



Paul Courtright

Pippa Wysong
in Toronto

HAVING western-trained ophthalmologists fly in, do a couple dozen surgeries and then leave is not the best way to reduce cataract blindness in the developing world. What's far more useful is to help ophthalmologic services in developing countries better manage the cataract removal resources they already have so they can perform a larger number of surgeries, in a sustainable way.

“The major issues in African healthcare are not medical, they are management issues. How do you organise structure? How do you get people in for services? How do you use people most effectively?”

This was a key message from Paul Courtright DrPH, an ophthalmic epidemiologist who lives in Tanzania and is helping improve cataract surgery systems throughout eastern Africa. He described his efforts in Africa at the annual meeting of the Canadian Ophthalmological Society.

“The major issues in African healthcare are not medical, they are management issues. How do you organise structure? How do you get people in for services? How do you use people most effectively?” he asked.

Dr Courtright is co-director and a founder of the Kilimanjaro Centre for Community Ophthalmology (KCCO), located in Moshi, Tanzania. The centre, which opened in 2001, provides training programmes and does research to help with the delivery of sustainable and replicable ophthalmology services throughout eastern Africa. It is affiliated with Tumaini University.

“We work with hospitals one at a time and have relationships with five different hospitals covering a population of about 12 million people,” he said.

He argued the reason many cataract sufferers in Africa aren't getting treatment is largely due to organisational problems.

“People in Africa are not lined up waiting to get surgery, there aren't waiting lists. Even if we build a beautiful hospital and staff it with superb surgeons, it



The lack of transport is a significant burden in rural Africa and research has shown that providing transport to hospital greatly increases access to and use of surgical services

doesn't mean people are breaking down doors to get in,” he said.

Yet there are huge numbers of people who would clearly benefit from cataract removal. The discrepancy lies in the fact that there are problems in how services are provided, ranging from getting people to hospital, to making the time in hospital well spent, to inefficiencies in how staff do their jobs.

“They often have productivity problems in Africa, and our first approach isn't to train more eye care providers. What we need to do first is to improve the productivity of existing providers”

But it's not a matter of going in and telling people how to do their jobs either. First research needs to be done to find out things such as how many people need cataract surgery, what systems are in place to get them to hospital, how are they managed once they get to hospital, how efficient and productive are the medical staff, and whether staff are doing the correct jobs.

A study in eastern Africa found cataract surgeons were performing, on average,

one operation per day. Yet, with improved efficiencies each surgeon could perform 10 a day, maybe 800 a year each.

“They often have productivity problems in Africa, and our first approach isn't to train more eye care providers. What we need to do first is to improve the productivity of existing providers,” he said.

KCCO expertise has been used in the Kilimanjaro Christian Medical Centre (KCMC), and in the regions of Singida, Mara, Tanga, and now Masaka in Uganda. Dr Courtright is also working with centres in other eastern African countries, setting up programmes to train and mentor people to manage and organise their centres and resources better. It's vital to have local people trained as managers; who wants to rely on outsiders all the time?

The programmes developed in Tanzania are being used as models to help with programmes in other regions. While reproducibility of the approach is important, Dr Courtright noted that every area has its differences.

The KCCO staff includes an economist, a medical anthropologist, and people with education backgrounds. There are also external faculty from Ethiopia, Kenya and Malawi.

In the case of the KCMC, part of the job was to find out why people weren't coming in for surgery even though the hospital had no shortage of supplies or physicians. A survey in 2002 revealed that fewer than 10 per cent of people with cataracts living within an hour of the hospital had received surgery. The Kilimanjaro region and neighbouring

Arumeru has a population of two million.

Research revealed a number of limiting factors including affordability, transportation problems, and complex social issues that limited the ability, specifically for women, to go for surgery.

Offering cataract removal for free doesn't automatically increase the numbers either.

“We found there is no relationship between the price for surgery and the numbers operated on. It's not an issue of price as long as that price is within reason for families. What we've learned in the past few years is that willingness to have surgery is actually quite complex,” he said.

Further research showed that more than 80 per cent of families in the region could reasonably afford \$14 for cataract surgery, and so the price was set at that.

“It pays for the transportation from the site to get them to the hospital, the surgery, the medicine and pays to get them back to where they came from. It costs us more than \$14 to do the surgery but that is the price that the patient pays,” Dr Courtright said.

“We found there is no relationship between the price for surgery and the numbers operated on. What we've learned in the past few years is that willingness to have surgery is actually quite complex”

A package price is important so the patient doesn't have any out-of-pocket surprises. The hospital didn't have all the services totalled up in one place before, so patients never knew what they were getting for how much, which contributed to a distrust of the hospital.

In the case of women, many won't admit their sight is impaired because it means they become an unwanted burden on the family. Women can't get the surgery without agreement from the family, who are also the ones who may accompany them to hospital. Cultural barriers must always be taken into account.

To address this cultural aspect, a counselling service designed to help the families (not just the patient) understand what the cataract surgery is all about was set up at the KCMC.

Research is an important aspect of KCCO projects, since evidence is the best way to help people see where the problems are, figure out appropriate solutions (every place has different challenges), and later, track how things have changed.

“We want to improve the research capacity in Africa. Our idea is to create a cadre of ophthalmic researchers in Africa rather than from outside Africa,” he said.

“We want to improve the research capacity in Africa. Our idea is to create a cadre of ophthalmic researchers in Africa rather than from outside Africa”

Another aspect of change at the KCMC was to improve efficiency within the hospital. That is, getting people in and out as quickly as possible.

Initially, when patients arrived they couldn't go to the eye clinic until they'd gotten their patient chart – and it usually took upwards of three hours at the main hospital. That meant the surgeons never got to start early.

“We put in our own registration system – computerised. That took a bit of convincing the hospital,” he said.



The KCMC Eye Department has moved out the large hospital beds, replacing them with smaller camp beds. This has increased the number of cataract patients that can be served, without building a new eye ward

Courtesy of Paul Courtright DPH

In one hospital the KCCO team worked with, there was only one operating table. That meant the physician had to wait for patients to be prepped on the table before surgery, and then had to wait for them to leave before the next patient was brought in. To increase efficiency, a second table was brought in. More sets of surgical instruments were bought too so one set could undergo sterilisation while another was in use.

Another aspect to improve efficiency in hospital is making sure each person is doing the job he or she was trained for.

“In many African hospitals you'll find ophthalmic nurses responsible for mopping floors and other menial tasks, as

well as doing their nursing duties,” Dr Courtright said.

Efficiency in the department improves if nurses can focus on the duties they're trained to do, and other people are hired to stick to the administrative and janitorial jobs.

Change doesn't happen overnight, and it's not a matter of giving a few people a couple of lectures on the topic. The KCCO operates with a mentoring philosophy, leading staff through the process of change. Introducing change at any centre can be a challenge since people are often resistant to change.

“Our staff visit these hospitals fairly regularly. It helps them go through the

next stage of change. Unless we can mentor people through this stage we won't get there,” he said.

He also advises introducing changes in phases, and sprinkling in a few short-term achievable goals so staff can have a sense of accomplishment.

“Our staff visit these hospitals fairly regularly. It helps them go through the next stage of change. Unless we can mentor people through this stage we won't get there”

When KCCO began efforts at the KCMC in 2001 the number of surgeries done at the hospital was about 700 per year. “In three years of getting a programme up and running there, we've tripled that number; we've gone from having five ophthalmologists to only four and they're not working extra hours,” he said.

pcourtright@kcco.net