We report on the investigation of a Salmonella enteritidis outbreak in hospitals and nursing homes in the district Oberallgaeu, Bavaria, in July 2004. Affected by this outbreak were hospital patients, inhabitants of nursing homes, kitchen coworkers and maintenance personnel. Within this outbreak six deaths were observed. A forensic medical investigation of four deaths revealed two cases of Salmonella enteritis as the primary cause of death, another cause of death was due to other causes and one cause of death remained unclear. The microbiological investigation of stool samples linked all positive samples to an outbreak during this period. The epidemiological outbreak curve pointed towards a foodborne transmission of the pathogen. The infection period could be limited to the weekend of the 3./4.7.2004. All affected institutions were supplied by a catering service with several sites. All tested food samples were negative for Salmonella enteritis. Epidemiological investigations revealed that a contaminated pudding was probably responsible for the outbreak.