

A systematic review on equal access to treatment for hearing loss in Chile: do all people have the same opportunities to receive appropriate treatment?

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BACKGROUND

Chile is one of the most flourishing economies in Latin America with a Gross Domestic Product (GDP) per capita of about 25,000 United States Dollars (USD)¹. Many resources have been invested already in direction to universal health coverage, however this goal is yet to be achieved. A survey carried out by the National Disability Fund (Fondo Nacional de la Discapacidad, FONADIS) in 2004 showed that 1.8 % of the total Chilean population was seriously hearing impaired whereas 40 % had moderate to mild hearing loss (HL)². Access to HL diagnosis and treatment is hampered at many levels^{3,4}. As manufacturer of a wide range of hearing solutions, MED-EL's primary goal is to reach out and help all people with HL in their journey to acquire and maintain good hearing. Any barriers that arise in the process of pursuing and managing hearing health could impact the participation of individuals with HL in the society, the access to other health services and their quality of life.



Therefore, the aim of this review (PROSPERO: CRD42023458360) was to identify barriers and social determinants that contribute to any stratification of hearing health fruition in the Chilean context.

METHODS

In this systematic search the existing literature on hearing and health care treatment in Chile was retrieved. The review was conducted according to the Cochrane standards (Fig. 1), limited to records from 2000 onwards and screened against following PICOS (see below). The included articles were sorted by main topic and the finding about the hearing diagnosis and treatments were tabulated and narrative synthesized.

Population	• All people with any degree or type of HL
Intervention	• Access to diagnosis and treatment of HL
Comparator	• No HL treatment, no pathways to HL treatment
Outcome(s)	• Epidemiological data, Accessibility to diagnosis and treatment of HL, and type of treatment received by the patient
Study design	• Observational studies, epidemiological studies, surveys, any type of reviews, economic evaluations, qualitative researches

RESULTS

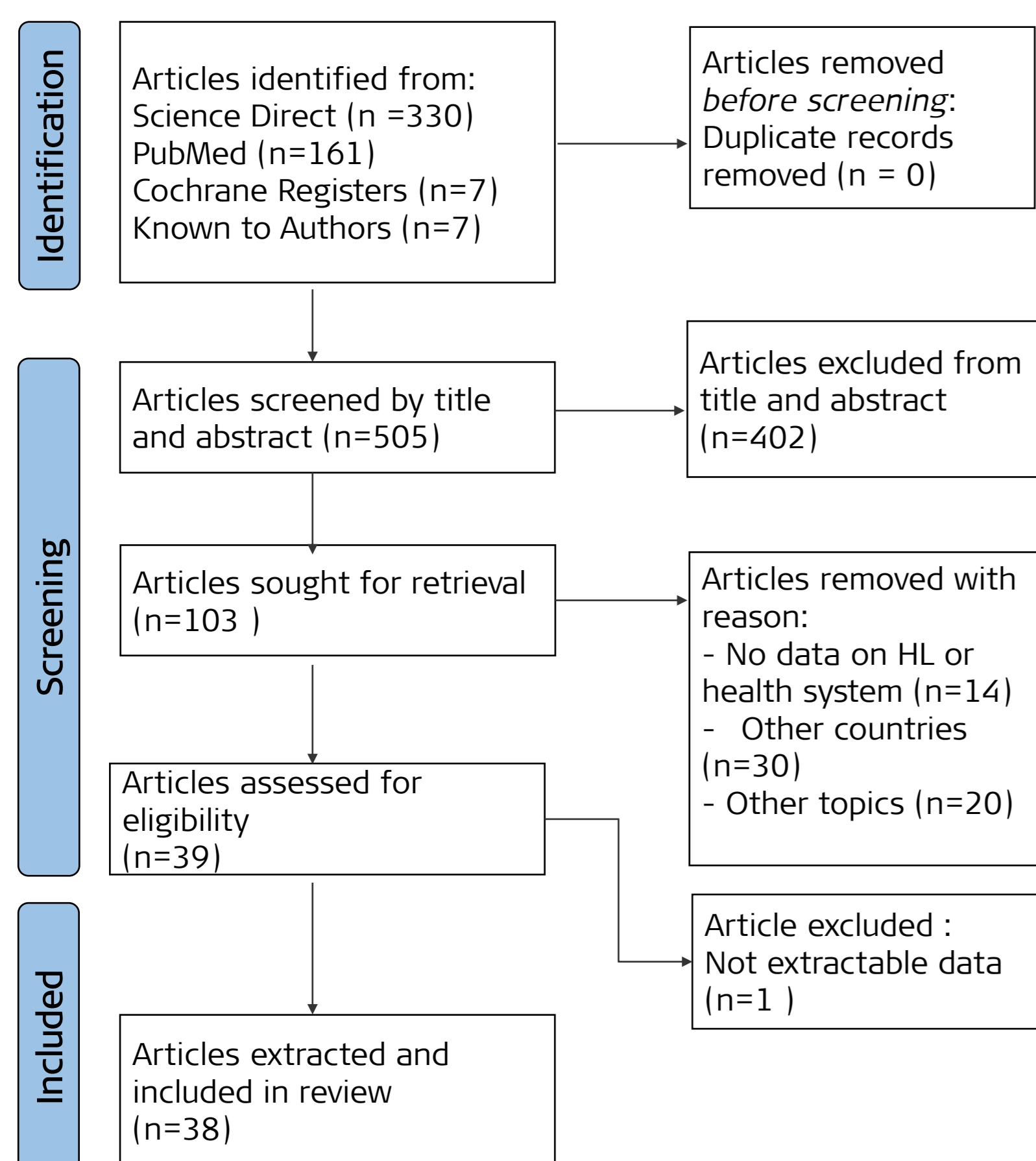


Figure 1: Flow chart presenting the steps of the literature search.

The search yielded 505 records. After checking for title/abstract and duplicate only 103 articles remained of which further 65 were eliminated because of various reasons (see Fig.1). Only 38 publications were eligible, and data concerning: patients population (PPI), social determinant of health (SDH) or Diagnosis (DoHL) and Treatment (ToHL) of hearing loss as well as financial coverage (CoHL) were extracted in an Excel table. Most study designs of included publications were narrative reviews or cohort studies, with the exceptions of some modelling and a few systematic reviews. All the article retrieved resulted to be fair and conclusions were congruent with argumentation and/or data presented.

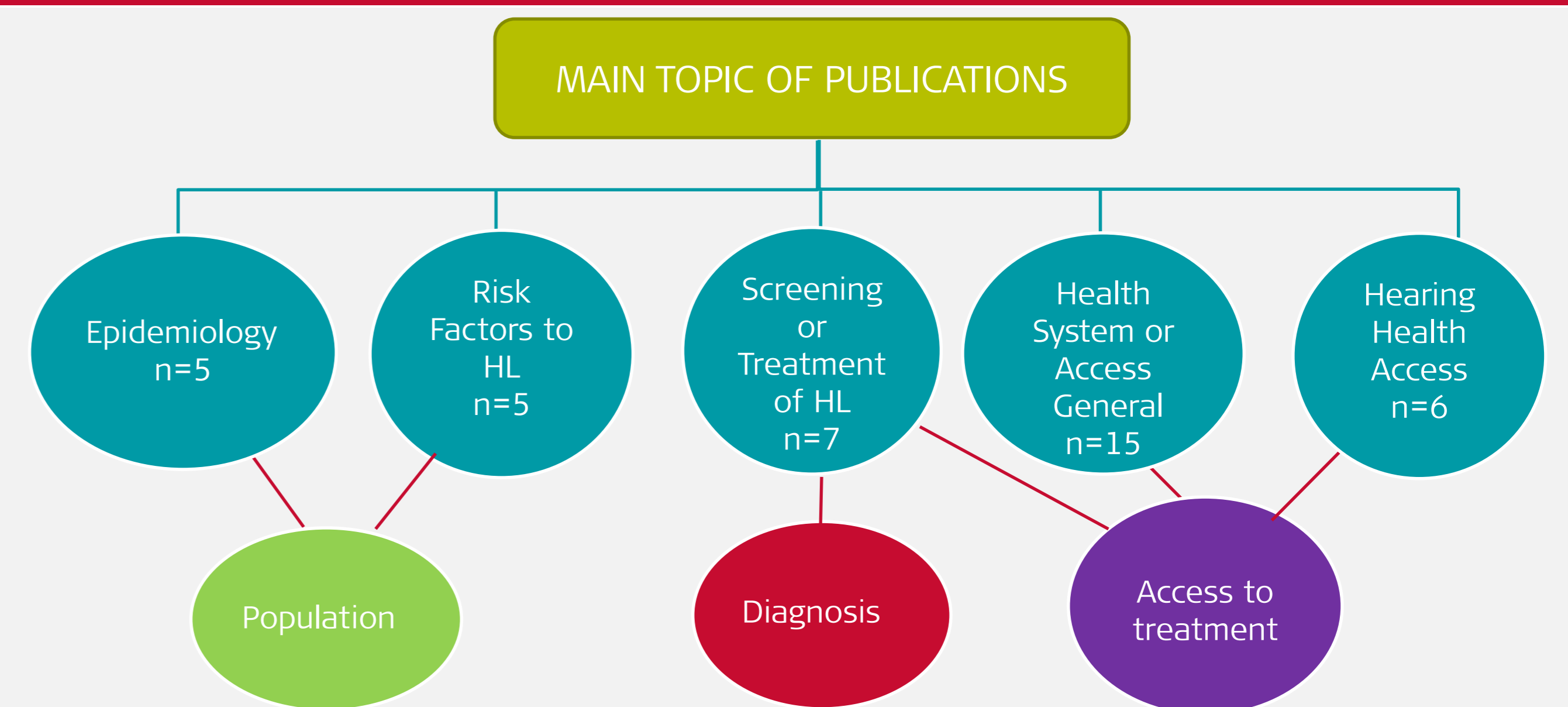


Figure 2: Included studies sorted by main topic.

The eligible publications were very heterogeneous. To facilitate data overviews five main topics were identified (Fig. 2), that helped to sort out which population was reported on, how and when the diagnosis of HL occurred, and which treatment and reimbursement was foreseen by the health system. The following diagram attempts to outline the current situation of hearing impaired patients from an age-perspective (Fig. 3).

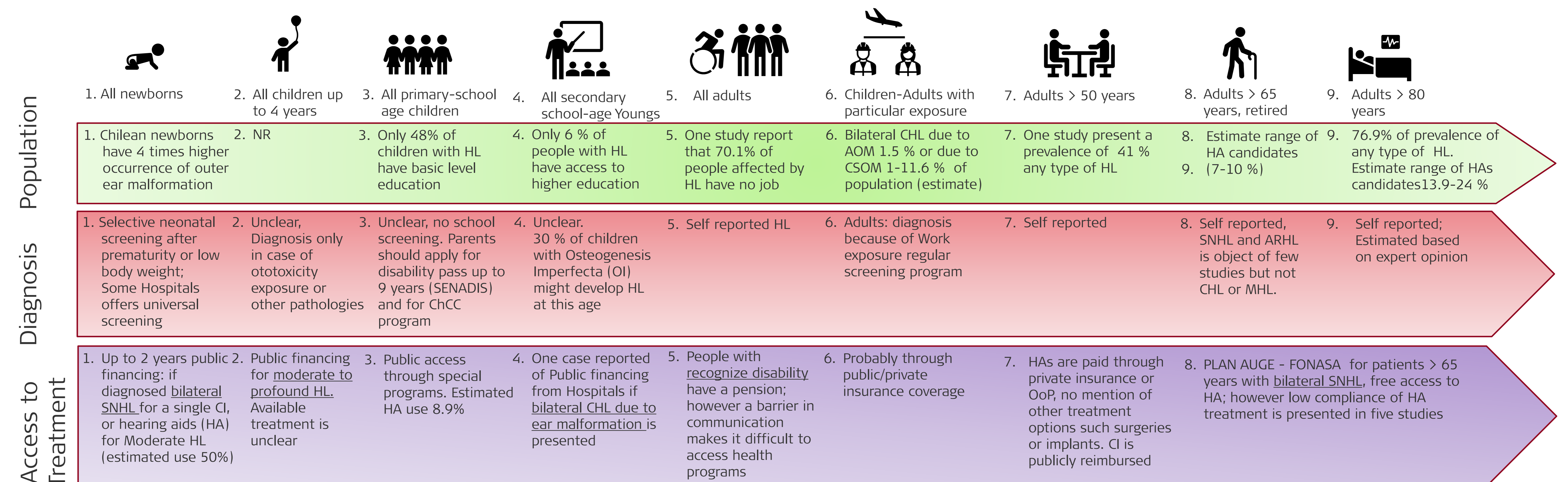


Figure 3: Arrow diagram showing major finding of the literature search. NR, not reported; AOM, Acute otitis media; ARHL, Age-related HL; CI, Cochlear Implant. CSOM, Chronic suppurative otitis media, SNHL, sensorineural HL; CHL conductive HL.

CONCLUSION & OUTLOOK

Age and type of hearing loss (HL) are the most prominent determinants of hearing health in Chile. Cochlear implant and hearing aids seems accessible to everyone with a bilateral diagnosis either at early age or in retirement. However, if people are affected by progressive HL or become hearing impaired later in life due to other causes than work-induced noise exposure it is not clear which hearing solutions are available to patients and at which costs. Communication barriers and perceived stigma from people with HL seem to be the main obstacles to access/accept hearing treatment. A survey amongst Chileans ENT specialists would help to clarify this issue and suggests further steps to warranty equity in HL diagnosis and treatment.

1) World Bank Data; 2) FONADIS 2004, SENADIS 2016; 3) Schuh & Busch, Ear and Hearing 2022;43:155-225; 4) Nieman et al Ear Hear 2022 (43): 55-145.