

## **UNIVERSITY OF HAWAI'I SYSTEM**

## TESTIMONY

HCR 114 / HR 88 Requesting the Collaborative Development of Standards for Electronic Health and Medical Records Management

Testimony Presented Before the House Committee on Consumer Protection & Commerce

March 23, 2005

By

Dennis J. Streveler, Ph.D. Professor, Medical Informatics Department of Information and Computer Science University of Hawai'i

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Chair Kenneth Hiraki, Vice Chair Brian Schatz, and Members of the Committee:

Thank you for this opportunity to testify on HCR 114 / HR 88. The House should be applauded for taking up this timing issue NOW as Hawaii's major health care institutions are individually developing their EMR (electronic medical record) systems for each individual institution.

The State of Hawaii has a unique opportunity to leverage this investment for the good of all the people of Hawaii by providing a means for these individual EMRs to "talk to one another" and, under strict privacy and confidentiality protocols, to exchange information about patients who are transitioning between care (e.g. from a Community Health Center to a tertiary hospital, or from a tertiary care facility back to primary care, or the unannounced arrival of a patient who had been treated at one tertiary hospital to the emergency room of another hospital).

In order to accomplish this level of coordination of care, interoperability of the new EMRs will play a key role. In order to create this interoperability, the EMRs must speak "the same language". That is, there needs to be a way to definitively identify who the patient is, to know who the former provider(s) for that patient is/has been, and to know something about the stable problem list (medical condition) of that patient.

To create these standards will require the cooperation of the Hawaii's health care industry at a level which has never been accomplished before. This author was privileged to play a role in linking HMSA with Straub Clinic and Hospital in the 1970's. Even this bilateral agreement to create electronic connectivity for a very narrow range of mostly administrative health information was difficult, but, since it had a great payback for both institutions, finally became reality in 1979. Since then, there have been no further significant linkages between Hawaii's health care players to my knowledge.

The standards which will be required will be difficult to agree upon, and difficult to sustain, but they are possible to create with the goodwill of all players. These standards will have to take into consideration both syntactic (formatting)

considerations as well as semantic (meaning) considerations in order for the systems to be able to "understand" each other's information. Some of these standards are possible using a national messaging standard called "HL-7" (Health Language 7) but much further definition will be required.

It is very important that the State of Hawaii work NOW towards these standards. It will be very difficult later to retrofit the individual EMR systems once they are fully operational. We have perhaps a year, at the maximum, to develop and validate these standards, before the individual EMRs diverge to a point where retrofit will be extremely costly, if not impossible, to accomplish.