

This is a sample of the instructor materials for *The Toyota Way to Healthcare Excellence: Increase Efficiency and Improve Quality with Lean*, second edition, by John Black with David Miller and Joni Sensel.

The complete instructor materials include the following:

- PowerPoint slides for each chapter
- Discussion questions for each chapter

This sample includes the PowerPoint slides and discussion questions for chapter 1, “An Open Letter to Healthcare Leaders.”

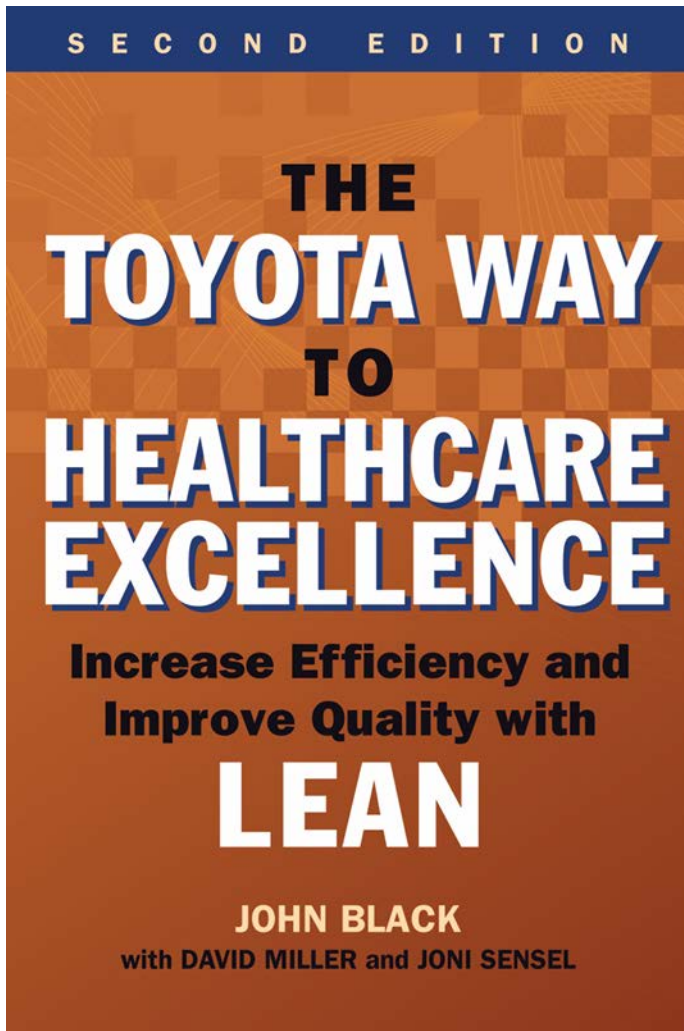
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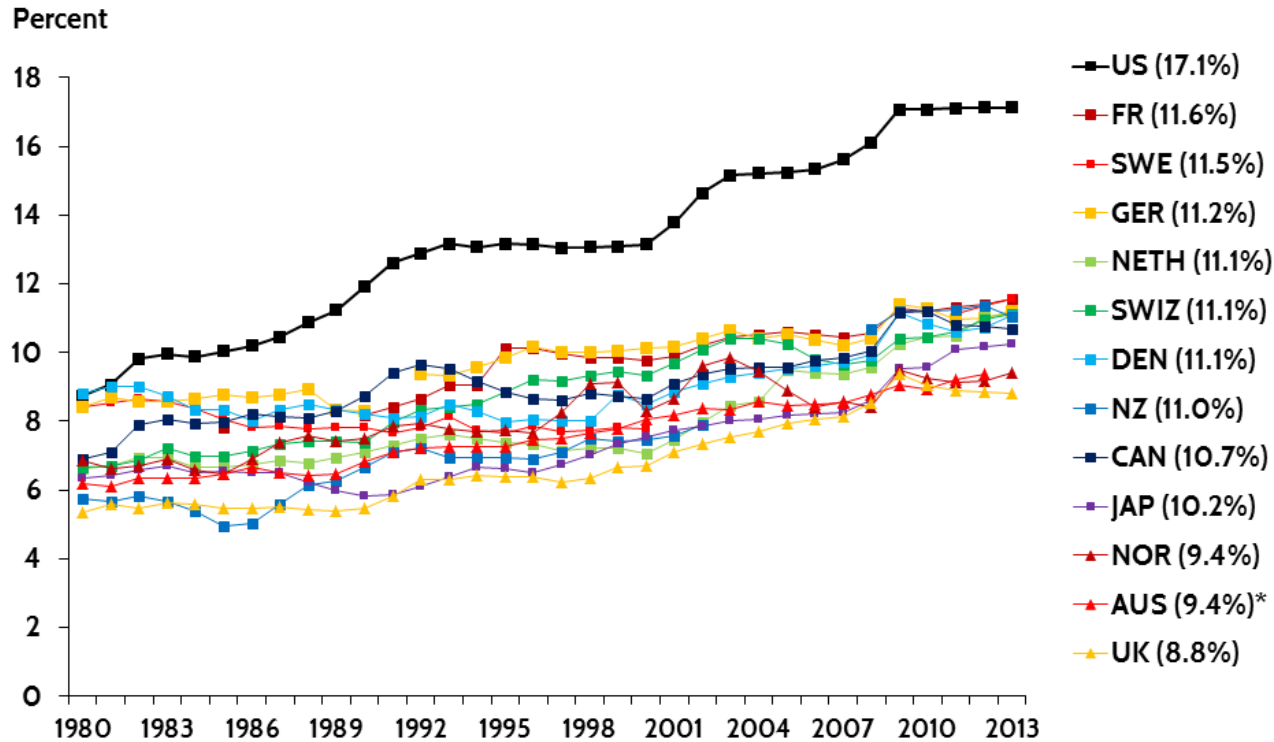
# Chapter 1

An Open Letter to  
Healthcare Leaders

# The State of Healthcare in the United States

- **Cost** – US spending on healthcare outpaces other developed nations, diminishing reimbursement to providers and facilities
- **Health Outcomes** – US performs poorly against other developed nations on several key determinants of health
- **Population Health** – shifting focus from treatment to prevention and improving health outcomes of the population, baby boomers aging
- **Technology** – changes in electronic health record (EHR) use, medical device technology, and software
- **Policy** – Patient Protection and Affordable Care Act (ACA), expanded coverage, value-based reimbursement models

# Healthcare Spending as a Percentage of GDP, 1980-2013



\* 2012.

Notes: GDP refers to gross domestic product. Dutch and Swiss data are for current spending only, and exclude spending on capital formation of health care providers.

Source: OECD Health Data 2015.

# Select Population Health Outcomes and Risk Factors

	Life exp. at birth, 2013 <sup>a</sup>	Infant mortality, per 1,000 live births, 2013 <sup>a</sup>	Percent of pop. age 65+ with two or more chronic conditions, 2014 <sup>b</sup>	Obesity rate (BMI>30), 2013 <sup>a,c</sup>	Percent of pop. (age 15+) who are daily smokers, 2013 <sup>a</sup>	Percent of pop. age 65+
Australia	82.2	3.6	54	28.3 <sup>e</sup>	12.8	14.4
Canada	81.5 <sup>e</sup>	4.8 <sup>e</sup>	56	25.8	14.9	15.2
Denmark	80.4	3.5	–	14.2	17.0	17.8
France	82.3	3.6	43	14.5 <sup>d</sup>	24.1 <sup>d</sup>	17.7
Germany	80.9	3.3	49	23.6	20.9	21.1
Japan	83.4	2.1	–	3.7	19.3	25.1
Netherlands	81.4	3.8	46	11.8	18.5	16.8
New Zealand	81.4	5.2 <sup>e</sup>	37	30.6	15.5	14.2
Norway	81.8	2.4	43	10.0 <sup>d</sup>	15.0	15.6
Sweden	82.0	2.7	42	11.7	10.7	19.0
Switzerland	82.9	3.9	44	10.3 <sup>d</sup>	20.4 <sup>d</sup>	17.3
United Kingdom	81.1	3.8	33	24.9	20.0 <sup>d</sup>	17.1
United States	78.8	6.1 <sup>e</sup>	68	35.3 <sup>d</sup>	13.7	14.1
OECD median	81.2	3.5	–	28.3	18.9	17.0

<sup>a</sup> Source: OECD Health Data 2015.

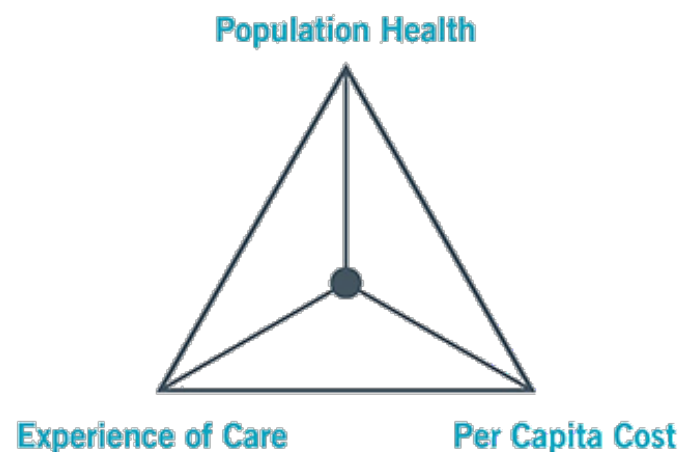
<sup>b</sup> Includes: hypertension or high blood pressure, heart disease, diabetes, lung problems, mental health problems, cancer, and joint pain/arthritis. Source: Commonwealth Fund International Health Policy Survey of Older Adults, 2014.

<sup>c</sup> DEN, FR, NETH, NOR, SWE, and SWIZ based on self-reported data; all other countries based on measured data.

# Need for Change – The Institute of Healthcare Improvement (IHI) Triple Aim

- Improve the patient experience of care (*provide high-quality, defect-free healthcare*)
- Improve the health of populations
- Reduce the per capita cost of healthcare

## The IHI Triple Aim



# Healthcare vs. Manufacturing

DIFFERENCES	SIMILARITIES
<ul style="list-style-type: none"><li>• Product – cars, widgets, patient care</li></ul>	<ul style="list-style-type: none"><li>• Customer focus – must meet the needs of consumer</li><li>• Process – complex processes and supply chains</li><li>• Organization – hierarchies and resistance to change, bureaucracy</li><li>• Quality – quest for quality in process and outcome metrics</li><li>• Cost – need to reduce costs to remain competitive and financially solvent</li><li>• Changes in technology – continuous advancements in technology</li><li>• <b>People are key</b> – those doing the work are the experts who can identify improvement opportunities and change the underlying habits of the organization</li></ul>

# Why Improve?

1. Patients deserve better
  - Quality
  - Cost
  - Information
2. Employees deserve better
  - Confidence in their system
  - Satisfaction in their work
3. Our nation deserves better
  - Health outcomes
  - Access to care
  - Value





# Dramatic Improvements Possible with Lean Healthcare

- Reduce wait time in the ED
- Reduce errors in diagnostic testing
- Reduce medication errors
- Improve access at clinics and physician offices
- Reduce unnecessary testing
- Reduce claim rejection and delay
- Improve staffing levels
- Improve supply chain — soft goods, equipment, medication
- Reduce unnecessary readmissions
- Improve patient and staff satisfaction...

# Three Essentials for Success

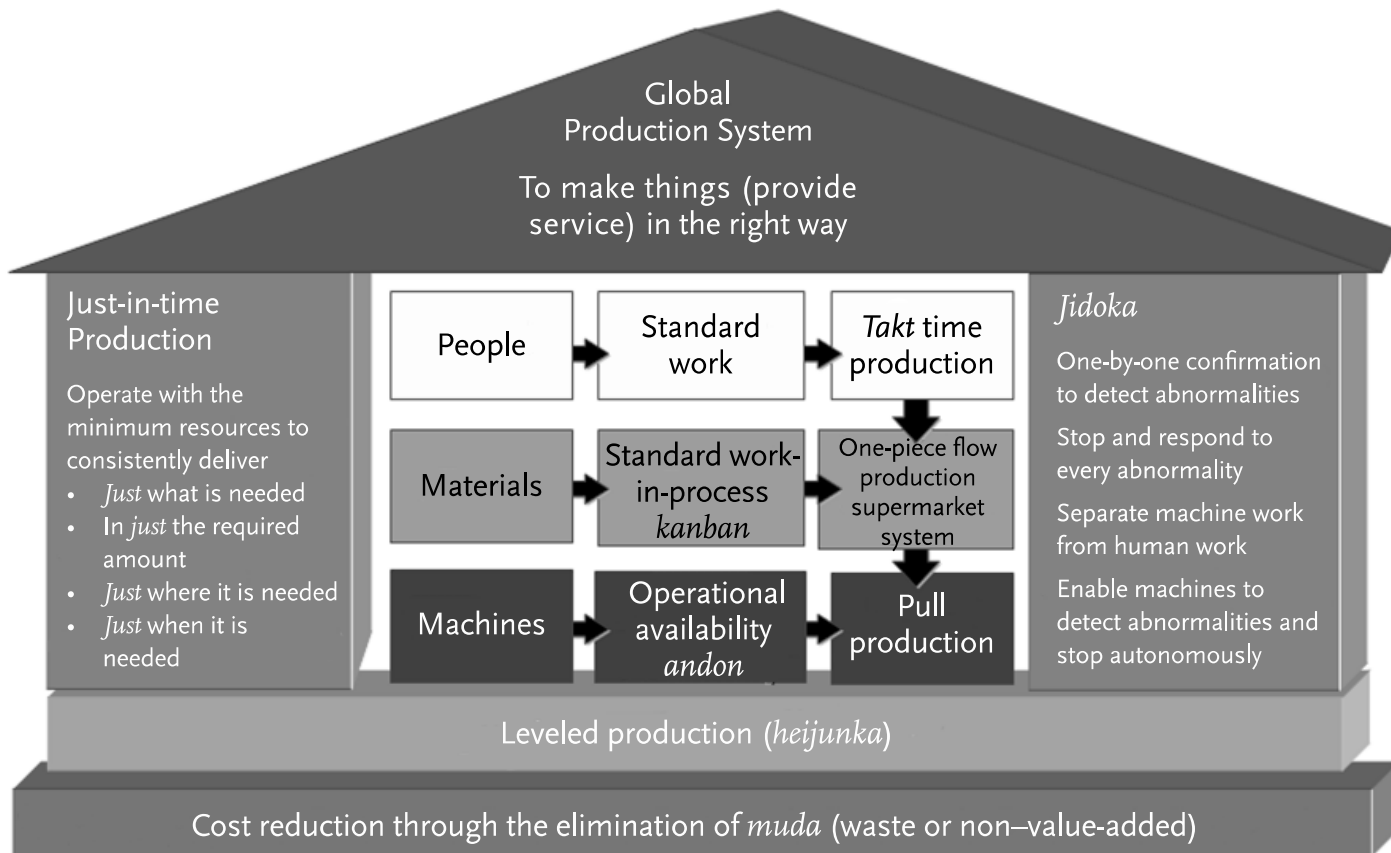
1. **Personal commitment** – dedication to a relentless pursuit of perfection
2. **A master sensei or coach** – approach improvement work under guidance of a coach to challenge and guide you and your team
3. **Long-term commitment** – leadership commitment to creating a culture of problem solving and continuous improvement

# Core Concepts for Continuous Improvement

- **Muda** – Japanese term meaning “waste,” used in Lean to describe any activity, service, or supply that consumes time, money, and other resources but creates no value.
- **Value-added** – an activity that changes the character of a product or service, or anything the customer would be willing to pay for. Any activity that does not change the product or service is non-value-added would be considered waste.
- **Kaizen** – Japanese term meaning “change for better,” used in lean to describe continuous incremental improvement.

# Two Main Pillars of Lean: Just-in-Time and *Jidoka*

Exhibit 4.2: The Global Production System, or Lean House



# Seven Healthcare Flows

1. Flow of patients
2. Flow of family
3. Flow of providers
4. Flow of medications
5. Flow of supplies
6. Flow of information
7. Flow of equipment

**Pull production** – system where parts, suppliers, information, and services are pulled by internal and external customers exactly when they are needed

**Flow** – system where work moves steadily and predictably, without interruption



# Mindset for Lean Journey

- Perseverance and clarity in purpose
- Willingness to accept support and coaching at all levels
- Create a system of both top-down and bottom-up communication, improvement, and decision making
- Belief that becoming a world-class organization is possible and necessary



## CHAPTER TAKEAWAYS

- Healthcare organizations are no more resistant to change than other organizations.
- Lean thinking (cutting waste by half over and over again) is applicable to any organization.
- Dramatic improvements in healthcare are possible with Lean.
- The journey is not for the impatient or faint of heart. Real change is hard and takes time and commitment.
- The relentless pursuit of continuous incremental improvement (*kaizen*) is essential to achieving world-class operational performance.
- The assistance of a Japanese master *sensei* (teacher) or a consultant trained by a *sensei* is recommended.
- People are your most important resource.

***THE TOYOTA WAY TO HEALTHCARE EXCELLENCE:  
INCREASE EFFICIENCY AND IMPROVE QUALITY WITH LEAN  
SECOND EDITION***

**By John Black with David Miller and Joni Sensel**

**DISCUSSION QUESTIONS**

**Chapter 1: An Open Letter to Healthcare Leaders**

1. The Patient Protection and Affordable Care Act (ACA) was signed into law by President Obama in 2010. Many provisions of the law went into full effect in 2014. Describe how this piece of legislation has created a burning platform for process improvement in healthcare.
2. Compare and contrast the healthcare and manufacturing industries. How can Lean principles be applied to other industries such as nuclear energy, aviation, or retail?
3. Identify a process improvement in healthcare delivery that can simultaneously improve quality, cost, and patient satisfaction. Explain.
4. Describe the importance of the frontline caregiver in continuous process improvement efforts.
5. Imagine you are a newly appointed CEO at a large academic health system. You had experience with Lean at your prior employer and want to establish a culture of continuous improvement at your new organization. What steps will you take to set the strategic vision for the organization and enable your team members to problem solve and continuously improve. What challenges do you anticipate and how will you address them?