

AfEA PRE-CONFERENCE WORKSHOP

System Dynamics Modeling in Epidemiology

15 April 2019 | 10:30-13:30 | Eduardo Mondlane Conference Ctr



Montefiore

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To download all workshop materials:

1. Go to workshop GitHub site → <https://github.com/dlounsbu/AfEA-sdm>.
2. Click on green 'Clone or download' button.
3. Select 'Download ZIP' to transfer a compressed copy of all workshop materials.
4. Open the transferred file to unzip all folders and files.

AGENDA

10:00 – 11:30	TA check: Download and install workshop materials and software [^]
11:30 – 11:35	Welcome and workshop overview
11:35 – 11:45	<u>Ice breaker</u> : <i>What's your problem?</i>
11:45 – 12:00	Systems theory: Feedback concepts from engineering ('balancing' and 'reinforcing' loops)
12:00 – 12:30	<u>Exercise</u> . A systems thinking approach to conceptualizing women's empowerment
12:30 – 12:45	Introduction to system dynamics model building and validation
12:45 – 13:00	Sources of information and types of data for system dynamics modeling
13:00 – 13:15	<u>Exercise</u> . Understanding structure and behavior: First order delays and smooths
13:15 – 13:30	<u>Exercise</u> . Simulating characteristics of populations: Co-flow structures
13:30 – 13:45	<u>Exercise</u> . Simulating patterns of disease in populations: Aging chain structures (S-I-R)
13:45 – 13:55	Tradeoffs in modeling: Generality, realism, fit, and precision
13:55 – 14:00	Recommended resources for additional study and practice in system dynamics

[^]**Workshop activities involve hands-on skill building exercises.** All participants are encouraged to bring a personal laptop computer to the workshop, pre-installed with a free 20-day trial copy of Stella Architect® system dynamics modeling software. See instructions for downloading and installing your copy at https://github.com/dlounsbu/AfEA-sdm/tree/master/trial_stella_architect_software.