# Reproductive Health & HCI: A Systematic Review

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INTRODUCTION

Research on women's health has proliferated over the last decade, encompassing different phases of the women's reproductive cycle. In this work, we explore a systematic review of women's reproductive health and HCI in the ACM Digital Library over 15 years (2007-2022).

- What types of studies in HCI are conducted regarding women's reproductive health?
- What areas of reproductive health are researchers focusing their efforts?
- What theoretical frameworks are researchers using in these studies?
- What types of technologies are being used, designed, or implicated in these studies?
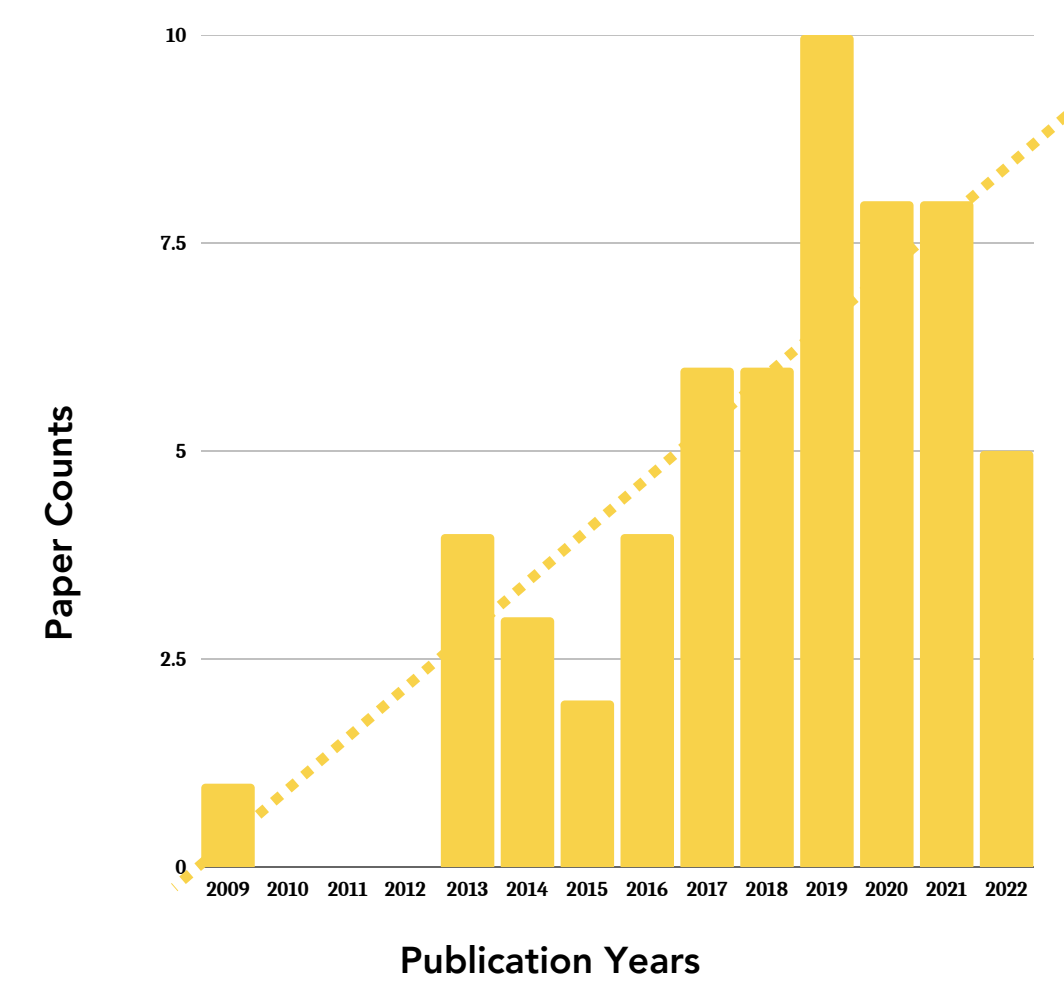

INCLUSION/EXCLUSION CRITERIA

- ☑ Engaged directly with the population of interest (e.g., not health care providers)
- ☑ Focused on the women's reproductive cycle
- ☑ Excluded papers that discussed specific conditions e.g Vulvodynia[1], Cervical Cancer[2]
- ☑ Published in the ACM DL between years 2007-2022
- ☑ Discussed technology used by women or informs the design of future technology for reproductive health
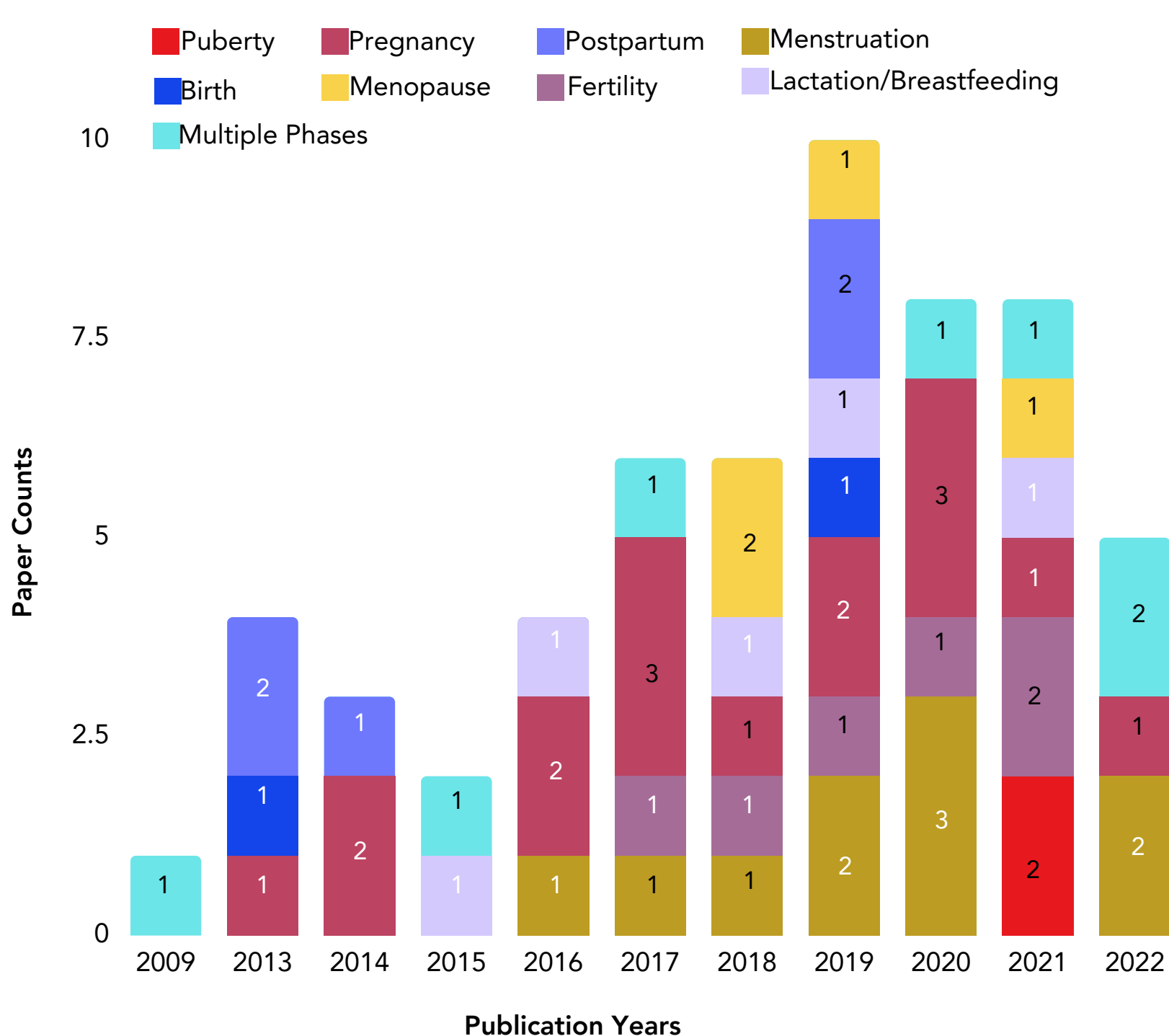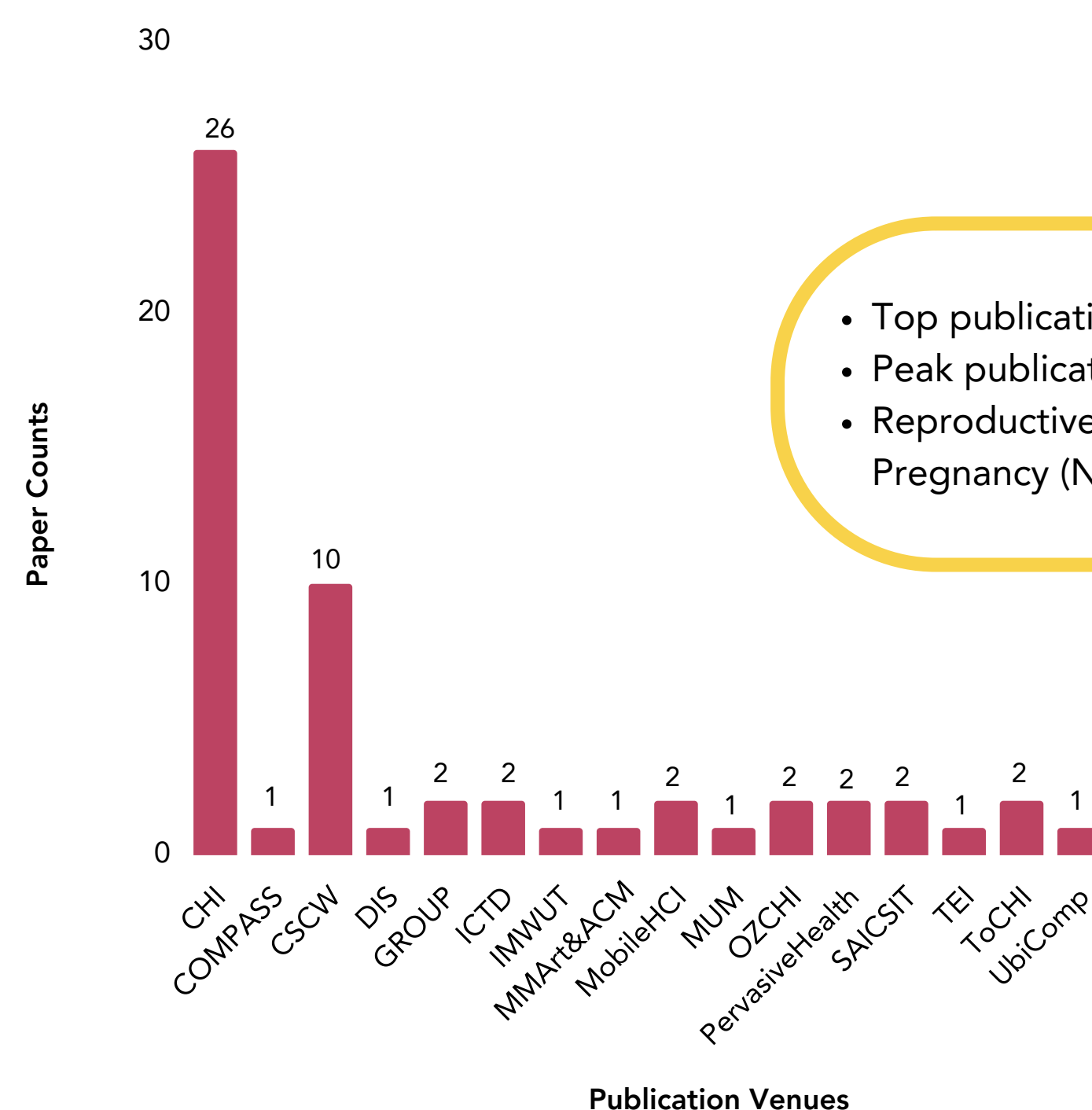
SCREENING PROCESS
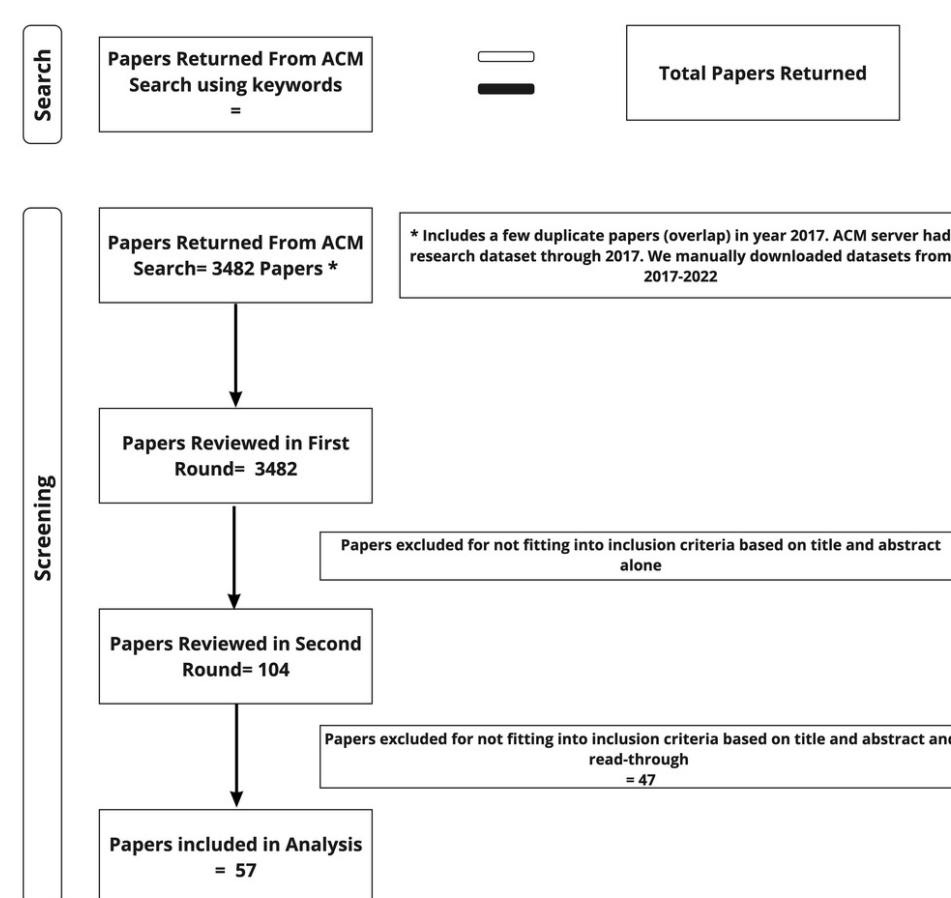
REPRODUCTIVE PHASES
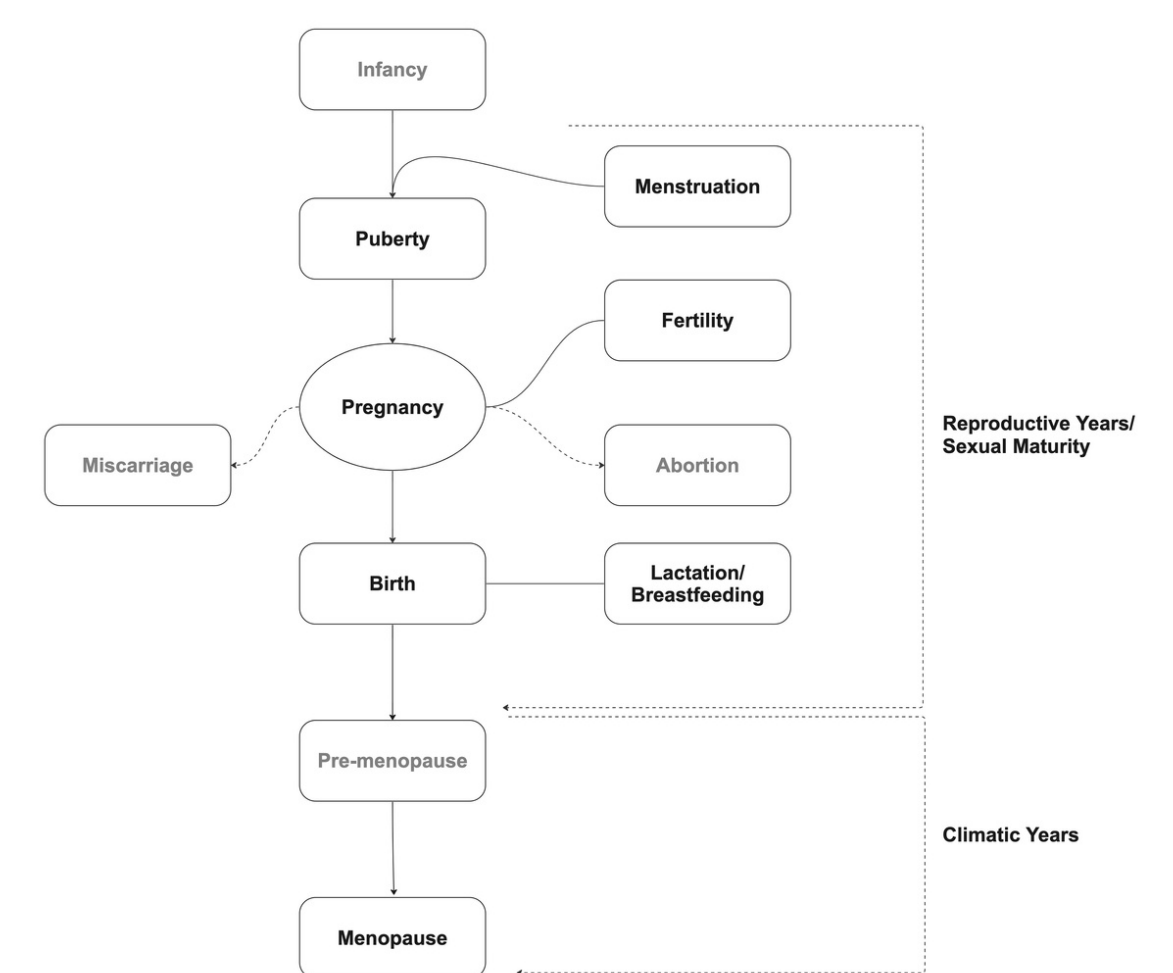
Search Terms women's health, puberty, fertility, conception, menstruation, pregnancy, miscarriage, abortion, birth, lactation, menopause

PRELIMINARY FINDINGS (N=57 PAPERS IN CORPUS)

Legend: Puberty, Pregnancy, Postpartum, Menstruation, Birth, Menopause, Fertility, Lactation/Breastfeeding, Multiple Phases

Count of paper per publication year indicating reproductive phases in published papers

- Top publication venues: CHI, CSCW
- Peak publication year: 2019, 2020, 2021
- Reproductive phase focused mostly on Pregnancy (N=15) & Menstruation (N=10)

Count of papers per publication venue

PENDING QUESTIONS AND LIMITATIONS

- How does the HCI community frame the reproductive cycle? Our current scope is limited to pro-natal and assumes that women go through the journey end-to-end as illustrated in the reproductive cycle diagram above.
- Should conditions that affect fertility, e.g., PCOS and cervical cancer, be considered in this systematic review? How do we account for the vast conditions that affect fertility?

REFERENCES

[1] Alyson L. Young and Andrew D. Miller. 2019. "This Girl is on Fire": Sensemaking in an Online Health Community for Vulvodynia. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). Association for Computing Machinery, New York, NY, USA, Paper 129, 1–13.

[2] Sanjana Mendu, Mehdi Boukhechba, Janna R. Gordon, Debajyoti Datta, Edwin Molina, Gloria Arroyo, Sara K. Proctor, Kristen J. Wells, and Laura E. Barnes. 2018. Design of a Culturally-Informed Virtual Human for Educating Hispanic Women about Cervical Cancer. In Proceedings of the 12th EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth '18). Association for Computing Machinery, New York, NY, USA, 360–366.