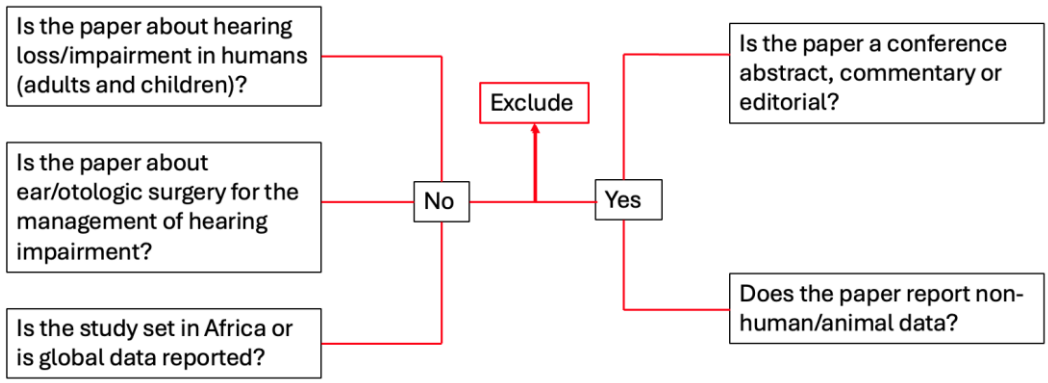
Exploring Barriers and Facilitators to Accessing Surgical Care for Hearing Loss in Africa: A Systematic Review.

Thank you for helping to screen literature for this review.
Please use this guide to screen records for inclusion. Apply it at title/abstract and full-text stages in Covidence with judgements Yes / No / Maybe (Unclear).

Aims:

- To evaluate the current landscape of surgical service provision for hearing impairment in Africa.
- Synthesise evidence on the factors influencing access to surgical care for hearing loss in Africa.
- To generate evidence-based insights to inform policy and health system strategies that improve equitable access to surgery for hearing loss across Africa.



Title & Abstract Quick decision tips:

- **Population/Target:** People of any age (children and adults) living in African countries who have hearing loss that is potentially amenable to surgical intervention, or who seek or receive surgical care for hearing loss.
- **Condition:** Any type of hearing loss/impairment
- **Surgery/Pathway:** Mentions ear/otologic surgery or a surgical access pathway (grommets, tympanoplasty, mastoidectomy, stapes, canalplasty, cochlear/BAHA**;** referral/waits/cancellations tied to surgery).
- **Geography: In Africa** or Global data with Africa subgroup extractable (Include for full text review if unsure)
- **Access content:** At least one access domain (**availability, affordability, accessibility, acceptability, accommodation**) or proxies (workforce, distance/travel time, costs/Out Of Pocket (OOP)/Catastrophic Health Expenditure (CHE), waits, cancellations, uptake/refusal, outreach models).
- **Design:** Primary research**.** Exclude reviews/editorials/protocols/abstracts/theses/single case reports/animal-lab.
- Language: English
- Year: 2000–2025

Guide for Full-text screening:

Actions:

- ≥4 clear 'Yes' with no exclusions - Include to full text.
- Any design/language/year/geography exclusion - Exclude (please log reason).
- Otherwise – 'Maybe' and include to full text.
- Be inclusive at title/abstract when uncertain; resolve at full-text screen.
- Always record a single primary reason for full-text exclusions.

Questions	Details
1. Is the study about ear pathology or does it focus on hearing loss/impairment?	If yes, continue to next questions. If not, exclude and document 'wrong condition'
2. Is the study about ear surgery? (e.g., tympanostomy/grommets, tympanoplasty/ossiculoplasty, mastoidectomy, stapedectomy, canalplasty, cochlear or bone-anchored implantation; perioperative ENT pathways tied to surgery)	If yes, continue to next question. If not, exclude and document 'wrong intervention'
3. Is the study about humans (adults and/or children)?	If yes, continue to next question. If not, exclude and document 'wrong population. Include studies e.g. interviews with target groups such as ear and hearing care providers (ENT surgeons), parents, stakeholders but only if they refer to surgical care for hearing loss.
4. Was the study carried out in an African country/sub region	If yes, include. If not, exclude and document 'wrong context.' If there is global data, and there is extractable Africa-specific data, then include. If not, exclude and document 'wrong context.'
5. Was the study conducted between years 2000-2025?	If yes – include. If no – exclude and document 'wrong year'
6. Is the literature written in English language?	Non-English full texts - Exclude and document 'Wrong language'
7. Is the design eligible? (observational, cohort, case-control, case series, qualitative, mixed-methods, relevant grey literature including reports from Ministries of	If yes – include If no – exclude and document 'wrong study design'

Health, WHO regional offices, NGOs).	Exclude: review articles, editorials, commentaries, opinion pieces, press releases, letters to the editor, study protocols, conference abstracts, case reports, theses/dissertations, animal studies, cadaveric studies and lab studies. Exclude conference abstracts unless a full paper/report is available.
8. Is access to surgical care described/analysed (any of the Five A's: Availability, Affordability, Accessibility, Acceptability, Accommodation), or data that inform access (workforce, distance, costs, wait-times, uptake, cancellations, service models)	If yes, include. If unsure, highlight as 'maybe.' <u>At least one of:</u> **Availability:** ENT/audiology workforce, provider-to-population ratios, facility resources (microscope, drills, anaesthesia, beds), theatre capacity/cancellations. **Affordability**: costs (medical/non-medical/transport), insurance coverage/benefits, catastrophic health expenditure (CHE)/impoverishment. **Accessibility** (spatial/transport): distance (km), travel time (hours), transport mode/availability/costs, 2-hour access. **Acceptability** (socio-cultural): consent/uptake rates, reasons for refusal (fear, cost, distance), stigma, beliefs, trust, language barriers, decision-maker dynamics. **Accommodation** (service delivery): referral/wait times (screening - ENT; diagnosis - surgery), scheduling practices, stockouts, outreach camps/missions, programme models, MDT pathways.

<u>Summary of inclusion and exclusion criteria</u>

Inclusion Criteria	Exclusion Criteria
All ages with any type of hearing loss.	Populations without hearing loss-related indications or mixed ENT surgical cohorts where hearing-related cases are not separable.
Studies discussing ear surgery or surgical treatment for hearing impairment.	Non-surgical intervention for hearing loss.
Reports on availability, accessibility, acceptability, accommodation or affordability of ear surgery/surgical care for hearing impairment.	Reports on access to other surgical care not including ear surgery.
Studies from Africa only	Non-African countries or Global reviews and datasets without Africa-specific data.
Literature published between years 2000-2025.	Studies published before the year 2000.
Retrospective and prospective cohort studies, qualitative studies, case-control studies and case series, mixed method studies, observational studies, and relevant grey literature (reports from Ministries of Health, WHO regional offices, NGOs).	Editorials, commentaries, opinion pieces, letters to the editor, study protocols, conference abstracts, case reports, theses/dissertations. Animal studies, cadaveric studies and laboratory studies
Literature published in English	Non-English literature

If you have any questions, please contact Dr Syntyche Jonah
Email: syntyche.jonah@linacre.ox.ac.uk