

Eye Care in the Patient-Centered Medical Home: Alma Illery eyeSuite

UPMC OPHTHALMOLOGY COMMUNITY OUTREACH &
REMOTE ACCESS PROGRAMMING (CORAP)



UPMC | VISION
INSTITUTE

PURPOSE

Like all CORAP initiatives, this project aims to meet patients where they are for vision services by providing comprehensive eye examinations in primary care settings with remote supervision by a comprehensive ophthalmologist.

The proposed eyeSuite at Alma Illery Health Center will act as a pilot for the fielded devices and for the workflows developed to sustain the eyeSuite. The data gathered and lessons learned from the eyeSuite will inform parallel CORAP initiatives.

WHAT IS THE EYESUITE?

The theoretical eyeSuite is essentially an exam room containing the ophthalmic devices necessary to **complete a comprehensive eye exam in a non-ophthalmic practice.**

Manned by CORAP’s ophthalmic tech, the devices in the eyeSuite are capable of capturing relevant images to be remotely reviewed by an off-site ophthalmologist, as needed.

	eyeSuite
Visual Acuity	✓
Refraction	✓
Slit lamp Imaging	✓
Tonometry	✓
Retinal Imaging	✓
Visual Fields	✓
Two-way communication	✓

WHY IS THE EYESUITE NECESSARY?

Screening

Patients with diabetes require an annual exam. The care gap at UPMC is currently more than 50%.

Creating the eyeSuite will allow underserved patients to be screened for diabetic retinopathy and other degenerative eye diseases without needing a referral. This will:

- Decrease cost of care for patient
- Decrease delays in care
- Decrease the cognitive burden of appointment creation and locating a new office
- Increase ease of access and ease of follow through

Monitoring

Patients with macular degeneration and glaucoma require diagnostic testing several times per year.

Currently this testing requires travel, & time spent in vision centers. The eyeSuite can eliminate those time and travel costs for patients and validate the efficacy of the remote access model for parallel projects.

Consultation

Eye complaints frequently present to primary care providers that refer them to UPMC vision centers. The eyeSuite pilot will provide evidence that tele-ophthalmology will:

- Decrease cost of care for UPMC
- Decrease unnecessary traffic to vision centers
- Improve quality and outcome of vision referrals
- Improve utilization of specialists so they are engaged at their highest level of training

WHY IS THE EYESUITE NECESSARY?



UPMC is not the first entity to pursue tele-ophthalmology in non-ophthalmic facilities. CORAP believes that **underserved patients should have the option to receive remote vision services at health centers and adjacent locations, not the department stores now piloting similar programs.**

WHY ALMA ILLERY?

Alma Illery Medical Center is a **community-based health center offering comprehensive primary and preventive healthcare services.** Their services include medical care, specialty care, podiatry, pediatric care, dental services, pharmacy, **telemedicine**, and behavioral health.



WHY ALMA ILLERY?

PATIENT DEMOGRAPHICS

CORAP is tasked with closing care gaps for underserved populations, namely the elderly and our racially diverse, low-income neighbors. **Alma Illery directly serves these populations** in a target neighborhood, aligning it as a geographical soulmate for the eyeSuite project.

WHY ALMA ILLERY?

NOT “IN-NETWORK”

As an FQHC operating under Primary Health Services, Inc., Alma Illery is technically not in the UPMC network though CORAP partners with them for the COS Missions and adjacent initiatives.

This may seem like a deterrent at first but in truth, **Alma Illery’s independence from UPMC device protocols allows CORAP to field devices without engaging in the cumbersome VAT and EA approval processes** that would otherwise delay the project for months.

As a case study for the eyeSuite, Alma Illery will act as a pilot that CORAP can refer to when attempting to embed devices at UPMC locations.

WHY ALMA ILLERY?

EAGERNESS

Alma Illery's leadership is eager to pursue and implement this project.

Since it's inception 6 months ago, CORAP has had difficulty establishing partnerships with facilities that cater to target populations.

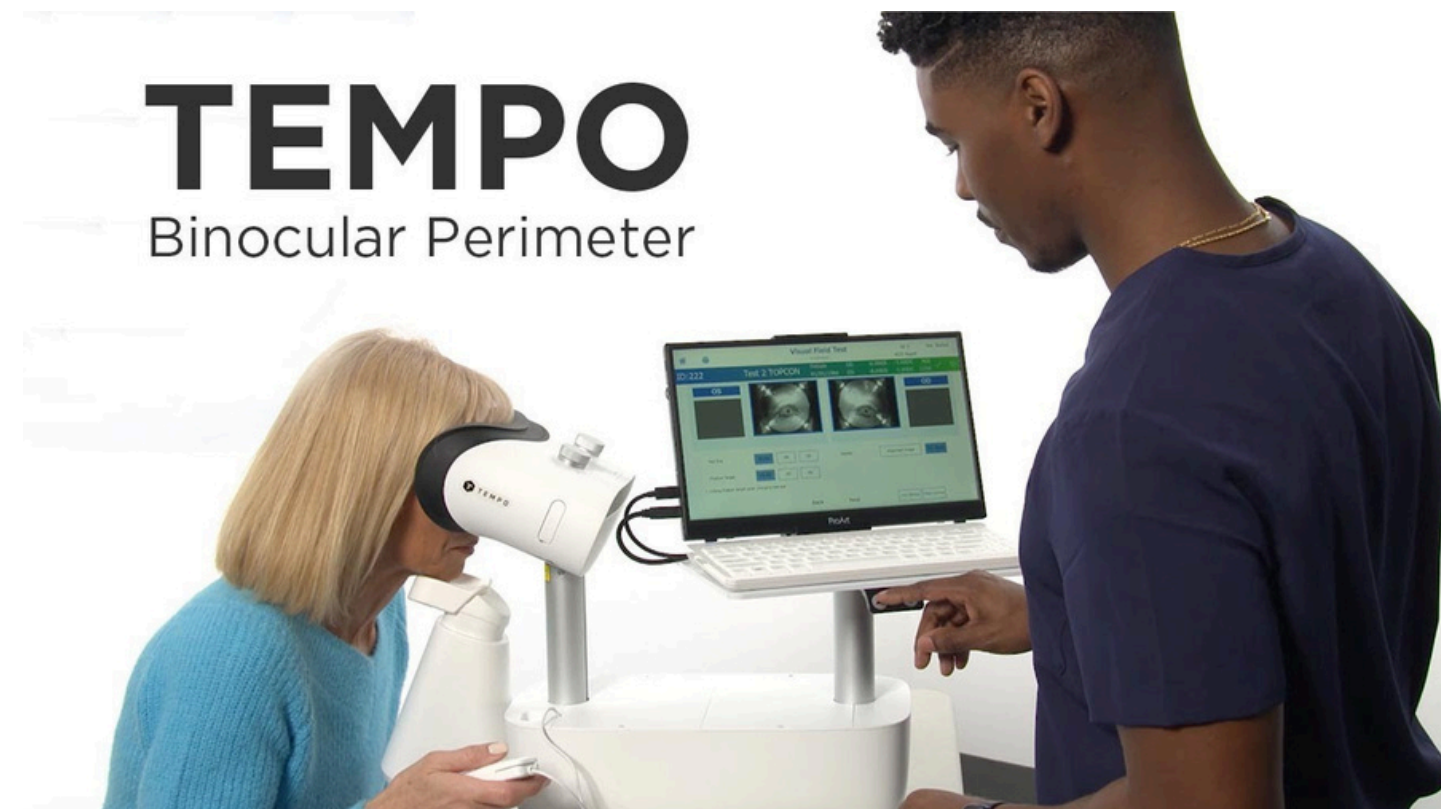
Alma Illery is a unicorn site that not only has the space to accommodate the eyeSuite and the patient demographics to support CORAP's research goals; they have rare, **enthusiastic buy-in** from executive stakeholders, on-site administrators and staff.

WHAT COMPRISES THE EYESUITE?

Remote ophthalmic care requires special equipment. Industry partner **TopCon** has offered a **starter quote** to fill the eyeSuite with top-of-the line devices.

DESCRIPTION	QTY	PART	LIST PRICE	DISC (\$)	EXTENDED
MAESTRO2 ROBOTIC OCT AND FUNDUS CAMERA; INCLUDES (1) CAPTURE (2) FLOATING IMAGENET6 LICENSES AND ALL IN ONE COMPUTER	1	102449804KUS	USD 62,990.00	USD 17,990.00	USD 45,000.00
TRAINING PROVIDED BY TOPCON CLINICAL APPLICATION SPECIALIST	1	TRAINING-CAS	USD 1,500.00	USD 1,500.00	USD 0.00
CHRONOS AUTOMATED BINOCULAR REFRACTION SYSTEM W/ SIGHTPILOT	1	1037591K1	USD 74,990.00	USD 22,000.00	USD 52,990.00
TRAINING PROVIDED BY TOPCON CLINICAL APPLICATION SPECIALIST	1	TRAINING-CAS	USD 1,500.00	USD 1,500.00	USD 0.00
Tempo Binocular Visual Field Perimeter	1	TEMPO6	USD 40,000.00	USD 21,500.00	USD 18,500.00
SOLOS AUTOMATIC LENS ANALYZER WITH SPECTROMETER	1	42-0001417	USD 11,990.00	USD 3,500.00	USD 8,490.00
SUBTOTAL*:					USD 124,980.00

WHAT COMPRISES THE EYESUITE?



Proposed for eyeSuite: Topcon Tempo

VISUAL FIELDS

Perimeters measure peripheral visual fields for conditions including glaucoma, medication monitoring and stroke.

The current perimeters in use through the system are large, expensive and require extended testing time. TopCon's alternative gets results in moments, at the click of a button.

WHAT COMPRISES THE EYESUITE?

REFRACTION

Our current technology requires a physician or highly trained technician and occupies much of the space in an eye exam room.

The Chronos nestles neatly into any exam space and can be easily operated by the average technician.



Proposed for eyeSuite: Topcon Chronos

WHAT COMPRISES THE EYESUITE?



Approved: Mobile Clinics / ED
Topcon Maestro2 Camera + OCT

RETINAL IMAGING

Retinal imaging allows visualization of the optic nerve and retina. It is essential for all facets of the remote access initiative. TopCon's devices generate imaging and reports with minimal operator intervention.



Trial in Progress: Topcon NW-400
McKeesport & GIMO-Montefiore
[Workflow hindered 6-8 weeks by EA approval processes]

WHAT COMPRISES THE EYESUITE?

CORAP is also proposing a trial of Topcon **Harmony** as a platform for synchronous communication and image storage. The eyeSuite is a unique opportunity to trial the software in a tele-ophthalmology environment.

Subscriptions

Product	Quantity	Monthly Fee	Total Subscription Fees
Harmony One	1	USD 299.00	USD 3,588.00

Total Subscription Fees: USD 3,588.00

One-Time Fees

Product	Quantity	Unit One-Time Fee	Net One-Time Fees
Installation per site	1	USD 4,000.00	USD 4,000.00

Total One Time Fees: USD 4,000.00

Installation includes the following:

- Site installation & configuration
- Cloud environment connectivity
- Harmony CSG, import connector hardware (each site)
- End-User Clinical Training
- Interface: DICOM-MWL/LDAP
- Interface: EMR HL7; EMR WebLink
- Interface: Unlimited ophthalmic instrument integrations
- Unlimited Harmony hotfixes, new features and releases (version 5.x)

QUESTIONS? CONCERNS?

The unique problems presented by implementing tele-ophthalmology services require unique solutions that often involve working outside of existing protocols that don't yet accommodate the rapidly evolving tele-health sector, partnering in new and exciting ways with key stakeholders in and outside of the UPMC network, and overall “making it work.”

We sincerely hope Alma Illery will be considered as the pilot site for the eyeSuite to meet CORAP's target populations where they are and to collect the data / experience necessary to rapidly scale the UPMC Ophthalmology Remote Access Initiatives.