**PREVALENCE AND DETERMINANTS OF TINNITUS
IN THE ITALIAN ADULT POPULATION**

GALLUS S1, LUGO A2, GARAVELLO W3, BOSETTI C1, SANTORO E1,

COLOMBO P4, PERIN P5, LA VECCHIA C2, LANGGUTH B6

1 Department of Epidemiology, IRCCS - Istituto di Ricerche Farmacologiche “Mario Negri”, Milan, Italy

2 Department of Clinical Sciences and Community Health, University of Milan, Milan, Italy

3 Department of Surgery and Translational Medicine, University of Milano–Bicocca, Milan, Italy.

4 Istituto DOXA, Worldwide Independent Network/Gallup International Association (WIN/GIA), Milan, Italy

5 University of Pavia, Pavia, Italy.

6 Department of Psychiatry and Psychotherapy, University of Regensburg, Regensburg, Germany

**ABSTRACT (250 words)**

**Background:** Limited and poor quality data are available on the epidemiology of tinnitus. We conducted the present study to fill the knowledge gap on tinnitus prevalence in the Italian adult population.

**Methods:** We used data from a face-to-face survey conducted in 2014 on a sample of 2952 individuals, representative of the Italian population aged 18 years or more (49.7 million). Any tinnitus was defined as the presence of ringing or buzzing in the ears lasting for at least 5 minutes within the previous 12 months, chronic tinnitus as the persistence of the symptom for more than 3 months. Severe tinnitus was defined as a condition felt as a big or very big problem.

**Results:** Any tinnitus was reported by 6.2% of the adult Italian population, chronic by 4.8%, and severe tinnitus by 1.2%. The corresponding estimates for the population aged ≥45 years were 8.7%, 7.4% and 2.0%. Multivariable analysis on population aged ≥45 years revealed that higher age (OR=4.49 for ≥75 vs. 45-54 years), and obesity (OR=2.14 compared to normal weight) were directly related to any tinnitus, and high monthly family income (OR=0.50) and moderate alcohol consumption (OR=0.59 for <7 drinks/week vs. non-drinking) were inversely related. No significant relation was observed for sex, education, geographic area, and smoking status.

**Conclusions:** This is the first study on tinnitus prevalence representative of the general Italian adult population. It indicates that in Italy, tinnitus affects around 3 million adults and severely impairs quality of life of more than 600,000 Italians aged ≥45 years.

**Keywords**: tinnitus; prevalence; risk factors; Italy; representative survey; epidemiology

**Acknowledgements:** We thank Mr Ottorino Savani of the Italian Association of Tinnitus (AIT-Onlus) for his contribution in the understanding of tinnitus in Italy.

**Funding:** The survey was conducted with the contribution of the Italian Ministry of Health.

**Declaration of interests:** All authors declare they do not have any competing interests.