

## Supplemental Files

**Table S1.** Determinants of transdisciplinary research

<b>Institutional Resources and Organizational Structure</b>	
Coordinating mechanisms	Resources designed to facilitate cooperation among institutions or individuals
Grant Structure	Specific requirements and mechanisms of the funding organization(s) for the research
Administrative capacity	The ability of organizations to meet the organizational and operational demands of transdisciplinary research. The presence of a designated project manager and infrastructure to support cross-project communication are indicators of administrative capacity
Advisory boards	Group of objective individuals outside of the initiative but knowledgeable in key content areas appointed by individual research centers that offers strategic advice to each research center
Geographical proximity	Distance between transdisciplinary team members
Leadership	Characteristics and processes of those who lead transdisciplinary research projects and initiatives
<b>Collaboration characteristics</b>	
Team composition	The disciplinary perspective and characteristics of multiple individuals who work together to conduct transdisciplinary research
Collaborative capacity	The potential of a team to cooperate effectively and successfully design and implement transdisciplinary research, as well as to achieve transdisciplinary outcomes
Collaborative processes	The sequential and/or iterative activities in which teams of disciplinarily diverse investigators engage to work towards a common goal
Transdisciplinary activity participation	Level of involvement in pursuits of transdisciplinarity. Activities may include endeavors such as reading journal articles or attending conferences outside of one's primary field of expertise, modifying one's research agenda as a result of discussions with colleagues from different disciplinary orientations, and establishing links with colleagues from different disciplinary orientations (e.g., partnering on publications or grant submissions)
Social network density	Growth in collaborations across, among, and between investigators and/or community stakeholders, ideally from different disciplinary backgrounds, potentially from different institutions or organizations.

**Table S2. Outcomes of transdisciplinary research**

Transdisciplinary teams and consortia	Groups that bridge academic disciplines, political stakeholders, and community partners with the goal of developing integrated frameworks and solving a societal problem.
Integrated theoretical frameworks	Theoretical frameworks that bridge concepts from one or more disciplines with the goal of addressing a societal problem
Multi-level intervention models	Models that consider a range of factors that influence complex public health problems such as the association between cancer and obesity, physical activity, and diet. Such models address many of the diverse levels of analysis in understanding the interaction between biological, genetic, behavioral, and socio-environmental factors
Adapted statistical and analytic models	New or modified analytic approaches to determine associations, interrelationships, and mutual influence that biological, genetic, environmental, social, behavioral dimensions, as well as multiple interventions, have on each other and on the societal problem focus overall
Transdisciplinary publications and grants	Peer-reviewed publications and grants that reflect scientific contributions from multiple disciplines, integrated disciplinary frameworks, and attention to solving societal problems
Translation across levels of influence	Applying findings from basic science to relevant interventions and policies
Public policies	Policies that result from applying findings from transdisciplinary studies and involving policy stakeholders as part of the transdisciplinary research process
Transdisciplinary training programs	Programs that aim to train investigator to work across disciplines to work in disciplinarily diverse teams, develop integrated theoretical frameworks, <i>and</i> solve societal problems