

# **Department of Veterans Affairs CARES Healthcare Studies**

**VA New York Harbor Healthcare System  
Brooklyn and New York Feasibility Study**

May 3, 2005



# VA New York Harbor Healthcare System Sites

- One of five VISN 3 facilities – three of which (Hudson Valley, New Jersey and NY Harbor) are integrated health care systems
- VA NY Harbor Healthcare System consists of 3 campuses located in Bay Ridge, Brooklyn, East-side Manhattan and St. Albans, Queens
- Ambulatory care centers are located at each of the three campuses
- VA NYHHS also operates Community Based Outpatient Clinics in Harlem, Chelsea, SoHo, downtown Brooklyn and Staten Island

# New York, Brooklyn, and St. Albans Campuses

- New York and Brooklyn
  - Medical, surgical and psychiatric facilities
    - » NY 171 operating beds
    - » BK 147 operating beds
- St. Albans
  - » Primary & Extended Care Facility
  - » 181 Nursing Home operating beds
  - » 50 Domiciliary operating beds

# Comprehensive Health Care

Comprehensive health care is provided through primary, specialty and long-term care services:

## Manhattan

- Acute Medicine
- Surgery
- Acute Psychiatry
- Neurology
- Rehabilitation Medicine
- Emergency/ Critical Care
- Home Care

## Brooklyn

- Acute Medicine
- Surgery
- Psychiatry
- Residential Substance Abuse
- Emergency/ Critical Care
- Home Care

## St. Albans

- Geriatrics and extended care
- Extended care rehab
- Home care

# Specialty Center-Based Care

New York: Referral Center for Cardiac Surgery, Neurosurgery, Urology and HIV/AIDS care

Brooklyn: Cancer Care and Non-invasive Cardiology

St. Albans: Dementia-geriatric care and Domiciliary

# Forecasting VA Health Care Demand

## Key Concepts

# VA National Level Demand Forecasts

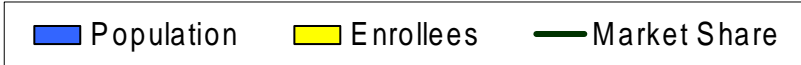
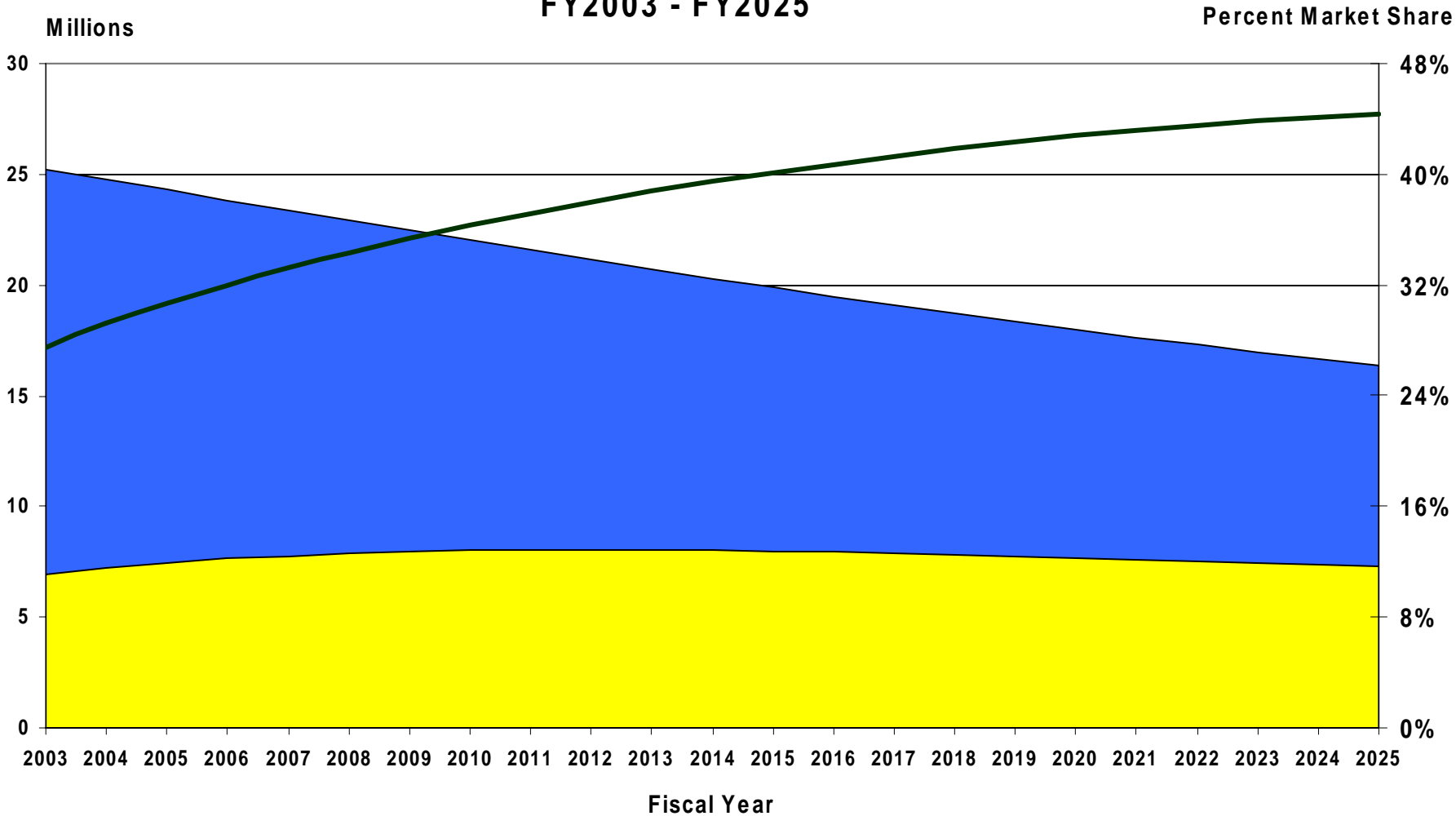
<b>CARES Implementation Category</b>	<b>Inpatient Medicine Bed Days of Care</b>	<b>Outpatient Primary Care Clinic Stops</b>
FY03 Actual	2.0 million	15.6 million
FY13 Projected	2.3 million	17.7 million
% Change FY13 – FY03	11%	13%
FY23 Projected	2.0 million	16.3 million
% Change FY23 – FY03	0%	4%

# Projected Enrolled Veteran Population

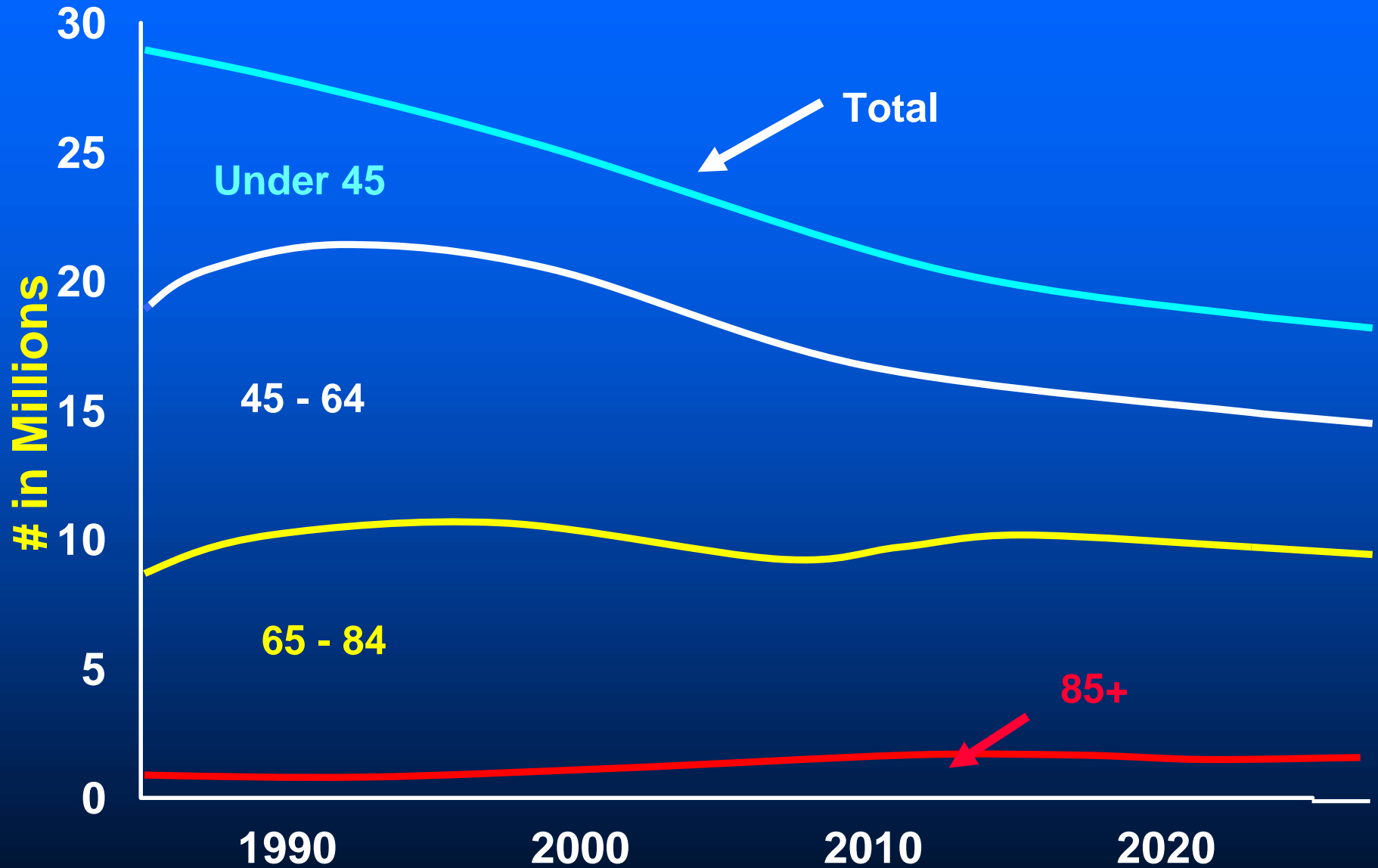
- As of FY 2003:
  - 25 million veterans
  - 7 million of these are enrolled in VA
- Enrollment forecasted 20 years into the future by:
  - Age
  - Gender
  - Priority
  - Geographic Area



# Total Veterans, National Population & Enrollee Projections FY2003 - FY2025



# Only the 85+ Age Group is Projected to Increase



# Inpatient and Outpatient Demand Forecasts

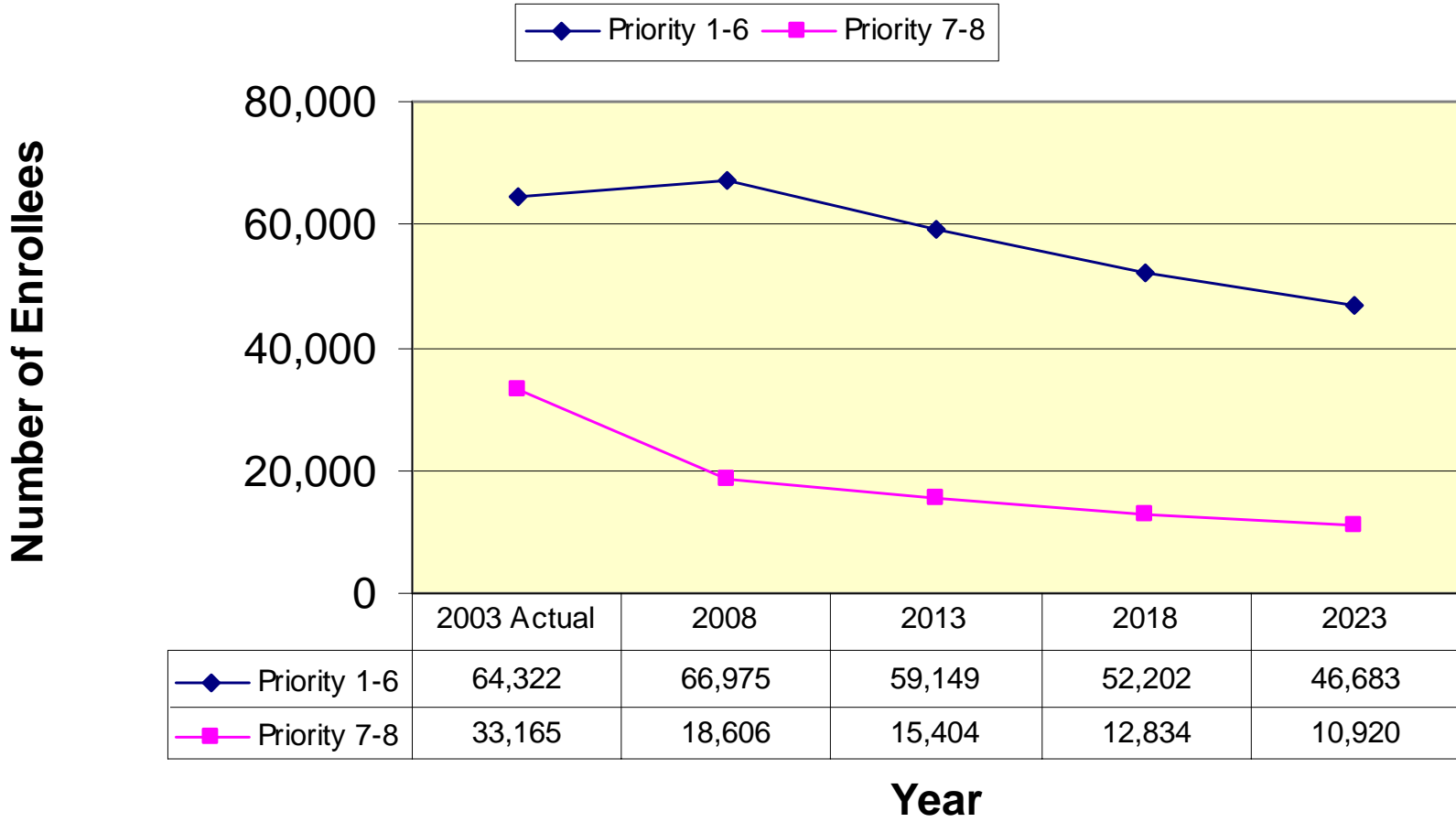
- CARES Business Plan Studies aggregated by:
  - 25 Categories of Care
  - Geographic Area (where enrollee lives)
  - VA Treating Facility

# Reliance Factor Issues

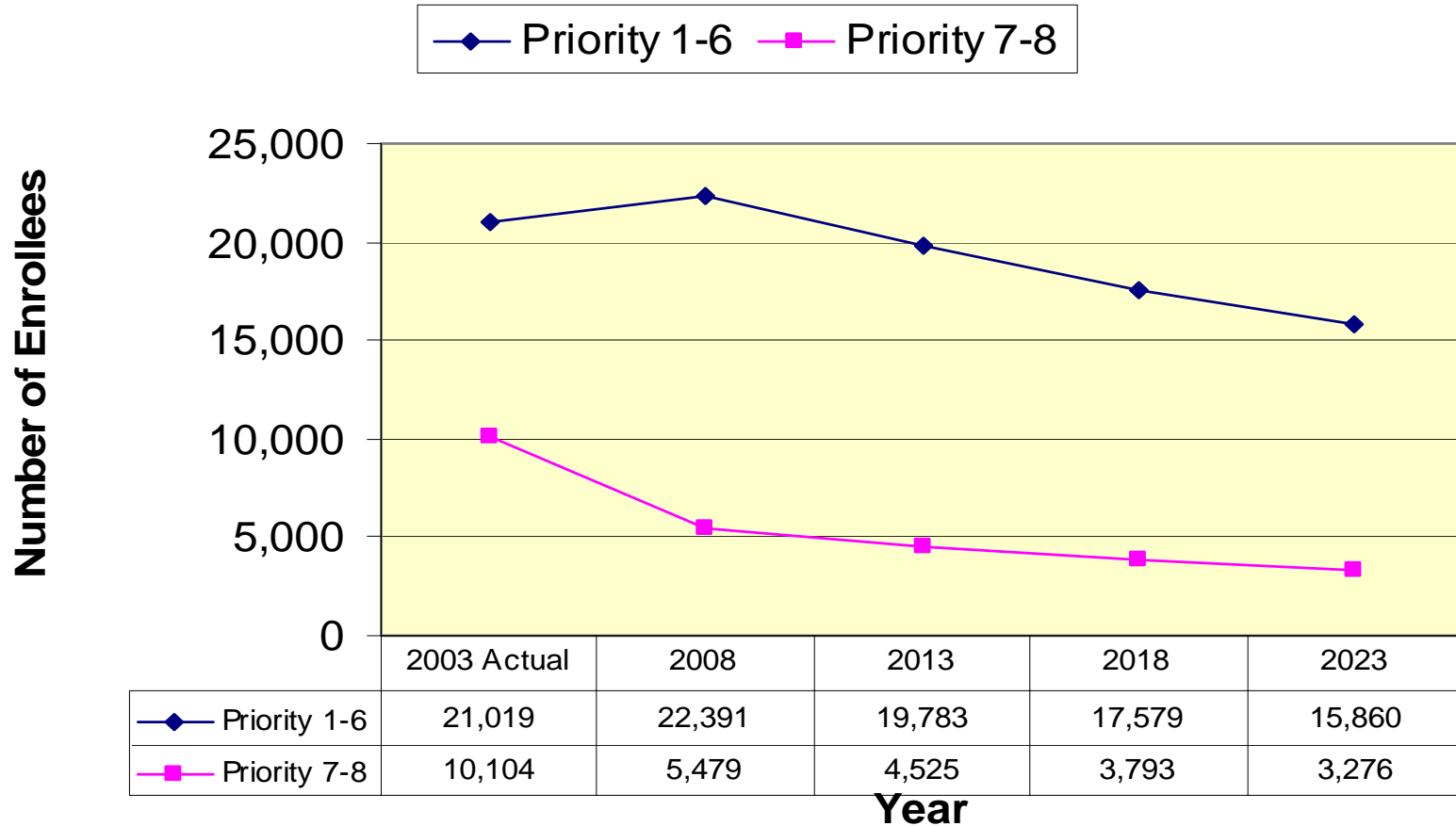
- Reliance on VA Services varies by:
  - Enrollee preference for VA services vs. other health care options
  - VA supply in a given geographic area
    - » **Wait lists**
    - » **Types of services provided at each facility**
    - » **Geographic location of facility**

# Enrollment

# Enrollment by Priority Group (VA NY Harbor HCS Catchment Area)

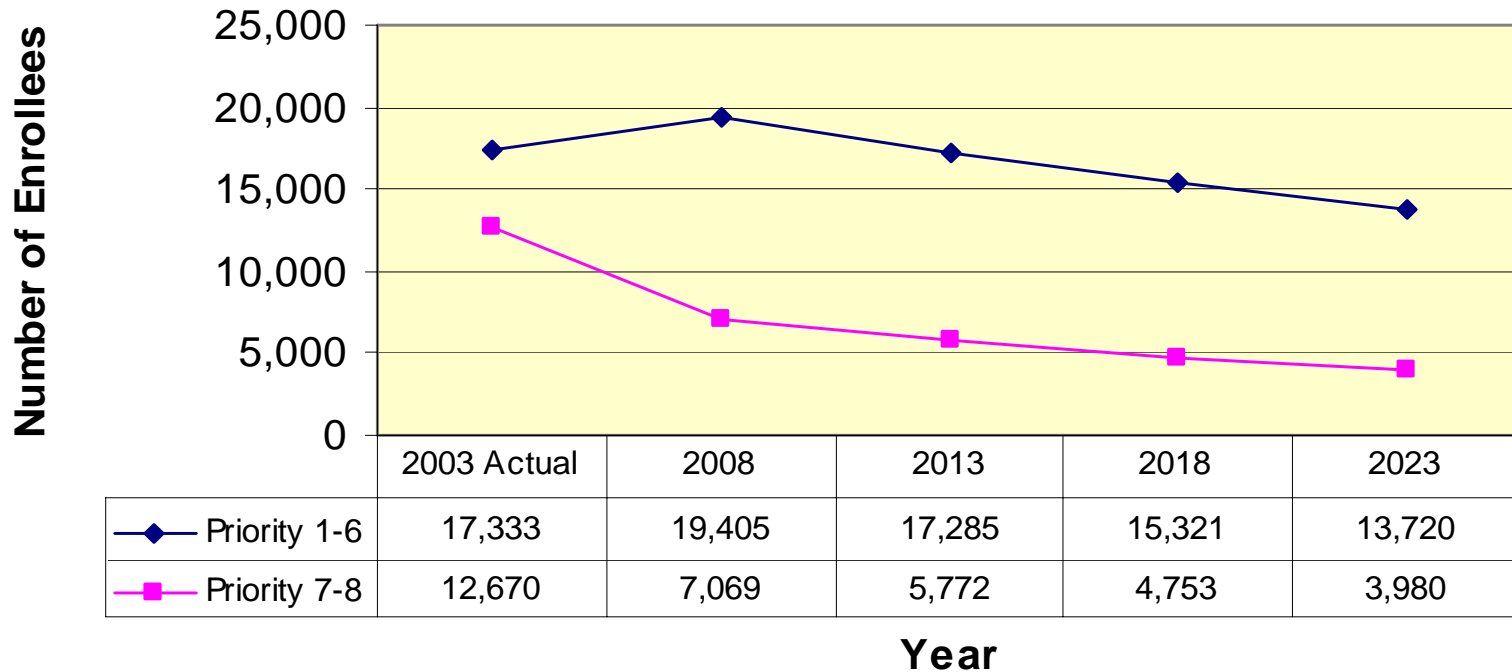


## Enrollment by Priority Group (VISN 3 Kings County Sector)



# Enrollment by Priority Group (VISN 3 Queens County Sector)

◆ Priority 1-6    ■ Priority 7-8

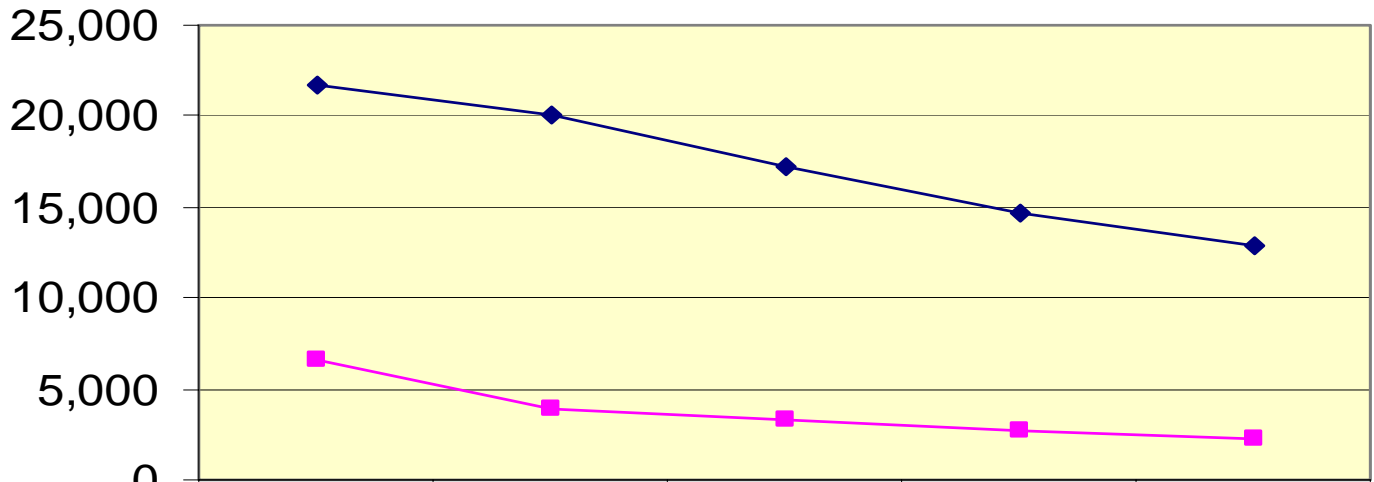




## Enrollment by Priority Group (VISN 3 New York County Sector)

◆ Priority 1-6    ■ Priority 7-8

**Number of Enrollees**



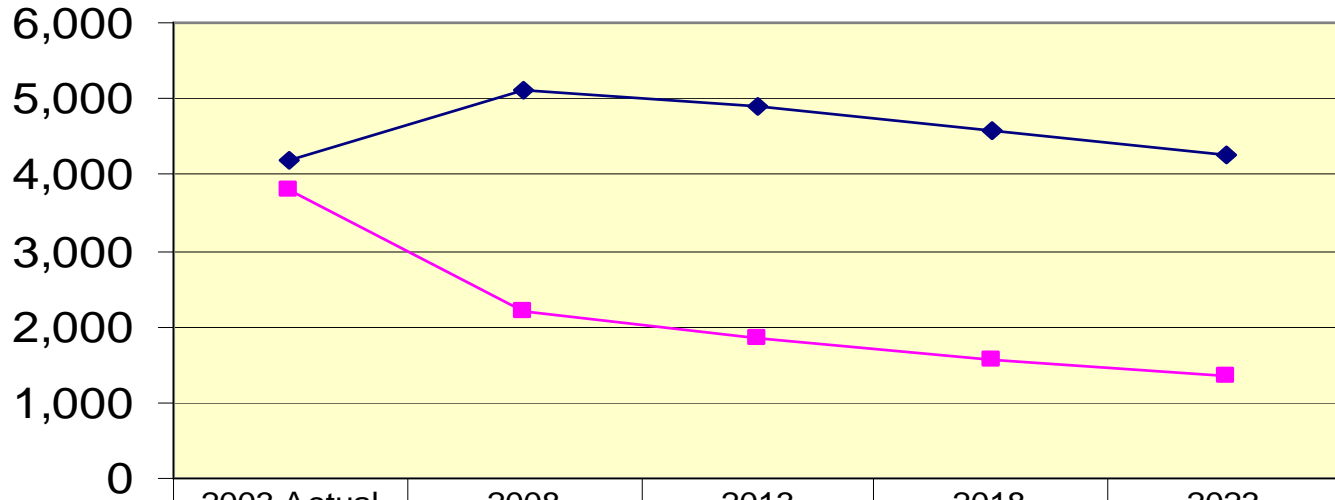
	2003 Actual	2008	2013	2018	2023
<span style="color: blue;">◆</span> Priority 1-6	21,765	20,054	17,183	14,729	12,832
<span style="color: magenta;">■</span> Priority 7-8	6,595	3,873	3,262	2,721	2,307

**Year**

## Enrollment by Priority Group (VISN 3 Richmond County Sector)

◆ Priority 1-6    ■ Priority 7-8

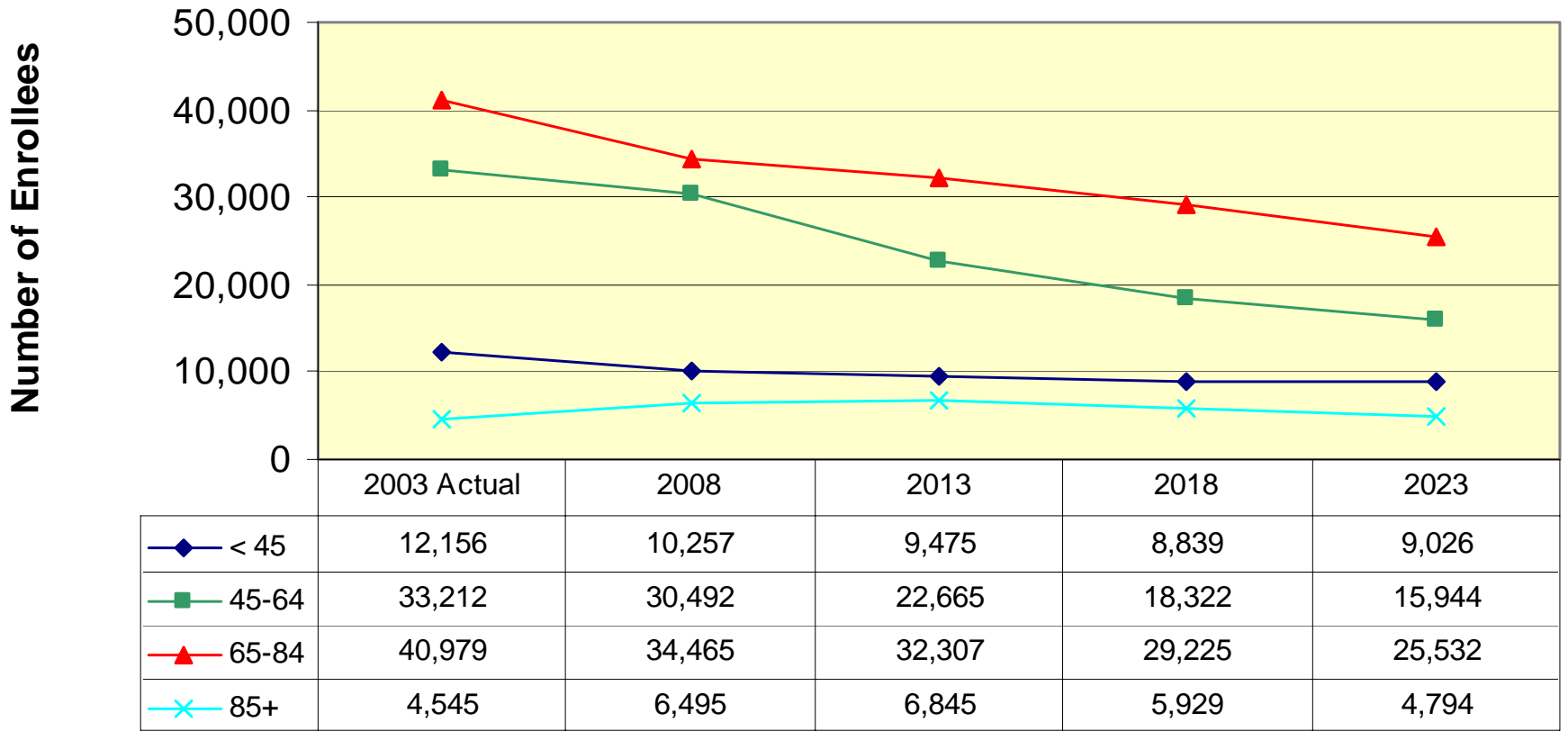
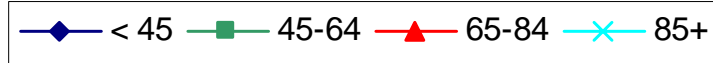
Number of Enrollees



	2003 Actual	2008	2013	2018	2023
<span style="color: blue;">◆</span> Priority 1-6	4,205	5,125	4,898	4,573	4,271
<span style="color: magenta;">■</span> Priority 7-8	3,796	2,185	1,845	1,567	1,357

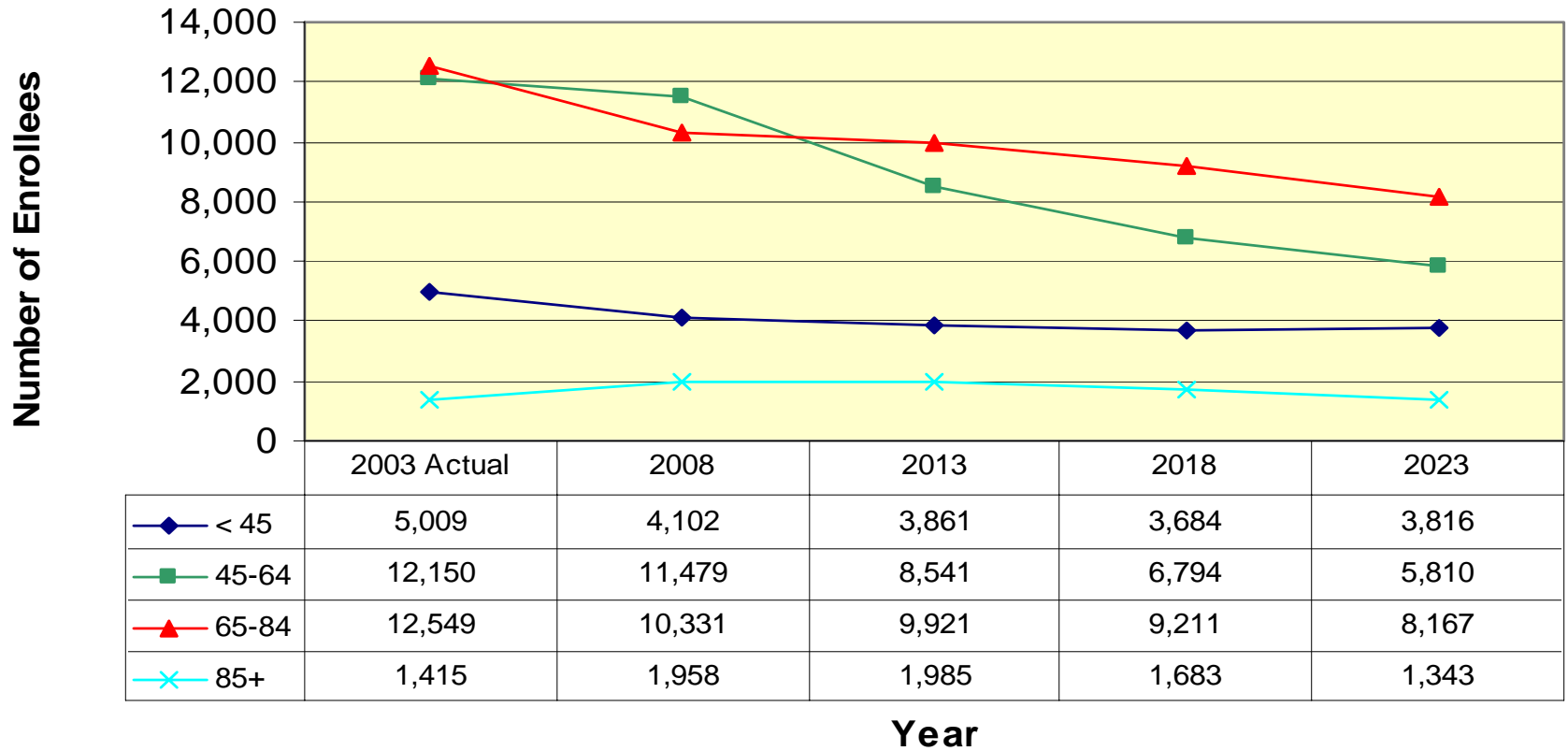
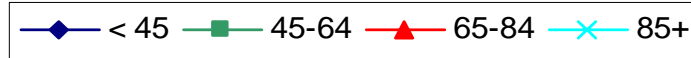
Year

# Enrollment by Age Group (VA NY Harbor HCS Catchment Area)



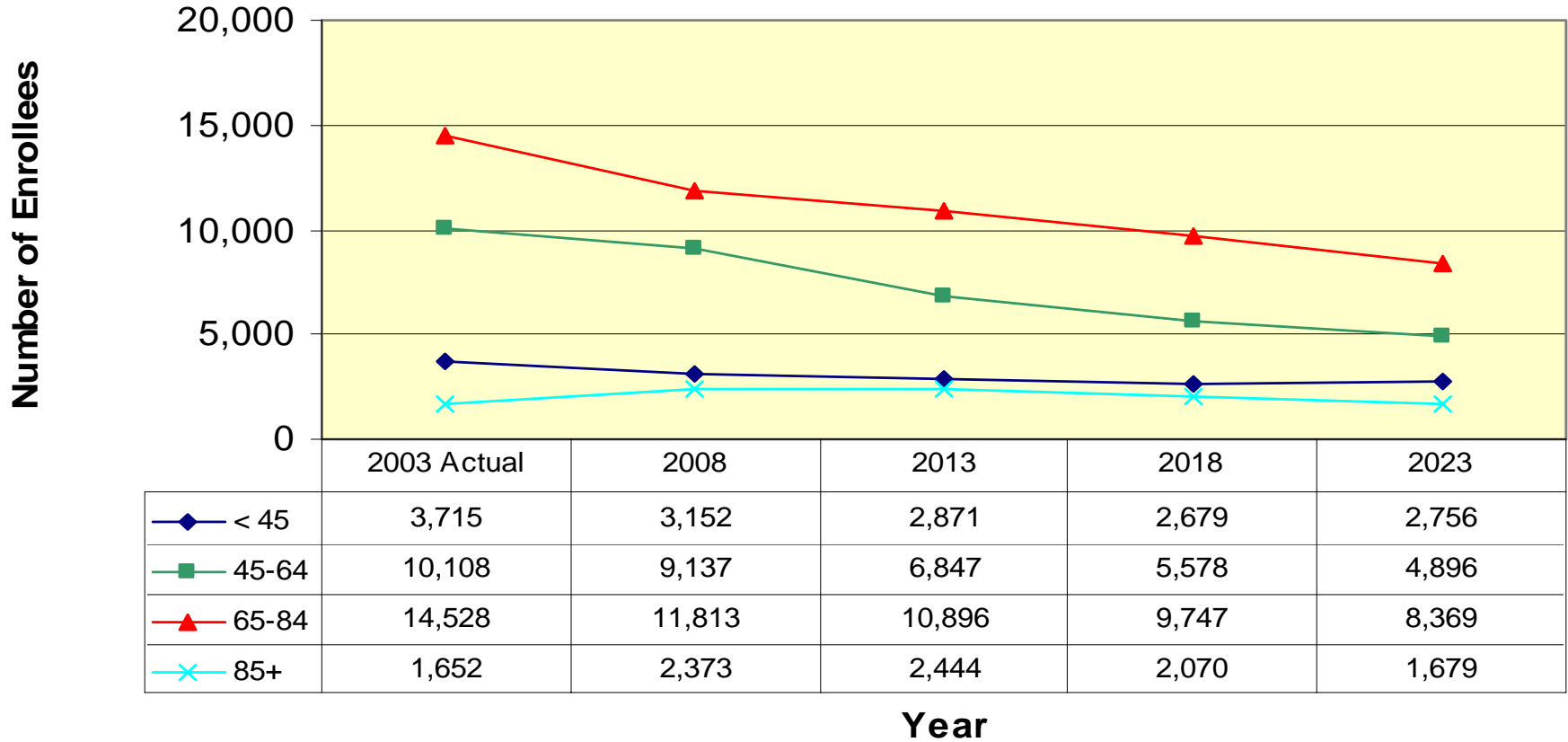
**Year**

## Enrollment by Age Group (VISN 3 Kings County Sector)

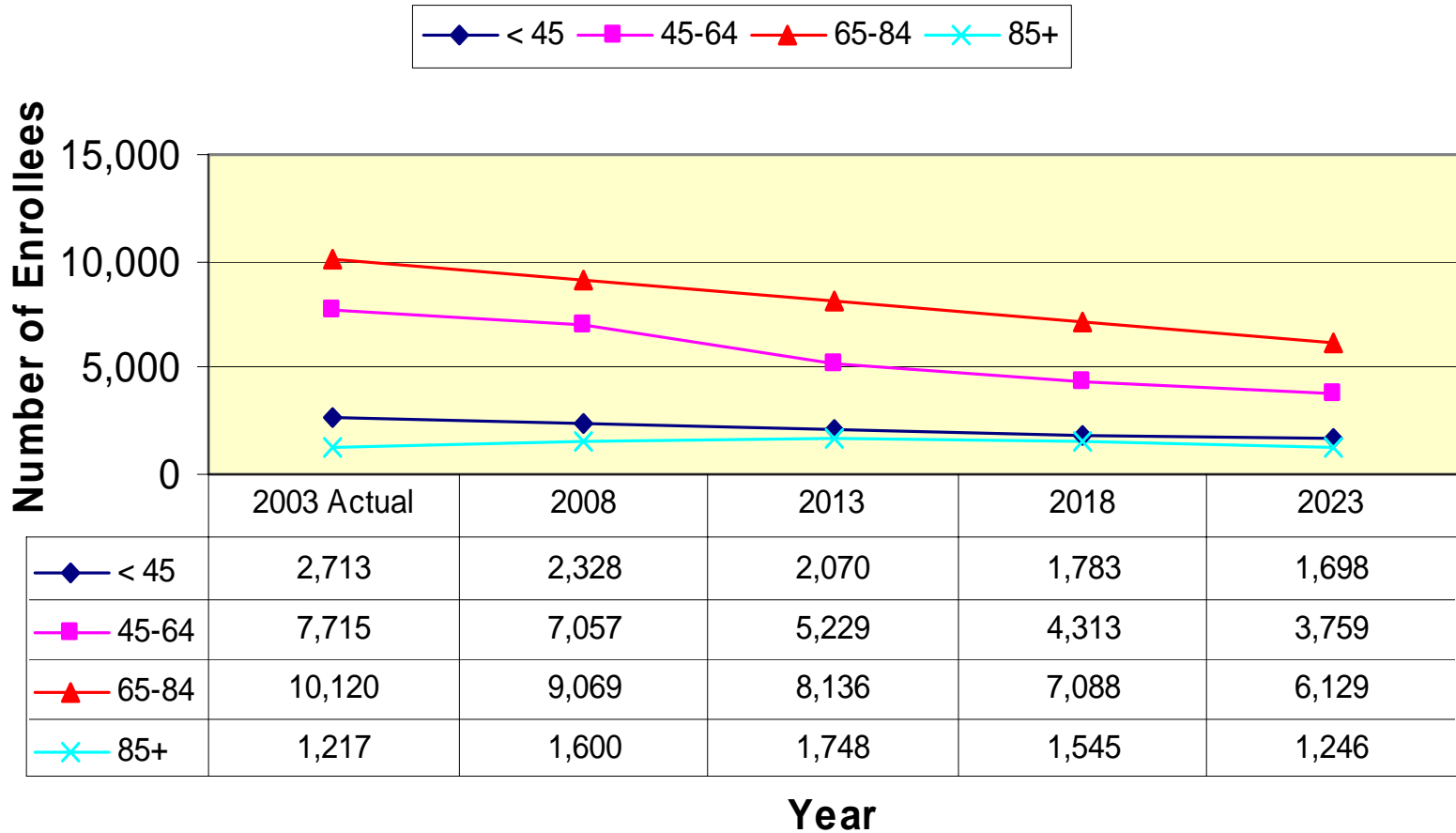


**Year**

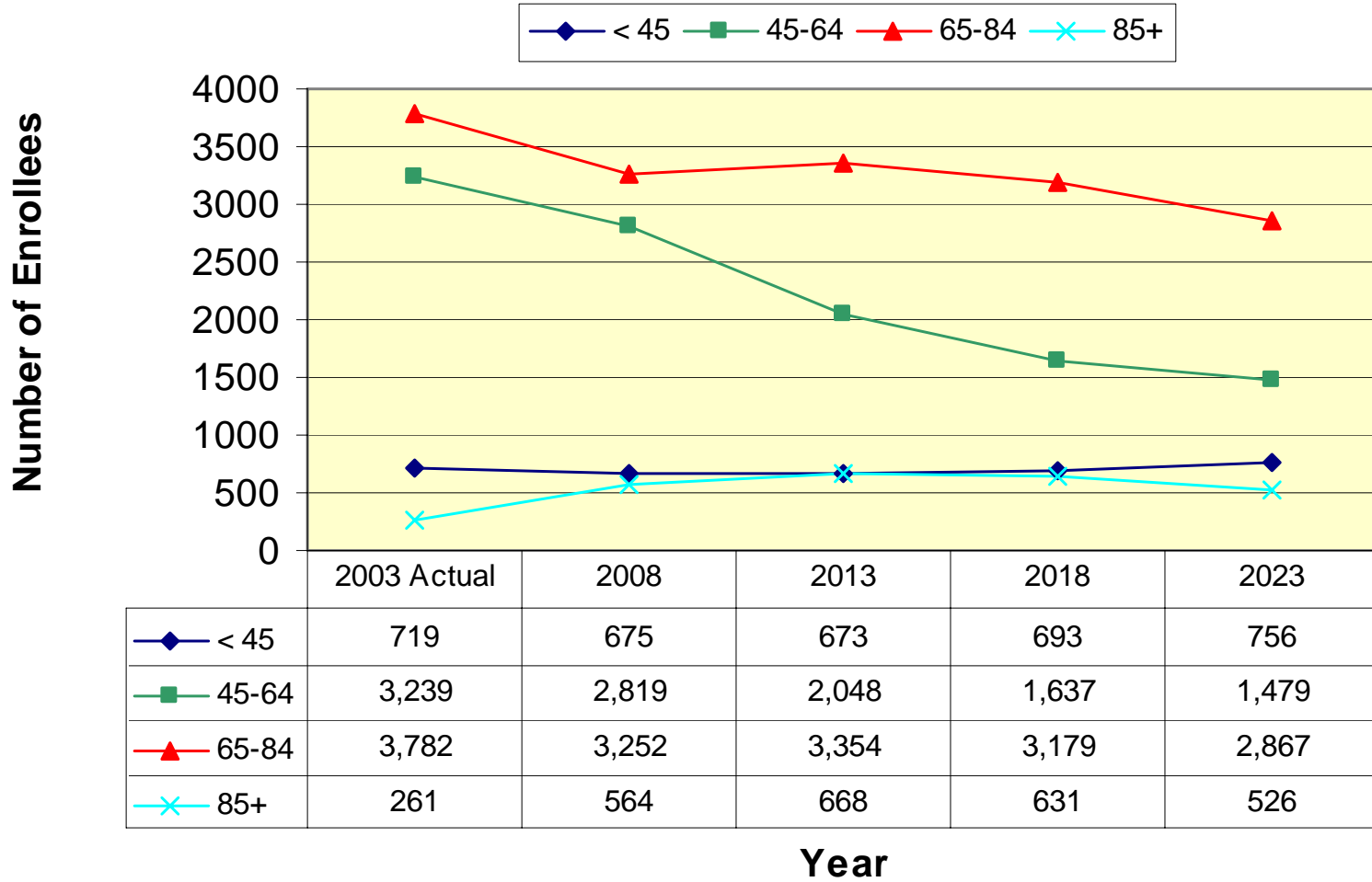
## Enrollment by Age Group (VISN 3 Queens County Sector)



# Enrollment by Age Group (VISN 3 New York County Sector)



## Enrollment by Age Group (VISN 3 Richmond County Sector)



# Outpatient Utilization VA NY Harbor HCS Site Perspective

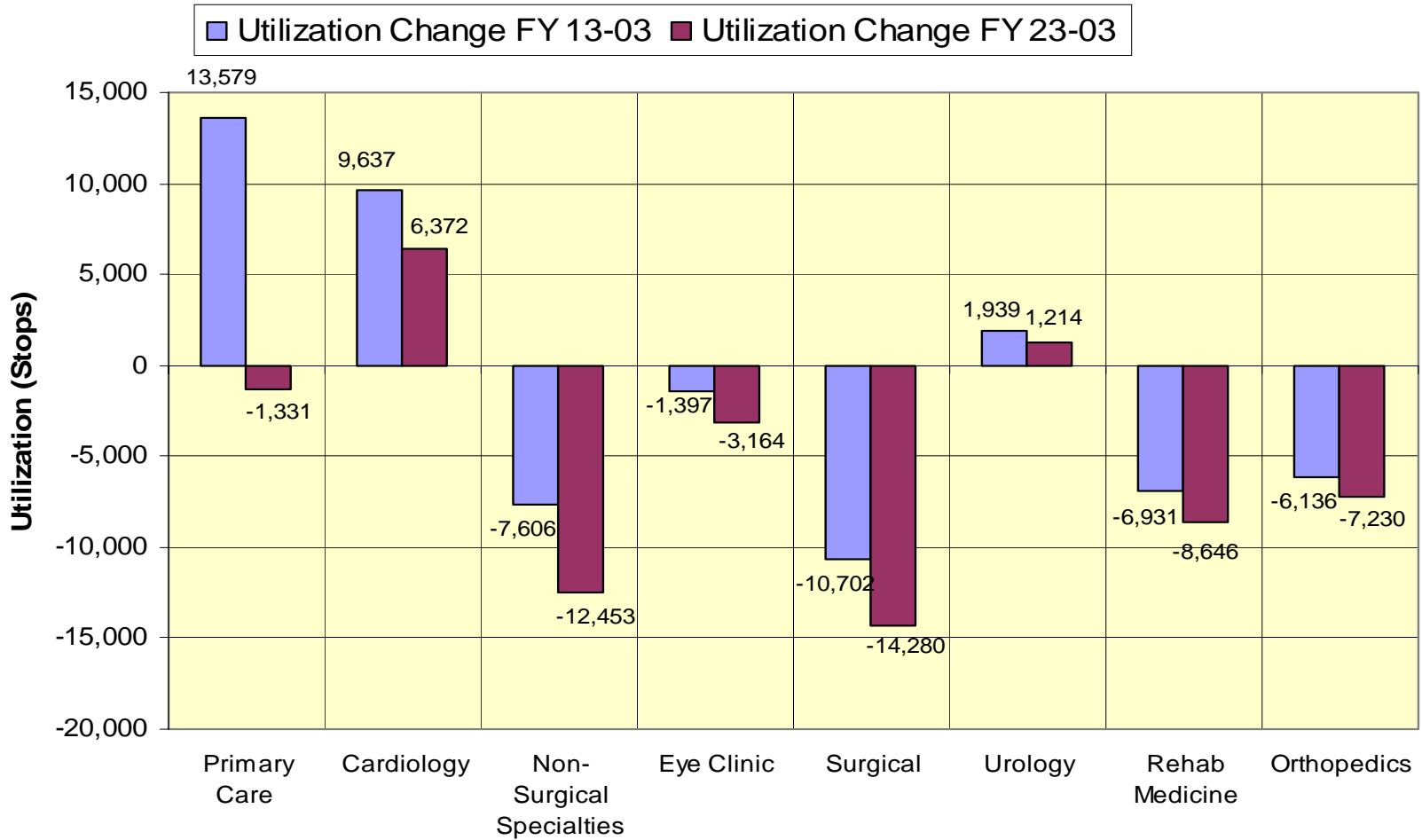


## VA NY Harbor HCS: Brooklyn Campus Outpatient Utilization by CARES Implementation Categories

	Baseline Total 2003	Proj Utilization 2013	Proj Utilization 2023	Utiliz Change 13-03	% Change 13-03	Utiliz Change 23-03	% Change 23-03
<b>Ambulatory:</b>							
Primary Care	61,314	74,893	59,983	13,579	22%	-1,331	-2%
Cardiology	11,114	20,751	17,486	9,637	87%	6,372	57%
Non-Surgical Specialties	40,650	33,044	28,197	-7,606	-19%	-12,453	-31%
Eye Clinic	15,810	14,413	12,646	-1,397	-9%	-3,164	-20%
Surgical	33,048	22,346	18,768	-10,702	-32%	-14,280	-43%
Urology	5,413	7,352	6,627	1,939	36%	1,214	22%
Rehab Medicine	15,680	8,749	7,034	-6,931	-44%	-8,646	-55%
Orthopedics	13,976	7,840	6,746	-6,136	-44%	-7,230	-52%
<b>*Ambulatory Total:</b>	<b>197,005</b>	<b>189,388</b>	<b>157,487</b>	<b>-7,617</b>	<b>-4%</b>	<b>-39,518</b>	<b>-20%</b>
<b>OP Mental Health Program:</b>							
	Baseline Total 2003	Proj Utilization 2013	Proj Utilization 2023	Utiliz Change 13-03	% Change 13-03	Utiliz Change 23-03	% Change 23-03
Behavioral Health	59,729	53,741	49,568	-5,988	-10%	-10,161	-17%
Community MH Residential Care							
Day Treatment							
Homeless (MHICM)							
Methadone Treatment	22,482	9,319	5,291	-13,163	-59%	-17,191	-76%
Work Therapy	2,937	2,433	1,798	-504	-17%	-1,139	-39%
<b>OP Mental Health Program Total:</b>	<b>85,148</b>	<b>65,493</b>	<b>56,657</b>	<b>-19,655</b>	<b>-23%</b>	<b>-28,491</b>	<b>-33%</b>

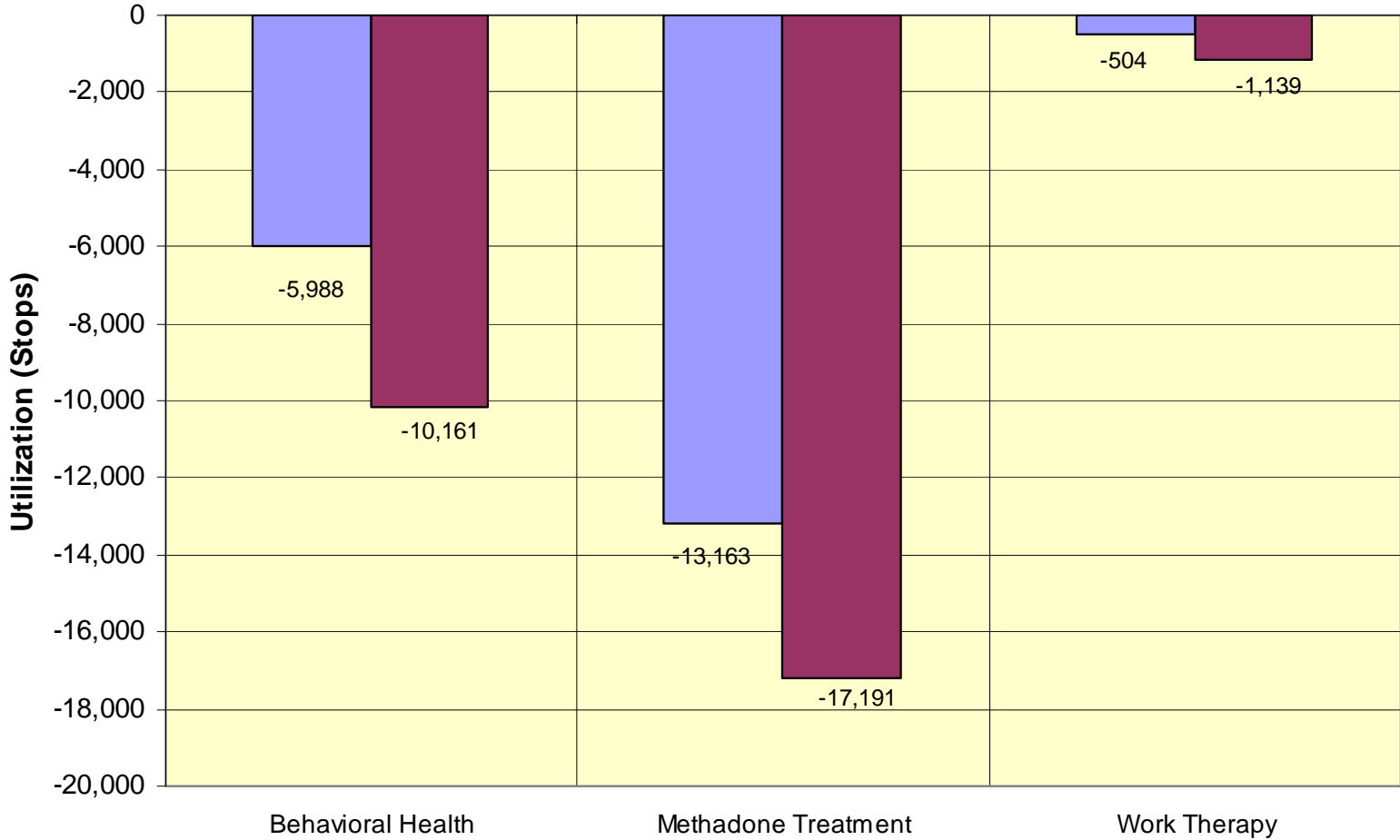
\* Denotes total for all ambulatory CARES Implementation Categories, not just categories shown above.

# Brooklyn Campus Change in Utilization (Ambulatory)



# Brooklyn Campus Change in Utilization (Outpatient Mental Health Program)

Utilization Change FY 13-03   Utilization Change FY 23-03

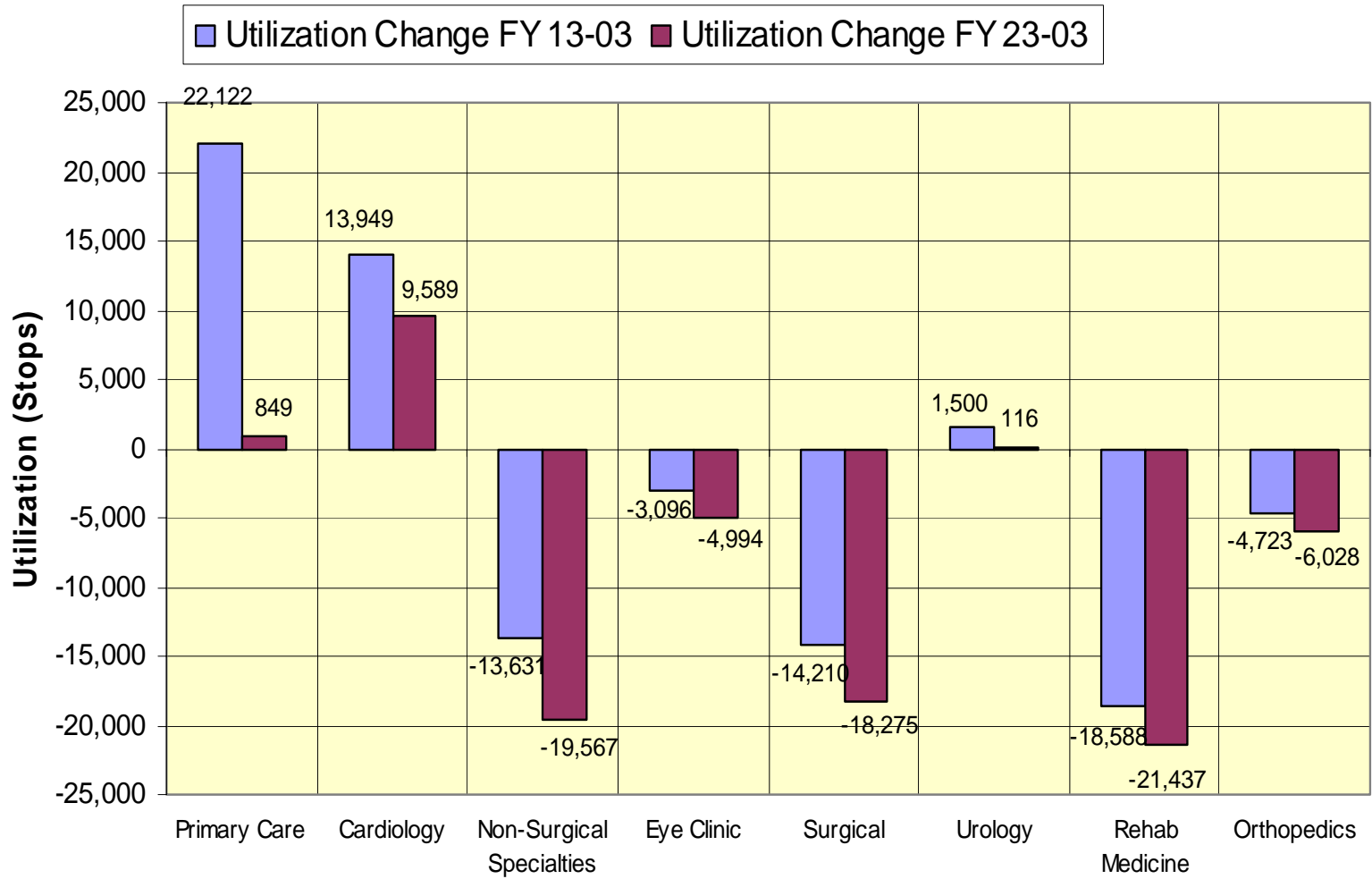


## VA NY Harbor HCS: New York Campus Outpatient Utilization by CARES Implementation Categories

<b>Ambulatory:</b>	<b>Baseline Total 2003</b>	<b>Proj Utilization 2013</b>	<b>Proj Utilization 2023</b>	<b>Utiliz Change 13-03</b>	<b>% Change 13-03</b>	<b>Utiliz Change 23-03</b>	<b>% Change 23-03</b>
Primary Care	79,730	101,852	80,579	22,122	28%	849	1%
Cardiology	11,396	25,345	20,985	13,949	122%	9,589	84%
Non-Surgical Specialties	50,422	36,791	30,855	-13,631	-27%	-19,567	-39%
Eye Clinic	16,509	13,413	11,515	-3,096	-19%	-4,994	-30%
Surgical	37,756	23,546	19,481	-14,210	-38%	-18,275	-48%
Urology	9,833	11,333	9,949	1,500	15%	116	1%
Rehab Medicine	32,041	13,453	10,604	-18,588	-58%	-21,437	-67%
Orthopedics	13,106	8,383	7,078	-4,723	-36%	-6,028	-46%
<b>*Ambulatory Total:</b>	<b>250,793</b>	<b>234,116</b>	<b>191,046</b>	<b>-16,677</b>	<b>-7%</b>	<b>-59,747</b>	<b>-24%</b>
<b>OP Mental Health Program:</b>	<b>Baseline Total 2003</b>	<b>Proj Utilization 2013</b>	<b>Proj Utilization 2023</b>	<b>Utiliz Change 13-03</b>	<b>% Change 13-03</b>	<b>Utiliz Change 23-03</b>	<b>% Change 23-03</b>
Behavioral Health	38,543	40,724	37,355	2,181	6%	-1,188	-3%
Community MH Residential Care				0		0	
Day Treatment				0		0	
Homeless (MHICM)	706	1,398	1,063	692	98%	357	51%
Methadone Treatment	41	47	29	6	15%	-12	-29%
Work Therapy	2,493	3,392	2,453	899	36%	-40	-2%
<b>OP Mental Health Program Total:</b>	<b>41,783</b>	<b>45,561</b>	<b>40,900</b>	<b>3,778</b>	<b>9%</b>	<b>-883</b>	<b>-2%</b>

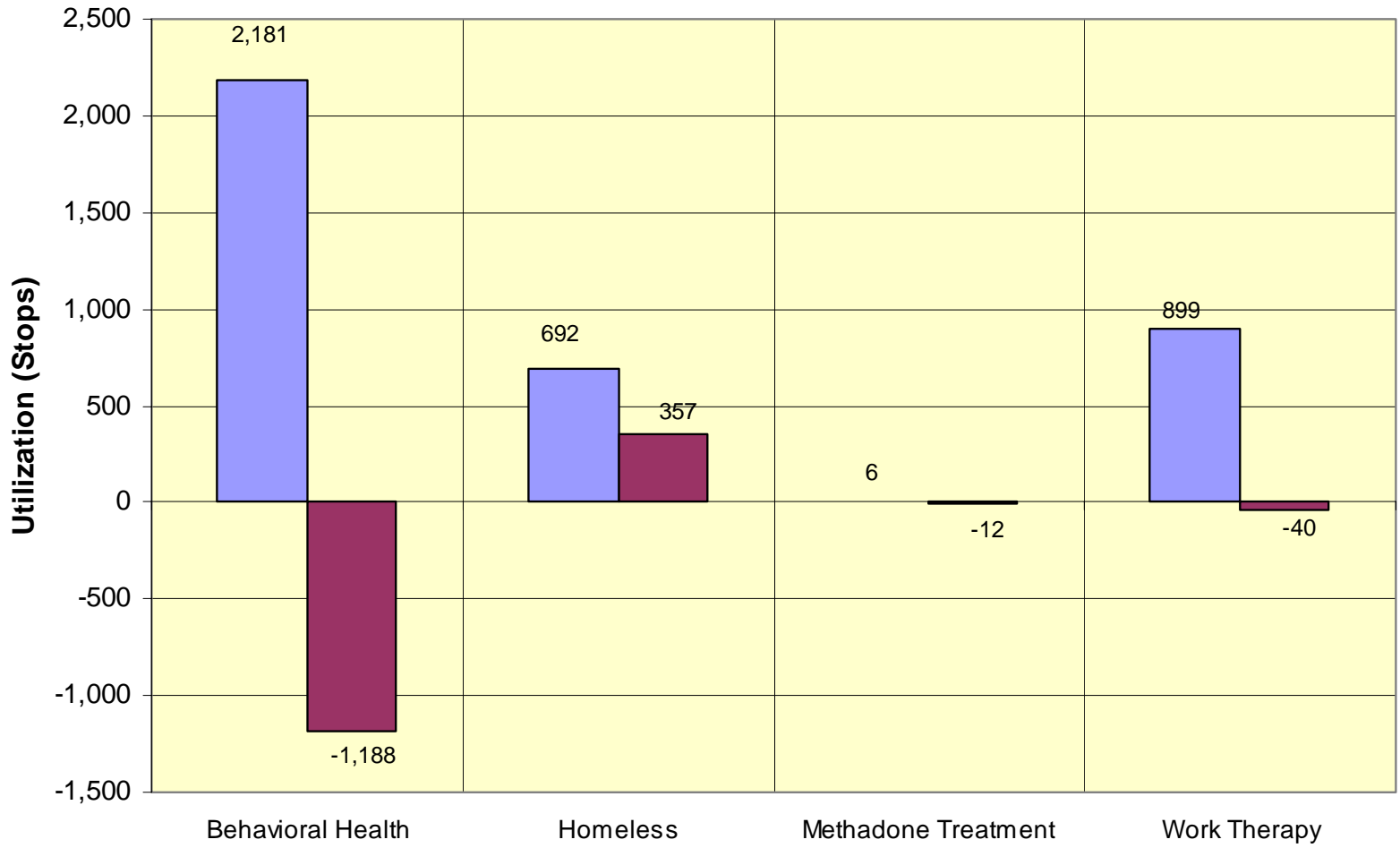
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# New York Campus Change in Utilization (Ambulatory)



# New York Campus Change in Utilization (Outpatient Mental Health Program)

Utilization Change FY 13-03   Utilization Change FY 23-03



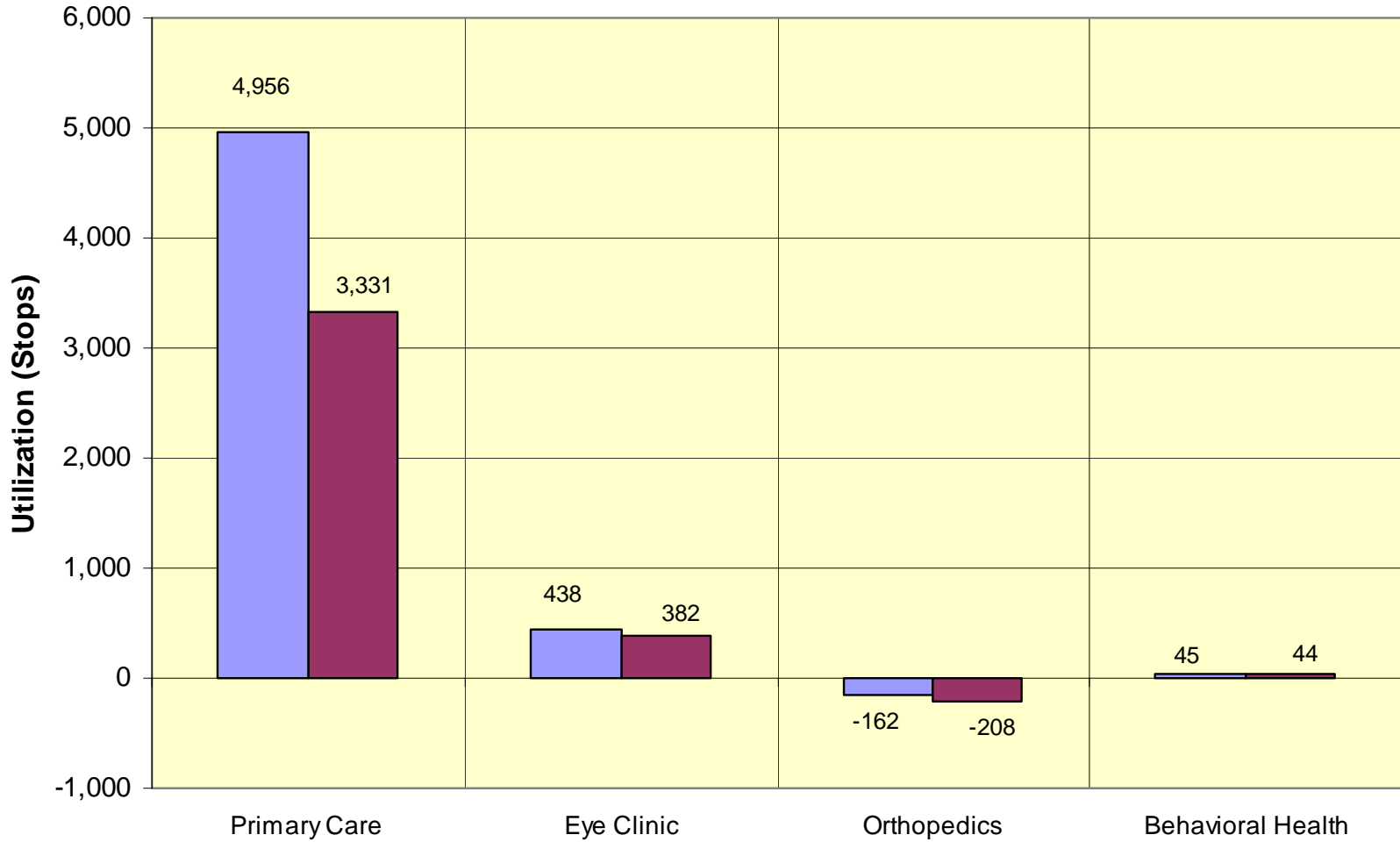
## VA NY Harbor HCS Staten Island CBOC Utilization by CARES Implementation Categories

	Baseline Total 2003	Proj Utilization 2013	Proj Utilization 2023	Utiliz Change 13- 03	% Change 13-03	Utiliz Change 23- 03	% Change 23-03
<b>Ambulatory:</b>							
Primary Care	7,872	12,828	11,203	4,956	63%	3,331	42%
Cardiology							
Non-Surgical Specialties							
Eye Clinic	789	1,227	1,171	438	56%	382	48%
Surgical							
Urology							
Rehab Medicine							
Orthopedics	834	672	626	-162	-19%	-208	-25%
<b>* Ambulatory Total:</b>	9,495	14,727	13,000	5,232	55%	3,505	37%
<b>OP Mental Health Program:</b>							
Behavioral Health	64	109	108	45	70%	44	69%
Community MH Residential Care							
Day Treatment							
Homeless (MHICM)							
Methadone Treatment							
Work Therapy							
<b>OP Mental Health Program Total:</b>	64	109	108	45	70%	44	69%

\* Denotes total for all ambulatory CARES Implementation Categories, not just categories shown above.

# Staten Island CBOC Change in Utilization (Ambulatory and Outpatient Mental Health)

Utilization Change FY 13-03   Utilization Change FY 23-03





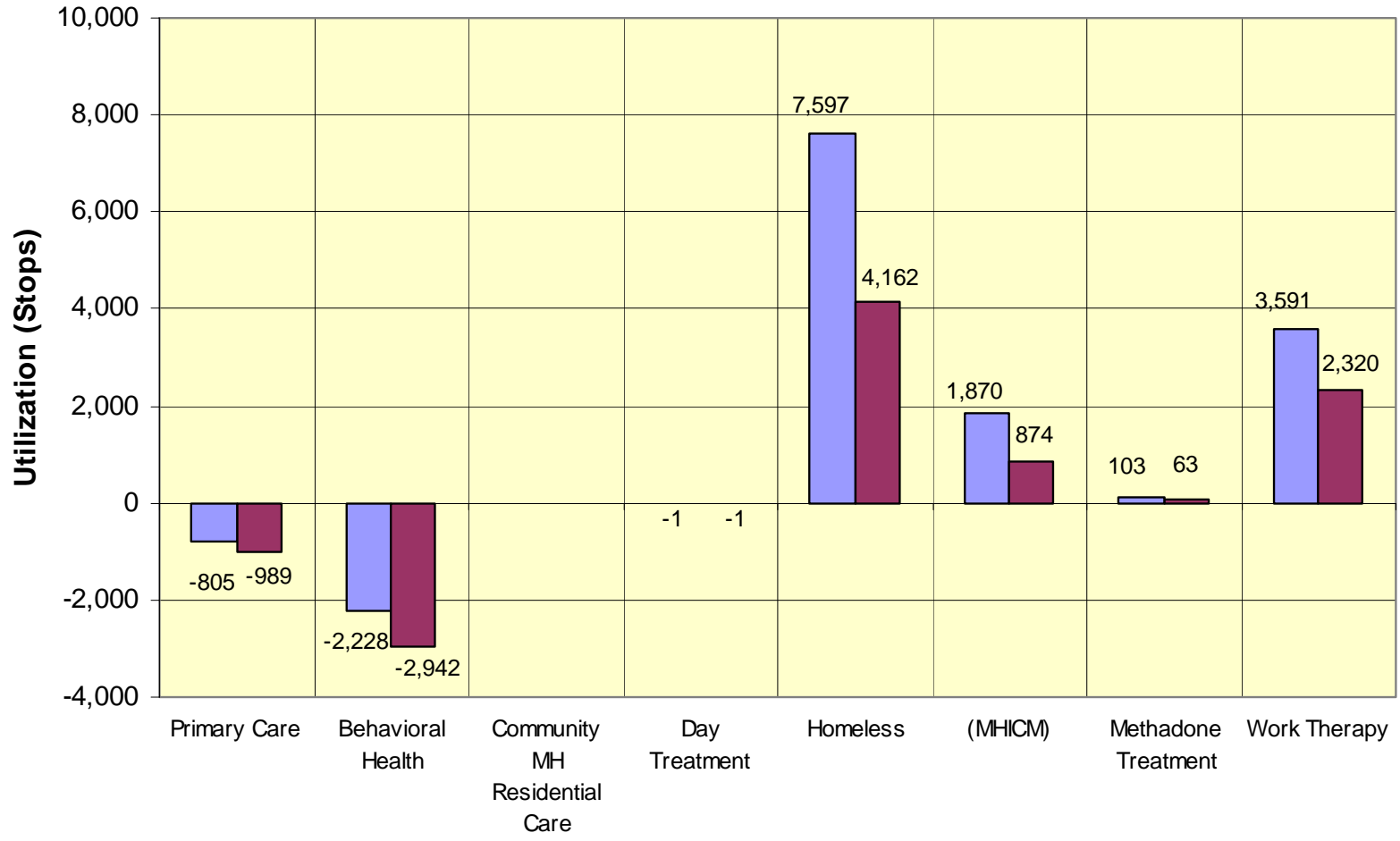
## VA NY Harbor HCS Chapel Street CBOC Utilization by CARES Implementation Categories

<b>Ambulatory:</b>	<b>Baseline Total 2003</b>	<b>Proj Utilization 2013</b>	<b>Proj Utilization 2023</b>	<b>Utiliz Change 13-03</b>	<b>% Change 13-03</b>	<b>Utiliz Change 23-03</b>	<b>% Change 23-03</b>
Primary Care	1,688	883	699	-805	-48%	-989	-59%
Cardiology							
Non-Surgical Specialties							
Eye Clinic							
Surgical							
Urology							
Rehab Medicine							
Orthopedics							
<b>* Ambulatory Total:</b>	<b>1,688</b>	<b>883</b>	<b>699</b>	<b>-805</b>	<b>-48%</b>	<b>-989</b>	<b>-59%</b>
<b>OP Mental Health Program:</b>	<b>Baseline Total 2003</b>	<b>Proj Utilization 2013</b>	<b>Proj Utilization 2023</b>	<b>Utiliz Change 13-03</b>	<b>% Change 13-03</b>	<b>Utiliz Change 23-03</b>	<b>% Change 23-03</b>
Behavioral Health	9,575	7,347	6,633	-2,228	-23%	-2,942	-31%
Community MH Residential Care							
Day Treatment	1			-1	-100%	-1	-100%
Homeless	9,206	16,803	13,368	7,597	83%	4,162	45%
(MHICM)	1,456	3,326	2,330	1,870	128%	874	60%
Methadone Treatment		103	63	103		63	
Work Therapy	1,373	4,964	3,693	3,591	262%	2,320	169%
<b>OP Mental Health Program Total:</b>	<b>21,611</b>	<b>32,543</b>	<b>26,087</b>	<b>10,932</b>	<b>51%</b>	<b>4,476</b>	<b>21%</b>

\* Denotes total for all ambulatory CARES Implementation Categories, not just categories shown above.

## Chapel Street CBOC Change in Utilization (Ambulatory and Mental Health)

■ Utilization Change FY 13-03   
 ■ Utilization Change FY 23-03

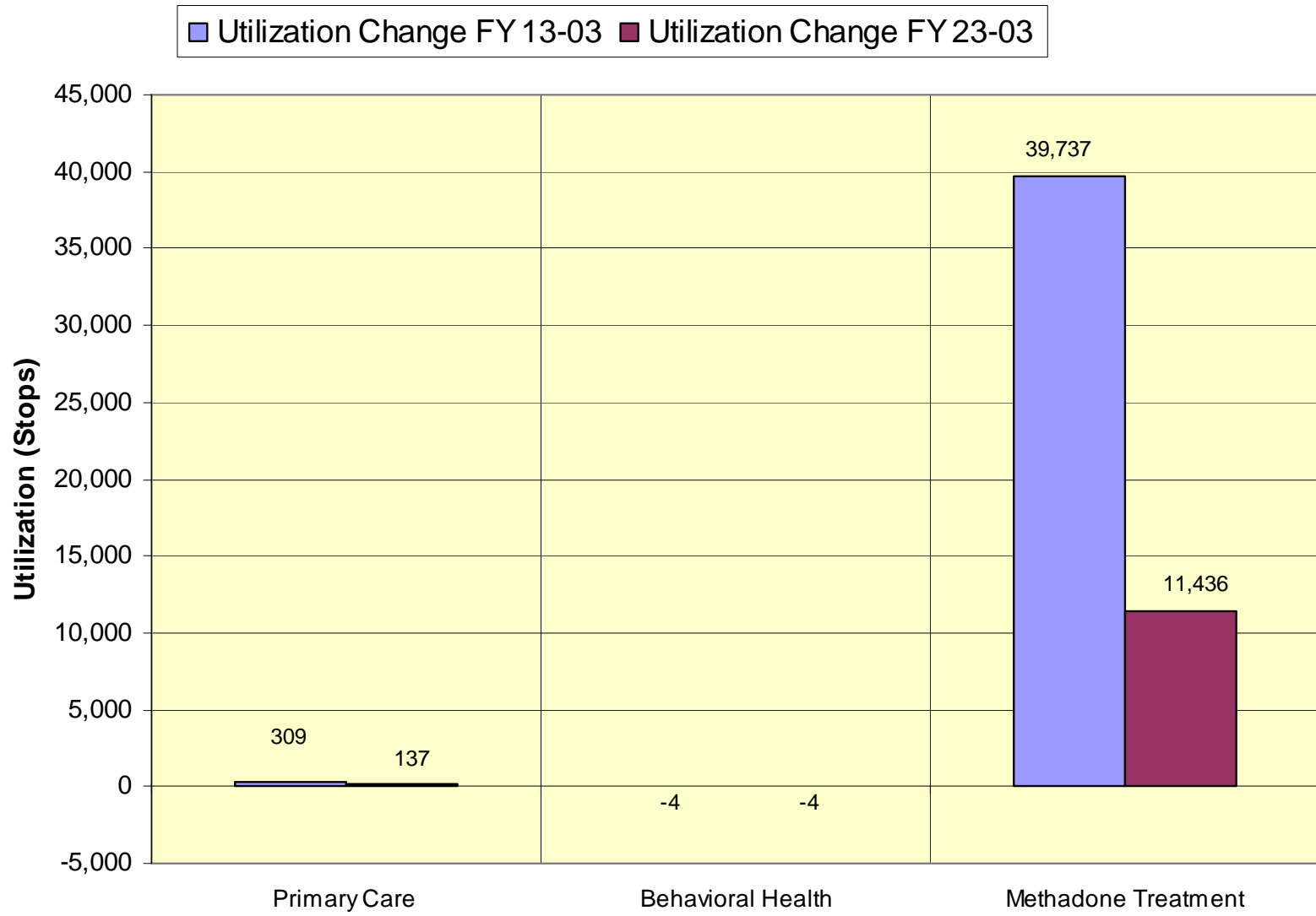


## VA NY Harbor HCS: 16th Street CBOC Utilization by CARES Implementation Categories

<b>Ambulatory:</b>	<b>Baseline Total 2003</b>	<b>Proj Utilization 2013</b>	<b>Proj Utilization 2023</b>	<b>Utiliz Change 13- 03</b>	<b>% Change 13-03</b>	<b>Utiliz Change 23- 03</b>	<b>% Change 23-03</b>
Primary Care	519	828	656	309	60%	137	26%
<b>OP Mental Health Program:</b>							
	<b>Baseline Total 2003</b>	<b>Proj Utilization 2013</b>	<b>Proj Utilization 2023</b>	<b>Utiliz Change 13- 03</b>	<b>% Change 13-03</b>	<b>Utiliz Change 23- 03</b>	<b>% Change 23-03</b>
Behavioral Health	4			-4	-100%	-4	-100%
Methadone Treatment	27,904	67,641	39,340	39,737	142%	11,436	41%

This CBOC houses the NY Campus Opioid Substitution Program

# 16th Street CBOC Change in Utilization (Ambulatory and Mental Health)



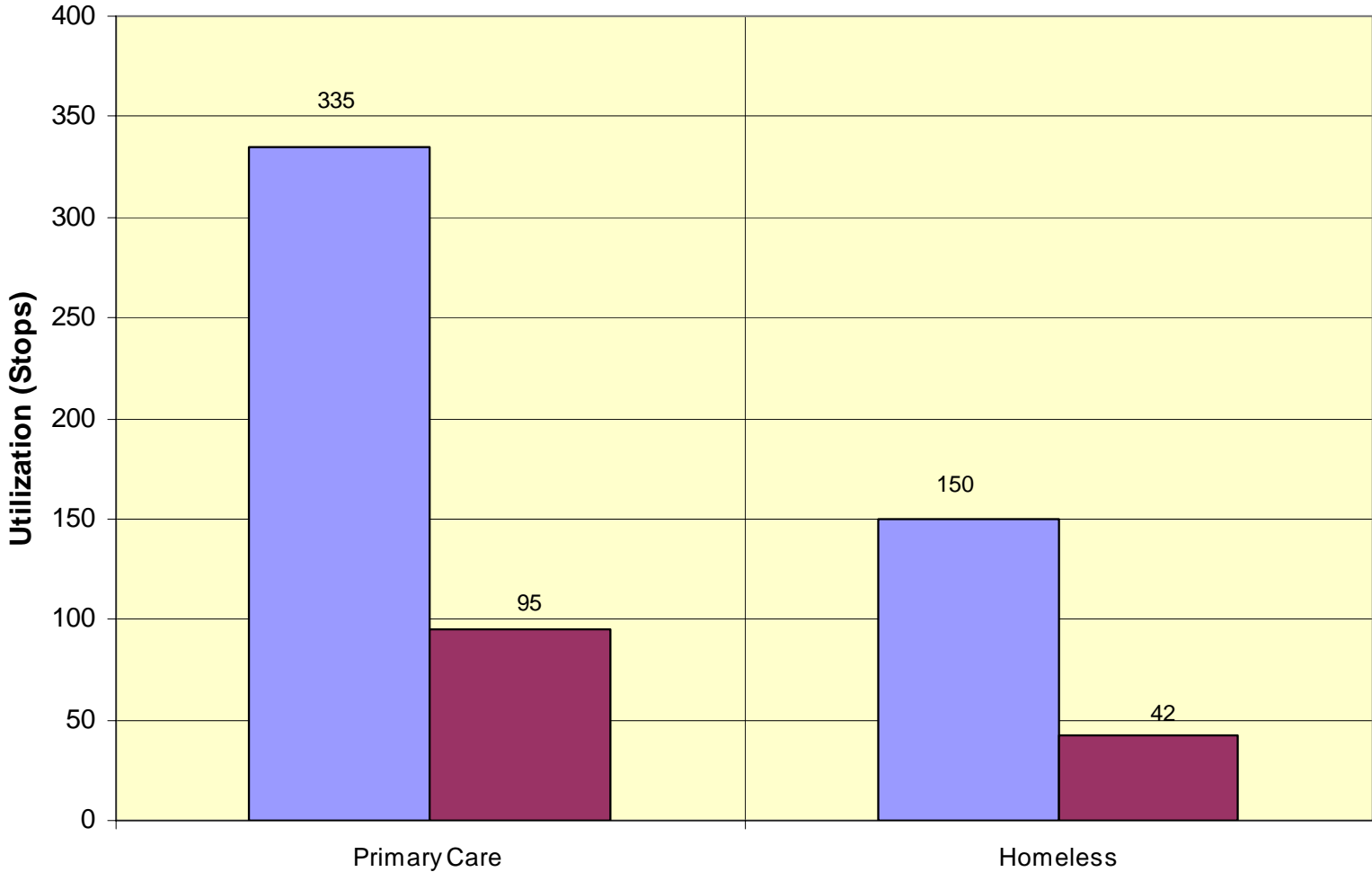
## VISN 03 Harlem CBOC Utilization by CARES Implementation Categories

	Baseline Total 2003	Proj Utilization 2013	Proj Utilization 2023	Utiliz Change 13- 03	% Change 13-03	Utiliz Change 23- 03	% Change 23-03
<b>Ambulatory:</b>							
Primary Care	745	1,080	840	335	45%	95	13%
Cardiology							
Non-Surgical Specialties							
Eye Clinic							
Surgical							
Urology							
Rehab Medicine							
Orthopedics							
<b>*Ambulatory Total:</b>	745	1,080	840	335	45%	95	13%
<b>OP Mental Health Program:</b>							
Behavioral Health							
Community MH Residential Care							
Day Treatment							
Homeless (MHICM)	347	497	389	150	43%	42	12%
Methadone Treatment							
Work Therapy							
<b>OP Mental Health Program Total:</b>	347	497	389	150	43%	42	12%

\* Denotes total for all ambulatory CARES Implementation Categories, not just categories shown above.

# Harlem CBOC Change in Utilization (Ambulatory and Mental Health)

Utilization Change FY 13-03   Utilization Change FY 23-03

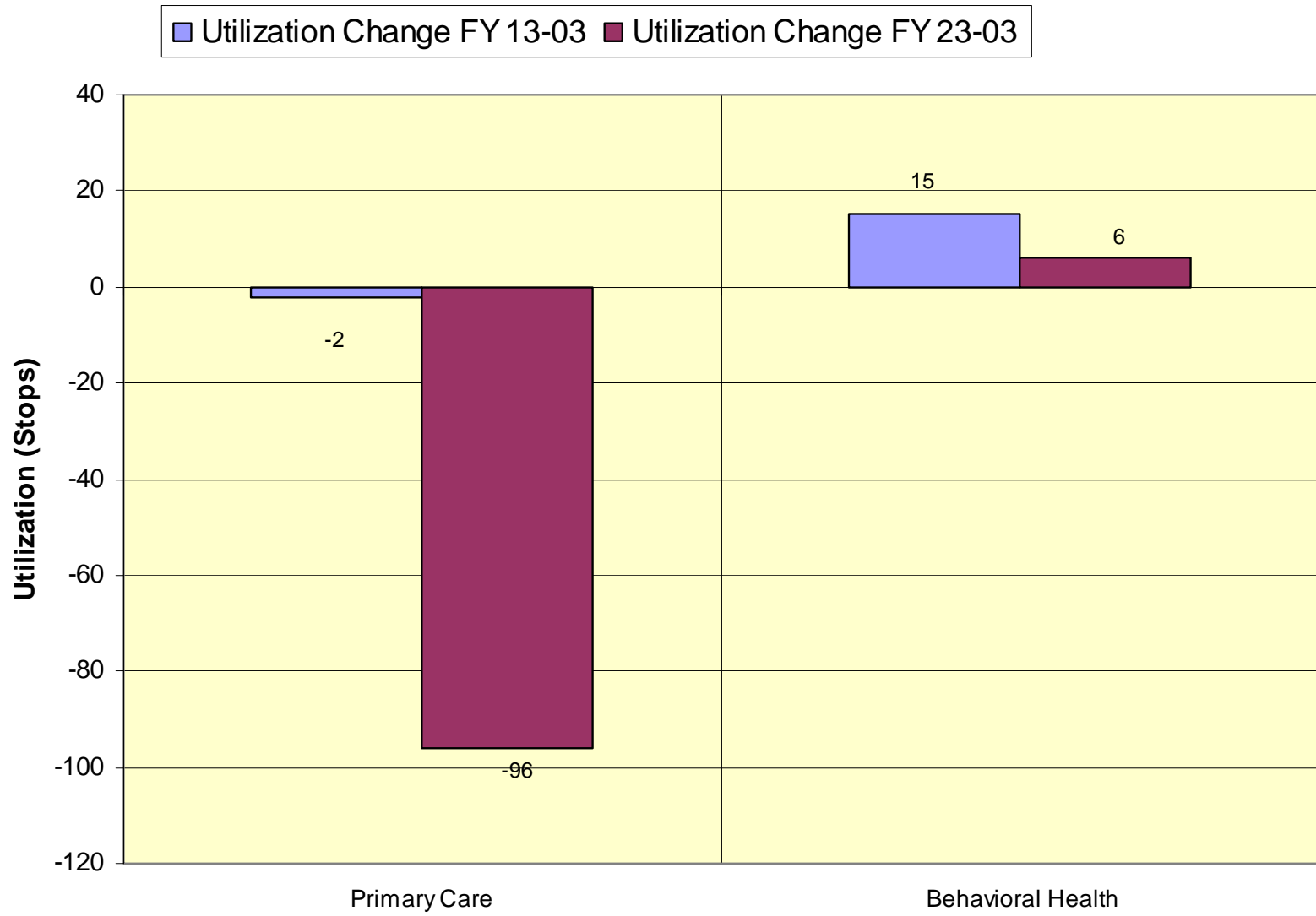


## VISN 03 SoHo CBOC Utilization by CARES Implementation Categories

	Baseline Total 2003	Proj Utilization 2013	Proj Utilization 2023	Utiliz Change 13- 03	% Change 13-03	Utiliz Change 23- 03	% Change 23-03
<b>Ambulatory:</b>							
Primary Care	448	446	352	-2	0%	-96	-21%
Cardiology							
Non-Surgical Specialties							
Eye Clinic							
Surgical							
Urology							
Rehab Medicine							
Orthopedics							
<b>* Ambulatory Total:</b>	448	446	352	-2	0%	-96	-21%
<b>OP Mental Health Program:</b>							
Behavioral Health	69	84	75	15	22%	6	9%
Community MH Residential Care							
Day Treatment							
Homeless (MHICM)							
Methadone Treatment							
Work Therapy							
<b>OP Mental Health Program Total:</b>	69	84	75	15	22%	6	9%

\* Denotes total for all ambulatory CARES Implementation Categories, not just categories shown above.

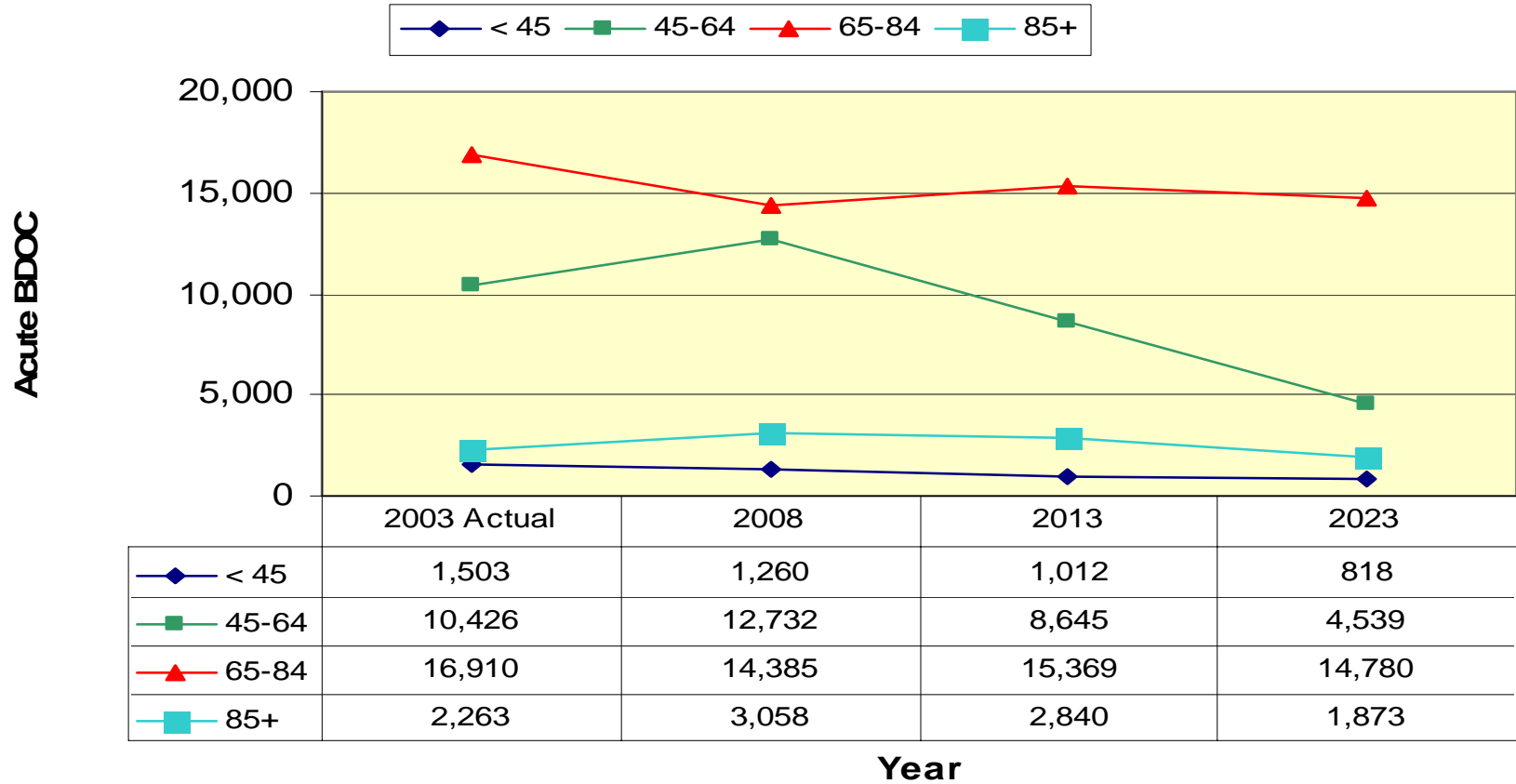
# SoHo CBOC Change in Utilization (Ambulatory and Mental Health)



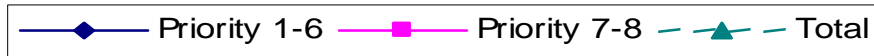


# Inpatient Utilization VA NY Harbor HCS Site Perspective

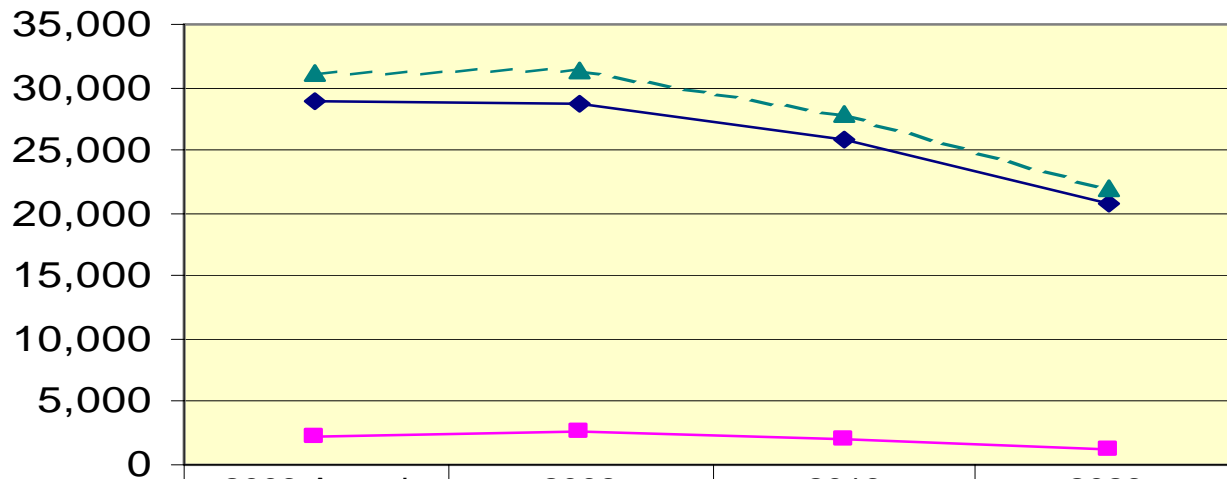
## Projected BDOC by Age Group Brooklyn Campus



## Projected BDOC by Priority Group Brooklyn Campus



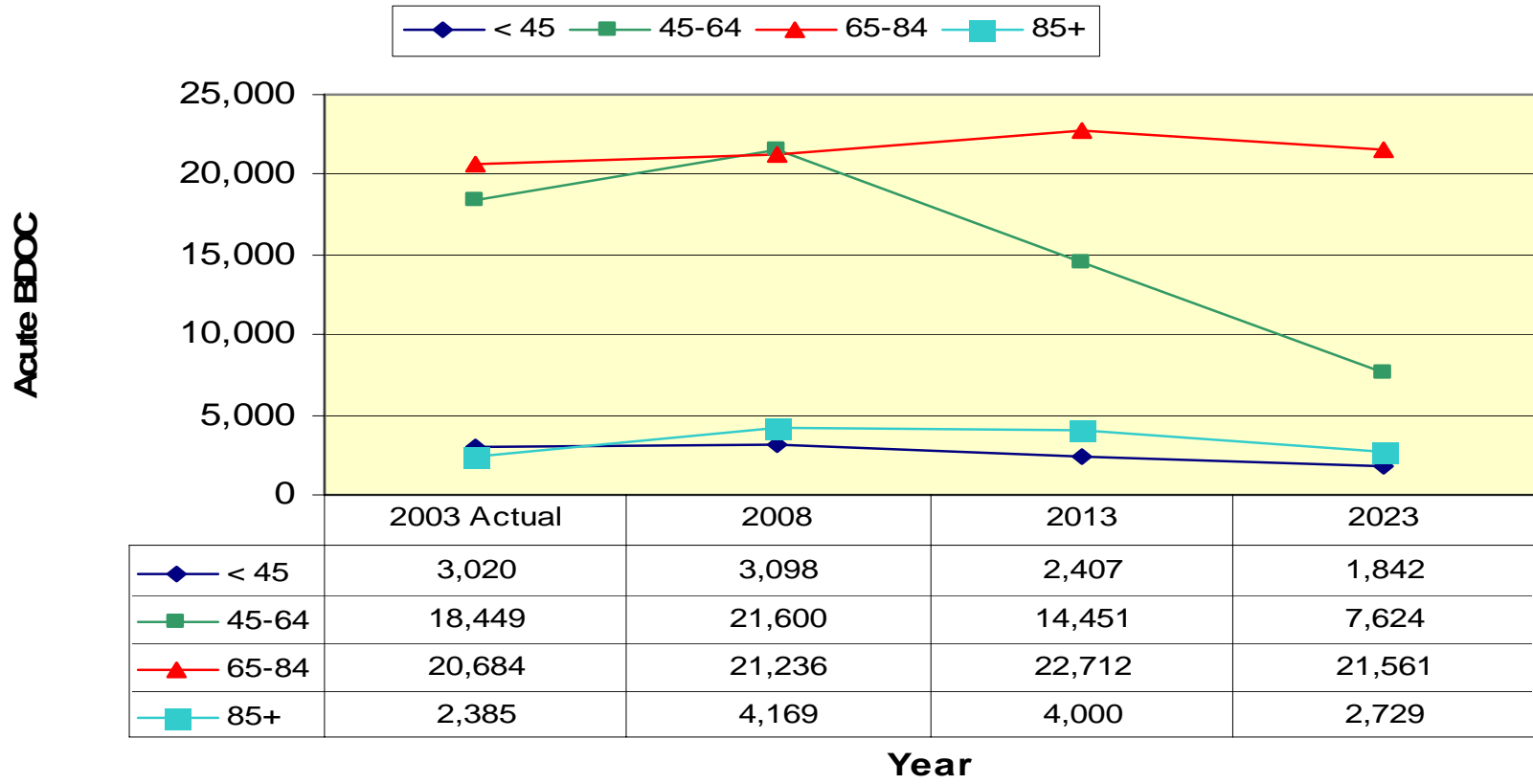
Acute BDOC



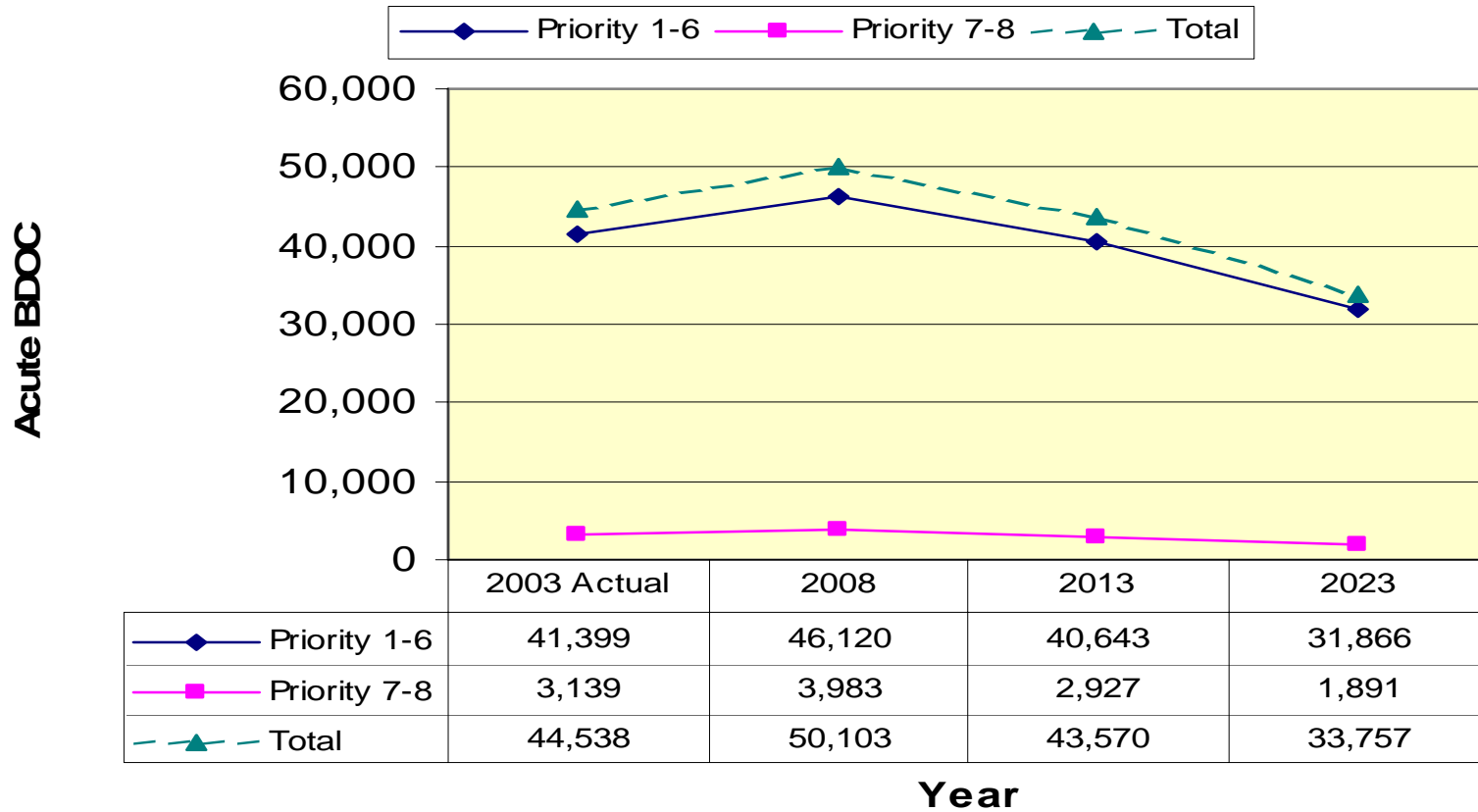
	2003 Actual	2008	2013	2023
Priority 1-6	28,933	28,713	25,914	20,767
Priority 7-8	2,169	2,724	1,953	1,241
Total	31,102	31,437	27,867	22,008

Year

## Projected BDOC by Age Group New York Campus

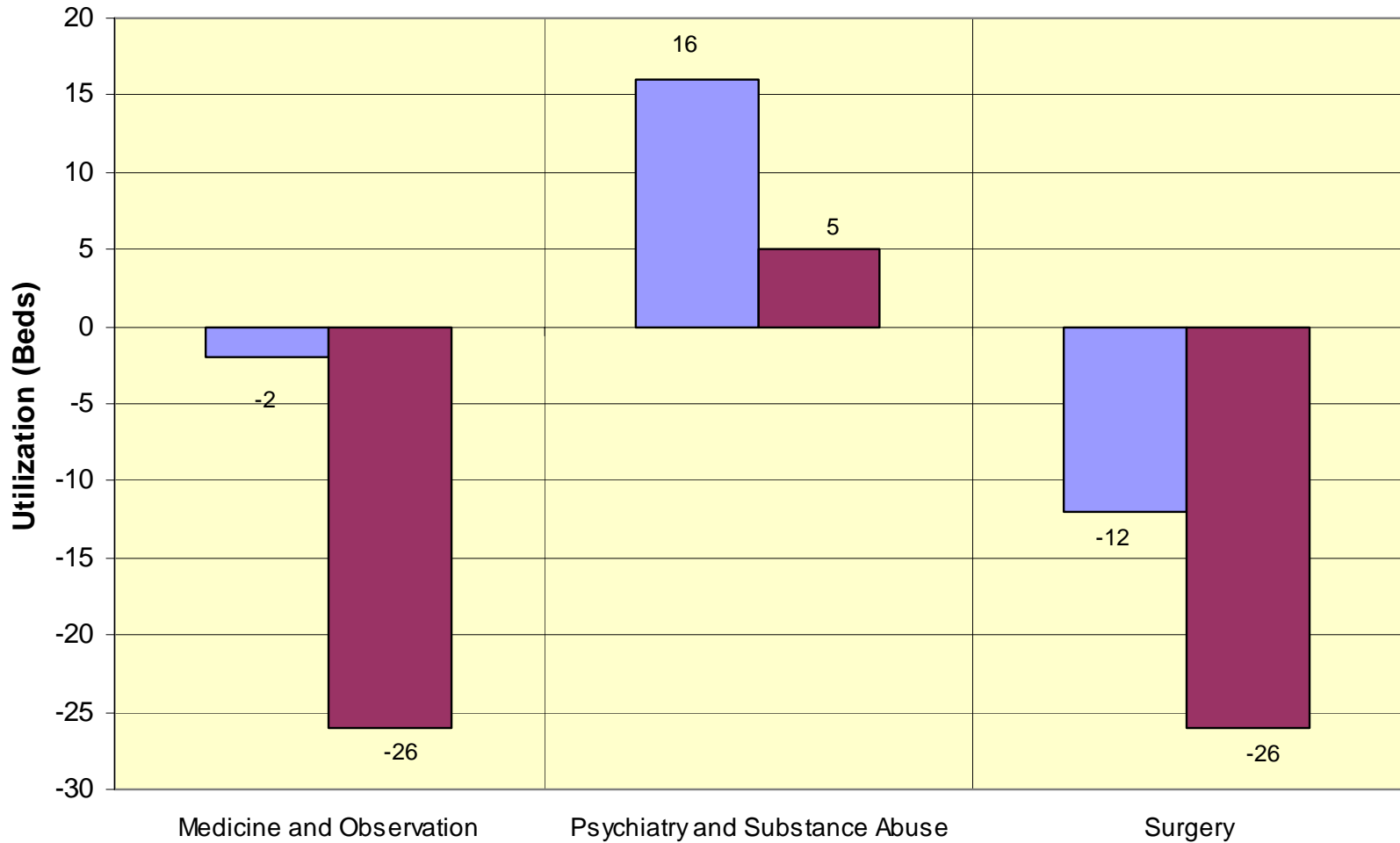


## Projected BDOC by Priority Group New York Campus

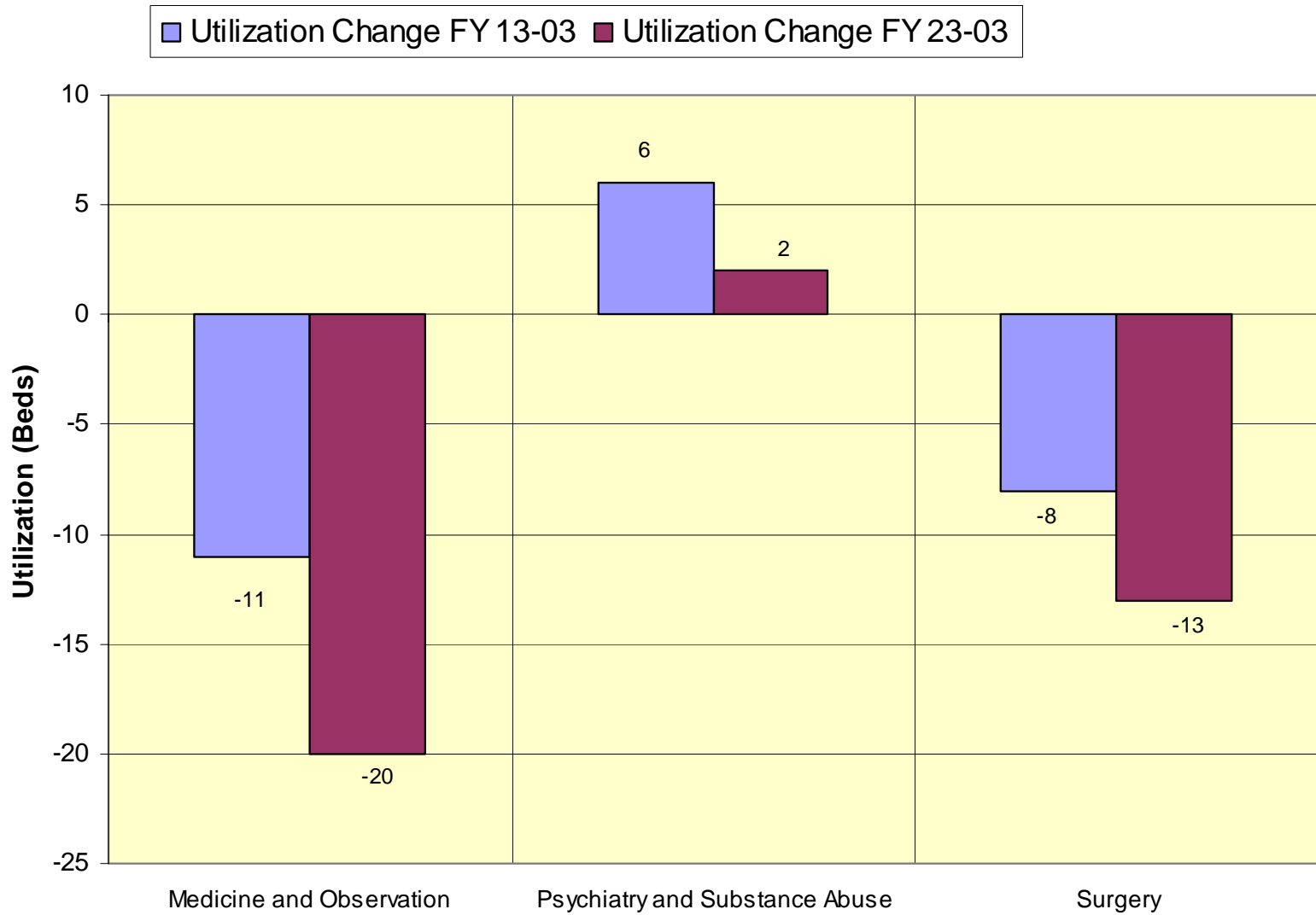


# VA NY Harbor HCS Catchment Area Acute Inpatient Utilization, Gap Beds

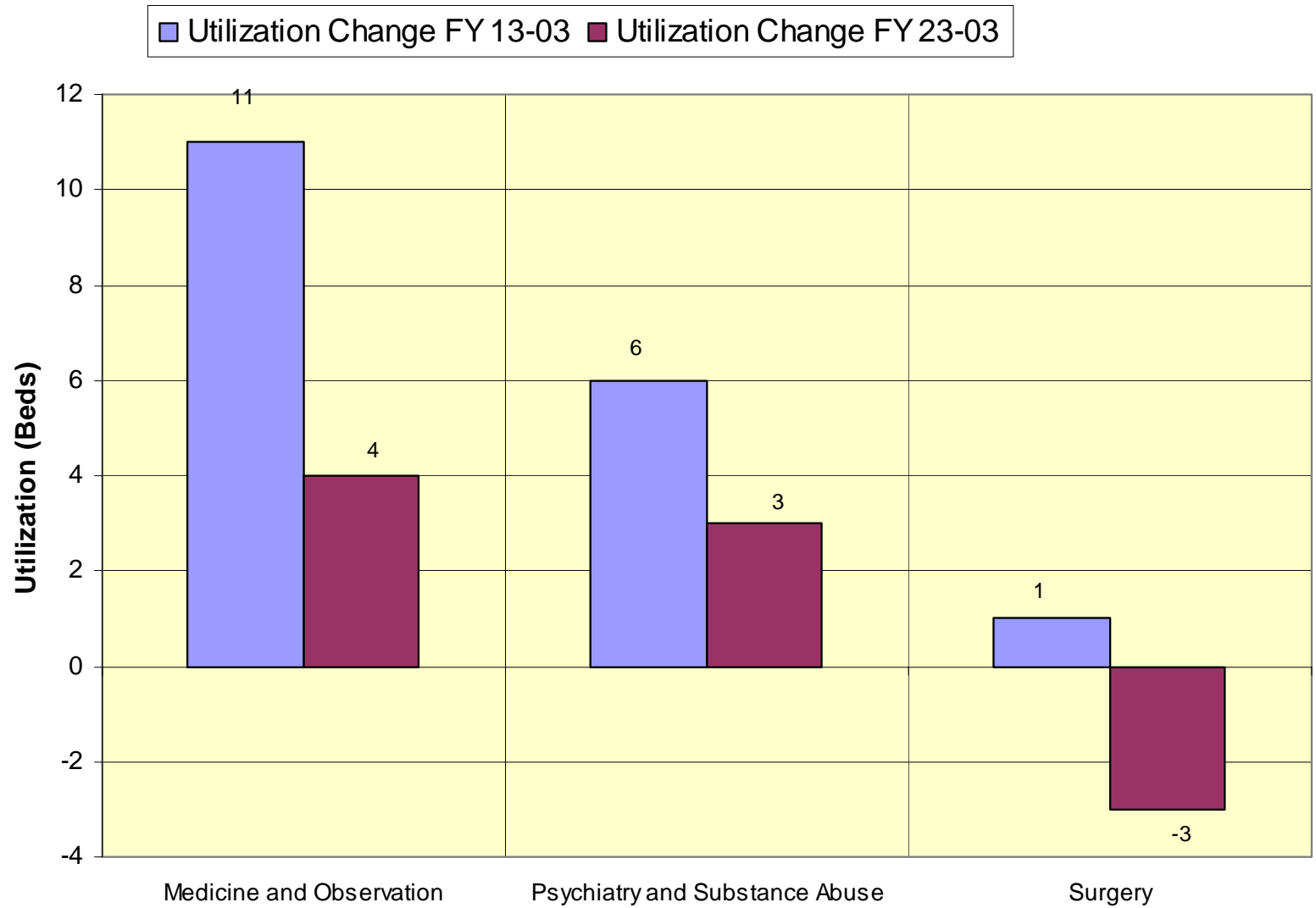
Utilization Change FY 13-03    Utilization Change FY 23-03



# Kings County Sector Acute Inpatient Utilization, Gap Beds



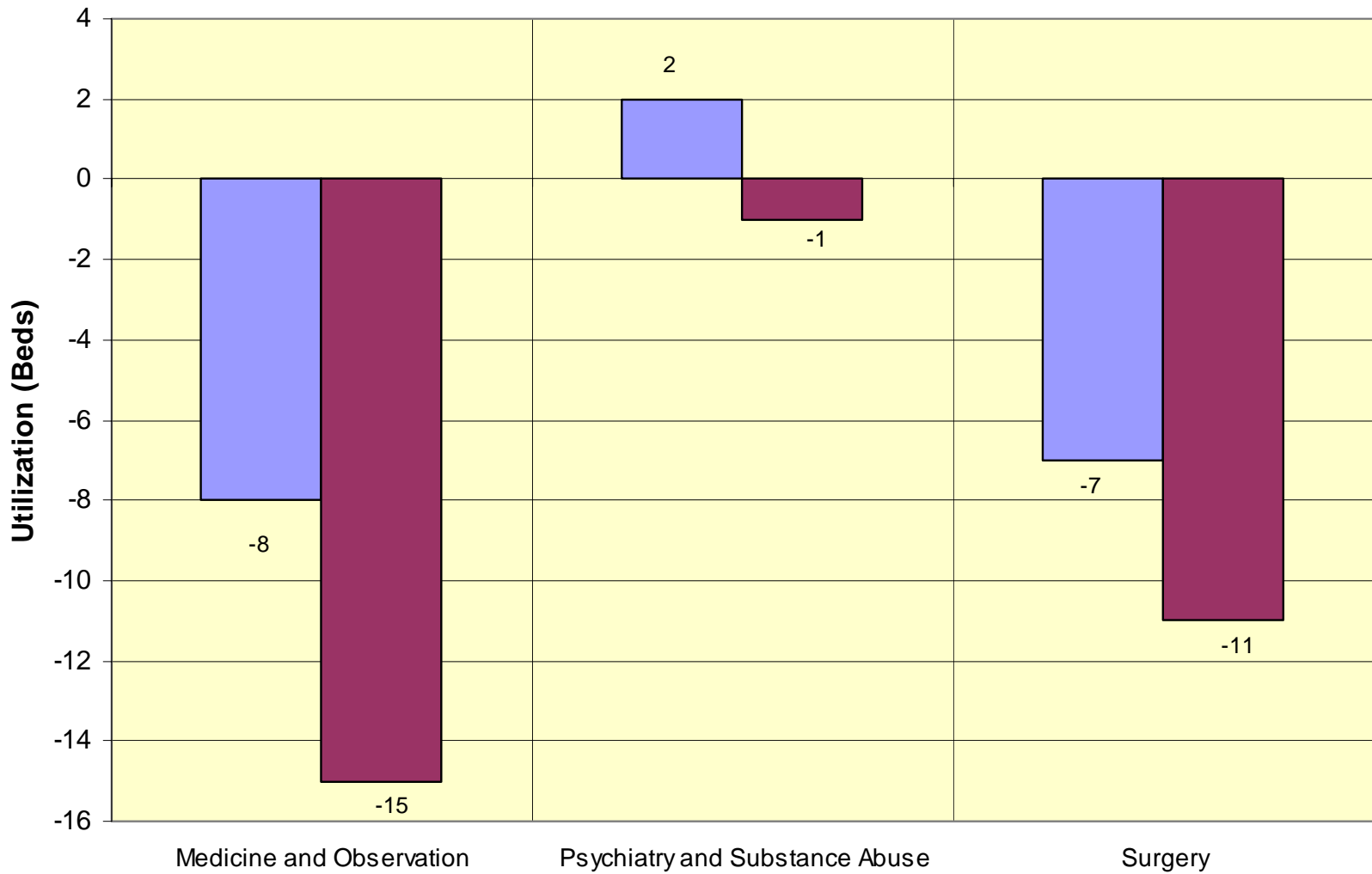
# Queens County Sector Acute Inpatient Utilization, Gap Beds



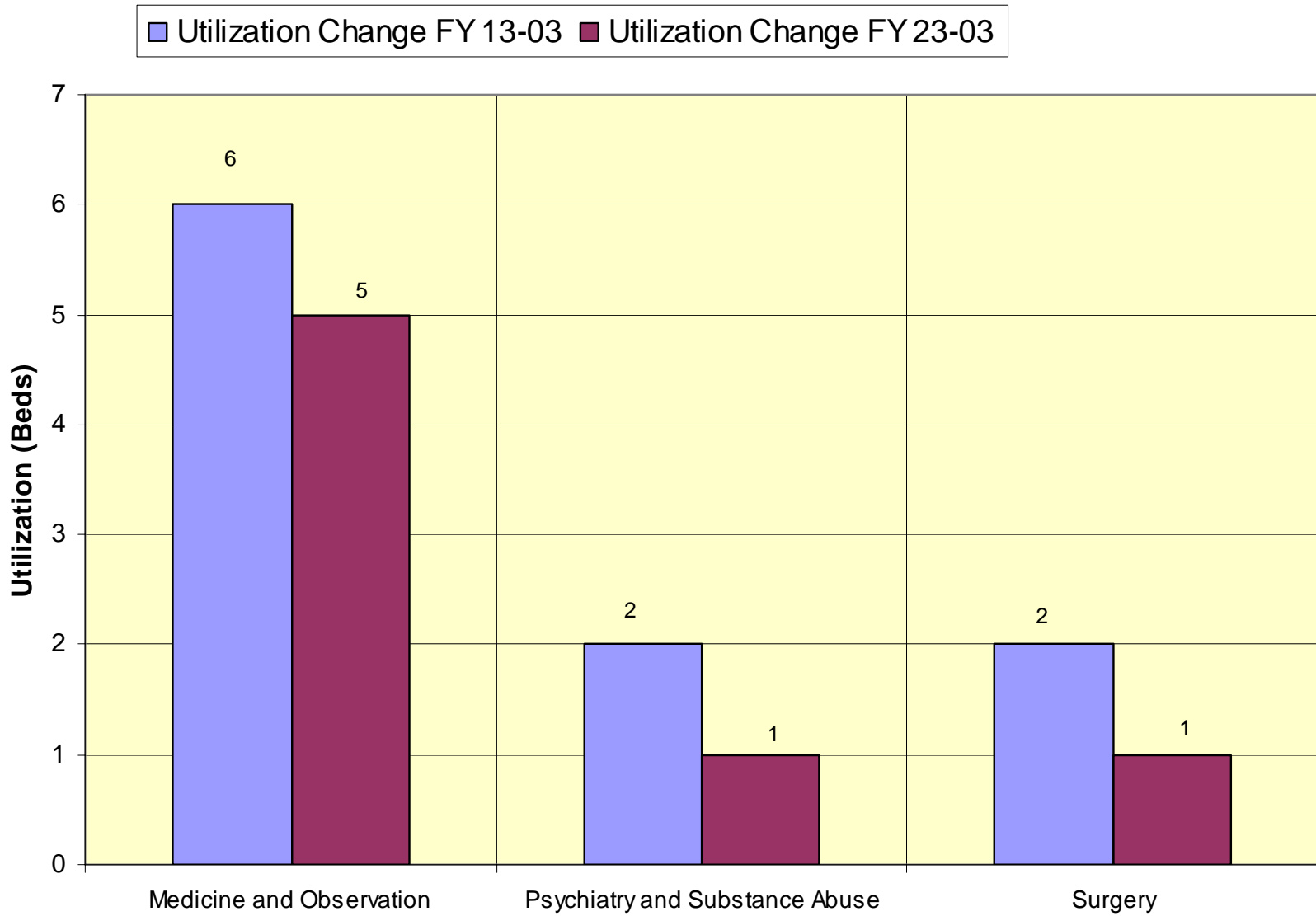


# New York County Sector Acute Inpatient Utilization, Gap Beds

Utilization Change FY 13-03    Utilization Change FY 23-03



# Richmond County Sector Acute Inpatient Utilization, Gap Beds



# Outpatient Utilization VISN Perspective

## Brooklyn Facility Workload from All Markets & VISN 3 (FY 03)

	All Markets	V03	% of Wkld from V03
Ambulatory: Primary Care & Related Specialties	70,875	67,961	95.9%
Ambulatory: Cardiology	11,114	10,743	96.7%
Ambulatory: Non-Surgical Specialties	40,650	39,202	96.4%
Ambulatory: Eye Clinic	16,599	16,096	97.0%
Ambulatory: Surgical & Related Specialties	33,048	31,743	96.1%
Ambulatory: Urology	5,413	5,243	96.9%
Ambulatory: Rehab Medicine	15,680	15,116	96.4%
Ambulatory: Orthopedics	14,810	14,378	97.1%
Ambulatory: Behavioral Health	69,368	66,521	95.9%
OP Mental Health Program: Homeless	9,206	8,429	91.6%
<b>* Ambulatory Total:</b>	<b>441,125</b>	<b>424,784</b>	<b>96.3%</b>
Inpatient Medicine and Observation	19,560	18,747	95.8%
Inpatient Psychiatry and Substance Abuse	4,036	3,649	90.4%
Inpatient Surgery	7,506	7,073	94.2%
Other: VA Mental Health Inpatient Programs	558	549	98.4%
<b>IP Total:</b>	<b>31,660</b>	<b>30,018</b>	<b>94.8%</b>

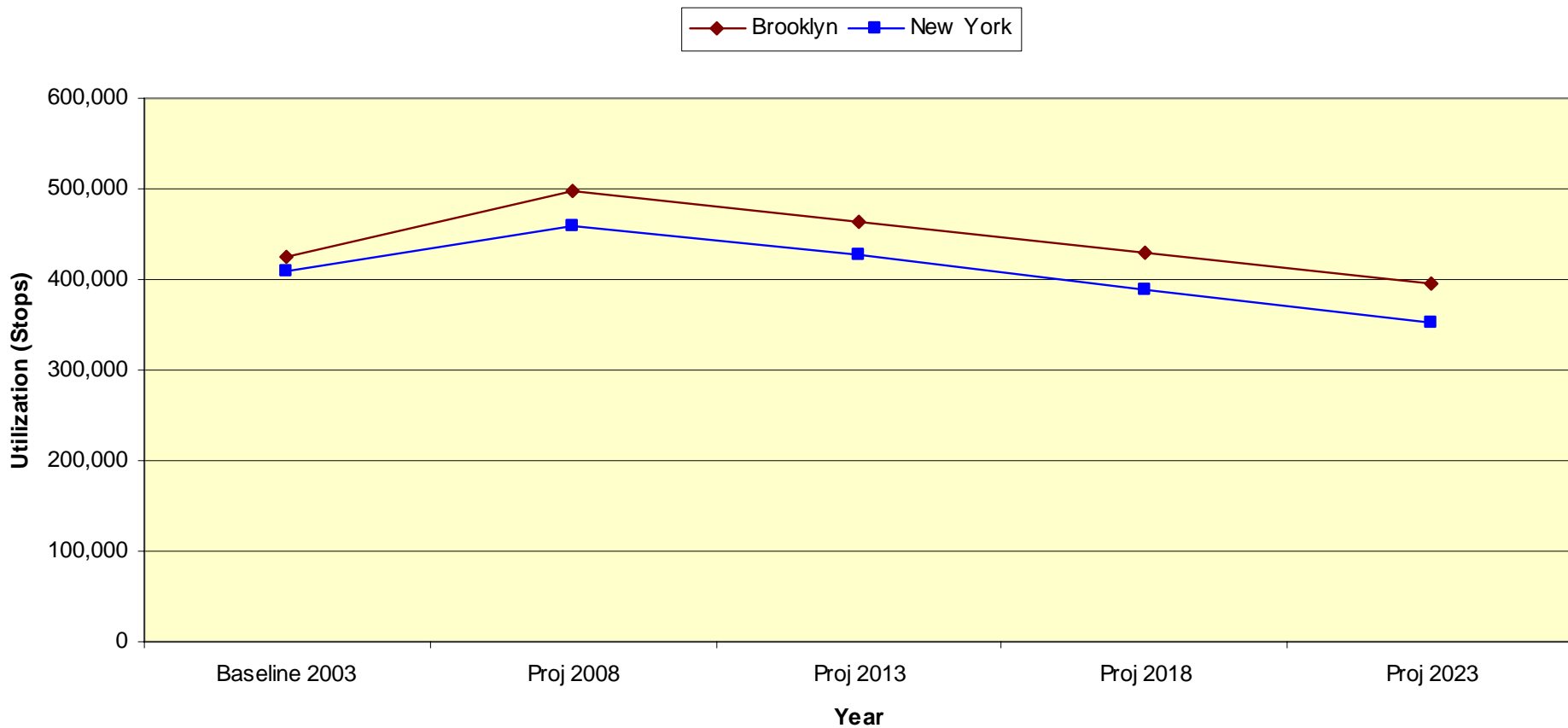
\* Denotes total outpatient workload for CARES Implementation Categories, not just categories shown above.

## New York Facility Workload from All Markets & VISN 3 (FY 03)

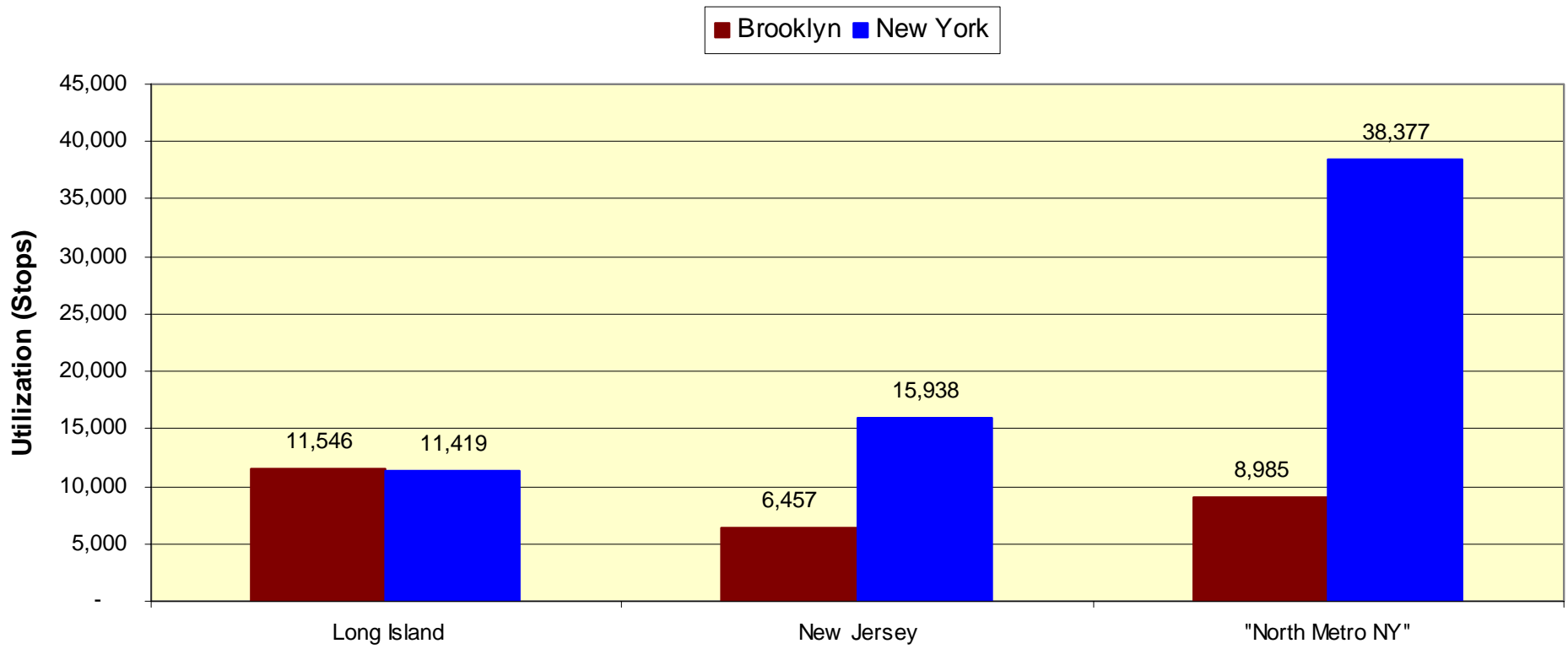
	All Markets	V03	% of Wkld from V03
Ambulatory: Primary Care & Related Specialties	81,493	77,957	95.7%
Ambulatory: Cardiology	11,396	10,750	94.3%
Ambulatory: Non-Surgical Specialties	50,422	48,629	96.4%
Ambulatory: Eye Clinic	16,509	15,998	96.9%
Ambulatory: Surgical & Related Specialties	37,756	36,527	96.7%
Ambulatory: Urology	9,833	9,532	96.9%
Ambulatory: Rehab Medicine	32,041	30,989	96.7%
Ambulatory: Orthopedics	13,106	12,684	96.8%
Ambulatory: Behavioral Health	38,616	36,968	95.7%
OP Mental Health Program: Homeless	1,053	983	93.4%
<b>* Ambulatory Total:</b>	<b>425,323</b>	<b>409,719</b>	<b>96.3%</b>
Inpatient Medicine and Observation	20,948	19,394	92.6%
Inpatient Psychiatry and Substance Abuse	8,134	6,999	86.0%
Inpatient Surgery	15,456	14,199	91.9%
Other: VA Mental Health Inpatient Programs	10,338	9,069	87.7%
<b>IP Total:</b>	<b>54,876</b>	<b>49,661</b>	<b>90.5%</b>

\* Denotes total outpatient workload for CARES Implementation Categories, not just categories shown above.

## Brooklyn and New York Projected Total Outpatient Workload from VISN 3

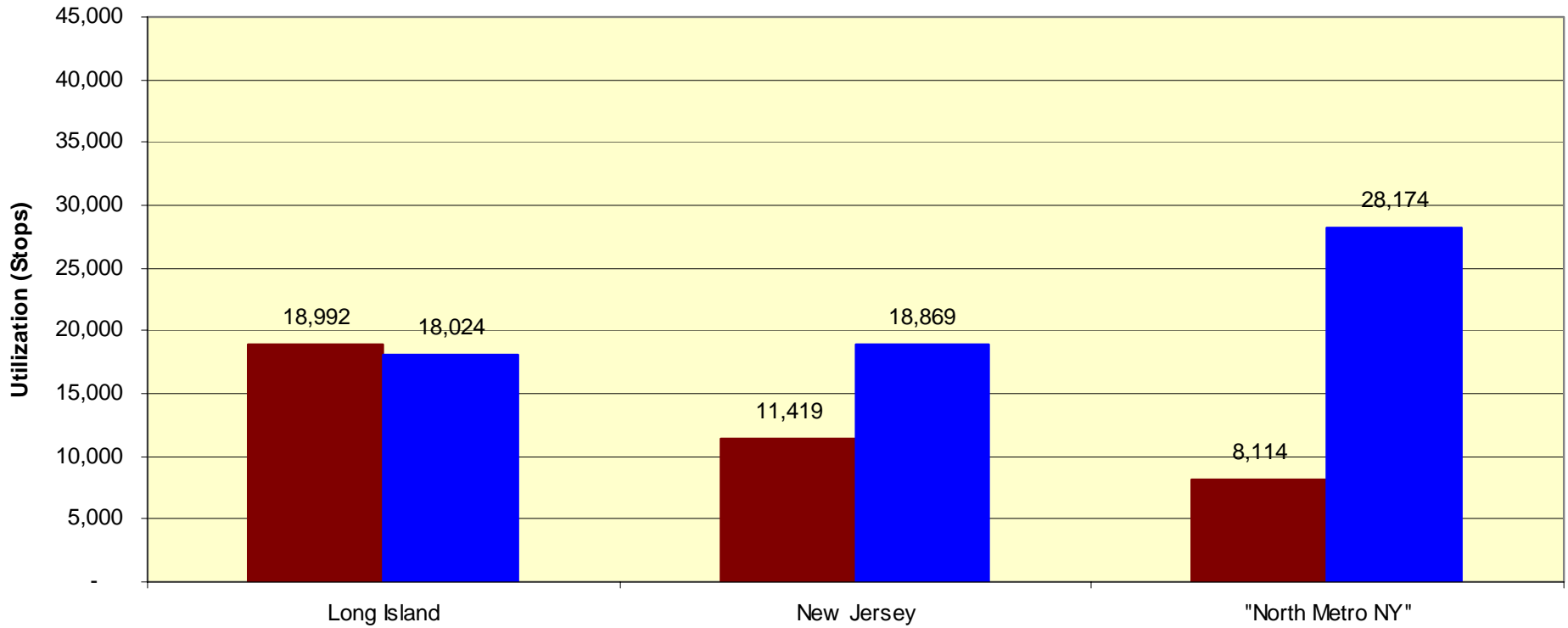


### Brooklyn and New York 2003 Actual Ambulatory Workload from VISN 3 Long Island, New Jersey and "North Metro NY" Markets



### Brooklyn and New York 2023 Projected Ambulatory Workload from VISN 3 Long Island, New Jersey and "North Metro NY" Markets

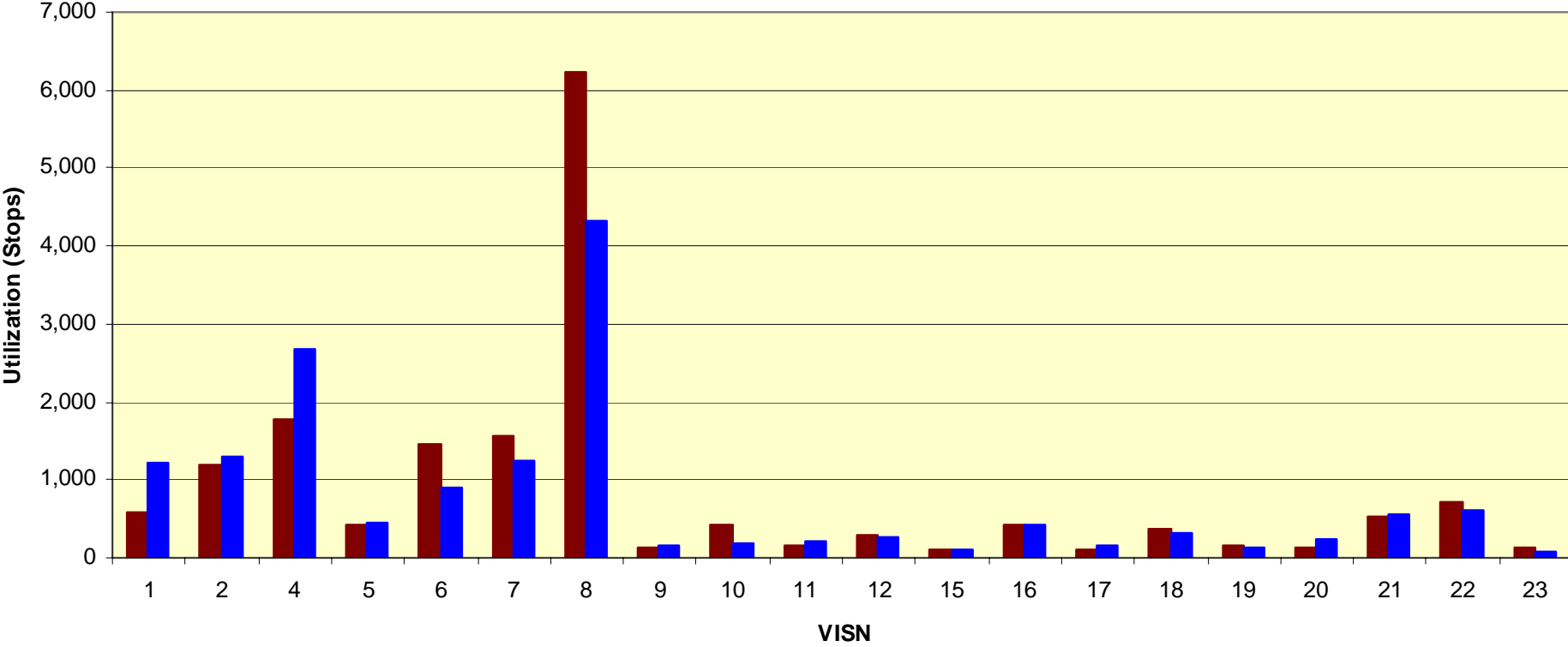
■ Brooklyn ■ New York





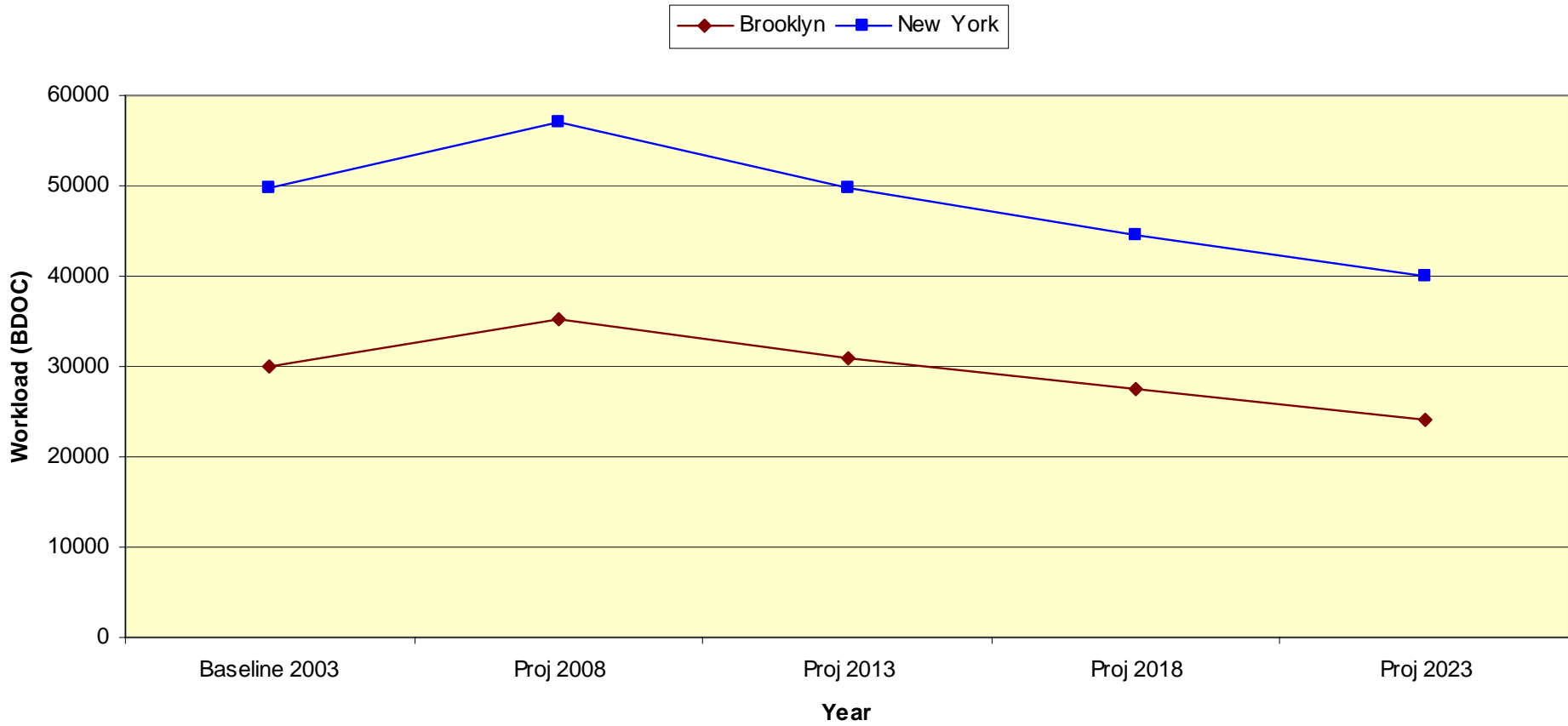
# Brooklyn and New York Ambulatory Workload from Other VISNs

■ Brooklyn ■ New York

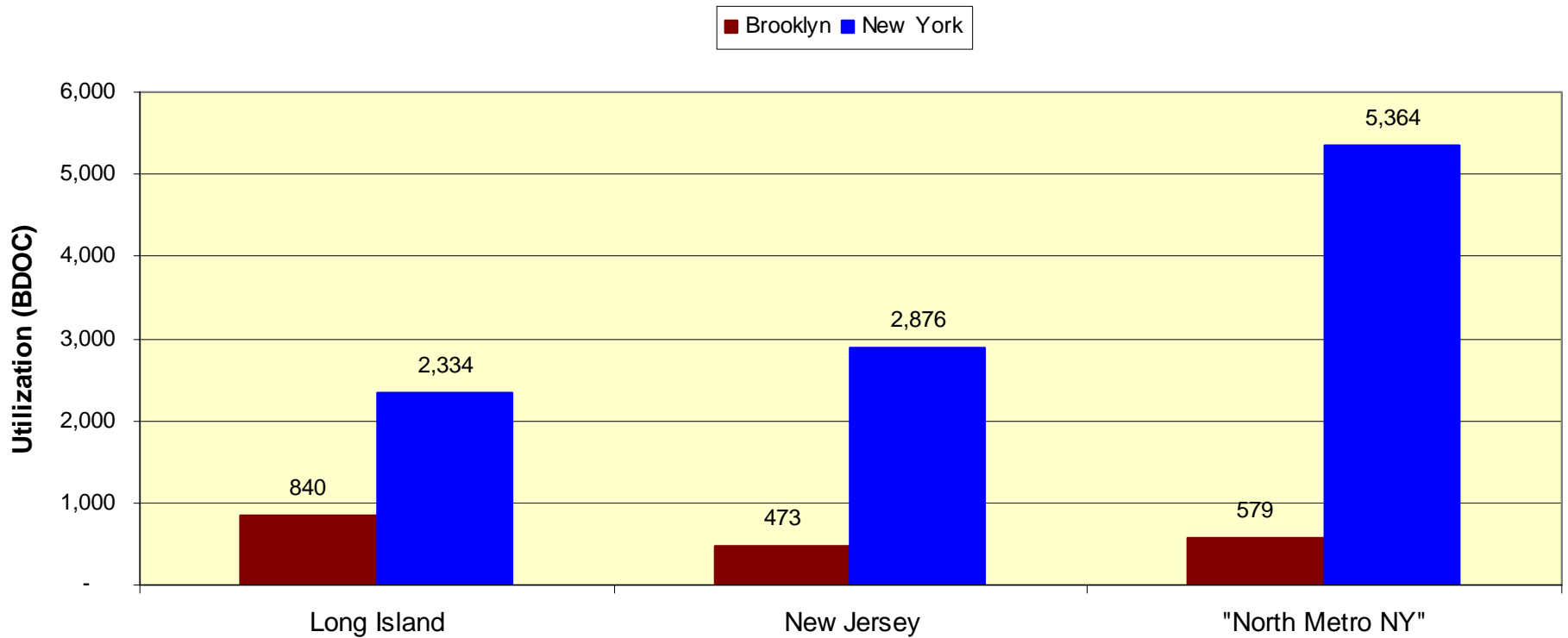


# Inpatient Utilization VISN Perspective

## Brooklyn and New York Projected Inpatient Workload from VISN 3

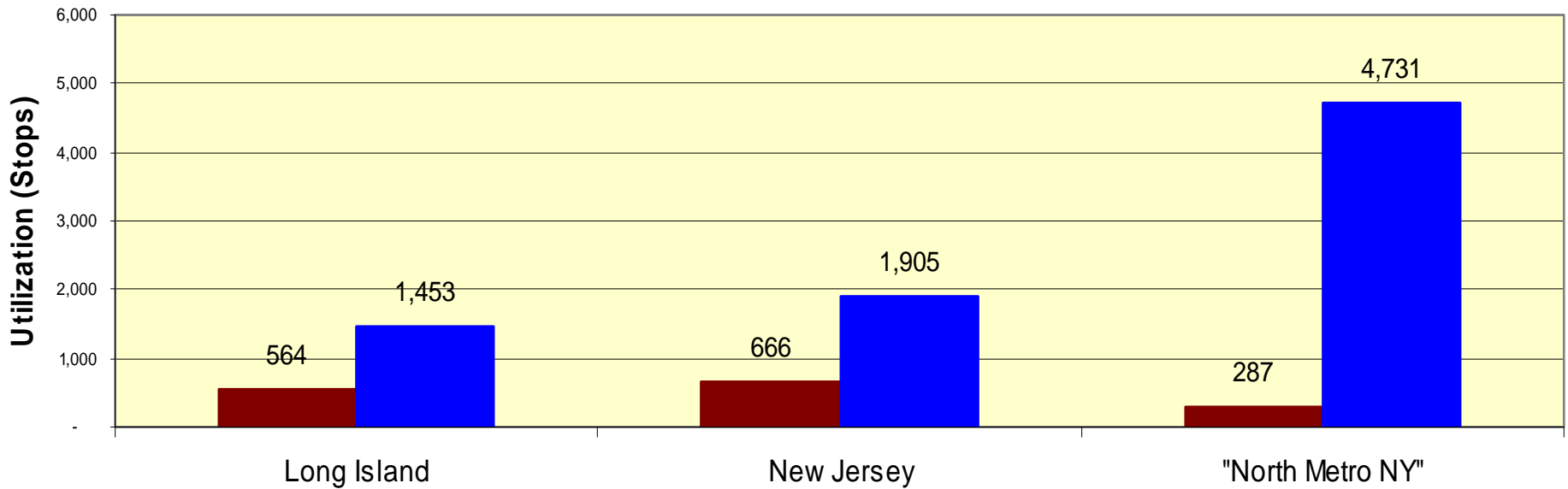


### Brooklyn and New York 2003 Actual Inpatient Workload from VISN 3 Long Island, New Jersey and "North Metro NY" Markets



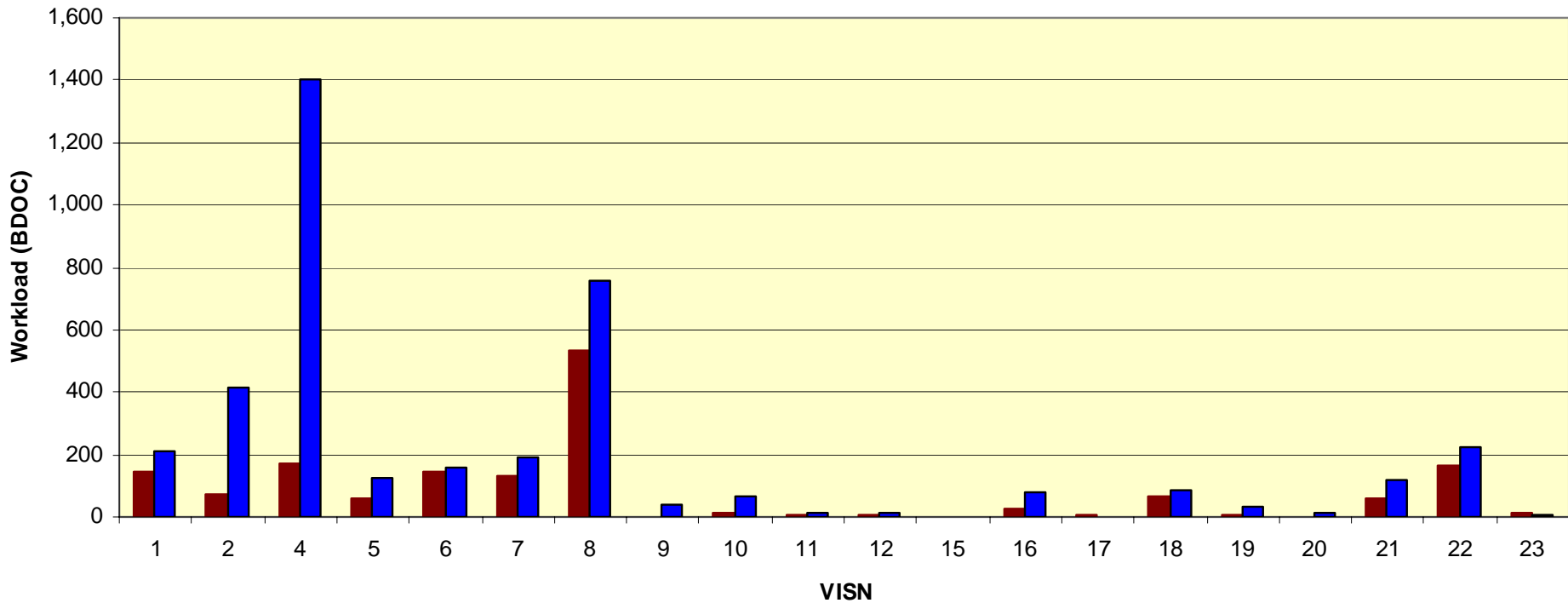
## Brooklyn and New York 2023 Projected Inpatient Workload from VISN 3 Long Island, New Jersey and "Metro North NY" Markets

■ Brooklyn ■ New York



## Brooklyn and New York Inpatient Workload form Other VISNs Acute Bed Days of Care

Brooklyn New York



# Summary

- Intricate and inter-related utilization patterns from multiple markets for VA NY Harbor HCS sites are evident
- These data do not show the effects of access, quality, cost, medical affiliation, education and research that need to be considered in this study