

# AUPN VA-Director's Workshop

*University Affiliations: Collaboration in Clinical Care, Research  
and Education*

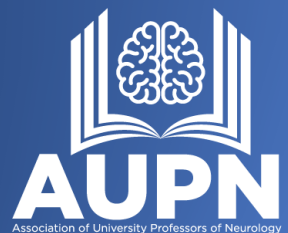
Co-moderated by:

**Sharyl Martini, MD, PhD;**

Executive Director for Neurology

**Glenn Graham, MD PhD;**

Founder-Director VA National TeleStroke Program





**Sharyl Martini, MD, PhD**  
Executive Director for Neurology  
**Moderator**



**Glenn Graham, MD, PhD**  
Founder-Director VA National  
TeleStroke Program  
**Moderator**

# Meet Today's Speakers



**Charles Brock, MD**  
USF Morsani College of Medicine  
James A Haley VA Medical Center



**Tom Frontera, MD**  
USF Morsani College of Medicine  
James A Haley VA Medical Center



**Jayne Wilkinson, MD, MSCE**  
University of Pennsylvania  
Corporal Michael J. Crescenz VA  
Medical Center



**Linda Williams, MD**  
Indiana University  
Richard Roudebush VA Medical Center



**W. Curt LaFrance Jr, MD, MPH**  
Brown University  
Providence VA Medical Center

# Agenda

- **Welcome and Introduction**

- **Clinical Care Presentation**

Jayne Wilkinson, MD, MSCE; VA Medical Center, Philadelphia, PA/University of Pennsylvania

- **Research Mission Presentations**

Clinical Research: W. Curt LaFrance Jr, MD, MPH; Providence VA Medical Center/Brown University

Health Services Research: Linda Williams, MD; Richard Roudebush VA Medical Center, Indianapolis, IN/Indiana University

- **Education Mission Presentation**

Charles Brock, MD; James A Haley VA Medical Center/University of South Florida

Tom Frontera, MD; James A Haley VA Medical Center/University of South Florida

- **Q&A**

# Learning Objectives

- To be aware of the longstanding investment and commitment that VA has made to telemedicine and other modes of clinical care delivery other than in-person encounters, and why the VA is well suited to implement them.
- To understand the VA research mission and portfolio, especially the VA's unique strengths in conducting health services research and investigator designed and led clinical trials.
- To know what opportunities VA hospitals and clinics provide for the training of medical students, residents, and fellows in neurology and its subspecialties, and how VA-funded residency and fellowship positions are obtained and administered.

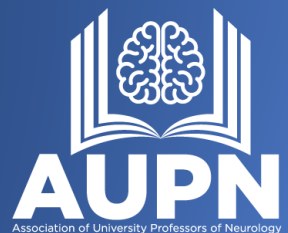
# Collaborations in Clinical Care *VA and University Affiliates*

Jayne R. Wilkinson, MD, MSCE

Medical Director, National Tele-Neurology Program (NTNP), VHA

Associate Professor of Clinical Neurology,

Perelman (Penn) School of Medicine



# Background – *VA opportunities abound...*

- Parkinson's Disease Research, Education and Clinical Center (PADRECC)
- PADRECC Fellowship Program
- Regional Telehealth (TH) program
- Largest RCT for TH and Parkinson's disease / MSCE
- Facility Telehealth Committee
- Chief of Staff office
  - Academic Partnership Committee with Penn
- Penn AC Track Advisory Committee (promotions review)
- National Tele-Neurology Program (NTNP)

# What Makes VA Special?

- Largest integrated healthcare system in the country
- Serving 9 million Veterans/year at 1,293 health care facilities, including 171 medical centers and 1,112 outpatient sites
- FY21: 685,000+ neurology patient encounters
- Diverse patient population
- Office of Rural Health
- Quality-driven growth and development

→ Opportunities



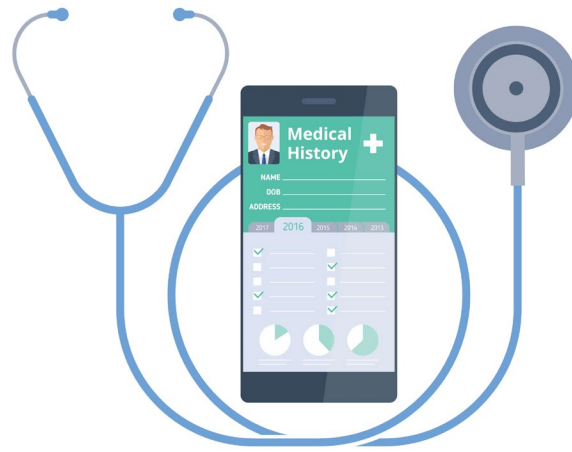
# Largest Integrated Healthcare System

Clinical Operations are unique and patient-centered

- Single medical license → can cross state lines
- Credentialing and privileging allows inter-facility work
- Centralized platforms
  - Scheduling across geography and time-zones
  - Access to medical records across the country
  - Regional nursing call centers 24/7 coverage
  - Secure messaging for online patient access
- Technology advances



# What Makes VA Special?



Telehealth



# VA Telehealth - *Background*

- VA Telehealth began in 1959 in Nebraska with neuropsychiatric support groups using a 2-way television among 3 VA medical centers
- Countless programs currently
- FY21 served 2,047,000 Veterans **9,952,000 encounters**
- VA Video connect – Video Telehealth to patients' homes
  - Provide ipads
  - Tech support/test calls
- Telehealth to closer VA facility
  - Clinical telehealth technicians → exam facilitation (vitals, exam, questionnaires)
  - Inpatient support: tele-ICU, tele-stroke, tele-rads
- Mobile health remote monitoring
- My VA images: upload photos and videos



*Image from Wittson, Cecil L.; Affleck, D. Craig; Johnson, Van Mental Hospitals, Vol 12(10), 1961, 22-23.*

# Telehealth

## *Breaking down barriers to ACCESS*

- Improve access to care
  - Rural
  - Specialty Care – weave a virtual web of providers
  - Reduce travel burden
- Enhance quality
  - Reduced wait times (VHA goals are aggressive: <28 days)
  - Whole Health and patient self-management
  - More data!
- Reduce costs
  - Lower travel costs
  - Improving quality: decrease hospital admissions/readmission
- Remove geographical boundaries
  - Clinical collaborations – multidisciplinary care; case conferences, and provider educational programs → engage a patient population you otherwise would not have access to
  - Multisite research collaborations



# National Tele-Neurology Program (NTNP)

## Background

- Problem statement: shortage of neurologists (in/out VA)
- Goal: Increase access to neurological care; recruit into VA
- Funded by the Office of Rural Health (ORH) through their Enterprise-wide Initiative (EWI) grant program
- Develop a virtual cohort of physicians and nurses to offer flexible and efficient services to rurally-serving areas
- Began October 2020
- Currently serving 13 medical centers
- Academic affiliated faculty; include trainees



# National Tele-Neurology Program (NTNP)

## Program Overview

### General Neurology Services

- Outpatient care (consult & f/u): video visit to Veterans' homes or closer VA facilities
- Documentation, orders, Rx in remote Veteran medical record
- Standardized notes/templates, policies/practices

### Educational Consultation & Care Coordination

- In-depth educational consultations with nurse care coordinator
- Partnership with National Headache Center of Excellence
- Referral coordination initiatives: hiring PA and RNs staff to help “prepare” consults (obtain records, order tests, develop early rapport with Veteran) prior to visit

### Technology integration

- Development of mobile aps related to neurological disease
- Deployable devices (tele-EEG, movement disorders)

# National Level Clinical Programs

- National Tele-Neurology Program (NTNP)
- National Tele-Stroke Program (NTSP)
- Neurology Centers of Excellence (CoE)
  - Epilepsy, Parkinson's Disease, Multiple Sclerosis
- Headache Centers of Excellence
- Tele-Sleep
- Polytrauma program (TBI and spinal cord injury)
- National Tele-Mental Health Center (NTMHC) – Neuropsychiatric Programs
  - Psychogenic nonepileptic seizures (PNES) – Dr. W. Curt LaFrance (
  - Memory disorders – Dr. Andrew Budson
  - Parkinson's disease neuropsychiatry – Dr. Dan Weintraub



# Administrative Leadership Opportunities

- Academic partnership initiatives
- Locally, regionally and nationally
  - Clinical leadership: Service or Section Chief (akin to Chairperson & Division Chief)
  - Program director for various training programs (both VA and academically-funded)
- Policy development
- Neurology Field Advisory Board
- Formal leadership development programs through VHA

# Summary

- VA provides a rich and diverse clinical experience both for faculty and trainees
- Unique opportunities to build new, innovative clinical programs that can marry affiliate and VA interests and goals
- Robust telehealth infrastructure and practices
- Clinical leadership opportunities

***Serving those who have served is a most rewarding and fulfilling position***

Thank you –

Jayne.Wilkinson@va.gov





# *Clinical Research at the VA*

**W. Curt LaFrance, Jr., M.D., M.P.H.**

Director, Neuropsychiatry and Behavioral Neurology,

Rhode Island Hospital

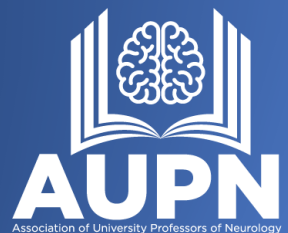
Staff Physician, Providence VAMC

Tele-Seizures Clinic Lead,

VA National Telemental Health Center

Professor of Psychiatry and Neurology,

Alpert Medical School, Brown University



# Value of the VA: **Clinician-Researcher Perspective**

- **Faculty Perspective**
  - Joint University/VA positions
  - VA Merit Review Grants & Full Time Research Positions & Hybrid positions
- **Funding: Research**
  - Projects and mechanisms available with VA on a national level
  - Grant mechanisms
  - Career development
  - Non-profit corporations

# Research Partnering with VA Centers of Excellence and Programs

- **Joint University/VA positions offer staff additional subspecialty opportunities**
  - Locally, or regionally/nationally via Telehealth
    - VA National Telestroke Program
    - VA National TeleNeurology Program
    - VA National Telemental Health Center
    - ALS multidisciplinary clinics
    - VA Epilepsy Centers of Excellence
    - VA Multiple Sclerosis Centers of Excellence
    - VA Parkinson's Disease Research Education & Clinical Centers

# Research Partnering with VA Clinics

Specialized clinical & research interests

- Geriatric Neurology
- Polytrauma & TBI Rehabilitation
- Multiple Sclerosis
- Parkinson's Disease
- Spinal Cord Injury Research
- Patient Safety, Health Services Research, Medical Informatics

# Partnering with the VA: Research

- **Types of research supported include:**
  - Clinical Science
    - VA Center for Cooperative Studies infrastructure for multi-center clinical trials
  - Health Services
  - Rehabilitation Services
  - Basic Science
- **Mechanisms of grant support for VA faculty (2 examples)**
  - Career Development Awards (K equivalent)
  - Merit Awards (R01 equivalent)
    - Those employed by VA at least 25h/week (5/8ths) are eligible to apply

## [www.research.va.gov](http://www.research.va.gov) Office of Research & Development Programs

- **CIPHER** Centralized Interactive Phenomics Resource (*EHR-based phenotypes*)
- **MVP** Million Veteran Program (*genes, lifestyle, military exposures*)
- **VA SHIELD** Science and Health Initiative to Combat Inf. Diseases (*ID repository*)
- **NAII** National Institute of Artificial Intelligence (*big data repositories R&D*)
- **NPPO** Nonprofit Program Office (*oversight for VA-affiliated research corps.*)
- **TTP** Technology Transfer Program (*commercialization of VA inventions*)
- **BBB** Biorepository Brain Bank (*human CNS tissue bank and health info*)
- **CSP** Cooperative Studies Program
- **ARP** Animal Research Program (*research to improve medical care*)

# VA Grant Services

**HSR&D** Health Services (*accessible, high quality, cost-effective care for Vets & US*)

[https://www.hsrdr.research.va.gov/for\\_researchers/awards/hsrd\\_awards/](https://www.hsrdr.research.va.gov/for_researchers/awards/hsrd_awards/)

**CSR&D** Clinical Science (*moving translational science to clinical application*)

<https://www.research.va.gov/services/csrd/default.cfm>

**RR&D** Rehabilitation (*maximize functional independence, QOL, and participation*)

<https://www.rehab.research.va.gov/>

**BLR&D** Biomedical Laboratory (*preclinical research, molecular, genomic, physio*)

<https://www.research.va.gov/services/blrd/default.cfm>

# VA Career Development Award (CDA)

<https://www.research.va.gov/funding/cdp.cfm>

open to clinicians and non-clinicians

- CDA-1 entry-level (Only RR&D)
- CDA-2 mid-level program (3-5 years) (supported by all 4 Services)
- CDEA enhancement, senior VA scientists (6 months) to learn new research skills



# Department of Defense Grants

(Congressionally Directed Medical Research Program)

- CDMRP <https://cdmrp.army.mil/researchprograms>
- **Melanoma**
- **TBIPHRP** Traumatic Brain Injury and Psychological Health
- **ERP** Epilepsy Research Program
- Substance Abuse, ALS, Pain, GWI, Cancer, Ortho, SCI, Vision,
- Clinical Trial Award
- Focused Program Award

# Grant submissions

VA Office of Research Administration (ORA)  
or via Non-Profit Corporations (NPCs) (e.g., OSRI)

For funding info:

Call ACOS for Research; look for seed grants from 4 VA Services, NPCs, VISN, local sites.

# Case Study

- Brown University – Rhode Island Hospital – Providence VAMC
- VA ECOE & VA NTMHC
- Single and Multi-site studies
- VA Mind-Brain Program

# Summary:

## Clinical Research VA-University Partnership

- Faculty Research perspective
- Subspecialty
- Clinical Partnerships
- 4 Services
- CDAs
- DoD
- Case example

# VA Health Services Research: Opportunities for University-VA collaboration

Linda S. Williams, MD

Neurologist and VA Joint Commission Primary Stroke Center Director, RVAMC  
Senior Investigator, VA HSR&D Center for Health Information and Communication

Professor of Neurology, Indiana University School of Medicine

Research Scientist, Regenstrief Institute, Inc.

Indianapolis, IN



**HSR&D**  
Health Services Research  
& Development Service

**CHIC** | Center for Health  
Information and  
Communication

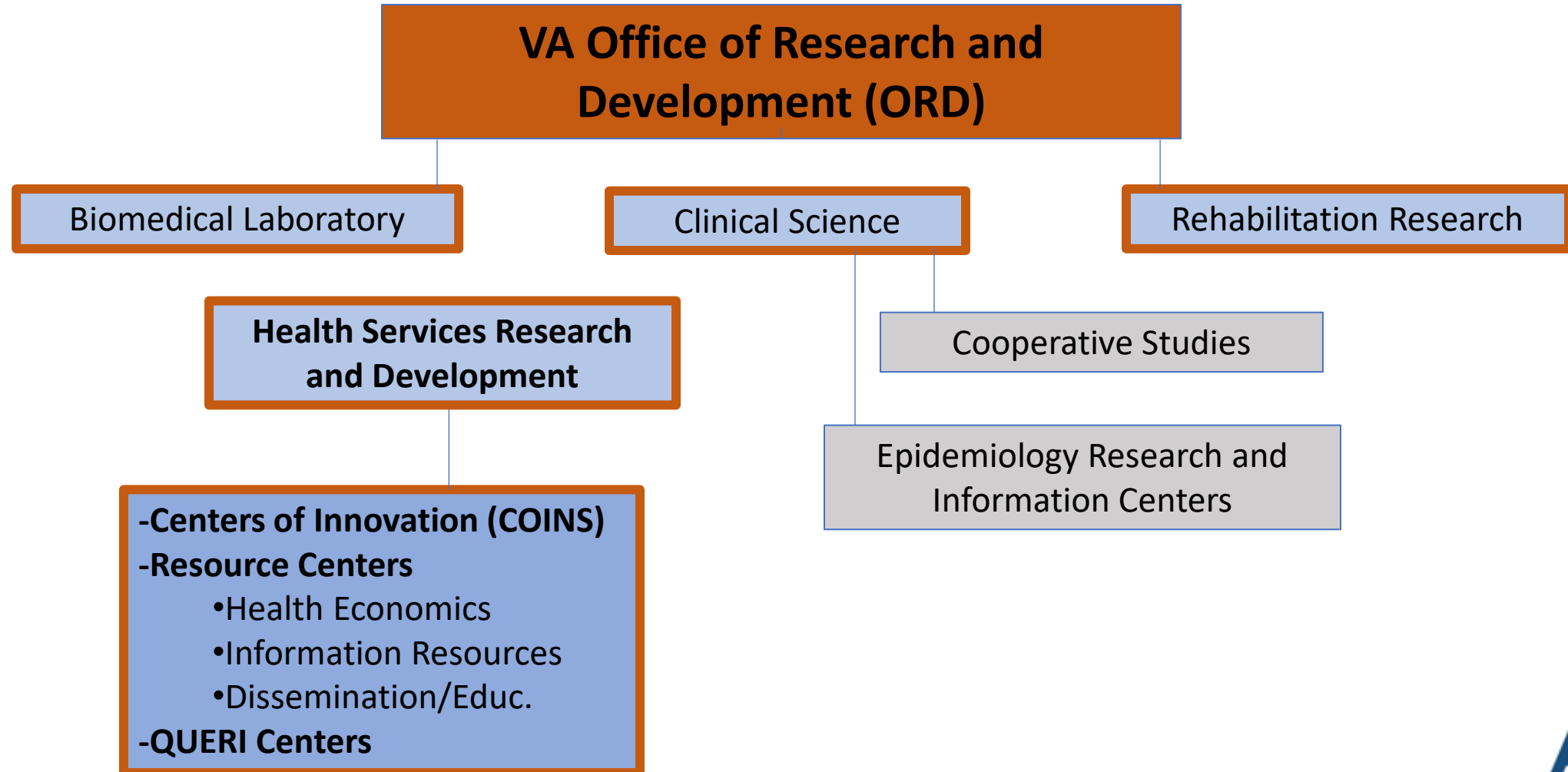


# Overview

- What is Health Services Research (HSR) and VA HSR&D?
- What VA HSR programs may be near me?
  - HSR&D Centers of Innovation
  - HSR&D Resource Centers
  - Quality Enhancement Research Initiative (QUERI) Centers
- How might university trainees or faculty collaborate with researchers in VA HSR&D?
  - Student/resident research examples
  - Post-doctoral fellowships
  - Junior faculty examples

# VA Research Organization

www.research.va.gov



# What is VA HSR&D

- HSR definition:
  - A multidisciplinary field examining access, costs, quality, and outcomes of health care
- Mixed methods:
  - Quantitative, qualitative
  - Wide range of study designs from observational to randomized trials
  - Increasing focus on implementation science

- VA HSR&D mission:

Identify and evaluate innovative strategies that lead to accessible, high quality, cost-effective care for Veterans and the nation

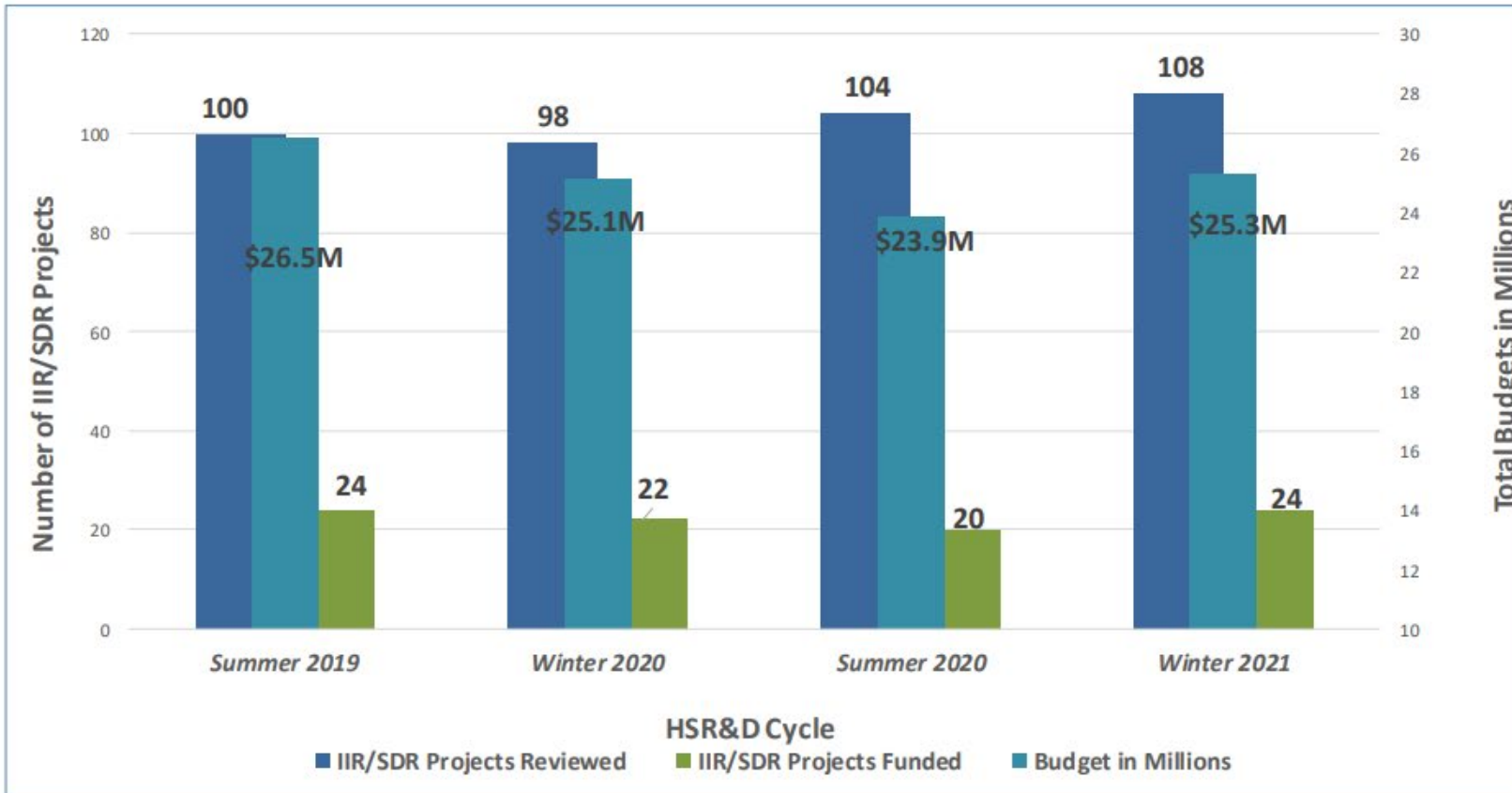
The screenshot shows the VA Health Services Research & Development website. The header includes navigation links for 'Veterans Benefits and Health Care', 'About VA', and 'Find a VA Location'. The main content area is titled 'Health Services Research & Development' and features a large graphic with the text 'RESEARCH TOPICS' and various research areas like 'ACCESS', 'DELIVERY', 'VETERANS CARE', 'COST', 'IMPLEMENTATION', 'QUALITATIVE INVESTIGATOR', 'SUBSTANCE USE DISORDER', 'STUDY POLICY', 'MENTAL HEALTH EQUITY', and 'QUANTITATIVE'. The 'What's New' section lists recent publications and announcements, including a COVID-19 post-acute care review and a research announcement on long-term outcomes of COVID-19 infection. The right sidebar includes 'HSR&D Research Topics', 'HSR&D Podcasts', and 'CONNECT WITH RESEARCH' with social media links for Twitter, Facebook, LinkedIn, and YouTube.

<https://www.hsr.d.research.va.gov/>

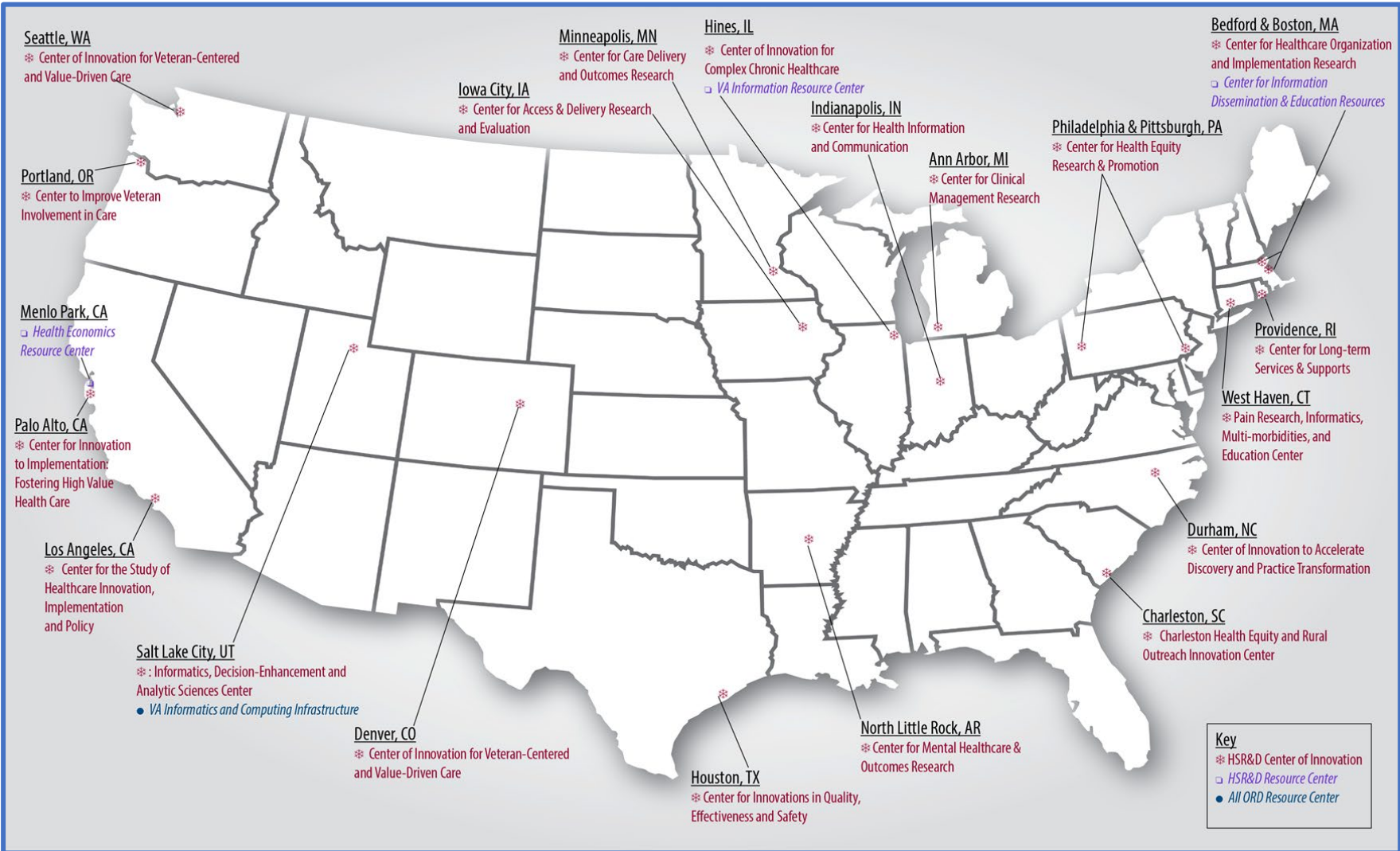




# Applications Reviewed and Funded By Cycle



# VA HSR&D Programs 1: Centers of Innovation (COINS)



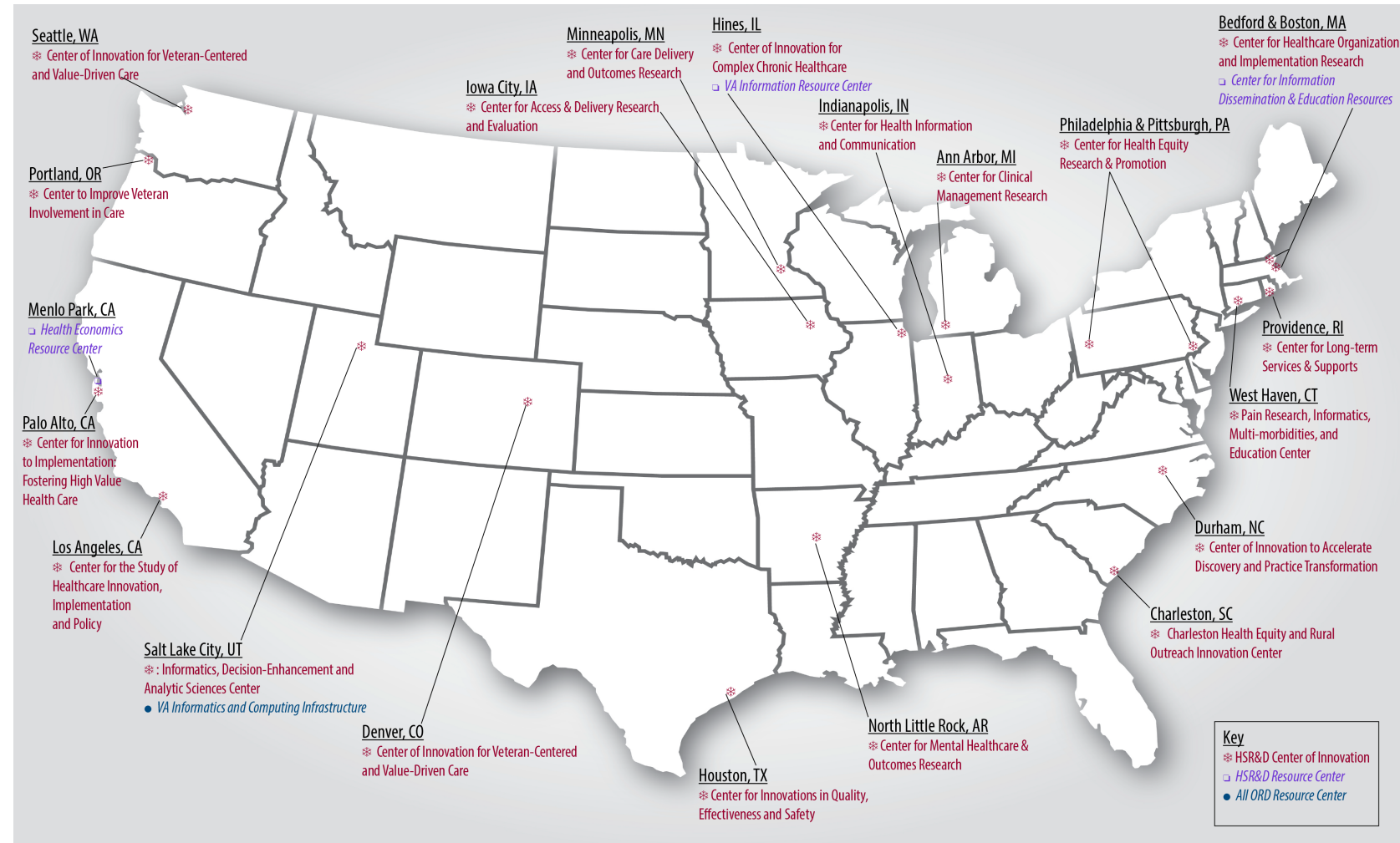
# COIN Structures and Resources

- Pool of experienced MD and PhD researchers
- Typically work in multiple clinical and methodologic areas somewhat organized around a broad theme
  - Indianapolis: Center for Health Information and Communication
    - Informatics, Human factors, Quality of Care, Health care communication
    - Pain, Cancer, Stroke/Vascular disease, Serious Mental Illness
- Formal post-doctoral fellowships (for PhDs or MDs)
- Opportunities for student/trainee collaborations
  - Student hiring
  - “Without Compensation” (WOC) status to engage in research projects

# VA HSR&D Programs 2: Resource Centers

## 3 Resource Centers:

- **Center for Information Dissemination and Education Resources (CIDER)—Boston**
- **Health Economics Resource Center (HERC)—Palo Alto**
- **VA Information Resource Center (VIREC)--Chicago**



# Health Economics Resource Center

- Data and methods guidance for VA cost studies
- Consultation on research and operational projects
- Health economics training seminars

HERC » Home

## Health Economics Resource Center (HERC)

[www.herc.research.va.gov](http://www.herc.research.va.gov)

- HERC Home
- News
  - ▶ Hot Topics
  - ▶ Data
  - ▶ Common Data Issues
  - ▶ Analytic Methods
  - ▶ Training
  - ▶ Economics of Implementation & QUERI
- ▶ Fellowship
- ▶ Publications
- ▶ Resources
- ▶ About Us



**Which cost method is best?**  
Methods to estimate costs in research  
[Learn more »](#)

COVID-19 and VA Inpatient Data    HERC Average Cost Data Updated for FY20    VA encourages outpatient substance use treatment    Which cost method is best?

I am interested in...

**EVENTS**  
TBA

**What We Do**  
HERC helps VA researchers

**Training**  
HERC offers trainings to help VA

**Consulting**  
HERC offers a consulting service to

# HERC Seminar Series are available to anyone

- Cost-Effectiveness Analysis Seminar Series
- Econometrics Seminar Series
- HERC Seminars
- VA Data Bootcamp
- ▶ Economics of Implementation & QUERI
- ▶ Fellowship
- ▶ Publications
- ▶ Resources
- ▶ About Us

effectiveness analysis and budget impact analysis as applied to health services and medicine.

**Schedule and registration details:** The next Cost Effectiveness Analysis with VA Data seminar series will take place in 2022. Links to slides and videos from previous seminars are included below.

[Looking for the Econometrics Seminar Series? »](#)

## 2020 Cost-Effectiveness Analysis with VA Data Seminar Series

*January 21, 2020*

### **Recommendations for the Conduct of Cost-Effectiveness Analysis from the Second Panel on Cost-Effectiveness Analysis in Health and Medicine**

Doug Owens, M.D., M.S. | [Slides and video](#)

This presentation will summarize the main recommendations about how to design and conduct a cost-effectiveness analysis based on guidelines from the Second Panel on Cost-Effectiveness in Health and Medicine, released in the fall of 2016. In a major change from prior recommendations, the Second Panel recommends the use of two perspectives in cost-effectiveness analysis: the health care sector perspective and the societal perspective, including education and the criminal justice systems. To aid in transparency, the Panel also recommends the use of public protocols that outline how an analysis will be conducted.



*January 29, 2020*

### **An Overview of Decision Analysis**

Liam Rose, Ph.D. | [Slides and Video](#)

This lecture provides an introduction to the field of decision analysis. Topics include: why to engage in decision analysis; the difference between cost-effectiveness analysis, cost-utility analysis, cost-benefit analysis, and budget impact analysis; and the different ways to operationalize a decision analysis (modeling versus measurement alongside a clinical trial). This lecture is aimed at providing a general, high-level overview of the field.

# VA Information Resource Center

- Advance capacity to use VA data effectively for research and quality improvement
- Create and disseminate knowledge about VA data
- Educate and support VA data users

The screenshot shows the VIREC website interface. At the top, the VIREC logo is on the left, followed by the text 'The Researcher's Guide to VA Data' and 'VA Information Resource Center'. A search bar on the right contains the URL 'www.virec.research.va.gov'. Below the header is a navigation menu with items like 'VIREC Home', 'About Us', 'VIREC Resources', 'Support', and 'Research in the'. The main content area features a large banner with the VIREC logo and the title 'VA Data for Non-VA Researchers'. The banner includes a line graph and a text box that reads: 'Access to VA Data for Research: All Department of Veterans Affairs (VA) research is intramural, meaning only VA employees can conduct research under VA's sponsorship. Non-VA researchers can access VA data through collaborative research studies or by becoming a VA employee.' Below the banner is a section titled 'Getting Involved in VA Research' with two columns: 'Collaborate with a VA researcher' and 'Become a VA employee'. The 'Collaborate' section states: 'VA encourages collaboration with academic institutions and other agencies when a VA investigator has a substantive role in conducting the research.' The 'Become a VA employee' section states: 'VA is always hiring. Visit the VA Office of Research and Development website for a list of open Research positions and fellowship opportunities.' The footer contains the text: 'resource center. Our mission is to advance VA capacity to use data... creating engaging experiences for VA data users. We support the use... VA's Electronic Health Record Modernization. Initial Findings from...'

# VIREC Cyberseminars are available to anyone



The screenshot shows the VIREC website interface. At the top left is the VIREC logo with the tagline "The Researcher's Guide to VA Data" and "VA Information Resource Center". A navigation menu on the left lists various resources, with "VIREC Resources" expanded to show "Cyberseminars" as the selected item. The main content area features a header "VIREC » VIREC Cyberseminars" and a large image of a server room with blue digital data streams. Below the image is the section "Cyberseminar Series" with a descriptive paragraph and a list of topics. A callout box on the right highlights the "Cyberseminar Archive" with a description and a "View Archive" link. An orange arrow points from the AUPN logo in the bottom right corner towards the callout box.

**VIREC** The Researcher's Guide to VA Data  
VA Information Resource Center

VIREC Home  
About Us  
VIREC Resources  
Cyberseminars  
Data Issues Brief  
HSRData-L Listserv  
Information About VA Data  
Publications  
Reports  
Research User Guides  
Summary Documentation  
Tutorials  
VA REDCap Project

VIREC » VIREC Cyberseminars

## VIREC Cyberseminars



### Cyberseminar Series

VIREC cyberseminars are available as on-demand, archived presentations from the HSR&D Archive.

- + Database & Methods
- + Research & EHR Synergy
- + Using Data & Information Systems in Partnered Research
- + Good Data Practices

#### Cyberseminar Archive

*VIREC hosts several cyberseminar series to provide expert discussion and guidance on key issues related to using VA data for research.*

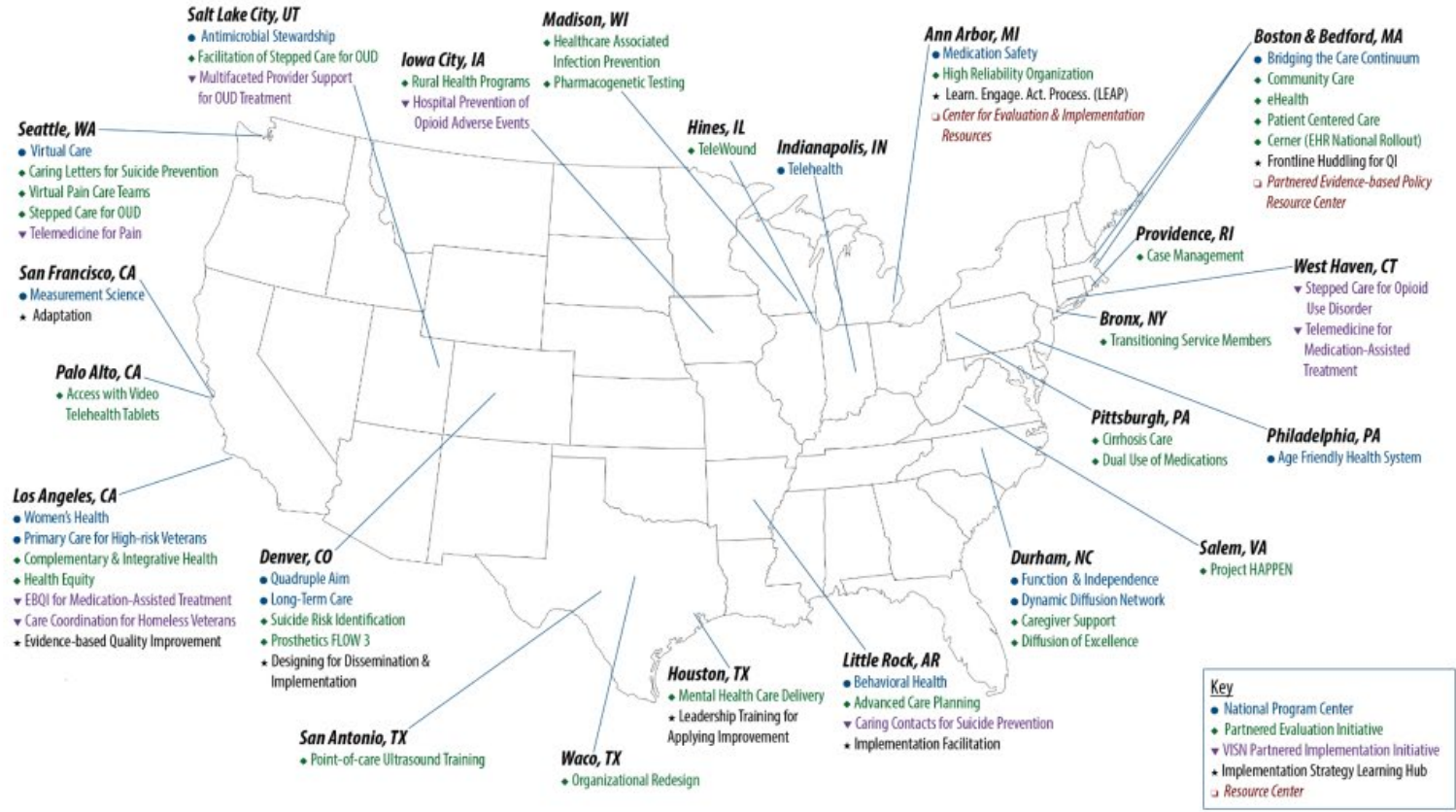
[View Archive](#)



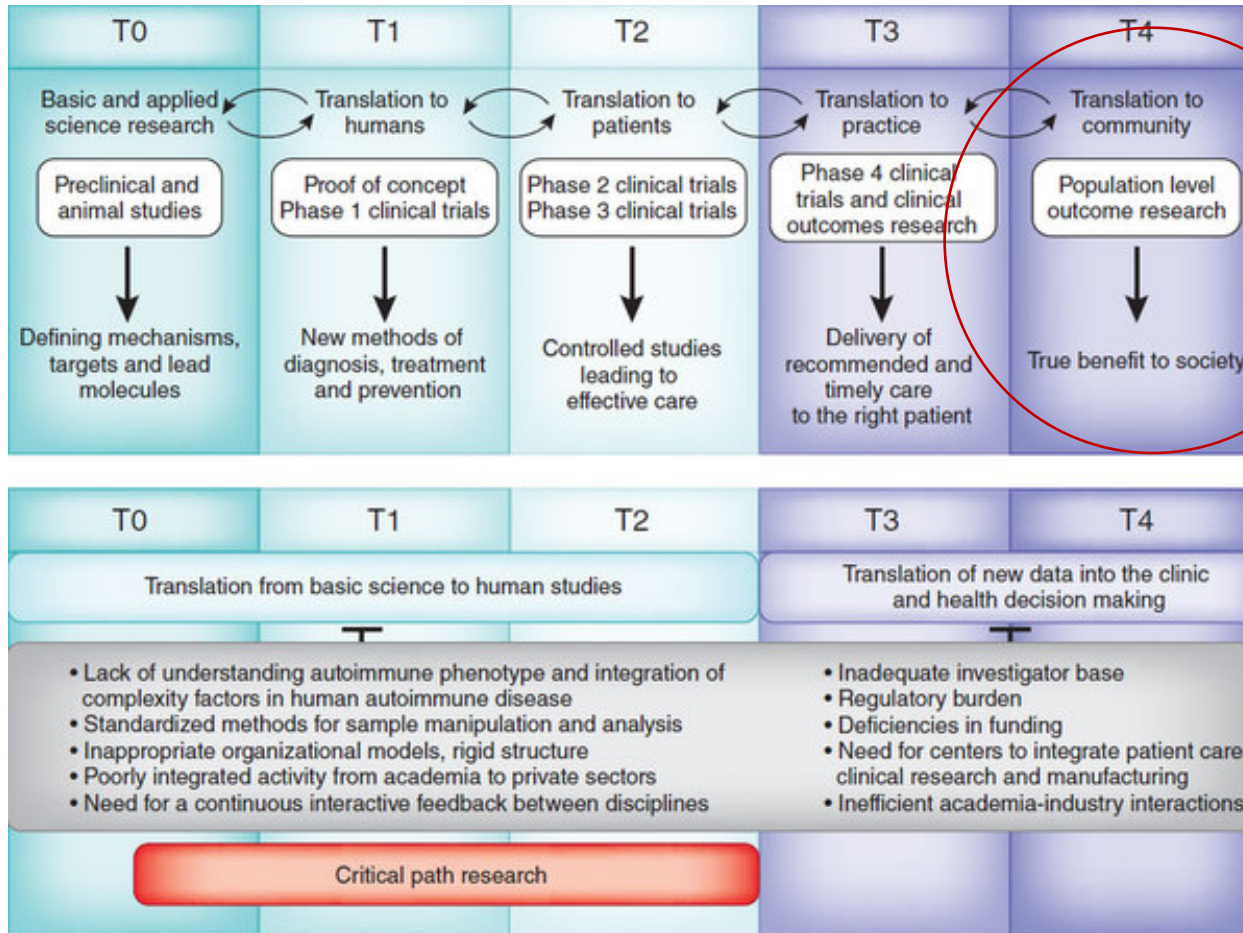


# VA HSR&D Programs 3: QUERI Centers

## Over 40 Centers with Diverse Expertise



# Where QUERI fits into Translational Research models



QUERI studies the **methods of implementing efficacious interventions in the VHA healthcare system, what factors influence implementation, and how implementation impacts Veterans, the healthcare system, and population health**

# QUERI Resource Center: Center for Implementation and Evaluation Resources

- Support the use & dissemination of implementation and evaluation methods
- Consultation to VA operational leaders and researchers
- Training resources and seminars

QUERI » CEIR » Implementation and Evaluation Resources

<https://www.queri.research.va.gov/ceir>

## QUERI – Quality Enhancement Research Initiative

- QUERI Home
- ▶ Mission
- ▶ QUERI News
- ▼ Training and Resources
  - Training Opportunities
  - Implementation and Evaluation Resources
  - Learning Collaboratives
  - Economic Evaluation Resources
  - Clinical Evidence and Data Resources
  - Policy Evidence
- ▶ Funding and Partnership Opportunities

### Implementation and Evaluation Resources

*Promoting the use of implementation methods to optimize system improvement efforts*

QUERI's Center for Evaluation and Implementation Resources (CEIR) strives to be VA's centralized resource for implementation science and quality improvement methods.

CEIR provides time-sensitive consultation and support to help VA policymakers, managers, providers, and researchers scale-up and spread promising innovations and effective policies, programs, and practices. [Learn More](#) .

If you are a VA employee interested in learning more about implementation and quality improvement methods, contact CEIR ([ceir@va.gov](mailto:ceir@va.gov)) for a free consultation

### RESOURCES

- [QUERI Implementation Roadmap Guide](#) for planning, deploying, and sustaining effective practices
- [Learning Collaboratives and Seminars](#) for sharing best practices
- [Implementation Strategy Training Resources](#) describing education and training opportunities in

# QUERI Center Structures and Resources

- Organized within HSR&D but funded by clinical \$\$
- Focus on implementation science
- Projects around a theme that all are studying the implementation of an evidence-based practice(s)
- Required mentoring program
  - Goal: train more implementation scientists
  - Focus: fellows and junior faculty
- May provide training in quality improvement or LEAN methodologies

# Indianapolis QUERI Example



**Expanding Expertise Through E-health Network Development**  
VA QUALITY ENHANCEMENT RESEARCH INITIATIVE

## QUERI requirements:

- Implement strongly evidence-based practices
  - Evidence for the intervention from VA studies
  - Documented quality gap
- Implementation activities in at least 15 facilities
- Projects must be considered QI (not require research approvals)
- Include mentoring in implementation methods to junior investigators/fellows

# EXTEND QUERI Portfolio of Projects

Project	Evidence-based practice	Setting/PI
<b>TeleGRACE</b>	Coordinated, home-based geriatric care	VHA Indiana (local) <i>Dawn Bravata, MD</i>
<b>TeleNEUROLOGY</b>	Outpatient post-stroke management e-consult	VHA National <i>Linda Williams, MD</i>
<b>TelePAIN</b>	Collaborative pain management in primary care	VISN (Regional) <i>Alan McGuire, PhD</i>

## Anticipated EXTEND Impacts:

1. Expand Veteran access to evidence-based care via telehealth services;
2. Identify and apply effective models of telehealth that directly improve the quality of VA care; and
3. Maintain evidence-based telehealth practices over time in VA care settings through effective sustainment strategies

# Quality improvement/operational (non-research) projects can be high quality and publishable

National Telestroke Program

Implementing Telestroke with a 59% likelihood of being transferred to the ED

This effect on stroke care and less

Figure 2. Plot of odds ratios for transfer post-implementation overall and by facility and stroke center designation

## Quality Improvement Intervention Improves Outcomes for Veterans with New Ischemic Stroke Symptoms

**CITATION:** Bravata D, Myers L, Perkins A, et al. [Assessment of the Protocol-Guided Rapid Evaluation of Veterans Experiencing New Transient Neurological Symptoms \(PREVENT\) Program for Improving Quality of Care for Transient Ischemic Attack](#). *JAMA Network Open*. September 8, 2020;3(9):e2015920.

This issue | Views 2,124 | Citations 3 | Altmetric 15 | Comments

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Original Investigation | Neurology

September 8, 2020

**Assessment of the Protocol-Guided Rapid Evaluation of Veterans Experiencing New Transient Neurological Symptoms (PREVENT) Program for Improving Quality of Care for Transient Ischemic Attack**  
A Nonrandomized Cluster Trial

Dawn M. Bravata, MD<sup>1,2,3,4,5</sup>, Lisa J. Myers, PhD<sup>2,3,5</sup>, Anthony J. Perkins, MD<sup>6</sup>, et al

Author Affiliations | Article Information

JAMA Netw Open. 2020;3(9):e2015920. doi:10.1001/jamanetworkopen.2020.15920

Editorial Comment

**Key Points**

**Question** Is the Protocol-Guided Rapid Evaluation of Veterans Experiencing New Transient Neurological Symptoms (PREVENT) program associated with improved care for transient ischemic attack symptoms?

**Findings** This nonrandomized cluster trial with matched controls (including 6 PREVENT sites and 36 matched control sites) evaluated quality of care for transient ischemic attack across recommended processes of care measured by the without-fail rate. Over the course of the 12-month implementation period, the mean without-fail rate improved 17% at the 6 PREVENT sites compared with 36 matched control sites.

15

- Picked up by 1 news outlets
- Tweeted by 9
- On 1 Facebook pages

Click for more details

Altmetric Score Data

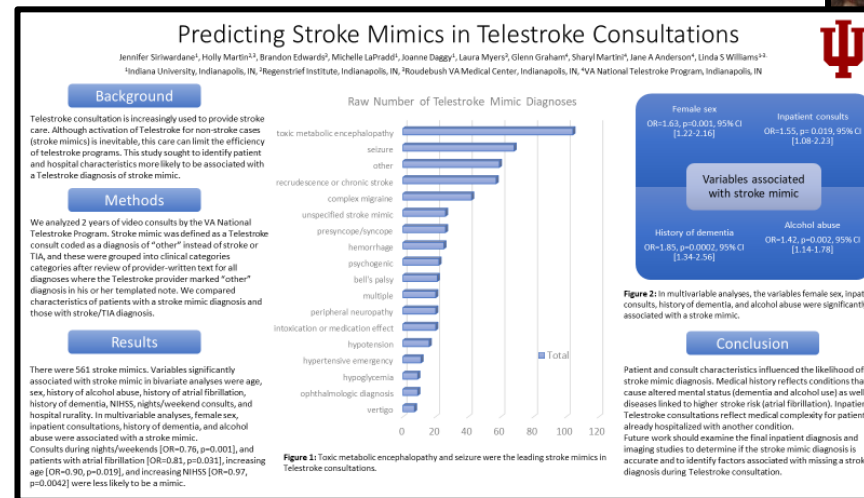
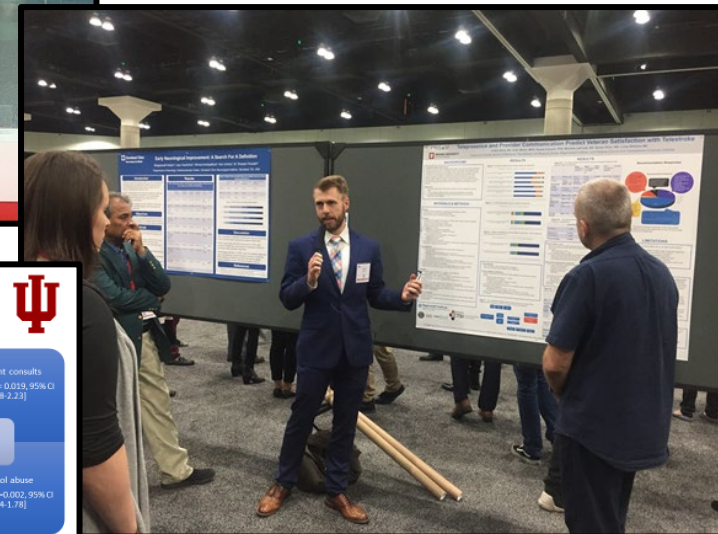
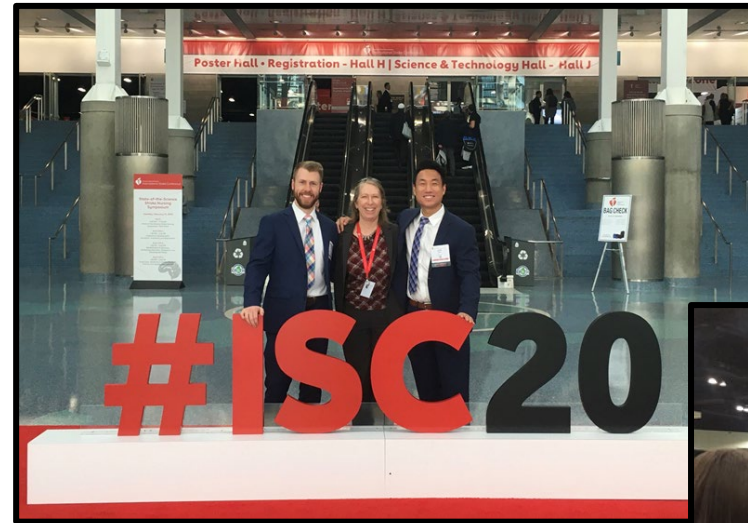


# Ways to collaborate with VA HSR&D

- Students/trainees:

- Example: IU CTSI has a summer research program that funds medical student participation on a research team (clinical or basic science)

- Example: Resident research project analyzing secondary dataset





# Ways to collaborate with VA HSR&D

- Fellows/junior faculty:
  - **HSR post-doctoral fellowships**
    - Can offer the possibility of a second research year to patients applying for a 1-year clinical ACGME fellowship (e.g. Vascular Neurology)
  - **Early career mentoring**
    - QUERI programs have formal mentoring for people interested in implementation and quality improvement
    - University programs may build mentoring programs that involve HSR faculty
      - Example: IU Department of Medicine ASPIRE program
        - Targeted to academic junior faculty in non-research track to gain research experience as part of career development
        - Small mentor stipend, data/statistics support for trainees

**Development and Validation of a 30-Day In-hospital Mortality Model Among Seriously Ill Transferred Patients: a Retrospective Cohort Study**

Neetu Mahendrakar, M. D., CHCQM<sup>1,2</sup>, Mindy Flanagan, PhD<sup>3</sup>, Jose Azar, M. D.<sup>2,4</sup>, and Linda S. Williams, M. D.<sup>3,5,6</sup>

<sup>1</sup>Department of Medicine, Division of General Internal Medicine and Geriatrics, Indiana University School of Medicine, Indianapolis, IN, USA; <sup>2</sup>Indiana University Health Physicians Inc., Indianapolis, IN, USA; <sup>3</sup>Regenstrief Institute, Inc., Indianapolis, IN, USA; <sup>4</sup>Department of Medicine, Division of Hematology and Oncology, Indiana University School of Medicine, Indianapolis, IN, USA; <sup>5</sup>Roudebush VAMC HSR&D, Indianapolis, IN, USA; <sup>6</sup>Department of Neurology, Indiana University School of Medicine, Indianapolis, IN, USA.

**BACKGROUND:** Predicting the risk of in-hospital mortality on admission is challenging but essential for risk stratification of patient outcomes and designing an appropriate plan-of-care, especially among transferred patients. **OBJECTIVE:** Develop a model that uses administrative and clinical data within 24 h of transfer to predict 30-day in-hospital mortality at an Academic Health Center (AHC). **DESIGN:** Retrospective cohort study. We used 30 putative variables in a multiple logistic regression model in the full data set (n=10,389) to identify 20 candidate variables obtained from the electronic medical record (EMR) within 24 h of admission that were associated with 30-day in-hospital mortality (p<0.05). These 20 variables were tested using multiple logistic regression and area under the curve (AUC)-receiver operating characteristics (ROC) analysis to identify an optimal risk threshold score in a randomly split derivation sample (n=5194) which was then examined in the validation sample (n=5195). **PARTICIPANTS:** Ten thousand three hundred eighty-nine patients greater than 18 years transferred to the Indiana University (IU)-Adult Academic Health Center (AHC) between 1/1/2016 and 12/31/2017. **MAIN MEASURES:** Sensitivity, specificity, positive predictive value, C-statistic, and risk threshold score of the model. **KEY RESULTS:** The final model was strongly discriminative (C-statistic = 0.90) and had a good fit (Hosmer-Lemeshow goodness-of-fit test [ $\chi^2$  (8) =6.26, p=0.62]). The

-2.19 that had a maximum sensitivity (79.87%) and specificity (85.24%) in the derivation and validation sample (sensitivity: 75.00%, specificity: 85.71%). In the validation sample, 34.40% (354/1029) of the patients above this threshold died compared to only 2.83% (118/4166) deaths below this threshold. **CONCLUSION:** This model can use EMR and administrative data within 24 h of transfer to predict the risk of 30-day in-hospital mortality with reasonable accuracy among seriously ill transferred patients.

**KEY WORDS:** mortality prediction model; in-hospital mortality; serious illness; serious illness communication; risk stratification; clinical decision-making.

J Gen Intern Med 2021;36(8):2244-50  
DOI: 10.1007/s11606-021-06593-z  
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**INTRODUCTION**

Identifying patients with serious illness and predicting the risk of in-hospital mortality is challenging,<sup>1-4</sup> especially among a diverse group of patients transferred between facilities for a higher level of care. Early assessment of serious illness and risk of mortality is essential for risk-adjustment for benchmarking<sup>5</sup> and designing an appropriate plan-of-care including early conversations about patient outcomes and goals of care.<sup>1</sup>

<sup>4</sup> Transfer patients are known to be sicker, use more resources, and have poorer outcomes.<sup>6-8</sup> They are especially more com-

# Finding active HSR&D projects and RFAs

The screenshot displays the HSR&D website interface. At the top left is the VA logo and the U.S. Department of Veterans Affairs. Navigation links include 'Veterans Benefits and Health Care', 'About VA', and 'Find a VA Location'. The main header area contains 'Search HSR&D' and 'Contact VA'. The breadcrumb trail reads 'HSR&D Home » Research » Search Results'. The page title is 'Health Services Research & Development'. A search bar contains the text 'stroke' with a 'go' button. Below the search bar, it states '128 HSR&D Projects found for search on "stroke"'. A table of search results is shown with columns for Project No., Title, PI, and Funding End. A sidebar on the left lists various navigation options, and a central panel contains a 'Search Projects:' input field and a note about data freshness.

VA | U.S. Department of Veterans Affairs

Search HSR&D | Contact VA

Veterans Benefits and Health Care | About VA | Find a VA Location

HSR&D Home » Research » Search Results

## Health Services Research & Development

[New Projects](#) | [Current](#) | [Completed](#) | [DRA](#) | [DRE](#) | [Portfolios/Projects](#) | [Centers](#) | [Career Development](#) | [Pre-Funded](#)

### Search Results for "stroke"

Search again:

128 HSR&D Projects found for search on "stroke".

click column names to sort

PROJECT NO.	TITLE	PI	FUNDING END
<a href="#">IIR 16-211</a>	Addressing Sleep Apnea Post-Stroke (ASAP)	Sico, Jason	2024-03-31
<a href="#">IIR 15-117</a>	Spanish Online & Telephone Intervention for Caregivers of Veterans with Stroke	Freytes, Ivette	2023-09-30
<a href="#">IIR 16-227</a>	Integrated Preventive Cardiology Initiative	Hayward, Rodney	2022-06-30
<a href="#">CDA 18-327</a>	Race/ethnic differences in guideline recommended hypertension medications in VHA	Mohanty, April	2022-03-31
<a href="#">IIR 14-306</a>	De-Intensifying Unnecessary Medications in VA CLC Residents Nearing End of Life	Thorpe, Carolyn	2021-06-30
<a href="#">C19 20-217</a>	Effectiveness of telehealth to adequately manage ACSC such as admission for congestive heart failure (CHF)	Winchester, David	2021-04-30
<a href="#">IIR 11-343</a>	Utilizing the RESCUE Stroke Caregiver Website to Enhance Discharge Planning	Uphold, Constance	2021-03-31
<a href="#">IIR 14-083</a>	Assessing Hypertension Care for Aged Veterans: Balancing Risks and Benefits	Min, Lillian	2021-02-03

HSR&D Home

- About Us
- COVID-19 Efforts
- Research Impacts & Awards
- Research Topics
- Career Development Program
- Centers and Research Networks
- Cyberseminars
- Partnered Research
  - For Managers
  - For Researchers
  - For Veterans
- Funding
- Meetings
- News | Features | Multimedia

HSR&D Research Studies and Implementation Projects

NOTE: data kept current with daily downloads

Search Projects:

Browse studies and projects sorted by:

<https://www.hsr.d.research.va.gov/research/>

# HSR&D RFAs are only on VA intranet

VA | U.S. Department of Veterans Affairs

Q Search HSR&D | Contact VA

Veterans Benefits and Health Care | About VA | Find a VA Location

HSR&D Home » Funding » List of HSR&D RFAs

## Health Services Research & Development

- HSR&D Home
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- Career Development Program
- Centers and Research Networks
- Cyberseminars
- Partnered Research
- For Managers
- For Researchers

### List of HSR&D RFAs

New RFAs with instructions for submitting proposals electronically are available on the **Office of R&D intranet** at <https://vaww.research.va.gov/funding/rfa.cfm> [VA Intranet only – link will not work outside VA]

VA Research is *intramural*, meaning only VA employees can conduct research under VA's sponsorship. To learn more about what makes VA research unique, [click here](#).

For reference, we have reproduced the table of HSR&D RFAs below, however you must go to the R&D Intranet to download them.

HEALTH SERVICES RESEARCH AND DEVELOPMENT (HSR&D)	RFA NUMBER	ACTIVE CYCLES
--------------------------------------------------	------------	---------------

# Learn about your local resources

- Is there a VA HSR or QUERI Center at your affiliated VA?
  - Look at their website—what research do they do? What training programs do they offer?
  - Ask to meet to talk about shared research interests and possible collaborations
- Talk to your local VA Associate Chief of Staff for Research (ACOS-Research) about what type of neurology-relevant research is happening at the facility and how university faculty can get involved
- Help VA Neurology service work with facility leadership to see win-win in putting clinical researchers in VA Neurology positions
  - Build on VA needs, especially when there are operational foci and funds: Headache/TBI, ALS, Stroke



[Linda.Williams6@va.gov](mailto:Linda.Williams6@va.gov)

# *VA-University Affiliations: Collaboration in Education*

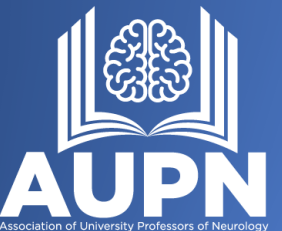
Alfred (Tom) Frontera, M.D.

Director, Epilepsy Center of Excellence

Deputy Chief, Neurology Section, James A. Haley Veterans' Hospital (Tampa, FL)

Associate Professor, Vice Chair, Program Director, Dept. of Neurology

University of South Florida Morsani College of Medicine



# Topics for Discussion:

- VA's Health Education History
- OAA's Educational Impact and Recent Statistics
- Administrative Structure
- Unique Benefits of Training at the VA
- How to Obtain VA-funded Residency/Fellowship Positions

# Office of Academic Affiliations (OAA)

- Mission:

“To Educate for VA and for the Nation” in partnership with our Affiliates.”

- 1946 VA Policy Memorandum No. 2:

– mandates that “VA assist in training of health professionals for its own needs and those of the nation.”

- The VA’s partnership with the country’s medical and associated health professions schools has grown into the most comprehensive academic health system partnership in history...



# How successful is the program?

## Official 7 Year Statistics (Paid and WOC): \*

	FY2013	FY2014	FY2015	FY2016	AY2017**	AY2018**	AY2019**
Advanced Fellows	253	311	387	452	303	652	664
Associated Health	26,121	26,445	26,135	26,932	25,428	25,370	24,895
Dental Residents & Students	1,397	1,398	986	1,044	849	773	732
Physician Residents	40,420	41,698	43,013	43,768	44,333	45,296	45,363
Medical Students	21,541	23,037	24,283	25,707	24,763	24,643	26,894
Nursing Trainees	29,067	28,088	28,389	28,845	27,549	23,815	25,194
Non-Health Profession	N/A	368	359	463	412	341	448
<b>Grand Total</b>	<b>118,799</b>	<b>121,345</b>	<b>123,552</b>	<b>127,211</b>	<b>123,637</b>	<b>120,890</b>	<b>124,190</b>

\*NOTE: \*Data collected through the OAA Annual Health Services Training Report completed by each VA facility at the end of each academic year (VA training academic year runs from July 1 through June 30). \*\*Methodology changed in 2017 data from a Fiscal Year (FY) to an Academic Year (AY) frame. This results in more accurate data collection and avoids double-counting of trainees.

# National Impact:

- VA program collaborates with 97% of US Medical Schools:
  - 149 of 155 LCME-accredited medical schools
  - 37 of 37 DO schools
- Training Programs are available at 154 (90%) of VA facilities
- > 40 other health professions represented by affiliations with > 1800 colleges/universities
- 20,000 trainees from Minority Serving Institution
- % who had VA training prior to employment:
  - 65% of all US trained physicians (70% of VA physicians)
  - 50% of US psychologists (70% of VA psychologists)

# Medical & Dental Trainee Positions Nationwide:

- **120,890 total trainees AY 2018\***
  - 71,687 Medical & Dental Total Trainees
  - **Physician Residents 45,296**
  - Medical Students 24,643
  - Dental Residents/Students 1,748
- **Overall Trainee Satisfaction 93%**
- **Willingness to work at the VA 73%**

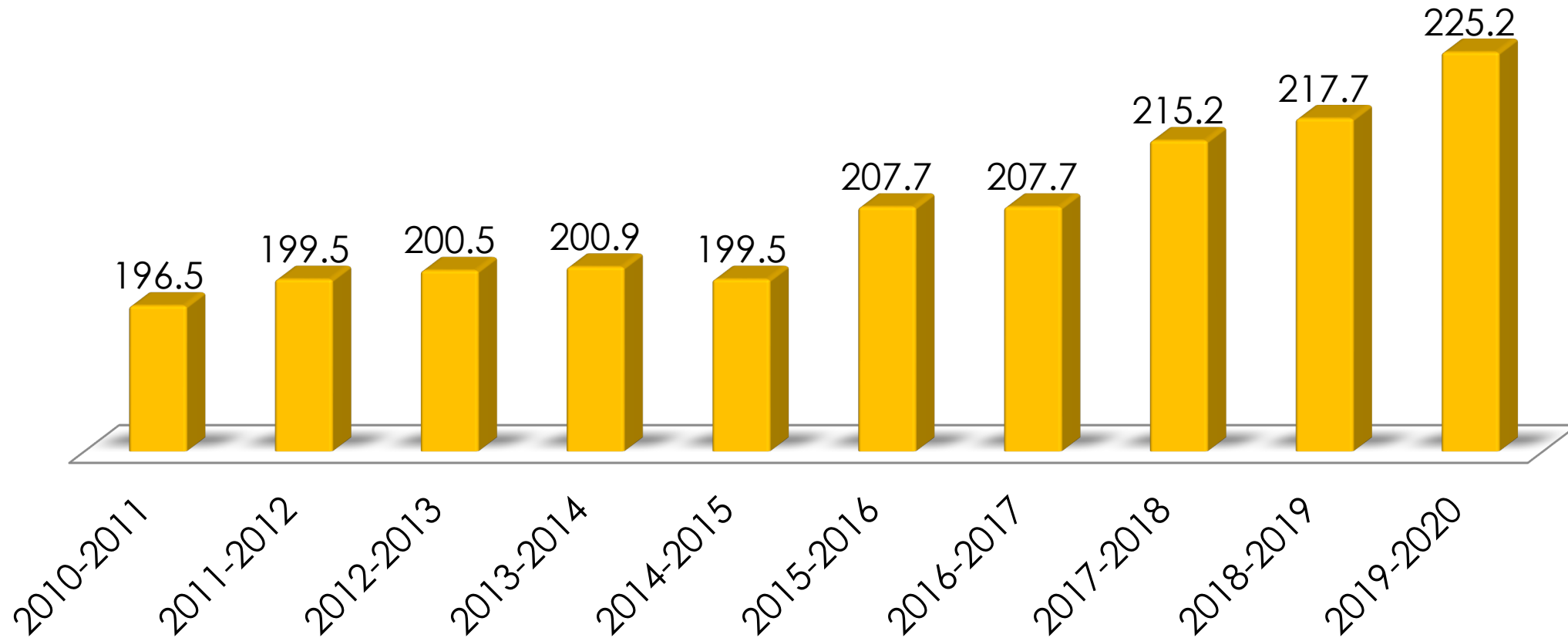
# Clinical Training Budget – No Small Thing

**Education & Training Total**  
**Includes Veterans Choice Act Sec. 801 and Veterans Choice Program**  
**(dollars in thousands)**

		2018		2019		2020
	2017	Budget	Approved	Advance	Revised	Advance
Description	Actual	Estimate	Budget	Approp.	Request	Approp.
<b>Obligations [Total]</b>	<b>\$2,118,345</b>	<b>\$1,920,756</b>	<b>\$2,071,918</b>	<b>\$1,999,009</b>	<b>\$2,028,040</b>	<b>\$2,163,137</b>
Education & Training Support	\$1,208,609	\$935,378	\$986,000	\$973,188	\$994,815	\$1,074,681
Education & Training Trainees	\$230,857	\$229,299	\$279,921	\$210,623	\$232,250	\$251,111
Graduate Medical Education Trainees	\$678,879	\$756,079	\$805,997	\$815,198	\$800,975	\$837,345



# Tampa VA Resident/Fellow Allocations Funded by OAA:



# Tampa VA Neurology Positions:

- Neurology Residency: 14 FTE's (out of 32 total FTE's)
- Clinical Neurophysiology Fellowship: 2 FTE's
- Pain Management: 2 FTE's

# OAA Sponsored Advanced Fellowships:

- <https://www.va.gov/oaa/>

## Advanced Fellowship Programs

- Addiction Treatment
- Advanced Geriatrics
- American Board of Medical Specialties Visiting Scholars (ABMS)
- Big Data-Scientist Training Enhancement Program (BD-STEP)
- Geriatric Neurology**
- Health and Aging Policy Fellows Program
- Health Services Research and Development
- Health Professions Education Evaluation and Research
- Health Systems Engineering
- Medical Informatics
- Mental Illness Research & Treatment (MIRECC)
- Multiple Sclerosis**
- National Clinician Scholars Program
- Parkinson's Disease**
- Patient Safety
- Polytrauma and Traumatic Brain Injury Rehabilitation**
- Psychiatric Research and Neurosciences**
- Psychosocial Rehabilitation and Recovery Oriented Services
- Quality Scholars Clinical Simulation
- Spinal Cord Injury Research**
- War Related and Unexplained Illness
- Women's Health

# Associated Health Professional Training:

- “Associated Health” includes all clinical health professions with the exception of Medicine, Dentistry, and Nursing
- Over 40 Associated Health professions train in VA
  - For all clinical trainees, approximately 127,000 rotate through VA annually
  - Approximately 25,000 are AHE trainees
  - ~85% are without compensation (WOC)
- 17 funded AHE disciplines
  - AY 18 – just over 4,900 stipends
  - \$139 million



# Associated Health Funded Programs:

<b>Audiology</b>	<b>Blind Rehabilitation</b>	<b>Chiropractic Care</b>	<b>Clinical Pastoral Education</b>	<b>Dietetics</b>
<b>Licensed Professional Mental Health Counselors</b>	<b>Marriage and Family Therapists</b>	<b>Occupational Therapy</b>	<b>Optometry</b>	<b>Pharmacy</b>
<b>Physical Therapy</b>	<b>Physician Assistants</b>	<b>Podiatry</b>	<b>Prosthetics/Orthotics</b>	<b>Psychology</b>
<b>Social Work</b>	<b>Speech Pathology</b>			

# Administrative Structure:

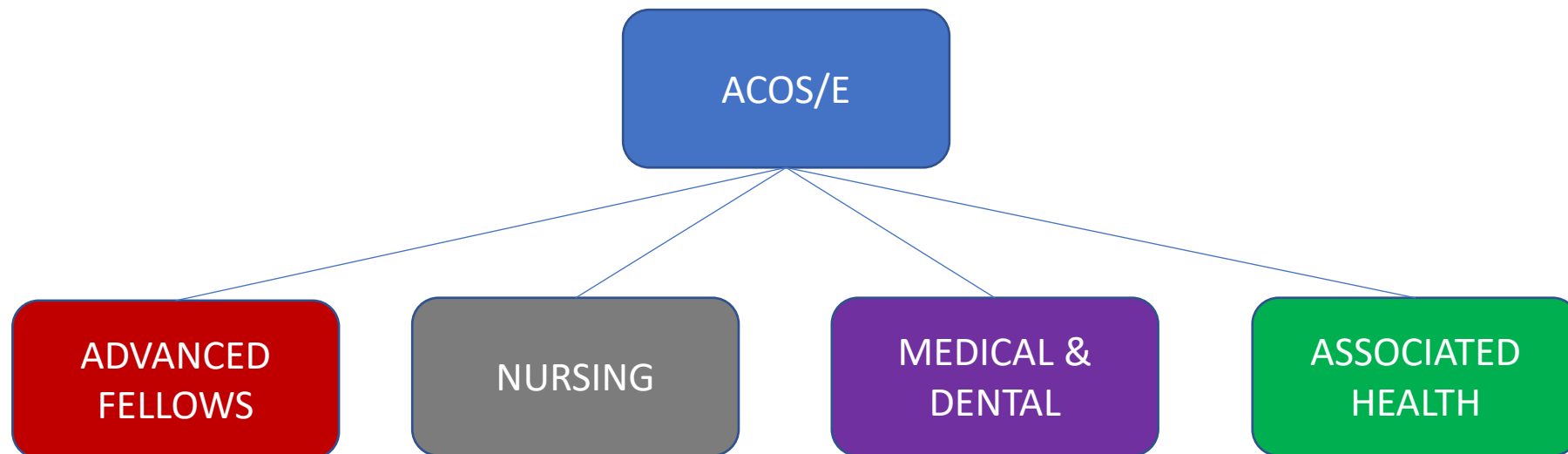
## DESIGNATED INSTITUTIONAL OFFICER (DIO):

- Authority and responsibility for the oversight and administration of the sponsoring institution's ACGME accredited programs and is responsible for ensuring compliance w/ACGME institutional requirements
- Signs all program info and forms submitted by PD's that address program citations or request changes in the programs that would have an impact on the education program or institution.

# Administrative Structure:

## DESIGNATED EDUCATION OFFICER (DEO):

- VHA Handbook 1400.05: Designated Education Officer. The Designated Education Officer (DEO) is the single, designated VA employee who has oversight responsibility for **all health professions training** at a VA medical facility.
- At VA Facilities this is the ACOS/Education



# Administrative Structure:

## PROGRAM DIRECTOR:

- *Ensures quality of the overall education and training program in a given discipline and for ensuring that the program is in compliance with the policies of the accrediting bodies.*
  - Maintenance, evaluation, and improvement of a specific education and training program
  - Program Operations and logistics, educational objectives and curriculum development
  - Evaluation methodologies and mechanics, and relationships with accrediting agencies and certifying bodies
  - **May be VA or Affiliate paid** (or combination)
  - In GME this is the person noted on the ACGME/AOA documentation

# Administrative Structure:

## VA SITE DIRECTORS:

*Ensures supervising practitioners are appropriately fulfilling their responsibilities to provide supervision of residents*

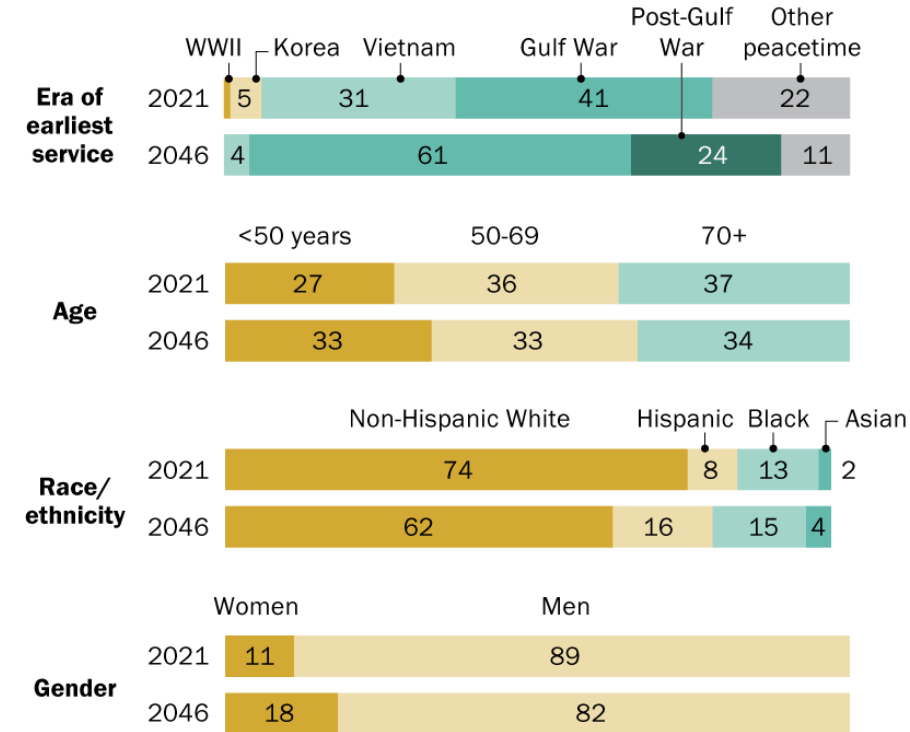
- Ensures evaluations are conducted
- Ensures Residents/Fellows function within their graduated levels of responsibility
- Structures training programs w/Program Director - Communication
- MTT is completed and up to date
- **In GME often the person with daily responsibilities regarding resident activity tracking**

# Opportunities & Benefits of VA Collaborations:

- Exposure to the Nation's largest Integrated Healthcare System.
  - Opportunity to care for patients across the spectrum of care:
    - acute, subacute and chronic patient care settings (and often follow the same patients through these transitions of care)
- Unique Patient Populations (TBI, Polytrauma, Spinal Cord Injury)
- Diverse Patient Population (in terms of ethnicity, religion, age, race and more and more in terms of gender).

## Looking forward at the changing profile of U.S. veterans

% of U.S. veterans by ...



Note: The VA categorizes Post-Gulf War as peacetime. Veterans who served for multiple eras are included in the earliest era only. Data for Black and Asian veterans includes Hispanics. Hispanics are of any race. Other races not shown. Projections are based on estimates of current veteran population and active-duty military personnel and incorporate estimates of future military separations. Reservists who did not serve on active duty are not included in these projections unless they were disabled during training.

Source: Department of Veterans Affairs Veteran Population Projection Model 2018.

# Opportunities and Benefits of VA Collaborations:

- Exposure to National Subspecialty Centers of Excellence (ECoE's, PADREC's, MSCoE, HACoE, Polytrauma Centers, ALS Multi-disciplinary clinics)
- Opportunities to work in Multi-Disciplinary teams (note extensive Associated Health Professional Training Programs at VA)
- Support Joint VA/University Faculty Positions
  - More time to devote to teaching activities c/w University Affiliates
  - Includes support for PD and Clerkship Director lines



# Opportunities and Benefits of VA Collaborations:

- Unique Training Opportunities
  - QI/QA/Patient Safety Projects (ACGME requirements)
  - QI/QA Patient Safety Fellowships
  - Simulation Training
  - Exposure to Tele-Health
  - Clinical Research Opportunities
  - Lean Management Training (available to trainees and staff)

- Special Thanks to Dr. David Whitaker, Tampa VA ACOS-Education, for providing some of the data slides.

# *Approach to Maximizing GME opportunities*

Charles Brock, MD

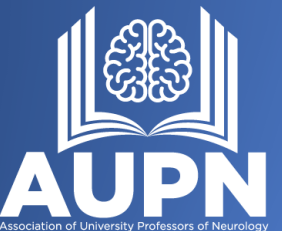
Associate Dean, Veterans Affairs

Senior Vice Chair

Chief, Neurology Service, James A Haley VA

Program Director, Pain Medicine

USF Morsani College of Medicine



# Opportunities for GME enhancement

- OAA special advanced fellowships
  - Please see their website
  - Unique offerings
- Collaboration with Academic Affiliate
  - Building infrastructure
  - Talent recruitment
  - Faculty development

# Collaboration with Academic Affiliate

- Building infrastructure
  - Having space and time for trainees to have patient care experiences
  - Point out the variety of patient care experiences you may have
  - Highlight unique or special programs you may have – MS, Pain, TBI, geriatric, movement disorder, etc
  - Seek every program opportunity for growth – Headache, epilepsy, TBI, etc
    - Gives resources back to facility – VERA
    - Provides unique experiences not as available elsewhere
    - Often offer research elements

# Faculty Recruitment/Retention

## Faculty Development

- Highlight advantages the VA position can offer
- Seek academic minded personnel
- Have a mentoring process available
- Home Health – personal wellness programs
- Opportunities for research career pathway – you have to facilitate
- Partner with academic affiliate when applicable to expand subspecialty capability
- Loan repayment program
- Protected time
  
- Example – 50/50 pain MS specialist

# OAA special advanced fellowships

## Learn More

Read the [Advanced Fellows Handbook](#) to learn more about the program. Over 20 Advanced Fellowships are offered.

### Advanced Fellowship Programs

- Addiction Treatment
- Advanced Geriatrics
- American Board of Medical Specialties Visiting Scholars (ABMS)
- Big Data-Scientist Training Enhancement Program (BD-STEP)
- Geriatric Neurology
- Health and Aging Policy Fellows Program
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- Psychiatric Research and Neurosciences
- Psychosocial Rehabilitation and Recovery Oriented Services
- Quality Scholars Clinical Simulation
- Spinal Cord Injury Research
- War Related and Unexplained Illness
- Women's Health

# GME enhancement

- Maximize training experiences
  - Unique patients and qualified faculty
  - Ensure supervision but can enhance your capacity
- Has to be balanced with academic affiliate to meet ACGME requirements
- Request through ACOS-E for positions
  - Benefit to facility – indirects and VERA dollars



# offers

- Patient safety
- LEAN training
- Simulation exposure
- Telemedicine experience
- Research
- Quality assurance
- Facilitate future recruitment

# Questions

- [Charles.brock@va.gov](mailto:Charles.brock@va.gov)
- 813-972-7633

# Thank you