Equity-focused Dissemination & Implementation Webinar Series

October 24, 2022 4-5 PM EST	**Principles, Methods, and Systems for Designing for Dissemination, Sustainability, and Equity Bethany M. Kwan, Ph.D., M.S.P.H., University of Colorado**
November 1, 2022 4-5 PM EST	Leveraging Technology and Community Engagement to Address Barriers to Care for People with Fetal Alcohol Spectrum Disorders Christie Petrenko, Ph.D., URMC.
November 8, 2022 3-4 PM EST	Equity-Oriented Implementation Studies: Reflections from a Learner Ana A. Baumann, Ph.D., Washington University School of Medicine
November 15, 2022 4-5 PM EST	Advancing Quality Improvement with Implementation Science Amy Tyler, M.D., M.S.C.S., University of Colorado

MEDICINE *of* THE HIGHEST ORDER

UNIVERSITY of ROCHESTER MEDICAL CENTER | CTSI CLINICAL & TRANSLATIONAL SCIENCE INSTITUTE

Principles, Methods, and Systems for Designing for Dissemination, Sustainability, and Equity

Bethany M. Kwan, PhD, MPSH

October 24, 2022

Presentation to UR CTSI EQ-DI

Learning Objectives

Upon completion of this session, participants will be able to:

1. Describe the principles of Designing for Dissemination, Sustainability, and Equity (D4DSE): beginning with the end in mind, ensuring innovation-context fit, and planning for active dissemination
2. Identify frameworks and methods useful for designing and disseminating a range of research products from a D4DSE perspective
3. Describe the phases of the Fit to Context Framework for D4DSE

Barriers to Dissemination and Sustainability

Poor fit between health innovations and intended context for use

Research paradigms used to develop and test programs

Cultures and systems that fail to incentivize and support active dissemination and translation of evidence into practice

Designing for Dissemination and Sustainability (D4DS)

Principles and methods for:

Enhancing the fit between a health program, policy, or practice and the context in which it is intended to be adopted

Early and active dissemination and sustainability planning.

Designing for dissemination

the process of ensuring that the products of research are developed to match the contextual characteristics of the target audience and setting for intended use

Designing for sustainability

early planning and design processes designed to increase the likelihood of sustainment of an evidence-based program or practice after initial implementation

Designing for Dissemination and Sustainability to Promote Equitable Impacts on Health
Bethany M. Kwan, Ross C. Brownson, Russell E. Glasgow, Elaine H. Morrato, Douglas A. Luke, Annual Review of Public Health 2022 43:1, 331-353

Designing for *Equity*

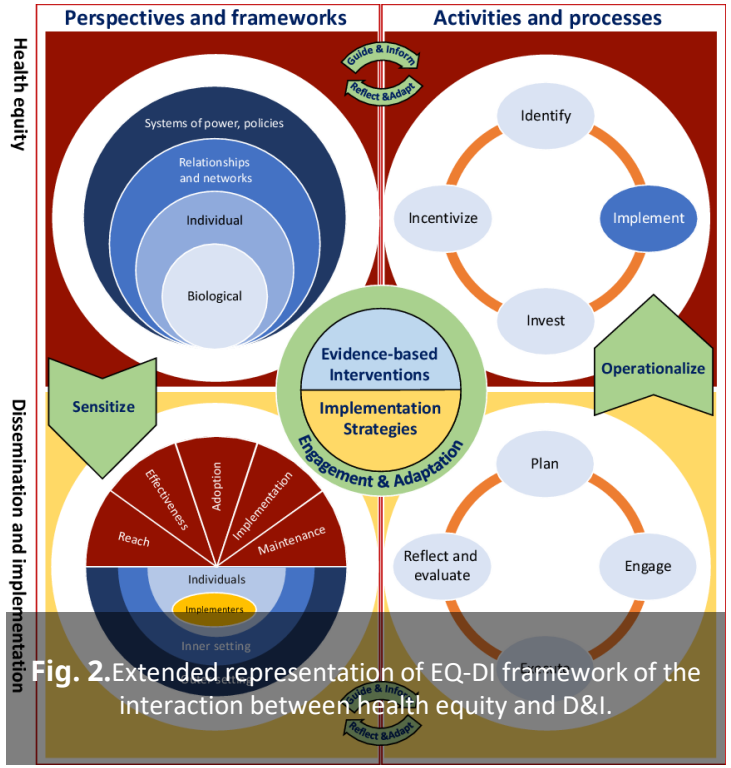


Fig. 2. Extended representation of EQ-DI framework of the interaction between health equity and D&I.

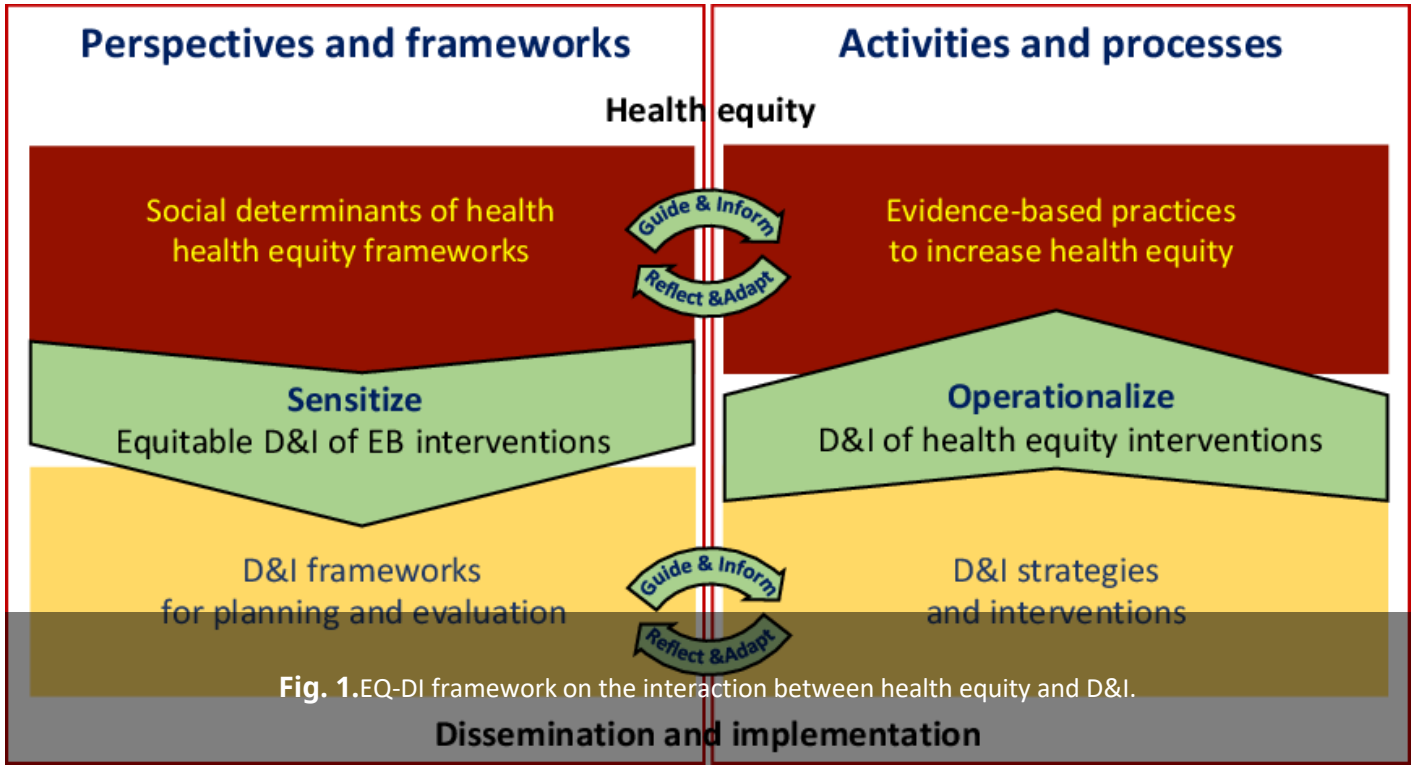


Fig. 1. EQ-DI framework on the interaction between health equity and D&I.

Yousefi Nooraie, R., Kwan, B., Cohn, E., AuYoung, M., Clarke Roberts, M., Adsul, P., & Shelton, R. (2020). Advancing health equity through CTSA programs: Opportunities for interaction between health equity, dissemination and implementation, and translational science. *Journal of Clinical and Translational Science, 4*(3), 168-175. doi:10.1017/cts.2020.10

Innovations: The Products of Research

Evidence

- The generalizable knowledge resulting from the conduct of research and evaluation

Programs, Treatments, Interventions, and Services

- Health promotion and/or disease prevention or educational programs, interventions, initiatives, treatments, or services

Technology and Infrastructure

- Devices, software, hardware, web-based and other tools and equipment for disease prevention or management, research, evaluation, or educational purposes

Dissemination and Implementation Strategies

- Methods, approaches, guides, or materials, for dissemination, implementation, and sustainment of effective, equitable, and efficient public health and health care practices in real world settings

Policy and Guidelines

- Local and/or national public health and health care guidelines, standards, and policies emerging from the evidence base

Methods

- Research and evaluation techniques, instruments, tools, models, measures and/or equipment

What is being designed for dissemination, sustainability, and equity?

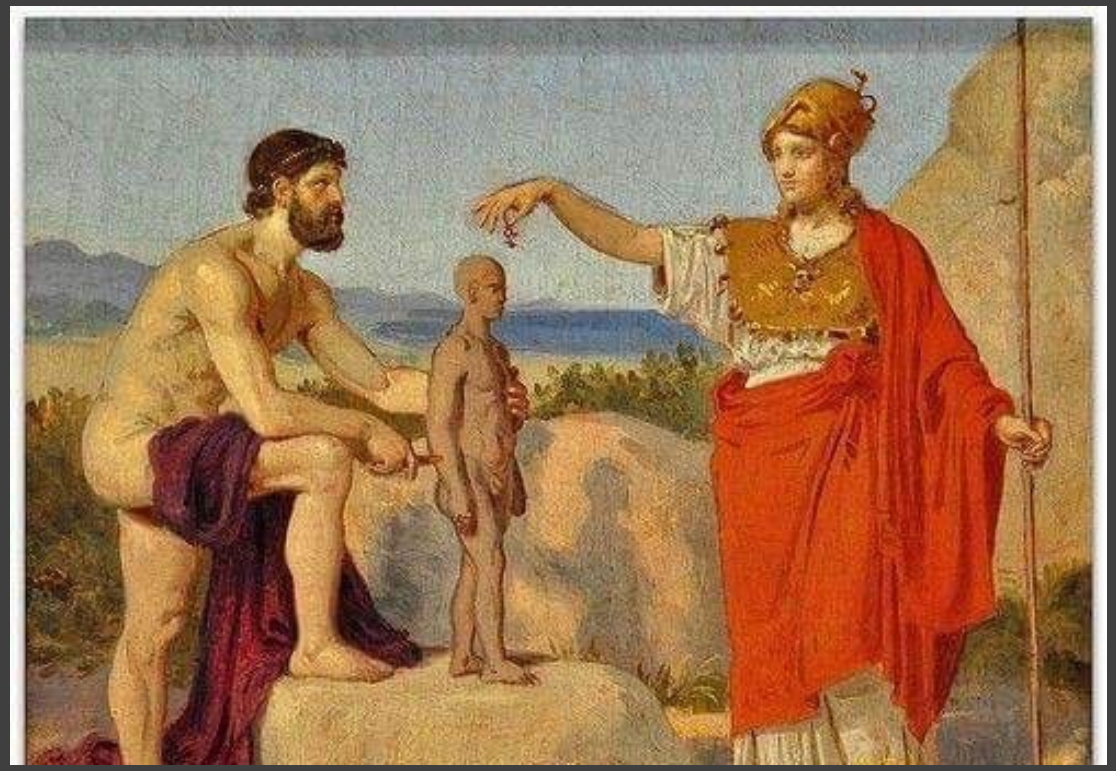
Principles of D4DS

Beginning with the end in mind

Ensuring innovation-context fit

Planning for active dissemination and sustainment

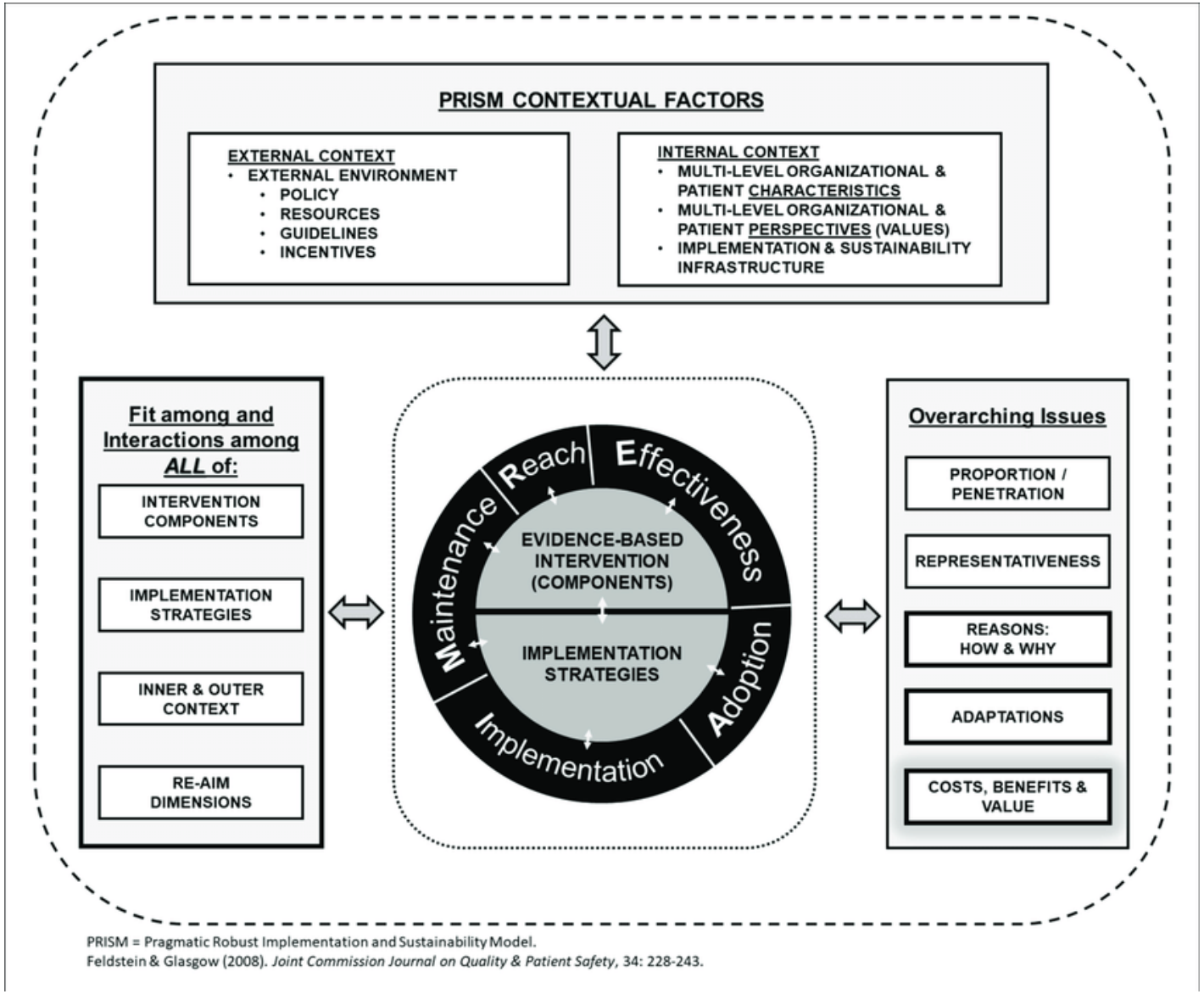
Beginning with the end in mind



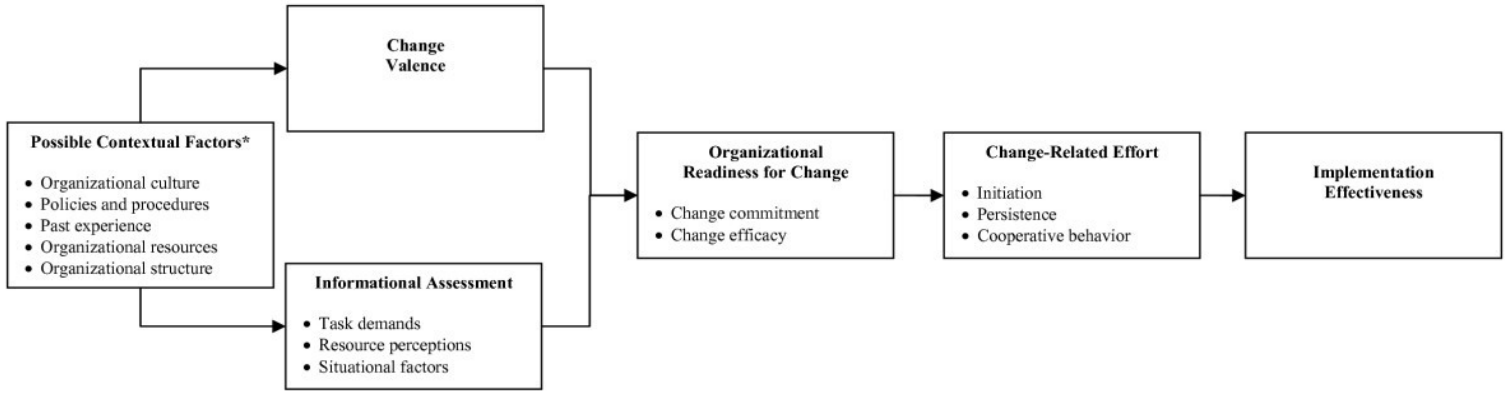
Target Audience and Desired Impact

- Adopters
- Influencers
- Saboteurs

Ensuring Innovation-Context Fit



PRISM = Pragmatic Robust Implementation and Sustainability Model.
Feldstein & Glasgow (2008). *Joint Commission Journal on Quality & Patient Safety*, 34: 228-243.



* Briefly mentioned in text, but not focus of the theory

Implementation Science

BioMed Central

Open Access

Debate

A theory of organizational readiness for change

Bryan J Weiner

Address: Department of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina Chapel Hill, Chapel Hill, North Carolina, USA

Email: Bryan J Weiner - bryan_weiner@unc.edu

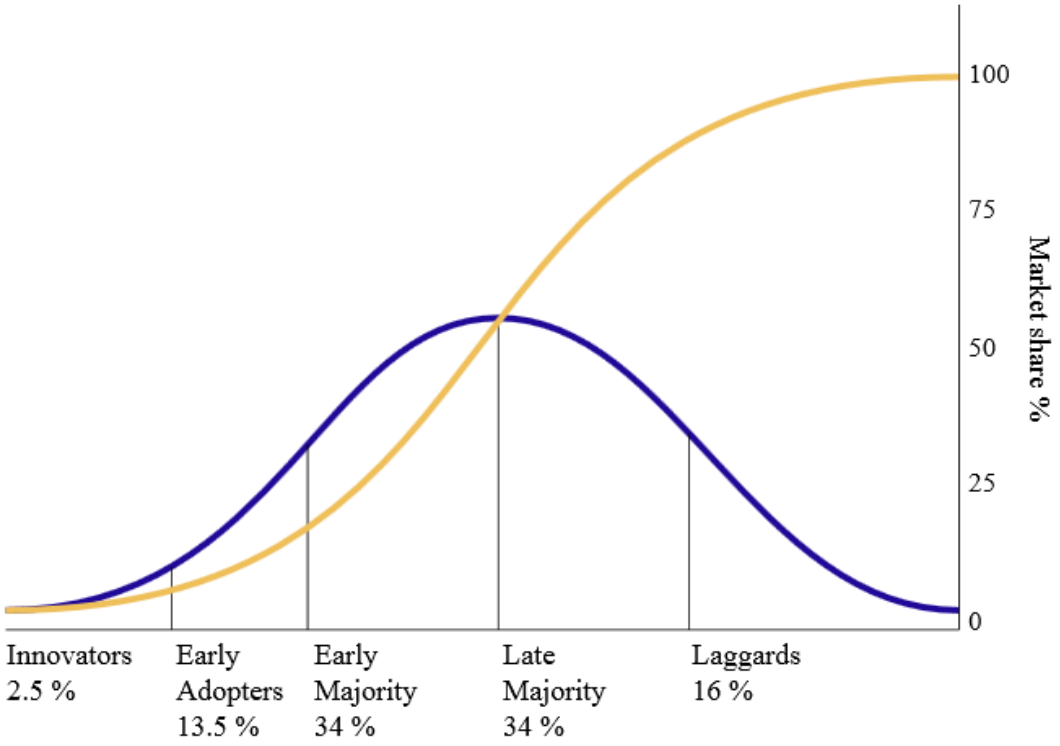
Published: 19 October 2009

Implementation Science 2009, **4**:67 doi:10.1186/1748-5908-4-67

Received: 20 March 2009
Accepted: 19 October 2009

This article is available from: http://www.implementationscience.com/content/4/1/67

Innovation-Context Fit: System Capacity and Organizational Readiness

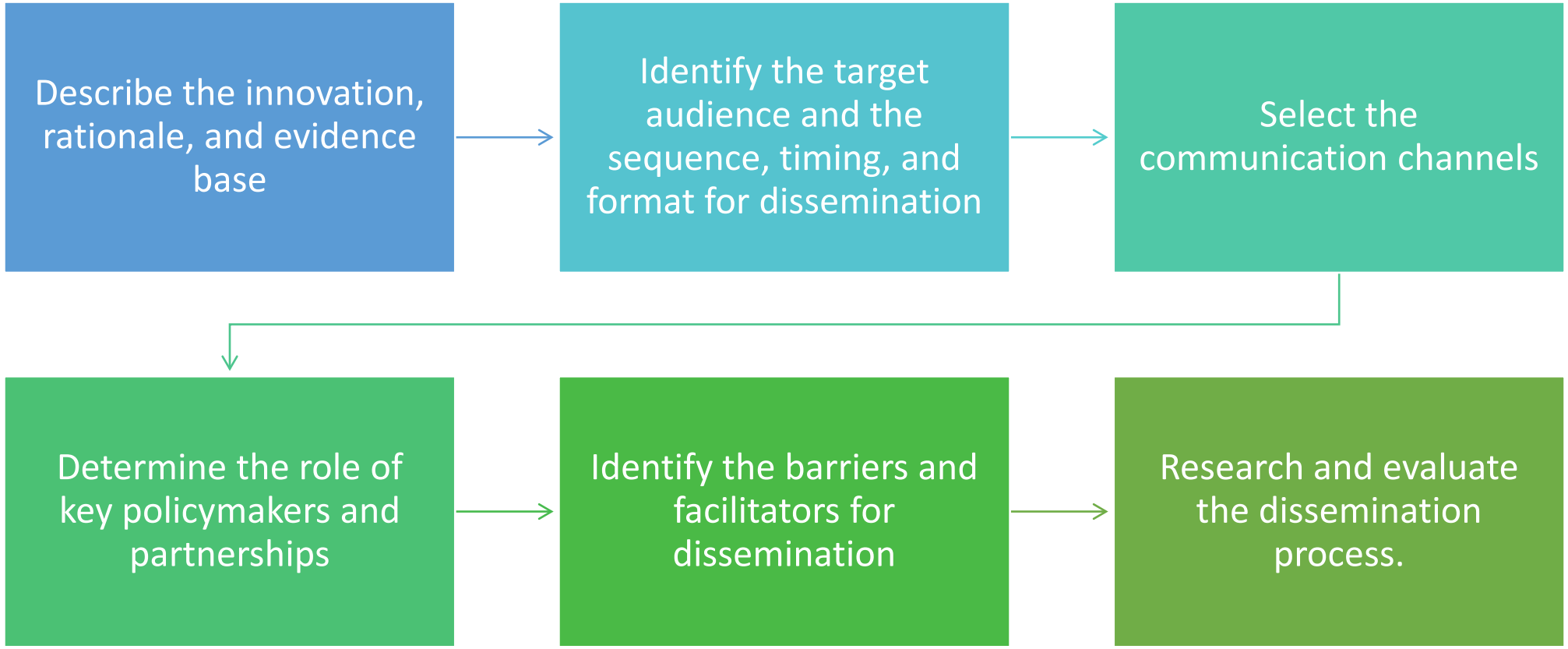


Diffusion curve

Dissemination

- An active approach of spreading evidence-based interventions to the target audience via determined channels using planned strategies

Planning for Active Dissemination: Six-Step Dissemination Framework



Bauman AE, Nelson DE, Pratt M, Matsudo V, Schoeppe S. Dissemination of physical activity evidence, programs, policies, and surveillance in the international public health arena. American journal of preventive medicine. 2006 Oct 1;31(4):57-65.

Design Processes

- Participatory co-design and stakeholder involvement
- Application of D&I theories and frameworks
- Marketing and Business approaches
- Context and Situation analysis
- Systems, Engineering and Complexity Science approaches
- Communication and the Arts

The methods, frameworks or approaches used to develop and test the research product; product messages, packaging, and distribution plans; and sustainability plans

Kwan BM, Brownson RC, Glasgow RE, Morrato EH, Luke DA. Designing for Dissemination and Sustainability to Promote Equitable Impacts on Health. Annual Review of Public Health. 2022 Jan 4;43.

7Ps Framework for Stakeholder* Engagement

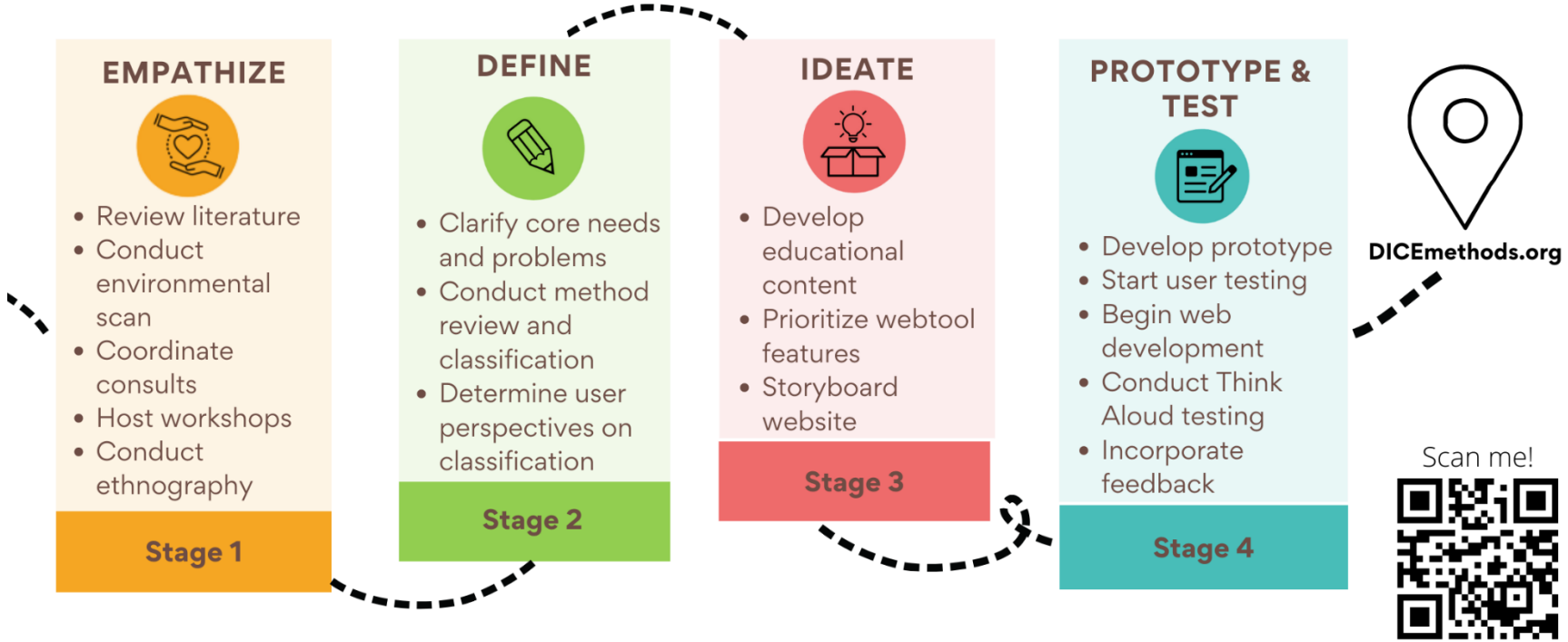
- Patients and the public
- Providers
- Policymakers
- Purchasers
- Payers
- Product makers
- Principal investigators

Concannon TW, Meissner P, Grunbaum JA, McElwee N, Guise JM, Santa J, Conway PH, Daudelin D, Morrato EH, Leslie LK. A new taxonomy for stakeholder engagement in patient-centered outcomes research. J Gen Intern Med. 2012 Aug;27(8):985-91. doi: 10.1007/s11606-012-2037-1. Epub 2012 Apr 13. PMID: 22528615; PMCID: PMC3403141.

Using Design Thinking Methods to Create a Stakeholder Engagement Method Navigator Webtool for Clinical and Translational Science

Data Science to Patient Value (D2V)
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

Purpose: The Stakeholder Engagement Navigator is an interactive webtool designed for use by researchers. It was created to help researchers choose engagement strategies while considering budget, timeline, stakeholder availability, and team expertise.



Kwan, B. M., Ytell, K., Coors, M., DeCamp, M., Morse, B., Ressalam, J., Reno, J. E., Himber, M., Maertens, J., Wearner, R., Gordon, K., & Wynia, M. K. A stakeholder engagement method navigator webtool for clinical and translational science. J Clin Transl Sci. 2021;5(1):e180. Published 2021 Sep 13. doi:10.1017/cts.2021.850

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8596067/

@BethanyKwan
@MatthewWynia

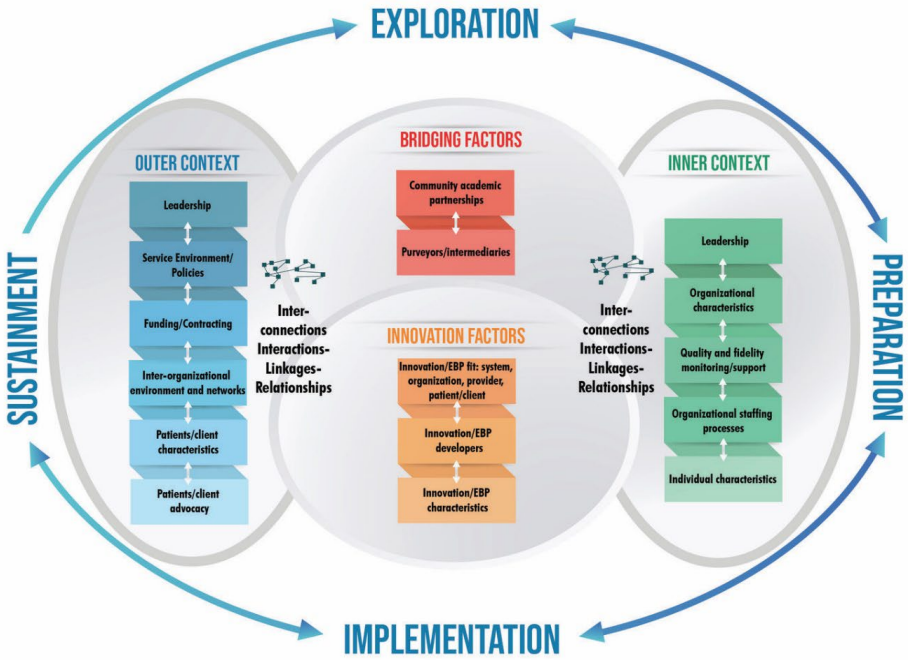
Application of Dissemination and Implementation Science Process Frameworks

Moullin *et al. Implementation Science* (2019) 14:1
https://doi.org/10.1186/s13012-018-0842-6

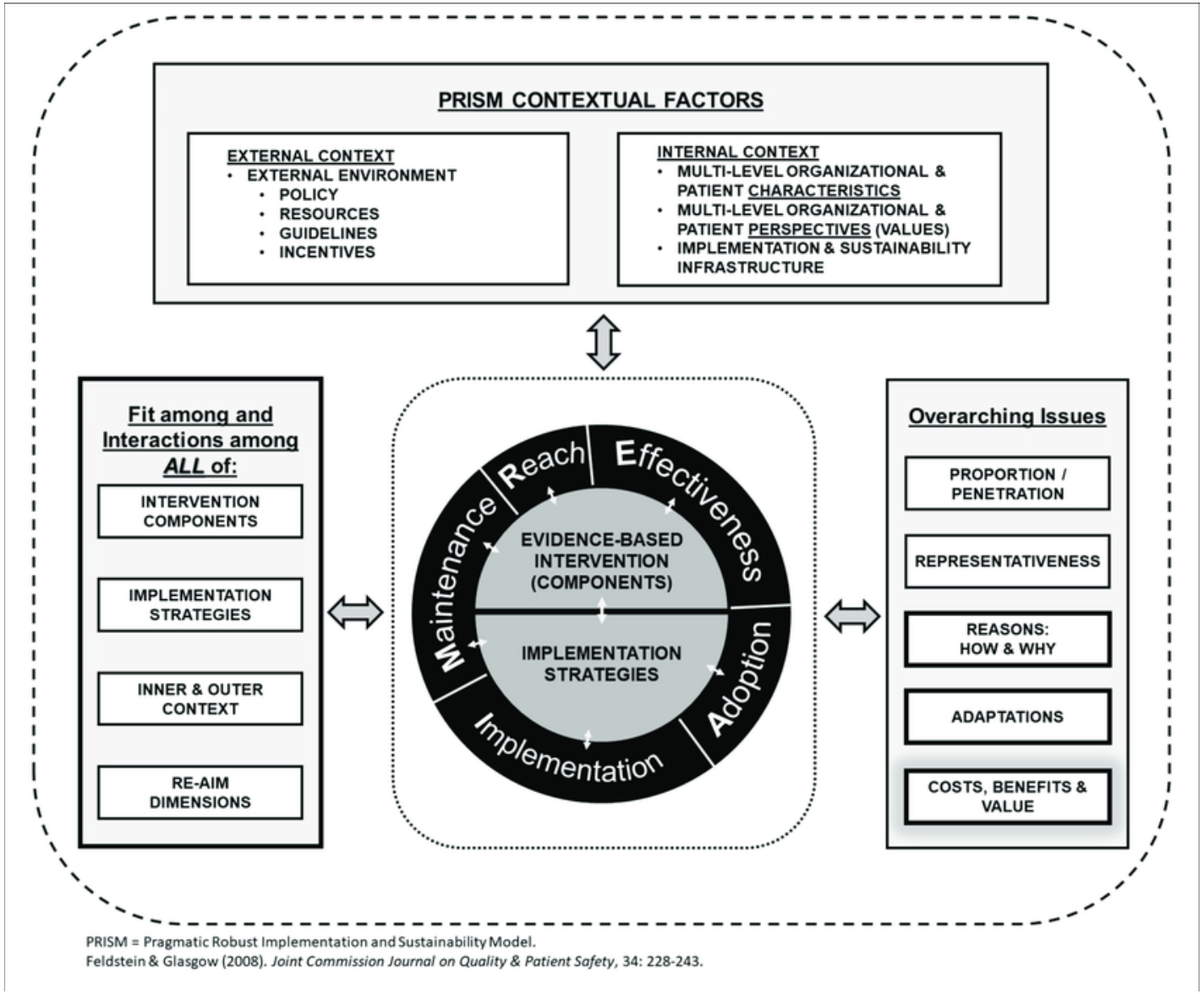
SYSTEMATIC REVIEW Open Acc

Systematic review of the Exploration, Preparation, Implementation, Sustainment (EPIS) framework

Joanna C. Moullin[1,2], Kelsey S. Dickson[2,3], Nicole A. Stadnick[2,4], Borsika Rabin[5] and Gregory A. Aarons[2,4*]



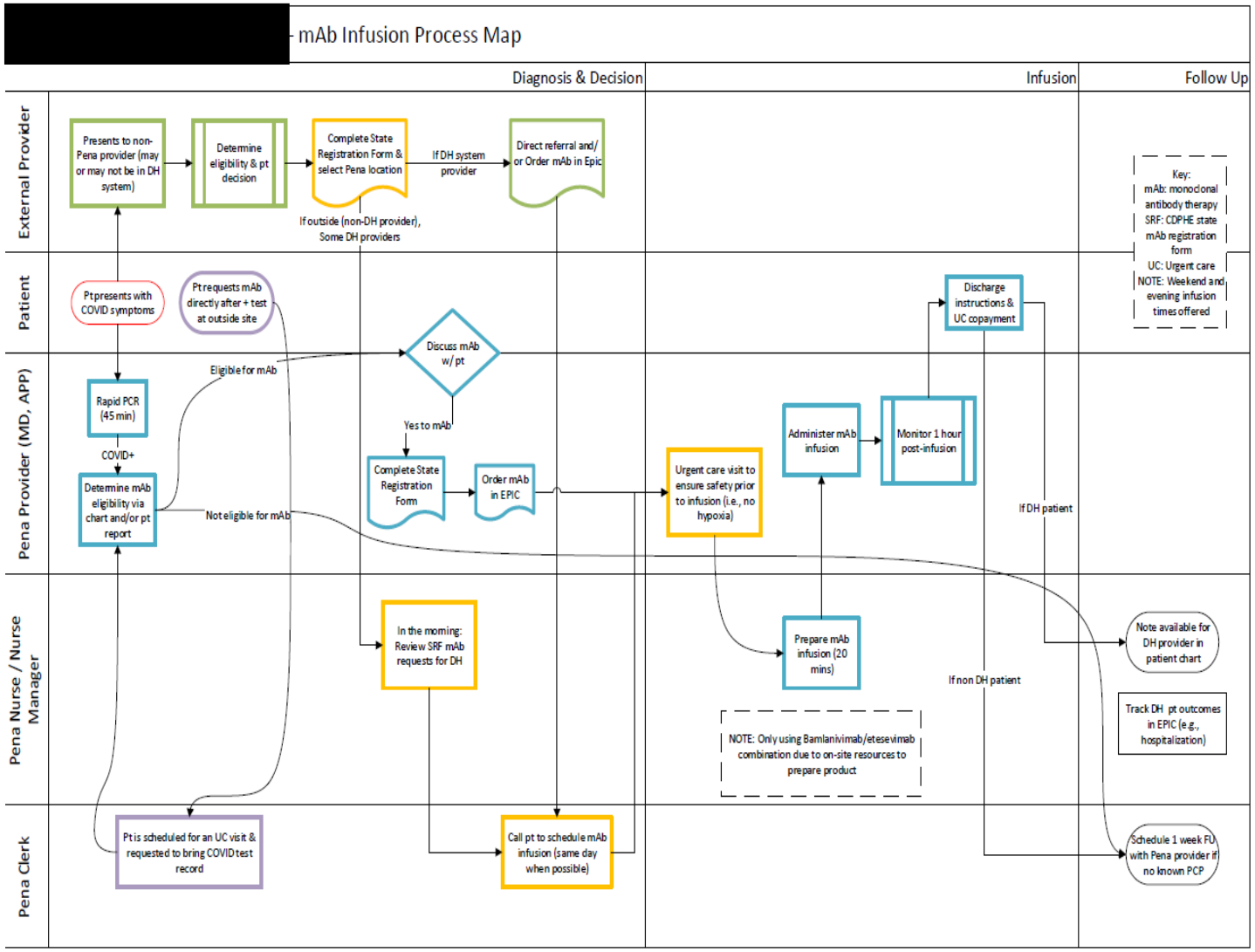
Application of D&I Context, Determinants, and Evaluation Frameworks



PRISM = Pragmatic Robust Implementation and Sustainability Model.
Feldstein & Glasgow (2008). *Joint Commission Journal on Quality & Patient Safety*, 34: 228-243.

Context and Situation Analysis

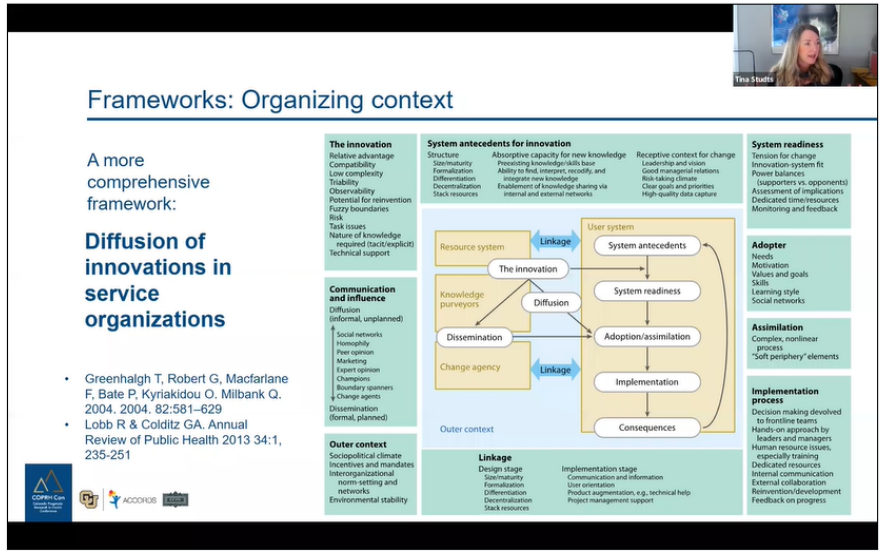
- A formal assessment of the audience, needs, setting, workflows, processes, policies, resources, and systems in which a health innovation is intended to be used.



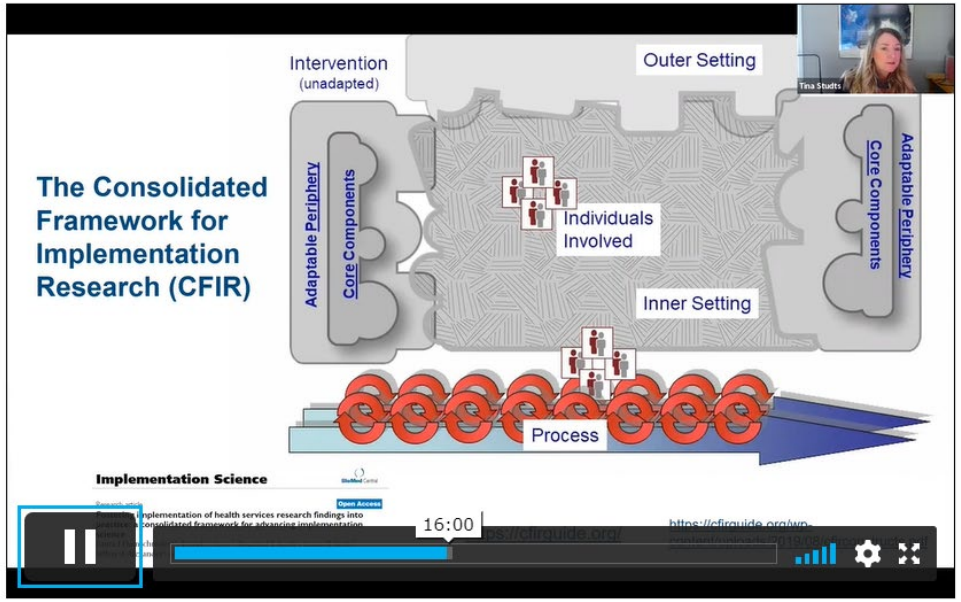
Credit: Mika Hamer

Assessing Context

- https://vimeo.com/555249057/0ba549be69
- Dr. Christina Studts, Univ of Colorado Anschutz Medical Campus

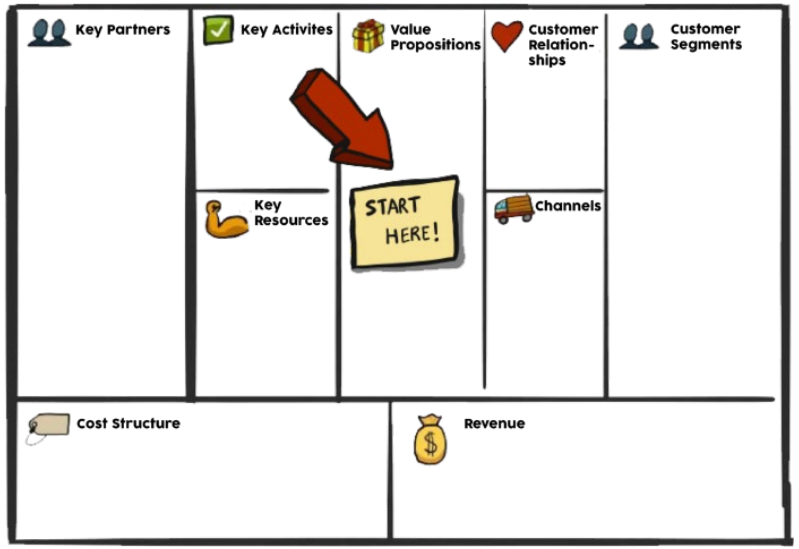


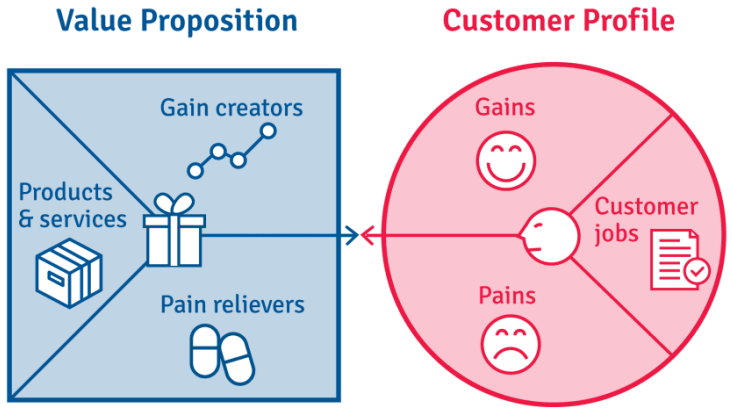
COPRH Con 2021 | Identifying Multilevel Contextual Factors

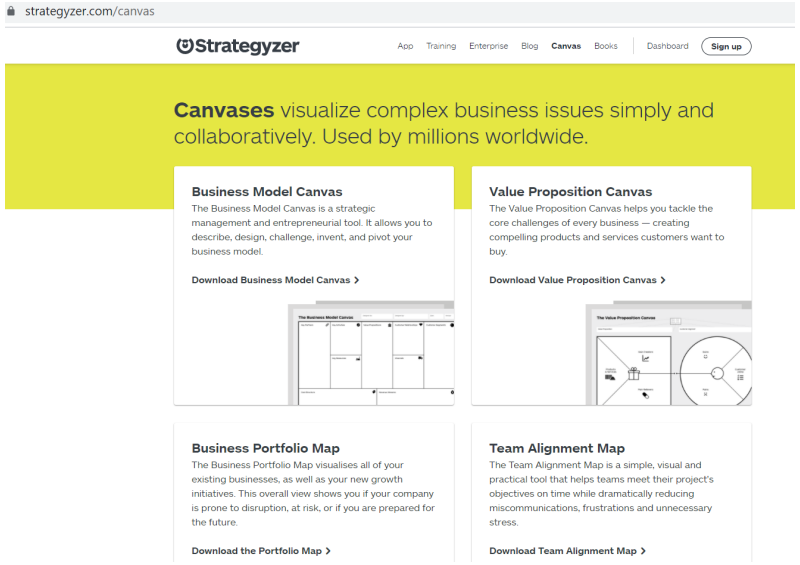


COPRH Con 2021 | Identifying Multilevel Contextual Factors

Marketing and Business Approaches







Multi-stage development process: (1) problem-solution fit; (2) product-market fit; and (3) business model fit

Systems and Complexity Science

- Systems thinking: The process of understanding how things influence one another within a whole (Rabin & Brownson, 2017)
- Complex adaptive systems with systems dynamic mapping

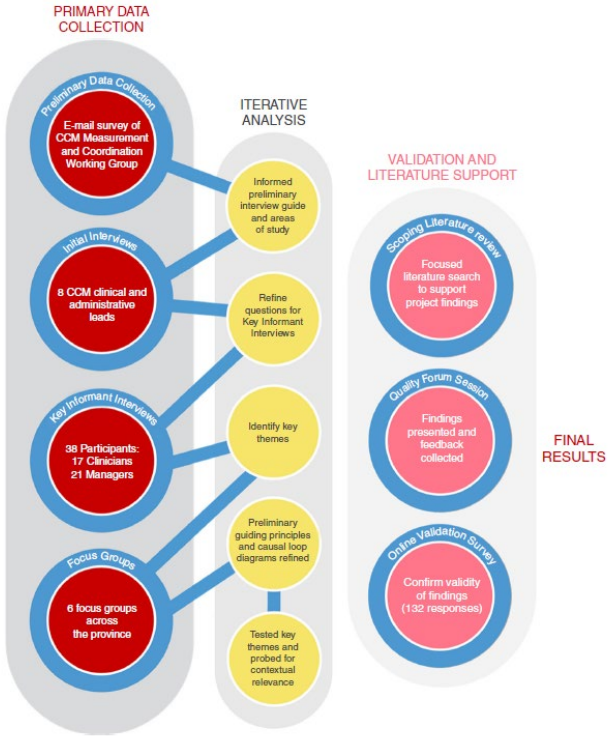


Figure 1. Data collection and analysis process

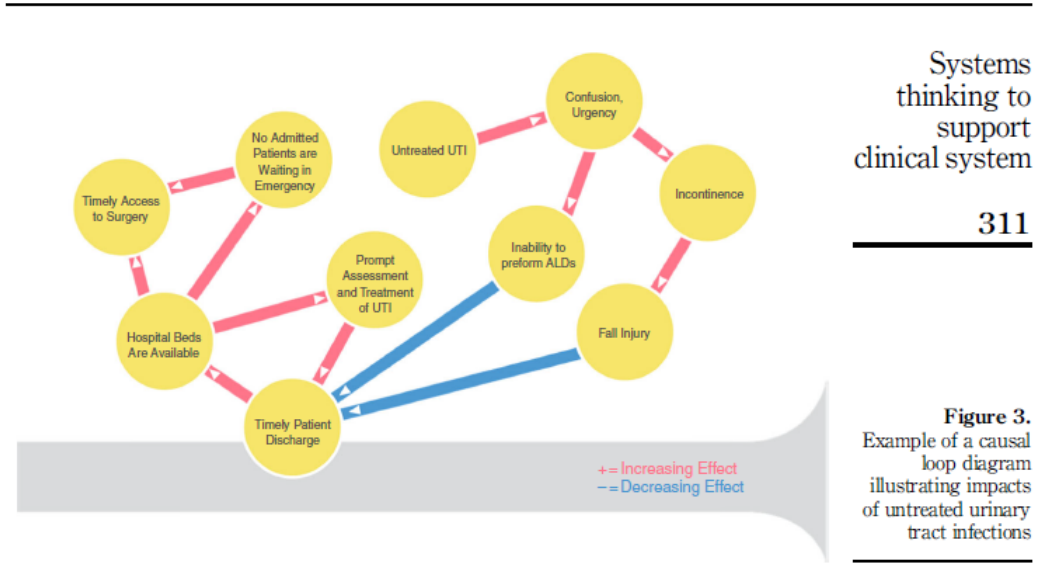
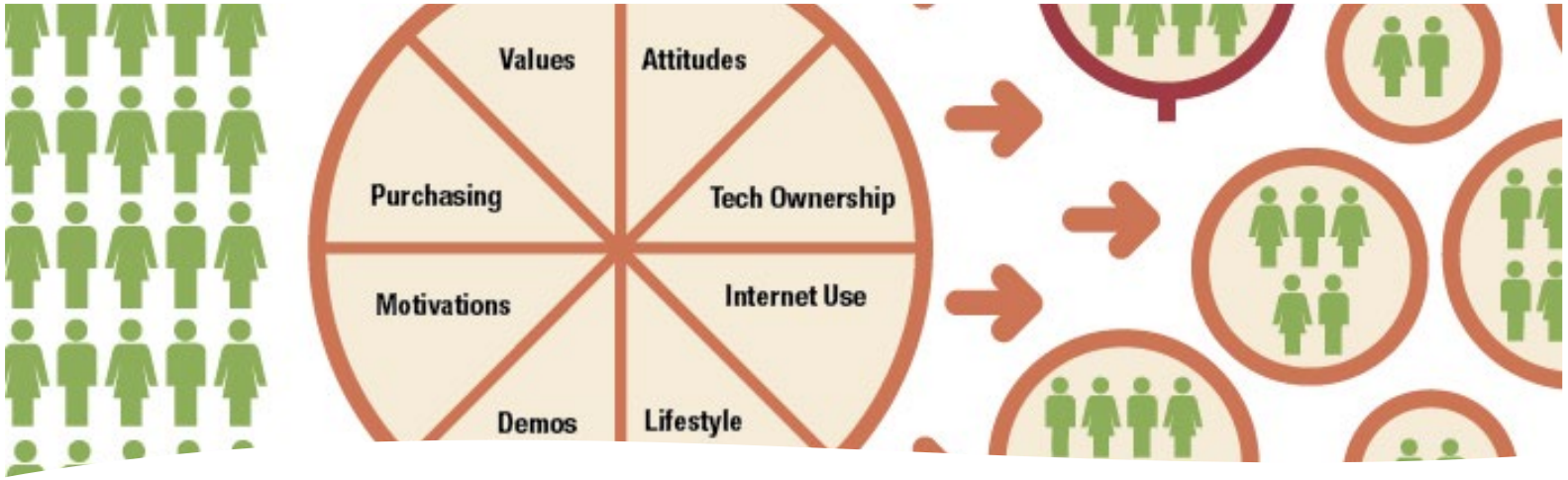


Figure 3. Example of a causal loop diagram illustrating impacts of untreated urinary tract infections

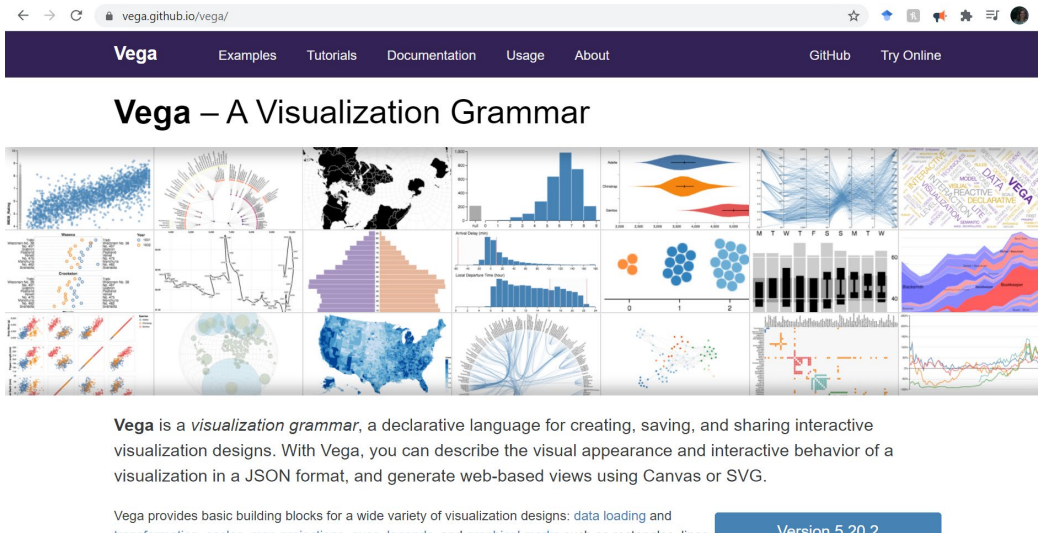
Best A, Berland A, Herbert C, Bitz J, van Dijk MW, Krause C, Cochrane D, Noel K, Marsden J, McKeown S, Millar J. Using systems thinking to support clinical system transformation. Journal of health organization and management. 2016 May 16.

Communication and the Arts

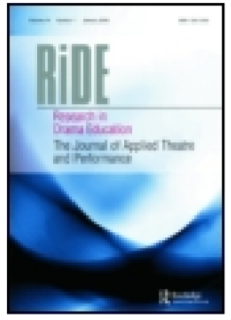
- Social marketing
  - “a social influence technology involving the design, implementation and control of programs aimed at increasing the acceptability of a social idea or practice in one or more groups of target adopters” (Kotler and Roberto, 1989).
- Audience Segmentation



Arts-Based Dissemination: Data Visualization and Graphic Design



This article was downloaded by: [University College London]
On: 20 January 2015, At: 03:45
Publisher: Routledge
Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK

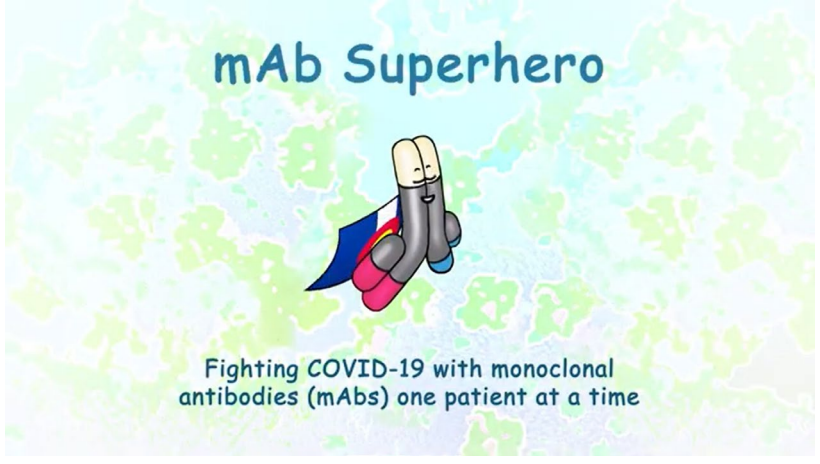


Research in Drama Education: The Journal of Applied Theatre and Performance

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/crde20

Genetic testing in a drama and discussion workshop: exploring knowledge construction

Emily Dawson [a] , Anne Hill [b] , John Barlow [b] & Emma Weitkamp [a]
[a] Science Communication Unit , The University of the West of England , Bristol, UK
[b] Faculty of Media, Arts and Society , Southampton Solent University , Southampton, UK



Fit to Context Framework

Four-phase process framework

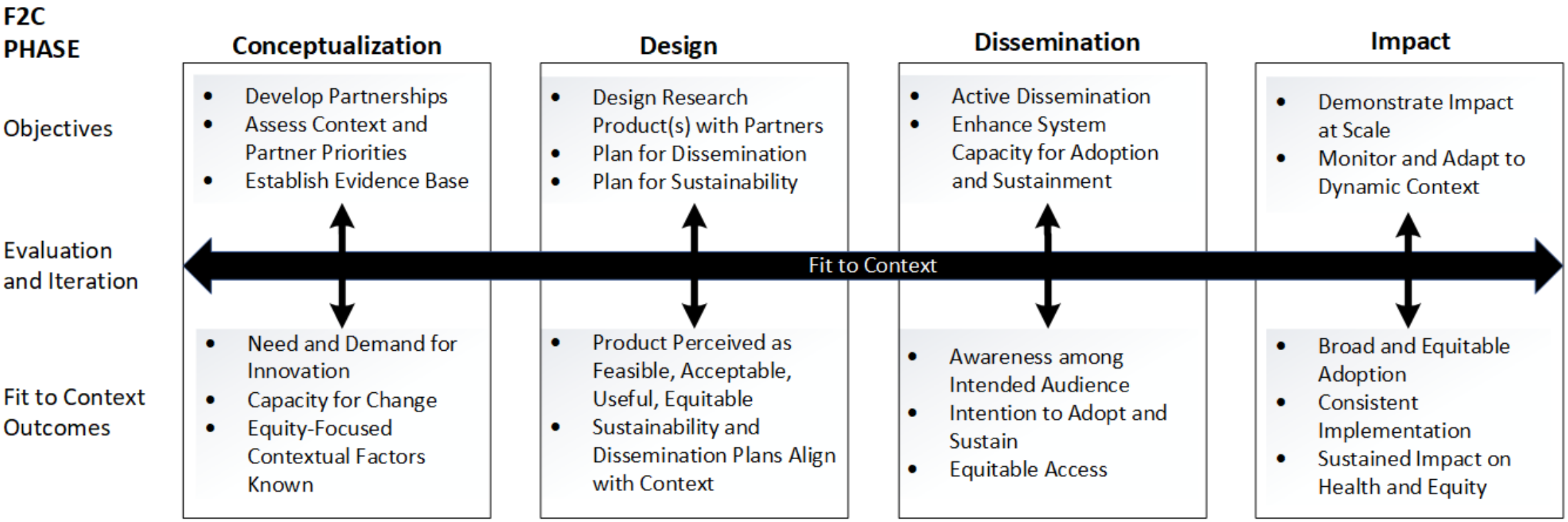
Considers design of a research product and dissemination and sustainability plans from the perspective of ensuring fit to context

Products being designed are:

- Culturally appropriate
- Feasible for use in resource-limited settings
- Align with the strengths and assets of the intended audience and setting
- Impact outcomes that matter to communities and partners

Kwan BM, Luke DA, Adsul P, Koorts H, Morrato EH, Glasgow RE. Designing for Dissemination and Sustainability: Principles, Methods, and Frameworks for Ensuring Fit to Context. In: Dissemination and Implementation Research in Health: Translating Science to Practice, 3rd ed. *Forthcoming.*

Fit to Context (F2C) Framework for Designing for Dissemination



F2C Conceptualization Phase

F2C PHASE QUESTIONS AND OUTCOMES KEY QUESTIONS TO BE ANSWERED AND **OUTCOMES** TO BE ASSESSED	F2C PHASE OBJECTIVES ACTIONS TO BE TAKEN BY THE RESEARCH TEAM AND PARTNERS	F2C PHASE EXEMPLAR METHODS RESEARCH METHODS PARTICULARLY RELEVANT TO CO-DESIGN RESEARCH PRODUCTS AND EVALUATE AND ITERATE "FIT TO CONTEXT" OUTCOMES	F2C PHASE RESEARCH APPROACH RESEARCH APPROACHES PARTICULARLY RELEVANT
F2C Conceptualization Phase			
Based on evidence and partner input, to what extent is there a **need, demand, and capacity** for a new approach, product, or change in practice or policy in the context for intended use? To what extent are **contextual factors** relevant to equitable impact known?	Develop partnerships to address a priority health problem with an established evidence base. Assess the context (the characteristics of the recipients, the delivery setting, systems of communication and influence, and implementation and sustainability infrastructure) for which an innovative and equity-focused research product will be used.	• Literature review • Community-based participatory research • Partner + community engagement • Customer discovery • Situation/SWOT analysis • Process evaluation • Context analysis • Determinants analysis • Systems mapping and modeling • Social network analysis • Market research • Logic models • Needs assessment	• Partnership development • Partner engagement in research conceptualization and planning • Formative research • Baseline evaluation • Developmental/ exploratory research .

F2C Design Phase

F2C PHASE QUESTIONS AND OUTCOMES KEY QUESTIONS TO BE ANSWERED AND **OUTCOMES** TO BE ASSESSED	**F2C PHASE OBJECTIVES** ACTIONS TO BE TAKEN BY THE RESEARCH TEAM AND PARTNERS	**F2C PHASE EXEMPLAR METHODS** RESEARCH METHODS PARTICULARLY RELEVANT TO CO-DESIGN RESEARCH PRODUCTS AND EVALUATE AND ITERATE "FIT TO CONTEXT" OUTCOMES	**F2C PHASE RESEARCH APPROACH** RESEARCH APPROACHES PARTICULARLY RELEVANT
F2C Design Phase			
To what extent is the new approach, device, or change in practice or policy ***perceived as feasible, acceptable, useful, effective, and equitable*** *by the intended audience in the intended setting? How well do plans for active dissemination and sustainability align with context?*	Co-design research products(s) with partners that meet the needs, demand, and capacity for change established in the conceptualization phase. Create plans for active dissemination that align with the messaging, packaging, and distribution channels best suited for the intended audience and setting. Determine a viable strategy for sustainability of the research product(s) in real-world contexts for intended use.	• Human & user-centered design/user testing • Participatory methods and co-design • Value proposition design • Market viability analysis • Business model generation • Intervention/implementation mapping • Optimization methods • Adaptation methods • Logic models • Rapid prototyping • Graphic design + other art forms	• Developmental/ exploratory research • Pilot/feasibility studies • "Proof of concept" studies • Small scale pragmatic trials

F2C Dissemination Phase

F2C PHASE QUESTIONS AND OUTCOMES KEY QUESTIONS TO BE ANSWERED AND **OUTCOMES** TO BE ASSESSED	**F2C PHASE OBJECTIVES** ACTIONS TO BE TAKEN BY THE RESEARCH TEAM AND PARTNERS	**F2C PHASE EXEMPLAR METHODS** RESEARCH METHODS PARTICULARLY RELEVANT TO CO-DESIGN RESEARCH PRODUCTS AND EVALUATE AND ITERATE "FIT TO CONTEXT" OUTCOMES	**F2C PHASE RESEARCH APPROACH** RESEARCH APPROACHES PARTICULARLY RELEVANT
F2C Dissemination Phase			
*How well does the active, planned dissemination strategy work to create **awareness and intention to adopt and sustain** the product? To what extent does the system capacity for adoption and sustainment create **equitable access**?*	Enact design phase plans for active dissemination of the research product(s) to intended audiences using appropriate distribution channels and leveraging known systems of communication and influence. Build and leverage system capacity for broad and equitable adoption and sustainment in the intended context.	• Dissemination trial designs • Hybrid implementation/ effectiveness trials • Adaptation frameworks and methods • Logic models	• Larger scale, pragmatic trials • Demonstration projects • Quality improvement • Program evaluation • Learning Health Systems research

F2C Impact Phase

F2C PHASE QUESTIONS AND OUTCOMES KEY QUESTIONS TO BE ANSWERED AND OUTCOMES TO BE ASSESSED	**F2C PHASE OBJECTIVES** ACTIONS TO BE TAKEN BY THE RESEARCH TEAM AND PARTNERS	**F2C PHASE EXEMPLAR METHODS** RESEARCH METHODS PARTICULARLY RELEVANT TO CO-DESIGN RESEARCH PRODUCTS AND EVALUATE AND ITERATE "FIT TO CONTEXT" OUTCOMES	**F2C PHASE RESEARCH APPROACH** RESEARCH APPROACHES PARTICULARLY RELEVANT
F2C Impact Phase			
*To what extent does the product demonstrate a **sustained equitable impact** on health and continued fit to context over time in real-world contexts?*	Demonstrate equitable impact of research product(s) and active dissemination and sustainability plans at scale. Monitor and adapt research product(s), dissemination, and sustainment plans to ensure fit to dynamic context in real-world settings and populations.	• Pragmatic trial designs • Real-world evidence/observational methods • Economic and cost analysis • Hybrid implementation/effectiveness trials • Policy analysis • Fidelity and adaptation methods • De-implementation methods	• Larger scale, pragmatic trials • Demonstration projects • Quality improvement • Public health surveillance • Program evaluation • Learning Health Systems research .

mAb Colorado

Designing for Dissemination and Scale-Up of Equitable Access to Treatment for COVID-19

Case Example

University of Colorado **Anschutz Medical Campus**

Colorado Clinical and Translational Sciences Institute (CCTSI)
UNIVERSITY OF COLORADO **DENVER | ANSCHUTZ MEDICAL CAMPUS**

mAb Colorado Specific Aims

Dissemination, Implementation, and Real-World Effectiveness of Neutralizing Monoclonal Antibody Therapy for COVID-19

Using a type 2 hybrid implementation-effectiveness design:

- Aim 1: Assess barriers and facilitators to use of mAbs statewide, based on diffusion of innovations theory
- Aim 2: Develop, implement, and evaluate innovative strategies statewide to optimize equitable mAb access
- Aim 3: Determine the real-world effectiveness and safety of mAb treatment in high-risk COVID-19 outpatients

Goals

- Develop scalable infrastructure for real-time, implementation and real-world effectiveness data for mAb treatment
- Help policymakers, clinicians, and patients manage issues of uncertainty, risk, urgency, equity, and resource limitation
- Create a model for rapidly generating high quality real-world evidence in infectious disease pandemics and other future public health emergencies

NCATS 3UL1TR002535-03S3; 3UL1TR002535-04S2 (03/15/2021-04/30/2023)

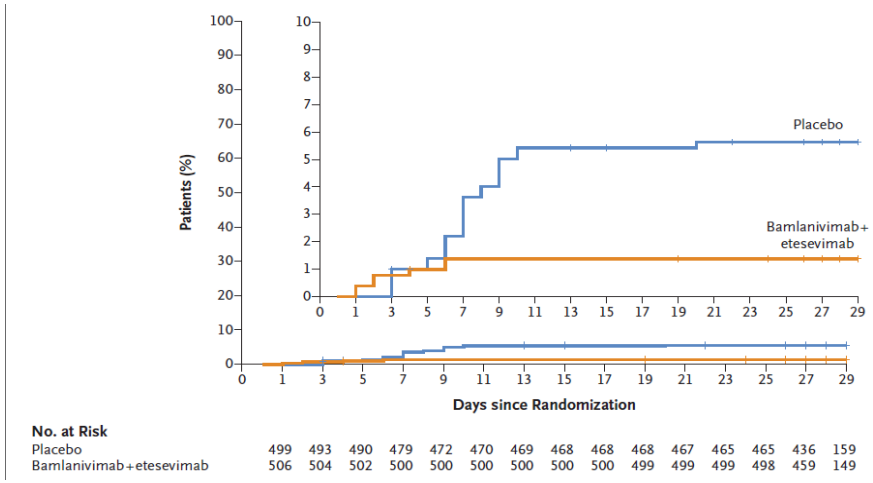
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

July 14, 2021

Bamlanivimab plus Etesevimab in Mild or Moderate Covid-19

M. Dougan, A. Nirula, M. Azizad, B. Mocherla, R.L. Gottlieb, P. Chen, C. Hebert,

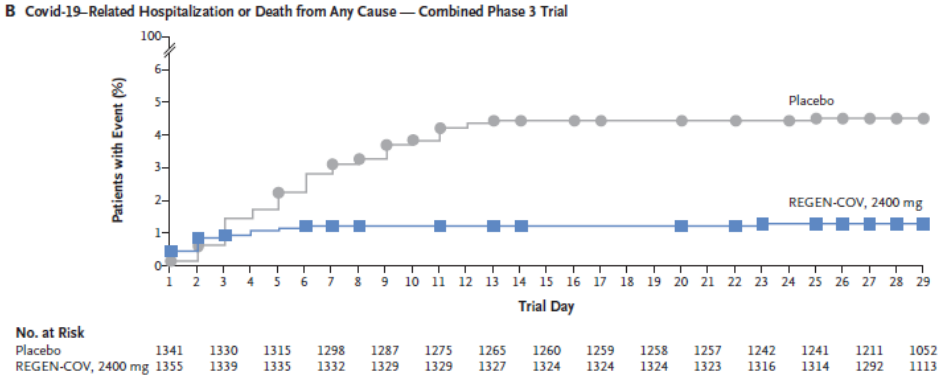


ORIGINAL ARTICLE

September 29, 2021

REGEN-COV Antibody Combination and Outcomes in Outpatients with Covid-19

D.M. Weinreich, S. Sivapalasingam, T. Norton, S. Ali, H. Gao, R. Bhore, J. Xiao,



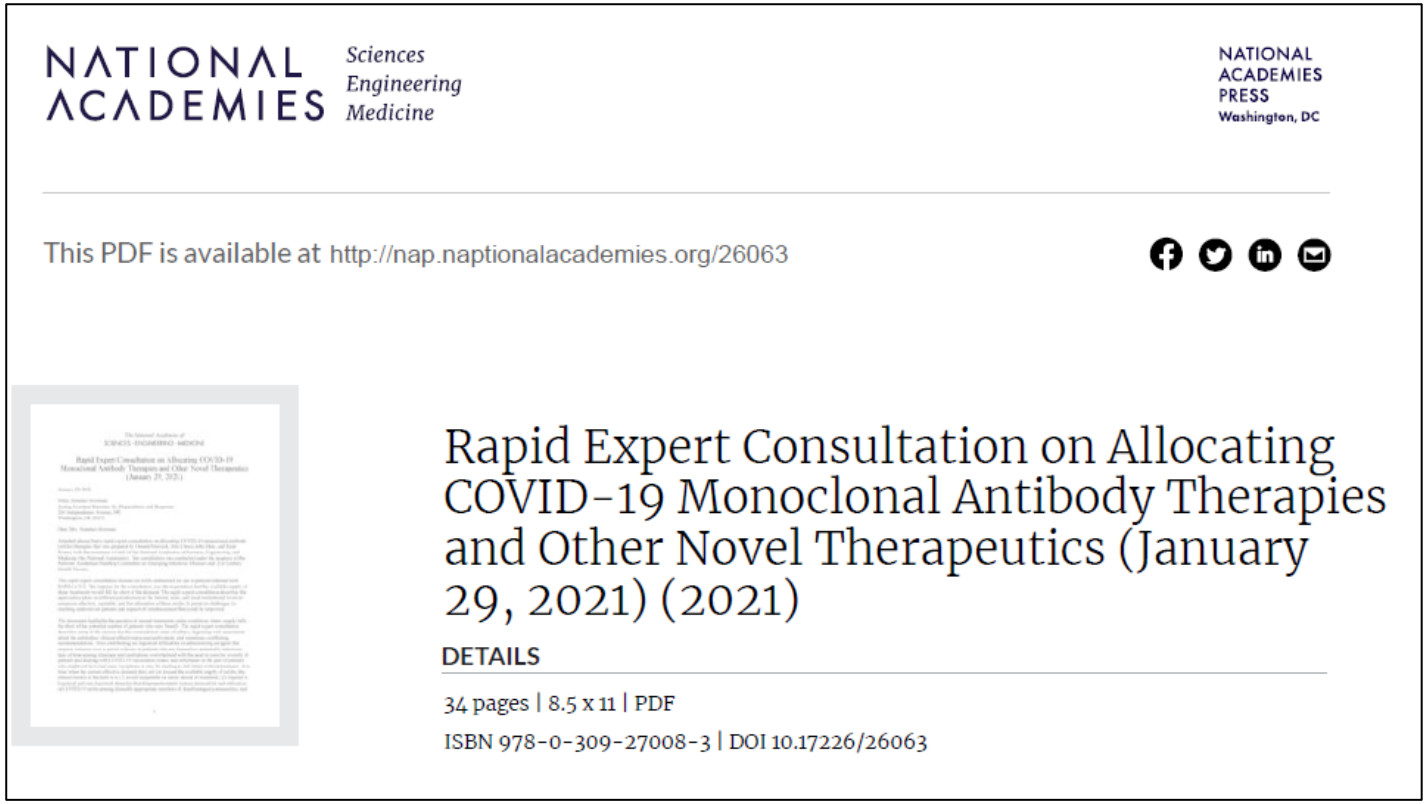
ORIGINAL ARTICLE

October 27, 2021

Early Treatment for Covid-19 with SARS-CoV-2 Neutralizing Antibody Sotrovimab

Anil Gupta, M.D., Yaneicy Gonzalez-Rojas, M.D., Erick Juarez, M.D.,

Outcome	Sotrovimab (N = 291)	Placebo (N = 292)
Primary outcome		
Hospitalization for >24 hr for any cause or death from any cause — no. (%)	3 (1)	21 (7)
Hospitalization for >24 hr for any cause	3 (1)	21 (7)
Death from any cause	0	1 (<1)†
Severe or critical progression — no. (%)††	2 (<1)	19 (7)
Low-flow nasal cannula or face mask	2 (<1)	11 (4)
Nonrebreather mask, high-flow nasal cannula, or noninvasive ventilation	0	5 (2)
Invasive mechanical ventilation	0	2 (<1)
Death from any cause	0	1 (<1)
Admission to ICU for any cause — no. (%)	0	5 (2)



Proposed factors related to low utilization of COVID-19 mAbs

- Lack of awareness, interest, confidence in therapies among patients and providers
- Lack of interest/ability/resources to travel to treatment sites
- Requirement to defer vaccination
- Lack of access to health care
- Out of pocket costs
- Seeking treatment too late

National Academies of Sciences, Engineering, and Medicine. 2021. *Rapid Expert Consultation on Allocating COVID-19 Monoclonal Antibody Therapies and Other Novel Therapeutics (January 29, 2021).* Washington, DC: The National Academies Press.

D4DS: Fit to Context Phases applied to mAbs

Conceptualization: Assessing context & barriers and facilitators to equitable mAb access	Establish partnerships Diffusion of innovations Surveys and interviews with clinicians Surveys and focus groups with community members
Design: Co-design activities	Stakeholder advisory panel Community engagement studios Community messaging and materials Implementation blueprint & provider referral checklist
Dissemination: Leveraging Existing Capacity and Distribution Channels	Regional Health Connectors: distribution of messages and materials to regional contacts Practice-Based Research Networks: distribution to rural practices mAb Colorado project website and social media Echo Colorado Paid media campaign
Impact: Use of Real-World Data to Evaluate Adoption and Reach	State health department's mAb connector tool

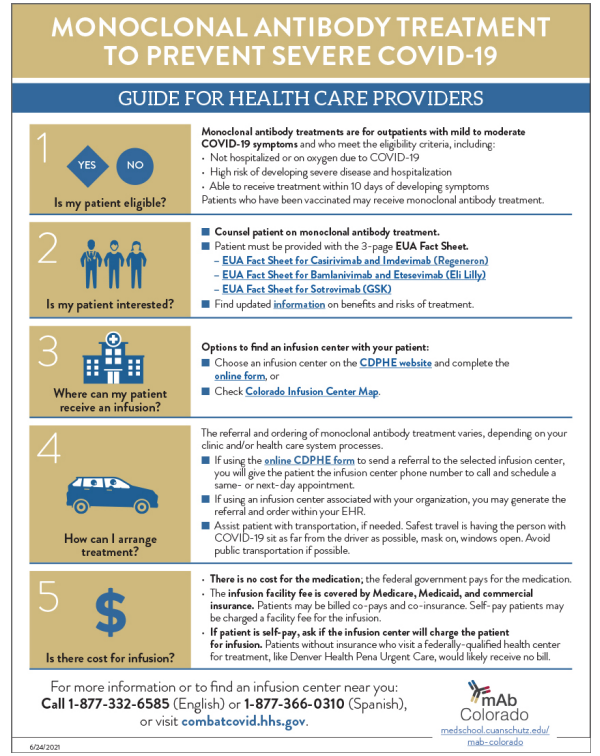
mAb Colorado Partners

University of Colorado Anschutz Medical Campus

mAb Stakeholder Advisory Panel

Barriers and Facilitators to Use of mAbs for COVID-19

- **Community awareness** of the need for timely testing and effective treatment available for all (not just the wealthy and connected)
- **Clinician education** about monoclonal antibody treatment for COVID-19 including strength of evidence, eligibility criteria, and how to access treatment
- Clear guidance on implementation and use of **referral processes**
- Addressing **inefficiencies in relying upon individual providers** to identify eligible patients, discuss treatment, find a treatment location, and complete a referral
- Assurances regarding **costs of care** especially for the **uninsured**



MONOCLONAL ANTIBODY TREATMENT TO PREVENT SEVERE COVID-19

GUIDE FOR HEALTH CARE PROVIDERS

1 YES NO

Is my patient eligible?

Monoclonal antibody treatments are for outpatients with mild to moderate COVID-19 symptoms and who meet the eligibility criteria, including:

- Not hospitalized or on oxygen due to COVID-19
- High risk of developing severe disease and hospitalization
- Able to receive treatment within 10 days of developing symptoms

Patients who have been vaccinated may receive monoclonal antibody treatment.

2

Is my patient interested?

- **Counsel patient on monoclonal antibody treatment.**
- Patient must be provided with the 3-page **EUA Fact Sheet.**
  - EUA Fact Sheet for Casirivimab and Imdevimab (Regeneron)
  - EUA Fact Sheet for Bamlanivimab and Etesevimab (Eli Lilly)
  - EUA Fact Sheet for Sotrovimab (GSK)
- Find updated information on benefits and risks of treatment.

3

Where can my patient receive an infusion?

Options to find an infusion center with your patient:

- Choose an infusion center on the CDPHE website and complete the online form, or
- Check Colorado Infusion Center Map.

4

How can I arrange treatment?

The referral and ordering of monoclonal antibody treatment varies, depending on your clinic and/or health care system processes.

- If using the online CDPHE form to send a referral to the selected infusion center, you will give the patient the infusion center phone number to call and schedule a same- or next-day appointment.
- If using an infusion center associated with your organization, you may generate the referral and order within your EHR.
- Assist patient with transportation, if needed. Safest travel is having the person with COVID-19 sit as far from the driver as possible, mask on, windows open. Avoid public transportation if possible.

5 $

Is there cost for infusion?

- **There is no cost for the medication;** the federal government pays for the medication.
- The **infusion facility fee is covered by Medicare, Medicaid, and commercial insurance.** Patients may be billed co-pays and co-insurance. Self-pay patients may be charged a facility fee for the infusion.
- **If patient is self-pay, ask if the infusion center will charge the patient for infusion.** Patients without insurance who visit a federally-qualified health center for treatment, like Denver Health Pena Urgent Care, would likely receive no bill.

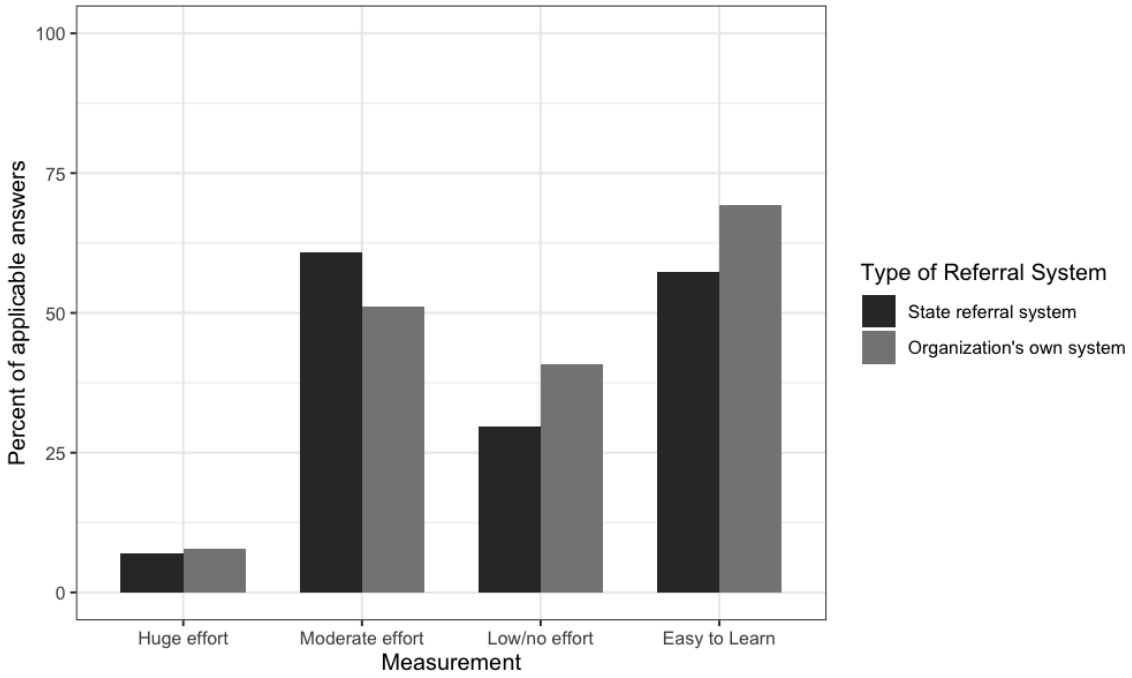
For more information or to find an infusion center near you:
Call 1-877-332-6585 (English) or **1-877-366-0310** (Spanish),
or visit **combatcovid.hhs.gov**.

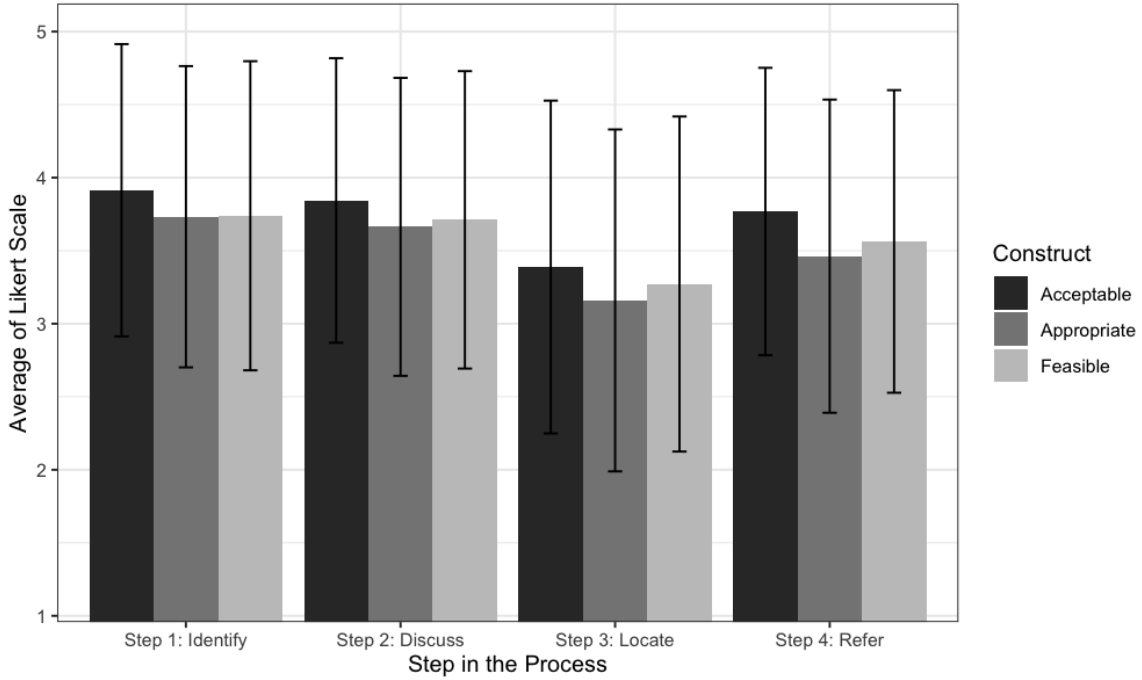
mAb Colorado
medschool.cuanschutz.edu/mab-colorado

6/24/2021

Clinician Experience with Referral Systems and Processes

- **mAb referral process**
- **Step 1.** Assess eligibility
- **Step 2.** Discuss treatment with patient
- **Step 3.** Determine treatment location
- **Step 4.** Issue referral and order for treatment

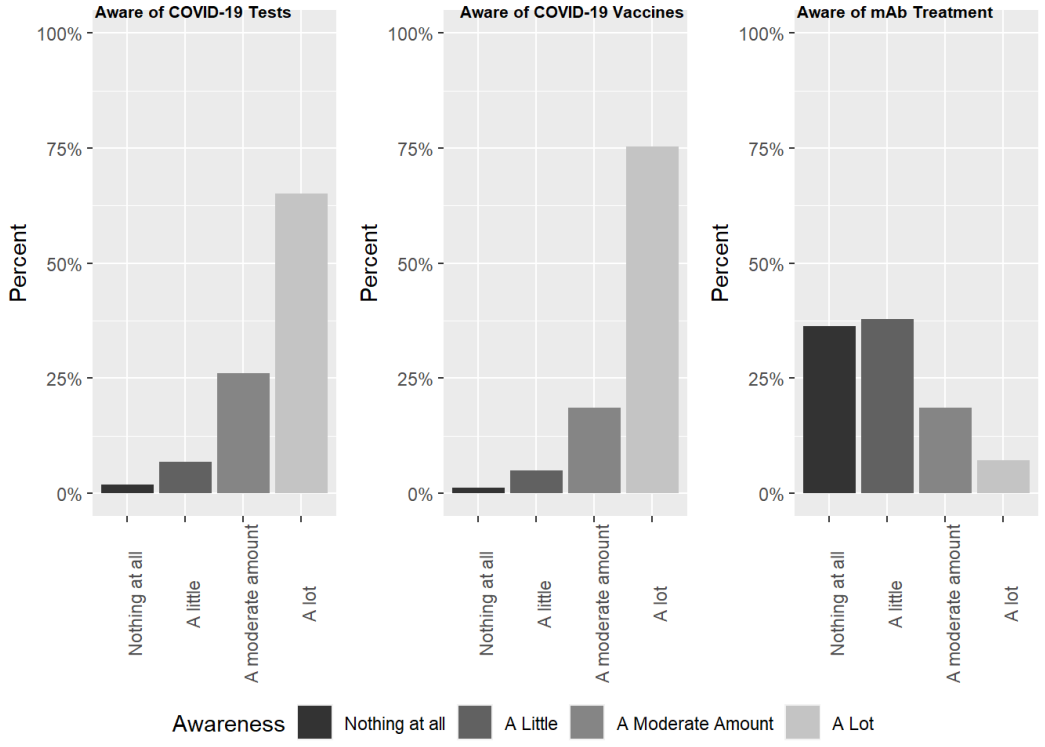




Kwan BM, Sobczak C, Beaty L, Wynia MK, DeCamp M, Owen V, Ginde AA. Clinician Perspectives on Monoclonal Antibody Treatment for High-Risk Outpatients with COVID-19: Implications for Implementation and Equitable Access. Journal of general internal medicine. 2022 Oct;37(13):3426-34.

Community Member Survey and Focus Group Insights

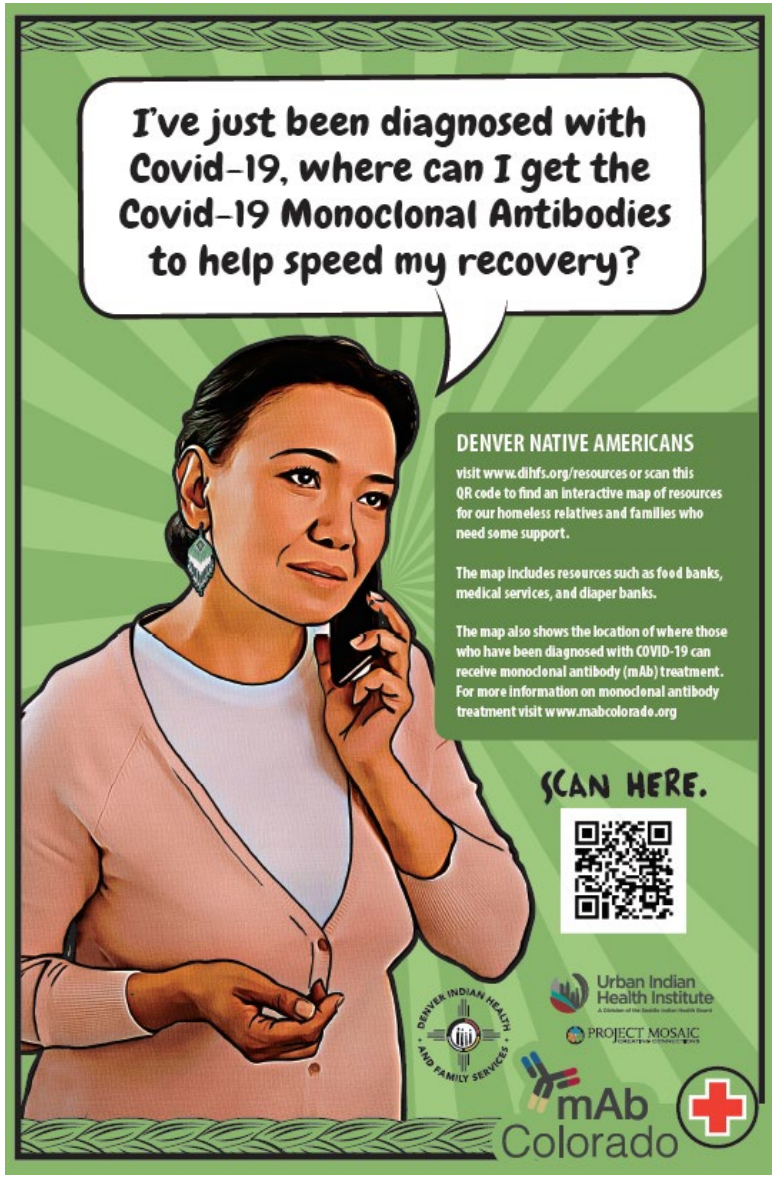
- Little baseline knowledge about monoclonal antibody treatment
  - Especially among Spanish-language participants
- Overall positive impression of monoclonal antibody treatment
- Key questions to be answered in information about mAb
  - Who can get it?
  - How can you get it?
  - How much does it cost?
  - What are the side effects?
- Priorities
  - Spread the Word-information about mAb should be shared across all available media
  - Make it easy-reduce barriers to obtaining mAb treatment when needed
  - Don’t make it political-right now mAb treatment is not politicized, keep it that way
  - Equitable access



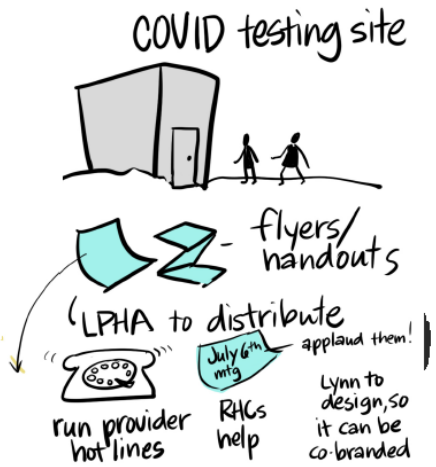
Kwan BM, Sobczak C, Gorman C, Roberts S, Owen V, Wynia MK, Ginde AA, Pena-Jackson G, Ziegler O, DeCamp LR. “All of the things to everyone everywhere”: A mixed methods analysis of community perspectives on equitable access to monoclonal antibody treatment for COVID-19. medRxiv. 2022 Jan 1.

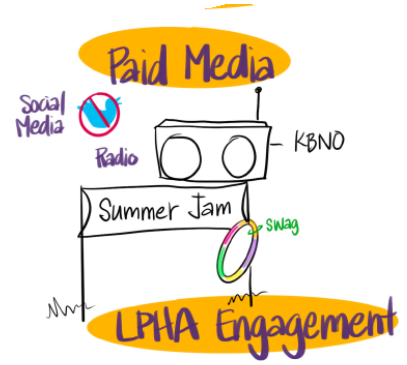
Health Equity Focus

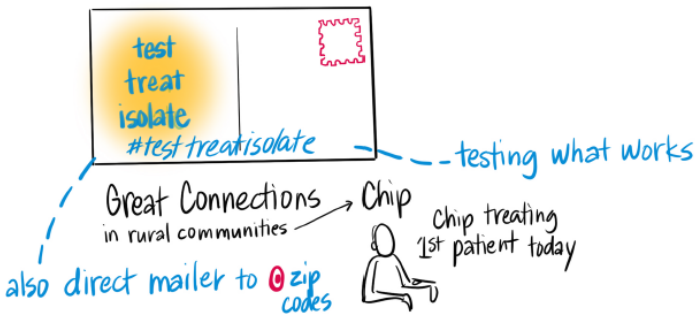
- Equitable access to care
  - Rural areas
  - Racial and ethnic minorities
    - Hispanic/Latino
      - Spanish-speaking communities
    - Native American communities
  - People who were:
    - Uninsured/underinsured
    - Undocumented
    - Unhoused

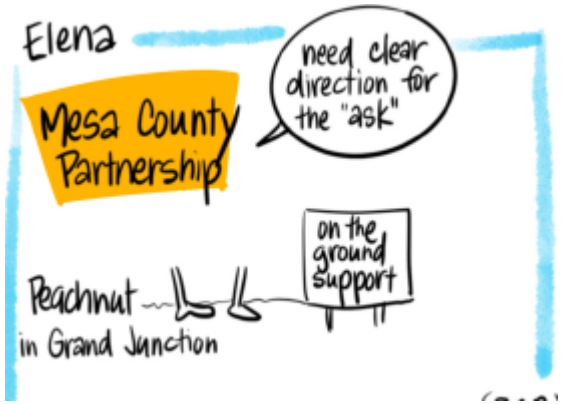


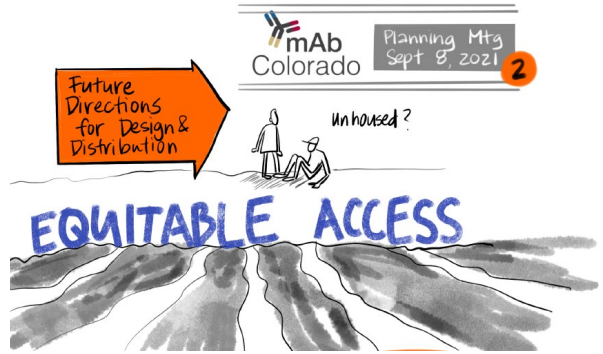
Community Engagement Studios











University of Colorado Anschutz Medical Campus

Webmail | UCD Access | Canvas | Quick Links |

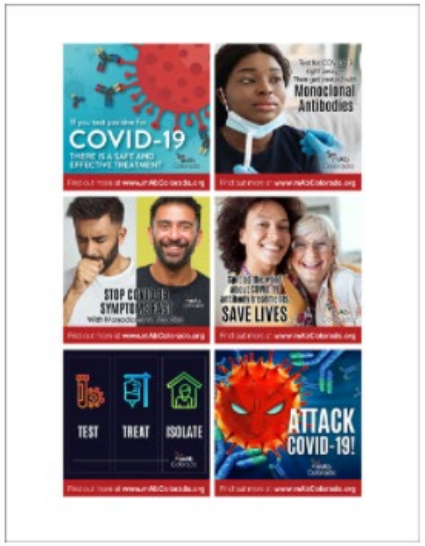
Community Messaging Materials

See below for materials you can share with members of your organization or community about monoclonal antibody (mAb) treatments for COVID-19.

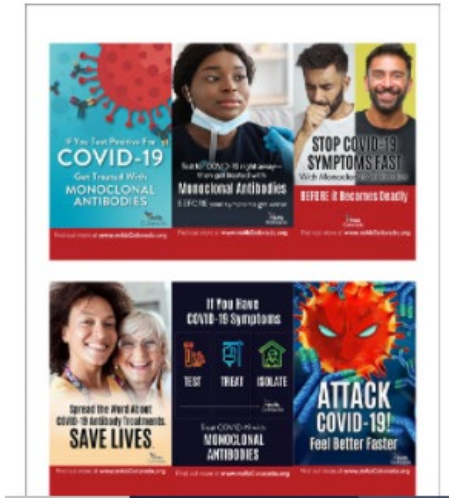
We are able to provide a limited number of printed materials mailed to you free-of-charge. If you would like to distribute printed materials to members of your organization or community, complete this order form.

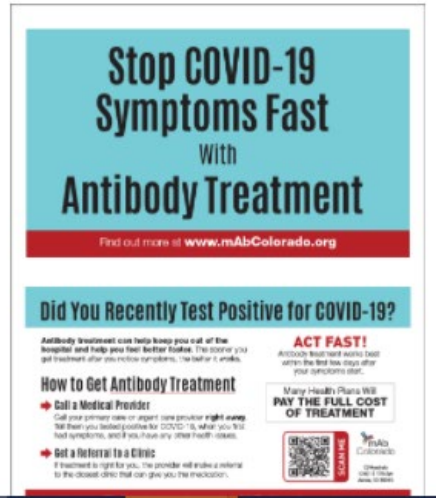
Download flyer versions in English and Spanish with basic information about mAb treatments. Can be printed front-to-back.

Download document versions in English and Spanish with answers to common questions about mAb treatments.



Download images to be shared as social media posts.





www.mAbColorado.org

¿Dio positivo para COVID-19? Actua Rapido

Puede sentirse mejor mas rápido si recibe un tratamiento con anticuerpos. Puede ayudar a mantenerlo fuera del hospital. El tratamiento con anticuerpos funciona mejor si usted es tratado dentro de los primeros días después de haber dado positivo para COVID-19.

Para obtener mas información acerca del tratamiento de anticuerpos siga estos pasos:

Llame a un proveedor médico de inmediato

- Llame a su proveedor de atención primaria o de atención urgente.
- Dígales cuándo tuvo los primeros síntomas de COVID-19.
- Dígales si tiene algún otro problema de salud.
- Pregúnteles si pueden ayudarle a obtener tratamiento con anticuerpos monoclonales.

Obtenga una referencia a una clínica

Si el tratamiento con anticuerpos es adecuado para usted, el proveedor hará una referencia a una clínica cercana a usted donde usted puede obtener el tratamiento. Le darán la dirección y el número de teléfono de la clínica.

Muchos planes de salud pueden pagar el costo total del tratamiento

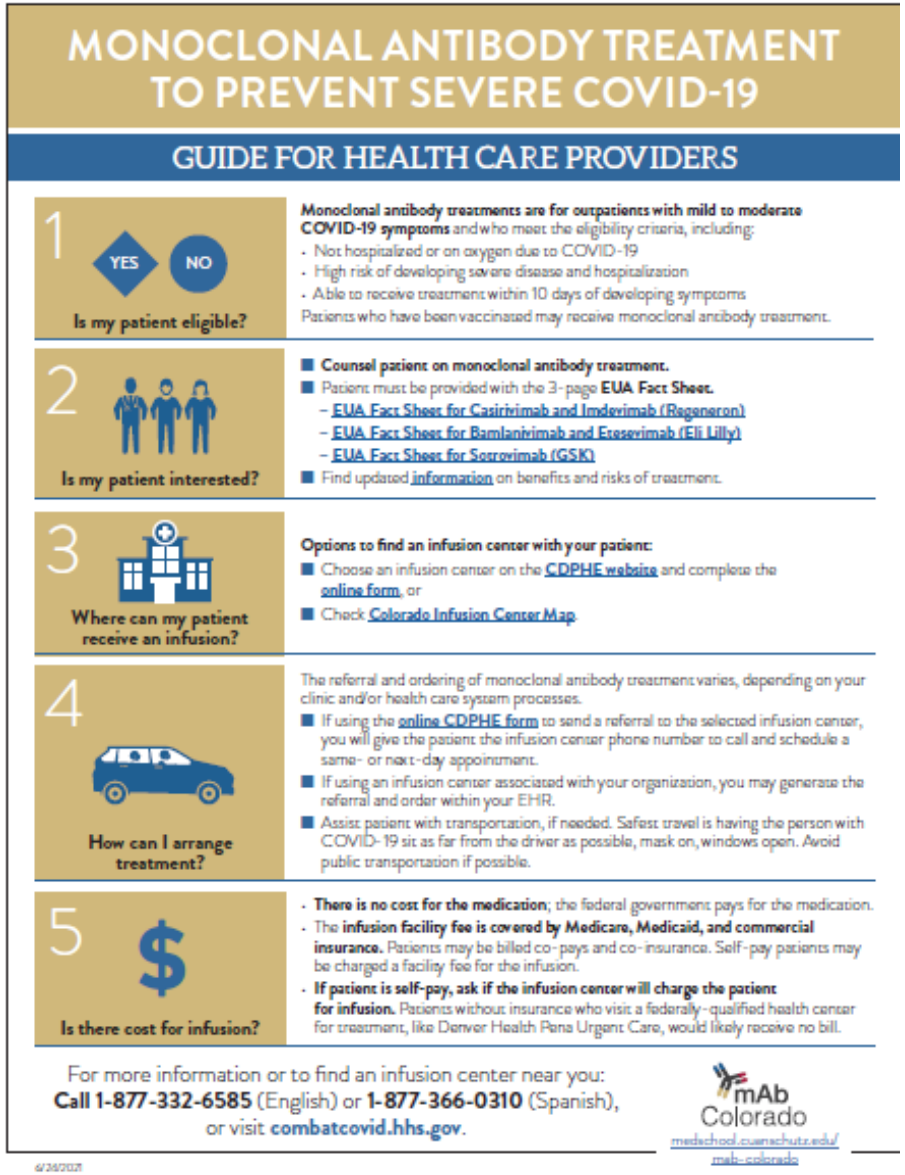
El tratamiento con anticuerpos funciona contra la variante delta COVID-19

mAb Colorado

www.mAbColorado.org

www.mAbColorado.org

Health Care Provider Messages & Materials



MONOCLONAL ANTIBODY TREATMENT TO PREVENT SEVERE COVID-19

GUIDE FOR HEALTH CARE PROVIDERS

1 Is my patient eligible? (YES / NO)

Monoclonal antibody treatments are for outpatients with mild to moderate COVID-19 symptoms and who meet the eligibility criteria, including:

- Not hospitalized or on oxygen due to COVID-19
- High risk of developing severe disease and hospitalization
- Able to receive treatment within 10 days of developing symptoms

Patients who have been vaccinated may receive monoclonal antibody treatment.

2 Is my patient interested?

- **Counsel patient on monoclonal antibody treatment.**
- Patient must be provided with the 3-page **EUA Fact Sheet.**
  - EUA Fact Sheet for Casirivimab and Imdevimab (Regeneron)
  - EUA Fact Sheet for Bamlanivimab and Etesevimab (Eli Lilly)
  - EUA Fact Sheet for Sotrovimab (GSK)
- Find updated information on benefits and risks of treatment.

3 Where can my patient receive an infusion?

Options to find an infusion center with your patient:

- Choose an infusion center on the CDPHE website and complete the online form, or
- Check Colorado Infusion Center Map.

4 How can I arrange treatment?

The referral and ordering of monoclonal antibody treatment varies, depending on your clinic and/or health care system processes.

- If using the online CDPHE form to send a referral to the selected infusion center, you will give the patient the infusion center phone number to call and schedule a same- or next-day appointment.
- If using an infusion center associated with your organization, you may generate the referral and order within your EHR.
- Assist patient with transportation, if needed. Safest travel is having the person with COVID-19 sit as far from the driver as possible, mask on, windows open. Avoid public transportation if possible.

5 Is there cost for infusion?

- **There is no cost for the medication**; the federal government pays for the medication.
- The **infusion facility fee is covered by Medicare, Medicaid, and commercial insurance.** Patients may be billed co-pays and co-insurance. Self-pay patients may be charged a facility fee for the infusion.
- **If patient is self-pay, ask if the infusion center will charge the patient for infusion.** Patients without insurance who visit a federally-qualified health center for treatment, like Denver Health Pena Urgent Care, would likely receive no bill.

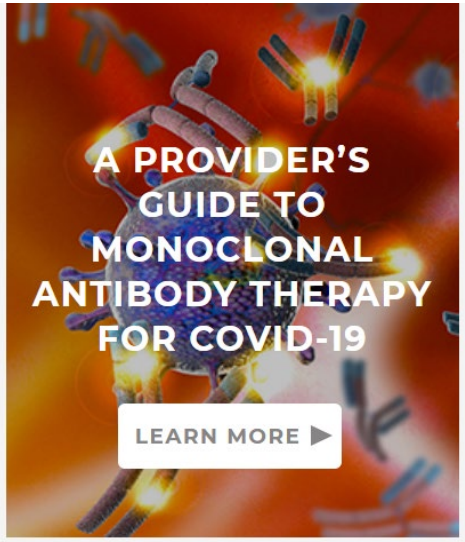
For more information or to find an infusion center near you:
Call 1-877-332-6585 (English) or **1-877-366-0310** (Spanish),
or visit **combatcovid.hhs.gov**.

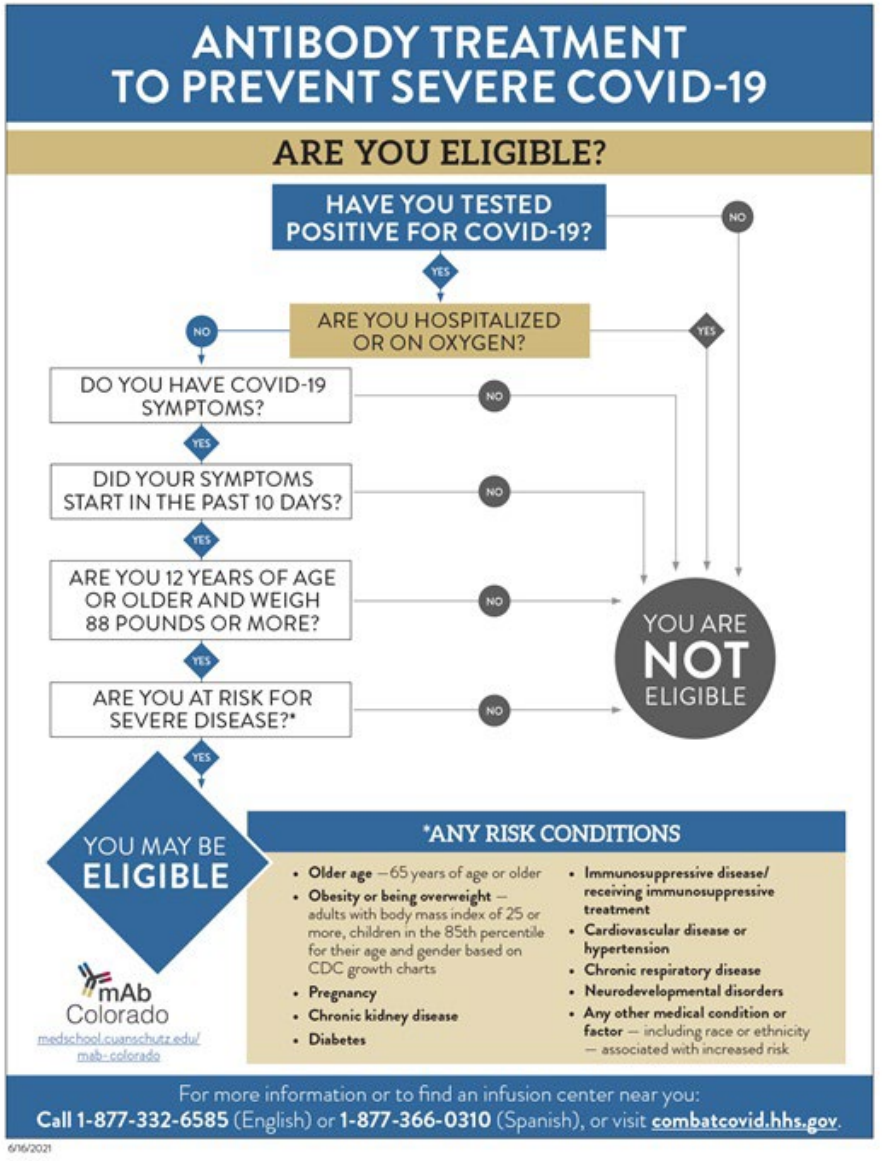
mAb Colorado
medschool.cuanschutz.edu/mab-colorado

6/28/2021

Project ECHO

COLORADO





ANTIBODY TREATMENT TO PREVENT SEVERE COVID-19

ARE YOU ELIGIBLE?

- HAVE YOU TESTED POSITIVE FOR COVID-19? (NO → YOU ARE NOT ELIGIBLE)
- YES → ARE YOU HOSPITALIZED OR ON OXYGEN? (YES → YOU ARE NOT ELIGIBLE)
- NO → DO YOU HAVE COVID-19 SYMPTOMS? (NO → YOU ARE NOT ELIGIBLE)
- YES → DID YOUR SYMPTOMS START IN THE PAST 10 DAYS? (NO → YOU ARE NOT ELIGIBLE)
- YES → ARE YOU 12 YEARS OF AGE OR OLDER AND WEIGH 88 POUNDS OR MORE? (NO → YOU ARE NOT ELIGIBLE)
- YES → ARE YOU AT RISK FOR SEVERE DISEASE?* (NO → YOU ARE NOT ELIGIBLE)
- YES → YOU MAY BE ELIGIBLE

***ANY RISK CONDITIONS**

- **Older age** —65 years of age or older
- **Obesity or being overweight** — adults with body mass index of 25 or more, children in the 85th percentile for their age and gender based on CDC growth charts
- **Pregnancy**
- **Chronic kidney disease**
- **Diabetes**
- **Immunosuppressive disease/ receiving immunosuppressive treatment**
- **Cardiovascular disease or hypertension**
- **Chronic respiratory disease**
- **Neurodevelopmental disorders**
- **Any other medical condition or factor** — including race or ethnicity — associated with increased risk

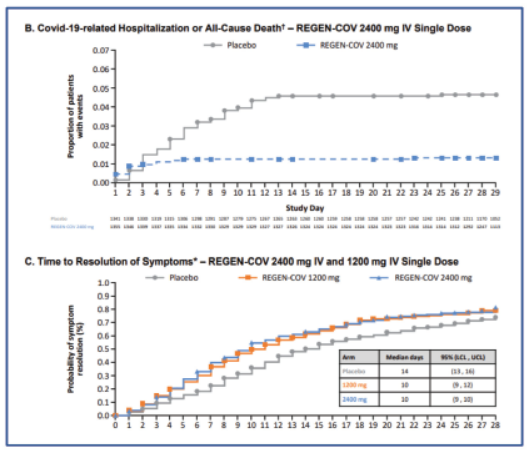
mAb Colorado
medschool.cuanschutz.edu/mab-colorado

For more information or to find an infusion center near you:
Call 1-877-332-6585 (English) or **1-877-366-0310** (Spanish), or visit **combatcovid.hhs.gov**.

6/16/2021

IMPLEMENTATION BLUEPRINT

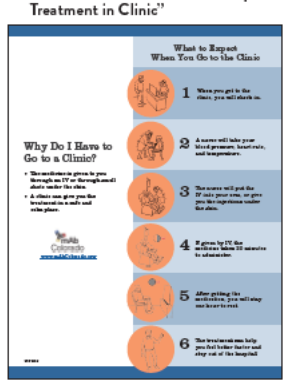
COVID-19 Monoclonal Antibody (mAb) Implementation Blueprint



Reference: Weinreich DM et al. REGEN-COV Antibody Combination and Outcomes in Outcomes with Covid-19.
N Engl J Med 2021; 385:e81. DOI: 10.1056/NEJMoa2108163

III. Sample Shared Decision Making Language

IV. Patient Handout of "What to Expect for Treatment in Clinic"



How to Use This Document

This implementation blueprint includes common resources and specific modules. Modules can be reviewed individually.

Modules:

- Referral to mAb Treatment Sites
- Intravenous Treatment
- Subcutaneous Treatment (only REGEN-CoV)
- Local Public Health Processes

Appendix:

Educational Resources

Sample Discharge Instructions

Sample Standing Orders

OVERALL PURPOSE Increasing Access to COVID-19 mAbs

This guide aims to provide practical guidance to help clinicians and other key stakeholders increase awareness and access to COVID-19 mAbs for outpatients with mild to moderate SARS-CoV-2 infection. In different Modules, we provide resources and examples of clinical workflows to increase:

- Referral to health care settings offering mAbs
- Intravenous treatment with mAb cocktails
- Subcutaneous treatment (e.g. REGEN-CoV)
- Local public health agency processes for increasing referrals to mAbs

This guide also includes patient and clinician handouts.

This implementation blueprint, including its component patient and clinician handouts, were developed between June 2021-December 2021. Information provided reflects information gathered prior to the rapid spread of the Omicron variant of the SARS-CoV-2 virus.

Capacity Building

- CDPHE mAb Connector Tool and Infusion Center Map
- UCHealth Virtual Health Center (VHC)
- Tri-County Health Department case investigator referrals to the VHC
- Denver Health Urgent Care
- Mobile mAb buses
- Call center

How to get monoclonal antibody therapy

UCHealth currently operates four infusion sites: University of Colorado Hospital in Aurora, Memorial Central Outpatient Infusion in Colorado Springs, Poudre Valley Hospital in Fort Collins, and Yampa Valley Medical Center in Steamboat Springs.

Please speak with your health care provider to determine if you are eligible for monoclonal antibody treatment and to discuss if it may be right for you.

Your provider will help you locate an infusion center and order the medication for you. You may also **set up a visit with UCHealth Virtual Urgent Care** who can help determine eligibility and order treatment.

Costs

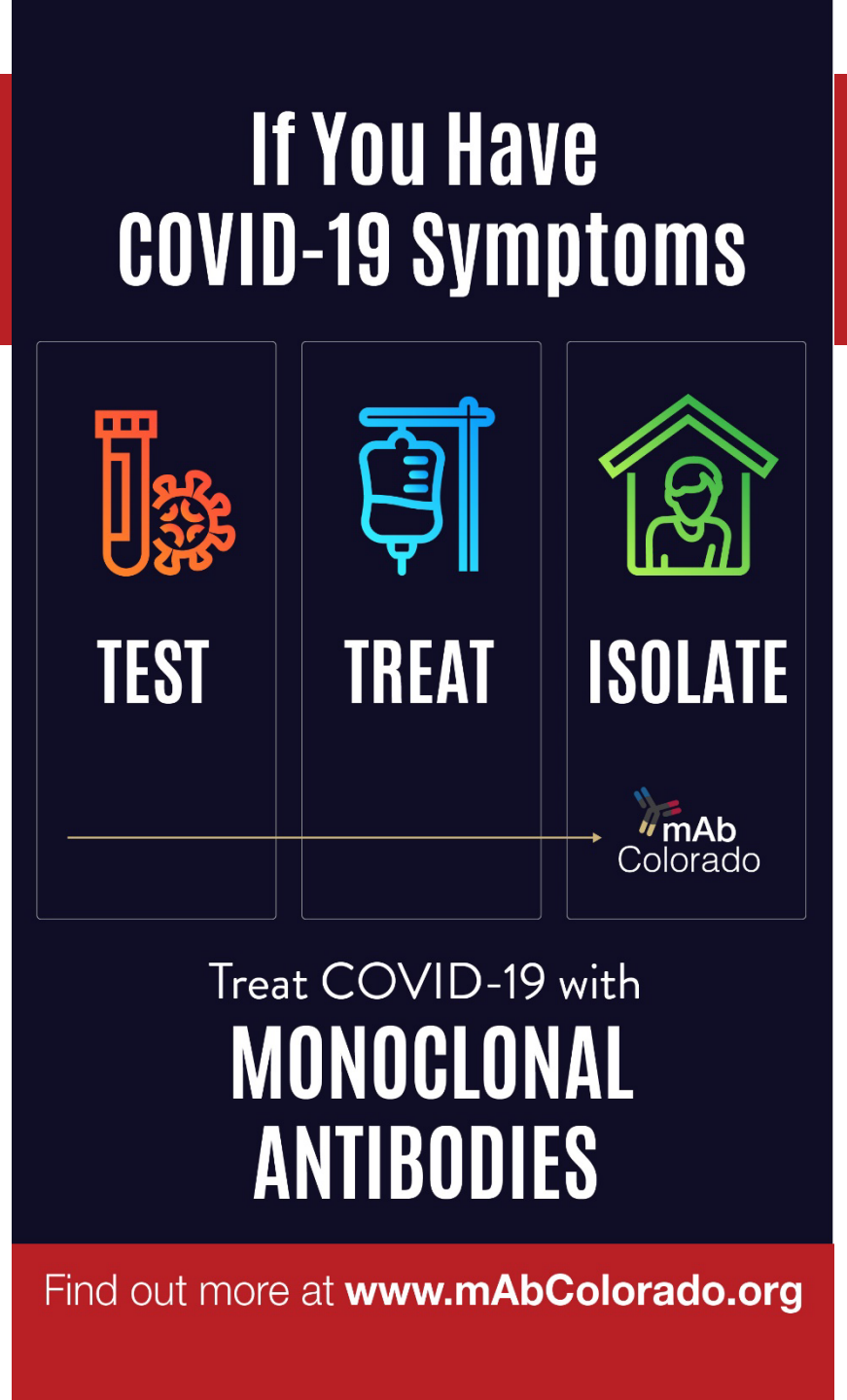
Currently, the medication used for COVID-19 monoclonal antibody treatment is free of charge, but infusion service fees to administer the drug may apply. If you have insurance, these fees will be billed to your

Paid Media Campaign

- Website – www.mAbColorado.org
- Facebook and Instagram ads
- Web banner ads
- Google Search ads
- Direct mail postcards (Adams, Pueblo, Weld Counties)
- Radio partnerships

Denver Metro
- KBNO
- KQKS

Western Colorado
- KEKB
- KNZZ
- KKNN



Paid Media Campaign

Persons Reached by Digital Ads

- Banner Ads: 752,785
- Facebook: 101,587

Facebook Engagement

- Reactions: 2,836
- Comments: 644
- Saves: 567
- Shares: 1296
    - Expands reach exponentially

Digital Ads Impressions Total: 8,733,962

Direct Mail Households: 47,679

Website Sessions Total: 23,540

Average Time Spent on Landing Page: 50 seconds

Top Website Sessions by City

- Denver: 3,091
- Grand Junction: 1,256
- Colorado Springs: 1,173
- Aurora: 795
- Greeley: 590
- Montrose: 566
- Pueblo: 451
- Lakewood: 402
- Fort Collins: 380

Clinical Audiences

Colorado Department of Public Health and Environment	Dept of Emergency Medicine Town Hall
Colorado Association of Local Public Health Officials	Urgent Care Association Members
MHHA (Mile High Health Alliance)	UCHealth Seniors Clinic
TCHD (Tri-county Health Department)	Berkeley Home Health
ECHO Webinars	CAFP (Colorado Academy of Family Physicians)
Practice Learning Collaborative group	CCTSI CU-CSU Summit
El Paso County Public Health	Geriatric Ground Rounds
El Paso Board of Commissioners	Quality Health Network (QHN)
COVID Check Colorado	Colorado Community Health Network (CCHN)
Pueblo County Provider Roundtable	Centennial LabX

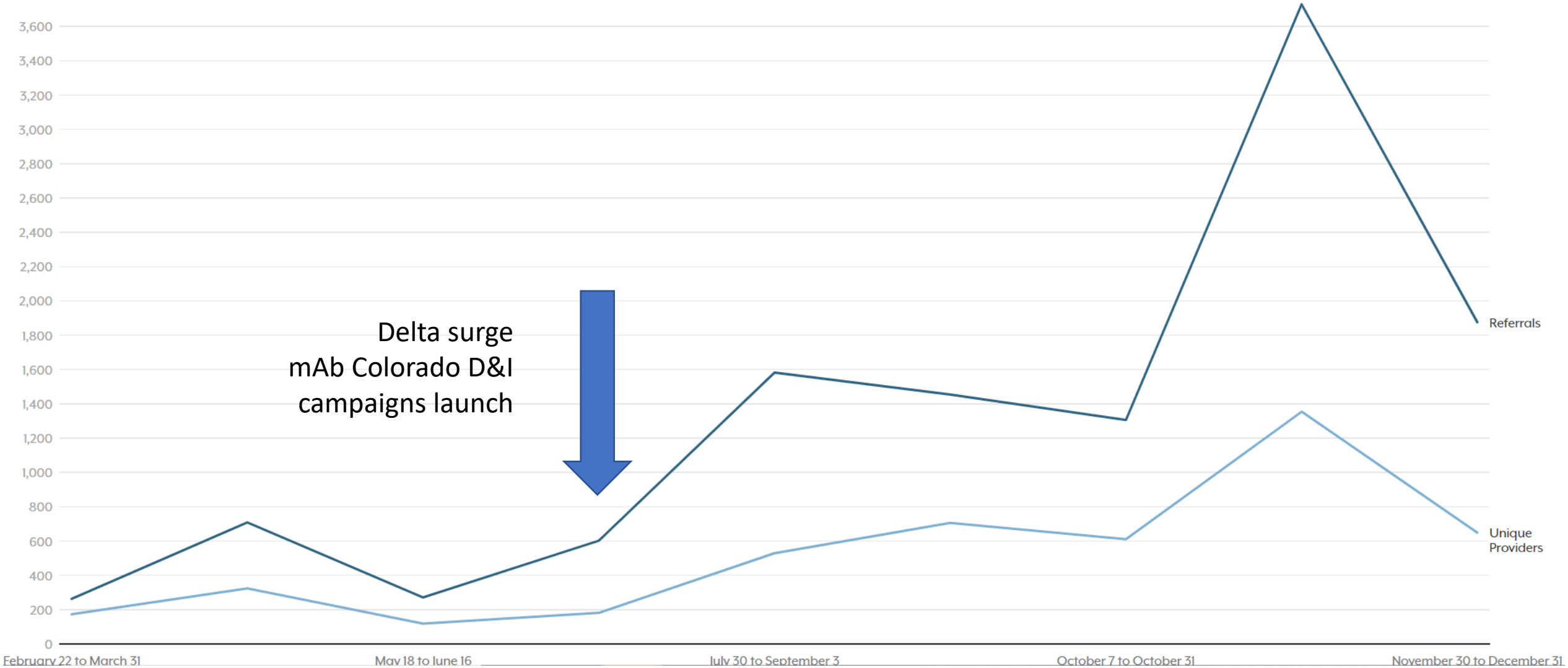
Number reached through mAb Colorado presentations:

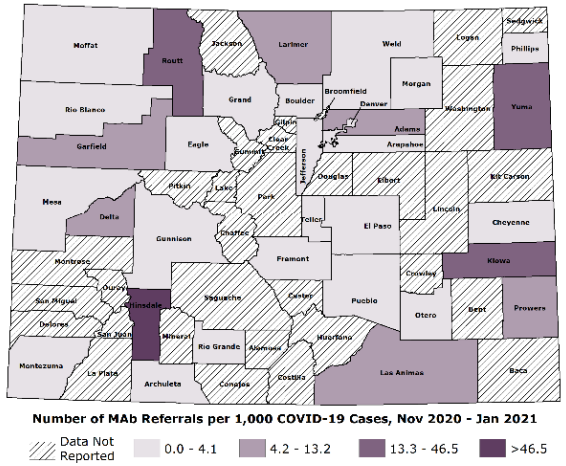
2,000+ people

Fit to Context: Policy and Public Health Impact

Unique Providers Referring Monoclonal Antibody Treatment, Colorado, February to December 2021

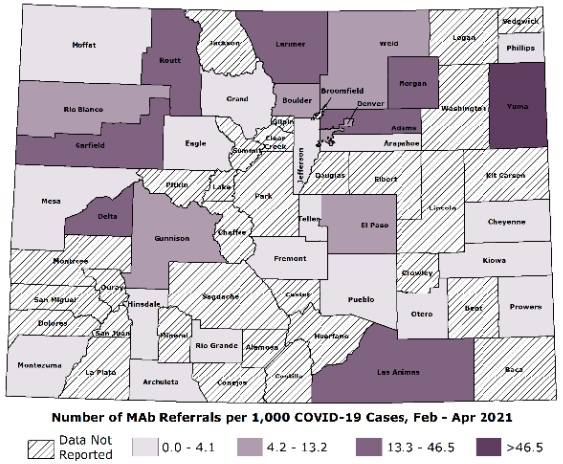
Total number of unique providers referring patients for monoclonal antibody treatment across all sites (light blue line) and the total number of referrals from these providers (dark blue line)





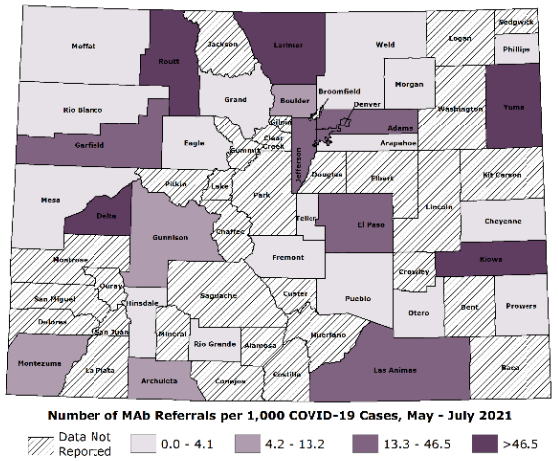
Number of MAb Referrals per 1,000 COVID-19 Cases, Nov 2020 - Jan 2021

Data Not Reported | 0.0 - 4.1 | 4.2 - 13.2 | 13.3 - 46.5 | >46.5



Number of MAb Referrals per 1,000 COVID-19 Cases, Feb - Apr 2021

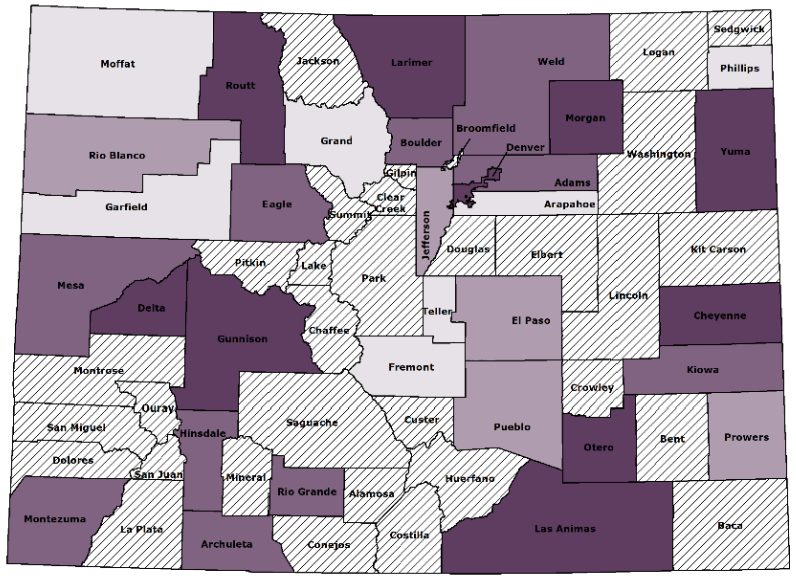
Data Not Reported | 0.0 - 4.1 | 4.2 - 13.2 | 13.3 - 46.5 | >46.5



Number of MAb Referrals per 1,000 COVID-19 Cases, May - July 2021

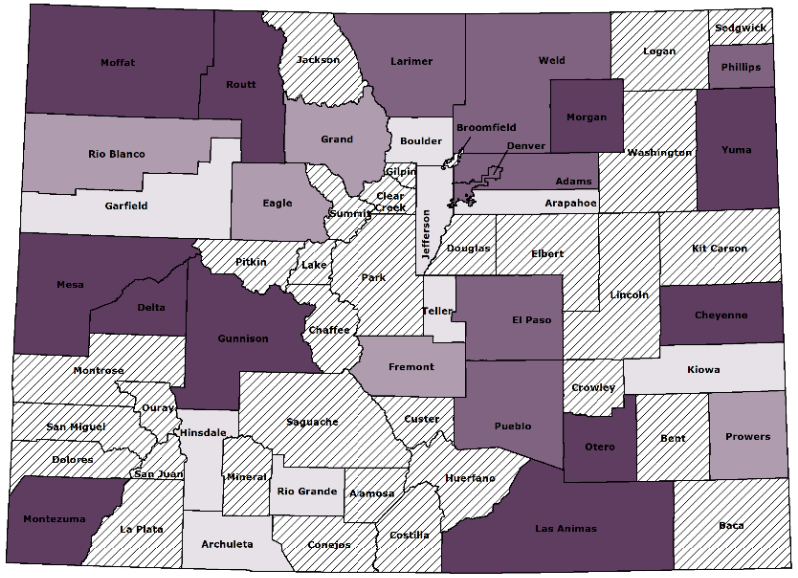
Data Not Reported | 0.0 - 4.1 | 4.2 - 13.2 | 13.3 - 46.5 | >46.5

Pre (Top) vs Post (Bottom) mAb Colorado Dissemination



Number of MAb Referrals per 1,000 COVID-19 Cases, Aug - Oct 2021

Data Not Reported | 0.0 - 4.1 | 4.2 - 13.2 | 13.3 - 46.5 | >46.5



Number of MAb Referrals per 1,000 COVID-19 Cases, Nov - Dec 2021

Data Not Reported | 0.0 - 4.1 | 4.2 - 13.2 | 13.3 - 46.5 | >46.5

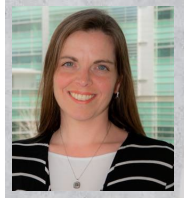
Average weekly mAb referral rates by Colorado county over time (November 2020-December 2021)

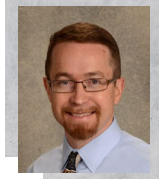
Colorado Clinical and Translational Sciences Institute (CCTSI)

UNIVERSITY OF COLORADO **DENVER | ANSCHUTZ MEDICAL CAMPUS**

mAb Colorado team

- Principal Investigators
  - Adit Ginde, MD, MPH
  - Ron Sokol, MD (CCTSI PI)
- Dissemination and Implementation Lead
  - Bethany Kwan, PhD, MSPH
- Clinical Lead
  - Matt Wynia, MD, MPH
- Informatics Lead
  - Tellen Bennett, MD, MS
- Biostatistics Lead
  - Nichole Carlson, PhD
- Administrative Lead
  - Tim Lockie, MS, MBA





Advancing a D4DSE Approach: Recommendations

Adopt a D4DS mindset

Consider who will use your product, under what circumstances, and to address what urgent need – design studies to test your product IN and FOR THAT CONTEXT

Expect the need to pivot and adapt over time

Enhance skills and capacity in the team

Team science

Communication

Graphic design

Systems and engineering

Data science

Build and leverage systems and infrastructure for distribution and marketing

Practice-based research networks

Cooperative Extension Services

Public Health Agencies

Health System Communications

Incentivize dissemination beyond academic journals and conference presentations

Promotion criteria includes equity and impact

Questions?

Thank you!

Bethany.kwan@cuanschutz.edu