

Abstract: Improved Models to Inform Tobacco Product Regulation
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The overarching theme of this Tobacco Center of Regulatory Science is the development of improved models to inform tobacco product regulatory strategies that integrate 1) economic impacts of tobacco use on health costs, 2) risk perceptions, perceived acceptability, consumer responses to pro-tobacco marketing and anti-tobacco messages and other social determinants of tobacco use, and 3) rapid changes in risk due to tobacco use and secondhand smoke exposure as manifest in cardiovascular and pulmonary dysfunction. This TCORS includes five full projects (one on economic models, two on behavioral models, and two on cardiovascular and pulmonary disease models), two developmental projects (one on behavioral models and one on cardiovascular and pulmonary disease models), three Cores (Administrative, Informatics and Analytics, and Biomarker), a postdoctoral training program and a process for selecting future developmental projects. The results will inform FDA regulation of the manufacture, distribution and marketing of tobacco products by providing an improved scientific framework in which to evaluate the likely effects of specific regulatory strategies by developing 1) improved economic models for analysis of proposed regulations that account for short-term as well as long-term effects of tobacco use, 2) better understanding of behavioral and social determinants of tobacco use (including perception of risk and decision making processes) to inform the economic models, regulation of marketing, and public education about risks of tobacco products, and 3) functional biomarkers of acute cardiopulmonary responses to tobacco use and secondhand smoke that may predict future disease and also support development of improved economic models. In particular, these improved economic models will integrate the rapid changes in risk due to reductions in cardiovascular and pulmonary diseases which would be expected to result from FDA regulatory decisions. This TCORS is built on the UCSF Center for Tobacco Control Research and Education's tradition of strong transdisciplinary and collaborative research, education and service.