

“Increasing Mental Health Access for Underserved Populations with Telehealth: Rural Medicaid, Veterans and Veterans Family Services”

August 19, 2019

Ronald S. Weinstein, MD

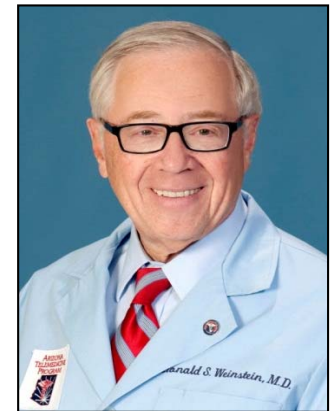
“Past, **Present**, and Future of Telemedicine”

Founding Director, Arizona Telemedicine Program

**Professor of Pathology, Radiology, Public Health, and
Pharmacy Science**

The University of Arizona, Tucson, AZ

President-Emeritus, American Telemedicine Association



History of Telemedicine

Teleradiology (1959)

Telepsychiatry (1959)

Telemedicine Practice (1968)

Boston Logan International Airport Medical Station –
Connecting to the Massachusetts General Hospital

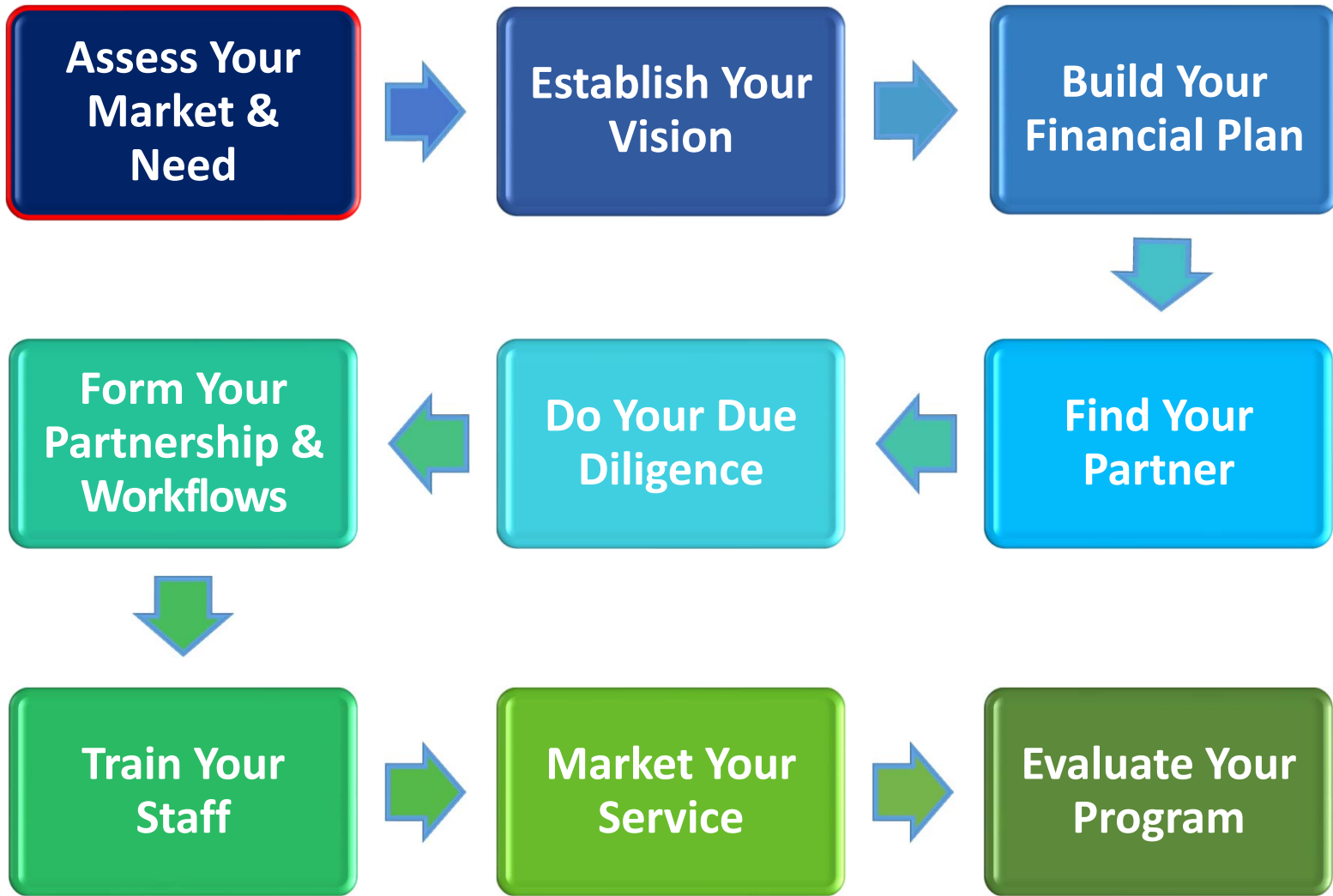


First Case - April, 1968

Where to start?

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>> ***Courtesy of Nancy Rowe, ATP Staff***



Assess Your Market & Need

Involve Stakeholders in All Phases of Decision-making

**Assess Your
Market &
Need**

- Internal stakeholders:
 - Administrators & business office
 - Clinical (all healthcare professionals, not just physicians)
 - Support staff (e.g., case coordinators)
 - IT
 - Legal
- External stakeholders:
 - Patients & patient groups/representatives
 - Other healthcare providers (e.g., local medicine man)

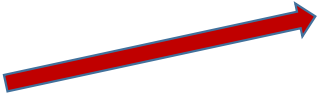
What Is Needed in Your Community?


- **Look at patient data & outcomes (e.g., # diabetics, # diagnosed with late stage diabetic retinopathy)**
 - **For your community**
 - **For your hospital/system**
- **Look at local physician coverage gaps (e.g., ? no neurologists)**
- **What healthcare services are patients having to travel or be transported for?**
- **Look at regulations (e.g., penalties for readmission)**






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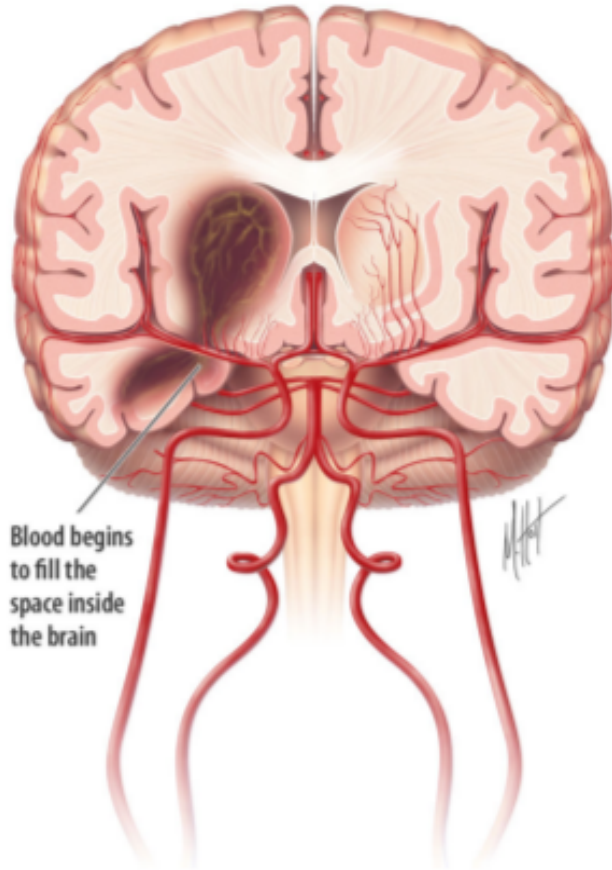
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Weinstein RS, Lopez AM, Joseph BA, Erps KA, Holcomb M, Barker GP, Krupinski EA. Telemedicine, telehealth, and mobile health applications that work: opportunities and barriers. **The American Journal of Medicine.** 2014 Mar 1;127(3):183-7.

Strokes

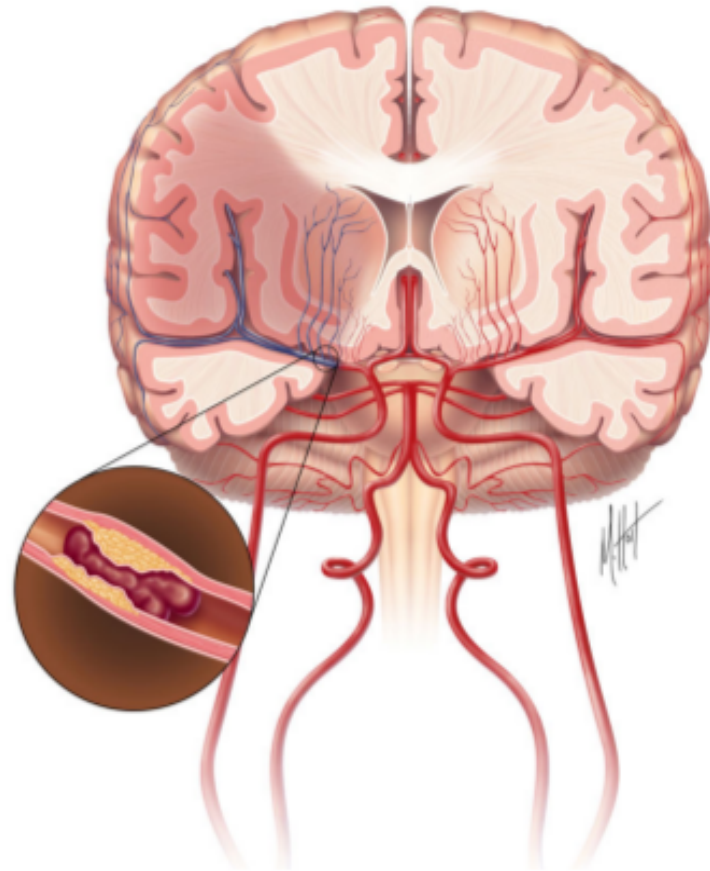
Haemorrhagic (13%)



Blood begins to fill the space inside the brain

Caused by blood vessel rupture.

Ischemic (87%)



Caused by blockage of blood vessel.




Photograph depicting the bedside National Institutes of Health Stroke Scale (NIHSS) assessment scenario.



**Demaerschalk B M et al. Stroke
2012;43:3271-3277**

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American Heart
Association 
Learn and Live

**Assess Your
Market &
Need**

How Will Telemedicine Tie into Your Practice?

- **Complement/expand your clinical offerings or substitute when your providers are unavailable?**
- **What specialty services?**
- **What hours will telemedicine be offered?**
- **Personnel requirements?**
- **What are service goals? Provider-patient? Provider-provider?**
- **Where are you connecting? Provider office? Telemedicine clinic? Patient home?**

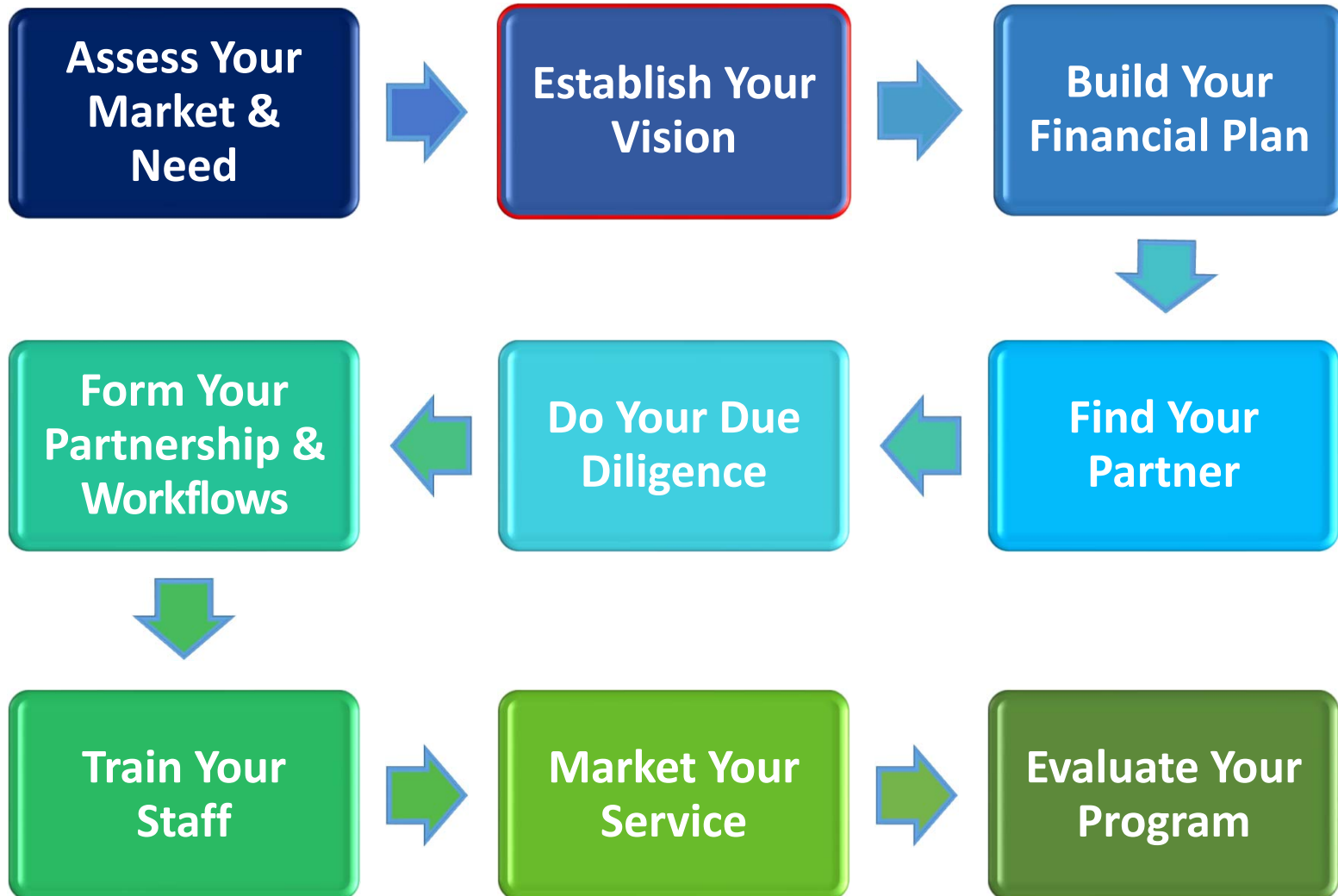


How Will Telemedicine Tie into Your Practice?

- ***Recommended approach:***
 - ***Choose one or two of the most important services and start with them***
 - *Don't take on too much at one time*
 - ***Expand upon initial service; build program incrementally***
 - *Figure out process for integrating 1-2 services effectively & efficiently, then expand*
- **“Tele-everything” Disaster!**

Reasons to Partner with a Service Provider

- **Capability to deliver clinical services without interruption**
 - Recruit & retain practitioners
 - Large networks of credentialed healthcare providers
- **Partner can handle back-office functions (reports and billing)**
- **Partner can manage or co-manage program**
- **Experience/expertise**
- ***Support***
 - Help desk
 - Legal & regulatory
 - IT
 - Administrative
 - Marketing



Establish Your Vision

Establish Your
Vision

Establish a Vision Aligned with Your Mission

Establish a Vision of the Delivery Model

Establish Your Vision

Uhdow| #Whvwlgj

Establish Your
Vision

The Physician-Patient Relationship

- **Generally, once a physician affirmatively acts in a patient's case by examining, diagnosing, treating, or agreeing to do so, and the patient accepts, a relationship exists**
- **Must establish an appropriate physician-patient relationship in order to prescribe**



Establish Your
Vision

Know the Legal and Regulatory Landscape

- **All the laws still apply regardless of whether it's in-person or via telemedicine: HIPAA, privacy & security, licensing, anti-kickback, liability, standard of care.**



Stark & Anti-Kickback Statutes

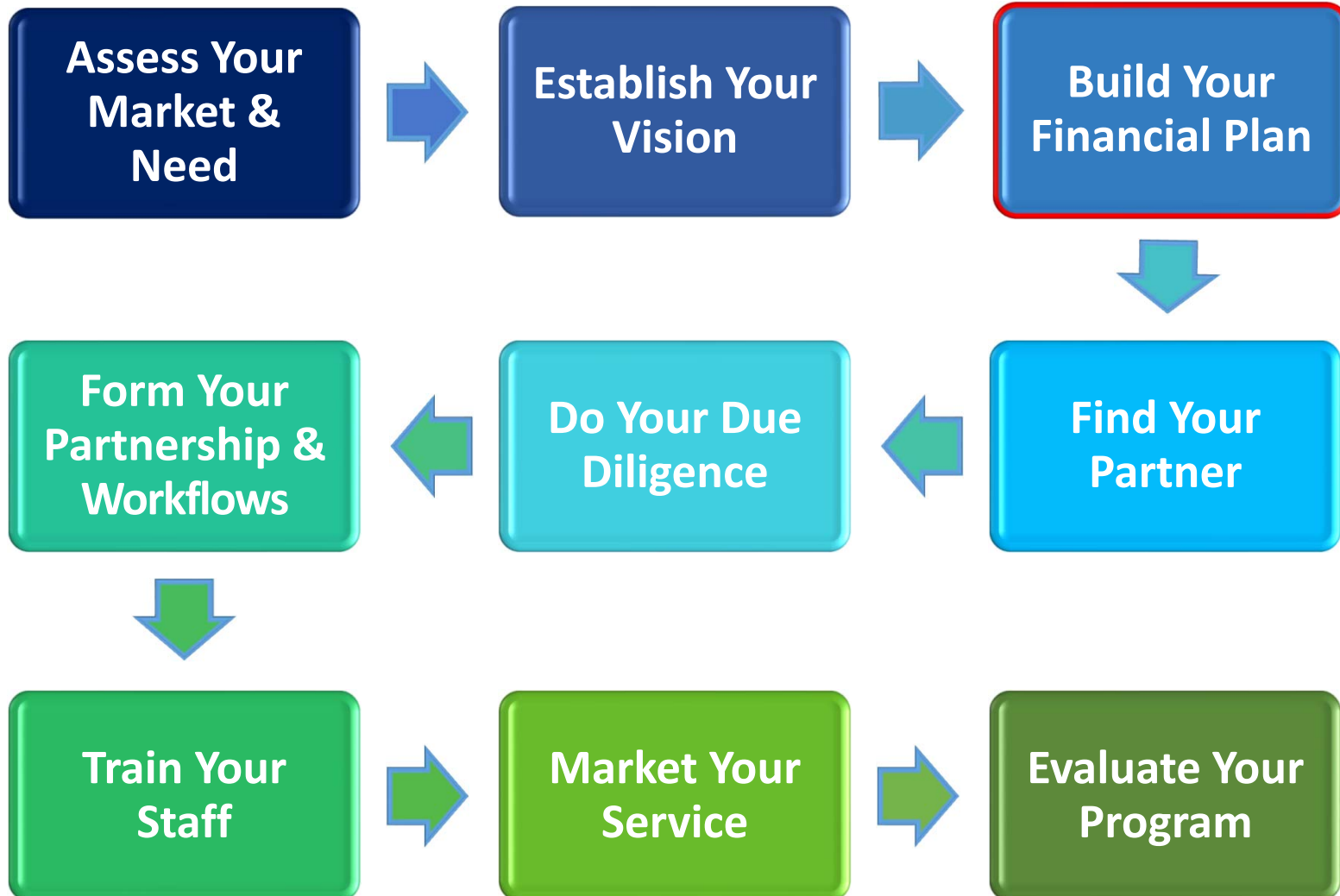
- Stark Law prohibits physicians from referring patients for designated health services to an entity with which the physician has a financial relationship.
- AKS prohibits offering or soliciting anything of value, directly or indirectly, in return for patient referrals.
- Telemedicine may be subject to fraud and abuse laws if the use directly or indirectly generates reimbursement from a federal health program.
- Equipment leases or the provision of free telemedicine equipment to referral sources **should be evaluated under fraud and abuse laws.**

Credentialing & Privileging of Tele-providers

- ***CMS Proxy Credentialing Rule:***

- *Allows medical staff of hospital where patient is being treated via telemedicine to rely on the credentialing and privileging done at the Medicare-certified hospital where the telemedicine practitioner is located and credentialed*
- *Written agreement required*
- *Streamlined: Obtaining medical staff privileges at a hospital takes 2-3 months*
- *May require hospital bylaw amendment*

- ***Or, retain complete credentialing of all telemedicine providers using existing credentialing process***



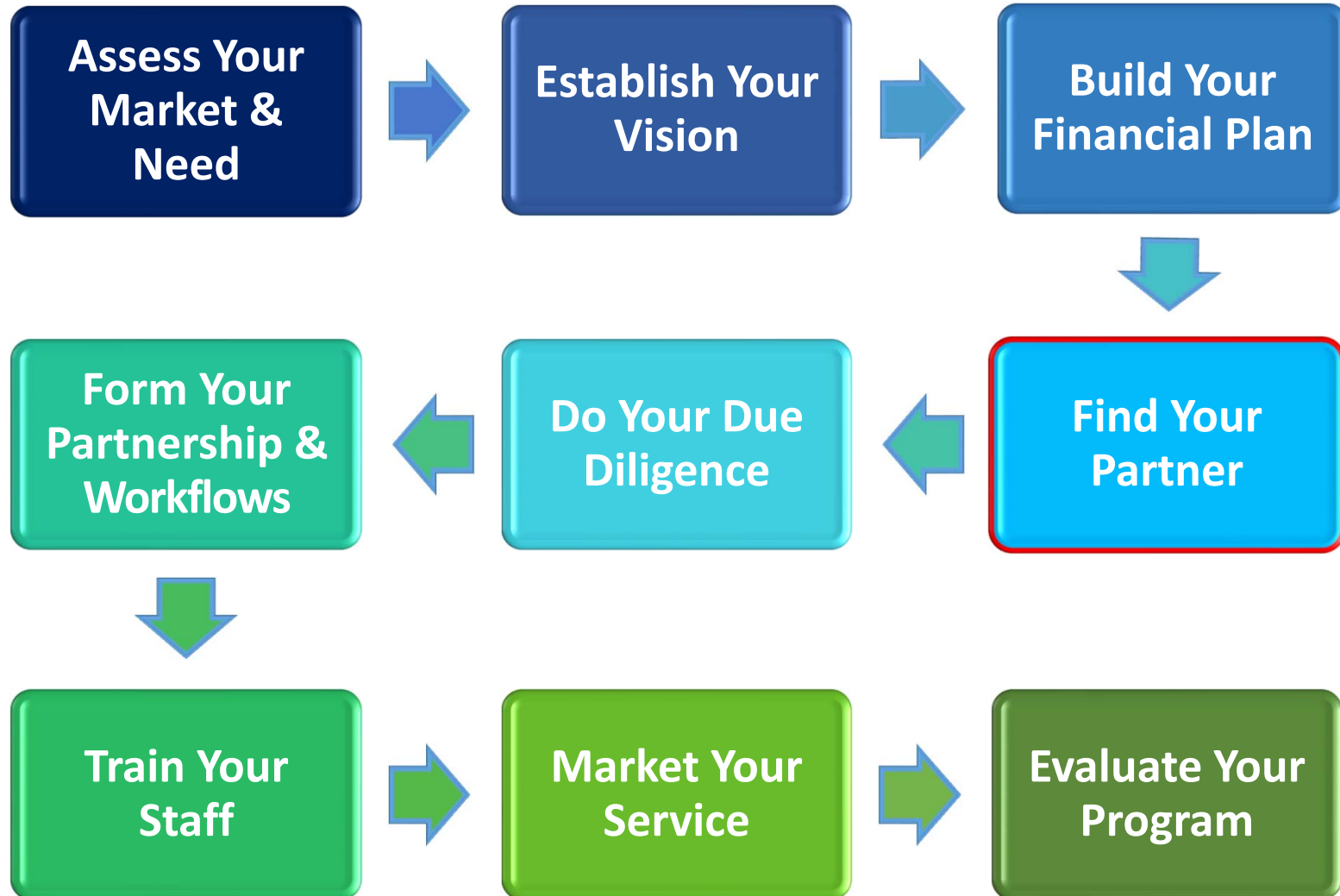
Build Your Financial Plan

Build Your Financial Plan

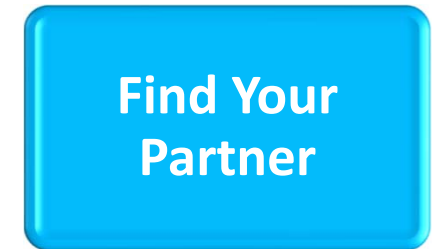
Build Your
Financial Plan

- Return on investment
 - Savings
 - Revenue
 - Strategic contribution
 - Penalty avoidance
- Payment for services
 - Subscription
 - Fee-for-service
 - Direct from patient
 - Who will do the billing?





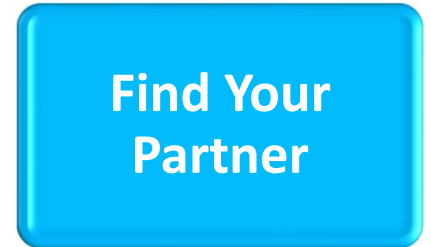
Find the Right
Partner(s)



Questions to Start With

- **Does their history and implementation plan sync with your organization and goals (mission & vision)?**
- **Number of years in telehealth business**
 - **If they're a startup, who are their investors and how committed are they?**
 - **Who are their customers? Will they provide references?**
- **How strong is their management team?**
 - **Expertise and experience**
 - **Healthcare experience or only IT and technical?**
- **Where are they located – headquarters, providers, tech support?**

Past Performance



- **Number of sites potential partner has taken live**
- **Number of customers – past & present**
- **How many telemedicine cases have they done? What kind?**
- **What is their growth rate?**
- **Can they provide data to back up their claims?**
 - **Clinical**
 - **Financial**

**Find Your
Partner**

Questions to Start With

- **Do they have experience with the coverage and capability you need?**
 - Hours of availability
 - Wait times for consults
- **Are they willing to work with your organization's size and number of consultations?**
- **Do they have a robust implementation plan?**
 - In writing
 - Proven, battle-tested

**Find Your
Partner**

How Strong is their Clinical Team?

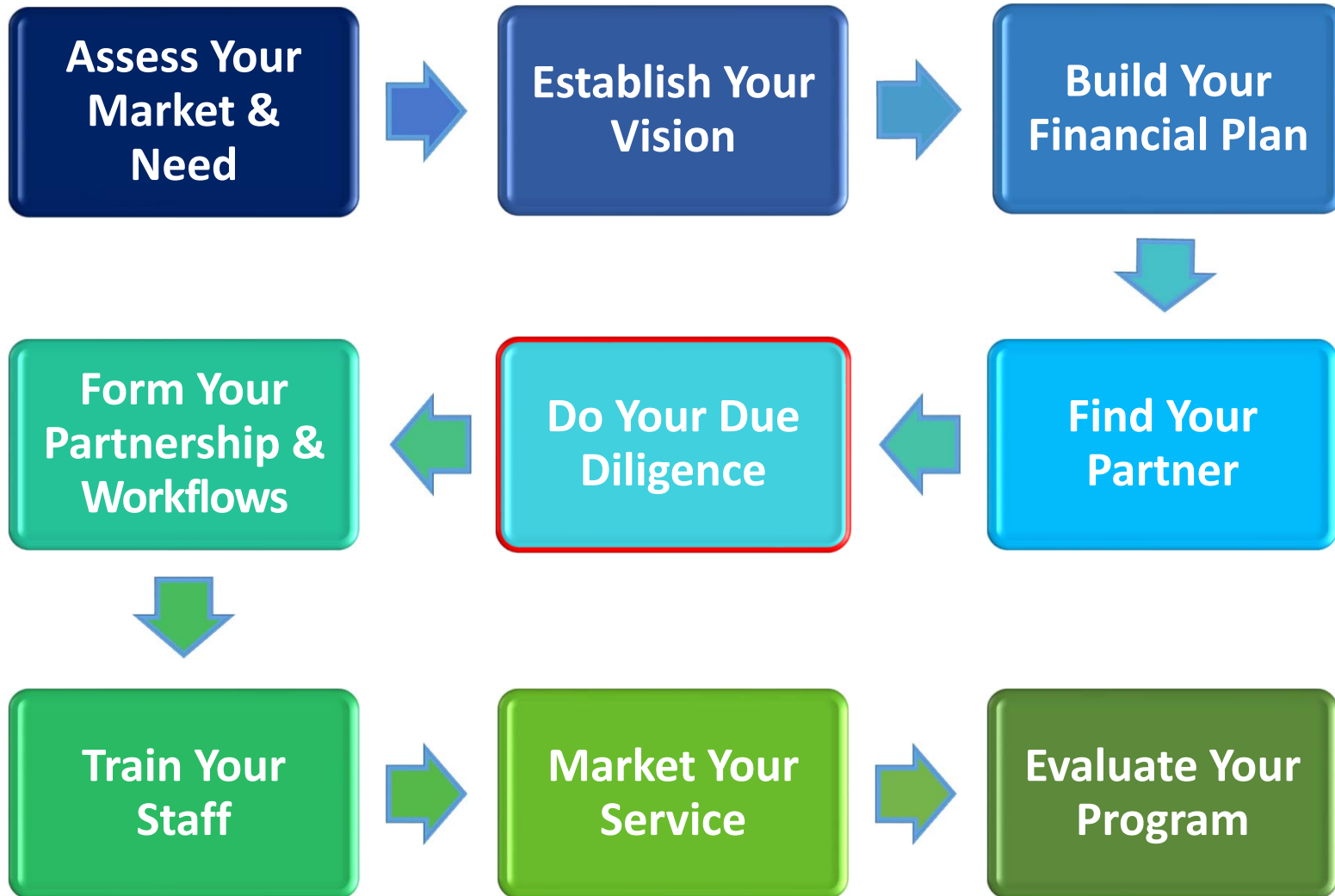
- **Number of physicians/providers in the specialty you need, at the level you need (# and qualifications), and licensed in Arizona (or your state)**
- **Clinical experience, training, degrees, board certification, lawsuits**
- **If academic institution: faculty, fellows or residents?**
- **How strong is their clinical team?**

What Technology Platform Do They Use?

Find Your Partner

- How strong is their platform?
 - Does it meet standards?
 - FDA-approved devices?
 - HIPAA compliant?
 - Reliable, easy to use? How many clicks/how much training is required?
 - What is the failure rate?
 - Interoperability?
 - Connections to EHRs? PACS? Does it work with your EHR and your PACS? Costs to integrate?
- Or, will they use whatever platform you provide?





Due Diligence, Documentation & Your Contract

Due Diligence: Background Check

Do Your Due
Diligence

- Do they have proper licensure, etc.?
- What is their malpractice history and insurance?
- Do they have third-party credentials (e.g., [Joint Commission](#), [American Telemedicine Association](#), [Office of the National Coordinator for Health Information Technology certified HIT](#))?
- What is their BBB rating?
- Have they had trouble with IRS?
- Have they been in trouble with medical organizations?
- Have there been lawsuits against them?

Due Diligence: References

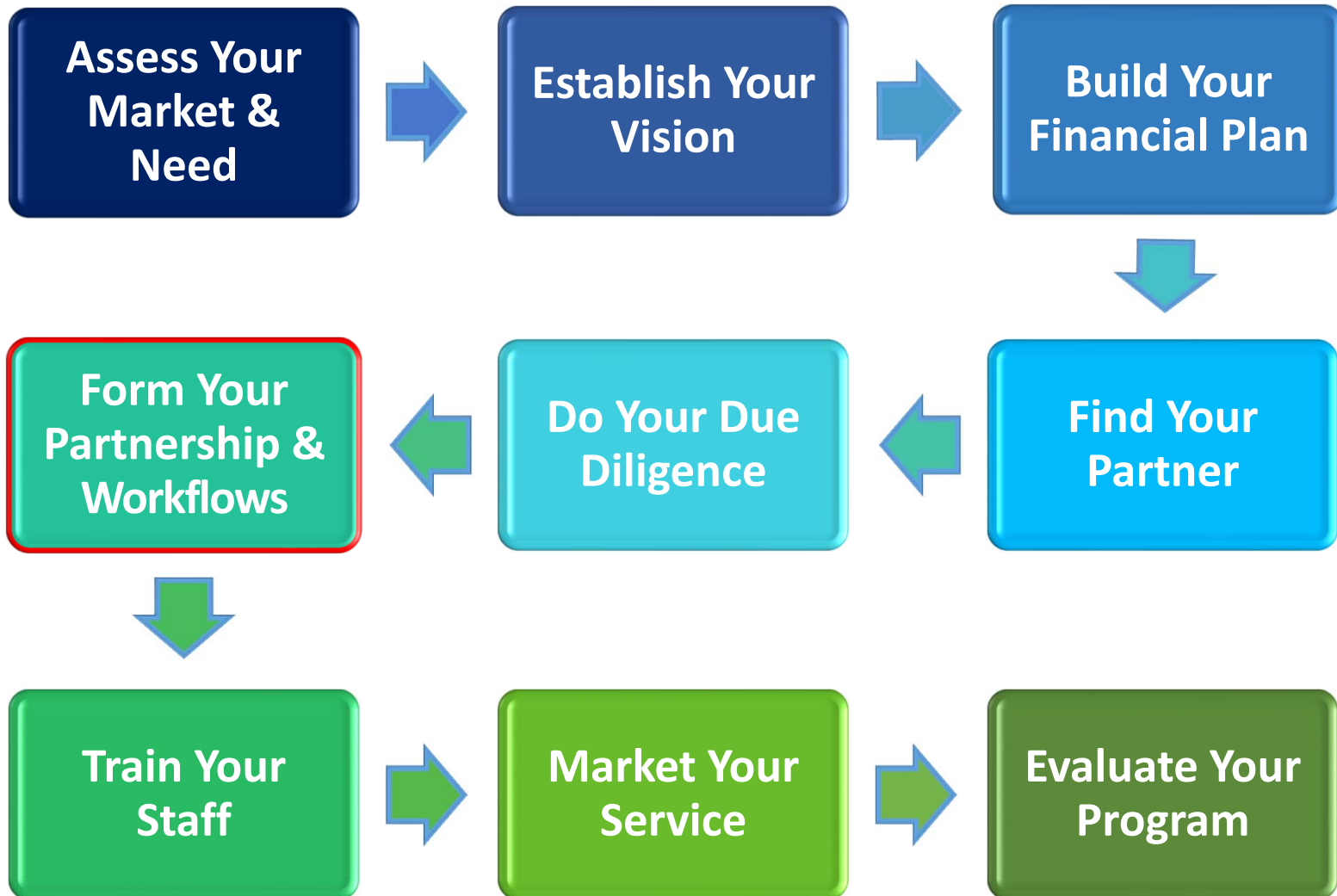
Do Your Due
Diligence

- Request a customer list/references and contact them
 - Are you happy with this company?
 - What have they provided to you?
 - What have your challenges been with this company?
- Find and interview customers not given as references
 - Search the web
 - Go to trade shows & conferences
 - Look for user groups

The Contract

Do Your Due
Diligence

- Ensure they have appropriate medical malpractice insurance, liability insurance
- Who will own the data? What data? Who will have rights to retain copies of the data? To license it, to sell it? For how long?
- Who will be responsible for continuity of care?
- Consider annually renewable contract
- Cover expansion



Form Your Partnership &
Integrate Telemedicine
into Your Workflows

Form a Partnership

Form Your
Partnership &
Workflows

- Telemedicine service programs are not one-sided, turnkey programs
- Requires effort on both sides:
 - putting together a program and educating the user ends (client org staff, health care provider org staff, and patients)
 - integrating workflows
- Collaborate with partner on what program will look like; form unity of vision for what you are trying to accomplish

Recognize You Are Changing the Status Quo

Form Your
Partnership &
Workflows

- Identify and leverage the proponents/champions: CMO, CNO tend to be important sponsors
- Identify and embrace the outliers: Reach out, make them part of the process, hear and address their concerns
 - e.g., “Big Brother”: eICU does not mean you are being watched 24/7; just that trends are being identified that need your attention
 - e.g., Will I have to become a technical expert?
 - e.g., Will my patients receive care as good as in person?

Agree on an Implementation Timeline

- Technical implementation is not what takes time
- Most time is spent working with the staff:
 - ensure messaging and impact is well understood
 - invaluable for successful implementation and ongoing relationship
 - Make sure everyone (not just providers) is trained
- Don't rush
- Do some dry runs (i.e., mock trial runs) with simulated patients before doing any actual cases

Communicate Internally & With Partner

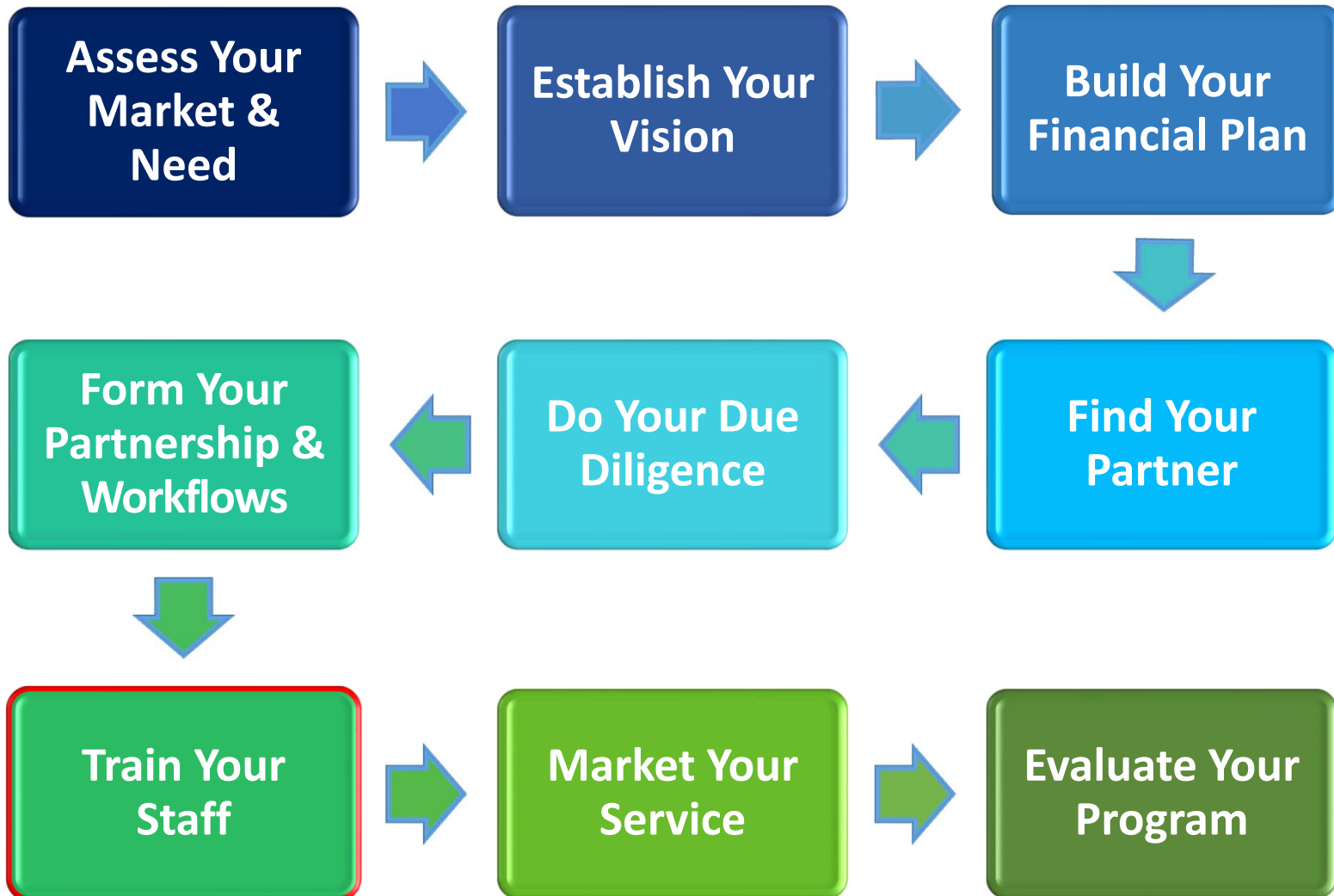
Form Your
Partnership &
Workflows

- Project goals and plan, team members
- Site review by partner
- Tele-providers need to respect the pre-existing relationships and transfer arrangements in the community
- Reasonable and measurable expectations
- Trackable & well-defined metrics to measure telemedicine progress
- [Standards and guidelines](#) to be used for this service

**Form Your
Partnership &
Workflows**

Standards and Guidelines

- [ATA Practice Guidelines:](#)
- Multiple specialties including telepathology, teleICU, telemental health, teledermatology, telerehabilitation, home telehealth, diabetic retinopathy
- Also primary and urgent care, telepresenting, and core operational guidelines
- Remote healthcare data management
- others

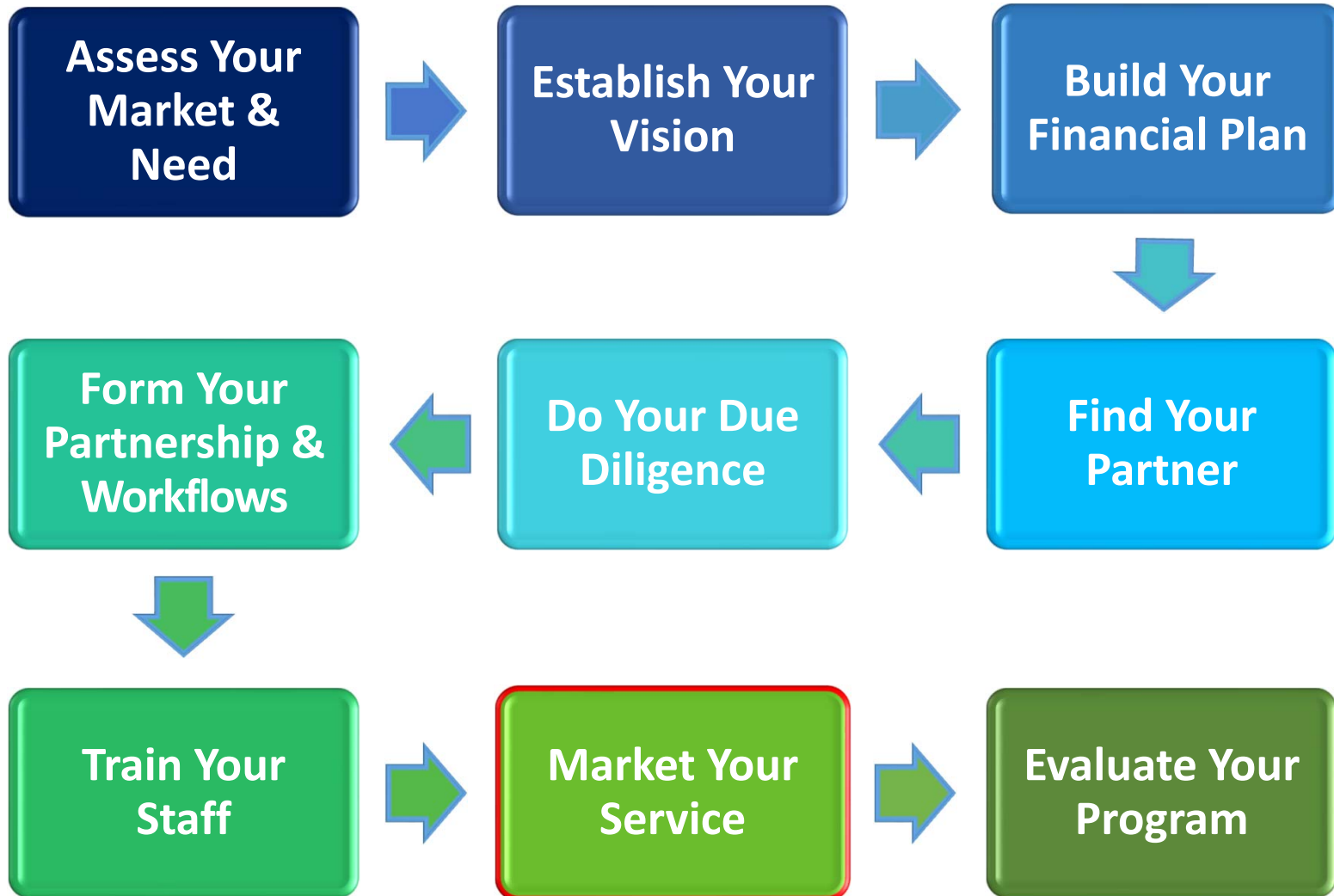


Train Your Providers
& Staff

**Train Your
Staff**

Train Your Providers & Staff

- **Telemedicine is an integrated component of your institution or practice and should be part of the normal position expectations**
- **Determine who needs to be trained (usually everyone)**
- **Determine content & extent of training needed for each position involved**
- **Determine how to provide the training & how often (for new users as well as refresher training)**
- **Evaluate training results**



Market Your Service

Marketing Internally

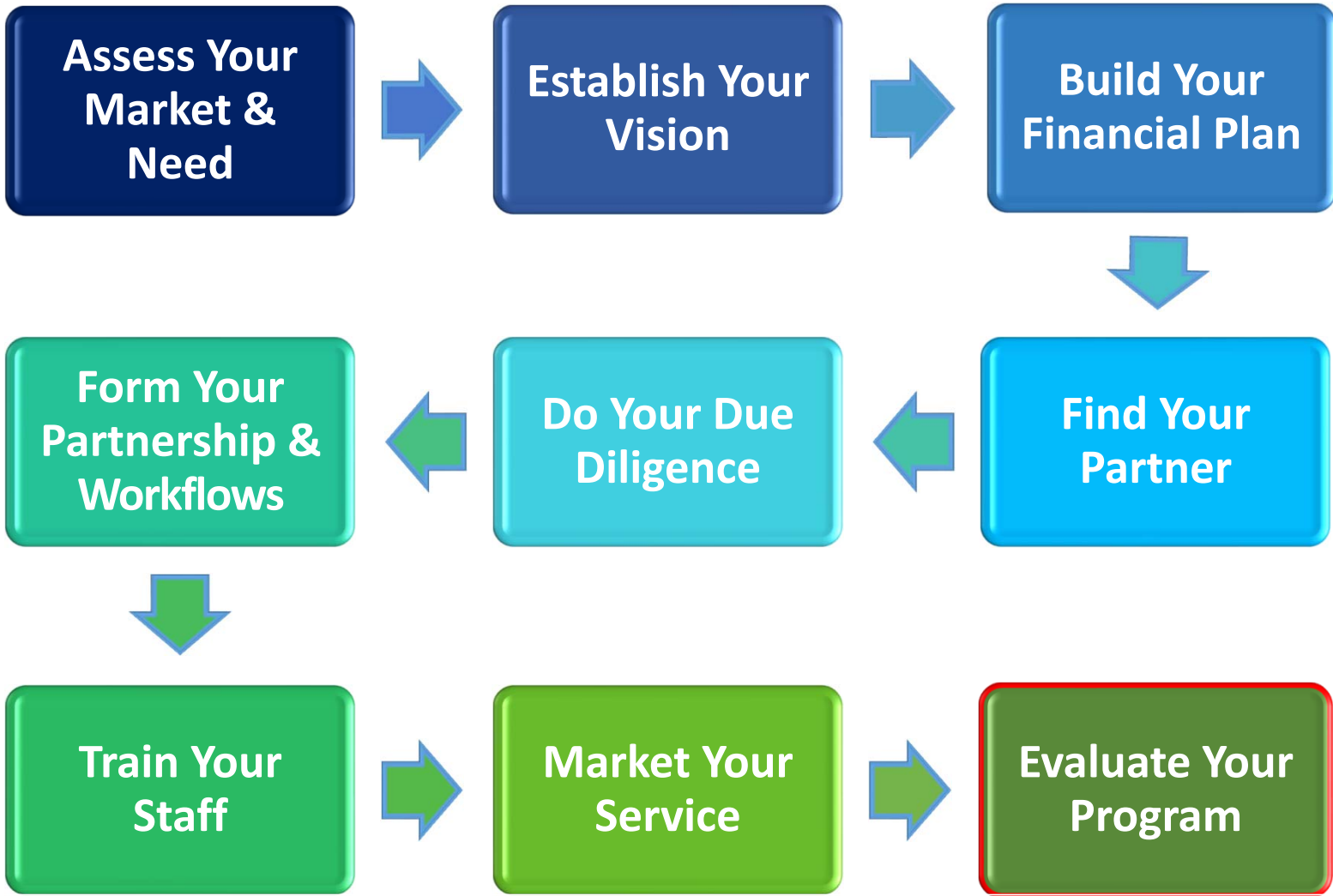
**Market Your
Service**

- **Let people & stakeholders know what your results are**
 - **Consult numbers**
 - **Patient outcomes**
 - **Patient satisfaction**
 - **Staff satisfaction**
- **This is a team process; be transparent**
- **Invite input/suggestions**
- **Tell them in more than one way (meetings, website, emails, etc.)**

**Market Your
Service**

Marketing Externally

- **Let your community know there is a new service available**
 - Press release
 - PSA
 - Website and web content marketing (SEO)
 - Blog with email updates/sign-up
 - Letter to patients
 - Success stories
 - Social media
- **Cite partner experience & successes**



Evaluate Your Program

Evaluate Your
Program

Evaluation: How to Start

- View transition on a relative basis:
 - Have we improved?
 - In what ways?
 - To what extent?
- Use measurable, objective data – choose metrics in advance
- What are you concerned with?

What to Measure

- Patient-centered outcomes (e.g., clinical markers, reduced hospital stays)
- Provider-centered outcomes (e.g., diagnostic accuracy, efficiency & efficacy)
- Business outcomes (e.g., increased profits, reduced travel costs)
- Technical outcomes (e.g., faster network, more reliable communications, redundancy, better peripheral technology)
- Program outcomes (e.g., more sites added to network, number of consults, is the program growing?)

Evaluation Resources

Evaluate Your
Program

- Southwest Telehealth Resource Center Online Learning Module: [Evaluation](#)
- [Telehealth Resource Centers Toolkits](#)

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<https://ihealthlabs.com/wireless-scales/ihealth-core/>

Images intended as examples of technology and not as an endorsement of companies or products.

Mobile Telehealth

TELE-HOME HEALTH CARE:

'Care Beyond Walls and Wires' Enhances Life for Patients with Congestive Heart Failure



Case Study

More than 5 million people in the U.S. suffer from congestive heart failure (CHF), a condition that can be fatal. The annual cost is estimated at more than \$10 billion in hospitalizations, medications, and lost earnings, the CDC says. Northern Arizona Healthcare's "Care Beyond Walls and Wires" can improve CHF patients' health and reduce health care costs.

Woody Smith and his daughter, Rita Yazzie, used to drive as often as twice a month from their home on the Navajo Reservation to Flagstaff Medical Center, nearly two hours away. Mr. Smith is living with congestive heart failure, with symptoms so severe he required frequent hospitalizations.

But Mr. Smith can now go months without hospital visits. His condition has resulted from a program called Care Beyond Walls and Wires, a telemedicine program that has improved the health of patients with congestive heart failure. The program also reduces room visits and hospital readmissions, and saves money for those who stay for those weeks.

"It's phenomenal," says a registered nurse at Flagstaff Medical Center for Flagstaff Healthcare, which runs the Walls and Wires program at Flagstaff Medical Center.

Ms. Yazzie says the program is the best thing for my dad. He's had two hospital readmissions since the program more than a year ago.

And at 90, Mr. Smith has been able to return to his favorite activity: riding his horse.

Care Beyond Walls and Wires provides patients with a backpack containing the equipment they need to check their blood pressure, measure their oxygen level, and check their weight daily; the latter because patients with CHF can gain and drop weight suddenly. The data are automatically

transferred to a smart phone that transmits the information to Northern Arizona Healthcare's care coordination office, which provides the smart phone, monitoring equipment and backpack to every patient enrolled in Care Beyond Walls and Wires.

Some of the program's patients have no health insurance, and they also receive

The San Diego telecommunications company Qualcomm was chosen to lead the project, with Maryland-based Zephyr Technology and Verizon providing software, smart phones and remote-monitoring hardware.

Northern Arizona Healthcare agreed to conduct a pilot project involving 50 patients. The project got under way in

"Care Beyond Walls and Wires is the best thing ever for me, and the best thing for my dad."

Rita Yazzie

the study if you lived in a rural area. "We could live in Supai and Canyon or on the Navajo Reservation. Our patients are Hispanic, and white, and were born in the early 90s."

Care Beyond Walls and Wires ended on November 1, 2014. Northern Arizona Healthcare is continuing the program.

The program cost around \$650,000, Ms. Sorenson says, including cell phone charges.

"With the investment," she says, "we're seeing patients benefiting, and we're saving money. We're paralyzing hospitals with congestive heart failure conditions, including CHF. They're readmitted and discharged."

"It's a tremendous patient benefit. Patients like the feeling that they have more control over their health," Ms. Sorenson says. "We couldn't have asked for anything more. It's a global win."

perspective, the idea for Care Beyond Walls and Wires originated with the National Institutes of Health Office of Public and Private Partnerships, which was looking for better ways to monitor patients with CHF who live in rural areas. The goal was to provide better care while keeping the patients out of the hospital, thus reducing health-care costs.

Direct-to-Consumer Telehealth

Tucson Daily Star January 6, 2019



TMC NOW

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No appointment
No office visit fee

24/7 access to doctors
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who can treat many
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GET THE CARE YOU NEED

Our doctors can treat many medical conditions, including:

- Cold & flu symptoms
- Allergies
- Pink eye
- Ear infections
- Respiratory infection
- Sinus problems
- Skin problems
- ... and more

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- **GET GREAT CARE YOU NEED**
- Cold & flu symptoms
- Allergies
- Pink eye
- Ear infections
- Respiratory infection
- Sinus problems
- Skin problems
- ... and more

Tucson Daily Star February 24, 2019



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Use promo code **FESTIVAL10** for **10% OFF** your first visit.
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GET THE CARE YOU NEED

Our doctors can treat many medical conditions, including:

- Cold and flu symptoms
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- Ear infection
- Respiratory infection
- Sinus problems
- Skin problems
- ...and more.

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Get in, get better, and get back to your life.

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- Doctor visits via your smartphone, tablet or computer
- Get a diagnosis and treatment recommendation, including a prescription* if needed
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See A Doctor From Anywhere

Use your smartphone, tablet, or desktop computer to visit with a doctor face-to-face.

Doctors Available 24/7

Our doctors are always on. See a doctor on your schedule, 24/7/365

No Appointments Necessary

Once you set up your free account, just log on, choose a provider and start your visit.

Local Prescriptions

If a prescription is necessary, one will be called into the pharmacy of your choice.

Your Privacy is Our Priority

Rest easy. We keep your information and health records safe and secure.

Because You Want Care Fast

With VirtualHealthConnect, you're finished with your visit before you'd normally get to the waiting room.



Talk to a Provider

Tucson, AZ



When you don't want to wait to feel better

BeWellNow, Northern Arizona Healthcare and PathfinderHealth's virtual urgent care service, is a faster, easier way to see a doctor. BeWellNow lets you talk with a doctor from the comfort of your own home or on-the-go. It's easy to use, free to enroll and the cost is just \$49 per visit.

BeWellNow offers:

- Unlimited video visits with doctors from the comfort of your smartphone, tablet or computer
- Peace of mind with a doctor "on call" 24/7 to provide quality care to you and your family
- Prescriptions, referrals, and more

You can use BeWellNow any time, day or night. It's perfect when your doctor's office is closed; when you're too sick or busy to see someone in person; or even when you're traveling.

Sign up now:

1. Download the BeWellNow app or sign up on the website:



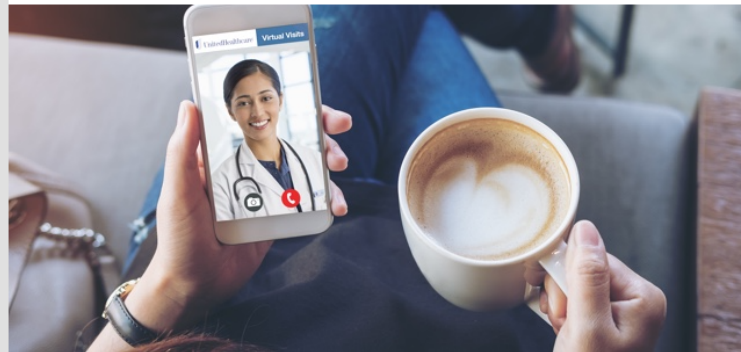
www.NAHBeWellNow.com

Flagstaff, AZ

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A Virtual Visit lets you see and talk to a doctor on your mobile device,* tablet or computer. The doctor can give you a diagnosis and even write a prescription** if needed. No appointment necessary — it's available 24/7. And, with your UnitedHealthcare plan, your cost is \$50*** or less.

Direct-to-Consumer Telehealth

United HealthCare Virtual Visits



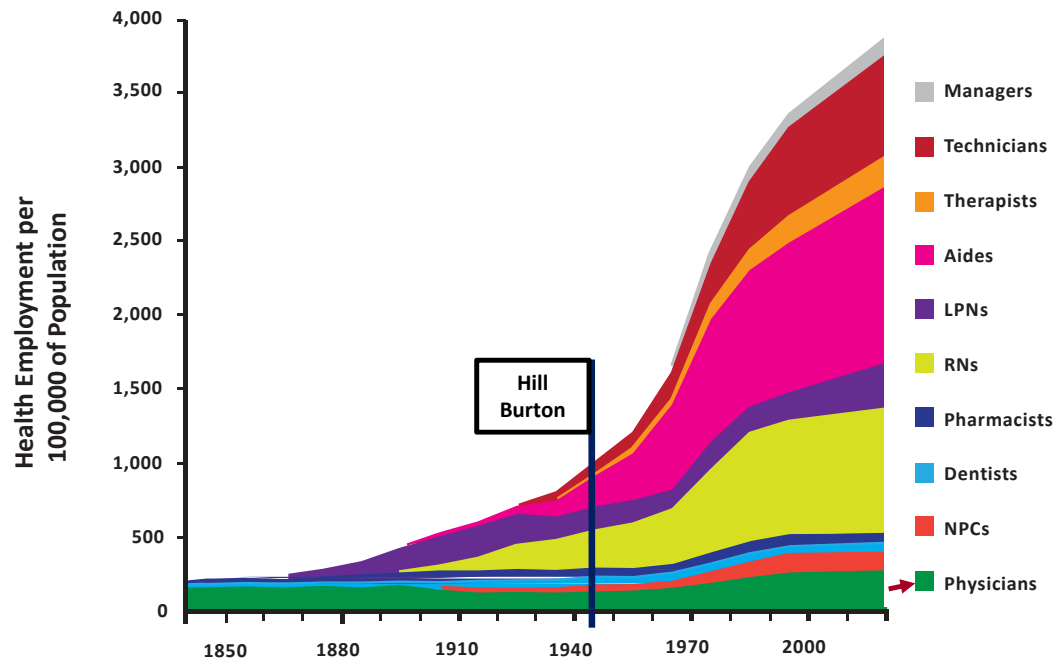
<https://www.youtube.com/watch?v=gnVmHZRSOnQ>

Direct-to-Consumer Telemedicine American Well



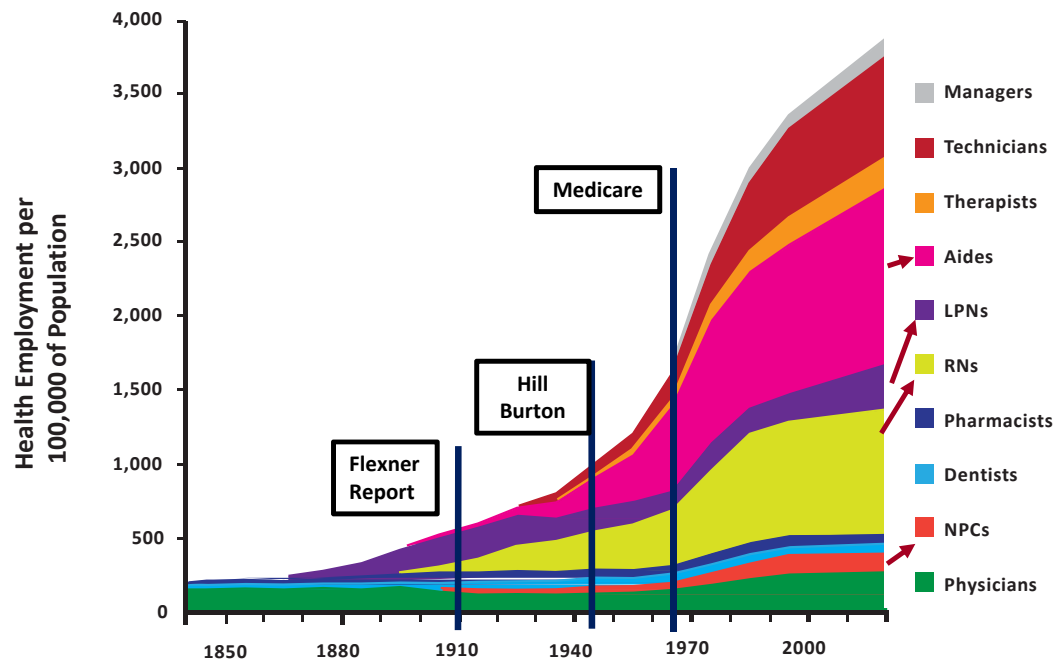
<https://www.youtube.com/watch?v=sBryMAxi5tE>

Physicians, Non-physician Clinicians, and other Health Workers 1850-2010



Adapted from Kendix and Getzen,
and the Bureau of Labor Statistics

Physicians, Non-physician Clinicians, and other Health Workers 1850-2010



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Adapted from Kendix and Getzen,
and the Bureau of Labor Statistics



Project ECHO Programs

(Extension for Community Healthcare Outcomes)

TELERADIOLOGY

MENTAL HEALTH



Mayo Clinic - Telestroke

Administrative VC

Yuma NICU Tele-echo-cardiology

Telecardiology

Banner eICU program

Tele-infectious disease
AIDS tele-nursing

Diabetes retinal screen

Flagstaff –Navajo/
CHF Program

Breast Cancer
“Virtual” Survivor Groups

A photograph of a sunset over a desert landscape. The sky is filled with soft, colorful clouds in shades of orange, yellow, and blue. In the foreground, the silhouettes of several saguaro cacti and some trees are visible against the bright light of the setting sun.

Thank you!

Ronald S. Weinstein, M.D.
rweinstein@telemedicine.Arizona.edu