

An Introduction to Telehealth

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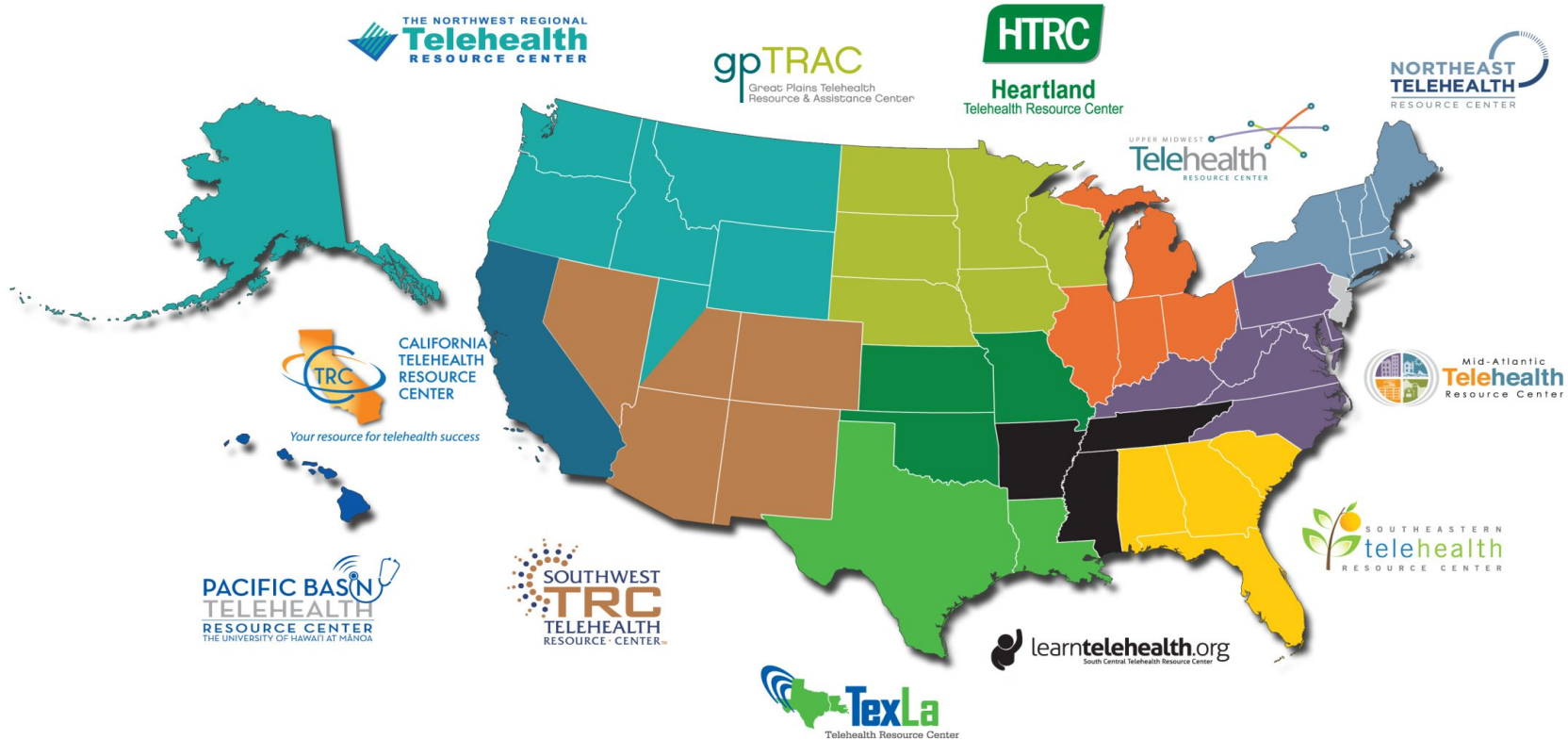


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OVERVIEW

- Introduction and History
 - Long history, variety of models, research vs service
- Regulatory Framework (Fed vs State)
- Policy Review (Allow vs Support)
- Opportunities: Expanding Telehealth Services and Looking to the Future (#1 - It's up to the provider;

TelehealthResourceCenters.org



NRTRC	gpTRAC	NETRC
CTRC	HTRC	UMTRC
SWTRC	SCTRC	MATRC
PBTRC	TexLa	SETRC

2 National Resource Centers

12 Regional Resource Centers

TELEHEALTH



Early Research



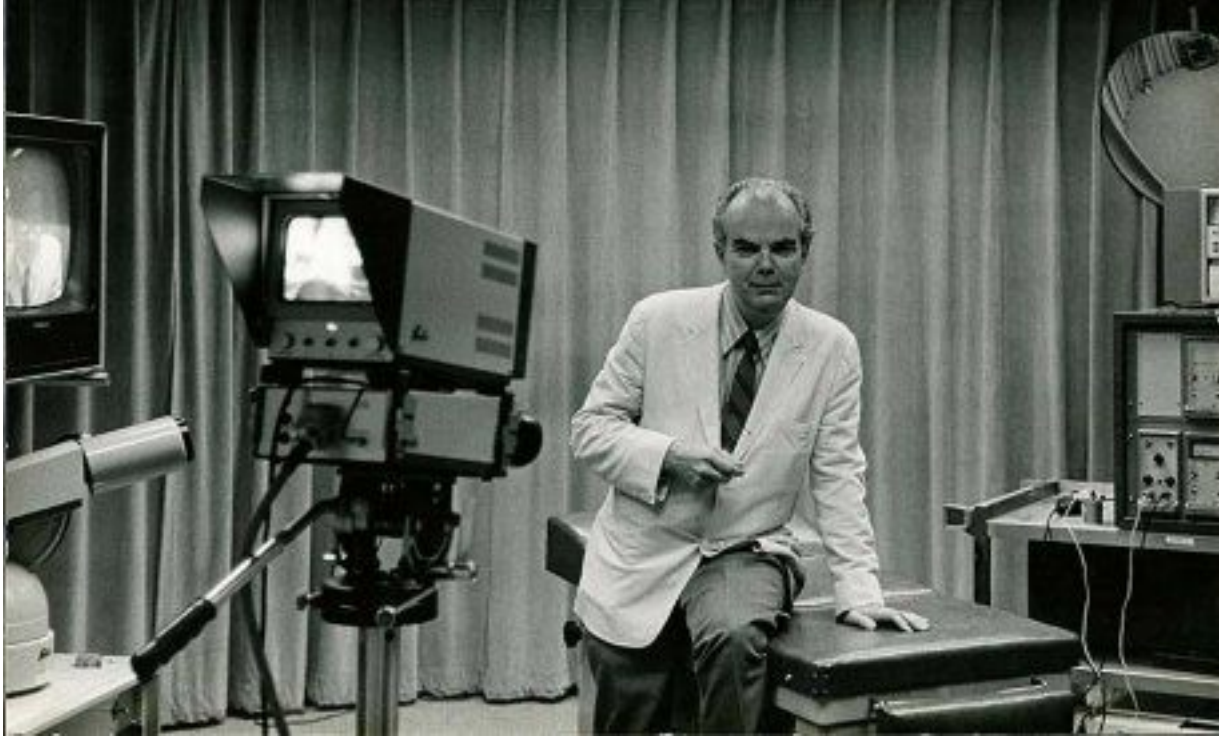
Nebraska Psychiatric Institute (1959)

- Individual and group therapy

Dartmouth-Hitchcock MH Center (1968)

- Live consultation

Historical Perspective



**Dr. Kenneth Bird,
Harvard Medical School**

Bird, K. T., & Murphy Jr,
R. L. (1974).

Telediagnosis: A New
Community Health
Resource. *American
Journal of Public Health*,
64(2).

Historical Perspective



Telediagnosis: A New Community Health Resource

Observations on the Feasibility of Telediagnosis Based on 1000 Patient Transactions

RAYMOND L. H. MURPHY, JR., M.D., Sc.D.
KENNETH T. BIRD, M.D.

By means of a two-way audiovisual microwave circuit, physicians at the Massachusetts General Hospital provided medical care to 1000 patients 2.7 miles away at the Logan International Airport Medical Station. This study reports on this service which demonstrates that telediagnosis can increase the availability of quality medical care.

Introduction

For many years two-way voice communication has been used for emergency advice to patients in remote areas. This kind of telediagnosis has been limited because it is difficult to verbalize much of the important information required for medical diagnosis.

The demand for medical care in rural areas is increasing. It is widely recognized that medical practice has become more specialized and that, of necessity, specialists must practice in areas of high population density. Thus, it is likely that the many benefits of specialized medical care will not be readily available to persons in remote areas if current health care methods are employed.

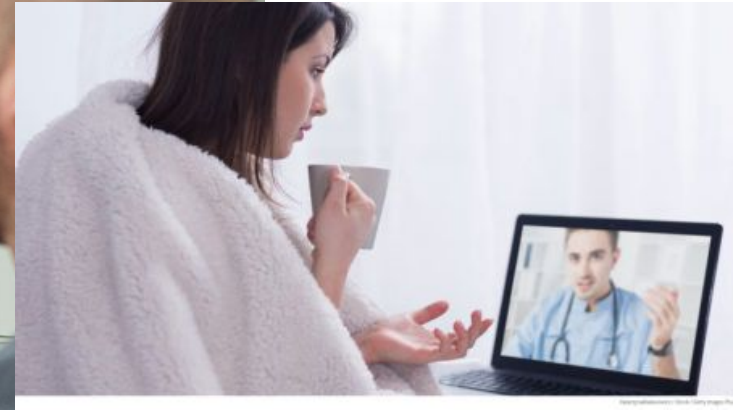
With these considerations in mind we explored the

feasibility of diagnosis at a distance using two-way closed circuit television and other electronic devices. The purpose of this report is to comment on the experience obtained while delivering primary medical care to 1000 patients via this telediagnosis system. Details of the nature and costs of the required equipment will be the subject of a future communication.

The Logan International Airport Medical Station of the Massachusetts General Hospital in East Boston was chosen as the site for this experiment. This station was established to provide occupational health services to airport employees and to deliver emergency care and medical direction to travelers. During this experiment the Medical Station was staffed by nurses 24 hr per day, supplemented by in-person physician attendance during the 4 hr coincident with peak passenger flow periods. Since the inception of the Medical Station, nurse-clinicians have been responsible for the evaluation and treatment of patients who visit this facility when physicians are not in attendance. To assist the nurse in this task, she had the ready availability of physician consultation by telephone. It was thus logical to superimpose on this situation a visual communications system to study this new method of health care delivery. The

This study was supported in part by U.S. Public Health Service Project CH23-41A6 entitled "Telediagnosis: A New Community Health Resource." Address reprint requests to: Dr. Raymond L. H. Murphy, Jr., Asst. Clinical Professor of Occupational Medicine, Department of Physiology, Harvard School of Public Health, 665 Huntington Ave., Boston, Massachusetts 02115. Dr. Bird is with the Medical Service, Massachusetts General Hospital, Boston, Massachusetts.

Change Happens



Subsequent Eras

- **1996/2000** - Medicare reimbursement
- **2000s** - Relatively widespread university research/service programs
 - Focus on bringing specialty care to rural/underserved areas
- **2010s** - Multiple factors converged
 - Broadband became better and more widely available
 - Coding/decoding algorithms improved significantly (internet video standards)
 - Equipment became generic (cheaper and more reliable)
 - Inexpensive and easily managed web-based platforms became available
 - Primary care explored bringing services “in-house,” contracting providers
- **2020 - COVID-19**
 - Stay-at-home orders force providers to develop DTC services
 - Regulations and reimbursement policies altered to support this

Four Domains of Telehealth

- **Hospital & Specialty Care**
 - Specialists see and manage patients remotely
- **Integrated Primary Care**
 - Specialists (often MH) integrate services into primary care environment
- **Remote Monitoring for Transitions and Maintenance**
 - Physiological and behavioral monitoring to maintain best function in least restrictive, least expensive, or most preferred environment
- **Direct to Consumer Services (Primary/Urgent Care)**
 - Convenient access to needed/desired services; popular among younger, busier, and generally healthier patients

Conceptual Framework

TELEMEDICINE IS A DELIVERY MECHANISM, NOT A SERVICE

- Providers need no new certification or credentials
- All regulations apply equally to telehealth

Regulatory Environment

FEDERAL REGULATIONS

- All federal legislation covering healthcare
- Prescribing Controlled Substances (Ryan Haight Act)
 - In person visit required before prescribing controlled substances (or use consultation model)
 - Telemedicine exemption (undefined)
- Medicare (reimbursement)

Regulatory Environment

STATE REGULATIONS

- Licensing Boards (many are silent regarding telehealth)
- State laws/regulations regarding healthcare
- Medicaid (reimbursement)
- Commercial payer regulations (reimbursement)

Minnesota Regulatory Context

PRIMARY SOURCES

MN Medical Board -

Licensees held to the same standards as in-person care

- Licensees use evidence-based practice guidelines (e.g., ATA Guides)
- Diagnostic information must be equivalent to in-person

Other Boards -

- Recognition that virtual services are part of licensees' skill sets and covered equally by ethical guidelines

Changing Conventions

Definition of Telemedicine (most common)

- Telemedicine has almost always been defined as “live interactive video”
- Asynchronous (“store and forward”) telemedicine is generally a separate service (only covered in a few states/plans), regulated separately
- Telephone, fax, and email have (almost always) been excluded
- Direct-to-consumer (DTC) models growing FAST within commercial plans
- **Almost every provider is doing DTC (D2P, P2P) now (during PHE)**

Changing Conventions

New Applications of Telecommunications in Healthcare:

- Population health - not every service is a “billable encounter”
- Simple, low-cost options are ubiquitous - smart phones, text messages, IVR, etc.
- Direct services vs “Force multipliers” (collaborative and consultative care models, ECHO, etc.)

Services

- Based on patient need
- Have physician buy-in (champions)
- Leverage trusting partnerships (or develop them)
- Scratch an obvious itch

The most significant challenge most telehealth programs used to face was generating significant/sustainable interest on the part of the clinicians (physicians and others) who were referring patients into the program.

Now, doctors are reliant on telemedicine to see their patients, and utilization isn't the problem anymore.

Sustainability

Reimbursement

Medicare - per national standard

Medicaid - Full parity; MCOs sometimes must be “educated”

Commercial Payers - Full parity; Claims sometimes need to be defended/justified

Telemedicine/telehealth is not a “cash cow.”

State Payer-Services Matrix

Payer	Providers	Services
Medicare	MD/DO PA/APN Psych/S Dietitian	C... 040x,G042x) E&M... 9921x) Psych E... 079x) Psychotr... (9084x) Nutrition... (9079x)
Medicaid/ MCOs	Any Inde... nt Licensed... r	... e covered service (per ... encounters/week limit
Commercial	Full Parity	... arity

CHALLENGES



Great Plains Telehealth
Resource & Assistance Center

First rule of live video:

HIGH QUALITY BANDWIDTH!

Minimum bandwidth: **Consistent 1-3 Mbps**
(same as for a good Netflix experience).

For some rural areas, this is still a significant problem.

Shared circuits clog up during busy times.



Technology Options

Use Cases and Form Factors Available

- Everything from phones to multi-monitor conference room systems is possible



Great Plains Telehealth
Resource & Assistance Center

Patient Appropriateness

Document any concerns regarding the appropriateness of telehealth for this patient or at this time. Concerns may include:

- Difficulty using the equipment effectively
- Lack of access to adequate connectivity or private space
- Inability to collect necessary medical information from patient or perform an adequate exam
- History of or current difficulty managing patient behavior

NOTE: Clinical needs and/or urgency may outweigh concerns

Emergency Procedures

As part of the consent/initial session:

- Discuss emergency procedures and any foreseeable risks
- Collect numbers for local fire, police, and other emergency contacts

In an emergency situation:

- Maintain contact and work to transfer care to appropriate onsite responders and/or caregivers
- Document the event and the transfer of care
- Make any mandated reports

Use Front Desk/MA Staff Effectively

- Allow front desk to schedule encounters, make initial connections, and then “transfer” sessions to providers.
- Front desk and MA staff may virtually “room” and orient patients.
- Develop a “supplemental technical support” pathway or resource for patients who have difficulty connecting.
- Deploy “on site ePPE” as needed
 - Provider in one room, patient in another (billed as a regular visit)
 - Patients on WiFi in parking lot (or at local business partner locations)



EXPANDING TELEHEALTH SERVICES

Strategies

Platforms & Configuration

High Potential Services

Implications & Strategies

- **“Telehealth/Virtual Care strategies” have now become a critical part of most providers’ overall strategy**
 - **Short term:** Get people seen
 - **Medium term:** Post-COVID practice patterns

“We are all telehealth providers now.”

Near Term Considerations

Billing and reimbursement will continue to settle unevenly

- Medicare will (attempt to) lead, hampered by political crosscurrents
 - The bulk of CMS's TH policies were enshrined in statute; in the absence of new telehealth legislation, there was a discernible movement at CMS toward defining new services outside the domain of traditional TH (Virtual Check-Ins, eVisits, CCM/CoCM)
- State payers will vary in speed and pattern of response
- Service models will coalesce around locally reimbursable “sweet spots”


“Outside the Domain of Traditional Telehealth”



“Telehealth” for Medicare means:

- Live video
- Originating site and distant site
- Fee for service reimbursement under Part B

Non-traditional services include:

- | | | |
|---|--|---|
| <ul style="list-style-type: none">● Virtual Check-Ins● eVisits● *CCM/CoCM |  | <p>No rural restrictions</p> <p>Few technology limitations</p> <p>*No encounter-based billing</p> |
|---|--|---|

Considerations for Strategic Planning

- TH regulations and practice will NOT return to the previous state, and the new policies will not be well defined (at least at first)
- Organizations that embrace telehealth will find their patients and providers readily adopt it and experience unforeseen benefits
- Equipment costs will be lower than expected; time/complexity costs will be buried in the general chaos of the coronavirus response
- Care pathways or “channels” will multiply (phone, text, photo, video) along with billing codes (CCM, eVisits, RPM, intra-practice, etc.)

Home Monitoring

RPM can be billed for any patient (during PHE)

- Added interface for provider
- Cost

Limited (but useful) data:

- Oxygen Saturation
- Pulse Rate
- Steps/Falls (activity)



Much more complex systems available

Home Exams

Patient initiated encounters

- Accuracy
- Cost (\$300 for pt; much more for Doc)

Limited (but useful) data:

- Live images (ear, throat, skin)
- Stethoscope
- Temp

Network business model



Some General Considerations

1. **Services legally occur at the patient's physical location.** The provider must be licensed (and credentialed) to provide services at that location.
2. **Telehealth services are often more demanding** physically/mentally/emotionally than in-person care. Take breaks, slow down, debrief, adjust.

Potential Technical Pain Points

Keeping encounters private (separate video products, only).

- Ensuring each client/patient has a secure (unique) link
- “Locking” rooms; using passwords
- Using virtual waiting rooms

Providing technical support to clients/patients who have difficulty.

Alternatives for patients with no cell phones, computers, or connectivity.

Contact



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<http://gptrac.org>

<http://telehealthresourcecenters.org>