In most developing countries, estimates of adult mortality are derived from survey data on the survival of a respondent's siblings. While siblings' survival histories are convenient to collect, demographers agree that they may under-estimate the true levels of adult mortality because of 1) sample selection biases and 2) under-reporting of deceased siblings by survey respondents. The extent of under-reporting of deaths in survey-based estimates of adult mortality is however unknown. We use a unique dataset linking survey reports of a sibling's death with prospective records of that sibling's death obtained from demographic surveillance in Eastern Senegal. The data include genealogical information, precise dates of pregnancies, deliveries and deaths collected since the 1970's, as well as information on causes of deaths from verbal autopsies. They allow estimating, for the first time, the completeness of siblings' survival histories collected during retrospective surveys.