



Miller Center
for Social Entrepreneurship



SANKARA EYE FOUNDATION

Compassionate Efficiency: A Study of Sankara Eye Foundation India's Gift of Vision Program

Maggie Dennis
November 6, 2015



Santa Clara University

www.scu.edu/MillerCenter

A photograph of two women sitting on the floor, facing away from the camera towards an eye chart. The woman on the left is wearing a purple and white striped sari, and the woman on the right is wearing a teal sari. The eye chart is mounted on a wall and contains several rows of letters and numbers. The text "Compassionate Efficiency: A Study of Sankara Eye Foundation India's Gift of Vision Program" is overlaid on the image in white.

Compassionate Efficiency:

A Study of Sankara Eye Foundation India's Gift of Vision Program

Maggie Dennis
Global Social Benefit Fellowship
Santa Clara University

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

www.scu.edu/millercenter

Table of Contents

Introduction.....	4
A Day at a Screening Camp.....	4
The Need.....	5
The Patient Treatment Strategy.....	7
The Beneficiaries: Two Patient Case Studies.....	11
Maximizing Impact.....	13
A Journey Through Treatment	16
The Quantitative Analysis of Social Impact.....	17
Next Steps.....	25
Appendix A: About this Study.....	26
Appendix B: Methodology and Limitations.....	26
Appendix C: Case Study Question Guide.....	28
Appendix D: Patient Survey Guide.....	29
Works Cited.....	35

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Introduction

The prevalence of curable blindness in India is among the highest in the world. There is a strong correlation between blindness and poverty. Sankara Eye Foundation India addresses this problem by providing high quality and affordable eye care to the rural poor in India. Sankara's outreach strategy focuses on equitable care for marginalized groups. Though Sankara seeks to make eye care a reality for all, the emphasis on equality is especially evident in its treatment of women. In the past year, women have been Sankara's largest group of adult beneficiaries. Founded in 1977 by Dr. R.V Ramani and Dr. Radha Ramani, Sankara has expanded to 13 eye hospitals covering 7 states. Through its community outreach program, Gift of Vision, Sankara has performed over 1 million sight-restoring cataract surgeries and has become one of the major eye care providers in India.

The Gift of Vision program operates by integrating with a community, capitalizing on preexisting community networks and a highly efficient patient care system. This report focuses on the importance of community networks in the outreach process and the impact of cataract surgery on patients' lives. It includes a detailed outline of the patient treatment process, two patient case studies and quantitative analysis of Gift of Vision's social impact.

A Day at a Screening Camp

Sunday mornings in Mangalore are a quiet affair. Though it is only 9:00 am, the temperature in this rural village in South India is already quite hot. People lounge in chairs outside of their houses, children lug buckets of water down the street and a few men lazily cruise down the dirt road on bikes. Sankara Eye Foundation India's eye screening camp has not started yet, but there is already a crowd of people waiting outside of the local school where the camp will be held. People stand in the yard and sit

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

under the building's awning, milling about and chatting with their friends. As the Sankara "Vision of Wheels" bus pulls up, the scene becomes more lively. Sankara trained nurses jump out of the van and get right to work, pulling suitcases of supplies out of the trunk and dragging them into the school to start setting up the eye screening stations. The camp organizer, a Sankara worker in charge of making sure the camp runs smoothly, starts yelling in Tamil, organizing villagers into a line as the nurses finish preparing each station. At around 9:15, the first person begins the registration process. Within minutes, the school has become a bustling center of activity; every screening station is full and patients jostle for a spot closer to the front of the line, nurses efficiently record patient information and test visual acuity while the camp organizer simultaneously signs paper work and maintains order.



Photo 1: Patients waiting for eye camp to begin in Mangalore

Prepared by:



With several eye camps running every weekend, this scene has become routine for many Sankara employees. However, to an outside observer, the ability to turn a school in a rural village into an efficiently run cataract screening center in 15 minutes is an impressive feat.

In reality, this process started weeks ago. First, the Sankara outreach team partnered with a person or group in the rural community known as the “local camp sponsor.” These sponsors may be individuals or local community service groups such as a Rotary or Lions Club. The local sponsor’s primary responsibility is to publicize the camp and persuade villagers to attend. They can do this in a variety of different ways, including talking to people directly, using word of mouth or placing an advertisement in a community newspaper. Members of the Sankara outreach team also send trained field workers into the villages to conduct door-to-door eye screenings. This serves the dual purpose of educating people about eye care options and identifying people with possible cataracts. Though these field workers play a major role in patient recruitment, maintaining a good relationship with the local sponsor is the most effective way to ensure that the camps are well attended because sponsors are able to use their high social capital within communities to encourage camp attendance.

The Need

The unmet need for eye care is enormous. According to the World Health Organization, there are 324 million people worldwide who are visually impaired or blind. Vision impairment and poverty are closely linked; 90% of the world’s visually impaired population lives in developing countries. (“Vision 2020” 2). People living in poverty are less likely to receive adequate nutrition, water and sanitation, making them more susceptible to eye conditions. Deterioration of eyesight can impair one’s ability to complete everyday tasks, maintain a job and support a family. Because of this, blindness perpetuates the health/poverty trap for many people in the developing world.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Though 80% of blindness is treatable, lack of access to care in low income or rural areas has made treatment unattainable for many. Some areas have government hospitals, however they are often unclean and crowded and the long wait times make the opportunity cost of care too steep for most patients. Private hospitals typically require the patient to travel and the poor cannot pay the high prices for treatment. This has resulted in a large population who has never received treatment for curable eye conditions (“Global Data on Visual Impairments” 2).

India is home to the largest population of blind people in the world, with 63 million visually impaired and an additional 8-12 million who are blind. Cataracts account for 54% of the blindness in India and can be treated with a relatively simple surgery (“Vision 2020” 3). Sankara Eye Foundation India, based in Coimbatore, India, seeks to eradicate curable blindness by providing high quality, affordable and accessible eye care to the rural poor. Since its founding in 1977, Sankara has expanded to 14 super specialty “base” eye hospitals in 10 states and has developed several outreach programs to provide eye care to multiple sectors of the Indian population.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University



Photo 2: An eye doctor confirms a cataract diagnosis at a screening camp in Mangalore

The Gift of Vision free cataract surgery program is Sankara's largest and most successful outreach endeavor. The program's mission is to reach rural communities and provide timely interventions in order to prevent and cure blindness. Since its creation, Gift of Vision has performed over 1,155,532 free surgeries ("Sankara Annual Report" 23). Screening camps are conducted within 300km of 8 Sankara base hospitals. Sankara works with local community leaders to publicize and set up eye camps. An outreach team of Sankara field workers, doctors and nurses attend camps and screen patients on site for cataracts and other vision problems. Patients requiring treatment are transported back to the base hospital where they receive food, lodging and transportation back to their village in addition to surgery free of charge. One month after surgery, a follow-up camp is held in the village to assess patients' postoperative status. The Gift of Vision program generates sustainable social impact by utilizing existing community networks to connect the rural poor to life changing eye care treatment.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

The Patient Treatment Strategy

Screening Camp

Screening camps are the most practical way to reach patients in rural areas and have become one of the hallmarks of the Gift of Vision program. Cataracts are the cause of roughly 5 million cases of blindness in India. This enormous need necessitates a treatment system that is both innovative and efficient. Sankara's outreach camp method removes many of the barriers patients often face when trying to access care. First, the camps are conducted directly in a community, which minimizes the time and money patients need to spend on travel. Second, camps are fast, reducing the opportunity cost of attending for patients. Third, camp screening involves assessing aspects of overall patient health, enabling Sankara to identify patients who are not fit for surgery while still in the community. This saves both time for the patient and saves the Sankara resources which would have been used had these tests taken place at the hospital. Finally, outreach camps rely heavily on community involvement, allowing Sankara to connect and integrate with local communities. The co-dependence that has developed between Sankara and the communities it serves makes this outreach system sustainable.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University



Photo 3: patients wait for screening to begin at the Vikravandi camp

After each camp, Sankara examines a set of key performance indicators such as the number of patients screened, the number of patients recommended for surgery and the number of patients taken to the base hospital for surgery. This analysis ensures that the Gift of Vision program both meets targets, such as keeping to a minimum the number of patients who reject surgery and identifies problem areas so that they are addressed as soon as possible. The eye camp process is one of the most unique aspects of the Sankara outreach model. Despite chaotic surroundings, the eye camps are highly efficient and function very smoothly. This efficient mindset is reflected in other aspects of the patient care process and the emphasis on productivity continues once patients get to the base hospital.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

www.scu.edu/millercenter



Photo 4: A line forms at the visual acuity testing station at the Mangalore field camp

At the Hospital

Since most camps are hours away, patients usually arrive at the hospital between 9 and 11 at night. As soon as they arrive patients are registered, turn in their shoes to maintain cleanliness in the hospital and receive an overview of the treatment process they will be going through over the next few days. Before receiving surgery, patients go through more extensive eye testing to confirm their diagnosis and additional health assessments to make sure they are healthy enough for surgery. The hospital is run similarly to the camps. Efficiency is a top priority and treatment is set up to maximize the number of patients served per day. Starting in the waiting area patients are seated according to whether or not they are receiving surgery on the right eye or the left eye. Since cataract surgery is performed using local anesthetic, patient turn over is

Prepared by:



fast. The operating room holds ten operating tables and is staffed with 5 surgeons and several nurses. Nurses prepare patients, setting them up a table while the doctor is finishing surgery on a nearby patient. This way, all the doctor has to do to continue working is switch gloves and turn to the other operating table. The day after surgery, nurses remove the initial dressing and clean the patient's eye and the doctor checks the surgical sight one more time. Before leaving, patients receive care instructions, eye drops and a pair of sunglasses. Since there are hundreds of patients from different camps at the hospital at a time, patients move through treatment in groups. The length of a group's stay at the hospital is dependent on how many people are in the group. Most spend about 3 days at the base hospital while waiting for all group members to receive surgery.



Photo 4: Hundreds of patients from several different camps are at the Coimbatore base hospital at a time. Here, patients await surgery in the non-paying patient ward.

Prepared by:

Post Surgery

One month after surgery, Sankara conducts a follow up camp in the village. The camp includes a visual acuity test and a final check in with an eye doctor. In order to allow their eyes to heal properly, patients are instructed not to work until they are cleared at this one-month follow up. On average, 80% of patients who receive surgery attend the follow up camp.

The Beneficiaries: Two Patient Stories

Case 1: Thangavel



Photo 5: Case study subject, Thangavel, at the base hospital

Before Surgery:

Prepared by:



Thangavel lived with his wife in the Vikravandi village. He worked for a local farmer and earned a monthly wage. His vision became completely obscured, making it difficult for him to walk without support and complete daily tasks. His eyesight became so poor it caused him to fall, fracturing his leg, in April 2015. Though work had already become difficult because of his deteriorating eyesight, the leg injury forced him to stop working entirely. Thangavel and his wife were renting their house. This additional monthly rent expense exacerbated the effect of Thangavel's income loss on the family.

Screening and Surgery:

Thangavel attended a screening camp in Vikravandi on June 27th, 2015, where he was diagnosed with age related cataracts in both eyes and a cornea problem. On July 6th, he arrived at the Coimbatore base hospital and received surgery on the July 7th.

After Surgery:

When interviewed at the Vikravandi review camp on July 25th, Thangavel was happy and hopeful about his future. Though he had not yet resumed work, he was very excited at the prospect of returning to his job after being cleared by the camp doctor. Thangavel feels he will be better able to contribute to his household. His ultimate goal is to buy a house.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Case 2: Meenatchi



Photo 6: Case study subject, Meenatchi, at the base hospital

Before Surgery:

Meenatchi lives with her husband in Kappyamulyur, a village close to Vikravandi. She worked for a daily wage cleaning riverbeds, however she had to stop working because of her eyesight. Meenatchi's husband suffers from severe asthma, which prevents him from working, so the loss of Meenatchi's job meant that the family was receiving no income. The couple began to receive 1,000 rupees per month from the government but it was not enough to support them. The two moved in with their daughter, who cared for and supported them both for several months.

Screening and Surgery:

At the Vikravandi screening camp on June 27th, 2015, Meenatchi was diagnosed with advanced stage cataracts in both eyes. She received surgery at the Coimbatore base hospital on the July 7th.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

After Surgery:

At the Vikravandi review camp on July 25th, Meenatchi was interviewed again. Since receiving cataract surgery, Meenatchi has been able to return to work and has become self sufficient enough to move back into her own house. She is very happy that she is able to support herself and her husband.

Maximizing Impact

The Gift of Vision program is impressive because of its scale. Sankara's ability to mobilize resources and remain organized in chaotic conditions is evident when looking at camp statistics. Photo 7 shows a standard "camp details" form, which is completed for each outreach camp. At the Mangalore field camp in June, 177 patients were screened. Of these, 145 were recommended for surgery. After surgery was recommended by the camp doctor, 17 patients were deemed unfit for surgery for other health reasons and 5 patients did not accept surgery. In total, 123 patients were transported to the Sankara base hospital the same day as the camp. The top of the camp details form displays the camp number, 8,898, indicating that Sankara has conducted nearly 9,000 of these screening camps.

Prepared by:




Global Social
Benefit Fellowship



Santa Clara
University

CAMP NO 8898-


SANKARA EYE CENTRE
 Coimbatore - 641 035.
 Phone : 2666450

CAMP DETAILS

DL. GRAPR

CAMP DATE : 28/06/2015

CAMP VENUE : PANCHAYATH UNION PRIMARY SCHOOL MANGALORE

TOTAL OUTPATIENT SEEN 177

Male : 74
 Female : 100
 Child : 03, M-2, F-01

TOTAL PATIENTS ADVISED FOR SURGERY 145

Male : 62
 Female : 83
 Child : —

TOTAL PATIENTS UNFIT FOR SURGERY 17

M-3 F-2
 TOTAL PATIENTS NOT WILLING FOR SURGERY 05

TOTAL PATIENTS TAKEN TO BASE HOSPITAL FOR SURGERY 123

Male : 49
 Female : 74
 Child : —

28/06 05/07
68

Signature _____ Doctor Signature _____

Photo 7: Camp detail sheet from the Mangalore camp

Screening close to 200 new patients, many of them illiterate or semi-literate, in one day in a new place that is not a clinic requires a finely tuned system. Once they arrive at the eye screening camp, patients go through the camp via six main stations.

One: Registration. Nurses record patient information.

Two: Vision Testing. Nurses test patient eyesight and visual acuity using vision charts and other refractive tests.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Three: Eye Doctor. Patients see the ophthalmologist, who gives a preliminary diagnosis. Patients who have cataracts are referred for surgery. Patients with other eye conditions may still be referred to the base hospital to receive treatment.

Four: Lab. At this station, blood sugar is tested. Patients with high blood sugar may be rejected from surgery because high blood sugar could be a symptom of diabetes.

Five: General Fitness. Patient blood pressure and heart rate are measured. Patients with high blood pressure levels are rejected for surgery and told to come back at a later date.

Six: Surgical Counseling. Patients visit the counseling station where they receive more detailed information about the surgical process, have the opportunity to ask questions and sign consent forms. Patients who are selected for surgery receive lunch and wait for the Sankara bus to arrive and transport them to the base hospital.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

A Journey Through Treatment



1: Patients wait in line for registration



2: Registration



4. Eye Doctor



3: Vision assessment by VCT



5: Patient's blood sugar tested



6: Patient's blood pressure taken

Prepared by:

The Quantitative Analysis of the Social Impact

The impact of cataract surgery on the rural poor is extensive. Sight is arguably the most critical of the five senses and when vision deteriorates an individual's physical and mental health suffers. Many poor people view failing eyesight as a natural part of aging and do not have the knowledge or ability to access treatment. Through the last mile distribution of Gift of Vision program, Sankara is able to reach low socioeconomic groups in rural areas and provide a simple, life changing intervention. The results of a successful cataract surgery are evident as soon as the initial dressing has been removed. The fast recovery time enables surgery recipients to return to their daily lives relatively quickly. In order to capture the transformative effect of cataract surgery, pre and postoperative surveys were conducted with several patients from the Vikravandi and Mangalore camps. Though many patients reported that their eyesight did not negatively effected their lives before surgery, the majority of patients said that their lives improved after surgery. This may indicate that patients are not even aware of the effects of vision loss on their quality of life until they receive treatment.

Patients were surveyed at two pairs of camps: the Vikravandi and Mangalore field camps on June 27th and 28th, and Vikravandi and Mangalore review camps on July 25th and 26th. A total of 107 patients were surveyed pre operatively and 60 of the same patients were surveyed one month after surgery. The following data is a sample of the Sankara beneficiaries living in Vikravandi and Mangalore.

Age and Gender

Of the 234 patients screened at the Vikravandi and Mangalore field camps, 107 were surveyed. Female patients accounted for 58% of the sample. This is consistent with Sankara trends; in 2013-2014, Sankara treated 13,309 more women then men ("Sankara Annual Report" 22). Though there are many barriers that prevent the poor in

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

developing countries from accessing eye care, women often face an even greater challenge because their health needs are seen as less important than the health needs of men (Jaggernath, “Poverty and Eye Health”). Because of this, the consequences of poor eyesight, such as unemployment and reduced community engagement, are often magnified for women. The fact that Sankara routinely treats more women than men indicates that they are fulfilling their mission to provide equitable care to a group that is frequently marginalized. The average age of the patients surveyed was 60. This is consistent with the fact that cataracts are often age related. Since women tend to live longer than men, age could account for some of gender distribution in the sample.

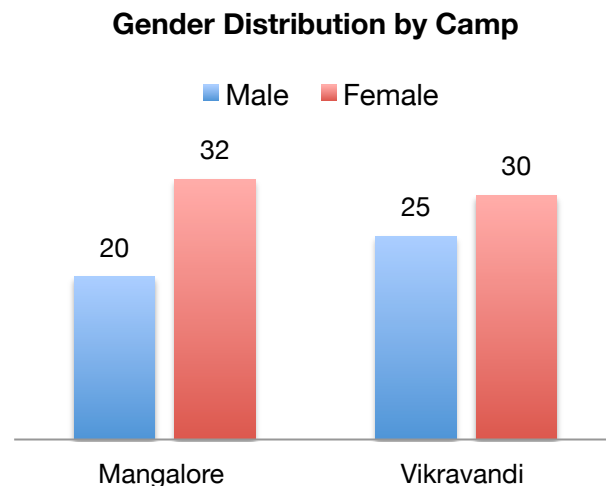


Figure 1: Gender distribution by camp (n=107)

Diagnosis

Three-quarters of patients surveyed had age related cataracts that were still in early stages (senile immature cataracts). This finding is consistent with the average age of the survey population. Only 8% of patients surveyed were diagnosed with mature stage cataracts, or cataracts that obscured the entire lens of the eye. This indicates that Sankara is able to diagnose cataracts and intervene before patient vision is completely obscured in most cases. Brown cataracts, a type of age related cataract, accounted for 12% of diagnoses in the sample.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

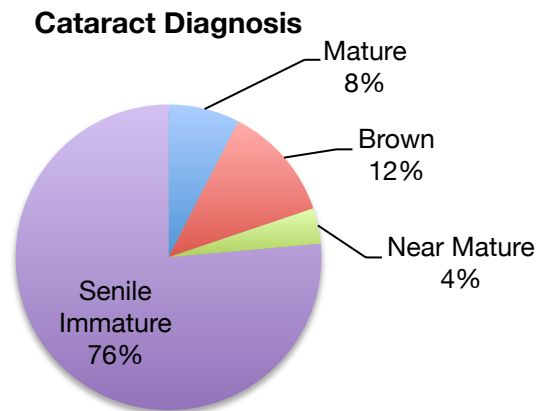


Figure 2: Distribution of diagnosis (n=107)

Education, Occupation and Income

The majority of patients in the sample reported that they had received no education at all. This is consistent with the rural setting and age of the patients surveyed. There may be a greater need for eye care in areas where education levels are lower because people may not know that eye care is treatable or be able to access any care. Since it is often more difficult for women to obtain education in developing countries, the low education level of the sample could be correlated with the gender distribution.

Prepared by:



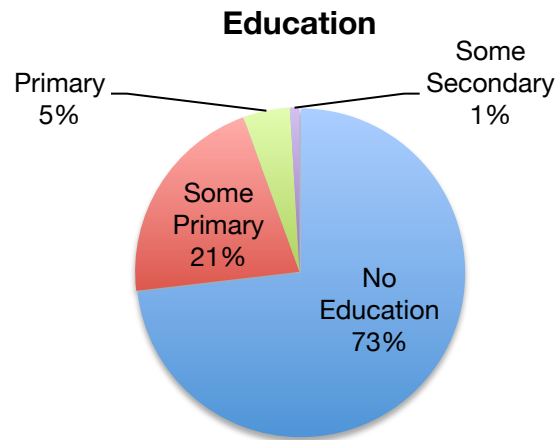
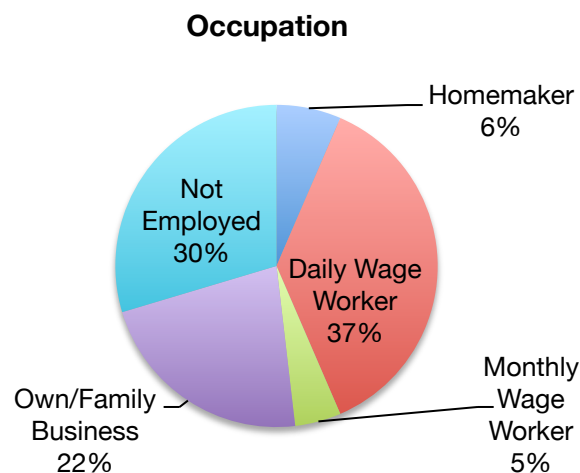


Figure 3: Education distribution (n=107)

Many patients in the sample were daily wage workers. Since daily wage jobs are often unreliable, this indicates the potential financial instability of the sample surveyed. In the sample group, 30% of patients reported that they were unemployed. It is unclear whether or not this was a direct result of their eyesight. Very few patients worked in their own or family businesses or worked for a monthly wage. These occupations may be more flexible should the patient need to take time off to obtain eye care. Daily wage jobs typically do not offer any flexibility.



Prepared by:



**Global Social
Benefit Fellowship**



**Santa Clara
University**

Figure 5: Occupation distribution (n=107)

The average number of people in a household was 3.72. The average number of income earners per household was 1.79. The average ratio of income earners to people in the household was 1:2. This reflects the socioeconomic conditions of the sample population. If one person is supporting two others, then a household's economic status is extremely fragile. If one person in the household is not working because of eyesight, cataract surgery can yield huge marginal returns by allowing the family member to return to work.

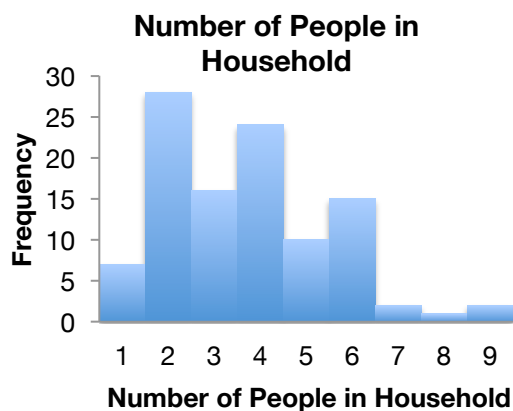


Figure 6: Number of people in household (n=107)

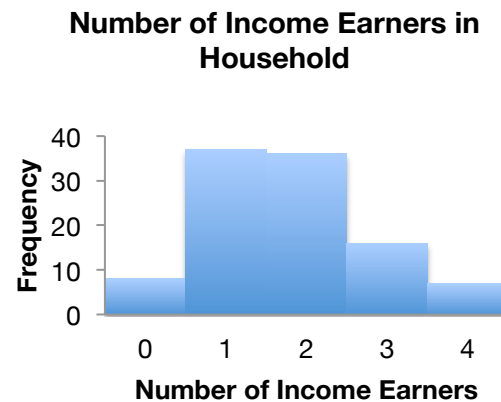


Figure 7: Number of income earners in household (n=107)

Daily Activities

Patients were asked about their ease with daily activities in both the pre and postoperative surveys. Though the majority of patients surveyed said that they did not need help with daily activities before surgery, 93% of patients reported that daily activities got easier after surgery. This reflects the immediate quality of life improvements that cataract surgery can generate. Patients were also asked about their

Prepared by:

ability walk without support, or if they were able to walk with the assistance of another person, use of cane or support of a wall, because of their eyesight. Before surgery, 13% of patients reported that they could not walk without support. After surgery, 100% of patients said that they were able to walk without support. As eyesight deteriorates, individuals are at greater risk for falls and other health complications (Morris, “Cataract Surgery and Quality of Life”). By performing cataract surgery before patients need assistance walking or with daily tasks, Sankara is able to improve eyesight before blindness results in severe negative health consequences in most cases.

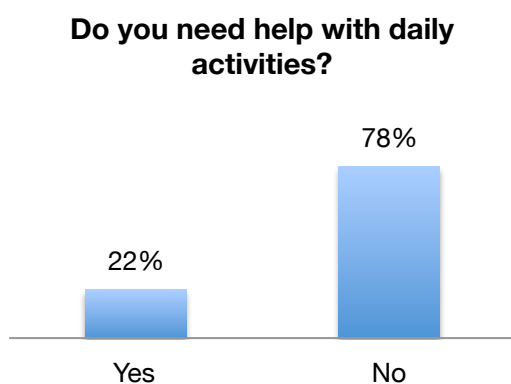


Figure 8: Activities preoperative (n=60)

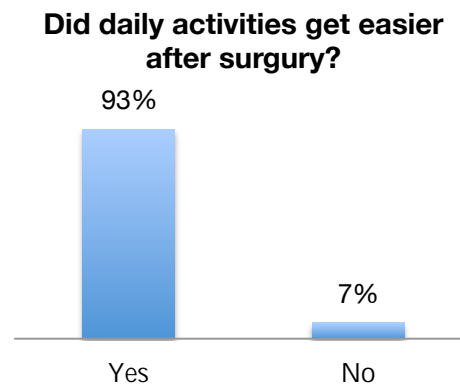


Figure 9: Activities postoperative (n=60)

Outlook

People with failing eyesight often develop depression. Vision loss may lead to job loss, decreased participation in social activities and disconnection from the community (Morris). Patients were asked about their view on the future before and after surgery. Before surgery, 88% of patients surveyed reported that they had felt hopeless about the future because of their eyesight. After surgery, 98% of patients said that their view toward the future had improved. All patients who said they had felt hopeless before surgery reported that their view toward the future had improved after receiving cataract treatment.

Prepared by:



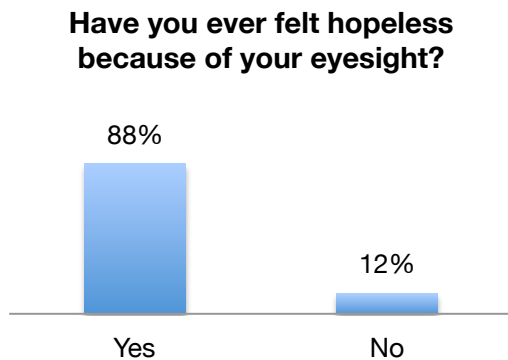


Figure 10: Outlook preoperative (n=60)

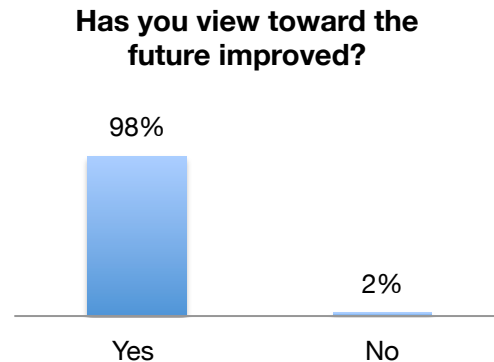


Figure 11: Outlook postoperative (n=60)

Family Relationships

Poor eyesight has ramifications for entire families, not just individuals. Before surgery, 98% of patients reported that their eyesight did not affect their family relationships. However, after surgery 88% of patients who originally reported that their family relationships were not impacted by their eyesight said that their family relationships had improved. This could be due to the fact that patients did not realize the impact of their vision loss on their family relationships until they received cataract surgery. Overall, 95% of patients surveyed reported that their family relationships improved after surgery. If someone has to stay home and help the blind family member with everyday tasks, the family loses two incomes, not just one. A patient may feel shame that they are no longer able to provide for their family. After surgery, a patient and the patient's caretakers may be able to return to work, putting less strain financially and socially on family relationships.

Prepared by:



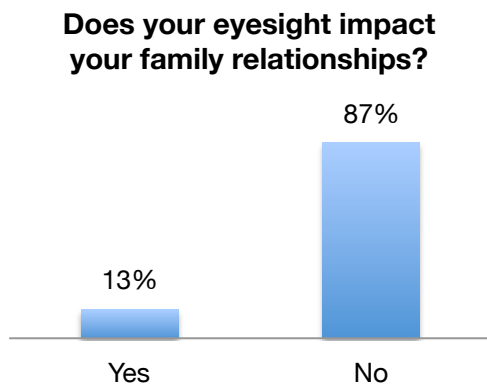


Figure 12: Family preoperative (n=60)

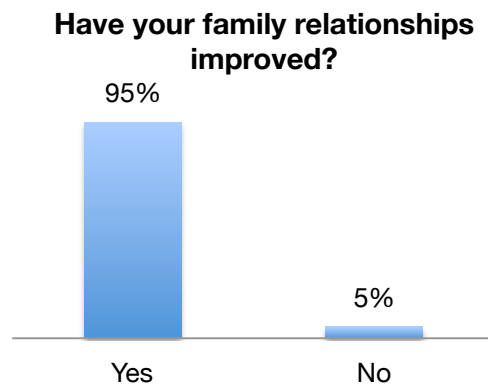


Figure 13: Family postoperative (n=60)

Sankara Awareness

Lack of knowledge is a major barrier to accessing eye care for many of the poor in developing countries. Illiteracy, lack of educational resources and misconceptions about the causes of blindness mean that few people seek eye treatment when they begin experiencing vision loss (Jaggernath). When patients were asked whether or not they knew that failing eyesight was a treatable condition, 72% did know. Of those surveyed, most had only heard of Sankara and only 8 people had heard of other eye care treatment hospitals: Ramana Maharishi Eye Hospital, Villupuram Hospital and Aravind- Pondicherry. This suggests that Sankara is educating and reaching the rural communities that would not otherwise have access to eye care services.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

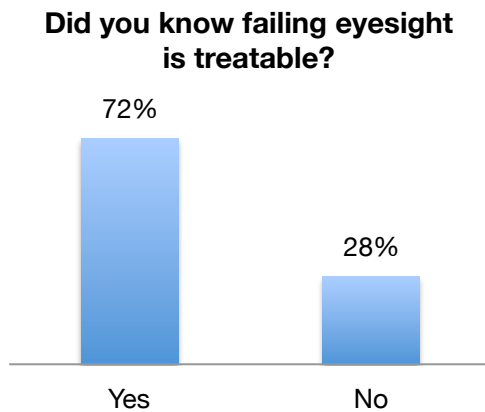


Figure 14: Eyesight treatable (n=107)

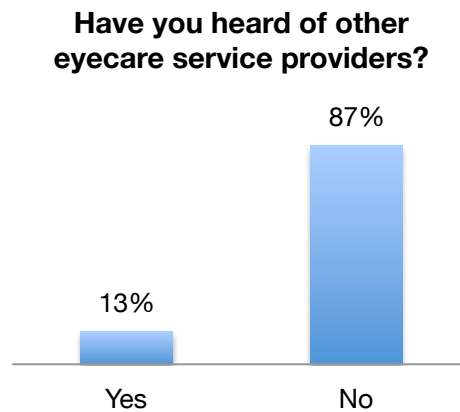


Figure 15: Other providers (n=107)

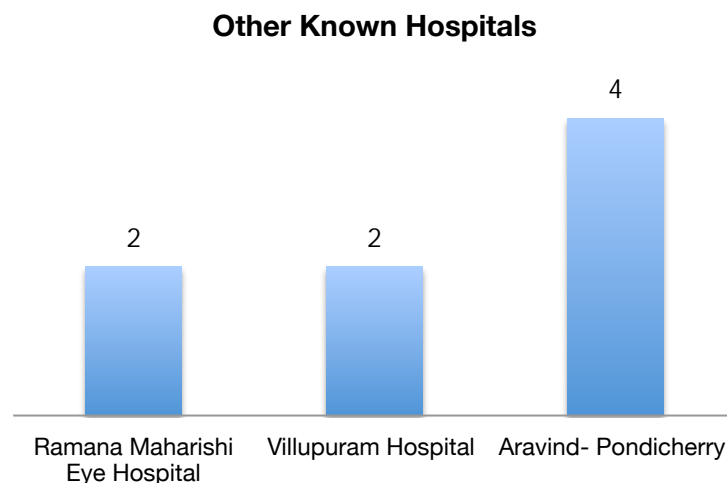


Figure 16: Hospitals mentioned (n=8)

When asked about where they had originally heard about Sankara Eye Foundation India, 66% of patients responded that they had learned of the camps from the local sponsor and 24% of patients had heard about Sankara from friends. This indicates that most patients are motivated to come to the eye camps by people in their villages, reinforcing the fact that the Gift of Vision model is highly community driven.

Prepared by:



How did you hear about Sankara Eye Care?

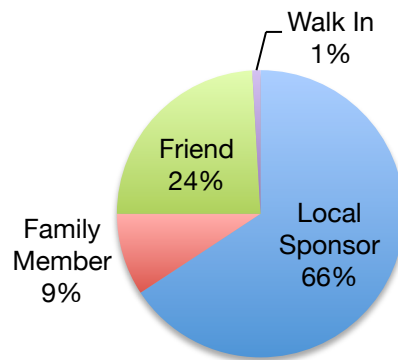


Figure 17: Distribution of where patients heard about Sankara (n=107)

Next Steps

Because of the short timeframe and relatively small sample size, we recommend that a longer-term study on the impact of cataract surgery be conducted. Particularly since patients are instructed not to work until after the one-month follow-up camp, this study provided very little insight into the employment status changes or economic impact that cataract surgery generates. Additionally, given the limited sample population, we recommend a study that includes a more diverse range of patients from different villages and states so that results are more representative of Sankara's entire beneficiary population.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Appendix A

About this study

Over the 10 years that the Gift of Vision program has been conducting eye screening camps and performing free surgeries, Sankara has collected extensive qualitative data on patients through case studies. The impact of eye surgery is clear. Improved vision for one person in a household impacts not only the direct beneficiary, but also families and communities. Through Santa Clara University's Miller Center for Social Entrepreneurship, two undergraduate fellows completed an impact study of the Gift of Vision program in order to provide supplemental quantitative data for Sankara's preexisting qualitative data. Fellows surveyed patients at screening camps in Vikravandi and Mangalore villages. The surveys focused on questions about patient demographics, physical and mental health and family relationships. The same patients were interviewed again one month after receiving surgery to assess how their answers had changed. In addition, fellows compiled two case studies and completed a review of the screening camp methodology.

Appendix B

Methodology and Limitations

Case Studies

Patients were selected for case studies based on criteria given to us from Sankara. Patients needed to have mature, brown or bilateral cataracts that were operable. Once the patient list was narrowed down to those who met the diagnostic criteria, we had little control over individual patient sampling. Patients were selected by nurses, who also acted as our translators. Maggie asked questions with the help of a translator while Jana took notes on responses. Patients were interviewed at the Coimbatore base hospital before receiving surgery. One month later patients were

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

interviewed again at follow up camps. Notes on interview questions were transcribed and written up. Questions for pre and post interviews can be found in Appendix C.

There were several limitations to our case study collection. First, the number of patients we interviewed was limited by the availability of nurses who could help us translate. Although we believe we received accurate answers from patients and that patients were representative of the population Sankara serves in the Coimbatore region, the language barrier made it difficult to get more in-depth answers to questions. Finally, since we selected and interviewed patients before surgery, we had to rely on the fact that patients interviewed would attend the review camp. Ultimately, we were able to gather enough data for two complete case studies.

Eye Screening Camp Flow

While at the eye camps, fellows documented and took notes on the cataract screening process. Each camp has several stations that each patient goes through. The first is registration, where patient intake information is collected. Patients then go to vision testing, where VCTs test their visual acuity using Snellen charts. Third, patients see the ophthalmologist who confirms cataract diagnosis and recommends patients for surgery. At the lab stations, patients have their blood sugar, blood pressure and heart rate measured. Finally, patients go to the counseling station, where they are given information about the surgery process and have the opportunity to ask any questions. While at the camps, both Jana and Maggie took notes about patient flow and followed several patients throughout the entire process, photographing them at each station.

Patient Pre/Post Op Surveys

In total we conducted 107 preoperative surveys and 60 postoperative surveys. For the preoperative surveys, patients were interviewed at the Vikravandi and Mangalore field camps and at the base hospital. Maggie and Jana both interviewed patients with the help of a translator and answers were recorded on smartphones using Magpi. Patients were selected based on convenience and nurse availability both at the camps and the hospital. Before going to each camp, we reviewed the survey questions

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

with translators and an additional Sankara staff member to ensure that nurses understood the survey questions well enough to translate and explain them to patients.

Postoperative surveys were given to patients at the Mangalore and Vikravandi review camps approximately one month after patients received cataract surgery. Patient names and numbers were recorded to ensure that the same patients we surveyed pre op were surveyed post op. Patient survey answers were also recorded using Magpi and then matched with pre op survey answers on Excel. Pre and postoperative survey questions can be found in Appendix D.

For both the pre and postoperative surveys, the language barrier was our biggest constraint. For the most part, we were able to have the two nurses we had trained in the survey help us translate, but that was not always an option. Other nurses with varying degrees English fluency helped administer the survey to patients at the hospital. Because of the language challenges, it was not clear if all patients were asked survey questions in the same way. Many patients reported that eyesight did not negatively affect their lives before surgery. However, after surgery most patients said that daily activities had become easier and that their family relationships had improved. This could be due to the fact that patients did not realize the effects of eyesight on their quality of life or this could have to do with translation issues, which would have impacted question comprehension.

For the postoperative surveys, time was also a major limitation. For the preoperative surveys, we were able to conduct some surveys at the hospital, but all postoperative surveys needed to be completed at the camps. Due to translator nurse availability, not all patients who were interviewed at the first screening camp were interviewed at the follow-up camp.

Appendix C

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Case Study Questions Guide

Pre op:

1. Tell us about where you are from.
2. Tell us about your family.
3. Do you currently work? If not, what is your primary source of income?
4. Are there any specific activities that having cataracts/previously having cataracts prevents/prevented you from doing (such as working, socializing, or other hobbies)?

Post Op:

1. What is your current occupation?
2. Are there any specific activities you have been able to resume after having cataract surgery?
3. Have you ever given up paid work because of trouble with your eyesight? If yes, explain.
4. Do you feel you are better able to contribute to your household after having surgery?
5. Have you had any problems adjusting to your eyesight?
6. How has receiving cataract surgery changed your life?
7. What are your hopes for the future?

Appendix D

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

Patient Survey Guide

Pre Op:

Demographic Information

1. What is your name? _____
2. Medical record number:

3. What is your gender (circle)? Male Female
4. How old are you? _____
5. What is the highest level of education you have received?
 - a. No formal education
 - b. Some primary education (up to 10th grade)
 - c. Primary education
 - d. Some secondary education (up to 11th grade)
 - e. Secondary education
 - f. Graduate (college)
6. How many people live in you household?

Physical Health

1. Do you need help with daily activities (self-care, household chores, work) because of your eyesight?
 - a. Yes
 - b. No
2. Can you walk around without support?
 - a. Yes

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

- b. No

Mental Health

3. Do you ever feel hopeless because of your eyesight?

- a. Yes
b. No

Activities

Please circle all that apply.

4. Have you participated in the following activities in the past month?

- a. Household chores
b. Paid work for employer
c. Paid work at own or family business
d. Social visits inside the home
e. Social visits outside the home
f. Attended a ceremony or other important community event
g. Watched TV
h. Other: _____

Social Relationships

5. Does your vision impairment impact your family relationships?

- a. Yes
b. No

Economic Situation

6. How many income earners are there in your household? _____

7. Which best represents your current occupation?

- a. Homemaker

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

- b. Daily wage work
- c. Monthly wage work
- d. Work of own use (i.e., business, farm, etc.)
- e. Not employed
- f. Other: _____

Awareness about Sankara

- 8. Did you know that failing eyesight is a treatable condition?
 - a. Yes
 - b. No
- 9. How did you hear about Sankara Eye Foundation Institution India's services?
 - a. Local co-sponsor / government
 - b. Family
 - c. Friend
 - d. Walk-in
 - e. Other: _____
- 10. Did you know of any other eye services in your area before coming to Sankara Eye Foundation India?
 - f. Yes
 - g. No
- 11. If yes, what other service provider were you aware of? _____

Post Op

- 1. I feel that my eyesight has improved.
 - a. Agree
 - b. Disagree

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

2. Do you need help with daily activities (self-care, household chores, work) because of your eyesight?

- c. Yes
- d. No

3. Can you walk around without support?

- c. Yes
- a. No

Mental Health

4. My current view toward the future is:

- a. Positive
- b. Negative

Activities

Please circle all that apply.

5. Have you participated in the following activities in the past week?

- i. Household chores
- j. Paid work for employer
- k. Paid work at own or family business
- l. Social visits inside the home
- m. Social visits outside the home
- n. Attended a ceremony or other important community event
- o. Watched TV
- p. Other: _____

Social Relationships

6. Has your improved vision impacted your family relationships?

- c. Yes

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

d. No

Economic Situation

7. How did your occupation change after cataract surgery?

- a. Resumed former occupation
- b. Changed occupation
- c. Not employed

8. Which best represents your current occupation?

- g. Homemaker
- h. Daily wage work
- i. Monthly wage work
- j. Work of own use (i.e., business, farm, etc.)
- k. Not employed
- l. Other: _____

Satisfaction about Sankara

Please respond how likely you would agree to the following statements:

9. I am satisfied with the treatment I received at Sankara Eye Foundation India.

- a. Yes
- b. No

10. I am satisfied with the transportation, lodging, and food provided by Sankara Eye Foundation India.

- a. Yes
- b. No

11. I would recommend Sankara Eye Foundation Institution India's services to my family, friends and local community over other services offered in my community.

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University

- a. Yes
- b. No

Works Cited

Global Data on Visual Impairments 2010. Rep. World Health Organization, 2012. Web.

Jaggernath, Jyoti, Lene Øverland, Prasad Ramson, Vilas Kovai, Ving Fai Chan, and

Prepared by:



Kovin S. Naidoo. "Poverty and Eye Health."
Health 06.14 (2014): 1849-860. 14 July 2014. Web.

Morris, Daniel, Scott Fraser, and Christopher Gray. "Cataract Surgery and Quality of Life Implications." *DovPress* 2.1 (2007): 105-08. Clinical Interventions in Aging. Web.

Sankara Eye Care Annual Report 2013-2014. Rep. N.p., 2015. Web.

Vision 2020 the Right to Sight: Global Initiative for the Elimination of Avoidable Blindness Action Plan 2006-2011. Tech. Geneva: WHO, 2007. *WHO Library Catalog*. Web.

All Photo Credit to Jana Lee

Prepared by:



Global Social
Benefit Fellowship



Santa Clara
University