

AOHP 2016 Online Staffing Survey Results

By Carol Brown, PhD, and Erin Shore, MPH

Abstract

In 2016, an updated Association of Occupational Health Professionals in Healthcare (AOHP) Staffing Survey was conducted to evaluate staffing levels in employee health (EH) and occupational health (OH) departments in healthcare settings. The results of the AOHP Staffing Survey provide an overview of department characteristics and staffing patterns. The survey had participation from representatives from organizations of all sizes, with nationwide participation. The average nurse to employee ratio was 1:1,344. The highest staffing levels allocated in terms of full time equivalent (FTE) positions were Medical Assistants, averaging 2.4 FTE, and Registered Nurses (RNs), with an average of 2.3 FTE. The average amount of work not completed at the end of the week across all job categories was 19.6 hours, with a range of one to 240 hours per department. RNs were most often the department managers, with 67.9% of EH/OH departments managed by an RN. As expected, there were steady increases in overall FTE, as well as nursing, provider and clerical FTE, as the number of healthcare personnel (HCP) served increased. Though difficult to make recommendations for staffing levels due to the variance in size and program differences, the survey did capture some of the current staffing and workload of EH/OH departments.

Introduction

Limited information exists about current staffing patterns and needs for employee health (EH) and occupational health (OH) departments in healthcare settings. Previous work typically focused on inpatient setting nursing staffing levels or occupational health nursing in non-healthcare settings. The few stud-

ies from healthcare were often based in non-U.S. settings. For example, a 1999 study involving the National Health Service (England and Wales) OH staffing levels reported a 1:1,838 employee to nursing full time equivalent (FTE) ratio, with a range of 1:436 to 1:5,806.¹ A follow-up study three years later reported improvement in physician staffing levels, though nursing staffing levels were not included in the follow up.² One relevant U.S. study examined the relationship between OH programs in a Department of Veterans Affairs (VA) healthcare setting and organizational outcomes, such as sick leave and turnover. In that work, researchers reported that the presence of OH programs was related to improved perceptions of organizational culture.³ The researchers also examined the staffing ratios of the healthcare personnel served as related to facility bed size; however, they did not look at staffing ratios of the OH personnel themselves.

The most relevant work conducted in this area was completed in conjunction with the Association of Occupational Health Professionals in Healthcare (AOHP). In 2011, the first AOHP Staffing Survey was completed.⁴ The results of this initial AOHP staffing survey provided descriptive information about the relationship between FTE staffing levels and the number of healthcare personnel (HCP) served. In this study, Gruden reported the ratio of OH FTE to number of HCP receiving services was 1:1,026.⁴ Significant correlations were reported between FTE and number of HCP receiving services. The most common professional role of managers of the OH departments was Registered Nurses (RNs), at 77.6% of managers. Other notable findings included that larger hospital settings were more likely to have a

department manager with a graduate degree. Overall, 37.0% of managers held professional certifications, most commonly through the American Board of Occupational Health Nurses (ABOHN).

A second study, conducted in 2014, built upon the work of the 2011 AOHP Staffing Survey and examined the relationship between staffing levels and reports of job stressors, well-being and job satisfaction.⁵ The ratio of all FTE to HCP served was 1:1,236, while the ratio of nursing FTE to HCP served was 1:1,862. The authors found variables that served as predictors of staffing levels included type and number of personnel served. They also examined a series of common OH office tasks and found that only absence management was related to OH staffing levels.⁵ The respondents to the survey also reported high levels of job satisfaction and low levels of intentions to leave their job or the OH field.

The current Staffing Survey built upon both the work of the 2011 AOHP Staffing Survey⁴ and the follow-up work of Moses and colleagues.⁵ The current evaluation of staffing levels in OH and EH settings in healthcare sought to understand staffing patterns and gain a better picture of how OH and EH departments spend their time on various tasks.

Method

A 39-item survey was administered, though skipping patterns were included, so based on actual question responses, not all respondents were presented with all items. The survey collected information related to: the healthcare facility and composition of the workforce and personnel served; information about staff, including numbers and professions; detailed information about the amount

of time spent on 30 unique non-clerical tasks and 12 clerical tasks performed; and information related to software programs used to facilitate tracking within the department. Finally, there was an open text field to provide additional factors that they felt should be considered when proposing benchmarking staffing recommendations for occupational health professionals in healthcare.

In the summer of 2016, AOHP sent the online survey to 864 active AOHP members. At the time the email was sent, a pdf version of the survey was also included so members could review the questions to ensure they would have all of the information when completing the online version. Members were asked to complete the 2016 AOHP Staffing Survey within one month to be eligible for a drawing which awarded a full scholarship to the AOHP National Conference. Two reminders were sent during that time period. Some organizations have more than one employee who is a member of AOHP, so they were asked to either designate one person or work together to complete the survey, to eliminate multiple responses from one institution. There were roughly 684 unique organizations represented. Responses came from 156 individuals from 36 states.

Results

Organizational Characteristics

The 156 respondents provided information about their respective organizations. The average number of employees was 4,656 (range of 150-61,000), while the median was 1,900. The type of patient care areas represented were hospitals (91.0%), ambulatory clinics (55.8%), home care (28.2%), and long-term care facilities (16.7%). Some or-

ganizations had more than one type of patient care. For those in a hospital setting, 33.8% indicated they were a magnet designated hospital and 52.1% were a teaching hospital. Respondents were asked to how many licensed beds their facility had. The most frequent response was 500 or more, though the responses were fairly well dispersed. See Table 1.

Respondents classified their department into employee health (EH) for medical center employees or affiliates or occupational health (OH) for services provided to medical center and outside companies, including those who pay for service. The majority of departments were EH (81.1%); OH departments were 7.0%; and 9.1% of respondents indicated their department was both EH and OH. Respondents were also asked to indicate how many and what types of workers received their services. In

all cases, services were provided to employees, followed by volunteers (93.0%). See Table 2 for types of HCP who receive services and Figure 1 for a breakdown of the number of HCP who receive services.

Department Management

The majority of OH and EH departments were managed by RNs (67.9%), followed by Nurse Practitioners (8.6%) and Human Resources professionals (7.9%). The "Other" category was selected 12.9% of the time, and open-ended responses included administrative professionals, wellness managers and non-nurse managers. On average, 35.0% of RNs within the department were certified, with the most common certification being the American Board of Occupational Health Nurses (ABOHN), with 72.2% of certifications. ABOHN certification includes both the Certified Occupational Health Nurse-

Figure 1. Number of Healthcare Personnel who Receive Services

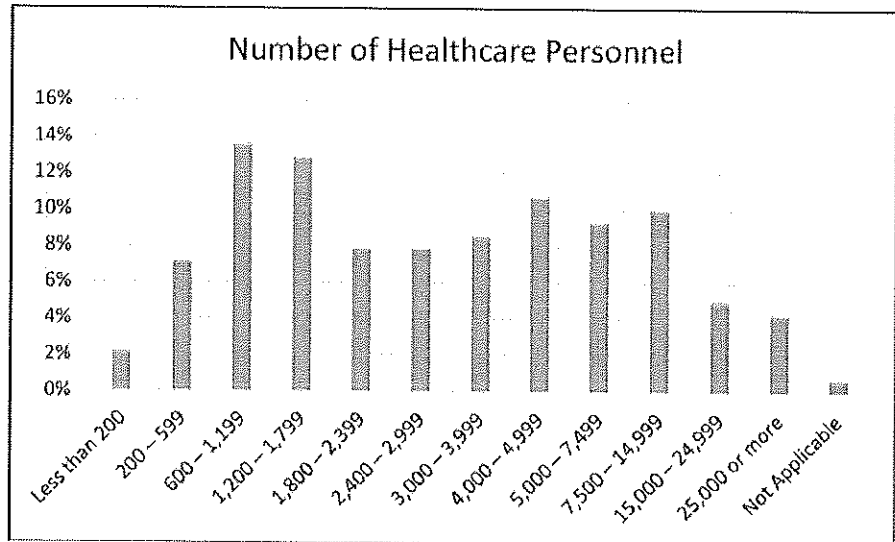


Table 1. Number of Licensed Beds

Number of Licensed Beds	Number	Percent
Less than 50	20	13.5%
50 - 99	10	6.8%
100 - 199	26	17.6%
200 - 299	27	18.2%
300 - 399	19	12.8%
400 - 499	7	4.7%
500 or more	33	22.3%
Not Applicable	6	4.1%

Table 2. Healthcare Personnel who Receive Services

Healthcare Personnel	Number	Percent
Employees	143	100.0%
Volunteers	133	93.0%
Contract/Agency Personnel	105	73.4%
Non-Employee Medical Staff	105	73.4%
Students - Employee	89	62.2%
Students - Non-Employee	68	47.6%
Other	16	11.2%

Note. Other included visitors, employees' families, corporate/division employees.

Specialist (COHN-S), with 41.8% of certifications, and the Certified Occupational Health Nurse (COHN), with 30.4% of certifications. Respondents reported that certification was required by their employer 13.2% of the time and preferred by their employer 67.2% of the time.

Staffing Patterns

The 2016 Staffing Survey asked a series of questions designed to ascertain information about staffing levels within EH/OH departments, reported as allocated full time equivalents (FTE), hours worked, and amount of work not completed at the end of the week. To make reporting consistent across organizations, a definition was provided in which one FTE equaled 40 hours of work; 0.5 FTE equaled 20 hours of work. The average nurse to employee ratio was 1:1,344. Table 3 presents the average FTE, hours worked and unfinished work by position. The most common positions in the EH/OH department are Medical Assistants, with an average of 2.4 FTE, and RNs, with an average of 2.3 FTE (range of 0.1 to 15.2). The average total FTE allocated to an EH/OH department was 4.4 (range of 0.1 to 27). Nursing overall had an average of 2.7 FTE (range 0.1 – 16), providers had an average of 2.3 FTE (range 0 – 15) and clerical staff had an average of 1.6 FTE (range (0.1 – 9)). Table 4 presents the average FTE by number of HCP served, broken out by nursing (RN, LPN/LVN, Nurse Aide), provider (Medical Assistant, Physician, Physician Assistant, Nurse Practitioner), clerical and total FTE.

Tasks Performed

in an attempt to gain a sense of the variety of tasks that are performed in an OH/EH department, 30 tasks were presented to survey recipients. They indicated the average amount of time the department spent performing each task (in 5-minute increments) and the average number of tasks performed each month; this was then used to determine the hours per month spent on each task. Tasks were classified into four categories – provider tasks, nursing tasks, management tasks and administrative tasks, and were then weighted

Table 3. Full Time Equivalents Allocated to Employee Health/Occupational Health Departments

Position	Allocated FTE to your department		Average # of hours worked per week in your department		Average hours of work NOT completed at the end of the work week	
	Average	Range	Average	Range	Average	Range
RN	2.3	0 - 15	87.1	1 - 2,530	12.3	1 - 100
LPN/LVN	1.5	1 - 6	50.3	1 - 240	10.4	3 - 40
Nurse Aide	1.0	1 - 1	40.0	40 - 40	2.0	2 - 2
Medical Assistant	2.4	0 - 12	58.5	0 - 160	13.5	1 - 40
Physician	0.7	0 - 2	12.8	0 - 40	5.0	1 - 12
Nurse Practitioner	1.6	0 - 4	50.9	8 - 128	9.4	2 - 40
Physician Assistant	1.3	0 - 3	54.5	4 - 120	6.0	2 - 10
Clerical Staff	1.6	0 - 9	47.5	4 - 240	10.0	1 - 50
Other	1.7	0 - 6	48.2	2 - 160	8.4	2 - 20
Total	4.4	0 - 27	144.9	2 - 2,530	19.6	1 - 240

Table 4. Average Full Time Equivalents by Number of Healthcare Personnel Served

Number of Healthcare Personnel Served	Average Total FTE	Average Nursing FTE	Average Provider FTE	Average Clerical FTE
Less than 600	1.1	0.6	0.2	0.2
600 – 1,199	1.6	1.1	0.3	0.2
1,200 – 1,799	1.6	1.2	0.3	0.1
1,800 – 2,399	2.0	1.5	0.3	0.2
2,400 – 2,999	2.8	1.8	0.5	0.4
3,000 – 3,999	2.8	1.8	0.3	0.6
4,000 – 4,999	4.3	2.7	0.6	0.8
5,000 – 7,499	6.7	3.8	1.3	0.9
7,500 – 14,999	7.3	4.3	0.8	1.3
More than 15,000	13.9	6.2	4.3	2.9

Table 5. Average Time Spent on Provider Tasks

Provider Task	Hours per Month, Weighted by Total FTE		Hours per month, Weighted by Nursing FTE		Do Not Track	
	Average	Range	Average	Range	N	%
Post-Offer, Pre-Placement Exam	28.1	0 - 540	33.1	0 - 540	22	14%
Evaluation of Work-Related Injury	3.4	0 - 24	6.4	0 - 120	20	13%
Follow-Up of Work-Related Injury	3.2	0 - 63	4.6	0 - 75	23	15%
Blood Exposure Initial Counseling	1.3	0 - 15	2.0	0 - 20	16	10%
Blood Exposure Follow-Up	0.8	0 - 5	1.2	0 - 15	16	10%
Episodic Visits	2.6	0 - 33	3.4	0 - 43	27	17%
Fitness for Duty Evaluations	1.3	0 - 8	2.0	0 - 11	41	26%
DOT Exams	1.0	0 - 3	1.3	0 - 5	47	30%
All Provider Tasks	28.0	0-542	38.0	0-542	n/a	n/a

by overall FTE and nursing FTE. Results are presented separately for each category in Tables 5 – 8. Respondents were asked separately to estimate the time spent in their department on non-

clinical tasks such as meetings, emails and phone calls. Those results are presented in Tables 9 and 10.

Table 6. Average Time Spent on Nursing Tasks

Nursing Task	Hours per Month, Weighted by Total FTE		Hours per month, Weighted by Nursing FTE		Do Not Track	
	Average	Range	Average	Range	N	%
Flu Shots	111.6	1 - 4,000	126.3	1 - 4,000	18	12%
TB Skin Tests	8.8	0 - 64	13.5	0 - 153	20	13%
Latex Allergy Screening	1.6	0 - 20	2.8	0 - 33	46	29%
Color Vision Screening	2.6	0 - 39	2.7	0 - 133	34	22%
Vaccine Administration	3.6	0 - 38	5.9	0 - 68	19	12%
Hearing Conservation	3.9	0 - 60	4.4	0 - 60	42	27%
Urine Drug Testing – Random	3.8	0 - 20	9.6	0 - 100	42	27%
Urine Drug Testing – Cause	0.2	0 - 1	0.3	0 - 3	36	23%
Respirator Fit Testing	6.9	0 - 26	12.4	0 - 127	24	15%
All Nursing Tasks	113.4	0 - 4,024	138.4	0 - 4,024	n/a	n/a

Table 7. Average Time Spent on Management Tasks

Management Task	Hours per Month, Weighted by Total FTE		Hours per month, Weighted by Nursing FTE		Do Not Track	
	Average	Range	Average	Range	N	%
Occupational Case Management	4.7	0 - 47	8.9	0 - 70	43	28%
Non-Occupational Case Management	1.6	0 - 10	3.9	0 - 30	52	33%
Ergonomic Evaluations	1.4	0 - 12	2.7	0 - 60	34	22%
Return to Work	1.7	0 - 8	3.0	0 - 42	30	19%
Emerging Infectious Diseases	1.1	0 - 8	1.5	0 - 14	46	29%
Exposure Investigation/Management	0.7	0 - 5	1.1	0 - 12	23	15%
Medical Surveillance	8.7	0 - 100	13.5	0 - 124	25	16%
Hazardous Drug Medical Surveillance	1.2	0 - 10	1.8	0 - 20	48	31%
All Management Tasks	13.0	0 - 108	21.5	0 - 185	n/a	n/a

Table 8. Average Time Spent on Administrative Tasks

Administrative Task	Hours per Month, Weighted by Total FTE		Hours per month, Weighted by Nursing FTE		Do Not Track	
	Average	Range	Average	Range	N	%
FMLA Administration	2.9	0 - 13	4.2	0 - 13	52	33%
ADA Accommodation	0.8	0 - 3	1.0	0 - 3	39	25%
OSHA Log	2.6	0 - 58	5.3	0 - 88	32	21%
Flu Reporting	13.6	0 - 333	15.7	0 - 333	31	20%
Absence Management	2.4	0 - 10	3.2	0 - 10	30	32%
All Administrative Tasks	10.3	0 - 338	13.6	0 - 338	n/a	n/a

An additional question related to post-offer, pre-placement exams was asked to gain additional information about what elements those exams include and whether they are carried out in-house or outsourced. The three most frequent services that were performed in-house as part of this exam were immunizations (93.1%), Tuberculosis testing (85.5%) and a health questionnaire (84.5%). See Table 11 for full results. In addition to the services listed on the survey, respondents also indicated they performed ergonomic evaluations, strength and fitness testing, communicable disease screening and wellness biometrics. Additionally, 50% of responses indicated that non-employees receive the same tests as employees.

Tracking

Respondents were asked a series of questions about how they track their EH activities and satisfaction with their processes. Computer software was used by 75.7% of respondents to track their EH activities. Of those who do use software, the most common software used was Agility Healthcare Solutions (32.1%), OHM (20.2%) and Axion ReadySet (13.1%). Overall, 78.6% of respondents were satisfied with their tracking software. Similar numbers of respondents report the use of an Electronic Health Record (EHR) (82.0%). The most frequent EHRs used were EPIC (17.6%), Agility Healthcare Solutions (14.3%), and MEDITECH (13.2%). Overall satisfaction with the EHRs was lower, with 55.8% of respondents reporting satisfaction with their EHR. Finally, of those departments who do track office visits and services (66.4%), two-thirds (67.1%) have automated processes and 37.0% track on pre-determined time intervals. The most frequent interval for reporting statistics is monthly (60.9%).

Discussion

The results of the 2016 AOHP Staffing Survey provide an overview of department characteristics and staffing patterns. The survey had participation from organizations of all sizes, with nationwide representation. Though difficult to make recommendations for staffing levels due to the variance in size and

Table 9. Average Time Spent on Non-Clinical Tasks – Hours per Month

Service/Task	Average	Range
Committee/Standing Meetings	12.2	1 - 100
Monthly Reports	5.8	0 - 80
Prep Time for Meetings	5.4	0 - 40
Policy/Service Development and Review	4.6	0 - 32
Emergency Preparedness and Response	1.8	0 - 20
Performance Evaluations	1.4	0 - 10

Table 10. Average Time Spent on Clerical Tasks – Minutes per Day

Task	Average	Range
Data Entry	92.0	0 - 480
Emails	88.7	1 - 600
Telephone Calls	59.0	1 - 400
Record Requests	21.7	0 - 105
Faxes	20.7	0 - 200
Supply Orders and Distribution	14.1	0 - 60

program differences, the survey did capture some of the current staffing and workload of EH/OH departments. The highest staffing levels in terms of FTE were RNs and Medical Assistants. The average amount of work not completed at the end of the week across all job categories was 19.6 hours, with a range of one to 240 hours per department. RNs were most often the department managers, with 67.9% of EH/OH departments managed by an RN. As expected, there were steady increases in overall FTE, as well as nursing, provider and clerical FTE, as the number of HCP served increased (Table 4).

While it was difficult to find trends in the amount of time spent on individual tasks (Tables 5-8), it is clear that the most time was spent on the tasks classified as nursing tasks, with a weighted average of 113.4 hours per month. Within the nursing tasks, flu shots had the highest average time spent per month – 111.6 hours. Nursing tasks were followed by provider tasks, with an overall weighted average of 28.0 hours per month. The provider task that took the most time was post-offer, pre-placement exams – 26.1 hours per month. Management tasks (13.0 hours per month) and clerical tasks (10.3 hours per month) were reported to take less time. The above staffing patterns held when looking at the hours per month by total FTE and nursing FTE.

Potential limitations of this staffing survey include the response rate, which was lower than the 2011 administration of the staffing survey.⁴ Though this survey had participation from facilities of all sizes and from 36 states, there is no way to know if the respondents dif-

Table 11. Post-Offer, Pre-Placement Health Exam Services Provided

Exam Item	In-house		Outsource		Total	
	N	%	N	%	N	%
Health Questionnaire	98	84.5%	14	12.1%	112	96.6%
Physical Exam	53	46.9%	27	23.9%	80	70.8%
TB Testing	100	85.5%	14	12.0%	114	97.4%
Phlebotomy	84	72.4%	31	26.7%	115	99.1%
Vision testing-near/far	60	52.6%	23	20.2%	83	72.8%
Respirator fit testing	95	81.2%	14	12.0%	109	93.2%
Drug testing	68	57.1%	44	37.0%	112	94.1%
Immunizations	108	93.1%	5	4.3%	113	97.4%
Nicotine screenings	17	15.7%	19	17.6%	36	33.3%
Hepatitis C screenings	29	26.9%	6	5.6%	35	32.4%
Other	20	76.9%	0	0.0%	20	76.9%

fer from non-respondents to the survey. The second limitation to this staffing survey is the comprehensiveness of the list of tasks provided to survey respondents. There are likely a number of other tasks that occupy their time. An open-ended question was provided to try to capture other tasks that should be considered on a staffing survey, and common responses included counseling or mental health tasks, workers' compensation, wellness programs, safe patient handling, education and coordination with human resources. Quantitative information was not captured, but these are tasks that should be considered for inclusion on future staffing surveys.

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