



# UNIVERSITY OF HAWAII SYSTEM

## TESTIMONY

SB 1358

Relating to Telehealth

Testimony Presented Before the Joint  
House Committees on  
Health,  
Human Services, and  
Media, Arts, Science & Technology

February 16, 2005

by

Clyde Sakamoto  
Chancellor, Maui Community College  
University of Hawai'i

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Chairs Baker, Oakland, Fukunaga and Members of the Committees:

Maui Community College supports SB 1358.

Telehealth (telehome care) provides direct communication between patients from their home to the health care provider. It includes transfer of video images and physiologic data (blood pressures, heart rates, blood sugar readings). The proposed telehome care pilot project provides the opportunity for patients with chronic conditions to have regular, consistent contact with a nurse practitioner with the goal of reducing health care cost and improving quality of life for the patients. Chronic conditions like congestive heart failure, COPD/asthma, diabetes, wounds and hypertension respond to close management and early intervention. Identification of changes in health status and early interventions in response to these changes result in significant reduction in health care costs by avoiding or reducing emergency room visits and re-hospitalizations.

Currently, Medicaid in eighteen states reimburse for these cost saving services. This pilot study would provide data to support a telehealth reimbursement decision by the Hawaii Department of Human Services. The rationale for exploring new strategies is presented in the Department of Health's, Health Trends 2004, "As Hawai'i's health status remains favorable with regard to the prediction that life expectancy will continue to increase, then the elderly population will continue to grow. This will increase the prevalence of chronic diseases over the next two decades. Thus, it is important to assess our current resources to ensure adequate prevention, treatment, and management of chronic diseases."

Multiple studies have demonstrated the effectiveness of telehome care strategies. For example, Kaiser Permanente of Sacramento, California, undertook a landmark study from May 1996 through November 1997. The study comprised of intervention and control groups of one hundred patients each with chronic conditions. The control group continued to receive home-care visits according to their existing plan

of care, while the intervention group was monitored with home telehealth system as a supplement to home-care visits. The data revealed that home telehealth provided instant access to care, created considerable efficiency in the delivery of home care and reduced hospitalization by two hundred days in the intervention group. The telehome care projects at Maui Community College have demonstrated similar results.

Maui Community College has provided health curriculum via distance education since 1986 and telehealth education/telehealth service since 1999. In 2001 Rural Development Project funded the development and implementation of a non-credit Certificate, Introduction to Telehealth for Nurse Aides and Technicians.

The telehealth patient services are provided through the Maui Community College Campus Health Center. The opportunity to observe and participate in the telehealth delivery of care enhanced nursing, health unit coordinator student learning. All senior nursing students currently complete a Telehealth Module as a part of their final Campus Health Center rotation.

The first patient care demonstration project was a partnership between MMC and HELP Innovation and Hawaii Medical Service Association (HMSA) in 2000. HMSA funded POTS ("plain old telephone") video visits by an MCC nurse practitioner to high-risk patients (congestive heart failure, chronic lung disease, diabetes, hypertension) discharged from Maui Memorial Medical Center. This one-year project provided care for seventy patients and demonstrated: patient and physician satisfaction with telehome care and decreased utilization measured by rates of readmission of these high-risk patients.

The second patient care project was a formal research protocol that utilized e-health technology to address the research question, "will telehome care visits with structured educational protocols have a significant impact on progression of renal disease in diabetics with Native Hawaiian ancestry?" Thirty experimental patients received 1-2 telehealth visits/week for one year. The outcomes indicated:

1. Diabetic subjects of Native Hawaiian ancestry who received usual physician care, experienced significantly greater progression of renal disease (measured by ratio of microalbuminuria/creatinine) compared to experimental subjects who received regular care augmented by e-Health educational protocols.
2. TeleHealth in the form of e-health videoconferencing visits was well accepted by patients who had little prior computer experience.
3. An unexpected outcome was the participation of the entire "ohana" in the e-health visit. Children and grandchildren frequently assisted the patient with the connection to the e-health nurse. The whole family often stayed for the visit, fascinated by the technology (which downloaded the patients pulse, blood pressure and blood sugar readings), and were eager to learn what the nurse would discuss during the visit.

In addition to the direct patient care projects, Maui Community College collaborated with UH Manoa Speech Pathology and Audiology providing hearing assessments for Maui preschools with data transfer and analysis via internet. The Allied Health VTC was used during the 2003-2004 academic year for a John Burns School of Medicine and Department of Education school-based psychiatric support for students, teachers, and parents from Maui to Molokai.

For this proposed pilot study on the island of Maui relating to the use of in-home telehealth monitoring services for high risk/high cost blind, elderly, and disabled Medicaid patients with frequent hospitalizations, the Maui Community College Nursing Program and Campus Health Center is ready to participate by providing consulting and logistic support for the telehealth pilot study.