**University of Washington Department of Biostatistics**

**2025 Summer Institute in Statistics for Clinical & Epidemiological Research**

**Module 6: Improving Precision and Power in Randomized Trials by Leveraging Baseline Variables**

**Kelly Van Lancker and Josh Betz, Module 6 Instructors**

Times listed are PDT (Seattle time; GMT-7). We will take two 15-minute breaks. Except for the daily start and end times, *all times are approximate.*

**Monday, July 14th, 2025**

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| 8:30 - 8:45 am | Introductions |
| 8:45 - 9:45 am | Part 1: Goals and Rationale for covariate adjustment; Marginal Treatment Effects and Estimands; General approach for covariate adjustment |
| 9:45 – 10 am | Break |
| 10:00 - 11:00 am | Part 2: Covariate Adjustment in Single Stage Fixed Sample Size Designs |
| 11:00 - 11:15 am | Break |
| 11:15 - Noon | Part 3: Information Monitoring in Randomized Trials – Theory |

**Tuesday, July 15th, 2025**

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| 8:30 - 8:45 am | Questions and Recap |
| 8:45 - 9:45 am | Part 4: Information Monitoring in Randomized Trials – Examples in R |
| 9:45 – 10 am | Break |
| 10:00 - 11:00 am | Part 5: Group Sequential Designs |
| 11:00 - 11:15 am | Break |
| 11:15 - Noon | Part 6: Information Monitoring & Mutli-Stage Designs – Examples in R |

1. Sessions will be recorded and shared with module registrants. You will be recorded if you ask a question or join the discussion. Recordings will be available for viewing by module registrants until October 1, 2024.
2. Zoom polls are anonymous.
3. Please mute your microphone unless you are speaking. However, feel free to interject with questions during the presentation. Questions posted into the chat may not receive a timely response.
4. Please sign into the Zoom session using the name used for registration, as access is restricted to module registrants.
5. Course materials and session link are posted on the SISCER Module 5 page (access for module registrants only).
6. A Slack channel for Module 5 in the SISCER Slack workspace is available for discussion and questions outside of live lectures. Recording links will be shared via the module Slack channel.
7. The course materials will include worked examples in *R*. Code and data will be posted online.
8. After the module, please provide feedback using the module evaluation through your Summer Institutes account. We appreciate your comments and ideas! After you complete the evaluation, you will be able to download a certificate of completion for this module.