

Using Data for Improvement: Choosing and Using Shewhart Control Charts

Building Capacity for Quality Improvement



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and Using Shewhart Control Charts

March 9, 2011 – St. John's Rehab Hospital, Toronto,
Ontario



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Faculty

Sandra Murray is principal of Corporate Transformation Concepts where she helps clients to understand and achieve improvement. Sandra has worked as an Improvement Advisor for the Institute for Healthcare Improvement (IHI). She serves on the faculty for the IHI Breakthrough Series College and is Director for IHI's Improvement Advisor Professional Development Program.

Workshop Description

This one-day workshop is geared towards those seeking to advance their skills in statistical process control (SPC) for decision-making and improvement. This will be accomplished through participants' review and application of Shewhart control charts. Participants will learn to answer the question "Which chart do I choose when?" Participants will also be able to analyze a Shewhart chart and link their analysis to appropriate action. We'll also address what to do when data are rare and other special situations.

Who Should Attend

This course is appropriate for healthcare professionals at upper and middle management level, care providers involved in quality improvement, professionals involved in improvement, and functional or departmental managers.

Workshop Objectives

By the end of this workshop participants will be able to:

1. Select the appropriate Shewhart chart
2. Identify how much data is needed before building a Shewhart control chart and when to revise limits
3. Analyze a Shewhart chart to identify special cause variation
4. Link your chart analysis to appropriate improvement strategy

0730 – 0830 – Registration and Continental Breakfast

0830 - 1000

INTRODUCTION

- Why view data over time?
- Three Uses of Data

INTRODUCTION TO CONTROL CHARTS

- Introduction to variation: special/common cause and link to improvement
- Control charts: What are they? Why use one?
- What is sigma? - Rules for identifying special cause with practice
- How to choose the right type of control chart
 - Telling variable from attribute data

1000 – 1015 Networking Break

1015 – 1200 CHARTS FOR VARIABLES (MEASUREMENT) DATA

- The Individuals Chart
- What do we do if we see special cause/common cause?
- Setting up good control charts
 - How many data points, trial limits, revising limits
- Additional topics

- Why 3 sigma rather than 1 or 2 sigma control limits?
- How do control limits compare to benchmarks/targets?
- What do I do if my chart has too many zeros?

1200 – 1245 – Lunch and Networking Break

1245 – 1415

- Charts for Variables (Measurement) Data
 - The X bar and S Chart
 - Some examples of the X Bar S chart in use

ATTRIBUTE CONTROL CHARTS

- Control Chart for Classification Data
 - The P chart
 - When would I choose this one?
 - How is it used?
 - Measurement vs. classification

1415 – 1430 Networking Break

1430 - 1640

- Control Chart for Counts Data
 - The C and U Charts
 - What are they? What do they look like?
 - When would I choose this one?
 - How are they used? Examples of each in use
 - Working with rates (like med rec errors, accident rates, etc.)

Special Circumstances:

- Working with rare events
- Working with huge denominators (over-dispersion)



“Using Data for Improvement: Choosing and Using Shewhart Control Charts”

Name: _____

Title: _____

Organization: _____

E-mail: _____

Cost for the Workshop

I am registering as a QHN member – \$429 + HST

I am registering as a non-member – \$599 + HST

The session I am registering for is:

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How to Register

E-mail registration to katie.hutchinson@ghn.ca or fax it to 416-351-3762.

Should you have any questions about the program, please contact Katie Hutchinson at 416-351-3760 or katie.hutchinson@ghn.ca.

How to Pay

Cheques should be made payable to the Quality Healthcare Network and mailed to Quality Healthcare Network, 790 Bay Street, Unit 930, Toronto, Ontario M5G 1N8.

The Network cannot process credit cards.

Cancellation Policy

You are free to substitute attendees at any time, but please remember to submit this information via email to katie.hutchinson@ghn.ca.

We do not provide refunds for those that cancel registration with less than seven days notice. You will be responsible for the full payment.