



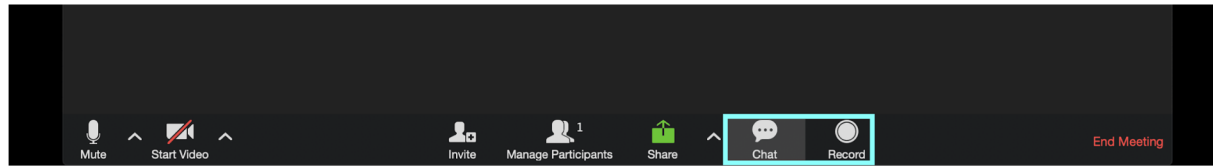
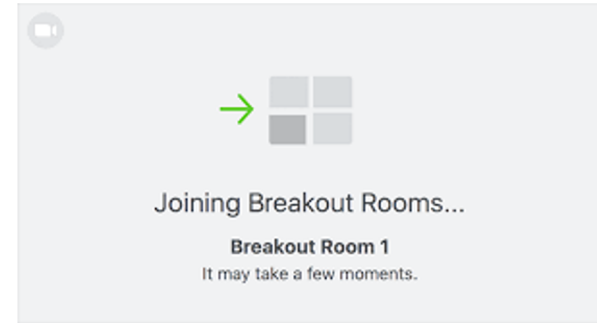
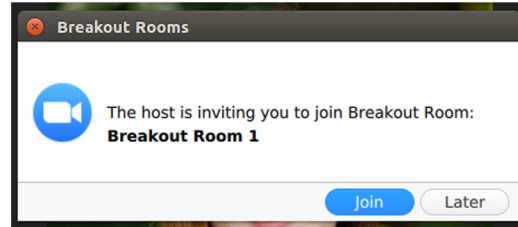
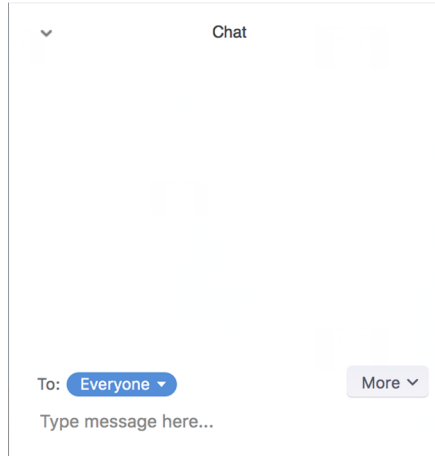
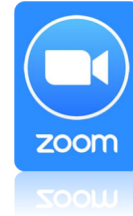
**DIABETES IN SPECIAL & VULNERABLE POPULATION:  
Learning Collaborative**

**Diabetes Continuum of Care: Opportunities for  
Technology: Internet and Telehealth**

Tuesday, March 16th, 2021  
8 am HT / 11 am PT / 1 pm CT / 2 pm ET

*Welcome!*  
*We will begin in a few minutes*

# Zoom Features





# Diabetes Continuum of Care: Opportunities for Technology: Internet and Telehealth

## Dinamica/Ice breaker

What are you grateful for?

# ABOUT THE LEARNING COLLABORATIVE

**Diabetes affects more than 34 million people in the United States.** Multi-tiered efforts to prevent, treat and manage diabetes are critical in reducing the burden of diabetes, particularly for special and vulnerable populations, which have unique characteristics that affect culturally and linguistically competent health care access and utilization. According to 2018 Uniform Data System (UDS), diabetes poses a unique challenge for the HRSA Health Center Program because 1 of 7 patients has diabetes and nearly 1 in 3 of those has uncontrolled diabetes.

To elevate the national conversation around diabetes, **14 National Training and Technical Assistance Partner (NTTAP) organizations** formed the Special and Vulnerable Populations Diabetes Task Force to engage health centers, Primary Care Associations (PCAs), and Health Center Controlled Networks (HCCNs) to increase knowledge of effective strategies that address diabetes among people experiencing homelessness, residents of public housing, migratory and seasonal agricultural workers, school-aged children, older adults, Asian Americans, Native Hawaiians and Pacific Islanders, LGBTQIA+ people, and other health center patients.

This Fall's national learning series is **sponsored by HRSA** and will take a deeper dive into issues related to patient health literacy, community engagement, and team-based care.

For information about the Diabetes National Learning Series, visit **[chcdiabetes.org](https://chcdiabetes.org)** today.

# Special and Vulnerable Populations Task Force Members:



For more information on our NTTAP Partners, visit [chcdiabetes.org](http://chcdiabetes.org)



# Diabetes Continuum of Care: Opportunities for Technology: Internet and Telehealth

## NCA Faculty



**Colleen Velez**  
*Associate Director of  
Corporation for Supportive  
Housing (CSH)*



**Dr. Jose Leon**  
*Chief Medical Officer*



**Jamie Blackburn, MPA**  
*Program Manager*





# Diabetes Continuum of Care: Opportunities for Technology: Internet and Telehealth

## NCA Faculty



**Hansel O. Ibarra, MPH**  
*Program Director*



**Selenia Gonzalez**  
*CHW Resource Specialist*



**OUTCOMES-DRIVEN  
EXPERIENCED  
INNOVATIVE**



**OUTCOMES-DRIVEN  
EXPERIENCED  
INNOVATIVE**



# Learning Collaborative Overview



LC

## Diabetes Continuum of Care: Opportunities for Technology: Internet and Telehealth

### Overview of the LC

- Participants are expected to attend all sessions. Everyone will have access to the slides, and resources. An email will be sent out shortly after the first session
- CME/CNE credits are available. You need to attend all sessions to qualify for CMEs/CNEs.
- After each session, participants will be provided with reflection questions to prepare for the next session.
- You will receive a reminder for the next session the Friday before
- Learning collaborative sessions will be 1.5 hours with opportunity for small group discussion



# Diabetes Continuum of Care: Opportunities for Technology: Internet and Telehealth

## Timeline

➤ Session #1: Overview of the impact of Health Literacy on Diabetes- Feb. 2nd, 2021

➤ Session #2: Association between Health Literacy, Diabetes Knowledge, and Self-care Behaviors- Feb. 16th, 2021

➤ Session #3: Health Literacy: Diabetes Prevention and Self-management -March 2nd, 2021

➤ **Today- Session #4: Opportunities for Technology: Internet and Telehealth- March 16th, 2021**

NLS

**Diabetes Continuum of Care:  
Opportunities for Technology: Internet  
and Telehealth**



HEALTH INFORMATION TECHNOLOGY,  
**HITEQ**  
EVALUATION, AND QUALITY CENTER

**Maximizing Digital and Health Literacy for Diabetes Management**

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March 16, 2021

# The HITEQ Center

The HITEQ Center is a HRSA-funded National Training and Technical Assistance Partner (NTTAPs) that collaborates with HRSA partners including Health Center Controlled Networks, Primary Care Associations and other NTTAPs to **engage health centers in the optimization of health IT** to address key health center needs through:

- A **national website** with health center-focused resources, toolkits, training, and a calendar of related events.
- **Learning collaboratives, remote trainings, and on-demand technical assistance** on key content areas.

Visit [www.HITEQcenter.org](http://www.HITEQcenter.org) | Email [hiteqinfo@jsi.com](mailto:hiteqinfo@jsi.com)!

This and all other HITEQ activities do not represent an endorsement of any specific vendor, tool, or service by HRSA, HHS, the U.S. Government, nor the HITEQ Center or any member of the HITEQ team. Information is shared for information purposes only, health centers and health center partners are encouraged to do their own due diligence to confirm all information and ensure that any choices or decisions made serve the specific needs of the organization and its constituencies.

This presentation is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$768,000 with 0 percentage financed with nongovernmental sources. The contents are those of the presenter(s)/ author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

## HITEQ Topic Areas

Access to comprehensive care using health IT and telehealth

Privacy and security

Advancing interoperability

Electronic patient engagement

Readiness for value based care

Using health IT and telehealth to improve Clinical quality and Health equity

Using health IT or telehealth to address emerging issues: behavioral health, HIV prevention



# Attendees of this session will be able to...

1

Define patient activation and eHealth literacy and their importance in diabetes management.

2

Describe at least one example of successful electronic patient engagement for diabetes management.

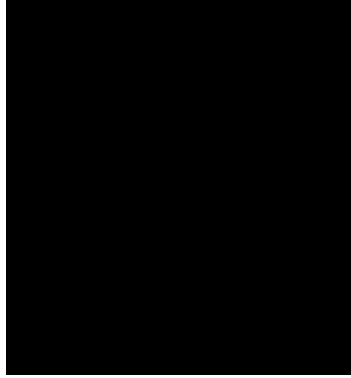
3

Identify one or more factors key to adopting digital patient engagement tool/ plan.



Part 1:

# Patient Readiness for Engagement



# Patient Activation Measure

Determining Patient Readiness for  
Engagement



# Patient Activation Measure

## Patient Activation

The skills and confidence that equip patients to become actively engaged in their health care.

### Evidence suggests that:

- Patients who **are more activated** have better health outcomes and care experiences.
- Interventions that **tailor support to the individual's level of activation**, and that build skills and confidence, are effective in increasing patient activation.
- Policies and interventions aimed at **strengthening patients' role in managing their health care** can contribute to improved outcomes and that patient activation can—and should—be measured as an intermediate outcome of care that is linked to improved outcomes.

# Short Form Patient Activation Measure

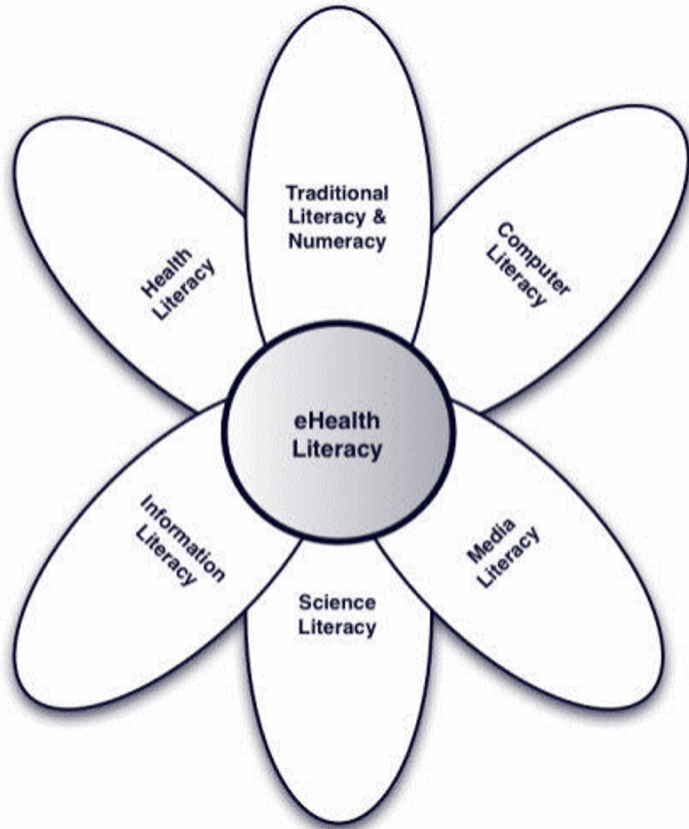
1. When all is said and done, I am the person who is responsible for managing my health condition
2. Taking an active role in my own health care is the most important factor in determining my health and ability to function
3. I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health condition
4. I know what each of my prescribed medications do
5. I am confident that I can tell when I need to go get medical care and when I can handle a health problem myself
6. I am confident I can tell my healthcare provider concerns I have even when the provider does not ask
7. I am confident that I can follow through on medical treatments I need to do at home
8. I understand the nature and causes of my health condition(s)
9. I know the different medical treatment options available for my health condition
10. I have been able to maintain the lifestyle changes for my health that I have made
11. I know how to prevent further problems with my health condition
12. I am confident I can figure out solutions when new situations or problems arise with my health condition
13. I am confident that I can maintain lifestyle changes like diet and exercise even during times of stress



# eHealth Literacy

Defining the Importance

# eHealth Literacy Model



eHealth literacy is defined as the ability to **seek, find, understand, and appraise health information from electronic sources** and apply the knowledge gained to addressing or solving a health problem. Unlike other distinct forms of literacy, eHealth literacy combines facets of different literacy skills and applies them to eHealth promotion and care.

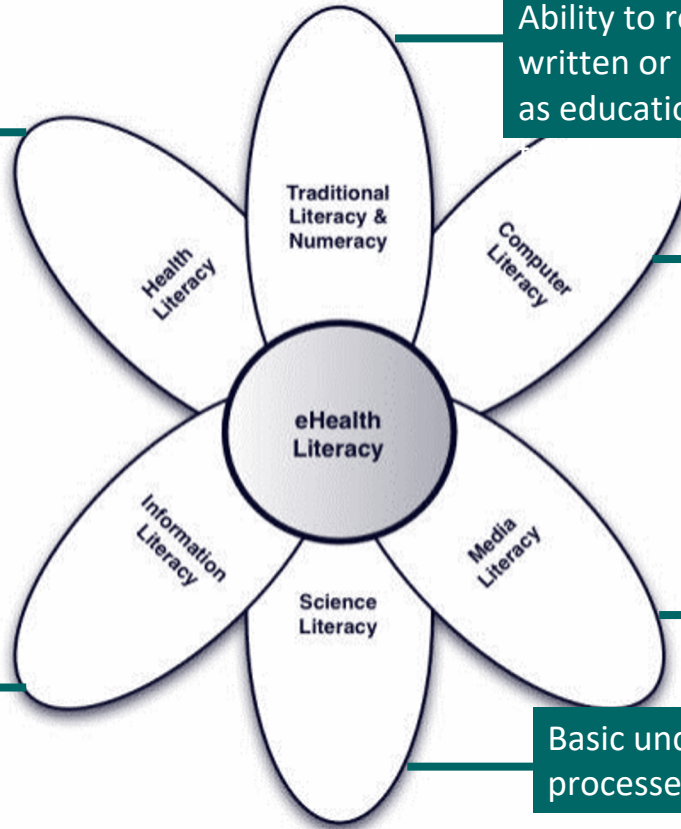
At its heart are **six core skills**: traditional literacy, health literacy, information literacy, scientific literacy, media literacy, and computer or digital literacy.

The relationship of these individual skills to each other is depicted in the 'lily' image.

# eHealth Literacy in Diabetes Management

Capacity to obtain, process, and understand basic health information needed to make appropriate health decisions, such as directions for medications, understanding link between behaviors and health outcomes.

Understanding how knowledge is organized in order to know what potential resources to consult to find information on diabetes, develop appropriate search strategies, and filter results to derive relevant knowledge.



Ability to read and make sense of written or numerical content such as educational messages or

Ability to access and use RPM, mHealth apps, Portals, etc.

Know how to access, identify, and critically assess diabetes info in traditional/digital media, such as assessing diabetes information on social media vs. from their provider's website, in context.

Basic understanding of the biological processes/ components of diabetes.

# eHEALS: eHealth Literacy Assessment

Questions 1 and 2 ask about usefulness and importance of accessing the internet for health resources, but are not scored.

3

4

5

6

7

8

I know **what** health resources are available on the Internet

I know **where** to find helpful health resources on the Internet

I know **how** to find helpful health resources on the Internet

I know **how to use** the Internet to answer my questions about health

I know **how to use** the Internet to answer my questions about health

I know **how to use** the Internet to answer my questions about health

Each question is scored on a scale of 1-5 (Strongly Disagree to Strongly Agree) for a final score of 5 through 40.

# Using Results of Patient Assessment

Understanding patients' activation and eHealth Literacy can help **tailor engagement strategies** to maximize your resources within the health center.

## Highest Need

*(low activation/ low eHealth literacy)*  
(~10%) May need high-touch care coordination, and frequent one-on-one interaction, may be less able to adopt or use digital tools .

## Medium Need

*(Mid activation+eHealth literacy; one low/ one high)*  
(~30-40%) May need outreach for coordinated care such as RPM; may be better able to adopt digital tools with some assistance

## Lower Need

*(Higher activation/ Higher eHealth literacy)*  
(~50%) Focused on coordination, control, and prevention, more likely to have stable conditions. Well suited for digital support.

# Discussion Question



- What has worked well in utilizing technology with your patients for diabetes management and what has been challenging?
- Where in the six forms of literacy discussed have you found the greatest hurdles?
- How have you supported eHealth literacy?





Part 2:

# Diabetes Use Case for Electronic Patient Engagement

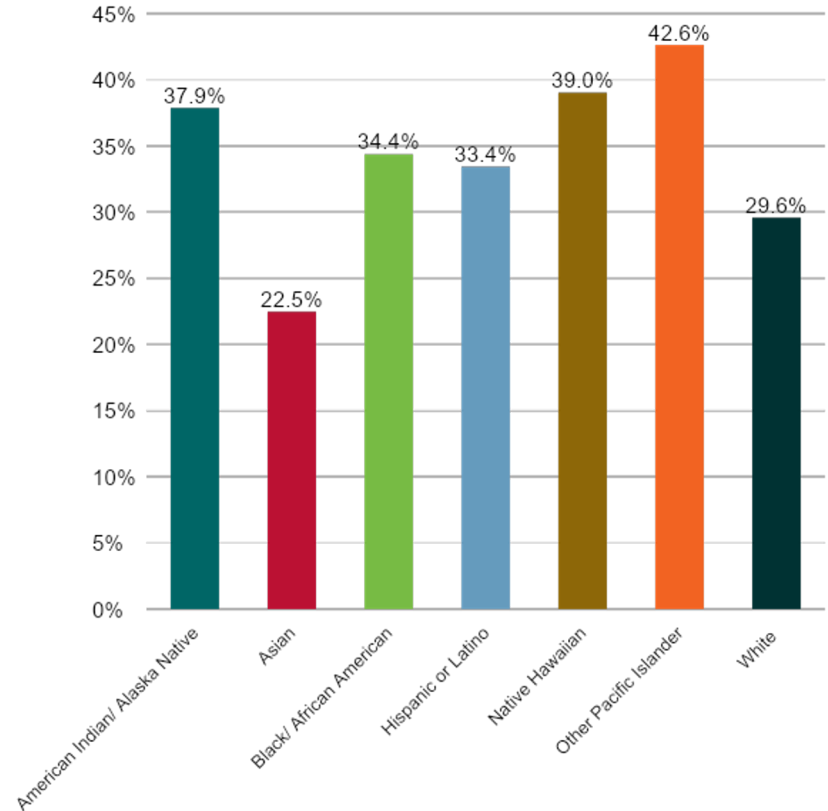
# BPHC Diabetes Improvement Goal

**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 patients with type 1 or 2 diabetes whose most recent HbA1c is greater than 9%

**Numerator:** Patients whose most recent HbA1c level (during the measurement period) is >9.0%

**Denominator:** Patients aged 18-75 with diabetes with a medical visit during the measurement period



# What do we need to solve for?



## Key Barriers

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



## Adherence Challenges

Patients have difficulty adhering to diabetes regimens including:

Glucose monitoring

Diet & Exercise

Medication adherence

Understanding care plans



## Management Factors

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, income)

# Diabetes Patient Engagement Best Practices

National Institute of Diabetes  
and Digestive and Kidney  
Diseases (NIDDK) Guidelines

1

**Share-Decision Making:** the patient must be well-informed of the treatment options and clinical evidence around managing diabetes.

2

**Motivational Interviewing:** done through asking open-ended questions, affirming the patient's responses, reflecting on their views and summarizing the discussion.

3

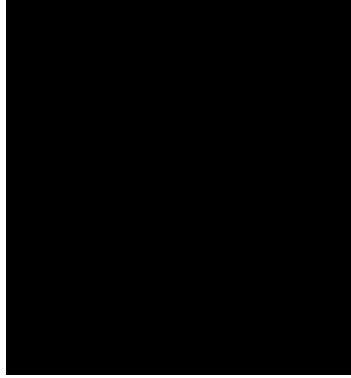
**Goal Setting:** assist patients in setting goals for self-care behaviors that include eating healthy, being physically active, adhering to medication and monitoring health.

# Discussion Question

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- Does your health center use any *patient facing* technology in your diabetes management support?
- What are the types of things that you use?



# Digital Tools

Electronic Patient Engagement for Diabetes  
Management

# Electronic Patient Engagement Opportunities

Decisions most affecting diabetes management are **often made by patients** themselves, or **outside of the clinical environment**.

Technologies that target patient 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



# Patient Engagement Tools/ Approaches



## Native EHR Functionality

Patient Portal and its various features such as self-reported data, remote patient monitoring integration, two way communication, access to labs, etc.

Education campaigns (sent by email or text).



## 3<sup>rd</sup> Party Patient Engagement Tool

Electronic Patient Engagement tools like WELL Health, Luma Health, CareMessage, etc. which can send appointment reminders, send educational messages, send medication reminders, and so on. Many integrate with EHR.



## Other Existing Digital Connections

Other options that patients may already be familiar with such as private Facebook groups, private Slack groups, Microsoft Teams, etc. can be used to bring groups of patients together, though they are not necessarily secure and therefore should have no PHI or diagnosis related



# Benefits and Drawbacks of Options

## Benefits

**Native EHR functionality or 3<sup>rd</sup> party patient engagement tools can:**

- Centralize communication.
- Can reduce call volume to health center.
- Can keep patients at home and/ or overcome transportation barriers.
- Can be tailored to patient need/ level of activation.

**Existing digital connection can:**

- Be easy to adopt as patients may already be familiar with the platform.

**All can provide connection and support between visits and toward goals.**

## Drawbacks

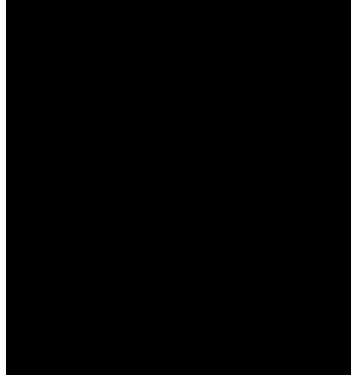
**Native EHR functionality or 3<sup>rd</sup> party patient engagement tools can:**

- Have low adoption, particularly if download or log in are required.
- Some EHRs don't have great native functionality or don't integrate well with other tools.

**Existing digital connection (e.g., Facebook or Slack) can be:**

- Less secure and more open, therefore really only for connecting with others, not for tailored support.

**All require at least some patient activation and eHealth Literacy, in addition to access to technology.**



# Promising Examples

Electronic Patient Engagement for Diabetes Management

# Case Example: Diabetes Text Messaging



## 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 decreased 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)**

# Case Example: Crossing Healthcare Diabetes Self-Management Education Program

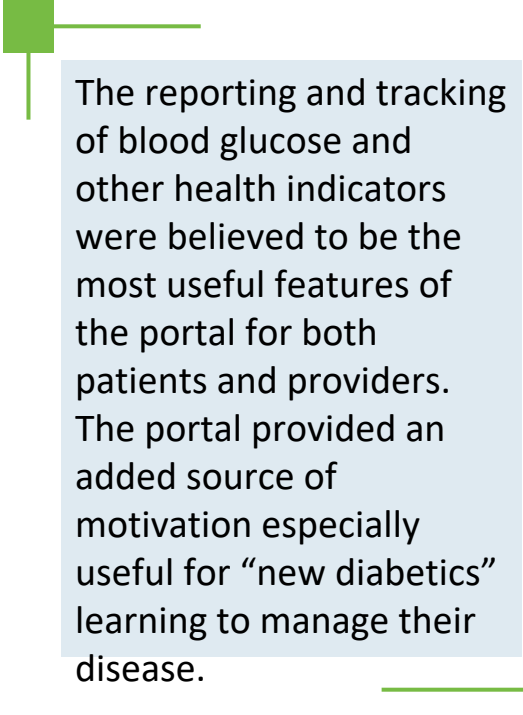
- Providers refer patients and an initial assessment is completed.
- Patients are then enrolled in a total of **10 hours of diabetes education classes** across multiple days throughout the program.
- Three months later, a follow-up appointment is completed to review lab work changes, weight changes, 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.



# Case Example: Diabetes Self-Management Portal with Dashboards

A qualitative study of the use of a diabetes self-management portal found that:

- Patients and providers believed blood sugar reporting was the most useful feature of the portal; patients recorded their blood sugar frequently.
- Patients liked the dashboards that showed their progress and reminders to log information helpful; however patients who missed logging eventually found dashboards and reminders de-motivating.
- Health Library function (relevant information for patients) was not widely used.
- Use of the portal was helpful for patient support staff to check-in with patients; physicians were more likely to say they did not have time to use it.



The reporting and tracking of blood glucose and other health indicators were believed to be the most useful features of the portal for both patients and providers. The portal provided an added source of motivation especially useful for “new diabetics” learning to manage their disease.

# One key to remember

It is key to monitor digital tools for your diabetic population, to determine if you are serving *your* patient population.

When adopting digital tools, clinics are sometimes suddenly more actively serving a younger or more stable population, because those are the patients ready and able to use digital tools. It's important to be sure all patients are served!

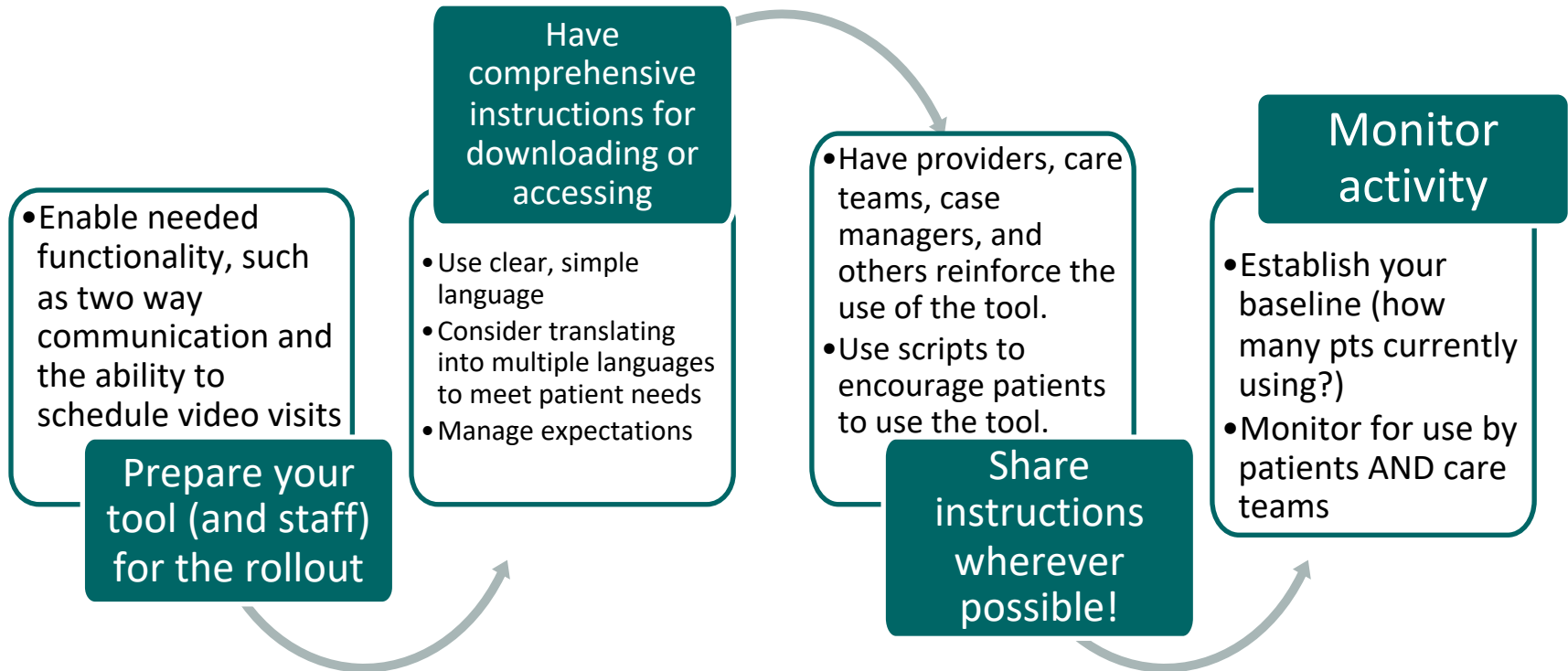
# Health Apps & Diabetes

## One app does not rule them all!

- Apps that provided feedback (or allow bi-directional communication) 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



# Rolling out any Digital Tool









Part 3:

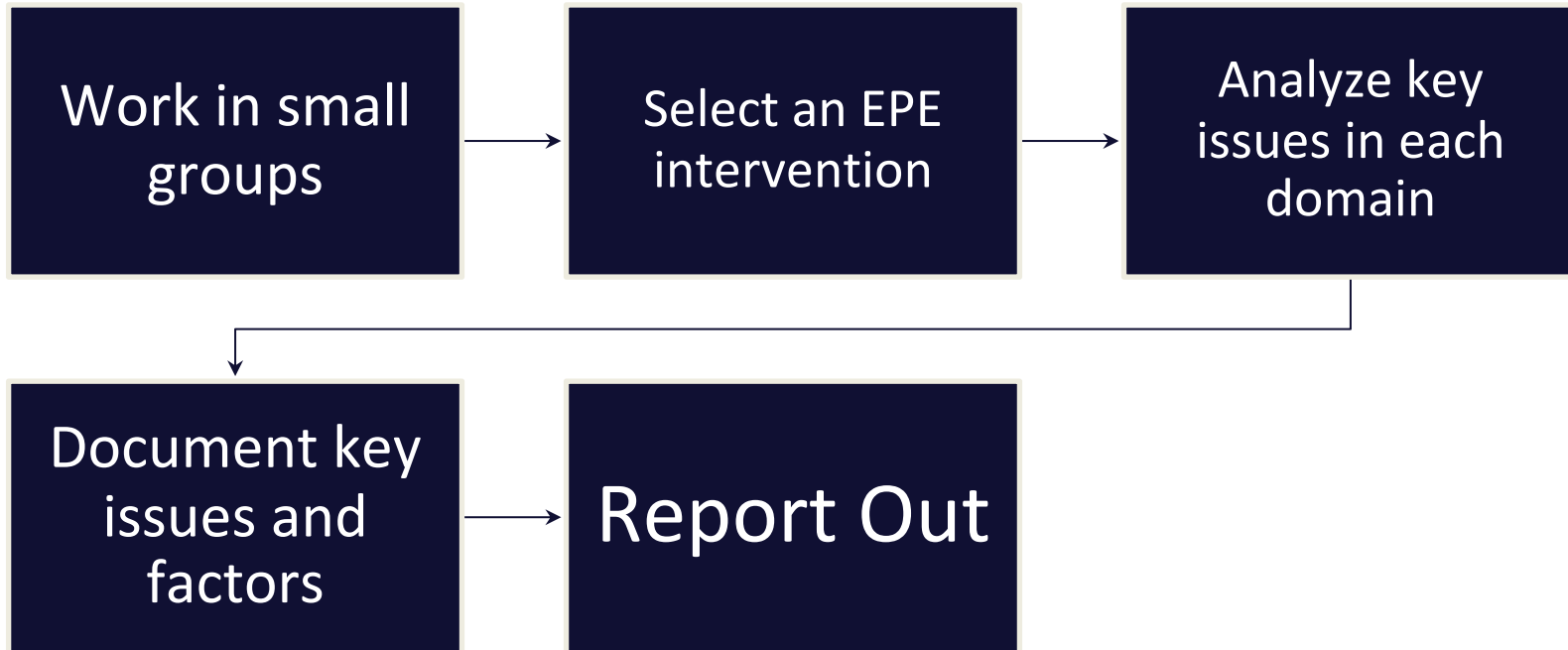
# Electronic Patient Engagement Adoption Framework

# EPE Adoption Framework

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

# EPE Adoption Framework Activity

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# Patient Engagement Adoption Framework Group Activity

# Adoption and Implementation Questions

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**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

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**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 Effectiveness or Return on Investment

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- 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 your report out on satisfaction and outcomes?



# Key EPE Evaluation Questions

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- 1 What is the purpose in implementing the patient portal (or other tool)?
- 2 Who are your priority clients?
- 3 Based on the clients prioritized, 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).

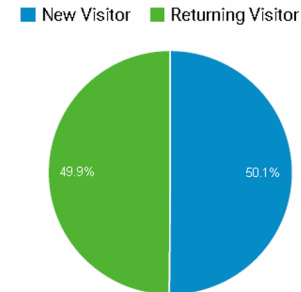
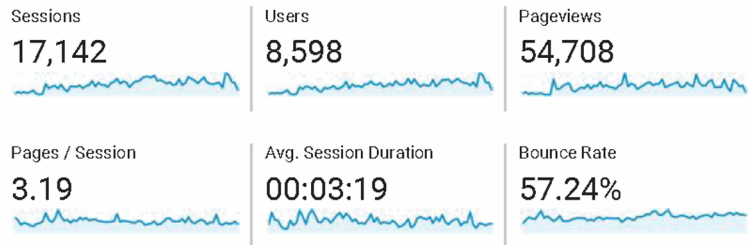
# of patients who have logged into the patient portal

# 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

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**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.

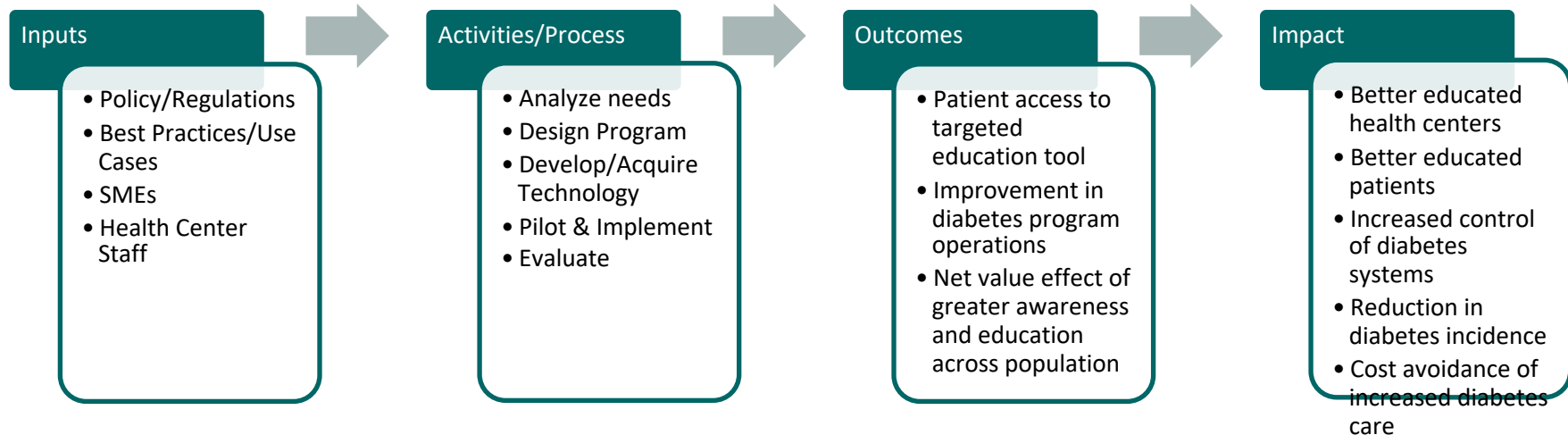
# What is your Logic Model for evaluating your effort?

## 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 patients with diabetes with an HbA1c value >9% in the past 12 months
- Increase health centers meeting Healthy People 2020 goals



# Conclusion: Expected Results for Health Centers

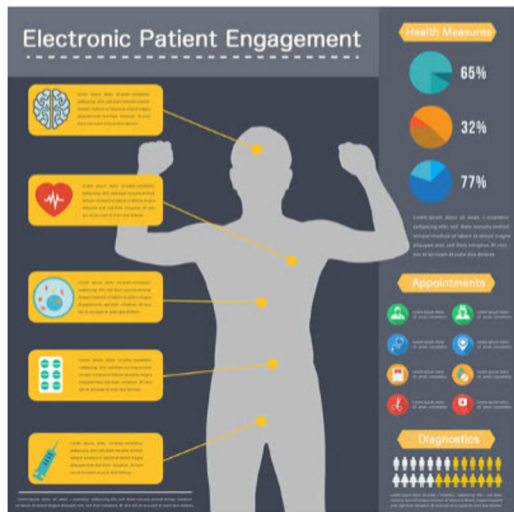
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- Improved health and access to personal health information and services for our complex and diverse community of patients
- Activation and empowerment of patients to take on more responsibility in managing their medical conditions
- Support better 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 \(US & Canada\)\)](#)

# Questions? Feedback?

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Phone: 1-844-305-7440

This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS29366 titled Training and Technical Assistance National Cooperative Agreements (NCAs) for grant amount \$768,000. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

# Diabetes Continuum of Care: Opportunities for Technology: Internet and Telehealth

## Closing Poll & Evaluation:

In order to improve for next year, please help us by completing our live session poll as well as a 3-5 minute post-learning collaborative evaluation for yourself and your organization.

<https://www.surveymonkey.com/r/chcdiabetes-lc-2021>





**Q & A**

# THANK YOU!

For information about the Special and Vulnerable Populations Diabetes Learning Collaborative, visit [chcdiabetes.org](https://chcdiabetes.org) today.

Feel free to contact our NTTAP collaborating partners and speakers from today's webinar:

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