2010 AAMC Women in Medicine Poster Session Poster Session Theme: "Best Practices: Retaining and Promoting Women in Medicine and Science" Location: Washington, DC

Title of Abstract: Moving beyond defining the problem: A unique NIH funded multi-level intervention to enhance institutional culture and women's success in academic medicine

Author(s): Stephanie Abbuhl MD & Jeane Ann Grisso MD MSc (Joint PIs); Patricia Scott BA; Lucy W. Tuton PhD; Alyssa Westring PhD; Mary Sammel ScD; Susmita Pati MD MPH; Rebecca M. Speck MPH; Amanda Garlen BA; Stewart Friedman PhD; Seema S. Sonnad PhD; Karin L. McGowan PhD

Institution: University of Pennsylvania School of Medicine

Purpose of program or project: Due to the slow advancement of women in medicine and science, a 2006 National Academies report urgently called for a broad, national effort to maximize the potential of women scientists. In response, NIH developed a grant initiative to examine factors and interventions that promote women's careers. FOCUS leaders developed a proposal to NIH based on their fifteen years of experience with numerous initiatives aimed at increasing the recruitment, retention and advancement of Penn women faculty. The FOCUS study team received a 4-year, \$1.3 million dollar NIH R01 award to conduct a cluster-randomized intervention trial at the University of Pennsylvania School of Medicine. We hypothesize that a multi-level intervention will improve academic productivity, job satisfaction, and overall quality of life for junior women faculty in intervention units compared with their control counterparts. The ultimate goal is to create an environment where women can succeed fully in their careers, thus maximizing their contributions to academic medicine and improving the workplace for all faculty.

Methods of design and evaluation: Eligible departments/divisions and their junior women faculty in the SOM have been randomly assigned to intervention versus control status. The intervention includes three levels of initiatives: 1) junior women faculty participation in both the nationally-recognized Total Leadership (TL) Program and a Manuscript Writing Group; 2) specific sessions for leaders of intervention departments/divisions; 3) a structured, facilitated task force in each intervention division/department to analyze work practices, policies, recruitment, mentorship, and cultural attitudes and develop recommendations for change with subsequent follow-up to track implementation. The main study outcomes include perceptions of the work environment, job satisfaction, and quality of life, as well as the academic productivity of junior women faculty as measured by publications and grants. Two parts of the intervention have been successfully piloted at the SOM as part of FOCUS initiatives. The TL Program, used extensively in the for-profit arena, was designed by a Penn faculty member at the Wharton School to improve performance in all domains of life by integrating work, home, community, and self. In 2009, FOCUS collaborated with the TL founder to pilot test his model with 14 junior faculty members in the Department of Medicine. Results indicated that this was a promising approach for a school-wide intervention. The Manuscript Writing Group, led by two senior women faculty, has been implemented with 54 junior women faculty over four years since 2005 and has demonstrated an increase the number of participant publications.

Conclusions: This ambitious, randomized trial is the first of its kind to rigorously test the effectiveness of a school-wide intervention with multi-leveled components. Based on the theoretical framework of organizational change, the track record of the multi-level interventions and the significant commitment of SOM resources and support of the leadership, this study has significant potential to demonstrate institutional change and evaluate promising approaches to improve the status of women faculty at Penn's School of Medicine. If successful, this model could be potentially replicated in other U.S. academic health centers.