THE BUSINESS OF PEDIATRICS: NETWORKING FOR SUCCESS

20th CNHN Pediatric Practice Management Seminar
Wednesday, December 6, 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
Tomorrow’s customers
Is this a Kodak moment for pediatrics?
Have I got your attention?
Those who adapt, survive…

“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.”

Charles Darwin
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
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
Blockbuster out of business
Digital Darwinism

DIGITAL DARWINISM IS THE EVOLUTION OF CONSUMER BEHAVIOR WHEN SOCIETY & TECHNOLOGY EVOLVE FASTER THAN YOUR ABILITY TO ADAPT
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.

Becker’s Health IT & CIO Review- September 2017
Amazon Echo: Ask “Alexa”
(health advice on children’s symptoms)
KidsMD Children’s Boston
Ask Alexa: KidsMD
How Reliable is Telemedicine?


  - 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.ke.org/visits

2. If this is your first time using Video Visits, click Setup Wizard to make sure your webcam or built-in camera works properly.

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.

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20 YEARS: The Business of Pediatrics 2017
Coming soon to your practice?

- Get paid for appropriate E&M services delivered by secure teleconference
CareFirst PCMH now encouraging use of telemedicine
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

- Prescription Provided: 62%
- No Prescription Given: 38%

### Consumer Ratings, 2016

<table>
<thead>
<tr>
<th>Consumer Ratings</th>
<th>Rating out of 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider</td>
<td>4.8</td>
</tr>
<tr>
<td>Telemedicine Platform</td>
<td>4.6</td>
</tr>
</tbody>
</table>
Demographics: Gender and Age

Visits by Age, 2016

- Less than 18: 4%
- 18-29: 12%
- 30-39: 14%
- 40-49: 35%
- 50-59: 21%
- 60+: 14%

Visits by Gender, 2016

- Male: 35%
- Female: 65%
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.
Pediatric Application

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

- 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.\(^1\)

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.

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Pediatric Utilization

- 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:

<table>
<thead>
<tr>
<th>Percentage of Parents Who Would Consider a Virtual Visit If Their Child Was Sick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
</tr>
<tr>
<td>Probably</td>
</tr>
<tr>
<td>Might</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

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

<table>
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<th>Parents Who Have Used A Virtual Visit for Their Child, Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>Suburban</td>
</tr>
<tr>
<td>Small Town</td>
</tr>
<tr>
<td>Rural</td>
</tr>
</tbody>
</table>
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.
Sure- we have your payment info in our system. Click OK & we’ll ship your Rx right over!

Credit card or Paypal?
Plan for climate change…

“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?
  - 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

Do

Study

Act

20 YEARS: The Business of...
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

New diagnosis/Change in Baseline/ED follow up/Inpatient follow up

Nurse follow up call or patient calls clinic

Acute Symptoms

No

Yes

Respiratory Distress?

No

Yes

Asthma Education Follow up Visit (within 1-2 days)

Refer to IMPACT (if haven’t been seen in ≥2 years and consider other referrals *)

Schedule next visit in 2-6 weeks

Asthma Follow Up Visit

Poorly Controlled

Well Controlled

Intermittent

6 months

Persistent

3 months

Green boxes: Telemedicine or clinic visit

*IMPACT can/will refer and follow up with Pulmonary’s Severe Asthma Clinic/DOEE/Breathe DC/CLC
**Telemedicine ADHD Algorithm**

ADHD diagnosis: Medication started?

- **No**
  - Behavior Management
  - Collaborate with school to enhance supports and services
  - Do symptoms improve?
    - Yes
      - Follow-up for chronic care management 2-4x/year**
    - No
      - Consider:
        - Adding/ changing medication
        - Changing behavioral approach
        - Add further supports at school/home

- **Yes**
  - Medication titration (plus behavior management and school collaboration):
    - Can titrate every 3-7 days
    - Weekly or biweekly phone call or visit for next 4 weeks**
    - Can use follow-up Vanderbilt forms to inform titration
  - 4 weeks in-person follow up visit:
    - Monitor pulse, BP, weight
  - Optimal response?
    - Yes
    - No
      - **Appropriate to consider telemedicine visit**

**Note:**
- **Appropriate to consider telemedicine visit**
Video Visits - a Roadmap

Plan

Do

Study

Act
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

[Flowchart diagram showing the workflow process for Ad Hoc Visit Workflow: Identifying and scheduling a patient.]

20 YEARS: The Business of
Training and Support

I. Video Visit Requirements

Provider

- Approval – Contact medical director
- Training and Access – Contact Ariel McDade (amcdade@cnmnc.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
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 ASSIGN then click Assign to Me

4. Click COLLABORATE then click Start Vidyo

5. Once the visit is done, end the call by clicking the icon then click VERIFY & COMPLETE to end the video visit.

6. Update the visit status in eCW to Check Out to indicate that the visit was completed.
Video Visits - a Roadmap

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20 YEARS: The Business of
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

Plan

Do

Study

Act
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
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