Essentials of Telehealth Platforms

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No Conflict of Interest

Introduction to telehealth.
Utility of telehealth in nephrology.
Existing telehealth platforms.
UC Health Experience.
Barriers for Telehealth.

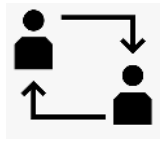
Problem statement

- Chronic kidney disease (CKD) is on rise due to aging population and comorbidity burden.
- In US prevalence of CKD is 15% and Medicare spent $114 billion on CKD and ESRD care in 2018.
- Early referral to nephrologists may improve outcomes in CKD.
- Barriers to early referral : geographic remoteness, difficulty in traveling due to comorbidity burden.

2019 USRDS Annual Data Report: Epidemiology of kidney disease in the US, NIH, NIDDK, 2019.

Quality of care and mortality are worse in chronic kidney disease patients living in remote areas

31,452 outpatients with eGFR < **45** mL/min1.732 m^2
Logistic regression outcomes of **6,545** pts. who lived **> 50km** from nearest nephrologist.



27 months

Less likely to see < 18 months

Less likely to check HbA1C & Urine albumin ex.

Less likely to start RAAS blockers.

= More likely

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Rucker D et al. Quality of care & mortality are worse in CKD patients living in remote areas. Kidney Int 79: 210–217, 2011.

Introduction to Telehealth

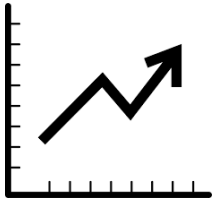
The use of electronic information & telecommunications technologies to support & promote long-distance clinical health care, patient & professional health-related education, public health & health administration.

HRSA
Health Resources & Services Administration

United State experience with Telenephrology modalities

KAISER PERMANENTE

Introduced telemedicine program - 2014

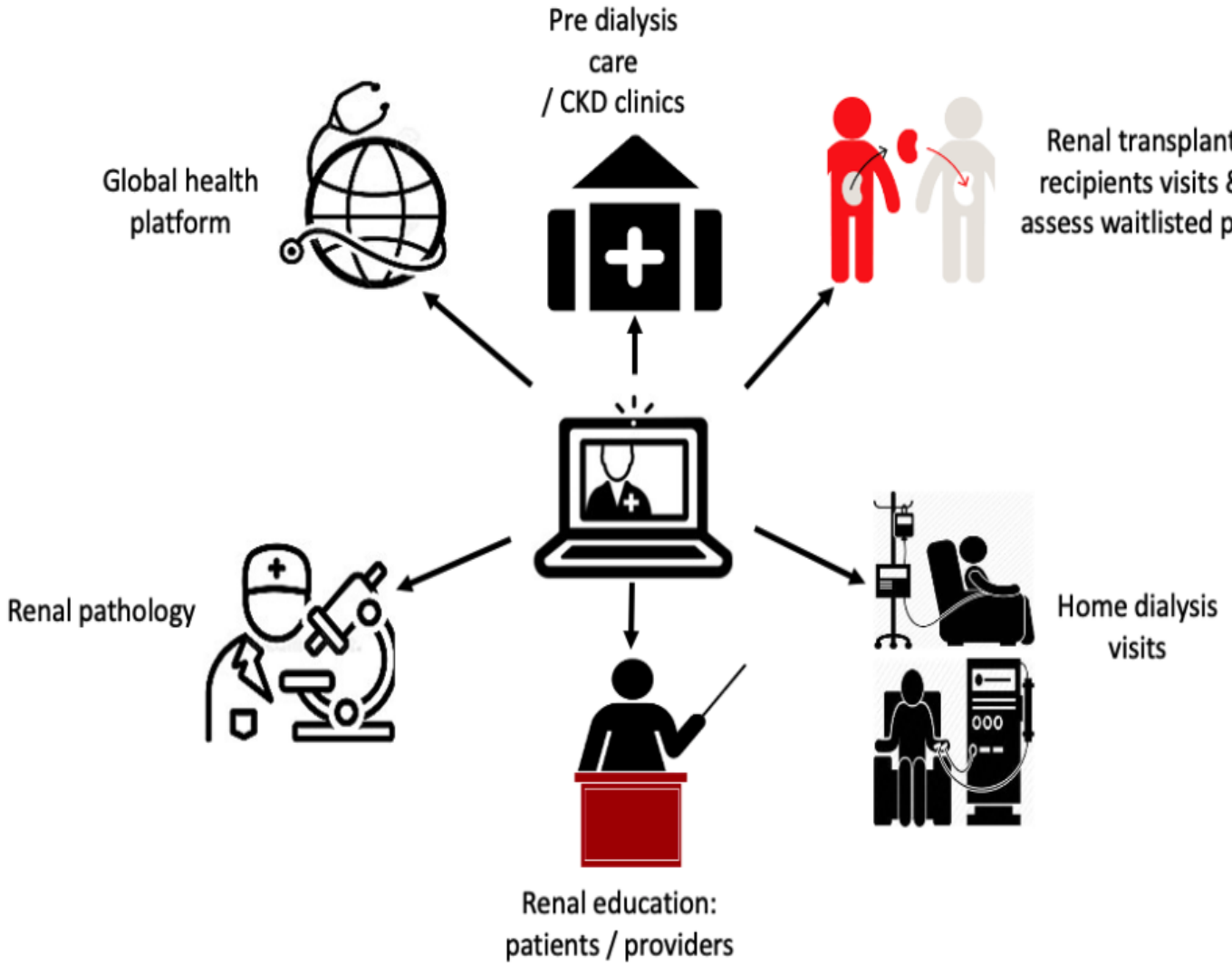


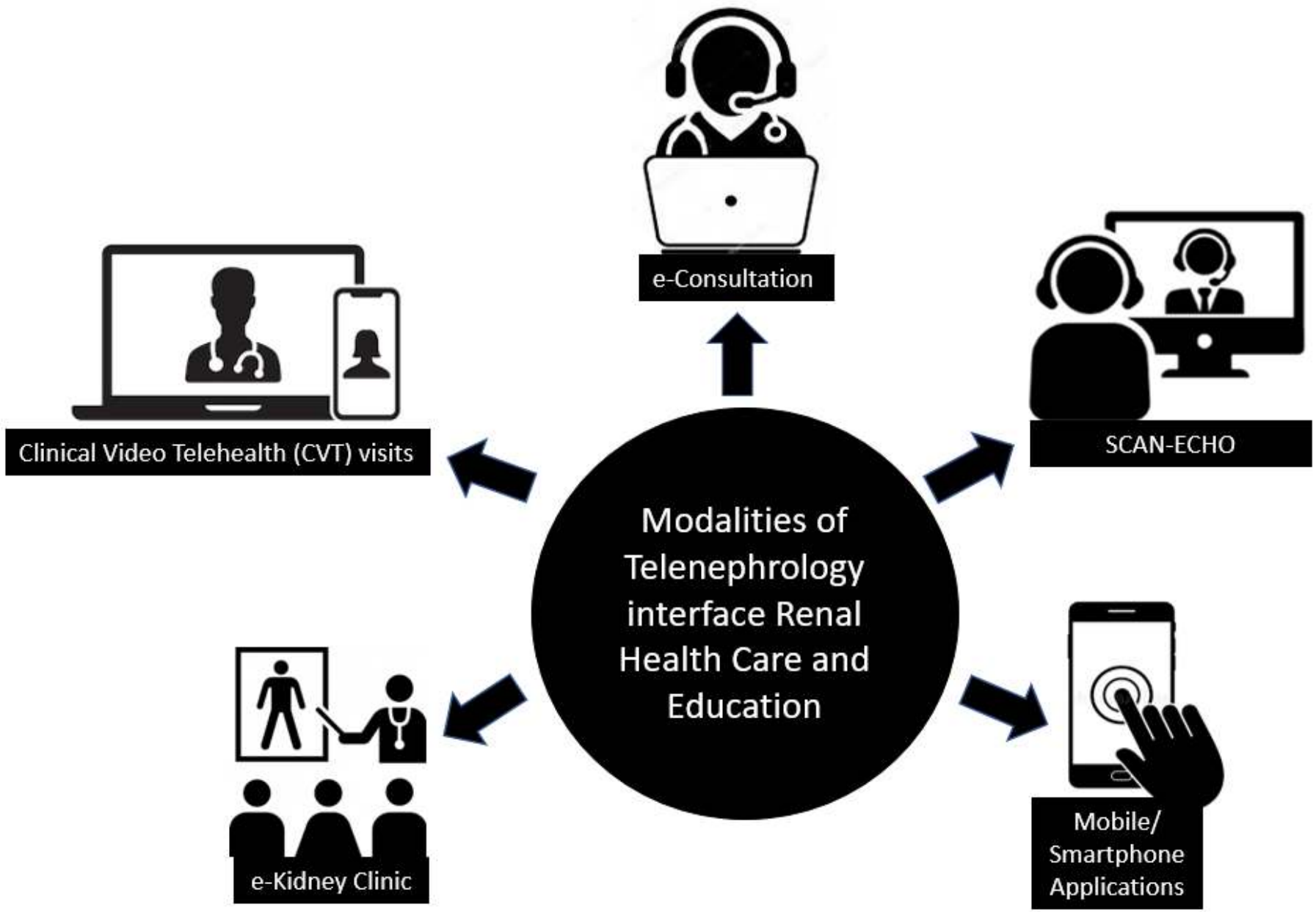
5000 in 2015 to 25,000 in 2017

74% used smart phone

Established tele stone clinic

Innovate to retain veterans within the VA system


Pre dialysis
care
/ CKD clinics
Global health
platform
Renal transplant
recipients visits &
assess waitlisted pts.
Renal pathology
Home dialysis
visits
Renal education:
patients / providers


e-Consultation
Clinical Video Telehealth (CVT) visits
SCAN-ECHO
Modalities of Telenephrology interface Renal Health Care and Education
e-Kidney Clinic
Mobile/ Smartphone Applications

Clinical Video Telehealth (CVT) visits

- Most common form of specialist visit
- Real time, interactive
- Most readily adoptable by most patients.
- Setting : patient's home / local office with a health technician trained in videoconferencing
- Act of going to an office and interacting with health care personnel can be comforting for some patients
- Health technician can perform basic vitals signs exam
- Veterans Health administration : earliest and most widespread adopters of telehealth and CVT

E-Consultation

E-Consultation

- Enables PCP to ask a specific question to specialist.
- Reduces wait time.
- Problem focused approach.
- Nephrology e-consults include workup of hematuria, proteinuria, BP management, electrolyte/acid-base problems, and management of renal anatomic issues such as cysts/stones.

McAdams et al. A medical specialty e-consult program in a VA health care system. Fed Pract. 2014;31(5):26-31.

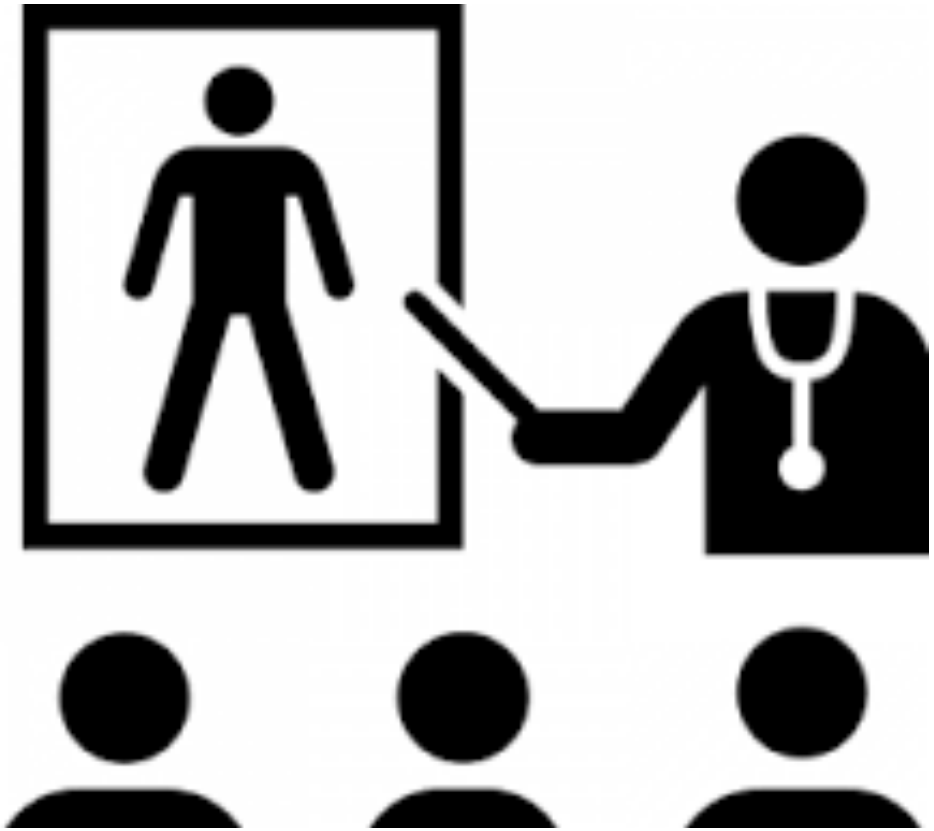
Specialty Care Network-Extension for Community Health Care Outcomes (SCAN-ECHO) Access

- SCAN-ECHO is a provider-to-provider video conferencing platform
- Links PCPs in rural clinics to specialists at tertiary-care hospitals
- Kidney SCAN-ECHO program has been expanded into the VAMC inpatient arena where in-house nephrologists are unavailable

Stevenson L et al. Evaluation of a national telemedicine initiative in the Veterans Health Administration: factors associated with successful implementation. J Telemed Telecare. 2018;24(3):168-178.

e-Kidney Clinic

- Low kidney disease literacy among pts
- Office visits are inadequate source f education for most pts
- Patient education is provided in written and graphic format with video vignettes
- VA e-Kidney Clinic addresses 6 basic learning modules: “Kidney Info,” “Nutrition,” “Laboratory,” “Social Work Services,” “Pharmacy,” & “Treatment



Lederer S et al. Barriers to effective communication between veterans with CKD and their healthcare providers. Clin Kidney J. 2015;8(6):766-771.

e-Kidney clinic

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Patient requirements

Identify patient who can have tele health visits.

Basic technical know how : patients / patients care provider.

Appropriate interface for tele health visit.

HIPPA Compliance

1996: HIPAA Act , protects PHI

2000: HHS finalized “Privacy Rule”

2002: Modification to “Privacy Rule”

2009: The Health Information Technology for Economic Clinical Health (HITECH) Act: clarified provisions that impacted HIPAA.

Center for Connected Health Policy, https://www.cchpca.org

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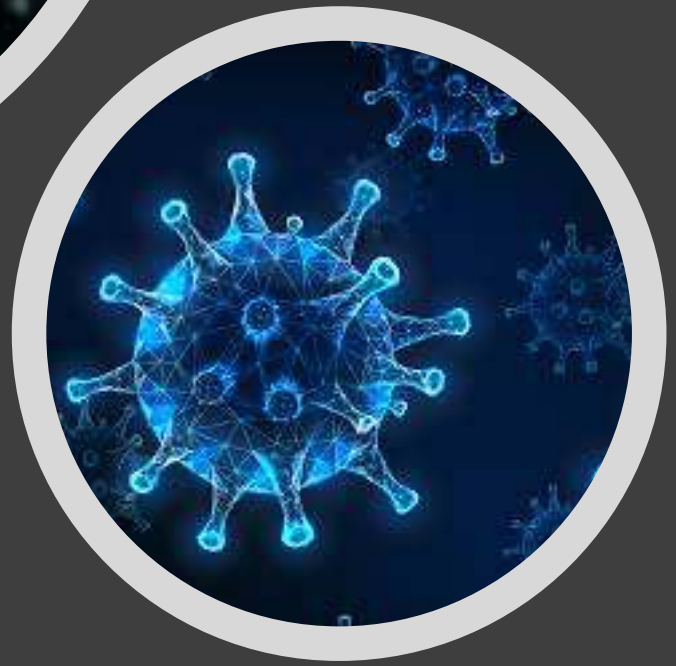

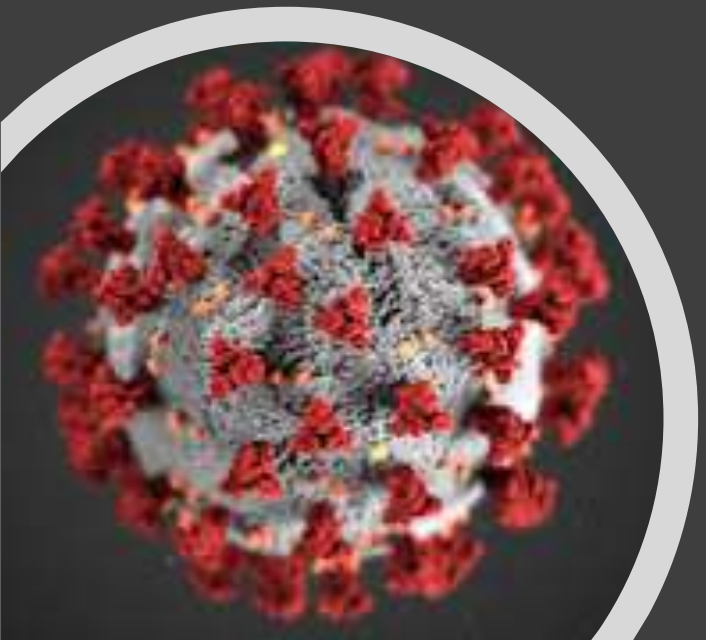

HIPAA Waiver

- HHS OCR exercised enforcement discretion and waived penalties for HIPAA violations against health care providers that serve patients in good faith through everyday communications technologies, such as FaceTime or Skype, during the COVID-19 nationwide public health emergency.
- Unsure when the waiver will be withdrawn.

Telehealth interface

HIPAA Approved

Process

The use of specific interface depends on the local practice and institutional protocols

Physician installs app

Logs in and clicks on the patient profile.

A link is sent to the patient via text or email

Joins the video visit

Pt opens the link via a mobile device or computer.

Does not require pt. to install any software.

zoom

A "non-public facing" remote communication product is one that, as a default, allows only the intended parties to participate in the communication.

- Data security is a concern as generation and transmission of remote data increases.
- Telemedicine lacks a comprehensive national policy governing security , privacy and confidentiality.

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Center for Connected Health Policy, https://www.cchpca.org

COVID-19

Telehealth policy changes occurring within the COVID-19 environment have been rapidly developing on almost a daily basis. CCHP is committed to keeping you updated on these important changes both federally and on the state level. Watch our latest COVID-19 policy update videos.

COVERAGE POLICIES

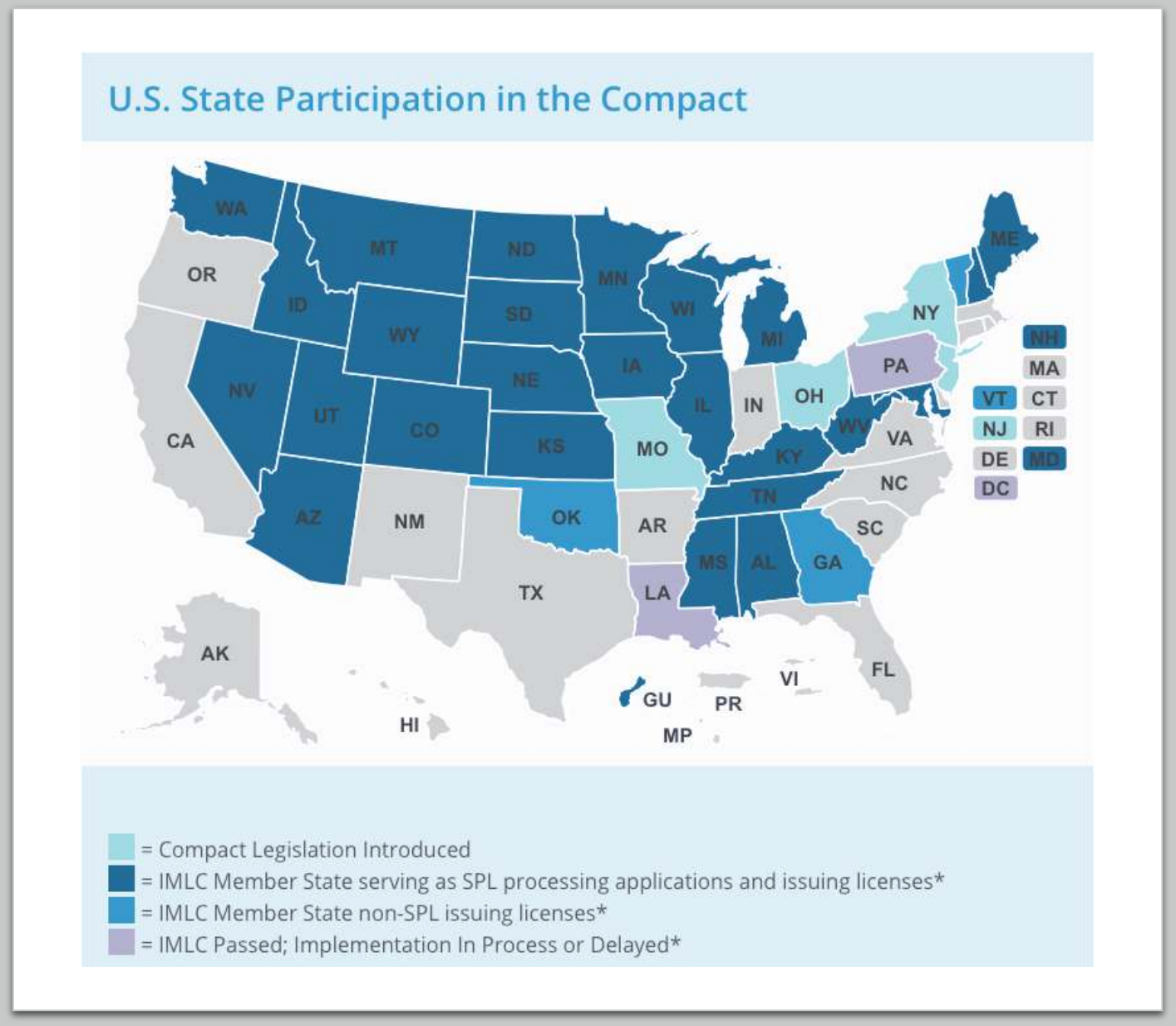
STATE ACTIONS

Center for Connected Health Policy

IS A NONPROFIT, NONPARTISAN ORGANIZATION WORKING TO MAXIMIZE TELEHEALTH'S ABILITY TO IMPROVE HEALTH OUTCOMES, CARE DELIVERY, AND COST EFFECTIVENESS.

Medical Licensure

- Telehealth providers must undergo credentialling and privileging process.
- Provider must hold license issued or is recognized by the state in which the originating site hospital is located.
- **Interstate medical licensure compacts** : This helps to create an expedited medical licensure.



- Data security is a concern as generation and transmission of remote data increases.
- Telemedicine lacks a comprehensive national policy governing security , privacy and confidentiality.
- No standardized practice regarding Liability insurance for telehealth.
- Most liability carriers lean on physician's state of licensure rather than pts location.

University of Cincinnati / UC Health Experience

Initiation of Telehealth

- **Getting Started…**
  - Contact Patient
  - Setup MyChart
  - Schedule Appointment
  - Patient Consents
  - Providers Evaluation

Initiation of Telehealth

Contact Patient

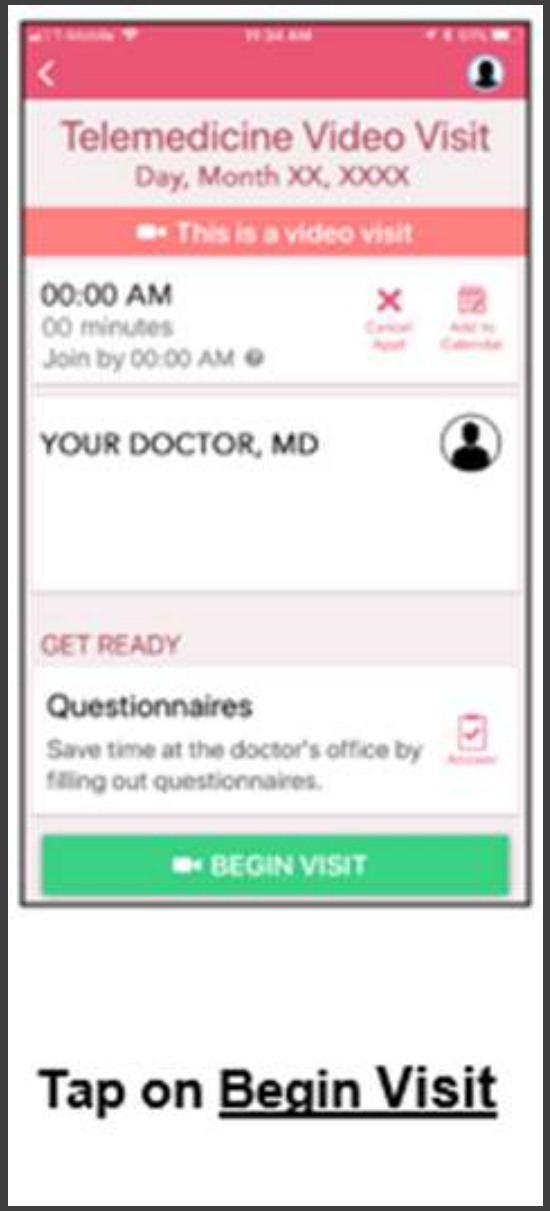
Explain the situation

- By April 2020, not much explanation was needed
- COVID-19 lockdowns were in full swing
  - No in-person clinics
  - Nationwide PPE shortage
  - No evaluation testing
  - No elective surgeries
  - Work from home

- Patients were beyond motivated to make anything work
- Patients wanted to make sure their evaluations continued
- Patient were thankful Telehealth was in place

Initiation of Telehealth

- **Scheduling Appointment**
- Providers Schedule
- New EPIC visits codes
- Telephone vs. Video Appointment
- Patient Commitment
- MyChart Appointment “how to”



Initiation of Telehealth

Setup MyChart

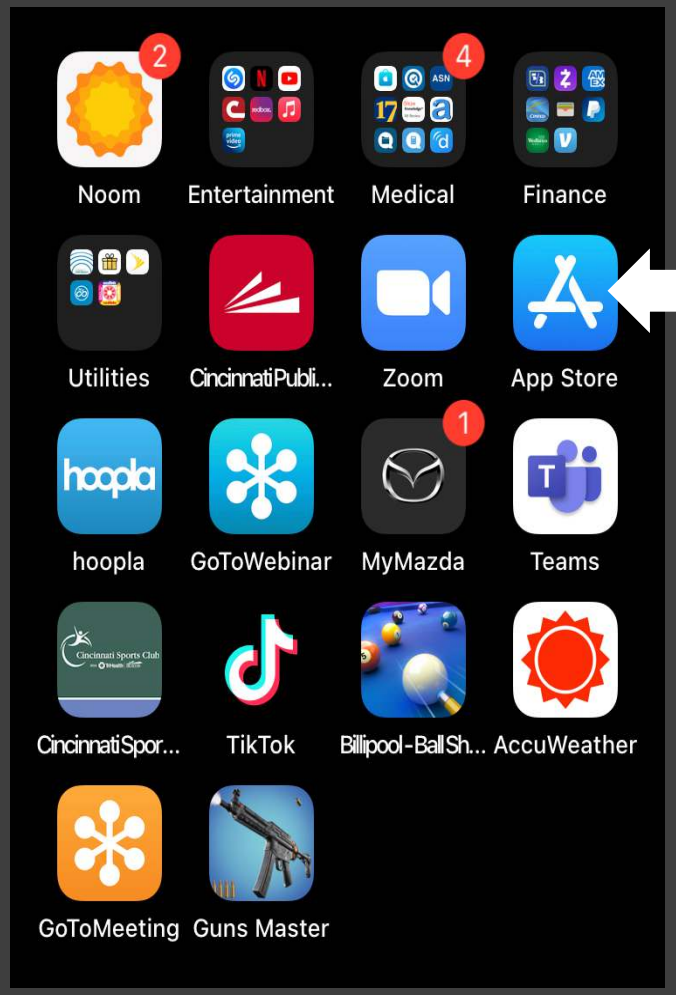
- Trial and Error
- Education – Both Staff and Patient
- Use of Correct Terminology

Technology Availability

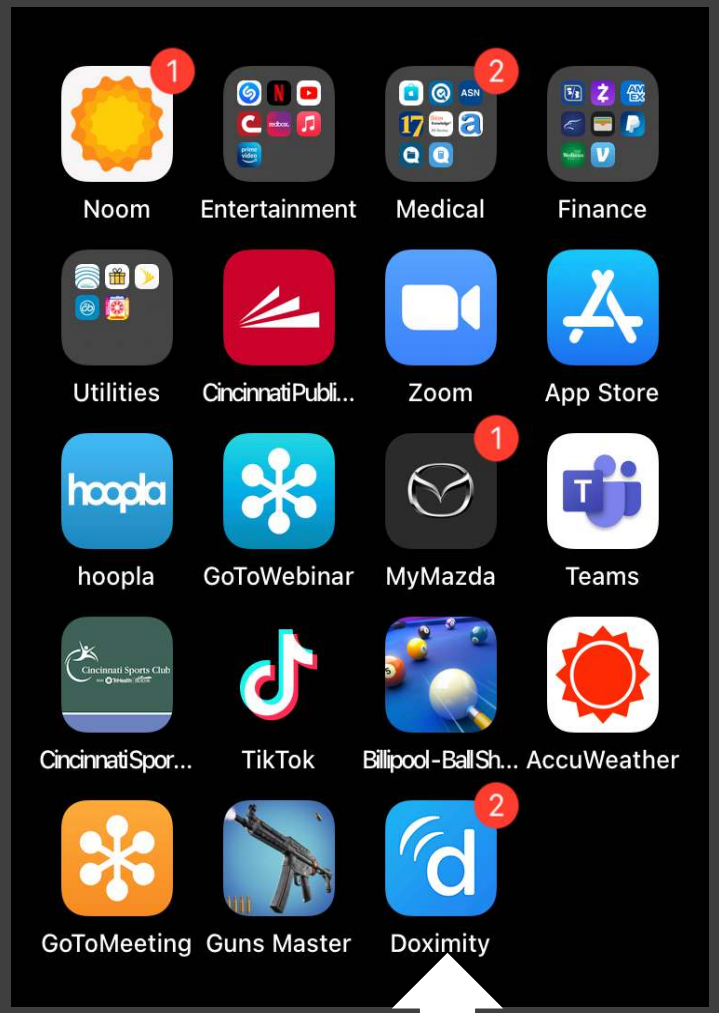
- Cellular Service
- Smart phone: Apple or Android
- Tablet
- Internet Service

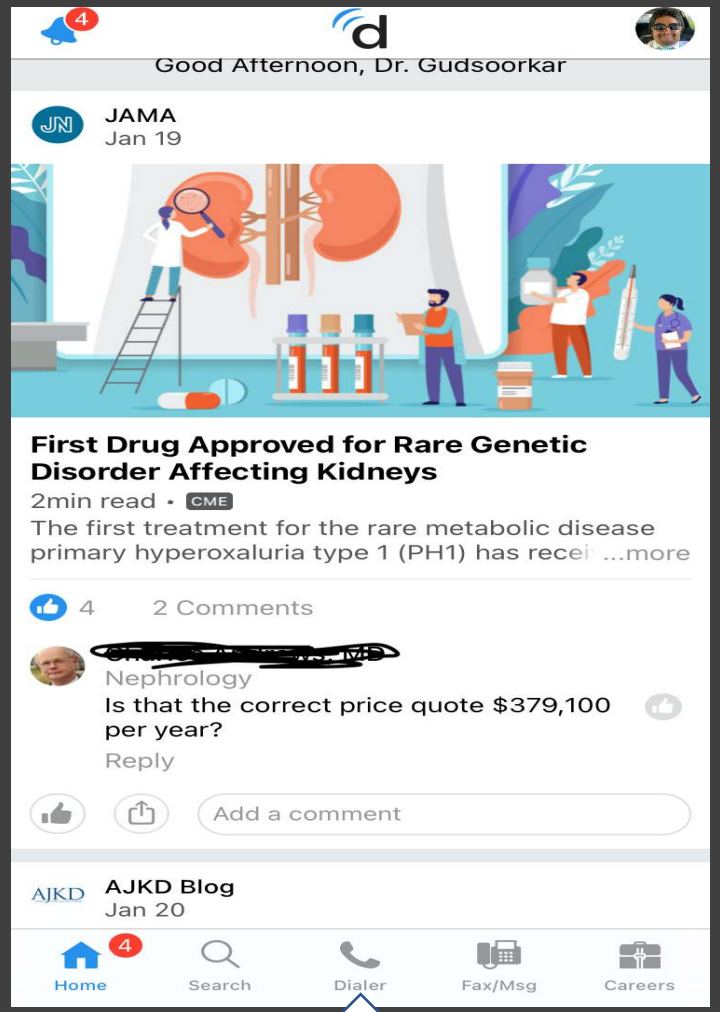
Step By Step Instructions

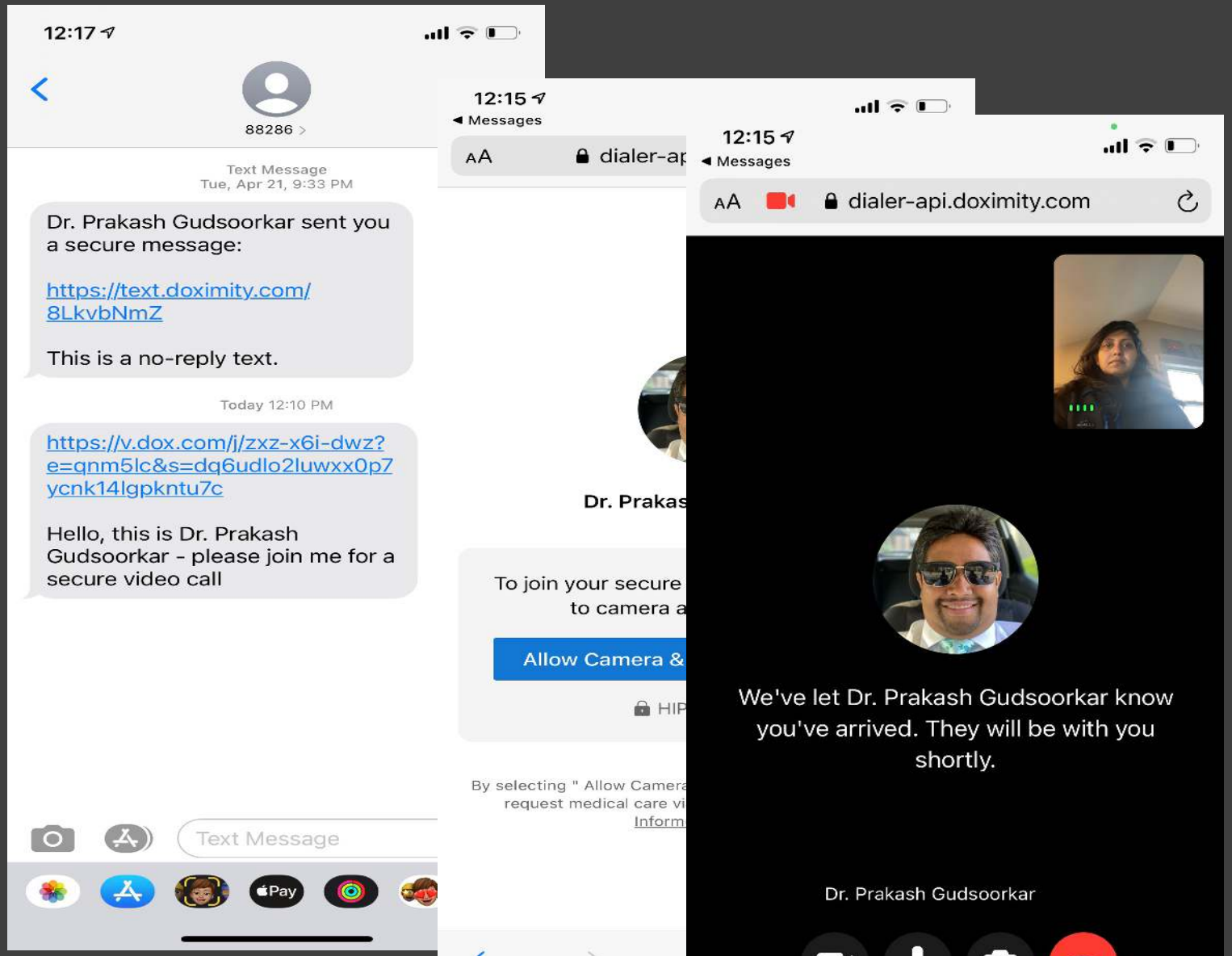
- Over the phone
- Brochure



Initiation of Telehealth






12:17
88286
Text Message
Tue, Apr 21, 9:33 PM
Dr. Prakash Gudsoorkar sent you a secure message:
https://text.doximity.com/8LkvbNmZ
This is a no-reply text.
Today 12:10 PM
https://v.dox.com/j/zxz-x6i-dwz?e=qnm5lc&s=dq6udlo2luwxx0p7ycnk14lgpkntu7c
Hello, this is Dr. Prakash Gudsoorkar - please join me for a secure video call
Text Message
12:15
Messages
AA
dialer-ap
Dr. Prakas
To join your secure
to camera a
Allow Camera &
HIP
By selecting " Allow Camera
request medical care vi
Inform
12:15
Messages
AA
dialer-api.doximity.com
We've let Dr. Prakash Gudsoorkar know you've arrived. They will be with you shortly.
Dr. Prakash Gudsoorkar

Initiation of Telehealth

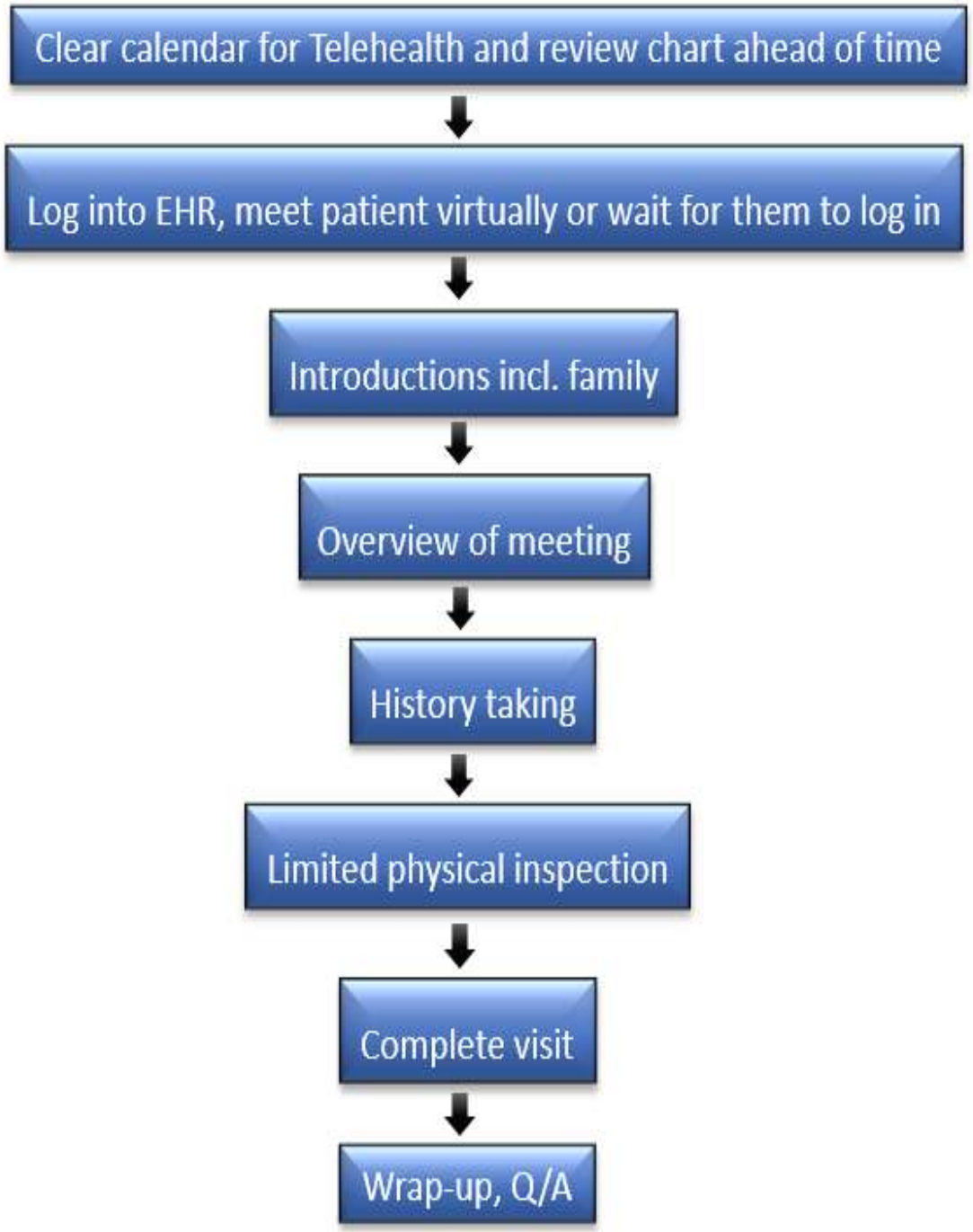
Patient Consents

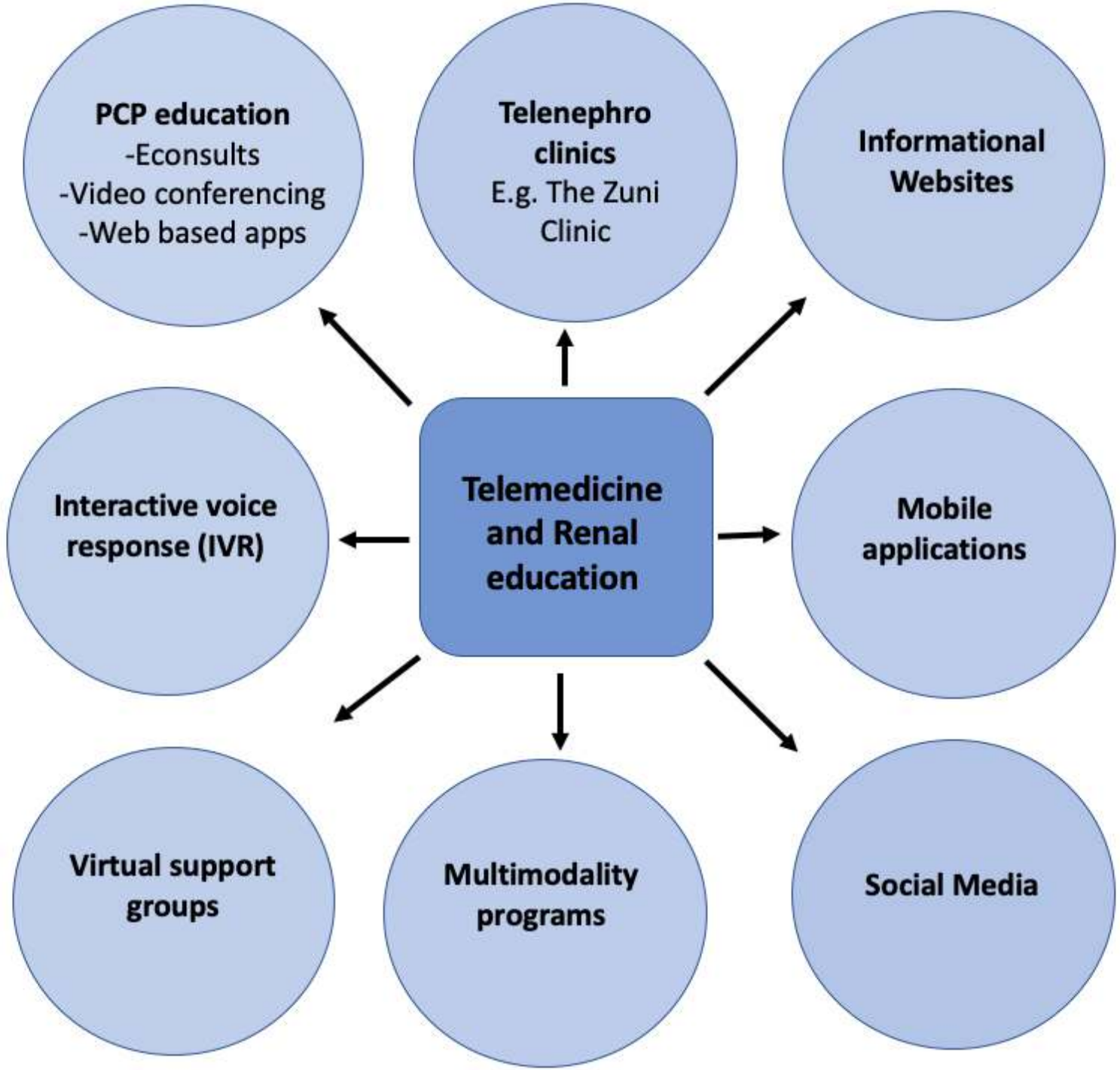
Engage the Patient

- Make it Interesting!
- RN consents verbally : Due to Pandemic, consenting RN did not need a 2nd RN verification/signature.
- Charting Verbiage

Patient is agreeable to a telehealth visit and understands there are limitations and differences of using telehealth instead of an in-person visit. Patient has watched our pre transplant education and understands the process. Patient has verbally consented over the phone to be evaluated for a Kidney transplant. We have verbally gone through our informed consents for evaluation.

Process during the visit





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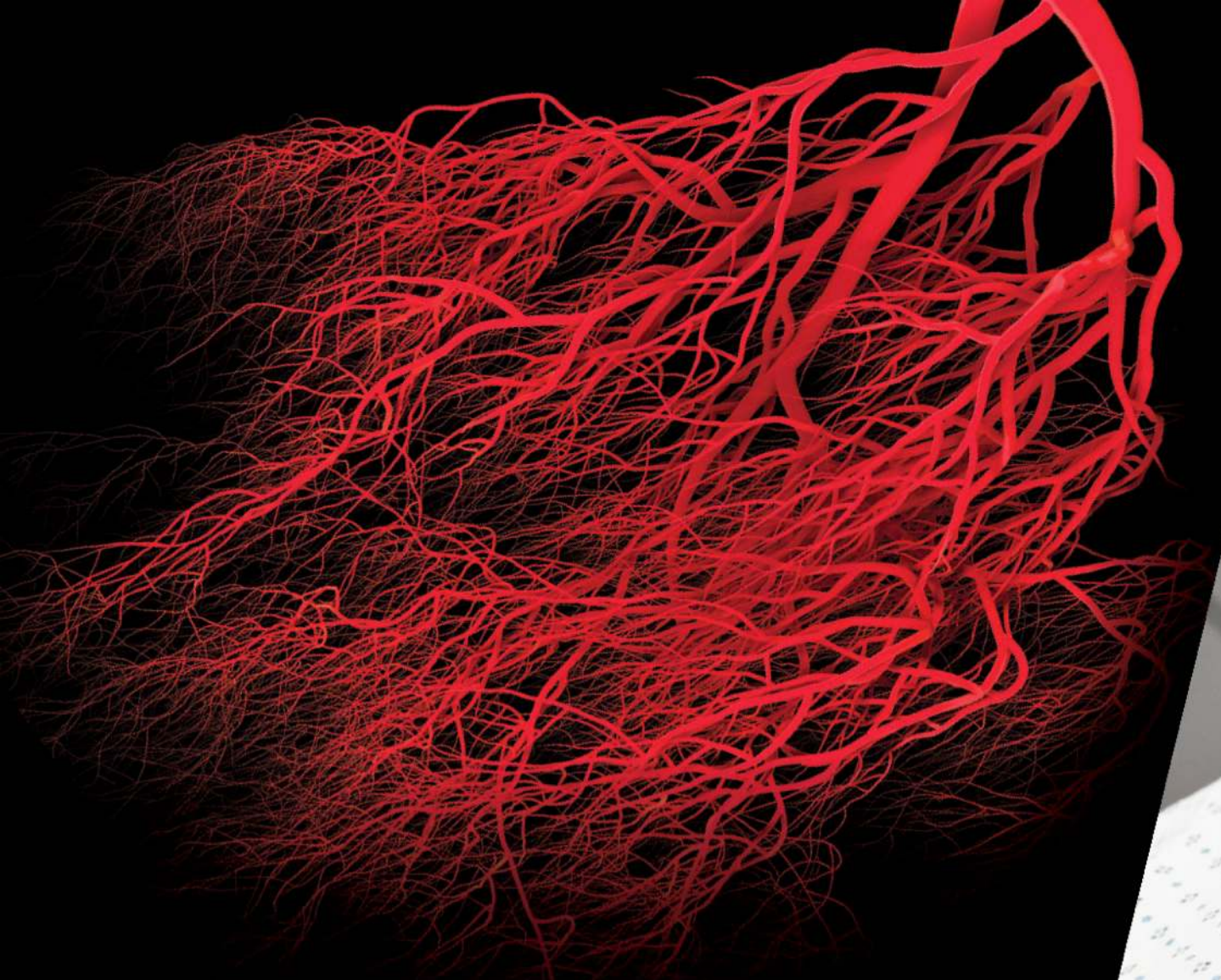

Telehealth experience at UC Health

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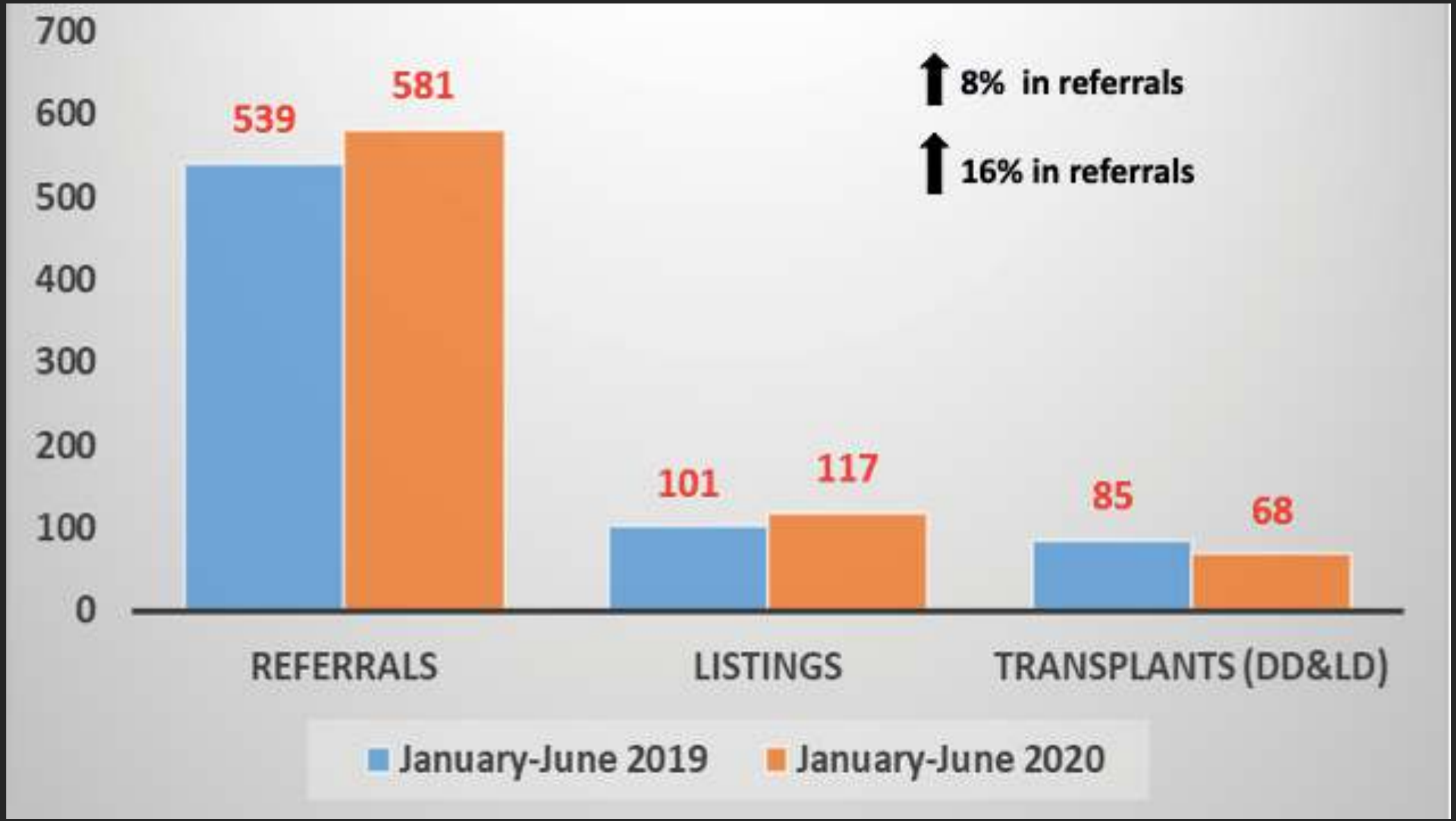
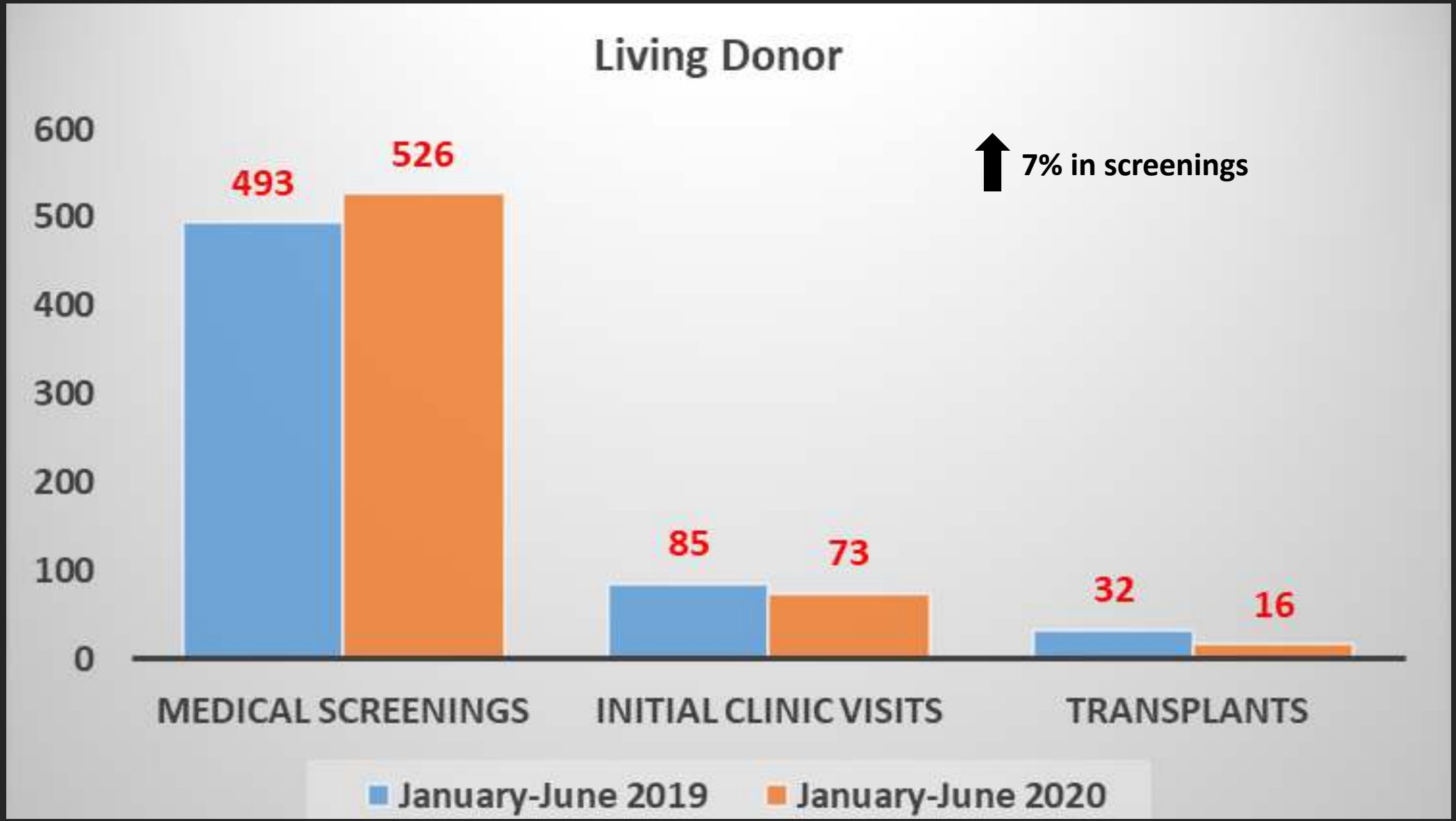
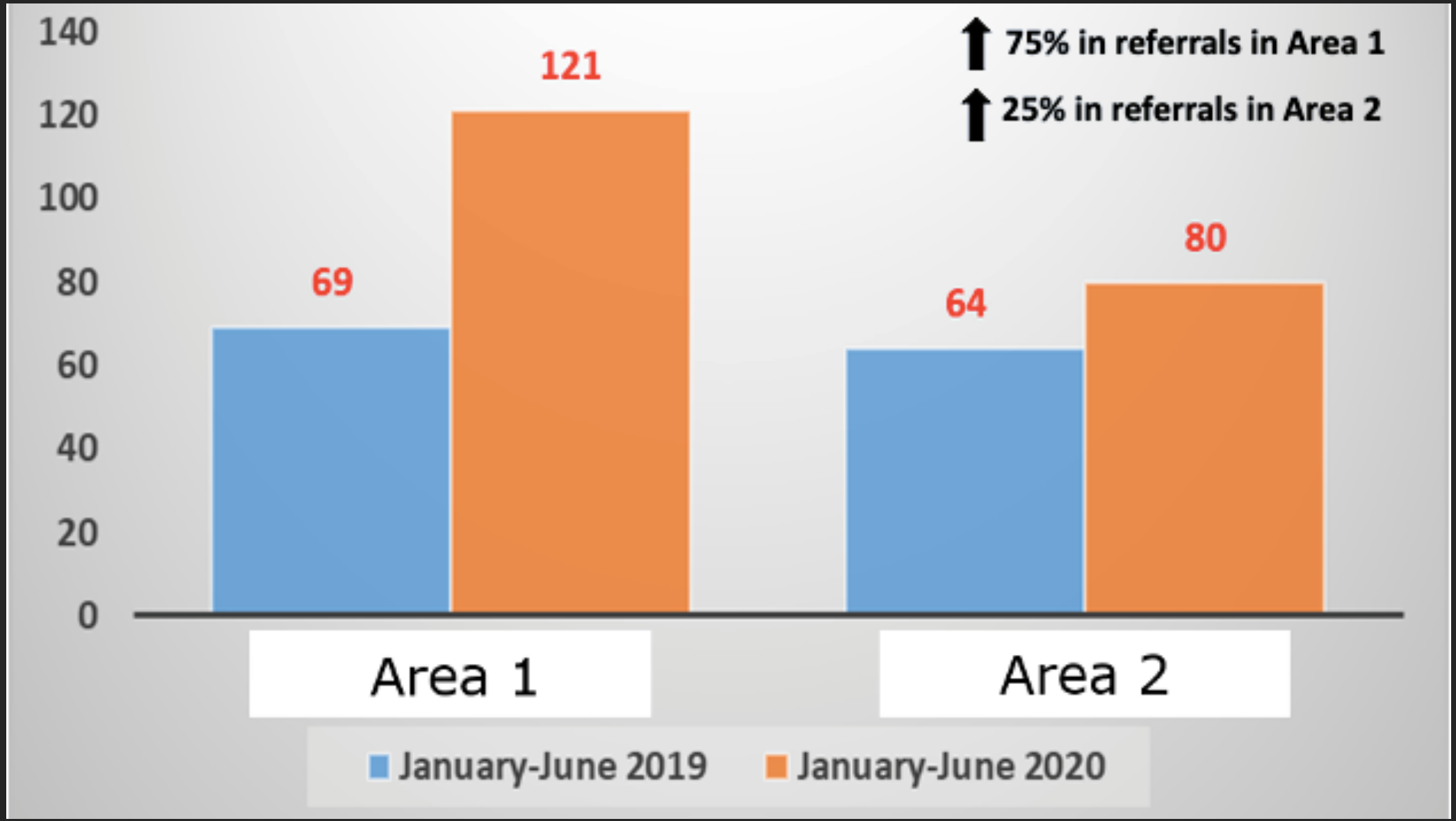



Living Donor
600
500
400
300
200
100
0
493
526
85
73
32
16
7% in screenings
MEDICAL SCREENINGS
INITIAL CLINIC VISITS
TRANSPLANTS
January-June 2019
January-June 2020



Pandemic Telehealth end date

- **Aetna** - 12/31/2020
- **Anthem** - 9/30/2020
- **Medical Mutual** - End of COVID-19 Health Emergency
- **Humana** - End of COVID-19 Health Emergency
- **United Health Care** - 9/30/2020
- **Cigna** - 9/30/2020
- **Medicare** - End of COVID-19 Health Emergency
- **VA** - End of COVID-19 Health Emergency
- **CareSource** - End of COVID-19 Health Emergency
- **OH Medicaid** - End of COVID-19 Health Emergency
- **Molina (Medicaid only)** - End of COVID-19 Health Emergency

STATE TELEHEALTH LAWS

& REIMBURSEMENT POLICIES

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Telemedicine Reimbursement

- Currently, no set standard for private health insurance providers regarding telemedicine.
- Some insurance companies recognize the value of telemedicine and pay for it, whereas others aren't quite there yet.
- For insurance companies which lack telemedicine reimbursement policies, prior approval is often needing before telemedicine will be reimbursed.
- some states have parity laws that require insurance companies to reimburse at the same rate as in-person care for services provided.

AT A GLANCE | Fall 2020

50
States and the District of Columbia (D.C.)
have a definition for telehealth, telemedicine or both.

50 States and (D.C.)
Medicaid programs reimburse for live video

21
Medicaid programs
reimburse for RPM

27
States and (D.C.)
reimburse service to the home

26
States and (D.C.)
reimburse services in the school-based setting

18 Medicaid programs
reimburse for S&F

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Barriers for Telehealth

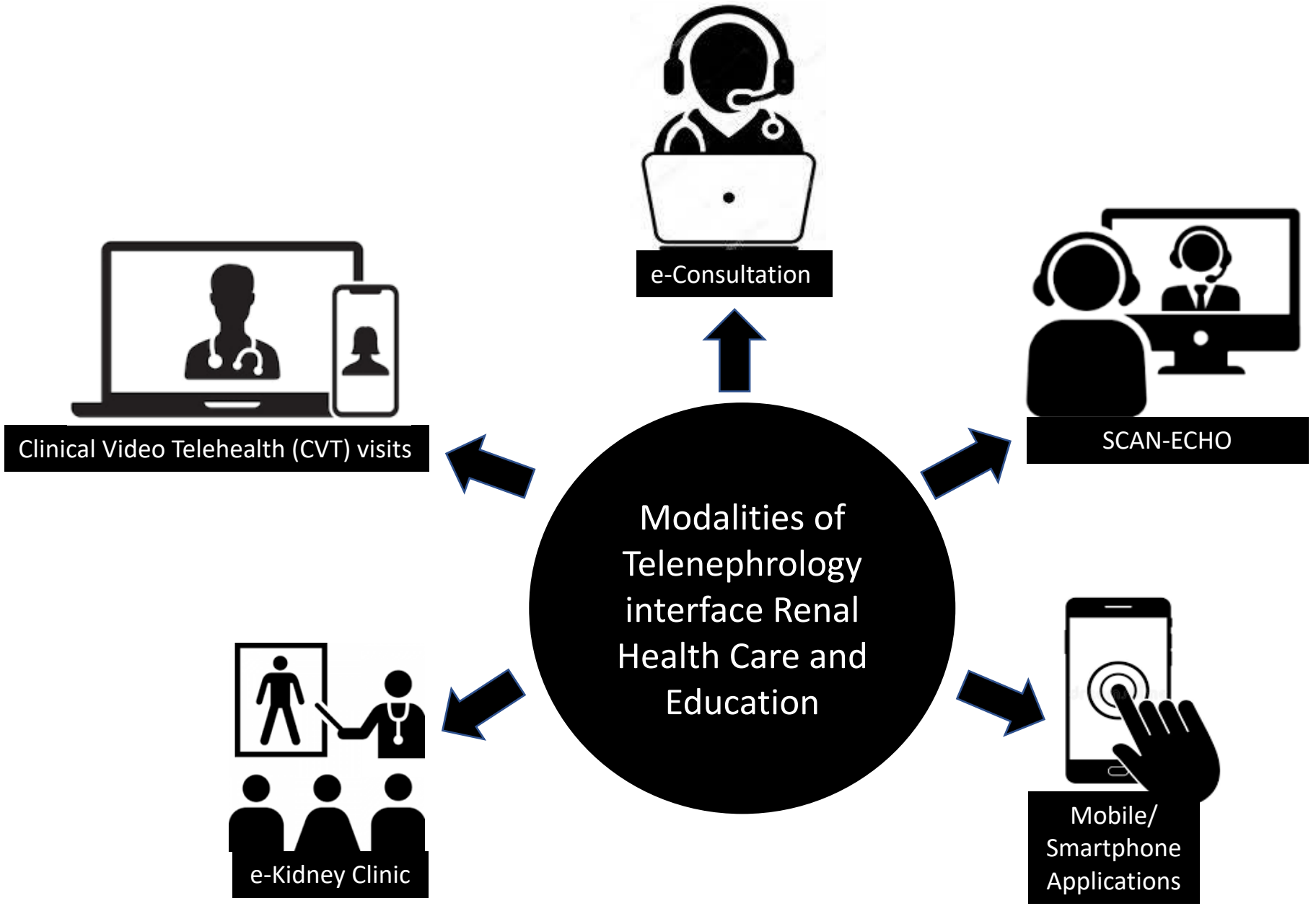
Patient Barriers

- Technology Savviness
- Access to Technology
- Staff ability to educate
- Learning abilities
  - Hands on
  - Visual
- **System Issues**
- **Technical Support**
- **Asking for Help**

Barriers for Telehealth

Healthcare System & Provider Barriers

- Steep learning curve for both parties
- Re-imbursements/cost-barriers like facility fee, etc.
- State licensure issues across state lines
- Time consuming process
- Missing “personal rapport”
- Lack of physical exam/assessment
- More work for less “credit”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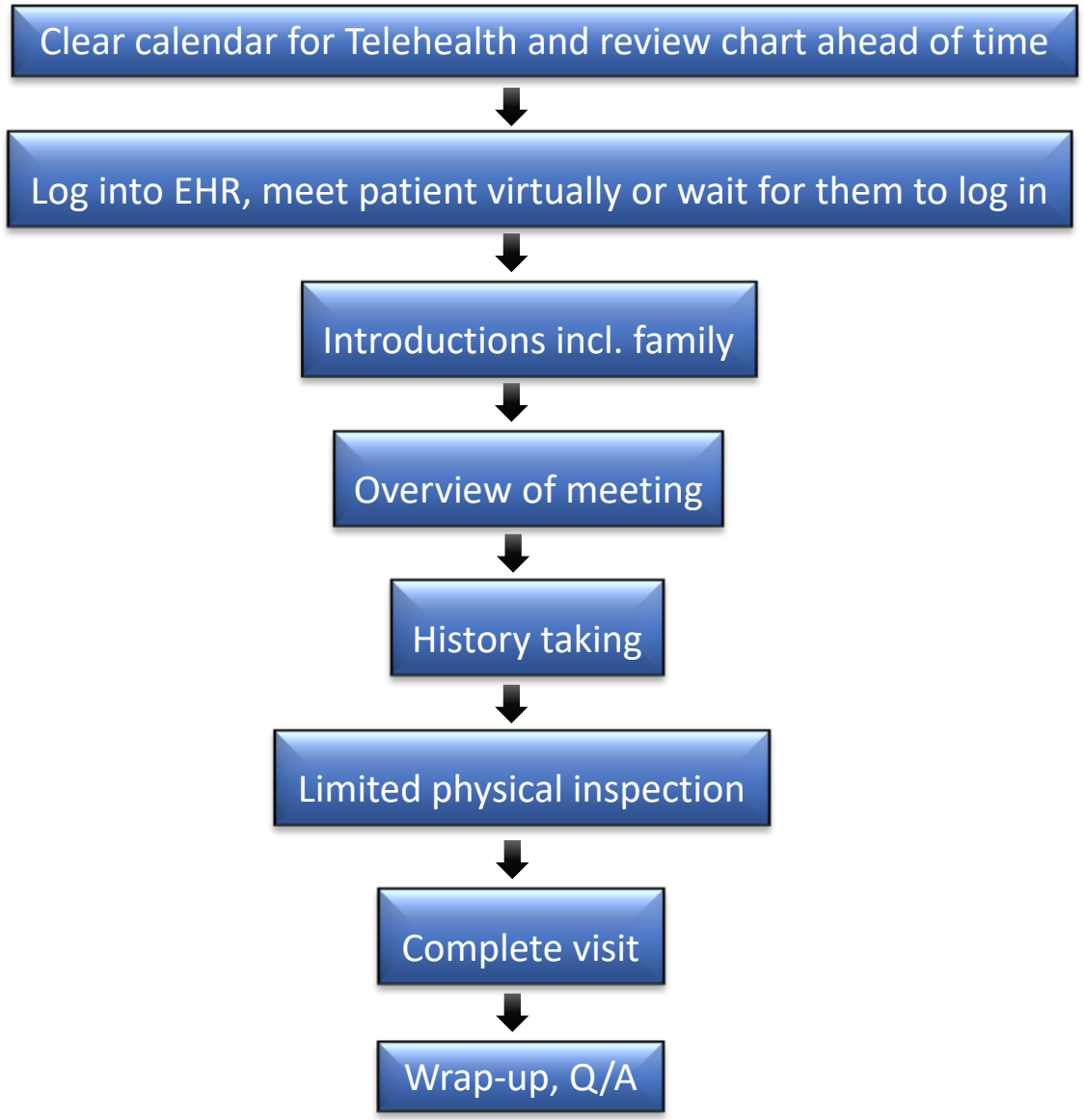
Process during the visit



Annual Dialysis CONFERENCE
presented by the Karl Nolph, MD, Division of Nephrology

Virtual 41st Annual Dialysis Conference

THE EXPLOSIVE GROWTH OF TELEMEDICINE AS AN EFFECT OF THE COVID-19 PANDEMIC: WHAT HAVE WE LEARNED?

Martin Schreiber, MD
Chief Medical Officer – Home Modalities
DaVita Kidney Care

2:00-2:30 PT

Saturday, March 6, 2021

Telemedicine and Covid-19

2:00-4:00 PT / 3:00-5:00 MT / 4:00-6:00 CT / 5:00-7:00 ET

CONFLICT OF INTEREST

Chief Medical Officer – Home Modalities
DaVita Kidney Care

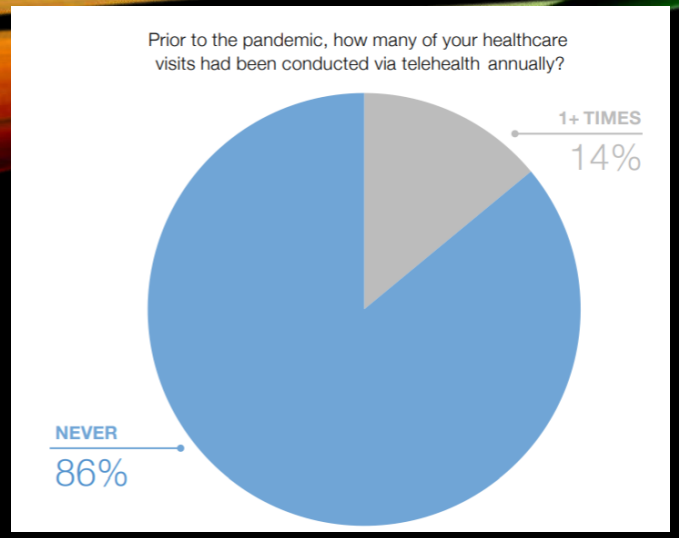
TELEMEDICINE VS. VIRTUAL CARE: DEFINING THE DIFFERENCE

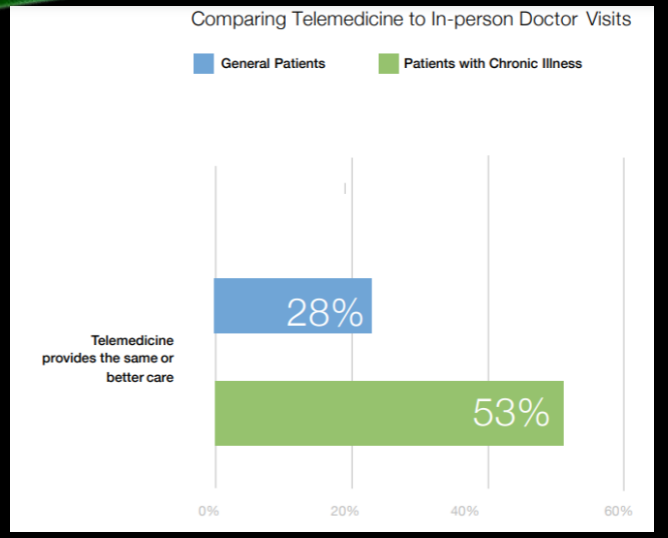
"Terms can be confusing"

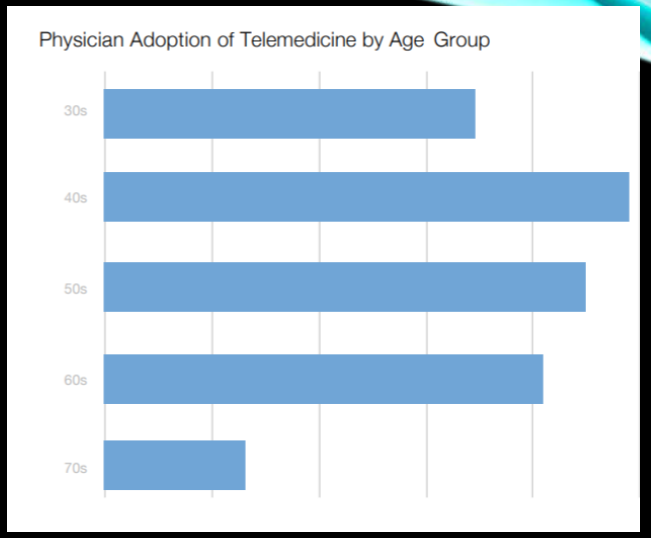
"Virtual care is a broad term that encompasses all the ways healthcare providers remotely interact with their patients."

"The term telemedicine refers specifically to the treatment of various medical conditions without seeing the patient in person"

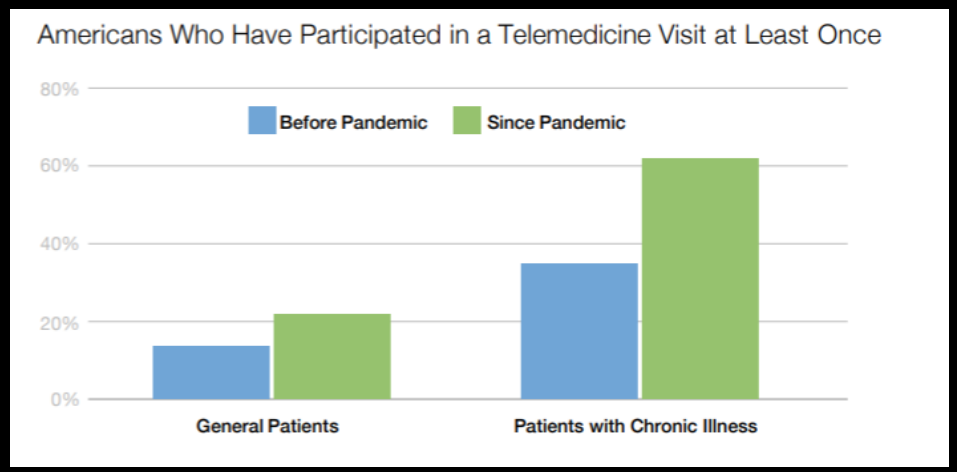
https://intouchhealth.com/finding-the-right-term-for-modern-digital-healthcare/

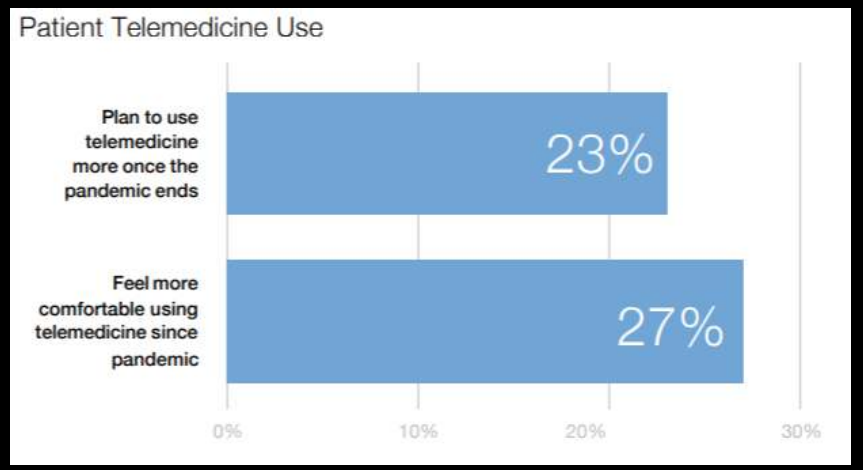


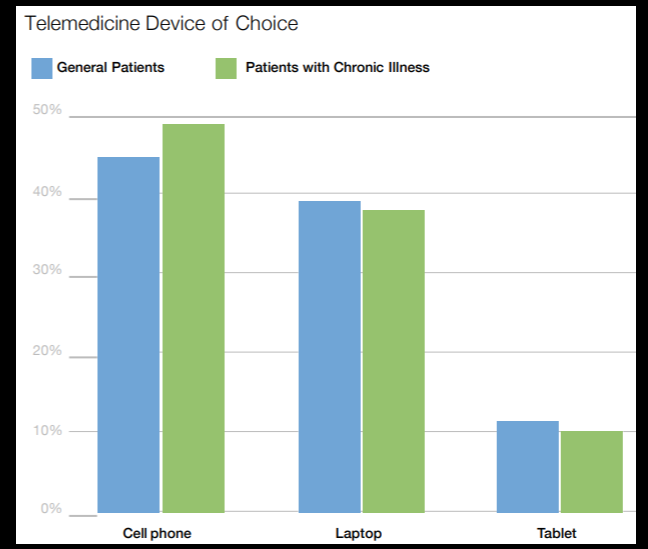




Examining Patient Perspectives and Physician Adoption of Telemedicine Since the COVID-19 Pandemic

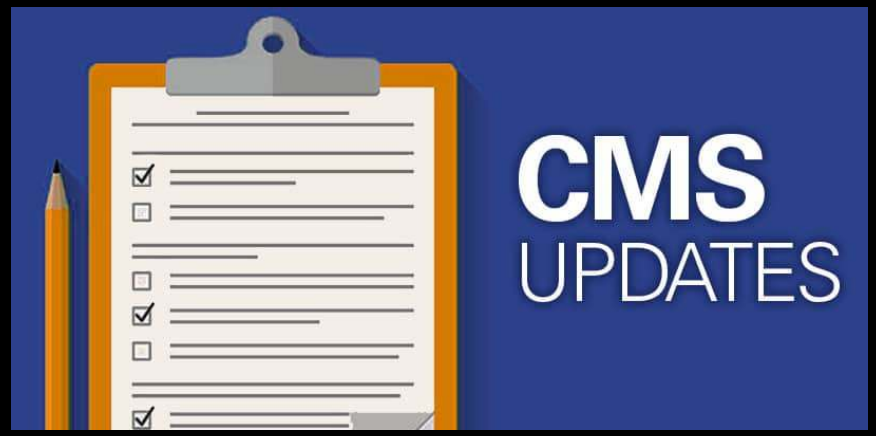






2020 STATE OF TELEMEDICINE REPORT
https://c8y.doxcdn.com/image/upload/v1/Press%20Blog/Research%20Reports/2020-state-telemedicine-report.pdf

FIVE KEY CHANGES MADE BY THE CENTER FOR MEDICARE & MEDICAID SERVICES (CMS) THAT MADE TELEHEALTH OPPORTUNITIES SO ACCESSIBLE DURING THE CURRENT PANDEMIC.



- Medicare will pay physicians the same rate for telehealth services as they do for in-person visits for all diagnoses, not just those related to COVID-19, throughout the national public health emergency.
- Patients can be in their home, or in any other setting, to receive telehealth services.
- Patients do not need to have an existing relationship with the physician who is providing telehealth assistance.
- Physicians are allowed to waive or reduce cost-sharing for telehealth visits.
- Physicians who are licensed in one state are allowed to see a patient in a different state.

Marc Zarefsky: AMA Affiliated Groupshttps://www.googleadservices.com

DETERMINE A SERVICE MODEL THAT WORKS BEST FOR YOU AND YOUR PRACTICE

- Direct care for your existing patients with face-to-face videoconferencing.
- Acting as a connector with other physicians who offer store-and-forward consultation applications, meaning that medical data or images are captured and then forwarded to a separate specialist who at a later time reviews it and provides feedback.
- Leveraging remote monitoring tools to help manage chronic illnesses
- Participating as a consultant to physicians or other practitioners

OPERATIONALIZING TELEHEALTH FOR HOME DIALYSIS PATIENTS IN THE U.S.

Box 2. Benefits and Risks of Telehealth

Patient

Benefits

- Decrease transportation cost to the dialysis unit
- Decrease transportation time to the dialysis unit
- Health care staff reviews biometric remote monitoring data daily
- Better access to health care providers

Risks

- Unable to obtain reliable internet services and telehealth equipment
- Cost of telehealth equipment, ie, computer, internet service
- Cost of examination equipment, ie, digital stethoscope
- Loss of "laying of hands" by the physician
- Loss of personal interaction with the entire team (physician, nurse, social worker, and dietitian)
- Concerns with data breach

Clinician

Benefits

- Provide care to more patients
- Better oversight of patient care with real-time data
- Decrease travel to the dialysis unit
- Better time management
- Able to bill Medicare for telehealth encounters

Risks

- Change in workflow

Dialysis Facility

Benefits

- Able to offer home dialysis to more patients, especially those who live far from the dialysis unit
- Better oversight of patient care by using remote monitoring

Risks

- Changes in staff workflow
- Unable to collect the facility fee

Lew SQ, Sikka N. Operationalizing Telehealth for Home Dialysis Patients in the United States. Am J Kidney Dis. 2019 Jul;74(1):95-100

TELEHEALTH: POTENTIAL USE CASES

- Avoid unnecessary patient visits to home program per medical director
- Increase nurse, social worker and dietitian video visits w/patient
- Remote physician interaction with a patient in the home or at monthly lab draws when in unit
- Post training assessment
- Video assessment of vascular access and PD CES
- Interdisciplinary Team (IDT) rounds
- Training on Home days (cohort positive unit, patient negative)
- WebEx for CKD education

VISIT TYPES TO CONSIDER FOR HOME DIALYSIS PATIENTS

- New Patient Training
- Lab Draws
- Home patient urgent need such as infection, catheter complication, etc.
- Initial Home Visit
- Medication Administration
- Routine Patient Maintenance
- After-hours Support

PRACTICAL CONSIDERATIONS IN CONDUCTING A TELEHEALTH VISIT DURING THE COVID PANDEMIC

- Is the patient stable?
- Is the viral exposure risk high?
- Would you rate the patient's issue as high complexity?
- Does the problem warrant a physician: F-F/exam/testing?
- Is telehealth the best option for the individual patient in his/her geography?

Consider what constitutes a visit if seen in the office:

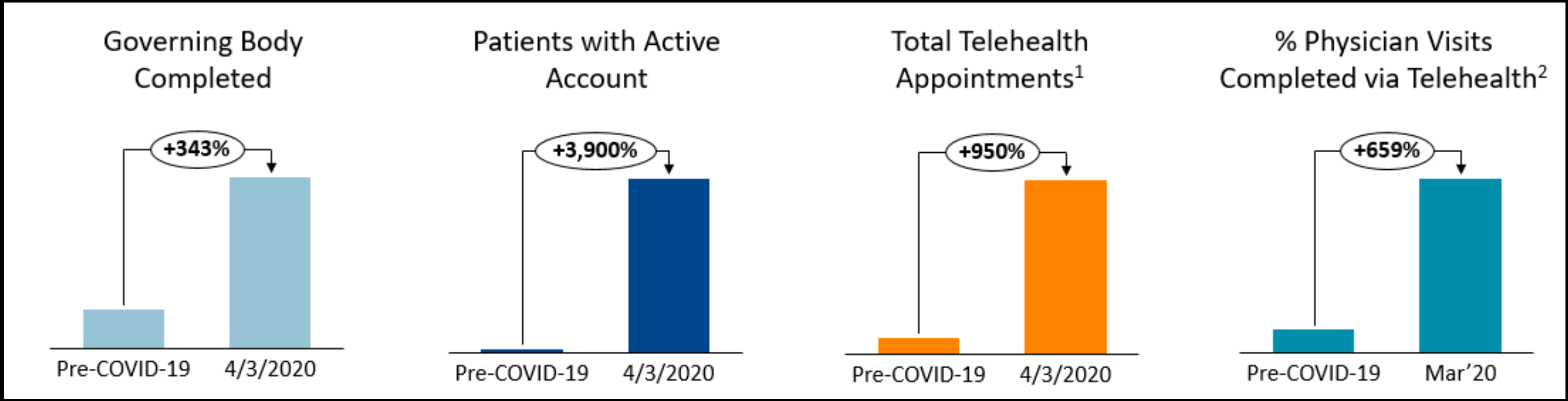
- Can you evaluate the issue confidently remotely?
- Does the patient have a smart phone, internet? If not, telephonic?

DAVITA CARE CONNECT™ FOR HOME MODALITIES

- Multiparty inter-disciplinary, plus family/caregiver video chat (up to 10 parties)
- Secure messaging and photo sharing
- Scheduling and appointment reminders
- Educational resources

DaVita has a telehealth platform for home dialysis patients that is HIPAA compliant, has multiple patient engagement features, and is scalable after the COVID-19 response

COVID-19 ACCELERATE VIRTUAL CARE*



*DaVita Home Telehealth Growth

1. Includes visits with the patient, care team and/or physician 2. % of total Falcon Silver monthly TH encounters

DIALYSIS ORGANIZATION TELEHEALTH SUMMARY

	DaVita	FMC	Satellite	US Renal	DCI	NKC
Platform	DCC ™/ WebEx	Microsoft Teams	Doxy.me	Google Duo	Zoom	WebEx
Functionality	Multi-way video visits, secure messaging, scheduling, educational resources	Multi-way video visit, patient scheduling,	Multi-way video visits, document sharing, reminders	Multi-way video visits	Multi-way video visits, scheduling, separate system for document sharing	Multi-way video visits
Population	PD/HHD/ICHD	PD/HHD/ICHD	HHD/PD ICHD Pending	PD/HHD/ICHD	PD/HHD	PD/HHD
Consent Required	Yes	Yes	Yes	Yes	Yes	Yes

Table 1. The "No Touch" Physical Examination

Parameter	Possible Findings
General	Well vs ill appearing In (no) acute distress
Eyes	(Non)-icteric sclera (No) droopy eyelids
Mouth	Dentation/oral cavity appears (ab)normal (No) thrush present Tongue (not) coated
Cardiac	Heart rate (ir)regular (based on patient counting the pulse out loud) Normo- vs hyper- vs hypotension (based on patient measurement of blood pressure) Tachycardia vs bradycardia vs normal pulse rate (based on patient measurement)
Pulmonary	Work of breathing with(out) effort (Not) speaking in full sentences (No) audible wheezing
Gastrointestinal	(No) tenderness when the patient presses on the abdomen
Genital-urologic	(No) suprapubic tenderness when the patient presses in the area superior to the pubis
Musculoskeletal	(No) pedal edema (No) muscle tenderness when the patient squeezes the muscle in question (No) joint swelling (No) hand twitching (No) decreased ability to turn door knob
Neurologic	(Not) alert and oriented (Ab)normal gait (No) localized/focal weakness (No) tremor (No) asterixis Test functional status (functional status, gross vs fine examination)
Psychological	Normal vs anxious mood; normal vs flat affect Good vs poor memory (Not) anxious
Hematologic	(No) excessive bruising or bleeding
PD specific	Exit site with(out) crust, drainage, or erythema
HD specific	AV fistula or AV graft with(out) bruit and thrill (based on patient's assessment) (No) aneurysmal protrusion (No) purulent discharge Tunneled CVC exit site with(out) drainage or erythema

Note: Only items that can be and are actually visualized should be documented. Some findings require the patient to elicit by tapping, squeezing, or pressing.
Abbreviations: AV, arteriovenous; CVC, central venous catheter; HD, hemodialysis; PD, peritoneal dialysis.

Lew SQ, Wallace EL, Srivatana V, Warady BA, Watnick S, Hood J, White DL, Aggarwal V, Wilkie C, Naljayan MV, Gellens M, Perl J, Schreiber MJ. Telehealth for Home Dialysis in COVID-19 and Beyond: A Perspective From the American Society of Nephrology COVID-19 Home Dialysis Subcommittee. Am J Kidney Dis. 2021 Jan;77(1):142-148

WHEN A VISIT TO THE CLINIC IS ABSOLUTELY NEEDED*:

- Visits during specific timeframe when in-center is dialyzing COVID+ or PUI patients….
- Potential suggestions for **Urgent TTS visits** (co-joined unit)
  - ✓ Have patient travel temporarily to another home program (<90 mins one way)
  - ✓ Meet patient at local non-COVID/non-PUI in-center facility that has an open exam room
  - ✓ Consider using waiver: Special Purpose Renal Dialysis Facilities (SDRDF)
  - ✓ Consider home visit with full PPE
  - ✓ Consider working with another local service provider

** Possible examples: Active peritonitis (post-op bridge therapy), catheter dysfunction/poor drain/hole ,painful draining CES infection, SOB with increase wt. and decrease UF etc.*

Box 1. High-Risk Factors That Might Trigger an In-person Visit Instead of a Telemedicine Visit

Recent events
- PD- or HHD-related infection within the last 1 mo
- Hospitalization or emergency department visit within the last 1 mo
- New home dialysis start within the last 1 mo

Patient factors
- Inability to administer ESA at home
- Does not have appropriate technology for telemedicine visit
- New symptoms or medical issues needing attention, eg, abdominal pain
- Access-related issues

Previsit nurse, social worker, dietitian or nephrologist assessment
- Concerns regarding adherence to the appropriate technique or prescribed prescription (ie, identified on remote patient monitoring)
- Uncontrolled moderate-severe hypertension or significant hypotension
- Patient-reported fluid imbalance not responding to prescription change or diuretics
- Patient-reported new/worsening symptoms
- Patient reports social isolation, severe depression, or anxiety

Abbreviations: ESA, erythropoiesis-stimulating agent; HHD, home hemodialysis; PD, peritoneal dialysis.

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STANDARDIZING THE HOME DIALYSIS VIRTUAL VISIT

"ongoing training, evaluations, flexibility and creating a team dedicated to telehealth"

Teammates and physicians

- Team meeting to review patients prior to virtual visit
- Work with physicians to practice system prior to actual patient visit
- Discuss no touch examination
- Decide on specific question or data needed on individual patients
- Decide which patient should be followed up in person

https://www.youtube.com/watch?v=ivabri_BGWU / https://www.youtube.com/watch?v=HZ2wzZ8PX9E / ttps://www.youtube.com/watch?v=qWDlLMg3adg

Box 2. Long-term Needs for Ongoing Telehealth Coverage

- An alternative to monthly laboratory work for stable patients
- Home must remain as the originating and distant sites
- Allow health professional licensure across state lines
- Allow health professionals to bill for services across state lines
- Develop various media formats to educate patients and providers on telehealth
- Formal adoption of telehealth as a preferred practice for stable home dialysis patients
- Dissemination of online tools to promote modality education and training
- Reduction in internet disparities
- Creation of a national health information exchange

Lew SQ, Wallace EL, Srivatana V, Warady BA, Watnick S, Hood J, White DL, Aggarwal V, Wilkie C, Naljayan MV, Gellens M, Perl J, Schreiber MJ. Telehealth for Home Dialysis in COVID-19 and Beyond: A Perspective From the American Society of Nephrology COVID-19 Home Dialysis Subcommittee. Am J Kidney Dis. 2021 Jan;77(1):142-148

CURRENT AND FUTURE LANDSCAPE FOR TELEHEALTH

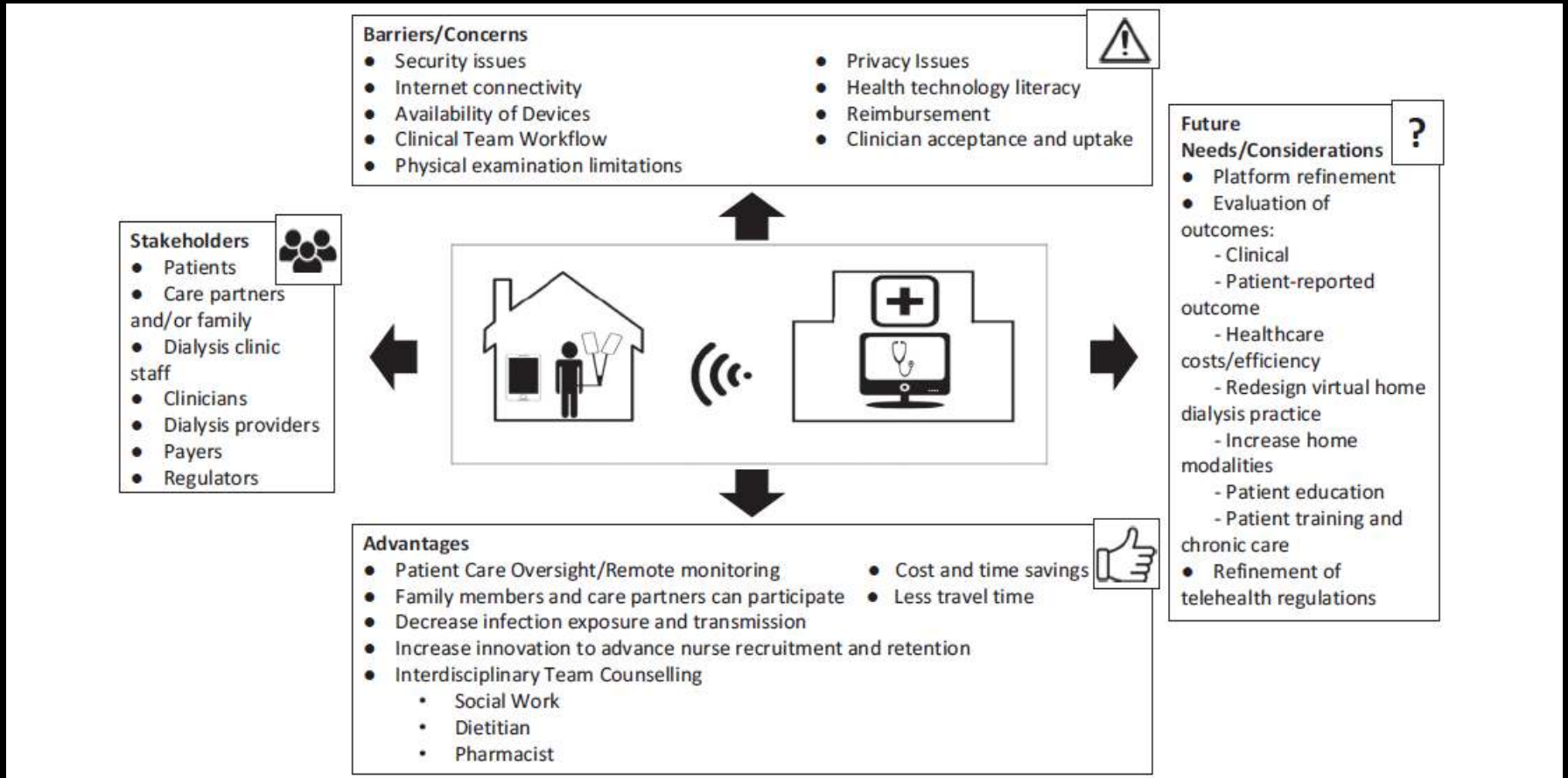

Figure 1. The current and future landscape of home dialysis telehealth, showing the stakeholders, advantages, barriers/concerns, and future needs/considerations of telehealth.

Lew SQ, Wallace EL, Srivatana V, Warady BA, Watnick S, Hood J, White DL, Aggarwal V, Wilkie C, Naljayan MV, Gellens M, Perl J, Schreiber MJ. Telehealth for Home Dialysis in COVID-19 and Beyond: A Perspective From the American Society of Nephrology COVID-19 Home Dialysis Subcommittee. Am J Kidney Dis. 2021 Jan;77(1):142-148

TELEHEALTH CHALLENGES & LESSONS LEARNED

Infrastructure

- System not designed for sudden significant increase in access,
- **Lesson Learned**: comprehensively review of all infrastructure capacity, system alerts, and internal IT communications for system

Support Desk

- Significant uptick in service desk calls in light of DCC™ expansion. Needed to quickly bring in and train additional resources
- **Lesson Learned**: sharpen your service desk job aids and resources and establish frequent touchpoints on incident trends

Enhancements & Reporting

- Platform enhancements took on heightened importance as DCC™ use expanded. Demands for more refined and localized reporting also became a priority
- **Lesson Learned**: daily communication between business and IT partners to document, discuss, and reconsider development-related priorities

MEASURING QUALITY AND IMPACT OF TELEHEALTH SERVICES IN HOME DIALYSIS PATIENTS

Impact of telehealth on quality outcomes

Table 2 Advantages and disadvantages of telehealth by stakeholder

Patient	Dialysis unit (LDO, ESCO)	Practitioner	Payor
Aim: improve quality	Aim: increase revenue	Aim: improve quality and revenue	Aim: decrease cost of care (decrease Medicare Part A expenditure)
Advantages			
• Decrease travel time and cost	• Increase the number of home dialysis patients	• Decrease travel time and cost to the dialysis unit	• Decrease expenditure for ED visits
• Increase supervision of care (education, medical issues, routine)	• Decrease in ED visits and hospitalization rate and length of stay results in more revenue for the dialysis unit	• Capture more monthly visits	• Decrease expenditure for hospitalization
• Decrease ED visits		• Increase quality of life and satisfaction	• Increase the number of home dialysis patients
• Decrease hospitalization rate and length of stay		• Make diagnosis first hand with direct visualization	
• Improve adherence to treatment and health			
• Able to spend more time at work/school or at home with family/friends			
Disadvantages			
• Lose the 'laying of the hands' by the provider	• Unable to collect the facility fee	• Obtain a license in the state in which the patient is located	• Increase Medicare Part B expenditure as more monthly visits will be captured by practitioners
• Possible loss of privacy and security	• Set up telehealth equipment and services	• Obtain credentials and privileges at the originating site; none needed if home is the originating site	
• Obtain monthly labs by another venue	• Provide telehealth equipment and services for patients and providers	• Obtain telehealth equipment and services	
• Self-administer ESA	• Enter lab results into CrownWeb	• Adjust workflow patterns to accommodate patient schedule	
		• Set up appointment for telehealth encounters	

LDO: Large Dialysis Organization, ESCO: ESRD Seamless Care Organization, ED: emergency department, ESA: erythropoiesis stimulating agents.

Lew SQ. Measuring quality and impact of telehealth services in home dialysis patients. Int J Qual Health Care. 2020 May 20;32(3):173-176

MEASURING QUALITY AND IMPACT OF TELEHEALTH SERVICES IN HOME DIALYSIS PATIENTS

Technology meets quality

Measuring telehealth quality • Methodology Article

Table 1 Aspirations of telehealth for home dialysis patients

Increase supervision of home dialysis patients
Decrease PD or HD clinic and emergency department visits
Decrease hospitalization rate
Decrease attrition to in-center HD by keeping patients on PD or home HD and for a longer period of time
Increase patient and practitioner satisfaction and quality of life
Decrease transportation cost and time commuting to the dialysis unit
Increase access to practitioner by patients
Earlier diagnosis of medical conditions
Earlier treatment of medical conditions
Frequent inspection of the medical condition with remote monitoring
Monitor medical condition for progression or resolution
Allows the practitioner to adjust therapy accordingly

Lew SQ. Measuring quality and impact of telehealth services in home dialysis patients. Int J Qual Health Care. 2020 May 20;32(3):173-176

ESRD PROVIDER TELEHEALTH AND TELEMEDICINE TOOL KIT

March 2020

Focus Area	List of Resources
Telehealth Implementation Guide	• Medicare Telemedicine Health Care Provider Fact Sheet: https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet • Telehealth Start-Up and Resource Guide: https://www.healthit.gov/sites/default/files/telehealthguide_final_0.pdf
State Statute Guidance	• Center for Connected Health Policy: State Telehealth Laws and Reimbursement Policies: https://www.cchpca.org/sites/default/files/2019-10/50%20State%20Telehealth%20Laws%20and%20Reibmursement%20Policies%20Report%20Fall%202019%20FINAL.pdf
Basics on Setting up Telehealth	• University of Arizona: Telemedicine Checklist: https://telemedicine.arizona.edu/blog/telemedicine-checklist • Great Plains Telehealth Resources and Assistance Center: Checklist for Initiating Telehealth Services: https://www.telehealthresourcecenter.org/wp-content/uploads/2019/07/checklist190508-gpTRAC.pdf • Mid-Atlantic Telehealth Resource Center: MATRC Remote Patient Monitoring Toolkit: https://www.matrc.org/remote-patient-monitoring-toolkit/ • Telehealth 101: https://www.telehealthresourcecenter.org/wp-content/uploads/2018/09/Telehealth-101.pdf • Washington State Guidebook, includes checklist for implementing a new telehealth system: https://www.dshs.wa.gov/sites/default/files/BHSIA/FMHS/DSHSTelehealthGuidebook.pdf • Telehealth Services-MLN Booklet: https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/TelehealthSrvcsfctsht.pdf • Sample documents (American Association of Pediatrics) https://www.aap.org/en-us/professional-resources/practice-transformation/telehealth/Pages/Sample-Documents.aspx

ESRD PROVIDER TELEHEALTH AND TELEMEDICINE TOOL KIT

March 2020

Telehealth Technical Assistance	• Northeast Telehealth Resource Center: COVID-19 Epidemic Telehealth Toolkit: https://netrc.org/docs/COVID-19-Epidemic-Telehealth-Toolkit-NETRC-March-2020.pdf • Office of the National Coordinator for Information Technology: https://healthit.gov • National Consortium of Telehealth Resource Centers: https://www.telehealthresourcecenter.org/resources/ • National Consortium of Telehealth Resource Centers: https://www.telehealthresourcecenter.org/resource-documents/ • Telehealth Resource Contacts: https://www.telehealthresourcecenter.org/wp-content/uploads/2019/08/08.23.19-2019-Contact-Sheet.pdf

Focus Area	List of Resources
Selecting a Vendor	• National Organization of State Offices of Rural Health: Telehealth Technologies and Preparing to Select a Vendor: https://nosorh.org/wp-content/uploads/2016/11/NOSORH-Telehealth-Vendor-Fact-Sheet-FINAL.pdf • University of Arizona: Directory Service Provider Telemedicine & Telehealth: https://telemedicine.arizona.edu/servicedirectory
Articles	• Perspectives from Kidney Health Initiative (ASN & FDA partnership) related to remote monitoring for self-care*: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5672984/ • Targeting Access to Kidney Care Via Telehealth: The VA Experience*: https://www.ackdjournal.org/article/S1548-5595(16)30133-1/fulltex • Virtually Perfect? Telemedicine for Covid-19: https://www.nejm.org/doi/full/10.1056/NEJMp2003539?af=R&rss=currentIssue&utm_campaign=hsric&utm_medium=email&utm_source=govdelivery
Patient and Community Resources	• Coronavirus (COVID-19): https://www.cdc.gov/coronavirus/2019-ncov/index.html • Emergency and Preparedness resources and tools from the U.S. Department of Health & Human Services, Office of the Assistant Secretary for Preparedness and Response (ASPR) here: https://www.phe.gov/emergency/news/healthactions/section1135/Pages/covid19-13March20.aspx • Ongoing Response and Recovery for COVID-19 https://www.phe.gov/emergency/events/COVID19/Pages/default.aspx

CLOSING COMMENTS

The Explosive Growth of Telemedicine as an Effect of the Covid-19 Pandemic: What Have We Learned ?

Patients are in favor of virtual care, nurses and physicians slower to adapt

CMS made significant efforts to champion VV during COVID

VV provide opportunities to increase connections with patients

Multiple different platforms are available for virtual care

Utilize VV to identify patients warranting F2F visits

Monitoring the quality impact of VV is critical moving forward