



**Supplementary Figure 1:** RE-AIM framework components in the study.

Criteria	Data sources
<b>Reach (R)</b>	
Recruitment pool: Total population available for screening (Exclusion criteria: age <30 or refusal)	Study log records Line listing records
Screening pool: willing to participate out of the recruitment pool (Exclusion criteria: non-diabetics)	Study log records Line listing records
Diabetic pool: willing to participate out of the screening pool (Exclusion criteria: non-willing and other)	Study log records
Percentage of individuals who participate, based on valid the denominator in two arms	Eligibility screening Study log records
Characteristics of participants compared to non-participants or to target population	Eligibility screening Study log records
Use of qualitative methods to understand reach and recruitment difficulties	In-depth interview guide
<b>Effectiveness (E)</b>	
Measures of primary outcome: DR detection in both interventions Referral rate in both interventions	Gold standard DR grading (Sensitivity and specificity analysis (2x2)) Study data collection sheet
<b>Adoption (A)</b>	
Use of qualitative methods to understand adoption for the two DR interventions at the patient and staff level	In-depth interview guide
<b>Implementation (I)</b>	
Training of the staff on study procedures and NMFI	Study SoP
Adaptations made to intervention during implementation (challenges in implementation in both arms) dark room development in arm I	Study observation sheet
Cost of delivering intervention (health system perspective)	Standardised comprehensive template
Consistency of implementation process across interventions (staff/time/settings/subgroups)	Study observation sheet
<b>Maintenance (M)</b>	
not measured in the study	

**Supplementary Table 1:** Dimension of RE-AIM framework, definition, and measurement tool (data sources). \*DR: diabetic retinopathy; NMFI: nonmydiatic fundus imaging; SOP: standard operating protocol.

Procedures	Purpose	Data Source/Study Population	Type of study questionnaire
Participant information sheet	To brief the purpose of the study to the participants	Study participant	Information sheet
Informed consent form	Document patient consent for participation	Study participant	Consent sheet
Baseline case report form	To record essential demographic variables, medical and ocular history	Study participant	Recording sheet
The diabetic patient interview guide	To identify socio-cultural barriers and facilitators in assessing diabetes and DR care	Study participant	Semi-structured interview guide
Healthcare provider Interview guide	-Healthcare practices for DM & DR -Barriers and facilitators in Providing DR screening	Ophthalmologist, MO, Ophthalmic Officer, ASHA	Semi-structured interview guide
Cost-effectiveness template	For cost assessment of the implementation of different DR screening models	Patients, caregivers, health facility-based data collection	Case report form and Study data collection form

**Supplementary Table 2:** Study questionnaire, purpose, and data sources. \*NPCB & VI: National Program for Control of Blindness and Visual Impairment; MO: Medical Officer.