Telemedicine: Connecting Behavioral Health and Medical Care

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ACKNOWLEDGEMENTS

A NON-PROFILE COMMUNITY-BASED AGENCY COMPRIS ED OF:

- 10 PROGRAMS
- 270 PROFESSIONALS
SERVING OVER 3,000 ADULTS & 270 ADOLESCENTS IN MANHATTAN, BROOKLYN & THE BRONX IN NYC
Brooklyn MATP Programs

Manhattan MATP Programs
SUMMARY

1. Telemedicine Continues to Grow
2. There Are Unquestionable Potential Benefits to the Healthcare System
4. National and International Implications
GAME PLAN

1. What Is Telemedicine?
2. What Are the Benefits of Telemedicine?
3. What Are the Challenges of Telemedicine?
4. Telemedicine Project At START
5. Summary
Began with federal programs in rural communities…

1. Telemedicine: The Use of Technology to Deliver Health Care Services at a Distance

2. Telehealth: The Use of Technology to Deliver Health Care Services, Patient and Health Professional Education, Public Health, and Public Administration at a Distance

- Characterized Differently in Public & Private Sectors
- 26 Federal Agencies use 26 Unique Definitions
1. Dozens of Bipartisan Bills: 01/ 2013 to 01/2015
2. Telemedicine and Medicare Act (HR 3077): physicians allowed to treat Medicare beneficiaries across state lines
3. Telehealth Enhancement Act (HR 3360): expanded types of originating sites for Medicaid & Medicare reimbursement.
4. Telehealth Modernization Act (HR 3750): created single federal standard for telemedicine in national health plans.
5. Medicare Telehealth Parity Act (HR 5380): expanded Medicare reimbursement in urban areas, retail clinics, patients’ homes, and services provided by additional types of health care professionals.
BUT WHY?
Swift Adoption of Computers Over Last 10 Years

As of October 2014:

1. Over 42% have Access to a Tablet Computer
2. 32% Own an E-reader
3. 90% Own a Cell Phone
4. 64% Own a Smartphone
IS TELEMEDICINE/TELEHEALTH GROWING?

1. Telehealth Market
   a. Valued at $572 Million in 2014
   b. Projected to Grow to $2.8 Billion by 2022

2. Key Drivers…Rising Demand for:
   a. Centralization of Healthcare Administration, Quality & Safety
   b. Mobile Applications and Internet
   c. Increased Home Care and Reduced Hospital Visits
   d. Medical consultation services via internet

3. Wide Provider Interest
COMPONENTS OF GROWTH

1. Hardware
   a. Monitors and Medical Peripheral Devices
   b. Projected to Grow by 19.3% by 2022

2. Software
   a. 18.9% of the market in 2014
   b. Project to Grow to 20.2% by 2022

3. Delivery Mode
   a. Web-based: 78% share in 2014, projected to grow by 17%
   b. Cloud-based: fastest growing and projected to grow by 19.5%
   c. On-premise
<table>
<thead>
<tr>
<th>POTENTIAL BENEFITS</th>
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<tr>
<td><strong>1. Expanded Access</strong></td>
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<tr>
<td>a. Patients to primary &amp; specialty care providers</td>
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<td>b. Physicians &amp; hospitals to patients</td>
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<td>c. Physicians to physicians</td>
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<td><strong>2. Enhanced Patient-Physician Collaboration</strong></td>
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<td>a. Project ECHO</td>
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<td><strong>3. Improved Health Outcomes</strong></td>
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<td><strong>4. Reduced Medical Costs</strong></td>
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<td>a. Intervening earlier in disease course</td>
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<td>b. Fewer hospital admissions/visits</td>
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<td>c. Less travel-related costs</td>
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<td>d. Reduced productivity losses</td>
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## POTENTIAL CHALLENGES

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<th>1. Cannot replace physical examinations</th>
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<td>2. State variations in practice patterns (no 2 States alike)</td>
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<td>a. Telemedicine guidelines</td>
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<td>b. Prescribing requirements</td>
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<td>c. Reimbursement for Medicaid services</td>
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<td>d. Requirements of private payors</td>
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<td>3. State variations in licensing</td>
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<td>a. Credentialing &amp; Privileges</td>
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<td>b. Various locations within states</td>
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<td>4. Impact on patient-provider relationship</td>
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<td>a. Effect of non-traditional locations on continuity of care with PCP &amp; Health Home</td>
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<td>b. Depersonalization</td>
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SO WHAT ABOUT TELEMEDICINE AT START?
Collaborative Effort Between

START
TREATMENT & RECOVERY CENTERS
The right way to treat people.

State University of New York - Buffalo

CDC FOUNDATION
Helping CDC Do More, Faster
Centers for Disease Control Statistics (2014)

- Approximately 3.2 million cases of chronic Hepatitis C in the US.
- Approximately 75% - 85% of people infected with Hepatitis C virus (HCV) develop chronic infection.
- In 2013, 19,368 Death Certificates in the US cited HCV as the cause of death.
Natural History of HCV Infection

Exposure Acute Phase

- 15-40%Resolved
- 60-85%Chronic

Chronic

20%

Cirrhosis

- 4%/yr ESLD
- 6%/yr Cirrhosis
- 3-4%/yr HCC
- Transplant/death

~20 year progression rate accelerated with HIV, alcohol

HCC = hepatocellular carcinoma
ESLD = end-stage liver disease

Sources of Infection for Persons With Hepatitis C

- Injecting drug use 60%
- Sexual 15%
- Transfusion 10% (before screening)
- Occupational 4%
- Other 1% *
- Unknown 10%

* Nosocomial; iatrogenic; perinatal

Source: Centers for Disease Control and Prevention
HCV and Drug Users

- Former and current injection drug users have the highest HCV prevalence
- 90% of drug users who have been injecting for 5 years or longer are infected with HCV
- HCV treatment uptake remains low among drug users
- Less than 1/3 of those referred to specialty clinics appear for appointments
- Less than 20% of those evaluated initiate antiviral therapy
- Reasons for low treatment uptake emanate from both patients’ and providers’ side
## HCV and Drug Users: Obstacles

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<th>Patients</th>
<th>Providers</th>
<th>System-based</th>
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<tr>
<td>Lack of knowledge about HCV status</td>
<td>Reluctance to treat drug users</td>
<td>Complex healthcare system</td>
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<td>Lack of HCV-related knowledge</td>
<td>Concerns about treatment adherence</td>
<td>Insurance coverage</td>
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<td>Low perceived need for treatment</td>
<td>Concerns about reinfection</td>
<td>Stigmatization in health venues</td>
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<td>Fear of side effects</td>
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<td>Mistrust of health care system</td>
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New models are needed for the successful management and treatment of HCV among former and current drug users.
Prevention, Education, and Treatment of Hepatitis-C (PET-C) Study

• Telemedicine offers opportunity to remotely link patients with physicians geographically separated

• HCV management via tele-care
  – Prior limited attempts in prisons1,2 and at rural clinics2
  – Never attempted in drug treatment facilities

• PET-C study objectives:
  – To demonstrate feasibility of HCV management via telemedicine in opiate treatment program
  – To assess patients knowledge and perception changes towards HCV treatment after educational intervention

1 Sterling et al, Amer J Gastro, 2004;99:866; 2 Arora, Hepatology 2010; 52:1124
Telemedicine Network

• START: 7 clinics, ~3000 patients, 90% African-American & Hispanic, 36% women, 18% HIV+
• Currently - One clinic, ~500 patients, 46% HCV+
Study Flow

Entry

- Patient survey

Onsite patient education

Specialty pharmacy

- HCV meds delivered & dispensed

HCV RNA+

HCV meds ordered

Assessment of treatment eligibility
Telemedicine Consultation

- Onsite physician-extender
  - Facilitates patient interactions
  - Physical examination required for medical billing
- Remote EHR access
  - Real-time result review and physician documentation
  - Presentation of results to patient during appt
Patient Survey and Onsite Education

• Of 320 patients surveyed, majority (78%) willing to pursue HCV education and treatment

• Respondents demonstrated substantial HCV-related knowledge.

• Attendance at HCV educational activities improved HCV-related knowledge.

• Knowledgeable patients were more likely to accept HCV treatment.

1Zeremski, Dimova, Talal: Journal of Addiction Medicine 2014; 8:249-57
Reimbursement and Billing

- Medicaid-managed care plans have embraced concept of reimbursement for telemedicine-based services.
  - Physician-extender and physician complete note in EHR
  - Payment directly from payer to spoke site
  - Funds subsequently disbursed to the hub site
  - Bill submitted electronically by the spoke site

- Third party payer interest in telemedicine-based approaches for substance users
  - Adherence to treatment regimen and clinic visits
  - Assessment of substance user’s satisfaction with telemedicine-based medical evaluations.
Current Status of Project

- 320 patients participated in the patient survey
- 140 patients completed patient education
- 20 patients have entered the treatment phase
- 3 patients have completed the treatment phase
- The application process has been started for a grant from the Patient Centered Outcomes Research Institute to expand this pilot project.
STUDY SUMMARY

• HCV is an increasingly important health care concern for addiction treatment programs with public health significance.

• Knowledgeable patients were more likely to accept HCV treatment.

• Telemedicine represents an important option in connecting patients and their addiction medicine providers to HCV specialists.

• Substantial barriers exist in access to HCV treatment.
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