



Sun Health Del E. Webb Hospital

# Emergency Services



Sun Health Del E. Webb Hospital

# Process Redesign Report Card

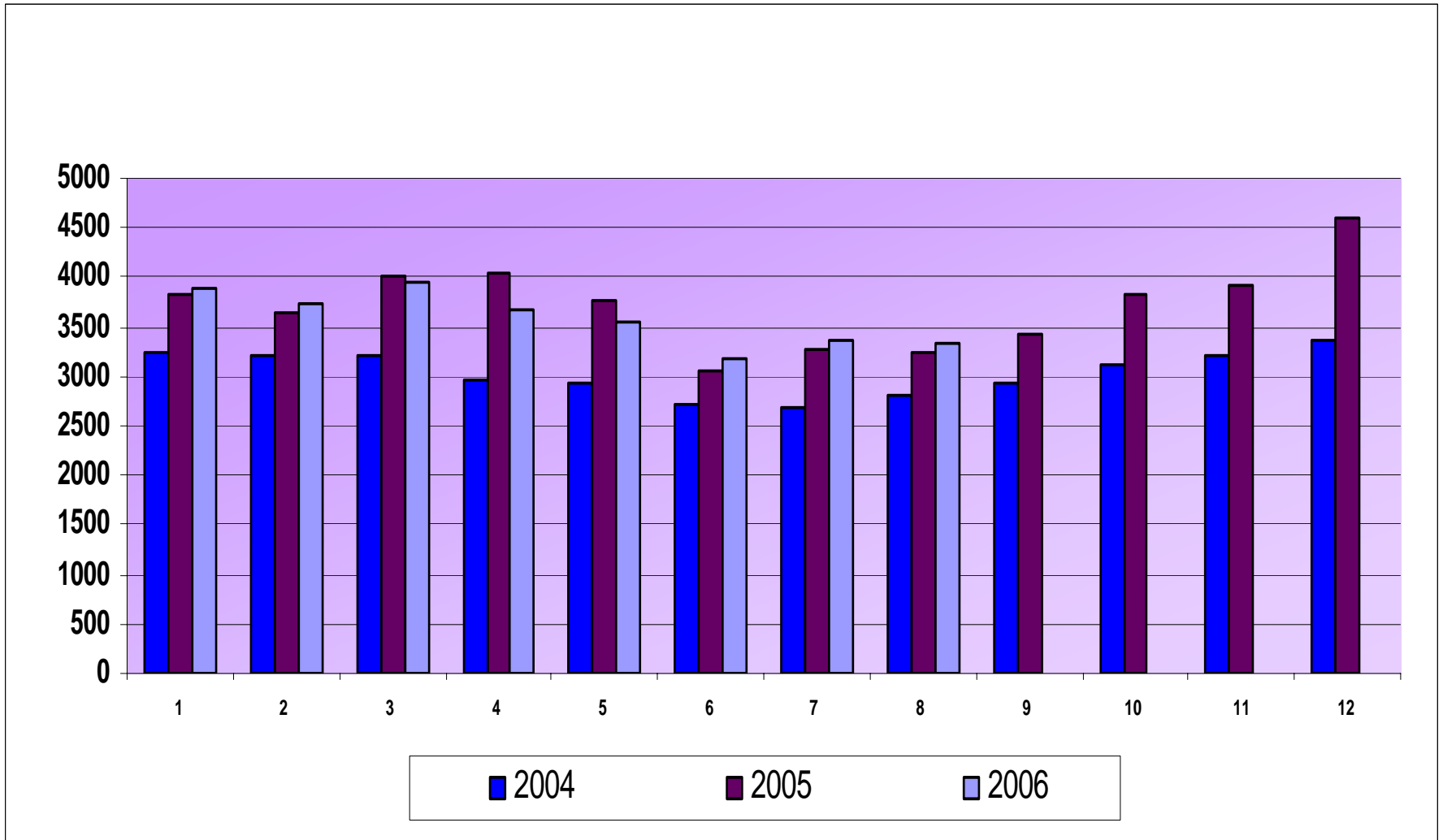
## One Year Later....

# Big Growth

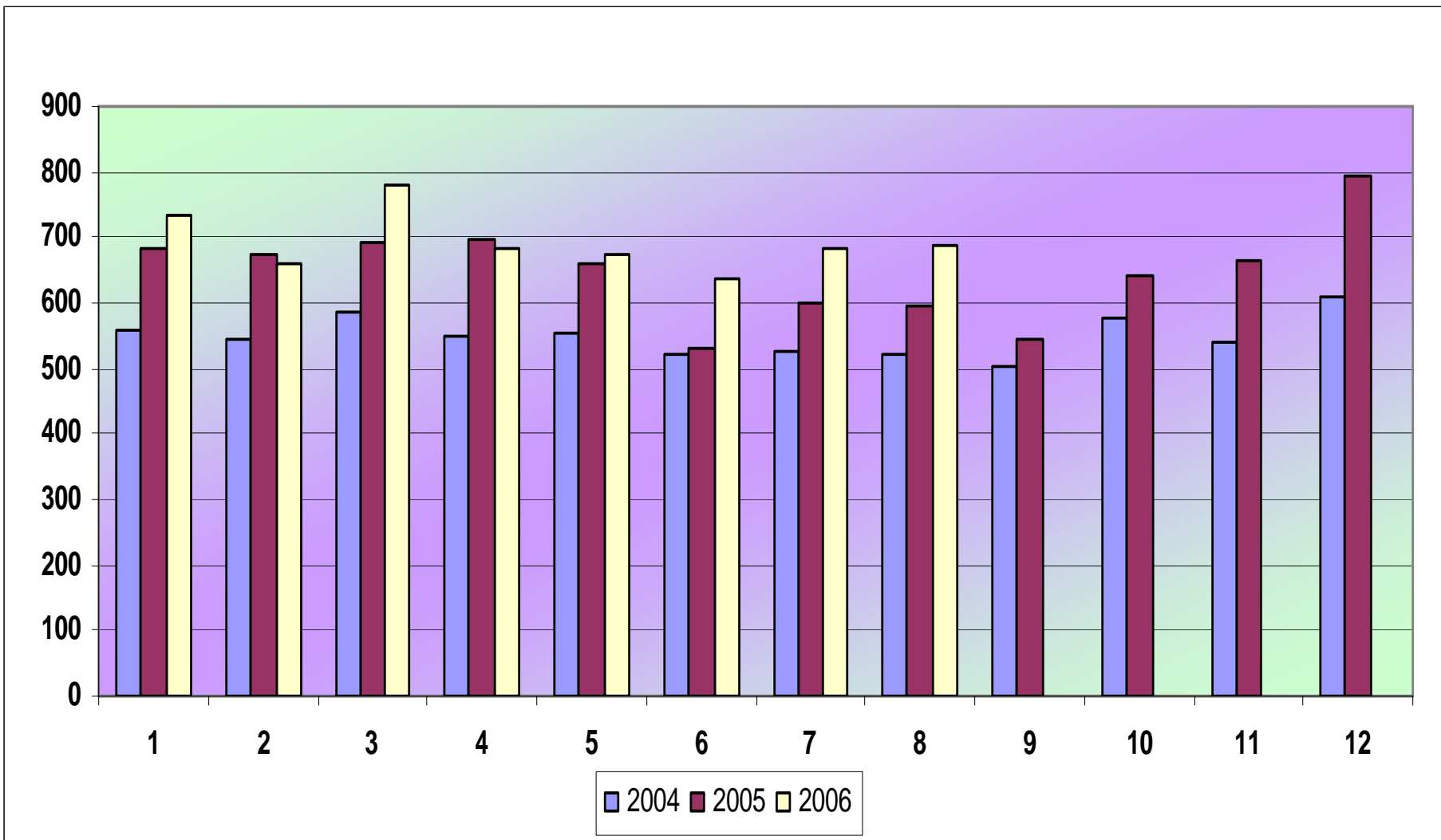
- 2002 ED Volume: 19,000 visits
- 2006 projection: 46,000 visits
- EMS volume increased 50% from 2002
- Diversion Hours increased 150%
- ED Hold Hours increased 25 fold
  - 100 hours per month in 2002
  - 2500 hours per month in 2005-2006

# Del E. Webb ED Patient Volumes 2004 – 2006

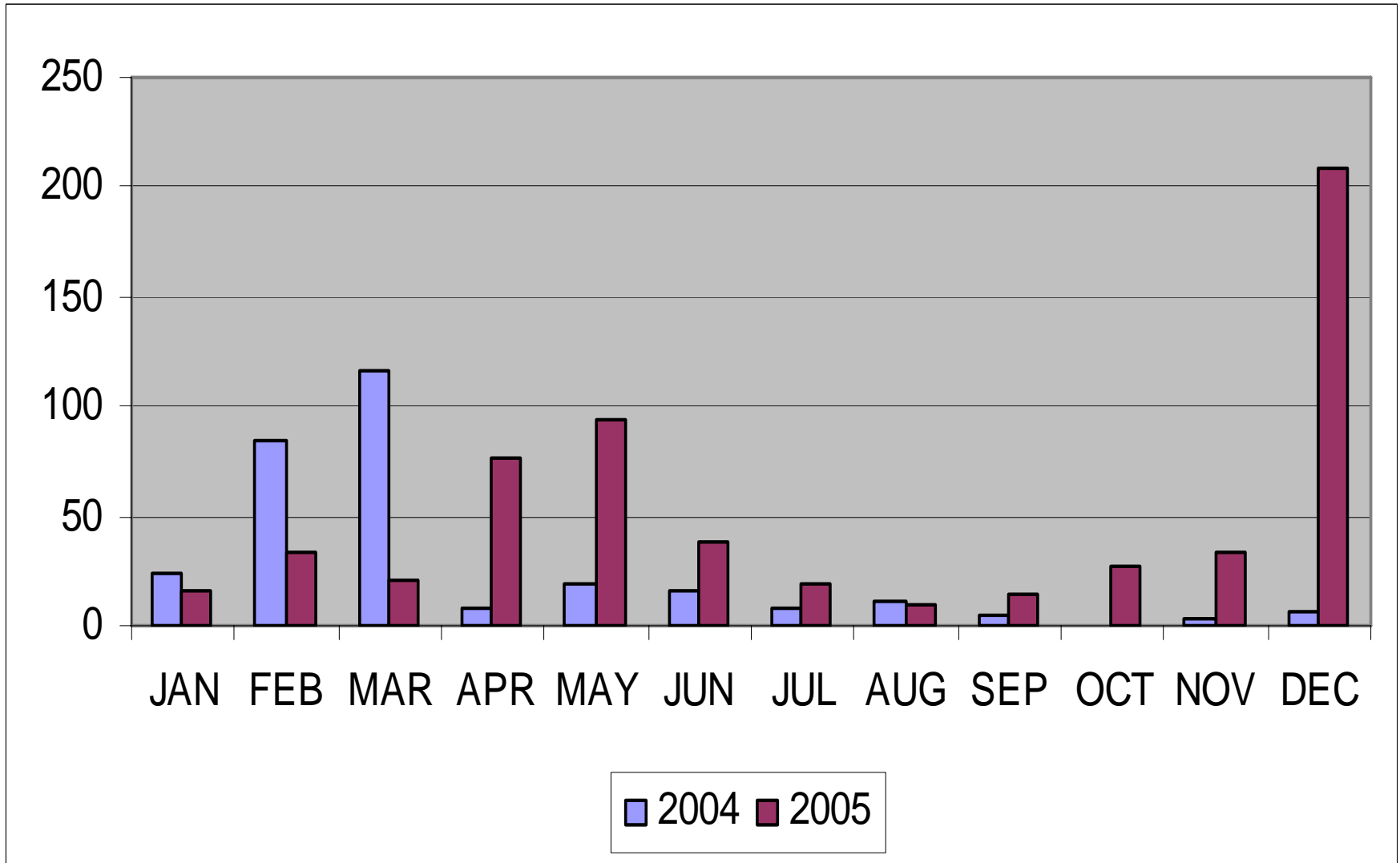
(Includes Patients Who Left Without Being Seen)



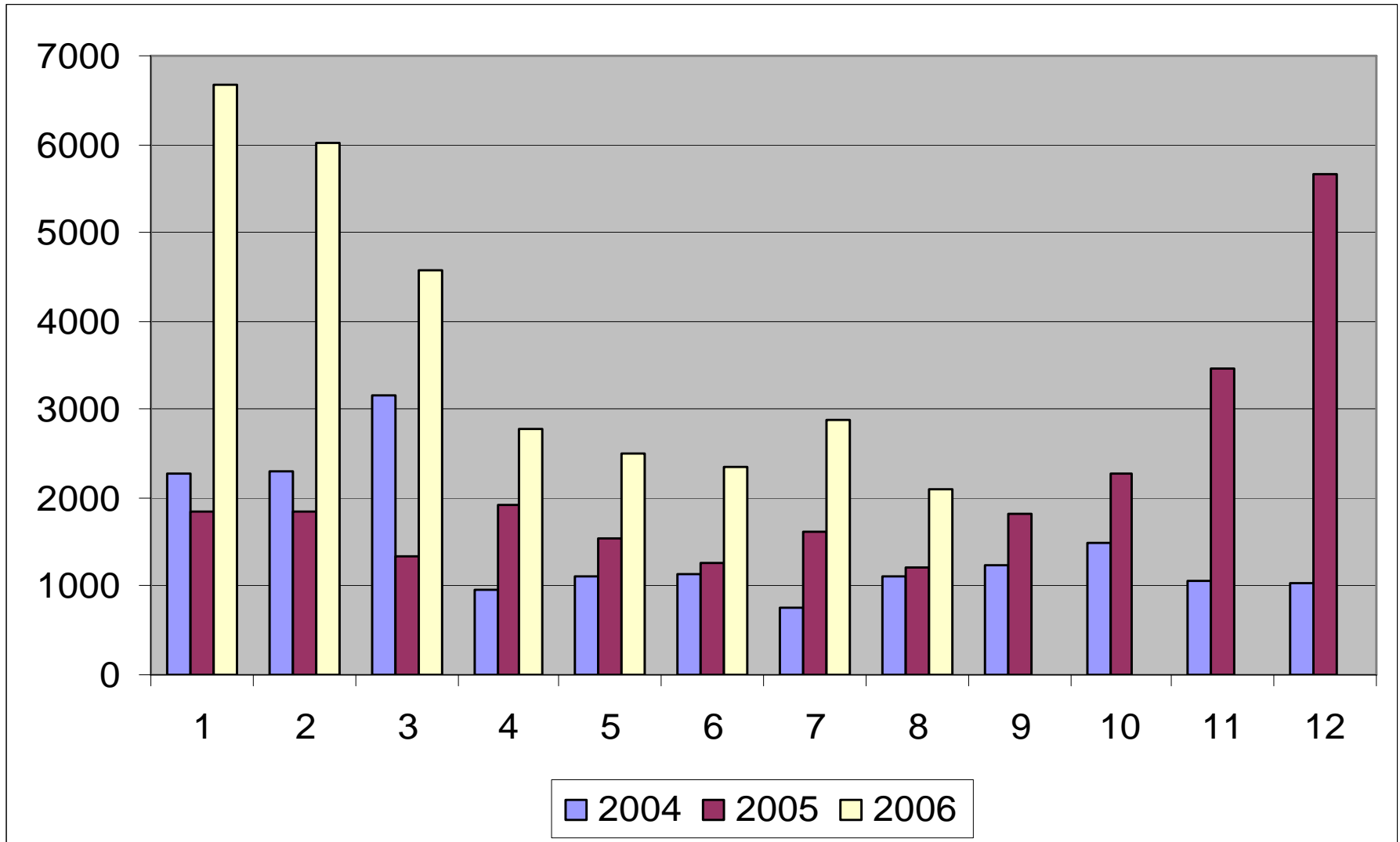
# Del E. Webb ED EMS Volumes 2004 - 2006



# Del E. Webb ED Diversion Hours 2004 - 2005



# Del E. Webb ED Hold Hours 2004 - 2006

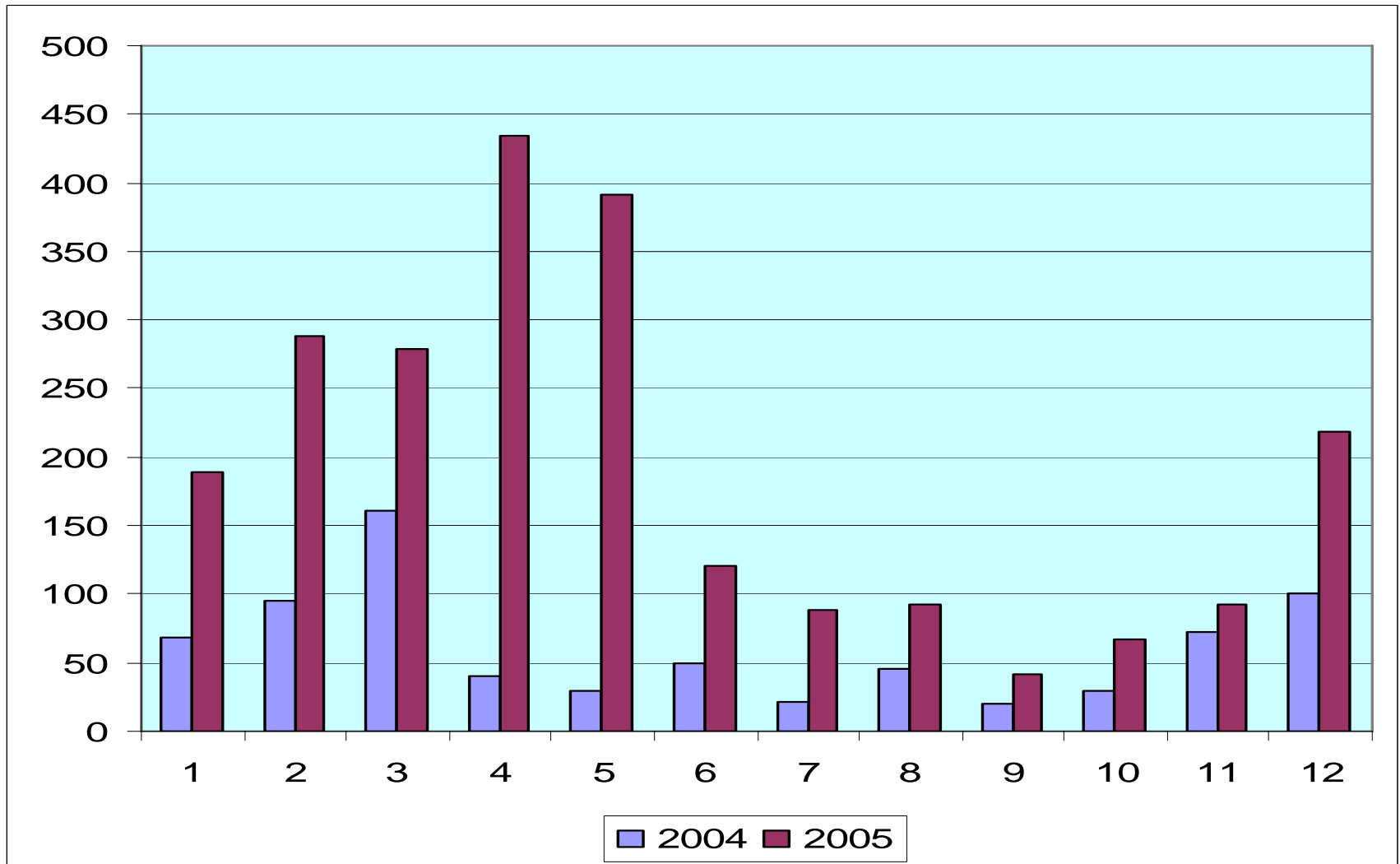




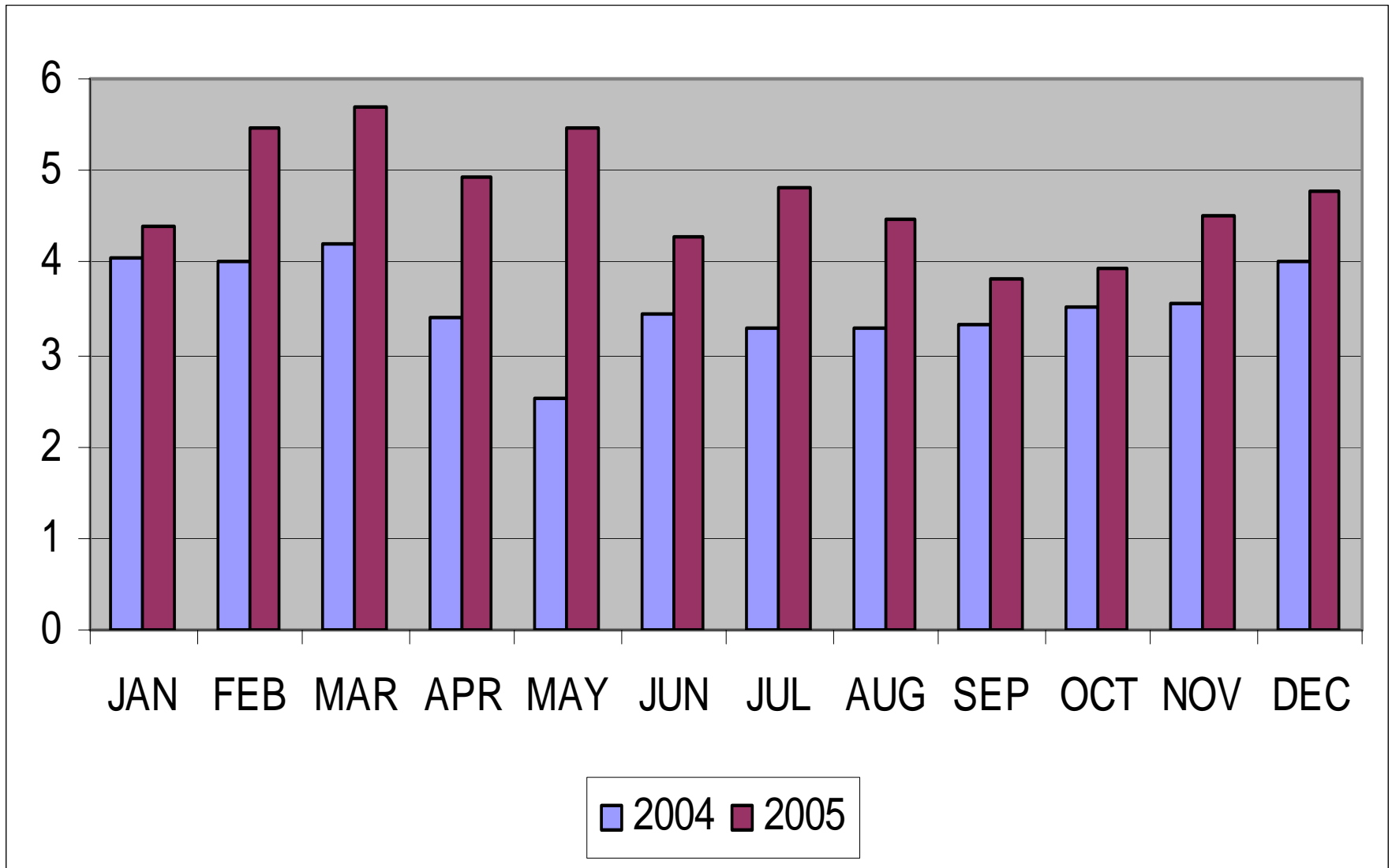
# Growth Impacted Performance

- LWBS climbed to high of 14% (468) in April 2005
- Length of Stay increased to an average of 4:55 in 2005
- 2005 wait times to a treatment area often exceeded 6-8 hours
- Patient Satisfaction down to 8% December 2004 / January 2005

# Del E. Webb ED Patients Who Left Without Being Seen 2004 - 2005



# Del E. Webb ED Length of Stay 2004 - 2005



# Patient Satisfaction Scorecard

- 2005 1<sup>st</sup> Quarter

- Mean 79.2
- 23%

- 2005 2<sup>nd</sup> Quarter

- Mean 77.0
- 15%

- 2005 3<sup>rd</sup> Quarter

- Mean 81.7
- 39%

- 2005 4<sup>th</sup> Quarter

- Mean 79.9
- 20%

- 2006 1<sup>st</sup> Quarter

- Mean 77.2
- 8%



# Growth Impacted Staffing

- May 2005 RN Vacancies climbed to 32%
- 2004-2005 staff turnover rate was 35%
- Registry use was high
- Sick calls by existing staff significantly increased in 2004

# Redesign

- October 2005: Insight Strategies was engaged to redesign the process
- Utilized Daimler/Chrysler method of Rapid-Cycle Process Improvement
- Staff driven, using the bedside experts
- Simulation Analysis of the ED's existing flow process showed areas of concern



# Process Redesign Assumptions

- Patients come to ED for only one reason—to see a physician
- Triage means there is already a delay
- Not every patient needs to own a bed
- Greatest risk to patients and hospital is a full lobby



# New Process

- Triage eliminated
- Intake Process established where patients are immediately taken to exam room or bed
- Physician sees patient within 15 minutes of arrival
- Patient moves within ED depending upon condition and workup
- Flexible

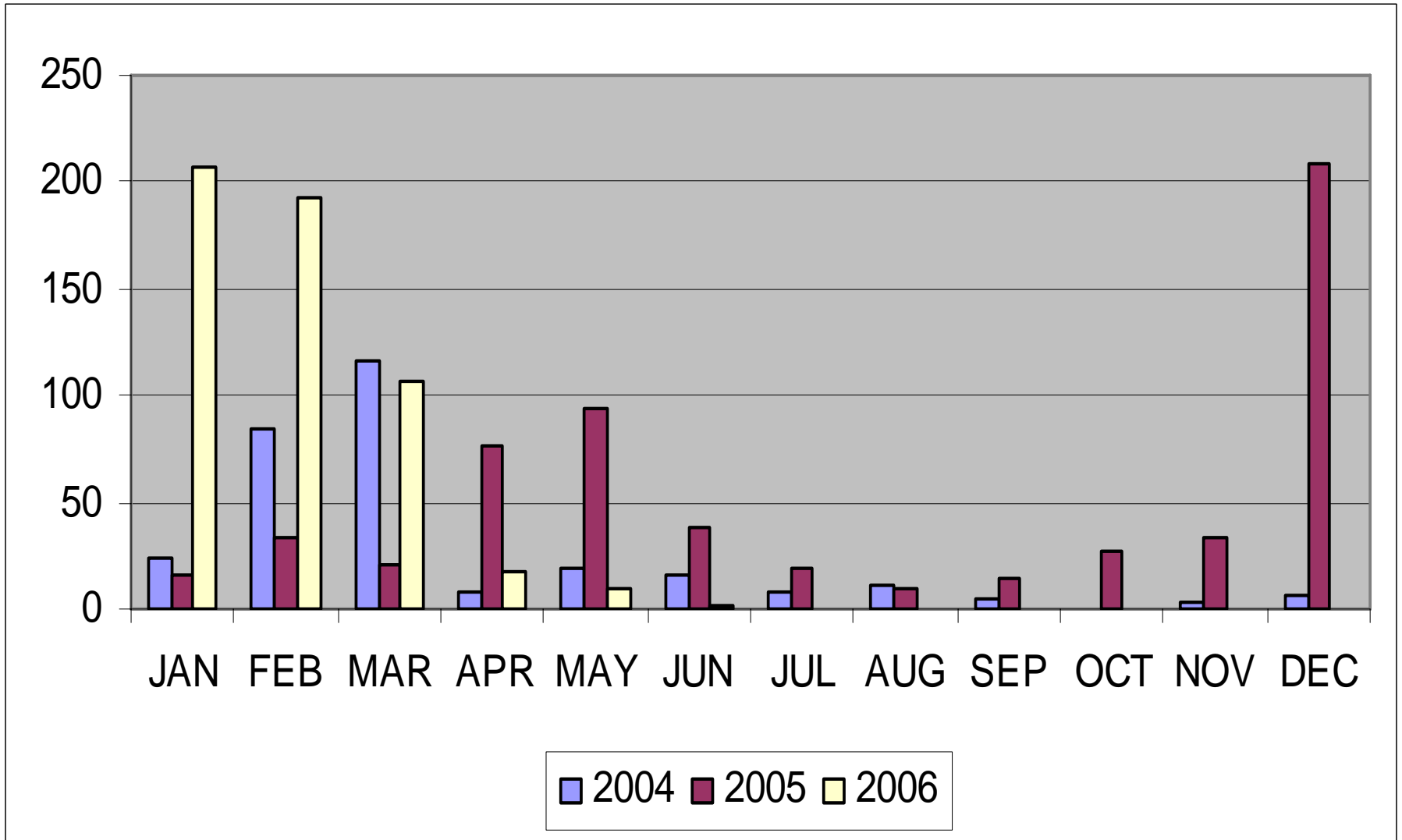


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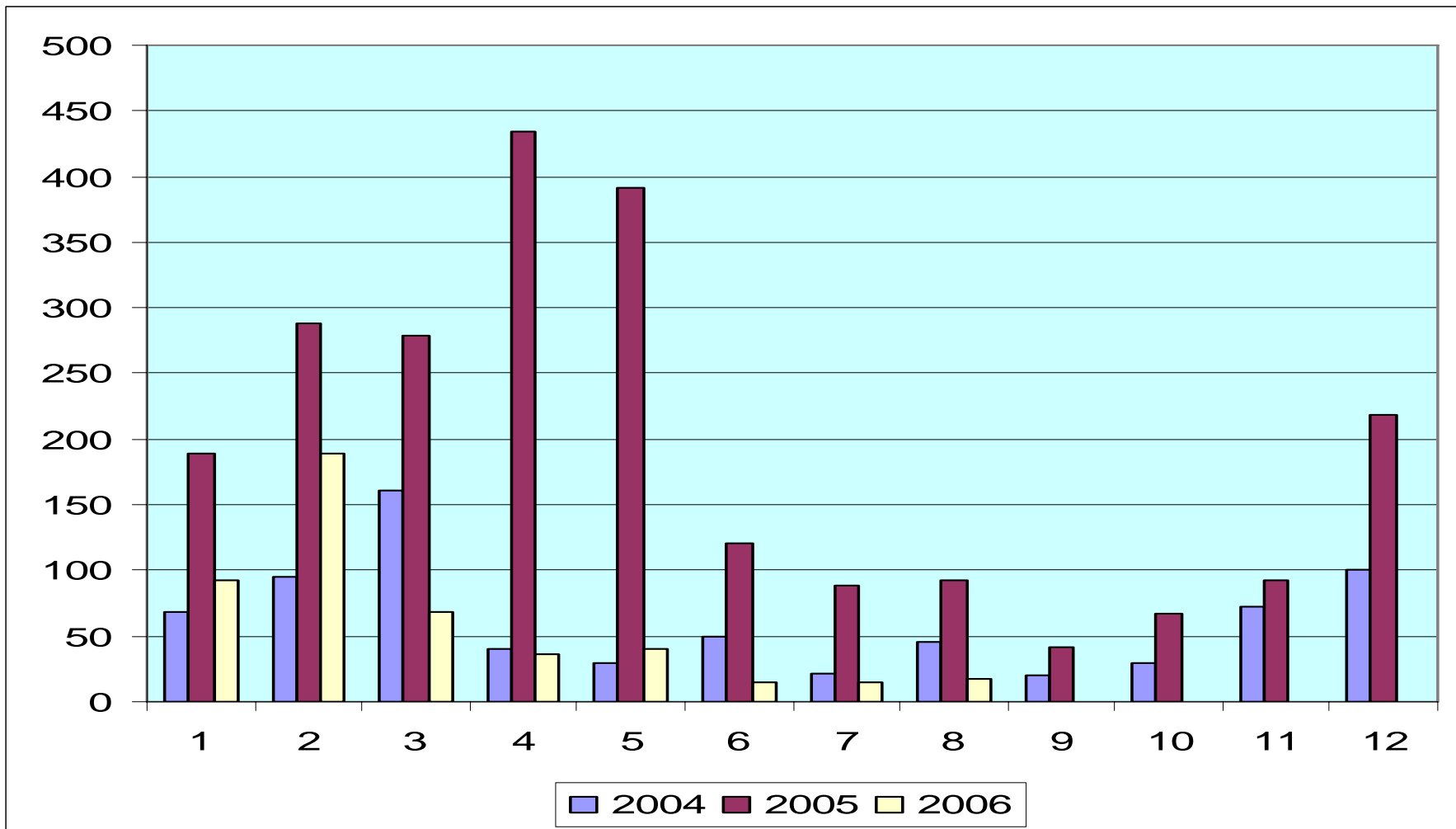
# Results

# One Year Later...

# Del E. Webb ED Diversion Hours 2004 - 2006



# Del E. Webb ED Patients Who Left Without Being Seen 2004 - 2006

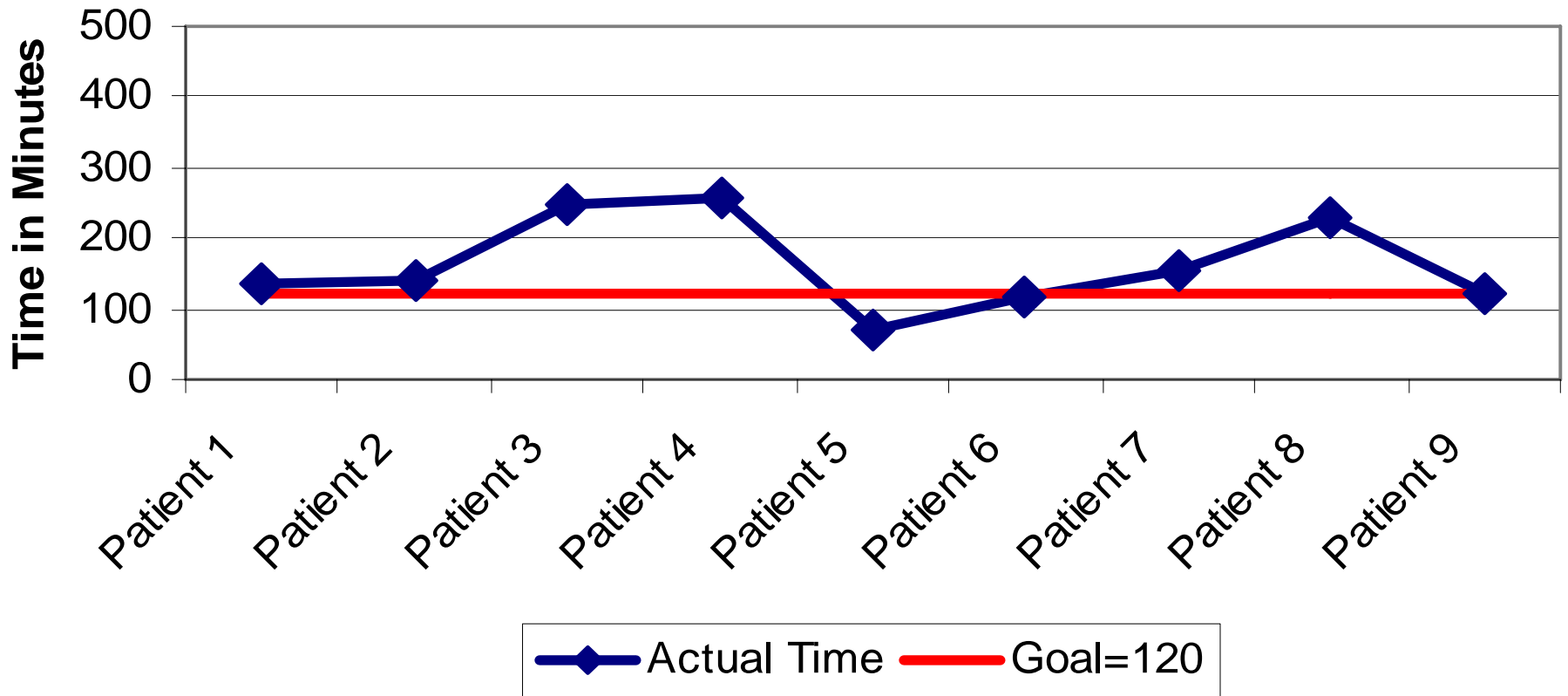


# Patient Satisfaction Scorecard

- 2005 1<sup>st</sup> Quarter
  - Mean 79.2
  - 23%
- 2005 2<sup>nd</sup> Quarter
  - Mean 77.0
  - 15%
- 2005 3<sup>rd</sup> Quarter
  - Mean 81.7
  - 39%
- 2005 4<sup>th</sup> Quarter
  - Mean 79.9
  - 20%
- 2006 1<sup>st</sup> Quarter
  - Mean 77.2
  - 8%
- **2006 2<sup>nd</sup> Quarter**
  - **Mean 81.7**
  - **50%**
- **2006 3<sup>rd</sup> Quarter**
  - **Mean 81.8**
  - **71%**

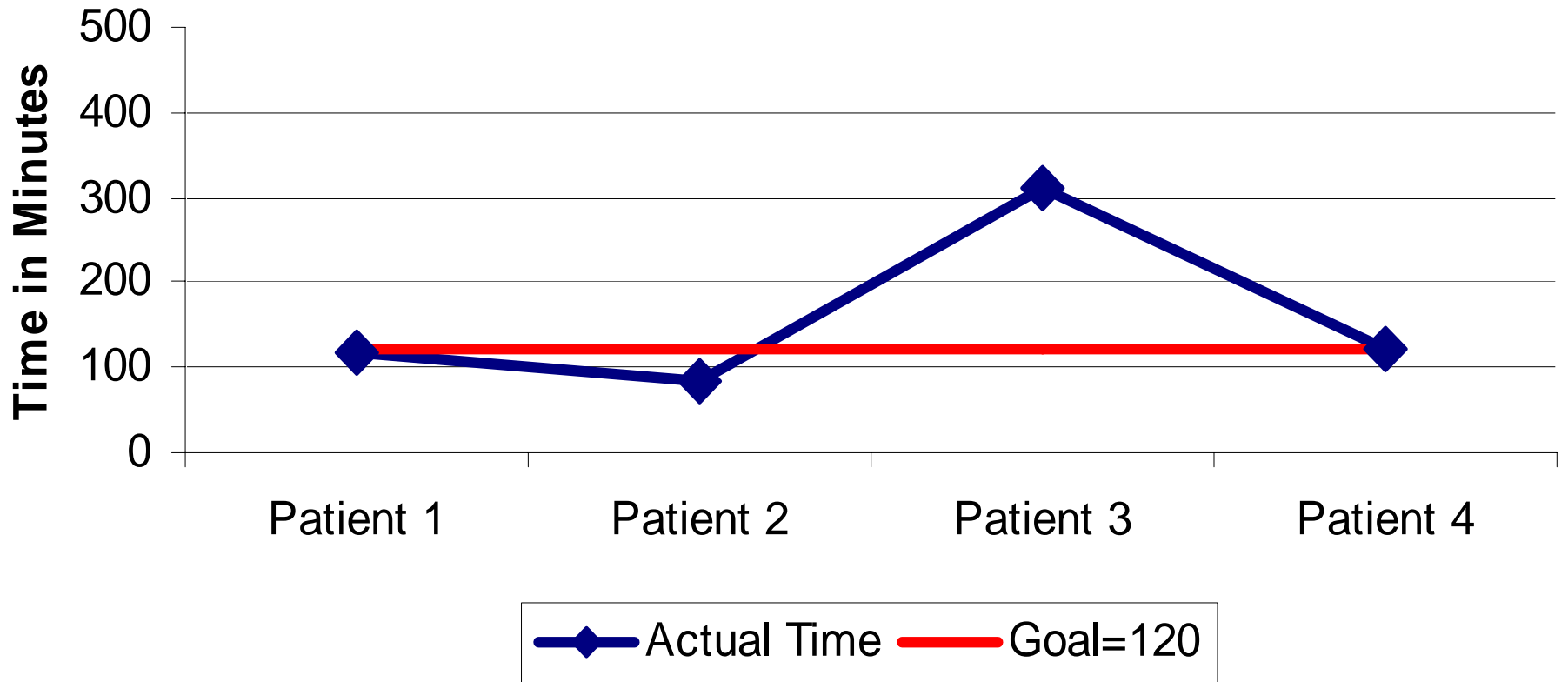
# CORE MEASURES – Door to Balloon for Acute MI

Fourth Quarter 2005

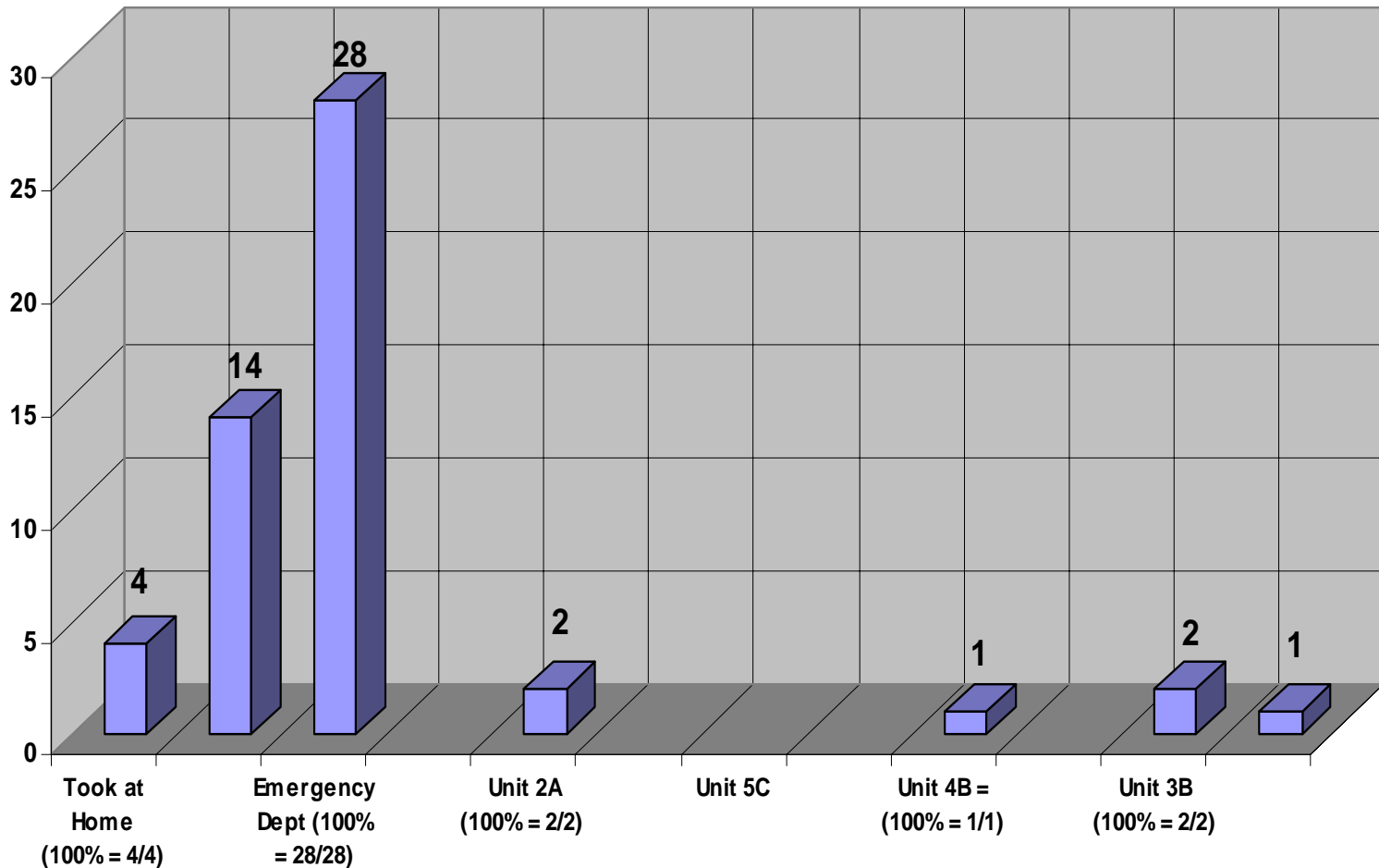


# CORE MEASURES – Door to Balloon for Acute MI

January and February 2006



# CORE MEASURES – AMI Treated with Aspirin within 24 hours - 4<sup>th</sup> Quarter 2005



# Solucient Data

Hours worked per patient visit

**Benchmark: 35% or below**

- 2004 4<sup>th</sup> Quarter

- 3.21

- 100%

- 2005 1<sup>st</sup> Quarter

- 2.92

- 96%

- 2005 2<sup>nd</sup> Quarter

- 2.81

- 75%

- 2005 3<sup>rd</sup> Quarter

- 2.72

- 52%

- 2005 4<sup>th</sup> Quarter

- 2.41

- **23.51%**

# Solucient Data

Hours ? per patient visit

Benchmark: 35% or below

- 2004 4<sup>th</sup> Quarter

- 3.52

- 84%

- 2005 1<sup>st</sup> Quarter

- 2.63

- 53%

- 2005 2<sup>nd</sup> Quarter

- 2.81

- 52.5%

- 2005 3<sup>rd</sup> Quarter

- 2.72

- 52%

- 2005 4<sup>th</sup> Quarter

- 2.60

- 17.65%

# Results

- 100% filled positions
- Marked decrease in registry use
- Staff sick time has decreased from average of 96 to 8 hours per pay period
- Great relationships with local EMS
- **WAITING ROOM IS EMPTY!!!**



# Unexpected Result: Staff Engagement

- Shared leadership with active participation at every level
- Staff engaged in creative problem solving
- No longer bound by staffing ratios—greater workload with greater job satisfaction!
- Staff passing the excitement onto other departments: “Build a Bridge” program



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# The Final Puzzle Piece



**California Emergency Physicians**

# The Final Piece...

- Spring 2006 CEP awarded the Sun Health ED contract and AEP is founded
- Large democratic partnership staffing 55 California hospitals
- National recognition for best practices in patient care, customer satisfaction and ED management
- Recruiting Success
  - Residency trained, Board Certified/Board Eligible
  - 8 new physicians, 2 Chief Residents



# Arizona Emergency Physicians

- Local emergency physicians committed to the community
- Ideal Emergency Medicine Practice: local autonomy with access to large network of management expertise
- Nursing/Physician partnership to continuously energize and improve the process



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# Rising to Future Challenges

# RN Vacancies – Grow Your Own

- Emergency Department CCT's are pursuing RN degrees
- Many new graduate nurses want to work in the ED but lack formal training
  - Untapped resource: Mesa/Boswell School of Nursing
  - ED residency program implemented



# ED Residency Program

- Began in May 2005
- 13 week program
- Formal curriculum combines didactic and clinical experience
- Has grown to include Grand Canyon and Ethel Bauer students
- Graduated 15 students
- Waiting list currently

# EMS Results

- 2 actual community disasters 2006
  - Voluntary EMS response with several 7- man battalions
- Multiple new Fire Stations planned
  - 5 additional stations in Surprise by 2008
  - 3 new Fire Stations in Buckeye 2007
- Cultivate Staff/EMS Relations
  - Green Chile cook off, baseball games, EMS appreciation week - huge staff involvement



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# Regulatory Changes



# 2006 EMTALA Changes

- Off-load of ambulances within “reasonable” time: 15 minutes in Phoenix area
- Delays in off-loads can result in fines under the EMTALA umbrella



# Response to EMTALA Changes

- Staging concept based on disaster protocols
- Physicians go to staging area
- “Pit Crew” concept



# Rising to Other Challenges ...

- No Diversion
- Disaster Management
- Chest Pain Center
- Bed Placement Process – Right Patient, Right Bed
- PICIS – IT project



# Rising to Other Challenges...

- Patient Satisfaction
- Thank you cards
- Nurse Council
- STEMI Project



Sun Health Del E. Webb Hospital

Thank You for your  
support!

Any Questions?