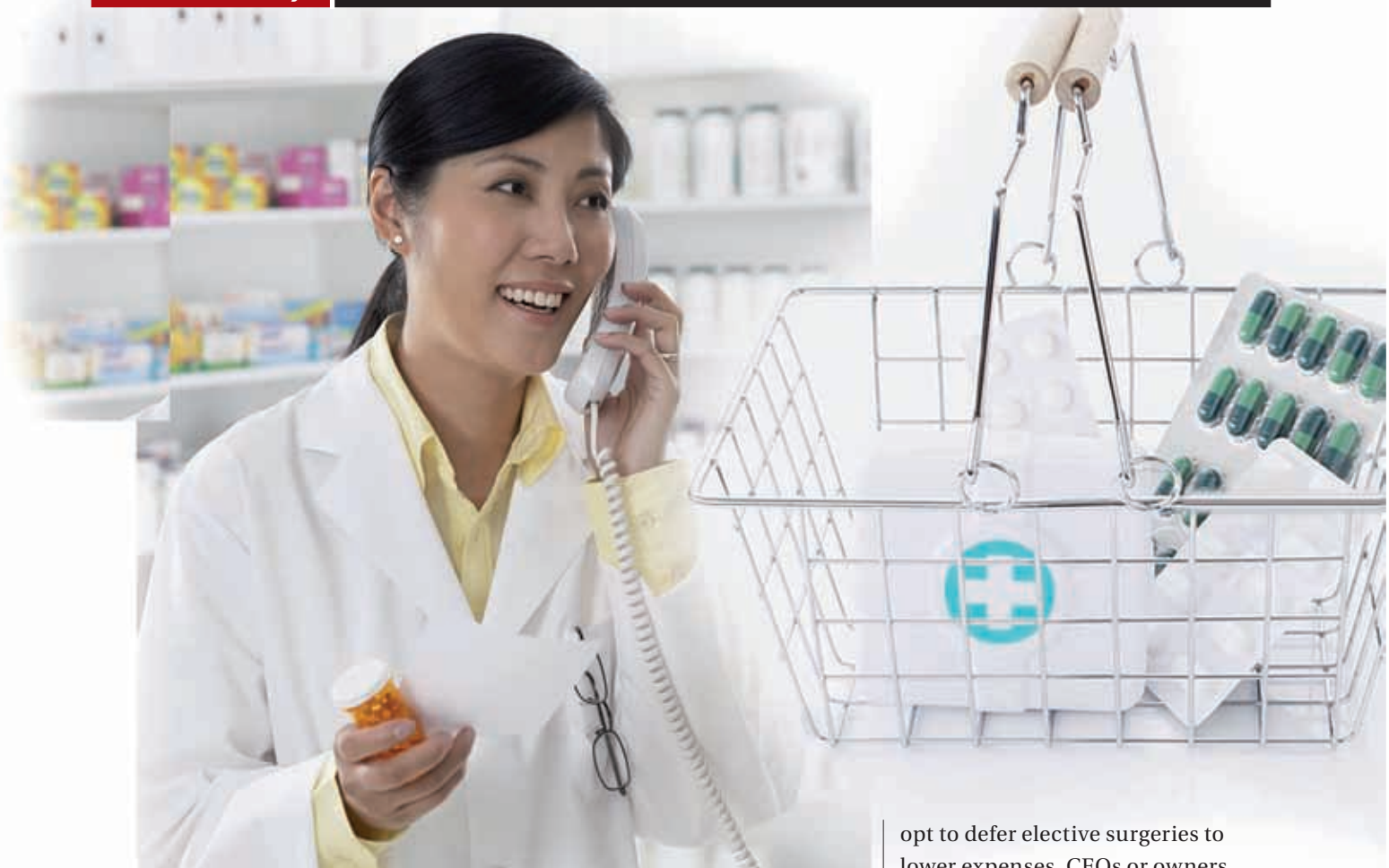

Reaching Out To A New Set Of Customers

Telemedicine helps bridge distances as well as the gaps between the demand and supply of health services in rural India. Here's how…

Charu Bahri
The author is a freelance writer, columnist and [part-time] manager—projects and information systems at J Watumull Global Hospital & Research Centre. More about her at http://charubahri.googlepages.com

A hospital or nursing home—the cost of establishing either is considerable, if you factor in the number of patients that need to be treated for these facilities in order to break even. It comes as no surprise then that in these times of recession, when people opt to defer elective surgeries to lower expenses, CEOs or owners of healthcare facilities are looking for alternate ways to maximise the yield from installed resources, as well as keep doctors busy.

Besides discounts on hospital packages to draw patients, could telemedicine be a means to pull in the numbers that may not be forthcoming in cities?

Telemedicine—reaching out to distant patients

Well —what exactly is telemedicine? Abhimanyu Gupta, director, Actis Technologies, explains that, "Telemedicine is the delivery of medical care at a distance. A broad term, telemedicine may be as simple as two health professionals discussing a case over the telephone, or as complex as using satellite technology and video-conferencing

>> Key BenefITs

- With telemedicine:
  - expand the network of your healthcare services by covering the far-flung corners of the nation, remotely
  - bridge the gap between the demand and supply of quality healthcare

equipment to conduct consultation sessions (in real time) between medical specialists in two or more geographically dispersed locations."

In fact, Indian Tier II and Tier III cities, as well as larger towns, may welcome telemedicine with open arms. Apparently, although about 70 per cent of the over one billion Indians live in rural India, 70 per cent of our medical community has opted to dwell in cities where both their work and general living infrastructure is better. As a result, not only are medical facilities concentrated in urban areas, but these are also scarce. There is only one hospital bed available for every 1,333 Indians, and one doctor per 15,500 people. And only 9 per cent of our one billion people are covered under health schemes.

> "Telemedicine has the potential to close the gap between the demand and supply of quality healthcare especially in rural and far-flung areas."
>
> Abhimanyu Gupta, director, Actis Technologies

Given this scenario, it appears to be about time that healthcare providers adopted telemedicine to help their cause and in the process, also deliver healthcare to India's far-flung regions.

The backbone of effective telemedicine

According to Gupta, "Telemedicine has the potential to close the gap between the demand and supply of quality healthcare especially in rural and far-flung areas." However, this is subject to a major proviso —there are technologies and technologies, and not all can sustain uninterrupted telemedicine services of a high quality.

Explaining this further, Gupta elucidates that, "There is a wide array of conferencing products (*see box*) from leading global brands available. Most of these are at the cutting-edge and can be easily customised to suit one's need/ budget. But essentially, video-conferencing products that are based on standard definition technology prove to be limiting in the field, since these are associated with glitches such as inconsistent video and audio quality, narrow viewing angles, and the lack of readability of shared documents."

According to Gupta, the way forward is for city-based hospitals to adopt high definition video conferencing systems that ensure a smoother video and audio quality, enable wider display possibilities as well as a higher resolution that is essential to accurately share medical records.

Optimising the use of scarce resources

High definition video conferencing systems offering high clarity visual acuity are essential to the success of guided medical care and critical in the case of remotely assisted life-saving surgeries. These are also useful to train medicos situated in far-off places.

In this manner, instead of sitting idle, doctors' services can be utilised for a greater number of patients. Of course, since success and profits lie in the numbers of patients served, the technology must be widely deployed to make a difference.

For this, as Shivasankar Krishnamurthi, country manager, LifeSize (India) observes, "Alongside offering high quality video, an ideal telemedicine solution should be cost-effective and simple to use so as to ensure its wide deployment."

Conferencing products available for telemedicine

The array of technologies available for telemedicine includes:

- High definition video conferencing endpoints
- Standard definition video conferencing endpoints
- Multi party conferencing/ control units (MCUs)
- ISDN gateways
- Recorders/ IPVCRs

Essentially, Krishnamurthi seeks to emphasise the fact that a single telemedicine system consists of an interface between hardware, software and a communication channel to spatially bridge two geographical locations. The doctor and patient, or doctor and assisted doctor must feel as though they are face-to-face. But for telemedicine to make significant inroads across India, it must be deployed on a large scale. One or two systems will not make a difference to the millions of people living in India's villages. Hospitals must be able to afford to establish a network covering many remote rural hospitals and health centres.

> "Alongside offering high quality video, an ideal telemedicine solution should be cost-effective and simple to use so as to ensure its wide deployment."
>
> Shivasankar Krishnamurthi, country manager, LifeSize (India)

Further, Krishnamurthi cites the availability, quality and cost of bandwidth as another challenge in deploying technology. In India, bandwidth infrastructure is still an expensive resource. Yet without adequate bandwidth, doctors cannot reach out to distant villages to offer remote diagnostic and medical consultancy services. In this context, he shares the need for a high definition telemedicine system that's capable of delivering high quality audio-video across all available bandwidths, and particularly at low bandwidths.

Only then will technology be blessed for being a great enabler, for delivering health services to the masses, while also being the means to maximise the use of expensive medical facilities. ■

Where has telemedicine been applied successfully in India?

Besides hospitals, telemedicine is slowly becoming popular at nursing homes in Tier 2 and Tier 3 towns, enabling consultation with a more experienced doctor based in a metro, for complicated cases. A number of medical universities are also using telemedicine to train students in new medical procedures.