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ESCOLA DE ENFERMAGEM
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“Temas contemporâneos em Saúde Sexual e Reprodutiva” (ENS5931)

Ministrante: Dra. Caroline Moreau (Jonhs Hopkins Bloomberg School of Public Health)

Room 251 (Departamento de Enfermagem em Saúde Coletiva - EEUSP): 9-12h

Previous reading: in bold, are articles that should be prioritized to have a meaningful class discussion.

Session 1 (11/11/19): Definitions and Major Health Concerns in Reproductive and Perinatal Health, Validity of Inference, Paradigms for Reproductive and Perinatal Epidemiology; Methodological Challenges in Reproductive & Perinatal Epidemiology

Objectives

- Define reproductive and perinatal epidemiology
- Identify key reproductive & perinatal health concerns
- Define validity of inference; internal, external and statistical validity
- Describe the hierarchy of evidence based on different epidemiologic study designs
- Define confounding and interaction
- Identify the paradigms for studying reproductive epidemiology
- Define the life course approach to health and development
- Identify the choice of study population and unit of analysis
- Assess temporal proximity between determinants and outcomes
- Understand heterogeneity of reproductive outcomes

Readings

Lie RT, Wilcox AJ, Skjaerven R. Maternal and paternal influences on length of pregnancy. *Obstet Gynecol.* 2006 Apr;107(4):880-5.

Savitz et al. Methodologic issues in the design and analysis of epidemiologic studies of pregnancy outcome. *Stat Methods Med Res* 2006; 15; 93

Wilcox AJ, Gladen BC. Spontaneous abortion: the role of heterogeneous risk and selective fertility. *Early Hum Dev.* 1982 Nov;7(2):165-78.

Session 2 (13/11/19): Fertility, Fecundity and Impaired Fecundity; Single vs. Double Embryo Transfer

Objectives

- Discuss epidemiologic research challenges related to the assessment of infertility and pregnancy loss
- Identify common infertility treatments and the history of their development
- Assess trends of recent birth and low birth weight births and reasons for these trends
- Identify differences between single and double embryo transfers and the levels of these procedures in the United States
- Discuss challenges related to the epidemiologic study of single vs. double embryo transfers
- Define equivalence trials and identify when they are appropriate for investigation

Readings

Thoma et al. Prevalence of infertility in the United States as estimated by the current duration approach and a traditional constructed approach. *Fertility and Sterility*, 2013

Joffe M, Key J, Best N, Keiding N, Scheike T, Jensen TK. Studying time to pregnancy by use of a retrospective design. *Am J Epidemiol*. 2005 Jul 15;162(2):115-24.

Sazonova A, Källen K, Thurin-Kjellberg A, Wennerholm UB, Bergh C. Obstetric outcome after in vitro fertilization with single or double embryo transfer. *Hum Reprod*. 2011 26(2):442-50.

Thurin A, Hausken J, Hillensjö T, Jablonowska B, Pinborg A, Strandell A, Bergh C. Elective single-embryo transfer versus double-embryo transfer in in vitro fertilization. *N Engl J Med*. 2004 351(23):2392-402.

Eijkemans et al. A Systematic Comparison of Designs to Study Human. *Epidemiology* 2019; 30(1):120-129

Session 3 (18/11/19): Hormonal Contraceptives and Venous Thromboembolism; Measurement of Induced Abortion and Epidemiological challenges in Abortion Research
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Objectives

- Describe fertility regulation, contraceptive methods, contraceptive effectiveness
- Discuss epidemiologic research challenges related to assessment of the relationship between hormonal contraceptives and venous thromboembolism (VTE)
- Discuss challenges and methods to measure the incidence of abortion
- Discuss epidemiological challenges related to assessment of the relationship between induced abortion and mental health

Readings

Lidegaard Ø, Nielsen LH, Skovlund CW, Skjeldestad FE, Løkkegaard E. Risk of venous thromboembolism from use of oral contraceptives containing different progestogens and oestrogen doses: Danish cohort study, 2001-9. *BMJ*. 2011 Oct 25;343:d6423. doi: 10.1136/bmj.d6423.

Dinger JC, Bardenheuer K, Heinemann K. Cardiovascular and general safety of a 24-day regimen of drospirenone-containing combined oral contraceptives: final results from the

International Active Surveillance Study of Women Taking Oral Contraceptives . Contraception 89 (2014) 253–263

Grimes DA. Epidemiologic research using administrative databases: garbage in, garbage out. *Obstet Gynecol.* 2010 Nov;116(5):1018-9. doi: 10.1097/AOG.0b013e3181f98300.

Steinberg, J. R. and L. B. Finer (2011). "Examining the association of abortion history and current mental health: a reanalysis of the National Comorbidity Survey using a common-risk-factors model." *Social science & medicine* 72(1): 72-82.

Munk-Olsen T, Laursen TM, Pedersen CB, Lidegaard Ø, Mortensen PB. Induced first-trimester abortion and risk of mental disorder *N Engl J Med.* 2011; 364(4):332-9.

Session 4 (19/11/19): Aging and reproduction, Adverse Effects of Hormone Replacement Therapy

Objectives

- Discuss the interrelation of reproductive and perinatal health events and women's subsequent cardiovascular risk
- Define hormone replacement therapy (HRT) and understand reasons for its use
- Discuss methodological challenges of epidemiologic studies on the adverse effects of hormonal replacement therapy (HRT)

Readings

Rich-Edwards JW, Fraser A, Lawlor DA, Catov JM. Pregnancy characteristics and women's future cardiovascular health: an underused opportunity to improve women's health? *Epidemiol Rev.* 2014; 36:57-70.

Hulley S, Grady D, Bush T, Furberg C, Herrington D, Riggs B, Vittinghoff E. Randomized trial of estrogen plus progestin for secondary prevention of coronary heart disease in postmenopausal women. Heart and Estrogen/progestin Replacement Study (HERS) Research Group. *JAMA.* 1998 280(7):605-13.

Rossouw JE, Anderson GL, Prentice RL, LaCroix AZ, Kooperberg C, Stefanick ML, Jackson RD, Beresford SA, Howard BV, Johnson KC, Kotchen JM, Ockene J; Writing Group for the Women's Health Initiative Investigators. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. *JAMA.* 2002 288(3):321-33.

Stampfer MJ, Willett WC, Colditz GA, Rosner B, Speizer FE, Hennekens CH. A prospective study of postmenopausal estrogen therapy and coronary heart disease. *N Engl J Med.* 1985 313(17): 1044-9.

Sedgh G, Keogh S. Novel approaches to estimating abortion incidence. *Reproductive Health* (2019) 16:44 <https://doi.org/10.1186/s12978-019-0702-0>