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Career Development Pathways in Implementation Science

Elizabeth M. Yano, PhD, MSPH

Steven Asch, MD, MPH

Alison B. Hamilton, PhD, MPH

VA HSR&D Career Development Award Enhancement Initiative

October 10th, 2017

Background

- **Implementing research evidence into routine practice and policy requires:**
 - Diverse skills, training and experience
- **Most academic programs do not cover requisite didactic or experiential needs**
 - Training opportunities in implementation science methods remains limited
 - Need theoretical frameworks, measurement, trial designs, multilevel stakeholder engagement



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Purpose of Session

- **Explore career development pathways of implementation experts**
 - Examples from an epidemiologist, general internist, and anthropologist
- **Elucidate commonalities across different approaches to developing careers in the field**



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Polling Question #1

- **What is your primary role in VA?**
 - Student, trainee, or fellow
 - Clinician
 - Researcher
 - Administrator, manager, or policymaker
 - Other



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Polling Question #2

- **What best describes your implementation science experience to date?**
 - Have not done implementation research
 - Have collaborated on implementation research
 - Have conducted implementation research myself
 - Have applied for implementation research funding
 - Have led a funded implementation research grant



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So let's get started...

- **Elizabeth (Becky) Yano, PhD, MSPH**
 - Epidemiology, health services research, program evaluation, organizations
- **Steven Asch, MD, MPH**
 - General internal medicine, Clinical Scholar, epidemiology, palliative care, quality improvement
- **Alison Hamilton, PhD, MPH**
 - Medical anthropology, community health sciences, vulnerable populations



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Pathway #1 (Yano)

- **Started off in program evaluation**
 - Required anchoring in the “client” (funder and program being evaluated)
 - Evaluations outside VA working with foundations, community-based organizations, county staff...
 - VA entrée through evaluation of the early VA Pilot Ambulatory Care & Education (PACE) Program
 - Regional demonstration project to test academic global care teams, ambulatory care education, early EMR, etc.
 - Multiple stakeholders (including academic affiliates)



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Building Blocks

- **Pre-doctoral fellowship RAND Health Policy**
 - Medical Outcomes Study, Six Hospital Study on variations in processes and outcomes of care, etc.
- **UCLA PhD in Epidemiology but...**
 - Was working fulltime in evaluation/HSR
 - Integrated HSR/health policy into epidemiology to get to how health systems influence pop health
- **Experiential work created breadth/depth in absence of didactic/fellowship opportunities**



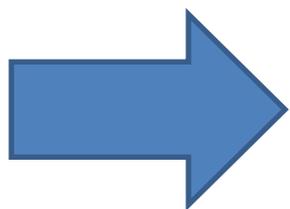
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Mentorship & Experiential Work

- **Worked with Lisa Rubenstein, MD, MSPH**
 - Pre-QUERI implementation vision with QI anchor
 - Depression collaborative care (TIDES/WAVES)
 - To QUITs (Sherman/Yano) and EQUIP (Young)
 - Development of evidence-based QI (EBQI) tenets



Supportive mentorship, hands-on engagement, experiential immersion, methods development, leadership opportunities in context of studies, expansion of teams (Seattle, Little Rock, Durham)



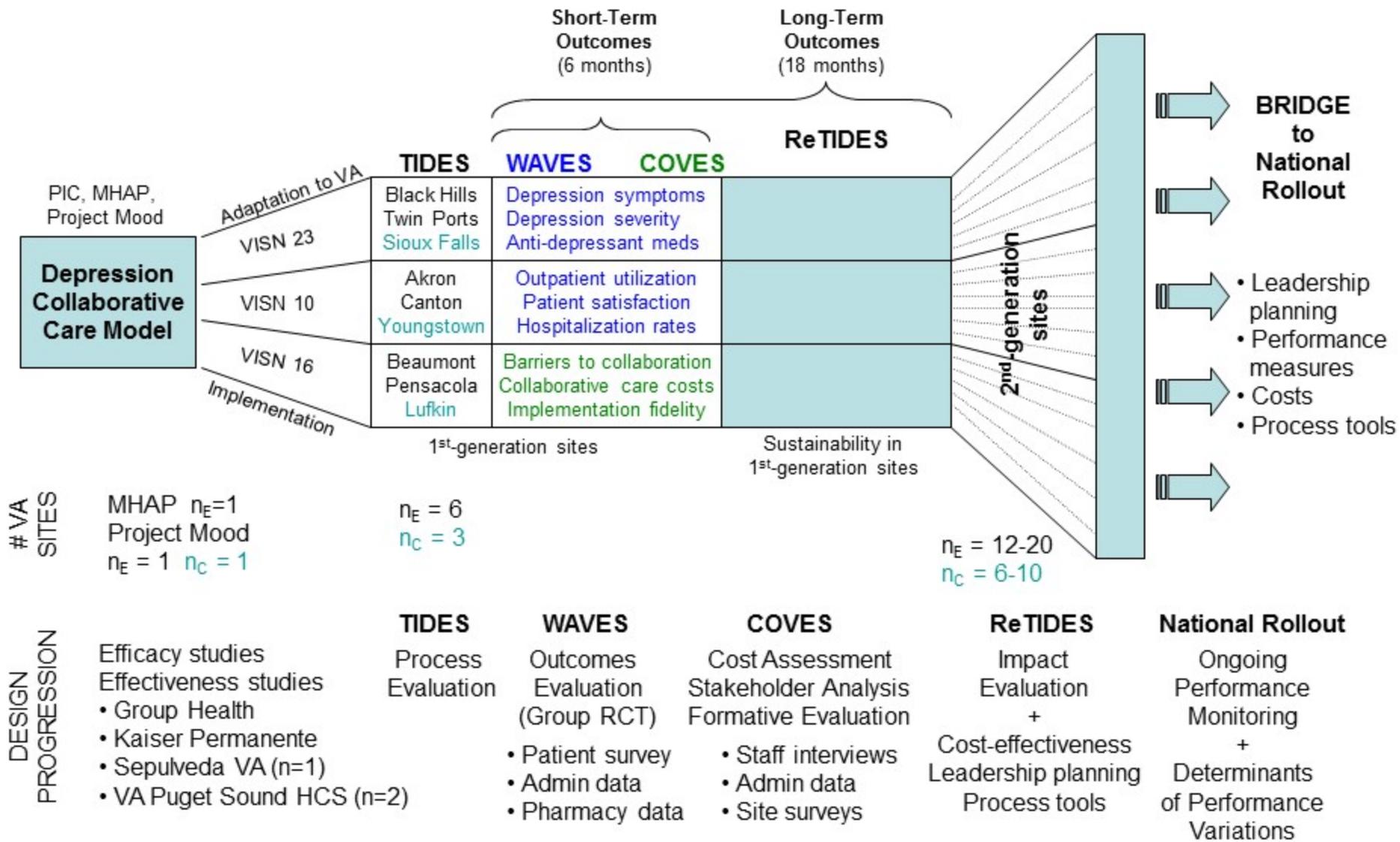
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VA Research-to-Practice Implementation: Trajectory Toward National Rollout



Embrace team science, uncertainty and varying to no control

- **Team science aspects very important**
 - Implementation science requires unusual degree of collaboration, partnership and trust building
 - Data sharing, multilevel stakeholder engagement, multidisciplinary, translation of data/findings into language useable by non-scientists (incl patients)
 - Understanding contextual factors (try walking in “another’s shoes”) and adaptations needed
- **Comfort w/uncertainty, nimbleness to adapt, recognize you have no authority in this space**



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Building and Leveraging

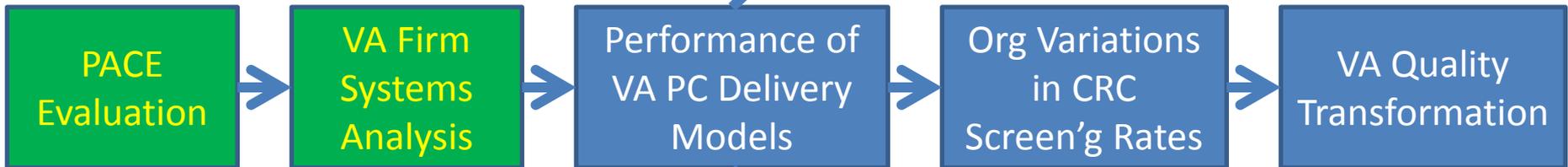
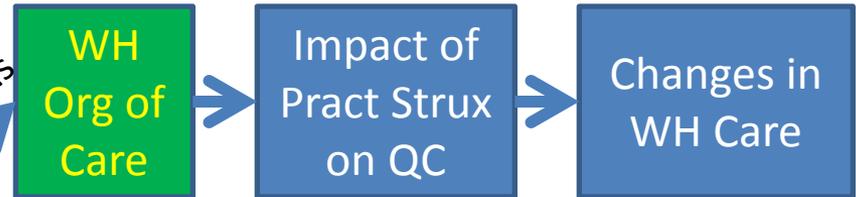
Early investment in partner-oriented work

1st org survey 2nd org survey 2001 vs 2007

Organization of women's primary care

Evaluation/organization of primary care

Paps, mamms



1st org survey

2nd org survey

Improving PC

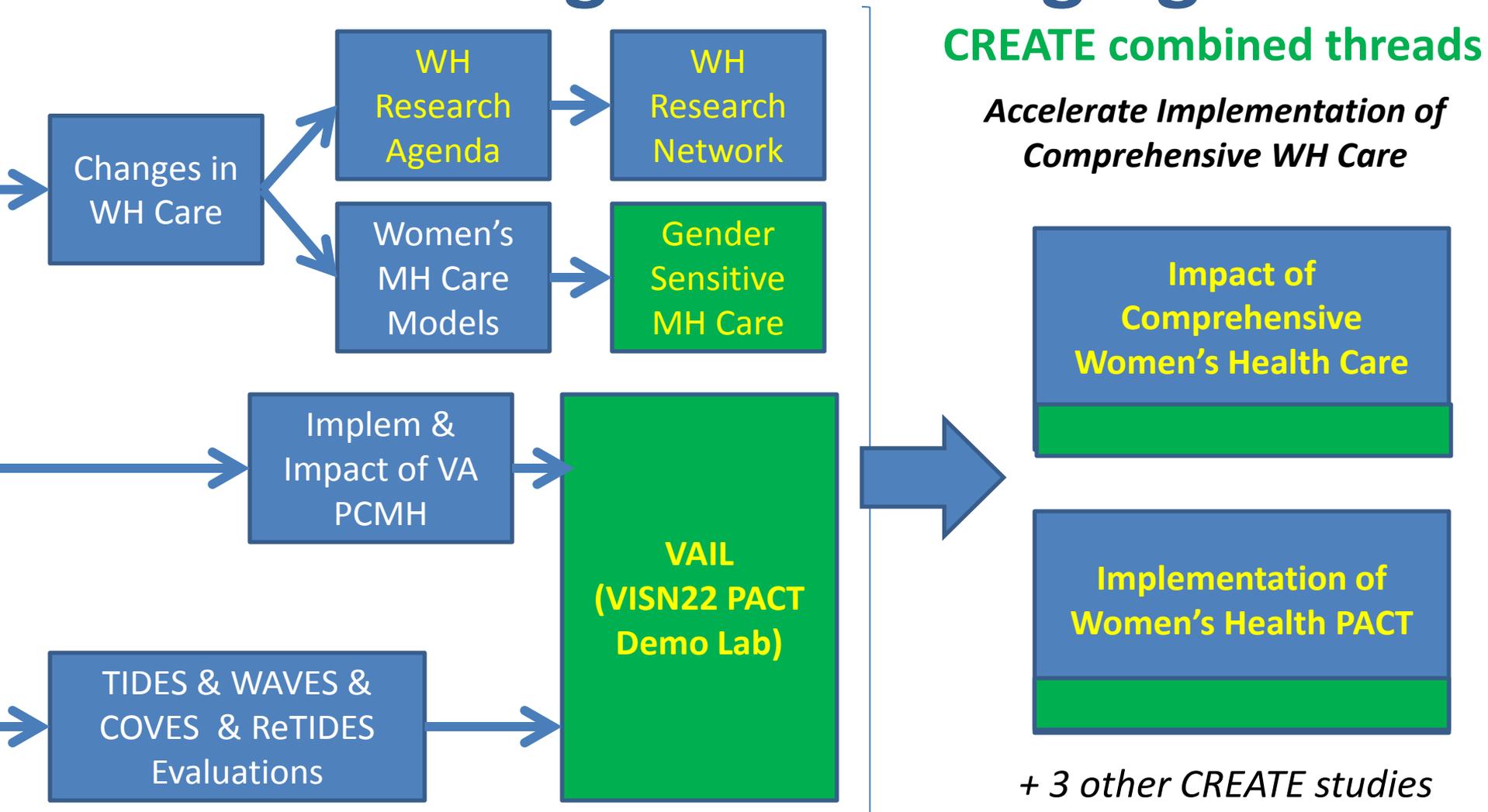


PC practice change, org influences on implem

 = operations funded

 = HSR&D or QUERI funded

Building and Leveraging



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= operations
funded



= HSR&D or
QUERI funded

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Filling the gaps...

- **Develop new collaborations and mentors**
 - Reach out for study design expertise as needed
 - Engage expert consultants where possible
 - Look beyond the usual suspects, many of whom are now oversubscribed
 - AcademyHealth Dissemination & Implementation attendees, workshops, professional networks
 - VA Implementation Research Group (and work groups)
 - Virtual collaboration a norm rather than exception



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Pathway #2 (Asch)

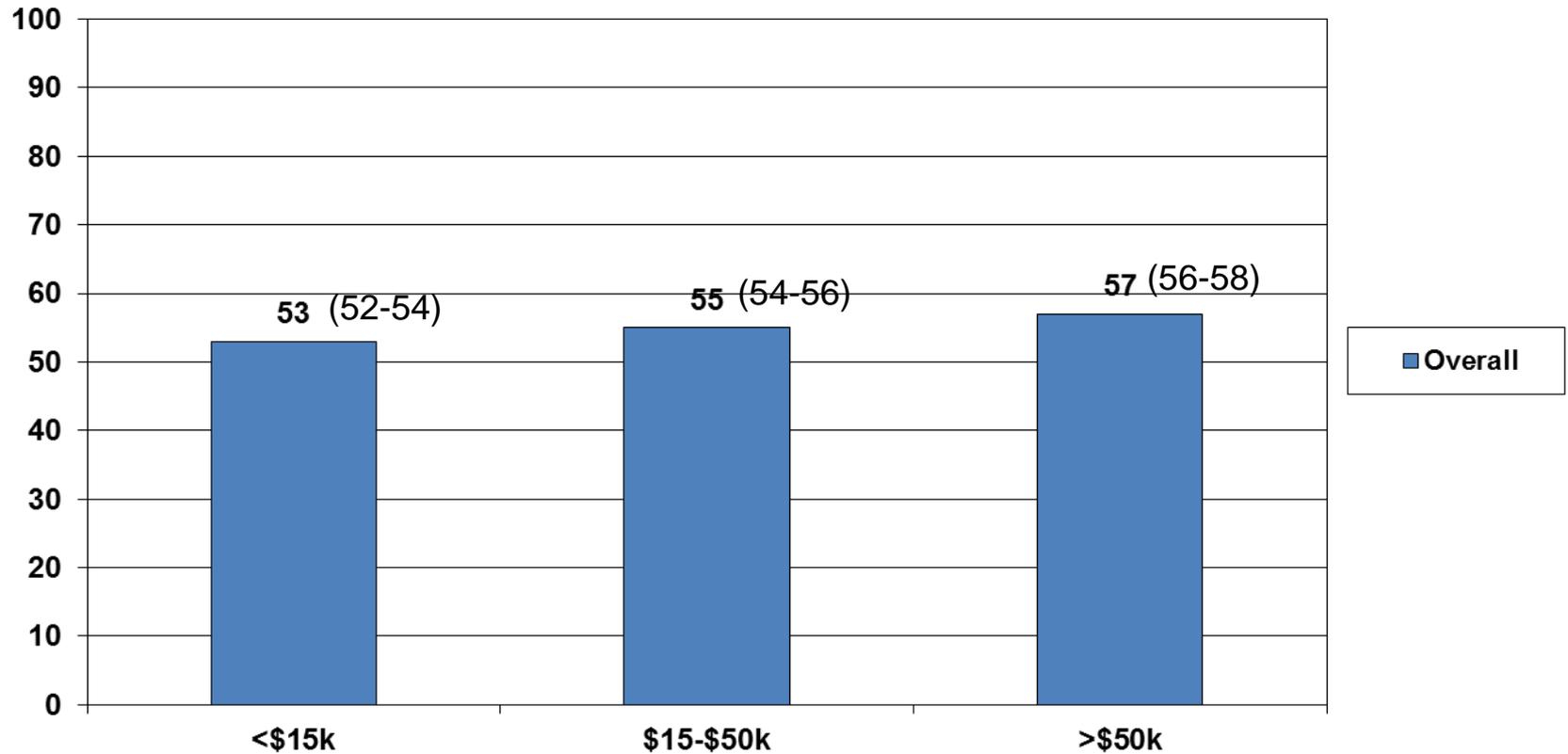
Highlighting
Poor Access
Should
Motivate
Policy



Measuring Quality Should Spur Better Quality in US



Adjusted Overall Quality by Income

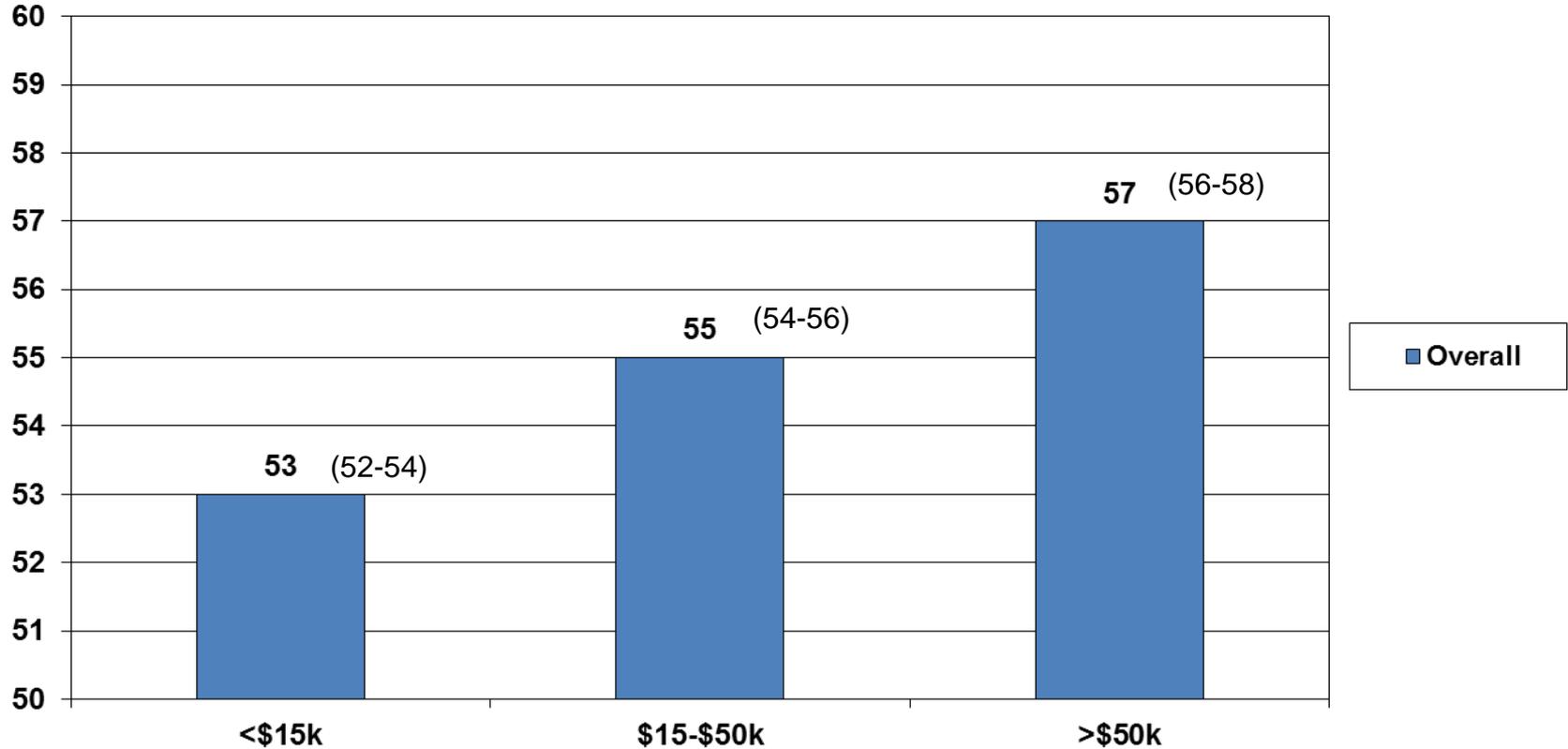


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Adjusted Overall Quality by Income



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World's Response: "Interesting" But Not Much Changed...

- Disparities between groups pale before disparities between current and desired performance
- Right wing think tanks used data to justify restricting public insurance subsidies to poor 😞
- Subsequent longitudinal studies have shown few trends toward better quality nationally



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The ultimate goal of D&I science is to ensure that advances in health science become standards for care in all populations and all healthcare settings.

(Glasgow, AJPH, 2012)



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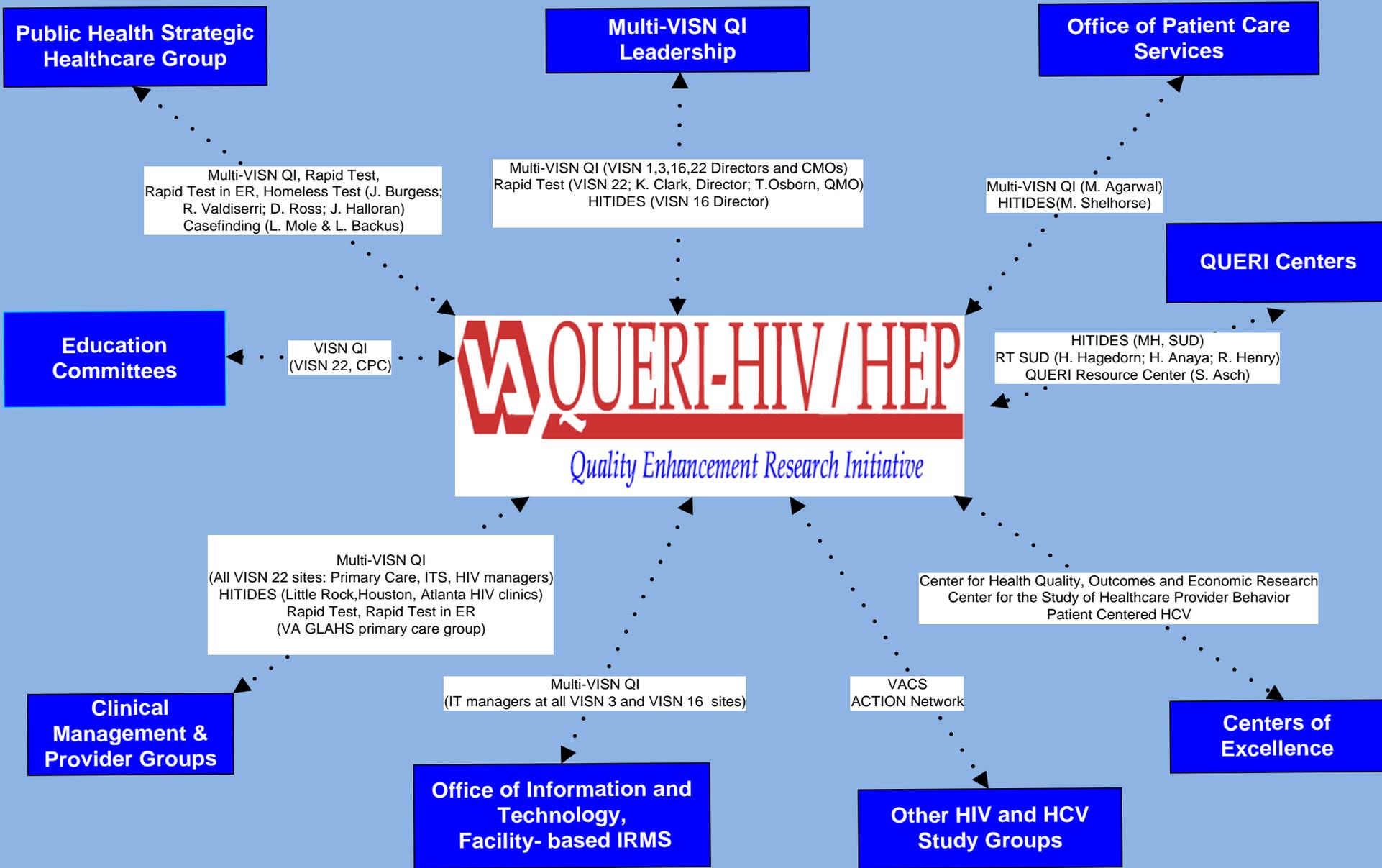
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The
Yin
and
Yang
of
Quality
Improvement
and
Research



QUERI-HIV/Hepatitis - VHA COLLABORATIONS



Dances I have attended with mentees



- Participants wanted to refer patients rather than randomize: VA multimorbid management trial (Zulman)
- VA Lean program leadership changed national rollout strategy during evaluation (Vashi)
- Cancer center shifted intervention from nurse coordinators to patient navigators (Winget)
- Good dangers adjust to our partners' moves, and learn.

Lessons from Dancing with the Devil You Know

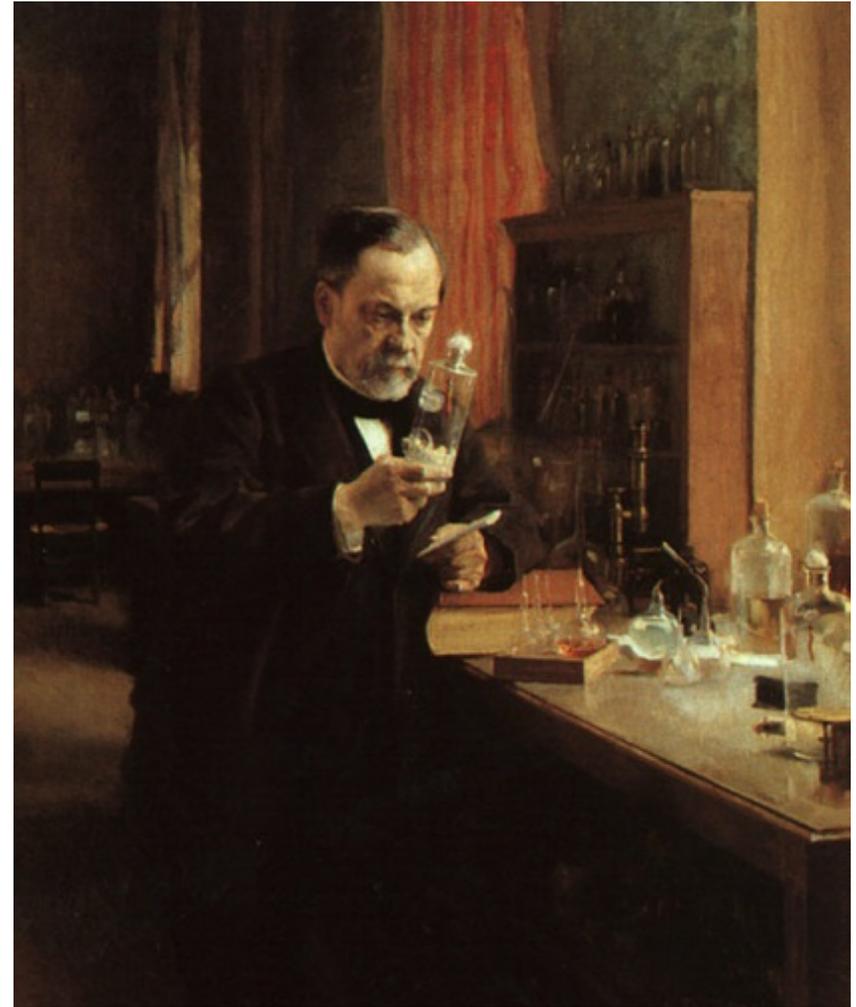


- Shift research topics to where you can make the most difference
- Building research enterprise for partner eased by relationship planning, programmatic funding
- Partnership improves research and makes “dead mouse research” less likely
- Researchers can serve two masters – truth and relevance

“To that person who devotes his life to science, nothing can give more happiness than increasing the number of discoveries.

But his cup of joy is full when the results of his studies immediately find practical applications.”

—*Louis Pasteur*



Pathway #3 (Hamilton)

- **Started off as the “qualitative person”**
 - Background in medical and psychological anthropology
 - What was in my toolkit?
 - Strengths in interviewing, analysis, theory



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Building Blocks

- **Before “implementation science” (late '90s, early 2000s)**
 - CSAT Methamphetamine Treatment Project: implementing evidence-based intervention in community-based treatment organizations
 - VA opportunity with Alex Young and Amy Cohen: EQUIP-1
- **NIDA K01 (Career Development Award), 2006-2011**
 - MPH in Community Health Sciences as training component



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Building Blocks (cont.)

- **Professional growth | | growth of implementation science as a field (mid-2000s)**
 - VA QUERI-funded Center for Implementation Practice & Research Support (CIPRS) w/ Brian Mittman: provided trainings
 - EQUIP-2: one of the first “hybrid type 2” studies
 - Expansion of implementation research opportunities



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Being Trained and Training Others

- **Implementation Research Institute, 2010-2012 (and beyond)**
 - Rigorous training with outstanding international faculty
 - Expanded network of mentors and colleagues
 - Fostered opportunities for collaboration to present day
- **Implementation science workshops, presentations, courses**
 - Focus on qualitative and mixed methods



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Nothing Like Hands-On Training

- **Having a defined skill set opens doors across a variety of studies/topics/funding sources**
 - Consumer providers in mental health (Chinman)
 - Genomics (Scheuner)
 - Hep-C & depression treatment (Kanwal)
 - Patient-centered medical home (Rubenstein/Yano)
 - Women Veterans' comprehensive care (Yano)
 - Homelessness (Washington)
 - HIV services (Wyatt)
 - Children's mental health services (Lau & Brookman-Fraze)



EMPOWER
QUERI



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Put Yourself Out There

Let people know what you have to offer (your skill set), what you're thinking about:

- In writing
- At conferences
- On national calls
- In planning meetings
- At trainings



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Collaborations ↔ Opportunities

- **Implementation science is a team sport**
 - A productive co-investigator role can launch a career pathway
- **Branch out: identify people who study a topic of interest, or use a method or design of interest**
 - Ex. of guideline implementation
 - Review manuscripts for implementation science journals (many are open access)
 - The field is friendly and interested in new ideas



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Polling Question #3

- **What would be most valuable for your career development in implementation science?**
 - Hands-on experience doing implementation research
 - Training/coursework
 - Grant-writing support
 - Funding opportunities
 - Mentorship



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Polling Question #4

- **What kinds of implementation science methods do you need training/experience in?**
 - How to apply theoretical frameworks
 - Implementation strategies
 - Implementation study designs (e.g., stepped wedge)
 - Mixed methods implementation evaluation
 - Measures of spread and/or sustainability



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Training Opportunities

- <https://societyforimplementationresearchcollaboration.org/dissemination-and-implementation-training-opportunities/>
- NIH/VA Implementation Research Institute: <http://iristl.org/>
- Training Institute for Dissemination and Implementation Research in Health (TIDIRH)
- Columbia University: <https://www.mailman.columbia.edu/become-student/departments/epidemiology/training-programs/global-hiv-implementation-science>
- University of Wisconsin Dissemination & Implementation Short Course <https://ictr.wisc.edu/dni-short-course-2017/>
- UCSF: <http://www.biostat.wustl.edu/pridecc/about/research-in-implementation-science-for-equity/>;
<https://accelerate.ucsf.edu/training/ids#whatis>
- Archived Enhancing Implementation Science (EIS) and other HSR&D cyberseminars: <http://www.hsrd.research.va.gov/cyberseminars/catalog-archive.cfm>



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Conferences

- NIH Conference on the Science of Dissemination & Implementation:
<http://www.academyhealth.org/events/site/10th-annual-conference-science-dissemination-and-implementation-health>
- Society for Implementation Research Collaboration:
<https://societyforimplementationresearchcollaboration.org/>
- Global Implementation Conference:
<https://gic.globalimplementation.org/about/>
- Nordic Implementation Conference:
<http://www.implementation.eu/events/nordic-implementation-conference>



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Resources

- Dissemination & implementation models: <http://dissemination-implementation.org/index.aspx>
- D&I Resources list: <https://publichealth.wustl.edu/resources-dissemination-implementation/>
- Global Implementation Initiative (resources): <https://globalimplementation.org/resources/>
- Improvement Science Research Network: <http://isrn.net/>
- University of Colorado, CRISP:
<http://www.ucdenver.edu/academics/colleges/medicalschoo/programs/ACCORDS/sharedresources/DandI/Pages/Dissemination%20and%20Implementation.aspx>
- University of Washington: <https://globalhealth.washington.edu/focus-area/implementation-science>
- Harvard: <http://hhi.harvard.edu/research/evaluation-and-implementation-science>
- NHLBI: <https://www.nhlbi.nih.gov/about/org/ctris/>
- NCI: <https://researchtoareality.cancer.gov/discussions/building-future-implementation-science-training-needs-and-directions>
- Community Tool Box: <http://ctb.ku.edu/en/toolkits>
- KT: <https://knowledgetranslation.net/implementation>



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Thank you!

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