

AfEA PRE-CONFERENCE WORKSHOP**System Dynamics Modeling in Epidemiology****15 April 2019 | 10:30-13:30 | Eduardo Mondlane Conference Ctr****Montefiore**

David W. Lounsbury, PhD | Facilitator
david.lounsbury@einstein.yu.edu e-mail
 +19176901020 WhatsApp
 @DLounsburyNYC Twitter

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 – 10:30	TA check: Download and install workshop materials and software
10:30 – 10:35	Welcome and workshop overview
10:35 – 10:45	<u>Ice breaker</u> : <i>What's your problem?</i>
10:45 – 11:00	Systems theory: Feedback concepts from engineering ('balancing' and 'reinforcing' loops)
11:00 – 11:30	<u>Exercise</u> . A systems thinking approach to conceptualizing women's empowerment
11:30 – 11:40	BREAK and TA check
11:40 – 12:00	Introduction to system dynamics model building and validation
12:00 – 12:10	Sources of information and types of data for system dynamics modeling
12:10 – 12:30	<u>Exercise</u> . Understanding structure and behavior: First order delays and smooths
12:30 – 12:50	<u>Exercise</u> . Simulating characteristics of populations: Co-flow structures
12:50 – 13:10	<u>Exercise</u> . Simulating patterns of disease in populations: Aging chain structures (S-I-R)
13:10 – 13:20	Tradeoffs in modeling: Generality, realism, fit, and precision
13:20 – 13:30	Recommended resources for additional study and practice in system dynamics