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# Introduction

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

A handwritten signature in cursive that reads "Kevin A. Roberts".

Our mission at Castle Medical Center is to “care for our community and share God’s love.” Fulfillment of this mission requires depths of passion. For if we truly are to care for our community, then a dedication to clinical excellence must always be paramount. And if we are to share God’s love, our delivery of care must reveal compassion worthy of the term “God’s love.”



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 cursive that reads "K. Raethel".

It is these two passions that compel us to publish our fourth annual Quality Report. Since we believe in transparency, you will see results of which we are very proud, as well as areas where there remains room for improvement. Throughout our efforts, however, there are two lessons we have learned that apply to all areas: Quality doesn’t just happen by accident, and sustained quality requires persistence—or a kind of mental “hardwiring”—to produce lasting results. As we work on quality initiatives from year to year, we are ever mindful of these two lessons.



Alan Cheung  
M.D., M.B.A.  
Vice President Medical Affairs

A handwritten signature in cursive that reads "Alan H. Cheung".

Regardless of our successes, it is unlikely we will ever declare, “That was good enough.” We will continue to strive to serve our patients with a radical loving care that brings to reality the mission of our hospital and honors the God whom we serve.



George Nardin  
M.D., M.P.H.  
Chief of Staff

A handwritten signature in cursive that reads "George Nardin".

# The Medical Center

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Located in Kailua, Hawai'i, 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 associates, 200 volunteers, and 335 physicians on staff, Castle has substantially expanded its services since first opening its doors in 1963. The hospital is owned and operated by Adventist Health, a Seventh-day Adventist organization.

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 are developed to serve the medical needs of our communities.

## **In 2009, Castle's services included:**

- 24-hour emergency services
- Inpatient acute care
- Vera Zilber Birth Center
- Joint and Spine Care Center
- Inpatient behavioral health services
- Interventional cardiology services
- Surgical Weight Loss Institute (bariatric surgery)
- Multi-specialty surgical services
- Neurological services
- Harry and Jeanette Weinberg Outpatient Center
- Chemotherapy Clinic
- Extensive outpatient and home-based services
- Imaging and laboratory services in Kāne'ōhe and Kailua
- Wellness and Lifestyle Medicine Center.

# Awards and Recognition

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## Center of Excellence

In 2009, the Castle Medical Center Surgical Weight Loss Institute was designated a Bariatric Surgery Center of Excellence (BSCOE) by the American Society for Metabolic and Bariatric Surgery (ASMBS). The ASMBS BSCOE designation recognizes surgical programs with a demonstrated track record of favorable outcomes in bariatric surgery. To earn this designation, Castle's institute underwent a series of site inspections during which all aspects of the program's processes and outcomes were closely examined.



**SWLI Team L-R:** (Sitting) Mary Arakaki, R.D., bariatric coordinator; Steven Fowler, M.D., F.A.C.S., medical director; and Lori Krueger, R.N., B.S.N. (Standing) Allison Chan, R.D.; Lise Choucair, M.S.N., F.N.P.-B.C., A.P.R.N.; Darrah Teixeira; Joanne Reid, P.T., M.R.A., F.A.C.H.E., program director; and Cindy Carvalho, B.S.



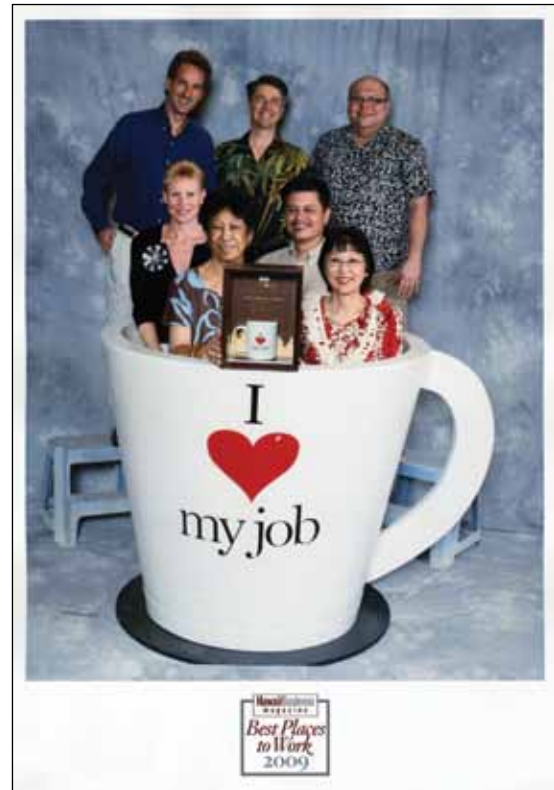
Center of  
Excellence  
BARIATRIC SURGERY

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# Awards and Recognition

## Best Places to Work

For the fourth time, Castle Medical Center made the list of the top ten "Best Places to Work in Hawai'i" in the large companies category. *Hawai'i Business* magazine started the "Best Places" program five years ago. Castle Medical Center remains the only acute care hospital in Hawai'i to ever receive this award.



Hospital President and CEO Kevin Roberts (back row, center) accepted the "Best Places to Work" honor, with past winners of Castle's Associate of the Month award.

# Awards and Recognition

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## **Gold Performance Achievement Award for Heart Care**

In 2009, Castle Medical Center received the American Heart Association's "Get With The Guidelines—Coronary Artery Disease" Gold Performance Achievement Award. This award recognizes Castle's commitment to quality and success for more than twenty-four consecutive months in implementing a higher standard of cardiac care that effectively improves the treatment of patients hospitalized with coronary artery disease. The American Heart Association recognized Castle, along with other hospitals that have achieved this award, in the issue of *US News & World Report* that was titled "America's Best Hospitals," published in July 2009.

## **Four-Star Excellence Award for Employee Satisfaction**

In 2009, Castle Medical Center received the Four-Star Excellence Award from Professional Research Consultants (PRC), Inc. The hospital received this award for scoring in the top 25% of hospitals nationally for the number of "Excellent" responses in PRC's Employee Engagement Survey in 2009. PRC is a premier research organization that provides services exclusively to health care organizations, including information and resources to support efforts to strengthen associate engagement and satisfaction.

## **Top Hospital for "Value" in Hawai'i**

For the second year in a row, Castle Medical Center has been ranked as a "Best Value Hospital" by Data Advantage L.L.C. The ranking recognized Castle as being among approximately 300 hospitals providing the best value in the largest 100 markets in the nation. The hospitals were judged on a variety of statistical measures, including those for quality, affordability, efficiency, and patient satisfaction. Castle scored in the top quartile of value hospitals in the areas of affordability, efficiency, and patient satisfaction. This rating recognizes Castle as the "Best in Region" and "Best in State."

## **Outstanding Organization in Tobacco Control**

Castle Medical Center's Wellness and Lifestyle Medicine Center received the Coalition for a Tobacco-Free Hawai'i's "Outstanding Organization in Tobacco Control" award in 2009. The award recognizes outstanding individuals, businesses, and organizations that have demonstrated leadership and initiative in tobacco-use prevention and control in our state.

# Awards and Recognition

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Designated as a  
**Blue  
Distinction<sup>®</sup>**  
**Center for Knee and Hip  
Replacement**



## **Blue Distinction Center for Knee and Hip Replacement<sup>SM</sup>**

Castle Medical Center's Joint and Spine Care Center received designation by the Blue Cross and Blue Shield Association (BCBSA) as a Blue Distinction Center for Knee and Hip Replacement<sup>SM</sup>. This designation recognizes medical facilities that meet objective, evidence-based thresholds for clinical quality, developed in collaboration with expert physicians and medical organizations.

As a result of receiving this distinction, Castle Medical Center has been listed on BCBSA's public Web site and in its Blue National Doctor and Hospital Finder.

# Patient Satisfaction

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*Castle Medical Center is truly a gem in our community. I can't thank you enough for all you did for my husband during his most recent health challenge. He received top-notch care, characterized by professionalism, compassion, and respect.*

*I want to acknowledge and thank staff and the amazing physicians. I love Castle and am so thankful that you are always there when we need you. May God bless you richly as you live out your mission. You are like Jesus, healing the sick, tending the wounded, serving with compassion. I cannot express my gratitude enough.*

**– A thankful patient**

*I would like to convey my appreciation to the wonderful anonymous lady who offered to pay for my lunch in the cafeteria after the cashier told me that they could only take cash or checks.*

*This is my first visit to Hawai'i and my first visit to Castle Medical Center. This hospital truly does what its historical beginnings intended. All the personnel that I came in contact with seemed very kind and considerate. The lady who paid for my lunch was especially sweet and generous. I like the "spirit of love" manifested here.*

*May God continue to bless this hospital.*

**– An appreciative patient**





# Patient Satisfaction

## Emergency Department (ED)

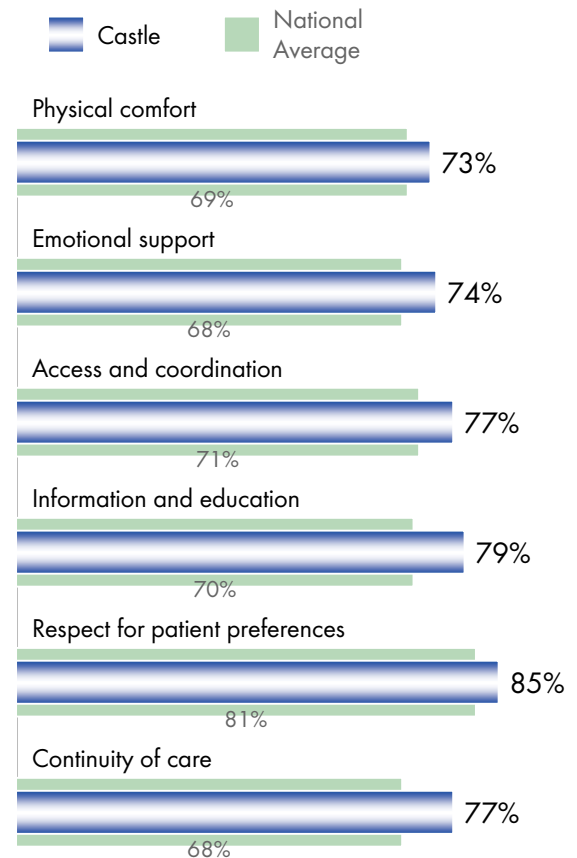
In the last quarter of 2009, patient satisfaction with the Emergency Department exceeded national averages in every dimension of care.

We attribute this success to the following processes:

- Education of associates regarding the ED patient satisfaction survey tool and its relationship to service standards
- Reinforcement of service standards by posting thank-you notes and letters from patients
- Improved lab turnaround times that enhance patient throughput times
- Sharing of patient feedback and satisfaction survey results with ED associates
- Mission-driven sacred work that goes beyond customer service and that incorporates loving care into interactions between associates and patients.

Better ▶

## ED Patient Satisfaction 4th Quarter 2009



# Patient Satisfaction

## Inpatient, Birth Center, and Outpatient Surgery

Inpatient and Birth Center satisfaction continues to compare very favorably to national averages in most dimensions of care.

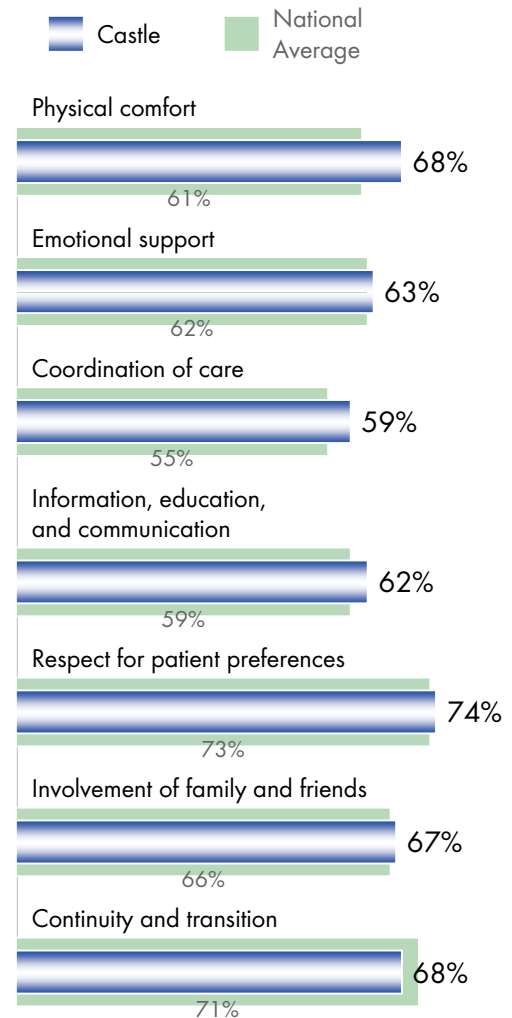
We attribute this success to the following processes:

- Hourly patient rounds that focus on meeting patients' needs
- Morning rounds and newspaper delivery to patients made by members of the hospital's leadership team
- The "Take Five" program in which nurses sit down and listen carefully to patients
- Patient care boards to enhance communication between associates, patients, and families
- Feedback to associates regarding patient satisfaction, including postings of survey results on the hospital's intranet
- Mission-driven sacred work that goes beyond customer service and that incorporates loving care into interactions between associates and patients.

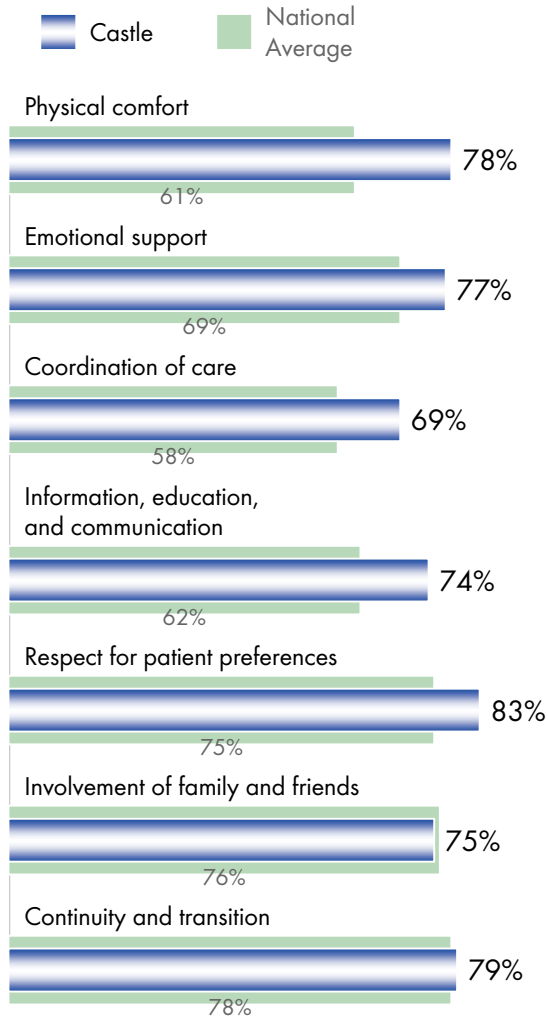
Castle Medical Center continues to seek new ways to increase patient satisfaction.

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## Inpatient Satisfaction 4th Quarter 2009

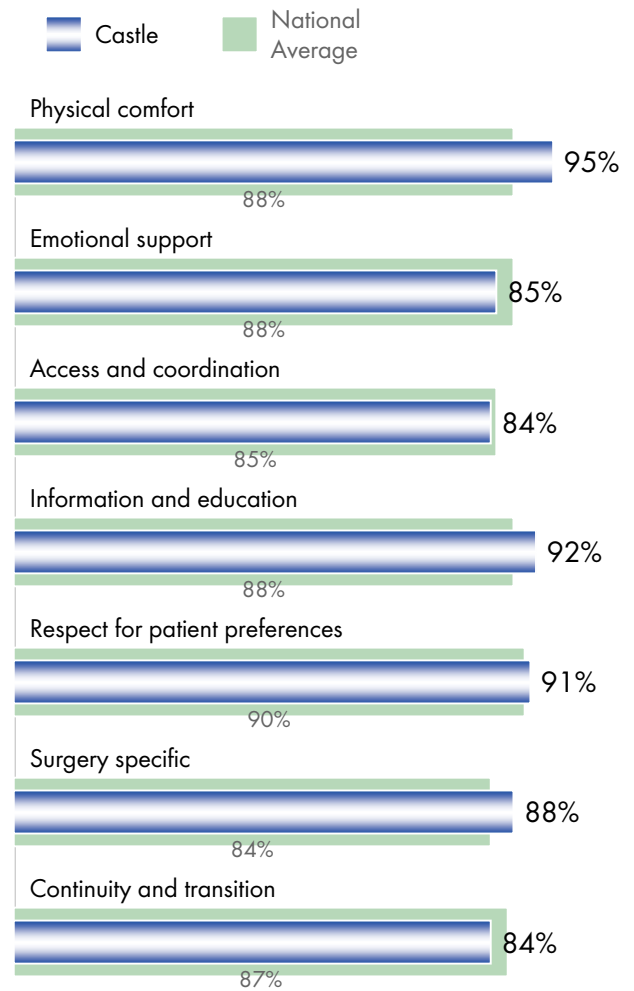


# Birth Center Patient Satisfaction 4th Quarter 2009



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# Outpatient Surgery Satisfaction 4th Quarter 2009



# Patient Satisfaction

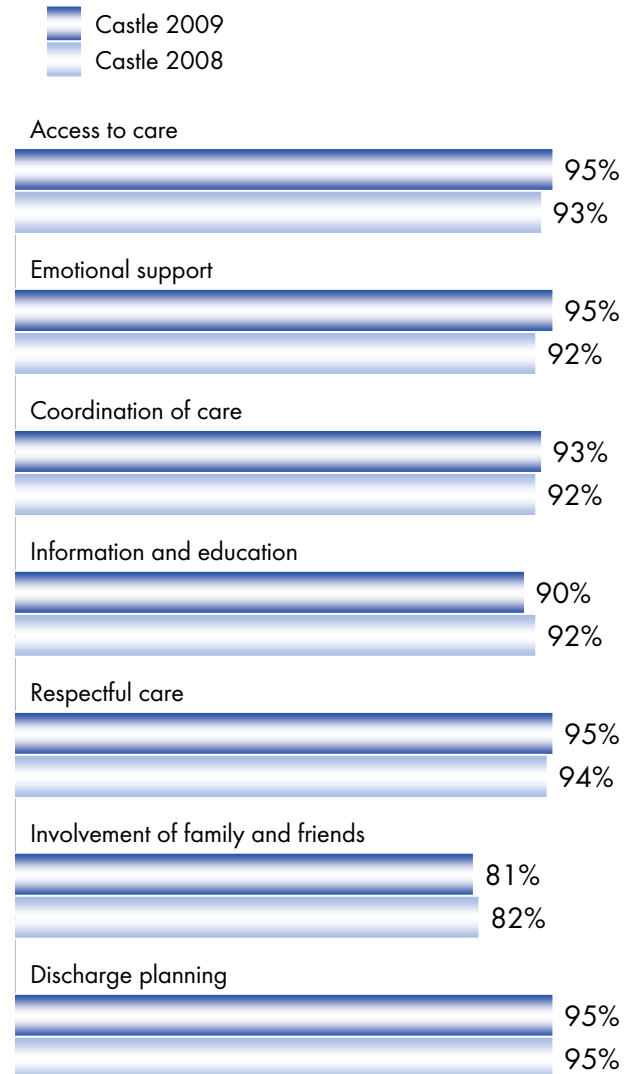
## Behavioral Health

The graph on the right shows how patients of Castle's Behavioral Health Services rate their satisfaction with various dimensions of care. Although national data are not available for behavioral health patient satisfaction, we are happy to report that patient satisfaction has continued to improve in five of seven measures, reaching 95% in four of them.

Efforts to improve patient satisfaction in 2009 included:

- Implementation of chaplain-facilitated group activities three times a week
- Expansion of the therapeutic activities program from five to seven days a week
- For all associates, continued training in Conflict Prevention, Management, and Resolution (CPMR), a program in which respect is a core value.

## Behavioral Health Patient Satisfaction Years 2008 and 2009



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# Patient Satisfaction

## Spiritual Care

Castle Medical Center is a faith-driven organization dedicated to meeting the spiritual needs of our patients.

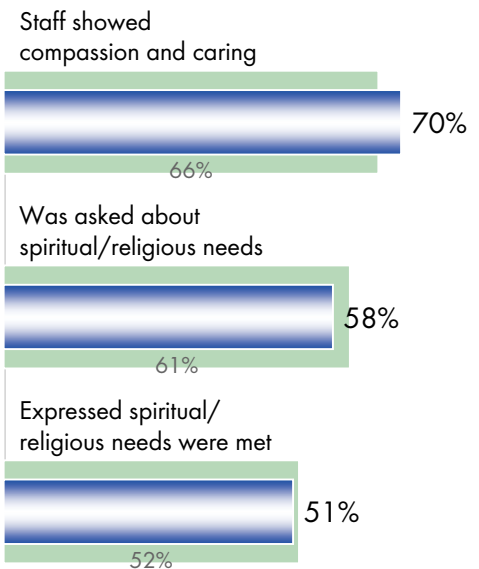
In 2009, we focused on the sacredness of health care work through the following methods:

- Overhead prayers every morning at 8 a.m. and every evening at 8 p.m.
- Ongoing education related to sacred work and loving care in our weekly bulletin for all associates, the *Weekly Huddle*
- Implementation of the Sacred Work Council
- Inspiration prayer cards on all patient meal trays
- Encouraging associates to listen to the spiritual needs expressed by their patients and to pray with them when appropriate.

Comparisons on this chart are with the average of the seventeen faith-driven hospitals within Adventist Health.

## Inpatient Satisfaction with Spiritual Care 4th Quarter 2009

■ Castle     ■ Average for Adventist Health



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# Physician Satisfaction

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*Just a note to let you know how much I appreciate Castle's staff members and their enthusiasm and dedication to bring new services to the community.*

*In the last two days of doing consults in the hospital, I have made requests for new services and tests, and these requests have been met with enthusiasm and an eagerness to learn and to accommodate.*

***I would like to specifically commend:***

*1) Ron, director of Cardiopulmonary: I requested overnight continuous bedside ICU EEG recording for a patient with encephalopathy and seizures, something that Ron said has never been done before at Castle. He then went into action, and now Castle has officially completed its first overnight continuous bedside ICU EEG recording. I am sure we will be doing more of this in the future and could really use a full time Castle EEG tech to help us.*

*2) Jan, ICU charge nurse: I requested a 24-hour urine sample collection to rule out acute intermittent porphyria, and the sample has to be refrigerated, something the staff has not handled before. Jan took the time to find out how to do this, and a refrigerator was arranged for the ICU for this purpose.*

*3) Keith, inpatient pharmacist: I made a request for Keppra (a new seizure drug rarely used at Castle), and he made sure that the medication was properly dosed and came up to the ICU to make sure things went smoothly.*

*I am impressed with how dedicated, knowledgeable, and accommodating the staff is and wanted to take a minute to let you know that.*

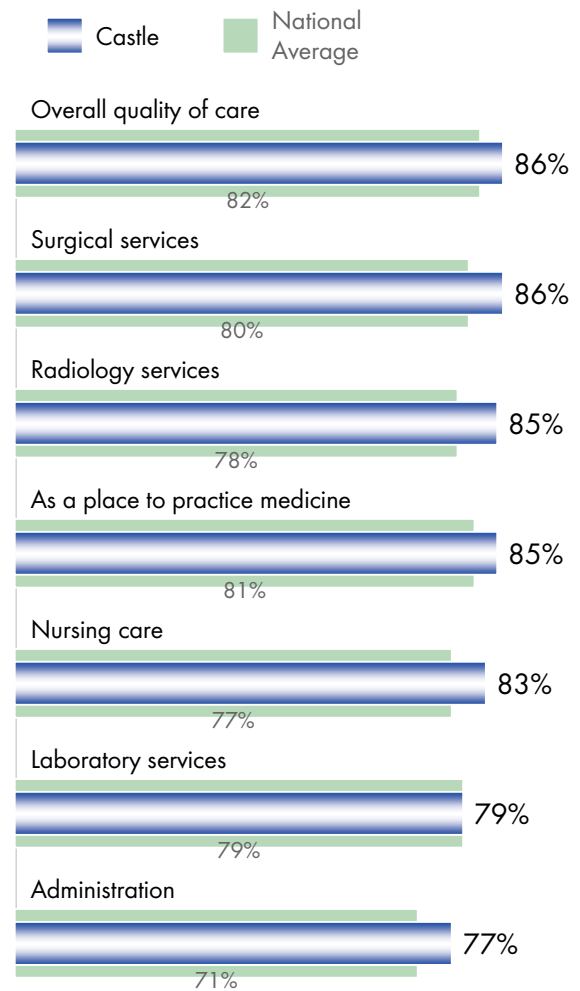
**– Kore Liow, M.D., F.A.C.P., F.A.A.N.,  
neurologist newly on staff at Castle in 2009**

# Physician Satisfaction

The Professional Research Corporation (PRC) administered our Physician Loyalty Survey in February 2009. Ninety-nine members of Castle's medical staff participated in the survey, providing feedback on the hospital's clinical service areas, administration, and overall quality. The physicians were also able to express levels of satisfaction with the hospital as a place to practice medicine. Survey results were then compared to those of over 350 hospitals nationally that participated in the same survey.

Castle is proud of the fact that we performed significantly higher than the national averages in seven out of eight measures, as shown on the right.

## Physician Satisfaction 2009 Survey



Better ►

# Associate Satisfaction

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*Moving to Hawai'i was never one of my lifelong goals. However, when the opportunity to do so came, I decided to take it. My original plan was to work as a travel nurse. The benefit of being able to take time off whenever I chose was important to me. I was not looking for a permanent position with any extra responsibility or stress. When the travel assignments did not pour in, I decided to apply to several hospitals. I didn't find any full-time openings in the operating room at Castle, but I decided to send in my résumé anyway. I was able to get a temporary position that turned into a permanent job.*

*After working at Castle for six months, I realized I was getting bored. Doing the same thing in a different place was not fulfilling. For the first time since graduating from college, I considered going back to school. While a B.S.N. provides many educational opportunities, pursuing advanced clinical skills never interested me. When a quick search for schools of public health did not yield any interesting leads, I decided to let it drop. At this point I said a quick prayer, "Okay, God, after seven years of not being in school, I am finally willing to go back. However, you are going to have to show me where you want me to go, and what you want me to study. Also, I would love to be able to work full time, not have to go into debt, and not have to move."*

*Three months later, my director came to me and asked if I was interested in getting my M.B.A. She explained that the classes would be held after work hours at Castle, that the program was being offered through Loma Linda University's School of Public Health, and that the tuition was affordable. All I could think was, "Okay, God, I get it."*

*Several years have passed, I completed the M.B.A. program and have been promoted to clinical manager in the operating room. I have learned a lot, not only through taking the classes, but also from interacting with my classmates and professors. Where this course of study will eventually take me, I do not know. What I do know is that being held in the hand of God makes the future look bright.*

**— Rachel Dick, B.S.N., M.B.A.,  
clinical manager for Perioperative Services, promoted in 2009**

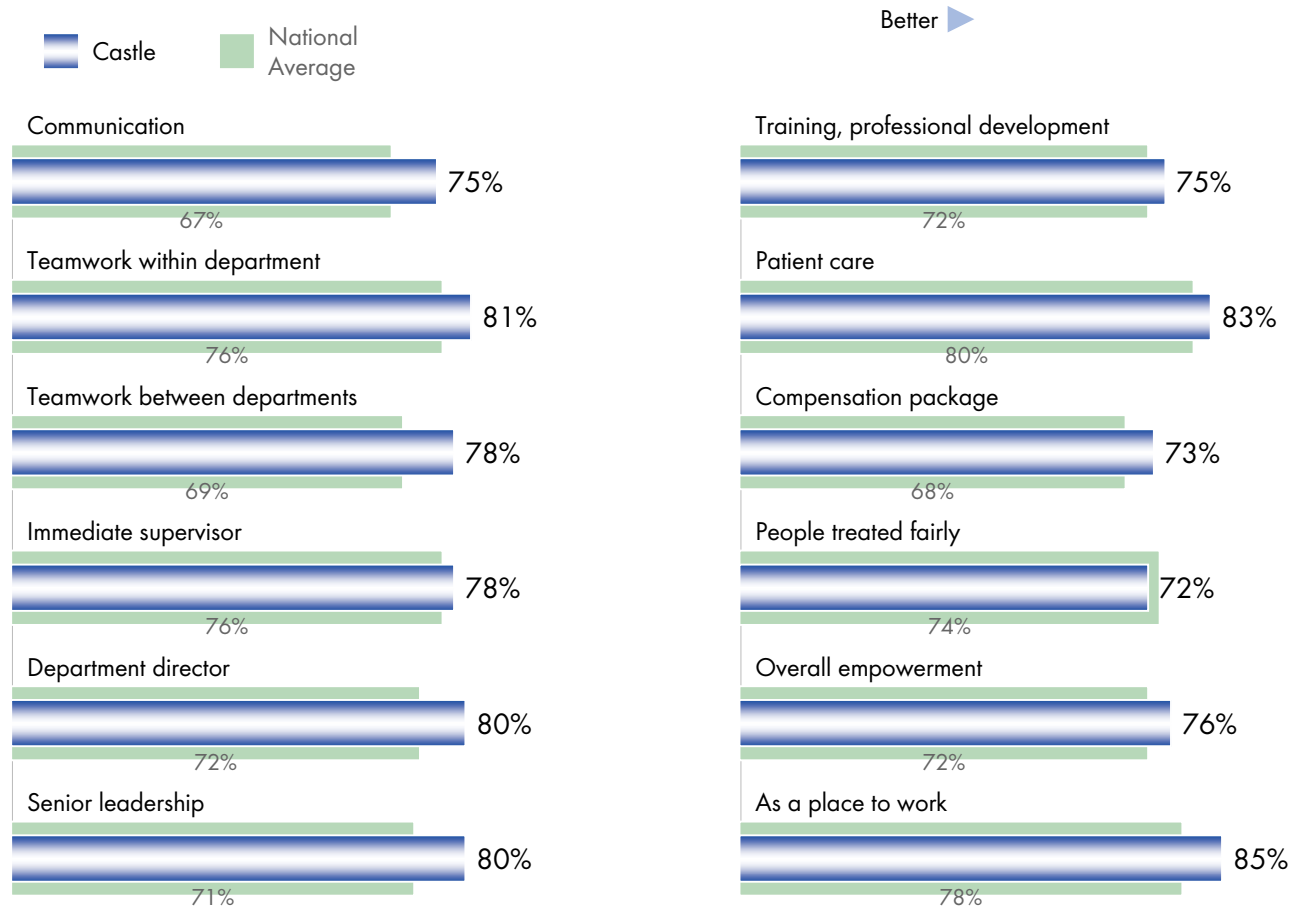


# Associate Satisfaction

In the most recent associate satisfaction survey for 2009, Castle's scores were significantly better than the national average in ten out of twelve categories.

In 2009, Castle received the Four-Star Excellence Award from Professional Research Consultants (PRC) for scoring in the top 25% of hospitals nationally for the number of "Excellent" responses in PRC's Employee Engagement Survey. In addition, Castle was once again recognized in *Hawai'i Business* magazine as one of the "Best Places to Work in Hawai'i" in 2009.

## Associate Satisfaction 2009 Survey



# Inpatient Care

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While out delivering newspapers to our patients, I found many patients already up in their chairs, ready for breakfast. There were plenty of folks for me to connect with for a while.

I entered the room of a gentleman who was sitting on the edge of his bed, eating breakfast. I handed him his newspaper with a smile, and we chatted for a moment. I then asked him if there was anything else I could do for him. He thought for a moment, and then commented that he had been pretty ill during his time in the hospital, and he was feeling a little sad. Would I mind singing to him?

The first thing that went through my head was, "Oh, no! What have I gotten into?" I laughed nervously and asked if he really meant it. Perhaps he was just joking with me. Would he let me get away without singing? But no...he was serious. He told me to take my time and think of any song I wanted to sing for him. He adjusted his blanket, sat up a little straighter, and smiled at me expectantly.

I stood there with a blank mind for several seconds. I am not typically shy, but singing is not something I do, even among my family and friends. I was sweating and nervous. I would have preferred to do pretty much anything else for this man. I tried to think what to sing. "Happy Birthday" and various nursery rhymes came to mind, but I knew they weren't what he was looking for. Then it came to me, just like that. My nervousness left me; I put down my papers and said, "OK, I'm ready now."

He asked, "What song are you going to sing for me?"

"Amazing Grace" was my reply

"That's a beautiful one," he noted. He clasped his hands in front of his chest and looked up at me expectantly. "I'm ready when you are."

I started off quietly, hoping to get the pitch right. After the first line, he started singing with me, and together we sang the first verse. It was short, but very beautiful. By the end of the last line, we both had tears rolling down our cheeks.

"You made me cry! It's been a long time since anyone affected me like that," he said. "Crying is good for healing." He thanked me for sharing the song with him, and for sharing my tears with him. He reached out to take my hand and said, "I feel so special."

As the rest of the morning went on, I realized that I kept smiling to myself. Later that day, I received a call in my office. "Hello, is this 'Amazing Grace'? This is Henry, the man upstairs who you sang to this morning. I wanted you to know that I have been smiling all day, and I wanted to thank you again for your gift to me."

I wonder if he realized how hard it was for me to come out of my comfort zone and sing out loud. I am so thrilled that in giving this man a few moments of heartfelt company and song, I in turn received a gift—the awareness that I can truly make a difference to someone in need. I am also aware that God was standing right there beside me with Henry, lifting us both up.

I am so thankful for the opportunity to do this amazing work and to be part of such a caring team.

**— Joanne Reid, director of Business Development and Physician Services**

# 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, the hospital has participated with organizations, such as the Institute for Healthcare Improvement, the National Quality Forum, the American Heart Association, The Joint Commission, the Centers for Medicare and Medicaid Services (CMS), Hawai'i Medical Service Association (HMSA), and Johns Hopkins University, with the goal of complying with evidence-based, best practice guidelines. These guidelines have been designed to ensure that patients receive the highest quality care and achieve the best clinical outcomes possible.

The following pages highlight some of the recent improvements to patient safety and medical treatment that have been made as a result of Castle's endeavoring to comply fully with best practice guidelines.

# Inpatient Care

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

Research has established guidelines for the optimal treatment of patients experiencing heart attack, heart failure, or pneumonia. Castle has shown great improvement over the last several years in compliance with these guidelines. The hospital continues to focus its efforts on physician education and clinical feedback to make further improvements, especially in the area of prescribing ACEI or ARB medications for left ventricular systolic dysfunction (LVSD).

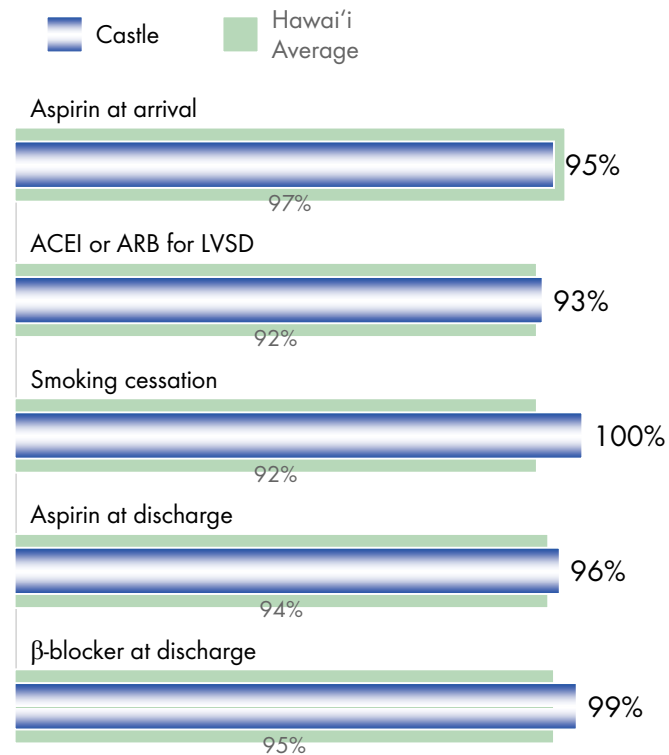
The following graphs represent the most recent public results listed on the Centers for Medicare and Medicaid Services "Hospital Compare" public Web site. During the twelve-month period of the report, Castle's performance was better than the Hawai'i state average in most all measures.

- ACEI = Angiotensin-converting enzyme inhibitor
- ARB = Angiotensin receptor blocker
- LVSD = Left ventricular systolic dysfunction

Better 

## AMI Guideline Compliance

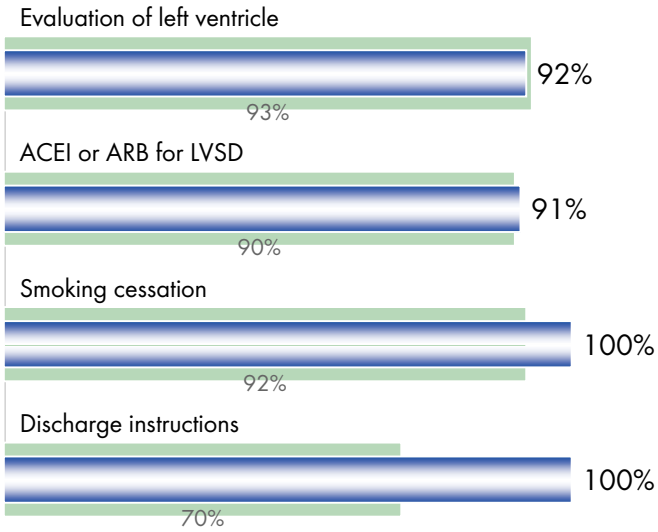
July 2008 to June 2009



# HF Guideline Compliance

July 2008 to June 2009

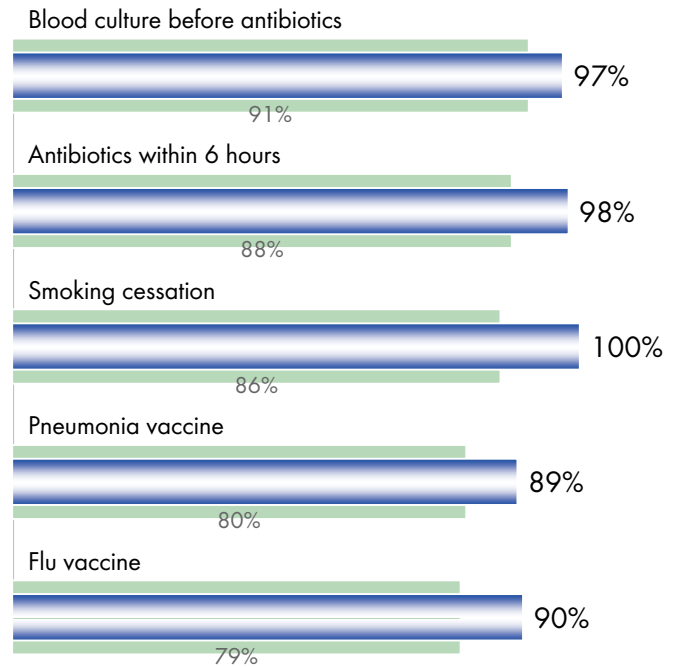
■ Castle
 ■ Hawai'i Average



# CAP Guideline Compliance

July 2008 to June 2009

■ Castle
 ■ Hawai'i Average



Better ▶

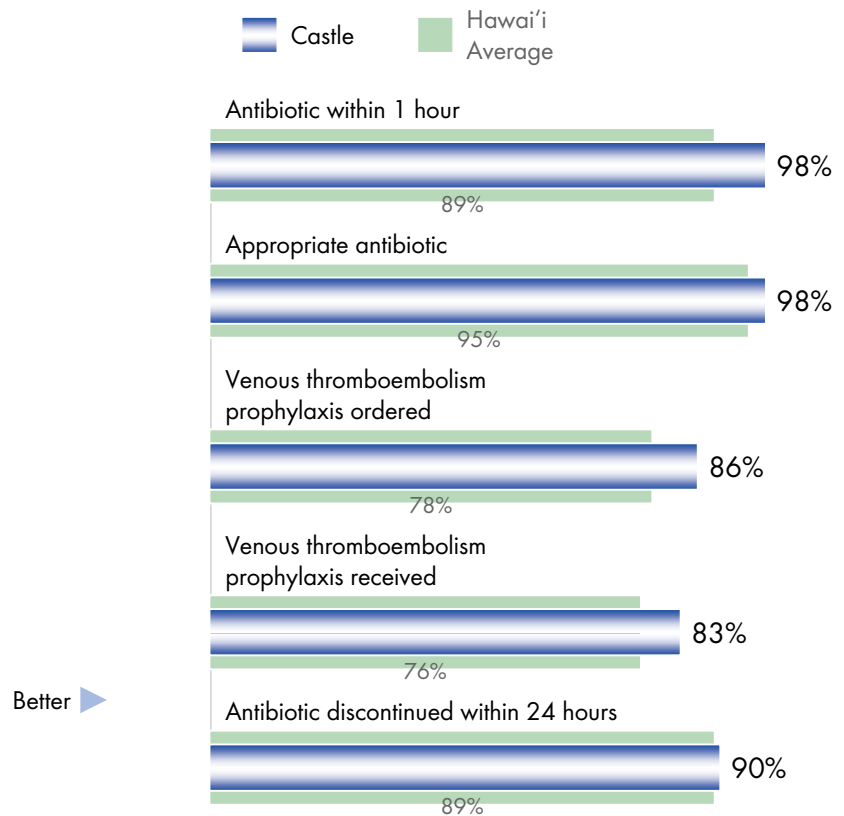
# Inpatient Care

## Surgical Care Improvement Project (SCIP)

Research has established five guidelines that, when followed, produce the best clinical outcomes for surgical patients.

Castle's continues to perform better than the Hawai'i state averages in its compliance with all five of the guidelines, resulting in a post-operative class-1 surgical-site infection rate of 0.9%. This is well below the national average of 2.1%.

## SCIP Compliance July 2008 to June 2009



# Inpatient Care

## Stroke

Castle has maintained its designation as an official "Get With The Guidelines" hospital for stroke since 2006, after implementing the secondary prevention guidelines issued by the American Heart Association and American Stroke Association.

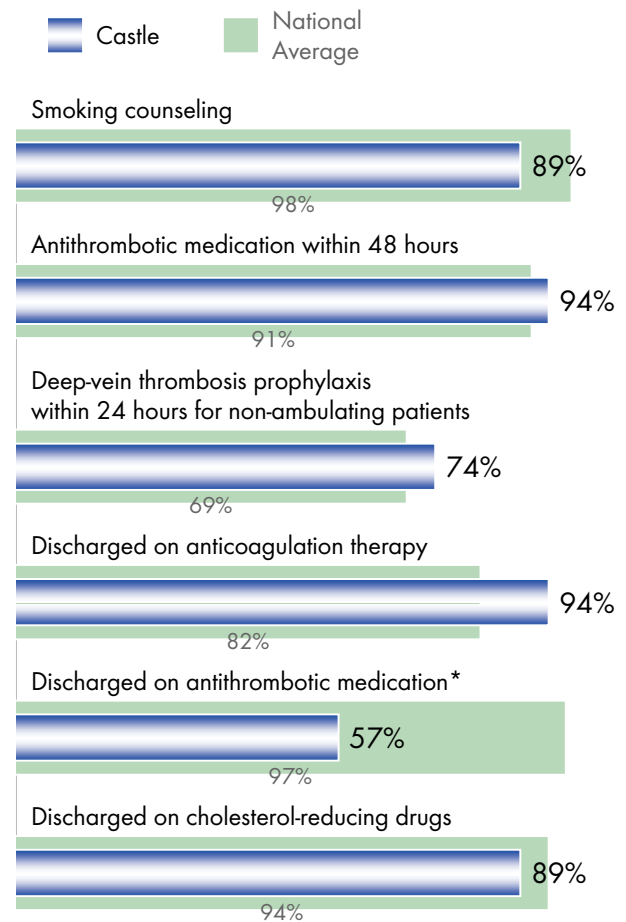
During 2009, Castle significantly increased the percentage of patients discharged on cholesterol-reducing drugs, from 76% to 89%.

*\*In 2009, Castle identified a need to have more complete documentation for patients who should be discharged without antithrombotic medication because it is medically contraindicated.*

*Improvements late in the year resulted in 100% compliance with all guidelines in December 2009.*

Better ►

## Stroke Guideline Compliance Year 2009



# Inpatient Care

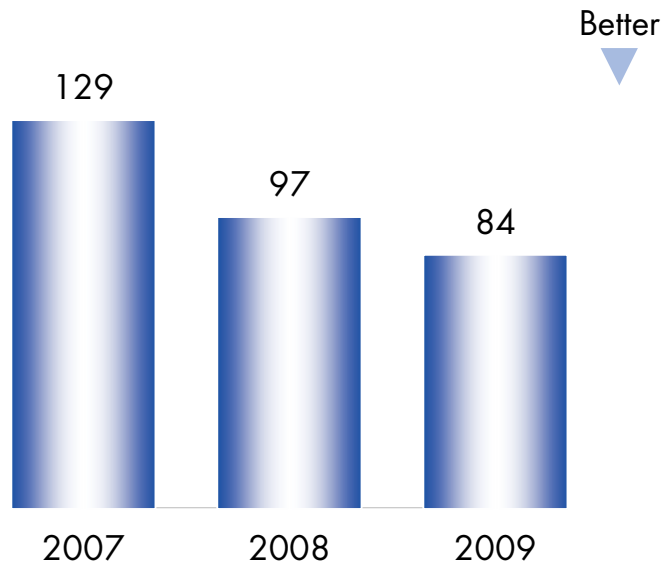
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## Minutes from Door to Balloon

Patients with the severe type of heart attack classified as ST-elevation myocardial infarction (STEMI) experience a prolonged period of blocked blood supply to the heart. Research has demonstrated that survival rates are greatly increased if the blockage in blood supply can be removed—usually done by inflating a balloon inside the blocked artery—within 90 minutes after the patient enters the ED.

The length of time taken to bring patients from “door to balloon” has decreased significantly at Castle in 2009, averaging 84 minutes overall—below the national target of 90 minutes.

Average Minutes from Door to Balloon  
Years 2007 to 2009



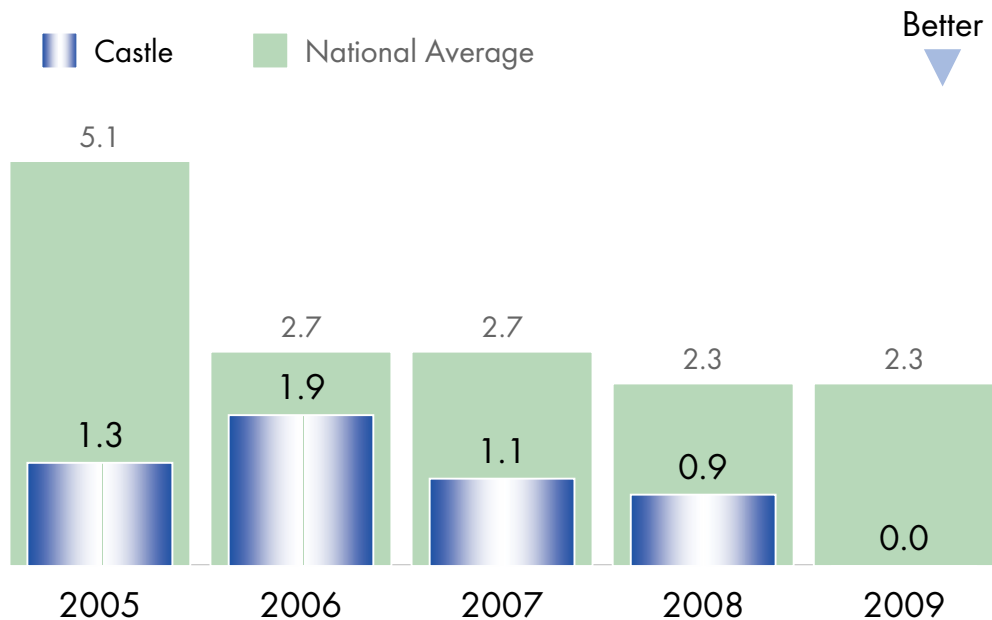


# Inpatient Care

## Ventilator-Associated Pneumonia

In 2005, Castle Medical Center implemented all elements of the ventilator-associated pneumonia prevention bundle. Since the bundle's implementation, Castle's incidence of ventilator-associated pneumonia has been well below nationally reported rates. In 2009, we experienced exceptional results, with no cases at all of ventilator-associated pneumonia.

Ventilator-Associated Pneumonia Rate  
per 1,000 Ventilator Days  
Years 2005 to 2009



# Inpatient Care

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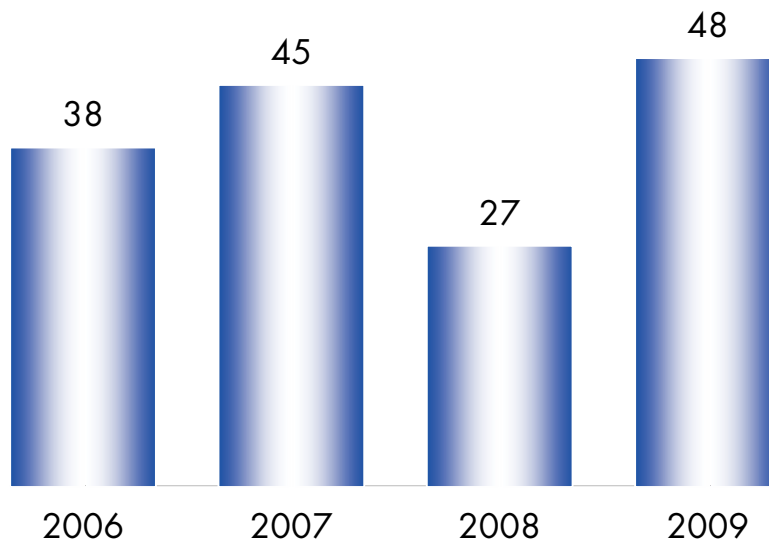
## Rapid Response Team (RRT)

As a participating hospital in the Institute For Healthcare Improvement's "Save 100,000 Lives" Campaign and its "Protecting 5 Million Lives" Campaign, Castle implemented a Rapid Response Team in July 2006. This team provides timely, intensive assessment anywhere in the medical center.

Following the implementation of the RRT, Castle has maintained a significant reduction in the total number of Code Blue events occurring annually.

Information has now been added to the hospital's patient handbook to educate patients and their families about the RRT and how it can be called if there is concern about a patient's condition.

Rapid Response Team Calls  
Years 2006 to 2009



# Inpatient Care

## Patient Fall Rate in the Medical and Surgical Units

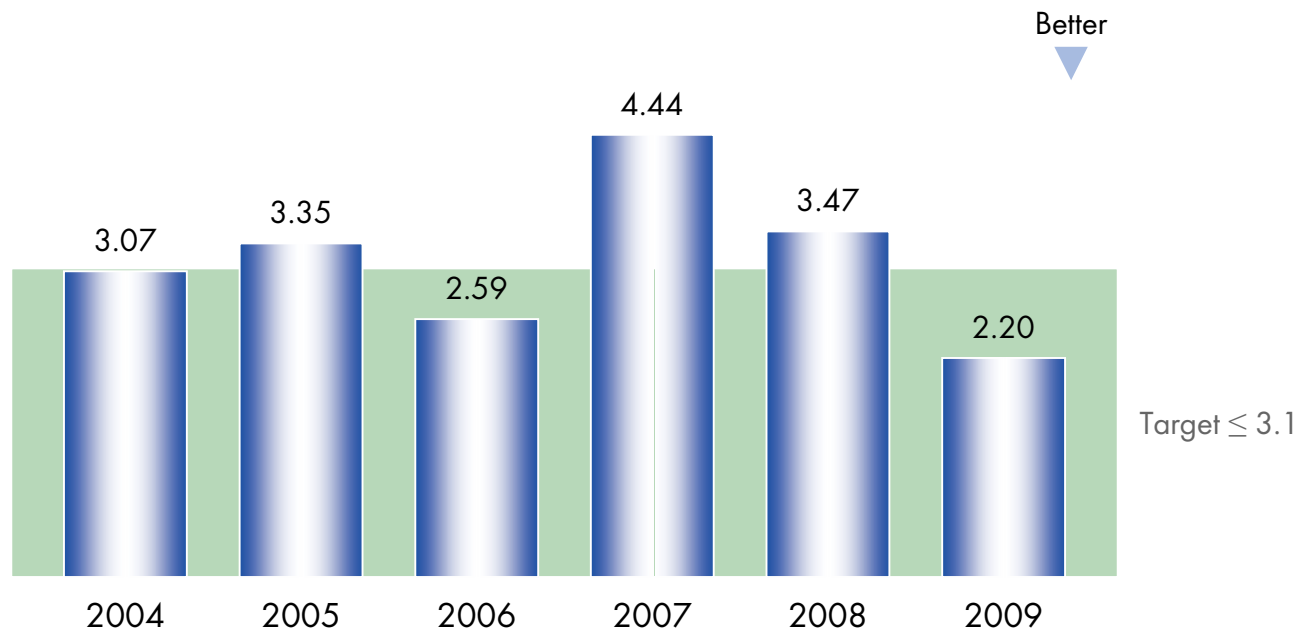
Based on the average number of patient falls reported by the California Nursing Outcomes Coalition, and in accordance with our parent corporation, Adventist Health, Castle Medical Center has set an initial target of no more than 3.1 falls per 1,000 patient days, and a stretch target of no more than 2.95 falls per 1,000 patient days. Over the last twelve months, the hospital saw considerably fewer falls than even our stretch target.

In 2009, Castle implemented a Fall Response Team. The purpose of the team is to respond to inpatient falls while assessing their causes and recommending immediate changes to decrease the likelihood of similar falls.

Also initiated in 2009, "Call Don't Fall" table tents were placed at each patient's bedside, and information on fall prevention was included in Castle's welcome packet.

While we have successfully met our goal for 2009, we believe that even a single patient fall is one too many, and we will continue to seek ways aggressively to prevent them entirely.

## Patient Falls per 1,000 Patient Days Years 2004 to 2009



# Inpatient Care

## Catheter-Associated Urinary Tract Infections

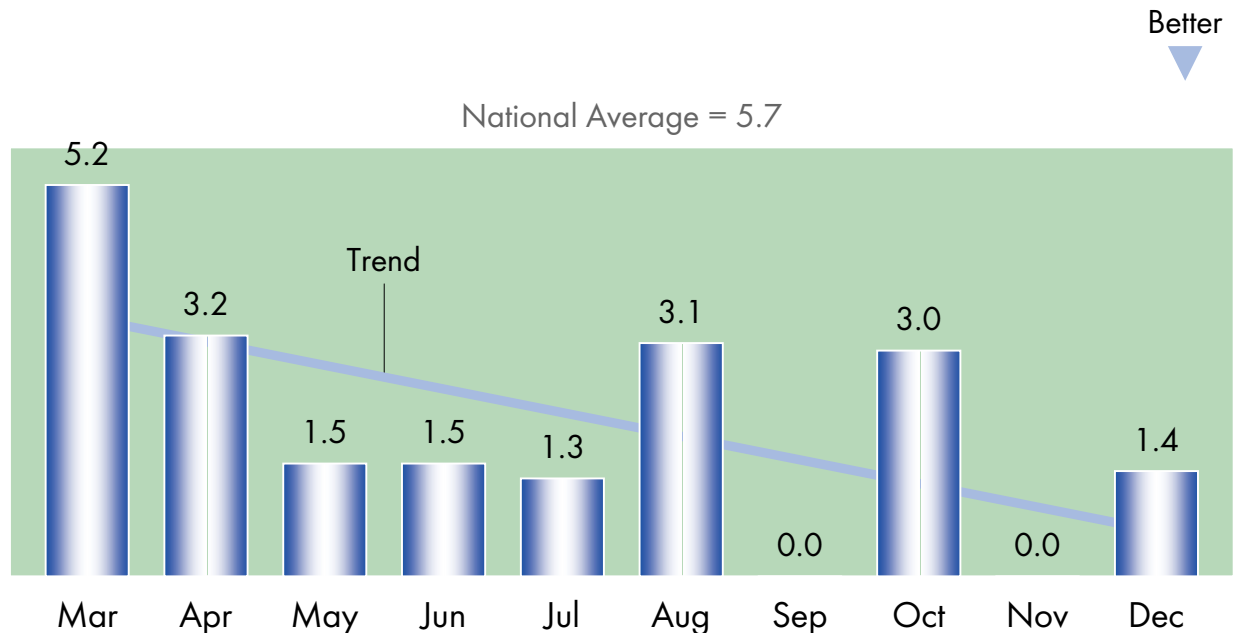
Catheter-associated urinary tract infections (CAUTIs) account for up to 40% of all hospital-acquired infections and are the most common hospital-acquired infections in the United States. CAUTIs have significant negative effect on the well-being of patients, and they can increase hospital costs substantially.

Castle, in conjunction with our parent company, Adventist Health, is currently in the process of developing criteria for the initial insertion of urinary catheters.

At Castle Medical Center, we have implemented the following strategies to decrease CAUTI risk to our patients:

- Rounds by Castle's infection control coordinator to each patient who has a urinary catheter inserted, in order to re-evaluate the necessity of the device
- Training of nursing staff on best practices to prevent CAUTIs
- Use of a daily checklist to prompt early removal of urinary catheters where appropriate.

## CAUTIs per 1,000 Patient Days March to December 2009

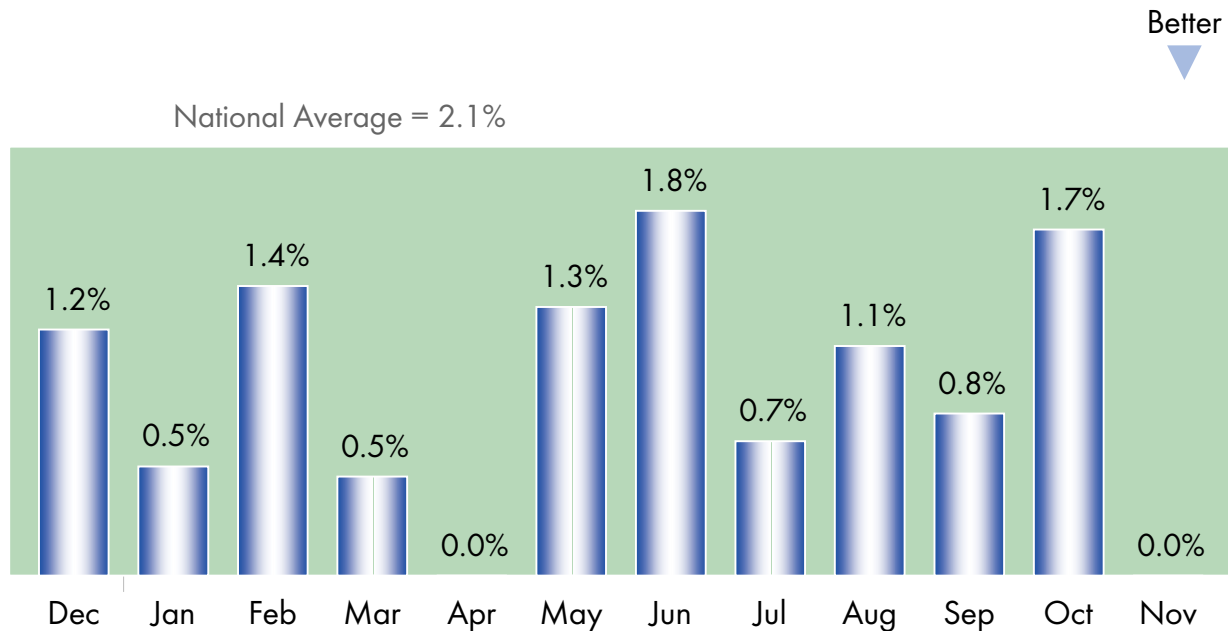


# Inpatient Care

## Surgical Site Infections

At Castle Medical Center, we understand the importance of following evidence-based practice. Since implementing the Surgical Care Improvement Project (SCIP), Castle has been in compliance with evidence-based guidelines that have been proven to reduce the risk of surgical infections. Proper selection and timing of antibiotics, the use of chlorhexidine prep, proper hair removal, and maintaining proper body temperature have all contributed to our low infection rates.

## Surgical Site Infection Rate December 2008 to November 2009



# Inpatient Care

## Hospital-Acquired Pressure Ulcers

Pressure ulcers can lead to patient discomfort, increased length of hospitalization, and other more serious complications. Our goal at Castle Medical Center is to eliminate all hospital-acquired pressure ulcers.

To reach this goal, Castle has implemented the following initiatives:

- New pressure-redistribution mattresses on all hospital beds
- New skin care products, including underpads to prevent skin shearing
- Implementation of a Pressure Ulcer Prevention (PUP) Team
- Education of associates on new products and pressure-ulcer prevention strategies
- Implementation of weekly wound-care patient rounds to ensure that patients are receiving the best care possible.

Pressure ulcers can have four stages:

*Stage I*—Intact skin with slight redness

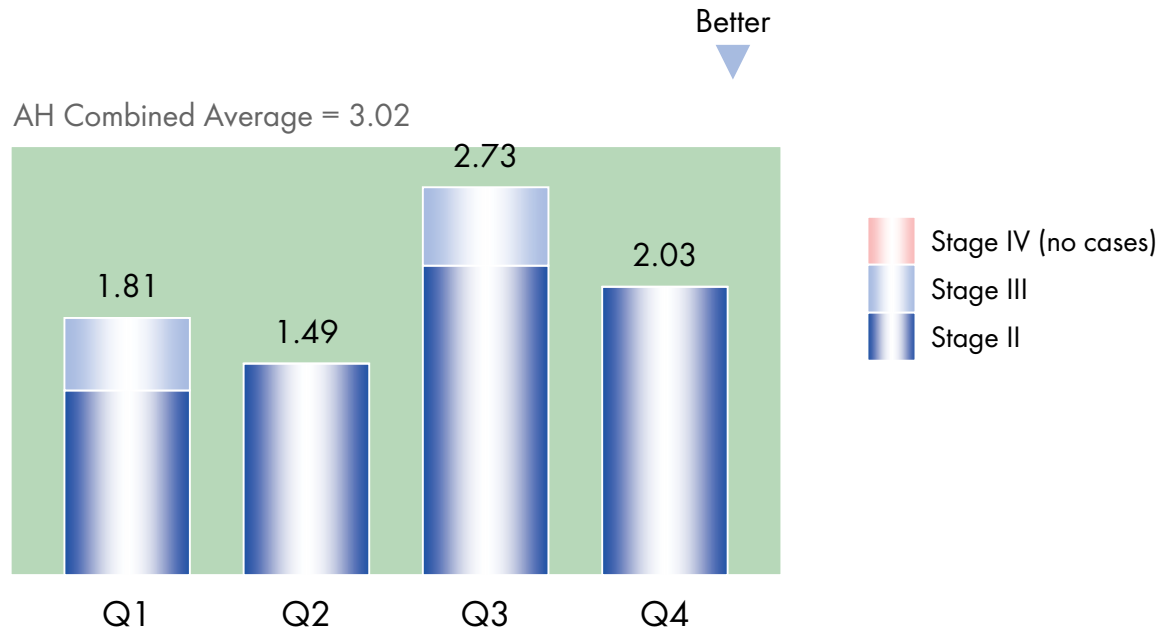
*Stage II*—Red with slight skin breakdown

*Stage III*—Full thickness tissue loss

*Stage IV*—Full thickness tissue loss with exposed bone, tendon, or muscle.

In 2009, Castle saw no ulcers that were classified as Stage IV.

## Hospital-Acquired Pressure Ulcers per 1,000 Patient Days First to Fourth Quarter 2009



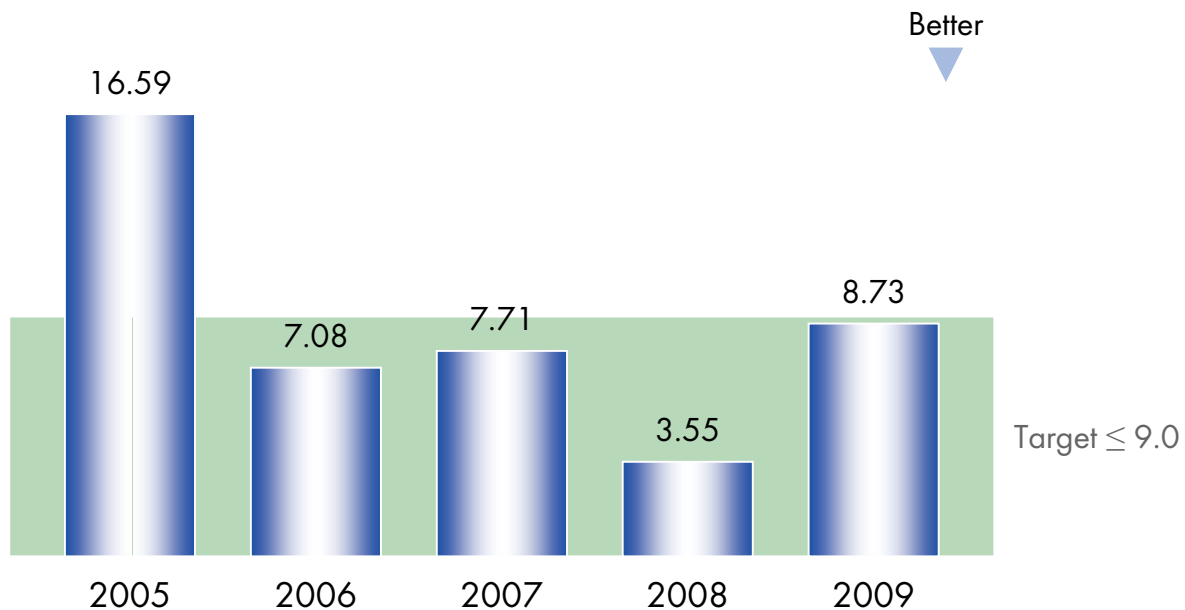
# Inpatient Care

## Use of Restraints in Behavioral Health Services

Committed to reducing and eliminating the use of seclusion and restraints, Castle Medical Center uses the Crisis Prevention, Management, and Resolution (CPMR) training program. This program emphasizes de-escalation methods in order to reduce patient aggression that may ultimately lead to restraint or seclusion. Associates of Castle's Behavioral Health Services, along with those of our Emergency and Security Departments, participate in this eleven-hour CPMR training.

During 2009, the diagnoses of patients being admitted to Castle's Behavioral Health Services became increasingly acute. This has prompted the formation of an inter-disciplinary Patient Aggression Quality Improvement Team, which is currently working on refining our processes to manage our behavioral health patients in the safest way possible.

Use of Restraints in Behavioral Health  
per 1,000 Patient Days  
Years 2005 to 2009



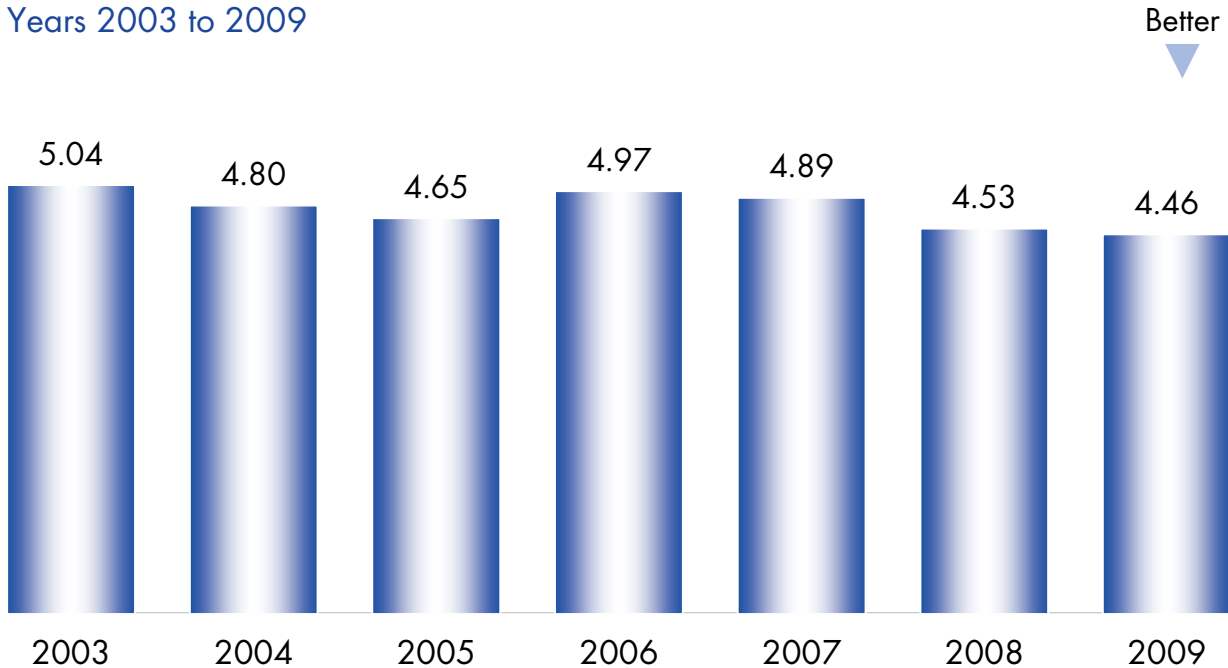
# Inpatient Care

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## Acute Length of Stay

For several years, Castle Medical Center has focused efforts on streamlining care processes so that patients can be discharged from the hospital as soon as it is appropriate. Efforts have also been made to build relationships with community-based facilities in order to expedite long-term care placements when required, so ongoing care could be provided to discharged patients.

Average Acute Length of Stay  
Years 2003 to 2009





# Emergency Care

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*After a freak accident while golfing when the ball ricocheted into my face, resulting in a laceration above my lip, I came to Castle Medical Center's Emergency Department at around 9:45 a.m. I couldn't have had a better experience. From the lovely lady in admitting, to the on-duty physician and staff who were so skilled, I was in and out in about ninety minutes. I had seven stitches on the inside and outside of my mouth, and the procedure was not easy. I let them know I had a flight to catch back to California at 1:20 pm. The Emergency Department was super busy, but they still worked me in and got me on my way in time to catch my scheduled flight.*

*I love that they all called me a "visitor," and not a tourist. I am a frequent visitor to O'ahu, and it feels like a home away from home. That was never more evident than yesterday, when the spirit of aloha at Castle was amazing.*

*A big mahalo to all the staff.*

**– A thankful visitor to Castle's Emergency Department**

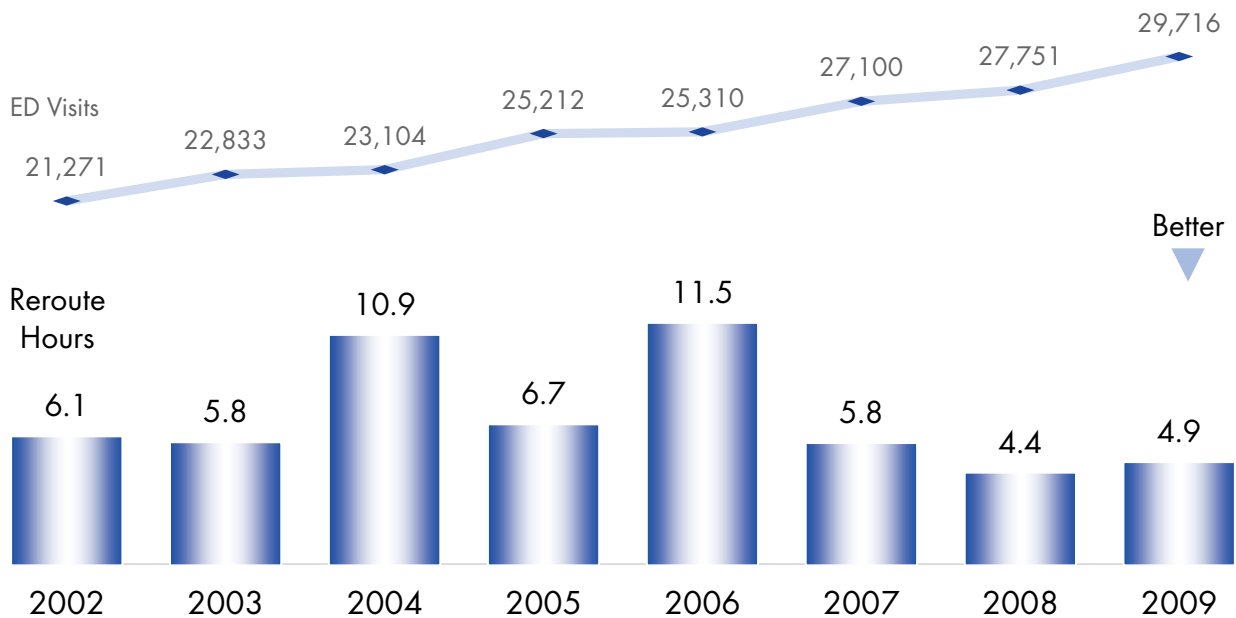
# Emergency Care

## Reroute Hours

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

Decreasing reroute hours becomes more difficult with greater patient volume and with increased demand for inpatient monitored beds. During 2009, the hospital further expanded the number of monitored beds, and this has helped to keep our number of reroute hours low.

### Reroute Hours per 1,000 ED Visits Years 2002 to 2009



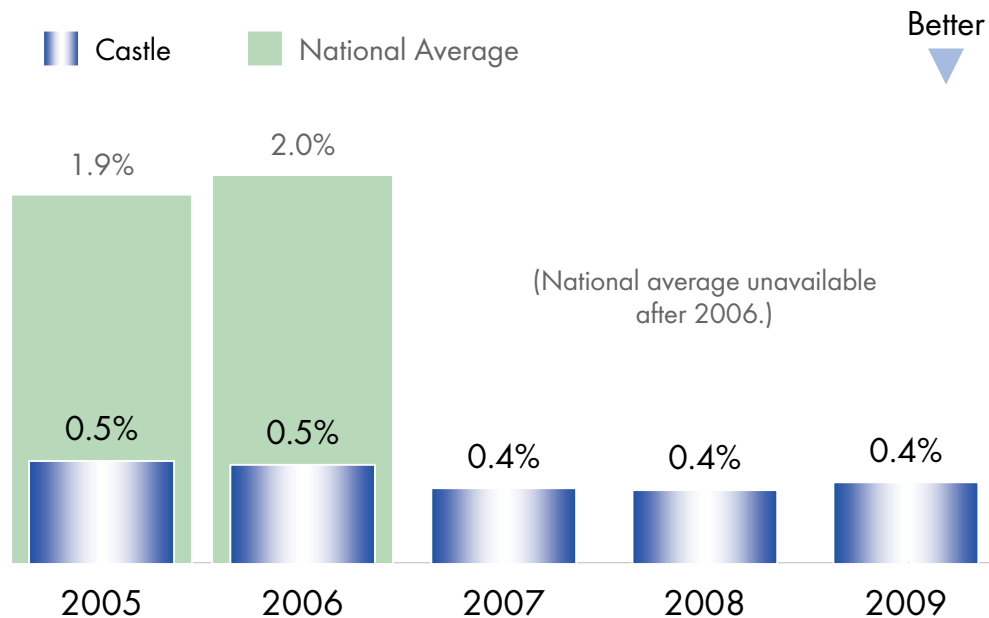
# Emergency Care

## Patients Left Without Being Seen

Nationally, about 2% of emergency patients leave an emergency facility without being seen, frequently out of frustration over wait times. Even though Castle's patient volume continues to grow, only 0.4% of patients leave the Emergency Department without being seen. Castle attributes this success to efforts to expedite and maintain patient flow.

Further evidence of our success in this area is our consistently high patient satisfaction survey scores related to ED wait times.

### ED Patients Left Without Being Seen Years 2005 to 2009



# Emergency Care

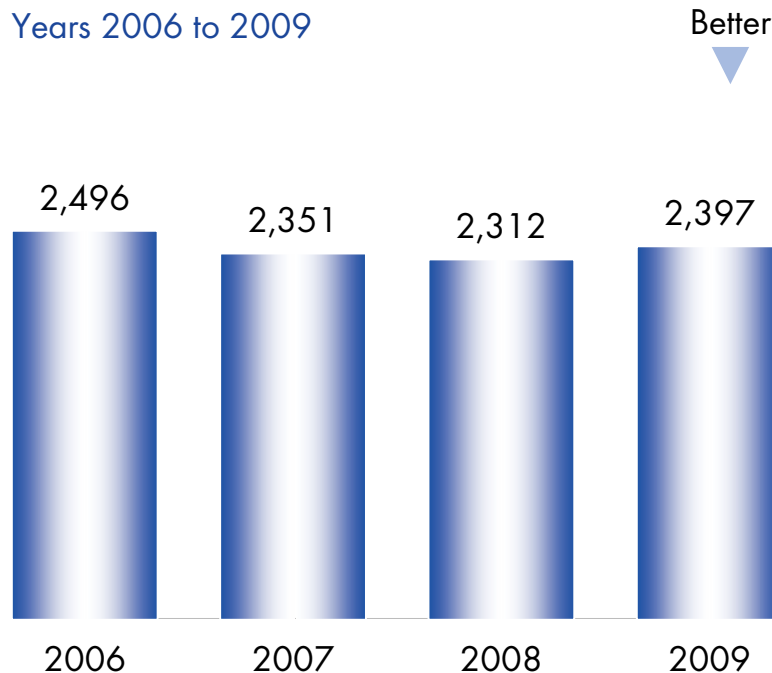
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## Emergency Department Holds Before Transfer

Emergency holds count the number of patients who have to wait more than an hour before being transferred to an inpatient bed after receiving inpatient admission orders. After noticing an increase in the number of holds in the first part of 2006, an inter-departmental quality improvement team implemented standard communication procedures between the ED and inpatient units, along with goals for when important communication steps should be accomplished.

In 2009, the number of patient holds remained steady, even while the number of patients seen in the Emergency Department continued to grow significantly.

### Emergency Department Holds Years 2006 to 2009



# Emergency Care

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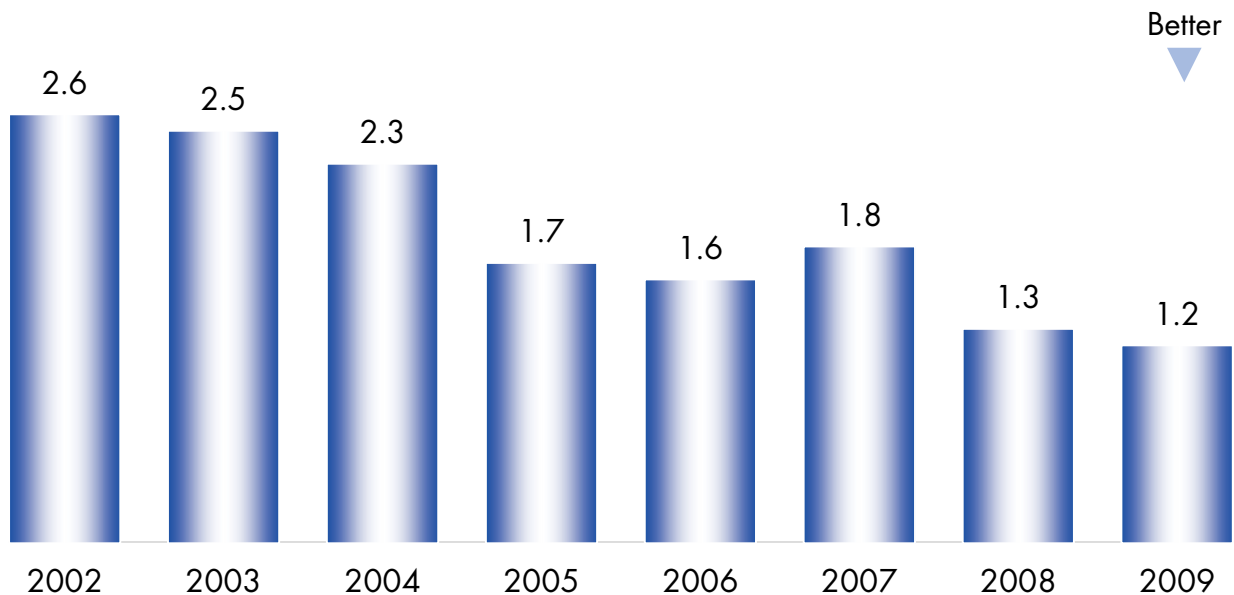
## Use of Restraints in the Emergency Department

Over the past eight years, Castle has seen a progressive 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:

- Assignment of Security personnel who are dedicated to monitoring behavioral health patients in the ED
- Provision of mandatory education for associates in the practices of non-violent intervention (CPMR)
- Provision of feedback to staff members through the display of performance data related to restraint use.

Restraint Events per 1,000 ED Visits  
Years 2002 to 2009



# Home Care

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*I required home care services after undergoing surgery to repair bones I had broken in a fall. Your Home Care personnel have been most dedicated, friendly, compassionate, warm-hearted, and caring, and have instilled in me, an 86-year-old woman, the desire to get well, both physically and mentally, so I can enjoy more of my senior years in this beautiful society.*

*With such wonderful personnel, your organization's recognition and respect can only escalate upwards in our community. I love all of you who have helped me and are helping others like me to get better and walk again to do our normal chores.*

**– A grateful Home Care patient**

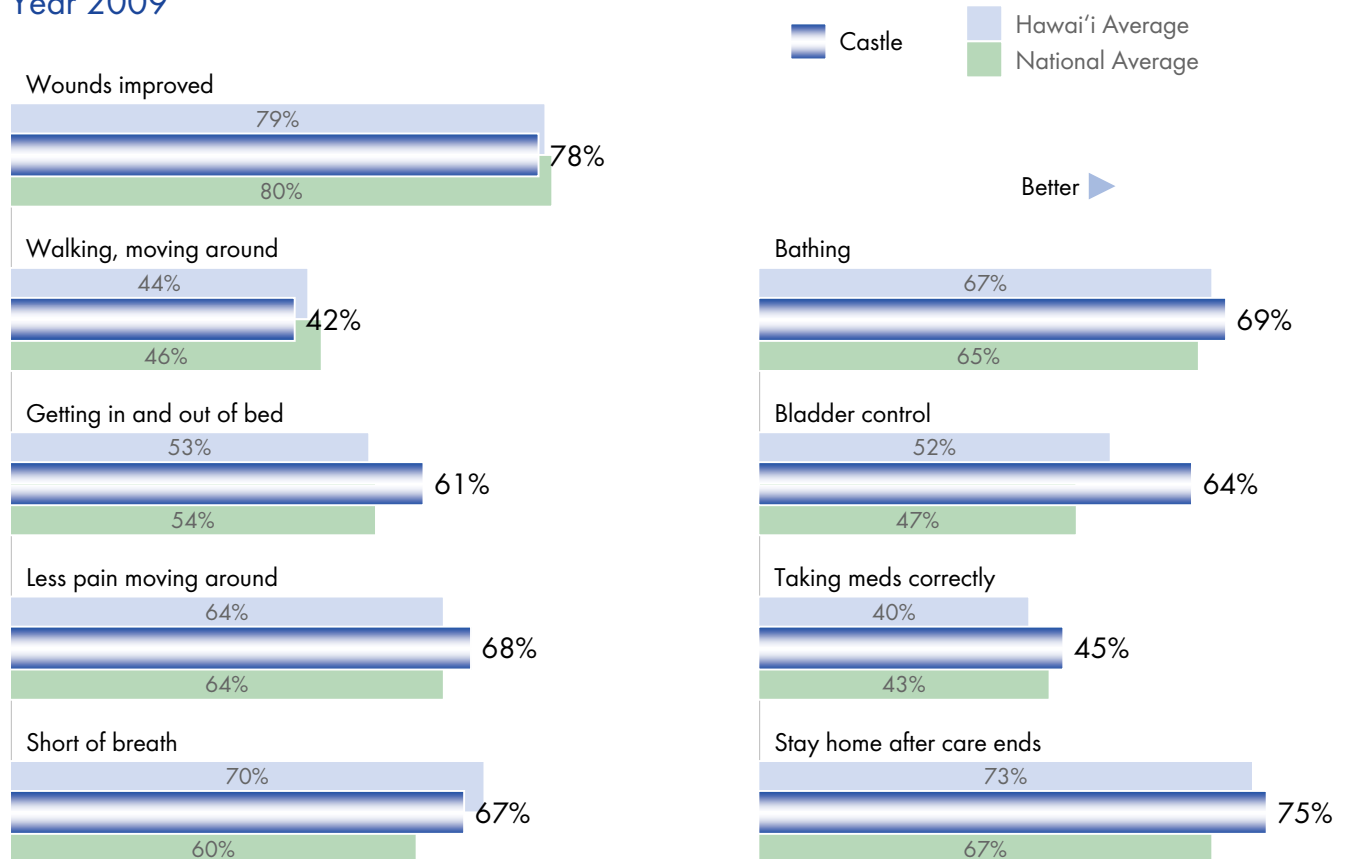
# Home Care

## Clinical Outcomes

The Centers for Medicare and Medicaid Services list the home care measures shown below on their "Home Health Compare" public Web site.

Best practices have been actively integrated into our work processes, and Castle is proud of the fact that our outcomes are higher than state and national averages in six out of nine categories measured.

## Home Care Clinical Outcomes Year 2009



# Innovations

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*Thank you for allowing me to be present at my firstborn son's birth via video teleconference. It was the most special moment of my life, and my military deployment almost took that away from me. Instead, I was able to experience the same emotions that I would have experienced in person. I got to see my son's first breath, first cry, and also when he was placed in my wife's arms for the first time.*

*It was the best gift I could ever receive!*

**– A father serving in the military overseas**



# Innovations

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## Windward Surgery Center

The new \$5.3 million, 9,000-square-foot Windward Surgery Center opened in April 2009, and is located in the Harry and Jeanette Weinberg Medical Plaza and Wellness Center adjacent to the hospital. The surgery center has two operating rooms, two endoscopy rooms, and waiting and recovery rooms.

It offers same-day surgery, and gastrointestinal, general surgical, orthopedic, gynecologic, urologic, and podiatric procedures. The ambulatory center is a joint venture between Castle Medical Center and fifteen Windward O'ahu physicians.



*Windward Surgery Center*  
IN PARTNERSHIP WITH CASTLE MEDICAL CENTER



## 64-Slice CT Scanner

In 2009, Castle's Imaging Services updated its Toshiba Aquilion 32-slice Computed Tomography (CT) scanner to a 64-slice scanner. CT scanners are used to produce detailed images of the brain and other organs. Castle's upgraded scanner produces improved image detail and quality with exceptional speed.

### Benefits of the upgraded scanner include:

- A less invasive alternative to cardiac catheterization
- Scanning for blockages in all the major arteries and veins of patients who might otherwise need the conventional invasive arteriogram
- Other uses, such as a "virtual CT colonoscopy," in place of the conventional technique of inserting a fiberoptic scope
- The ability to process CT images of blood vessels, internal organs, and the skeleton using the scanner's 3-D workstation.



## Bright Ideas

The Bright Ideas program was designed to support innovation at every level of the hospital by providing a responsive communication tool for associates to share their “bright ideas” for improving safety, patient care, patient/customer satisfaction, financial performance, hospital efficiency and operations, and employee morale.

Associates can easily submit their ideas through the hospital’s intranet. Once a quarter, the Bright Ideas Committee chooses the best idea for the quarter, and the associate who contributed that idea is recognized.

### Examples of bright ideas chosen in 2009 include:

- The use of red tape to signal to co-workers that the nurse within the taped area is preparing medications for a patient and should not be disturbed
- A patient companion volunteer program
- The equipping of all conference rooms with overhead LCD projectors to reduce reliance on paper
- Smoothies made in the hospital’s cafeteria
- Motion sensors that automatically turn lights on and off in storage rooms, supply rooms, bathrooms, and offices.

# Innovations

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## **Radiofrequency Ablation Therapy**

Castle Medical Center now offers radiofrequency ablation (RFA) therapy to treat liver cancer patients. RFA is a minimally invasive treatment for cancer tumors in the liver, kidney, and bone that uses electrodes to heat and destroy abnormal tissue. Available at only a handful of medical centers across the country, it has become an important option for the treatment of certain liver cancers.

**Closeup of retractable electrodes  
used in radiofrequency ablation.  
A generator, shown in the background,  
provides electrical current for  
the electrodes.**



# Innovations

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Castle associates Chris Batacan and Leatrice Aki, themselves asthma patients, became the first to complete Castle's Expert Asthma Patient Training Program.

## **Expert Asthma Patient Training**

Castle's Cardiopulmonary Department is breaking new ground with its Expert Asthma Patient Training Program, the first of its kind in the United States. This training program teaches students how to get asthma diagnosed, how to follow a physician's asthma plan, and how to succeed in managing the disease.

Once the training is complete, the student is certified through the state's Hawai'i Asthma Initiative to teach family, friends, and those in the community about asthma and its management.

# Innovations

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## Safe Patient Handling

To enhance safety for both patients and associates during patient movements and transfers, Castle Medical Center initiated a Safe Patient Handling Program in 2009. This program integrates evidence-based practice and technology to minimize both the human and capital expenses associated with staff and patient injuries caused by patient handling and movement.

Associates assess the level of assistance required for the patient prior to any movement and, if necessary, utilize the appropriate piece of lifting and transfer equipment to complete the movement. A safe patient handling coach is employed as an expert to teach associates the special skills needed in using the equipment and to oversee the day-to-day operations of the program.

Since initiation of the program, there has been a significant decrease in costs associated with staff injuries.



## **“Call Don’t Fall”**

Many times in the past, we have heard our patients say they did not want to “bother” their nurse by using their call light for assistance. At Castle Medical Center, we try to assure our patients that we actually *want* them to call for a nurse if they need assistance. Table tents printed with the message “Call Don’t Fall” are put in every patient room as a reminder of our commitment to patients’ safety and well-being.

# Innovations

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## Quiet Zones

It is recognized that most medication errors made in a hospital are directly related to distraction in the work area. In order to help prevent medication errors related to distractions, Castle Medical Center has designated Quiet Zones in areas where medications are prepared and dispensed.





# The BISTRO EXPRESS

## Mobile Bistro Express Cart

Of all the innovations made at Castle Medical Center during 2009, none was more popular with associates and visitors than the new mobile Bistro Express cart.

Every weekday at 9 a.m., 3 p.m., and 7:30 p.m., the Bistro Express cart visits hospital units and waiting areas with an assortment of drinks, sandwiches, and salads.

All of the sandwiches are made with freshly baked gourmet breads from local bakeries, and the salads feature fresh produce from local farms. Feedback from customers of the Bistro Express has been overwhelmingly positive.



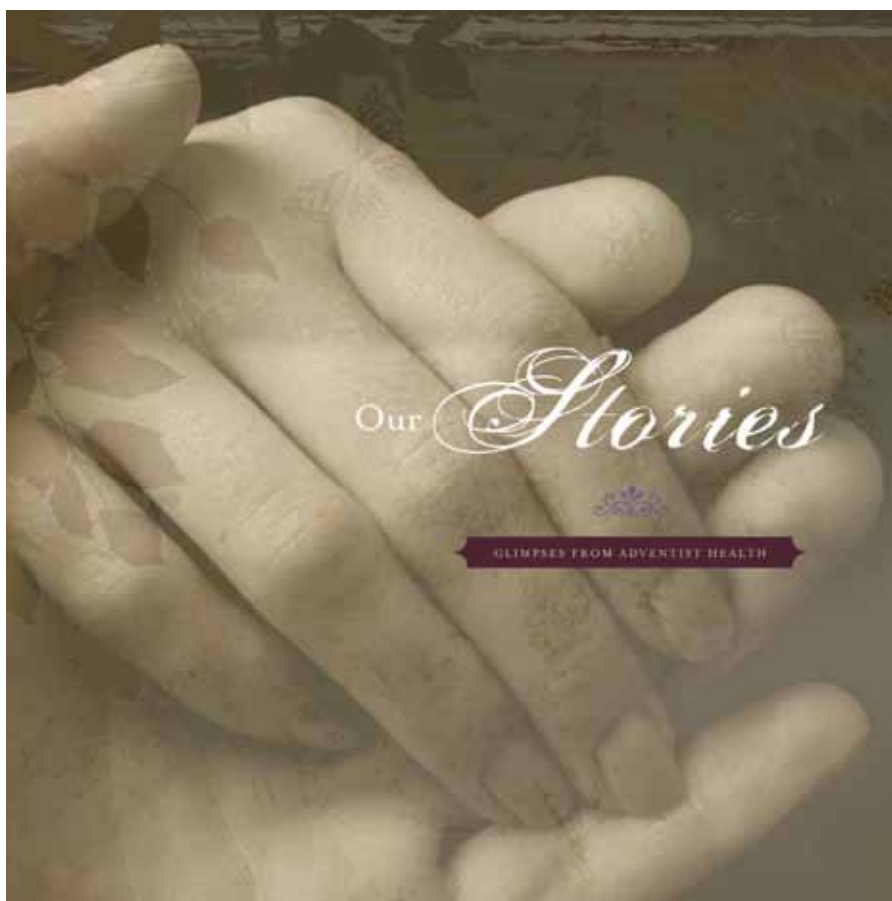
# Innovations

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## Sacred Work Initiative

In 2009, Castle Medical Center adopted the Sacred Work Initiative designed to emphasize our focus on meeting not only the physical and emotional needs of our patients, but also their spiritual needs.

The multi-disciplinary Sacred Work Council develops strategies to integrate sacred work and loving care throughout the organization. As part of this sacred work initiative, Castle participated with Adventist Health in the development of a book of inspirational stories that highlight loving care.





## **Chair 4 Meals**

In 2009, Castle Medical Center implemented the “Chair 4 Meals” program in an effort to assist patients to sit in chairs for their meals. Getting out of bed has been shown to lift the spirits of patients as well as increase their mobility and enhance recovery. To capture attention and to serve as a reminder to patients, family members, and associates, the sign shown above was created and is displayed over any patient’s hospital bed where it is appropriate.

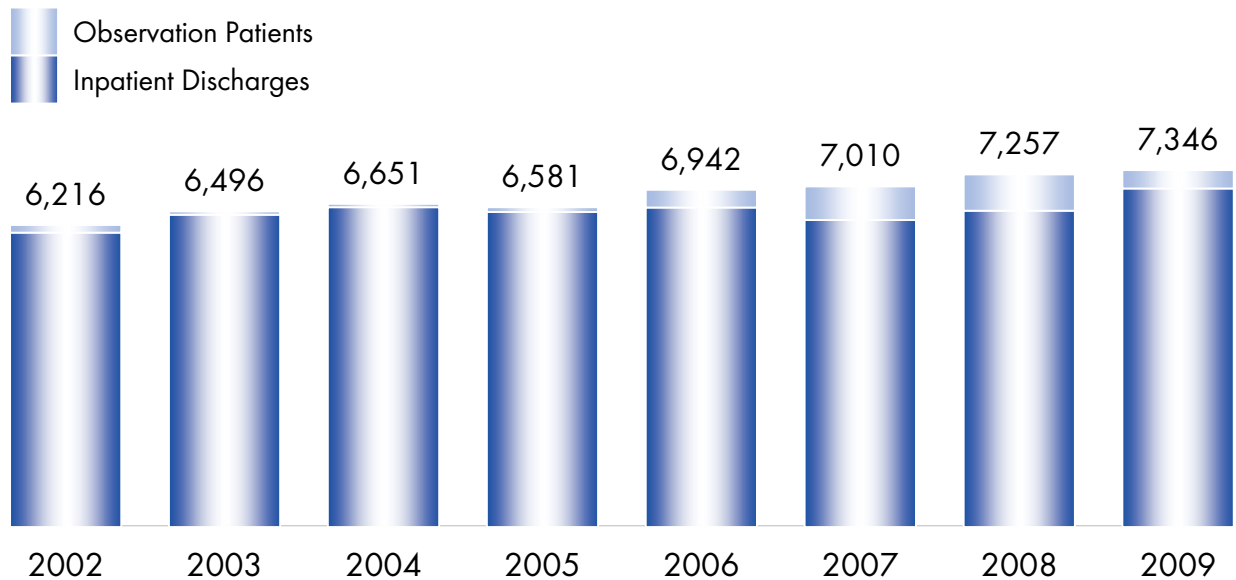
# Volumes

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## Inpatient Volume

Castle's inpatient volume continued to grow throughout 2009.

### Inpatient Volume Years 2002 to 2009



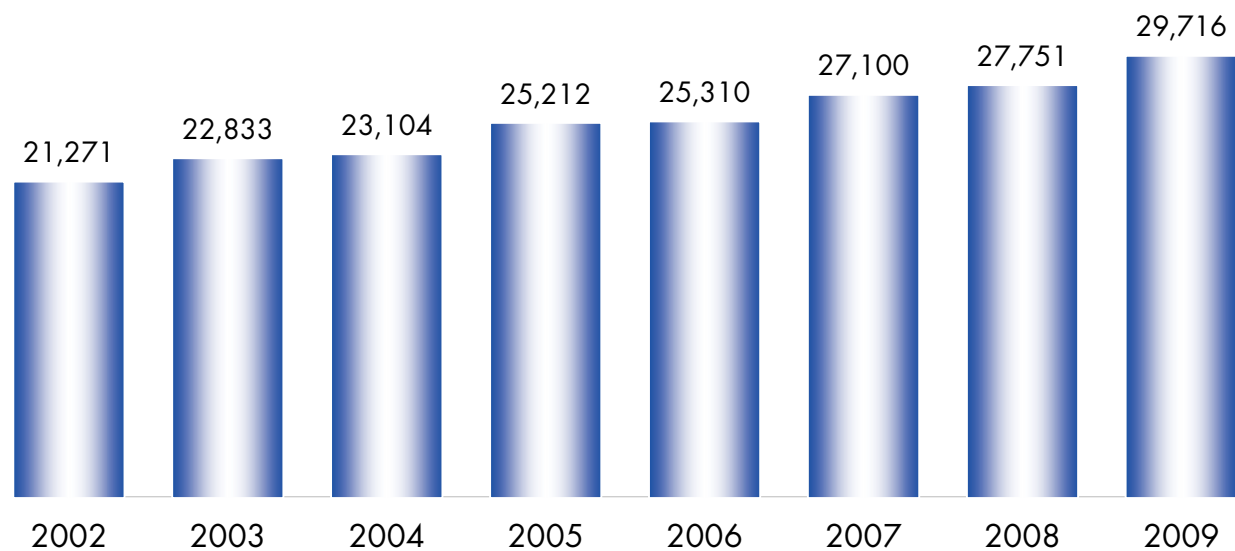
# Volumes

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## Emergency Department Visits

In 2009, Emergency Department visits continued their steady increase. Plans have been approved to expand and remodel the department to accommodate future growth. Construction is planned to begin in 2011.

Emergency Department Visits  
Years 2002 to 2009



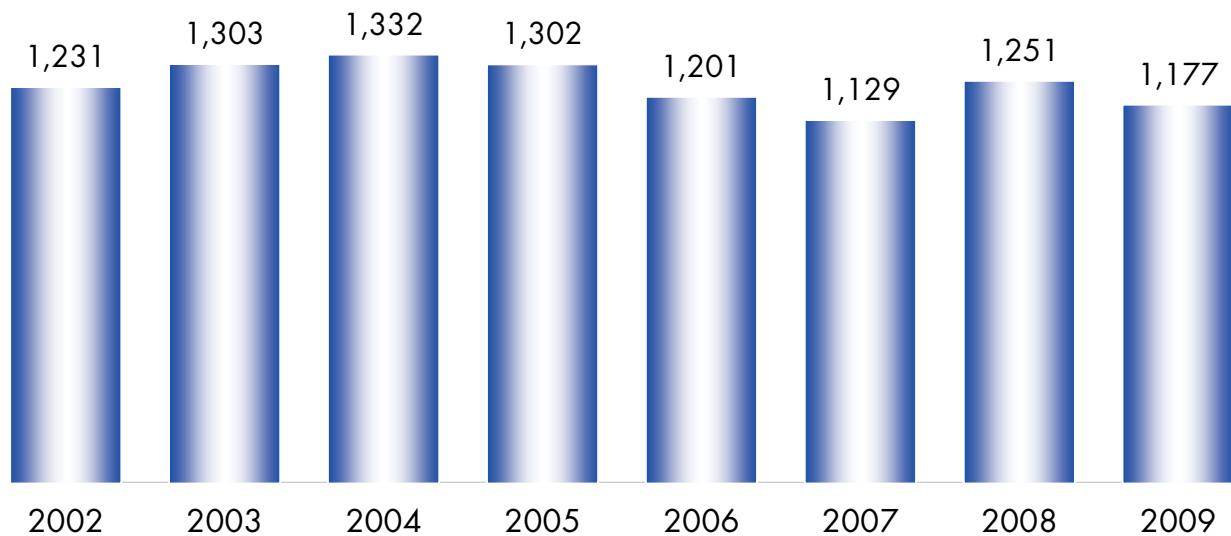
# Volumes

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## Behavioral Health Discharges

As one of the few providers of inpatient behavioral health care on the island of O'ahu, Castle's Behavioral Health unit continues to offer essential services to its community. Volumes dipped slightly in 2009, in part due to the temporary closing of some patient rooms for renovations.

Behavioral Health Discharges  
Years 2002 to 2009



# Volumes

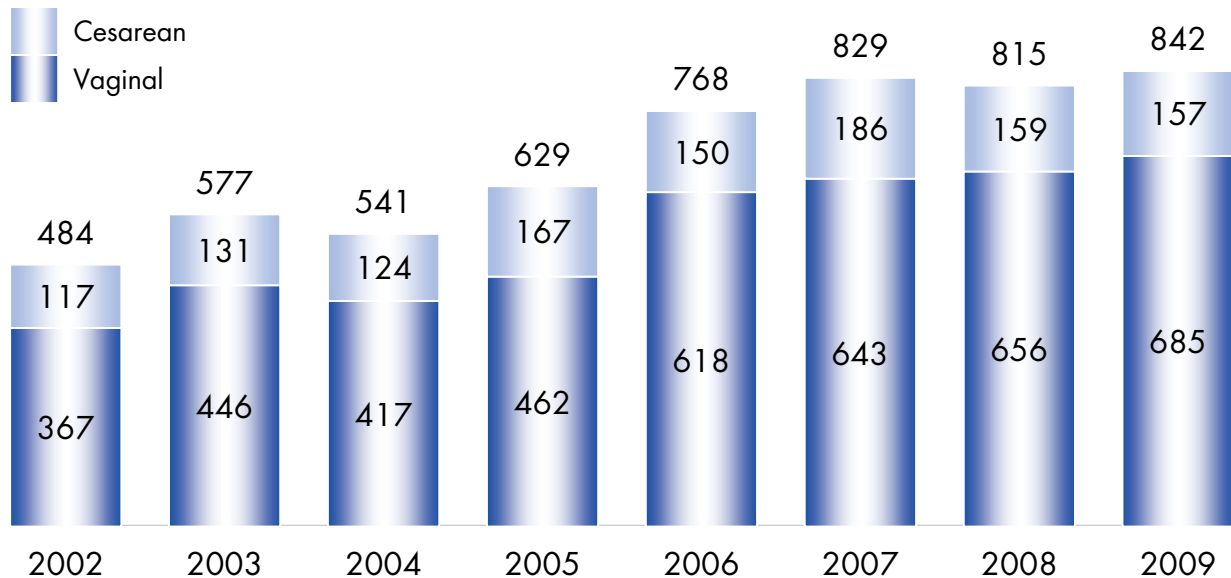
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## Vaginal and Cesarean Section Births

The Vera Zilber Birth Center continues to provide quality birthing options to residents of Windward O'ahu.

During 2009, a comprehensive renovation of the Vera Zilber Birth Center was completed. The increased volume of deliveries is a testament to the appeal of the newly renovated unit, to recent physician recruitment efforts, and to the quality of care delivered by the nursing staff.

## Vaginal and Cesarean Births Years 2002 to 2009



# Volumes

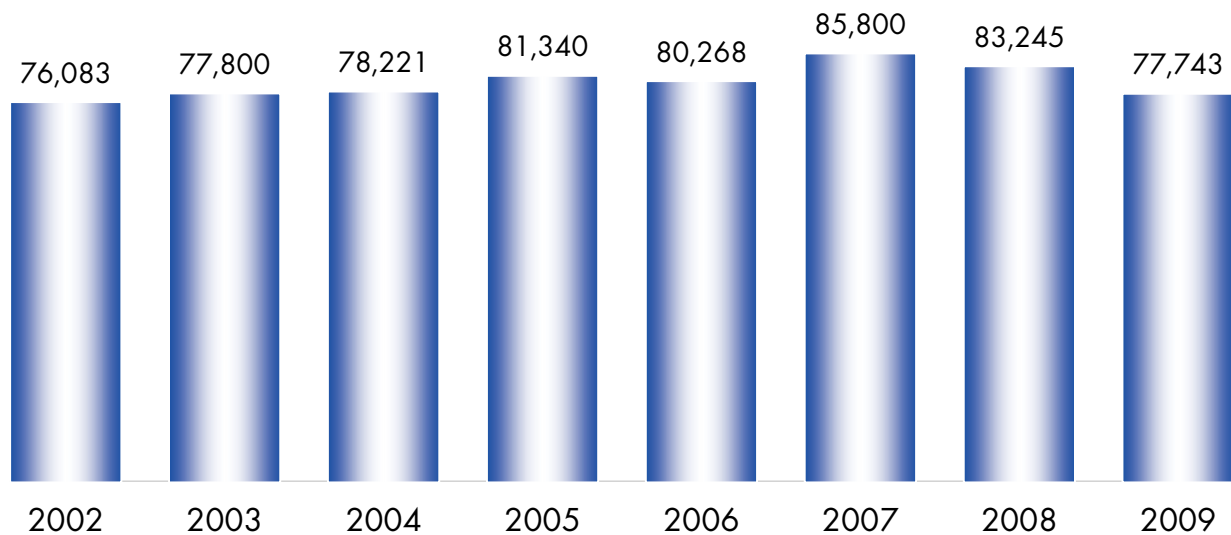
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## Outpatient Visits

This graph represents the number of outpatient visits to the Outpatient Clinic, Outpatient Surgery, Imaging, Cardiopulmonary, Cardiac Cath, Angiography, Laboratory, Rehabilitation, Audiology, Wellness and Lifestyle Medicine, and Home Care.

Various factors contributed to the drop in outpatient visits seen in 2009, including the shift in surgical procedures from the hospital operating room to the new Windward Surgery Center. (To learn more about this facility, please turn to page 41.)

Outpatient Visits (excluding Emergency)  
Years 2002 to 2009





# Volumes

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## Wellness and Lifestyle Medicine Center

During 2009, the Castle Wellness and Lifestyle Medicine Center offered an array of programs that provided inspiration and tools to help build a healthy body, mind, and spirit.

Over 5,100 people from our community participated in the center's programs for a total of 8,876 contacts. These programs included 71 community-based events.

The Adventures in Food & Fitness program for second graders was delivered in collaboration with other community partners at thirteen schools. The Wellness On Wheels van visited farmers' markets, community centers, and special events to offer free health screenings for blood pressure, cholesterol, and asthma, and to display an educational exhibit, "The Art of Living Well...," that focuses on stress management.

The Wellness Center's hospital-based services included group and individual counseling for improving nutrition and fitness, weight management, and smoking cessation. Support groups were also offered for those dealing with cancer, bereavement, and Parkinson's disease, and for the caregivers of loved ones with mental illness.



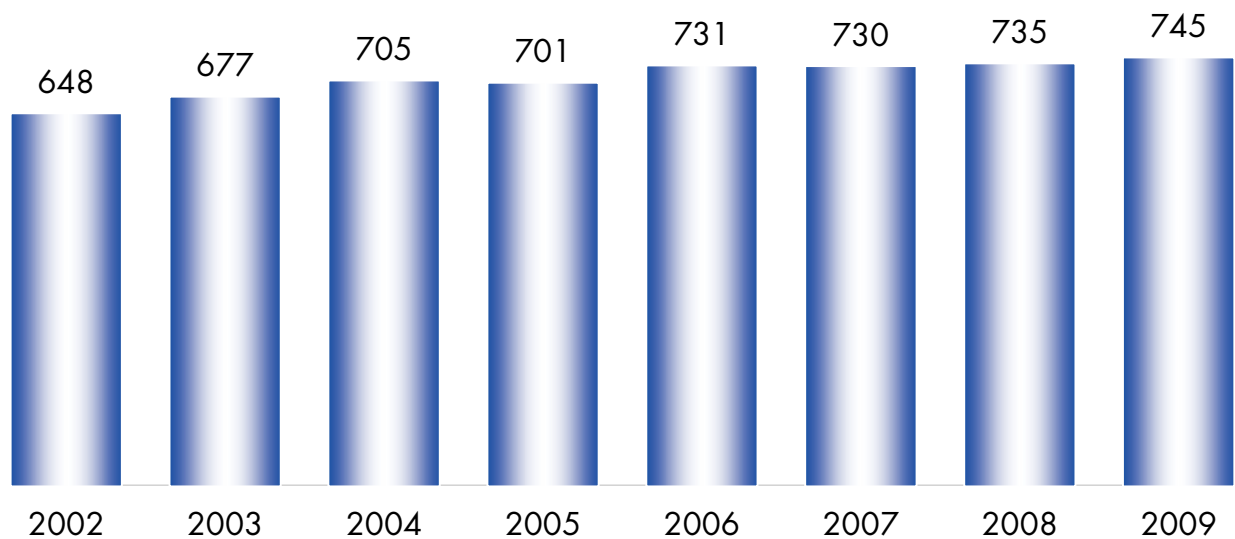
# Volumes

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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 largest non-military employer on Windward O'ahu.

### Total Full-Time Equivalents (FTEs) Years 2002 to 2009



# Staffing

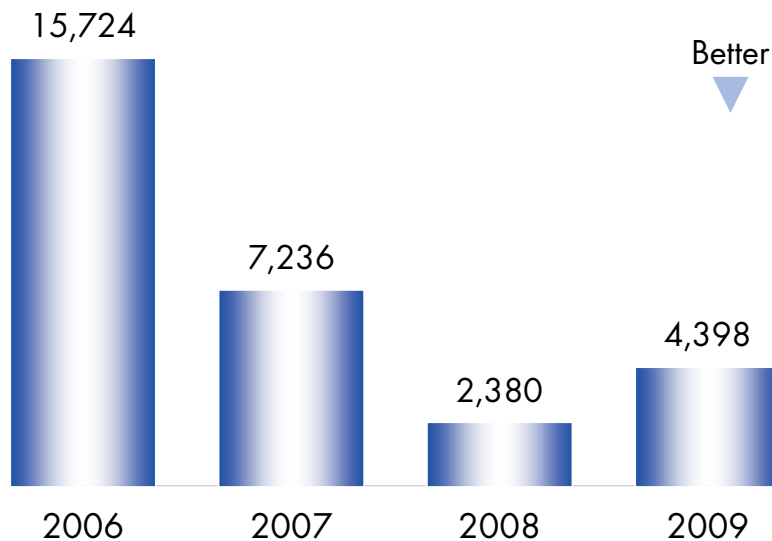
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## Agency Use

For several years, Castle Medical Center has focused on reducing reliance on agency staffing in order to lower costs and improve quality.

In 2009, the use of agency staffing remained low due to improved hiring, lower turnover, continued use of the BidShift rewards program with expanded scheduling of hours, and the continued hiring of new graduates.

Daily Agency Hours  
Years 2006 to 2009



# Quality Improvement Goals for 2009 and Their Results

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## Goal

## Results

Continue efforts to improve performance in recognized evidence-based clinical guidelines for:

- Heart failure (HF)
- Acute myocardial infarction (AMI)
- Community-acquired pneumonia (CAP)
- Surgical Care Improvement Project (SCIP)
- Stroke.

Considerable improvement achieved. Castle scored above the Hawai'i averages for HF, CAP, and SCIP. Efforts to improve all indicators continue.

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Implement the Surgical Safety Checklist recommended by the World Health Organization and the Institute for Healthcare Improvement.

Successfully implemented

---

Continue to improve DVT prophylaxis for stroke patients.

New strategies were implemented in late 2009, with improvement seen.

---

Further reduce patient falls.

Successfully achieved the lowest patient fall rate in Castle's history at 2.2 patient falls per 1,000 patient days.

---

Further improve medication reconciliation.

Successfully achieved 97% in December 2009.

---

Fully implement sepsis bundles.

Successfully implemented.

---

Reduce MRSA infections.

We have not experienced significant improvement in this area, but incidence remains low. We continue to work aggressively to reduce the incidence of MRSA infection.

---

Implement best practices designed to prevent pressure ulcers.

Successfully implemented.

---

Improve patient satisfaction with spiritual care.

Successfully improved in two out of three measures.

# Goals for 2010

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## **Continue efforts to improve performance in recognized evidence-based clinical guidelines for:**

- Heart failure
- Acute myocardial infarction
- Community-acquired pneumonia
- Surgical Care Improvement Project
- Stroke.

## **Improve patient satisfaction for:**

- Inpatient
- Outpatient surgery
- Emergency
- Continuity of care.

## **Improve Home Care clinical outcomes.**

## **Reduce the use of restraints in Behavioral Health Services.**

## **Implement computerized physician order entry (CPOE).**

## **Reduce the incidence of pressure ulcers classified as Stage II and above.**

## **Eliminate catheter-associated urinary tract infections (CAUTIs).**





