

Monitoring DRG's
Successful Methods to Reduce cost,
Shorten Length of Stay and Improve
Resource Utilization

Dale J. Konrad, MBA

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Trondheim, Norway

Objectives

- Development of a Steering a Committee
- Methodologies to enhance DRG efficiency
- Development of target Length of Stay
- Creating Opportunity days matrix

CCF Overview

- **12-hospital Health Care System**
 - **34,000 employees**
 - **1600 physicians**
 - **>200 physician assistants**
 - **>300 advance practice nurses**

CCF Overview

- **CCF Main campus includes**
 - 1000 bed hospital
 - > 60 Outpatient clinic services
 - 18,000 employees
- **14 Family Health Centers**
 - 4 Ambulatory Surgery Centers
 - Medical & Surgical Physician Offices
- **Research division**
- **Educational division**

CCF Overview

- **2005 Key statistical information:**
 - **57,000 Admissions**
 - **3,100,000 Clinic visits**
 - **67,000 Surgical cases**
 - **2.31 Medicare Case Mix Index**

Fee For Service

- The old way of doing health care business
- Length of stay increased revenue
- Treatment of multiple problems increased revenue
- More resources used increased revenue
- More tests performed increased revenue

Understanding HealthCare Finances

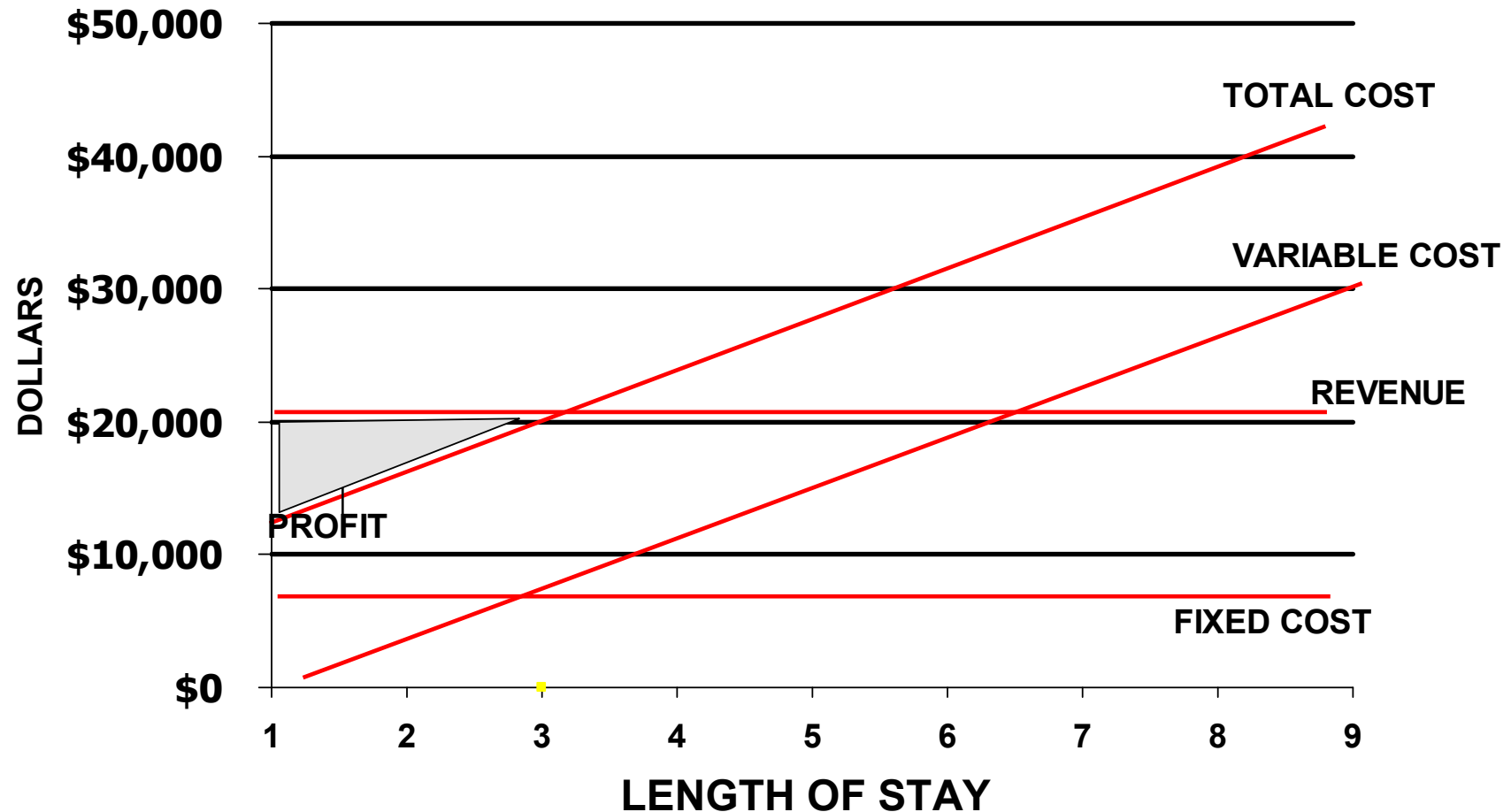


Prospective Payment System Managed Care Environment

- With the new health care system has encouraged hospitals to:
 - Review DRG volume and cost
 - Review length of stay
 - By DRG, department and doctor
 - Review resource consumption
 - Review case mix index
 - Continue to find ways to be efficient

Understanding HealthCare Finances

PROSPECTIVE PAYMENT SYSTEM



Developing a Successful Decision Support Steering Committee

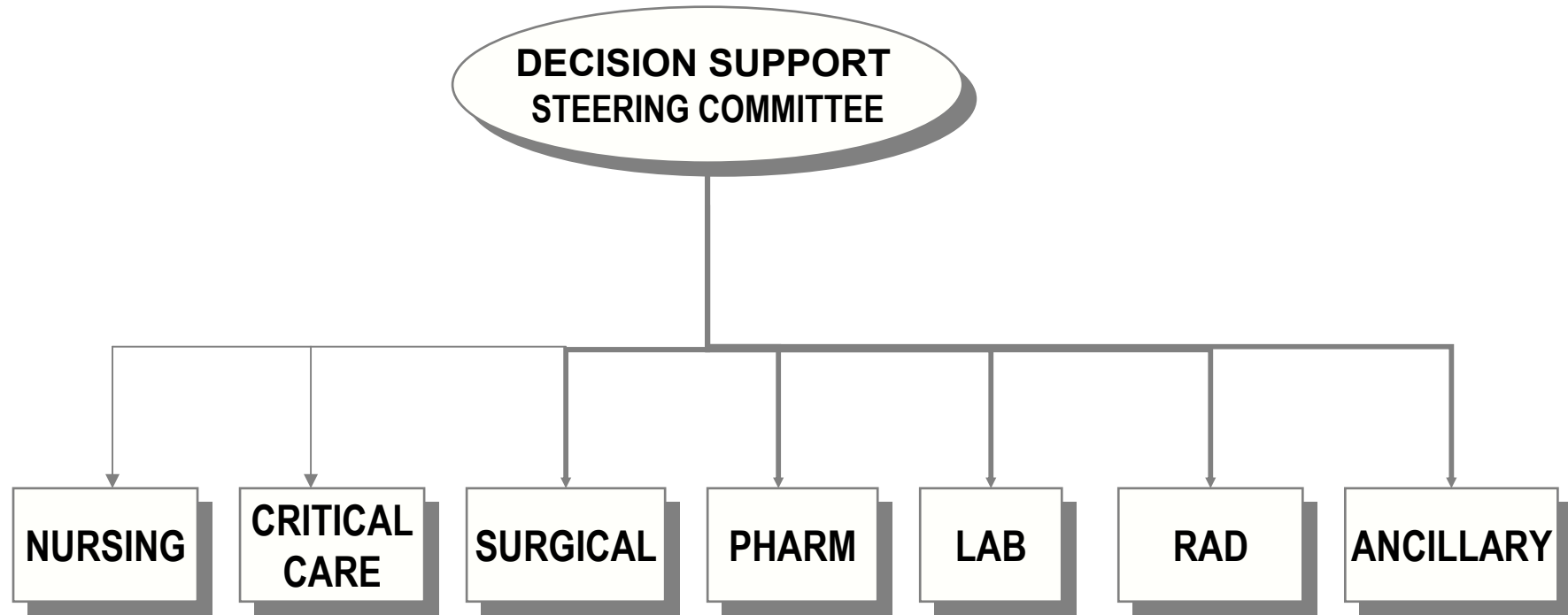
Role of Decision Support Steering Committee

- **Identifies Areas for Performance Improvement**
- **Initiates investigation into selected DRGs, Diagnoses, and Procedures**
- **Targets LOS Reductions, Resource Cost Savings and other efficiencies within each area reviewed**
- **Reviews Recommendations and Identifies “Best Practices”**
- **Meet with Physician leadership and agree to practice changes**
- **Monitors Implementation/Efficacy of “Best Practices”**

Development of Decision Support Steering Committee

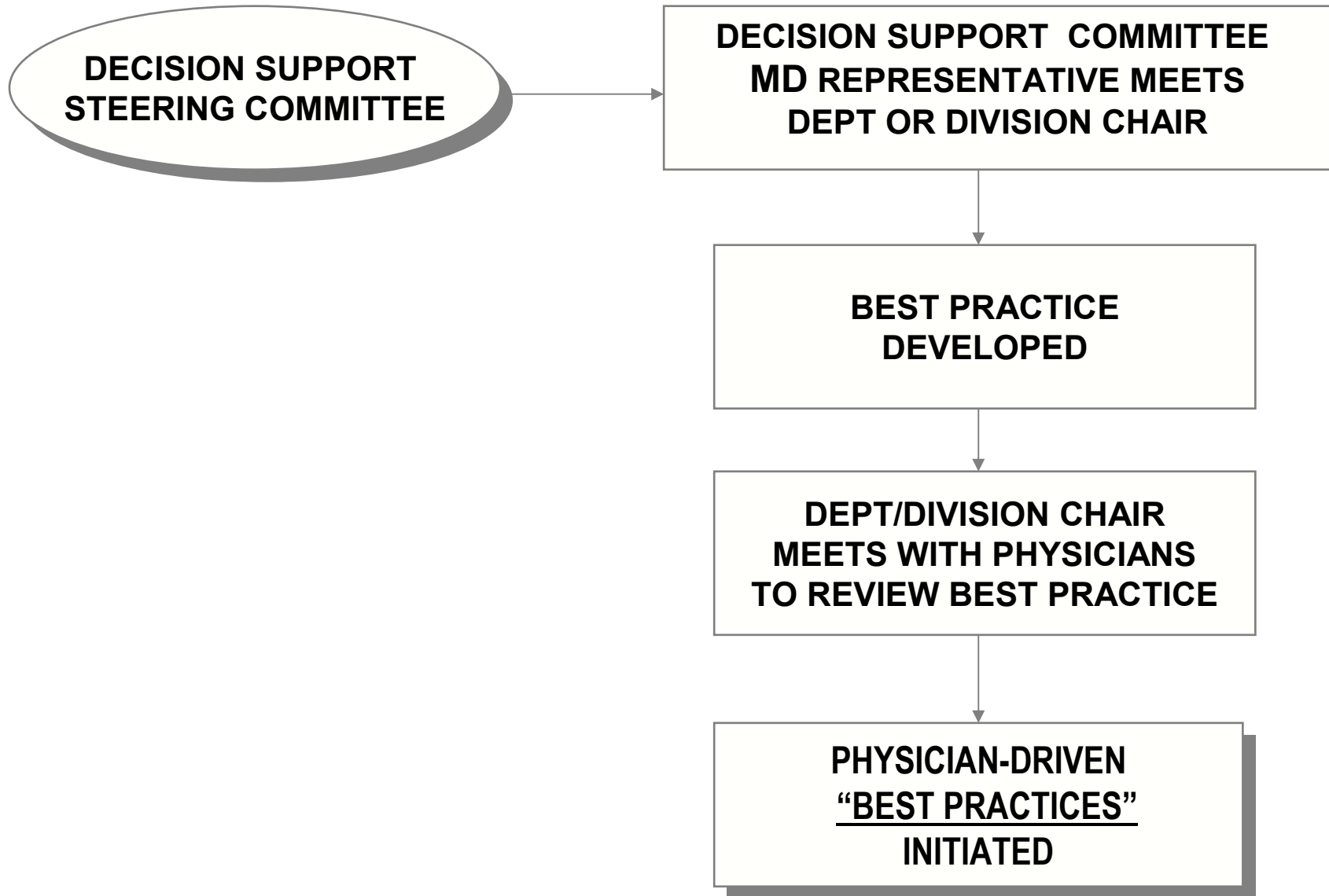
Steering Committee Members Should Include:

- **Nursing management**
- **Key hospital administration**
- **Key physician leadership**
- **Resource Consumption Areas**
 - Lab Director**
 - Radiology Director**
 - Pharmacy Director**
 - Cardiology/Pulmonary Director**



Role of Steering Committee Members:

- **Collects and reviews decision Support System data**
- **Investigates areas for improvement as designed by Steering Committee**
- **Prepares options and reports to Steering Committee**
- **Recommends additional areas for improvement to Decision Support Steering Committee**



**DECISION SUPPORT
STEERING COMMITTEE**

**DECISION SUPPORT COMMITTEE
MD REPRESENTATIVE MEETS
DEPT OR DIVISION CHAIR**

**BEST PRACTICE
DEVELOPED**

**DEPT/DIVISION CHAIR
MEETS WITH PHYSICIANS
TO REVIEW BEST PRACTICE**

**PHYSICIAN-DRIVEN
"BEST PRACTICES"
INITIATED**

Reviewing Hospital Populations

- By DRG volume
- By LOS
- By physician

Concentrate on high volume and high cost DRG's

- Determine LOS patterns and review resource consumption by physician/department
- Majority of hospitals in the U.S. have Decision Support Systems to gather this information

Development of Specific Reports

Step One:

Development of Fifty-nine Standard Clinical Cost Manager Reports

These reports included various demographic, financial, and clinical views of the population being investigated

With each review of a population it was easy to determine direct cost of care, length of stay, and current financial status of population

Development of Specific Reports

Step Two:

Development of detailed utilization reports including cost, and products utilized

The ability for steering committee members to compare several physicians for best practice usage in each resource consumption area

The ability for steering committee members to further review outcomes, critical care paths, and other operational indicators

Steering Committee Choose to Review the Highest Volume and Highest Cost DRG First

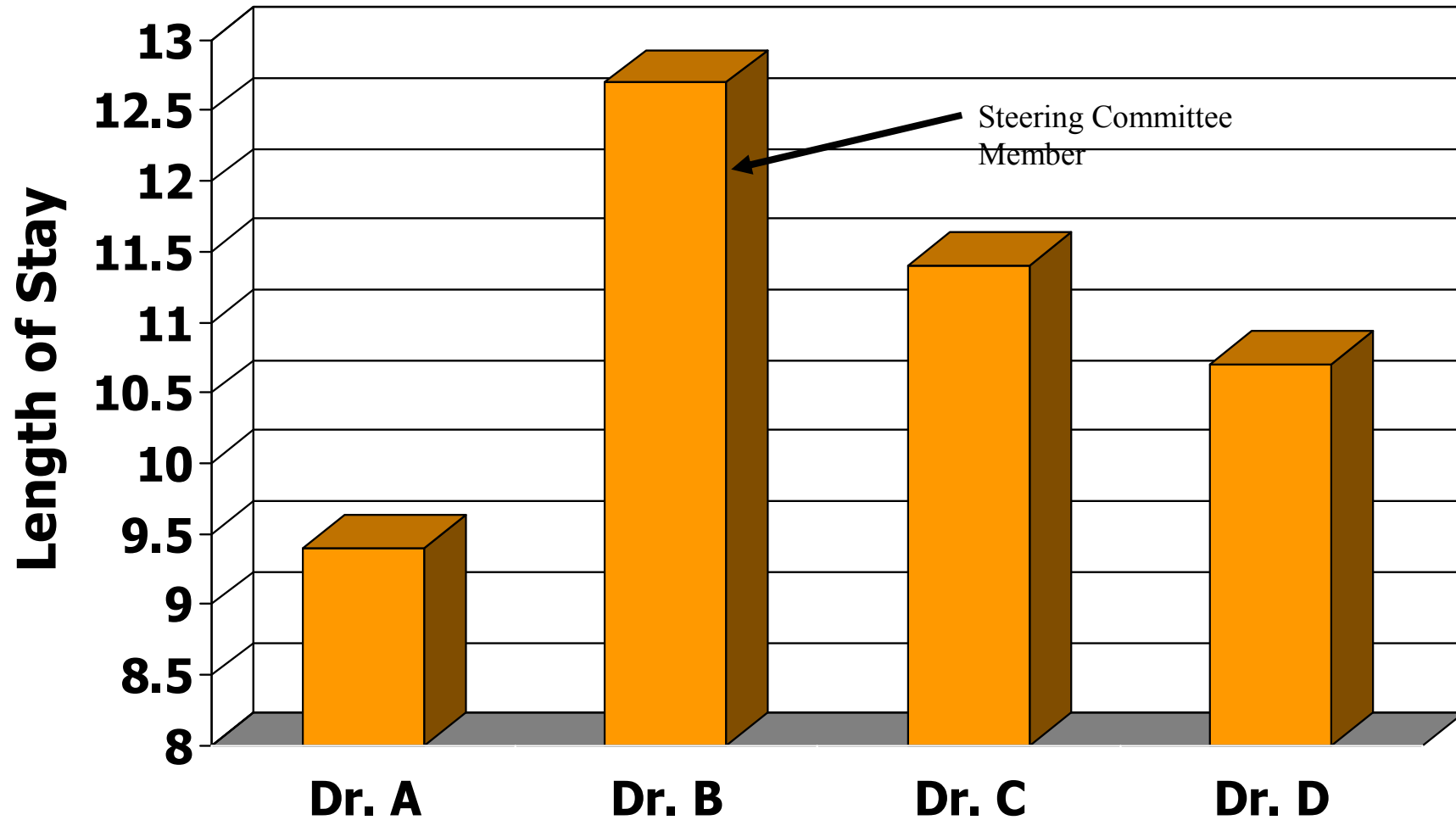
This became quite controversial after reviewing the initial data since the physician with the highest cost and highest length of stay was on the steering committee.

First we looked at DRG 148

(Major small and large bowel procedures with complications)

Initial Review of DRG 148

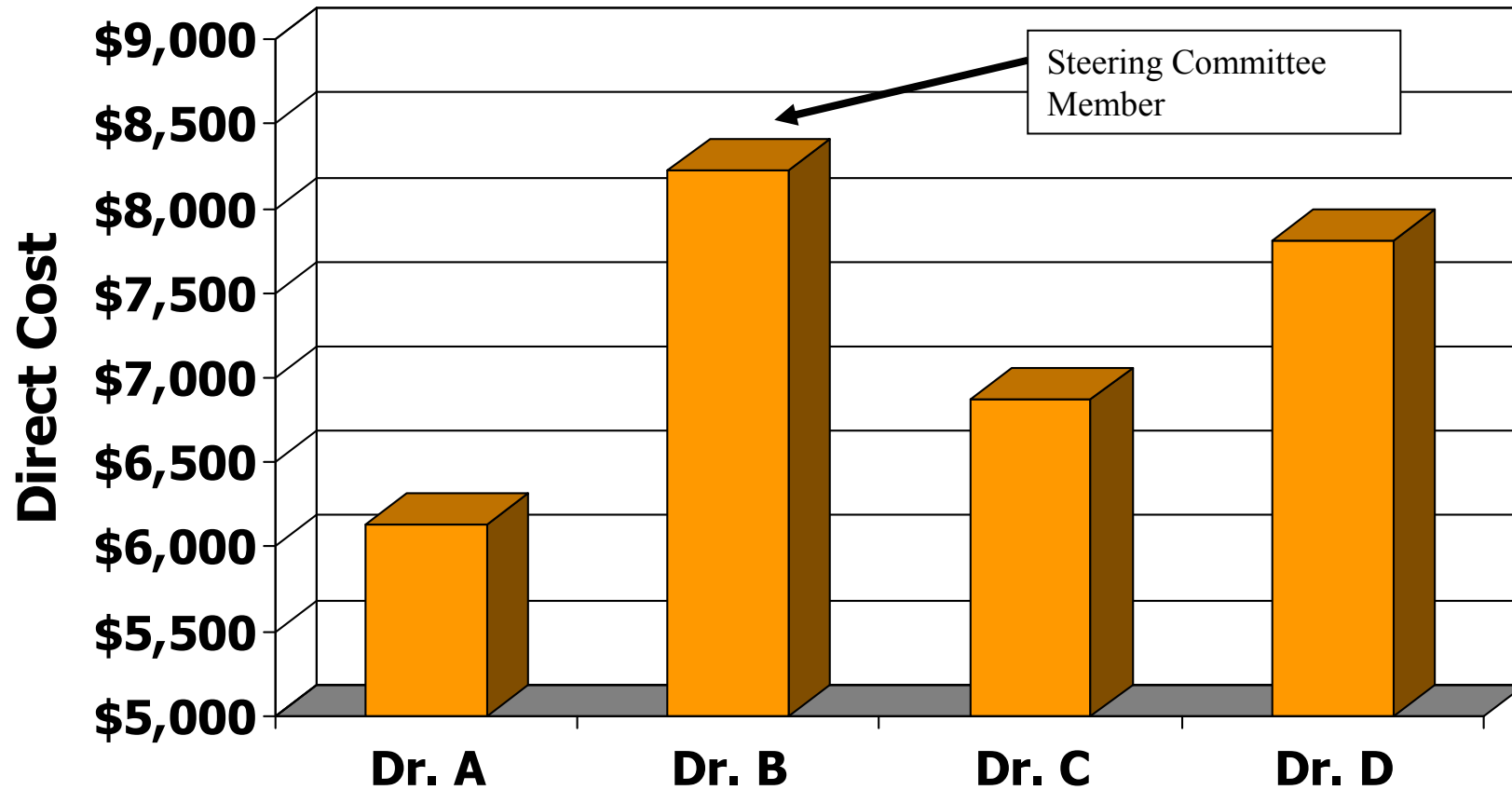
Average Length of Stay



SOURCE: ECLIPSYS TS, INC.

Initial Review of DRG 148

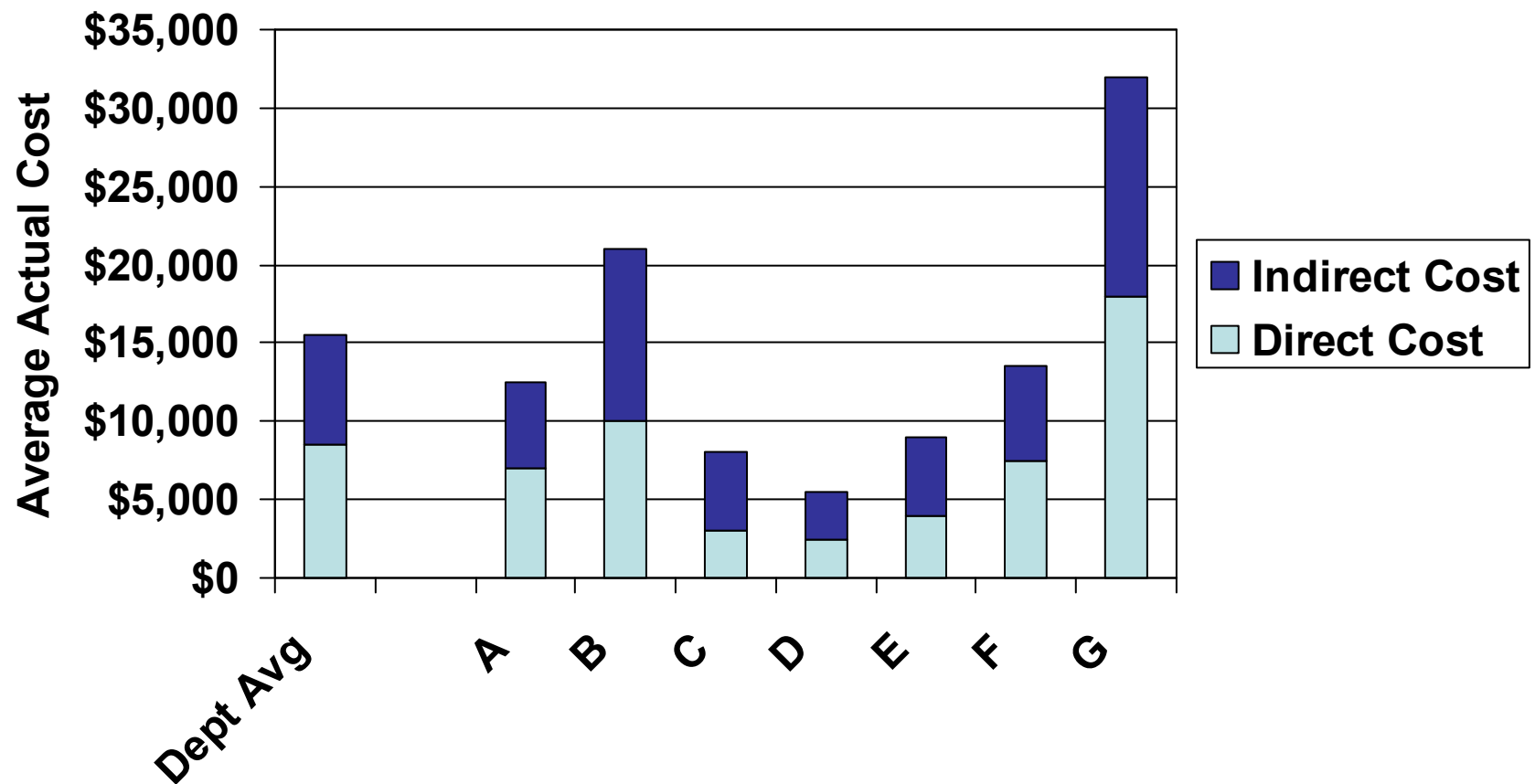
Average Direct Cost



SOURCE: ECLIPSYS TS, INC.

DRG Analysis Through Decision Support Systems

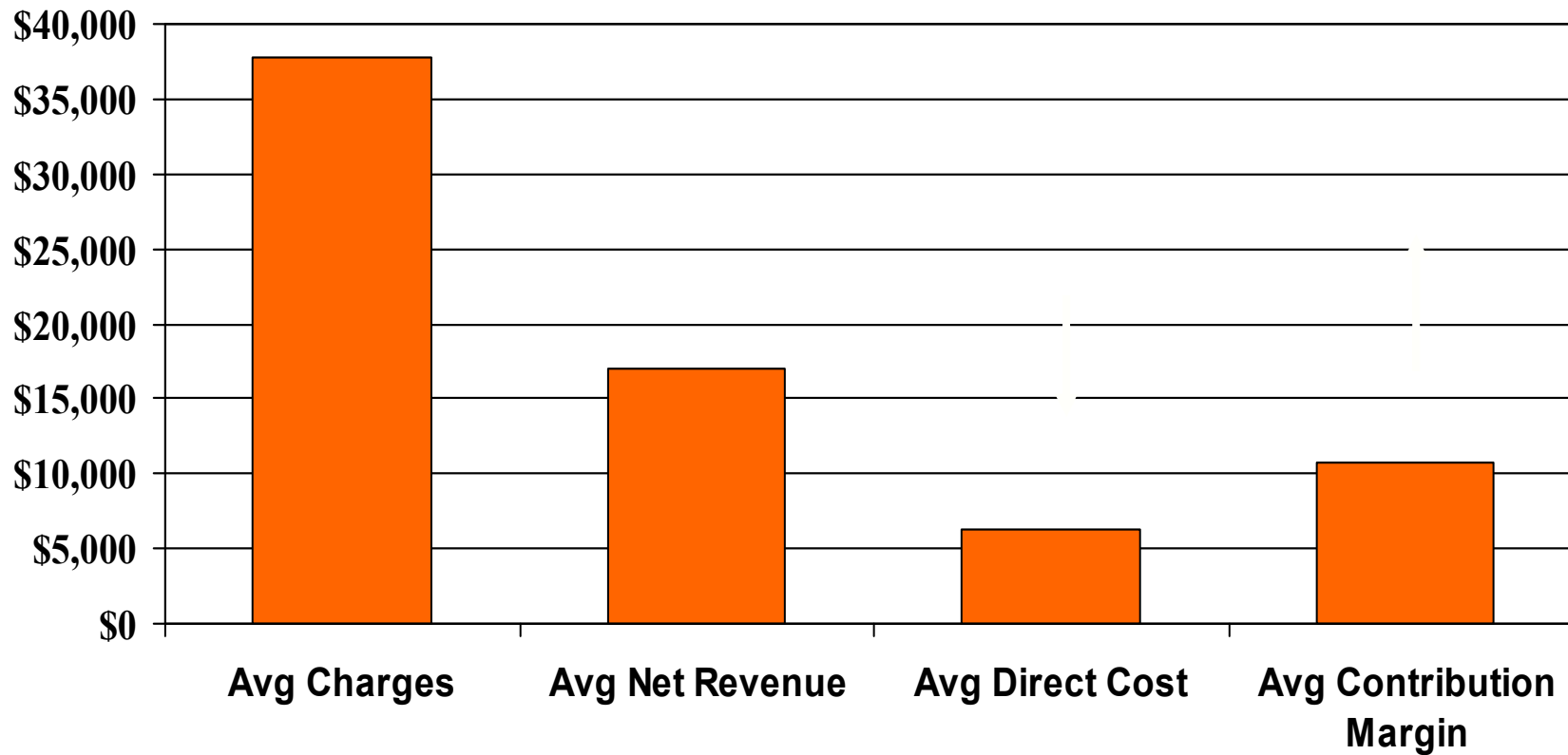
Average Actual Cost By Physician



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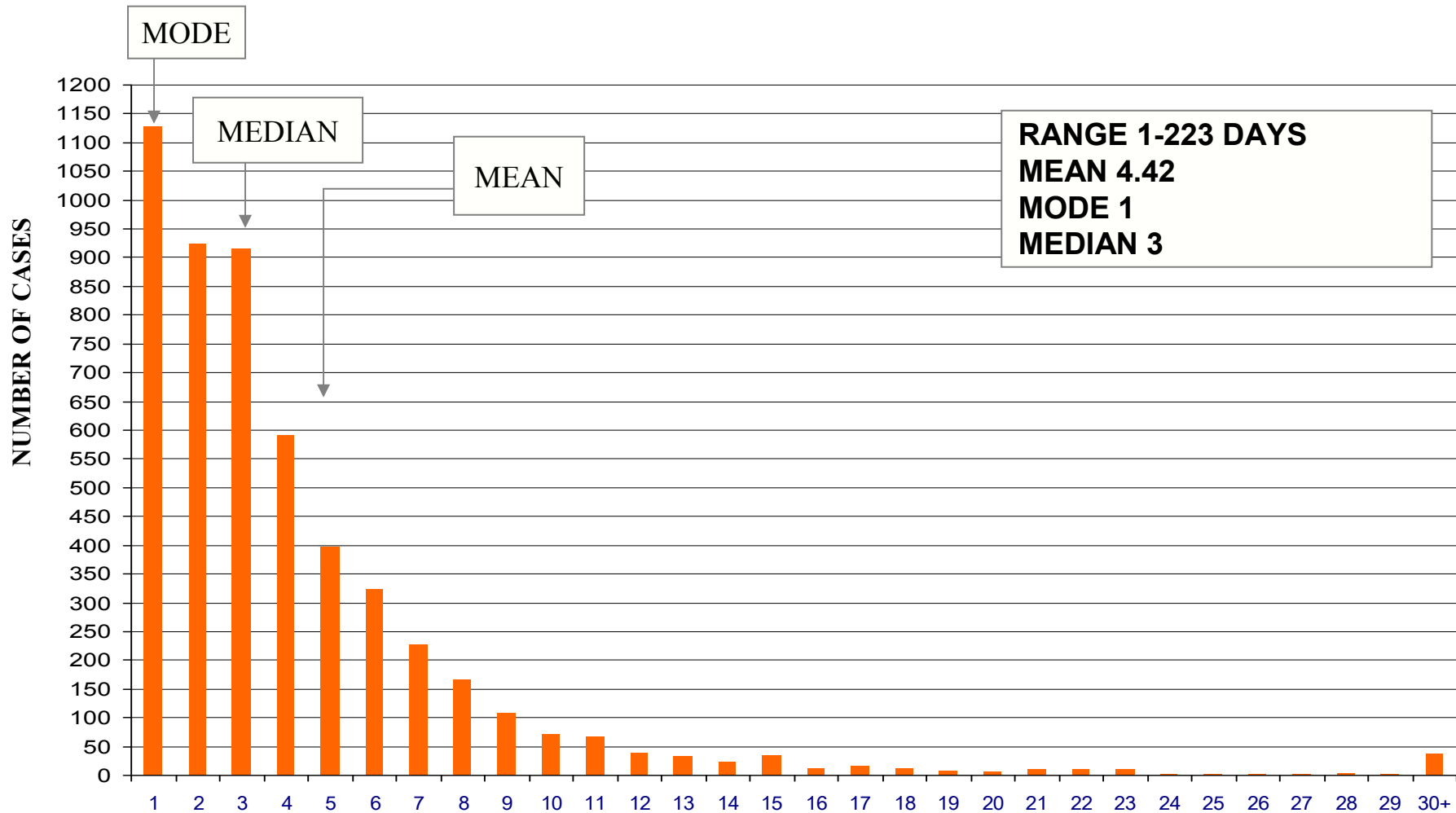
Technical Financial Information DRG 148

Jan-Dec 2005



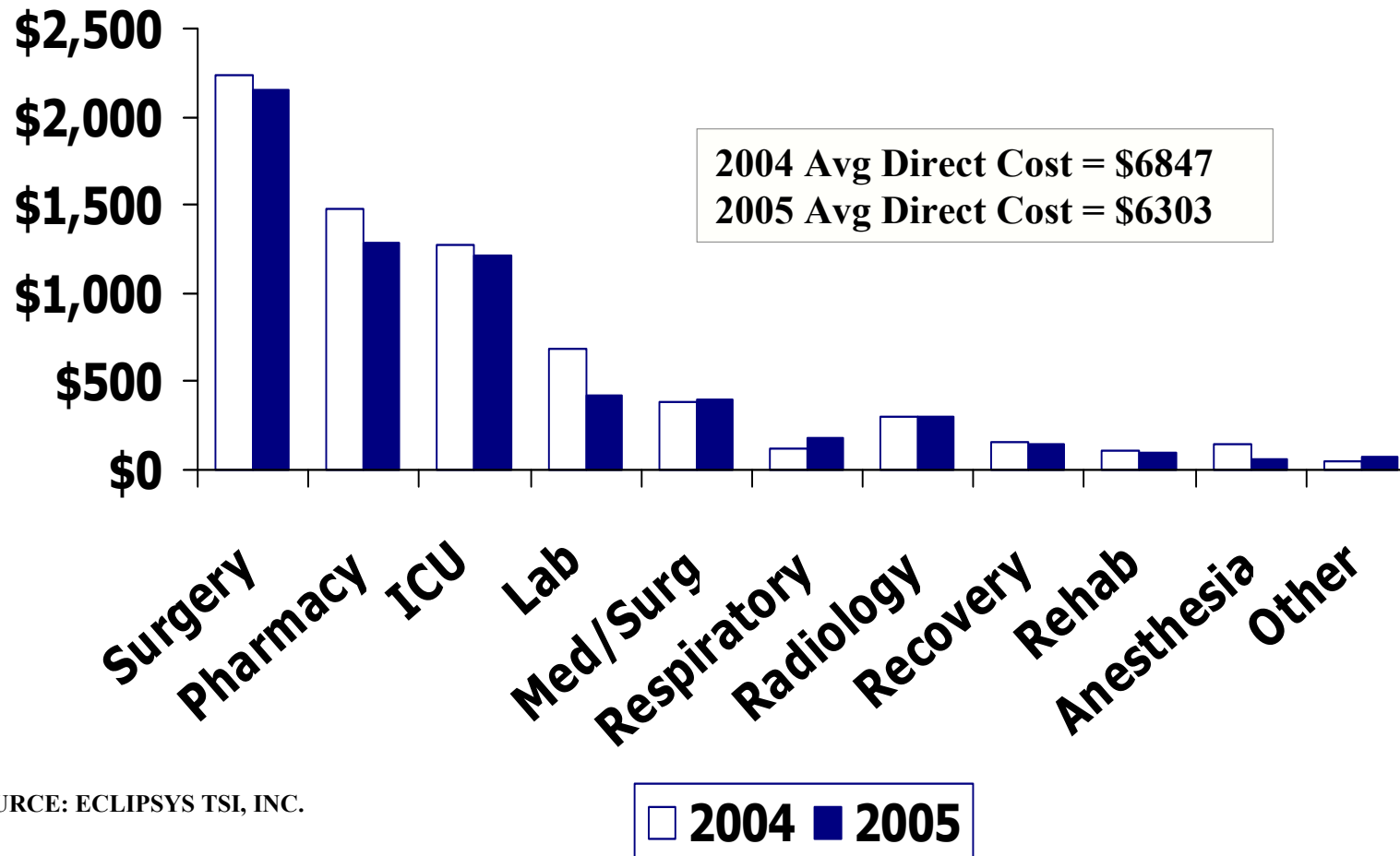
SOURCE: ECLIPSYS TSI, INC.

Frequency Distribution by Length of Stay DRG 148 Jan-Dec 2005



SOURCE: ECLIPSYS TSI, INC.

Average Direct Cost by Resource Consumption Area-DRG 148 2004 vs 2005

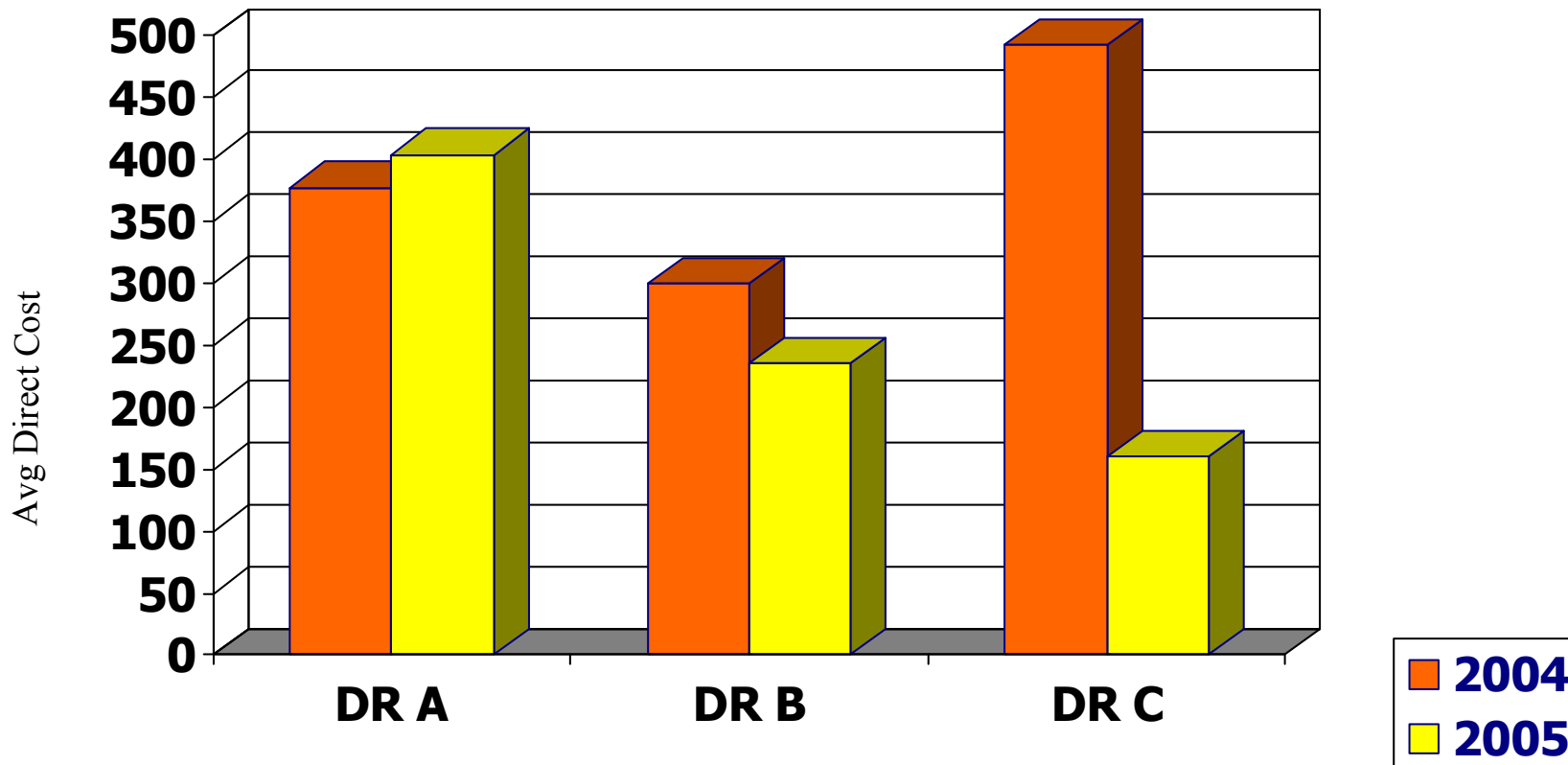


SOURCE: ECLIPSYS TSI, INC.

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Laboratory Utilization - DRG 148

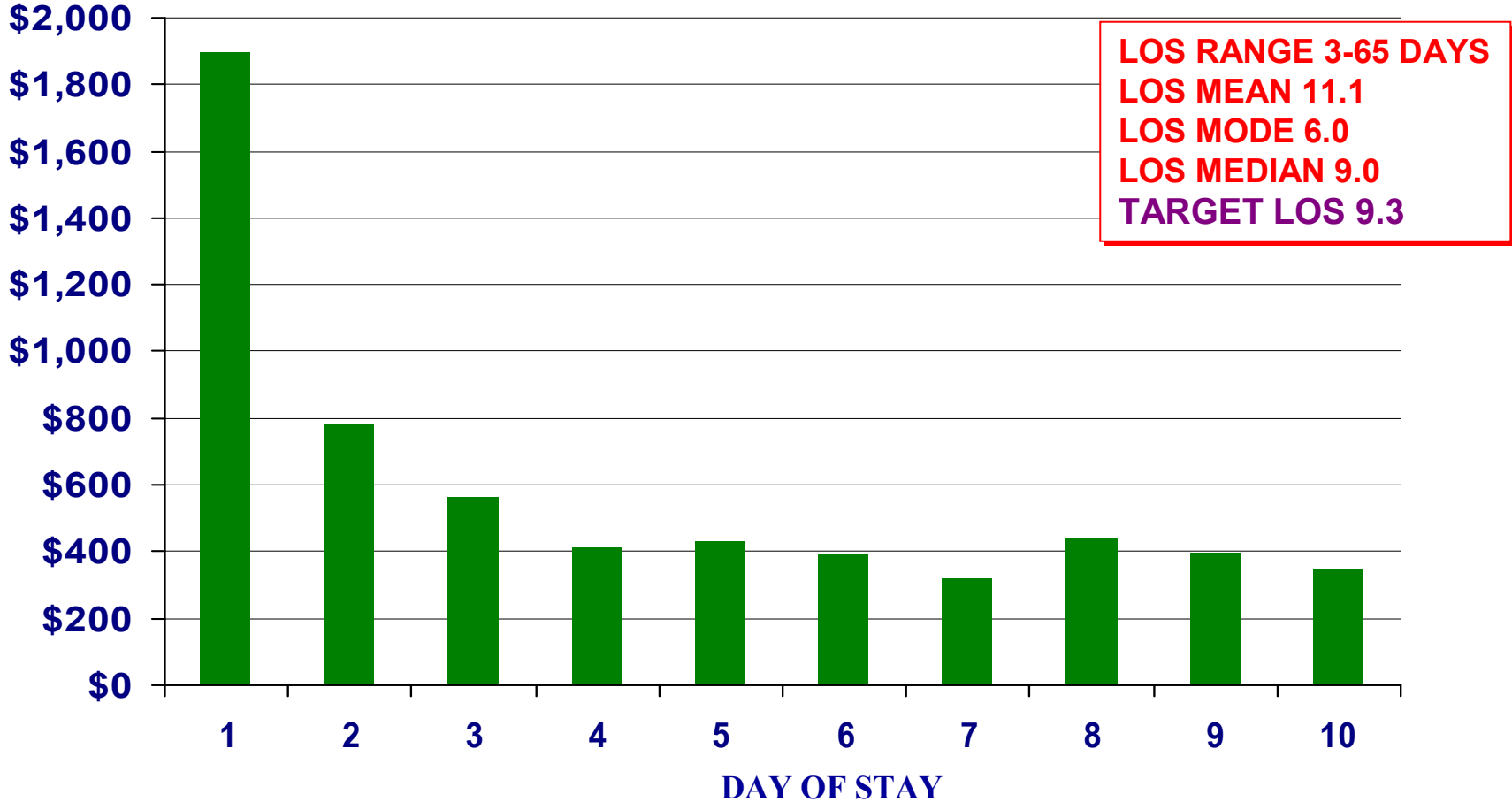
2004 vs 2005



SOURCE: ECLIPSYS TS, INC.

CCF

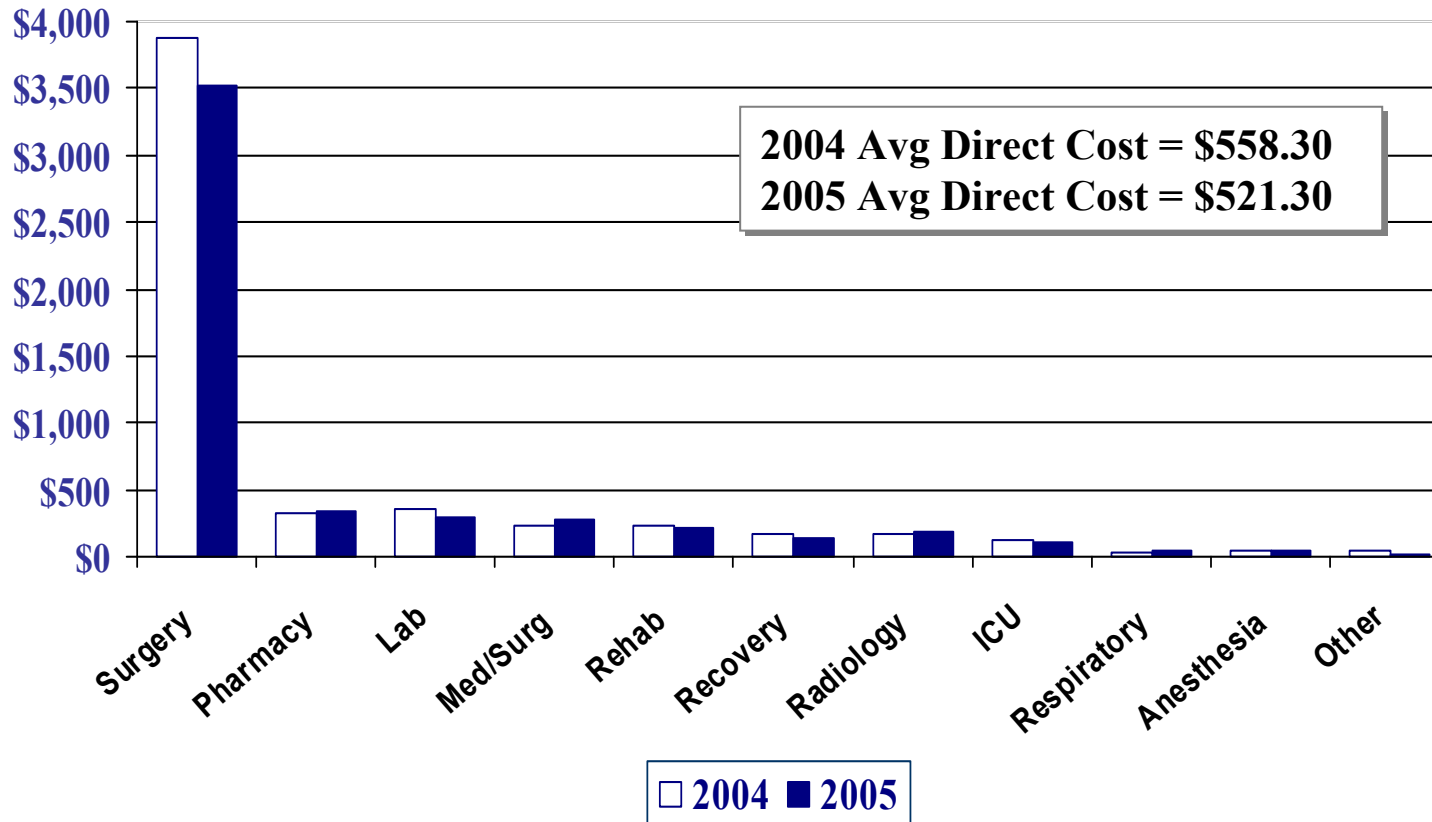
Average Cost by Day of Stay - DRG 148 Jan-Dec 2005



SOURCE: TSI CCM ADM REPORTS 56/57

Based on 225 Cases

Average Direct Cost by Resource Consumption Area-DRG 209 2004 vs 2005

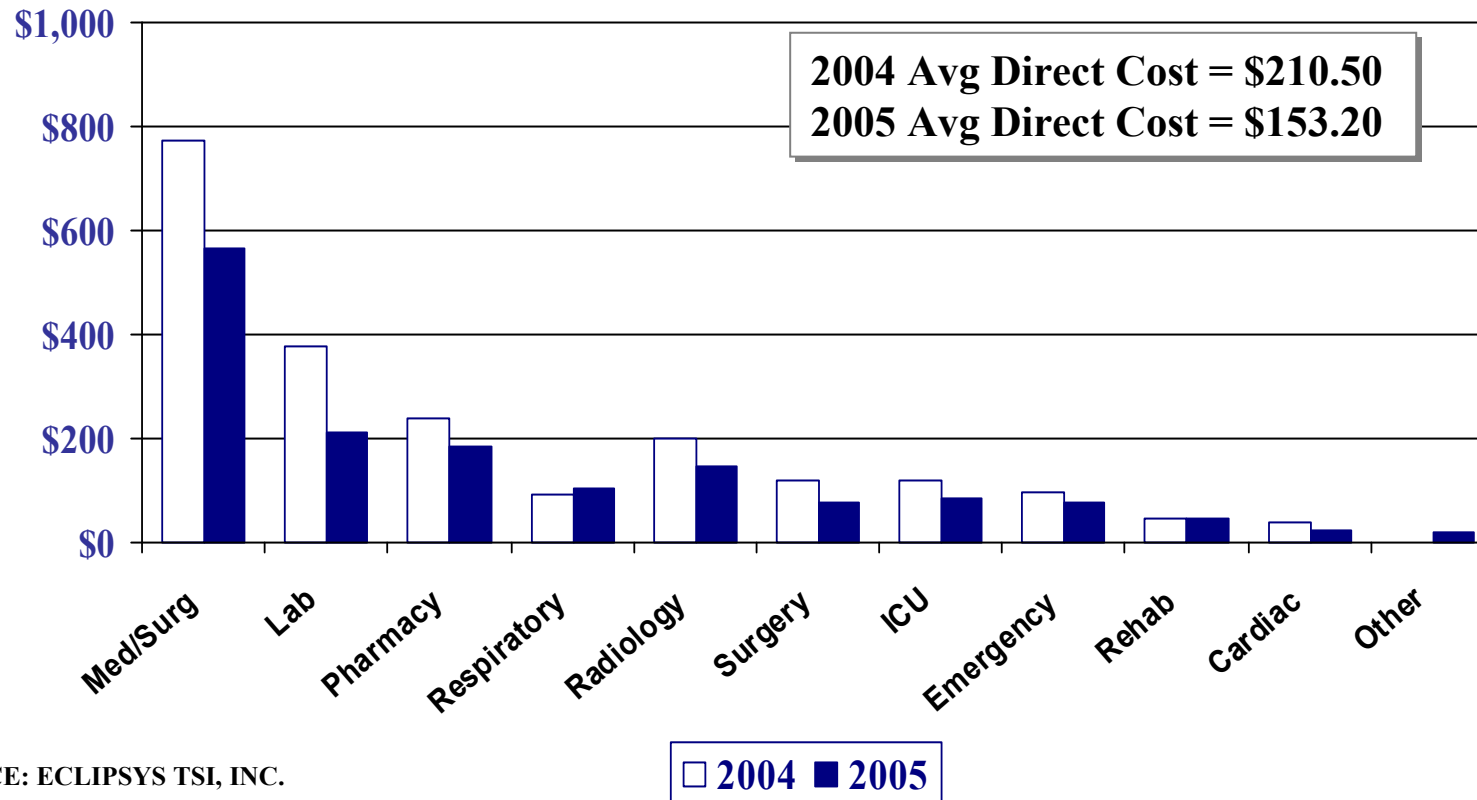


SOURCE: ECLIPSYS TS, INC.

Average Direct Cost by Resource Consumption Area-089

2004 vs 2005

Simple Pneumonia & Pleurisy, Age > 17 with complications

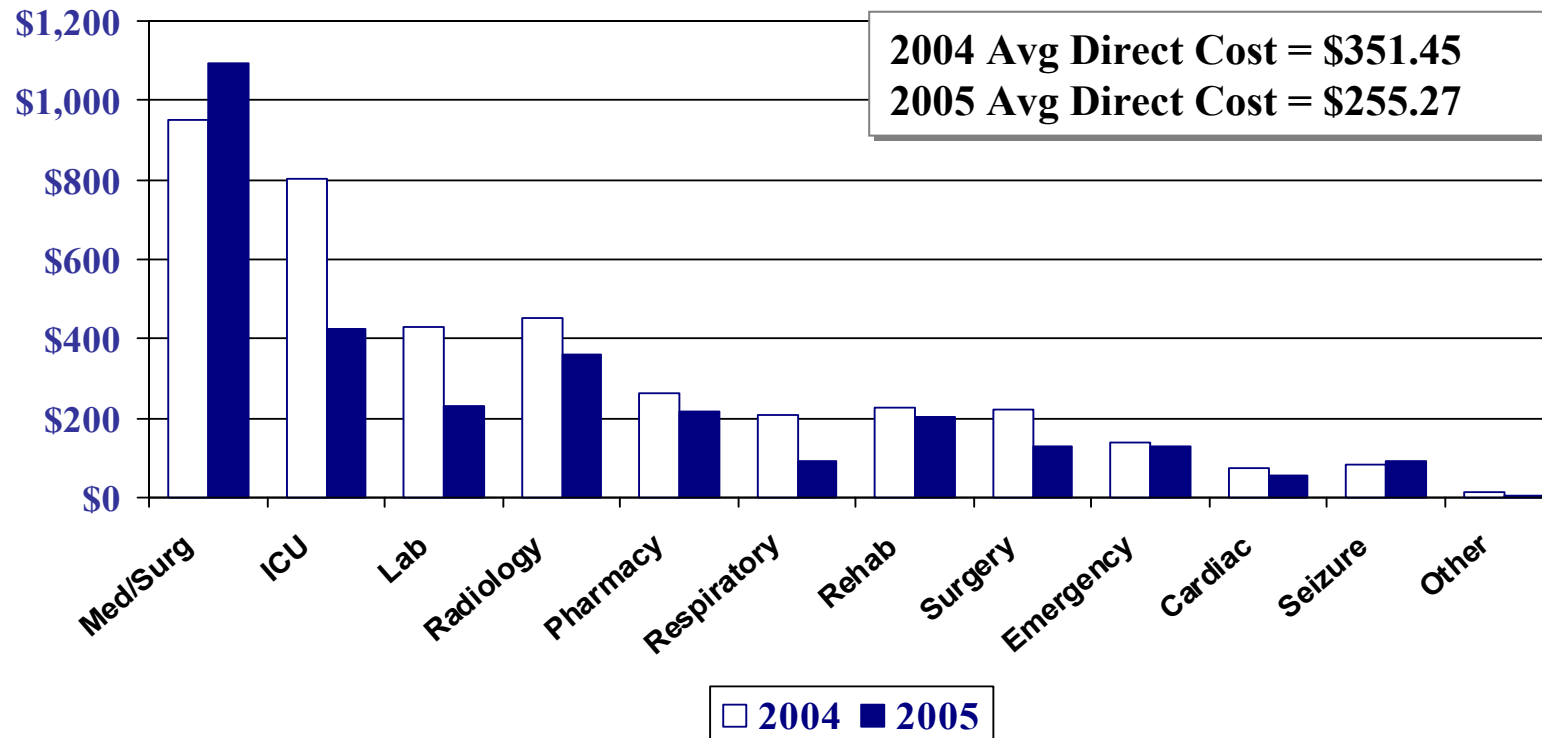


SOURCE: ECLIPSYS TSI, INC.

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Average Direct Cost by Resource Consumption Area- DRG 014 2004 vs 2005

Specific Cerebrovascular Disorders except Transient Ischemic Attacks

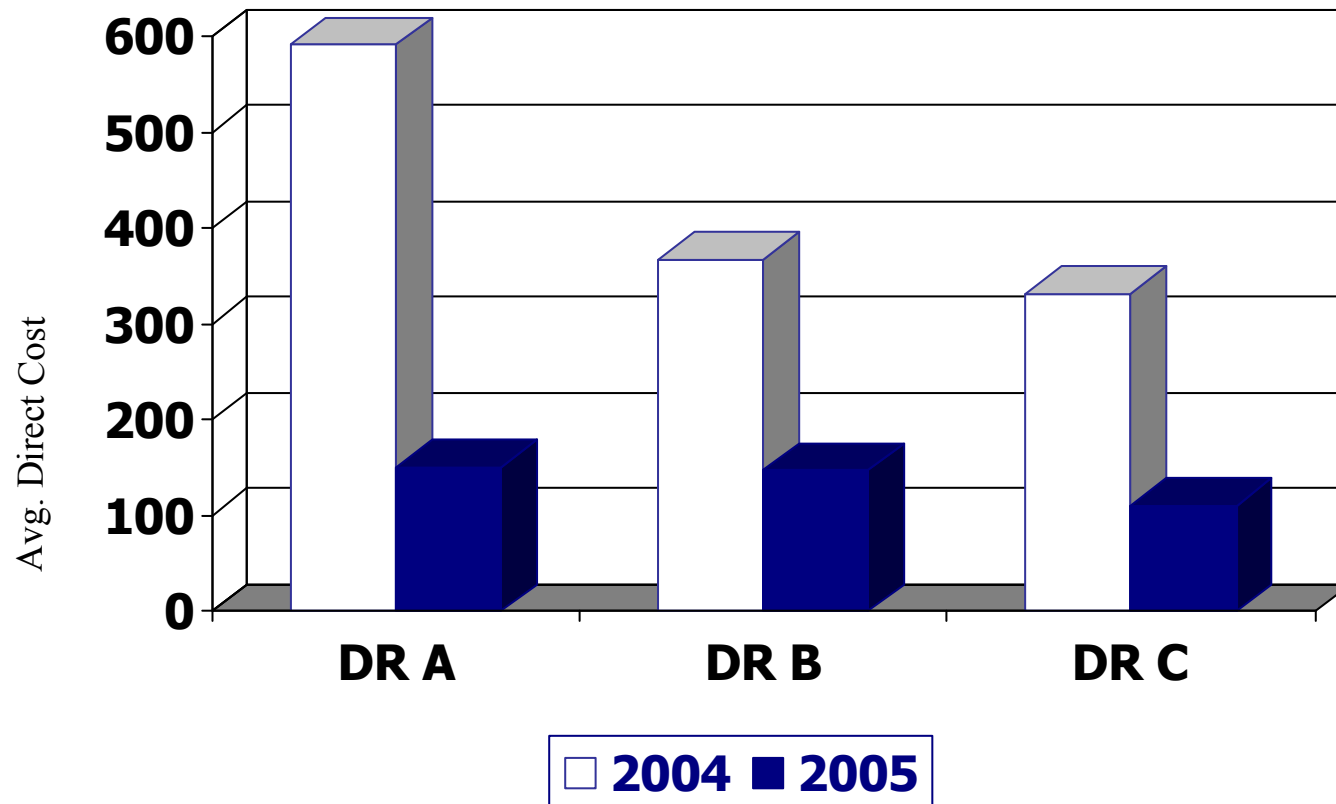


SOURCE: ECLIPSYS TSI, INC.

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Laboratory Utilization - DRG 014

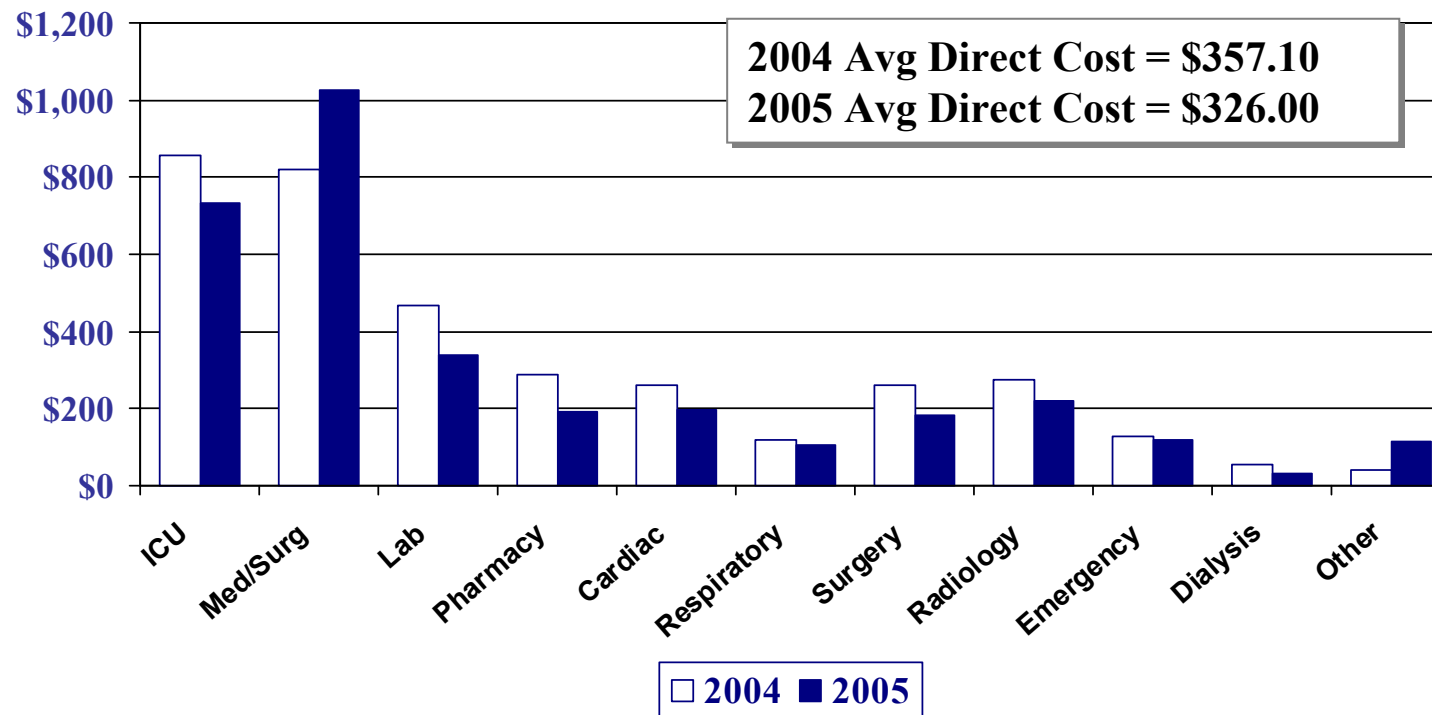
2004 vs 2005



SOURCE: ECLIPSYS TS, INC.

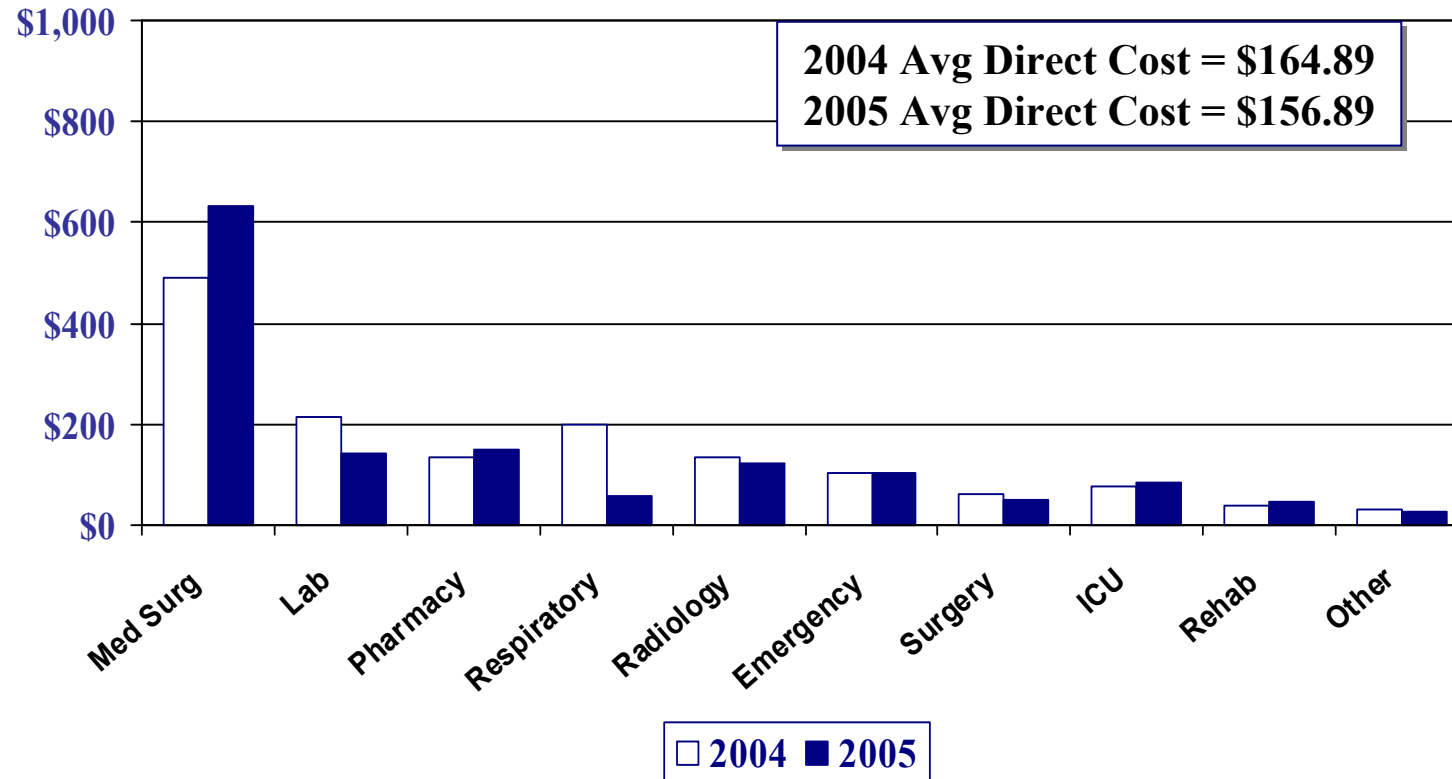
Average Direct Cost by Resource Consumption Area - DRG 121 2004 vs 2005

Circulatory Disorder with Acute Myocardial Infarction & Major Complications, Discharged Alive



Average Direct Cost by Resource Consumption Area -DRG 088 2004 vs 2005

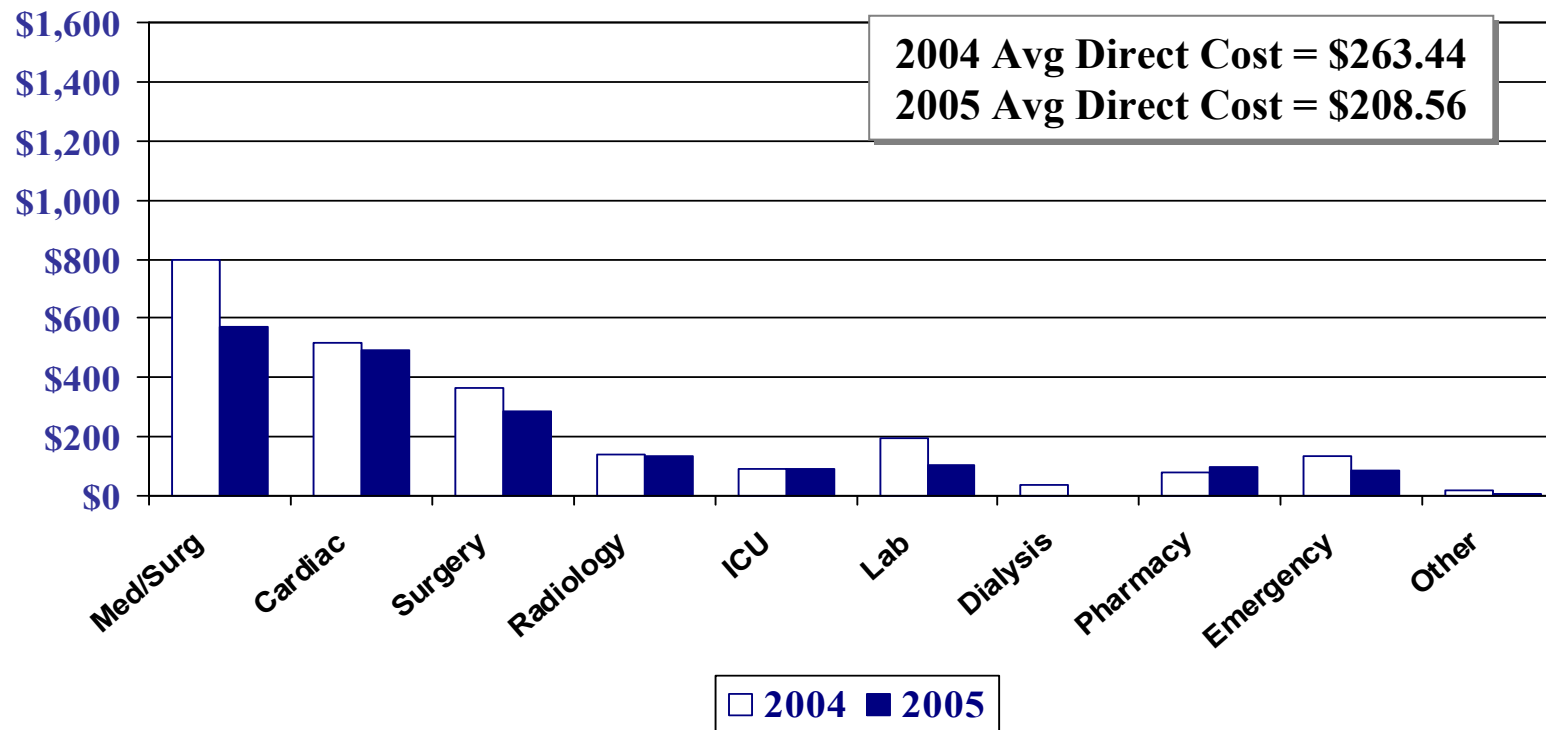
Chronic Obstructive Pulmonary Disease



SOURCE: ECLIPSYS TSI, INC.

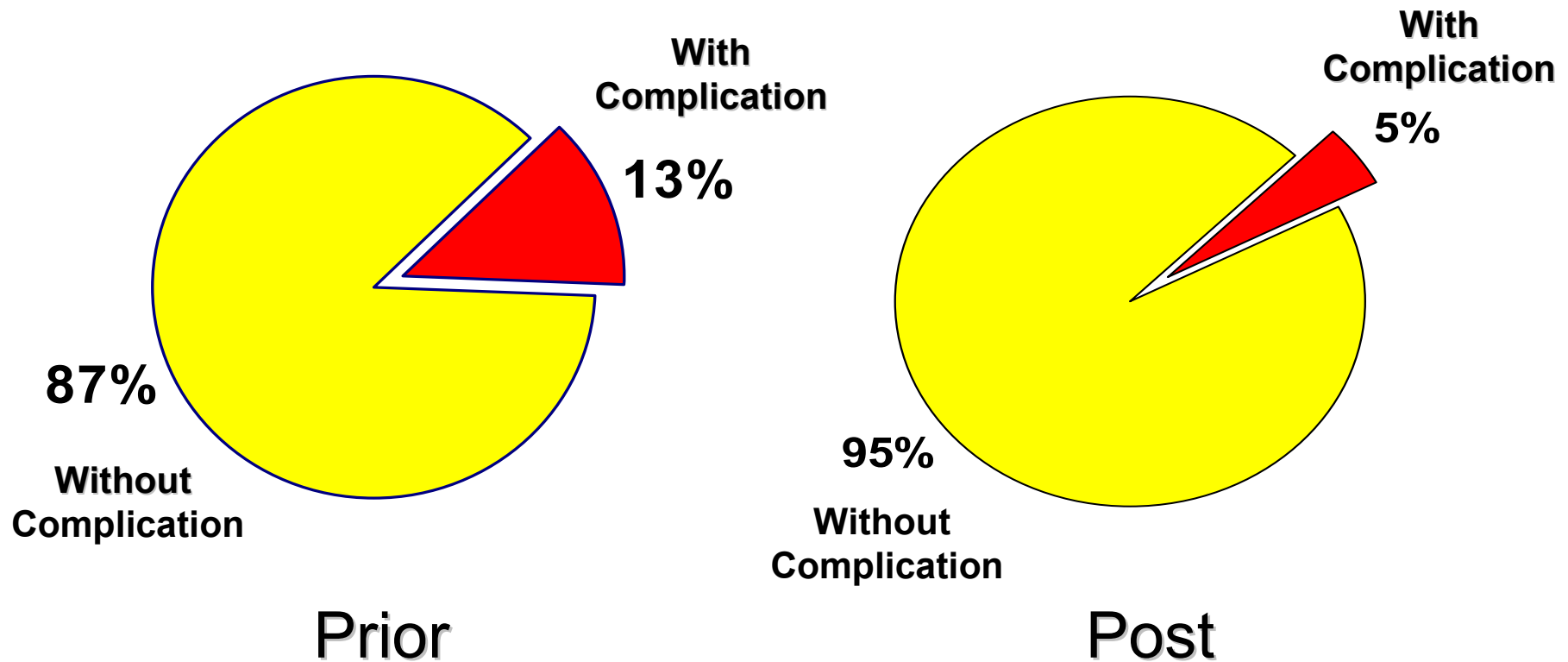
Average Direct Cost by Resource Consumption Area - DRG 125 2004 vs 2005

Circulatory Disorders Except Acute Myocardial Infarction with Cardiac Catheterization without Complex Diagnosis



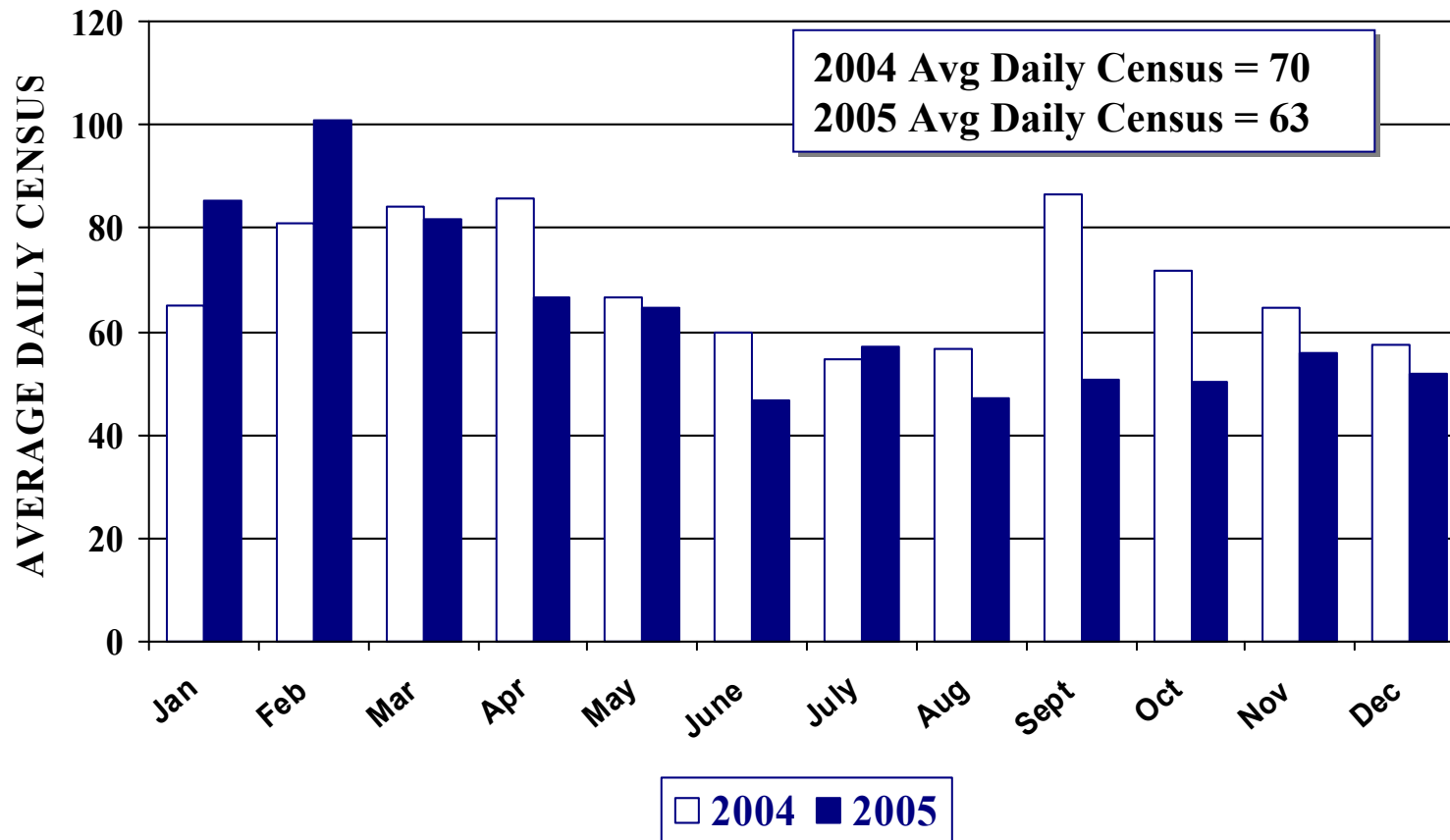
Monitor and Evaluate Outcome Criteria

ADVERSE EVENTS COMPARISON



Average Daily Census

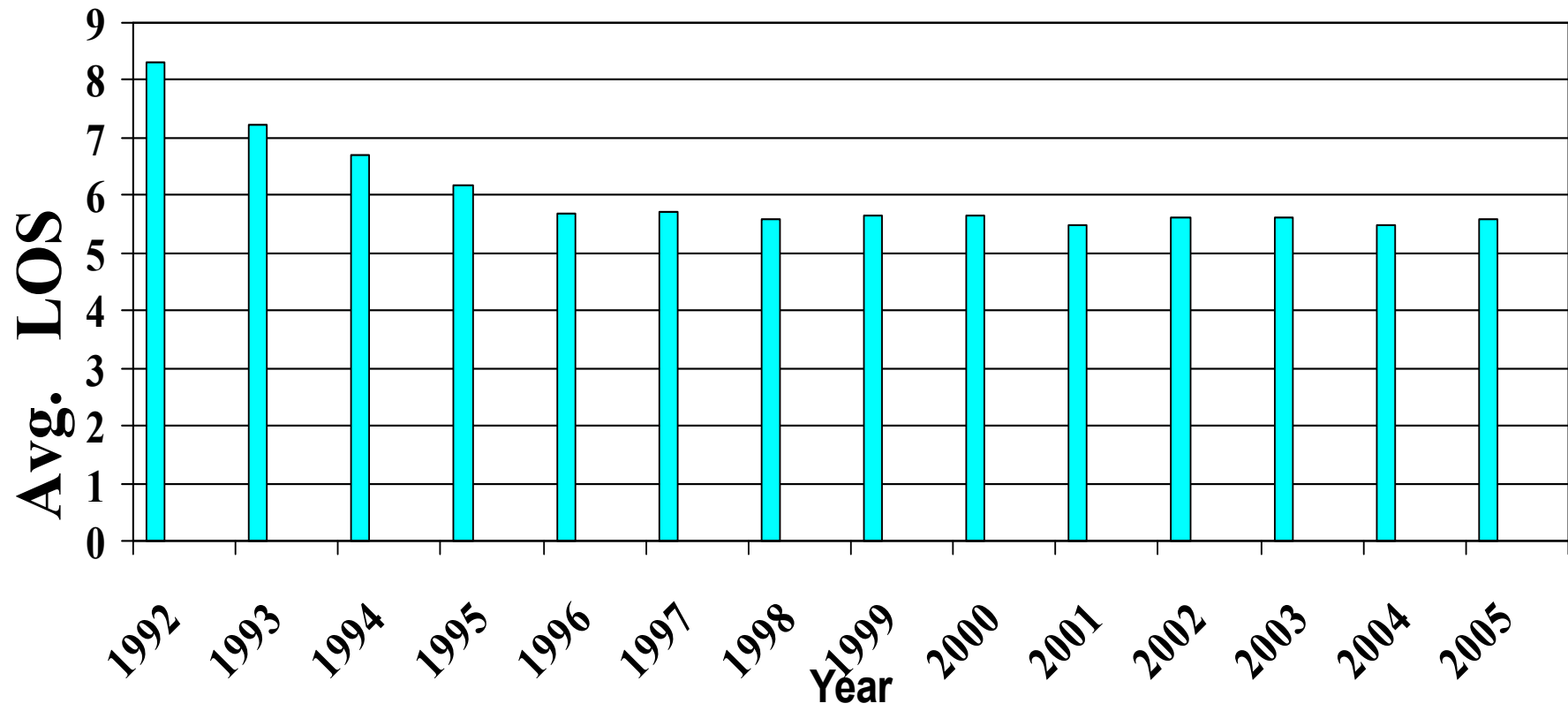
2004 vs 2005



SOURCE: ECLIPSYS TS, INC.

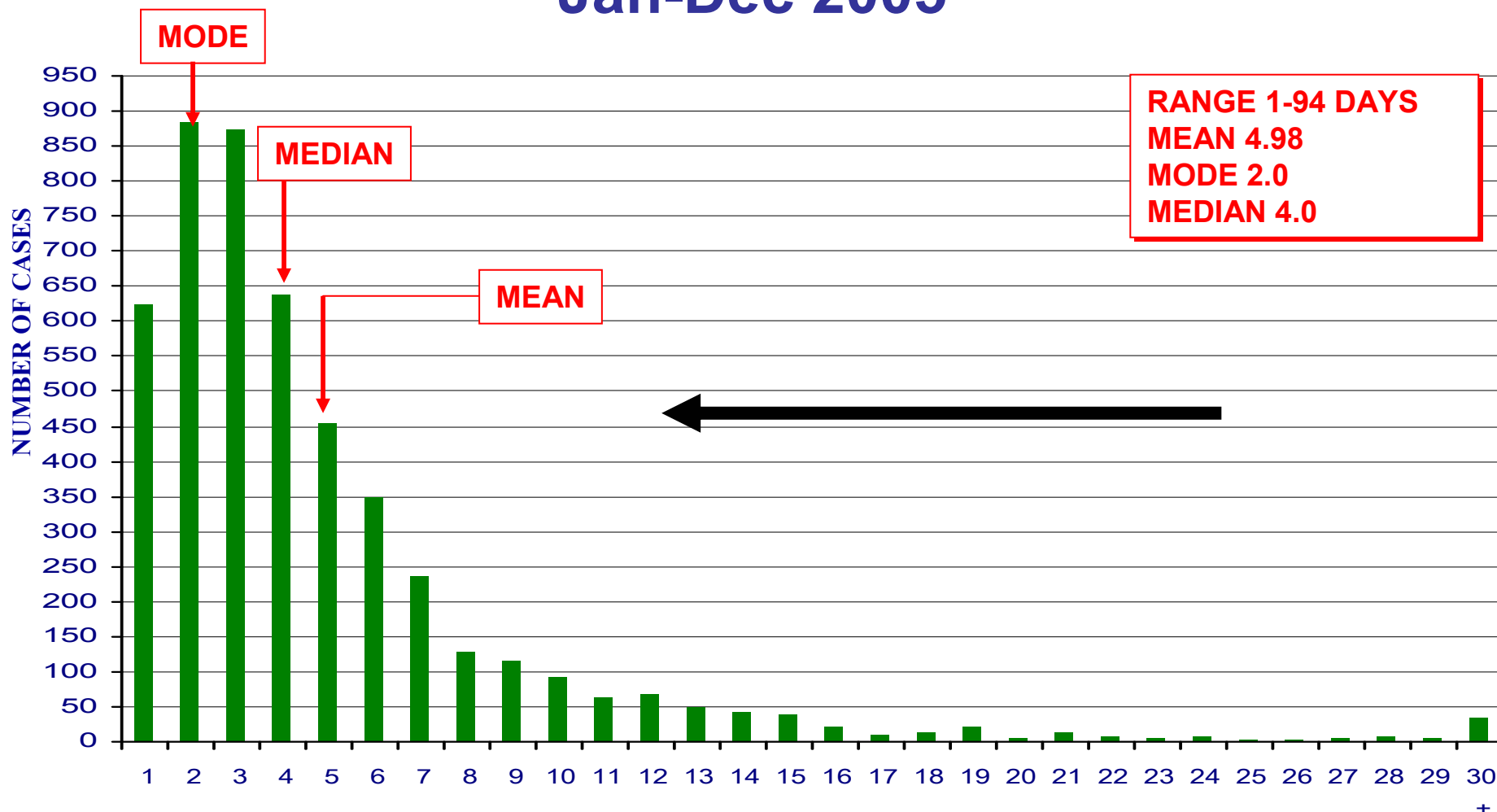
CCF ALOS

AVERAGE LENGTH OF STAY



CCF

Frequency Distribution by Length of Stay Jan-Dec 2005



SOURCE: TSI CCM ADM REPORTS 56/57

Based on 4,821 Cases - 288/970 LOS outliers excluded

Monitor and Evaluate Outcome Criteria

Quality Indicators:

Re-admission

Emergency Department Visits

Return to Operating Room (Multiple
Surgery)

Overall Operational Improvements

Reduction in length of stay= 81/100ths of a day

Saved/Avoided 4,000 patient days

Estimated Direct Cost Savings of 4% of Budget

Better Documentation in Medical Records

Improvement in discharge disposition and other UB-92 elements

Overall Operational Improvements

Improvement in front end accuracy regarding patient clinical, demographic and financial information

Best practice implemented in top Diagnostic Related Groups

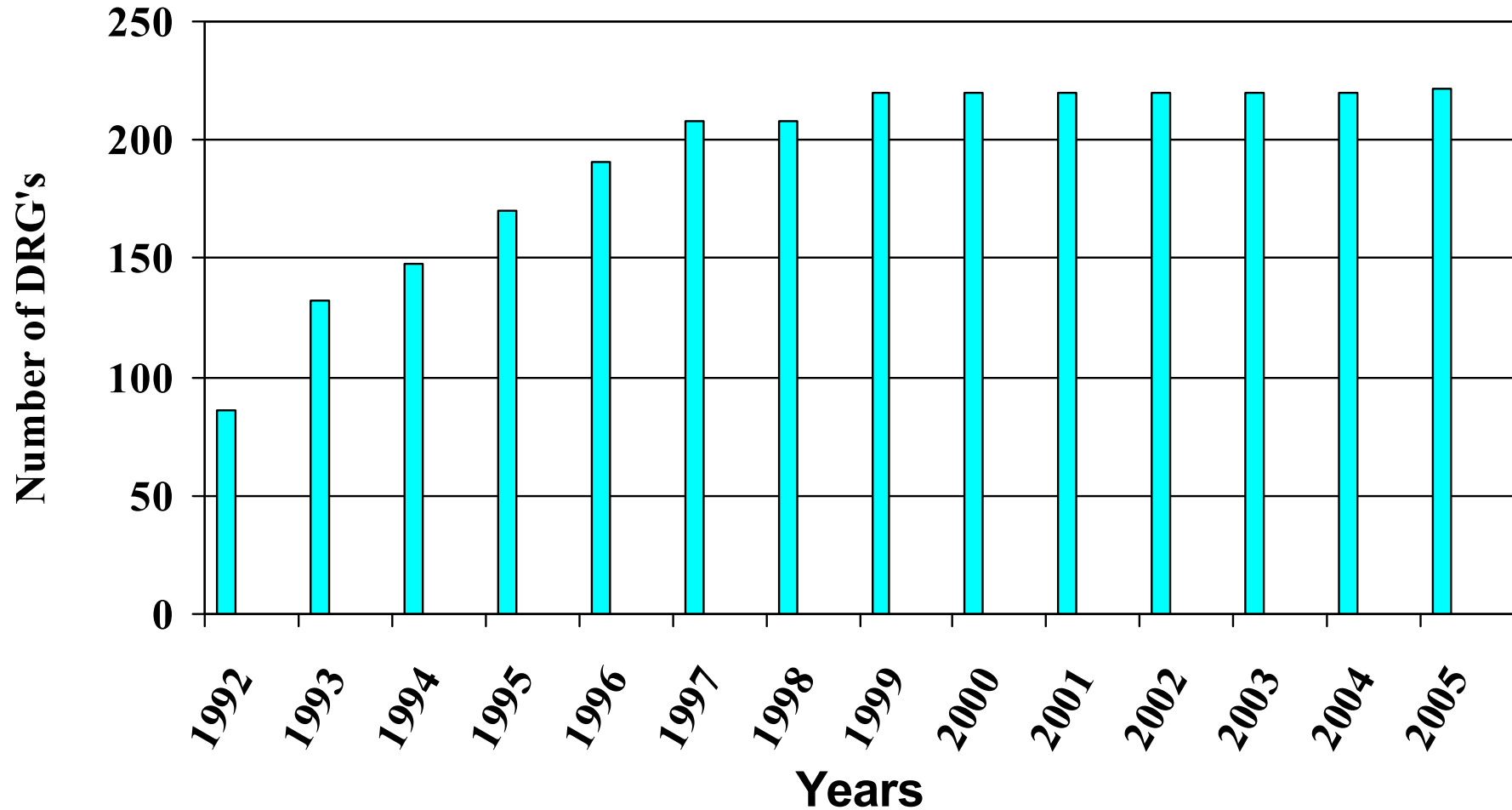
Clinical and non-Clinical personnel working collaboratively with common data

Development of Targets at Cleveland Clinic

- Development of targets for LOS by DRG
- The lowest length of stay chosen each year for each DRG between:
 - Cleveland Clinic Health System
 - Medicare Geometric Mean
 - Western Region of US

CCF DRG's

CCF DRG's MEETING TARGET LOS



Opportunity Days

- Opportunity days were developed and monitored to show CCF physicians and management how much bed space could be saved in a years time.

Opportunity Days

- Example of Opportunity Days

- DRG 148:

- Mean Length of Stay = 11.1 days

- Target LOS = - 9.3 days

- Opportunity day per each case = 1.8 days

- Annual Volume by DRG = x 225

- Total Estimated Opportunity Days = 405

Pulmonary, Allergy, & Critical Care Top DRG's & Opportunity Days for 2006

DRG	DRG Description	Actual LOS	Target LOS	Variance between Actual & Target	Estimated Volume for 2005	Estimated Opportunity Days for 2006
76	Other Respiratory system OR procedures with CC	10.99	8.30	2.69	102	274.4
475	Respiratory system diagnosis with ventilator support	11.64	8.00	3.64	94	342.2
144	Other circulatory system diagnosis with CC	4.97	1.70	3.27	67	219.1
101	Other respiratory system diagnosis with CC	5.09	3.30	1.79	49	87.7
541	Trach with vent with OR	62.62	38.7	23.92	37	885.0
88	Chronic obstructive pulmonary disease	3.69	4.10	-0.41	28	-11.5
416	Septicemia	8.93	5.50	3.43	32	109.8
75	Major chest procedures	15.00	7.6	7.4	26	192.4
202	Cirrhosis and alcoholic hepatitis	7.79	4.50	3.29	21	69.1
542	Trach with vent w/o OR	37.61	27.5	10.11	20	202.2

Target Direct Cost - DRG

- DRG has a targeted direct cost
- The direct cost is reduced annually by 5% with adjustments for inflation

Establishment of Additional Targets

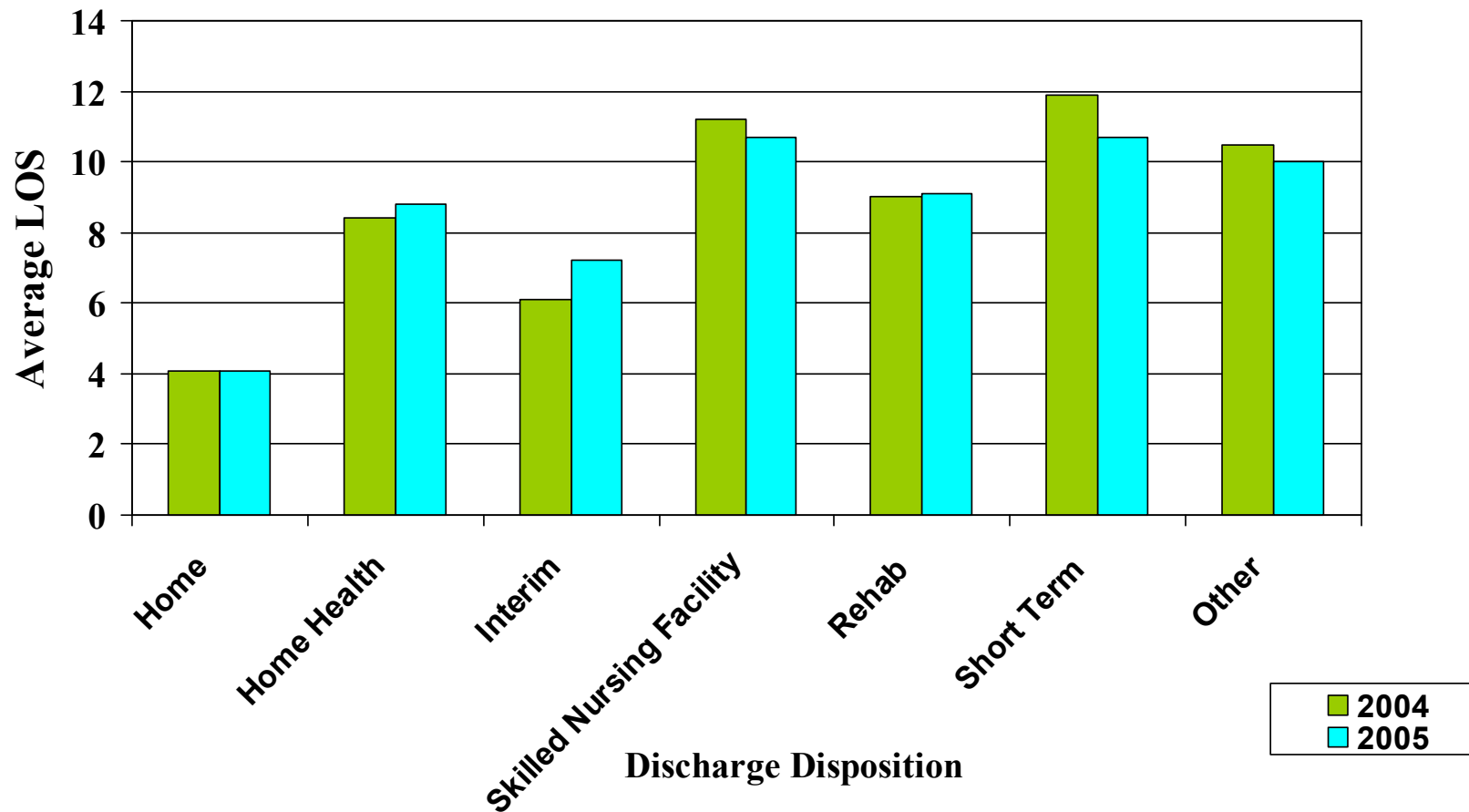
- Additional targets have arisen to assist with throughput and access within a hospital
 - Acute Admissions
 - Total Physician Visits
 - Clinic Quality of Care
 - Confidence and Trust in Physician

Discharge Disposition

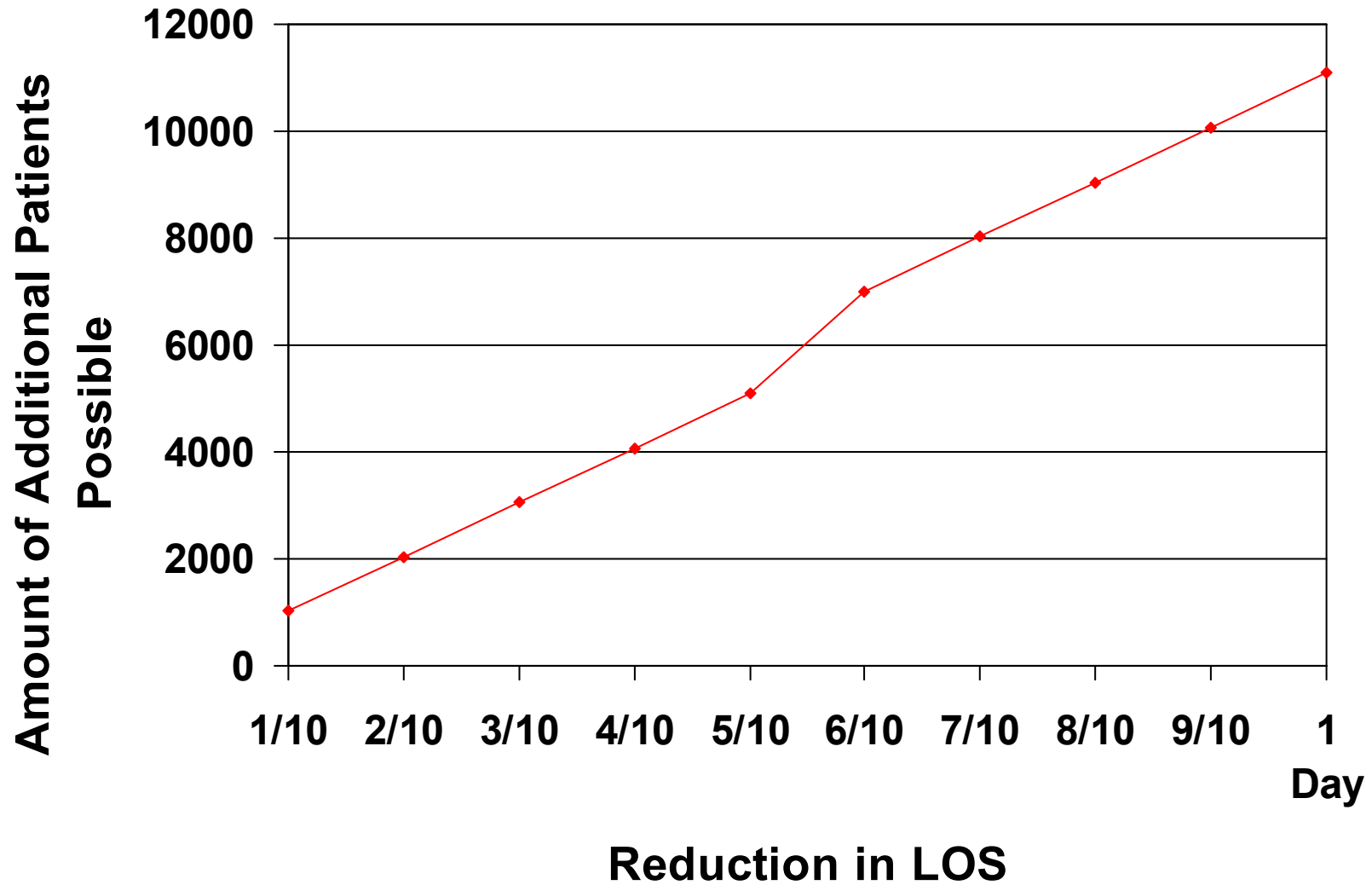
- In U.S. all people classified at end of stay with discharge distribution

CCF ALOS by Discharge Disposition

AVERAGE LOS BY DISCHARGE DISPOSITION



Reduction in LOS Statistics



Development of the Discharge Lounge

To help to improve throughput and patient access.

Discharge Lounge

- An area where discharged patients can wait for their rides which creates more bed space.
- Staffed with a team of healthcare professionals
 - Schedule follow-up appointments
 - Fill prescriptions
 - Discuss going home instructions
 - Can arrange for transportation for unforeseen obstacles

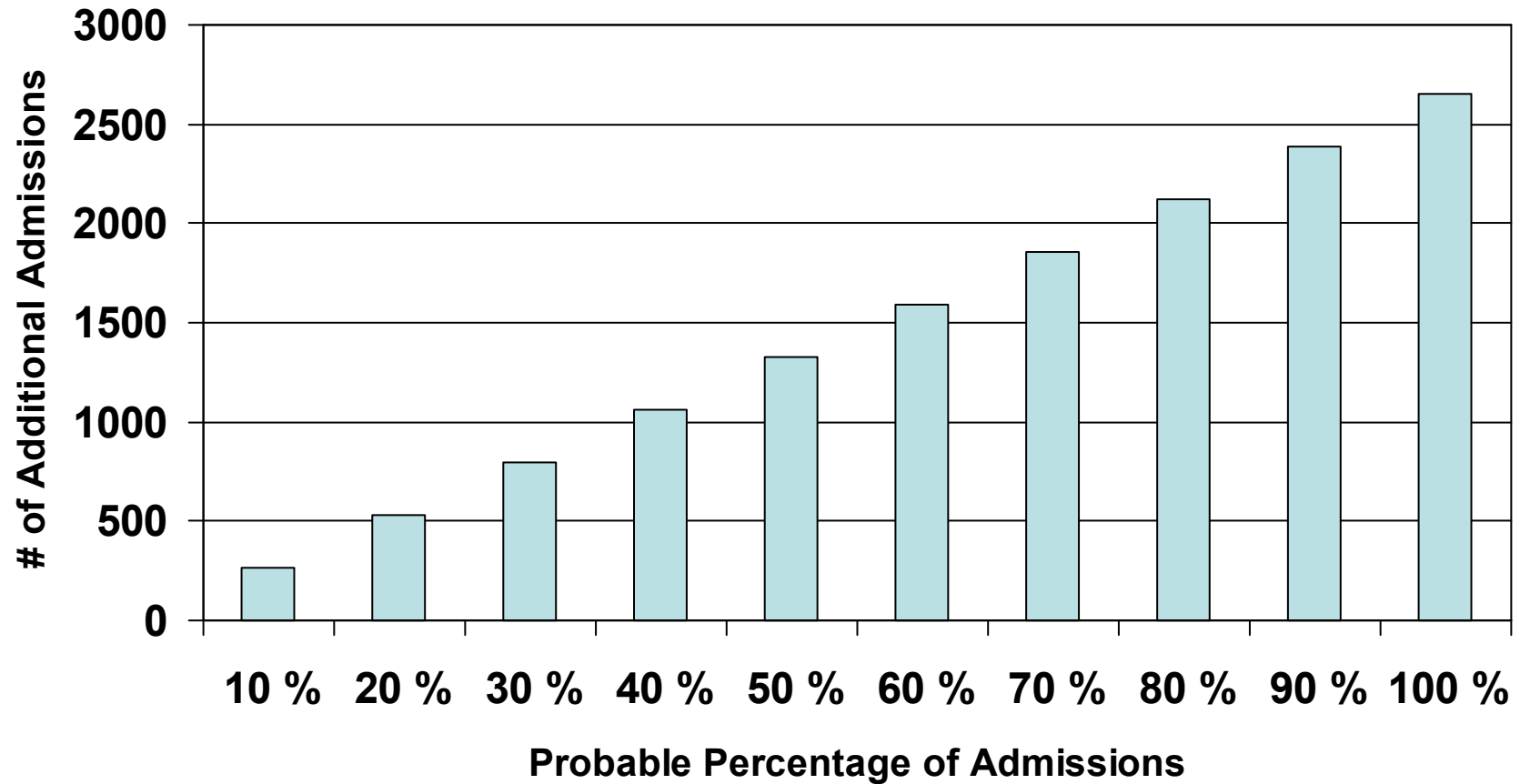
Discharge Lounge Offers

- Comfortable recliners
- Telephones
- Beverages
- Snacks
- Restroom facilities
- Television
- Internet access

Additional Services of the Discharge Lounge

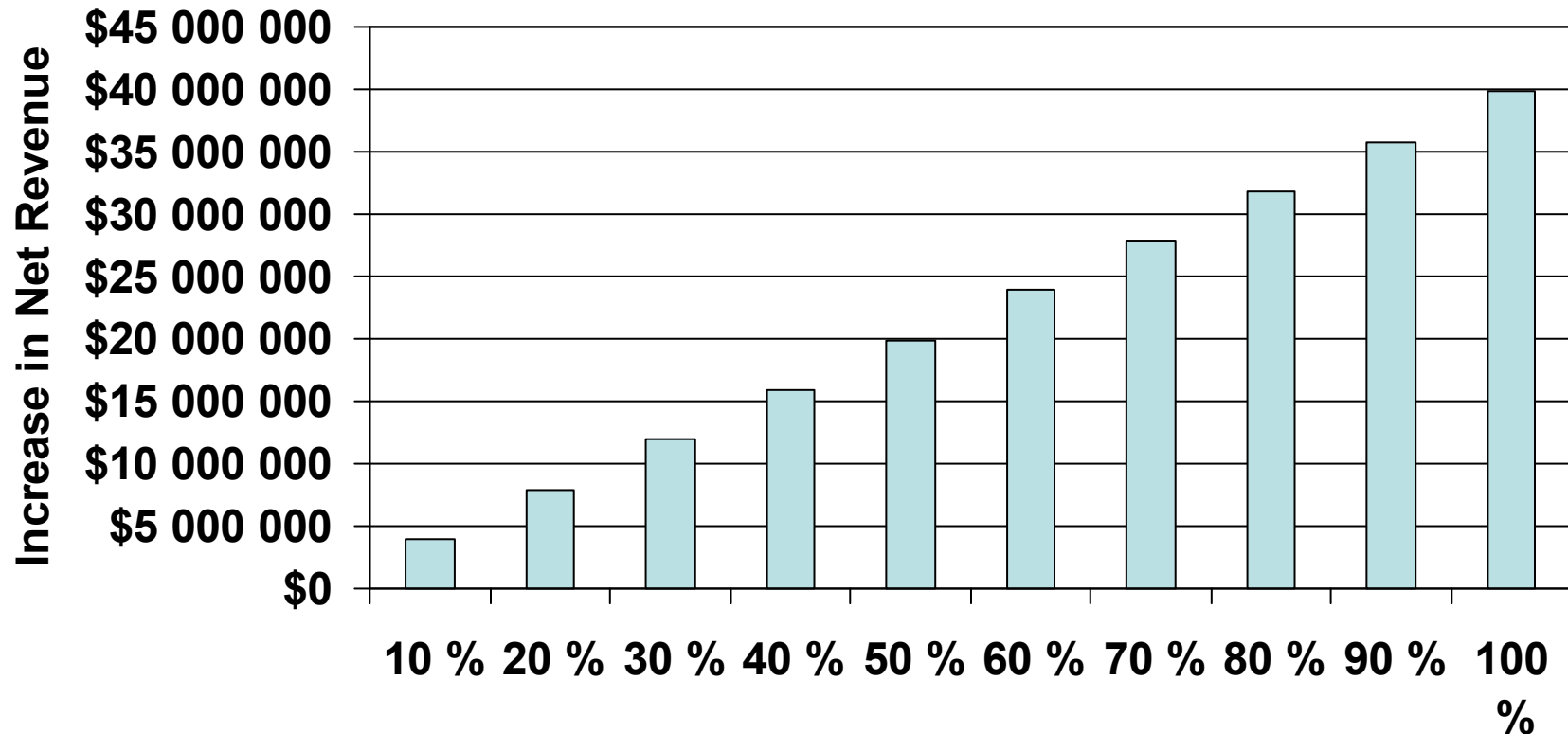
- Restful area for radiation patients receiving AM and PM treatments.
- Relief for Interventional radiology outpatient recovery area
- Option for direct admits during long admission waits.
- Assist with patient callback surveys.

Additional *Admissions* Due to Patient Utilizing Discharge Lounge Sensitivity Analysis 2005



Based on 2652 Patients

Additional *Net Revenue* Due to Patient Utilizing Discharge Lounge (10% -100% Scale) Sensitivity Analysis 2005

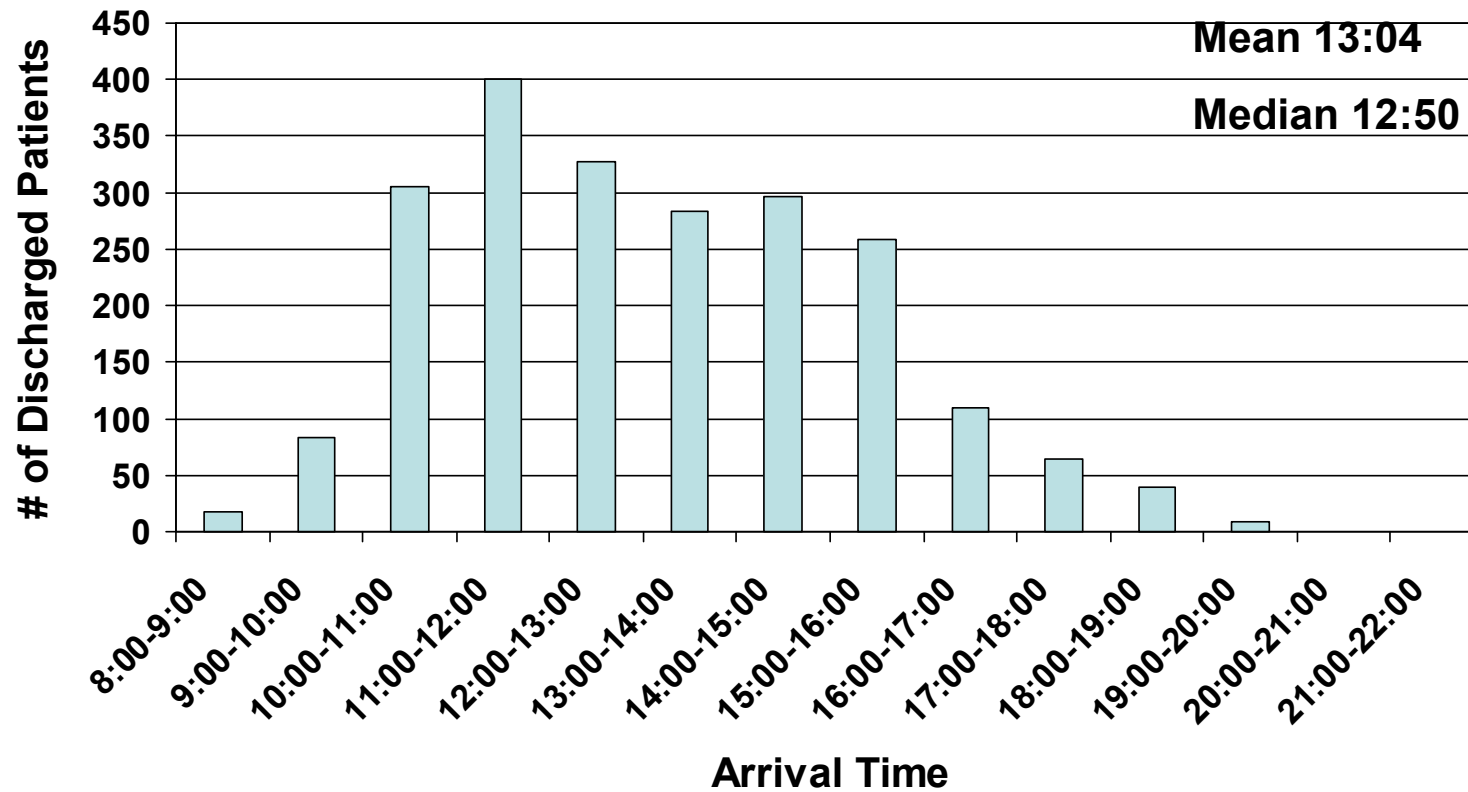


Probable Percentage of Admissions

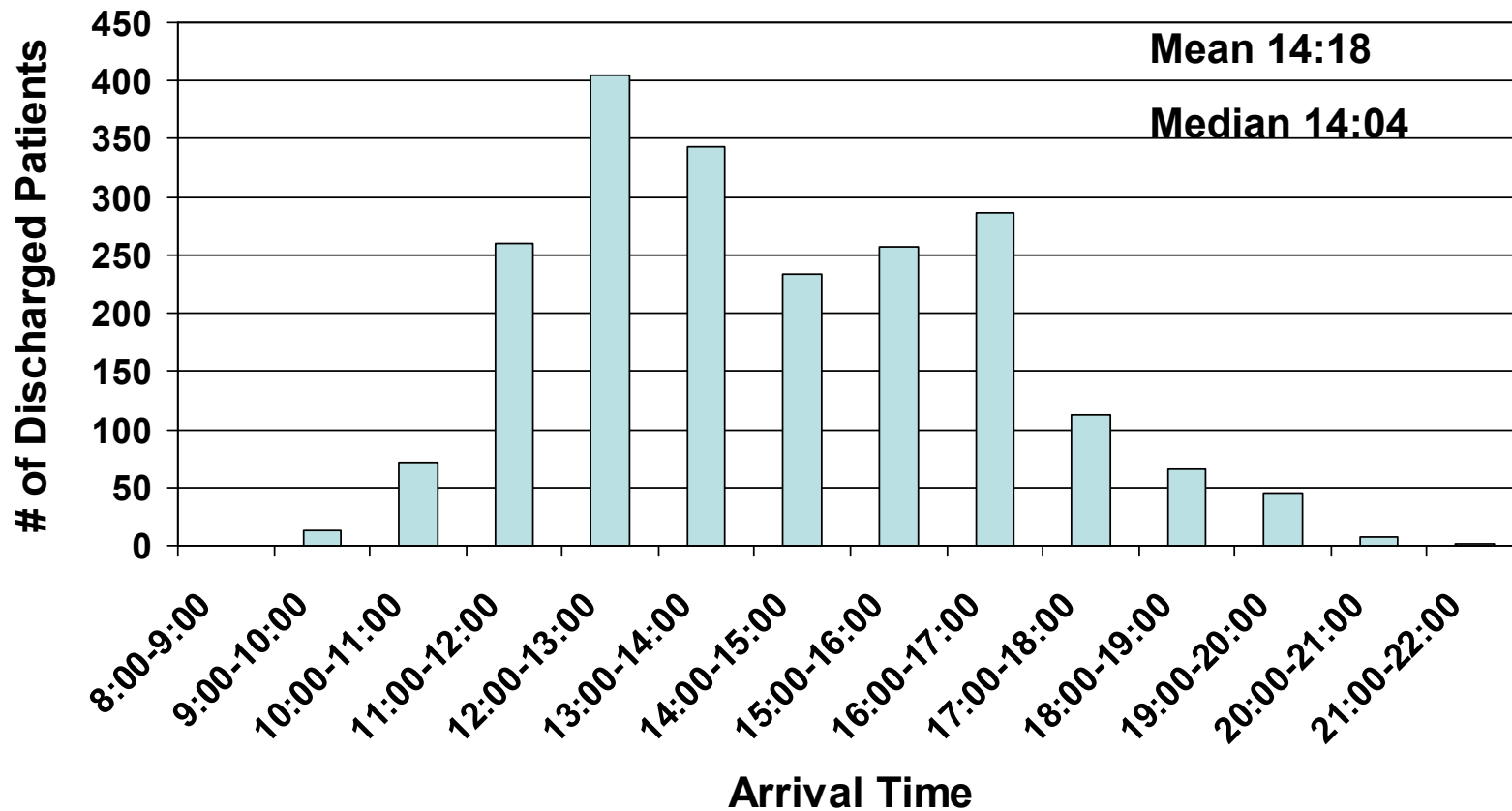
Based on 2652 Patients

Technical Net Revenue based on \$15,000

Times Beds are Available With Discharge Lounge 2005



Times Beds Would Be Available Without Discharge Lounge – Mean of 1 hr 14 mins - 2005



Mean (additional time added) = 1 Hour 14 Minutes

Length of Stay & Time Utilization of the Discharge Lounge by Discharge Patients - 2005

- Total Time Discharge Lounge Used by Discharged Patients
 - 136 Days 15 hours 40 minutes
 - or 3279 hours 40 minutes
 - or 12.9 hours a day
- Average Length of Stay in Discharge Lounge
 - Mean LOS 1 hours 14 minutes
 - Median LOS 45 minutes
 - Mode LOS 10 minutes
 - Range LOS 5 minutes – 10 hours 20 minutes

Length of Stay & Time Utilization of the Discharge Lounge by Inpatients - 2005

- Total Time Discharge Lounge Used by Inpatients
 - 103 Days 16 hours 33 minutes
 - or 2488 hours 33 minutes
 - or 9.8 hours a day
- Average Length of Stay in Discharge Lounge by Inpatients
 - Mean LOS 1 hour 09 minutes
 - Median LOS 40 minutes
 - Mode LOS 10 minutes
 - Range LOS 5 minutes – 10 hours 20 minutes

Discharge lounge

- In an effort to streamline the discharge process so that patients and their families can plan more effectively, we have established a standard time—11:00 a.m.—for all hospital discharges.
- The Discharge Lounge offers a comfortable and convenient place for patients who have been discharged from an inpatient hospital unit and are awaiting transportation home.
- For your convenience, the Discharge Lounge is staffed with a team of healthcare professionals who can assist you with:
 - Scheduling follow-up appointments
 - Filling your prescriptions
 - Discussing your home going instructions
 - When necessary, arranging transportation for unforeseen obstacles

Conclusion

- Support from top leadership can make a difference:
 - Lowering LOS
 - Reducing Resource Consumption
 - Increase Patient Access