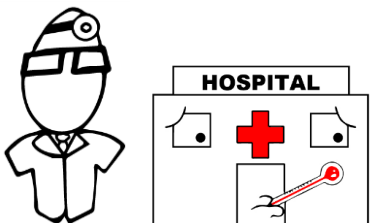


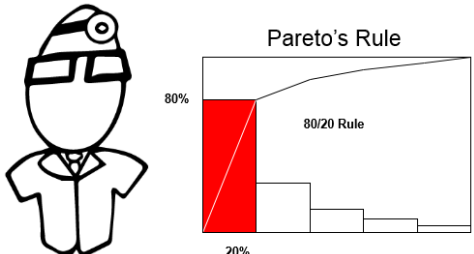
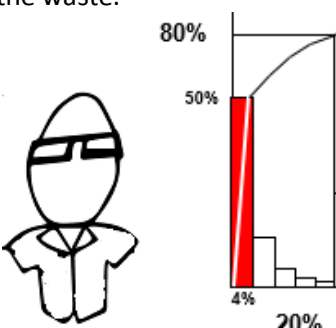
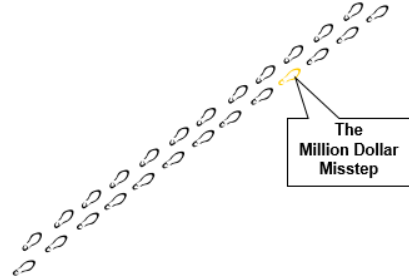


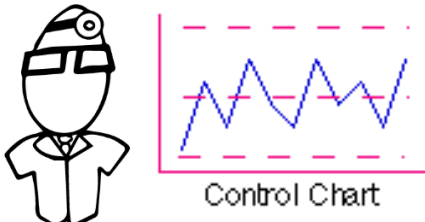
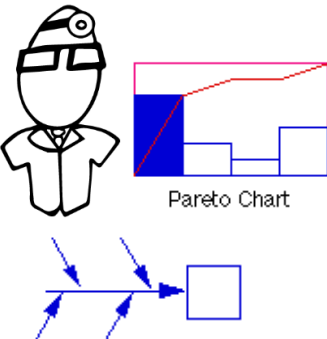
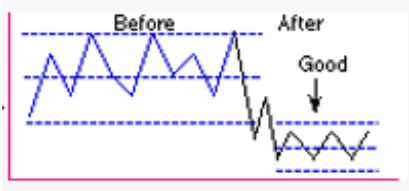


# Zero Harm – Trillion Dollar Prescription by Jay Arthur (Author of QI Macros® for Excel)

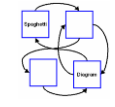
IHI Goal: Cut Healthcare Waste by 50% (\$500B/year) by 2025

<p><b>Your Healthcare Facility is Sick.</b> Broken systems and processes harm profits, staff and patients.</p> 	<p>There's no one-size-fits-all, broad-spectrum antibiotic to cure what ails healthcare.</p> 	<p><b>Solution:</b> Use data, science and evidence to diagnose and cure key wastes in each facility.</p> 																																																								
<p><b>Pareto's Rule:</b> 20% of healthcare causes 80% of the waste.</p>  <p>Pareto's Rule is a <i>power law</i>. So it also applies within the 20%, giving us...</p>	<p><b>Jay Arthur's 4-50 Rule:</b> 4% of healthcare causes over 50% of the waste.</p> 	<p>That's just 4 steps out of 100 or 1 step out of 25.</p> <p><b>Find the Million Dollar Misstep.</b></p> 																																																								
<p><b>Go on a Raw Data Diet:</b> Summarized data has no nutritional or diagnostic value. You want to know <b>when, where and what happened to each patient.</b></p>  <table border="1" data-bbox="227 1165 552 1375"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>When</td> <td>Where</td> <td>What</td> </tr> <tr> <td>2</td> <td>11/14/20</td> <td>ED</td> <td>Pt Harm</td> </tr> <tr> <td>3</td> <td>11/15/20</td> <td>ICU</td> <td>Fall</td> </tr> <tr> <td>4</td> <td>11/16/20</td> <td>NU</td> <td>Injury</td> </tr> <tr> <td>5</td> <td>11/17/20</td> <td>Lab</td> <td>Med Error</td> </tr> <tr> <td>6</td> <td>11/18/20</td> <td>Imaging</td> <td>HAI</td> </tr> </tbody> </table>		A	B	C	1	When	Where	What	2	11/14/20	ED	Pt Harm	3	11/15/20	ICU	Fall	4	11/16/20	NU	Injury	5	11/17/20	Lab	Med Error	6	11/18/20	Imaging	HAI	<p><b>Where do you find raw data? Every computer system you use.</b> Electronic medical records, billing systems, call center data, even Excel spreadsheets.</p> 	<p><b>What kind of data are you looking for?</b> Anything about mistakes and errors: medication errors, hospital acquired infections, falls, etc.</p> <table border="1" data-bbox="1112 1186 1477 1365"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Date</td> <td>Unit</td> <td>Patient Harm</td> </tr> <tr> <td>2</td> <td>1/2/2020</td> <td>Unit 3</td> <td>Patient Fall</td> </tr> <tr> <td>3</td> <td>1/2/2020</td> <td>Unit 2</td> <td>Nausea</td> </tr> <tr> <td>4</td> <td>1/2/2020</td> <td>Unit 2</td> <td>Rash</td> </tr> <tr> <td>5</td> <td>1/2/2020</td> <td>Unit 3</td> <td>Patient Fall</td> </tr> <tr> <td>6</td> <td>1/2/2020</td> <td>Unit 3</td> <td>Pressure Ulcer</td> </tr> </tbody> </table>		A	B	C	1	Date	Unit	Patient Harm	2	1/2/2020	Unit 3	Patient Fall	3	1/2/2020	Unit 2	Nausea	4	1/2/2020	Unit 2	Rash	5	1/2/2020	Unit 3	Patient Fall	6	1/2/2020	Unit 3	Pressure Ulcer
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<p><b>Diagnose using Science and Evidence:</b> Use control charts to track mistakes and errors by day:</p> 	<p>Use Pareto charts and fishbone diagrams to drill down and find the Million Dollar Misstep:</p> 	<p><b>Implement countermeasures</b> and then <b>track results</b> with control charts.</p>  <p>Then monitor with control charts to sustain the improvement (<i>or it will vanish</i>).</p>																																																								



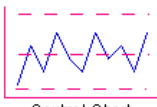
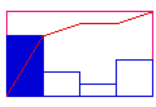
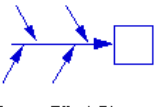
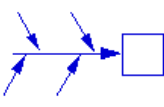
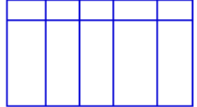

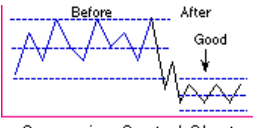
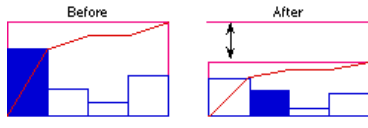
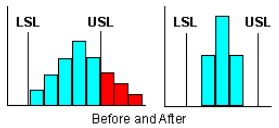
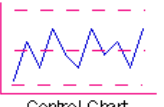
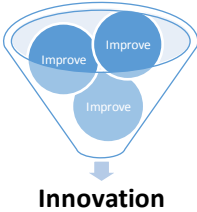
Healthcare case studies available at <https://www.qimacros.com/Moneybelt/tools-exercises.html>

# Agile Lean Six Sigma Cheat Sheet

## Four-Hour Lean Hack – Simplify and Streamline

<p><b>5S</b> – Sort, Straighten, Shine, Standardize, Sustain</p>	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid blue; padding: 5px; margin: 0 10px;">Value</div> <div style="font-size: 2em; color: red; margin: 0 10px;">➔</div> <div style="border: 1px solid blue; padding: 5px; margin: 0 10px;">Map</div> <div style="margin-left: 20px;">  </div> </div> <p style="text-align: center;"><b>Eliminate Unnecessary Delays and Movement</b></p>
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## Four-Hour Six Sigma Hack – Optimize

<p><b>Focus</b></p>	<p><b>Four-Minute Six Sigma Hack</b> (<a href="#">Data Mining Wizard</a>)</p> <div style="display: flex; justify-content: space-around; align-items: center;">      </div> <p style="text-align: center;">PivotTable    Control Chart    Pareto Chart    Cause-Effect Diagram</p>
<p><b>Improve</b></p>	<div style="display: flex; justify-content: space-around; align-items: center;">    </div> <p style="text-align: center;">Cause-Effect Diagram    Countermeasures    Action Plan</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">Comparing Control Charts    Comparing Pareto Charts</p> <div style="display: flex; justify-content: space-around; align-items: center;">  </div> <p style="text-align: center;">Before and After Histogram</p>
<p><b>Sustain</b></p>	 <p style="text-align: center;">Control Chart</p>
<p><b>Honor</b></p>	<p style="text-align: center;">Recognize, Reward, Refocus, Repeat</p>
<p><b>Innovate</b></p>	 <p style="text-align: center;"><b>Innovation</b></p>