



Community Health Center Electronic Patient Engagement Adoption Framework



Intro to HITEQ

The HITEQ Center is a HRSA-funded National Cooperative Agreement that collaborates with HRSA partners including Health Center Controlled Networks, Primary Care Associations and other National Cooperative Agreements to support health centers in full optimization of their EHR/Health IT systems.

HITEQ identifies and disseminates resources for using health information technology (IT) to improve quality and health outcomes. HITEQ includes:

- A searchable **web-based health IT knowledgebase** with resources, toolkits, training, and a calendar of related events
- **Workshops and webinars** on health IT and QI topics
- **Technical assistance** and responsive teams of experts to work with health centers on specific challenges or needs

Contact HITEQ for training or technical assistance

HITEQ SERVICES SUPPORT:

- Health IT Enabled Quality Improvement
- EHR Selection & Implementation
- Health Information Exchange
- Health IT/QI Workforce Development
- Value-Based Payment
- Privacy & Security
- Electronic Patient Engagement
- Population Health Management & Social Determinants of Health
- Achieving Meaningful Use
- Telehealth & Telemedicine

email us at hiteqinfo@jsi.com!

Today's Presenter

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- Senior Study Director – Healthcare Delivery, Research, and Evaluation, Westat
- Electronic Patient Engagement domain lead for the HRSA HITEQ Center project.
- Previously CTO for HealthATM – FQHC focused PHR
- Active in patient generated health data research and development with a focus on underserved populations 2007 - present
- HL7 Mobile Health Co-Chair and project lead for the HL7 Consumer Mobile Health Application Functional Framework



Session Agenda

- Part 1: Electronic Patient Engagement (EPE) Objectives
- Part 2: EPE and the Diabetes Use Case
- Part 3: EPE Tools & Consideration for Effective Use
- Part 4: EPE Assessment and ROI



Part 1: Overview of Electronic Patient Engagement

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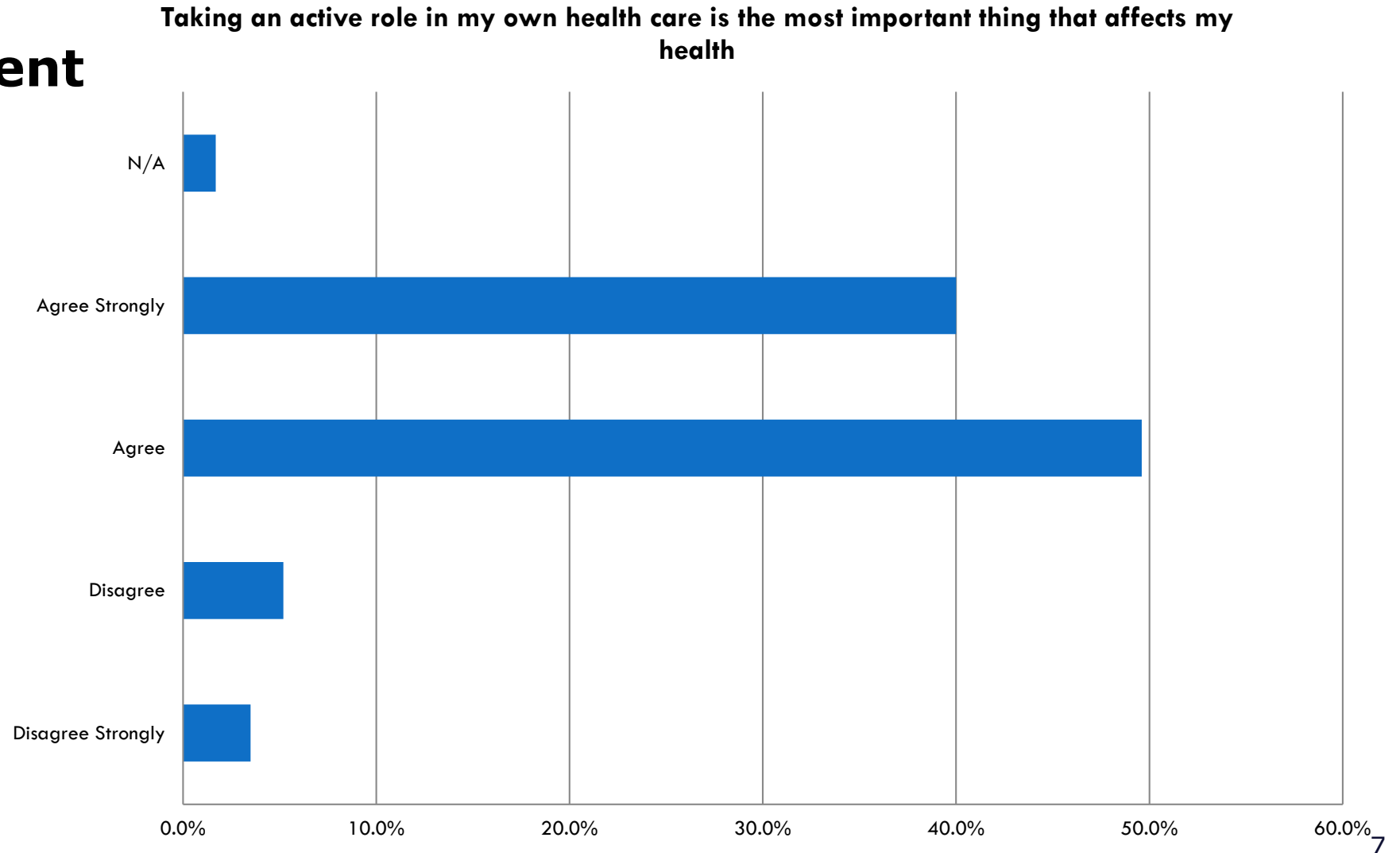
Patient Activation & Engagement

- **Patient activation** refers to a patient's knowledge, skills, ability, and willingness to manage his or her own health and care
- **Patient engagement** is a broader concept that combines patient activation with interventions designed to increase activation and promote positive patient behavior.



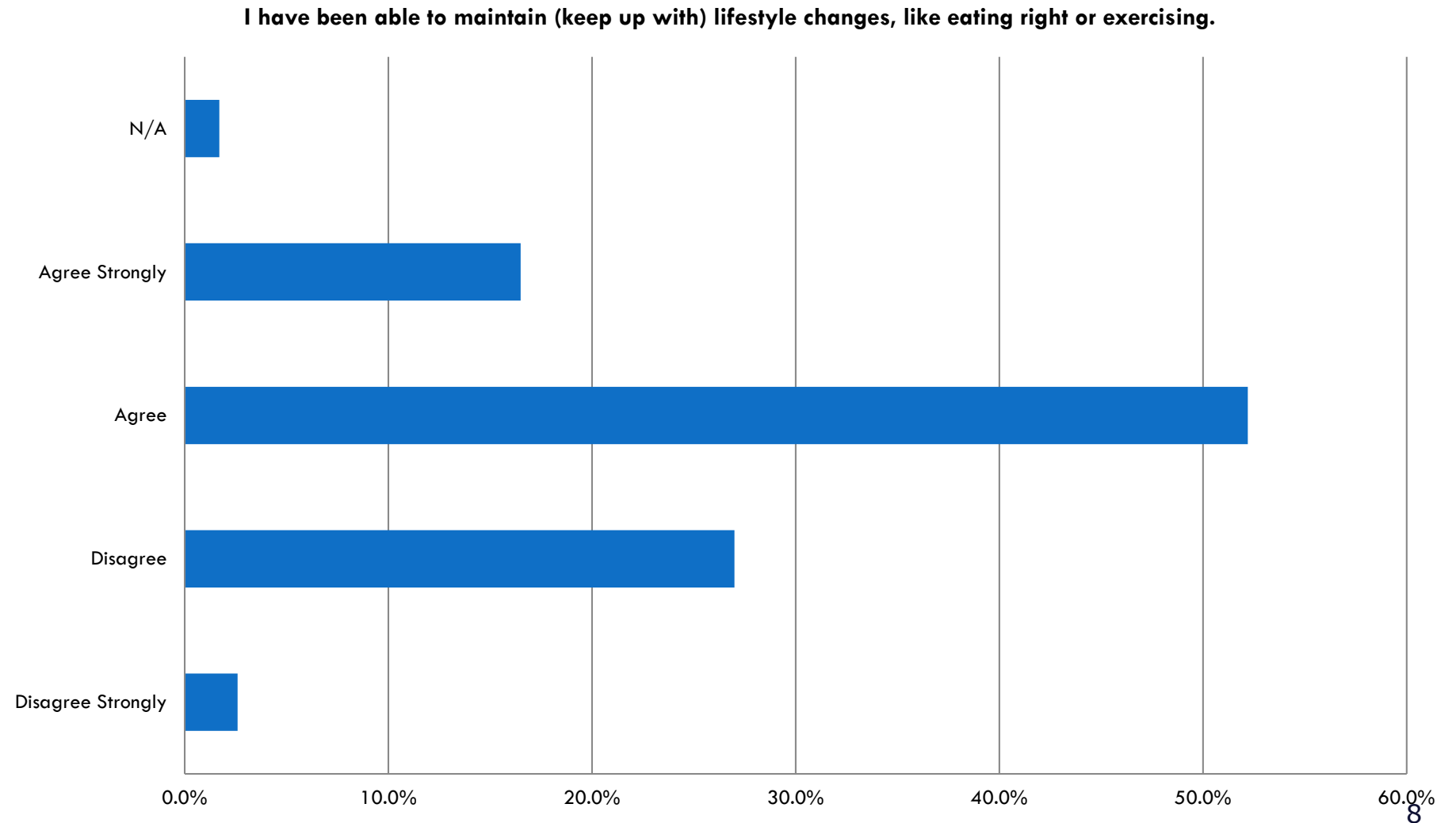
Patient Activation Need vs Ability

Acknowledgement of the need for activation



Patient Activation Need vs Ability

**Personal
ability to be
activated**



Patient Engagement Opportunity

- Consumers want to access care on their own terms.
- Patient engagement improves overall health outcomes, while fostering meaningful collaboration between patients and healthcare providers.
- Effective ways for health centers to engage patients include:
 - implementing patient specific education
 - preventative care appointment scheduling
 - health tracking
 - comprehensive patient portal adoption

Electronic Patient Engagement Factors

- Can be a more reliable way to get in touch with some patients, such as those who do not have a stable address or phone number.
- Allows greater confidentiality for patients, avoiding the need for phone messages or undesired face to face contact.
- Patients may be more comfortable communicating about sensitive issues via secure messaging.



EPE Adoption Barriers

- What are key barriers you have experienced when trying to implement electronic patient engagement strategies?
 - Patient interest in adoption
 - Cost of infrastructure
 - Language / Literacy Issues
 - Effective Technical Support
 - Poorly designed tools
 - Workflow Issues
 - Financial



Policy-related factors: Constraints and Considerations

- Meaningful Use (now Promoting Interoperability!)
 - Previously difficult to meet view, download, transmit requirements related to Patient Electronic Access objectives within MU.
 - Promoting Interoperability updates are still in progress, but are encouraging adoption of approved APIs that would allow for increased opportunities for patient engagement and access to healthcare data (e.g., MyHealthData)
- HIPAA
 - Can impose perceived constraints on deploying potentially high impact electronic patient engagement opportunities (e.g., social networking apps, 3rd-party health apps)
 - Still many grey areas surrounding text messaging and related HIPAA constraints
- CMS Reimbursement
 - Reimbursement opportunity and rates for electronic patient engagement implementation and use are still under development
 - Updated CPT Codes, primarily for telehealth are in use and are evolving, but are often limited to specific practice areas



COVID-19 Break the Glass Scenario

- OCR will exercise its enforcement discretion and will not impose penalties for noncompliance with the regulatory requirements under the HIPAA Rules against covered health care providers in connection with the good faith provision of telehealth during the COVID-19 nationwide public health emergency.
- A covered health care provider that wants to use audio or video communication technology to provide telehealth to patients during the COVID-19 nationwide public health emergency can use any non-public facing remote communication product that is available to communicate with patients.
- This exercise of discretion applies to telehealth provided for any reason, regardless of whether the telehealth service is related to the diagnosis and treatment of health conditions related to COVID-19.
- <https://www.hhs.gov/hipaa/for-professionals/special-topics/emergency-preparedness/notification-enforcement-discretion-telehealth/index.html>

Using Non-Traditional Telehealth During the COVID-19 Pandemic

- During this public health emergency, the Office for Civil Rights has eased regulations on the use of some non-traditional telehealth technologies that can be used for any services, not only those specific to COVID-19.
- Visit this resource to make sure you understand what you can and cannot do:
<https://hiteqcenter.org/Resources/Privacy-Security/HIPAA/using-non-traditional-technology-for-telehealth-during-covid-19-pandemic>

DO NOT USE FOR TELEHEALTH



Any video communication applications that are public facing (such as live streaming) should not be used in the provision of telehealth by health care providers. These include the following:

Facebook Live
Instagram Live
Twitch
TikTok

PERMISSIBLE DURING THIS PUBLIC HEALTH EMERGENCY



Providers are encouraged to notify patients that these third-party applications potentially introduce privacy risks, and providers should enable all available encryption and privacy modes when using such applications.

Apple FaceTime
Facebook Messenger video chat
Google Hangouts video
Skype
Zoom

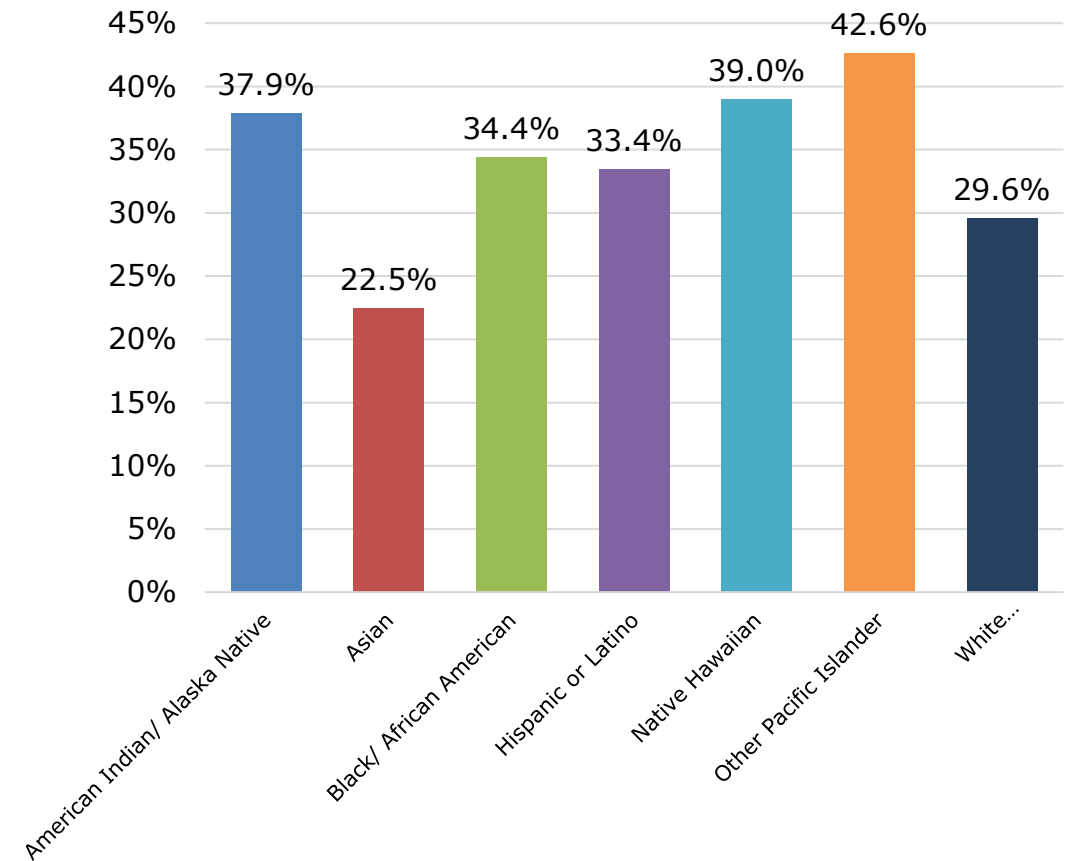


Part 2: Diabetes Self-Management Use Case for Electronic Patient Engagement

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BPHC Diabetes Improvement Goal

- **Performance Measure:** Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period
- **Target Goal:** By the end of the project period, decrease the percent of adult patients with type 1 or 2 diabetes whose most recent HbA1c is greater than 9%
- **Numerator:** Patients whose most recent HbA1c level (performed during the measurement period) is >9.0%
- **Denominator:** Patients 18-75 years of age with diabetes with a visit during the measurement period



Problem Statement

- Key barriers to effective diabetes care:
 - lack of patient activation and engagement with their diabetic care plan
 - lack of medication adjustment by physicians during clinical encounters
- Patients have difficulty adhering to diabetes regimens including:
 - Glucose monitoring
 - Diet & Exercise
 - Medication adherence
 - Understanding care plans
- A myriad of factors impact a patient's ability to manage their condition including:
 - Health beliefs
 - Current knowledge
 - Physical limitations
 - Related socio-economic factors (e.g., culture, education, economics)

Diabetes Patient Engagement Best Practices

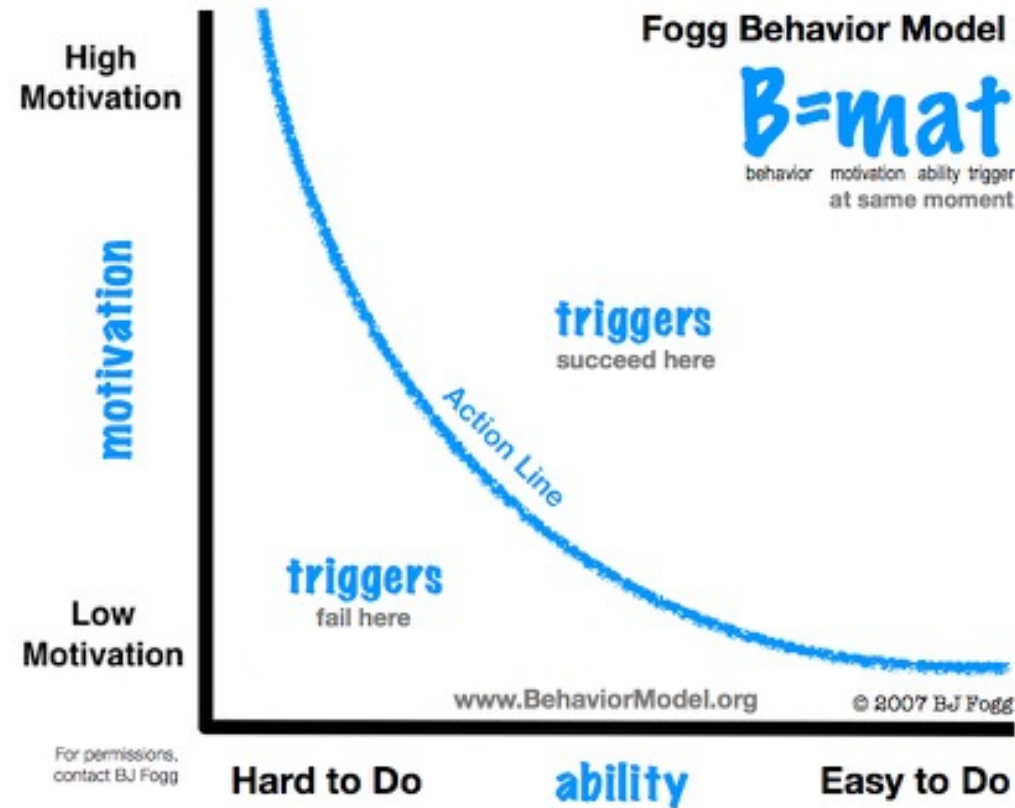
- **National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Guidelines:**
 - **Shared-Decision Making:** the patient must be well-informed of the treatment options and clinical evidence around managing diabetes.
 - **Motivational Interviewing:** done through asking open-ended questions, affirming the patient's responses, reflecting on their views and summarizing the discussion
 - **Goal Setting:** assist patients in setting goals for self-care behaviors that include eating healthy, being physically active, adhering to medication and monitoring health.

Electronic Patient Engagement Opportunities

- Decisions most affecting diabetes management are made by the patients themselves
- Technologies that target patient/consumer engagement are having a significant impact on diabetes-related health outcomes.
- Provides opportunities to:
 - increase patient to provider communication
 - provide patients with personalized hemoglobin A1c (HbA1c) reports
 - provide real time access to lab results and education
 - increase patient involvement in their care planning



Fogg Behavior Model



Diabetes Management Behavior Change = MAT

- **MOTIVATION:** help patients understand the impact small changes in diabetes self-management can make
- **ABILITY:** anticipate objections, educate accordingly, and deploy the right interventions at the right time
- **TRIGGER:** get patients enrolled in a “project” that supports them in every step

Crossing Healthcare Diabetes Self-Management Education Program

- Providers refer patients and an initial assessment is completed.
- Patients are then enrolled in a total of 10 hours of diabetes education classes across multiple days throughout the program.
- Three months later, a follow-up appointment is completed to review lab work changes, weight changes and where each patient is with their personal goals.
- Once they complete the entire education program, patients are then enrolled in a social media support group through a private Facebook account that allows them to engage with their peers.



Diabetes Health IT Cost Savings Impact Example

Project HOPE Chicago - Mobile Phone Diabetes Project

- A primary-care-based mobile health program that sends health-behavior-related text messages to diabetes patients both improved outcomes and reduced costs.
- Treatment participants were an average age of 53 years old and had a diabetes duration of 8 years. Two-thirds were African American.
- Total healthcare costs declined by a significant \$812 per patient over the 6 months, including a drop of \$1332 for outpatient visits
- Costs of the mHealth program were estimated to be \$375/participant, **suggesting a net cost savings of \$437/participant (\$812-\$375)**

Health Apps & Diabetes

One app does not rule them all!

- Apps that provided feedback from healthcare professionals produce greater reductions in blood glucose levels than automated advice
- Apps that allowed users to track more than three self-monitoring tasks produce greater reductions in blood glucose levels



Part 3: EPE Tools and Considerations



Patient Portal Adoption

- Successful adoption within the underserved hinges on ability to engage patients, provide communication paths, and to be flexible
- Overall literacy is a big factor and informs a need for more visually based PHR resources
- Establishing trust in the use of electronic patient engagement tools is critical to effective adoption, especially given all the recent news on breach
- Access to first language health information resources still a significant barrier for underserved populations



As a Tool for Effective Engagement

- Depending upon the patient portal, some are not currently designed to present test results to patients in a meaningful way
- Negative emotions can occur with misperceived abnormal and normal results
- Simply providing access via portals is insufficient
- Additional strategies are needed to help patients interpret and manage their health information.

Challenges to Usability & Adoption

- Many patient portals are secondary in terms of design and development importance for many common EHR vendors due to a lack of regulation and health policy emphasis.
- Multiple modalities required – underserved populations need multiple message and medium platforms to be effectively engaged (e.g., mobile devices & texting)
- Data interoperability is a key issue especially since many underserved patients are more transient than other populations



Key Patient Portal Leverage Points

Leverage points to address disparities in patient portal utilization include:

- providing further training for older adults
- involve spouses or other care partners as a part of training
- make IT access available at public places in rural and urban communities

Best Practices for Rolling out a Patient Portal

1. Pilot test the EPE service before rolling it out
2. Develop a robust promotion and adoption strategy
3. Educate patients about the benefits
4. Proactively help patients get started, especially the elderly
5. Plan/invest for ongoing technical assistance
6. Monitor usage
7. Assess satisfaction
8. Re-evaluate and Repeat



Leveraging Social Media Tools

THINK BEFORE YOU POST

Make sure that you are complying with all privacy and security requirements before you post to social media. When dealing with patient information, be cognizant of the standards of patient privacy and confidentiality just as you would in any other context.

1



Who are you trying to reach and why?



2

KNOW YOUR AUDIENCE

The message you want to disseminate should resonate with your target audience. Understanding your audience is a great way to get to know your patients and stakeholders; it can help you learn about their experiences with the health center, identify their pain points, and uncover new ways to improve care.

Plan for Sustainability and Interaction

ENGAGE YOUR POPULATION

Customer service shouldn't stop when you go online. Respond to all messages, including both praise and criticism. Developing an online relationship with patients and stakeholders is critical in upholding your health center's values in customer service and relations. This means responding to their comments and questions in a professional and timely manner.

3



**BUILDS THE
PATIENT-PHYSICIAN
RELATIONSHIP**

Draft, Review, Confirm



4

PRACTICE QUALITY

Having a social media presence comes with the responsibility to actively monitor and moderate posts to maintain healthy communities. Recognize that your own actions online and the content you post may negatively affect you or your health center's reputation. Be aware of the consequences and how they can undermine your reputation and public trust.

Social Media Management Tools



Integrated cloud-based marketing tools



Customer relationship management,



Automated mobile and social marketing,



Email marketing



Form and landing page builders

Text Messaging Opportunities

- Text messaging can provide health centers with a great way to maintain contact with their patients.
- Text messaging may help to improve patient engagement and health outcomes while remaining cost-effective for health centers.
- From appointment reminders, to general behavior change and managing chronic health conditions, studies increasingly show that text messaging is an effective tool for engaging patients.
- By communicating with people on an intimate channel, text messaging empowers individuals to actively participate in their personal wellness.



Text Messaging Risks

- Important to understand new changes to enforcement of HIPAA as it relates to portable devices, texting, and emailing of PHI.
- HIPAA privacy and security rules need not act as an obstacle to texting, but compliance requires planning and diligence.
- All forms of communication involve some level of risk. Text messaging merely represents a different set of risks that, like other communication technologies, needs to be managed appropriately to ensure both privacy and security of the information exchanged.



HIPAA Policy Details

- A mobile telephone number used for text messaging is defined as an “Identifier” by HIPAA (45 CFR §164.514(b)).
- A text message from or on behalf of a covered entity to a patient is by definition PHI because it identifies the individual and is “indicative that the individual received health care services or benefits from the covered entity”. 78 FR 5598, Jan. 25, 2013, 45 CFR § 160.103.
- Since texting in and of itself is unequivocally not secure (*this does not include “secure messaging” technologies*), the burden of achieving compliance falls squarely on the healthcare organization and its practitioners to practice caution and diligence.



SO CAN I SEND AN UNENCRYPTED TEXT MESSAGE TO MY PATIENT??

The HIPAA Requirement with which a covered entity must comply before sending an unencrypted text message to a patient is as follows:

1. The covered entity has a "Duty to Warn" the patient that there may be some level of risk that the information could be read by a third party.
2. If the patient is notified of the risks and still prefers unencrypted text messages, the patient has the right to receive unencrypted text messages from the covered entity
3. Covered entities are not responsible for unauthorized access of protected health information while in transmission or for safeguarding information once delivered to the patient.
4. The warning and patient consent must be documented in writing.



Prepare and Plan

1. Sketch out Business Case and Use Cases
2. Make organizational decisions about how to approach text messaging within the workflow
3. Conduct Security Risk Assessment
 1. Identify Threats/Vulnerabilities to Confidentiality, Integrity, and Availability
 2. Select Administrative, Technical, and Physical Controls
 3. Implement Solution and Security Controls
 4. Re-evaluate



Part 4: Electronic Patient Engagement Assessment and ROI

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EPE Adoption Framework

Conceptual Level	Constructs	Factors
Personal	<ul style="list-style-type: none"> • Cultural • Financial • Education • Behavioral 	<ul style="list-style-type: none"> • Significant differences to be expected depending on Socio-Economic Status • Engagement and activation factors key to sustainability
Technical	<ul style="list-style-type: none"> • Standards • Regulations • Precision 	<ul style="list-style-type: none"> • U.S. HIE standards still primarily based within the clinical environment • Precision of metrics and device ability to effectively report are in need of continued innovation • Systems designs still not targeted to the underserved
Organizational	<ul style="list-style-type: none"> • Workflow • Workforce • Reimbursement 	<ul style="list-style-type: none"> • Few clinical workflows include procedures for incorporation of patient reported data • Concerns by clinicians of responsibility to act (or not) on data provided to them
Policy	<ul style="list-style-type: none"> • Security • Privacy • Quality • Prevention 	<ul style="list-style-type: none"> • U.S. government is working hard to keep up in establishing policies that provide effective guidance toward patient portal adoption • Need further work in finding the balance between protection and effective use

Key EPE ROI Evaluation Questions



What is the purpose in implementing the social networking technology?



Who are your targeted clients?



Based on the clients targeted, what is it they value most in terms of health services?



How will you determine whether you are achieving the desired results?



Based on the desired results you have outlined, what is your plan to achieve them?

Adoption and Implementation Questions

- **User Question:** How can EPE tools support your patients in diabetes management? What barriers will they experience?
 - *reminders/ appointment management / communication/ FAQs*
- **Technology Question:** How well do certain EPE systems fit for the technology access and utilization patterns of your population?
 - *email access / computers vs mobile / social networking presence*

Adoption and Implementation Questions

- **Organization Question:** How well does the EPE system integrate with our organizational practices and current resource constraints?
 - *Patient Navigators / Staff Training / IT Support*
- **Policy Question:** What privacy and security constraints need to be addressed in order to effectively integrate and deploy a particular EPE strategy?
 - *Text and HIPAA / Patient Consent / Opt-in vs Opt-out strategies*

Measuring ROI

- How will you determine whether you are achieving the desired results?
- What specific measures can be used to determine whether you are accomplishing the goals of your implementation?
- How will you report out on satisfaction and outcomes?

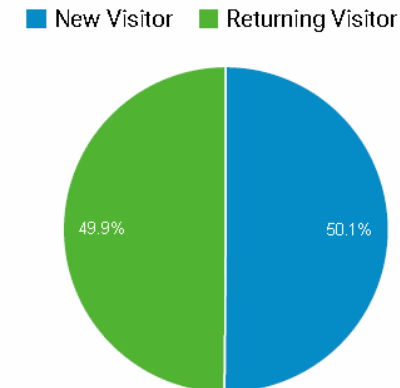
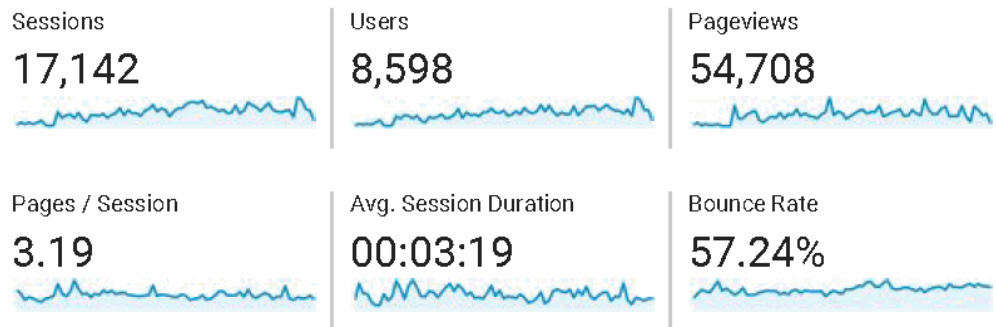
Key EPE ROI Evaluation Questions

- 1) What is the purpose in implementing the patient portal?
- 2) Who are your targeted clients?
- 3) Based on the clients targeted, what is it they value most in terms of health services?
- 4) How will you determine whether you are achieving the desired results?
- 5) Based on the desired results you have outlined, what is your plan to achieve them?

(Derived from Drucker's 5 Most Important Questions)

Measures vs Metrics

- **Measures:** concrete, usually measure one thing, and are quantitative in nature (e.g. I have five apples).
 - # of patients who have logged into the patient portal
 - # of patients who have scheduled an appointment through the patient portal
- **Metrics:** describes a quality and require a measurement baseline
 - Engagement Rate - percentage of single visits
 - Session Duration Average – the average amount of time a user spends on your website for a given session



Performance Evaluation Measures

Process/Implementation : determines whether program activities have been implemented as intended.

- How well the program is currently working
- The extent to which the program is being implemented as designed.
- Whether the program is accessible and acceptable to its target population.

Outcome/Effectiveness: Measures short and long-term outcomes

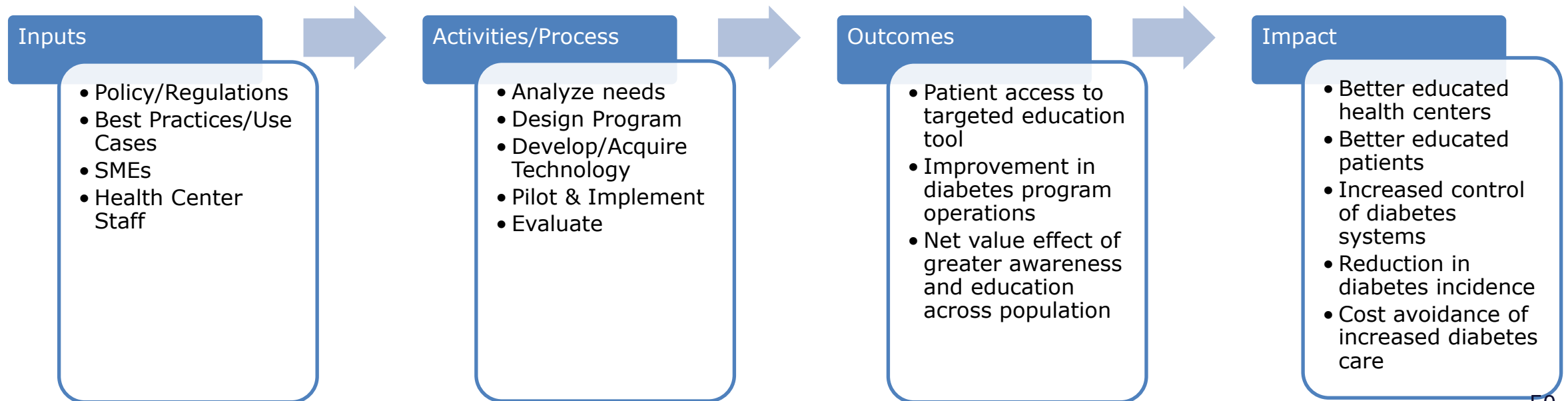
- The degree to which the program is having an effect on the target population's behaviors.

Impact Evaluation: Measures short and long-term outcomes

- The degree to which the program is having an effect on the target population's behaviors.

What is your Logic Model for evaluating your effort?

- **Increase Diabetes Prevention Efforts**
 - Increase the percentage of adults who receive weight screenings & counseling
 - Increase the percentage of children who receive weight screenings & counseling
- **Improve Diabetes Treatment And Management**
 - Reduce the proportion of persons with diabetes with an HbA1c value >9%
 - Increase health centers meeting Healthy People 2020 goals



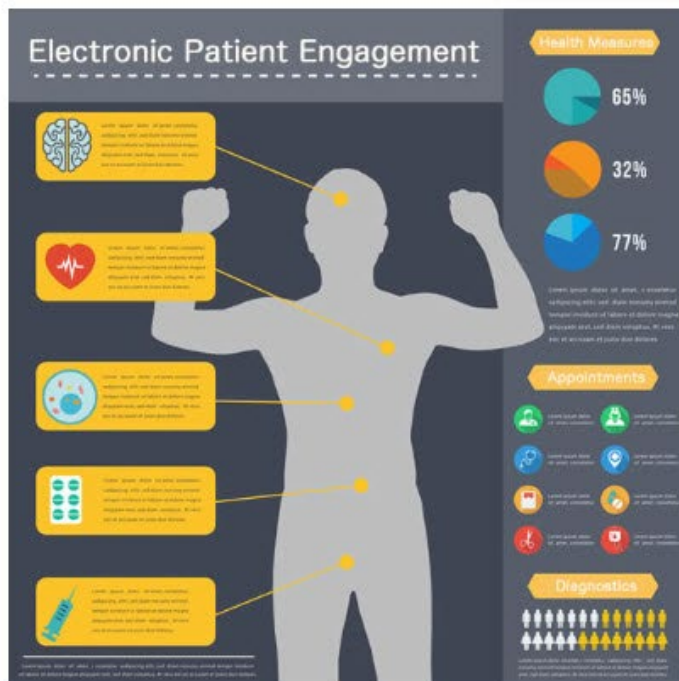
Conclusion: Expected Results for Health Centers

- Improved health and access to personal health information and services for our complex and diverse community of patients
- Activation and empowerment of patients to take on more responsibility in managing their medical conditions
- Support better coordination and communication between the broad patient care and social network
- Increased opportunities toward financial sustainability of community health centers by leveraging tools that provide ways to increase services while decreasing costs

Want more information?

Community Health Center Adoption Framework for Electronic Patient Engagement

Methods for deploying more personalized care to underserved populations



Over the last decade, electronic personal health records (PHR) systems, and the patient portals used to provide patients access to those records, have become interwoven into the fabric of the U.S. healthcare system. A recent study has found that adoption of personal health records (PHRs) will increase to the point where **75 percent of adults will use a PHR by 2020.**

Unfortunately, there is still a broad gap between the effective use of PHR technologies where advanced health information services are perhaps most needed, especially within the underserved communities supported by community health centers. A recent report by the Commonwealth Fund found that while the majority of federal qualified health centers were not using Electronic Health Records, only 35 percent of health centers can electronically send patients reminder notices for preventive or follow-up care, the same percentage reported in 2009. Clearly, there is ground to cover.

This guide provides health centers with an adoption framework and guidelines that can be used to assess the goals and methods for deploying electronic patient engagement services. The approach is multi-

dimensional, in that it recognizes the interrelated socio-economic, user, organizational and policy elements to success adoption and use.

Need Assistance?

Would you like more assistance regarding Evaluation of Engagement and Satisfaction strategies or support in using any of the included resource sets?

[Request Support](#)

Upcoming Events

- 5/25 HITEQ Highlights: The ABCs of Electronic Dental Records for Health Centers – Integrating and Reporting Dental Information (5/25/2017 3:00 PM - 4:00 PM (UTC-05:00) Eastern Time (US & Canada))
- Optimizing the Presentation and Visualization of Health Data for Patients and Providers (5/30/2017 1:30 PM - 3:00 PM (UTC-05:00) Eastern Time (US & Canada))
- Data Transparency Summit Part II (6/5/2017 10:00 AM (UTC-05:00) Eastern Time (US & Canada))

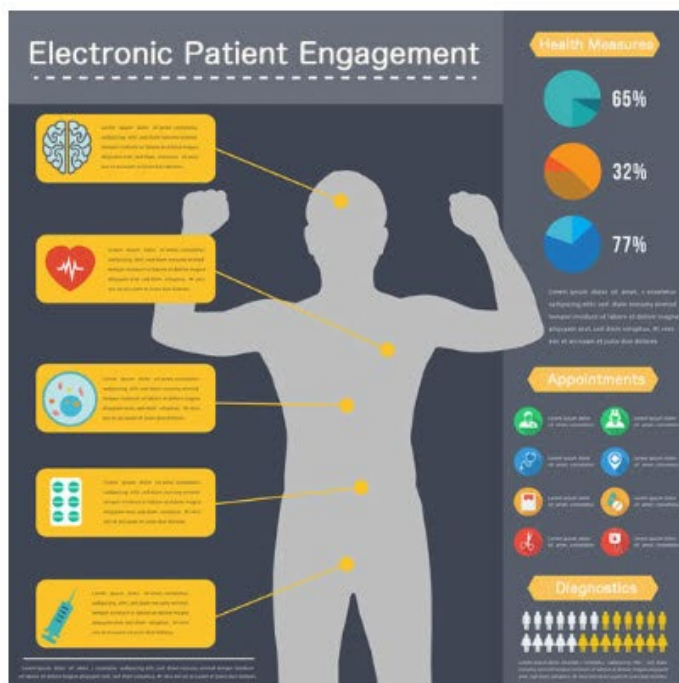
Comments, Questions, and Discussion



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Questions? Comments?

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