

BRIDGE Patient to Investigator Training Module 3 Types of Research Studies Summary Document

What is Research? Is a process that uses a scientific approach rather than opinions to improve health. Is focused on increasing our understanding of a topic and is designed to answer a question through planned, organized steps.

Why do we do Research? Research helps us answer a question, make a decision or understand a topic systematically, by following a plan and putting our opinions aside.

Research is done in many steps:

- **Molecular**—What does the disease look like at the cellular level and can we impact the process?
- **Animal**—Is there any evidence that this works in animals with conditions similar to humans?
- **Human Subjects (Patient-Focused)**—Studying in humans for safety and then people with the disease for impact on people/patients; the type of research BRIDGE Training is focused on.

Finding a Question and Study Type:

Making decisions in medicine requires answering many questions. Questions can be answered by different types of research studies. The questions in the box to the right are examples of what is often asked by physicians and patients.

- What is the cause of the condition or disease?
- What is the natural progression of the disease if it is not treated?
- What will happen next?
- How many other people have this same disease or condition?
- How does the body deal with this disease?
- How do other people cope with this disease?
- If a specific treatment is given, what will change and is it safe?
- Does the treatment impact different groups (ethnic, gender, race) of people in different ways?

Types of Research:

Research can be divided into different categories and types which include the following:

- **Observational** - Studies that use existing information or new information by watching without interfering. There are different types of observational studies – Cohort Study, Cross Sectional Study, Case Control Study and Epidemiology Studies. Click [here](#) to see a summary of those research studies.
- **Experimental** - Studies that require something new or include some type of action/change. There are different types of experimental studies – Randomized Controlled Trial, Pragmatic Clinical Trials and Comparative Effectiveness Trials. Click [here](#) to see a summary of those research studies.

These studies can also be divided into other categories liked **Quantitative, Qualitative and Mixed Methods**

Quantitative	Qualitative	Mixed Methods
The most common type of medical research	Information collected is often ideas, opinion, beliefs, attitudes, concerns (ideas)	Uses both qualitative and quantitative together
Uses tests or questionnaires or surveys to collect information	Can use focus groups or interviews or oral histories	Might use qualitative first to decide what type of surveys or other quantitative tests to use
The information or data is recorded as numbers	The information is recorded in words not translated to numbers	
Analysis of the data uses the numbers to give results	Analysis of the information tries to summarize the ideas into areas of thoughts often called domains	

Patient-Centered Research:

All types of research studies in any category can become patient-centered outcome research studies.

Patient-Centered Outcomes Research:

- Asks questions and studies topics that are of most interest to patients and their caregivers
- Is focused on patients' unique perspectives
- Is done with the belief that considering the patient perspective will improve how research questions are developed and how research is done
- Is the policy of the COPD Foundation that the best way to get the patient/caregiver perspective is to include patients/caregivers in the research process