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Health and Disease in North America Before Columbus

Indigenous populations have lived in North America for at least 10,000 years and what we know of their diverse culture histories comes primarily from archaeological reconstructions and oral traditions. These avenues of study provide a rich data base on things such as where, when and how groups lived. But how well did people do in terms of longevity and health? What do we know about patterns of disease and premature death? Aspects of ancient biology and health can only be reconstructed from a close examination of human remains.

Data utilized in this presentation comes largely from the author's own studies of ancient health, as well as from the published literature, in the area of paleopathology (the study of ancient disease patterns). Information on health derived from ancient human remains are synthesized and presented with an eye towards revealing patterns and trends in how indigenous people within the continental U.S. were doing prior to contact with outsiders. In particular, a life history approach will be utilized that focuses on pregnancy and birth, childhood, the teen years, adulthood, and senescence.

Methods in paleopathology will be reviewed including current forensic techniques for providing sex, age, stature, health status, occupation, growth, sexual dimorphism, dental health, and cause of death. Pathologies that will be reviewed include nutritional anemias (porotic hyperostosis and cribra orbitalia), non-specific periosteal reactions (infectious disease), growth disruptions such as enamel hypoplasias and Harris Lines, osteoarthritis and trauma. Diseases such as tuberculosis, leprosy, trepanematosi, coccidiomycosis and others will also be reviewed.

Currently there is no accessible synthesis of disease in North American prior to contact, and this presentation brings together the best of the empirical studies on diet, disease, health and trauma for a number of precolonial populations within the boundaries of the United States. Case studies will be drawn upon when appropriate from the larger pool of published data on health.

An example follows: For the part of the presentation on "what was it like to be a child in ancient America?" I draw on examples of child growth and development from the Southwest (which illustrates the effects of agricultural dependence and marginality on child growth). In addition, I contrast the Southwest case for child health from the larger, denser communities of Cahokia and Dickson Mounds (near modern-day St. Louis). Finally, I draw on the long chronologies of child health published from analysis of the ancestral Chumash groups along the coast of California, where food was mostly plentiful, but where seasonal shortages were pronounced.

References

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