

# Sudden Sensorineural Hearing Loss: Evidence from

## Taiwan

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### Abstract

**OBJECTIVE:** This study uses 5-year population data to determine the incidence rate of sudden sensorineural hearing loss (SSNHL) in Taiwan, taking into consideration the age and gender of patients, as well as seasonal variations. **STUDY DESIGN:** A retrospective cross-sectional study. **METHOD:** The data used is from the Taiwan National Health Insurance Research Database covering the period from 1998 to 2002. A total of 9,267 sample patients were identified from the database by a principal diagnosis of unspecified sudden hearing loss (ICD-9-CM code 3882). The autoregressive integrated moving average (ARIMA) method was also carried out in order to identify any variations in the monthly incidence rates of SSNHL. **RESULTS:** We find that for the period under examination, gender-specific incidence rates per 100,000 of the population were 8.85 for males, and 7.79 for females, and that there was an increase in age-specific SSNHL incidence with age. The ARIMA test for seasonality was found to be significant for the whole sample. Of all the seasons in Taiwan, the highest SSNHL incidence rates were found in autumn. **CONCLUSIONS:** Our finding of significant variations in the monthly incidence of SSNHL provides valuable information for otolaryngologists and public health officials, creating an awareness of periods of a potential increased risk of SSNHL.