

THE DEPARTMENT OF ANTHROPOLOGY PRESENTS

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Mother's Milk: Anthropological Investigations at the Intersection of the Life and Social Sciences

Public health efforts promote the first 1000 days of life as influential for health and well-being across the lifespan. This developmental period has both vulnerability and opportunity for the integration of infant physical, behavioral, and microbial systems. Previous research of this developmental stage has remained primarily physiological before birth and behavioral during infancy, but mammals produce milk extending physiological investment for the neonate. Unlike adults in Westernized, Educated, Industrial, Rich, Democratic nations, far removed from the ancestral conditions that shaped our bodies, the breastfed infant develops within an “adaptively relevant environment.” Cross-cultural investigations combined with an evolutionary viewpoint yield new perspectives of mothers, milk, and infants. For example, breast milk nourishes, protects, and informs the developing neonate through nutrients, defenses, and hormones. Milk varies across evolutionary time, human populations, individuals within populations, and within mother across time. In this way mother’s milk reflects the “here and now” and the “there and then.” Biomedical and social scientific research on this topic can directly translate to culturally-sensitive, personalized clinical recommendations and health optimization for mothers and their infants as well as substantiate the importance of infrastructure and institutional support for breastfeeding. Further, a better understanding of the composition and function of milk informs the design of more representative infant formulas for those mothers facing obstacles or contraindications to breastfeeding. Lastly, decoding mother’s milk will allow for enhanced precision medicine for the most fragile infants and children in neonatal and pediatric intensive care units. Transdisciplinary approaches to mother’s milk research, along with public engagement, facilitate discoveries at the bench and their translation to applications at the bedside.