

Inside Nachiket Mor's Healthcare Laboratory

Nurses instead of doctors, software solutions instead of human judgement. This is the ex-banker's radical premise to reconfigure primary healthcare in rural areas. **M Rajshekhkar** checks out a pilot in a Tamil Nadu village.

Nachiket Mor has been a banker half his life. He's crafted new models to deliver financial services to villages. Yet, he is as comfortable talking about lipid-profile tests as liquid funds. Lately, though, he's been listening a lot, to doctor-patient conversations at Karambayam, a village of about 3,000 people in Tamil Nadu's Thanjavur district.

Karambayam is the site for one of the two healthcare clinics set up by Mor and his 30-member team to reconfigure primary-healthcare delivery in rural areas. It's far removed from his life four years ago, when he was tipped to succeed KV Kamath at ICICI Bank. On leaving the bank in 2007, he moved to the ICICI Foundation to work on rural development. Last September, he left the foundation to take charge of 'Sugha Vazhvu' (happy life in Tamil).

Sugha Vazhvu is testing a radical idea: can technology replace doctors with nurses, human judgement with software solutions? "It is difficult to expect doctors to stay in villages," explains Mor. "So, we are asking if a combination of technology and a reasonable amount of training (to local nurses), under the supervision of a doctor, can deliver superior outcomes."

Sugha Vazhvu bears the imprimatur of Mor in its conception and design. By the end of his ICICI Bank stint, says a former colleague, Mor was seen as an "idea factory" without the ability to execute. "He once wanted to open 15,000 vocational training centres. We opened none," says the ex-colleague.

"He over-promises, maybe because he is in a hurry to do something great." As such, studying Sugha Vazhvu — the ailments it has diagnosed in rural healthcare and the cures it has been testing since November 2009 — is also a good way to reappraise Mor.

The clinic in Karambayam is a two rooms-and-a-porch affair. On the porch lie three benches and some potted plants. The first of the two cream-coloured rooms inside is rimmed with paraphernalia for diagnostic tests. The second room is where the nurse and doctor meet patients.

As primary health centres (PHCs) go, it's well-stocked. Most government PHCs remain dysfunctional, crippled by an absence of doctors, medicines, equipment and medical records. "Doctors make their diagnosis more on the basis of judgement than data," says Zeena Johar, president of ICICI Knowledge Park's Centre for Technologies in Public Health (ICTPH).

Then, while chronic diseases like diabetes are widespread, the equipment for spotting and treating them is missing at the PHCs. As are essentials like eye-care and dental. Mor, who is a member on the Planning Commission's National Commission for Universal Healthcare, says 95% of healthcare needs can be met at PHCs.

"The PHC should deliver 'managed healthcare' — tracking an individual's health indicators over her life — and direct her to secondary, tertiary and home care as needed." He thinks technology, arranged and harnessed intelligently, can be the answer.

So, Sugha Vazhvu monitors the health of the people of Karambayam and Alakkudi — the other village where it has a centre. At the outset, it asks villagers extensively about their medical history, through a standard questionnaire. The objective is two-fold: one, when a patient makes a repeat visit, their symptoms can be seen in conjunction with their medical history. Two, a person's health can be tracked continuously.

Sugha Vazhvu is also testing if technology can help address the shortage of doctors. It is testing a nurse-managed, doctor-supervised model, pumped by technology and protocols. "Medicine is driven by rules," says Johar, a PhD in molecular diagnostics and biochem-



(above) Sugha Vazhvu centre in Karambayam, Tamil Nadu. (below) Diagnostic equipment



istry. Sugha Vazhvu relies on three sets of protocols. The first captures a patient's medical information. The second codifies how the tests are to be conducted. The third helps with diagnosis of 20 common ailments, including upper respiratory infections, gastro-intestinal problems, diabetes and hypertension.

When a patient comes to Sugha Vazhvu, the nurse feeds the person's symptoms into the computer. The software views the symptoms in conjunction with the patient's medical history, and recom-

ends diagnostic tests. If the diagnosis is confirmed, the treatment recommended is validated by a doctor and administered. If not, the nurse refers the patient to a doctor. This model, claims Mor, reduces the need for a doctor. The Medical Council of India mandates one doctor for every PHC. Sugha Vazhvu has asked the council to allow

one doctor to supervise 5-20 centres. "80% of diseases can be dealt through protocols," says Johar. Dr T Sundararaman, who runs the National State Health Resource Centre, which advises the Central and state governments on the National Rural Health Mission, is unsure. "At a couple of levels, this (Sugha Vazhvu) is very simplistic," he says. "Diagnosis involves pattern recognition. I'm not sure you can replace judgement with a database." He doesn't think technology will make the difference. "Trained nurses will."

Sundararaman also warns about the power and politics in healthcare. "When you are doing pilots, everything is fine. The opposition starts when you try to scale up," he says. "Political boundaries have to be scaled."

These are still early days for Sugha Vazhvu. It doesn't have concrete answers on the model or its funding. Each centre entails a capital cost of ₹5.5 lakh and a running cost of ₹70,000 per month. ICTPH is funding the entire amount.

When it was free, the Alakkudi centre was seeing 120 patients a day. When it started charging ₹50 per visit, hardly anyone came. It has since reduced the fee to ₹15, and now sees about 10 patients a day. What makes finding answers tougher is the state chosen for the pilots — Tamil Nadu.

Mor says Tamil Nadu was chosen because its healthcare set-up is good enough to experiment with next-generation questions. But it also means Sugha Vazhvu is competing with a good, and free public health system. Further, villagers have not grasped Sugha Vazhvu's USP: healthcare management.

At the Alakkudi centre, Dr Chitra Ramaswamy says the below-poverty-line (BPL) households first go to the government PHC, but come to Sugha Vazhvu if they are not cured. The rich come to Sugha Vazhvu first, but go to Thanjavur if dissatisfied.

Sugha Vazhvu resembles the rural banking pilots of Kshetriya Gramin Financial

Public Health Models

Since Independence, India has seen myriad attempts to crack the primary healthcare conundrum.

LOCALS AS BAREFOOT DOCTORS: Programmes like Chhattisgarh's Mitandin train local women as community health workers who can treat common ailments and mobilise villagers to demand better services from the government. It has catalysed improvements in the state's public health system.

LOCALS AS OUTREACH AGENTS FOR THE PUBLIC HEALTH SYSTEM: Loosely based on Mitandin, the National Rural Health Mission's Accredited Social Health Activists (ASHAs) take the ailing to the primary health centres (PHCs). Works only if the PHCs are functional.

CREATING NON-PROFIT REPLACEMENTS FOR THE PUBLIC HEALTH SYSTEM: Such projects have been working in rural India for decades now. Take Raj and Mabelle Arole in Jamkhed. Between 1972 and 1992, this doctor couple famously brought infant mortality down from 176/1000 to 20. Not a model that scales up.

CREATE A NEW CADRE OF RURAL DOCTORS: Assam and Chhattisgarh started a three-year course to produce rural 'doctors' who can practice only at the primary level. The Medical Council is evaluating this approach.

RURAL AMBULANCE SERVICE: Models like EMRI ferry patients who need secondary or tertiary care to larger hospitals. Works only if the primary centre is functional.

USING TECHNOLOGY TO SUPPLANT FIELD-LEVEL MEDICAL KNOWHOW: Sugha Vazhvu's protocols seek to partly replace doctors with nurses, judgement with technology. Then, there are telemedicine pilots, which involve remote diagnosis.

Services (KGFs), another pilot mentored by Mor. Both seek to replace, to some extent, tacit knowledge with protocols.

Says an industry peer who has seen Mor from close: "Nachiket has managed to create a team that complements him better. That was not the case in ICICI." Also, he says, Mor is spending more time in the field — that too in a limited geography thinking about a limited set of issues. "I see a lot more grounded ideas."

Unlike KGFs, Mor doesn't see Sugha Vazhvu being scaled up. "We just want to try different permutations and combinations," he says. The plan is to set up five clinics, all funded by ICTPH, and leave it at that, but discover, perhaps, answers that help reconfigure how primary healthcare is delivered to rural India.

Expert Opinion

Raising Funds a Means, Not an End

One of the most active private equity and venture capital investors in the country, Sequoia Capital manages assets worth \$1.4 billion in India. A recent management transition has prompted the blue chip firm to renew its focus on early-stage investments in sectors ranging from software as a service, to technology products, mobile internet and payments and e-commerce. In an interaction with **The Economic Times**, Sequoia Capital managing director **Shaileendra Singh** explains why raising capital is the start of the race for an entrepreneur and not the end.



Young companies make the mistake of being fixated on raising funds but their competitors too have access to money — so the real winner is the one who can use money well.

SHAILEENDRA SINGH
Managing Director, Sequoia Capital

ECOSYSTEM MATTERS

Entrepreneurs get ideas for a new business and its validation from peers within an ecosystem. Clusters of start-up activity are now being clearly defined across India from the National Capital Region to Bangalore, Hyderabad, Chennai and Pune — you can see new technology product development as these cities have a critical mass of engineering talent and large global corporations that base research and offshoring work here. In contrast, there are hardly any start-ups coming out of Mumbai, those doing well are at least a decade old. Local role models and a supportive ecosystem are crucial to new start-up development. I am shifting base from Mumbai to Bangalore where all the entrepreneurs are based.

TECHNOLOGY, NOT BUSINESS PLANS

India is a major hub for business model innovation, we have the jugaad approach, but what investors look for is the underlying technology that creates a barrier to entry and builds a base for scaleable businesses. iYogi, which provides tech support for PC users worldwide is an example. JustDial is successful because they can answer a consumer call in 20 seconds, but there is a lot of technology at the back end that makes it possible.

E-COMMERCE NOT THE ONLY OPTION

Even in a mature economy such as the US, e-commerce accounts for just 10% of all total transactions. The big questions on how to make payments and manage reverse logistics are not yet solved. E-comm companies will bleed for 4-5 years before they make money. For early-stage funds, there is pressure to invest in e-comm start-ups now while they are still small. How competitors behave does impact how investors think. But at Sequoia India, we have the flexibility to come in late and put \$20 million in a good company.

GOOD TIME TO RAISE MONEY, BAD TIME TO SPEND

The race begins when an entrepreneur gets capital. The rising cost of hiring and advertising, consumers spoil for choice — all these are the real challenges. Young companies make the mistake of being fixated on raising funds but their competitors too have access to money — so the real winner is the one who can use money well. For instance Interactive Avenues a digital advertising company in our portfolio has raised less than \$3 million (it represents a fourth of the on-line space in India) while its closest competitor has raised over \$25 million. Raising money can become a seductive cycle in itself for an entrepreneur while what really matters is how that money is spent.

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NACHIKET MOR
Founder, Sugha Vazhvu

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Biz of Construction Management

Starship Enterprise

Civil engineer-turned-entrepreneur finds opportunity in project management

PEERZADA ABRAR

Sankey Prasad, a civil engineer who took the entrepreneurial plunge in 2003, is already leading the construction of one of the tallest buildings in the country — the 40-storey World Trade Tower in Noida. Once the construction is complete, it will be more than twice the height of Qutub Minar in Delhi. He is also providing support to build the tallest hotel in the world — the 77-storey Emirates Park Towers Hotel & Spa in Dubai.

Prasad is not a real estate tycoon. He runs a Bangalore-based mid-tier firm, Synergy Property Development Services, which specialises in turnkey projects, architectural design and complete project management. He does this for marquee clients like real-estate players Embassy, DivyaSree, Runwal and healthcare provider Global Health.

Riding the realty boom has helped the young company rake in revenues of ₹300 crore in just eight years. Synergy has so far developed over 100 million square feet of IT parks, retail malls, special economic zones, campuses, hospitals, hotels and premium residences for realty firms. One such project is Medicity in Gurgaon, which is India's largest hospital cluster development.

"They do all the negotiations with the contractors and stick to the site till the things are done on time," says Nimish Arora, CEO, Aarone Group, a real estate



AT WORK: Sankey Prasad (left) at a construction site

developer who partnered with Synergy to build the Select Citywalk, a premier shopping mall located in Delhi.

Aarone has now outsourced its next assignment, a technology park — Cyberwalk in Gurgaon — to the Bangalore-based company. And he is doing so with good reason, outsourcing the project management has helped the Aarone Group improve its efficiency by about a fifth and freed up time to focus on their core expertise — business development.

Synergy is now helping in the construction of premium hotels such as Park Hyatt, Hilton Residences, Accor-Pullman, Four Seasons and Radisson in India. The company is also developing a luxury urban resort, the Chedi Club and Residences in Malaysia.

For Prasad, the idea to launch a project management firm took shape when he was heading the India operations of TCG Developments, a US-based real es-

tate development and advisory company. Prasad identified a huge shortage of engineering and managerial talent in the construction industry that resulted in delays and budget overrun amid rising costs for engineering services and a tight labour market.

Initially it was tough to get business from real estate players, as they used to do everything in-house. But the benefits of outsourcing soon became apparent. "We have outsourced all current projects to Synergy," says

Santosh Martin, CEO of DivyaSree Developers. Some other outsourced projects that Synergy will be doing include a Bangalore R&D Campus for

Synergy Property Development

The Company was founded by Sankey Prasad

The line of business is project management, architectural design and turnkey projects

For 2010-11, the company had revenues of ₹300 crore

Major investor is Blakstone Real Estate Partners

The landmark projects are Medicity (Gurgaon), Select Citywalk (Delhi)

telecom biggie Huawei and an Info Park for IT major TCS in Cochin.

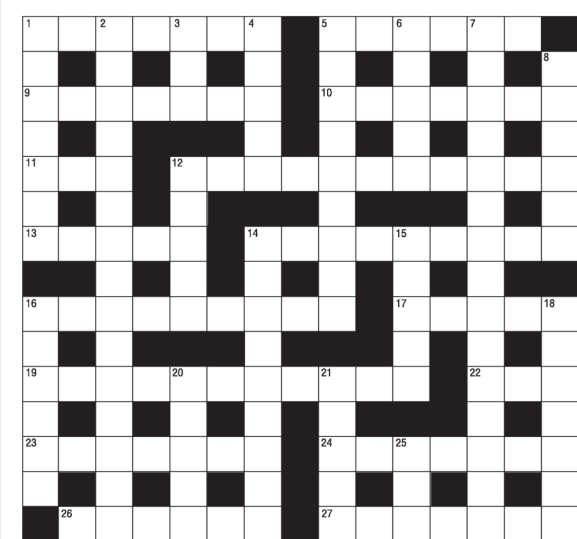
Such customer acquisition has helped the young company earn investor attention as well. In 2008, private equity giant Blackstone, through their construction-focused investment fund, picked up 35% stake.

The firm, which has around 600 employees, has introduced an online management information system (MIS) designed by IBM to increase use of technology for project management. Global Initiative for Restructuring Environment and Management, an independent body focused on urban planning, development and corporate real estate rated Synergy as the Best Engineering Firm of the year 2010.

Prasad said that there is a huge opportunity in the project management space for entrepreneurs, but there are not enough players in the market to tap it. "We are targeting revenues of ₹1,000 crore by 2015," says Prasad who is now eyeing to be part of development projects for the 2022 FIFA World Cup that is going to be hosted in Doha, Qatar.

Crossword

4238



ACROSS
1 Indicated the way to be sharp (7)
5 Church get-up in red (6)
9 State of a fashionable princess (7)
10 Lively support in oral composition (7)
11 Unfinished craft in fur or feathers (3)
12 Shabby plaid one takes to be out of fashion (11)
13 One files to get some of the detergent back (5)
14 Academic to employ heartless lady in a generous way (9)
16 A resort to fun with American food item (9)
17 Richard, the singer who gives us rock (5)
19 Convert one born here to something different (11)
22 One might get carried away by one pop performance (3)
23 One appears in various titles as a supporter of superiority (7)
24 Graceful ends achieved by romance and charm (7)
26 What's heavenly about the pub is not the stout (6)
27 Got to the point of recording a

warning of danger (7)
DOWN
1 Quietly inclined to be easily led (7)
2 Asian going up the line without support can be an illusion (6,4-5)
3 It's refreshing not to start late for a change (3)
4 Learned man becoming something of a bore in slow speech (5)
5 They're the best plants you can have around the hospital (9)
6 Made a decision to go straight (5)
7 Holiday people going round having visions (11,4)
8 Doctor Andy having trouble early in the week (6)
12 Put off the cleaner when the fellow's gone (5)
14 Pray agent is able to organise display (9)
15 Relative's dirty article suppressed (5)
16 Declined to be at the centre of a resting place (6)
18 Having designs being worked out (7)
20 Have a royal time in the shower, so to speak (5)
21 Gained admission to the bar? (5)
25 When needing a little money one put the bite on Cleo (3)

Solution to 4237
ACROSS: 1 Cakes and ale, 9 Rampage, 10 Subject, 11 Nut, 12 Outside, 13 Immoral, 14 Yet, 15 Hastie, 17 Newts, 18 Dress, 20 Aisle, 22 War, 24 Tremble, 25 Serpent, 26 Set, 27 Uncouth, 28 Eminent, 29 Escaping gas.
DOWN: 1 Come to the rescue, 2 Knavish, 3 Scene, 4 Nastiness, 5 Albumen, 6 Eyebrow tweezers, 7 Priory, 8 Stalls, 16 Spaceship, 18 Detour, 19 Subfusc, 21 Earring, 23 Rotate, 25 Stern.

Dilbert

