Institute for Healthcare Improvement

Indian Health Service Chinle Service Unit

A Triple Aim Improvement Story

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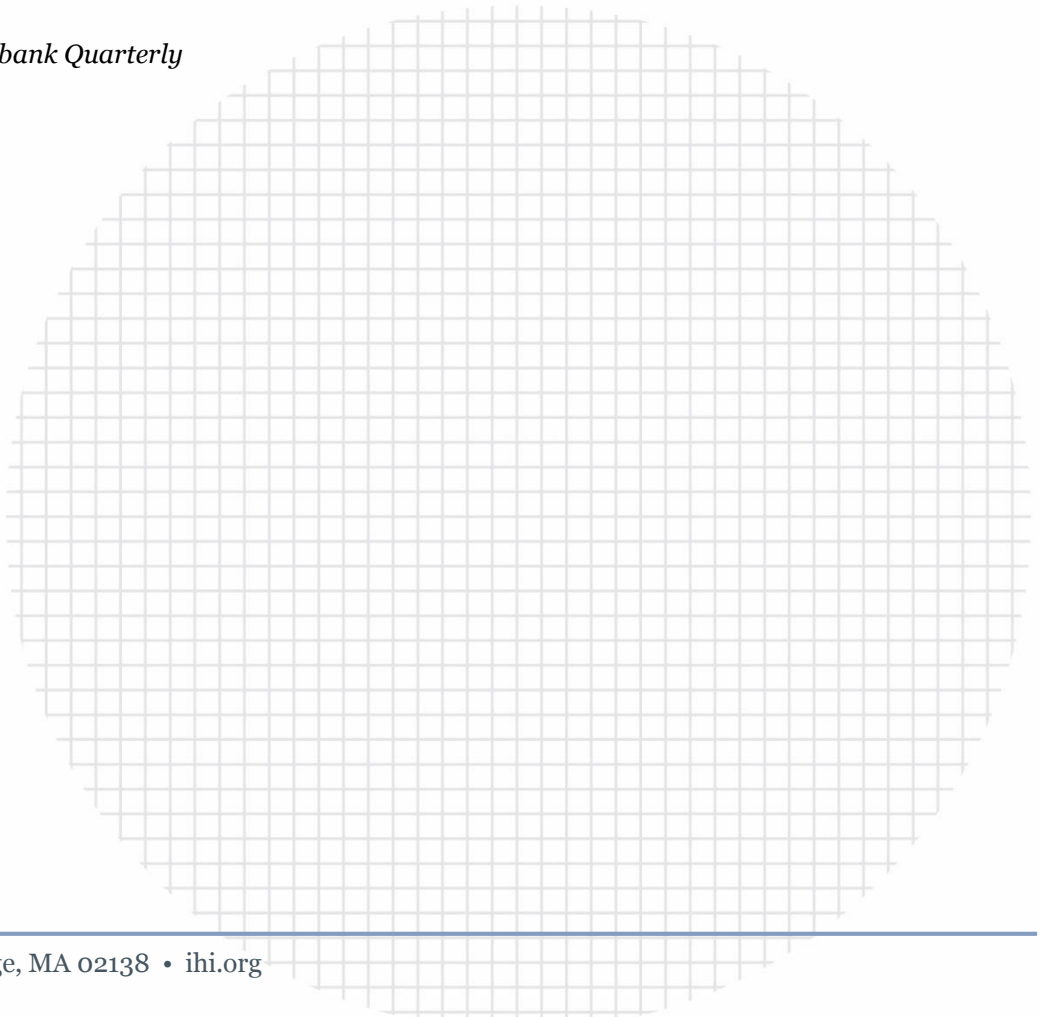

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AUTHORS:

John W. Whittington, MD: *Senior Fellow and Lead Triple Aim Faculty, IHI*

Kevin Nolan, MA: *Senior Fellow, IHI*

Niñon Lewis, MS: *Executive Director, IHI*

Trissa Torres, MD, MSPH, FACPM: *Senior Vice President, IHI*

The Institute for Healthcare Improvement (IHI) is a leading innovator in health and health care improvement worldwide. For more than 25 years, we have partnered with visionaries, leaders, and front-line practitioners around the globe to spark bold, inventive ways to improve the health of individuals and populations. Recognized as an innovator, convener, trustworthy partner, and driver of results, IHI is the first place to turn for expertise, help, and encouragement for anyone, anywhere, who wants to change health and health care profoundly for the better. To advance our mission, IHI's work is focused in five key areas: Improvement Capability; Person- and Family-Centered Care; Patient Safety; Quality, Cost, and Value; and Triple Aim for Populations. Learn more at ihi.org.

Introduction

This example of the Indian Health Service (IHS) Chinle Service Unit was originally published in the journal article, "Pursuing the Triple Aim: The First Seven Years" [Whittington JW, Nolan K, Lewis N, Torres T. Pursuing the Triple Aim: The first seven years. *The Milbank Quarterly*. 2015;93(2):263-300.].

Drawing on the Institute for Healthcare Improvement's (IHI) seven years of experience, *The Milbank Quarterly* article describes three core components that guided the organizations and communities working with IHI on the Triple Aim: creating the right foundation for population management, managing services at scale for the population, and establishing a learning system to drive and sustain the work over time. The article also provides case examples of two organizations (Bellin Health of Green Bay, Wisconsin, and Chinle Service Unit of the US Indian Health Service), to illustrate the execution of all three of the Triple Aim's components.

In the article, the Chinle Service Unit is included as an example that demonstrates how an organization funded and directed by the US government can take on the challenge of the Triple Aim for a Native American population.

NOTE: We have maintained the original numbering of the Tables, Figures, and references as published in the *The Milbank Quarterly* article. Reprinted with permission.

Indian Health Service: Chinle Service Unit

The Chinle Service Unit (CSU) is part of the Indian Health Service (IHS), a federal agency in the US Department of Health and Human Services (DHHS). Chinle serves 31 Navajo communities in the central region of the Navajo Nation.

- **Population of focus:** IHS beneficiaries who live in one of the 31 communities in the Chinle Service Unit who have been seen at least once in the past three years. This comprises 35,000 primarily Native Americans in the central region of the Navajo Nation.
- **Governance structure:** Senior and midlevel organizational leadership, supported by a quality management team.
- **Challenge and purpose:** After developing a culturally focused improvement model in 2005 and engaging in intensive primary care transformation work as part of the Improving Patient Care (IPC) Collaborative since 2007,[23,24] the CSU faced a changing landscape of health care both across the United States and within the IHS. The CSU thus decided to build on its primary care transformation improvements and pursue the Triple Aim in order to generate new ideas and implementation strategies to better control health care costs while improving population health, patient experience, and quality of care. The CSU was committed to a community-focused improvement process that respected and incorporated the local culture.
- **Portfolio of projects and investments to address the challenge:** These were medical home implementation, including access to care, childhood immunizations, and emergency department visits; diabetes health coaching model; inpatient safety; inpatient satisfaction; and collaboration of the IHS's Community Health Improvement Councils.

The CSU structured its organizational strategy, as well as new and existing work, into a portfolio of Triple Aim projects. As shown in Table 4, it decided which of the Triple Aim dimensions would be impacted by each project. The CSU next settled on the outcomes and process measures for assessing the progress of the work. In addition to measuring the projects' progress over time, the CSU chose a set of population-level outcomes measures, shown in Table 5, to monitor the impact of the projects on its overall population. As the work progressed, the CSU refined changes through iterative testing.

Table 4. Portfolio of Work for Triple Aim: Chinle Service Unit

Project	Triple Aim Dimensions	Project Measures
Improving patient care medical home	Population health Experience of care Per capita cost	Outcome: emergency department / urgent care visits, child immunizations, outcome bundle, primary care access Process: continuity rates, supply/demand ratio
Diabetes health coach model of care	Population health Experience of care Per capita cost	Outcome: A1c, low-density lipoprotein (LDL), blood pressure (BP) under control, rate of hospitalization Process: active diabetics current on comprehensive care measure, percentage of patients with a health coach visit
Chinle Hospital engagement network	Experience of care Per capita cost	Outcome: inpatient satisfaction, inpatient safety index Process: measures of team function
Community health improvement councils	Population health	Outcome: coalition development score Process: attendance at council meetings by sector

Table 5. Population Outcome Measures: Chinle Service Unit

Population health	Self-reported health status
	Injury-related emergency room visits
	Childhood healthy weight
	Diabetes incidence
	Diabetes prevalence
Experience of care	Ambulatory care patient satisfaction
	Patient confidence
	Diabetes outcome bundle
	30-day readmission rate
Per capita cost	Emergency room utilization
	Urgent care utilization
	Internal/external costs
	Hospital bed days

Figures 6 and 7 are high-level population measures of health. Figure 6 is a self-rated health status questionnaire in which the CSU asks patients to respond to the statement "Usually my health is good." Figure 7 shows the incidence of diabetes in the CSU population over time. Figure 8 depicts data for a measure of compliance, with the diabetes outcome bundle (hemoglobin A1c, blood pressure, and low-density lipids) representing the patient experience of care. The CSU does not have the ability to directly measure per capita cost for its populations, so instead it has chosen some utilization-of-care measurements as an indirect measure of cost. The data for two of those measures are displayed in Figures 9 and 10. Figure 9 shows urgent care utilization, and Figure 10 includes data on hospital bed days per 1,000 persons.

Figure 6. Patient Survey: "Usually My Health Is Good," Chinle Service Unit Ambulatory Care Patients, July 2012 to June 2014 (Adjusted for Age and Sex)

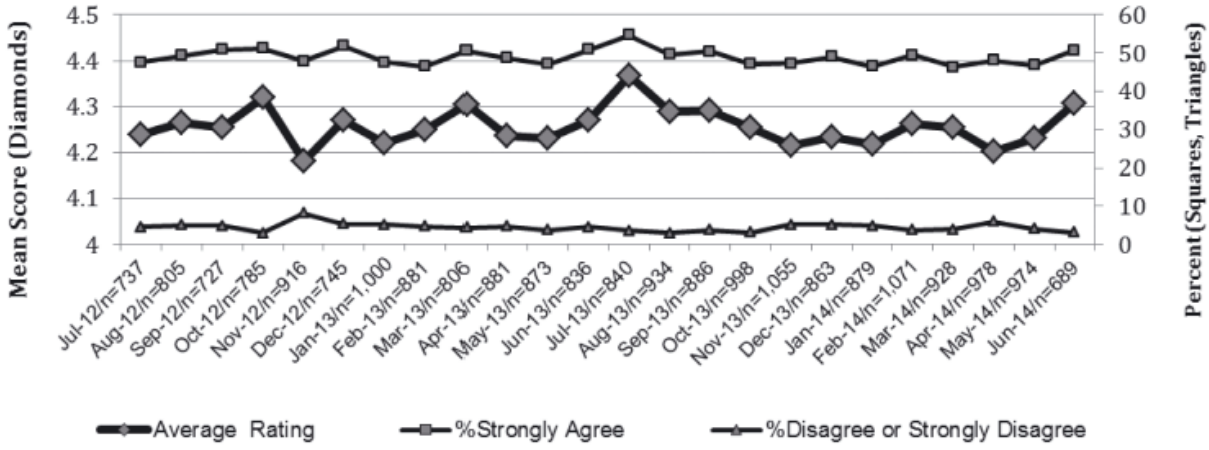
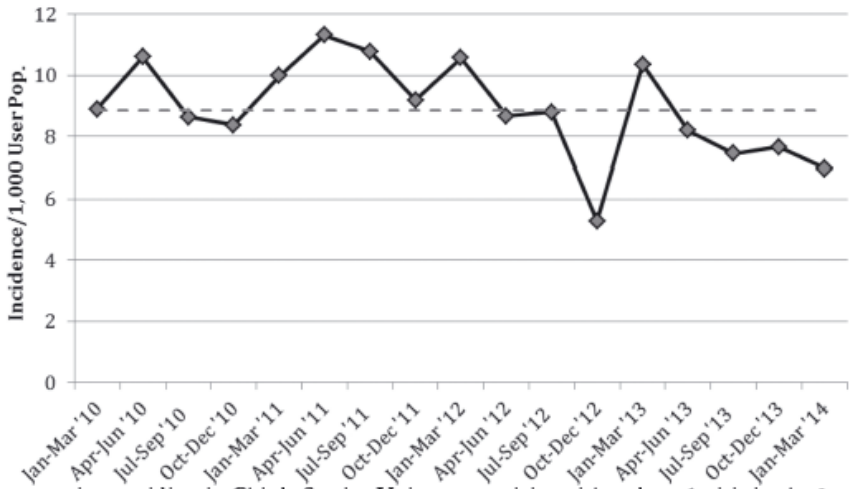
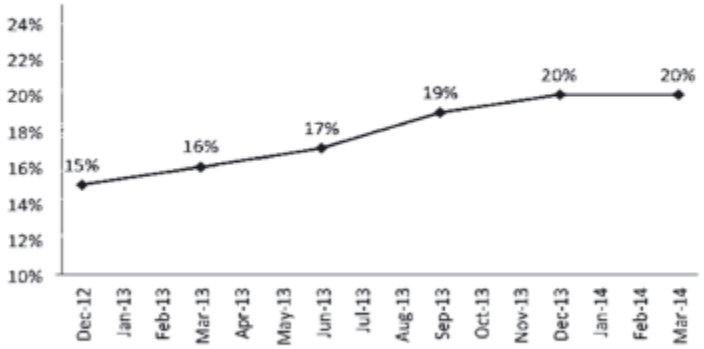


Figure 7. Incidence of Diabetes per 1,000 User Population[a] by Quarter, Chinle Service Unit, January 2010 to March 2014



[a]User population: any patient residing in Chinle Service Unit communities with at least 1 visit in the 3 years before the end of the reporting period, regardless of the clinic type.

Figure 8. Diabetes Outcome Bundle: Hemoglobin A1c, Blood Pressure, and LDL in Control, Chinle Primary Care Active Diabetic Patients,[a] December 2012 to March 2014



[a]Active diabetic patients are active clinical patients diagnosed with diabetes before the reporting period, with at least 2 visits during the reporting period and 2 diabetes-related visits in total.

Figure 9. Urgent Care Utilization: Urgent Care Visits per 100 User Population, Chinle Service Unit, January 2010 to March 2014

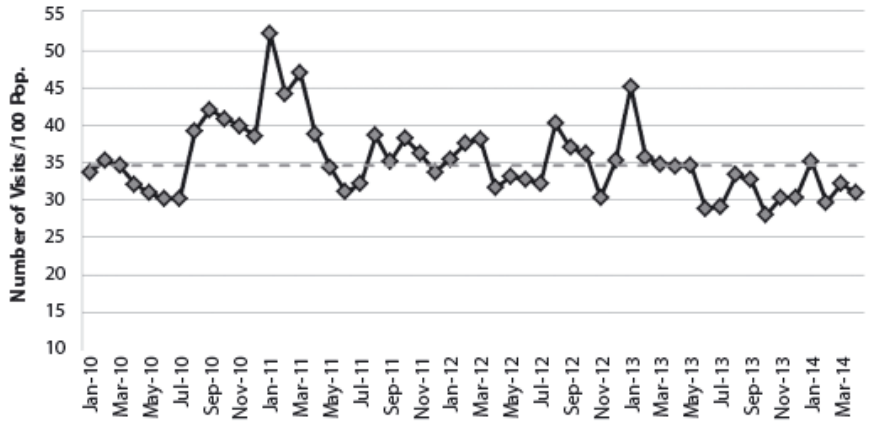
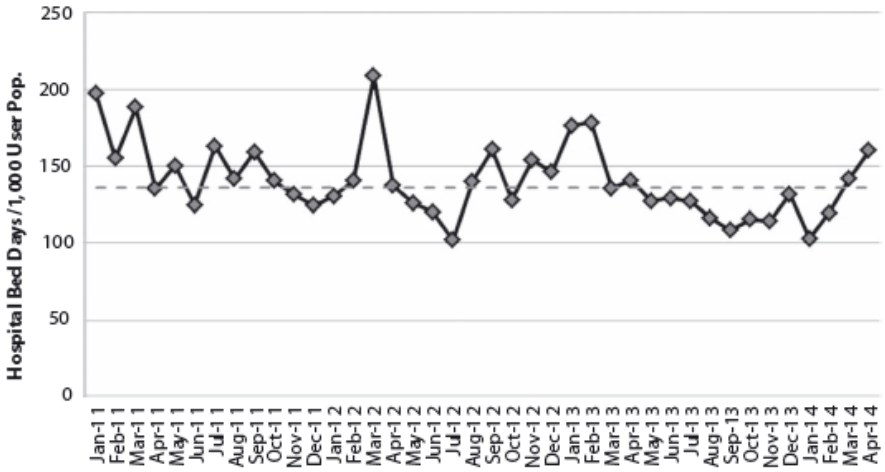


Figure 10. Hospital Bed Days per 1,000 User Population: Years by Month, Chinle Service Unit Active Clinical Population,[a] January 2011 to April 2014



[a]Active clinical population refers to any patient residing in Chinle Service Unit communities with 2 visits in the 3 years before the end of the reporting period and at least 1 visit to a primary or urgent care clinic.

References

23. Chinle Service Unit: taking wing. Improving patient care. Indian Health Service. www.ihs.gov/ipc/documents/IPC_CaseStudy_Chinle_508.pdf. Accessed September 30, 2014.

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