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In April 2002, the Naval Reserve deployed the Reserve Automated Medical Interim System (RAMIS), elevating medical readiness tracking and disability management to new heights. The database contains all medical requirements, such as immunizations, physical exams, and medical tests. It also provides the medical department representatives (MDRs) and Force Medical, Commander Naval Reserve Forces Command (COMNAVRESFORCOM) with a tool to manage Temporarily Not Physically Qualified (TNPQ), Temporarily Not Dentally Qualified (TNDQ), Medical Retention Review (MRR), and Line of Duty (LOD) processes. RAMIS allows active and reserve decision makers to coordinate personnel and supplies to ensure the completion of medical requirements. Additionally, it provides all levels of the chain of command visibility of their personnel in a real-time environment.

The development team of Space and Naval Warfare Information Technology Command (SPAWAR ITC) New Orleans developed RAMIS to meet a Congressionally mandated requirement to track disability benefits requested and received by Reserve members. The opportunity was also seized to replace the antiquated medical module of the Reserve Standard Training Administration and Readiness Support (RSTARS MM) by adding a medical readiness-tracking module within RAMIS. SPAWAR ITC solicited field users to submit stand-alone databases that had been created to automate medical business practices. Understanding these field practices and using collaborative efforts of technical and functional subject matter experts resulted in a system that was

RAMIS

completed on time, within budget, and that far exceeded original requirements and expectations. The Naval Reserve Force is now a leader in medical information technology.

RAMIS was developed utilizing Oracle forms and reports to create a user-friendly layout and style. Future upgrades to the system include a redesign of the application to a Java 2 Platform Enterprise Edition (J2EE), which is the latest technology. The information, stored in an Oracle 9i database, provides scalability, flexibility, and security. This Web-based application is approved to run on the Navy and Marine Corps Internet (NMCI) and has several benefits. First, existing computer systems are able to access the application, requiring no hardware upgrade purchases. Second, updates and upgrades are made at a central location with no user or system administrator intervention required. This allows for immediate system changes to be implemented, such as the ability to track Individual Medical Readiness (IMR) and smallpox immunizations. Third, the system includes interactive help text, thus saving time and money for required training. Fourth, centralization allows a single help desk via a 1-800 number providing continuous 24-hour support. Fifth, utilizing an industry standard report format, Adobe Acrobat Reader, ensures readability, flexibility, and further cost savings. Sixth, centralization of security ensures only authorized personnel have access to personal data. Finally, the system provides for worldwide accessibility.

Leveraging the latest technologies allows implementation of innovative database connections, ensures data integrity, and minimizes the level of effort required to maintain the system by MDRs. RAMIS utilizes authoritative data sources for a myriad of informational needs. Demographic information is updated nightly with a connection to the Reserve Headquarters System (RHS), allowing for the seamless transfer of medical and personnel data between units. This also allows for the tracking of chemical and biological suit-sizing

requirements, in a separate module. Using another database interface, DNA registration dates are automatically obtained from the Armed Forces Institute of Pathology (AFIP). The first reconciliation with this data found and corrected a deficiency of approximately 19,000 DNA registration dates not previously captured in RAMIS. This initiative produced savings both monetarily and in MDR/Naval Reserve man-hours. In addition, the Navy Central HIV Command provides HIV test dates (but not results) electronically to RAMIS.

RAMIS not only receives and collects information, but also provides this data to other systems. Medical information is provided to the Naval Reserve Order Writing System (NROWS), enabling Naval Reservists to receive orders for Annual Training and Inactive Duty Training Travel without the need to report to medical. The system passes information needed to place "hard holds" on orders for Reservists missing mandatory medical requirements or who are under review for medical fitness for Naval service. Additionally, the system sends immunization data to Defense Enrollment Eligibility Reporting System (DEERS) as required by the Department of Defense. RAMIS also provides medical data to the Naval Reserve Data Warehouse for aggregation with administrative requirements, to be viewed as dashboard indicators.

Collaborative efforts between the SPAWAR ITC and the Force Medical Office of COMNAVRESFORCOM are taking the system further into the future. Efforts to share data between systems that require Reserve medical information are ongoing. The RAMIS team is working with the Bureau of Naval Personnel (BUPERS) to send medical information to the Navy-Marine Corps Mobilization Processing System (NMCMPs). This program was developed for the tracking of mobilization requirements, both administrative and medical, for Naval Reserve personnel. The team is also working with the Naval Medical Information Management Command

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(NMIMC) to develop plans for inclusion of RAMIS data within Navy Medicine On-line (NMO) and the active duty dental tracking program DENCAS. In addition, a database connection with Naval Aerospace Medicine Institute (NAMI) will provide data regarding medical flight waivers. Furthermore, RAMIS will integrate with the TYCOM Readiness Management System (TRMS) to provide the ability for supported commands to provide oversight of their Reserve assets.

The RAMIS application is a terrific example of synergy within the "One Navy" environment. RAMIS represents

the success that can be achieved when Navy teams work together for a common goal. In this case, the result yielded a system that allows the Naval Reserve to meet medical reporting requirements with ease, at all levels of the chain of command, in a real-time environment. RAMIS is a noteworthy model for the future direction of military medical information technology.

(My special thanks to HMC Tina Stanco of the CNRFC Force Medical staff who prepared this informative article and has been the RAMIS guru since its inception.)