

## Oh no! Half of all current EMRs fail

**Innovative study finds how to improve odds.**

BY DIANNE CRAIG

**H**ow do you measure the cost of a failed EMR implementation? In significant financial losses, missed opportunities for improved patient care or the anguish experienced by the implementers, clinicians and senior managers? The cost of failure is high, by any measure.

If we can learn why half of all EMR implementations fail, we can probably figure out how to improve the odds. That is the premise for an innovative new study led by Dr. Karim Keshavjee, a family physician and Associate Member of the Centre for Evaluation of Medicines, affiliated with McMaster University. While other authors have tried to identify and dissect factors that promote successful EMR implementations, Dr. Keshavjee reports this meta-study is the first to integrate the distilled wisdom of multiple reports.

"We know the failure rate is probably higher than 50%," says Dr. Keshavjee. "We looked at the literature to analyze what peoples' experiences had been." That literature included 1,100 published articles on EMR. Through a process of elimination, they whittled that number down to 50 EMR implementation articles, developed a framework for the study, and came up with a list of 17 factors that may affect EMR success.

Although the study has not yet been published, in a working paper titled "Best Practices in EMR Implementation: A Systematic Review", Keshavjee and his team hint at some of their early findings. They found as many as 50% of people did not show up for their training sessions. To no one's astonishment, improperly trained people were found to have a negative impact on implementations.

The team found that six or seven factors are crucial to the success of an EMR implementation. These include the process for selecting software, technology usability, training, and support. "Basically, there are about seven factors that are

so powerful that organizations which do them properly are about 10 to 15 times more likely to succeed than those which don't," says Dr. Keshavjee.

What really makes an EMR implementation successful? According to Gary Folker, managing director for the clinical informatics business at xwave, it is processes rather than technology. "I believe it is a question of change management processes and a clear understanding of the environment the physician works in. Success is more in the implementation than in the technology itself," he says.

Dr. Keshavjee agrees. "It has been my observation that implementers take the lessons learned in large clinics and try to use those lessons for smaller clinics. Generally, large clinics require expansive project management and workflow design. In an effort to cut costs, many implementers download the project management to the clinics and provide intensive workflow advice and support," says Dr. Keshavjee. "Yet, in small clinics," he adds, "physicians and their staff have a pretty good idea about effective workflows, with years of experience in making themselves efficient, but generally have poor project management skills. So yes, the process of implementation – change management and project management, are both important."

Dr. Keshavjee emphasizes that usability and selection of EMR software are also very important. "Clearly, things like usability impact users every day. When you are using an application 30-40 times per day, wasting 30 seconds per patient...means you may see two fewer patients that day or stay that much longer in the clinic every day," he says.

EMR software is complex, says Dr. Keshavjee, adding that if you are not careful in selecting it, you will discover many problems after you implement. "Most physicians are very easily overwhelmed by even small problems," he says, "as they are focused on solving patient problems, not trying to solve computer-related problems. Anticipating and resolving potential issues before implementation plays an important part in ensuring success of an EMR implementation."



**Dr. Karim Keshavjee**