Rural Access to Telehealth: Challenges and Benefits

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March 10, 2022

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TELEMEDICINE ON RESERVATIONS: STARPAHC

- Technology Serves the People: the story of a Co-Operative Telemedicine Project
- The conceptual origins of telemedicine can be traced back to STARPAHC: Space Technology Applied to Rural Papago Advanced Health Care (now the Tohono O'Odham)
  - Indian Health Service (IHS), NASA, and the Office of Research and Development (ORD) collaborated on this successful co-operative project that involved the confluence of these organizations
  - The most striking aspect of this project was the innovative use of advanced space age telecommunications technology in order to bring health care to remote parts of the Papago Reservation in the 1970's
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TELEMEDICINE ON RESERVATIONS: STARPAHC

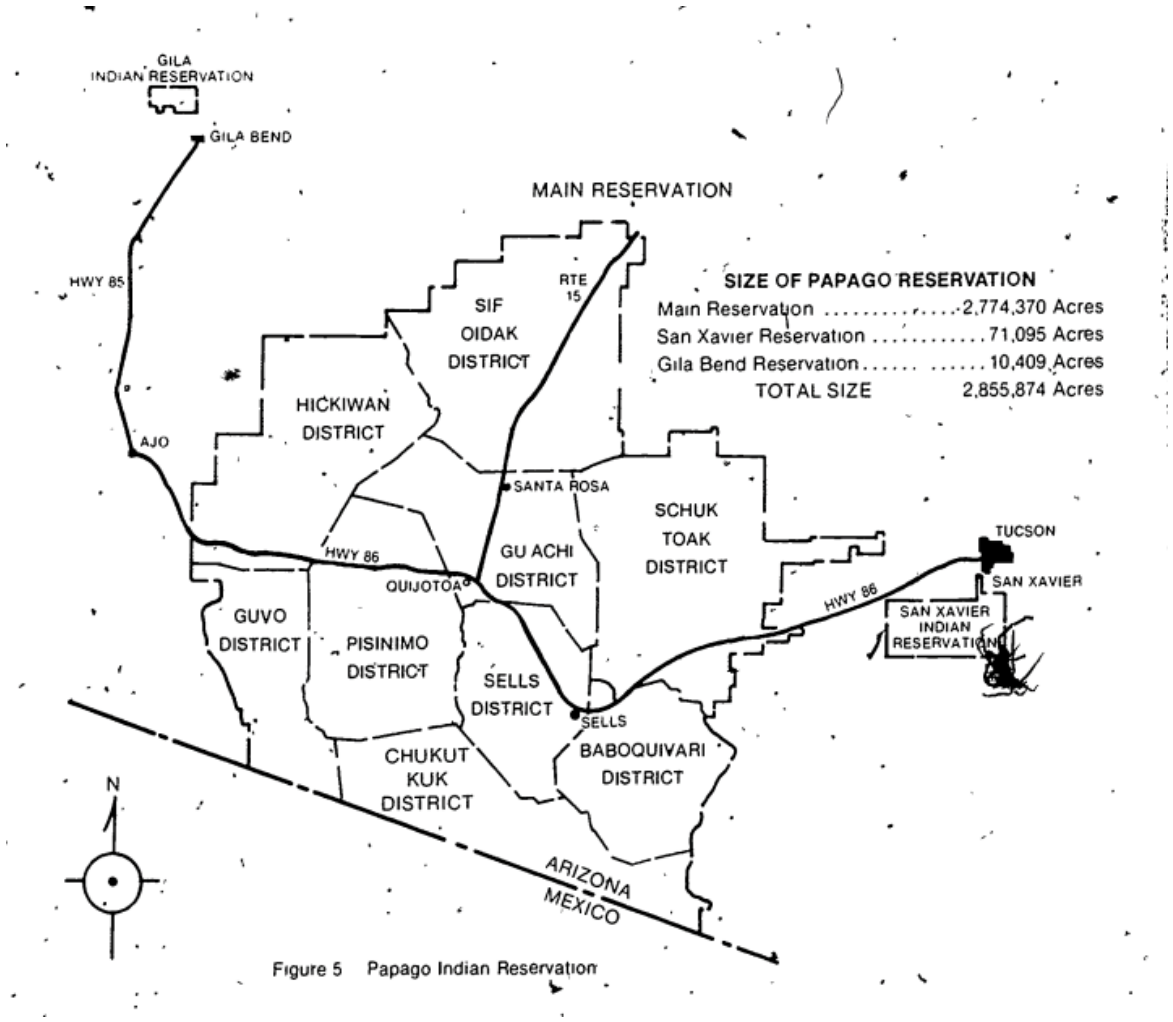

Figure 5 Papago Indian Reservation

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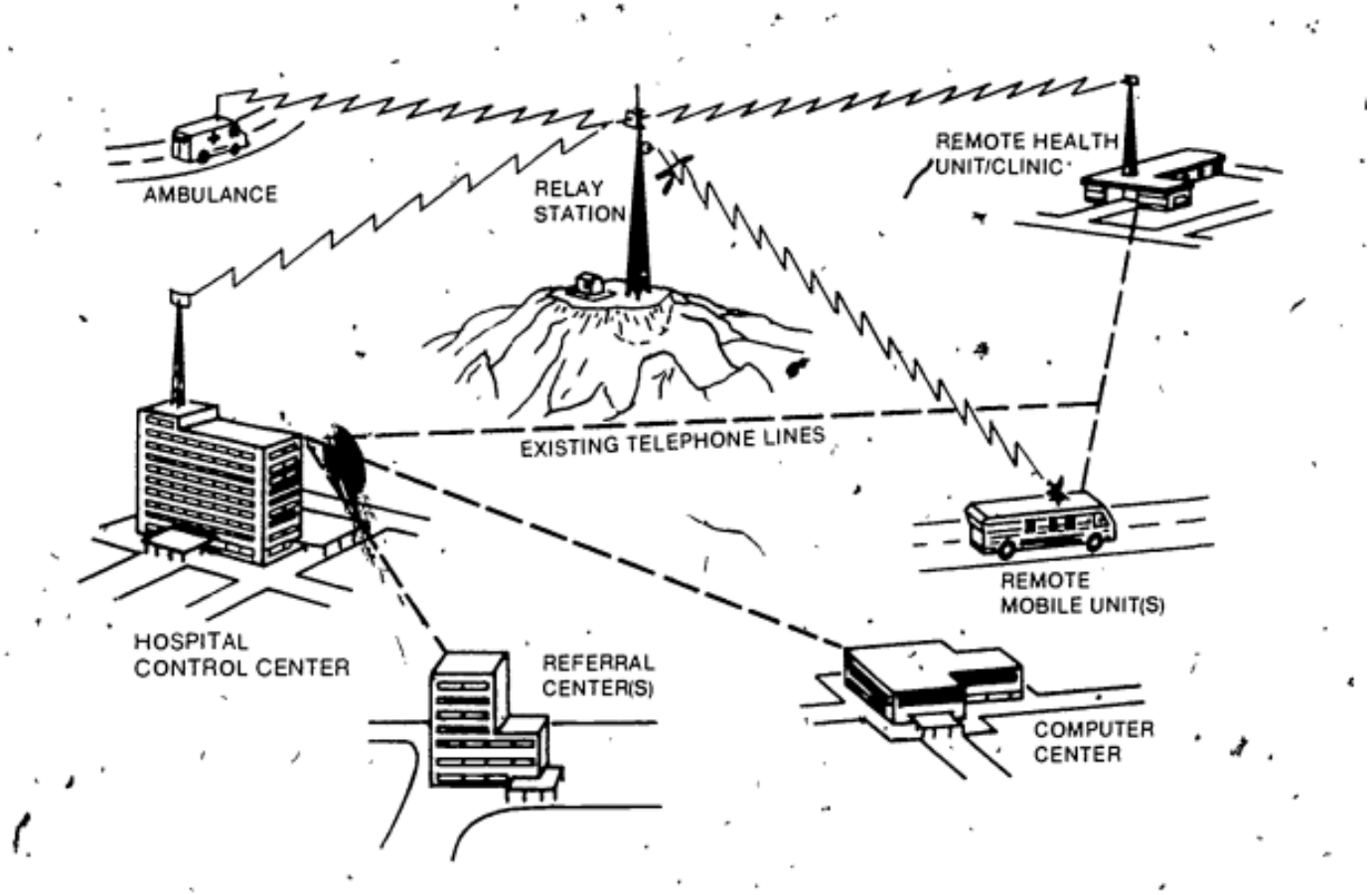

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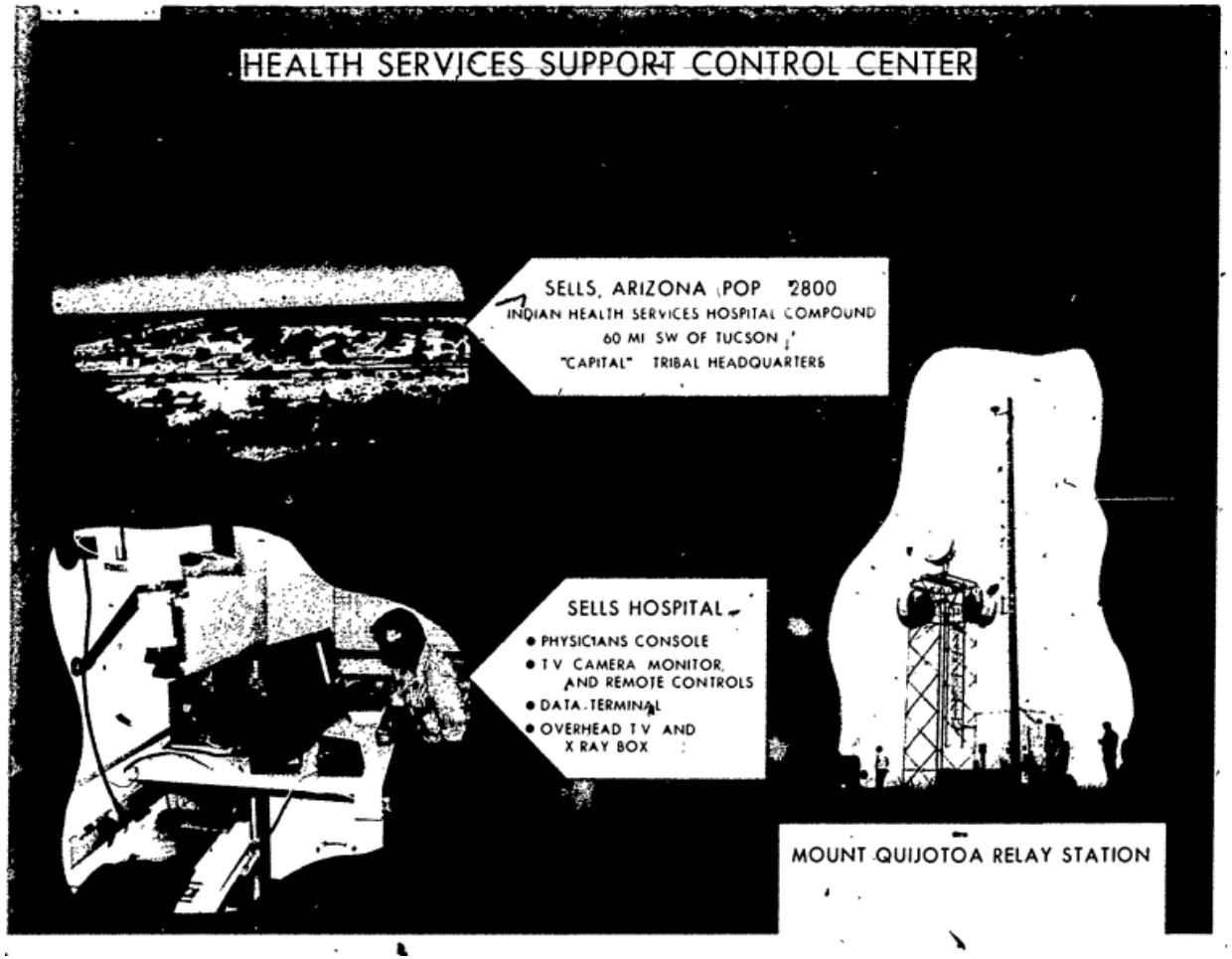

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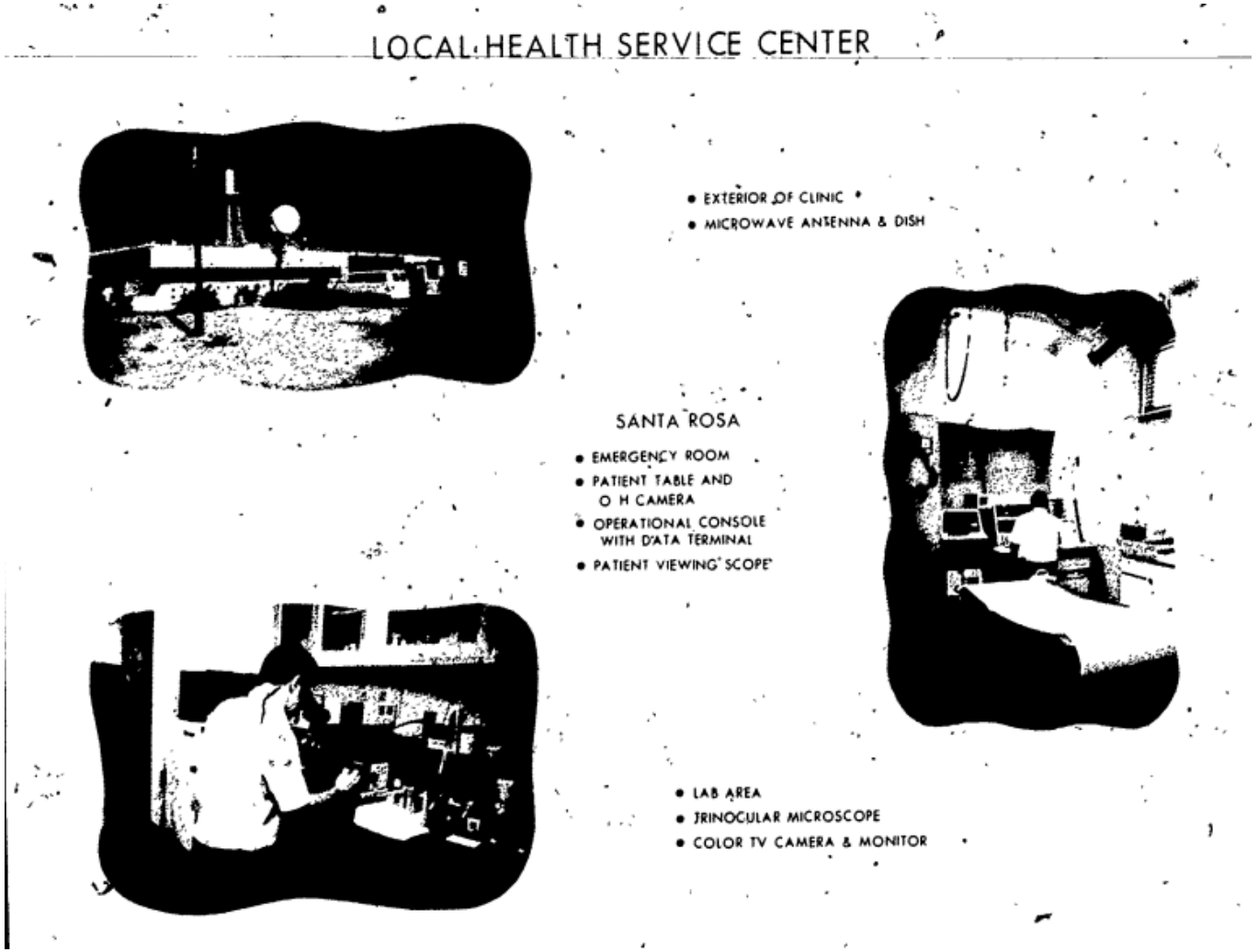

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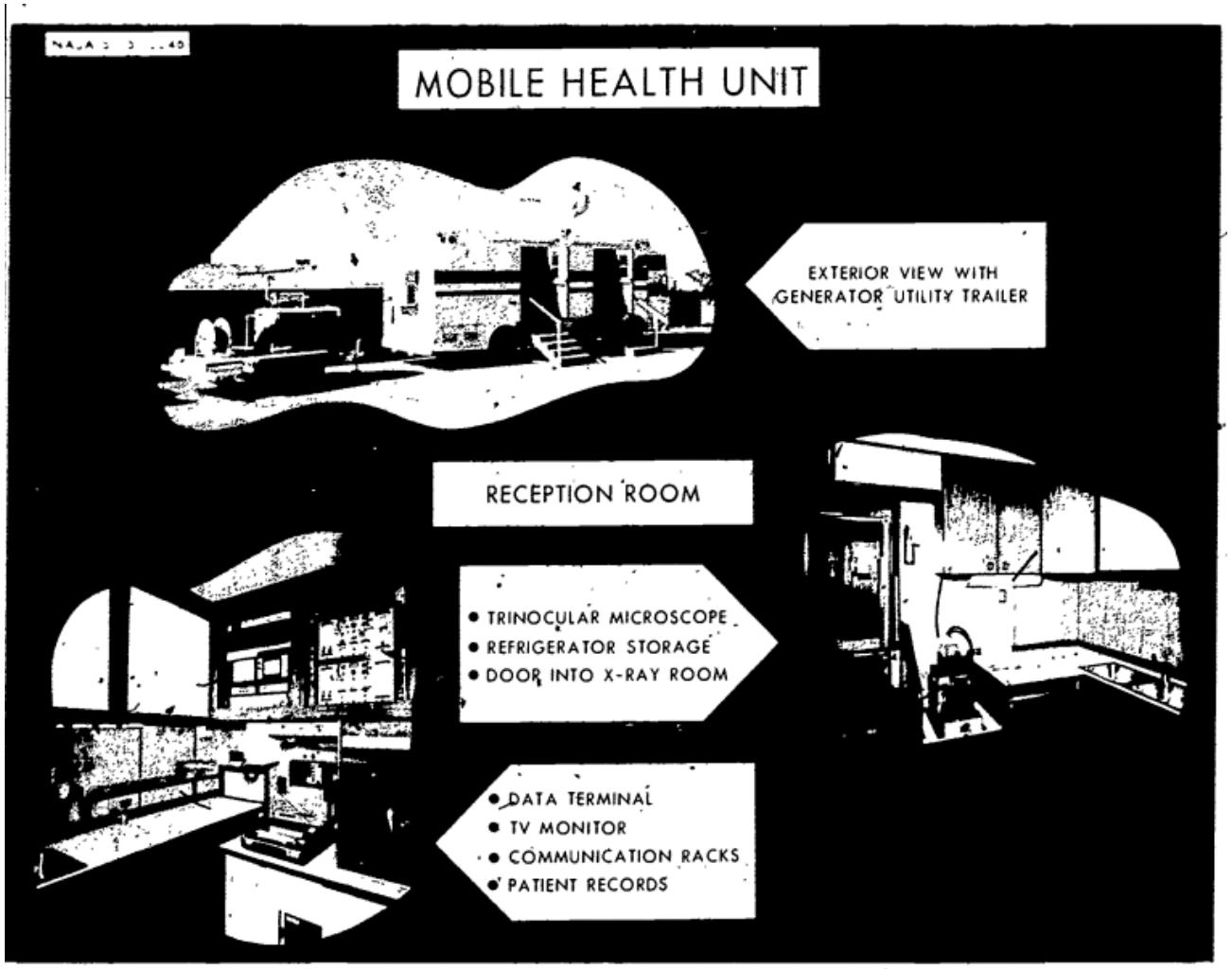

RURAL ACCESS TO TELEHEALTH: OVERARCHING CHALLENGES

- Cultural, socioeconomic status (SES), race/ethnicity and geographic determinants
  - Transportation
  - Access to language services
  - Acceptability – designing process so end users are comfortable and satisfied with care
- Digital Divide (urban as well as rural)
- Lack of integration into care delivery model
- Foundational factors in health care outcomes
  - Clinically Competent
  - Relationships
  - **Trust**
  - Social connectedness

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RURAL ACCESS TO TELEHEALTH: OVERARCHING BENEFITS

- Improved access to care near homes and communities
  - Reduce costs
  - Improve efficiency and timeliness
  - Mitigate transportation concerns
- Improved patient centered care and satisfaction
- Potentially increase family engagement
- Access to and integration of relevant patient directed records
- Ease administrative and patient burdens

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RURAL ACCESS TO TELEHEALTH: WHAT EACH STEP NEEDS

- **Patient and Family**
  - Ability and desire to consider use of telemedicine
  - Access to telemedicine solution (equipment, network support)
  - Understanding and reassurance that options exist
    - Reason for choice of telemedicine (potential benefits/ outcomes and limitations)
    - Autonomy in decision making about use
    - Assurance of ability to 'roll back' to in person options if desired
  - Option for inclusion of family or caregiver in visit
  - End-user tech support if needed
- **Community**
  - Understanding of telemedicine options within rural community
  - Geographic constraints
  - Who AND how support occurs (impact on any bandwidth)

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RURAL ACCESS TO TELEHEALTH: WHAT EACH STEP NEEDS

- **Health Care Team**
  - Integration into workflow and workflow space
  - Access
    - Health data
      - Review, Enter, Follow
      - External data/consultants access to data system
    - Mentoring and resources to ensure quality
    - Support
- **Health system**
  - Provision of tech solution to ensure equity for end users
  - Integration of solution into workflow and data system
  - Technical architecture that supports care delivery
  - Ability to support different levels of tech competency in staff and community

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USE CASE: EXTENSION FOR COMMUNITY HEALTHCARE OUTCOMES (ECHO)

- Multiple healthcare delivery systems involved in supporting extension of care through primary care providers
- Primary care providers to treat complex diseases by academic mentoring
- Multiple disease states
  - Hepatitis C
  - TB, HIV, other infectious diseases
  - Cardiology
  - Cancer
  - Diabetes
- What helps success
  - Provider and Health System Commitment
  - Resources
    - Mentoring
    - Toolkits
    - Playbooks

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USE CASE: AMERICAN INDIAN/ALASKA NATIVE CKD TELEMEDICINE EXAMPLE

- Zuni CKD Case Study
  - Coordinated with NIH Center for Information Technology
  - Clinics two days/week (starting in 2007)
  - Case Manager with relationship with Primary Care provider
  - HIT documentation
    - Access to HIT system and referral process
    - Communication between providers
- When it doesn't work in CKD
  - Technical difficulties
  - Acute medical situation
  - Cultural dependence upon nonverbal cues/ limited emotional support
  - Need for provider presence
  - Patient discomfort/ reluctance with telemedicine

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USE CASE: RURAL TELEHEALTH AT FQHC (US/MEXICO BORDER)

- Initiated and expanded during COVID
- Increase satisfaction
  - Logistical issues (transportation/child care)
  - Two or more visits (comfort with technology/visit expectations and outcomes after first visit)
  - Telephone and video
  - Further distance from clinic
  - Disease safety (e.g. exposure to covid)
- Less satisfaction
  - Age
  - Language/ communication
  - Disability

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Thanks for all you do!

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