

# Improvements in HoNOS Scores: Systematic Variations

# Outline

- Gain – improvement from First to Last HoNOS assessment
- *Completed* or *Incomplete* episodes of care
- Variability; baseline & gain
- Statistical significance & change over time
- Clinical significance/Effect size
- Super-clusters, Clusters, Pathways
- Four factor; Personal, Emotional, Social, Disturbance

# Gains by super-cluster: Completed spells

First super-cluster (n)	Personal mean gain (median)	Emotional mean gain (median)	Social mean gain (median)	Disturbance mean gain (median)	Total mean gain (median)
Non- psychotic (3,332)	0.74 (0)	<b>2.29 (2)</b>	<b>0.94 (1)</b>	0.41 (0)	<b>4.07 (4)</b>
Organic (5,109)	-0.22 (0)	0.64 (0)	0.27 (0)	0.47 (0)	<b>1.10 (1)</b>
Psychotic (4,201)	0.46 (0)	<b>1.70 (2)</b>	0.97 (0)	<b>1.92 (2)</b>	<b>4.85 (4)</b>

Improvements in HoNOS scores, first to latest, Q1 2015/16 to Q3 2016/17

# Gains by super-cluster: Incomplete spells

First super-cluster (n)	Personal mean gain (median)	Emotional mean gain (median)	Social mean gain (median)	Disturbance mean gain (median)	Total mean gain (median)
Non-psychotic (12,955)	- 0.02 (0)	<b>0.79 (1)</b>	0.08 (0)	0.12 (0)	<b>0.95 (1)</b>
Organic (6,599)	-0.60 (0)	0.24 (0)	-0.03 (0)	0.15 (0)	-0.13 (0)
Psychotic (8,462)	0.25 (0)	0.38 (0)	0.12 (0)	0.70 (0)	<b>0.99 (1)</b>

Improvements in HoNOS scores, first to latest, Q1 2015/16 to Q3 2016/17

## Gains by Latest Pathway: Completed spells

Pathway (n)	Personal mean gain (median)	Emotional mean gain (median)	Social mean gain (median)	Disturbance mean gain (median)	Total mean gain (median)
Anxiety & depression (2,424)	0.81 (0)	<b>2.28 (2)</b>	<b>0.95 (1)</b>	0.47 (0)	<b>4.19 (4)</b>
Complex personality needs (399)	0.52 (0)	<b>1.80 (2)</b>	0.70 (0)	0.58 (0)	<b>3.44 (3)</b>
EIP (188)	<b>1.03 (1)</b>	<b>1.72 (1)</b>	<b>1.13 (1)</b>	<b>1.89 (2)</b>	<b>5.47 (5)</b>
Enduring psychosis (45)	0.58 (0)	<b>1.67 (1)</b>	<b>1.36 (1)</b>	<b>1.16 (1)</b>	<b>4.58 (4)</b>
Recovering from psychosis (530)	0.32 (0)	<b>1.55 (1)</b>	0.82 (0)	<b>1.60 (1)</b>	<b>4.12 (4)</b>
Neurodevelopmental (92)	0.77 (0)	<b>1.76 (1)</b>	<b>1.16 (1)</b>	0.90 (0)	<b>4.28 (3)</b>
Other (5,630)	-0.17 (0)	0.84 (0)	0.34 (0)	0.48 (0)	<b>1.43 (1)</b>

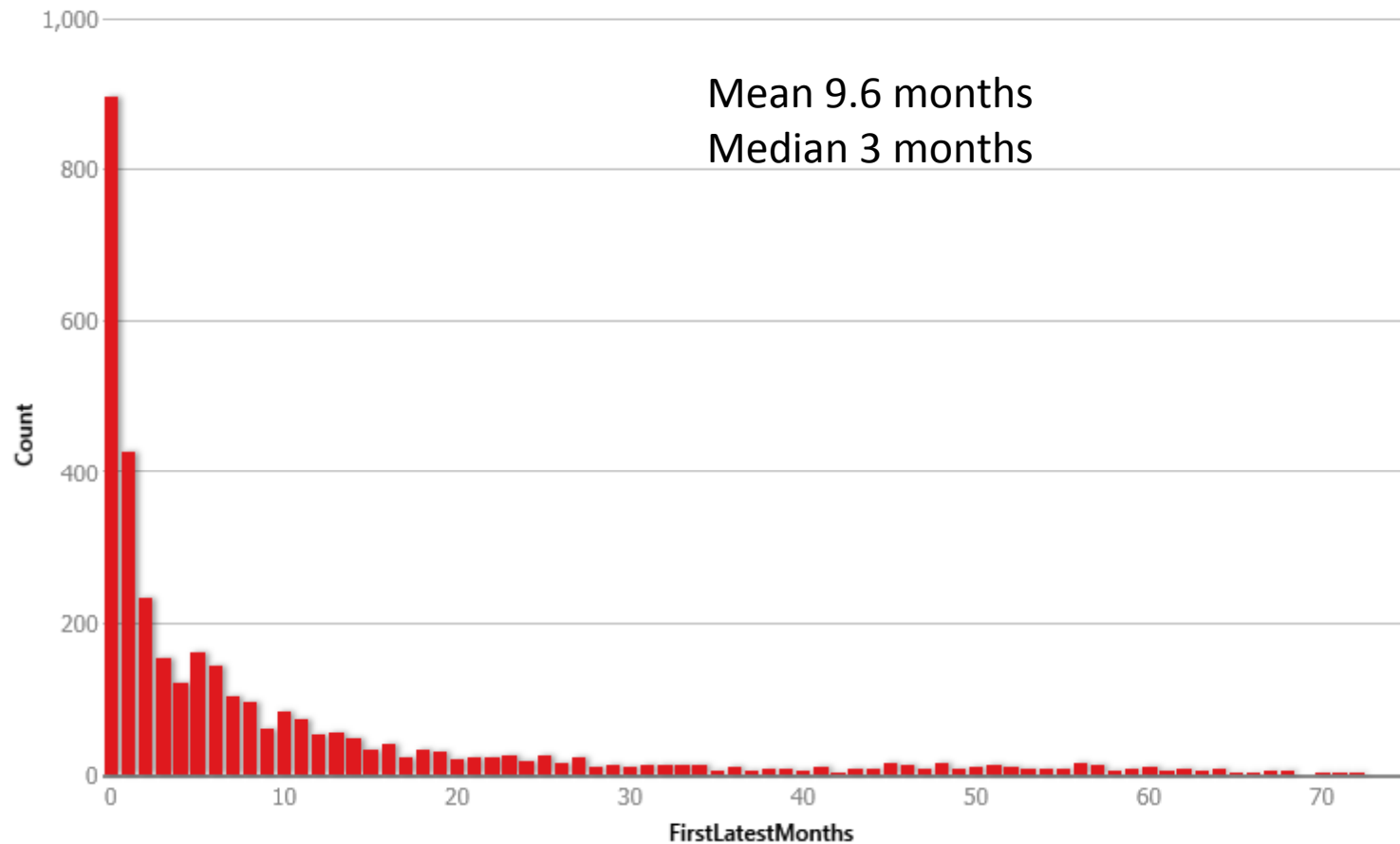
Improvements in HoNOS scores, first to latest, Q1 2015/16 to Q3 2016/17

## Gains by Latest Pathway: Incomplete spells

Pathway (n)	Personal mean gain (median)	Emotional mean gain (median)	Social mean gain (median)	Disturbance mean gain (median)	Total mean gain (median)
Anxiety & depression (9,927)	0.11 (0)	<b>0.73 (1)</b>	0.08 (0)	0.31 (0)	<b>1.21 (1)</b>
Complex personality needs (1,775)	-0.22 (0)	0.37 (0)	-0.09 (0)	0.03 (0)	0.12 (0)
EIP (923)	0.55 (0)	<b>1.47 (1)</b>	<b>0.79 (1)</b>	<b>1.70 (1)</b>	<b>4.39 (4)</b>
Enduring psychosis (1,231)	-0.58 (0)	0.19 (0)	-0.05 (0)	0.19 (0)	-0.20 (0)
Recovering from psychosis (6,260)	-0.27 (0)	0.29 (0)	0.04 (0)	0.31 (0)	0.42 (0)
Neurodevelopmental (569)	0.31 (0)	0.36 (0)	0.31 (0)	0.19 (0)	<b>1.07 (1)</b>
Other (7,331)	-0.72 (0)	0.47 (0)	0.01 (0)	0.21 (0)	0.08 (0)

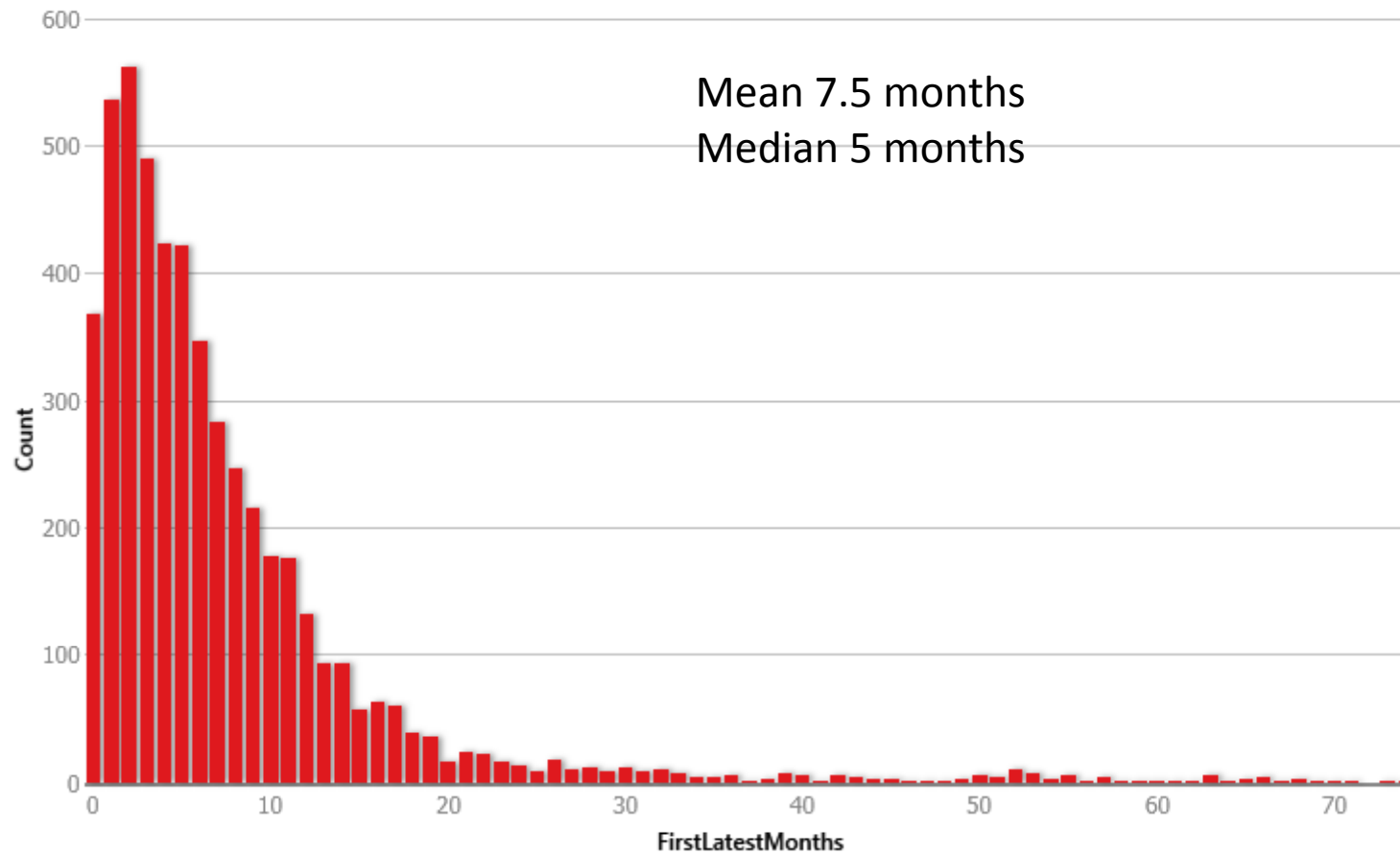
Improvements in HoNOS scores, first to latest, Q1 2015/16 to Q3 2016/17

# Time (months) between First and Latest HoNOS Score; Non-Psychotic Super-Cluster



Completed episodes, Q1 2015/16 to Q3 2016/17

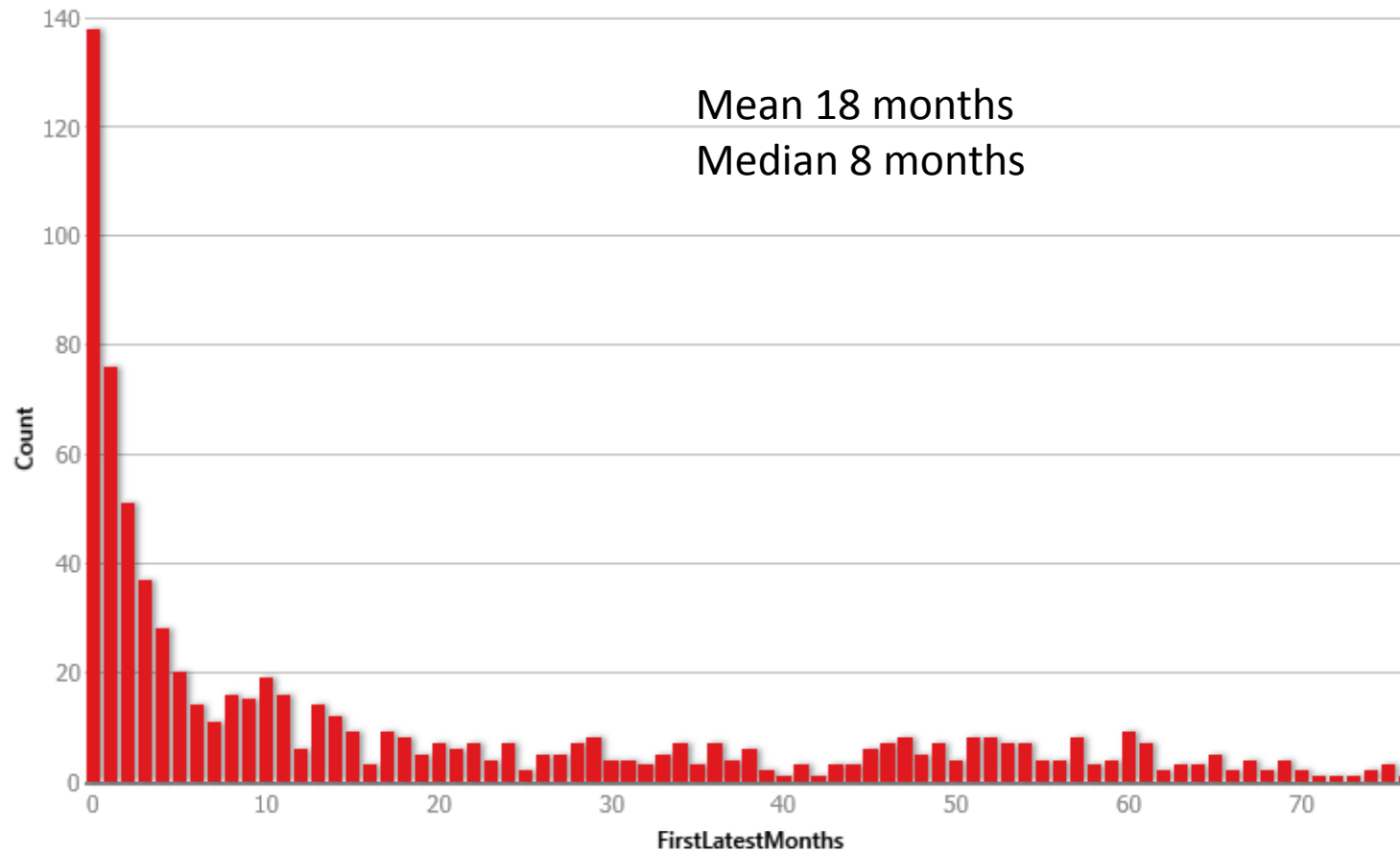
# Time (months) between First and Latest HoNOS Score; Organic Super-Cluster



Completed episodes, Q1 2015/16 to Q3 2016/17

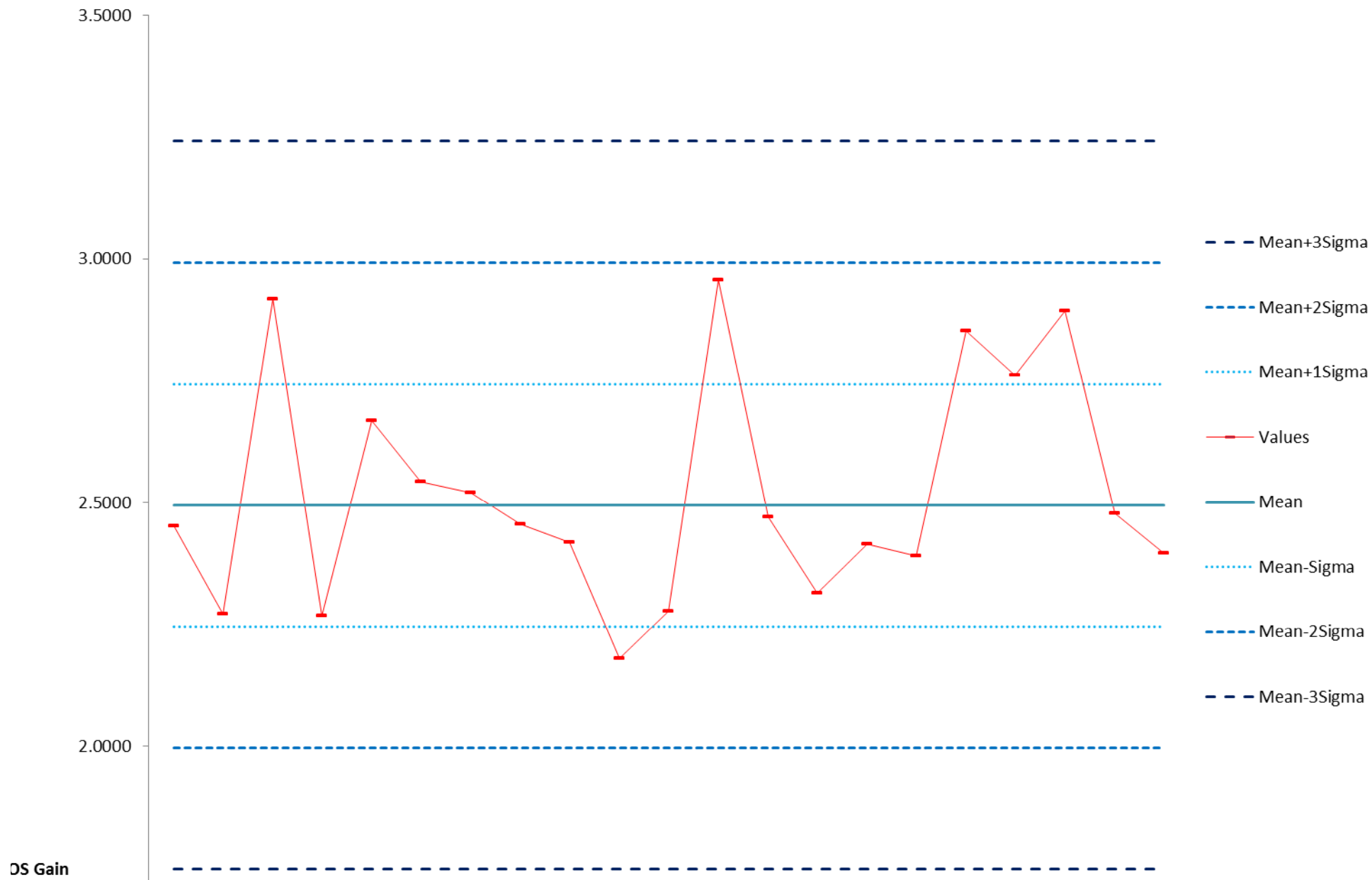


# Time (months) between First and Latest HoNOS Score; Psychotic Super-Cluster



Completed episodes, Q1 2015/16 to Q3 2016/17

# HoNOS Gain from First



# Conclusions

- Much variation is predictable
- Systematic differences between super-clusters & pathways
- Inter-rater reliability
- Variation over time & detection of change
- Significance
  - Statistical (test or run-chart/SPC)
  - Clinical
- Incentivisation