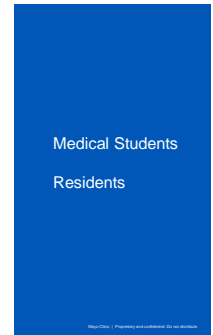


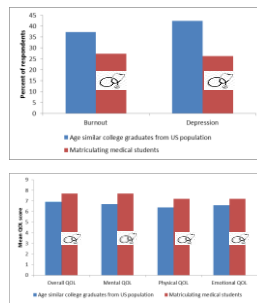
BURNOUT
45-56%

DEPRESSION
28-32%

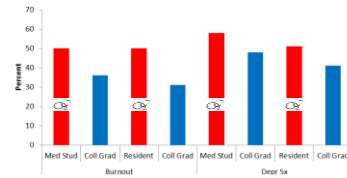
Dyrbye et al JAMA. 2018;320(11):1114
Rosenstein JAMA 2016; Mata et al. JAMA
314(22): 2373-2383; Dyrbye et al. Med
Educ 50(1): 132-149.



7 US
medical
schools &
population
sample



Brazeau et al. Acad Med 89(11): 1520-1525



Dyrbye et al Acad Med 89(3): 443-451; Rosenstein JAMA 2016; Mata et al. JAMA 314(22): 2373-2383; West et al. J Intern Med 283(6): 516-529; Dyrbye et al. Med Educ 50(1): 132-149.

BURNOUT

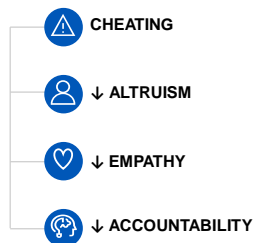
Residents & medical students are more likely to have burnout than other college graduates of similar age

DEPRESSION

Residents & medical students more likely to have depressive sx than similarly aged peers

PROFESSIONALISM

Problems identifying and managing conflicts of interest
Inappropriate prescribing behaviors



Dyrbye et al. JAMA 304(11):1173-80, 2010; Dyrbye Acad Med 90(4):485-493; Thomas JGIM 2007; Dyrbye et al. Med Educ 50(1): 132-149.

Mayo Clinic - Faculty presentation for use only

PATIENT CARE

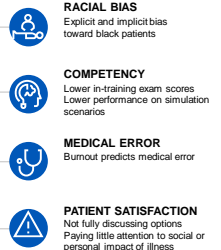
Multiple studies involving physicians in-training

Discharging patients to make service 'manageable'

Burnout contributes to lower quality of care and disparities in care

West JAMA 2011; 306; McConnell Acad Med 87; Dyrbye et al. JAMA Network Open 2019;2(7); Shanafelt Ann IM 2002;136:359-367; West et al. J Intern Med 283(6): 516-529.

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ATTRITION

SERIOUS THOUGHTS OF DROPPING OUT

Burnout predicts students developing serious thoughts of dropping out of medical school

3 OUT OF EVERY 200

who matriculate drop out due to a nonacademic reason

About half of those who leave due so due to burnout or depressive symptoms

AAMC Data Snapshot; Dyrbye et al. Acad Med 2010;85; Clark JAMA 1988;260; Lu J Emerg Med 2019; 20; Khoushal JAMA Surgery 2017;152

MORAL IMPERATIVE

Alcohol Use Disorder

National study >4000 medical students

Burnout independent predictor of ETOH abuse/dependence

Jackson et al. Acad Med 91(9):1251

Longitudinal study burnout predicted development of **suicidal ideation**, independent of symptoms of depression

Ann Intern Med 149: 334

DRIVERS

Drivers are complex & multi-factorial

Many health care **system aspects have to work together** to mitigate burnout and improve professional well-being

Poor learning environment is poor is independent predictor of burnout

nam.edu/ClinicianWellBeingStudy; Dyrbye et al. Med Educ 43:274



GRADING SCHEMA

Students in P/F curriculum Y1/Y2 have lower burnout, lower stress, same academic performance



FACULTY SUPPORT

Prioritize education Supervision Feedback



ORGANIZED ROTATIONS



VARIETY OF MEDICAL PROBLEMS

WORK & LEARNING ENVIRONMENT

2012 -2015, 1,276 IM interns from 54 U.S. residency programs

Karima et al. Acad Med ePub



9%



57%



80%

Rates of **depression** among interns within a program relatively consistent across independent cohorts of interns

Karima et al. Acad Med ePub

MISTREATMENT

Attending surgeons most frequent source of verbal/physical abuse & sexual harassment

Large variability in reported mistreatment by program

Yue-Yung Hu et al. N Engl J Med 381:18

32%

Gender discrimination

17%

Racial discrimination

10%

Sexual harassment

↑ Burnout & SI

>7400 surgical residents

Yue-Yung Hu et al. N Engl J Med 381:18

TIME LINE

Mistreatment & poor role modeling predicted increase in depressive symptoms

MISTREATMENT

DISTRESS

T 1

T 2

1 year, single-institution, 3yr medical students

4 year, national cohort study, yr1- yr4 medical school

Haglund et al. Acad Med 84: 258; Handman et al. J Natl Med Assoc. 2016;108(4):225

Haglund et al. Acad Med 84: 258; Handman et al. J Natl Med Assoc. 2016;108(4):225



- ✓ Better teaching
- ✓ Explicit teaching about certain end-of-life topic
- ✓ Direct observation
- ✓ Reciprocal relationships
- ✓ Opportunities for learning



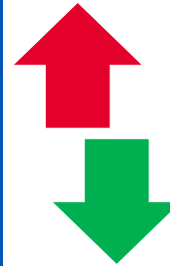
- ✓ Stressful relationships
- ✓ Little emotional support
- ✓ Not enough teaching
- ✓ Insufficient responsibility
- ✓ High attending demands
- ✓ Lack of timely feedback

Prins Med Educ 42:721; Attenello J Neurosurg 2018; Dyrbye Med Educ 50:132-149; Attenello J Neurosurg 2018; Verweij Adv Health Sci Educ 22

BURNOUT BY SPECIALTY

>3500 PGY-2 Residents
>5100 US Physicians

Dyrbye et al. JAMA. 2018;320(11):1114;
Shanafelt et al. Mayo Clin Proc. 2019
Sep; 94 (9):1681-1694



Neurology
ER
Ob Gyn
PMR
General surgery

General Pediatrics
Anesthesia
Pathology
ENT
Psychiatry

FACULTY WELL-BEING

- ✓ Address factors contributing to faculty burnout
- ✓ Align reward s & incentives w. educational goals

LEARNING LOAD

- Medical knowledge
- Expanded physician competencies
- More reading than can be completed
- Parallel Step 1 prep curriculum
- Add value to the health system
- Shortened curricular time

Lucy JAMA Intern Med 2013; 173;
Corsson et al. Health Affairs 2011;30;
Gonzalez et al. Adv Health Sci Educ Theory Pract 2016; 23

EDUCATIONAL DEBT

Educational debt, \$US	OR
None	1
\$1-49,999	1.21
\$50,000-99,999	1.30
\$100,000-149,999	1.41
\$150,000-200,000	1.48
>\$200,000	1.72

15,000 Internal Medicine Residents

West JAMA 2011; 306(9); Eckleberg Acad Med 84; Ratanawongsa Med Educ 41

PATHWAY FOR APPROACHING SYSTEM-LEVEL CHANGE TO SUPPORT CLINICIANS' AND TRAINEES' PROFESSIONAL WELL-BEING

CREATE POSITIVE WORK & LEARNING ENVIRONMENTS

"Those responsible for educating the next generation of physicians must **commit** to addressing **system-level factors** that hinder professional well-being and development of learners"



National Academies of Sciences, Engineering, and Medicine, (2019). Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. Washington, DC, The National Academies Press.

LEADERSHIP

Commitment from top leadership

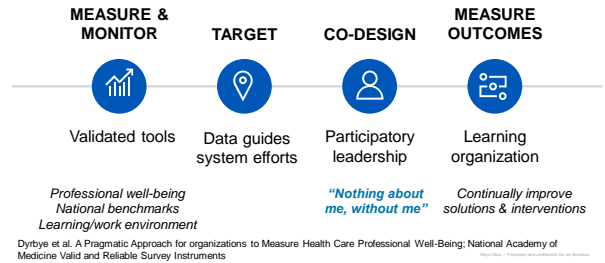
1. Governing boards
2. Organizational leaders
3. C-suite level leader
4. Leaders at all levels

EDUCATION

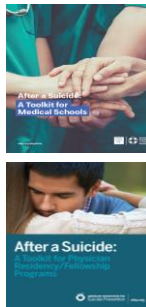
- ✓ In charge of professional well-being of learners
- ✓ Resourced, empowered, & accountable
- ✓ Prioritize improving the learning environment & well-being of trainees

National Academies, (2019). Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being.

HUMAN CENTERED DESIGN PROCESSES



RESOURCES



ACTION IS NEEDED

Doing so is vital for patients to receive compassionate care from committed, competent, and professional physicians

@dyrbye
#AgainstClinicianBurnout