## Assessing Curriculum Effectiveness: A Survey of Uniformed Services University Medical School Graduates

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**ABSTRACT** Purpose: This study assessed alumni perceptions of their preparedness for clinical practice using the Accreditation Council for Graduate Medical Education (ACGME) competencies. We hypothesized that our alumni's perception of preparedness would be highest for military-unique practice and professionalism and lowest for system-based practice and practice-based learning and improvement. Method: 1,189 alumni who graduated from the Uniformed Services University (USU) between 1980 and 2001 completed a survey modeled to assess the ACGME competencies on a 5-point, Likert-type scale. Specifically, self-reports of competencies related to patient care, communication and interpersonal skills, medical knowledge, professionalism, systems-based practice, practice-based learning and improvement, and militaryunique practice were evaluated. Results: Consistent with our expectations as the nation's military medical school, our graduates were most confident in their preparedness for military-unique practice, which included items assessing military leadership (M = 4.30, SD = 0.65). USU graduates also indicated being well prepared for the challenges of residency education in the domain of professionalism (M = 4.02, SD = 0.72). Self-reports were also high for competencies related to patient care (M = 3.86, SD = 0.68), communication and interpersonal skills (M = 3.88, SD = 0.66), and medical knowledge (M = 3.78, SD = 0.73). Consistent with expectations, systems-based practice (M = 3.50, SD = 0.70) and practice-based learning and improvement (M = 3.57, SD = 0.62) were the lowest rated competencies, although self-reported preparedness was still quite high. Discussion: Our findings suggest that, from the perspective of our graduates, USU is providing both an effective military-unique curriculum and is preparing trainees for residency training. Further, these results support the notion that graduates are prepared to lead and to practice medicine in austere environments. Compared to other competencies that were assessed, self-ratings for systems-based practice and practice-based learning and improvement were the lowest, which suggests the need to continue to improve USU education in these areas.

#### INTRODUCTION

Medical school faculty play an essential role in society educating physicians who will complete additional training to provide health care for our nation. This is a complex and daunting task with several notable challenges. Completing medical school is only the first step in a physician's training with the eventual "product" not yet having been realized. Thus, medical educators grapple with selecting appropriate outcome measures for this phase of education. Second, changes continue to emerge in our educational systems; these include the establishment of new evaluation domains and the continued growth of medical knowledge. Third, it can be difficult for medical schools to track their graduates over the long term because of the number of residencies and practice

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locations available to graduates. An additional challenge for the Uniformed Services University (USU) is our unique charge to educate military physicians with dual professional identities as both physicians and military officers. Despite these challenges, it is critical that USU track these outcomes to ensure that the school is fulfilling its societal obligation in both peacetime and wartime.

The most prominent new evaluation domain, a set of six competencies for all graduating residents, was developed in 2002 by the Accreditation Council for Graduate Medical Education (ACGME).<sup>1</sup> This competency rubric is consistent with several international competency frameworks for graduate medical education such as CanMeds<sup>2</sup> and Good Medical Practice.<sup>3</sup> Some medical schools in the United States now use the ACGME framework as a foundation for preparing their students for future success in graduate medical education.

When measuring medical school "success," one important perspective is that of the graduates. Do they believe, when reflecting on their clinical experiences, that the medical school has prepared them for their practice needs and challenges? Such evaluations, as part of a larger portfolio of outcomes, can help medical educators identify areas in their curriculum that might need revision. Such evaluations can also assist in the assessment of more complex outcomes such as preparedness for independent practice. To that end, we surveyed two decades of USU graduates to assess their perceptions about their preparedness for residency training, using

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the ACGME competencies as a framework. We believe that such aggregate data can help medical educators formulate better policies and educational practices. We hypothesized that USU graduates' perceptions of preparedness would be highest for military-unique practice and professionalism given that USU is the only federal medical school in the United States, and, as such, can and does provide additional focus in these areas. Conversely, we hypothesized that graduates' perceptions of preparedness would be lowest for the two ACGME competencies that were not a focus of the curriculum during the time frame under investigation (i.e., 1980–2001): systems-based practice and practice-based learning and improvement.

#### METHODS

This study was part of the larger Long-Term Career Outcome Study (LTCOS) conducted by the F. Edward Hébert School of Medicine, the only federal medical school in the United States. This study was approved by USU's Institutional Review Board.

#### **Participants and Procedures**

The LTCOS alumni questionnaire was initially sent electronically to graduates who had earned their MD degree between 1980 and 2001. These data were collected in March 2012 using PHPSurveyor. To increase the response rate, we sent both paper and electronic reminders, and also reached out, via social media, to alumni through USU's Alumni Affairs Office. Data collection was completed in December 2013.

#### **Questionnaire Development**

The questionnaire was developed through an interdepartmental vetting process involving LTCOS members, the USU's Executive Curriculum Committee, and Associate Dean of Medical Education. Reliability and validity evidence for this instrument has been previously collected and reported elsewhere.<sup>4</sup> Items on this survey were subsequently mapped to the ACGME competencies and, through a deliberative group process, additional items to address ACGME competencies were created; these items were not included in previous versions of the survey. Following these revisions, we conducted several cognitive interviews with selected faculty and graduates and made additional edits to the survey. The full survey is provided in the Appendix.

The competency section of the survey was organized into seven sections: (1) patient care (12 items), (2) communication and interpersonal skills (10 items), (3) medical knowledge (3 items), (4) professionalism (5 items), (5) systems-based practice (3 items), (6) practice-based learning and improvement (7 items), and (7) military-unique practice (8 items). The items were anchored on a 5-point, Likert-type response scale with the following options: (1) poor, (2) significantly below your peers, (3) on par with your peers, (4) better than your peers, and (5) consistently higher level than most of your peers. A sixth option, unable to judge, was also included in the response scale but was treated as missing data in the analysis.

#### Data Analysis

Analyses were conducted using the statistical software Stata 12 (College Station, Texas). Internal consistency (reliability) of the items measuring each of the competency factors was examined by reliability analysis using Cronbach's  $\alpha$ . Univariate descriptive statistics were also calculated to assess ratings on each of the competencies.

#### RESULTS

Surveys were electronically distributed to 2,825 graduates for whom e-mail addresses were available. Of these, we estimated that 2,400 alumni had valid contact information (i.e., e-mail addresses). Of these, 1,189 alumni completed and returned the survey, giving a response rate of approximately 50%. There were no significant differences on cumulative medical school GPA between alumni who participated in the study and those who did not (t = 1.57, df = 2958, p = 0.12). These results suggest that, relative to medical school performance, our sample was representative of the entire USU alumni population who graduated between 1980 and 2001.

The internal consistency reliability scores for each of the seven scales were excellent, with Cronbach's  $\alpha$  ranging from 0.95 (patient care) to 0.72 (systems-based practice) (Table I).

We calculated descriptive statistics for the seven subsections of the alumni survey. Tables I and II show subscale means and standard deviations for each competency and corresponding items, respectively. Overall, mean scores were relatively consistent across over the decades, for all competencies (Fig. 1). Mean scores for competencies ranged from 3.50 (systems-based practice) to 4.04 (military-unique practice), with professionalism and military-unique practice being the highest rated competencies.

Consistent with our expectations as the nation's military medical school, our graduates were most confident in their preparedness for military-unique practice (M = 4.04, SD = 0.65), which included items assessing military leadership (M = 4.30, SD = 0.65). USU graduates also indicated being well prepared for the challenges of residency education in the domain of professionalism (M = 4.02, SD = 0.72). Self-reports were also high for competencies related to patient care (M = 3.86, SD = 0.68), communication and interpersonal skills (M = 3.88, SD = 0.66), and medical knowledge (M = 3.78, SD = 0.73). Consistent with expectations, systems-based practice (M = 3.50, SD = 0.70) and practice-based

TABLE I. Competencies: Reliability and Mean Scores

Factor	Ν	M(SD)	Reliability, $\alpha$
Patient Care	1116	3.86 (0.68)	0.95
Communication and	1118	3.88 (0.66)	0.95
Interpersonal Skills			
Medical Knowledge	1108	3.78 (0.73)	0.91
Professionalism	1116	4.02 (0.72)	0.93
Systems-Based Practice	1092	3.50 (0.70)	0.72
Practice-Based Learning	1112	3.57 (0.62)	0.86
Military-Unique Practice	1069	4.04 (0.65)	0.92

Patient Care		Communication and Interpersonal Skills			
	Mean	SD		Mean	SD
Interview Patients	4.00	0.82	Oral Communication Skills	3.97	0.81
Perform Physical Examination	3.86	0.83	Written Communication Skills	3.91	0.82
Perform Daily Patient Evaluations (Clinical Setting)	3.89	0.83	Relationship With Patients	4.01	0.80
Perform Daily Patient Evaluations (Inpatient Setting)	3.87	0.84	Relationship With Families	3.97	0.82
Perform Basic Technical Skills	3.92	0.86	Relationship With Peers and Other Health Care Personnel	3.94	0.81
Perform Advanced Procedural Skills	3.73	0.92	Effectiveness as a Teacher	3.86	0.81
Analysis of Clinical Data and Interpretation of Tests	3.84	0.81	Sensitivity to Patient's Age and Gender	3.72	0.80
Management of Patients With Life-Threatening Illness	3.78	0.84	Sensitivity to Patient's Culture and Disabilities	3.74	0.80
Management of Patients With Complex Illness	3.70	0.83	Effectiveness as a Team Member	4.06	0.79
Knowledge and Selection of Treatment Options	3.75	0.81	Effectiveness With End of Life Care Issues	3.62	0.82
Coordination and Continuity of Care	3.77	0.81			
Perceived Preparation for Patient Care in a Deployment/ Humanitarian Environment	4.24	0.79			
Medical Knowledge			Professionalism		
Fund of Basic Science Knowledge	3.66	0.80	Initiative and Motivation	4.12	0.81
Fund of Clinical Science Knowledge	3.76	0.80	Conscientiousness	4.12	0.80
Clinical Judgment	3.91	0.80	Ethical Conduct	4.03	0.83
			Aware of Own Limitation	3.92	0.81
			Willingness to Admit an Error in Judgment	3.92	0.81
Systems-Based Practice			Practice-Based Learning and Improve	ement	
Understanding of the Contexts and Systems in TRICARE	3 7/	0.88	Salf Directed Learning Skills	3 60	0.80
Consideration of Costs in Diagnosis and Management	2.74	0.00	Time Management Skills	2 70	0.80
Quality Assurance and Improvement Initiatives	2.55	0.90	Quality Madical Record Decumentation	3.70	0.04
Quality Assurance and improvement initiatives	5.55	0.80	Quality Medical Record Documentation	2.19	0.81
			Medical Information	5.57	0.78
			Elective Involvement in Research	3.14	0.94
			Participation in Volunteerism or Humanitarian	3.42	0.81
			Clinical Activities		
			Adaptation to New Technology	3.57	0.80
Military-Unique Practice, Deployment, and Humanitarian Missions					
Military Leadership	4.21	0.75			
Ability to Conduct Patient Care in Deployed	4.21	0.76			
Mission Environment					
Understanding of Psychological Impacts of Deployment	4.15	0.78			
Knowledge of Common Postdeployment Medical or	3.97	0.82			
Psychological Conditions					
Knowledge of Electronic Health Record Applications	3.68	0.88			
Knowledge of Electronic Health Record and Technology	3.66	0.91			
Used in Theater	2.00	0.7.1			
Ability to Cope With the Stress of Military Medical Practice	4,13	0.79			
Adaptation to Unique Situation and Stressors	4.17	0.76			

TABLE II. Descriptive Statistics of USU Graduates' Competency Self-Evaluation Items (Classes of 1980–2001)

learning and improvement (M = 3.57, SD = 0.62) were the lowest rated competencies, albeit graduate self-reported preparedness was still high. An examination of individual items for each competency also revealed that respondents reported being better than their peers on preparation for patient care in a deployment or humanitarian environment and interviewing patients (patient care), and effectiveness as a team member and relationship with patients (communication and interpersonal skills). As expected, in general, self-ratings for systemsbased practice and practice-based learning and improvement were relatively low especially with regards to the average ratings on consideration of costs in diagnosis and management (systems-based practice), as well as quality medical record documentation and elective involvement in research (practicebased learning and improvement).

#### DISCUSSION

Our findings provide additional evidence that USU is providing general and military residency training preparedness, as reflected by our alumni's views. Consistent with our expectations as the nation's military medical school, our graduates felt most prepared for professionalism and militaryunique practice to include high ratings for preparedness for leadership. Our curriculum offers a number of military-unique



FIGURE 1. Trends across time—1980–2001.

components, including leadership activities and field exercises that may account for these findings. These results are also consistent with views expressed by our alumni who have achieved flag officer rank.<sup>5</sup> We believe these findings are important given that USU graduates are asked to practice medicine in austere environments.

Alumni preparedness ratings were also high for patient care, communication and interpersonal skills, and medical knowledge. We believe this provides additional evidence that our medical curriculum educates our students well, at least from the graduates' perspective. The opinions expressed by our graduates are also consistent with other outcome measurements. For example, USU graduates have higher board certification rates than the national average.<sup>6</sup>

Comparatively, USU alumni were less confident on systemsbased practice and practice-based learning and improvement. However, this result was expected given that these competencies were not formally defined, taught, or evaluated during the time frame under investigation. We believe that this lends additional validity evidence to our findings. We were pleased to find that our graduates felt they were at least on par with their peers (and in some cases, above their peers) with respect to these competencies. We continue to make changes to improve our students' education in these needed competencies to include additional emphasis being placed in the curriculum on topics such as patient safety, reducing medical errors, cost-effective management strategies, evidence-based medicine, and a team-based approach to improving the quality of patient care. We believe that such findings can help make important contributions to curriculum reform efforts to include other relatively low ratings such as medical record documentation and involvement in research. For example, in our new curriculum, students have additional elective time for research projects and all students receive training in the use of our electronic medical record system throughout the curriculum starting in the preclerkship period. It will be interesting to see if graduates' confidence in these areas improve in future studies involving more recent graduates.

#### Limitations and Recommendations for Future Research

The study had a number of limitations. First, respondents were asked to self-assess their own competencies, and there is a fair amount of research in medical education, which suggests that individuals often do a poor job self-assessing broad competencies. Second, respondents were asked to rate their perceptions on different competencies using response options anchored on a 5-point Likert-type scale. These data, however, are self-reported and so they represent perceived competencies as opposed to actual competencies as measured by more objective assessment measurements. That said, findings from more objective measures of our alumni's performance corroborate the findings presented here.<sup>6</sup> Another potential limitation is nonresponse bias, although considering the fact that there were no differences between respondents and nonrespondents on medical school GPA, we feel nonresponse bias is less problematic. Also, since respondents graduated over the course of a 20-year period, it is likely that the reflections or experiences recalled by respondents who graduated more than 5 years ago, might not be as accurate as that of more recent graduates. Therefore, the possibility of recall bias, especially among earlier graduates, cannot be overlooked as a potential limitation to the study. Last, this study was completed at a single institution and so there is no opportunity to compare the preparedness perceptions of our alumni with alumni form other medical schools.

#### CONCLUSION

In summary, USU graduates indicate being well prepared for the challenges of residency education especially in the competences of military-unique practice and professionalism.

This is reassuring since leadership and service to the nation is what sets USU apart from other schools. Findings from this study provide insight into which aspects of the curriculum might be improved to further enhance student education and competencies in areas outlined by the ACGME and other accreditation bodies. Alumni perceptions about preparedness will be important to track over time and could provide medical educators with a viable outcome to study the effects of a wide range of medical school initiatives, such as curricular reform.

#### **APPENDIX**

ank you for taking the e aggregate data from d other aspects of mee nfidential and will not ur contributions to mil	time to provide feedback this survey to guide our of dical training. The informa- be shared with your supe litary medicine, including	on your training at USU. We will decisions about our curricula ation we gather will remain rvisors. answering this survey, are very
A) Post Graduate C 01a: In what area did transitional year but w level before starting P transitional preselect	Career Experience you complete your PGY1 t yere pre-selected for spec GY-1, please choose the p Anesthesia, chose Anesthe	training? If you have done a ialty training at the PGY-2 preselected specialty (e.g. esia).
Please choose only one	ot the following:	Dediatrics
Dermatology		<ul> <li>Physical and Rehab Medicine</li> </ul>
Emergency Medicine	OB/GYN	Preventive Medicine
Family Medicine	Occupational Medicine	Ophthalmology
Psychiatry	Pathology	Badiology
Surgery	I Joint PGY1	(address)
Transitional, not preselected f	or PGY-2 training at the start of PGY-1	
Other (please list)		
Only answer this questic Surgery - Please speci your answer here:	on if you answered 'Surgery fy type: e.g. General, ENT,	to question '01a '] <b>01b:</b> , ORTHO, etc. <u>Please write</u>
[Only answer this questic Joint PGY1 - Please sp write your answer here:	on if you answered 'Joint PG <b>\</b> ecify type: e.g. psychiatry	/1 ' to question '01a '] <b>01c:</b> //internal medicine: <u>Please</u>
02: Did you have a tou first residency? <u>Please</u>	r of duty as a physician b choose only one of the follo	efore completion of your

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Other	
<b>03: Have you completed your</b> yes	first residency?
04: In what area did you com	plete your first residency? Choose only one
Anesthesiology	Dermatology Physical & Rehab Med
Emergency Medicine	Preventive Medicine Pediatrics
Family Medicine	Psychiatry Internal Medicine
Radiation Oncology	Neurology Radiology
Nuclear Medicine	Undersea Medicine OB/GYN
Occupational Medicine	Military Service Unique Surgery
Ophthalmology	Joint Residencies
Pathology	Other
[Only answer this question if you '] <b>04b: Military Service Unique</b> [Only answer this question if you <b>Joint Residencies - please spe</b>	answered 'Military Service Unique ' to question '04 <b>– please specify type:</b> Write your answer here: answered 'Joint Residencies' to question '04 '] <b>04c:</b> <b>arcify type; e.g. psychiatry/internal</b> Answer here:
[Only answer this question if you complete your first residency Program Affiliation Site)? Plea Yes	answered 'Yes' to question '03 '] <b>05: Did you</b> in a military hospital or facility (Primary se choose only one of the following: No
[Only answer this question if you currently Board Certified in you Yes	answered 'Yes' to question '03 '] <b>06: Are you</b> our first residency trained specialty?
[Only answer this question if you answered "No" to question 6,	answered 'No' to question '06 '] <b>06a: If you</b> please explain: <u>Please write your answer here:</u>

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Only answer this qu <u>ecertified</u> in your	iestion if you answered 'Yes' to question '06 '] <b>06b: Have you</b> first residency trained specialty?	
Yes	No No	
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Only answer this qu	estion if you answered 'Yes' to question '03 '] <b>07: Have you</b>	
Yes	No No	
Only answer this qu dentify the type o your answer here:	lestion if you answered 'Yes' to question '07 '] <b>07a: Please</b> f your second residency or fellowship training: <u>Please write</u>	
Only answer this que complete your sector facility (Primary Primary Pr	nestion if you answered 'Yes' to question '07 '] <b>07b: Did you</b> ond residency or fellowship in a military hospital or rogram Affiliation Site)?	
Only answer this qu currently Board Ce specialty/subspect	estion if you answered 'Yes' to question '07 '] <b>07c: Are you</b> ertified in your second residency or fellowship ialty? <u>Please choose only one of the following:</u> No	
Only answer this qu answered "No" to	nestion if you answered 'No' to question '07c '] <b>07d: If you</b> <b>question 7c, please explain:</b> <u>Please write your answer here:</u>	
Only answer this qu completed post-me (Please do not incl yes	estion if you answered 'Yes' to question '03 '] <b>08: Have you</b> edical school education resulting in a Masters Degree? ude any pre-medical school education.)	

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[Only answer this question if you answered 'Yes' to question '08 '] 08a: Please specify the type of degree and your area of study: Write your answer here:

[Only answer this question if you answered 'Yes' to question '03 '] **09: Have you** completed post-medical school education resulting in a Doctoral level degree (e.g., PhD, DSc, JD)? (Please do not include pre-medical school education.) Please choose only one of the following:

J Yes

Yes

No

No No

[Only answer this question if you answered 'Yes' to question '09 '] **09a: Please** specify the type of degree and your area of study: Write your answer here:

[Only answer this question if you answered 'Yes' to question '03 '] 10: Have you completed post-medical school healthcare administration or management education, which resulted in some kind of formal certification (e.g. ACPE, CHE, etc.)? (Please do not include pre-medical school education

[Only answer this question if you answered 'Yes' to question '10 '] **10a: Please** specify the type of certificate and your area of study: Write your answer here:

B) Opera for 30 or m	tional Expo ore consecu	eriences 11: tive days to a to	As a physici theater of c	an, have yo ombat oper	ou ever deployed rations?
[Only answe times have combat op once	er this question e you deploye erations? <u>Plea</u> twice	n if you answer ad for 30 or m ase choose onl 3 times	red 'Yes' to qu ore consecu y one of the f 4 times	estion '11 '] tive days to following: 5 times	<b>11a: How many</b> <b>a theater of</b> 6 or more times
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12: As a physician, have you ever deployed for 7 or more consecutive days on a peacetime humanitarian mission? Please choose only one of the following: No

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Only answer this question pproximate total numb 3: Have you ever deplo	n if you answered 'Yes' to q ber of days: <u>Please write y</u>	
3: Have you ever deplo		uestion '12 '] <b>12b:</b> <u>our answer here:</u>
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[Only answer this questior title(s) of position(s) (p	n if you answered 'Yes' to q please do not use acrony	uestion '13 '] <b>13a: Please list</b> ms): <u>Write your answer here:</u>
C) Career Landmark	(S 14: Which of the follo your entire career, if an	wing positions have your y? <u>Please choose all that apply:</u>
Full-time Clinician (seeing p	patients at least 70% of the time du	uring a typical week)
Chief of Service/Clinic (with	hin an MTF)	
Chief/Director of a Clinic (whic	ch is part of a larger MTF but located	elsewhere; e.g. a branch clinic)
Clinical Clerkship or Medical S	School Course Director	
Department Chair/Chief/Head a department	at a Medical Center or Community Ho	spital without a residency program in your
Department Chair/Chief/Head a department	at a Medical Center or Community Ho	spital with a residency program in your
Service Chief/Director/Head of	multidisciplinary service at a Medica	l Center or Community Hospital (e.g. Chief
of all Surgical Services)		DCCS, Medical Director)
of all Surgical Services) Military Treatment Facility (M	TF) Chief of the Medical Staff (SGH,	
of all Surgical Services) <ul> <li>Military Treatment Facility (M<sup>T</sup></li> <li>Deputy MTF Commanding Off</li> </ul>	IF) Chief of the Medical Staff (SGH, icer (USN – Executive Officer)	Residency Program Director
of all Surgical Services) Military Treatment Facility (M Deputy MTF Commanding Off Fellowship director	IF) Chief of the Medical Staff (SGH, icer (USN – Executive Officer) Brigade surgeon	<ul> <li>Residency Program Director</li> <li>Division surgeon</li> </ul>
of all Surgical Services) Military Treatment Facility (M Deputy MTF Commanding Off Fellowship director Squadron commander	IF) Chief of the Medical Staff (SGH, icer (USN – Executive Officer) Brigade surgeon Senior medical officer	<ul> <li>Residency Program Director</li> <li>Division surgeon</li> <li>Research director</li> </ul>

Please choose Free-Standing Bedded Com Squadron or s Deployed/Dep Other list pos 16: Have you SG Office leve	all that apply: Clinic Commanding nunity-Sized Hospital imilar service-specifi- ployable Medical Uni itions held a staff pos el? Please choose	Officer	Medical Cent icer ommanding Officer <b>service's N</b> he following	ter Commanding ficer <b>1edical Head</b>	Officer quarters –
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<ul> <li>19: Have you primary zone Yes</li> <li>Yes</li> <li>[Only answer the following O4</li> <li>20: Did USU PYES</li> <li>20a: Why or Yes</li> </ul>	ever been sele for eligibility (i No his question if yo ranks does this O5 orepare you for No why not? <u>Please</u>	cted for prom .e., "deep sel u answered 'Ye apply? (cheo your current write your ans	otion, as a ect")? <u>Choo</u> s' to question <b>k all that a</b> O6 (or past) c wer here:	physician, b ose only one: on '19 '] <b>19a:</b> apply) <u>Choose</u> areer leader	elow the To which of all that apply: ship roles?
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<b>24: Have you ever prese</b> <sub>Yes</sub>	nted papers before military profe	essional groups?
24a: If yes, approximately Last year	how many in the last year and the la Last 5 years	ast 5 years?
25: Have you ever serve	as a reviewer for a peer-review	ved journal?
Yes 25a If yes, approximately how man	No ny medical journals as a peer reviewer?	
26: Have you ever serve	d as a principal investigator on a	research grant?
[Only answer this question <b>number of grants as a pr</b>	if you answered 'Yes' to question '26 incipal investigator: <u>Please write y</u>	o'] <b>26a: Total</b> your answer here:
27: Do you currently hole	d one or more university academ	ic appointments?
U Yes	U No	
[Only answer this question the following titles best have ever held? Please ch Instructor Assistant Prof	if you answered 'Yes' to question '27 describes the highest academic a oose only one of the following: essor Associate Professor Professo	7 '] 27a: Which of appointment you
[Only answer this question the following best descri above appointment? Plea	if you answered 'Yes' to question '27 <b>bes the university from which yo</b> se choose <b>only one</b> of the following	7 '] 27c: Which of ou received the :
USU Other Medical S	chool Other college/university (list)	
28: <u>As a physician</u> , which any? <u>Please choose all that</u>	n of the following medals have yo apply:	our received, if
Bronze Star	Purple Heart	Silver Star
Air Medal	Navy Cross	Air Force Cross
Distinguished Flying Cross	POW Medal	Legion of Merit
Defense Superior Service	Defense Meritorious Service	United Nations
Humanitarian Service Medal	Other – not campaign medals (list)	
<b>29: Has your Active Duty</b>	career concluded? <u>Choose only o</u>	ne of the following:
[Only answer this question separate before retireme	if you answered 'Yes' to question '29 ent? <u>Please choose only one of the rest</u>	9 '] <b>30: Did you</b> following:
103	110	

[Only answer this continue to serv	question if you a e in an Active F	answered 'Yes' to question '29 '] <b>31: Did you</b> Reserve/Guard Unit? <u>Please choose only one:</u>
[Only answer this following statem the following:	question if you a tents best desc	answered 'Yes' to question '29 '] <b>32: Which of the</b> cribes your service? <u>Please choose only one of</u>
I retired after 20 v	ears or more commis	ssioned Medical Corps service.
I retired after 20 o service.	r more years of total	service, but less than 20 years commissioned Medical Corps
I separated prior to	o 20 years total active	e service as a result of a Medical Board action.
attending USU v IMPORTANCE of not at all important	d attend, how i ersus other ins financial aspec slightly som	important were the financial aspects of stitutions in the civilian setting? The cts of attending USU were: Please choose one newhat important quite important extremely important
<b>34: When you be</b> Please choose <b>onl</b>	egan taking cla y one of the follo Married	sses at USU, what was your marital status? owing: Married but separated Divorced Widowed
35: When you be children? <u>Please</u>	egan taking cla choose only one	sses at USU, did you have dependent of the following:
O Yes	O No	)
36: When you gr	aduated from	USU, what was your marital status?
Not married	Married	Married but separated Divorced Widowed
37: When you gi	aduated from	USU, did you have dependent children?
Yes	No	
38: FOR QUESTI COMPARISON TO	ONS 39a – 39f, D <i>ALL OF YOUR</i>	, PLEASE EVALUATE YOUR <u>PREPAREDNESS</u> IN PEERS IN YOUR CLASS YEAR OF RESIDENCY:
39a: Patient Car	e Please choose	the appropriate response for each item:

	Poor	Significantly below your peers	On par with your peers	Better than your peers	Consistently higher level than most of your peers	Unable to judge
Interviewing patients and/or families for initial histories						
Performing a physical examination						
Performing daily patient evaluations (clinic setting)						
Performing daily patient evaluations (inpatient setting)						
Performing basic technical skills (i.e. inserting IV, suturing, inserting a-line)						

Performing advanced procedural skills (i.e. inserting central line, operating room performance)			
Analysis of clinical data, differential diagnosis and selection/interpretation of tests			
Management and/or referral of patients with life threatening illness			
Management of patients with complex multi-system illness			
Knowledge and selection of treatment options/patient management			
Coordination and continuity of care			
Perceived preparation for patient care in a deployment or humanitarian mission environment			

### 39b: Communication and Interpersonal Skills Please choose the appropriate

response for each item:

	Poor	Significantly below your peers	On par with your peers	Better than your peers	Consistently higher level than most of your peers	Unable to judge
Oral communication skills						
Written communication skills						
Relationships with patients						
Relationships with families						
Relationships with peers, staff and other health- care personnel						
Effectiveness as a teacher						
Sensitivity to patient's age and gender						
Sensitivity to patient's culture and disabilities						
Effectiveness as a team member						
Effectiveness with end of life care issues						

#### **39c: Medical Knowledge** Please choose the appropriate response for each item:

	Poor	Significantly below your peers	On par with your peers	Better than your peers	Consistently higher level than most of your peers	Unable to judge
Fund of basic science knowledge						
Fund of clinical science						

knowledge									
Clinical judgment									
39d: Professionalism Please choose the appropriate response for each item:									
	Poor	Significantly below your peers	On par with your peers	Better than your peers	Consistently higher level than most of your peers	Unable to judge			
Initiative and motivation									
Conscientiousness									
Ethical conduct									
Aware of own limitations									
Willingness to admit an error in judgment									
39e: Systems-Base	ed Pract	tice & Pract	ice-Based	l Learnin	g and Improven	nent			
	Poor	Significantly below your peers	On par with your peers	Better than your peers	Consistently higher level than most of your peers	Unable to judge			
Self-directed learning skill	ls 📄								
Time management skills									
Medical record documentation quality	on 📄								
Accessing and critically evaluating current medica information and scientific evidence									
Understanding of the contexts and systems in TRICARE									
Elective involvement in research									
Participation in volunteerism, social, or humanitarian clinical activities									
Consideration of costs in diagnosis and management	nt 🗌								
Adaptation to new technology									
Quality assurance and improvement initiatives									

# **39ee: If you selected "Elective involvement in research" please specify type:** <u>Please write your answer here:</u>

39eee: If you selected "Participation in volunteerism, social, or

humanitarian clinical activities" please specify: <u>Please write your answer here:</u>

39f: Military Unique Practice, Deployments, and Humanitarian Missions Please choose the appropriate response for each item: On par Better Significantly Consistently with than higher level than Unable below your your your Poor peers peers peers most of your peers to judge Military leadership Ability to conduct patient care in deployed or humanitarian mission environment Understanding of psychosocial impacts of deployment on service members' families Knowledge of common postdeployment medical or psychological conditions (e.g. TBI, PTSD) Knowledge of electronic health record applications Knowledge of electronic health record and technology used in theater Ability to cope with the stress of military medical practice Adaptation to unique situations and stressors in military medical practice 40: Overall clinical competence preparedness Please write your answer here:

41: I believe my peers would trust me to participate in the care of one of their loved ones: Please choose only one of the following:

Yes

No

Not sure

#### Why or Why not?

42: In general, how well did your medical school education prepare you for						
your career in medicine? Please choose only one of the following:						
Not well at all	Slightly well	Moderately well	Quite well	Extremely well		

43: From your career experience, in what aspects, if any, do you feel USU medical education program is unique (compared with civilian medical schools)? Please also share additional information, comments or feedback for USU: Write your answer here (you may use the back side of page if you like):

#### Submit Your Survey.

Thank you for completing this survey. Please email your completed survey to <u>steven.durning@usuhs.edu</u> or fax your completed survey to Steven Durning at 301-295-3557.

#### REFERENCES

- Accreditation Council for Graduate Medical Education. The Next Accreditation System: A Resident Perspective. Available at www .acgme.org/acgmeweb/Portals/0/PDFs/Resident-Services/9NASResidents May2014.pdf; accessed September 10, 2014.
- General Medical Council. Good Medical Practice. Available at http:// www.gmc-uk.org/guidance/good\_medical\_practice.asp; accessed September 9, 2014
- Royal College of Physicians and Surgeons of Canada. The Draft CanMEDS 2015. Physician Competency Framework. Available at http://www.royalcollege.ca/portal/page/portal/rc/common/documents/

canmeds/framework/framework\_series\_1\_e.pdf; accessed September 9, 2014.

- Durning SJ, Pangaro LN, Lawrence LL, Waechter D, McManigle J, Jackson JL: The feasibility, reliability, and validity of a program director's (supervisor's) evaluation form for medical school graduates. Acad Med 2005; 80: 964.
- Dong T, Durning SJ, Gilliland W R, et al : Leadership success and the Uniformed Services University: perspectives of flag officer alusmni. Mil Med 2012; 177(9): 61–7.
- DeZee K, Durning SJ, Dong T, et al: Where are they now? USU School of Medicine graduates after their military obligation is complete. Mil Med 2012; 177(9): 68–71.