Mendocino County Broadband Alliance

September 10, 2015

Eric Brown
President & CEO

Dan Kurywchak
Chief Technology Officer

www.caltelehealth.org
CTN Mission Statement:

To promote advanced information technologies and services to improve access to high quality healthcare focusing on medically underserved and rural Californians.
CTN Background

• Initiated by UC Davis Health System in 2010
• Now operates as Sacramento based independent 501c3 corporation
• Provides subsidized broadband for safety net clinics and hospitals in rural and medically underserved communities
• Building the digital infrastructure to allow safety net health care providers to utilize health information technology
Deployment Progress

• CTN has direct connections to over 230 healthcare provider sites

• Goal to reach 1,000 locations over the next 3 years

• Each participating CTN broadband site receives:
  ○ Assessment of broadband needs
  ○ Secure, medical grade broadband connection
  ○ Interconnections to other secure high capacity networks
    • CENIC
    • Indian Health Services
    • Open Door Community Health Center Network
  ○ Tier1 technical assistance
  ○ Access to grants for Telehealth equipment, training and specialty care
  ○ CTN Connect web based video conferencing platform
  ○ *Telemedicine specialty care provider partners*
California Telehealth Resource Center (CTRC)

- HRSA funded regional telehealth resource center
- Provides programmatic and technical assistance
- Assistance with telehealth equipment selection and funding
- Telehealth implementation materials and videos
- Services available at no cost to the healthcare provider
- Supports over 800 healthcare providers a year
- Supplemental funding for training from:
  - UnitedHealthCare
  - Blue Shield of California Foundation
  - UC Davis/BTOP grant
CTN Healthcare Site Categories

% Installed Sites

- FQHC: 44%
- RHC: 25%
- Urban Clinic: 16%
- CMHC: 12%
- Hospitals: 3%
Current CTN Site Map
In The Year Ahead

• CTN site leadership requesting CTN expand its role supporting:
  – Advocacy for telehealth and telemedicine legislative and regulatory issues at the Federal and State level (Reimbursement reform, credentialing, billing, etc)
  – Leadership and change management training for hospital Boards and providers
  – Telemedicine Specialty Care

• CTN would like to expand utilization of MHSA and other State mental health resources for use by safety net providers
Collaboration Opportunities

• Please refer to CTN nonprofit/tribal/public safety net clinics and hospitals in need of:
  1. Secure broadband or
  2. 65% FCC Healthcare Connect Fund discount on broadband services
  3. Entities that need telehealth introduction/orientation/training/technical assistance

• Assist county health departments with behavioral health needs through the use of virtual consultations (Prop 63/ MHSA funding)

• CTN can now fund new broadband construction to anchor health care sites that commercial providers decline to serve
2016 Telehealth Summit
Monday, April 18 - Tuesday, April 19, 2016
San Diego, CA

www.caltelehealth.org/2016-telehealth-summit
Mendocino County Broadband Alliance

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Dan Kurywchak
Chief Technology Officer

www.caltelehealth.org
Experience in Telemedicine

• 17 years with the University of CA, Davis
  – Director of Technology
    • Managed
      – Technical Team
      – Distance Education Team
    • Seen over 11 thousand patients in 35 specialties
    • Setup Telemedicine Programs
      – Urban and rural hospitals and clinics
      – PICU, NICU, OR, ER, County Jails, Prisons, Parole offices
    • Designed Telemedicine Systems
      – 2 Patents on Telemedicine Systems
      – POTS to Satellite Communications
  – Director of the Telemedicine Learning Center
    • Trained over 800 Clinicians on how to develop their own telemedicine program
    • Developed classroom design & course curriculum
Experience in Telemedicine

- Intel Corporation
  - Senior Management / Engineer
    - In charge of Telemedicine efforts worldwide
    - Designed and deployed Telemedicine programs with World Ahead
    - Engineer on Telemedicine medical devices
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DEVELOPMENTS IN TELEMEDICINE

Medical professionals need technology: Ability to cross state lines vital, Concord Monitor. Yet the use of telemedicine is handicapped. Doctors are prohibited from treating patients across state lines unless they are licensed in both states.

Harnessing the black hole of health device data, SmartPlanet. Most health monitoring can be done automatically by smart electronic systems that understand a patient's overall condition and know when changing information may indicate disease. Only

October 2012

Telemedicine.com CEO Meets with the FCC Chairman!

Last month FCC Chairman, Julius Genachowski, visited with Telemedicine.com CEO, Daniel Kurywchak, and members of the California Telehealth Network at Barton Health in South
Experience in Telemedicine

• Telemedicine.com, Inc.
  – Telemedicine Systems and Medical Peripheral Sales
  – Telemedicine Installation and Training of Physicians and Technical Staff
  – Telemedicine Custom System Development
  – Telemedicine Support
  – Developed Hundreds of Telemedicine Programs Worldwide
  – Worldwide Telemedicine Deployments:
    • USA
    • Brazil
    • China
    • India
    • Lebanon
    • Nigeria
    • South Africa
    • South Korea
Big Myths?

• Bigger is better…
• Light weight
• Easy to move
• UPS
• Monitor - Max size 22”
Big Myths?

• Doing Telemedicine over the Internet

– “Please have a seat, the doctor will see you in a couple of minutes or not at all”
Internet Connection
High Speed Broadband
“Your Private Onramp...”

Private onramp to Internet

The Internet
“The Freeway”
Extremely Cyclical
Big Myths?

- Internet may be a viable solution in the following circumstances
- One phone company end to end
- QOS (quality of service)
Issues with Using the Internet

- No one controls the speed of the Internet
- Calls can drop at any time
- Major delays in transferring large medical videos or images, etc.
- Lip Sync
- Pixilation
Definition of the Internet

- Can anyone create a new Internet and not use the “Internet”? – Sure, it may not be as exciting or could it be?
California Telehealth Network

- A state wide broadband network dedicated to expanding health care access in rural and medically underserved communities

- Goal to improve clinical outcomes, reduce costs
California Telehealth Network
Other Services

• Sales
Key Features

+ Automatic Motorized Height Adjustability
+ Hospital-Grade UPS (Uninterruptable Power Supply)
+ HD Monitor with Fixed Monitor Post
+ RealPresence Group 500-1080p: Group 500 HD codec, EagleEye III camera, with mic array
+ Lightweight, rolling cart with up to 4 hours of standby battery life
+ Key lock enclosures for security of medical devices and peripherals
+ Space for additional peripherals in cabinet and lid.
Medical Peripherals

- General Exam Camera
- Otoscope
- Nasopharyngoscope
- Slit lamp Imager
- Fundus Scope

Medical Peripherals
### CTN Current Offerings

<table>
<thead>
<tr>
<th>Broadband Speeds</th>
<th>Monthly Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 Mbps - copper</td>
<td>$150</td>
</tr>
<tr>
<td>10 Mbps - fiber</td>
<td>$325</td>
</tr>
<tr>
<td>20 Mbps - fiber</td>
<td>$400</td>
</tr>
<tr>
<td>30 Mbps - fiber</td>
<td>$500</td>
</tr>
<tr>
<td>40 Mbps - fiber</td>
<td>$550</td>
</tr>
<tr>
<td>45 Mbps - fiber</td>
<td>$750</td>
</tr>
<tr>
<td>100 Mbps - fiber</td>
<td>$900</td>
</tr>
</tbody>
</table>

*All speeds and fiber services subject to availability*
California Telehealth Network
Other Services (Near Future)

• Disaster Recovery
• Desktop Support
Thank You, Questions?

www.caltelehealth.org
Thank You!

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