

Selected System Dynamics References & Resources

Making Sense of System Dynamics Modeling: Interactive Use of PRISM Act on Data (updated August 2011)

PRISM Model References

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Diabetes Model References

Homer J, Hirsch G, Minniti M, Pierson M. Models For Collaboration: How System Dynamics Helped a Community Organize Cost-Effective Care for Chronic Illness. *System Dynamics Review*, 20(3): 199-222, 2004. Available at: www.wppp.org/static/gems/wpppDiscuss/sdp.pdf

Homer J, Jones A, Seville D, Essien J, Milstein B, Murphy D. The CDC's Diabetes Systems Modeling Project: Developing a New Tool for Chronic Disease Prevention and Control 22nd International Conference of the System Dynamics Society, July 25-29, 2004 (Oxford, England). Available at: [www.sustainer.org/pubs/Diabetes_System\(ISDC04\).pdf](http://www.sustainer.org/pubs/Diabetes_System(ISDC04).pdf)

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General References

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Milstein B, Homer J, Hirsch G. Analyzing national health reform strategies with a dynamic simulation model. *Am J Public Health* 100(5):811-9, May 2010.

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Sterman JD. All Models Are Wrong: Reflections On Becoming A Systems Scientist. *System Dynamics Review*, 18(4): 501-531, 2002. [web.mit.edu/jsterman/www/All_Models_Are_Wrong_\(SDR\).pdf](http://web.mit.edu/jsterman/www/All_Models_Are_Wrong_(SDR).pdf)

Additional Resources

- *The Institute on Systems Science and Health (ISSH)* – Annual week-long course on the general principles of systems science designed for research investigators at all career stages who aspire to use systems science methodologies to improve population health through NIH and CDC-supported work. Online archive of resources, including video casts, slides, lecture notes, exercises, and bibliography can be accessed free at: isssh.aed.org/index.html
- *2007 Symposium Series on Systems Science and Health*. Four lectures, 2 hours each featuring two speakers, intended as a primer on systems science and selected methodologies: Agent Based Modeling, System Dynamics Modeling, and Network Analysis. Available as videocast and podcast. These and other video productions can be accessed free at: obsr.od.nih.gov/training_and_education/videocast/videocast.aspx#ssh
- *University of Columbia, Mailman School of Public Health Grand Rounds*. Video/audio archives available here: www.mailman.hs.columbia.edu/events/grand-rounds/fall-2009-archives
 - *Finding the Foresight and Strength to Transform Health Systems*, Milstein, B. October 14, 2009.
 - *Catalyzing Change: Systems Thinking to Transform Health Care and the Public's Health*, Sterman, J. October 21, 2009.
- *NCCOR – National Collaborative for Childhood Obesity Research*. Includes ENVISION, modeling projects in obesity policy funded by NIH's NICHD and OBSSR, and RWJF. www.nccor.org
- *NIGMS Modeling Infectious Disease Agents Study (MIDAS)*: www.nigms.nih.gov/Initiatives/MIDAS
- *BSSR-Systems Science Listserv*. This is a read-only list. Postings concern the intersection of three areas: behavioral and social sciences research (BSSR), systems science, and health. To join, contact the listowner, Patty Mabry at mabryp@od.nih.gov. Please include full contact info including name, title, degrees, organizational affiliation (including department), address, and email address. Also include a very brief statement of research interests.
- *Office of Behavioral and Social Sciences Research (OBSSR)* at the National Institutes of Health. Systems Science Program, directed by Patricia L., Mabry, Ph.D. mabryp@od.nih.gov. obsr.od.nih.gov/scientific_areas/methodology/systems_science/index.aspx
- *System Dynamics Society* – An international, nonprofit organization devoted to encouraging the development and use of system dynamics and systems thinking around the world. Website lists conferences, resources, publications and products: www.systemdynamics.org
- System Dynamics Software
 - Vensim: www.vensim.com
 - iThink/STELLA: www.iseesystems.com