# Measuring Success: Clinical and Operational Excellence at Valley Baptist Health System

August 22, 2006

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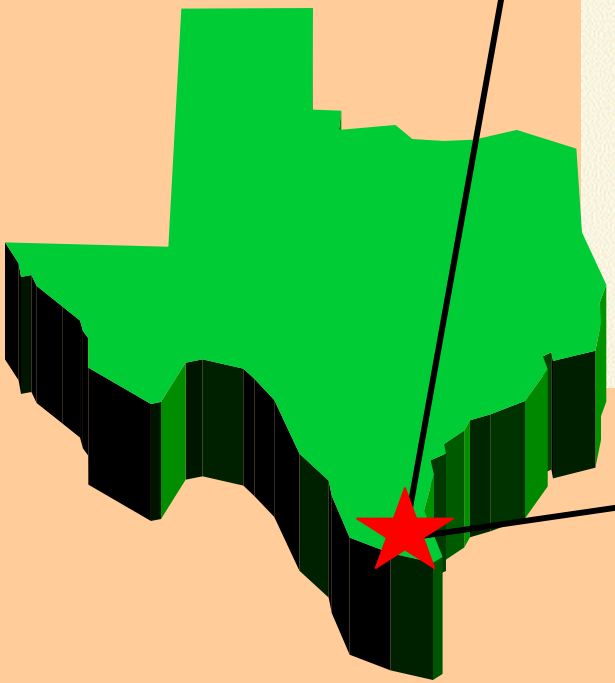
# Rio Grande Valley

# Valley Baptist Health System

- Valley Baptist Medical Center - Harlingen
  - 611 Licensed Beds
  - Lead Level 3 Trauma Center
  - State of the Art Children's Center
  - # 1 Rated Orthopedics Service
  - Heart & Vascular Institute
  - Teaching facility for the Regional Academic Health Center of The University of Texas Health Science Center at San Antonio
- Valley Baptist Medical Center – Brownsville
  - 243 Licensed Beds
  - Level 3 Trauma Center
  - State of the Art Imaging Center
  - Center of Diabetes Management
- Other Entities
  - Golden Palms Retirement and Healthcare Center
  - Valley Baptist Health Plans
  - Advanced Medical Supply (DME)
  - Valley Baptist Ambulatory Surgery Center
  - Clinical Pastoral Education Center
  - Licensed Vocational Nurse School
  - Family Practice Residency Program
  - Internal Medicine Residency Program
  - Home Health & Hospice
  - Rehabilitation & Wellness
  - Behavioral Health Services

# Valley Baptist Health System

- Strategic Initiatives
  - Integration
  - Simplicity
  - Six Sigma Quality
  - Relentless Service
  - Expansion of Services & Regionalization
- Values
  - Disciplined
  - Entrepreneurial
  - Performance Oriented
  - Accountable

# How did we begin implementing Six Sigma?

- CEO Commitment
  - Vision
  - Leadership
  - Resources (time, money, people)
- Partnership with General Electric Medical Systems
  - Guidance
  - Expert Knowledge
  - Training – Six Sigma, CAP, Work-Out™
  - Project Mentoring
  - Transition Assistance

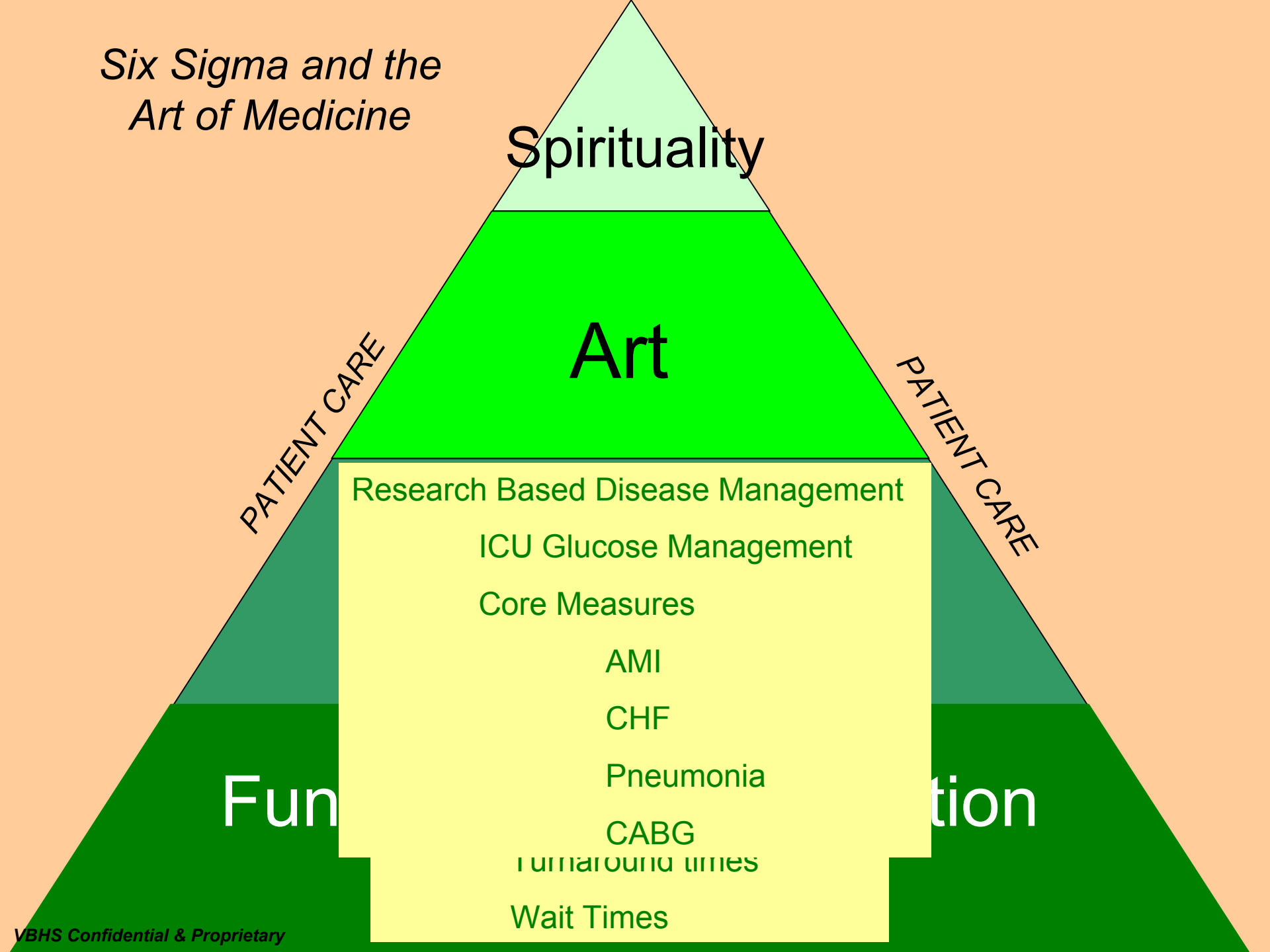
# Roles at VBHS

- Master Black Belt – 6 Sigma mentor and educator
- Black Belt – 6 Sigma trained specialist who works on 6 Sigma improvement initiatives on a full time basis
- Green Belt – 6 Sigma trained specialist who uses the Six Sigma methodology to solve problems as a function of their normal work
- Yellow Belt – Physicians and Executives trained in basic 6 Sigma methods who assist with problem solving, initiative sponsorship and solution implementation
- Sponsor – Executive with responsibility to identify 6 Sigma initiatives, assign resources and remove barriers
- Change Agent - Expert in the application of CAP and Work-Out™ tools

# Six Sigma Practitioners at VBHS

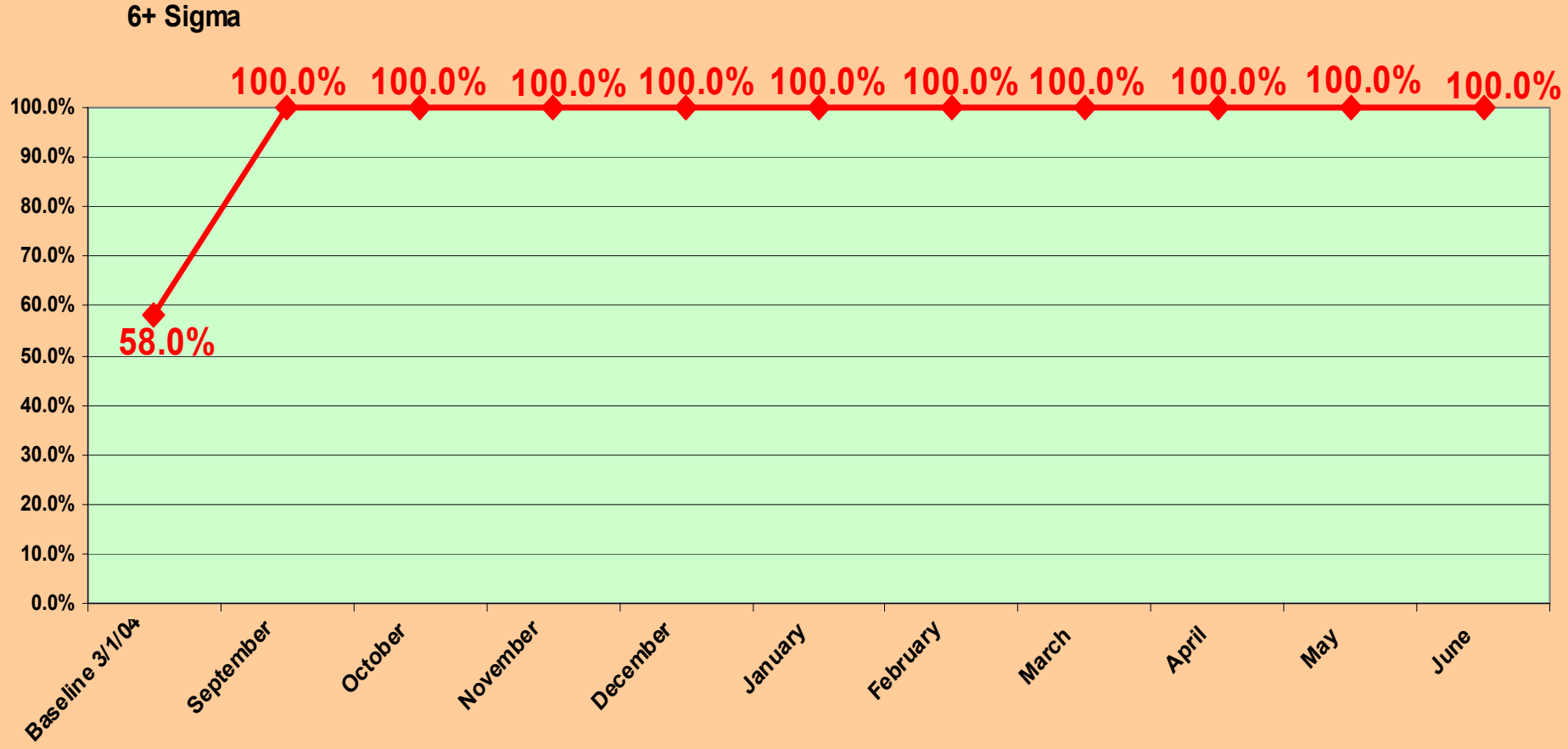
- **Certified Master Black Belts (5)**
- **Black Belts (4)**
  - **3 Harlingen**
  - **1 Brownsville**
- **Green Belts (61)**
  - **31 Certified**
  - **27 Seeking Certification**
- **Yellow Belts (34)**
  - **15 Executives**
  - **19 Physicians**
- **Master Change Agents (2)**
- **Change Agents (237)**
  - **190 Harlingen**
  - **47 Brownsville**
- **Six Sigma Physician Council (16)**
- **Future**
  - **All Executives will be trained to Yellow Belt level**
  - **All Directors and Managers to Green Belt certification**

*Six Sigma and the Art of Medicine*



# Examples of Clinical and Operational Initiatives

# Heart Failure Management
## Christopher H. Hansen, M.D.
## FY 2006




**Y = % Compliance with all four CMS Core Measures for Heart Failure**

# *Modern Healthcare Magazine "Right on the Money"*

November 14, 2005

**The Week** in Healthcare

QUALITY >> *Cinda Becker*

## Right on the money

*CMS awarding pay-for-performance bonuses*

The CMS will write out bonus checks for a total of $8.85 million to 123 top-performing hospitals in a groundbreaking pay-for-performance demonstration project that is being coordinated by hospital alliance Premier.

The results from the first year of the three-year project, which were expected to be officially released by the CMS on Nov. 14, resoundingly validate the premise that paying for quality is the elusive catalyst needed to spur significant quality improvement, according to Richard Norling, Premier's president and chief executive officer. Hospital performance in each of five clinical areas included in the project improved significantly, while variation in performance between the highest and lowest performers increasingly narrows as the project continues with its second year already completed.

Improvements in composite quality scores between the first and last quarters of the first year ended September 2004 ranged from 85% to 91% for heart attack patients and 69% to 79% for community-acquired pneumonia.

"From Premier's point of view, the real power in this is that we have been able to go to the data and isolate the people performing at the top levels and find out how they do what they do," Norling said.

The results, released exclusively to *Modern Healthcare* by Premier, arrive at a tenuous moment for the mushrooming pay-for-performance movement. Although various initiatives that financially reward stellar care are proliferating in all areas of healthcare, the most comprehensive study of one such project at a large health plan found mixed results (Oct. 31, p. 7).

Ferreri: The project has helped make our staff more competitive.

The hospital industry also is grappling with the very real possibility that the movement will evolve from a carrot to a stick approach in which rather than rewarding the high performers, payers will eventually penalize low performers for poor outcomes.

"I think that's a reality, unfortunately," said Doug Hawthorne, president and CEO of Texas Health Resources in Arlington, Texas, and Premier's board chairman. "The key will be whether (payers) just take the money and redistribute it vs. adding dollars. That's my concern that there will be no difference in the money being spent, it will just been redistribution."

The Premier demonstration, which was launched October 2003 and includes 268 hospital participants, is designed to reward with cash payments the top 20% performers in each of five clinical areas: heart failure, pneumonia, bypass surgery, heart attack and hip and knee replacement. The participating hospitals were graded by how often they followed [illegible] scores for each clinical [illegible] the quality score for [illegible] given focus area.

The performers in [illegible] will receive a 2% bo[illegible] that area, and those [illegible] receive a 1% bonus. [illegible] year—Oct. 1, 2003 [illegible] were set for the bottom [illegible] tals below those two [illegible] of the demonstration [illegible] 2% reduc[illegible] ments, re[illegible] cials will re[illegible] For the [illegible] at least, t[illegible] from the [illegible] improved [illegible] length of [illegible] tions. No[illegible] some upsi[illegible] in Congr[illegible] bonus po[illegible] cuts. In [illegible] would ultimately [illegible] rather than reward[illegible] can't and won't be [illegible] that ... is funded [illegible] ments," Norling [illegible] But the project is [illegible] revealing hospital [illegible] addition to the cash [illegible] formers, the CMS [illegible] those hospitals fall[illegible] each category. As par[illegible] between the CMS [illegible] will not publicly reve[illegible] tranately 130 lower-per[illegible] into the bottom 20[illegible] gories, although it we[illegible] voted consumer to [illegible] names of all the hosp[illegible] ter of public record.

"CMS probably [illegible] transparency demon[illegible] mance," Norling [illegible] going to make a year[illegible] but I think hospitals [illegible] more of it coming d[illegible]

Physician John Alexander performs a coronary artery bypass graft at Hackensack University Medical Center, which performs nearly 2,300 of those surgeries per year.



## TOP PERFORMERS

These hospitals won the highest rankings in a CMS pay-for-performance demonstration project

### ACUTE MYOCARDIAL INFARCTION

| | |
|---|---|
| **Fairview Lakes Regional Health Care**, Wyoming, Minn. | 99.4% |
| **McLeod Regional Medical Center**, Florence, S.C. | 97.98% |
| **Alegent Health-Immanuel Medical Center**, Omaha, Neb. | 97.87% |
| **Methodist Hospital**, St. Louis Park, Minn. | 97.85% |
| **Mercy Medical Center-North Iowa**, Mason City, Iowa | 97.73% |

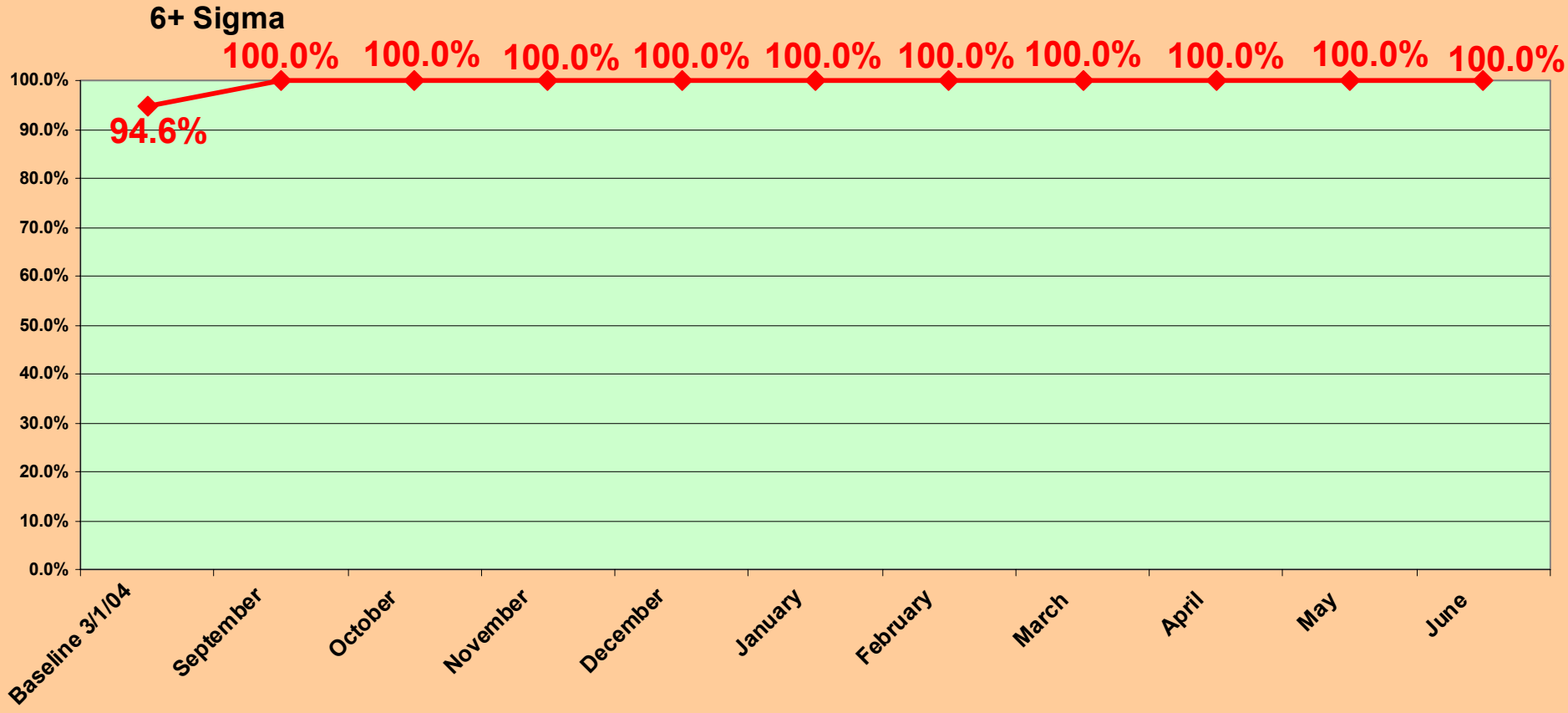
### HEART FAILURE

| | |
|---|---|
| **Lourdes Hospital**, Paducah, Ky. | 96.36% |
| **East Alabama Medical Center**,* Opelika | 96.23% |
| **St. Vincent Mercy Medical Center**, Toledo, Ohio | 95.86% |
| **Valley Baptist Medical Center**, Harlingen, Texas | 94.5% |
| **Hackensack (N.J.) University Medical Center** | 94.22% |

## CMS Pay for Performance

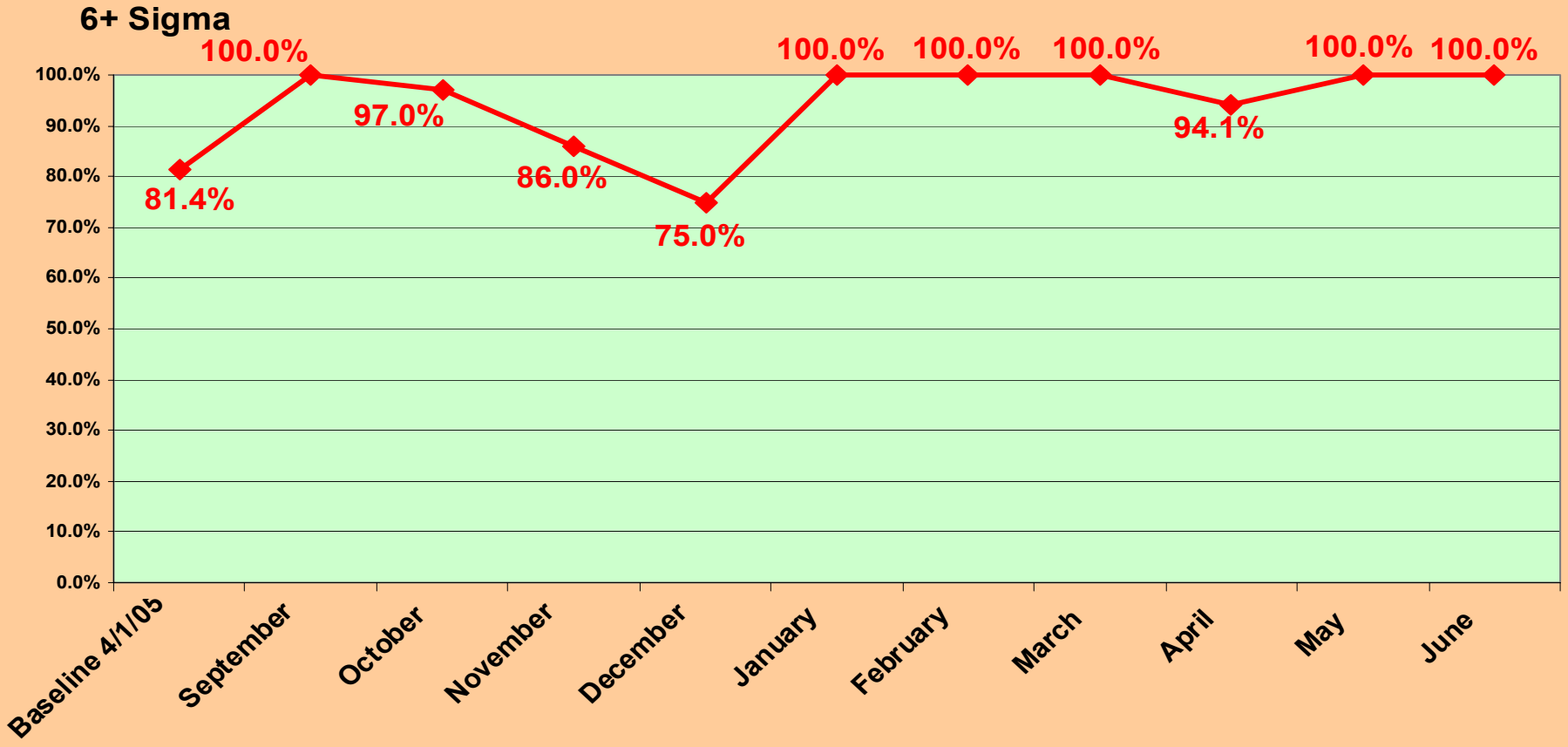
- Launched October 2003 with 268 hospital participants
- Cash rewards for total of $8.85 million to 123 hospitals the top 20% performers in five clinical areas:
  - –heart failure, pneumonia, bypass surgery, heart attack and hip and knee replacement.
- Hospitals graded on quality measures, earning a composite quality score in any given focus area.

# Acute Myocardial Infarction
# Christopher H. Hansen, M.D.
# FY 2006



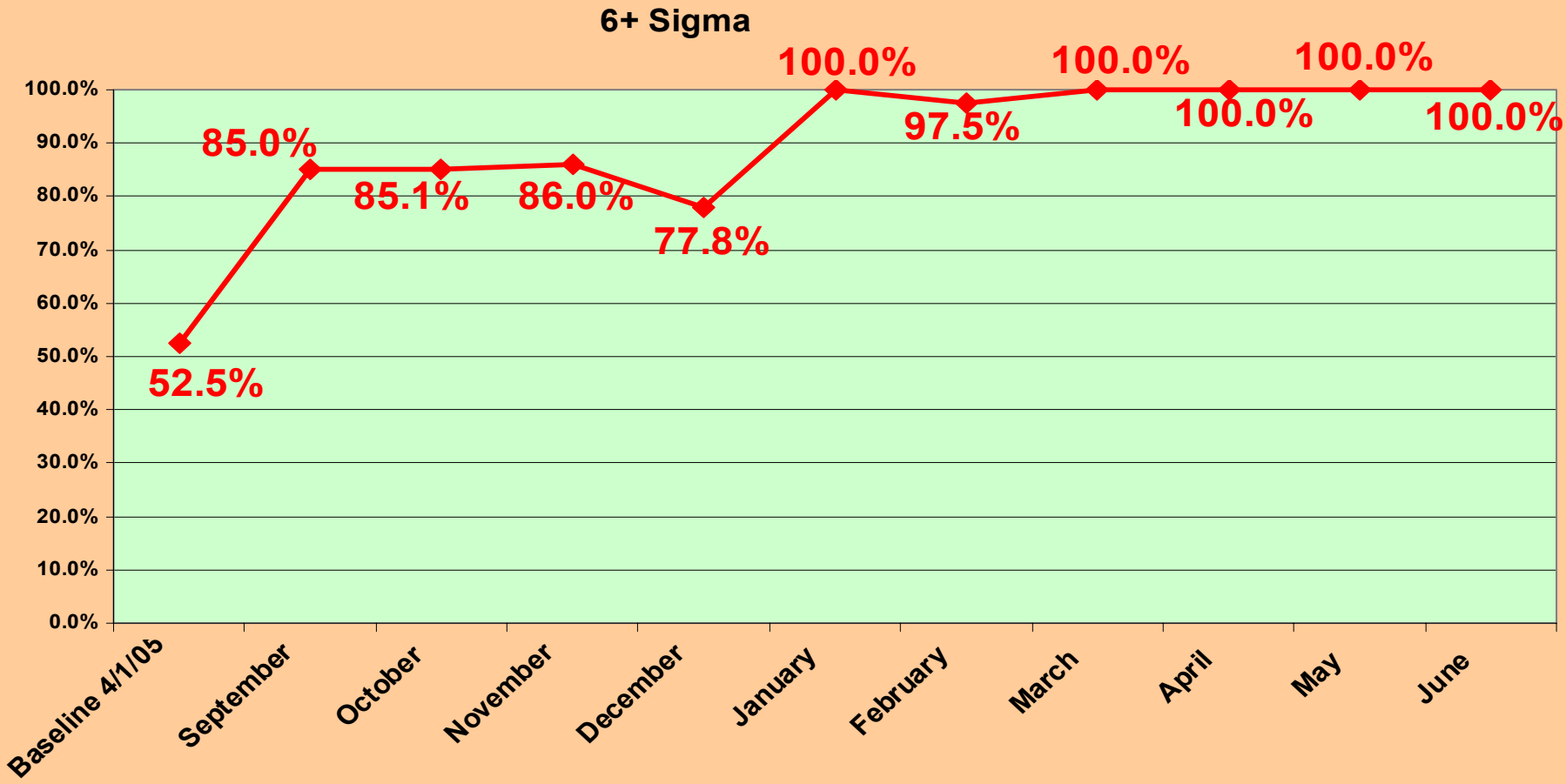

**Y = % compliance with CMS AMI Core Measures**

# Acute Myocardial Infarction
# Lorenzo Pelly, MD
# FY 2006



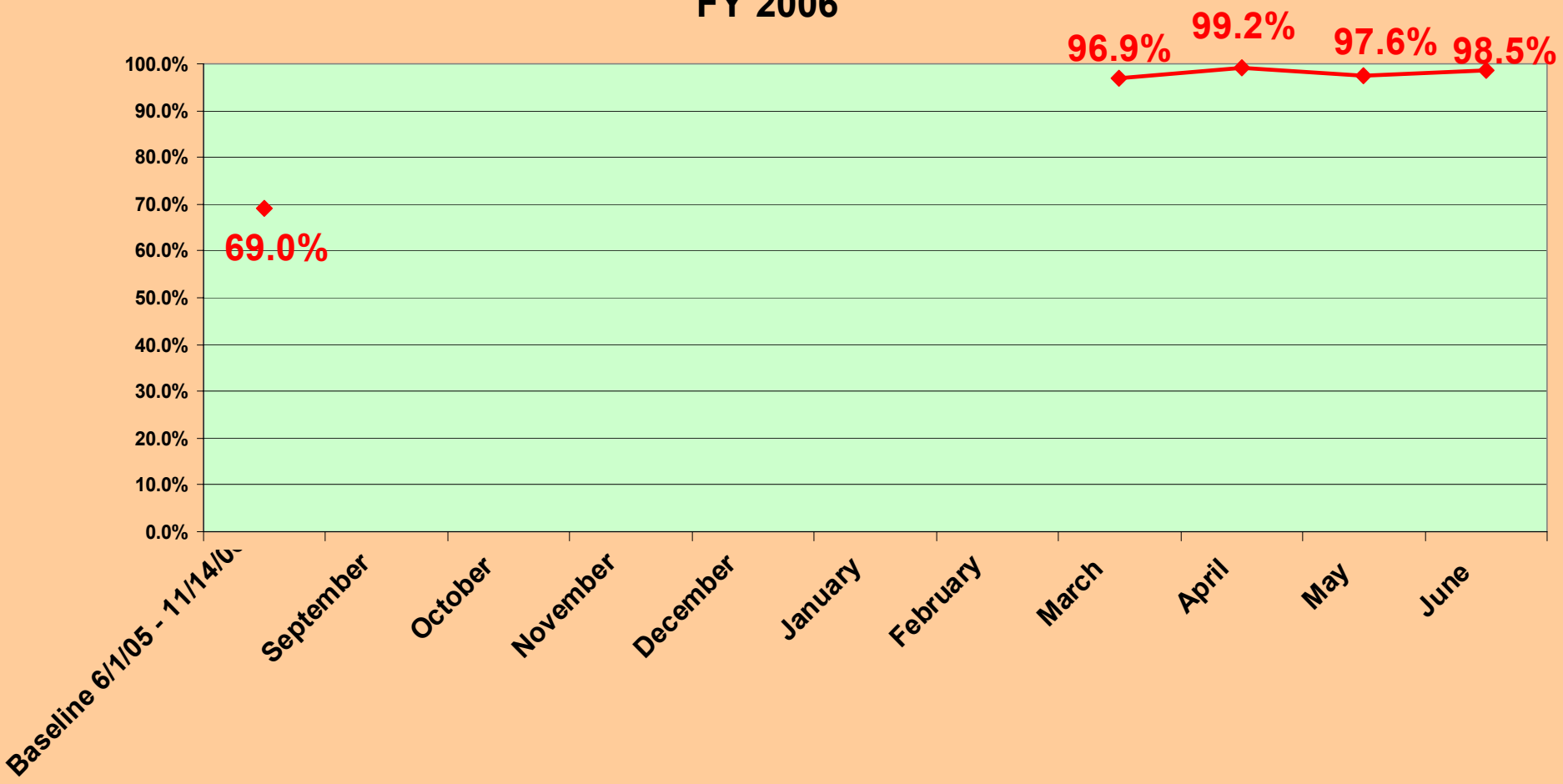

**Y = Compliance to all CMS Core Measures**

# Heart Failure Management
# Lorenzo Pelly, MD
# FY 2006



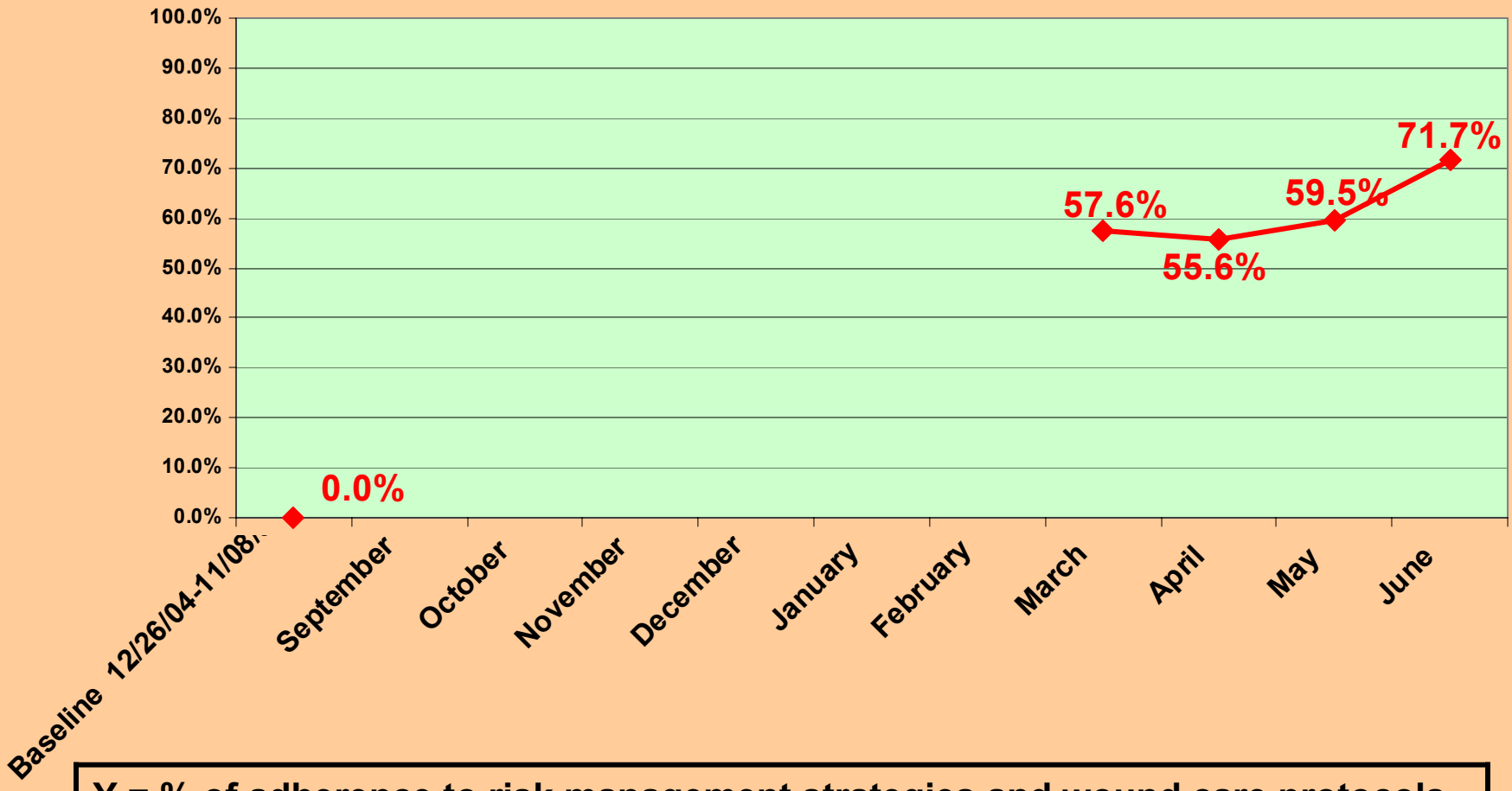

Y = Compliance to all CMS Core Measures

# Adult Intensive Care Unit Glucose Mgmt
## Gloria Tobin, CNO
## FY 2006



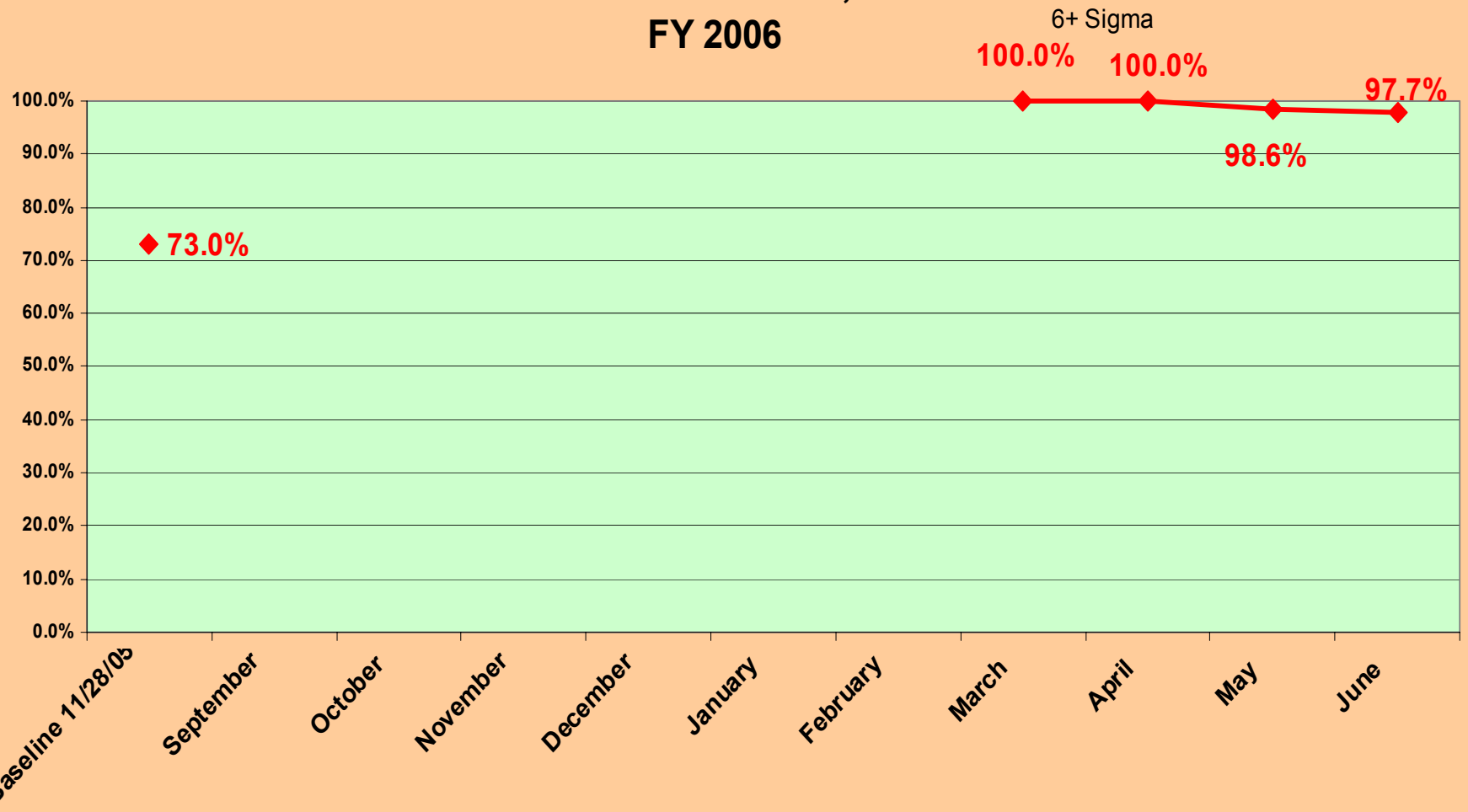

**Y = Compliance with all 8 Core Measures**

# Pressure Ulcer Prevention
# Lorenzo Pelly, M.D.
# FY 2006



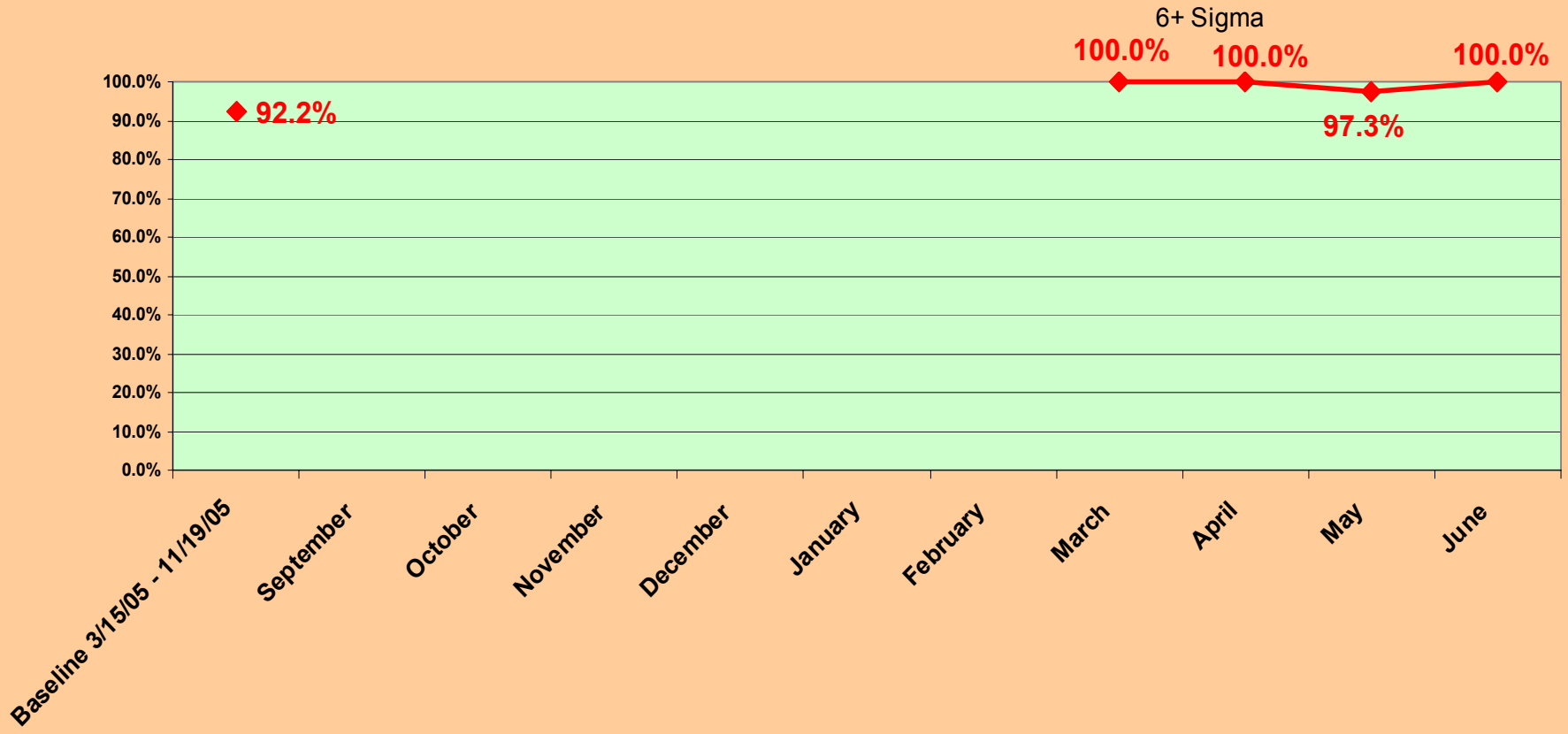

**Y = % of adherence to risk management strategies and wound care protocols for patients identified at risk by the nurse**
**Target = 100%**

# Advance Directive TAT
## Tomas A. Gonzalez, MD
## FY 2006



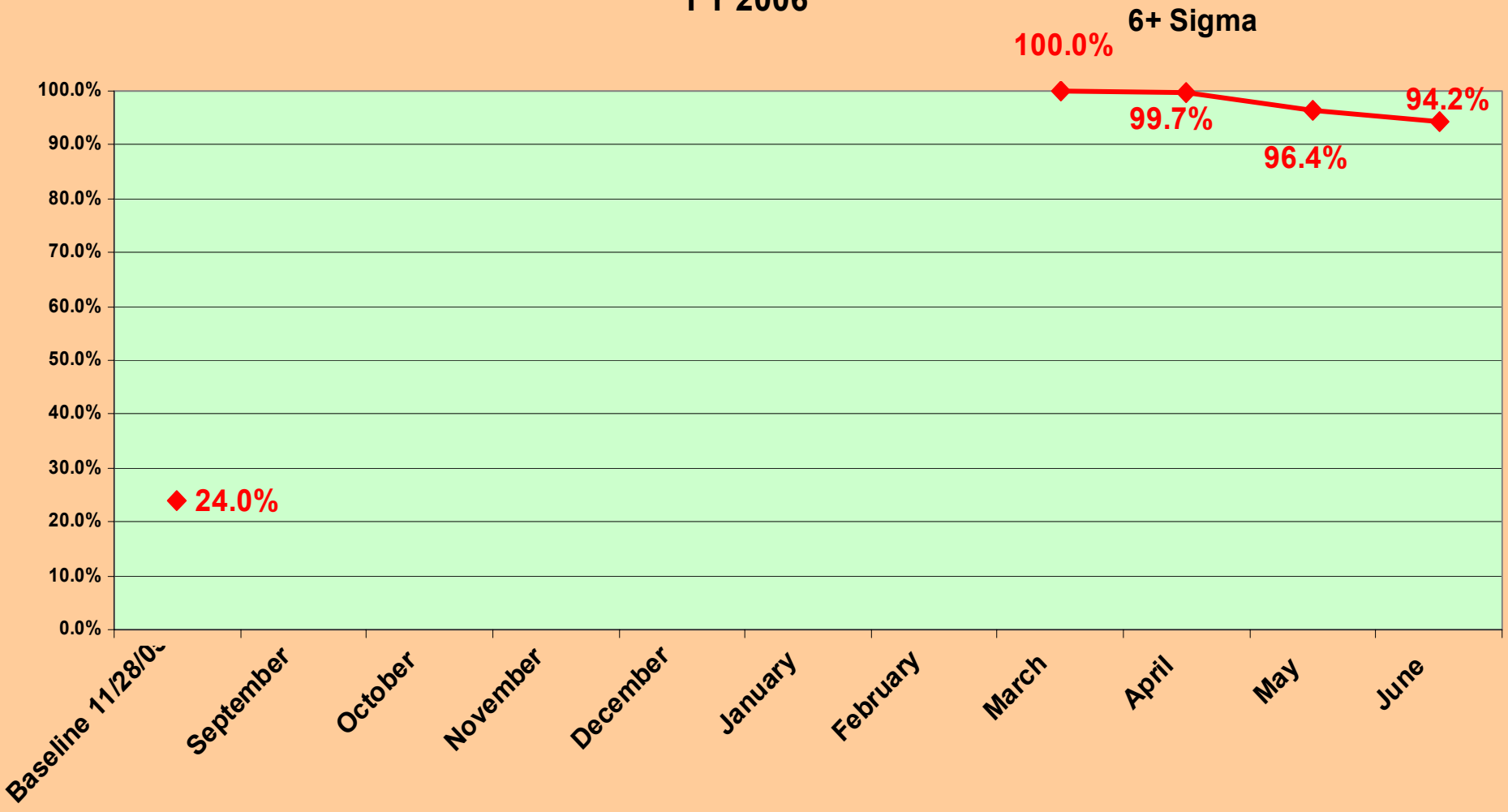

**Y = Time elapsed from AD order placed until AD documentation in the medical record**
**USL=48 hrs**
**Target=24 hrs**

# DRG Assurance of Accuracy (VB-B)
## Gary Lampi
## FY 2006



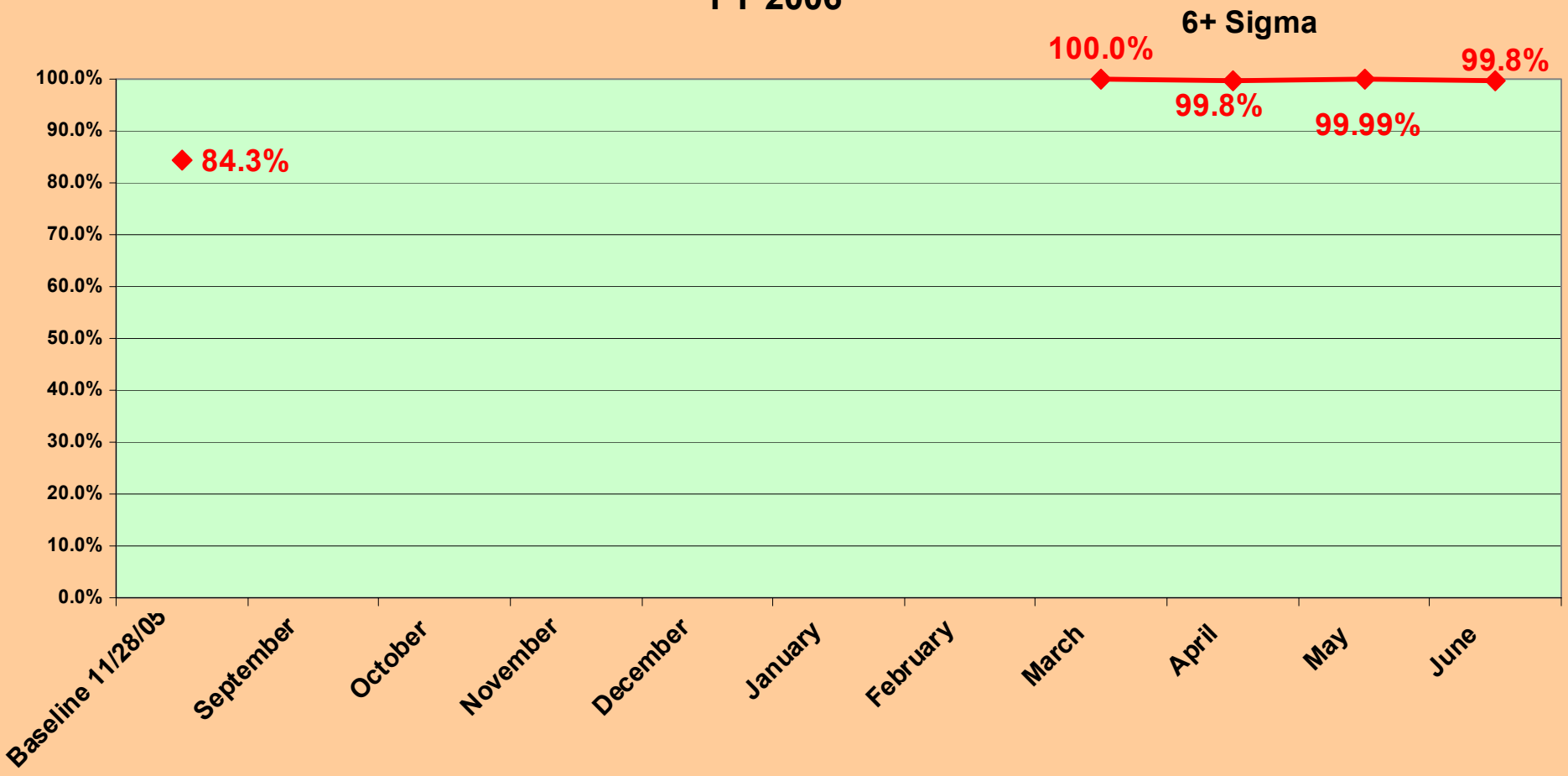

**Y = % Accuracy of DRGs (Medicare charts only)**
**Target = 100%. Six DRGs are included: 14, 15, 79, 89, 320, and 416**

# Advance Directive
## Tomas A. Gonzalez, MD
## FY 2006



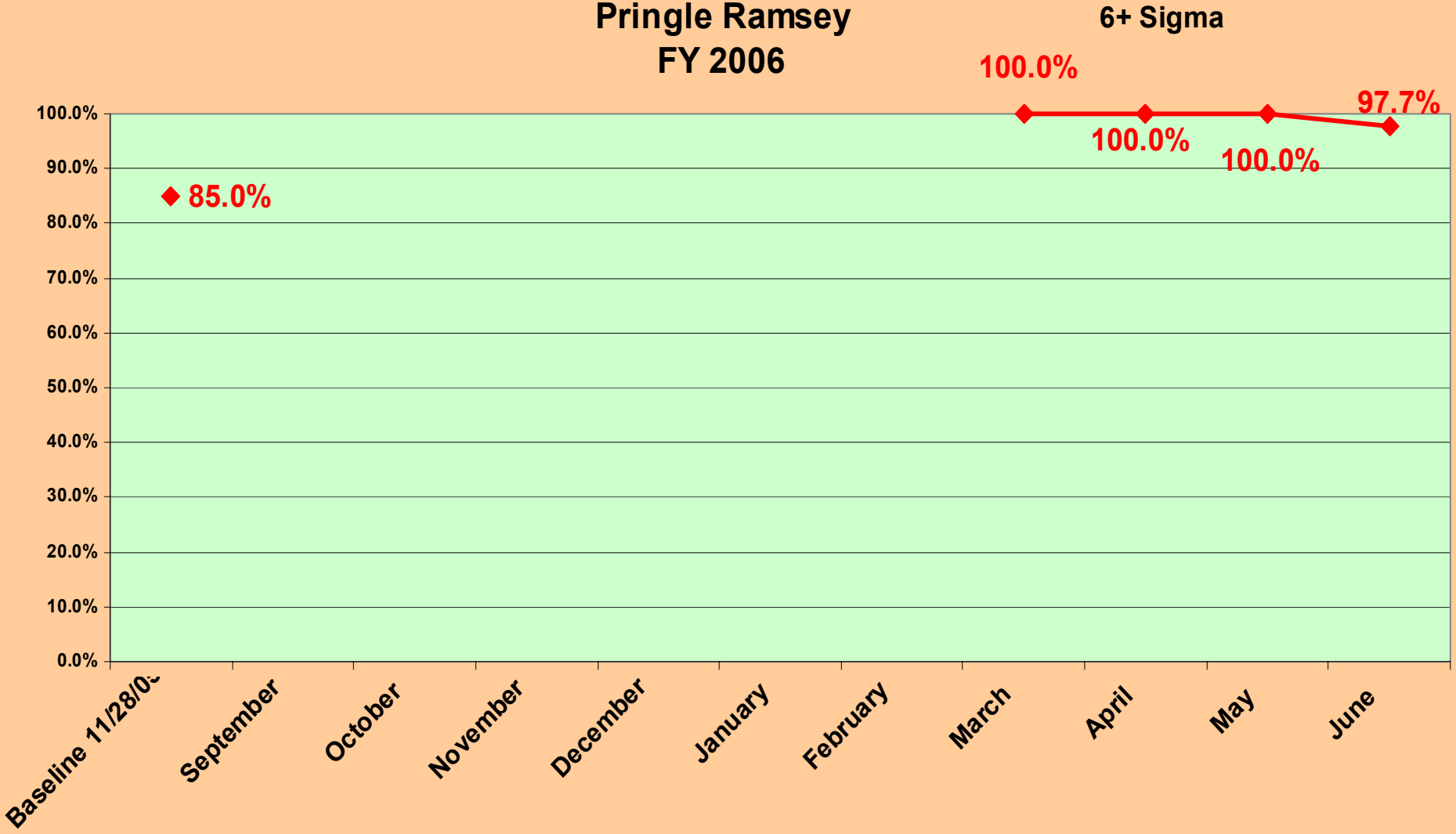

**Y = % of adult IP with an Advance Directive or its refusal in the medical record**
**Target = 100%**

# Family Practice Residency Clinic Patient Throughput
## Linda McKenna
## FY 2006




**Y = Patient appointment time to time patient checks out**
**USL = 90 minutes**
**Target = 60 minutes**

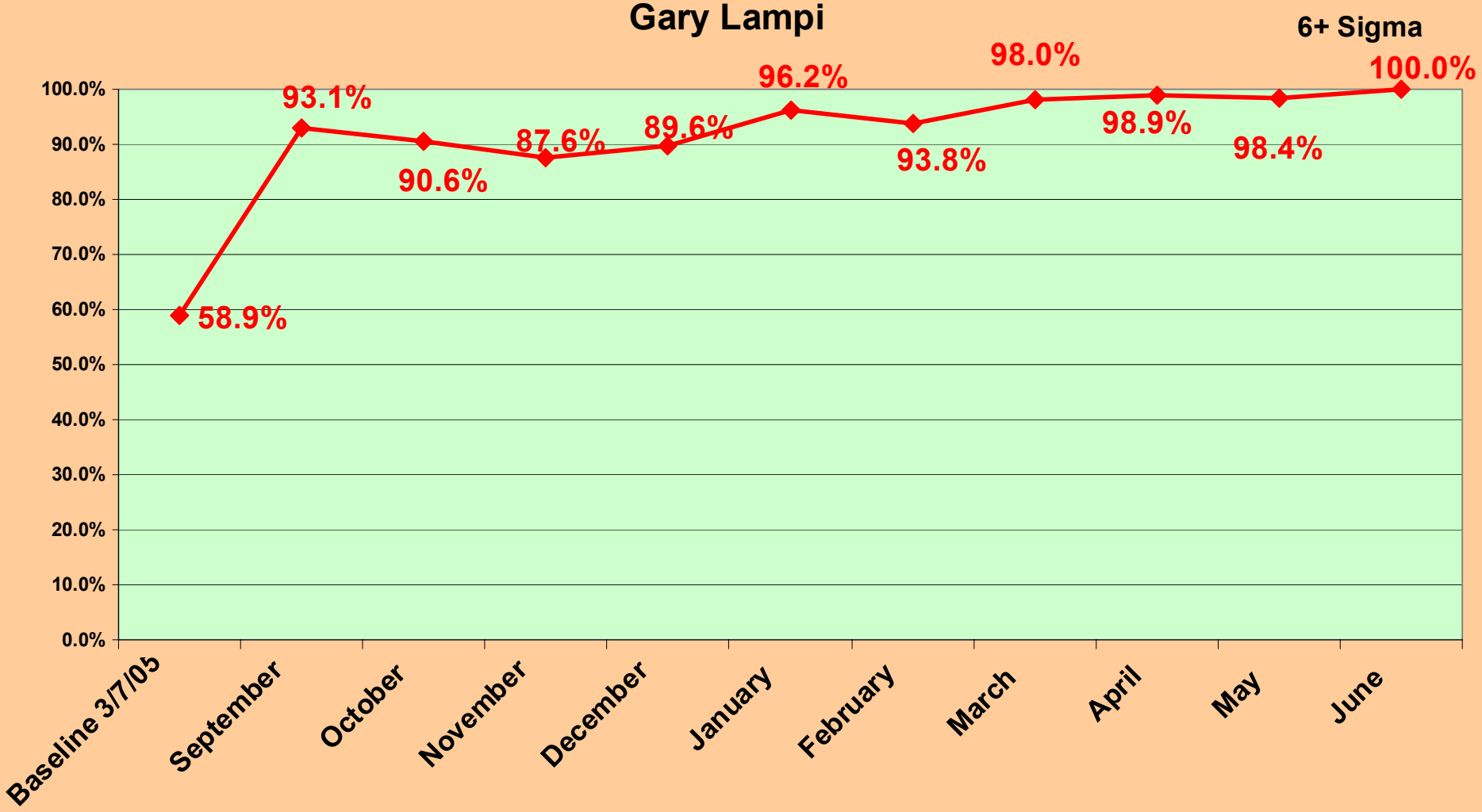
# Decision Support TAT
## Pringle Ramsey
## FY 2006




**Y = Date/Time from Request submitted to date/time request completed**
**USL = 96 hours (4 working days)**

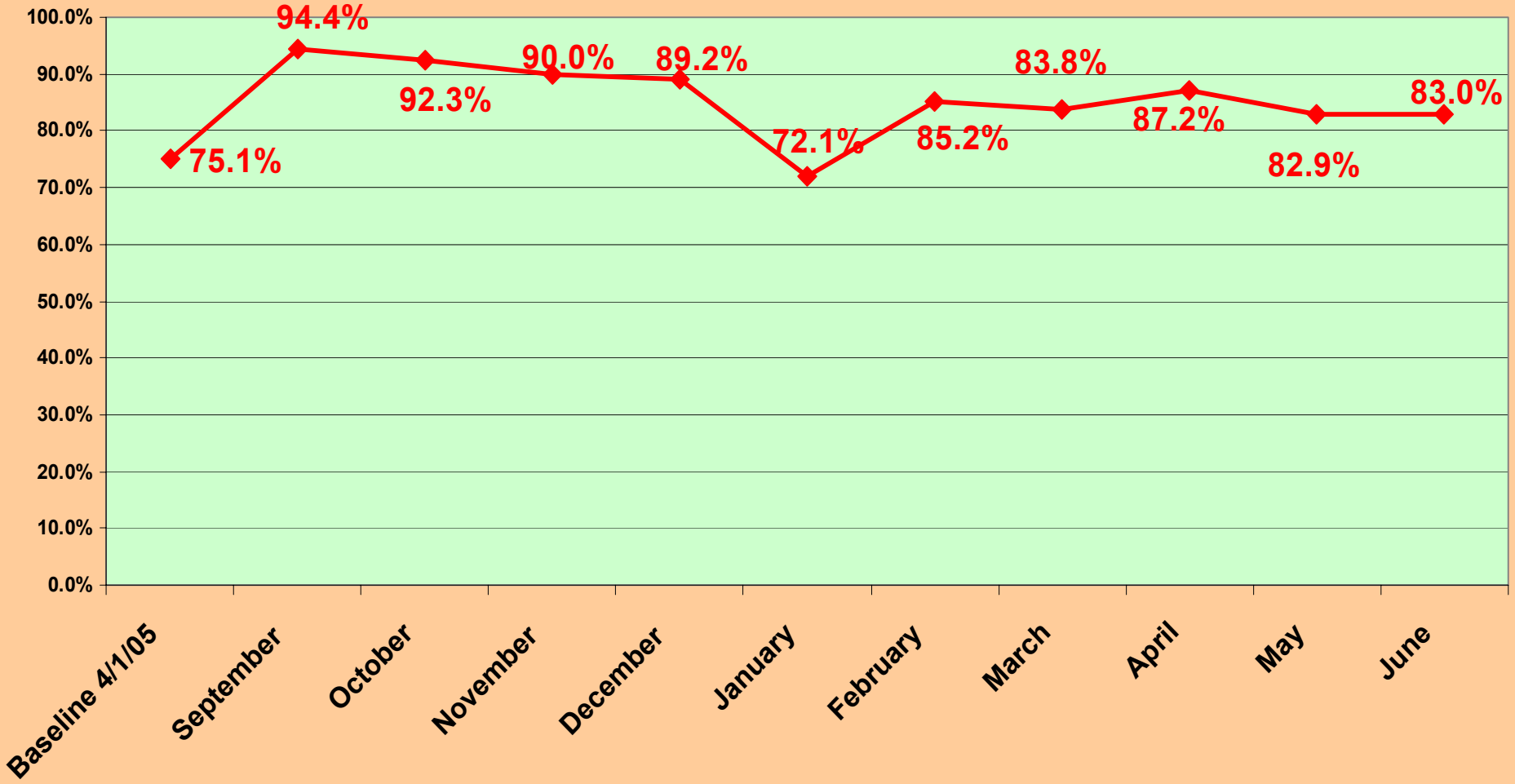
# Outpatient Services TAT (VB-B)

## Gary Lampi



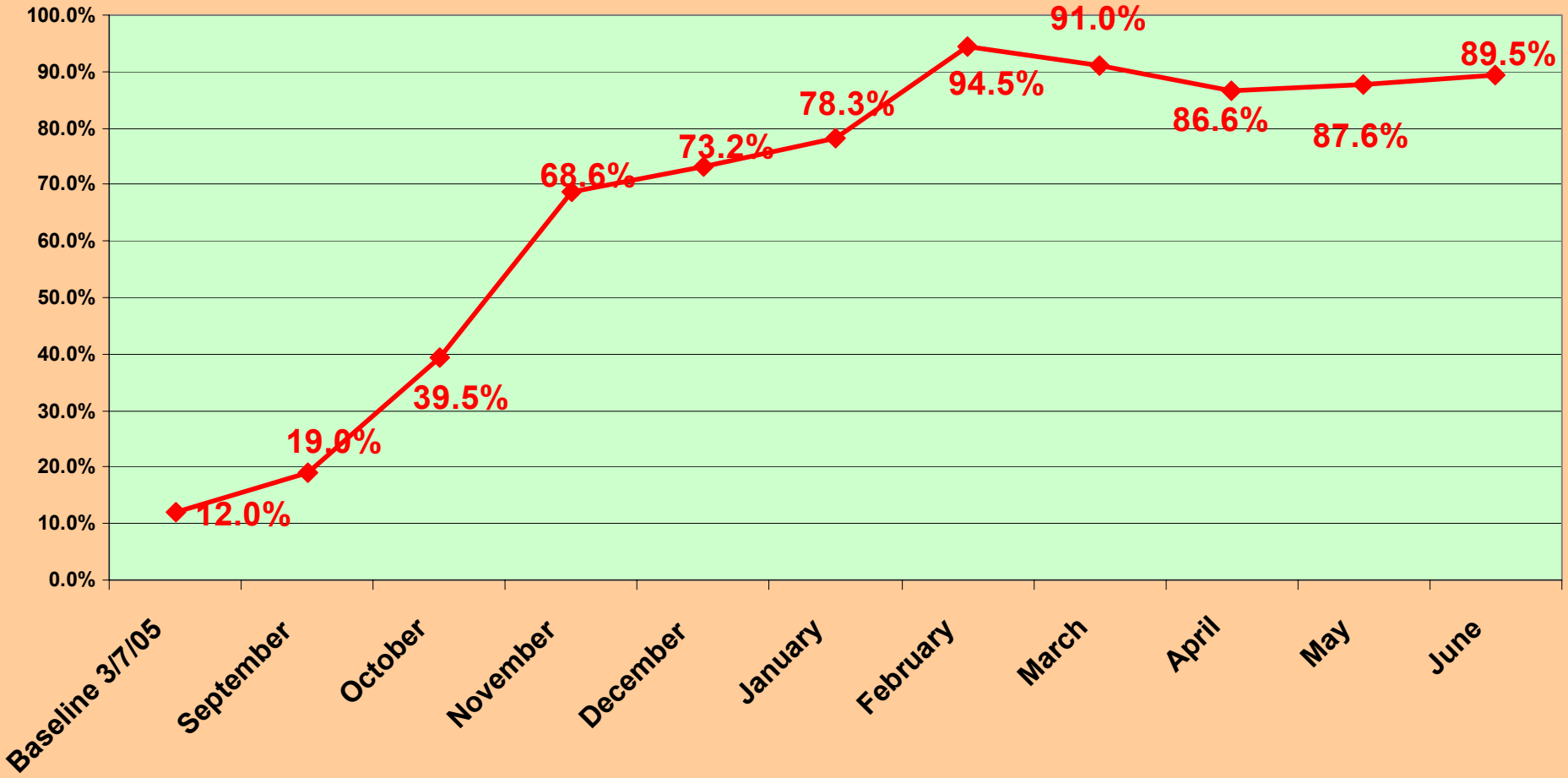

**Y= Patient arrives at Outpatient Registration until an outpatient procedure begins**
**USL = 60 min; Target = 30 min**

# Patient Registration Accuracy (VB-B)
## Gary Lampi
## FY 2006



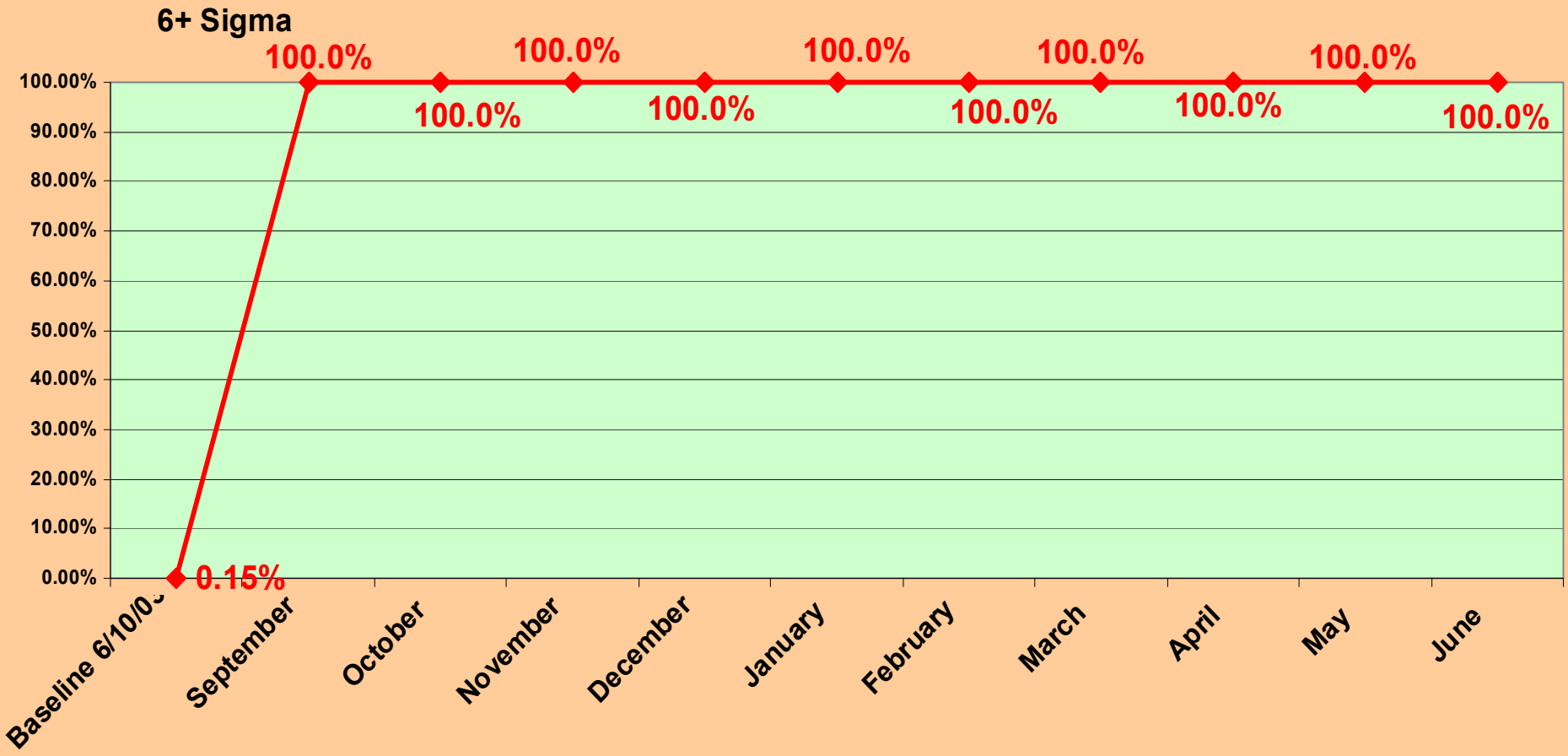

**Y= % Accuracy of Identified elements per claim**

# Medical Records TAT (VB-B)
## Gary Lampi
## FY 2006



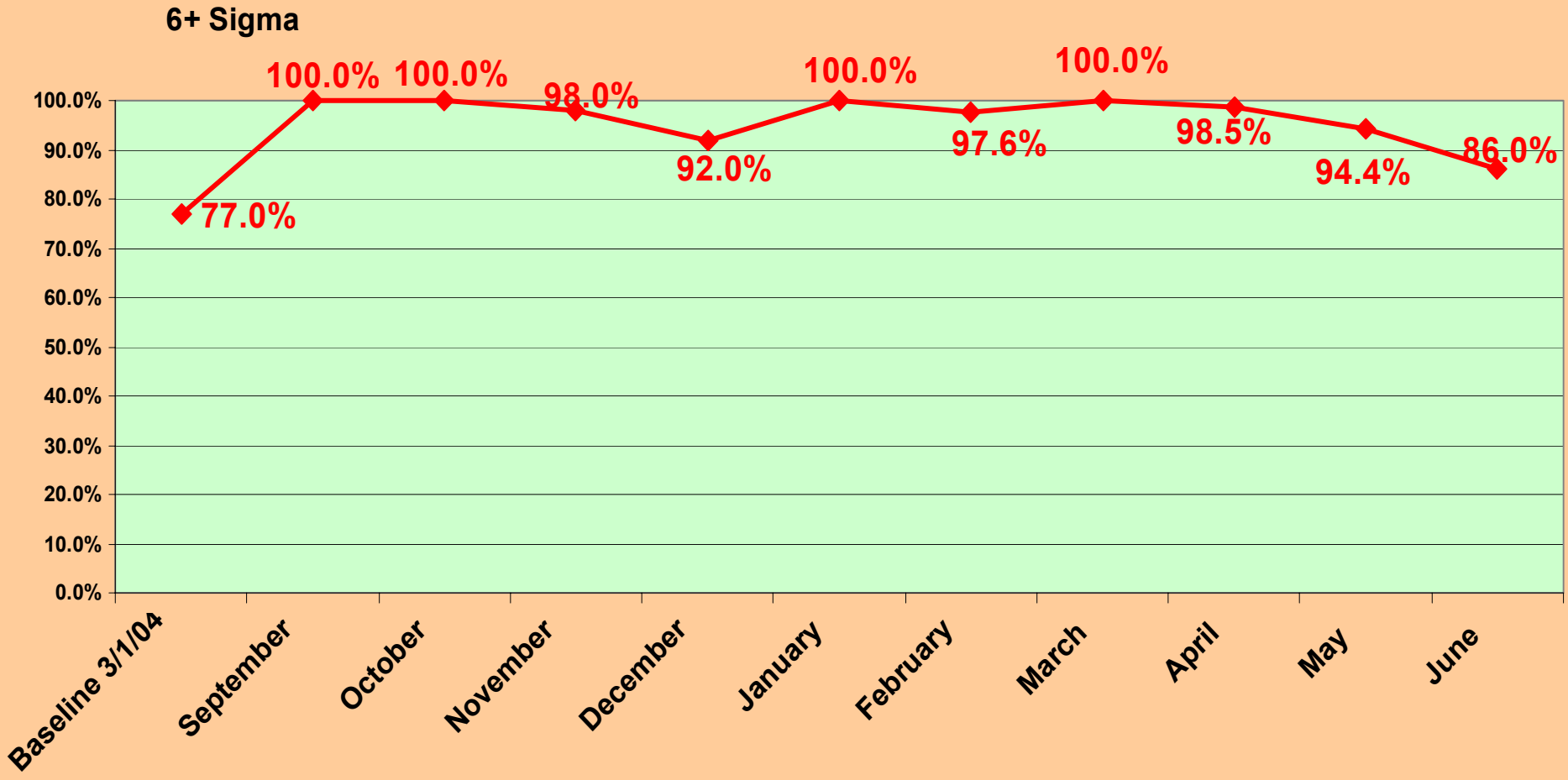

**Y = Date / time of physician dictation to the date / time the completed report is posted in the chart**
**USL= 12 hrs**
**Target = 8 hrs**

# MDS Accuracy (Golden Palms)
# James Eastham
# FY 2006



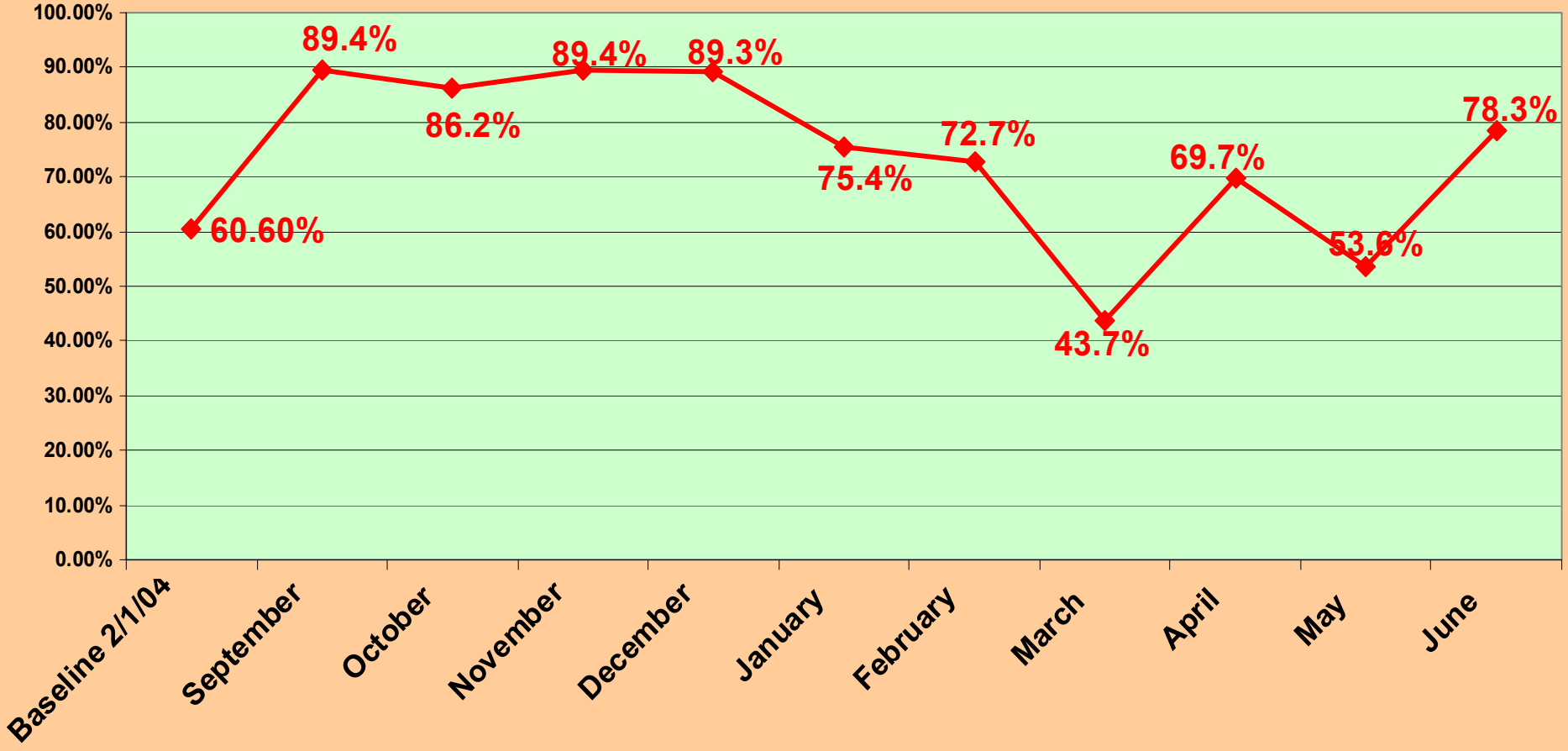

**Y = % accuracy of Minimum Data Set coding at Golden Palms**

# Forms Management (VB-H)
## James Eastham
## FY 2006



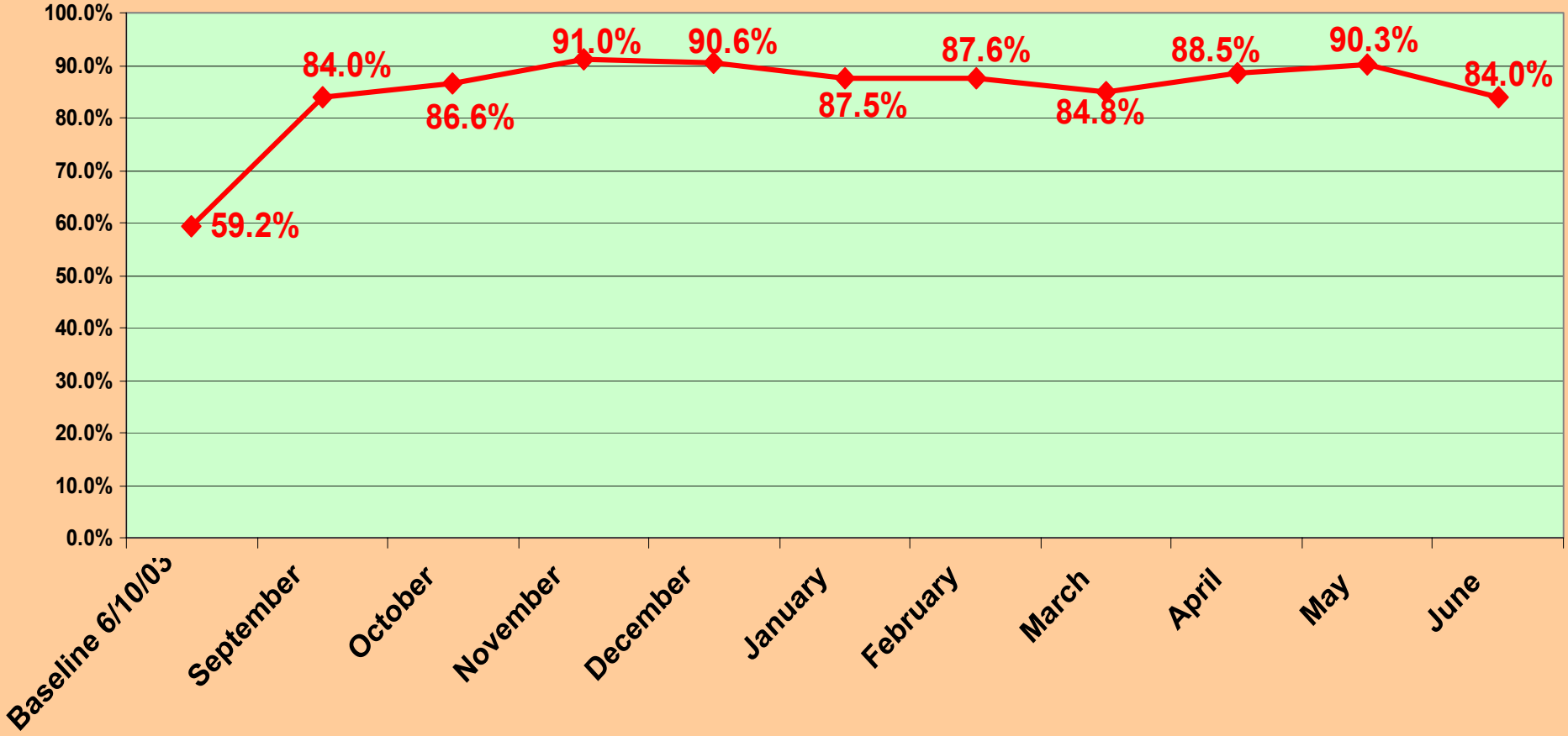

**Y = TAT from the time print request arrives in Materials Management to the time the completed print job is received by the requesting department**
**USL= 6 days**

# Outpatient Services Integration (VB-H)
## Gary Lampi
## FY 2006



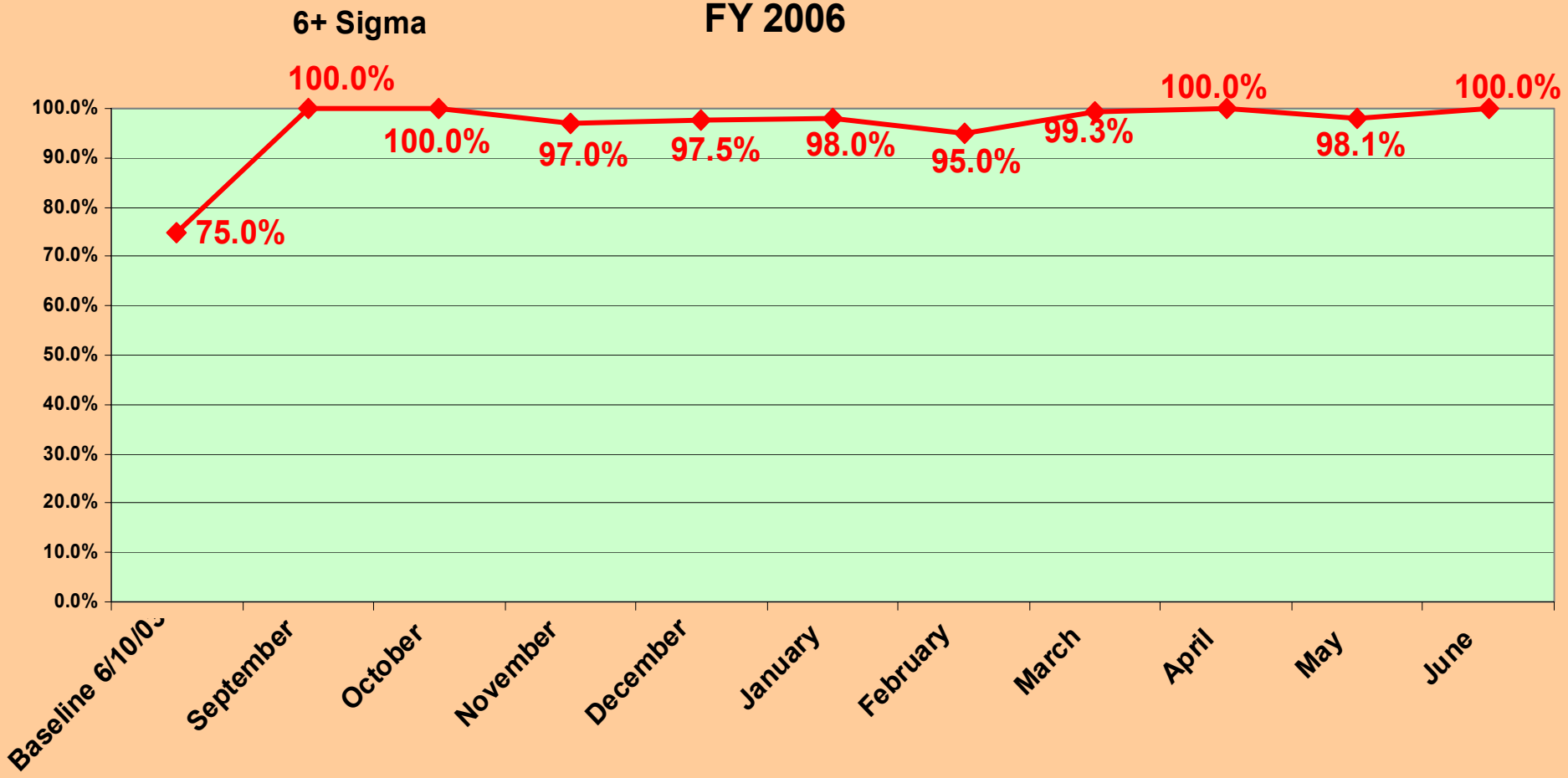

**Y = Patient arrives at Outpatient Registration until an outpatient procedure begins**
**USL = 60 min**

# Patient Registration Accuracy (VB-H)
## Gary Lampi
## FY 2006



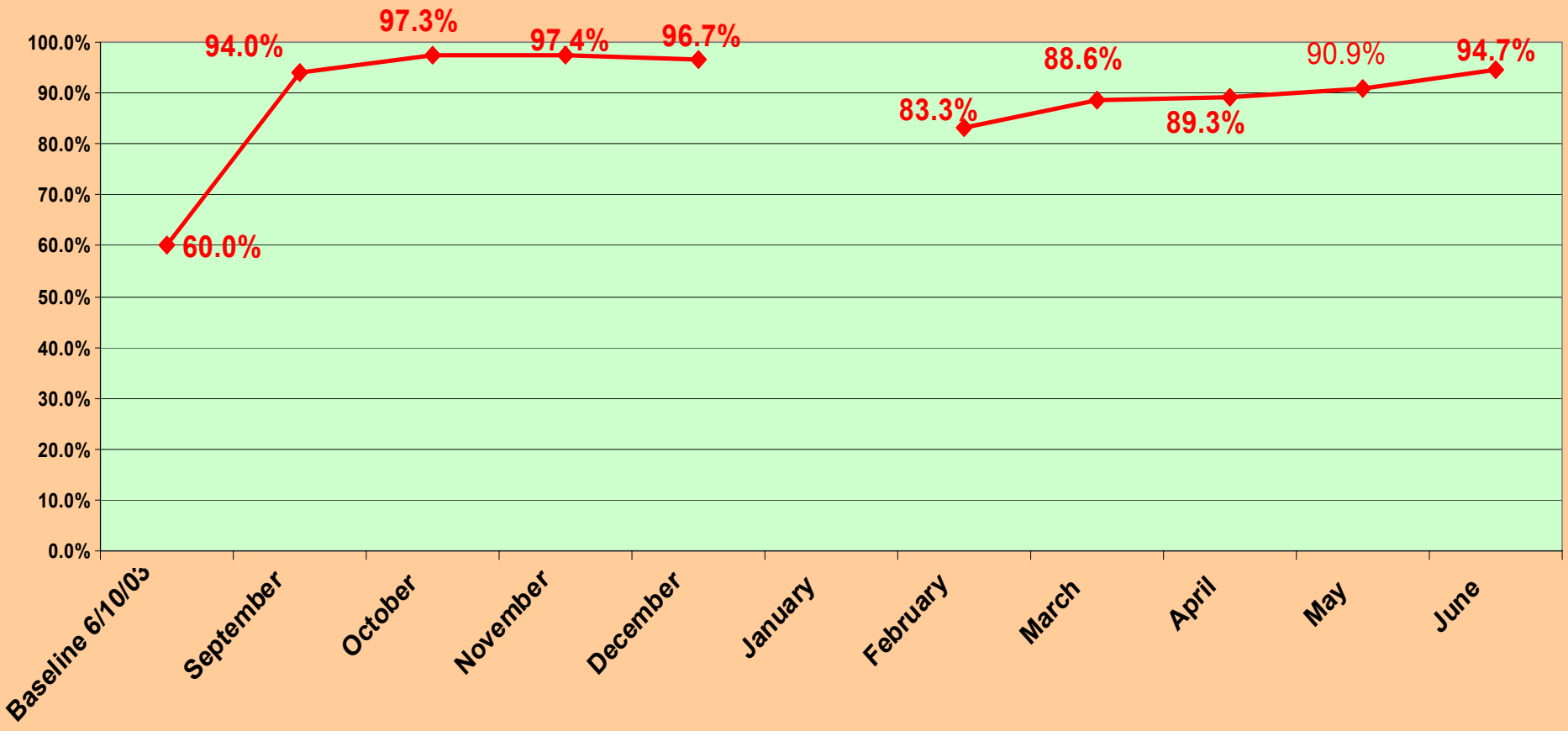

Y= % Accuracy of Identified elements per claim

# DRG Assurance of Accuracy (VB-H)
## Gary Lampi
## FY 2006



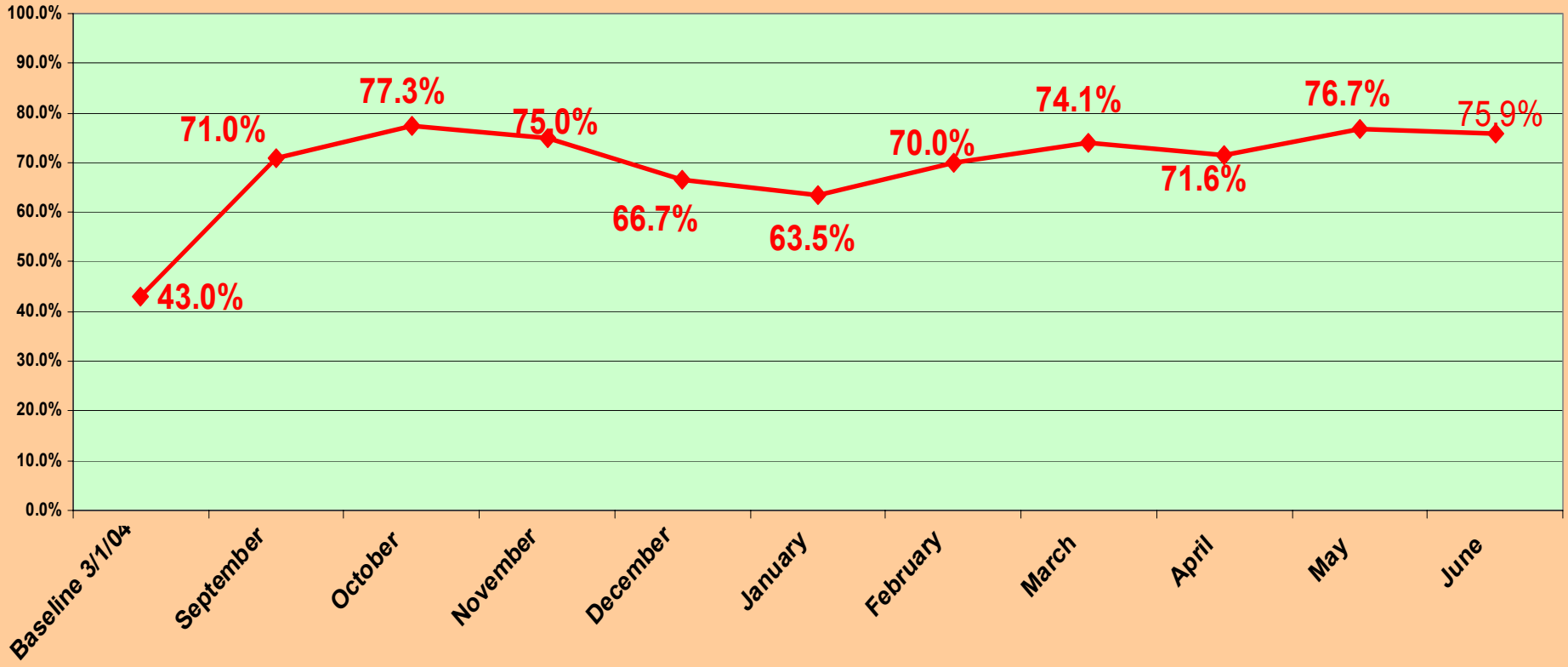

Y = % Accuracy of DRGs (Medicare charts only)

# Nursing Assessment Cycle Time
## Gloria Tobin, CNO
## FY 2006



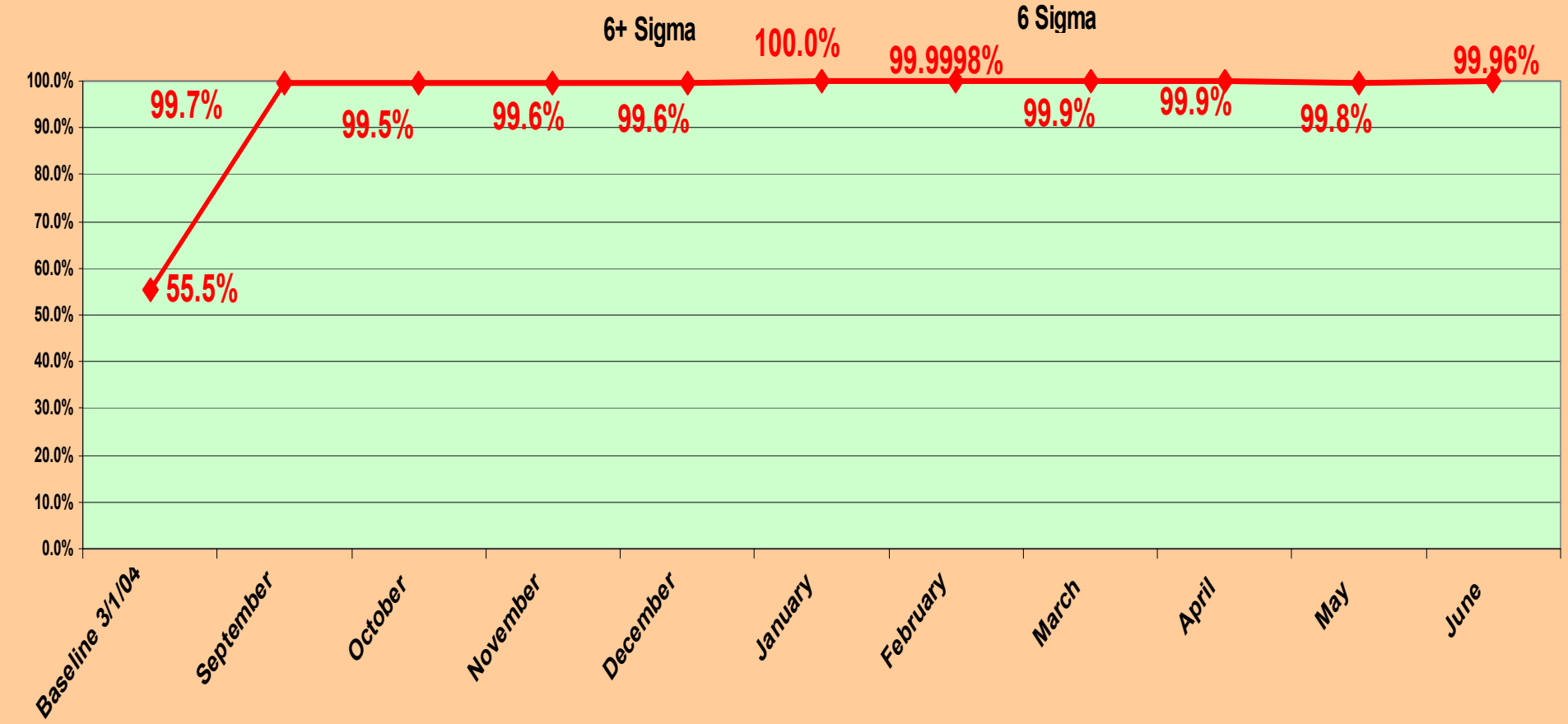

**Y = Time patient is admitted to the floor from the ED to the time the nurse completes initial nursing assessment in IDX**
**USL = 180**

# ED - Floor Admissions
# Gloria Tobin, CNO
# FY 2006



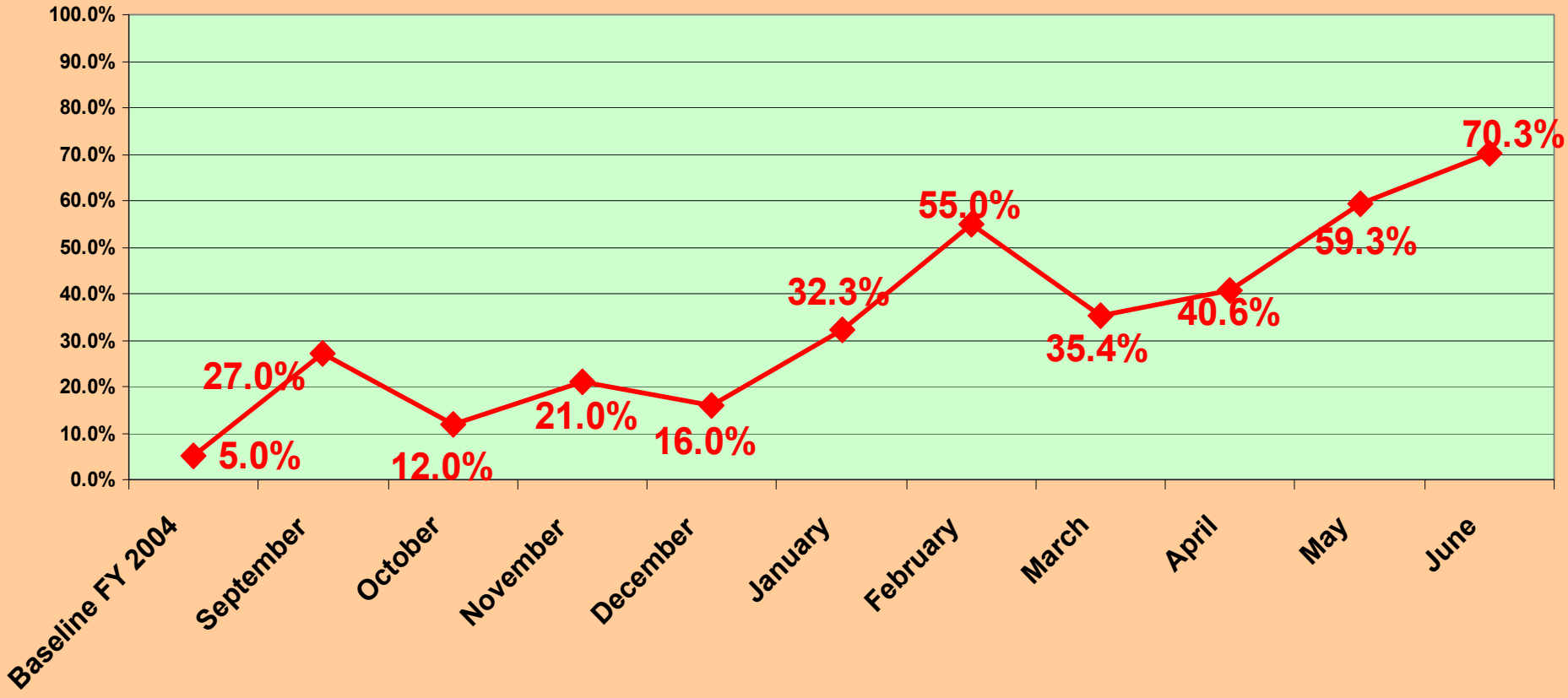

**Y = TAT in minutes of ED doctor disposition for admitted patients to exit from ED**
**USL = 120**

# Abbreviations
## Gloria Tobin, CNO
## FY 2006



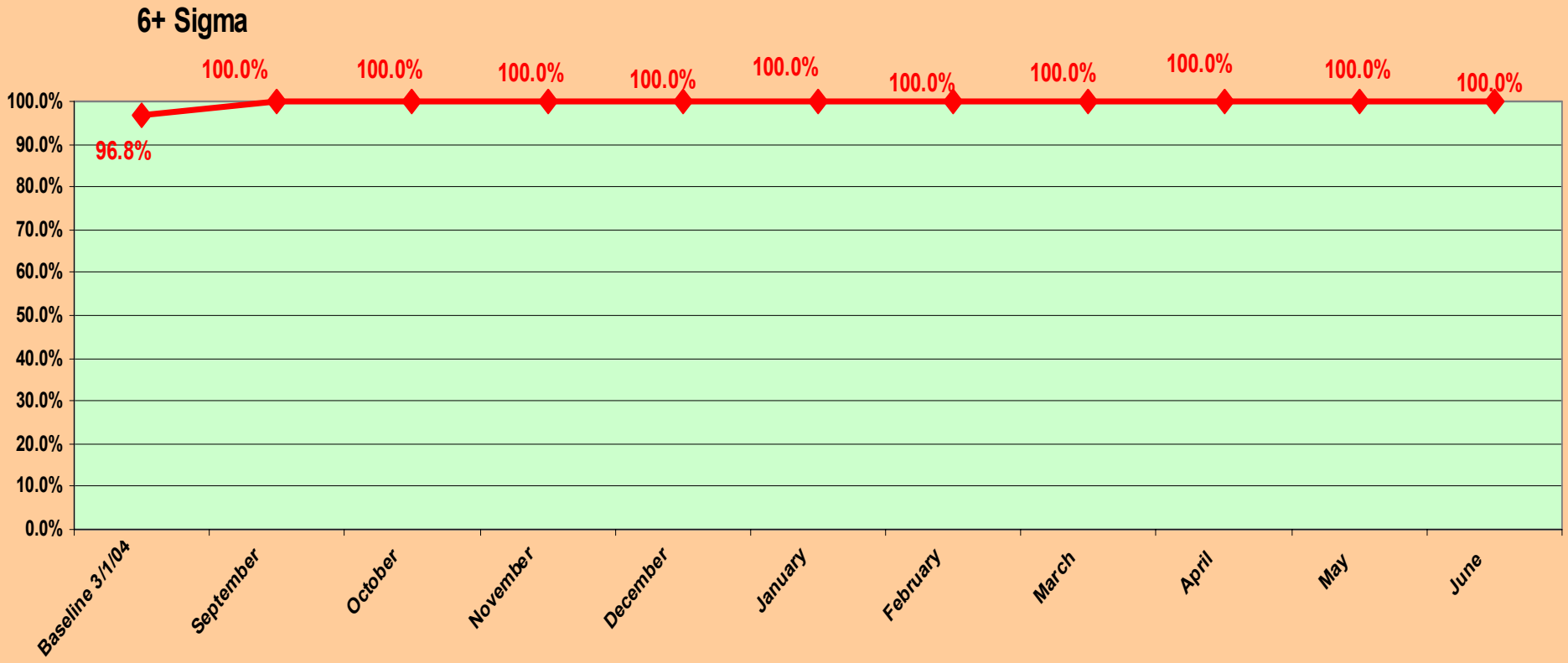

**Y = % compliance with SOP regarding the use of inappropriate abbreviations.**

# Pneumonia Core Measures
## Gloria Tobin, CNO
## FY 2006



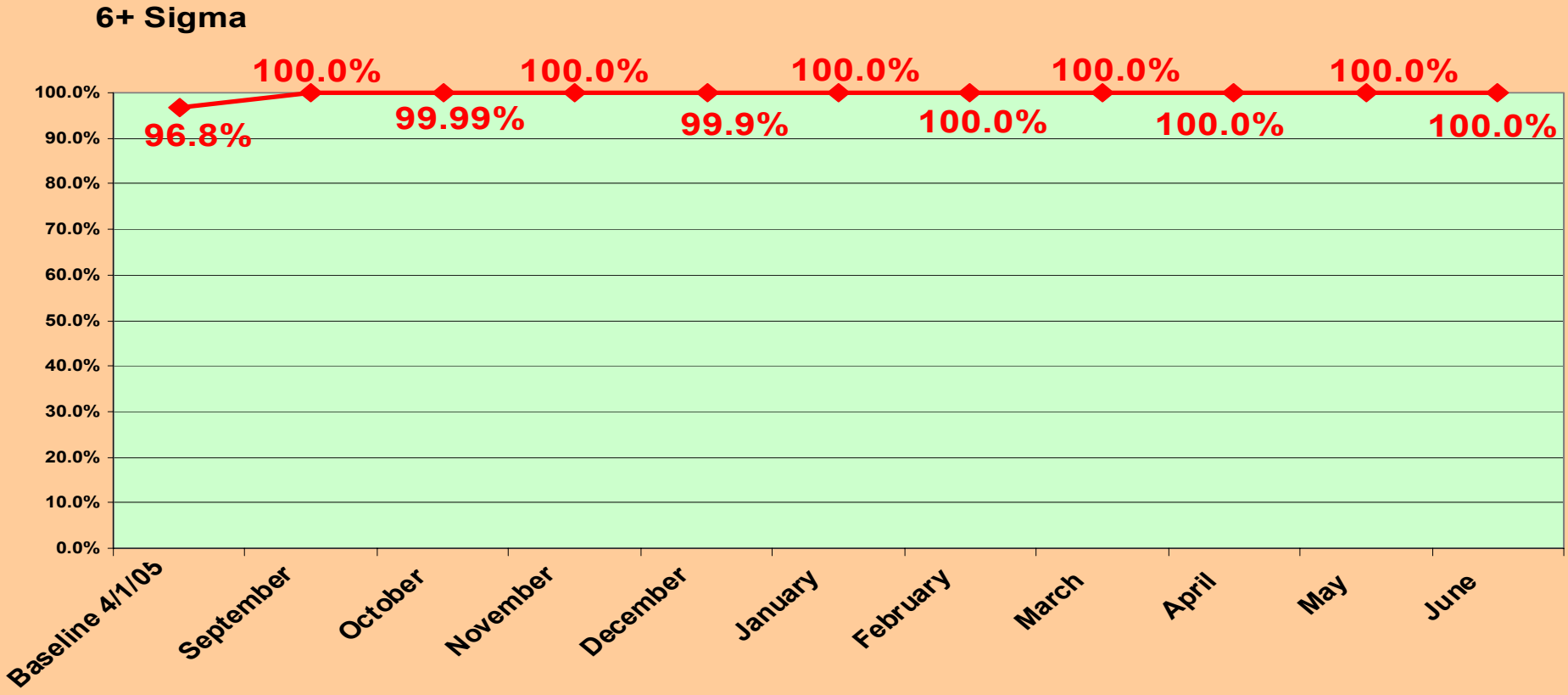

Y = Compliance with all 7 Core Measures

# Inpatient Identification Process (MBU)
## Gloria Tobin, CNO
## FY 2006



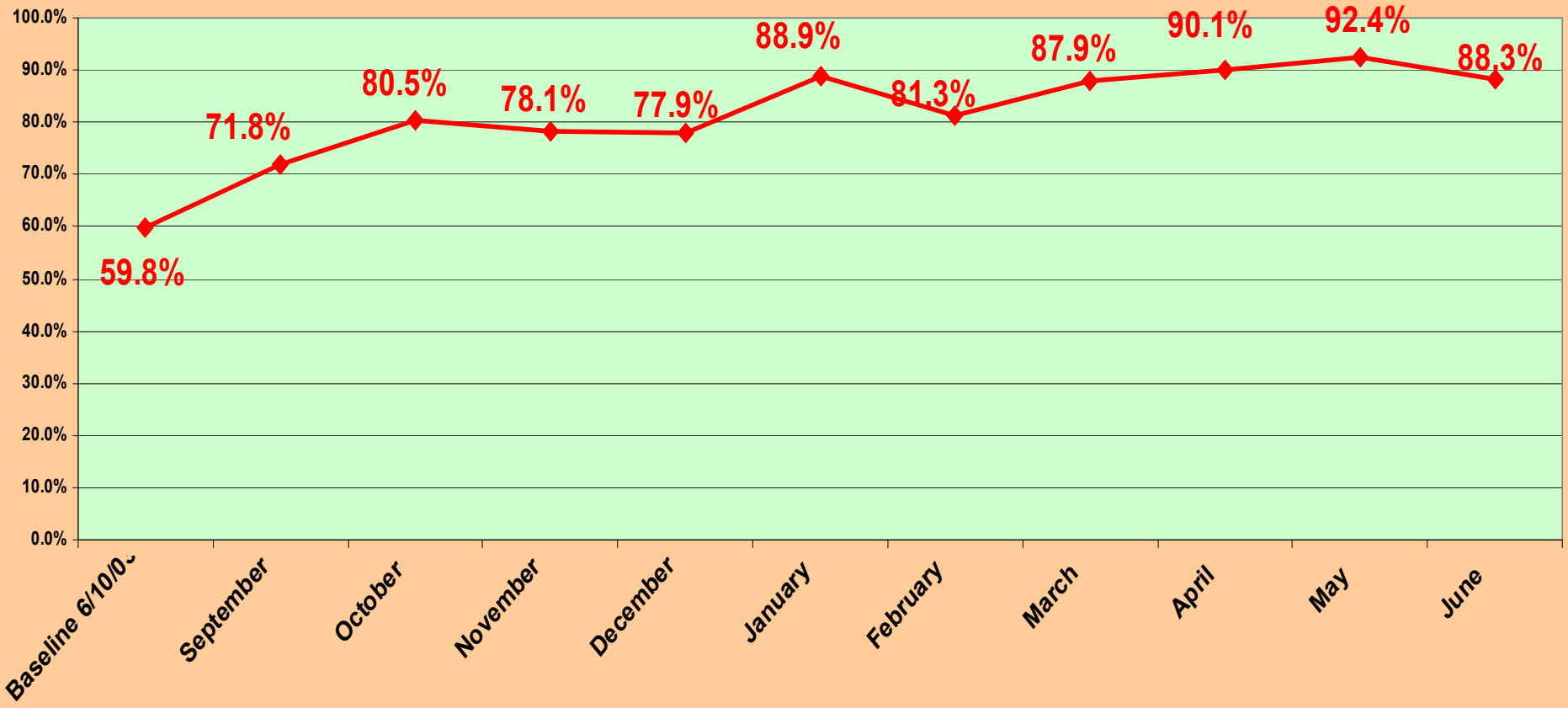

**$Y^1$ = % of patients with an identification band on upon admission to the MBU**
**$Y^2$ = time it takes for an identification band to be placed or replaced on a patient**
**USL = 30 Minutes**

# Inpatient Identification Process (Ancillary)
## Lorenzo Olivarez
## FY 2006



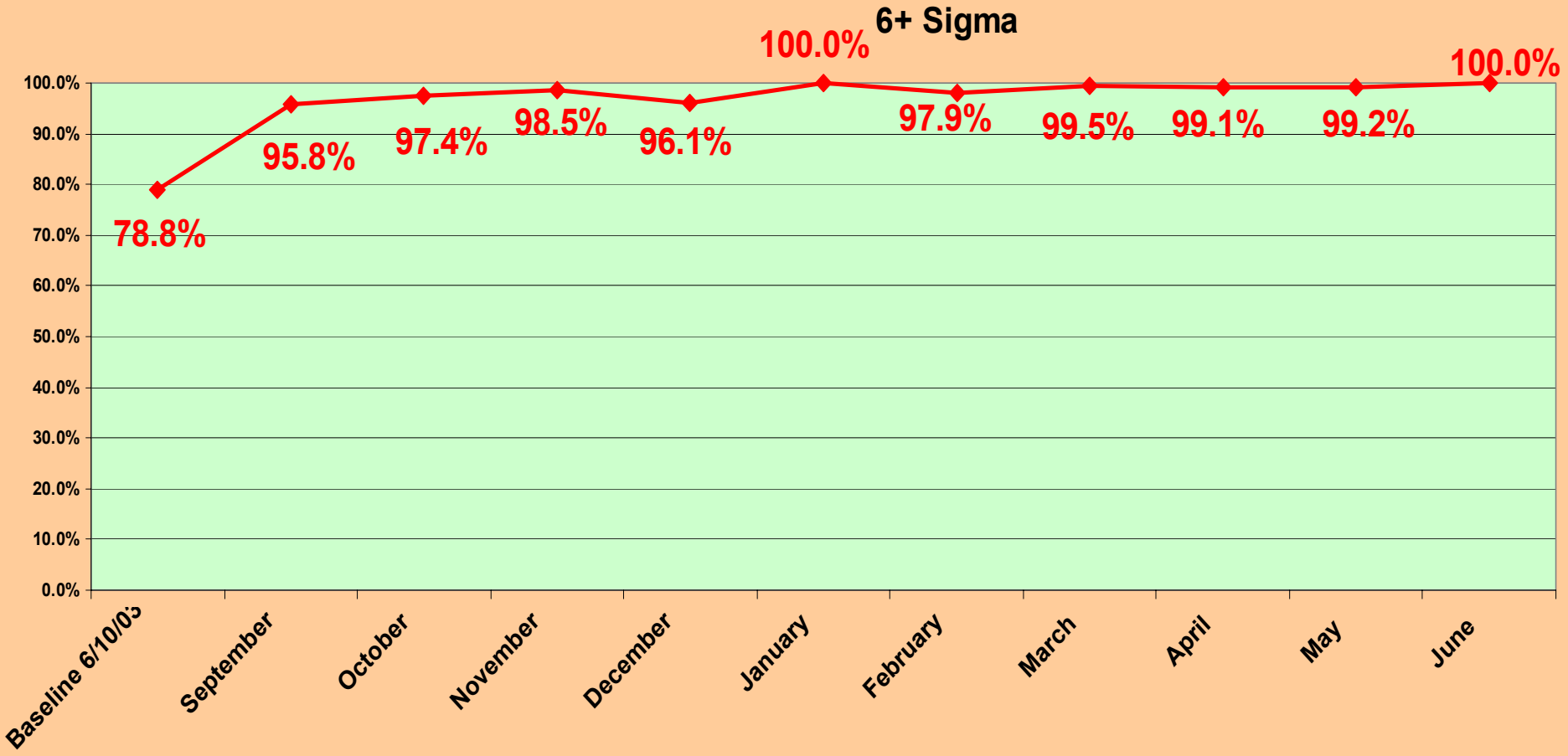

$Y^1$ = % of patients with an identification band on prior to a laboratory procedure
$Y^2$ = time it takes for an identification band to be placed or replaced on a patient
USL = 30 Minutes

# Surgical Preparation- Inpatients
## Gloria Tobin, CNO
## FY 2006



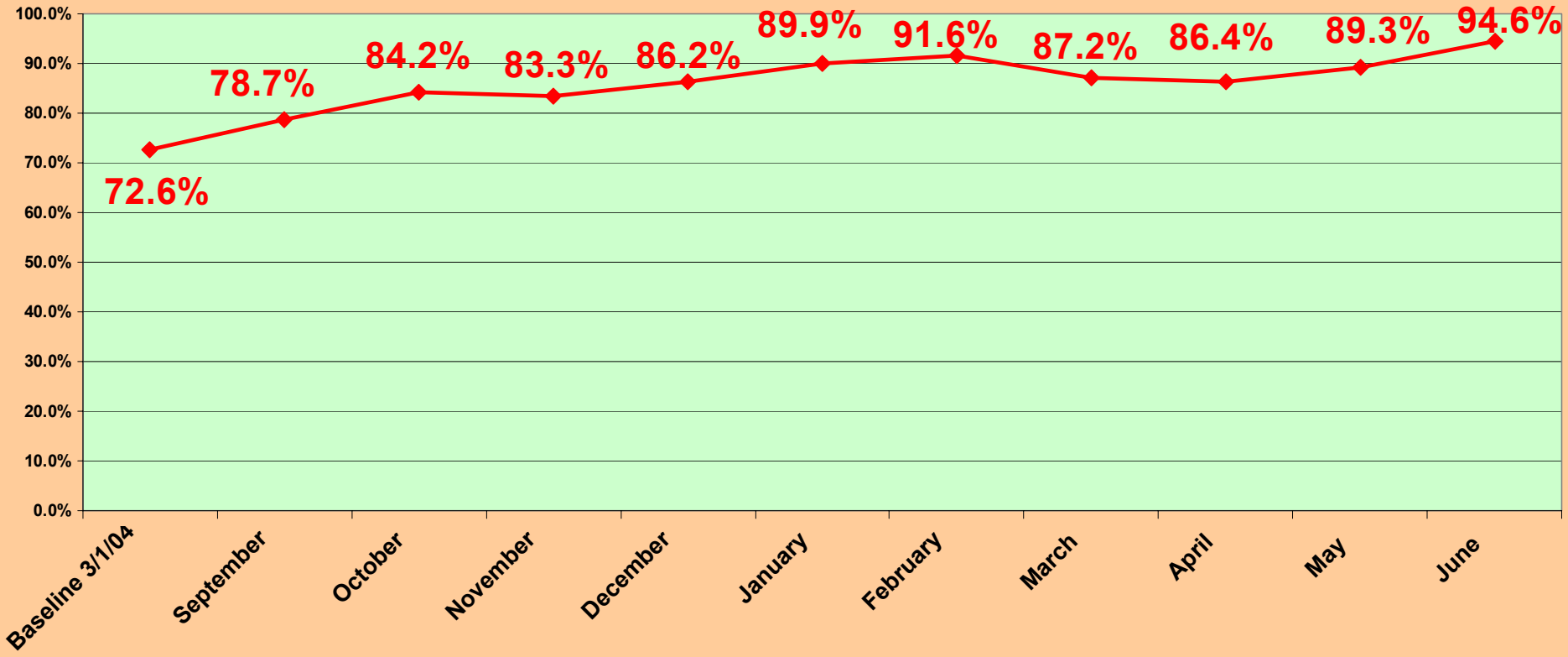

**Y = Percent compliance with proper surgical preparation for patients from Inpatient Units to Holding Area**

# Surgical Preparation-Day Surgery
## Gloria Tobin, CNO
## FY 2006



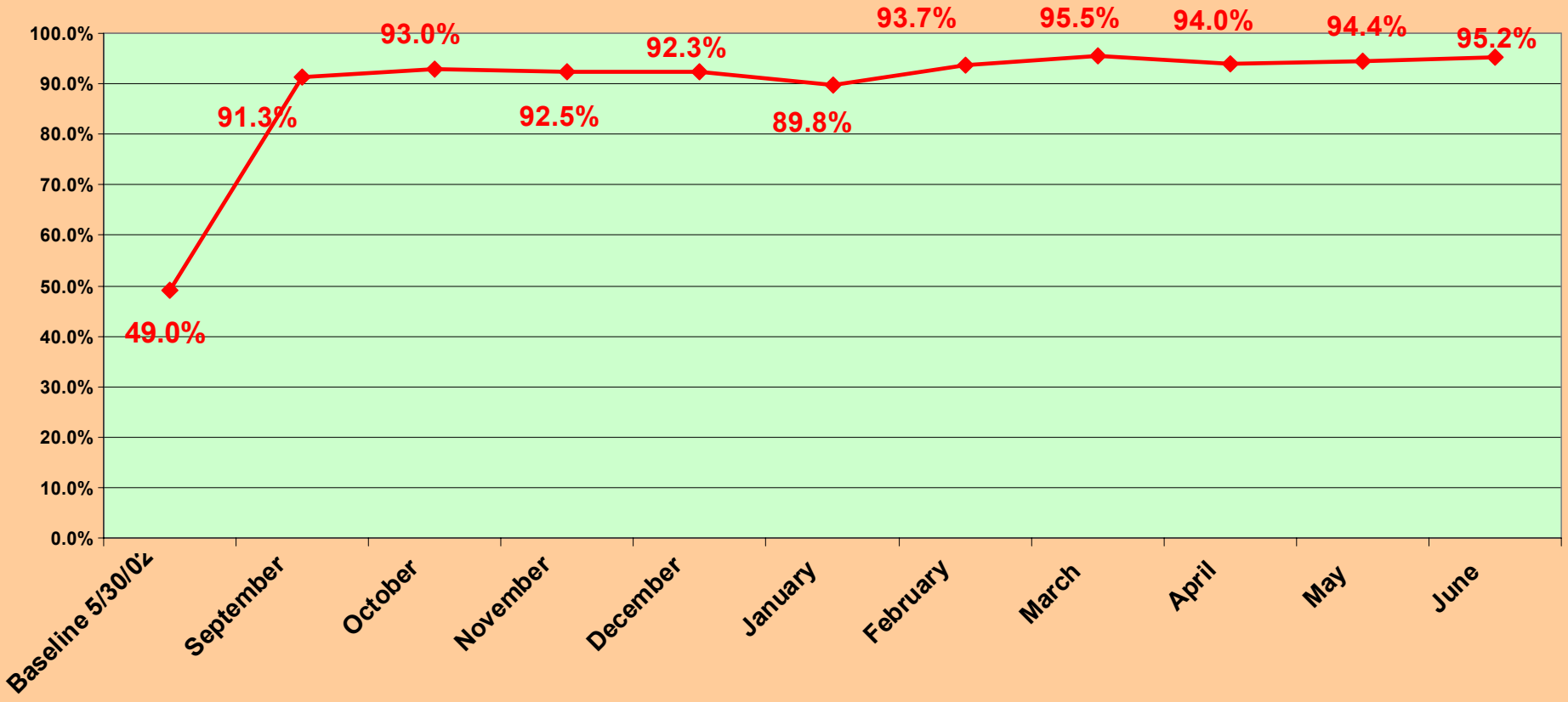

**Y = Percent compliance with proper surgical preparation for patients from Day Surgery department to Holding Area**

# Pain Management
# Gloria Tobin, CNO
# FY 2006



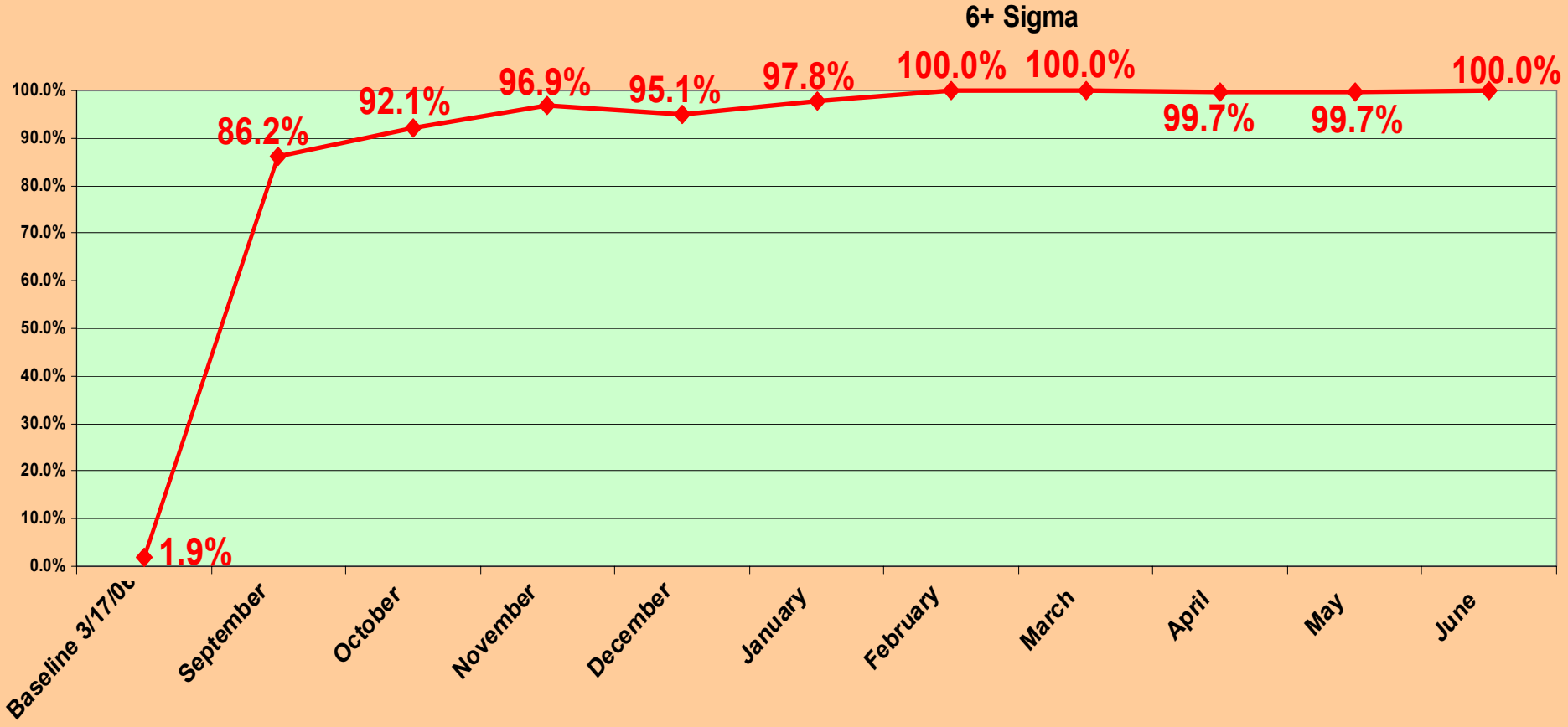

**Y = % of patients assessed and reassessed with a pain level equal to 3 or greater, adheres to the pain assessment policy**

# Pharmacy Turnaround Time
## Gloria Tobin, CNO
## FY 2006



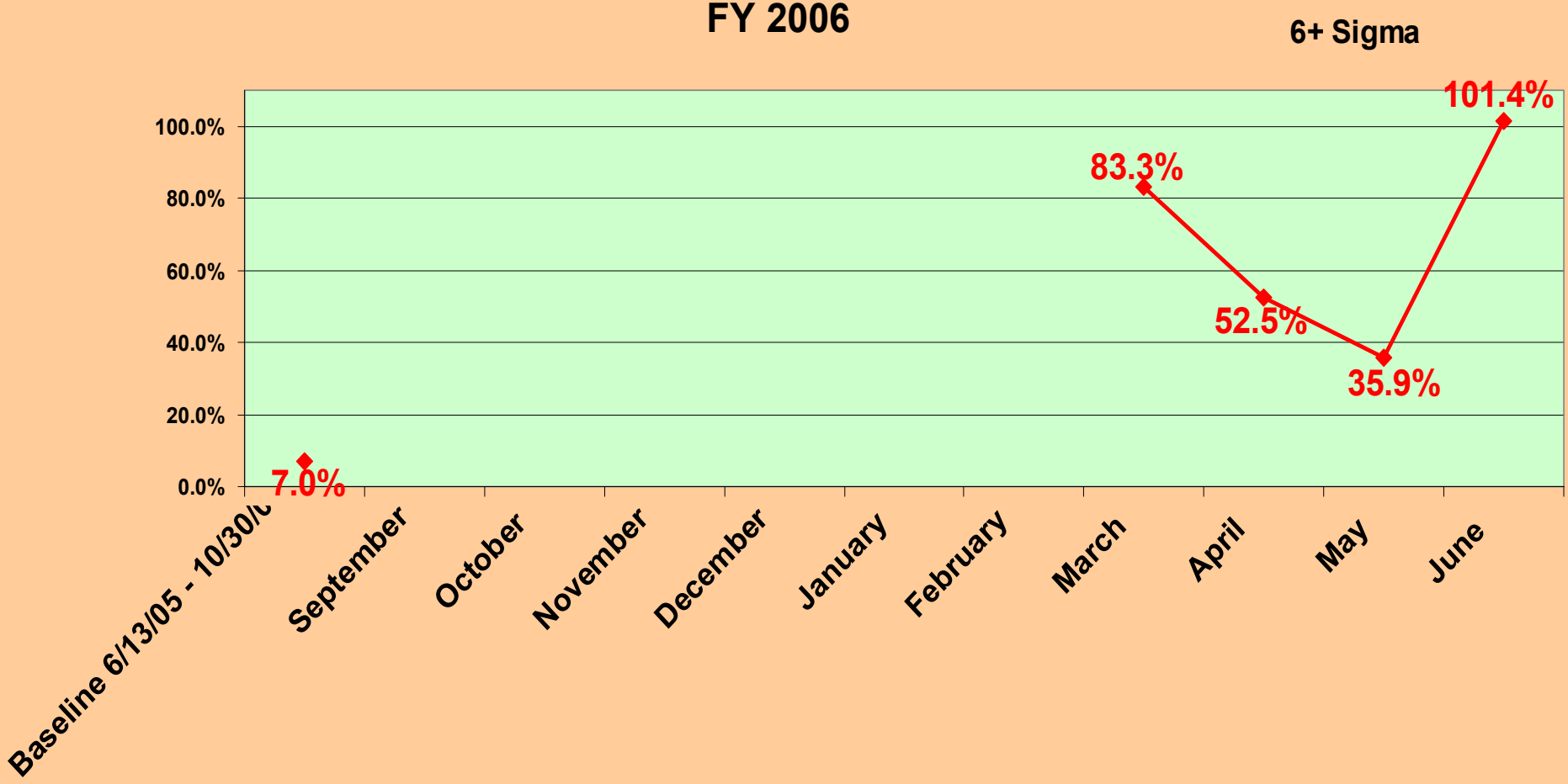

**Y = Time from medication order placed in IDX to the time the order is verified by pharmacist**
**USL = 45 Minutes**

# Interdisciplinary Communication
## Christopher H. Hansen, M.D.
## FY 2006



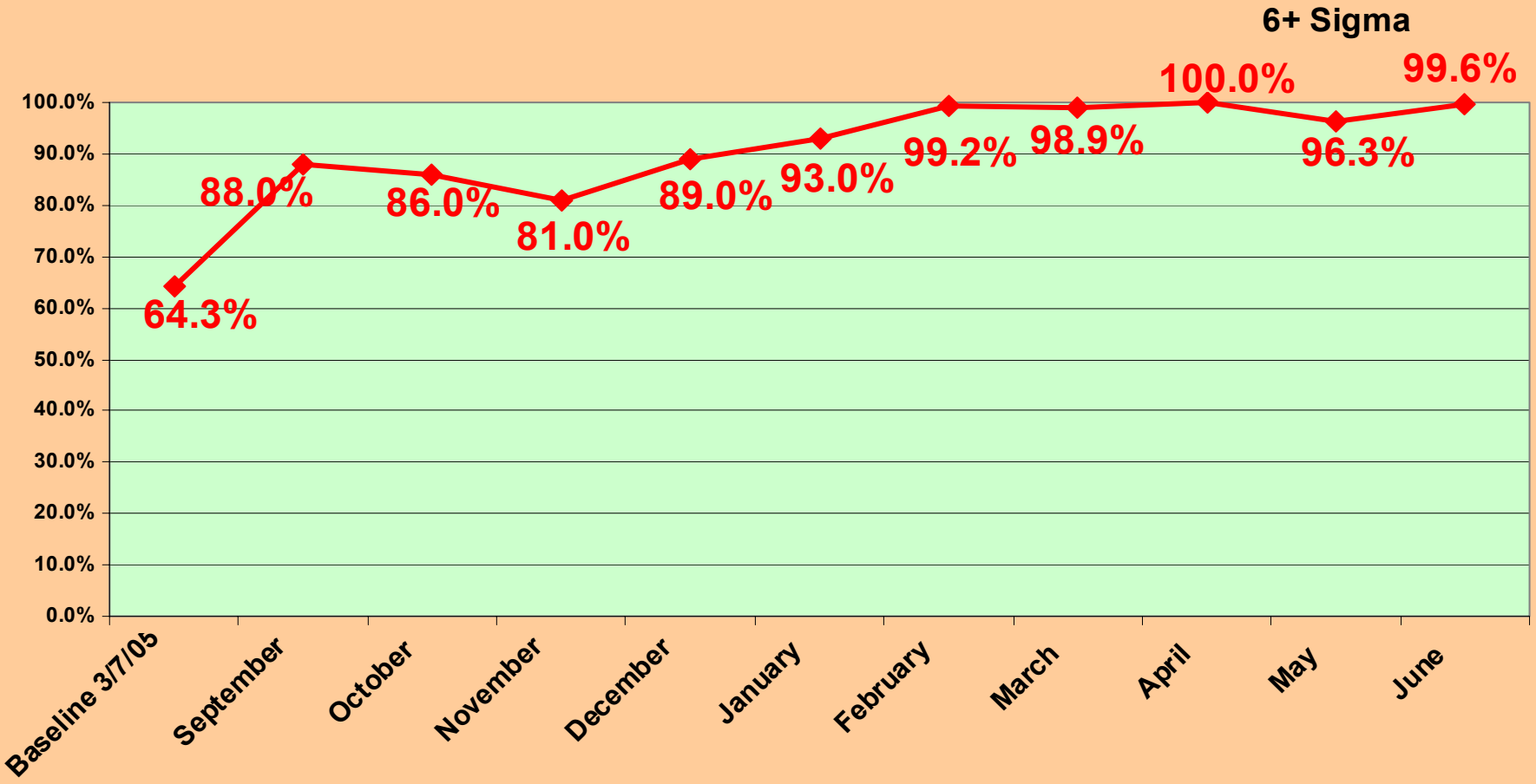

**Y = Evidence of interdisciplinary communication in care planning**

# On Time Discharge
## Christopher H. Hansen, M.D.
## FY 2006



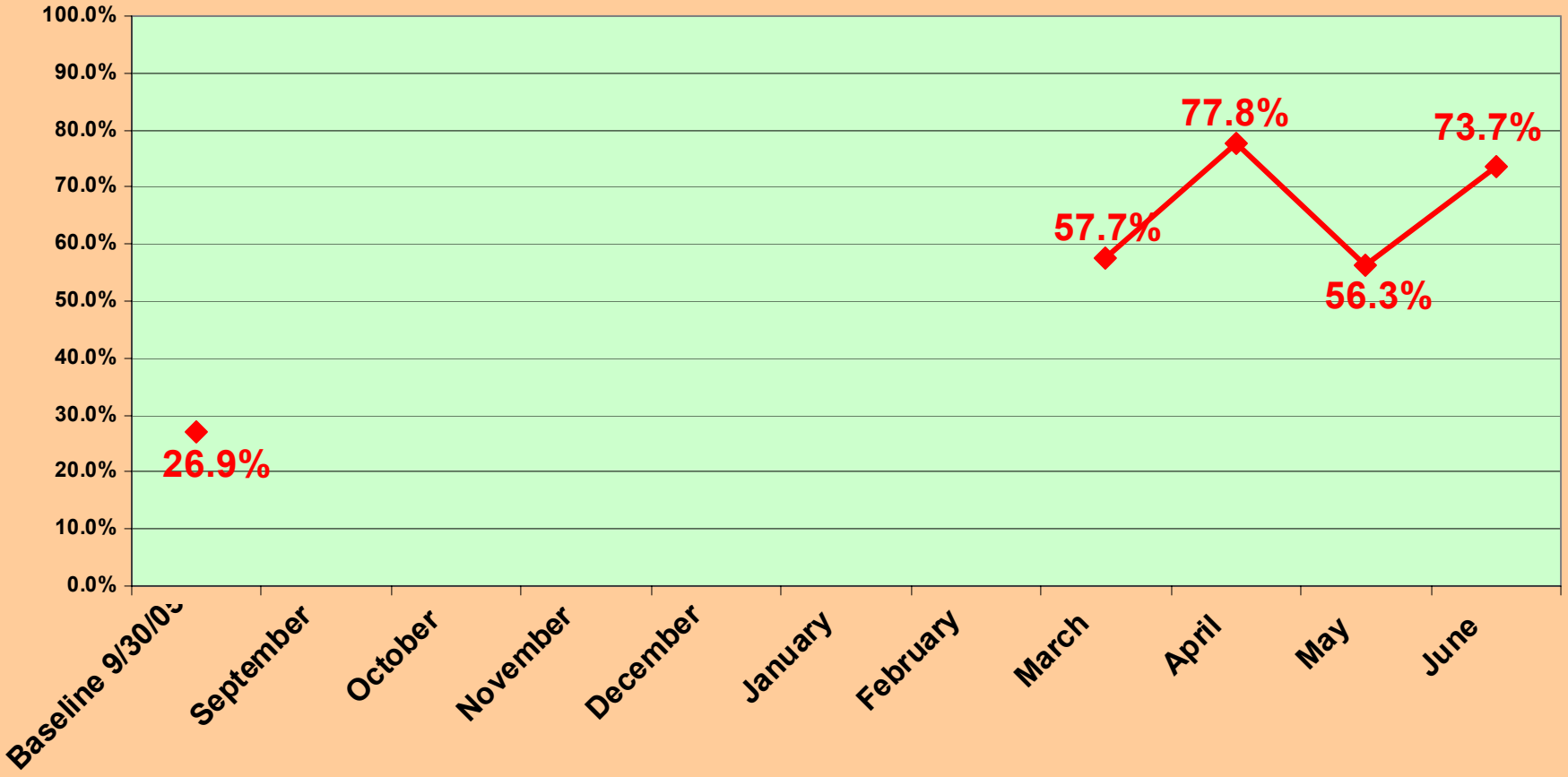

Y = % of patients discharged (leaves room) by 12:00 noon, measured by: time of day
Goal: 40% of patients discharged by 12:00 noon
USL: 12:00 noon

# Ancillary Departments Results Availability
## Lorenzo Olivarez
## FY 2006



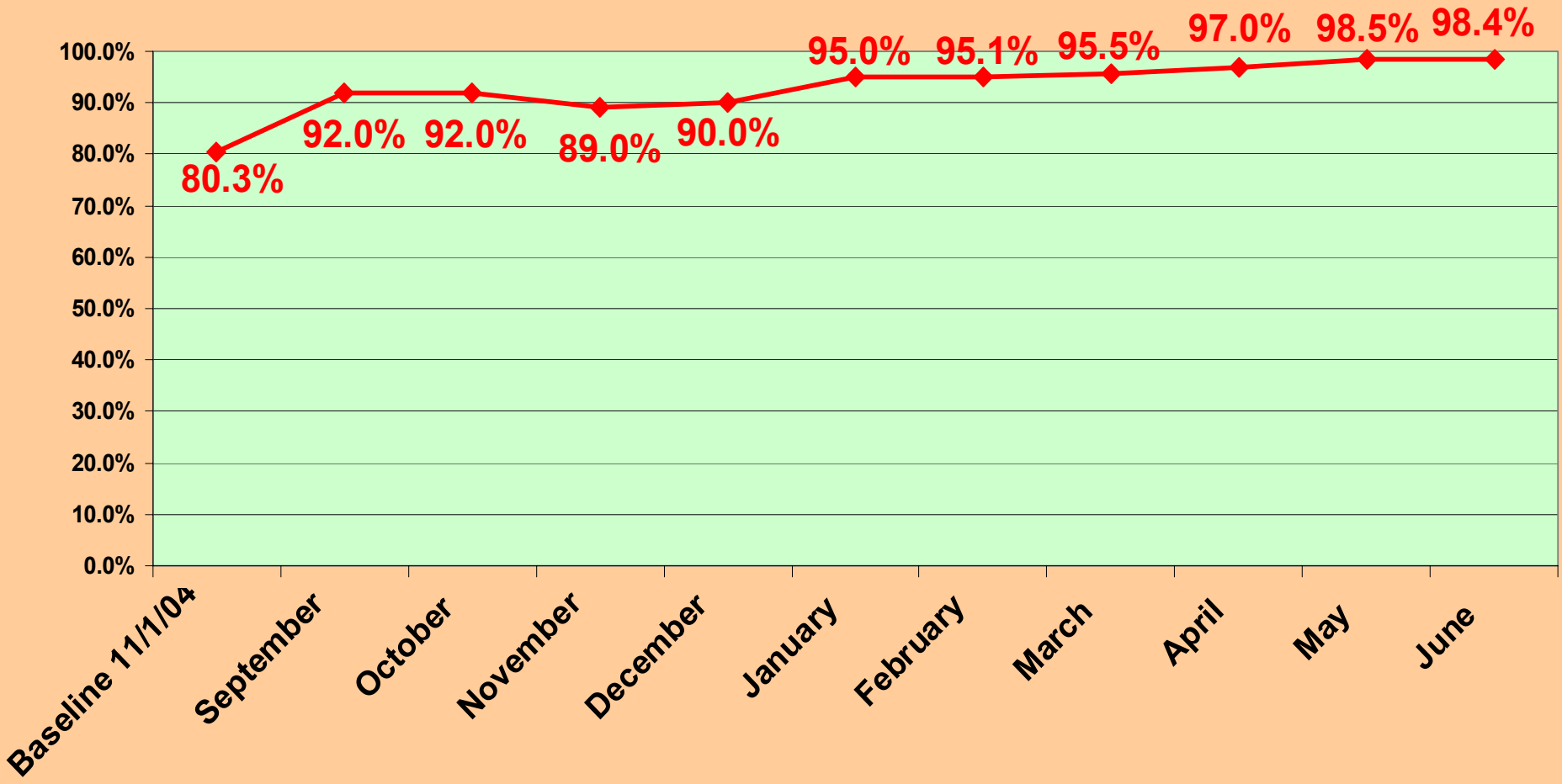

**Y = Cycle time: from when the test is complete to when the results are available for the physician in the medical record**
**USL = 24 Hours**

# Heart & Vascular Cath Lab Capacity
## Lorenzo Olivarez
## FY 2006



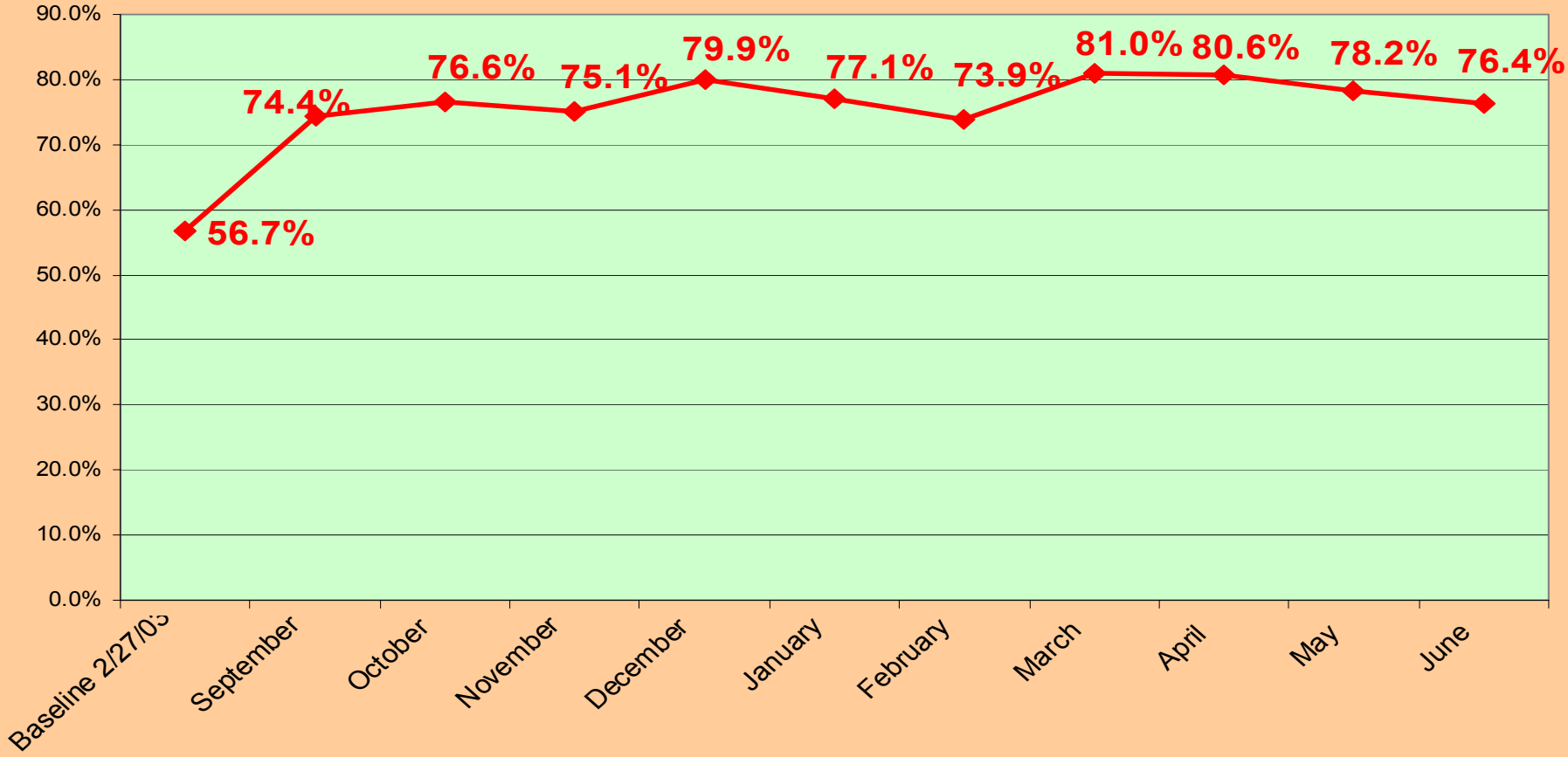

**Y = Physician out of lab to following procedures "time out"; all to-follow cases**
**USL = 45 Minutes**

# ED Charges
## Lorenzo Olivarez, CFO
## FY 2006



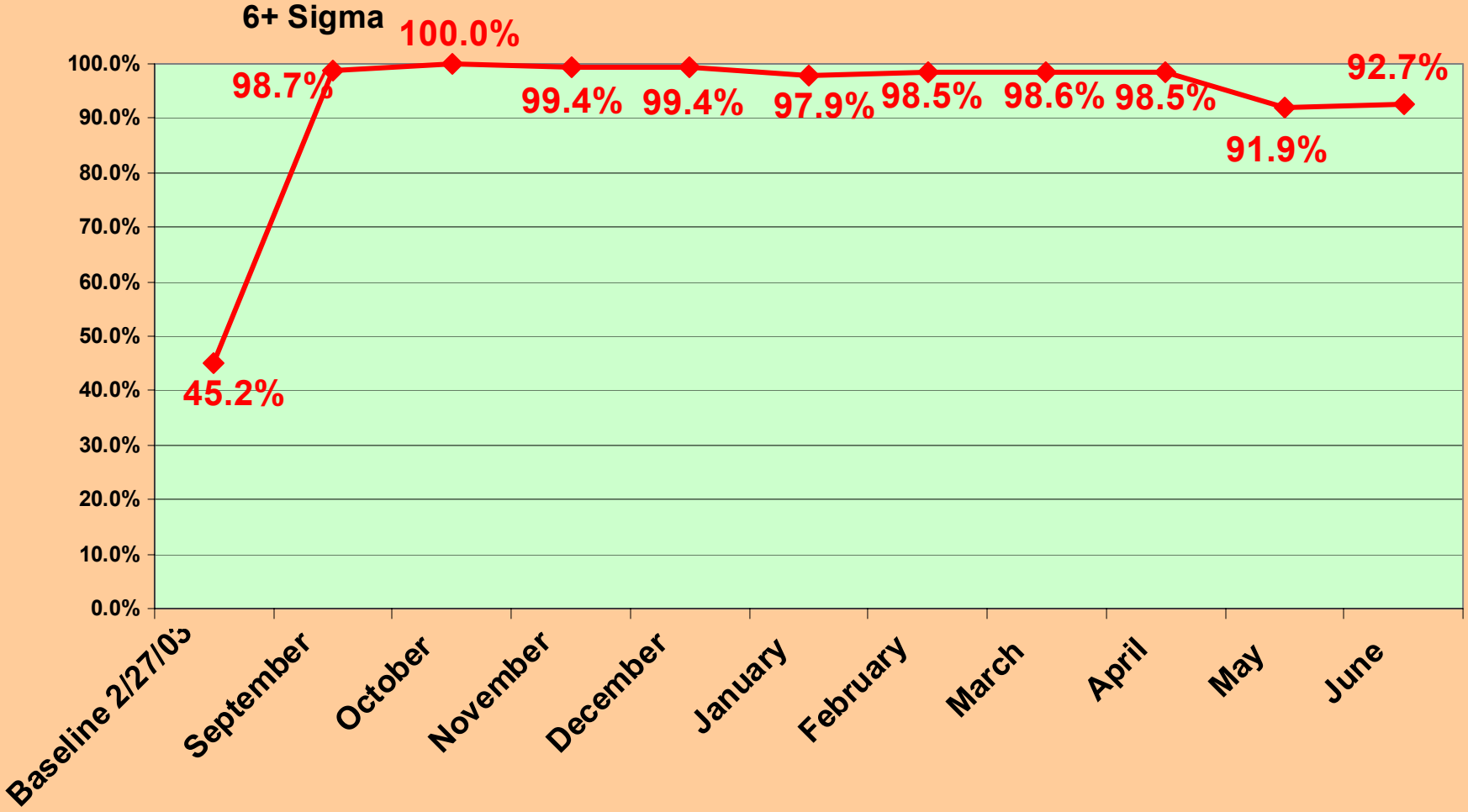

Y = % of accurate charges in ED

# OR Turnaround Time-All To Follow Cases
## Shane Spees, CEO
## FY 2006



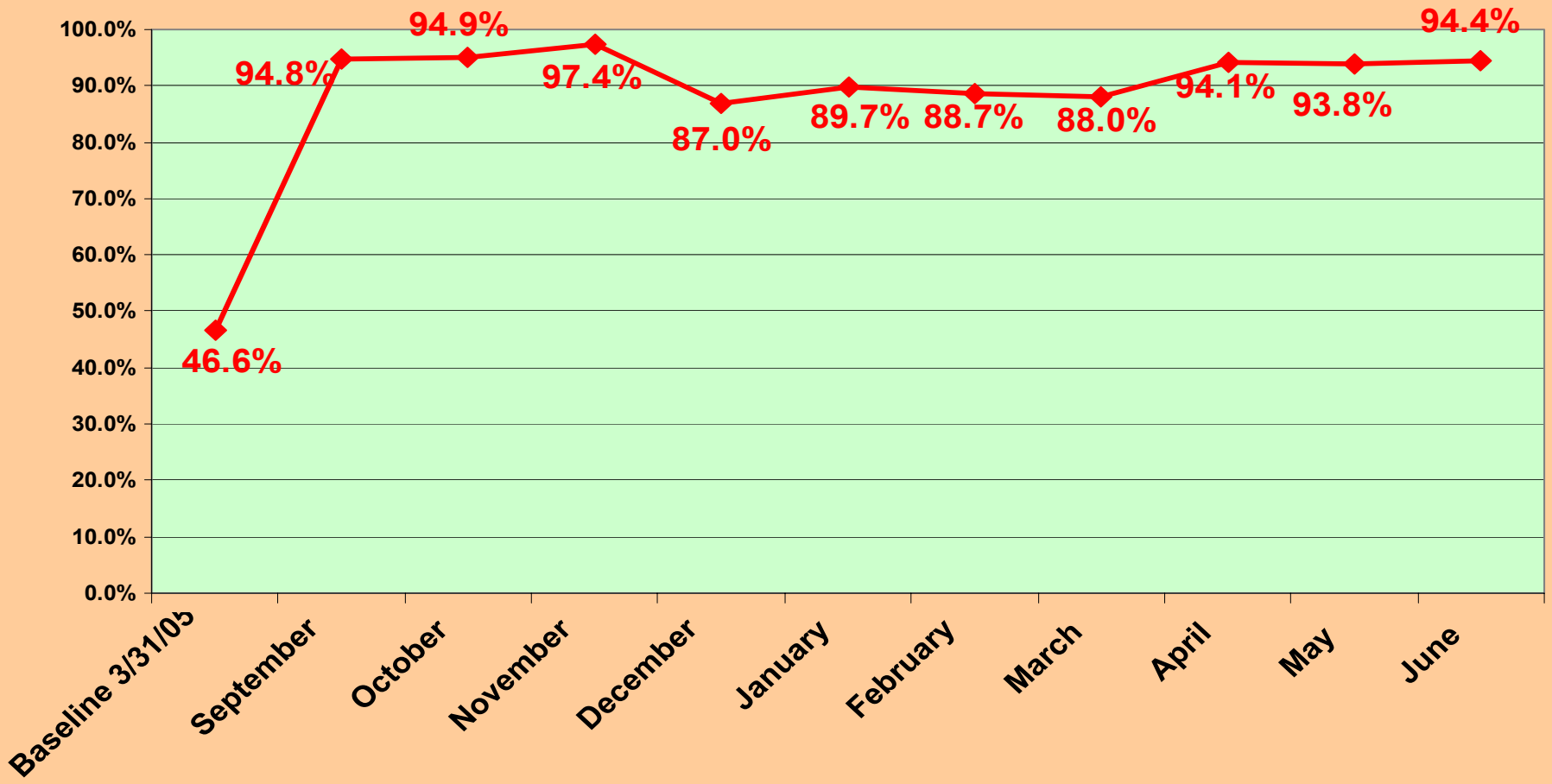

**Y = Surgeon Out to Surgeon in; all to follow cases**
**USL = 60 Minutes**

# CT Turnaround Time to ED
## Shane Spees, CEO
## FY 2006



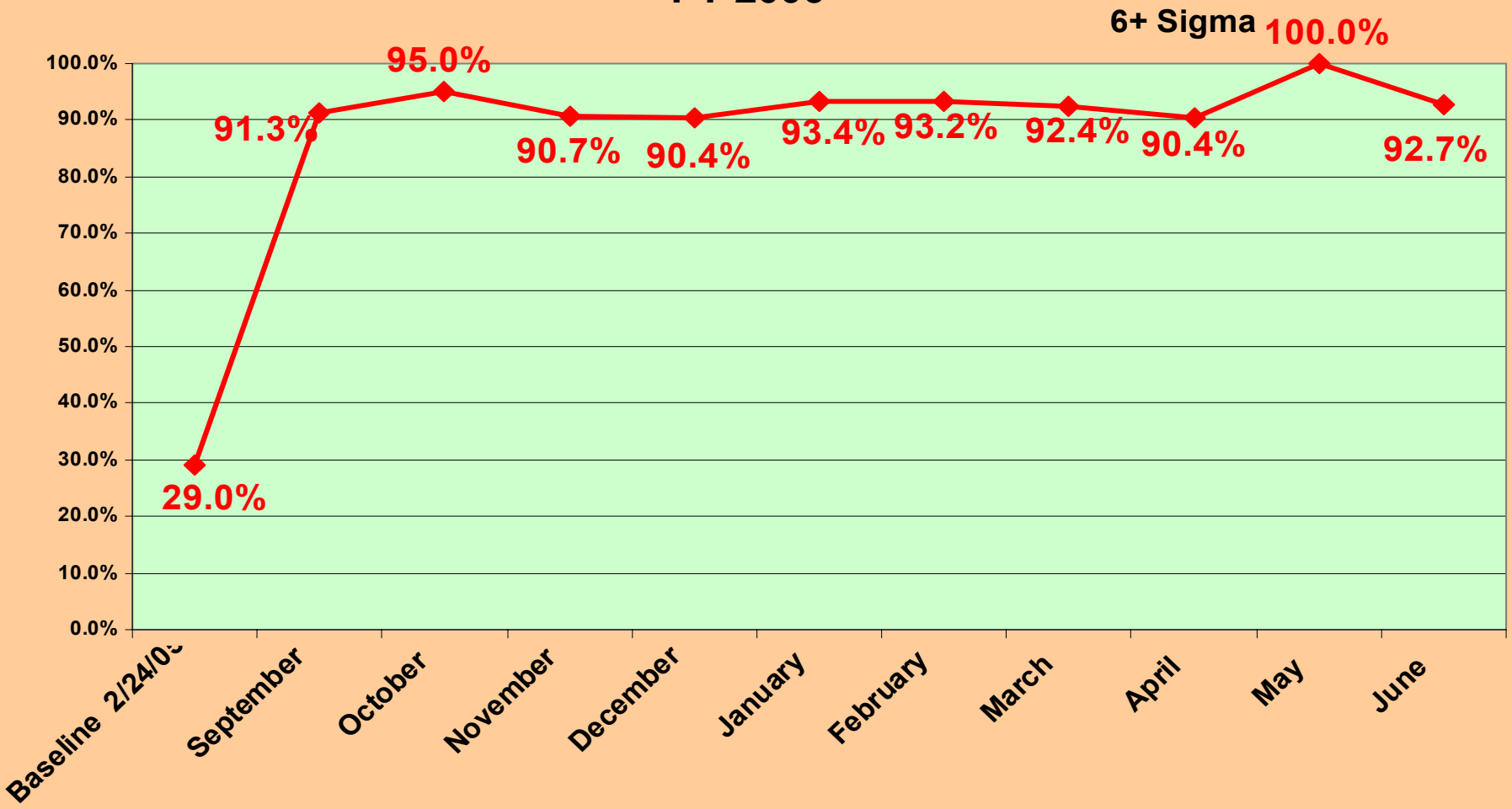

**Y = Order entry to preliminary report delivered**
**USL = 120 Minutes**

# Emergency Department Hold Time
## Rebecca Harper, CNO
## FY 2006



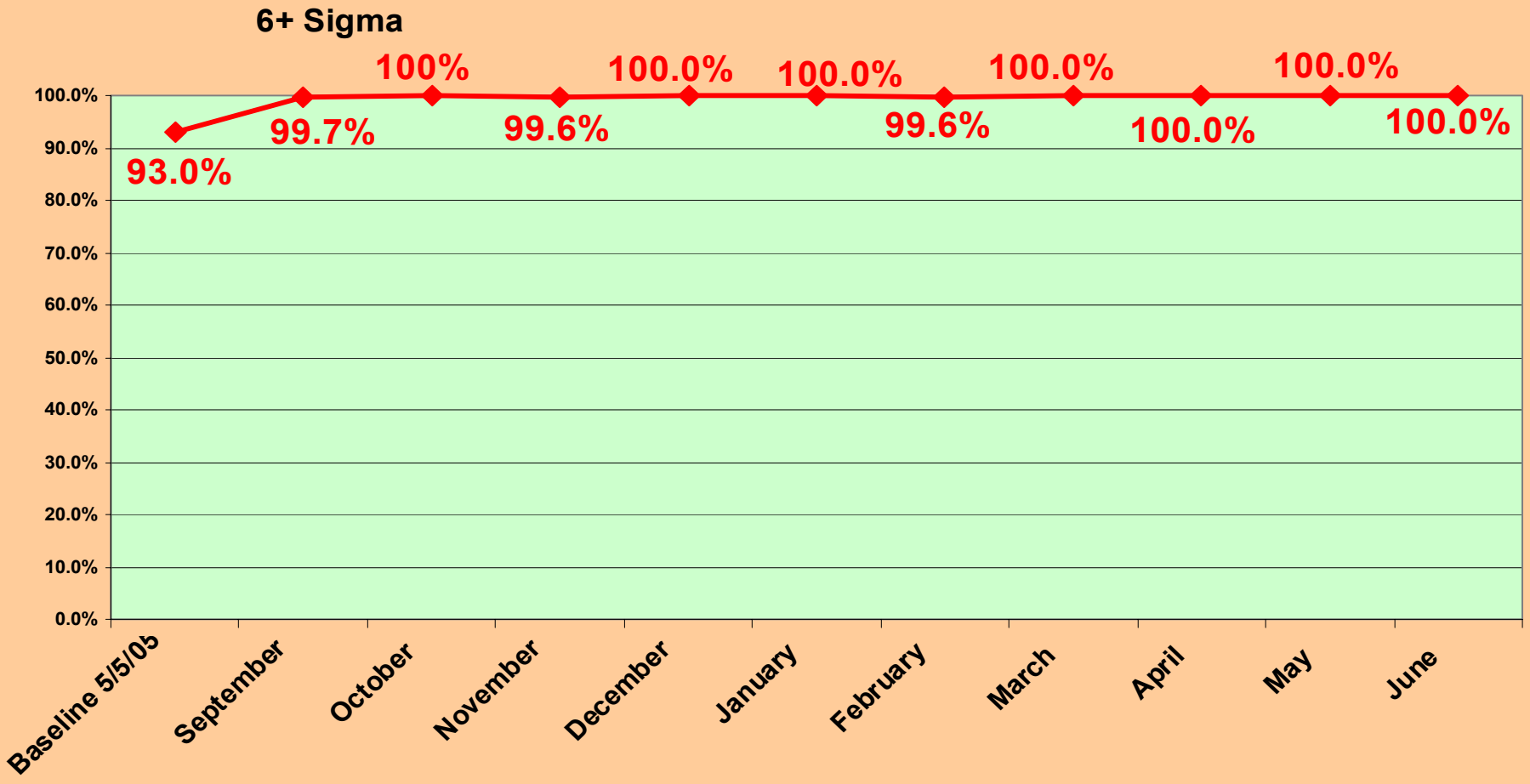

**Y = Time from admission order received in ED until time patient leaves the ED for destination**
**USL = 360 Minutes**

# Radiology Turnaround Time
## Leslie Bingham, COO
## FY 2006



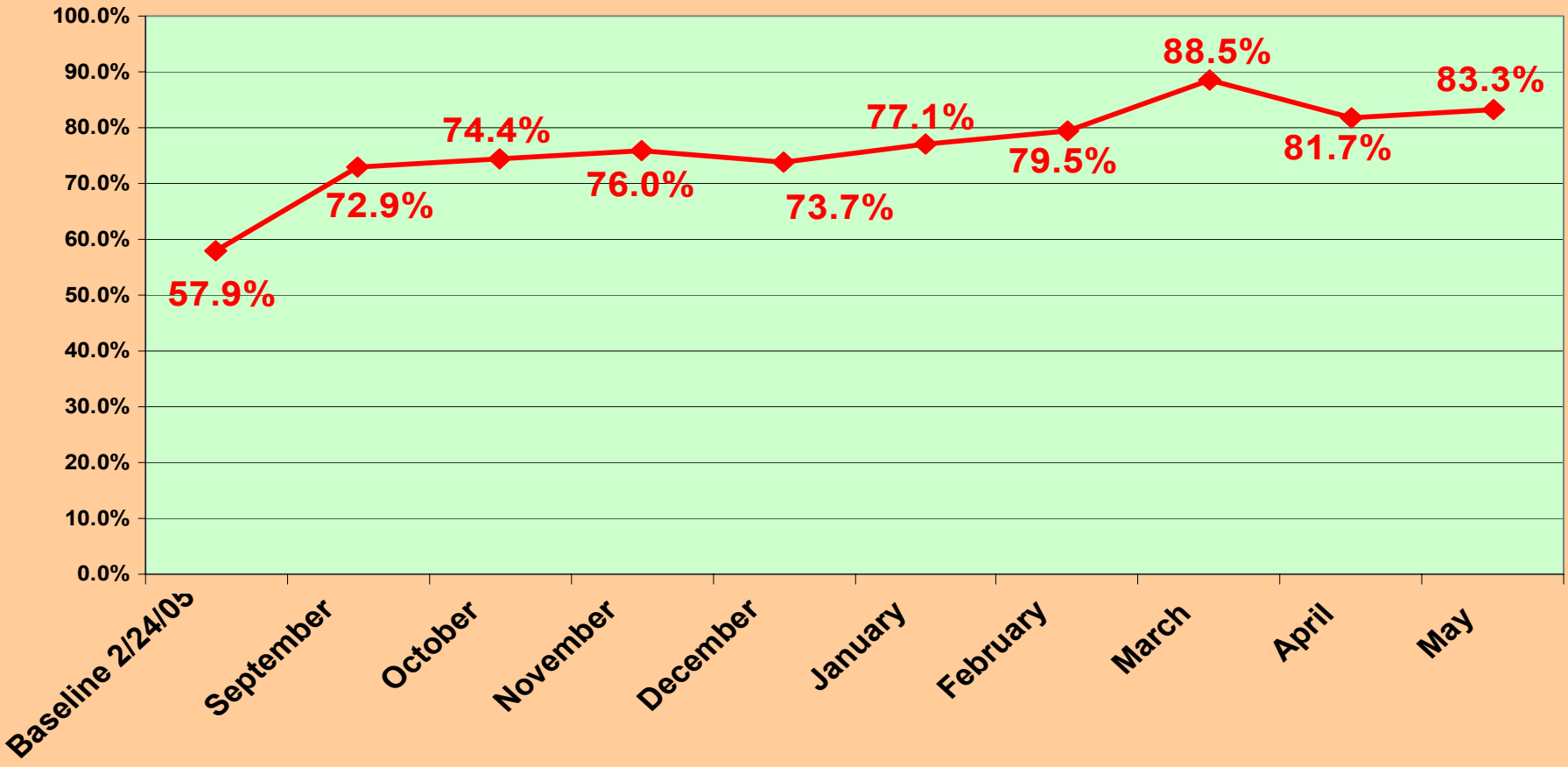

**Y = Time the order is received in the Radiology department to the time the final report is posted in the patient's chart**
**USL = 24 Hours**

# Patient Identification (Labor & Delivery)
## Leslie Bingham, COO
## FY 2006



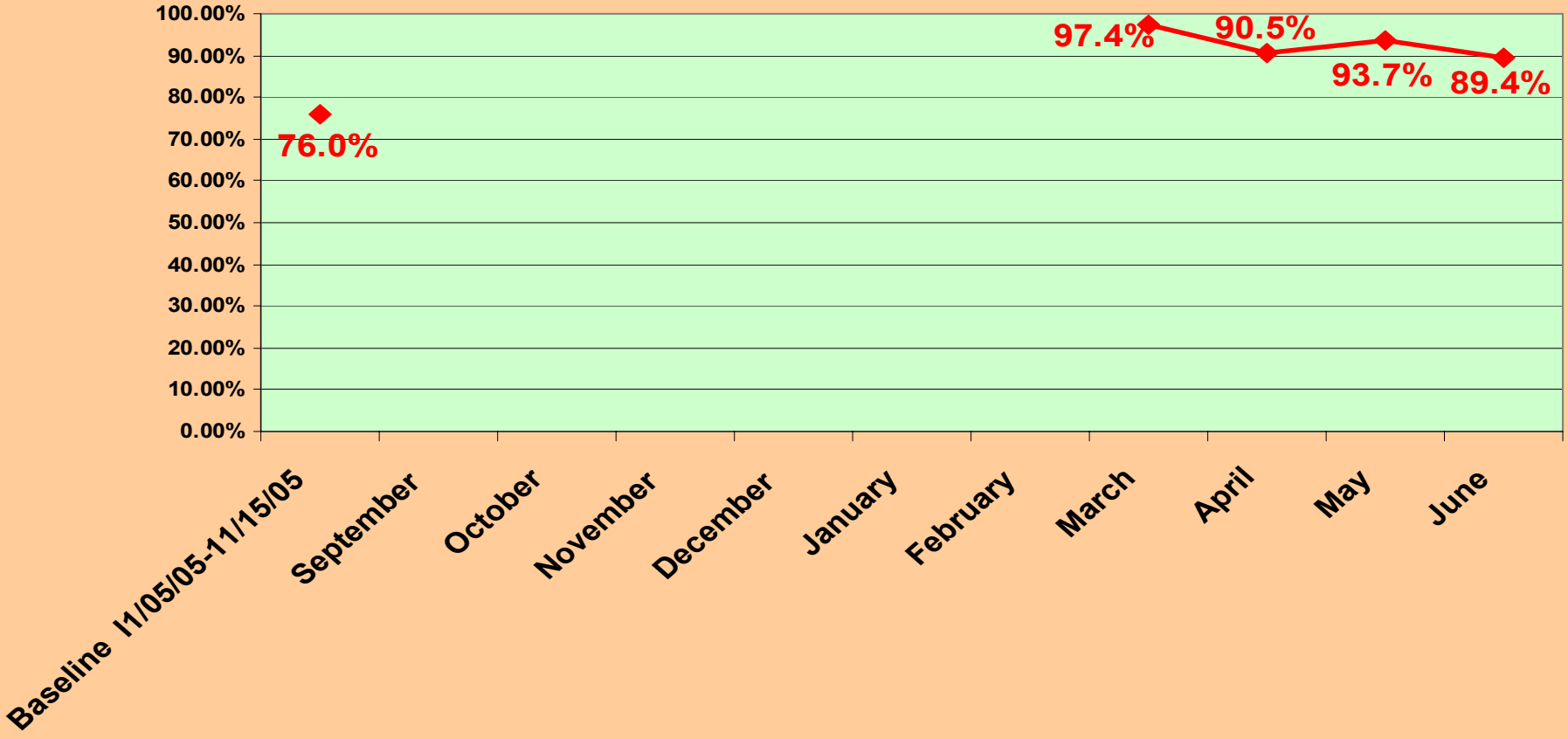

**Y = % of patients with an identification band placed upon admission to L&D**
**USL 30 Minutes (if found off)**

# ICU Care Management
## Rebecca Harper, CNO
## FY 2006



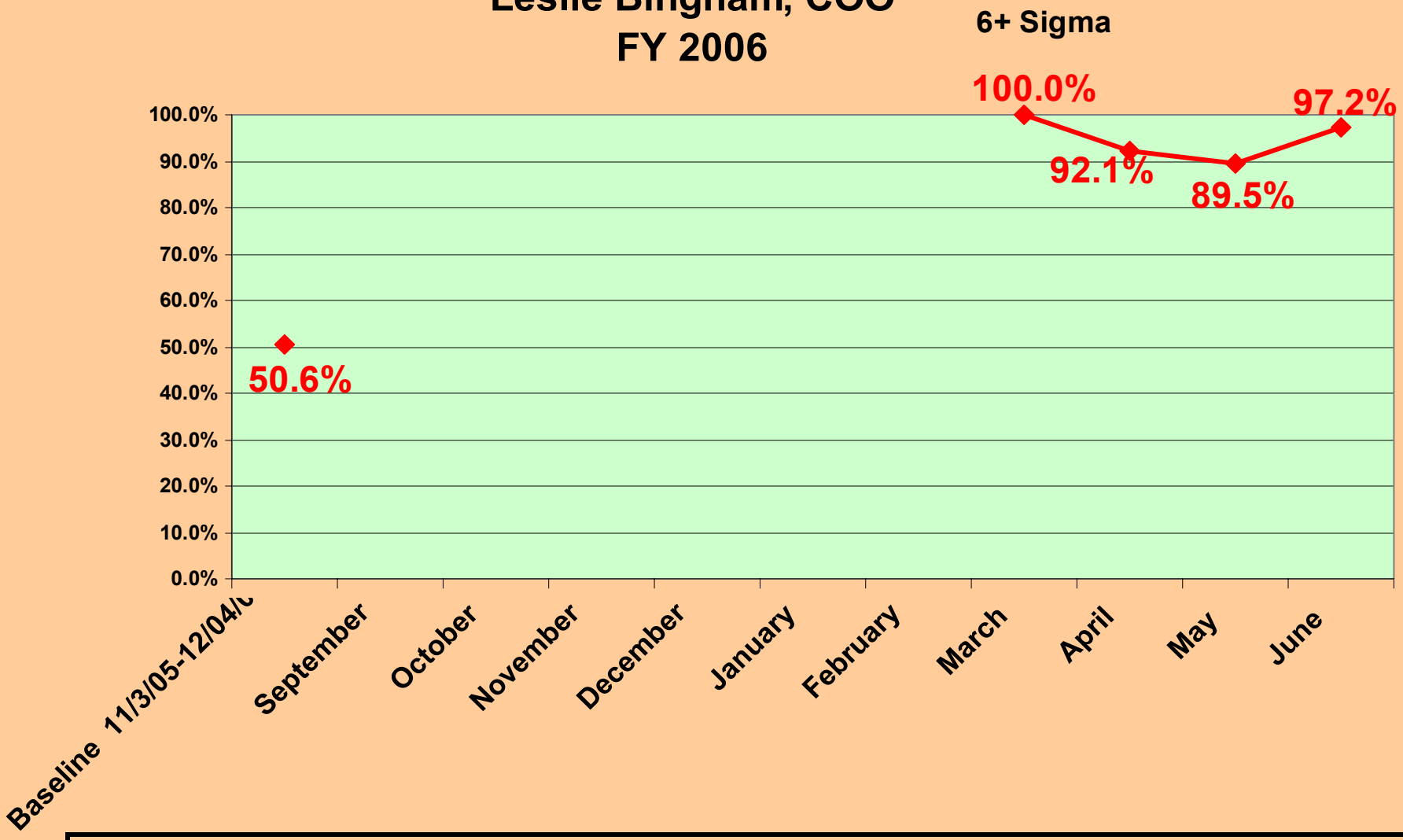

**Y = ICU length of stay from "Time In" to Time Out" in hours.**
**USL = ICU LOS ≤ 50% assigned LOS determined by the final DRG**

# Respiratory Care Services
# Juan Mancillas, M.D./VP Medical Affairs
# FY 2006



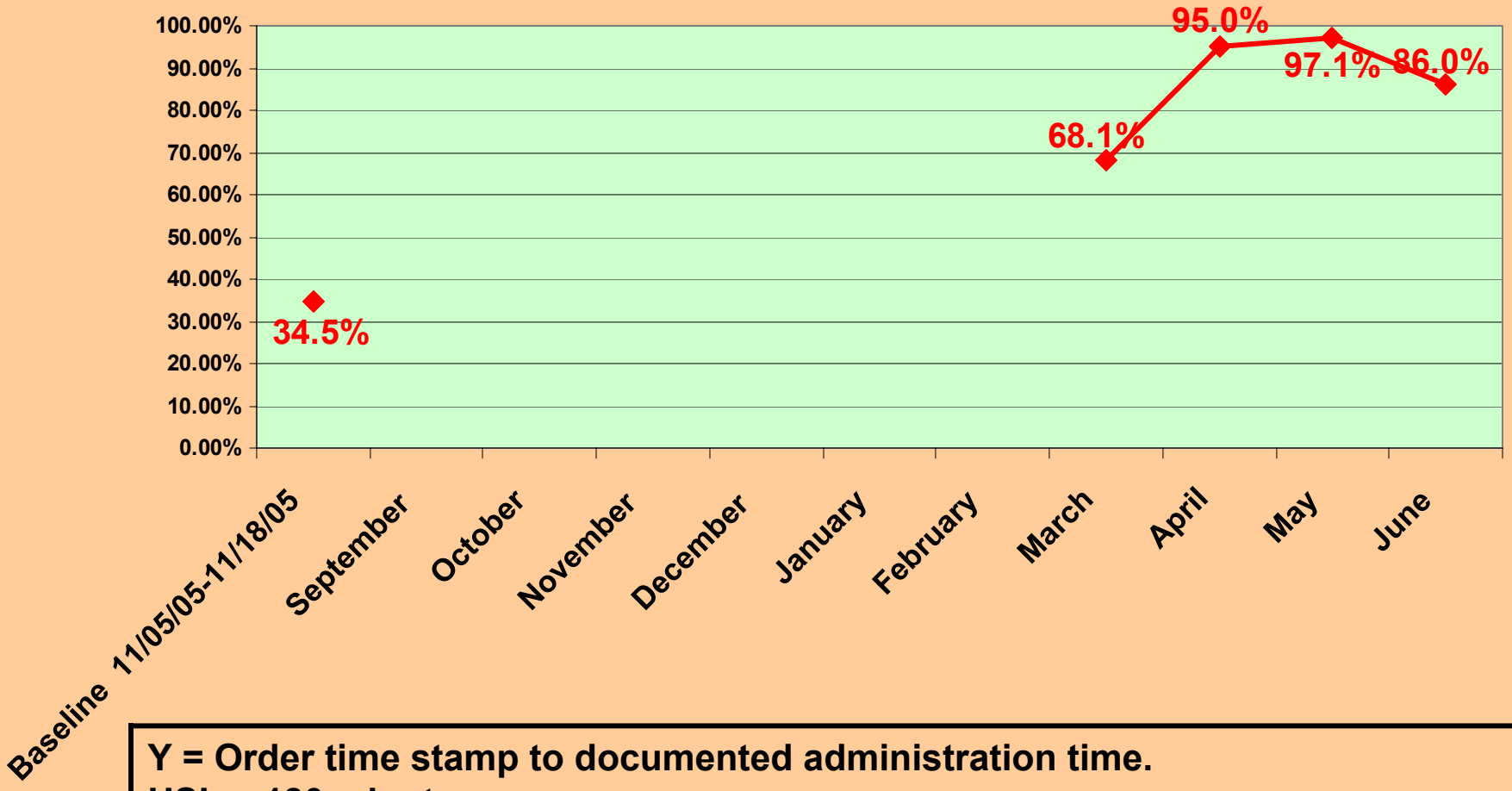

**Y = Timeliness of subsequent treatment (measured in minutes): a defect = any treatment > 30 minutes before or after scheduled treatment time**
**USL = 30 minutes**
**LSL = 30 minutes**

# Surgical Case Time Management
## Leslie Bingham, COO
## FY 2006




Y = Surgeon out from procedure to “time out” of “to follow” procedure
USL = 60 minutes

# Medication Administration TAT - First Dose
## Leslie Bingham, COO
## FY 2006




**Y = Order time stamp to documented administration time.**
**USL = 180 minutes**

# Six Sigma Performance Summary FY 2006 to Date

- VBMC – Brownsville
  - 50% Performance with 7 of 14 Initiatives have achieved 6 Sigma
- VBMC – Harlingen
  - 31% Performance with 10 of 32 Initiatives have achieved 6 Sigma
- VBHS – Corporate
  - 65% Performance with 11 of 17 Initiatives have achieved 6 Sigma

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- VBHS
  - 44% Performance with 28 of 63 Initiatives at 6 Sigma