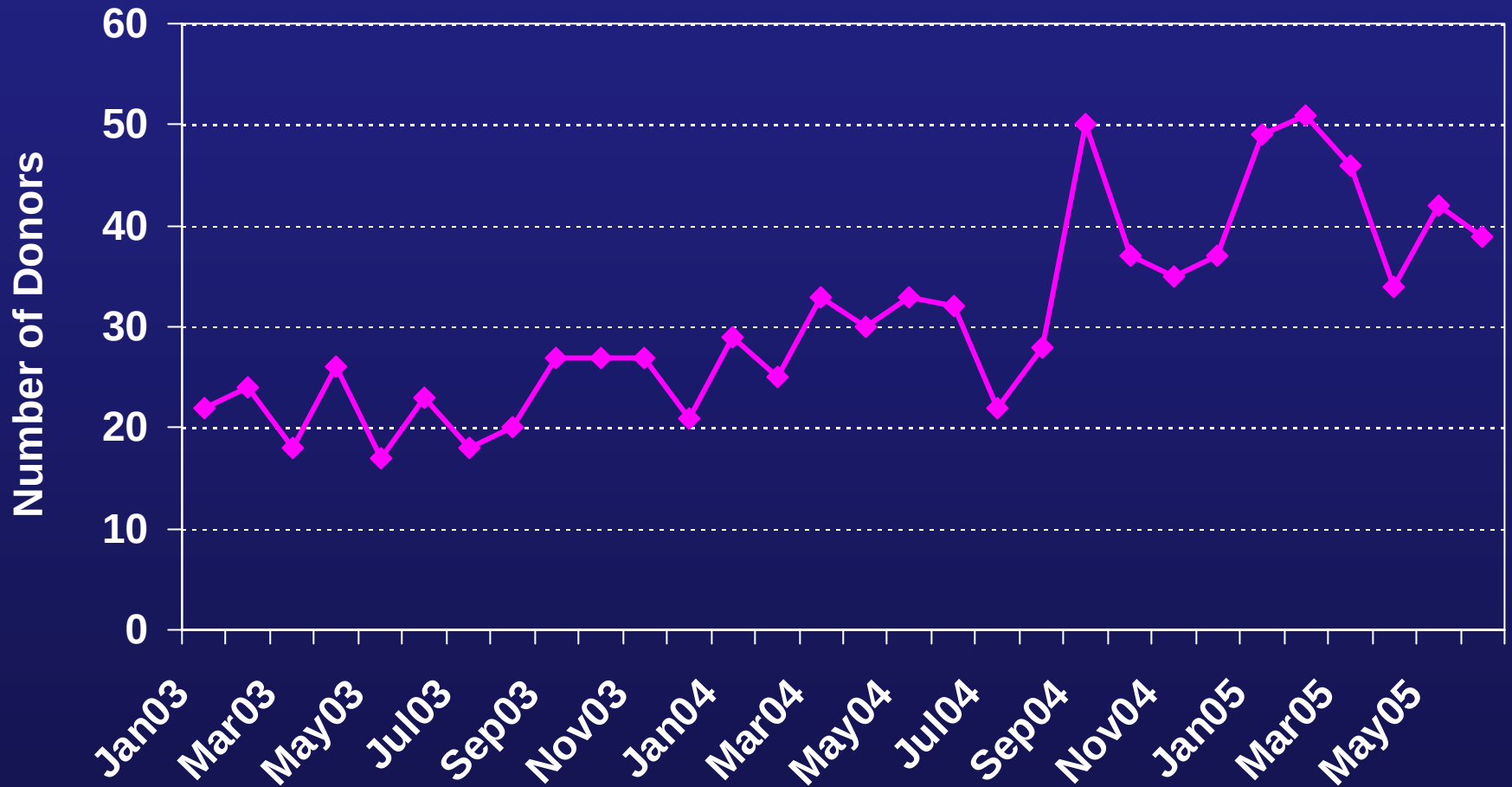
2000 - 2003

U.S.



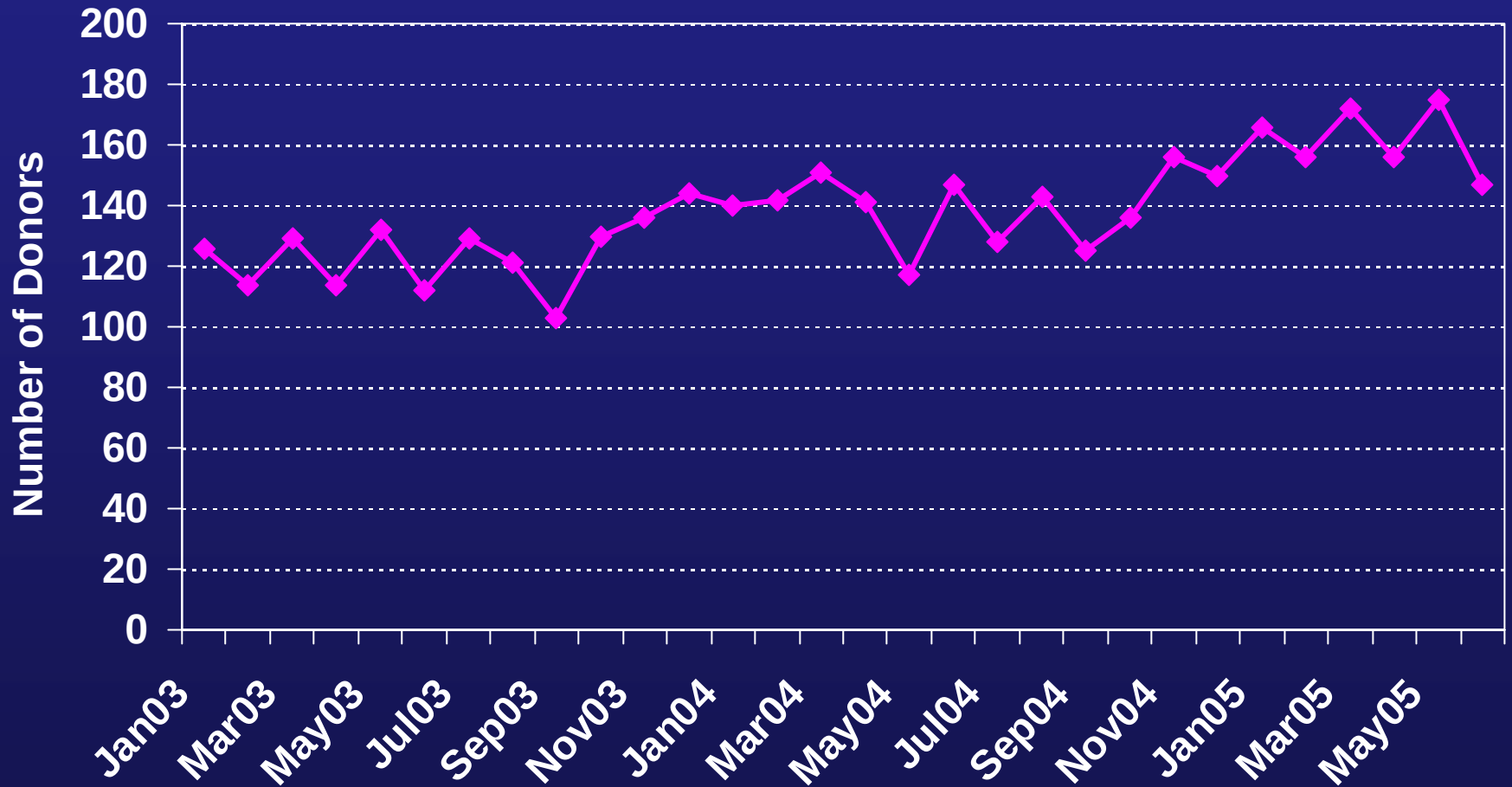
DCD Donors by Month

2003 – June, 2005



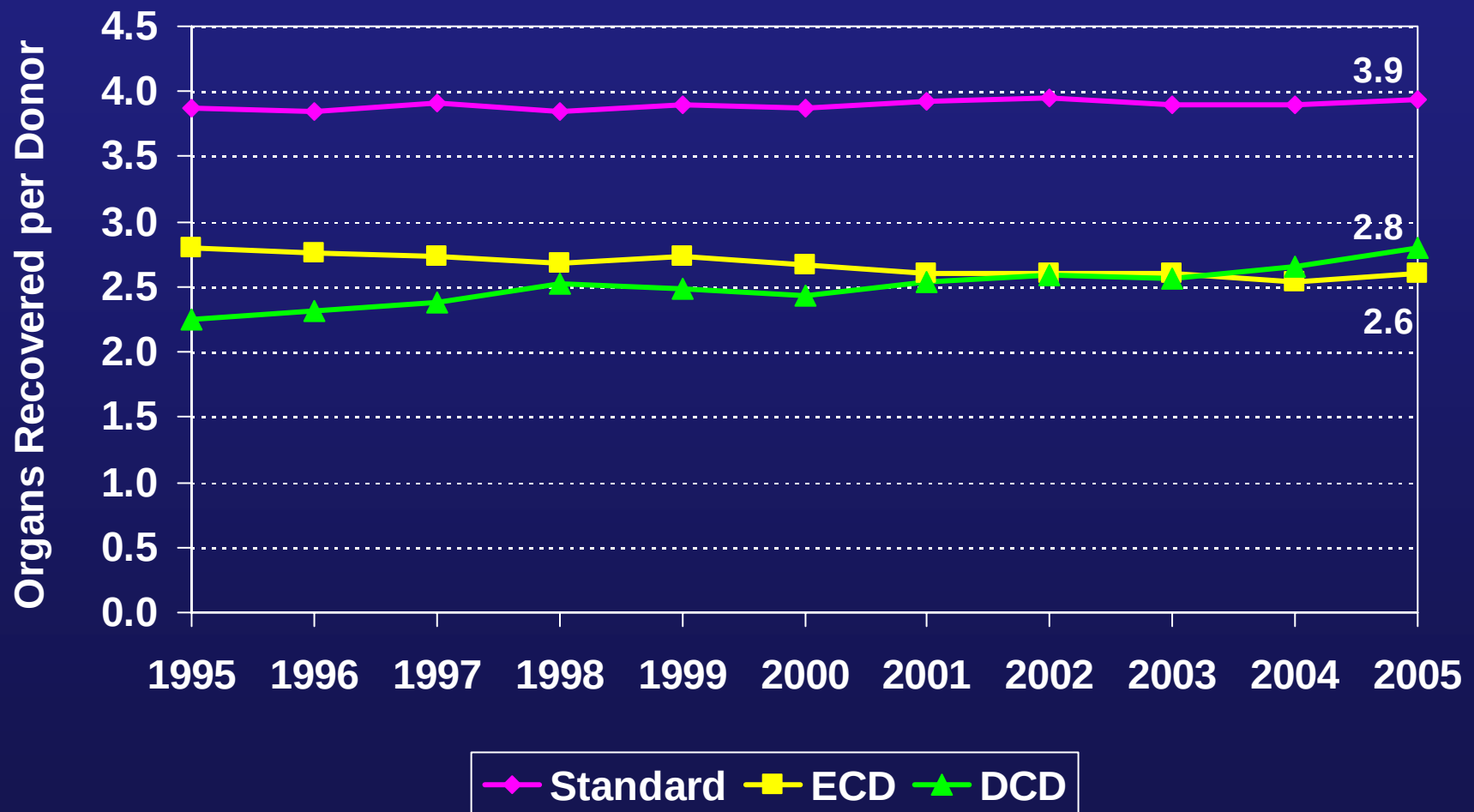
ECD Donors by Month

2003 – June, 2005



Organs Recovered Per Donor by Donor Type

1995 – June, 2005



Organs Transplanted Per Donor by Donor Type

1995 – June, 2005

