Telemedicine Landscape: Current Uses and National Issues

Jonathan D. Linkous,
CEO
American Telemedicine Association

- Telemedicine
  - Telehealth
  - Remote Medicine
- E-Health
  - Telecare
What is Telemedicine?

Networks

mHealth

What is Telemedicine?

Remote Monitoring
What is Telemedicine?

Super Call Centers

Outsourced Specialists

Types of Technologies

Data Collection

Telecommunications

Data Analysis and Services

Local Connection

Network Device

Wired, Wireless, Satellite

Cholesterol Monitor

Weight Scale

Blood Pressure

Glucose Meter

Thermometer

Pulse Oximeter

Spirometer

Medication Tracking

Pedometer

Fitness equipment

VPN

ETHERNET

PC

Cell Phone

Set Top Box

Healthcare Provider

Disease Management Service

Diet or Fitness Service

Personal Health Record

Diagnostic Testing/Monitoring Center

Home sensing & control

Bed / Chair Sensors

Implant Monitors

Baby Monitors

PERS

Consumer Electronics

Wired, Wireless, Satellite
Telecommunications

Data Collection Devices

Local Connection

Telecommunications Network

Device

Data Analysis and Services

Standards & Guidelines

Examples of Telemedicine Technologies
Videoconferencing

Store and Forward

Dermatology Camera

Image
Clinical Applications

IMAGING EVOLUTION

Remote & Specialized Healthcare
Screenings and Determinations

Specialist Care

Retinal Screening Camera

Diabetic Retinopathy
Combined Video & Store and Forward Multimedia Application (Pediatric Echocardiogram)

Public Health

- Providing information on critical threats
- Continuing education
- Cross facility consultations
Telemedicine & Public Health

Screenings and Determinations
INS Intake Screening

- Physical Screening
- Mental Health Screening
- Dental Screening
- Tuberculosis Screening
- Advanced Care as indicated by Screening Referral
- Medical Access Orientation

Public Health Trends Driving Automation and Telemedicine

- Globalization of Communicable Disease
- Ever-Increasing Migrant, Asylee, and Refugee Population
- Success has and will continue to result from:
  - Technological Advances
  - Working Partnerships
  - Quality, Cost-effective Health Care
  - Employees
Telemedicine
And Global Terrorism

Identified Functions:
Pre-hospital incident assessment (point of care)
Remote monitoring
Deployable and transportable systems
Hospital Care
Clinical consultations
Deployable hospitals
Public Health Interface
Integrate diverse data sets
Patient and provider education
Telemedicine And Global Terrorism

Linking Existing Resources

Legend:
- Reported Health Alert sites
- Health Alert 2 Way Video Lines
- Reported Telemedicine Sites
- Telemedicine Communication Lines
- Reported Distance Learning Sites
- Distance Learning 2 Way Video Lines

As of August 2, 2002

Current SGA Networks...
International

Telemedicina en Venezuela

Comunidad de Warao
Telemedicina en Prisiones
Major Environmental Influences in the U.S.

1. Health reform
2. Telecommunications build-out
3. Consumer empowered healthcare
4. Wireless applications
5. Internationalization

Telemedicine & Health Reform
July 30, 1965
**EXPLODING HEALTH CARE COSTS**

In 40 years, a 50-fold jump in medical costs

- **1960:** $12.75
- **1965:** $17.7
- **1970:** $25.9
- **1975:** $43.0
- **1980:** $74.7
- **1985:** $438.2 Billion
- **1990:** $2.446 Billion
- **1995:** $131.5 Billion
- **2000:** $737.9 Billion

"New Government projections show that the per capita cost of medical care, estimated at $1.878 this year, will almost triple to $5.057 by 1980."

Chart and quote from US News and World Report magazine, September 1, 1980.

---

Kathleen Casey-Kirschling
January 1, 1946, 12:00:01 am
$1,078,000$
$694,000$
$384,000$
$32,000,000$
Five Transformations

Payments
Delivery System

Technology
Consumer Involvement

Health Professions
How Fast Is This Coming?

Next 30 Days

• Additional CMS covered services for telemedicine
• New credentialing and privileging requirements
• New FCC rural health program
• National broadband plan
• FDA regulations of mHealth & other telemedicine devices
Next 2-5 Years?

Telemedicine 3.0

Emerging Applications

Robotic Surgery
Air Strip OB

Available on the iPhone App Store

Providers

[Logos of different providers]
Argentina
Brazil (293)
Costa Rica (144)
El Salvador (59)
Guatemala (119)
Honduras (37)
Mexico (807)
Nicaragua (35)
Puerto Rico (54)

Skype
American Well
Institution-Free Healthcare
Thank You

American Telemedicine Association
1100 Connecticut Avenue, N.W.
Suite 540
Washington, DC 20036
Voice 202-223-23333
www.americantelemed.org