

## The Problem

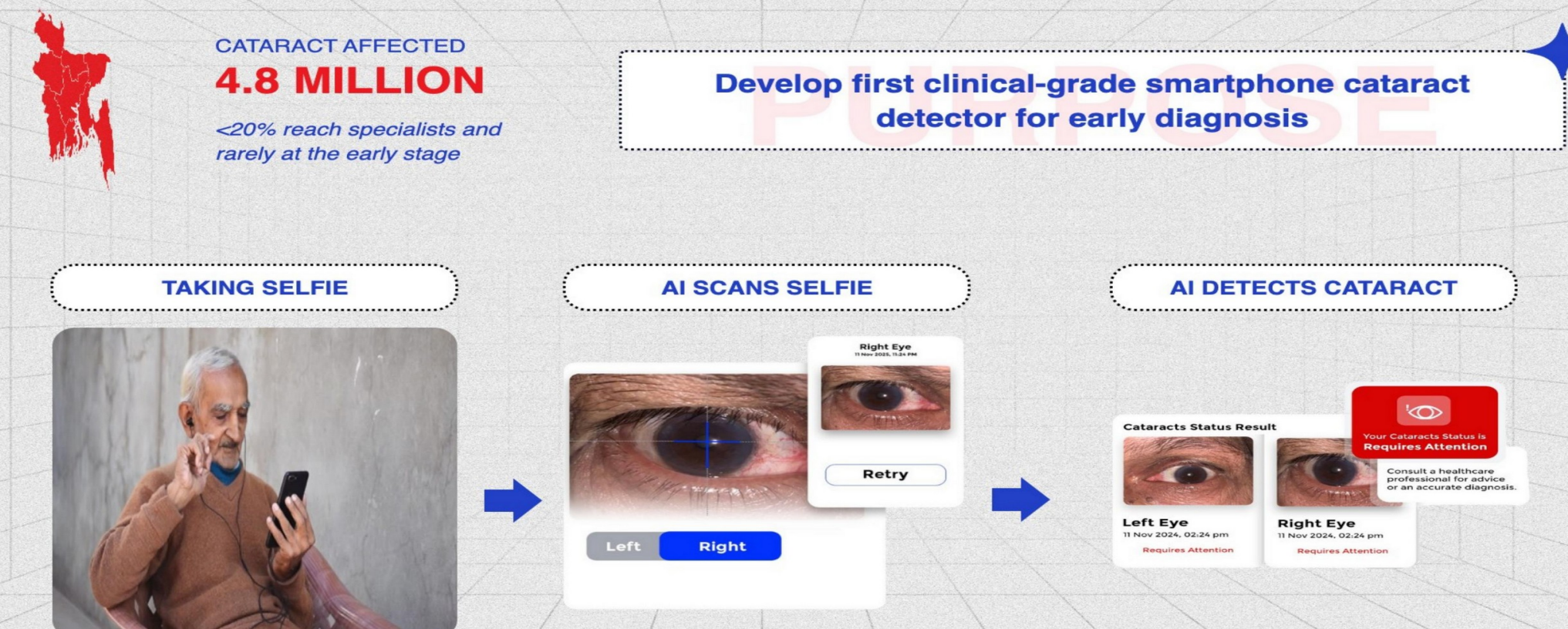


Figure: Workflow of Smartphone-Based Cataract Screening Using AI

## The Solution

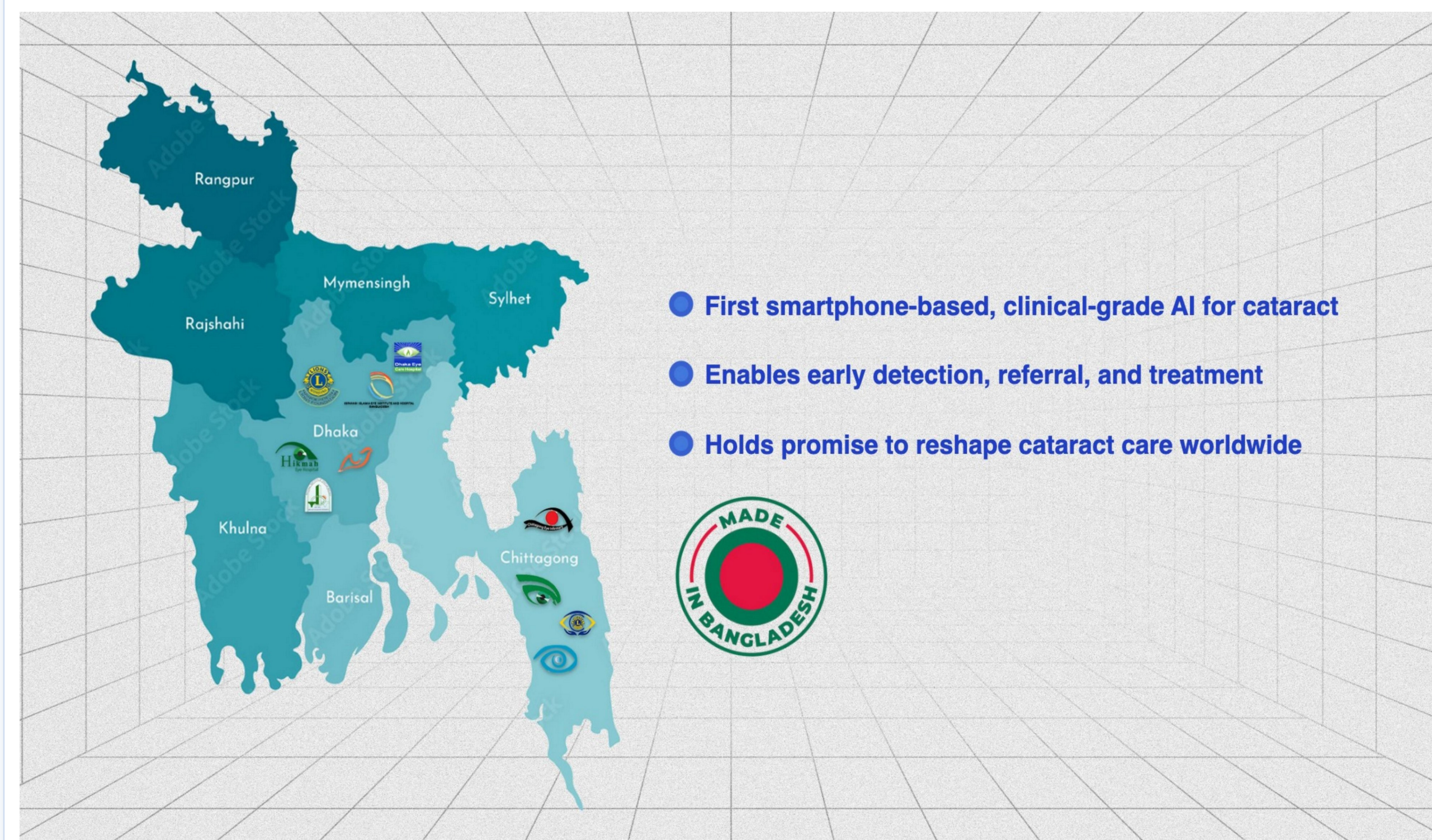
**NHS**

**AI Cataract Detection From a Smartphone Selfie:**

A Home-Based Screening Tool to Support Early Diagnosis and NHS Eye-Care Pathways

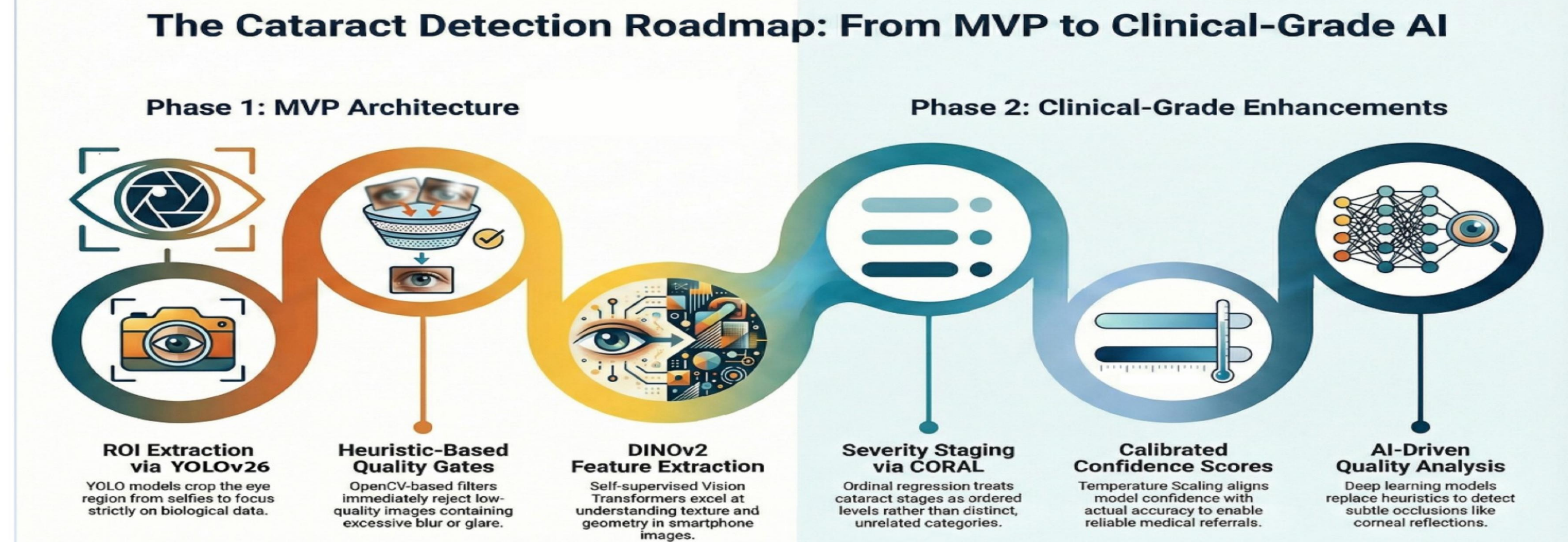
Presenting Author: Anureet Kaur | Institution: Buckinghamshire Healthcare NHS Trust

## Bangladesh Impact



## Two-Phase AI Architecture

## A Two-Phase Architecture: Balancing Speed and Precision



## Model Performance &amp; Results

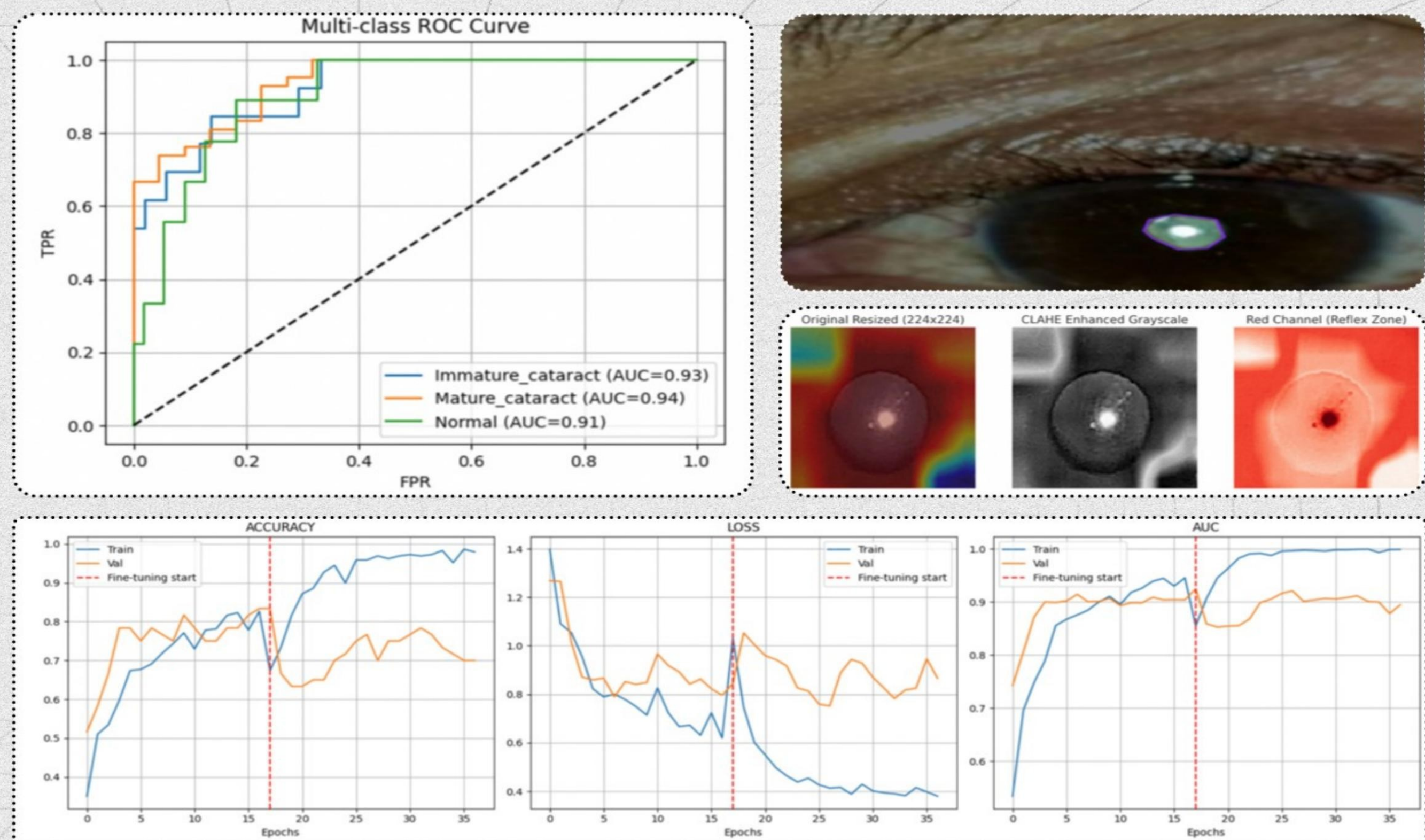
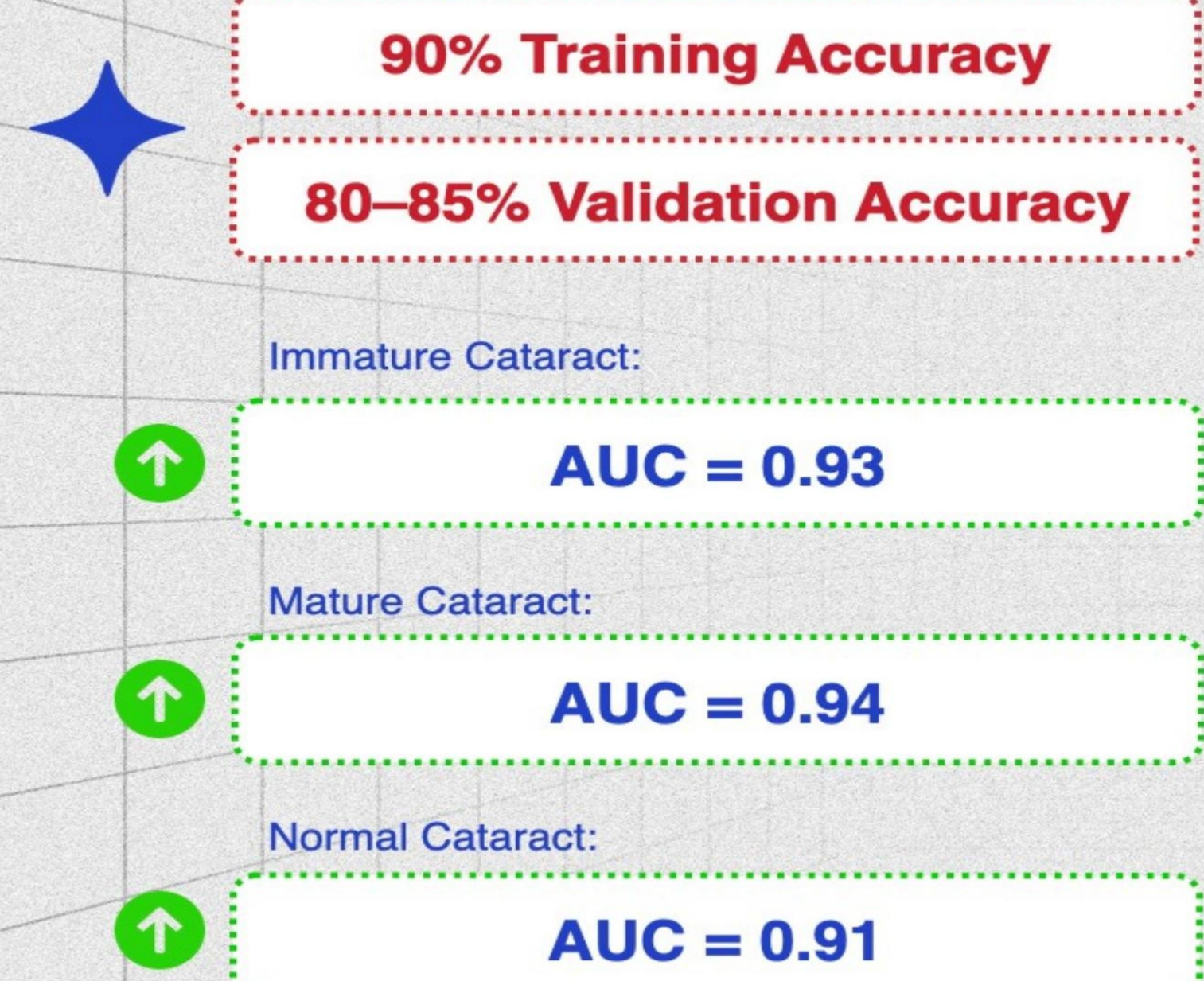


Figure: Performance Evaluation of AI Model for Multi-Class Cataract Detection

## Clinical Workflow &amp; Impact

## CURRENT STATE

Patient Present Late

Vision Compromised

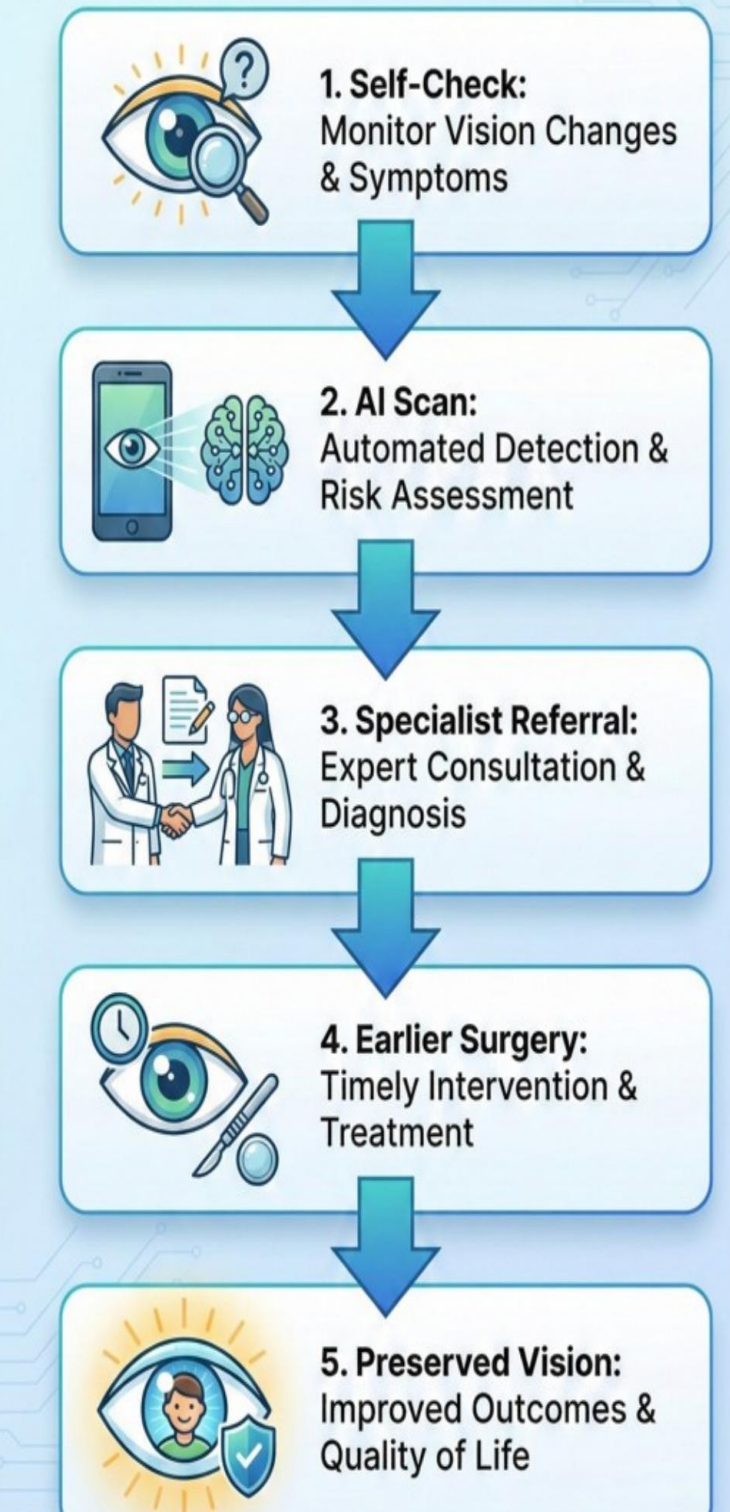
Low-Literacy Screening

Early Detection from Home

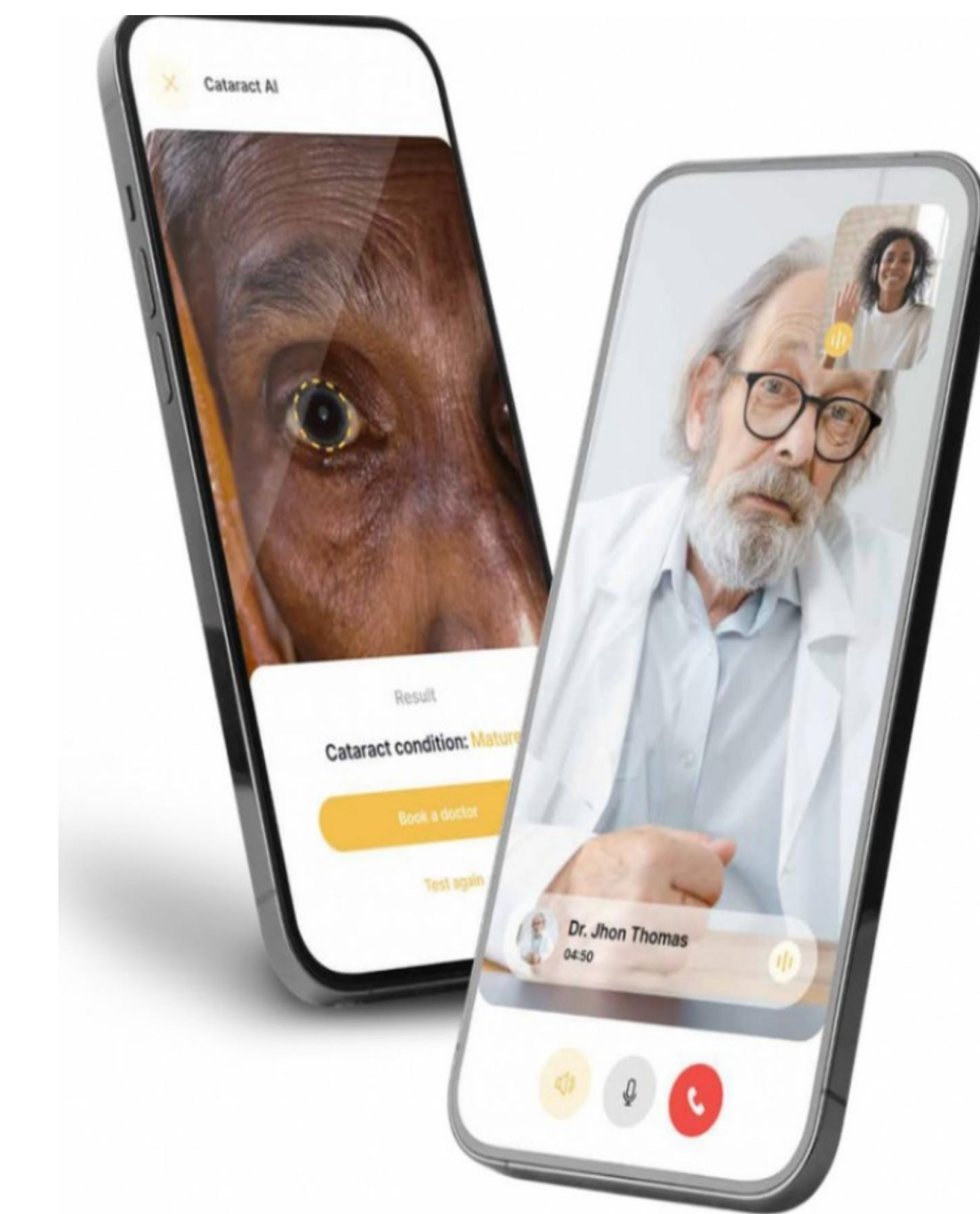
For Young Ophthalmologists:

Expands patient flow, 70% increase in early diagnosis, improves case mix, positions them at the center of AI-driven eye care

## Cataract Workflow for Preserved Vision



## Conclusion: "ALO" Cataract AI



"ALO" - CATARACT AI