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Emerging Markets

Lessons for healthcare from emerging markets

Can the vision of emerging markets transfer to developed countries for better healthcare?

From the mobile banking revolution and use of healthcare drones in Africa to production-line surgery in India, emerging markets embrace tech innovation with speed and boldness that developed markets only dream of. The reasons are many including a lack of infrastructure and regulations, factors that lend themselves to finding solutions and thinking outside the box. Technology developed in regions like Europe and North America has spawned opportunities in healthcare around the globe. Now is it time for developed markets to learn from emerging markets? We asked three healthcare experts to reflect on the question: "Does production-line surgery have potential in developed healthcare markets?"

Sir Muir Gray, CBE

Director, Better Value Healthcare Oxford, UK, Professor of Knowledge, Management, University of Oxford, UK, Chief Knowledge Officer, Department of Health UK HealthManagement - EXEC Editorial Board Member

"The development of what is called production-line surgery in countries where resources are very limited is of great interest, but production-line surgery has already been developing in wealthy countries too.

There has been a concerted effort to reduce duration of stay and then to make as many operations day case operations as is thought to be possible. This is called increasing productivity but it is important to remember that productivity is different from efficiency. Productivity is measured by relating the resources used to the outputs, for example numbers of operations or surgeon or operating theatres whereas efficiency relates outcome to resources, for example the percentage of people having an operation whose health improved significantly related to the resources used. This is obviously very important in every country because need and demand will increase faster than resources. However the key issue is now value. It does not make sense to carry out operations of low value even if they are carried out efficiently and productively. Doing the wrong things at less cost is not high value healthcare.

But what is high value surgery? Well that depends upon a number of factors and the population level. It depends on factors such as:

- How much resource is being used for surgery

> "PRODUCTION-LINE SURGERY HAS ALREADY BEEN DEVELOPING IN WEALTHY COUNTRIES TOO"

and could that resource be used better for medical treatment or prevention?

- Are the people who would benefit most from surgery being operated on or, even in a tax based system, are wealthier people having more operations than deprived sections of the population?

Some interventions where there is limited evidence of cost-effectiveness, for example shoulder, surgery and knee arthroscopy, have increased in wealthy countries in the last decade but this is not necessarily high value use of resources when the alternative use of resources is taken into account.

Even interventions where there is strong evidence of effectiveness, for example hip replacement, knee replacement and cataract surgery may start to yield a poor return in investment if numbers treated significantly increase and therefore if the operation is offered to people who are less severely affected. For such people the benefits of the operation are less than they are for people who are very severely affected, the type of people treated when the operation was introduced, but the probability and magnitude of harm is constant. Therefore the balance of benefit to harm is significantly different for people who are mildly affected compared to those who are severely affected.

This means that even hip replacement, the operation voted the number one operation in the 20th century, may not give good value to either individuals or populations if too many operations are carried out in a particular population."

"Emerging markets will be a catalyst for disrupting how surgical care is delivered more affordably in developed markets.

Hospital systems in India, like Narayana Healthcare, have already demonstrated the value of 'production-line surgery' to enable more surgeons to perform more surgeries more effectively. Their flagship hospital has over 5, 000 beds, sees thousands of patients a day, and performs over 30 cardiac procedures a day. They achieve this because of their team-based approach to surgical care, where top surgeons, recognising the practical limitations of an individual surgeon, have transitioned their role from 'super-hero' to 'team coach'. Focus is placed on team training, supply chain, and strategic partnerships with equipment and technology suppliers.

This production-line surgery approach is borne out of necessity, as there are simply too many underserved patients to take a traditional approach to surgical workflow and patient care. But greater volume doesn't necessarily mean lower quality results. On the contrary, procedure volume has enabled surgeons to become highly skilled and foster continuous improvement - Narayana's clinical outcomes rival and exceed some of the best hospitals in the U.S.

Other hospital groups in India like Apollo, Fortis, and Aarvind Eye Institute have similar models of high quality, affordable care driven by patient volume and creative business models. In a slightly

Rahul Sathe

Head of Surgical Innovation for Emerging Markets Cambridge Consultants, UK

> "TOP SURGEONS, RECOGNISING THE PRACTICAL LIMITATIONS OF AN INDIVIDUAL SURGEON, HAVE TRANSITIONED THEIR ROLE FROM 'SUPER-HERO' TO 'TEAM COACH'"

different model, Columbia Asia, a hospital group in Southeast Asia known as the 'McDonald's of hospitals', has optimised each of their 30 hospitals to be around 100 beds, following a manufacturing model of replicating an operation unit with amazing cost-efficiency.

Production-line surgery has the ability to democratise surgical care in developed markets such as United States or the EU. With ever increasing cost of surgical care without similar increases and clinical outcomes, a production-line surgery approach could have great benefit for high-volume procedures such as total knee replacement or cataract surgery. More complex surgical cases (ie oncology or neurosurgery) don't need production surgery in practice but the foundational philosophies of mentorship, team training, strategic partnerships, and data enabled decision-making will still provide great benefit to improving outcomes and patient satisfaction while reducing overall cost of care."

"Healthcare must be safe, good quality and good value for the money. In many ways the National Health Service (NHS) in England is relatively safe, good quality and, compared to many other western societies, it is very good value for the money. However, demand is increasing, people are living longer and longer and cost of providing good healthcare is increasing. So even the NHS has to find a way of reducing costs. This is where production-line surgery has huge potential.

The phrase production-line surgery itself is not accurate. What we are talking about is a large volume of elective surgical work done at a very low cost. This concept originated in Russia and has now taken over in India, for example, at the Narayana Heath and Aravind Eye Hospitals. Each day, nearly 700 cataract surgeries are completed at these facilities and well-trained, low-paid staff undertake most of the procedure. The surgeon executes only the most delicate aspect of the surgery. The safety and quality of care are maintained by excellent support for staff, good teamwork and regular feedback to personnel. IT is used to make sure procedures are done quickly and effectively and results are analysed regularly and shared with the team.

The volume of surgery means the hospital is able to negotiate the cost of consumable goods. This reduces the cost of procedures. Nearly 60 to 70 percent of NHS costs are salaries and if low-paid staff carry out most of the procedures safely, this would reduce personnel costs significantly.

Today, the NHS is finding it difficult to cope with increasing demand and during winter many elective surgeries are cancelled. The waiting lists are growing in various parts of the country and the demand is increasing. Cost of care will also increase.

Umesh Prabhu

Former Medical Director, Wrightington, Wigan and Leigh NHS foundation Trust & Bury Trust, UK

> "THE PHRASE PRODUCTION-LINE SURGERY ITSELF IS NOT ACCURATE. IT'S A LARGE VOLUME OF ELECTIVE SURGICAL WORK DONE AT LOW COST"

The NHS has to find alternative ways of reducing costs and increasing productivity without compromising quality and safety. This needs a team of good doctors, nurses, managers and other staff to work together and staff must be trained very well. The procedure should also be piloted in one or two elective hospitals. I have absolutely no doubt that this can save millions of which the NHS can invest in social care, community care, primary care, digital transformation and another areas where NHS desperately needs investment." ■