DATA DRIVEN INSIGHTS TO IMPROVE RECRUITMENT AND RETENTION OF VA PRIMARY CARE PHYSICIANS

Edwin S. Wong, PhD
Center of Innovation for Veteran-Centered and Value-Driven Care
VA Puget Sound Health Care System
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• Maintaining a fully staffed and highly functioning workforce is one element of VHA’s promise of delivering high quality care to Veterans
• Many VHA facilities facing staffing challenges exacerbated by pandemic
  • In October-December 2021, VHA had 47,310 staff vacancies¹
  • OIG report found 90% of facilities had “severe shortage” in at least one physician specialty²
• 2021 All Employee Survey data indicated 25% of respondents reported ≥1 symptom of burnout on a weekly basis³

¹VA Mission Act Section 505 Data - FY2021 Quarter 4, published 2022
²VA Office of the Inspector General, 2021
³Reddy, Marks and Upton, VA HSR&D Forum, Spring 2022
BACKGROUND

• **Objective:** Present findings from HSR&D supported research study
  • Data-driven insights to improve recruitment and retention of VA primary care physicians
  • Advance scientific evidence in area of health care workforce
  • Findings intended to inform VA strategic physician workforce planning
OVERALL SPECIFIC AIMS OF HSR&D FUNDED AWARD

- **Aim 1**: Identify determinants of VA employment consideration among internal medicine residents (i.e., recruitment) using mixed methods

- **Aim 2**: Identify determinants of primary care physician turnover in VA overall and rural VA clinics using quantitative methods
QUALITATIVE PERSPECTIVES OF TRAINING AND WORKING IN VA
REASONS FOR STUDYING EXPERIENCES OF VA MEDICAL RESIDENTS

Largest provider of medical resident training in US
(Geppert, 2016)

VA trainee satisfaction increases likelihood of considering VA post-residency
(Cannon et al., 2008; Keitz et al., 2019)

Initial exposure to an organization (less than 2 years) influences desire to stay or leave
(Cooman et al., 2009)
Objective:
to understand...

Perceptions and experiences of residents and PCPs with limited tenure within primary care in the VA Healthcare System

Mutable factors to improve PCP recruitment and retention
PARTICIPANT RECRUITMENT

- Conducted in collaboration with OAA
- Via email
- Purposive sampling
- **PCPs**
  - All MDs/DOs listed as primary care provider for ≥ 1 VA patient
  - Newly employed (≤ 2 years) with VA
  - Invited 285 PCPs to participate (95 responded, 44 declined, 21 interested but lost to follow-up, zero ineligible)
PARTICIPANT RECRUITMENT

- **Residents**
  - All residents with primary care clinic at VA
  - Residency years 2 to 4, and recent graduates
  - Invited 1768 residents to participate (132 responded, 80 declined, 6 interested but lost to follow-up, 26 ineligible)

- All participants provided informed consent
DATA COLLECTION

- Individual, semi-structured interviews; audio-recorded, transcribed
  - Unstructured $\rightarrow$ Structured
  - **Essential aspect:** using participants’ *verbatim* language (e.g., “Tell me more about ‘difficult’”) in follow-up probes
- Guides iteratively refined
it’s the **best kept secret** for reasons that are unclear to me and I don’t understand why more physicians don’t want to come work for the VA… I see it as the pinnacle of my professional career.

-PCP
Theme 1

**VA culture** was considered unique and a major contributor to job fulfilment.

- A special sense of community
- A place where work-life balance is possible
- Leadership support determined feeling safe or not
- Veteran population is intense to care for, which is a draw
- Attendings model strong primary care and life skills
Theme 2

PACT had the potential to be “... a true Patient-Centered Medical Home,” but didn’t always live up to that ideal.

- Direct access to PACT-integrated specialists helped address social determinants of health.
- Not having the help of PACT support staff created extra work for providers.
- Administrative burden due to lack of support exacerbated by EHR.

Theme 3

The VA needs **continued change** to be competitive

- **Improve advertising and recruitment through exposure**
- **Streamline and modernize hiring processes**
Alignment of personal values and the values of an organization increases the likelihood of remaining in that organization

- VA’s mission, service-oriented values, and work-life balance underscores the role of culture
- Indicated as important aspects of VA by both residents and new PCPs
- Recruiting physicians that rank these values highly may yield best results for maintaining strong VA PCP workforce
SURVEY DATA TO IMPROVE RECRUITMENT OF VA MEDICAL RESIDENTS
STUDY OBJECTIVE

- Quantify how factors associated with considering permanent VA employment among internal medicine residents
  - Demographics
  - Experiences with VA training
  - Job preferences
STUDY SAMPLE

- Medical residents rotating through VA primary care between December 2020 and July 2021
  - Assigned a primary care panel
  - Identified in OAA HPT list
- 4,545 residents invited to participate
SURVEY PROCEDURES

- Online survey through VA approved platform
- Residents invited through email address listed in OAA HPT database
- Expected time to complete: 5-10 minutes
EXAMPLE SURVEY ITEMS

**VA Exposure / Experience**
- EMR system - usability
- EMR remote access
- Quality of facilities
- Satisfaction with VA training
- Perceived quality of life of VA attendings

**Individual preferences**
- Preferred FTE - clinical / research / teaching / admin
- Work/life integration
- Identification with VA mission
- Prefer to have longitudinal relationships
- Workload expectation
4. Thinking about the VA facility where you trained/are training, rate your satisfaction with the following areas: (If you trained at more than one VA facility, think about your most recent training experience.)

<table>
<thead>
<tr>
<th>Area</th>
<th>Very Dissatisfied (1)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Very Satisfied (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee onboarding experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical environment (e.g., clinic rooms, offices, public spaces)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of clinical staff and services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of non-clinical staff and services (e.g., HR, tech support)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity with patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ownership / personal responsibility for your patients’ care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship with patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appreciation of your work by patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of care your patients receive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. When you decide where to practice in the future, to what extent are the following important to you? Please select one response for each factor.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not Important At All (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>Extremely Important (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic location</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Partner’s career and/or preference</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Good place to raise a family (e.g., educational environment)</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Work/life balance</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Number of hours worked</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Income / compensation</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Additional benefits (e.g., retirement, life insurance)</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Availability of educational loan forgiveness</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td>o</td>
</tr>
</tbody>
</table>
DATA ANALYSIS

- Descriptive comparisons of job preferences and experiences with VA training
- Multivariable analysis examining adjusted associations between consideration of VA employment, job preferences and VA training experiences
  - Weighted to account for differences in non-response rates by gender, email type and time of the year
  - LASSO procedure to eliminate non-influential factors
INTEREST IN VA CAREERS

- How likely would you consider future employment at a VA medical facility?

<table>
<thead>
<tr>
<th>Response Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have already decided to work at VA</td>
<td>7.8</td>
</tr>
<tr>
<td>Very likely</td>
<td>21.2</td>
</tr>
<tr>
<td>Likely</td>
<td>25.3</td>
</tr>
<tr>
<td>Neutral</td>
<td>18.2</td>
</tr>
<tr>
<td>Unlikely</td>
<td>11.9</td>
</tr>
<tr>
<td>Very Unlikely</td>
<td>8.2</td>
</tr>
<tr>
<td>I have already decided not to work at VA</td>
<td>4.8</td>
</tr>
<tr>
<td>Undecided</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Percentages may not sum to 100 due to rounding.
TAKEAWAY POINTS

- More positive experiences with VA training associated with a greater odds of considering VA for future employment
  - Perceptions of VA careers supporting work-life balance a consistent theme
  - Quality of clinical staff and services
- VA a particularly appealing for some residents interested in pursuing primary care careers
SURVEY DATA USE CASES

- Identify attractive aspects of VA positions to promote during recruitment
- Design of recruitment packages and positions
- Pinpoint which residents to target recruitment efforts
MODIFIABLE DETERMINANTS OF TURNOVER
Quantify effect of three key factors:

- Compensation
- Dimensions of workplace climate
- Elements of the PACT primary care model

**Impact**: Identify the components of programs to reduce turnover that are likely to succeed
ANALYTICAL FRAMEWORK

- Developed a longitudinal database of primary care physicians employed in VA between FY2003 through FY2016
  - Algorithm to identify physicians using primary care management module (PCMM)
  - Tracked physician characteristics and turnover outcomes
- Applied econometric techniques for time-to-event data
  - Discrete hazard models
### Example Data Sources and Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>Example Variables</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>Age, gender, Veteran status, experience</td>
<td>CDW, PAID</td>
</tr>
<tr>
<td>Job Attributes</td>
<td>Wage rate, performance bonus, panel size, full vs. part time, permanent status</td>
<td>CDW, PAID</td>
</tr>
<tr>
<td>Clinic Factors</td>
<td>Rural location, CBOC, geographical region</td>
<td>VAST, CDW</td>
</tr>
<tr>
<td>Workplace Climate</td>
<td>Adequate resources, supervisory support, innovation, perceptions of workload</td>
<td>AES</td>
</tr>
<tr>
<td>PACT Implementation</td>
<td>Degree to which clinics deliver continuous, comprehensive care</td>
<td>OPC</td>
</tr>
<tr>
<td>Local Area</td>
<td>Wage of non-VA primary care physicians, number of non-federal physicians</td>
<td>AHRF*, OES*</td>
</tr>
</tbody>
</table>

CDW=Corporate Data Warehouse, PAID=Personnel Accounting Integrated Data, VAST=VA Site Tracking System, AES=All Employee Survey, OPC=Office of Primary Care data, AHRF*=Area Health Resource File, OES*=Occupational Employment Statistics

* Non-VA Public Use Data
### ELEMENTS OF PACT IMPLEMENTATION

<table>
<thead>
<tr>
<th>P1 Domains</th>
<th>Total Items, No.</th>
<th>CAHPS PCMH</th>
<th>CDW</th>
<th>Personnel Survey</th>
<th>Example Item(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>How often did you get an appointment as soon as you needed? When you phoned this provider’s office, how often did you get an answer to your medical question that same day? Same-day access to appointments (% of clinics) Enhanced access: telephone clinics (%)</td>
</tr>
<tr>
<td><strong>Continuity of care</strong></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>How long have you been going to this provider? Proportion of visits to assigned primary care provider</td>
</tr>
<tr>
<td><strong>Care coordination</strong></td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>When this provider ordered a test, how often did someone from this provider’s office follow up to give you those results? Did the provider seem informed and up to date about the care you got from specialists? Percentage of patients contacted 2 d after hospital discharge</td>
</tr>
<tr>
<td><strong>Comprehensiveness</strong></td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>Did you and anyone in this provider’s office talk about things in your life that worry you or cause you stress?</td>
</tr>
<tr>
<td><strong>Self-management support</strong></td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>Did anyone in this provider’s office talk with you about specific goals for your health?</td>
</tr>
<tr>
<td><strong>Patient-centered care and communication</strong></td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>How often did this provider explain things in a way that was easy to understand?</td>
</tr>
<tr>
<td><strong>Shared decision making</strong></td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>When you talked about starting a prescription medicine, did this provider ask you what you thought was best for you?</td>
</tr>
<tr>
<td><strong>Delegation, staffing, and team functioning</strong></td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>Primary care provider relies on registered nurse care manager for tasks including gathering patient preventive services, responding to prescription refills Percentage reporting recommended staffing ratio Time spent in team huddles: percentage spending &gt; 30 min/d</td>
</tr>
</tbody>
</table>

1Nelson, Helfrich, et al. (2014), JAMA Internal Medicine
### EFFECT OF PACT ELEMENTS

<table>
<thead>
<tr>
<th>PACT Domain</th>
<th>OR</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>0.663</td>
<td>0.449</td>
<td>0.980</td>
</tr>
<tr>
<td>Care Coordination</td>
<td>1.117</td>
<td>0.680</td>
<td>1.837</td>
</tr>
<tr>
<td>Comprehensiveness</td>
<td>1.071</td>
<td>0.768</td>
<td>1.492</td>
</tr>
<tr>
<td>Self-Management</td>
<td>0.707</td>
<td>0.511</td>
<td>0.978</td>
</tr>
<tr>
<td>Communication</td>
<td>0.959</td>
<td>0.725</td>
<td>1.267</td>
</tr>
<tr>
<td>Shared Decision Making</td>
<td>1.175</td>
<td>0.883</td>
<td>1.563</td>
</tr>
<tr>
<td>Team-Based Care</td>
<td>0.925</td>
<td>0.776</td>
<td>1.103</td>
</tr>
</tbody>
</table>

Physicians employed in clinics that provide better access to care and greater self-management support have lower odds of turnover.
Employees’ satisfaction with workload was the most consistent workplace climate factor associated with turnover.

**Workload Satisfaction**: Responses to the AES question:

- *How satisfied are you with the amount of work that you currently do?*
- 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied
- Averaged responses among all primary care employees within a facility
EFFECT OF WORKLOAD

- Average rate of quarterly turnover over period FY2008-FY2016 was 1.8%
- Average employment tenure as of FY2016-Q4 was 34.7 quarters (~8.7 years)
- 1-point increase in facility-level workload satisfaction score associated with:
  - 0.7 percentage point decrease in quarterly turnover probability
  - 0.35 quarter increase in employment tenure

**Greater satisfaction with workload among primary care staff associated lower turnover probability and longer employment tenure**
An approximately $2,000 increase in salary reduces the odds of turnover by approximately 5%.
SUMMARY

- Highlighted key findings from HSR&D funded multi-methods study identifying key determinants of recruitment and retention of VA primary care physicians.
- As largest provider of medical training, VHA has unique opportunity to reinforce desirable aspects of VHA employment during residency.
- Examined a database of primary care physicians practicing at VHA facilities to identify job and system-level factors associated with lower turnover.
  - Influential factors may form the basis for strategic approaches targeting recruitment and retention of the VA health workforce.
Thank you to our study participants for sharing their views!

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Study Team
- Megan Moldestad, MS CCC-SLP
- Johnny Mao, MPH
- George Sayre, PsyD
- Chuan-Fen Liu, PhD, MPH
- Karin Nelson, MD, MSHS
- Ashok Reddy, MD, MSc
- Nora Henrikson, PhD, MPH
- Ryan Sterling, PhD, MPH, MSW
- Peter Kaboli, MD, MS
- Seppo Rinne, MD, PhD
- Christian Helfrich, PhD, MPH
- Chuck Maynard, PhD, MSW
- Catherine Kaminetzky, MD, MPH
CONTACT INFO

Edwin Wong, PhD

eswong@uw.edu

@HSREdwin