The WTC Responders Fatality Investigation (RFI) program was the data collection center for fatalities occurring among the WTC responder, worker and volunteer populations in order to conduct an initial assessment regarding whether responders were at high risk for certain causes of death. The study population included any responder death that occurred between September 12, 2001 and June 30, 2009. Because there was no central method to identify the responders, deaths were identified primarily through obituary reviews and names provided by other WTC programs. A sample cohort was created using information from the WTC Health Registry. There were 836 deaths identified; the cause of death was confirmed for 814 deaths. Capture-recapture analyses indicated approximately 53% of expected deaths were identified. Because the ascertainment of deaths was incomplete, it was determined that the results of the PMRs were biased and unreliable. Few of the SMRs were elevated or statistically significant, primarily due to the healthy worker effect and low case ascertainment. Because the results of this study were inconclusive, it is recommended that the currently established WTC programs conduct death matching of their cohorts on a periodic basis to examine whether there is an increased risk among their cohorts. Elevated results should be used to generate hypotheses for future research.