

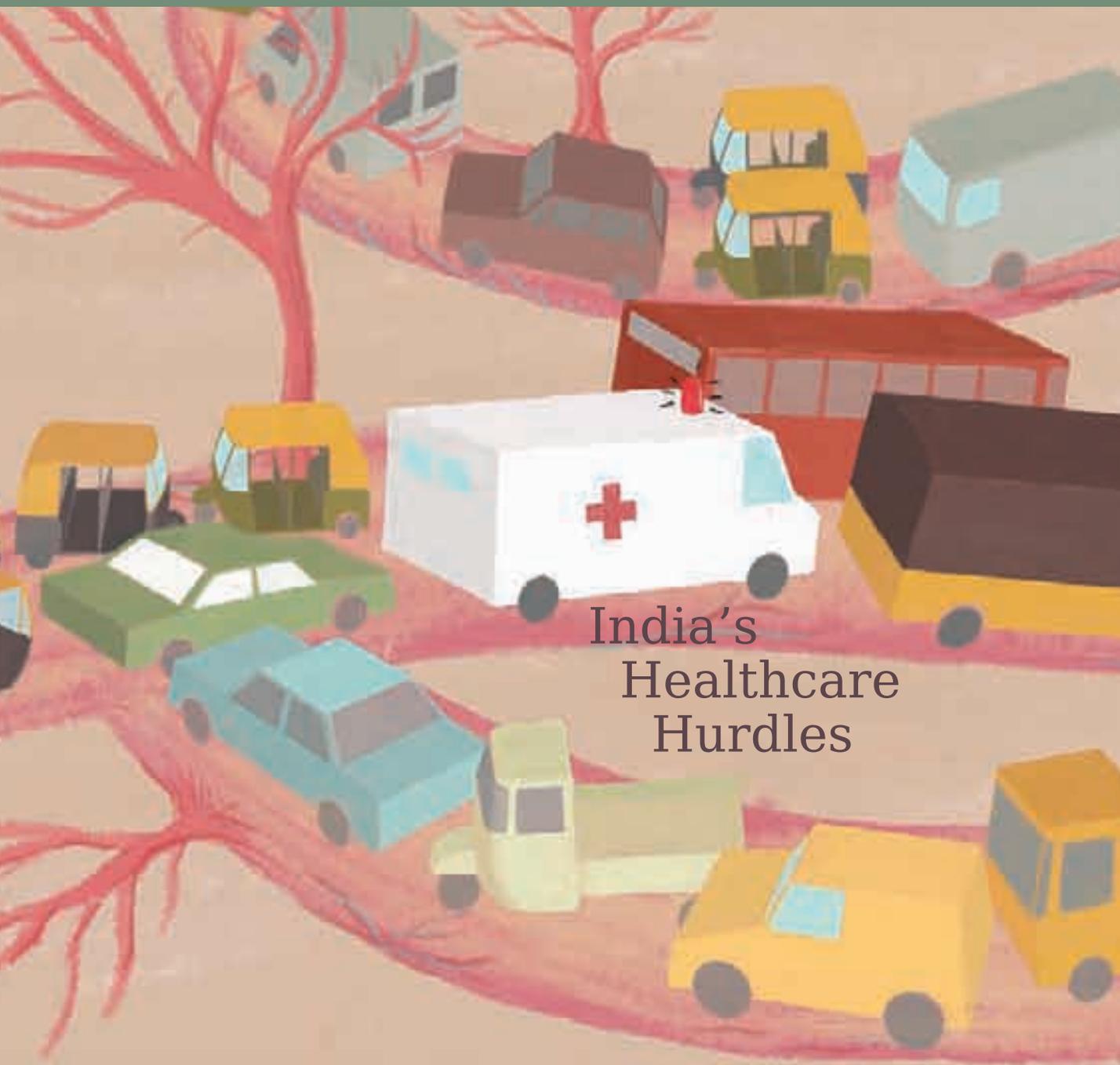
IN THIS ISSUE : **STEPHEN M SAMMUT** AND **LAWTON R BURNS** CALL FOR INNOVATIVE SOLUTIONS TO MEET INDIA'S HEALTHCARE CHALLENGES **DR DEVI SHETTY** ON HIS SUCCESSFUL MODEL OF HEALTH CITIES **NANDINI RAJAGOPALAN** DISCUSSES THE MERITS OF HIRING AN OUTSIDER CEO



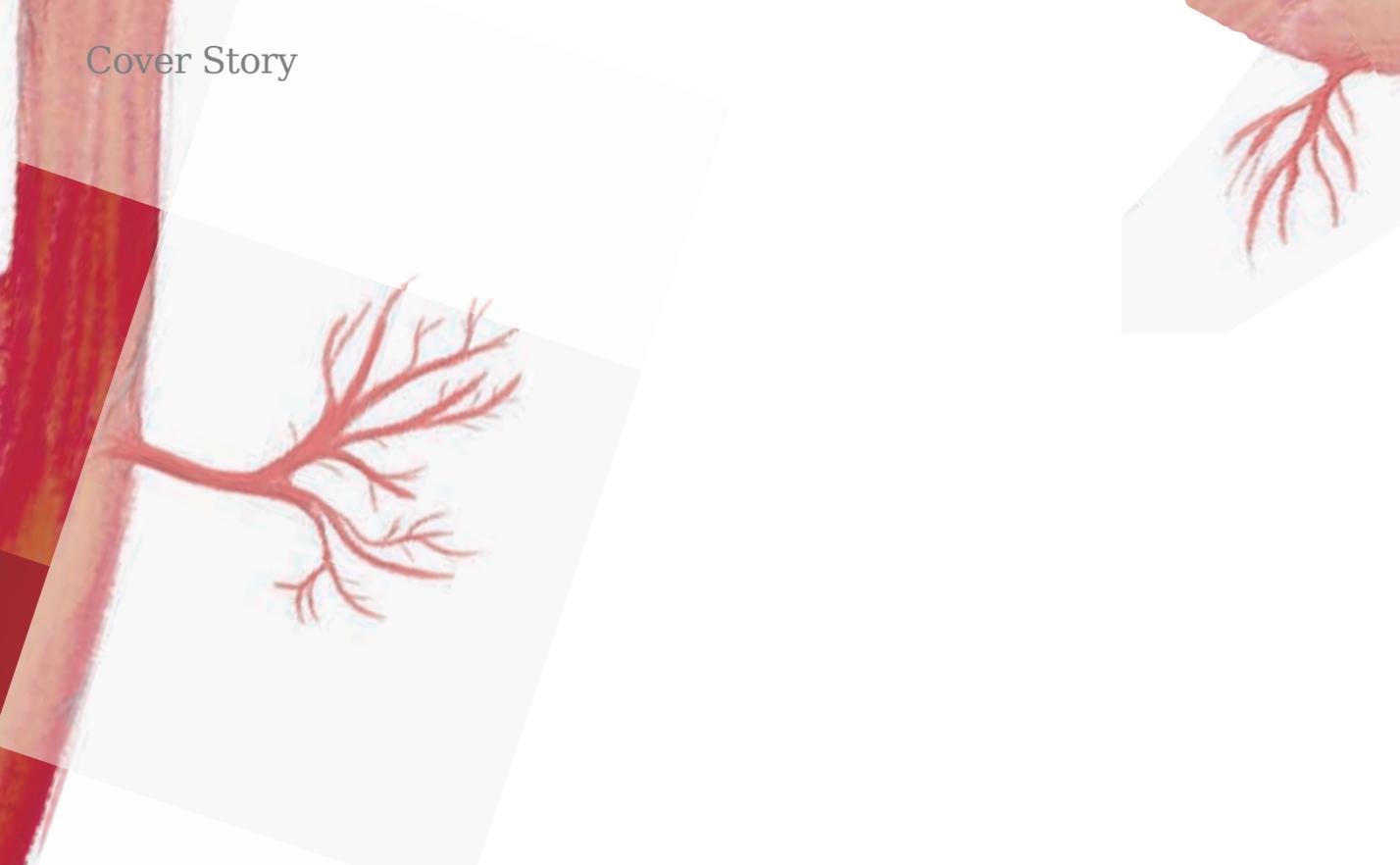
# INSIGHT

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India's  
Healthcare  
Hurdles



# Doing More with Less: Lessons from a Doctor

Dr Devi Prasad Shetty is the founder of Narayana Hrudayalaya, a hospital specialising in cardiac and cancer care in Bangalore. Established in 2001, the hospital has since grown to become the first centre for artificial heart transplant in Asia. Along with the government of Karnataka, Dr Shetty was also instrumental in designing a cheap, yet comprehensive insurance scheme for the poor farmers of the state. Professors Lawton R Burns and Stephen M Sammut from the Wharton School, talk to Dr Shetty about his initiatives and how he utilises his resources to have maximum impact.

**Is India's healthcare system making progress in reaching the general needs of the Indian society?**

We have made great progress in terms of cost and quality. In 1989, I left England to begin my career in Calcutta. In those days, heart surgery used to cost ₹140,000. However, today we are able to do the heart surgery for ₹80,000 to ₹90,000. So, in twenty years, the cost has come down by nearly 50%. As for quality, the outcomes in secondary and tertiary Indian hospitals are very good. But this care is reaching perhaps less than 20% of the population. 80% of people really do not have such access. We also haven't made much progress in primary healthcare.

**What accounts for this remarkable improvement in quality?**

We produce the largest number of doctors, nurses, and medical technicians in the world. Our medical

education is also aligned with Western education standards. There's a tradition of young doctors going to the US, Europe, or Australia, soon after graduation, to receive training and then coming back with a lot of knowledge about high standards of healthcare delivery. This has been the single most important reason why we are far ahead of China in terms of tertiary level healthcare. But at the level of primary healthcare, China's indices are much better than ours

**healthcare in India?**

We are one of the few countries in the world where a nurse who has 20 years of experience in the ICU (Intensive Care Unit) managing critical care patients is still not legally allowed to give an intravenous injection. All over the world, there are two levels of health practitioners below the doctor, with various degrees

and titles, who can take care of primary healthcare. This is something that should be implemented in India also.

#### **trained healthcare professionals?**

No, not only trained. If you go to the US Bureau of Labor Statistics, out of the 20 fastest growing occupations in the US, 16 are in healthcare. Those 16 occupations in healthcare do not exist in India. We do not even have a training programme because the entire thrust is on doctors. We have failed to develop and grow an alternative medical workforce to serve the people. I wouldn't say it's a manpower shortage. The government has to play a more pivotal role in promoting para-medical education.

#### **What are the principal reasons why the costs have fallen so dramatically over the last 20 years in cardiac surgery?**

It's the volume. India does close to 100,000 procedures a year. A few hospitals have sufficiently large infrastructure to do about 30 to 35 heart surgeries a day. When you do that kind of volume, your outcomes get better and your costs go down. The bulk of the cost in healthcare is the R&D cost. The actual manufacturing cost is very small. So with higher volumes, the vendors can cover their costs. The more procedures you do, the more efficiency you allow at every step of the process, including manufacturing. Moreover, last year we implanted the largest number of heart valves in the world – so the valve companies give us a better price on the valves.

#### **Health City?**

We are in about ten cities now. In Bangalore, we have a campus with 3,000 beds and a 1,000-bed heart hospital which has the infrastructure to perform 60 major heart surgeries in a day. We have reached up to 35 major heart surgeries a day and draw patients from 76 countries. We also have 24 operating rooms and 300 critical care beds.

We have a 1,000-bed heart hospital, 1,200-bed cancer hospital, a large eye hospital, and a large orthopedic centre. We have four hospitals in one campus and



Dr Devi Shetty

currently treat about 8,400 outpatients per day. Our target is to treat 12,000 outpatients a day.

#### **If I recall correctly, it's the outpatients who pay and**

Yes, exactly, because the margin on the outpatient side is about 80%, whereas the inpatient care centres have little margin.

#### **You mentioned ten health cities. Are you going to replicate in the other nine cities what you have in Bangalore?**

We will have different models. We have built large health cities in various state capitals. We are in talks with another state where a new government has taken power to build small hospitals. We are going to build six mini specialty hospitals adjacent to a large district headquarters hospital where we will put a CT scanner, an MRI unit, a catheterisation lab, and facilities for dialysis. But we will only have 40 critical care beds. Patients will come to our buildings for an angiogram, angioplasty, cardiac surgery, or a brain operation, and recover back in the government hospital.

#### **What are the most interesting experiments you are now running in these cities?**

We want to reduce the cost of heart operations to \$800, without compromising on quality. Our hospital is accredited by the Joint Commission in the US. Today, we are able to do the heart surgery for \$1,800, which is our break-even point. But we want to reduce the cost to \$800 from the point of admission to the point of discharge. It's not the surgery cost alone.

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We are going to reach about 50-60 surgeries in a day. It is entirely based on volume. Volume improves the results and the outcomes are better. Surgeons get better; patient's length of stay comes down, and the cost goes down.

**Do your surgical teams specialise in just one type of operation?**

Yes they specialise, but not really in one operation. The majority of our senior doctors do only three or four types of operations. Our young surgeons do about 10-15 types of operations.

**So it's economies of scale plus specialisation and focus in a small number of areas?**

Yes. Every day, you keep improving. It is a learning process with continual improvement.

**Within the health city, are the three or four different specialty hospitals self-contained, or do they share certain services?**

We share everything. We have one imaging centre, one blood bank, one clinical laboratory, one finance team, and one management team. Everything is common. The only thing that is different is the building. There is one building specialising in heart treatments, one for cancer. The costs will only come down when we share resources.

**Have you developed outcomes and quality measurements as you've built up the volume?**

Yes. It's a part of the Joint Commission requirement. We always evaluate our results. We evaluate our financial performance on a daily basis and our outcomes on a weekly basis. We keep a daily account of profit and loss. At 12pm, all the senior doctors get a message on their mobile phone with the facility's profit and loss for the previous day.

**Could you describe the insurance plan you developed for your patients?**

Eight years ago, there was a famine and the farmers lost their capacity to get healthcare. So we launched an insurance plan for the farmers with a premium of

only \$0.11 a month. It only covered surgery. There are 1,650 varieties of surgery done on the human body, and we covered all those operations for \$0.11 per month. We enrolled 1.7 million farmers paying \$0.11 each. That programme became very successful. Now we have four million farmers who pay a slightly higher premium of \$0.22 a month, and these farmers comprise about 10% of our patient load. That is doing very well. We are trying to work with other state governments to launch a similar scheme in those places.

**How do you collect the money?**

Through the cooperative societies. They sell milk or sugar cane. That helps manage the administrative costs of collecting money from a large patient base.

**What can you tell us about the different health cities you will establish?**

Right now, we are in ten cities, but we don't have big health cities yet in these places. The next health city is coming up in Ahmedabad where we have 37-40 acres of land. We are just starting with the first 500-bed hospital. Overall, we want 5,000 beds, ten hospitals with 500 beds each. In Kolkata, we have about 750 beds. Then we have three more hospitals but they are pretty small hospitals. It's about 200 to 300 beds. We are also looking at doing something in Delhi.

**out of your current operations or do you use private equity?**

Approximately 25% of the equity is held by a private equity company; the majority equity is family held. That is not going to change. Now we are looking at some degree of debt and accrual. Some health cities also may be developed as joint ventures with strategic partners. In the last year, the business model has changed dramatically. We have started working with some real estate people to build a hospital, and with a diagnostic equipment company to provide the medical equipment. We will pay them for the use of the building and the equipment, but do not own either. In this way, with very modest cash, we will be able

to commission large-scale projects and scale them up across the country. We are able to acquire the land from the government for a small amount of money.

**What is your strategic vision for the new health city you are building in the Cayman Islands?**

The Caribbean region, with over 40 million people, really requires a large hospital with about 2,000 beds and a whole range of medical specialties. Today the entire Caribbean region goes to the US for healthcare, which is very expensive for these people. They are not affluent. Our intention is to create a large-scale hospital for them. We also want to build a medical university as well as an assisted living facility as part of the health city.

**What impact do you think that will have on medical tourism to India if you set up something closer by in the Cayman Islands?**

We don't believe there will ever be a flood of US patients coming to India. It's the distance that matters.

Do you want people feeling sick to think they have to travel for 20 hours? We believe they have no problem in getting treated by an Indian hospital; but because of the distance, they are reluctant to come. We feel that if there is a hospital close to them, they will be very happy to come there.

**Where will the doctors and nurses come from?**

We are likely to develop ties with some western hospitals and will contract with premier doctors and nurses from the US. The staff working below them will come from India.

**Are there any other regions of the world like the Caribbean where you might establish a similar health city?**

We would like to create about three or four health cities around the US border. After the Cayman Island project is through, we might look at the Bahamas and Virgin Islands. We just want to build one health city and get it going. Then we will see.

