# Congratulations to the Evidence-based Practice Center on its 25<sup>th</sup> Anniversary 1997-2022

Oregon Evidence-based Practice Center, 1997-2012

Partners: OHSU and Kaiser Center for Health Research

Pacific Northwest Evidence-based Practice Center, 2012 - present



Partners: OHSU, Aggregate Analytics, Inc.,

and University of Washington



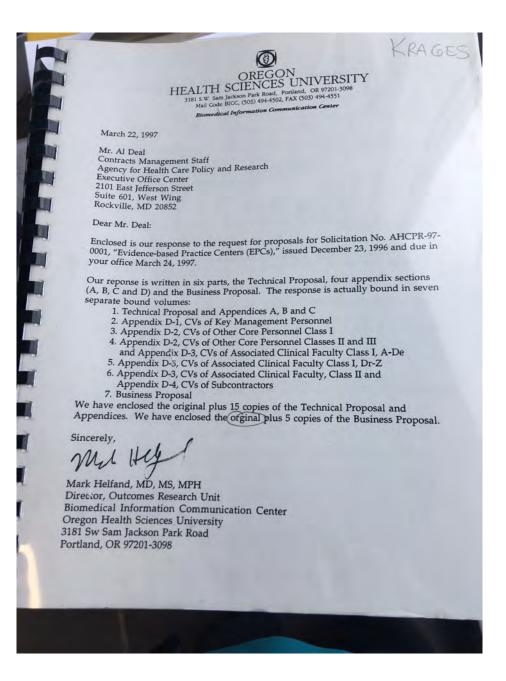
## It all began in the spring of 1997...

with a proposal to the then

Agency for Health Care Policy

and Research

Even with a misspelling in the cover letter, our proposal was funded!



# AHRQ EPC Program

- Vision: all healthcare decisions are based on the best available evidence, resulting in the best possible health outcomes
- Mission: transform healthcare by increasing the quality, availability, and use of evidence via scientifically rigorous and unbiased analysis of evidence



The Oregon Evidence-based Practice Center at OHSU was one of 12 sites selected in 1997 for a master IDIQ contract, known as EPC-I.

Of the 9 current EPCs in the AHRQ program, we are one of 5 who has been an EPC since the program began in 1997.

### **ECRI**

Johns Hopkins

Oregon Health & Science University

RTI/UNC

Southern California EPC

### The original EPC leadership team in 1997



Mark Helfand Director

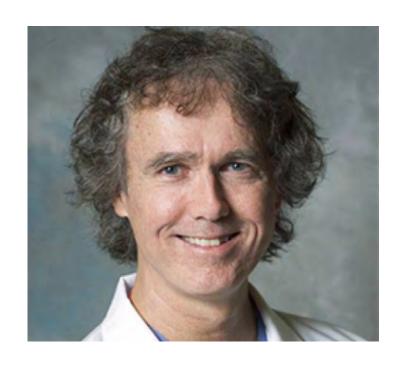


Mitch Greenlick
Associate Director



William Hersh
Associate Director

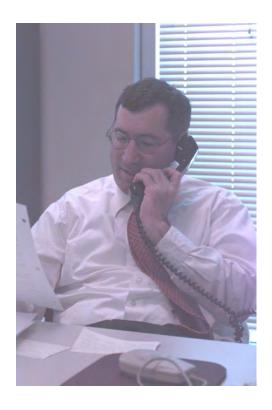
### Our first task order from AHRQ in 1997: rehabilitation for traumatic brain injury.



Randy Chestnut, MD Principal Investigator



Nancy Carney
Project Manager

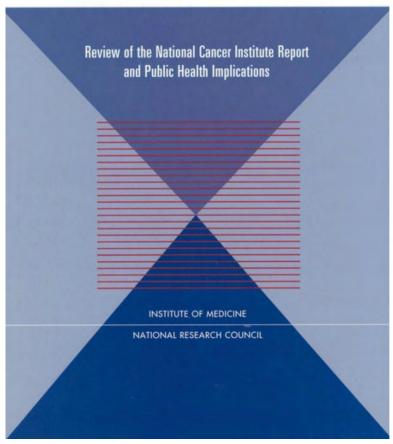


Mark Helfand, MD, MPH, MS EPC Director

That was followed by a report on rehabilitation for traumatic brain in injury in children and adolescents, in 1999.

### Early work by Mark Helfand, Karen Eden, and Susan Carson for the IOM, 1999





### Appendix F Screening for Thyroid Cancer: Background Paper

Karen Eden, Ph.D., Mark Helfand, M.D., and Susan Mahon, M.P.H.

Between 1951 and 1962 the United States Atomic Energy Commission conducted more than 100 aboveground detonations of nuclear weapons at the Nevada Test Site. Parts of Idaho, Montana, Utah, and Colorado had the highest exposure, but radioactive fallout was deposited throughout the United States. Infants and small children who drank milk or ate fresh vegetables contaminated with fallout were exposed to the highest doses of radiation, and as adults these persons are most at risk for developing thyroid abnormalities.

In 1997, the National Cancer Institute (NCI) released a report estimating the amount of radiation exposure Americans received from the nuclear tests (<u>USDHHS</u>, 1997). The report states that the average dose of radiation received by each American was 0.02 gray (Gy). Average exposures in some Western and Midwestern states were higher as much as 0.16 Gy in some areas. In addition to place of residence, the source and quantity of milk consumed by infants and young children can be used to help predict the dosage of the radioactive iodine (I-131) reaching the thyroid gland.

The NCI findings raised concerns that individuals exposed to higher dosages of I-131 might have a high risk of developing thyroid cancer later in life and that early detection and intervention for thyroid cancer could be useful for those persons.

To justify screening, there must be evidence that screening tests can detect thyroid cancer accurately and safely in asymptomatic individuals, that early treatment decreases mortality or morbidity from thyroid cancer when compared with delaying treatment until symptoms occur, and that the benefits of screening clearly outweigh the adverse effects of the screening program itself. Unfortunately, evidence about the ability of early detection to prevent morbidity and mortality from thyroid cancer is incomplete. In contrast to the case of screening for breast cancer, for example, there are no randomized, controlled trials of screening for thyroid cancer, either in the general population or in high-risk groups. Instead, the effect of screening must be inferred from observational studies regarding the prevalence of undiagnosed thyroid cancer and the potential benefit of early detection.

In this paper we address whether physicians should screen for thyroid cancer seen in asymptomatic patients thought to have been exposed to I-131. We focus on studies of screening in the general population and in high-risk groups. We examine the accuracy of the tests used for screening, the number of cancer patients detected with screening, and evidence that treatment of cancers found by screening improves outcomes.

# Since 1998, the EPC has produced 97 reviews to inform the work of the US Preventive Services Task Force.



EPC investigators working on

USPSTF reports in the early days:

Mark Helfand

Karen Eden

Jeanne-Marie Guise

Heidi Nelson

Evelyn Whitlock, Kaiser CHR

Investigators and staff from the Oregon and RTI/UNC EPCs at a USPSTF meeting in Rockville, MD, circa 1999.

Melanie Zimmer-Gembeck was the first EPC program administrator in 1997. Kathryn Pyle was EPC program administrator from 1998-2004.





# Marian McDonagh led the Drug Effectiveness Review Project (DERP), which began in 2001.

Drug Class Review on Proton Pump Inhibitors

FINAL REPORT

Marian S. McDonagh, PharmD Susan Carson, MPH

Produced by Oregon Evidence-based Practice Center Oregon Health & Science University 3181 SW Sam Jackson Park Road Mailcode: BICC Portland, OR 97201-3098

Mark Helfand, MD, MPH, Director

November 2002





### Healthcare topics under EPC-I (1997-2002) included

Rehabilitation for Traumatic Brain Injury (includes the supplemental project on Rehabilitation for Traumatic Brain Injury in Children and Adolescents), AHRQ

Screening for Thyroid Cancer, Institute of Medicine

Technical Support of the US Preventive Services Task Force, AHRQ

Assessment of Self-care Materials, Robert Wood Johnson Foundation

Screening for Skin Cancer, Institute of Medicine

Telemedicine for the Medicare Population (includes supplemental project on Pediatric, Obstetric, and Clinician-indirect Home Interventions in Telemedicine), AHRQ

Diagnosis and Monitoring of Osteoporosis in Postmenopausal Women (includes a supplemental project on the cost-effectiveness of various diagnostic strategies to identify osteoporotic women), AHRQ

Effectiveness and Cost-effectiveness of Echocardiography and Carotid Imaging in the Management of Stroke, AHRQ

Actinic Keratoses, AHRQ

Interventions to Increase Mammography Screening, Susan B. Komen Breast Cancer Foundation, Oregon & SW Washington Affiliate

Preventing Violence and Other Health-risking Social Behaviors in Adolescents, AHRQ

Use of Hyperbaric Oxygen Therapy for Brain Injury and Stroke, AHRQ

Vaginal Birth After Cesarean Section, AHRQ

The Effect of Healthcare Working Conditions on Patient Safety, AHRQ

Drug Class Reviews for the Oregon Practitioner-managed Prescription Drug Plan, State of Oregon Department of Human Services

### EPC-II, 2002-2007

Some reviews produced by the EPC in EPC-II included:

Newborn hearing screening

Screening for type 2 diabetes mellitus

Screening for lipid disorders in adults

Screening in primary care settings for illicit drug use

Screening and treatment for bacterial vaginosis in pregnancy

Evaluation and management of low back pain

Screening for HIV

Screening for elevated lead levels in childhood and pregnancy

Management of menopause-related symptoms

Screening for family and intimate partner violence

Screening for Hepatitis C

We also became the Scientific Resource

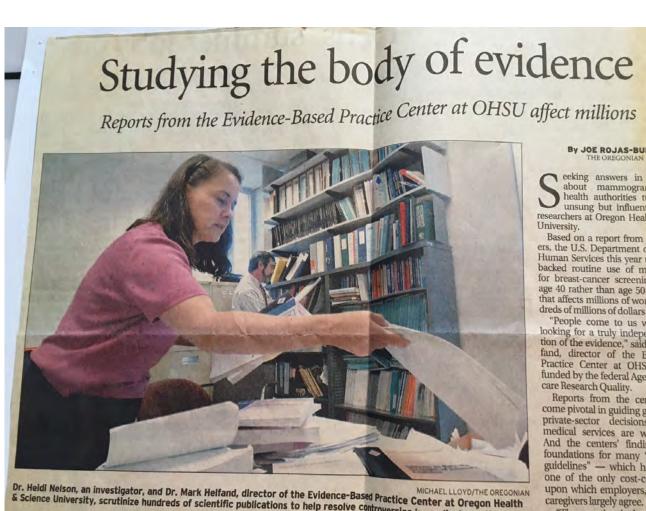
Center in 2005. In 2012, that became a

separate entity at the Portland VA Research

Foundation (Mark Helfand, director; Jeanne
Marie Guise, co-director).



### Coverage of the EPC by *The Oregonian*, early 2000's



& Science University, scrutinize hundreds of scientific publications to help resolve controversies in medical practice.

To settle health controversies, federal and state agencies often turn to the Evidence-Based Practice Center at Oregon Health & Science University, whose reports guided the following decisions:

### Screening for chlamydia infection

U.S. Preventive Services Task Force last year urged primary-caredoctors to screen for chlamydia all sexuBy JOE ROJAS-BURKE

eeking answers in the debate about mammograms, federal health authorities turned to an unsung but influential group of researchers at Oregon Health & Science

Based on a report from the researchers, the U.S. Department of Health and Human Services this year unequivocally backed routine use of mammography for breast-cancer screening starting at age 40 rather than age 50 - a decision that affects millions of women and hundreds of millions of dollars in spending.

"People come to us when they are looking for a truly independent evaluation of the evidence," said Dr. Mark Helfand, director of the Evidence-Based Practice Center at OHSU, one of 13 funded by the federal Agency for Health-

Reports from the centers have become pivotal in guiding government and private-sector decisions about what medical services are worth financing. And the centers' findings supply the foundations for many "evidence-based guidelines" - which have emerged as one of the only cost-control strategies upon which employers, consumers and

"The question is, how do we provide health care more efficiently?" said Lynne-Marie Crider, research and education director for the Oregon AFL-CIO. "Are we paying for the right stuff in health care?'

### 2003 USPSTF Work

### **Topics From Previous USPSTF Contract**

		4		
15	L	3	L	š

Topic	Investigator	Status	
Family Violence- Adult	Heidi Nelson	Accepted by <i>Annals of Internal Medicine</i> ; schedule for March 16, 2004 issue.	
Family Violence- Child	Heidi Nelson	Accepted by <i>Annals of Family Medicine</i> ; scheduled for March 30, 2004 issue.	
Hepatitis C	Roger Chou	Provisionally accepted by <i>Annals of Internal Medicine</i> .  Dr. Roger Chou revised the paper and resubmitted it to AHRQ, who is currently editing the paper and will then submit it to <i>Annals</i> .	
Lung Cancer	Linda Humphrey	Provisionally accepted by <i>Annals of Internal Medicine</i> . Dr. Linda Humphrey revised the paper and submitted it to AHRQ in November; AHRQ is holding the paper because the recommendation might be revisited. Dr. Humphrey will revise the SER in accordance with the paper.	
Risky Drinking	Evelyn Whitlock	Provisionally accepted by <i>Annals of Internal Medicine</i> ; revised and resubmitted to Annals. The statistician at <i>Annals</i> is currently reviewing the paper.	
Thyroid Screening	Mark Helfand	Accepted by <i>Annals of Internal Medicine;</i> scheduled for the January 20, 2004 issue.	

# Nicole Floyd served as EPC program manager from 2005-2009.



The Oregon Evidence-based Practice Center, a collaboration among Oregon Health & Science University, Kaiser Permanente Center for Health Research and the Portland Veterans Affairs Medical Center, recently was awarded \$10 million in federal research contracts from the Agency for Healthcare Research and Quality, a division of the Department of Health and Human Services.

The Oregon Evidence-based Practice Center, a collaboration among Oregon Health & Science University, Kaiser Permanente Center for Health Research and the Portland Veterans Affairs Medical Center, recently was awarded \$10 million in federal research contracts from the Agency for Healthcare Research and Quality, a division of the Department of Health and Human Services.

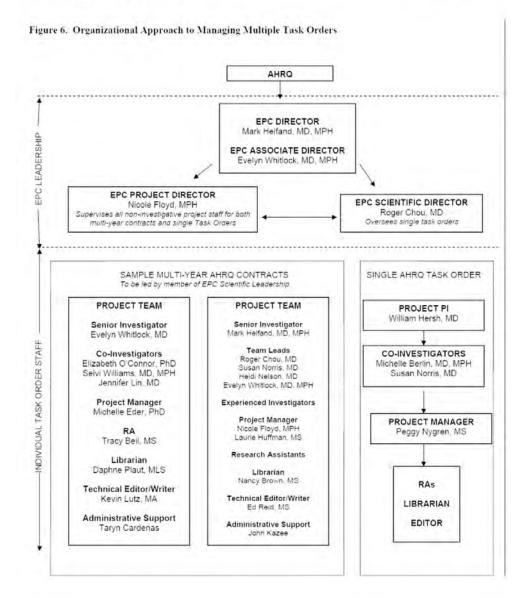
With these new contracts, the Oregon EPC will have received more than \$29 million in federal, state and private funding since its inception in 1997.

The new AHRQ contracts will provide renewed funding for the Oregon EPC's role as a Scientific Resource Center, helping other EPCs (14 total in North America) with the methodology for producing numerous comparative effectiveness review reports on a range of clinical, behavioral, economic and health care delivery topics.

"These contracts give us the opportunity to play an important role in providing evidence for decisions about comparative effectiveness," said Mark Helfand, M.D., M.P.H., M.S., director of the Oregon EPC; professor of medicine, and medical informatics and clinical epidemiology, OHSU School of Medicine; and staff physician, Portland Veterans Affairs Medical Center.

Evidence-based Practice Centers III

Oregon EPC



Org chart
from EPC-III
proposal

Dr. Heidi Nelson was featured in the New York Times in November 2009 related to breast cancer screening guidelines from the US Preventive Services Task Force and the evidence

from the EPC to inform recommendations.

Leah Nash for The New York Times

### Behind Cancer Guidelines, Quest for Data



See how this article appeared when it was originally published on NYTimes.com.

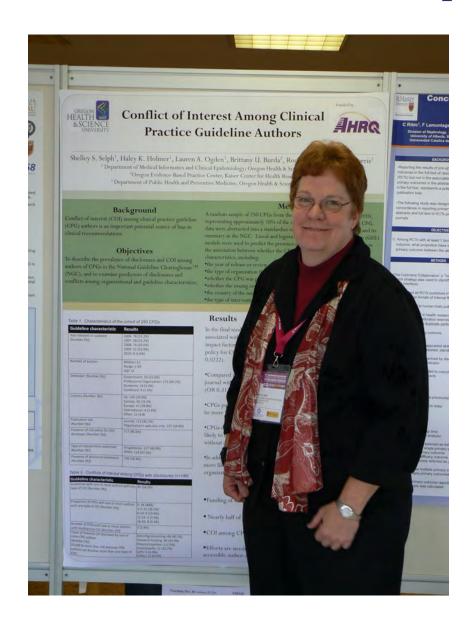
A few years ago, an independent group that issues guidelines on cancer screening decided to review its recommendations for breast cancer. It had last issued guidelines in 2002, but things had changed there was new science and researchers had become more sophisticated in analyzing existing data.

So the group, the <u>U.S. Preventive Services Task Force</u>, started what it thought would be a straightforward job: gathering the newest science and asking about the benefits and risks of breast cancer screening, the best time to start and how often women should be screened.

The group ended up recommending that most women forgo routine mammograms in their 40s and test every other year instead of every year.

The response was swift and angry. Professional groups, like the American College of Radiology, advocacy groups, like the American Cancer Society, and politicians said the guidelines would deprive women of a life-saving test. And some said the guidelines were politically motivated to save money.

### Shelley Selph, Cochrane Collaboration, 2011, Madrid, Spain



### Kim Peterson, Cochrane Collaboration, 2011, Madrid, Spain



# Dr. Rochelle Fu led a review on rhBMP-2 as part of the Yale Open Data Access

### Project in 2011-12.





May the data be with you.

Projects | YODA Project | Request for Proposal (RFP)

### **YODA Project**

Yale University Open Data Access Project (YODA Project)

### SYSTEMATIC REVIEW AND META-ANALYSIS REQUEST FOR PROPOSALS FROM THE YALE UNIVERSITY OPEN DATA ACCESS PROJECT, 2011

RELEASE DATE: Monday, September 12, 2011

NOTICE OF INTENT DUE DATE: Monday, September 19, 2011 APPLICATION SUBMISSION DATE: Tuesday, September 27, 2011

**AWARD DATE: October 2011** 

#### 1. Introduction

This request for proposal (RFP) is made by the newly established Yale University Open Data Access Project, an innovative collaboration between industry and academia designed to foster independent and objective evaluation of all clinical trial programs and surveillance data relating to a product currently approved for use in practice. It is intended to create a new standard of data disclosure by industry, linked to high quality independent analysis and dissemination.

Yale University seeks proposals for the rigorous systematic review and meta-analysis of all available data from published and unpublished clinical trial program data, as well as post-market surveillance data collected through registries, cohort studies, or spontaneous case reports relating to available products containing recombinant human bone morphogenetic protein 2 (rhBMP-2). The methodology will include, but not be limited to, individual patient-level meta-analysis conducted using clinical trial program data for 17 clinical trials provided by Medtronic, Inc., the manufacturer of rhBPM-2, as well as a systematic review of data available in the peer reviewed medical literature. Two centers will be selected to carry out these analyses independently. They will be selected on the basis of their experience and expertise conducting and disseminating similar syntheses, the methodological rigor of their proposed approach, the available institutional infrastructure and resources to support the work, and adequacy of mechanisms for protecting data security and confidentiality and addressing intellectual and financial conflicts of interest. Content expertise on the team in orthopedic traumatology and/or spinal fusion surgery is desirable although not essential.

# With EPC-IV (2012-2014), we became the Pacific Northwest Evidence-based Practice Center.



Elaine Graham, MLS, program manager - Roger Chou, MD, director - Marian McDonagh, PharmD, co-director

Partners were University of Washington Chase Alliance and Spectrum Research.

### EPC-IV (2012-2014) reviews included

Point of Care Tests for Antibiotic Use

Non-invasive Testing for Coronary Artery Disease

Non Invasive Treatments for Low Back Pain

Health Information Exchange

Cather Ablation for Atrial Fibrillation

Reducing Inappropriate Antibiotic Use in Acute Cough

Bladder Cancer

The Effectiveness and Risks of Long-Term Opioid Treatment in Chronic Pain

Imaging for Hepatocellular Carcinoma

Diagnosis and Treatment of Myalgic Enceophalomyelitis/Chronic Fatigue Syndrome

Jeanne-Marie Guise, Shelley Selph, and Elaine Graham, OHSU Research Week, 2012



### Bernadette Zahker, Amy Cantor, Heidi Nelson, OHSU Research Week, 2012





### The Pacific Northwest Evidence-based Practice Center and the Drug Effectiveness Review Project



**How DERP Works** 

12 to 17

Medicaid Agencies

and commissions research

**OHSU Center for Evidence-based Policy** 

Coordinates Gvernance Process

Pacific Northwest EPC Conducts

evidence reviews

**University of North Carolina EPC** 

subcontracted for some topics

#### **About DERP**

- The Drug Effectiveness Review Project began in 2003 in response to dramatic increases in the cost of pharmaceuticals, which lessened the purchasing power of state Medicaid budgets. A collaboration of group state Medicaid agencies formed to commission high quality comparative effectiveness reviews to inform evidencebased decisions about drugs in their programs.
- The Pacific Northwest Evidence-based Practice Center (EPC) leads the scientific work with support from researchers at the University of North Carolina EPC.
- Key tenets of the project are the high quality of the evidence analyses and the involvement of key stakeholders. The reviews, they adhere to international standards, and undergo extensive peer and public review. DERP was an innovator in involving stakeholders through direct and regular communication with the policy-makers commissioning the reports; as a result the reports have direct impact on policy and decision-making. Manufacturers are requested to submit unpublished evidence and to comment on draft documents.
- The EPC develops methods that are highly relevant to policy-makers, e.g., utilizing US FDA documents to identify publication and reporting bias, and using trial registries like ClinicalTrials.gov to incorporate evidence on drugs not yet on the US market, such that policy-makers have the most up-to-date evidence in real-time when the

drug is approved.

**DERP EPC Review Teams:** 

**PNW EPC** Marian McDonagh, PharmD Elizabeth Crabtree, PhD Shelley Selph, MD Brittany Holzhammer, MPH Rebecca Holmes, MD, MS Ryan Stoner, PhD Rochelle Fu. PhD

Colorado\*

10. Minnesota

Gerald Gartlehner, MD, MPH

Kylie Thaler, MD, MPH

Idaho\*

Arkansas\*

CADTH

California

California HCF

Kansas Michigan

**DERP Organizations Cover the Map** 

Governance Group Composition DERP 2003 to 2016\*

13 New York\*

12. Montana\*

14. North Carolina\* 15. Oregon<sup>a</sup>

17. Texas\*

18. Washington 19. Wisconsin\* 20. Wyoming

ol funds 0

\*Current DERP **Participants** 

### Research Commissioned

- Over \$10 million in commissioned research
- Over 100 Reports commissioned to date
- Comparative Effectiveness Reviews
- of Drug Therapies within Classes, across Classes, by Disease state and Updates of Reviews
- Preliminary Update Scans
- Expanded Evidence Scans
- Horizon Scans
- Topic Briefs for Topic Selection Decisions
- Single Drug Addenedum Reports

### **How Reports are Used**

- Reports are used by Pharmacy and Therapeutics Committees of participant state Medicaid Agencies to assist in making evidence-based policy decisions about drug therapy uses for their Medicaid enrollees.
- Decisions are made based on local factors, state leislation, and other relevant information.
- Evidence can be used to inform Preferred Drug Lists, Prior Authorization Criteria, Education, and Academic Detailing efforts.

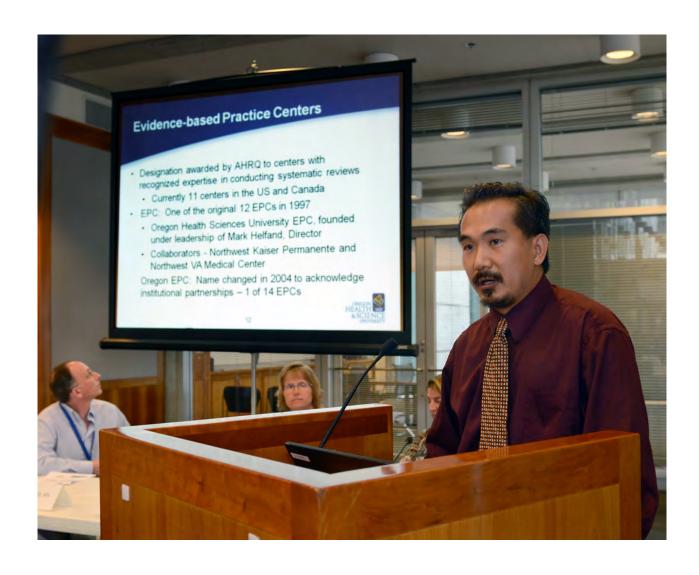
### Stakeholder Engagement

- DERP participants and EPC researchers hold monthly conference calls and biannual faceto-face governance meetings
- **EPC Researchers present findings** to Participants and P&T Committees and publishes methods and evidence review manuscripts

#### DERP EPC Methods:

cDonagh MS, Jonas DE, Gartlehner G, et al. Methods for the drug effectiveness review project. BMC Med Res Methodol. 2012:12:140.

# EPC director Roger Chou, at DMICE's 10<sup>th</sup> anniversary celebration in 2013



### Alex Ginsberg, Shelley Selph, and Ngoc Wasson, OHSU Research Week, 2014



### EPC-V, 2014-2019, reviews included:

Telehealth

Field Triage Guideline Revision: Glasgow Coma Scale

**Medication-assisted Treatment Programs** 

Treatments for Adults with Schizophrenia

Naloxone Guidelines for Emergency Medical Technicians

Telehealth for Acute and Chronic Consultation

Pre-Exposure Prophylaxis (PrEP) for the Prevention of HIV Infection

Physiologic Predictors of the Need for Trauma Center Care

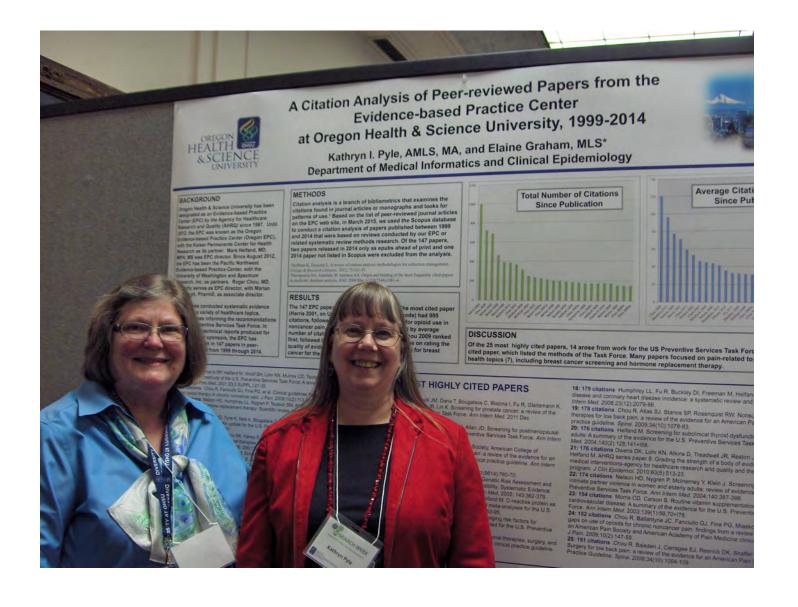
Non-Pharmacological Treatment for Pain

Pre-hospital Airway Management

Pharmacologic and Nonpharmacologic Treatments of PTSD

**Induction of Labor** 

# Elaine Graham and Kathryn Pyle, OHSU Research Week, 2015



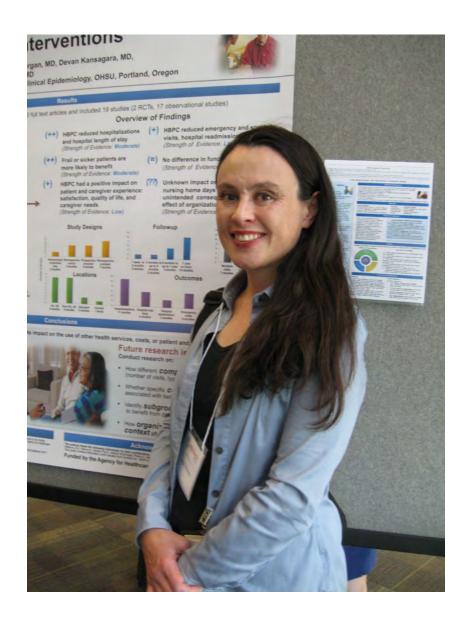
### Sandra Assasnik, OHSU Research Week, 2016



# Cindy Davis-O'Reilly, OHSU Research Week, 2016



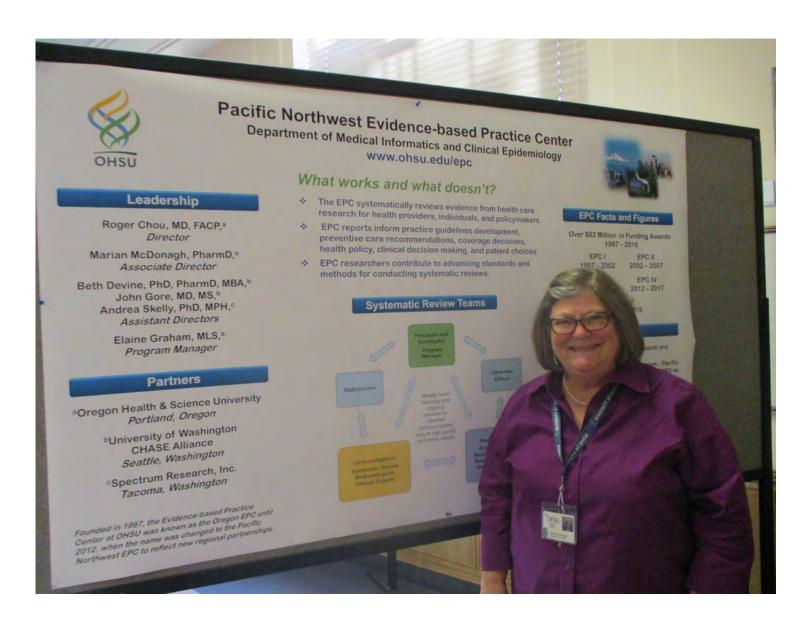
### Ngoc Wasson, OHSU Research Week, 2016



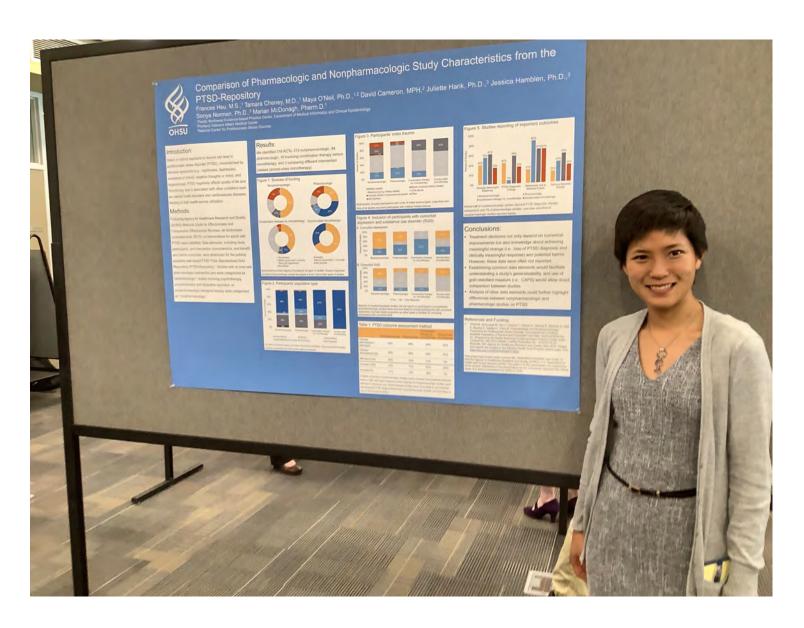
### Ilya Ivlev, Society for Medical Decision Making, 2016, Vancouver, BC



# Elaine Graham, EPC program manager, at BICC 25<sup>th</sup> anniversary celebration, 2016



### Frances Hsu, OHSU Research Week, 2019



# EPC-VI began in December 2019. Reviews have included (or are ongoing):

Advancing Health Information Technology to Improve Rural Health Outcomes

Living Systematic Review on Plant-based Treatment for Chronic Pain

Treatment of Acute and Chronic Pain in the Medicare Population

Radiation Therapy for Bone Metastases

Strategies for Integrating Behavior Health and Primary Care

Psychosocial and Pharmacologic Interventions for Disruptive Behavior in Children and Adolescents

Respectful Maternity Care

**Penetrating Traumatic Brain Injury** 

# Tosha Zaback, MPH, became EPC Program Manager in 2021. Today the EPC leadership includes Roger Chou, Tosha Zaback, Andrea Skelly, and Annette Totten.



Roger Chou EPC Director



Tosha Zaback
EPC Program
Manager



Annette Totten
Associate Director



Andrea Skelly
Interim Co-director

# One of our current partners, Aggregate Analytics, Inc., has worked on multiple task orders.



Andrea Skelly President of AAI



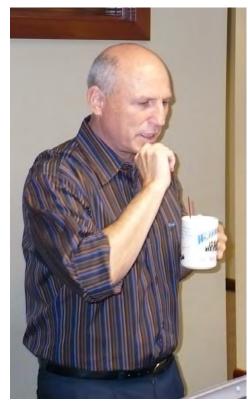
Shelby Kanter



Early days of Aggregate Analytics Aaron Ferguson, Erika Brodt, Cassie Winter



Shay Stabler-Morris



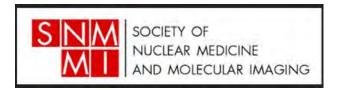
Joe Dettori Spectrum Research Past EPC Partner

#### Where the EPC used to work, in the pre-Covid days



BICC 5<sup>th</sup> floor

In addition to task orders from AHRQ, the EPC has prepared systematic reviews for a number of professional societies and other federal agencies and sponsors.



















I have to say this [invitation] makes me miss all of you so much! I really wish I could be there. Please send me pictures of everyone at the celebration and I hope to get back to Portland in 2023 to see everyone - better late than never!

Thank you for thinking of inviting me – Melanie (first EPC program administrator)

**Melanie Zimmer-Gembeck** 

**Professor** 

**Director, Family Interaction Program** 

Lead, Families, Community, & Culture, Griffith Centre for Mental Health

Member, Menzies Health Institute of Queensland

**School of Applied Psychology** 

Griffith University | Gold Coast Campus | Parklands Dr., G40\_7.86 |

Southport QLD 4222 | Australia

I am sorry I will be unable to attend this celebration as I will be out of town that day. It is a big milestone and I would be happy to see many former colleagues.

Thank you for the invitation!

Evelyn Whitlock

Former Associate Director



#### Happy Anniversary Oregon/PNW EPC!!

Near the end of my fellowship, Mitch Greenlick suggested that I talk with Mark Helfand about the EPC. Soon, I was working on a systematic review for the FDA – and I was hooked! That was 2004, and being a part of the EPC since then has been immensely gratifying – with its wonderful, talented people and the important, interesting work.

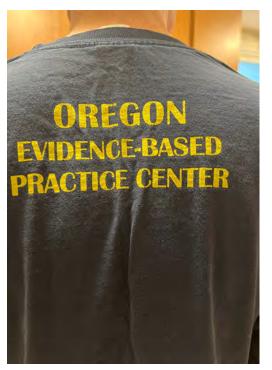
Here are photos of a shirt I made for our team in recognition of a particularly challenging series of reviews for the USPSTF.

Thanks to everyone for making the EPC such a success and such a great place to be!

Congratulations!

SURVIVED...

NOVEL RISK FACTORS
FOR CHD



**David Buckley** 

Thank you so much for your invitation to the AAI group.

Erika and I would truly love to join the celebration in person, but unfortunately, we are not able to make it work for a variety of reasons, despite our best efforts. If by chance something changes, we'll let you know.

We will be there in spirit and plan to join whatever virtual option there is.

We really appreciate being part of the EPC and celebrate its successes!

Good wishes, Andrea

Andrea C. Skelly, PhD, MPH
Epidemiologist
President, Aggregate Analytics, Inc.
Pacific Northwest EPC Assistant Director
for Aggregate Analytics, Inc.

Congratulations on reaching the 25<sup>th</sup> Anniversary of the PNW EPC at OHSU! Your efforts have made a tremendous contribution to advancing the field of evidence synthesis and to the therapeutic areas in which you have worked. The University of Washington is privileged to be a part of this effort.

I am confident that the work you have accomplished and the small part we at the UW have played, have contributed to the health of the populations under our care.

On behalf of all of us at the UW, we wish you continued success in the coming years!



With appreciation,
Beth, Sean and Paul
University of Washington

#### Congratulations on celebrating 25 years!!

We feel privileged to be part of your history and thrilled we get to continue to work with you all as close colleagues. Sorry we cannot be there in person to celebrate this huge achievement with you all.



Wishing you continued success,

Jennifer, Tracy, Elizabeth and Caitlyn on behalf of the Kaiser Permanente EPC

Aaron	Caughey	Investigator
Aaron	Ferguson	Investigator
Adam	Hoverman	Investigator
Alexander	Ginsburg	Staff
Allison	Low	Staff
Amy	Hermesch	Investigator
Amy	Cantor	EPC Core Investigator
Amy	Starmer	Investigator
Ana	Quinones	Investigator
Andrea	Diulio-Nakamura	Investigator
Andrea	Skelly	Interim EPC Co-director
Andrew	Hamilton	Librarian
Annalisa	Gorman	Investigator
Annete	Matthews	Investigator
Anne	Nedrow	Investigator

Annette	Totten	Associate Director
Ariel	Smits	Investigator
Arpana	Naik.	Investigator
Arpita	Twari	Staff
Azrah	Ahmed	Staff
Barbara	Ray	Staff
Barry	Russman	Investigator
Bashah	Rahman	Staff
Ben	Vandermeer	Investigator
Benjaimin	Morasco	Investigator
Benjamin	Chan	Statistician
Bernadette	Zahker	Staff
Beth	Smith	Investigator
Beth	Devine	Assistant Director, UW
Bhaskr	Arora	Investigator

Brian	Chan	Investigator
Brittany	Holzhamamer	Staff
Bruin.	Rugge	Investigator
Cara	Towle	Investigator
Carole	Most	Investigator
Carrie	Patnode	Investigator
Carrie	Phillipi	Investigator
Cathy	Emeis	Investigator
Chandler	Atichson	Staff
Christen	O'Haire	Staff
Christina	Bougatsos	Staff
Christina	Nicolaidis	Investigator
Christina	Sun	Investigator
Christina	Korownyk	Investigator
Christina	Sedgley	Investigator
Christina	Baumann	Investigator

Christine	Sedgley	Investigator
Christopher	Slatore	Investigator
Christopher	Evans	Investigator
Cindy	Davis-O'Reilly	Staff
Cindy	Morris	Investigator
Clay	Mann	Investigator
Connor	Smith	Staff
Craig	Fleming	Investigator
Craig	Newgard	Investigator
Dale	Kraemer	Statistician
Dene	Womack	Investigator
Daniel	Hartung	Investigator
Daniel	Jones	Investigator
David	Buckley	EPC Core Investigator
David	Hickam	Investigator

David	Cameron	PhD Student
Debbie	Cohen	Investigator
Debra	Gordon	Investigator
Deniz	Erten-Lyons	Investigator
Dennis	McCarty	Investigator
Devan	Kansagara	Investigator
Diane	Doctor	Staff
Diane	Thompson	Investigator
Duane	Elliot	Investigator
Ed	Reid	Staff
Elaine	Graham	EPC Program Manager
Eli	Schwarz	Investigator
Elizabeth	Haney	Investigator
Elizabeth	White-Chu	Investigator
Ellen	Tilden	Investigator

Emily	Harris	Student
Emily	Morgan	Investigator
Eric	Chang	Investigator
Erica	Hart	Staff
Erika	Ensrud	Investigator
Erika	Cottrell	Investigator
Erika	Nakamoto	Staff
Erika	Brodt	Staff
Erin	LeBlanc	Fellow
Esther	Choo	Investigator
Evelyn	Whitlock	Past Associate Director
Fred	Rivera	Investigator
Frances	Hau	Staff
Gary	Miranda	Editor
Gary	Riachitelli	Investigator

Gillian	Sanders-Schmidler	Investigator
Haley	Holmer	Staff
Heidi	Nelson	Past Co-director
Hetal	Patel	Investigator
Howard	Balshem	Staff
Hugo	du Coudray	Investigator
Ian	Blazina	Staff
llya	Ivlev	Fellow
Jade	McIntosh	Staff
Janice	Jou	Investigator
Jenne	Friedly	Investigator
Jeson	Hashima	MD student
Jeanne-Marie	Guise	Lead for CER Reviews
Jeffrey	Jarvik	Investigator
Jennifer	Priest Mitchell	Staff

Jennifer	Erickson	Investigator
Jennifer	Pillay	Investigator
Jesse	Wagner	Staff
Jease	Fann	Investigator
Jessi	Khangura	Investigator
Jessica	Bordley	Investigator
Jessica	Griffin	Staff
Jessica	Weiss	Investigator
Fil	Miller	Fellow
Jillian	Romm	Investigator
Jim.	Wallace	Staff
Joan	Ash	Investigator
Joe	Dettori	Investigator
John	Gore	Assistant Director, UW
Joseph	Babigumira	Investigator

Josh	Kaplan	Investigator
Judith	Turner	Investigator
Julie	Kahler	Investigator
Karen	Eden	Investigator
Kari	Tyne	Investigator
Karli	Kondo	Investigator
Karrie	Swarztrauber	Investigator
Katherine	Jorda	Investigator
Katherine	Mackey	Investigator
Katherine	Palm-Cruz	Investigator
Kathleen	Carlson.	Investigator
Kathryn	Pyle	Past Program Administrator
Katie	Gustafson	Investigator
Katie	Artis	Investigator
Katrina	Murphy	Staff

Ken	Gleitsmann	Investigator
Keith	Rogers	Investigator
Kevin	Winthrop	Investigator
Kim	Mauer	Investigator
Kim	Peterson	Staff
Kim	Vesco	Investigator
Kristin	Dissinger	Investigator
Kurt	Freeman	Investigator
Leah	Williams	Editor
Leila	Okinaka-Hu	Fellow
Lia	LaBrant	Student
Linda	Humphrey	Investigator
Linda	Schmidt	Investigator
Lisa	Hartling	Investigator
Lois	Donovan	Investigator

Lucy	Stillman	Staff
Marc	Avery	Investigator
Maria	Monroe-DeVita	Investigator
Marian	McDonagh	Past Co-director
Mark	Helfand	Past EPC Director
Mark	Deffebach	Investigator
Mary Anne	Denman	Investigator
Mathew	Neth	Fellow
Matthew	Thompson	Investigator
Maya	O'Neill	Investigator
Meaghan	Lewis	Investigator
Melanie	Zimmer-Gembeck	Past Program Adiministrator
Melissa	Weimer	Investigator
Michele	Freemen	Staff
Michelle	Berlin	Co-investigator

Mikel	Aickin	Statistician
Miranda	Pappas	Staff
Mitch	Greenlick	Past Associate Director
Mohamud	Daya	Investingator
Monica	Daeges	Investigator
Nancy	Carney	EPC Core Investigator
Nancy	Elder	Co-investigator
Neil	Swanson	Co-investigator
Ngoc	Wasson	Staff
Nicole	Floyd	Past Program Manager
Nicole	Marshall	Investigator
Patty	Davies	Librarian
Patty	Patterson	Investigator
Paul	Gorman	Investigator
Paul	Kraegel	Staff

Peggy	Nygren	Staff
Phillip	Coffin	Investigator
Pua	Motu'apuaka	Staff
Raj	Sehgal	Fellow
Randy	Chesnut	Investigator
Rebecca	Holmes	Staff
Rebecca	Jungbauer	Staff
Rick	Deyo	Investigator
Rita	Panoscha	Investigator
Rob	Hendrickson	Investigator
Robert	Steiner	Investigator
Robin	Paynter	Librarian
Robin	Hashimoto	Staff
Rochelle	Fu	Statistician
Roger	Chou	Current Director

Rosalind	Janik,	Staff
Rose	Relevo	Librarian
Ryan	Hansen	Investigator
Ryan	Stoner	Investigator
Semenths	Guitard	Staff
Sana	Al-Khatib	Investigator
Sara	Grusing	Staff
Sarah	Goodlin	Investigator
Sarah	Kopelvich	Investigator
Saurabh	Khandelwal	Investigator
Scott	Shipmen	Investigator
Sean	Rundell	Investigator
Sean	Sullivan	Investigator
Shandiz	Tehrani	Investigator
Shaun	Ramirez	Staff

Shelby	Kantor	Staff
Shelley	Selph	EPC Core Investigator
Somnath	Saha	Co-investigator
Spencer	Dandy	Staff
Stephanie	Detlefsen	Investigator
Stephanie	Bailey	Investigator
Steven	Kassakian	Investigator
Sudarahan	Iyer	MD/PhD Student
Sujata	Thakurta	Staff
Susan	Severance	Staff
Susan.	Woods	Investigator
Susan	Carson	Staff
Susan	Norris	Investigator
Tamara	Cheney	Staff
Thomas	Deloughery	Investigator

Investigators and Staff from Oregon Heath & Science University and our EPC partners: Kaiser Permanente Center for Health Research, University of Washington, Spectrum Research, and Aggregate Analytics (and subawards) who have worked on our EPC projects

Thomas	Jeanne	Investigator
Todd	Korthuis	Investigator
Tosha	Zaback	EPC Program Manager
Tracy	Dana	Librarian
William	Herah	Past Associate Director
Ximena	Levander	Investigator
Yasmin	McInerney	Medical Student
Yun	Yu	Statistician
Zoe	Stavri	Investigator

In addition to the leaders of the EPC, more than 240 investigators and staff over the past 25 years have contributed to making the EPC a success.

Since 1997, the EPC has received over \$103 million in external funding and has published nearly 300 papers.

Note: This list is not complete.

Apologies for inadvertently omitting any names.