

Using Telemedicine in HIV Care – Possibilities and Limits

Steve McCrosky, FNP, AAHIVS

Swiss HIV Nurses Symposium

Bern, Switzerland

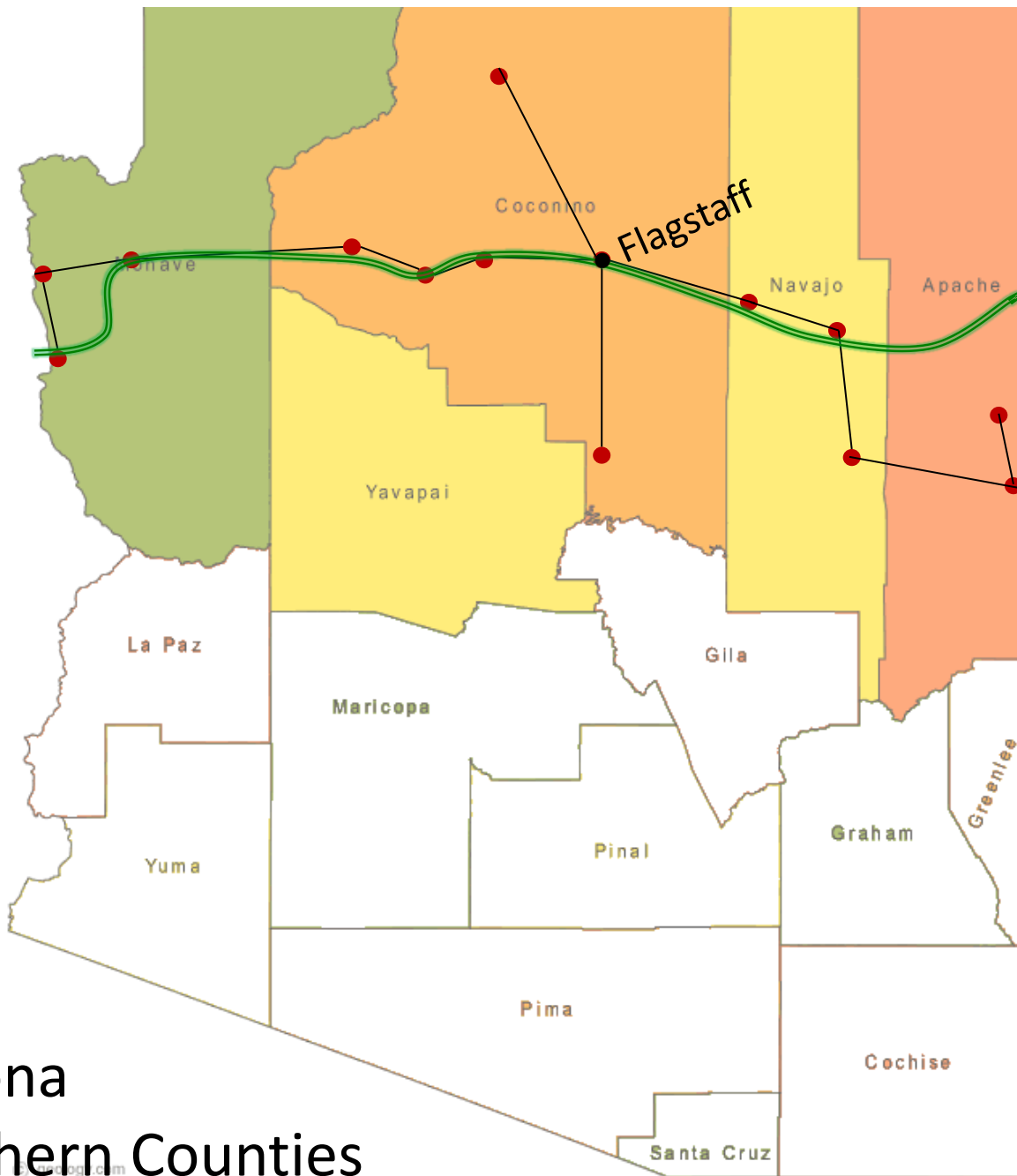
January 30th, 2015



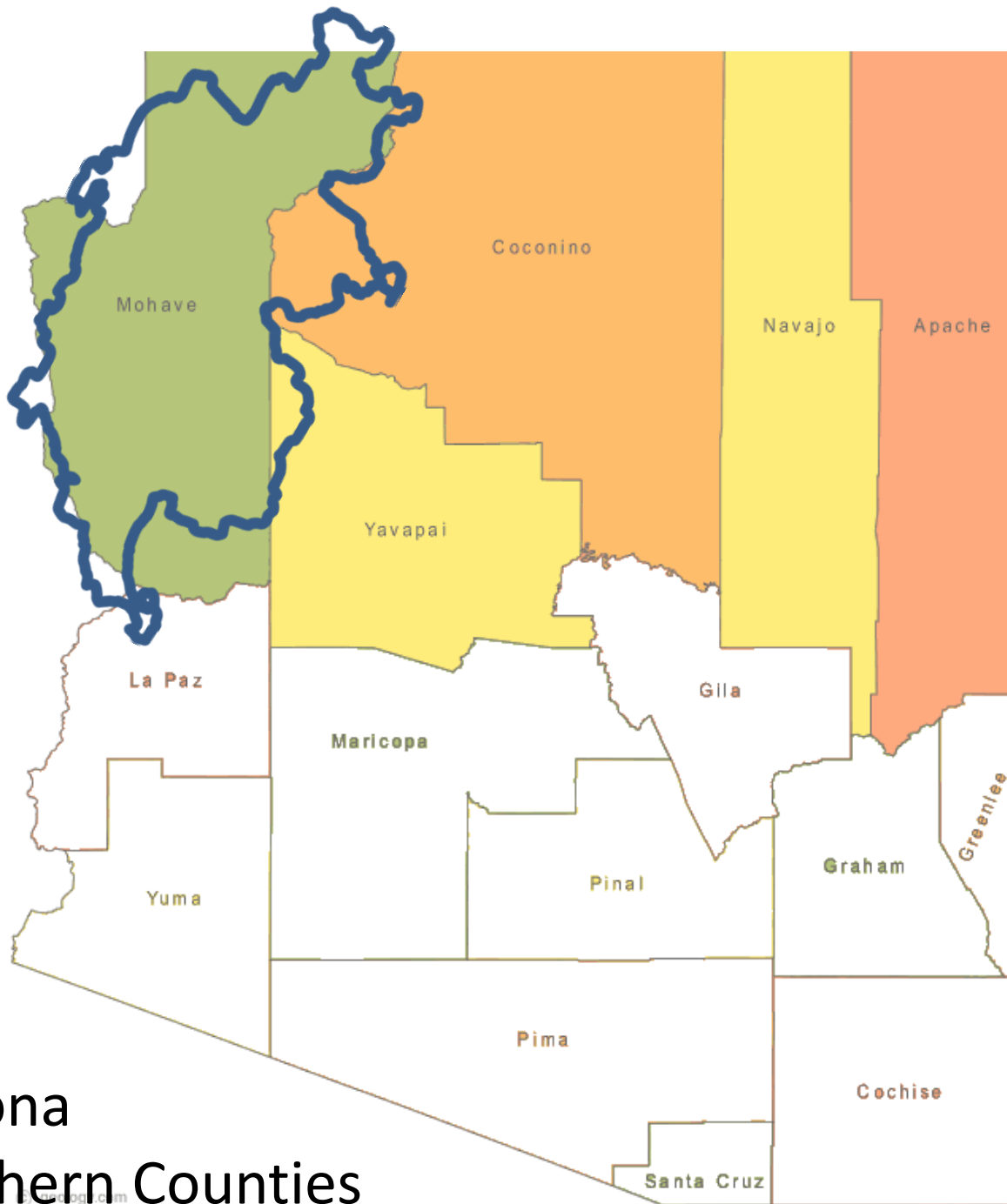
NORTH COUNTRY
HealthCare



**Northland
Cares** HIV Specialty
Care Clinic



Arizona Northern Counties



Arizona Northern Counties

Objectives

- Define telemedicine (telehealth)
- Describe telemedicine usage in HIV care
- Demonstrate an example of the successful use of telemedicine in HIV care
- Discuss limitations
- Identify one potential usage for telemedicine in Swiss HIV care

Definition: Telemedicine/Telehealth

Télos - at a distance (*Greek*)

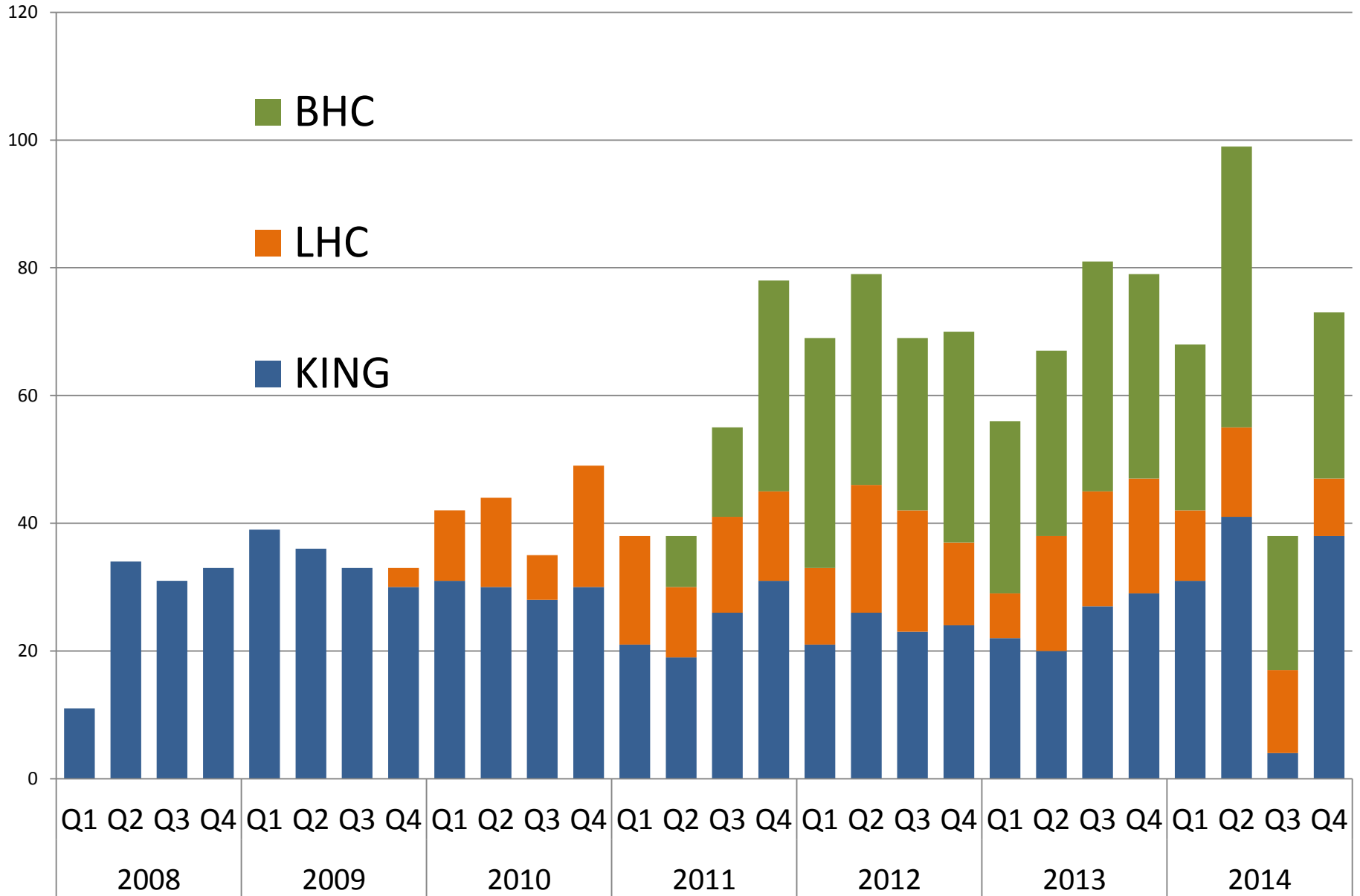
Medicīna - healing (*Latin*)

“Healing at a distance”

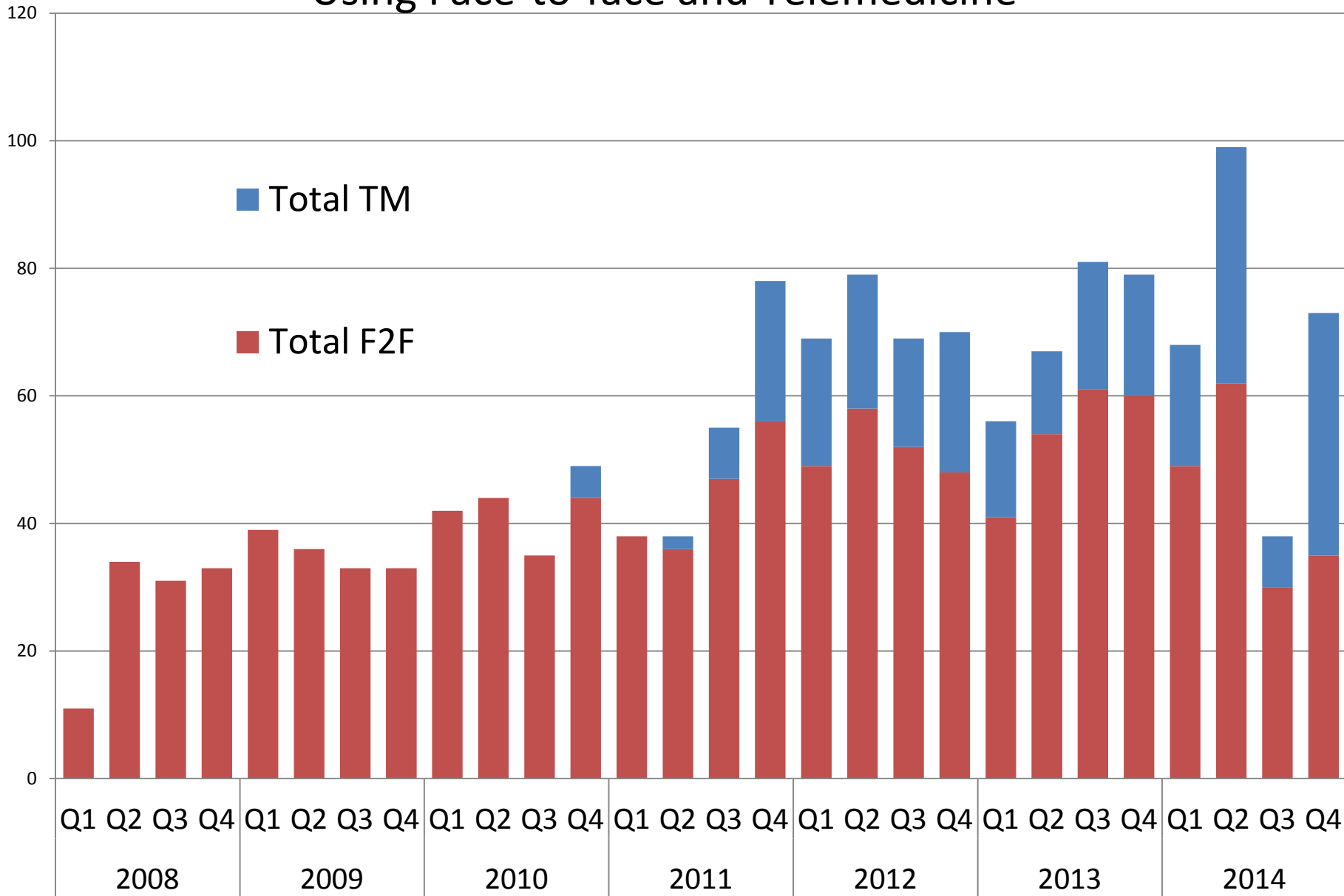
Four elements of telemedicine

1. provides clinical support
2. overcomes geographical barriers
3. uses various types of technology
4. goal is to improve health outcomes.

HIV Appointments in Mohave County by Location



Total HIV Appointments in Mohave County Using Face-to-face and Telemedicine



Case Study

Source Patient

- “Rob”
- 52 year old male
- HIV infection
- Last labs
 - Last CD4 541
 - Last HIV viral load <20
- Chronic Kidney Disease

Exposed Patient

- “Kathy”
- 54 year old female
- No medical problems
- Last labs
 - Normal chemistry
 - Normal blood count

Case Study

Source Patient

- 52 year old male
- HIV infection
- Last labs
 - Last CD4 541
 - Last HIV viral load <20
- Chronic Kidney Disease
- ARVs
 - abacavir/lamivudine 600/300 once a day
 - dolutegravir 50 once a day
- HLA-B*5701 negative

Exposed Patient

- 54 year old female
- No medical problems
- Last labs
 - Normal chemistry
 - Normal blood count
- HLA-B*5701 unknown



National Clinician Consulting Center

- Question: Is PEP indicated if the source patient has an undetectable viral load?
- Consultant is surprised that patient gave his medicine to his partner
- *“If you were in Switzerland, then they may not treat this person.”*
- Partner understands low risk but wants to take control of this situation and requests PEP.

Telemed Types by Timing

- Synchronous or Real time
 - Professional to Patient
 - Professional to Professional Consultation
 - Videoconferencing
- Asynchronous or store-and-forward
 - Professional to Professional Consultation
 - Data files

Synchronous services

Angela Hansen, RD

- Nutritional Counseling
 - Diarrhea
 - Diabetes/hypertriglyceridemia



Terri Dunn, LCSW

- Counseling services



Synchronous services

Randee Gelatic, Pharm D

- Review of polypharmacy clients
- Diabetes and dyslipidemia



Greg Melcher, MD

- Infectious Disease
 - Phone consultation



Asynchronous services

Therese Holguin, MD

- Volunteer consultant
- Asynchronous digital image review



Randee Gelatic, Pharm D

- Review of polypharmacy clients
- Diabetes and dyslipidemia



Greg Melcher, MD

- Infectious Disease
 - Email consultation



Didactic Series

HIV/HCV Co-infection – Part I: Epidemiology, Screening, Pathophysiology

Christian B. Ramers, MD, MPH
Family Health Centers of San Diego – Ciaccio Memorial Clinic
4/10/14

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Video (1)












Christian Ramers

Audio options

 Moira @ UCSD

Presenters (5)

-  Chris Mathews, UCSD 
-  Christian Ramers 
-  Daniel Lee 
-  Greg Melcher 
-  Jacqueline Tulskey

Participants (12)

-  Anne Benson
-  Bonnie Bruce RNCM Ampla Health
-  Brad Colwell, PharmD
-  Dineen Greer
-  Erlinda Ochoa NP
-  Erlinda Ochoa NP 2
-  Katherine Rubin
-  Michelle Lew
-  Peggy Avina 

Chat: Questions & Comments (Everyo...

100 copies? Is he relatively stable with his VL?

Daniel Lee: Are his CD4% rising?

Steve McCrosky, FNP - Flagstaff AZ: Anyone else having audio dropout? Just me?

Moira @ UCSD: Steve are you on wireless?

Moira @ UCSD: Audio has been consistent from my end

Daniel Lee: Steve, audio dropout occurs slightly if speakers are speaking concurrently

Steve McCrosky, FNP - Flagstaff AZ: would you use a Truvada tail if stopping Atripla to get a genotype?

Moira @ UCSD: shouldn't be a prob

Dineen Greer: Would your advice change is viral load 20-40?

Daniel Lee: Tough to say Dineen, I think it depends on the clinical picture/scenario such as we have discussed with this case

Telehealth / eHealth / mHealth

- Telehealth can include a broad spectrum of technologies including:
 - Home monitoring
 - Electronic health records
 - Smartphone apps
 - SMS services
 - Websites
 - Etc...

Know Your Limitations

*“(When confronted with a new technology), it is very easy to be swept up in the enthusiasm...so, there are **three questions to ask...**”*

-Neil Postman

“What is the problem to which this technology is the solution?”

“Whose problem is it?”

“What other problems will be created by using the technology?”

HIV Telemedicine Successes

- Post-exposure Prophylaxis
- Starting care more quickly
- Nutritional counselling
- Medication adherence “check-in’s”
- Sobriety “check-in’s”
- Polypharmacy evaluations
- Depression evaluation and treatment
- Tobacco Cessation

Prison Care

Delivering HIV subspecialty care in prisons utilizing telemedicine. Patel MC, Young JD. Dis Mon. 2014

Improved Virologic Suppression With HIV Subspecialty Care in a Large Prison System Using Telemedicine: An Observational Study With Historical Controls. Young JD, Patel M, Badowski M, Mackesy-Amiti ME, Vaughn P, Shicker L, Puisis M, Ouellet LJ. Clin Infect Dis. 2014

Establishing a telemedicine clinic for HIV patients in a correctional facility. Badowski M, Nyberg C. Am J Health Syst Pharm. 2012 4.

Telemedicine improves access to care for HIV-infected prisoners. Besch CL. HIV Clin. 2007

HIV Telemedicine Limitations

- Lack of physical exam
- Lack of personal contact
- Hard of hearing patients

Possibilities for HIV TM in Switzerland?

- Synchronous Services
 - Urgent Response for PEP
 - Services for remote settings
 - Highly specialized services
- Asynchronous Services
 - Learning Network
 - Polypharmacy evaluations
 - Teledermatology

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