Background The Norwegian Labour Inspection Authority (NLIA) records fatal occupational injuries. Complete and correct recording is a prerequisite for efficient prevention.

Aims To assess the completeness of this register.

Methods For 2000–2003 the NLIA recorded 171 fatal occupational injuries among residents in Norway. Each of these deaths was compared case-wise with fatal occupational injuries recorded in three other registers by means of their unique personal identification numbers: The Norwegian Cause of Death Register, The Register at Private Insurance and The Register at The National Insurance Administration. The two latter register compensated cases of occupational fatal injuries. The estimated real number was calculated by a capture-recapture model Yang H-C and Chao A (2006) Program CARE-4.

Results The aggregated number of fatal occupational injuries was found to be 252, the estimated number 296 (95% CI 276 to 330). NLIA reported 70% of prevalent cases and 60% of the estimated numbers.

Significance Multiple sources are needed to improve completeness. Fatal occupational injuries in non-residents require special surveillance as they are not included in the Cause of Death Register. Underreporting by insurance register should be further examined.