Collaboratives and Spreading Improvement
An Annotated Bibliography (updated April 2014)


The collaboratives focused on specific hospital microsystems [emergency departments (EDs), intensive care units (ICUs), and operating rooms (ORs)] and measurable clinical outcomes.


Concludes that organizational participation in a common disease-targeted collaborative improved a wide range of processes of care for CHF and supports the use of programs like the BTS collaboratives in improving the processes of care for patients with chronic diseases.


General description of the Breakthrough Series. No specific results included.


We report a multi-method preliminary study based upon phase 1 of the UK Health Foundation's Safer Patients Initiative (SPI) to understand participant's perceptions of the local impact of the programme and to form the basis of future research in this area.

Berwick DM. Developing and testing changes in delivery of care. Annals of Internal Medicine 1998; 128(8); 651-656.

Small-scale testing, i.e., Plan-Do-Study-Act (PDSA) cycles, is explained.


Described here is a method for small-cycle quality improvement: plan,do,study,act. Mostly concentrates on Adult ICU and the Breakthrough Series.


Updated April 2014
The Breakthrough Series and IHI are described in the context of the British collaborative on delays. Mentions the model for improvement, team work based programs and collaborative meetings.


This article describes the design of a virtual Breakthrough Series Collaborative (BTS) and reports comparable results to a traditional BTS design can be achieved using virtual methods.


A series of practice characteristics that constitute critical elements for quality improvement (QI) sustainability activities, as described in a Sustainability Pyramid Model, were proposed.


The project has provided coaching, monthly measurement, and patient registry support for 155 primary-care practices that participate in the 3-year Pennsylvania Chronic Care Initiative led by the PA Governor's Office of Health Care Reform.


The goal of this collaborative was to improve discharge measures for acute myocardial infarction and heart failure.


Quality improvement (QI) interventions are usually evaluated for their intended effect; little is known about whether they generate significant positive or negative spillovers. This QI intervention appears to have generated effects beyond its condition of focus; QI's unintended effects should be included in evaluations to develop a better understanding of QI's net impact.


A positive evaluation of the results for a Bureau of Primary Health Care –IHI Collaborative on Diabetes for a group of community health centers in the Chicago area.

Chin MH. Quality improvement implementation and disparities: the case of the health disparities collaboratives. Med Care 2010;48:668-75.

Updated April 2014
The Health Disparities Collaboratives (HDCs), a quality improvement (QI) collaborative incorporating rapid QI, a chronic care model, and learning sessions, have been implemented in over 900 community health centers across the country.


A description of the methods used for the RAND evaluation of four collaboratives on chronic disease care.


An excellent summary of the results from the first two regional collaboratives on chronic illness. Case studies from the collaboratives are included in the same issue of the journal.


Summary of positive results from a national collaborative sponsored by CMS and launching a national effort by the nation’s Quality Improvement Organizations to increase improvement on key quality problems.


The purpose of this article is to report findings from the preliminary evaluation of a major initiative to support the implementation of rapid response teams.


The objective of this study is to describe how the first group of eight multilevel quality collaborative (MQC) hospitals sustained and disseminated improvements made and the quality methods used.


Results from the first IHI collaborative, including information on how a collaborative is structured.

*Updated April 2014*

IHI's Breakthrough Series guide to reducing cesarean section rates while maintaining maternal and infant outcomes


The purpose of this pilot study was to (1) understand the attitudes, knowledge, and beliefs of internists who manage patients with chronic obstructive pulmonary disease (COPD) and (2) evaluate the impact of a multifaceted approach to quality improvement (QI) work involving the management of COPD patients


Using familiar and popular phenomena, this easily-read book is a modern description of spreading change that includes more detail about spread between organizations.


A description of the Quality and Safety Research Group of the Johns Hopkins University School of Medicine, the Michigan Health and Hospital Association, and 108 intensive care units (ICUs) from 77 hospitals collaborative improvement project.


This article discusses the aspirations, workings, and achievements of the California Perinatal Quality Care Collaborative, a regional collaboration formed to improve perinatal care.


This review found that the effectiveness of the collaborative methodology is being reported over a wide range of countries, health systems, organisations and topics. The quality of study designs being used has also improved. While positive for the most part, the evidence for the impact of collaboratives is as yet limited, particularly with respect to cost-effectiveness, and the effect on disparities.


The objective of this article is to describe practice changes associated with the Family Care Collaborative's intervention

*Updated April 2014*

An evaluation study of a national collaborative that involved a partnership between hospital, organ procurement organizations and the Division of Transplantation in the Health Resources and Services Administration that led to an increase in organ donation rates at participating hospitals.


Numerous potential determinants were tested in this study. Some aspects of teamwork and participation in specific collaborative activities were shown to enhance short-term success. The authors found no empirical evidence of positive effects of leadership support, time and resources. They concluded that more systematic exploration is needed to determine contributing factors to successful collaboratives.


This evaluation study concludes that the Health Disparities Collaboratives may be cost effective for society if the gains achieved during the first four years are maintained.


A summary of the first eight years of experience with the Breakthrough Series.


The Veterans Affairs (VA) Quality Enhancement Research Initiative (QUERI) seeks to develop partnerships between VA health services researchers and clinical managers, with the goal of designing and evaluating interventions to improve the quality of VA health care.

This study extended previous work, and the results showed that increased application of evidence-based catheter care as part of a state-based quality-improvement collaborative can reduce infections in preterm neonates.


Describes the first successful collaborative on cancer diagnosis and treatment, conducted in the UK.


This article describes IHI’s Breakthrough Series model for improvement. It is about collaborative improvement methods that accelerate the rate of diffusion of existing science into clinical practice.


A description of the Breakthrough Series with a table providing sample results from the Breakthrough Series on Reducing Costs and Improving Outcomes in Adult Intensive Care.


A description of internal collaboratives in the SSM health care system and a discussion of successes and failures in collaborative team projects.


Reports no statistical difference between study and control groups but raises important issues regarding external factors that may influence results, essential components of the BTS methodology, and the effectiveness of using randomized control trials to evaluate collaborative.


An evaluation of the first HIV/AIDS collaborative sponsored by the HIV/AIDS Bureau. This study notes positive significant results for only a small number of teams who originally joined the Collaborative.


Updated April 2014
IHI's Breakthrough Series guide to reducing adverse drug events


This article relates the details of one of the Breakthrough Series and poses some ideas about success and failure in collaborative improvement work.


44 Acute Care hospitals wanted to assess the effects of a quality improvement collaborative on preoperative antimicrobial prophylaxis.


This article includes results from two quality improvement collaboratives: the 1997 End of Life Breakthrough Series with 47 teams and the 1999 Congestive Heart Failure and Chronic Obstructive Pulmonary Disease End of Life Breakthrough Series with 34 teams.


A Robert Wood Johnson Foundation funded research study conducted by RAND/UC Berkeley which found that the collaborative was at least partially responsible for significantly higher ratings on general HRQL in this population of asthmatic children. The study is one of the first controlled evaluations of a breakthrough series collaborative for children with asthma.


A description of the Institute for Clinical Systems Improvement (ICSI), a standing collaboration of 18 medical groups in Minnesota.


The PDSA cycle led to improvements in team performance, communication, and patient transfer and decreased the number of problems associated with instruments, supplies, equipment, and surgeon tardiness.

Nembhard IM. Learning and improving in quality improvement collaboratives: which collaborative features do participants value most? Health Serv Res 2009;44:359-78.

Updated April 2014
The goal of this article is to understand participants' views on the relative helpfulness of various features of collaboratives, why each feature was helpful and which features the most successful participants viewed as most central to their success.


A description of how collaboratives work, written to stimulate interest in collaborative improvement outside of health care.


This book presents a framework for spreading improvements. Two of the case studies describe how the organizations used internal collaboratives to achieve their spread aims.


This paper explores the nature of medical systems and develops ideas about their proper application to medicine and the activities of physicians.


IHI's Breakthrough Series guide to reducing delays and waiting times throughout the healthcare system.


IHI's Breakthrough Series guide to improving outcomes and reducing costs in adult cardiac surgery


A synthesis of observations, obtained at a meeting of people who had evaluative collaboratives around the world. This article highlights common mistakes made in running collaboratives, and offers suggestions for how to make collaboratives successful.

Quality improvement collaboratives (QICs) can improve short-term outcomes, but few have examined their long-term results. This study evaluated the changes in treatment practices and outcomes associated with participation in multiple sequential QICs.


A study designed to measure organizations' implementation of Chronic Care Model (CCM) interventions for chronic care quality improvement (QI) as part of a larger effectiveness evaluation of yearlong collaboratives. Concluded that participants were able on the whole to implement a larger number of changes and that collaboratives are a useful method to foster change in real world settings.


This article is a thoughtful and thorough review of inter-organizational collaborative improvement with many examples from across the United States.


This review provides a summary of evidence-based strategies to reduce Central Line Associated Bloodstream Infections (CLABSI) in the newborn intensive care unit that have been described in the literature over the past decades.


A quality improvement initiative that included rigorous measurement, feasible interventions, and cultural change was shown to nearly eliminate catheter-related bloodstream infections (CR-BSIs) in patients in a surgical intensive care unit (ICU).


This is a long book but still one of the best studies of how to spread change. The descriptions of the roles of change agents and adopters are very useful in creating teams. Unfortunately, there are no Cliff Notes available.


*Updated April 2014*
A clinical nurse specialist-led intervention to improve medication adherence in chronically ill adults using renal transplant recipients as an exemplar population is proposed.


Case-control evaluation of an asthma collaborative which shows that collaboratives increase the use of evidence-based care processes for adults with asthma.


To characterize hospital-acquired bloodstream infection rates among New York State's 19 regional referral NICUs (at regional perinatal centers; RPCs) and develop strategies to promote best practices to reduce central line-associated bloodstream infections (CLABSIs).


The experiences of a set of hospices involved with the National Association for Home Care & Hospice (NAHC) Quality Assessment and Performance Improvement Collaborative, which was designed to test the use of a standardized patient symptom assessment tool as an exemplar of efforts to standardize symptom assessment in hospice, were examined.


This discussion highlights how a relatively small task force has transformed into a growing nonprofit organization, becoming a model for best practices.


This article describes the success of one large medical group participating in the ICSI diabetes collaborative and in the IHI Breakthrough Series on improving care for people with chronic conditions.


The objective of this article is to determine if a quality improvement virtual collaborative intervention would perform better than a toolkit-only approach at preventing central line-associated bloodstream infections (CLABSIs) and ventilator-associated pneumonias (VAPs).

*Updated April 2014*

Fifty-seven teams from 37 self-selected teaching hospitals committed to implement the CCM in resident continuity practices; 41 teams focusing on diabetes improvement participated over the entire duration of one of the Collaboratives. Their goal is to improve training for residents who provide chronic illness care in teaching practice settings.


The objective of this collaborative is to explore whether differences between collaboratives with respect to type of topic, type of targets, measures (systems) are also reflected in the degree of effectiveness.


The aim of this study is to prototype a system for identifying and monitoring those organisational processes that give rise to latent conditions that can contribute to failures in a dispensary environment.


The purpose of this study was to apply and illustrate the use of line graphs and statistical process control to identify variation in improvement among practices participating in the Saskatchewan Chronic Disease Management Collaborative.


This paper provides a retrospective analysis on the process of data management in a Dutch Quality Improvement Collaborative. From this analysis general failure and success factors are identified.


An overview of how chronic illness care can be improved in many different settings using a collaborative approach.


IHI’s Breakthrough Series guide reporting on the lessons from the Asthma BTS Collaborative.

A summary of the kinds of results that are obtained in BTS Collaboratives, along with a description of the impact of collaborative work on improvement.


The structured intervention approach to quality improvement in the NICU setting, using a toolkit along with attendance at a workshop and/or Web cast, is an effective means by which to improve care outcomes.