

Composite Health Care System II (CHCS II)

The Composite Health Care System II (CHCS II) is a Tri-Service medical management automated information system sponsored by the Assistant Secretary of Defense (Health Affairs). CHCS II provides a uniform, comprehensive, legible, secure, electronically transferable health record for every beneficiary in the Military Health System, as mandated by the President and Congress (Presidential Review Directive 5 and Public Law 105-85). It will be used in every military medical treatment facility (MTF) worldwide – fixed, deployed, and aboard ships. CHCS II also addresses the need for readily accessible health care information about deployed Service members. Building on the existing CHCS, CHCS II integrates medical and dental information and is a key enabler for force health protection and population health improvement – two cornerstones of military medicine.

CHCS II achieved Milestone I in 1998. During 1999 and 2000, the Army Test and Evaluation Command (ATEC) conducted operational assessments on CHCS II prototype systems installed in selected clinics at MTFs in Hawaii. Although the results indicated that these systems were not yet operationally effective or suitable, the assessments proved valuable in designing the next iterations of the software, which incorporated substantial operational and technical architectural changes. The program manager (PM) started implementing CHCS II in multiple blocks with increasing functionality.

During 2000 and 2001, the PM installed CHCS II Block 1, which targets ambulatory care, in selected clinics at four pilot sites. The PM continued to improve the software, based on user input, and ATEC conducted IOT&E at the sites in the summer of 2002. In August 2002, the Joint Requirements Oversight Council approved an updated CHCS II Operational Requirements Document. In January 2003, the Milestone Decision Authority granted Milestone C limited deployment authority for CHCS II Block 1, awarded Milestone B for Block 2, and awarded Milestone A for Block 3. The PM fielded CHCS II Block 1 to six MTFs among the three Services. In September 2003, the Overarching Integrated Product Team recommended approval for CHCS II Block 1 worldwide deployment beginning January 2004.

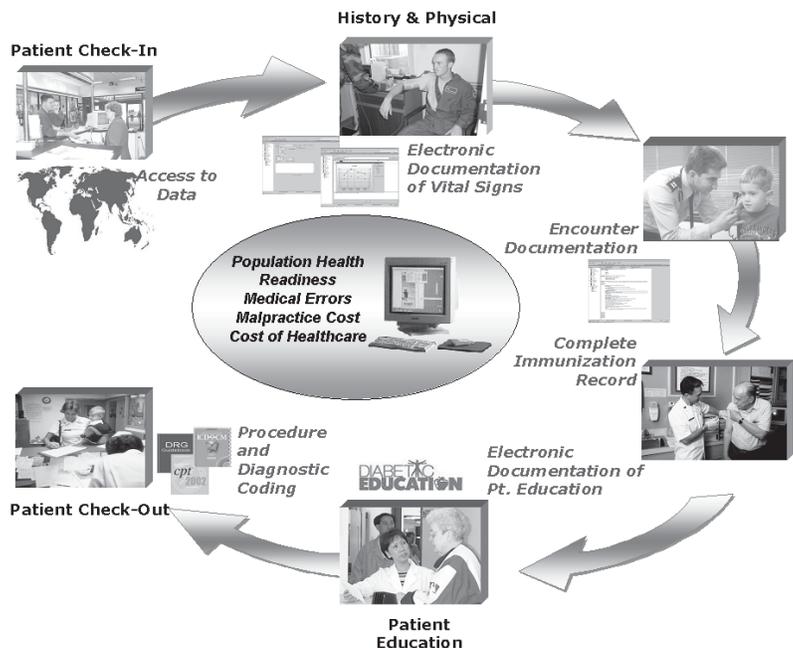
TEST & EVALUATION ACTIVITY

DOT&E approved an updated CHCS II Test and Evaluation Master Plan for Block 1 in May 2002.

During 2003, ATEC worked with Bearing Point, Inc. to conduct a continuing evaluation of CHCS II in order to study whether its long-term benefits outweigh a perceived lower productivity level that came to light during the 2002 IOT&E.

In September 2003, ATEC completed a reassessment of Block 1 interoperability and productivity issues.

An updated Test and Evaluation Master Plan for Block 2 (which provides dental and optometry capabilities) is in the final approval stage. ATEC is scheduled to conduct Block 2 OT&E in early 2004 at Army and Navy test sites in the Virginia Tidewater area and at Sheppard Air Force Base, Texas.



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DOD PROGRAMS

TEST & EVALUATION ASSESSMENT

CHCS II uses the latest proven technology and links multiple commercial off-the-shelf products. The system uses templates to record patient encounters to build the Electronic Health Record. Since it will be the Department of Defense's premier computer-based health care system, CHCS II will have a tremendous operational impact on the fighting force. The Electronic Health Record will be the first (military or civilian) cradle-to-grave automated health care record – one that can revolutionize the effectiveness of the Military Health System by providing instantaneous patient information to health care providers (HCPs) worldwide.

ATEC found Block 1 to be operationally effective, suitable, and survivable. The DOT&E determined that the IOT&E was adequate and agreed with the ATEC findings, based on the approved operational requirements. However, during the course of the IOT&E, it became apparent that an additional mission performance parameter – one not found in the approved Operational Requirements Document – also applied. HCPs at every test site reported that the number of patient encounters that can be completed is a major measure of mission performance. Many HCPs stated that they had been told by their superiors that they should see as many as 25 patients per day. These users indicated that a patient encounter usually takes longer using CHCS II than it would if documented solely on paper, particularly in general clinics such as family practice and primary care. User surveys conducted during the IOT&E indicated that a majority of HCPs who perform full patient encounters (i.e., complete office visits with their patients) were dissatisfied with the ability of CHCS II to help achieve the goal of 25 patients per day.

During the limited deployment of Block 1, the operational test community continued to assess CHCS II. In conjunction with the Joint Interoperability Test Command, ATEC retested the interoperability aspects that had been problematic during the 2002 Block 1 IOT&E. In September 2003, ATEC and the Joint Interoperability Test Command determined that the PM had corrected the interoperability problem, which involved the transfer of clinical and demographic data to a third party financial accounting system. DOT&E concurred that interoperability issues were resolved.

In spring and summer 2003, ATEC assessed the productivity of CHCS II using data gathered by Bearing Point, Inc. The results showed that after CHCS II was installed, the number of patient encounters performed by HCPs initially dropped off by approximately 20 percent across the Services. However, due to the short data collection period, DOT&E and the user community do not yet completely understand all of the ramifications of these findings. More data will be collected to determine whether the former level of patient encounters is possible and, if so, how long it will take to achieve that level. DOT&E will continue working with the PM, the users, and the testers to accomplish this while planning for Block 2. OT&E continues.