HRSA Health Center Workforce Well-being National Data Report:

Findings from the 2022 HRSA Health Center Workforce Well-being Survey

November 2023

Submitted to:
HHS/HRSA/OO/OAMP
Office of Acquisition Management and Policy
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At JSI, a number of staff members have played important roles in designing the survey and collecting, assembling, and analyzing the survey data. Ann Keehn served as the Project Director from 2019–2022 followed by Stacey Moody from 2022–2023. Laura Steere served as Project Manager with support from Leanna Pham and Lauren Dahlman. The data collection team was led by Eric Turer and included Emma Guerts, Rebecca Millock, Daniel Hostetler, Steve Schaffer, and Mihaly Imre. The analysis team led by Tabeth Jiri included Sharon Lee, Marianne Mabida, Natalie Spitzer, and Wendy Chow. The liaison team led by Diane Lewis included Amanda Lawyer and 47 liaisons. The communications team was led by Karyn Madore and included Lauren Black, Jessica Holli, Lisa Bryson, Janet Van Ness, Emi Ebihara, and Maddie Bishop. Technical advisors included Toni McGuire, Pamela Byrnes, and Natalie Truesdell.

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Executive Summary

In alignment with its strategic goals and the U.S. Surgeon General's advisory on building a thriving health workforce, the Health Resources and Services Administration (HRSA) developed the HRSA Health Center Workforce Well-being Initiative, a multi-step approach to addressing health center workforce well-being. One key element of this initiative was the development, implementation, and analysis of the HRSA Health Center Workforce Well-being Survey, which stretched over a four-year period. In the first phase, the survey development process involved a sequence of steps with input from a variety of HRSA staff, technical experts, and health center staff. The initial steps included identifying a conceptual model that would guide a literature review of articles focused on workforce well-being indicators of burnout and job satisfaction in the healthcare field. The goal was to identify key concepts that were associated with these well-being outcomes and to gather a list of measures of both the well-being outcomes and drivers of the outcomes. Furthermore, it was imperative to find measures that were appropriate for use in the health center world and appropriate for all levels of staff. The challenge that presented itself was that across many studies, different measures of similar concepts were found. Also, most of the studies were focused on clinical staff only and not carried out in the health center context.

In addition to literature reviews, listening sessions with health center staff, feedback from HRSA and technical advisors, cognitive interviews and pretests were conducted and used to develop and finalize a survey with measures that had been successfully administered in health care settings before and could be administered to all health center staff.

The implementation phase of the HRSA Health Center Workforce Well-being Survey began in year three. A second pretest was conducted using contact methods and reminders that closely matched those to be used in the national rollout of the survey. JSI emailed invitations to staff with a survey link unique to each person. This allowed health center staff to interrupt filling out the survey but be able to return to the point where they left off. Publicity and recruitment of health centers used multiple information channels explaining the purposes of the survey, particularly as they related to HRSA's quality improvement goals. Health center directors were contacted by email and phone to explain the purposes of the effort, the procedures that would be used, and the responsibilities of the health center to promote participation. One key step needed for participation was that health centers had to upload to JSI the work email addresses for all eligible staff.

Nearly half (46%) of the health centers nationally chose to participate in this first time ever HRSA Health Center Workforce Well-being Survey. The survey was launched in late November 2022 after obtaining Office of Management and Budget (OMB) approval. The survey was opened to groups of health centers on a rolling basis until mid-December to avoid unmanageable demands on the survey support line. For a few groups that had major email system blockages, the survey was launched in early January 2023. The survey was closed in early February 2023. After the removal of partial survey responses, more than 52,000 staff became part of the analysis data file.

The report is divided into three broad sections: descriptive analyses, inferential analyses, and suggestions for interventions. In the descriptive section, the characteristics of the responding sample are described—including how the responding staff are distributed geographically, by health center characteristics, occupational characteristics, and demographics. The next

part of the descriptive section shows the mean scores of the four well-being outcome measures (burnout, job satisfaction, engagement and intentions to stay) for all of the above-mentioned characteristics.

In the inferential section, regression analyses were conducted for each outcome, putting together all the significant predictors, and through forward selection, to determine the most powerful predictors of the workforce well-being outcomes. These analyses showed that the most important predictors were a subset of the drivers plus a few demographic or occupational characteristics. However, while several of the drivers were common for each outcome, there were also notable differences in the list of important drivers. Only perceived meaningfulness of one's work was in the top list of predictors for all four outcomes. Work life balance, perceived professional growth opportunities, and compensation and benefits were important predictors for three of the outcomes. Among the demographics, age and organizational tenure were important predictors of all four outcome measures.

The final section of the report, using the results of the regression analyses, identifies targets for interventions or changes in policies that could have impact on these well-being outcomes.

Background

The HRSA Health Center Program

For nearly six decades, community health centers have worked to reduce health inequities by increasing access to affordable and high-quality primary health care. Through the Health Resources & Services Administration (HRSA) Health Center Program, health centers provide access to medical, dental, behavioral, and other health care services for all, regardless of their ability to pay. In 2022, health centers served more than 30 million people across more than 14,000 service delivery sites. The cornerstone of this comprehensive primary care delivery system is the thousands of staff that make up the health center workforce. Health center staff are the most critical component of the Health Center Program as a thriving workforce ensures access to high-quality primary health care.

Healthcare Workforce Well-being in the U.S.

The delivery of primary health care is a labor-intensive and stressful endeavor, and for several years, rates of provider burnout have been on the rise nationally. The capacity of the healthcare workforce to provide quality clinical care and services is arguably dependent on their own personal health and well-being. Poor provider well-being, as characterized by depression, anxiety, poor quality of life, and stress, along with high levels of burnout, can impact productivity, increase medical errors, and endanger patients.[1] Primary care practices are responsible, not only for a mix of direct clinical care, but also for coordinating patients' paths through the entire medical system. This encompasses integrating services like behavioral health and dental care, and mitigating the impacts of social determinants of health. Tools like the electronic health record (EHR), intended to make information more accessible and actionable, can also add to staff burden. Caring for historically medically underserved populations in under-resourced communities—as is the mission of every health center nationally—adds another dimension to these challenges.

These challenges eventually fall on the shoulders of staff. They can manifest themselves in a wide array of practical and perceptual stresses that can adversely affect their well-being and job satisfaction. If not addressed, this can lead to a vicious cycle in which burnout leads to staff departures, placing further burdens on those remaining, making recruitment and onboarding of new staff more difficult. All serve to deepen the issues of burnout.

Burnout is characterized by high emotional exhaustion, high depersonalization, and a low sense of personal accomplishment from work.[2] Provider burnout specifically negatively affects personal well-being, quality of care, patient safety, and job satisfaction. It contributes to suboptimal patient outcomes.[3,4] High levels of clinician burnout can also affect overall well-being, resulting in high rates of depression and suicidal ideation.[5,6] The prevalence of burnout among physicians has been shown to range as high as 80.5% with variations explained by the different definitions of the syndrome as well as assessment methods.[7–9] Increases in burnout among health center personnel have been reported since even before the beginning of the COVID-19 pandemic, with prevalence estimates of burnout among healthcare staff ranging from 49.3% to 58%.[10,11] Poor provider well-being has also been associated with reduced productivity, job dissatisfaction, and self-reported intent to leave one's current practice.[4,12] In addition to the obvious effects on physicians' lives, burnout may reduce patient access to physician care and further strain health care systems that are already struggling to meet the needs of the populations they serve.[13]

Physician turnover also has financial implications for healthcare organizations. Approximately $4.6 billion in costs related to physician turnover and reduced clinical hours are attributable to burnout each year in the U.S.[14] At an organizational level, the annual economic cost associated with burnout related to turnover and reduced clinical hours is approximately $7,600 per employed physician each year.[14] These costs are often associated with lost billings for departing physicians, recruitment, sign-on bonuses, and onboarding costs for replacement physicians.[13,15,16] Physician burnout may also increase healthcare expenditures indirectly, due to higher rates of medical errors and malpractice claims, absenteeism, and lower job productivity. A conservative estimate of the cost of burnout-related turnover exceeds $5,000–$10,000 U.S. dollars per physician per year.[3] While many studies have shown a disproportionately high prevalence of stress and burnout among primary care physicians,[17,181] studies exploring workforce well-being and burnout within health center settings have been limited. This study is the first of its kind to look at burnout in health center settings and across different staffing categories.

Workforce well-being, burnout, and job satisfaction are critical factors in assuring high-quality delivery of care within HRSA supported health centers. Improving workforce well-being and satisfaction and addressing burnout are critical to maintaining an engaged workforce and improving recruitment and retention. This will help to support HRSA's strategic goals of (1) improving access to quality health services, (2) fostering a health care workforce able to address current and emerging needs, (3) achieving health equity and enhancing population health, and (4) optimizing HRSA operations and strengthening program management.[19]

Overarching Project Objectives

In alignment with its strategic goals, HRSA created the HRSA Health Center Workforce Well-being Initiative, a multi-step approach to addressing health center workforce well-being with a view of working with health centers to engage in quality improvement processes. This initiative commenced with the development of the HRSA Health Center Workforce Well-being Survey. This survey will provide insights to enhance training and technical assistance strategies based on collected data and evidence-based interventions; facilitate shared improvements by conducting learning collaboratives; and develop a process for disseminating data and best practices to health centers more broadly.

Methods

The initiative focused on collecting quantitative data for all levels of staff at health centers to produce a more thorough assessment of workforce well-being since previous studies mostly focused on clinicians outside the health center program.

Survey Development Process

The first phase of the project was to develop a national survey appropriate for all levels of health center staff. Key steps in the development of the survey tool included performing an environmental scan (literature review and listening sessions), identifying measures; drafting a survey, and conducting cognitive and pilot testing.

In the second phase of the project, JSI, HRSA, and Primary Care Associations (PCAs) worked closely to implement the Health Center Workforce Well-being Survey. The survey was the first of its kind to gather this information nationally in the HRSA-supported health center setting; it

provided insights on burnout, job satisfaction, engagement and intentions to stay. By quantifying these issues, baseline levels of burnout, job satisfaction, and the drivers of these outcomes could be established.

Health Center Recruitment and Engagement

JSI and HRSA used various methods to recruit HRSA supported health centers, including 330-funded and Look-Alike (LAL) health centers, from a potential universe of 1,481 centers throughout all U.S. states and territories. All 1,481 health centers were assigned to Health Center Liaisons (Liaisons)—JSI staff who served as the central point of contact with their designated health centers. Using HRSA-approved marketing and communications, Liaisons made various attempts to contact health center leadership via email and phone in order to establish a relationship with the leader and elicit interest and buy-in for the HRSA Health Center Workforce Well-being Survey. Once the health center leader agreed to their health center's participation, Liaisons led the health center contact through pre-launch preparations. These preparations included submitting health center program funded staff email addresses through a secure email collection form and confirming firewall allowances in order for staff to be able to access the survey link. Liaisons provided the contact with a variety of suggested marketing and communication materials to promote staff participation. In addition to communications provided by the Liaisons, HRSA used additional messaging strategies to increase participation. These included HRSA Primary Health Care Digest Newsletter, video encouragement from HRSA leadership, and informational sessions at national and regional conferences. By communicating with health centers in their geographic areas, state and regional PCAs also played a role in encouraging health center and health center staff participation.

Survey Administration and Monitoring

Upon receipt of Office of Management and Budget (OMB) approval, the HRSA Health Center Workforce Well-being Survey was administered nationally from late November 2022 through mid-February 2023. The launch was staggered across 17 cohorts that included a total of 694 health centers spanning U.S. states and territories.

All eligible health center staff were sent an email invitation and up to four email reminders, each containing a unique link specific to the respondent. To further encourage participation, health center leaders were asked to send encouragement emails and promotional materials to all staff.

A fully-staffed support line team and supporting documents (e.g., FAQs) allowed survey participants to get assistance with any technical or survey issues they were facing, removing potential barriers for survey completion. Throughout the survey administration process, completion rates were tracked through secure data storage systems. Response rates were provided on an ongoing basis to health center leaders, HRSA, and PCAs.

Data Management

When the survey administration was closed, JSI undertook several steps to check the data and produce a final data set ready for analysis.

(1) JSI added to the data set the respondents who filled out the second pilot survey and asked that their answers be used as their survey responses to the national survey.

(2) JSI decided which of the nearly 10,000 partial surveys to keep in the data set. JSI removed from consideration respondents who did not specify a job and also removed respondents who did not answer 75 percent of the questions in each section of the body of the survey, excluding demographic questions. JSI allowed any number of missing answers in the demographic section.

(3) JSI removed survey respondents who took less than seven minutes to complete the survey based on the notion that someone giving serious consideration of their answers would take longer, given that the average time to complete the survey was 26 minutes.

(4) JSI removed a few respondents who gave the same answer on the agree-disagree items in the survey, again with the logic that someone filling out the survey seriously would not give the same answer to everything, especially given that some questions were worded positively and some negatively.

(5) JSI reviewed all answers that were checked as "other, please specify" in response to what is your main job. Many of these were re-coded into other existing categories; although some were left in the "other" category.

(6) JSI reviewed all respondent answers to a chosen job category in relation to specific job titles and, in some instances, moved them into a different job category to be consistent with the interpretation of the job categories.

(7) JSI calculated average scores on outcomes and drivers, if that a respondent answered at least two-thirds of the questions within a concept. If fewer than two thirds of the responses to a measure were answered, that respondent was given a missing value for the outcome or driver measure.

(8) JSI tested the outcome measures and drivers to confirm that their coefficient alpha reliabilities met reasonable levels.

Statistical Methods

Analyses were conducted to answer the following research questions:
1. What is the distribution of workforce well-being outcomes among HRSA supported health centers?
2. How do mean scores on workforce well-being outcomes vary across demographic, occupational, geographical, and health center characteristics?
3. Which factors influence workforce well-being outcomes among health center staff?

Well-being Outcome Measures
JSI defined four main workforce well-being outcomes: burnout, job satisfaction, engagement, and intention to stay at the health center. As described previously in the background section, these were identified as key indicators for the survey by HRSA. Literature searches identified versions of these measures that had strong reliability and validity documentation. The sources of these measures are identified in Appendix III, which lists all questions in the survey instrument. All four well-being outcome measures were assessed using a 6-point Likert scale (strongly agree, agree, slightly agree, slightly disagree, disagree, and strongly disagree). These answers were coded from 1 to 6 for each question with the high value (6) meaning "a lot" of the named variable. Each of the four outcome well-being measures are presented as mean scores calculated across all the questions included in the measure and incorporating any reverse scoring to keep all questions consistent in their direction. Burnout mean scores were calculated based on 16 items; job

satisfaction was the mean of five questions; engagement was based on six items; and intention to stay was based on a single question.

Table 1.1. Outcomes of Workforce Well-being

Outcomes of Workforce Well-being	Description	Survey Questions
Job Satisfaction	Sense of fulfillment working at the health center	E1–E5
Burnout	Feelings of emptiness, work overload, loneliness, and exhaustion	E6–E21
Engagement	Interests and connectivity to work, colleagues, and workplace	E22–E27
Intention to Stay	Likelihood of staying with the health center within the next year	E28

Well-being Drivers and Other Predictor Variables

JSI identified four main categories of potential predictors of workforce well-being outcomes: health center characteristics, occupational characteristics, demographic characteristics, and well-being drivers.

Health Center Characteristics

Several health center characteristics were selected to explore how workforce well-being outcomes differed among various types of health centers and the populations they serve. Health center data reported on the 2021 Uniform Data System (UDS) was utilized. Categorizations for priority populations served were based on the distribution of the data from participating health centers creating approximately equal size groupings for each category. Table 1.2 below lists each of the health center characteristics and their categorizations.

Table 1.2. Categorization of Health Center Characteristics

Health Center Characteristic	All Categories
Health Center – State/Territory	59 U.S. states and territories
Health Center – HRSA Region	1. Region 1 (CT, ME, MA, NH, RI, VT) 2. Region 2 (NJ, NY, PR, Virgin Islands) 3. Region 3 (DE, DC, MD, PA, VA, WV) 4. Region 4 (AL, FL, GA, KY, MS, NC, SC, TN) 5. Region 5 (IL, IN, MI, MN, OH, WI) 6. Region 6 (AR, LA, NM, OK, TX) 7. Region 7 (IA, MO, NE, KS) 8. Region 8 (CO, MT, ND, SD, UT, WY) 9. Region 9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau) 10. Region 10 (AK, ID, OR, WA)

Table 1.2. Categorization of Health Center Characteristics (continued)

Health Center Characteristic	All Categories
Health Center – Rurality	1. Rural 2. Urban
Health Center – Size	1. Small (<8000 patients) 2. Medium (8000–17999 patients) 3. Large (>=18000 patients)
Health Center – Program Type	1. H80/Section 330-funded 2. Look-Alike (LAL)
Health Center – Funding Grant	1. Community Health Center (CHC) Only 2. Special Population Only: Migrant Health Center (MHC), Health Care for the Homeless (HCH), Public Housing Primary Care (PHPC) 3. Multi-Funded 4. Look-Alike (LAL)
Patient Population – Percent Elderly	1. <8% 2. 8–15% 3. >15%
Patient Population – Percent Homeless	1. <0.5% 2. 0.5–2.5% 3. >2.5%
Patient Population – Percent Medicaid Recipient	1. <35% 2. 35–55% 3. >55%
Patient Population – Percent Non-English-speaking	1. <5% 2. 5–25% 3. >25%
Patient Population – Percent Uninsured	1. <10% 2. 10–20% 3. >20%
Patient Population – Percent Veterans	1. <0.5% 2. 0.5–2.5% 3. >2.5%

Occupational Characteristics

The role that one plays within the organization has significant influence on their perspective regarding their job. There are many diverse job types needed to operate a health center and it was important to capture these as accurately as possible. The job categorization was primarily derived from the UDS report, broken out according to the UDS Table 5: Staffing and Utilization with greater detail found in UDS Appendix A (Listing of Personnel), to which several additional categories were added. To provide meaningful groupings of staff within the health center, specific job titles were aggregated to higher level clusters for analysis. Appendix III of this report shows how the occupations are grouped starting within the "major" occupational categories, and then into increasingly detailed "broad" categories, then to "expanded" categories, and finally to the "detailed" job titles. The five major occupational categories, as derived from the UDS, are direct clinical services (e.g., internist, physician assistant, nurse); patient services, support, and quality (e.g., front desk staff, medical scribe); enabling and program services (e.g., case manager, eligibility assistance worker); ancillary clinical services (e.g., phlebotomist, radiologist); and management and administration (e.g., CEO, accountant, IT technician).

In the descriptive sections of the report and in the regression analyses, different levels of aggregation of occupational categories were used. For the descriptive analyses, both major categories and expanded categories are shown. For the regressions, the major categories were used to maintain adequate sample sizes.

In addition, there were a range of occupational characteristics that were identified as having potential influence on workforce well-being outcomes. These factors included organizational and career tenure, director or supervisory status, compensation type, frequency of patient interaction, full-time equivalent (FTE) status, working multiple jobs, fulfilling an educational requirement, and working through a scholarship/loan repayment/visa requirement. Organizational tenure was defined as the self-reported length of time an individual has been with their current employer and was classified into 3 categories, while career tenure was defined as the self-reported length of time an individual has been in their field of work and was also classified into 3 categories. Supervisory status was assessed using four categories indicating the number of staff supervised and was collapsed into a dichotomous (yes or no) variable for analysis. Director and salary status were also self-reported and assessed as dichotomous variables. The frequency of patient interactions was self-reported and assessed as three categories indicating no contact, occasional, and routine patient contact. Respondents were also asked to report if they were fulfilling an educational/training requirement or a VISA requirement on their job. Both of these questions were assessed as dichotomous responses. Table 1.3 below lists each of these occupational factors and their categorizations.

Table 1.3. Categorization of Occupational Characteristics

Occupational Characteristic	All Categories
Organizational Tenure	1. Newer staff (<2.5 years) 2. Middle tenure (2.5–6 years) 3. Long tenure (7+ years)
Career Tenure	1. Entry level (<3 years) 2. Intermediate (3–6 years) 3. Mid-level (7–10 years) 4. Senior level (10+ years)
Supervisor Status	1. None (does not supervise anyone) 2. Supervises 1–4 people 3. Supervises 5–9 people 4. Supervises 10 or more people 1. Yes, supervises some – *collapsed* 2. No, supervises no one – *collapsed*
Director Status	1. Yes 2. No
Compensation Type	1. Salary 2. Hourly
Patient Interaction Frequency	1. Routinely 2. Occasionally 3. Never
Full-Time Equivalent (FTE)	1. Full-time 2. Part-time
Multiple Jobs	1. Yes 2. No
Educational Requirement	1. Yes 2. No
Working Through a Scholarship, Loan Repayment Agreement, or Visa Requirement	1. Yes 2. No

Demographic Characteristics
The demographic characteristics that were used in the analysis included age, gender identity, sexual orientation, ethnicity, race, language spoken at home, English proficiency, disability status, education level, marital status, children under 18 at home, and caregiver status. The questions and answer categories for these demographic characteristics were developed using federal data collection standards and several national surveys, including Health and Human Services Guidance, the 2021 UDS, the 2019 Employee Viewpoint Survey (EVS), the American Community Survey, and the ASPE Caregiver Survey. Table 1.4 below lists each of the demographic characteristics and their categorizations.

In order to maintain sample sizes, as well as simplify some of the descriptive and regression analyses, four demographic characteristics were collapsed: gender identity, sexual orientation, education level, and marital status. **Gender identity** groups were collapsed because of the low number of responses from transgender men, transgender women, genderqueer respondents, respondents that identified as "Something else," and respondents that said "Don't know/not sure." These groups were categorized into one group named "All other."

Sexual orientation groups were also collapsed because of the low number of responses from lesbian or gay respondents, bisexual respondents, respondents that identified as "Something else," and respondents that said "Don't know/not sure." These groups were also categorized into one group named "All other."

When looking at **education**, respondents with similar education levels had very comparable well-being outcomes. Therefore, these groups were combined to simplify the analyses. Less than High School was combined with High School Diploma/GED or Equivalent to create a collapsed group named "Up to High School." Technical or Professional Certificate was combined with Some College (no degree) to create a collapsed group named "Technical or Professional Certificate/Some College." Associate's degree (e.g., AA, AS) was combined with Bachelor's degree (e.g., BA, BS) to create a collapsed group named "Associate's or Bachelor's degree." Lastly, Master's degree (e.g., MA, MS, MBA) was combined with Doctoral/Professional degree (e.g., MD/DO, DMD/DDS, PhD) to create a collapsed group named "Postgraduate degree."

Marital status groups were collapsed because of the low number of responses from widowed, separated, and divorced respondents. Therefore, these groups were categorized into one group named "Previously married/separated." **Disability status and English proficiency** were self-assessed.

Finally, **ethnicity and race** characteristics were combined due to a significant number of missing responses within the race variable—this was in part due to many Hispanic respondents completing the ethnicity question without selecting a specific race. Combining race and ethnicity helped to decrease the number of missing responses and allowed additional insights to emerge in the analysis. The four combined race/ethnicity groups were "Hispanic," "Black non-Hispanic," "White non-Hispanic," and "Other non-Hispanic." Within the "Other non-Hispanic" group were - respondents that identified as American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Multiracial, as well as respondents who answered "Prefer not to answer." All ethnicity and race categories, and their combined categories, are listed in Table 1.4.

Table 1.4. Categorization of Demographic Characteristics

Demographic Characteristic	All Categories	Collapsed Categories
Age	1. Under 30 2. 30–39 3. 40–49 4. 50–59 5. 60 and older	
Gender Identity	1. Male 2. Female 3. Female-to-Male (FTM)/Transgender Male/Trans Man 4. Male-to-Female (MTF)/Transgender Female/Trans Woman 5. Genderqueer, neither exclusively male nor female 6. Something else 7. Don't know/not sure	1. Male 2. Female 3. All other
Sexual Orientation	1. Lesbian or Gay 2. Heterosexual or Straight 3. Bisexual 4. Something else 5. Don't know/not sure	1. Heterosexual or Straight 2. All other
Ethnicity	1. Hispanic or Latino/a 2. Non-Hispanic or Latino/a	
Race	1. American Indian or Alaska Native 2. Asian 3. Black or African American 4. Native Hawaiian or Other Pacific Islander 5. White 6. Multiracial 7. Prefer not to answer 8. Unknown/Other	
Race/Ethnicity	1. Hispanic 2. Black Non-Hispanic 3. White Non-Hispanic 4. Other Non-Hispanic	
English as Primary Language	1. Yes 2. No	
English Proficiency	1. Very well 2. Well 3. Not well 4. Not at all	

Table 1.4. Categorization of Demographic Characteristics (continued)

Demographic Characteristic	All Categories	Collapsed Categories
Disability Status	1. Yes 2. No	
Highest Education	1. Less than High School 2. High School Diploma/GED or Equivalent 3. Technical or Professional Certificate 4. Some College (no degree) 5. Associate's degree (e.g., AA, AS) 6. Bachelor's degree (e.g., BA, BS) 7. Master's degree (e.g., MA, MS, MBA) 8. Doctoral/Professional degree (e.g., MD/DO, DMD/DDS, PhD)	1. Up to High School 2. Technical or Professional Certificate/Some College 3. Associate's or Bachelor's degree 4. Postgraduate degree
Marital Status	1. Married/Domestic Partnership 2. Widowed 3. Separated 4. Divorced 5. Never Married	1. Married 2. Never married 3. Previously married/separated
Children Under 18 at Home	1. Yes 2. No	
Caregiver Status	1. Yes 2. No	

Well-being Drivers

The study also incorporated 16 drivers (or influences) on workforce well-being. Models developed by the Mayo Clinic and the National Academy of Medicine, and augmented by a literature search in the early phases of this project, were used to document the inclusion of these concepts and the particular instruments to measure them. Details of sources are shown in Appendix IV. Each of the drivers was measured on a 6-point Likert scale (strongly agree, agree, slightly agree, slightly disagree, disagree, and strongly disagree). Many times, the drivers were based on individual questions that were worded in positive ways or in negative ways. The scoring of 1 to 6 took into account which answer values needed to be reversed in order to keep a high score representing "a lot" of the concept. Most drivers were defined as positive concepts (e.g., social support, training provided, adequate resources) where a high score indicates something positive; but two drivers represented negative concepts (i.e., workload and moral distress) where a high score indicates something negative.

Table 1.5. Drivers of Workforce Well-being

Drivers of Workforce Well-being	Description	Survey Questions
My Work Team	Communication, collaboration, and cohesion amongst team members	B1–B8
Supervision	Guidance, engagement, and motivation from immediate supervisors	B9–B13
Leadership	Guidance, engagement, and motivation from senior leaders	B14–B16
Positive Workplace Culture	Support of staff well-being, diversity and inclusion, nondiscrimination, and patient and staff engagement	C1–C12
Social Support	Formal and informal workplace help	C13–C16
Recognition	Formal and informal workplace appreciation	C17–C21
Supportive Health Center Processes	Administrative responsibilities, quality of care, workflows, and policies	C22–C26
Training Provided	Job training and preparation supported by the health center	C27–C29
Adequate Resources	Staffing, supplies, infrastructure, procedures, and ability to respond to changes and crises	C30–C36
Mission Orientation	Alignment of goals of the organization and individual	D1–D4
Meaningfulness	Sense of fulfillment, purpose, and personal engagement	D5–D9
Compensation and Benefits	Satisfaction with pay and fringe benefits	D10–D13
Professional Growth	Opportunity for professional development and promotion	D14–D17
Workload	Work demands and level of control indicate overwork	D18–D23
Work Life Balance	Work demands and personal time are balanced	D24–D28
Moral Distress	Work situations that conflict with one's beliefs and values	D29–D32

Descriptive Analysis

Basic exploratory data analysis was conducted to check for outliers and missing data, and to assess the distributions of variables. Descriptive analyses highlighting the distribution of the four workforce well-being outcomes of burnout, job satisfaction, engagement, and intention to stay at the national level were conducted. Analyses included a cross-sectional analysis of survey results to ascertain differences in demographic, health center, and occupational characteristics among respondents. Analysis of Variance (ANOVA) was used to evaluate the statistical significance of differences in mean scores for the four well-being outcome measures across all of the categorical factors. Given that analyses showed few differences between participating and non-participating health center characteristics and also few differences on well-being outcomes by health center characteristics, none of the descriptive analyses were based on weighted data.

Inferential Analysis

To evaluate factors potentially associated with workforce well-being outcomes, JSI developed both unadjusted and adjusted models of outcomes among health center staff using univariate and multivariate regression analyses. Factors to be considered for inclusion in the final regression models were identified by conducting an initial univariable analysis to explore the unadjusted association between proposed factors and the four outcome variables. Unadjusted models were conducted using linear regression analyses for all the continuous outcome drivers and ANOVA for the categorical demographic, health center, and occupational characteristics. Unadjusted analyses showed that all the proposed potential factors were significantly associated with the four outcome variables. To narrow the number of factors to consider in the final regression model, JSI conducted panel regressions by grouping factors into the four categories described above and used factors that were retained in the panel regression models to build the final regression models. Panel regression models were conducted using the general linear model (GLM) procedure in SAS, which is useful for carrying both linear regression analysis as well as building analysis of covariance models (ANCOVA).

Using a stepwise approach, factors were entered into the model at the 0.2 significance level and retained at the 0.05 significance level. Tables A4.1–A4.4 in Appendix II summarize results from the panel regression analyses. Final integrated models were then developed using ANCOVA by including only the 10–13 strongest predictors. Tables A4.5–A4.8 in Appendix II summarize results from the final integrated regression models. All analyses were conducted using SAS 9.4. at the 0.05 alpha level.

Results

Health Center Participation and Staff Response Rates

Health Center Participation Rates
The overall participation rate of health centers was 47% with 694 participating health centers out of a total of 1,481 HRSA supported health centers. It was important to determine what differences, if any, were apparent between the health centers that participated and those that did not. On many characteristics, there were no significant differences at the 0.05 significance level. The characteristics are described below and summarized in Table 2.1 with those that were significantly different marked with an asterisk.

Overall, there were no significant differences in proportions of patient populations served by participating health centers compared to non-participating health centers for the following: uninsured status, homelessness, veteran status, or elderly patients. There was a noticeable but non-significant difference between health center participation rates when looking at the proportion of patients best served in a language other than English.

Table 2.1. Health Center Participation

	Participating Health Centers		Non-Participating Health Centers	
	N	%	N	%
TOTAL HEALTH CENTERS	**694**	**100%**	**787**	**100%**
Program Type*				
H80/330-funded	656	95%	717	91%
Look-Alike (LAL)	38	5%	70	9%
Funding Grant				
Community Health Center (CHC) Only	431	62%	460	58%
Special Population (MHC, HCH, PHPC) Only	31	4%	40	5%
Multi-Funded	194	28%	217	28%
Look-Alike (LAL)	38	5%	70	9%
% Uninsured Patients				
<10%	199	29%	213	27%
10–20%	280	40%	320	41%
>20%	215	31%	254	32%
% Medicaid Patients*				
<35%	221	32%	270	34%
35–55%	233	34%	292	37%
>55%	240	35%	225	29%
% Homeless Patients				
<0.5%	229	33%	247	31%
0.5–2.5%	228	33%	263	33%
>2.5%	237	34%	277	35%
% Veteran Patients				
<0.5%	197	28%	226	29%
0.5–2.5%	293	42%	311	40%
>2.5%	204	29%	250	32%
% Non-English-speaking Patients				
<5%	241	35%	304	39%
5–25%	225	32%	255	32%
>25%	228	33%	228	29%

Indicates statistically significant differences in proportion between participating and non-participating health centers with $p < .05$.

Table 2.1. Health Center Participation (continued)

	Participating Health Centers		Non-Participating Health Centers	
	N	%	N	%
% Elderly Patients				
<8%	224	32%	237	30%
8–15%	284	41%	331	42%
>15%	186	27%	219	28%
Health Center Size*				
Small	208	30%	285	36%
Medium	248	36%	245	31%
Large	238	34%	257	33%
Rurality				
Rural	283	41%	334	42%
Urban	411	59%	453	58%
HRSA Region*				
1 (CT, ME, MA, NH, RI, VT)	57	8%	45	6%
2 (NJ, NY, PR, Virgin Islands)	64	9%	52	7%
3 (DE, DC, MD, PA, VA, WV)	66	10%	71	9%
4 (AL, FL, GA, KY, MS, NC, SC, TN)	91	13%	160	20%
5 (IL, IN, MI, MN, OH, WI)	108	16%	109	14%
6 (AR, LA, NM, OK, TX)	88	13%	76	10%
7 (IA, MO, NE, KS)	39	6%	32	4%
8 (CO, MT, ND, SD, UT, WY)	33	5%	29	4%
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	109	16%	150	19%
10 (AK, ID, OR, WA)	39	6%	63	8%

*Indicates statistically significant differences in proportion between participating and non-participating health centers with $p < .05$.

There was a significant difference for health centers that served a high proportion of clients covered by Medicaid with 35% of participating health centers compared to 29% of those who did not participate. In addition, there was a significant difference in the size of health centers with fewer small health centers participating versus not participating (30% versus 36%). Additionally, the proportion of participating health centers that were HRSA supported was significantly higher than that of non-participating health centers (95% versus 91%).

When looking at responding health centers by geography, there were no significant differences for rurality but there were significant differences by HRSA region. Namely, the participating sample had a lower proportion of health centers from Regions 4 and 9 and higher participation in Region 6. Figure 2.1 below shows the number and percentage of health centers that participated in the survey in each state or U.S. territory. While

participation rates varied significantly across states, there was representation from nearly all states and territories. The proportion of health centers participating in the survey ranged from 11% in the state of Georgia to 100% in the state of Delaware. Four U.S. territories (Federated States of Micronesia, Palau, Northern Mariana Islands, and Guam) also had 100% participation.

Figure 2.1. Health Center Participation by States/Territories

U.S. States not Labeled

Connecticut:	10 (59%)
Delaware:	3 (100%)
Hawaii:	4 (27%)
Massachusetts:	22 (59%)
New Hampshire:	3 (30%)
New Jersey:	5 (21%)
Rhode Island:	4 (50%)
Vermont:	5 (46%)

U.S. Territories not Pictured

District of Columbia:	8 (89%)
Federated States of Micronesia:	4 (100%)
Guam:	1 (100%)
Northern Mariana Islands:	1 (100%)
Palau:	1 (100%)
Puerto Rico:	20 (95%)
U.S. Virgin Islands:	1 (50%)

# of Participating Health Centers
- 0 - 6
- 7 - 12
- 13 - 22
- 23 - 38
- 39 - 83

Individual Staff Response Rates

Figure 2.2. shows staff response rates by health center characteristics. Staff response rates were calculated based on the number of completed surveys that were kept for analysis divided by the number of sent emails that did not bounce back. The staff response rates were compared by characteristics of staff that were known ahead of time, which limited comparisons to characteristics of the health centers themselves. In general, response rates ranged from about 30%–45%, with a total response rate of 37%. However, there were differences in response rates within these characteristics. Response rates differed by region, with Region 10 showing the lowest response rate (29%), compared to the highest, which was in Region 7 (42%). Staff in rural settings had a 12-percentage point higher response rate than respondents in urban areas. Response rates were higher as the size of the health center was smaller. LALs had higher response rates (44%) than the 330-funded health centers (36%).

Figure 2.2. Staff Response Rates by Health Center Characteristics

	# of Emails Sent	# of Respondents	Response Rate	
TOTAL	143,857	52,568		37%
HRSA Region*				
1 (CT, ME, MA, NH, RI, VT)	13,470	4,507		33%
2 (NJ, NY, PR, Virgin Islands)	17,016	6,466		38%
3 (DE, DC, MD, PA, VA, WV)	10,551	3,979		38%
4 (AL, FL, GA, KY, MS, NC, SC, TN)	15,093	5,791		38%
5 (IL, IN, MI, MN, OH, WI)	19,202	7,839		41%
6 (AR, LA, NM, OK, TX)	13,850	5,706		41%
7 (IA, MO, NE, KS)	6,762	2,807		42%
8 (CO, MT, ND, SD, UT, WY)	4,600	1,890		41%
9 (AZ, CA, HI, NV, AS, GU, MP, FM, MH, PW)	32,296	10,353		32%
10 (AK, ID, OR, WA)	11,017	3,230		29%
Rurality*				
Rural	44,158	19,807		45%
Urban	99,699	32,761		33%
Health Center Size*				
Large	97,229	32,628		34%
Medium	34,635	14,327		41%
Small	11,993	5,613		47%
Funding Grant*				
Community Health Center (CHC) Only	74,082	27,815		38%
Special Population (MHC, HCH, PHPC) Only	2,971	1,014		34%
Multi-Funded	63,983	22,489		35%
Look-Alike (LAL)	2,821	1,250		44%
Program Type*				
H80/330-funded	141,036	51,318		36%
Look-Alike (LAL)	2,821	1,250		44%

*Indicates statistically significant differences for respondents by health center characteristic

Figure 2.3 shows staff response rates by states and territories. The states with the highest response rates were North Dakota (63%) and South Dakota (56%) and high response-rate territories were Northern Mariana Islands (79%), Federated States of Micronesia (65%), Puerto Rico (60%), and Palau (59%). Low response-rate areas were Georgia (17%), District of Columbia (15%), and the U.S. Virgin Islands (24%).

Figure 2.3. Staff Response Rates by States/Territories
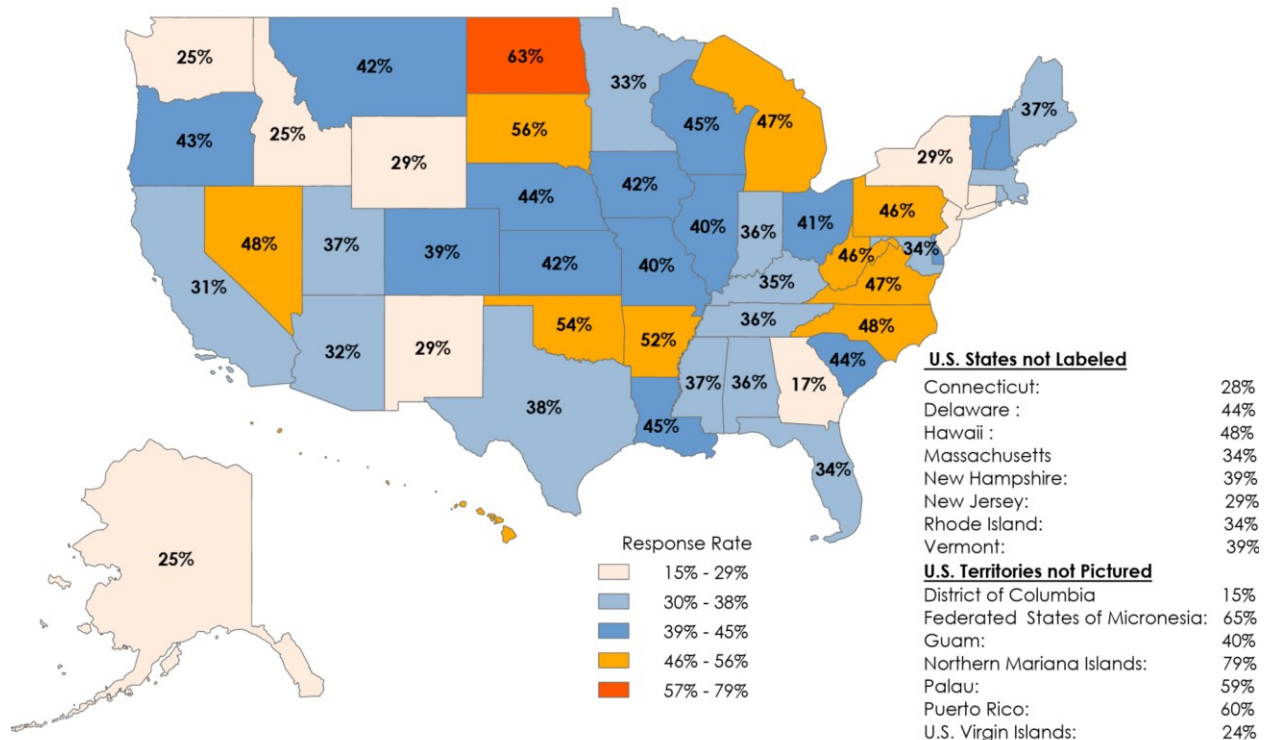
Characteristics of Respondents

Table 2.2 below shows the number and proportion of staff who responded to the survey by different health center characteristics. Nearly all respondents were from 330-funded health centers (98%). A majority came from large health centers (62%) as opposed to small- or medium-sized ones, and a majority worked at urban health centers (62%) as opposed to rural ones. A large proportion (43%) of respondents represented health centers where over 25% of patients are non-English-speaking. One in four respondents represented health centers where over 15% of patients are elderly, and one in four were from health centers where over 2.5% of patients are veterans. About two in five (43%) respondents represented health centers where over 55% of the patient base are covered by Medicaid. About a quarter (24%) were in health centers with 20% or more uninsured patients, and 39% were in health centers that serve more than 2.5% patients experiencing homelessness. The largest group of respondents came from Region 9 (20%) and the smallest from Region 8 (4%).

Table 2.2. Health Center Characteristics of Respondents

Health Center Characteristics of Respondents	N	%
TOTAL RESPONDENTS	**52,568**	**100%**
Program Type		
H80/330-funded	51,318	98%
Look-Alike (LAL)	1,250	2%
Funding Grant		
Community Health Center (CHC) Only	27,815	53%
Special Population (MHC, HCH, PHPC) Only	1,014	2%
Multi-Funded	22,489	43%
Look-Alike (LAL)	1,250	2%
% Uninsured Patients		
<10%	15,901	30%
10–20%	23,949	46%
>20%	12,718	24%
% Medicaid Patients		
<35%	13,225	25%
35–55%	16,737	32%
>55%	22,606	43%
% Homeless Patients		
<0.5%	17,002	32%
0.5–2.5%	15,063	29%
>2.5%	20,503	39%
% Veteran Patients		
<0.5%	15,867	30%
0.5–2.5%	23,336	44%
>2.5%	13,365	25%
% Non-English-speaking Patients		
<5%	14,538	28%
5–25%	15,196	29%
>25%	22,834	43%
% Elderly Patients		
<8%	16,687	32%
8–15%	22,646	43%
>15%	13,235	25%
Health Center Size		
Small	5,613	11%
Medium	14,327	27%
Large	32,628	62%
Rurality		
Rural	19,807	38%
Urban	32,761	62%

Table 2.2. Health Center Characteristics of Respondents (continued)

Health Center Characteristics of Respondents	N	%
HRSA Region		
1 (CT, ME, MA, NH, RI, VT)	4,507	9%
2 (NJ, NY, PR, Virgin Islands)	6,466	12%
3 (DE, DC, MD, PA, VA, WV)	3,979	8%
4 (AL, FL, GA, KY, MS, NC, SC, TN)	5,791	11%
5 (IL, IN, MI, MN, OH, WI)	7,839	15%
6 (AR, LA, NM, OK, TX)	5,706	11%
7 (IA, MO, NE, KS)	2,807	5%
8 (CO, MT, ND, SD, UT, WY)	1,890	4%
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	10,353	20%
10 (AK, ID, OR, WA)	3,230	6%

Table 2.3 below displays various occupational characteristics of the respondent sample. Close to half (46%) of respondents were classified as newer staff (less than 2.5 years of tenure) while 28% and 26% were classified as middle tenure and long tenure, respectively. Two-thirds of respondents had a career tenure of less than 11 years. Most staff were hourly (62%) as opposed to being salaried. One in 10 respondents reported having more than one distinct job at the health center. Out of all respondents, 30% supervised at least one other person, and 10% held a director role at their health center. Relatively few had a job that met an educational requirement (4%), or were working as a requirement for a scholarship, loan repayment, or visa (5%). Over 40% of respondents reported an occupation in direct clinical services, and one in four respondents reported an occupation in management or administration.

Table 2.3. Occupational Characteristics of Respondents

Occupational Characteristics of Respondents	N	%
TOTAL RESPONDENTS	**52,568**	**100%**
Organizational Tenure		
Newer staff (<2.5 years)	23,985	46%
Middle tenure (2.5–6 years)	14,733	28%
Long tenure (7+ years)	13,571	26%
Career Tenure		
Early career (<5 years)	19,894	38%
Middle Career (5–10 years)	14,018	27%
Experienced (11+ years)	18,338	35%
Respondent has multiple jobs at the health center (yes)	5,177	10%
Compensation Type		
Salary	19,809	38%
Hourly	32,747	62%

Table 2.3. Occupational Characteristics of Respondents (continued)

Occupational Characteristics of Respondents	N	%
Supervisor Status		
None (does not supervise anyone)	36,933	70%
Supervises 1–4 people	8,413	16%
Supervises 5–9 people	3,659	7%
Supervises 10 or more people	3,552	7%
Director Status (Yes)	5,325	10%
Job Fulfills an Educational Requirement (Yes)	1,958	4%
Working through a scholarship, loan repayment agreement, or visa requirement (Yes)	2,383	5%
Major Occupational Category		
Ancillary Clinical Services	2,678	5%
Direct Clinical Services	21,339	41%
Enabling and Program Services	4,647	9%
Management and Administration	13,104	25%
Patient Services, Support, and Quality	10,800	21%

Table 2.4 below displays the demographic characteristics of the respondent sample. Overall, nearly half of the respondents identified as White, non-Hispanic (46%), and 11% as Black, non-Hispanic. One third of respondents identified as Hispanic. More than half of all respondents were over the age of 39 (56%). A majority of respondents identified as female (84%), and straight or heterosexual (91%). Three in five respondents reported having an Associate's degree or higher. One fourth of respondents have not been married, 45% report having a child under the age of 18 living at home, and approximately one in five reported having significant caregiver responsibilities for a relative who is elderly or has a disability. Among respondents, 5% reported having a disability themselves. Among all respondents, 81% reported English as their primary language; among those who did not, about half reported that they spoke English very well.

Table 2.4. Demographic Characteristics of Respondents

Demographic Characteristics of Respondents	N	%
TOTAL RESPONDENTS	**52,568**	**100%**
Race and Ethnicity		
Hispanic	17,606	33%
American Indian or Alaska Native, Non-Hispanic	504	1%
Asian, Non-Hispanic	2,108	4%
Black, Non-Hispanic	5,921	11%
Native Hawaiian or Pacific Islander, Non-Hispanic	322	<1%
White, Non-Hispanic	24,029	46%
Other, Non-Hispanic	37	<1%
Multiracial, Non-Hispanic	1,044	2%
Unknown/Missing	997	2%

Table 2.4. Demographic Characteristics of Respondents (continued)

Demographic Characteristics of Respondents	N	%
Age		
Under 30	8,405	16%
30–39	14,351	28%
40–49	12,449	24%
50–59	10,537	20%
60–69	5,564	11%
70 and older	733	1%
Gender		
Male	7,473	14%
Female	44,045	84%
All other	818	2%
Sexual Orientation		
Straight or heterosexual	47,219	91%
All other	4,743	9%
Highest Education		
Up to high school	5,343	10%
Technical or professional certificate/some college	15,411	29%
Associate's or Bachelor's degree	17,772	34%
Postgraduate degree	13,726	26%
Marital Status		
Married	30,480	59%
Never married	12,973	25%
Previously married/separated	8,650	17%
English as Primary Language (Yes)	42,056	81%
English Proficiency (where English is not primary language)		
Very well	5,324	53%
Well	3,369	33%
Not well	854	8%
Not at all	517	5%
Disability Status (Yes)	2,472	5%
Children Under 18 at Home (Yes)	23,525	45%
Caregiver status (significant caregiver responsibilities) (Yes)	9,895	19%

Descriptive Analyses

Table 3.1 below summarizes the aggregate mean scores for the four well-being outcomes, with a higher score indicating a higher amount of the measured outcome. Among all respondents, the mean score for burnout was 3.01 with a standard deviation of 0.85. The mean score for engagement was 4.95 with a standard deviation of 0.94. The other two well-being outcome measures, job satisfaction and intention to stay, had mean scores of 4.63 and 4.86, respectively. Cronbach's coefficient alpha reliability, a statistic that measures how much a group of questions measures the same concept, was calculated for all four

outcomes. Reliabilities above .70 are considered adequate and indicate good consistency among the questions. Reliability scores for burnout, job satisfaction, and engagement were 0.92, 0.93, and 0.85 respectively, suggesting a high internal consistency for the measures. Burnout, engagement, and job satisfaction outcomes were measured by 16 items, 6 items, and 5 items, respectively. Since intention to stay was measured by one question only, a coefficient alpha reliability score could not be calculated.

Table 3.1. Summary of Mean Scores and Reliability for Well-being Outcomes

Well-being Outcomes	Mean	Std Dev	Number of Items	Reliability (Cronbach Coefficient Alpha)
Burnout	3.01	0.85	16	0.92
Engagement	4.95	0.94	6	0.85
Job Satisfaction	4.63	1.12	5	0.93
Intention to Stay	4.86	1.30	1	Cannot be calculated for a single question

Mean Outcome Scores by Health Center Characteristics
Table 3.2 below shows the mean aggregate scores for each of the four outcome measures, by health center characteristics.

Health Center Geographical Characteristics
Overall, Regions 8 and 10 fared least well compared to all other regions, with some of the lowest engagement, job satisfaction, and intention to stay scores, and the highest burnout scores compared to all other regions. Regions 6 and 7 fared better in job satisfaction, intention to stay and burnout outcomes, with the highest scores out of all other regions for the two positive measures, and the lowest burnout scores. Compared to respondents from rural health centers, respondents in urban health centers appeared to have a reduced sense of well-being. Most notably, respondents in urban health centers reported significantly lower mean scores in intention to stay (4.80 vs. 4.97), and significantly lower mean scores in job satisfaction (4.59 vs. 4.70) compared to respondents in rural health centers. While there were statistically significant differences among respondents by size of health center in the areas of burnout, engagement, and job satisfaction (with respondents from smaller health centers reporting a stronger sense of positive well-being), the numerical difference in mean scores was slight.

Health Center Patient Insurance Coverage and Housing Stability
Apart from burnout, the sense of well-being among respondents decreased as the percentage of uninsured patients within the health center increased. This difference was most notable in the area of intention to stay, which decreased from 4.93 among respondents from health centers with <10% of patients uninsured, to 4.78 among respondents from health centers with >20% uninsured. When looking specifically at the percentage of patients covered by Medicaid, respondents from health centers where <35% of patients are covered by Medicaid reported significantly higher mean scores in intention

to stay compared to respondents from health centers where >55% of patients are covered by Medicaid (4.92 vs. 4.83). Significant differences were also observed in the areas of burnout and job satisfaction, suggesting that respondents from health centers with fewer Medicaid-covered patients experienced a more positive sense of well-being compared to respondents from health centers with a greater proportion of Medicaid-covered patients. In general, the sense of well-being among respondents decreased as the percentage of homeless patients served at the health center increased. This difference was most notable in the areas of intention to stay and job satisfaction. Specifically, reported means for intention to stay decreased from 4.93 among respondents from health centers with a homeless patient population of <0.5%, to 4.83 among respondents from health centers with a homeless patient population of >2.5%. Reported means in job satisfaction decreased from 4.69 among respondents from health centers with a homeless patient population of <0.5% to 4.59 and 4.62 among respondents from health centers with a homeless patient population of 0.5%–2.5% and >2.5%, respectively.

Table 3.2. Mean Scores by Health Center Characteristics

Health Center Characteristics	Burnout	Engagement	Job Satisfaction	Intention to Stay
NATIONAL AVERAGE	**3.01**	**4.95**	**4.63**	**4.86**
Program Type				
H80/330-funded	3.01	4.95	4.63	4.86
Look-Alike (LAL)	2.97	4.94	4.64	4.88
Funding Grant				
Community Health Center (CHC) Only	3.01	4.93	4.64	4.87
Special Population (MHC, HCH, PHPC) Only	3.02	4.95	4.68	4.8
Multi-Funded	3.01	4.97	4.63	4.86
Look-Alike (LAL)	2.97	4.94	4.64	4.88
% Uninsured Patients				
<10%	3.03	4.97	4.65	4.93
10–20%	3.00	4.94	4.64	4.87
>20%	3.00	4.94	4.61	4.78
% Medicaid Patients				
<35%	2.97	4.93	4.69	4.92
35–55%	3.03	4.92	4.63	4.87
>55%	3.02	4.97	4.61	4.83
% Homeless Patients				
<0.5%	2.98	4.97	4.69	4.93
0.5–2.5%	3.01	4.93	4.59	4.83
>2.5%	3.02	4.94	4.62	4.83
% Veteran Patients				
<0.5%	2.99	4.99	4.6	4.79
0.5–2.5%	3.00	4.95	4.64	4.87
>2.5%	3.03	4.88	4.66	4.94
% Non-English-speaking Patients				
<5%	2.99	4.92	4.71	4.99
5–25%	2.99	4.93	4.61	4.85
>25%	3.03	4.98	4.6	4.79

Table 3.2. Mean Scores by Health Center Characteristics (continued)

Health Center Characteristics	Burnout	Engagement	Job Satisfaction	Intention to Stay
% Elderly Patients				
<8%	3.02	4.94	4.59	4.79
8–15%	3.01	4.96	4.62	4.84
>15%	2.98	4.94	4.71	5.00
Health Center Size				
Small	2.97	4.94	4.69	4.87
Medium	2.98	4.98	4.64	4.87
Large	3.03	4.94	4.62	4.86
Rurality				
Rural	2.99	4.94	4.7	4.97
Urban	3.02	4.95	4.59	4.80
HRSA Region				
1 (CT, ME, MA, NH, RI, VT)	3.09	4.93	4.55	4.81
2 (NJ, NY, PR, Virgin Islands)	2.99	5.13	4.64	4.92
3 (DE, DC, MD, PA, VA, WV)	3.05	4.91	4.58	4.86
4 (AL, FL, GA, KY, MS, NC, SC, TN)	2.90	5.01	4.66	4.86
5 (IL, IN, MI, MN, OH, WI)	3.02	4.93	4.62	4.87
6 (AR, LA, NM, OK, TX)	2.89	4.99	4.77	4.96
7 (IA, MO, NE, KS)	2.99	4.90	4.73	4.99
8 (CO, MT, ND, SD, UT, WY)	3.12	4.77	4.58	4.73
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	3.01	4.90	4.61	4.80
10 (AK, ID, OR, WA)	3.17	4.80	4.58	4.80

Health Center Patient Characteristics

In general, the sense of well-being among respondents increased as the percentage of elderly patients within the health center increased. This difference was most notable in the areas of intention to stay and job satisfaction. The aggregate mean score of intention to stay increased from 4.79 among respondents from health centers with an elderly patient population of <8% to 5.00 among respondents from health centers with an elderly patient population of >15%. In the area of job satisfaction, mean scores increased from 4.59 among respondents from health centers with an elderly patient population of <8% to 4.71 among respondents from health centers with an elderly patient population of over 15%. Looking at the mean scores of the four areas of well-being, and comparing respondents from health centers with a higher proportion (>2.5%) of veteran patients to those from health centers with a lower proportion (<0.5%) of veteran patients, it appeared that respondents from health centers with higher proportions of veteran patients had a higher intention to stay but a higher degree of burnout, as well as significantly higher scores in job satisfaction but lower scores in engagement. Apart from the area of engagement, the sense of well-being among respondents decreased as the percentage of non-English-speaking patients within the health center increased. This difference was again most notable in the areas of intention to stay and job satisfaction. Specifically, reported means for intention to stay decreased from 4.99 among respondents from health centers with a non-English-speaking patient population of <5%, to 4.79 among respondents from health centers with a non-English-speaking patient population of >25%. Reported means in satisfaction decreased

from 4.71 among respondents from health centers with a non-English-speaking patient population of <5% to 4.60 among respondents from health centers with a non-English-speaking patient population of >25%.

Mean Scores for Respondent Occupational Characteristics

Occupational Categories
Respondent occupations were grouped into 5 major occupational categories, as shown in Figure 3.1 below. (Appendix III outlines the health center staff occupations that fall into each major occupational category). The analysis of workforce well-being measures by occupational categories suggested that respondents providing direct clinical services were more likely to experience burnout (mean: 3.13), less satisfied with their jobs (mean: 4.53), less engaged in their work (mean: 4.87), and were less likely to indicate they intend to stay at their health center (mean: 4.78). In contrast, health center staff in management and administration positions had the lowest mean scores for burnout (mean: 2.88) and were more likely to be engaged in their work, while ancillary clinical staff were the most satisfied and most likely to stay at the health center.

Figure 3.1. Mean Scores by Major Occupational Categories

	Burnout	Job Satisfaction	Intention to Stay	Engagement
Direct Clinical Services	3.13	4.53	4.78	4.87
Patient Services Support and Quality	2.99	4.62	4.87	4.94
Enabling and Program Services	2.9	4.68	4.79	5.02
Ancillary Clinical Services	2.9	4.83	5.06	4.97
Management & Administration	2.88	4.76	4.98	5.05

Figure 3.2 below depicts the distribution of mean scores by expanded occupational categories. (A full description of which detailed jobs fall within each group of expanded occupations can be found in Appendix III). Advanced practice providers were most likely to be burned out followed by physicians, medical and dental clinical support staff, and behavioral health clinicians. The occupations found to have the highest rates of burnout all involved direct clinical services. Outside of the direct clinical occupations, professional lab staff and front office support staff had the highest burnout mean scores. Tables A3.4–A3.6 in Appendix II include a summary of well-being scores across all occupational categories.

Figure 3.2. Burnout Mean Scores for Expanded Occupational Categories

Category	Score
Advanced Practice Providers	3.32
Physicians	3.22
Medical Clinical Support Staff	3.11
Dental Clinical Support Staff	3.09
Behavioral Health Clinicians	3.08
Counselors & Social Workers	3.08
Dental Clinicians	3.07
Professional Lab Staff	3.05
Front Office Support Staff	3.05
Other Mental/Behavioral Health…	3.00
Operational Administration Staff	2.95
Internal Enabling Staff	2.95
Back Office Support Staff	2.94
Other Program Staff	2.92
Pharmacist	2.91
Pharmacy Support Staff	2.91
Lab Support Staff	2.90
Vision Care Support Staff	2.89
Corporate Administration	2.88
Fiscal & Billing Staff	2.88
Quality Improvement	2.87
Information Technology Staff	2.85
Community/Other Enabling Staff	2.84
Other Professional Providers	2.84
Senior Corporate Staff	2.83
Radiology Support Staff	2.82
Facilities Staff	2.78
Professional Radiology Staff	2.74
Vision Care Providers	2.72

Legend:
- Direct Clinical Services
- Patient Services
- Enabling & Program Services
- Management & Administration
- Ancillary Clinical Services

Figure 3.3 below shows the distribution of occupations when comparing both low and high burnout mean scores with low and high intention to stay scores. The high and low dividing line is represented by the mean national score for these two measures. The figure shows, as expected for the majority of occupations, that high burnout and less intention to stay go together as do low burnout and high intention to stay. Seven occupations that are mostly direct clinical staff fall in the high burnout, low intention to stay cell. The one non-clinical occupation that is in this cell is front office support staff. Furthermore, there are 14 occupations that fall into the low burnout, high intention to stay cell. Senior corporate staff and corporate administration positions fall within this cell as well as several others that have relatively little to no direct patient contact. There are only two occupations that fall in the high burnout but high intention to stay category: dental clinicians and dental clinical support staff. Finally, the cell which represents occupations with low burnout but low intentions to stay are made up of six occupation groups, including enabling staff and laboratory support staff.

Figure 3.3. Occupations by Burnout and Intention to Stay
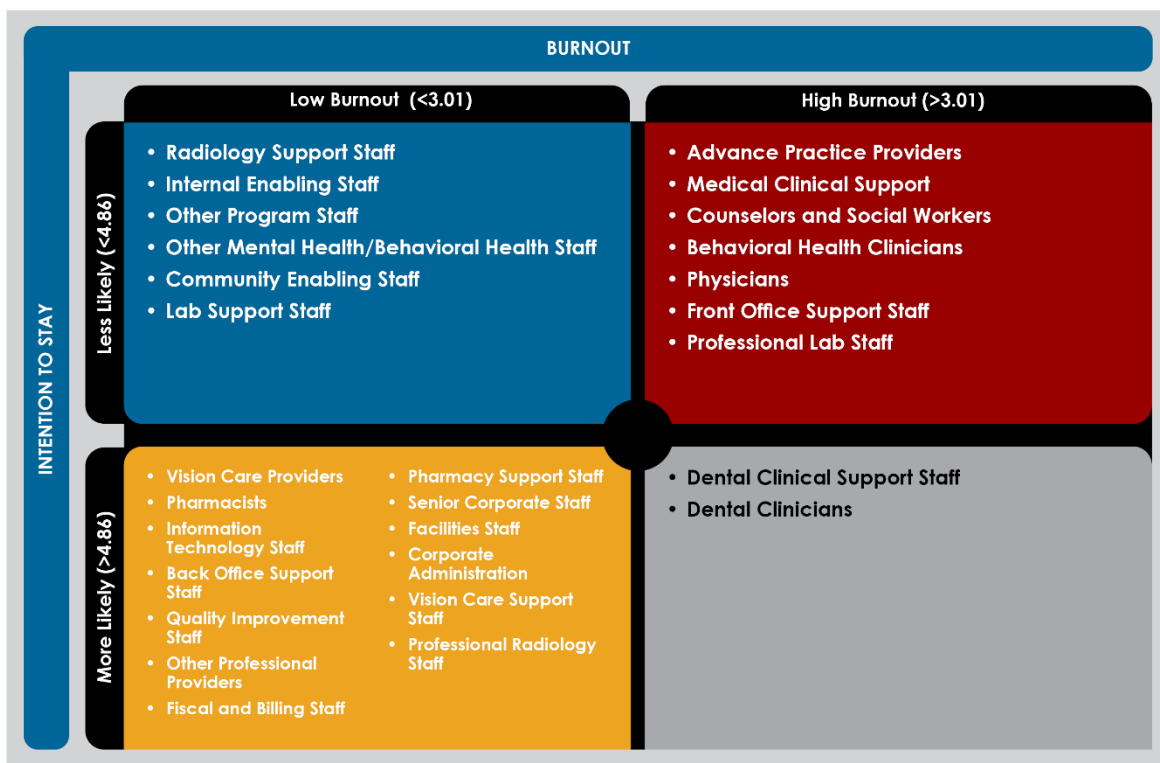
Other Occupational Characteristics
Differences in well-being outcomes were also observed by job tenure, supervisory status, having multiple jobs, as well as part-time or full-time status. Table A3.3 in Appendix II includes well-being mean scores for all occupational characteristics. Well-being outcomes varied across job tenure at the career as well as organizational level. At the organizational level, middle tenure (2.5–6 years) staff had higher scores for burnout and lower scores for job satisfaction and engagement while newer staff had the lowest scores for intention to stay. Long tenure staff (7+ years) had the highest scores for job satisfaction and intention to stay. Newer staff were the most engaged and the least burnt out. Similar trends were observed

at the career tenure with intermediate career (3–6 years) staff indicating high levels of burnout and low job satisfaction and low engagement while early career staff were less likely to stay.

Staff who were in a supervisory position had higher burnout scores than those who were not supervisors (3.02 vs 2.97). In contrast those who were directors had lower burnout scores compared to those who were not directors (2.97 vs. 3.02). However, both supervisors and directors were more satisfied with their jobs, more likely to stay and more engaged than staff who indicated they were not in a supervisor or director position.

Having more than one distinct job, being a salaried employee and working full-time was also significantly associated with higher burnout mean scores. Staff with more than one job were more burned out, less satisfied, and less engaged. Interestingly, staff with more than one job were also more likely to stay compared to staff with only one distinct job. Salaried staff had higher scores for job satisfaction, intention to stay and engagement compared with staff that were paid on an hourly basis. Similarly, staff reporting routine contact with patients reported higher burnout scores, as well as lower job satisfaction, less intention to stay, and lower levels of engagement.

Mean Scores for Respondent Demographic Characteristics

See Table A3.7 in Appendix II for responses for all demographic categories.

Age

Age emerged as a significant factor affecting workforce well-being outcomes (Figure 3.4). Overall, younger respondents reported poorer well-being scores, experiencing higher levels of burnout, as well as lower levels of intention to stay, engagement, and job satisfaction compared to older respondents. The difference was most notable in the area of intention to stay, which increased from 4.50 among respondents under 30 years old, to 5.10 among respondents 50–59 years old. In addition, older respondents ages 60 and older reported the least amount of burnout and the highest amount of engagement and satisfaction compared to all other age groups.

Figure 3.4. Mean Scores of Well-being Outcomes by Age
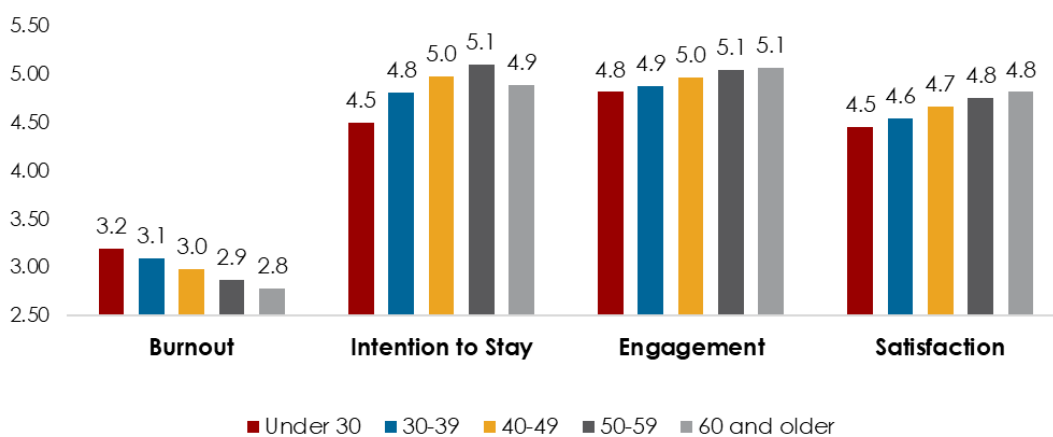
Race/Ethnicity

Using the combined race/ethnicity variable, JSI found that Black non-Hispanic respondents reported lower levels of burnout and higher levels of engagement, while White non-Hispanic respondents exhibited higher levels of intention to stay and job satisfaction (Figure 3.5). While these results were statistically significant, the numerical differences in mean scores were slight. Table A3.7 in Appendix II also includes the mean scores for the full uncombined race and ethnicity variables.

Figure 3.5. Mean Scores of Well-being Outcomes by Race/Ethnicity
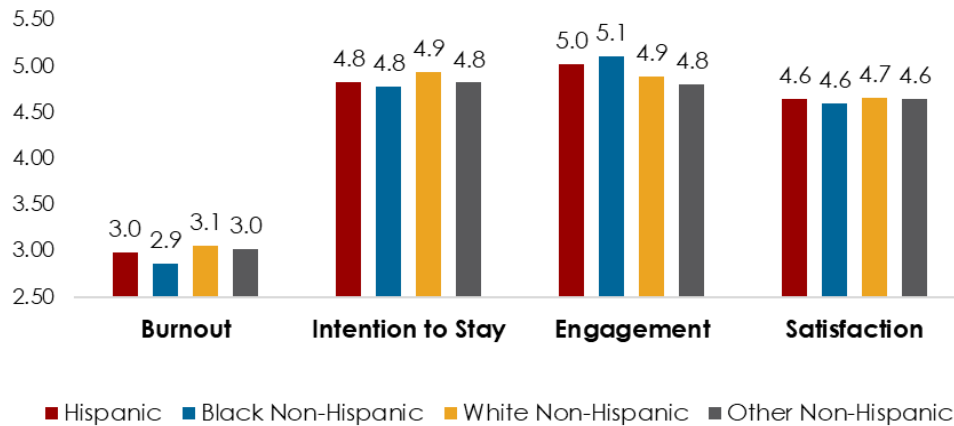
Education

Education level demonstrated varying effects on workforce well-being outcomes (Figure 3.6). For the most part, respondents with less education reported a lower sense of burnout and higher engagement and satisfaction compared to respondents with more education. Most notably, respondents with a high school degree or less reported a significantly higher mean in satisfaction compared to respondents with postgraduate degrees (4.79 vs. 4.57). Interestingly, respondents with a technical or professional certificate/some college or an Associate's or Bachelor's degree showed significantly higher levels of engagement (4.97) compared to all other education groups.

Figure 3.6. Mean Scores of Well-being Outcomes by Education
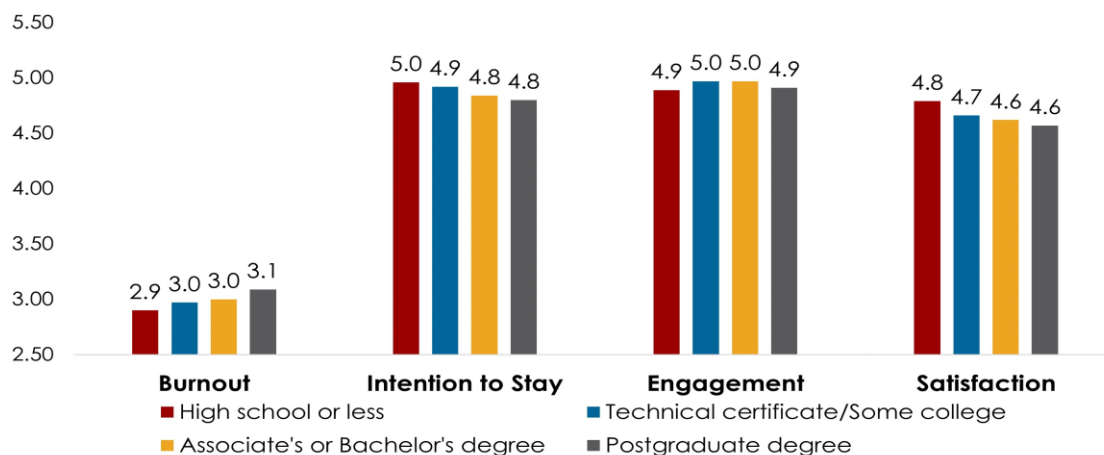
Gender Identity and Sexual Orientation

When analyzing gender identity, males scored higher than females on the outcomes, but respondents who did not identify as either males or females appeared to report lower workforce well-being scores. Compared to male respondents, these respondents reported significantly lower mean scores for job satisfaction (3.93 vs. 4.73), engagement (4.88 vs. 4.66), and intention to stay (4.20 vs. 4.87), and a higher burnout score (2.93 vs. 3.51). When looking at sexual orientation, respondents who did not identify as heterosexual or straight reported lower well-being scores for job satisfaction (4.41 vs. 4.66), intention to stay (4.61 vs. 4.89), and engagement (4.76 vs. 4.97), and a significantly higher mean score for burnout (3.25 vs. 2.98).

Disability

The presence of a self-reported disability status was associated with lower workforce well-being scores compared to those who did not report having a disability. Respondents with a disability reported a significantly higher mean in burnout (3.26 vs. 2.99), and significantly lower means for intention to stay (4.62 vs. 4.88), for engagement (4.82 vs. 4.95), and for job satisfaction (4.40 vs. 4.65) compared to respondents without a disability.

Marital Status, Children under 18 at Home, and Caregiving

Overall, respondents who were never married reported a reduced sense of workforce well-being compared to all other respondents. These respondents reported a significantly lower mean in intention to stay (4.61 vs. 4.96) compared to divorced respondents and a significantly lower mean in satisfaction (4.47 vs. 4.80) compared to widowed respondents. The presence of children under 18 at home showed a weak association with workforce well-being outcomes. However, having children under 18 at home was associated with significantly higher levels of intention to stay (4.92 vs. 4.82) compared to those without children. Being a caregiver (for relatives with disabilities or who are elderly) was linked to higher levels of burnout and lower levels of satisfaction, but also higher levels of intention to stay and engagement. While these results were statistically significant, the numerical differences were slight.

Summary of Well-being Drivers

Figure 3.7 below shows the aggregate, national mean scores for all workforce well-being drivers, sorted from highest to lowest. Overall, respondents reported highest scores in mission orientation, meaningfulness, social support, and supervision, all with aggregate mean scores above five. The lowest scores were reported in compensation and benefits (an undesirable result), as well as in workload and moral distress (which were negative concepts so a lower score is a desirable result)—all with aggregate mean scores below four. Reliability scores for measures of the drivers were calculated. All drivers had a Cronbach coefficient alpha of reliability above 0.70, demonstrating that the items have relatively high internal consistency.

Figure 3.7. Summary of Mean Scores and Reliability for Well-being Drivers

Well-being Drivers	Mean	Std. Dev.	# of Items	Cronbach Coeff. Alpha
Mission Orientation (N=52,553)	5.34	0.65	4	0.85
Meaningfulness (N=52,510)	5.30	0.69	5	0.89
Social Support (N=52,534)	5.05	0.87	4	0.85
Supervision (N=52,546)	5.03	1.08	5	0.94
My Work Team (N=52,565)	4.88	0.92	8	0.92
Positive Workplace Culture (N=52,552)	4.77	0.88	12	0.93
Recognition (N=52,381)	4.71	0.90	5	0.82
Adequate Resources (N=52,532)	4.67	0.89	7	0.90
Professional Growth (N=52,528)	4.66	1.01	4	0.87
Training Provided (N=52,551)	4.40	1.20	3	0.90
Leadership (N=52,522)	4.35	1.31	3	0.93
Work Life Balance (N=52,544)	4.26	1.00	4	0.73
Supportive Health Center Processes (N=52,278)	4.24	0.99	5	0.79
Compensation and Benefits (N=52,493)	3.83	1.26	4	0.85
Workload (N=52,559)	2.87	0.82	6	0.70
Moral Distress (N=52,488)	2.62	1.00	4	0.77

Correlations between Drivers and Outcomes

Table 3.3 below shows the Pearson correlation coefficients for each of the workforce well-being drivers with the four outcomes. In every case, job satisfaction (range -0.62 to 0.68) had a stronger correlation with each of the drivers of well-being compared to intention to stay (range -0.40 to 0.47) and engagement (range -0.45 to 0.43) outcomes. Intention to stay and engagement had very similar correlation coefficients to one another. For burnout, although the correlation coefficients were opposite in directionality compared to the other three outcome measures, correlation coefficients (range -0.59 to 0.68) were generally very similar to job satisfaction. Job satisfaction had a slightly stronger correlation with each of the well-being drivers than burnout, except in the following drivers, in which burnout had the stronger association: work life balance, supportive health center processes, moral distress, and workload.

Job satisfaction and engagement were positively correlated with factors such as work team, supervision, leadership, positive workplace culture, social support, recognition, supportive health center processes, training, adequate resources, mission orientation, meaningfulness, compensation and benefits, and professional growth. On the other hand, job satisfaction and engagement were both negatively correlated with workload and

moral distress. Also, Intention to stay exhibited positive correlations with all the drivers, except for workload and moral distress, which showed negative correlations.

Burnout was negatively correlated with most of the drivers: work team, supervision, leadership, workplace culture, social support, recognition, supportive health center processes, training, resources, mission orientation, meaningfulness, compensation and benefits, and professional growth. Burnout exhibited positive correlations with workload and moral distress implying that high levels of burnout were associated with increased workload and high levels of moral distress.

Overall, these results validate the selection of these drivers as significant contributors to the four workforce well-being outcomes.

Table 3.3. Correlations of Well-being Drivers by Outcomes

	Burnout	Job Satisfaction	Intention to Stay	Engagement
Positive Workplace Culture	-0.57	0.68	0.45	0.40
Professional Growth	-0.54	0.68	0.47	0.35
Adequate Resources	-0.59	0.67	0.44	0.41
Leadership	-0.55	0.65	0.43	0.34
Recognition	-0.56	0.63	0.41	0.40
Training Provided	-0.51	0.59	0.38	0.33
Compensation and Benefits	-0.46	0.58	0.39	0.24
Social Support	-0.47	0.57	0.39	0.35
Supervision	-0.45	0.55	0.38	0.29
Mission Orientation	-0.43	0.55	0.39	0.39
Meaningfulness	-0.43	0.50	0.36	0.43
My Work Team	-0.43	0.49	0.33	0.35
Work Life Balance	-0.58	0.47	0.32	0.31
Supportive Health Center Processes	-0.50	0.43	0.28	0.34
Moral Distress	0.63	-0.57	-0.39	-0.45
Workload	0.68	-0.62	-0.40	-0.40

Note: All Pearson Correlation Coefficients are statistically significant at p<0.0001. Negative correlations are depicted in blue and positive correlations are in black.

Predictors of Well-being Outcomes

Panel Regression Models

The following univariate panel regression analyses were performed with each of the measures included in a panel to identify which variables to include in the final regression models. Four sets of panel variables were separately run for each of the four well-being outcomes. JSI performed four separate regression models with burnout as the main outcome and tested models for health center characteristics, occupational characteristics, demographic characteristics, and well-being drivers. Similar sets of analyses were conducted predicting outcomes of job satisfaction, engagement, and intention to stay. One statistic that resulted from these panel regression analyses was a percent variance explained. This statistic measured how much the group of predictors altogether explained the outcome score in the analysis. The greater the percentage explained, the higher the joint association between the predictors and the outcome measure. Higher percentages mean that the predictors capture well the "causes" of the outcome scores. Lower percentages mean that other factors not in the analysis explain the outcome scores.

Burnout

Health center characteristics: After controlling for all health center characteristics, the strongest predictors were health center size, percent of veteran patients, and percent of non-English-speaking patients (Table A4.1 in Appendix II). These results showed that staff employed at large health centers had higher burnout scores (adjusted mean 3.02) compared to staff at small health centers (2.96); staff at health centers with a high proportion of veteran patients had higher burnout scores (3.07) compared to staff at health centers with a low proportion of veteran patients (2.93); and staff at health centers with a high proportion of non-English-speaking patients had higher burnout scores (3.03) compared to staff at health centers with a low proportion of non-English-speaking patients (2.97). In addition, other factors that were significantly associated with burnout were percent of Medicaid patients, percent of elderly patients, percent of uninsured patients, percent of homeless patients, and rurality. While these findings were significant, this panel model was found to explain less than 1% of the variation in burnout.

Occupational characteristics: Strong predictors of burnout were major occupation groups, organizational and career tenure (Table A4.2 in Appendix II). Other factors that were significantly associated with burnout included having direct patient contact, supervision and director status, level of full-time effort (part-time vs. full-time), and having more than one job. Controlling for these other occupational factors, staff in direct clinical services (adjusted mean 3.04) had significantly higher burnout scores in comparison to staff in other services, while staff in enabling and program services (2.83) had the lowest. This panel however explained only 3% of the variation in burnout rates.

Demographics: An analysis with only demographic factors in the model showed that the most significant predictors of burnout were age, education, disability, race/ethnicity, sexual orientation, and gender identity (Table A4.3 in Appendix II). Overall, younger respondents, respondents, those with more educational degrees, respondents with a disability, and respondents that identified as neither male nor female had the highest scores of burnout. Older respondents, respondents with fewer educational degrees, respondents without a disability, Black non-Hispanic respondents, straight or heterosexual respondents, and male respondents had the lowest scores on burnout. This panel model explained about 5.5% of the variance in burnout.

Well-being drivers: Controlling for other drivers in the panel model, better work life balance, feeling recognized for one's work, a positive work team environment, positive leadership, finding work meaningful, having opportunities for personal and professional growth, supportive health center work processes, and better compensation and benefits were significantly associated with lower burnout levels (Table A4.4 in Appendix II). On the other hand, higher workload and increased moral distress were associated with higher burnout levels. Factors such as workplace culture, training provided, adequate resources, and supervision were not significant and were excluded from the model. This model accounted for 63% of the variance in burnout scores.

Job Satisfaction

Health center characteristics: Health center characteristics that were significantly associated with job satisfaction were rurality, percent of homeless patients, percent of non-English-speaking patients, percent of elderly patients, percent of veteran patients, and health center size. When looking at rurality, staff at rural health centers (adjusted mean 4.68) reported higher job satisfaction compared to staff at urban health centers (4.62). Staff at health centers with an elderly population of greater than 15%, a homeless population of less than 0.5%, and a non-English-speaking population of less than 5% reported the highest scores of job satisfaction (Table A4.1 in Appendix II). Though significant, these factors accounted for less than 1% of the variance in job satisfaction overall.

Occupational characteristics: In panel regression analyses including only occupational factors in the model and job satisfaction as the outcome, factors such as major occupational category, career and organizational tenure, supervision and director status, level of full-time effort (part-time vs. full-time), having direct patient contact, and having more than one job as well as compensation status were significantly associated with job satisfaction. After adjusting for all other occupational factors, direct clinical staff, staff who are routinely in contact with patients, mid-level career staff, staff with more than one job, full-time, and salaried staff had the lowest scores for job satisfaction. (Table A4.2 in Appendix II) This model, however, explained less than 2% of the variation in job satisfaction.

Demographics: The regression model for demographic characteristics revealed that age, gender identity, education, marital status, and disability were the strongest predictors of job satisfaction (Table A4.3 in Appendix II). Older staff, staff who identified as male, staff with fewer educational degrees, and married staff had the highest scores of job satisfaction. Staff under 30 years of age, staff that identified as neither male nor female, staff with postgraduate degrees, staff that were previously married, and staff with a disability had the lowest scores of job satisfaction. This demographic model explained approximately 3% of the variance in job satisfaction.

Well-being drivers: In a panel model assessing the relationship between job satisfaction with all the drivers, factors such as a better work life balance, better compensation and benefits, a positive organizational culture, availability of adequate resources, better supervision, strong leadership, and team dynamics were associated with higher levels of job satisfaction after controlling for covariates (Table A4.4 in Appendix II). Similarly, a stronger sense of mission, higher levels of meaningfulness, and greater opportunities for growth were associated with higher levels of job satisfaction. In contrast, increased workloads and higher levels of moral distress were associated with lower levels of job satisfaction. This model

explained 67% of the variance in job satisfaction and therefore all drivers were entered into the final integrated model for job satisfaction.

Health center characteristics: In a multiple regression model accounting for all health center characteristics, percent of veteran patients, percent of elderly patients, size of health center, percent of Medicaid patients, percent of homeless patients, percent of non-English-speaking patients, and percent of uninsured patients were significantly associated with engagement (Table A4.1 in Appendix II). Also, staff at health centers with a veteran patient population of less than 0.5%, an elderly patient population of more than 15%, or a Medicaid patient population of more than 55% had the highest scores for engagement. Similar to the other regression models for health center characteristics, this model explained less than 1% of the variation in engagement.

Occupational characteristics: Controlling for other occupational factors, career and organizational tenure, director status, having an educational requirement to work at current job, and having more than one job were significantly associated with engagement (Table A4.2 in Appendix II). Staff in direct clinical services had lower engagement scores compared with other occupational categories. Staff in management and administration and those working in enabling and program services had the highest engagement scores. Senior career level staff were also more likely to be engaged than mid-level or entry level staff. With regard to organizational tenure, newer staff had higher engagement scores while long tenure staff were the least engaged. Staff working at the health center as part of an educational requirement had lower engagement scores in comparison to those not fulfilling an educational requirement. Similarly, staff reporting more than one distinct job were less engaged. In contrast, staff who were in a director position had higher engagement scores than those who were not. This model, however, explained only 1% of the variation in engagement scores.

Demographics: An analysis with only demographic factors in the model showed that the top four predictors of engagement were age, race/ethnicity, sexual orientation, and English as the primary language spoken at home (Table A4.3 in Appendix II). Older respondents, Black non-Hispanic respondents, straight or heterosexual respondents, and respondents who do not primarily speak English at home had the highest scores for engagement. Respondents ages 30–49, Other non-Hispanic respondents, respondents who were not heterosexual, and respondents who primarily speak English at home had the lowest scores for engagement. This model explained about 3% of the variance in engagement.

Well-being drivers: In linear regression models, after controlling for other drivers, better work life balance, low levels of moral distress, high levels of meaningfulness, and supportive health center processes were associated with higher levels of engagement. Similarly, opportunities for professional growth, a positive workplace culture, a clear sense of mission orientation, a better work team environment, and higher levels of recognition were associated with higher levels of engagement. (Table A4.4 in Appendix II). In contrast, increased training, better supervision and leadership, and increased compensation and benefits were associated with lower engagement scores, suggesting that these factors may not be as important in improving engagement among health center staff. Factors such as social support and adequate resources were not significant and were excluded from the model. This model accounted for 33% of the variation in engagement scores.

Intention to Stay

Health center characteristics: Health center characteristics that were significantly associated with intentions to stay were rurality, percent of elderly patients, percent of non-English-speaking patients, percent of homeless patients, percent of uninsured patients, percent of veteran patients and health center size. When looking at rurality, staff at rural health centers (adjusted mean 4.91) reported stronger intentions to stay compared to staff at urban health centers (4.82). Staff at health centers with an elderly population of more than 15%, a non-English-speaking population of less than 5%, and a homeless population of less than 0.5% reported the highest scores of intentions to stay (Table A4.1 in Appendix II). This model, however, accounted for less than 1% of the variance in intention to stay overall.

Occupational characteristics: Senior career level (11+ years) staff had the highest intention to stay scores while entry level (< 3 years) staff had the lowest intention to stay. In terms of experience with the health center itself, long tenure staff had the highest intentions to stay scores compared to middle tenure and newer staff who had less intentions to stay (Table A4.2 in Appendix II). Staff in direct clinical services had lower intention to stay scores compared to other occupational categories, while staff in ancillary clinical services had the highest intention to stay scores. Supervisors, directors, and full-time staff were more likely to have high intentions to stay. There were no significant differences in intention to stay scores between staff with routine patient contact versus those with occasional or no contact. This model explained less than 2% of the variation in intention to stay scores.

Demographics: The multiple regression model including only demographic characteristics with intention to stay as the outcome revealed that age, education, marital status, disability, and gender identity were the strongest predictors of intention to stay (Table 4.3 in Appendix II). Staff ages 30–59, staff with fewer education degrees, staff that were married, staff without a disability, and male staff had the highest scores for intention to stay. Staff under 30, staff with postgraduate degrees, staff that were previously married, staff with a disability, and staff that identified as neither male nor female had the lowest scores for intention to stay. This demographic model explained approximately 4% of the variance of intention to stay.

Well-being drivers: High scores for intention to stay were strongly associated with better work life balance, better supervision, meaningfulness and better opportunities for professional growth (Table A4.4 in Appendix II). Better compensation and benefits, positive workplace culture and work team, clear mission orientation, better leadership and adequate resources were also associated with higher intentions to stay. Increased workload and high levels of moral distress were associated with lower intentions to stay. Of note, recognition and health center processes were negatively associated with intention to stay scores. This model accounted for 32% of the variation of intention to stay scores.

Final Integrated Models
Based on the outputs of the panel regression analyses, four multiple regression models were constructed to identify the most important factors associated with each well-being outcome. As a summary of these models, Figure 4.1 below shows the 10 most important predictors of each of the outcomes.

Figure 4.1. Top Ten Predictors for Well-being Outcomes in Descending Order

High Burnout:	High Engagement:	Strong Intention to Stay:	High Job Satisfaction:
↑ Work Load	↓ Moral Distress	↑ Professional Growth	↑ Culture
↓ Work Life Balance	↑ Meaningfulness	↑ Culture	↑ Professional Growth
↓ Professional Growth	↑ Team	↑ Age	↓ Work Load
↓ Age	↑ Supportive HC Processes	↑ Work Life Balance	↑ Meaningfulness
↑ Moral Distress	Race Ethnicity[1]	↑ Meaningfulness	↑ Compensation and Benefits
↓ Meaningfulness	↑ Age	↑ Supervision	↑ Work Life Balance
↓ Recognition	↑ Work Life Balance	↑ Compensation and Benefits	↑ Leadership
Race Ethnicity[1]	↓ Compensation and Benefits	↓ Moral Distress	↑ Age
↓ Organizational Tenure	↑ Organizational Tenure	↓ Education	↑ Supervision
↑ Mission Orientation	↑ Recognition	↑ Organizational Tenure	↑ Organizational Tenure

1. Race/Ethnicity is a strong predictor of high burnout and high engagement.
   a. High Burnout: White Non-Hispanic respondents are more likely to be burned out compared to all other race/ethnicity identities.
   b. High Engagement: American Indian/Alaska Native Non-Hispanic, Asian Non-Hispanic, Native Hawaiian and Other Pacific Islander Non-Hispanic, Multiracial Non-Hispanic, and Other Non-Hispanic respondents are less likely to be engaged compared to Hispanic, Black Non-Hispanic, and White Non-Hispanic respondents.

Predictors of Burnout

Table A4.5 in Appendix II shows the parameter estimates, standard errors, t-values, and p-values for the model examining the relationship between burnout and various predictors. The final model included 12 variables and explained 65% of the variation in burnout scores. It was highly statistically significant at $p < .0001$ and represented the estimated burnout score when all predictors were considered. Measures such as workload, work life balance, professional job growth, and organizational tenure were significantly and most strongly associated with burnout. Increased workload ($\beta = 0.241$) was associated with higher burnout scores, while better work life balance ($\beta = -0.215$) and better perceived professional growth opportunities ($\beta = -0.118$) were associated with lower burnout scores. Individuals with longer job tenure (middle tenure 2.5–6 years and long tenure 7+ years) had higher burnout scores compared to newer staff (<2.5 years). Additionally, drivers such as meaningfulness ($\beta = -0.188$) and recognition ($\beta = -0.066$) were associated with lower burnout scores while moral distress ($\beta = 0.150$) was associated with higher burnout scores. Demographic factors that were associated with burnout included age and race/ethnicity. Controlling for covariates, the older the staff person's age category, the lower their burnout scores. Individuals under the age of 30 had the highest mean scores for burnout while those over the age of 60 had the lowest. White non-Hispanic individuals had the highest burnout scores compared with other racial/ethnic groups while Hispanic individuals ($\beta = -0.095$) had the lowest. Figure 4.2 depicts the adjusted mean scores for the occupational and demographic factors that were significantly associated with burnout in the final model. All β coefficients listed above are statistically significant at $p<0.05$; for the exact p-values, see the table in the appendix.

Figure 4.2. Adjusted Mean Scores for Significant Occupational and Demographic Predictors of Burnout
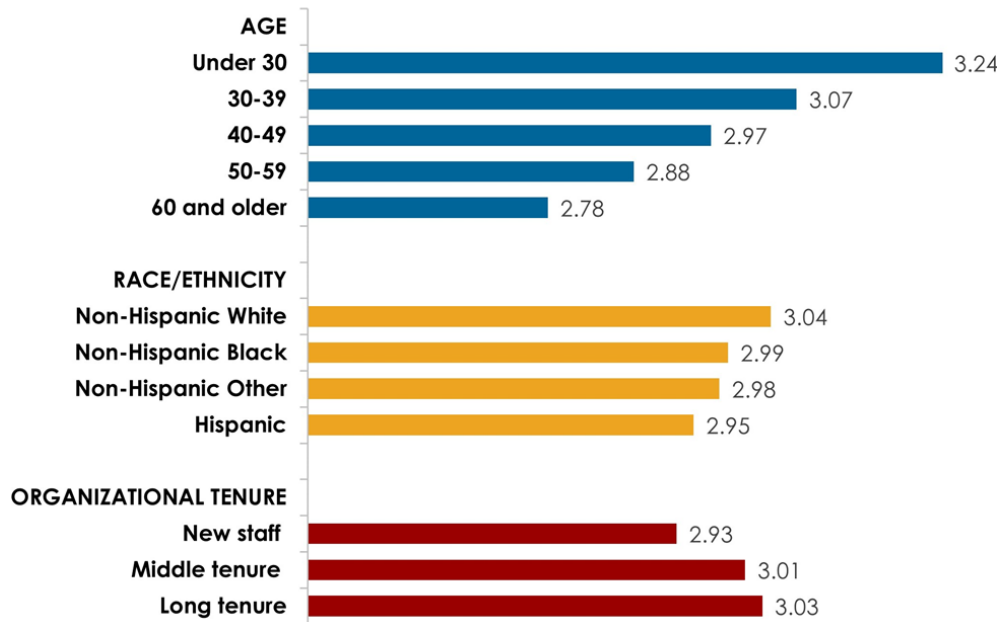
Predictors of Engagement

The final model constructed for engagement included 11 variables and explained 34% of the variation in engagement scores (see Table A4.8 in Appendix II). Moral distress was negatively associated with engagement, indicating that staff with more moral distress feelings (β = -0.229) have lower engagement. Interestingly, compensation and benefits were also found to be negatively associated with engagement (β = -0.050). Meaningfulness (β = 0.386), work team (β = 0.097), supportive health center processes (β = 0.062), and recognition (β = 0.064) were positively associated with engagement. These findings indicate that staff who are more engaged find their work to be more meaningful, feel that their team works well together, find health center processes to be supportive, have a good work life balance, and receive more recognition. Other factors that were significantly associated with high engagement were age, race/ethnicity, organizational tenure, and major occupation. Overall, older staff were more engaged than younger staff; Hispanic, White non-Hispanic, and Black non-Hispanic staff were found to be more engaged compared to Other non-Hispanic groups; newer staff (less than 2.5 years at health center) and middle tenure staff (2.5–6 years at health center) were more engaged than long tenure staff (7 or more years at health center); and management and administration were more engaged than direct clinical services (see Figure 4.3). All β coefficients listed above are statistically significant at $p<0.05$; for the exact p-values, see the table in the appendix.

Figure 4.3. Adjusted Mean Scores of Occupational and Demographic Predictors for Engagement
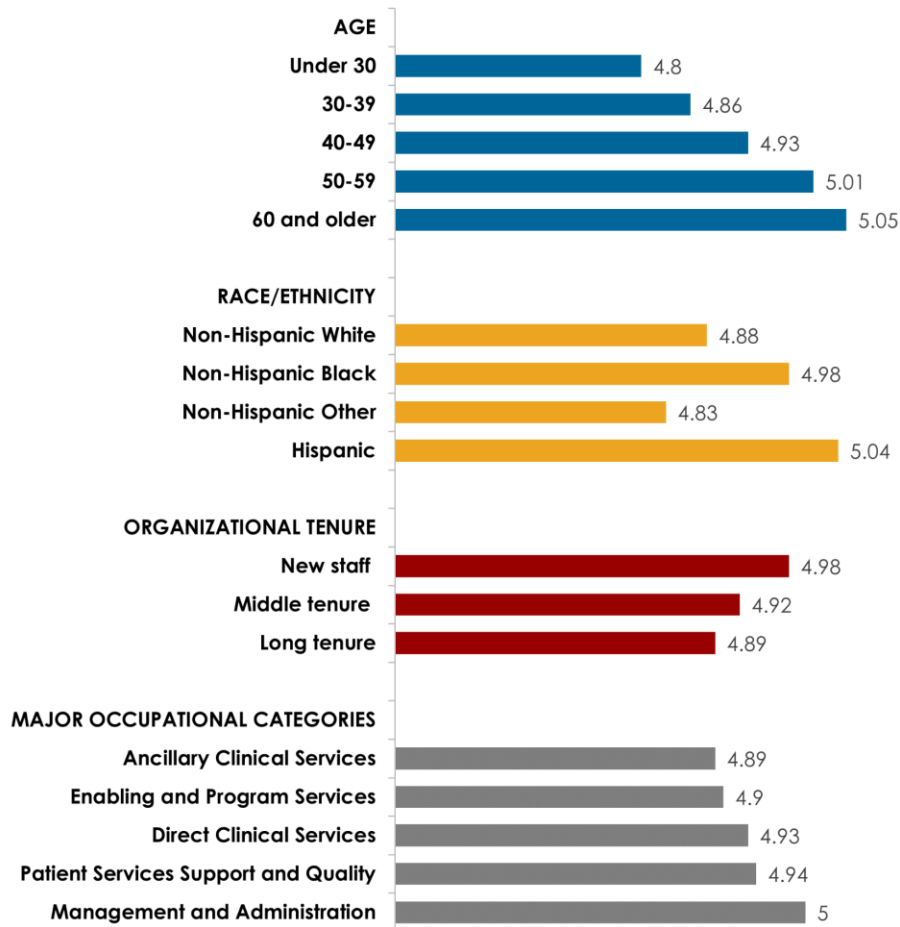
Predictors of Intention to Stay

Table A4.7 in Appendix II illustrates the parameter estimates, standard errors, t-values, and p-values for the model examining the relationship between intention to stay and various predictors. This model included 13 variables and explained 34% of the variation in intention to stay scores. Several well-being drivers were positively associated with intention to stay: professional growth (β = 0.246), culture (β = 0.057), work life balance (β = 0.128), meaningfulness (β = 0.236), supervision (β = 0.105), compensation and benefits (β = 0.0085), and leadership (β = 0.076). This indicates that staff with strong intentions to stay feel that they have adequate professional growth opportunities, a supportive workplace culture, good work life balance, meaningful jobs, competent supervision, and adequate compensation and benefits. However, moral distress was negatively associated with intention to stay (β = -0.098), indicating that staff who felt more moral distress were less likely to have intentions to stay. Other factors that were significantly associated with intention to stay were age, education, organizational tenure, race/ethnicity, and full-time status. Overall, older staff had stronger intentions to stay than younger staff; staff with less educational attainment had stronger intentions to stay compared to staff with more advanced degrees; newer staff (less than 2.5 years) had less intention to stay than middle tenure staff (2.5–6 years) and long tenure staff (seven years or more); White non-Hispanic staff had stronger intentions to stay than Black non-Hispanic, Other non-Hispanic, and

Hispanic staff; and full-time staff had stronger intentions to stay than part-time staff (see Figure 4.4). All β coefficients listed above are statistically significant at p<0.05; for the exact p-values, see the table in the appendix.

Figure 4.4. Adjusted Mean Scores for Occupational and Demographic Predictors for Intention to Stay

AGE
- Under 30: 4.49
- 30-39: 4.78
- 40-49: 4.91
- 50-59: 4.96
- 60 and older: 4.72

RACE/ETHNICITY
- Non-Hispanic White: 4.86
- Non-Hispanic Black: 4.65
- Non-Hispanic Other: 4.79
- Hispanic: 4.79

ORGANIZATIONAL TENURE
- New staff (less than 2.5 years): 4.68
- Middle tenure (2.5-6 years): 4.77
- Long tenure (7 years or more): 4.86

EDUCATION
- Up to high school: 4.82
- Technical or professional certificate/Some college: 4.84
- Associate's or Bachelor's degree: 4.75
- Postgraduate degree: 4.68

FTE
- Full-time: 4.86
- Part-time: 4.68

Predictors of Job Satisfaction

JSI examined the relationship between various well-being predictors and job satisfaction. The final integrated model included 11 variables and explained 68% of the variation in job satisfaction scores (see Table A4.6 in Appendix II). Work related and organizational factors such as positive organizational culture (β= 0.126), opportunities for professional growth (β= 0.245), higher perceived meaningfulness of their work (β= 0.248), better compensation and benefits (β= 0.120), effective leadership (β= 0.114)), and better work life balance (β= 0.136) were associated with higher levels of job satisfaction. Job satisfaction scores increased by 0.25 points with each unit increase in scores for professional growth or perceived meaningfulness. Similarly having good supervision was associated with higher job satisfaction scores. Higher levels of moral distress (β= -0.075), and increased workload (β= -0.156) were associated with lower job satisfaction scores taking all other factors into consideration. Organizational tenure and age were also significantly associated with job satisfaction; the longer the tenure, the higher the job satisfaction. Staff who were 60 years and older had significantly higher job satisfaction scores than those who were under the age of 30 and those between ages 30 and 39. Their scores were however not significantly different from those ages 40 to 49 and 50 to 59. It is important to note that job satisfaction

scores had a tendency to increase with increasing age. Figure 4.5 below shows the adjusted mean scores for the demographic and occupational factors that were retained in the model job satisfaction. All β coefficients listed above are statistically significant at p<0.05; for the exact p-values, see the table in the appendix.

Figure 4.5. Adjusted Mean Scores for Occupational and Demographic Predictors for Job Satisfaction
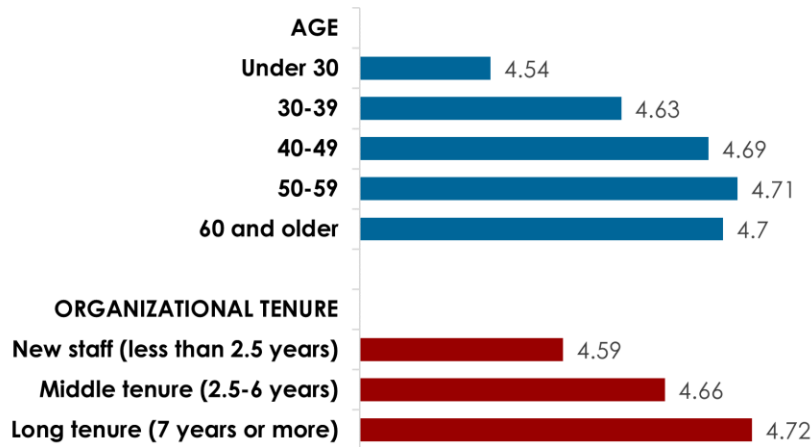
Summary of Key Findings

The primary objectives that HRSA intended to achieve with the Health Center Workforce Well-being Survey were to provide a baseline for the current status for all staff on well-being outcomes and to provide a roadmap of drivers and other factors that were associated with well-being outcomes. This roadmap will help HRSA, PCAs, and individual health centers to identify areas that could be the focus of technical assistance and other quality improvement strategies to improve workforce well-being.

Participation in the HRSA Health Center Workforce Well-being Survey was voluntary. Health centers could participate if they chose to, and, although all program funded staff were invited to participate, the decision to fill out the 26-minute-long survey was left to the discretion of each staff member. Nearly half (47%, or 694 out of 1481) of the HRSA supported health centers participated in the study. Relatively few differences were identified as to types of health centers who participated and those who did not. This provided confidence that the national results are representative of all HRSA supported health centers.

Staff participation overall was 37%, but varied by a few health center characteristics, including by region and by states/territories. For example, the lowest participation rates were from health centers in Georgia (17%) and the District of Columbia (15%), while the highest participation rates were in the U.S. territories of Northern Mariana Islands (79%) and Federated States of Micronesia (65%). The highest participation rates among U.S. states were in North Dakota (63%) and South Dakota (56%).

The results of the descriptive comparisons of health center characteristics on the four well-being outcome measures (burnout, job satisfaction, engagement, and intention to stay) showed findings that were generally consistent with the literature. Rurality was associated

with better well-being outcomes; health centers in urban settings were more likely to show lower well-being outcomes–slightly more burnout, and lower job satisfaction and intention to stay–in contrast to health centers in rural locations. There was no difference on engagement scores by rurality. A similar pattern of findings was found based on the proportion of patients who were elderly. Size of health centers was only related to burnout and job satisfaction.

There were wide differences on the well-being measures by occupational category. Generally, lower well-being scores were found in those occupations providing direct clinical services. The average burnout score for all occupations was 3.01. The expanded occupational groups with the highest burnout mean scores were mostly those occupations providing direct clinical services, such as Advanced Practice Providers and Physicians. The only occupational categories among the higher burnout scores that were not of clinical providers were those of front office support staff. In addition to specific occupations, there were other occupational measures that were associated with the well-being outcomes–job tenure, supervisory status, having multiple jobs, as well as part-time or full-time status.

Demographic characteristics of staff members showed significant relationships with the four well-being outcome measures. The strongest relationships were with age, race/ethnicity, job tenure, and educational attainment. Other demographic characteristics were statistically significant but in some cases were highly skewed towards one small group of staff and therefore were not considered for the regression analyses. Age and job tenure were generally linear in their association with younger aged staff and newer staff showing lower well-being scores compared to older aged staff or longer tenured staff.

In preparation for the development of integrated models predicting each of the well-being outcomes, panel regressions were performed. These panels were tested separately with each well-being outcome. The panels that included health center characteristics and geographical setting were not strongly associated with the outcomes and therefore only a few of the characteristics with the strongest associations were initially entered into the integrated models. The specific occupational category measure that was used in the regression analyses was the classification of the five major occupational categories. The expanded occupational categories were not as strongly related to the outcomes, most likely because each occupational group encompassed a relatively smaller number of staff. However, job tenure, supervisory status, presence of a second job within the health center, and part-time/full-time status were considered for entry into the integrated regression models.

The 16 drivers were also tested for strength of relationship with each of the well-being outcome measures. The drivers, in general, were very strong predictors of each well-being measure and therefore all were available for entry into the final models.

The integrated regression model analyses focused on each of the four well-being outcome measures separately. Each regression model started with approximately 30 variables from across the four panels—all drivers, many of the demographics, some of the occupation measures, and a few of the health center characteristics were available for entry into the overall integrated models. The final integrated models included between 10 to 13 variables that were notable in their contribution to explaining each respective well-being outcome. Variables included in the final models were selected via a stepwise general linear regression

procedure in which each independent variable was iteratively examined for statistical significance and retained in the model if it was statistically significant at the 0.05 alpha level.

Burnout

The total amount of variance in burnout explained by the integrated model was 64%, which is equivalent to a multiple correlation of .80. The drivers were the most important predictors of burnout and included the following: too great of a workload, poor work life balance, fewer opportunities for professional growth, high moral distress, perceived meaningfulness of their job, recognition, mission orientation, supportive health center processes, and competent leadership. The only other variables to be included in the final integrated models were age, race/ethnicity, and job tenure.

Nearly all of the variables in the final model affected burnout levels in the way that was expected except for mission orientation. The higher a staff person's mission orientation, the higher their burnout scores. It may be that staff who have higher mission orientation will experience more burnout when encountering other predictors of burnout because their job means so much to them. Since both younger age and newer job tenure staff were shown to be associated with higher burnout scores, it seems particularly important that these drivers be addressed to the extent possible with these types of workers.

Job Satisfaction

The total amount of variance in job satisfaction explained by the integrated model was 68%, which is equivalent to a multiple correlation of .82. The drivers were the most important predictors of job satisfaction and included the following: experiencing a supportive workplace culture, perceiving opportunities for professional growth, not experiencing a heavy workload, perceived meaningfulness of their job, feeling that their compensation and benefits were good, having work life balance, feeling that leadership is competent, that supervision is also competent and supportive, and not feeling moral distress. The only other variables to be included in the final integrated models were age and job tenure, with older workers and longer tenured workers showing higher job satisfaction.

Nearly all of the drivers operated in the expected direction with more of each driver resulting in greater job satisfaction; the only exception was moral distress in that less perceived moral distress led to greater job satisfaction. Age and job tenure both related to job satisfaction in the same way with younger workers and newer staff reporting less satisfaction than older workers and longer job tenured staff.

Engagement

The total amount of variance in job engagement explained by the integrated model was 34%, which is equivalent to a multiple correlation of .58. The drivers were the most important predictors of job engagement and included the following: lower perceptions of moral distress, greater sense of meaningfulness of their job, being part of a competent and supportive work team, feeling that health center processes are supportive of quality work, experiencing good work life balance, receiving good compensation and benefits, and receiving recognition from leaders, coworkers and patients. The only other variables to be included in the final integrated models were race/ethnicity, age, job tenure, and the major type of job category their job falls within.

Nearly all of the drivers operated in the expected direction with more of each driver resulting in greater engagement. The only exception was compensation and benefits in that higher compensation and benefits were associated with less engagement. This may have to do with which occupations receive the highest compensation. Both age and job tenure related to job satisfaction in the same way. Younger workers and newer workers reported less engagement than older workers and longer tenured workers. The major type of job grouping that staff were in also made a difference in engagement. Management and administrative positions had the highest engagement scores and ancillary clinical services had the lowest. Direct clinical providers were in the middle on engagement levels.

Intention to Stay

The total amount of variance for intention to stay explained by the integrated model was 34%, which is equivalent to a multiple correlation of .58. This lower amount of explained variance may relate to the reality that some staff departures are due to factors outside the workplace such as spouses getting a new job or a job assignment in another geographical area or unexpected illnesses. As in the other well-being outcomes, the drivers were the most important predictors of intentions to stay and included the following: perceived opportunities for professional growth, a supportive workplace culture, a good work life balance, perceived meaningfulness of their job, competent and supportive supervision, good compensation and benefits, experiencing low levels of moral distress, and feeling that leadership is competent.

The other variables that were included in the final integrated model were age (with older workers more likely to stay), education level (with the higher levels of achieved education less likely to stay), job tenure (with more experienced staff more likely to stay), non-Hispanic White being the least likely to stay. Finally, part-time staff were less likely to stay than full-time staff.

In summary, to improve workforce well-being levels for any of the four outcomes, it will be important to focus on making changes that will impact the work environment of staff and improve their experiences of working in a health center. The findings for each outcome that are related to demographic aspects can also be used to focus on groups that are particularly vulnerable to low well-being attitudes.

Recommended Interventions and Strategies to Improve Workforce Well-being

Addressing Well-being in Health Centers

The results of the HRSA Health Center Workforce Well-being Survey provide insight into the needs of health centers to retain and support staff at a tenuous moment for the healthcare workforce. The need to support workforce well-being has been written about and discussed for many years. The HRSA Health Center Workforce Well-being Survey provides a unique and timely opportunity for HRSA and health centers to use data to understand the drivers of workforce well-being and develop focused strategies and interventions to enhance staff well-being and quality patient care.

Documentation of the interplay between workforce well-being and health care quality goes back decades to the Institute of Medicine reports, *To Err Is Human: Building a Safer Health System* (2000) and *Crossing the Quality Chasm: A New Health System for the 21st*

Century (2001).[20,21] These reports called for dramatic attention to the issue of patient safety and more broadly to the quality of care within the healthcare sector. More recent work in clinical quality improvement and the Quadruple Aim emphasizes the centrality of attention to the safety, health, and well-being of health care workers to achieve improved health outcomes.[22]

While attention to the safety of patients and the healthcare workforce has been an issue for more than twenty years, such discussions must now consider the unprecedented demands placed on the healthcare system and the effects of the COVID-19 pandemic on the healthcare workforce. The prolonged duration of the pandemic; concerns about the capacity of the health system; lack of needed supplies; and risk to self, loved ones, and community have had an impact on the workforce with significant psychological consequences including higher rates of depression, anxiety, insomnia, irritability, distress, and avoidance.[23]

Supporting workforce well-being requires change that happens at all levels—staff, organization, regional, national policy, and systems levels. Focusing on organizational level interventions is supported by a meta-analysis of recent research and recommendation from the National Academies of Medicine (NAM).[2] A 2019 meta-analysis of interventions directed at burnout reduction for practicing and training physicians suggests that organizational level interventions directed at the working environment and organizational culture were associated with a moderate reduction in burnout scores, whereas physician level interventions were associated with a small reduction in burnout .[24] In 2019, the National Academies of Sciences, Engineering, and Medicine published *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-being*. The authors suggest that organizational settings implementing policies and practices that focus on the prevention of burnout should develop them in collaboration with the staff to whom such efforts are directed. A collaborative approach may be more effective at generating specific policies and practices (e.g., salary differentials, opportunities for addressing unconscious bias) that support those experiencing the highest burnout rates.

Numerous resilience-building initiatives have been launched by academic institutions, state and federal agencies, and state and federal professional organizations. Many of these work at the individual level to provide members of the health workforce tools and strategies to maintain wellness and seek assistance. NAM points out that, while these individually-focused interventions are important and needed, additional technical assistance at the organizational and external levels are also needed.

The analysis of **burnout, job satisfaction, engagement, and intention to stay** (the four workforce well-being measures assessed in the HRSA Health Center Workforce Well-being Survey), provides a baseline understanding of the "wellness" of the health center workforce. Though the nature of research has created siloes, the four outcomes of burnout, job satisfaction, engagement, and intention to leave are interrelated.

Burnout

The HRSA Health Center Workforce Well-being Survey results point to the following drivers as having the most significant association with burnout: **workload, work life balance, professional growth, moral distress, and meaningfulness**. Additionally, individuals with different **demographic characteristics including age and race and ethnicity** vary in their level of burnout.

Addressing burnout and improving the experience of leadership and staff—and ultimately improving the quality of care available to patients—are multifactorial and dynamic, requiring involvement of organizational leadership and staff to improve staff well-being, and reduce turnover. As noted in the [McKinsey Health Institute "Addressing employee burnout: Are you solving the right problem?](#)" literature and guidance for reducing burnout are clear: burnout must be combatted at the systems or organizational level to be effective.[25] Employers that focus solely on individual-level interventions (e.g., meditation, self-care initiatives) target symptoms of burnout rather than the cause.[26] These types of interventions do not have a long-lasting, sustainable impact. Reliance on individual level interventions may lead employers to overestimate the impact of their wellness programs and benefits.[27]

It is also necessary to identify systemic issues on the HRSA supported health center landscape that further compound burnout factors. These include: workforce shortage, budgetary considerations, payer requirements, and systemic inequities.[28] For example, payers may have different and changing regulations and requirements. Constraints from outside of the organization may require a change of requirements fitting the health center's needs. Systems changes are challenging and require substantial time; therefore, a focus on health center-level interventions may be optimal.

Job Satisfaction

The HRSA Health Center Workforce Well-being Survey results point to the following drivers as having the most significant association with job satisfaction: **organizational culture, professional growth, workload, and meaningfulness.**

As a primary driver in job satisfaction, organizational culture was particularly impacted during the COVID-19 period, with changes to hybrid and remote work, trauma of staff in caring during times of uncertainty, and multiple stresses at individual and organizational levels .[29] Given that, organizations are now examining how their culture shifted and ways to enhance or rebuild intentionally. Needs and opportunities for professional growth are more actively articulated and demanded by staff. This is a change seen during the COVID-19 period where job competition allowed employees to demand that their employers support their needs and development at higher levels.[30]

Other research from Flowers and Hughes[31] defines the components of job satisfaction as achievement, recognition, responsibility, growth and motivation for the job. Flowers and Hughes's research also uncovers the relationship between satisfaction and intention to stay in a position. They identify the relationship between external factors (e.g., job market, ties to the community) and how they interplay with satisfaction to determine intention to stay. They then differentiate how these external factors drive intention to stay based on managerial versus other types of positions.

Engagement

Results from the HRSA Health Center Workforce Well-being Survey demonstrate that staff with high engagement are those who **experience low moral distress, see high meaningfulness of their work, feel their team works well together, find health center processes helpful, have good work life balance, and get more recognition for their work**. Additionally, **demographic characteristics** appear to influence level of engagement. Higher engagement was seen in Hispanic, and Black non-Hispanic staff; older staff, and newer and

middle tenure staff. These latter characteristics will help target the interventions, and inform the most effective delivery modalities.

Throughout the literature on employee engagement, the same themes emerge. Primarily, engagement should not be viewed as a Human Resources issue. Instead, a program of engagement should permeate throughout the organization, requiring commitment of engaged leadership. It also does not have to be a grand undertaking. In fact, studies have shown that merely increasing salaries and benefits does not move the engagement needle. According to a recent survey by Gallup (How to Improve Employee Engagement in the Workplace, 2023),[32] staff needs more than a fleeting, warm-fuzzy feeling and a good paycheck (even if it helps them respond positively on a survey) to invest in their work and achieve more for the organization. People want purpose and meaning from their work. They want to be known for what makes them unique. This is what drives employee engagement. They also want relationships, particularly with a manager who can coach them to the next level.

Work by Lytle[33] identifies key factors that impact staff engagement. These include understanding what is meaningful and important to staff; supplying the right tools (i.e., having an enabling infrastructure); giving individual attention; providing teaching and coaching; listening to staff; getting social; serving others; and recognizing staff proudly and loudly.

Intention to Stay
Results from the HRSA Health Center Workforce Well-being Survey demonstrate that Intention to stay is influenced by perceptions of their jobs including **professional growth, work life balance, meaningfulness, compensation and benefits, and moral distress**. Intentions also differ for staff based on demographic factors such as **age, tenure within the organization, role within the organization, and educational background**. It is particularly important to understand the predictors associated with employee departure in HRSA supported health centers to increase employee longevity and reduce overall costs of high turnover and subsequent recruitment.

Traditionally, research and human resource practice in HRSA supported health centers have focused on recruitment, staff turnover, and retention of staff. More recently, the retention focus has shifted to intention to stay or leave. While these terms are still used interchangeably, the predictors of this measure lie in the organization's ability to adapt to the environmental market—particularly post-COVID-19, and to respond to market shifts.

Interventions to address the intention to stay should merge the concept of the stages of workplace growth with factors that influence the intention to stay that are ranked as important in the HRSA Health Center Workforce Well-being Survey such as age, tenure, professional growth, work life balance, meaningfulness, compensation and benefits, and moral distress.

Clearly this is not an issue for human resources alone. HRSA supported health centers need to consider how staff is recruited, hired, engaged, and included as part of their organizational design. Interconnectivity becomes an important factor for engaged staff. Interconnectivity is advanced by identifying and promoting opportunities for staff to experience personal and professional growth in this field, including learning about other aspects of or departments in the organization. Staff feel better-connected when their work

provides a meaningful way to support, not just themselves, but also the organization or the community. Organizations can further this interconnectivity by promoting an environment where staff are proud of their work and the organization and serve as ambassadors. Creating an inclusive culture fosters a workplace environment where all staff consider diversity, equity, and inclusion as part of an organizational value and a learning process that feels authentic to staff.

Integrating Interventions across the Workplace Lifecycle

When considering interventions based on outcome data, it is important to consider the overall tenure of an employee and the evolution of employment at any organization. In this section, JSI considers workplace well-being evolution in concert with 'job embeddedness theory."[34] Job embeddedness has key elements: the extent to which people have links to other people or activities at work and the extent to which their jobs and communities are similar to or fit with other aspects of their lives. When considering interventions, consideration should be given to how people work, what makes them feel good about their work, and how they connect with others to gain a sense of belonging to the organization and work.

A few key themes to keep in mind during implementation of interventions at any stage of staff's work experience[35] include:
- Ongoing leadership endorsement of and engagement in interventions is essential.
- Change is more successful when staff are central in strategy development and implementation.
- Staff with diverse backgrounds and experiences from a wide range of clinical and non-clinical roles should be engaged.

To that end, a successful organization must have a leadership team that creates a safe environment for all team members to participate in authentic solutions. Leaders and team members will also assess the extent to which communities of color and other minority groups are formally recognized as key stakeholders in organizational decision-making. To avoid additional burnout, organizations need to provide supervisor support and appropriate time allowances outside of a staff member's regular duties. The design of any organizational taskforce, whether fluid or permanent, should be considered. Some organizations have created wellness offices and/or officer positions to implement a more formal structure.

There are five phases of the workplace lifecycle for an engaged employee who intends to remain employed or committed to a HRSA supported health center.[36,37] Intention to stay, burnout, engagement, and job satisfaction can be disrupted in any of these five stages, making the case for a strategic plan to keep staff engaged at every stage of work life.

Figure 5.1. Workplace Lifecycle

WORKPLACE LIFECYCLE

RECRUIT	ONBOARD	DEVELOP	RETAIN	OFF-BOARD
Recruitment of human capital is the organization's most important asset! Recruitment includes the pre-employment process to assist with hiring decisions such as screening during the interview and understanding how the candidate's skills and aptitudes align with job expectations.	A comprehensive onboarding process is critical to fostering a sense of staff belonging and provides mentoring and support throughout the first weeks and months of employment.	Developing individual employees is good for both the individual and the organization. Work-based learning can advance both the individual's commitment to the organization and the organization's ability to commit to diversity, equity and inclusion. Foster an environment where learning is a part of every employee's work each day to reinforce upward progression of skills that help advance a career.	The feeling of being taken in and accepted as part of the culture of an organization is a key factor in employee retention. Belonging is a critical piece of diversity, equity and inclusion.	Offboarding is the process of transitioning former employees out of the company. The process should help your company grow and improve and help ease the transition from one employee to the next.

Conclusion

Employee well-being is important for any successful health center. With the post-pandemic timing of this study, JSI acknowledges that community health center staff were deeply affected by the last three years and that workers' value of their own time and talents may create new opportunities to learn about work life balance. These issues were and remain at the forefront for engaged employees, and, while issues of job satisfaction, burnout, engagement, and intention to stay are important issues unto themselves, it is clear all are interrelated.

The HRSA Health Center Workforce Well-being Survey is in alignment with the U.S. Surgeon General's advisory on building a thriving health workforce and supports HRSA's strategic goals to promote access to and quality of care for patients and increase health center workforce recruitment and retention. The survey provides a critical baseline understanding of the state of workforce well-being at health centers across the nation. Findings from this report identify areas of improvement to guide future efforts; to direct resources, including training and technical assistance; and to monitor improvements over time. In 2023 and beyond, it is critical to the success of the community health center movement to build a supportive and inclusive workplace culture. Workforce well-being is an ever-evolving field that will require resources, prioritization and training that support the success of each worker who in turn supports the success of the health center.

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Appendices

Appendix I. Detailed Methods

Survey Development Process

Development of the HRSA Health Center Workforce Well-being Survey comprised multiple sequential processes including: an initial environmental scan and extensive literature research on the components of job satisfaction and burnout; direct input from health center staff through a series of listening sessions; a draft of the survey and multiple iterations of critical review and feedback by HRSA; input and review from subject matter experts convened as a technical advisory panel (TAP); testing of the survey measures through cognitive interviews with a sample of health center staff; pilot testing of the survey instrument and administration strategy; and developing the final survey and survey administration plan. Figure A1 outlines the processes involved in developing the survey.

Figure A1. Recruitment and Implementation Process
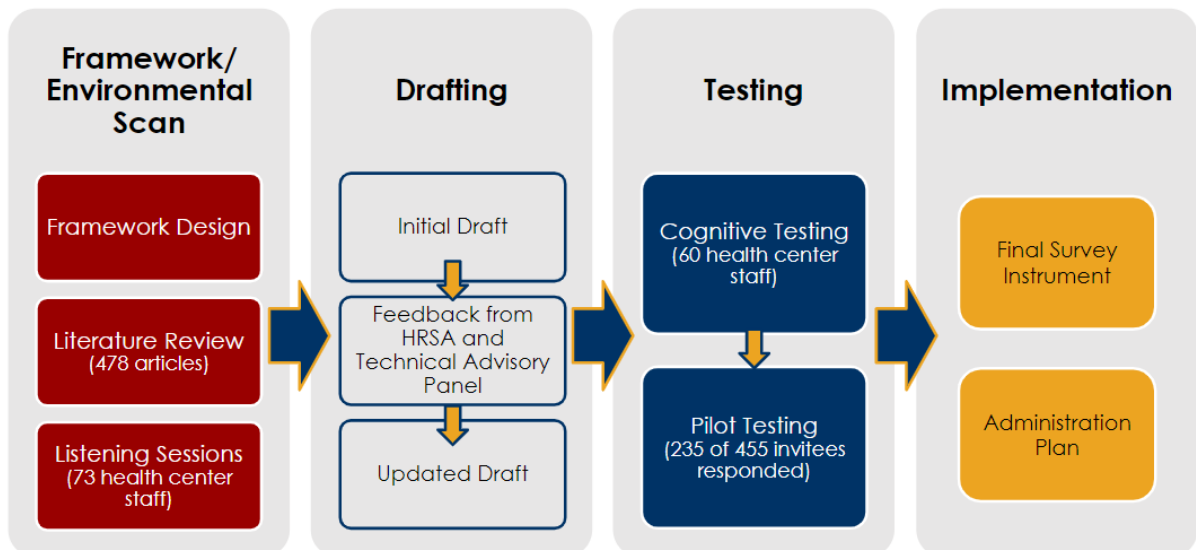
Framework Design: Conceptual Model to Guide Survey Development for Health Centers

JSI adopted a conceptual model developed by the Mayo Clinic to guide the literature review. The adaption was based upon an initial environmental scan of prior national studies on the workforce and JSI's own experience with workforce-related projects. Input on the initial draft of the conceptual model was solicited from the TAP and HRSA project leaders. This initial Well-being Conceptual Model (Figure A2) was used to define terms and concepts to structure a review of literature on burnout, job satisfaction, and factors that influenced these outcomes.

Figure A2. Well-being Conceptual Model

Mayo Clinic Model Crossover with JSI Conceptual Model

Workload and job demand
- Workload/ job demands/ work content

Control and flexibility
- Job stress/abuse/ mistreatment
- Decision latitude

Social support and community at work
- Social support/ coworkers/ work community

Work life integration
- Work life integration/ balance

Individual consequences
- Burnout/depersonalization
- Job satisfaction
- Engagement/personal accomplishment
- Intention to turnover
- Substance misuse
- Depression
- Suicidal ideation
- Employee QOL

Meaning in work
- Importance/ meaning of work/ mission orientation/ psychological empowerment/ personal growth

Efficiency and resources
- Workflow/resources
- Administrative burdens
- HIT
- Training

Organizational and cultural values
- Management
- Team structure
- Workplace culture/ cultural sensitivity/ diversity/safety culture
- Psychological safety
- Moral distress

Organizational consequences
- Absenteeism
- Quality of care/ patient safety
- Patient satisfaction
- Turnover rates
- Replacement costs
- Lower productivity

Literature Review

The survey development process involved screening 1,284 articles with a full review of 478 articles, reports, and surveys related to burnout and job satisfaction. The literature review was meant to:

- Identify validated measures on the central concepts of burnout and job satisfaction
- Identify factors that influence burnout, engagement and job satisfaction, and measures of these factors relevant for health center staff
- Identify best practices and innovations to improve staff satisfaction and engagement and decrease burnout

The literature review began with a critical evaluation of recent national studies and reviews on burnout and job satisfaction and utilized a conceptual model/framework to inform a

more targeted literature review. The team identified publications and reports for review from peer-reviewed sources and other sources with scientific integrity. Searches were conducted using multiple databases (e.g., Medline/ PUBMED, CINAHL, Web of Science, PsychLit, ABI/INFORM), the National Library of Science, conference proceedings, and program evaluation reports.

The final framework integrated JSI's Well-being Conceptual Model and the Mayo Clinic's Drivers of Burnout and Engagement framework[17] for research on workforce well-being. Based on the Mayo Clinic model JSI identified and grouped "workplace factors" in our original conceptual model and identified through the literature review seven major groups of "drivers" of burnout:
- Workload and Job Demands
- Control and Flexibility
- Social Support and Community at Work
- Work Life Integration
- Meaning in Work
- Efficiency and Resources
- Organizational and Cultural Values

Listening Sessions
Building on the literature review, JSI conducted listening sessions to elicit health center workforce and leadership perspectives and experiences on the causes, impact, and extent of job satisfaction, burnout, and workforce well-being. This feedback supported factors already identified through the literature review and helped to refine the survey questions to be reflective of the health center workforce experience. JSI identified and selected 73 health center staff across a range of health center positions, representing health centers in all regions of the country. A $100 gift card incentive was offered to health center staff for their participation. Six sessions were hosted grouped by staff categories: (1) medical, dental, vision, and pharmacy, (2) behavioral health, (3) clinical support and enabling staff, (4) quality improvement, (5) facility and non-clinical support staff, and (6) leadership. To ensure inclusion of the full range of occupations within a health center, JSI used workforce information from HRSA's Uniform Data System (UDS) to group participants for the listening sessions. JSI aimed to include staff with similar roles, responsibilities, and healthcare disciplines in each group. Groups had 10-12 participants, allowing the sessions to feel personal and to promote engagement and participation throughout each session. Each session involved 90 minutes of discussion, with participants responding to questions about burnout, job satisfaction, and interventions to improve satisfaction and reduce burnout. Due to COVID-19, all listening sessions were held virtually via the Zoom video conferencing platform. Sessions were coordinated and facilitated by JSI staff.

Measure Selection
JSI implemented an iterative process to identify and select the specific measures to incorporate into the first draft of the survey. The goal was to choose the most effective yet efficient measures to capture all of the key concepts. Overall, the target for the survey instrument was to include measures of the two central concepts—burnout and job satisfaction—as well as efficient and reliable measures that drive these two central concepts. The survey instrument also included demographic and occupational characteristics, as well as measures of individual and organizational consequences of burnout and job satisfaction.

The decision on which measures to use in the survey included a balance of several potentially competing elements: how important the concept was as it relates to burnout and/or job satisfaction; the number of questions used to assess each measure; whether the current wordings could be used for all health center staff, or whether some modifications might be justified; whether the wordings of the measure used language specific to the health center work environment or used more generic workplace wordings; the psychometric properties of the measure (e.g., reliability, response distributions); and the cost of using the measure. JSI also considered whether there were national benchmarks for the measure. Once a draft was completed, JSI solicited input and feedback from the TAP members and HRSA staff. An initial draft of the survey was designed to be approximately 30–35 minutes in length and was used during cognitive testing.

Cognitive Testing

Cognitive interviewing (CI) was conducted by the Center for Survey Research at the University of Massachusetts Boston, a subcontractor with nationally recognized expertise in CI. Their objective was to identify any potential problems with the survey question wording and to ensure that respondents had a clear understanding of the questions and, therefore, could provide meaningful and valid answers. Participants were recruited from a broad range of HRSA supported health centers beginning in late April through May 2021. Similar to the listening sessions, recruitment focused on a range of occupations within health centers. Respondents were asked to complete an online survey through Qualtrics (a federally-approved survey tool) and later were asked to provide feedback on their experience with the survey through interviews. A $100 gift card incentive was offered to all respondents for their participation. Because the full survey was long and consisted of several scales that had been used in other surveys, the cognitive testing focused on a limited number of survey questions and asked several overarching questions about the survey length, format, and reasons people might or might not take the survey. All interviews were conducted through Zoom and lasted about 60–90 minutes. A total of 60 CIs were completed by three interviewers. Interviewers followed a semi-structured protocol that reviewed specific survey questions with the respondent and asked follow-up probes to help assess how the questions were understood and how respondents formed their answers. With respondent permission, Interviews were recorded; interviewers were able to use the recordings to help with their review. Interviewers completed a short summary after each interview with key highlights or problems. A final debriefing was held with the interviewers at the end of the CIs to review their recommendations and findings. This information was then used to refine the survey instrument to be used in pilot testing.

Phase 1 Pilot Testing

During the survey development phase, the survey was piloted with 400 health center staff and administered online using Qualtrics. Participants were recruited across health centers nationwide that had volunteered to participate in the pilot survey through existing relationships between health centers, HRSA, and JSI. JSI evaluated two recruitment and data collection strategies. In the first approach, health centers were provided with a link to the online survey that they were asked to send to a list of potential respondents through their email system. In the second approach, health centers were asked to upload a list of emails of potential respondents into the survey distribution system allowing invitations to be sent and monitored through Qualtrics. Large health centers were asked to invite approximately 40 staff from various UDS role categories, and small health centers were asked to invite approximately 20 staff in various roles to complete the pilot survey. Health centers were asked to select participants from each UDS category including medical;

dental, vision, and pharmacy; behavioral health; clinical support and enabling staff; quality improvement, facility, and non-clinical support staff; and leadership. Both methods allowed for response rate comparisons. Respondents were allowed to complete the survey over a one-month period.

In the first approach JSI provided a standard recruitment email for health centers to distribute to the staff they invited for pilot survey participation. The email included a description of the project and pilot survey; a link to the pilot survey specific to the health center but not to the individual employee; instructions for completing the survey; and an informed consent document. A respondent's participation in the pilot survey served as their agreement to the informed consent document. In this approach, the health center was responsible for distribution and follow-up of the survey link, and JSI did not know the final number of staff invited. Furthermore, the survey needed to be completed in one sitting, as IP tracking was not practical due to shared computers within the health center. JSI provided suggested language for three email reminders for health center leadership to send to participating staff in the following succession: first reminder, three to five days after launch; second reminder, six to 10 days after launch; third reminder, 10 to 14 days from launch. However, this method did not allow JSI to accurately track which reminders were sent to staff.

In the second approach, the health center director (or designee) received a link to a form allowing them to specify employees being invited by entering email addresses for all eligible staff. These emails were entered into the Qualtrics system, which sent out an invitation similar to the one sent in the first approach. However, the invitation did not come from the health center. The email invitation made it clear that JSI—and neither HRSA nor the health center leadership—tracked whether a survey response was received from each invitee. It noted that responses were not associated with the email used for the invitation or otherwise connected to the identity of the respondent. Email reminders including the staff-specific survey link were sent to staff in the same timeframe as the first approach.

The results from the two different approaches showed advantages and disadvantages of each. The health center director-initiated model resulted in better response rates than the JSI-initiated model (64% vs. 39%) but had higher concerns about confidentiality (10% vs. 6%) and higher concerns about the survey being very long (20% vs. 12%). This perceived lengthiness was perhaps connected to the structural problem that general links to the survey did not allow staff the ability to pause the survey and return to where they left off, which was not true of the JSI-initiated approach, which used unique links to the survey for every staff invitee.

Given these results, JSI decided on an approach that blended elements of both. JSI would send out survey invitations including the name of the health center director as well as a unique survey link for each staff member. Reminders were then sent only to those who had not yet responded. Health center directors were asked to notify staff of the health center's intent to participate, and also to send an alert to all staff the day before the survey launched. About 10 days post-survey launch health center directors were asked to send out an encouraging reminder to all staff asking them to fill out the survey if they had not yet done so.

The pilot test results were also used to make refinements to the survey questions and the overall survey administration plan, including any needed changes to technology and data collection processes. It also provided preliminary data on the prevalence of burnout and job satisfaction in healthcare centers, as well as factors contributing to workforce well-being.

After the Phase 1 pilot test, it was discovered that the Qualtrics survey did not satisfy Section 508 compliance. JSI determined that the Qualtrics platform would not be able to support a 508 compliant survey in the timeframe needed. Survey Analytics, an alternative 508 compliant platform, was selected for the Phase 2 pilot testing and for the national survey.

Phase 2 Pilot Testing
Purpose of Pilot Test
Phase 2 pilot testing provided a final test prior to the national rollout of the survey to health centers. The pilot survey process identified any potential technical problems with the administration of the online survey software (Survey Analytics), ensured that the questions successfully captured information on factors that impact workforce well-being including burnout and job satisfaction, and gauged health center staff willingness to participate in a voluntary survey with no explicit incentives. The pilot survey was completed by 102 staff in various job categories from 37 health centers across the U.S. Staff who participated in the pre-launch pilot were given the option of indicating if they wanted their pilot survey response to be used as their response to the national survey.

Recruitment Overview
JSI contacted a diverse group of health centers that represented a range of geographical locations, sizes, and rural/urban focus to recruit for the pilot survey. Many of the health centers that were asked to join had participated in survey development activities or were known to JSI staff through previous health center work. JSI staff sent a recruitment email to health center contacts that described the purpose and details of the pilot survey, and sought to gather emails of potential staff participants. Once health center leadership had agreed to their health center's participation, leaders (or their designees) provided email addresses of six staff from a range of occupations to assess willingness to participate from different types of health center occupations. Health center leaders uploaded staff emails into a secure Alchemer survey software link, which allowed JSI to gather the nominated staff emails. The email addresses were then loaded into Survey Analytics, the online survey software system, for an invitation email to be sent. JSI also asked that the name of the health center leader be referenced in the email survey invitation to promote staff confidence that the request was legitimate. Health center leaders were also asked to notify staff members that they had been nominated to participate in the pre-launch pilot.

Participant occupations included staff from medical; dental, vision, and pharmacy; behavioral health; clinical support and enabling staff; quality improvement, facility, and non-clinical support staff; and leadership.

Programming, Internal Testing, Script Development
Once programmed into Survey Analytics, the survey instrument was internally tested by JSI staff to ensure that all elements were functioning correctly. This included testing various pathways through the survey, varying occupations, a second position at the health center, interactions with the electronic health record (EHR), and representation of a range of demographic characteristics.

Invitations, Follow-up, and Response Building

Email invitations were sent to nominated health center staff over 20 days in May 2022 and included reminder email notifications. The email stated that the health center director nominated them to help test the national survey before rollout. The email included the purpose of the survey, instructions to complete the survey, and information about confidentiality. The invitation made it clear that JSI, the contractor—not HRSA or the health center—would track whether a survey response was received from each invitee and would ensure that responses would not be associated with the email used for the invitation or otherwise connected to the identity of the respondent.

The survey link embedded in the email was unique to the individual and the health center from which the staff member was nominated. This allowed the respondent to return to a partially completed survey from any computer using the same link and permitted JSI to conduct individual follow-ups with those who hadn't responded. The system tracked whether a completed survey had been received for each unique code, and after three to five days a reminder email was sent out to all those who had not yet completed the survey. A total of three reminders were sent to staff who had not completed the survey within the survey administration period.

In addition to Survey Analytics invitations and reminders, JSI asked health center directors to send emails directly to nominated staff promoting staff participation. JSI provided suggested language to health centers leaders for all requested survey encouragements. Many, but not all, health center leaders confirmed sending the promotional emails to staff. The emails included an alert before the pilot test launch, advising the six staff that they had been nominated to take the survey. A second email was sent to alert staff that the pilot survey would be launched the following day. This email told staff to look for the invitation email; that the link to the survey is valid; that it only works for them; and their individual answers will not be shared with either the health center or HRSA. After about 10 days, the director was asked to send out a "last call" appeal to all nominees to encourage them to fill out the survey. When the data collection was completed and responses exported, individual email information was deleted from the saved response data set, thereby making individual staff identities confidential in the final data.

The respondent's participation in the pilot survey served as their agreement to the informed consent statement included in the opening pages of the survey. Additionally, pilot survey participants were informed that their responses to the pilot test could be transferred to the national study to avoid repeating the survey during the national launch. During the national launch, the pilot survey participants were contacted and asked whether they would like to retake the survey or whether they did not want their survey results to be included in the national data. If the participants did not specify, their responses were included in the national data.

Assessment of Pilot Test Results

Along with direct feedback from participants, response rates, and Survey Analytics data, JSI held one-on-one informational interviews with health center leadership that participated in the pilot survey in order to gain insight into the following indicators used to evaluate the survey, survey questions, online survey platform, and survey process to ensure a smooth national rollout.

1. **Provided context to evaluate potential staff participation in the national survey.** JSI asked a series of closed-ended questions at the end of the pilot survey to gauge acceptability of the length/burden of responding to the survey; the perceived usefulness of the information being collected; and the respondent's confidence that their information will be kept confidential. Responses to these questions indicated that, overall, the survey length was acceptable and the information being collected was thought to be useful, though there were slight concerns regarding confidentiality. In response to these concerns JSI strengthened the informed consent section stressing the Certificate of Confidentiality; added reminders of the intention to delete specific job titles from the final survey data set; and added additional reminders of confidentiality at the beginning of the demographic section, adding an explanation of how this information would be used analytically.

2. **Determine problems with the survey technology.** Through the pilot process JSI was able to identify process improvements to improve the national rollout. In the invitation email, JSI provided a support line email link and phone number that participants could use if they had trouble logging in, completing the survey itself, or if they had questions about the content of the survey. There were few survey participant support line emails or calls but this resource was retained for the national rollout.

3. **Tabulate response rates.** JSI tracked response rates of invited staff based on health center and overall survey invitations (56.9%). This allowed JSI to create a process for comprehensively tracking response rates for the national survey.

4. **Determine further survey instrument modifications.** (1) The pre-launch pilot testing was set-up to determine if there were any questions that respondents declined to answer at unacceptably high rates (greater than 2% answers not given on any particular question), since in the first pilot some demographic variables had high missing data. The pilot survey determined that this did not occur, demonstrating the success of additional emphases on confidentiality, therefore, no questions were removed or modified for this reason. (2) JSI checked for questions that did not produce acceptable levels of variation in answers (e.g., greater than 80% giving one answer choice). Variability in answers is important because, to do analyses that look for average differences between groups or correlational analyses, variables must have a certain degree of variability. If respondents give the same answer, there is no reason to test for group differences, and all correlations with that variable will be zero or extremely low due to ceiling effects. No question answers failed to provide meaningful variation.

5. **Determine administration issues to be addressed.** The pilot test: (1) provided a measure of voluntary response rates (56.9%) in the absence of any explicit incentives; (2) provided evidence of the proportion of survey participants who respond to a reminder message to complete the survey; (3) provided the number of respondents who failed to complete the survey after beginning it (relatively few stopped early), and at what point in the survey they stopped; (4) assessed staff's abilities to use the web address of the survey software; (5) provided an opportunity to test any problems with storing the data in the cloud or downloading the information for analysis purposes; and (6) provided a measure of the average length of administration of the survey (25 minutes), as well as lower (15 minutes) and upper bounds (35 minutes) of time to complete it. Once again, the pilot test provided an opportunity to ask a few questions about participants' reactions to the survey—including perceived length, perceived usefulness of the information, perceived willingness of health center staff in general to participate in the future rollout of the survey and confidence in the privacy of their individual answers.

6. **Firewall allowance issues.** The pilot was intended to identify problems with health center firewalls. The issues identified led to efforts to have health centers whitelist the email source. This also led to a 100% test email distribution before the national launch.
7. **To prepare for analyses, the survey data was downloaded, in encrypted form, to the JSI secure server.** This server is separately secured from JSI's corporate network servers and is used for Personally Identifiable Information (PII) data. Access is assigned separately by project and is accessible only by designated JSI project staff. For the pilot survey, all respondent answers were kept confidential and disassociated with the respondents' emails. A Certificate of Confidentiality was granted to assure that JSI cannot be compelled to divulge individually identifiable data. JSI and HRSA verified that survey data files could be transferred securely using an end-to-end encrypted transmittal function after the pilot survey was completed.

Health Center Recruitment and Engagement
Health center identification and recruitment began with establishing the universe of eligible health centers. HRSA determined that all Health Center Program award recipients and Look-Alikes (LALs) would be included in the potential pool of respondents. This included a total of 1481 health centers spanning all 50 states and U.S. territories.

To effectively contact and engage the 1481 health centers, a team of 47 Health Center Liaisons (Liaisons), composed of JSI staff familiar with health center work, was established. Liaisons played an essential role in encouraging and supporting health center participation in the survey. While the role shifted over time as the team moved through project phases, the overarching purpose was to serve as a continuous and central point of contact with their assigned health centers and to secure their commitment and full staff participation in the survey.

Liaisons were responsible for serving as central points of contact with assigned health centers and recruiting and engaging health center leadership by:
1. Explaining survey's purpose and benefits
2. Providing ongoing support (information and resources)
3. Answering questions and addressing concerns
4. Using clear, vetted, standardized messages to effectively perform the above tasks
5. Tracking communications with health center leadership/staff
6. Tracking health center preparations by requesting points of contact (IT, HRSA Health Center Workforce Well-being Survey contact) and staff email lists
7. Informing the health center contact of participation status

Liaisons were assigned a group of up to 49 health centers. To keep the assignment as geographically consistent as possible, Liaisons were assigned U.S. states or territories. States with larger numbers of health centers were assigned to multiple Liaisons. Liaisons attempted to engage with one central health center leader or administrative staff person at each assigned health center. They also tried to secure commitment of health center participation in the national rollout of the survey using marketing and communications material prepared for all stages of the health center recruitment and engagement process.

Strong marketing and communication messages were utilized throughout the recruitment and engagement process, led by JSI and supported by partner organizations and HRSA. Marketing and communications were comprehensive and included the following phases and documentation:

Phase 1: Initiate engagement with health centers (May–June 2022)
Communications in this phase included:
- Introduction email and invitations to participate in the survey to all assigned health centers
- Follow-up emails which included FAQs to health centers who had yet to respond
- Thank you emails to participating health centers
- Phone calls to health center directors to explain the request, answer questions, and obtain commitment of engagement
- Additional emails and calls as needed to address specific issues raised by health centers

Phase 2: Provide support to health centers as they prepared to launch the survey (June–November 2022)
Communications in this phase:
- Confirmed health center responsibilities and summarized the type of information needed (i.e., primary contact, IT staff contact and firewall clearance), and staff emails
- Requested IT firewall clearance, confirmed contact information, and uploaded emails of eligible staff
- Requested that health center leadership alert staff of the health center's intent to participate in the national survey
- Provided promotional strategies to encourage staff participation

Liaisons also provided participating health centers with a Health Center Leadership Engagement Toolkit. This toolkit included marketing and communications to share directly with their staff including email templates, newsletter and social media content, promotional materials, key messages, FAQs, and tips and techniques to successfully increase staff involvement.

Phase 3: Support health center staff participation in the survey (November 2022–February 2023)
Communications in this phase included:
- Emailed reminder to the health center leadership about the survey launch
- Confirmed receipt of email lists and provided survey response status
- Continued review of response rates and provision of additional strategies to encourage further staff responses
- Emailed communication about closeout and next steps

Central to Liaison communications was to provide health centers with an understanding of the importance and benefit of this effort, clear and standardized communications, routine completion rate updates, and strategies for encouraging responses from all staff. Liaisons expressed their appreciation of health center engagement and respect for their time, and provided closure and next steps.

HRSA and PCA Engagement
HRSA and Primary Care Associations (PCAs) played important roles in recruiting and engaging health centers. HRSA distributed pre-launch communications including a HRSA

administrator letter and HRSA Primary Health Care Digest Posts encouraging health center sign-up and participation. Post-launch, HRSA encouraged health center staff participation through three HRSA Primary Health Care Digest Posts, a promotion video by Office of Health Center Investment Oversight Director Suma Nair, a Today with Macrae segment dedicated to the survey, and BPHC technical assistance webinars. State and regional PCAs engaged with health centers within their purview by promoting survey participation directly to health center leadership at several points before and during survey administration. JSI provided updated health center participation and response rates to the PCAs.

Contact and Engagement Tracking System
JSI used Salesforce to monitor and coordinate the interactions between JSI, Liaisons, and health centers and the level of effort being put forth in order to maximize response rates. Salesforce captured relevant indicators supporting pre-launch engagement with the purpose of increasing response rates during active survey administration. Indicators included health center characteristics, engagement status, communications for pre-launch instructions to support survey administration (e.g., receipt of staff emails, spam-blocking communication checks), feedback of response rates to health center leadership during survey administration, and other relevant information to support health center engagement with the survey. Liaisons referenced and updated this information throughout the pre-launch, launch, and post-launch activities and after each encounter with health center leadership. Salesforce allowed Liaisons to easily access their assigned health center information and capture encounters. It supported project management oversight on health center engagement and ongoing communications; tracked the process and status of engagement and follow-up with health center leadership; and documented the timing of contacts made. The system provided response tracking, allowing the profile of each organization's response to be directly accessed. Salesforce reports were made available to project management and Liaisons as a method for monitoring the engagement status of all health centers. The reports allowed the Liaisons to easily and quickly view which of their assigned health centers required follow-up.

Engagement and Onboarding
Staff Invitation Form
The universe of surveys collected was to be based on the list of staff emails provided by the leadership of each health center in advance of launching the full survey. Pre-recruitment, JSI estimated that this could involve as many as 400,000 email addresses. Thus, it was important to make the process as least burdensome as possible for health centers.

With this in mind, JSI developed a web-based health center "staff invitation form" for participating health center leaders to provide their lists of email addresses. The individual completing the form first selected their health center organization from the list of 330-funded or LAL organizations. Based on results of the Phase 1 pilot, JSI recognized that a health center leader making the invitation was associated with a higher response rate. As such, the form provided fields to note the name, title, and email address of the health center leader who would be extending the invitation in the initial email.

To minimize the effort of providing email addresses of staff, the form's interface provided a single long-format text field into which the health center leader could paste a block of text containing email addresses for all staff. For very large organizations, or those that have their emails organized into a structured table, a scripted Excel file was made available to complete and upload. The Liaisons provided the link and instructions to the invitation form

when onboarding the health center. They also asked for the contact information of the person who would provide the email addresses, if different from the main contact. Health center leaders were asked to include only current health center program funded staff in the lists they provided.

Health center leadership was assured that the email addresses would be handled in a secure encrypted environment, used only for the survey, disassociated from the final results, and not kept beyond the data collection phase of the project.

Email Parsing and Verification
The collected emails, if submitted in text blocks, were processed to parse the text into individual email records. Because the structure of emails is relatively prescribed (local_part@domain_name), and general restrictions on spaces and certain characters are applied, it was possible to identify emails even if they were separated by different types of characters. The resulting email records were saved in a file that associated the email address with the submitting health center and the leader identified as making the invitation.

Email address information underwent internal validation to assure that there were no duplicate addresses within or across organizations. The number of addresses submitted by each organization were counted and aggregated as an attribute of each organization.

De-Identification and Preparation of Survey Base List
Prior to launching the data collection effort, the collected emails were uploaded to Survey Analytics, along with HRSA approved email invitations and reminders that were to be used in automated email communications. This allowed the system to send the initial invitations and conduct any automated follow-up to non-responders. To avoid any further association of responses with the underlying email address, a unique code was generated for each email address and used in all tracking of the response. Furthermore, a separate code was developed for each health center, to be used in place of the actual grant number to prevent the unique job title or characteristics of a respondent from being tracked back to their organization without the use of a crosswalk reference. The code was tightly controlled by appropriate JSI team members.

Pre-Launch Email Test
To further test the email addresses obtained, and to help avoid any preventable complications during the survey launch, a number of steps were taken to assure that the addresses were valid and to test that the email could get past health center firewalls. A test email was sent to all the staff email addresses provided which asked the recipient to click on a link that the email was received. Health centers were also asked to 'whitelist' the email address from which the surveys originated to assure that the invitations and other communications from the survey system would not be blocked by spam filters. Though this was often done up-front and confirmed by Liaisons, there still were various firewall issues that prevented some health center staff from receiving survey related emails. JSI worked one-on-one with these health centers to try and work past these problems. Health center leadership were also asked by Liaisons to alert their staff to the upcoming email invitation. Suggested language was provided in the Health Center Leadership Engagement Toolkit.

Survey Administration and Monitoring
Survey Launch
Administration of the HRSA Health Center Workforce Well-being Survey was conducted between November 28, 2022 and February 15, 2023 following OMB approval. JSI began the survey administration process by sending HRSA Health Center Workforce Well-being Survey invitation emails to all staff whose emails were provided by health center leadership, excluding deactivated emails discovered through the test email process. The email invitations came from Survey Analytics, the survey software system, and included an embedded unique link for each invited respondent along with instructions for completing the survey and confidentiality assurances. Unique survey links permitted tracking of whether someone had responded or not, prevented respondents from filling out the survey twice, and enabled staff to interrupt filling out the survey and return at a later time to the section where they left off, even if using a different device, to complete the survey. The links also enabled follow-up reminders to be sent at specified intervals for those who had not responded. Based on feedback from the pilot survey process, where the response rate was higher when sent by the health center director, the email invitations referenced the name and title of the health center leader as the individual that agreed to health center staff participation. The identity of this individual was collected earlier by the Liaisons. The purpose of this approach was to improve the acknowledgement that the email contained a link to a valid survey and that the health center leadership supported responding.

Cohorts of Invitations
It was important that issues or questions experienced by a respondent did not interfere with an individual's ability and willingness to complete the survey. To maximize the availability of support resources and the timeliness of the response by the support team, JSI released the survey in 'cohorts' of health centers, staggered daily across three weeks. A total of 17 cohorts were released. This included initially unscheduled cohorts (cohorts 15-17) due to outstanding firewall issues at the beginning of survey administration. Each cohort contained health centers within one or multiple states, depending on the number of participating health centers within a state and state size, or across U.S. territories. The cohorts, established in advance of the survey launch, allowed for a more predictable and balanced schedule and workload. The timing of survey cohort invitations was recorded in the survey platform (Survey Analytics) and health center tracking system (Salesforce) in order for follow-up to be done in an automated, consistent and timely manner. The response tracking dashboards in Salesforce were able to show current response rates which were used by the management team and Liaisons to update HRSA and health center leadership, and to strategize additional messaging to improve response rates.

Follow-Up Reminders
JSI sent reminders at approximately five, 10, and 15 days following the initial contact (based on cohort timing) and a closing date notification a few days before survey close which served as a "last chance" reminder. The reminder content emphasized the importance of the initiative, usefulness of each staff member's perspective, confidentiality, and the impact on the validity of the data based on staff participation. Each reminder included the respondent's unique survey link.

In addition to the JSI survey reminders, at approximately 10 days post-launch, health center leaders were asked to send emails (suggested language provided by JSI) to all staff encouraging those who have not yet completed the survey to do so within the next week. Liaisons also provided strategies to health center leaders to encourage staff participation

such as dedicating staff meeting time to complete the survey, sharing response rates and setting goals for participation benchmarks. During the survey collection process, Liaisons provided feedback to each health center's leadership regarding the progress of their staff's response. This feedback was intended to be motivational for health center leadership to be actively engaged in building the response by their staff, as well as to determine if there were any issues preventing staff participation.

No-Response and Low-Response Participating Health Centers
Participating health centers that were non-responsive or had low response rates post-launch were contacted by JSI on an ad hoc basis. No- and low-response health centers were identified in two ways: (1) Survey Analytics was able to determine whether a survey link has been opened, and JSI compared this to the number of health center staff emails provided, thus allowing JSI to determine "no-click" and "low-click" health centers; (2) health centers with less than 10% of completed surveys were considered no- or low-response. JSI Liaisons made multiple efforts to connect with these health centers and to troubleshoot firewalls or other technical issues preventing staff participation. JSI and Liaisons also provided strategies for promoting survey participation if the issue appeared to be low engagement.

Support Resources
The data collection process was supported by a JSI team capable of addressing most issues that arose or connecting the respondent to the technical team for further assistance if needed. Ways to get support were prominently noted in all survey invitation and reminder emails; Liaison communications; HRSA and PCA marketing materials; and in the survey. The support resources consisted of telephone and email access, available in both English and Spanish, designed to connect the respondent with resources available as quickly as possible.

Self-help resources, such as FAQs, were made available, but live support was regularly used by respondents. The telephone support line was staffed by multiple JSI staff and functioned by rolling calls to the next available support person. To handle different time zones, the support team was made up of trained staff across JSI domestic offices. Training was conducted prior to and during live survey administration to ensure that support line staff were able to provide technical answers. Email questions were fielded by support line staff as they came in. A total of 336 phone calls and 2005 emails were received and responded to.

Key questions by respondents included the following themes:
- **Technical Issues:** The JSI team was available to troubleshoot issues related to connectivity, web browser issues, and the functioning of the online survey tool. If unable to resolve the issue, JSI had established a point of contact with the survey vendor to assure that issues that did not appear to be arising from the vendor's technology and could be raised and researched within the software when they arose. There were a few temporary instances of this type of problem.
- **Process and Content Issues:** Some questions received by the support line were non-technical relating to the process of collecting the survey data, the content of the survey, and the confidentiality and uses of the data. Staff responding to such calls received detailed training on how to best resolve such questions without introducing bias in the response by interpreting the meaning of questions or terminology. The training also focused on how to build confidence in the security and confidentiality of health center

staff responses, and the technical and contractual safeguards in place to protect their information and identity.

■ **Frequently Asked Questions Page (FAQ):** JSI created a Frequently Asked Questions page, available on the HRSA Health Center Workforce Well-being Initiative webpage, that respondents had access to throughout the survey administration process. The FAQ was populated with answers to questions that arose during the pilot tests, as well as common technical and process questions customary to any web-based survey process.

Salesforce was used to log support calls from survey respondents during the data collection phase. The calls were tracked within the system to ensure a timely response and to understand the types of questions commonly asked among survey respondents to better support future survey administrations.

Acknowledgement of Survey Completion
Upon successful submission of a survey response, the staff member completing the survey was presented with a printable on-screen acknowledgement of having participated in the survey. This acknowledgement served several purposes including a means to claim possible incentives put in place by health center leadership for completing the survey as well as a way to share having participated in the survey, with a goal of promoting others to do the same.

Response Tracking
Responses to the full survey were monitored constantly. This allowed response rates in Salesforce to be tracked overall, by health center, and by health center characteristics. The dashboards were designed to be user- and role-specific such that the information presented allowed each team member to access the information relevant to their efforts (i.e., Liaisons, support line staff, project management). Salesforce was also used to share information with HRSA and any other partner organizations assisting with the survey response such as PCAs.

The accumulating survey response database, stored in the Survey Analytics cloud, was connected to Salesforce via a live web data connection to assure real-time results were always available. The Salesforce tracking system was used by the Liaisons to help enhance the monitoring of responses and improve JSI's outreach and communications, and eventual response rate.

UDS Integration
Each survey invitation was associated with the health center that the invitation came from, allowing attributes of the responses to be evaluated in comparison to the types of health center organizations. This connection was originally made via the health center's grant number but replaced with a cryptic ID in the final data, such that the grant number is not externally accessible without a crosswalk. Integrating responses with the UDS served several purposes. Most notably, as mentioned above, it allowed health center characteristics to be used as a parameter by which to monitor the response. This included cohort, geographic attributes (state, region), rurality, size, and full-time equivalent (FTE) staffing. This information was also available for analyses.

Data Management
Completeness Checks and Data Validations
After the close of data collection, survey data was exported from Survey Analytics as an SPSS data file. Following the conversion of the file into SAS format, a number of completeness and data validations checks were performed at the record level and criteria set for exclusion and inclusion into the final data analysis file. First surveys were checked for overall completeness, then completeness was checked for each of the five main sections of the survey instrument. This was done through the use of counters incremented section by section and overall, for responses recorded in the instrument.

Sections of the survey were tested for different rates of completion. It was decided that a 75% completion in each of the four substantive sections would be used as the criteria for a respondent to be included in the analysis file. Of the total of 62293 records with at least some responses including pilot responses, 5986 were found to be incomplete in all of the four main sections. Although this number of incomplete records appears to be high at close to 10%, it is not unusual with online surveys to have this proportion of the total response be from persons who just looked at the first few questions of the questionnaire and decided not to participate.

Figure A3. Data Management Workflow

Data Management Workflow
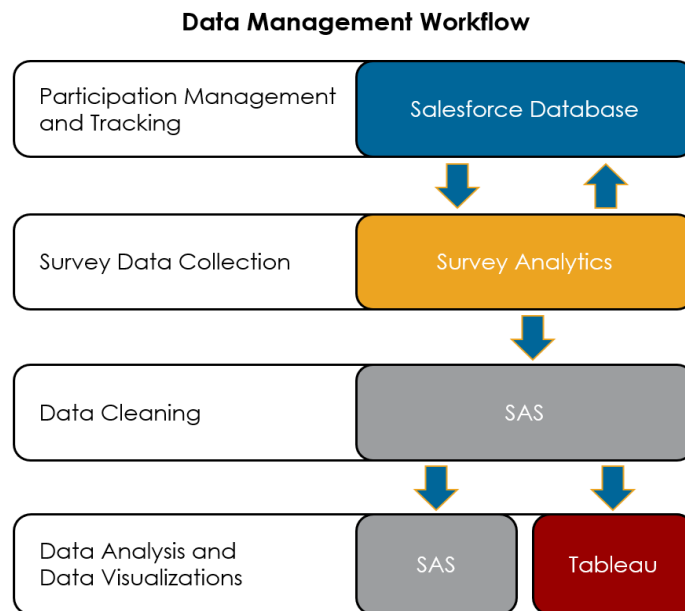
In addition to records with very little or no response, a further 3173 records were found to have only some of the four main sections completed at the 75% level and were also removed from the final analysis data file. The data was then checked for duplication in respondent email addresses. Although in an invitation-based survey project the possibility of duplication is largely removed by the built-in functionality of the platform, the project encountered situations where it was forced to resend invitations to a small number of the original sample. This was the result of email security policies set by a few health centers, which caused the original invitation to be rejected. As this only involved a very limited number of staff to receive more than one invitation, JSI only needed to remove 135

duplicated records returned by the same person. In selecting which of the duplicate records to keep, JSI used the overall completion rate to retain the most complete survey from these respondents.

JSI tested to identify any respondents who seemed to not take the survey seriously. This included persons who raced through the survey or those that gave the same answers to the agree-disagree questions. Blocks of identical answers raise the concern that the participant made selections in a "straight line" without due consideration of the question, and at times even without reading questions. To identify this type of respondent, JSI used a combination of unusually fast overall completion (<7 minutes total time for a survey that on average took 26 minutes to complete) together with a flag indicating "straight line" responses in the last substantive section of the survey. This last section composed of "outcome items" was suited particularly well for this purpose as questions in this section are a mix of positively and negatively worded items, making it highly unlikely that identical answers in the section would represent a valid response. Using this criteria JSI excluded an additional 431 responses. After all of the above exclusions the final analysis data set contained 52,568 records.

Incorporating Data from Pilot Testing
Participants of pilot testing were offered to have their answers be incorporated in the analysis without having to complete the survey again. Prior to the main survey rollout these participants received a short questionnaire asking for their preference in taking the final version of the survey, or using their answers from the pilot. Relatively few (n=69) elected to have their original answers be used in the analysis. A few edits in variable naming were made to reflect the structure of the final survey and prepare responses to be combined with data from the main rollout.

Verification and Cleaning of Occupation Characteristics
As a second stage of data cleaning, review and re-coding of occupation choices were done. Frequency tables confirmed that a substantial number of respondents had difficulty navigating the job selection part of the survey, evidenced by roles and job titles entered into "other" categories that either failed to pick the most appropriate job available, or put themselves in an incorrect job category altogether. The data collection team assigned three members trained specifically for the task including UDS classification to:
- Review entries marked as "other" in the job description field for all 17 job categories
- Recategorize from "other" into available option under the same job category or recategorize from "other" into a more appropriate job in a different category
- If no matching job category exists, confirm correct selection (placement in "other" matches job category)
- Confirm actual job title (Question A3) to match job selection or re-categorize as needed
- Confirm clinical/functional role as "director" (Question A4) or re-categorize if necessary
- Confirm education requirement status with job selection or recategorize if necessary
- Categorize each entry as: "looks right," "unclear," "change category/job," "director should be checked," or "education requirement should be checked"
- Include correct job code for entries that are recategorized

A team of health center liaisons performed a second round of expert reviews for entries that could not be otherwise resolved. Verified entries were recategorized into the working data set with their corresponding occupation codes.

Creating Mean Scores for Multi-item Measures

For the concepts that used multiple questions to measure either workforce well-being outcomes or drivers (concepts that potentially influence outcomes) mean scores were created. See Tables A1.1 and A1.2 in Appendix II to find which questions were part of the outcomes and drivers of workforce well-being. See Appendix IV for a full list of the survey questions and their sources. The questions that were taken as input for each concept were determined by the literature review that incorporated the specific questions used to measure a concept.

Scores were constructed by calculating an average score across the agree-disagree answers included in the measure. The first step was to align all the responses to the included questions in the same direction as some were written in a positive way and some in a negative way. The question answers were re-coded to make the higher values mean "more" of the named concept. After all question responses were re-coded in the same direction, a mean score was calculated. However, not every respondent answered every question within a concept. Therefore, a minimum number of questions had to be answered for a score to be calculated. Depending on the number of items within a concept, at least ⅔ to ¾ of the items had to be answered in order for a score to be given for that respondent on that concept. Otherwise, the respondent received a missing value for that concept. Relatively few respondents failed to have a score calculated for them with approximately one half of one percent not receiving a score.

Appendix II. Data Tables

Workforce Well-being Outcomes and Drivers

Table A1.1. Outcomes of Workforce Well-being

Outcomes of Workforce Well-being	Description	Survey Questions
Job Satisfaction	Sense of fulfillment working at the health center	E1–E5
Burnout	Feelings of emptiness, work overload, loneliness, and exhaustion	E6–E21
Engagement	Interests and connectivity to work, colleagues, and workplace	E22–E27
Intention to Stay	Likelihood of staying with the health center within the next year	E28

Table A1.2. Drivers of Workforce Well-being

Drivers of Workforce Well-being	Description	Survey Questions
My Work Team	Communication, collaboration, and cohesion amongst team members	B1–B8
Supervision	Guidance, engagement, and motivation from immediate supervisors	B9–B13
Leadership	Guidance, engagement, and motivation from senior leaders	B14–B16
Positive Workplace Culture	Support of staff well-being, diversity and inclusion, nondiscrimination, and patient and staff engagement	C1–C12
Social Support	Formal and informal workplace help	C13–C16
Recognition	Formal and informal workplace appreciation	C17–C21
Supportive Health Center Processes	Administrative responsibilities, quality of care, workflows, and policies	C22–C26
Training Provided	Job training and preparation supported by the health center	C27–C29
Adequate Resources	Staffing, supplies, infrastructure, procedures, and ability to respond to changes and crises	C30–C36
Mission Orientation	Alignment of goals of the organization and individual	D1–D4

Drivers of Workforce Well-being	Description	Survey Questions
Meaningfulness	Sense of fulfillment, purpose, and personal engagement	D5–D9
Compensation and Benefits	Satisfaction with pay and fringe benefits	D10–D13
Professional Growth	Opportunity for professional development and promotion	D14–D17
Workload	Work demands and control or flexibility over work	D18–D23
Work Life Balance	Work demands and personal time	D24–D28
Moral Distress	Work situations that conflict with one's beliefs and values	D29–D32

Health Center Participation and Staff Response Rates

Table A2.1. Health Center Participation

	Participating Health Centers		Non-Participating Health Centers	
	N	**%**	**N**	**%**
TOTAL HEALTH CENTERS	**694**	**100%**	**787**	**100%**
Program Type*				
H80/330-funded	656	95%	717	91%
Look-Alike (LAL)	38	5%	70	9%
Funding Grant				
Community Health Center (CHC) Only	431	62%	460	58%
Special Population (MHC, HCH, PHPC) Only	31	4%	40	5%
Multi-Funded	194	28%	217	28%
Look-Alike (LAL)	38	5%	70	9%
% Uninsured Patients				
<10%	199	29%	213	27%
10–20%	280	40%	320	41%
>20%	215	31%	254	32%
% Medicaid Patients*				
<35%	221	32%	270	34%
35–55%	233	34%	292	37%
>55%	240	35%	225	29%
% Homeless Patients				
<0.5%	229	33%	247	31%
0.5–2.5%	228	33%	263	33%
>2.5%	237	34%	277	35%
% Veteran Patients				
<0.5%	197	28%	226	29%
0.5–2.5%	293	42%	311	40%
>2.5%	204	29%	250	32%
% Non-English-speaking Patients				
<5%	241	35%	304	39%
5–25%	225	32%	255	32%
>25%	228	33%	228	29%
% Elderly Patients				
<8%	224	32%	237	30%
8–15%	284	41%	331	42%
>15%	186	27%	219	28%
Health Center Size*				
Small	208	30%	285	36%
Medium	248	36%	245	31%
Large	238	34%	257	33%

	Participating Health Centers		Non-Participating Health Centers	
	N	%	N	%
Rurality				
Rural	283	41%	334	42%
Urban	411	59%	453	58%
HRSA Region*				
1 (CT, ME, MA, NH, RI, VT)	57	8%	45	6%
2 (NJ, NY, PR, Virgin Islands)	64	9%	52	7%
3 (DE, DC, MD, PA, VA, WV)	66	10%	71	9%
4 (AL, FL, GA, KY, MS, NC, SC, TN)	91	13%	160	20%
5 (IL, IN, MI, MN, OH, WI)	108	16%	109	14%
6 (AR, LA, NM, OK, TX)	88	13%	76	10%
7 (IA, MO, NE, KS)	39	6%	32	4%
8 (CO, MT, ND, SD, UT, WY)	33	5%	29	4%
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	109	16%	150	19%
10 (AK, ID, OR, WA)	39	6%	63	8%
State/Territory*				
Alaska	9	1.3%	20	2.5%
Alabama	14	2.0%	5	0.6%
Arkansas	8	1.2%	4	0.5%
American Samoa	0	0.0%	1	0.1%
Arizona	13	1.9%	10	1.3%
California	83	12.0%	121	15.4%
Colorado	6	0.9%	14	1.8%
Connecticut	10	1.4%	7	0.9%
District of Columbia	8	1.2%	1	0.1%
Delaware	3	0.4%	0	0.0%
Florida	15	2.2%	37	4.7%
Federated States of Micronesia	4	0.6%	0	0.0%
Georgia	4	0.6%	32	4.1%
Guam	1	0.1%	0	0.0%
Hawaii	4	0.6%	11	1.4%
Iowa	10	1.4%	4	0.5%
Idaho	5	0.7%	9	1.1%
Illinois	36	5.2%	13	1.7%
Indiana	16	2.3%	22	2.8%
Kansas	14	2.0%	7	0.9%
Kentucky	9	1.3%	19	2.4%
Louisiana	28	4.0%	11	1.4%
Massachusetts	22	3.2%	15	1.9%

	Participating Health Centers		Non-Participating Health Centers	
	N	%	N	%
Maryland	4	0.6%	13	1.7%
Maine	13	1.9%	6	0.8%
Marshall Islands	0	0.0%	1	0.1%
Michigan	18	2.6%	22	2.8%
Minnesota	4	0.6%	13	1.7%
Missouri	11	1.6%	18	2.3%
Northern Mariana Islands	1	0.1%	0	0.0%
Mississippi	11	1.6%	9	1.1%
Montana	11	1.6%	4	0.5%
North Carolina	20	2.9%	22	2.8%
North Dakota	2	0.3%	2	0.3%
Nebraska	4	0.6%	3	0.4%
New Hampshire	3	0.4%	7	0.9%
New Jersey	5	0.7%	19	2.4%
New Mexico	7	1.0%	12	1.5%
Nevada	2	0.3%	6	0.8%
New York	38	5.5%	31	3.9%
Ohio	26	3.7%	31	3.9%
Oklahoma	8	1.2%	13	1.7%
Oregon	13	1.9%	19	2.4%
Pennsylvania	29	4.2%	21	2.7%
Puerto Rico	20	2.9%	1	0.1%
Palau	1	0.1%	0	0.0%
Rhode Island	4	0.6%	4	0.5%
South Carolina	14	2.0%	10	1.3%
South Dakota	2	0.3%	2	0.3%
Tennessee	4	0.6%	26	3.3%
Texas	37	5.3%	36	4.6%
Utah	9	1.3%	4	0.5%
Virginia	11	1.6%	16	2.0%
Virgin Islands	1	0.1%	1	0.1%
Vermont	5	0.7%	6	0.8%
Washington	12	1.7%	15	1.9%
Wisconsin	8	1.2%	8	1.0%
West Virginia	11	1.6%	20	2.5%
Wyoming	3	0.4%	3	0.4%

*Indicates statistically significant differences in proportion between participating and non-participating health centers with $p < .05$.

Table A2.2. Health Center Participation Rates by State/Territory

State/ Territory	Total Health Centers	Participating Health Centers	Health Center Participation Rate
TOTAL	**1481**	**694**	**47%**
Alaska	29	9	31%
Alabama	19	14	74%
Arkansas	12	8	67%
American Samoa	1	0	0%
Arizona	23	13	57%
California	204	83	41%
Colorado	20	6	30%
Connecticut	17	10	59%
District of Columbia	9	8	89%
Delaware	3	3	100%
Florida	52	15	29%
Federated States of Micronesia	4	4	100%
Georgia	36	4	11%
Guam	1	1	100%
Hawaii	15	4	27%
Iowa	14	10	71%
Idaho	14	5	36%
Illinois	49	36	73%
Indiana	38	16	42%
Kansas	21	14	67%
Kentucky	28	9	32%
Louisiana	39	28	72%
Massachusetts	37	22	59%
Maryland	17	4	24%
Maine	19	13	68%
Marshall Islands	1	0	0%
Michigan	40	18	45%
Minnesota	17	4	24%
Missouri	29	11	38%
Northern Mariana Islands	1	1	100%
Mississippi	20	11	55%
Montana	15	11	73%
North Carolina	42	20	48%
North Dakota	4	2	50%
Nebraska	7	4	57%
New Hampshire	10	3	30%

State/ Territory	Total Health Centers	Participating Health Centers	Health Center Participation Rate
New Jersey	24	5	21%
New Mexico	19	7	37%
Nevada	8	2	25%
New York	69	38	55%
Ohio	57	26	46%
Oklahoma	21	8	38%
Oregon	32	13	41%
Pennsylvania	50	29	58%
Puerto Rico	21	20	95%
Palau	1	1	100%
Rhode Island	8	4	50%
South Carolina	24	14	58%
South Dakota	4	2	50%
Tennessee	30	4	13%
Texas	73	37	51%
Utah	13	9	69%
Virginia	27	11	41%
Virgin Islands	2	1	50%
Vermont	11	5	45%
Washington	27	12	44%
Wisconsin	16	8	50%
West Virginia	31	11	35%
Wyoming	6	3	50%

Table A2.3. Staff Response Rates by Health Center Characteristics

	Number of Emails Sent	Number of Respondents	Response Rate
TOTAL	**143857**	**52568**	**37%**
HRSA Region*			
1 (CT, ME, MA, NH, RI, VT)	13,470	4,507	33%
2 (NJ, NY, PR, Virgin Islands)	17,016	6,466	38%
3 (DE, DC, MD, PA, VA, WV)	10,551	3,979	38%
4 (AL, FL, GA, KY, MS, NC, SC, TN)	15,093	5,791	38%
5 (AR, LA, NM, OK, TX)	19,202	7,839	41%
6 (AR, LA, NM, OK, TX)	13,850	5,706	41%
7 (IA, MO, NE, KS)	6,762	2,807	42%
8 (CO, MT, ND, SD, UT, WY)	4,600	1,890	41%
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	32,296	10,353	32%
10 (AK, ID, OR, WA)	11,017	3,230	29%
Rurality*			
Rural	44,158	19,807	45%
Urban	99,699	32,761	33%
Health Center Size*			
Large	97,229	32,628	34%
Medium	34,635	14,327	41%
Small	11,993	5,613	47%
Funding Grant*			
Community Health Center (CHC) Only	74,082	27,815	38%
Special Population (MHC, HCH, PHPC) Only	2,971	1,014	34%
Multi-Funded	63,983	22,489	35%
Look-Alike (LAL)	2,821	1,250	44%
Program Type*			
H80/330-funded	141,036	51,318	36%
Look-Alike (LAL)	2,821	1,250	44%
State/Territory*			
Alaska	1422	361	25%
Alabama	2109	750	36%
Arkansas	1501	782	52%
Arizona	5393	1745	32%
California	25632	7966	31%
Colorado	1785	689	39%
Connecticut	3066	867	28%

	Number of Emails Sent	Number of Respondents	Response Rate
District of Columbia	2519	375	15%
Delaware	429	189	44%
Florida	3148	1060	34%
Federated States of Micronesia	139	91	65%
Georgia	650	111	17%
Guam	86	34	40%
Hawaii	657	315	48%
Iowa	1693	705	42%
Idaho	1276	318	25%
Illinois	7474	3005	40%
Indiana	3096	1111	36%
Kansas	2214	928	42%
Kentucky	1414	499	35%
Louisiana	3426	1525	45%
Massachusetts	6287	2124	34%
Maryland	801	270	34%
Maine	2042	754	37%
Michigan	2995	1417	47%
Minnesota	486	162	33%
Missouri	1902	755	40%
Northern Mariana Islands	24	19	79%
Mississippi	1675	625	37%
Montana	990	419	42%
North Carolina	2469	1179	48%
North Dakota	185	117	63%
Nebraska	953	419	44%
New Hampshire	314	121	39%
New Jersey	803	229	29%
New Mexico	1321	384	29%
Nevada	301	145	48%
New York	11013	3182	29%
Ohio	4115	1678	41%
Oklahoma	742	398	54%
Oregon	2695	1170	43%
Pennsylvania	4372	2020	46%
Puerto Rico	5004	3007	60%
Palau	64	38	59%
Rhode Island	826	277	34%
South Carolina	3200	1415	44%

	Number of Emails Sent	Number of Respondents	Response Rate
South Dakota	377	210	56%
Tennessee	428	152	36%
Texas	6860	2617	38%
Utah	1095	407	37%
Virginia	1257	591	47%
Virgin Islands	196	48	24%
Vermont	935	364	39%
Washington	5624	1381	25%
Wisconsin	1036	466	45%
West Virginia	1173	534	46%
Wyoming	168	48	29%

Indicates statistically significant differences for respondents by the listed health center characteristic with $p < 0.05$.

Table A2.4. Health Center Characteristics of Respondents

Health Center Characteristics of Respondents	N	%
TOTAL RESPONDENTS	**52,568**	**100%**
Program Type		
H80/330-funded	51,318	98%
Look-Alike (LAL)	1,250	2%
Funding Grant		
Community Health Center (CHC) Only	27,815	53%
Special Population (MHC, HCH, PHPC) Only	1,014	2%
Multi-Funded	22,489	43%
Look-Alike (LAL)	1,250	2%
% Uninsured Patients		
<10%	15,901	30%
10–20%	23,949	46%
>20%	12,718	24%
% Medicaid Patients		
<35%	13,225	25%
35–55%	16,737	32%
>55%	22,606	43%
% Homeless Patients		
<0.5%	17,002	32%
0.5–2.5%	15,063	29%
>2.5%	20,503	39%
% Veteran Patients		
<0.5%	15,867	30%
0.5–2.5%	23,336	44%
>2.5%	13,365	25%
% Non-English-speaking Patients		
<5%	14,538	28%
5–25%	15,196	29%
>25%	22834	43%
% Elderly Patients		
<8%	16,687	32%
8–15%	22,646	43%
>15%	13,235	25%
Health Center Size		
Small	5,613	11%
Medium	14,327	27%
Large	32,628	62%
Rurality		
Rural	19,807	38%
Urban	32,761	62%

Health Center Characteristics of Respondents	N	%
HRSA Region		
1 (CT, ME, MA, NH, RI, VT)	4,507	9%
2 (NJ, NY, PR, Virgin Islands)	6,466	12%
3 (DE, DC, MD, PA, VA, WV)	3,979	8%
4 (AL, FL, GA, KY, MS, NC, SC, TN)	5,791	11%
5 (IL, IN, MI, MN, OH, WI)	7,839	15%
6 (AR, LA, NM, OK, TX)	5,706	11%
7 (IA, MO, NE, KS)	2,807	5%
8 (CO, MT, ND, SD, UT, WY)	1,890	4%
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	10,353	20%
10 (AK, ID, OR, WA)	3,230	6%
State/Territory		
Alaska	361	0.69%
Alabama	750	1.43%
Arkansas	782	1.49%
Arizona	1745	3.32%
California	7966	15.15%
Colorado	689	1.31%
Connecticut	867	1.65%
District of Columbia	375	0.71%
Delaware	189	0.36%
Florida	1060	2.02%
Federated States of Micronesia	91	0.17%
Georgia	111	0.21%
Guam	34	0.06%
Hawaii	315	0.6%
Iowa	705	1.34%
Idaho	318	0.6%
Illinois	3005	5.72%
Indiana	1111	2.11%
Kansas	928	1.77%
Kentucky	499	0.95%
Louisiana	1525	2.9%
Massachusetts	2124	4.04%
Maryland	270	0.51%
Maine	754	1.43%
Michigan	1417	2.7%
Minnesota	162	0.31%
Missouri	755	1.44%
Northern Mariana Islands	19	0.04%
Mississippi	625	1.19%

Health Center Characteristics of Respondents	N	%
Montana	419	0.8%
North Carolina	1179	2.24%
North Dakota	117	0.22%
Nebraska	419	0.8%
New Hampshire	121	0.23%
New Jersey	229	0.44%
New Mexico	384	0.73%
Nevada	145	0.28%
New York	3182	6.05%
Ohio	1678	3.19%
Oklahoma	398	0.76%
Oregon	1170	2.23%
Pennsylvania	2020	3.84%
Puerto Rico	3007	5.72%
Palau	38	0.07%
Rhode Island	277	0.53%
South Carolina	1415	2.69%
South Dakota	210	0.4%
Tennessee	152	0.29%
Texas	2617	4.98%
Utah	407	0.77%
Virginia	591	1.12%
Virgin Islands	48	0.09%
Vermont	364	0.69%
Washington	1381	2.63%
Wisconsin	466	0.89%
West Virginia	534	1.02%
Wyoming	48	0.09%

Table A2.5. Occupational Characteristics of Respondents

Occupational Characteristics of Respondents	N	%
TOTAL RESPONDENTS	**52,568**	**100%**
Organizational Tenure		
New staff (<2.5 years)	23985	46%
Middle tenure (2.5–6 years)	14,733	28%
Long tenure (7+ years)	13,571	26%
Career Tenure		
Early career (<5 years)	19,894	38%
Middle career (5–10 years)	14,018	27%
Experienced (11+ years)	18,338	35%
Respondent has multiple jobs at the health center (yes)	5,177	10%
Compensation Type		
Salary	19,809	38%
Hourly	32,747	62%
Supervisor Status		
None (does not supervise anyone)	36,933	70%
Supervises 1–4 people	8,413	16%
Supervises 5–9 people	3,659	7%
Supervises 10 or more people	3,552	7%
Director Status (Yes)	5,325	10%
Educational Requirement (Yes)	1,958	4%
Working through a scholarship or loan repayment agreement	2,383	5%
Major Occupational Category		
Ancillary Clinical Services	2,678	5%
Direct Clinical Services	21,339	41%
Enabling and Program Services	4,647	9%
Management and Administration	13,104	25%
Patient Services, Support, and Quality	10,800	21%

Table A2.6. Demographic Characteristics of Respondents

Demographic Characteristics of Respondents	N	%
TOTAL RESPONDENTS	**52,568**	**100%**
Race and Ethnicity		
Hispanic	17,606	33%
American Indian or Alaska Native, Non-Hispanic	504	1%
Asian, Non-Hispanic	2,108	4%
Black, Non-Hispanic	5,921	11%
Native Hawaiian or Pacific Islander, Non-Hispanic	322	<1%
White, Non-Hispanic	24,029	46%
Other, Non-Hispanic	37	<1%
Multiracial, Non-Hispanic	1,044	2%
Unknown / Missing	997	2%
Age		
Under 30	8,405	16%
30–39	14,351	28%
40–49	12,449	24%
50–59	10,537	20%
60–69	5,564	11%
70 and older	733	1%
Gender		
Male	7,473	14%
Female	44,045	84%
All other	818	2%
Sexual Orientation		
Straight or heterosexual	47,219	91%
All other	4,743	9%
Highest Education		
Up to high school	5,343	10%
Technical or professional certificate / some college	15,411	29%
Associate's or Bachelor's degree	17,772	34%
Postgraduate degree	13,726	26%
Marital Status		
Married	30,480	59%
Never married	12,973	25%
Previously married/separated	8,650	17%
English as Primary Language (Yes)	42,056	81%
English Proficiency (where English is not primary language)		
Very well	5,324	53%
Well	3,369	33%
Not well	854	8%
Not at all	517	5%
Disability Status (Yes)	2,472	5%
Children Under 18 at Home (Yes)	23,525	45%
Caregiver status (significant caregiver responsibilities) (Yes)	9,895	19%

Descriptive Analyses

Table A3.1. Summary of Mean Scores and Reliability for Well-being Outcomes

Well-being Outcomes	Mean	Std Dev	Number of Items	Reliability (Cronbach Coefficient Alpha)
Burnout	3.01	0.85	16	0.92
Job Satisfaction	4.63	1.12	5	0.93
Intention to Stay	4.86	1.12	5	-
Engagement	4.95	0.94	6	0.85

Table A3.2. Summary of Well-being Mean Scores by Health Center Characteristics

		Burnout		Job Satisfaction		Intention to Stay		Engagement	
	N	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Program Type									
H80/330-funded	51318	3.01	0.85	4.63	1.12	4.86	1.3	4.95	0.94
Look-Alike (LAL)	1250	2.97	0.87	4.64	1.14	4.88	1.29	4.94	0.94
Funding Grant									
Community Health Center (CHC) Only	27815	3.01	0.85	4.64	1.12	4.87	1.3	4.93	0.94
Special Population (MHC, HCH, PHPC) Only	1014	3.02	0.87	4.68	1.14	4.8	1.38	4.95	0.94
Multi-Funded	22489	3.01	0.85	4.63	1.12	4.86	1.29	4.97	0.94
Look-Alike (LAL)	1250	2.97	0.87	4.64	1.14	4.88	1.29	4.94	0.94
% Uninsured Patients									
<10%	15901	3.03	0.85	4.65	1.12	4.93	1.26	4.97	0.95
10–20%	23949	3	0.86	4.64	1.12	4.87	1.3	4.94	0.94
>20%	12718	3	0.86	4.61	1.13	4.78	1.33	4.94	0.94
% Medicaid Patients									
<35%	13225	2.97	0.84	4.69	1.1	4.92	1.26	4.93	0.92
35–55%	16737	3.03	0.87	4.63	1.12	4.87	1.29	4.92	0.94
>55%	22606	3.02	0.85	4.61	1.13	4.83	1.31	4.97	0.95
% Homeless Patients									
<0.5%	17002	2.98	0.85	4.69	1.12	4.93	1.26	4.97	0.94
0.5–2.5%	15063	3.01	0.85	4.59	1.12	4.83	1.32	4.93	0.93
>2.5%	20503	3.02	0.86	4.62	1.11	4.83	1.31	4.94	0.95
% Veteran Patients									
<0.5%	15867	2.99	0.85	4.6	1.14	4.79	1.32	4.99	0.94
0.5–2.5%	23336	3	0.86	4.64	1.12	4.87	1.3	4.95	0.95
>2.5%	13365	3.03	0.85	4.66	1.1	4.94	1.26	4.88	0.93

		Burnout		Job Satisfaction		Intention to Stay		Engagement	
	N	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
% Non-English-speaking Patients									
<5%	14538	2.99	0.85	4.71	1.09	4.99	1.23	4.92	0.92
5–25%	15196	2.99	0.85	4.61	1.13	4.85	1.31	4.93	0.93
>25%	22834	3.03	0.86	4.6	1.13	4.79	1.33	4.98	0.96
% Elderly									
<8%	16687	3.02	0.87	4.59	1.13	4.79	1.33	4.94	0.95
8–15%	22646	3.01	0.86	4.62	1.12	4.84	1.31	4.96	0.94
>15%	13235	2.98	0.84	4.71	1.09	5	1.21	4.94	0.93
Health Center Size									
Large	32628	3.03	0.86	4.62	1.12	4.86	1.29	4.94	0.95
Medium	14327	2.98	0.85	4.64	1.13	4.87	1.31	4.98	0.93
Small	5613	2.97	0.83	4.69	1.08	4.87	1.28	4.94	0.91
Rurality									
Rural	19807	2.99	0.84	4.7	1.1	4.97	1.23	4.94	0.93
Urban	32761	3.02	0.86	4.59	1.13	4.8	1.33	4.95	0.95
HRSA Region									
1 (NJ, NY, PR, Virgin Islands)	4507	3.09	0.86	4.55	1.13	4.81	1.32	4.93	0.96
2 (DE, DC, MD, PA, VA, WV)	6466	2.99	0.84	4.64	1.16	4.92	1.26	5.13	0.92
3 (DE, DC, MD, PA, VA, WV)	3979	3.05	0.86	4.58	1.14	4.86	1.29	4.91	0.93
4 (AL, FL, GA, KY, MS, NC, SC, TN)	5791	2.9	0.85	4.66	1.14	4.86	1.3	5.01	0.91
5 (IL, IN, MI, MN, OH, WI)	7839	3.02	0.86	4.62	1.11	4.87	1.28	4.93	0.94
6 (AR, LA, NM, OK, TX)	5706	2.89	0.85	4.77	1.09	4.96	1.27	4.99	0.9
7 (IA, MO, NE, KS)	2807	2.99	0.84	4.73	1.05	4.99	1.22	4.9	0.91
8 (CO, MT, ND, SD, UT, WY)	1890	3.12	0.85	4.58	1.12	4.73	1.39	4.77	0.94
9 (AZ, CA, HI, NV, American Samoa, Guam, Northern Mariana Islands, Federated States of Micronesia, Marshall Islands, Palau)	10353	3.01	0.85	4.61	1.11	4.8	1.32	4.9	0.97

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
10 (AK, ID, OR, WA)	3230	3.17	0.84	4.58	1.1	4.8	1.36	4.8	0.99
State/Territory									
Alaska	361	3.07	0.82	4.74	1.02	5.01	1.19	4.79	0.9
Alabama	750	2.9	0.85	4.67	1.26	4.79	1.41	4.95	0.96
Arizona	782	3	0.86	4.82	1.08	5.09	1.22	4.95	0.87
Arizona	1745	2.95	0.85	4.8	1.07	5.01	1.26	4.94	0.98
California	7966	3.03	0.86	4.56	1.12	4.75	1.33	4.9	0.96
Colorado	689	3.18	0.86	4.47	1.16	4.59	1.46	4.72	0.97
Connecticut	867	3.04	0.87	4.47	1.16	4.76	1.36	5	0.94
District of Columbia	375	3.08	0.82	4.59	1.16	4.64	1.44	4.95	0.94
Delaware	189	3.18	0.9	4.39	1.16	4.63	1.33	4.92	0.92
Florida	1060	2.87	0.87	4.61	1.14	4.79	1.34	5.04	0.94
Federated States of Micronesia	91	2.94	0.52	4.97	0.85	5.09	0.89	4.29	1.14
Georgia	111	3	0.85	4.39	1.19	4.68	1.33	4.95	0.99
Guam	34	3.11	0.67	4.72	0.77	4.94	1.01	4.67	0.86
Hawaii	315	2.93	0.8	4.75	0.99	4.97	1.17	4.93	0.98
Iowa	705	3.05	0.87	4.7	1.05	4.96	1.22	4.81	0.93
Idaho	318	3.01	0.82	4.79	1.01	5.06	1.12	4.88	0.93
Illinois	3005	3.05	0.87	4.54	1.14	4.75	1.33	4.93	0.95
Indiana	1111	2.97	0.85	4.77	1.06	4.96	1.24	4.98	0.91
Kansas	928	3	0.84	4.75	1.07	5.02	1.27	4.94	0.9
Kentucky	499	3.02	0.85	4.61	1.18	4.89	1.28	4.96	0.89
Louisiana	1525	2.78	0.84	4.85	1.07	5.05	1.24	5.09	0.91
Massachusetts	2124	3.11	0.86	4.56	1.11	4.79	1.32	4.94	0.97
Maryland	270	3.07	0.86	4.45	1.21	4.6	1.43	4.95	0.92
Maine	754	3.13	0.87	4.49	1.18	4.88	1.27	4.9	0.9
Michigan	1417	3.06	0.87	4.59	1.1	4.88	1.29	4.9	0.93
Minnesota	162	3.23	0.93	4.44	1.09	4.8	1.34	4.7	1.07
Missouri	755	2.92	0.81	4.79	0.99	5.06	1.15	4.91	0.91
Northern Mariana Islands	19	2.44	0.76	5.37	0.61	5.16	1.01	4.81	0.65
Mississippi	625	2.88	0.85	4.51	1.19	4.77	1.34	5	0.88
Montana	419	3.08	0.85	4.65	1.1	4.91	1.26	4.8	0.92
North Carolina	1179	2.97	0.82	4.7	1.08	4.87	1.25	4.95	0.91
North Dakota	117	3.07	0.75	4.6	0.97	5	1.04	4.63	0.84
Nebraska	419	3	0.85	4.67	1.08	4.85	1.25	4.92	0.91

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
New Hampshire	121	3.11	0.74	4.63	1.02	4.84	1.13	4.82	0.89
New Jersey	229	2.92	0.84	4.59	1.13	5	1.16	5.05	0.91
New Mexico	384	2.99	0.88	4.61	1.16	4.8	1.38	4.91	0.92
Nevada	145	3	0.89	4.51	1.17	4.7	1.38	4.9	0.96
New York	3182	3.06	0.88	4.52	1.15	4.78	1.32	4.93	0.94
Ohio	1678	2.97	0.85	4.69	1.09	5	1.19	4.94	0.94
Oklahoma	398	2.79	0.81	5.06	0.97	5.34	0.99	5.06	0.82
Oregon	1170	3.23	0.83	4.56	1.09	4.77	1.39	4.81	0.99
Pennsylvania	2020	3.07	0.88	4.54	1.15	4.89	1.27	4.89	0.94
Puerto Rico	3007	2.92	0.78	4.78	1.17	5.06	1.18	5.34	0.85
Palau	38	3.03	0.69	4.83	0.75	4.89	1.01	4.52	0.97
Rhode Island	277	2.96	0.89	4.78	1.02	4.88	1.34	4.87	1.01
South Carolina	1415	2.82	0.83	4.76	1.08	4.97	1.21	5.08	0.87
South Dakota	210	3.21	0.86	4.45	1.14	4.74	1.27	4.68	1.01
Tennessee	152	2.92	0.88	4.86	1.09	5.01	1.28	4.92	0.92
Texas	2617	2.91	0.85	4.69	1.1	4.85	1.31	4.95	0.9
Utah	407	3.05	0.84	4.71	1.11	4.7	1.49	4.89	0.9
Virginia	591	3.03	0.82	4.58	1.11	4.81	1.25	4.91	0.9
Virgin Islands	48	3.11	0.65	4.41	0.93	4.81	1.23	5.08	0.76
Vermont	364	3.13	0.86	4.58	1.11	4.84	1.33	4.83	1.02
Washington	1381	3.19	0.85	4.5	1.14	4.71	1.41	4.79	1.02
Wisconsin	466	2.99	0.79	4.65	1.04	4.87	1.21	4.96	0.86
West Virginia	534	2.96	0.84	4.85	1.05	5.2	1.09	4.91	0.94
Wyoming	48	2.9	0.8	4.8	1.02	4.85	1.34	4.92	0.88

Table A3.3. Summary of Well-being Mean Scores by Occupational Characteristics

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Organizational Tenure									
New staff (<2.5 years)	23908	2.94	0.86	4.65	1.14	4.82	1.33	4.99	0.93
Middle tenure (2.5–6 years)	14685	3.10	0.86	4.57	1.13	4.83	1.30	4.89	0.96
Long tenure (7+ years)	13488	3.03	0.83	4.69	1.07	4.98	1.21	4.93	0.94
Career Tenure									
Entry level (<3 years)	13276	2.98	0.85	4.63	1.12	4.76	1.36	4.96	0.94
Intermediate (3–6 years)	12285	3.10	0.87	4.56	1.14	4.78	1.34	4.89	0.98
Mid-level (7–10 years)	8249	3.07	0.86	4.57	1.14	4.86	1.29	4.90	0.98
Senior-level (11+)	18271	2.93	0.83	4.72	1.09	5.00	1.20	5.00	0.90
Career Tenure Collapsed[1]									
Early career (<5 years)	19845	3.02	0.86	4.61	1.12	4.76	1.36	4.94	0.95
Middle career (5–10 years)	13965	3.08	0.87	4.56	1.14	4.83	1.31	4.89	0.97
Experienced (11+ years)	18271	2.93	0.83	4.72	1.09	5.00	1.20	5.00	0.90
Supervisor Status									
Yes	15477	2.97	0.84	4.75	1.08	4.98	1.25	4.97	0.95
No	36604	3.02	0.86	4.59	1.13	4.82	1.31	4.94	0.94
Director Status									
Yes	5290	2.93	0.84	4.90	1.02	5.08	1.22	5.04	0.91
No	46791	3.02	0.86	4.61	1.13	4.84	1.30	4.94	0.94
Educational Requirement									
Yes	1920	2.92	0.81	4.79	1.10	4.93	1.27	4.85	1.11
No	50161	3.01	0.86	4.63	1.12	4.86	1.30	4.95	0.93
Multiple Jobs									
Yes	5126	3.06	0.85	4.59	1.13	4.88	1.31	4.92	0.95
No	46955	3.00	0.85	4.64	1.12	4.86	1.29	4.95	0.94
Compensation Type									
Hourly	32426	2.99	0.84	4.62	1.11	4.83	1.29	4.94	0.94
Salary	19655	3.04	0.87	4.67	1.13	4.92	1.30	4.96	0.94
Patient Interaction Frequency									
Never	5188	2.85	0.84	4.75	1.06	4.91	1.28	5.02	0.87
Occasionally	8393	2.90	0.80	4.76	1.05	4.99	1.22	5.02	0.88
Routinely	38500	3.05	0.86	4.59	1.14	4.83	1.31	4.92	0.96
Full-Time Equivalent (FTE)									
Full-time	47211	3.01	0.85	4.63	1.12	4.88	1.29	4.95	0.94
Part-time	4870	2.97	0.85	4.64	1.09	4.70	1.37	4.94	0.93

		Burnout		Job Satisfaction		Intention to Stay		Engagement	
	N	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Major Occupational Category									
Ancillary Clinical Services	2660	2.90	0.83	4.83	1.07	5.06	1.20	4.97	0.96
Direct Clinical Services	21152	3.13	0.87	4.53	1.16	4.78	1.35	4.87	0.98
Enabling & Program Services	4600	2.91	0.82	4.67	1.07	4.79	1.31	5.02	0.91
Management & Administration	12990	2.88	0.83	4.76	1.06	4.98	1.23	5.05	0.87
Patient Services, Support, & Quality	10679	2.99	0.84	4.62	1.10	4.87	1.27	4.94	0.93

¹Variable used in univariate and multivariate regression analyses

Table A3.4. Summary of Well-being Mean Scores by Broad Occupational Categories

		Burnout		Job Satisfaction		Intention to Stay		Engagement	
	N	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Broad Occupational Categories									
Administration and Support	5907	2.92	0.83	4.71	1.07	4.92	1.27	5.09	0.86
Behavioral Health/Substance Use	3459	3.07	0.85	4.60	1.15	4.80	1.36	4.99	0.95
Dental	3105	3.08	0.85	4.64	1.09	4.95	1.24	4.89	0.96
Enabling	3736	2.90	0.82	4.67	1.08	4.79	1.31	5.02	0.90
Facilities	719	2.78	0.76	4.83	1.01	5.11	1.08	4.83	0.92
Fiscal and Billing	3221	2.88	0.82	4.68	1.07	4.99	1.17	4.99	0.85
Information and Technology	1179	2.85	0.84	4.70	1.06	4.89	1.28	4.99	0.91
Lab	805	2.93	0.80	4.64	1.13	4.83	1.29	4.93	0.96
Medical	13943	3.17	0.88	4.48	1.18	4.73	1.37	4.83	1.00
Other Professional	503	2.84	0.85	4.81	1.03	4.94	1.25	5.08	0.94
Other Program and Services	864	2.92	0.81	4.69	1.06	4.82	1.30	4.99	0.93
Patient Support	9080	3.01	0.84	4.60	1.11	4.86	1.28	4.93	0.94
Pharmacy	1565	2.91	0.85	4.90	1.03	5.16	1.14	4.97	0.98
Quality Improvement	1599	2.87	0.82	4.74	1.06	4.94	1.24	5.04	0.86
Senior Corporate Leadership	1964	2.83	0.82	5.06	0.99	5.16	1.21	5.14	0.85
Vision	142	2.80	0.83	4.87	1.02	5.15	0.97	5.02	0.94
X-Ray	290	2.76	0.80	4.95	1.03	5.18	1.12	5.13	0.82

Table A3.5. Summary of Well-being Mean Scores by Expanded Occupational Categories

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Expanded Occupational Categories									
Advanced Practice Providers	2699	3.32	0.93	4.39	1.26	4.70	1.43	4.72	1.04
Back Office Support Staff	3168	2.94	0.82	4.66	1.07	4.93	1.22	4.95	0.92
Behavioral Health Clinicians	809	3.08	0.88	4.61	1.18	4.83	1.37	4.96	0.95
Community/Other Enabling Staff	1646	2.84	0.82	4.71	1.07	4.83	1.29	5.07	0.89
Corporate Administration	2379	2.88	0.84	4.71	1.08	4.89	1.30	5.12	0.83
Counselors and Social Workers	2327	3.08	0.84	4.60	1.14	4.79	1.36	5.00	0.94
Dental Clinical Support Staff	1568	3.09	0.82	4.58	1.10	4.87	1.27	4.89	0.94
Dental Clinicians	1537	3.07	0.88	4.69	1.07	5.03	1.20	4.88	0.99
Facilities Staff	719	2.78	0.76	4.83	1.01	5.11	1.08	4.83	0.92
Fiscal and Billing Staff	3221	2.88	0.82	4.68	1.07	4.99	1.17	4.99	0.85
Front Office Support Staff	5912	3.05	0.85	4.57	1.13	4.82	1.30	4.91	0.96
Information Technology Staff	1179	2.85	0.84	4.70	1.06	4.89	1.28	4.99	0.91
Internal Enabling Staff	2090	2.95	0.82	4.64	1.08	4.75	1.32	4.99	0.91
Lab Support Staff	668	2.90	0.81	4.69	1.10	4.86	1.26	4.94	0.95
Medical Clinical Support Staff	9055	3.11	0.86	4.51	1.15	4.72	1.35	4.88	0.97
Operational Administration Staff	3528	2.95	0.83	4.71	1.07	4.95	1.25	5.07	0.88
Other Mental/Behavioral Health Staff	323	3.00	0.85	4.58	1.18	4.82	1.37	4.97	0.95
Other Professional Providers	503	2.84	0.85	4.81	1.03	4.94	1.25	5.08	0.94
Other Program Staff	864	2.92	0.81	4.69	1.06	4.82	1.30	4.99	0.93
Pharmacist	668	2.91	0.86	4.92	1.02	5.23	1.08	4.94	0.94
Pharmacy Support Staff	897	2.91	0.84	4.89	1.04	5.10	1.19	4.99	1.01
Physicians	2189	3.22	0.91	4.47	1.22	4.81	1.35	4.75	1.03
Professional Lab Staff	137	3.06	0.77	4.40	1.22	4.67	1.38	4.84	0.96
Professional Radiology Staff	252	2.74	0.80	4.97	1.01	5.23	1.03	5.14	0.81
Quality Improvement Staff	1599	2.87	0.82	4.74	1.06	4.94	1.24	5.04	0.86
Radiology Support Staff	38	2.82	0.82	4.80	1.15	4.82	1.54	5.10	0.87
Senior Corporate Staff	1964	2.83	0.82	5.06	0.99	5.16	1.21	5.14	0.85
Vision Care Providers	74	2.72	0.89	4.98	1.11	5.32	1.01	4.95	1.02
Vision Care Support Staff	68	2.89	0.77	4.75	0.89	4.96	0.89	5.10	0.85

Table A3.6. Summary of Well-being Mean Scores by Detailed Occupational Categories

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Detailed Occupational Categories									
Accountant	486	2.81	0.80	4.72	1.07	4.98	1.26	5.03	0.85
Accounts Payable Clerk	251	2.91	0.85	4.66	1.02	4.92	1.11	4.99	0.87
Adult Day Health Care, Frail Elderly Support Staff	21	2.75	0.59	4.90	1.01	5.05	1.28	5.20	0.95
Alcohol/Substance Use Counselor	179	2.95	0.88	4.73	1.16	4.97	1.37	5.07	1.01
Appointments Clerk	777	3.04	0.84	4.60	1.10	4.89	1.23	4.89	0.98
Billing Clerk	1600	2.90	0.81	4.65	1.08	5.00	1.14	4.96	0.86
Bookkeeper	39	2.82	0.86	4.62	1.08	4.82	1.34	4.91	0.89
Case Manager	1284	3.01	0.83	4.60	1.10	4.71	1.35	4.99	0.93
Cashier/Check-Out Staff	108	3.03	0.78	4.52	1.13	4.91	1.10	4.85	1.04
Chief Executive Officer/Executive Director	355	2.54	0.77	5.48	0.72	5.50	1.01	5.32	0.83
Chief Financial Officer/Fiscal Officer/Finance Director	304	2.91	0.81	4.91	1.01	5.06	1.24	5.02	0.87
Chief Information Officer	82	2.79	0.73	4.98	0.87	5.29	0.92	5.22	0.73
Chief Medical Officer/Medical Director (no clinical practice)	136	3.01	0.89	4.90	1.14	4.87	1.56	5.02	0.95
Chief Operating Officer/Director of Operations	305	2.91	0.79	5.06	0.91	5.22	1.06	5.03	0.85
Chief Strategy/Planning Officer	41	3.03	0.85	4.83	1.20	4.78	1.24	4.97	0.96
Child Care Staff	9	3.44	0.63	4.69	0.93	5.11	0.33	4.44	1.13
Chiropractor	33	2.72	0.78	5.03	1.02	5.03	1.40	4.98	0.78
Clinical Social Worker	1391	3.11	0.84	4.56	1.12	4.75	1.35	5.00	0.94
Community Health Worker	724	2.86	0.82	4.72	1.07	4.80	1.35	5.05	0.90
Data Entry Clerk	48	2.90	0.81	4.65	0.98	4.85	1.20	5.12	0.86
Data Processing Staff	70	2.71	0.73	4.83	1.07	4.90	1.35	5.16	0.72
Dental Aide	23	2.85	0.69	4.79	0.82	4.87	1.29	5.11	1.00
Dental Assistant, Advanced Practice Dental Assistant	1464	3.10	0.82	4.57	1.11	4.86	1.27	4.88	0.95
Dental Hygienist	656	3.04	0.85	4.79	1.00	5.14	1.12	4.99	0.90
Dental Technician	19	2.93	0.85	4.80	1.02	4.89	1.24	4.87	0.94
Dental Therapist	7	3.08	0.93	4.63	1.21	4.71	1.38	4.69	1.00
Dentist	874	3.09	0.90	4.61	1.12	4.95	1.25	4.80	1.04
Department Manager	1537	2.96	0.81	4.73	1.06	5.00	1.23	5.10	0.86
Dietician/Nutritionist	256	3.03	0.85	4.64	1.07	4.73	1.36	5.02	0.96
EHR Technician	349	2.87	0.81	4.70	1.02	4.91	1.27	5.05	0.84
EMS/EMT Staff	23	3.29	0.99	4.39	1.12	4.48	1.27	4.62	1.30
Eligibility Assistance Worker	397	2.82	0.80	4.74	1.06	4.93	1.21	5.01	0.87
Employment/Educational Counselor	105	2.90	0.88	4.64	1.17	4.83	1.34	5.12	0.84
Equipment Maintenance Staff	192	2.70	0.71	4.87	0.97	5.11	1.03	4.76	0.90
Exercise Trainer/Fitness Center Staff	15	2.89	0.86	4.53	1.03	4.53	1.51	4.40	1.41
Family Physician	992	3.34	0.92	4.44	1.25	4.76	1.41	4.60	1.08
Food Bank/Meal Delivery Staff	10	2.69	0.53	4.96	1.22	5.30	1.06	5.15	0.90
Front Desk/Registration/Check-In Staff	4895	3.04	0.85	4.57	1.13	4.82	1.30	4.92	0.95

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
General Practitioner	199	3.17	0.80	4.41	1.23	4.75	1.35	5.04	0.97
Groundskeeper	10	2.29	0.48	5.04	0.93	5.00	1.41	5.24	0.48
Head Start Staff	10	3.15	0.89	4.56	1.21	4.80	1.32	4.57	0.66
Housekeeping Staff	107	2.95	0.80	4.71	1.13	4.99	1.10	4.86	1.01
Housing Assistance Staff	40	2.86	0.72	4.74	0.94	5.13	1.20	5.16	0.88
Internist	244	3.16	0.89	4.45	1.20	4.82	1.36	4.66	1.05
Interpreter	199	2.80	0.73	4.78	0.97	4.84	1.20	4.93	0.90
It Help Desk Technician	310	2.89	0.91	4.68	1.15	4.84	1.40	4.84	1.04
Janitor/Custodian	112	2.98	0.76	4.82	0.96	5.00	1.18	4.59	0.99
Laboratory Assistant	76	3.04	0.85	4.40	1.29	4.68	1.35	4.72	1.10
Laboratory Technician	153	2.93	0.80	4.74	1.05	4.78	1.33	4.96	0.88
Marketing/Communications Staff	337	2.88	0.85	4.64	1.16	4.69	1.41	5.22	0.80
Marriage and Family Therapist	113	3.15	0.85	4.51	1.27	4.74	1.41	4.95	0.89
Medical Assistant/Aide	4571	3.16	0.87	4.43	1.19	4.65	1.40	4.83	1.01
Medical Scribe	132	3.19	0.87	4.41	1.06	4.12	1.59	4.95	0.91
Medical Technologist	135	3.06	0.77	4.39	1.22	4.66	1.38	4.85	0.95
Mental Health Nurse Practitioner	227	3.08	0.85	4.62	1.26	4.82	1.44	4.94	0.87
Mental Health Physician Assistant	31	2.92	0.94	4.87	1.16	5.10	1.35	5.12	0.72
Midwife	118	3.20	0.81	4.59	1.15	4.87	1.37	4.92	0.92
Nurse	4275	3.07	0.84	4.58	1.11	4.80	1.30	4.93	0.93
Nurse Aide/Assistant	186	2.88	0.74	4.81	1.02	4.83	1.26	5.06	0.80
Nurse Practitioner	1961	3.26	0.92	4.40	1.27	4.68	1.44	4.77	1.03
Obstetrician/Gynecologist	127	3.08	0.84	4.48	1.16	4.76	1.34	4.99	0.90
Ophthalmologist	5	1.76	0.54	5.68	0.41	5.60	0.55	5.70	0.41
Ophthalmologist/Optometric Aide	2	1.94	1.33	5.70	0.42	5.50	0.71	5.50	0.71
Ophthalmologist/Optometric Assistant	11	2.85	0.63	4.75	0.69	4.55	1.13	5.09	0.50
Ophthalmologist/Optometric Technician	49	2.92	0.79	4.69	0.92	4.96	0.82	5.13	0.73
Optometrist	69	2.79	0.87	4.92	1.13	5.30	1.03	4.89	1.03
Other Administration/Support Staff	968	2.88	0.82	4.70	1.08	4.91	1.29	5.07	0.88
Other Behavioral Health/Substance Use Staff	223	2.93	0.80	4.65	1.09	4.86	1.31	5.00	0.88
Other Clinical Dental Staff	62	2.95	0.78	4.78	1.07	5.05	1.27	5.05	0.77
Other Corporate Leadership Staff	741	2.86	0.83	4.96	1.04	5.08	1.26	5.16	0.82
Other Enabling Services	359	2.92	0.88	4.64	1.07	4.82	1.29	5.07	0.90
Other Facilities Staff	191	2.71	0.74	4.92	0.93	5.21	1.00	4.96	0.79
Other Fiscal and Billing Staff	845	2.86	0.83	4.72	1.07	5.01	1.18	5.04	0.82
Other Information and Technology Staff	336	2.86	0.83	4.67	1.05	4.91	1.22	5.01	0.88
Other Lab Staff	78	2.80	0.75	4.91	0.83	5.15	0.94	5.21	0.83
Other Licensed Mental Health Provider	93	3.05	0.92	4.56	1.08	4.77	1.45	4.97	0.99
Other Mental Health Staff	100	3.14	0.93	4.45	1.33	4.73	1.48	4.89	1.09
Other Patient Support Staff	2112	2.93	0.84	4.65	1.10	4.90	1.25	4.99	0.92
Other Pharmacy	104	2.83	0.73	4.93	1.06	5.11	1.17	5.03	0.86
Other Professional Staff	118	2.71	0.79	4.90	0.96	5.12	1.00	5.09	0.91
Other Program/Service Staff	293	2.86	0.74	4.80	0.97	4.90	1.16	5.06	0.92

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Other Quality Improvement Staff	488	2.82	0.81	4.76	1.03	5.00	1.23	5.07	0.87
Other Specialty Physician	73	2.95	1.03	4.51	1.37	4.89	1.17	4.88	1.05
Other Vision Care Staff	6	2.98	0.51	4.93	1.04	5.50	0.84	4.72	1.95
Other X-Ray Staff	33	2.85	0.86	4.79	1.17	4.94	1.46	5.08	0.90
Outreach Worker	426	2.82	0.77	4.67	1.07	4.87	1.20	5.09	0.87
Pathologist	2	2.78	1.19	4.90	1.27	6.00	-	4.25	2.24
Patient Records Transcriptionist	27	2.94	0.92	4.67	1.35	4.93	1.52	4.75	1.42
Patient/Community Education Specialist	210	2.94	0.84	4.57	1.08	4.56	1.41	5.02	0.92
Patient/Medical Records Clerk	1029	2.95	0.77	4.68	0.99	4.99	1.15	4.89	0.91
Pediatrician	554	3.13	0.92	4.53	1.16	4.91	1.25	4.89	0.95
Personnel/HR Department Staff	968	2.88	0.85	4.77	1.03	4.95	1.24	5.13	0.81
Pharmacist	668	2.91	0.86	4.92	1.02	5.23	1.08	4.94	0.94
Pharmacist Assistant	15	2.85	0.75	5.23	0.61	5.20	0.56	4.99	0.78
Pharmacy Clerk	60	2.93	0.86	4.77	1.19	4.98	1.40	4.95	1.16
Pharmacy Technician	718	2.92	0.85	4.88	1.04	5.11	1.18	4.98	1.02
Phlebotomist	361	2.89	0.82	4.68	1.12	4.87	1.27	4.92	0.97
Physician Assistant	620	3.51	0.93	4.33	1.24	4.73	1.42	4.50	1.08
Planning And Evaluation Staff	106	2.95	0.85	4.57	1.16	4.70	1.42	5.12	0.71
Podiatrist	40	2.52	0.79	5.00	0.89	5.45	0.71	5.22	0.95
Professional Counselor	617	3.10	0.85	4.56	1.19	4.80	1.37	4.96	0.95
Programmer	66	2.68	0.90	4.91	0.99	5.03	0.98	5.01	0.96
Psychiatric Nurse Specialist	39	3.00	0.78	4.70	1.28	4.74	1.46	5.11	0.77
Psychiatrist	95	2.98	0.96	4.71	1.00	4.94	1.10	4.81	1.00
Psychologist	211	3.13	0.87	4.59	1.15	4.84	1.36	5.01	1.08
QI Data Specialist	191	2.92	0.76	4.67	1.08	4.79	1.39	5.07	0.76
QI Nurse	667	2.88	0.83	4.77	1.08	4.98	1.20	5.02	0.90
QI Technician	23	3.27	0.69	4.27	1.06	4.59	1.40	4.87	0.78
Radiologist	6	2.56	0.91	5.60	0.98	5.67	0.52	4.75	1.33
Radiology Assistant	5	2.64	0.54	4.84	1.13	4.00	2.00	5.20	0.68
Receptionist (not clinical check-in)	137	3.08	0.89	4.48	1.30	4.72	1.33	4.76	1.00
Recovery Support Specialist	140	2.82	0.76	4.90	0.96	4.92	1.28	5.10	0.88
Secretaries/Administrative Assistant	768	2.88	0.87	4.68	1.11	4.83	1.33	5.05	0.90
Security Guard	107	2.70	0.81	4.75	1.16	5.15	1.11	4.89	0.99
Site Manager	1086	2.98	0.81	4.75	1.03	5.00	1.22	5.08	0.86
Statistician/Data Analyst	230	2.84	0.84	4.71	1.02	4.88	1.23	5.04	0.82
Therapist (e.g., Occupational, Speech, Physical)	56	2.54	0.87	5.16	0.97	5.09	1.27	5.28	0.96
Transportation Staff	137	2.60	0.73	4.94	1.02	4.96	1.24	5.07	0.83
Ultrasound Technician	53	2.41	0.75	5.31	0.84	5.49	0.72	5.24	0.86
Women, Infants, & Children (WIC) Program Staff	361	2.98	0.87	4.60	1.10	4.69	1.41	4.91	0.94
X-Ray Technician	193	2.84	0.78	4.86	1.03	5.15	1.10	5.12	0.78

Table A3.7. Summary of Well-being Mean Scores by Demographic Characteristics

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Age[1]									
Under 30	8405	3.20	0.88	4.46	1.17	4.5	1.44	4.82	1.03
30–39	14351	3.10	0.87	4.55	1.15	4.81	1.33	4.88	0.99
40–49	12449	2.98	0.84	4.67	1.10	4.98	1.22	4.97	0.92
50–59	10537	2.87	0.82	4.76	1.06	5.1	1.12	5.05	0.86
60 and older	6297	2.78	0.78	4.82	1.02	4.89	1.28	5.07	0.83
Gender Identity									
Male	7473	2.93	0.87	4.73	1.12	4.87	1.34	4.88	1.00
Female	44045	3.01	0.85	4.63	1.11	4.88	1.28	4.96	0.93
Female-to-Male (FTM)/Transgender Male/Trans Man	43	3.05	0.76	4.73	1.05	4.93	1.28	4.93	1.01
Male-to-Female (MTF)/Transgender Female/Trans Woman	35	3.24	1.05	4.47	1.16	4.57	1.50	4.61	1.23
Genderqueer, neither exclusively male nor female	177	3.55	0.92	4.03	1.37	4.21	1.74	4.79	1.08
Something else	169	3.62	0.98	3.83	1.38	4.11	1.56	4.45	1.22
Don't know/not sure	394	3.51	0.84	3.78	1.28	4.11	1.53	4.67	1.04
Gender Identity Collapsed[1]									
Male	7473	2.93	0.87	4.73	1.12	4.87	1.34	4.88	1.00
Female	44045	3.01	0.85	4.63	1.11	4.88	1.28	4.96	0.93
All other	818	3.51	0.90	3.93	1.33	4.20	1.58	4.66	1.10
Sexual Orientation									
Lesbian or Gay	1361	3.12	0.91	4.58	1.20	4.77	1.44	4.81	1.10
Heterosexual or Straight	47219	2.98	0.84	4.66	1.10	4.89	1.27	4.97	0.92
Bisexual	1614	3.31	0.90	4.41	1.23	4.59	1.54	4.83	1.02
Something else	768	3.26	0.88	4.40	1.24	4.57	1.47	4.72	1.06
Don't know/not sure	1000	3.32	0.90	4.18	1.28	4.44	1.46	4.60	1.11
Sexual Orientation Collapsed[1]									
Heterosexual or Straight	47219	2.98	0.84	4.66	1.10	4.89	1.27	4.97	0.92
All other	4743	3.25	0.90	4.41	1.24	4.61	1.49	4.76	1.07
Ethnicity									
Hispanic or Latino/a	17606	2.98	0.84	4.64	1.12	4.83	1.31	5.02	0.94
Non-Hispanic or Latino/a	34535	3.02	0.86	4.64	1.12	4.89	1.29	4.91	0.94

	N	Burnout		Job Satisfaction		Intention to Stay		Engagement	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Race									
American Indian or Alaska Native	897	3.00	0.83	4.72	1.09	4.88	1.31	4.86	0.97
Asian	2155	3.01	0.86	4.63	1.04	4.80	1.25	4.73	1.04
Black or African American	6662	2.88	0.84	4.60	1.16	4.78	1.33	5.11	0.88
Native Hawaiian or Other Pacific Islander	417	2.96	0.76	4.77	1.03	4.91	1.20	4.74	1.05
White	35708	3.02	0.85	4.66	1.11	4.91	1.28	4.93	0.93
Multiracial	1648	3.15	0.90	4.46	1.20	4.67	1.43	4.95	0.98
Prefer not to answer	3352	2.95	0.83	4.68	1.11	4.86	1.29	5.00	0.94
Unknown/Other	515	3.27	0.93	4.12	1.33	4.35	1.49	4.77	1.05
Race/Ethnicity[1]									
Hispanic	17606	2.98	0.84	4.64	1.12	4.83	1.31	5.02	0.94
Black Non-Hispanic	5921	2.86	0.84	4.60	1.15	4.78	1.34	5.11	0.88
White Non-Hispanic	24029	3.05	0.86	4.66	1.10	4.94	1.27	4.89	0.93
Other Non-Hispanic	4035	3.02	0.85	4.64	1.08	4.82	1.29	4.81	1.00
English as Primary Language[1]									
Yes	42056	3.02	0.86	4.62	1.12	4.86	1.31	4.92	0.94
No	10046	2.95	0.81	4.69	1.09	4.87	1.25	5.05	0.95
English Proficiency									
Very well	5324	3.00	0.85	4.6	1.11	4.75	1.32	4.97	0.96
Well	3369	2.90	0.75	4.75	1.04	4.97	1.14	5.07	0.94
Not well	854	2.93	0.75	4.88	1.11	5.09	1.16	5.32	0.88
Not at all	517	2.83	0.74	4.97	1.1	5.13	1.19	5.32	0.82
Disability Status[1]									
Yes	2472	3.26	0.92	4.40	1.26	4.62	1.50	4.82	1.07
No	49850	2.99	0.85	4.65	1.11	4.88	1.28	4.95	0.93
Highest Education									
Less than High School	171	2.88	0.74	4.96	1.01	5.02	1.21	4.84	1.09
High School Diploma/GED or Equivalent	5172	2.90	0.80	4.78	1.01	4.96	1.19	4.89	0.93
Technical or Professional Certificate	6979	2.98	0.84	4.67	1.10	4.94	1.24	4.96	0.92
Some College (no degree)	8432	2.96	0.83	4.65	1.09	4.91	1.24	4.97	0.92
Associate's degree (e.g., AA, AS)	8362	3.00	0.86	4.63	1.12	4.91	1.26	4.95	0.94
Bachelor's degree (e.g., BA, BS)	9410	3.00	0.84	4.61	1.11	4.78	1.34	4.99	0.92
Master's degree (e.g., MA, MS, MBA)	8661	3.09	0.89	4.55	1.18	4.73	1.41	4.95	0.96

	N	Burnout Mean	Burnout Std Dev	Job Satisfaction Mean	Job Satisfaction Std Dev	Intention to Stay Mean	Intention to Stay Std Dev	Engagement Mean	Engagement Std Dev
Doctoral/Professional degree (e.g., MD/DO, DMD/DDS, PhD)	5065	3.09	0.91	4.61	1.17	4.9	1.31	4.86	1.01
Highest Education Collapsed[1]									
Up to High School	5343	2.90	0.80	4.79	1.01	4.96	1.19	4.89	0.93
Technical or Professional Certificate/Some College	15411	2.97	0.84	4.66	1.10	4.92	1.24	4.97	0.92
Associate's or Bachelor's degree	17772	3.00	0.85	4.62	1.11	4.84	1.31	4.97	0.93
Postgraduate degree	13726	3.09	0.89	4.57	1.18	4.80	1.38	4.91	0.98
Marital Status									
Married/Domestic Partnership	30480	2.98	0.84	4.69	1.09	4.95	1.24	4.96	0.92
Widowed	1117	2.84	0.82	4.80	1.05	4.90	1.27	5.04	0.86
Separated	1191	2.97	0.84	4.62	1.13	4.85	1.31	4.96	0.99
Divorced	6342	2.92	0.84	4.69	1.11	4.96	1.24	5.03	0.89
Never Married	12973	3.13	0.87	4.47	1.17	4.61	1.41	4.86	1.00
Marital Status Collapsed[1]									
Married	30480	2.98	0.84	4.69	1.09	4.95	1.24	4.96	0.92
Never married	12973	3.13	0.87	4.47	1.17	4.61	1.41	4.86	1.00
Previously married/separated	8650	2.92	0.84	4.69	1.11	4.94	1.25	5.02	0.90
Children Under 18 at Home[1]									
Yes	23525	3.01	0.85	4.65	1.11	4.92	1.25	4.94	0.94
No	28725	3.01	0.86	4.63	1.13	4.82	1.33	4.95	0.94
Caregiver Status[1]									
Yes	9895	3.03	0.85	4.61	1.14	4.90	1.26	4.99	0.93
No	42373	3.00	0.85	4.64	1.11	4.86	1.30	4.94	0.94

[1]Variable used in univariate and multivariate regression analyses

Table A3.8. Summary of Mean Scores and Reliability for Well-being Drivers

Well-being Drivers	Mean	Std. Dev.	Number of Items	Reliability (Cronbach Coefficient Alpha)
Mission Orientation (N=52,553)	5.34	0.65	4	0.85
Meaningfulness (N=52,510)	5.30	0.69	5	0.89
Social Support (N=52,534)	5.05	0.87	4	0.85
Supervision (N=52,546)	5.03	1.08	5	0.94
My Work Team (N=52,565)	4.88	0.92	8	0.92
Positive Workplace Culture (N=52,552)	4.77	0.88	12	0.93
Recognition (N=52,381)	4.71	0.90	5	0.82
Adequate Resources (N=52,532)	4.67	0.89	7	0.90
Professional Growth (N=52,528)	4.66	1.01	4	0.87
Training Provided (N=52,551)	4.40	1.20	3	0.90
Leadership (N=52,522)	4.35	1.31	3	0.93
Work Life Balance (N=52,544)	4.26	1.00	4	0.73
Supportive Health Center Processes (N=52,278)	4.24	0.99	5	0.79
Compensation and Benefits (N=52,493)	3.83	1.26	4	0.85
Workload (N=52,559)	2.87	0.82	6	0.70
Moral Distress (N=52,488)	2.62	1.00	4	0.77

Table A3.9. Correlations of Well-being Drivers by Outcomes

	Burnout	Job satisfaction	Intention to Stay	Engagement
Positive Workplace Culture	-0.57	0.68	0.45	0.40
Professional Growth	-0.54	0.68	0.47	0.35
Adequate Resources	-0.59	0.67	0.44	0.41
Leadership	-0.55	0.65	0.43	0.34
Recognition	-0.56	0.63	0.41	0.40
Training Provided	-0.51	0.59	0.38	0.33
Compensation and Benefits	-0.46	0.58	0.39	0.24
Social Support	-0.47	0.57	0.39	0.35
Supervision	-0.45	0.55	0.38	0.29
Mission Orientation	-0.43	0.55	0.39	0.39
Meaningfulness	-0.43	0.50	0.36	0.43
My Work Team	-0.43	0.49	0.33	0.35
Work Life Balance	-0.58	0.47	0.32	0.31
Supportive Health Center Processes	-0.50	0.43	0.28	0.34
Moral Distress	0.63	-0.57	-0.39	-0.45
Workload	0.68	-0.62	-0.40	-0.40

Table A4.1. Health Center Characteristics Panel Regression Analysis

Parameter	Burnout					Job Satisfaction					Intention to Stay					Engagement				
	Estimate	SE	t Value	Pr > |t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Intercept	3.058	0.023	130.76	<.0001	-	4.635	0.025	184.43	<.0001	-	4.773	0.029	164.23	<.0001	-	4.924	0.026	192.58	<.0001	-
%																				
> 20%	Ref.	-	-	-	2.97	0.000	.	.	.	4.64	Ref.	-	-	-	4.83	Ref.	-	-	-	4.94
< 10%	0.049	0.014	3.62	0.0003	3.02	-0.023	0.015	-1.56	0.1198	4.63	0.040	0.017	2.37	0.0179	4.87	0.034	0.015	2.27	0.0231	4.97
10–20%	-0.003	0.011	-0.24	0.8073	2.97	0.020	0.013	1.58	0.1132	4.67	0.065	0.015	4.45	<.0001	4.90	0.006	0.012	0.49	0.6258	4.94
% Medicaid Patients																				
> 55%	Ref.	-	-	-	2.99	-	-	-	-	-	-	-	-	-	-	Ref.	-	-	-	4.97
< 35%	-0.027	0.014	-1.94	0.0526	2.96	-	-	-	-	-	-	-	-	-	-	-0.014	0.015	-0.9	0.3703	4.95
35–55%	0.025	0.010	2.41	0.016	3.01	-	-	-	-	-	-	-	-	-	-	-0.038	0.011	-3.37	0.0007	4.93
% Homeless Patients																				
> 2.5%	Ref.	-	-	-	2.99	0.000	-	-	-	4.66	Ref.	-	-	-	4.87	Ref.	-	-	-	4.94
< 0.5%	-0.021	0.010	-2.06	0.0392	2.97	0.031	0.013	2.35	0.0188	4.69	0.035	0.015	2.32	0.0205	4.90	0.037	0.011	3.46	0.0005	4.97
0.5–2.5%	0.005	0.010	0.49	0.6237	3.00	-0.061	0.013	-4.83	<.0001	4.60	-0.040	0.015	-2.75	0.0059	4.83	0.001	0.011	0.09	0.9319	4.94
% Veteran Patients																				
> 2.5%	Ref.	-	-	-	3.07	0.000	.	.	.	4.60	Ref.	-	-	-	4.84	Ref.	-	-	-	4.88
< 0.5%	-0.139	0.014	-10.2	<.0001	2.93	0.061	0.017	3.49	0.0005	4.67	0.027	0.020	1.32	0.1863	4.87	0.127	0.015	8.57	<.0001	5.01
0.5–2.5%	-0.104	0.011	-9.3	<.0001	2.97	0.072	0.014	5.01	<.0001	4.68	0.052	0.017	3.14	0.0017	4.89	0.088	0.012	7.23	<.0001	4.97

Parameter	Burnout					Job Satisfaction					Intention to Stay					Engagement				
	Estimate	SE	t Value	Pr > |t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
% Non-English-speaking Patients																				
> 25%	Ref.	-	-	-	3.03	0.000	.	.	.	4.62	Ref.	-	-	-	4.81	Ref.	-	-	-	4.97
< 5%	-0.069	0.012	-5.61	<.0001	2.97	0.069	0.016	4.39	<.0001	4.69	0.109	0.018	5.98	<.0001	4.92	-0.036	0.013	-2.67	0.0075	4.93
5–25%	-0.065	0.010	-6.7	<.0001	2.97	0.020	0.013	1.55	0.122	4.64	0.056	0.015	3.84	0.0001	4.87	-0.023	0.011	-2.1	0.0357	4.95
% Elderly Patients																				
> 15%	Ref.	-	-	-	2.96	0.000	-	-	-	4.69	Ref.	-	-	-	4.94	Ref.	-	-	-	4.98
< 8%	0.061	0.014	4.5	<.0001	3.02	-0.082	0.017	-4.94	<.0001	4.62	-0.125	0.019	-6.49	<.0001	4.81	-0.060	0.015	-4.05	<.0001	4.92
8–15%	0.036	0.012	3.03	0.0025	2.99	-0.064	0.015	-4.34	<.0001	4.64	-0.095	0.017	-5.61	<.0001	4.84	-0.017	0.013	-1.32	0.1875	4.96
Rurality																				
Urban	Ref.	-	-	-	3.00	0.000	-	-	-	4.62	Ref.	-	-	-	4.82	-	-	-	-	-
Rural	-0.022	0.010	-2.13	0.0333	2.98	0.066	0.013	4.95	<.0001	4.68	0.084	0.015	5.42	<.0001	4.91	-	-	-	-	-
Health Center Size																				
Small	Ref.	-	-	-	2.96	0.000	-	-	-	4.68	Ref.	-	-	-	4.86	Ref.	-	-	-	4.96
Medium	0.026	0.014	1.89	0.0593	2.99	-0.050	0.018	-2.81	0.0049	4.63	-0.004	0.021	-0.17	0.8622	4.85	0.013	0.015	0.86	0.3888	4.97
Large	0.052	0.013	4.06	<.0001	3.02	-0.045	0.017	-2.67	0.0075	4.64	0.035	0.019	1.82	0.0693	4.89	-0.040	0.014	-2.86	0.0042	4.92
	R2=0.004458					**R2=0.004559**					**R2=0.00746**					**R2=0.004273**				

Table A4.2. Occupational Characteristics Panel Regression Analysis

Parameter	Burnout					Job Satisfaction					Intention to Stay					Engagement				
	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean
Intercept	3.140	0.012	255.82	<.0001	-	4.643	0.016	286.89	<.0001	-	5.003	0.018	276.99	<.0001	-	4.881	0.010	473.82	<.0001	-
Major Occupational Categories																				
Direct Clinical Services	Ref.	-	-	-	3.04	Ref.	-	-	-	4.70	Ref.	-	-	-	4.79	Ref.	-	-	-	4.82
Ancillary Clinical Services	-0.200	0.017	-11.47	<.0001	2.84	0.265	0.023	11.5	<.0001	4.96	0.239	0.027	8.97	<.0001	5.03	0.100	0.019	5.2	<.0001	4.92
Enabling & Program Services	-0.220	0.014	-15.52	<.0001	2.83	0.154	0.018	8.34	<.0001	4.85	0.037	0.021	1.76	0.0777	4.83	0.157	0.015	10.26	<.0001	4.98
Management & Administration	-0.190	0.013	-14.69	<.0001	2.86	0.144	0.017	8.52	<.0001	4.84	0.141	0.020	7.2	<.0001	4.93	0.165	0.011	15.18	<.0001	4.98
Patient Services, Support & Quality	-0.120	0.011	-11.58	<.0001	2.92	0.098	0.014	6.95	<.0001	4.80	0.117	0.016	7.39	<.0001	4.91	0.080	0.011	7.07	<.0001	4.90
Organizational Tenure																				
Long tenure (7+ years)	Ref.	-	-	-	2.97	Ref.	-	-	-	4.84	Ref.	-	-	-	4.93	Ref.	-	-	7+	4.87
New staff (<2.5 years)	-0.030	0.011	-2.53	0.0115	2.95	0.033	0.014	2.26	0.0238	4.87	-0.021	0.017	-1.27	0.2057	4.91	0.132	0.012	10.84	<.0001	5.00
Middle tenure (2.5–6 years)	-0.200	0.011	-18.21	<.0001	2.77	-0.052	0.015	-3.52	0.0004	4.79	-0.066	0.017	-3.86	0.0001	4.86	0.027	0.013	2.14	0.0326	4.89
Career Tenure																				
Senior level	Ref.	-	-	-	2.77	Ref.	-	-	-	4.92	Ref.	-	-	-	5.04	Ref.	-	-	-	5.01
Entry level (<3 years)	0.190	0.012	16.65	<.0001	2.96	-0.103	0.015	-6.68	<.0001	4.82	-0.233	0.018	-13.05	<.0001	4.81	-0.122	0.013	-9.36	<.0001	4.89
Intermediate (3–6 years)	0.190	0.011	17.31	<.0001	2.96	-0.126	0.015	-8.62	<.0001	4.80	-0.189	0.017	-11.17	<.0001	4.85	-0.128	0.012	-10.42	<.0001	4.88
Mid-level (7–10 years)	0.140	0.011	12.7	<.0001	2.91	-0.138	0.015	-9.35	<.0001	4.79	-0.131	0.017	-7.63	<.0001	4.91	-0.104	0.013	-8.34	<.0001	4.90
Supervisor Status																				
Yes	Ref.	-	-	-	2.88	Ref.	-	-	-	4.88	Ref.	-	-	-	4.94	-	-	-	-	-
No	0.040	0.010	4.57	<.0001	2.92	-0.087	0.013	-6.91	<.0001	4.79	-0.080	0.014	-5.66	<.0001	4.86	-	-	-	-	-
Director Status																				
No	Ref.	-	-	-	2.93	Ref.	-	-	-	4.73	Ref.	-	-	-	4.85	Ref.	-	-	-	4.89
Yes	-0.050	0.015	-3.68	0.0002	2.87	0.212	0.019	11.04	<.0001	4.94	0.104	0.022	4.79	<.0001	4.95	0.059	0.014	4.1	<.0001	4.95

Parameter	Burnout					Job Satisfaction					Intention to Stay					Engagement				
	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean
Compensation Type																				
Salary	Ref.	-	-	-	2.94	Ref.	-	-	-	4.82	-	-	-	-	-	-	-	-	-	-
Hourly	-0.080	0.009	-8.8	<.0001	2.86	0.024	0.012	2.05	0.0403	4.84	-	-	-	-	-	-	-	-	-	-
Patient Interaction Frequency																				
Routinely	Ref.	-	-	-	2.95	Ref.	-	-	-	4.80	Ref.	-	-	-	4.90	-	-	-	-	-
Occasionally	-0.060	0.012	-4.56	<.0001	2.89	0.016	2.440	0.0149	0.007735928	4.84	0.032	0.019	1.7	0.0886	4.93	-	-	-	-	-
Never	-0.100	0.015	-6.32	<.0001	2.85	0.052	0.020	2.59	0.0097	4.85	-0.025	0.023	-1.09	0.2768	4.87	-	-	-	-	-
Full-Time Equivalent (FTE)																				
Full-time	Ref.	-	-	-	2.94	Ref.	-	-	-	4.81	Ref.	-	-	-	4.98	-	-	-	-	-
Part-time	-0.070	0.013	-5.85	<.0001	2.86	0.044	0.017	2.59	0.0097	4.85	-0.162	0.020	-8.26	<.0001	4.82	-	-	-	-	-
Multiple Jobs																				
No	Ref.	-	-	-	2.86	Ref.	-	-	-	4.89	-	-	-	-	4.92	Ref.	-	-	-	4.94
Yes	0.070	0.013	5.76	<.0001	2.93	-0.108	0.017	-6.52	<.0001	4.78	-0.034	0.019	-1.79	0.0728	4.88	-0.038	0.014	-2.71	0.0068	4.90
Educational Requirement																				
No	Ref.	-	-	-	2.95	Ref.	-	-	-	4.75	Ref.	-	-	-	4.86	Ref.	-	-	-	4.96
Yes	-0.110	0.020	-5.36	<.0001	2.85	0.164	0.026	6.3	<.0001	4.91	0.083	0.030	2.77	0.0056	4.94	-0.077	0.022	-3.52	0.0004	4.88
	R^2=0.033574					R^2=0.018881					R^2=0.015416					R^2=0.011837				

Table A4.3. Demographic Characteristics Panel Regression Analysis

Parameter	Burnout					Job Satisfaction					Intention to Stay					Engagement				
	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Intercept	2.719	0.018	150.56	<.0001	-	4.981	0.024	208.75	<.0001	-	4.993	0.027	181.84	<.0001	-	5.061	0.020	251.37	<.0001	-
Age																				
60 and older	Ref.	-	-	-	2.93	Ref.	-	-	-	4.60	Ref.	-	-	-	4.66	Ref.	-	-	-	4.98
Under 30	0.481	0.016	30.07	<.0001	3.41	-0.382	0.021	-18.05	<.0001	4.22	-0.390	0.024	-16.05	<.0001	4.27	-0.280	0.018	-15.72	<.0001	4.69
30–39	0.370	0.014	25.72	<.0001	3.30	-0.303	0.019	-15.93	<.0001	4.30	-0.128	0.022	-5.85	<.0001	4.53	-0.229	0.016	-14.26	<.0001	4.75
40–49	0.252	0.014	17.98	<.0001	3.18	-0.186	0.019	-10.03	<.0001	4.42	0.036	0.021	1.68	0.0929	4.70	-0.142	0.016	-9.04	<.0001	4.75
50–59	0.114	0.014	8.4	<.0001	3.04	-0.081	0.018	-4.51	<.0001	4.52	0.175	0.021	8.46	<.0001	4.84	-0.044	0.015	-2.91	0.0036	4.93
Gender																				
Male	Ref.	-	-	-	3.02	Ref.	-	-	-	4.63	Ref.	-	-	-	4.75	Ref.	-	-	-	4.83
Female	0.105	0.011	9.76	<.0001	3.13	-0.099	0.014	-6.94	<.0001	4.53	-0.023	0.016	-1.41	0.1576	4.72	-0.050	0.040	-1.23	0.2182	4.90
All other	0.348	0.036	9.65	<.0001	3.37	-0.548	0.048	-11.5	<.0001	4.08	-0.415	0.055	-7.52	<.0001	4.33	0.073	0.012	6.04	<.0001	4.78
Sexual Orientation																				
Heterosexual or Straight	Ref.	-	-	-	3.10	Ref.	-	-	-	4.46	Ref.	-	-	-	4.65	Ref.	-	-	-	4.90
All other	0.140	0.014	10.13	<.0001	3.24	-0.093	0.018	-5.05	<.0001	4.37	-0.099	0.021	-4.66	<.0001	4.55	-0.116	0.016	-7.45	<.0001	4.78
Race/Ethnicity																				
White Non-Hispanic	Ref.	-	-	-	3.25	Ref.	-	-	-	4.44	Ref.	-	-	-	4.70	Ref.	-	-	-	4.77
Black Non-Hispanic	-0.177	0.012	-14.33	<.0001	3.07	-0.061	0.016	-3.76	0.0002	4.38	-0.169	0.019	-8.94	<.0001	4.53	0.215	0.014	15.49	<.0001	4.98
Other Non-Hispanic	-0.047	0.015	-3.21	0.0013	3.20	-0.010	0.019	-0.54	0.589	4.43	-0.099	0.022	-4.43	<.0001	4.60	-0.076	0.016	-4.66	<.0001	4.69
Hispanic	-0.076	0.010	-7.5	<.0001	3.17	-0.033	0.013	-2.49	0.0127	4.41	-0.115	0.015	-7.48	<.0001	4.58	0.136	0.011	11.99	<.0001	4.90
English as Primary Language																				
No	Ref.	-	-	-	3.14	Ref.	-	-	-	4.46	Ref.	-	-	-	4.65	Ref.	-	-	-	4.89
Yes	0.073	0.011	6.66	<.0001	3.21	-0.100	0.015	-6.89	<.0001	4.36	-0.098	0.017	-5.83	<.0001	4.55	-0.104	0.012	-8.41	<.0001	4.78
Disability Status																				
No	Ref.	-	-	-	3.05	Ref.	-	-	-	4.52	Ref.	-	-	-	4.72	Ref.	-	-	-	4.89
Yes	0.239	0.018	13.56	<.0001	3.29	-0.223	0.023	-9.57	<.0001	4.30	-0.237	0.027	-8.82	<.0001	4.48	-0.102	0.020	-5.17	<.0001	4.79

Parameter	Burnout					Job Satisfaction					Intention to Stay					Engagement				
	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr >|t|	Adjusted Mean	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Highest Education																				
Postgraduate degree	Ref.	-	-	-	3.30	Ref.	-	-	-	4.29	Ref.	-	-	-	4.46	Ref.	-	-	-	4.83
Up to High School	-0.224	0.014	-15.99	<.0001	3.07	0.265	0.019	14.33	<.0001	4.55	0.264	0.021	12.32	<.0001	4.72	-0.053	0.016	-3.39	0.0007	4.78
Technical or Professional Certificate/Some College	-0.156	0.010	-15.11	<.0001	3.14	0.143	0.014	10.47	<.0001	4.43	0.206	0.016	13.06	<.0001	4.66	0.022	0.012	1.89	0.0591	4.85
Associate's or Bachelor's degree	-0.127	0.010	-12.98	<.0001	3.17	0.098	0.013	7.6	<.0001	4.38	0.105	0.015	7.02	<.0001	4.56	0.046	0.011	4.24	<.0001	4.88
Marital Status																				
Married	Ref.	-	-	-	3.15	Ref.	-	-	-	4.47	Ref.	-	-	-	4.67	Ref.	-	-	-	4.85
Never married	0.058	0.010	5.77	<.0001	3.21	-0.119	0.013	-8.91	<.0001	4.35	-0.149	0.015	-9.68	<.0001	4.52	-0.053	0.011	-4.66	<.0001	4.80
Previously married/separated	0.004	0.011	0.41	0.6788	3.16	-0.045	0.014	-3.24	0.0012	4.42	-0.058	0.016	-3.61	0.0003	4.61	0.001	0.012	0.1	0.9169	4.85
Children under 18 at Home																				
No	Ref.	-	-	-	3.20	Ref.	-	-	-	4.38	Ref.	-	-	-	4.54	Ref.	-	-	-	4.82
Yes	-0.062	0.009	-7.24	<.0001	3.14	0.072	0.011	6.34	<.0001	4.45	0.115	0.013	8.76	<.0001	4.66	0.024	0.010	2.53	0.0114	4.85
Caregiver Status																				
No	Ref.	-	-	-	3.13	Ref.	-	-	-	4.45	-	-	-	-	-	-	-	-	-	-
Yes	0.088	0.010	9.2	<.0001	3.22	-0.072	0.013	-5.64	<.0001	4.38	-	-	-	-	-	-	-	-	-	-
	R2=0.055275					**R2=0.028818**					**R2=0.038338**					**R2=0.027181**				

Table A4.4. Workforce Well-being Drivers Panel Regression Analysis

Parameter	Burnout				Job Satisfaction				Intention to Stay				Engagement			
	Estimate	SE	t Value	Pr > |t|	Estimate	SE	t Value	Pr > |t|	Estimate	SE	t Value	Pr > |t|	Estimate	SE	t Value	Pr > |t|
Intercept	4.580	0.039	116.95	<.0001	0.098	0.049	2.01	0.0449	0.904	0.082	11.05	<.0001	2.456	0.058	42.14	<.0001
Work Life Balance	-0.216	0.003	-75.49	<.0001	0.133	0.004	37.83	<.0001	0.118	0.006	20.09	<.0001	0.066	0.004	15.56	<.0001
Workload	0.243	0.004	55.61	<.0001	-0.152	0.005	-28.21	<.0001	-0.057	0.009	-6.34	<.0001	-0.051	0.006	-7.85	<.0001
Training Provided	-	-	-	-	0.007	0.004	1.9	0.058	-0.080	0.009	-9.05	<.0001	-0.023	0.004	-5.38	<.0001
Recognition	-0.086	0.004	-19.29	<.0001	-0.021	0.005	-4.05	<.0001	0.031	0.010	3.16	0.0016	0.082	0.006	12.84	<.0001
Social Support	0.060	0.004	13.36	<.0001	-	-	-	-	-	-	-	-	-	-	-	-
Adequate Resources	-	-	-	-	0.064	0.006	10.4	<.0001	-	-	-	-	-	-	-	-
Supervision	-	-	-	-	0.083	0.004	22.62	<.0001	0.111	0.006	17.88	<.0001	-0.028	0.004	-6.28	<.0001
My Work Team	-0.037	0.004	-10.29	<.0001	0.037	0.004	8.97	<.0001	0.029	0.007	4.19	<.0001	0.091	0.005	18.19	<.0001
Leadership	-0.037	0.003	-13.97	<.0001	0.108	0.004	28.89	<.0001	0.074	0.006	11.84	<.0001	-0.023	0.004	-5.02	<.0001
Moral Distress	0.147	0.003	43.6	<.0001	-0.070	0.004	-16.69	<.0001	-0.093	0.007	-13.17	<.0001	-0.215	0.005	-42.9	<.0001
Meaningfulness	-0.202	0.004	-45.94	<.0001	0.247	0.005	45.82	<.0001	0.221	0.009	24.44	<.0001	0.362	0.007	55.45	<.0001
Mission Orientation	0.093	0.005	18.42	<.0001	0.023	0.007	3.59	0.0003	0.074	0.011	6.78	<.0001	0.033	0.008	4.26	<.0001
Professional Growth	-0.101	0.003	-29.91	<.0001	0.226	0.004	53.65	<.0001	0.227	0.007	32.27	<.0001	0.011	0.005	2.21	0.0271
Supportive Health Center Processes	-0.040	0.003	-13.59	<.0001	-0.030	0.004	-8.03	<.0001	-0.026	0.006	-4.09	<.0001	0.072	0.004	16.31	<.0001
Compensation and Benefits	-0.021	0.002	-8.82	<.0001	0.124	0.003	42.4	<.0001	0.097	0.005	19.76	<.0001	-0.051	0.004	-14.44	<.0001
Positive Workplace Culture	-	-	-	-	0.094	0.006	14.69	<.0001	0.040	0.011	3.72	0.0002	0.037	0.008	4.77	<.0001
	R2=0.627160				R2=0.673556				R2=0.316793				R2=0.328092			

Table A4.5. Integrated Regression Analysis: Burnout

Burnout					
Parameter	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Intercept	4.398	0.039	113.33	<.0001	-
Workload	0.241	0.004	56.28	<.0001	-
Work Life Balance	-0.215	0.003	-76.67	<.0001	-
Professional Growth	-0.118	0.003	-37.65	<.0001	-
Age					
60 and older	Ref.	-	-	-	2.78
Under 30	0.458	0.009	49.06	<.0001	3.24
30–39	0.290	0.008	35.59	<.0001	3.07
40–49	0.187	0.008	23.04	<.0001	2.97
50–59	0.099	0.008	11.92	<.0001	2.88
Moral Distress	0.150	0.003	45.06	<.0001	-
Meaningfulness	-0.188	0.004	-43.04	<.0001	-
Recognition	-0.066	0.004	-17.18	<.0001	-
Race/Ethnicity					
Non-Hispanic White	Ref.	-	-	-	3.04
Non-Hispanic Black	-0.048	0.008	-6.41	<.0001	2.99
Non-Hispanic Other	-0.057	0.009	-6.47	<.0001	2.98
Hispanic	-0.095	0.005	-17.66	<.0001	2.95
Organizational Tenure					
Long tenure (7+ years)	Ref.	-	-	-	3.03
New staff (<2.5 years)	-0.095	0.006	-15.71	<.0001	2.93
Middle tenure (2.5–6 years)	-0.019	0.006	-2.94	0.0033	3.01
Mission Orientation	0.091	0.005	18.13	<.0001	-
Supportive Health Center Processes	-0.039	0.003	-13.19	<.0001	-
Leadership	-0.034	0.003	-13.21	<.0001	-
R2=0.647401					

Table A4.6. Integrated Regression Analysis: Job Satisfaction

Job Satisfaction					
Parameter	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Intercept	0.368	0.043	8.55	<.0001	-
Positive Workplace Culture	0.126	0.006	22.11	<.0001	-
Professional Growth	0.245	0.004	59.28	<.0001	-
Workload	-0.156	0.005	-30.01	<.0001	-
Meaningfulness	0.248	0.005	52.04	<.0001	-
Compensation & Benefits	0.120	0.003	41.71	<.0001	-
Work Life Balance	0.136	0.003	39.02	<.0001	-
Leadership	0.114	0.004	31.81	<.0001	-
Age					
60 and older	Ref.	-	-	-	4.70
Under 30	-0.157	0.011	-13.90	<.0001	4.54
30–39	-0.070	0.010	-7.00	<.0001	4.63
40–49	-0.008	0.010	-0.77	0.4384	4.69
50–59	0.010	0.010	1.00	0.3163	4.71
Supervision	0.088	0.003	25.15	<.0001	-
Organizational Tenure					
Long tenure (7+ years)	Ref.	-	-	-	4.72
New staff (<2.5 years)	-0.137	0.007	-18.43	<.0001	4.59
Middle tenure (2.5–6 years)	-0.066	0.008	-8.49	<.0001	4.66
Moral Distress	-0.075	0.004	-18.67	<.0001	-
R2=0.677473					

Table A4.7. Integrated Regression Analysis: Intention to Stay

Intention to Stay					
Parameter	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Intercept	0.738	0.062	11.86	<.0001	-
Professional Growth	0.246	0.007	35.52	<.0001	-
Positive Workplace Culture	0.057	0.010	5.94	<.0001	-
Age					
60 and older	Ref.	-	-	-	4.72
Under 30	-0.237	0.019	-12.15	<.0001	4.49
30–39	0.061	0.017	3.62	0.0003	4.78
40–49	0.188	0.017	11.16	<.0001	4.91
50–59	0.238	0.017	13.87	<.0001	4.96
Work Life Balance	0.128	0.006	22.85	<.0001	-
Meaningfulness	0.236	0.008	29.31	<.0001	-
Supervision	0.105	0.006	18.11	<.0001	-
Compensation & Benefits	0.085	0.005	17.80	<.0001	-
Moral Distress	-0.098	0.006	-15.50	<.0001	-
Highest Education					
Postgraduate degree	Ref.	-	-	-	4.68
Up to High School	0.144	0.018	7.94	<.0001	4.82
Technical or Professional Certificate/Some College	0.166	0.013	12.45	<.0001	4.84
Associate's or Bachelor's degree	0.069	0.013	5.50	<.0001	4.75
Organizational Tenure					
Long tenure (7+ years)	Ref.	-	-	-	4.86
New staff (<2.5 years)	-0.177	0.012	-14.18	<.0001	4.68
Middle tenure (2.5–6 years)	-0.092	0.013	-7.09	<.0001	4.77
Race/Ethnicity					
Non-Hispanic White	Ref.	-	-	-	4.86
Non-Hispanic Black	-0.217	0.016	-13.94	<.0001	4.65
Non-Hispanic Other	-0.077	0.018	-4.21	<.0001	4.79
Hispanic	-0.075	0.011	-6.73	<.0001	4.79
Leadership	0.076	0.006	12.60	<.0001	-
Full-Time Equivalent (FTE)					
Full-time	Ref.	-	-	-	4.86
Part-time	-0.184	0.016	-11.27	<.0001	4.68
R2=0.337928					

Table A4.8. Integrated Regression Analysis: Engagement

Engagement					
Parameter	Estimate	SE	t Value	Pr > |t|	Adjusted Mean
Intercept	2.335	0.046	50.75	<.0001	-
Moral Distress	-0.229	0.005	-49.41	<.0001	-
Meaningfulness	0.386	0.006	66.77	<.0001	-
My Work Team	0.097	0.005	20.52	<.0001	-
Supportive Health Center Processes	0.062	0.004	14.13	<.0001	-
Race/Ethnicity					
Non-Hispanic White	Ref.	-	-	-	4.88
Non-Hispanic Black	0.109	0.011	9.57	<.0001	4.98
Non-Hispanic Other	-0.049	0.013	-3.68	0.0002	4.83
Hispanic	0.161	0.008	19.85	<.0001	5.04
Age					
60 and older	Ref.	-	-	-	5.05
Under 30	-0.253	0.014	-17.87	<.0001	4.80
30–39	-0.197	0.012	-15.92	<.0001	4.86
40–49	-0.119	0.012	-9.67	<.0001	4.93
50–59	-0.046	0.013	-3.68	0.0002	5.01
Work Life Balance	0.076	0.004	18.52	<.0001	-
Compensation & Benefits	-0.050	0.003	-15.42	<.0001	-
Organizational Tenure					
Long tenure (7+ years)	Ref.	-	-	-	4.89
New staff (<2.5 years)	0.095	0.009	10.48	<.0001	4.98
Middle tenure (2.5–6 years)	0.029	0.010	3.05	0.0023	4.92
Recognition	0.064	0.006	11.44	<.0001	-
Major Occupational Categories					
Direct Clinical Services	Ref.	-	-	-	4.93
Ancillary Clinical Services	-0.036	0.016	-2.22	0.0261	4.89
Enabling & Program Services	-0.028	0.013	-2.16	0.0307	4.90
Management & Administration	0.075	0.009	8.45	<.0001	5.00
Patient Services, Support, & Quality	0.013	0.010	1.38	0.1675	4.94
R2=0.339037					

Appendix III. Description of Occupational Categories

Major Occupational Category	Broad Occupational Category	Expanded Occupational Category	Detailed Occupational Category
Direct Clinical Services	Medical	Physicians	Family Physician
Direct Clinical Services	Medical	Physicians	General Practitioner
Direct Clinical Services	Medical	Physicians	Internist
Direct Clinical Services	Medical	Physicians	Obstetrician/Gynecologist
Direct Clinical Services	Medical	Physicians	Pediatrician
Direct Clinical Services	Medical	Physicians	Other Specialty Physician
Direct Clinical Services	Medical	Advanced Practice Providers	Practitioner
Direct Clinical Services	Medical	Advanced Practice Providers	Physician Assistant
Direct Clinical Services	Medical	Advanced Practice Providers	Midwife
Direct Clinical Services	Medical	Medical Clinical Support Staff	Nurse
Direct Clinical Services	Medical	Medical Clinical Support Staff	Nurse Aide/Assistant
Direct Clinical Services	Medical	Medical Clinical Support Staff	Medical Assistant/Aide
Direct Clinical Services	Medical	Medical Clinical Support Staff	EMS/EMT Staff
Direct Clinical Services	Dental	Dental Clinicians	Dentist
Direct Clinical Services	Dental	Dental Clinicians	Dental Hygienist
Direct Clinical Services	Dental	Dental Clinicians	Dental Therapist
Direct Clinical Services	Dental	Dental Clinical Support Staff	Dental Assistant, Advanced Practice Dental Assistant
Direct Clinical Services	Dental	Dental Clinical Support Staff	Dental Technician
Direct Clinical Services	Dental	Dental Clinical Support Staff	Dental Aide
Direct Clinical Services	Dental	Dental Clinical Support Staff	Other Clinical Dental Staff
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Psychiatrist
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Psychologist
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Psychiatric Nurse Specialist
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Mental Health Nurse Practitioner
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Mental Health Physician Assistant
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Marriage and Family Therapist
Direct Clinical Services	Behavioral Health / Substance Use	Behavioral Health Clinicians	Other Licensed Mental Health Provider
Direct Clinical Services	Behavioral Health / Substance Use	Counselors and Social Workers	Professional Counselor

Major Occupational Category	Broad Occupational Category	Expanded Occupational Category	Detailed Occupational Category
Direct Clinical Services	Behavioral Health / Substance Use	Counselors and Social Workers	Clinical Social Worker
Direct Clinical Services	Behavioral Health / Substance Use	Counselors and Social Workers	Alcohol/Substance Use Counselor
Direct Clinical Services	Behavioral Health / Substance Use	Counselors and Social Workers	Recovery Support Specialist
Direct Clinical Services	Behavioral Health / Substance Use	Other Mental/Behavioral Health Staff	Other Mental Health Staff
Direct Clinical Services	Behavioral Health / Substance Use	Other Mental/Behavioral Health Staff	Other Behavioral Health/Substance Use Staff
Direct Clinical Services	Other Professional	Other Professional Providers	Chiropractor
Direct Clinical Services	Other Professional	Other Professional Providers	Dietician/Nutritionist
Direct Clinical Services	Other Professional	Other Professional Providers	Therapist (e.g., Occupational, Speech, Physical)
Direct Clinical Services	Other Professional	Other Professional Providers	Podiatrist
Direct Clinical Services	Other Professional	Other Professional Providers	Other Professional Staff
Direct Clinical Services	Vision	Vision Care Providers	Ophthalmologist
Direct Clinical Services	Vision	Vision Care Providers	Optometrist
Direct Clinical Services	Vision	Vision Care Support Staff	Ophthalmologist/Optometric Assistant
Direct Clinical Services	Vision	Vision Care Support Staff	Ophthalmologist/Optometric Aide
Direct Clinical Services	Vision	Vision Care Support Staff	Ophthalmologist/Optometric Technician
Direct Clinical Services	Vision	Vision Care Support Staff	Other Vision Care Staff
Ancillary Clinical Services	Lab	Professional Lab Staff	Pathologist
Ancillary Clinical Services	Lab	Professional Lab Staff	Medical Technologist
Ancillary Clinical Services	Lab	Lab Support Staff	Laboratory Technician
Ancillary Clinical Services	Lab	Lab Support Staff	Laboratory Assistant
Ancillary Clinical Services	Lab	Lab Support Staff	Phlebotomist
Ancillary Clinical Services	Lab	Lab Support Staff	Other Lab Staff
Ancillary Clinical Services	X-Ray	Professional Radiology Staff	Radiologist
Ancillary Clinical Services	X-Ray	Professional Radiology Staff	X-Ray Technician
Ancillary Clinical Services	X-Ray	Professional Radiology Staff	Ultrasound Technician
Ancillary Clinical Services	X-Ray	Radiology Support Staff	Radiology Assistant
Ancillary Clinical Services	X-Ray	Radiology Support Staff	Other X-Ray Staff
Ancillary Clinical Services	Pharmacy	Pharmacist	Pharmacist
Ancillary Clinical Services	Pharmacy	Pharmacy Support Staff	Pharmacy Technician
Ancillary Clinical Services	Pharmacy	Pharmacy Support Staff	Pharmacist Assistant

Major Occupational Category	Broad Occupational Category	Expanded Occupational Category	Detailed Occupational Category
Ancillary Clinical Services	Pharmacy	Pharmacy Support Staff	Pharmacy Clerk
Ancillary Clinical Services	Pharmacy	Pharmacy Support Staff	Other Pharmacy
Enabling & Program Services	Enabling	Internal Enabling Staff	Case Manager
Enabling & Program Services	Enabling	Internal Enabling Staff	Patient/Community Education Specialist
Enabling & Program Services	Enabling	Internal Enabling Staff	Eligibility Assistance Worker
Enabling & Program Services	Enabling	Internal Enabling Staff	Interpreter
Enabling & Program Services	Enabling	Community/Other Enabling Staff	Outreach Worker
Enabling & Program Services	Enabling	Community/Other Enabling Staff	Transportation Staff
Enabling & Program Services	Enabling	Community/Other Enabling Staff	Community Health Worker
Enabling & Program Services	Enabling	Community/Other Enabling Staff	Other Enabling Services
Enabling & Program Services	Other Program and Services	Other Program Staff	WIC Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Head Start Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Housing Assistance Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Child Care Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Food Bank/Meal Delivery Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Employment/Educational Counselor
Enabling & Program Services	Other Program and Services	Other Program Staff	Exercise Trainer/Fitness Center Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Adult Day Health Care, Frail Elderly Support Staff
Enabling & Program Services	Other Program and Services	Other Program Staff	Other Program/Service Staff
Patient Services Support & Quality	Patient Support	Front Office Support Staff	Front Desk / Registration / Check-In Staff
Patient Services Support & Quality	Patient Support	Front Office Support Staff	Cashier / Check-Out Staff
Patient Services Support & Quality	Patient Support	Front Office Support Staff	Appointments Clerk
Patient Services Support & Quality	Patient Support	Front Office Support Staff	Medical Scribe
Patient Services Support & Quality	Patient Support	Back Office Support Staff	Patient/Medical Records Clerk
Patient Services Support & Quality	Patient Support	Back Office Support Staff	Patient Records Transcriptionist
Patient Services Support & Quality	Patient Support	Back Office Support Staff	Other Patient Support Staff
Patient Services Support & Quality	Quality Improvement	Quality Improvement Staff	QI Nurse
Patient Services Support & Quality	Quality Improvement	Quality Improvement Staff	QI Technician
Patient Services Support & Quality	Quality Improvement	Quality Improvement Staff	QI Data Specialist
Patient Services Support & Quality	Quality Improvement	Quality Improvement Staff	Statistician / Data Analyst
Patient Services Support & Quality	Quality Improvement	Quality Improvement Staff	Other Quality Improvement Staff
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Chief Executive Officer/Executive Director
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Chief Financial Officer/Fiscal Officer/Finance Director

Major Occupational Category	Broad Occupational Category	Expanded Occupational Category	Detailed Occupational Category
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Chief Information Officer
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Chief Medical Officer / Medical Director (no clinical practice)
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Chief Operating Officer / Director of Operations
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Chief Strategy/Planning Officer
Management & Administration	Senior Corporate Leadership	Senior Corporate Staff	Other Corporate Leadership Staff
Management & Administration	Administration and Support	Operational Administration Staff	Department Manager
Management & Administration	Administration and Support	Operational Administration Staff	Site Manager
Management & Administration	Administration and Support	Operational Administration Staff	Receptionist (not clinical check-in)
Management & Administration	Administration and Support	Operational Administration Staff	Secretaries/Administrative Assistant
Management & Administration	Administration and Support	Corporate Administration	Planning And Evaluation Staff
Management & Administration	Administration and Support	Corporate Administration	Personnel/HR Department Staff
Management & Administration	Administration and Support	Corporate Administration	Marketing/Communications Staff
Management & Administration	Administration and Support	Corporate Administration	Other Administration/Support Staff
Management & Administration	Fiscal and Billing	Fiscal and Billing Staff	Accountant
Management & Administration	Fiscal and Billing	Fiscal and Billing Staff	Bookkeeper
Management & Administration	Fiscal and Billing	Fiscal and Billing Staff	Billing Clerk
Management & Administration	Fiscal and Billing	Fiscal and Billing Staff	Accounts Payable Clerk
Management & Administration	Fiscal and Billing	Fiscal and Billing Staff	Other Fiscal and Billing Staff
Management & Administration	Information and Technology	Information Technology Staff	Data Processing Staff
Management & Administration	Information and Technology	Information Technology Staff	Programmer
Management & Administration	Information and Technology	Information Technology Staff	It Help Desk Technician
Management & Administration	Information and Technology	Information Technology Staff	EHR Technician
Management & Administration	Information and Technology	Information Technology Staff	Data Entry Clerk
Management & Administration	Information and Technology	Information Technology Staff	Other Information and Technology Staff
Management & Administration	Facilities	Facilities Staff	Janitor/Custodian
Management & Administration	Facilities	Facilities Staff	Security Guard
Management & Administration	Facilities	Facilities Staff	Groundskeeper
Management & Administration	Facilities	Facilities Staff	Equipment Maintenance Staff
Management & Administration	Facilities	Facilities Staff	Housekeeping Staff
Management & Administration	Facilities	Facilities Staff	Other Facilities Staff

Appendix IV. HRSA Health Center Workforce Well-being Survey Questions and Sources

#	Question	Source
Drivers		
	Job Classification	
	Job Classification: The following questions help us understand your primary job(s) in the health center. It is important that we classify you with those that have similar job(s) in your and other organizations to the degree possible, while also capturing your unique job(s)/title(s). Please consider the following: Your primary job is the one that you spend the most time in, including any leadership role within that job. If you have more than one distinct job, you will be given the opportunity to reflect that. If you have a director/leadership role as part of your job, you will be able to indicate that, but it should be considered a single job. You will also be able to indicate if you are fulfilling an educational/training requirement in your job.	JSI
A1	Please select the category job that best matches your primary job at this Health Center. You can find how jobs are organized in this section by viewing the Occupation Look-Up resource.	2021 Uniform Data System[1]*
A2	Please select which title in _____ best describes your job.	2021 Uniform Data System*
A3	What is your actual title for this job? Please read: Your answer will NOT be included with the final data file. We ask this to confirm that your job is classified in the correct occupational group.	2021 Uniform Data System*
A4	For this job, do you serve as a director of the clinical or functional area in which you work, such as Medical Director, Human Resources Director, or Director of Nursing?	2021 Uniform Data System*
A5	For this job, are you working as part of an educational requirement, such as an internship, residency, fellowship, or apprenticeship?	2021 Uniform Data System*
A6	Do you have a second distinct job at this health center? *Indicate a second job if you have separate time set aside for this additional job or an agreed expectation that you will serve in a clear second capacity for a portion of your time. Do not consider a director role as a second job.*	2021 Uniform Data System*
	Please select the job that best matches your Secondary job at this Health Center. You can find how jobs are organized in this section here [PDF link].	2021 Uniform Data System*
A7	Please select the category that your Secondary job falls in.	2021 Uniform Data System*
A8	Please select which title in _____ best describes your job.	2021 Uniform Data System*

#	Question	Source
A9	Please read: Your confidentiality and responses will be protected. Demographic information is important in order to compare different groups' responses at broad geographic levels. Your responses will not be disclosed in any way that could identify you.	2021 Uniform Data System*
A10	For this job, do you serve as a director of the clinical or functional area in which you work, such as Medical Director, Human Resources Director, or Director of Nursing?	2021 Uniform Data System*
A11	For this job, are you working as part of an educational requirement, such as an internship, residency, fellowship, or apprenticeship?	2021 Uniform Data System*
A12	If you have additional distinct jobs at this health center, please list others or clarify here:	2021 Uniform Data System*
A1 - secondary job	For the remainder of the survey, please answer questions from the perspective of your Primary job to the degree possible, even if your answers might be different for your Secondary job.	2021 Uniform Data System*
A13	How many years have you been doing this type of job at this Health Center? *Please round to the nearest year.*	JSI
A14	How many years, in total, have you been doing this type of job at this Health Center and anywhere else? *Please round to the nearest year.*	JSI
A15	For your current job, are you paid on a salary or hourly basis?	JSI
A16	In the past month, on average how many hours a week did you work at your current job? *Include any paid time off as time worked. Do not include on-call time.*	JSI
A17	How many hours a week would be considered full-time for your current job?	JSI
A18	As part of your current job, for how many people are you their direct supervisor?	JSI
A19	As part of your current job, how often do you interact with patients?	JSI
A20	As part of your current job, how often do you use the Health Center's electronic medical record (EMR) / electronic health record (EHR) system?	JSI
	My Work Team	
B1	My team members value, seek and give each other constructive feedback.	Nursing Teamwork Survey (NTS)[2]
B2	My team members readily share ideas and information with each other.	Nursing Teamwork Survey (NTS)
B3	My team members work effectively together.	Professional Practice Work Environment Inventory (PPWEI)[3]

#	Question	Source
B4	My team members support me in the work that I do.	Professional Practice Work Environment Inventory (PPWEI)
B5	My team members understand the role and responsibilities of each other.	Nursing Teamwork Survey (NTS)
B6	Members of my team are able to bring up problems and tough issues.	Nursing Teamwork Survey (NTS)
B7	If you make a mistake on my team, it is held against you.	Psychological Safety and Learning Behavior in Work Teams[4]
B8	I feel that I am ignored or not taken seriously by others on my team.	Organizational Context and Female Faculty's Perception of the Climate for Women in Academic Medicine
	Supervision and Leadership	
B9	Communication between my direct supervisor and me is good.	JSI
B10	I am encouraged by my direct supervisor to voice my opinion on issues relating to our work.	Professional Practice Work Environment Inventory (PPWEI)
B11	My direct supervisor is a good manager and leader.	Professional Practice Work Environment Inventory (PPWEI)
B12	My direct supervisor supports my need to balance work and other life issues.	2019 Employee Viewpoint Survey (EVS)[5]
B13	My direct supervisor encourages staff to contribute to decisions about work-related issues.	Professional Practice Work Environment Inventory (PPWEI)
B14	Communication between senior leaders and employees is good in this Health Center.	2014 Public Health Workforce Interests and Needs Survey[6]
B15	My Health Center's senior leaders are skilled and effective.	JSI
B16	In this Health Center, senior leaders generate high levels of motivation and commitment among staff.	2019 Employee Viewpoint Survey (EVS)
	Culture	
C1	This Health Center promotes the well-being of staff.	JSI
C2	Policies and programs at this Health Center promote diversity in the workplace such as recruiting from minority groups, training in awareness of diversity issues, and mentoring.	2019 Employee Viewpoint Survey (EVS)
C3	Staff members are respectful to all coworkers regardless of their different backgrounds or identities.	Professional Practice Work Environment Inventory (PPWEI)
C4	Staff members are respectful of the diverse patient populations whom they serve.	Professional Practice Work Environment Inventory (PPWEI)
C5	Staff members provide the same high quality care to all patients regardless of their different backgrounds or identities.	Professional Practice Work Environment Inventory (PPWEI)

#	Question	Source
C6	Staff members have the resources needed to provide care that is appropriate for patients of different cultures, backgrounds, or identities.	Professional Practice Work Environment Inventory (PPWEI)
C7	Opportunities for staff at this Health Center are decided primarily on quality of work and abilities.	Areas of Work Life Survey[7]
C8	Senior leaders treats all employees fairly regardless of their different backgrounds or identities.	Areas of Work Life Survey
C9	Favoritism determines one's opportunities at this Health Center.	Areas of Work Life Survey
C10	I feel comfortable communicating with staff at all levels of this Health Center.	Satisfaction of Employees in Health Care Survey (SEHC)[8]
C11	Teamwork is valued in this Health Center.	Professional Practice Work Environment Inventory (PPWEI)
C12	If I were to experience mistreatment within my workplace, such as bullying, discrimination, abuse, harassment, I would feel comfortable reporting it to someone at this Health Center.	Race/Ethnicity and Workplace Discrimination: Results of a National Survey of Physicians[9]
	Social Support and Recognition	
C13	I get help and support from my coworkers.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)[10]
C14	I get help and support from my direct supervisor.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C15	My coworkers are willing to listen to my problems.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C16	My direct supervisor is willing to listen to my problems.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C17	My coworkers show recognition and appreciation for my work.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C18	My direct supervisor shows recognition and appreciation for my work.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C19	Senior leaders show recognition and appreciation for our work.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C20	The Health Center's patients show recognition and appreciation for our work.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
C21	The community shows recognition and appreciation for our work.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
	Health Center Processes	
C22	Administrative tasks that I have to do get in the way of my primary duties.	JSI

#	Question	Source
C23	The electronic medical record (EMR) / electronic health record (EHR) system used at this Health Center supports high quality patient care. *skipped if never uses EHR*	Mayo Clinic Electronic Environment Questionnaire[11]
C24	The electronic medical record (EMR) / electronic health record (EHR) system used at this Health Center adds burden to my work. *skipped if never uses EHR*	Mayo Clinic Electronic Environment Questionnaire
C25	I am satisfied with the electronic medical record (EMR) / electronic health record (EHR) system used at this Health Center. *skipped if never uses EHR*	Mayo Clinic Electronic Environment Questionnaire
C26	This Health Center has systems in place to prevent, catch, and correct problems that have the potential to affect patient care.	Medical Office Survey
	Training	
C27	This Health Center makes sure staff get the job training they need.	Medical Office Survey[12]
C28	This Health Center makes sure staff get the continuing education they need.	Medical Office Survey
C29	This Health Center trains staff when new processes are put into place.	Medical Office Survey
	Resources	
C30	This Health Center is able to hire people with the right skills.	2019 Employee Viewpoint Survey (EVS)
C31	I have the resources I need to do my job well.	JSI
C32	This Health Center has adequate resources and procedures to protect the health and safety of staff.	JSI
C33	This Health Center is keeping up with the latest changes in the delivery of healthcare.	JSI
C34	This Health Center has appropriate physical space and conditions to deliver our services, such as adequate noise levels, temperature control, and privacy.	2019 Employee Viewpoint Survey (EVS)*
C35	This Health Center has resources, systems, and processes to respond effectively to public health emergencies.	JSI
C36	I am confident about this Health Center's financial stability over the next few years.	JSI
	Mission Orientation	
D1	I work in an organization that provides essential care to people who otherwise wouldn't have it.	JSI
D2	I am aware of the direction and mission of this Health Center.	Mission Attachment and Employee Retention Survey[13]
D3	This Health Center is successful at accomplishing its mission.	2019 Employee Viewpoint Survey (EVS)

#	Question	Source
D4	My work contributes to carrying out the mission of this Health Center.	Mission Attachment and Employee Retention Survey
	Meaningfulness	
D5	I feel I'm positively influencing other people's lives through my work.	Maslach Burnout Inventory (MBI)[14]
D6	I believe that working in a Community Health Center gives me a greater sense of fulfillment than I would feel working in other health care settings.	JSI
D7	Working with under-resourced populations makes my job feel valuable.	JSI
D8	I have a meaningful job at this Health Center.	Work and Meaning Inventory (WAMI)[15]
D9	The work I do serves a greater purpose.	Work and Meaning Inventory (WAMI)
	Compensation and Benefits	
D10	I am well paid given my training and experience.	Linzer National Survey 2001[16]
D11	My benefit package is adequate for my needs.	Pay Satisfaction Questionnaire (PSQ)*[17]
D12	This Health Center rewards performance with bonuses or other monetary types of recognition.	JSI
D13	I am well compensated compared to people with similar jobs in this region.	Linzer National Survey 2001
	Professional Growth	
D14	I am satisfied with my opportunities for professional growth at this Health Center.	Satisfaction of Employees in Health Care Survey (SEHC)[18]
D15	There are a lot of opportunities for challenging work in my job.	Conditions of Work Effectiveness Questionnaire (CWEQ-II)[19]
D16	There are a lot of opportunities for gaining new skills and knowledge in my job.	Conditions of Work Effectiveness Questionnaire (CWEQ-II)
D17	My skills and knowledge are used well in my job.	2019 Employee Viewpoint Survey (EVS)*
	Workload	
D18	I don't have enough time to do the work that must be done.	Areas of Work Life Survey[7]
D19	We have enough staff to handle our patient load.	Medical Office Survey
D20	I know what is expected of me at work.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)

#	Question	Source
D21	I sometimes have to do things at work which seem to be unnecessary.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
D22	I have control over how I do my work.	Areas of Work Life Survey
D23	I have influence in the decisions affecting my work.	Areas of Work Life Survey
	Work Life Balance	
D24	My work takes so much of my time that it has a negative effect on my personal life.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
D25	I leave my work behind at the end of the workday.	Areas of Work Life Survey
D26	I am able to take the time off from work that I need.	JSI
D27	My friends or family tell me that I work too much.	Copenhagen Psychosocial Questionnaire (COPSOQ-II)
D28	This Health Center supports a balance between my work and personal life.	JSI
	Moral Distress	
D29	I often find it difficult to do my job because of organizational rules or procedures.	RN Work Survey[20]
D30	I am often bothered that this Health Center cannot fully address patients' needs because they go beyond what this Health Center can offer.	JSI
D31	I am often bothered that I'm not able to do my job in the way I think is best.	JSI
D32	This Health Center has resources, such as dedicated staff, community programs, resources or tools, to address patients' social needs.	Physician Burnout and Higher Clinic Capacity to Address Patients' Social Needs[21]
Outcome Measures		
	Job Satisfaction	
E1	If I had to decide again, I would definitely take this job.	The Ponds & Geyer Global Job Satisfaction Measure*[22]
E2	I would recommend this Health Center as a good place to work.	2019 Employee Viewpoint Survey (EVS)
E3	I feel that this is my ideal job.	The Ponds & Geyer Global Job Satisfaction Measure*
E4	My job matches the expectations I had when I took it.	The Ponds & Geyer Global Job Satisfaction Measure*
E5	All things considered, I am very satisfied with my current job.	The Ponds & Geyer Global Job Satisfaction Measure*
	Burnout	

#	Question	Source
E6	There are days when I feel tired before I arrive at work	Oldenburg Burnout Inventory (OLBI)[23]
E7	After work, I tend to need more time than in the past in order to relax and feel better	Oldenburg Burnout Inventory (OLBI)
E8	I can tolerate the pressure of my work very well	Oldenburg Burnout Inventory (OLBI)
E9	During my work, I often feel emotionally drained	Oldenburg Burnout Inventory (OLBI)
E10	After working, I have enough energy for my leisure activities	Oldenburg Burnout Inventory (OLBI)
E11	After my work, I usually feel worn out and weary	Oldenburg Burnout Inventory (OLBI)
E12	Usually, I can manage the amount of my work well	Oldenburg Burnout Inventory (OLBI)
E13	When I work, I usually feel energized	Oldenburg Burnout Inventory (OLBI)
E14	I often find new and interesting aspects in my work	Oldenburg Burnout Inventory (OLBI)
E15	It happens more and more often that I talk about my work in a negative way	Oldenburg Burnout Inventory (OLBI)
E16	Lately, I tend to think less at work and do my job almost mechanically	Oldenburg Burnout Inventory (OLBI)
E17	I find my work to be a positive challenge	Oldenburg Burnout Inventory (OLBI)
E18	Over time, one can become disconnected from this type of work	Oldenburg Burnout Inventory (OLBI)
E19	Sometimes I feel sickened by my work tasks	Oldenburg Burnout Inventory (OLBI)
E20	This is the only type of work that I can imagine myself doing	Oldenburg Burnout Inventory (OLBI)
E21	I feel more and more engaged in my work	Oldenburg Burnout Inventory (OLBI)
	Engagement	
E22	The longer I work in this job, the less empathetic I feel toward the Health Center's patients.	Professional Fulfillment Index (PFI)*[24]
E23	The longer I work in this job, the less empathetic I feel toward my colleagues.	Professional Fulfillment Index (PFI)*
E24	The longer I work in this job, the less sensitive I feel toward others' feelings/emotions.	Professional Fulfillment Index (PFI)*

#	Question	Source
E25	The longer I work in this job, the less interested I feel in talking with the Health Center's patients.	Professional Fulfillment Index (PFI)*
E26	The longer I work in this job, the less connected I feel with the Health Center's patients.	Professional Fulfillment Index (PFI)*
E27	The longer I work in this job, the less connected I feel with my colleagues.	Professional Fulfillment Index (PFI)*
	Workforce Stability	
E28	A year from now, it is likely that I will still be working at this Health Center.	JSI
E29	If you were to leave, which would be the main reason(s)? *Select all that apply.*	JSI
E30	Staff turnover is a problem at this Health Center.	JSI
	Demographics	
F1	What is your age?	2021 Uniform Data System*
F2	What is your gender identity?	2021 Uniform Data System
F3	What is your sexual orientation?	2021 Uniform Data System*
F4	Are you Hispanic or Latino/a?	Health and Human Services Guidance*[25]
F5	What is your race? *Select all that apply.*	Health and Human Services Guidance*
F6	Is English the primary language that you speak at home?	Health and Human Services Guidance*
F7	How well do you speak English?	Health and Human Services Guidance*
F8	Are you an individual with a disability?	2019 Employee Viewpoint Survey (EVS)
F9	What is the highest education level you have completed?	2019 Employee Viewpoint Survey (EVS)
F10	What is your current marital status?	American Community Survey [26]
F11	Do you have children under 18 living at home?	American Community Survey
F12	Do you have significant caregiver responsibilities for any relatives who have disabilities or who are elderly?	ASPE Caregiver Survey* [27]
F13	Are you working at this Health center because of a scholarship or loan repayment agreement or as part of a visa requirement?	JSI

*Adapted for the HRSA Health Center Workforce Well-being Survey

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