

PRODUCT & TECHNOLOGY

❖ Pipeline 1: AI-powered Community Diagnostic System

Multi-Modal AI Diagnostic System

- Advanced deep learning architectures for ocular screening
- Image quality assessment across multiple imaging modalities
- Glaucoma detection via patented ROTA technology + fundus analysis
- Wet AMD & diabetic retinopathy/maculopathy detection
- Primary angle closure (PAC) & cataract detection
- Automatic referral decision for AI-detected critical diseases and conditions

Advanced ML Techniques: Self-supervised learning, multi-modal foundation model

Data Scale: 200,000+ multi-modal images for training across AS-OCT, PS-OCT, ROTA images, and fundus

Deployment Sites: General Outpatient Clinics and District Health Centres for community-based screening

❖ Pipeline 2: Intelligent Eye Health Monitoring and Management System

Knowledge-Enhanced AI Agent: Retrieval-Augmented Generation with ophthalmology knowledge base

24/7 Intelligent Support: Multi-stakeholder platform serving patients, family caregivers, and physicians

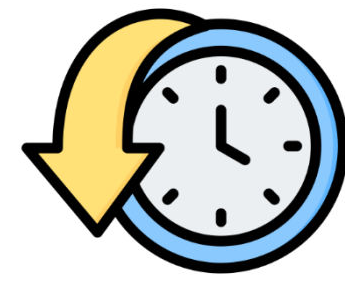
Intelligent Monitoring & Alerting

- Real-time health surveillance system
- Automated symptom tracking with visualization dashboards
- Medication adherence tracking with intelligent reminders
- Dynamic follow-up scheduling based on condition severity

Integration Backbone:

- Seamless connectivity across community screening sites, eye clinics, and home environments
- Real-time diagnostic reports with encrypted data flow
- Multi-device coordination across clinical and home settings

IMPACTS OF OUR SYSTEM



90%+ Reduction in SOPC Wait time
From 2 years → 4-8 weeks for diagnosis of leading causes of visual impairment and blindness



Superior Diagnostic Performance
AI-powered diagnostic system matches or exceeds ophthalmologist-level accuracy



Early Detection & Timely Intervention
Prevent irreversible vision loss through rapid diagnosis and referral pathway



Enable Real-time Monitoring

- Intelligent eye health analysis
 - Warning alerts
- Multi-stakeholder dashboards for patients, caregivers, and physicians

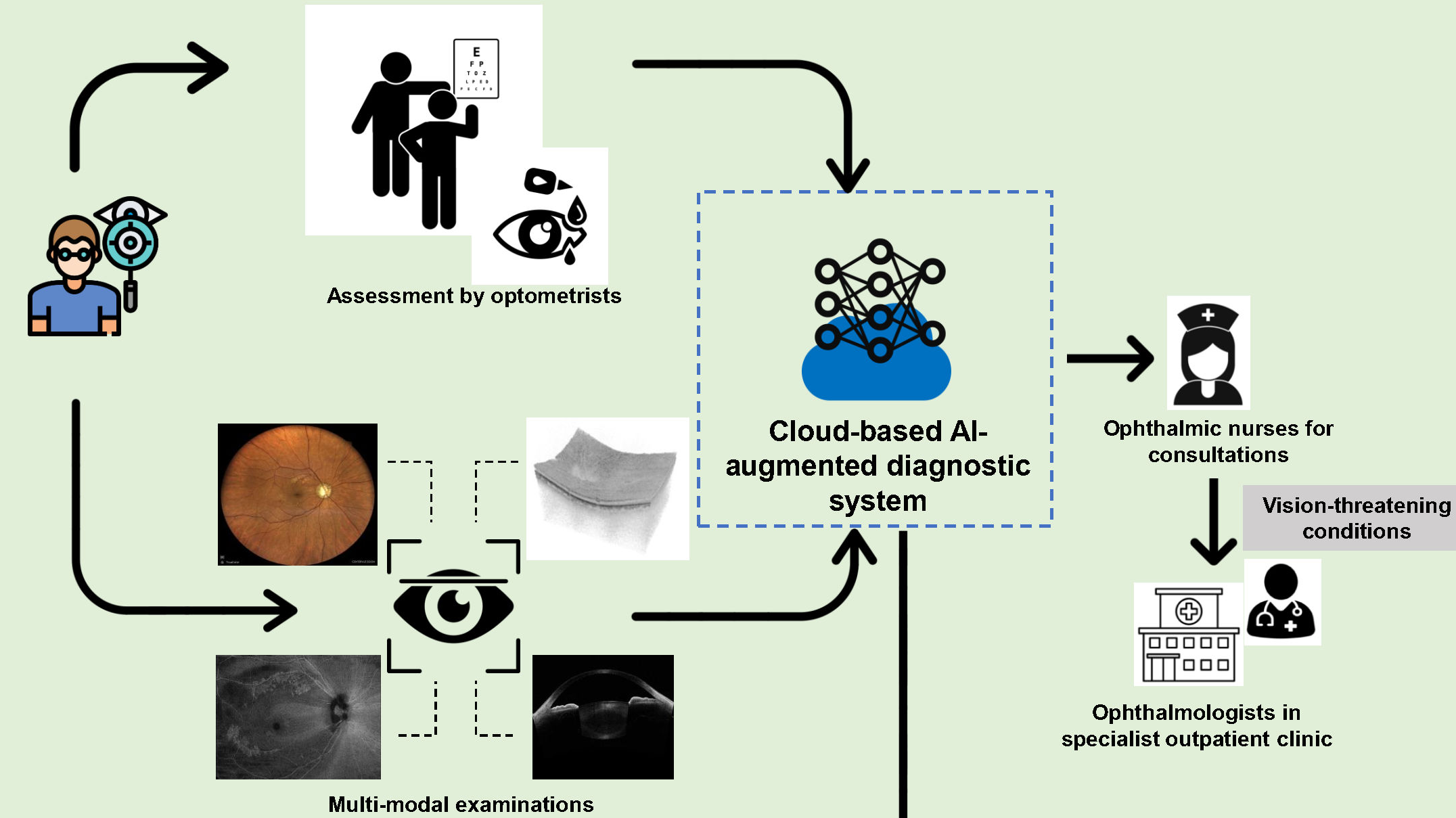


Cost Saving
Highly cost-effective while reducing blindness-related productivity loss, social welfare costs

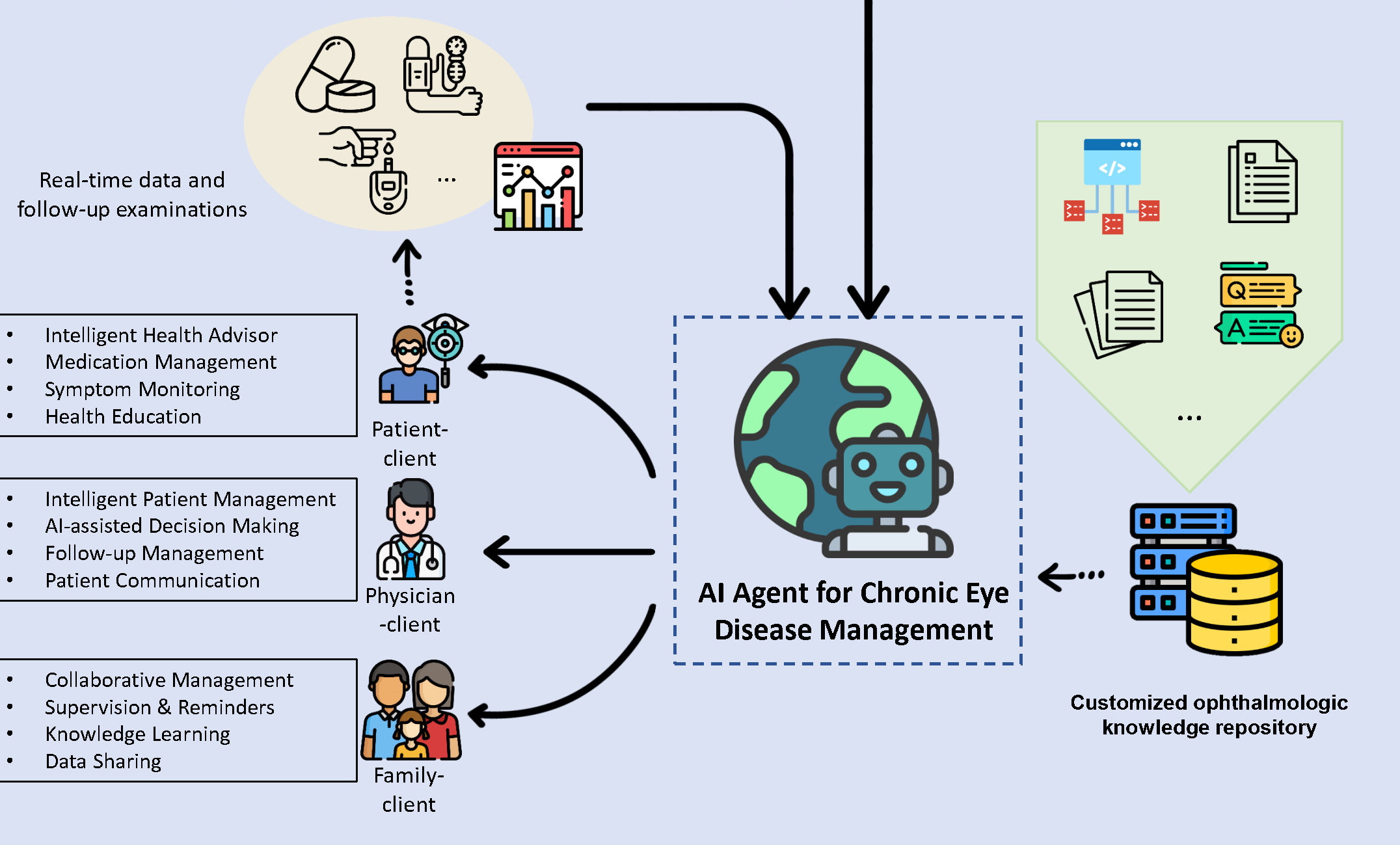


Improve Medication Compliance
Personalized AI reminders with technique guidance, side effect monitoring, and family supervision to maximize treatment adherence

Pipeline 1: AI-powered Community Diagnostic System for Detection of Eye Diseases



Pipeline 2: Intelligent System for Eye Health Monitoring and Management



STRENGTHS OF OUR TEAM

❖ World-Class Research and Clinical Foundation

- **High-Impact Publications:** Peer-reviewed studies in top-tier journals driving clinical adoption (Ophthalmology, Nature Biomedical Engineering)
- **HKU Ophthalmology-led, with HKD 39.8M UGC Strategic Topics Grant** (PI: Prof. Christopher Leung, Head & Professor) enabling R&D and deployment.
- **200,000+ Multi-Modal Image Dataset:** One of the largest ophthalmology AI development and validation dataset in Asia

❖ Proven Validation

- **4,000+ Patients Screened:** AI-powered glaucoma screening program at two District Health Centres (Kwun Tong, Tai Po) in partnership with Orbis

❖ Strong IP & Industry Partnerships

- Multiple US patents
- Co-development with Topcon Healthcare for Harmony platform integration

STAGE OF DEVELOPMENT

● Completed
 ● In Progress
 ● Planned

2025 Q1-Q2

- Population-based data collection
- Multi-modal foundation model development
- Disease models using preliminary data

2025 Q3-Q4

- Ophthalmology knowledge data base collection and clearing
- Customized professional LLM
- Collect large-scale clinical data

2026 Q1 - 2027 Q4

- Pragmatic clinical trial
- Optimize and update the system via continuous learning

MARKET & OPPORTUNITIES

Key Market Drivers

Aging Population
Hong Kong 65+ population at 23%, fastest aging metro in Asia

Rising Disease Burden
69.6% of visual impairment in 60+ caused by preventable conditions

Integration
GBA cross-border medical visits grew 61% (2018-2021)

Deployment Strategy

Phase 1: First Deployment (Q1 2026 – Q4 2027)

- Partnership with HA hospitals
- 20,000+ patient Pragmatic clinical trial
 - Generate Level I evidence
- CE marking and FDA 510(k) submissions

Phase 2: Hong Kong Territory-Wide Deployment (2028-2030)

- Scale across all HA clusters
- 150,000 annual patients at full deployment
- Establish as standard in Primary Healthcare Blueprint

Phase 3: GBA Integration and Global Scale (2030 onwards)

- Expand to GBA via HKU-SZ Hospital partnership, followed by Singapore, Japan, and South Korea
- Integration into Harmony platform (Topcon HealthCare) serving thousands of global providers

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