

# **Faculty and Organizational Health: A focus on Energy and Joy**

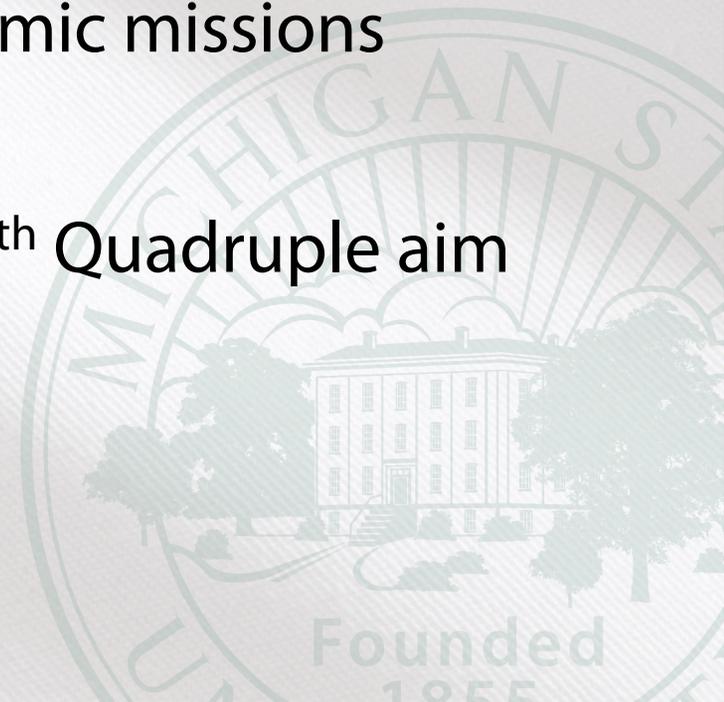
**Bengt B. Arnetz, MD, PhD, MPH, MScEpi**

**ADFM “Joy in Practice” webinar series  
July 26, 2017**



## > Content

- Faculty and Organizational Health
  - Strategic and operational rationale
- Background and Current Initiatives
- Evidence-based Improvements
  - Integrating across all three academic missions
- Vision of the future
  - Strengthening the focus on the 4<sup>th</sup> Quadruple aim



## ➤ Goal

- Stress – Wellness – Vitality
  - Changing the paradigm
- Releasing & Motivating Human Capital
- Vitality - Promoters and Barriers
- Translational research
  - Epidemiology to full-scale interventions
- MSU-CHM Application
- Conclusion



# Leadership Reflections on Faculty Vitality

College of Human Medicine' Vitality Initiative  
Michigan State University

1. **Survey** All Faculty and Academic Staff  
(Including Clinicians, Basic Scientists, Academic Specialists, Non-Prefix Community Based)
2. Conduct Additional **Focus Groups** with Faculty
3. Develop **Toolkits** for Chairs
4. Build Connections Across Campuses with Affiliated Programs and **Partners**
5. Design **Faculty Development** Programs for Chairs
6. **Disseminate** through Scholarly Presentations and Publication in Future

## Challenges

- Decision Making Process
- Inclusiveness, Timeliness and Transparency
- Dispersion Across State
- Unique needs of Basic Science and Clinical Departments

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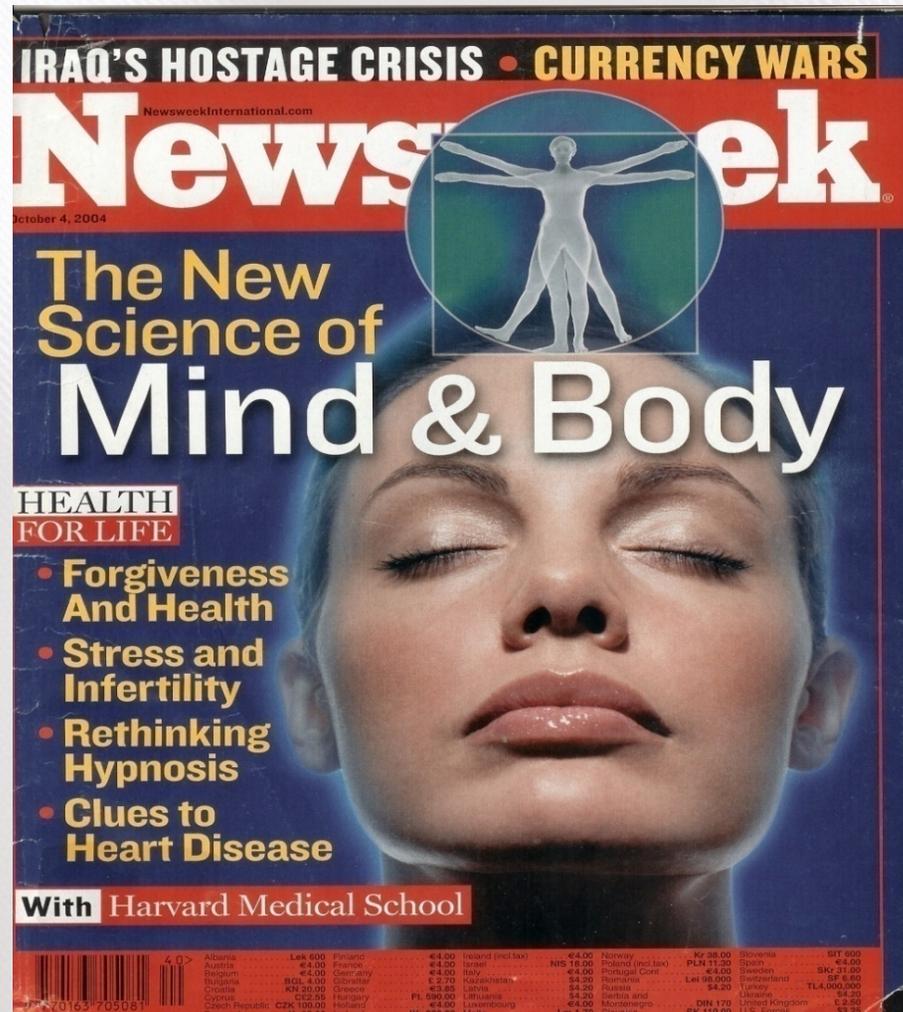
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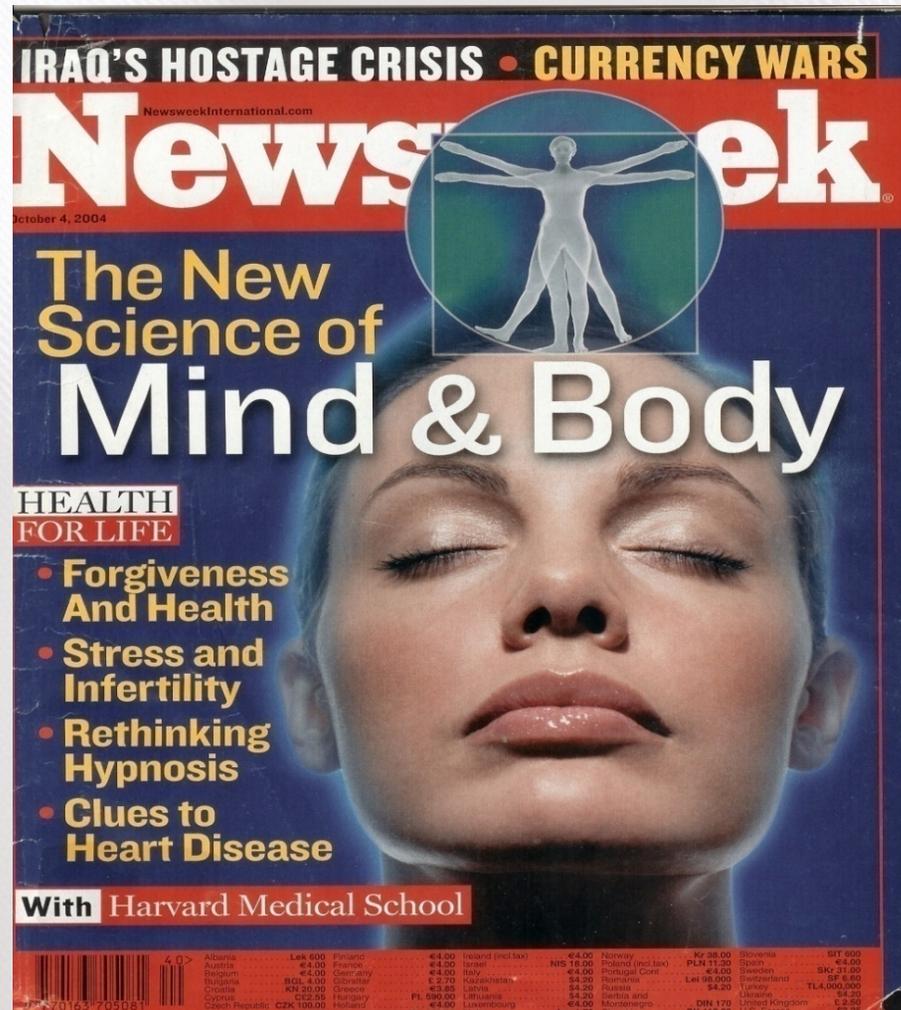
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- **Rigor**
- **Outcome focus**
- **Fundable**
- **Impact**

# Vitality – the “New” Paradigm

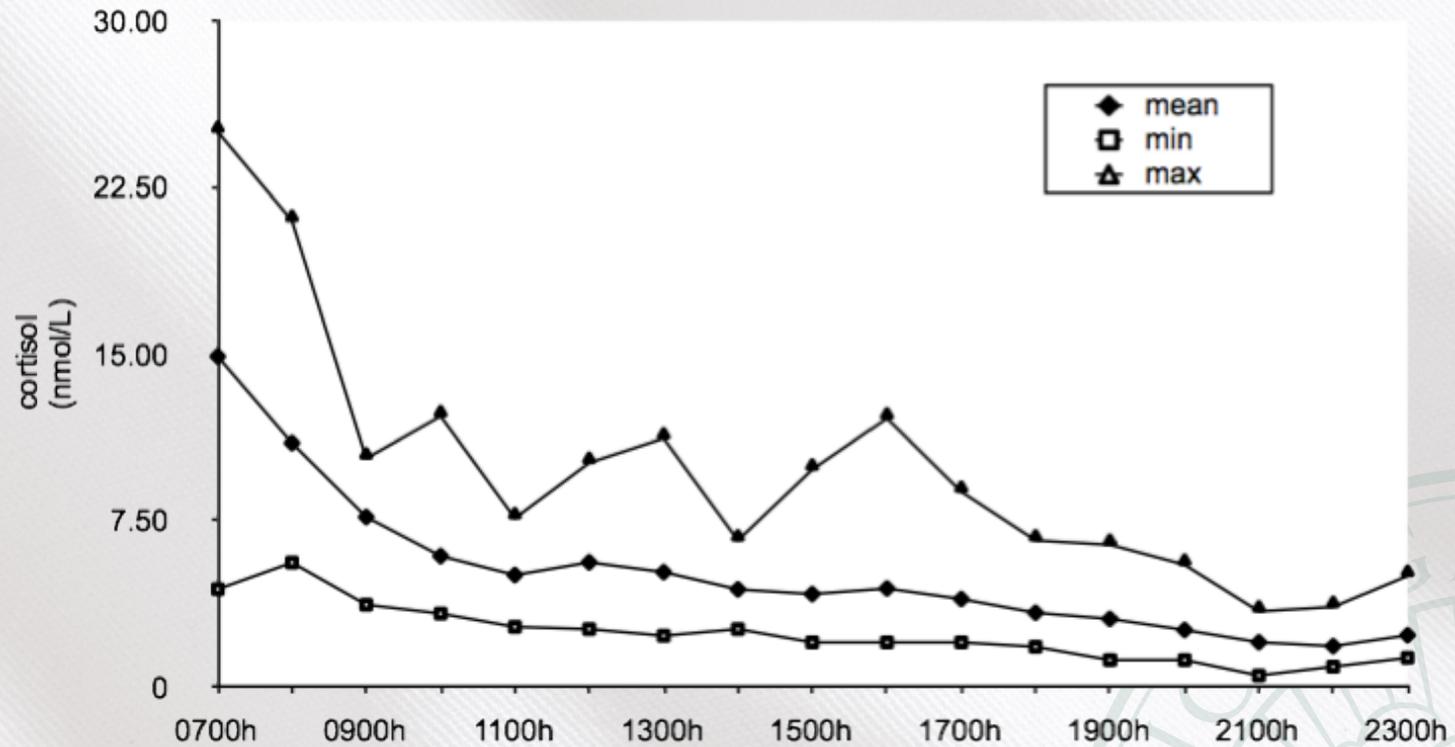


# Vitality – the “New” Paradigm



- Time
- Talent
- Energy
- Motivation
- Alignment

# The **Biology** of "Non-Stress"



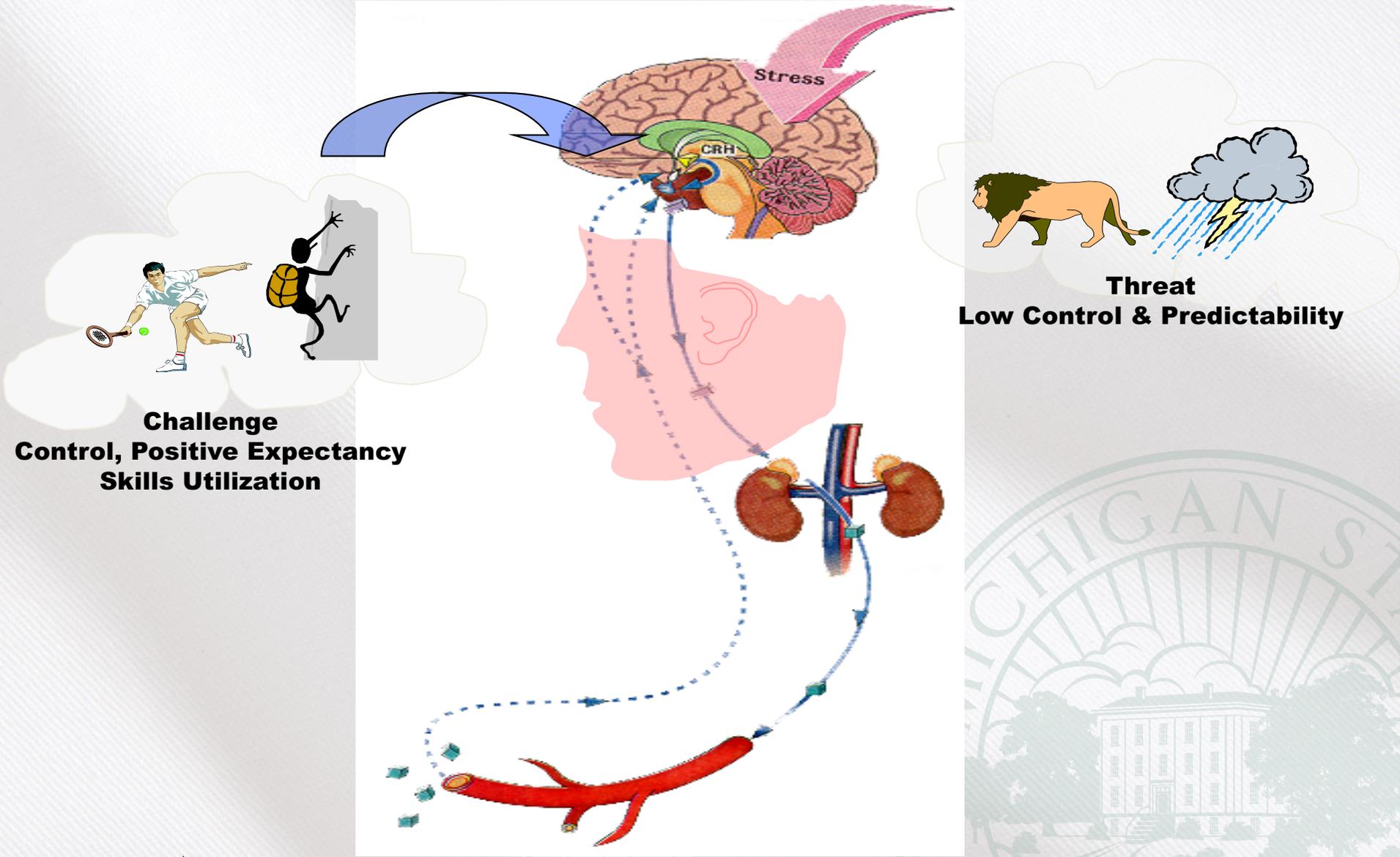
## ➤ Stress at Work

- +50% U.S. Physicians signs of “burnout” (Dyrbye et al, NAM Perspective. 2017)
- 46% of US Workforce stressed to the point of burnout (Washington Business Group on Health)
- Increases faster in MDs, vs other workers: +9% 2011 – 2014 (Dyrbye et al, NAM Perspective. 2017)
- One in four US Workers suffers from stress-related mental disorders (The Property and Causality Insurance Edition of Best’s Review)

## > Costs of Low Vitality

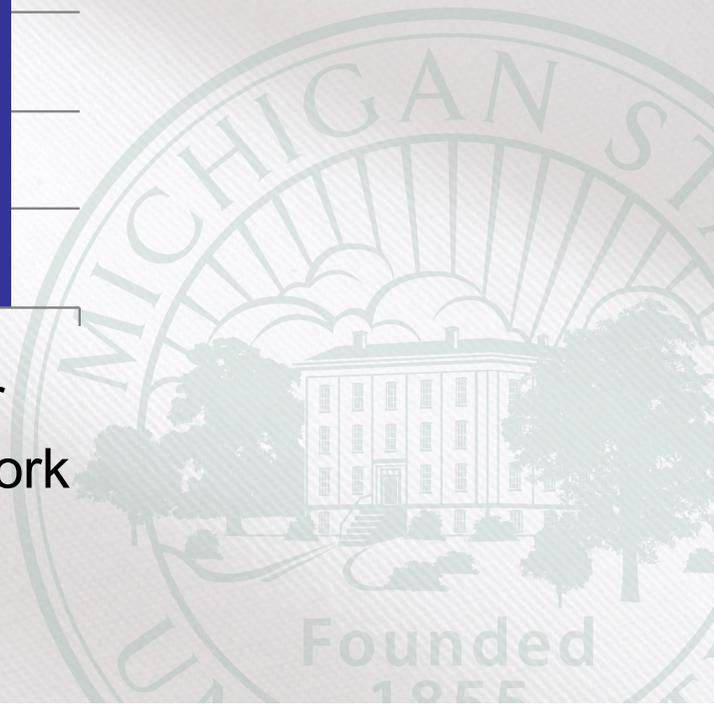
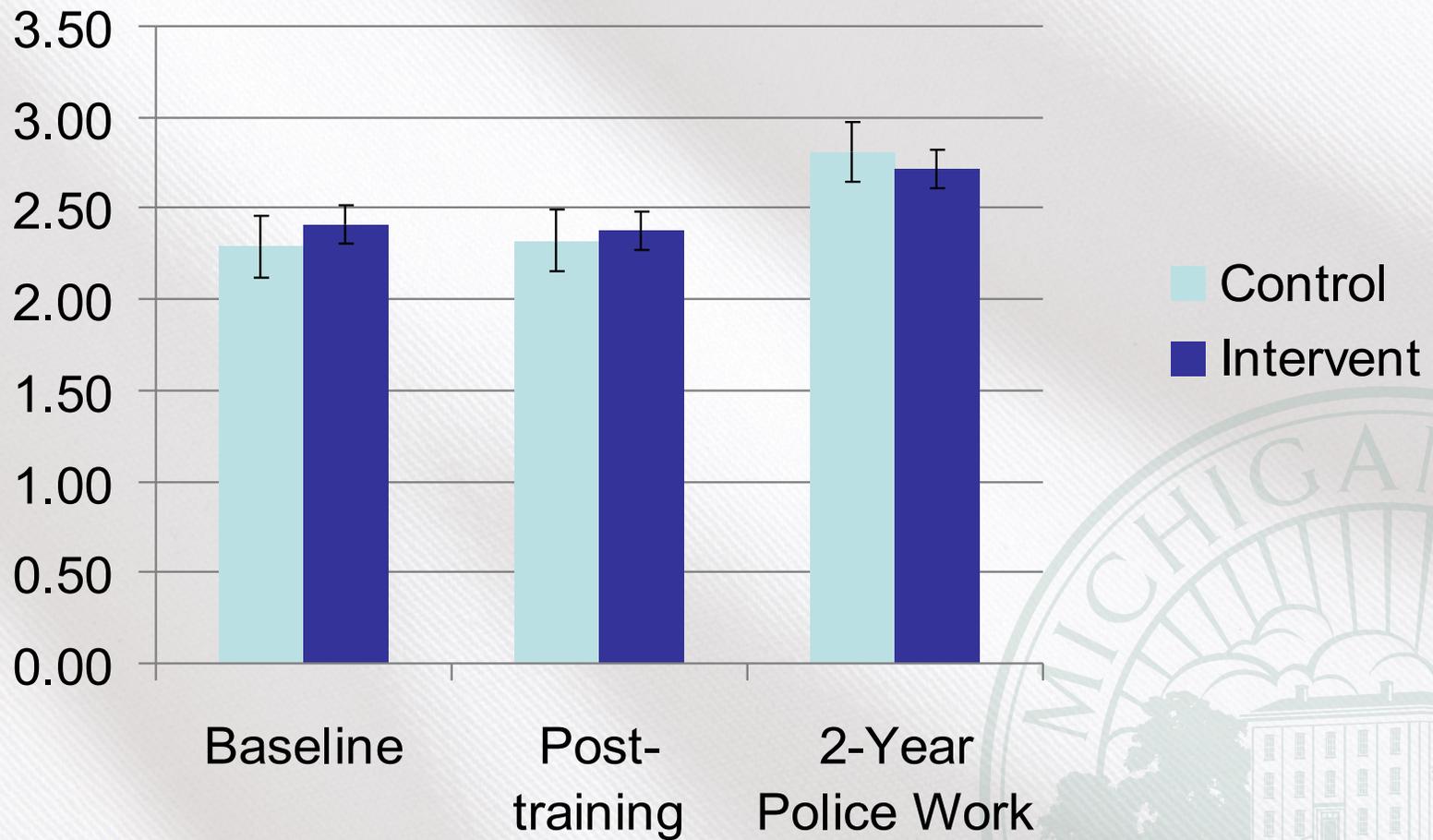
- Stress-related disorders costs the US 42 Billion/year
  - 50% due to repeated and frequent healthcare use
- \$150 Billion/year lost due to productivity losses, poor decision-making; absenteeism, stress-related disorders, substance abuse

# ➤ Paradigm Shift – From Stress to Vitality



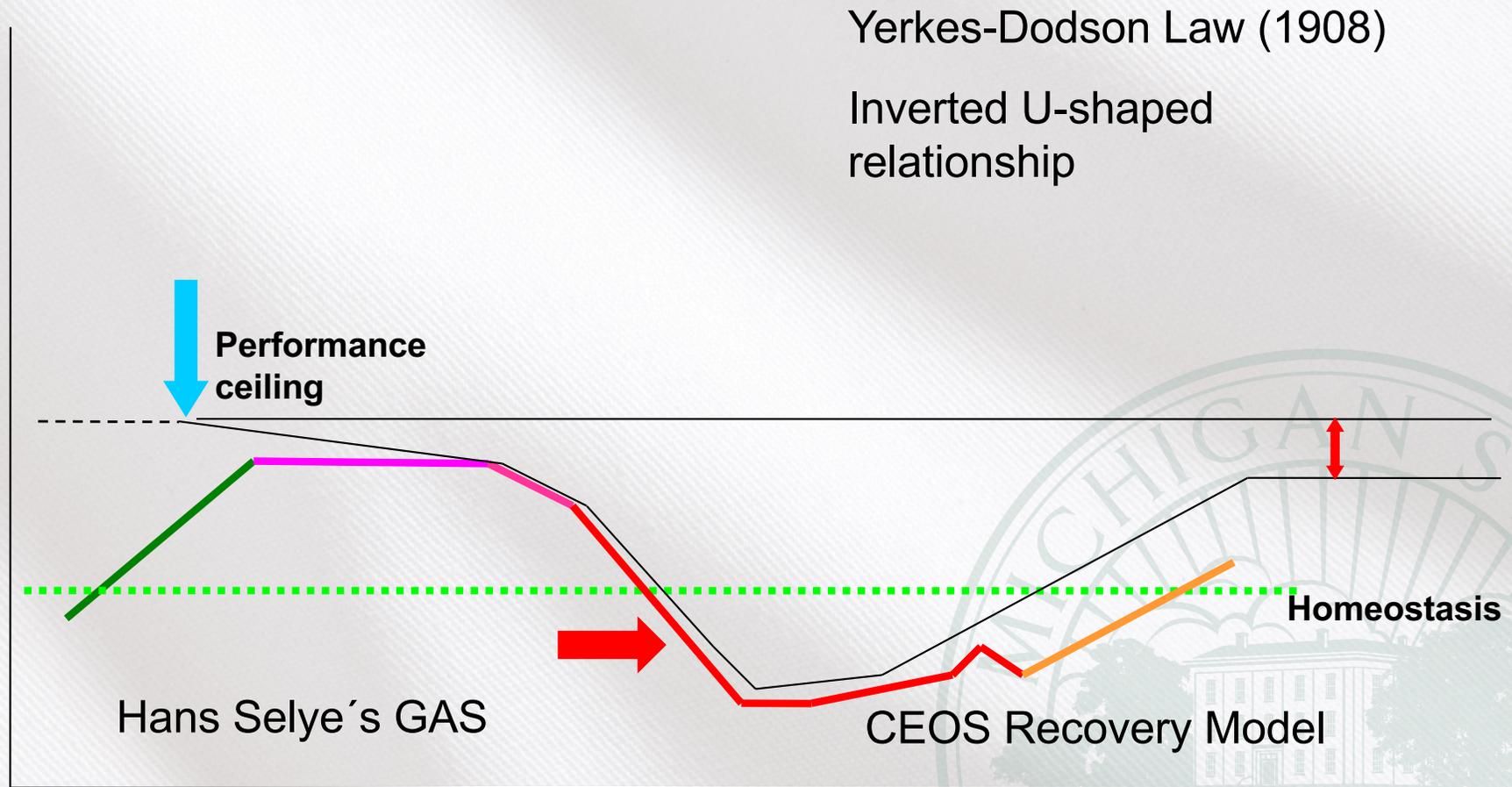
# Ratio: s-Cortisol/s-DHEA-s

Mean +/- S.E.M.

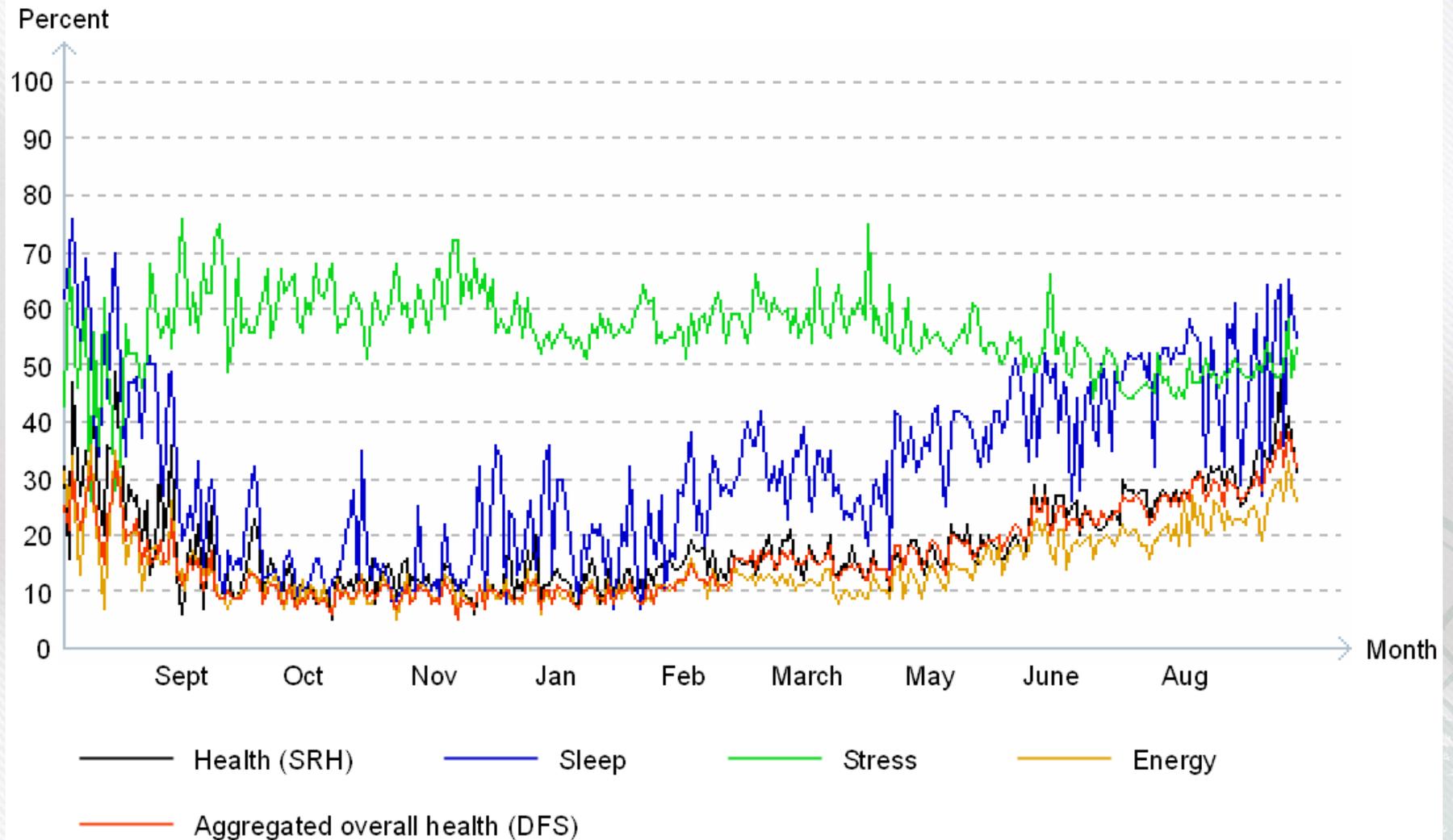


# Psychophysiological Exhaustion Model

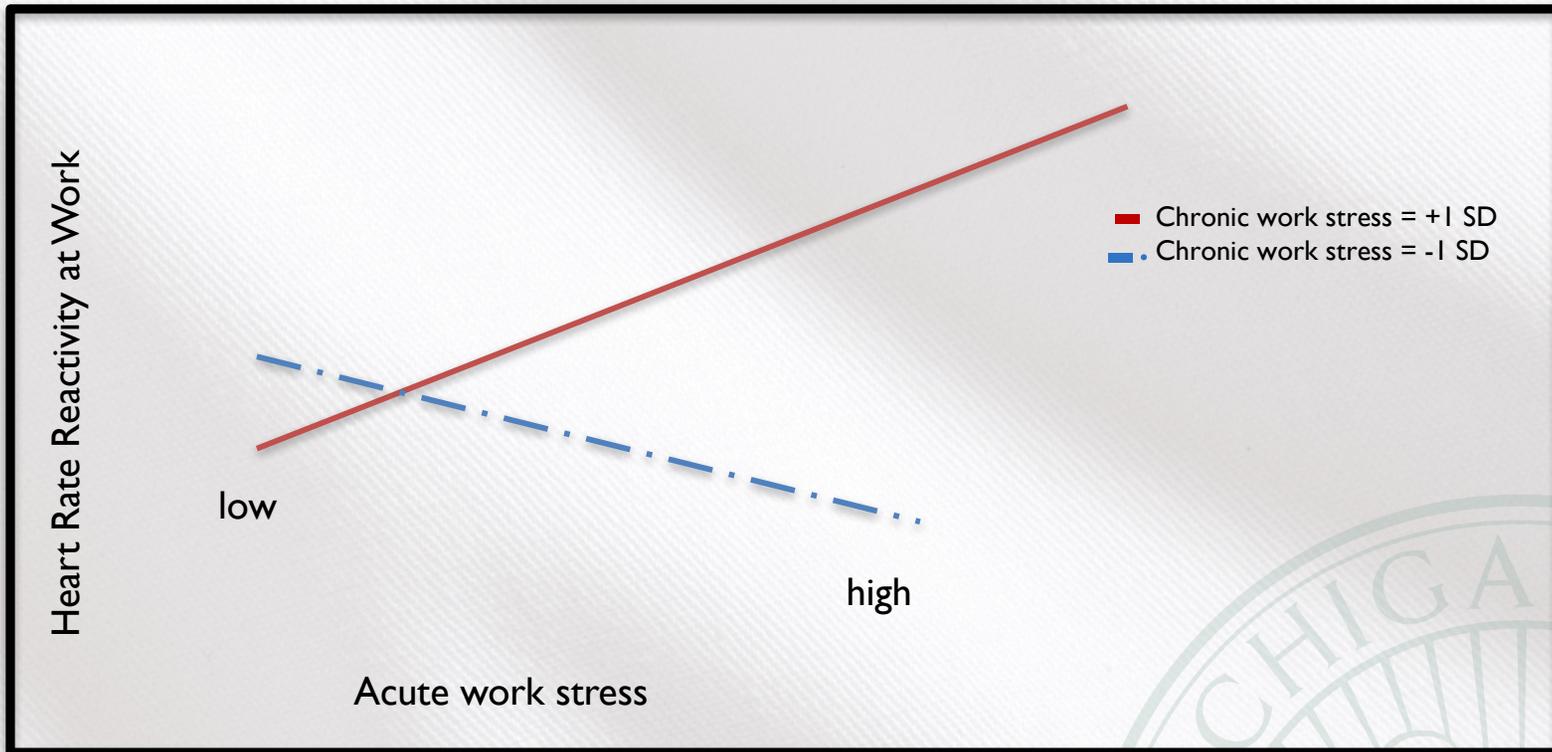
## Performance capacity



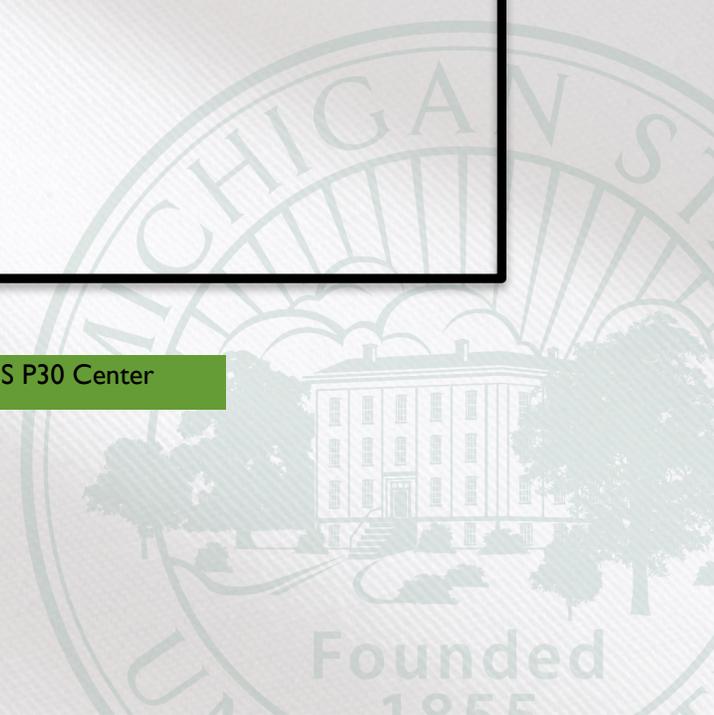
## The Stress - Health - Recovery Process



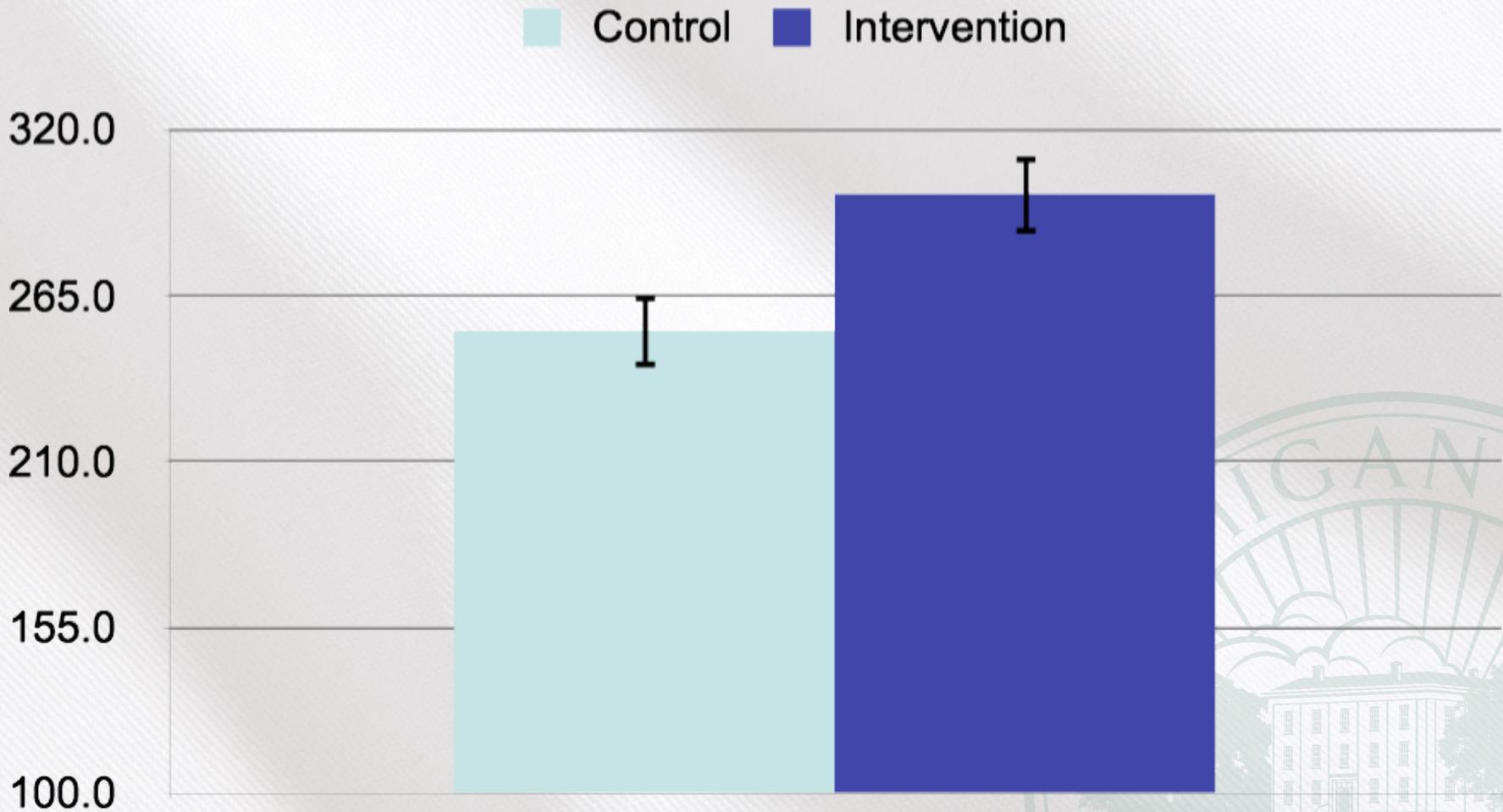
Real-life Application  
Interaction between chronic and acute stressors



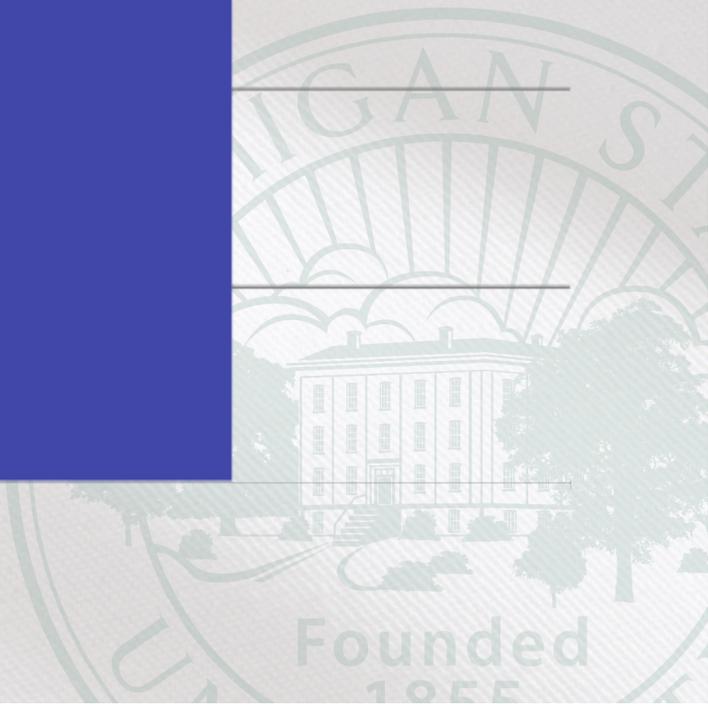
Lumley et al. Psychosomatic Medicine. 2014 NIEHS P30 Center



# Stress Hampers Cognitive Performance

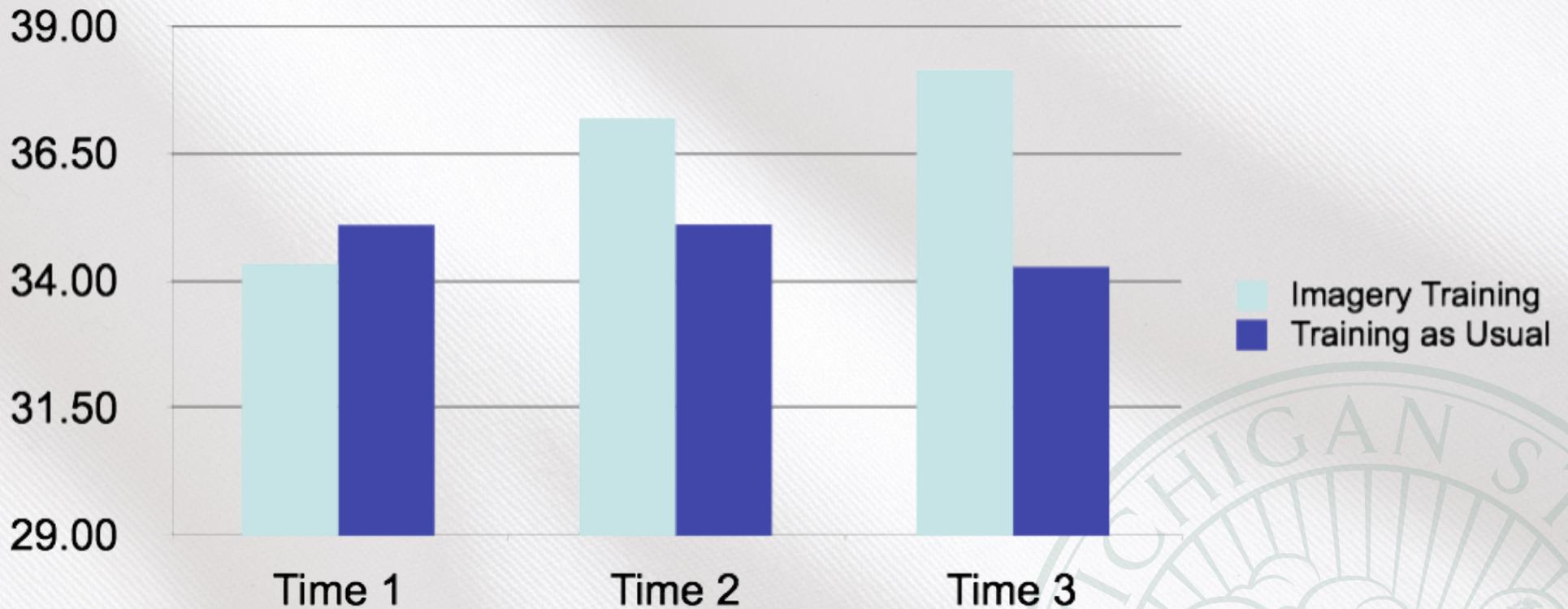


$t_1$ , group = 3.80,  $p = .02$

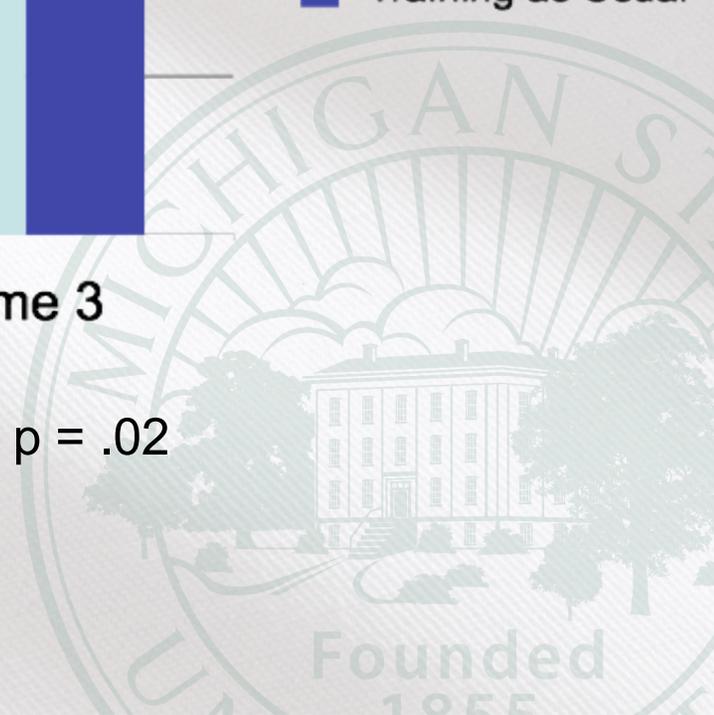


# Stress and Performance Management

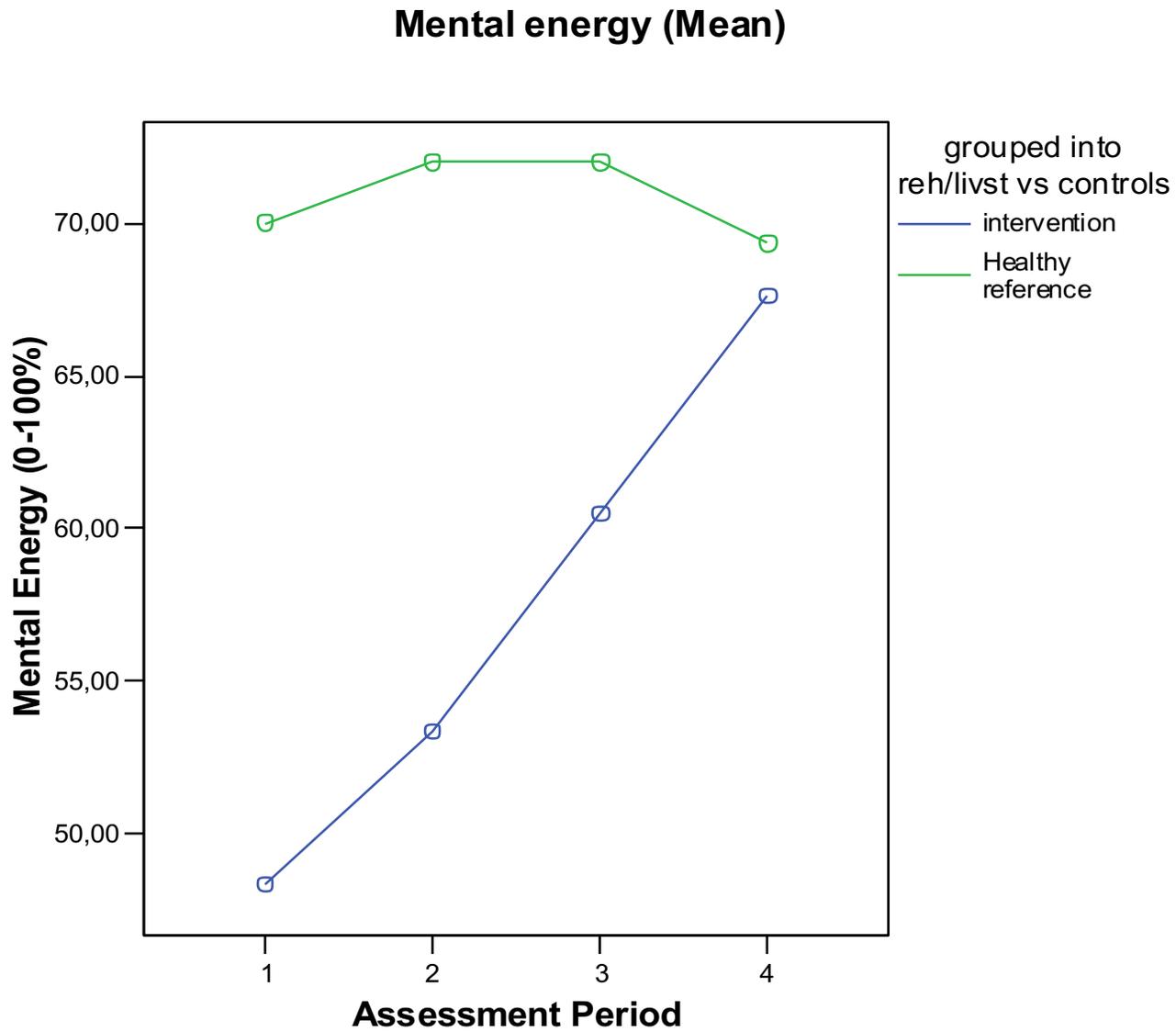
Higher scores = Higher Vitality



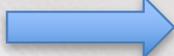
$F_{2, \text{time}} = 1.31, p = .27. F_{2, \text{time} \times \text{group}} = 3.72, p = .02$



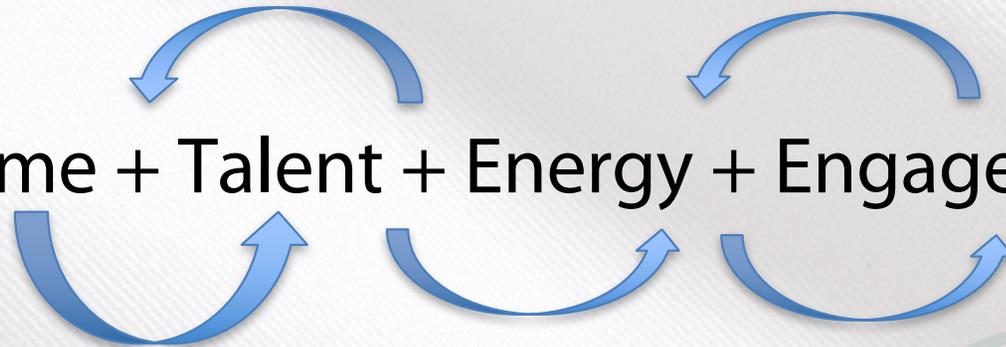
# Mental Energy



# Productive HR Power

Human capital  Productive power

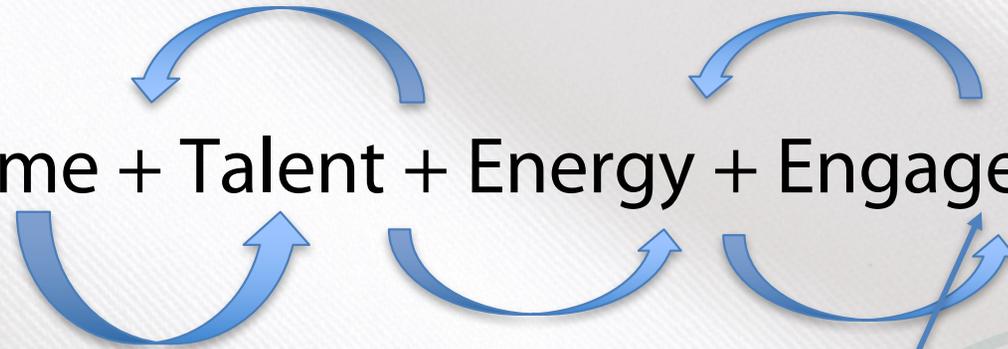
Formula: Time + Talent + Energy + Engagement



# Productive HR Power

Human capital  $\longrightarrow$  Productive power

Formula: Time + Talent + Energy + Engagement



Motivation

## Time Power

- Average company loses 21% of its productive power
- Best quartile companies: 50% less loss
- Best quartile: 40% more productive power than average of all other companies
- Time losers: Structural and Behavioral  
**Organizational Drag**

## > Talent Power

- Best quartile companies: 29% boost in productivity
- Best companies: 16% - top tier talent vs 14% in the rest of companies
- Critical: Management deployment and teams towards critical organizational: Roles – Mission – Initiatives

## ➤ Talent Energy

- Single largest source of Productive Power
- Most energetic employee – “Inspired” – 2x productive vs “satisfied employee” and 50% more productive than “engaged”

## ➤ HR Steps to Mobilize Energy

- Eradicate factors that steal time
- Work culture that balance performance - enhancing goals:  
**Accountability and Autonomy**
- Inspirational leadership
  - link to broader organizational mission

## ➤ Motivation – Critical Ingredients

- Goal – “Do your best”, not stretch goals
  - Intrinsic motivators vs External incentives
- Talent + effectivity ≠ Likable
  - “Talentless people are often quite good at faking competence” (p.3)
- Challenging work vs Dull
  - Job design – person drivers and fit
- Feedback – performance gaps and success
  - Risk; demoralizing, overly focused on one side

# ➤ Spotify - Leadership for Millennials

- Music, Video, Podcast streaming
- 3\$ Billion + in revenue
- 50 million paying subscriber
- Balancing:
  - Autonomy vs Accountability
  - Innovation vs Proven Routine
  - Alignment without excessive control

# Spotify – Organizing for Agility

Broad performance feed-back  
Frequency: one to multiple/year

Own development and growth process

## Guild

Higher level communities of interest, e.g., leadership

**Chapter**  
Core function: QI, Agility, Web Develop  
Formal leader: Players-Coach  
Mentor and Coach.  
Leader define problems – Squad solves it

What

How

Whom

Self-organizing.  
No formal leader

• Squad  
n ≈ 8

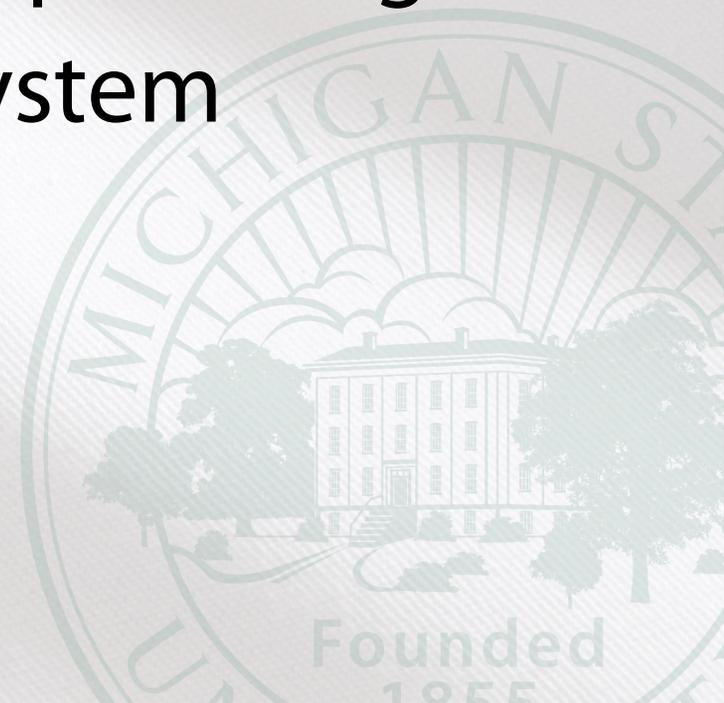
Tribe

Tribe

Internal and Customer reviews  
Post-mortem – Success & Failures

## ➤ Principles of Spotify Organization

- Alignment enables Autonomy
- Aligning on Objectives & Goals
  - Focus on pre-release & partial release
- Autonomy without Sub optimizing
- Good citizen in the ecosystem



# Spotify Decision Process

- Test and Learn
- Data, Experimentation, Dialogue to address challenges
- Decoupling – failure has limited “blast radius”



Alignment with autonomy & accountability



# ➤ Data-driven Assessment & Intervention



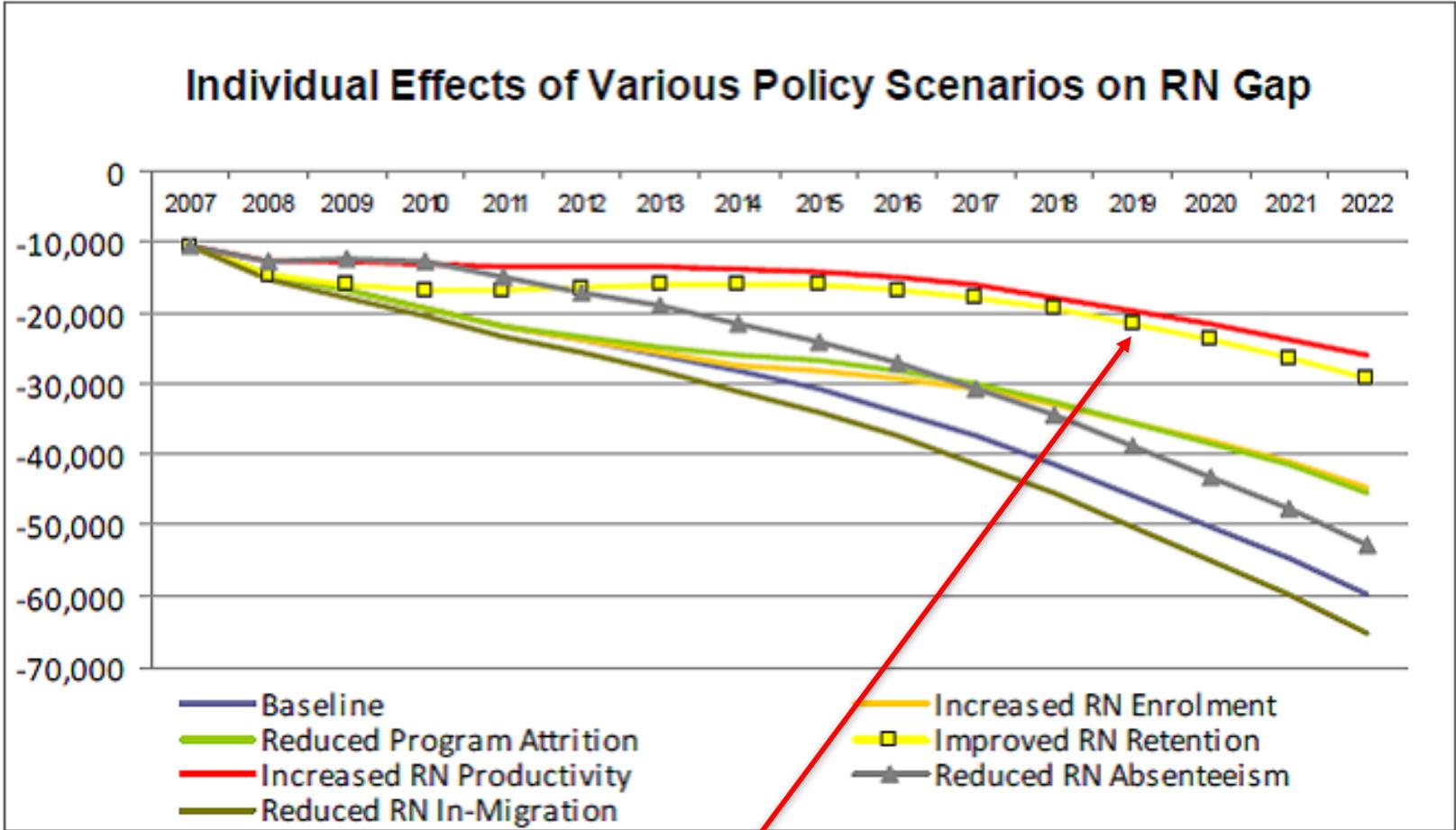
## > Toyota No Waste

### Waste of Human Resources

#### Workers engaged in "other" activities 2 hr/day

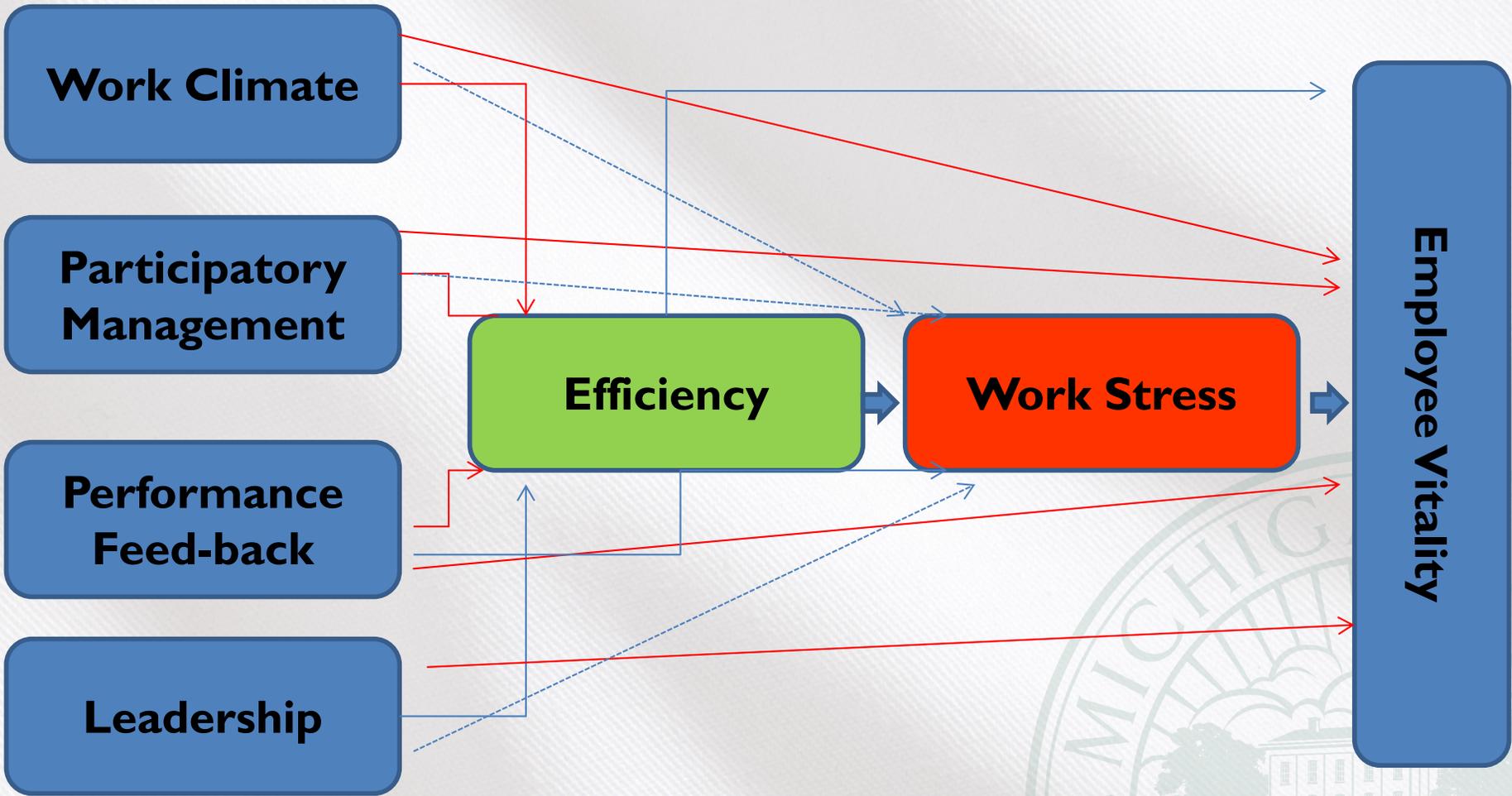
- 44,7% "wasted" on Internet surfing
  - 23,4% talk to co-workers, friends
  - 33,2% too little work!
  - 23% "wasted" time due to management disinterest
- Real loss: 2.09 hrs/day (employers estimate 56.4 min)
  - \$ 759 Billions/Year

# Productivity and Retention Challenges

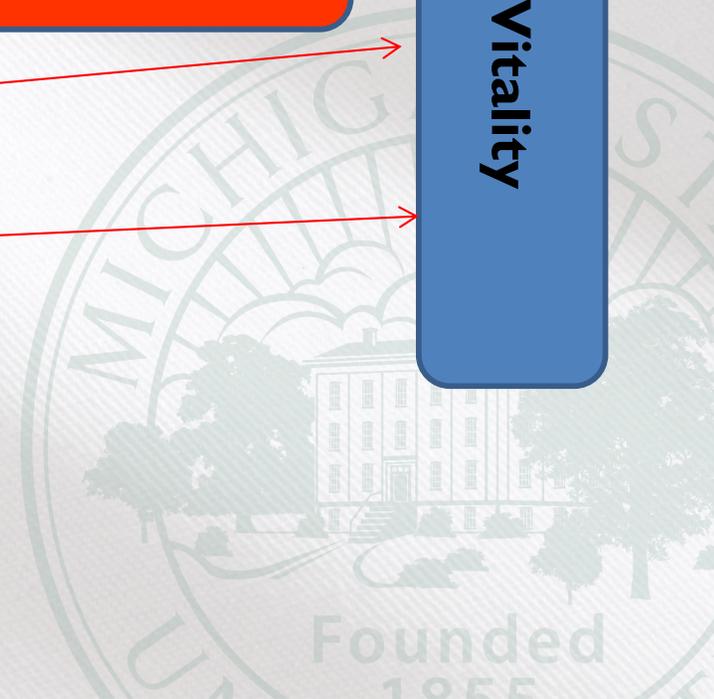


Key  
determinants:  
Productivity &  
Retention

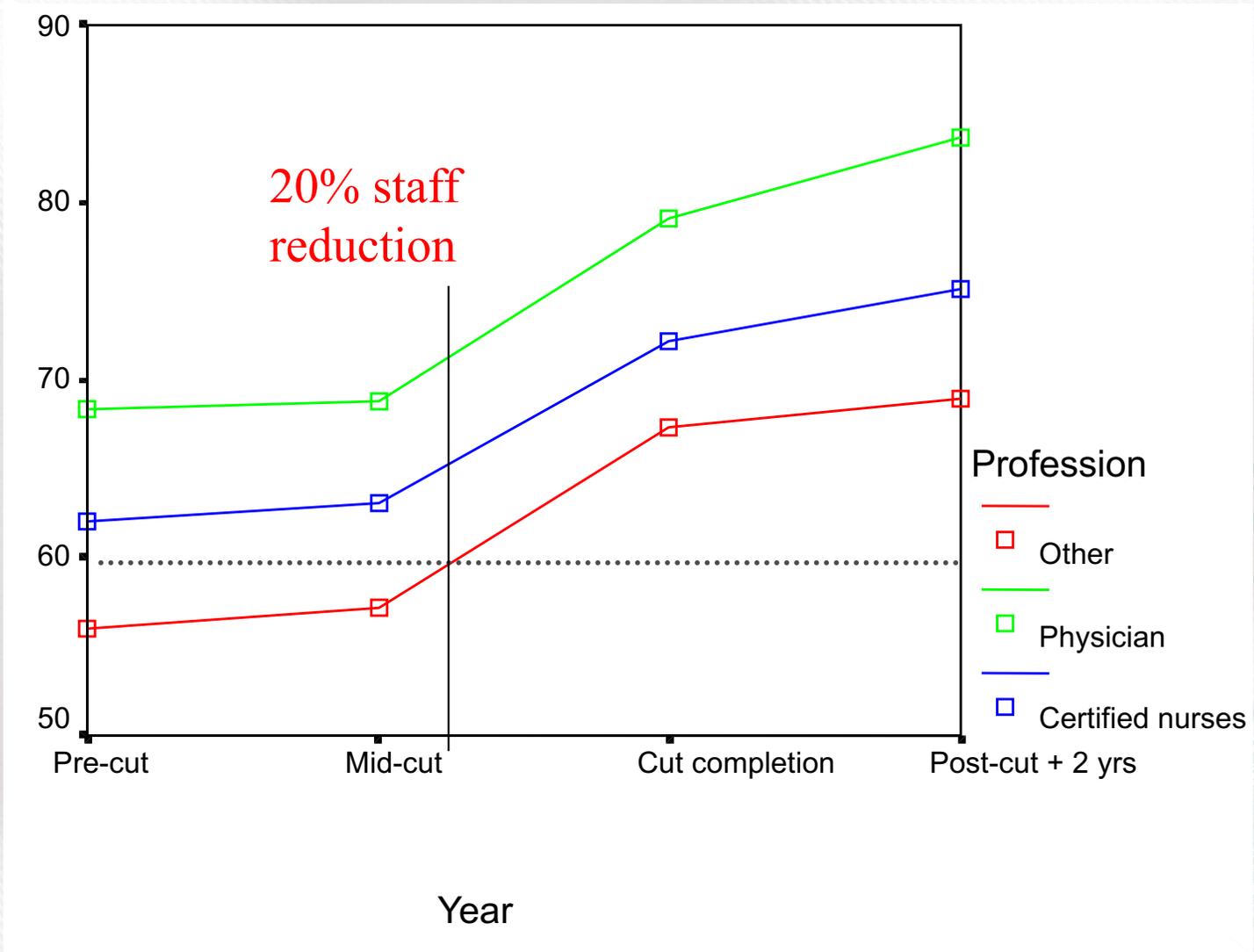
# Organizational Climate – Stress - Vitality



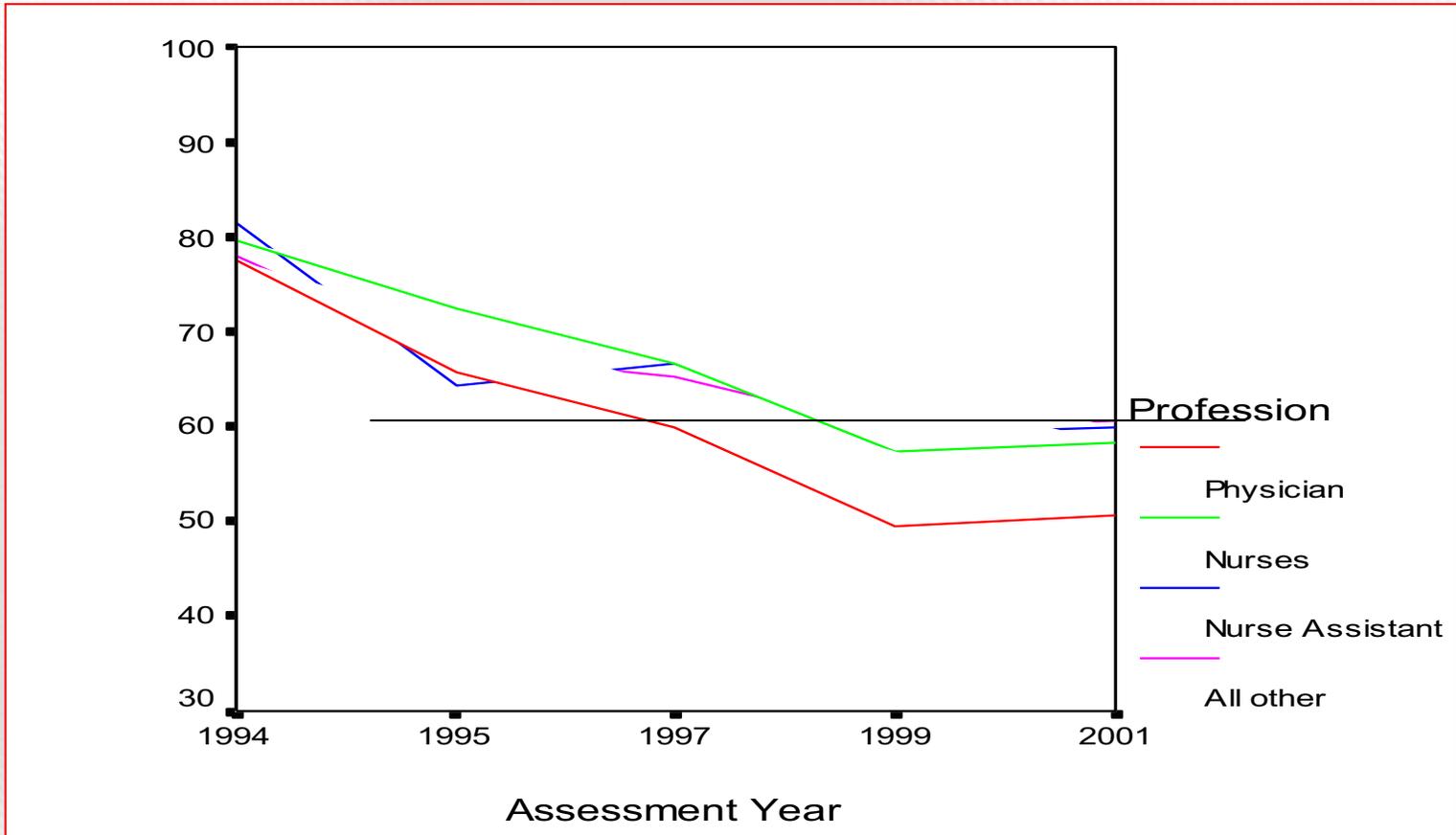
Source: B Arnetz, T Lucas, J Arnetz, JOEM, 2010



# Cutting Resources: Impact on Workload

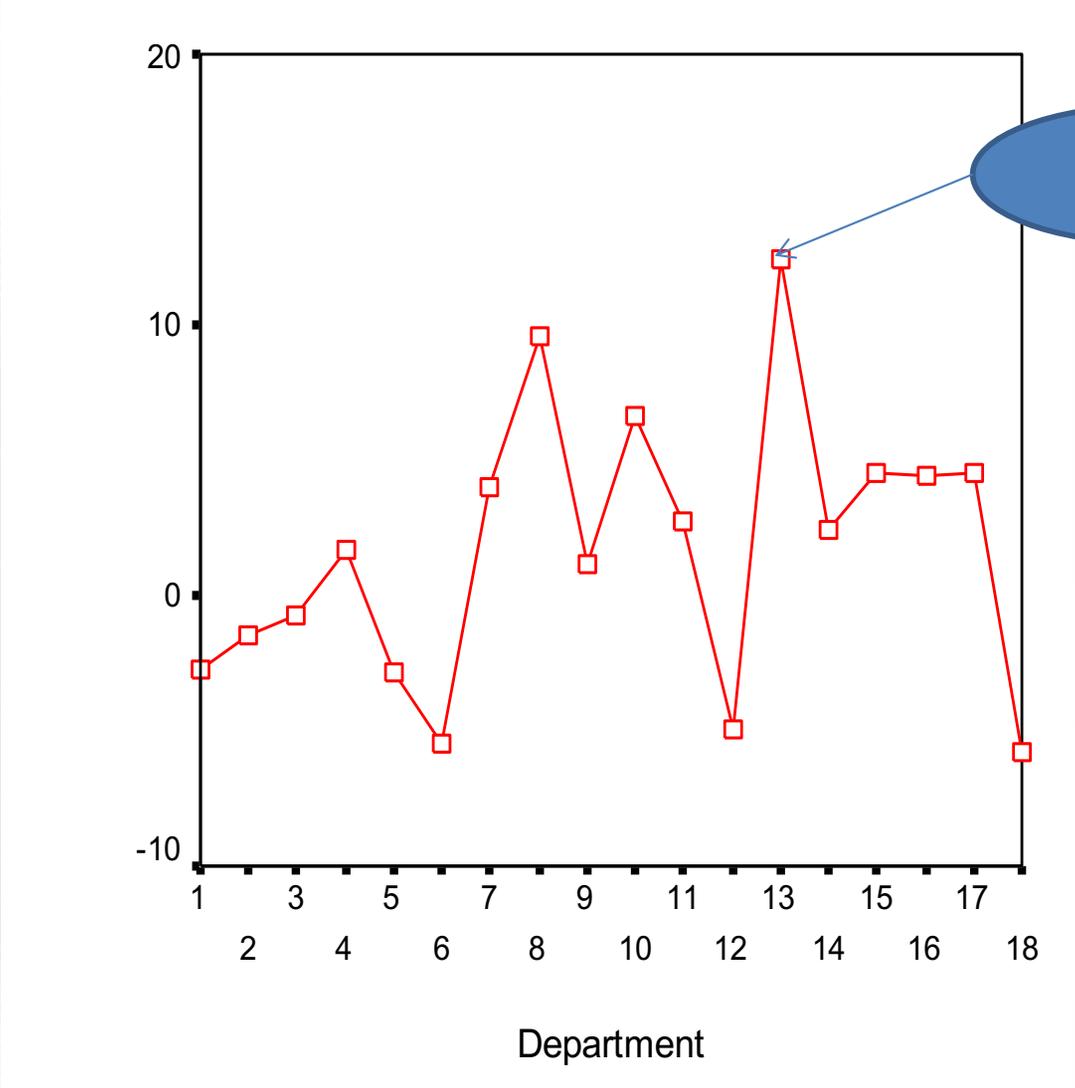


## Percentage of staff above 70% in Mental Energy (=Healthy) vs time

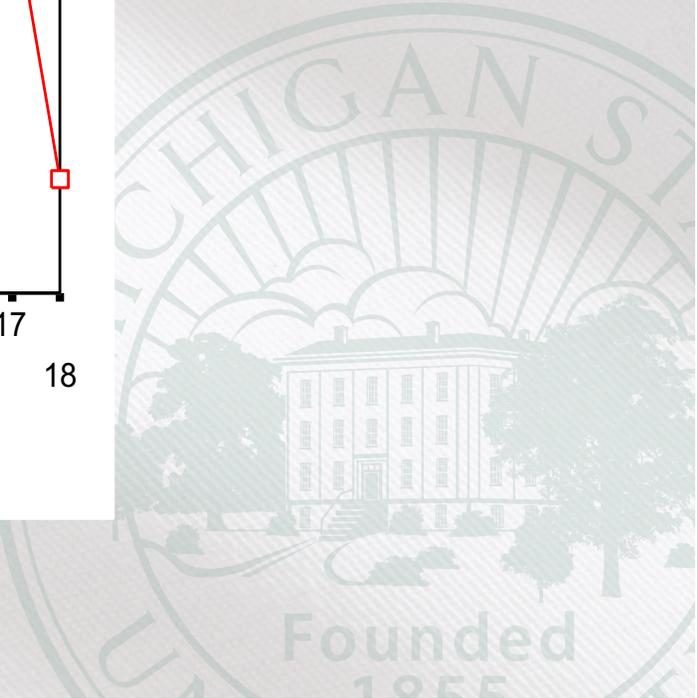


$P < 0.05$  for group, time, and time x group interactions, GLM

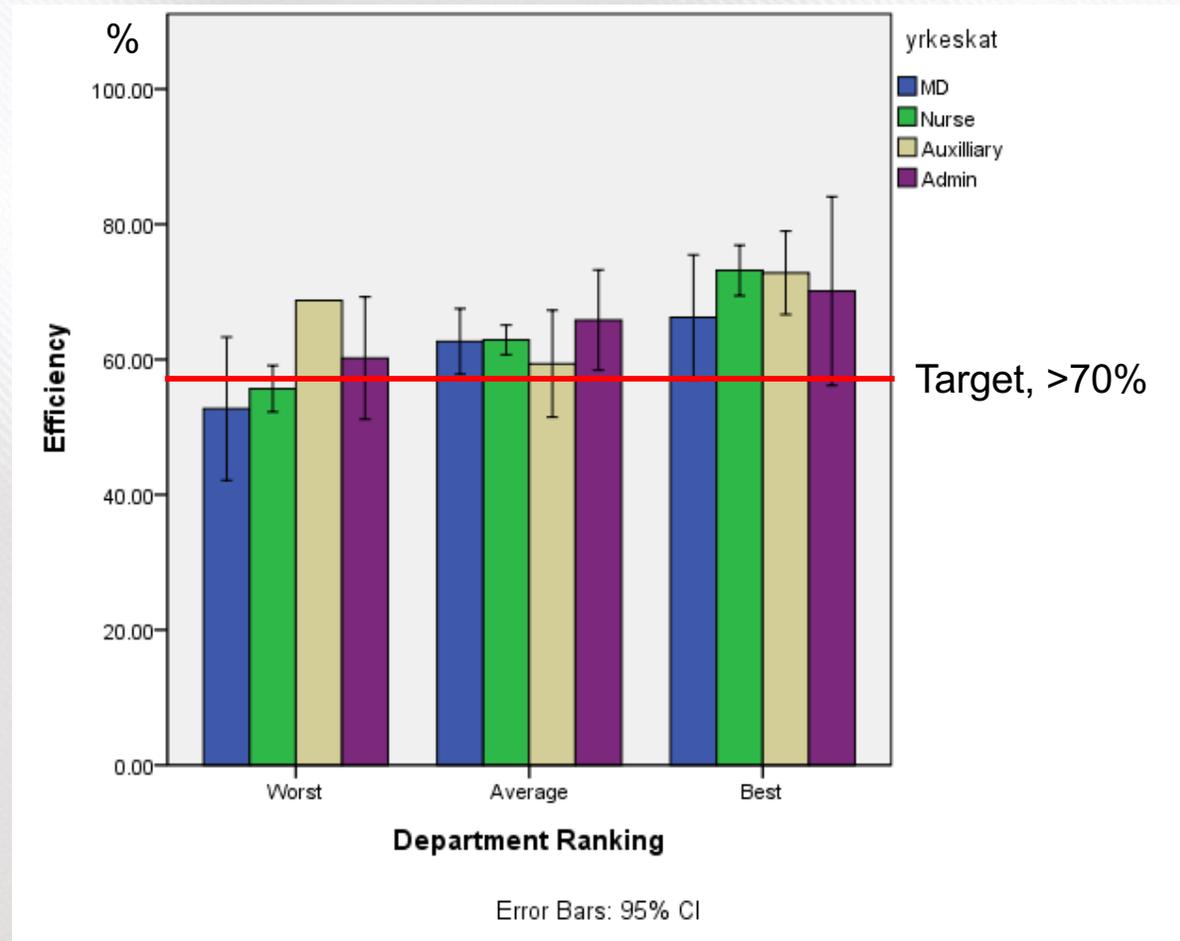
## Changes in Employee Capacity between Two Assessments by Departments



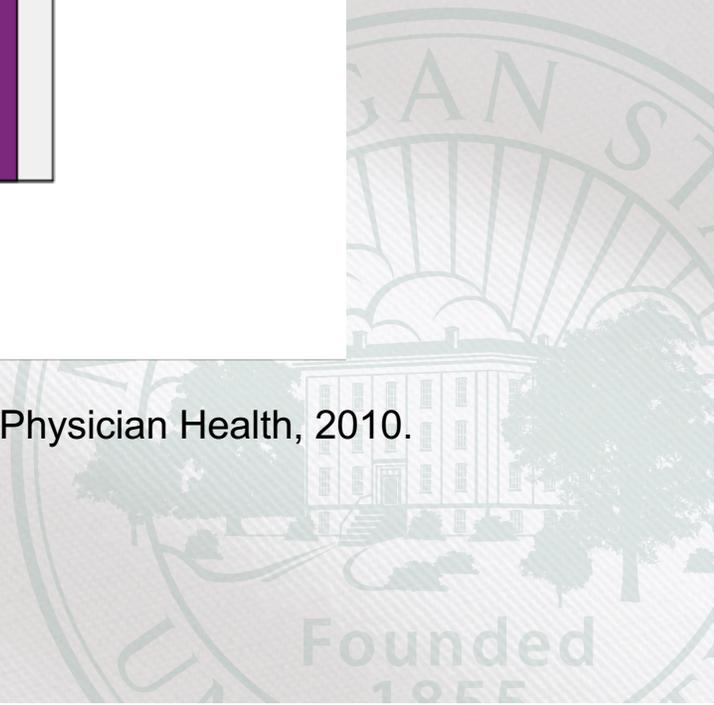
+12%



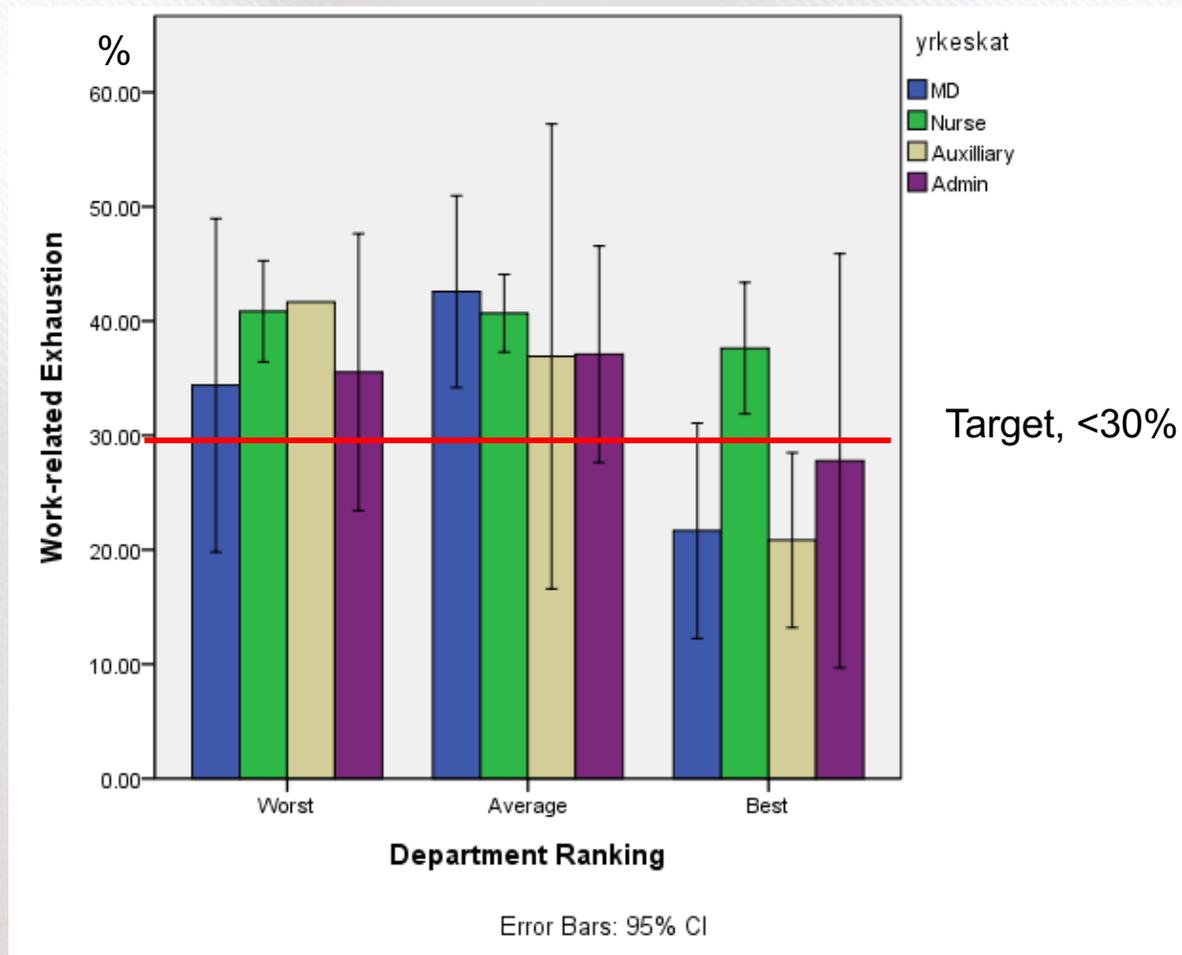
# Higher Efficiency in High Performing Dept.



Source: Arnetz, Julin, Petersson. Presented at AMA Physician Health, 2010.



# Less Exhaustion in High Performing Dept.



Source: Arnetz, Julin, Petersson. Presented at AMA Physician Health, 2010.

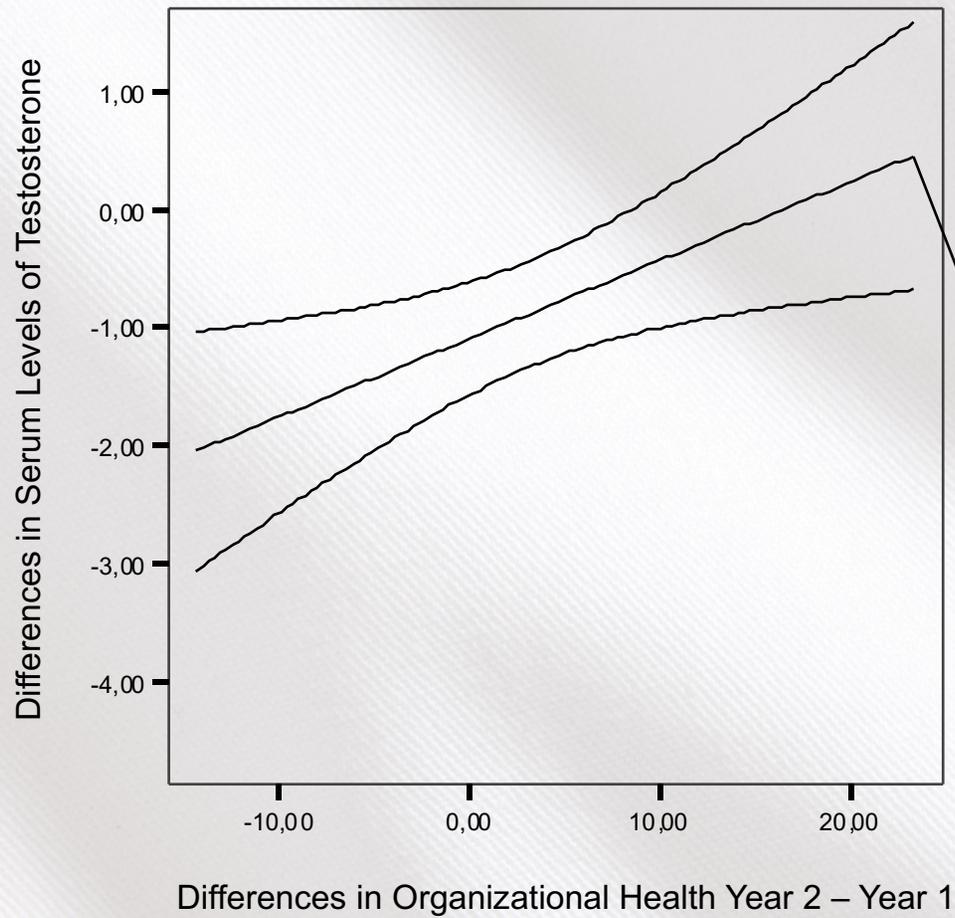


**Odds-ratio for organizational improvement  
1-year improvement vs no change/worsening**

<u>Dependent</u>	<u>Independent</u>	OR	95% C.I.
<b>Leadership</b>	Skills develop	7.8	3.2;18,9
	Perform feedbk	2.7	1.1;6.8
<b>Skills Development</b>	Particip mngt	5.2	1.8;15.1

Wallin, L. Knowledge utilization in Swedish neonatal nursing. Dis. 1272. 2003 Uppsala

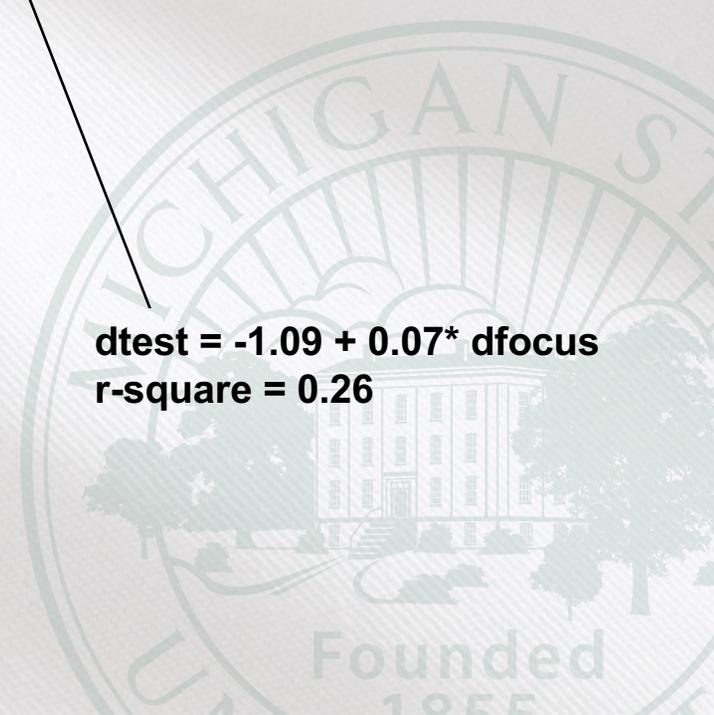
# Organizational Health Impact on Biomarkers



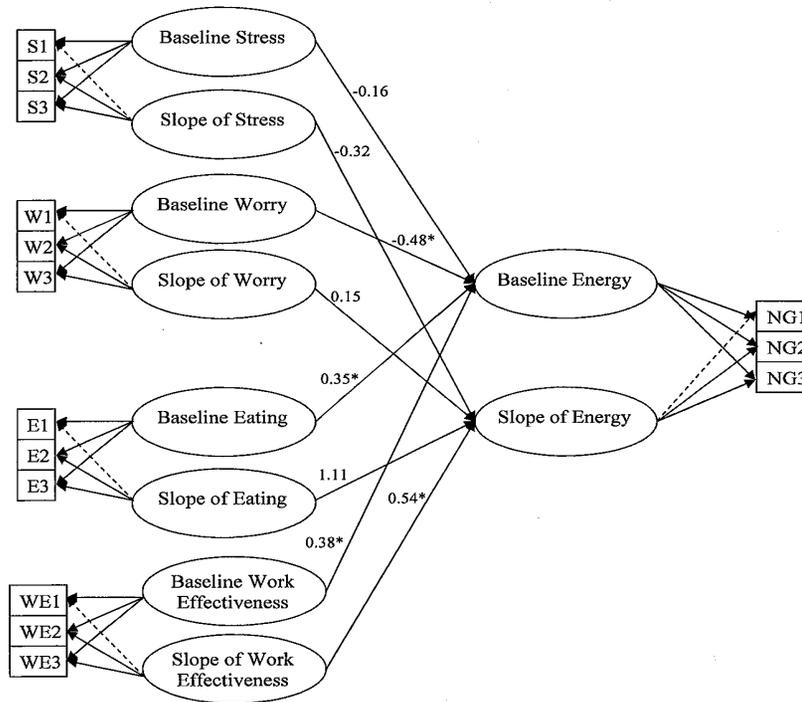
Linear Regression with  
95,00% Mean Prediction Interval

$$\text{dtest} = -1.09 + 0.07^* \text{dfocus}$$

**r-square = 0.26**

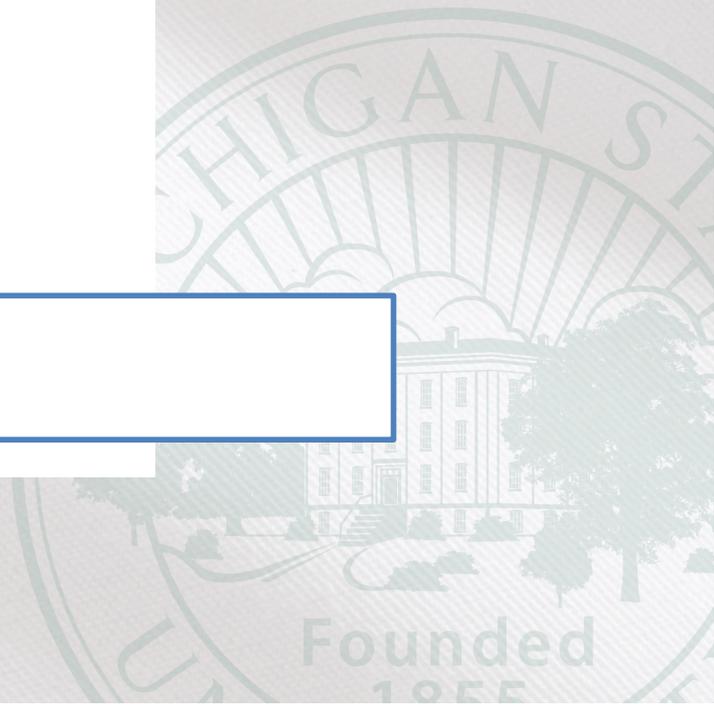


# Determinants of Mental Energy



	df	X <sup>2</sup>	RMSEA	CFI	NNFI
Baseline model	55	153.32	0.08	0.96	0.93
Predictive model	85	240.90	0.08	0.94	0.93

Arnetz et al. JOEM, 2014



## Aligning Human Capital Health and Efficiency Effects

Prolactin



TSH



Self-rated  
Work Load  
(Stress)



**Efficiency**

Self-rated &  
Tracket

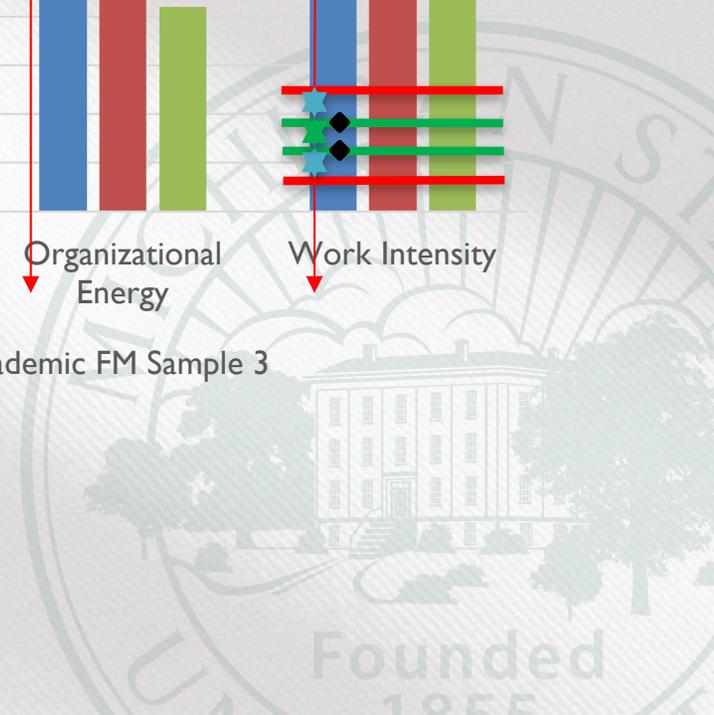
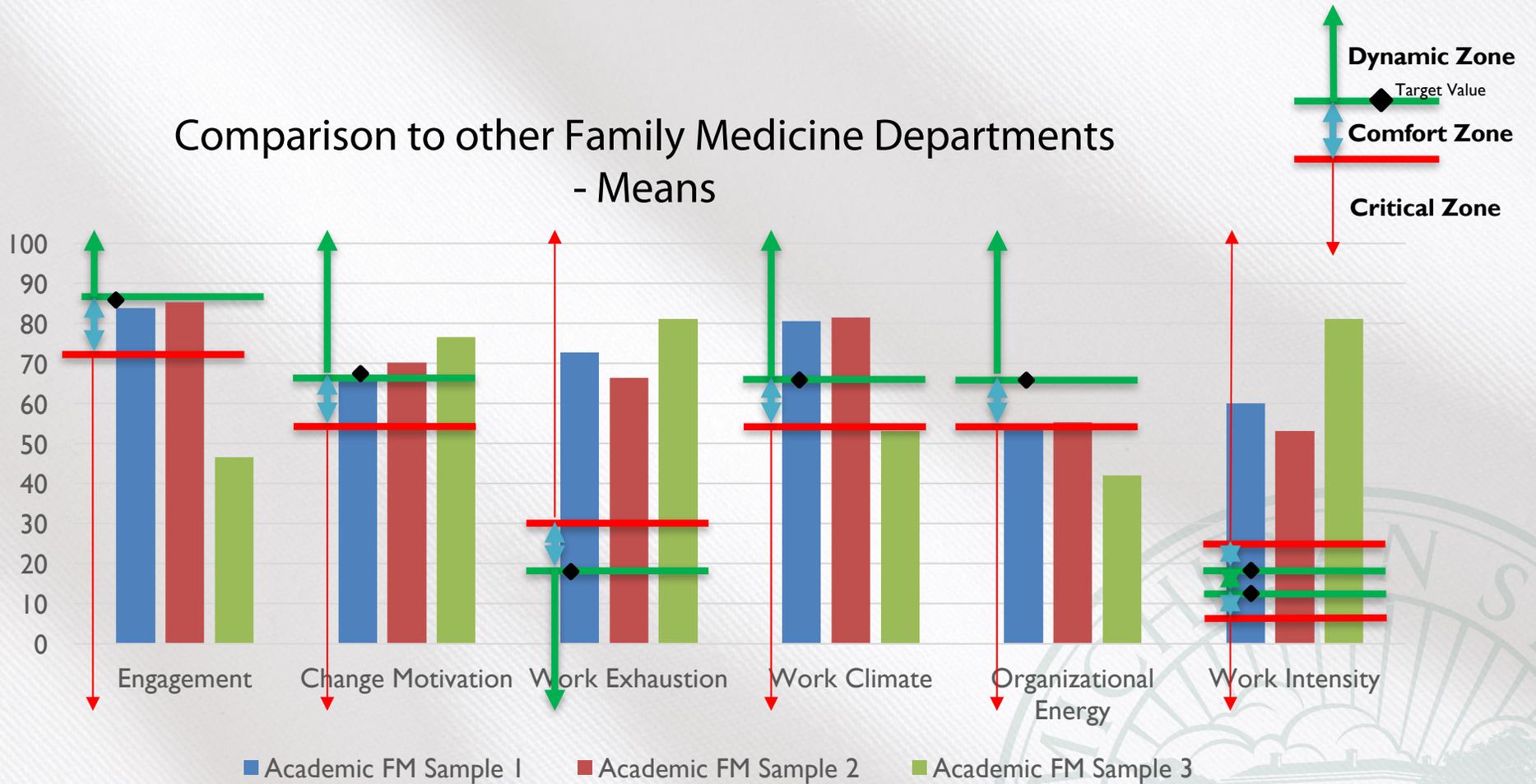


Sustainable  
Effects  
+3, 6 months  
after active intervention

Profit **+6,000** \$/employee/year

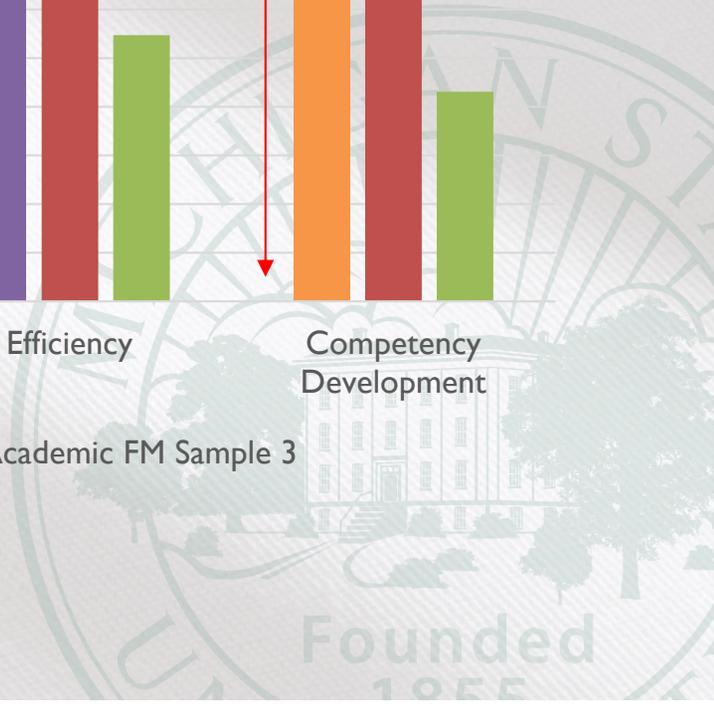
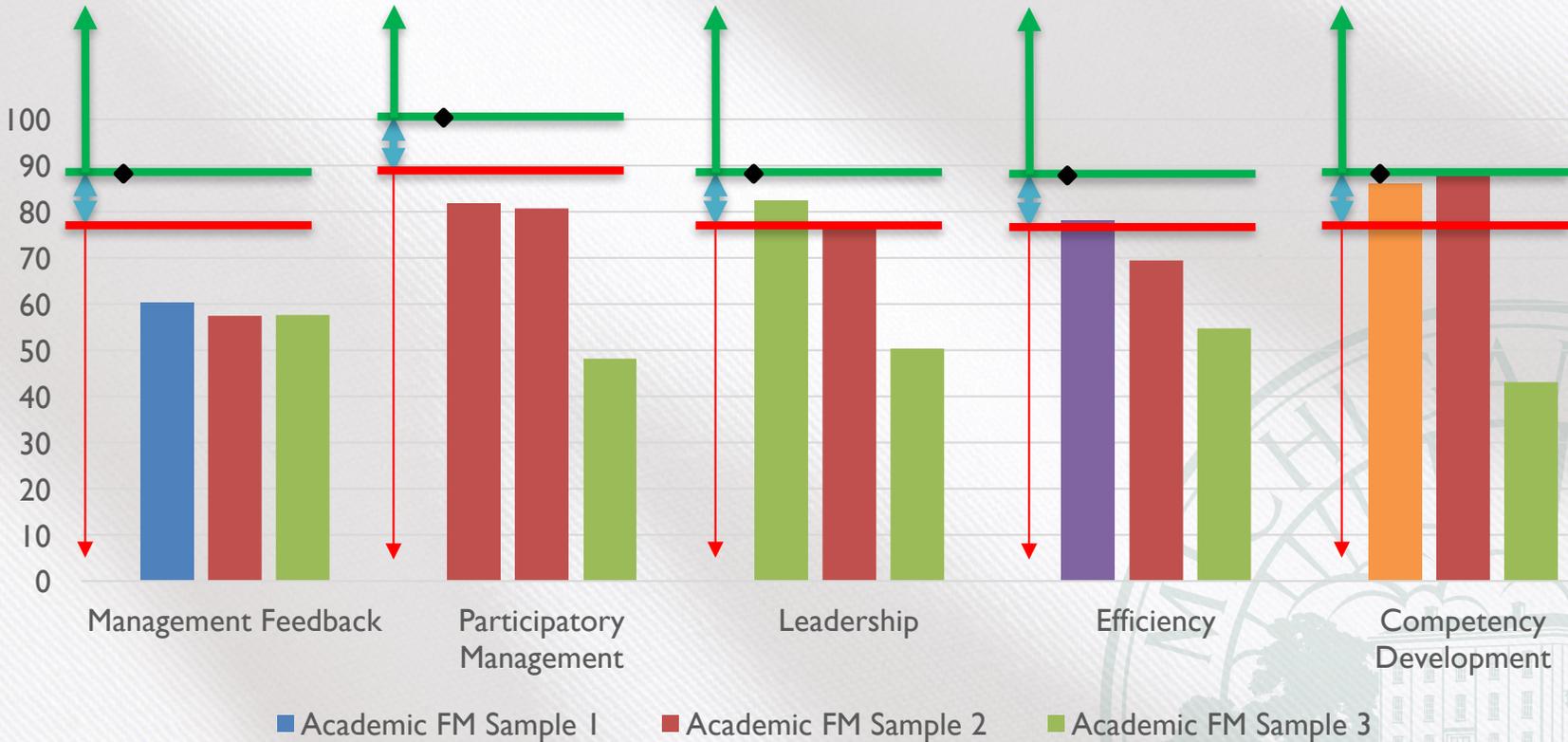
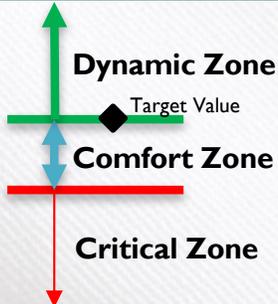
# Employee Health

Comparison to other Family Medicine Departments  
- Means

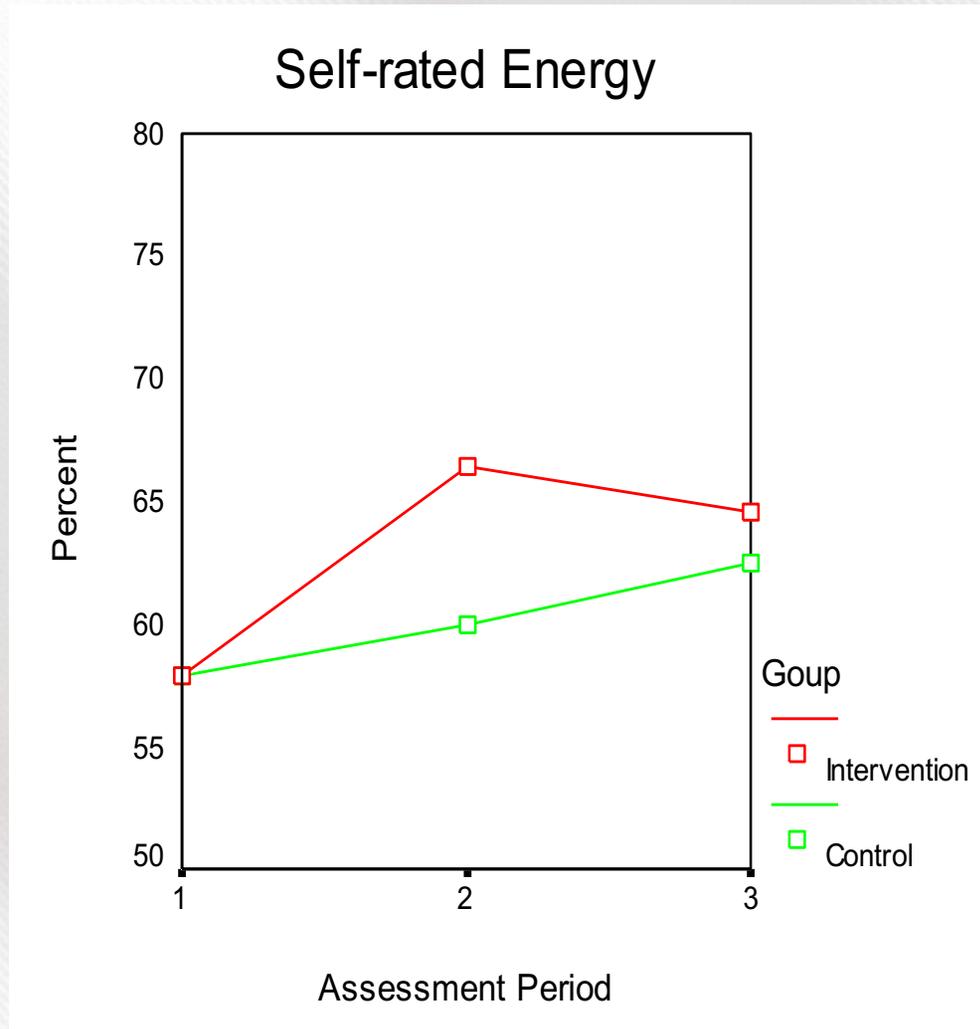


# Organizational Health

Comparison with other Family Medicine Departments  
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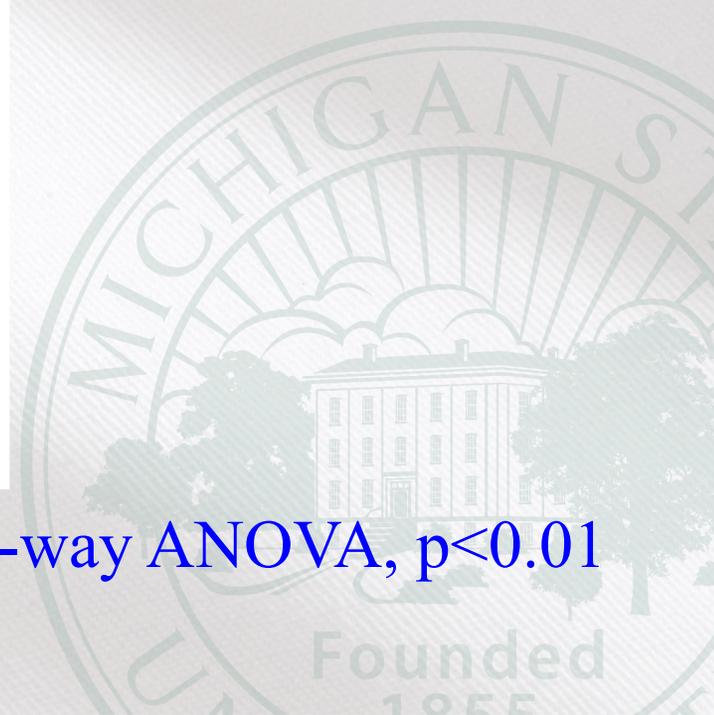


## Self-rated Energy IT/Media employees in transition

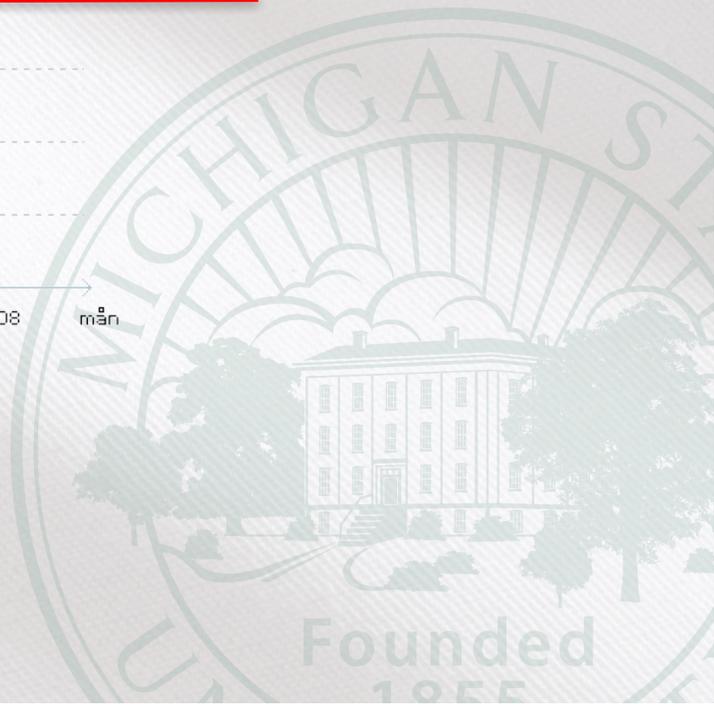
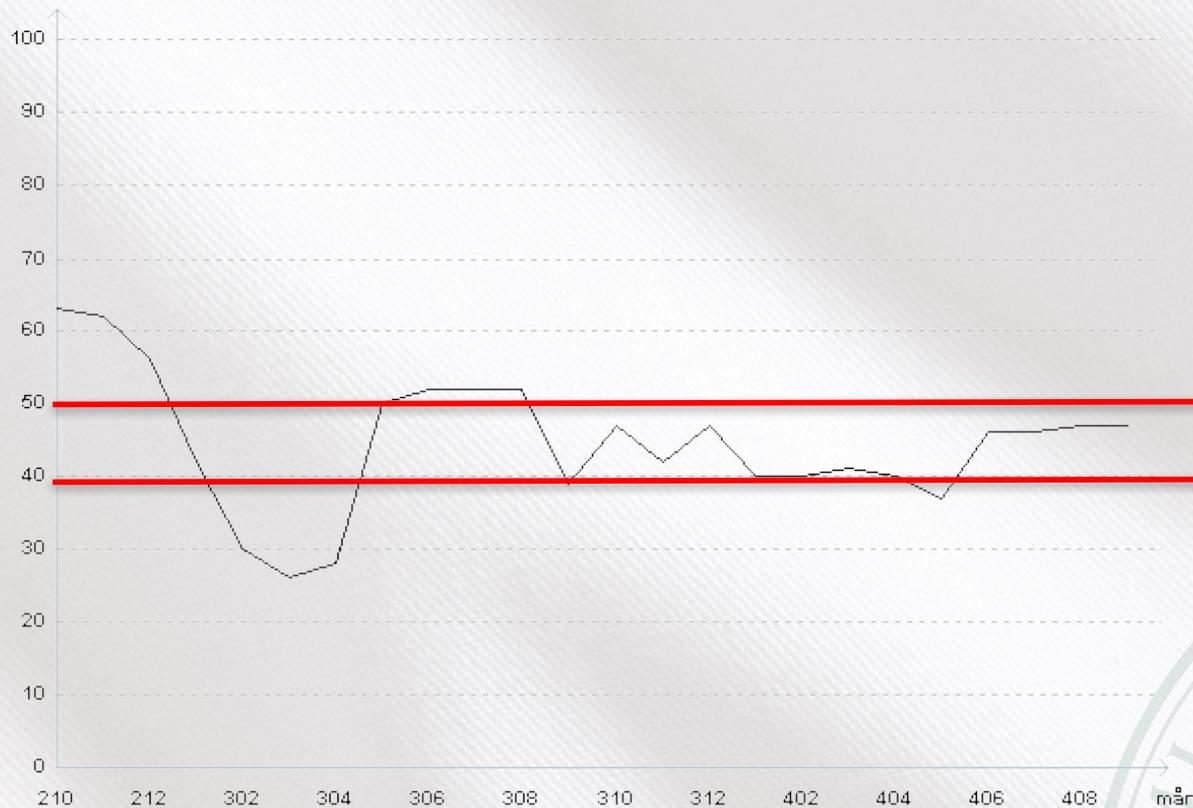


HealthIT

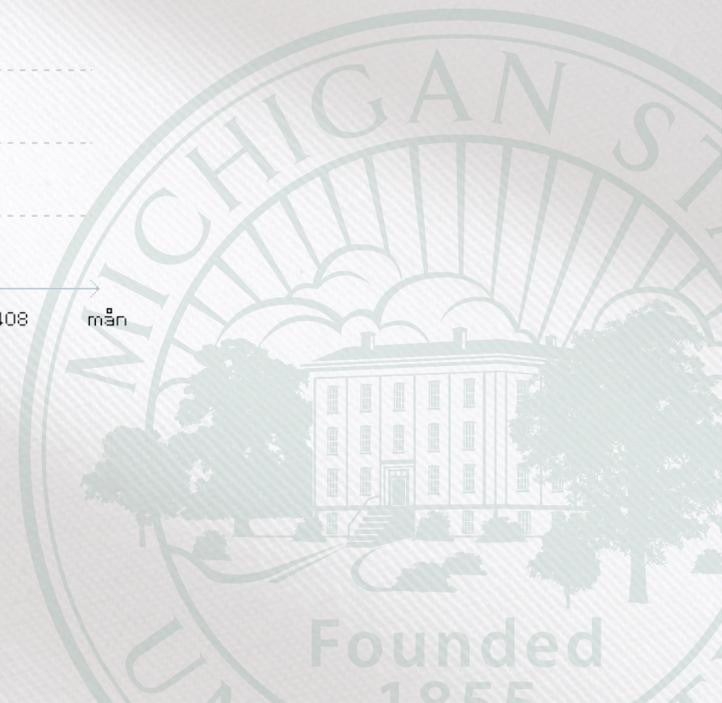
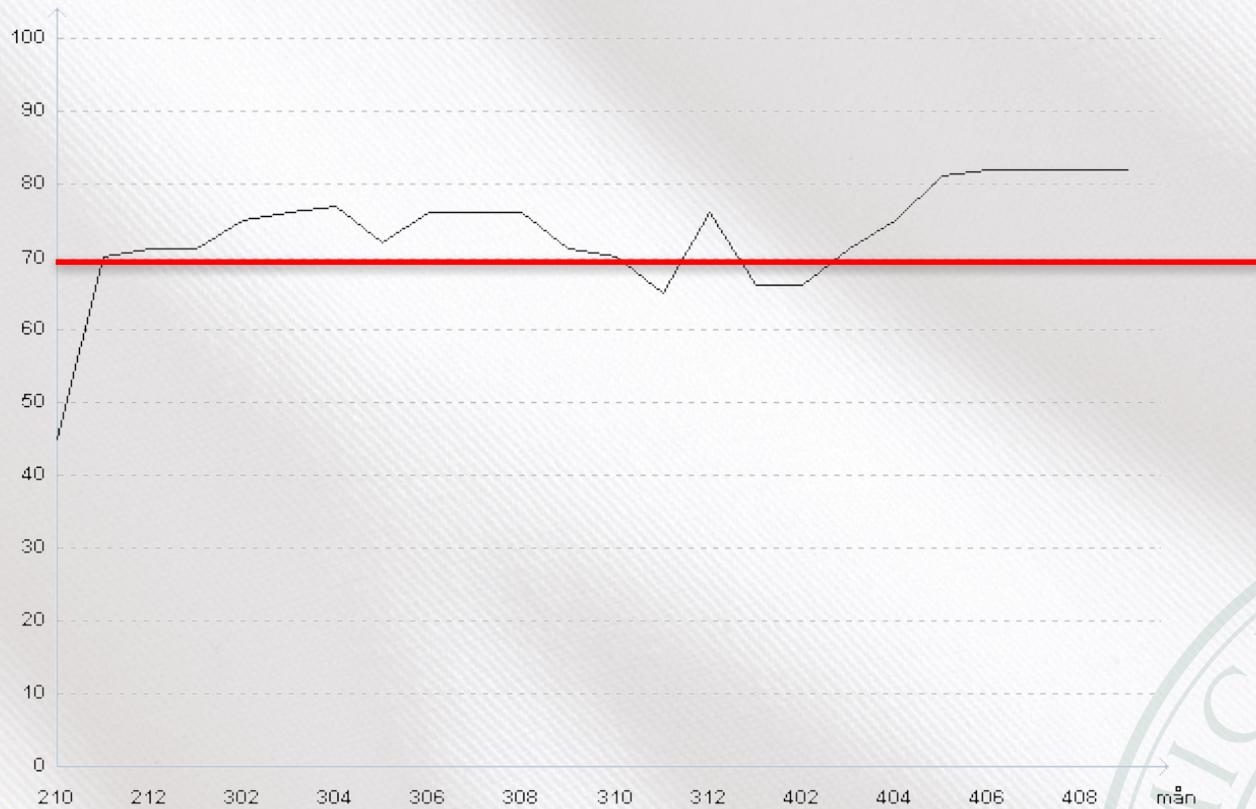
2-way ANOVA,  $p < 0.01$



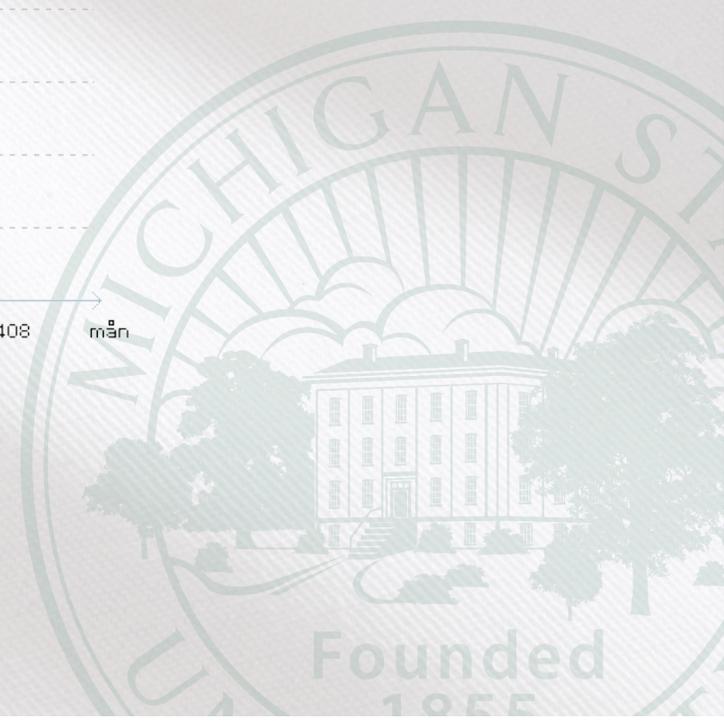
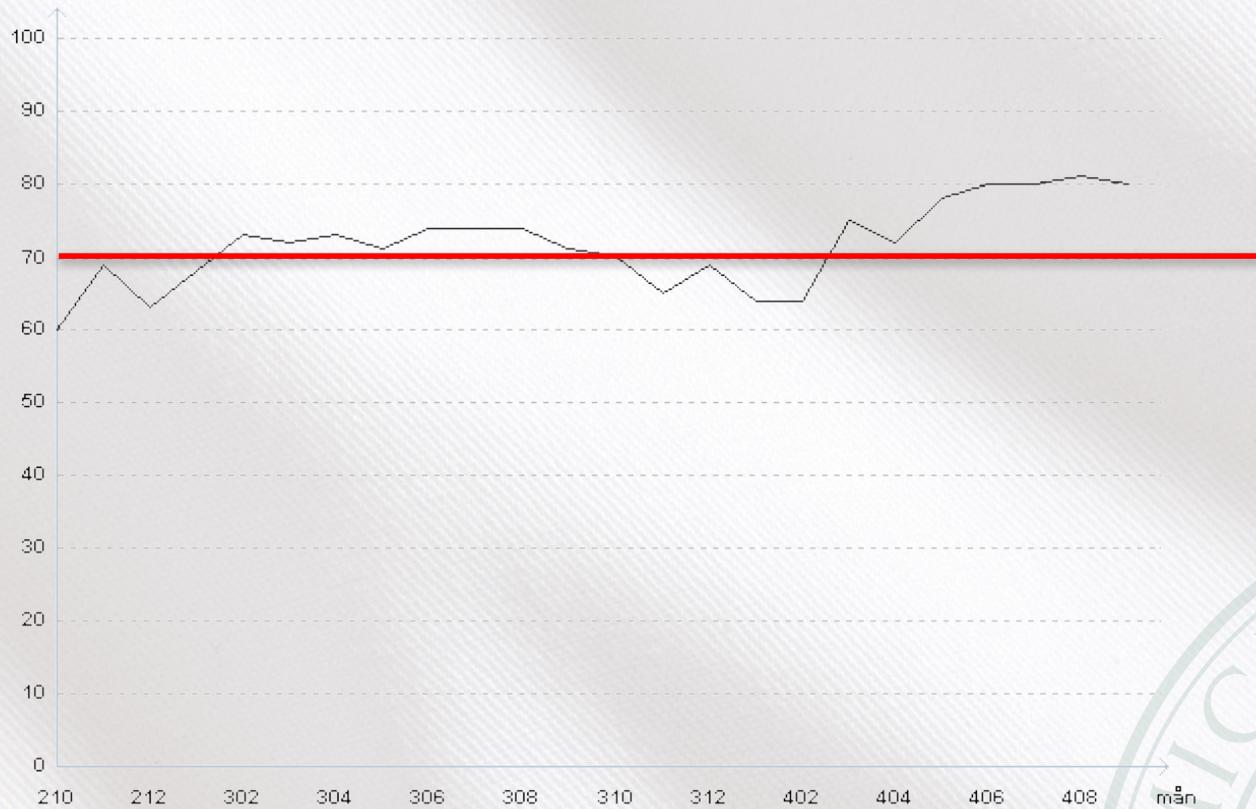
# Group-based Stress Regulation



# Group-based Health Regulation

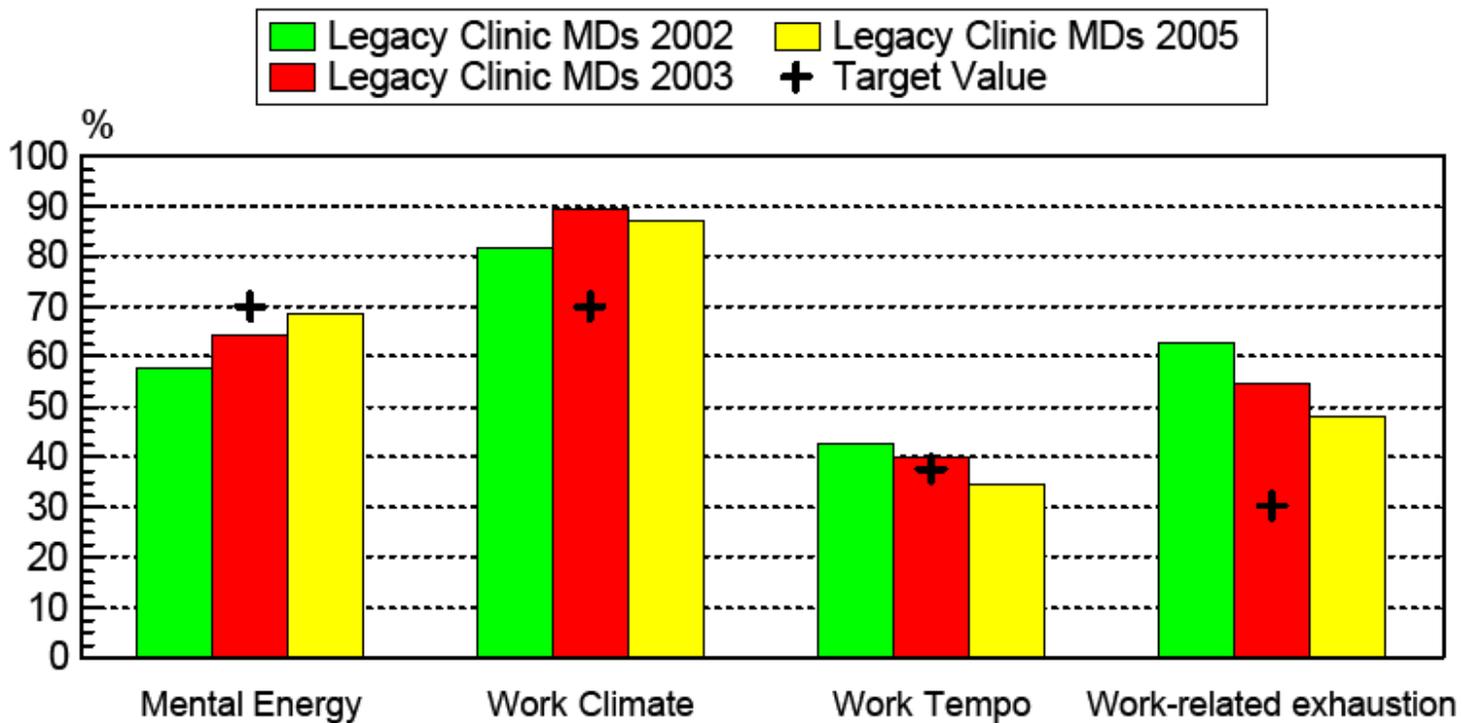


# Group-based Dynamic Focus Regulation



# QWC Enhancement Areas

Mean Values



Higher Values = Desirable except for Work Tempo where range is between 35-40 and Work-related exhaustion < 30

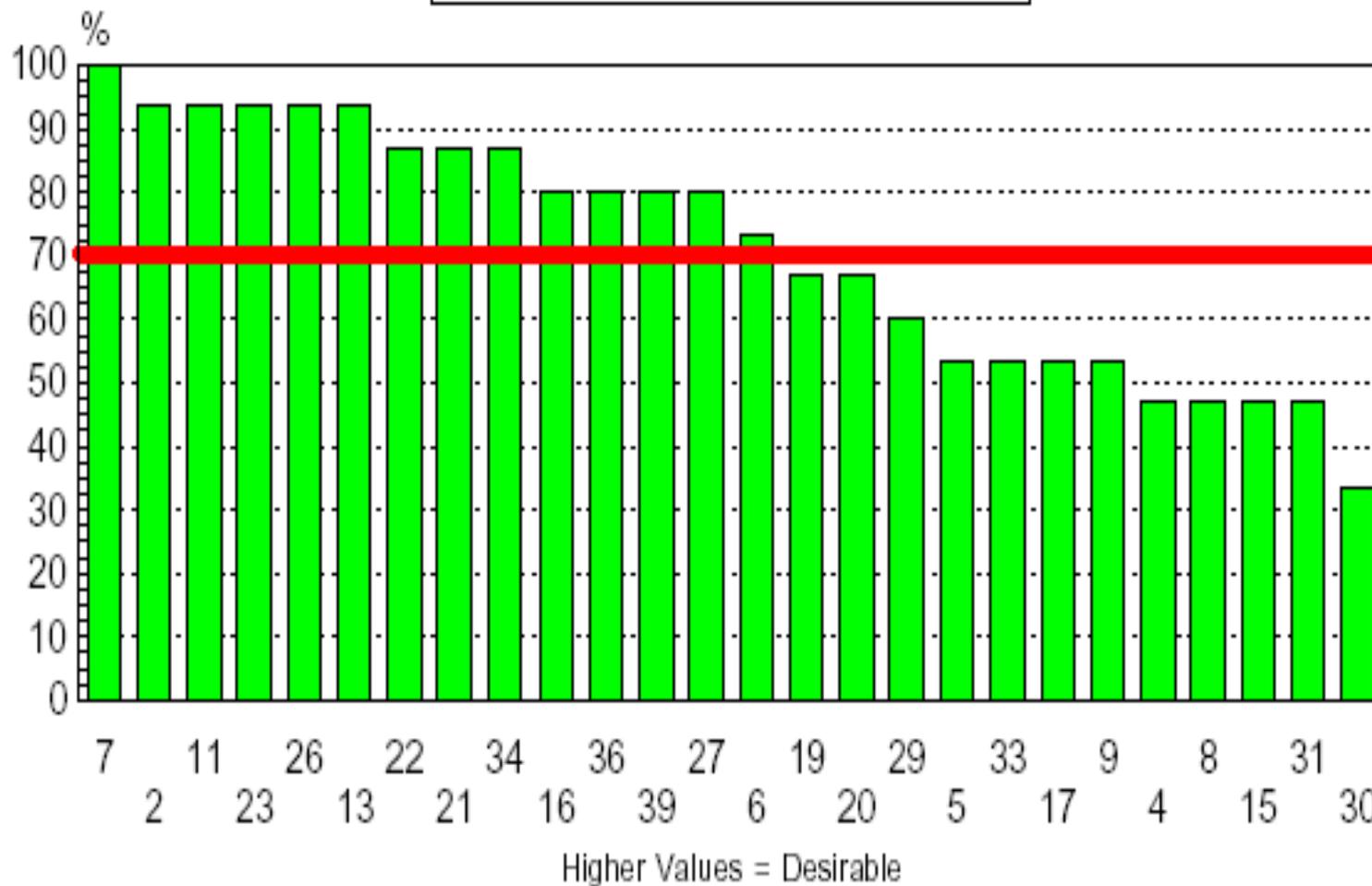
Source: Dunn, Arnetz, Christensen, Homer.  
J Gen Intern Med. 2007;22:PI544-52



# Mental Energy

Mean Values 2005 (slide 1 of 15)

Provider Target Value



Higher Values = Desirable

QWC - LLC Physicians 2005

U0944001:1 2005-12-09

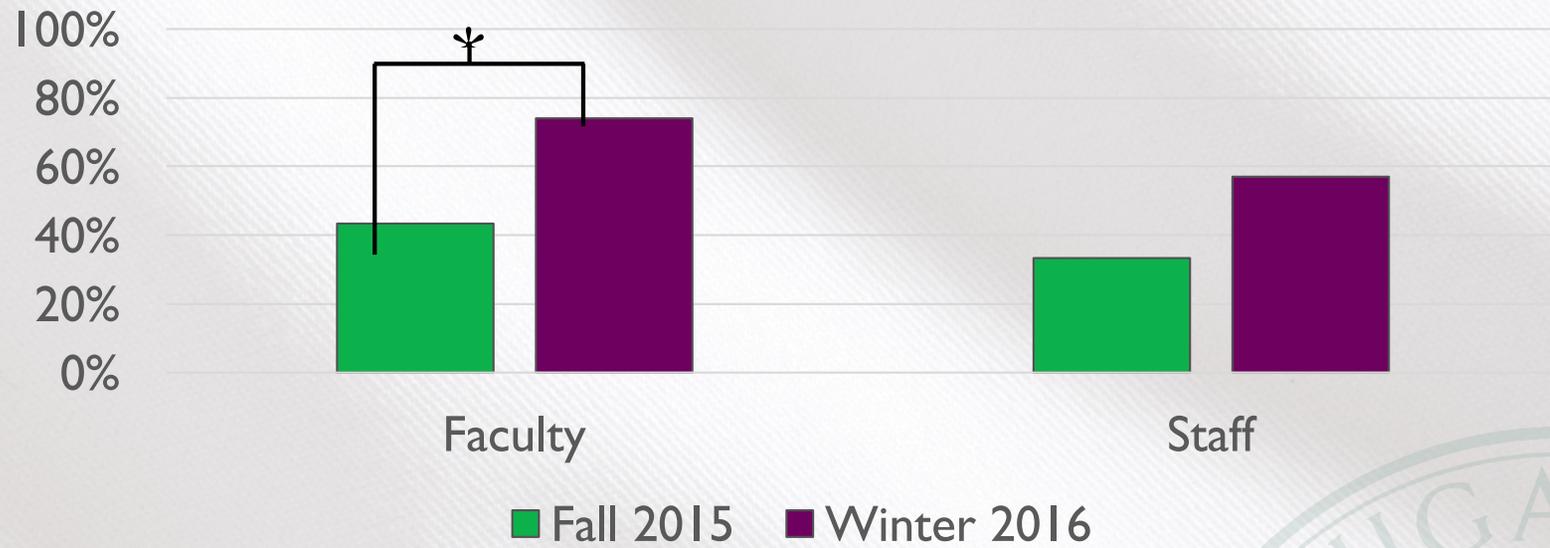
# Family Medicine and Primary Care QI Initiatives

- **Quality Improvement Survey**
- **2015 - 2016**

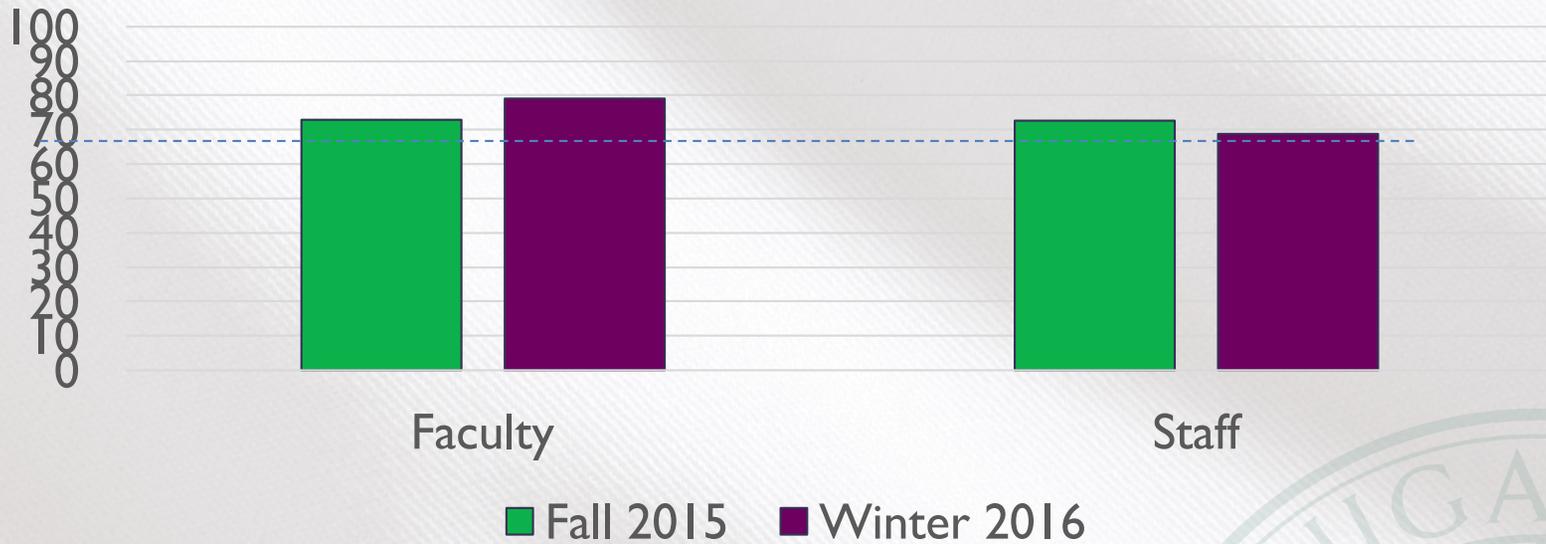
**MSU**



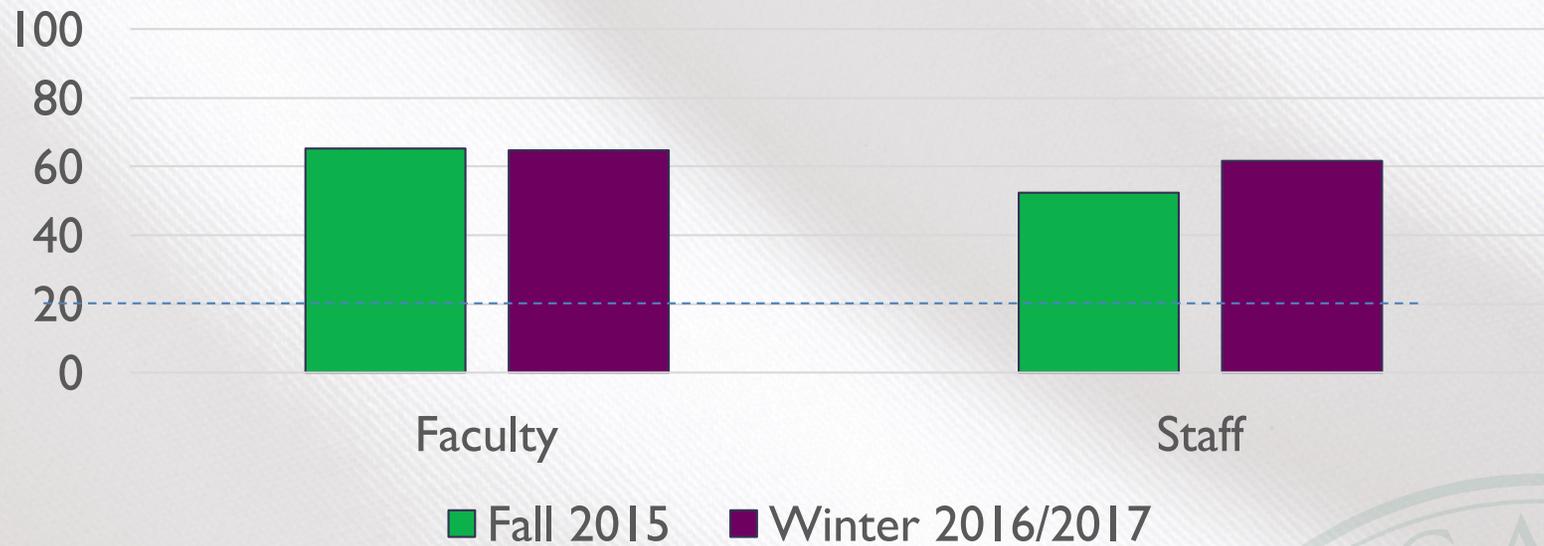
# Job Security



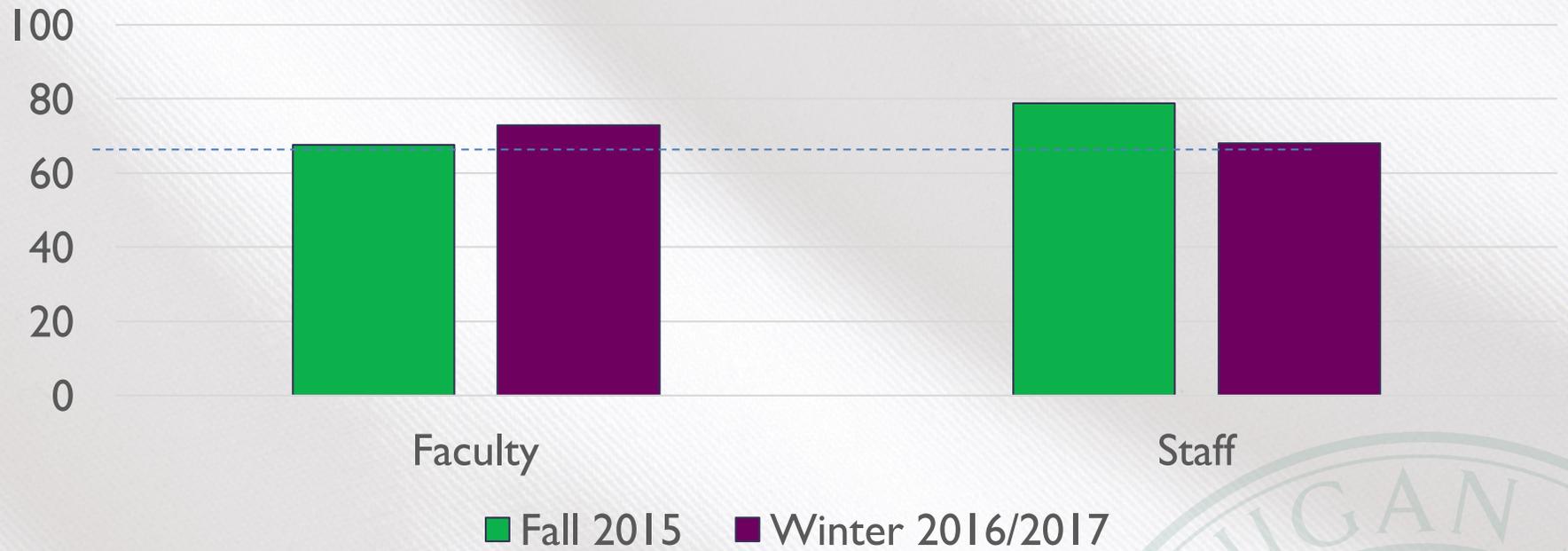
# Dynamic Focus



# Work-Related Exhaustion

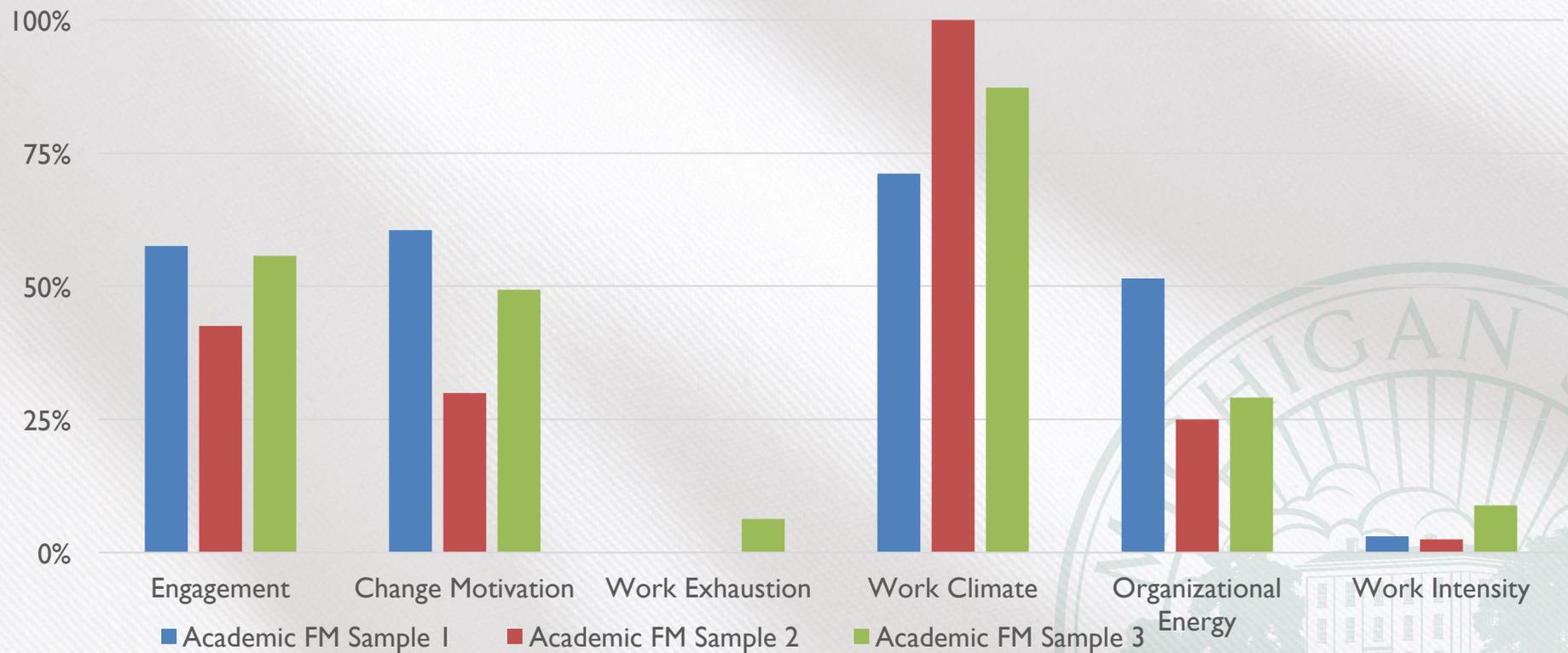


# > Mental Energy



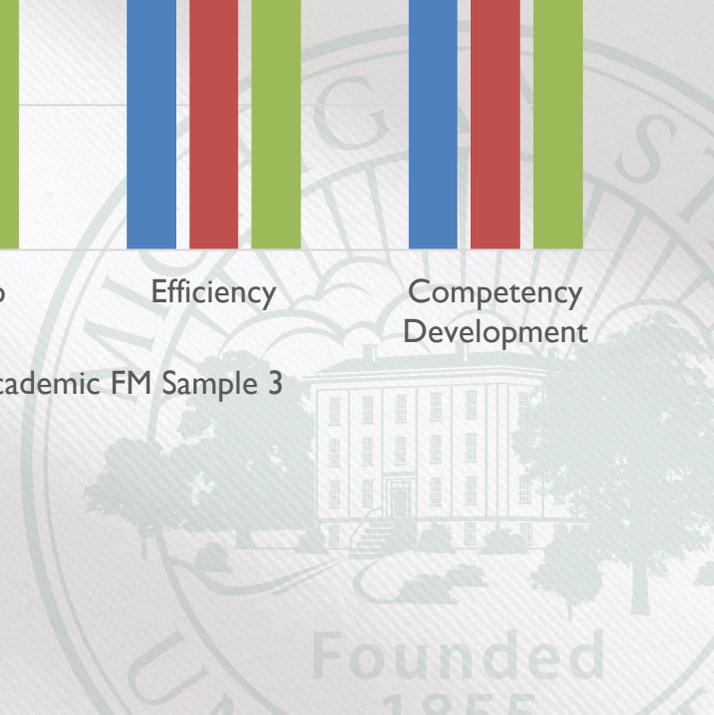
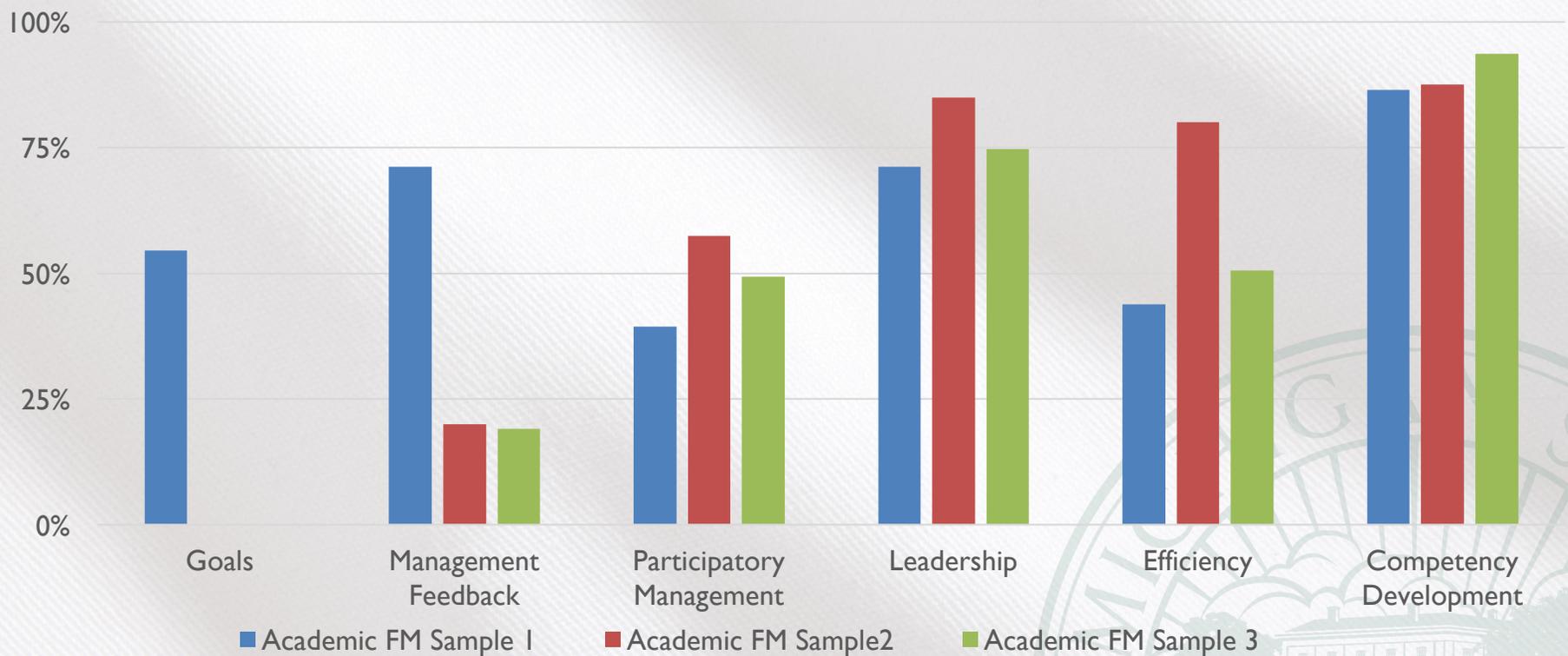
# Employee Health

Comparison to other Family Medicine Departments  
- % Scoring in the Dynamic Zone



# Organizational Health

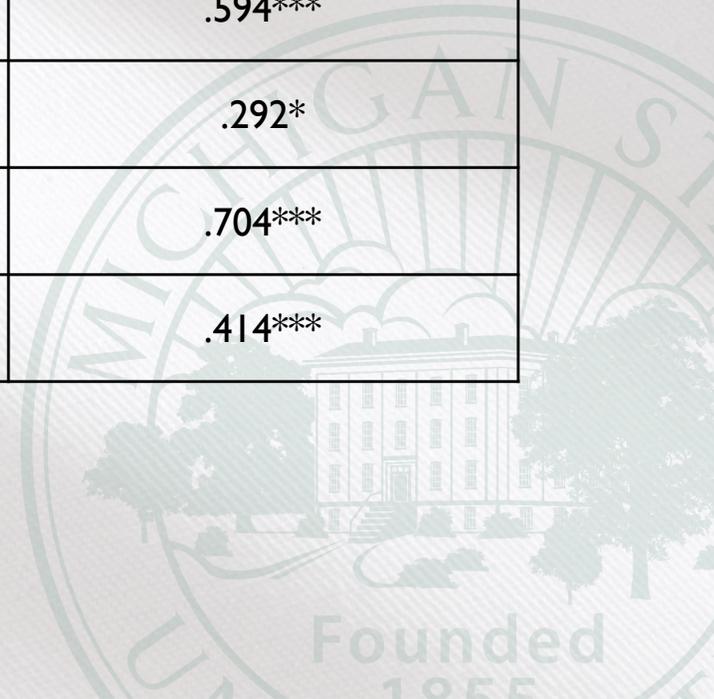
Comparison with other Family Medicine Departments  
-% Scoring in the Dynamic Zone



# Organizational Health & Quality of Care

\* p <= .05  
 \*\* p <= .01  
 \*\*\* p <= .001

		Quality of Care	
		Overall	Top Quality
Organizational Health	Goals	.517***	.638***
	Management Feedback	.228	.249*
	Participatory Management	.558***	.594***
	Leadership	.188	.292*
	Efficiency	.681***	.704***
	Competency Development	.436***	.414***



# Effect of Dynamic Focus on Quality of Care

\*  $p \leq .05$   
\*\*  $p \leq .01$   
\*\*\*  $p \leq .001$

	Overall Quality of Care	Top Quality Care
	Standardized Beta	Standardized Beta
Dynamic Focus	.601***	.680***



# ➤ Determinants of Energy

- Organizational factors:
  - Efficiency
  - Goals
  - Work climate
- Faculty
  - Resilience
  - Reenergizing strategies
    - Lifestyle



FALL 2014

CHM Faculty Forward

- Clinical Practice
- Collegiality
- Collaboration

FALL 2015

Department Overview Fall Planning

- Aligning Research
- Funding
- Broadening Impact
- High Reliability Healthcare
- Shared Discovery Curriculum

FALL 2015

MSU CHM Dept. of Family Medicine Faculty Forward Report

- Clarify Mission and Vision
- Expand Hospital Partnered Research
- Alignment of Missions

FALL 2015

QWC Survey

- High Levels of Skill Development
- High Work Intensity and Exhaustion
- Low Dynamic Focus Score
- Low Level of Change Focus

SUMMER 2016

QI Teams

- Improve Productivity & Efficiency
- Clarify Roles w/in Mission & Vision
- Create Communication Plan to Improve Collaboration

FALL 2016

Department Retreat

- Define and Measure Joy
- Population Health Research Agenda
- Improve Care Coordination from Inpatient to Outpatient
- Patient Engagement
- Quality Improvement

FALL 2016

QWC Survey



Impacts Future  
Department Initiatives

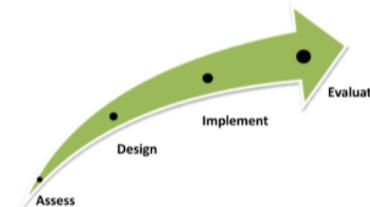


Department of Family Medicine  
College of Human Medicine  
MICHIGAN STATE UNIVERSITY

The mission of the MSU Department of Family Medicine is to promote the health and vitality of patients, families and communities.

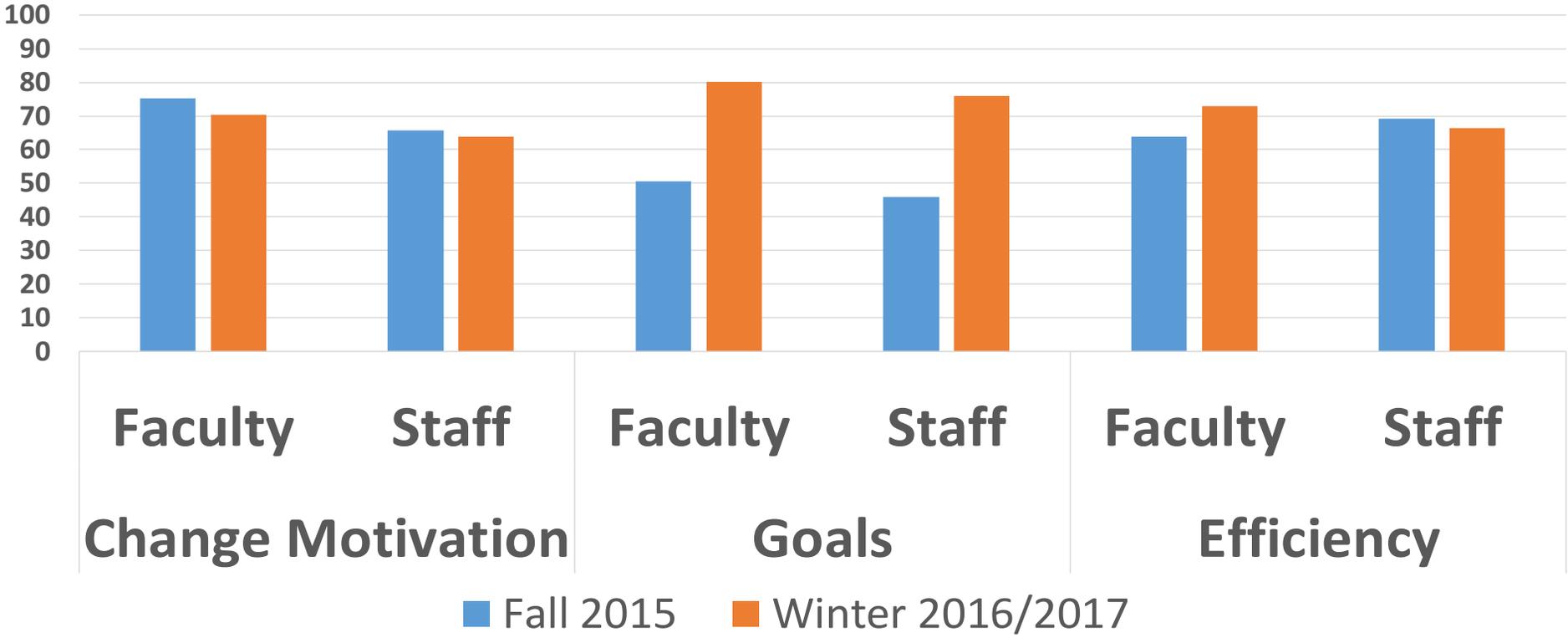
We do this by engaging our community partners in:

- High quality, innovative primary care
- Community-engaged research
- Advancing population health
- Training the current and future health care workforce

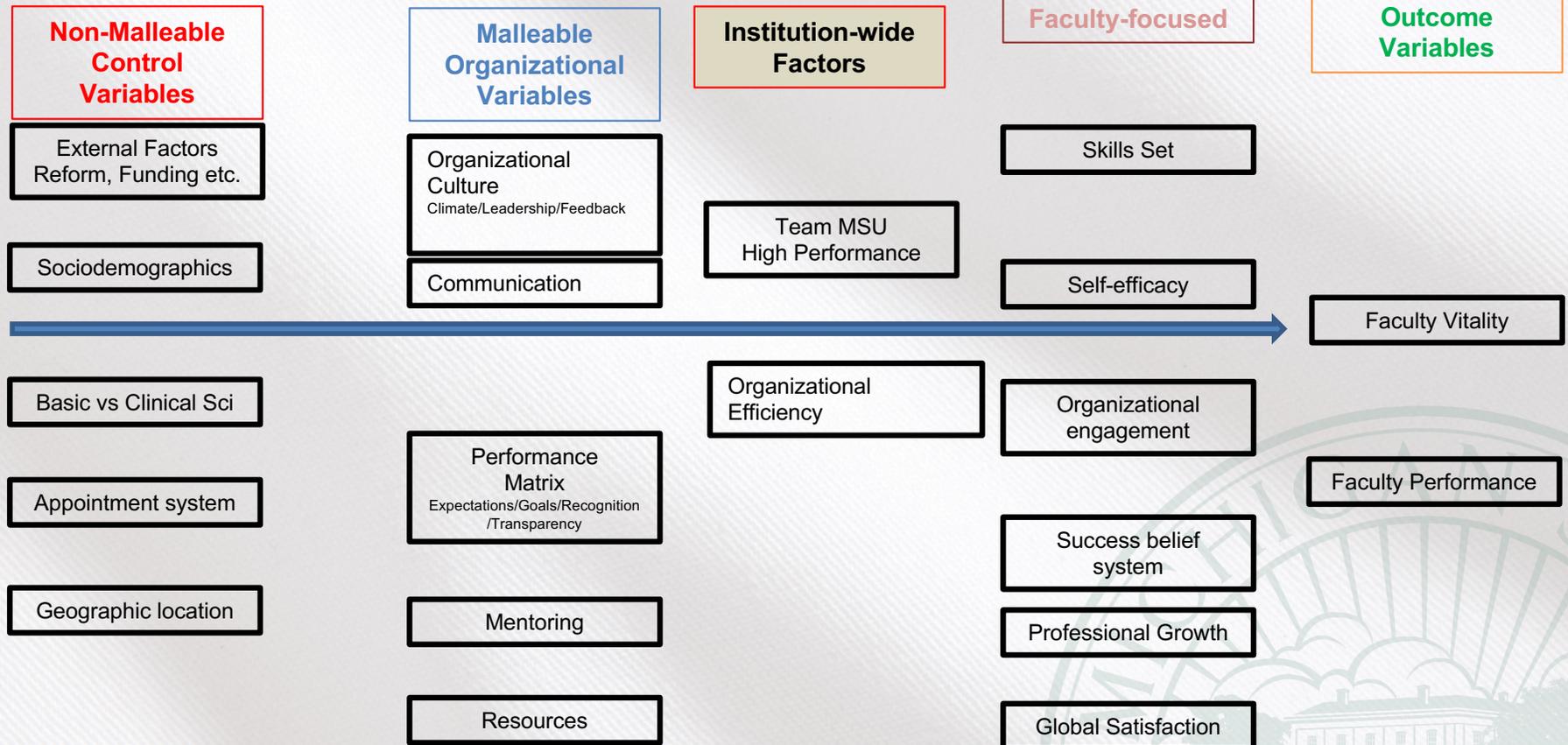


# QWC Survey

## Quality Improvement Areas Comparison



## Modeling Enhanced Vitality and Performance in Faculty



**Quality – Work – Competence  
Theoretical Platform**

