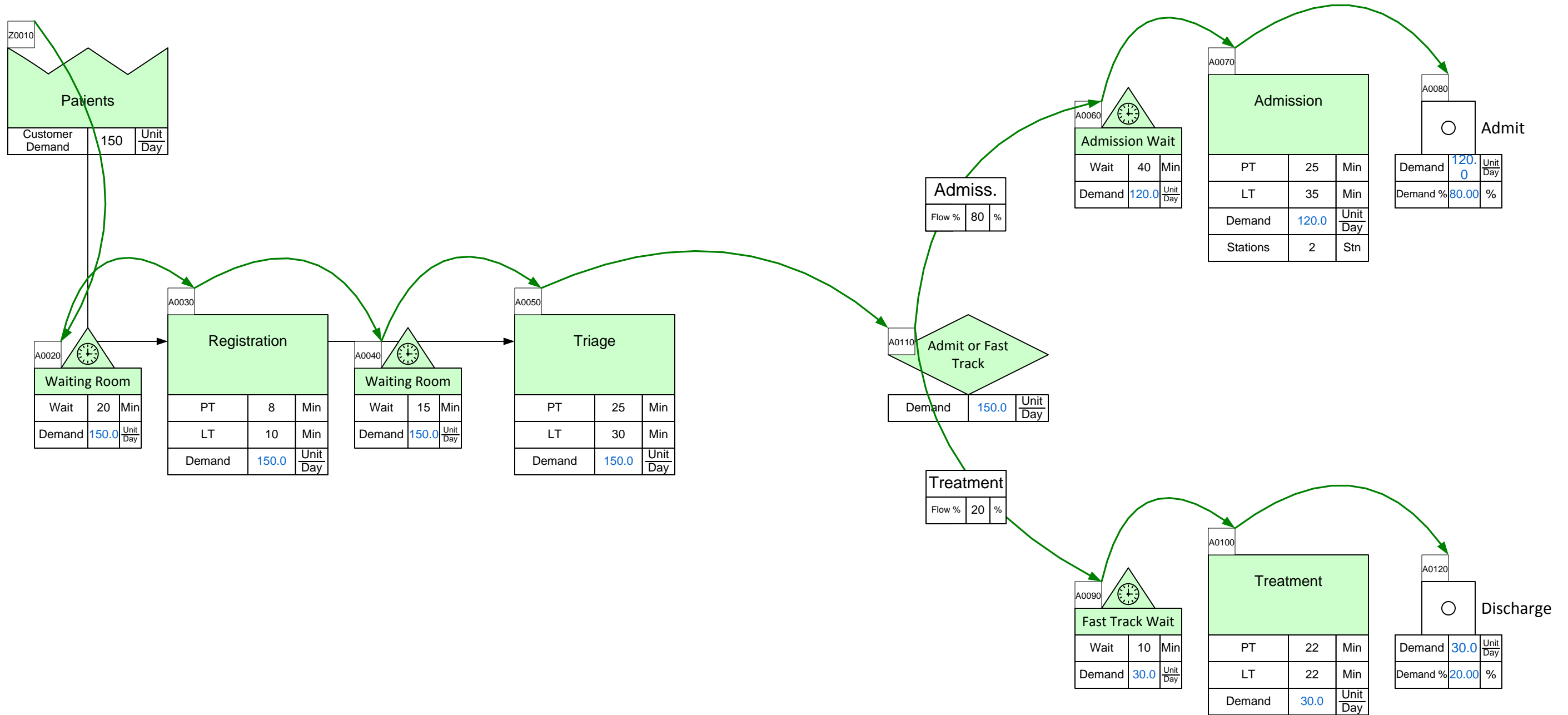# Healthcare Problem: Handling Variation

There is a lot of variation in the number of patients per day and also in the Triage turnaround time. How can you handle this on a VSM?

Z0010

Patients

Customer Demand	150	Unit Day

A0020

Waiting Room

Wait	20	Min
Demand	150.0	Unit Day

A0030

Registration

PT	8	Min
LT	10	Min
Demand	150.0	Unit Day

A0040

Waiting Room

Wait	15	Min
Demand	150.0	Unit Day

A0050

Triage

PT	25	Min
LT	30	Min
Demand	150.0	Unit Day

A0110

Admit or Fast Track

Demand	150.0	Unit Day

Admiss.

Flow %	80	%

Treatment

Flow %	20	%

A0060

Admission Wait

Wait	40	Min
Demand	120.0	Unit Day

A0070

Admission

PT	25	Min
LT	35	Min
Demand	120.0	Unit Day
Stations	2	Stn

A0080

Admit

Demand	120.0	Unit Day
Demand %	80.00	%

A0090

Fast Track Wait

Wait	10	Min
Demand	30.0	Unit Day

A0100

Treatment

PT	22	Min
LT	22	Min
Demand	30.0	Unit Day

A0120

Discharge

Demand	30.0	Unit Day
Demand %	20.00	%

Units	Day	Wk	Year
	24	5	52
	Hr	Day	Wk

Healthcare Solution: Handling Variation

There is a lot of variation in the number of patients per day and also in the Triage turnaround time. How can you handle this on a VSM?
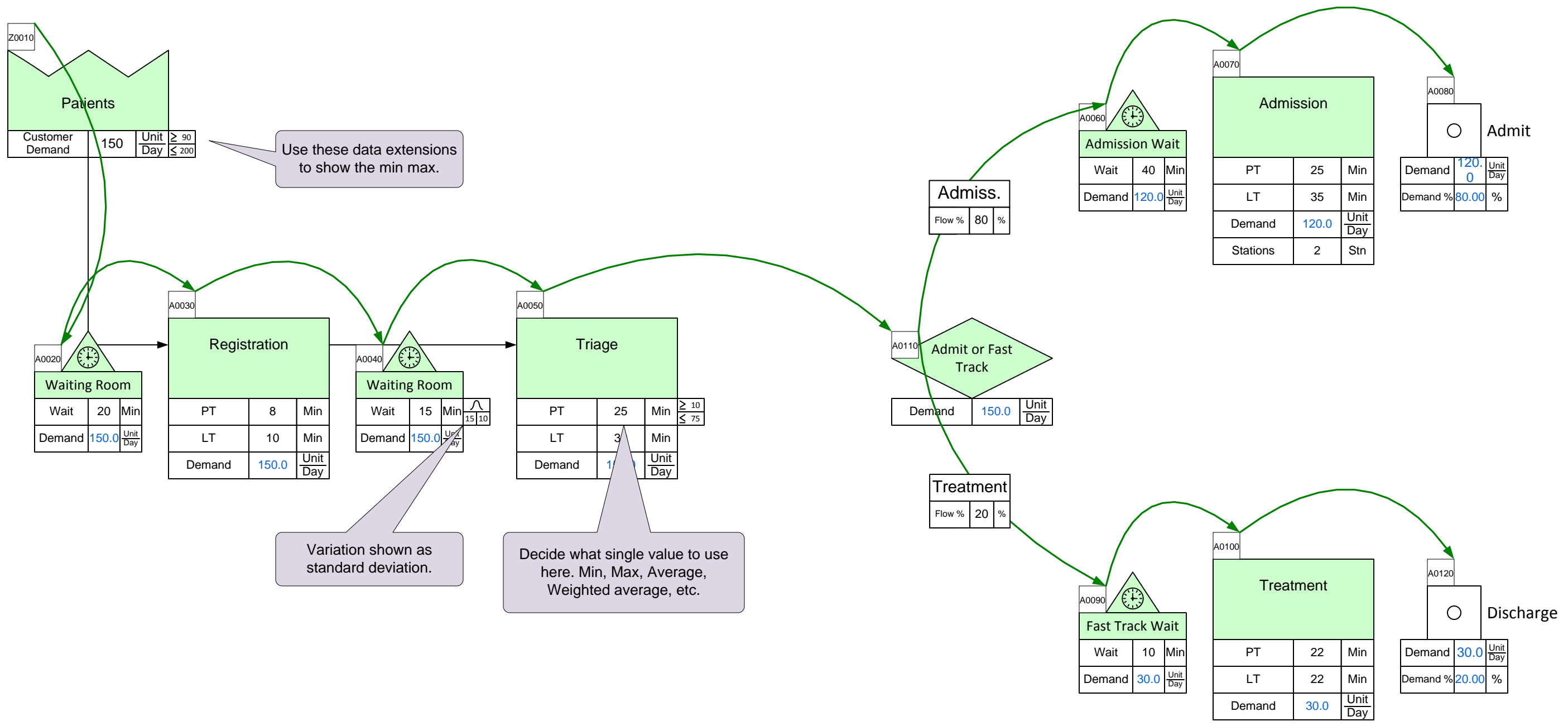
Variation is the root cause of most problems in value streams. Here, variation could be causing long wait times, staff stress, unnecessary costs, medical errors, etc. The first challenge is to make sure everyone concerned is aware of the variation the value stream has to deal with. This can be done as shown in the example.

Value stream mapping is normally a static analysis based on a single data value for each input. You may use min, max, average, weighted average, or some other value which best represents the data for the analysis you are doing.

Z0010

Patients

| Customer Demand | 150 | Unit Day | ≥ 90 ≤ 200 |

Use these data extensions to show the min max.

A0020

Waiting Room

| Wait | 20 | Min |
| Demand | 150.0 | Unit Day |

A0030

Registration

PT	8	Min
LT	10	Min
Demand	150.0	Unit Day

A0040

Waiting Room

| Wait | 15 | Min | 15 10 |
| Demand | 150.0 | Unit Day |

A0050

Triage

PT	25	Min	≥ 10 ≤ 75
LT	3	Min
Demand	150.0	Unit Day

Variation shown as standard deviation.

Decide what single value to use here. Min, Max, Average, Weighted average, etc.

A0110 **Admit or Fast Track**

| Demand | 150.0 | Unit Day |

Admiss.

| Flow % | 80 | % |

A0060

Admission Wait

| Wait | 40 | Min |
| Demand | 120.0 | Unit Day |

A0070

Admission

PT	25	Min
LT	35	Min
Demand	120.0	Unit Day
Stations	2	Stn

A0080

Admit

| Demand | 120.0 | Unit Day |
| Demand % | 80.00 | % |

Treatment

| Flow % | 20 | % |

A0090

Fast Track Wait

| Wait | 10 | Min |
| Demand | 30.0 | Unit Day |

A0100

Treatment

PT	22	Min
LT	22	Min
Demand	30.0	Unit Day

A0120

Discharge

| Demand | 30.0 | Unit Day |
| Demand % | 20.00 | % |

Units

	Day	Wk	Year
	24	5	52
	Hr	Day	Wk

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