

Using eHealth to Improve Patient Literacy

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Definition of Health Literacy

- The degree to which individuals have the capacity to **obtain, process and understand** basic health information and services needed to make appropriate health decisions. (US Dept of HHS, Healthy People, 2010)
 - More Americans go online to **obtain** medical advice than visit a health professional
 - Online health sources written at 10th grade or above reading level – often require 2 years of college to **interpret**
 - Health professionals often assume people **understand** names, locations and functions of human body organs

Literacy Requirements Change over Time

- New parents
 - Immunization schedules
 - Prescription labels, dosage requirements for children
- Older patients
 - Medication dosages can change from week to week
 - Nutrition label interpretation needed to manage salt, sugar or fat intake
- Motivated patients
 - Life circumstances, e.g., infertility treatments
 - Chronic illnesses, e.g., HIV

Indicators of Low Health Literacy

- Age
 - Mental capacity
 - Visual acuity
 - Auditory acuity
- (Heubusch, 2010; Schwartzberg, VanGeest & Wang, 2005)
- English as a second language
- Low literacy in native tongue
- Not willing to admit they do not understand directions from a caregiver
 - Provide incomplete historical information
 - Nod in agreement with instructions
 - Try to memorize discharge instructions

Ability to Understand Instructions

- Appointment slips
- Pre-op and Post-op verbal/written instructions
- Instructions for self-care
- Educational materials
- Consent forms
- Prescription drug bottles



What does it take to take a pill?

- Take 1 pill 2 times a day
- Take 1 pill twice a day
- Take 1 pill in the morning and 1 at night
- Take 1 pill at 8 am and 1 at 8 pm
- (Allen, Kindig, Parker, Roter, 2008)



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“Right now I take a blue pill, a purple pill, an orange pill, a white pill, and a yellow pill. I need you to prescribe a green pill to complete my collection.”

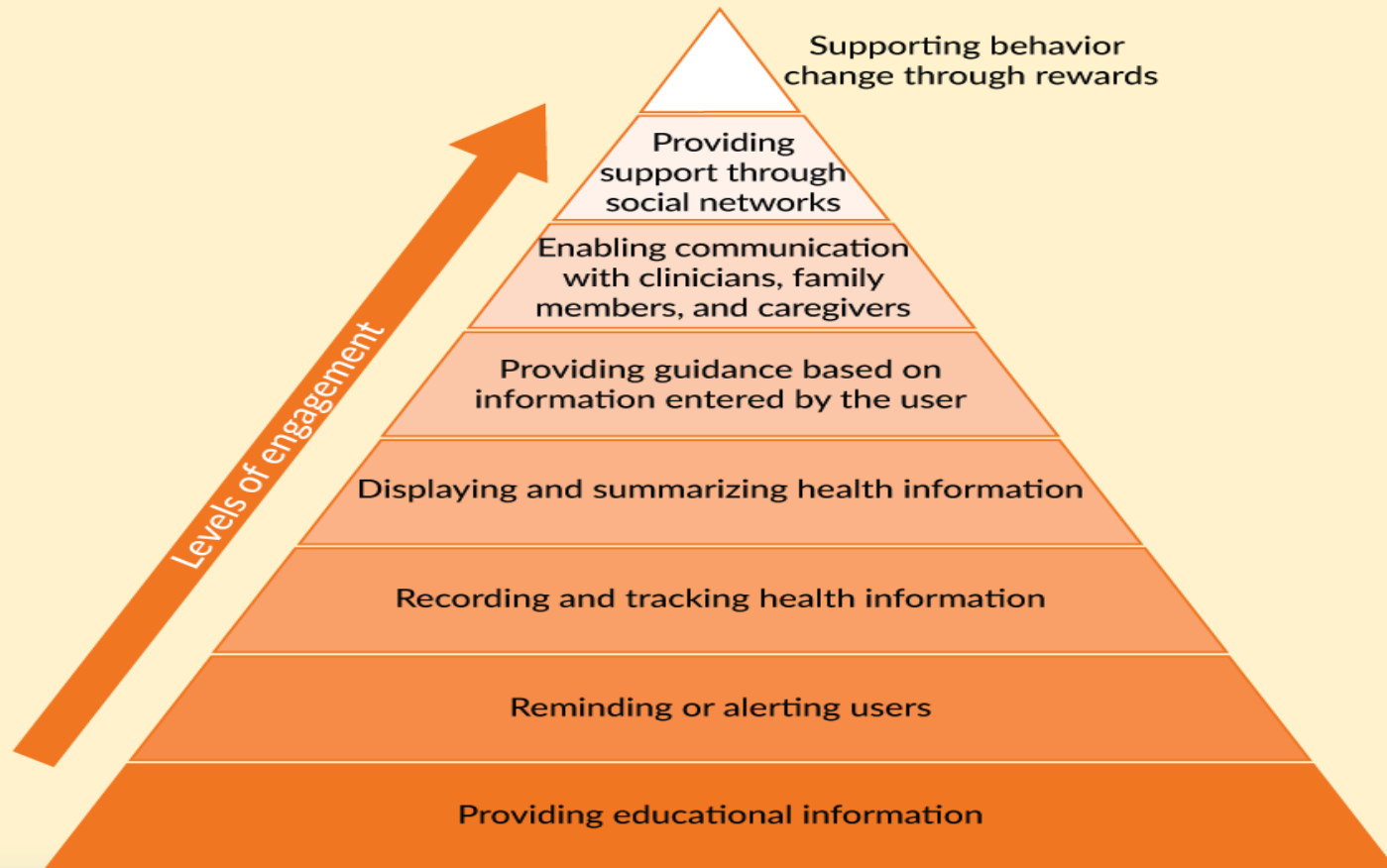


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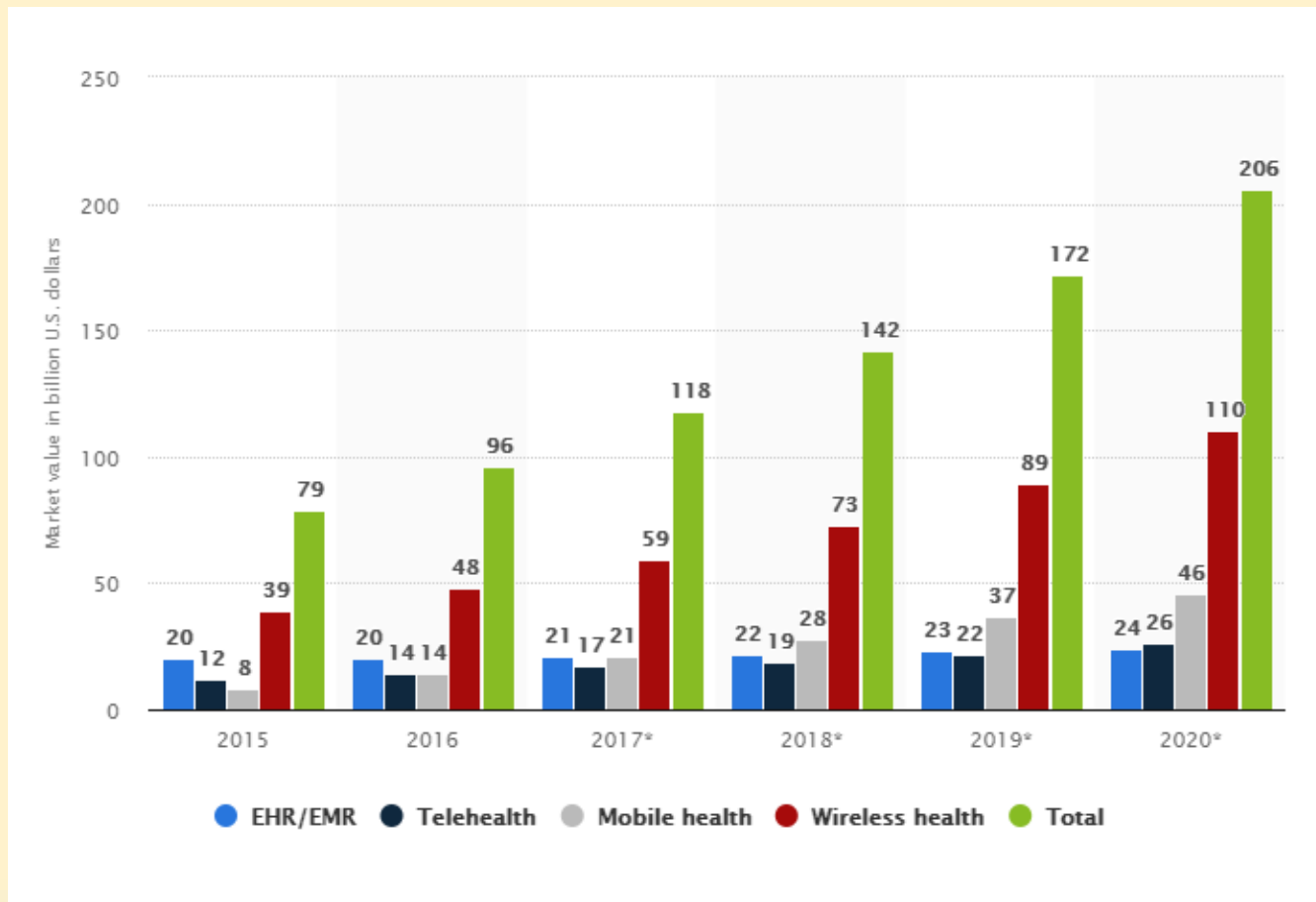
What can healthcare managers/providers do?

- Be aware of literacy issues that may confront us in our daily routines
- Avoid complex words and jargon whenever possible
- Tools
 - Glossaries which include audio
 - “Infobutton” (Baorto & Cimino, 2000)
 - Specific medication instructions given in audio format and/or use pictures
 - Use pediatric consent form language

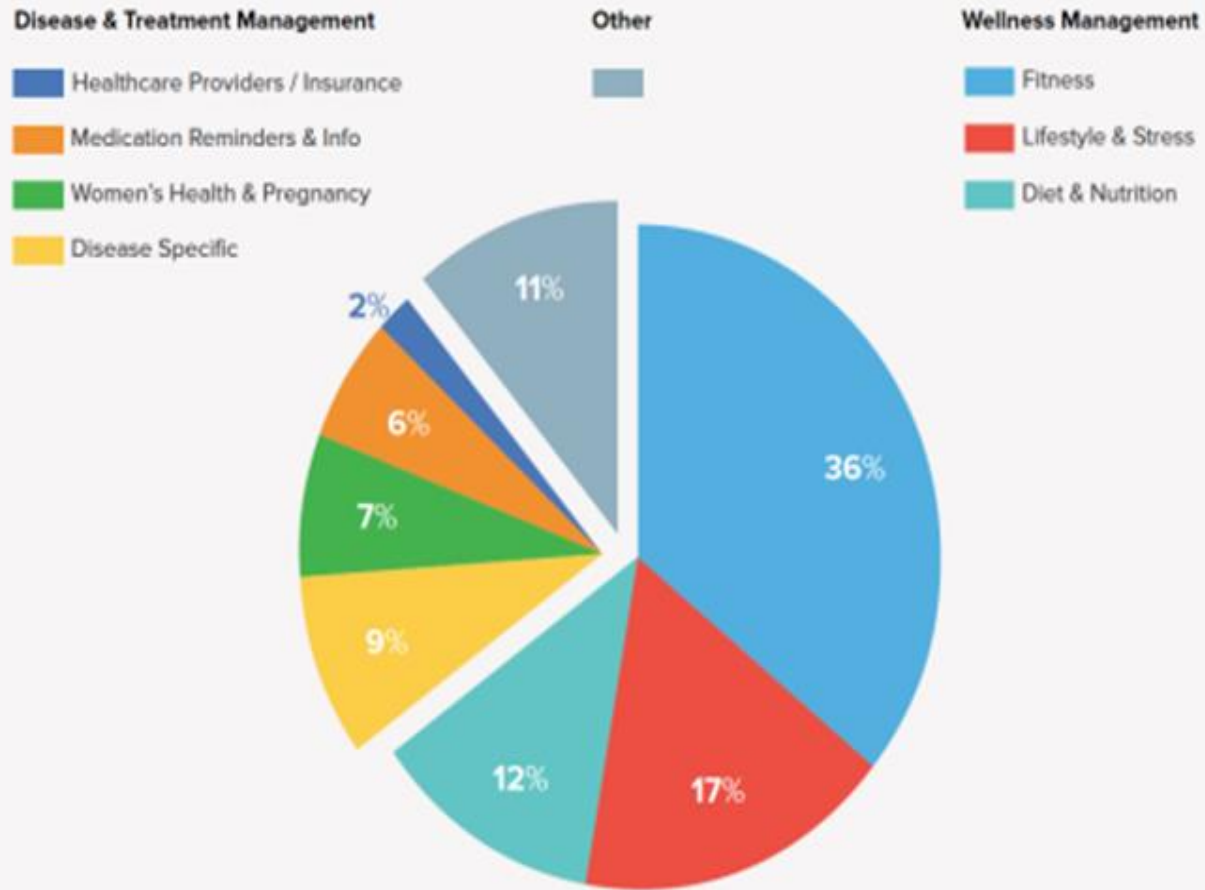
How Do We Use HIT To Improve Engagement?



Global Digital Health Market 2015-2020 in Billions US\$

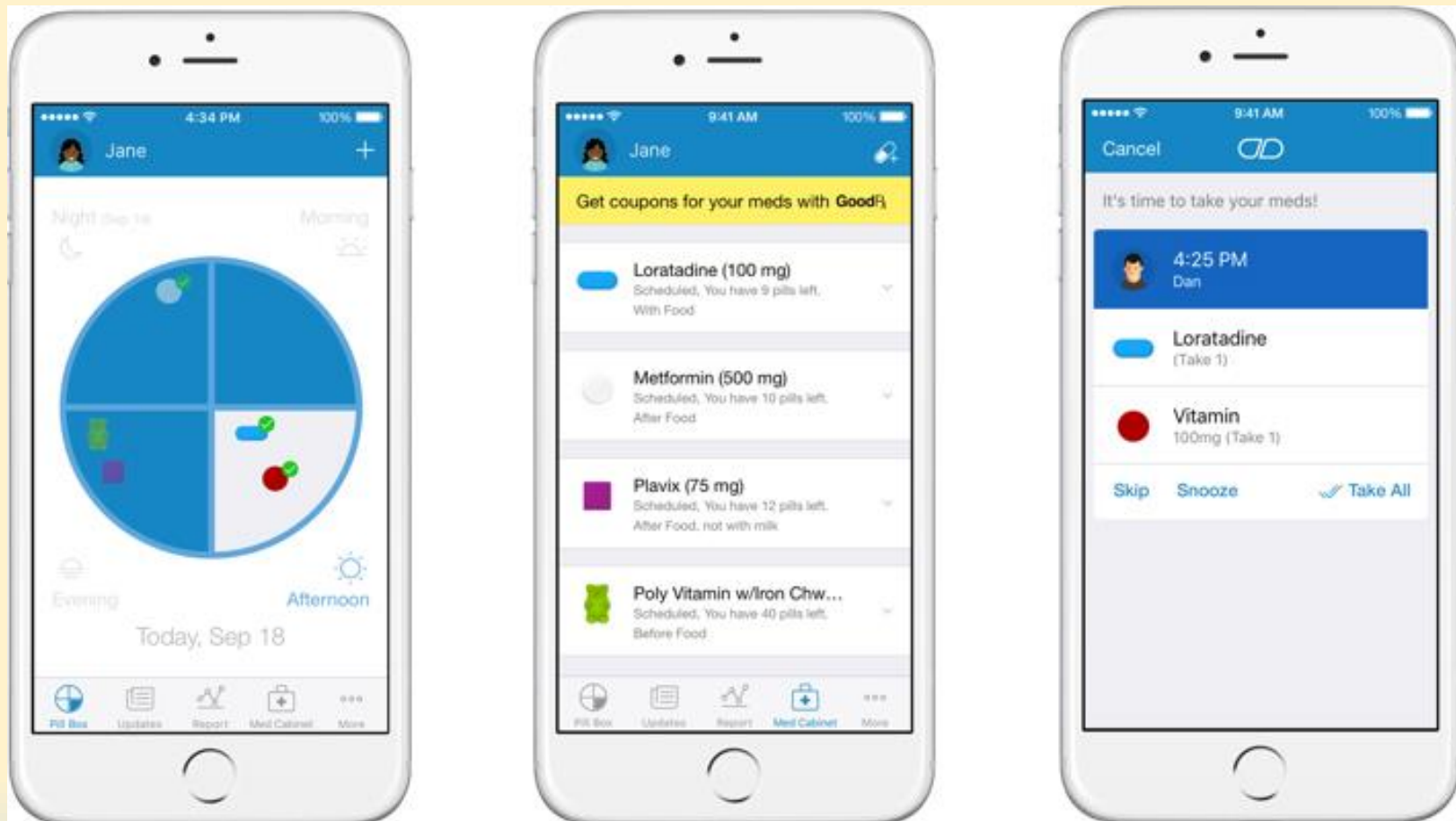


Mobile Health



Source: Mevvy, June 2015; IMS Health, AppScript, June 2015; IMS Institute for Healthcare Informatics, August 2015

Medisafe



Patient Portal

Messages (3)
Reminders
Appt.
Bill Pay
Referrals
Med. Refill
Request Records
E-Visit
Forms
Doc. Questionnaires

General Info
Name: Holly B Carter
Sex: Female
Birthday: 11/22/1978
Primary Phone:
Secondary Phone:
Email: holly.demuro@synamed.com

Medical Info
Height:
Weight: 135 Pounds
Blood Type: N/A
General History: None Reported

Reminders
There are no upcoming events in your calendar

Upcoming Appointments
Holly B Carter
01/19/2011 04:30 PM | holly demuro, M.D. | | IMH
Holly B Carter
01/03/2011 10:15 AM | holly demuro, M.D. | | Office Visit IMH
Holly B Carter
12/27/2010 10:15 AM | holly demuro, M.D. | | Office Visit IMH
Holly B Carter
12/24/2010 01:15 PM | holly demuro, M.D. | | IMH

Messages
Holly B Carter, you have **3 New Messages!**

Health Trackers
Weight Measurement BMI Blood Pressure Blood Sugar
Cholesterol Triglycerides

Date	Weight (lb)
03/07/2010	175.0
05/07/2010	150.0
07/14/2010	125.0
07/20/2010	100.0
07/30/2010	150.0
08/03/2010	100.0

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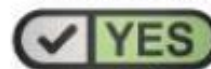


Patient Portal & Medication Adherence

- Improvement in medication adherence for statin medication when portal is used (Sarkar, et al, 2014)
- Improvement in all medication adherence when portal is used (Lyles, et al 216)
 - Hypothesize that the ease of ordering refills drives adherence

Physician's Perspective

Does your practice have a patient portal? **72.2%**



What is the biggest challenge in utilizing your patient portal?
(Among those who answered Yes)

27.8%

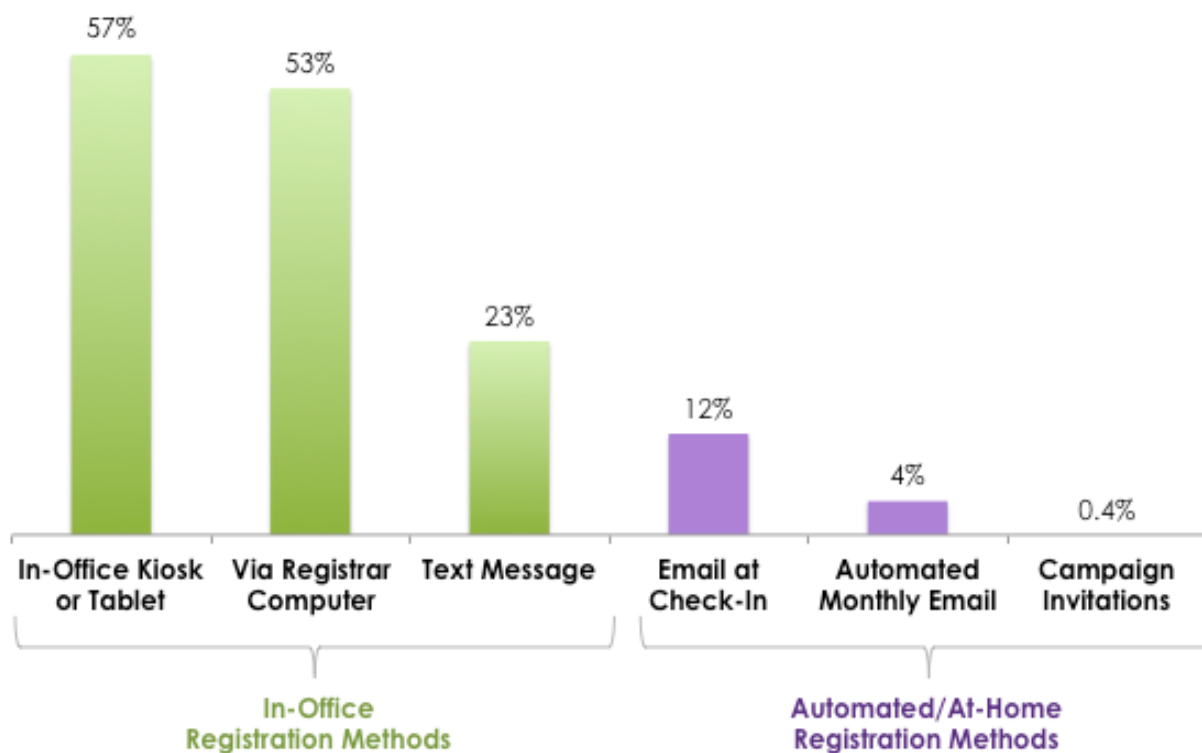


- Getting patients to sign up / use the system (65.8%)
- Work flow related to maintaining communication (15.8%)
- Interoperability to other practice systems (EHR, practice management system, etc.) (11.2%)
- Getting physicians and staff to use the system (7.2%)



Registering Patients

Figure 4. In-Office Registration Methods Have Vastly Higher Yield
Portal Adoption Rate by Registration Method



Source: athenaResearch.

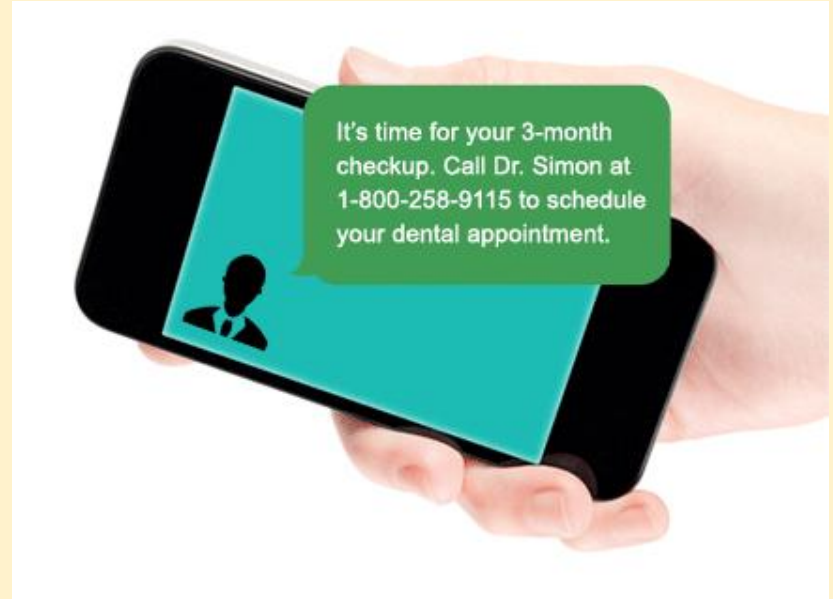
Sample: 973k patients visiting practices offering the athenaCommunicator portal.

Why Patients that Can, Don't

- Lack of Information
- Passwords
- Interface Issues
- Usability
- Lazy/Busy/Forgot

Secure Messaging

- Push communication
- Appointments
- Reminders for medication adherence



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Questions?



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