

► Project Vision, a charitable foundation set up by Hong Kong ophthalmologist Dennis Lam, has a grand plan – to set up a total of 100 centers in impoverished areas on the mainland to provide quality and affordable medical services to cataract patients. **Zhao Xu** finds out how Lam intends to fulfill that goal



# Mission vision

It has been more than a year, but Iris Zhang still remembers with great vividness what happened at the Xilinhot People's Hospital in Inner Mongolia on September 22, 2007. On that day, nearly 20 cataract patients who were convinced that they would never see again had their eyesight back.

"Two days after the operation, everybody was eager to see the results," Zhang recalled. "The bandage wound around the patients' eyes was removed. But they didn't open their eyes until the doctors told them to."

"I know some of them must be

thinking: what if the promised miracle does not happen?" she said.

Indeed, the stronger the longing, the deeper the fear of disappointment. On that day, none of them was disappointed.

The "moment of truth" came during the launch of the first eye center established by Project Vision, a foundation set up by Hong Kong ophthalmologist Dennis Lam in late 2006 to help cataract victims in impoverished rural areas on the mainland.

Zhang is a project officer with the foundation and was present

at all three opening ceremonies that have been held so far, in Inner Mongolia and Shaanxi province.

"[On the mainland,] the majority of eye care service is in the city while the majority of cataract patients are from the rural areas," said Lam. "That has created a huge barrier which we seek to break through this project."

The concept is to set up charitable eye centers in collaboration with county hospitals on the mainland. The Project Vision Foundation will allocate 1 million yuan to each center for the purchase of equipment and the training of local doctors. After the initial period, the centers are expected to become self-sustainable, with recurring expenses covered by their own income.

"We hope to cover 1 to 3 million people per center – depending on the population distribution of the region."

Previously Lam had thought about setting up centers at a town level, but he later decided to operate at the higher county level, out of population concerns.

Two centers have been set up in Shaanxi in northwestern China. According to Lam, the province will have six more centers eventually. With each of them covering 3 million people, the total number of people reached will be 24 million, all from poor rural areas.

Lam and his colleagues have certainly done the math. He estimated that five centers will be needed in Henan, the populous central province that once bear the stigma

of a high HIV-infection rate due to unsanitary blood transmission.

The Xilinhot People's Hospital was chosen not only because it is the largest hospital in the province. The hospital authority, and the local government are all very supportive of the scheme.

"Their support is absolutely essential, especially during the project's inception stage," said Lam. "The problem with Inner Mongolia is that its population is very scattered and it might have taken two or three years for our message to get out through word of mouth."

"But the local government issued one letter to each hospital and healthcare center and the whole region knows about us."

Indeed, for any charity work to have real success, the man behind it must possess as much passion as practicality. Knowing their sometimes-precarious position, Lam has been actively seeking the help of a local partner – in the case of the two eye centers in Shaanxi, it is the Provincial Women's Federation.

"Since we are not there most of the time, we need to pull in a local community organization who serves as liaison and acts on our behalf," Lam conceded.

With its giant network extending to even the remotest village in the region, the Women's Federation is an ideal choice. In fact, all they need to do is to add in the eye center project when they visit the families.

"Our project ties in

perfectly with what they have already been doing: to promote healthcare among the underprivileged population," said Lam.

Apart from providing a channel for reaching out, the Women's Federation is also the gatekeeper. About 10 percent of the operations conducted at the eye centers will be for free and the federation is tasked with vetting the right candidates – people who truly cannot afford 700 yuan operation fee.

"Ten percent is the ceiling since we'll have to ensure the financial viability of the centers," said Lam. "The Women's Federation and the local government have information on people who live below the poverty line and this information is crucial for our free service to reach its targeted patients."

Besides, the Women's Federation will also negotiate on behalf of the foundation should it have any issue with the local hospitals. And since the federation is a national organization, Lam and his colleagues plan to expand the partnership model to other centers to be set up in the future.

According to the doctor, right now the two centers in Sichuan are financially doing well while the one in Inner Mongolia is losing some money. "The situation is largely due to the scatteredness of the local population. During winter time, the weather gets so bad that it is impossible to travel," said Lam.

However, as he pointed out, measures have been taken to

make sure that the income of the doctors will not be adversely affected even though the center is in financial difficulty.

"There will be no eye center to talk about without the doctors," he said. "In the case of Inner Mongolia, we use money from our foundation to maintain the cash flow. The bottom line is that doctors who choose to work at the eye centers will not be earning less than they did before."

However, for most of the doctors, the biggest incentive for participating in the project comes not from money, but from the precious training they cannot get anywhere else. And the speed at which the local doctors are trained is directly linked to the progress of the entire scheme.

According to Zhang, a trainee needs to perform and observe at least 400 operations before he or she can work independently. Currently, the local doctors are trained mainly by experts from the Shantou International Eye Center which Lam co-founded in 2001.

It takes six months to train one doctor but that time is expected to be cut by half once the project is in full swing.

"We will be able to complete the training for four doctors and set up one or two more centers by the end of this year. The total number of centers will reach about 10 by the end of 2009," said Lam.

So there's mammoth work ahead, keeping in mind that the ultimate goal of the project is to establish 100 eye centers, each with two doctors.

"The initial phase will be



Iris Zhang Courtesy of Iris Zhang

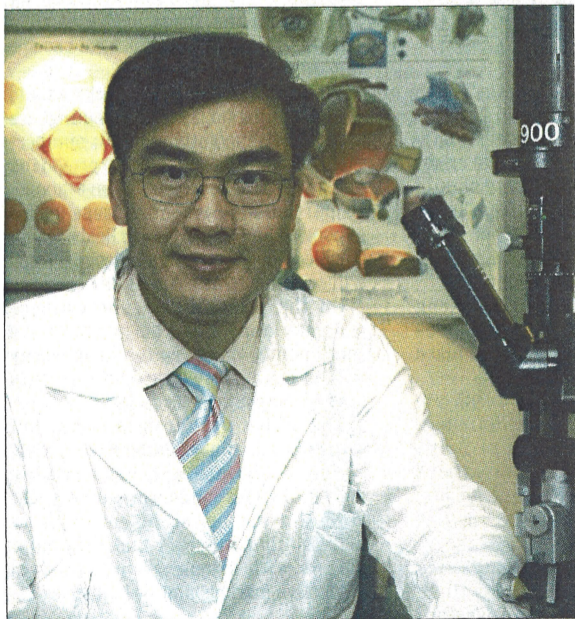
very slow. But once the two doctors of an eye center have been fully trained, the center itself will become a teaching center. Our first step is to set up one teaching center within one province but eventually all the eye centers will become teaching centers and thus the total number of eye centers will increase exponentially," Lam said.

"We will be able to enter the next phase by the middle of next year."

Sitting on the doctor's office desk is a picture he took many years ago during one of the medical relief trips. Through the window of his operation theater, the vista is of a lush farmland, with rolling mountains shrouded in early morning mist at the background.

Beautiful, idyllic, soothing – the pastoral scene is indelible from Lam's mind.

"I want the people who live there to see the beauty of the scene for themselves," he said.



Above: Professor Dennis Lam  
Top: Dennis Lam (middle) conducts intensive training on cataract surgery for doctors at the Charity Eye Center.  
Courtesy of Dennis Lam

at all three opening ceremonies that have been held so far, in Inner Mongolia and Shaanxi province.

"[On the mainland,] the majority of eye care service is in the city while the majority of cataract patients are from the rural areas," said Lam. "That has created a huge barrier which we seek to break through this project."

The concept is to set up charitable eye centers in collaboration with county hospitals on the mainland. The Project Vision Foundation will allocate 1 million yuan to each center for the purchase of equipment and the training of local doctors. After the initial period, the centers are expected to become self-sustainable, with recurring expenses covered by their own income.

"We hope to cover 1 to 3 million people per center – depending on the population distribution of the region."

Previously Lam had thought about setting up centers at a town level, but he later decided to operate at the higher county level, out of population concerns.

Two centers have been set up in Shaanxi in northwestern China. According to Lam, the province will have six more centers eventually. With each of them covering 3 million people, the total number of people reached will be 24 million, all from poor rural areas.

Lam and his colleagues have certainly done the math. He estimated that five centers will be needed in Henan, the populous central province that once bear the stigma

of a high HIV-infection rate due to unsanitary blood transmission.

The Xilinhot People's Hospital was chosen not only because it is the largest hospital in the province. The hospital authority, and the local government are all very supportive of the scheme.

"Their support is absolutely essential, especially during the project's inception stage," said Lam. "The problem with Inner Mongolia is that its population is very scattered and it might have taken two or three years for our message to get out through word of mouth."

"But the local government issued one letter to each hospital and healthcare center and the whole region knows about us."

Indeed, for any charity work to have real success, the man behind it must possess as much passion as practicality. Knowing their sometimes-precarious position, Lam has been actively seeking the help of a local partner – in the case of the two eye centers in Shaanxi, it is the Provincial Women's Federation.

"Since we are not there most of the time, we need to pull in a local community organization who serves as liaison and acts on our behalf," Lam conceded.

With its giant network extending to even the remotest village in the region, the Women's Federation is an ideal choice. In fact, all they need to do is to add in the eye center project when they visit the families.

"Our project ties in

perfectly with what they have already been doing: to promote healthcare among the underprivileged population," said Lam.

Apart from providing a channel for reaching out, the Women's Federation is also the gatekeeper. About 10 percent of the operations conducted at the eye centers will be for free and the federation is tasked with vetting the right candidates – people who truly cannot afford 700 yuan operation fee.

"Ten percent is the ceiling since we'll have to ensure the financial viability of the centers," said Lam. "The Women's Federation and the local government have information on people who live below the poverty line and this information is crucial for our free service to reach its targeted patients."

Besides, the Women's Federation will also negotiate on behalf of the foundation should it have any issue with the local hospitals. And since the federation is a national organization, Lam and his colleagues plan to expand the partnership model to other centers to be set up in the future.

According to the doctor, right now the two centers in Sichuan are financially doing well while the one in Inner Mongolia is losing some money. "The situation is largely due to the scatteredness of the local population. During winter time, the weather gets so bad that it is impossible to travel," said Lam.

However, as he pointed out, measures have been taken to

make sure that the income of the doctors will not be adversely affected even though the center is in financial difficulty.

"There will be no eye center to talk about without the doctors," he said. "In the case of Inner Mongolia, we use money from our foundation to maintain the cash flow. The bottom line is that doctors who choose to work at the eye centers will not be earning less than they did before."

However, for most of the doctors, the biggest incentive for participating in the project comes not from money, but from the precious training they cannot get anywhere else. And the speed at which the local doctors are trained is directly linked to the progress of the entire scheme.

According to Zhang, a trainee needs to perform and observe at least 400 operations before he or she can work independently. Currently, the local doctors are trained mainly by experts from the Shantou International Eye Center which Lam co-founded in 2001.

It takes six months to train one doctor but that time is expected to be cut by half once the project is in full swing.

"We will be able to complete the training for four doctors and set up one or two more centers by the end of this year. The total number of centers will reach about 10 by the end of 2009," said Lam.

So there's mammoth work ahead, keeping in mind that the ultimate goal of the project is to establish 100 eye centers, each with two doctors.

"The initial phase will be

# Giving sight

For Dennis Lam Shun-chiu, one of Hong Kong's most highly-regarded ophthalmologist, the moment that stays forever in his mind is not when he opened the bandage for a patient who had lived virtually his whole life in darkness, but when he was asked by a pair of pleading parents to put on hold the operation their son had been waiting for.

"I examined the boy who had congenital cataract," said Lam, recalling the experience that took place over a decade ago and has since haunted him. "In the past, it was very difficult to operate on children who developed the condition. But it had just become curable by the time I met the boy."

Upon hearing the news, the boy's parents were elated. But it lasted only for a few seconds: the sense of reassurance on their face was soon replaced by a combination by angst and pain. That's when the father tentatively raised the question.

"I couldn't believe my ears when he asked me whether the operation could be postponed to two months later," said Lam. "My instant reaction was to ask why."

It turned out that the boy's parents at the time didn't have the money for the operation. But what they did have is a litter of piglets, which they intended to sell in two months' time. And in between those two months, they would hopefully borrow some money from relatives, to make up for the rest of the cost.

"I was shocked, shocked and deeply saddened," said Lam.

Since then, the doctor has been repeating that story to various people – the media, his colleagues, students and everyone involved in Project Vision, a charitable foundation he set up in late 2006 to help cataract patients in impoverished areas on the mainland.

The idea is to bring quality, affordable cataract surgeries to a population that's most-blighted by the disease. According to Lam, the concept was born somewhere along the way.

Since the early 1990s, Lam has gone on numerous trips to the mainland, especially its rural areas, to help treat patients afflicted by severe eye diseases. Every time Lam and his fellow colleagues left a village, after treating a large number of people within a short period of time, they knew exactly how many had been left behind.

"The one thing that causes the most pain and frustration for a doctor is the inability to reach his patients," he said. Or, in the case of the boy and many others, their inability, physically and financially, to reach the doctors.

Lam wanted to put an end to the lamentable situation, once and for all. Project Vision is his answer.

Advanced surgical equipment is donated to county hospitals on the mainland that have entered the project. Meanwhile, doctors from these hospitals are selected to undergo training by cataract



► In this first installment of a two-part story, **Zhao Xu** speaks with ophthalmologist Dennis Lam Shun-chiu and finds out the story behind the establishment of Project Vision – a charitable foundation that aims to help cataract patients from impoverished areas on the mainland.

experts from Hong Kong and the mainland. The ultimate goal is for the doctors to become independent so that they could serve the surrounding regions on their own terms.

"An old Chinese saying goes: give a man a fish, he eats it for the day; teach him to fish, he lives on it for a lifetime. The passing on of skills is much more important," said Lam. "Through training local doctors we've turned our peripatetic clinics into permanent institutions."

So far, three eye centers have been established under the project – one in Inner Mongolia, the other two in Shaanxi province in northwestern China.

However, before all that could happen, a type of cataract surgery must be identified to suit what Lam dubbed the "new medical relief model". (At this stage it's worth noting that cataract is a condition in which the eye's lens are clouded and become opaque, obstructing the passage of light. Despite its often-devastating effects on patients, in most cases, the clouded lens can be easily removed and replaced by a clear one.)

Since no existing method proved ideal, Lam invented his own and called it "suture-less large incision manual cataract extraction."

The name appears daunting. But in practice, it is the least daunting for doctors struggling with their newly-acquired skills.

The doctor has opted for "manual cataract extraction" so that there's no need for super-expensive, state-of-the-art machines and instruments that most cataract surgeons in the West have come to rely on.

Sutures are avoided because their use increases the time for recovery and raises the possibility of infection and discomfort. It also means more recurring cost – sutures will have to be removed post-operatively – which the rural patients are very reluctant to see.

"The method is fast, safe, cheap and easy to learn. Given the multiple constraints we have working in rural settings, it is the best way to remove the backlog of cataract blindness among the country's poorer population," said Lam.

One of the major constraints is the cost, which Lam has been dealing with at every stage of the

project. Patients are now charged 700 yuan for each operation, one-tenth of the amount that city hospitals charge.

Apart from the new tailor-made operative technique, other factors also contributed to the cost reduction. The eye centers make bulk purchase of the artificial crystals used in the operation to replace the damaged lens, and thus are able to reduce the cost of each crystal from 400 yuan to 80 yuan.

The large volume of operations conducted in the centers – 1,000 per center per year – also means that the divided cost for each operation is kept at a minimum. And due to their charitable status, the centers enjoy tax exemption for all its imported equipment.

"The 700 yuan we charge is based on careful calculation," said Lam. "The goal is to offer patients the cheapest cataract operation that we can afford while maintaining the sustainability of our centers."

However, the dramatic compression of the cost and the sudden availability of the surgery has caused some patients to doubt its effect.

"It's totally understandable. This is people's eyesight we are talking about, and quality is the name of



Above: Professor Dennis Lam Shun-chiu (first from right) shares the happiness of helping cataract patients regain eyesight. Top: A cataract patient is elated for having his eyesight back after receiving sight-saving surgery.

Photos courtesy of Dennis Lam

the game," said Lam. "That's why the training of local doctors has been placed at the heart of the entire project."

According to him, they plan to train two doctors for each center.

"We have different emphasis on the two doctors. The idea is to get one up and running first so that he can start treating patients and at the same time help train his fellow doctor," said Lam.

China currently has a blind population of nine million people, half of which are caused by cataract. One million new cases of cataract blindness occur each year while the doctors are capable of treating only 600,000. This, according to Lam, is largely due to the fact that only half of the country's 24,000 ophthalmologists are trained to perform surgery.

As a result, China has a shockingly low cataract surgery rate. While the United States conducts 10,000 cataract operations per one million people, and India 3,900 per one million, China can manage only 445 per 1 million – representing a mere 15 percent of the people who require such operation.

So far, the three Project Vision eye centers have treated a total of 700 cases.

But this is just the beginning – the one in Inner Mongolia was set up in September last year and the two in Shaanxi were established in November last year and January this year respectively. According to Lam, the projected volume of surgery for each center will eventually reach 1,000 per year and they plan to have a total of 100 centers by the end of 2012.

However, the time frame is not nearly as crucial as the determination and vision that is the driving force behind the project, Lam added.

"The road to tomorrow belongs to those who have visions today," he said.