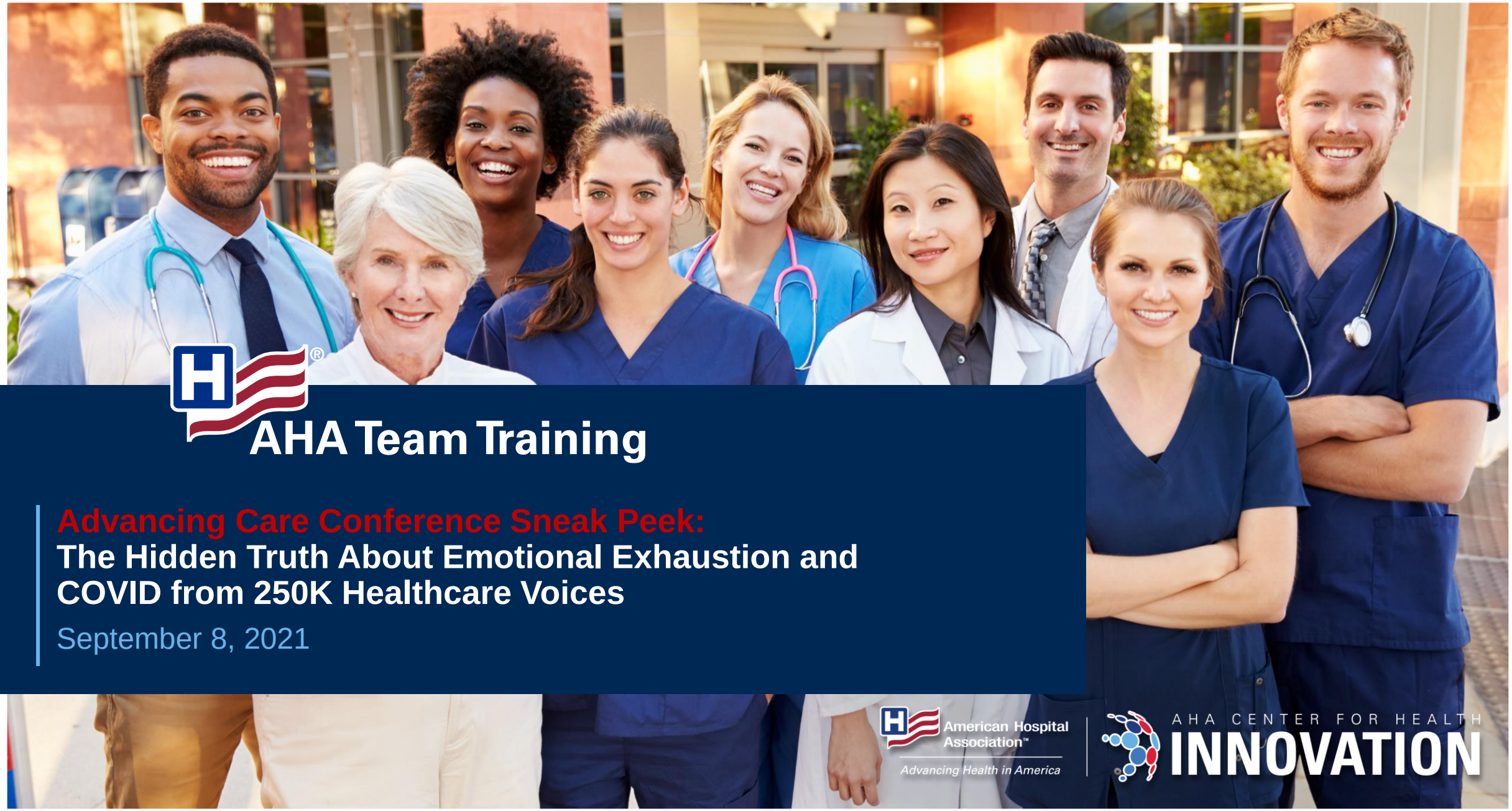

AHA Team Training

Advancing Care Conference Sneak Peek:

The Hidden Truth About Emotional Exhaustion and COVID from 250K Healthcare Voices

September 8, 2021

American Hospital Association™
Advancing Health in America

AHA CENTER FOR HEALTH INNOVATION

Upcoming Team Training Events

Webinars

- **September 28, 2021 | 12:00 – 1:00 PM CT**
- Bonus webinar: “Looking Beyond Acuity: How Intelligent Automation Can Improve Daily Staffing Practices “ Register here!
- **October 13, 2021 | 12:00 – 1:00 PM CT**
  “Mindfully Addressing High Reliability’s “Robust PI” for Multi-Level, Multi-Organizational, Enterprise-Wide Improvement” Register here!
- **October 20, 2021 | 12:00 – 1:00 PM CT**
  Bonus webinar: “Reimagine Patient and Family Communication with Mobile Technology“ Register here!

Courses

TeamSTEPPS for Change Leaders and Champions – Virtual - Register here!

Online Community Platform

Join Mighty Network to access exclusive content and connect with your peers to share stories, tools, and content.

Update: Advancing Care Conference Postponement

Given the ongoing impact of COVID-19 and as part of the AHA’s continuing efforts to support frontline health care professionals, educators, and leaders, we are postponing the inaugural Advancing Care Conference, originally scheduled for October 4-6 in Chicago, to 2022.

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Today's Presenters

Dr. Bryan Sexton, PhD
Director of the Duke Center for Healthcare Safety and Quality, and Associate Professor
Duke University Health System, Duke University; Department of Psychiatry

Joshua Proulx, BSEE
Chief Data Science Officer
Safe & Reliable Healthcare

Allan Frankel, MD
Chief Executive Officer
Safe & Reliable Healthcare

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The Hidden Truth About Emotional Exhaustion and COVID from 250K Healthcare Voices

Bryan Sexton, Joshua Proulx, Allan Frankel

Sep 8, 2021

Agenda

- Burnout during Covid-19
- Evidence-based strategies to reduce burnout

- How we measure burnout
- SCORE survey
- Additional insights on COVID’s effect on burnout

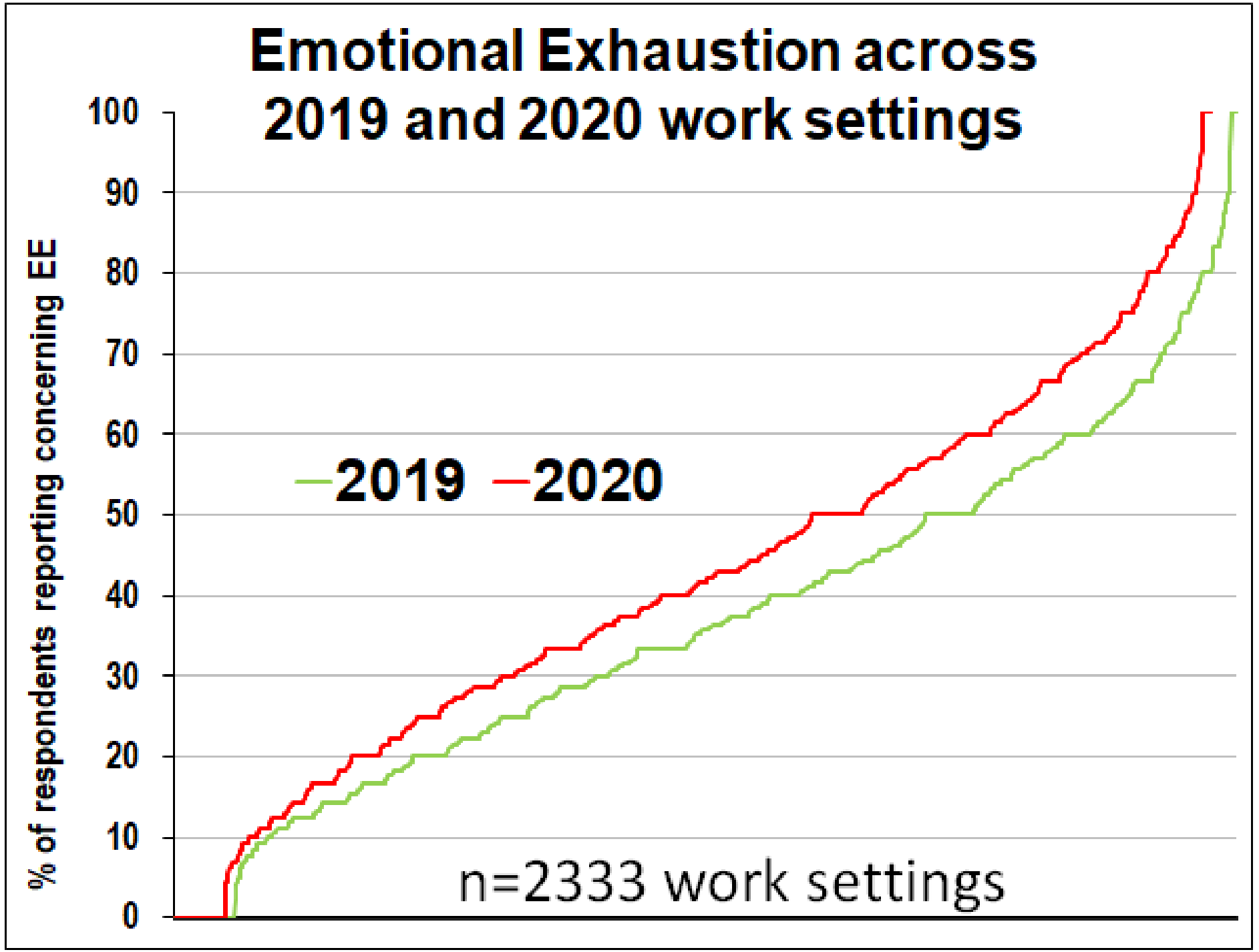
- The underlying framework for highly reliable organizations
- Reflections on leadership and burnout

The Hidden Truth About Emotional Exhaustion and COVID from 250K Healthcare Voices

J. Bryan Sexton, PhD
Director, Duke Center for
Healthcare Safety and Quality
Duke University Health System

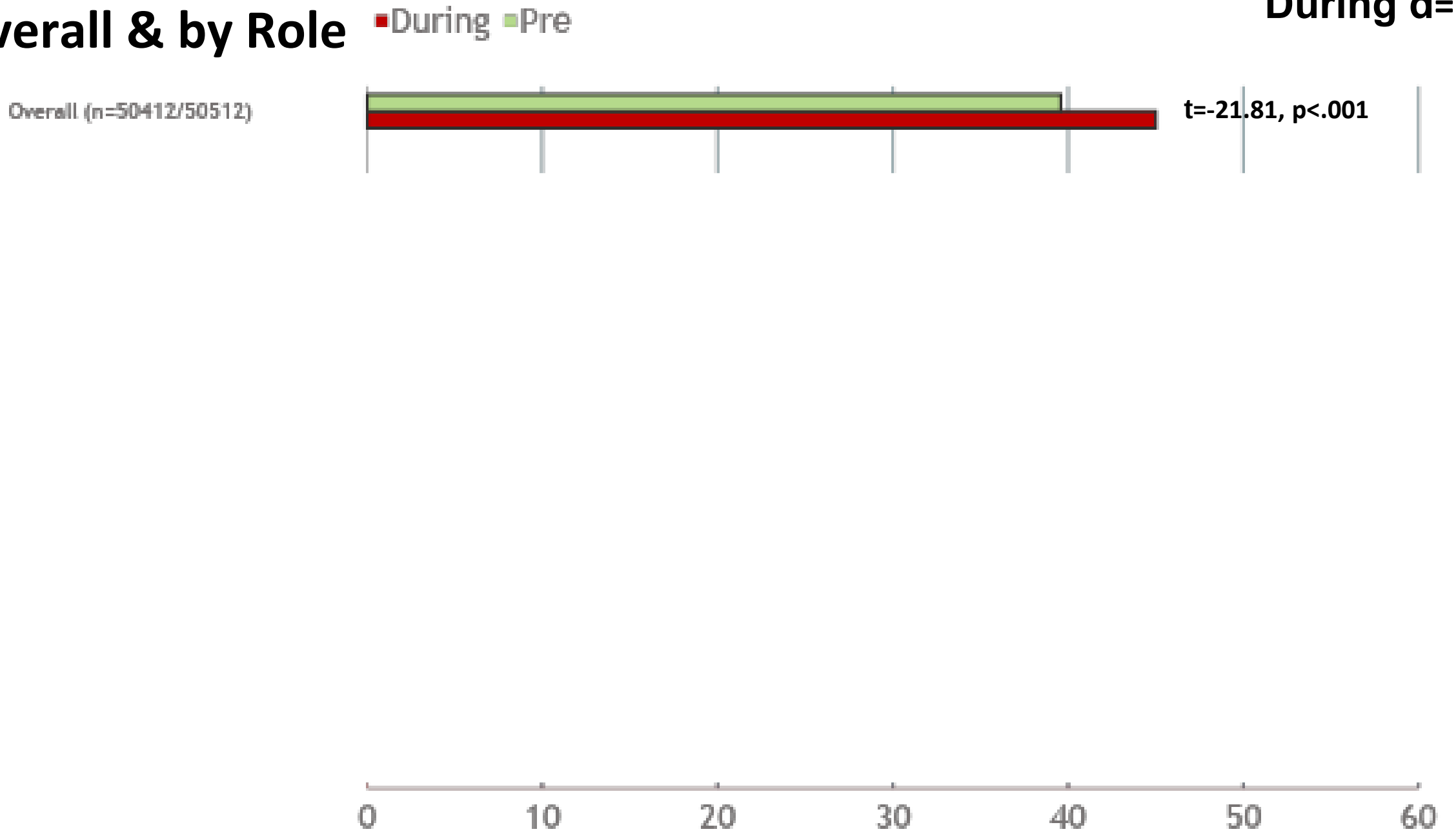
Let’s get the elephants in the room out of the way… Impact of Covid-19, and Evidence that we can fix it…

We have data from 50,000 healthcare workers in Sept 2019 and Sept 2020


Emotional Exhaustion across 2019 and 2020 work settings
% of respondents reporting concerning EE
100
90
80
70
60
50
40
30
20
10
0
2019
2020
n=2333 work settings

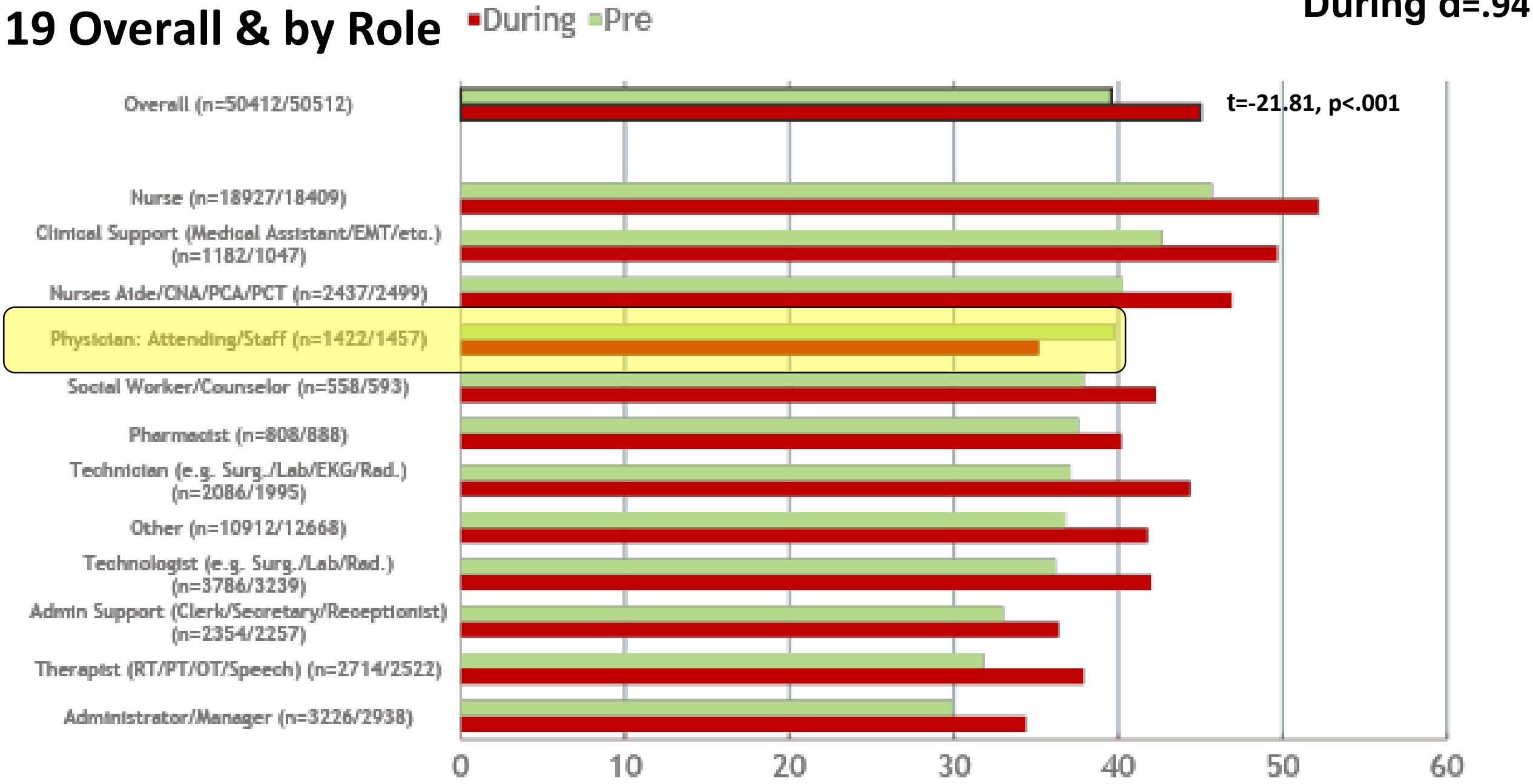
% Emotionally Exhausted Before and During Covid-19 Overall & by Role

Pre α=.93
During α=.94



% Emotionally Exhausted Before and During Covid-19 Overall & by Role

Pre α=.93
During α=.94



COVID-19 impact is equivalent of 2.5 EMRs in 1 year

Haidari et. al, 2021 *Journal of Perinatology*. Maternal and neonatal health care worker well-being and patient safety climate amid the COVID-19 pandemic.

Burnout is intense, can we cause it to go down?

Journal of Perinatology
https://doi.org/10.1038/s41372-021-01100-y

ARTICLE

Randomized controlled trial of the "WISER" intervention to reduce healthcare worker burnout

Jochen Profit[1,2] · Kathryn C. Adair[3,4] · Xin Cui[1,2] · Briana Mitchell[1] · Debra Brandon[5,6] · Daniel S. Tawfik[7] · Joseph Rigdon[8] · Jeffrey B. Gould[1,2] · Henry C. Lee[1,2] · Wendy L. Timpson[9] · Martin J. McCaffrey[10] · Alexis S. Davis[1] · Mohan Pammi[11] · Melissa Matthews[12] · Ann R. Stark[13] · Lu-Ann Papile[14] · Eric Thomas[15] · Michael Cotten[16] · Amir Khan[14] · J. Bryan Sexton[3,4]

Received: 13 January 2021 / Revised: 26 April 2021 / Accepted: 6 May 2021

Abstract

Objective Test web-based implementation for the science of enhancing resilience (WISER) intervention efficacy in reducing healthcare worker (HCW) burnout.

Design RCT using two cohorts of HCWs of four NICUs each, to improve HCW well-being (primary outcome: burnout). Cohort 1 received WISER while Cohort 2 acted as a waitlist control.

Results Cohorts were similar, mostly female (83%) and nurses (62%). In Cohorts 1 and 2 respectively, 182 and 299 initiated WISER, 100 and 176 completed 1-month follow-up, and 78 and 146 completed 6-month follow-up. Relative to control, WISER decreased burnout (−5.27 (95% CI: −10.44, −0.10), $p = 0.046$). Combined adjusted cohort results at 1-month showed that the percentage of HCWs reporting concerning outcomes was significantly decreased for burnout (−6.3% (95% CI: −11.6%, −1.0%); $p = 0.008$), and secondary outcomes depression (−5.2% (95%CI: −10.8, −0.4); $p = 0.022$) and work-life integration (−11.8% (95%CI: −17.9, −6.1); $p < 0.001$). Improvements endured at 6 months.

Conclusion WISER appears to durably improve HCW well-being.

Clinical Trials Number NCT02603133; https://clinicaltrials.gov/ct2/show/NCT02603133

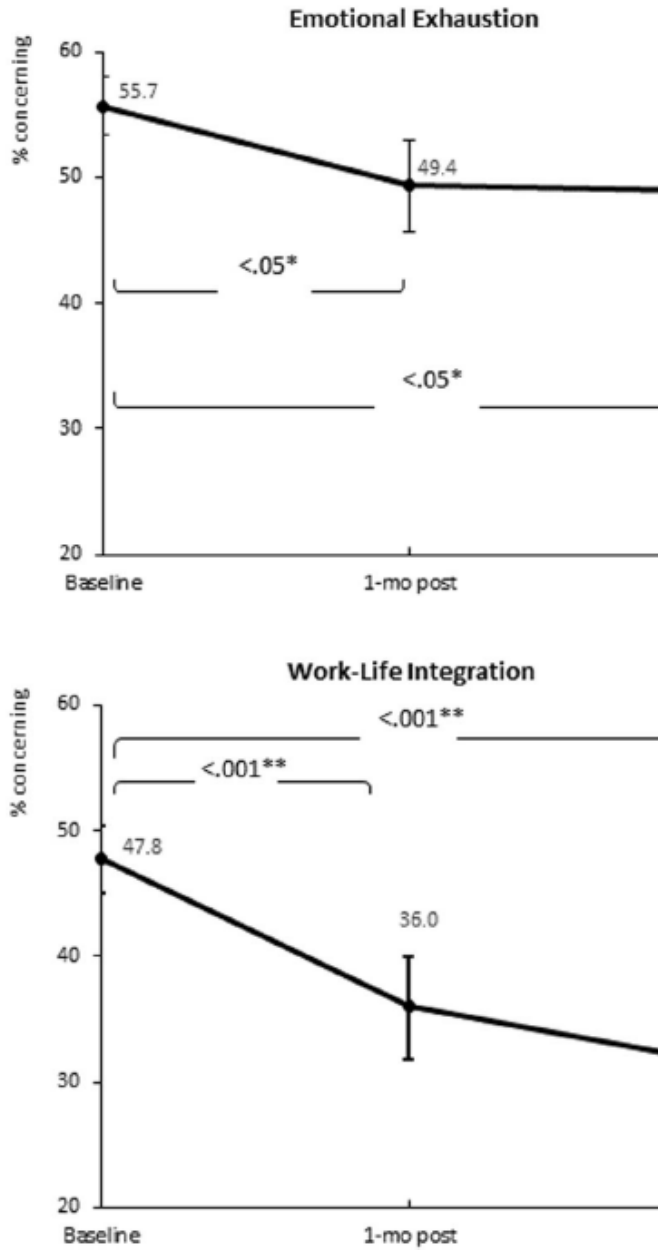


Fig. 2 Effect of WISER on the percent concerning scale
month post provided in brackets.

JAMA Network Open

Original Investigation | Health Informatics

Clinician Burnout Associated With Sex, Clinician Type, Work Culture, and Use of Electronic Health Records

Eugenia McPeek-Hinz, MD, MS; Mina Boazak, MD; J. Bryan Sexton, Robert S. Alphin, MD; Sherif Idris, MD; W. Ed Hammond, PhD; Shell

• **Overall, EHR metrics accounted for 1.3% of model variance (*P* = .001) compared with work culture accounting for 17.6% of variance (*P* < .001).**

Abstract

IMPORTANCE Electronic health records (EHRs) are consid to clinician burnout.

OBJECTIVE To describe the association of EHR usage, sex, of clinicians at an academic medical institution.

DESIGN, SETTING, AND PARTICIPANTS This cross-sectional study of 1310 clinicians at a large tertiary care academic medical center analyzed EHR usage metrics for the month of April 2019. results from a well-being survey from May 2019. Participants included attending physicians, advanced practice providers (APPs), and house staff from various specialties. Data were between March 2020 and February 2021.

EXPOSURES Clinician demographic characteristics, EHR metadata, and an insti

MAIN OUTCOMES AND MEASURES Study metrics included clinician den score, well-being measures, and EHR usage metadata.

RESULTS Of the 1310 clinicians analyzed, 542 (41.4%) were men 448 [82.7%] White clinicians, 52 [9.6%] Asian clinicians, and 2 (58.6%) were women (mean [SD] age, 42.6 [10.3] years; 57 Asian clinicians, and 50 [6.5%] Black clinicians). Women women, 423 [52.0%] vs men, 258 [47.6%]; *P* = .008) were found by sex for multiple metrics of time in th or differences in products of clinical care. Multiv domains were significantly associated with s 0.542; 95% CI, 0.427-0.688; *P* < .001) an of burnout compared with men (OR spent using the EHR system was 0.937-0.996; *P* = .03). Overall, EHR metrics accounted for 1.3% of model variance (*P* = .001) compared with work culture accounting for 17.6% of variance (*P* < .001).

CONCLUSIONS AND RELEVANCE In this cross-sectional study, sex-based differences in EHR usage and burnout were found in clinicians. These results also suggest that local work culture factors may contribute more to burnout than metrics of EHR usage.

JAMA Network Open. 2021;4(4):e215686. doi:10.1001/jamanetworkopen.2021.5686

compared for EHR metrics. ndently contributed lihood of clinician burnout significantly interacted with work culture domains of commitment and work-life balance.

Meaning These findings suggest that clinician sex and local work culture may contribute more to burnout than the EHR.

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

Discussion

The etiologies of clinician burnout are multifactorial and likely representative of a combination of the individual, local environment, regulatory requirements, and EHR technology.[22] Our study describes re across sex for attending

ture. Our multivariate , EHR metrics, and R metrics for average t wellness domains have ls test of R^2 difference

ntly to burnout was ere associated with a efficiency of usage of the EHR by clinicians for higher volume EHR users. Other EHR metrics derived as products of clinical care, such as length of notes or percentage of appointments closed the same day, did not differ significantly by sex.

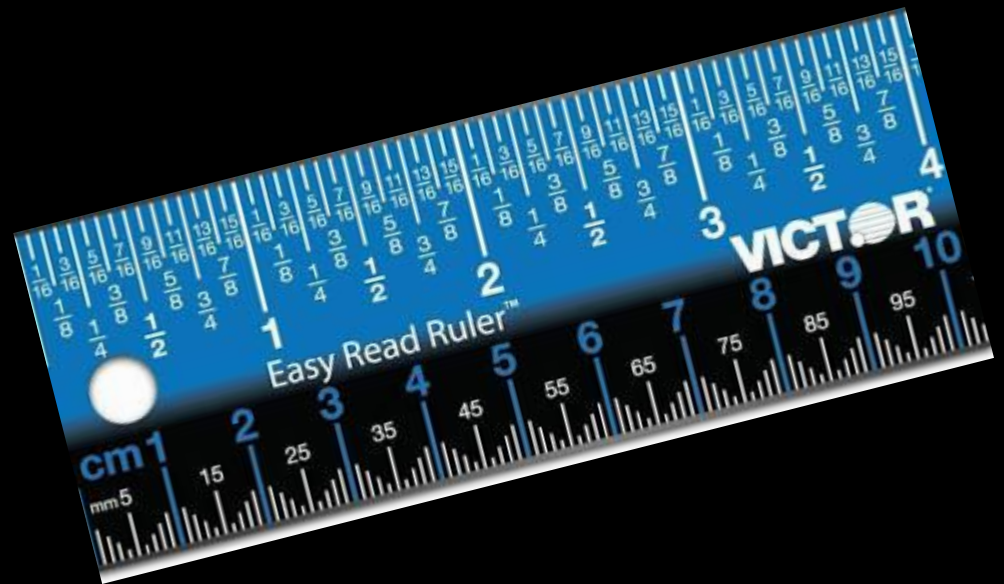
Female clinicians reported more burnout than their male colleagues did across all 3 clinician types. These results support previous findings related to sex differences in burnout and EHR use metrics.[20,26] While female clinicians spent more total time in the EHR and had more days with appointments, these measures did not lead to more clinician encounters or more total in-basket

Table 3. Multivariate Logistic Regression Models of Clinician Demographics, EHR Metrics, and Well-being Survey Domains to Burnout

Characteristics	Model 1 (clinician demographics), OR (95% CI)	*P* value	Model 2 (model 1 + EHR metrics), OR (95% CI)	*P* value	Model 3 (model 2 + well-being metrics), adjusted OR (95% CI)	*P* value
Clinician sex	1.404 (1.112-1.762)	.003	1.424 (1.132-1.792)	.003	1.331 (1.010-1.754)	.04
Clinician age	1.005 (0.995-1.016)	.29	1.005 (0.995-1.016)	.31	1.008 (0.996-1.020)	.20
Average patient age	0.992 (0.986-0.998)	.01	0.989 (0.983-0.995)	<.001	0.993 (0.985-1.001)	.07
Specialty	1.056 (0.987-1.131)	.11	1.046 (0.972-1.124)	.23	1.054 (0.964-1.151)	.25
Days in EHR for month	NA	NA	0.979 (0.955-1.003)	.09	0.966 (0.937-0.996)	.03
Total time in system	NA	NA	1.000 (1.000-1.003)	.002	1.000 (1.000-1.000)	.07
Days with appointment	NA	NA	0.987 (0.955-1.019)	.43	1.003 (0.963-1.046)	.88
Total encounters	NA	NA	0.998 (0.996-1.000)	.11	1.000 (0.998-1.003)	.76
Total in-basket messages	NA	NA	1.001 (1.000-1.001)	.02	1.000 (1.000-1.000)	.19
Commitment	NA	NA	NA	NA	0.542 (0.427-0.688)	<.001
Work life	NA	NA	NA	NA	0.643 (0.559-0.739)	<.001
Belonging	NA	NA	NA	NA	0.822 (0.665-1.017)	.07
Teamwork	NA	NA	NA	NA	0.525 (0.409-0.672)	<.001
Empower	NA	NA	NA	NA	0.929 (0.729-1.184)	.55
Management	NA	NA	NA	NA	1.008 (0.811-1.251)	.95
Career development	NA	NA	NA	NA	1.017 (0.827-1.250)	.87
Safety	NA	NA	NA	NA	1.129 (0.853-1.494)	.40
Diversity	NA	NA	NA	NA	0.837 (0.710-0.985)	.03
Well-being	NA	NA	NA	NA	0.883 (0.740-1.053)	.17
Violence	NA	NA	NA	NA	1.192 (0.985-1.441)	.07
No.	1310	NA	1310	NA	1167	NA
χ^2	$\chi^2_4 = 18.33$	.001	$\chi^2_9 = 41.02$	<.001	$\chi^2_{20} = 319.82$	<.001
McFadden R^2	.010	NA	.023	NA	.198	NA
AIC	1.38	NA	1.37	NA	1.147	NA
Δ Variance M1 to M2	1.3%	NA	NA	.001	NA	NA
Δ Variance M2 to M3	NA	NA	17.6%	NA	NA	<.001

Abbreviations: AIC, Akaike information criteria; EHR, electronic health record; NA, not applicable; OR, odds ratio.

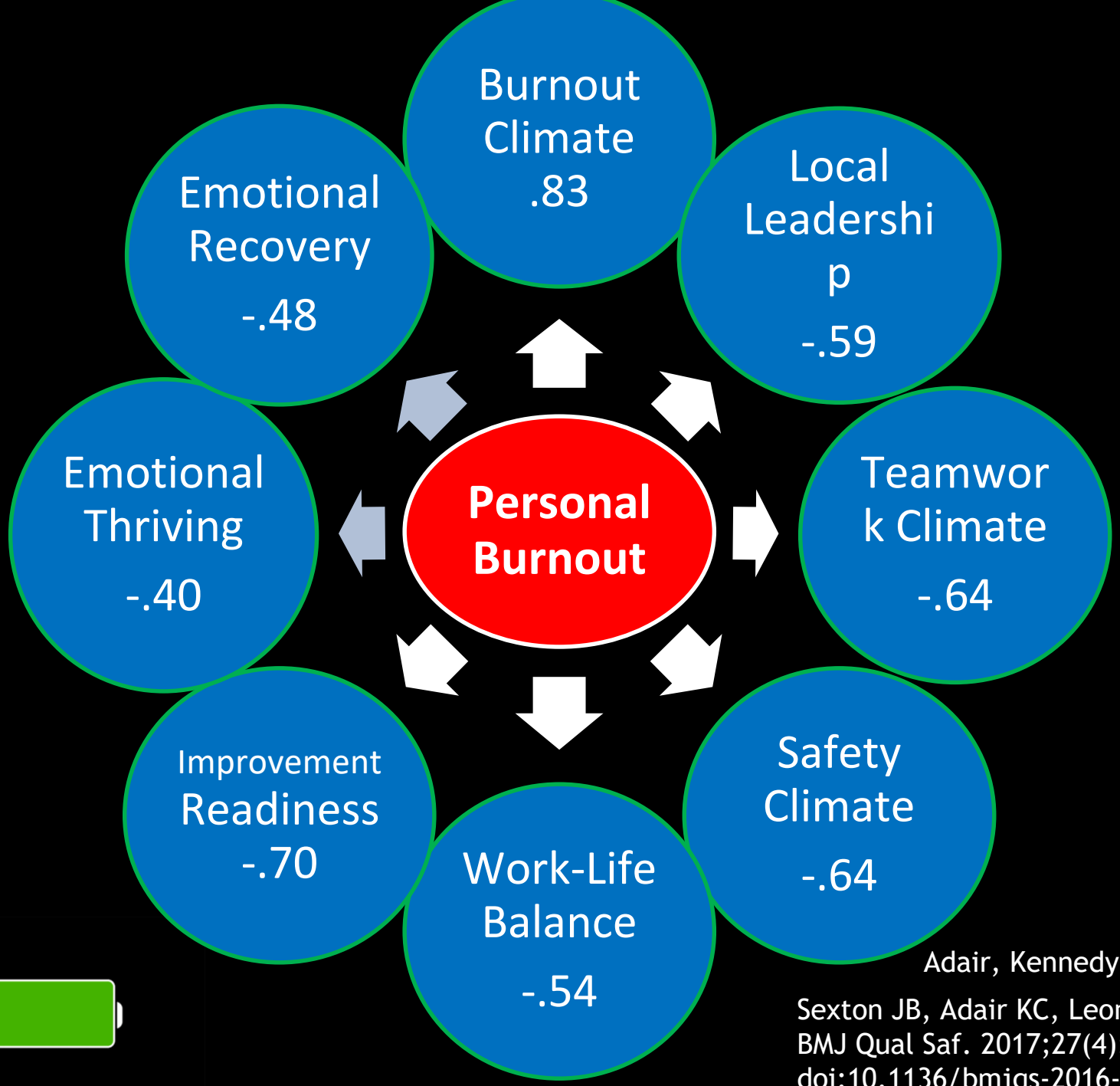
What if there were a metric so potent that it predicted clinical outcomes, operational outcomes, safety culture, and well-being?



DukeMedicine

Adair, Kennedy & Sexton 2020

Sexton JB, Adair KC, Leonard MW, et al. BMJ Qual Saf. 2017;27(4):261-270. doi:10.1136/bmjqs-2016-006399



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Adair, Rehder & Sexton 2021

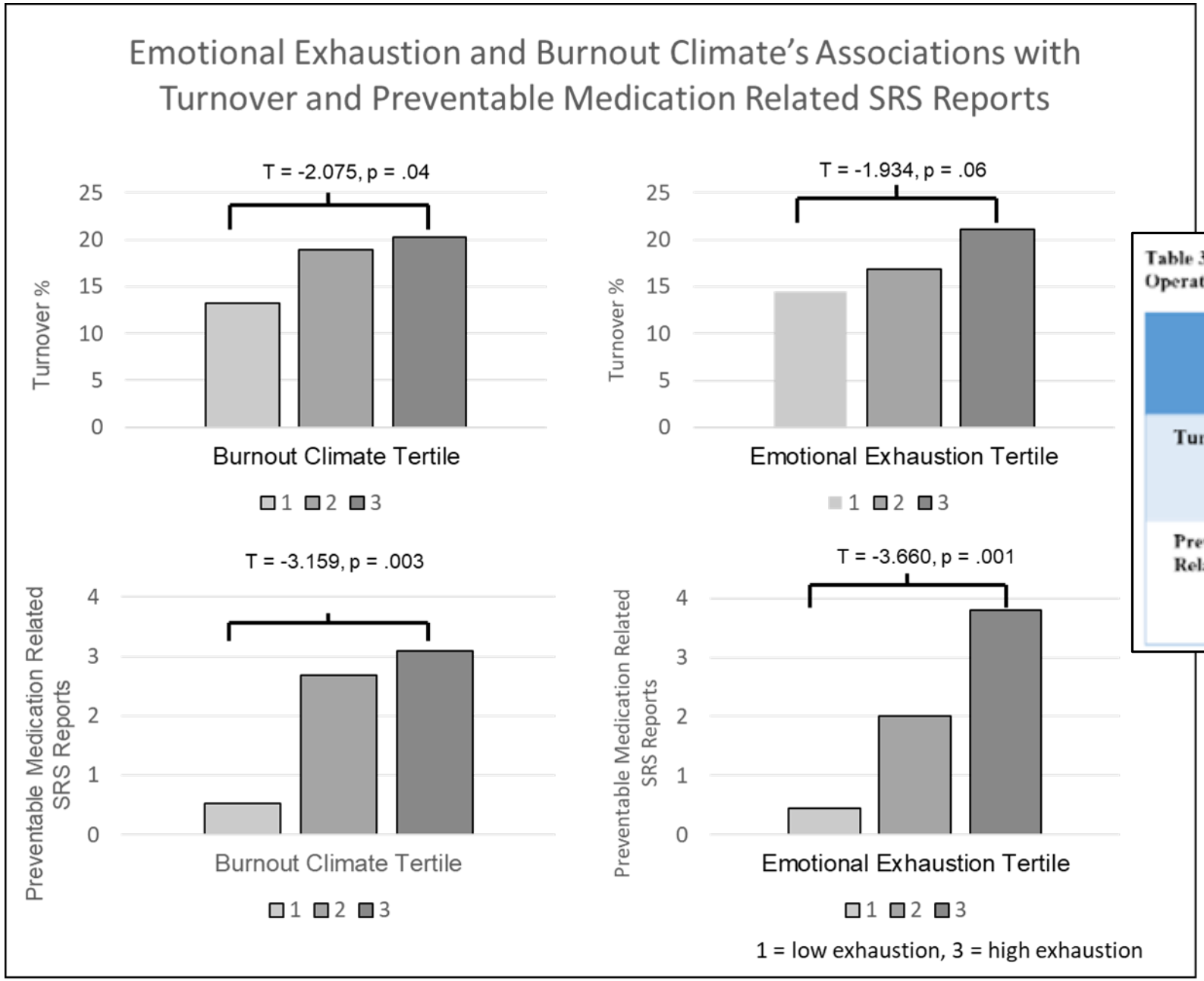


Table 3. Spearman Correlations between HCW Well-being domains, Work Culture, and Operational Outcomes at the Work Setting Level

	Burnout Climate SCORE	Emotional Exhaustion SCORE	Work-life Balance SCORE	Work Culture Press Ganey
Turnover	.35** N = 69	.26* N = 69	-.14 (NS) N = 69	-.06 (NS) N = 65
Preventable Medication Related SRS	.35** N = 68	.41*** N = 68	-.28* N = 68	-.15 (NS) N = 64

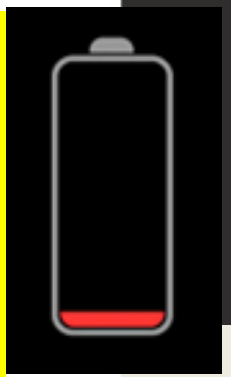
BMJ Quality & Safety Online First, published on 9 October 2017 as 10.1136/bmjqs-2016-006399

The Leadership scale begins with the prompt "In this work setting, local leadership…". Then individual items ask:

Is available at predictable times.
Regularly makes time to provide positive feedback to me about how I am doing.
Provides frequent feedback about my performance.
Provides useful feedback about my performance.
Communicates their expectations to me about my performance.

J Bryan Sexton,[1,2] Kathryn C Adair,[3]
Michael W Leonard,[4,5] Terri Christensen Frankel,[4] Joshua Proulx,[4]
Sam R Watson,[6] Brooke Magnus,[7] Brittany Bogan,[8] Maleek Jamal,[9]

Each 10-point increase in Leadership was associated with a 28% reduction in the odds of burnout for the respondent



end of article.

associations between receiving feedback about actions taken as a result of WR and healthcare worker assessments of patient safety culture, employee

able leadership engagement with quality that can be an empowering resource for HCW[2] at a time when resources are

BMJ QUALITY & SAFETY

April 2018 Volume 27 Issue 4

Ethnography to study healthcare improvements

Learning from voided computer medication orders

Providing Feedback: the secret sauce in Safety WalkRounds?

qualitysafety.bmj.com

The Health Foundation

BMJ

Positive Rounding Frame:

“What are three things that are going well around here, and one thing that could be better?”

The Joint Commission Journal on Quality and Patient Safety

Available online 22 April 2021

In Press, Journal Pre-proof

Safety Culture and Workforce Well-Being Associations with Positive Leadership WalkRounds

J Bryan Sexton PhD [a, b], Kathryn C. Adair PhD [b], Jochen Profit MD [c], Jonathan Bae MD [b, d, e], Kyle Rehder MD [b, e, f], Tracy Gosselin PhD, RN [e, g], Judy Milne RN [e, g], Michael Leonard MD [h], Allan Frankel MD [h]

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https://doi.org/10.1016/j.jcjq.2021.04.001

Background

Interventions to decrease burnout and increase well-being in health care workers (HCW) and improve organizational safety culture are urgently needed. This study was conducted to determine the association between Positive Leadership WalkRounds (PosWR), an organizational practice in which leaders conduct rounds and ask staff about what is going well, and HCW well-being and organizational safety culture.

Methods

The Joint Commission

Joint Commission Resources

NEWS RELEASE

FOR IMMEDIATE RELEASE

Media Contact:
Katie Bronk
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(630) 792-5175
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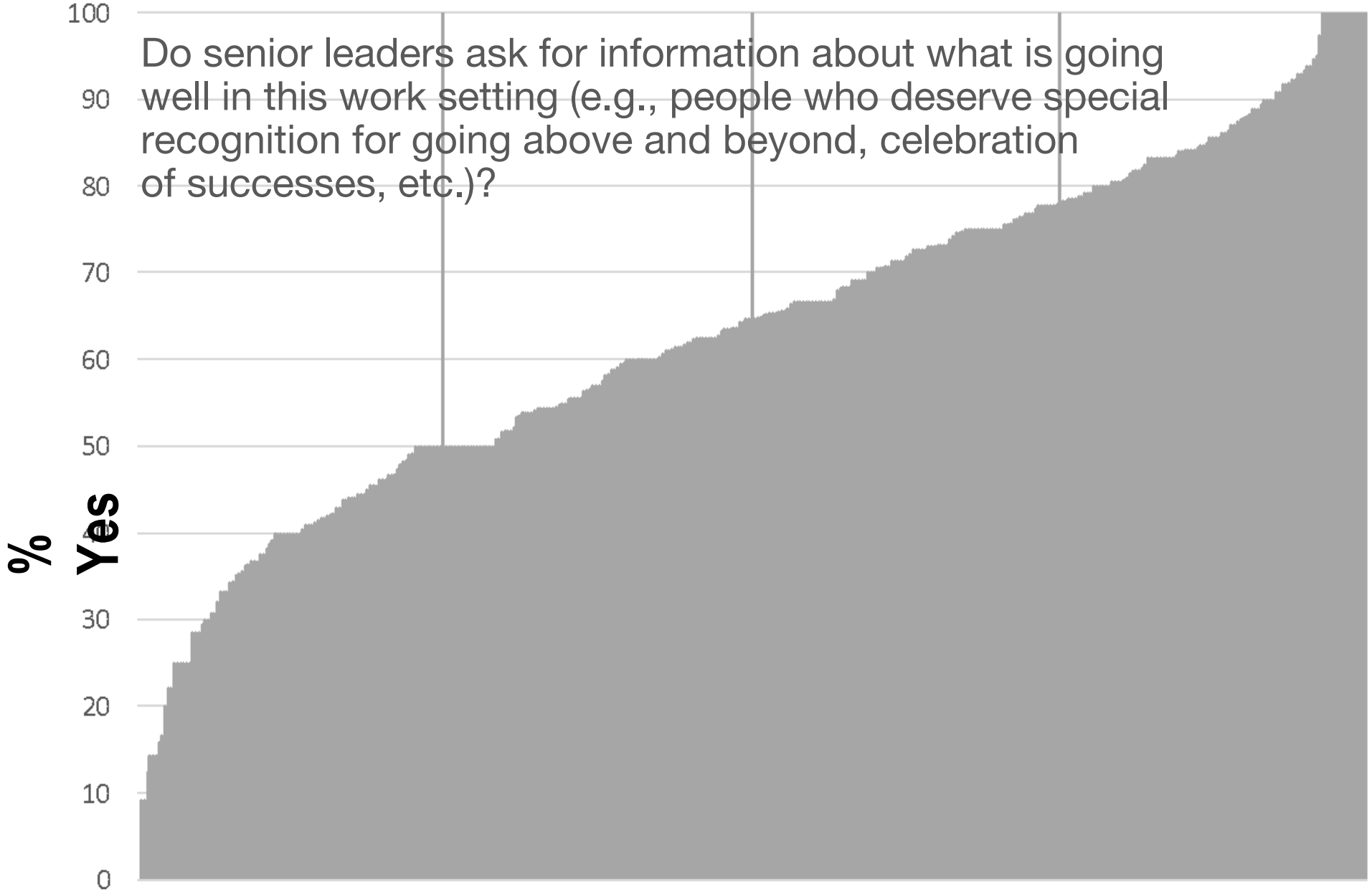
View the multimedia news release

Positive Leadership WalkRounds improve health care worker well-being and safety culture

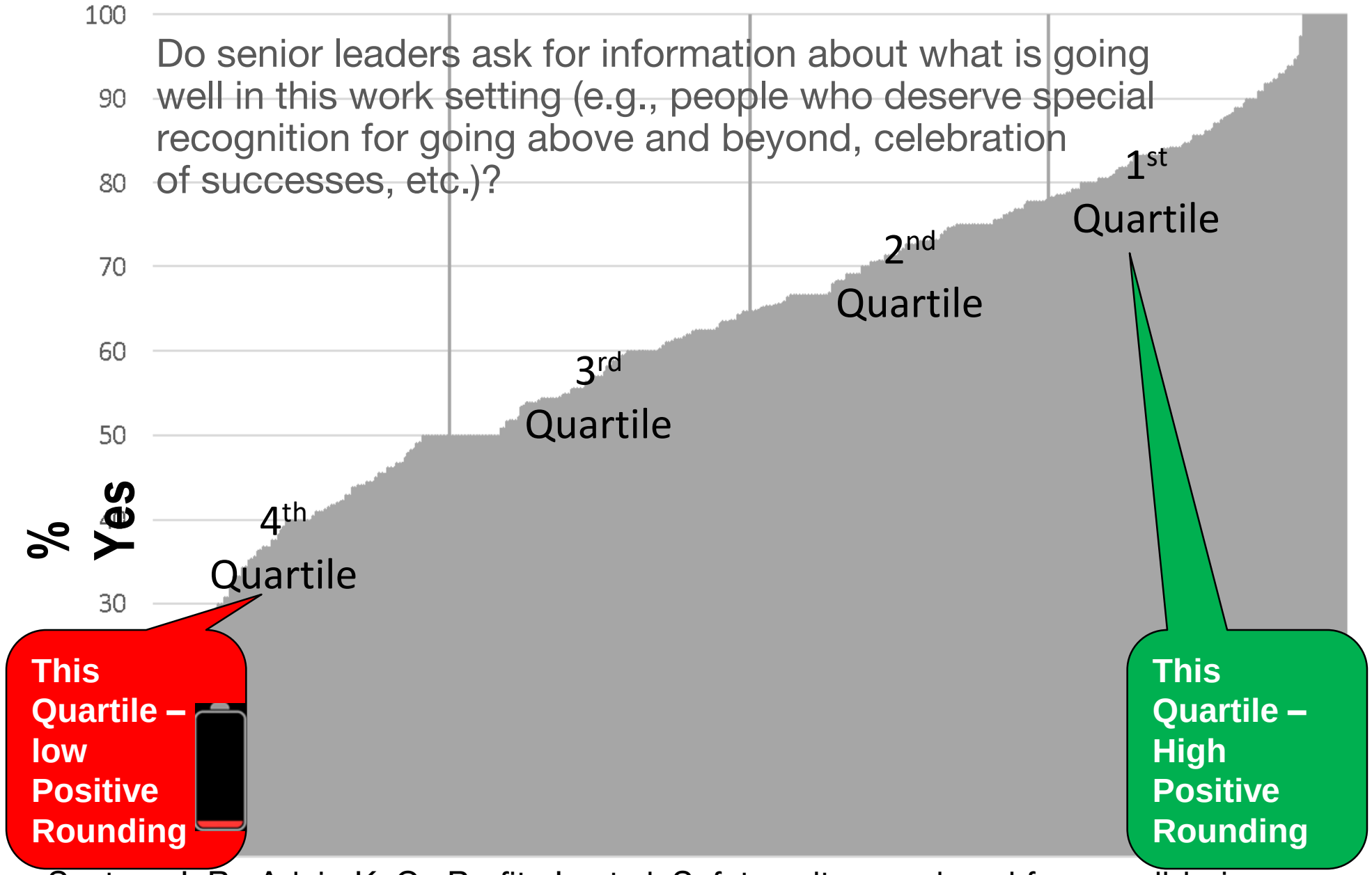
Study in July 2021 issue of The Joint Commission Journal on Quality and Patient Safety

(OAKBROOK TERRACE, Illinois, June 22, 2021) – Interventions to decrease burnout in health care are urgently needed. A new study in the July 2021 issue of *The Joint Commission Journal on Quality and Patient Safety* (JQPS) evaluates the association between Positive Leadership WalkRounds (PosWR), and health care worker (HCW) well-being and organizational safety culture.

The study, "Safety Culture and Workforce Well-Being Associations with Positive Leadership WalkRounds," was completed at Duke University Health System, Durham, North Carolina, and involved senior leaders who were encouraged to conduct PosWR, an organizational practice in which leaders conduct rounds and ask staff about what is going well.

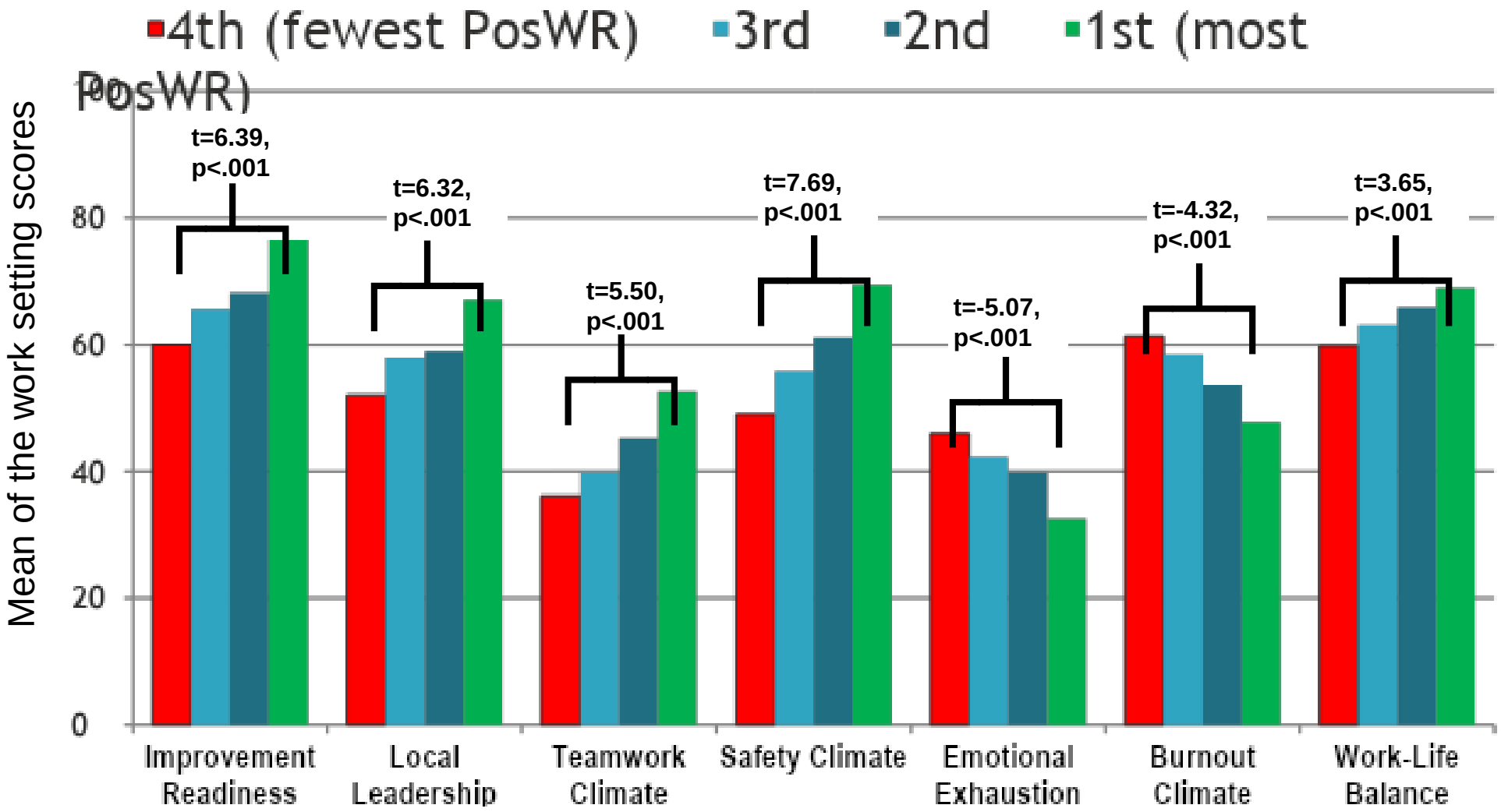


Sexton, J. B., Adair, K. C., Profit, J., et al. Safety culture and workforce well-being associations with Positive WalkRounds. Jt Comm J Patient Saf Qual. In press, 2021.



Sexton, J. B., Adair, K. C., Profit, J., et al. Safety culture and workforce well-being associations with Positive WalkRounds. Jt Comm J Patient Saf Qual. In press, 2021.

Safety Culture & Well-Being by Positive Rounding Quartiles



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The Joint Commission Journal on Quality and Patient Safety

Volume 47, Issue 5, May 2021, Pages 306-312

Perceptions of Institutional Support for "Second Victims" Are Associated with Safety Culture and Workforce Well-Being

J. Bryan Sexton PhD (is Associate Professor, Department of Psychiatry, Duke University School of Medicine, and Director, Duke Center for Healthcare Safety and Quality, Duke University Health System, Durham, North Carolina.) ✉, Kathryn C. Adair PhD (is Assistant Director, Duke Center for Healthcare Safety and Quality.), Jochen Profit MD (is Associate Professor, Perinatal Epidemiology and Health Outcomes Research Unit, Division of Neonatology, Department of Pediatrics, Stanford University School of Medicine, and Lucile Packard Children's Hospital, Palo Alto, California.), Judy Milne RN (is Patient Safety Officer, Duke University Health System.), Marie McCulloh RN (is Patient Safety Officer, Duke University Health System.), Sue Scott PhD, RN (is Nurse Scientist, University of Missouri Health Care, Columbia, Missouri.), Allan Frankel MD (is Chief Executive Officer, Safe & Reliable Health Care, Evergreen, Colorado)

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The Joint Commission Journal on Quality and Patient Safety 2021; 000:1–7

Perceptions of Institutional Support for Are Associated with Safety Culture and Well-Being

J. Bryan Sexton, PhD; Kathryn C. Adair, PhD; Jochen Profit, MD; Judy Miller, Sue Scott, PhD, RN; Allan Frankel, MD

Objective: This study was performed to determine whether health care worker [HC support for second victims were associated with institutional safety culture and workf

Methods: HCWs' awareness of work colleagues emotionally traumatized by an un tions), their perceptions of level of institutional support for such colleagues, safety cu assessed using a cross-sectional survey (SCORE [Safety, Communication, Operational Safety culture scores and workforce well-being scores were compared across work sett (bottom quartile) perceptions of second victim support.

Results: Of the 10,627 respondents (81.5% response rate), 36.3% knew at least one tified by an unanticipated clinical event. Across 356 work settings, the percentage of resp that second victims receive appropriate support ranged from 0% to 100%. Across al between perceived support for second victims and all SCORE domains (Improvement work Climate, Safety Climate, Emotional Exhaustion, Burnout Climate, and Work-L of respondents who knew an actual second victim and reported inadequate institut negative in their assessments of safety culture and well-being than the 42.2% who rep

Conclusion: Perceived institutional support for second victims was associated with tional exhaustion. Investment in programs to support second victims may improve being.

Delivering health care can be rich with purpose and meaning in one moment and potentially fraught with tragedy and despair in the next. A specific vulnerability of health care workers (HCWs) is that unintentional mistakes that lead to tragedy (or potentially could have) can generate extreme feelings of guilt; have severe legal, financial, and professional repercussions; and culminate in profound psychological insecurity.[1,2] HCWs may suffer significant emotional harm and burnout[3] regardless of their actual contributions to the error or whether the event was preventable. Patients and their loved ones are the first victims of this harm, but HCWs exposed directly and indirectly to this suffering are often called the second victims.[4] Nationally representative data are still lacking, but preliminary prevalence of second victims estimates are 14% to 30% in the past year, and 30% to 60% in previous years.[5,6] The extent to which an HCW feels supported in the aftermath of one of these tragedies may play a pivotal role in their ability to recover. Social science has firmly established that one's perception of having supportive others to turn to in times of stress (perceived support) provi of stress.[7–14] The pres perceived institutiona ciated with better saf (full sample), and (2) victims in their work tional support are sig sessments of safety cu report adequate supp second victims).

METHODS

This is a cross-sectio 2016 from 13,040 H one academic health cation, Operational R survey.[15–17] All eligibl time equivalent contr at least four consecuti SCORE's safety cu Readiness, Local Lead Climate, SCORE's w Climate, Emotional

1553-7250/$ see front matter

https://doi.org/10.1016/j.jcjq.2020.07.003

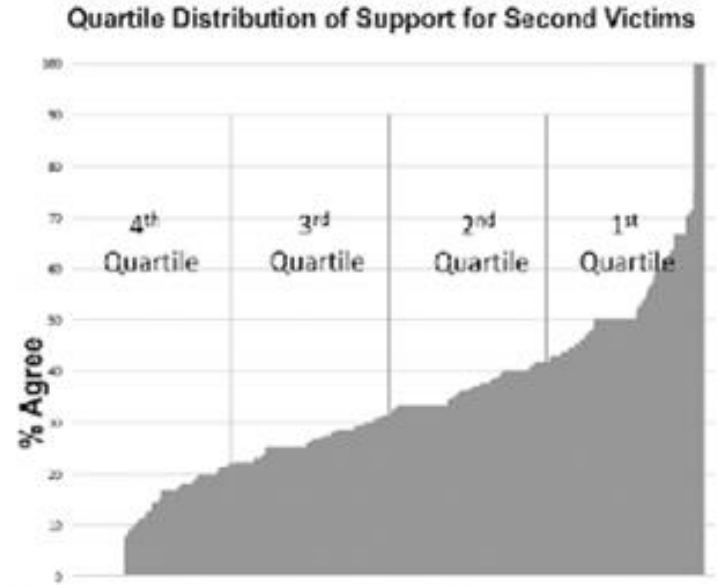


Figure 1: The graph shows quartile distribution of support for second victims, as measured by agreement with the statement "Individuals emotionally traumatized by an unanticipated clinical event within my work setting receive appropriate support from the health system." All respondents are included (that is, this was not limited to those who reported awareness of a second victim).

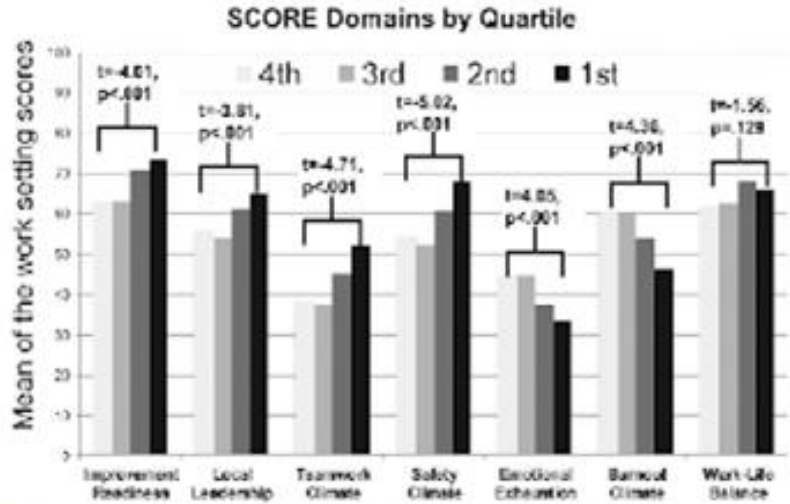


Figure 2: Shown here are SCORE domains by quartile of % agreement that second victims receive appropriate support from the health system. All respondents are included in the above figures and analyses (that is, this was not limited to those who reported awareness of a second victim).

SCORE Safety Culture and Well-being Survey

- Psychometrically superior to any other published instrument
- Incorporates workforce well-being into assessments of norms
- Predicts clinical and operational outcomes
- Published Links to:
  - Leader Walkrounds
  - Positive Walkrounds
  - Second Victim Support
  - Preventable Harm
  - Turnover
  - Disruptive Behaviors

Sexton JB, Adair KC, Leonard MW, et al.
BMJ Qual Saf. 2017;27(4):261-270.
doi:10.1136/bmjqs-2016-006399

JAMA Network Open

Original Investigation | Health Policy

Personal and Professional Factors Associated With Work-Life Integration Among US Physicians

Daniel S. Tawfik, MD, MS; Tait D. Shanafelt, MD; Liselotte N. Dyrbye, MD, MHPE; Christine A. Sinsky, MD; Colin P. West, MD, PhD; Alexis S. Davis, MD, MS; Felice Su, MD; Kathryn C. Adair, PhD; Mickey T. Trockel, MD, PhD; Jochen Profit, MD, MPH; J. Bryan Sexton, PhD

Abstract

IMPORTANCE Poor work-life integration (WLI) occurs when career and personal responsibilities come in conflict and may contribute to the ongoing high rates of physician burnout. The characteristics associated with WLI are poorly understood.

OBJECTIVE To identify personal and professional factors associated with WLI in physicians and identify factors that modify the association between gender and WLI.

DESIGN, SETTING, AND PARTICIPANTS This cross-sectional study was based on electronic and paper surveys administered October 2017 to March 2018 at private, academic, military, and veteran's practices across the US. It used a population-based sample of US physicians across all medical specialties. Data analysis was performed from November 2019 to July 2020.

MAIN OUTCOMES AND MEASURES WLI was assessed using an 8-item scale (0-100 point scale, with higher scores indicating favorable WLI), alongside personal and professional factors. Multivariable linear regressions evaluated independent associations with WLI as well as factors that modify the association between gender and WLI.

RESULTS Of 5197 physicians completing surveys, 4370 provided complete responses. Of the physicians who provided complete responses, 2719 were men, 3491 were White/Caucasian (80.8%), 3560 were married (82.4%), and the mean (SD) age was 52.3 (12.0) years. The mean (SD) WLI score was 55 (23). Women reported lower (worse) mean (SD) WLI scores than men overall (52 [22] vs 57 [23]; mean difference, −5 [−0.2 SDs]; $P < .001$). In multivariable regression, lower WLI was independently associated with being a woman (linear regression coefficient, −6; SE, 0.7; $P < .001$) as well as being aged 35 years or older (eg, aged 35 to 44 years: linear regression coefficient, −7; SE, 1.4; $P < .001$), single (linear regression coefficient, −3 vs married; SE, 1.1; $P = .003$), working more hours (eg, 50 to 59 hours per week vs less than 40 hours per week: linear regression coefficient, −9; SE, 1.0; $P < .001$) and call nights (linear regression coefficient, −1 for each call night per week; SE, 0.2; $P < .001$), and being in emergency medicine (linear regression coefficient, −18; SE, 1.6, $P < .001$), urology (linear regression coefficient, −11; SE, 4.0; $P = .009$), general surgery (linear regression coefficient, −4; SE, 2.0; $P = .04$), anesthesiology (linear regression coefficient, −4; SE, 1.7; $P = .03$), or family medicine (linear regression coefficient, −3; SE, 1.4; $P = .04$) (reference category, internal medicine subspecialties). In interaction modeling, physician age, youngest child's age, and hours worked per week modified the associations between gender and WLI, such that the largest gender disparities were observed in physicians who were aged 45 to 54 years (estimated WLI score for women, 49; 95% CI, 47-51; estimated WLI score for men, 57, 95% CI, 55-59; $P < .001$), had youngest child aged 23 years or older (estimated WLI score for women, 51; 95% CI, 48-54; estimated WLI score for men, 60; 95% CI, 58-62; $P < .001$), and were working less than 40 hours per week (estimated WLI score for women, 61; 95% CI, 59-63; estimated WLI score for men; 70; 95% CI, 68-72; $P < .001$).

(continued)

Key Points

Question Which personal and professional factors are independently associated with work-life integration in physicians, and which factors modify the association between gender and work-life integration?

Findings In this cross-sectional study based on survey data of 4370 US physicians, women physicians consistently reported significantly worse work-life integration scores independent of other personal and professional factors, with a gender disparity most pronounced for midcareer physicians, those with adult children, and those working fewer hours per week.

Meaning These findings suggest that systemic change is needed to help physicians achieve appropriate integration of work life and home responsibilities.

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

JAMA Network Open™

n = 4370 US physicians

Specialty
Internal Medicine Subspecialty
General Internal Medicine
Psychiatry
Family Medicine
General Surgery Subspecialty
Emergency Medicine
Orthopedic Surgery
General Pediatrics
Anesthesiology
Pediatric Subspecialty
Radiology
Neurology
Obstetrics and Gynecology
General Surgery
Ophthalmology
Pathology
Dermatology
Physical Medicine and Rehabilitation
Neurosurgery
Radiation Oncology
Otolaryngology
Urology
Preventive Medicine / Occupational Medicine
Other
Missing

Table 2. Multivariable Linear Regression Showing Personal and Professional Factors as Independent Variables Associated With Work-Life Integration[a] (continued)

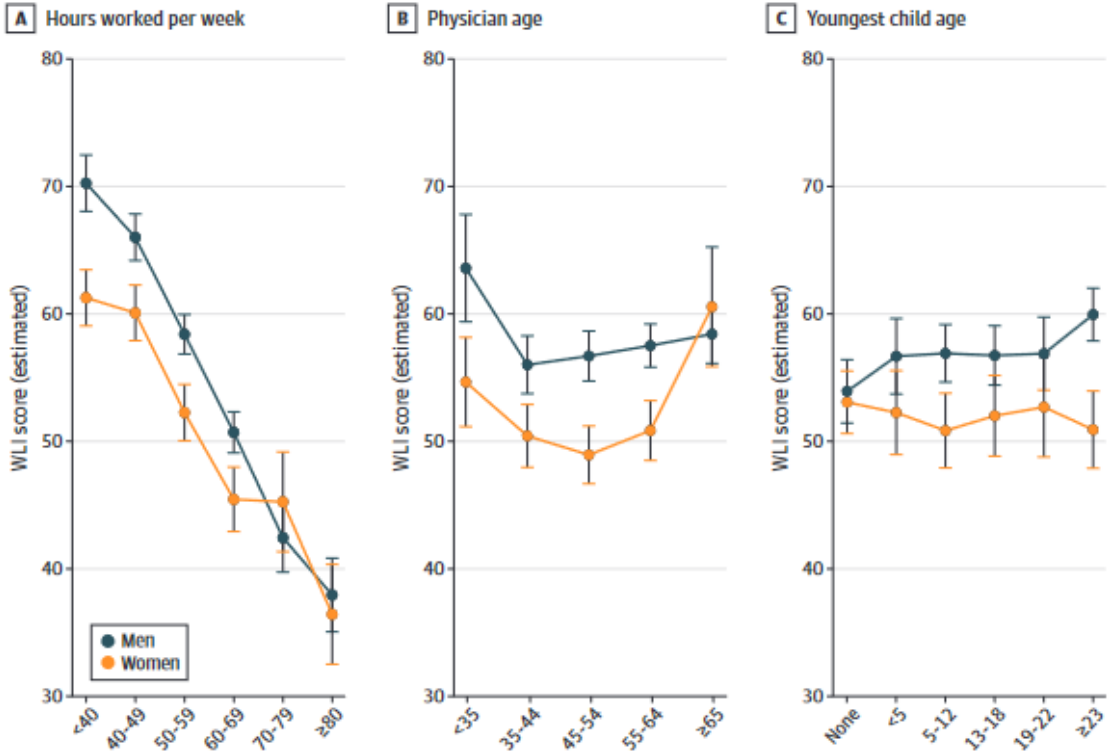
Variable	Coefficient (SE)	*P* value	Overall *P* value[b]
Hours worked per week (vs <40 h)	0	NA	
40-49	−2 (1.0)	.09	
50-59	−9 (1.0)	<.001	
60-69	−16 (1.1)	<.001	<.001
70-79	−22 (1.4)	<.001	
≥80	−27 (1.5)	<.001	
Call nights per week (per night)	−1 (0.2)	<.001	

Abbreviation: NA, not applicable.

[a] N = 4370 respondents. Dependent variable is work-life integration score (0-100 point scale). Estimates via multivariable linear regression with all covariates shown.

[b] Overall *P*-values for categorical variables via Wald test.

Figure 2. Multivariable Interaction Models Estimating Work-Life Integration (WLI) Scores



Estimated WLI scores showing the interactions between gender and (A) mean hours worked per week, (B) physician age in years, and (C) age of youngest child in years. Models also adjusted for relationship status and specialty. Error bars denote

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SCORE Integrated Survey

Integrated Survey with Latest Science

Engagement, Burnout/Wellness, Resilience, Improvement Readiness, Psychological Safety

Add Your Questions

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Able to add custom questions and compare YoY data

Diagnostics that Support Action

Data visualizations + automated reports; themes and trends across organization
Automated survey debriefing and action planning to develop and track improvement plans

Enhanced Benchmarking

Includes >700 organizations; largest burnout benchmark

S Safety

C Communication

O Operational Risk

R Resilience/Burnout

E Engagement

Three Tiers of Real-time Analytics on SCORE Platform

Insights Tailored for Managers to Take Action, Customizable

Notable Insights by Percentile and Key SCORE Items

371 respondents in 20 work settings at Demo Hospital

%ile — Cultural Strengths

- **96th** In the past work week ate a poorly balanced meal.
- **95th** In the past work week arrived home late from work.
- **90th** In the past work week skipped a meal.

%ile — Engagement Strengths

- **87th** With respect to the participation in decision making that I experience here, it is clear to whom I should address specific problems.
- **77th** With respect to the participation in decision making that I experience here, the decision making process is clear to me.
- **76th** With respect to the participation in decision making that I experience here, I can participate in decisions about the nature of my work.

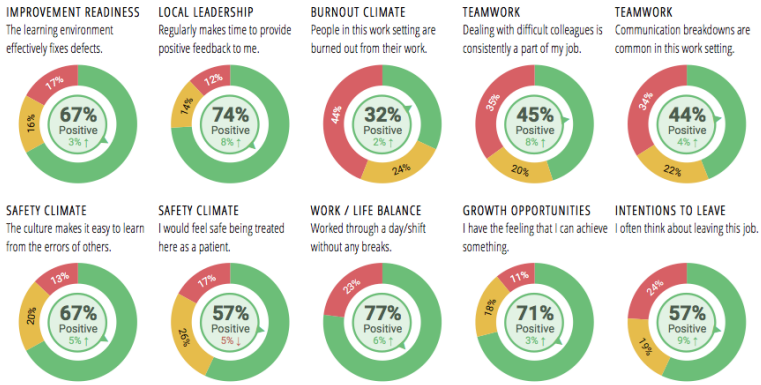
%ile — Cultural Opportunities

- **5th** The values of facility leadership are the same values that people in this work setting think are important.
- **8th** I would feel safe being treated here as a patient.
- **27th** Disagreements in this work setting are appropriately resolved (i.e., not who is right but what is best for the patient).

%ile — Engagement Opportunities

- **22nd** With respect to advancement in this organization, I am paid enough for the work I do.
- **22nd** With respect to advancement in this organization, this organization pays good salaries.
- **28th** With respect to advancement in this organization, I am satisfied with my total benefits package.

Key Drivers of Culture & Engagement (Green is good)



All SCORE Items

371 respondents in 20 work settings at Demo Hospital

Improvement Readiness
In this work setting, the learning environment...

	Percent Positive	YOY	Percent Positive / Neutral / Negative
...is protected by our local management.	73%	7% ↑	16% 11%
...utilizes input/suggestions from the people that work here.	73%	2% ↓	14% 13%
...integrates lessons learned from other work settings.	72%	1% ↑	17% 11%
...allows us to gain important insights into what we do well.	71%	5% ↑	15% 14%
...effectively fixes defects to improve the quality of what we do.	67%	3% ↑	16% 17%
...allows us to pause and reflect on what we do well.	65%	3% ↑	20% 15%

Local Leadership
In this work setting, local leadership...

	Percent Positive	YOY	Percent Positive / Neutral / Negative
...is available at predictable times.	80%	3% ↑	12% 8%
...communicates their expectations to me about my performance.	76%	4% ↑	15% 9%
...regularly makes time to provide positive feedback to me about how I am doing.	74%	8% ↑	14% 12%
...provides useful feedback about my performance.	74%	8% ↑	13% 13%
...provides meaningful feedback to people about their performance.	70%	9% ↑	18% 12%
...provides frequent feedback about my performance.	70%	9% ↑	15% 15%
...regularly makes time to pause and reflect with me about my work.	69%	9% ↑	16% 15%

Burnout Climate

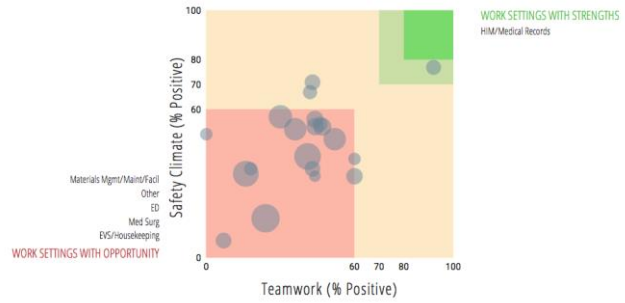
	Percent Positive	YOY	Percent Positive / Neutral / Negative
Events in this work setting affect the lives of people here in an emotionally unhealthy way.	41%	0%	26% 33%
People in this work setting are working too hard on their jobs.	32%	6% ↑	29% 39%
People in this work setting are frustrated by their jobs.	32%	5% ↑	26% 42%
People in this work setting are burned out from their work.	32%	2% ↑	24% 44%
People in this work setting are exhausted from their work.	32%	7% ↑	23% 45%

Demo Hospital MAGNET

	Nursing Care	Leadership Access	Autonomy	Interprof. Relationships	RN-to-RN Teamwork	Professional Development	Resources
Benchmark: 2018_q3_us_magnet	67%	63%	44%	44%	69%	31%	10%
WDP Clinical TRANSPORT-6071	✓100%	✓100%	✓88%	✓82%	✓76%	✓82%	✓53%
PEDIATRIC - Oncology-6601	✓100%	✓90%	✓95%	✓81%	✓90%	✓76%	✓33%
WDP Operations Center-6607	✓92%	✓92%	✓83%	✓67%	✓75%	✓82%	✕8%

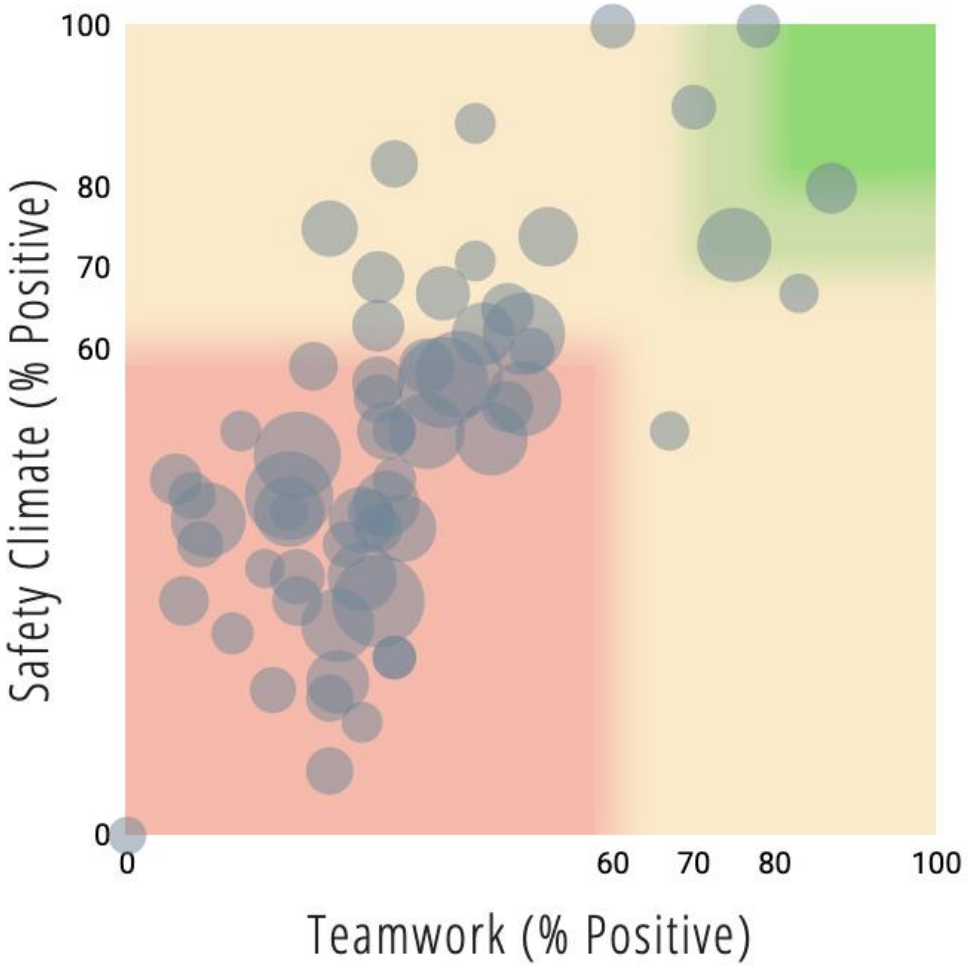
Scatterplots of Key SCORE Domains

371 respondents in 20 work settings at Demo Hospital



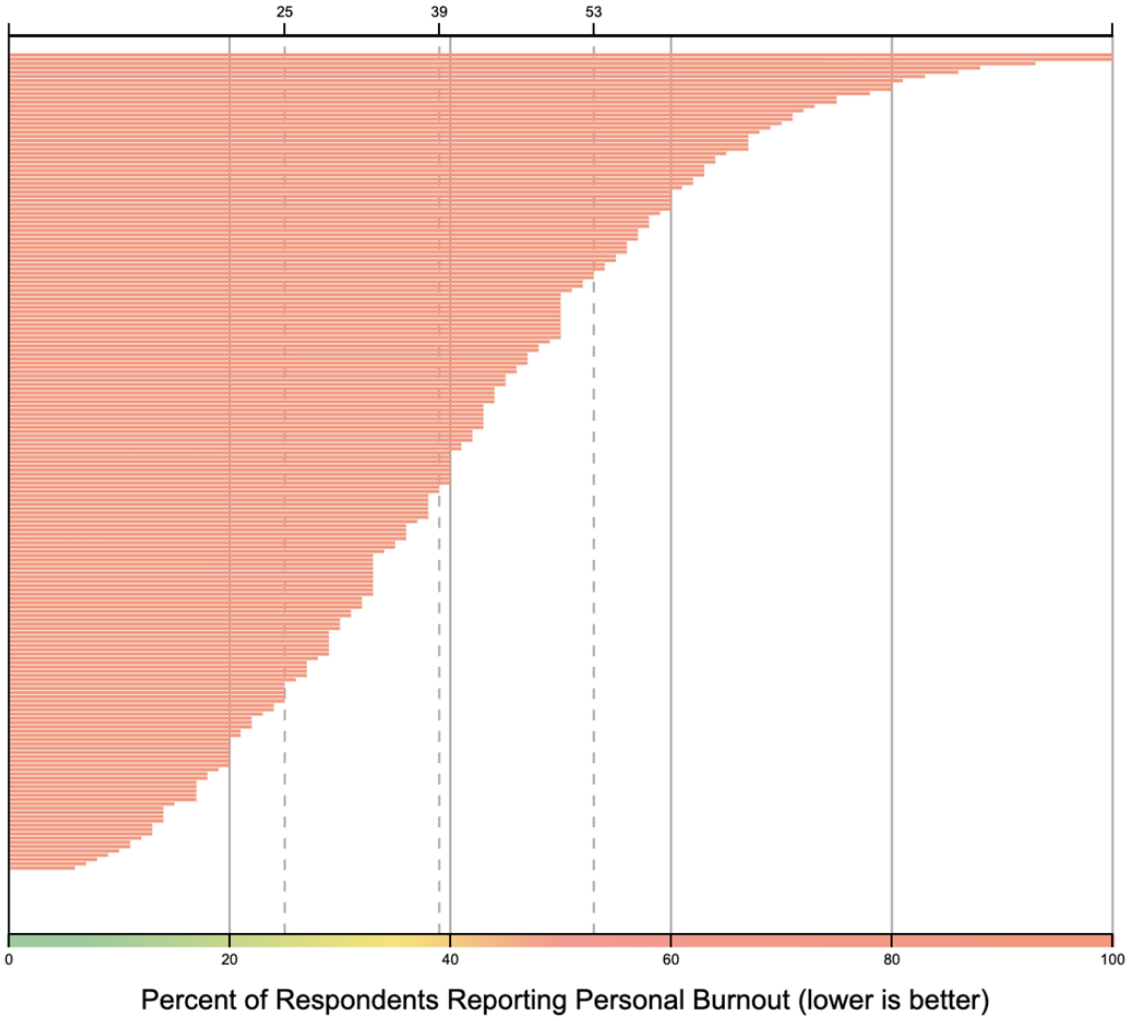
Culture exists locally within each unit/department

You can improve the facility culture by targeting struggling teams



Personal Burnout by Department Variation within the Benchmark

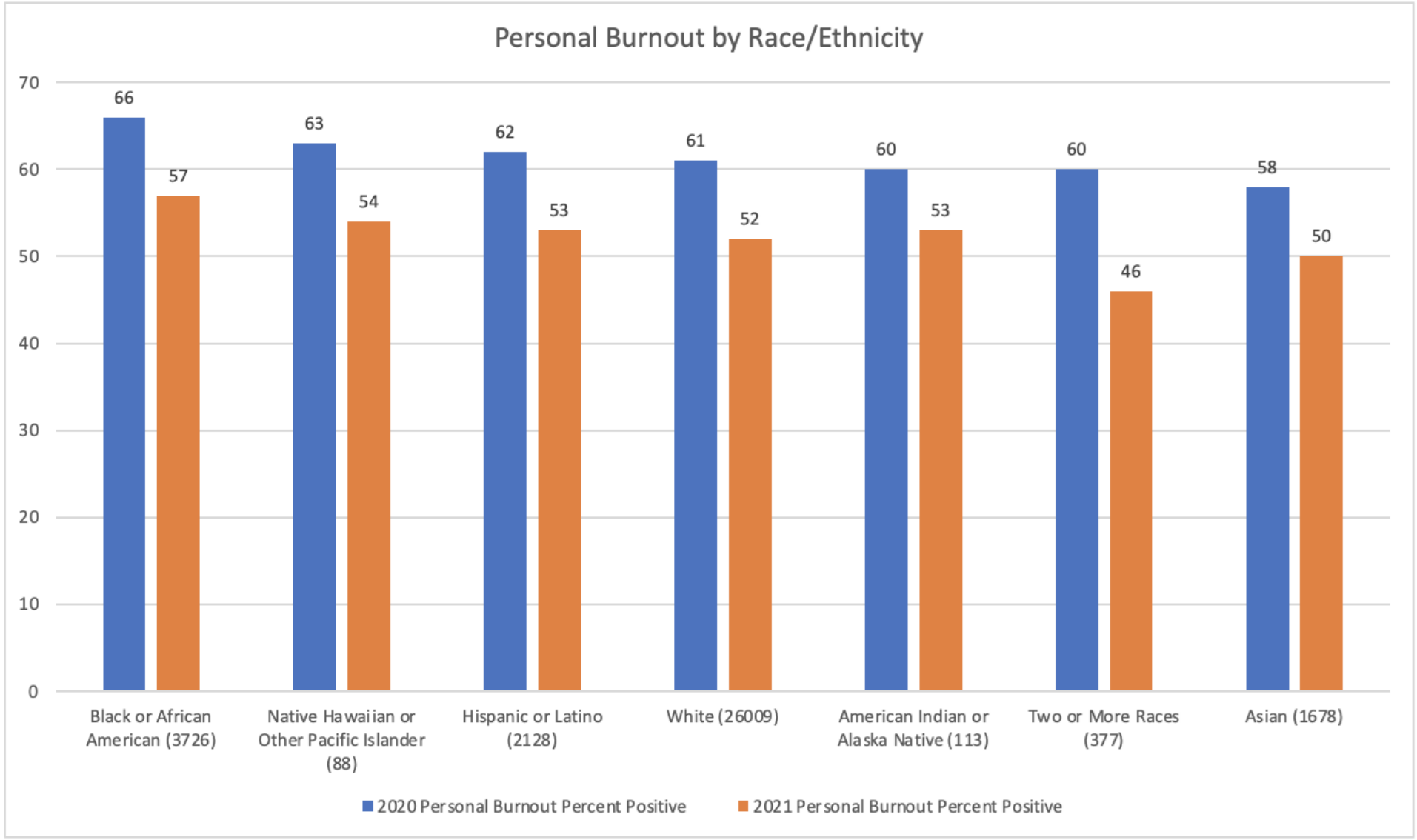
You can improve the facility culture by targeting struggling teams



Benchmarks: 2020 Q3 US Hosp.
25th: 53% 50th: 39% 75th: 25%
Percent Negative Percentile(s)
n = 319713 responses
From 13544 units/departments

Personal Burnout Changes by Race/Ethnicity

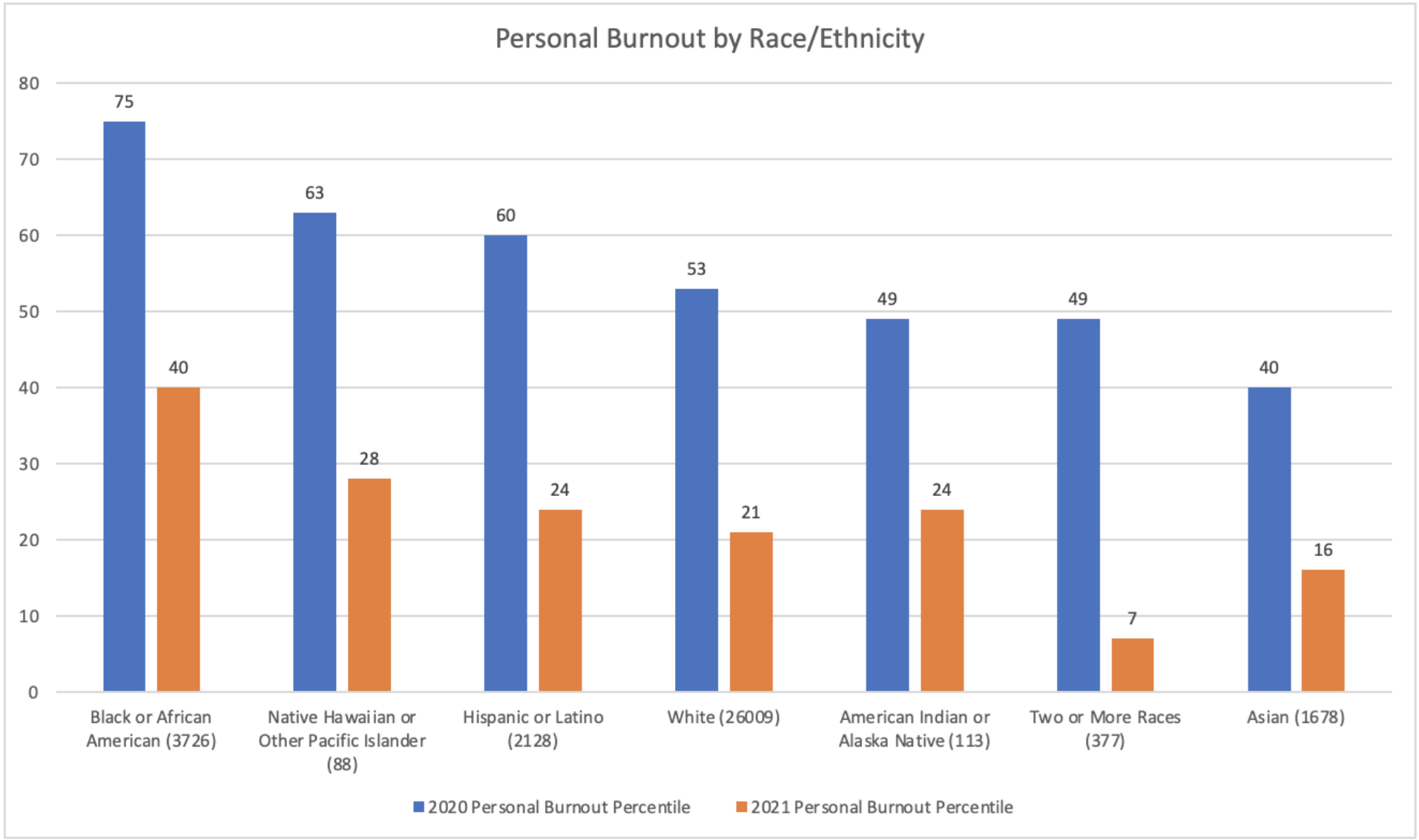
Higher is better



Data: Pre-Survey of 34,119 respondents in 90+ hospitals: Q1 2020 Post-Survey: Q2 2021

Personal Burnout Changes by Race/Ethnicity

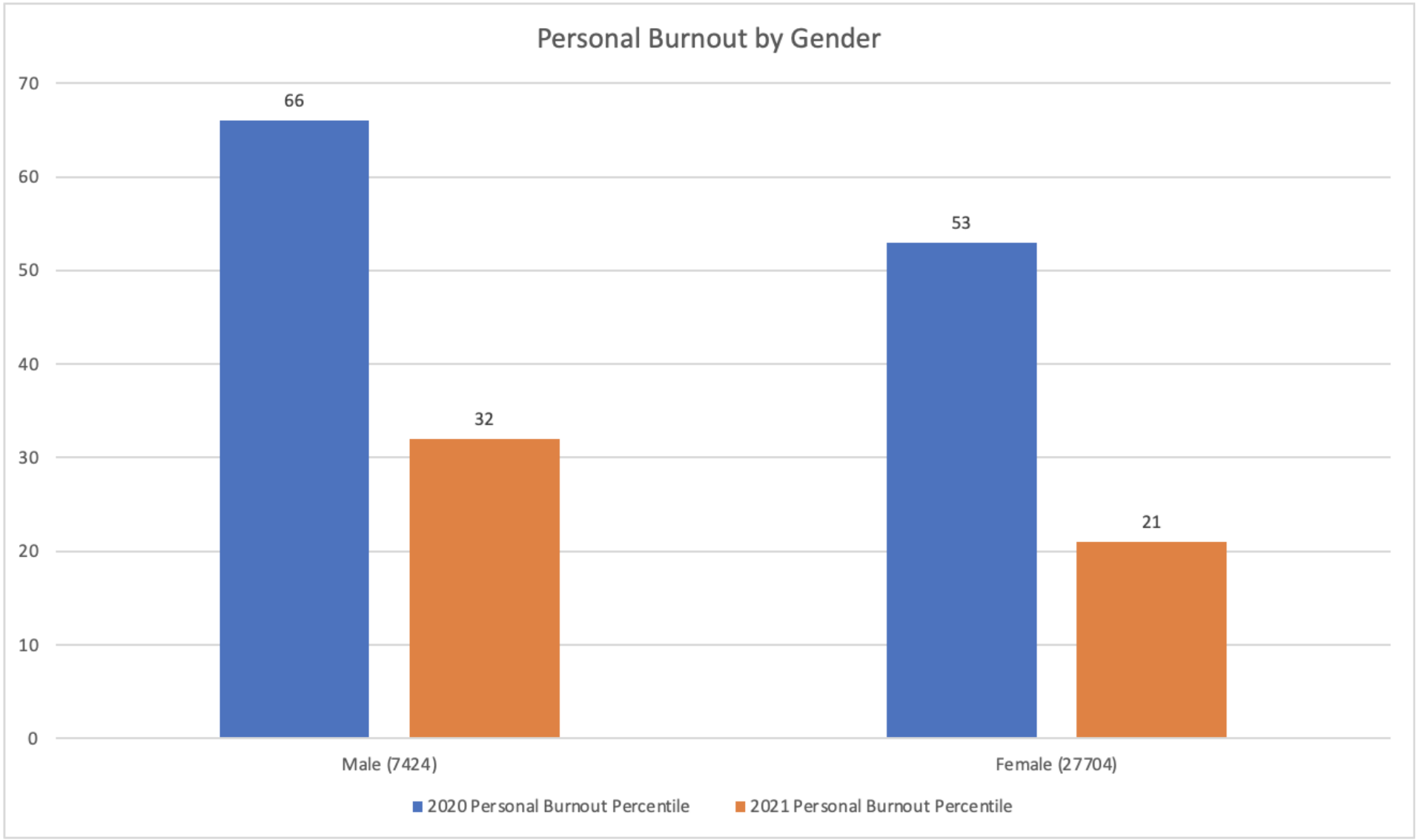
Higher is better



Data: Pre-Survey of 34,119 respondents in 90+ hospitals: Q1 2020 Post-Survey: Q2 2021

Personal Burnout Changes by Gender

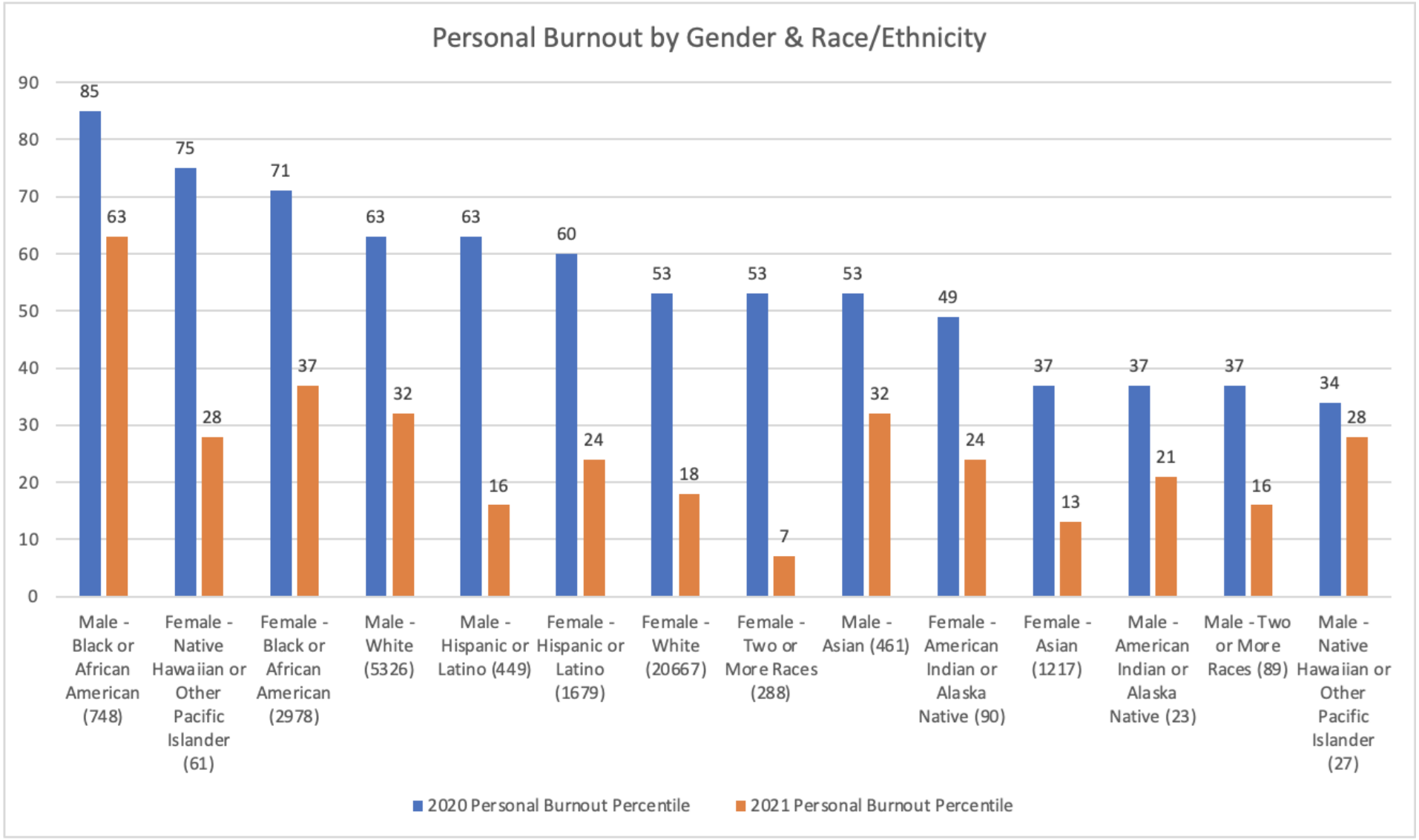
Higher is better



Data: Pre-Survey of 35,128 respondents in 90+ hospitals: Q1 2020 Post-Survey: Q2 2021

Personal Burnout Changes by Gender & Race/Ethnicity

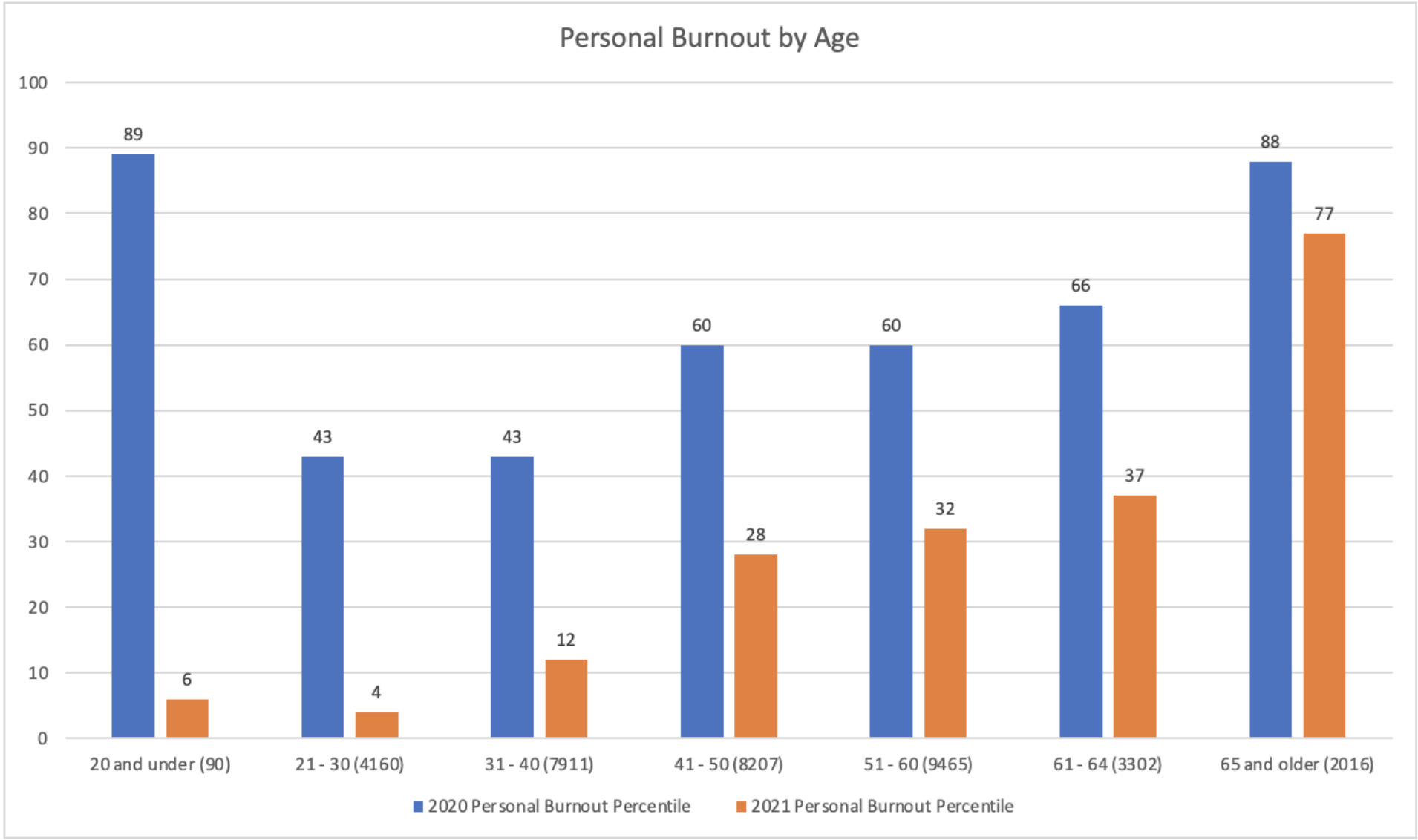
Higher is better



Data: Pre-Survey of 34,103 respondents in 90+ hospitals: Q1 2020 Post-Survey: Q2 2021

Personal Burnout Changes by Age

Higher is better



Data: Pre-Survey of 35,151 respondents in 90+ hospitals: Q1 2020 Post-Survey: Q2 2021

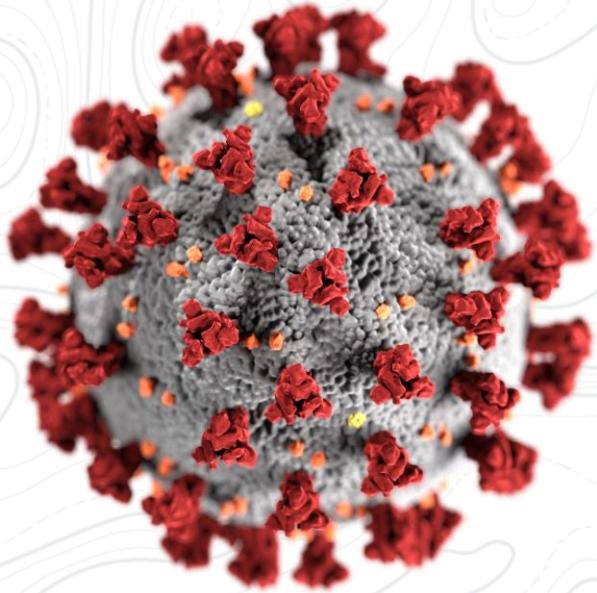
Effect of Work from Home during COVID

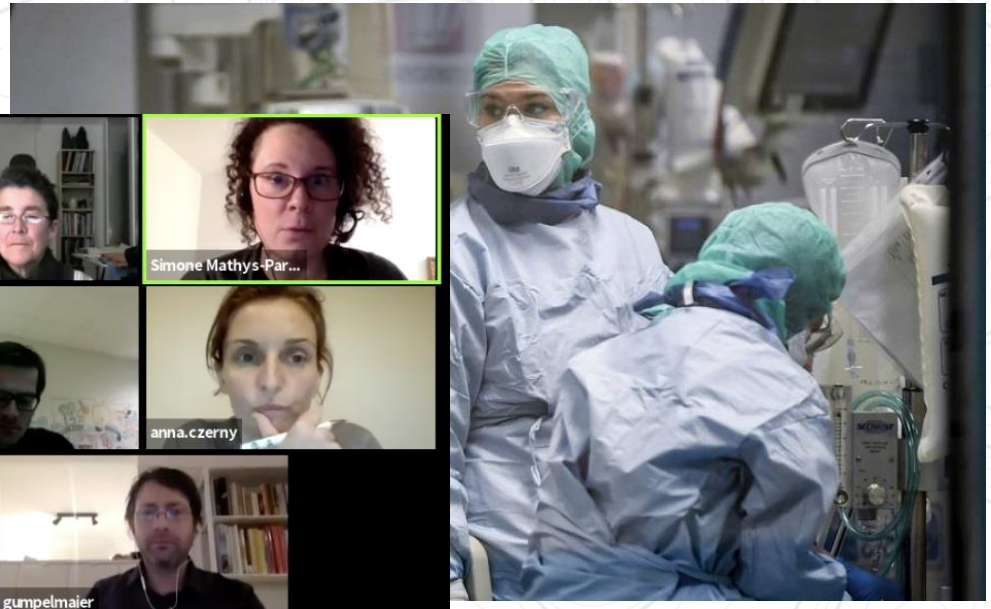
	WFH <50 hours/week Percent Positive	
CULTURE		
Improvement Readiness	**67%**	4% ↓
Local Leadership	**64%**	4% ↓
Burnout Climate‡	**36%**	10% ↓
Personal Burnout‡	**52%**	10% ↓
Emotional Thriving	**59%**	5% ↓
Emotional Recovery	**67%**	5% ↓
Teamwork	**46%**	1% ↓
Safety Climate	**58%**	3% ↓
Work / Life Balance	**62%**	2% ↓
ENGAGEMENT		
Growth Opportunities	**63%**	2% ↓
Job Certainty	**70%**	5% ↓
Intentions to Leave	**86%**	3% ↓
Decision Making	**46%**	3% ↓
Advancement	**19%**	0%
Workload Strain	**65%**	4% ↓

	WFH 50+ hours/week Percent Positive	
CULTURE		
Improvement Readiness	**75%**	5% ↑
Local Leadership	**73%**	4% ↑
Burnout Climate‡	**54%**	1% ↑
Personal Burnout‡	**67%**	0%
Emotional Thriving	**62%**	1% ↑
Emotional Recovery	**76%**	0%
Teamwork	**56%**	5% ↑
Safety Climate	**68%**	5% ↑
Work / Life Balance	**74%**	0%
ENGAGEMENT		
Growth Opportunities	**66%**	2% ↑
Job Certainty	**73%**	1% ↑
Intentions to Leave	**90%**	1% ↑
Decision Making	**54%**	5% ↑
Advancement	**26%**	2% ↑
Workload Strain	**77%**	1% ↑

Data: Pre-Survey of 90+ hospitals: Q1 2020 Post-Survey: Q2 2021

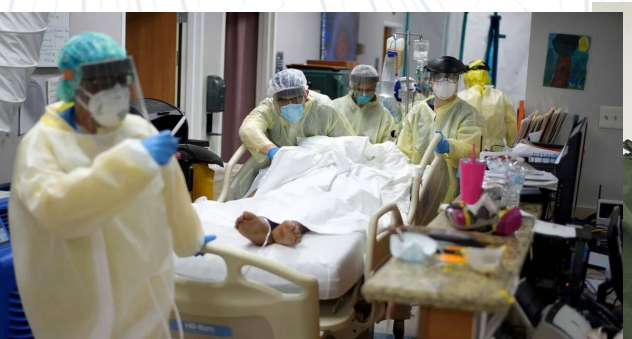
Challenges & Opportunities Posed by Covid 19





Did Covid Unify or Diversify Us?

- **Highly individualized experiences**
- High Reliability: **Reluctance to simplify interpretations**
- Leaders need a **sophisticated lens** moving forward



Burnout is the Buzzword, But…

- We must be ‘reluctant to simplify interpretations’
- We must not assume we understand cause, symptom or solution

Personal Accountability

- Some people are less burned out
- Some people are more burned out
- Burnout shows up in different ways
- Burnout occurs at different times

Understanding Burnout

Symptoms of Burnout

- *Frustration*
- *Emotional exhaustion*
- *Cynicism*
- *Inefficacy*
- *Depersonalization*

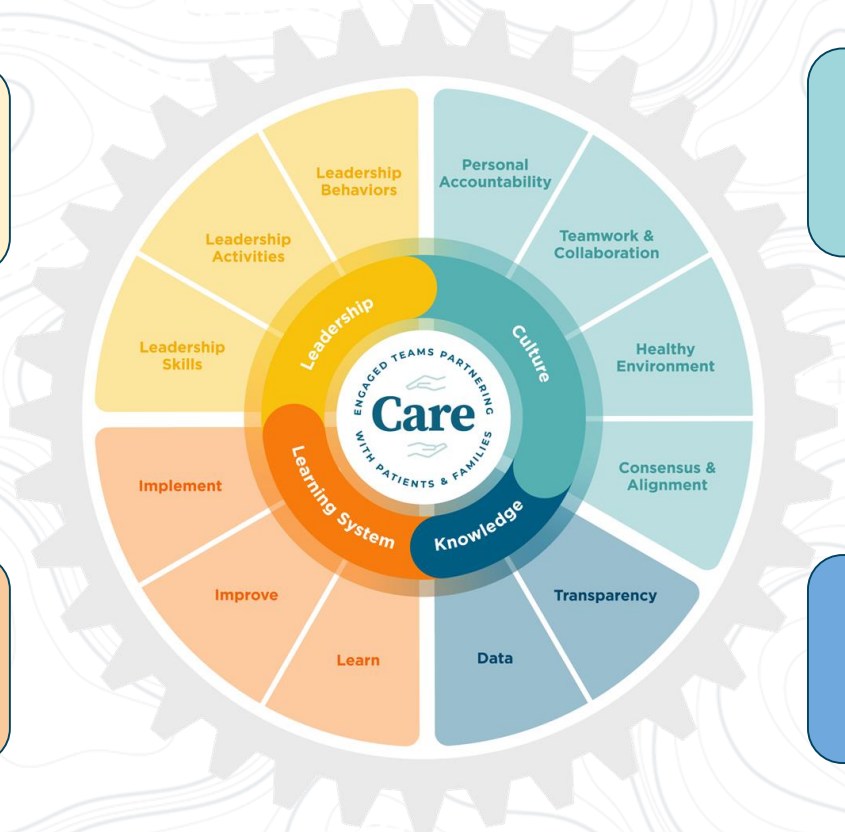
The 'what' but not the 'why'

Christina Maslach, PhD
Professor Emeritus, Berkeley

Categorizing the Causes of ***Frustration, Emotional Exhaustion, Cynicism, Inefficacy, & Depersonalization***

Leadership Causes

Cultural Causes



System Causes

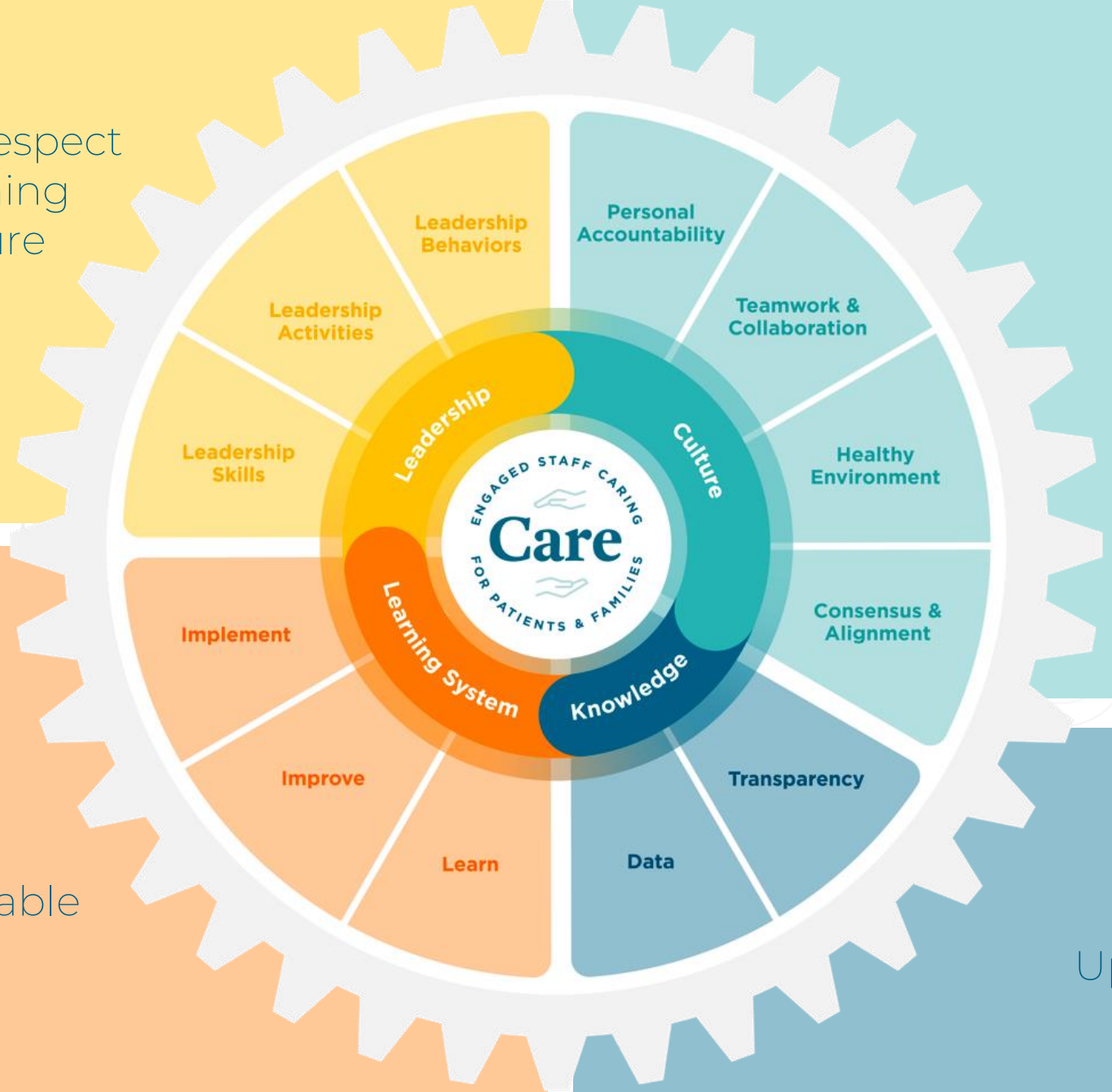
Knowledge Causes

LEADERSHIP

Non-Negotiable Respect
Guardians of Learning
Exemplars of Culture
Visible Action

CULTURE

Courage
Agency
Community
Collaboration



Self-Reflecting
Improvement-Capable
Sustainable

LEARNING

Clinical
Operational
and Cultural
Measurement
Up-to-Date and Visible

KNOWLEDGE

Thinking of a time when you have personally experienced burnout in the last twelve months…

- Which of these symptoms resonate the most with your experience?
  - Frustration, Emotional Exhaustion, Cynicism, Inefficacy, Depersonalization
- Can you identify the causes?

Leadership Causes

Cultural Causes

Knowledge Causes

System Causes

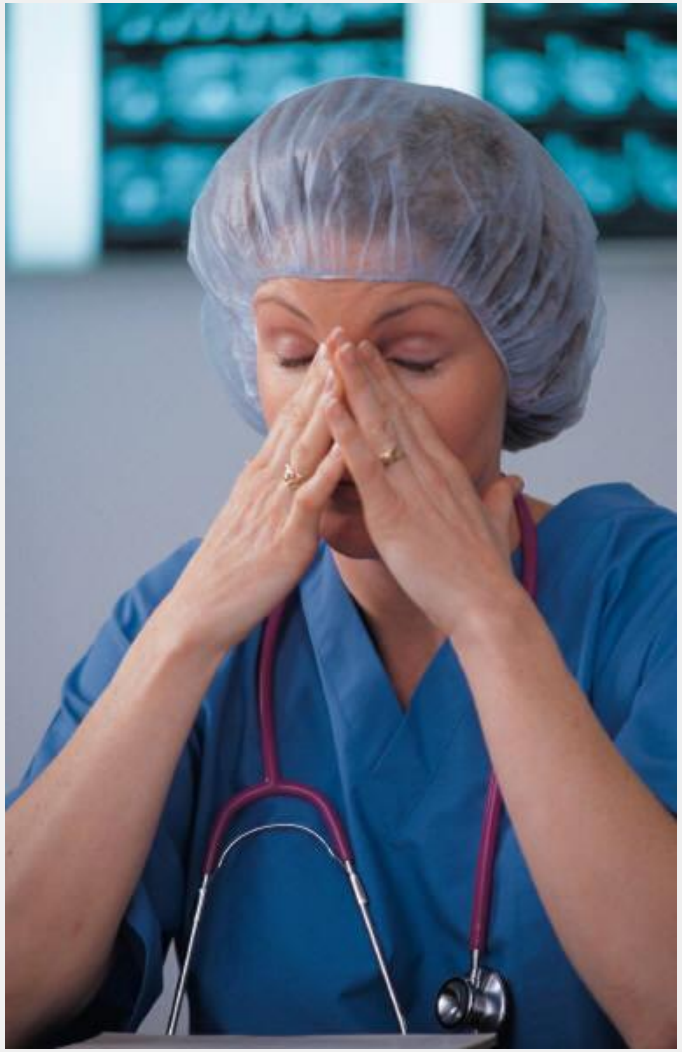
Factors Influencing Burnout *and* Resilience

Do I feel valued by the organization?

Do I have a voice?

Do I feel supported in the work I do?

Do I have the tools and resources to do my job?



Personal Accountability

How effectively do I provide these things to others?

Transformational Leaders

- **Create meaningful relationships** of trust, psychological safety and community
- **Set a positive tone and proactive stance**
- **Ask questions** (Appreciative Inquiry) and listen
- **'Think out loud':** establish shared mental models
  "Here's what I'm thinking, what are you thinking?"
- **Encourage and welcome diverse opinions, ideas & solutions**
- **Feel safe to "improvise" and learn**

How do I 'show up'?
When do I 'show up'?

6 Simple Rules

1. Be Visible; *'Go to the Gemba'*

2. Listen… Listen… Listen

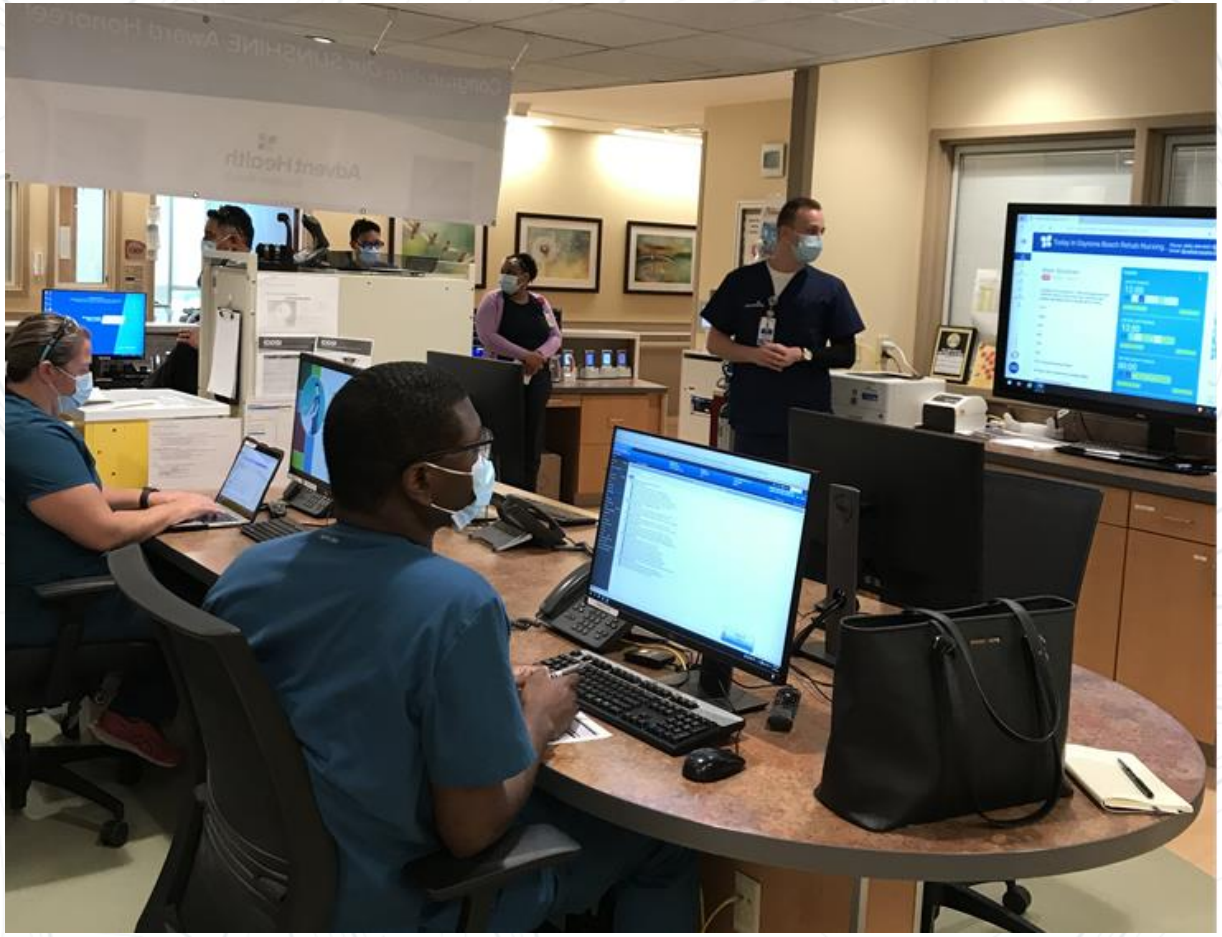
3. Pause and Reflect

4. Be Curious and Appreciative

5. Message the Mission. Mobilize others for a collective purpose

6. Ask for their Thoughts and Ideas

Resilience Intervention: Visual Management



Effective visual management systems drive cultural change, learning, staff engagement in "voice" and problem solving and allows the real-time sharing of data, stories and progress.

Visual management is not a panacea…

- More than just another ‘tick-box initiative’ ☑

- Visual Management Systems are a high-reliability intervention that diminishes leadership, cultural, knowledge and system causes of burnout, and builds team resilience.

Stories & Exemplars ‘from the field’

Burnout Reflections

Some leadership pitfalls in an environment of burnout:

- Heroism
- The pizza party
- The right actions but the wrong communication

Some leadership successes in an environment of burnout:

- Visual management is daily work
- Measuring culture
  SCORE
- Showing up, no matter what
- Effective bidirectional communication ensuring value alignment

Smoothing the Path Ahead

Leaders need:

1. **To know what burnout is (symptoms)**
2. **To understand where burnout exists (data)**
3. **To explore the causes of burnout (causal analytics)**
4. **To co-create wellness with the frontline (solutions)**

Questions?

AHA Team Training

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