

In matters of sex and death, men are an essential part of the equation

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In a paper, to appear in the August 29 issue of the online, open-access journal PLoS ONE, Stanford scientists show that the standard practice of tracking only female life histories leads to mistaken conclusions about the forces that shape human evolution. The reason is that men's and women's age patterns of fertility differ in important ways.

Stanford scientists show in a forthcoming paper that traditional mating patterns make men the key to explaining away the “wall of death,” an enduring puzzle in the study of human longevity.

The paper, to appear in the August 29 issue of the online, open-access journal PLoS ONE, proposes a solution to a conundrum in the study of human lifespan: why don't we drop dead soon after the age of last female reproduction? Our understanding of the evolution of lifespan suggests that we have no defense against mutations that occur after we reach the end of our reproductive lives. As a result we expect a rapid increase in mortality -- a “wall of death” -- just after female menopause.

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The paper brings together data from hunter-gatherer populations to show that male reproduction begins and ends later than women's, and declines much more gradually. In many populations, historically and even today,

some fraction of men continue to father children into their 60s and 70s with younger women.

In some groups, most notably Australian aboriginal and African polygynous societies, late-age male reproduction is common. In many hunter-gatherer societies, which may tell us most about how our ancestors once lived, men begin to reproduce a few years later than women of the same age and they typically continue to father children for several years after the age of female menopause due to the marriage gap in the ages of couples.

The marriage gap, in which older men marry younger women, appears to be a near-universal human trait.

Source: Public Library of Science

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