

### Dancing with the Devil You Know: Partnering with Delivery Systems in Implementation Science

### Steven M. Asch MD MPH Center for Innovation to Implementation (Ci2i) VA Palo Alto HCS

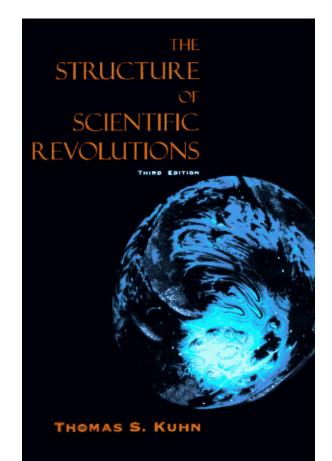


### My Dad



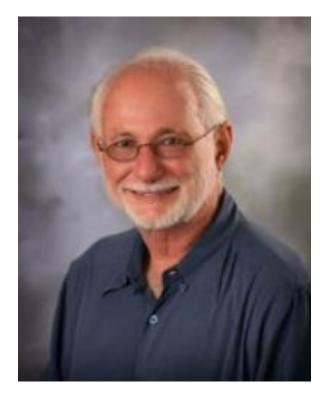
# Science Inherently Socially Constructed





# Access for All





#### Howard Waitzkin

Lillian Gelberg

# Highlighting Poor Access Should Motivate Policy



# TB Pts 4X More Likely to Delay Seeking Care If Fear Immigration Authorities

	Delayed >60 Days	Delayed <60 Days
Feared Immigration Authorities	47%	53%
Did Not Fear Immigration Authorities	17%	83%

# OR=3.89 (95% 1.34-11.36)

# First 15 Minutes of Fame

# "Initiative Would Hasten Spread of TB, Study Says"



Criticized by both ACLU and Republican governor as politically motivated!

# Measuring Quality



# **Quality People**





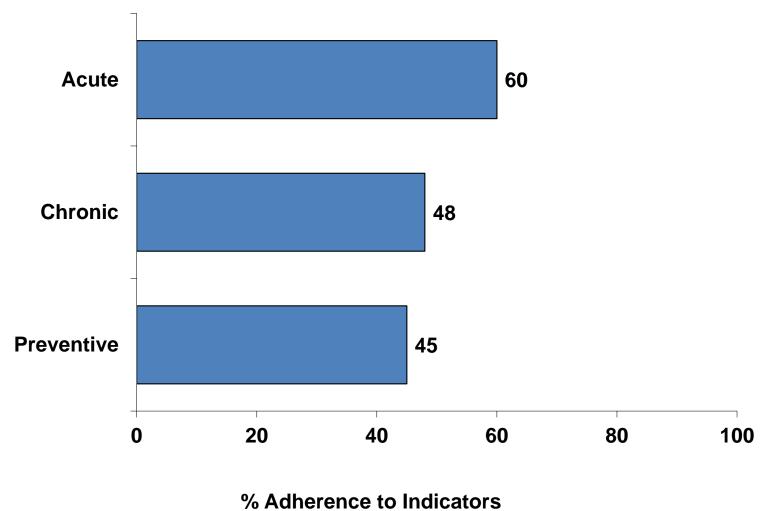
Beth McGlynn

Bob Brook

### QA Tools: Broad Measure of Quality

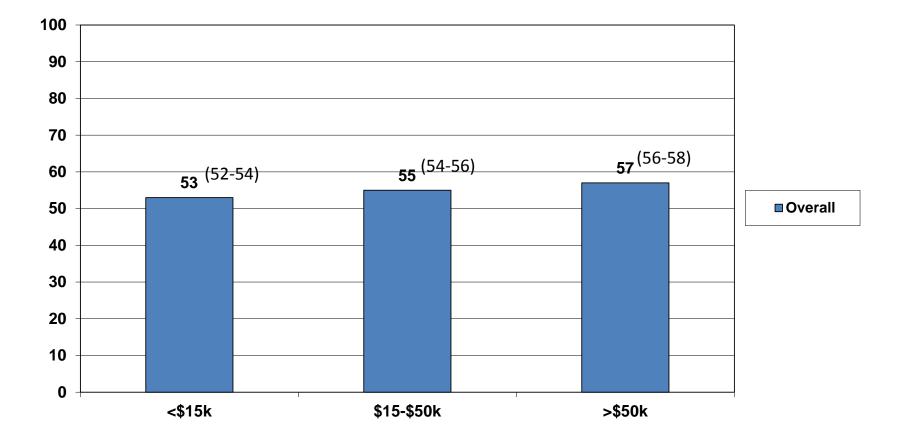
- >30 clinical areas representing a large proportion of reasons people seek care
- 439 clinically detailed indicators common "bread and butter" processes
- Vetted by 45 experts nominated by specialty societies
- interview and medical record abstraction
- Nationally representative sample

# Patients Only Getting Half of Reccomended Care

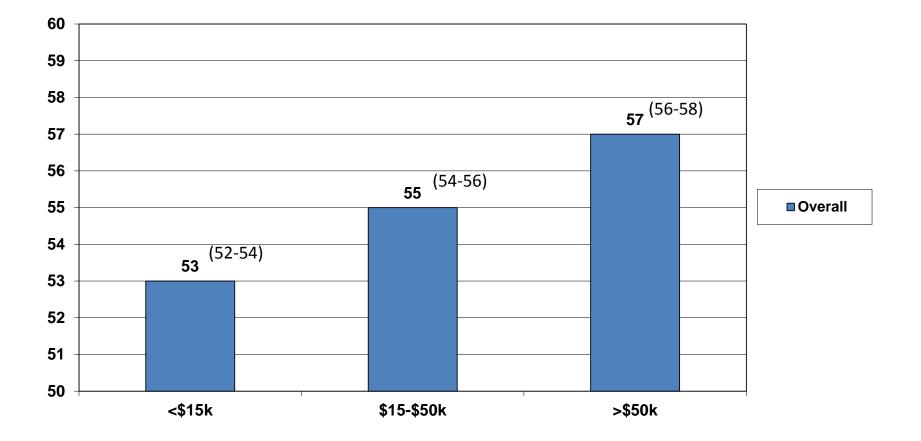


N Engl J Med 2006; 354:1147-1156

# Adjusted Overall Quality by Income



# Adjusted Overall Quality by Income



# Implications and Second 15 Minutes of Fame

- "These are not the disparities you are looking for" –Obi Wan Kenobi
- Disparities between groups pale before disparities between current and desired performance
- Racial and income disparities in access/ high cost procedures greater than disparities in basic quality
- Right wing think tanks used data to justify restricting public insurance subsidies to poor <sup>(3)</sup>

# No more dead mice

# **Implementation Science**





Lisa Rubenstein

Paolo Freire 1921-1997

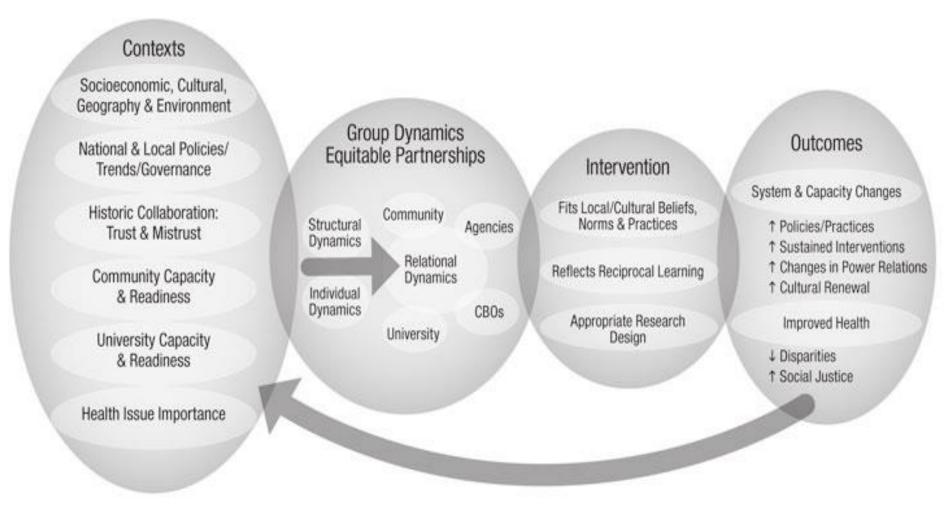
# Where is the disconnect?

Partners (QI)	Researchers
Fast	Before grant funding runs out
Good enough	Robust to validity threats
Targeted to operational decisions	Produces generalizable knowledge Control of lines of inquiry

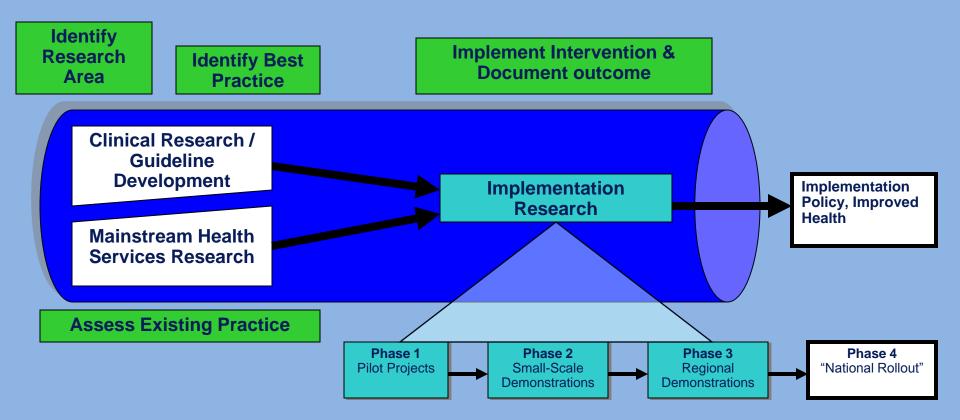
The Yin and Yang of Quality Improvement and Research



### Community Based Participatory Research (CBPR) Model Wallerstein and Minkler, 2008,2010



### **Research/Implementation Pipeline**

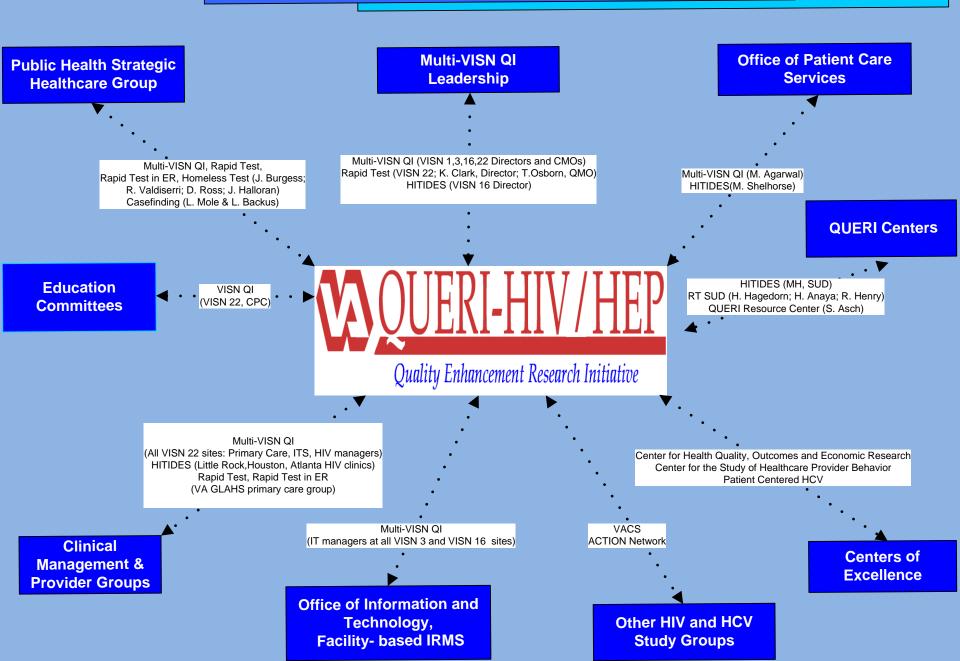


Examples of Interventional Implementation Research

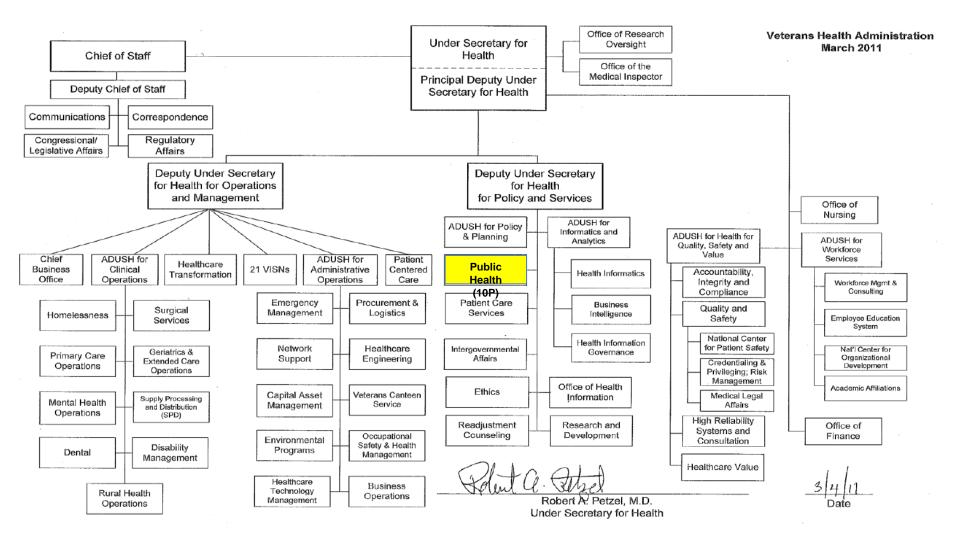
- Checklists reducing nosocomial infection in academic hospitals (Pronovost Critical Care 2004)
- Order sets reduce ICU mortality (Micek Critical Care 2006)
- Specialist/generalist teleconferences improve outpatient HCV treatment in rural New

Mexico (Arora NEJM 2011)

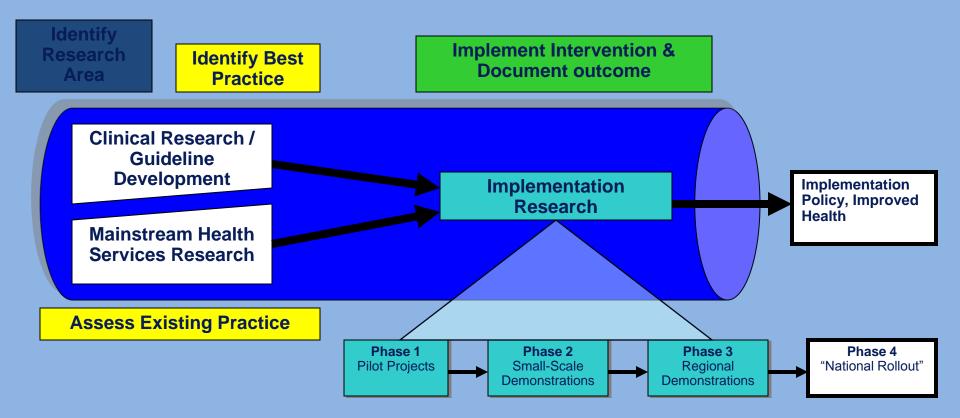
#### QUERI-HIV/Hepatitis - VHA COLLABORATIONS



# Know your partner



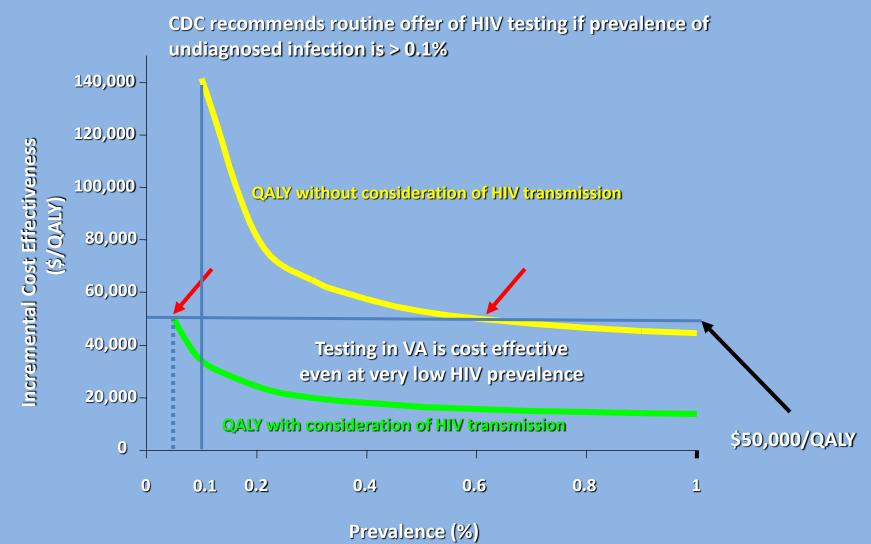
### **Research/Implementation Pipeline**



# HIV Case Identification – The Problem

- Benefits of earlier diagnosis of HIV infection
   → mortality, → hospitalizations, → transmission
- Many HIV patients do not know their status
   CDC: 25% of the 1.1 million US HIV+ unaware
  - VA: no testing in 50 70% with known risk factors
  - 50% of newly diagnosed at late stage (< 200 CD4)

### Screening and Testing for HIV is Cost Effective

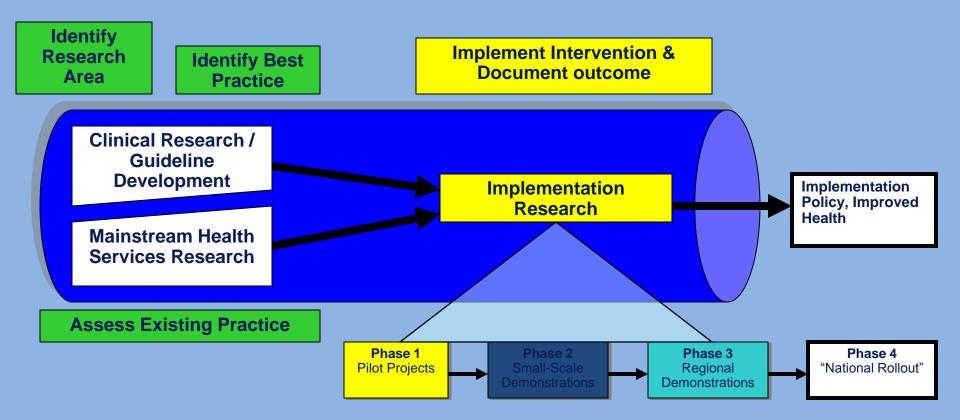


Sanders GD et al. NEJM. 2005; 352:570 585

# Impediments to HIV Testing in the VA

- Organizational barriers
  - Written informed consent & pre-test counseling requirements
  - Constraints on provider time
  - Limited opportunity for timely, in-person post-test notification
  - Uncertain capacity to manage newly diagnosed patients
- Provider behaviors
  - Incomplete recognition of HIV risk factors
  - Reliance on trained counselors to order HIV tests
  - Discomfort with HIV counseling
  - Lack of prioritization of HIV testing

### **Research/Implementation Pipeline**



# Methods - Interventions

- Organizational changes
  - Digitized written consent
  - Streamlined, scripted counseling
  - Telephonic notification of negative test results
  - Assured assistance in counseling & HIV clinic f/u for new HIV+ pts
- Provider activation
  - Academic detailing & social marketing: promote desired behaviors
- Audit-feedback
  - clinic level HIV testing rates
- Decision support
  - electronic clinical reminder for at-risk patients

Electronic prompt for identification and testing of patients at-risk for HIV				
Reminder Resolution: Screen for HIV Infection	×			
$\Box$ Click here to see details of this reminder (reason that it is due)	<u>^</u>			
Order HIV Serology (verbal consent required)				
Previously tested for HIV				
Refuses HIV testing				
🗌 Screening for HIV Not Applicable / Not Necessary				
	_			
EVALUATE FOR TESTING FOR OTHER CHRONIC VIRAL INFECTIONS				
Click here to display prior Hepatitis B and Hepatitis C serology				
CIICK HERE CO DISPINY PRIOR REPACTORS D AND REPACTORS C SERVICES				
Clear Clinical <u>M</u> aint <u>V</u> isit Info < Back Next > Finish	Cancel			
<no encounter="" entered="" information=""></no>				
* Indicates a Required Field				

# **Engaged Clinical Partners**

- Presentations to leadership: <u>done by QUERI-HIV</u>
- •Installation of clinical reminder: <u>coordinated by QUERI-HIV</u>
- •Acquisition of leadership support: assistance provided by OUERI-HIV
- Identification of local champion
- •IRB submission: prepared by QUERI-HIV
- •Audit feedback reports: generated by QUERI-HIV
- Provider activation: tools developed and supported by QUERI
   HIV
- •Removal of organizational barriers: assistance provided by <u>QUERI-HIV</u>

### Handout package

#### VA Healthcare System

#### Tips for Proposing HIV Testing

- Would you like a free HIV test?
- As a veteran, you're entitled to an HIV test.
   Alona with other regular tests blood pressure,
- Along with other regular tests blood pressure, cholesterol, etc., we're offering routine HIV testing, do you want us to check for HIV?

#### Providing HIV Education

- Testing is confidential and voluntary
- Cannot determine status without testing
- If positive, we can provide confidential care

#### Delivering Negative Test Results

- HIV antibodies not detected at this time
- Can take up to 3 months after exposure for detection
- Discuss safe behaviors and retest in 3 months

#### **Delivering Positive Test Results**

- Explain: HIV infection ≠ AIDS (CD4 < 200)</li>
- Benefits of antiretroviral therapy
- Lifestyle: diet & exercise, drug & alcohol use
- Safer behavior: sexual & drug use
- Support: social, emotional, mental health
- Normal to feel sad, scared, angry, confused
- Call 911 if you feel you might hurt yourself

#### VA Healthcare System

#### .

Documenting Verbal Consent The HIV clinical reminder automatically enters: "The patient has verbally consented to HIV testing. An HIV antibody test has been ordered." in the NOTES section.

#### **Discussion Points for Patients**

- The ACP recommends that *all adults* be offered HIV testing
- Early HIV is asymptomatic and is highly treatable
  21% of HIV-infected persons in the U.S. are
- undiagnosed 50 - 70% of at-risk VA patients haven't been tested 55% of veterans are diagnosed after advanced HIV
- disease • VA surveys show undiagnosed HIV infection in
- 0.5% of 65 to 74 year olds
- Many OEF/OIF veterans are at high risk due to age, drugs and alcohol, non-use of condoms
- Timely HIV care keeps patients healthy and viable
   Resources

Dusty Jones, M.D.: (555) 555-5555 Pager #123

#### **Pocket card**



#### **Poster & Pamphlet**

#### **Overview Sheet**

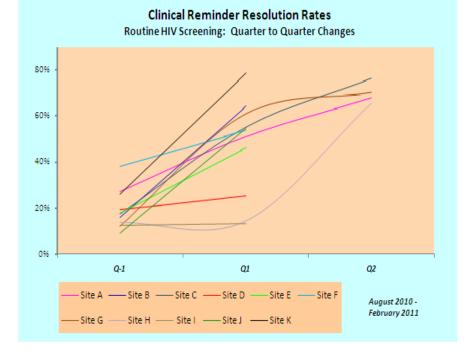
March 2011

#### VAMC and Associated Clinics

Dear Primary Care Providers and Staff:

The VA is evaluating the effectiveness of a clinical reminder-based intervention for increasing HIV testing rates in 11 facilities in VISNs 1, 3 and 16. Originally, a risk based clinical reminder was used to identify patients who warranted HIV testing. More recently all sites, including 3 new sites, substituted a non-risk based reminder which prompts providers to offer testing to all untested patients. During the first 3 months, 45,000 routine testing reminders were resolved at active sites; nearly a 5 times increase in the rate of resolution.

The graphic below depicts the quarter-to quarter changes in screening for all primary care patients following the change-over to the non-risk HIV testing clinical reminder.



On behalf of the QUERI-HIV team, thank you for your continued efforts in making HIV testing a priority among your patients. The success of this intervention is only possible with your continued contributions to this important health issue.

Please contact me if you have any questions or concerns about this project.

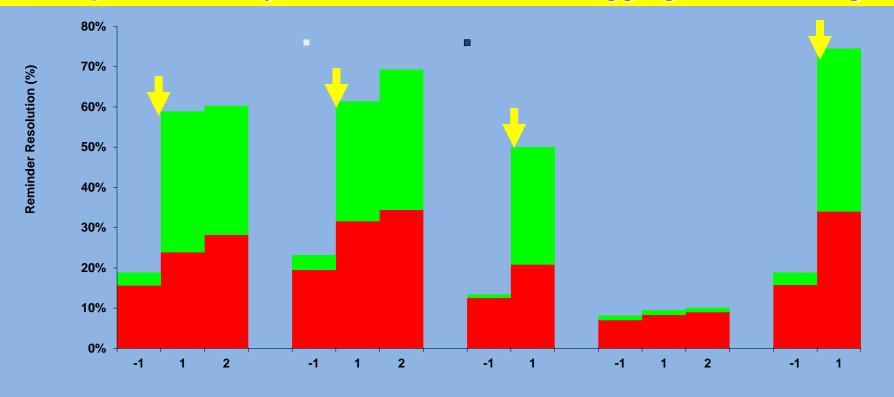
Herschel Knapp, Ph.D.



- Quarterly feedback
  - HIV testing rate
  - Rate of clinical reminder resolution

### VISN22: Pre- vs Post-Intervention Prevalent HIV Testing Rate

Program implementation yields ~2-fold increase in aggregate HIV testing rate



Site B

**Intervention Year** 

Site C

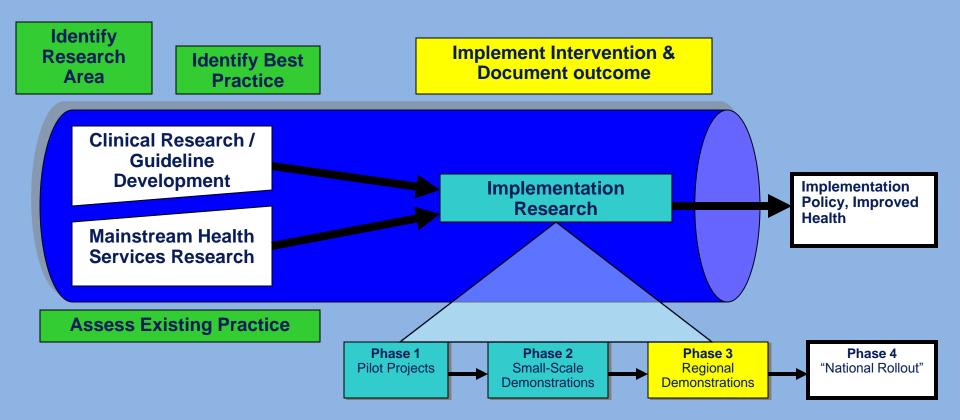
Control

Site D

Site E

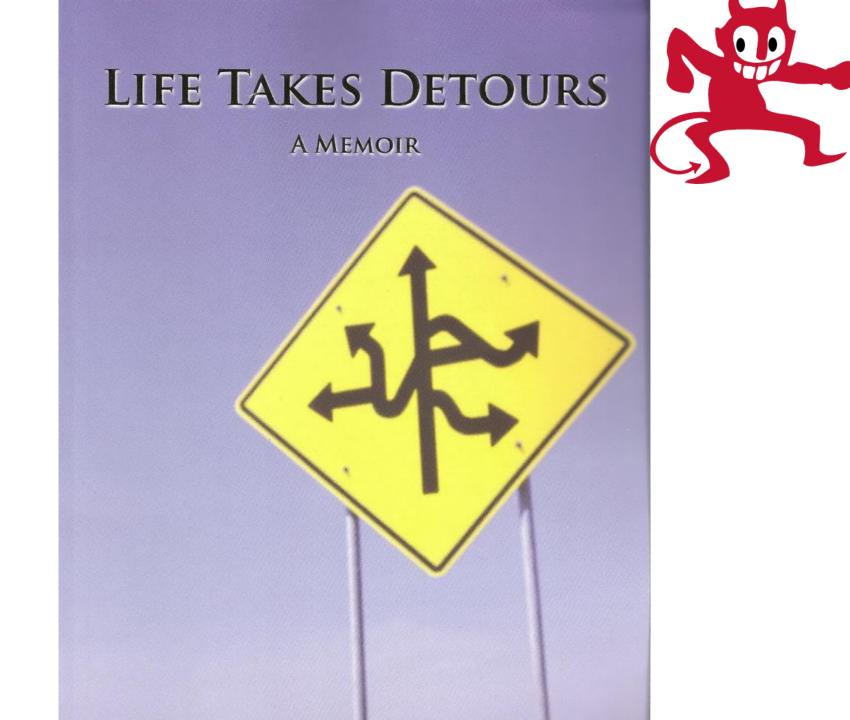
Site A

### **Research/Implementation Pipeline**



# Phase III Implementation Trial

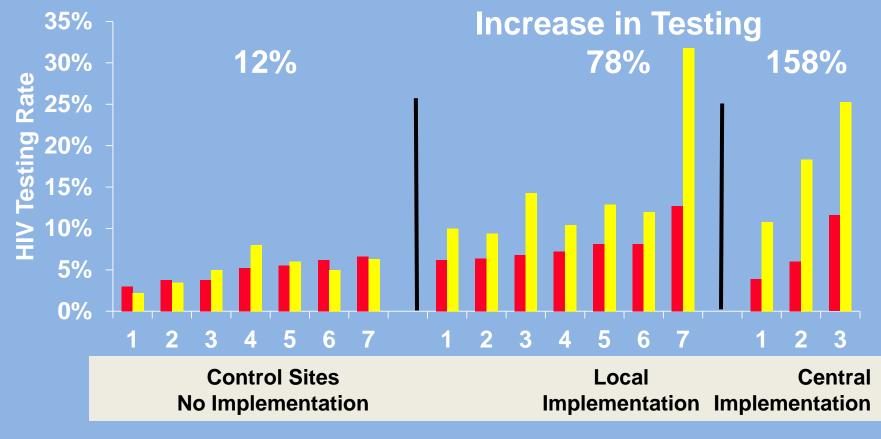
- Assess generalizability of intervention to VA facilities with differing structural characteristics
- Evaluate the added value of "provider activation" (academic detailing, social marketing) campaigns
  - Facilities randomized to receive extensive vs modest support for conduct of "provider activation" program



# The Real World Intervenes

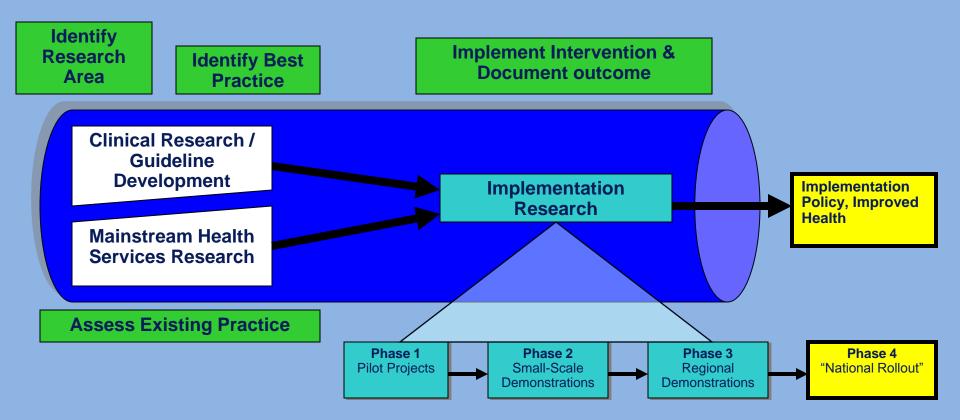
- October 2008 : Project funded
- June 2009: Project launched at 3 sites
- August 2009: VA HIV testing policy changes
  - Verbal agreement replaces written informed consent
  - Pre- and Post-Test counseling requirements removed
  - Routine, once per lifetime testing of all patients, not just those at risk
- Some of the barriers intervention was aimed at disappeared, so we adjusted!

### Pre- vs Post-Intervention Risk-Based HIV Testing Phase III Project



Pre-Intervention Post-Intervention

### **Research/Implementation Pipeline**



# More dances I have attended with mentees



- Participants wanted to refer patients rather 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)
- Again, we adjusted to our partners' moves, and learned.

# With Deep Gratitude to Mentees

Patricia Bellas, MD Josh Fenton, MD Loren Miller, MD Mike Wada, MD William Haddock, MD MPH. Brooke Herndon, MD Elizabeth Edgerton, MD Amy Kilbourne, PhD Karl Lorenz, MD Susan Lambe, MD Joy Lewis, MD David Zingmond, MD Mitch Wong, MD, Chih-Wen Shi, MD Philip Todd Korthuis, MD David Etzioni, MD Jerome Liu, MD Marcy Winget PhD Liz Malcolm MD

Tony Kuo, MD Keith Heinzerling, MD Will Shrank, MD Richard Mularski, MD Keri Gardner, MD, Sanae Inagami, MD, Jason Wang, MD Becky Liddicoat, MD Joshua Pevnick, MD Kristina Cordasco, MD Sony Ta, MD Benjamin Sun, MD Fasiha Kanwal, MD Catherine Rongey, MD Basit Chaudhry, MD Corita Grudzen, MD David Chan, MD Jonathan Chen, MD Risha Gidwani, PhD

Howard Saft MD Sean O'Neil, MD Gelareh Gabayan, MD Anne Walling, MD Sonali Kulkarni, MD Jonathan Shaw, MD Todd Korthuis, MD David Eisenman, MD Karl Lorenz, MD Teryl Nuckols-Scott, MD **Torrey Simons MD** Donna Zulman MD. Veronica Yank, MD, Jessica Breland, PhD Anita Vashi, MD Amanda Midboe, PhD Andrea Finlay, PhD Celina Yong, MD





















































Lessons from Dancing with the Devil You Know

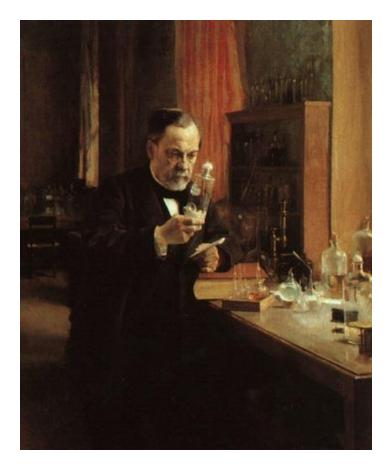


- Shift research topics to where you can make the most difference
- Building research enterprise for partner eased by relationship planning, programmatic funding
- Partnership improves research and makes "dead mouse research" less likely
- Researchers can serve two masters- truth and relevance

"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



# Questions

