

The STS4HIV Project's Dissemination, Implementation, effectiveness, Sustainment, Economics, and Level-of-scaling (DieSEL) hybrid trial design

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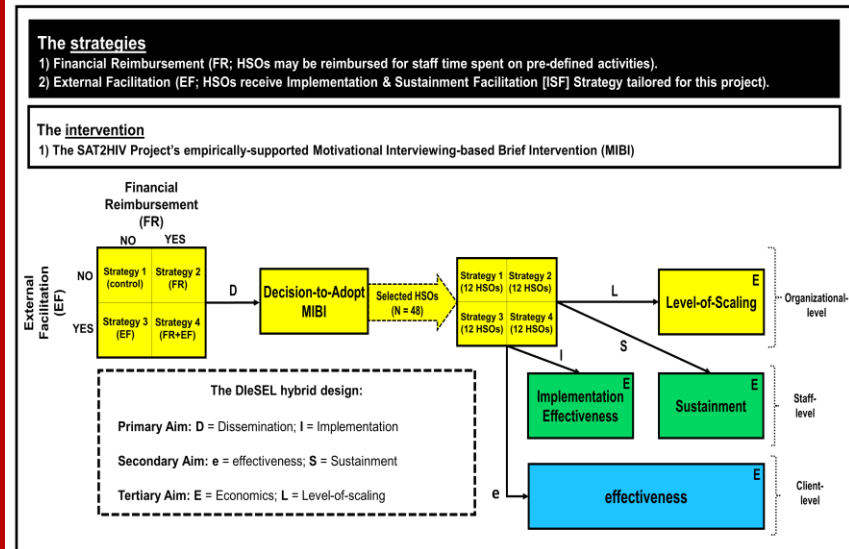
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Background: In 2018, the National Institute on Drug Abuse funded the Substance Treatment Strategies for HIV Care (STS4HIV) Project (R01-DA044051) as part of its effort to help improve the integration of substance use disorder (SUD) services within HIV service settings. This presentation will introduce and provide an overview of the STS4HIV Project's novel Dissemination, Implementation, effectiveness, Sustainment, Economic, and Level-of-scaling (DieSEL) hybrid trial design.

Setting/Population: The STS4HIV Project's Engaged Community of Organizational Stakeholders (ECOS) system, which includes several hundreds of HIV service organizations (HSOs) across the United States.

Methods: Development of the DieSEL hybrid trial design was guided by more than a decade of experience conducting hybrid trials focused on accelerating advancements regarding the integration of evidence-based interventions for substance use disorders within real world settings. As part of the STS4HIV Project, we are conducting a multilevel 2x2 factorial DieSEL hybrid trial focused on testing the individual and combined effects of the following two strategies: financial reimbursement (FR; i.e., an organizational-level strategy in which an ECOS team is offered up to \$2,000 of reimbursement to help offset the costs associated with their team participation in key activities during the project's exploration, preparation, and implementation phases), and external facilitation (EF; i.e., an organizational-level strategy in which an ECOS team is offered up to \$2,000 of external facilitation support as provided by one of the project's trained Implementation and Sustainment Facilitation [ISF] Strategy facilitators). The project's primary aim is to test the main and combined impacts these two organizational-level strategies on organizational-level decision-to-adopt (i.e., the primary Dissemination outcome) and staff-level implementation effectiveness (i.e., the primary Implementation outcome). The project's secondary aim is to test the main and combined impacts these two strategies on client-level change in days of substance use (i.e., the primary effectiveness outcome) and the sustainment of staff trained in the project's motivational interviewing-based brief intervention (i.e., the primary Sustainment outcome). The project's tertiary aim is to estimate these strategies incremental cost-effectiveness ratios (the primary economic outcome), as well as test the main and combined impacts of these strategies on organizational-level scale-up of the project's motivational interviewing-based brief intervention (i.e., the primary level-of-scaling outcome).

Visual illustration of the specific aims for the STS4HIV Project's DieSEL hybrid trial



Conclusions: Similar to how a diesel engine is often a more powerful and efficient alternative to a gasoline engine, the STS4HIV Project's novel DieSEL hybrid trial design is believed to be a more powerful and efficient alternative to the implementation-effectiveness hybrid trial design introduced by Curran and colleagues (2012) a decade ago.