IHI Open School Course Summary Sheet

QI 101: Introduction to Health Care Improvement

Lesson 1: Health and Health Care Today

- As medical science and information evolve at a record pace, health systems must face new challenges:
  - Providers are becoming more specialized, contributing to gaps in communication and care.
  - Populations are aging, and the disease burden is shifting toward chronic conditions.
  - Patient and families are better informed and want personalized care.
  - There is growing availability of — and demand for — complicated procedures.

- Many health care systems, including the one in the United States, are struggling to make high-quality care available and affordable to all.

- Based on where someone lives and certain characteristics at birth, there are significant differences in the type of health and health care one is likely to experience; this is often true even within the same country or hometown.

- Although the root causes of inequalities in health care and human health by no means begin or end in the clinical setting, providers can do their part to help by learning and applying the science of improvement.

Lesson 2: The Institute of Medicine’s Aims for Improvement

- In 2001, the Institute of Medicine (IOM) released a report, *Crossing the Quality Chasm: Health Care in the 21st Century*, that defined six key dimensions of our health care system upon which to focus improvement efforts. The report said care should be:
  - **Safe**: Avoid injuries to patients from the care that is intended to help them.
  - **Timely**: Reduce waits and sometimes harmful delays.
  - **Effective**: Provide the appropriate level of services.
- **Efficient**: Avoid waste of equipment, supplies, ideas, and energy.
- **Equitable**: Care shouldn’t vary in quality because of personal characteristics.
- **Patient-Centered**: Care should be considerate of individual preferences.

A helpful pneumonic to remember the IOM’s six dimensions is “STEEEP.”

**Lesson 3: Changing Systems with the Science of Improvement**

- Every system is perfectly designed to get the results it gets; the only way to get different results is to change the system.

- The science of improvement has its origins in manufacturing in the 1920s, when famous engineers such as Walter A. Shewhart and W. Edwards Deming introduced a new type of science: **applied science**.

- Traditional scientific discovery is only helpful if people can apply it.

- Deming’s **System of Profound Knowledge** is a simple way of understanding the four key aspects of a system that you need to think about in order to improve:
  - **Systems thinking**: What is the whole system that you’re trying to manage? How do the different parts interact with and rely on one another?
  - **Variation**: What is the variation in results trying to tell you about the system?
  - **Theory of knowledge**: What are the predictions about the system’s performance? What are the theories that form the basis for these predictions?
  - **Psychology**: How do people in the system react to change, and what are the important interactions among people in the system? What motivates people to act as they do?