

The logo for TeleHealth is rendered in a 3D, blocky font. The letters are a bright yellow-gold color with a thick orange-red shadow or outline, giving it a three-dimensional appearance. The text is slanted upwards from left to right. The background of the slide is a dark space scene with a blue and white nebula or galaxy structure, a bright purple starburst, and a faint grid pattern.

TeleHealth

**FCC National Broadband Plan
Staff Workshop**

Nina M. Antoniotti, RN, MBA

Marshfield Clinic TeleHealth

MARSHFIELD CLINIC SERVICE AREA



Health Information Technology

CattailsMD

System wide Telephony, IS network

TeleRadiology/PACS

Wireless Tablets for Patient Care

*Off-site Services – Transcription, Financial Services,
Patient Accounts*

Interactive and Store/Forward TeleHealth Consultations

Distance CME



MARSHFIELD CLINIC.

**Living
Well
Video
Library**



mymarshfieldclinic.org

public website and secure patient portal

**Document your family
health history**



**Influenza
Care &
Prevention**

**Marshfield Clinic
Online
Health Library**

Medicines

DISEASES

HEALTH



TELEHEALTH

Extends high quality, advanced health care electronically to situations in which the physical presence of a provider or consumer is not feasible, practical or is unnecessary



Marshfield Clinic TH Services

Allergy	Neurology	Pediatric Neurology
Burn Care	Seizure, Parkinson, General	Pharmacy
Cardiology	Nurse Triage	Plastic Surgery
Child Psychiatry	Nutrition Services	Primary Care
Dentistry	Obstetrics	Psychiatry
Dermatology	Oncology	Pulmonary Medicine
Diabetes Management	Orthopedics	Research Studies
Disease Management	Ophthalmology	Sleep Studies
Endocrinology	Pain Management	Speech Pathology
ENT	Pathology	Social Worker
Geriatrics	Pediatric Oncology	Therapy
Infectious Diseases	Pediatric	Support Groups
Jail Primary Care	Endocrinology	Wound Therapy
Medical Genetics		
Nephrology		
Mobile Retinal Screening		

Marshfield Clinic TeleHealth



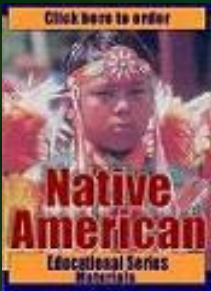
**Marshfield Clinic
Centers**



Hospitals



**Skilled Nursing
Facilities**



**Indian Health
Centers**

GREAT LAKES INTER-TRIBAL COUNCIL

Head Start Centers



Transmission Speeds

21 kbps

56 kbps

128 kbps

256 kbps

384 kbps

512 kbps

768 kbps

1.5 megs

Store and Forward

Interactive Video



INTERACTIVE CLINICAL TELEHEALTH CONSULTS



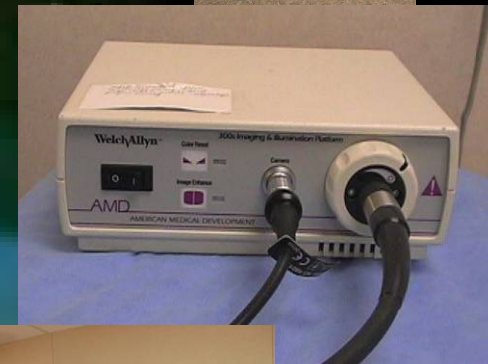
TeleHealth Exam Rooms

Marshfield Clinic TeleHealth Physician Workstation



Clinical Exam Technologies

- Patient Exam Camera
- Digital Electronic Stethoscope
- Fiber-optic Otoscope
- Fiber-optic Ophthalmoscope
- Digital Camera
- Document Camera
- Intra-oral Camera
- Laser Caries Detector





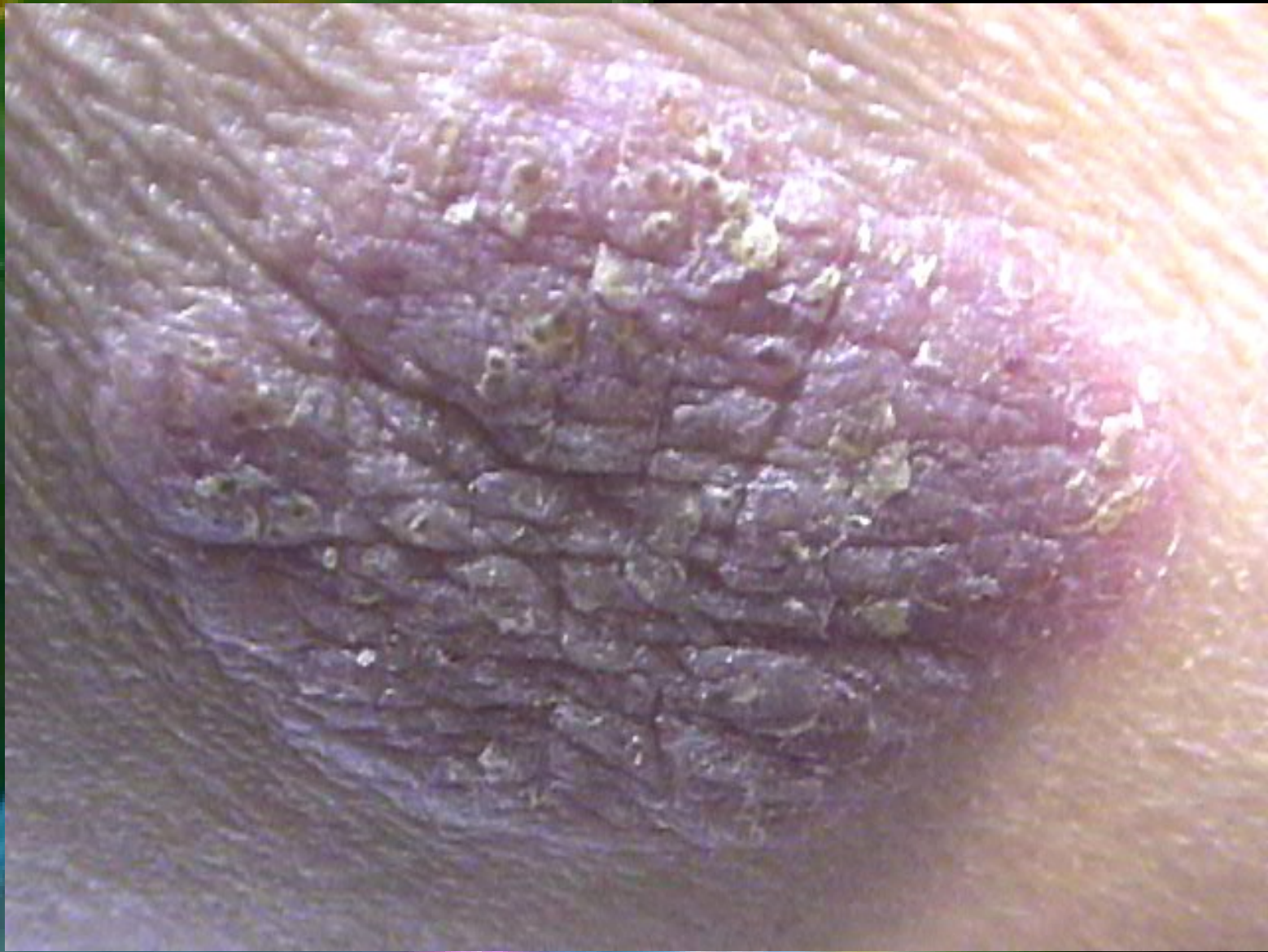






Park Falls

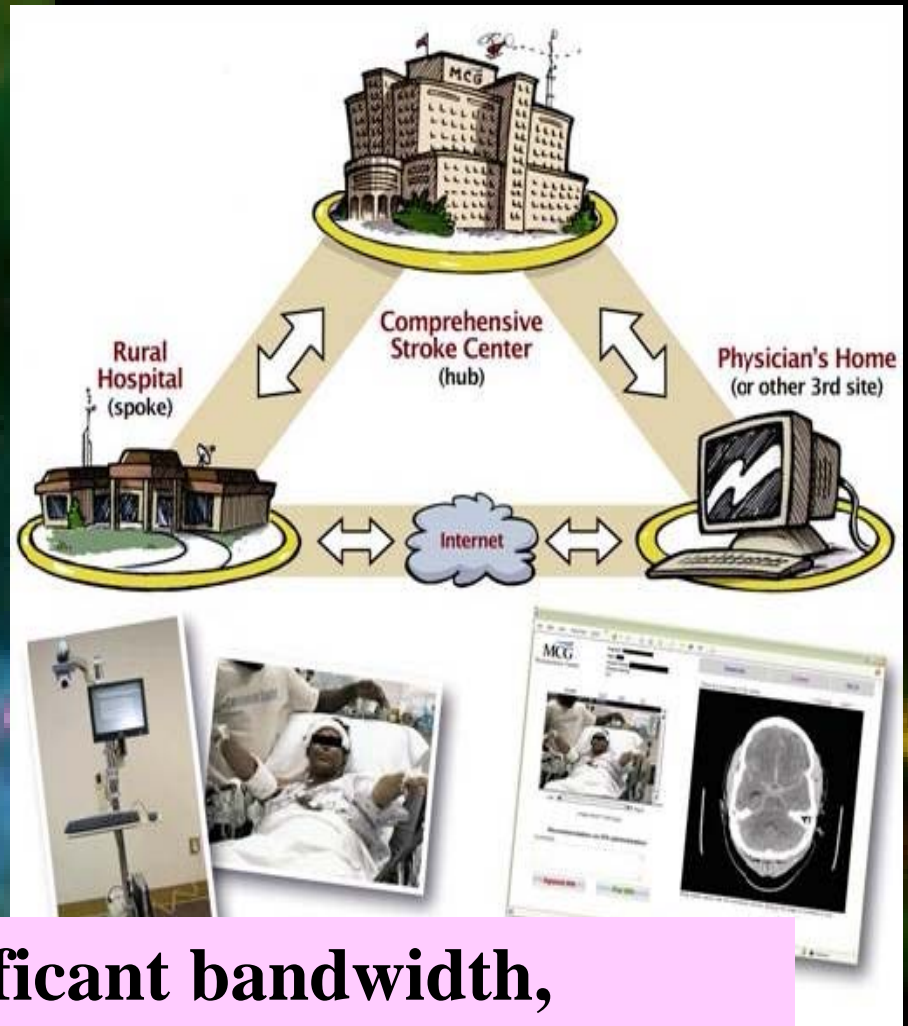






**Digital Electronic Stethoscope
Requires significant control of bandwidth to
provide adequate diagnostic quality**

TeleStroke Systems



Requires significant bandwidth, authentication systems across multiple platforms, and gateways



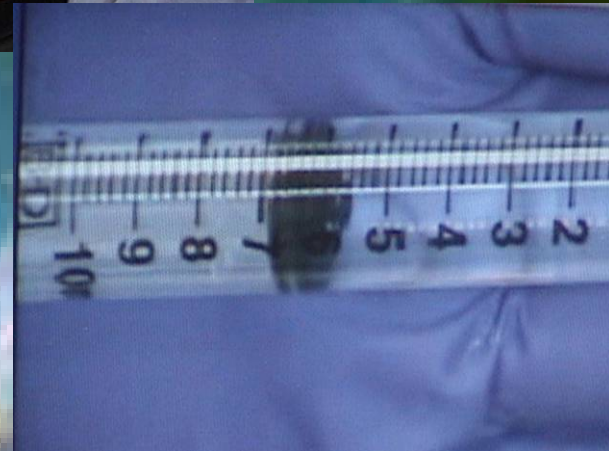
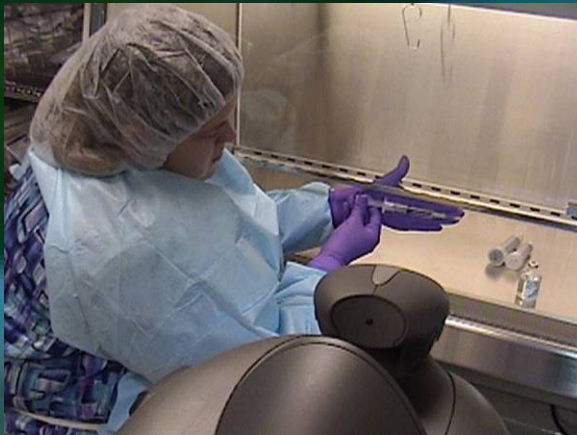
TELEPHARMACY

The provision of pharmaceutical care through the use of Telemedicine technology, automated dispensing technology, scanning technology and integrated computer systems

Requires significant bandwidth and quality of service (QoS)

(OEM internet only)

Sterile Products Pharmacy



Retail Pharmacy



MERCER



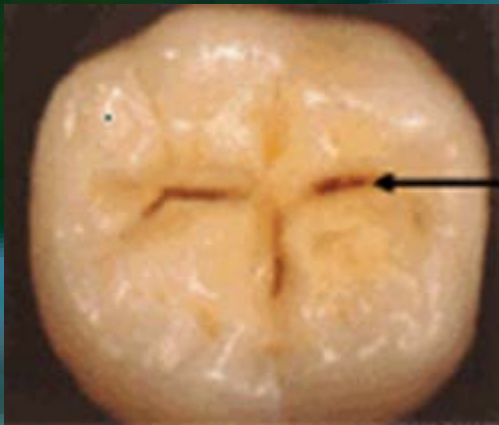
MINOCQUA

ICAA Head Start 2006 – 2007



**If the report's estimates are correct,
there are 14,376 children in
Wisconsin right now sitting in
classrooms experiencing pain or
infection of their teeth and in need of
urgent dental care.**

(DHFS, 2002, 2005, 2007)



Results of 2008-09 School Year Oral Health Behaviors Survey

- **Has Your Child Visited a Dentist in the Last Year?**
 - 2008 Fall 68%
 - 2009 Spring 83%
- **Has your child had their teeth cleaned in the last year?**
 - 2008 Fall 58%
 - 2009 Spring 73%

Taking Care
of Your Teeth



Taking Care
of Your Teeth




Survey con't...

- **Has your child had dental sealants to prevent decay?**
 - 2008 Fall 20%
 - 2009 Spring 73%
- **Does your child brush their teeth?**
 - 2008 Fall 99%
 - 2009 Spring 83%
- **Does your child floss?**
 - 2008 Fall 27%
 - 2009 Spring 82%

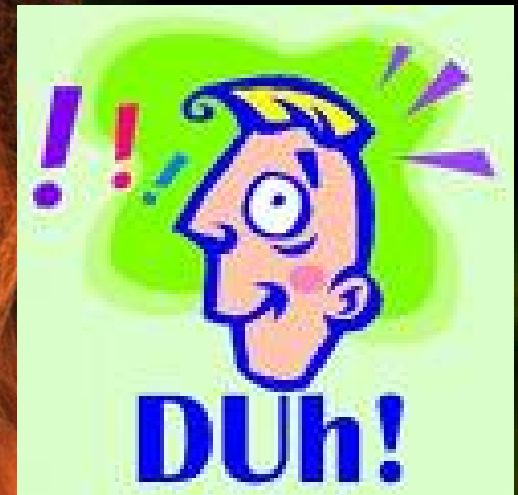
TeleDentistry Example

- 10 Head Start Centers receiving dental and health care services
- 450 children +/-
- 10 T1 circuits (30 – 215 miles)
- Total monthly cost = \$13,000
- Total annual costs = \$156,000
- Total cost after USF rebates = \$2800/month
- **Solution: USAC pays all of the costs for 'rural' organizations and partial for urban**



**How can doctors and patients
easily learn how to use
telemedicine?**

A No Brainer!



Just Get TeleHealth To Them!

- **TeleHealth program in every state**
- **Well established TeleHealth experts who are helping everyone**
- **American Telemedicine Association**
- **Many TeleHealth entrepreneurs**
 - Transmission technologies
 - Video technologies
 - MySpace, Facebook, Skype

Barriers to Telemedicine

- **Physicians**

- Lack of **reimbursement**
- Lack of organizational readiness – good business plan
- Broadband costs for private practices
- Technology costs – internal infrastructure
- Lack of standards
- **Lack of Venture Capital and reasonable transmission costs**

- **Patients**

- Lack of access through TeleHealth
- Lack of awareness


Reimbursement

Medicare

- has a regulatory loophole that allows **inequity in access and allocation of benefits to occur**
- originating sites
- CPT code process
- eligible practitioners

Medicaid

- variability from state to state
- need federal direction to states to develop strategy to pay for services: **equity requirements**



One of the biggest issue with Medicare is the lack of payment to patients with chronic conditions who are best managed by nurses **(CHF and diabetes)** and for the oldest and most disparate of our populations **(skilled nursing facility residents).**

Fraud and Abuse? TeleRadiology

- Home
- Work
- Car
- Boat
- Cabin up North
- Another state
- Another country





Medicare and Medicaid: What Needs to be Done?

1. **Make all services currently covered by Medicare eligible for payment if delivered by TeleHealth.**
2. **Make all Medicare certified practitioners eligible for payment.**
3. **Make all Medicare certified facilities eligible for the Medicare facility fee payment.**
4. **Delink the facility fee from the practitioner's payment.**
5. **Put TeleHealth technology costs on the cost reports as allowable costs.**
6. **Allow TeleHealth visits in the PPS calculations for home health.**
7. **Pay for episodes of remote monitoring when used as a part of a comprehensive health team approach to chronic conditions.**

Funding for ATA's Standards and Guidelines Initiatives



Standards

A statement established by consensus or authority, that provides a benchmark for measuring quality and that is aimed at achieving optimal results (NIFTE Research Consortium, 2003).

Guidelines

A statement of policy or procedures by which to determine a course of action, or give guidance for setting standards (adapted from Loane & Wootton, 2002).

American Telemedicine Association

TelePathology

Diabetic Retinopathy

Home TeleCare

TeleDermatology

TeleMental Health

TeleRehabilitation

Telepresenting

TeleOphthalmology

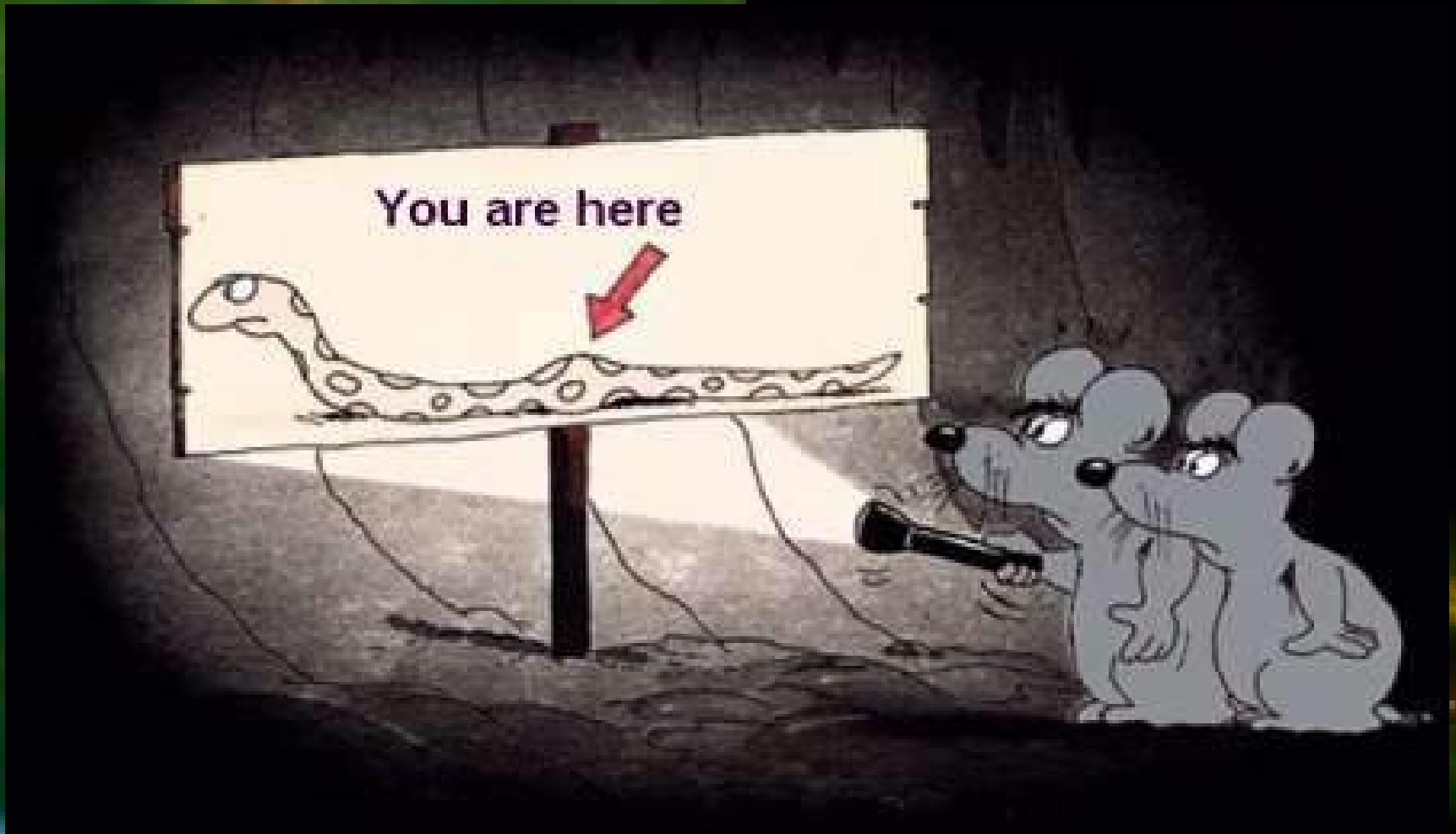
How can the Federal Government be used to spur broadband investment in telemedicine?

- *Continue to fund service grants – broadband is infrastructure, not service*
- *Continue to fund USAC and increase funding levels*
- *Develop incentives for carriers to build out the ‘last mile’ – perhaps under USAC*
- *Change the NTIA, RUS, BTOP, and TOPS programs to be more service oriented*
- *Include Urban populations in funding programs*
- *Fix the rural definition problem!!!!!!!!!!!!!!!!!!!!!!*
- *Health care reform must include TeleHealth provisions*
- *“No reimbursement or other barriers to access to care through TeleHealth”*





Why I was late for work 2002/ 17 3



Thank you!



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