Changing Interaction Dynamics in Hierarchical Groups: Evidence from a Nurse Role Expansion Field Experiment in Healthcare Groups

**Presenter:** Ingrid Nembhard, Ira V. Hiscock Associate Professor of Public Health, Yale School of Public Health & Associate Professor, Yale School of Management

**Co-author:** Marissa King, Associate Professor of Organizational Behavior, Yale School of Management

**ABSTRACT**
Relational inertia arising from formal roles and status hierarchies is endemic and problematic in many organizations. This study examines how role-power expansion for those in the middle of hierarchical groups, a central but understudied population, affects network structure and the nature of interactions within these groups. To do so, we conducted a field experiment assessing the effect of a formal role expansion for nurses involved in primary care delivery on interactions within hierarchical care groups. The role expansion for nurses was intended to improve health care coordination. We utilized wearable social sensors to collect second-by-second data on face-to-face interactions, conversational characteristics, and body movements which allowed us to study who interacted with who in workgroups, as well as how interactions occurred. We find that role-power expansion contributed to development of a network structure consistent with planned change goals and is one means of overcoming relational inertia. However, it also ignited more contentious interactions, associated with poorer group performance. Our study contributes to research on the interplay of formal and informal organization and network dynamics by documenting a key mechanism by which relational inertia can be overcome and analyzing the complexity in social interactions that can arise when this change occurs in hierarchical workgroups. Our results also provide an explanation for why some health care organizations have not benefitted from nurse care coordination: The virtue of this role re-design can be undermined by the quality of the interactions fostered by this change – unless well-managed.