KALINGA EYE HOSPITAL EYE CAMPS
RURAL OUTREACH PROGRAM:
A JOURNEY FROM SCREENING TO SURGERY

CASE STUDY: 23-25 DECEMBER 2018
GOTAMANA AND BUDHAPANKA VILLAGES
ODISHA PROVINCE, INDIA

Marsha Gershon, RN, MPH
Unite for Sight Global Impact Fellowship Volunteer
For the first seven years of her life, Bharati was one of 18 million people in the developing world currently estimated to be living with preventable blindness. She was born with cataracts, able to make out only vague areas of light and dark.

She was finally able to see for the first time after an operation at Kalinga Eye Hospital to remove the cataract.
Swarup Samal, 7yrs old, was suffering from poor visual acuity which had become the obstacle in his education as he was loosing his vision day by day. He consulted with a few ophthalmologists but nothing resulted in his favour, so he stopped his schooling and learned to live with disability. Swarup was provided with a pair of spectacles free of cost (after proper procedures for children) at Kalinga Eye Hospital through the school screening program. Now he could see and his parents regretted the delay, nevertheless they were very happy, as he has again started going to school.

Sunil Kumar, Kalinga Eye Hospital
Kudani Majhi’s (age 50) falling vision made her dependent on her family, but a diagnosis of cataract at the community eye screening camp of Kalinga Eye Hospital and the operation at the base hospital made it possible for her to be independent and contribute again to the family income through farming beetle leaves and goats.

I can work, socialize, and earn a living

Sunil Kumar, Kalinga Eye Hospital
A livelihood under threat from Cataract

“Before I was blind… I farmed. Now I have to depend on my nephew for food”

Sudhakar Mohanty, 57yr old resident of Baldiabandha Sahi of Suleipala, of the Rengali block of Angul, Odisha Province

Sunil Kumar, Kalinga Eye Hospital
Mamuni Nayak, 7 month baby was suffering from bilateral congenital cataract from birth and was almost blind. She was referred to our center by an Anganwadi worker and was operated for cataract with IOL implantation (at no cost). We were able to save her sight and her life.

Blind children have a higher death rate than their sighted counterparts- 60% die within a year of becoming blind and early onset of blindness/diminished vision adversely affects psychomotor, emotional and social development.
Objective of the Eye Camp Outreach Program:

To provide high-quality vision screening and surgical treatment for free to poor and disadvantaged children and adults living in rural areas of Odisha province, who have financial, transportation, educational, and other barriers to accessing needed eye care.
Funding for the Eye Camps:

The Eye Camp rural outreach program costs approximately **$10 per patient** in total – this includes transportation to/from KEH, meals and lodging, lab work, pre-op and post-op prep and health education by the trained paramedic staff, surgery performed by a skilled practitioner, pre-op and post-op appointments with the surgeon, and prescription eye drops and ointment.

Some Eye Camps take in over **100 patients** at a time.

Kalinga Eye Hospital partners with a number of local, international, and state (local government) organizations including Unite for Sight in order to continue funding the Eye Camp program.

The hospital also relies on income from paying **patients** for sustainable funding, who constitute less than 10% of all patients annually (5.9% in 2017).
The mobile eye clinic van takes trained KEH optometry technicians (paramedic staff) to partnering villages in Odisha province to set up a mobile eye care and screening station for walk-in patients from the local village.

Paramedics are young unmarried women recruited from local rural villages, trained and given employment by KEH which benefits them and their families economically, and live in the hospital dormitory; thereby patients also have 24-hour access to medical staff.

Paramedics and driver getting ready to depart KEH for Eye Camp outreach in the morning (23 Dec 2018)
The **Eye Camp location, time, and date** are announced ahead of time and advertised in local bulletins as managed by the local village camp director, so village residents know where to go for screening; village residents help to spread this info to the community by word of mouth also.

**Eye Camp village directors** are local community partners of KEH, and also oversee the security and maintenance of the designated Eye Camp facilities including when they are not in use.

Paramedics posing with the Eye Camp banner they’ve hung outside the site to inform patients camp is open (23 Dec 2018)
Candidates for next-day eye surgery are identified by paramedics and asked to accompany staff back to KEH in the clinic van; patients have an opportunity to return home first to retrieve any needed belongings.

Walk-in patients are triaged and examined onsite by KEH trained paramedic staff; health history and patient information is documented in the outpatient logbook and individual files to provide to the surgical team.

Patients are tested for visual acuity and screened for common health conditions including infection, strabismus, cataract, intraocular pressure (IOP), and high blood sugar via urine test strips.

Some patients come only for screening and diagnosis or to ask questions about their current treatments; some choose not to come to KEH or are unable to come that day, and may wait for the next scheduled Eye Camp event to have their surgery.
Paramedics set up an aseptic (clean) field and perform **basic procedures** at the Eye Camp outreach site, such as administering eye drops and performing probing and irrigation of the lacrimal duct, and begin **prepping candidates for surgery** including administering pre-operative anesthesia.

The **medical kit bag** that paramedics bring with them to each Eye Camp site includes: eye drops, sterile individually wrapped one-use syringes, saline solution, manual intraocular pressure (IOP) measuring instrument, rubbing alcohol, cotton balls and Q-tips, and a urine glucose testing strip kit for use with known or suspected diabetic patients.
Eye Camp patients identified for surgery (primarily consisting of cataract cases) accompany paramedics back to the hospital in the mobile clinic van, thereby receiving free transportation to/from KEH.

Paramedics put tape above the affected eye as an extra safeguard to inform the surgeon what eye needs the operation.

Between two Eye Camps in different villages on the same day, 20+ patients were screened and 8 were identified as surgery candidates and brought back to KEH.

Mobile clinic van driver helping Eye Camp patients inside for a two-hour drive to KEH (23 Dec 2018).
Patients have a group picture and individual pictures taken by the paramedic staff for documentation in their outpatient medical records.

Many patients return to KEH via Eye Camps for an operation on the other eye as needed; per the report of several patients in this group, they believe KEH to be a high-quality eye care facility.
Patients stay **overnight** for free in the hospital dorm room before the day of their surgery, and again on the evening after surgery for a total of two nights.

The dorm has **24 beds** and is mixed-gender.

Per the statement of one patient among this group, the opportunity to **spend time** with the other patients from their own village and nearby villages is very nice.

Some patients bring a family member with them for support, and the guests are likewise accommodated at KEH also.

Patients are given hearty breakfast, lunch, and dinner **meals for free** throughout their stay at KEH; paramedic staff also eat the same food as the patients, and often sit together with them in the cafeteria during mealtimes.
Paramedics prep patients for next-day surgery in the **Operating Theatre (OT)** including administering local anesthesia, and also assist the surgeon in the OT. The operations are performed by a **skilled eye surgeon** affiliated with KEH, who also meets with each patient prior to the surgery to confirm the correct diagnosis.
Inside the Operating Theatre (OT), upbeat and pleasant **classical Indian music** is played during surgery to help patients feel more comfortable.

Most cataract surgeries take just **10 minutes or less** to complete per patient, minus the pre-op preparation time.

All Eye Camp group surgeries are performed **back-to-back** on the same day, then patients are returned to the dorm room for **recovery** and dinner.
On the morning after surgery before patients are transported back to their home villages, the discharge process includes taking post-op group and individual photos.

Patients are given a discharge paper with instructions to return to KEH for free follow-up with the surgeon in 7 days or 30 days; patients must acquire their own transportation to/from follow-up appointments but staff reports that most patients do return as instructed.

** The discharge process documentation and photographs are from the 27-29 Dec. Eye Camp patient group.
During discharge, paramedics **examine patients** for any post-op complications.

Paramedics test patients’ new **visual acuity** in the operated eye and add this information to the outpatient record.

Patients receive **eye drops and prescription eye ointment** to take home with them as needed.

Paramedic staff **educate** patients in the proper administration of the eyedrops and ointment, and answer any of the patients’ questions.

**The discharge process documentation and photographs are from the 27-29 Dec. Eye Camp patient group.**
Paramedics instruct the patients in the proper use of the plastic **dark glasses** they are given to wear home, which help protect their eyes following surgery.

Paramedics review patient **laboratory testing results** and include relevant follow-up instructions during discharge regarding any pertinent lab findings.

**The discharge process documentation and photographs are from the 27-29 Dec. Eye Camp patient group.**
On the morning after surgery following discharge and breakfast, patients receive free transportation back to their local villages in the eye clinic van.

The total turn-around time is two days from eye camp intake screening to post-op discharge.
Paramedics accompany discharged patients in the van along with all supplies needed for use at the next Eye Camp sites.

After dropping off all the patients, the van driver takes the paramedic groups to the next scheduled Eye Camp outreach screening site in a different rural village.

The banner is put up and the building is opened, new patients arrive, and a new Eye Camp cycle begins again!

Paramedic screening new patients at the next Eye Camp outreach site (25 Dec 2018)
Case Study Interview with 23-25 Dec 2018 Eye Camp Patient: Alekha B.

**Age:** 55 | **Gender:** M | **Dx:** L eye cataract  
**Occupation:** rice and vegetable farmer  
**Marital status:** married with one son

The patient reports he has had this problem for about 5 years, reports having blurred and difficult vision

He reports that he did not get treatment sooner because of financial barriers, and not knowing where/when the Eye Camp was; he has been trying to go for the last 5 months and called the hospital for info, and finally his friend told him where to go yesterday

He states that his R eye was operated on 6 months ago at KEH

He states the eye problem has made it harder for him to work, and believes the surgery will improve this

He feels good about being here, seems in good spirits, and thinks KEH is a good hospital; he received the same surgery at KEH 6 months ago for R eye

He says he would recommend KEH to his family or friends and for them to seek treatment if they had the same condition
Case Study Interview with 23-25 Dec 2018 Eye Camp Patient: Kamini B.

**Age:** 70  |  **Gender:** F  |  **Dx:** R eye cataract  
**Occupation:** homemaker  
**Marital status:** married with one son

The patient reports she has had this problem for about one year, reports having blurred and difficult vision.

She reports she did not get treatment sooner because of financial barriers as she paid for her previous surgery on the L eye 5 months ago which was at a different hospital, so she was waiting for the Eye Camp to arrive and finally her son told her to go to the camp yesterday.

She states the eye problem has not made it harder for her to work in the home, but thinks that her quality of life will be better after the surgery.

Se feels good about being here, seems in good spirits, and thinks KEH is a good hospital and better than other eye hospitals in the area that she is familiar with.

She says he would recommend KEH to her family or friends and would recommend for them to seek treatment if they had the same condition.
Case Study Interview with 23-25 Dec 2018 Eye Camp Patient: Kabi S.

Age: 75+ | Gender: M | Dx: L eye foreign body for removal
Occupation: farmer (retired for 2 years)
Marital status: married with two children and 4 grandchildren

The patient reports he has had this problem for about 8 months, and had previous treatment at two other hospitals.

He reports not getting treatment sooner as he was waiting for the next Eye Camp to come to his village, which he found out about through a leaflet disseminated by the local camp manager.

The patient is completely blind in his R eye so he can only see out of the L eye; he brought his wife with him to KEH to help him due to his low vision.

He states he stopped working in part due to his eye problems but does not plan to return to work after surgery due to advanced age, however he believes the surgery will improve his quality of life.

He feels good about being here, seems in good spirits and says he has enjoyed meeting the other patients, and thinks KEH is a good hospital including as compared with other hospitals.

He says he would recommend KEH to his family or friends and for them to seek treatment if they had the same condition.