TRENDS IN TELEDERMATOLOGY

Carrie Kovarik, MD, Associate Professor
University of Pennsylvania

DISCLOSURE OF RELEVANT RELATIONSHIPS WITH INDUSTRY

Carrie Kovarik, MD

I do not have any relevant relationships with industry.

IMPORTANCE OF TELEDERMATOLOGY

The Problem:

- 40% of dermatologists practice in100 densest 3-digit postal codes
- With an increasing population, ***demand for dermatologic services will continue to grow***
- Supply/distribution of dermatologists must equally match rising demand
- Evidence that dermatology is needed in ER and inpatient settings, and ***dermatology intervention has a significant impact*** on care
- Dermatology visits are estimated to represent 4-12% of all urgent care/ER visits conditions, and dermatology consultation has been ***demonstrated to reduce unnecessary admissions and clinical costs***

SHORTAGE OF DERMATOLOGY ACCESS

Many community hospitals ***do not have*** consistent in-person emergency or inpatient ***dermatology consultation*** available.

+

Emergency rooms and urgent care centers thus manage most dermatology cases without input from dermatologists.

=

This leads to patients being managed in a ***less efficient and cost-effective*** manner.

But why?

TELEDERMATOLOGY CONCEPT

Poor dermatology access because of barriers of distance, time, insurance coverage, and appointment availability

+

Rise of Internet and smartphone and tablet technology

Contributing factors include: small number of dermatologists, decline in inpatient dermatology, poor rural access, and lack of appointments

Teledermatology as means to deliver care

Teledermatology shown acceptably equivalent in diagnosis and management to in-person care

Clinical course outcomes for store and forward teledermatology versus conventional consultation: a randomized trial

John D Whited*†, Erin M Warshaw‡§, Kush Kapur††, Karen E Edison**, Lizy Thottapurathu††, Srihari Raju‡, Bethany Cook‡, Holly Engasser‡, Samantha Pullen‡, Thomas E Moritz††, Santanu K Datta‡‡, Lucinda Marty§§, Neal A Foman‡§, Pitiporn Suwattee‡§, Dana S Ward** and Domenic J Reda††

Journal of Telemedicine and Telecare 2013; 19: 197–204

- Patients being referred from primary care to dermatology clinics were randomly assigned to teledermatology or a conventional consultation.
- 261 patients completed the study
- Store and forward teledermatology ***did not result*** in a significant ***difference in clinical course.***

Outcomes

Original Investigation

The Reliability of Teledermatology to Triage Inpatient Dermatology Consultations

John S. Barbieri, BA; Caroline A. Nelson, BA; William D. James, MD; David J. Margolis, MD, MSCE, PhD; Ryan Littman-Quinn, BA; Carrie L. Kovarik, MD; Misha Rosenbach, MD

- Teledermatology is reliable for triage of inpatient derm consultations and has potential to improve efficiency.
- Triage decision: if the in-person dermatologist recommended the patient be seen the same day, the teledermatologist agreed in 90% of the consultations.
- The teledermatologists were ***able to triage 60%*** of consultations to be seen the next day or later.

Inpatient Access

Impact of store-and-forward (SAF) teledermatology on outpatient dermatologic care: A prospective study in an underserved urban primary care setting

Caroline A. Nelson, MD,[a] Junko Takeshita, MD, PhD,[a] Karolyn A. Wanat, MD,[e] Kent D. W. Bream, MD,[b,f] John H. Holmes, PhD,[c] Helen C. Koenig, MD, MPH,[d,g] Rudolf R. Roth, MD,[a] Anitha Vuppalapati, MD,[h] William D. James, MD,[a] and Carrie L. Kovarik, MD[a,d]
Philadelphia, Pennsylvania, and Iowa City, Iowa

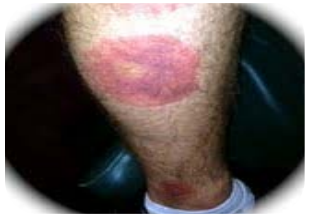
CAPSULE SUMMARY

- The impact of teledermatology in the primary care setting remains relatively unevaluated.
- There was full diagnostic and management concordance between primary care providers and dermatologists for 22% and 23% of dermatologic conditions, respectively. Teledermatology increased consultation speed and accessibility.
- These findings support the value of teledermatology for underserved urban patients.

Outpatient Access

J Am Acad Dermatol

TELEDERMATOLOGY CONSULT FLOW DIAGRAM



Patient presents to a primary care clinic with a challenging dermatologic condition

Primary care provider submits a teledermatology consult via a website or mobile device

Remote dermatologist reviews and responds to the consult via a website or mobile device

Primary care provider utilizes response to develop a treatment and follow up plan for the patient

New questions, responses, and updates

AADA PREFERRED MODALITIES

Live-Interactive

- Providers and patients interact via live video. A variety of peripheral hardware attachments may be utilized to enhance the consultation

Store-and-Forward

- Sending or forwarding of digital images and associated patient data to the specialist for storage and consultation

With pre-existing relationship both modalities can facilitate:

- **Direct-to-consumer**: The patient sends images or interacts live, directly with the dermatologist.
- **Triage/consultative for inpatients and outpatients**: Another physician sends images or interacts live with a dermatologist for either consultation or triage.

AADA RECOMMENDED USAGE

Provider to Provider

Provider to Dedicated Telemedicine NP or PA

Provider to Patient within a Healthcare System

Provider to Patient already established Private Practice Setting

Source: AAD Position Statement on Teledermatology

CRITERIA FOR HIGH QUALITY TELEDERMATOLOGY

Physicians must be ***licensed in the state*** in which patients receive services

Choice of dermatologist, and access to credentials

PMH must be collected as part of service

Teledermatology services must be ***properly documented***

Care coordination with PCP, and dermatologist if one exists

Active training and ***QA program*** for both sites

Source: AAD Position Statement on Teledermatology

PREVENTS UNNECESSARY ADMISSIONS

Patient presents to Hospital ER with "cellulitis"

- Decision – Admit for IV antibiotics or send home with oral antibiotics

Teledermatology consult with dermatologist from ER physician

- Diagnosis – Stasis Dermatitis

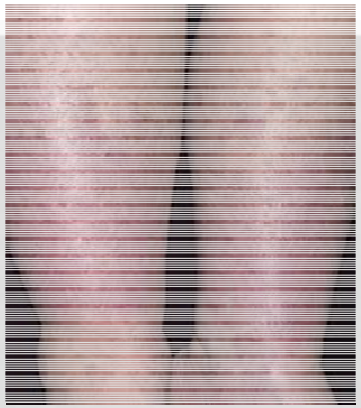
Prescribed Treatment:

Triamcinolone 0.1% Ointment - $35.00

Support Stocking

Follow up as an outpatient

- No admission needed

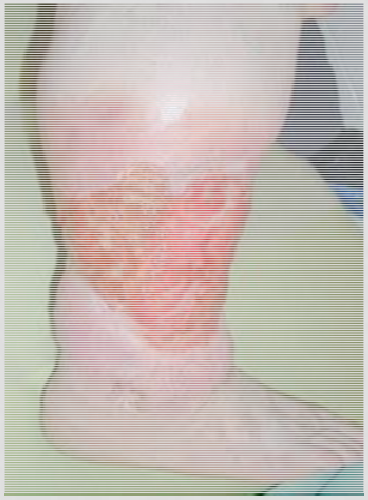


PROVIDES ACCESS TO RURAL REGIONS

Patient lives 100 miles from University Hospital Wound Clinic with dermatologists, and no dermatologist in immediate area

University Hospital satellite in small town with teledermatology PA trained in ulcer care.

Patient diagnosed with venous leg ulcer, dermatologist remotely prescribes treatment and PA facilitates treatment



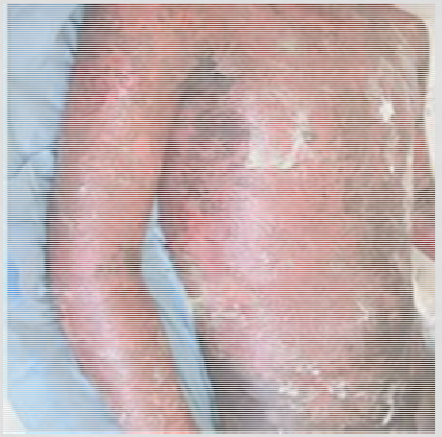
- Images of the ulcer sent weekly by the Physician Assistant to the University wound care clinic and recommendations made.

PROVIDES PROMPT DIAGNOSIS AND ROUTES CARE

Patient presents to rural hospital in Mississippi with severe red painful rash all over body

Store and Forward photograph is e-sent to medical dermatologist at U. Mississippi in Jackson

Diagnosis of TEN is suspected and patient is flown by helicopter to state burn center for life saving treatment.



SLOW ADOPTION OF TELEDERMATOLOGY PRACTICE

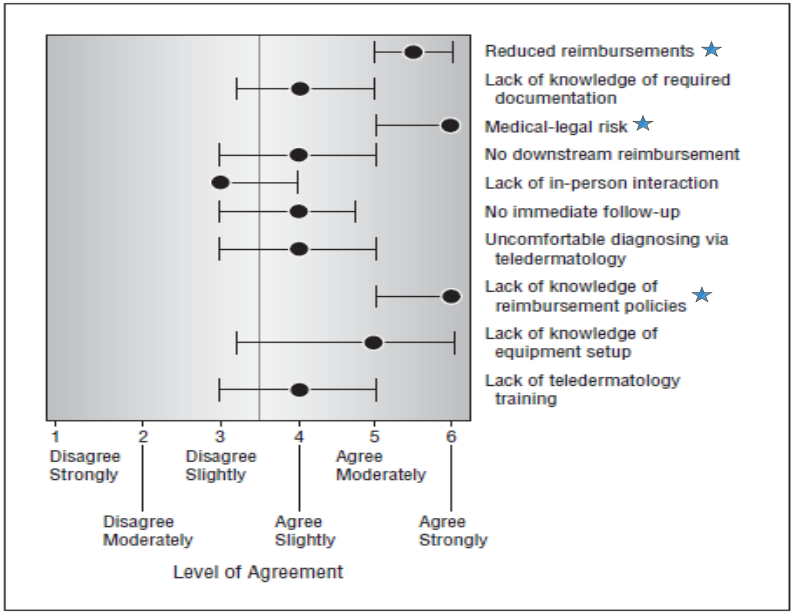


Figure 1. Reasons for not practicing teledermatology. Bubble indicates median rank; error bars, interquartile range.

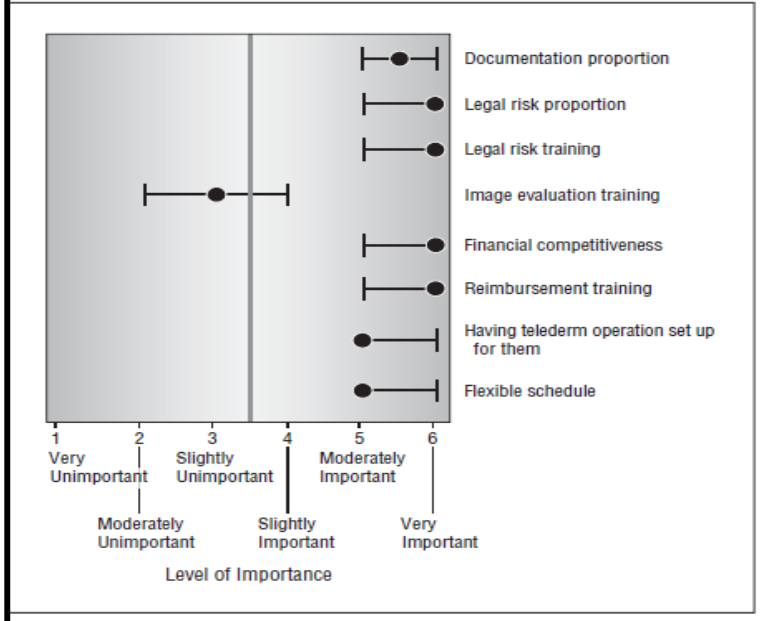


Figure 2. Importance of incentives. Bubble indicates median rank; error bars, interquartile range.

Source: JAMA Dermatology: Why Some Dermatologists Do Not Practice Store-and-Forward Teledermatology (May 2012)

AAD TELEDERMATOLOGY CURRICULUM…*COMING MARCH 2017*

Module 1: Technologies

- Modalities
- Practice Models

Module 2: Reg/Liability

- Regulation
- Reimbursement
- Medicolegal Risk

Module 3: Utilization

- Criteria for High Quality Care
- Quality Assessment

Module 4: Ethics

- Conflict of Interest
- Clinical Challenges
- Coordination of Care

+ Learner's Quizzes and Online Resources

State Telehealth Laws and Medicaid Program Policies

DEFINITION

47 states and the District of Columbia have a definition for telehealth, telemedicine, or both

LOCATION

a few states have required a certain amount of distance between the provider and patient

In South Dakota, an originating site and a distant site cannot be in the same community

23 *states limit the type of facility that may serve as an originating site to a specific site list*

MEDICAID REIMBURSEMENT

47 states reimburse for live video through Medicaid

16 states reimburse for remote patient monitoring

2 offer reimbursement through their Department of Aging Services

9 states reimburse for store and forward

states rarely view email/-phone/fax as acceptable forms of service delivery

30 states reimburse for a transmission/facility fee

CONSENT

29 states include some sort of informed consent

ONLINE PRESCRIBING

Internet/online questionnaires are not adequate; states may require a physical exam prior to a prescription

PRIVATE PAYER LAWS

33 jurisdictions have active private payer laws

CROSS STATE LICENSURE

9 states issue special licenses or certificates for telehealth

Center for Connected Health Policy
The National Telehealth Policy Resource Center

www.cchpca.org
March 2016

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2267 Session of 2015

INTRODUCED BY M. QUINN, R. BROWN, V. BROWN, DAVIDSON, DAVIS, HARHART, HELM, PHILLIPS-HILL, D. MILLER, MILNE, MUSTIO, TOPPER, WARD AND YOUNGBLOOD, JULY 21, 2016

REFERRED TO COMMITTEE ON INSURANCE, JULY 21, 2016

AN ACT

Providing for telemedicine and for insurance coverage.

The General Assembly of the Commonwealth of Pennsylvania

MODEL STATE TELEMEDICINE STANDARDS KEY ISSUES

- Licensure
- Establishment of Physician-Patient Relationship
- Informed Consent
- Continuity of Care
- Evaluation and Treatment of the Patient
- Referrals for Emergency Services
- Medical Records
- Privacy and Security of Patient Records & Exchange of Information
- Disclosures and Functionality on Online Services Making Available Telemedicine Technologies
- Prescribing Standards

For Immediate Release: January 21, 2016
Contact: Drew Carlson, (817) 868-4043
dcarlson@fsmb.org; www.fsmb.org

Six New States Introduce Interstate Medical Licensure Compact Legislation

Since 2015, twenty-six states have enacted or introduced legislation to expand access to quality health care through expedited licensure

WASHINGTON, D.C. (January 21, 2016) – Kicking off the 2016 state legislative season, six new states have introduced legislation to enact the Interstate Medical Licensure Compact, joining a growing number of states across the nation seeking to expand access to quality health care by significantly streamlining the medical licensure process.

During the first two weeks of 2016, legislative chambers in Alaska (HB237/HB238), Arizona (HB 2502), Colorado (HB 1047), Kansas (HB 2456), New Hampshire (HB 1665) and Washington (HB 2452/SB 6228) have introduced model Compact legislation, bringing the total number of state legislatures that have introduced the legislation since 2015 to 26. Additional introductions of the model Compact legislation are expected across the nation in early 2016.

Twelve states have enacted the Compact, including Alabama, Idaho, Illinois, Iowa, Minnesota, Montana, Nevada, South Dakota, Utah, West Virginia, Wisconsin and Wyoming.

The Interstate Medical Licensure Compact, which offers a streamlined licensing process for physicians interested in practicing medicine in multiple states, is expected to expand access to health care, especially to those in rural and underserved areas of the country, and facilitate new modes of health care delivery such as telemedicine.

Interstate Medical Licensure Compact

Home | About | Model Legislation | ToolKit | Endorsements

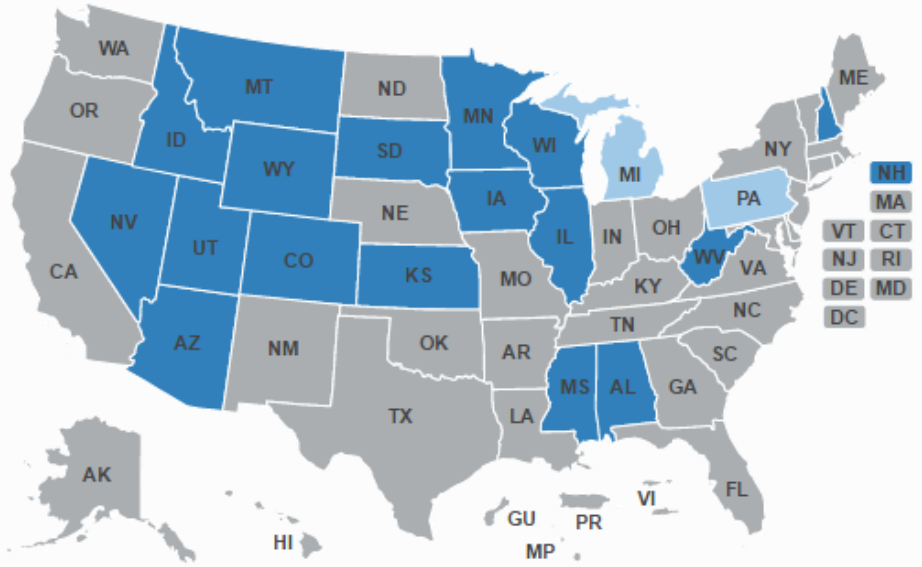
About the Compact

The Interstate Medical Licensure Compact offers a new, voluntary expedited pathway to licensure for qualified physicians who wish to practice in multiple states, increasing access to health care for patients in underserved or rural areas and allowing them to more easily connect with medical experts through the use of telemedicine technologies.

While making it easier for physicians to obtain licenses to practice in multiple states, the Compact strengthens public protection by enhancing the ability of states to share investigative and disciplinary information. The Compact is being implemented in a growing number of states, with others expected to adopt it soon.

To learn more, call (202) 463-4000.

Enactments: 17 Active Legislation: 2



= Compact legislation enacted

= Compact legislation introduced

LICENSURE AND THE INTERSTATE COMPACT

Key Principles	The practice of medicine occurs where the patient is located
	Compliance with the statutes, rules and regulations of state where patient located
	State boards aware of physicians practicing in the state
	Improved sharing of complaint and investigative information between medical boards
	The license to practice medicine may be revoked by member state once issued
	The ability of boards to assess fees will not be compromised

Center for Connected Health Policy
The National Telehealth Policy Resource Center

S. 2484 - Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act

Sen. Schatz (D-HI), Wicker (R-MS), Cochran (R-MS), Cardin (D-MD), Thune (R-SD) and Warner (D-VA)

Author Intent: To amend titles XVIII and XI of the Social Security Act to promote cost savings and quality care under the Medicare program through the use of telehealth and remote patient monitoring services, and for other purposes.

Telehealth and Remote Monitoring Services "Bridge" Demonstration Waivers

The bill requires the Secretary to solicit proposals from and issue telemedicine or remote patient monitoring (RPM) "bridge" demonstration waivers to eligible applicants who, for the duration of time for which the demonstration waiver would apply, are furnishing telehealth or RPM services that are consistent with the goals of the Merit-based Incentive Payment System (MIPS), including goals of quality, resource utilization, and clinical practice improvement (including care coordination and patient engagement) or the incentive payments for participation in eligible alternative payment models (APM).

Eligible applicants are:

- A qualifying APM participant;
- A professional described in 1848(q)(1)(C)(i)(I) which are: physician, physician assistant, nurse practitioner, clinical nurse specialist, certified registered nurse anesthetist, and a group that includes such professionals;
- Any other professional deemed appropriate by the Secretary and a group that contains such providers.

The bill exempts participating entities under the demonstration waiver from telehealth requirements included in section 1834(m) of the Social Security Act (SSA), including:

- Geographic limitation
- Limitation on what qualifies as an originating site
- Limitation on store and forward or RPM
- Limitation on type of professional who may furnish telehealth

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The National Telehealth Policy Resource Center

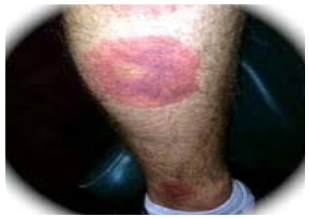
S 2170 - Veterans E-Health and Telemedicine Support Act of 2015 or The VETS Act of 2015

S 2017: Ernst (R-IA), Hirono (D-HI), Cornyn (R-TX), Udall (D-NM), Tillis (D-NM), Sessions (R-AL), Boozman (R-AR), Rounds (R-SD), Ayotte (R-NH), Grassley (R-IA) and Heinrich (D-NM)

Author Intent: To improve the ability of health care professionals to treat veterans through the use of telemedicine.

BILL LANGAUGE	CURRENT LAW
A covered health care professional may provide services at any location in any state, regardless of where the health care professional or the patient is located if telemedicine is being used. Such treatment may be provided outside of a facility owned by the federal government.	State licensure requirements are waived for VA doctors if patient and provider are located at a federal facility.

DTC Teledermatology Consult Flow Diagram



Patient submits a teledermatology consult directly via a website or mobile device

Remote provider responds to the patient with a treatment plan via a website or mobile device

Patient implements treatment plan and or instructions of provider

New questions, responses, and updates

A survey of direct-to-consumer teledermatology services available to US patients: Explosive growth, opportunities and controversy

Alexander L Fogel BS[1] and Kavita Y Sarin MD, PhD[2]

- ***22 DTC teledermatology services*** available to US patients in 45 states (2015).
- 6 (27%) services offer care from international physicians.
- 16 (73%) services allow patients to seek care for any reason, while 6 (27%) limit care to acne or anti-aging.
- Median response time = 48 hours.
- ***Median consultation fee*** for companies providing care from US board-certified physicians is US$59.
- Across all services, consultation fees range from US$1.59 to US$250.

Journal of Telemedicine and Telecare

Unlicensed Providers

- Availability of services provided by physicians not licensed to practice in US is the '**unauthorized practice of medicine**', and is deceptive to patients, who may not realize they are receiving advice from non-US physicians.
- Can be **difficult to tell** which provide services by international physicians, and some sites require patients to sift through several webpages before appropriate information can be found
- **Webpages and apps look similar** to those provided by US-based physicians, and services staffed by international physicians charge in US $.
- Availability of these services **delegitimizes** DTC teledermatology care
- **Greater regulation** of these services are needed.

Journal of Telemedicine and Telecare

Pill Mill Websites

- Prominent advertising of the ability to obtain a prescription is problematic, particularly those that limit care to acne/anti-aging.
- Prominent home page banner on one website: "See a dermatologist online and get a prescription medication at your door."
- Another advertises itself as ***"The easiest way to get a prescription acne treatment from a dermatologist."***
- Many services view providing a prescription medication as an important value proposition to patients.
- Emphasis on obtaining prescription medications may ***limit a service's ability to objectively diagnose and manage patient conditions***.

Internet Prescribing

- ***Arkansas:*** Without a prior and proper patient-provider relationship, ***providers are prohibited*** from issuing prescriptions solely in response to an Internet questionnaire, an Internet consult, or a telephone consult.
- ***Colorado: Pharmacists are prohibited*** from dispensing prescription drugs if they know, or should have known, that it was on the basis of an internet-based questionnaire, an Internet-based consult, or a telephone consultation, all without a valid pre-existing patient-practitioner relationship.
- ***Delaware:*** Without a prior patient-provider relationship ***providers are prohibited*** from issuing prescriptions based on internet questionnaire, internet consult or a telephone consult.

Source: AR Bill SB 53 (2015).

A "professional relationship" between healthcare provider and patient means at a minimum:

- The healthcare professional has previously conducted an in-person examination and is available to provide appropriate follow-up care, when necessary, at medically necessary intervals;
- The healthcare professional personally knows the patient and the patient's relevant health status through an ongoing personal or professional relationship, and is available to provide appropriate follow-up care, when necessary, at medically necessary intervals;
- The treatment is provided by a healthcare professional in consultation with, or upon referral by, another healthcare professional who has an ongoing relationship with the patient and who has agreed to supervise the patient's treatment, including follow-up care;
- An on-call or cross-coverage arrangement exists with the patient's regular treating healthcare professional;

Delaware

Arkansas

APRNs and Physicians

Establishing a proper provider-patient relationship includes:

- Verifying the location of requesting patient;
- Disclosing the provider's identity and credentials;
- Obtaining consent;
- Establishing a diagnosis through acceptable medical practices, including a physical exam;
- Discuss with patient the diagnosis;
- Ensure availability of distant site provider or coverage of patient for follow up care; and
- Provide written visit summary to patient

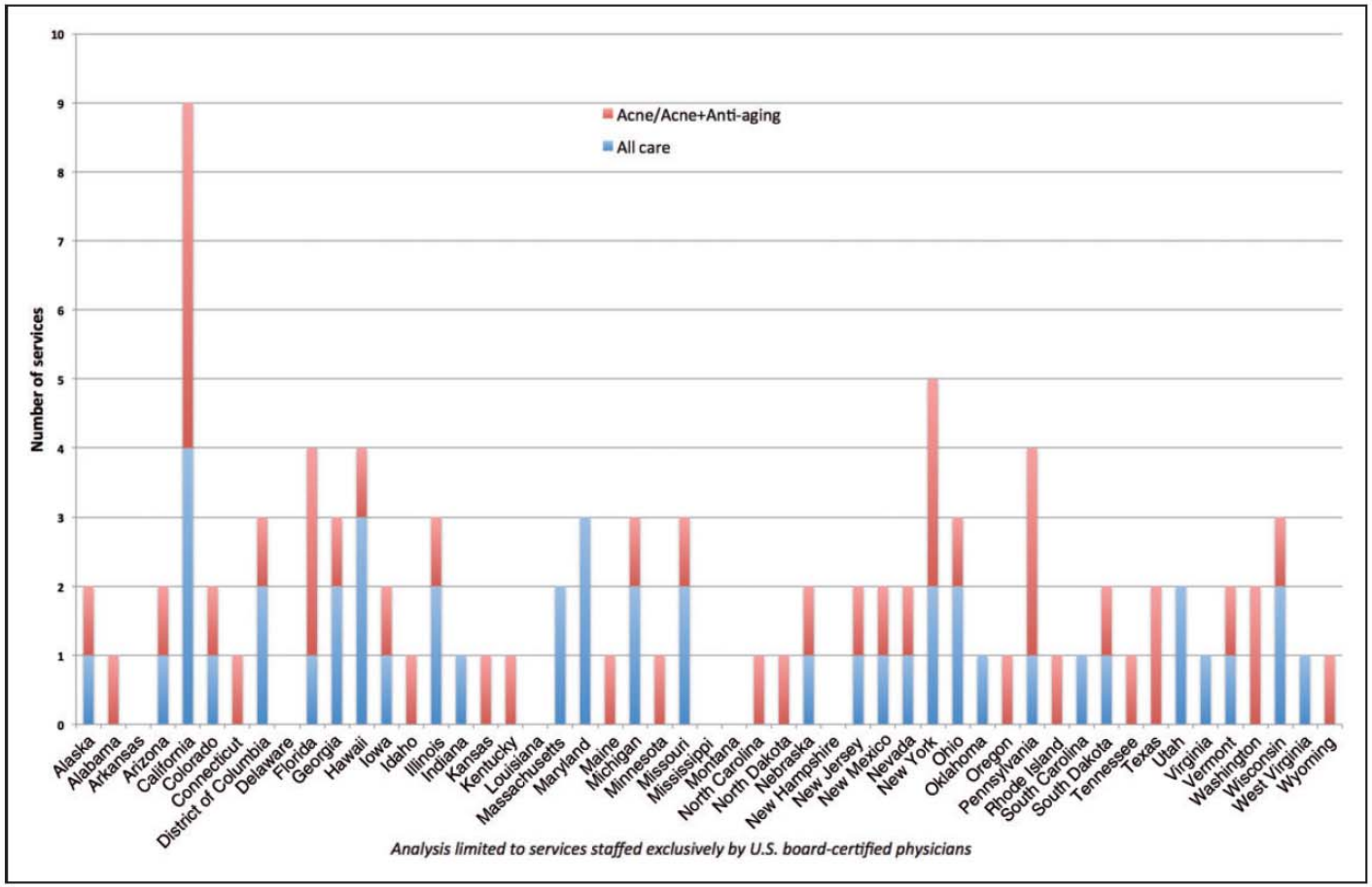


Figure 2. Direct-to-consumer teledermatology services by state.

So what is bringing people in?

Convenience Revolution Transforms Care, Poses Questions for Academic Medicine

AAMC Reporter: February/March 2016

—By Alicia Gallegos, special to the *Reporter*

CARENET INSIGHTS

Why Would Consumers Expect Less Convenience and Accessibility from Healthcare?

10/30/15 3:03 PM

In the era of Uber, Amazon Prime Now, Airbnb and TaskRabbit, today's consumers are accustomed to fast, easy access to a wide range of goods and services. And, they expect the same from healthcare.

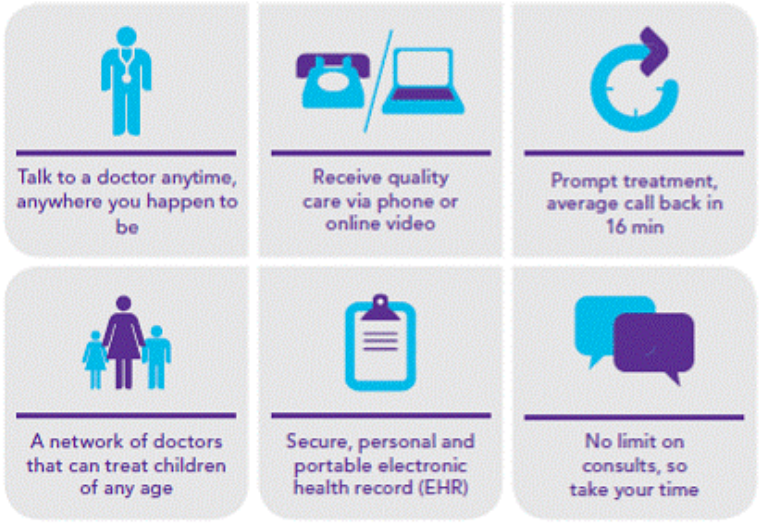
Drivers of convenient care growth

Erosion of primary care access and instant care demands

Wait times for primary care appointments can be lengthy and many clinicians, except perhaps for pediatricians, do not offer evening or weekend hours. Even at a primary care office, patients no longer necessarily see their own primary care physician: the majority of acute care visits are provided by covering physicians or at other care sites.[3] A "reasonable" wait time has also changed. A patient wait time of 24-48 hours might be clinically acceptable, but does not resonate with today's US public. The availability of drop-in visits and evening and weekend hours at these convenient care options makes them comparably attractive. Moreover, they provide care at familiar and convenient sites: home, work, or retail stores.

JAMA. 2013 July 3; 310(1): 35–36.

Direct to Patient Teledermatology



Talk to a doctor anytime for Free

Telephone Medicine

- ***Connecticut:*** The department shall not pay for information or services provided to a client over the telephone.
- ***DC:*** No reimbursement requirement for audio-only telephones, electronic mail messages or facsimile transmissions.
- ***Florida:*** Telemedicine shall not include the provision of health care services only through an audio only telephone, email messages, text messages, facsimile transmission, U.S. Mail or other parcel service, or any combination

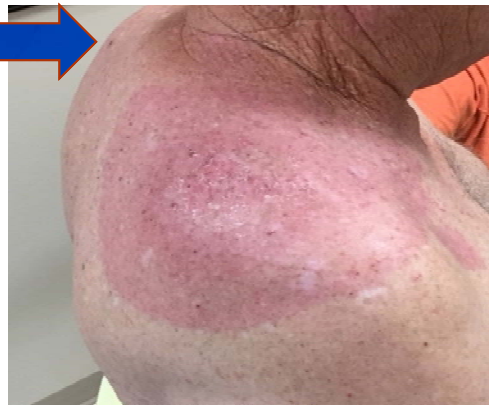
Audio Only is Suboptimal

45 YO Male patient has mole biopsied from his upper

After two-weeks calls to state that he needs an antibiotic “called in” because the area around the surgery is red and infected and cannot present at office due to travel

Skin condition unrelated to biopsy – patient contracted Lyme Disease

Biopsy Site



Patient Safety and Telephone Medicine

Some Lessons from Closed Claim Case Review

Harvey P. Katz, MD[1], Dawn Kaltsounis[2], Liz Halloran[2], and Maureen Mondor[3]

Table 6. Type of Allegation for ProMutual Telephone Medicine Cases

Allegation type	Number
Failure to diagnose	27 (67.5%)
Negligent treatment	4 (10%)
Medication related	2 (5%)
Procedure related	2 (5%)
Negligent prenatal	2 (5%)
Negligent labor and delivery	1 (2.5%)
Surgery related	1 (2.5%)
Failure to prevent suicide/homicide	1 (2.5%)
Totals	40

J Gen Intern Med 23(5):517–22

Websites That Offer Care Over the Internet
Is There an Access Quality Tradeoff?

JAMA April 2, 2014 Volume 311, Number 13

- 73% of US residents have difficulty obtaining nonemergency care on nights/weekends - drives overuse of ERs for nonurgent conditions
- Commercial e-visit websites may offer an alternative
- Recent case study of Virtuwell demonstrates potential for online care to be cost-effective and guideline driven; however, rapid proliferation of stand alone e-visit websites has created a diversity of practices with unexamined consequences for patients and physicians.
- In particular, some aspects of the care provided at some websites may have unintended effects on use, diagnostic accuracy, or continuity.

HOME DERMATOLOGY MD, NP, or PA?

Save a trip to the dermatologist's office

Save time and get treated online by a dermatology professional licensed in your state. Get a prescription without going to the doctor's office! Submit photos of your skin and get a letter back describing your recommended course of action, including a prescription if indicated, within 24 hours. Get started on your path toward better skin. It's as easy as 1-2-3!

GET STARTED NOW

"How it works" video

[redacted] PA

- Credentials: Univ of Washington
- Affiliations: Emergency Medicine
- Languages: English
- Available In: Utah and outside the US

$40.00

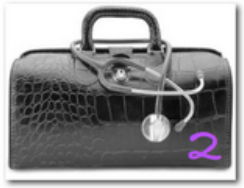
No rating available

NOT CURRENTLY AVAILABLE

VIEW ALL PROVIDERS

UPLOAD

Upload up to three photos of your concern.

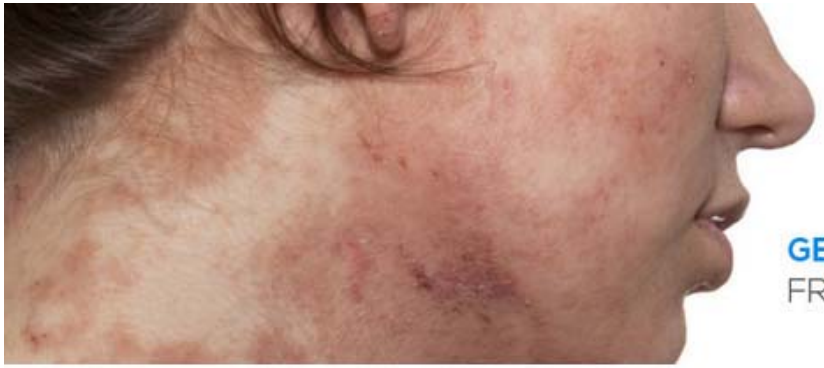


CHOOSE

Browse MDs, NPs, and PAs licensed in your state to diagnose and treat skin concerns.

DESCRIBE

Answer a few q your concern ar case.



GET ACTUAL TREATMENT ONLINE
FROM ANYWHERE

Our Services

Consult Now | Account Login

NOTE: **IT IS NOT REQUIRED, BUT HIGHLY RECOMMENDED, THAT YOU HAVE OR ARE ABLE TO OBTAIN AT LEAST ONE GOOD HIGH QUALITY PHOTO CLEARLY SHOWING YOUR CONDITION.**

WE RECOMMEND THAT ALL USERS READ OUR FAQ's PAGE AS THIS GIVES VALUABLE INFORMATION AND INSTRUCTIONS!

Imagine... stepping into a doctor's office, right from the comfort of your home or workplace!

Imagine... not having to take time off work or school, not even needing to drive to the doctor's office!

Imagine... not having to wait for hours wasting your valuable time in the office, then possibly still having to pay a co-pay and/or deductible!

Imagine... if you could have prescriptions called in without having to go to the doctor!

Testimonials

"Gee what a great site!
— ME"

If you would like to see and/or write a testimonial, please click "HERE" or the link at the bottom of this page, or on the "Read More" link below. Thank you so much for making this website such a success!PLEASE NOTE -> YOU

Stop Worrying About Your Skin

Receive an answer in a few hours from a Dermatologist

Anonymously submit images of your skin problem directly to a dermatologist and get a response within 24 hours.

Fast, Anonymous, Secure

Send a picture +

Websites That Offer Care Over the Internet
Is There an Access Quality Tradeoff?

JAMA April 2, 2014 Volume 311, Number 13

- Visitors toEzdoctorsrx.com select products from a "Catalog of Online Prescriptions" with the assurance that "[i]f you do not qualify for a prescription, your visit is FREE."
- Many sites partner with laboratory and imaging companies to offer products, such as an annual "Comprehensive Wellness Profile," that include far more testing than recommended by the US Preventive Services Task Force.
- One site sells nutritional supplements with the tagline, "Doctors not only recommend our products to their patients, *THEY take them as well.*"

A Comparison of Care at E-visits and Physician Office Visits for Sinusitis and Urinary Tract Infection

Pressure to satisfy customers in a timed virtual appointment with limited access to follow-up may ***drive e-visit clinicians to underuse diagnostic procedures*** and reach unjustified conclusions (or write unnecessary prescriptions)

	Sinusitis, No. (%)			UTI, No. (%)		
	E-visit (n = 475)	Office Visit (n = 4690)	*P* Value	E-visit (n = 99)	Office Visit (n = 2855)	*P* Value
Antibiotic prescribing						
Any oral antibiotic prescribed	471 (99)	4408 (94)	<.001	98 (99)	1407 (49)	<.001

JAMA INTERN MED/VOL 173 (NO. 1), JAN 14, 2013

Works better than over-the-counter. Faster and less expensive than a doctor's visit.

Effective

Don't settle for less: get the prescription medication you need from a [redacted]ermatologist.

Quick

Complete your registration in minutes and receive your prescription medication tomorrow.

Affordable

A consultation costs $59 straight up - no insurance necessary. We remove all co-pays, hidden fees,

Websites That Offer Care Over the Internet
Is There an Access Quality Tradeoff?

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Diagnostic Accuracy – Increased risk of Misdiagnosis?

- Patients select a suspected diagnosis, which has been shown to reduce MD capacity to identify alternative diagnoses.
- Some sites "treat only one medical concern per consult," - could discourage discussion of symptoms they believe are unrelated.
- Some practices charge for extra time which could create time pressure and lead clinicians to ask fewer questions
- When there is time pressure, suggestion that the illness is minor, and no in-person exam, are they less likely to work up a possible unusual case?
- Will unfamiliarity with local practitioners be a barrier to referral?

Websites That Offer Care Over the Internet
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Clinician Training and Liability – Cutting corners?

- Although specific training for e-visits might help, some websites attract clinicians by highlighting how little is required.
  - One assures clinicians that "training takes approximately one hour," whereas others require no training.
  - Some websites' legal disclaimers place responsibility for ensuring quality on the patient. One asserts, "website is not meant to provide medical care or advice."
  - Another requires patients to hold the website harmless for claims "relating to the qualifications of the providers."

Websites That Offer Care Over the Internet
Is There an Access Quality Tradeoff?

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No Continuity – Siloed Care

- Although most health system reform emphasizes continuity of care, standalone e-visit websites are a step in the opposite direction.
- Most websites do not allow patients to request repeat visits with a particular physician, and one asserts that its service "does not constitute a physician-patient relationship."
- Patients are held responsible for communication with primary care practitioners, although some websites facilitate this by generating e-visit records.

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Where do we go from here?

- **Telemedicine:**
  - Sites' performance could be addressed through regulation/standards
  - Standards for physician training could be adapted to the e-visit setting.
  - Public reporting of outcomes and cost could be mandated.
  - Creating a consumer driven compilation of information on e-visit websites' performance, which may improve outcomes.
- **Dermatologists:**
  - Those who work with e-visit websites could request training
  - Clinicians could ask about clinical protocols and QI/QA programs.
  - When seeing patients, they could remind themselves of the potential effect of diagnostic suggestions and treatments

Original Investigation

Choice, Transparency, Coordination, and Quality Among Direct-to-Consumer Telemedicine Websites and Apps Treating Skin Disease

Jack S. Resneck Jr, MD; Michael Abrouk; Meredith Steuer, MMS; Andrew Tam; Adam Yen; Ivy Lee, MD; Carrie L. Kovarik, MD; Karen E. Edison, MD

- Responses for 62 clinical encounters from 16 DTC telemedicine
- None asked for ID or raised concerns about pseudonym or falsified photographs.
- During most encounters (42 [68%]), patients were ***assigned clinicians without choice***.
- 16 (26%) disclosed information about ***clinician licensure***, and some used internationally based physicians without CA licenses.
- Few collected name of PCP(14 [23%]) or offered to send records (6 [10%]).
- Diagnosis or likely diagnosis was proffered in 48 encounters (77%).

Results

- Prescription meds were ordered in 31/48 diagnosed cases (65%), and relevant ***adverse effects*** or pregnancy risks were disclosed in minority
- Websites made several correct diagnoses where photographs alone were adequate, but when ***basic additional history*** elements (eg, fever, hypertrichosis) were important, they regularly failed to ask relevant questions and diagnostic performance was poor.
- ***Major diagnoses*** were repeatedly missed, including secondary syphilis, eczema herpeticum, gram-neg folliculitis, polycystic ovarian syndrome.
- Regardless of diagnoses given, treatments prescribed were sometimes at odds with existing guidelines.

Its about Quality Care and Transparency

- NOT about missed diagnoses
- NOT about holding telemedicine to another standard
- NOT about discriminating against direct to patient telemedicine
- NOT about making things difficult for anyone……
- **This is about going back to the basics of medicine and taking the time and consideration to provide good care to each patient.**

Box 2. Authors' Recommended Practices for Direct-to-Consumer Telemedicine Websites

- Disclose the licensure, credentials, and location of their clinicians, making sure that all are licensed in the states where patients are located, and give patients some choice of which clinician will provide their care.
- Obtain proof of identity of patients seeking care, and establish an initial relationship with live interactive video before beginning a store-and-forward relationship (when a patient's existing health care team is uninvolved).
- Collect relevant medical history, including at least a history of present illness, review of systems, medication list, and drug allergies. In many instances, appropriate past medical records should be available to the consulting clinician.
- Recognize that the accurate diagnosis of disease often requires an interactive history, and train participating clinicians to ask appropriate follow-up questions to complete a patient's relevant medical history.

- Seek the use of laboratory studies in clinical scenarios when an in-person physician would have relied on those studies.
- Provide diagnoses and treatments consistent with existing evidence-based guidelines.
- Engage in meaningful informed consent, including discussion of risks, potential adverse effects, pregnancy concerns, and a clear follow-up plan when prescribing medications.
- Collect information about a patient's existing health care team and provide medical records to relevant team members—unless a patient opts out.
- Have relationships with local physicians in all areas where they treat patients, so that patients are not sent to emergency departments or left on their own when they need urgent in-person follow-up or experience medication adverse effects.
- Create quality assurance programs that regularly monitor clinical performance, patient outcomes, follow-up, and care coordination.

MedCityNews

Smackdown at ATA 2016 over 'devious' JAMA teledermatology study

By NANCY CROTTI

It's one thing to slam someone's work from afar. It's quite another when that person challenges you right back — in person.

That scenario played out Monday during a session on direct-to-consumer care at the American Telemedicine Association's 2016 annual meeting in Minneapolis. John Jesser, president of LiveHealth Online for health insurer Anthem, said that a study that appeared in JAMA Dermatology on Sunday was "devious" in using "actors" to play teledermatology patients. Jesser characterized a Wall Street Journal article about the study as "hostile toward this industry."

The study, led by University of California, San Francisco, dermatologist Dr. Jack Resneck Jr., found that doctors from some of the 16 telemedicine sites contacted misdiagnosed skin cancer, syphilis and herpes. Some doctors prescribed medication

American Well Will Allow Telemedicine Patients to Pick Their Doctor

May 16 2016

New York Times

By Reed Abelson

When patients use a telemedicine service offered through their health insurer or employer, they can get modest routine care at any time, without having to go to a doctor's office or urgent care center. But they usually know very little about the doctor or nurse on the other end of the phone or on the screen.

"It's a blind date," said John Jesser, an executive with Anthem, one of the nation's largest health

Direct to Patient Teledermatology

Who are the doctors performing the consultation?
All our dermatologists have been trained at some of the best medical schools in this country. They are all US board certified dermatologists who live in the US, trained in the US, and are licensed in the state that you reside. Each doctor's bio is under the Meet Our Doctors link on the homepage. We do NOT employ doctors who reside and practice in locations outside of the United States.

What if I need a biopsy or a procedure for my skin condition?
If a biopsy or any other type of procedure is recommend for your condition, we will assist you in getting a high priority appointment with a dermatologist in your area.

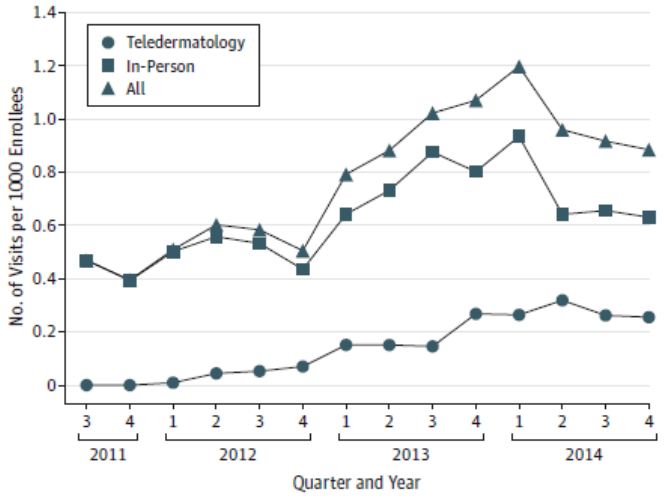
Will I receive a prescription?
We do not guarantee a prescription. The individual dermatologist decides on the recommended treatment. If the dermatologist recommends a prescription medication, it will be called or electronically faxed into your selected local pharmacy. Our dermatologists adhere to state regulations regarding prescribing medications.

JAMA Dermatology | Original Investigation

Effect of Teledermatology on Access to Dermatology Care Among Medicaid Enrollees

Lori Uscher-Pines, PhD; Rosalie Malsberger, MS; Lane Burgette, PhD; Andrew Mulcahy, PhD; Ateev Mehrotra, MD

Figure. Dermatology Visits per 1000 Enrollees in the Health Plan of San Joaquin per Quarter



Key Points

Question What is the effect of teledermatology on access to dermatology care at the population level?

Findings In an analysis of claims data from a large California Medicaid managed care plan that included 382 801 patients, primary care practices that engaged in teledermatology had a 64% increase in the fraction of patients visiting a dermatologist (vs 21% in other practices). Compared with in-person dermatology, teledermatology served more patients younger than 17 years, men, and nonwhite patients.

Meaning Teledermatology can significantly increase access to dermatology care.

Research & Results

WHAT WE'VE FUNDED

RESEARCH WE SUPPORT

HOW WE SELECT RESEARCH TOPICS

RESEARCH METHODOLOGY

PCORNET: THE NATIONAL PATIENT-CENTERED CLINICAL RESEARCH NETWORK

RESEARCH DISSEMINATION AND IMPLEMENTATION

RESEARCH IN ACTION

COLLABORATING WITH OTHER RESEARCH FUNDERS

EVALUATING OUR WORK

PCORI IN THE LITERATURE

CME/CE ACTIVITIES

Improving Specialty-Care Delivery in Chronic Skin Diseases

Principal Investigator
April W. Armstrong, MD, MPH

Organization
University of Southern California ^

State
California

Year Awarded
2014

Primary Condition/Disease
Skin Diseases

Funding Announcement
Improving Healthcare Systems

Project Budget
$1,968,565

Project Period
36 months

Project Status
Awarded; In progress-Recruiting

Project Summary

Background: Chronic skin diseases are associated with significant physical impairments and markedly decreased quality of life. In the United States, many patients with chronic skin diseases, especially among those living in underserved or remote areas, lack regular access to dermatologic care. Consequently, these patients experience worse clinical outcomes and reduced quality of life.

Teledermatology, the remote delivery of dermatologic services and clinical information using telecommunications

IN SUMMARY….

- Telemedicine is an ***innovative, rapidly evolving*** method of care delivery.
- Telemedicine can be used to ***improve access*** to high quality, high value care.
- There are ***many ways*** to deliver teledermatology, but the general end goal is the same.
- We need to work together to continue to create ***guidelines and standards*** to ensure teledermatology is held to the same standards as in-person care.
- We need to continue to ***integrate teledermatology*** with other models of care delivery so that we are not left with siloed and fragmented care.

THANK YOU