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Resources

Relevant literature

Websites

Other tools

Partnerships in epi models

Rao DW, Wheatley MM, Goodreau SM, Enns EA. Partnership dynamics in mathematical models and implications for representation of sexually transmitted infections: a review. *Ann Epidemiol*. 2021 Jul;59:72-80. doi: 10.1016/j.annepidem.2021.04.012.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8259505/>

Bedson, J., Skrip, L.A., Pedi, D. et al. A review and agenda for integrated disease models including social and behavioural factors. *Nat Hum Behav* 5, 834–846 (2021). <https://doi.org/10.1038/s41562-021-01136-2>

Concurrency and R_0

Armbruster, B., L. Wang, and M. Morris, Forward reachable sets: Analytically derived properties of connected components for dynamic networks.

Network Science, 2017. 5(3):328-354. DOI:

<https://doi.org/10.1017/nws.2017.10>

Bauch C. and Rand D. A. (2000) A moment closure model for sexually transmitted disease transmission through a concurrent partnership network *Proc. R. Soc. Lond. B.* **267**:2019–2027

<https://doi.org/10.1098/rspb.2000.1244>

Concurrency refs from slidesets

- Morris, M. and M. Kretzschmar (1997). "Concurrent partnerships and the spread of HIV." AIDS **11**: 641-8.
- Morris, M. S. Goodreau and J Moody (2006). Sexual Networks, Concurrency, and STD/HIV. Sexually Transmitted Diseases. KK Holmes, F Sparling, WE Stamm et al. New York, McGraw-Hill: chapter 4.

Network data collection

■ Human Social Networks:

Gathering Social Network Data (2019). jimi adams. Sage Publications **ISBN-13:** 978-1544321462,

<https://us.sagepub.com/en-us/nam/gathering-social-network-data/book260973>

Conducting Personal Network Research: A Practical Guide (2019) Christopher McCarty, Miranda J. Lubbers, Raffaele Vacca, and José Luis Molina. Guilford Press ISBN 9781462538386

<https://www.guilford.com/books/Conducting-Personal-Network-Research/McCarty-Lubbers-Vacca-Molina/9781462538386>

To Dwell Among Friends (1982) Claude Fisher. University of Chicago Press. *The methodological appendix to this book is still one of the best summaries available.*

<https://www.press.uchicago.edu/ucp/books/book/chicago/T/bo5962418.html>

Network data collection

- Human Social Networks (cont'd):

“Survey Methods for Network Data.” (2011) Marsden, Peter V. pp. 370-388 in The Sage Handbook of Social Network Analysis, edited by John Scott and Peter J Carrington. London: Sage Publications.

Network Epidemiology: A Handbook for Survey Design and Data Collection (2004). Martina Morris (ed) Oxford University Press. Online ISBN: 9780191601330, DOI:10.1093/0199269017.001.0001 <https://academic.oup.com/book/38612>

Network data collection

- Human Social Networks (cont'd):

Examples of computer assisted survey tools

- Network Canvas <https://www.networkcanvas.com/>
- Gensi <http://www.tobiasstark.nl/GENSI/>

Network data collection

■ Animal Networks:

Constructing, conducting and interpreting animal social network analysis. (2015) Farine DR, Whitehead H. *J Anim Ecol.*;84(5):1144–1163. doi:10.1111/1365-2656.12418

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4973823/>

A multi-species repository of social networks (2019) Pratha Sah, José David Méndez & Shweta Bansal. *Scientific Data* 6(1): 44. doi 10.1038/s41597-019-0056-z

<https://www.nature.com/articles/s41597-019-0056-z>

Web Resources

Concurrency simulation and intuition

- [Concurrency simulator](#) – an online Rshiny app for exploring how concurrent partnerships influence transmission and prevalence of infection
- [Concurrency tutorial](#) with exercises for building intuition and understanding, and links to research papers