

Hospital Staffing Ratio Analysis

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Introduction and Background

- VSES was looking for a way to understand if staffing performance is “in-line” with other VSPA Hospitals -- trying to determine what is “good”
- Created a survey to identify:
 - Average Number of Patients
 - Number of Paid Hours
 - Number of Staff (FTE)
 - Number of Supervisors
 - Patient to Staff Ratios (calculation)
 - Staff to Doctor Ratios (calculation)
 - Number of Supervisors
- Data was separated by weekday / weekend and by department (Emergency, Surgery, Internal Medicine)
- Staffing applied to Licensed Veterinary Technicians and Animal Care Assistants only
- Reached out to VSPA Hospitals for their input; followed up with calls to confirm understanding of data

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Future (Potential) Objectives

- Share approach with more VSPA hospitals to possibly leverage for future on-going VSPA reporting
- Use data to understand best practices in hospital staffing
- Further explore staffing responsibilities as they relate to # of staff to reduce ratio levels

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Reality of the Data / Caveats

- Differences in records systems and tracking methods can complicate responses
- There is not an ideal way to track in-hospital patients given current systems – we used new visits only
- There is no consideration within the current data for varying skill levels (e.g. new hire vs. veteran)
- Weekday vs. Weekend definition can vary slightly
- Total # of Paid Hours: Overtime is not included
- Did not include resources that are planned as future growth, but did account for current or replacement openings
- Some inconsistencies on inclusion of supervisors in FTE / Hour Count; Residents and Interns were included only if they had primary case responsibility
- **Future:** Need to arrive at a common approach despite system and hospital data gathering limitations to make data as consistent as possible

Summary of Results - Patient per Staff Ratios

	A	B	C	D	E	Notes
<i>Avg number of patients (over 6 mos)</i>						
Weekday (Mon AM - Fri PM)	319	729	650	505	356	Only new visits; can't track total
CALC: Patient Per DVM Ratio	26.6	30.4	59.1	38.8	25.9	
CALC: Patient Per LVT Ratio	11.4	15.5	25.0	22.0	9.7	
CALC: Patient Per ACA Ratio	24.5	22.8	69.9	49.0	10.4	
Weekend (Sat AM - Mon AM)	46	88	85	145	123	
CALC: Patient Per DVM Ratio	9.2	9.8	21.3	23.2	17.6	
CALC: Patient Per LVT Ratio	3.8	6.3	10.6	12.1	5.0	
CALC: Patient Per ACA Ratio	7.7	14.7	32.7	16.1	5.8	

Weekday: highest patient per staff ratio

Weekday - Lowest patient per LVT and ACA ratio

- No breakdown was performed by department (e.g. Surgery, Emergency, Internal Medicine)
- For weekdays...
 - Patient per DVM Ratio varies from ~26 – 60 patients per DVM
 - Patient per LVT Ratio has smaller range: ~10 – 25 patients per DVM
 - Patient per ACA Ratio has the greatest range: ~10 – 70 patients per DVM

Summary of Results – Emergency Staff to DVM Ratios

<i>Staffing Numbers and Ratios</i>						
Weekday (Monday AM - Friday PM)						
	A	B	C	D	E	
Weekdays						
EMERGENCY Total # Paid Hours						
DVM	294	288	252	184	294	
LVT	720	760	558	210	1013	
ACA	320	432	252	282	965	
CALC: LVT / DVM Ratio	2.4	2.6	2.2	1.1	3.4	
CALC: ACA / DVM Ratio	1.1	1.5	1.0	1.5	3.3	
EMERGENCY Staff # (FTE)						
DVM	7	8	6.5	7	7	
LVT	18	20	14	13	25.3	
ACA	8	12	6.3	7.3	24.1	
CALC: LVT / DVM Ratio	2.6	2.5	2.2	1.9	3.6	
CALC: ACA / DVM Ratio	1.1	1.5	1.0	1.0	3.4	
<p>• Hospital "E" has the highest Emergency staffing ratios overall</p>						
Weekend (Saturday AM - Monday AM)						
Weekends						
EMERGENCY Total # Paid Hours						
DVM	210	108	152	72	140	
LVT	480	240	318	132	245.5	
ACA	240	96	105	108	211.5	
CALC: LVT / DVM Ratio	2.3	2.2	2.1	1.8	1.8	
CALC: ACA / DVM Ratio	1.1	0.9	0.7	1.5	1.5	
EMERGENCY Staff #						
DVM	5	3	4	5.25	7	
LVT	12	10	8	11	24.6	
ACA	6	4	2.6	9	21.2	
CALC: LVT / DVM Ratio	2.4	3.3	2.0	2.1	3.5	
CALC: ACA / DVM Ratio	1.2	1.3	0.7	1.7	3.0	
<p>• Based on pure hours, Hospital A has the highest ratio for LVT, and Hospitals D & E have the highest ratios for ACA. Hospital C has the lowest ACA ratio.</p>						

Summary of Results – Surgery Staff to DVM Ratio

Weekdays

- Hospital C has the highest LVT ratio, but a lower ACA ratio.
- Hospital D has the lowest ACA ratio

SURGERY Average Total # Paid Hours		A	B	C	D	E
DVM		84	320	80	146	210
LVT		160	440	200	288	340
ACA		120	440	80	73	320
CALC: LVT / DVM Ratio		1.9	1.4	2.5	2.0	1.6
CALC: ACA / DVM Ratio		1.4	1.4	1.0	0.5	1.5
SURGERY Staff #						
DVM		2	8	2	3.8	5
LVT		4	11	5	7	8.5
ACA		3	11	2	2	8
CALC: LVT / DVM Ratio		2.0	1.4	2.5	1.9	1.7
CALC: ACA / DVM Ratio		1.5	1.4	1.0	0.5	1.6

Weekends

- There is limited surgery support on weekends for the 5 hospitals examined

SURGERY Total # Paid Hours		A	B	C	D	E
DVM		0	30	0	varies	on call
LVT		0	20	0	6	on call
ACA		0	10	0	6	on call
CALC: LVT / DVM Ratio			0.7			
CALC: ACA / DVM Ratio			0.3			
SURGERY Staff #						
DVM		0	3	0		0
LVT		0	2	0		0
ACA		0	1	0		0
CALC: LVT / DVM Ratio			0.7			
CALC: ACA / DVM Ratio			0.3			

Summary of Results – Internal Medicine Staff to DVM Ratio

Weekdays

- Like Surgery, Hospital C has the highest LVT ratio, but a lower ACA ratio for Internal Medicine

Internal Medicine Average Total Paid Hours		A	B	C	D	E
DVM		126	320	104	60	73.5
LVT		240	640	280	111	120
ACA		80	360	40	37	80
CALC: LVT / DVM Ratio		1.9	2.0	2.7	1.9	1.6
CALC: ACA / DVM Ratio		0.6	1.1	0.1	0.3	0.7
Internal Medicine Staff #						
DVM		3	8	2.5	2.3	1.8
LVT		6	16	7	3	3
ACA		2	9	1	1	2
CALC: LVT / DVM Ratio		2.0	2.0	2.8	1.3	1.7
CALC: ACA / DVM Ratio		0.7	1.1	0.4	0.4	1.1

Weekends

- There is limited dedicated internal medicine support on weekends for the 6 hospitals examined

Internal Medicine Total # Paid Hours		A	B	C	D	E
DVM		0	30	0	6	0
LVT		0	20	0	9	0
ACA		0	10	0		0
CALC: LVT / DVM Ratio			0.7		1.5	
CALC: ACA / DVM Ratio			0.3		0.0	
Internal Medicine Staff #						
DVM		0	3	0	1	0
LVT		0	2	0	1	0
ACA		0	1	0		0
CALC: LVT / DVM Ratio			0.7		1.0	
CALC: ACA / DVM Ratio			0.3			

Next Steps / Discussion

- Concerns? Questions?
- Can this survey be of value for future reporting?
- Thoughts on how to determine what is a “good”, or optimal ratio?
- Is it possible to evaluate staffing assignments to see how to best use LVT and ACA resources?
- Please see Alicia Campbell if you would like to participate in the survey and see your results

Backup – Sample of Survey

Survey -- Number of Patients Seen and Hours worked by Function, for Ratio Analysis
Revision 1.1 8/3/2017

Instructions:

Please fill out all cells highlighted in yellow, for questions 1 and 2 reference all definitions; note any exceptions made for the data entered. If you have questions, please contact Mike O'Brien at (585) 424-1277 or via email at mobrienvet@gmail.com. The results of the survey will be kept anonymous, and not associated with your hospital in any future reporting.

Definitions:

DVM -- Veterinary Doctor that is ACTIVELY managing and seeing cases, and has primary case responsibility. This is not a support role, or internship.

LVT -- Licensed Veterinary Technician. Includes Technicians that are assigned to radiology, medical roles and supervisory functions. Please do not include technicians that are assigned to stocking functions.

ACA -- Animal Care Assistant. Non-licensed medical staff performing non-invasive patient care, husbandry, and restraint.

Number of Patients Seen:

Question 1: What is the average number of patients that you see in the following timeframes (average number over 6 months) :

Timeframe	Average Number of patients seen
Weekday (Monday 6 AM - Friday - 11:59 AM)	319
Weekend (Saturday 12:01 AM - Monday 5:59AM)	46

Number of Hours Worked by Position, Staff Count, and Full Time Equivalent Assignments:

Question 2: Please identify the Average Total number of paid hours, Total number of staff, and FTE Hours assigned for each position within each service listed, assuming fully staffed. FTE Hours is the number of hours assigned to a position per week to be considered "full time". (e.g. LVT's FTE Hour assignment = 40; DVM FTE Hours assignment = 42)

Question 3: For each service and position type, please identify the Number of Supervisors that are included as part of the Total # of staff

Timeframe	Service	Position	Average Total # paid Hours	Total # Staff	FTE Hours	# Supervisors
Weekday (Monday 6 AM - Friday - 11:59 PM)	Emergency	DVMs	2,250	15	402	1
		LVTs	7,710	15	402	1
		ACAs	2,520	12	402	2
	Surgery	DVMs	840	2	402	1
		LVTs	3,360	2	402	0.5
		ACAs	3,360	3	402	1
	Internal Medicine	DVMs	1,764	12	402	1
		LVTs	2,520	12	402	0.5
		ACAs	840	12	402	0