

HUMANA MILITARY  
HEALTHCARE SERVICES



MAPPING THE PATIENT EXPERIENCE  
HUMANA MILITARY'S  
CLINICAL QUALITY REPORT CARD

2008





## SERVING THE MILITARY POPULATION



*“ I have been treated with the utmost respect. Everyone I have been in contact with at HMHS is knowledgeable and courteous.”*

*-Comment from a HMHS Beneficiary*

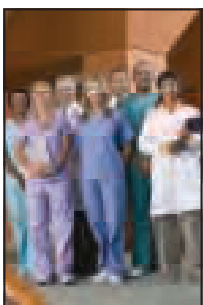
### Serving the Military Population for 12 Years - and Counting!

Humana Military Healthcare Services, Inc. (HMHS) was founded in 1993 to focus on military health care initiatives. It is a wholly-owned subsidiary of Humana Inc., one of the largest and most innovative health insurance companies in the country.

Humana Military has provided health care services to TRICARE Beneficiaries since 1996. Humana Military’s mission is to work collaboratively with our government partners in the delivery of high quality, cost effective, accessible health care services to the military populations we serve. Over the years, Humana Military has been honored again and again for performance excellence in a host of different areas, from the quality of health care services delivered in collaboration with the Department of Defense to communication with its beneficiaries.

In 2004, Humana Military implemented the second generation of the TRICARE program for approximately 2.7 million beneficiaries in the South Region (Arkansas, Alabama, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee and Texas - except the El Paso area).

Humana Military is committed to building on its reputation of excellence. By working collaboratively with military and civilian health care professionals, developing innovative health care solutions, and providing superb customer service, we will administer military health care solutions in the true spirit of partnership with our government partners.



*A beneficiary called to compliment a CBSR for being so nice and polite. Talking to the BSR was like talking to a “friend”*

*- Comment from a HMHS Beneficiary Service Representative (BSR)*

### Why a Health Care Report Card?

In 1999, Congress mandated the Agency for Healthcare Research and Quality (AHRQ) to develop an annual “national quality report on health care delivery”. The Institute of Medicine (IOM) was asked to research and help develop a report that would look at health care quality in the long term, create a design that would allow for annual comparisons, include the continuum of health care settings, and allow for state and regional analysis<sup>(1)</sup>.

This IOM committee recommended the report include two dimensions. The first dimension covers patient safety, effectiveness, patient centeredness and timeliness. The second dimension demonstrates the changing needs of the consumer over their life span and includes prevention, getting better, and living with illness<sup>(1)</sup>.

Using these concepts, HMHS developed this Report Card to objectively evaluate its effort to provide the highest quality care at the most reasonable value. We use health outcome measures that pertain to the TRICARE beneficiary population. The reporting period is calendar year 2007. We looked to respected sources for standard measurement methodologies, benchmarks, and performance goals when appropriate and available. Resources include:

- The National Committee for Quality Assurance (NCQA) State of Healthcare Quality Report, Quality Profiles, and Quality Compass (HEDIS<sup>®</sup> data)
- The Centers for Disease Control (CDC)
- Healthy People 2010
- The Institute for Healthcare Improvement
- AHRQ

According to an article published by RAND Health, health care report cards should include standardized performance measures, such as HEDIS<sup>®</sup>; should be organized into a framework that groups the data by category to increase usability; and should summarize, analyze, and compare the data<sup>(2)</sup>.

## WHY A HEALTH CARE REPORT CARD?

The measures selected are based upon aggregate, organization-wide data and are not physician specific (i.e., these are macro measurements). Seven measures span the two dimensions of health care quality identified by the IOM and also the cost of care:

1. Prevention and Wellness
2. Mental Health
3. Living with Illness
4. Patient Safety & Select Procedures
5. Provider Network
6. Managing Cost
7. Customer Satisfaction and Service

This is the third annual HMHS Report Card. As we gain insight, the Report Card continues to evolve. We again include comparative data for preventive measures and quality indicators for specific diseases, interventions that were implemented and their impact, and new processes we monitor.

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A photograph of a red apple sitting on a medical tray. The tray contains a stethoscope, a syringe, and some papers. The apple is the central focus, symbolizing health and medicine. The background is a light, neutral color.

# Measures of Health Care Quality

## MEASURES OF HEALTH CARE QUALITY



*“A beneficiary called to state that ‘TRICARE is wonderful.’ She had been through radiation and chemotherapy and knowing that her bills were covered made the treatment more bearable.”*

*- Comment from a  
HMHS Centralized  
Beneficiary Service  
Representative  
(CBSR)*

### **Prevention and Wellness**

Chronic preventable diseases account for seven of every ten deaths in the United States <sup>(3)</sup>. Preventive care, reduction of risk factors, and promotion of healthy lifestyles are key strategies in precluding detrimental outcomes from illness and disease. HMHS actively promotes and measures use of preventive health services.

### **Health Awareness Letters (HAL)**

HMHS proactively identifies beneficiaries in need of certain preventive services by utilizing a unique HAL system which reminds TRICARE network Prime enrollees and primary care managers (PCMs) of prevention and wellness recommendations. These letters communicate preventive health service recommendations based on the U.S. Preventive Services Task Force, the American Academy of Pediatrics, the American Academy of Family Physicians, and the Centers for Disease Control and Prevention. The letters provide recommendations for the identified age and gender groups, and provide safety tips for beneficiaries.

Six months after the beneficiary mailings, claims data are used to determine if preventive services have been rendered. If not, a letter to the beneficiary’s PCM is generated advising that these important preventive services have not been reported, and requesting that the PCM follow up with the beneficiary.

We believe our proactive approach to prevention and wellness recommendations increases both awareness and utilization of these important services.

In 2007 HMHS mailed 257,950 beneficiary letters and 77,436 PCM letters.

### **Measuring Select Preventive Services**

According to the U.S. Centers for Disease Control and Prevention (CDC), cardiovascular disease is the leading cause of death in the United States with deaths attributable to cancer ranked number two <sup>(4)</sup>. Based on this information and the availability of data, the following preventive health services were selected for evaluation:

- Breast Cancer Screening
- Cervical Cancer Screening
- Colorectal Cancer Screening
- Cholesterol Screening

Adherence by TRICARE Prime enrollees to recommended standards of care is measured from administrative claims using HEDIS<sup>®</sup> definitions <sup>(5)</sup>. Adherence rates are understated due to the absence of data for preventive services rendered in military treatment facilities (MTFs).

### **Breast Cancer Screening**

According to the American Cancer Society (ACS), in 2008 approximately 182,460 women will be diagnosed with breast cancer in the United States. Women in the United States have a 1:8 risk of developing invasive breast cancer in their lifetime <sup>(6)</sup>.

Mammography is the best modality to find breast cancer at early stages and can detect 80 - 90% of breast cancers in women with no symptoms <sup>(7)</sup>. Death rates from breast cancer are decreasing, most probably due to earlier detection and treatment improvements <sup>(7)</sup>.

## MEASURES OF HEALTH CARE QUALITY

### *Data Parameters and Limitations*

This measure is the percentage of Network Prime enrolled women 40 - 69\* [HEDIS® ages] <sup>(5)</sup> who received a mammogram during the measurement year or year prior. HMHS data are from claims for women ages 42 - 64 years old as of December 31 of the measurement year; age 64 is used due to the HMHS beneficiary population, which excludes Medicare eligible persons.

<b>2007 HMHS Breast Cancer Screening Rate</b>	<b>= 61.9%</b>
<b>2006 HMHS Breast Cancer Screening Rate</b>	<b>= 61.9%</b>
<b>2005 HMHS Breast Cancer Screening Rate</b>	<b>= 56.7%</b>
<b>NCQA Quality Compass (QC) 2008 <sup>(8)</sup> mean Benchmark *</b>	<b>= 63.5%</b>
<b>NCQA QC 25<sup>th</sup> and 75<sup>th</sup> percentiles</b>	<b>= 61.8% - 66.2%</b>

\*NCQA South Central region compares well in geographic distribution to the TRICARE South Region; it includes Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas. Therefore, these benchmarks are representative of the population we serve <sup>(9)</sup>.

### **Cervical Cancer Screening**

The incidence of cervical cancer and its mortality rate have decreased by 74% in the past 37 years <sup>(10)</sup>. This is due primarily to increased awareness and adherence to screening for cervical cancer using a Papanicolaou Test (Pap smear). Despite increased awareness regarding the importance of screening for cervical cancer, sixty to eighty percent of women with advanced cervical cancer have not had a Pap smear in five years <sup>(11)</sup>. The ACS estimates 11,070 new cases of invasive cervical cancer in 2008 <sup>(12)</sup>. Pap screening detects over 90% of cervical lesions and also detects abnormal cells that may become cancerous. With early detection and treatment, the cure rate for cervical cancer is nearly 100% <sup>(10)</sup>.

### *Data Parameters and Limitations*

Screening rates are for women ages 21 - 64, enrolled in Network Prime, with at least one Pap smear in the last 3 years.

<b>2007 HMHS Cervical Cancer Screening Rate</b>	<b>= 63.9%</b>
<b>2006 HMHS Cervical Cancer Screening Rate</b>	<b>= 61.4%</b>
<b>2005 HMHS Cervical Cancer Screening Rate</b>	<b>= 49.4%</b>
<b>NCQA QC 2008 mean Benchmark South Central Region <sup>(8)</sup></b>	<b>= 74.3%</b>
<b>NCQA QC 25<sup>th</sup> and 75<sup>th</sup> percentiles</b>	<b>= 69.0% - 79.4%</b>

Based on the low rate of adherence for cervical cancer screening in 2005, HMHS implemented a quality improvement initiative that notifies providers of beneficiaries in need of services. Although still below benchmark, our rates have increased significantly year over year.

### **Colorectal Cancer Screening**

According to 2004 CDC data, colorectal cancer ranks fourth in cancer incidence in the United States and primarily affects those age 50 and older <sup>(13)</sup>. Decreasing the number of deaths from colorectal cancer depends on early detection, removing precancerous polyps, and early treatment. Regular screening could decrease mortality by 60%, yet less than 40% percent of colorectal cancers are detected early enough for effective treatment <sup>(14)</sup>. When colorectal cancer is found and treated early, the 5 year survival rate is 90 percent; unfortunately, only 39% of cases are identified at an early stage <sup>(10)</sup>.

### *Data Parameters and Limitations*

Percentage of Network Prime enrolled adults ages 51 - 64 receiving one or more colorectal cancer

## MEASURES OF HEALTH CARE QUALITY

screenings within recommended time periods [HEDIS® ages 51 - 80]. Appropriate screenings are any one of the following four procedures:

- Fecal Occult Blood Test
- Flexible Sigmoidoscopy - within the last 5 years
- Double Contrast Barium Enema - within the last 5 years
- Colonoscopy - within the past 10 years

This preventive measure requires 5 to 10 years of data and medical record review to sufficiently capture all the appropriate screening measures. Our rate reflects just 38 - 41 months of data and only includes administrative claims data. We anticipate this rate will increase in the coming years with additional data and the expanded TRICARE benefit to include colonoscopy screening.

<b>2007 HMHS Colorectal Cancer Screening Rate for all Indicators</b>	<b>= 37.7%</b>
<b>2006 HMHS Colorectal Cancer Screening Rate for all Indicators</b>	<b>= 24.0%</b>
<b>2005 HMHS Colorectal Cancer Screening Rate for all Indicators</b>	<b>= 24.0%</b>
<b>NCQA QC 2008 mean Benchmark South Central Region <sup>(8)</sup></b>	<b>= 45.1%</b>
<b>NCQA QC 25<sup>th</sup> and 75<sup>th</sup> percentiles</b>	<b>= 39.6% - 49.8%</b>

Last year we added screening for colorectal cancer to our HAL program. In addition to beneficiaries being notified of preventive services, providers are notified of beneficiaries who may be in need of screening for colorectal cancer. Our rate has increased significantly from 2006 to 2007.

*A beneficiary called to compliment a CBSR for exceptional customer service and stated she was grateful she spoke with a well trained individual who took the time to answer all her questions in a professional manner. She just wanted to say "thank you" for the great service.*

*- Comment from a HMHS CBSR*

### Cholesterol Screening

Elevated cholesterol is a significant risk factor for cardiovascular disease (CVD). The American Heart Association estimates that nearly 106.7 million adults have total cholesterol levels of over 200 (milligrams per deciliter, or, mg/dL). Nearly 37.2 million of these adults have cholesterol levels of 240 and above <sup>(15)</sup>.

Screening for cholesterol is critical in identifying this cardiovascular risk factor. Much can be done to prevent and treat high cholesterol <sup>(16)</sup>. Although CVD remains the number one cause of death in the U.S., according to the American Heart Association, there has been a decline in the death rate from CVD due to positive changes in behavior and lifestyle <sup>(17)</sup>. Modifications in lifestyle can impact cholesterol levels. Eating a healthy diet, reducing the saturated fats and cholesterol in the diet, maintaining a healthy weight, and increasing physical activity can significantly influence cholesterol. Medications also effectively lower cholesterol.

#### Data Parameters and Limitations

Percentage of Network Prime enrolled adults ages 18 - 64 with evidence of at least one cholesterol screening test during the recommended period. Measuring the cholesterol screening rate requires five years of data. Because data are available for only 38 - 41 months this is not an accurate reflection of adherence for this measure at this time. We anticipate this rate will increase over time with additional data.

<b>2007 HMHS Cholesterol Screening Rate</b>	<b>= 57%</b>
<b>Benchmark utilized = Healthy People 2010 baseline</b>	<b>= 67%</b>
<b>Healthy People 2010 target</b>	<b>= 80%</b>

We have no comparative measure for 2005 or 2006.

## MEASURES OF HEALTH CARE QUALITY

### Influenza Immunizations

Each year, more than 200,000 people are hospitalized in the United States for illnesses related to influenza (flu) infections; according to the CDC, this number is trending upward. The flu is a contagious respiratory infection and sometimes causes serious, life-threatening complications in certain individuals. To reduce chances of getting the flu, the CDC recommends an annual influenza immunization <sup>(18)</sup>.

In an effort to raise awareness of the importance of receiving an influenza immunization, HMHS developed a multi-pronged media approach to reach our population. Interventions included the following:

- HMHS Web site - Flu Shot message and links added to humana-military.com
- Telephone Hold recordings included Flu message
- TRICARE Service Centers displayed and distributed:
  - "Beat the Bug - Get Your Flu Shot - Ask Me How" buttons for associates
  - 11"x17" flu immunization posters
  - CDC handouts "Who is at high risk..."
- Email messages to Prime households with available e-mail addresses (155,365)
- One-time automated outbound calls to 670,456 Prime households
- Mail stuffer included in all claims explanation of benefits
- Articles placed in Disease Management Newsletters

### Data Parameters and Limitations

Percentage of Network Prime enrollees, ages 0 - 64, with evidence of an influenza immunization during the measurement period (10/1/07 - 3/31/08). Many influenza immunizations were likely obtained through health departments and retail settings; they are not captured in these claim counts. We could find no national benchmark data on rate of influenza immunization in overall U.S. population.

**2007 - 2008 HMHS Influenza Immunizations** = 12.35%  
 2006 - 2007 HMHS Influenza Immunizations = 9.70%

Our rate of immunizations for Network Prime enrollees increased by 2.65 percentage points; this reflects an overall increase of 27.32%. Based on this success, HMHS will continue this initiative for the 2008 - 2009 flu season.

### Adherence to Select Preventive Services

Preventive Service	2005 Percent Adherence**	2006 Percent Adherence**	2007 Percent Adherence**	Mean Benchmark	NCQA 25 <sup>th</sup> and 75 <sup>th</sup> Percentiles
Breast Cancer Screening	56.7%	61.9%	61.9%	63.5%	61.8% - 66.2%
Cervical Cancer Screening	49.4%	61.4%	63.9%	74.3%	69.0% - 79.4%
Colorectal Cancer Screening	24.0%	24.0%	37.7%	45.1%	39.6% - 49.8%
Cholesterol Screening	N/A*	N/A*	57.0%	67%	N/A
Influenza Immunizations	N/A	9.7%	12.4%	N/A	N/A

\*Change in methodology – 2006 comparison not applicable

\*\* Omits services rendered in Military Treatment Facilities, public clinics, and retail settings.

## MEASURES OF HEALTH CARE QUALITY

Screening rates for cervical cancer continue to increase year over year. Our breast cancer screening rate is within the NCQA 25<sup>th</sup> and 75<sup>th</sup> percentiles. The long look-back periods for cholesterol (five years) and colorectal screening (10 years) affect our measures. To address the static rate from 2005 to 2006 in colorectal screening, in 2007 we added screening for colorectal cancer to the HAL Program. Although still below benchmark, our rate of adherence for this measure has increased significantly between 2006 and 2007. The flu immunization initiative netted an appreciable increase in our influenza immunization rate; we will continue this initiative in 2008.

It is of interest to note that our screening rates for the HEDIS<sup>®</sup> preventive measures continue to rise; although, the Quality Compass mean benchmarks for the South Central Region have decreased from 2006 to 2007 for breast cancer, cervical cancer, and colorectal cancer screening.



### Mental Health

#### **Thirty-Day Acute Readmission Rate**

The Substance Abuse and Mental Health Services Administration (SAMHSA) includes *Reduced Utilization of Psychiatric Inpatient Beds* as an area of focus. SAMSHA recognizes 30 day psychiatric inpatient readmission rates as a measure in this domain <sup>(19)</sup>.

This measure provides an indicator of appropriateness of care immediately after discharge. A higher level of readmission may require increased network recruitment in certain areas or additional facility education on appropriate discharge planning. When individual facilities or geographic areas have high readmission rates, partnering with facilities may be needed to assist with discharge planning. Case Management may be needed to assist high risk patients in accessing care.

Our annual average rate for 30-day readmissions in 2007 was 10%. The rate in 2006 was 11%. This decrease in readmissions may be causally related to greater clinical stability at discharge, a significant focus on case management, and appropriate discharge planning during 2007.

This is a retired HEDIS<sup>®</sup> measure, and additional benchmark data are not available. ValueOptions is the HMHS subcontractor for mental health services in the South Region. The ValueOptions Corporate benchmark of 10% was established from the collection and analysis of data across all ValueOptions' service centers nationwide. The annual nationwide average is 9.1% <sup>(19)</sup>.

#### ***Data Parameters and Limitations***

This measure includes all non active duty TRICARE Network Prime enrolled beneficiaries, regardless of age, with a discharge from an authorized acute psychiatric inpatient admission.

#### **Anorexia Nervosa**

Anorexia nervosa is a mental health diagnosis for an eating disorder characterized by low body weight and body image distortion, with an obsessive fear of gaining weight. It is a serious, potentially life threatening condition due to behaviors of self-starvation and excessive weight loss. Anorexia nervosa has one of the highest death rates of any mental health diagnosis, with 5 - 20% of cases resulting in death <sup>(20)</sup>.

Approximately 90 - 95% of anorexia nervosa sufferers are female and the condition typically surfaces in early to mid-adolescence <sup>(21)</sup>.

Anorexia nervosa involves neurobiological, psychological, and sociological components <sup>(22)</sup>. Due to these complexities, treatment requires coordination across mental health and medical disciplines. It has been

## MEASURES OF HEALTH CARE QUALITY

*A Case Management nurse was following a beneficiary suffering from a serious medical condition. Through the assessment, it was discovered this beneficiary had a small child with autism. After receiving consent from the parent, the family and child were referred to the ECHO case manager. The family was contacted and educated on the ECHO program and benefits, including ABA (Applied Behavioral Analysis) therapy. The nearest certified ABA was over 300 miles away. The case manager contacted this provider and the provider agreed to travel the 300 miles to assess the child. The therapist developed a treatment plan that incorporated education for the family, the child's speech therapist and preschool teacher. Shortly after treatment began, the family noted immediate results in verbal communication, behavior, and attention.*

proven that individuals are best served with a multi-disciplinary team approach, including a psychologist or psychiatrist, a registered dietician or nutritionist, and a primary care practitioner or nurse practitioner.

ValueOptions, in an effort to improve health outcomes of individuals with anorexia nervosa, implemented an intensive Case Management (CM) program. This program offers an intense process for early identification, intervention, and coordination of treatment using a team approach. Individuals identified for intervention received initial screening to gather pertinent information, such as height and weight, available lab results, and a standardized eating disorder assessment tool.

These individuals were then referred to providers with experience and training in eating disorders. These providers have been strongly encouraged to utilize the American Psychiatric Association (APA) guidelines in order to promote consistency and evidence based practice in treatment. Longer acute inpatient stays were authorized in order to improve health status and stability post-discharge and to decrease recidivism.

ValueOptions identified and tracked thirty-seven (37) individuals over the course of calendar year 2007. Of the 37 individuals enrolled in the CM program, significant weight gain was achieved by 36. One individual not gaining weight left the acute inpatient phase of treatment early. Only two (2) of the 37 individuals were readmitted and both of these individuals had a long history of this condition with multiple hospitalizations. One individual was able to return to public school after a year of no attendance in any type of school setting.

Overall, beneficiaries participating in the CM program increased their weight from the pre to post-intervention measurement by 15%. Feedback from these individuals supports ValueOptions' hypothesis that intensive CM intervention can impact health outcomes and promote a better quality of life. Based on these positive outcomes ValueOptions will continue this CM program for calendar year 2008.

### ***Data Parameters and Limitations***

All eligible Prime beneficiaries identified with a diagnosis of Anorexia Nervosa and agreeing to participate in the intensive CM program during calendar year 2007.



## **Living with Illness**

### **Diabetes Mellitus**

Diabetes is the seventh leading cause of death in the U.S. and affects over twenty-three million persons; approximately 8% of the population<sup>(23)</sup>. Type 2 diabetes has a rising incidence and prevalence due to obesity, sedentary lifestyle, consumption of foods high in fat and refined carbohydrates, and the aging population<sup>(24, 25)</sup>.

Persons with both type 1 and type 2 diabetes are at increased risk for cardiovascular disease, kidney disease, neuropathy, and retinopathy caused by macro and micro vascular complications associated with this disease<sup>(26)</sup>. Progression to the complications and co-morbid conditions associated with diabetes can be delayed and may be prevented by strict adherence to treatment guidelines.

## MEASURES OF HEALTH CARE QUALITY

*“A beneficiary complimented her Diabetes Disease Management Nurse by stating, ‘God Bless you for calling me and helping me.’ The nurse had provided education and support to the beneficiary regarding her diabetes care.”*

*- Comment from a HMHS Disease Management Nurse*

Maintaining good blood glucose levels is critical to the management of diabetes.

Glycosylated hemoglobin (A1C) is a laboratory test that measures the average level of blood glucose over the prior 2–3 months. Expert consensus recommends A1C testing twice a year, and more often if control of blood glucose is not achieved <sup>(27)</sup>.

Associated with the rise in the diabetic population is an increased risk for diabetic kidney (renal) disease. Approximately 10% to 40% of all diabetics develop end-stage renal disease (ESRD) <sup>(28)</sup>. Diabetic kidney disease is the leading cause of ESRD in the U.S. and in many cases can be delayed or prevented by good glycemic control <sup>(29)</sup>. According to the 2008 American Diabetes Association (ADA) guidelines, screening to assess urine albumin excretion to detect kidney disease in type 2 diabetics should begin at initial diagnosis and continue annually thereafter <sup>(27)</sup>.

Because persons with diabetes tend to have increased lipid abnormalities, they are at greater risk for cardiovascular disease. Studies have shown that good lipid management helps reduce macro vascular complications associated with diabetes. The ADA recommends that adults with diabetes be tested at least annually for lipid disorders <sup>(27)</sup>.

Retinopathy is a common micro vascular complication seen in the diabetic population and the leading cause of blindness in adults 20 - 74 years of age. Good control of diabetes and its co-morbid conditions; e.g., hypertension, can reduce the risk and progression of retinopathy associated with diabetes. The ADA recommends that all persons with diabetes have a dilated eye exam at onset of diagnosis, annually thereafter, and more frequently if progression of retinopathy is noted <sup>(27)</sup>.

Diabetes is a lifelong condition and appropriate care is dependent upon prevention of secondary complications. Although there is no cure for diabetes, much can be done to delay and even prevent the progression to the catastrophic complications caused by uncontrolled diabetes.

To help manage this population, HMHS launched the diabetes disease management program mid 2007. This program monitors beneficiary compliance with A1C, eye screening exams, medication, diet, and many other factors influencing diabetics.

The primary nurse reviews beneficiary compliance, updates their current status, monitors trends and biometric data. The nurse uses each contact to educate the beneficiary on identified problems and works toward mutually agreed upon goals. Using tools approved by the Department of Defense, the nurse provides guidance on medication adherence, long term effects of the disease, signs and symptoms, when to call the doctor and questions to ask. Healthy lifestyle changes such as good nutrition, exercise, and smoking cessation are encouraged.

### ***Data Parameters and Limitations***

The percentage of Network Prime enrolled beneficiaries with a diagnosis of diabetes, ages 18 - 64, who received an appropriate diabetic screening test during the measurement year. In addition to claims data, we now include pharmacy data in our evaluation of this indicator. We do not include care rendered in the MTF. In 2006, NCQA significantly changed their methodology for identifying “medical attention for nephropathy”; appreciably increasing the mean benchmark. This reporting period, we have adjusted our criteria to closely emulate the NCQA HEDIS<sup>®</sup> criteria. Many of the screening elements can only be identified through medical record review. As our data only reflect claims and pharmacy information, the NCQA benchmark is not entirely applicable to HMHS findings.

## MEASURES OF HEALTH CARE QUALITY

### Adherence to Diabetic Indicators of Care

Preventive Indicator	2005 Percent Adherence	2006 Percent Adherence	2007 Percent Adherence	NCQA Mean Benchmark <sup>(8)</sup>	NCQA 25 <sup>th</sup> and 75 <sup>th</sup> Percentiles <sup>(8)</sup>
Eye Screening	N/A*	36.4%	39.4%	37.8%	30.9% - 45.7%
A1C	76.5%	73.0%	73.2%	81.6%	76.5% - 87.8%
LDL-C	79.4%	81.4%	81.7%	77.1%	72.7% - 83.9%
Attention for Nephropathy	N/A	N/A	71.6%	70.3%	59.4% - 80.8%

\*Change in our methodology renders 2005, 2006 comparison not applicable.

Screening for A1C remains slightly less than benchmark. Though these findings may reflect missing encounter data from MTFs, they may represent opportunities for improvement. Based on the 2005 Report Card results, HMHS implemented a letter notification process to those diabetic beneficiaries with no evidence of nephropathy screening. These educational letters include appropriateness of screening for A1C, LDL-C, nephropathy, and retinopathy. PCMs were also notified of those beneficiaries who may be in need of nephropathy screening. Our rates for eye screening and LDL-C have increased year over year, and our rate for attention for nephropathy has reached the mean benchmark. Based on the success of this educational initiative, HMHS will continue this effort to sustain and increase these screening indicators.

### Heart Failure

Heart Failure (HF) is one of the major chronic medical conditions in the United States. According to the National Heart, Lung, and Blood Institute, the prevalence of HF in the United States is approximately five million persons or about 1 in 56. Nearly 1.5 million of these persons are under age 60. Heart failure is twice as likely to occur in persons with hypertension and five times as likely in those who have experienced a myocardial infarction <sup>(30)</sup>.

Heart Failure generally occurs because the heart cannot effectively pump enough oxygenated blood throughout the body, causing fluid to build up in tissues. This fluid, combined with decreased oxygen in the blood, causes breathlessness, fatigue, and swelling <sup>(31, 32)</sup>.

One of the mainstays in managing HF is the use of medications called angiotensin converting enzyme inhibitors (ACEI) and angiotensin II receptor blockers (ARBs) <sup>(33)</sup>. These drugs have been shown to reduce morbidity and mortality in HF <sup>(34, 35, 36)</sup>.

Because persons with HF are already compromised, they are at increased risk for influenza and pneumonia and more susceptible to complications associated with these illnesses <sup>(37)</sup>. Vaccinations against flu and pneumonia help prevent these illnesses. According to a study published in 1996, there was a 28.6% reduction in hospitalizations for HF and a 45% reduction in deaths in persons receiving the influenza vaccination <sup>(38)</sup>.

Heart Failure is one of the most frequently selected conditions for Disease Management; these programs have been effective in reducing admissions and emergency room visits in addition to increasing the quality of life of the participants. The primary focus of disease management is to slow the progression of HF.

Persons enrolled in the HMHS HF disease management program are surveyed for use of ACEI or ARB

## MEASURES OF HEALTH CARE QUALITY

and vaccination for flu and pneumonia. Every time the disease management nurse interacts with the beneficiary, she/he has an opportunity to educate the beneficiary.

### *Data Parameters and Limitations*

The percentage of Network Prime enrolled beneficiaries with a diagnosis of heart failure ages, 18 – 64, who were dispensed a prescription of ACEI or ARB (based on pharmacy data obtained from the PDTS file). Research could find no national rate of use for ACEI or ARB for persons with heart failure. The Joint Commission found 85.6% of patients discharged from a hospital with heart failure had a written prescription for an ACEI or an ARB <sup>(39)</sup>. An article posted in the Journal of the American College of Cardiology, found only 81% of patients with heart failure, discharged with a written prescription for an ACEI or ARB, had their prescription filled <sup>(40)</sup>. This translates to approximately 69% of heart failure patients discharged from a hospital who actually filled a prescription. Our data reflects actual prescriptions filled for all prime enrolled beneficiaries with a diagnosis of heart failure.

### Adherence to ACEI/ARB

Measure	2005 Percent Adherence	2006 Percent Adherence	2007 Percent Adherence	Estimated National Rate
HF - ACEI and/or ARB	N/A	N/A	68.7%	69.3%

The estimated national rate most likely reflects a higher acuity of heart failure as these patients were discharged from a hospital. Our rate reflects all prime enrolled beneficiaries with a diagnosis of heart failure who had a prescription filled; their acuity level is most likely lower as it includes persons not admitted to the hospital.

### **Asthma**

Asthma is a chronic disease affecting the airways and is characterized by coughing, wheezing, and shortness of breath. According to the CDC, approximately 7.7% of the U.S. population, or 22 million persons, have asthma <sup>(41)</sup>. Achieving good control is the primary goal of asthma treatment to help control or prevent morbidity and mortality <sup>(42)</sup>.

Asthma significantly disrupts lifestyle causing missed work, school absenteeism, limitations on physical and sports activities, sleep disruption, unscheduled doctor visits, emergency room visits, and unplanned hospitalizations. Asthma accounts for almost 13 million days missed from school and over 10 million work days missed among adults <sup>(41, 43)</sup>. Asthma can be life threatening if not properly treated.

The National Asthma Education and Prevention Program has identified key clinical activities in caring for asthma. Part of routine care and evaluation of asthma is assessment of airway function. The best method for evaluation is spirometry testing, which measures how much and how fast air can be exhaled. Pharmacotherapy of choice for persons with persistent asthma is use of long-term controller medication; preferably, inhaled corticosteroids. These medications are effective because they reduce the inflammation associated with asthma. Additionally, development of a written action plan between the health care provider and the patient should be an integral part of asthma management <sup>(44)</sup>.

HMHS implemented a disease management program for asthma in September 2006. One of the mainstays of asthma treatment is to control the symptoms. When HMHS disease management nurses interact with

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beneficiaries, they have the opportunity to assess their symptoms and provide education on specific topics. Below are three indicators used to evaluate the effectiveness of the Asthma Program.

Measure*	Baseline	Post-enrollment	Benchmark
2007 HMHS Asthma DM Program Spirometry Testing Rate	81.6%	85.5%	N/A
2007 HMHS Asthma DM Program Action Plan Adherence	26.3%	46.9%	N/A
2007 HMHS Asthma DM Program Long Term Controller Rx Use	66.8%	99.2%	N/A

\*These data come from beneficiary self-reporting.

### Data Parameters and Limitations

We measure the percentage of beneficiaries enrolled in the HMHS Asthma disease management program that receive recommended care for spirometry testing, use of an action plan, and use of long term controller medication.



## Patient Safety: Adverse and Never Events and Monitoring of Select Procedures

### Adverse and Never Events

Patient safety is defined by the IOM as “avoiding injuries to patients from care that is intended to help them”<sup>(1)</sup>. In 2000, the IOM identified medical errors as the 8th leading cause of death in the U.S., with more people dying each year from medical errors than from highway accidents, breast cancer, or AIDS<sup>(45)</sup>.

The IOM has called for the establishment of a standardized and mandatory reporting system to allow for comparisons and trending over time. Medical errors can occur at any point in the health care delivery system. AHRQ classifies errors as follows: medication errors, surgical errors, diagnostic inaccuracies, and system failures<sup>(45)</sup>.

The Centers for Medicare and Medicaid Services (CMS) is exploring ways to reduce and prevent serious, costly medical errors - Never Events. The National Quality Forum (NQF) defines Never Events as “errors in medical care that are clearly identifiable, preventable, and serious in their consequences for patients, and that indicate a real problem in the safety and credibility of a health care facility”<sup>(46)</sup>. Beginning October 2008, CMS will begin recoupment for eight identified Never Events that are not present on admission. The identified list includes<sup>(47)</sup>:

- Object inadvertently left in after surgery
- Air embolism
- Blood incompatibility
- Catheter associated urinary tract infection
- Decubitus ulcer
- Vascular catheter associated infection

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- Mediastinitis after coronary artery bypass graft surgery
- Certain types of falls and trauma (it is not possible to identify falls within an inpatient facility from claims data)

For this Report Card, HMHS has chosen to report on seven of the eight CMS Never Events; additionally, we report on accidental punctures and lacerations. Although HMHS monitors for falls within a facility, CMS acknowledges there is no method to accurately code claims data for this measure and that falls may or may not be preventable. Therefore, we have elected not to report on this measure.

*A beneficiary, who had been very stressed because he is a kidney transplant patient, called to compliment a CBSR for exceptional customer service. He stated he had read materials on-line but still did not understand. After speaking with the BSR, he now understands all his enrollment options.*

*- Comment from a HMHS CBSR*

### Accidental Puncture and Laceration

Accidental puncture and laceration is described by AHRQ as ‘technical difficulty’ while performing a procedure. Reporting may be variable for two reasons; provider reluctance to report for fear of disciplinary actions, and the concern that some punctures are not preventable, for example during laparoscopic procedures.

#### Data Parameters and Limitations

Network Prime enrolled beneficiaries, age 18 - 64, discharged from a hospital with a diagnosis identifying accidental puncture. The AHRQ incidence includes those over age 64. Rates are expressed per 100,000 per year.

**HMHS Accidental Puncture Rate** = 45.5  
*Incidence rate utilized – AHRQ (2004) <sup>(48)</sup>* = 47.9

### Infections Related to Medical Care

This indicator measures infections due to medical care; primarily, infections related to vascular access devices.

#### Data Parameters and Limitations

Prime enrolled beneficiaries, ages 0 - 64, discharged from a hospital with select diagnostic codes for infection in any diagnostic field on a claim form. The AHRQ incidence includes those over age 64. Rates are expressed per 100,000 per year.

**HMHS Medical Care Infection Rate** = 16.3  
*Incidence rate utilized - AHRQ (2004) <sup>(48)</sup>* = 30.8

### Retained Foreign Body

This indicator monitors the number of discharges from an inpatient facility with a foreign body; e.g., a retained sponge, accidentally left in following a procedure.

#### Data Parameters and Limitations

Network Prime enrolled beneficiaries with a discharge from a hospital with select diagnostic codes for foreign body in any diagnosis field on a claim form. This measure applies to persons age 18 - 64. The AHRQ incidence includes those over age 64. Rates are expressed per 100,000 per year.

**HMHS Foreign Body Rate** = 0.3  
*Incidence rate utilized - AHRQ (2004) <sup>(48)</sup>* = 1.5

### Mediastinitis Following CABG

Mediastinitis is a rare but serious, preventable infection that may occur following coronary artery bypass

## MEASURES OF HEALTH CARE QUALITY

graft (CABG) surgery<sup>(49)</sup>. This indicator monitors the number of discharges from an inpatient facility with a diagnosis of mediastinitis following a CABG procedure.

### **Data Parameters and Limitations**

Network Prime enrolled beneficiaries with a discharge from a hospital with select diagnostic codes for mediastinitis following CABG in any secondary diagnosis field on a claim form. This measure applies to persons age 18 - 64. Although research could find no national incidence rate, several studies have shown the percentage of patients identified with mediastinitis following CABG is approximately 1.25%<sup>(49)</sup>.

**HMHS Mediastinitis Rate** = 0.0%  
**Mediastinitis Rate per CABG procedure** = 1.25%

### **Air Embolism**

An air embolism is the introduction of air into a blood vessel following surgery, which can be life-threatening. Air embolism is referred to as a serious reportable event which should not be expected to occur during a hospital admission<sup>(50)</sup>. This indicator monitors the number of discharges from an inpatient facility identified with an air embolism following a surgical procedure.

### **Data Parameters and Limitations**

Network Prime enrolled beneficiaries with a discharge from a hospital with select diagnostic codes for air embolism in any secondary diagnosis field on a claim form. This measure applies to persons age 18 - 64. Research found no national incidence rate. Per CMS, this event is extremely rare; in FY2006, there were only 45 reported cases among Medicare patients<sup>(50)</sup>. Rates are expressed per 100,000 per year.

**HMHS Air Embolism Rate** = 0.0  
**CMS Air Embolism Rate** = 0.1  
(45 incidents per yr/ 39,210,604 Medicare beneficiaries<sup>(51)</sup>)

### **Blood Incompatibility**

AHRQ defines transfusion reaction as a reaction to blood or blood by-products after a blood transfusion<sup>(52)</sup>. Reactions, due to hypersensitivity, occur in one to two percent of transfusions. However, reactions also occur as a result of errors on the part of health care workers in the administration of blood products or in the process of cross-matching the blood. To minimize the chance of an adverse reaction during a transfusion, health care practitioners take precautions, such as cross-matching, to ensure the blood is compatible<sup>(53)</sup>.

### **Data Parameters and Limitations**

Network Prime enrolled beneficiaries with a discharge from a hospital with select diagnostic codes for transfusion reaction in any secondary diagnosis field on a claim form. This measure applies to persons age 18 - 64. AHRQ incidence includes those over age 64. Rates are expressed per 100,000 per year.

**HMHS Blood Incompatibility Rate** = 0.0  
**Incidence rate utilized - AHRQ (2004)**<sup>(54)</sup> = 0.1

### **Catheter Associated UTI**

Many hospitalized patients require the placement of an indwelling urinary catheter. Although a minority of these patients develop urinary tract infections (UTI), the frequency of use of urinary catheters produces substantial overall morbidity for patients<sup>(55)</sup>. This indicator monitors the number of discharges from an inpatient facility with a diagnosis of catheter associated urinary tract infection.

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### Data Parameters and Limitations

Network Prime enrolled beneficiaries with a discharge from a hospital with select diagnostic codes for catheter associated urinary tract infection. This measure applies to beneficiaries age 0 - 64. CDC incidence of 564,667 in FY 2002 includes those over age 64<sup>(56)</sup>. Rates are expressed per 100,000 per year.

<b>HMHS Catheter Associated UTI Rate</b>	<b>= 0.2</b>
CDC Catheter Associated UTI Rate	= 194.7
<i>(564,667 incidents per year/ 2002 U.S. population 288,368,698<sup>(57)</sup>)</i>	

### Pressure Ulcers

Pressure ulcers, or decubitus ulcers, occur when the blood supply is diminished to the skin. Most pressure ulcers, about 95%, occur in the more vulnerable bony areas of the lower body, such as the tailbone and heels. This indicator monitors the number of discharges from an inpatient facility with a third or fourth degree pressure ulcer acquired in the facility<sup>(58)</sup>.

### Data Parameters and Limitations

Using AHRQ criteria, we measured Network Prime enrolled beneficiaries, ages 0 - 64, discharged from a hospital with select diagnostic codes for third and fourth degree pressure ulcer. Rates are expressed per 100,000 per year.

<b>HMHS Pressure Ulcer Rate</b>	<b>= 0.0</b>
CMS Pressure Ulcer Rate <sup>(50)</sup>	= 733.9
<i>(322,946 incidents per year/39,210,604 Medicare Beneficiaries<sup>(51)</sup>)</i>	

HMHS compares favorably to benchmark incidence rates for all events studied; our patient safety measures are substantially better than national rates.

### Summary of Adverse and Never Event Rates 2007

Event	Age Range	Benchmark Incidence Rate	HMHS Rate
Accidental Puncture	18 – 64	47.9	45.5
Infections Due to Medical Care	0 – 64	30.8	16.3
Foreign Body	18 – 64	1.5	0.3
Mediastinitis	18 – 64	1.3	0.0
Air Embolism	18 – 64	0.1	0.0
Blood Incompatibility	18 – 64	0.1	0.0
UTI Infection	0 – 64	194.7	0.2
Pressure Ulcer	0 – 64	733.9	0.0

### Select Procedures

#### Coronary Artery Bypass Graft

Coronary Artery Bypass Graft (CABG) surgeries have been evaluated by the AHRQ Healthcare Cost and

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Utilization Project (HCUP) for performance and quality issues. CABG and cardiopulmonary bypass, commonly performed in association with CABG, have decreased by 19% since 1997<sup>(59)</sup>.

According to AHRQ, there is a potential for overuse of CABG, but statistics have shown performance of CABGs for inappropriate indications occurred less than 10% of the time<sup>(60)</sup>. Although overall rates for inappropriate use of CABG are low, there is evidence of inappropriate rate variation across geographic areas. Monitoring for areas with rates significantly below or above the norm is recommended by AHRQ. This procedure requires proficiency with the use of complicated equipment; errors related to technical skill may cause myocardial infarction, stroke, or death<sup>(61)</sup>. Therefore, this measure should also assess the number of deaths per 100 discharges for a CABG.

### ***Data Parameters and Limitations***

Network Prime enrolled beneficiaries age 40 - 64 discharged with CABG in any procedure field on a claim form. Of those beneficiaries discharged with a CABG, we measure the percent discharged with a status of death. The CABG rate is per 100,000 population; CABG death rate is per 100 CABG procedures. Of note, the AHRQ incidence includes adults over age 64. Rates are expressed per 100,000 per year.

<b><i>HMHS CABG Rate</i></b>	<b><i>= 141.74</i></b>
<i>AHRQ Incidence (Version 3.0 - Feb. 2006)</i>	<i>= 278.82</i>
<b><i>HMHS CABG Death Rate</i></b>	<b><i>= .93 per 100 procedures</i></b>
<i>AHRQ Incidence (Version 3.0 - Feb. 2006)</i>	<i>= 3.39 per 100 procedures</i>

### **Cholecystectomy**

Nationally, seventy-five percent of uncomplicated cholecystectomies (gallbladder removal) are performed laparoscopically<sup>(62)</sup>. Closed cholecystectomy, for symptomatic cholelithiasis, is the gold standard for removal of the gall bladder<sup>(63)</sup>. Advantages associated with the laparoscopic procedure are decreased post-operative pain, decrease in pain medication use, better respiratory function, better oxygenation, and quicker return to activities of daily living.

HMHS monitors the percentage of all cholecystectomies performed as closed (laparoscopic) procedures. The desired outcome is a high rate of closed cholecystectomy procedures.

### ***Data Parameters and Limitations***

Network Prime enrolled beneficiary adults age 18 - 64 with a procedure code for either an open or closed cholecystectomy. The rate is based on closed cholecystectomy (laparoscopic) procedures per total cholecystectomy procedures.

<i>HMHS Number Open Cholecystectomy</i>	<i>= 128 procedures</i>
<i>HMHS Number Closed Cholecystectomy</i>	<i>= 2110 procedures</i>
<b><i>HMHS Closed Cholecystectomy Rate</i></b>	<b><i>= 94.28 per 100 procedures</i></b>
<i>AHRQ Benchmark 2002 (3.0 - Feb. 2006)</i>	<i>= 75.55 per 100 procedures</i>

### **Hysterectomy**

One-third of women in the U.S. have had hysterectomies by the age of 60<sup>(64)</sup>. Hysterectomy is the second most common surgery for women in the U. S., behind only cesarean section. According to a Cochrane review in 2005 and current ACOG recommendations, vaginal hysterectomy should be performed when technically feasible rather than abdominal hysterectomy<sup>(65)</sup>. Use of this technique generally reduces the complication rate, length of stay, and time to return to normal activity<sup>(66)</sup>. Hysterectomy, as with any surgery, involves risk and

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“(The BSR) was exemplary and provided the kind of ‘exceptional’ service that I wished other insurers provided. He went out of his way, not only to research the information I needed, but to guide me on how to find that same information myself in the future.”

- Comment from a Provider’s Office Representative

possible long term complications. Effective, but less radical alternatives to hysterectomy are available. Approximately 16 - 30% of hysterectomies performed in the U.S. are unnecessary and are associated with a complication rate between 25 - 50%<sup>(67)</sup>. There is a potential for overuse of this procedure.

A recent article published in Clinical Obstetrics and Gynecology shows the rate of hysterectomy differs markedly by geographic region; with a rate as high as nine per 1,000 per year in the Southern U.S.<sup>(68)</sup> Our overall rate of hysterectomy is 8.57 per 1,000 per year, which is below the rate reported for the Southern U.S.

The decision to perform a specific type of hysterectomy is usually based on the practitioner’s level of expertise, comfort with a specific surgical approach considering the patient’s medical condition, and the reason for surgery. Unfortunately, current residency programs are not offering the level of proficiency in vaginal hysterectomy to meet this need<sup>(69)</sup>.

### Data Parameters and Limitations

Network Prime enrolled female beneficiaries age 15 - 64 with a procedure code for an abdominal or vaginal hysterectomy. Hysterectomy rates are expressed per 1,000 members per year.

<b>HMHS Vaginal Hysterectomy Rate age (15 - 44)</b>	<b>= 3.48</b>
NCQA QC 2008 mean Benchmark South Central Region	= 4.51
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 3.12 - 5.81
<b>HMHS Vaginal Hysterectomy Rate ages (45 - 64)</b>	<b>= 3.61</b>
NCQA QC 2008 mean Benchmark South Central Region	= 4.52
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 3.17 - 4.97
<b>HMHS Abdominal Hysterectomy Rate ages (15 - 44)</b>	<b>= 4.48</b>
NCQA QC 2008 mean Benchmark South Central Region	= 6.60
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 4.51 - 7.85
<b>HMHS Abdominal Hysterectomy Rate ages (45 - 64)</b>	<b>= 5.74</b>
NCQA QC 2008 mean Benchmark South Central Region	= 7.43
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 5.09 - 7.52

Age	Hysterectomies		Female Population	Rate/1000/yr
	Abdominal	Vaginal		
15-44	555	431	123,830	7.96
45-64	553	348	96,279	9.35
Subtotal	1108	779		
<b>TOTAL</b>	1,887		220,109	<b>8.57</b>

Our overall proportion of hysterectomies performed vaginally is 58.7%; this reflects a thirteen percentage point increase of vaginal versus abdominal hysterectomies from the prior year. According to the 2002

## MEASURES OF HEALTH CARE QUALITY

report by the CDC, less than 40% of hysterectomies are performed vaginally. Our proportion of vaginal hysterectomies is favorable to the CDC benchmark and our overall rate of hysterectomy is slightly below that of the Southern U.S. <sup>(69)</sup>.

### Back Procedures

Spinal procedures have significantly advanced in recent years, from disc reduction procedures to more complex spinal reconstruction and stabilization procedures. Back procedures, including laminectomy, show wide variation between regions and has a potential for overuse. According to the National Quality Measures Clearinghouse, several studies have shown approximately 23 to 38% of laminectomies were performed for inappropriate indications <sup>(70)</sup>. According to AHRQ, this indicator can sometimes be used as a proxy for potential quality issues and should be monitored for rates that are considerably above or below the norm.

#### Data Parameters and Limitations

Network Prime enrolled beneficiary adults age 20 - 64 with a procedure code for back procedures as defined by NCQA HEDIS<sup>®</sup> measures <sup>(5)</sup>. For calendar year 2007, NCQA significantly changed the methodology for calculating this indicator; this change, which eliminated numerous procedure codes, appreciably reduced the rate for this indicator. Rates are expressed per 1,000 members per year.

<b>HMHS Back Procedures (F 20 - 44)</b>	<b>= 3.09</b>
NCQA QC 2008 mean Benchmark South Central Region	= 6.73
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 2.68 - 4.31
<b>HMHS Back Procedures (F 45 - 64)</b>	<b>= 6.81</b>
NCQA QC 2008 mean Benchmark South Central Region	= 11.24
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 5.94 - 8.45
<b>HMHS Back Procedures (M 20 - 44)</b>	<b>= 4.69</b>
NCQA QC 2008 mean Benchmark South Central Region	= 4.75
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 2.55 - 4.40
<b>HMHS Back Procedures (M 45 - 64)</b>	<b>= 6.35</b>
NCQA QC 2008 mean Benchmark South Central Region	= 10.14
NCQA QC 25 <sup>th</sup> and 75 <sup>th</sup> percentiles	= 5.94 - 8.45

Our rates for back procedures are below benchmarks in both gender and age groups.

### Ear Procedures

Middle ear infection is the most frequently diagnosed illness in children in the U.S. Recurrent ear infections are frequently treated by placement of tubes in the middle ear; approximately 600,000 myringotomies are performed annually in the U.S. <sup>(71)</sup> A study of 6,611 children under the age of 16 showed approximately one fourth of the tube insertions were inappropriate and another one third were questionable <sup>(72, 73)</sup>. As with any surgery, there is risk involved, especially with the administration of anesthesia. Monitoring myringotomies allows us to determine if our rates are within the national norms.

#### Data Parameters and Limitations

Network Prime enrolled beneficiaries age 0 - 19 with a procedure code for ear procedures as defined by NCQA HEDIS<sup>®</sup> measures <sup>(5)</sup>. Rates are expressed per 1,000 members per year.

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**HMHS Ear Procedure Rate Ages 0 - 4** = **42.00**  
 NCQA QC 2008 mean Benchmark South Central Region = 79.66  
 NCQA QC 25<sup>th</sup> and 75<sup>th</sup> percentiles = 65.34 - 97.86

**HMHS Ear Procedure Rate Ages 5 - 19** = **2.98**  
 NCQA QC 2008 mean Benchmark South Central Region = 4.79  
 NCQA QC 25<sup>th</sup> and 75<sup>th</sup> percentiles = 4.00 - 5.92

Our rates of ear procedures are favorable to benchmarks.

### Summary of Monitoring of Select Procedures 2007

Procedure	Age Range	Gender	Benchmark*	HMHS Rate
CABG	40 - 64	All	278.8	141.7
CABG death rate	40 - 64	All	3.4	.93
Cholecystectomy Closed Rate/100 total	18 - 64	All	75.6	94.3

\*Benchmark = AHRQ

Procedure	Age Range	Gender	Mean Benchmark**	HMHS Rate
Hysterectomy/Vag	15 - 44	F	4.51	3.48
Hysterectomy/Vag	45 - 64	F	4.52	3.61
Hysterectomy/Abd	15 - 44	F	6.60	4.48
Hysterectomy/Abd	45 - 64	F	7.43	5.74
Back Surgery	20 - 44	F	6.73	3.09
Back Surgery	45 - 64	F	11.24	6.81
Back Surgery	20 - 44	M	4.75	4.69
Back Surgery	45 - 64	M	10.14	6.35
Ear Procedures	0 - 4	All	79.66	42.00
Ear Procedures	5 - 19	All	4.79	2.98

\*\*Benchmark = NCQA

HMHS has a favorable comparison to benchmarks in rates of CABG, CABG mortality, percent of cholecystectomies performed laparoscopically, back procedures, hysterectomies, and ear procedure rates.

*"A provider's office called to compliment a CBSR and to give 'verbal Kudos' for the efficiency and assistance received with a claims issue. The provider wanted to make sure the CBSR receives the recognition she deserves and to say that TRICARE South is doing a 'great job' with customer service."*

*- Comment from a HMHS CBSR*

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### Provider Network

#### Network Adequacy

It is HMHS' goal to ensure that TRICARE beneficiaries have access to qualified providers, an appropriate amount of choice, and a diverse range of specialists to provide the full scope of health care services. To meet this goal, we evaluate location and number of providers to ensure they are geographically accessible to TRICARE beneficiaries. Additionally, practitioners must be accessible during reasonable operating hours and adhere to appointment and wait times.

STATE	TRICARE NETWORK % OF TOTAL STATE PROVIDERS 2005	TRICARE NETWORK % OF TOTAL STATE PROVIDERS 2006	TRICARE NETWORK % OF TOTAL STATE PROVIDERS 2007	TRICARE ELIGIBLES % OF TOTAL STATE POPULATION 2005	TRICARE ELIGIBLES % OF TOTAL STATE POPULATION 2006	TRICARE ELIGIBLES % OF TOTAL STATE POPULATION 2007
ALABAMA	30%	34%	<b>33%</b>	3.3%	3.3%	<b>3.3%</b>
ARKANSAS	55%	57%	<b>60%</b>	3.3%	3.3%	<b>3.3%</b>
FLORIDA	30%	35%	<b>35%</b>	4.3%	4.3%	<b>4.3%</b>
GEORGIA	40%	45%	<b>43%</b>	4.4%	4.4%	<b>4.4%</b>
LOUISIANA	33%	38%	<b>41%</b>	2.8%	2.8%	<b>2.8%</b>
MISSISSIPPI	41%	46%	<b>49%</b>	4.2%	4.2%	<b>4.2%</b>
OKLAHOMA	41%	55%	<b>52%</b>	3.9%	3.9%	<b>3.9%</b>
SOUTH CAROLINA	25%	26%	<b>34%</b>	5.3%	5.3%	<b>5.3%</b>
TENNESSEE	42%	46%	<b>48%</b>	2.0%	2.0%	<b>2.0%</b>
TEXAS	38%	43%	<b>43%</b>	3.0%	3.0%	<b>3.0%</b>
<b>Average</b>	38%	40.9%	<b>41.2%</b>	3.6%	3.7%	<b>3.7%</b>

The chart above depicts the relative size of our beneficiary population and provider network density. Although our beneficiary population has remained relatively stable, our provider participation in the TRICARE network has increased year over year in the South Region.

#### Provider Credentialing

Credentialing is the process of obtaining and reviewing the documentation (licensure, education, certifications, malpractice insurance, etc.) of health professionals to validate their qualifications. This process includes reviewing information given by the provider and verifying with primary and/or acceptable sources that the information is correct and complete. The credentialing process ensures each provider meets the specific criteria and prerequisites defined by the HMHS Credentialing Committee for determining initial and ongoing participation in the network.

HMHS providers are credentialed in accordance with URAC Health Network Standards, Version 5.0, as

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well as TRICARE and Humana, Inc. requirements. Humana Military Healthcare Services tracks and trends potential provider issues, such as access, attitude, and quality of care. To ensure quality networks, the Clinical Quality Management Department works in conjunction with the Credentialing Department to evaluate providers identified with issues.

During 2007, HMHS delegated authority to credential and recredential a portion of providers to 81 contracted groups. All delegated groups are audited on-site annually in order to determine their continued ability to perform credentialing and recredentialing in accordance with HMHS standards.

### 2007 Credentialing

Action Type	2005	2006	2007
Initially Credentialed	4,667	6,194	6,379
Recruited	5,557	7,261	9,268

Increased provider participation in the TRICARE network directly impacts credentialing activities. Credentialing and recredentialing activities have increased year over year; thus, ensuring a robust and quality network.



### Managing Cost

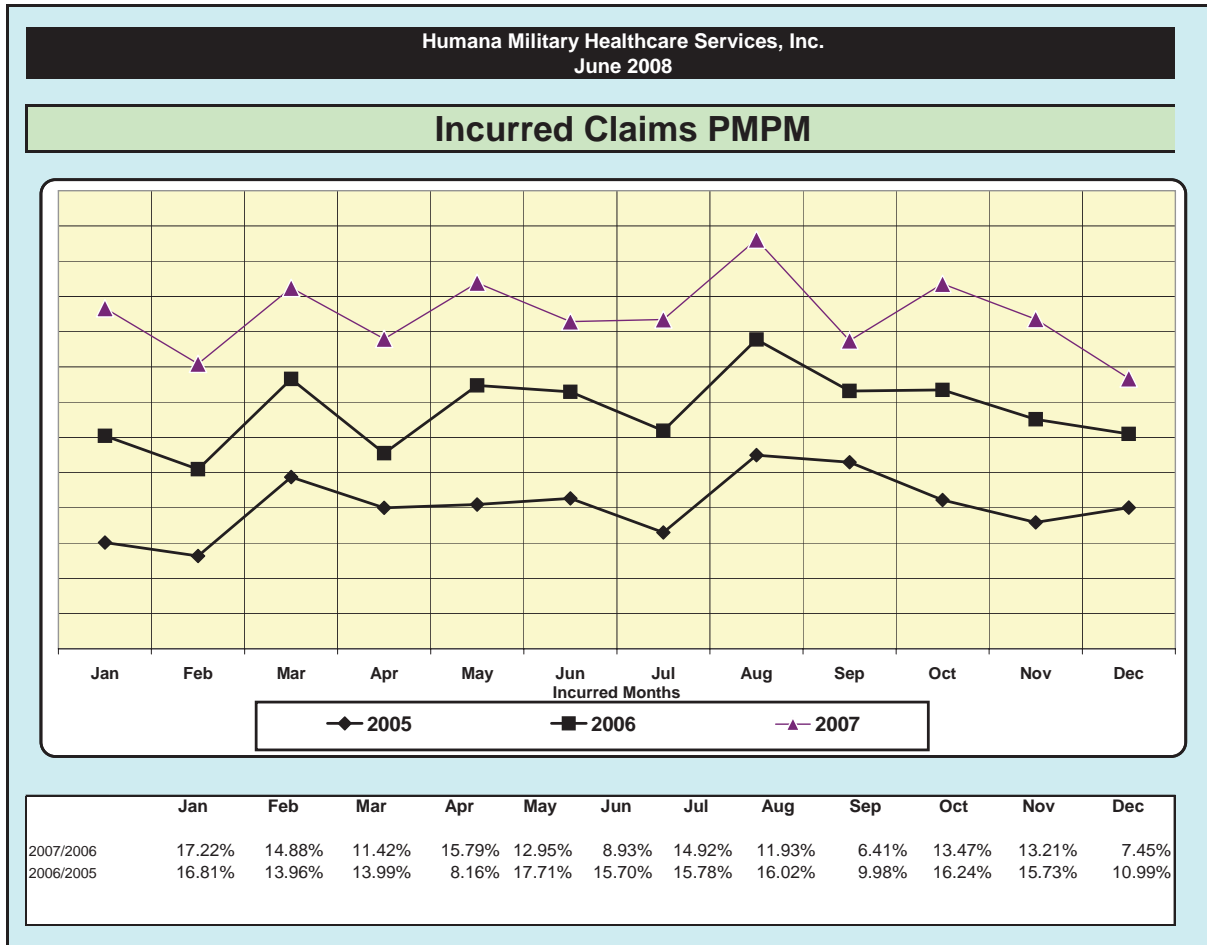
According to the National Coalition on Health Care (NCHC), health care costs are rising at twice the rate of inflation for other goods and services and are expected to continue to rise over the next ten years <sup>(74)</sup>. Factors contributing to this rapid rise are new technology and drugs coupled with increased utilization due to aging baby boomers, demand for new treatments and testing, and challenges caused by lifestyles, such as obesity, substance abuse, and sedentary routines <sup>(75)</sup>. Factors unique to the military health system compounding the cost burden are migration of the population to Network Prime, decrease in MTF Prime, and continuing shift of services out of MTFs in response to the stresses on the military health system.

Each year, HMHS works with the government to formulate a cost target for managing health care. Some methods used to help manage these costs are provider discounts, referral management, case management, utilization management, disease management, and an effective quality management program. Although costs continue to rise, HMHS has effectively limited the percent increase from 2006 to 2007. The annual per member per month (PMPM) percent increase from calendar year 2005 to 2006 was 14.2%. This year we noted a decrease in trend; the PMPM increase from 2006 to 2007 was 12.3%. The graph on the following page illustrates the incurred claims PMPM for the calendar years 2005, 2006, and 2007.

*“A beneficiary who had recently moved from Jacksonville to Georgia, called to compliment one of the CBSRs for assistance in getting his doctor the referral needed so that his surgery would not be delayed.”*

*- Comment from a HMHS CBSR*

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### Customer Satisfaction and Service

#### **Consistently Meeting Beneficiary Needs**

HMHS is committed to beneficiary and customer satisfaction. HMHS measures numerous customer interactions that allow us to understand and evaluate our performance. Beneficiary complaints are gathered and analyzed monthly to address all concerns of the customers. Customer Satisfaction surveys and comments are analyzed to propose and implement internal quality projects, thus improving HMHS overall customer satisfaction. These efforts allow HMHS to focus on the needs of beneficiaries.

In 2007 HMHS has continuously been close, met, or exceeded the standards pertaining to beneficiary services. Telephone metrics such as answer speed, hold time, abandonment rate (disconnected calls), and follow-up calls (questions not answered will have a follow up call within two working days), met or exceeded their standards in 2007. HMHS also met the standard of processing 95% of all grievances to completion within 60 calendar days of the date of receipt.

TRICARE Service Center (TSC) walk in inquiries also exceeded the standard of 95% acknowledged within five minutes of entering the reception areas. The TSC standard of 100% of walk in inquiries acknowledged within ten minutes was the only standard not consistently met throughout 2007. HMHS

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TSCs have continuously acknowledged over 99.9% of the beneficiaries within ten minutes.

HMHS provides opportunities for beneficiaries to provide feedback. One is a survey located on the HMHS Web site. The survey is voluntary and can be utilized when beneficiaries interact with HMHS. A five point scale is used for this survey because it provides adequate distribution of results without being overly cumbersome for the beneficiary. The survey asks participants to respond to statements by giving their level of agreement, with one equating to “strongly disagree” and five corresponding to “strongly agree”. Additionally, participants can give a “not applicable” response. The questions and results, detailed below, reflect consumer satisfaction. In 2007, there were 13, 368 respondents.

2007 CUSTOMER SATISFACTION			
Question	2005 Annual Weighted Average	2006 Annual Weighted Average	2007 Annual Weighted Average
I would recommend my TRICARE health plan to a friend.	3.87	3.97	4.05
I am able to get the health care I need.	3.81	3.90	3.93
My doctor's staff is helpful.	3.97	4.04	4.04
When contacting Humana Military, I am able to get the information I need.	3.58	3.80	3.92

Customer satisfaction has improved year over year, reflected in an overall increase in scores for survey questions.

### Call Quality Monitoring Process

The Call Quality Monitoring Process was established by our Call Center leadership to ensure HMHS provides exceptional customer service to our beneficiaries and our providers. This process evaluates accuracy, tone, clarity, and responsiveness; provides an opportunity to give feedback to associates; and identifies educational opportunities.

Using a twenty question assessment, each Beneficiary Services associate is evaluated for five calls every week. Associates are scored using the following standards:

95% or >	Exceed expectations
94.9% - 90%	Meet expectations
Below 90%	Not meeting expectations

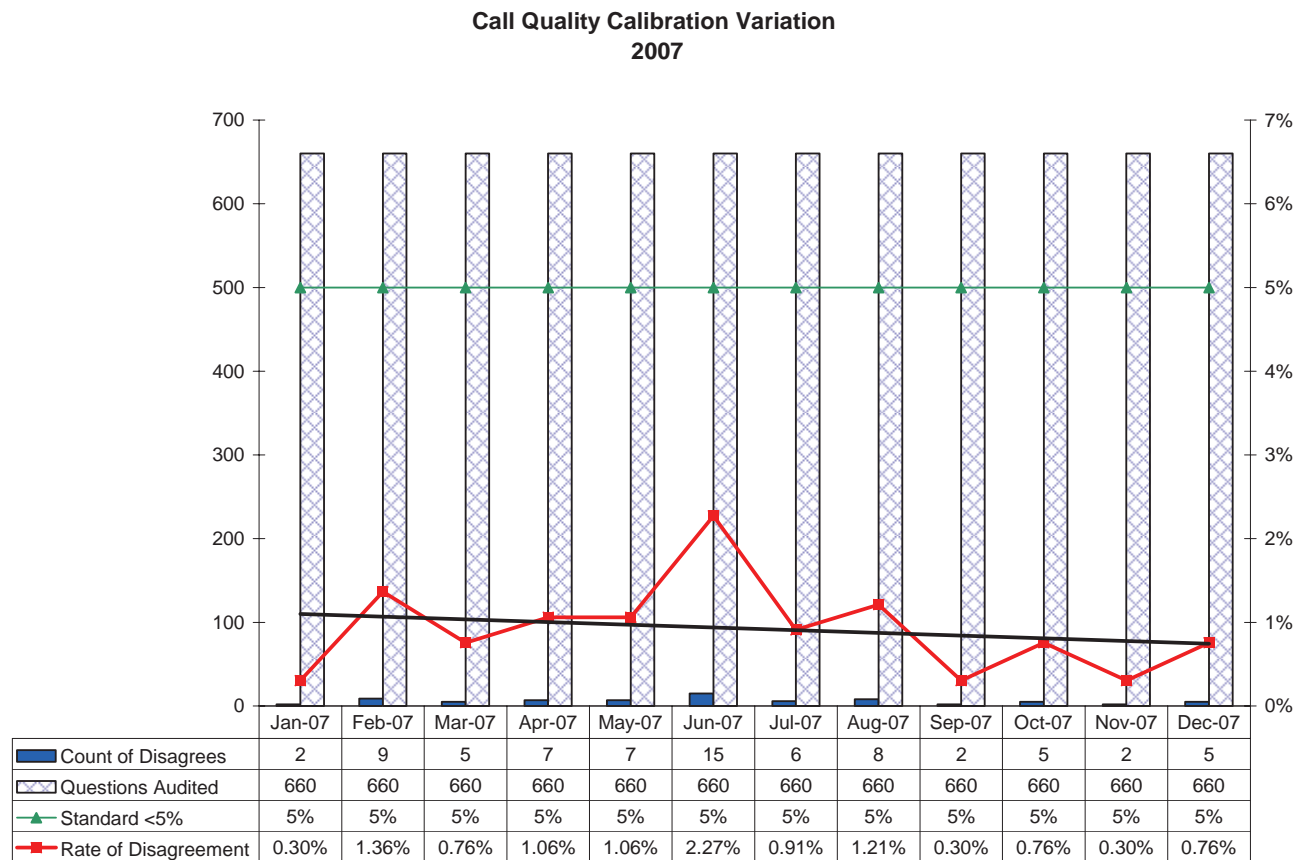
To further develop the partnership between HMHS and the TRICARE Regional Office- South (TRO-South), HMHS invited representatives from TRO-South to participate in call calibration sessions starting in November 2005. This process was formalized in Jan 2006. Participation in these sessions has given TRO-South the opportunity to evaluate the HMHS call center scoring criteria, offer perspective into the customer experience, and provide a third party scoring mechanism through call calibration. HMHS has

## MEASURES OF HEALTH CARE QUALITY

established a formal process to capture the variance in scoring between HMHS and TRO-South. The goal is a variance of 5% or less.

Because the TRO-South evaluators are TRICARE beneficiaries, their assessment also reflects a customer’s perspective. Discussion of findings between HMHS and TRO-South evaluators identifies opportunities to improve customer service and this feedback provides educational opportunities for associates.

The graph below represents 2007 data.



As illustrated in the above graph, the Call Monitoring Process is driving down the Rate of Disagreement in scoring between HMHS and TRO-South.

### URAC Accreditation

URAC, an independent, nonprofit organization, is a leader in promoting health care quality through accreditation and certification programs. The URAC seal is a widely recognized symbol of quality and a reliable indicator that an organization’s operations are conducted in a manner consistent with national standards. These standards promote the adoption of strategies meant to improve care and enhance service.

HMHS has sought out accreditations to enhance its internal processes and thus improve customer service.

## MEASURES OF HEALTH CARE QUALITY

In 2007, HMHS was awarded accreditation for Disease Management -Asthma and for the HMHS Health Web site, [www.humana-military.com](http://www.humana-military.com), from URAC.

HMHS continues to maintain accreditation in Health Network, Health Utilization Management, HIPAA Privacy, Case Management, and Disease Management-Heart Failure from URAC. By applying for and receiving these accreditations, Humana Military has demonstrated a commitment to quality health care. Charles Stellar, URAC Board Chairman stated “Quality health care is crucial to our nation’s welfare and it is important to have organizations that are willing to measure themselves against national standards.”

### Good News Stories

#### **Humana Military Healthcare Services Recognized for Commitment to National Guard and Reserve; Distinction as “5-Star Employer” is the Guard’s Highest Honor for Private Employers**

In November 2007, Humana Inc. and HMHS were recognized as “Five-Star Employers” by the Employer Support of the Guard and Reserve (ESGR) organization as a result of their ongoing support for all Humana associates serving in the National Guard and Reserve.

Humana and HMHS demonstrate their commitment to employee military service by ensuring ongoing compliance with the Uniformed Services Employment and Re-Employment Rights Act Law and by adopting policies and programs that go above and beyond the requirements of the law.

“At HMHS, we are driven in our commitment to the Guard and Reserve,” said Dave Baker, HMHS President and chief Executive Officer. “Many of our associates have some connection to the military, and are passionate about serving active-duty, retirees, members of the Guard and Reserve, and their families. As you would expect, we are thrilled to receive this recognition as a five-star employer; it’s the latest recognition that our efforts in support of the military are on track and appreciated.”

ESGR developed the Five-Star Employer program to enlist support of employers in developing human resource policies and practices that encourage participation in Guard and Reserve programs. Induction into the program demonstrates that Humana and HMHS are advocates for associate service and have educated their managers to ensure that associates on military duty can serve with no concerns of it negatively impacting their employment or career development at Humana or HMHS.

#### **HMHS Implements Warrior Navigation & Assistance Program**

*“Providing guidance and assistance to warriors in transition and their families when they need it the most.”*

HMHS is providing assistance and support to active duty, Guard and Reserve service members in transition and their families through an established advocacy unit titled the *Warrior Navigation & Assistance Program (WNAP)*. This innovative program offers one-on-one assistance regarding unique challenges that many service members may face relating to access to care, or the need for information on all available resources; be it the Military Health System, Veterans Affairs or community assets. WNAP also offers a broad spectrum of clinical programs designed to meet the special needs of soldiers, sailors, airmen, marines, coast guard and their families. This specialized unit oversees education and assistance initiatives for civilian providers caring for service members and their families.

#### **HMHS Employee Named “Best Contact Center Trainer in the Americas”**

A Learning Consultant for HMHS was named the “2007 Best Contact Center Trainer for the Americas” by the Contact Center World Awards. This consultant received the “Best of the Best in the Americas” on June 5, 2007 in Orlando, Florida. The award recognizes trainers who make significant contributions to the

## MEASURES OF HEALTH CARE QUALITY

overall success of their contact center by delivering exceptional training programs for new team members. This HMHS consultant was one of three finalists in Orlando and as the winner of the Americas Region went on to represent HMHS, and the Americas, in the World Awards in Las Vegas, Nevada in November. The HMHS consultant was one of three finalists in the World Awards, received the Silver Award and competed against trainers from Japan and Bulgaria.

In addition to this award in Orlando, HMHS was recognized as “Highly Commended” in the following categories; Best Contact Center, Best Technology Innovation, and Best Contact Center Supervisor.

Contact Center World is a global support organization for contact centers around the world. They have extensive experience in the industry and strive to provide fast access to the latest industry information so that executives can make informed business decisions within their contact center.

### **HMHS Expands Behavioral Health Resources with Web site and Toll Free Number**

In September 2007, HMHS and ValueOptions, our South Region subcontractor for mental health, announced a new online educational resource called AchieveSolutions®. This new online portal offers TRICARE beneficiaries a secure, safe environment to seek information, educational materials and self-assessment tools on behavioral health, addiction and recovery, life events, and daily living skills.

Both HMHS and ValueOptions understand that many of life’s events have the ability to create stress that can lead to more significant issues if not addressed proactively.

“This new tool offers our beneficiaries the privacy needed to research a potential health concern without the fear of any repercussions,” said Dave Baker, HMHS President and CEO. “At HMHS we are committed to providing quality health care services to the military men and women we serve.”

AchieveSolutions® builds off of ValueOptions’ understanding of human behavior and the importance of prevention to provide quality information to TRICARE beneficiaries at the touch of a fingertip.

In addition to the online resource, HMHS unveiled a new toll-free number (877-298-3514) for active duty service members and their families to call for behavioral health assistance. The number provides assistance in locating and scheduling appointments with behavioral health providers.

*“A beneficiary called to compliment a CBSR on her service. She stated the CBSR answered all her questions without making her feel ‘rushed’ and that she was very ‘helpful, super nice, courteous’ and talking to her ‘really made her day.’ She couldn’t wait to tell her husband what wonderful service she received when she called TRICARE.”*

*- Comment from a HMHS CBSR*



A person wearing a white lab coat is holding a report card. The report card is orange and has the title "REPORT CARD" at the top. It contains a table with columns for "Name", "Date", "Comments", and several rows of subjects. The subjects listed are ENGLISH, MATH, SCIENCE, HISTORY, LANGUAGE, ART, HEALTH, MUSIC, CONDUCT, REPORT, and ATTENDANCE. The table contains handwritten letters and numbers, such as "A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M", "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z", "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "11", "12", "13", "14", "15", "16", "17", "18", "19", "20", "21", "22", "23", "24", "25", "26", "27", "28", "29", "30", "31", "32", "33", "34", "35", "36", "37", "38", "39", "40", "41", "42", "43", "44", "45", "46", "47", "48", "49", "50". The person is pointing at the report card with their right hand.

# Limitations of Data and Conclusion

## LIMITATIONS OF DATA & CONCLUSION



### Limitations of Data

Although the gold standard for data review for quality indicators of care is a combination of both administrative data and chart review, it is not always possible or feasible to do a combined review. Administrative claims data are easily and readily available in health care plans covering large geographic areas; medical records are difficult to access and costly to obtain and review<sup>(76)</sup>. Administrative data are frequently used to evaluate guidelines and the quality of health care<sup>(77)</sup>. A large study conducted at Johns Hopkins University found use of administrative claims data an effective method for measuring quality indicators<sup>(78)</sup>.

The indicators in the 2007 Report Card are from administrative databases and there are limitations inherent in the use of such data. One limitation is the risk of over-coding, under-coding, as well as miscoding. Another limitation is un-submitted encounter data, whether from utilization at an MTF, public clinic, or other health insurance carrier, and lack of pharmacy data. In several measures, such as cholesterol screening, we lack the necessary time period to complete the measure. Finally, because we have a highly mobile population there is movement in and out of enrollment making it difficult to monitor populations and trends over time. Despite these data limitations, because we have a large beneficiary population and robust data, our results are representative of the care rendered to our consumers.



### Conclusion

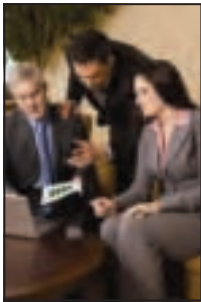
Overall, HMHS compares favorably with accepted standards for those indicators measured in the 2007 Report Card. In many measures we exceed nationally or regionally accepted rates.

- HMHS takes a proactive approach to preventive services through use of the HAL program, which notifies beneficiaries of needed services and monitors results. We have noted year over year improvement for cervical cancer screening. HMHS initiated monitoring for colorectal cancer screening through our HAL program; our rate has increased significantly from 2006 to 2007. Our influenza immunization rate increased appreciably. Our breast cancer screening rate remains static and may reflect an opportunity for improvement.
- Our 30-Day acute readmission rate for mental health has improved; the Anorexia Nervosa initiative shows promising results and will continue.
- Based on findings for diabetic screening in the 2005 Report Card, HMHS notified beneficiaries in need of screening for nephropathy; our rate is now at mean benchmark for this indicator, as are our rates for retinal eye exam and LDL-C screening. Our A1C screening is still below benchmark. Based on the success of the nephropathy initiative, HMHS will continue its effort to sustain and increase diabetic screening indicators.
- Adverse events and patient safety indicators have remained stable and below the national norms, as has utilization for select procedures.
- Our provider network is robust and continues to grow.
- Customer satisfaction has improved year over year, reflected by overall increase in scores for survey questions.
- Our year over year cost trend declined in 2007.
- HMHS has maintained URAC accreditation for Health Network and Utilization Management HIPAA Privacy, Disease Management for Heart Failure, and Case Management. HMHS was awarded URAC accreditation for our Asthma Disease Management program, and for our HMHS Web site, [www.humana-military.com](http://www.humana-military.com).

# Table of Indicators



**TABLE OF INDICATORS**



**Summary Table of Indicators**

**Preventive Services/Living with Illness Indicators**

Preventive Service*	Benchmark	2005	2006	2007
Breast Cancer Screening	63.5%	56.7%	61.9%	<b>61.9%</b>
Cervical Cancer Screening	74.3%	49.4%	61.4%	<b>63.9%</b>
Colorectal Cancer Screening	45.1%	24.0%	24.0%	<b>37.7%</b>
Cholesterol Screening	67%	N/A	N/A	<b>57.0%</b>
Influenza Immunizations	N/A	N/A	9.70%	<b>12.4%</b>
Living with Illness	Benchmark	2005	2006	2007
Diabetes Care-Eye Screening	37.8%	N/A	36.4%	<b>39.4%</b>
Diabetes Care-A1C	81.6%	76.5%	73.0%	<b>73.2%</b>
Diabetes Care-LDL-C	77.1%	79.4%	81.4%	<b>81.7%</b>
Diabetes Care-Nephropathy	70.3%	N/A	N/A	<b>71.6%</b>
HF - ACEI and/or ARB	69.3%	N/A	N/A	<b>68.7%</b>
Asthma – Spirometry Testing	N/A	N/A	79.6%	<b>85.5%</b>
Asthma – Action Plan	N/A	N/A	36.2%	<b>46.9%</b>
Asthma – Long Term Controller Rx	N/A	N/A	81.5%	<b>99.2%</b>
Mental Health 30 day readmit	9.1%	11%	11%	<b>10%</b>

\*These preventive services require 3 - 10 yr. data. This report reflects only 38 - 41 months of data; thus, our true rates are likely higher

**TABLE OF INDICATORS**

**Monitoring Patient Safety and Select Procedures**

<b>Patient Safety</b>	<b>Incidence Rate*</b>	<b>2007</b>
Accidental Puncture	47.9	45.5
Infection due to Medical Care	30.8	16.3
Foreign Body	1.5	0.3
Mediastinitis	1.3	0.0
Air Embolism	.12	0.0
Blood Incompatibility	0.06	0.0
UTI Infection	194.7	.2
Pressure Ulcer	733.9	0.0
<b>Select Procedures</b>	<b>Incidence*</b>	<b>2007</b>
CABG Death Rate	3.39	.93
Cholecystectomy Closed Rate/100	75.55	94.28
Hysterectomy/Vag age 15 - 44	4.51	3.48
Hysterectomy/Vag age 45 - 64	4.52	3.61
Hysterectomy/Abd age 15 - 44	6.60	4.48
Hysterectomy/Abd age 45 - 64	7.43	5.74
Back Procedures F ages 20 - 44	6.73	3.09
Back Procedures F ages 45 - 64	11.24	6.81
Back Procedures M ages 20 - 44	4.75	4.69
Back Procedures M ages 45 - 64	10.14	6.35
Ear Procedures – ages 0 - 4	79.66	42.00
Ear Procedures – ages 5 -19	4.79	2.98

\* Please see detailed discussions for units of measure.



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