

STATES SENATE
COMMITTEE ON COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
HEARING ON WHY BROADBAND MATTERS
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TESTIMONY OF
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THE YUKON-KUSKOKWIM HEALTH CORPORATION
BETHEL, ALASKA

Good morning, Mr. Chairman, Senator Hutchison, Senator Stevens, and other members of the Committee. Thank you for giving me the opportunity to talk to you today by video teleconferencing about the hugely positive impact that broadband deployment has had on the delivery of healthcare services to some of the most isolated and economically challenged citizens of the United States.

I am the president and chief executive officer of the Yukon-Kuskokwim Health Corporation, also known as YKHC, a consortium established by 58 federally recognized Native American tribes. We provide comprehensive healthcare to 28,000 largely Yup'ik Eskimo people living in 50 communities spread across the Yukon-Kuskokwim Delta, a roadless region the size of Oregon. The Y-K Delta, which is depicted in the map attached to my testimony, is located on the Bering Sea on the western coast of Alaska, nearly 4,000 miles away from Washington, D.C. The average per capita income of our patients is \$15,000 a year.

Providing healthcare for YKHC's patients is a profoundly difficult challenge.

- First, transportation costs in the Y-K Delta, where villages are reachable only by plane, boat, or the in the winter, snow machine, have always been high. Now that the cost of a gallon of unleaded gasoline is approaching \$8 in these villages, the cost of transporting a patient from a village to a subregional clinic or to our hospital in Bethel for anything but the most essential service or the most serious illness or injury has become nearly prohibitive.
- Second, during our long, dark winter, the Bering Sea generates some of the most violent weather in the world; this can isolate our villages for days or weeks at a time.

Broadband deployment has transformed the delivery of healthcare services in the Y-K Delta. Broadband plays a critical role in YKHC's efforts to manage the challenges I've just described.

Five years ago YKHC challenged the telecommunications providers in the Y-K Delta to improve their satellite-based broadband services. In response to YKHC's challenge, and in reliance on the Universal Service Fund's Rural Health Care program and other federal broadband programs, private industry made a \$50 million-plus investment in a terrestrial microwave network, DeltaNet, which links the substantial majority of YKHC's villages. The high speed and low latency of this new network are ideal for medical applications.

We are proud that YKHC now leads Alaska in the delivery of broadband-based medical services. This year, YKHC decided to increase bandwidth to 3 Mbps (megabits-per-second) for all of our clinics, 5 Mbps for our sub-regional clinics, and a 7.5 Mbps link to the Internet in Anchorage. Key benefits of this higher-speed network are found in the areas of tele-psychiatry and tele-radiology.

The need for behavioral health services in rural Alaska is growing disproportionately to the size of the population. Rural Alaska has high rates of alcoholism, drug abuse, fetal alcohol syndrome, and suicide. In 2004 Alaska's National Guard was called out for combat operations in Iraq and Afghanistan. Many of these guardsmen have completed at least one tour and have returned to their villages, bringing with them the same mental health issues afflicting combat veterans across the country. Rural Alaska veterans, however, are a long way from the nearest Veterans Affairs facilities in Anchorage.

In conjunction with bandwidth increases, YKHC has deployed 53 HD (high definition) video teleconference units through its service area. Using HD video, YKHC has begun delivering behavioral health evaluation, treatment, and consultation for veterans and other patients at its residential facilities in Bethel **and** at clinics in Y-K Delta villages, through health professionals working from Bethel and the Alaska Psychiatric Institute in Anchorage, and soon with a psychiatric group in Minnesota.

Using its terrestrial broadband network, YKHC is now able to offer full remote diagnostic imaging services to its patients, not only in Bethel but also in our four sub-regional clinics, Aniak, St. Mary's, Toksook Bay, and Emmonak. Because of our inability to recruit a full-time radiologist to Bethel, we must rely on tele-radiology to meet our needs. We have two full-time radiologists, reading all images 24 hours a day 7 days a week from Dayton Ohio. Using our broadband network, we are able to send patient images directly to the radiologists' homes in Ohio. There, they read the exams in real time (there is no delay; they are waiting at their computers for the exams to come over the Internet) and send us their initial evaluation within 15 minutes from the time the patient was imaged in our x-ray departments.

Tele-radiology has substantially increased patient access and operational efficiency in diagnosing a multitude of diseases such as pneumonia, fractures, head injuries,

appendicitis and cancers, just to name a few. It has also decreased the long wait times previously associated with patient treatment.

For example, subtle fractures, or small changes in a chest x-ray, can sometimes be missed by health care providers. This situation usually requires calling the patients back into the healthcare facility. With the use of tele-radiology, we have the ability to communicate and consult with our radiologists on every case to ensure that we have the right diagnosis so that we can start appropriate treatment before our patient leaves the hospital or subregional clinic.

We recently had a patient involved in an ATV accident in the small village of Lower Kalskag. We were able to send the patient to the Aniak sub-regional clinic which is only 15 minutes away via plane to have the patient's lower leg x-rayed. Using tele-radiology, it was determined that the patient fractured his fibula. The films were then sent over the network to the orthopedic surgeon at ANMC hospital in Anchorage who made the call that the patient did not need surgery, only a cast. This not only saved the patient from coming into Bethel, 120 miles away and an hour-long plane ride, but also saved him a very expensive trip into Anchorage to see a specialist.

All of this broadband-related progress would not be possible without the Universal Service Fund's Rural Health Care (RHC) program which the Chairman, Senator Stevens, and the other members of this Committee and the Congress have supported for many years. On behalf of the Alaska rural healthcare provider community, I want to thank all of you for that support, which has saved countless individual lives in Alaska and dramatically improved the quality of life of all rural Alaskans.

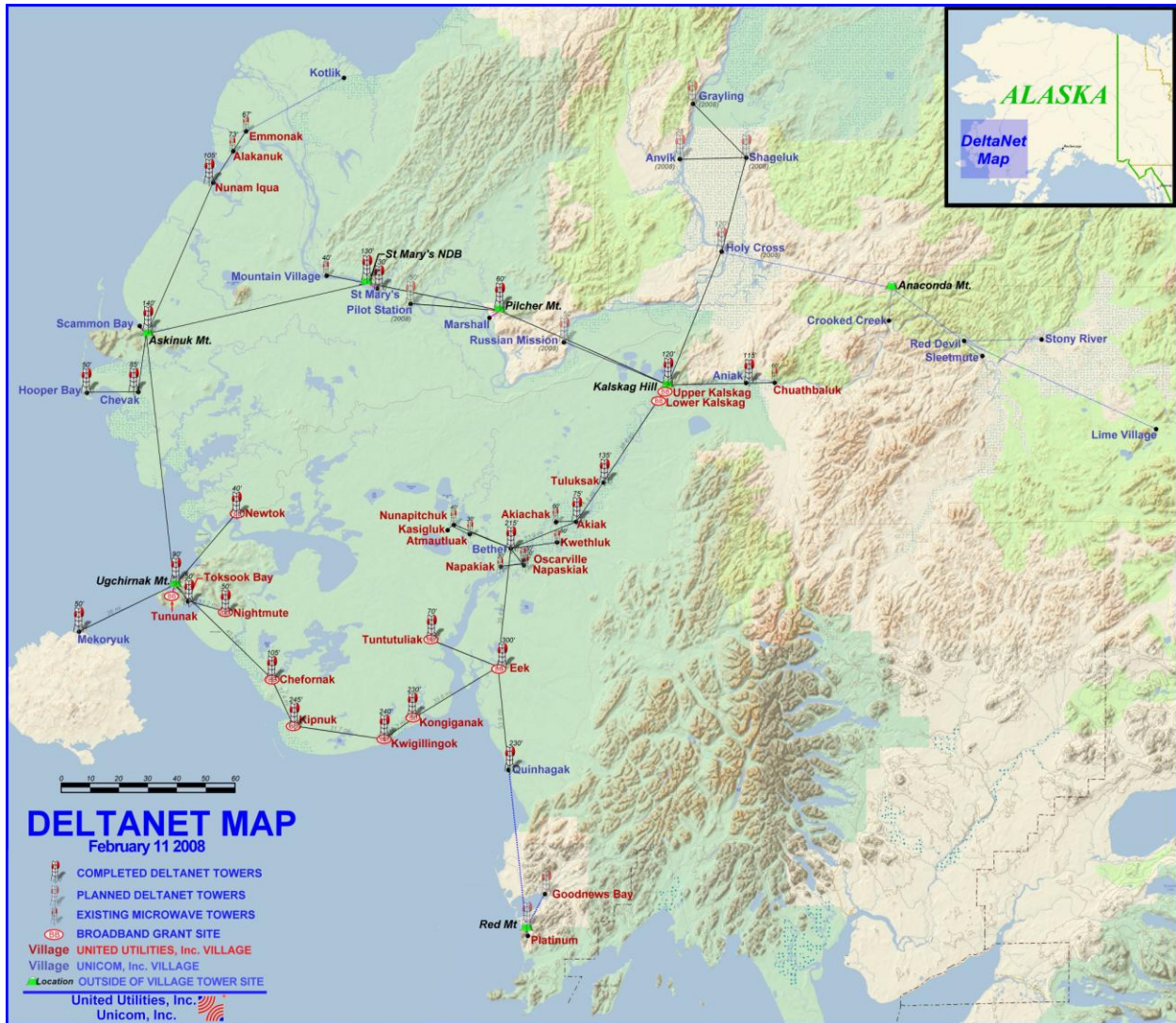
In closing, I would like to make five recommendations to the Committee.

1. Expand Medicaid reimbursement to cover tele-psychiatry treatment, including patient-site presentation services for behavioral health clinicians and case managers.
2. Address licensing and reimbursement issues for medical professionals participating in distance healthcare delivery across state lines.
3. Encourage the Department of Veterans Affairs to use IHS and HIS-contracted medical facilities to provide medical and behavioral health care to rural Alaska veterans.
4. Increase the RHC support mechanism percentage for Internet access from the current 25%, and add support for advanced services such as managed video conferencing and network management, which would allow YKHC to focus on the delivery of healthcare, rather than managing core telecom infrastructure.

5. Expand eligibility of USF subsidies to cover the infrastructure that the remote providers need for distance-delivered medical service. This might include bandwidth and video conference hardware.

Thank you for the opportunity and honor to address your Committee today.

DeltaNet — Broadband Microwave Network in the YKHC Region



Some of the Village DeltaNet Towers



