Patient Centered E-Visits

Seth Bokser, MD, MPH
@SethBokserMD
Associate Professor and Associate Chief Medical Information Officer
University of California, San Francisco

DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.
Conflict of Interest

Seth Bokser, MD, MPH

Has no real or apparent conflicts of interest to report.
Learning Objectives

• Define e-Visit and virtual care

• Understand the drivers for the exponential growth of e-Visits. Consider where the market may be going in the future and what that means for you and/or your organization

• Consider a framework for increasing satisfaction, appropriateness, and outcome of virtual care.
The E-Visit: A New Age...Finally
Where Medicine Lived

- Office Visit
- Institutional Care
A Whole New World

E-Visits

Office Visit

Assisted Living
SNF
Hospital
ICUs

E-Visit  E-Consult  Telemed
E Visits Definition (Broad)

E-Visits = Virtual Care

"evaluation and management service provided by a physician or other qualified health professional. . .using a web-based or similar electronic-based communication"  AAFP
E Visits Definition (Narrow)

eVisits
Quick online care for common conditions

An eVisit is like an online medical clinic that provides quick online care for common conditions. You answer a series of questions about your symptoms from the convenience of your home or work. Then an advanced practice clinician reviews the medical information and provides a diagnosis and treatment plan, including any necessary prescriptions, within one hour.

eVisits are available seven days a week, 365 days a year (including holidays) and cost just $35.

♦ What conditions can be treated with an eVisit?
♦ Who can do an eVisit?
♦ When can I do an eVisit?
♦ How long does an eVisit take?
♦ What does an eVisit cost?
♦ Can I get a prescription for my diagnosis?
♦ What happens to my information?
The Spectrum of Virtual Care

E-Visit for Back Pain

Step 6 of 4: Tell us about your complaint

Please answer the following questions and click the Continue button.

* Indicates a required field.

* Are you pregnant?
  - Yes, I am pregnant
  - No, I am confident that I am not pregnant
  - I am not sure if I am pregnant

* Are you currently breastfeeding?
  - Yes
  - No

* Have you had a fever in the last 24 hours?
  - Yes, my fever is lower than 101.0°F
  - Yes, my fever is/was over 101.0°F
  - No, my temperature is less than 99.5°F
  - I have not taken my temperature

* Did you have an injury that caused the pain?
  - Yes, the pain started after an injury
  - No, I cannot remember an injury

< Back  Continue >  Cancel E-Visit
The Spectrum of Virtual Care

Last chance to save on consults! $199 for 10 consults: less than $20 each!

No more waiting rooms. Talk to a top U.S. doctor 24/7 for advice, prescriptions, lab tests, and more.
The Spectrum of Virtual Care
Growth of Virtual Care

Global Forecast of Telehealth Patients and Device and Service Revenue (Thousands of Patients and Revenue in Millions of US Dollars)

Source: IHS Technology, January 2014
What’s Driving E-Visits: “Liquid Consumer Expectations”
What’s Driving E-Visits: “Liquid Consumer Expectations”
What’s Driving E-Visits? Value-Based Payments

Perspective

Setting Value-Based Payment Goals — HHS Efforts to Improve U.S. Health Care

Sylvia M. Burwell

Forbes / Pharma & Healthcare

JAN 23, 2015 @ 08:03 AM | 90,206 VIEWS

UnitedHealth's $43 Billion Exit From Fee-For-Service Medicine

©HIMSS 2016
What’s Driving Exponential Growth of E-VI sits?

Consumerism

Percentage of Covered Workers Enrolled in a Plan with a General Annual Deductible of $1,000 or More for Single Coverage, By Firm Size, 2006-2014

Kaiser FF / HRET Employer Benefits Survey 2015
Traditional Fee-For-Service Reimbursement Coverage Growing

Legislating Telehealth

Parity laws require that insurers reimburse telehealth providers exactly as they would for an in-person visit. As it stands, 29 states and the District of Columbia have parity laws.

©HIMSS 2016
Traditional Fee-For-Service Reimbursement Coverage Growing

CPT Code = 99490

Medicare Reimbursement = $41.92 per patient/mo

E Visits (narrow definition) CPT code 99444
- Established in 2008
- Medicare and Medicaid Still Do Not Pay
- Private Insurers by Special Contract
- Patient Willingness to Pay
Supply can meet demand: Gig Economy

Gig Economy
Workers with alternative work arrangements

Examples:
- Independent Contractors
- Office Temps
- Stella & Dot
- Rodan & Fields

Online Gig Economy
Workers who utilize new technologies, markets and platforms for alternative work arrangements

Examples:
- Uber
- Lyft

Sharing Economy
Goods and services that employ under-utilized assets via online marketplaces

Examples:
- Wikipedia
- Fold@home
- The Linux OS
Clinic Supply can meet demand: Gig Economy

Physicians Working Part-Time, by Age Group

Medscape Physician Compensation Report 2015

Clinicians more comfortable with technology: EHR Uptake

% of all Physician Practices that have Adopted Any EHR | National Average = 78%

Creating a System of Patient-Centered Virtual Care
E-Visits for all: Bridging Disparities

Bridging a Digital Divide That Keeps Schoolchildren Behind

By CECILIA KANG  FEB. 22, 2016

Tony and Isabella Ruiz, shown with their younger brother, Leo, use a nearby school’s Wi-Fi to download homework assignments onto their smartphones. The family, in McAllen, Tex., has no Internet access at home.

Hans Pennink/For The New York Times

©HIMSS 2016
Patient Centric e-visits: Design Beyond the EHR Portal

• Web-Based Access
• New User Interface for Patient Forms
• < 1 Hour Response Time

Results = 188 visits per month to >250 month

Patient Centric e-visits: Invest in Support

Internet doesn't work.

Calls Family Tech Support guy.

DID YOU TRY

TURNING IT OFF AND ON AGAIN?

HIMSS 16
Customer Reviews

Gone down the tube. ★
by dwm81

I used to use this app a lot to help with reviewing my lab results, making sure I was on time for appointments and various other things. After the upgrade every button I hit either gives me nothing or the chance to request an appointment. I wanted to also use it to tie in with my phone's health app to keep an overall health picture but I can no longer do that either. I gave the app almost a month to get its stuff together and have seen no improvements. I guess does not keep tabs on its apps rather than just trying to get something out here so they can say they have done it.
"Of course we need to hold professionals accountable. . . We are hitting the targets but missing the point."

-Bob Wachter, MD  NY Times Jan 16, 2016
Even the most empowered consumers need experienced partners.

Care that’s convenient for you
Sometimes life gets in the way of getting to the doctor’s office, but you shouldn’t have to sacrifice feeling your best when your calendar is full.

I’d like to...

SEE A DOCTOR FACE-TO-FACE
GET ADVICE FROM MY DMG DOCTOR
SCHEDULE AN APPOINTMENT

PICK YOUR PATH TO A DMG DOCTOR

E-VISIT
You can communicate with your DMG Physician using email about common conditions by requesting an e-visit through MyChart.

TO PASS GO:
Become a DMG patient & sign-up for MyChart

VIDEO VISIT
Use your web-cam enabled computer or mobile device for a face-to-face visit with a DMG Physician.

DIRECT SCHEDULING
Schedule your own appointment with your DMG Primary Care Physician for Annual Physicals, Well Child Check-Ups & Follow-Up Visits through MyChart.
Even the most empowered consumers need experienced partners

“It’s your call. We can pull it out the long way, or push it all the way through.”
Even the most empowered consumers need experienced partners

- ± 250,000 Employees transitioned to high deductible plan
- Median Income $125,000 - $150,000
- Spending dropped 13% annually
- Demand dropped for both expensive lab and imaging tests & for high-value preventive services e.g., mammograms and colonoscopies

Patients and families need more information

- 46% of healthcare professionals say that they will introduce mobile apps in the next five years. (16% are prescribing)

- 86% believe that health apps will increase their knowledge of patients’ conditions.

- 72% believe that health apps will encourage patients to take more responsibility for their health.

Evidence for what mode of care is safe and effective?

Pediatrics
March 2016

Reliability of Telemedicine in the Assessment of Seriously Ill Children
Lawrence Siew, Allen Hsiao, Paul McCarthy, Anup Agarwal, Eric Lee, Lei Chen
Patients and families need help navigating the care spectrum

The following conditions can be treated via UPMC AnywhereCare:

<table>
<thead>
<tr>
<th>For Adults</th>
<th>For Children Ages 3-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Back pain</td>
<td>• Cold</td>
</tr>
<tr>
<td>• Birth control, need for</td>
<td>• Cough</td>
</tr>
<tr>
<td>• Bronchitis</td>
<td>• Diarrhea</td>
</tr>
<tr>
<td>• Burn</td>
<td>• Pink eye</td>
</tr>
<tr>
<td>• Cold</td>
<td>• Rash</td>
</tr>
<tr>
<td>• Cold and flu symptoms</td>
<td>• Vomiting</td>
</tr>
<tr>
<td>• Cough</td>
<td></td>
</tr>
<tr>
<td>• Diarrhea</td>
<td></td>
</tr>
<tr>
<td>• Flu</td>
<td></td>
</tr>
<tr>
<td>• Genital herpes</td>
<td></td>
</tr>
<tr>
<td>• Pneumonia</td>
<td></td>
</tr>
<tr>
<td>• Poison ivy</td>
<td></td>
</tr>
<tr>
<td>• Rash</td>
<td></td>
</tr>
<tr>
<td>• Red eye</td>
<td></td>
</tr>
<tr>
<td>• Pink eye</td>
<td></td>
</tr>
<tr>
<td>• Scabies</td>
<td></td>
</tr>
<tr>
<td>• Seasonal allergies</td>
<td></td>
</tr>
<tr>
<td>• Shingles</td>
<td></td>
</tr>
<tr>
<td>• Sinus infection</td>
<td></td>
</tr>
<tr>
<td>• Sinus/cold symptoms</td>
<td></td>
</tr>
<tr>
<td>• Sore throat</td>
<td></td>
</tr>
<tr>
<td>• Strep throat</td>
<td></td>
</tr>
<tr>
<td>• Urinary symptoms</td>
<td></td>
</tr>
<tr>
<td>• Vaginal irritation/discharge</td>
<td></td>
</tr>
</tbody>
</table>

Start a visit >

https://myupmc.upmc.com/anywhere-care/
It is about you. . .but it’s not just about you
### Patient Centric E-Visits: Balance Consumer Directed Care with Public Health Interest

#### Table 2. Antibiotic Prescribing Comparing Teladoc and Physician Offices (Unadjusted)

<table>
<thead>
<tr>
<th></th>
<th>Teladoc, No. (%)</th>
<th>Physician Office, No. (%)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotic prescribed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ARI visits</td>
<td>679 (55.7)</td>
<td>47,105 (55.3)</td>
<td>.79</td>
</tr>
<tr>
<td>Broad-spectrum antibiotic prescribed&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ARI visits</td>
<td>587 (86.5)</td>
<td>26,514 (56.3)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Otitis media</td>
<td>27 (87.1)</td>
<td>2,263 (38.7)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Pharyngitis</td>
<td>84 (86.6)</td>
<td>4,080 (49.8)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>270 (85.2)</td>
<td>9,762 (49.9)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>URI or nasopharyngitis</td>
<td>50 (80.7)</td>
<td>4,973 (66.2)</td>
<td>.02</td>
</tr>
<tr>
<td>Bronchitis</td>
<td>147 (94.2)</td>
<td>8,022 (75.9)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Influenza</td>
<td>5 (71.4)</td>
<td>338 (72.5)</td>
<td>.95</td>
</tr>
</tbody>
</table>

<sup>a</sup> Indicates statistical significance for all comparisons.

Patient Centered and Population Centered

37,000

Preventing infections and improving antibiotic prescribing could save 37,000 lives from drug-resistant infections over 5 years.

CDC Vital Signs

www.cdc.gov/vitalsigns/stop-spread
Patient Centric E-Visits: Transaction versus Relationship

Texas Puts Brakes On Telemedicine — And Teladoc Cries Foul

Updated June 4, 2015 · 2:12 PM ET
Published June 2, 2015 · 3:38 AM ET
Patient Centric E-Visits: Information Continuity

Model for Integrated Care vs. Fractured Care via Telehealth

Integrated Care
(All care & data is together)

1. Cohesion of care. Increased safety, lower cost, & higher convenience.

"Fractured Care"
Diffusion of clinical data and care delivery away from central medical record. Risk lower safety, higher overall cost.

2. Integrated Care.
PCP-patient & family caregiver relationships. All clinical data kept together & convenient.

3. Telehealth-enabled.
Use of telehealth with SAME long-term PCP & family caregiver relationships as in the Integrated Care. No loss of data or integration.

4. Extended Integration.
Telehealth-enabled encounter with other networked clinicians outside the regular PCP, but integrations back lower risk of data fracturing.

5. Outside Care.
Telehealth-enabled encounters with "one-off" clinicians. No pre-existing clinical relationship. Risk of data fracturing/ not integrating back to main record.

Bobinet K, et al. ONC White Paper Designing Consumer-Centered Telehealth and E-Visit Experience
E-Consults

@GleasonMD
Nathaniel Gleason, MD

Urology
Cardiology
BPH
A-Fib
GI
COPD
Diabetes
Endocrine
OSA
Lipids
CKD
Sleep Medicine
Nephrology

©HIMSS 2016
This eConsult response influenced my care plan:
N=101
How much time did you spend on your eConsult response?
N=121
Empathy and Relationships Matter

I think you'll find I'm one of the most empathetic doctors around.
The good physician treats the disease; the great physician treats the patient who has the disease.

-William Osler

Relationships Matter to Doctors too

What Is the Most Rewarding Aspect of Your Job?

- Being very good at what I do/Finding answers, diagnoses
  - Men: 34%
  - Women: 31%
- Gratitude/relationships with patients
  - Men: 32%
  - Women: 37%
- Knowing that I'm making the world a better place
  - Men: 11%
  - Women: 13%
- Making good money at a job that I like
  - Men: 11%
  - Women: 8%
- Being proud of being a doctor
  - Men: 7%
  - Women: 5%
- Nothing
  - Men: 3%
  - Women: 3%

Relationships can be built and sustained both in-person and online.

The Waiting Begins

7 Days until next available new-patient appointment in Miami

63 Days until next available new-patient appointment in Boston

Ready yet?

20 minutes, 15 seconds
Average amount of time a patient spends in the waiting room

20 minutes
Average amount of time a patient will wait patiently before they start to feel their time is being wasted

Look Who's Talking

Patient asks 5 questions

Patients are interrupted 18 seconds into an explanation.

Doctor asks 25 questions

www.humanizaingmedicine.org/infographics
The Arnold P Gold Foundation
Patient Centric E-Visits: Nourishing Therapeutic Relationships

The future of medicine: Telehealth visits allow UCSF patients to continue care from home

By Laura Dudnick  @LauraDudnick

- >144 Pain and Palliative Care Telehealth visits
- Patient Satisfaction (4.9/5)
- Provider Satisfaction (4.9/5)
- Reimbursement = clinic visit
- Time Saved (Average 5 hours per family!)

Sergio Aaron Manriquez, 12, has Metastatic Osteosarcoma and uses TeleHealth to communicate with one of his doctors.
Chief Complaint
Medical History
Family History
Medications
Genomics
Exposures

Patient-Generated Health Data

Language Literacy
Learning Style
Tech Facility/Access
Preferences & Values

Access/Decision/Triage

Content Email E-Visit E-Consult Telehealth Visit

Artificial Intelligence, Optimized Workforce

Continuous, Bidirectional Interoperable EHR

Diagnosis Treatment

Education Listening Therapeutic Relationship

Economic incentives, reimbursement, social policy/safety nets align to support growth
Thank you

Seth Bokser, MD, MPH
Seth.Bokser@ucsf.edu

@SethBokserMD