Narayan Sastry's research centers on the social and spatial dimensions of health, development, and well-being of children, both in the U.S. and in less developed countries. He is an active survey researcher currently involved in three major demographic surveys. First, he co-directs the Los Angeles Family and Neighborhood Survey (L.A.FANS). Wave 2 of L.A.FANS was recently completed and released into the public domain. L.A.FANS was designed to answer key research and policy questions regarding the effects of neighborhoods and families on child development and to study residential mobility and neighborhood change. Second, Sastry directs the Displaced New Orleans Residents Survey (DNORS), a new study to examine the effects of Hurricane Katrina on the pre-storm population of the city in the years following the disaster. Fieldwork for DNORS was completed in mid-2010 and the data are being prepared for public release. Third, Sastry is a co-PI of the Panel Study of Income Dynamics (PSID), leading work on the study related to children, young adults, and families as well as being involved in providing overall strategic direction to the project.

Sastry's recent substantive research has focused on studying neighborhood effects on children's academic achievement using data from L.A.FANS and PSID and the effects of Hurricane Katrina on the population of New Orleans. In other recent work, he has examined the prevalence and treatment of diarrheal disease among Brazilian children and the effects of improvements in sanitation and water supply. He has also conducted various studies related to child health and measuring and operationalizing measures of neighborhood characteristics.