



Telemedicine in a Perfect Storm: **COVID-19 and Chronic Disease**

March 31, 2020

Dale C. Alverson, MD

Strategic Telehealth Consultant,

Center for Telehealth

University of New Mexico

CMIO, LCF Research/

NM Health Information Collaborative

Albuquerque, NM USA



Aging Population
Chronic Diseases

Emerging Enabling Information
Communication Technologies

Critical Shortage of Healthcare Providers

Need for More Access to Care

High Demand/Limited Supply

Patient-Centered Medical Home
(PCMH)

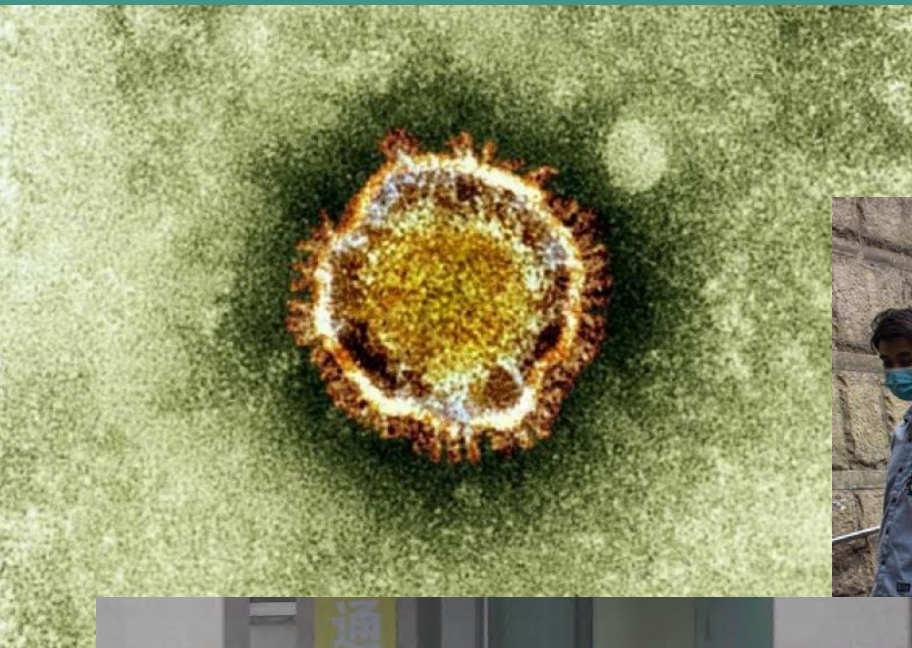
Blending Physical Health with Mental Health

A Time for Telemedicine

THE
PERFECT STORM



COVID-19



COVID-19 Pandemic

- Sweeping the world
- USA now has highest number cases at 174,000 and increasing (NM:281)
- USA deaths at over 3,400 (NM:4)
- Highest risk, over 65 and with chronic disease underlying conditions
- Advised to stay home, social distancing, handwashing
- No vaccine, no proven cure

Meanwhile the Beat Goes On with Chronic Diseases

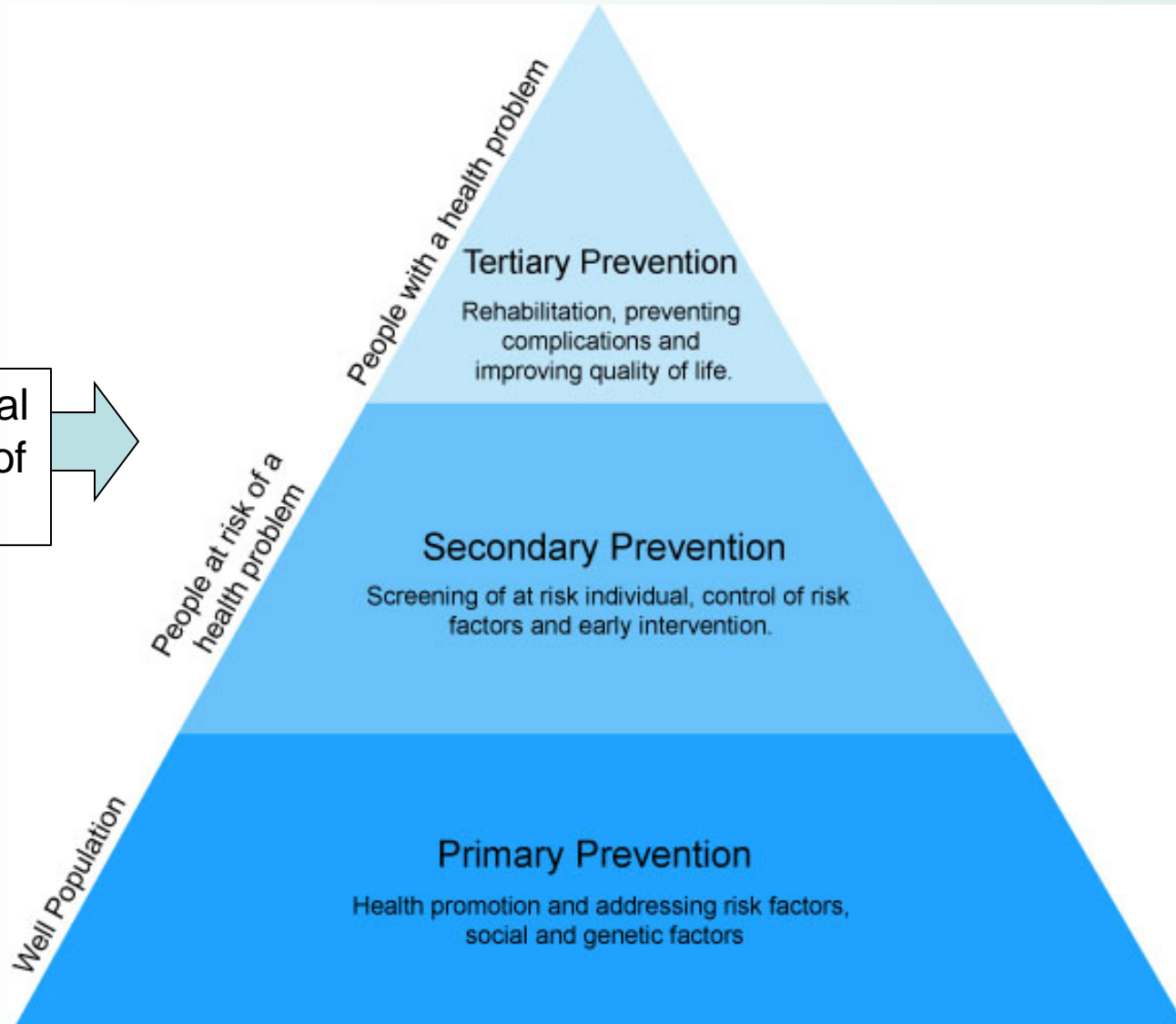
Patients Still Need Ongoing Evaluation and Management while Avoiding COVID-19 Exposure

- Heart Disease
- Asthma, COPD
- Obesity, Diabetes
- Renal Insufficiency
- Liver Disease
- Cancer
- Genetic Disorders
- Dementia
- Mental Illness



Chronic Disease and Prevention

Impact of Social
Determinants of
Health



Telehealth/Telemedicine Can Play a Role

- Prevention: **primary, secondary, and tertiary.**
- Virtual care
- “e-Consults” specialty to primary care
- Direct to Consumer/Patient evaluation and management
- Remote Patient Monitoring
- Education for Patients, Providers, and the General Public

Defining Telemedicine and Telehealth

1. “Tele-” comes from the Greek root word meaning “distant or remote”/ “at a distance”.
 - Tele-phone
 - Tele-vision
 - Tele-graph
 - Tele-scope
 - Tele-Etc, etc, etc
 - Tele-Psychiatry, Tele-Genetics, Tele-Cardiology

So What is Telehealth?

- The use of advanced telecommunications technologies to exchange health information and provide healthcare services across geographic, time, social and cultural barriers (J. Reid)
- Telehealth is more than just video-conferencing and encompasses health information exchange and a spectrum of health information technologies
- It is simply the delivery of health services at a distance (A. Darkins)

How is Telehealth used?

- **Clinical (“Telemedicine”)**: Consultation, Direct patient Care, Case Reviews, Remote Patient Monitoring
- **Educational**: Providers, Students, and Patients
- **Research**: Community-based Participatory, Outcomes driven
- **Administrative**: Strategic planning, Operations
- **Health Information Exchange**
- **Enhanced Disaster Response**

The Telehealth Checklist

➤ WHY?

➤ WHAT?

➤ HOW?

➤ WHEN?



WHY?

- Define Needs, Goals and Objectives in using Telemedicine
- Enhancing Access to Services/Avoid Unnecessary Travel and Exposures to Other Diseases (COVID-19)
- Improving Continuity of Care
- Enhance Chronic Disease Prevention and Management

WHAT?

- Develop a Multi-disciplinary Planning Team
- Determine “Originating” (Patient and PCP) and “Distant” Consultant sites
- Determine most appropriate Technologies
- Determine Adequacy of Connectivity



HOW?

- Workforce Delineation: Staff and Provider Needed at Consulting (Distant) and Originating Sites
- Workflow Determination: Scheduling, Documentation, Synchronous vs. Asynchronous
- Following Regulations and Legal Ramifications, Standards of Care

WHEN?

- Readiness Preparation and Timeline
- Business Plan/Financial Support
- Documentation of utilization and Metrics
- Ongoing Evaluation and CQI



“Back to
the Future”

OVER 300,000 COPIES OF THIS ISSUE PRINTED AND DISTRIBUTED

RADIO NEWS

REG. U.S. PAT. OFF.

25 Cents

April

1924

Over 200 Illustrations

Edited by H. GERNSBACH

THE RADIO DOCTOR—*Maybe!*

See Page 1406



IN THIS ISSUE:

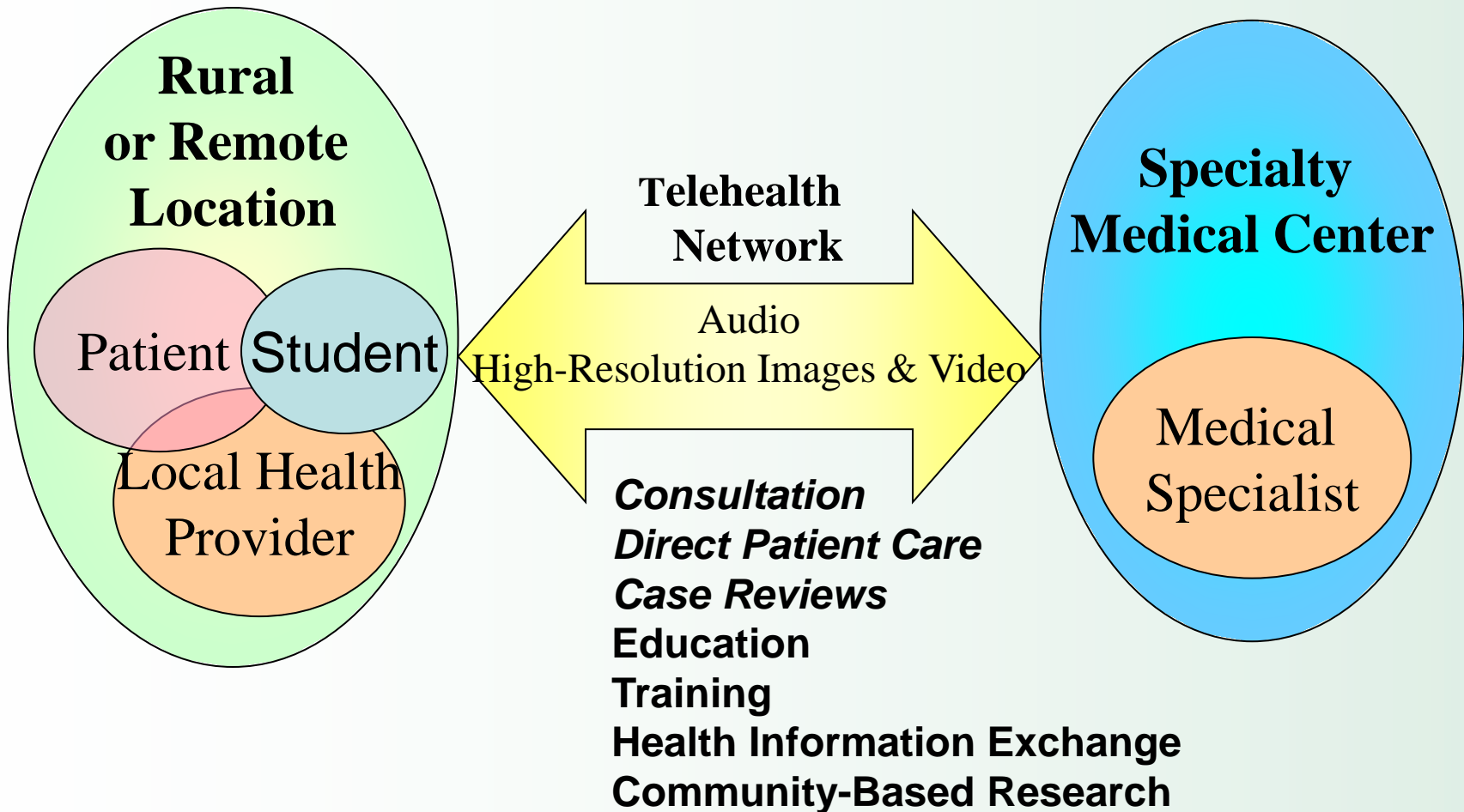
Sir Oliver Lodge, F.R.S.
Dr. J. A. Fleming, F.R.S.
F. W. Dunmore and
F. H. Engel of
Bureau of Standards
Howard S. Pyle
Brainard Foote

THE 100% RADIO MAGAZINE

CIRCULATION LARGER THAN ANY OTHER RADIO PUBLICATION

Telehealth Networks

Rural/Remote Health Providers Can Access Expert Medical Opinions, Knowledge, Education via Telehealth



Involving the Patient



Involving Patients of All Ages



Involving the Adolescent Patient



Reaching the Young Patient



Engaging the Younger Patient



The Child and the Family

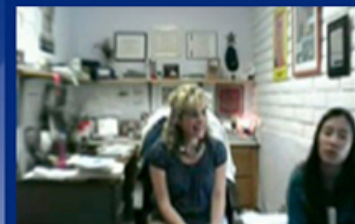


Case Reviews and Consultation





ECHO Whale



PCA Espanola



Baton Rouge



Pecos Valley MC



DOH Las Cruces



SBRT-First Choice South Va



Memorial HDX7000



LAS VEGAS ECFH

ECHO: Treatment Outcomes

Outcome	ECHO	UNMH	P-value
	N=261	N=146	
Minority	68%	49%	P<0.01
SVR (Cure) Genotype 1/4	50%	46%	NS
SVR (Cure) Genotype 2/3	70%	71%	NS

SVR=sustained viral response

NEJM : 364: 23, June 9-2011, Arora S, Thornton K, Murata G, et.al.

As an Example: Critical Gaps in Health Expertise and Services in New Mexico

- Mal-distribution of Providers
- Lack of Access to Health Services in Rural Communities

- ✓ **Only 3/33 counties**
exceed the National average of physicians
per 100,000 population
- ✓ **64%** of physicians practice in **3/33** counties.
- ✓ These three counties comprise only **39%** of New Mexico's
Population
- ✓ Even more profound for behavioral health services



Telehealth and Health Information Technologies are Part of the Solution in Transforming our Health System





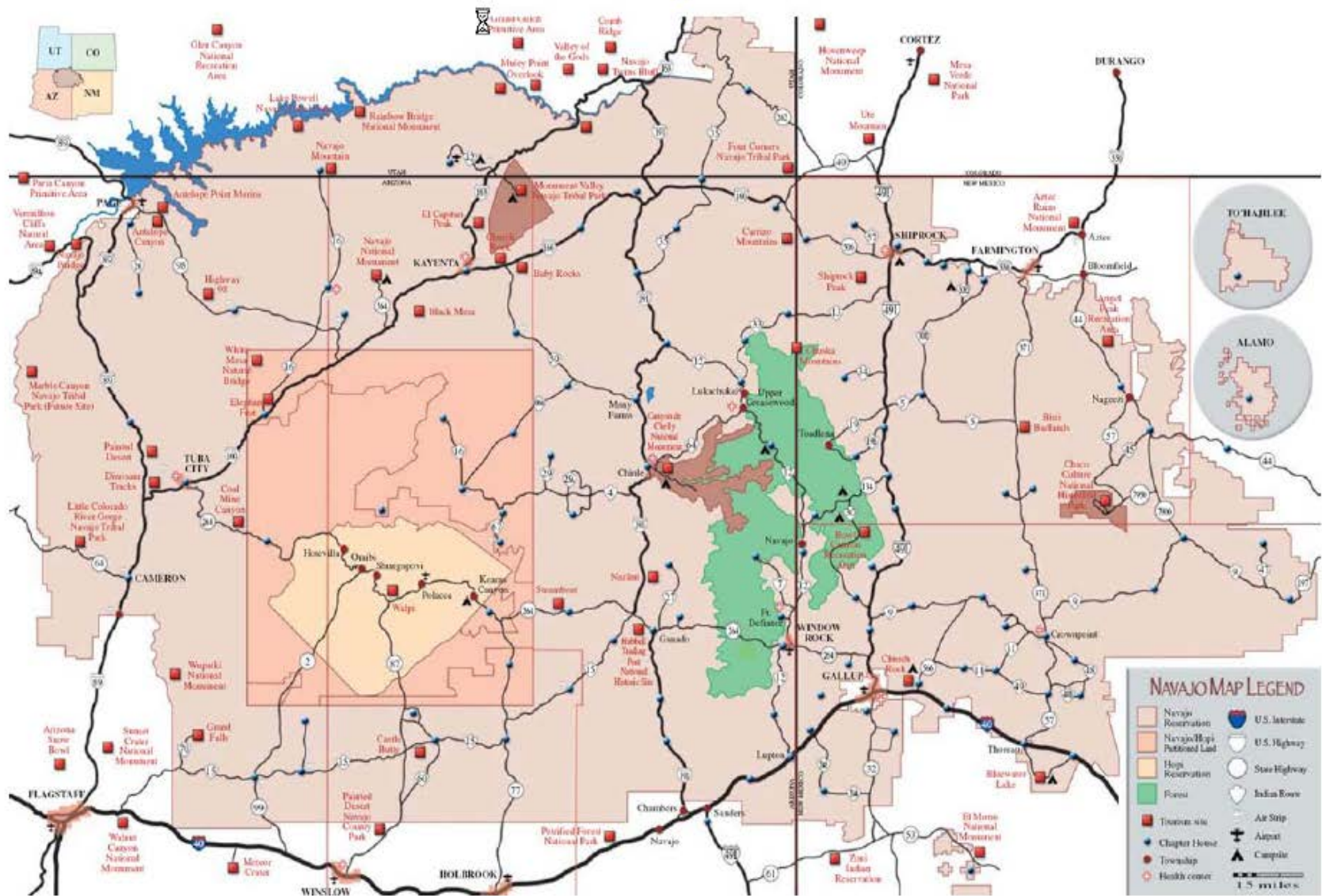
Telehealth assistants at the school or child care center provide the link to examine the eyes, ears, throat, lungs and skin.

Videoconferencing provides the “face to face” interaction.

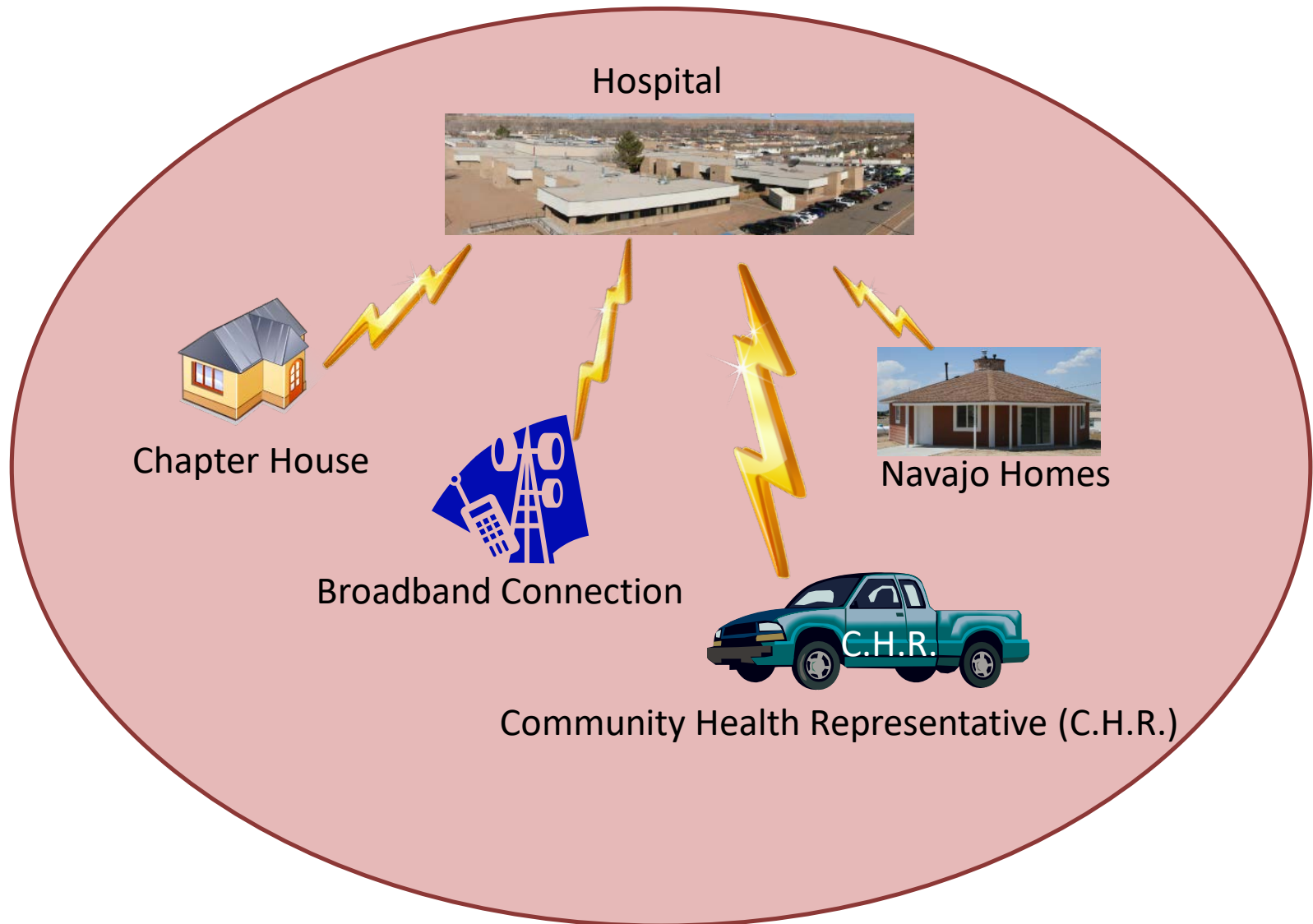
Getting providers to think of their desktop computer as an exam room is the trick.



The Navajo Nation



Navajo Rural Health Project



The Future and Next Steps

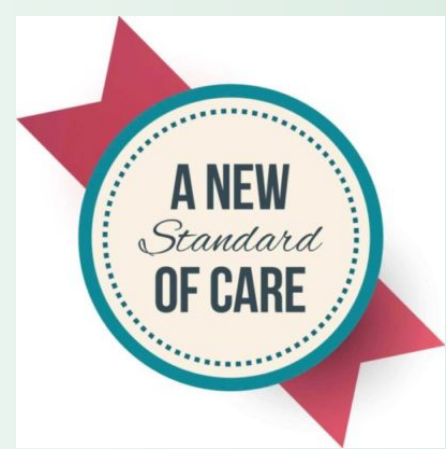


Realities of Using Telehealth In Communities, Hospitals, and Clinics



- Can you make the case for adoption and integration of telehealth?
- What's the Value Proposition?
- How do you proceed? ("The Checklist")
- How can this approach be sustained?

Addressing Standards of Care



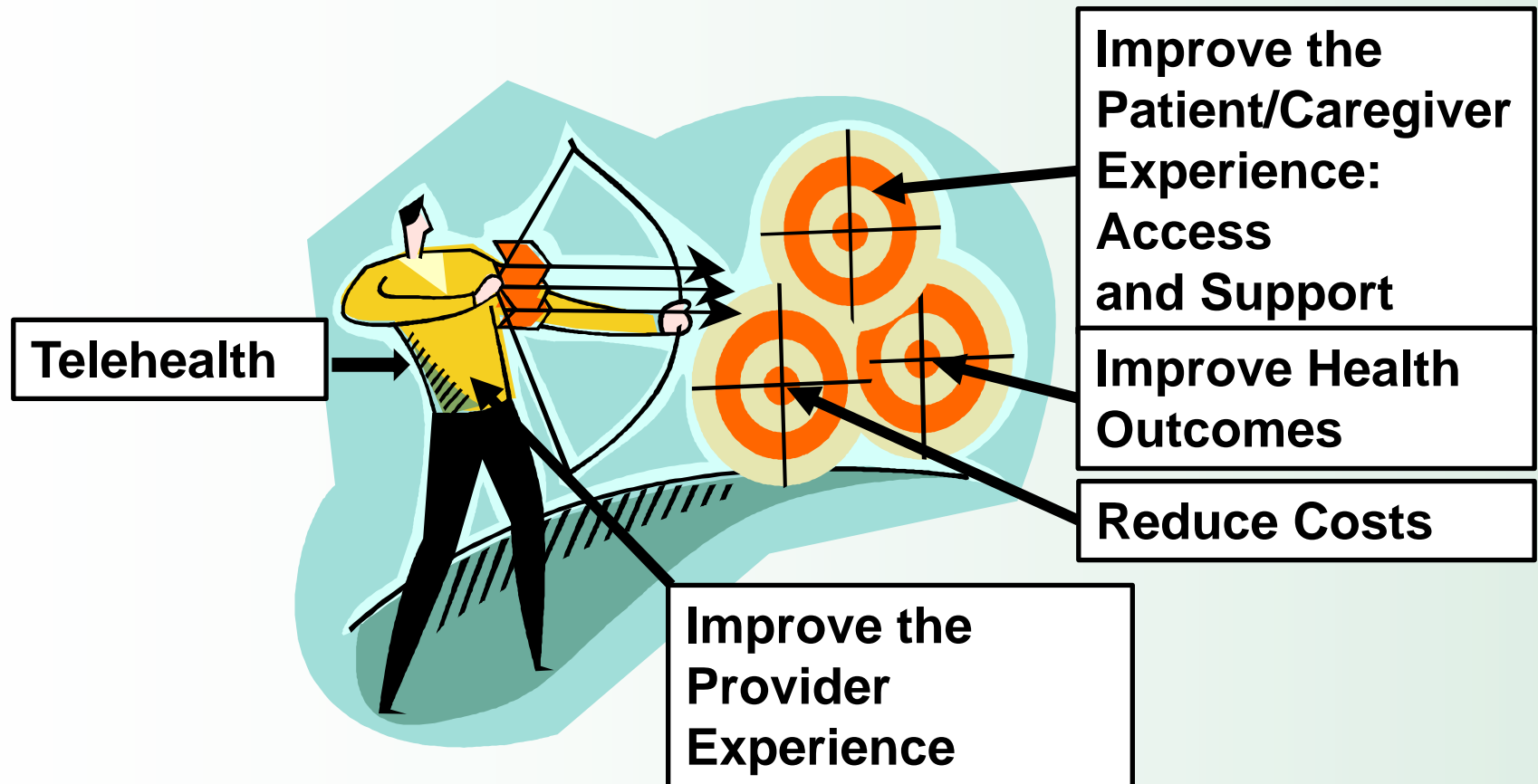
- Allow patients to receive quality health care independent of geographical location, such as in rural settings
- Provide capacity to appropriately keep more patients locally
- Decrease risk and avoid expensive medical malpractice lawsuits (“Failure to use Telemedicine” cases)

Making the Business Proposition



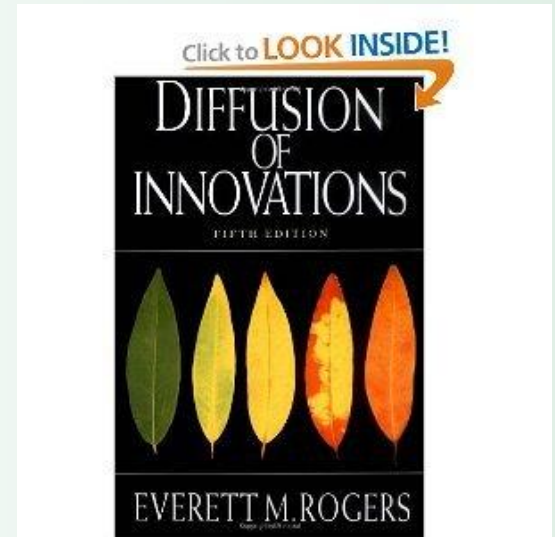
- Develop a business plan that provides ROI and sustainability
- Determine the metrics that will demonstrate the benefits of integrating telemedicine
- Collect and analyze the data that show value to the stakeholders;
 - Hospital Leadership (“C-Suite”), Board of Directors, Staff, Providers, Payers, Community Leaders, and Government Representatives (Legislators, Governor, Agencies and Departments of Health & Human Services)

Hitting the Targets: “The Triple Aim” (“The Quadruple Aim”)



Provider and Consumer Engagement and Adoption

- Diffusion of Innovations Theory
- Criteria for successful adoption
 - Perceived relative advantage
 - Compatibility
 - Complexity
 - Trialability
 - Observability



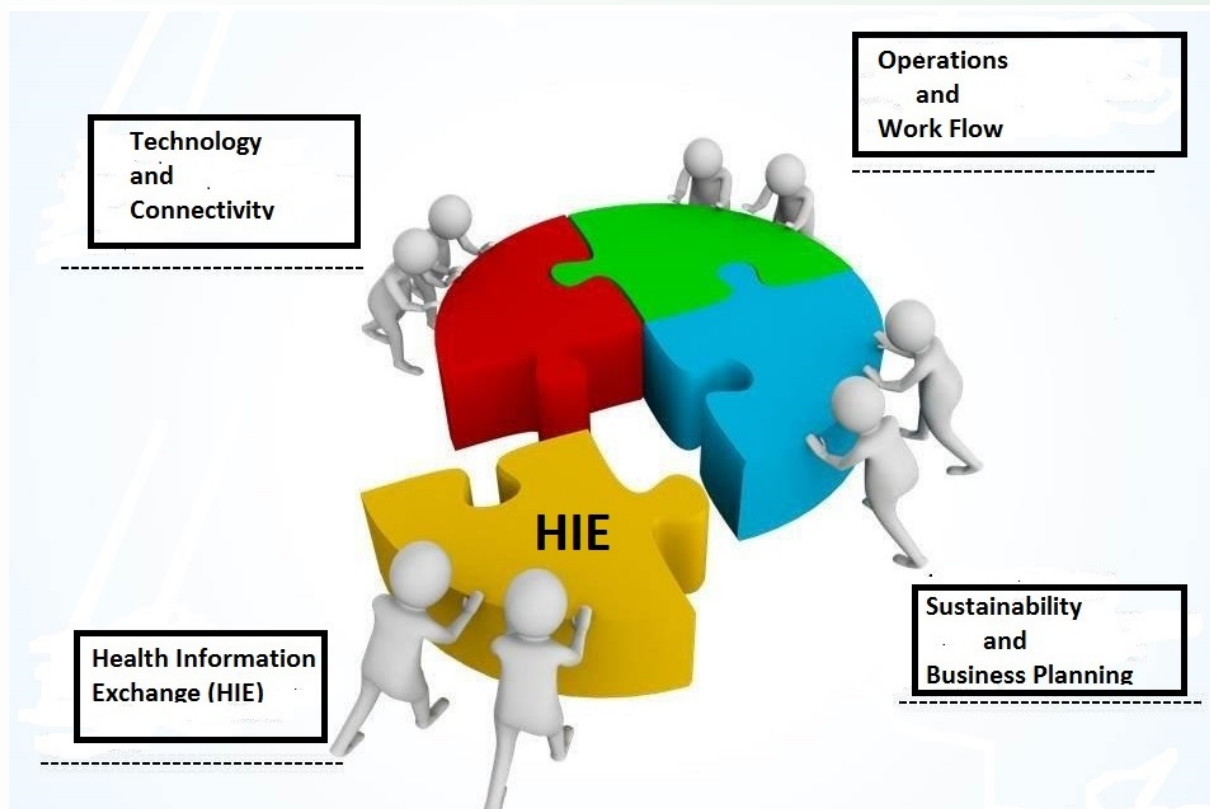
Rogers EM. *Diffusion of Innovations*. 5th edn. New York, NY: The Free Press, 2003

Legal and Regulatory Ramifications

- HIPAA/HITECH
- FDA/FCC
- Liability and malpractice insurance/risk reduction
- Standards of care
- Credentialing/privileging and licensure



Health Information Exchange and Telemedicine: Complementary Pieces of the Puzzle



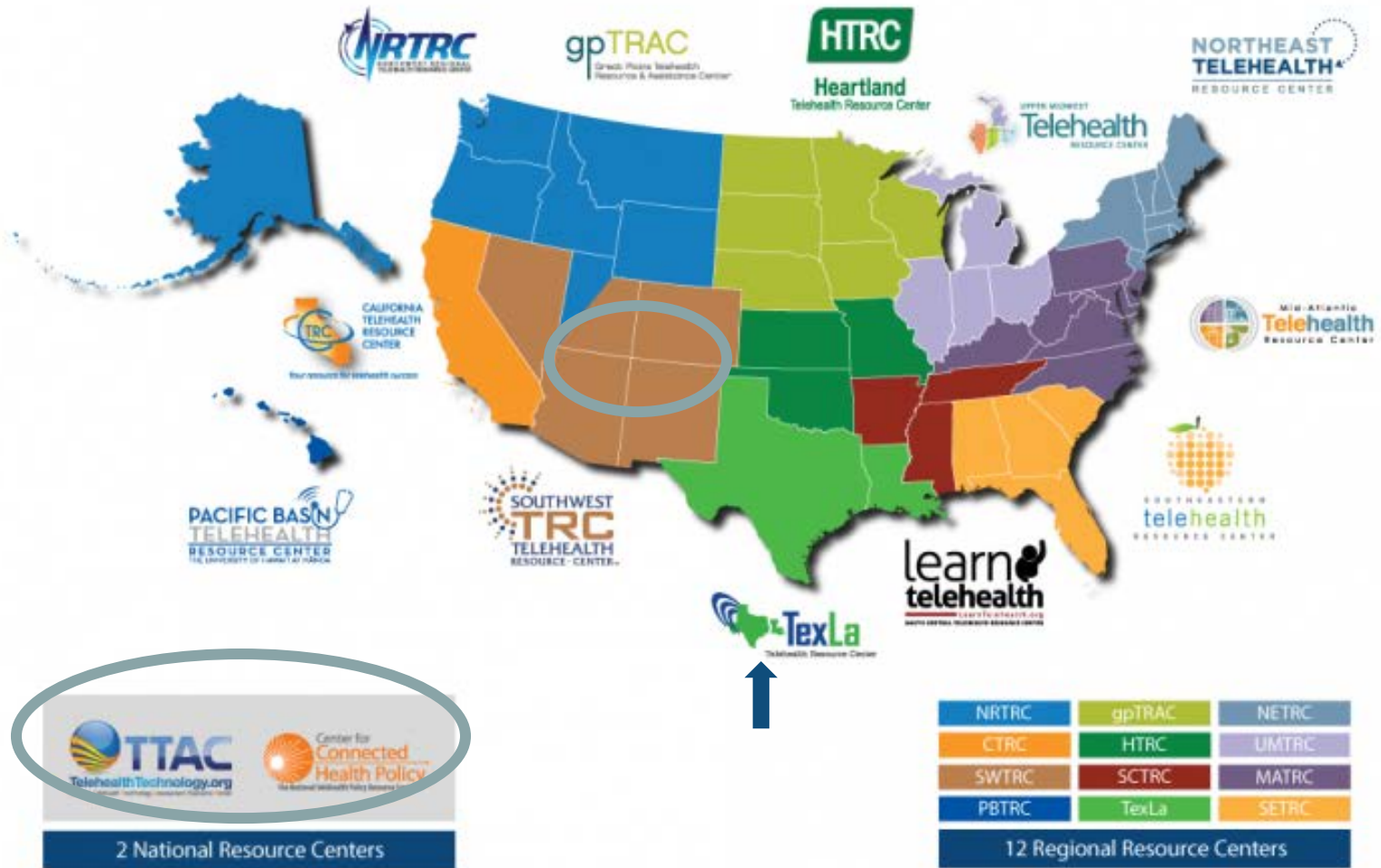
Challenges & Barriers:

- Reimbursement
- Interstate licensure
- Credentialing and privileging
- Affordable broadband
- Integrating as part of our healthcare system
- Broadening use; urban and rural
- Not restricting sites; home, schools, SNFs
- Improved coordination of federal programs

Other Resources



TelehealthResourceCenters.org



<http://www.telehealthresourcecenter.org/>

<https://www.telehealthresourcecenter.org/gptrac/?Center=gpTRAC>



<http://www.americantelemed.org>



<http://ctel.org/>

The New Mexico Telehealth Alliance

Telehealth Alliance *"Networks of Networks"*

- Represents a consortium of public and private health care stakeholders: "Neutral Territory" (501c3)
- Reflects the diversity of our health care delivery system in New Mexico
- Enables collaboration

- ✓ Providers
- ✓ Consumers
- ✓ Telehealth Expertise
- ✓ Communication Networks
- ✓ Social Networks



<http://www.nmtelehealth.org/AboutUs/>

**New Mexico Telehealth Act
Passed and Signed into Law
2004**

**Introduced by:
Rep. Danice Picraux(D)**

**Supported by
Sen. Susan Wilson-
Beffort(R)**

**HOUSE BILL 581
46TH LEGISLATURE - STATE
OF NEW MEXICO**

**Insurance Coverage for
Telemedicine Services
Passed and Signed into Law
2013 and 2019**

**Introduced 2013 by:
Sen. Jerry Ortiz y Pino (D)
and**

**Rep. Stephen Easley (D)
SENATE BILL 69
HOUSE BILL 171**

**Sen. Ortiz y Pino (D)
2019 Senate Bill 354
Health Coverage
via Telemedicine**

Promoting Adoption of Telehealth and Overcoming Barriers

- It takes a transdisciplinary team and collaboration
- Create “Virtual Specialty Centers of Excellence”
- Belief in the value
- Demonstrating the value
- Dedication
- Persistence



International Telemedicine and eHealth: Transforming Systems of Care in the Global Community



Reasons to do International Telehealth
Most health issues are global!

Distributed Medical Intelligence

- Knowledge Sharing Networks/Just in Time/On Demand
- Best Practices
- Evidence based



THE EARTH IS BUT ONE COUNTRY

And Mankind Its Citizens



JOHN HUDDLESTON

Conclusions

Together we have opportunities to integrate Telehealth in a manner that can provide platforms for greater continuity in collaborative efforts within our country and between countries:

- Clinical service and consultation
- Public Health
- Education and training
- Research

“Think Globally but Act Locally”



***Working Together
We Can Make a
Difference***



It's About People, Not Technology







Questions?

