



## An Overview of NIH-TAC Trial Progress

A Unique NIH funded Multi-level Cluster-Randomized Intervention Trial to Enhance Institutional Culture and Women's Success in Academic Medicine



### Overview

A cluster-randomized trial of an intervention to enhance the institutional culture, increase academic productivity, and improve job satisfaction for women faculty.

#### Specific Aims

Test extent to which the multi-level interventions improve:

1. Perceived supportiveness of work environment
  - measure pre/post
2. Outcomes for junior women faculty
  - increase in # publications and grants
  - increase in job satisfaction
3. Department/division performance
  - task force recommendations & implementation

#### Methods

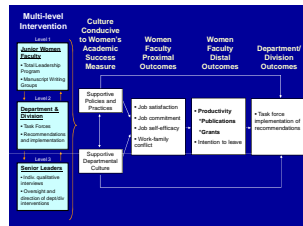
##### Cluster-randomized intervention trial

- Intervention unit: SOM departments/divisions
  - 27 departments randomized: 13 to intervention, 14 to control
  - 134 women faculty consented: 62 in intervention, 72 in control

##### Multi-level interventions

- **LEVEL 1: Junior women faculty**
  - Total Leadership Program, Manuscript Writing Group, and other concentrated professional development
- **LEVEL 2: Senior-level men/women faculty and administrators**
  - Task Force (TF) Initiative: recommendations and implementation to improve environment to better support women faculty
- **LEVEL 3: Senior Leaders**
  - Department Chairs
  - Enlist support for each intervention
  - Oversee implementation of TF recommendations

### Progress to Date



#### Junior Women Faculty

- Completed 5-month long Total Leadership Program
  - "Although it was time intensive, the course did an excellent job of helping me to clarify my goals across all areas of my life."
- Completed 8-session Manuscript Writing Course
  - "Absolutely the best training I have taken in regard to time management, developing practical ways to increase productivity, and demystifying the publishing process."

#### Task Force Initiative

- Each of 13 TFs made recommendations for institutional change with metrics for evaluation
  - Local, dept specific
  - Larger institutional
- 43 total TF meetings with outside facilitator
- Highlights of TF initiatives in 4 departments:
  - Overhaul of clinical accounting of nights and weekend duty for junior/senior faculty
  - Creation of Vice Chair faculty development
  - Off-site technology for radiology reading
  - Enhanced mentoring programs

#### Senior Leaders

- Ongoing feedback and oversight of interventions with PIs, Dean and dept chairs

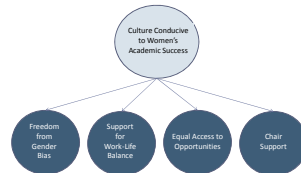
#### Challenges

- Protected time for participation in interventions
- Leadership transitions
- Large variability in degree of innovation

### Preliminary Analysis: A

#### Culture Conducive to Women's Academic Success (CCWAS) Measure

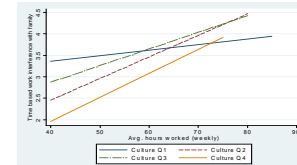
- A measure of work culture was developed:
  - Shared beliefs and expectations that impact ability of women faculty to be successful
- Instrument development involved:
  - Review of literature and existing questionnaires
  - Focus groups with junior faculty at another institution
  - In-depth discussions with experts in the field
  - Formal pilot test with 56 junior women faculty at over 10 academic health centers
- Final version: 46 items reflecting four dimensions:
  - Freedom from gender bias
  - Support for work-life balance
  - Equal access to opportunities
  - Support of dept chair



### Preliminary Analysis: B

#### Impact of Longer Work Hours and Supportive Work Environments on Work-Family Conflict

- Longer work hours were associated with greater work-family conflict
- Less supportive culture was associated with greater work-family conflict
- There was a statistically significant interaction between long work hours, culture supportiveness, and work-family conflict
  - Women in the most supportive culture (Q4) were less likely to experience work-family conflict regardless of number of hours worked per week
  - Women in the least supportive culture (Q1) experienced high levels of work-family conflict regardless of number of hours worked per week



### Preliminary Analysis: C

#### Factors Associated with Frequent Thoughts of Quitting

After adjusting for track, number of children at home, and hours worked per week, women faculty who reported:

- increased stress were 3.5 times more likely to have frequent thoughts of quitting
- not belonging in their dept were 4 times more likely to have frequent thoughts of quitting
- higher levels of work-family conflict were 2 times more likely to have frequent thoughts of quitting

Variable	Odds Ratio	p-value	95% CI
Stress (Likert)	3.45	0.001	1.61, 7.32
Feelings of not belonging	3.83	0.024	1.19, 12.28
Strain-based work-family conflict	1.90	0.029	1.07, 3.39
Clinician Educator track	1.00	Reference	
Research track	0.04	0.012	0.004, 0.51
Tenure track	0.39	0.30	0.07, 2.27
0 children at home	1.00	Reference	
1 child at home	0.12	0.038	0.02, 0.88
2 children at home	0.82	0.77	0.23, 2.96
3+ children at home	1.18	0.84	0.23, 5.93
<50 work hours per week	1.00	Reference	
50-59 work hours per week	0.23	0.033	0.06, 0.89
60-69 work hours per week	0.14	0.036	0.02, 0.88
≥70 work hours per week	0.47	0.42	0.07, 2.97

### Summary

Overall goal to create an environment where women can succeed fully in their careers, maximizing their contributions to academic medicine and improving workplace for all faculty

- First randomized trial to test effectiveness of a multi-level, school-wide intervention
  - 4 year, 1.3 million dollar NIH award (RO1-NS069793)
  - Builds on 14 years of FOCUS program initiatives supported by Dean's commitment and resources
- Preliminary results
  - Development of validated new culture measure
  - High levels of stress and lack of belonging are associated with thoughts of quitting
  - Supportive work culture mitigates negative impact of long hours on work/family conflict