



Children's National[™]

Health NetworkSM

Part of the Children's National Health System

THE BUSINESS OF PEDIATRICS: NETWORKING FOR SUCCESS

20th CNHN Pediatric Practice Management Seminar
Wednesday, December 6, 2017



Children's National[™]

Health NetworkSM

Part of the Children's National Health System

20 YEARS: The Business of Pediatrics 2017

CNHN Business of Pediatrics 2017: Getting Ready for Telemedicine...



- Part 1: Mark Weissman, MD
- Part 2: Eduardo Fox, MD
- Melissa Rojas

Let's start with a business case study...



1900: Kodak introduces Brownie Camera

- Puts photography in hands of every citizen/consumer
 - \$1 camera (film \$0.15/roll)
- Introduced budget 8mm home movie camera & projectors in 1950's
- Instamatic (1957) – sold millions through 1960's
- Kodak's success in consumer photography market- by the late 1970s- 85% of camera sales and 90% of film sales in the United States.



Who knows what this is?

- Extra credit: Who invented it?



1st digital camera (1975)- by Kodak

- “Film-less” camera
 - Size of toaster: 8 lbs
 - Took 23 seconds to load image into special cassette and then another 23 seconds to load & display low quality B&W image on TV
- Kodak late to market with digital cameras, image sharing & non-competitive products



2012: Kodak is gone...

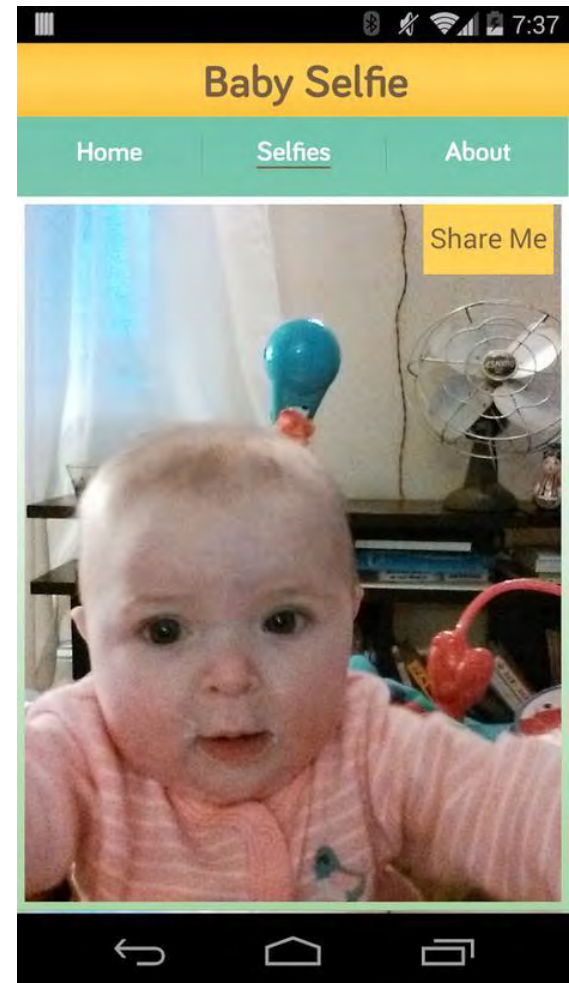
- Business case study in failure to adapt to changing technology, market, competition & customers
- Couldn't foresee how technology would enable consumers to capture, view, & share images (mobile phones- no camera, film)
- Reluctance to cannibalize its film/camera business model
- Unable to respond to fast moving market & competitors



Children's National

Health Network™
Part of the Children's National Health System

Tomorrow's customers



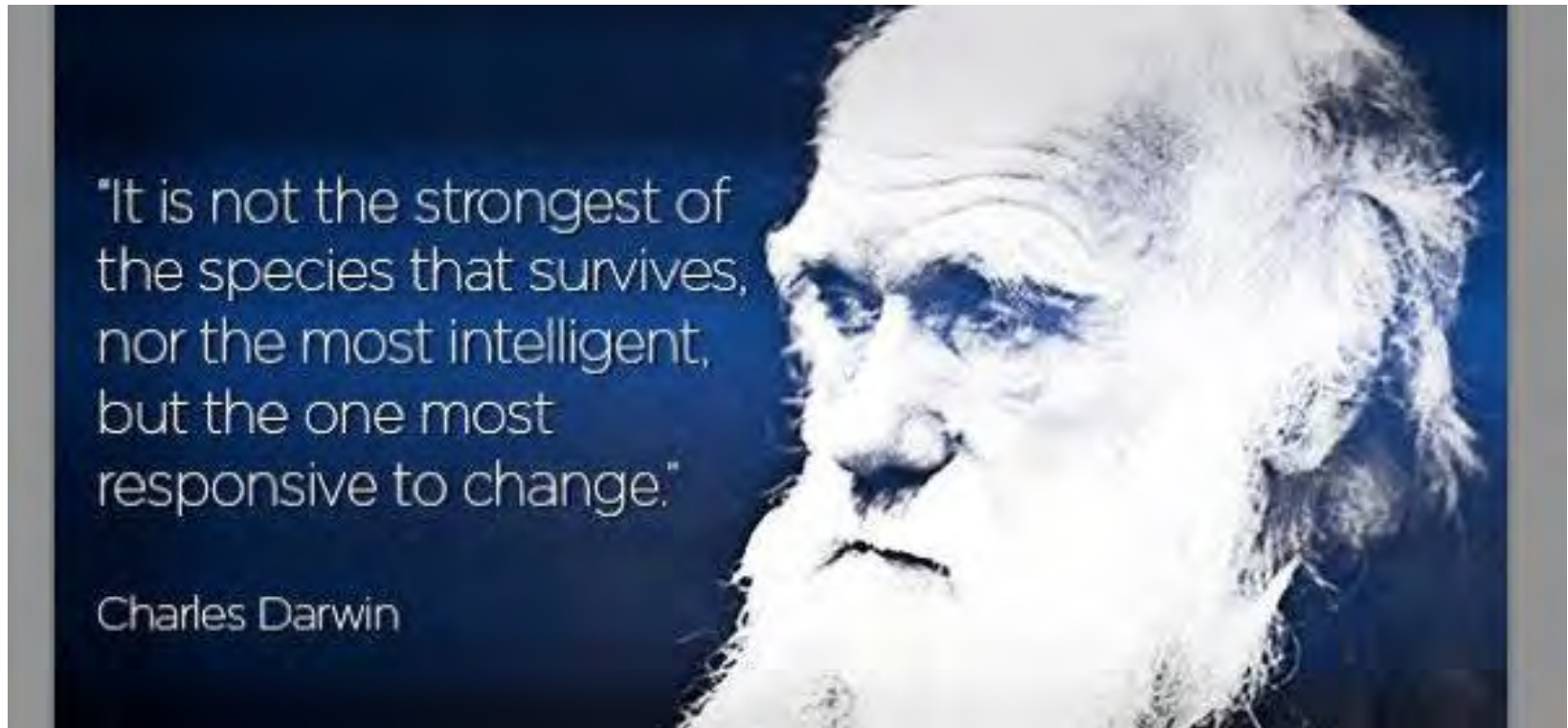
Is this a Kodak moment for pediatrics?



Have I got your attention?



Those who adapt, survive...



Medical Home Alert



Disruptive vs “big bang innovation”

- Classic **disruptive innovation** says that a **cheaper, but lower-quality, innovator** can eventually overtake an incumbent by gradually siphoning off customers the incumbent doesn't find it profitable to defend.
 - As the disruptor improves its offering, though, the incumbent's position becomes increasingly fragile.
- **Big bang disruption** differs in that the start-up offers an innovation that's **not only cheaper, but better** — higher quality, more convenient, or both — almost right off the bat.

Netflix vs Blockbuster



Children's National

Health Network™
Part of the Children's National Health System

20 YEARS: The Business of Pediatrics 2017

Blockbuster vs Netflix

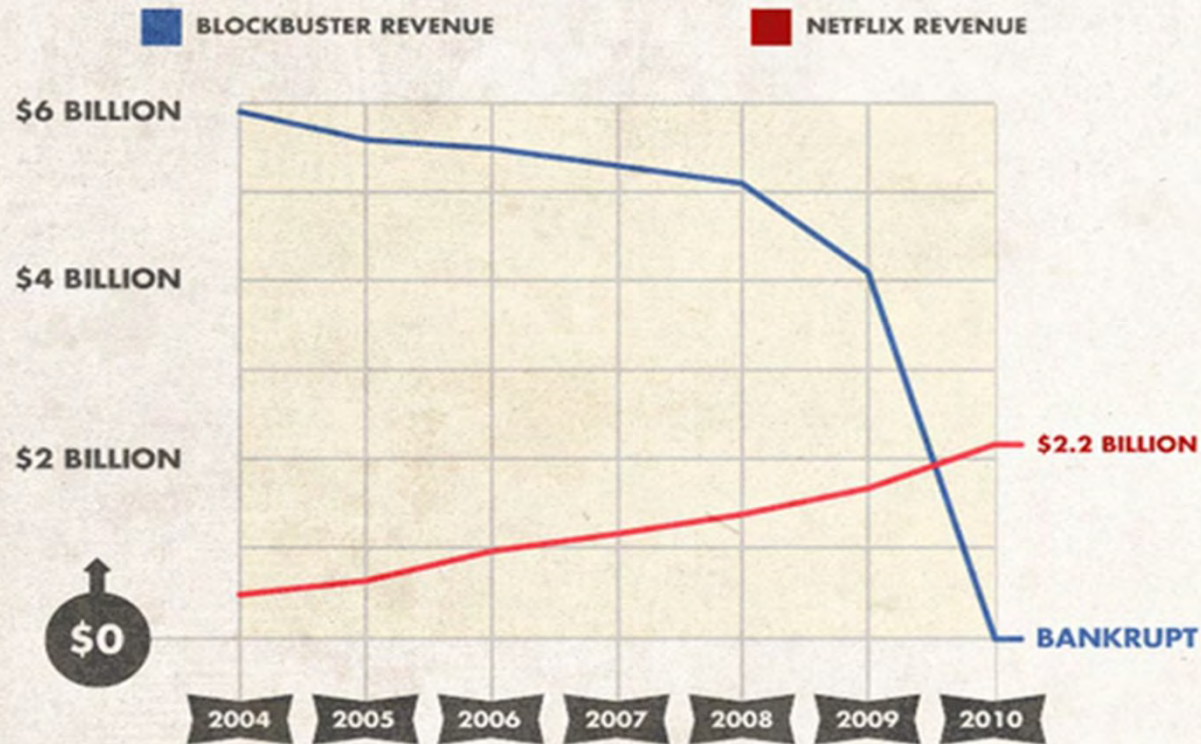
- Blockbuster (2002)
 - Over 10,000 stores, market value >\$5B
 - Model: pay per rental, in store selection, 2 visits/24 hours, late fees
- Netflix (2007)
 - Disruptive innovation: order online, mail order delivery (DVD via USPS), keep as long as you like, no late fees; but had to wait- not same day
 - Big bang disruption: monthly subscription, on-line streaming (better)
 - Now 30 million+ subscribers and developing its own content



Children's National™

Health Network™
Part of the Children's National Health System

NETFLIX VS. BLOCKBUSTER (2004-2010)



Children's National

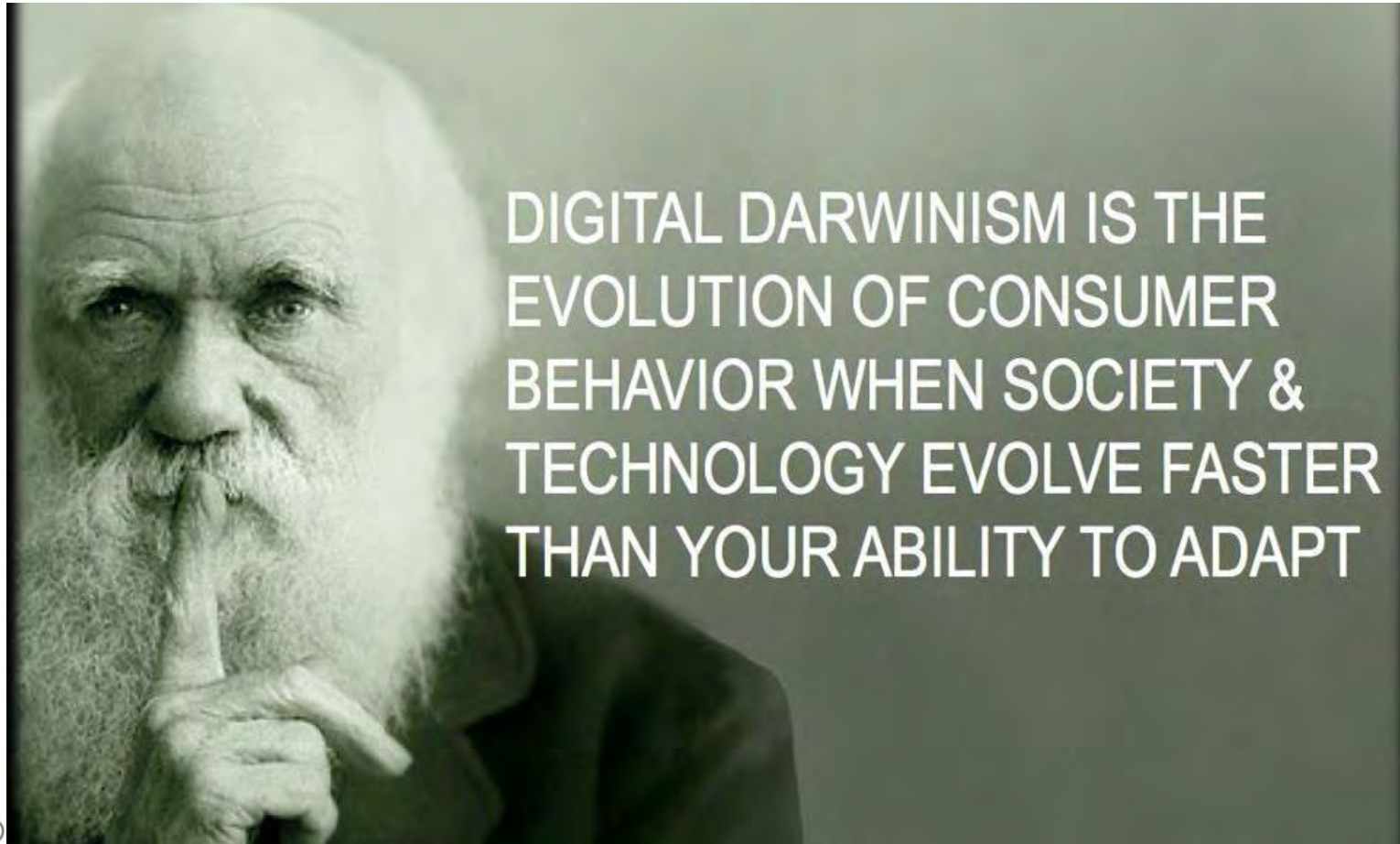
Health Network™
Part of the Children's National Health System

20 YEARS: The Business of Pediatrics 2017

Blockbuster out of business



Digital Darwinism



Children's National

Health Network™
Part of the Children's National Health System

20 YEARS: The Business of Pediatrics 2017

Today's patients, parents & families...



Together time...



Next generation is here today...



Is Your Practice Ready for Telemedicine?



Telemedicine: emerging or disruptive technology?



Introducing the newest “on call” doc for advice about a sick child...

- **Paging Dr. Siri: 51% of Americans interested in using voice assistants for health needs**
 - More than half (51 percent) of Americans are turning to artificial intelligence-powered voice assistants, like Apple's Siri or Amazon's Alexa, to answer their questions on diseases and treatments, according to results of a DRG Digital and Manhattan Research [survey](#).



Amazon Echo: Ask “Alexa” (health advice on children’s symptoms)

KidsMD Children’s Boston



Ask Alexa: KidsMD

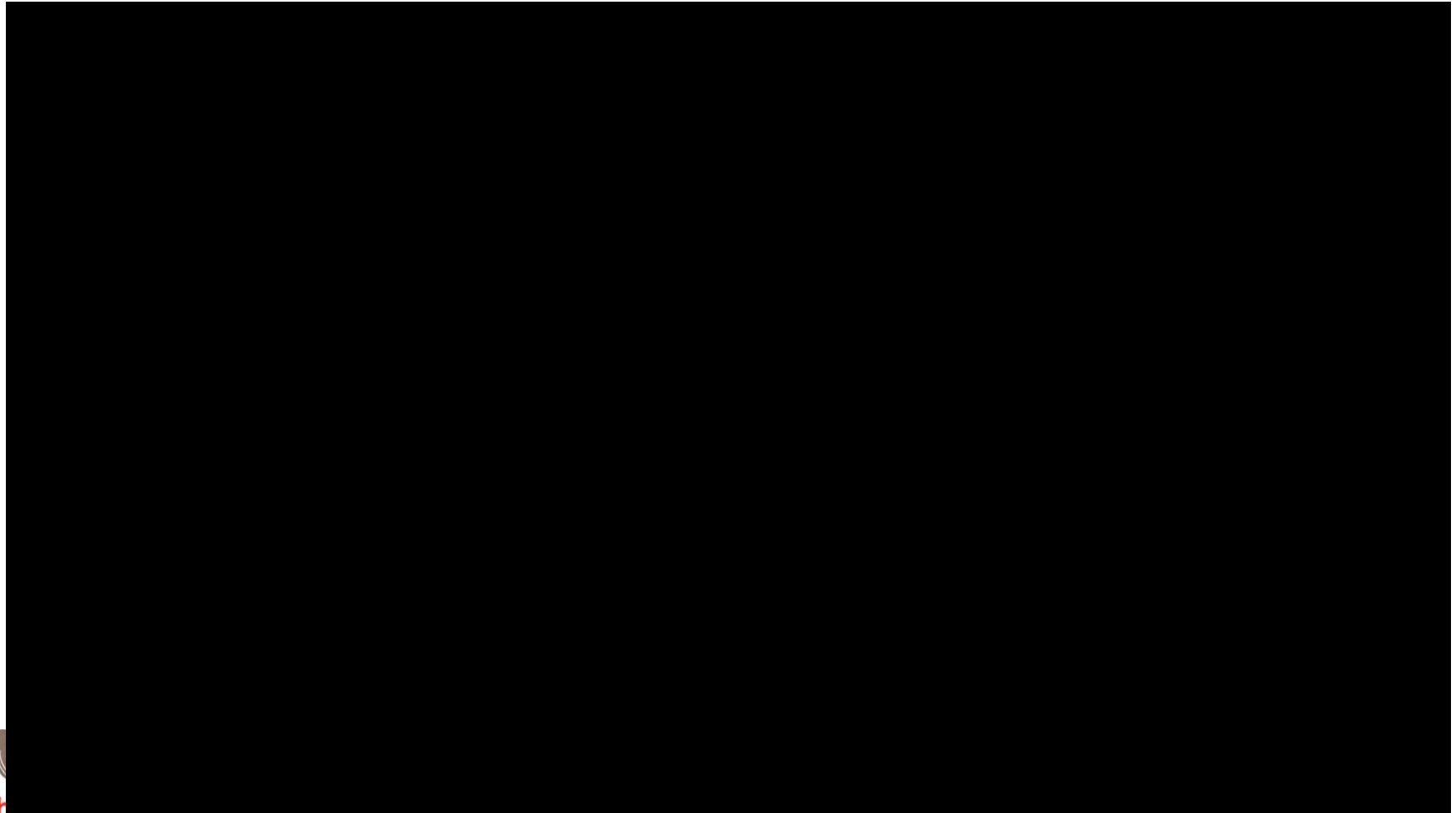


How Reliable is Telemedicine?

- L Siew et al: Reliability of Telemedicine in the Assessment of Seriously Ill Children, *Pediatrics*, February 2016
 - This study found that the application of telemedicine, using commercially available telecommunications equipment, is reliable between bedside and telemedicine observers in the assessment of febrile children and children with respiratory distress.
 - Used iPad, Facetime, secure Wi-Fi connection.



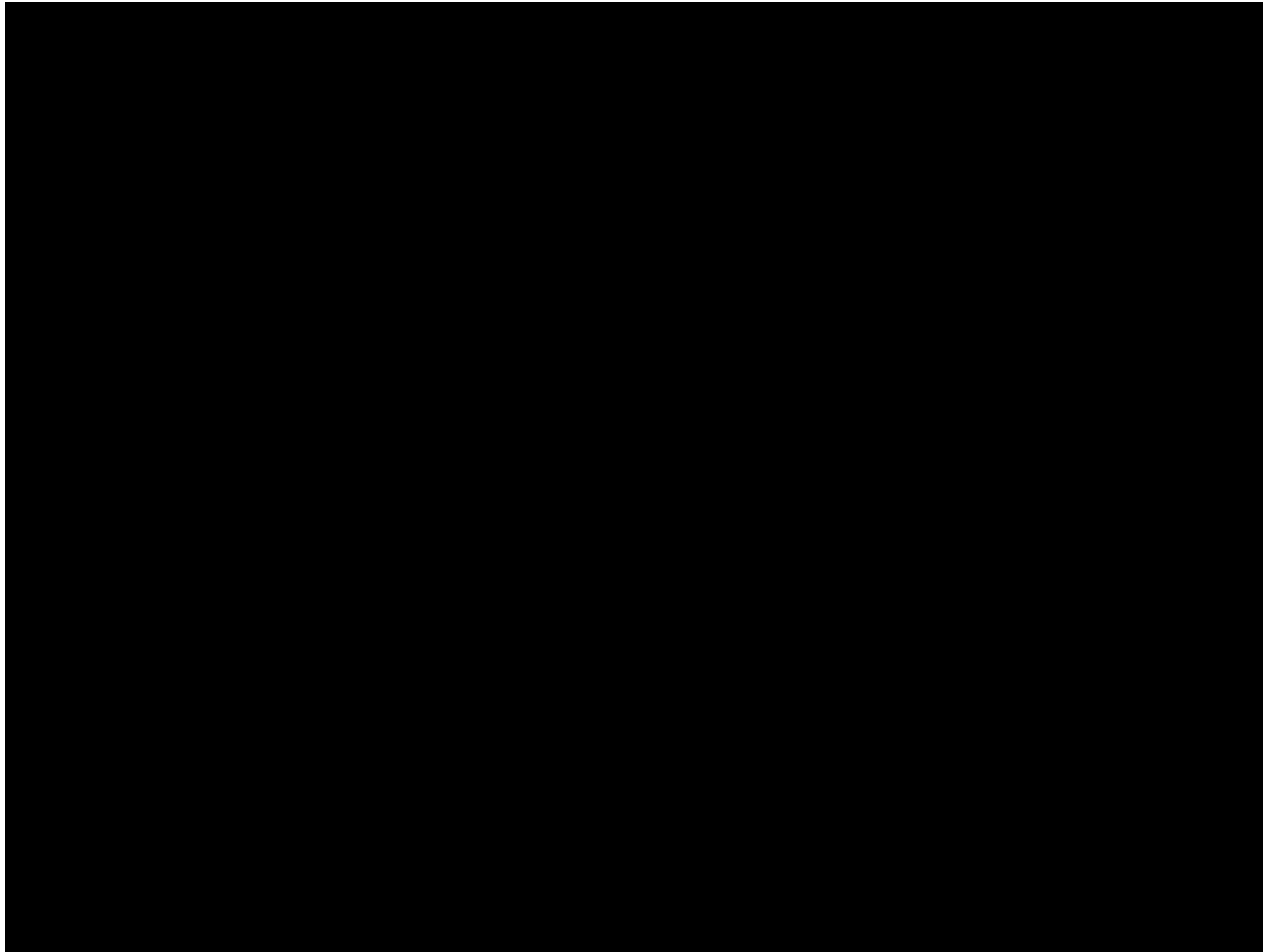
Telemedicine visits (Is Anyone Home?)



Online otoscopy- here now...



But wait- there's more...



Tytocare- coming to market soon



Have I got your attention?




Telemedicine- the next frontier...



Kaiser advertising “Video Visits”


ENJOY THE CONVENIENCE OF A VIDEO VISIT

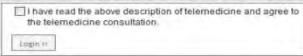


To participate in a Video Visit you will need a computer with:

- High speed internet connection
- Adobe Flash Player. (Most computers already have Adobe Flash Player.)
- Webcam or built-in camera. (Skype and other video chat programs use the same camera setup.)

To join a Video Visit

1. Go to <http://mydoctor.kp.org/videovisit>
2. If this is your first time using Video Visits, click **Setup Wizard** to make sure your webcam or built-in camera works properly.


You may see this window. Click "Allow" or your webcam will not work.
3. Click **Get Started** when you are ready to begin. Please join your Video Visit no earlier than 15 minutes before the scheduled time of your appointment.
4. Enter your information, check the consent box, and click **Login**.

5. Click **Join Now** to be placed into your video appointment. Your doctor will join you shortly. If you need to cancel your video visit, please call the number on your appointment reminder.

© 2011, TPMG, Inc. All rights reserved.
Regional Health Education.

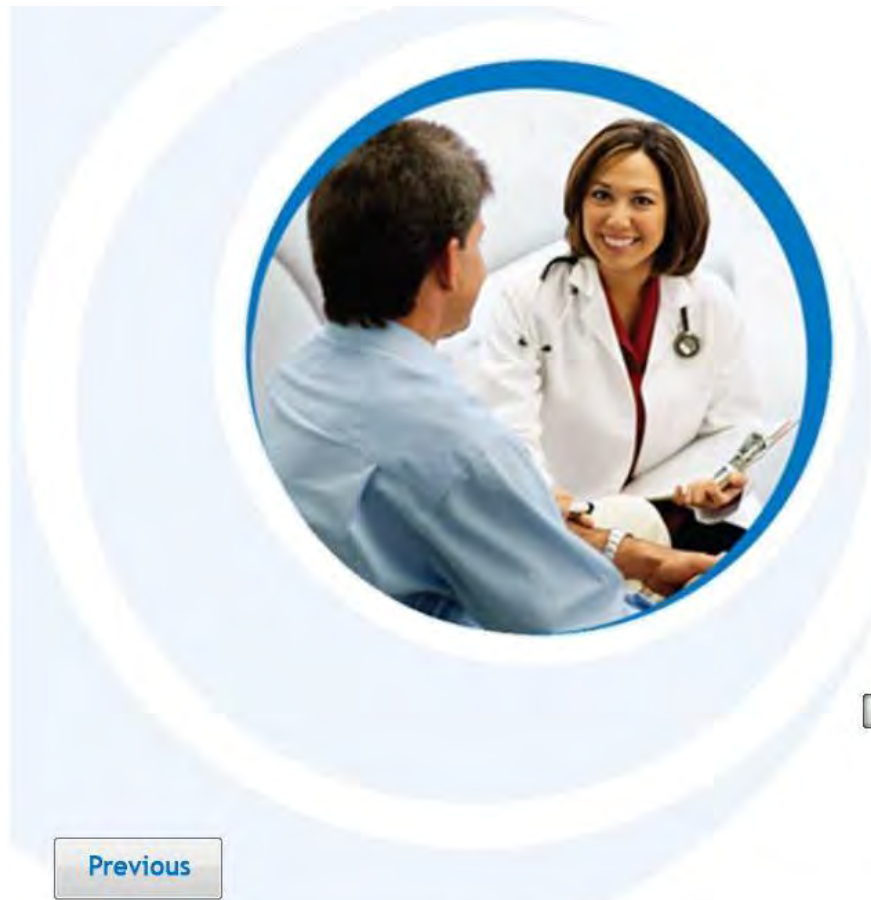


Coming soon to your practice?

- Get paid for appropriate E&M services delivered by secure teleconference



CareFirst PCMH now encouraging use of telemedicine



Telemedicine
Video Visit

[Click Here to Begin](#)

[Previous](#)

CareFirst will provide platform- and payment

- CareFirst PCMH providers can use CareFirst “Video Visit” (or their own) platform to schedule and perform telemedicine visits with CareFirst patients
- CareFirst will reimburse for telemedicine visit via E&M 99212-99215
 - Add –GT modifier





CAREFIRST TELEMEDICINE EXPERIENCE

NOVEMBER 10, 2017

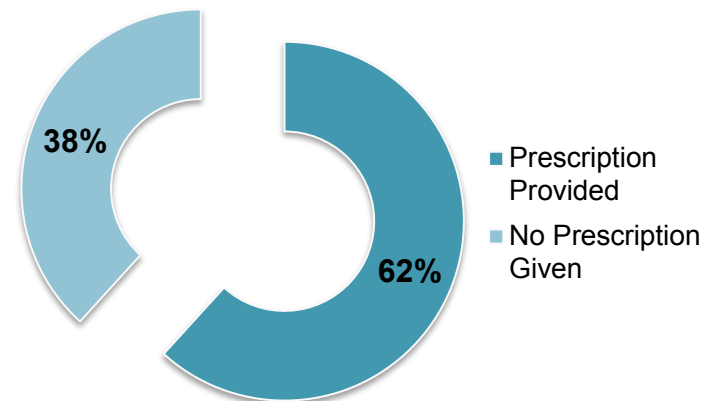
Proprietary and Confidential

CareFirstVideoVisit.com has Largely Been Utilized for Common Acute Conditions and have High Consumer Ratings

Common Conditions on the Platform

Sinus Infections (Sinusitis)
Upper Respiratory Infections / Flu
Sore Throat (Pharyngitis)
Bronchitis
Pink Eye (Conjunctivitis)
Rash

CareFirstVideoVisit.com Visits Resulting in a Prescription, 2016

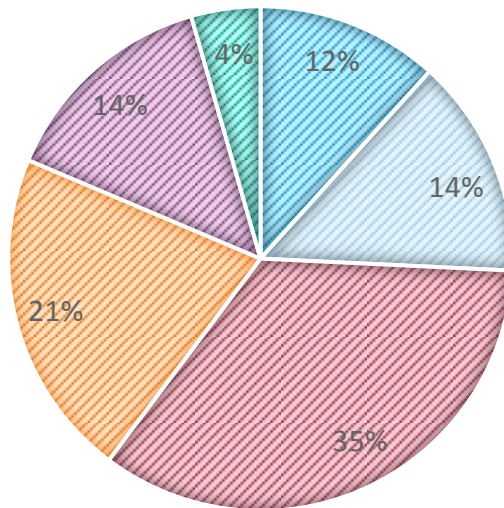


Consumer Ratings, 2016

Consumer Ratings	
	Rating out of 5
Provider	4.8
Telemedicine Platform	4.6

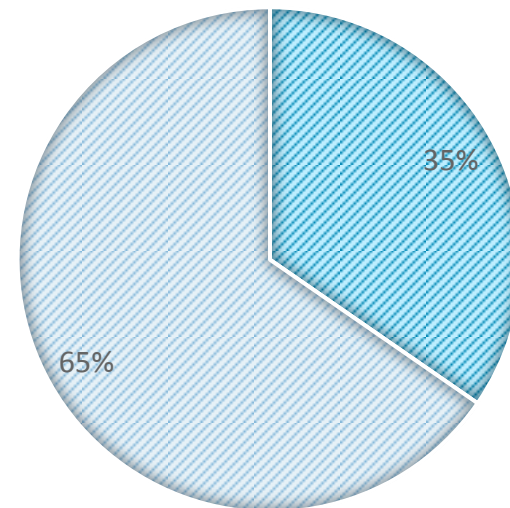
Visits by Age, 2016

■ Less than 18 ■ 18-29 ■ 30-39 ■ 40-49 ■ 50-59 ■ 60+



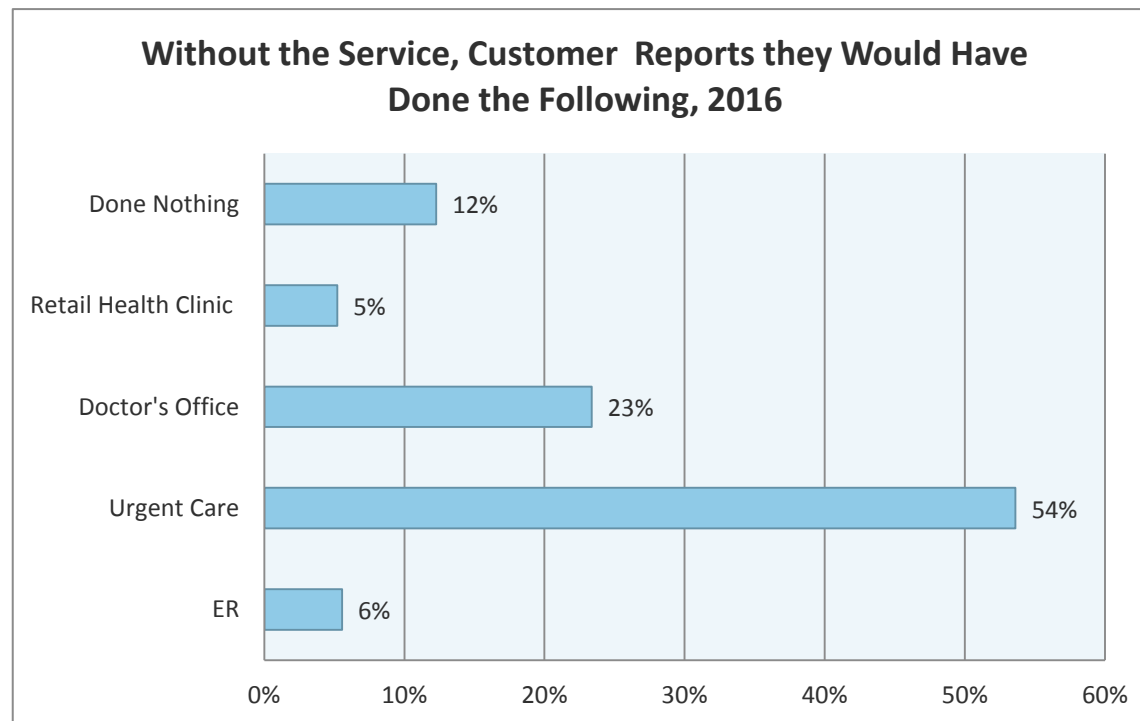
Visits by Gender, 2016

■ Male ■ Female



Telemedicine may provide a Positive Return on Investment

- Survey data presents without telemedicine, 54% of patients would have visited an Urgent Care and 6% an ER. Only 12% suggest they would have done nothing, with the visit being new utilization.
- Market research suggests convenient services such as telemedicine do result in greater utilization for less acute conditions; however, even a small percentage cost avoidance of high cost services such as the ER could result in a positive ROI.



- Inappropriate utilization of EDs creates an opportunity to generate cost savings.

Percentage of Nonemergent or Primary Care Treatable ED Visits by Age



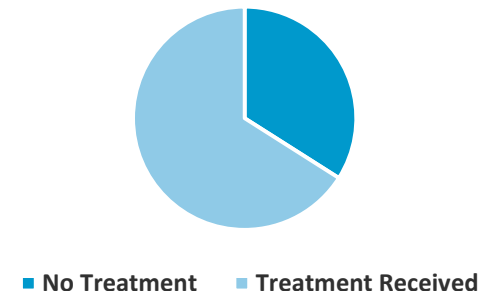
Source: Truven Health Analytics, "Avoidable ED Usage Analysis," 2013.

Nonemergent: Medical care was not required within 12 hours.

Primary Care Treatable: Medical care was required within 12 hours, but care could have safely been provided in the primary care setting

- Additionally, **34 percent** of the children **did not receive any direct treatment** during the ED visit; only advice and reassurance was delivered to the parents.¹

Pediatric ED Treatment



1. Waters KL, Wiebe N, Cramer K, Hartling L, Klassen TP. Treatment in the pediatric emergency department is evidence based: a retrospective analysis. BMC Pediatr. 2006 Oct 6;6:26.

- Parents with young children (30 - 49 year-olds) responded favorably during an in-person visit to using virtual visits in the future.
- Fifty-seven percent of parents said they would *strongly* consider using a virtual visit if their child was sick:

Percentage of Parents Who Would Consider a Virtual Visit If Their Child Was Sick	
Definitely	22%
Probably	35%
Might	28%
Other	15%

- Virtual visit utilization is being used heavily by urban parents living in an urban setting to tend to the medical needs of their children:

Parents Who Have Used A Virtual Visit for Their Child, Residence	
Urban	63.0%
Suburban	16.8%
Small Town	6.1%
Rural	7.6%

Online visits: telemedicine



A not so hypothetical case study...

- Hi Dr Weissman- thanks so much for seeing us for video care.
- My 4 year old Sammy is warm and cranky. He says it hurts to swallow and he pulls on his ear. His asthma seems under control although he is coughing a bit more.
- I took his temperature by temporal thermometer- it's 101.
- I looked at his ears with my home device- they don't look that red but I'm not sure I can tell. I already send the pictures to you.
- I listened to his lungs using that electronic stethoscope- I don't hear any wheezing but I recorded his breath sounds if you want to listen. I can also forward the audio files. His home pulse ox is 98.
- I swabbed his throat and did a home rapid strep test on him- which definitely looks positive. See the positive line here?
- One of the kids at daycare has strep. The daycare texted all the parents in his class.
- Can you please prescribe him an antibiotic for his strep?
- I know your practice coaches us that antibiotics are not needed for most kids illnesses. I just read your weekly practice blog about how children with strep illness can return to daycare or school earlier once treatment is begun. That's why I contacted you for an online visit rather than going to minute clinic.



Children's National

Health Network™
Part of the Children's National Health System

20 YEARS: The Business of Pediatrics 2017

**Sure- we have your payment info in our system.
Click OK & we'll ship your Rx right over!**



Children's National

Health Network™
Part of the Children's National Health System

Credit card or Paypal?

20 YEARS: The Business of Pediatrics 2017

Plan for climate change...



© The New Yorker collection. All rights reserved.
From *The New Yorker Book of Technology Cartoons*.

"All I'm saying is now is the time to develop the technology to deflect an asteroid."

Plan for telemedicine in primary care- disrupt the disrupters?

- Convenience care
 - Daytime advice- convert telephone advice to telemedicine E&M
 - After hours advice- outsource to telemedicine call center?
- Chronic care/disease management (consider early, lunch, evenings)
 - ADHD updates, refills
 - ASD check-ins
 - Behavioral health- medication updates
 - Asthma management
 - Obesity- weight management, goals
 - Children with medical complexity- care coordination, management vs support
- Three-way or group opportunities- in office visits
 - Video connect with working parent for well or sick visits
 - Engage educational partners at school for ADHD, ASD
 - Connect with specialist or care coordinator- for expertise, reassurance or accelerated specialty care/referral
- Schedule pediatrician/provider telemedicine visit hours?



Children's National

Health Network™
Part of the Children's National Health System

Worth a day off periodically?

Technology is moving faster than we are!

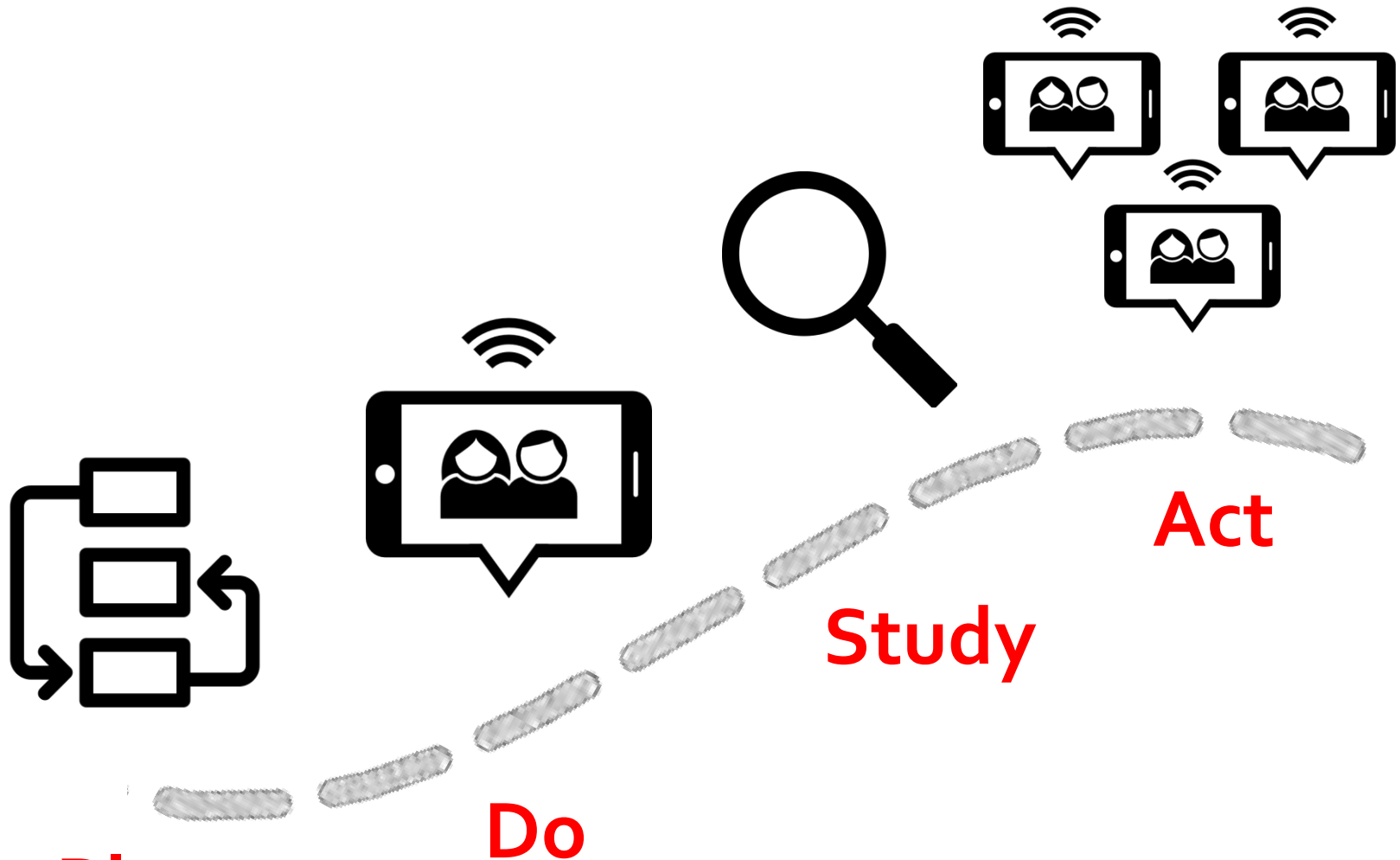
- Future “Digital Darwinism” case study?
- We need to begin to pilot telemedicine use in primary care pediatric practice
- We need to engage our families before they migrate to alternate providers of telemedicine service they want
- We need to learn how to use the technology, best clinical “use cases” and integrate into practice operations (scheduling, workflow, EHR, billing, regular-extended-after hours)
- We need to plan ahead to leverage technology- not just between family and PCP- but across a “clinically integrated network”

Telemedicine in pediatric practice: Tapping into pioneers & early adopters



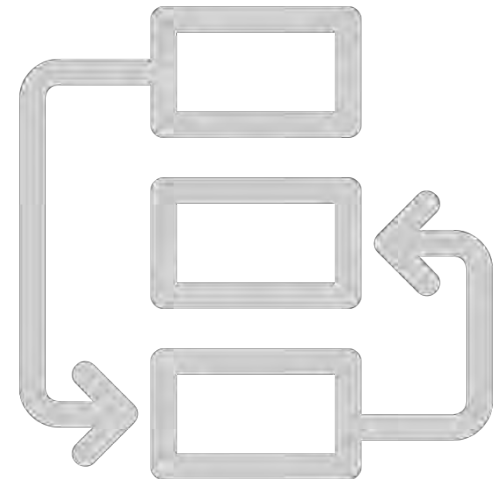
Video Visits- a Roadmap: Practical Points to Get Started

Video Visits- a Roadmap



Plan

- Research
 - Video visit platform
 - Reimbursement
 - Licensure and malpractice insurance
- Assess equipment and physical space needs
- **Engage providers and staff**
- **Develop use cases**
- Design a workflow
- Train providers and staff
- **Clearly identify video visit support**



Plan

Engage providers and staff

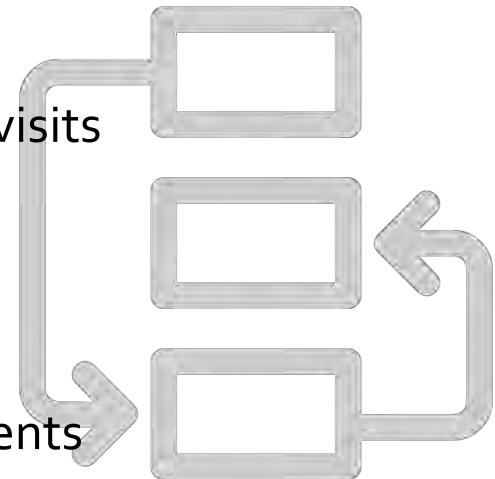
- Identify provider and administrative staff “champions”
- Consider needs and develop goals for telemedicine
- Bring them on the journey

Develop use cases

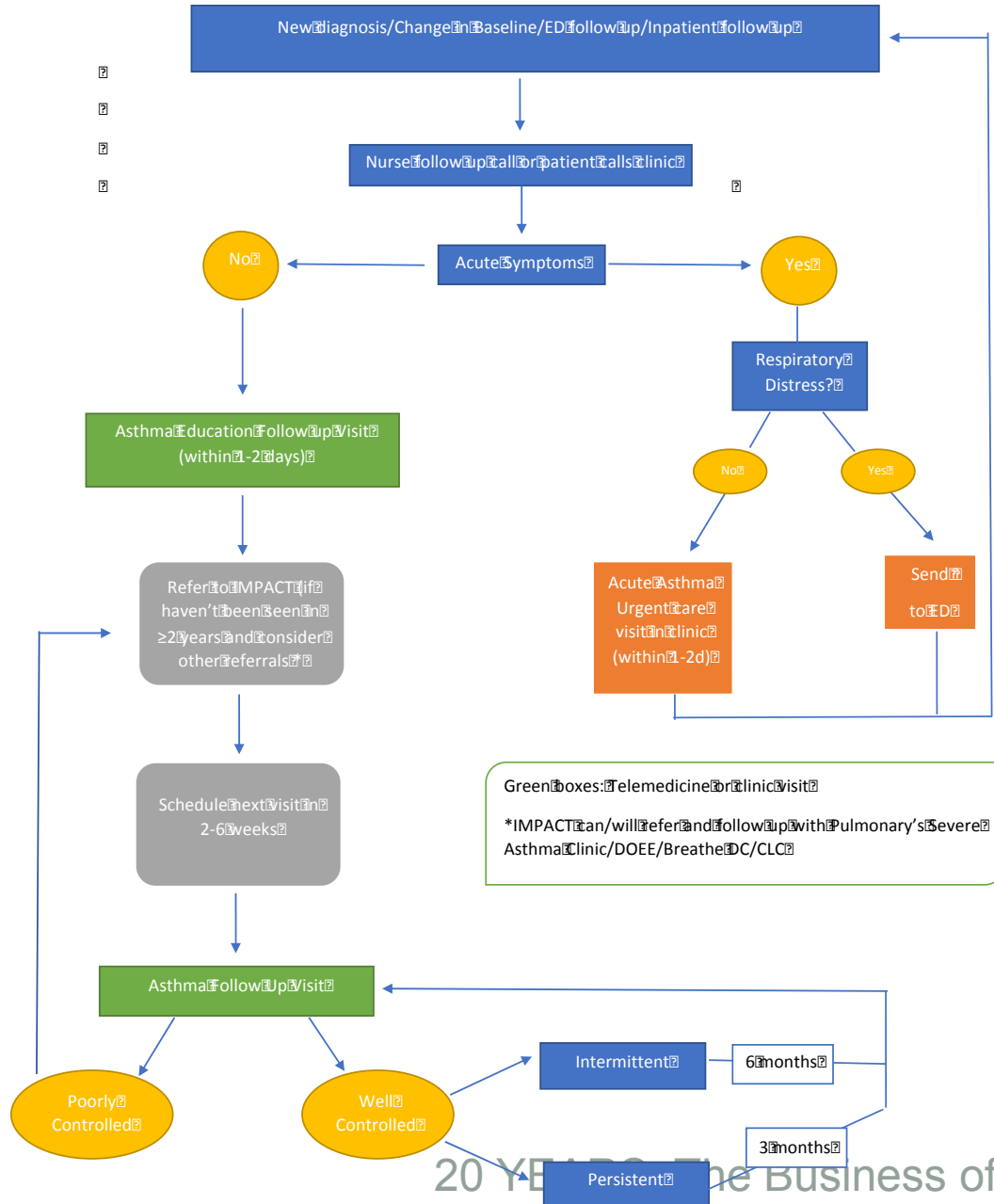
- Highlight appropriate opportunities for video visits
- Use algorithms

Clearly identify video visit support

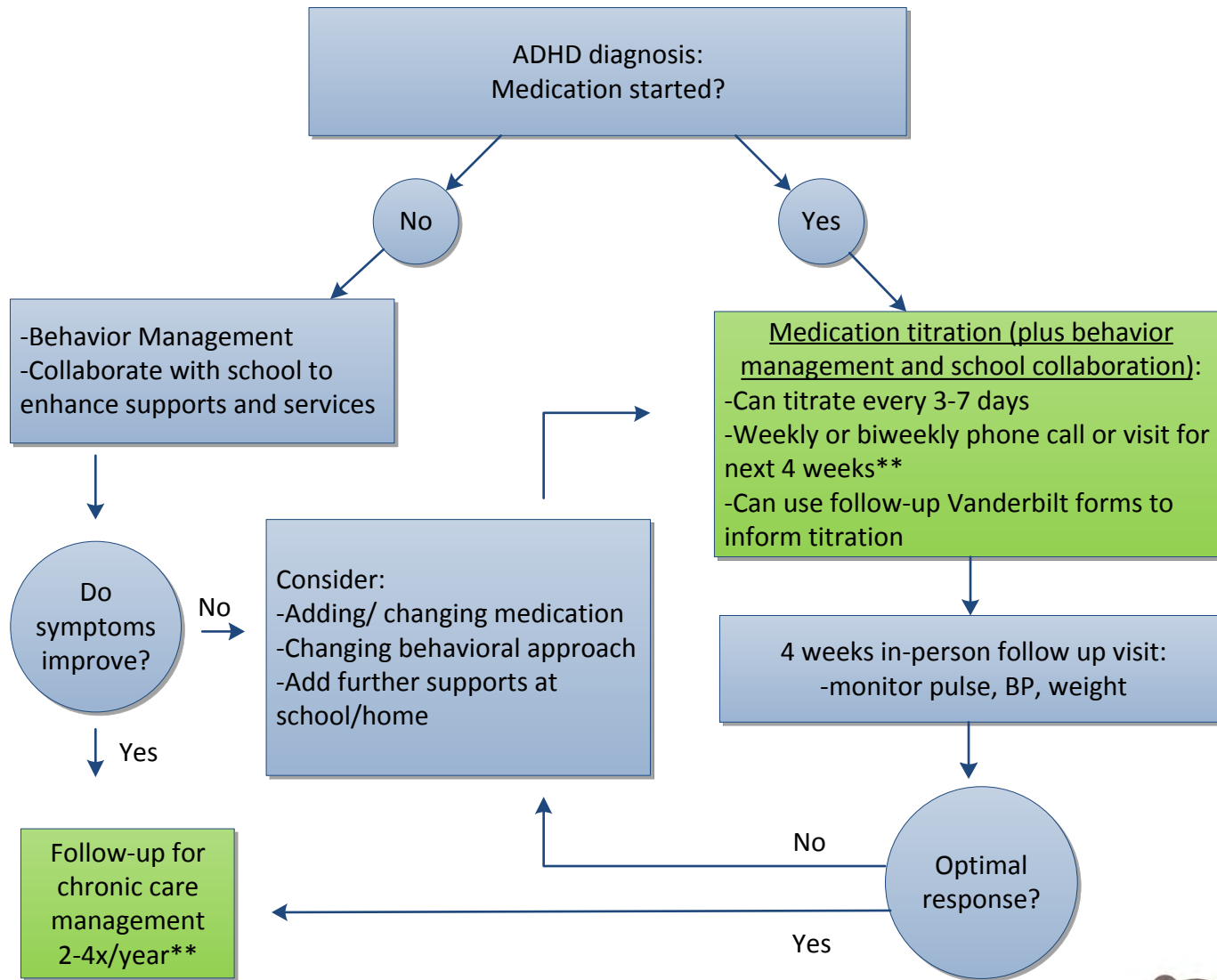
- Identify IT staff support for providers *and* patients



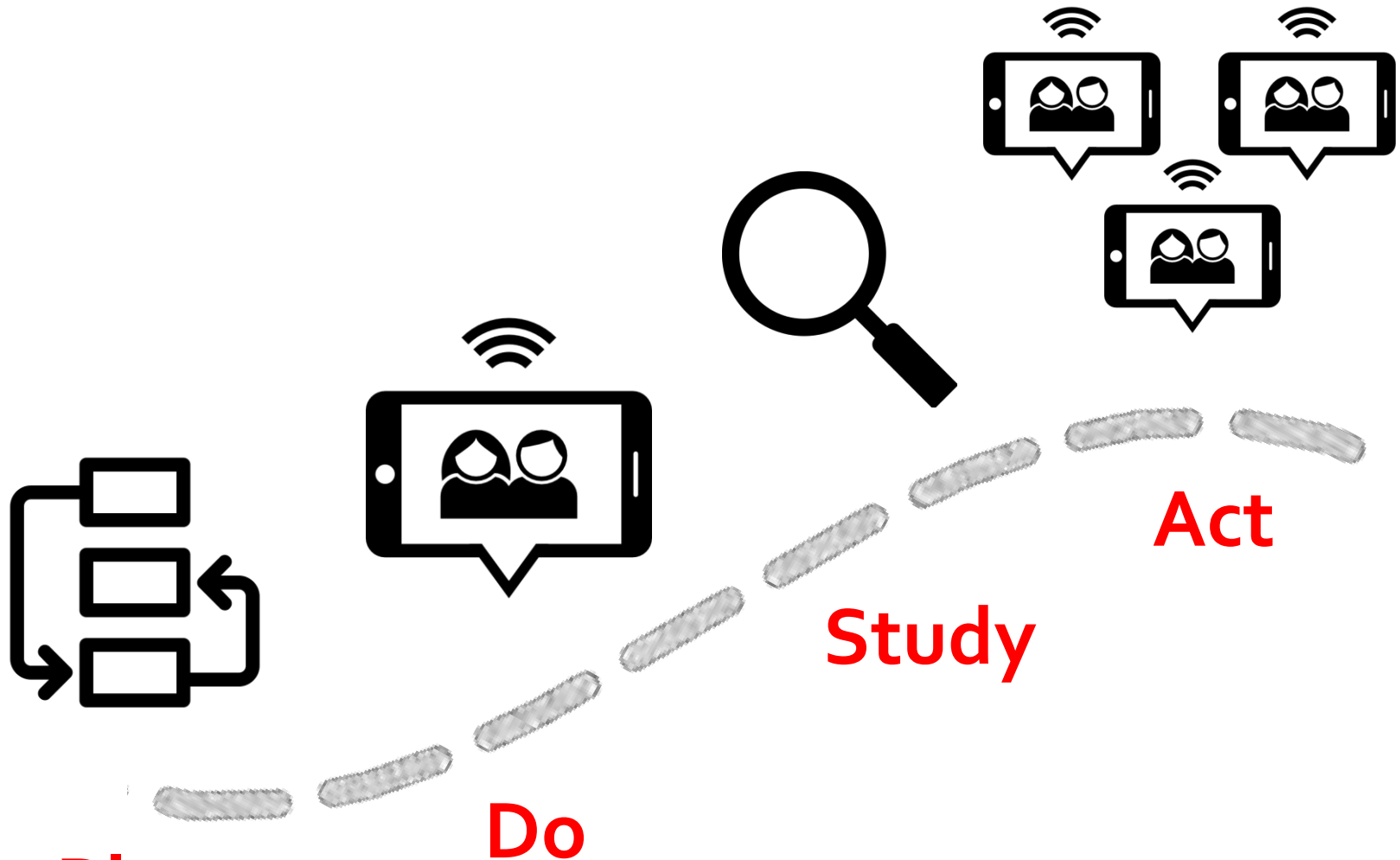
Telemedicine Asthma Algorithm



Telemedicine ADHD Algorithm



Video Visits- a Roadmap



Do

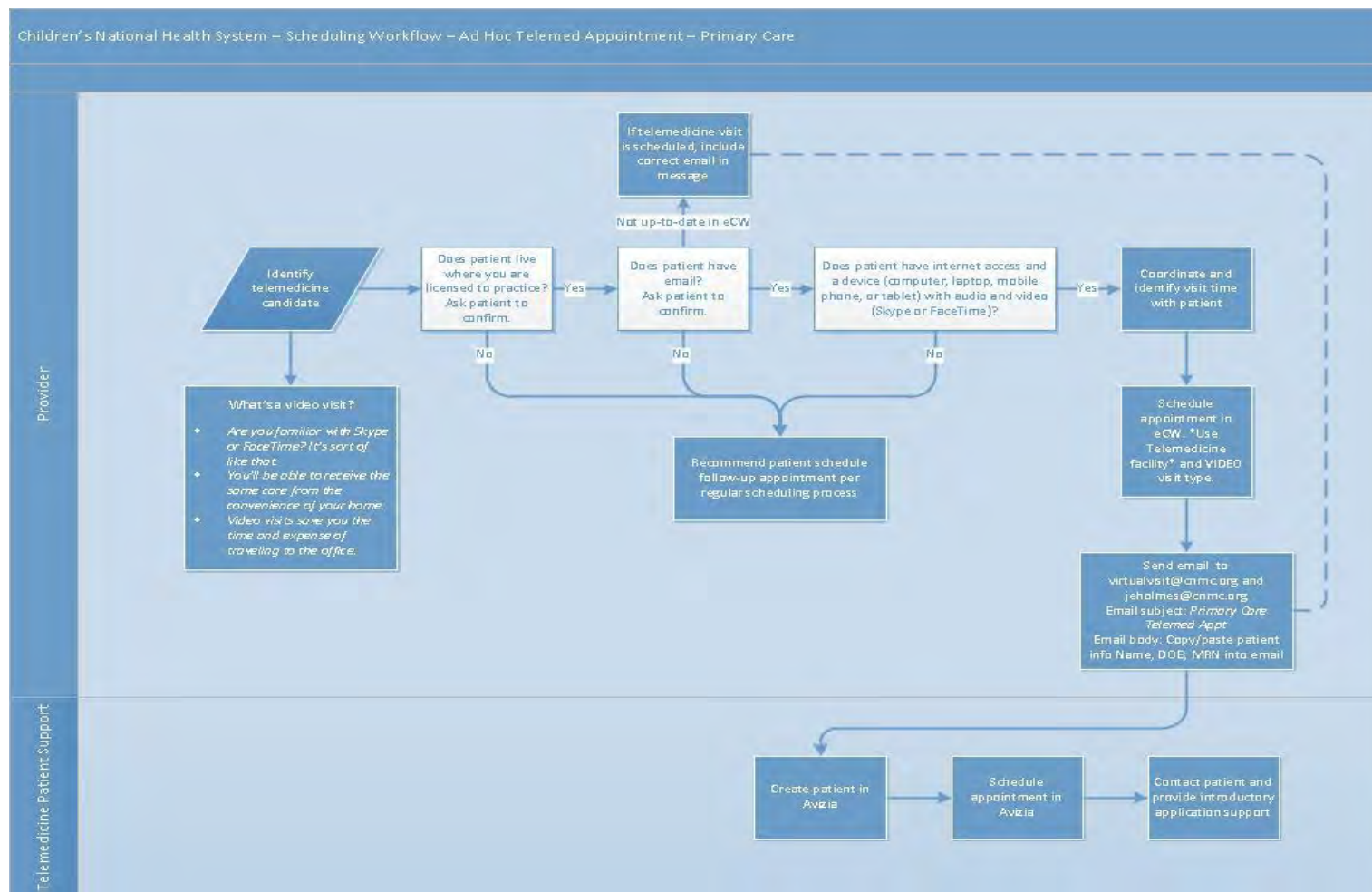
- **Start small**
 - Test your design
 - Conduct a test visit with a “test” patient
 - Document any issues and regroup
- **Scale up (incrementally)**
 - Schedule a few ad hoc visits with interested providers
 - Document any issues and regroup

Training and Support

For patients

- Develop patient materials for recruitment
 - Consider language and health/IT literacy of your patient population
- Clearly identify who can help if patients have trouble
- Website with instructions (videos can be very helpful)

Ad Hoc Visit Workflow: Identifying and scheduling a patient



Training and Support

I. Video Visit Requirements

Provider

- Approval – Contact medical director
- Training and Access – Contact Ariel McDade (amcdade@cnmc.org)
- Technology – Internet connection and device that can send and receive audio and video
- Space – Private space and/or privacy measures (i.e., headphones and private background); must be on-site (i.e., on Children's National premises)




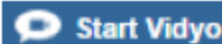


Patient

- Location – Resides in a state the provider is licensed to practice
- Insurance – Any Medicaid MCO, CareFirst, or uninsured
- Technology – Internet connection and device that can send and receive audio and video

Training and Support

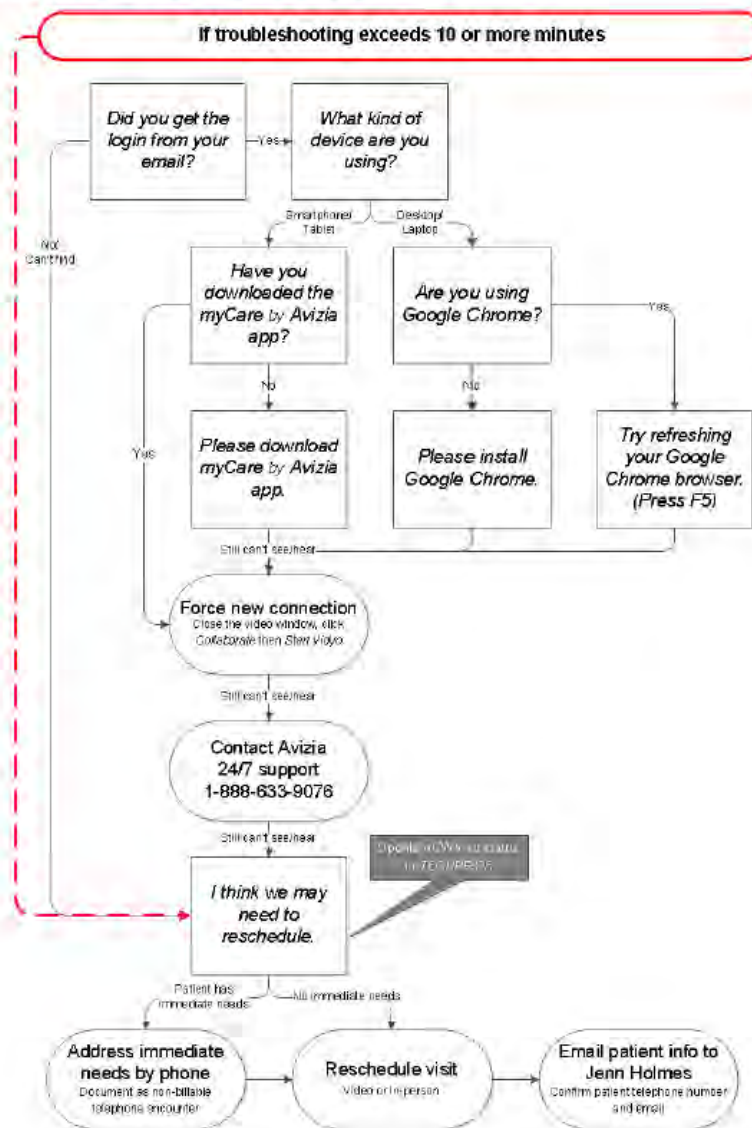
II. Conducting a Video Visit

Scheduled Visits

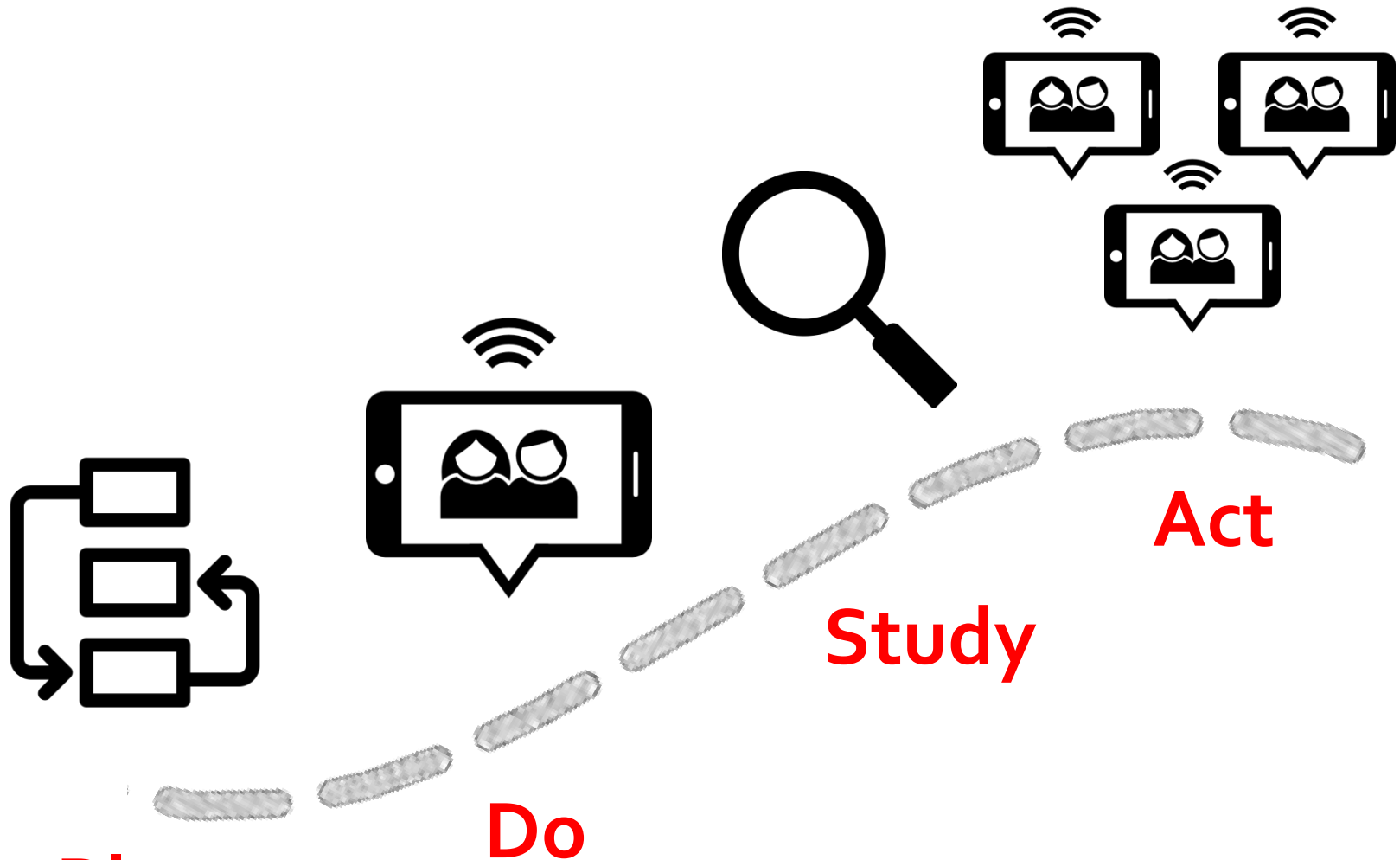
1. Use Google Chrome and go to childrensnational.avizia.com
2. Click on patient after they enter waiting room.
3. Click  then click  Assign to Me
4. Click  COLLABORATE then click 
5. Once the visit is done, end the call by clicking the  icon then click  to end the video visit.
6. Update the visit status in eCW to *Check Out* to indicate that the visit was completed.

Training and Support

The patient can't see or hear me.



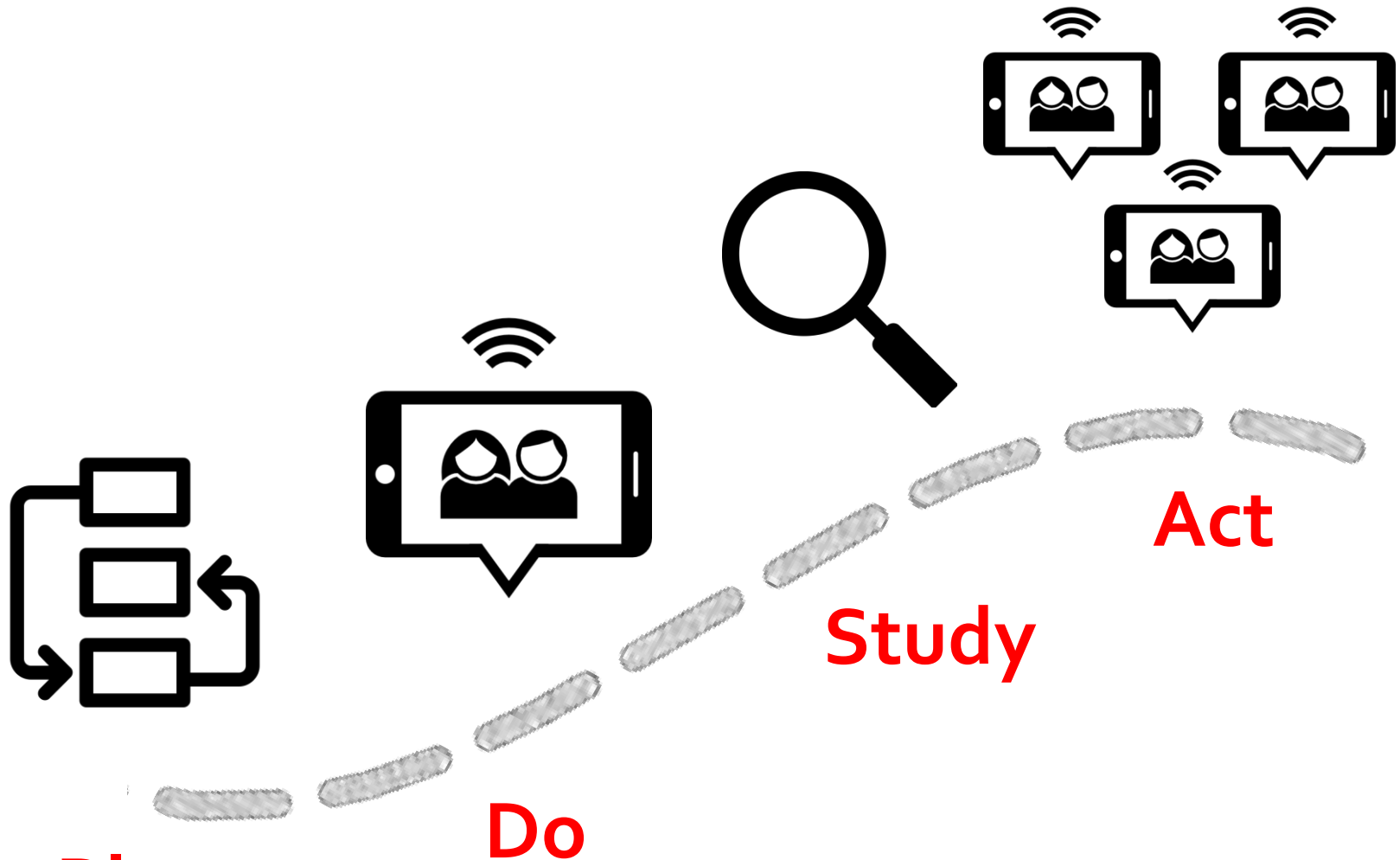
Video Visits- a Roadmap



Study or Revise

- This should happen several times
- Regroup
 - Review original plan and modify based on experiences
- Plan again
 - Assess gaps or needs for further scaling up
- Recruit, register, and schedule patients for next phase
- **Write it down**
 - Eligibility criteria (insurance, geographic, technical capability, use cases)
 - Workflows for various staff roles (scheduling, front desk, triage, providers)
 - Advertise (posters, handouts, email, **website presence**)
 - Manage expectations through messaging (similar to rolling out “walk in” services)

Video Visits- a Roadmap



Act – Run with it!

- Set a start date
- Identify your point person for info or issues
- Document any issues
- Regroup

Lessons Learned

Adoption

- Parents love it, the kids think it's pretty cool
- Providers at times more wary than patients
- Impact on workflow
 - Ad hoc recruiting/scheduling is challenging
 - Clinical algorithms needed to systematically identify patients
 - Ease of use and system quality
 - Training/support for families and providers is key for success

Lessons Learned

Technology

- Providers
 - Stations/ Office/ Space
 - Desktop or laptop (audio and video)
- Patients
 - Most families use their phones
 - Questions to ask families

Lessons Learned

Quality of care

- Developing standard of care: “in-person equivalency”
- Need to identify/develop appropriate use cases

Licensing/Legal

- Need to be licensed in jurisdiction where patient is located at time of visit
- Biggest barrier - limits pool, creates room for confusion on administrative level
- Interstate Medical Licensure Compact
- HIPAA compliance
- Liability

Lessons Learned

Payment for services

- Variable reimbursement – limited information
- Codes may be changing (currently using “GT” as modifier)
- Most visits that are reimbursed equivalent to office visits

Administrative/IT support

- Support for patients
 - Registration and coaching for initial visit
- Support for provider
 - Training and resources
 - Back up support during visits

Video Visits- consider this checklist

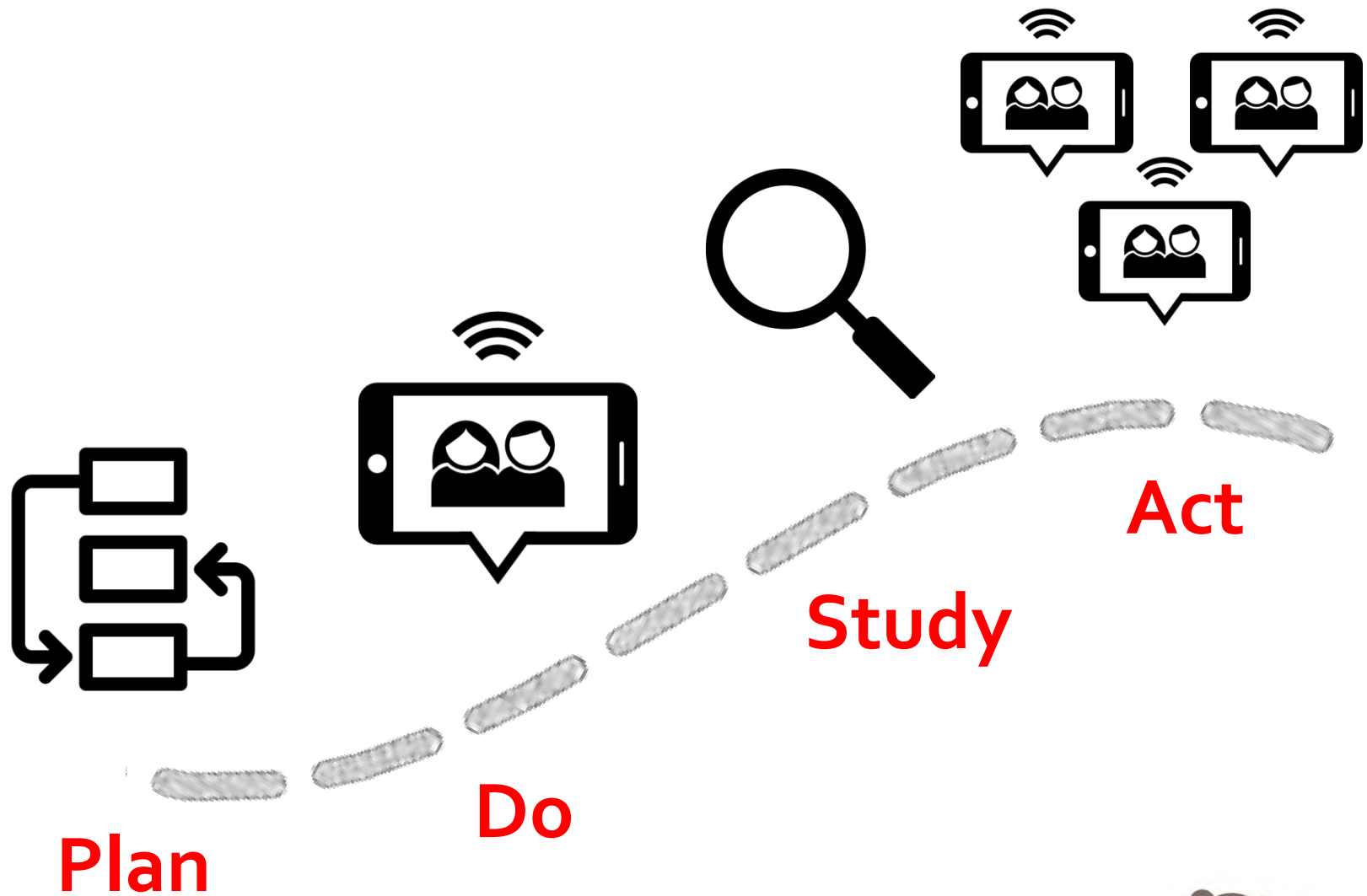
- Research and choose telemedicine platform
- Ask payers about reimbursement
- Apply for needed licenses/ discuss with malpractice insurance carrier
- Consider equipment and physical space needs
- **Engage providers and staff**
- **Develop use cases**
- Train providers in using platform and executing visit- “test” patient visits
- Pilot a few visits with interested providers (ad hoc visits)
- Build templates and workflows for scheduling
- **Develop and clearly identify telemedicine support**
- **Recruit and register patients**
- Develop mechanism and provide opportunities for feedback



Video Visits- a Roadmap: Practical Points to Get Started

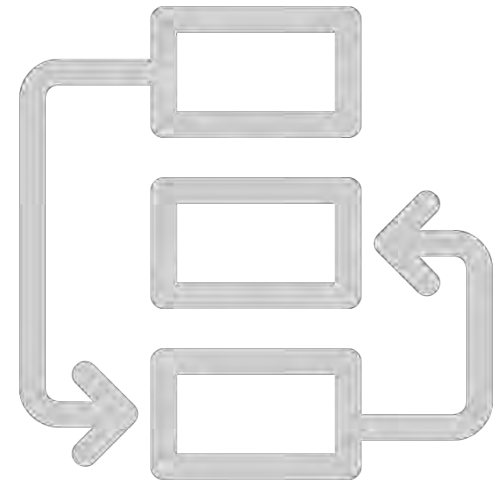
Eduardo Fox
Melissa Rojas

Video Visits- a Roadmap



Plan

- Research
 - Video visit platform
 - Reimbursement
 - Licensure and malpractice insurance
- Assess equipment and physical space needs
- **Engage providers and staff**
- **Develop use cases**
- Design a workflow
- Train providers and staff
- **Clearly identify video visit support**



Plan

Engage providers and staff

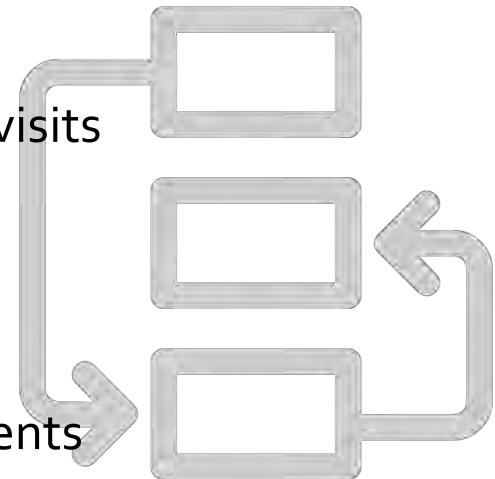
- Identify provider and administrative staff “champions”
- Consider needs and develop goals for telemedicine
- Bring them on the journey

Develop use cases

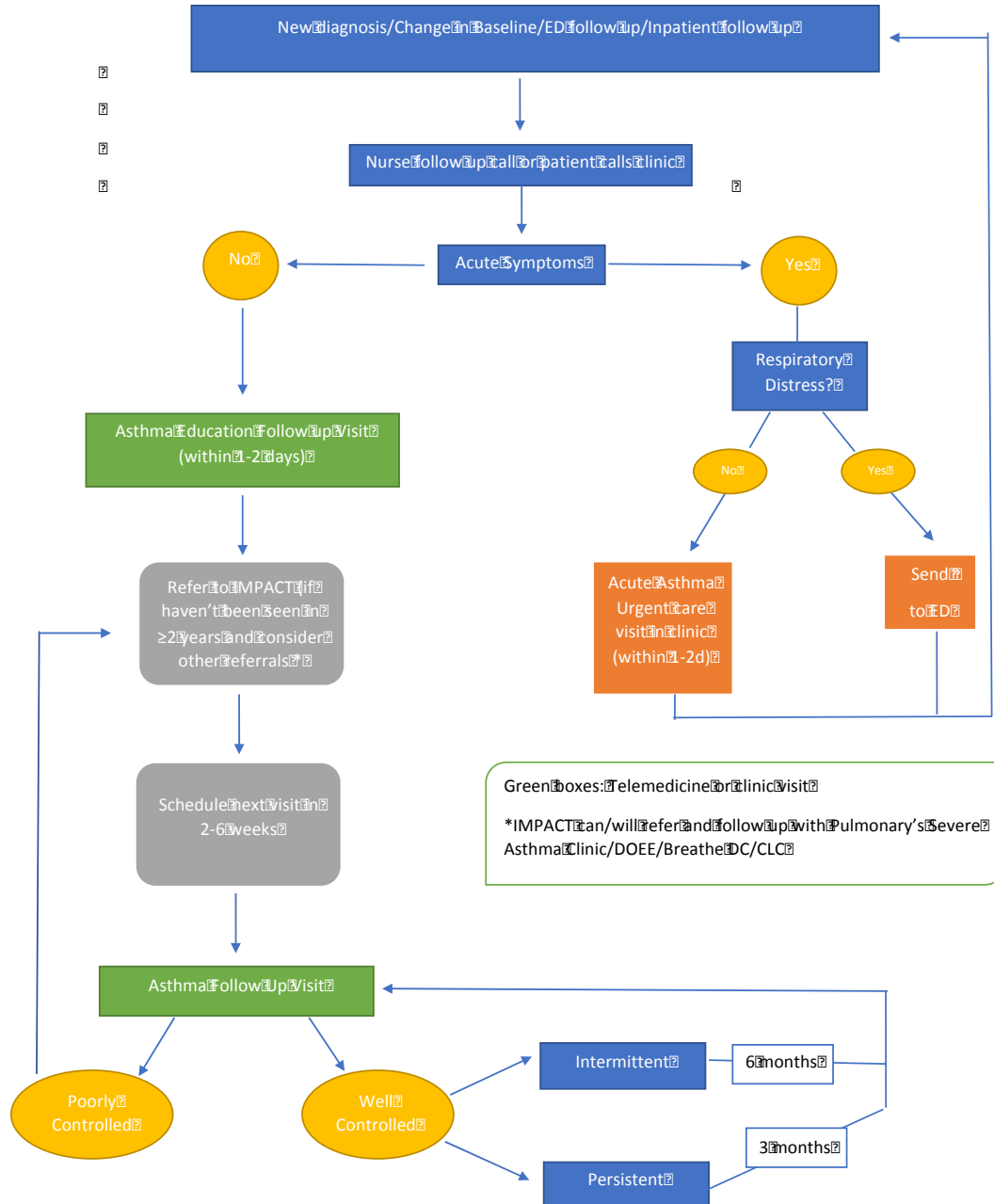
- Highlight appropriate opportunities for video visits
- Use algorithms

Clearly identify video visit support

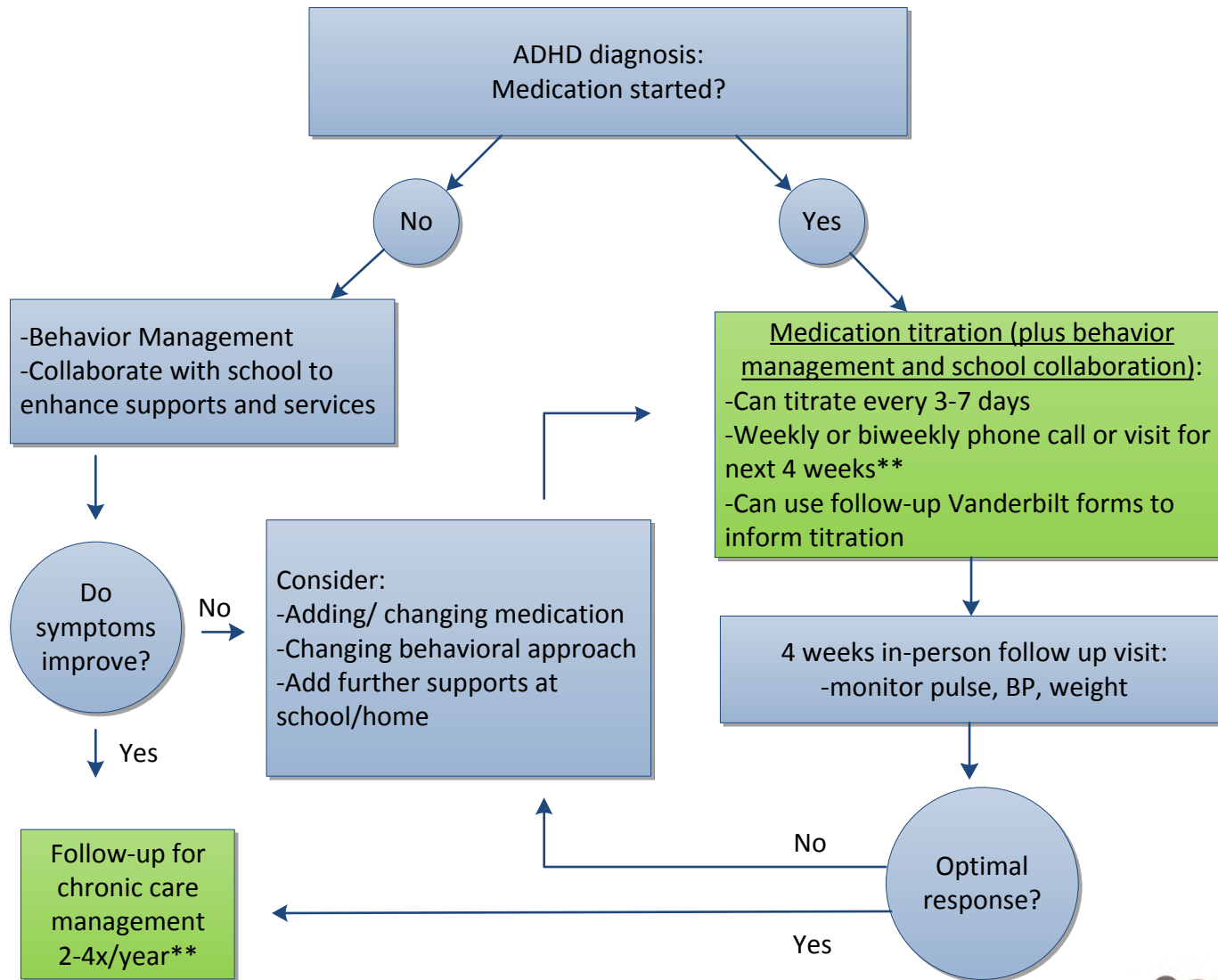
- Identify IT staff support for providers *and* patients



Telemedicine Asthma Algorithm

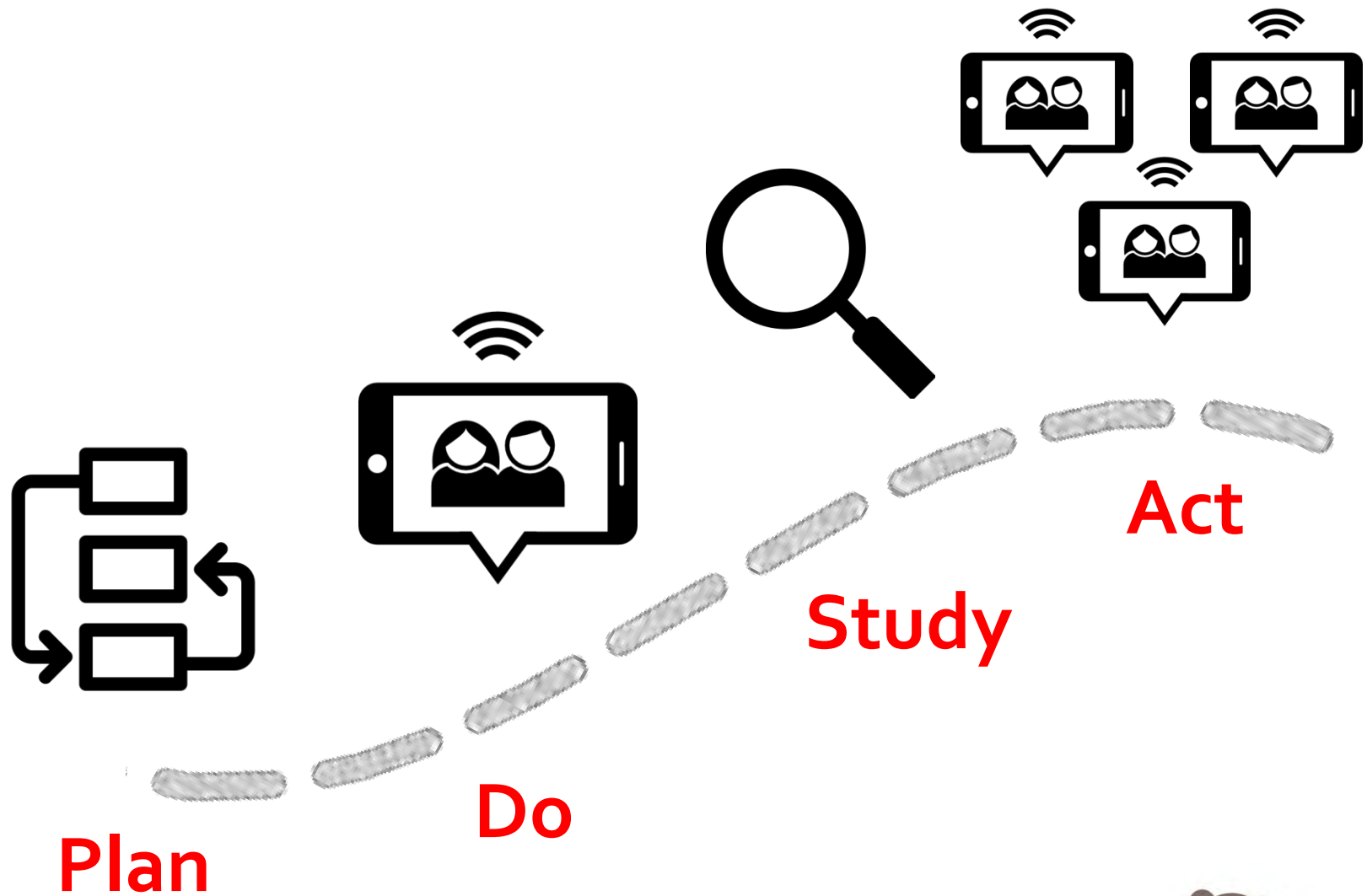


Telemedicine ADHD Algorithm



**Appropriate to consider
telemedicine visit

Video Visits- a Roadmap



Do

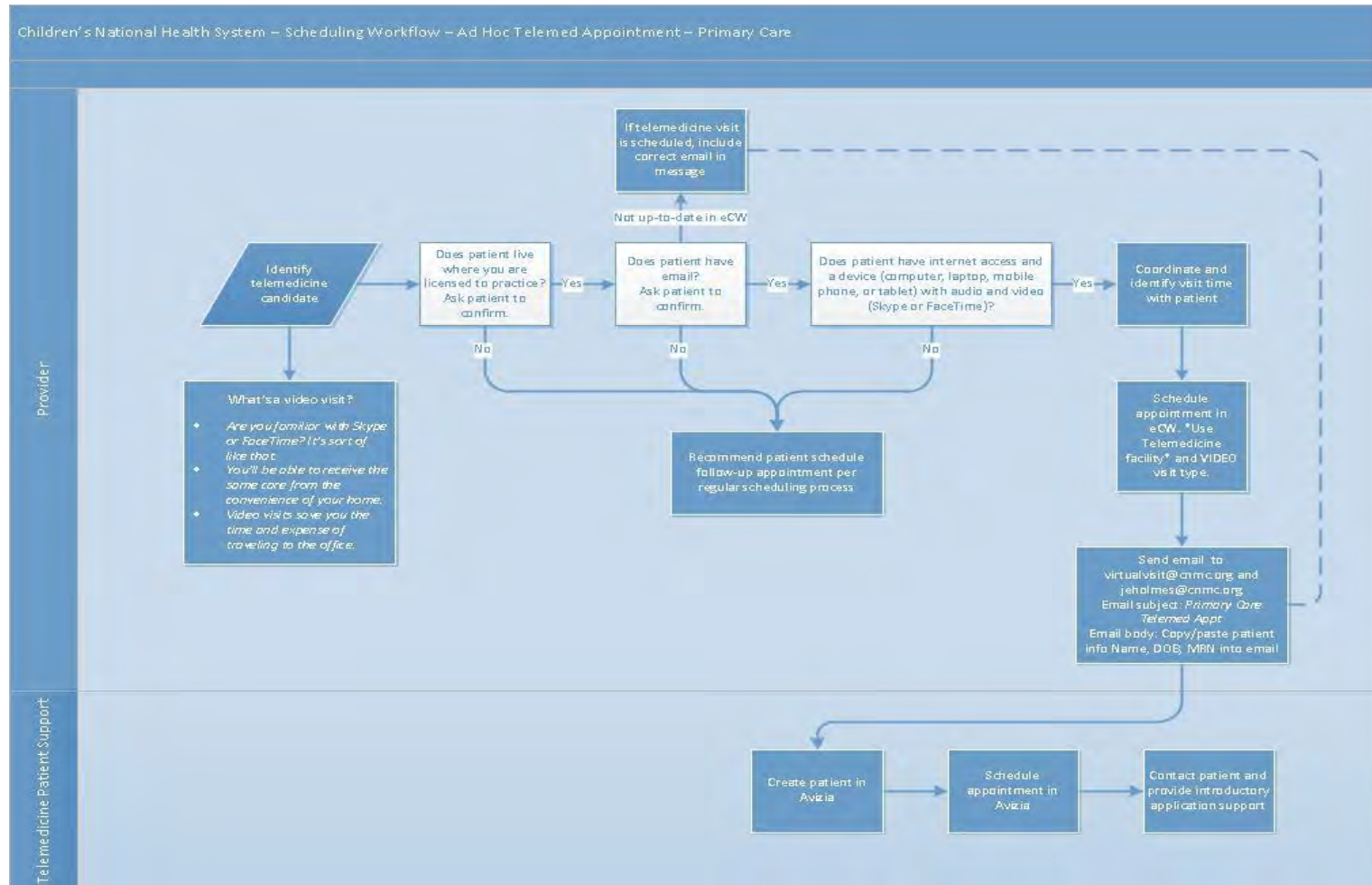
- **Start small**
 - Test your design
 - Conduct a test visit with a “test” patient
 - Document any issues and regroup
- **Scale up (incrementally)**
 - Schedule a few ad hoc visits with interested providers
 - Document any issues and regroup

Training and Support

For patients

- Develop patient materials for recruitment
 - Consider language and health/IT literacy of your patient population
- Clearly identify who can help if patients have trouble
- Website with instructions (videos can be very helpful)

Ad Hoc Visit Workflow: Identifying and scheduling a patient



Training and Support

I. Video Visit Requirements

Provider

- Approval – Contact medical director
- Training and Access – Contact Ariel McDade (amcdade@cnmc.org)
- Technology – Internet connection and device that can send and receive audio and video
- Space – Private space and/or privacy measures (i.e., headphones and private background); must be on-site (i.e., on Children's National premises)




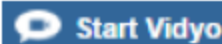


Patient

- Location – Resides in a state the provider is licensed to practice
- Insurance – Any Medicaid MCO, CareFirst, or uninsured
- Technology – Internet connection and device that can send and receive audio and video

Training and Support

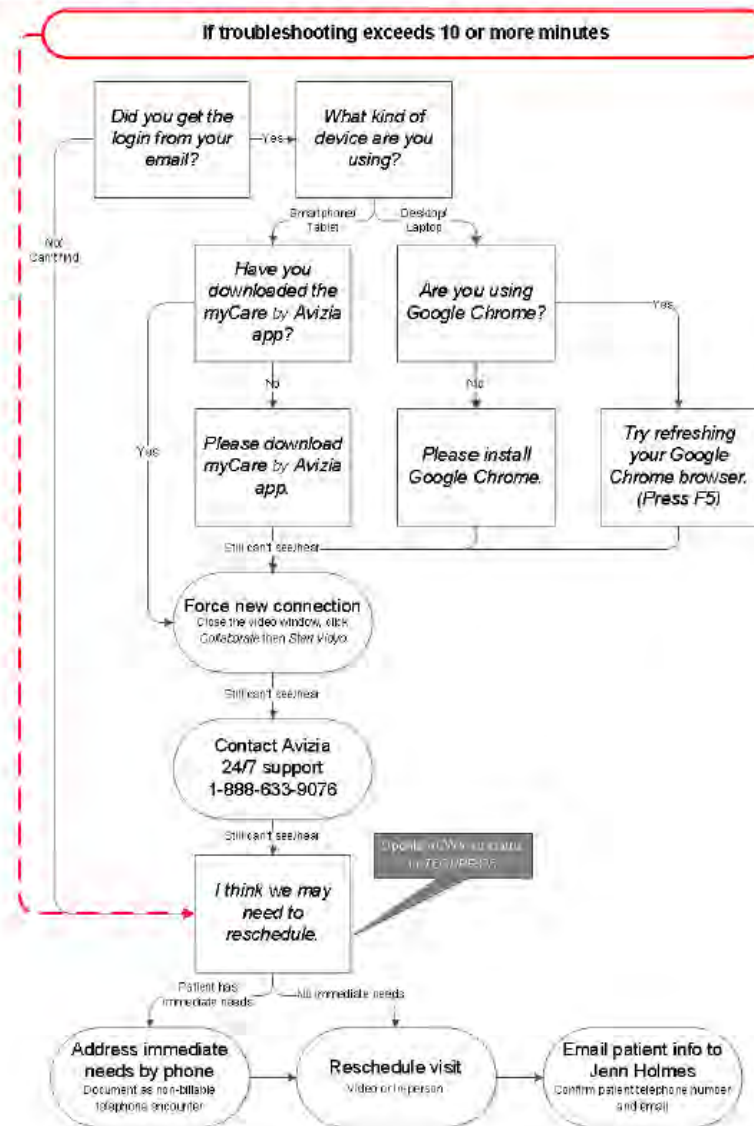
II. Conducting a Video Visit

Scheduled Visits

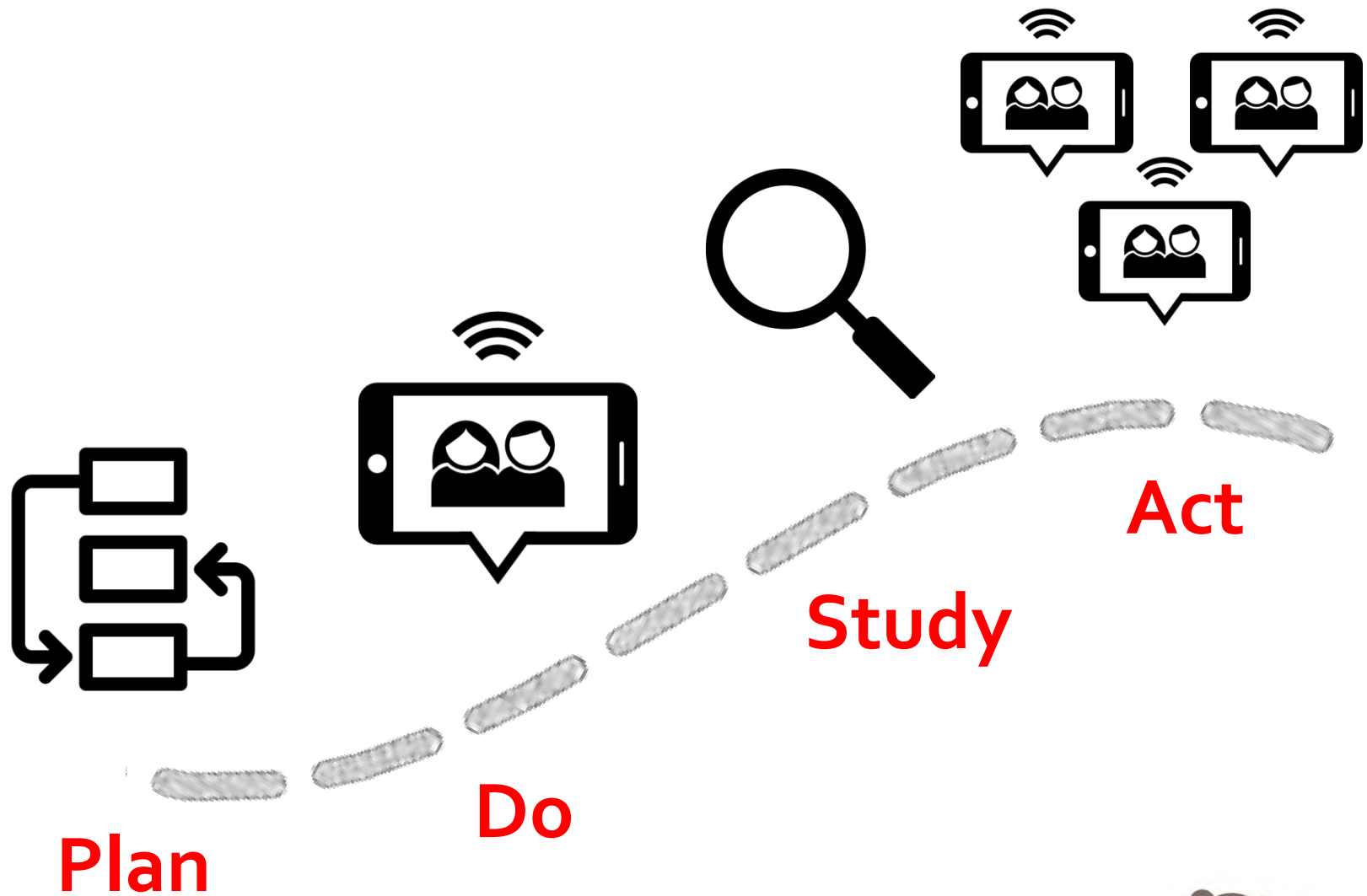
1. Use Google Chrome and go to childrensnational.avizia.com
2. Click on patient after they enter waiting room.
3. Click  then click  Assign to Me
4. Click  COLLABORATE then click 
5. Once the visit is done, end the call by clicking the  icon then click  to end the video visit.
6. Update the visit status in eCW to *Check Out* to indicate that the visit was completed.

Training and Support

The patient can't see or hear me.



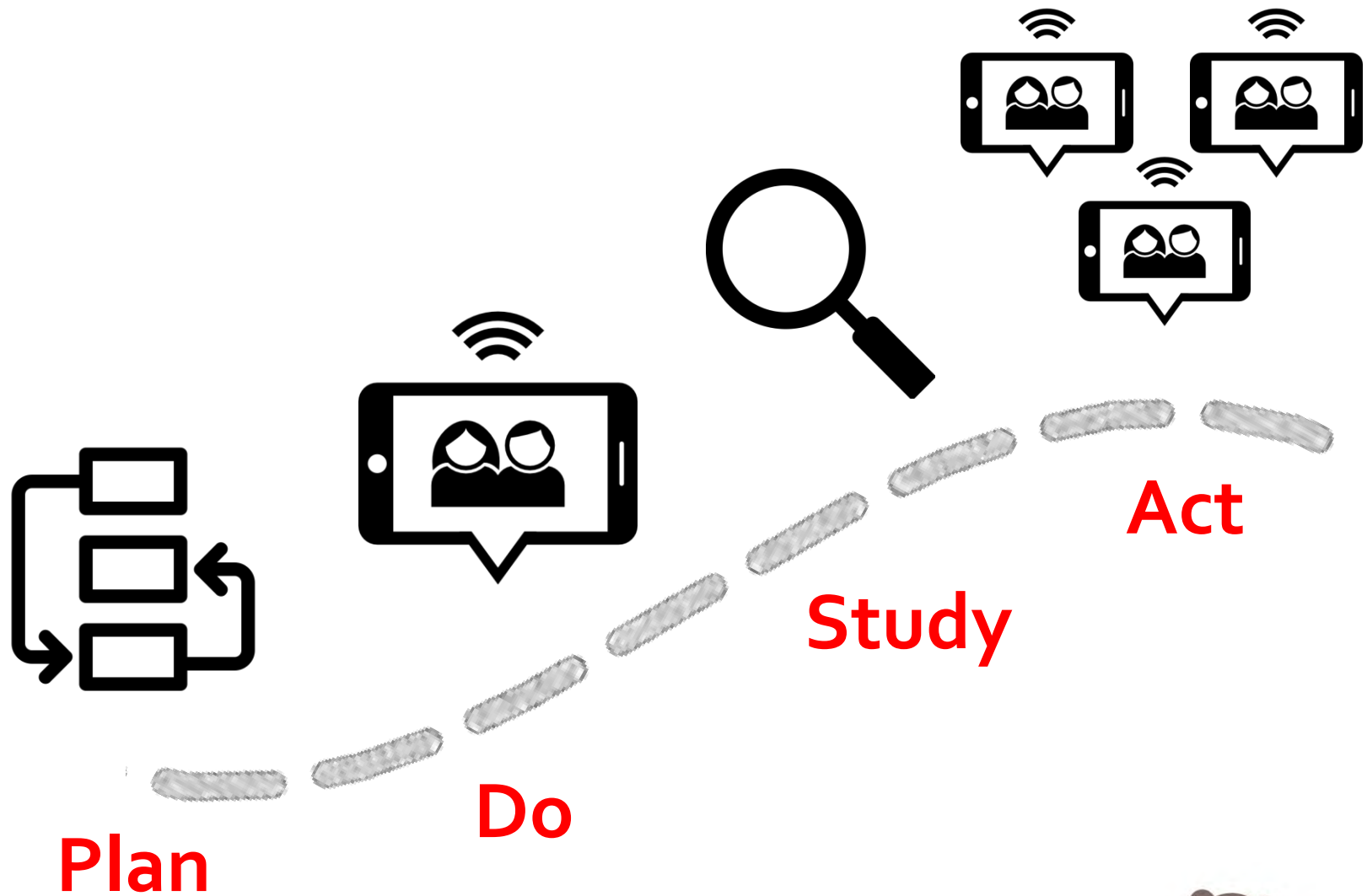
Video Visits- a Roadmap



Study or Revise

- This should happen several times
- Regroup
 - Review original plan and modify based on experiences
- Plan again
 - Assess gaps or needs for further scaling up
- Recruit, register, and schedule patients for next phase
- **Write it down**
 - Eligibility criteria (insurance, geographic, technical capability, use cases)
 - Workflows for various staff roles (scheduling, front desk, triage, providers)
 - Advertise (posters, handouts, email, **website presence**)
 - Manage expectations through messaging (similar to rolling out “walk in” services)

Video Visits- a Roadmap



Act – Run with it!

- Set a start date
- Identify your point person for info or issues
- Document any issues
- Regroup

Lessons Learned

Adoption

- Parents love it, the kids think it's pretty cool
- Providers at times more wary than patients
- Impact on workflow
 - Ad hoc recruiting/scheduling is challenging
 - Clinical algorithms needed to systematically identify patients
 - Ease of use and system quality
 - Training/support for families and providers is key for success

Lessons Learned

Technology

- Providers
 - Stations/ Office/ Space
 - Desktop or laptop (audio and video)
- Patients
 - Most families use their phones
 - Questions to ask families

Lessons Learned

Quality of care

- Developing standard of care: “in-person equivalency”
- Need to identify/develop appropriate use cases

Licensing/Legal

- Need to be licensed in jurisdiction where patient is located at time of visit
- Biggest barrier - limits pool, creates room for confusion on administrative level
- Interstate Medical Licensure Compact
- HIPAA compliance
- Liability

Lessons Learned

Payment for services

- Variable reimbursement – limited information
- Codes may be changing (currently using “GT” as modifier)
- Most visits that are reimbursed equivalent to office visits

Administrative/IT support

- Support for patients
 - Registration and coaching for initial visit
- Support for provider
 - Training and resources
 - Back up support during visits

Video Visits- consider this checklist

- Research and choose telemedicine platform
- Ask payers about reimbursement
- Apply for needed licenses/ discuss with malpractice insurance carrier
- Consider equipment and physical space needs
- **Engage providers and staff**
- **Develop use cases**
- Train providers in using platform and executing visit- “test” patient visits
- Pilot a few visits with interested providers (ad hoc visits)
- Build templates and workflows for scheduling
- **Develop and clearly identify telemedicine support**
- **Recruit and register patients**
- Develop mechanism and provide opportunities for feedback

Questions & discussion

