

Supplemental Table 1. Identified studies and associated barriers to care.

Publication / Location / WHO Income Group/Study Method	Concepts identified for barrier analysis
United States Studies	
Elliott et al. 2010/Alabama, Arizona, Colorado, Connecticut, Florida, Georgia, Indiana, Iowa, Kansas, Missouri, Nebraska, New Mexico, New York, North Carolina, Ohio, Tennessee, Texas, West Virginia, and Wyoming/High/Cross-sectional analysis	<ol style="list-style-type: none"> 1. Cost/Insurance. 2. No reason to go. 3. Do not have/know an eye doctor. 4. Too far/No transportation. 5. Could not get an appointment. 6. Have not thought of it. 7. Other.
Lee et al. 2013/California/High/Cross-sectional study	<ol style="list-style-type: none"> 1. Long clinic wait time. 2. Appointment scheduling difficulties and scheduling language barriers. 3. The effect of other medical or physical conditions. 4. Interpreter barriers. 5. Forgot about appointment. 6. Financial costs. 7. Unable to leave work responsibilities. 8. Lack of escort. 9. Other serious personal matters/obligations. 10. I don't feel safe coming to clinic. 11. Lost wages. 12. No symptoms. 13. Unaware of the importance of follow-up.
Murakami et al. 2011/California/High/Prospective case-control study	<ol style="list-style-type: none"> 1. Transportation - Somewhat or very inconvenient. 2. Number of transfers on public transportation needed to travel to clinic. 3. Travel time. 4. Physical difficulty coming to clinic. 5. Symptoms or lack thereof at diagnosis. 6. Difficulty taking time away from work/home. 7. Recollection of being counselled regarding glaucoma by clinic staff. 8. Glaucoma knowledge from family, friends, and pamphlets. 9. Perceived importance of attending follow-up visits. 10. Understanding regarding necessary length of glaucoma treatment. 11. Understanding of permanency of glaucoma-induced vision loss 12. Knowledge of glaucoma. 13. Perceived difficulty in attending follow-up appointments. 14. Perceived importance of follow-up visits.
Newman-Casey et al. 2016/California, Minnesota, North Carolina/High/Mixed-methods	<ol style="list-style-type: none"> 1. Doctor-patient relationship. 2. Knowledge about glaucoma. 3. Personal support systems. 4. Overarching health care delivery system and insurance barriers.
Stagg et al. 2021/Michigan/High/Semi-structured, one-on-one, qualitative interviews	<ol style="list-style-type: none"> 1. Patient factors. 2. Provider/healthcare factors. 3. Social/family network factors. 4. living/working/community conditions. 5. Policy/society factors.

International Studies	
Sitoula et al. 2015/Nepal/Low/Retrospective record review	<ol style="list-style-type: none"> 1. Distance/ long travel. 2. Money. 3. No person to accompany. 4. Unawareness - of the serious nature of this condition. 5. Unspecified (reasons of delayed presentation).
Gilmour-White et al. 2015 /Tanzania/Low/Qualitative semi- structured interviews	<ol style="list-style-type: none"> 1. Knowledge of glaucoma. 2. Cost (transportation, medical costs). 3. Distance. 4. Wait times. 5. Unaware of diagnosis. 6. Language barrier. 7. No one to host me.
Lewallen et al. 2011/Tanzania/ Low/Mixed-methods	<ol style="list-style-type: none"> 1. Fear of surgery after bad experience. 2. No fare. 3. Children not there to take patient. 4. Lack of escort. 5. Tired.
Abdull et al. 2016/Nigeria/Lower Middle/Qualitative interviews	<ol style="list-style-type: none"> 1. Long wait time. 2. Lack of money. 3. Negative attitudes of some staff. 4. Reasons beyond their control.
Ashaye and Adeoye 2008 /Nigeria/Lower Middle/Retrospective hospital- based study	<ol style="list-style-type: none"> 1. Used medicines and alright. 2. Travel problems. 3. Afraid of surgery. 4. Felt better. 5. No change with treatment. 6. No reason. 7. Illness. 8. Forgetting appointment.
Kyari et al. 2016/Nigeria/ Lower Middle/Mixed-methods	<ol style="list-style-type: none"> 1. Eye medication side-effects. 2. Hospital charges and cost of medicines. 3. Hierarchical doctor-patient relationship. 4. Poor infrastructure. 5. Lack of understanding. 6. Lack of patient education by medical staff.
Lee et al. 2008/India/Lower Middle/Matched case-control study	<ol style="list-style-type: none"> 1. No symptoms. 2. Unaware of the importance of regular follow-up visits. 3. Forgot about appointment. 4. Fear:Physical. 5. Lack of escort. 6. Age-related weakness. 7. Chronic medical illness/disability. 8. Time/inconvenience. 9. Unable to leave work responsibilities. 10. Unable to leave from caring for relative. 11. General inconvenience. 12. Unable to leave household responsibilities. 13. Long waiting times at clinic. 14. Out of town. 15. Temporary illness. 16. Wedding/social function. 17. Death of relative/friend. 18. Family problems. 19. Other incidental obligations.

	<ul style="list-style-type: none"> 20. Transportation costs. 21. Surgical and inpatient fees. 22. Lost wages. 23. Outpatient fees. 24. Food/lodging costs.
Tshivhase and Khoza 2020/ South Africa/Upper Middle/Qualitative semi- structured interviews	<ul style="list-style-type: none"> 1. Lack of understanding need for chronic therapy. 2. Financial constraints - lack of money for transport, escort, and services. 3. Patients' beliefs (traditional, religious). 4. Existing negative attitude of health care providers. 5. Difficulty getting time off to attend appointments. 6. Medication shortage. 7. Lack of escort. 8. Services not available in geographic area. 9. Distance to clinic. 10. Chronic medical condition/disability. 11. Clinic hours.
Tshivhase et al. 2020/South Africa/Upper Middle/Cross- sectional study	<ul style="list-style-type: none"> 1. Lack of escort. 2. Long distance. 3. Financial cost.
Kim et al. 2016/South Korea/ High/Retrospective record review	<ul style="list-style-type: none"> 1. Lack of understanding regarding the need of follow-up. 2. Unawareness of appointment schedule. 3. Weakness/illness. 4. Lack of money. 5. Side effects of glaucoma medication. 6. Dissatisfaction with the clinic/hospital.
Bhargava et al. 2008/ United Kingdom/High/Mixed-methods	<ul style="list-style-type: none"> 1. Travel time. 2. Level of healthcare professional. 3. Number of visits. 4. Access. 5. Wait in clinic.

IOP, intraocular pressure; LTFU, loss to follow-up; WHO, the World Health Organization

Supplemental Table 2. Codebook for barriers to care and associated dimensions.

Dimension	Barriers associated with dimension
Accessibility ^a	<ul style="list-style-type: none"> • Do not have/know an eye doctor • Transportation; too far/ proximity, availability, number of transfers on public transportation • Distance; geographic constraints with long distances to travel • Travel; problems, time, road conditions, • Physical difficulty coming to clinic • Lack of escort; children not here to take patient, no person to accompany • Glaucoma severity* • Services not available in most primary health care facilities in the study area • Shortage of medication- not given adequate supply to last them 2-3 months, requiring more trips to the clinic than the patient is able to make*
Availability ^a	<ul style="list-style-type: none"> • Appointment scheduling*; could not get one, delayed appointment availability, rescheduling of confirmed appointments by clinic staff • Schedule; flexibility*, difficulty taking time away from work or home*, only get time off very late when the clinics are closed, not open on weekends and public holiday • Long wait times in clinic
Accommodation/ Adequacy ^a	<ul style="list-style-type: none"> • Language barrier, trouble with interpreters • Forgot/unaware of appointment • Length of appointment* • Schedule flexibility* • Difficulty getting time away from work or home to attend appointments • Difficulty of appointment scheduling* • Reminders about appointments • Poor infrastructure* • Glaucoma severity* • Cost/Insurance
Affordability ^a	<ul style="list-style-type: none"> • Cost: transportation, medical costs, hospital charges, medicines, lost wages • Personal finances • Financial; costs, constraints (lack of transport money, money for escort, administrative costs to hospital) • Difficulty taking time; away from work or home*, off to attend appointments* • Insurance; enrollment in a plan, policy regarding coverage of glaucoma care, issues (difficulty obtaining authorization for services from insurance, issues maintaining or obtaining insurance coverage, issues getting coverage for their preferred provider) • Shortage of medication- not given adequate to last* • No one to host me • Negative attitudes of some staff
Acceptability ^a	<ul style="list-style-type: none"> • Fear/afraid of visit • I don't feel safe coming to clinic • Side effects of glaucoma medication* • (Hierarchical) doctor-patient relationship • Level of healthcare professional • Patient perception that they are receiving quality care • Professionalism/Health care provider treatment of patient • Dissatisfaction with clinic or hospital • Communication* • Appointment; length*, frequency* • Beliefs and personality* • No reason to go
Awareness ^b	<ul style="list-style-type: none"> • Have not thought about it • Felt better/ felt that eyes were fine • Unawareness of; appointment schedule*, diagnosis, importance of regular follow-up, what the condition is, seriousness of the condition, and medication adherence. • Other incidental obligations • Lack of patient education by medical staff • Frequency of appointments*

	<ul style="list-style-type: none"> • Forgot; about appointment*, to come* • Perceived difficulty in attending follow-up appointments • General inconvenience • No reason/other • Tired • Illness • Patient; beliefs (traditional, religious), personality • Reasons beyond their control • Communication* • Exposure to other people who have glaucoma • Recollection of being counseled regarding glaucoma by clinic staff • Glaucoma medication; side effects*, unpleasant experience, no change with treatment
<p>Patient Level Factors^c</p>	<ul style="list-style-type: none"> • Weakness/illness/medical or physical conditions • Glaucoma severity* • Unable to leave; household responsibilities, work responsibilities*, caring for relative • I forgot to come* • Family problems • Difficulty taking time; off to attend appointments*, away from work or home* • Organizational skills • Death of relative or friend • Establishment of a routine • Social function or gatherings • Social/Family network available to help with care • Out of town; vacation, travel • Other serious personal matters • Undefined, other, unknown

LTFU, loss to follow-up

^aPenchansky and Thomas five dimensions framework; ^bSaurman addition to the Penchansky and Thomas framework; ^cNot listed within the framework

* Barriers in multiple dimensions