

Industrial strength healthcare

August 13 2014

By adapting the "Lean Six Sigma" principle of manufacturing to rural hospitals, Indian researchers suggest that patient queues might be shortened by 91 percent while consultation time could be reduced to about a third of the time. Details of the approach are reported in the *International Journal of Healthcare Technology and Management*.

The Six Sigma approach to manufacturing is a set of techniques and tools developed by electronics company Motorola in 1986 to improve its development and [manufacturing processes](#). It improves quality and efficiency by identifying and treating the causes of errors and defects and minimizing variability in manufacturing and in the associated business processes. It is widely used in many disparate areas of industry. Lean Six Sigma as the name suggests combines these efficiency principles with the concept of "lean manufacturing" in which expenditure that does not add value to the end product and consumer and therefore the company's profits is minimized if not eradicated.

Now, Shreeranga Bhat of St Joseph Engineering College, in Karnataka, India and colleagues have applied the Lean Six Sigma principles, define, measure, analyze, improve and control process, to a rural Indian hospital to improve quality and care for patients. Their work demonstrates that ergonomic improvements in the healthcare environment as well as improvements to the handling of patient records and the progression of patients from the hospital entrance to the treatment room to their ultimate discharge with relevant prescribed medication and advice. The approach was also able to uncover problems with staff morale, training and administrative issues.

The successful implementation of this approach in a local rural hospital by the team was an "eye opener" for management, they say and "ultimately brought about a cultural change within the organization by involving everyone in the push towards excellence."

Given the large numbers of people that might enter a rural hospital in India each year and the potential for waste in the face of limited resources, the adoption of a Lean Six Sigma approach that has been successfully applied in [manufacturing](#) industries could be a significant step towards improved healthcare for rural communities in the developing world.

More information: Bhat, S. and Jnanesh, N.A. (2014) 'Application of Lean Six Sigma methodology to reduce the cycle time of out-patient department service in a rural hospital', *Int. J. Healthcare Technology and Management*, Vol. 14, No. 3, pp.222-237.

Provided by Inderscience Publishers

Citation: Industrial strength healthcare (2014, August 13) retrieved 23 April 2024 from <https://medicalxpress.com/news/2014-08-industrial-strength-healthcare.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--