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# Introduction

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Castle Medical Center is pleased to present our first annual quality report. In this report, we share with you our innovative clinical practice and improved patient care processes and outcomes. We present this information to our health care community so that our improvements and accomplishments can facilitate enhanced learning.

We are proud of the care we provide at Castle Medical Center and constantly seek to identify additional ways to improve.

At the core of our efforts is the patient. Our focus is on excellent patient care through innovation, benchmarking, and education.

We hope that by sharing our efforts and successes, patient care will be enhanced, not only at Castle Medical Center, but also in other health care settings.



A handwritten signature in black ink that reads "Kevin A. Roberts".

Kevin A. Roberts, R.N., F.A.C.H.E.  
President and CEO



A handwritten signature in black ink that reads "K Raethel".

Kathryn A. Raethel, R.N., M.P.H., M.H.A., F.A.C.H.E.  
Vice President, Patient Care Services



A handwritten signature in black ink that reads "Ramsay Hasan M.D.". The signature is stylized and includes the letters "M.D." at the end.

Ramsay Hasan, M.D.  
Chief of Staff

# The Medical Center

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Located just outside of Kailua, Castle Medical Center serves all of O‘ahu and is the primary health care facility for the Windward side of the island. Castle is a full-service medical center offering a wide range of inpatient, outpatient, and home-based services. With 160 beds, more than 1,000 employees, 200 volunteers and staffed by 239 physicians, Castle opened its doors in 1963. The hospital is owned by the Seventh-day Adventist Church and operated by Adventist Health.

Castle's services include:

- 24-hour Emergency Department
- Extensive outpatient, home-based services
- Wellness and Lifestyle Medicine
- Chemotherapy Clinic
- Women's Center
- Weinberg Outpatient Center
- Joint Care Center
- Cardiac rehabilitation
- Interventional cardiology
- Toshiba Aquillon 32-Multislice CT Scanner
- Bariatric surgery.

Castle Medical Center focuses on providing patient-centered health care in a caring environment that extends well beyond hospital and clinic walls. Our many programs serve the medical needs of all the communities we serve.

## Awards

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### American Heart Association Annual Achievement Award



The American Heart Association's "Annual Performance Achievement Award" for coronary artery disease is presented to hospitals that have had twelve consecutive

months of 85% adherence to certain performance measures. As a result of this award, Castle is listed, along with just thirty-seven other hospitals from across the nation, on the American Heart Association's Web site as a recognized hospital in the treatment of coronary artery disease. Castle was also listed in the AHA's annual advertisement in the July 17, 2006 issue of *U.S. News and World Report*.

### Best Places to Work

In 2005, Castle Medical Center was named as one of the top 25 Best Places to Work in Hawai'i by *Hawai'i Business Magazine*. In 2006, Castle remained on the list and ranked in the top 4 out of 10 Best Places to Work for large employers. We were recently informed that we have once again made the list for 2007 as one of Hawai'i's Best Places to Work.

### Psychological Association

The Hawai'i Psychological Association certified that Castle Medical Center has been recognized for high professional standards and performance as a psychologically healthy workplace for the year 2006.

### Professional Research Consultants (PRC)

PRC, a nationwide health care research company, recognized Castle Medical Center's Surgical Services department for excellent physician satisfaction. This "4 Star Award" is reserved for surgery departments in the top 25% of hospitals served by PRC.

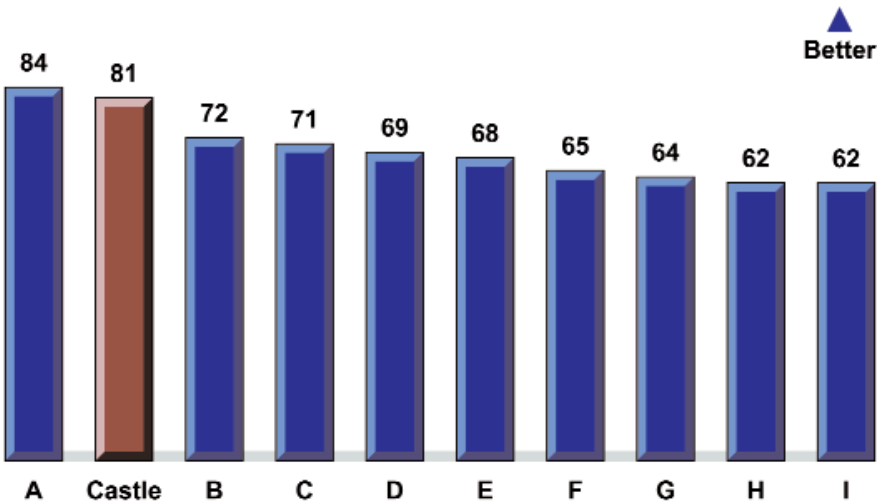
# Awards

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## Hospital Quality and Service Recognition Program

The Hawai'i Medical Service Association's (HMSA) Hospital Quality and Service Recognition Program compares Hawai'i hospitals with regard to complications, length of stay, satisfaction with service, the implementation of evidence-based guidelines, internal quality initiatives, and business operations. This year, Castle ranked second overall when compared to the other large-volume hospitals in the state.

## Hospital Quality and Service Recognition Scores for Large-Volume Hawai'i Hospitals, 2006

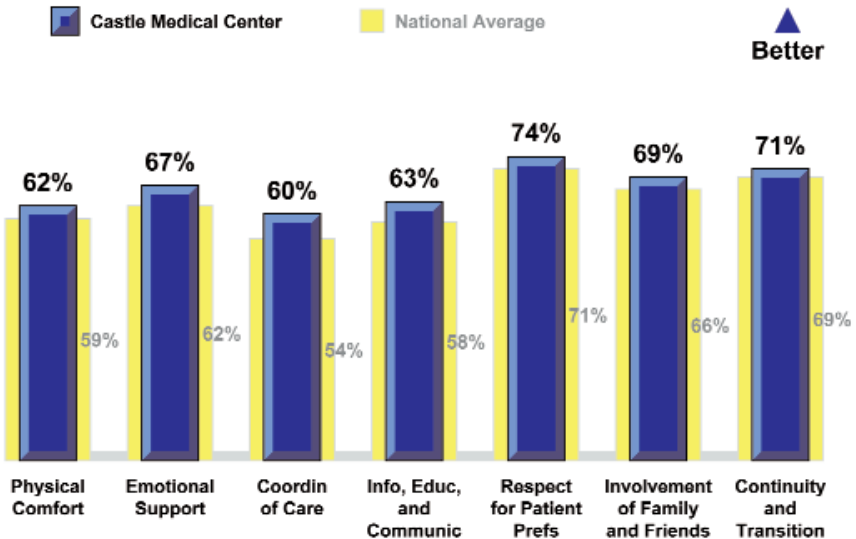


# Patient Satisfaction

Castle Medical Center's patient satisfaction scores compare very favorably to other hospitals across the nation that use the same patient satisfaction survey. System improvements to further improve patient satisfaction include:

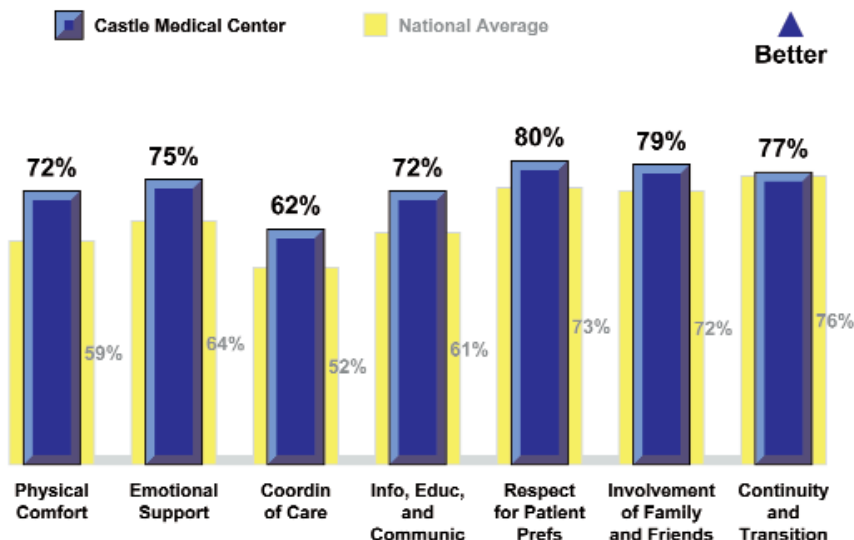
- Using patient satisfaction data and staff input to develop service standards
- Identifying a "service standard of the week"
- Consistent patient rounds by nurse managers
- Expansion of executive leadership rounds
- Providing monthly patient satisfaction data to staff.

## Inpatient Satisfaction 6-Month Period, April to September, 2006

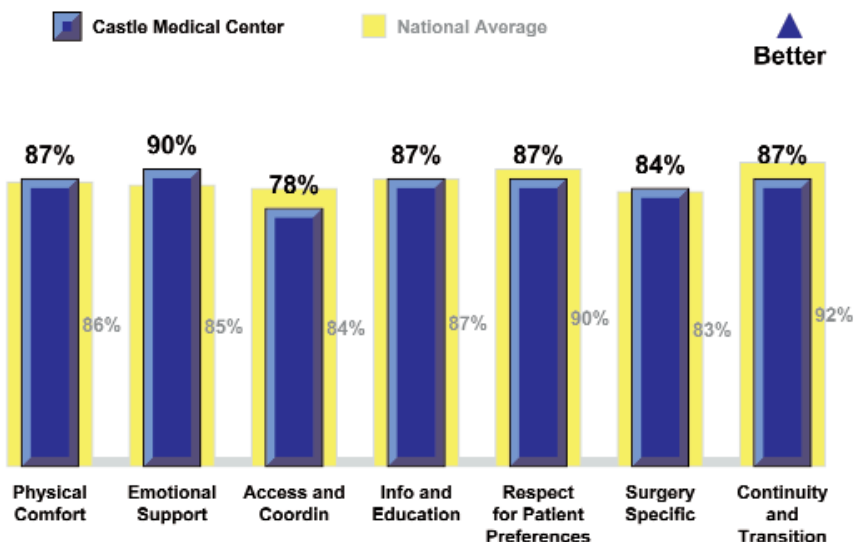


## Patient Satisfaction

### Women's Center Patient Satisfaction 6-Month Period, April to September, 2006



### Outpatient Surgery Satisfaction 3rd Quarter 2006

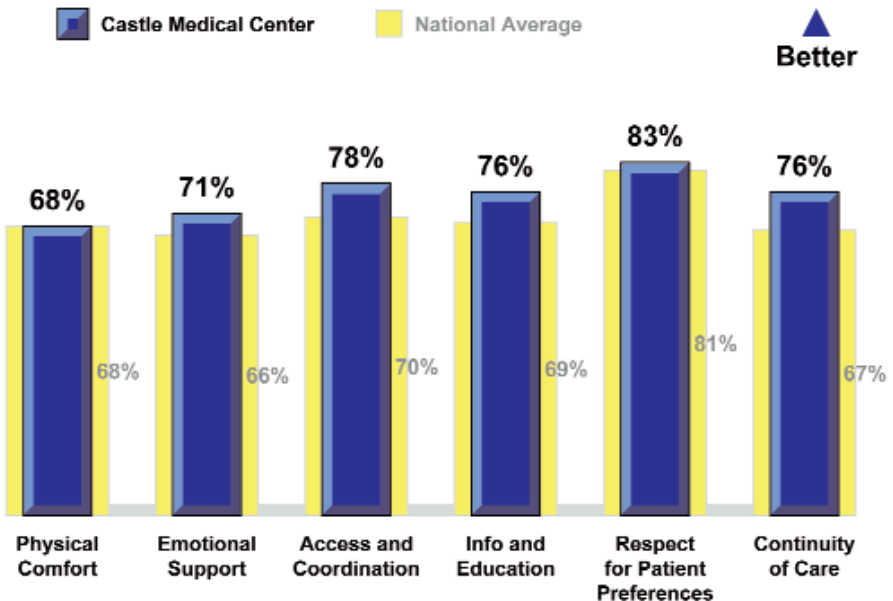


# Patient Satisfaction

## Emergency Department

The Emergency Department identifies a “service standard of the week” for its staff. Each standard focuses on important customer service strategies. The department has also developed a brochure for patients and their families to assist in preparing them for their ED experience.

## Emergency Department Patient Satisfaction 4th Quarter 2006





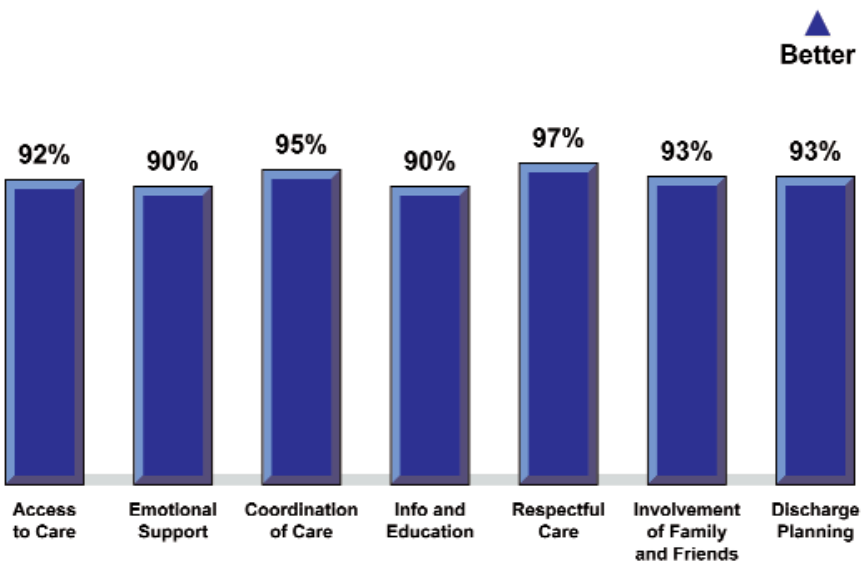
# Patient Satisfaction

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## Behavioral Medicine

These results show how patients in Castle's Behavioral Health unit rate their satisfaction in various dimensions of care. National data are unavailable in this area to use as a comparison.

## Behavioral Health Patient Satisfaction 6-Month Period, January to June, 2006



# Patient Satisfaction

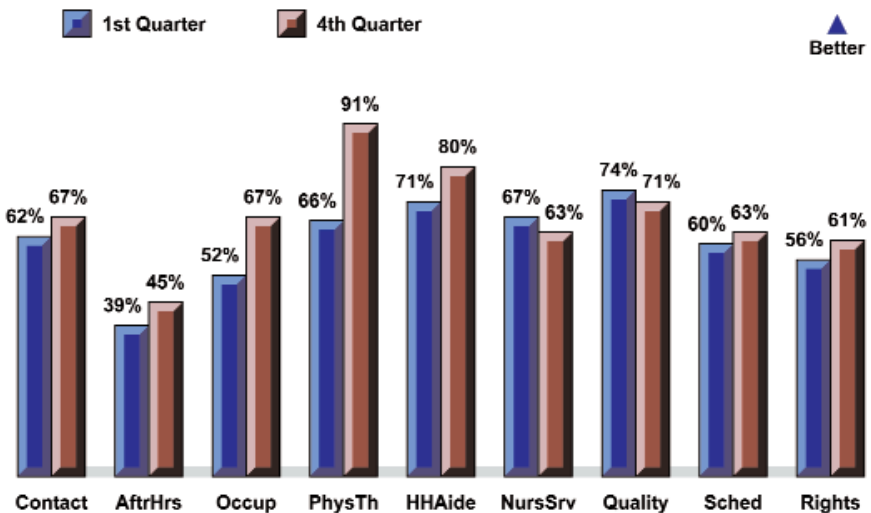
## Home Care

Home Care patient satisfaction improved in most categories in 2006. Staff members were educated about the importance of informing patients about their rights and responsibilities and of calling ahead before each home visit. The filling of staff vacancies in physical therapy and home health aide services also contributed to improved patient satisfaction.

- Contact** = Explanation of whom to contact with a problem
- AftrHrs** = After-hours support
- Occup** = Occupational therapist
- PhysTh** = Physical therapist
- HHAide** = Home health aide
- NursSrv** = Nursing service
- Quality** = Quality of services
- Sched** = Scheduling and timely arrival of staff
- Rights** = Informed of rights and responsibilities

## Home Care Patient Satisfaction

1st and 4th Quarters, 2006



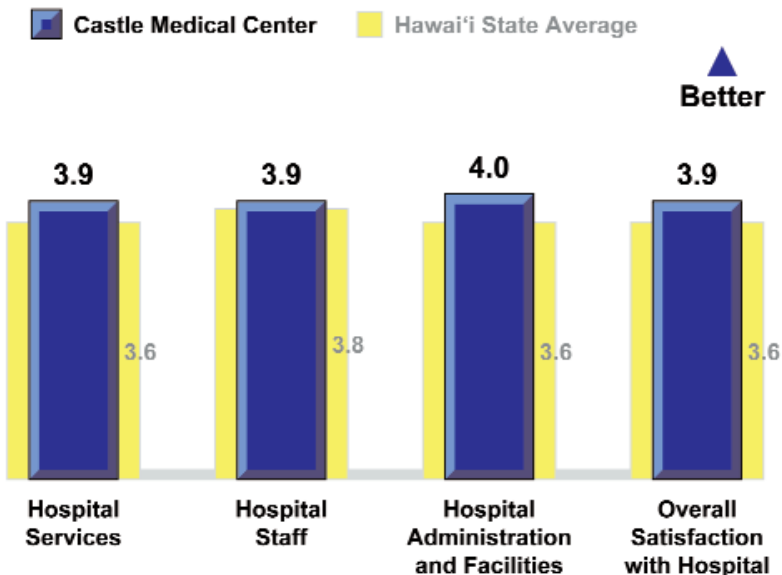
# Physician Satisfaction

HMSA conducts an annual physician satisfaction survey to see how physicians feel about its member hospitals. Scores are based on a five-point scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, and 5 = excellent. System changes made that were designed to increase physician satisfaction include:

- Facility expansion and remodeling
- The purchase of new MRI and CT scanners
- Standardizing calls to physicians using the SBAR (situation, background, assessment, and recommendation) system of communication
- Expansion of the Hospitalist Program of hospital-based physicians
- Implementation of various clinical information systems
- Resolution of issues related to Emergency Department specialty call coverage.

As always, the administration of the medical center maintains its open-door policy with all of Castle's physicians.

## Physician Satisfaction 2006 Report





## Inpatient Care

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Castle Medical Center is committed to the provision of quality health care in a highly complex and high-risk environment. For this reason, Castle Medical Center participates with organizations such as the Institute for Healthcare Improvement, the Leapfrog Group, the National Quality Forum, the American Heart Association, and The Joint Commission in implementing evidence-based, best practice guidelines to ensure that patients receive the highest quality care and achieve the best outcomes possible. The following pages highlight some of the recent improvements to patient safety and medical treatment that have been made based on these guidelines.



*Pūlama Unit*

# Inpatient Care

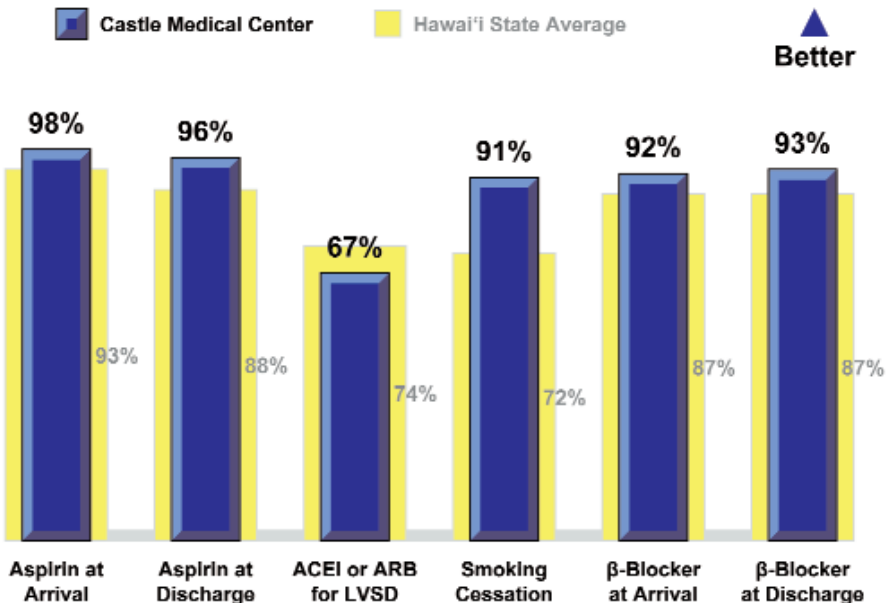
## Acute Myocardial Infarction (AMI), Heart Failure, and Community Acquired Pneumonia

Research has established guidelines for the optimal treatment of patients experiencing heart attack, heart failure, or pneumonia. System improvements made that are based on these guidelines include:

- Revised Emergency Department chest pain treatment order sheets
- Condition-specific admission order sheets that provide treatment guidance to physicians
- Guideline reminder sheets inserted in each patient's chart
- Audits of compliance with the guidelines made concurrent with the patient's stay, and the prompt resolution of any issues identified
- Monthly performance feedback on guideline compliance provided to physicians and staff.

Abx = Antibiotics  
ACEI = Angiotensin converting enzyme inhibitor  
ARB = Angiotensin receptor blocker  
LV = Left ventricle  
LVSD = Left ventricular systolic dysfunction

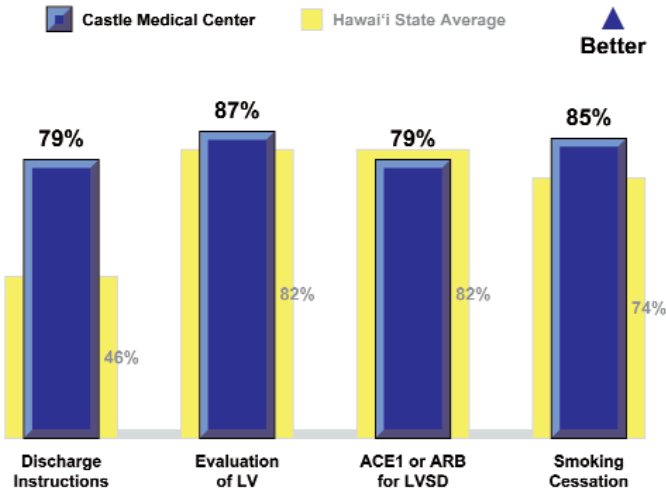
## AMI Guideline Compliance 12-Month Period, July 2005 to June 2006



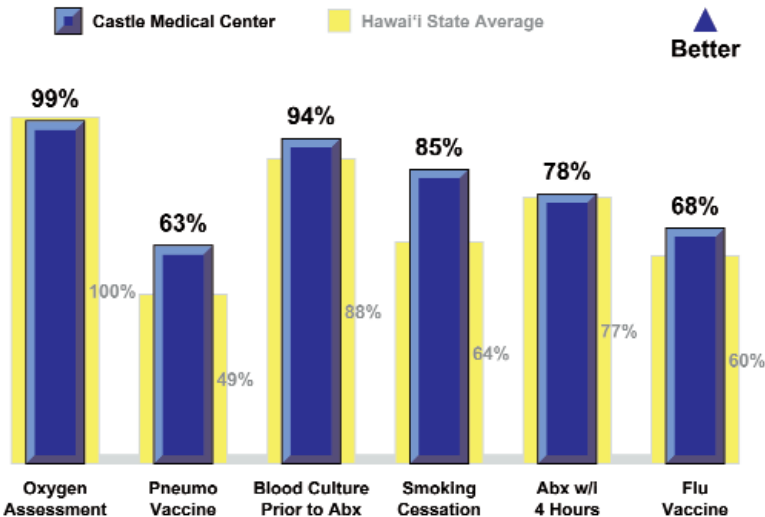
# Inpatient Care

Acute Myocardial Infarction (AMI), Heart Failure, and Community Acquired Pneumonia

## Heart Failure Guideline Compliance 12-Month Period, July 2005 to June 2006



## Pneumonia Guideline Compliance 12-Month Period, July 2005 to June 2006



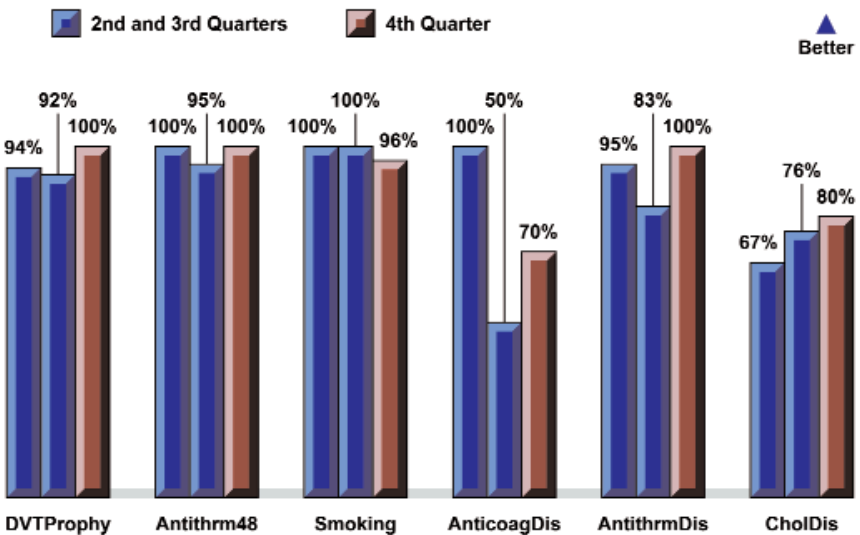
# Inpatient Care

## Stroke

Castle has implemented the secondary prevention guidelines issued by the American Heart Association and American Stroke Association. For doing this, Castle has been designated an official “Get With The Guidelines—Stroke Participating Hospital” by the American Heart Association. In the second quarter of 2006, Castle began performing audits to further improve physician awareness and implementation of the stroke guidelines while patients are still in the hospital.

- DVTProphy** = Deep vein thrombosis prophylaxis within 24 hours for non-ambulating patients
- Antithrm48** = Antithrombotic medication within 48 hours
- Smoking** = Smoking counseling
- AnticoagDis** = Discharged on anticoagulation therapy
- AntithrmDis** = Discharged on antithrombotic medication
- ChoIDis** = Discharged on cholesterol-reducing drugs

## Stroke Guideline Compliance 2nd, 3rd, and 4th Quarters, 2006





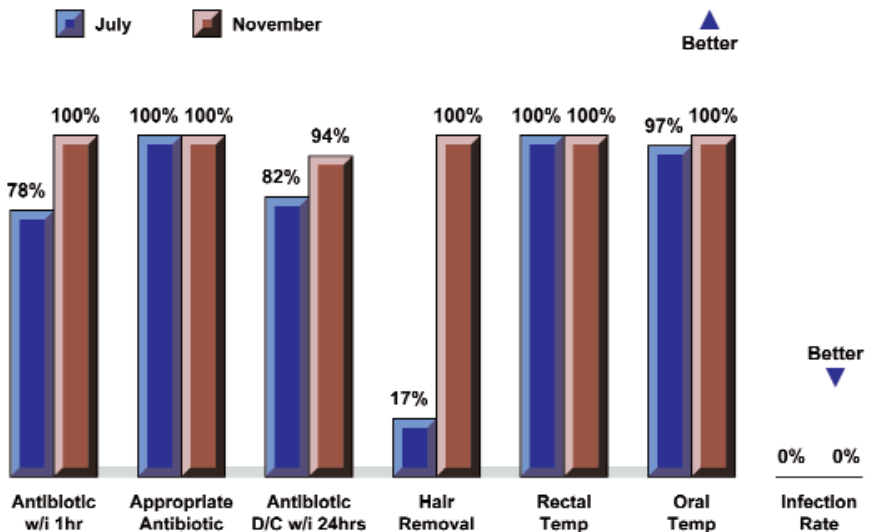
# Inpatient Care

## Surgical Care Improvement Project

Research has established guidelines that, when followed, produce the best outcomes for surgical patients. Interventions made that are based on these guidelines include:

- Improved communication between pre-operative staff and perioperative staff to ensure timely and appropriate antibiotic administration
- Elimination of razors as a pre-operative hair removal option
- Revision of surgeon preference cards and records to support guideline adherence
- Staff and physician education related to the guidelines.

## Surgery Care Improvement Project Compliance July and November, 2006



# Inpatient Care

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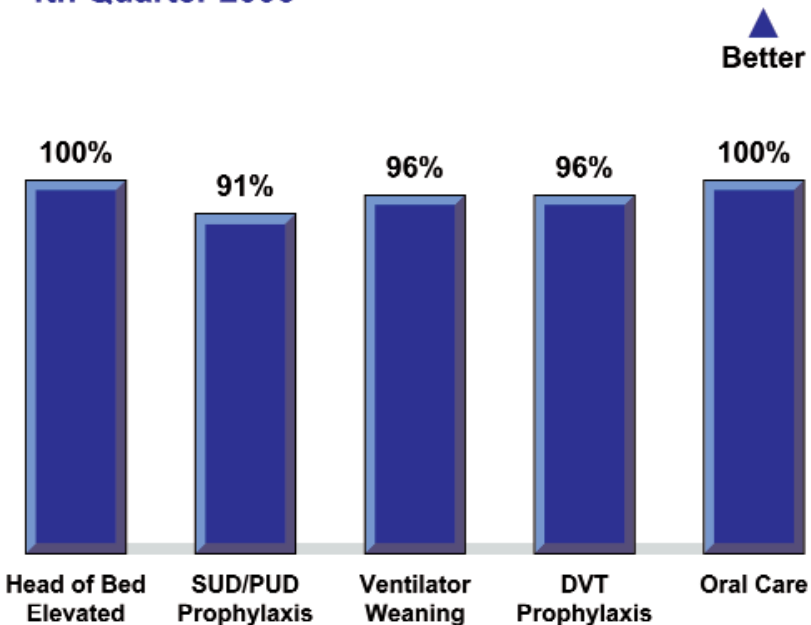
## Ventilator Bundle

The ventilator bundle is a group of evidence-based practices that, when implemented together for all patients on mechanical ventilation, result in dramatic reductions in the incidence of ventilator-associated pneumonia (VAP). Castle's VAP rate for 2006 was 1.9 cases per 1,000 ventilator days. This is significantly better than the national rate of 10 to 35 cases per 1,000 ventilator days.

Compliance with the ventilator bundle practices is outlined in the chart below.

- DVT = Deep vein thrombosis**
- PUD = Peptic ulcer disease**
- SUD = Stress ulcer disease**

## Ventilator Bundle Compliance 4th Quarter 2006



## Inpatient Care

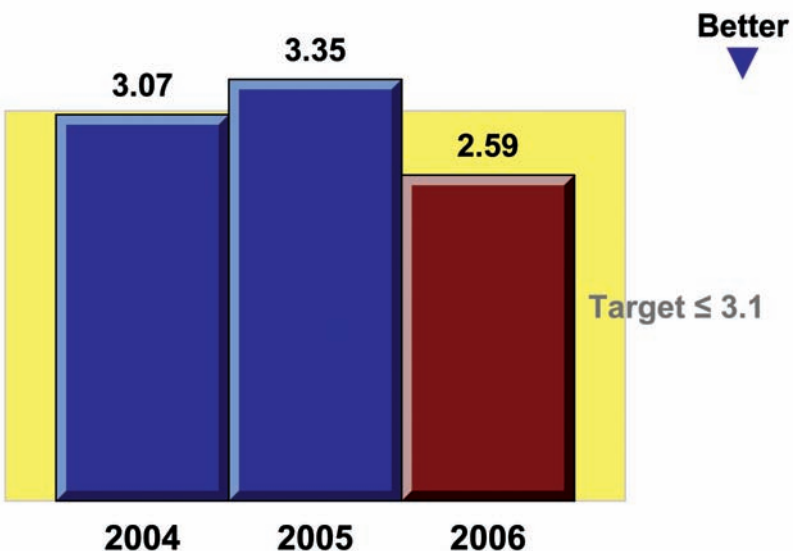
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### Patient Fall Rate for the Medical and Surgical Units

Based on the average number of patient falls reported by the California Nursing Outcomes Coalition, Castle Medical Center has set a target of 3.1 or fewer patient falls per 1,000 patient days. In an effort to reduce our number of falls, Castle instituted the Fall Task Force. Based on the review of our patient fall data, this team has implemented the following new interventions:

- Purchasing beds with exit alarms
- Increasing the use of sitters to observe patients who are at risk of falling
- Changing patient slippers to have an extended non-skid surface
- Instituting a comprehensive medication review for all patients experiencing a fall
- Ensuring that all patients at risk of falling are clearly identified to all caregivers.

### Patient Falls per 1,000 Patient Days Years 2004 to 2006



# Inpatient Care

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## National Patient Safety Goals

Castle Medical Center has implemented strategies to ensure compliance with the sixteen National Patient Safety Goals identified by The Joint Commission. Castle's performance is 90 percent or better in twelve of the goals. Efforts are ongoing to improve performance for the other four goals.

- **Critical test nurse reporting to physician:** The primary issue that keeps Castle from fully achieving this goal has been related to documentation. In most instances, nurses do call the physician within thirty minutes of receiving the critical test result, but they do not always document the call. We are correcting this problem with daily audits and feedback to staff.
- **Hand-off communication (shift report):** This patient safety goal was new for 2006 and is measured by auditing inter-shift reports. To receive a positive score on this goal, all eight items of the inter-shift report must be included. Nurse managers are providing feedback and coaching to staff.
- **Medication reconciliation:** Another new patient safety goal for 2006, medication reconciliation requires comparing the patient's current medications with those ordered while in the hospital and then providing a reconciled list to the patient and the next provider of service. Numerous conditions must be met during audits to comply with this practice. Improvement efforts have focused on refining the documentation process and providing performance feedback to staff.
- **Sterile field medication labels:** This patient safety goal was also new for 2006. Labeling must occur any time a medication or solution is transferred from its original packaging to another container on or off the operative field. The surgical team is implementing strategies to reach 100% compliance with medication labeling.

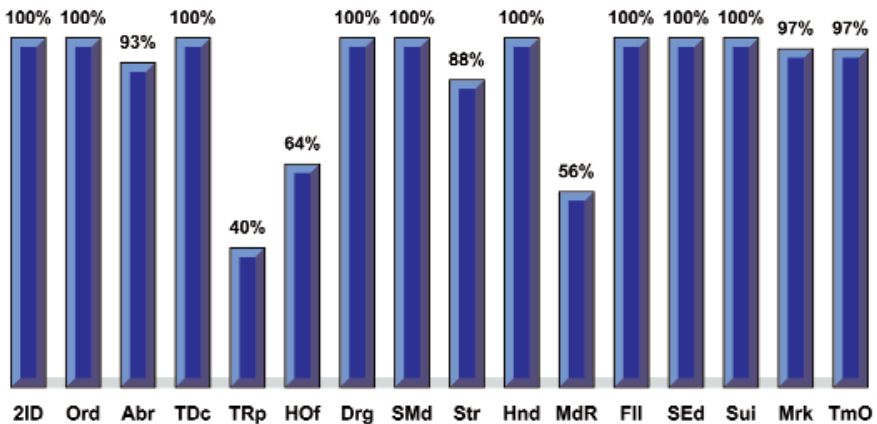
The following graph represents the most recent audit data for all sixteen goals.

# Inpatient Care

- 2ID** = Two patient identifiers
- Ord** = Order read back
- Abr** = Abbreviations
- TDc** = Critical test ancillary documentation
- TRp** = Critical test nurse reporting to physician
- HOc** = Hand-off communication (shift report)
- Drg** = Limit drug concentrations
- SMd** = Review look-alike/sound-alike medications
- Str** = Sterile field medication labels
- Hnd** = Hand hygiene
- MdR** = Medication reconciliation
- Fll** = Fall prevention
- SEd** = Patient/family safety education
- Sui** = Suicide prevention
- Mrk** = Surgical site-marking documentation
- TmO** = Procedure “time-out” documentation

## National Patient Safety Goal Compliance 2-Month Period, December 2006 and January 2007

▲  
Better

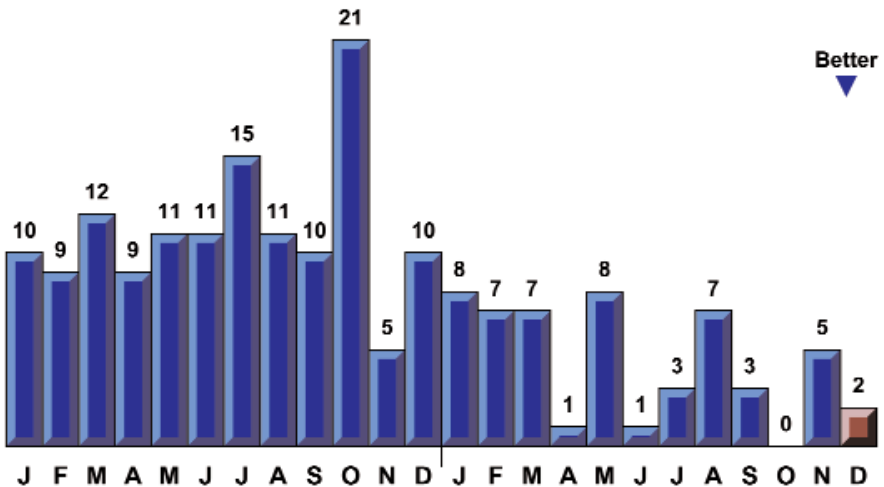


# Inpatient Care

## Behavioral Health Services Restraint Use

Following intensive training for all clinical staff on the BHS unit, there has been a continued decrease in both the number of times restraints are used and in the total time spent by patients in restraints or seclusion. In an effort to promote patient and staff safety, several safety indicators are continuously monitored. In 2007, the focus of education and performance improvement initiatives will be on patient and staff debriefing following each episode of restraint or seclusion.

## Use of Restraints in Behavioral Health January 2005 to December 2006



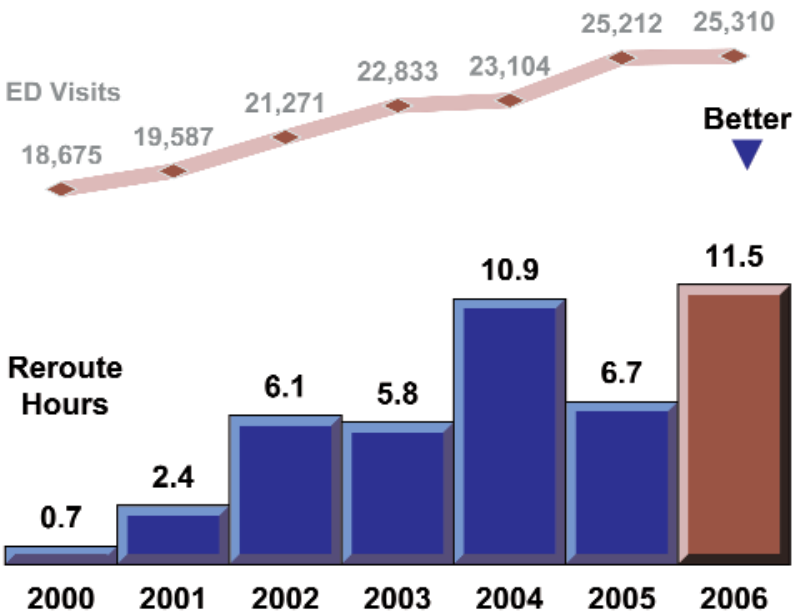
# Emergency Care

## Reroute Hours

Reroute hours are hours of an emergency department's operation during which ambulance patients are unable to be admitted and need to be sent to other hospitals. Castle monitors reroute hours on a monthly basis, as it is important that the Windward O'ahu community has access to our Emergency Department.

Decreasing reroute hours becomes more difficult with greater patient volume and increased demand for inpatient monitored beds. However, with the completion of Castle's inpatient renovation project in April of 2007, we have expanded our number of monitored beds, and we expect this to help make our Emergency Department more available. Also, plans are under way to expand the Emergency Department by annexing adjacent space.

## Reroute Hours per 1,000 ED Visits Years 2000 to 2006



# Emergency Care

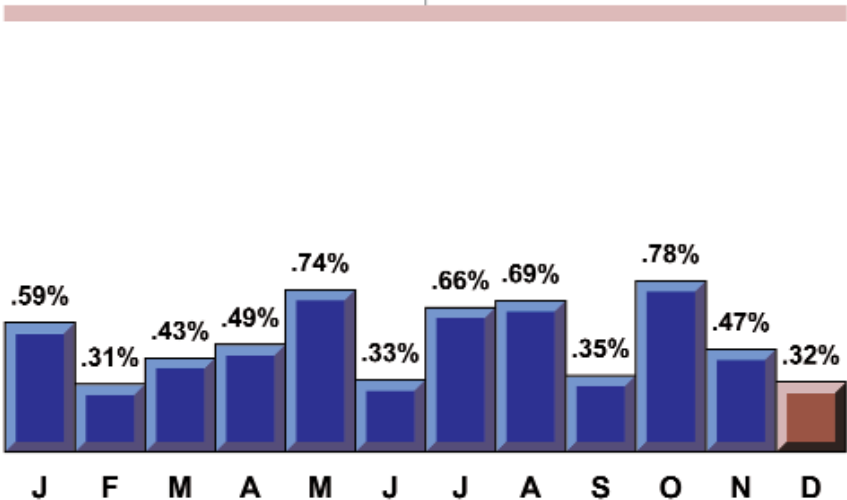
## Patients Left Without Being Seen

Nationally, about 2% of emergency patients leave an emergency facility without being seen, usually out of frustration over wait times. Even though our patient volume continues to grow, only about 0.5% of patients leave the Emergency Department without being seen. We attribute this success to our efforts to expedite patient flow. This is evidenced by our ED wait time ranking of 86 out of 100 on the last Emergency Services patient satisfaction survey from the fourth quarter of 2006.

## ED Patients Left Without Being Seen January to December, 2006

Better  
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National Average = 2%





# Emergency Care

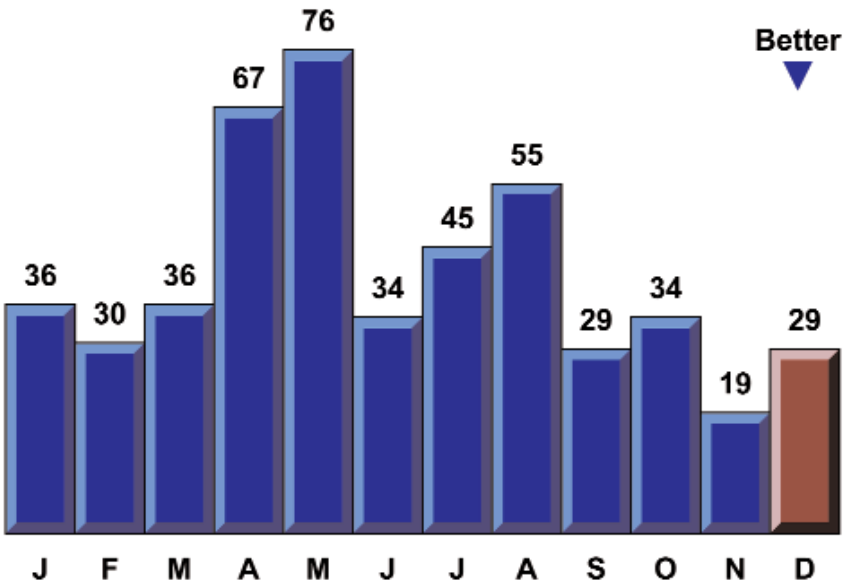
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## Emergency Department Holds

Emergency holds are patients who have to wait more than an hour for their inpatient beds after receiving inpatient admission orders. After noticing an increase in holds in the first part of 2006, a quality improvement team utilized the following interventions to reverse this trend:

- Expansion and remodeling of the Telemetry, Surgical, and Medical units
- Establishment of a dedicated employee to oversee patient flow and bed allocation
- Establishment of standard procedures for communication between the ED and inpatient care units
- Setting of goals for hand-off time for patients assigned to inpatient units
- Tracking of the ED's performance and providing feedback to staff and physicians.

## Emergency Department Holds January to December, 2006



# Emergency Care

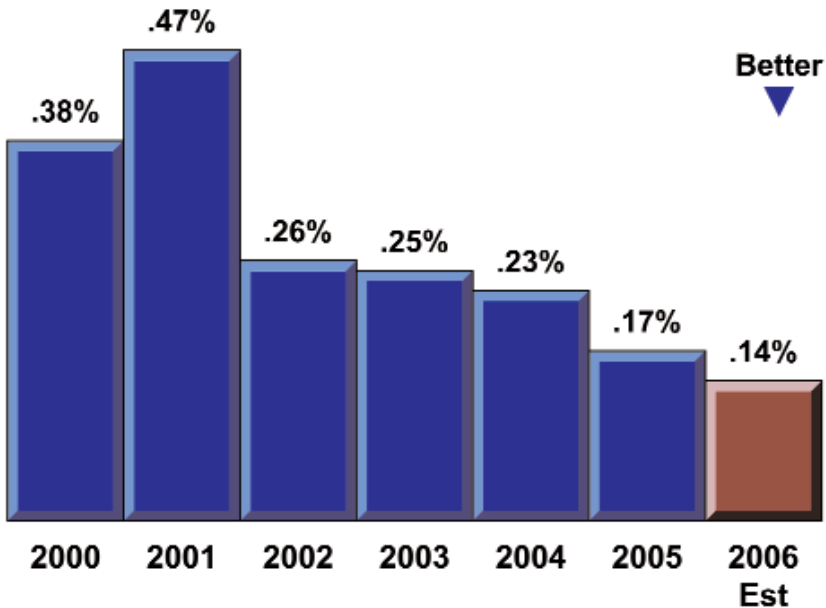
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## Emergency Department Restraint Use

For the past five years, we have seen a reduction in the use of restraints in the Emergency Department. Accomplishing this has been a high priority. Interventions implemented over the past several years that were designed to achieve this reduction include:

- Assigning Security personnel who are dedicated to monitoring patients in the ED
- Provision of mandatory education for relevant staff in the practices of nonviolent intervention
- Providing feedback to staff members by displaying performance data related to restraint use.

## Restraint Events as Percent of ED Visits Years 2000 to 2006



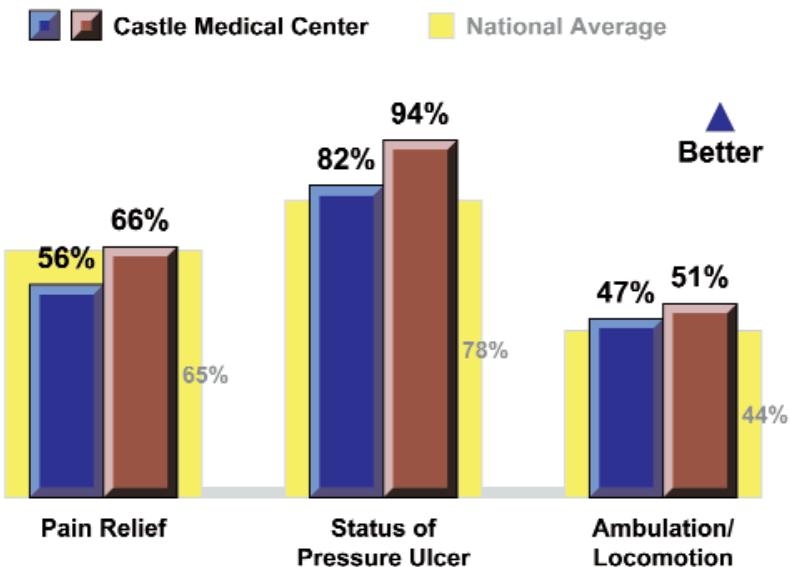
# Home Care

## Clinical Outcomes

Members of Castle Home Cares staff are committed to ensuring positive outcomes for their patients. Recent interventions include:

- **Reduction in the frequency of pain:** Staff members were provided intensive education in alternative methods of pain relief.
- **Status of pressure ulcer:** New products were introduced to address this issue accompanied by in-service training for nursing staff.
- **Ambulation/locomotion:** Staff education related to ambulation, gait, and balance was provided.

## Home Care Clinical Outcomes Years 2005 and 2006



# Innovations

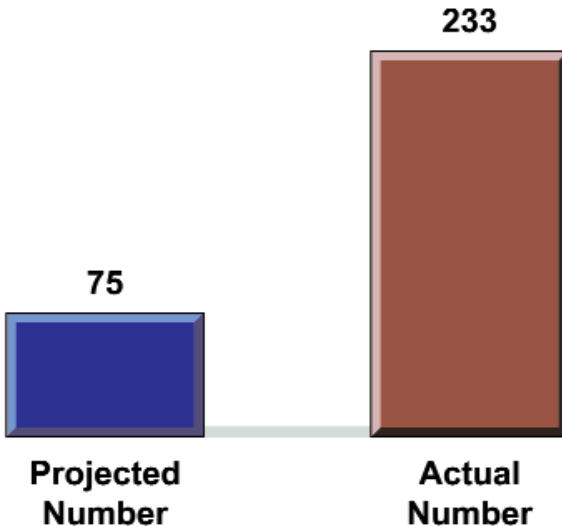
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## Interventional Cardiac Catheterization

Interventional cardiac catheterization includes such procedures as balloon angioplasty and the placement of coronary stents. Castle Medical Center was approved to perform interventional cardiac catheterization in late spring of 2005. The Cardiac Catheterization Laboratory is the only lab in the state approved for interventional cardiac cath without surgical backup. This approval was given in an effort to provide timely, state-of-the-art services for the residents of Windward O‘ahu.

The American College of Cardiology recommends that an operator performing interventional cardiac cath procedures complete at least 75 procedures annually to maintain a safe level of expertise. Before this program began, it was projected that Castle would perform 75 interventional cardiac cath procedures in 2006, the program’s first full year. In actuality, 233 procedures were performed on 135 patients in that year.

## Interventional Cardiac Cath Procedures Year 2006



## Innovations

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### **Surgical Weight Loss Institute**

Bariatric (or weight loss) surgery has proven to be one of the most effective solutions for morbidly obese patients aiming for sustained weight loss. The new Surgical Weight Loss Institute at Castle was established to help patients who are morbidly obese to manage the health risks of obesity through a comprehensive, multidisciplinary approach to weight loss.

The types of procedures performed at Castle are laparoscopic gastric banding (the LAP-BAND) and laparoscopic gastric bypass (Roux-en-Y). These minimally invasive procedures are less painful, result in quicker recovery and fewer complications, and don't leave large incision scars. Eighteen such procedures were performed in 2006, and we anticipate performing significantly more in 2007.

Castle's multidisciplinary bariatric surgery team includes:

- The surgeon
- The patient's primary care physician
- A psychologist
- A dietician
- The nurse coordinator
- A physical therapist
- Fitness professionals.

Program elements that support the surgical component include individual evaluation and counseling, support groups, cooking classes, and individualized therapies.

# Innovations

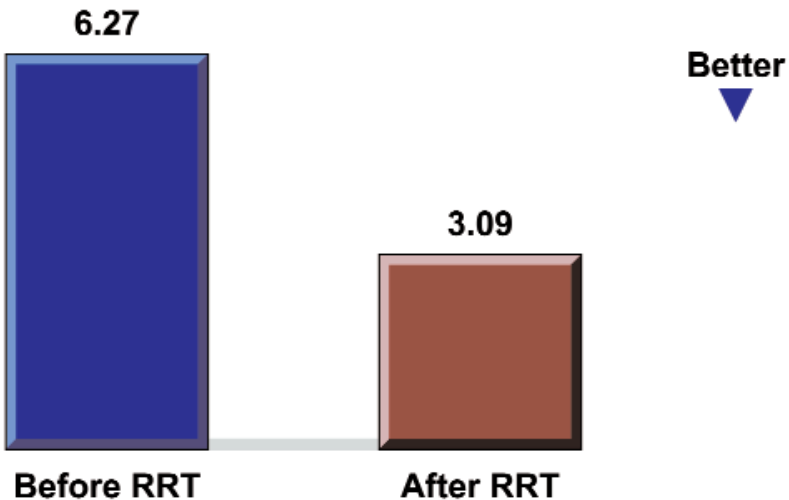
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## Rapid Response Team

As a participating hospital in the Institute For Healthcare Improvement's Save 100,000 Lives Campaign, Castle implemented a Rapid Response Team. The team, comprising an ICU nurse, a respiratory therapist, and a lab technician, provides timely, intensive assessment anywhere in the medical center. The RRT can be called into action by physicians, nurses, patients, or even by concerned family members. The intent is to provide the highest level of medical care and intervention whenever and wherever it is needed.

Since implementing the RRT in August of 2006, incidents of cardiac and respiratory arrest that take place outside of the ICU have dropped by 49%.

## Effect of Rapid Response Team (RRT) IP Codes Outside ICU per 1,000 Discharges



## Innovations

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### Vocera Communications System

The Vocera device can be described as a next-generation walkie-talkie. The two-ounce device, clipped to a pocket or hung around the neck, allows a staff member to call any other staff member on the Vocera system, or to make a phone call to a physician, all with naturally spoken commands. Vocera instantly connects users to just the people they need, thereby reducing “phone tag,” overhead paging, or the need to physically search for a person.

Currently Vocera is used by clinicians in a variety of departments throughout the hospital.



# Innovations

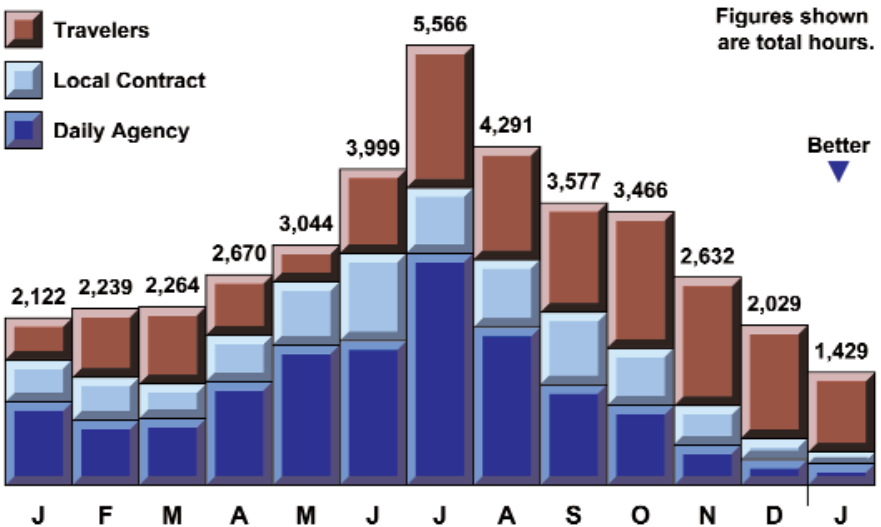
## BidShift

BidShift is a software tool designed to fill clinical shifts that are left open, usually because of vacation, illness, or staffing vacancy. With BidShift, staff members can view—around the clock and from any computer with Internet access—exactly what hospital shifts may remain open. A staff member can then use BidShift to request to work an open shift for which he qualifies.

All staff members are pre-qualified for shift sign-up eligibility, and the permissions-based system ensures that only employees with the required skill set can view and request individual shifts.

During the first three full months of Castle's using BidShift (October to December, 2006), local contract and daily agency use decreased significantly, and the use of travelers decreased slightly. Since the implementation of BidShift, Castle has filled approximately 70% of open clinical shifts.

## Effect of BidShift on Agency and Traveler Hours January 2006 to January 2007





## Innovations

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### Emergency Department Plasma Tracking Board

The Emergency Department has replaced its old “white board” with a state-of-the-art electronic board for tracking patient treatment and status. This large plasma screen allows all members of the ED team to see the real-time status of each patient, including location, acuity, allergies, length of stay, exams needed, tests ordered, test results, including alert values, and admission or discharge status. The tracking board becomes a focus for the ED team when it holds board rounds, and helps coordinate and expedite patient flow and hand-offs within the ED and to other hospital units. The board is integrated with the electronic medical record program FirstNet to streamline care and documentation.



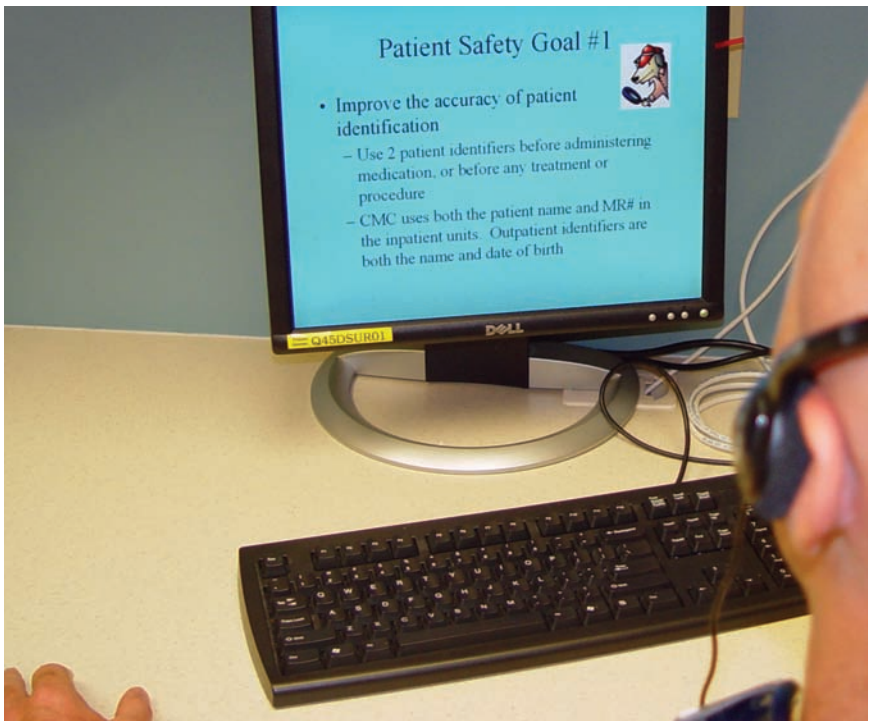
# Innovations

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## Moodle

Moodle is a computer application that allows for interactive training of hospital staff. An instructor creates a visual presentation (in a program such as PowerPoint, WebEx, or Word) to be used for training and then, using Moodle, records an oral accompaniment to this presentation. The instructor then uploads the entire package to the hospital's computer network. Staff members then access this audio/visual presentation from any computer throughout the hospital.

Moodle is most helpful when the amount of information that needs to be conveyed is more than what can easily be explained in a flyer, but less than what would require an extended, formal class. Further, Moodle allows an instructor to track who has viewed his presentation, and, through quizzes, how well his presentation has been comprehended by his students.



# Innovations

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## Emergency Department CHECK SIX

CHECK SIX is a training program designed to reduce medical errors and increase patient safety in emergency settings. Based on principles developed by teams of fighter pilots, the program teaches procedures, communication skills, and attitudes applicable to the fast-paced, cooperative environment of an ED.

Hawai'i Emergency Physicians Associated led the implementation of CHECK SIX training at Castle. Castle's ED physicians and staff were educated in behavioral and operational changes based on the CHECK SIX principles. The ED has instituted regular board rounds and daily team briefings as part of the CHECK SIX program.



# Innovations

## SBAR


The SBAR system of communication—situation, background, assessment, and recommendation—was originally developed by the U.S. Navy for submarine pilots. Castle has made this set of communication procedures a standard when nurses and other clinicians are talking to physicians about patient care issues. The SBAR system helps staff members describe a patient's condition and needs more accurately and get their requests expressed to physicians with greater clarity.

Castle plans to rollout SBAR throughout the organization for all important transfer and hand-off communication.

**SBAR REPORT TO A PHYSICIAN**

**BEFORE CALLING THE PHYSICIAN**

1. Assess the patient
2. Review the chart for the appropriate physician to call
3. Know the admitting diagnosis
4. Read the most recent Progress Notes and the assessment from the nurse of the prior shift.
5. Have *available* when speaking with the physician:  
**Chart, Allergies, Meds, IV fluids, Labs / Results**



**S** SITUATION  
A concise statement of the problem  
*What is going on now?*

**B** BACKGROUND  
Pertinent and brief information related to the situation  
*What has happened?*


**A** ASSESSMENT  
Analysis and considerations of options  
*What you found/think is going on*

Any changes from prior assessments, such as:

Skin Color	Pulse /BP rate/quality	Rhythm changes
Neuro changes	Pain	Wound drainage

**R** RECOMMENDATION  
Request/recommend action  
*What you want done*

**FOLLOW THE CHAIN OF COMMAND IF NEEDED**

**DOCUMENT THE CHANGE IN CONDITION & THE PHYSICIAN NOTIFICATION** 



## Innovations

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### On-Site Masters of Business Administration Program

In the fall of 2006, Castle Medical Center, in partnership with Loma Linda University in California, began its first on-site MBA program. Participants include Castle employees and physicians as well as management staff from other Hawai'i-based health care organizations. The two-year program will build skills and knowledge related to leadership and management.



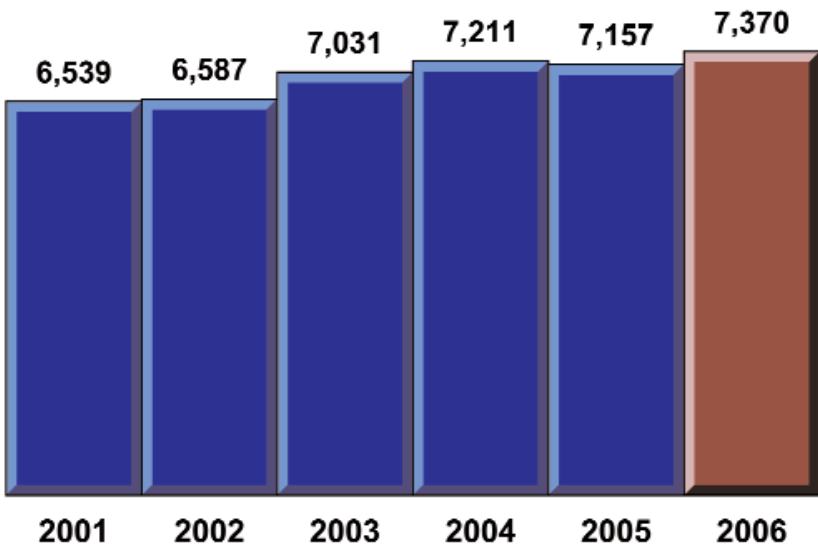
# Volumes

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## Inpatient Discharges

Inpatient volumes at Castle Medical Center have continued to grow steadily. Thanks to the new hospital wing and remodeling in older patient care areas, Castle is poised for future growth and expansion of inpatient services.

## Inpatient Discharges Years 2001 to 2006





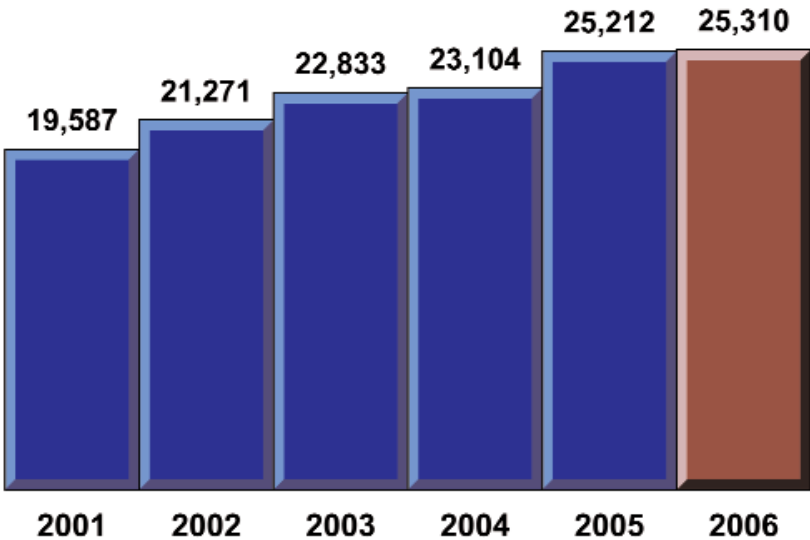
# Volumes

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## Emergency Department Visits

Emergency Department visits have also experienced steady growth in recent years. Plans are being developed to expand and remodel this department to handle future growth.

## Emergency Department Visits Years 2001 to 2006



## Volumes

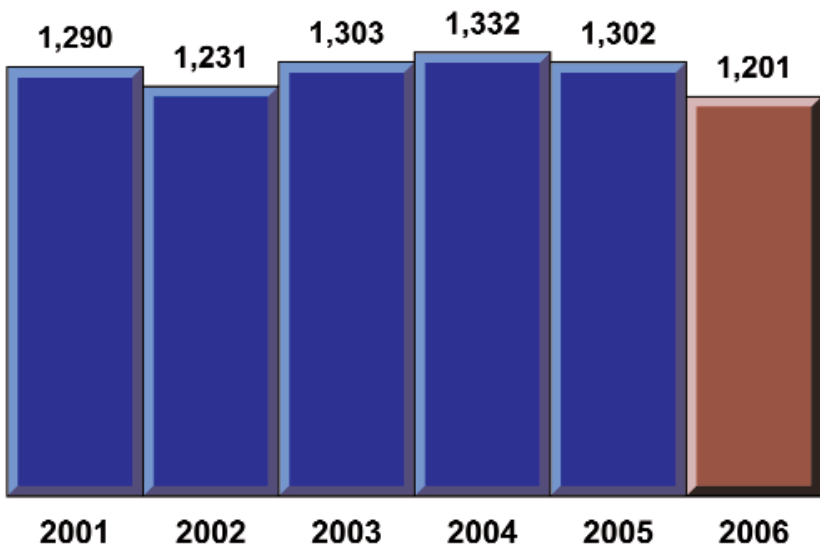
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### Behavioral Health Services Discharges

Over the past two years, Behavioral Health Services has seen a small decline in annual inpatient discharges.

As one of only two acute behavioral health providers on O‘ahu, Castle remains committed to serving this important community need.

### Behavioral Health Discharges Years 2001 to 2006





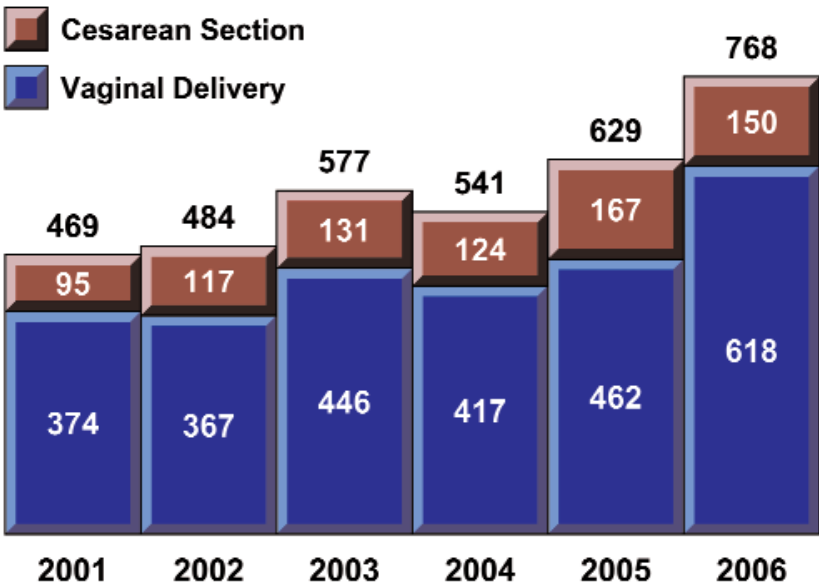
# Volumes

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## Deliveries for Vaginal and Cesarean Section

The Women's Center continues to set new records for the number of babies delivered annually.

### Women's Center Deliveries Years 2001 to 2006



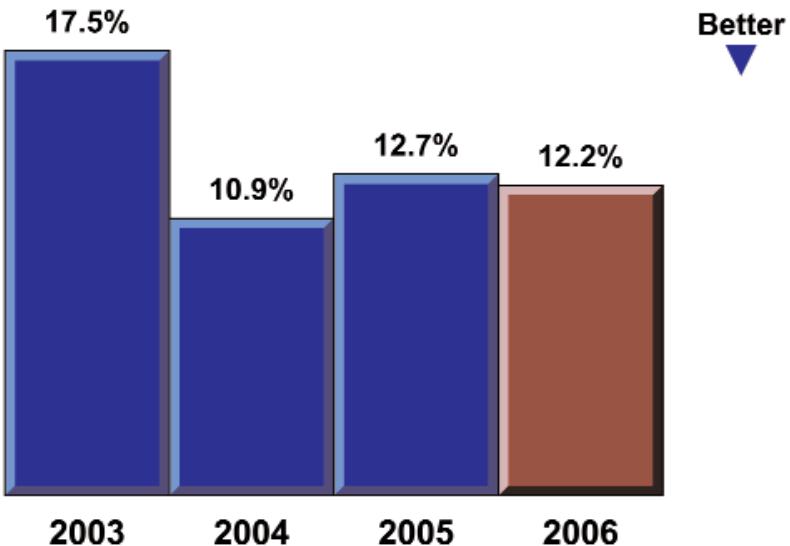
# Volumes

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## Vaginal Births after Cesarean (VBAC) Rates

The Women's Center takes pride in a cesarean section rate below the state and national averages: 16.4% for Castle, as compared to 26% in Hawai'i (2006) and 20.1% nationally (2004). It is generally recognized, however, that for a woman who has had a cesarean section in the past, it is riskier to give birth vaginally than to have a repeat cesarean. For this reason, the Women's Center has a goal of having a VBAC rate at least as low as the national average of 9.2%. The current VBAC rate is 12.2%, having fallen from 17.5% since 2003. The Women's Center continues its efforts to achieve further reductions in the future.

## Vaginal Delivery After C-Section Rates Years 2003 to 2006



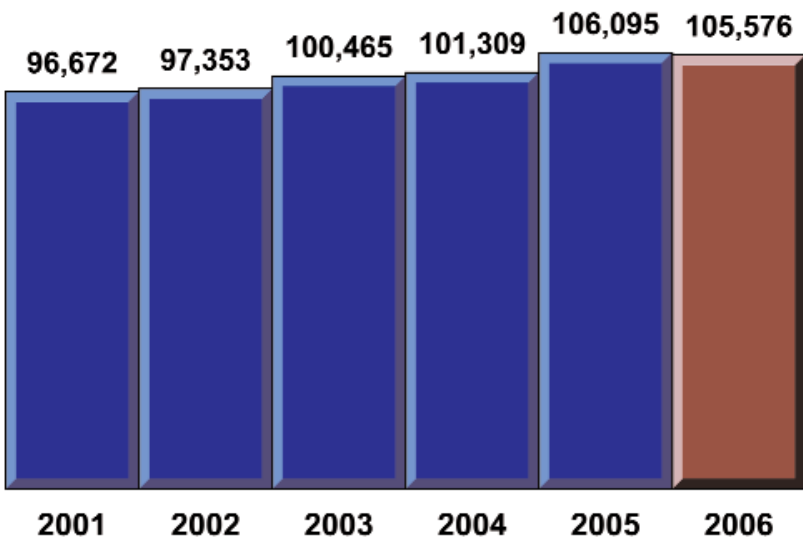
# Volumes

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## Outpatient Visits

This graph represents the number of outpatient visits to the Emergency Department, the Outpatient Clinic, Outpatient Surgery, Imaging, Cardiopulmonary, Cardiac Cath, Angiography, Laboratory, Rehabilitation, Audiology, Wellness and Lifestyle Medicine, and Home Care. These visits have increased steadily over the past five years.

## Outpatient Visits Years 2001 to 2006



## Volumes

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### Wellness and Lifestyle Medicine Center

During 2006, the Wellness and Lifestyle Medicine Center at Castle offered over forty programs, including support groups, fitness classes, wellness cooking classes, health and wellness lectures, one-on-one nutritional counseling, one-on-one inpatient tobacco education, and smoking cessation classes. A total of 4,087 people from our community participated in these programs.

In addition, the center is involved in community outreach activities and programs that support wellness education in schools.



## Staffing

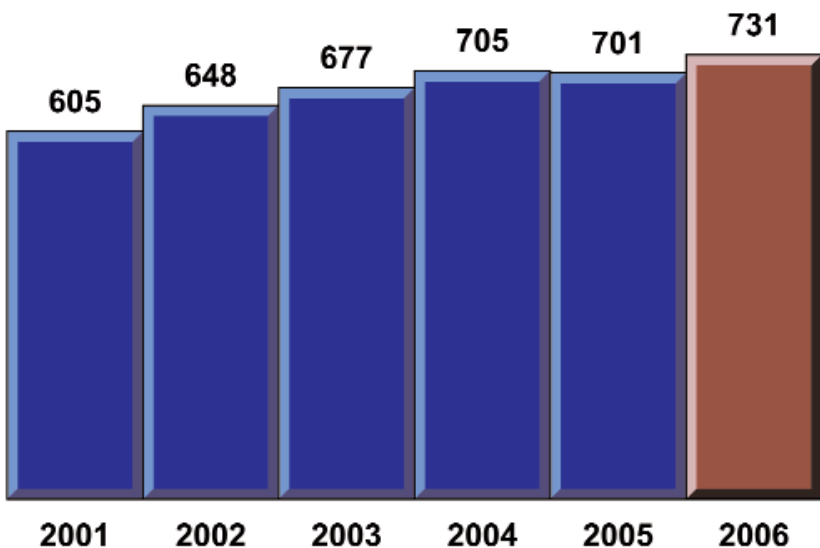
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### Total Hospital Full Time Equivalents (FTEs)

Growth in Castle's FTEs mirrors growth in patient volume over time.

Castle Medical Center is recognized as the second largest employer on Windward O'ahu.

### Total Full-Time Equivalents (FTEs) Years 2001 to 2006



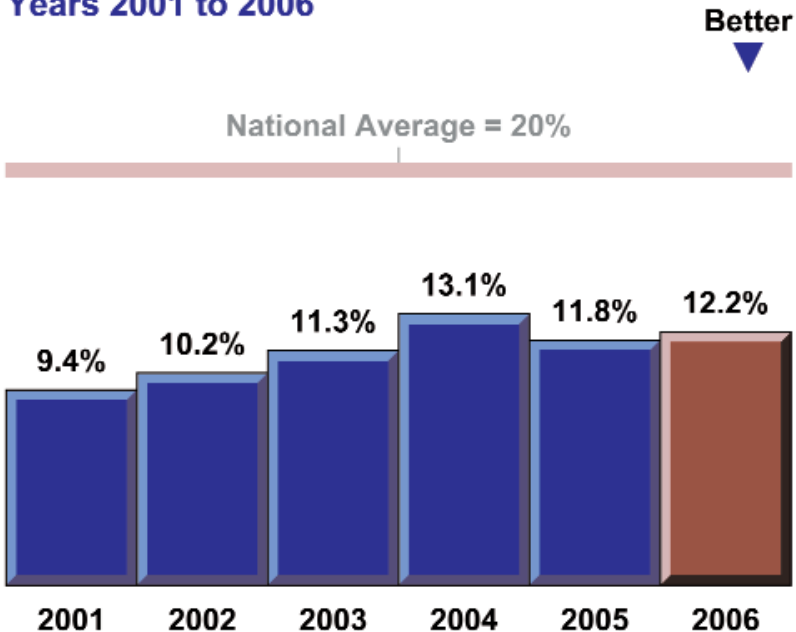
# Staffing

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## Employee Turnover Rate

While the employee turnover rate has increased slightly over the past five years, Castle remains very dedicated to providing a positive work environment for its staff. We are proud of the fact that Castle Medical Center has been listed as one of the top 25 Best Places to Work in Hawai'i by *Hawai'i Business Magazine* for the past three years. (Please see Awards on page 42.) Castle is the only hospital recognized on this list in any of these years.

## Employee Turnover Rate Years 2001 to 2006



# Goals

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## Quality Improvement Goals for 2007

In our quest for continuous quality improvement, Castle Medical Center has selected the following quality improvement goals as priorities for 2007:

- Attainment of at least second-decile performance in recognized evidence-based clinical guidelines for:
  - Congestive heart failure
  - Acute myocardial infarction
  - Community-acquired pneumonia
  - Hip and knee replacement
  - Stroke
- Implementation of the Surgical Care Improvement Project (SCIP) guidelines to prevent:
  - Surgical site infections
  - Venous thromboembolism (VTE)
  - Respiratory complications
- Implementation of the sepsis bundles
- Implementation of the following Institute for Healthcare Improvement (IHI) 5-Million Lives Campaign interventions:
  - Medication reconciliation
  - Prevention of central line–associated bloodstream infections
  - Prevention of pressure ulcers
  - Reduction in methicillin-resistant staphylococcus aureus (MRSA) infections
  - The “Get Boards on Board” program
- Reduction of vaginal delivery after C-section (VBAC) rates
- Improvement in the timeliness of critical test result communication from nurse to physician
- Improvement in hand-off communication
- Improvement in medication labeling on and off the sterile field.