

Learners' Perceptions Survey

LPS2014

Instructions Manual for Data Users

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Learners' Perceptions Survey (LPS) Instructions Manual for Data Users

I. INTRODUCTION

I.A. Background

Since 1946, health professions education has been a statutory mission for VA.^{1, 2, 3} In 2013, 142 VA medical centers had active affiliation agreements with 152 of the 170 medical schools (including 29 osteopathic) and over 1,800 other education programs involving annually 40,420 physician residents, 21,541 medical students, and 56,585 nursing students, dental, and associated health trainees from programs largely not sponsored by VA.

The Learners' Perceptions Survey (LPS) is a standardized, scientifically validated instrument that has been designed by the Department of Veterans Affairs (VA) to measure the perceptions of those health professions trainees about their clinical training experiences at a VA medical center, hospital, or outpatient care facility. The LPS is intended for research, as well as for evaluation, government regulation, program oversight, policy-making functions, administrative management and operations, and program accreditation purposes.

The Department of Veterans Affairs, Veterans Health Administration, Office of Academic Affiliations (OAA) through its National Evaluation Workgroup first drafted the LPS in 1999.⁴ Since 2001, OAA has administered the LPS annually during the academic year to all of its health professions education trainees, including students, practicum participants, interns, residents, and fellows, who rotate through, are assigned to, or spend educational time in a VA healthcare system facility. For our purposes, the academic year is said to begin on July 1st in the prior year and runs through June 30th of the current year. The current academic year 2014 began on July 1, 2013 and will end on June 30, 2014.

The LPS underwent eleven version changes from 2001 to 2014, as detailed in Table 1. These changes were made in order to meet the growing demands for information about VA's health professions trainees, or to simplify the LPS for administrative purposes, or because a topic was out of date. Most changes were to update categories of health professions, disciplines, specialties, subspecialties, special fellows, and academic levels. In rare cases, changes in the items comprising the questions themselves are changed.

I.B. Administration

LPS questionnaires are administered to trainees centrally through OAA's Data Management and Support Center in St. Louis, MO. VA trainees are encouraged at or near the end of their rotation during the academic year to enter the OAA's website, click on, and complete the LPS questionnaire. Trainees are informed and instructed to complete the LPS by the Designated Learner Officer (DLO), Designated Education Officer (DEO), and Associate Chief of Staff for Education (ACOS-E) assigned to each VA teaching medical center and clinic where VA has affiliation agreements to support health professions education programs. Contacts with trainees are made directly face-to-face, by posters and circulars distributed from a VA medical center's education office, through discussions with the trainee's education program director at the affiliate education institution, and through OAA direct emails to registered trainees.

I.C. LPS Data Accounting

After respondents log onto the OAA website and click on the LPS survey, a program generates survey questions where respondents enter their answers. OAA collects the responses and creates raw data files. These files are pre-processed, processed, and analyzed using a three-stage data accounting system designed for these purposes.⁵ In the first stage, the raw data is collected directly from each respondent and stored on servers maintained at the OAA's Data Management and Support Center in St. Louis, MO. Raw databases are then pre-processed into research-ready files where data fields are (1) re-coded into standardized formats; (2) computed into research variables or indices based on pre-determined computation algorithms or estimated models; (3) merged with other databases and tables containing pre-defined classifications and definitions of reporting facilities, academic rank, academic discipline, specialty, and subspecialty, and advanced fellowship programs; and (4) merged with prior year LPS datasets to create a multi-year file with standardized codes that permit comparisons across years, as well as across facilities, disciplines, specialties, subspecialties, and academic levels. The final multi-year, multi-profession, and multi-facility research ready files are designated as LPS2014.

Research ready files are permanently maintained and kept for analyses. Research ready files are, in turn, re-constructed into temporary analytic files for the purpose of conducting specific analyses to achieve defined information objectives for administrative purposes. These analyses produce results in the form of tables, charts, graphs, statistics, and estimated models. The analytic files created for these purposes are held only temporarily. Rather than keeping the analytic files, OAA maintains the software that produced the analytic files from the original research ready files, plus all software that generated analytic results. Thus, an analytic file can be re-produced by simply running the original analytic program. This three-stage accounting system is appropriate to efficiently organize and keep track of data collection files and data processing steps, to conduct and retrieve results from statistical analyses, and to perform all data processing and analyses in a safe, secured, and highly regulated computing environment.

The LPS2014 contain current year information, plus responses to LPS surveys administered to trainees in prior years, from 2001 through 2013. Prior year data are retrofitted, by codes, computation algorithms, formats, standards, and definitions, to fit the current year 2014 LPS survey.

Retrofitting prior year data to fit a current LPS survey data is done each year. We thus maintain prior year survey data (LPS2001, LPS2002, ..., LPS2012, and LPS2013), with each dataset containing prior year data retrofitted to fit the current LPS formats. Note that values in prior years for questions asked only in subsequent years are treated as missing. Analyses on questions no longer asked can be retrieved by going to the LPS database (LPS2013, LPS2012, etc.) in the year when the question was last asked.

I.D. Other LPS Versions

I.D.1. Non-VA Version

OAA created a generic version of the LPS for academic years 2010 and 2012. The generic version is applicable to any teaching hospital or clinic. Specifically, LPS_v007 and LPS_v009 were created from the LPS by replacing VA specific language with more general terms and definitions. For instance, "VA Medical Center" and "Computerized Patient Record System" found in questions from the LPS survey were replaced by "MAIN" facility and "Patient Health Record," respectively, in the LPS generic version.

I.D.2. Primary Care Version

In 2012, OAA created a primary care version of the LPS, or LPSPC2012. The LPSPC was designed to capture the experiences of health professions trainees who rotate through or are assigned to a VA primary care clinic.⁶ LPSPC2012 was created from the LPS2012 by (i) replacing “VA Medical Center” with “VA Primary Care Clinic,” (ii) by modifying, deleting, and adding individual questions to fit a primary care setting (e.g., excluding elements referring to inpatient care), and (iii) changing the wording to make survey questions applicable to all health professions trainees, and thus no longer making distinctions in questions pertaining to Associated Health, Dental, Nursing, and Physician Resident and Medical Student. For the LPSPC survey, “primary care” was defined as any clinical setting where patients receive comprehensive, continuity, and primary care, such as general internal medicine, primary care, or Patient Aligned Care Team (PACT) clinics.

The LPSPC2012 was updated to the LPSPC2013 and administered during the 2012-13 academic year (July 1, 2012 through June 30, 2013) to a 2% subsample of the LPS sample who claimed they had rotated through a VA primary care clinic. Updates from LPSPC2012 to LPSPC2013 paralleled those updates from LPS2012 to LPS2013.

LPSPC2014 is based on the survey questionnaire: LPS-PC_v004_ed011. Updates forming LPSPC2014 (ver. 004/ed011) from the survey applied in LPSPC2013 are similar to those updates forming LPS2014 from LPS2013. Updates include classification categories for trainee disciplines, specialties, subspecialties, academic levels, and advanced special fellowship programs. Differences between LPS2014 and LPSPC2014 (v004_ed011) are described in Table 2 below. Reported differences between the LPS2013 and the LPSPC2013 can be found in Table 2 in the *LPS2013 Instructions Manual*.

I.E. Psychometrics Properties

LPS Survey responses have been shown to have good internal consistency⁷ (α 's ranging from 0.87 to 0.92), and have been validated for discriminant and construct validity across medical students and physician residents,⁷ medical specialties,^{8, 9} dental specialties,¹⁰ and in longitudinal analyses for physician residents.¹¹ Responses are also scored, adjusted, and calibrated to permit investigators to compare satisfaction ratings across domains as well as across trainees from different disciplines, specialties and subspecialties, academic levels, reporting facilities, academic years, mix of patients seen during their VA clinical training experience, and the respondent's gender.

II. DATA STRUCTURE

The current LPS Survey, or LPS2014, is a self-reporting survey designed to measure the perceptions of health professions trainees about their clinical training experiences at a VA facility. The progression of LPS surveys since 2001 (LPS2001, LPS2002, ... LPS2013, LPS2014) are described in Table 1. Specific differences between LPS2014 and LPS2013 are described in Table 2. Between year differences in earlier years can be obtained by consulting the respective Instructions Manuals for that year (e.g., comparing LPS2013 and LPS2012 is detailed in Table 2 of the *LPS2013 Instructions Manual*).

By definition, a “VA facility” is a VA Healthcare System, Medical Center, Hospital, Outpatient Clinic, or Outreach Center. “Experience” is operationally defined to be the respondent's most recent clinical experience at a given VA facility. LPS surveys are administered near the end of the respondent's rotation, assignment, or educational time for the designated VA facility of interest.

LPS2014 survey is made up of two separate questionnaires. These questionnaires are administered separately to trainees from different education programs. The LPS2014 Physician Resident Questionnaire, or LPS2014_PR, is designed to measure the perceptions of medical students, physician interns, residents, and fellows in graduate medical education programs, about their most recent clinical training experience at a given VA facility.

The LPS2014 Associated Health, Dental, and Nursing Questionnaire, or LPS2014_AH, is designed to measure the perceptions of trainees in Associated Health, Dentistry, and Nursing programs about their most recent clinical training experience at a given VA facility. The LPS2014_AH is intended for all academic levels that range from pre-baccalaureate certificate and diploma programs through postdoctoral and residency training programs.

The LPS2014_PR and LPS2014_AH questionnaires and response codes were designed to work together so that responses across professions would be comparable. Both questionnaires contain facility-level and environment-level domains that describe teaching and working experiences and the clinical environment. In addition, the LPS2014_PR contains environment-level domains that capture the respondent's perceptions about the availability, timeliness and quality of staff and services, as well as systems and processes to deal with medical errors. Table 2 provides a detailed description of how the LPS_PR and LPS_AH questionnaires differ.

II.A. Facility-Level Information

Facility level information is based on information supplied by the respondent to describe their reporting facility.

II.A.(i). Reporting Facilities

Each VA facility is classified using a Veterans Integrated Services Network (VISN), VHA Service Support Center (VSSC), and six-digit number (STA6n or STA6ID), that distinguishes sites down to basic service levels, as identified in VA corporate data sets. Examples of service levels include a domiciliary unit, nursing home, main hospital, and outpatient care facility. The service level classification of facilities is grouped by point of service indicating a common physical address and classified using a five-digit number (STA5). The point of service classification of facilities is grouped by a common parent facility and classified using a five-digit number (STA5n).

Facility information is computed at parent facility levels (STA5n). However, computation of the calibration instrument used to adjust scores (described below in this Manual) relies on point of service (address-based) facility levels (STA5).

II.A.(ii). Facility-Level Complexity Codes

For performance measurement, administration pay grade, and research purposes, the Human Resource Committee of the National Leadership Board, through the Office of Productivity, Efficiency and Staffing, assigns each parent facility to one of six peer groupings that represent different degrees of operating complexity. While assignments have occurred in 2005 and 2008, the most recent assignment was done in 2011 based on a Facility Complexity Model that was approved by the Under Secretary in an Executive Decision Memo in March 2012.

The 2011 Facility Complexity Model assigns the parent facility (STA5n) to a complexity level based on seven variables. These variables are as follows:

(i) *Patient Volume* is calculated as the number of pro-rated patients seen based on the Veterans Equitable Resource Allocation model (VERA) that classifies patients by level of treatment and costs incurred.

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(ii) *Intensive Care Unit and Surgical Operative Complexity Levels* are measured on a combined scale where the highest score is a facility with Level 1 ICU and complex surgery, and the lowest score is a facility with neither program.

(iii) *Patient Risk* is computed as the Medicare Relative Risk score calculated from all VA patient diagnoses based on Diagnostic Cost Groups. Patients with higher risk are considered to have more complex illnesses that are more difficult to manage.

(iv) *Total Resident Slots* is determined as the number of paid resident slots that were allocated to the facility by VA's Office of Academic Affiliations. More slots indicate greater commitment to the education mission and are expected to add complexity to facility management.

(v) *Herfindahl-Hirshman Index of Resident Slots* is computed for each facility as the proportion of the facility's residents for each academic program, squaring the proportion, and then summing the squared proportions over all of the facility's programs. Scores range from zero to one. Higher scores indicate facilities where residents are more concentrated in fewer programs. Greater concentration is expected to decrease the complexity of managing a facility's education mission.

(vi) *Research Dollars* is computed as VERA Research Support allocation.

(vii) *Complexity of Clinical Programs* is computed as the number of complex clinical programs from a list of 11 such programs that require specialized staff, equipment, or complex academic affiliations (PGY5-7). These programs include Spinal Cord Injury, Blind Rehab, Cardiac Surgery, Invasive Cath Lab, Neurosurgery, Transplant, Radiation Oncology, Interventional Radiology, Polytrauma, Inpatient Acute Mental Health and PTSD, and Mental Health Intensive Care Management.

These seven variables are weighted and combined to assign each parent facility to a high, medium, or low complexity group. Those assigned to the high complexity group are further subdivided into three sub-groups. Specifically:

Complexity Rating	Description	Number Facilities
1a	Largest level of patient volume, patient risk, teaching and research Largest number / breadth of physician specialist Level 5 ICU unit	32
1b	Very large patient volume, patient risk, teaching and research Level 4 or 5 ICU unit	16
1c	Large patient volume, patient risk, teaching and research Level 4 ICU unit	27*
2	Medium patient volume, patient risk, some teaching and / or research Level 3 and 4 ICU unit	32
3	Smallest patient volume, smallest patient risk, little or no teaching and / or research Lowest number physician specialist per pro-rated person Level 1 and 2 ICU units	33

* Includes North Chicago assigned by management to complexity level 1c.

The 2011 Facility Complexity Model assigned parent STA5n facilities to one of the five complexity groupings, but only if the facility had sufficient data to make the assignment meaningfully. Facilities that lacked sufficient data were Manila PI from VISN21/#358 and Texas Valley Coastal Bend HCS from VISN17/#740. The Captain James A Lovell FHCC at North

Chicago IL from VISN12/#556 also lacked sufficient data, but was later assigned by management to the complexity Level “1c” (March 2012 Executive Decision Memo).

II.B. Respondent-Level Information

Respondent level information includes the following classes of information.

II.B.1. Specialty and Academic Level

“Specialty” refers to either a discipline, specialty within a discipline, or a subspecialty within a specialty. These specialties are, in turn, aggregated into one of four health professions education programs (Associated Health, Dentistry, Nursing, and Physicians).

While respondents are asked to report their specialty and academic level (“reported” specialty and “reported” academic level), the actual assignments to a specialty group and to a specialty-specific academic level are reviewed by a pre-programmed computer algorithm. Such assignments are designed to ensure the accuracy of both specialty and academic level in analyses. Specifically, assignments are achieved by comparing the reported academic level against a range of possible academic levels that are applicable to the reported specialty. These assignments were reviewed and approved by the VA Office of Academic Affiliations’ Director of Medicine and Dentistry, Director of Associated Health, and Director of Nursing Education. Whenever the reported academic level falls outside the range of allowed academic levels for the selected specialty, the respondent’s assigned specialty is classified as “other” within the chosen health professions education program. The reported academic level is then mapped to an assigned specialty-specific academic level defined by the “other” specialty category. Further details are provided below.

II.B.1.(i). Discipline, specialty, and subspecialty

II.B.1.(i)(a). Program

Each respondent is asked to identify their health professions education program from among 4 possible program choices: Associated Health, Dentistry, Nursing, and Physicians (Table 3).

II.B.1.(i)(b). Reported Specialty

Once they have indicated a health professions education program, respondents are then asked to select their specialty from a list specific to each program (Table 3). There are a total 141 possible disciplines, specialties, and subspecialties, including 24 specialties listed for associated health, 22 specialties within dental health professions, 21 for nursing, and 74 physician specialties and subspecialties (Table 3). In addition, respondents may also report their participation in an advanced special fellowship from a list of 22 programs (Table 4).

Respondents are asked to select a specialty that best describes their current educational goal for their current education program, not their ultimate career goal. For example, a physician resident intending to enter a cardiology program upon completion of his or her Internal Medicine program should report “Internal Medicine” as their specialty, appropriate for their current education program.

The names of all health specialties, and their assignment into a Specialty Group (Table 3), were based on and reviewed by the VA Office of Academic Affiliations’ Director of Medicine and Dentistry, Director of Associated Health, and Director of Nursing Education.

II.B.1.(i)(c). Assigned Specialty Groups

Based on the respondent’s reported specialty (Table 3) and the specialty-specific reported academic level (see §II.B.1.(ii)(b) and Table 6), the respondent is assigned by a computer

algorithm into one of 24 specialty groups. Unique Specialty Groups are listed in Table 3 by reported specialty and in Table 6 by academic level allowed for each Specialty Group. Specifically, the assignment algorithm takes into account that even though a respondent indicates a particular specialty, health education programs for that specialty may be limited to specific academic levels required for program admissions, certification, and licensing purposes. Thus, a respondent reporting a specialty that maps into a specialty group (Table 3) and reporting an academic level that is not included among acceptable academic levels for that specialty group (Table 6) would be assigned to an “other” specialty group. The “other” group is defined within the trainee’s health professions education program (associated health, dental, nursing, physicians).

For example, a trainee who reports “psychology” as the health specialty (Table 3) and “Doctoral Practicum Extern” as the academic level (Table 6) would be assigned to the “psychology” specialty group and “doctoral practicum extern” specialty-specific academic level. If the trainee reports being in “psychology” (Table 3), but at a baccalaureate level (not listed as a specialty-specific academic level under “psychology” in Table 6), the trainee’s discipline would be assigned to the “other associated health” specialty group and the “baccalaureate” specialty-specific academic level. A second year resident in Internal Medicine who selects “cardiology” as their specialty because it is their ultimate education goal, would be assigned by the computer algorithm to the “Internal Medicine” specialty group since the trainee would begin a cardiology program only after completing his or her Internal Medicine program.

II.B.1.(i)(d). *Special Fellows*

All respondents are asked if they participate in a special fellowship program sponsored by OAA, as listed in Table 4. Response selections do not depend on the respondent’s selection of a specialty program or an academic level.

II.B.1.(ii). *Academic Level*

II.B.1.(ii)(a). *Reported Academic Level*

The “current academic level” is defined as the level reflecting trainees’ immediate goal that they must achieve in the course of satisfying the clinical training requirements for their health professions education program. To facilitate responses, responders were asked to choose an academic level from separate lists of possible academic levels based on the type of health professions education program they had selected at the beginning of the LPS survey (Associated Health, Dentistry, Nursing, and Physicians). Table 5 tabulates the list of possible choices by program type. For example, a third year medical student working to complete a third year of medical school should report “medical school – 3rd year” as the appropriate academic level, even though completing medical school and entering a physician residency program may be the overall education goal.

II.B.1.(ii)(b). *Specialty-specific Academic Level*

A specialty-specific academic level (Table 6) is assigned to each respondent by a computer algorithm based on the respondent reported specialty (Table 3) and reported academic level (Table 5). If a respondent chooses an academic level that is outside the range for their selected specialty, the respondent is assigned to an “other” specialty group (§II.B.1.(i)(c)) based on their choice of health profession education program. For example, consider an LPS respondent reporting psychology specialty (Table 3) under the associated health education program, plus baccalaureate academic level (Table 5). Since “baccalaureate” is outside the accepted academic levels for psychology (Table 6), the respondent would be assigned to “Other Associate Health” specialty group, where the respondent, then, can be assigned to “baccalaureate” as an acceptable specialty-specific academic level (Table 6). So, respondents

who reported cardiology and PGY-2 would be mapped into Internal Medicine as their assigned specialty group, and “PGY-2” as their specialty-specific academic level (Table 6).

II.B.1.(ii)(c). Academic Level Group

Academic levels that respondents reported on the LPS are also mapped by a computer algorithm into a non-specialty-specific, or generalized, academic level group. The assignment is described in Table 7. Assignment to academic level group is based only on the specific selection of an academic level the respondent reported on the survey. The list of possible choices for academic level found in the survey is based on the respondent’s selection of a health professions education program (associated health, dental, nursing, physician), as described in Table 3.

II.B.2. Education Background

For physicians, the LPS2014_PR collects information on: **(1a)** *U.S. medical school status* or whether the respondent graduated from a U.S. or non-U.S. medical school; **(1b)** *year medical school graduation*, or the year the respondent graduated from medical school, or will graduate from medical school; **(1c)** *VA rotation status*, or currently whether the respondent is rotating at a VA facility, “yes” or “no”; and **(1d)** *percent VA*, or the percent of the time that the respondent spent in their clinical training program that was also spent at the VA facility.

For associated health, dentistry, and nursing programs, the LPS2014_AH collects information on: **(2a)** *time required in current program*, or how much total time in weeks, months, and years, the trainee expects to spend in their current clinical education program, **(2b)** *time spent in current program*, or how much time in weeks, months, and years, the trainee has spent in their current clinical education program, and **(2c)** *percent VA*, or the percent of the time that the respondent spent in their current clinical education program that was also spent at the VA facility.

II.B.3. Respondent’s Demographic Characteristics

Demographic characteristics include **(1)** gender, or whether the respondent is “female” or “male;” and **(2)** *active duty status*, or “yes” or “no” to whether the respondent is currently active in the military.

II.B.4. Characteristics of Patients Seen

The characteristics of patients, or patient mix, that the respondent saw during their most recent clinical training experience with the VA facility are described in terms of the percent of patients seen who: (1) were 65 years of age or older, (2) had a chronic medical illness, (3) had a chronic mental illness, (4) had multiple medical illnesses, (5) had alcohol / substance dependence, (6) had low income or socioeconomic status, and (7) did not have social or family support.

II.C. Domains

Perceptions are described in terms of facility-level domains and environment-level domains. Each domain contains a series of elements that define specific items that collectively comprise the domain. The nine environment-level domains are also grouped into one of three experiences. A listing of all domains, their associated element questions, and how domains are grouped by experience, is summarized below and in Table 2.

II.C.1. Facility-Level Domains

Respondents are asked to summarize their overall clinical training experience at the VA facility by answering questions that correspond to five facility-level domains.

II.C.1.(i) *Likely Use Again* is an ordinal four-point Likert scale that indicates whether respondents: “definitely would not,” “probably would not,” “probably would,” or “definitely would” choose their VA training experience again.

II.C.1.(ii) *Employment potential* comprises two scales.

II.C.1.(ii)(1) *Likely Employable before*, or a five-point Likert scale indicating whether respondents before their VA clinical training experience were “very likely,” “somewhat likely,” “had not thought about it,” “somewhat unlikely” or “very unlikely” to consider future employment opportunities at a VA medical facility.

II.C.1.(ii)(2) *Likely Employable after*, or a five-point Likert scale indicating the change in whether respondents as a result of VA clinical training experience are “a lot more likely,” “somewhat more likely,” “no difference,” “somewhat less likely,” or “a lot less likely” to consider future employment opportunities at a VA medical facility.

II.C.1.(iii) *Patient care quality*

II.C.1.(iii)(1) *Quality before*, or a five-point Likert scale indicating whether the quality of care at the VA facility before starting the VA training experience is “excellent,” “very good,” “good,” “fair,” or “poor.”

II.C.1.(iii)(2) *Quality after*, or a five-point Likert scale indicating whether the quality of care at the VA facility based on their actual VA experience is “excellent,” “very good,” “good,” “fair,” or “poor.”

II.C.2. Environment-Level Domains

II.C.2.(1) Core Domains

(i) *Domain Elements*: As described in Table 2, there are a total of nine core domains that describe the trainee’s teaching, working, and clinical experiences during the respondent’s most recent clinical training experience at a given VA facility. Core domains are made up of from 6 to 15 item questions, or *domain elements*. Each domain element question asks the respondent about a different aspect of the domain. Each domain element question asks respondents to describe their perceptions on an ordinal five-point Likert scale: “very satisfied,” “somewhat satisfied,” “neither satisfied nor dissatisfied,” “somewhat dissatisfied,” or “very dissatisfied.”

(ii) *Domain Summary*: After all domain element questions have been answered, the respondent is also asked to respond to a *domain summary* question. Here, the respondent is asked to provide an overall rating that summarizes the domain in which all domain elements are taken into account. As with domain element questions, domain summary questions ask respondents to describe their perceptions on an ordinal five-point Likert scale: “very satisfied,” “somewhat satisfied,” “neither satisfied nor dissatisfied,” “somewhat dissatisfied,” or “very dissatisfied.”

II.C.2.(1)(a) *Teaching Experience* is made up of two domains:

II.C.2.(1)(a)(i) *Learning Environment* domain contains 15 elements that describe the respondent’s clinical learning environment. Elements include time working with patients, supervision, autonomy, non-education “scut” work, interdisciplinary approach, preparation for clinical practice, for future training, and for business aspects of clinical practice, time for learning, access to specialty expertise, teaching conferences, quality of care, culture of patient safety, spectrum of patient problems, and diversity of patients seen.

II.C.2.(1)(a)(ii) Clinical Faculty and Preceptors domain contains 13 elements that describe the relationships with VA clinical faculty and preceptors whom respondents encountered during their VA clinical training experience. Elements include clinical skills, teaching ability, interest in teaching, research mentoring, accessibility and availability, approachability and openness, timeliness of feedback, fairness in evaluation, being a role model, mentoring, patient-oriented, quality of faculty, and evidence-based clinical practice.

II.C.2.(1)(b) Working Experience is made up of three domains:

II.C.2.(1)(b)(i) Working Environment contains 9 elements that describe the respondent's VA working environment that had been encountered during their clinical training experience. Elements include ancillary and support staff morale, laboratory services, radiology services, ancillary support staff, call schedule, computerized patient record system, access to online journals and resources and references, computer access, and workspace.

II.C.2.(1)(b)(ii) Physical Environment contains 8 elements that describe the respondent's VA physical environment that had been encountered during the clinical training experience. Elements include convenience of facility location, parking, personal safety, availability of needed equipment, facility maintenance and upkeep, facility cleanliness and housekeeping, call rooms, and availability of food at the medical center when on call.

II.C.2.(1)(b)(iii) Personal Experiences contains 7 elements that describe the respondent's personal experience that had been encountered during their VA clinical training experience. Elements include personal reward from work, balance of personal and professional life, level of job stress, and of fatigue, continuity of relationship with patients, ownership and personal responsibility for patients' care, and enhancement of clinical knowledge and skills.

II.C.2.(1)(c) Clinical Experience is made up of four domains:

The physician LPS survey, or LPS2014_PR questionnaire, asks respondents to answer all four clinical experience domains. The associated health, nursing, and dental LPS survey, or LPS2014_AH questionnaire, asks respondents to answer only the Clinical Environment domain.

II.C.2.(1)(c)(i) Clinical Environment contains 7 elements that describe the respondent's clinical environment that had been encountered during their VA clinical training experience. Elements include hours worked, number of inpatients admitted for care, number of outpatients and clinic patients seen, how well physicians and nurses work together, physicians and other clinical staff work together, ease of getting patient records, backup system for electronic health records. Both physician and non-physician specialties are administered the clinical environment domain.

II.C.2.(1)(c)(ii) Availability and Timeliness of Staff & Services contains 13 elements and include outpatient nursing staff on weekdays, and for both weekdays and for nights and weekends regarding attending and supervisory staff, inpatient nursing staff, ancillary support staff, pharmacy services, radiology services, and laboratory services.

II.C.2.(1)(c)(iii) Quality of Staff & Services whenever such staff or services are available contains 6 elements describing quality of attending and supervisory staff, nursing, ancillary, pharmacy, radiology, and laboratory services.

II.C.2.(1)(c)(iv) Processes of Dealing with Medical Errors contains 6 elements and include prevent / reduce medical errors, assure medication safety, report medical and medication errors, assure confidentiality of error reporting, facilitate discussion of medical medication errors, and facility analysis of medical and medication errors as a learning experience.

II.C.2.(2) Topic Domains

As described in Table 2, LPS includes three special topic domains that are designed to ask respondents about special events or to focus on different aspects of their training experiences that are not otherwise covered by one or more core domains.

Topic domain questions are often fact-based (rather than satisfaction-based). The intent is to measure the extent to which an item, factor, condition, or circumstance exists in the respondent's clinical training experience. The existence of such factors can then be compared to how respondents rated their satisfaction with specific core domains to determine the extent, if any, the presence or absence of a factor has an impact on how respondents rate their domain satisfaction.

II.C.2.(2)(i) Psychological Safety. The two element questions comprising the psychological safety topic domain ask if respondents "strongly agree," "agree," "neither agree nor disagree," "disagree," or "strongly disagree" with whether the clinical team was able to "...bring up problems and tough issues," and if the respondent was "... free to question the decisions or actions of those with more authority?"

II.C.2.(2)(ii) Patient / Family Centered Care. (a) The 17 element questions comprising the patient / family centered care domain ask respondents about whether they "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree" with specific statements of facts regarding patient and family centered care at VA. (b) Respondents are also asked a fact-based summary question: "overall, VA practitioners provide patient and family centered care." (c) In addition, respondents are asked to rate their overall satisfaction with patient and family centered care at the VA facility as: "very satisfied," "somewhat satisfied," "neither satisfied nor dissatisfied," "somewhat dissatisfied," or "very dissatisfied."

II.C.2.(2)(iii) Interprofessional Team Care. (a) The 9 element questions comprising the interprofessional team care domain ask respondents about whether they "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree" with specific statements of facts regarding interprofessional team care at VA. (b) Respondents are also asked a fact-based summary question: "overall, VA practitioners provide interprofessional team care." (c) In addition, respondents are asked to rate their overall satisfaction with interprofessional team care at the VA as: "very satisfied," "somewhat satisfied," "neither satisfied nor dissatisfied," "somewhat dissatisfied," or "very dissatisfied."

III. DOMAIN SCORING METHODS

Several strategies are applied to compute scores that can represent a given respondent's overall ratings for facility-level, environment-level, and topic domains. Scoring strategies are selected to meet information needs of the user of LPS information, especially VA training administrators, program directors, and local Designated Training Officers, Designated Learning Officers, and Associate Chiefs of Staff for Education, as well as VA executive leadership, policy makers, and national program administrators, and support data requirements for program evaluators, health services research scientists, and education researchers.

Both core and topic domain elements and domain summary questions are scored using a four- or five-point Likert scale. Scores are said to be ordinal because the response items can be ordered from low to high. For example, dissatisfied to satisfied, or disagree to agree, or negative effect to positive effect. That is, responders who report being "very satisfied" will likely have more satisfaction than responders who report being "somewhat satisfied," who in turn, will have more satisfaction than a responder who reports being "neither satisfied nor dissatisfied."

However, differences between ratings in ordinal scales are not defined. That is, it is unclear if the difference in satisfaction between responders who reported being “very satisfied” and “somewhat satisfied” is greater, equal to, or less than the difference in satisfaction between responders who reported being “somewhat satisfied” and “neither satisfied nor dissatisfied.”

Interval scores are ordinal scores with the additional property that differences between ratings are defined. In other words, interval scores assign numbers to levels for which addition and subtraction applies. Thus, the difference in satisfaction between two raters who score a “2” and “3” respectively, will represent the same difference in satisfaction between two raters who score a “3” and “4.”

III.A. Summary Domain Score

Domain scores can be computed as the simple response to the summary domain question. Domain scores based on summary domain responses are, by definition, ordinal. Summary domain scores incorporate how respondents weighted each element before reaching a final decision on how to rate the overall domain. Thus, elements the respondent considered to be more important would be given greater weight when reaching an overall summary score for the domain. Elements the respondent considered to be unimportant would have little to no effect on the respondent’s overall summary score for the domain.

III.B. Mean Element Score

Domain scores can also be computed as the mean of the respective element scores after recoding responses. By definition, mean element scores arithmetically set equal weights across elements when computing a final domain score.

To compute mean element scores, responses of “very dissatisfied” are assigned to a value of one, “somewhat dissatisfied” to a value of two, “neither satisfied nor dissatisfied” to three, “somewhat satisfied” to four, and “very satisfied” to five. Similarly, responses of “strongly disagree” is assigned to a value of one, “disagree” to a value of two, “neither agree nor disagree” to three, “agree” to four, and “strongly agree” to five. Finally, responses of “very negative effect” is assigned to a value of one, “somewhat negative effect” to a value of two, “had no effect” to three, “somewhat positive effect” to four, and “very positive effect” to five.

A couple of points are worth mentioning. First, mean domain scores are treated as interval scales. This is allowed because element questions comprising a single domain are generally all pointing to the same “latent” effect factor. Thus, responses to domain element questions are all indicating a domain score as a “latent factor.” The simple mean of responses becomes a sufficient statistic to represent this latent factor, or domain score. Second, simple means are computed based on the assumption that all elements are to have equal weight in driving the final rating. This is in contrast to summary domain scores where respondents themselves weigh the relative importance of each element in determining a final domain score.

III.C. Z-Scores

Domains can also be summarized by z-scores. A z-score is computed from mean element scores for a given respondent by first subtracting the mean of mean element score from the respondent’s mean score, and then dividing the difference by the square root of the variance of mean element scores across all responders. For the LPS2014 Current Reports (see §V.), the mean and variance is computed from all responders to the LPS_AH or LPS_PR surveys for academic years between 2003 and 2014, inclusive.

Z-scores enable investigators to compare ratings across responders where scores are adjusted to reflect a standard variance of one and a mean of zero. A z-score of zero is benchmarked to be the score the average respondent assigned to an average facility. A negative (or positive) z-score would indicate that the respondent rates a given facility less (or more) than the average rater rating an average facility.

III.D. *Adjusted Z-Scores*

Domain scores can also be computed as an adjusted z-score. Adjusted z-scores are computed by subtracting the expected z-score from the respondent's z-score, and dividing by the square root of the variance of mean scores.

The expected z-score is the score that would be assigned to an average facility, but by an average respondent who has the same respondent characteristics, mix of patients seen, and reporting facility complexity as that of the given respondent.

While unadjusted z-scores benchmark scores against an average over all raters and their experiences, adjusted z-scores benchmark scores describing an average facility based on an average rater with the same characteristics and reporting facility complexity as the given rater. Adjusted z-scores permit investigators to make robust and unbiased comparisons of trainee satisfaction ratings across facilities, over time for a given facility, across specialties, and over different academic levels, when the confounding influences of other respondent and facility-level characteristics have been removed.

Adjusted z-scores are calculated using generalized linear models with a linear linking function and respondent-level covariates as independent variables. The choice of covariates depends on data availability and what groups of trainees are to be compared. For example, to compare scores between trainees representing different specialty groups, z-scores should not be adjusted to account for the trainee's specialty, but should be adjusted to reflect differences in the distribution of academic level by specialty.

Specifically, **(A)** if users compare how scores vary between facilities, within a facility but over time, or across domains, then covariates selected to adjust z-scores are the respondent's specialty group, specialty-specific academic level, gender, mix of patients seen, and calibrating instrument (see §IV.B.). **(B)** If users compare how scores vary among respondents from different specialties, then covariates selected to adjust z-scores include the respondent's academic level group, gender, mix of patients seen, and calibrating instrument (see §IV.B.). **(C)** If users compare how ratings vary among respondents with different academic levels, then the covariates selected to adjust z-scores are gender, mix of patients seen, and calibrating instrument (see §IV.B.).

III.E. *Binary Scores*

Domain scores can be computed by examining only a partial range of possible responses to element or domain summary questions in order to re-classify the range of possible responses into two groups. Typically, satisfaction responses are aggregated into "satisfied" or "otherwise," by assigning "satisfied" to *positive domain summary score* if the respondent answers "very satisfied" or "somewhat satisfied" to the domain summary question, and "otherwise" if they answer "very dissatisfied," "somewhat dissatisfied," or "neither satisfied nor dissatisfied." Similarly, a *positive element score* is assigned "satisfied" if the respondent answers "very satisfied" or "somewhat satisfied" to a given element question, and "otherwise" if they answer "very dissatisfied," "somewhat dissatisfied," or "neither satisfied nor dissatisfied" to the given element question.

III.F. Adjusted Binary Scores

Binary domain scores can also be adjusted to account for respondent differences, mix of patients seen, and facility complexity characteristics. As with adjusted z-scores, adjusted binary scores will permit data users to make unbiased and robust comparison in scores across groups of responders, over domains, over time, between facilities, across specialties, and over different academic levels, after correcting for the confounding influences of respondent characteristics.

Adjusted binary scores are calculated using generalized linear models with a multinomial logit linking function and respondent-level covariates as independent variables. As with z-scores, **(A)** if users compare how scores vary between facilities, within a facility but over time, or across domains, then covariates selected to adjust binary scores are the respondent's specialty group, specialty-specific academic level, gender, mix of patients seen, and calibrating instrument (see §IV.B.). **(B)** If users compare how binary scores vary among trainees from different specialties, then covariates selected to adjust binary scores are the respondent's academic level group, gender, mix of patients seen, and calibrating instrument (see §IV.B.). **(C)** If users compare how binary scores vary among trainees from different academic levels, then the covariates selected to adjust binary scores are gender, mix of patients seen, and calibrating instrument (see §IV.B.).

III.G. Missing Values

To compute mean element domain scores, we take the mean of only those elements for which the respondent reported a useable response (not missing or inapplicable). The mean domain score is considered missing, however, if the responses to two or more domain element questions are missing.

To compute adjusted scores, respondents must have described the mix of patients they saw during their VA clinical encounters along seven dimensions. To account for missing data when respondents failed to provide a complete set of information on these covariate factors (approximately 13%), we imputed the values for the given respondent by taking the mean among all such responders who were in the respondent's facility, in the same specialty group and academic level group, and who responded to the survey during the same two-year reporting period.

IV. INDEX COMPUTATIONS

The LPS survey is designed to compute important indices needed to interpret findings from survey responses.

IV.A. Element Value, Importance, Attitude Score

The value or importance that a group of respondents place on an element within a domain in the context of that domain, can be computed as an independent association between the element satisfaction rating and the domain summary satisfaction rating, independent of effects of all other elements on the domain summary.^{6, 12} The element value is essentially the weight that the respondent applied to that particular element when considering their overall satisfaction for the domain. Elements with less value are considered relatively unimportant drivers of a respondent's satisfaction with their clinical training experience in the context of the given domain.

IV.B. Calibrating Instrument

When selecting from among five response choices (“very satisfied,” “somewhat satisfied,” “neither satisfied nor dissatisfied,” “somewhat dissatisfied,” “very dissatisfied”), respondents must determine the cut points that translate their true satisfaction feelings into a specific choice. Respondents may vary in how they define those cut values. Some who are not highly satisfied may report “very satisfied” while another respondent feeling the same intensity of satisfaction may chose “somewhat satisfied.” This can be observed by observing trainees reporting satisfaction on essentially the same experience, such as their experience with VA’s computer system, facility-level parking, or the convenience of the facility’s location. Here, variability of responses across responders rating the same facility would reflect, in part, differences in how respondents report satisfaction.

To account for these responder biases, we developed a calibrating instrument, nicknamed responder “grumpiness.” The LPS2014 survey data were adjusted to reflect responder biases by including a calibrating instrument into LPS adjustment models that were used to compute adjusted z-scores and adjusted binary scores.

The theory behind calibrating instruments is that all respondents who report on the same experience should, at least theoretically, be expected to assign the same rating. Thus a response bias can be estimated by computing the difference between a respondent’s actual response and the average response across all trainees who reported about the same experience.

The calibrating instrument computed here is taken from three element questions in two domains. These elements describe experiences that may vary across facilities, but do not vary between trainees reporting on the same facility and time period. Listed in Table 2, these domain elements ask respondents to rate their satisfaction with the facility’s “Computerized Patient Record System CPRS” (as a Working Domain element), and the “convenience of facility location” and “parking” (as Physical Domain elements). Responses are recorded on five-point, ordered, Likert scales. The responses were recoded so that “very satisfied” is assigned to a value of five, “somewhat satisfied” to a value of four, “neither satisfied nor dissatisfied” to three, “somewhat dissatisfied” to two, and “very dissatisfied” to one. The mean of these recoded responses over the three elements are calculated for each respondent.

A calibrating value for each respondent is computed by taking the mean rate of the given respondent and subtracting the average of mean rates from all of the given facility’s trainees. To ensure that all trainees were reporting about the same experience, facilities are defined in terms of a 6-digit facility code.

The facility’s trainees include those who took the LPS in either the same academic year, or an earlier or later academic year. To account for small changes that may have occurred over time for some facilities, trainee rates were weighted to reflect differences in time that lapsed between when the given respondent completed the LPS, and when each facility trainee completed the LPS. Scores taken from trainees who responded to the LPS in the reporting year were given a weight of one ($1=1/(1+0)$). Scores taken from trainees who responded to the LPS either one year later, or one year earlier from the reporting year were assigned to a weight of 0.50 (computed as: $1/(1+1)=0.50$). Scores that are two years apart were weighted by 0.33 (computed as: $1/(1+2)=0.33$). This continues so that scores up to 10 years out were assigned a weight of 0.09 (computed as: $1/(1+10)=0.09$). The weighted average is computed by first multiplying the trainee rate (mean of the three element rates) by the corresponding weight (based on when the trainee took the LPS), summing the weighted rates over all of the facility’s trainees, and dividing the weighted sum by the sum of weights over all of the facility’s trainees. Note that for a given year, information to compute the calibrating instrument to correct for

responder biases is taken from both years prior, and years post, to the year the responder completed the LPS survey of interest.

IV.C. Differencing Variable

Responses to topic domains can be used to compute differencing variables.¹¹ Differencing variables are equivalent to moderator variables found in controlled clinical trials that can turn on, or turn off, the effect of an intervention of interest. Responses to topic domain questions enable investigators to assess the extent to which the presence or absence of a condition impacted a respondent's rating of their VA clinical training experience by core domains. The differencing variable strategy enables investigators to use LPS data to make inferences about effect sizes of interventions on core domains using pre-post, before-after, and with-without designs. The strategy has been explained, and applied to LPS data to determine the impact of changes in ACGME duty hour standards on trainee satisfaction with the VA clinical learning experience.¹¹

V. LPS2014 Dissemination of Data

The Office of Academic Affiliations, within the Department of Veterans Affairs Veterans Health Administration, provides official findings of the LPS2014 data by means of a series of standardized and on-going Current Reports, and one-of-a-kind Special Reports. These reports are designed to provide information about the progress the VA has made towards its education mission. The intended audience for these reports include, among others, VA's Designated Learning Officers, Education Officers, Associate Chiefs of Staff for Education, and local and national academic leaders. The purpose for these reports are to help education leaders identify problems, propose solutions, implement interventions, and evaluate the progress achieved when those interventions are implemented, in order to offer VA trainees with an optimal clinical learning environment while providing veterans with safe, effective, and high quality health care.

V.A. Current Reports

The LPS2014 Current Reports provide analytic information calculated from trainee responses to LPS surveys administered during the academic years from 2003 through and including 2014. Current Reports allow users to compare scores between facilities, to see how scores have changed over time for a given facility, and to examine how scores vary across specialties and academic levels.

Current Reports are actually a collection of specific reports routinely computed for general use. Both the Trainee Count Report and Percent Satisfied Reports are based on binary satisfaction responses that are raw, and thus unadjusted. The Adjusted Z-score Reports are adjusted to permit unbiased and robust comparisons that control for differences in respondent characteristics, facility complexity, and the mix of patients seen by respondents during their VA clinical training experiences. Such factors have been shown to influence how respondents perceive their learning, working, and clinical environments that go beyond the scope of what VA can do to offer a high-quality clinical learning environment. In this way, adjusted scores will reflect differences between hospitals, over time, across disciplines, etc., that are based on factors that are more likely to be manageable by VA facilities, rather than factors outside the control of VA staff, such as the mix of patients seen, and respondent's choice of discipline, academic level achieved, response biases, and gender.

Satisfaction ratings are computed and presented as adjusted z-scores. Scores are adjusted based on user-selected comparisons of interest. To protect the confidentiality of respondents,

information about facilities where fewer than ten respondents are reporting will not be reported in the Current Reports (or Special Reports). This is required based on the confidentiality statements presented to the respondent after they log into the OAA website to begin the survey. The rule is also consistent with rules enforced by the Office of Management and Budget (OMB) who, under the Paperwork Reduction Act, licenses VA to administer the LPS to trainees.

Current Reports are available through a data cube accessible on OAA's website at <http://vaww.oaa.med.va.gov/lpsCurrentReports/>. Current Reports are formatted so that users specify: (a) facility, group of facilities, VISNs, or all facilities, (b) respondent characteristics including academic level group and specialty group, and (c) academic years. Current Reports will produce charts to display information graphically, and tables to display statistics numerically. Where multiple domains are applicable, separate charts and tables are usually produced, a set for each domain.

Current Reports were created and developed using Microsoft Visual Studio (2008) tools, with the Data Cube constructed on an SQL Server (2008 R2) Analysis Services platform, and Reports constructed on an SQL Server (2008 R2) Reporting Services platform. Adjusted scores and pre-processing of the raw data were performed on SPSS version 19. To permit comparisons of satisfaction ratings across facilities, over time, among specialties, and over academic levels, the construction of these Reports from the original raw survey data required an equivalent 26,500 lines of programming, excluding software developed to assess robustness, construct validity, response biases, or reliability of the final research-ready datasets.

V.A.1. Trainee Count Report

- (0.1) *Trainee Count Report* describes the number of responders to the LPS survey by facility and VISN for selected reporting years (2009 - 2014), and by specialty group and academic level group for selected facilities and for selected reporting years (2009 - 2014). The report includes total counts over all VA facilities.

V.A.2. Percent Satisfied Reports

- (1.1.1) *Domain Element Report* describes how the percent of respondents who report "very satisfied" or "somewhat satisfied" at a selected facility, or aggregated over a group of selected facilities, for a selected academic level group, selected specialty group, and selected years between 2011 through 2014, vary across the six to fifteen elements and domain summary scores for each core domain. The Report includes the selected respondent group averaged over all facilities. Tables list all elements regardless of domain in order of percent satisfied for the selected facilities and selected respondent group. The Report also tabulates binary facility-level: Use Again (would choose their VA training experience again), Employable Before (would consider future VA employment before VA clinical training experience), and Employable Change (VA training experience lead to an increase in the likelihood respondents would consider future VA employment).
- (1.1.1.2) *Domain Element Report Year Comparison* is comparable to the Domain Element Report, while displaying results side by side across the past three years.
- (1.1.2) *Domain Element VISN Report* describes how the percent of respondents who report "very satisfied" or "somewhat satisfied" vary across VISNs for a selected element (positive element score) or domain summary (positive domain summary score), for selected years between 2009 through 2014.

V.A.3. Adjusted Z-score Reports

- (1.1) *Domain Report* describes how adjusted z-scores that were computed for an average respondent at a selected facility, or aggregated over a group of selected facilities, vary across the nine core domains, for 2014.
- (1.2) *Facilities Report* describes how adjusted z-scores for an average respondent vary across selected facilities for each of the nine core domains, for 2014.
- (1.2.1) *Facilities National Comparison Report* describes how adjusted z-scores for an average respondent vary across all facilities for each of the nine core domains, for 2014.
- (1.3) *Facilities by Complexity Report* describes how adjusted z-scores for an average respondent vary across facilities that are defined within a selected Facility Complexity Group for each of the nine core domains, for 2014.
- (1.4) *Facilities Across Years Report* describes how adjusted z-scores for an average respondent from a selected facility, or aggregated over a group of selected facilities, vary over time from 2003 through 2014, for each of the nine core domains.
- (2.1) *Specialty Group Report* describes how adjusted z-scores for an average respondent from a selected facility, or aggregated over a group of selected facilities, vary by specialty group for each of the nine core domains, for 2014.
- (2.2) *Facilities by Specialty Group Report* describes how adjusted z-scores for an average respondent from a selected specialty group, or aggregated over a group of selected specialty groups, vary across selected facilities for each of the nine core domains, for 2014.
- (2.3) *Facilities by Complexity, by Specialty Group Report* describes how adjusted z-scores for an average respondent from a selected specialty group, or aggregated over a group of selected specialty groups, vary across facilities that are defined within a selected Facility Complexity Group, for each of the nine core domains, for 2014.
- (2.4) *Facilities Across Years by Specialty Group Report* describes how adjusted z-scores for an average respondent from a selected specialty group and facility, or aggregated over a group of selected specialty groups and facilities, vary over time from 2003 through 2014, for each of the nine core domains.
- (3.1) *Academic Level Group Report* describes how adjusted z-scores for an average respondent from a selected facility and specialty group, or aggregated over a group of selected facilities and specialty groups, vary across academic level groups for each of the nine core domains, for 2014.
- (3.2) *Facilities by Specialty Group and Academic Level Group Report* describes how adjusted z-scores for an average respondent from a selected specialty group and academic level group, or aggregated over a group of selected specialty groups and academic level groups, vary across selected facilities for each of the nine core domains, for 2014.
- (3.3) *Facilities by Complexity Group, Specialty Group, and Academic Level Group Report* describes how adjusted z-scores for an average respondent from a selected specialty group and academic level group, or aggregated over a group of selected specialty groups and academic level groups, vary across facilities that are defined within a selected Facility Complexity Group, for each of the nine core domains, for 2014.

- (3.4) *Facilities Across Years by Specialty Group and Academic Level Group Report* describes how adjusted z-scores for an average respondent from a selected specialty group, academic level group, and facility, or aggregated over a group of selected specialty groups, academic level groups, and facilities, vary over time from 2003 through 2014, for each of the nine core domains.

V.B. Special Reports

LPS2014 data will also be used to generate a series of short Special Reports for administrative, evaluative, and regulatory purposes, in response to inquiries from the field, for the Office of Academic Affiliations, as well as for other government offices and agencies, and from the Congress.

V.C. Publications and Presentations

Information contained in the LPS2014 data will be disseminated through manuscripts published in peer-reviewed scientific journals, presentations at scientific meetings, formal lectures and continuing education seminars, and project reports for distribution to the public through the Office of Academic Affiliations.

TABLES

TABLE 1
**Development of the Department of Veterans Affairs
 Learners' Perceptions Survey (LPS)**

VA LPS	Academic Year Administered	LPS Version Number	Comments
LPS2001	July 1, 2000 - June 30, 2001	v001	The initial survey was administered to all VA trainees. Questions asked about the respondent's discipline / specialty, academic level, gender, time in training, and percent of time in training spent at VA. Facility-level domains include VA and nonVA comparisons, 100-point numerical score, overall value of VA clinical training experience, whether respondent would recommend experience to other trainees and would choose VA training experience again. Core domains focused separately on Clinical Faculty / Preceptors, Learning Environment, Working Environment, and Physical Plant.
LPS2002	July 1, 2001 - June 30, 2002	v002	The second version added a listing of Physician Residency Specialties and VA Post-Residency Special Fellowship training programs. The name of the Physical Plant Domain changed to Physical Environment. The question describing "preparation for an evidence-based clinical practice," previously presented as a separate question, was listed as an element to the Clinical Faculty / Preceptors Domain. Questions asking for the name and address of the Main Medical Facility and the institutions sponsoring the training program were added. Seven items describing characteristics of patients seen were added. Respondent-level questions asking about year graduated from medical school and whether the medical school was US or non-US were added.
LPS2003	July 1, 2002 - June 30, 2003	v003	The single survey was divided into two separate questionnaires, one intended for Associated Health trainees (AH) and the other for Physician Residents, including fellows and medical students (PR). Research Mentoring and Mentoring by Faculty elements were added to the Clinical Faculty Preceptors Domain. Personal Experience Domain was added. Patient characteristics described in terms of whether "Treatment will resolve an acute problem," "Treatment will stabilize or improve a chronic condition," and "Treatment will comfort or palliate" were added to the

TABLE 1
**Development of the Department of Veterans Affairs
 Learners' Perceptions Survey (LPS)**

VA LPS	Academic Year Administered	LPS Version Number	Comments
			characteristics of patients seen. Clinical Environment, Staff / Service Availability, Staff / Service Quality, and Quality of Care and Patient Safety Domains were added to the PR survey. Questions asking about the Main Medical Facility were deleted.
LPS2004	July 1, 2003 - June 30, 2004	v004	Quality of Care and Patient Safety Domain was re-focused to become the Systems and Process Medical Error Domain. A Topic Domain was added to the PR questionnaire describing the overall effect of the 2003 Accreditation Council for Graduate Medical Education (ACGME) duty hours / scheduling on training experiences. Facility-Level Question, "Would you consider the VA as a future employment site?" was added. The element: "Dealing with terminally ill patients" was removed from the Personal Experience Domain, and "Ownership / personal responsibility for your patients' care" was added to the Personal Experience Domain. "Treatment will resolve an acute problem," "Treatment will stabilize or improve a chronic condition," and "Treatment will comfort or palliate" were removed from the characteristics of patients seen. Questions identifying the sponsoring institution were deleted.
LPS2005	July 1, 2004 - June 30, 2005	v005	The classification of academic levels for Pharmacy trainees was modified.
LPS2006	July 1, 2005 - June 30, 2006	v006	Specialty and subspecialty classifications for Physician Residents were expanded.
LPS2007	July 1, 2006 - June 30, 2007	v006	No change
LPS2008	July 1, 2007 - June 30, 2008	v006	No change
LPS2009	July 1, 2008 - June 30, 2009	v006	No change
LPS2010	July 1, 2009 - June 30, 2010	v007	Rehabilitation discipline was divided into blind, occupational, physical and other therapy. The question: "Are you currently on Active Duty in the military?" was added among questions describing the characteristics of the respondent.

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 Learners' Perceptions Survey (LPS)**

VA LPS	Academic Year Administered	LPS Version Number	Comments
LPS2011	July 1, 2010 - June 30, 2011	v008	ACGME Topic Domain was deleted from the PR questionnaire.
LPS2012	July 1, 2011 - June 30, 2012	v009	The classification of Physician Residents Specialty and Advanced Fellowship Programs were revised. Three Topic Domains were added: Psychological Safety, Patient / Family Centered Care, and U.S. Accreditation Council for Graduate Medical Education (ACGME) Duty / Hours Scheduling Domains. Disciplines were divided into Associated Health, Dentistry and Nursing programs. Separate questions describing Advanced Fellowship Programs were added to the AH questionnaire.
LPS2013	July 1, 2012 - June 30, 2013	v010	There were major changes in how specialties and academic level data were collected for Associated Health and Nursing. Consistent with the strategy for Dentistry and Physicians, Associated Health and Nursing program respondents were asked separate questions to name their discipline or specialty, and to indicate their academic level, in their current program. The list of disciplines and specialties for Associated Health Programs was expanded to include Marriage & Family Counseling, Mental Health Counseling, and Surgical Technician / Technologist. Nursing disciplines and specialties were also expanded. The listings for disciplines and specialties and academic levels for Dentistry were also updated.
LPS2014	July 1, 2013 - June 30, 2014	v011	The listings of academic levels and listings of disciplines, specialties, and subspecialties for each health professions programs (Associated Health, Dentistry, Nursing, and Physicians) were updated. Pre-baccalaureate academic levels "certificate," "diploma," and "associate degree" were clarified to distinguish pre-baccalaureate from post-doctoral certificate. The number of facility-level domains was reduced based on reported need in the field. The before-after quality of care assessment was continued for physician residents, and added to the Associated Health survey for dental, nursing, and associated health programs. The

TABLE 1
**Development of the Department of Veterans Affairs
Learners' Perceptions Survey (LPS)**

VA LPS	Academic Year Administered	LPS Version Number	Comments
			<p>elements comprising teaching experiences, including clinical learning environment and faculty & preceptor domains, were left unchanged from LPS2013. In addition, the number of elements comprising the working experience domains, including personal experience, working environment, and physical environment, were reduced based on the contribution each element had to drive variation in all element scores by domain. For clinical experience, Staff and Services Timeliness and Availability, Quality of Staff and Services, and Process Medical Error Domains were left unchanged from FY2013. However, the number of elements comprising Clinical Environment was reduced based on the contribution each element had to drive variation in all element scores for the domain. The ACGME2011 duty hour topic domain was discontinued, as that study concluded. The Patient-Centered Care topic domain was modified. Specifically the domain was divided into an Interprofessional Team Care domain focusing on provider-provider interactions, and Patient-Centered Care domain focusing on provider-patient interactions. Both Interprofessional-team and Patient-Centered Care domains had a fact-based domain summary and a satisfaction-based domain summary.</p>

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>FACILITY-LEVEL</i>					
<i>Numerical score</i>	✓	✓			✓
<i>Value of experience</i>	✓	✓			✓
<i>Choose experience again</i>	✓	✓	✓	✓	
<i>Recommend experience</i>	✓	✓			✓
<i>Likely to consider VA future employment before experience</i>	✓	✓	✓	✓	✓
<i>Likely to consider VA future employment after experience</i>	✓	✓	✓	✓	✓
<i>Consider as a future employer</i>	✓	✓			
<i>What level of patient care quality did you expect to find at the VA facility BEFORE starting VA training experience</i>		✓	✓	✓	
<i>How do you rate the quality of patient care at the VA facility NOW, based on your actual experience</i>		✓	✓	✓	
<i>Compare alternative experiences with:</i>					
<i>VA clinical faculty and preceptors</i>	✓	✓			
<i>VA facility staff</i>	✓	✓			
<i>VA learning environment</i>	✓	✓			

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>VA working environment</i>	✓	✓			
<i>VA physical environment</i>	✓	✓			
<i>Degree of autonomy</i>	✓	✓			
<i>Degree of supervision</i>	✓	✓			
<i>Quality of care</i>	✓	✓			
<i>Usefulness of what respondent learned</i>	✓	✓			
ENVIRONMENT-LEVEL DOMAINS					
<i>TEACHING EXPERIENCES</i>					
<u><i>Learning Environment</i></u>					
<i>Time working with patients</i>	✓	✓	✓	✓	
<i>Degree of supervision</i>	✓	✓	✓	✓	✓
<i>Degree of autonomy</i>	✓	✓	✓	✓	✓
<i>Amount of noneducational work ("scut")</i>	✓	✓	✓	✓	
<i>Interdisciplinary approach</i>	✓	✓	✓	✓	✓
<i>Preparation for clinical practice</i>	✓	✓	✓	✓	✓
<i>Preparation for future training</i>	✓	✓	✓	✓	
<i>Preparation for business aspects of clinical practice</i>	✓	✓	✓	✓	✓
<i>Time for learning</i>	✓	✓	✓	✓	✓
<i>Time for teaching others</i>					✓
<i>Access to specialty expertise</i>	✓	✓	✓	✓	✓

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Teaching conferences</i>	✓	✓	✓	✓	
<i>Clinic related teaching conferences</i>					✓
<i>Access to learning / educational resources</i>					✓
<i>Quality of care</i>	✓	✓	✓	✓	✓
<i>Culture of patient safety</i>	✓	✓	✓	✓	
<i>Spectrum of patient problems</i>	✓	✓	✓	✓	✓
<i>Diversity of patients</i>	✓	✓	✓	✓	✓
<i>Limiting interruptions from other patient care responsibilities</i>					✓
<i>OVERALL satisfaction</i>	✓	✓	✓	✓	✓
<i><u>Clinical Faculty / Preceptors</u></i>					
<i>Clinical skills</i>	✓	✓	✓	✓	✓
<i>Teaching ability</i>	✓	✓	✓	✓	✓
<i>Interest in teaching</i>	✓	✓	✓	✓	✓
<i>Research mentoring</i>	✓	✓	✓	✓	✓
<i>Accessibility / availability</i>	✓	✓	✓	✓	✓
<i>Approachability / openness</i>	✓	✓	✓	✓	✓
<i>Timeliness of feedback</i>	✓	✓	✓	✓	✓
<i>Fairness in evaluation</i>	✓	✓	✓	✓	✓
<i>Being role models</i>	✓	✓	✓	✓	✓
<i>Mentoring by faculty</i>	✓	✓	✓	✓	✓
<i>Patient-oriented</i>	✓	✓	✓	✓	✓
<i>Quality of faculty</i>	✓	✓	✓	✓	✓
<i>Evidence-based clinical practice</i>	✓	✓	✓	✓	✓
<i>OVERALL satisfaction</i>	✓	✓	✓	✓	✓

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>WORKING EXPERIENCES</i>					
<i>Working Environment</i>					
<i>Faculty / preceptor morale</i>	✓	✓			
<i>Ancillary / support staff morale</i>	✓	✓	✓	✓	
<i>Peer group morale</i>	✓	✓			
<i>Laboratory services</i>	✓	✓	✓	✓	✓
<i>Radiology services</i>	✓	✓	✓	✓	✓
<i>Social work services</i>					✓
<i>Interpreter services</i>					✓
<i>Ancillary / support staff</i>	✓	✓	✓	✓	✓
<i>Call schedule</i>	✓	✓	✓	✓	
<i>Computerized Patient Record System (CPRS)</i>	✓	✓	✓	✓	
<i>Patient Record System</i>					✓
<i>Orientation program</i>	✓	✓			✓
<i>Library services</i>	✓	✓			
<i>Access to online journals, resources, references</i>			✓	✓	
<i>Computer access</i>	✓	✓	✓	✓	✓
<i>Internet access</i>	✓	✓			✓
<i>Workspace</i>	✓	✓	✓	✓	
<i>Room availability for seeing patients</i>					✓
<i>Clinic room design</i>					✓
<i>Presence of clinic room supplies</i>					✓
<i>Clinic room equipment</i>					✓

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Space for case discussion with faculty</i>					✓
<i>OVERALL satisfaction</i>	✓	✓	✓	✓	✓
<i><u>Physical Environment</u></i>					
<i>Convenience of facility location</i>	✓	✓	✓	✓	✓
<i>Parking</i>	✓	✓	✓	✓	✓
<i>Personal safety</i>	✓	✓	✓	✓	✓
<i>Availability of phones</i>	✓	✓			
<i>Availability of needed equipment</i>	✓	✓	✓	✓	
<i>Maintenance of equipment</i>	✓	✓			✓
<i>Facility maintenance / upkeep</i>	✓	✓	✓	✓	✓
<i>Lighting</i>	✓	✓			✓
<i>Heating and air conditioning</i>	✓	✓			✓
<i>Facility cleanliness / housekeeping</i>	✓	✓	✓	✓	✓
<i>Call rooms</i>	✓	✓	✓	✓	
<i>Availability of food at the medical center when on call</i>	✓	✓	✓	✓	
<i>OVERALL satisfaction</i>	✓	✓	✓	✓	✓
<i><u>Personal Experience</u></i>					
<i>Personal support from colleagues</i>	✓	✓			✓
<i>Personal reward from work</i>	✓	✓	✓	✓	✓
<i>Relationship with patients</i>	✓	✓			✓
<i>Appreciation of respondent's work by faculty</i>	✓	✓			✓
<i>Appreciation of respondent's work by patients</i>	✓	✓			✓

TABLE 2

Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Appreciation of respondent's work by other members of the interprofessional healthcare team</i>					✓
<i>Balance of personal and professional life</i>	✓	✓	✓	✓	✓
<i>Enjoyment of respondent's work</i>	✓	✓			✓
<i>Level of job stress</i>	✓	✓	✓	✓	✓
<i>Level of fatigue</i>	✓	✓	✓	✓	✓
<i>Continuity of relationship with patients</i>	✓	✓	✓	✓	✓
<i>Ownership / personal responsibility for respondent's patients' care</i>	✓	✓	✓	✓	✓
<i>Quality of care respondent's patients receive</i>	✓	✓			✓
<i>Enhancement of respondent's clinical knowledge and skills</i>	✓	✓	✓	✓	✓
<i>OVERALL satisfaction</i>	✓	✓	✓	✓	✓
<i>CLINICAL EXPERIENCES</i>					
<u><i>Clinical Environment</i></u>					
<i>Hours at work</i>		✓		✓	
<i>Number of inpatients admitted for respondent's care</i>		✓		✓	
<i>Number of outpatients / clinic patients seen</i>		✓		✓	✓
<i>Timely availability of outpatient appointments</i>		✓			
<i>Timely availability of appointments for routine follow up visits</i>					✓

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Timely availability of appointments for acute care / urgent issues</i>					✓
<i>Timely performance of necessary procedures / surgeries</i>		✓			
<i>Time allotted to see patients (appointment length)</i>					✓
<i>How well physicians, nurse practitioners, and physician assistants work together</i>					✓
<i>Admitting patients in a timely fashion</i>		✓			
<i>Ability to use emerging therapies / pharmaceuticals</i>		✓			✓
<i>How well physicians and nurses work together</i>		✓		✓	
<i>How well primary care practitioners and nursing staff work together</i>					✓
<i>How well physicians and ancillary staff work together</i>		✓			
<i>How well physicians and other clinical staff work together</i>				✓	
<i>How well primary care practitioners and other health professionals work together</i>					✓
<i>How well primary care practitioners and administrative support staff work together</i>					✓
<i>Getting tests done in a timely fashion on weekdays</i>		✓		✓	
<i>Getting tests done in a timely fashion on nights and weekends</i>		✓		✓	

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Ease of getting patient records</i>		✓		✓	✓
<i>Backup system for electronic medical records</i>		✓		✓	✓
<i>Amount of "paper work"</i>		✓		✓	✓
<i>Ability to work within the system to get the best care for respondent's patients</i>		✓		✓	✓
<i>Nursing support for patient care issues between visits</i>					✓
<i>How well primary care practitioners support patient care for each other's assigned patients</i>					✓
<i>Management of patient phone calls</i>					✓
<i>OVERALL satisfaction</i>		✓		✓	✓
 <i><u>Staff and Services Timeliness and Availability</u></i>					
<i>Attending / supervisory staff: weekdays</i>		✓		✓	
<i>Attending / supervisory staff: nights and weekends</i>		✓		✓	
<i>Outpatient nursing staff: weekdays</i>		✓		✓	
<i>Inpatient nursing staff: weekdays</i>		✓		✓	
<i>Inpatient nursing staff: nights and weekends</i>		✓		✓	
<i>Ancillary / support staff: weekdays</i>		✓		✓	
<i>Ancillary / support staff: nights and weekends</i>		✓		✓	

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Pharmacy services: weekdays</i>		✓		✓	
<i>Pharmacy services: nights and weekends</i>		✓		✓	
<i>Radiology services: weekdays</i>		✓		✓	
<i>Radiology services: nights and weekends</i>		✓		✓	
<i>Laboratory services: weekdays</i>		✓		✓	
<i>Laboratory services: nights and weekends</i>		✓		✓	
<i>OVERALL satisfaction</i>		✓		✓	
 <i><u>Staff and Services Quality</u></i>					
<i>Attending / supervisory staff</i>		✓		✓	
<i>Nursing staff</i>		✓		✓	
<i>Ancillary / support staff</i>		✓		✓	
<i>Pharmacy services</i>		✓		✓	
<i>Radiology services</i>		✓		✓	
<i>Laboratory services</i>		✓		✓	
<i>OVERALL satisfaction</i>		✓		✓	
 <i><u>Process Medical Errors</u></i>					
<i>Prevent / reduce medical errors</i>		✓		✓	
<i>Assure medication safety</i>		✓		✓	
<i>Report medical / medication errors</i>		✓		✓	
<i>Assure confidentiality of error reporting</i>		✓		✓	

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Facilitate discussion of medical / medication errors</i>		✓		✓	
<i>Facilitate analysis of medical / medication errors as a learning experience</i>		✓		✓	
<i>OVERALL satisfaction</i>		✓		✓	
TOPIC DOMAIN					
<i><u>Psychological Safety</u></i>					
<i>Members of the clinical team of which respondent was a part are able to bring up problems and tough issues</i>	✓	✓	✓	✓	
<i>Respondent feels free to question the decisions or actions of those with more authority</i>	✓	✓	✓	✓	
<i><u>Patient Centered Care</u></i>					
<i>Patients and families are treated as members of the care team</i>	✓	✓			
<i>Patient transitions from one level of care to another, such as hospital discharge, are well-coordinated</i>	✓	✓	✓	✓	
<i>Patients and families are engaged with clinicians in collaborative goal setting</i>	✓	✓	✓	✓	✓
<i>Patients and families are listened to, respected, and treated as partners in care</i>	✓	✓	✓	✓	✓

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Families are actively involved in care planning and transitions</i>	✓	✓	✓	✓	✓
<i>Web portals provide specific health-related, patient education resources for patients and families</i>	✓	✓	✓	✓	✓
<i>Clinicians use e-mail to communicate with patients and families</i>	✓	✓	✓	✓	✓
<i>Clinicians use telemedicine or telehealth technology to evaluate or interact with patients or other practitioners who are off-site</i>	✓	✓	✓	✓	✓
<i>Other than e-mail or telemedicine / telehealth, clinicians use additional electronic means of communicating with patients</i>	✓	✓	✓	✓	✓
<i>Educational materials are routinely provided to patients and families</i>	✓	✓	✓	✓	✓
<i>Assistance is provided for patients who have difficulty accessing health care services</i>	✓	✓	✓	✓	✓
<i>Patients have access to their paper / electronic health records</i>	✓	✓			✓
<i>Patients have access to their health record</i>			✓	✓	
<i>Environment encourages family presence</i>	✓	✓	✓	✓	✓
<i>Families are treated as members of the treatment team</i>	✓	✓	✓	✓	✓
<i>Respondent participates in regularly scheduled treatment team meetings that include physicians and non-physicians</i>	✓	✓			

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>(e.g., nurses, psychologists, social workers, pharmacists)</i>					
<i>Respondent participates in regularly scheduled treatment team meetings that include physicians and non-physicians (e.g., nurses, psychologists, social workers, pharmacists)</i>	✓	✓			
<i>Care is provided using an interprofessional, collaborative team approach</i>	✓	✓			
<i>Respondent follows a defined panel of patients longitudinally</i>	✓	✓	✓	✓	✓
<i>Patients or cohorts of patients with chronic disease(s) are identified who might benefit from additional intervention or coordination of care between clinic visits</i>	✓	✓	✓	✓	✓
<i>For patients with chronic disease such as diabetes, respondent reviews lists of patients in respondent's primary care clinic or panel in order to identify and better manage patients not meeting treatment goals</i>	✓	✓			✓
<i>For patients with chronic disease such as diabetes or mental illness, respondent reviews lists of patients in order to identify and better manage patients not meeting treatment goals</i>			✓	✓	
<i>Practitioners from different settings (inpatient, outpatient, and extended care) communicate with respondent about respondent's patients and their transitions from one level of</i>	✓	✓			

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>care to another, such as hospital discharge</i>					
<i>OVERALL, VA practitioners provide patient and family centered care</i>			✓	✓	
<i>OVERALL, VA practitioners provide patient and family centered care in respondent's VA primary care clinic</i>					✓
<i>OVERALL satisfaction with patient and family centered care</i>	✓	✓	✓	✓	
<i>OVERALL satisfaction with patient and family centered care in respondent's VA primary care clinic</i>					✓
<i><u>Interprofessional Team Care</u></i>					
<i>Participate regularly in team meetings (formal or informal) with members of different professions to discuss and coordinate care of patients</i>			✓	✓	✓
<i>Participate regularly in team meetings (formal or informal) with members of different professions to discuss performance improvement</i>			✓	✓	✓
<i>Participate regularly in team meetings (formal or informal) with members of different professions to discuss clinical operational issues</i>			✓	✓	✓
<i>Practitioners from different settings (inpatient, outpatient, extended care) communicate about patients and their transitions from one level of care</i>			✓	✓	✓

TABLE 2

Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LSPC ver004 ed011
<i>to another, such as hospital discharge</i>					
<i>VA staff work well together among primary and specialty care practitioners</i>			✓	✓	
<i>Primary care practitioners (e.g., physicians, nurse practitioners, physician assistants) work well together</i>					✓
<i>VA staff work well together among physicians and nurses</i>			✓	✓	
<i>Primary care practitioners and nursing staff work well together</i>					✓
<i>VA staff work well together among physicians and other health professionals (e.g., optometry, pharmacy, podiatry, psychology, rehabilitation, social work)</i>			✓	✓	
<i>Primary care practitioners and other health professionals work well together (e.g., optometry, pharmacy, podiatry, psychology, rehabilitation, social work)</i>					✓
<i>VA staff work well together among nurses and other health professionals</i>			✓	✓	
<i>VA staff work well together among clinical and administrative support staff</i>			✓	✓	
<i>Primary care practitioners and administrative support staff work well together</i>					✓
<i>OVERALL VA practitioners provide interprofessional team care</i>			✓	✓	

TABLE 2

Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>OVERALL, respondent's primary care clinic provides interprofessional team care</i>					✓
<i>OVERALL satisfaction with VA interprofessional team care</i>			✓	✓	
<i>OVERALL satisfaction with interprofessional team care for respondent's VA primary care clinic</i>					✓
<i><u>ACGME Duty Hours / Scheduling</u></i>					
<i>Personal support from colleagues</i>		✓			
<i>Personal reward from work</i>		✓			
<i>Relationship with patients</i>		✓			
<i>Appreciation of respondent's work by faculty</i>		✓			
<i>Supervision of respondent's work by attendings and more senior residents</i>		✓			
<i>Appreciation of respondent's work by patients</i>		✓			
<i>Balance of personal and professional life</i>		✓			
<i>Enjoyment of respondent's work</i>		✓			
<i>Level of job stress</i>		✓			
<i>Level of fatigue</i>		✓			
<i>Continuity of relationship with patients</i>		✓			
<i>Ownership / personal responsibility for respondent's patients' care</i>		✓			

TABLE 2
Domain Elements By Learners' Perceptions Survey Questionnaires

MEASURES	LPS2013 AH	LPS2013 PR	LPS2014 AH	LPS2014 PR	LPSPC ver004 ed011
<i>Quality of care respondent's patients receive</i>		✓			
<i>Safety of patient care</i>		✓			
<i>Respondent's personal safety (e.g., driving home from work)</i>		✓			
<i>Enhancement of respondent's clinical knowledge and skills</i>		✓			
<i>Ability to transition care of patients to other members of the treatment team</i>		✓			
<i>Overall effect of changes in ACGME requirements</i>		✓			

TABLE 3
**Reported Specialties Listed in the LPS Survey,
 By Health Professions Education Program
 and Assigned Specialty Group**

Program	Assigned Specialty Group	Reported Specialty <i>(discipline, specialty, subspecialty)</i>
Associated Health	Audiology	Audiology
	Chaplaincy	Chaplaincy
	Chiropractic	Chiropractic
	Dietetics	Dietetics
	Optometry	Optometry
	Pharmacy	Pharmacy
	Physician Assistant	Physician Assistant
	Podiatry	Podiatry
	Psychology	Psychology
	Rehabilitation	Blind Therapy Occupational Therapy Physical Therapy Other
	Social Work	Social Work
	Speech Pathology	Speech Pathology
	Technical and Laboratory	Medical Imaging Laboratory Medical / Surgical Support Tech Radiation Therapy Surgical Technician / Technologist
	Other Associated Health	Marriage & Family Counseling Mental Health Counseling Other

TABLE 3
**Reported Specialties Listed in the LPS Survey,
 By Health Professions Education Program
 and Assigned Specialty Group**

Program	Assigned Specialty Group	Reported Specialty <i>(discipline, specialty, subspecialty)</i>
Dentistry	Dental Auxiliary	Dental Assistant Dental Hygiene
	Dentists	Dentist Craniofacial Special Care Orthodontics Anesthesiology Public Health Endodontics General Practice Maxillofacial Prosthetics Oral and Maxillofacial Pathology Oral and Maxillofacial Radiology Oral and Maxillofacial Surgery Oral and Maxillofacial Cosmetics Oral and Maxillofacial Craniofacial Oral and Maxillofacial Oncology Oral Medicine Orthodontics & Dentofacial Orthopedics Orthodontics / Periodontics Pediatric Periodontics Prosthodontics Prosthodontics / Maxillofacial Prosthetics
Nursing	Nursing	Nurse Aide / Assistant Certified Registered Nurse Anesthetist Clinical Nurse Leader Clinical Nurse Specialist - Family/Individual Across Lifespan Clinical Nurse Specialist - Adult-Gerontology Clinical Nurse Specialist - Neonatal Clinical Nurse Specialist - Pediatrics Clinical Nurse Specialist - Women's Health/Gender-Related Clinical Nurse Specialist - Psychiatric-Mental Health Licensed Practical Nurse

TABLE 3
**Reported Specialties Listed in the LPS Survey,
 By Health Professions Education Program
 and Assigned Specialty Group**

Program	Assigned Specialty Group	Reported Specialty <i>(discipline, specialty, subspecialty)</i>
		Licensed Vocational Nurse Nurse Administration Nurse Educator Nurse Midwifery Registered Nurse Nurse Practitioner - Family/Individual Across Lifespan Nurse Practitioner - Adult-Gerontology Nurse Practitioner - Neonatal Nurse Practitioner - Pediatrics Nurse Practitioner - Women's Health / Gender-Related Nurse Practitioner - Psychiatric-Mental Health
Physicians	Medical Student	Medical Student
	Medical/ Internal Medicine	Internal Medicine Internal Medicine / Emergency Medicine Internal Medicine - Chief Resident Sports Medicine - Internal Medicine
	Medical/ Internal Medicine Subspecialty	Cardiovascular Disease Clinical Cardiac Electrophysiology Critical Care Medicine - Internal Medicine Endocrinology, Diabetes, and Metabolism Gastroenterology Geriatric Medicine - Internal Medicine Hematology Hematology and Oncology Infectious Disease Interventional Cardiology Nephrology Oncology Pulmonary Disease Pulmonary Disease and Critical Care Medicine

TABLE 3
**Reported Specialties Listed in the LPS Survey,
 By Health Professions Education Program
 and Assigned Specialty Group**

Program	Assigned Specialty Group	Reported Specialty <i>(discipline, specialty, subspecialty)</i>
		Rheumatology Sleep Medicine
	Medical/ Other	Allergy and Immunology Clinical Neurophysiology Dermatology Dermatopathology Family Medicine Geriatric Medicine - Family Medicine Hospice and Palliative Medicine Neurology Physical Medicine and Rehabilitation Procedural Dermatology Spinal Cord Injury Medicine Sports Medicine - Family Medicine Sports Medicine - Physical Medicine and Rehab
	Hospital-Based	Anesthesiology Critical Care Medicine - Anesthesiology Emergency Medicine Medical Genetics Medical Toxicology - Emergency Medicine Medical Toxicology - Preventive Medicine Neuroradiology Nuclear Medicine Nuclear Radiology Pain Medicine Pathology - Anatomic and Clinical Preventive Medicine Radiation Oncology Radiology - Diagnostic Sports Medicine - Emergency Medicine Transitional Year Vascular and Interventional Radiology

TABLE 3
**Reported Specialties Listed in the LPS Survey,
 By Health Professions Education Program
 and Assigned Specialty Group**

Program	Assigned Specialty Group	Reported Specialty <i>(discipline, specialty, subspecialty)</i>
	Surgery	Colon and Rectal Surgery Endovascular Surgical Neuroradiology Neurological Surgery Obstetrics and Gynecology Ophthalmology Orthopaedic Surgery Otolaryngology Plastic Surgery Plastic Surgery - Integrated Surgery - General Surgical Critical Care Thoracic Surgery Thoracic Surgery - Integrated Transplant Hepatology Urology Vascular Surgery Vascular Surgery - Integrated
	Psychiatry	Addiction Psychiatry Forensic Psychiatry Geriatric Psychiatry Psychiatry Psychosomatic Medicine - Psychiatry

TABLE 4
Special Fellowships Listed in the LPS Survey

Advanced Geriatrics	Patient Safety
Dental Research	Polytrauma / Traumatic Brain Injury Rehabilitation (1 year clinical track)
Geriatric Neurology	Polytrauma / Traumatic Brain Injury Rehabilitation (2 year research track)
Health Services Research & Development	Psychiatric Research / Neurosciences
Health Systems Engineering (1 year practitioner track)	Quality Scholars
Health Systems Engineering (2 year research track)	The Robert Wood Johnson (RWJ) Clinical Scholars
Medical Informatics	Simulation
Mental Illness Research and Treatment (Advanced Psychiatry)	Spinal Cord Injury Research
Mental Illness Research and Treatment (Advanced Psychology)	War Related and Unexplained Illness
Multiple Sclerosis	Women's Health
Parkinson's Disease (PADRECC)	Other

TABLE 5
**Academic Levels Listed in the LPS Survey,
 by Health Professions Education Program**

Program	Academic Level
Associated Health	Clinical hours for Certificate (Pre-Baccalaureate) Clinical hours for Diploma (Pre-Baccalaureate) Clinical hours for Associate Degree Clinical hours for Baccalaureate Degree Post-Baccalaureate clinical hours Clinical hours for Masters Degree or Fellowship Post-Masters clinical hours Predoctoral or Doctoral clinical hours, Externship, or Practicum Predoctoral or Doctoral Internship Postdoctoral Residency or Fellowship Year 1 Postdoctoral Residency or Fellowship Year 2 Postdoctoral Residency or Fellowship Year 3 Postdoctoral Residency or Fellowship Year 4 Postdoctoral Residency or Fellowship Year 5 Postdoctoral Residency or Fellowship Year 6
Dentistry	Certificate (Pre-Baccalaureate) Diploma (Pre-Baccalaureate) Associate Degree Baccalaureate Post-Baccalaureate Internship Masters Degree Post-Masters Internship or Fellowship Dental Student - 1 st Year Dental Student - 2 nd Year Dental Student - 3 rd Year Dental Student - 4 th Year Postdoctoral Residency or Fellowship Year 1 Postdoctoral Residency or Fellowship Year 2 Postdoctoral Residency or Fellowship Year 3 Postdoctoral Residency or Fellowship Year 4 Postdoctoral Residency or Fellowship Year 5 Postdoctoral Residency or Fellowship Year 6 Postdoctoral Residency or Fellowship Year 7

TABLE 5

Academic Levels Listed in the LPS Survey, by Health Professions Education Program

Program	Academic Level
Nursing	Certificate (Pre-Baccalaureate) Diploma (Pre-Baccalaureate) Associate Degree Baccalaureate Degree Post-Baccalaureate Residency Masters Degree Post-Masters Post-Masters Residency Pre-Doctoral Research Fellowship Pre-Doctoral Clinical Fellowship Doctoral / PhD Doctoral / DNS, DNSc Doctoral / DNP Postdoctoral Research Fellowship Postdoctoral Clinical Fellowship Post-Doctoral Residency
Physician	Medical Student - 1 st Year Medical Student - 2 nd Year Medical Student - 3 rd Year Medical Student - 4 th Year Residency or Fellowship - PGY1 Residency or Fellowship - PGY2 Residency or Fellowship - PGY3 Residency or Fellowship - PGY4 Residency or Fellowship - PGY5 Residency or Fellowship - PGY6 Residency or Fellowship - PGY7 Residency or Fellowship - PGY8 Residency or Fellowship - PGY9

TABLE 6
**Specialty-Specific Academic Levels,
 by Specialty Group**

Assigned Specialty Group	Specialty-Specific Academic Level
<u>Associated Health</u>	
Audiology	Masters Post-Masters Doctoral Postdoctoral
Chaplaincy	Certificate Baccalaureate Masters Doctoral Postdoctoral
Chiropractic	Doctoral Postdoctoral
Dietetics	Associate Degree Baccalaureate Post-Baccalaureate Masters Post-Masters
Optometry	Doctoral Postdoctoral
Pharmacy	Doctoral PharmD Postdoctoral
Physician Assistant	Baccalaureate Post-Baccalaureate Intern / Fellow Masters Post-Masters
Podiatry	Doctoral Postdoctoral - PGY1 Postdoctoral - PGY2 Postdoctoral - PGY3 Postdoctoral - PGY4 Postdoctoral - PGY5

TABLE 6
**Specialty-Specific Academic Levels,
 by Specialty Group**

Assigned Specialty Group	Specialty-Specific Academic Level
Psychology	Post-Masters Doctoral Practicum Extern Doctoral Intern Postdoctoral
Rehabilitation	Certificate, Diploma, Associate Degree Baccalaureate Masters Doctoral Postdoctoral
Social Work	Baccalaureate Masters Doctoral Postdoctoral
Speech Pathology	Masters Post-Masters Doctoral Postdoctoral
Technical and Laboratory	Certificate or Diploma Associate Degree Baccalaureate Masters Post-Masters
Other Associate Health	Certificate or Diploma Associate Degree Baccalaureate Post-Baccalaureate Masters Post-Masters Doctoral Postdoctoral

TABLE 6
**Specialty-Specific Academic Levels,
by Specialty Group**

Assigned Specialty Group	Specialty-Specific Academic Level
<u>Dentistry</u>	
Dental Auxiliary	Certificate / Diploma Associate Degree Baccalaureate Post-Baccalaureate Intern Masters Post-Masters Intern / Fellow
Dentists	Doctoral Intern Postdoctoral Intern / Fellow Resident / Fellow - PGY1 Resident / Fellow - PGY2 Resident / Fellow - PGY3 Resident / Fellow - PGY4 Resident / Fellow - PGY5
<u>Nursing</u>	
	Certificate Diploma Associate Degree Baccalaureate Post-Baccalaureate Residency Masters Post-Masters Pre-Doctoral Fellowship Doctoral Postdoctoral Fellowship
<u>Physicians</u>	
Medical Student	Medical School - year 1 Medical School - year 2 Medical School - year 3 Medical School - year 4

TABLE 6
Specialty-Specific Academic Levels,
by Specialty Group

Assigned Specialty Group	Specialty-Specific Academic Level
Medical / Internal Medicine	PGY - 1
	PGY - 2
	PGY - 3
	PGY - 4
Medical / Internal Medicine Subspecialties	PGY - 4
	PGY - 5
	PGY - 6
	PGY - 7
	PGY - 8
Medical / Other	PGY - 9
	PGY - 1
	PGY - 2
	PGY - 3
	PGY - 4
	PGY - 5
	PGY - 6
	PGY - 7
	PGY - 8
Surgery	PGY - 9
	PGY - 1
	PGY - 2
	PGY - 3
	PGY - 4
	PGY - 5
	PGY - 6
	PGY - 7
	PGY - 8
PGY - 9	

TABLE 6
Specialty-Specific Academic Levels,
by Specialty Group

Assigned Specialty Group	Specialty-Specific Academic Level
Psychiatry	PGY - 1
	PGY - 2
	PGY - 3
	PGY - 4
	PGY - 5
	PGY - 6
	PGY - 7
	PGY - 8
	PGY - 9
Hospital-Based	PGY - 1
	PGY - 2
	PGY - 3
	PGY - 4
	PGY - 5
	PGY - 6
	PGY - 7
	PGY - 8
	PGY - 9

TABLE 7
Reported Academic Levels Listed in the LPS Survey
by Computer-Assigned Academic Level Group
for all Health Professions Education Programs

Academic Level Group	Academic Level
Pre-Baccalaureate	Certificate Diploma Associate Degree
Baccalaureate	Baccalaureate Post-Baccalaureate Intern Post-Baccalaureate Intern / Fellow Post-Baccalaureate Residency
Masters	Masters Post-Masters Post-Masters Intern / Fellow Post-Masters Residency Pre-Doctoral Research Fellowship Pre-Doctoral Clinical Fellowship
Doctoral Level 1	Doctoral Doctoral Practicum Extern Doctoral / PhD Doctoral / DNS, DNSc Doctoral / DNP Medical Student - Year 1 Medical Student - Year 2
Doctoral Level 2	Doctoral Intern Medical Student - Year 3 Medical Student - Year 4
Post-Doctoral Level 1	Postdoctoral Intern / Fellow Postdoctoral Research Fellowship Postdoctoral Clinical Fellowship Post-Doctoral Residency Resident / Fellow - PGY1 Resident / Fellow - PGY2 Resident / Fellow - PGY3 Physician Intern - PGY1 Physician Resident - PGY2 Physician Resident - PGY3

TABLE 7

**Reported Academic Levels Listed in the LPS Survey
by Computer-Assigned Academic Level Group
for all Health Professions Education Programs**

Academic Level Group	Academic Level
Post-Doctoral Level 2	Resident / Fellow - PGY4 Resident / Fellow - PGY5 Physician Resident - PGY4 Physician Resident - PGY5 Physician Fellow - PGY4 Physician Fellow - PGY5 Physician Fellow - PGY6 Physician Fellow - PGY7 Physician Fellow - PGY8 Physician Fellow - PGY9

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