Telemedicine: Using Technology to Bring Quality Healthcare to Remote Locations

Chris Fore, PhD
Director, IHS Telebehavioral Health Center of Excellence
Telemedicine

Asynchronous (store-and-forward): Still images or video stored and sent later

- Pros
  - Very low bandwidth requirements
  - Less travel for patients
  - Fast turnaround

- Cons
  - May require special equipment
  - May require special training
  - Information usually has to be uploaded into the EHR
Telemedicine

Synchronous: Real-time connection

- Pros
  - Real-time patient interaction
  - Documentation in EHR
  - Less patient travel

- Cons
  - High and consistent bandwidth required
  - Special equipment may be required
Teleophthalmology Physical Components

Retinal Cameras

Diagnostic Display
(National Reading Center)
IHS-Joslin Vision Network
Teleophthalmology Program

Dr. Mark Horton, Director

- Provides remote diagnosis and management of diabetic retinopathy
- Preventing Diabetes-Related Blindness in American Indians and Alaska Natives
- Asynchronous (Store and forward), not real time
- 2016 Highlights
  - IHS JVN Eye exams = 19,184
- Resource Information:
  - https://www.ihs.gov/teleophthalmology/
IHS TeleBehavioral Health Center of Excellence (TBHCE)

- Direct Patient Care
- Tele-Education
- Technical Assistance

https://www.ihs.gov/telebehavioral/
IHS TeleBehavioral Health Center of Excellence Organization Chart

Director
Chris Fore

Tele-Education
Alaina George
Mary Toledo
Jonah Begay

TeleBehavioral Health
Daniel Cook

IT Support
Lyle Benally
TBHCE Goals

- Increased Access to Care
- Increased Quality of Care
- More Efficient Care
- Increased Revenue
- Save Patients' Time & Money
## TBHCE Summary

<table>
<thead>
<tr>
<th>Area</th>
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<th>Clinical Services</th>
<th>Education</th>
<th>Intra-Area Agreement</th>
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## Types of Services

<table>
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<th>Counseling</th>
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<td>Child</td>
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<td>Child</td>
<td>Family</td>
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<td></td>
<td>Trauma/PTSD</td>
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FY16 TeleBehavioral Highlights

- 5,836 patient visits
- 3,128 hours of service
FY16 Clinical Hours

- Child Psychiatry: 33%
- Adult Psychiatry: 35%
- Addiction Psychiatry: 16%
- Counseling: 16%

Adult Psychiatry is the largest category, followed by Child Psychiatry.
Telebehavioral Health Sites
Additional Points

- PTSD/Trauma Psychology/Counseling services
- Consultation model
- Mixed (direct care & consultation) model
Patient Savings

- 1,146,600+ miles of travel avoided
- $642,096+ in avoided travel costs
- 17,520 hours of work and/or school NOT missed

Psychiatrist per session (30 minutes) cost:
- $333.52 - traveling patient
- $169.76 - traveling provider
- $138.34 - telebehavioral health
Indian Children’s Program
https://www.ihs.gov/telebehavioral/icp/

- Focused training series
  - FASD
  - ASD
  - Neurodevelopmental issues
  - Behavioral problems
- Case Consultation-
  https://www.ihs.gov/telebehavioral/icp/icpfaqs/
Cons of telemedicine

- Not in the room with the patient
- Technical difficulties
  - Equipment
  - EHR
  - Bandwidth
- Sessions may be louder
- Can’t be used for all services
Pros of telebehavioral health

- Patients like it
- Long-term providers
- Access to care
- Cost savings
  - Facility
  - Patients
- Makes providers better?
FY15 Tele-Education Highlights

- 176 online seminars hosted
- 4,808 free CME/CEU claimed
- 15,912 training hours provided
Attendance by Agency

- IHS, 55%
- Tribal, 22%
- Other, 23%
Attendance by Profession

- MH Counselor: 17%
- Nurse: 13%
- PC Provider: 30%
- Psychologist: 11%
- Psychiatrist: 1%
- Pharmacist: 1%
- Social Worker: 17%
- Other: 10%
CME/CEU Offered

- American Medical Association - Category 1
- American Pharmacist Association
- American Psychological Association
- National Board for Certified Counselors (social workers, counselors, substance abuse specialist)
- Board of Registered Nursing
- Dental CE
Tele-Education Topics

- IHS Essential Training on Pain & Addiction
- Child & Adolescent Behavioral Health
- Pain & Addiction ECHO
- IHS Clinical Rounds
- Relationships
- Monthly Influenza Update
- Sweet Success
- Division of Behavioral Health seminars
- The Mental Status Exam
- Affordable Care Act Brown Bag
- Physician Quality Reporting System
- Suicide Prevention
- Adolescent Medicine
- Substance Use
- Zero Suicide National Implementation Team
- Health Promotion and Disease Prevention
Increased confidence in clinical abilities

<table>
<thead>
<tr>
<th>Year</th>
<th>Agree (%)</th>
<th>Disagree (%)</th>
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<tr>
<td>FY13</td>
<td>92.6%</td>
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<td>FY14</td>
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<tr>
<td>FY15</td>
<td>96.5%</td>
<td>3.5%</td>
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Agree
Disagree
Will incorporate material into practice

- FY13: 95.3% Agree, 4.9% Disagree
- FY14: 95.8% Agree, 4.2% Disagree
- FY15: 95.3% Agree, 4.7% Disagree
Not everyone likes online training, but...
Estimated Tele-Education Savings to I/T/Us

- No travel costs
- $370,000+ in direct CME costs saved
- 24,255 additional patients seen because providers did not have to travel for CME/CEU
- $4,500,000+ potential additional revenue because more patients were seen
Tele-Education Summary

- Easy & convenient
- Interactive
- Cost effective
- More patients can be seen
  - Increased revenue
- Increases provider confidence
  - Direct impact on patient care
Goals

**CHECKLIST**

- Increased Access to Care
- Increased Quality of Care
- More Efficient Care
- Increased Revenue
- Save Patients' Time & Money
How do I get telehealth?

Teleophthalmology
- [https://www.ihs.gov/teleophthalmology/](https://www.ihs.gov/teleophthalmology/)
- Dr. Mark Horton ([Mark.Horton@ihs.gov](mailto:Mark.Horton@ihs.gov))

Telebehavioral Health
- [https://www.ihs.gov/telebehavioral/index.cfm/telehealth/](https://www.ihs.gov/telebehavioral/index.cfm/telehealth/)
- Daniel Cook ([Daniel.Cook@ihs.gov](mailto:Daniel.Cook@ihs.gov))
- Dr. Chris Fore ([Chris.Fore@ihs.gov](mailto:Chris.Fore@ihs.gov))