

VETERANS HEALTH ADMINISTRATION

Office of Health Equity

Madison Coffey, MPP(c)

Graduate Health Equity Fellow

Email: madison.coffey@va.gov

OFFICE OF HEALTH EQUITY

Created in 2012

Vision: To ensure that VHA provides appropriate individualized health care to each Veteran in a way that-

- Eliminates disparate health outcomes and
- Assures health equity

OFFICE OF HEALTH EQUITY GOALS

1. **Leadership:** Strengthen VA leadership to address health inequalities and reduce health disparities.
2. **Awareness:** Increase awareness of health inequalities and disparities.
3. **Health Outcomes:** Improve outcomes for Veterans experiencing health disparities.
4. **Workforce Diversity:** Improve cultural and linguistic competency and diversity of the VHA workforce.
5. **Data, Research and Evaluation:** Improve data and diffusion of research to achieve health equity.

Veterans who experience greater obstacles to health related to:

- Race or ethnicity
- Gender
- Age
- Geographic location
- Religion
- Socio-economic status
- Sexual orientation
- Mental health
- Military era
- Cognitive /sensory / physical disability

OFFICE OF HEALTH EQUITY WEBSITE

<https://www.va.gov/healthequity>

VA | U.S. Department of Veterans Affairs

Search Contact us Sign in

VA Benefits and Health Care About VA Find a VA Location My VA

VA » Health Care » Office of Health Equity

Office of Health Equity

- Health Equity
 - Office of Health Equity Home
 - Office of Health Equity Home
 - About
 - OHE Leadership
 - Health Equity Coalition
 - Health Equity Action Plan
 - Publications and Research
 - Data
 - Populations
 - Social Determinants of Health
 - Tools
 - News and Events
 - Partners and Stakeholders
 - More Health Care

NATIONAL CENTER FOR HEALTH STATISTICS

Among adults with underlying diabetes, veterans are more likely to be diagnosed by a health professional

95.1% Veterans 73.5% Nonveterans

Veteran Diabetes Data

Recent data analysis describes diabetes among Veterans and Nonveterans. Source: Healthy People 2020. Learn more »

NEW LGB Chartbook Health Equity Video Veteran Diabetes Data

VHA Office of Health Equity

Equitable access to high-quality care for all Veterans is a major tenet of the VA healthcare mission. The Office of Health Equity (OHE) champions the elimination of health disparities and achieving health equity for all Veterans. OHE supports the VHA's vision to provide appropriate individualized health care to each Veteran in a way that eliminates disparate health outcomes and assures health equity.

CONNECT WITH VHA

Facebook Twitter YouTube Blog

Subscribe to Receive Email Updates

Advancing Health Equity through Inclusive Digital Health Measurement Product Development and Deployment



Madison Coffey, MPP(c)

Graduate Health Equity Fellow

Email: madison.coffey@va.gov



Yashoda Sharma, PhD

Program Director

Digital Medicine Society (DiMe)

Email: yashoda@dimesociety.org



Amanda Lienau Purnell, PhD

Director, Data and Analytics Innovation

Counseling Psychologist

VHA Office of Healthcare Innovation and Learning

Email: Amanda.Purnell@va.gov



Yashoda Sharma,
PhD
Program Director
Digital Medicine Society
(DiMe)

Advancing Health Equity Through Inclusive Digital Health Measurement Product Development And Deployment

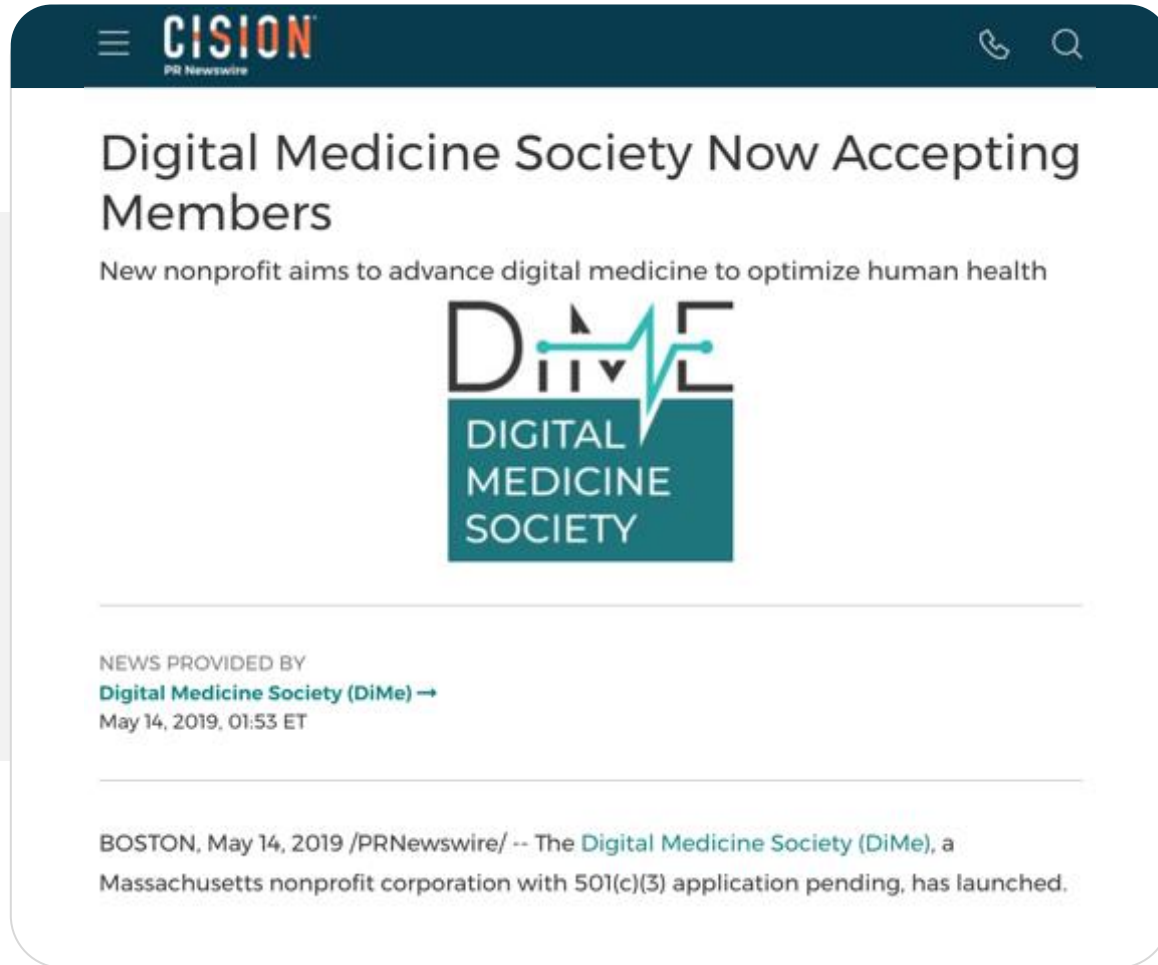
Veterans Health Administration - Office of Health Equity's
Cyberseminar

Nov. 9, 2022 | Virtual

Our purpose

To advance the **ethical, effective, equitable, and safe** use of digital medicine to redefine healthcare and improve lives.


We launched in May 2019...



CISION
PR Newswire

Digital Medicine Society Now Accepting Members

New nonprofit aims to advance digital medicine to optimize human health



NEWS PROVIDED BY
[Digital Medicine Society \(DiMe\)](#) →
May 14, 2019, 01:53 ET

BOSTON, May 14, 2019 /PRNewswire/ -- The [Digital Medicine Society \(DiMe\)](#), a Massachusetts nonprofit corporation with 501(c)(3) application pending, has launched.



STAT Topics Opinion Podcast Video Newsletters Events Q Log I

FIRST OPINION

DiMe: Calling all who serve in digital medicine

By JEN GOLDSACK, BEAU WOODS, and ERIC PERAKSLIS / JUNE 5, 2019



Strategic Advisory & Scientific Leadership Boards

Regulatory & Government

Industry

Health tech

Associations

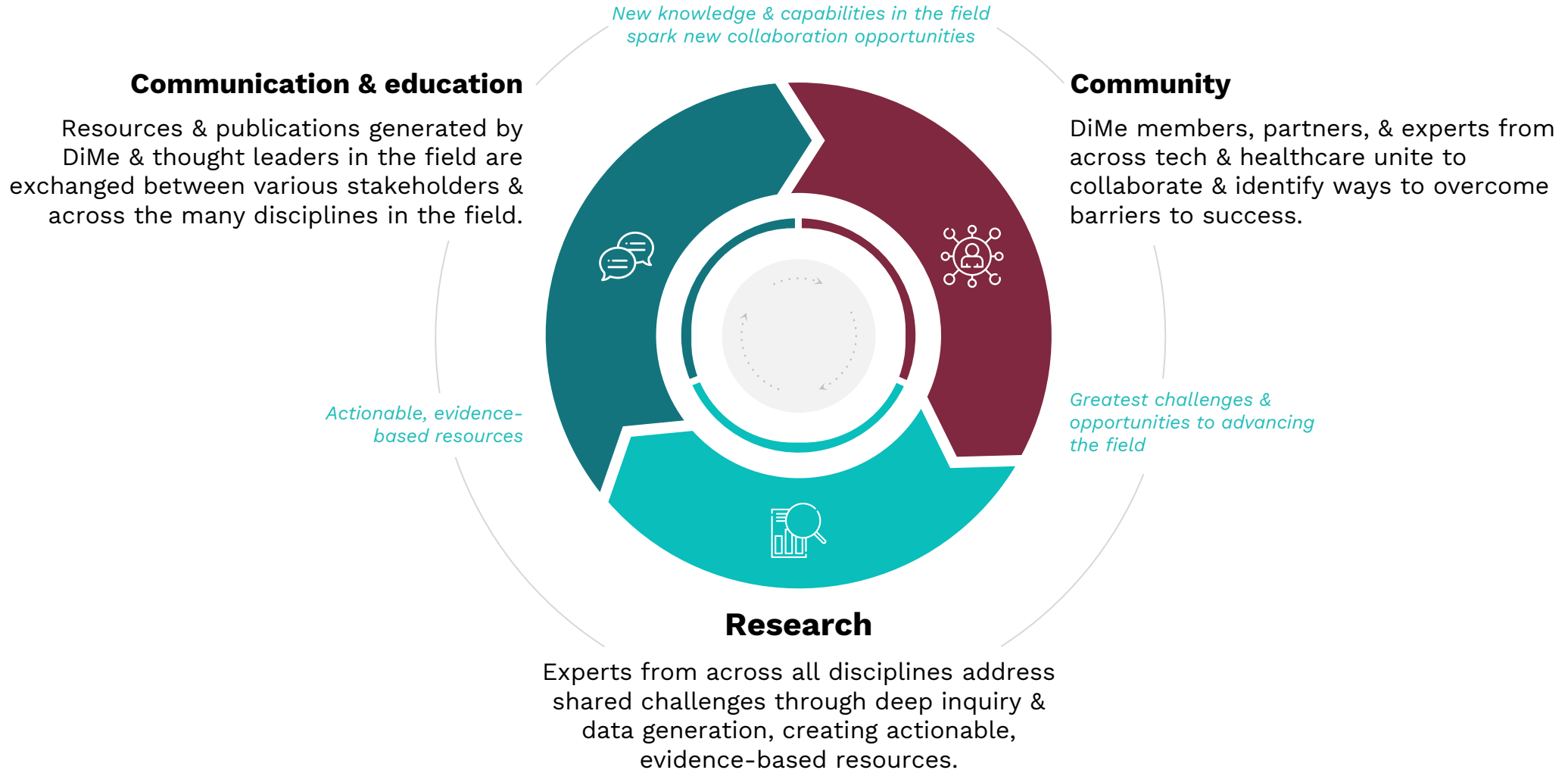
Healthcare delivery

Investors

Academia & academic medicine

Patients & patient groups

We deliver clinical quality work on a tech timeline



Interdisciplinary, multi-stakeholder collaborations



Starting with a new digital tool - digital health measurement



How do we ensure that we use digital measures to improve individuals' care, not violate their privacy?



How do we ensure that we can take a data-driven approach to public health without facilitating harmful surveillance?



How do we use digital health measures to improve access to care & health equity, not exacerbate these challenges along the digital divide?

FDA prioritized pre-competitive collaborations

Collaborative communities are **pre-competitive collaborations** of **diverse stakeholders** in the medical device ecosystem that are dedicated to improving outcomes and solving challenges in a specific health area. The **FDA's Center for Devices and Radiological Health (CDRH)** has designated participation in collaborative communities as a **strategic priority**.



The **Digital Health Measurement Collaborative Community (DATAcc)**, advancing digital medicine to optimize human health.

Expertise from across the healthcare ecosystem

- Fostering a **diverse** and **inclusive community** of experts in pursuit of our mission
- Establishing global **best practices** for successfully **developing** and **deploying** digital health measurement
- Supporting the advancement of **regulatory science** and **commercial practices** that foster success in the real world at scale
- Optimizing the **person-centered** use of digital health measurement across contexts of use and wherever it can do the **most good** for **all people**

The 2021-2022 DATAcc Steering Committee Member Orgs



Members also include FeetMe Devices, HHS-HC3, HIMSS, IEEE SA, Johns Hopkins Medicine Armstrong Institute for Patient Safety and Quality, National Cancer Institute, National Digital Inclusion Alliance, OptumLabs, US Dept. of Veterans Affairs, and Verily

Ensure that those who need access, have access

Priority: Digital Inclusion

To ensure that **diverse voices** are included **in all stages** of the product development lifecycle so that **diverse populations can utilize** and **benefit** from **digital health measurement**, when the products are deployed

Inclusion Vectors

- ❖ Age
- ❖ Annual Household Income
- ❖ Cultural Practices
- ❖ Digital Technology Access
- ❖ Digital Technology Literacy
- ❖ Disability
- ❖ Educational Attainment
- ❖ Gender Identity
- ❖ Geography
- ❖ Language
- ❖ Race and Ethnicity
- ❖ Sex Identified at Birth
- ❖ Sexual Orientation

Inclusive digital health product development



DATAcc Toolkit for Inclusive Development

This toolkit helps digital measurement product developers to take an inclusive approach to product development.



Market Opportunity Calculator

Estimate the increase in market size and value by including new target populations



Library of Evidence

Access 100+ resources providing evidence of the benefits of inclusive product design



The Digital Health Measurement Product Development Process

Use this process lifecycle as the foundation of your product development



Framework for Inclusive Development

Utilize this step-by-step guide to drive inclusive approaches at each step of your product lifecycle

Build the business case for inclusion

The Market Opportunity Calculator

STEP 1: Choose Variables

STEP 2: Set Levels

STEP 3: Market Opportunity

Please use the drop down menus to select the health condition and the inclusion vector you are interested in. At this step, the Market Opportunity Calculator will show you the population breakdown as well as how the health conditions over/under index across the inclusion vector. You can use this indexing to identify areas to focus your digital health measurement product innovation.

Choose Health Condition

Diabetes

Race & Ethnicity

Choose inclusion vector

US Population With Health Condition: Diabetes

Demographic	% Of Population	% With Diabetes	Over/Under Indexed
Non-Hispanic White	61.3%	56.6	↓ 0.92
Black Or African American	12.5%	15.5	↑ 1.24
American Indian And Alaska ...	0.7%	1.5	↑ 2.10
Asian	5.5%	5.6	↑ 1.02
Hispanic Or Latino	17.8%	18.7	↑ 1.05
Two Or More Races	2.1%	2.2	↑ 1.04

Build the business case for inclusion

STEP 1: Choose Variables

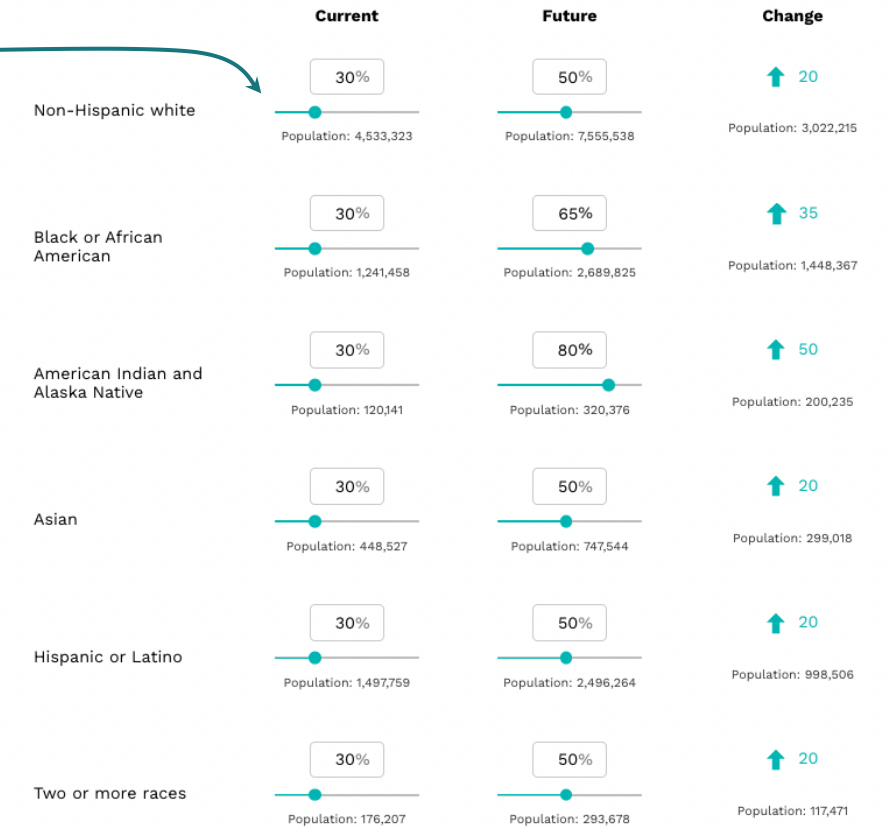
STEP 2: Set Levels

STEP 3: Market Opportunity

Estimate Addressable Market Size and Set Levels for Current and Future State

At this step, you will provide your estimates of current and future state. An example is level of engagement. First, you set levels around current engagement. Then, you set levels of engagement that your new product will achieve. You'll see the size of the population affected at your chosen threshold levels. The overall change in addressable population is automatically generated in the final column.

Set current and future market size



Economic Opportunity for a Product/Service that Addresses Diabetes in the US Estimate Market Value

Once you've entered your per unit value, e.g., your expected selling price, this section will calculate the market value of your digital health measurement product across the population strata as well as the total market value for the future state you've set above.

In this section, you can set a per unit price to determine the value of the addressable market.

Set Your Per Unit Value
For example, unit selling price per person

\$150

Set market value

Demographic Variable	Current	Future	Change
Non-Hispanic White	\$680.0M	\$1133.3M	\$453.3M
Black Or African Ame...	\$186.2M	\$403.5M	\$217.3M
American Indian And...	\$18.0M	\$48.1M	\$30.0M
Asian	\$67.3M	\$112.1M	\$44.9M
Hispanic Or Latino	\$224.7M	\$374.4M	\$149.8M
Two Or More Races	\$26.4M	\$44.1M	\$17.6M
Total	\$1.2B	\$2.1B	\$0.9B



Build the business case for inclusion

Change in populations and value read out

STEP 1: Choose Variables		STEP 2: Set Levels		STEP 3: Market Opportunity	
Total Market Opportunity for Your Product Innovation					
	Current	Future	Change		
Non-Hispanic white	30% Population: 4,533,323	50% Population: 7,555,538	↑ 20 Population: 3,022,215	<div style="background-color: #009999; color: white; padding: 5px; text-align: center; font-weight: bold;">Market opportunity read out</div>	
Black or African American	30% Population: 1,241,458	65% Population: 2,689,825	↑ 35 Population: 1,448,367		
American Indian and Alaska Native	30% Population: 120,141	80% Population: 320,376	↑ 50 Population: 200,235		
Asian	30% Population: 448,527	50% Population: 747,544	↑ 20 Population: 299,018		
Hispanic or Latino	30% Population: 1,497,759	50% Population: 2,496,264	↑ 20 Population: 998,506		
Two or more races	30% Population: 176,207	50% Population: 293,678	↑ 20 Population: 117,471		

Economic Opportunity For A Product/Service That Addresses Diabetes In The US Estimate Market Value

Demographic	Current US Population	Future Value	Change In Population	Change In Value
Non-Hispanic White	4,533,323	\$1133.3M	3,022,215	\$453.3M
Black Or African Ame...	1,241,458	\$403.5M	1,448,367	\$217.3M
American Indian And...	120,141	\$48.1M	200,235	\$30.0M
Asian	448,527	\$112.1M	299,018	\$44.9M
Hispanic Or Latino	1,497,759	\$374.4M	998,506	\$149.8M
Two Or More Races	176,207	\$44.1M	117,471	\$17.6M

Market Opportunity for a Product/Service that Addresses Diabetes in the US

	Opportunity Size	Opportunity Value
	US Population Statistics 26,698,015	\$4,004,702,250 (unit price of \$150)
		<div style="display: flex; justify-content: space-around;"> <div> <p>📍</p> <p>Current state</p> <p>Population: 8,017,415</p> <p>Value: \$1.2B</p> </div> <div> <p>➡</p> <p>Future state</p> <p>Population: 14,103,227</p> <p>Value: \$2.1B</p> </div> </div>

Compare current state to future

Source: [The Market Opportunity Calculator](#)

Evidence for the benefits of an inclusive approach



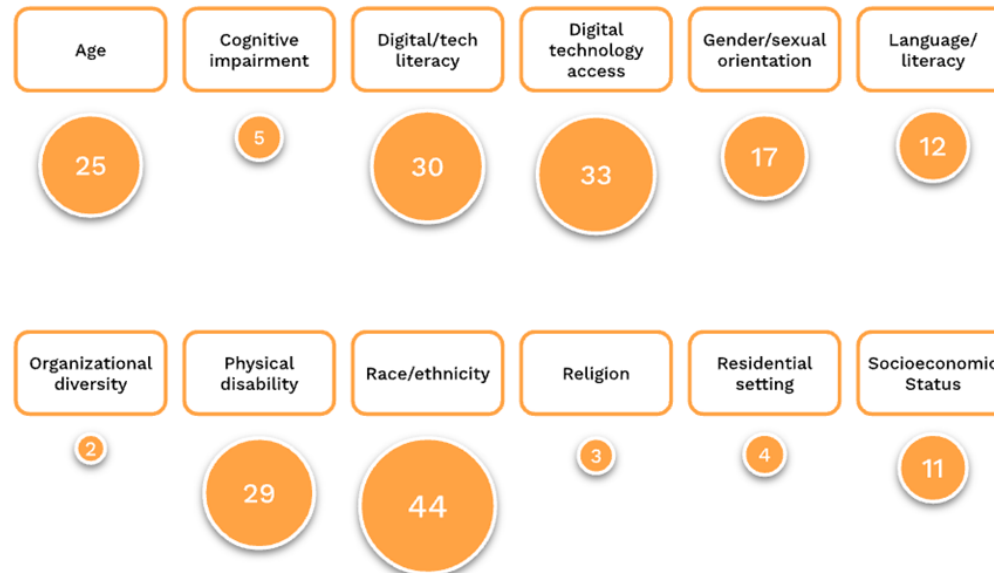
The Library of Evidence Supporting Inclusive Design

This document contains links to over 100 publicly available resources that demonstrate quantified benefits, i.e, real numbers, in various aspects of inclusive design. They are sorted by the categories indicated.

Type of Benefit



Inclusion Vector



Evidence for the benefits of an inclusive approach

DATAcc Inclusivity | The Library of Evidence Supporting Inclusive Design

TYPE OF BENEFIT: Ameliorate Existing Biases

- 17. Do Professional Interpreters Improve Clinical Care for Patients with Limited English Proficiency? A Systematic Review of the Literature [🔗](#)
- 18. Adherence to Cardiovascular Disease Medications: Does Patient-Provider Race/Ethnicity and Language Concordance Matter? [🔗](#)
- 19. Association of Patient-Physician Language Concordance and Glycemic Control for Limited-English Proficiency Latinos With Type 2 Diabetes [🔗](#)
- 20. Lack of Diversity in Genetic Datasets is Risky for Treating Disease [🔗](#)
- 21. The “inconvenient truth” about AI in healthcare [🔗](#)
- 22. If Technology is to Improve Health Equity, It Won't Happen By Accident [🔗](#)
- 23. The Economics of Inclusion: A Broader Customer Base Is the Bottom Line [🔗](#)
- 24. Closing the Digital Divide in Healthcare & Equitable Telehealth Access [🔗](#)
- 25. Closing the Digital Divide: Ensuring Patients Have Access to Healthcare Technology Is a Priority [🔗](#)
- 26. Characteristics of telehealth users in NYC for COVID-related care during the coron
- 27. How Diversity, Equity, and Inclusion c
- 28. What Is Disability Inclusion & Healthc
- 29. Diversity and Inclusion Best Practices:
- 30. We Must Bridge the Digital Divide in
- 31. Advancing Health Equity Through Tec
- 32. Digital Healthcare Solutions: A Strate

DATAcc Inclusivity | The Library of Evidence Supporting Inclusive Design

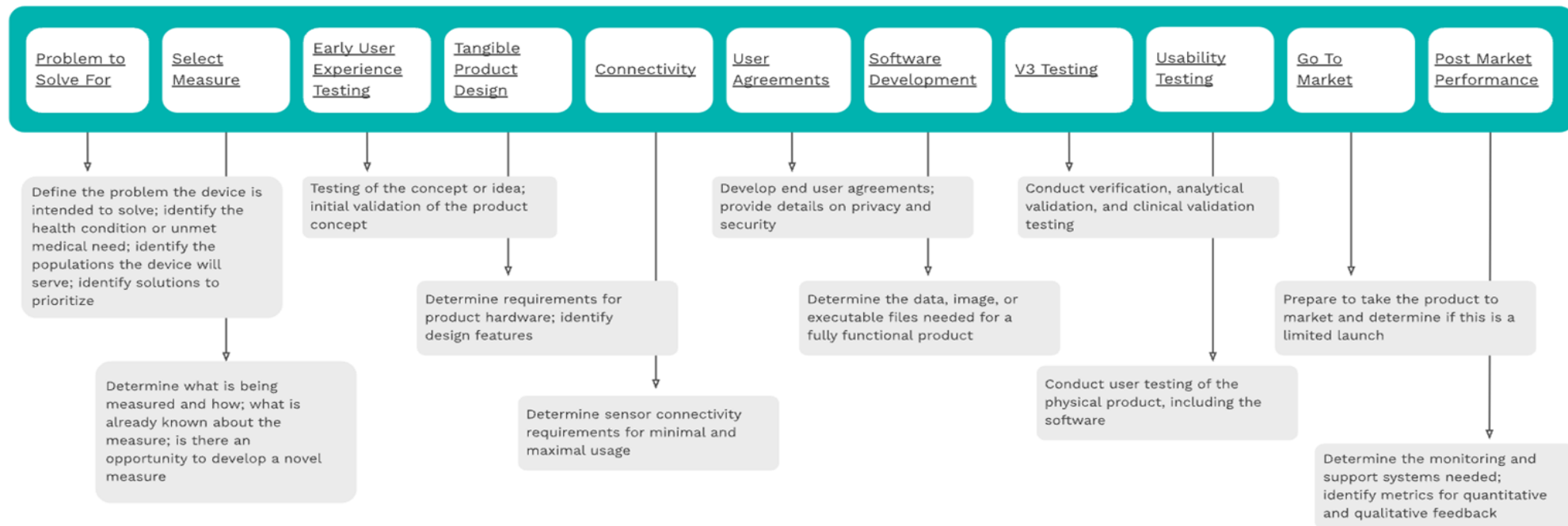
INCLUSION VECTOR: Race/Ethnicity

- 1. 36 Eye-Opening Inclusive Marketing Statistics That Prove Its Power for 2022 [🔗](#)
- 2. Inclusive Design: Bridging the digital divide and increasing ROI [🔗](#)
- 3. Despite 25 Years Of Ad Growth, Diversity Remains A Challenge [🔗](#)
- 4. Characteristics of telehealth users in NYC for COVID-related care during the coronavirus pandemic [🔗](#)
- 5. Digital healthcare platforms must focus on inclusion [🔗](#)
- 6. How Diversity, Equity, and Inclusion can Influence Healthcare [🔗](#)
- 7. Diversity and Inclusion Best Practices in Healthcare [🔗](#)
- 8. We Must Bridge the Digital Divide in Health Care [🔗](#)
- 9. How to Narrow the Digital Divide in U.S. Health Care [🔗](#)
- 10. The diversity and inclusion revolution: Eight powerful truths [🔗](#)
- 11. Racial Bias in Pulse Oximetry Measurement [🔗](#)
- 12. The Cost of Connectivity 2020 [🔗](#)
- 13. The Business Case for Product Inclusion Design Practices [🔗](#)
- 14. Fact Sheet: Health Disparities by Race and Ethnicity [🔗](#)
- 15. Inclusive ads are affecting consumer behavior, according to new research [🔗](#)
- 16. Medical Algorithms Are Failing Communities Of Color [🔗](#)
- 17. Real-World Evidence: Research Reveals a Lack of Racial Diversity in Clinical Trials for Cancer Drugs [🔗](#)
- 18. Algorithmic Bias in Health Care Exacerbates Social Inequities — How to Prevent It [🔗](#)
- 19. Ensuring that biomedical AI benefits diverse populations [🔗](#)
- 20. Dissecting racial bias in an algorithm used to manage the health of populations. [🔗](#)
- 21. How Diverse Leadership Teams Boost Innovation [🔗](#)
- 22. Why digital inclusion matters to health and social care [🔗](#)
- 23. Amplifying Black voices. What health care organizations can do to advance diversity, equity, and inclusion in the workforce [🔗](#)

Key steps in the development lifecycle



Digital Health Measurement Product Development Process



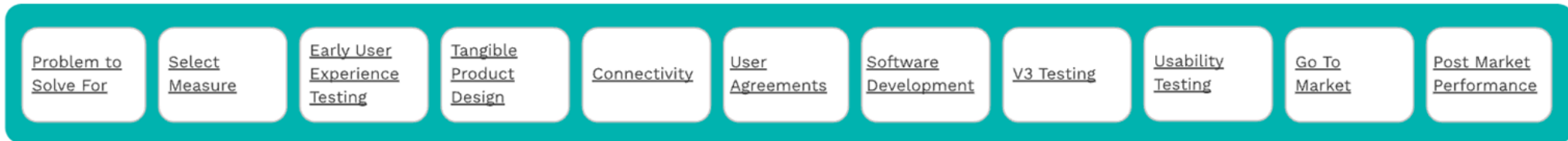
NOTE: This development process was designed by DATAcc Subject Matter Experts, following the [FDA Device Development Process](#).

Step-by-step guide to apply inclusive elements



The **Framework** for Inclusive Development

Inclusivity Considerations throughout the Digital Health Measurement Product Development Process



Step-by-step guide to apply inclusive elements

Inclusivity | Toolkit for Digital Health Measurement Product Development

Problem to Solve For

Select Measure

Early User Experience Testing

Tangible Product Design

Connectivity

User Agreements

Software Development

V3 Testing

Usability Testing

Go To Market

Post Market Performance

PROBLEM TO SOLVE FOR

Common problems related to inclusivity:

- Not developing digital measurement products for diverse populations
- Increasing disparities for those with limited access and deepening the digital divide
- Making assumptions that one standard product can be effectively extrapolated to other populations

Risks:

- The product may not be widely adopted
- The product may need redesign due to lack of uptake

KEY STEPS:

DEVELOP PROBLEM STATEMENT FOR HEALTH CONDITION OF INTEREST

DEFINE TARGET POPULATION

CHOOSE ENDPOINTS or DATA TO COLLECT

INCLUSIVITY CONSIDERATIONS:

What can you learn about this health condition that impacts populations beyond your initial target population? What unmet medical needs are you addressing?

Can the selected measure (or data to be collected) fulfill needs of or provide benefit to other populations?

TOOLS & RESOURCES:

1 2
3 4 5

Step-by-step guide to apply inclusive elements

Inclusivity | Toolkit for Digital Health Measurement Product Development

Problem to Solve For

Select Measure

Early User Experience Testing

Tangible Product Design

Connectivity

User Agreements

Software Development

V3 Testing

Usability Testing

Go To Market

Post Market Performance

POST MARKET PERFORMANCE

Common problems related to inclusivity:

- Failing to understand the differences in real-world evidence across different segments of the population
- Failing to adequately interpret results across different populations

Risks:

- The post-market performance data may not be informative enough for a wider product launch
- The product data is limited and may not be informative for any necessary redesigns or future market campaigns

KEY STEPS:

POST MARKET MONITORING PLANS

INCLUSIVITY CONSIDERATIONS:

What additional support is needed to ensure additional populations are engaged and using the product?

TOOLS & RESOURCES:

[72](#)

EVALUATION

How will the product be monitored for real-world performance and evaluated against expectations for different populations?
 What is the product impact on diverse populations?

TOOLS & RESOURCES:

[73](#) [74](#) [75](#) [76](#)

Step-by-step guide to apply inclusive elements

Inclusivity | Toolkit for Digital Health Measurement Product Development

Problem to Solve For

Select Measure

Early User Experience Testing

Tangible Product Design

Connectivity

User Agreements

Software Development

V3 Testing

Usability Testing

Go To Market

Post Market Performance

EARLY USER EXPERIENCE TESTING

Common problems related to inclusivity:

- Limiting the size and breadth of early use testing populations, due to time and/or budget constraints
- Making assumptions and extrapolations from small, narrow test groups about ubiquity of experience, preferences, and input
- Testing experience is not designed around individuals

Risks:

- The limited test results may be extrapolated to larger/diverse populations and product doesn't work resulting in the need to redesign/start over
- The product may exacerbate existing disparities
- The testing experience may alienate users

KEY STEPS:	IDENTIFY & DESIGN	INVITE	CONDUCT	FOLLOW UP
INCLUSIVITY CONSIDERATIONS:	Can you add new populations that could benefit from this technology? What are the unique cultural, language, and access characteristics for these additional populations?	How should they be engaged? By what means are they being invited and by whom? Are the invitations adequately reaching the intended audience - language, literacy levels, tech access, and culturally appropriate?	What accommodations need to be made during the testing - language, literacy levels, child care, transportation, timing, and compensation? What info will be collected and how? How do you build trust?	How can data be used to modify the product development? What are next steps for the participants? How do create a feedback loop?
TOOLS & RESOURCES:	10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	25	26	27 28 29

5

Step-by-step guide to apply inclusive elements

Appendix. Tools & Resources



Problem to Solve For

- 1 [Designing for All: Consumer Response to Inclusive Design](#)
- 2 [DATAcc Digital Inclusion Framework - DRAFT](#)
- 3 [Personal Tech and the Pandemic: Older Adults Are Upgrading for a Better Online Experience](#)
- 4 [How digital health apps are empowering patients](#)
- 5 [7 facts about Americans with disabilities](#)

Select Measure

- 6 [Lack of Diversity in Genetic Datasets is Risky for Treating Disease](#)
- 7 [Benefits of using digital clinical measures in medical product development](#)
- 8 [Digital Measures That Matter to Patients: A Framework to Guide the Selection and Development of Digital Measures of Health](#)
- 9 [Digital Health Technologies for Remote Data Acquisition in Clinical Investigations](#)

Early User Experience Testing

- 10 [DATAcc Digital Inclusion Framework](#)
- 11 [Inclusive Public Engagement Plan](#)
- 12 [Six Essential Strategies for Inclusive Community Engagement](#)
- 13 [Inclusive Design: Building Products for Wide Spectrum of Users](#)
- 14 [Health Literacy Data Map](#)
- 15 [Visualizing the U.S. Population by Race](#)
- 16 [US Census Bureau QuickFacts](#)
- 17 [Worldometer Demographics](#)
- 18 [CDC Chronic Diseases in America](#)
- 19 [Chronic disease morbidity](#)

- 20 [Nielsen's 10th-Year African American Consumer Report Explores The Power Of The Black Community From Moment To Movement](#)
- 21 [2020 Profile of Older Americans](#)
- 22 [NHE Fact Sheet](#)
- 23 [The Economic Costs of Pain in the United States](#)
- 24 [7 facts about Americans with disabilities](#)
- 25 [You Need to Ask Patients](#)
- 26 [PCORI Engagement Rubric](#)
- 27 [90% of Patients Say Loyalty Relies on Patient Financial Experience](#)
- 28 [America's Health Rankings 2021](#)
- 29 [1 in 5 Patients Find Wearables Hard to Use](#)

Tangible Product Design

- 30 [An Open Approach](#)
- 31 [Accessible Design vs. Inclusive Design](#)
- 32 [Designing for inclusivity: How and why to get started](#)
- 33 [What is a Modular Design? Everything You Want to Know in 8 Easy Answers!](#)
- 34 [Top 10 UX Design Fundamentals That Developers Should Know](#)

Connectivity

- 35 [Connect 2 Health - FCC](#)
- 36 [Mobile IoT Deployment Map](#)
- 37 [Internet/Broadband Fact Sheet](#)
- 38 [Focus on the United States](#)
- 39 [How might internet connectivity affect health care access?](#)
- 40 [IoT Empowers People with Chronic Diseases to Achieve Quality of Life](#)

Resources in action

Genentech

A Member of the Roche Group

Genentech is a large biotech company with digital focus areas in Oncology, Neuroscience, Inflammation, and Respiratory diseases.

“There is great value in having DATAcc as an easily accessible resource that can quickly surface data on one aspect of value that inclusivity brings to the business.”

— **Celine Marquez, MD**, Global Medical Director, Digital Health, Genentech

The Problem

- We needed a foundational resource to point our study teams to when designing a digital trial.

The Resources

- We provided our study teams with the [DATAcc Inclusivity Toolkit for Development](#) to increase inclusive and diverse patient representation in our digital trials.

The Impact

- ✓ Greater patient centrality,
- ✓ Clear communication with internal teams and executives,
- ✓ Team education and cohesion,
- ✓ Refined/improved strategy,
- ✓ Operational efficiencies,
- ✓ More buy-in,
- ✓ Meeting strategic imperative regarding inclusivity.

DATAcc Inclusivity | Toolkit for Development
a DiME Project



BD

Advancing the world of health

BD is a global medical technology company that is advancing the world of health by improving medical discovery, diagnostics and the delivery of care.

“Just educating during the roll out of a product is not enough; we need to make sure that the data input that informs products are also enabling inclusivity early in the data collection phase in order to minimize unintentional exclusion.”

— **Kalvin Yu, MD**, VP, Medical Affairs, US Region, BD

The Problem

- Populations who traditionally have poorer access to healthcare are disproportionately affected by COVID. Analytics related to COVID outcomes are largely based on electronic records that are notorious for being less accurate in designating race and ethnicity. As the pandemic has shown, better documentation of such can improve the analytic outputs that examine infectious disease outcomes by demographics.

The Resources

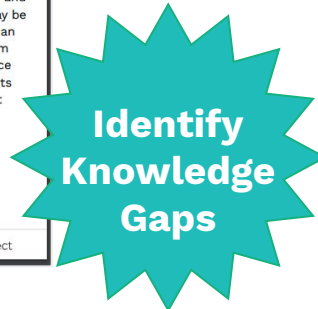
- BD has partnered with the CDC in creating a [COVID dashboard](#) that gives them insight to end organ inflammation, ICU care, length of stay and other outcomes that may inform public health policy.
- The [DATAcc Toolkits for inclusivity](#) touched upon known bottlenecks in accurately collecting race and ethnicity data from core inputs. The Toolkits may be helpful in sharing with relevant stakeholders in an education campaign to highlight the downstream analytic importance of having more accurate race and ethnicity data to help strengthen the insights regarding outcomes in demographics that might have poorer access to healthcare.

The Impact

We expect:

- ✓ Greater patient centrality,
- ✓ Clear communication internally and externally,
- ✓ Refined / Improved strategy,
- ✓ More buy-in,
- ✓ Meeting strategic imperative regarding inclusivity

DATAcc Inclusivity | Toolkit for Development
a DiME Project



AliveCor

AliveCor is a medical device and AI company producing ECG hardware and software for consumer mobile devices. The company is the first to receive FDA-clearance for a medical-device accessory to the Apple Watch.

“These tools helped us flip the 80/20 rule on its head and prioritize edge cases which result in designs that work for more people and have higher adoption, engagement, and retention.”

— **Justin W Ranton**, Director, UX, AliveCor

The Problem

- The challenge is always showing the return on investment (ROI) of design in different ways. In this case, it's helping to communicate the ROI of being inclusive in how we approach product design – specifically around folks with disabilities through accessible design.

The Resources

- We have been able to use the [DATAcc Inclusivity Toolkit for Development](#) to influence our UX strategy and focus on one of our core design values of delivering inclusive experiences. The **Market Opportunity Calculator** helps us communicate and prioritize inclusivity for different market segments by assigning a dollar value to the effort, helping us better communicate the ROI of inclusivity as a part of our design process.

The Impact

- ✓ Greater patient centrality
- ✓ Clear communication both internally and externally
- ✓ Operational efficiencies and/or faster decision making
- ✓ Team education and cohesion
- ✓ Refined/improved strategy
- ✓ More buy-in
- ✓ Meeting strategic imperative regarding inclusivity

DATAcc Inclusivity | Toolkit for Development
a DiME Project



Verily

Verily is an Alphabet company combining a data-driven, people-first approach to bring the promise of precision health to everyone, every day.

“Wearable devices offer an incredible opportunity to increase diversity in clinical studies, but they need to be accessible to a broader set of users to make this vision true.”

— **Kristin Size**, Head of Study Devices, Verily

The Problem

- Digital health technologies, such as wearable devices, can allow for remote data collection, allowing studies to be run in a decentralized manner and capturing data in free living situations. However, to do this, a wearable device must be designed to perform across demographically and medically diverse populations in real-world settings.

The Resources

- The [DATAcc Framework for Inclusive Development](#) provides targeted questions and checkpoints at each point in the development process that help ensure that inclusion stays a focus. The team used it to think about common problems associated with inclusion in wearable devices such as: skin tone, connectivity, body size, and age-related changes.

Sensor performance:

- PPG technology has an innate challenges due to green light absorption varying across different skin tones. Using the Framework for Inclusive Development we focused on endpoints that would allow us to evaluate performance. In addition, we prioritized including participants with darker skin, varying hair density, and wrist size in our early technical feasibility studies to optimize the sensor design.

Access & accessibility:

- We also completed usability testing for items like setup, wearing and care for the device, and completing ePROs.

The Impact

- ✓ Greater patient centrality
- ✓ Clear communication
- ✓ Team education and cohesion

DATAcc Inclusivity | Toolkit for Development
a DiME Project

Inclusive digital health product deployment



DATAcc Toolkit for Inclusive Deployment

This toolkit is designed for teams in charge of deploying digital health measurement products to people, patients and communities to operationalize inclusivity.



Patients, Participants and Communities

Your tools for supporting understanding and trust in communities of end users



Implementing Inclusive Deployment

Your tools for implementing inclusive approaches when you deploy digital health measurement products in healthcare and research



Resources for Inclusive Deployment

A library of over 90 publicly available resources related to inclusivity that you can use in your deployment plan

Plan for effective community partnerships



Digital Health Measurement Collaborative Community

Guide for Developing Community Partnerships

Key Considerations to Support Inclusive Deployment

Purpose of this resource

- Provide an overview of the value of community partnerships for inclusive deployment
- Provide a list of key considerations
- Provide select references for more in-depth instruction and best practices for reaching out to community partners

Intended users | Clinicians, researchers, or other parties wanting to deploy a digital health measurement product.

Using the tool | When identifying the:

1. Scope of a healthcare program or research study, and/or
2. Key populations or segments of populations of interest that will be included.

Inclusivity lens | Community organizations can give health systems some insights into who, how, and why specific population groups defined by geography, age, race, ethnicity, culture, health condition, could benefit from a digital medicine technology. Authentic partnerships will seek strategies that benefit both types of organizations.

Essential Components

- ❖ Community Partnerships can Improve Long-Term Outcomes
- ❖ Key Steps for Developing Community Partnerships (Detailed instructions)
- ❖ Principles of Partnerships - American Hospital Association Lessons Learned

Design an inclusive engagement plan



Digital Health Measurement Collaborative Community

Guide for Inclusive Engagement

Purpose of this resource

- Describe the value of inclusive engagement for recruiting diverse populations and encouraging robust engagement with technology
- Provide a tool to help clinicians and researchers develop inclusive engagement
- Provide references for more in-depth information, best practices, and templates

Intended users | Clinicians, researchers, and other parties planning deployment of a digital health measurement product to the end user (patient or participant).

When this tool can be used | Early in the design/planning process, in conjunction with the [Guide for Developing Community Partnerships](#).

Inclusivity lens | Inclusive engagement planning considers best practices such as multimedia training materials, comprehension level, spoken languages, transparency, access to information, and digital literacy and access. These elements will be instrumental for recruitment and retention for product use and overall program success

Essential Components

- ❖ Benefits of Inclusive Engagement
- ❖ Levels of Engagement - Spectrum: Notify > Solicit > Integrate > Support
- ❖ Considerations for Inclusive Engagement Plan
- ❖ Resources for Designing Inclusive Engagement

Quick start guides

Quick Start Guide for Community Partnerships

Quick Start Guide for Community Relationships

What To Do	How To Do It	Additional Tools
Define the purpose, goals, and intended outcomes of deploying this digital health product	Use the answers to these questions to formulate the purpose of your work: <ul style="list-style-type: none"> What are the goals for the individual and for the population? How does this product/program/study affect individuals and groups (potential benefits and/or risks)? Who are the intended user populations from whom digital measures will be collected? What digital measures will be collected? How will the digital measures or data collected be used? What are the goals for advancing the field? 	Guide for Community Partnerships
Identify community needs, learn why you need help engaging the populations you want to reach	Determine how the perceived benefits of your product fit with the priorities of population groups you want to engage. Determine whether issues reflect distrust by that population of the health system, or if barriers are logistic and economic. Ensure your team attains cultural competency so that they can address rather than exacerbate underlying trust issues.	
Draft a deployment plan	Use the questions above and information about the community to draft a deployment plan and highlight	Inclusive Deployment Plan Worksheet

Quick Start Guide: Inclusive Engagement Plan

Quick Start Guide to Designing an Inclusive Engagement Plan:

What To Do	How To Do It	Additional Tools
Identify purpose and goals for the engagement plan	This should be based on information learned from the community partner	Use the Inclusive Deployment Plan Worksheet
Start with a diverse team	The team should reflect or include people who understand the lived experience of the population groups they seek to include (e.g. by race/ethnicity, age, sexual and gender identify, or language preference)	
Determine specific goals for engagement and identify key strategies	Review institutional data to determine who would benefit from the technology Set goals for recruiting specific populations and monitor recruitment and engagement	
Identify strategies for getting input from people with different types of barriers to technology adoption and use	Develop a communication plan with messages that reflect the value of the technology to different types of users <ul style="list-style-type: none"> Go out into the community Develop materials that are culturally respectful Design materials to reflect health literacy best practices (i.e. at different reading levels) Design materials for different visual preferences (i.e. graphics, videos) Translate materials into multiple languages 	See DATAcc Inclusivity Workbook: Inclusive Deployment

Provide ongoing support for patients

WORKBOOK:

Prepping End Users

This workbook contains **sample** documents to support patients, participants, or communities to better understand the different aspects of a digital health measurement products. These tools should be used to supplement conversations between the clinician/researcher and end user.

- I. Sample End User License Agreement
- II. FAQs for End User Privacy & Security
- III. Questions to Ask - Patient/Participant Perspective
- IV. FAQ - Digital Health Measurement Product
- V. End User Bill of Rights
- VI. Learning About Context of Daily Life

Inclusivity Considerations through Deployment:

Inclusive deployment considers best practices such as multimedia training materials, comprehension level, preferred languages, transparency, access to information, and tech literacy and access.

The primary objectives for inclusivity are to increase accessibility, comprehension, and communication to foster trust for successful use of digital health measurement products.

Empowering patients

Tools for Patients, Participants, and Communities | Workbook for Prepping End Users

Sample End User License Agreement

A sample end-user license agreement (EULA) with descriptions and plain language explanation of each clause

Inclusivity Impact | Explain digital product end-user agreements to **support transparency** and contribute to building **trust** that can result in long-term product use and **successful outcomes**.

Purpose of this resource | Provide definitions and examples of terms typically found in user agreements to help people understand the legal conditions associated with product use.

Note: This is a simplified example for training purposes. The “digital health, measurement product” in this case is a mobile phone application.

Intended users | Patients, research study participants, other users of a digital health measurement product. Clinicians/researchers and others planning for training their staff. This tool can also be used by patient advocates and community groups to train their staff or to distribute it to their community members.

When this tool can be used | Share with users when the product is first introduced and prior to them agreeing to use it. Use it to train and prepare staff for fielding questions from users.

Tools for Patients, Participants, and Communities | Workbook for Prepping End Users

FAQs for End User Privacy & Security

A list of frequently asked questions (FAQs) and answers explaining privacy and security elements end users should be aware of before agreeing to use a digital product

Inclusivity Impact | Explain key points from the informed consent, earlier, to **support transparency** and contribute to building **trust** that can result in long-term product use and **successful outcomes**.

Purpose of this resource | A handout for patients/digital product end users on privacy and security in general to reach a meaningful level of comprehension.

Intended users | Patients, research study participants, other users of a digital health product. This tool can also be used by patient advocates, community groups, and program leads with training their staff or they can distribute it to their community members.

When this tool can be used | Provided to users when the product is first introduced and prior to them agreeing to use it. It can also be used by clinicians/researchers to prepare their staff to discuss the product with the end users.

Tools for Patients, Participants, and Communities | Workbook for Prepping End Users

End User Bill of Rights

Similar to a patient's bill of rights, these are key elements users should be aware of when asked to use a digital health product

Inclusivity Impact | Explain requirements for digital health measurement product use to **support transparency** and contribute to building **trust** that can result in long-term product use and **successful outcomes**.

Purpose of this resource | A handout to help guide end users when deciding to use a digital health measurement product.

Intended users | Patients, research study participants, other users of a digital health product. Patient advocates, community groups, and program leads can distribute it to their community members.

When this tool can be used | Shared with end users prior to them beginning use of the product.

Empowering patients

Tools for Patients, Participants, and Communities | Workbook for Prepping End Users

Questions to Ask - Patient/Participant Perspective

This tool suggests questions that end users should ask the clinical or research team when they are first asked to use a digital health product

Inclusivity Impact | Explain the process and requirements for digital health measurement product use to **support transparency** and contribute to building **trust** that can result in long-term product use and **successful outcomes**.

Purpose of this resource | Provide patients with a list of questions that they should ask related to the digital health measurement product, its operation, and how it relates to their health.

Intended users | Patients, research study participants, other users of a digital health product. This tool can also be used by patient advocates, community groups, and program leads with training their staff or they can distribute it to their community members.

When this tool can be used | Provided to users when the product is first introduced and prior to them agreeing to use it. It can also be used by clinicians/researchers to prepare their staff to discuss the product with the end users.

Tools for Patients, Participants, and Communities | Workbook for Prepping End Users

Learning About Context of Daily Life

This at-a-glance tool highlights information that would be valuable to care providers and researchers at the moment they are inviting patients or participants to use a digital health measurement product

Inclusivity Impact | Notify patients and participants of **information to share** with clinic/research team so the team can better **support users** for long-term product use and **successful outcomes**.

Purpose of this resource | To give the product deployer a short checklist of pertinent information for the end user to share with the product deployer to better understand in context of the daily life in which the product will be used.

Intended users | Patients, research study participants, other users of a digital health product. This tool can also be used by patient advocates, community groups, and program leads with training their staff or they can distribute it to their community members.

When this tool can be used | As early as possible when establishing the relationship with the patient/end user.

Tools for Patients, Participants, and Communities | Workbook for Prepping End Users

FAQ - Digital Health Measurement Product

A list of questions and answers that end users may have for the digital health product

Inclusivity Impact | Inclusive engagement planning considers best practices such as multimedia training materials, comprehension level, spoken languages, transparency, access to information, and tech literacy and access. This tool will provide support to ease users' concerns about the product.

Purpose of this resource | To ensure that the end user understands what the digital health measurement product does, how to use it, and why it's important.

Intended users | Patients or study participants. This tool can be customized to be fit-for-use by research teams or care teams to help train and prepare staff to field questions from end users.

When this tool can be used | The tool should be customized by the clinical/research team as soon as possible and shared with the user when they are introduced to the product.

Take an intentional approach to be inclusive

WORKBOOK:

Inclusive Deployment

This workbook contains **recommendations and best practices** to support clinicians and researchers when planning and implementing a protocol to deploy a digital health measurement product. These tools are intended to add a level of consideration that will allow for more inclusivity with the product use.

- I. Inclusive Deployment Plan Worksheet
- II. Inclusive Deployment Checklist
- III. Considerations When Deploying a Digital Health Measurement Product
- IV. Inclusive Communications Guide
- V. Digital Readiness Workflow
- VI. Digital Health Literacy Resources
- VII. End User Onboarding Checklist
- VIII. Informed Consent - Considerations for Inclusivity

A Clear and Comprehensive Plan is Important to Ensure Inclusive Deployment of Digital Health Measurement Products

Your inclusive product deployment plan should begin by following the standard workflows and protocols used for deploying any product in clinical care or research. This includes adhering to standards required by your organization and Federal regulations.

The tools provided in this workbook are intended to supplement the tools currently used and will augment your process for inclusive deployment of a digital health measurement products

Take an intentional approach to be inclusive

This workbook contains **tools** to **support deployment teams** with onboarding users to a digital health measurement product, in an inclusive manner that can **enhance transparency** and **build trust**.

- **Inclusive Deployment Plan Worksheet**

This tool can be used to draft an inclusive deployment plan and should be used with the rest of the toolkit.

Inclusivity Impact: Demonstrating process efficiency, which can build trust and result in long term product use and successful outcomes.

- **Inclusive Deployment Checklist**

This tool serves as a check to ensure steps necessary for inclusive product deployment were followed.

Inclusivity Impact: An additional check to ensure the elements necessary to be more inclusive are included.

- **Considerations When Deploying a Digital Health Measurement Product**

This tool serves as a final check to ensure steps and considerations necessary for inclusive product deployment were followed.

Inclusivity Impact: Additional checks to ensure that attention has been paid to the elements necessary for appropriate and full use of the digital health measurement product.

- **End User Onboarding Checklist**

This tool serves as a final check to ensure steps and considerations necessary for inclusive product deployment were followed.

Inclusivity Impact: An additional checkpoint to ensure inclusive elements were followed.

Take an intentional approach to be inclusive

- **Digital Readiness Workflow**

This tool can be used to evaluate the end user's ability to receive the digital health measurement product and informs deployers of opportunities to be more inclusive.

Inclusivity Impact: An assessment to evaluate end user's digital readiness, within the context of what is needed to use the product.

- **Digital Health Literacy Resources**

A list of digital literacy training modules ready for you to use that can be used as-is.

Inclusivity Impact: Provide additional support to users and communities, at any time, to build trust and result in long term product use and successful outcomes.

- **Inclusive Communications Guide**

This tool provides guidelines for developing clear communications to ensure inclusivity.

Inclusivity Impact: Recommendations on making communications more inclusive and accessible to wider audiences of what is needed to use the product.

- **Informed Consent - Considerations for Inclusivity**

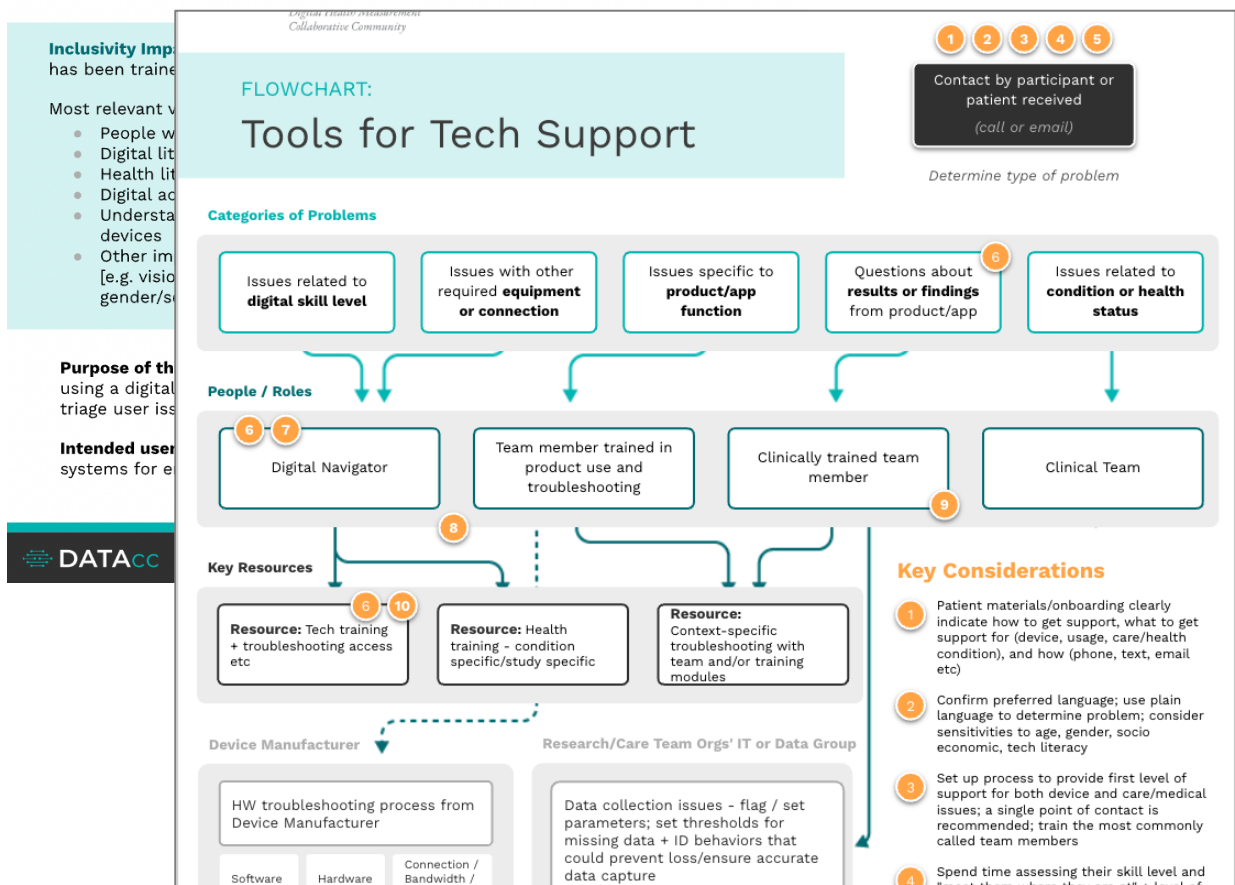
This tool lists additional concerns for inclusivity with a digital health measurement product that should be added to standard informed consent documents.

Inclusivity Impact: A list of key elements that will allow for better informed users.

Take an intentional approach to be inclusive

Implementing Inclusive Deployment | Workbook of Inclusive for Support of End Users

Flowchart of Calls for User Support



Implementing Inclusive Deployment | Workbook of Resources for Support for End Users

Guide for In-Person Site Visits

Key points they come

Providing Onsite Support

- At the initial visit, schedule a **follow up visit**.
- Ask users to **bring the digital health measurement product** and any supporting components (e.g. chargers).
- Ensure that you have adequate resources to support the onsite visit (e.g. bilingual staff, and people who can help patients use accessibility features of the product or their mobile device).
- Use the **teach back method** and ask the user to explain how they are using the product.
- If available, review the data that reflects their usage of the product with them, noting any patterns for which troubleshooting could help.
- Use **curiosity questions** to learn and understand how the product is being used and the end user's level of comfort with the product.
- Allow time for the **end user to ask** their own questions.
- Find out if there are any **changes in the user's daily life**, i.e. change in work schedule or home environment, that could interfere with using the product, fully or as needed.
- Determine if any **adjustments need to be made** to allow the user to continue to use the product, e.g., does their work schedule impact their ability to track or sync up data as required by the care/research team.
- Confirm that the **end user understands how to use the product**, has everything needed to use the product effectively, and knows how to get additional help if needed.

Inclusivity Im contribute to product use

Purpose of t check in with correctly.

Intended use

When this to planning pro



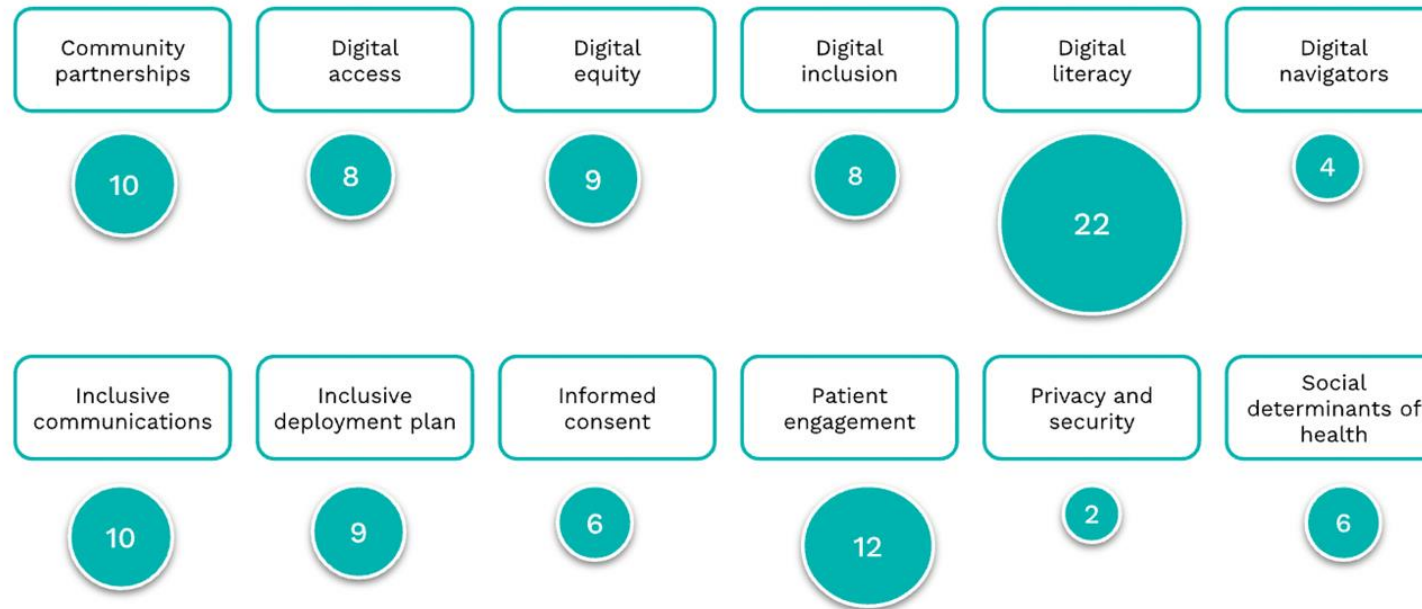
Take an intentional approach to be inclusive



The Resource Library: Inclusive Deployment

This document contains links to publicly available resources that support inclusivity throughout the deployment process. They are sorted by the where they can provide information relevant to the toolkits; some may serve multiple purposes.

Categories of resources



Take an intentional approach to be inclusive

Digital Access	Digital Equity
<ol style="list-style-type: none">1. Digitunity2. EveryoneOn3. Human-I-T4. Literacy Minnesota5. Mobile Citizen6. National Digital Equity Center7. National Digital Inclusion Alliance8. PCs for People	<ol style="list-style-type: none">1. Digital Inclusion in Health and Care2. Digital Inclusion For Health And Social Care3. Leveraging Healthcare for Digital Inclusion4. How Healthcare Can Support Digital Health Equity5. MANA, a National Latina Organization6. Toolkit for Digital Health Equity7. Digital Equity Playbook8. Informative Technologies; Center for Digital Equity9. Digital Inclusion Coalition Guidebook

 Inclusivity | **Toolkit for Digital Health Measurement Product Deployment**

Resources in action



Public Health Innovators, LLC
Public Health Innovators, LLC provides consulting services to support development and adoption of digital health tools to benefit individuals and population groups that have been historically excluded from the opportunity to use the internet to transform their lives and their communities.

The Problem

- Digital health tools have been optimized for the digitally privileged, and health systems are struggling to reach patients that lack access to the internet, devices and skills needed for digital medicine.
- The health and technology sectors have limited awareness of digital inclusion organizations and methods, and digital inclusion experts have limited experience applying their methods to health applications and settings.

The Resources

- Public Health Innovators is using the [DATAcc](#) Toolkits for Inclusive [Development](#) and [Deployment](#) of Digital Health Technology to adapt the [National Digital Inclusion Alliance's](#) (NDIA) [Digital Navigator model](#) for health care.
- Currently, public health organizations in Northeast Ohio are disseminating the DATAcc Toolkits to those accessing their [Digital Access Indicators Dashboard](#).
- One health system is incorporating tools such as the [Guide for Developing Community Partnerships](#) and the [Digital Readiness Workflow](#) as they prepare to test a model to screen and refer patients lacking digital health readiness to community resources. The health system is also incorporating the [Inclusive Communications Guide](#) and the [End User Onboarding Checklist](#) as they prepare providers and patients for an impending transition to a new electronic health record system.
- The [Flowchart of Calls for User Support](#) within the [Workbook for Inclusive Support](#) is intended to ensure that tech support can help patients with basic digital skill and device barriers.

The Impact

- By adapting digital inclusion best practices for health care, health systems can deliver digital solutions to all patients. Groups that have been historically marginalized can begin to leverage digital tools to improve their health and communities. Collectively, the DATAcc Toolkits enabled Public Health Innovators to help facilitate:
 - Greater patient centricity
 - Clearer communication and team cohesion
 - Operational efficiencies and faster decision making
 - Improved health outcomes and reduced health disparities

a DiME Project

HEALTHY NORTHEAST OHIO
Sharing Knowledge to Create Healthier Communities

[Healthy Northeast Ohio](#) is a public online resource for data on health and social determinants of health in Northeast Ohio. Healthy Northeast Ohio's mission is to improve and support community health across a 9-county region by providing stakeholders with access to vetted population health data and resources. The website offers users access to more than 300 health and quality of life indicators, other indices, dashboards, and other resources to support local health improvement activities.

The Problem

- Internet access and adoption are now recognized as social determinants of health.
- Resources are urgently needed to ensure that digital health strategies, made ubiquitous by the pandemic, benefit all populations.

The Resources

- Digital Access Indicators, which highlight disparities in ownership of computers, smartphones and subscriptions to broadband internet service for households in the region, are collected in one of several dashboards on [healthymeo.org](#).
- Health Northeast Ohio has started to direct its partners and website visitors to the [DATAcc](#) Toolkits for Inclusive [Development](#) and [Deployment](#) of Digital Health Measurement Products to support digital equity and inclusion in the Northeast Ohio region.
- The [Workbook for Inclusive Deployment](#) is helping Healthy Northeast Ohio partners and website visitors to plan for incorporating digital health technology in public health and health care.
- The [Workbook for Prepping End Users](#) is helping to ensure that people understand the security and privacy issues involved with digital health tools.

The Impact

Adding the DATAcc resources to Healthy Northeast Ohio's website is helping its partners:

- Drive greater awareness of the range of digital health products available for health care, public health and personal use.
- Learn about the potential for digital health to improve individual and population health.
- Leverage strategies to mitigate the risk of digital health worsening health disparities.
- Decrease digital access disparities and increase health equity.

a DiME Project

Demonstrating DATAcc in Action With

THE BACKGROUND

- Underserved communities are disproportionately impacted by chronic disease; with tools and care models deployed using new technology, there are growing concerns that innovations will lead to an exacerbation of disparities.
- Many digital health products are created and introduced, to the market lacking cultural competency, impacting usage rates in diverse groups.
- Tackling barriers to improved health outcomes requires stakeholder collaboration across the healthcare system.

THE ORGANIZATION

- [Institute for eHealth Equity](#) is a social impact consulting firm that works to improve health equity and reduce health disparities.
- Through the creation of culturally appropriate, collaborative online spaces, the Institute works with faith and community-based organizations to promote the benefits of leveraging technology to improve health outcomes.
- The Institute is working with digital innovators to ensure technology is developed in a culturally aware manner. It is also fostering a relationship between digital innovators and community stakeholders – An important piece of this being: getting de-identified and aggregated data back to community leaders to understand the impact of their work.

WHY IT MATTERS

“Digital health tools have not yet shown substantial adoption or impact among underserved populations and this may lead to greater disparities in health outcomes. Our work, along with our DATAcc partners, is specifically designed to change paradigms, and deliver culturally appropriate solutions that shorten the distance between health technology developers, the tools they create, and the underserved community members that benefit from greater inclusivity” — Silas Buchanan, Founder and CEO, Institute for eHealth Equity

The DATAcc Resource to Use

The DATAcc Toolkits for Inclusive [Development](#) and [Deployment](#) offer product development resources and [guide](#) for developing community partnerships.

Inclusivity | Toolkit for Development

a DiME Project

Resources in action



Community Health Center, Inc.

Community Health Center, Inc. (CHC), a leading health-care provider in the state of Connecticut, offers primary medical, dental and mental health services to low-income, uninsured and underinsured patients using innovative service delivery models and state of the art technology. CHC is one of seven FQHCs enrolling for the [All of Us Research Program](#) (AoURP).

Engaging with people who have historically been underrepresented in biomedical research was a cornerstone to our mission. The toolkit allowed us to design our outreach strategy in a participant-centric and inclusive way.

— **Amy Taylor**, Vice President, CHC

The Problem

- › The CHC team was looking to expand the eligibility for inclusion to non-patients for a AoURP.
- › CHC needed tools to inform their outreach and engagement of the non-patient populations.

The Impact

- › CHC achieved greater patient-centricity by using DATAcc resources. Although the community members are not patients, they will be participants in the research study, and it is necessary to understand what matters to them most and how to engage in a participant-centric way.
- › As CHC expands its outreach for inclusion in its research, it wants to reach historically underrepresented populations in biomedical research. DATAcc helped them understand the community's needs and how to build trusting, long-term partnerships.

The Resources

- › The CHC team leveraged [DATAcc](#) resources, specifically the [Guide for Community Partnerships](#) and [Guide for Inclusive Engagement](#), to help plan engagement with community-based organizations.
- › CHC incorporated guidance from the [Inclusive Deployment Checklist](#) to ensure they were thinking of the needs of members of the community and not just their organization's needs.

DATAcc Inclusion | Toolkit for Deployment a DiME Project

Community Health Center, Inc.

Community Health Center, Inc. (CHC), a leading health-care provider in the state of Connecticut, offers primary medical, dental and mental health services to low-income, uninsured and underinsured patients using innovative service delivery models and state of the art technology.

An inclusive communications strategy is foundational to our work in our national research program. Using this tool kit allowed us to align our team members to one strategy with clear and accessible expectations.

— **Katrina Yamazaki**, Principal Investigator and Senior Scientist, CHC

The Problem

- › The CHC team wanted to ensure that its communication strategy for engagement with potential and existing participants is transparent, appropriate, and inclusive.

The Resources

- › The CHC leveraged several [DATAcc](#) resources including the [Workbook for Inclusive Deployment](#), [Inclusive Deployment Plan Worksheet](#), [Inclusive Communications Guide](#), and [Digital Readiness Workflow](#), to help inform CHC's communications strategy.
- › The organization leveraged the key elements of the tool's recommendations, including utilizing a clear, concise message; having the appropriate reading level, including visual aids; and avoiding jargon to be more effective in its outreach, engagement, and retention work with participants and community members.

The Impact

- › The area of greatest impact was the team training – utilizing this guide helped the CHC team have clear direction on how to engage with participants at every stage and provided CHC managers with very clear training guidelines for their team members, with a focus on inclusivity and participant-centered design.
- › The tool was also impactful because it is accessible and can be put into use immediately.

DATAcc Inclusion | Toolkit for Deployment a DiME Project

Community Health Center, Inc.

Community Health Center, Inc. (CHC), a leading health-care provider in the state of Connecticut, offers primary medical, dental and mental health services to low-income, uninsured and underinsured patients using innovative service delivery models and state of the art technology.

The engagement tool provides for a highly accessible, actionable plan to help organizations more effectively partner with key stakeholders to produce greater benefits for all.

— **Amy Taylor**, Vice President, CHC

The Problem

- › The CHC team that focused on community-based COVID-19 vaccination efforts in vulnerable communities wanted to understand best practices for outreach and engagement of this population.

The Impact

- › DATAcc helped shifted CHC's focus from short-term wins to long-term engagement and helped the organization develop an enduring strategy, despite the challenges of the pandemic.
- › The engagement tools helped CHC better engage its typical partners (such as local health departments and community-based organizations) and broaden its reach to new partners.
- › New partners – including those most skeptical and reluctant to receive a vaccine – were successfully engaged by partnering with trusted community members (such as park workers, aids, and teachers).

The Resources

- › The CHC team leveraged [DATAcc](#) resources, specifically the [Guide for Community Partnerships](#) and [Guide for Inclusive Engagement](#).
- › The guides helped CHC:
 1. **Understand** partners' key needs better
 2. **Create** long-term plans for engagement, rather than single transactional moments
 3. **Engage** in trust building with key stakeholders
 4. **Remain** consistent with follow throughs

DATAcc Inclusion | Toolkit for Deployment a DiME Project

Community Health Center, Inc.

Community Health Center, Inc. (CHC), a leading health-care provider in the state of Connecticut, offers primary medical, dental and mental health services to low-income, uninsured and underinsured patients using innovative service delivery models and state of the art technology.

The informed consent is critical to the success of participant engagement in any project. The DATAcc toolkit helps to ensure we are considering the critical points of the process.

— **Katrina Yamazaki**, Principal Investigator and Senior Scientist, CHC

The Problem

- › The CHC team wanted to ensure that its informed consent was appropriately geared towards the intended population.

The Resources

- › The CHC leveraged several [DATAcc](#) resources including the [Workbook for Inclusive Deployment](#), [Inclusive Deployment Plan Worksheet](#), [Digital Readiness Workflow](#), and [Informed Consent – Considerations for Inclusivity](#).
- › The Informed Consent resource provided CHC with a guide to ensure that the informed consent it received from its national partner was appropriate for the intended population.
- › The tools also helped CHC consider how to support the participant's engagement with the informed consent through the recommendation to include other family members (when and where appropriate) and to provide a clear way for participants to get in touch if any issues arise in the future.

The Impact

- › These tools greatly impacted the team's training and understanding of the appropriate way to present and share the informed consent with participants, encouraging appropriate family engagement and re-contact information.

DATAcc Inclusion | Toolkit for Deployment a DiME Project

Inclusivity as the foundation



Start with developing digital health products that can serve the people who can benefit from it the most.

Be specific and deliberate throughout the product development lifecycle.



Patients, participants and the communities have to be the primary focus.

Build trust by understanding the needs of the people your clinical trials will serve.



Implementation of clinical trials and the use of digital health products needs to be intentional and focused on inclusivity.

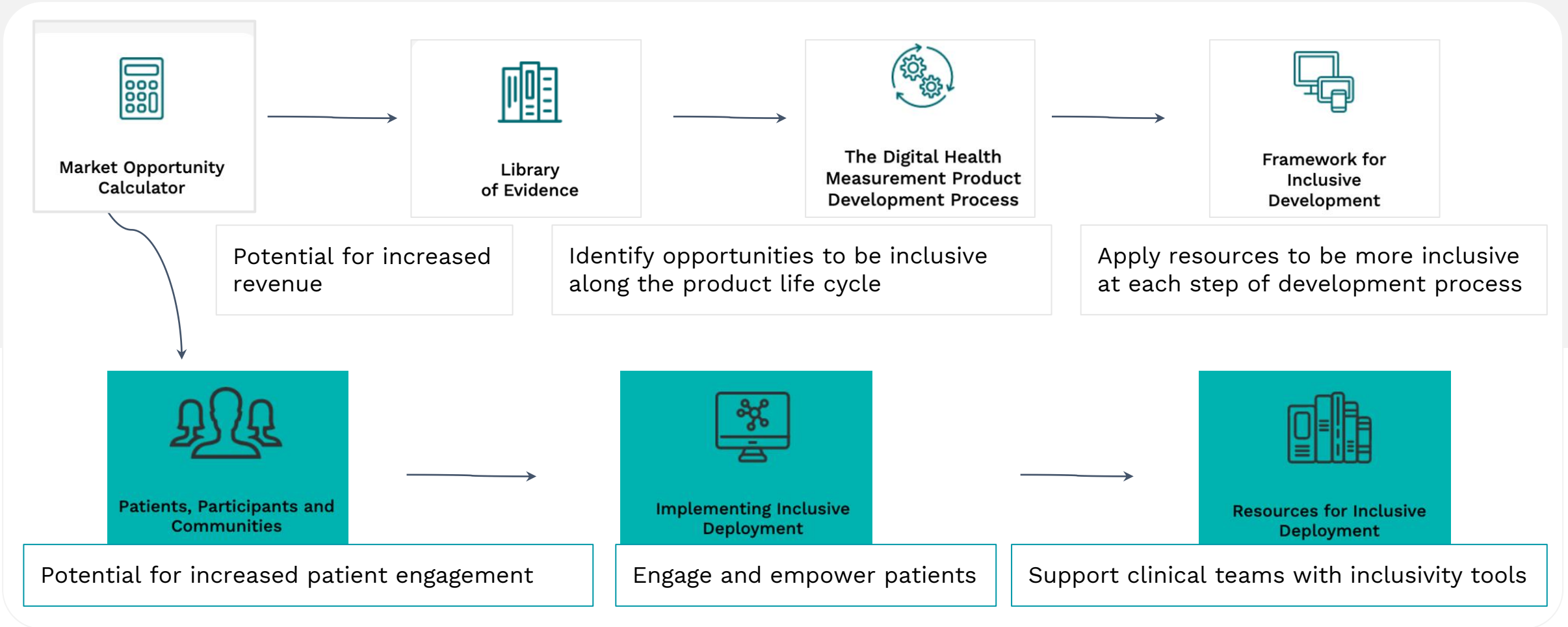
Set the clinical trials team up for success with the appropriate approaches for inclusivity



None of this work can be done in isolation, innovation for improved health outcomes and health equity needs all stakeholders, working together.

Decentralized and digitized clinical trials are complex, partnerships across the industry are critical.

Start with the business case



Advancing best practices for digital health measurement

- Welcome **new members**
- New opportunities
 - to build a more **robust community**
 - to **address challenges** inhibiting the advancement of digital health measurement products
 - to **drive adoption and implementation** to ensure inclusion is foundational to digital health measurement

The 2022-2023 DATAcc Steering Committee Member Orgs

AETION



evidation



Genentech
A Member of the Roche Group



NPAF
National Patient Advocate Foundation



Open mHealth



UNIVERSITY
of LOUISVILLE



Members also include CMS, HHS-HC3, IEEE SA, NCI, and US Dept. of Veterans Affairs.

Join us in advancing health outcomes and equity

Resource in Action



How are you advancing digital medicine?

Tell us how you're using DiMe resources & we'll feature your story in our new Resources in Action Hub!





THANK YOU

Yashoda Sharma, PhD | yashoda@dimesociety.org



@_DiMeSociety



[linkedin.com/company/dime-society](https://www.linkedin.com/company/dime-society)

Discussant

Dr. Amanda Purnell

Audience Q&A

Thank you!