# **QI Game Instructions**

## About the QI Simulation Game

#### Instructions:

This card set is designed to simulate the process of participating on an improvement team. It can be played with as few as 2 or as many as 8 players. Simply follow the instructions using your preferred improvement approach (PDCA/PDSA or DMAIC). You may also define your own topics for improvement.



#### Game Contents:

**Facilitator Card (Black Card)** - Identifies the player serving as facilitator. **Improvement Process** - Choose an improvement model from pages 3 and 4 in this book that outlines the phases of the game.

Department Role (Blue Card) - Identifies the work area and staff role of the player.

Improvement Topic (Green Card) - Identifies the purpose for the improvement team.

**Process Outcome (Red Card)** - Identifies the outcome of the improvement effort.

Behavior (Purple Card) - Identifies a behavioral role for each player. Used for advanced play.

## Playing the QI Simulation Game

### Step 1: Getting Started

The scenario for the game is drawn from cards that outline the topic for improvement (Green card), the departments on the team (Blue card), and the role and behaviors exhibited by the players (Yellow card). One player must serve as the team facilitator.

- A. Draw a card from the **Topic for Improvement** set and place this card where all players can see it.
- B. Each player draws a **Department Role** card and places it in front of them or may participate in their actual role.
- C. Determine who the **Facilitator** will be and place the card in front of him/her.
- D. Advanced Play Only each player chooses a **Behavior** card. Do not show this to the other players.

### Step 2: The Improvement Process

Select an improvement process to use for the game. Rounds of the game proceed according to each phase of the improvement cycle, with the group discussing key questions. The facilitator's role is to keep the process on track. If your organization prefers PDCA or PDSA, go to page 3. If DMAIC is the preferred process, go to page 4.

### Step 3: The Outcome Review

At the conclusion of the improvement cycle, a card is drawn to determine the outcome, and the team discusses it along with the key question.

# Improvement Process Card

# PDCA/PDSA

Phase	Topics for Discussion
1. Plan	What are we trying to accomplish?
	What would be the best way to kick off the effort?
2. Do	What type of improvement should we pilot on a small scale?
3. Check or Study	How will we know we have made a difference?
4. Act	How will we be sure the change "sticks?"
Outcome Review	Draw an Outcome card, discuss it, and then answer the question presented on the card.

# DMAIC

Phase	Topics for Discussion
1. Define	What are we trying to accomplish? What is the desired outcome? Check that everyone understands the purpose of the team.
2. Measure	What will be important things to measure during and after the project?
3. Analyze	What might we predict from the data or how will we display the data?
4. Improve	What type of improvement should we pilot on a small scale?
5. Control	How will we be sure the change "sticks?"
Outcome Review	Draw an Outcome card, discuss it, and then answer the question presented on the card.

## **QI Terminology Games**

### Instructions:

This card game is designed for clinical staff to become more familiar with Quality Improvement (QI) terms and concepts. There are four options for play, using two different card sets - one focusing on Improvement (Set I - blue cards), the other on Measurement (Set M - red cards). Each set contains 18 cards. On average games should only take about 10 minutes to play. *Enjoy the games!* 

### **Improvement Terms**

#### **Term Examples:**

- Flowchart
- Six Sigma
- Root Cause



### **Improvement Terms**

#### **Term Examples:**

- Median
- Benchmarking
- Standard Deviation



## **QI Terminology Games**

## **Options for Play:**

#### Matching-Memory: For 1 to 2 players

Lay out all the cards in an array logo side up. Players take turns flipping cards over. On each turn, the player will turn two cards over at a time to show the words and look for a match (of term to definition). When a term and definition match, remove them from the array. If a match is not found, the cards are turned back over and remain on the table. Continue turning over cards until all pairs are matched. The player with the most pairs wins.

#### Throw-Down: For 2 to 4 players

Each player is dealt 3 cards. If a player has a match (of term to definition) in his/her hand, he/she may take that pair and lay it down. Each player then selects one card from the deck in turn. If a match is discovered, the player removes it from his/her hand and adds it to his/her pile. The turns continue until the pile is gone, and the player left with the fewest cards in hand wins.

#### Grab-It: For 2 to 4 or more

After the deck is shuffled, the top 10 cards are turned logo side down and randomly spread on a table. Each player selects one card from the remaining deck and places it logo side down on the pile. The first player to recognize a matched pair (term to definition) reaches quickly for both cards and places them logo side on his/her matching pile. The next player repeats the selection until all the cards have been drawn. The player with the most pairs wins.

#### Q & A: For 1 to 2 players

Shuffle the deck of cards and use as a set of flashcards. There are two methods for flashcard use: A) Recognizing matching pairs of terms and definitions. B) Simply stating the definition if a term card is drawn, or conversely, stating the term if a definition is drawn.

# QI Card Games Answer Key:

**80/20 Rule:** A principle which suggests that most effects come from relatively few causes. *Adverse Event:* Term for any event that is not consistent with the desired, normal or usual operation of the organization; also known as a sentinel event.

*Attribute Data:* One of two kinds of numerical data: counted data, such as "162 defects" or "4 falls." *Balanced Scorecard:* A measurement system that shows the connection between organizational strategy and measureable outcomes from internal and customer-focused processes.

**Baseline Measurement:** The beginning point; a measurement used prior to any improvement against which change is measured.

*Benchmarking:* A technique in which an organization measures its performance against that of high performing organizations and uses that information to improve its own performance.

*Best Practice:* An effective method or innovative practice recognized by other peer organizations as a practice to adopt.

*Cause & Effect Diagram:* A diagram used for analyzing a process which illustrates the various contributors to a certain symptom or effect. Also known as a "fishbone" diagram.

*Common Causes:* Causes of variation that are normal to a process over time. They affect every outcome of the process and everyone working in the process.

*Dashboard:* A visual management tool that displays the level of performance for a defined set of measures, and usually uses a stoplight color scheme.

*DMAIC:* A five step, data driven quality strategy designed to improve the efficiency and effectiveness of processes. Also known as **D**efine, **M**easure, **A**nalyze, **I**mprove and **C**ontrol.

*External Customer:* A person or organization receiving a product, service or information but is not part of the organization supplying it.

*Flowchart:* A graphical representation of the steps in a process. It is useful for analyzing opportunities for improved efficiency.

*Internal Customer:* A person, unit, or department receiving a product, service or information and is part of the organization supplying it.

*Lean Enterprise:* An organization with processes designed to eliminate all unproductive effort and unnecessary investment, in customer facing areas, patient care areas and in office functions.

Mean: The arithmetic average of all measurements in a data set.

*Median:* The middle number or center value of a set of data in which all the data are arranged in sequence.

*Mode:* The value occurring most frequently in a data set.

Pareto Chart: A bar chart for ranking causes from most significant to least significant.

*PDCA:* A four-step process for quality improvement: **Plan-Do-Check-Act**. Also known as **Plan-Do-Study-Act** (PDSA) cycle.

*Process:* A series of interrelated work activities with specific inputs and value added tasks that make up a procedure resulting in a desired output.

*Process Control:* The method for keeping a process within measureable boundaries; the act of minimizing the variation of a process.

*Process Improvement Team:* A structured group often made up of cross functional members who work together to improve a process or a series of processes.

*Process Map:* A type of flowchart depicting the steps in a process and identifying responsibility for each step and key measures.

*Public Reporting:* Broad data sharing available to customers and competitors intended to drive a focus on improvement to benefit all.

*Root Cause:* A factor found to cause an undesired outcome and should be permanently eliminated through process improvement.

*Run chart:* A chart showing a line connecting numerous data points collected over time from a specific process.

*Six Sigma:* An improvement method that emphasizes decreasing variation in processes that leads to error reduction and results in improved organizational performance.

*Special causes:* Causes of variation that arise because of special circumstances, such as a one-time event. *Standard Deviation:* A statistic showing how much variation there is from the mean (average) of a data set.

*Standardization:* Policies and common procedures used to consistently manage processes throughout the organizational system.

*Statistical Significance:* The likelihood that a specific outcomes has not occurred only by chance; expressed as significance level or p value.

*System:* A group of interdependent processes and people that together perform a common mission. *Variable Data:* One of two kinds of numerical data: measured data such as "4 miles" and "0.75 grams." *Variation:* A change in data, characteristic or function caused by one of four factors: special causes, common causes, tampering or changed processes.

*Waste:* Any activity that consumes resources and produces no added value to the product or service a customer receives.

## **Mission Statement**

The Wisconsin Hospital Association's mission is advocating for the ability of its members to lead in the provision of high quality, affordable, and accessible health care services, resulting in healthier Wisconsin communities.

For more information about these QI Card Games, please contact the WHA Quality Center at 608-274-1820 or www.WHAQualityCenter.org.