Evolution & Summative Evaluation of the Alaska Federal Health Care Access Network Telemedicine Project

BACKGROUND & INTRODUCTION

The first chapter in this report is intended to provide a glimpse of the “telehealth territory” in Alaska, with a focus on the Alaska Federal Health Care Access Network (AFHCAN) project and the Alaska Telehealth Advisory Council (ATAC), both of which have been strongly supported by Alaska’s senior senator, Ted Stevens. Due to that focus, it does not cover telehealth history in the private sector to the extent that it does in the public, federally supported system. This is the first time a history of this breadth has been gathered in one publication, but it is only a small part of a large evaluation of the AFHCAN project.

The main purpose of this report is to provide a summative evaluation of the four-year AFHCAN project. The mission of the AFHCAN project was to improve health care access for federal beneficiaries in the state of Alaska through a sustainable telemedicine system. By the end of the four-year project, the AFHCAN supported 43 member organizations that made up the Alaska Federal Health Care Partnership (AFHCP), representing 248 federal health care sites and impacting more than 200,000 Alaskans. Member organizations, all recipients of federal funding, included Indian Health Services Tribal Entities (36 with 200 sites), U.S. Department of Defense (4 with 9 sites), U.S. Coast Guard (1 with 8 sites), Department of Veterans Affairs (1 with 5 sites), and State of Alaska Department of Health and Social Services: Section of Nursing (formerly Public Health Nursing) (1 with 26 sites).
The AHFCAN project initially proposed to serve 235 sites. The first year (1999) was focused on project development and planning, the second year (2000) was concerned with software development. Both the third and fourth years (2001-2002) were focused on deployment of equipment, equipment utilization, training, and enhancement. In the fourth year, the AFHCAN Steering Board approved the addition of 13 new sites bringing the number up to 248. The AFHCAN telemedicine equipment was mounted on “carts.” The AFHCAN specifically designed software utilized a web-based store-and-forward interface to gather data from the biomedical peripherals on the cart.

The primary focus of the evaluation of AFHCAN Telemedicine Project was to assess related activities from three separate, yet interrelated, perspectives: (1) a rural provider perspective, (2) a technological perspective, and (3) a policy and sustainability perspective. The evaluation was designed to answer the following questions:

1. What was the evolution of the AFHCAN telemedicine project?
2. What were the critical influences in shaping the development of telemedicine in Alaska?
3. What was the impact of the AFHCAN telemedicine project on health care delivery in rural Alaska?
4. What factors are related to sustainability?
5. To what extent was the technology effective in supporting utilization?
Methodology

The evaluation used both qualitative and quantitative methodologies to capture the history and outcomes of the AFHCAN project. Qualitative tools included multiple key informant interviews and a comprehensive review of source documents. Quantitative approaches included analysis of AFHCAN data, Alaska Department of Health and Social Services Division of Health Care Services (formerly Division of Medical Assistance) data, and health organization surveys targeting rural health providers, business personnel, and technology personnel. A multidisciplinary evaluation team, working through the University of Anchorage Statewide Office of Health, fleshed out key goals and constituent objectives.

Key Informant Interviews

From December 2002 through February 2003, interviews of personnel who had been leaders in the AFHCAN project and other telemedicine activities in Alaska were conducted to provide an ecological analysis of historical antecedents, identify current issues, and provide a focus for other evaluation activities.

Source Documents

A comprehensive list of source documents was constructed from information provided by key informants. These documents were reviewed and analyzed to complete a detailed history of telemedicine in Alaska, focused on the public sector.

Alaska Federal Health Care Access Network Data

Analysis of data collected by the AFHCAN project was conducted. Primarily the data described the type of encounter, the disposition of the case, and the level of provider satisfaction with the telemedicine application used. This information was produced electronically at the time of the telemedicine encounter. A Data Share Agreement was initiated on May 9, 2003, with the Alaska Native Tribal Health Consortium (ANTHC) to establish the parameters around the type, frequency, and duration of data sharing.
Medicaid Data

Data from the Division of Medical Assistance (currently Division of Health Care Services) were requested to analyze trends in telemedicine reimbursements. The division provided information related to the number, type, and payments for telehealth services reimbursement requests, information about claims on which payment was denied, and data for comparing this with denial of claims in general.

Health Organization Surveys

Three separate surveys were conducted to obtain information from rural health providers, business personnel, and technology personnel. Survey instruments were constructed from the key informant information and analysis of various source documents. The surveys were designed to collect data from targeted respondents from the original 235 sites.

Report Organization

- **Chapter I** includes a detailed history of telemedicine in Alaska, focused on the public sector, including a description of factors that influenced the shape and course of the AFHCAN project.

- **Chapter II** summarizes key informant interviews and key stakeholder perspectives of the critical events that shaped the AFHCAN project and future issues.

- **Chapter III** summarizes use and evaluation data as collected by AFHCAN over the four years of the project with special attention to federal partners.

- **Chapter IV** summarizes Medicaid claim and reimbursement patterns for telemedicine encounters in Alaska.

- **Chapter V** examines the impact of the AFHCAN project from a rural provider perspective and contains a summary of data obtained through surveys of health providers and business and technology personnel.

- An **Addendum** authored by Stewart Ferguson brings the activities of the AFHCAN up to date, since the end of the four-year project evaluated in this report.