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# Patient Access Study

**Abstract**

The Assistant Chief for Health Care operations (BUMED 03) asked CNA to develop a method that Navy medicine can use to determine whether it is meeting Tricare access standards, especially for scheduling appointments. The report found that the Composite Health Care System (CHCS) currently gives local military medicine providers the ability to track patient access to care, but that many providers are grappling with the same concerns and issues. To reduce redundancy, the report recommends that Navy medicine adopt standard guidelines for appointing and tracking access based on the experience of the facilities pioneering Tricare. It specifically recommends that Navy medicine develop system-wide appointing guidelines that increase the use of central appointing, standardize appointment types, make specialty referrals electronic, and develop specialty referral guidelines.

**Subject Terms**

Efficiency, health care issues, medical services, military medicine, military standards, Navy, patients, scheduling, surveys, Tricare

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**Form Approved**

OPM No. 0704-0188

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In today's highly competitive health care market, patient access to care is the key ingredient to a practice's success or failure. If patients cannot obtain access to the health care that you offer, your practice will fail. Delivering on the guarantee of patient access to care is critical to building a healthy, thriving TRICARE program.

How do you know if patient access is not what it could be? And what are the reasons? Most health care providers probably know at some intuitive level if they have a patient access problem. Taking control of the problem, however, requires information and a method for taking an operation that may be somewhat chaotic and turning it into an organized, efficient practice. In this study, we provide Navy medicine with an approach for tracking patient access and implementing improvements.
Study objective

To develop a method that allows Navy medicine to determine whether it is meeting the TRICARE access standards for scheduling appointments.

The Assistant Chief for Health Care Operations (BUMED 03) asked CNA to develop a method that Navy medicine can use, particularly at the local level, to determine whether it is meeting the TRICARE access standards. BUMED 03 was particularly concerned about whether military health care managers would be able to track patient access to appointments, especially for those patients enrolled in Prime. Under the TRICARE program, Prime enrollees are guaranteed access to health care services. In addition, TRICARE rules specify maximum wait times by appointment type. For example, Prime patients requiring acute care are to be seen within 1 day. If a military clinic cannot provide the required services for its Prime patients within the allotted time, the medical treatment facility (MTF) is to refer the patient to the civilian network. Either way, the DOD will pay for the care.

1. Prime is the equivalent of an HMO type of program.
Findings and recommendations

- CHCS provides the ability to track access to care
  - can use standard and ad hoc reports
  - capabilities not universally known
- The TRICARE pioneers have already blazed many new trails. Why not follow and learn from them?
- Adopt standardized appointment guidelines
- Adopt standardized access tracking reports from CHCS

We found that the Composite Health Care System (CHCS) currently gives local military medicine providers the ability to track patient access to care. Military clinics have ready access to a number of CHCS standard reports that provide useful information on patient access to care. For example, providers can review their clinic's daily schedule of booked appointments to determine whether any same-day acute appointments are available. The next available appointment report will indicate by provider their next available appointment by appointment type. Although CHCS does not include a standard report on the time between booking an appointment and the actual appointment, local facilities can create such a report via the system's ad hoc reporting capabilities.

Managers probably will need to combine information from more than one CHCS report to get a complete, balanced picture of how well they are meeting access standards. To get the full picture of access, one has to track more than primary care appointments. For example, managers should monitor emergency room (ER) use to ensure that the ER is treating critical cases only. This can be done using the CHCS primary care manager (PCM) activity report, which provides monthly outpatient utilization for all Prime enrollees assigned to a particular site, including the number of ER visits.
During this study, we visited four Navy medical facilities to collect information on access to care. We found that familiarity and use of CHCS's many capabilities vary widely both across sites and within sites. We also found that providers are grappling with the same concerns about patient access at each of the sites we visited. For the most part, each site is following a similar learning process without the benefit of the experiences of TRICARE pioneers. Clearly, more communication and sharing of experiences within sites and between sites are needed to decrease the number of times the “wheel is reinvented” and the amount of time it takes to do so. The parallel learning processes we observed included the following areas:

- Developing an appointing system that uses clinic and central appointing
- Downsizing the number of appointment types used in CHCS
- Providing telephone system support
- Creating a specialty referral process
- Developing ad hoc reports to track access to specialty care
- Centralizing the creation/dissemination of management reports.

To reduce redundancy of effort and to increase efficiency, we recommend that Navy medicine adopt standard guidelines for appointing and tracking access based on the experiences of the facilities pioneering TRICARE. Specifically, we recommend that Navy medicine develop system-wide appointing guidelines that include:

- Increasing the use of central appointing
- Reducing and standardizing appointment types
- Making specialty referrals electronically
- Developing specialty referral guidelines.

We also recommend that Navy medicine adopt the following three ad hoc access tracking reports developed by Naval Medical Center (NMC), San Diego, from the CHCS as system-wide standard reports:

1. “PCM access compliance report”
2. “Consults booked after 72 hours”
3. “Consults seen after 28 days.”
After a brief review of information on TRICARE policy guidance and directives regarding patient access to care, we will discuss our findings for the two tasks we completed for this study. Our first task involved conducting a survey of current clinic business practices. Our survey involved a series of interviews with various clinical managers and executives at both military and contract clinics located in four Navy catchment areas. BUMED 03 and CNA agreed to include the following sites in our survey: Bethesda, Portsmouth (Virginia), Jacksonville (Florida), and San Diego.

In the second task, we assessed the ability of existing automated systems to track patient access to care. We focused on the two major systems being used DOD-wide: the Composite Health Care System (CHCS) and the Ambulatory Data System (ADS). We identify tracking capabilities developed by facilities that we believe should be adopted system-wide. We also provide examples of ways that clinics are innovating and using CHCS to track patient access to care.

Next, we discuss incentives. How do hospital commanders encourage their staffs to strive to meet access standards and experiment with ideas for improvement? We identify some potential and currently used incentives for encouraging MTF staffs to take positive approaches and actions to support their local TRICARE program.

We conclude with recommendations for specific actions Navy medicine should take at all facilities to improve and track patient access.
In October 1995, the Assistant Secretary of Defense, Health Affairs (ASD-HA) published the final rule establishing the TRICARE program [1]. As part of the TRICARE program, the ASD-HA defined a number of access standards that the services are required to meet for all military beneficiaries who enroll in TRICARE Prime. For this study, we are focusing on the "potential" access measure of how much time a patient must wait to obtain an appointment. For example, the TRICARE standard for an acute-care appointment is one day.

In 1996, the ASD-HA(HA) decided it would track local compliance with TRICARE standards through the use of surveys of military beneficiaries [2]. While surveys provide one source of information, the Navy is concerned that the subjective measures of access available from surveys may not provide a complete picture of how sites are doing. Potential sources of bias include recall problems [3] and a general dissatisfaction among beneficiaries with the changes occurring in military medicine. Objective measures of access will provide balance to the picture.

Additional recent guidance from HA mandates that specialty consult decisions be made by the MTF specialist within one day of the writing of the consult [4]. The "consult decision" usually entails accepting the consult and booking the patient to receive the specialty care at the MTF or declining the consult and booking the patient to receive the specialty care from a civilian physician in the TRICARE preferred provider network.
(PPO). We will take a closer look at how sites are implementing this policy when we discuss current business practices and tracking procedures for specialty consults.

In support of TRICARE policy, the Navy Surgeon General (SG) has emphasized the importance of meeting the Prime access standards through both formal and informal means [5, 6]. For example, in January 1996, the Navy SG mandated that all military health clinics adopt certain business practices to support local providers' efforts to meet TRICARE standards. These practices include the use of CHCS and a patient-oriented appointing system. The following practices are not to be used:

• Green log books
• Sick call
• Waiting lists
• Requests to return another day to complete an exam
• Requests to call back next month to make an appointment.
Data

- Interviewed clinical managers and executives at the following MTFs:
  - Bethesda, northeast region 1 (begins May 1998)
  - Portsmouth, mid-Atlantic region 2 (transitions May 1998)
  - Jacksonville, southeast region 3 (began July 1996)
  - San Diego, southern CA region 9 (began April 1996)
- Collected CHCS data from each site
- Met with Clinical Business Area staff, OSD(HA)

During the fall of 1997, we collected information on current clinic business practices and the capabilities of current automated systems from health care managers at the MTFs listed above. Naval Hospital, Jacksonville, and NMC, San Diego, provided us with two sites that have been operating under TRICARE for nearly 2 years. Region 2 has yet to implement TRICARE; however, NMC, Portsmouth, has been operating under TRICARE as part of the Tidewater demonstration program since FY 1996. NMC, Bethesda, represented a site that has yet to implement any form of the TRICARE program. Over the course of the study, we spoke with about 50 providers (physicians, nurses, and corpsmen in primary and specialty care clinics) and 35 persons in administrative support functions.

Prime enrollment levels vary by each of these sites. Prime enrollment is near maximum capacity at Naval Hospital, Jacksonville. Enrollment levels in San Diego were slightly below 50 percent of current capacity. Portsmouth enrollment levels are very near 100 percent at their Sentara Prime clinics. However, enrollment at the military-owned, military-operated sites is slightly under 50 percent of current capacity. Both the Portsmouth and San Diego enrollment levels are a moving target because they continue to adjust their capacity target numbers as their implementation efforts progress. Finally, Bethesda has not yet begun to enroll beneficiaries in Prime.

In addition to the information and CHCS data we collected from each site, we spoke with members of the Clinical Business Area, OSD(HA), to obtain a “corporate” perspective on CHCS.
Typically, measures of access focus on either "potential" or "realized" access. Potential access measures "describe the process of obtaining care," such as the existence of a regular source of care, waiting time in the doctor's office, and the number of telephone calls required to make an appointment. Potential access measures frequently answer questions of "how long" or "how many times." In contrast, realized access measures provide information on "services actually received in terms of units of care," such as the percentage of beneficiaries with a visit during the past 6 months or receipt of preventive care [7]. The TRICARE access standards for scheduling appointments serve as one benchmark of potential access.
Measuring access

- Access = appointment date - booking date
  - where the booking date = the date on which the patient initially requests care
- Focus is on
  - patient’s perspective
  - actual contact with the system versus attempts

To obtain access to health care, military beneficiaries must:
1. Know what their coverage is
2. Know how to contact the system
3. Get through on the phone to an appointing clerk
4. Obtain an appointment acceptable to them
5. Wait until the date and time of their appointment and go to the doctor.

For appointments that are not specialty referrals, our focus is on the fifth step of the access process. This measure conveys how long a patient had to wait to obtain an appointment. For this measure, access is equal to the amount of time between the booking date and the appointment date. It assumes that the patient was aware of and went through the first four steps listed above.

The measure focuses on the patient’s perspective and assumes that the patient made actual contact with the system. It does not capture the number of attempts it took to get through to a clinic or central appointing via phone. Note, however, that some sites have installed phone tracking systems that continuously monitor call volume. We found these systems in place at Naval Hospital, Jacksonville, the Tidewater Sentara Prime clinics, and the Portsmouth TRICARE Service Center.

For specialty referrals, we measure access in terms of time between when the consult is written and when the appointment is scheduled. For some facilities, the stumbling block in making timely specialty referrals has been the processing time involved in transferring the consult from the referring physician to the specialist. We include this processing lag (which can be more than a week) in our measure of specialty access.
TRICARE access standards for appointments

<table>
<thead>
<tr>
<th>Visit type</th>
<th>Maximum waiting time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>1 day</td>
</tr>
<tr>
<td>Routine</td>
<td>1 week</td>
</tr>
<tr>
<td>Well</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Specialty</td>
<td>4 weeks</td>
</tr>
</tbody>
</table>

The TRICARE access standards vary by type of appointment. The 4-week maximum waiting time for specialty care is for the initial referral. As noted earlier, the ASD(HA) recently established policy that requires MTF specialists to accept or defer a patient within 24 hours of the original consult. This creates some interesting logistical challenges at the local level, which we will address in more detail later in our report. Once a patient establishes an ongoing care relationship with a specialist, the maximum waiting times for acute, routine, and well care apply. TRICARE policy directs that exceptions are allowed at the request of the enrollee. An example of an instance when a clinic is not expected to meet the 30-day specialty referral standard is non-emergency specialty referrals transmitted from ships that are at sea.
Improving access usually entails making changes to the way a practice does business. A good way to begin is by reviewing current business practices.

Our assumption for this study is that the primary business practice and function of Navy medicine is taking care of patients, whether in peacetime or wartime. The provision of care during peacetime is complicated by readiness requirements, that is, the need to be prepared to provide care during wartime. All practices that do not directly support providing peacetime or wartime care should be ancillary to, and supportive of, this prime function. Keeping this assumption in mind, we focused on finding out how a variety of different clinics at different Navy medical facilities schedule patients.
How do clinics schedule patients?

- Dominant source of demand?
- Clinic or central appointing?
- Use of phone-triage techniques?
- Appointments required or walk-ins?
- Booking approach: open, closed, or flexible?
- Schedules open how far in advance?
- Use of wait lists?
- Uniform system for specialty referrals?
- Provider- or patient-focused approach?

The items listed above are the practices on which we focused. We will review briefly our question of interest with respect to each item.

We begin with the major source of demand—Prime patients or a mix?

Next, does the clinic book its own appointments or is a central appointing system in use to supplement clinic booking activities? If so, how are booking responsibilities shared between the two?

Third, does the clinic use any type of phone-triage system? The system could be one specifically designed and manned by the clinic, or a contracted service provided to the whole command.

Does the clinic require patients to have appointments? How does the clinic handle walk-ins?

Does the clinic use an open or closed booking system? An open system responds to patient’s needs on demand and does not structure appointments by the type of workload the physician wants to see during specific times of the day. A closed system is one driven by the physician. It uses many different appointment types to identify the types of conditions a physician will treat and the times available. A flexible system uses relatively few appointment types and tries to adjust to meet patient demands.

How far in the future does the clinic open its appointment schedule? One week? One month? Two months? Indefinitely?
Does the clinic use any type of wait list? If so, does the wait list place the responsibility on the clinic or the patient to follow up to book an appointment?

Is there a regional or command policy for specialty referrals? Or does each clinical area decide how to process referrals? How are referrals conveyed—via guard mail, regular mail, fax, e-mail, or electronically via CHCS?

And, finally, do the clinic’s business practices for scheduling appointments focus on the patient or the provider? Our answer to this final question represents a summary evaluation of each clinic’s business practices. Given all the information we collected, we tried to see each clinic through the eyes of the patients. How would they answer this question?
We show in this table the general business practices that characterize each of the commands we visited. Our assessments reflect the business practices that dominate the command overall. We acknowledge that there are exceptions within each command.

Under TRICARE, Prime patients are guaranteed access to care. The level of Prime patient demand varies at each site. Bethesda currently sees a mix of active duty member, dependents, retirees, retiree dependents, and Medicare-eligible patients. Meeting demand from Prime beneficiaries isn't a reality yet. For the other sites we visited, Prime enrollment levels vary and so does demand. Prime enrollment levels in Jacksonville are near 100 percent of capacity. Jacksonville has implemented a number of new business practices to ensure that they meet Prime demand. Prime patients represent the predominant source of met demand at Jacksonville, and space-available care is very limited. This is not yet the case at San Diego or Portsmouth, where Prime enrollment currently is below capacity. These facilities realize that, as their Prime enrollment grows, it will become harder to meet the Prime demand. These facilities are beginning to struggle with developing and implementing business practices that ensure that, even at capacity enrollment, Prime demand will be met first.

A question that generated much discussion during our interviews was "Who books appointments—the clinic or central appointing?" For the most part, military providers feel very strongly that the clinic should be responsible and is best able to book its own appointments. Given this
predisposition, it is not surprising that clinic appointing is the predominant theme at most of the commands. Jacksonville is the only site to date that has successfully implemented an appointing system that relies on both central and clinic appointing. Jacksonville’s experience in making the transition to a combination approach has been challenging; however, the command leadership strongly supported the change and provided the resources to help make the effort a success. Interestingly, Portsmouth also has a central appointing system, but provider resistance to allow central appointing to book into their schedules has dominated the process. Bethesda currently uses a health care finder system to book some of its specialty referrals, but most clinics do the majority, if not all, of their own appointing.

Phone triage is one way providers may control inappropriate health care utilization. The triage approach is overshadowed by a concern for that one case that is not handled correctly. The approach taken by those clinics that do their own phone triaging is conservative. We found clinic-specific phone-triage systems in place mostly in Jacksonville and San Diego. Portsmouth was the only site in our sample with a central nurse-on-call system, although both Jacksonville and San Diego are considering proposals for a central system.

It is clear that the days of sick call and high rates of walk-ins are over. The overwhelming trend across all four commands is toward a system in which practically all patients have a scheduled appointment. This practice is consistent with the Surgeon General’s guidance last year regarding the use of appointments and dissolution of sick call.

The booking approaches that we observed ranged from flexible to closed systems. For the most part, the approaches at Bethesda and San Diego use a large number of appointment types, ranging in number from approximately 400 at Bethesda to the thousands at San Diego. Portsmouth and Jacksonville also have histories of appointment type proliferation. At least since the implementation of CHCS, providers have used appointment types as a mechanism to control the types of conditions that they see at certain times.

However, the trend across sites is toward fewer appointment types and standardization. The approximately 400 appointment types recently implemented at Bethesda as part of a regional standardization project are a significant change from the over 8,000 appointment types used previously. Region 2 just implemented the use of 9 basic appointment types on 1 January. Jacksonville has not standardized appointment types across clinics, but could probably do so fairly easily because most clinics
seem to use 8 to 10 basic types. San Diego was the only site that has not
directly addressed the issue of appointment types. Rather, it has converted
a seldom-used field to a second appointment type field that coincides with
the OSD(HA) appointment types for access standards. The default value
for this field is same-day acute. The other values are routine, specialty, and
well visit.

The other characteristic that creates what we refer to as a “closed”
approach to booking is the flexibility of the clinic to convert appointment
types to meet demand. At Bethesda, San Diego, and Portsmouth, some
clinics will convert appointment types to meet demand; others will not.
Jacksonville was the only command to have a “flexible” appointing policy
in place at the time of our data collection effort. It has implemented a
system in which all unbooked appointments are converted to same-day
acute appointments on the day of the appointment. These same-day
appointments are for Prime patients.

Jacksonville also was the only command in our sample to have a policy
regarding how far out in time a clinic was to keep its schedule open.
Jacksonville’s policy is for all clinics to have schedules open out to 8 weeks.
This ensures that they will be able to meet access standards for well visits
and specialty referrals. Portsmouth began implementing a similar policy
during December 1997. Otherwise, clinics at Bethesda and San Diego
varied from 2 to 12 weeks in how far out they opened their schedules.
Reasons providers couldn’t open their schedules out further in time
included the following:

- The uncertainty of graduate medical education (GME) rotation
  schedules
- Readiness demands
- Continuing medical education needs
- Staff believed CHCS would not let them.

Yet, the department heads for cardiology and internal medicine at NMC,
San Diego, are experimenting with opening schedules out to 3 months,
and one provider in region 2 has suggested an experiment to open
schedules at selected clinics as far out as CHCS will allow (about 3 to 4
years). The intent of the experiment would be to determine how far in
advance patients prefer to schedule their care.
Clinic business practices (continued)

<table>
<thead>
<tr>
<th>Specialty referrals</th>
<th>Bethesda</th>
<th>Jacksonville</th>
<th>San Diego</th>
<th>Portsmouth*</th>
</tr>
</thead>
<tbody>
<tr>
<td>-decision w/in</td>
<td>72 hours</td>
<td>72 hours</td>
<td>24 hours</td>
<td></td>
</tr>
<tr>
<td>-mode</td>
<td>Electronic</td>
<td>Electronic</td>
<td>Electronic</td>
<td></td>
</tr>
<tr>
<td>-wait lists</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Provider or</td>
<td>Provider</td>
<td>Patient</td>
<td>Provider</td>
<td>Patient</td>
</tr>
<tr>
<td>patient focus?</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*For government-owned/government-operated facilities only. Excludes Sentara Prime clinics

If clinic schedules are opened several weeks into the future, some mechanism will be needed to remind patients of appointments, either by phone or by mail. Otherwise, no-show rates will increase. Clinics can use the CHCS reminder card capability, which generates a postcard 2 weeks before the appointment. Success depends on the accuracy of addresses in CHCS and timely mail delivery.

Standard TRICARE policy is to send all specialty referrals to the local military treatment facility first. OSD (HA) policy for specialty referrals further directs that military specialists decide to accept the referral or defer to the civilian network within 24 hours of the originating order. Interestingly, each of the TRICARE sites we visited had targeted meeting the access standards for specialty care referrals as their starting point for managing patient access. Each site has established command-wide policies for specialty care referrals; while there are differences, the similarities among site policies are striking.

Jacksonville and San Diego have set their initial goal on specialty care referral decisions to within 72 hours. At Portsmouth, the goal is 24 hours. All three sites require providers to transmit their consults electronically using CHCS. Portsmouth has refined the CHCS referral system to include "real time" transmittal and communication between primary care provider and the specialists. They began implementation of
the Electronic Referral System (ERS) on 1 December 1997. Naval Hospital, Jacksonville, has created a clinic support service that has cognizance over the central appointing and consult control services. The plan at Jacksonville is to adopt the ERS within the next month or two.

San Diego and Jacksonville also have set a goal of accepting all specialty care referrals and minimizing the number of patients deferred to the civilian network. However, they also have adopted a policy of automatically deferring the patient to the network if the military clinic at these sites does not have the capacity to meet the demand. No wait lists are to be used. Once a patient is deferred to the network at these sites, however, they lose the ability to track whether the regional managed care support contractor is meeting the TRICARE access standards, although compliance with the standards is part of their contractual agreement.

Bethesda currently uses a mixed system for specialty referrals. Some referrals are received and processed through central consult control; many are not. Some providers transmit referrals electronically via CHCS; many still use paper consults that may travel via guard-mail, fax, or the patient. Many clinics use the CHCS wait list capability because their clinic schedules are not open far enough in advance to accept and book patients when the original consult is received. While there was no command-wide policy at the time of this study, a central consult control office is in place and the command could implement a system similar to Jacksonville’s.
During our site visit to Portsmouth, we also collected business practice information from the Sentara primary care contract clinics. The Tidewater area has eight of these clinics. At the end of FY1997, the total rate of enrollment across these sites was about 90 percent of capacity. Their focus is on providing their patients with primary care, and their business practices reflect that focus.

Sentara has developed a flexible appointing system that relies on a combination of clinic and central appointing, supplemented by a 24-hour, nurse telephone-triage system. The clinics use CHCS to support booking, consult requests, and the tracking of workload. Currently, they use eight appointment types: well baby, paps, mammography, routine, pediatric, health screen adult, nurse, and urgent. However, the clinics are preparing to use the nine new region-wide appointment types. Beginning 1 May 1998, when their new contract goes into effect, the Sentara clinics will convert to the ERS and begin using the Ambulatory Data System (ADS).

However, the number of urgent appointments available is set by each clinic and is based on historical monthly demand. On average, urgent demand translates to one appointment per hour per provider per day. Central appointing transfers urgent calls to the patient’s clinic and the clinic will book the patient. If the demand for urgent care exceeds scheduled availability, the clinic will convert appointment types to meet the daily demand or work the patient in as an overbook. When staffing at one clinic is short,
Sentara will shift providers from less busy sites to help meet the day’s demand.

Sentara also uses a phone system that monitors nurse and clerk activity. At any time of day, the system provides information on how many clerks and triage nurses are available, how many are on the phone, how many are documenting a call, and how many are on break. The system also tracks the number of calls, the wait-times, and the abandonment rate. Based on historical experience, Sentara knows that peak phone-demand times are from 7 to 11 a.m. and from 2 to 4 p.m., and they staff the system accordingly to meet demand.

The relationship between the Region 2 TRICARE office and Sentara has a bumpy past; however, both sides have made some changes and the relationship appears more harmonious. We suggested to the Commander of NMC, Portsmouth, and his directors that as they prepare to move into their new facility they take a look at the Sentara Prime clinic model to get different ideas about possible ways to increase patient access.
Current tracking capabilities

- Can existing automated systems be used to track access to health care?
- What information are people using?
- What additional information is available?

The second task we had was to determine the current tracking capabilities of Navy medicine. Can existing automated systems be used to track patient access to care? What information are people currently using? And what else is available?
Current tracking capabilities (continued)

- CHCS provides real-time tracking capability and reporting via PAS, MCP, ERS, and ad hoc
- Each facility identifying/developing own reports
  - limited sharing between sites
  - following same learning curve
  - creating same type of reports
- No one has stressed the system yet
  - support functions
  - reporting functions

Military medical facilities can track patient access to care with CHCS. The modules that we looked at included patient appointing and scheduling (PAS), the managed care program (MCP), and the Electronic Referral System (ERS) developed by NMC, Portsmouth. Each of these modules contains a number of standard reports that sites may use to help track patient access to care. In addition, sites may develop their own series of reports via CHCS's ad hoc reporting capabilities.

Ad hoc reports tend to be the report of choice. Each facility that we visited is creating its own set of reports, and often these reports are producing the same information. Unfortunately, there is very little sharing of ad hoc report formats among sites, which contributes to a system-wide report development inefficiency. We also found CHCS to be a huge, complex system with many support and reporting capabilities that are not yet being exploited.
Useful CHCS access reports

- Workload recap report (PAS)
- Next available appointment report (PAS)
- Appointment utilization report (PAS)
- Clinic schedule summary (PAS)
- PCM activity report (MCP)
- Access report (ad hoc)
- Referrals (Prime/non-Prime) to TSC (ad hoc)
- Referrals from civilian Prime providers (ad hoc)
- Referrals booked at MTF by specialty (ad hoc)

We’ve listed a sample of the reports available on CHCS. Many of these are reports that commands are using to track patient access to care. PAS and MCP reports provide basic workload, enrollment levels, and daily scheduling information. We believe that each report provides useful indicators of access to care. On the following slide, we show the specific types of information contained on each report.

Although the CHCS standard reports in PAS and MCP provide important and useful measures, they do not precisely indicate how long a patient must wait for an appointment. To obtain this information, commands must develop their own ad hoc reports. We found this to be the case at each command that we visited. A more efficient practice would be to share the report programming formats among facilities once one command has developed it. The only instance we found of sharing ad hoc reports was between Portsmouth and Jacksonville. Jacksonville will adopt the ERS ad hoc reports for tracking specialty care when the software is added to the local CHCS.
As we mentioned earlier in this report, sites need to review a number of different indicators to get a complete picture of patient access. Each report that we have mentioned gives clinic managers a different piece of information. Above we list the specific measures provided in selected PAS reports.

The workload recap report provides general visit utilization information. In the next section, we show examples of the specific types of information that commands are using from these reports. The next available appointment report and clinic schedule summary give each clinic real-time information on appointment availability that managers can use to make daily and monthly adjustments.

The appointment utilization report indicates monthly booking demand by appointment type. Again, clinic managers can use these data to assist them in streamlining use of appointment types, adjusting daily schedules, and determining if the clinic needs to expand its hours and open its schedule farther into the future.

<table>
<thead>
<tr>
<th>Report</th>
<th>Level</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload recap report</td>
<td>Command</td>
<td>Number of outpatient and inpatient visits by clinic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Summary of next available appointment report</td>
</tr>
<tr>
<td>Next available appointment</td>
<td>Clinic</td>
<td>Appointment availability by type and provider</td>
</tr>
<tr>
<td>Clinic schedule summary</td>
<td>Clinic</td>
<td>Number of booked and unbooked appointments</td>
</tr>
<tr>
<td>Appointment utilization</td>
<td>Clinic</td>
<td>Number of times an appointment type is used</td>
</tr>
</tbody>
</table>
MCP report measures

<table>
<thead>
<tr>
<th>Report</th>
<th>Level</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCM activity report</td>
<td>PCM site</td>
<td>Number of visits by Prime patients to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Their PCM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- A specialist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The emergency room</td>
</tr>
</tbody>
</table>

The MCP activity report provides clinic managers with a means for determining monthly outpatient utilization for their Prime enrollees. The specific information includes the number of enrollee visits to their primary care provider, to specialists, and to the emergency room. Note that the MCP activity report will capture consults made outside the PCM without a referral only if the PCM booked the consult. Primary care providers may use this information to determine whether patients are really getting access to appropriate care. Large visit numbers to the emergency room may be one indication that Prime patients are not able to obtain same-day acute appointments.
### Ad hoc report measures

<table>
<thead>
<tr>
<th>Report</th>
<th>Level</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCM access report</td>
<td>Clinic</td>
<td>Number of patients who are booked within access standards by appointment type and Prime type</td>
</tr>
<tr>
<td>Referrals to TSC</td>
<td>Clinic</td>
<td>Number of referrals sent to civilian network from the MTF by specialty and beneficiary type and Prime status</td>
</tr>
<tr>
<td>Referrals from TSC</td>
<td>Clinic</td>
<td>Number of Prime referrals sent to MTF from TSC. It includes 720 response compliance</td>
</tr>
</tbody>
</table>
| Referrals booked at MTF     | Clinic | Number of referrals booked through CHCS each month that are:  

  - Accepted and booked within 72 hours  
  - Booked after 72 hours or  
  - Seen after 30 days |

The ad hoc reports that NMC, San Diego, is using to track patient access are listed above. Jacksonville and Portsmouth have developed similar ad hoc reports. The access report provides the number of patients who are booked within access standards by appointment type and Prime type. The report also indicates the number of patients who were not booked within the requisite period of time.

Ad hoc reports for tracking access to specialty care include measures about the number of MTF referrals deferred to the civilian network through the local TRICARE Service Center (TSC), the number of civilian Prime referrals received at the MTF through the local TSC, and MTF referral acceptance and booking activity. During the time of our site visits, San Diego and Jacksonville had implemented a command-wide policy instructing providers to act on referrals within 72 hours. Portsmouth was preparing to implement a 24-hour standard, and Jacksonville will convert to a 24-hour standard once it has implemented the Portsmouth ERS for specialty referrals.
## Recommendations for Navy-wide standards

<table>
<thead>
<tr>
<th>Business practices</th>
<th>Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use combination of clinic and central appointing</td>
<td>• Access report</td>
</tr>
<tr>
<td>• Adopt region 2 appointment types as Navy standard</td>
<td>• Referrals to TSC report</td>
</tr>
<tr>
<td>• Mandate use of Portsmouth ERS</td>
<td>• Referrals from TSC report</td>
</tr>
<tr>
<td>• Develop specialty referral guidelines for PCMs</td>
<td>• Referrals booked at MTF report</td>
</tr>
</tbody>
</table>

Based on our evaluation, we recommend that the Navy adopt a number of standard business practice approaches and reports at its facilities. The business practices include:

- The use of both clinic and central appointing
  - Central appointing should be used for new patients
  - Central appointing should have access to all clinic schedules
- Standard use of the nine region 2 appointment types and the Portsmouth electronic referral system module for CHCS
- Requirement that facilities develop a command-specific specialty referral guideline manual.

Navy medicine should also require its facilities to implement the ad hoc reports listed above as the Navy's standard set of reports for tracking patient access. These reports could then serve as the basis for system-wide tracking of access by BUMED.
A new philosophy and a model for improvement

The Navy Surgeon General has placed great emphasis on patient access to care measurement, and customer satisfaction [5, 6]. The challenge is in implementing business practices that achieve Navy leadership's goals. In this next section, we describe the type of philosophy that we believe local facilities need to follow to successfully run managed care programs. We also recommend a model that Navy facilities can use to structure their improvement efforts, and we provide examples of potential applications and how CHCS can support these initiatives.
Navy providers at all sites recognize that military medicine’s history is not consistent with current managed care philosophies. We found that military clinics historically have adopted practice patterns that focused on the providers. There were no rules or self-imposed standards to encourage efficiency. From the providers’ perspective, the practices they put in place gave them the most flexibility given the demands of graduate medical education (GME) and the uncertainties of the military.

However, the structure of military medicine is changing. Under managed care, the guiding philosophy must change to a patient focus to succeed. What is a patient focus? Quite simply, a patient focus requires that you see your practice through your patient’s eyes.
Local military providers at each site we visited are experimenting with a number of ideas to become more efficient, particularly with respect to patient access to care. Based on our observations, we found that the approach that clinics seem to adopt closely mirrors a model developed by the Institute for Healthcare Improvement [8]. The purpose of the model is simple and straightforward: to accelerate improvement in the health care setting. As depicted by the Institute for Healthcare Improvement, the model contains two parts: answering three basic questions and using the Plan-Do-Study-Act (PDSA) cycle to test and implement changes in real work settings.

First, clinic staff need to set their goal, expressed in clear, specific terms. Second, clinics need to establish measures to determine if the change results in an improvement. Finally, clinic staff need to figure out what changes they can make that will result in improvement.

The PDSA cycle describes how to test a change (by doing it), observing the consequences, and learning from them. The Institute for Healthcare Improvement has developed a list of 27 change concepts that health care professionals may use to help analyze and improve the flow of products and services throughout their facility to achieve significant reductions in delays and waiting times.
Above we list a sample of the change concepts that health care professionals may use to help analyze and improve the flow of products and services throughout their facilities to achieve significant reductions in delays and waiting times. We have focused on those concepts that other facilities (such as Cambridge Hospital, University of Michigan Medical Center, Kaiser Permanente Colorado) have used to reduce waiting times in clinics and offices [9].

Examples of solutions used by facilities to increase patient access include:

- Schedule appointments to match demand for same-day or next-day appointments.
- Use alternative providers and alternative settings.
- Divide responsibility for patient and information flow; do tasks in parallel.
- Include time in the schedule for telephone consults.
- Study reasons for interruptions to physicians and eliminate those that do not contribute to patient care.
- Designate a physician or team to extend hours when demand exceeds capacity; rotate daily.

Next, we take a look at some specific examples of how Navy medicine can use the model for improvement with information we collected from Navy medical facilities during this study.
Navy providers have implemented a wide variety of continuous improvement efforts aimed at increasing patient access to care. We’ve listed a variety of examples above. This list is by no mean exhaustive.

Clinic managers are relying increasingly on the Composite Health Care System to provide them with measures of patient access. We found this trend to be particularly prevalent among primary care providers. The compilers of information tend to be people working in the command’s managed care office. Common practice is to distribute monthly reports to the commander and his or her directors, who then pass the information along to their respective department heads and other clinic managers.

Shifting personnel among departments and using resource-sharing agreements to augment support staff are also frequent practices. Another type of resource-sharing arrangement involves the purchase of additional supplies for the MTF by the managed care support contractor to allow specialists to treat more patient referrals.

Commands also are increasing patient access to care by shifting providers to branch clinics and establishing new branch clinics where the patients are. Examples include a new orthopedics clinic at Naval Training Center, Branch Medical Clinic, San Diego, and the Sentara Prime clinics in the Tidewater area.

Jacksonville has encouraged more efficient use of referrals by developing a manual of specialty referral guidelines for its primary care providers. The manual contains guidance on general symptoms and tests for which a physician needs to screen before requesting a specialty referral.
Finally, as part of a regional initiative, Portsmouth is stressing the importance of using a more flexible approach to patient appointing by minimizing the number of appointment types and opening more appointments for booking through central appointing. Specifically, all clinics are to allow central appointing at the TRICARE Service Center to book into all their open appointment slots for new patients.

In the next few pages, we present several examples of continuous improvement efforts at Portsmouth, San Diego, and Jacksonville. For illustrative purposes, we structure our presentation in accordance with the Institute for Healthcare Improvement's model for improvement. Also, in some examples, we present data for one month only, but we note that commands are tracking the dates over time.
The goal for our first example is to meet the TRICARE access standards for specialty care. The change concepts adopted by several facilities include mandating use of electronic referrals command-wide, developing care standards for specialty referrals to encourage more informed referral requests, and using automation to allow physicians to communicate with each other in real time in order to make the best care decision for the patient. Commands also are requiring their specialists to screen consult and referral requests daily, and to make the decision to accept the patient or to defer to the civilian network for care within a set period of time (24 hours at Portsmouth, 72 hours at San Diego and Jacksonville).
This slide and the next show several measures that San Diego is using to track Prime patient access to specialty care. Jacksonville and Portsmouth are implementing similar reporting capabilities. This particular report shows the number of Prime consults received by each specialty clinic in the Medical Division during September 1997. It also shows the number of referrals accepted with the 72-hour time limit by each clinic and the number deferred to the civilian network. San Diego’s goal is to maximize specialty care in the MTF. Ultimately, they would like the number deferred to the network to be equal to zero.
This table shows the number of Prime patients appointed through CHCS and seen by each surgical specialty clinic after the 30-day access standard. Again, the goal for each clinic is zero, particularly for Prime patients. The command uses these data in combination with other information to determine why the access standards are not being met and what they can do to correct the lapses. Standard TRICARE guidance is that specialists are to defer patients to the civilian network if they cannot see them within 30 days. Active duty specialty care may lapse beyond the 30-day standard if the patient is deployed.
Goal: Appoint active duty specialty care referrals within 72 hours

- Change concepts
  - Redesign the system through use of automated referral process
  - Consider people to be in the same system by sharing information with other clinics

- Site implementing theses changes: Office of the fleet medical liaison, NMC, San Diego

Our second example is from the office of the fleet medical liaison, Naval Medical Center, San Diego. The fleet medical liaison coordinates care for active duty members, particularly those aboard ships. His goal is to appoint all active duty specialty care referrals within 72 hours. The change concepts he has used includes the use of electronic referrals and providing weekly updates to each specialty clinic on how they’re doing. He has encouraged all ships to use CHCS and to transmit their referrals electronically. However, for those received via fax transmittal, he has implemented a system in which a member of his staff immediately enters the consult into CHCS and sends it to the appropriate provider.
The fleet medical liaison officer at NMC, San Diego, dedicates a significant portion of his time to tracking all active duty consults. He maintains a database that tracks a number of measures by specialty on a weekly basis, including:

- Number of new consults received by the fleet medical liaison office
- Number of consult requests booked into an appointment
- Number of appointments not given within 72 working hours
- Mean wait in days between day of the consult request and appointment date
- Shortest wait in days between consult request and appointment date
- Longest wait in days between consult request and appointment date
- Number of consults reviewed by clinic and deleted from further processing (reasons for deletions include assignment to a wait list, duplicate consult, forwarded consult to another clinic, return of consult to requesting provider for additional information, nonavailability of requested service, and accidental error)
- Number of consults that hit the 14-day mark without being addressed by the clinic.

He also provides the command with a memo outlining the “hot items” for the week. The table above is an example of weekly data for orthopedics.
Goal: Meet TRICARE access standards for acute care

- Change concept
  - Adjust to peak demand
  - Identify and manage the constraint
  - Add evening hours
  - Shift nursing resources
  - Consider people to be in the same system
  - Extend the time of physicians
  - Use nurses to triage and provide patient care
  - Extinguish use of ineffective care
- No site visited is implementing all these changes

Our third and final example is for meeting the TRICARE access standards for acute care. No facility that we visited had a complete system for managing and tracking acute-care access. We suggest several business practice changes to meet this goal. A clinic may add evening hours, shift nursing resources from administrative or inpatient positions to outpatient care, and use nurses to do phone triage. Expanding hours and relying on nurses, physician assistants, and residents to provide certain types of care may assist clinics in:

- Adjusting to peak demand
- Managing constraints
- Extending the time physicians have to spend with patients
- Extinguishing ineffective uses of care.
Next available appointment report,
Pediatrics Clinic, Bethesda

Reviewed appointment availability on Wednesday, 17 Dec. 1997@1459
Number of providers on schedule: 17

<table>
<thead>
<tr>
<th>Appointment type</th>
<th>Number of providers</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent</td>
<td>4</td>
<td>18 Dec 1997</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>19 Dec 1997</td>
</tr>
<tr>
<td>Follow-up</td>
<td>1</td>
<td>18 Dec 1997</td>
</tr>
<tr>
<td>Well-baby</td>
<td>2</td>
<td>18 Dec 1997</td>
</tr>
</tbody>
</table>

We believe that CHCS provides several measures from its standard reporting system that can be used to track acute access. One quick daily measure of access to acute care is the availability of appointments. Clinic managers may use the next available appointment report to quickly survey same-day acute-care appointment availability. We show summary information for the Pediatrics Clinic at Bethesda in this slide. As this slide shows, as of the mid-afternoon, the clinic still had four appointments available within 24 hours. A clinic could take a random sampling of these reports over the course of a month to get a picture of how it was doing in terms of meeting acute-care access.
How can command leadership encourage its staff to increase patient access and experiment with new ideas in support of this goal? First, commanders need to relate access initiatives to the bigger picture. Military medicine is moving to an enrollment-based-capitation (EBC) funding system. Under EBC, Navy facilities will earn a fixed premium for each Prime patient. If a Prime patient is referred to a civilian provider, the cost of that care will be billed to the referring MTF. The MTF can earn additional revenues by providing space-available care to non-Prime patients. Every member of the staff must understand that it is in the financial interest of the facility to see its Prime patients. Every time a patient is referred to a civilian provider for care that the MTF could have provided, the MTF loses resources.

To operate successfully under EBC, the incentives at the clinic level must be in line with the incentives for the MTF. This can be accomplished only by allocating resources internally according to the same rules that dictate overall MTF funding. Internally, resources need to be allocated based on capitated funding as well.

To ensure that access standards are being met, both BUMED and each facility should establish an access standards officer. These individuals would be responsible for collecting, monitoring, and reporting access performance. At the BUMED level, the person would be responsible for implementing a standard global reporting system, coordinating with the facilities and lead agents, and reporting system-wide performance to Navy leadership. At the facility level, the person would be responsible for supporting the Navy-wide reporting system, as well as command needs and initiatives.
To be successful, the access standards officers must be given the resources they need. This may include shifting staff within the facility. In addition, there needs to be a continuous dialogue between BUMED and the facilities and a sharing of ideas between sites. One way to do this is by posting new initiatives and approaches for improving and tracking access on hospital and TRICARE region websites. BUMED could assist in establishing more communication between sites by hosting monthly teleconferences between hospital access standards officers and the CHCS project officers. Commanders should also keep in touch with the improvement effort, either by visiting the team or by placing the initiative in a prominent position of the command’s list of priorities.

Finally, local commanders can reinforce support for TRICARE through performance evaluations and awards. Commanders can include comments on yearly fitness reports regarding the person’s activities supporting TRICARE, especially for those staff members in managerial positions (i.e., directors and department heads). They also can implement a variety of awards for staff at all levels to reward them for their successes.
Conclusions

- CHCS provides Navy medicine with capabilities to track patient access

- Recommendations
  - Mandate use of standard business practices and ad hoc access reports
  - Align internal facility incentives to be consistent with EBC and support meeting access standards

Navy medicine can use CHCS to track patient access to care. The system would also benefit from the use of standard business practices and Navy-wide use of certain ad hoc reports. Specifically, we recommend using a set of ad hoc reports developed by NMC, San Diego, as a system-wide prototype. Navy medicine should also mandate that its facilities adopt certain standard business practice approaches, including:

- The use of both clinic and central appointing
- Standard use of the nine region 2 appointment types and the Portsmouth Electronic Referral System module for CHCS
- A requirement for facilities to develop command-specific specialty referral guideline manuals.

Finally, we recommend that the incentives within the MTF be aligned with EBC funding and support meeting the access standards. The facility staffs must be educated on how EBC and access standards are related and how failing to meet the standards could negatively affect the facility’s funding. To ensure that all staff support the global interests of the MTF, internal resources must also be allocated based on capitated funding.
References


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