



2016 Physician Wellness Survey

Full Report



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The 2016 Physician Wellness Survey Results: Stanford University Hospital and Lucile Packard Children's Hospital Medical Staff

Background

The Stanford Physician Wellness Committee conducted the Physician Wellness Survey from October 3rd, 2016 to November 23rd, 2016. The survey was completed by 1281 out of 2392 (54% response rate) Stanford-affiliated physicians with active clinical status.

The purpose of this report is to inform you of the results of the 2016 survey, compare them with the 2013 survey results, and outline follow-up action plans to promote physician wellness, based on these survey findings.

Definitions

Professional Fulfillment: Happiness or meaningfulness, self-worth, self-efficacy, and satisfaction at work.

Burnout: Emotional exhaustion and interpersonal disengagement.

Culture of Wellness: Organizational work environment, values and behaviors that promote self-care, personal and professional growth, and compassion for ourselves, our colleagues and our patients.

Efficiency of Practice: Workplace systems, processes, and practices that promote safety, quality, effectiveness, positive patient and colleague interactions, and work-life balance.

Personal Resilience: Individual skills, behaviors, and attitudes that contribute to physical, emotional, and professional well-being.

Perceived Support from Leadership: Developed by Shanafelt et al, this is a scale with actionable items designed to assess specific aspects of leadership associated with professional satisfaction.¹

Key Survey Findings

- 34% reported one or more symptom of burnout such as emotional or physical exhaustion.
- 17% reported high professional fulfillment and **44% of reported professional fulfillment.**
- Female physicians reported higher burnout rates than male physicians (39% vs 28%) and lower rates of professional fulfillment (37 vs 51%).

- Mirroring national trends, Stanford doctors responding to 2013 and 2016 surveys had increased burnout and decreased professional fulfillment.
- The strongest determinants of burnout were two personal resilience factors: low self-compassion and sleep-related impairment.
- Culture of wellness factors were the strongest determinants of professional fulfillment and included perceived appreciation, personal/organization values alignment, and peer supportiveness, all of which were associated with perceived Support from Leadership.
- Experience with efficiency of the electronic medical record predicted modest but significant variance in professional fulfillment and burnout.
- Over 60% of physicians rated potential organizational strategies as very or extremely helpful, with leadership development strategies and involving physicians in clinical practice improvement solutions receiving the highest rankings.
- Highest rated preferred personal resilience strategies were free conveniently located food and positive psychology to promote compassionate growth-mindset.

Significance and Objectives of the Physician Wellness Survey

Physicians strive to improve the health and quality of life of their patients. While physicians' professional wellness is increasingly recognized as an important component of good health care,² there is evidence that the prevalence of physician burnout is increasing over time in the US³ which may negatively impact patient care.^{4,5} Conversely, high professional wellness in physicians is associated with better quality of patient care.⁶

The work of the Stanford Physician Wellness Committee is founded on the premise that advancing wellness and quality of life for physicians and for patients are synergistic goals. Thus, the Stanford Physician Wellness Survey has been designed to 1) assess burnout and its determinants, 2) assess professional fulfillment and its determinants, 3) identify gaps in current efforts to increase professional fulfillment and to obtain direct feedback from physicians on ways to improve their wellness. The Stanford Physician Wellness Committee will use the survey results to inform Stanford leaders about current status of physician wellness and to help university, department, and medical center leadership develop, implement, and evaluate interventions to improve professional fulfillment of physicians at Stanford.

Below we present the results of the 2016 Stanford Physician Wellness Survey, starting with self-reported burnout to compare our results with national data, followed by professional fulfillment and then our expanded definition of physicians' professional fulfillment.

The Stanford Physician Wellness Model Domains Measurements



- ☐ **Culture of Wellness**
 - Perceived Appreciation
 - Personal/Organization Values Alignment
 - Peer Supportiveness
 - Perceived Support from Leadership
 - Control of Schedule
- ☐ **Efficiency of Practice**
 - Efficiency of the Electronic Medical Record (EHR)
 - Perceived Negative EHR Experience
- ☐ **Personal Resilience**
 - Self-Compassion
 - Sleep-Related Impairment
 - Meaningfulness of Clinical Work

Results

Burnout

In 2016, a significant portion (34%) of Stanford affiliated physicians, report one or more symptoms of burnout. Figure 1 shows percentage of physicians by faculty line and gender who, based on their own definition of burnout, reported one or more symptom of burnout such as physical and emotional exhaustion. Overall, female physicians experienced significantly higher burnout rates than male physicians (39%

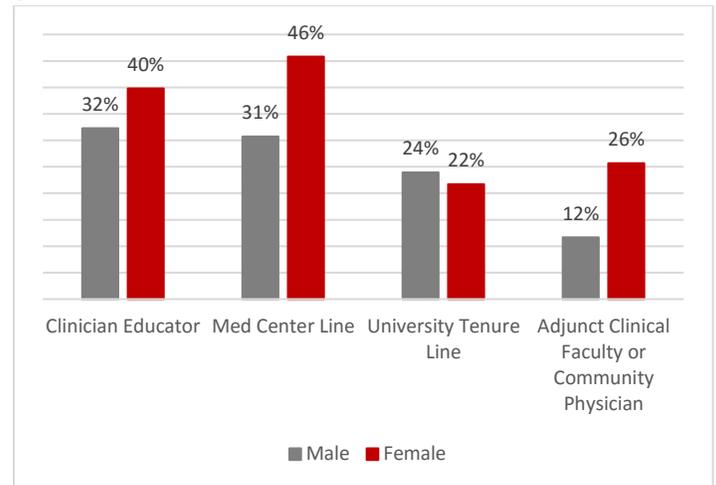
versus 28%). Figure 2 compares the physicians' 2013 and 2016 self-reported burnout rates among the 265 physicians who provided this data at both time points.

Determinants of burnout

Culture of wellness

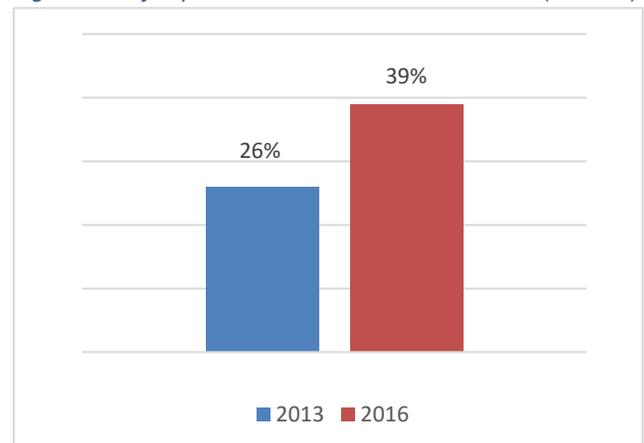
Perceived appreciation (OR = 0.46; 95% CI =0.38-0.56), control of schedule (OR = 0.60; 95% CI= 0.50-0.73) and peer support (OR = 0.70; 95% CI =0.60-0.83), are significant independent predictors of lower odds of burnout, after adjusting for age category, self-identified race, gender, and work hours.

Figure 1: Physicians reporting burnout, by faculty line and gender, 2016



In a separate model, each average item Likert scale point increase (on a five-point scale) in perceived Support from Leadership was associated with 43% lower odds of self-reported burnout (OR = 0.57; 95% CI= 0.49-0.66) after adjusting for age category, self-identified race, gender, and work hours.

Figure 2: Self-reported burnout in 2013 and 2016 (n = 265)



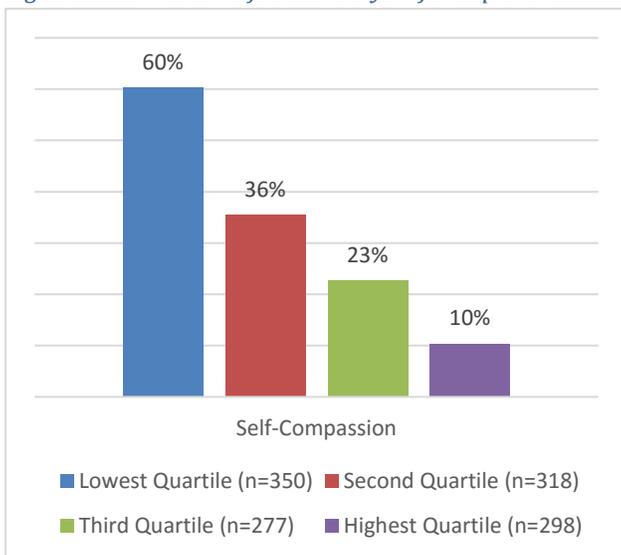
Efficiency of practice

Each average item Likert scale point increase (on a five-point scale) in perceived negative EHR experience is associated with 43% increased odds of self-reported burnout (OR = 1.43; 95% CI =1.25-1.63) after adjusting for age category, self-identified race, gender, and work hours.

Personal resilience

The strongest personal resilience domain predictor of burnout was lack of self-compassion, followed by sleep-related impairment and meaningfulness of clinical work. Each average item Likert scale point increase (on a five-point scale) in lack of self-compassion and sleep-related impairment was associated with 191% (OR = 2.91; 95% CI=2.31-3.66) and 133% (OR = 2.33; 95% CI=1.90-2.85) greater odds of self-reported burnout respectively. Each average item Likert scale point increase (on a five-point scale) in meaningfulness of clinical care was associated with 19% (OR = 0.81; 95% CI=0.66-0.99) lower odds of burnout. Figure 3 compares percentage of physicians reporting burnout by quartile of self-compassion.

Figure 3: Prevalence of burnout by self-compassion



Professional Fulfillment

In 2016, 17% of Stanford affiliated physicians reported high professional fulfillment. Professional fulfillment was assessed with a four-item scale assessing happiness, self-worth, self-efficacy, and satisfaction at work, with five point Likert scale response options from “not at all true” to “completely true.” High professional fulfillment was defined as an average item score of 3.5 out of 4 or higher. Figure 4 shows the percentage of physicians in each faculty track with high professional fulfillment. Female physicians experienced significantly less high professional fulfillment than male physicians (13% versus

20%), and clinical educators as a whole reported the lowest rates of professional fulfillment.

Figure 4: High professional fulfillment, by faculty line and gender, 2016

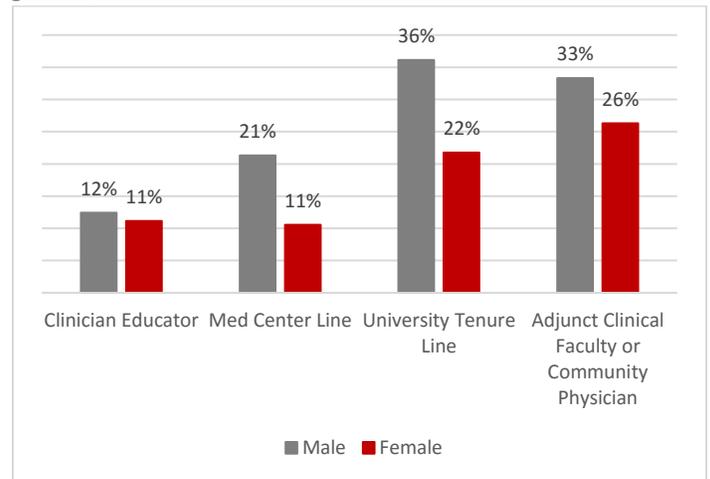
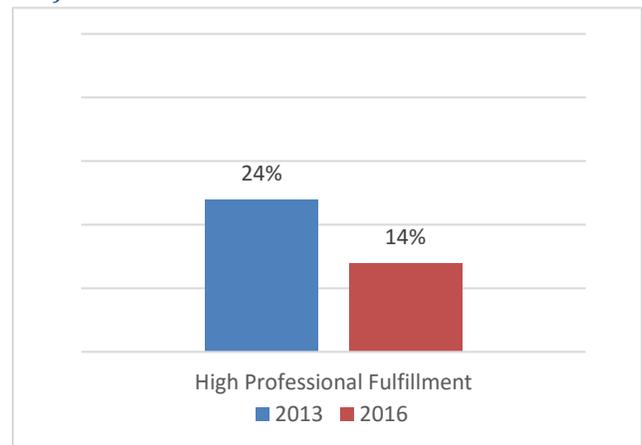


Figure 5 compares the mean high professional fulfillment scores in 2013 to 2016, among the 271 physicians who provided this data at both time points.

Figure 5: High professional fulfillment in 2013 and 2016 (n = 271)



Below, we present assessment results for professional fulfillment defined as an average scale item score of 3 out of 4 or higher. Using this updated definition, in 2016, 44% of Stanford affiliated physicians reported professional fulfillment. This 2016 report presents results for both “high professional fulfillment” and “professional fulfillment” to allow for comparison with the 2013 Stanford Physician Wellness report which focused on “high professional fulfillment.” Future reports will maintain consistency by using the new standardized dicotomization of “professional fulfillment” defined by a score of 3.0 or higher on a 0 to 4 point scale.

Figure 6: Professional fulfillment by gender, 2016

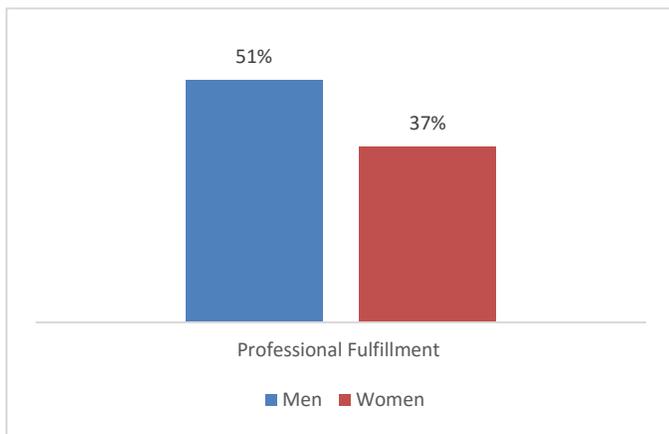


Figure 7: Professional fulfillment by faculty line and gender, 2016

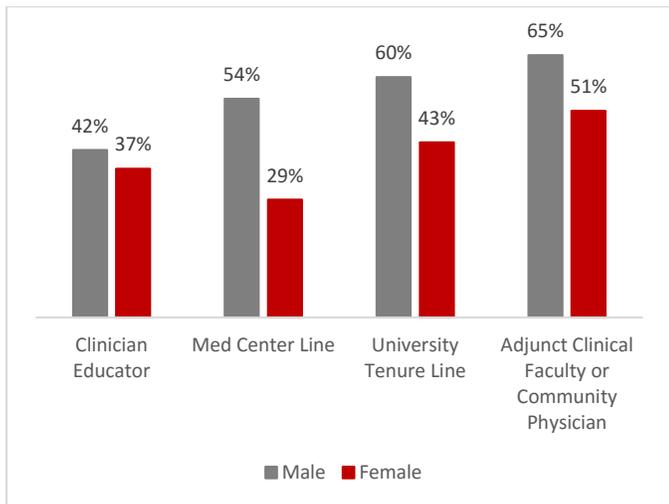
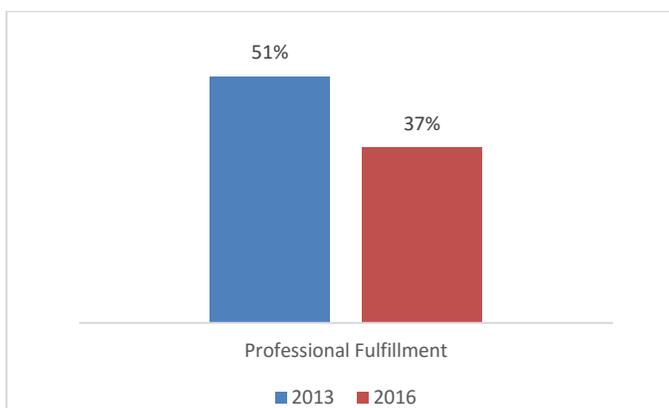


Figure 8: Professional fulfillment in 2013 and 2016 (n = 271)



Determinants of Professional Fulfillment

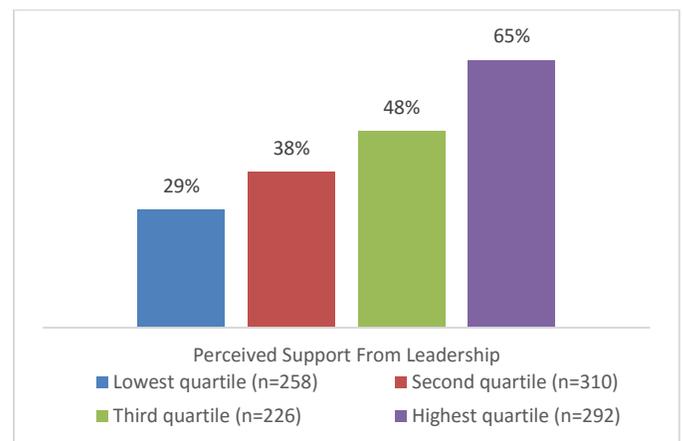
Culture of wellness

Multivariate linear regression results indicate higher professional fulfillment is associated with higher perceived appreciation ($\beta = 0.34$; $p < 0.0001$), personal/organizational values alignment ($\beta = 0.27$; $p < 0.0001$), and peer support ($\beta =$

0.15 ; $p < 0.0001$) after adjusting for age category, self-identified race, gender, and work hours (model $R^2 = 0.44$).

We also assessed the association between perceived Support from Leadership and professional fulfillment in multivariate linear regression adjusting for age category, self-identified race, gender, and work hours (model $R^2 = 0.17$). Higher fulfillment is associated with higher perceived Support from Leadership ($\beta = 0.35$; $p < 0.0001$). Figure 6 shows percentage of physicians with professional fulfillment by quartile of Support from Leadership.

Figure 10: Professional fulfillment, by quartiles of perceived Support from Leadership



Efficiency of practice

Multivariate linear regression results indicate higher professional fulfillment is associated with higher perception of EHR helpfulness ($\beta = 0.25$; $p < 0.0001$) after adjusting for age category, self-identified race, gender, and work hours (model $R^2 = 0.11$).

Personal resilience

Multivariate linear regression results indicate higher professional fulfillment is associated with higher meaningfulness of clinical care ($\beta = 0.31$; $p < 0.0001$), higher self-compassion ($\beta = 0.22$; $p < 0.0001$), and lower sleep-related impairment ($\beta = -0.16$; $p < 0.0001$) after adjusting for age category, self-identified race, gender, and work hours (model $R^2 = 0.27$).

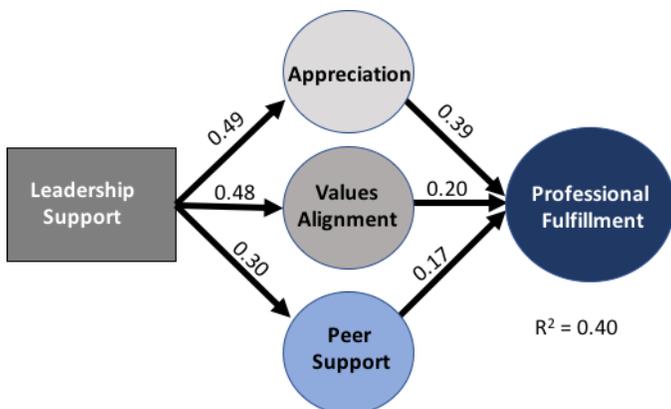
Professional Fulfillment, Expanded Definition

Using an overall professional wellness index for physicians, with professional fulfillment on one end of the spectrum, and burnout defined by emotional exhaustion and interpersonal disengagement on the other end, may help expand the current focus on the high prevalence of burnout. Professional fulfillment is a higher aspiration than mere

prevention of burnout. This index has the potential to measure the effectiveness of intervention strategies designed to promote professional fulfillment as well as those designed to reduce burnout. This combined scale (index) includes all 6 professional fulfillment items coupled with the 9 reverse scored Stanford burnout items (4 emotional exhaustion items and 5 interpersonal disengagement items). We found that this scale has high overall internal consistency ($\alpha = 0.93$) and as intended provides an overall target for physician wellness, which we consider an expanded definition of professional fulfillment. Furthermore, we found that a regression model including Culture of Wellness, Efficiency of Practice and Personal Resilience factors, controlling for age category, self-identified race, gender, and work hours, explained most (61%) of the variance in our expanded professional fulfillment index.

The correlation analysis depicted in Figure 7 identifies Support from Leadership as an actionable strategy for improving professional fulfillment (expanded definition). Perceived appreciation, personal/organizational values alignment, and peer support account for 40% of the variance in professional fulfillment index scores. Perceived Support from Leadership correlates with all three of these proximal determinants of professional fulfillment. After controlling for the effects of these proximal determinants of professional fulfillment, the direct effect of Support from Leadership on professional fulfillment was not statistically significant. These correlations are consistent with the hypothesis that improved Support from Leadership may increase professional fulfillment by increasing perceived appreciation, values alignment, and perceived peer support.

Figure 11: Effect of leadership on fulfillment (expanded definition), mediated through culture of wellness variables



Wellness Strategies Rated by Physicians

Over 900 of physicians (70% of survey respondents; 38% of all invited Stanford affiliated physicians) responded to the optional section of the survey that asked them to rate the helpfulness of possible wellness strategies. The results are provided in figures below.

The two highest rated wellness strategies queried were: “Strategies to promote leadership traits associated with improved professional satisfaction” and “Clear recognition and support of importance of physician wellness from leaders.” These potential strategies were rated “very helpful” or “extremely helpful” by the majority (69% and 67%, respectively) of physicians. Among efficiency of practice strategies, those that involve physicians in improvement solutions were rated highly. Conveniently located quality food was the highest rated personal resilience domain strategy, followed by use of positive psychology to promote compassionate growth-mindset (Figures 8, 9, 10).

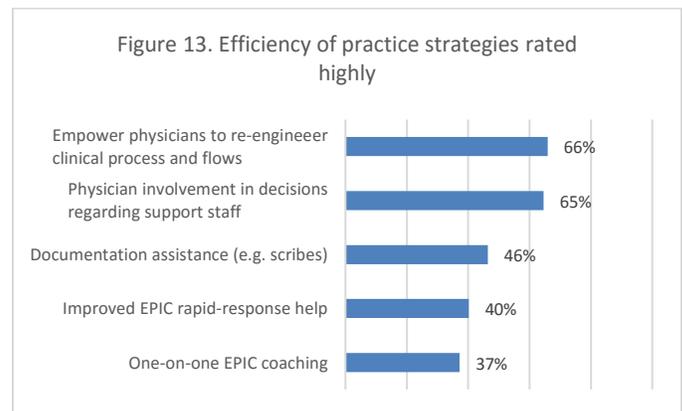
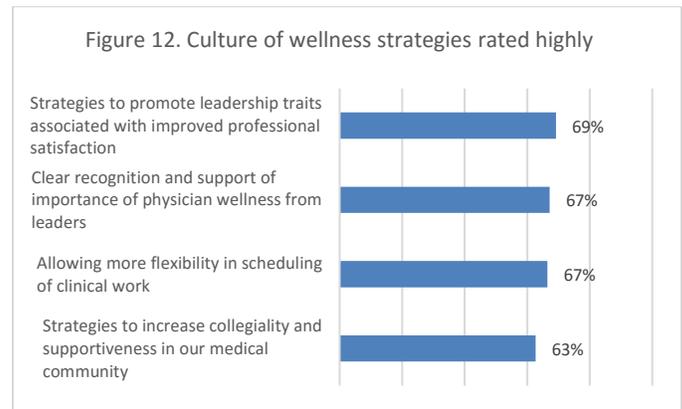
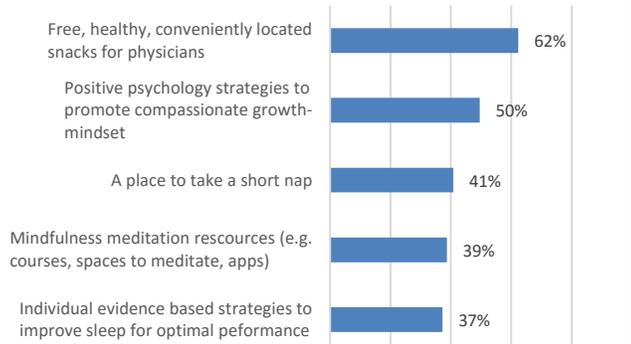


Figure 14. Personal resilience strategies rated highly



Discussion Points

Results from this survey are consistent with existing literature on physician burnout and professional fulfillment. National trends, indicating recent increase in physician burnout (from 46% in 2011 to 54% in 2014),³ were also observed at Stanford, with a greater portion reporting symptoms of burnout and fewer reporting high professional fulfillment in 2016 compared to 2013.

Stanford physician wellness survey data and similar national data rely on self-report, which may introduce some bias and may reflect greater awareness of burnout and concomitant willingness to disclose burnout symptoms. On the other hand, increased regulation including implementation of federally mandated “meaningful use” of the electronic medical record coupled with greater accountability to meet clinical targets has increased demands on physicians while simultaneously attenuating physician autonomy and associated professional control. These factors may explain actual national and local increase in physician burnout. In any case, data linking burnout versus professional fulfillment to salient outcomes among physicians and the patients they care for warrant attention. It is also time to apply the best methods we can collectively derive to improve physician wellness at Stanford and to assist other institutions in their efforts to do likewise.

Empirically Guided Plan to Improve Physicians’ Professional Fulfillment

Improving the culture of wellness

The results of our analysis point to the value of appreciation, mission alignment, and peer support as significant correlates of professional fulfillment and low burnout, as well as Support from Leadership. These findings are consistent with physicians’ ratings of wellness strategies, which also suggest

that focusing on Support from Leadership strategies are promising.

WellMD Center personnel will be offering department leadership direct survey feedback on ratings they received from faculty working in their departments. This feedback will provide opportunities for action indicated by the specific Support from Leadership strategies included in the Support from Leadership scale.¹ The Center will also explore specific areas of support needed for women physicians and the clinical educator line.

In addition, as control is a known significant factor in burnout, and our survey revealed that highly rated strategies included involving physicians more in clinical processes and decision-making, we will be collaborating with hospital administrators to explore this opportunity for improving physician engagement and patient outcomes.

Improving efficiency of practice

Contrary to our expectations, the Electronic Health Record experience accounted for significant but relatively small portion of variance in professional fulfillment and burnout. On the other hand, initial analysis of qualitative survey comments suggest lack of time is the most prevalent concern among respondents and may be a contributing factor to burnout.

It may be that Efficiency of Practice strategies not assessed by survey measures such as improved communication and team sharing of clerical tasks may be more promising strategies for improving physician wellness. Existing literature suggests that structural interventions including improved clinical work processes result in reduced burnout.^{8,9}

Improving personal resilience

Organizational strategies are paramount in addressing physician wellness. National data indicating more than half of physicians³ are reporting significant burnout should quell any disparaging attribution of this pervasive problem to individual physician character flaw or other personal weakness. On the other hand, we have seen marked improvements in wellness scores among those who have elected to complete WellMD Center sponsored mindfulness or compassion cultivation trainings. This evaluation finding is consistent with research indicating interventions that promote mindfulness, stress reduction, and self-care in physicians reduce burnout.⁸⁻¹¹

Individual physicians have great capacity to change themselves and contribute to change in their work environment—even during challenging times. Our goals are

to reduce challenges and shortcomings faced in work environments and concurrently provide physicians with resiliency and self-care skills to promote and preserve their own wellness. In particular, individual resilience strategies that use positive psychology to promote a more self-compassionate perspective in the practice of medicine may be an effective way of improving self-compassion, which was the most significant personal resilience domain predictor of professional fulfillment and low burnout. These strategies had relatively high ratings by survey respondents, confirming the need for developing such programs. We will support—and where indicated develop and implement—these strategies for physicians who are interested in pursuing them.

Assessing Our Progress

We will use the survey to re-assess wellness of Stanford physicians every other year. We will use survey data to develop interventions that increase professional fulfillment at Stanford and to measure intervention benefits to physicians and—ultimately—associated quality of patient care benefits.

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