



**Department of Veterans Affairs  
Office of Inspector General**

**Office of Healthcare Inspections**

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# **OIG Determination of Veterans Health Administration's Occupational Staffing Shortages**

**September 1, 2015**

**Washington, DC 20420**

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## Executive Summary

The VA Office of Inspector General (OIG) conducted its second of several determinations of Veterans Health Administration (VHA) occupations with the largest staffing shortages, as required by Section 301 of the Veterans Access, Choice, and Accountability Act of 2014.

We interpreted “largest staffing shortage” to encompass broader deliberation than simply the number needed to replace or backfill vacant positions for an occupation and refer to occupations that met broader criteria as critical need occupations. We performed a rule-based analysis of VHA data to identify critical need occupations, analyzed data on gains and losses for these occupations, and assessed VHA’s progress with implementing staffing models.

We determined that the top five critical need occupations were Medical Officer, Nurse, Psychologist, Physician Assistant, and Physical Therapist. The identification of these occupations remains unchanged from our initial determination reported in January 2015.

Our analysis of staffing gains and losses shows that for these critical need occupations, a significant percentage of total gains was offset by losses. We determined that the number of regrettable losses (that is, resignations and transfers to other government agencies) for many critical need occupations was high.

This analysis likely does not capture the effect of the 2014 Veterans Access, Choice, and Accountability Act, as that law was implemented on August 7, 2014, and our analysis only includes data up until September 30, 2014. However, our analysis does provide an understanding of the historical pattern of staffing changes at VHA leading up to the enactment of that law.

Further, we found that VHA’s staffing model is in development and consists of different models covering distinct areas of VHA staffing needs. VHA is working on extending the Specialty Productivity Access Report and Quadrant staffing tool to more occupations.

We made two recommendations.

1. We recommended that the Under Secretary for Health ensure that the Veterans Health Administration further develops staffing models for critical need occupations.
2. We recommended that the Under Secretary for Health review the data on regrettable losses in this report and Veterans Integrated Service Network Workforce Succession Strategic Plans and, if appropriate, consider implementing measures to reduce such losses.

In response to a technical comment, we added a footnote for clarification.

## Comments

The Under Secretary for Health concurred with our recommendations and provided an acceptable action plan. (See Appendixes B, pages 17–22 for the Directors' comments.) We will follow up on the planned actions until they are completed.



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## Purpose

The Veterans Access, Choice, and Accountability Act (Public Law 113-146) requires the Office of Inspector General (OIG) to annually determine "...the five occupations of personnel of this title of the Department covered under section 7401 of this title for which there are the largest staffing shortages throughout the Department as calculated over the five-year period preceding the determination." The first determination was to be performed within 180 days of the passage of the law with annual determinations by September 30 in subsequent years. This is the first subsequent determination from the first report.

On January 30, 2015, the OIG published its first report on staffing shortages and determined the top 5 occupations of critical need were Medical Officer, Nurse, Physician Assistant, Physical Therapist, and Psychologist.<sup>1</sup> We recommended the Interim Under Secretary for Health continue to develop and implement staffing models for these and other critical need occupations.

For this second determination, we sought to ascertain VHA's progress in the development and implementation of staffing models.

## Background

### **The Veterans Access, Choice, and Accountability Act of 2014**

In May 2014, the OIG reported ongoing concerns regarding access to Veterans Health Administration (VHA) care, VHA scheduling practices, and excessive wait times. In response to these concerns, Congress passed the Veterans Access, Choice, and Accountability Act of 2014, which was signed into law by the President on August 7, 2014.

Title III of this law addressed healthcare staffing, recruitment, and training. Section 301 requires the OIG to determine the five occupations with "largest staffing shortages." In addition, the law requires VHA to address "...appropriate staffing levels for healthcare professionals to meet the goals of the Secretary for timely access to care for veterans." The law specifies four clinical areas of heightened concern including primary care, mental health, women's health, and gastroenterology, as well as other areas as determined by the VA Secretary.

For the purposes of the OIG determination, the phrase "largest staffing shortages" is interpreted to encompass broader deliberation than simply the number needed to replace or backfill vacant positions for an occupation. Because of this interpretation, we referred to occupations which met the criteria on the next page as critical need occupations.

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<sup>1</sup> *OIG Determination of Veterans Health Administration's Occupational Staffing Shortages*. Report No. 15-00430-103. January 30, 2015

There are many potential ways to assess staffing shortages. Considerations might include, but are not limited to:

- The number of vacancies
- Occupations with past and anticipated growth in demand
- Occupations for which hiring from the available labor force is highly competitive
- Occupations with historically high attrition rates
- Incorporation of existing or anticipated programmatic growth
- Geographic and demographic variability
- Productivity and allocation of staff duties between direct care, administrative, and research responsibilities
- Occupations that overlap in their contributions to patient care
- Variance from data-driven occupational staffing standards

### **VHA's Workforce Succession Strategic Plan**

VHA annually collects and analyzes system-wide data to determine its workforce needs. This work is summarized in VHA's Workforce Succession Strategic Plan, which is developed and published annually.

As part of its annual submission, each VHA facility generates a ranking of the most difficult occupations to recruit and retain. Individual facility rankings are submitted to the relevant Veterans Integrated Service Network (VISN). VHA's Workforce Management and Consulting Office (WMCO) provides guidance to VISN planners who may modify the results based on their knowledge and analyses of the occupations. However, the specific ranking process is left up to each VISN to determine. Additionally, the submission includes a narrative component where VISN Human Resources staff can describe further their selection of top occupations and projections for those occupations.

WMCO uses the VISN level rankings to calculate a score for each occupation. The average VISN rank for an occupation is multiplied by the number of VISNs that ranked the specific occupation in the top 10 for critical need. WMCO makes adjustments to the rankings to incorporate feedback from program offices, VHA human resources recruiters, and other relevant VHA offices.

### **OIG Audit of VHA's Physician Staffing Levels for Specialty Care Services**

In its December 27, 2012 OIG Report, *Audit of VHA's Physician Staffing Levels for Specialty Care Services* (11-01827-36), to evaluate VHA's progress in implementing a policy on physician staffing levels, OIG assessed whether VHA had an effective methodology for determining staffing levels for 33 of VHA's physician specialty care services. OIG found that VHA did not have an effective staffing methodology to ensure appropriate staffing levels for specialty care services. In addition, VHA's lack of productivity standards and staffing plans limited the ability of medical facility officials to

make informed business decisions on the appropriate number of specialty care physicians needed to meet patient care needs such as access to and quality of care.

OIG recommended the Under Secretary for Health approve a plan that ensures all specialty care services have productivity standards within 3 years and provide medical facility management with specific guidance on the development and annual review of staffing plans.

In its August 25, 2015 OIG Report, *Audit of VHA's Efforts To Improve Veterans' Access to Outpatient Psychiatrists* (13-03917-487), OIG conducted an audit to evaluate VHA's efforts to improve veterans' access to outpatient psychiatrists. OIG determined that VHA has not been fully effective in its use of hiring opportunities or its use of existing personnel to improve veterans' access to psychiatrists.

OIG found that VHA did not have an effective method for establishing psychiatrist staffing needs. Throughout recent hiring initiatives, VHA did not stress a specific need for psychiatrists; instead, facilities determined their own staffing needs. This resulted in 94 of 140 health care facilities that needed additional psychiatrist FTEs to meet demand, as of December 2014.

OIG recommended the Under Secretary for Health ensure facilities incorporate the Office of Mental Health Operations staffing model to determine the appropriate number of psychiatrists needed, and attain appropriate staffing levels or identify alternative options.

## Scope and Methodology

We interviewed the Assistant Deputy Under Secretary for Health for Clinical Operations and Management; the VHA Chief Financial Officer; the VHA Chief Nursing Officer; the Director of the Office of Planning, Efficiency, and Staffing; the Chief Officer for Workforce Management and Consulting; and, the Director of Finance and Business Office, WMCO.

We reviewed the VHA VISN Workforce Succession Strategic Plans for 2015 and VHA facility rankings of occupations of critical need for fiscal year (FY) 2015. We examined rankings at the VISN and National level and the VHA facility level data collection tool used for the annual ranking of occupations of critical need.

We used a rule-based methodology to determine occupations of critical need and focused on facility-level rankings. We did not include occupations relating to administrative, clerical, physical plant maintenance, or protective services. As VHA did



in its determination, we used the Office of Personnel Management occupational series.<sup>2</sup> A more detailed discussion of our methodology can be found in Appendix A.

We compared our determination of top five occupations of critical need using an OIG rule-based methodology to VHA's determination as well as to our previous determination.

In addition, we reviewed and analyzed relevant VHA onboard (number of people in an occupation working at a facility) and loss data from FY 2011 through FY 2014.

We conducted the review in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

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<sup>2</sup> Handbook of Occupational Groups and Families. May 2009. <http://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/occupationalhandbook.pdf> Accessed 12/11/2014

# Results

## I. OIG Determination of Critical Need Occupations

As in our initial determination, we chose to focus on facility level rankings of occupations of critical need. In contrast to VHA, which calculated system-wide ranking of critical need occupations based on a two-step process involving VISN level aggregation and then national level aggregation, we aggregated facility rankings directly to make our determination. By conducting our analysis on a facility level, each facility's ranking carries equal weight in the determination. In contrast, a VISN level aggregation prior to national aggregation underweights the rankings of individual facilities in VISNs that have more VA medical centers. Table 1 shows the 2015 OIG determination of the top five occupations of critical need, with a ranking of "1" being most critical.

**Table 1. 2015 OIG Determination of Five Occupations of Greatest Critical Need**

Ranking	Occupation
1	Medical Officer
2	Nurse
3	Psychologist
4 (tied)	Physician Assistant
4 (tied)	Physical Therapist

*Source: VA OIG analysis of facility rankings of critical need occupations submitted to WMCO*

The top five critical need occupations were unchanged from our initial determination (published in January 2015). As with the initial determination, Medical Officer and Nurse were the top two critical need occupations. Psychologist, Physician Assistant, and Physical Therapist were again determined to be in the top five, but their relative order changed with respect to the initial determination, with Psychologist in the third position and Physician Assistant and Physical Therapist both ranked in the fourth spot (tied).

In comparing the OIG's 2015 top five critical need occupations to that of VHA's most recent determination, we found the rankings to be similar. OIG and VHA ranked the same occupations but in a different order. Both OIG and VHA ranked Medical Officer first and Nurse second; however, VHA's rank order for Physical Therapist was third, Physician Assistant fourth, and Psychologist fifth.

VHA's rankings initially included human resources officer as the number three ranked occupation. Because section 7401 of the Veterans Access, Choice, and Accountability Act excludes administrative positions, we did not include this occupation in our ranking

methodology, and we removed human resources officer from the VHA ranking for this comparison.

## II. Gains and Losses for Critical Need Occupations

We requested VHA data on gains and losses from FY 2011 through 2014. We analyzed the data on losses, the number of staff onboard, and full-time employee equivalents (FTE).

Although VHA provided information on hires and losses, that data could not be used to accurately determine staffing at VHA medical facilities, as some personnel actions that increase onboard staff are not considered hires. VHA also reports onboard numbers, which more accurately reflect the number of individuals working in each occupation. We calculated the gains in staffing using losses and net increase in onboard data<sup>3</sup>. In this report, we define the gains to be the number of additional people working in VA, the losses to be the number of people who are no longer working in VA, and the net increase in onboard to be the change in the onboard or overall staff.

Table 2 displays the requested data for the top 10 critical needs occupations from VHA's ranking. Human resources officer has been removed, and therefore data for only nine occupations is included.

**Table 2. Gains, Losses, and Changes in Onboard in FY 2014**

Occupational Series	Gains	Losses	Net Increase in Onboard
0180 Psychology	538	363	175
0602 Medical Officer	2881	1989	892
0603 Physician Assistant	266	205	61
0610 Nurse	7294	4569	2725
0631 Occupational Therapist	124	71	53
0633 Physical Therapist	274	147	127
0644 Medical Technologist	385	360	25
0647 Diagnostic Radiologic Technologist	326	252	74
0660 Pharmacist	680	429	251

Source: VAOIG Analysis of VHA data

In FY 2014, Medical Officer losses were 1,989, and the net increase (that is, gains–losses) in onboard staff was 892. We calculated that the gains in

<sup>3</sup> The gains were calculated using this method because the number of hires did not capture all additions to staff. For example, staff who were previously students at the facility could be classified as promotions.

Medical Officers for that year was 2,881 (1,989 + 892). We noted that only 31 percent of the gains represented a net increase in VHA's workforce with the remainder of the gains offsetting losses. Similarly, for many of the other top critical need occupations reviewed, most of the gains in staffing replaced existing losses rather than provided additional capacity to deliver health care.

**Table 3. Net Gain for Top Critical Need Occupations in FY 2014**

Occupation Name	Net Gain
Psychologist	32.5%
Medical Officer	31.0%
Physician Assistant	22.9%
Nurse	37.4%
Occupational Therapist	42.7%
Physical Therapist	46.4%
Medical Technologist	6.5%
Diagnostic Radiologic Technologist	22.7%
Pharmacist	36.9%

Source: VAOIG Analysis of VHA Data

VHA categorizes staffing losses into three broad categories—voluntary retirements, regrettable losses, and other losses. (See Table 4 below.) Regrettable losses are defined as those individuals who resign from VA or who transfer to other government agencies. Regrettable losses are staff who potentially could have continued employment in VA and represent an opportunity for VA to retain staff.

For Medical Officer, we noted that regrettable losses represented 64 percent of the total losses in FY 2014, while 28 percent were due to voluntary retirement, and 8 percent from other causes. For other critical need occupations, regrettable losses accounted for between 37 and 53 percent of loss, and voluntary retirements ranged between 19 and 52 percent of loss.

**Table 4. Reasons for Losses (in percent) for Top Critical Need Occupations in FY 2014**

Occupation	Voluntary Retirements	Regrettable Losses	Other
Psychologist	20.9%	39.9%	39.1%
Medical Officer	28.4%	63.7%	7.9%
Nurse	42.5%	51.2%	6.3%
Physician Assistant	35.1%	52.2%	12.7%
Physical Therapist	19.0%	37.4%	43.5%
Occupational Therapist	31.0%	53.5%	15.5%
Medical Technologist	51.7%	41.4%	6.9%
Diagnostic Radiologic Technologist	40.1%	48.4%	11.5%
Pharmacist	38.5%	38.7%	22.8%

Source: VAOIG Analysis of VHA data

Because the total losses for an occupation may only represent a fraction of the entire occupation, it is also important to compare total occupational losses to the number of people onboard in an occupation. For example, Medical Officer total losses compared to the total number of Medical Officers onboard was 8.7 percent, and regrettable losses compared to the total onboard was 5.5 percent. To put these numbers in perspective, the average net gain for Medical Officers over the past 3 years was 3.7 percent. (See Table 5.)

**Table 5. Total Losses and Regrettable Losses as a Percentage of Total Onboard in Top Critical Need Occupations in FY 2014 Compared to the Average Net Increase in Onboard FY 2011–2014**

Occupation	FY14 Total Losses to Onboard	FY14 Regrettable Losses to Onboard	Average Net Increase in Onboard FY11-14
Psychologist	7.5%	3.0%	8.4%
Medical Officer	8.7%	5.5%	3.7%
Nurse	7.6%	3.9%	2.1%
Physician Assistant	10.2%	5.3%	3.9%
Physical Therapist	8.2%	3.1%	3.7%
Occupational Therapist	6.2%	3.3%	6.2%
Medical Technologist	8.1%	3.4%	0.5%
Diagnostic Radiologic Technologist	7.1%	3.4%	3.1%
Pharmacist	6.2%	2.4%	3.6%

Source: *OIG Analysis of VHA data*

Our analysis focused on gains and losses in critical need occupations during a single year. When looking at changes to the staffing process, the impact of cumulative changes over time should be considered as well. Although some of these numbers are small on a yearly basis, consistent gains over years can compound to result in more significant changes.

Our review of data back to 2011 demonstrated that while gains vary from year to year, the loss numbers have been relatively consistent over the past 4 years. This analysis likely does not capture the effect of the 2014 Veterans Access, Choice, and Accountability Act, as that law was implemented on August 7, 2014, and our analysis only includes data up until September 30, 2014. However, our analysis does provide an understanding of the historical pattern of staffing changes at VHA leading up to the enactment of that law.

### III. VHA's Progress in Developing Physician Based Staffing Models

In its December 27, 2012, OIG Report, *Audit of VHA's Physician Staffing Levels for Specialty Care Services*, OIG recommended the Under Secretary for Health approve a plan that ensures all specialty care services have productivity standards within 3 years

and provide medical facility management with specific guidance on the development and annual review of staffing plans.

VHA Handbook 1065.01, *Productivity and Staffing for Guidance for Specialty Provider Group Practice*, issued on May 4, 2015, defines the policy for measuring and assessing specialty provider group practice productivity and associated staffing. The policy excludes mental health and emergency medicine, which have individual policies regarding productivity and staffing.<sup>4</sup>

In June 2012, the Under Secretary for Health charged a VHA Task Force on Specialty Physician Productivity and Staffing Plan with developing productivity models for specialty provider group practice in VHA. To address the Under Secretary for Health charge, VHA's Office of Productivity, Efficiency, and Staffing (OPES) developed Physician Productivity, Benchmarks, and Study Data as a data source.

The Physician Productivity, Benchmarks, and Study Data, Specialty Physician Productivity Report and Specialty Productivity Access Report and Quadrant Tool (SPARQ) provides for a relative value unit (RVU) based model to measure specialty provider group practice level based productivity and staffing. The tool defines productivity as the ratio of total work RVU (wRVU)<sup>5</sup> to the component of the entire specialty provider group practice FTE that is allocated to clinical practice. Productivity within the mean and plus or minus one standard deviation is considered an acceptable range of productivity, taking care not to compromise quality and patient access standards. Productivity more than one standard deviation above the mean is considered a best practice.<sup>6</sup>

If the SPARQ tool data shows that a specialty group practice has high productivity and good access, no action would be indicated. If the specialty is high in productivity but has poor access, it is suggested the facility review for the potential need for increased resources, for example increased staffing or use of contracted care providers. If the specialty is low in productivity but positive in access, this is an indicator for facilities to review for potential expansion to other facilities with need via telehealth or interfacility sharing of resources to fully utilize capacity. Finally, if a specialty is low in productivity and has poor access, then it is an indicator for the facility leadership to examine factors including level of support staff, data streams, provider level outliers, and to assess clinic space for adequacy.<sup>7</sup>

SPARQ provides valuable data to better inform specialty provider staffing decisions. While the tool provides data that qualitatively reflects the adequacy of staffing at a facility based on access and productivity, it does not quantitate the magnitude of potential gaps in staffing.

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<sup>4</sup> VHA Handbook 1065.01, *Productivity and Staffing Guidance for Specialty Provider Group Practice*, May 4, 2015, Department of Veterans Affairs, Veterans Health Administration, Washington, DC.

<sup>5</sup> Work RVU (wRVU) reflects the work performed by the physician. The other two components of the total RVU is practice expense and malpractice.

<sup>6</sup> VHA Handbook 1065.01

<sup>7</sup> Ibid.

OPES staff reported that while they internally published information from SPARQ and other workforce tools that should be helpful for making staffing decisions, they were unsure whether the tools were being used at the local facility level.

VHA's rankings of critical need occupations comes from the annual Workforce Succession Strategic Plan. The VHA WMCO reported one possibility for future staffing reports was adding an assessment of how individual VHA facilities are making decisions about prioritizing staff hiring.

#### **IV. VHA's Progress in Developing Staffing Models for Other Occupations**

In the initial OIG staffing determination report published on January 30, 2015, we recommended the Interim Under Secretary for Health continue to develop and implement staffing models for critical need occupations. In this section we review the implementation status for staffing models for other critical need occupations.

We queried staff at relevant VHA offices as to their vision regarding how the model implementation process was to proceed, including milestone development and/or timelines. In addition, we were interested as to whether there were specific milestones that would need to be met in order to incorporate the staffing models into VHA's strategic and operational framework such as the Planning, Programming, Budgeting, and Execution (PPBE) process that VHA is implementing.

VHA's OPES staff reported ongoing development and refinement of their models focused on the physician specialties after which they plan to develop a staffing tool for advanced practitioners (nurse practitioners and physician assistants), followed by a rehabilitation provider model applicable to physical therapists, occupational therapists, and speech therapists, among others. Once in place, the staffing tools developed would cover the top five critical need occupations identified in the OIG determinations. Occupational staffing models for development after those sections include audiologists and dietitians. At present, these efforts are in the initiation and/or planning phase and lack a specified timeframe for completion.<sup>8,9</sup> OPES staff reported that staffing models were being developed independent of them, specifically, the primary care staffing model and the inpatient nursing staff model.

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<sup>8</sup> The Project Management Institute (PMI) identifies four major phases of a project as characteristics of the project life cycle. These four life-cycle phases are initiation, planning, execution, and project closeout. The initiation phase, which PMI labels "starting the project," includes all the activities necessary to begin planning the project. The initiation phase typically ends when the project team has sufficient information to begin developing a detailed schedule and budget. The planning phase, which PMI labels "organizing and preparing," includes the development of more detailed schedules and a budget. The emphasis of the planning phase is to develop an understanding of how the project will be executed and a plan for acquiring the resources needed to execute it. The execution phase, labeled by PMI as "carrying out the work," includes the major activities needed to accomplish the work of the project.

<sup>9</sup> Project Phases and Organization, from Project Management for Instructional Designers Web site, <http://pm4id.org/3/1/>. Accessed on 6/28/2015.

WMCO staff reported their work subsequent to the initial OIG determination has been primarily focused on:

- Continuing to develop their models and assess which models are best applied and to which practices.
- Meeting with similar entities (large, primarily population-based health care delivery groups) to understand their methods and use this knowledge to refine VA approaches.
- Planning for integration with VHA's PPBE development process.

WMCO staff noted that integration of workforce management models with PPBE will be a late-stage step and that development of staffing models could occur without PPBE. When feasible, later integration with PPBE will facilitate data-driven monitoring as to the status of implementation of staffing models and allocation of staffing resources at both the facility and enterprise level.

## **V. Review of 2015 VHA VISN Workforce Succession Strategic Plans**

As part of the workforce strategic planning process, VHA rolls up data from facilities to VISNs and subsequently to the national level. To better understand the qualitative challenges that VHA has in recruiting and retaining staff in critical need occupations, we reviewed ten of the twenty-one VISN workforce succession strategic plans to identify issues of concern.

One common issue identified in almost all the plans reviewed was the difference in pay that could be offered by non-VA employers. While not an issue for all occupations, pay caps or limits made it quite difficult to hire staff in certain occupations. Also cited were a number of administrative issues such as lack of flexibility in work hours, the inability of practitioners to take advantage of training opportunities, and a hiring and onboarding process that takes longer relative to non-VA employers.

The plans submitted by VISNs demonstrated awareness of trends that may drive demand, such as the increasing needs of an aging veteran population. Concurrently, VA has an aging provider workforce increasingly eligible for retirement, resulting in increased staffing losses over time. Demographic changes may produce small yearly changes but result in significant trends over time as noted previously in the discussion about changes in staffing losses.

## **Conclusions**

This determination is the second in a series of annual determinations of staffing shortages in VHA. In our initial determination, we recommended that VHA continue to develop and implement staffing models for critical need occupations. Recognizing that less than a year has elapsed since the release of our last report, we found that VHA is currently in the early stages of developing staffing models that should allow for more objective assessment of staffing needs than VHA's current ranking focused methodology.



In looking at the gains, losses, and changes in onboard staffing for critical need occupations, we found that while VHA has increased the number of onboard staff in critical need occupations, the net gains are significantly reduced by high loss rates. VHA efforts at increasing staffing for critical need occupations in these areas may benefit from efforts to improve retention. VHA Workforce Succession Strategic Plans highlight both monetary and non-monetary issues that affect hiring and retention.

We also note that the gains and loss data examined in this report does not capture the impact of the Veterans Access, Choice, and Accountability Act but does establish historical staffing trends. Because of the relatively long onboard process and challenges in finding suitable candidates, staffing for future needs requires hiring in anticipation of future losses, as well as ongoing and projected changes in clinical demand, staffing productivity, and FTE allocation at the individual facility level. Well-developed staffing models would allow VHA to do these things.

VHA's staffing model is in development and consists of different models covering distinct areas of VHA staffing needs. VHA is working on extending the SPARQ staffing tool to more occupations.

## Recommendations

1. We recommended that the Under Secretary for Health ensure that the Veterans Health Administration further develops staffing models for critical need occupations.
2. We recommended that the Under Secretary for Health review the data on regrettable losses in this report and Veterans Integrated Service Network Workforce Succession Strategic Plans and, if appropriate, consider implementing measures to reduce such losses.

## OIG Rule-Based Methodology for Ranking Occupations of Critical Need

### Discussion of OIG's Methodology

The OIG analysis started with the facility rankings of the top occupations. Table 6 displays an example of this ranking for an individual facility.

**Table 6. Sample Ranking of Critical Need Occupations by a VHA Medical Center**

Facility	Occupation	Ranking
Facility 1	Medical Officer	1
Facility 1	Pharmacist	2
Facility 1	Nurse Anesthetist	3
Facility 1	Practical Nurse	4
Facility 1	Nurse	5
Facility 1	Occupational Therapist	6

Source: VA OIG

For each occupation, the average occupational rank was defined as the arithmetic mean of the rank assigned by each facility. For example, if 10 facilities identified an occupation as their number 1 top occupation and 5 facilities rated it as number 4, the average rank would be 2.0

$$\frac{(10 \times 1) + (5 \times 4)}{(10 + 5)} = \frac{30}{15} = 2.0$$

In addition, for each occupation, the number of times a facility ranked an occupation in the top 10 was also tallied. The number of facilities ranking an occupation in the top 10 and the average occupational rank resulted in a table with a similar format to below. For convenience of analysis and presentation, the table is sorted by average occupational rank.

**Table 7. Example of OIG Aggregation of Facility Level Rankings**

Occupation	Average Occupation Rank	Number of Facilities Ranking Occupation in Top 10
Medical Officer	1.50	137
Nurse	3.23	132
Physician Assistant	4.96	73
Psychologist	5.10	72
Physical Therapist	5.47	87

Source: VA OIG

For simplicity, we eliminated any occupations from further consideration that were ranked by fewer than 10 facilities, as this represents less than ten percent of all facilities. After compilation and ordering of average occupational rank and the number of facilities ranking that occupation in the top 10, a set of OIG ranking rules were applied.

The first OIG ranking rule was as follows: When comparing two occupations, an occupation with both a higher average rank and more facilities ranking it was ranked higher than a second occupation with both lower average rank and number of facilities ranking that occupation. For example, if Psychologist has an average rank of 5.10 and is ranked by 72 facilities, it would be ranked above Dietician with an average rank of 6 and ranked by 60 facilities.

The second OIG rule was as follows: In cases where comparing two occupations showed that one had an higher average rank but the other had a greater number of facilities ranking it, the magnitude of the tradeoff between rank and number of facilities was considered and if the difference clearly favored one of those occupations, that occupation was ranked higher. For example, when Physical Therapist was compared to Practical Nurse, although Practical Nurse had a slightly higher average rank score by 0.09 (5.382 versus 5.471), over twice as many facilities ranked Physical Therapists (87 versus 34) in the top 10 and we therefore placed Physical Therapist higher in our determination.

The third OIG rule was as follows: In cases where the tradeoff between average ranking and number of facilities ranking an occupation was not clear, we considered the relative ranking indeterminate. We then evaluated the set of all possible ranking orders along the tradeoff between the two variables for the compared occupations.

For example, Physician Assistants were rated at 4.959 by 73 facilities versus Psychologist which were ranked at 5.10 by 72 facilities and Physical Therapists were ranked on average 5.47 by 87 facilities. By our first rule, Physician Assistant outranks Psychologist. However, comparison of Physician Assistant and Physical Therapist is indeterminate. Likewise, comparison between Physician Therapist and Psychologist is also indeterminate.

With 3 occupations, at a maximum there would be 6 possible combinations of rank orders. However, because Physician Assistant outranks Psychologist under our first decision rule, among the 6 possible combinations only 3 are consistent with the first rule. This approach generates a set of rankings rather than a single ranking which allows us to consider the range of possible solutions. Table 8 illustrates the 6 possible combinations of rank orders. Columns 4 through 6 are not consistent with our first ranking rule.

**Table 8. Set of All Six Possible Combinations of Rankings Among Three Occupations for Which Relative Rankings Were Indeterminate**

(PA= Physician Assistant, PT= Physical Therapist, PSY= Psychologist)

1	2	3	4	5	6
PA	PT	PA	PT	PSY	PSY
PT	PA	PSY	PSY	PA	PT
PSY	PSY	PT	PA	PT	PA

Source: VA OIG

From columns 1 through 3, possible relative rankings for Physician Assistant are 1, 2, and 1; potential relative rankings for Physical Therapist are 2, 1, and 3; and potential relative rankings for Psychologist are 3, 3, and 2. When summing the potential rank orderings for each occupation, Physician Assistant ranks above Physical Therapist which in turn ranks above Psychologist.

However, if there were more than 3 occupations with indeterminate relative rankings, the number of combinations and resulting rankings would change. With our analysis there were 4 occupations (Physician Assistant, Psychologist, Physical Therapist, and Medical Technologist) among which the relative rankings were indeterminate prior to application of the third sorting rule.

Application of OIG Ranking Rules to 2015 Facility Level Data

Medical Officer had a higher average rank and more facilities ranking it than any other occupation. Therefore, by direct application of the first sorting rule, Medical Officer was our top ranked occupation.

Of the remaining occupations, the Nurse occupation had a higher rank and more facilities than any other occupation. By direct application of the first sorting rule, Nurse was our second ranked occupation.

By application of the first sorting rule, Psychologist (rank 4.47, count 87) outranked all the remaining occupations except for being indeterminate with respect to Physical Therapist (rank 5.84, count 92) by the first sorting rule. By the second sorting rule, Psychologist (rank 4.47, count 87) outranked Physical Therapist (rank 5.84, count 92). Psychologist was our third ranked occupation.

The two occupations that outranked the remaining occupations by the first and second sorting rules were Physician Assistant (rank 4.97, count 83) and Physical Therapist (rank 5.84, count 92). Since the application of all three sorting rules to these two occupations was indeterminate, we ranked these occupations as tied for fourth.

Our determination of the Top 5 occupations is similar to last year with the notable change being the advancement of Psychologist from 5<sup>th</sup> to 3<sup>rd</sup> in our list. While all of the Top 5 occupations showed improvement in either their ranking or in the number of facilities ranking them, Psychologist's improvement was particularly pronounced relative

to the others. Psychologist's rank increased from 5.10 to 4.47, and the number of facilities ranking it increased from 72 to 87.

Application of our analysis yielded the following determination:

1. Medical Officer
2. Nurse
3. Psychologist
4. Physician Assistant
4. Physical Therapist

## Under Secretary for Health Comments

**Department of  
Veterans Affairs****Memorandum**

Date: AUG 24 2015

From: Under Secretary for Health (10)

Subj: Office of Inspector General (OIG) Draft Report: OIG Determination of Veterans Health Administration's Occupational Staffing Shortages (7632334)

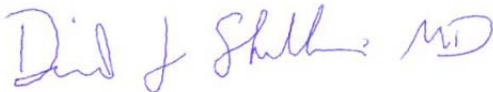
To: Assistant Inspector General for Health Care Inspections (54)

1. Thank you for the opportunity to review the OIG draft report of the Healthcare Inspections OIG Determination of Veterans Health Administration's Occupational Staffing Shortages.
2. I concur with the findings and recommendations in the draft report and provide comments in response to recommendation 1 and 2.
3. VHA affirms that effective workforce succession planning and leveraging continuously-refined clinical staffing models will prove effective in ensuring adequate resources are available to support timely access to care for our Veterans.
4. Staffing models for the critical need occupations cited in the draft report (i.e., Medical Officer, Nurse, Physician Assistant, Physical Therapist, and Psychologist) will permit VHA to more accurately project resource requirements for providing Veterans with timely access to health care. With refined clinical staffing projections, VHA will continue to improve the recruitment and retention of medical professionals, facility by facility.
5. As noted in the previous version of this report, dated January 30, 2015, much work has already been accomplished in the arena of developing clinical staffing models. VHA implemented the Patient Aligned Care Team (PACT) model in 2009, which now forms the national standard for Primary care delivery across VHA. PACT is supported by national policy that establishes panel sizes specific to each team, enables specific integrated health care for each patient, and incorporates relevant specialty services and support services to meet patient needs.
6. Likewise, subsequent to OIG's Audit of Physician Staffing Levels for Specialty Care Services (Report 11-01827-36), VHA has developed and is currently implementing productivity standards for Specialty Care practice areas. These standards are another useful tool available to inform clinical staffing business decisions.

Page 2.

Draft OIG Report: OIG Determination of VHA Occupational Staffing Shortages  
(VAIQ 7632334)

7. Regarding Recommendation 2 "...review the data on regrettable losses..." VHA recognizes the value of retaining talented and experienced professionals. To that end, VHA will continue to leverage all existing tools in support of provider retention. With a workforce of over 300,000 professionals and an annual turnover of approximately 8.9 percent, we compare favorably to the industry as a whole for employee turnover. I remain committed to making every effort to further reduce regrettable losses, and will aggressively pursue all options.
8. I would like to propose one technical comment. On page 11 of the draft report, Table 2 identifies Gains, Losses, and Changes in Onboard in fiscal year 2014. VHA respectfully recommends this table be further refined to account for changes in net onboard not captured by gains and losses. This will not impact the overall conclusion, but will present a precise accounting. We will work with your staff to clarify any questions regarding the terminology or data points.
9. The Veterans Access, Choice, and Accountability Act of 2014 requires the VA OIG to report on the top five VHA staffing shortages at the end of each fiscal year. As such, VHA will be updating the OIG regularly on results and progress on our actions relative to the report's recommendations to inform the next iteration of the report. We look forward to continuing our collaborations with OIG on this important work in the months to come.
10. If you have any questions, please contact Karen Rasmussen, M.D., Director, Management Review Service (10AR) at VHA10ARMRS2@va.gov.



David J. Shulkin, M.D.

Attachment

cc: Medical Consultation and Review, Office of Healthcare Inspections (54AA)

**VETERANS HEALTH ADMINISTRATION (VHA)  
Action Plan**

**Office of Inspector General's (OIG) Draft Report  
OIG Determination of Veterans Health Administration's Occupational Staffing  
Shortages**

**Date of Draft Report: August 17, 2015**

<b>Recommendations/ Actions</b>	<b>Status</b>	<b>Target Completion Date</b>
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**Recommendation 1. We recommended that the Under Secretary for Health ensure that the Veterans Health Administration further develops staffing models for critical need occupations.**

**Comments:** Concur

To further mature clinical staffing models for the critical occupations cited in the OIG report, VHA will leverage on-going work in three arenas: alignment, benchmarking and implementation.

**Alignment:**

As noted in the previous version of this report, dated January 30, 2015, VHA will continue to assess the correlation between practice area complexity, characteristics of the local Veteran population, and productivity measurements. To the extent that such a correlation exists, VHA will evaluate the effectiveness of applying additional factors to our existing modeling techniques.

The cross-disciplinary clinical staffing working group, with representation from Primary Care, Specialty Care, Mental Health and Women's Health clinics, along with VHA's operational and policy-making communities will assess the next iteration of this analysis. This working group will determine where staffing models and team management can be further aligned, leveraging factors of productivity and population.

**Benchmarking:**

Since the previous version of this report, VHA has engaged in useful discussion with both Department of Defense (DoD) and private-sector enterprise level peers. From this dialogue, VHA has confirmed that productivity standards are a key component of certain commercial health care staff modeling practices, and are regularly applied to validate business decisions.



From VHA's dialogue with DoD, we have assessed both the strengths and limitations of DoD clinical staffing techniques. While there is potential to leverage some elements of DoD staffing standards, a direct replication of the DoD model is not practical for VHA – given the distinction between the VHA and DoD missions, serviced population, patient options, and delivery system configurations.

VHA will continue to dialogue with peer organizations, expanding the conversation to include the National Institute of Health, the Indian Health Service and additional private sector partners. VHA will seek opportunities to identify best staffing and modeling practices and to replicate them within our health care system where appropriate.

Implementation:

As noted in the previous version of this report, in 2014, VHA completed the development of productivity standards for Specialty Care. In 2015, VHA initiated implementation of the standards across multiple practice areas. As part of our drive towards an effective and efficient balance of resources and delivery of care, VHA will continue the deployment of Specialty Care productivity standards. Further, VHA will assess the application of the standards in field practice, seeking both consistency and feedback to refine the standards as needed.

The application of productivity standards will also leverage the Specialty Productivity - Access Report and Quadrant (SPARQ) tools, as cited by the OIG in the aforementioned report. Central Office and field practices will continuously review SPARQ formulae, data and execution. The goal is to evolve SPARQ in terms of both reliability and applicability as a critical aid towards informing staffing decisions.

VHA will also engage in a process of taxonomy and ontological alignment for clinical staffing terminology. Phrases such as "staffing models," "staffing plans," "staffing standards," and "staffing frameworks" will be clearly defined so that each term has a specific, complementary, repeatable and commonly understood meaning. Similar work will be done with terms such as "providers", "clinicians", and "medical support staff." As VHA continues to evolve and integrate clinical staffing policy, tools, data sources and communications, ensuring that these terms are consistently reflected across the health care system will aid in the application, analysis and reporting of clinical staffing practices.

Timeline for completion:

The evolution of clinical staffing models and frameworks, alignment with Workforce Succession and Planning, and the integration with the Planning, Programming, Budget and Execution (PPBE) cycle will be a multi-year effort. As noted elsewhere, no current enterprise health care system has a complete set of staffing models that cover all practice areas with "one-stop-shopping." VHA has much effort ahead in all these areas, but the foundation for progress has been laid, and will be aggressively worked toward in the months and years to come.

Status  
In process

Target Completion Date  
September 30, 2016 (interim)

**Recommendation 2. We recommended that the Under Secretary for Health review the data on regrettable losses in this report and VISN Workforce Succession Strategic Plans and if appropriate, consider implementing measures to reduce such losses.**

**Comments:** Concur

Thanks to the resources provided by Veterans Access, Choice and Accountability Act (VACAA), and by the urgency to increase capacity across the health care system, VHA has focused heavily on clinical recruiting over the last 12 months. As a result, VHA has hired more than 6,400 VACAA-funded providers and support staff since August 7, 2014.

While this progress is laudable, VHA agrees with the OIG's determination that the correlation between vacancies and regrettable losses merits attention. To the extent that current VHA medical professionals can be retained for longer periods of time, the resulting vacancy ratio will be reduced. In turn, reductions in vacancies reduce gaps in care delivery, and further lower time required for new providers to match the experience and training of those who have departed.

There are multiple factors that influence regrettable losses, including compensation disparity with the private sector, provider workload, facility quality, organization climate, and more.

VHA already continuously strives to prevent regrettable losses, leveraging existing tools currently available to us in law, policy and practice. These tools include:

- Expanding the use of the Education Debt Reduction Program (EDRP) for retention purposes
- Retention incentives
- Special salary rates to be competitive with community pay practices
- Reviewing locality pay schedules for Nurses to be competitive with community pay practices
- Conducting Physician Steering Committee reviews of physician compensation to ensure pay tables are competitive with community pay practices
- Employee scholarship programs
- Providing increased leadership development opportunities
- Increased use of employee exit survey data as part of the Workforce Succession Planning process to identify reasons employees are leaving VHA
- Leveraging additional survey tools such as the All Employees Survey, Entrance and Exit Surveys
- Utilizing non-monetary practices such as telework, flex-time and other aids to work/life balance

The use of these tools helps VHA remain competitive in a very aggressive market – in fact, VHA compares favorably to our peers in terms of employee turnover. VHA will undertake additional efforts to further reduce regrettable losses.

- Data gathering: VHA will leverage existing tools to support additional statistical analysis of loss trends by profession, location and practice areas. VHA will also leverage existing survey techniques, reviewing causative factors as cited by departing employees, and by organization climate surveys.
- Loss Analysis: From the preceding data gathering phase, VHA will review common factors that drive regrettable losses, to include issues within specific facilities, and across the health care system. Both qualitative and quantitative causes will be identified and correlated with potential solutions.
- Mitigation: As causative factors for loss trends demonstrate where solutions may have the most utility and broadest positive impact, VHA will bring forward specific proposals for improvement. These will include both enhancement of existing tools and potential proposals for legislative action (such as increased flexibilities to reduce pay disparity).

VHA recognizes there are other barriers to improving retention. As cited in the draft VA OIG Report Human Resources Management (HRM) has been identified as the third critical occupation, behind Physicians and Nurses. Because HRM is an administrative occupation, it is excluded from the "Top 5" critical occupations as defined by VACAA and referenced in the OIG Critical Staffing Shortage report. However, VHA recognizes that the HRM occupation is essential to the recruitment and retention of the clinical occupations. HRM provides the technical expertise and is the lead for many of the mitigation strategies identified. VHA further recognizes that this critical occupation requires a full commitment to ongoing training and support, subsequently facilitating the expansion of our mitigation strategies.

VHA recognizes reduction of regrettable losses is a classic "force multiplier," paying a variety of dividends in maintaining clinical capacity and quality. A strategic review of trends, barriers, practices and solutions influencing regrettable losses is warranted and will be undertaken.

Status	Target Completion Date
In process	September 30, 2016

## OIG Contact and Staff Acknowledgments

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