

Run Chart Guide

To be used with the CEC Academy [Run Chart Template](#)

A Run Chart is a powerful measurement tool used to track and graphically display progress/changes over time. Step by step guidance is provided in this document to create a hypothetical Run Chart for a VTE Prevention QI project. This guide should be used with the [accompanying Excel template](#), which has been set up with formulas to make this easier for you.

NOTE: This may seem overwhelming if this is your first attempt at a Run Chart – this is a normal reaction. Read through all the instructions first and if you would like more assistance, speak with your local Quality Improvement Advisor or email the CEC for help via CEC-Academy@health.nsw.gov.au. If you would like some VTE specific advice, email CEC-StopClots@health.nsw.gov.au

Instructions

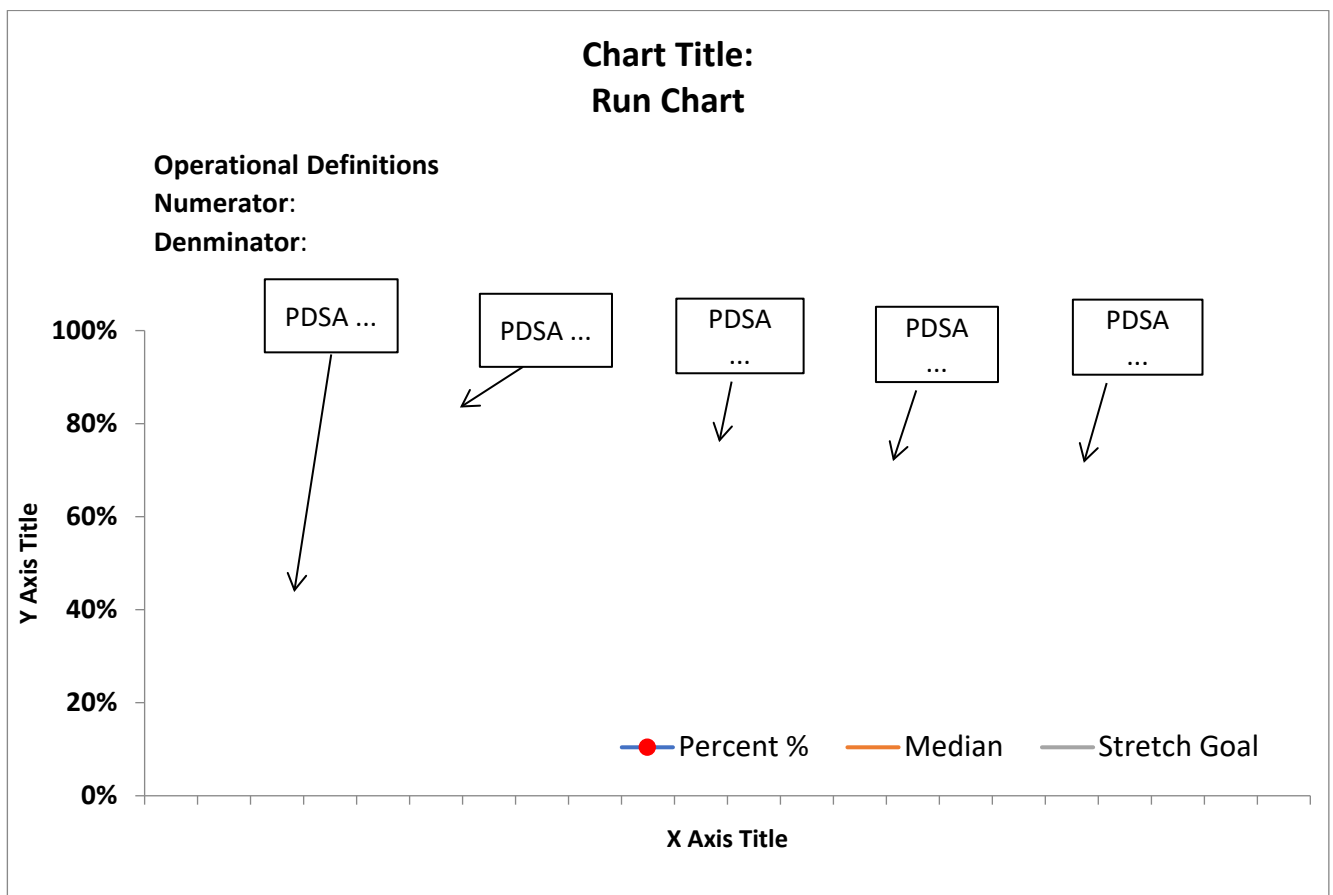
Step 1:

Once you have established the initial project needs i.e.

- That a problem needs to be solved (Refer to Getting Started)
- Your project aim, explored potential causes to the problem, come up with a driver diagram, change ideas to solve the problem (Refer to Making Improvements), and
- What data you need to collect (Refer to Data for Improvement)

You are ready to collect data and enter it into the Excel template.

Without any data entered into the Excel Template, your Run Chart will look like this



Step 2:

Edit/enter the following on the Chart Template, as relevant to your project

- Title
- Both the X and Y axis titles
- Operational Definitions
- Leave the PDSA cycles for now

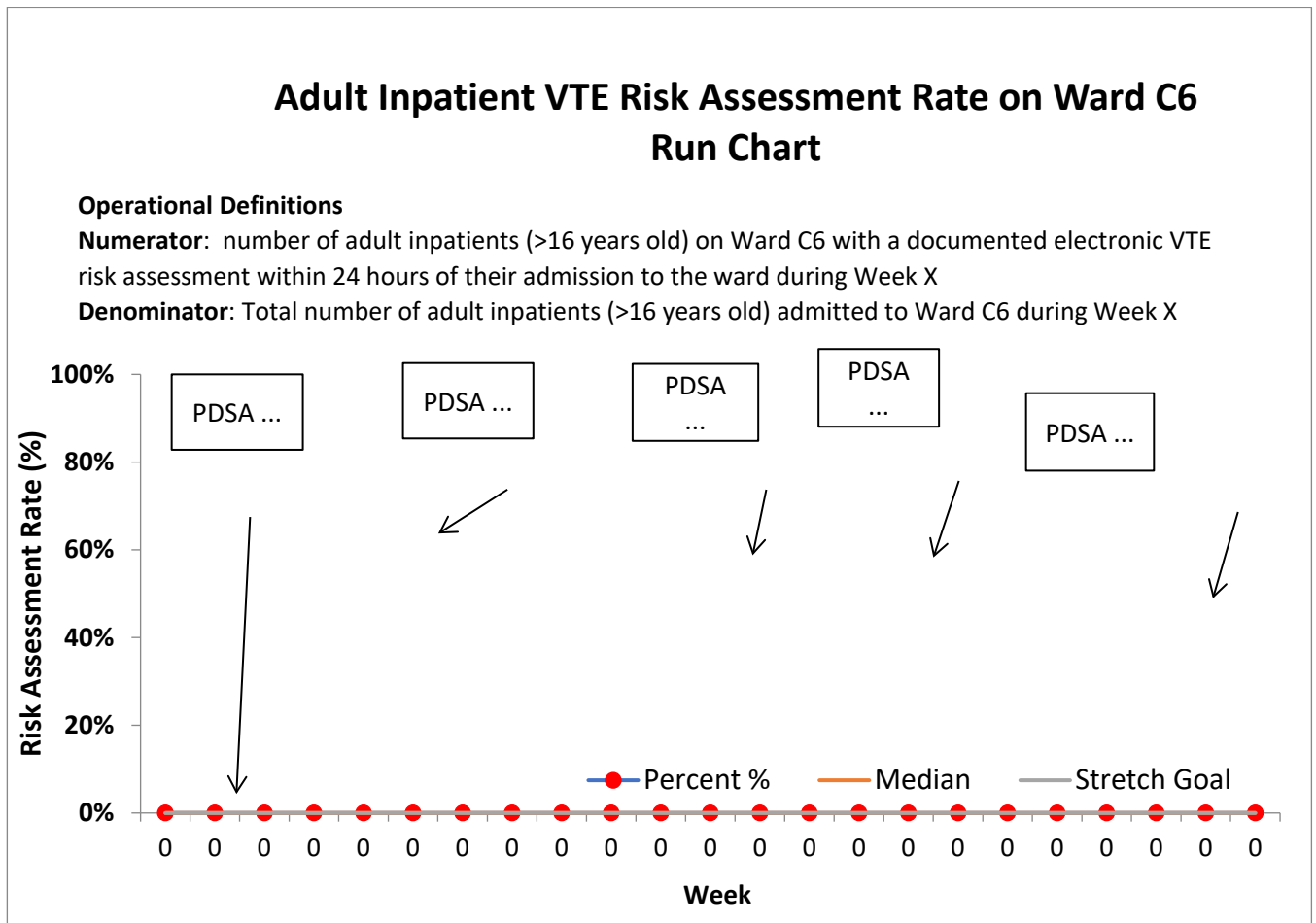
As an example, the elements below have been filled in with this hypothetical project in mind:

Aim: Within 12 months, 90% of adult inpatients on Ward C6 will have a documented VTE risk assessment within 24 hours of admission (*this will form the title*)

X Axis measure being tracked using Run Chart: *Risk Assessment Rate (%)*

- Numerator = number of adult inpatients (>16 years old) on Ward C6 with a documented electronic VTE risk assessment within 24 hours of their admission to the ward during Week X
- Denominator = Total number of adult inpatients (>16 years old) admitted to Ward C6 during Week X

Data is collected weekly.



Step 3:

As you start to implement change ideas and collect data on your desired measures, fill in the Excel template table. The table below has been filled in with the example information, continuing from Step 2:

- **X-Axis:** Data is collected weekly
- **Baseline (Week 0) Audit:** 7 patients (numerator) out of a total of 30 patients (denominator) had a documented VTE risk assessment (*the Institute for Healthcare Improvement recommends a baseline audit of 30 patients. Ongoing data collection need only look at total 5-10 patients at a time*).
- **Percent %:** Automatically calculated when you enter your numerator and denominator for each data collection
- **Median:** Automatically calculated once all of the cells in the percent (%) column are populated into the table (you may need to edit the median formula to calculate over a shorter period, if you would like to see the median line sooner into your project). In this example, the median VTE risk assessment rate on Ward C6 has been calculated to be 80.6% based on 8 weeks of data collection.
- **Stretch Goal:** The aim is that within 12 months, 90% (*stretch goal*) of adult inpatients on Ward C6 will have a documented VTE risk assessment. The stretch goal only needs to be entered once in the Excel template.
- **Change Ideas being tested via PDSA:** VTE education campaign, data reports for consultants, implementing eMR alerts

<u>X-axis</u> Date or Observation in CHRONOLOGICAL ORDER eg: month, week, day, Patient 1,2,3 or date of audit etc...	<u>Numerator</u> (top number in the fraction)	<u>Denominator</u> (bottom number in the fraction)	Percent %	Median	Stretch Goal	Change ideas tested via PDSA
Week 0	7	30	23.3%	80.6%	90.0%	
Week 1						PDSA 1: VTE Education Campaign (Change Idea 1)
Week 2	5	12	41.7%	80.6%	90%	
Week 3	6	13	46.2%	80.6%	90.0%	PDSA 2: Provide reports to consultants on VTE risk assessment in their patients (Change Idea 2)
Week 4	8	9	88.9%	80.6%	90.0%	
Week 5	9	18	50.0%	80.6%	90.0%	
Week 6	10	19	52.6%	80.6%	90.0%	PDSA 3: Second iteration of change idea 2
Week 7	11	18	61.1%	80.6%	90.0%	
Week 8	12	18	66.7%	80.6%	90.0%	PDSA 4: Implement eMR alerts (Change Idea 3)

Step 3:

A meaningful trend line will start to emerge once you have entered 10 data points (in this case 10 weeks of data) or more. This is what a run chart may look like after a longer period of conducting multiple PDSA cycles and implementing multiple change ideas. You can edit the annotation (text)boxes on the Excel template to indicate when PDSA cycles took place. See Making Improvements for more information on conducting PDSA cycles.

Adult Inpatient VTE Risk Assessment Rate on Ward C6: Run Chart

Operational Definitions

Numerator: Number of adult inpatients (>16 years old) on Ward C6 with a documented electronic VTE risk assessment within 24 hours of their admission to the ward during Week X

Denominator: Total number of adult inpatients (>16 years old) admitted to Ward C6 during Week X

