



MULTI-REGIONAL CLINICAL TRIALS

THE MRCT CENTER of
BRIGHAM AND WOMEN'S HOSPITAL
and HARVARD

Health Literacy in Clinical Trials: Necessary, meaningful, and achievable

Barbara E. Bierer, MD

Faculty Director, MRCT Center
Professor of Medicine, Harvard Medical School
bbierer@bwh.harvard.edu

Disclaimer:

- The opinions contained herein are those of the authors and are not intended to represent the position of Brigham and Women's Hospital or Harvard University.
- The MRCT Center is supported by voluntary contributions from foundations, corporations, international organizations, academic institutions and government entities (see www.MRCTCenter.org) and well as by grants.
- We are committed to autonomy in our research and to transparency in our relationships. The MRCT Center—and its directors—retain responsibility and final control of the content of any products, results and deliverables.
- I have no personal conflicts of interests with regard to the content of this presentation or discussion.

The MRCT Center



- Academic credibility
- Trusted collaborator
- Independent convener

The **MRCT Center** is a research and policy center focused on addressing the conduct, oversight, ethics and regulatory environment for clinical trials.

Vision

Improve the integrity, safety, and rigor of global clinical trials.

How we work

Engage diverse stakeholders to define emerging issues in global clinical trials and to create and implement ethical, actionable, and practical solutions.



MRCT Center is affiliated with BWH and Harvard University



BRIGHAM AND
WOMEN'S HOSPITAL



HARVARD
UNIVERSITY

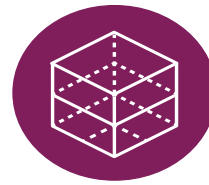


How we work

Focus Areas



Global Regulatory
Engagement



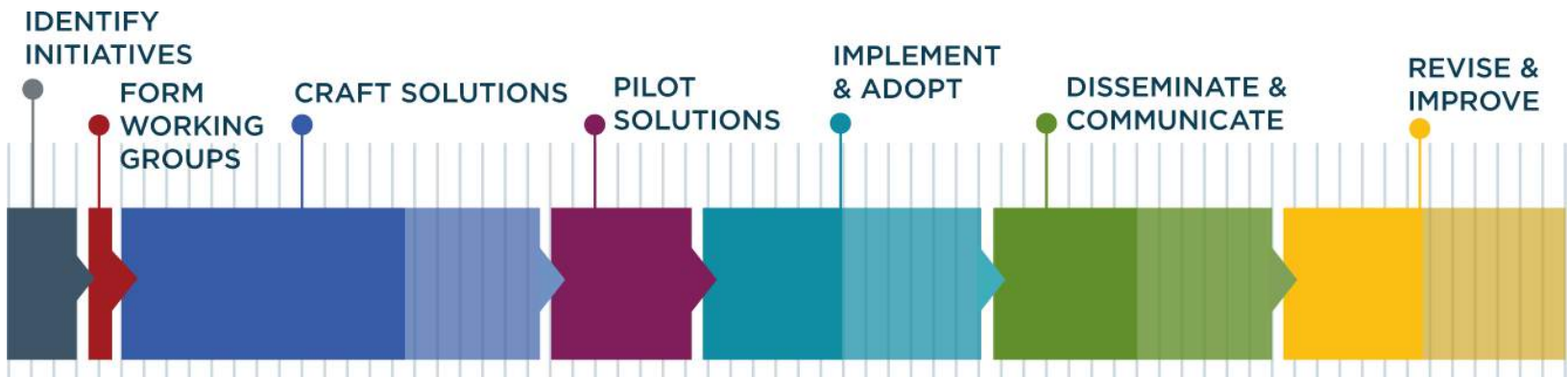
Transparency



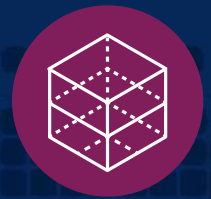
Ethics, Conduct
and Oversight



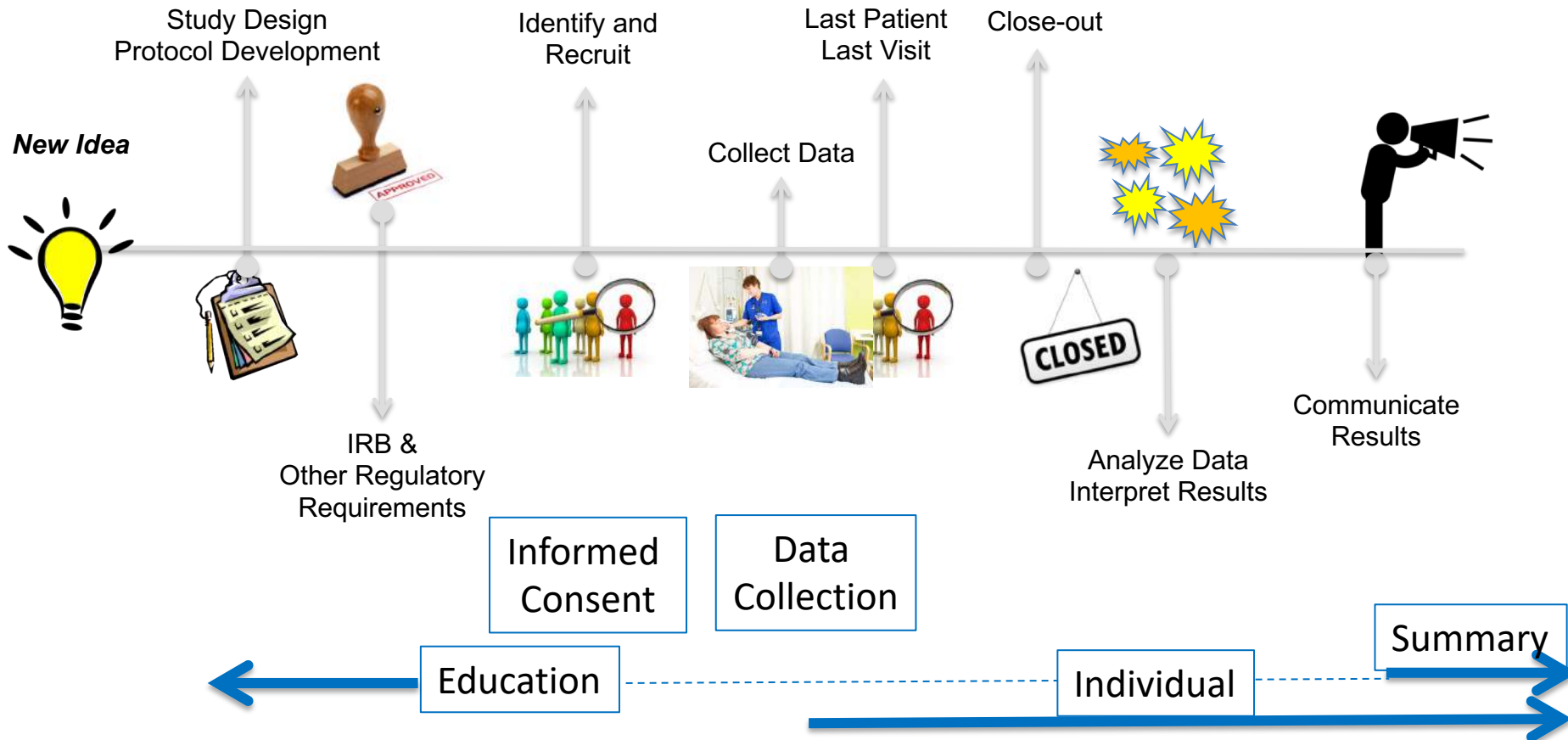
Capacity Building



Health Literate Communications



- ❖ Returning results in plain language allows for investigators and sponsors to honor the essential contributions and voluntarism of study participants



The health literacy opportunity



- Approximately one third of people in the USA have difficulty understanding basic health information*
- This means that about 77 million people could benefit from additional support
- This number is likely higher when considering the complexity of clinical research information and the context within which many research conversations occur.
- The proportion of adults with basic or below basic health literacy ranges from 28 % of white adults to 65 % of Hispanic adults.

Clinical trials in the US lack appropriate diverse representation. What is the role of health literacy in promoting inclusion and access?

*America's Health Literacy: Why We Need Accessible Health Information. An Issue Brief From the U.S. Department of Health and Human Services. 2008

Health literacy of international concern

*Health literacy is a WHO priority**

“Health literacy empowers and drives equity”

We commit to

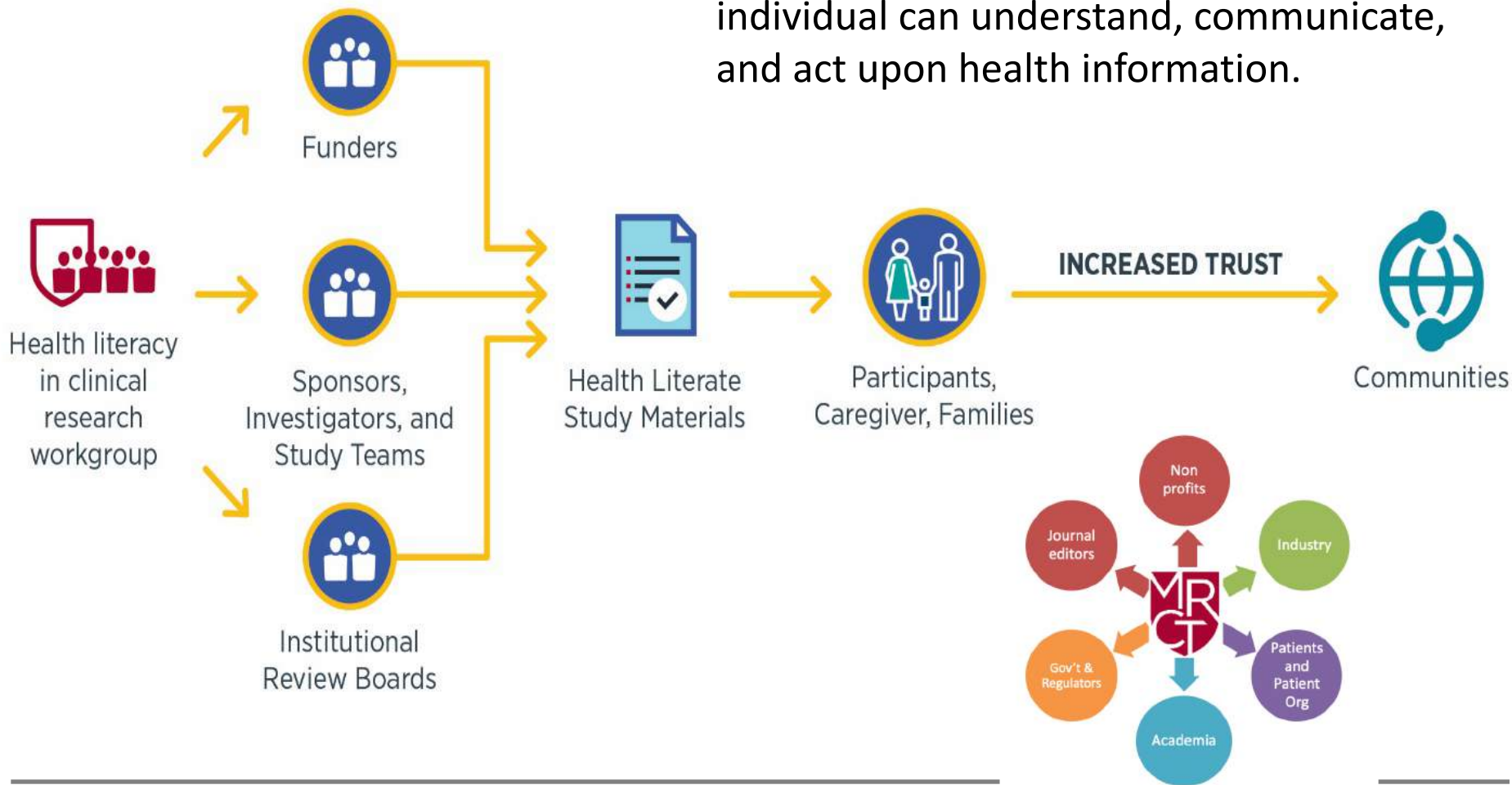
- recognize health literacy as a ***critical determinant of health*** and invest in its development;
- develop, implement and monitor intersectoral ***national and local strategies for strengthening health literacy in all populations and in all educational settings;***
- ***increase citizens’*** control of their own health and its determinants, through harnessing the
- potential of digital technology;
- Ensure ***that consumer environments support healthy choices*** through pricing policies,
- transparent information and clear labelling.

And note: nothing about clinical trials in the WHO priority areas



Health Literacy in Clinical Research

Health literacy is the degree to which an individual can understand, communicate, and act upon health information.



Current Health Literacy Workgroup Members

Jessica S Ancker, MPH, PhD

May-Lynn Andresen, DNP, RN

Maria Apostolaros, JD, PharmD, MS, FASCP, CCEP

Sylvia Baedorf Kassis, MPH

Behdash Bahador, MS

Suzanne Bakken, RN, PhD, FAAN, FACMI

Teal Benevides, PhD, MS, OTR/L

Amy Ben Arieh, JD, MPH

Barbara E. Bierer, MD

Poorvi Chablani

Reetu Dandora, JD

Theresa R. Devins, DrPH

James (Jay) Duhig, PhD

Claire Foster,

Valery Gordon, MPH, PhD

Lori Hall, RN, BSN

Zachary Hallinan

Tara Hastings

Renee Jenkins

Rebecca Johnson

David Leventhal, MBA

Becca Lory, CAS, BCCS

Newell McEllwee, PharmD, MSPH

Jill McNair, MBA

JoAnn Muir

Laurie Myers, MBA

Marilyn Neault, PhD

Catina O'Leary, PhD, LMSW

Michael K. Paasche-Orlow, MD, MA, MPH

Lisa Palladino Kim, MS

Laura Pigozzi, PhD

Margaret Rankovic, BA, MEd

Mary Roary, PhD

Dominic (Nik) Roberts

Erin Rothwell, PhD

Anirban Roy Chowdhury, M.Pharm, MBA

Rima Rudd, ScD

Jennifer Scanlon

Louise Scott, LSW

Vanessa Simonds, ScD

Rhonda Smith, MBA

Kathy Spiegel, PhD, MWC

Christopher Trudeau, JD

Jessica Valencia, PhD

Michael Villaire, MSLM

Desirée Walker

Michele Weitz, MA

Sarah White, MPH, CIP

Earnestine Willis, MD, MPH

Robert Winn, MD

Project Structure

Leadership Team

- Barbara Bierer (MRCT Center)
- Laurie Myers (Merck)
- Christopher Trudeau (University of Arkansas Medical Sciences)
- Sarah White (MRCT Center)

- ❖ Oversight of the project, establish strategy, and priorities
- ❖ Attend biweekly leadership calls and monthly work-group calls

Working Group

Diverse group of experts from multiple stakeholder groups

- ❖ Meet as a workgroup to achieve objectives and deliverables of the project
- ❖ Attend monthly workgroup and work stream calls

Approach to Health Literacy in Clinical Research

Multidimensional Definition

Plain Language

Numeracy

Visualization

Navigation

Cultural Competency

Practical Actionable Solutions

- Participants
- Investigators
- Sponsors
- IRBs

MRCT Center

- ❖ Coordinate ongoing project work under the direction of the leadership team and working group

Health literacy is two-sided and a shared responsibility



- It is not just the responsibility of the person receiving information to try to make sense of it
- The communicator is responsible for sharing information that is designed to be understood by the target audience
- The target audience should be comfortable not knowing and communicating any lack of understanding
- And beyond both communicators, it is a *systems* problem

Health literacy is foundational to the ethical conduct of clinical research

Ethics



- Respect for Persons
 - A right to understand
- Beneficence
- Justice
 - Equitable access to research

- But: I am not convinced that the majority of investigators or their institutions have embraced this concept, or that IRBs consider it their responsibility to provide oversight to health literate communications. And funders have largely been silent.
- Resource implications: time, money, and people.

Health literacy is foundational to the scientific integrity and impact of clinical research

- Generalizability
- Proper Adherence and Follow-Up
- Data Validity
- Potential Cost Savings
- Potential Reduction in Liability



- Generalizability of the research findings depends upon inclusion of the population affected by the disease and likely to participate in the intervention
- Better communication will enhance compliance and thus data validity
- Potential for increased retention and thus completion of the trial

The Clinical Trial Life Cycle

Health literacy is a critical need within the clinical research enterprise



DISCOVERY



RECRUITMENT



CONSENT



ON STUDY



END OF STUDY

Clear communication is essential throughout the entire clinical trial life cycle

We would go further: we posit that beyond health literacy, we should strive to ensure **clinical trial literacy**.

What does health literate clinical research look like?

Information gathered from participants inform future research studies

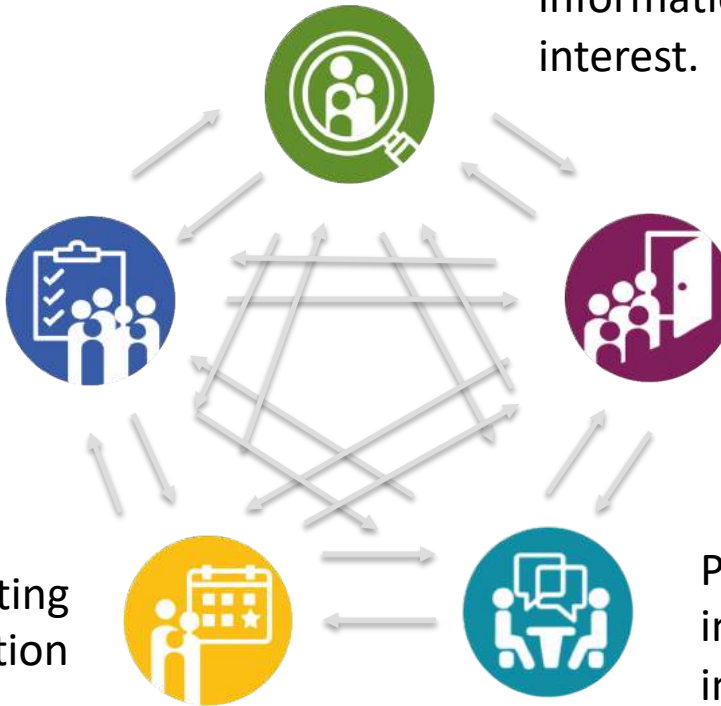
Building relationships with, and developing general research information for, the community of interest.

Supporting end of study communications and information sharing

Creating thoughtful (and multi-format) study-specific recruitment materials and procedures

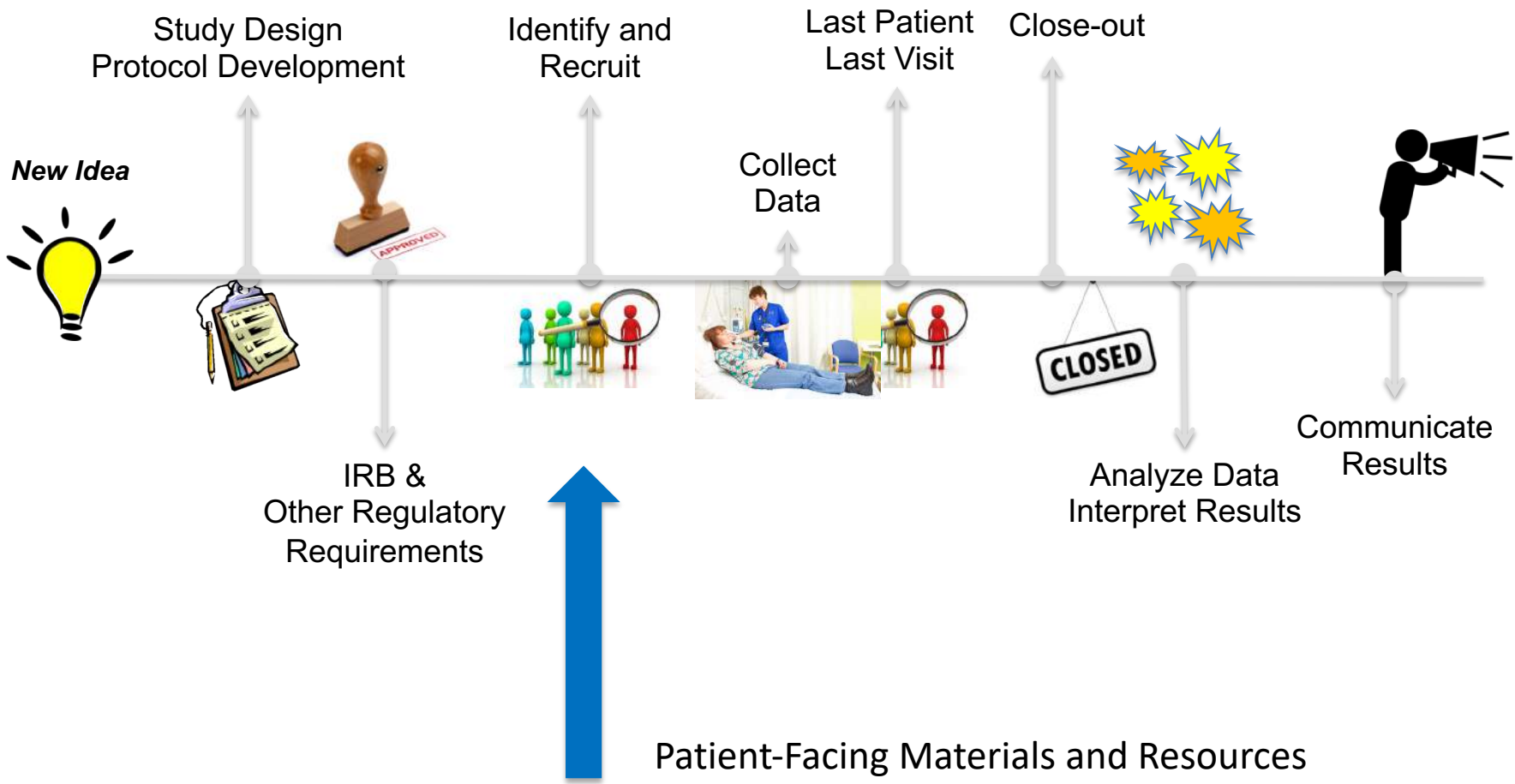
Enhancing and promoting ongoing study participation

Providing detailed study information to support informed decision-making



Bilateral engagement and partnerships are always of benefit

Participant journey



Informational Materials for Prospective Participants

Available in

- English
- Albanian
- Portuguese
- Arabic
- Italian
- Russian
- Cape Verdean
- Khmer/Cambodian
- Spanish
- French
- Korean
- Chinese
- Greek
- Polish
- Vietnamese

Brochures

The screenshot shows a website interface for informational materials. On the left is a dark blue sidebar with a list of brochure topics. The 'Genetic Research' item is highlighted. On the right is a white content area showing a preview of the 'Genetic Research' brochure. The preview includes a list of questions and a photograph of a scientist in a lab coat and safety goggles. Below the preview are two sections for downloading PDFs, each with a language selection dropdown menu.

Should I be a research subject?

Research Subject Bill of Rights

Social and Behavioral Research

Genetic Research

Blood Draw for Research

CT Scans for Research

MRI Scans for Research

PET Scans for Research

Stem Cell Research

Surrogate Decision-Making in

Genetic Research

- What is genetic research?
- What does it mean to take part in genetic research?
- What are the risks of taking part in genetic research?
- What are my rights and what protections are in place?
- Questions to ask before agreeing to participate in a genetic research study

Download a PDF

Choose your language

High Resolution Downloads

Choose your language

Projects advancing health literate translation

Why Volunteer in Clinical Research?

- > The development of new medicines would be impossible without participation of research volunteers.
- > By volunteering in a study, you are contributing to medical research.
- > You could also help researchers learn about a disease or condition.
- > In some cases, you can try a new drug that is not available outside of the study. These new drugs, procedures, or treatments may not be more effective than the standard of care, but they may be available.

10 Questions to Ask Before Joining a Study:

- > Why is the research being done?
- > What is expected of me as a participant in the research?
- > How will I benefit from the research?
- > Could the research hurt me?
- > What will the researcher do with my information?
- > Will the research cost me anything?
- > Who pays if I'm unexpectedly injured?
- > How long will the study last?
- > What happens if I decide to leave the study?
- > Who should I call if I have a question about the research?

임상 연구에 자발적인 참여가 필요한 이유가 무엇입니까?

- 여러분들의 자발적인 참여 없이는 새로운 진료 기술이나 치료법의 개발이 불가능합니다.
- 여러분들이 임상 연구에 자발적으로 참여하게 되면, 의료 연구에 기여함으로써 다른 사람들에게 도움이 될 수 있습니다.
- 연구자들이 질병이나 질환을 연구하는 데에 큰 도움이 됩니다.

Informational Materials for Prospective Participants:

- 25 brochures developed
- 15 languages available

- 이 연구를 통해 내가 받게 되는 혜택은 무엇입니까?
- 이 연구가 저에게 해를 끼칠 수 있습니까?
- 연구진이 저의 정보를 가지고 무엇을 합니까?
- 이 연구에 참여하는 데 제가 지불해야 하는 비용이 있습니까?
- 연구에 참여하다가 예기치 않게 제가 신체적 손상을 입으면 누가 그 비용을 부담합니까?
- 연구 기간은 얼마나 됩니까?
- 연구 참여를 도중에 포기하기로 결정하면 어떻게 됩니까?
- 이 연구에 대한 질문이 있는 경우 누구에게 전화를 해야 합니까?
- 제 세포 조직으로부터 만들어진 조직이나 세포 주가 다른 사람에게 이식이 되지는 않습니까?

연구 대상자의 권리

연구 대상자는 다음과 같은 권리를 가집니다.

- 친절하고 공손한 치료를 받을 권리
- 연구로 알아 내거나 하는 것이 무엇인지에 관해 알 권리
- 연구 대상자에게 어떤 일이 일어날 것인지, 기술이나 의약품, 의료기기 등이 기존 것들과 어떻게 다른지에 관해 알 권리
- 연구 기간 동안 언제든지 연구에서 탈퇴할 권리

임상 연구에 꼭 참여해야 합니까?

- 연구 진행 도중 연구 대상자의 안전에 영향을 미치거나 계속 연구에 참여할 의사에 영향을 미칠 수 있는 새로운 정보가 있을 경우 이에 관해 알 권리
- 연구에 참여하지 않을 권리, 또는 연구가 시작 된 후에 이 연구 참여에 관한 마음을 바꿀 수 있는 권리 (이러한 결정은 연구 대상자가 병원에서 받는 진료에 영향을 미치지 않습니다.)
- 연구 대상자 본인이 서명한 동의서 사본을 요청할 수 있는 권리



임상 연구 참여 과정의 이해를 위한 지침서

Plain language is essential but not sufficient

United Health Group

www.justplainclear.com

English

Spanish

Portuguese

And no need to reinvent
the wheel

The screenshot shows the homepage of the Just Plain Clear Glossary. At the top, there are navigation links for "VIEW THE GLOSSARY:" in "ENGLISH", "EN ESPAÑOL", and "EM PORTUGUÊS". Below this, the "UNITEDHEALTH GROUP" logo and "Just Plain Clear® Glossary" are displayed. There are also "HOME" and "CONTACT US" links. The main heading reads: "Thousands of health care terms defined in plain, clear language to help you make informed decisions." Below the heading are two options: "SEARCH BY WORD" (selected) and "BROWSE BY LETTER". A search bar contains the placeholder text "Search for a health care term..." and a yellow "SEARCH" button. The page is divided into three columns: "Top 5 Terms" (listing EOB, deductible, HMO, Medicaid, and out-of-pocket cost), "Term of the Week" (registered nurse), and "Uniform Glossary" (with a PDF icon and a link to "View the Uniform Glossary").





Injection Guide for Study Drug or Placebo (Days 1-5) and Panel B (Days 6-10)

Placebo Injection

Each vial contains 1 mL of study drug or matching placebo. The volume removed from the vial determines the dose administered. The study staff will tell you how much to inject from each vial.

Important Information

- ✧ Refrigerate kit box: Do Not Freeze.
- ✧ Vials should only be used one time.
- ✧ Only uncap the vials that you are preparing to inject.
- ✧ Only inject the volume instructed by study staff. Do not inject the entire contents of either vial.
- ✧ Always use a new site-provided syringe/needle for each injection.

Step 1: Prepare Vials

- Remove 2 vials from the kit box and return kit box to the refrigerator.
- Allow vials to come to room temperature for at least 15 minutes.
- Vials should then be inverted a minimum of three times.
- Wash your hands with soap and water.

Step 2: Prepare Syringe

- Remove the cap from one of the vials and wipe the top of the vial with an alcohol swab.
- Open a new syringe and needle.
- By pulling back on the plunger, draw air into the syringe up to the mark of the volume to be injected and then slowly inject the air into the vial.
- Keep the needle in the vial and turn the vial upside down. Make sure that the needle tip is well below the surface of the liquid in the vial.
- With the tip of the needle in the liquid, pull slowly back on the plunger to get the right volume into the syringe.
- Check the syringe for air bubbles. If there are bubbles, hold both the vial and syringe in one hand, and tap the syringe with your other hand. The bubbles will float to the top. Push the bubbles back into the vial, then pull back to get the right volume of study drug/placebo.
- When there are no bubbles, take the syringe out of the vial. Put the syringe down carefully so the needle does not touch anything.

Step 3: Injection

- Clean an injection site that is about 2-3 inches away from your belly button on your abdomen with a new alcohol swab. Let dry thoroughly.
- Hold the syringe in the hand that you will use to inject study drug. Use the other hand to pinch a fold of skin at the cleaned injection site.
- Use the injection technique shown to you by the study staff.
- After the needle is inserted and while pinching the skin, pull the plunger back slightly. If no blood appears, steadily push the plunger all the way down until the study drug is injected. **Note:** If blood enters the syringe, remove the syringe, clean and prepare another spot on your abdomen and using the same syringe/needle, inject the product.
- Leave the syringe in place for about 6 seconds after injecting (the pinch may be released) and remove. After the needle is removed, you can apply light pressure with clean gauze or cotton ball but, do not rub the site.
- Place used syringe/needle (do not re-cap the syringe) in a sharps disposal container provided by the site.



How to give yourself the study medicine

Panel A (Days 1-5) and Panel B (Days 6-10)

Study medicine

Each bottle holds 1 mL of active drug or placebo.

The study staff will tell you how much medicine to use each time (this is called your dose). Only give yourself the dose the study staff told you. Do not use all the medicine in the bottle.

The study staff will tell you how much to inject from each bottle.

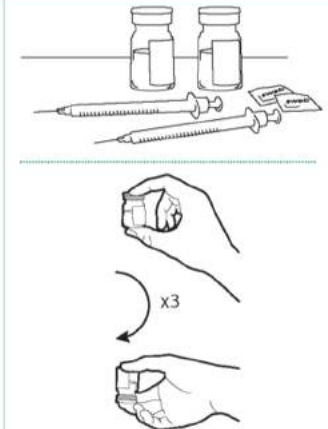
Important safety information

- Refrigerate the kit box – Do not freeze.
- Only use each bottle 1 time.
- Use a new syringe and needle each time.
- Only uncap the bottles when you use them.

Steps to give yourself the study medicine

Get ready

1. Gather your supplies:
 - 2 syringes
 - 2 bottles of medicine
 - 2 alcohol swabs
2. Take out 2 bottles from the kit box and put the kit box back in the refrigerator.
 - Let the bottles sit on the counter for at least 15 minutes to get to room temperature.
 - Turn the bottles upside down and then right side up at least 3 times.
3. Wash your hands with soap and water.



How An Advocacy Group Elevates The Patient Voice In Research And Clinical Trials

By Stevan W. Gibson, pre

In medical product develop
reality is that failure is the
Over the past several deca
community has seen prev

Adding the Patient's Voice to Collaborative Clinical Trial Efforts

Use patient voice to improve clinical research



dan sfera
Feb 1 · 3 m

If you work with the community and use *their* language, by default, you are more likely to be health literate in your communications.

- An MRCT workgroup member, patient advocate

ers in

Chienorauck, Kirk Jernigan, Julie Schulman



PEER REVIEW

As patients take more active roles in decision-making about health, healthcare, clinical trials, and regulatory activities, their influence has changed how sponsors and researchers view patient involvement in clinical research. Once regarded as "subjects" who had research performed on them, patients are now contributing across the spectrum of clinical development, including in the design and planning of research protocols, selection of outcomes and endpoints, development of recruitment and retention strategies, and dissemination of research results. The unique perspectives afforded by patients' lived experiences can inform researchers' approaches and help identify knowledge gaps. By sharing their experiences of the daily burden of disease and their perspectives regarding unmet needs, therapeutic burdens,

A systems approach

- Corporate and individual commitment to communication and, I would argue, participant engagement throughout the process
- Trials engineered to deliver results that are important to the participants and patients and their loved ones, and to society
- Process—like any other—that requires dissection, analysis, and reengineering
 - Plain language: terms, use and meaning in relevant culture
 - Design, visualization, numeracy
 - Education and training of all involved
 - Commitment to provide the resources required
 - Tools and resources to simplify where possible
 - Iterative quality improvement
 - Incentive structures for desired behaviors
 - Oversight, metrics, tracking, and transparency built as part of process

HEALTH LITERACY IN CLINICAL RESEARCH

ABOUT | PARTICIPANTS & PUBLIC | TRIAL LIFE CYCLE | TOOLS | INSTITUTIONAL RESOURCES

**COMING
SOON!**

CLINICAL TRIAL LIFECYCLE



DISCOVERY



RECRUITMENT



CONSENT



ON STUDY



END OF STUDY

MRCT Center endorses the use of health literacy practices when developing clinical research information for patients and participants

We support sharing understandable research information throughout the clinical trial life cycle. All stakeholders can communicate using health literacy best practices that build trust in the research enterprise.

Thank you!

Please contribute!

Questions
And
Discussion

With huge thanks to Sylvia Baedorf Kassis, Laurie Myers, Christopher Trudeau

bbierer@bwh.harvard.edu

<https://mrctcenter.org/>