

COMMENTARY

Faster by a Power of 10: A PLAN for Accelerating National Adoption of Evidence-Based Practices

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Despite a decade of heightened focus on quality improvement, evidence continues to move slowly and incompletely into practice. Studies suggest that it takes 17 years on average to move original research findings to a level where they can benefit patients.¹ To improve the quality of care, national improvement efforts must accelerate the spread of evidence-based practices. We propose an ambitious goal: to increase the speed of adoption of evidence-based practices by a power of 10, from 17 years to 1.7 years. To achieve this, policy makers and healthcare leaders must intentionally design programs and initiatives to achieve rapid, widespread adoption. We propose a framework of time-tested and validated management principles that, when applied simultaneously and at a policy level, has the potential to drive change more rapidly and more effectively.

Success in Quality Improvement

Over the past decade, some quality initiatives have dramatically improved care (**Table**). The Michigan Keystone Project, for instance, achieved a 66% reduction in central line-associated bloodstream infections (CLABSI) in 103 intensive care units across the state in 18 months.² Following this success, the Agency for Healthcare Research and Quality (AHRQ) launched the Comprehensive Unit-Based Safety Program (CUSP) for reducing CLABSI, which achieved a 40% reduction in this type of infection across 1000 hospitals nationwide in 4 years. The initiative prevented more than 2000 infections, saved more than 500 lives, and avoided more than \$34 million in healthcare costs.³

Quality and patient safety initiatives like the Michigan Keystone Project have demonstrated that widespread best practice dissemination is possible in a period much shorter than 17 years; yet, the majority of research findings continue to move slowly and incompletely into practice. To improve healthcare quality, we must accelerate the spread of evidence-based innovations through the intentional design

ABSTRACT

Despite a decade of heightened focus on quality improvement, evidence continues to move slowly and incompletely into practice. To improve the quality of care, national improvement efforts must accelerate the spread of evidence-based practices. We propose an ambitious goal: to increase the speed of adoption of evidence-based practices by a power of 10, from 17 years to 1.7 years, and present a 4-step PLAN to achieve this. The PLAN components are: **Performance**—identify performance gaps and set specific, measurable aims; **Leadership**—hospital and health system leaders support implementation and dissemination of evidence-based practices in their facilities; **Alignment**—align education and dissemination efforts with national policy drivers; and **Next**—continue to refine the implementation process to successfully address the next improvement opportunity.

Am J Manag Care. 2015;21(2):e99-e102

of programs and initiatives to achieve rapid, widespread adoption.

The proposed goal to accelerate the spread by a power of 10 is not beyond reach. Across the country, 26 different Hospital Engagement Networks (HENs), in a project developed by the CMS Innovation Center, engaged hospitals to reduce patient harm by 40% and to reduce preventable readmissions by 20% in 3 years.⁴ Results from one of the largest HENs, the American Hospital Association/Health Research & Educational Trust HEN—composed of 1400 hospitals in 31 states—show that more than 92,000 harms were avoided and over \$988 million in cost savings were achieved from 2012 to 2014.⁵ The HEN project has shown that although some practices may not spread spontaneously, accelerated dissemination of best practices is possible through intentional planning.

PLAN to Spread National Quality Improvement

Learning from recent improvement efforts, we developed a 4-step PLAN to accelerate the pace of spread from 17 to 1.7 years. The components of the framework are not new; they are time-tested and validated management techniques to bring about change. Despite the proven value, however, these techniques have not been applied at a national policy level in an effective manner. The value of the PLAN framework lies in the disciplined application of all 4 steps together; through deploying all 4 powerful strategies simultaneously, policy makers have the potential to dramatically accelerate the spread of best practices to transform patient care.

The 4 components are:

- ◆ **Performance:** The first step in any improvement project is to identify performance gaps and set specific, measurable aims for improvement. The Institute for Healthcare Improvement 100,000 Lives Campaign exemplified the power of a specific, measurable aim through its bold intention to save 100,000 lives in an 18-month period. As Don Berwick, former administrator of CMS noted, “Some is not a number; soon is not a time.”⁶ Successful improvement efforts must have clearly articulated and measurable goals.
- ◆ **Leadership:** Hospital and care system leaders must transcend the simple desire to improve and must actively support the design and implementation of improvement in their organizations. This includes being a focal point and catalyst for institutional commitment, and supporting resources for education and dissemination strategies such as developing tool kits, media campaigns, and learning collaboratives. One particular success of the AHA/HRET HEN project was the reduc-

tion of early elective obstetric deliveries. This was achieved through utilization of a checklist of best practices, webinar education sessions, leadership calls, case studies, and examples of hard-stop policies. The combination of multiple implementation efforts resulted in dramatic reduction of early elective deliveries by more than 50% in hundreds of hospitals in 18 months.

- ◆ **Alignment:** Improvement efforts are much more effective when their goals align with national policy for reimbursement, reporting requirements, funding opportunities, or performance-based incentives or penalties. Changes in reimbursement policy have contributed to the decline of hospital-acquired infections since 2008, for example. When CMS began denying payment for a number of hospital-acquired infections, hospitals suddenly faced strong financial incentives to invest in patient safety and infection prevention. Aligning patient safety and financial performance creates a compelling business case that can increase the return on investment for hospitals that commit resources to infection prevention.
- ◆ **Next:** The last piece of the PLAN is to focus on what is next. Improvement never ceases; improvement projects should undergo multiple iterations that are designed in response to quantitative and qualitative feedback that identifies opportunities for improvement. Data collection is crucial to measure progress and design more effective future iterations. Following the success of the CUSP project to eliminate CLABSI, for instance, AHRQ has subsequently funded national efforts to eliminate catheter-associated urinary tract infections (CAUTI). Although tool kits and education have been instrumental in this effort, the ongoing collection and analysis of data have been the driving force behind reducing CAUTI rates.

The principles of PLAN—identifying performance gaps, providing committed leadership, aligning actions with national policy, and demanding next steps for continuous improvement—can help healthcare leaders and policy makers to accelerate improvement by an order of magnitude.

CONCLUSION

National improvement efforts over the past decade have shown it is possible to spread best practices swiftly at a national level, yet many evidence-based improvements continue to move slowly and incompletely into practice. Policy makers and healthcare leaders must apply the PLAN framework to national improvement efforts to intentionally accelerate the pace of improve-

ment. Through implementing the time-tested strategies of this framework, we can work toward reducing the average speed of adoption from 17 years to 1.7 years, which will benefit patients, improve population health, and increase the value provided by the healthcare system.

Author Affiliations: Health Research & Educational Trust (NDE, MSJ), Chicago, IL; American Hospital Association (NDE, MSJ), Chicago, IL; Hospital Corporation of America (JBP), Nashville, TN.

Source of Funding: None.

Author Disclosures: The authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: Concept and design (NDE, MSJ, JBP); acquisition of data (NDE); analysis and interpretation of data (NDE); drafting of the manuscript (NDE, MSJ, JBP); critical revision of the manuscript for important intellectual content (NDE, MSJ, JBP); and supervision (MSJ).

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Take-Away Points

The authors identify a 4-step process, or PLAN, to accelerate the widespread adoption of evidence-based practices. The 4 steps are:

- **Performance**—Identify performance gaps and set specific, measurable aims for improvement.
- **Leadership**—Hospital leaders must actively support the design and implementation of improvement initiatives in their organizations.
- **Alignment**—Improvement efforts are more successful when their goals align with national policy for reimbursement, reporting requirements, funding opportunities, or performance-based incentives/penalties.
- **Next**—Improvement teams should continuously monitor progress, gather feedback, and adapt to successfully address the next improvement opportunity.

■ **Table.** Successful Large-Scale Improvement Efforts Since 2008

Initiative	Results	Units	Time
Ascension Health ⁷	Reduced deaths by more than 1500 annually Reductions in neonatal mortality, birth trauma, pressure ulcers, ventilator-associated pneumonia, and blood-stream infections	69 acute care hospitals across 20 states and the District of Columbia	7 years
HCA Initiative to Reduce Early Elective Deliveries (EEDs) ⁸	Reduction of EEDs to 4%	27 hospitals across 14 states	3 months
Institute for Healthcare Improvement 100,000 Lives Campaign ⁶	~122,300 lives saved	3000+ hospitals	18 months
Joint Commission Accountability Measures ⁹	Improvement on all measures tracked for at least 2 years Median improvement of 7.1 percentage points, high of 66.1 percentage points	Joint Commission–accredited hospitals	2 years
Michigan Keystone Project ²	66% reduction in CLABSI	103 ICUs in Michigan	18 months
National Healthcare Safety Network ¹⁰	41% reduction in CLABSI 17% reduction in SSI 7% reduction in CAUTI	All hospitals	5 years
On the CUSP: Stop BSI ³	40% reduction in CLABSI	1000+ hospitals nationally	4 years
AHA/HRET Hospital Engagement Network ⁵	92,000 harm instances avoided	1400+ hospitals	3 years

AHA indicates American Hospital Association; BSI, bloodstream infection; CAUTI, catheter-associated urinary tract infection; CLABSI, central line associated bloodstream infection; CUSP, Comprehensive Unit-Based Safety Program; HCA, Hospital Corporation of America; HRET, Health Research & Educational Trust; ICU, intensive care unit; SSI, surgical site infection.