



University of California
San Francisco

Residency Training in Practice- Based Research Program

Introduction and Overview

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Learning Objectives



Describe the "ecology" of medical care and medical research



Understand the value of practice-based research



Describe common categories of practice-based research



Overview of course structure and mentoring resources

Origins/Sponsors of this Program:

UCSF Clinical and
Translational Science
Institute (CTSI)

- San Francisco Bay Collaborative Research Network (SFBayCRN)

UCSF Department
of Family and
Community Medicine

- Family Medicine Alliance (FMA)

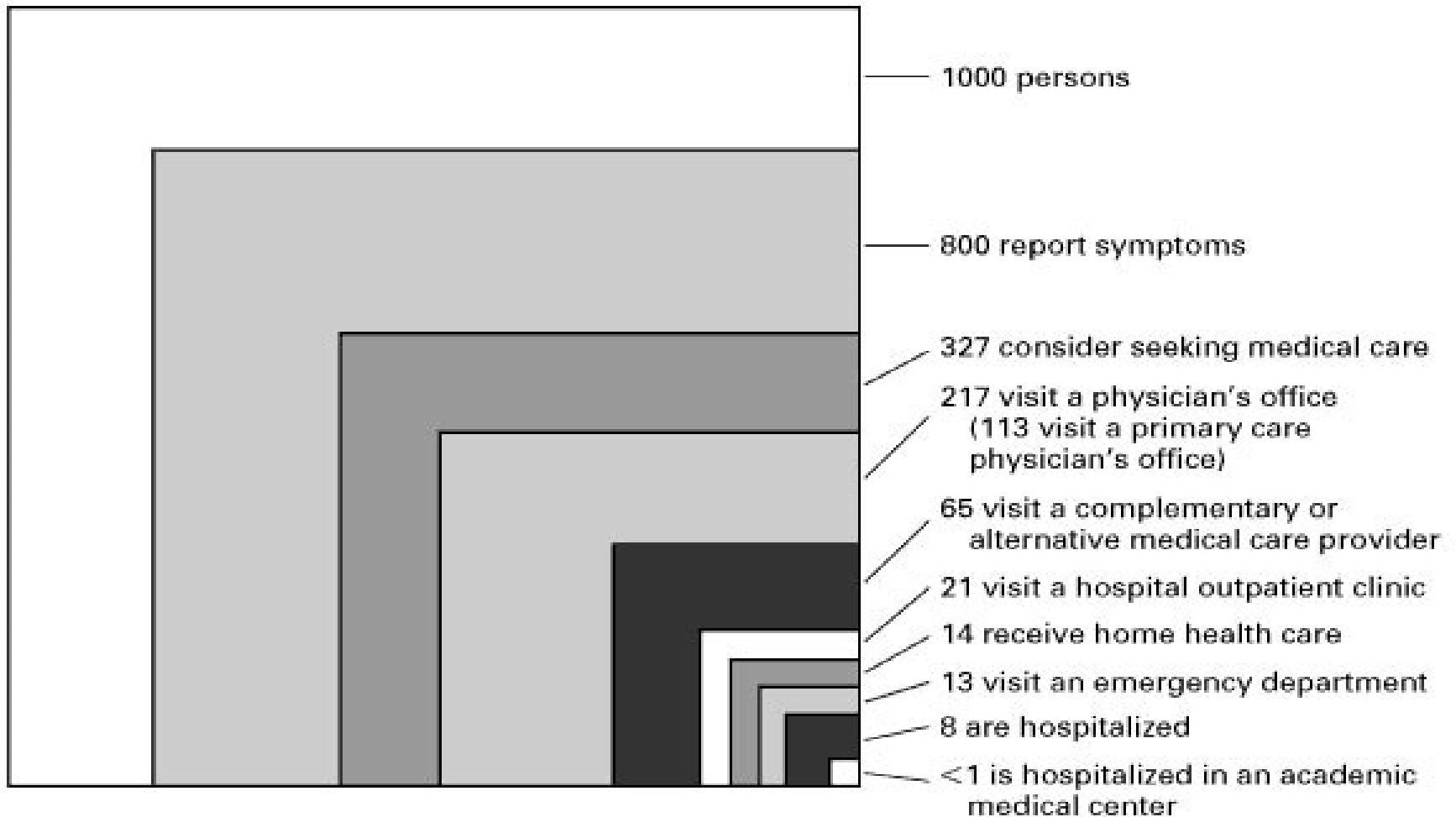
UCSF Department
of Epidemiology and
Biostatistics

- Designing Clinical Research and other course offerings for clinical research fellowship trainees



The Ecology of Medical Care

(monthly prevalence estimates of illness in the community and roles of medical establishment)



The Ecology of Medical Research

Funders decide what research questions are important

Academic institutions decide who gets an opportunity to do the research

Research teams decide how research is designed and executed

Clinicians, patients, and community stakeholders often have little input



The Ivory Tower

The Ecology of Medical Research

Research is often designed in ways that introduce additional bias:

Hypotheses with implicit
or unrecognized bias

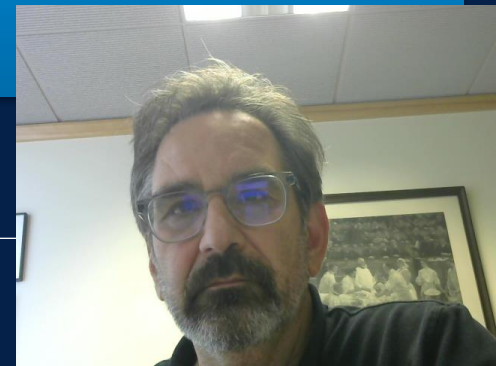
Exclusion or mis-
categorization of certain
groups of individuals

Use of data collection
processes that are
incomplete or biased

Biases incorporated into
data analysis and
interpretation



Results may be misleading or irrelevant to those whom the
research was intended to help



Why should you do practice-based research?

- Most patient care happens in community settings.
- Much still needs to be learned about how patient care services are best designed, managed, and implemented in the context of the desires and needs of diverse communities.
- Community-based clinicians can have an important role to play in identifying important research questions, discovering the answers, and putting the answers into practice.



Why should you do practice-based research?

- Researchers with a clinical perspective are well positioned to develop truly collaborative research processes, rooted in the experience of their patients and communities:
 - that address disparities and inequities in the way that health care is delivered
 - that are broadly applicable to populations and communities that are frequently overlooked by traditional research, and
 - that recognize and address biases that are frequently encountered in the academic research enterprise



What types of research questions can be answered in community based clinical settings?

	<i>Clinical research</i>	<i>Implementation research</i>	<i>Quality Improvement</i>
Goals	New or not fully tested intervention	Test an evidence-based intervention for new settings/populations	Develop/test a new program for specific patients in a local context
Types of Questions	Does annual FIT between 45-49 lead to increased CRC detection compared to usual care?	Does mailing FIT yearly to patients aged 45-49 yield higher screening rates than usual care?	Does our clinic's mailed FIT program work better if we send kits on patients' birthdays with postage paid return envelopes?
Types of Interventions	Drugs, procedures, therapies, narrowly defined interventions	Evidence-based interventions adapted for new situations or populations	Process change, training, work-flow redesign, staffing, IT solutions, etc.
Types of Outcomes	Health outcomes, patient behavior	Often includes adoption, adherence, tailoring, sustainability	Often includes efficiency/process evaluation at system level

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Adapted with permission from Margaret Handley, PhD

Course Content

PART 1: Research Training & Protocol Development

- Introduction
- Developing the Research Question
- Stakeholder Engagement and Equity in Research
- Clinical Research with Human Subjects
- Quality Improvement
- Implementation Science & Program Evaluation

Each section will be accompanied by readings and homework leading to the completion of a 3-5 page research protocol

Course Content

PART 2: Research Project

- Implementation of project (may involve quality improvement, a clinical intervention, implementation science, or program evaluation)
- Analysis of results and development of a research abstract summarizing your findings
- Presentation of research findings at an academic conference
- Optional section on career development in scholarly research

Throughout the program, there will be ongoing mentorship by residency faculty, access to UCSF Consultation Services.

Your Residency Research Mentor



Welcome to the Journey!

