Sheffield Teaching Hospitals
NHS Foundation Trust

Quality Improvement And Quality Assurance

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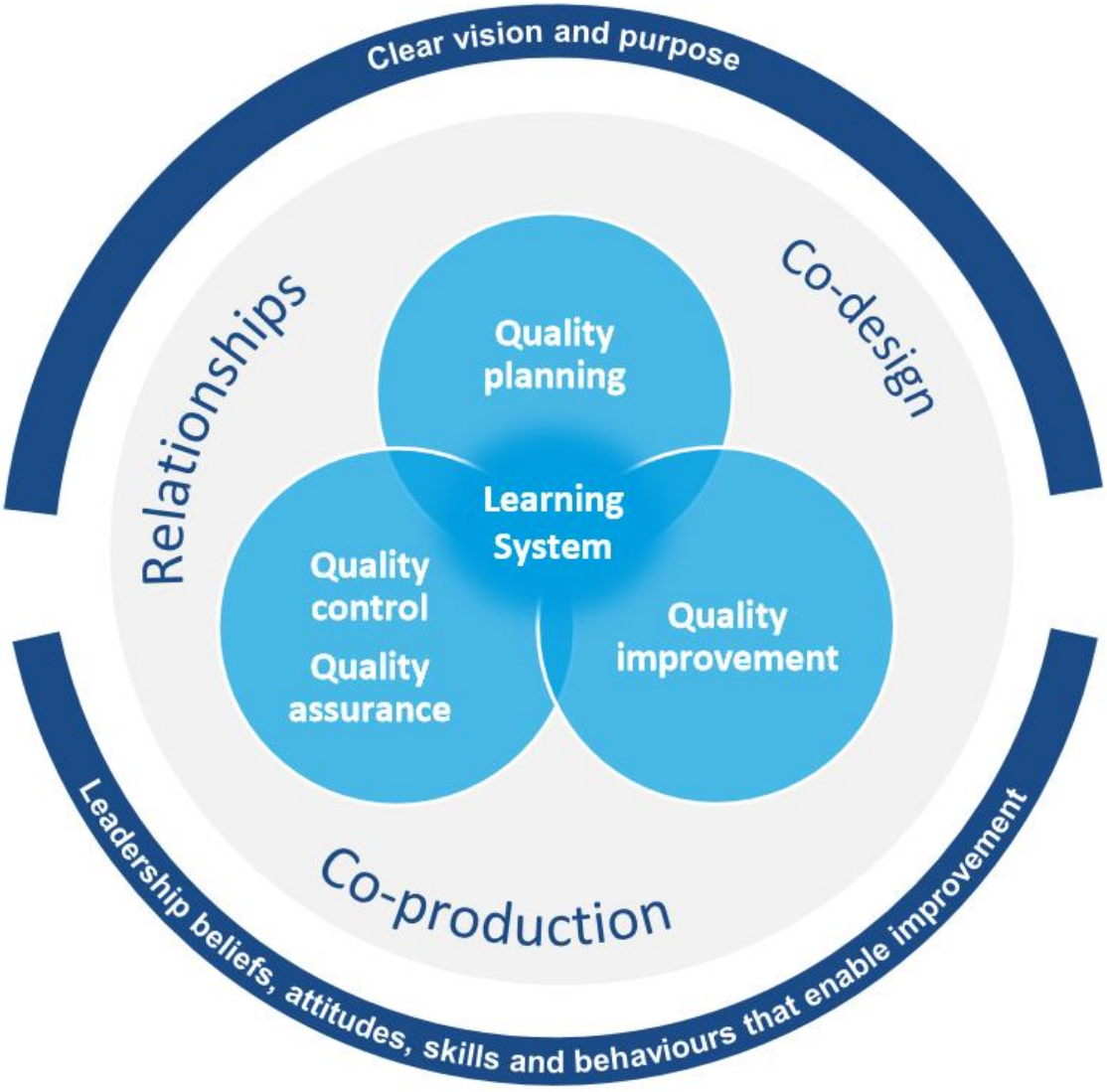
13th November 2019

Together we make STH
A brilliant personal place to work

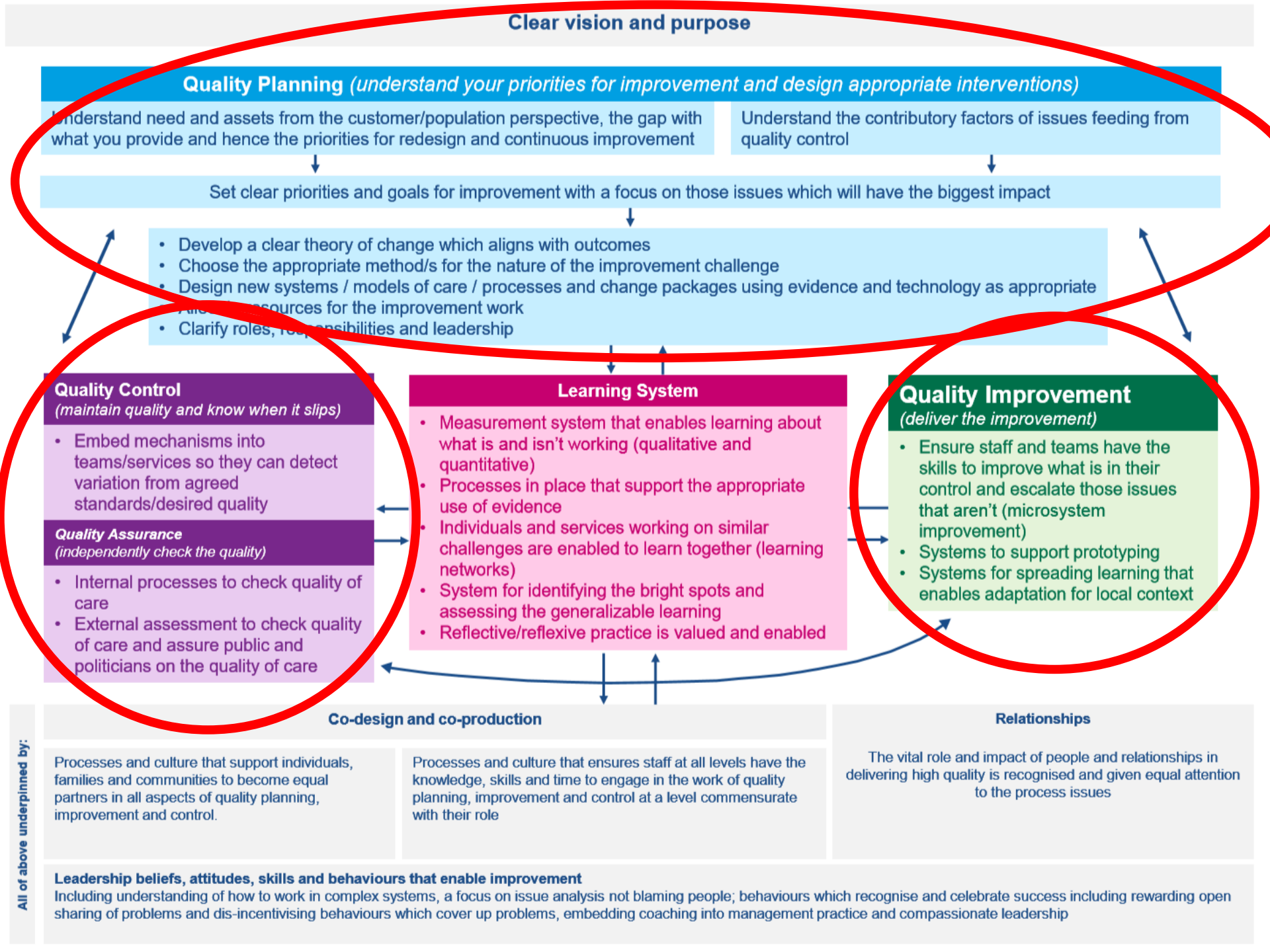
ORGANISATIONAL DEVELOPMENT

Shewharts Total Quality Management

- Quality Planning
- Quality Control
- Quality Improvement


Clear vision and purpose
Relationships
Co-design
Quality planning
Learning System
Quality control
Quality assurance
Quality improvement
Co-production
Leadership beliefs, attitudes, skills and behaviours that enable improvement

Toyoda Automatic Loom – rights sold to UK in1926


Clear vision and purpose
Quality Planning (understand your priorities for improvement and design appropriate interventions)
Understand need and assets from the customer/population perspective, the gap with what you provide and hence the priorities for redesign and continuous improvement
Understand the contributory factors of issues feeding from quality control
Set clear priorities and goals for improvement with a focus on those issues which will have the biggest impact
Develop a clear theory of change which aligns with outcomes
Choose the appropriate method/s for the nature of the improvement challenge
Design new systems / models of care / processes and change packages using evidence and technology as appropriate
Clarify roles,
sibilities and leadership
Quality Control
(maintain quality and know when it slips)
Embed mechanisms into teams/services so they can detect variation from agreed standards/desired quality
Quality Assurance
(independently check the quality)
Internal processes to check quality of care
External assessment to check quality of care and assure public and politicians on the quality of care
Learning System
Measurement system that enables learning about what is and isn't working (qualitative and quantitative)
Processes in place that support the appropriate use of evidence
Individuals and services working on similar challenges are enabled to learn together (learning networks)
System for identifying the bright spots and assessing the generalizable learning
Reflective/reflexive practice is valued and enabled
Quality Improvement
(deliver the improvement)
Ensure staff and teams have the skills to improve what is in their control and escalate those issues that aren't (microsystem improvement)
Systems to support prototyping
Systems for spreading learning that enables adaptation for local context
All of above underpinned by:
Co-design and co-production
Processes and culture that support individuals, families and communities to become equal partners in all aspects of quality planning, improvement and control.
Processes and culture that ensures staff at all levels have the knowledge, skills and time to engage in the work of quality planning, improvement and control at a level commensurate with their role
Relationships
The vital role and impact of people and relationships in delivering high quality is recognised and given equal attention to the process issues
Leadership beliefs, attitudes, skills and behaviours that enable improvement
Including understanding of how to work in complex systems, a focus on issue analysis not blaming people; behaviours which recognise and celebrate success including rewarding open sharing of problems and dis-incentivising behaviours which cover up problems, embedding coaching into management practice and compassionate leadership

"The old way: Inspect bad quality out.
The new way: build good quality in."

W. Edwards Deming

What is

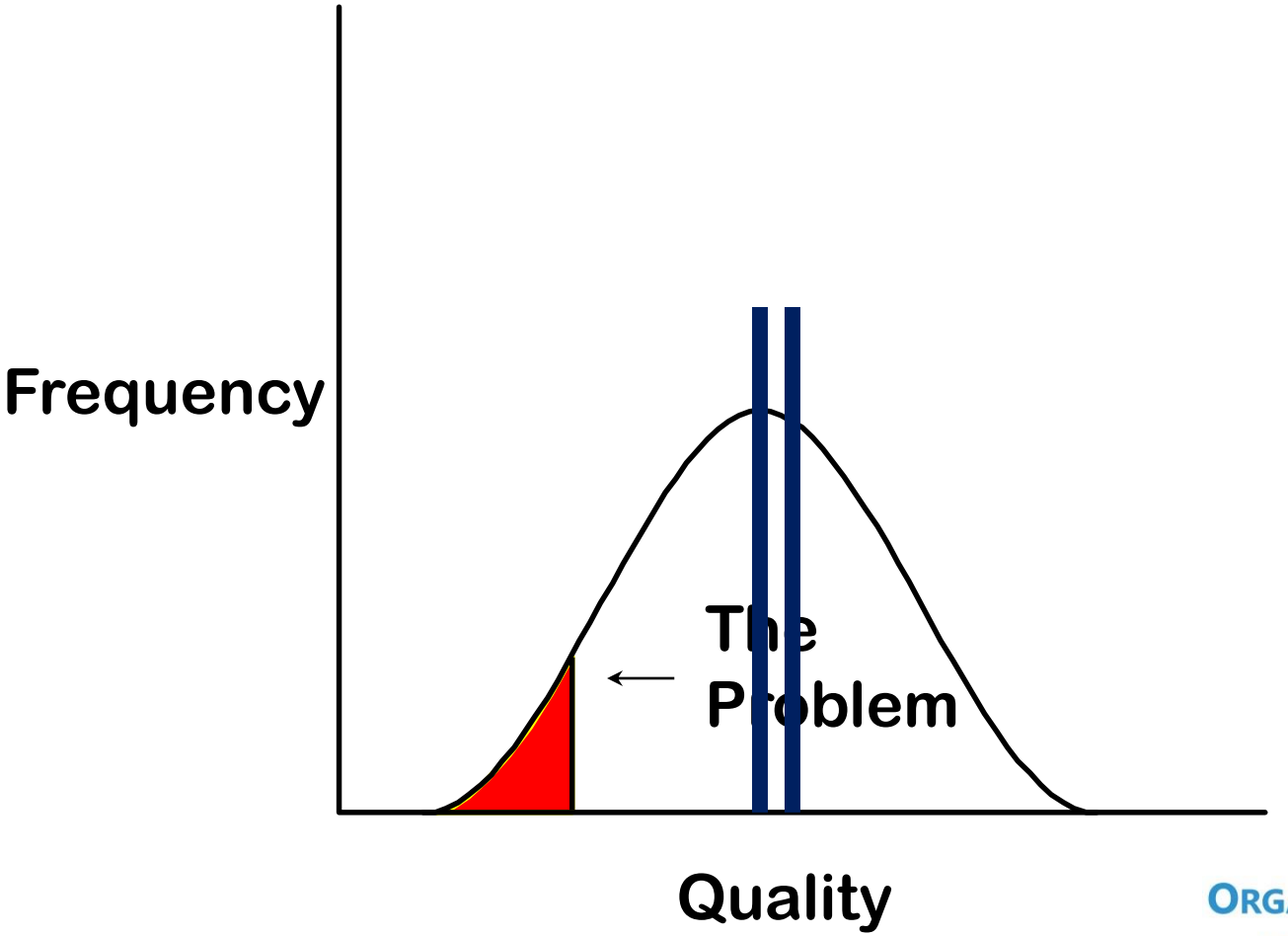
QUALITY IMPROVEMENT?

Quality: The IOM's Six Aims

High Quality care is care that is:

- *Safe*
- *Effective*
- *Patient-Centered*
- *Timely*
- *Efficient*
- *Equitable*

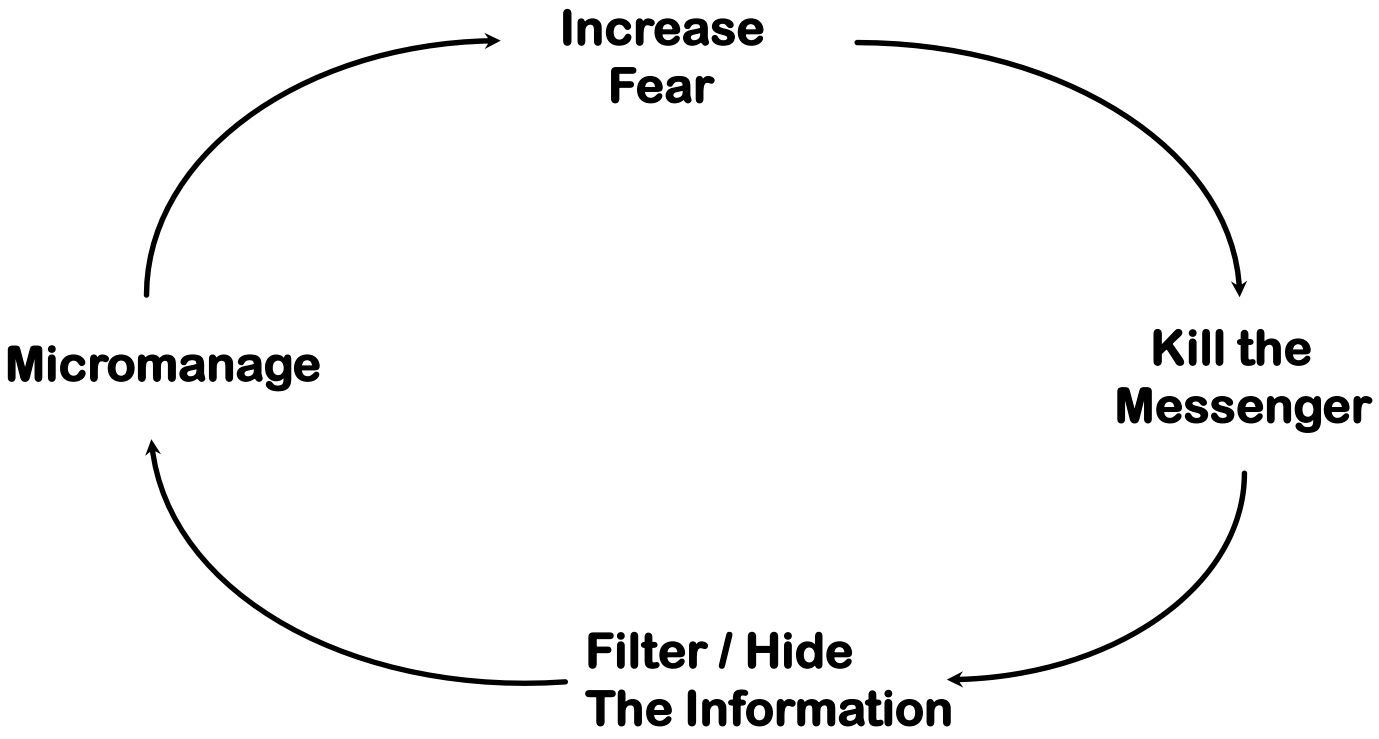
Model I: Bad Apples



The Simple, Wrong Answer

BLAME SOMEBODY

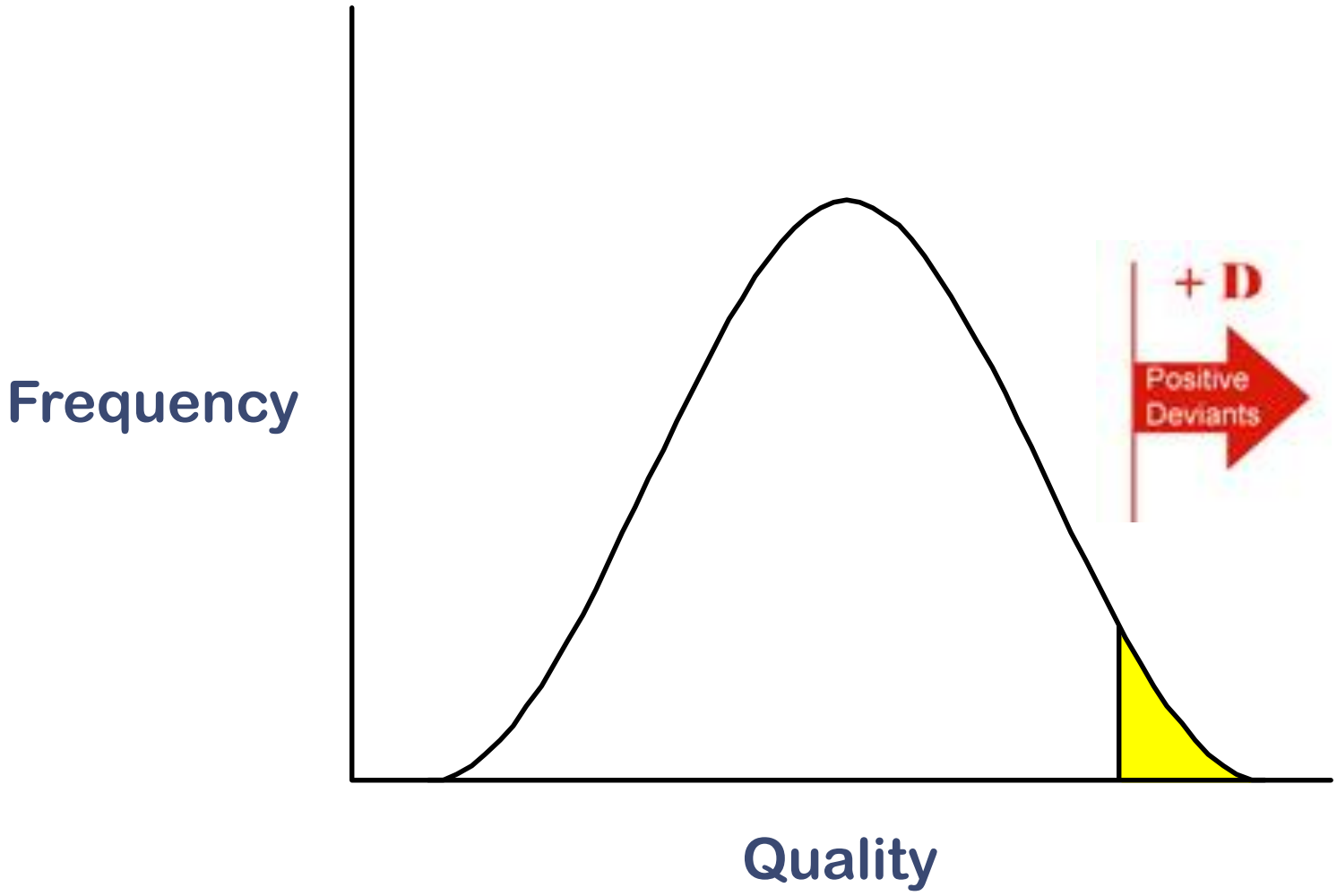
The Cycle of Fear



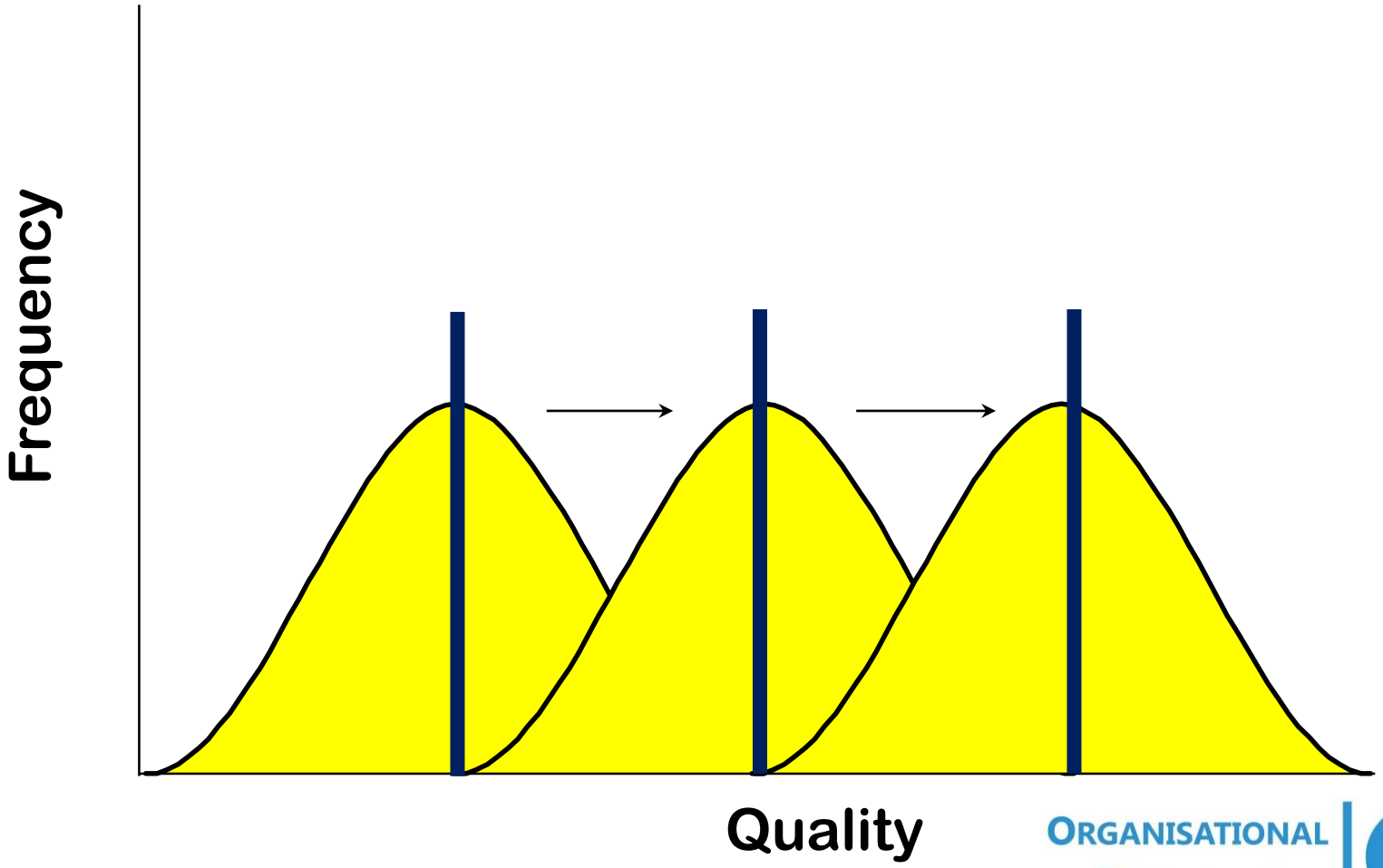
‘The system that people work in may account for 90 or 95 percent of performance.’

W. Edwards Deming

Model 2: Positive deviance



Model 2: Continuous Improvement
"Every Defect is a Treasure"

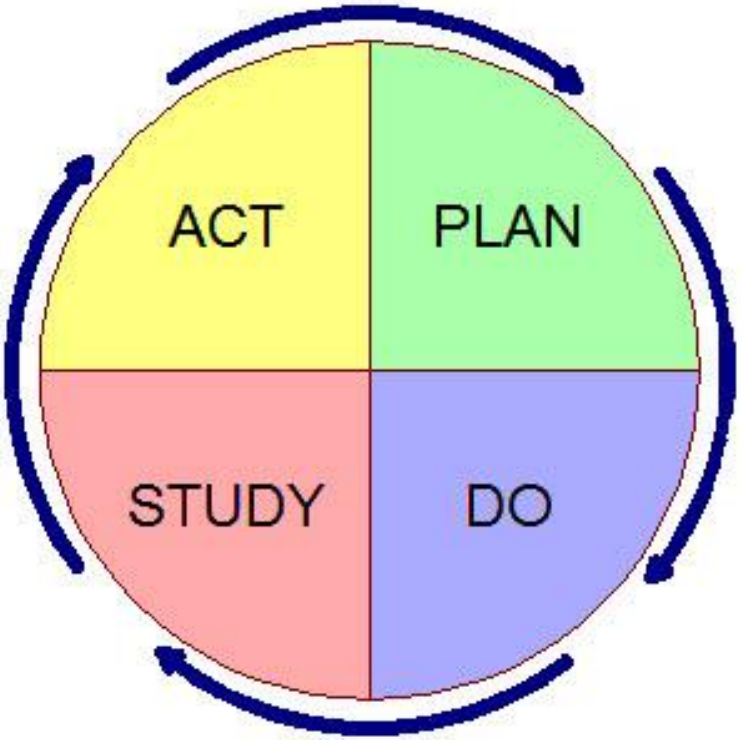


Model for Improvement

What are we trying to accomplish?

How will we know if a change is an improvement?

What changes can we make that will result in improvement?



William Sealy Gosset

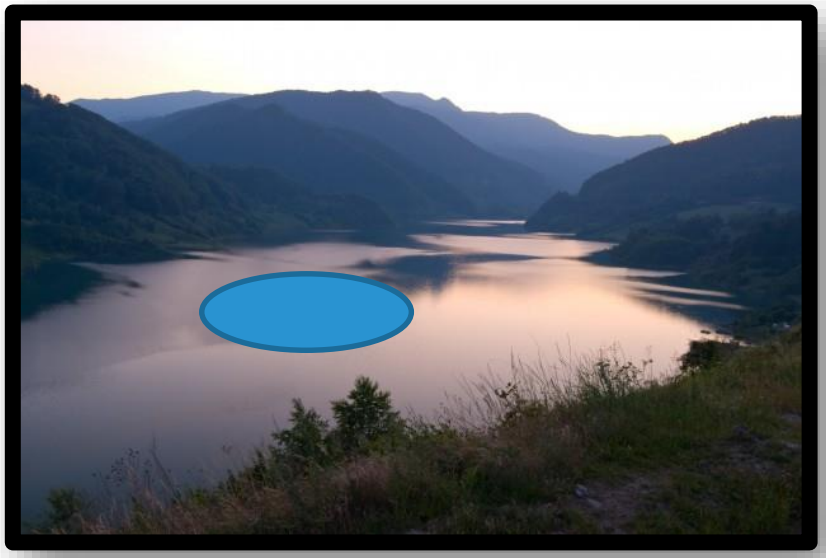
(1876 - 1937)

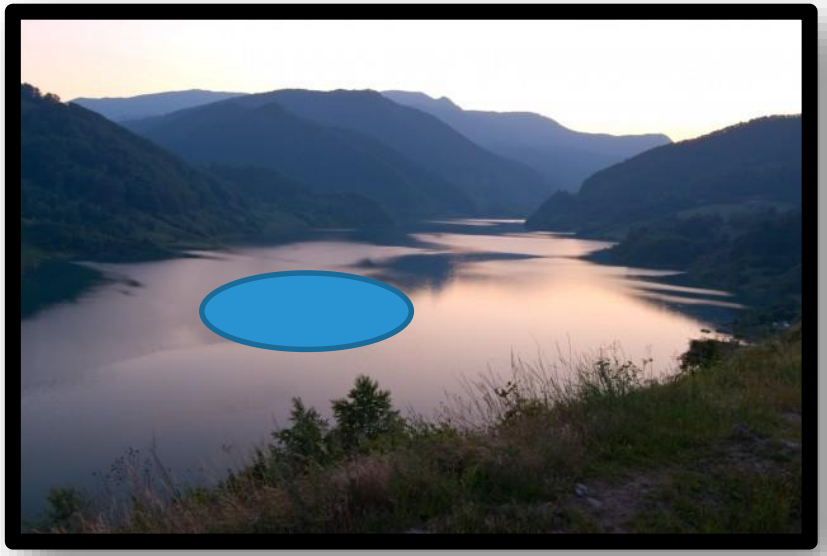
Sir Ronald Fisher

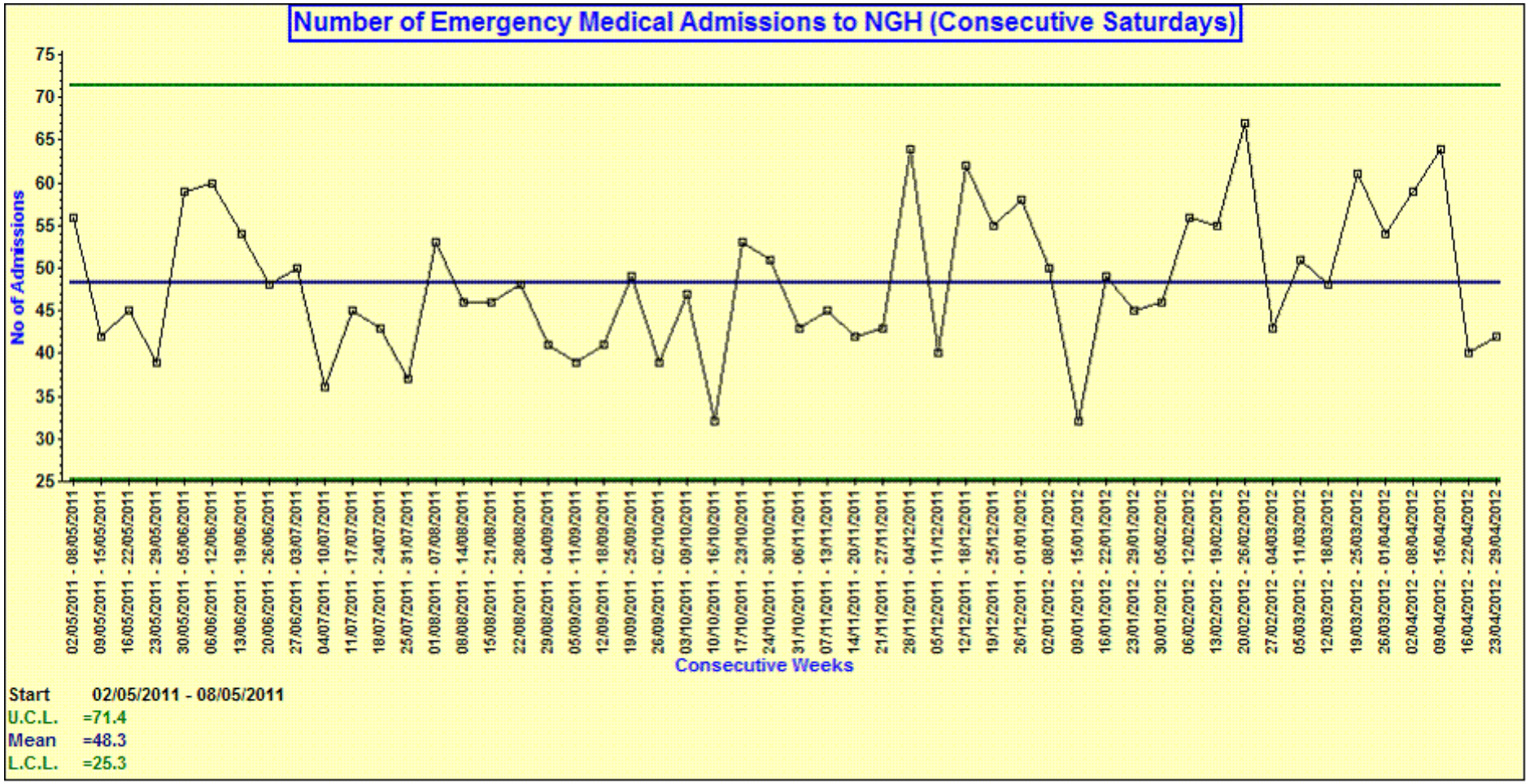
(1890 - 1962)

Austin Bradford Hill
1897 - 1991

Sampling Water Content

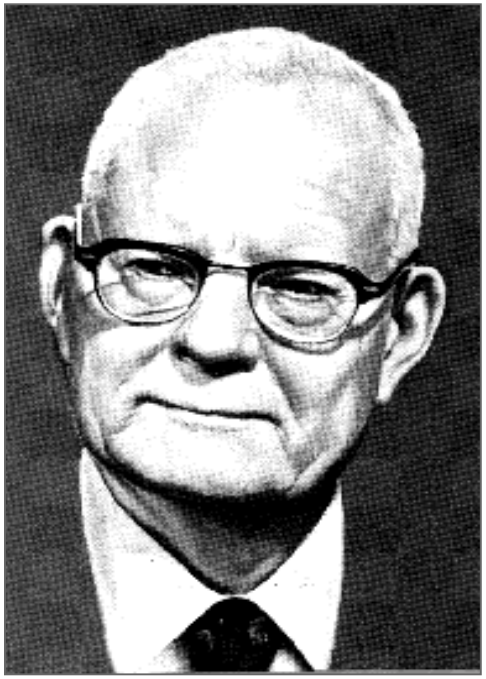





Number of Emergency Medical Admissions to NGH (Consecutive Saturdays)
No of Admissions
75
70
65
60
55
50
45
40
35
30
25
02/05/2011 - 08/05/2011
09/05/2011 - 15/05/2011
16/05/2011 - 22/05/2011
23/05/2011 - 29/05/2011
30/05/2011 - 05/06/2011
06/06/2011 - 12/06/2011
13/06/2011 - 19/06/2011
20/06/2011 - 26/06/2011
27/06/2011 - 03/07/2011
04/07/2011 - 10/07/2011
11/07/2011 - 17/07/2011
18/07/2011 - 24/07/2011
25/07/2011 - 31/07/2011
01/08/2011 - 07/08/2011
08/08/2011 - 14/08/2011
15/08/2011 - 21/08/2011
22/08/2011 - 28/08/2011
29/08/2011 - 04/09/2011
05/09/2011 - 11/09/2011
12/09/2011 - 18/09/2011
19/09/2011 - 25/09/2011
26/09/2011 - 02/10/2011
03/10/2011 - 09/10/2011
10/10/2011 - 16/10/2011
17/10/2011 - 23/10/2011
24/10/2011 - 30/10/2011
31/10/2011 - 06/11/2011
07/11/2011 - 13/11/2011
14/11/2011 - 20/11/2011
21/11/2011 - 27/11/2011
28/11/2011 - 04/12/2011
05/12/2011 - 11/12/2011
12/12/2011 - 18/12/2011
19/12/2011 - 25/12/2011
26/12/2011 - 01/01/2012
02/01/2012 - 08/01/2012
09/01/2012 - 15/01/2012
16/01/2012 - 22/01/2012
23/01/2012 - 29/01/2012
30/01/2012 - 05/02/2012
06/02/2012 - 12/02/2012
13/02/2012 - 19/02/2012
20/02/2012 - 26/02/2012
27/02/2012 - 04/03/2012
05/03/2012 - 11/03/2012
12/03/2012 - 18/03/2012
19/03/2012 - 25/03/2012
26/03/2012 - 01/04/2012
02/04/2012 - 08/04/2012
09/04/2012 - 15/04/2012
16/04/2012 - 22/04/2012
23/04/2012 - 29/04/2012
Consecutive Weeks
Start 02/05/2011 - 08/05/2011
U.C.L. =71.4
Mean =48.3
L.C.L. =25.3

Walter
Shewhart

(1891 – 1967)



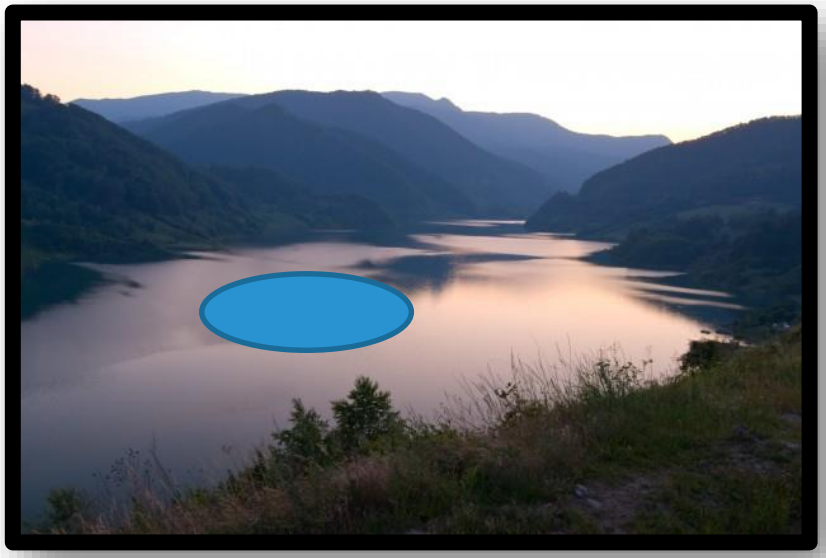
W. Edwards
Deming

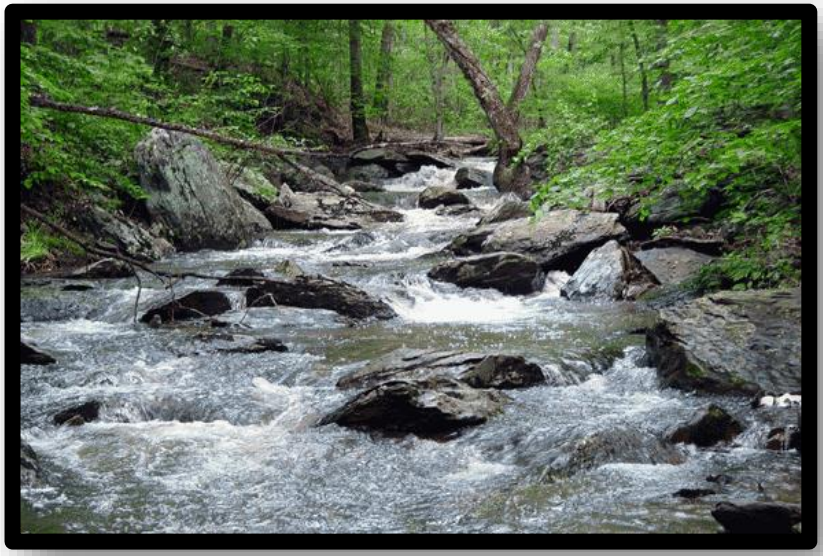
(1900 - 1993)

Sampling Water Content

TIME

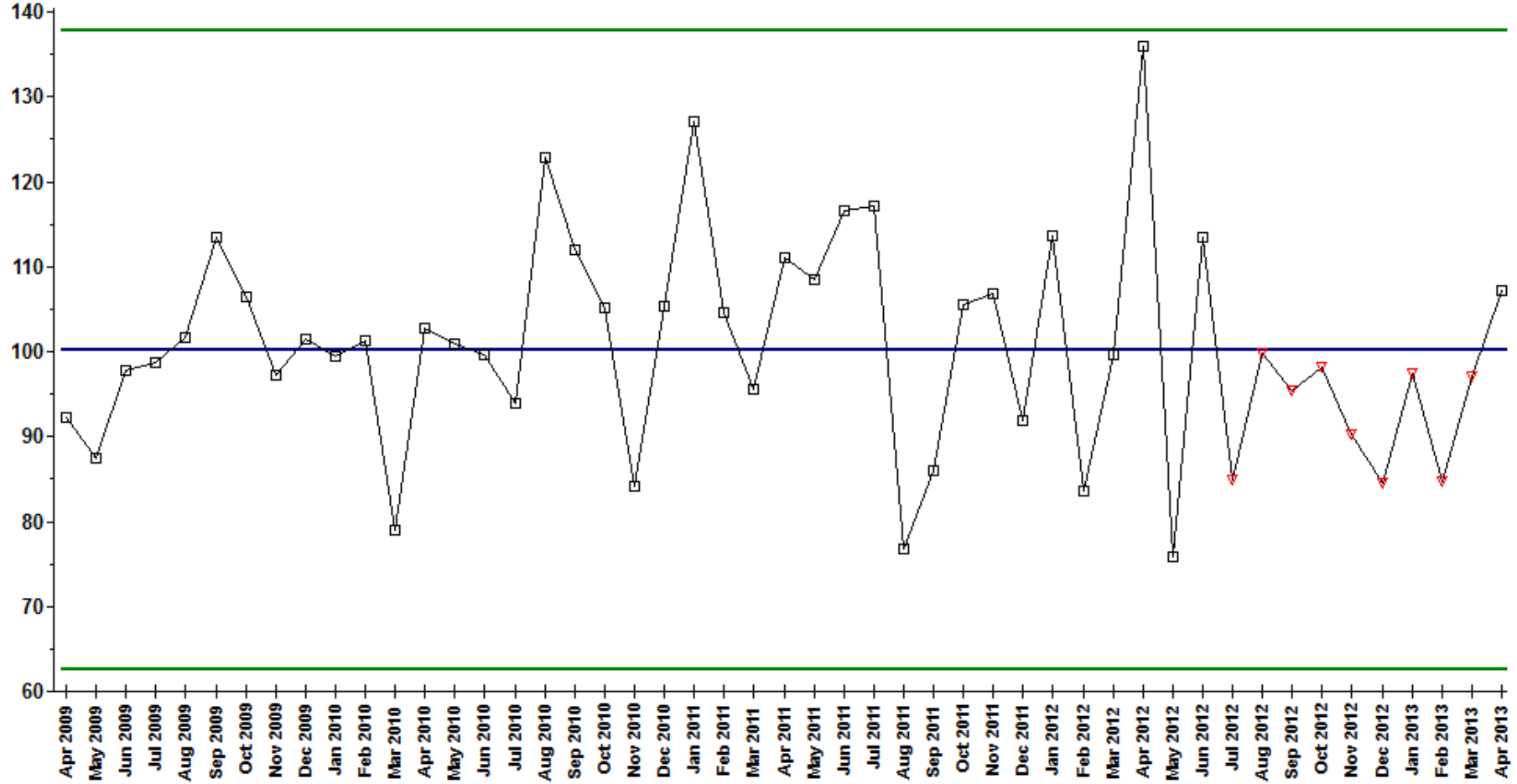
Sampling Water Content





TIME

GSM as specialty of discharge-HSMR

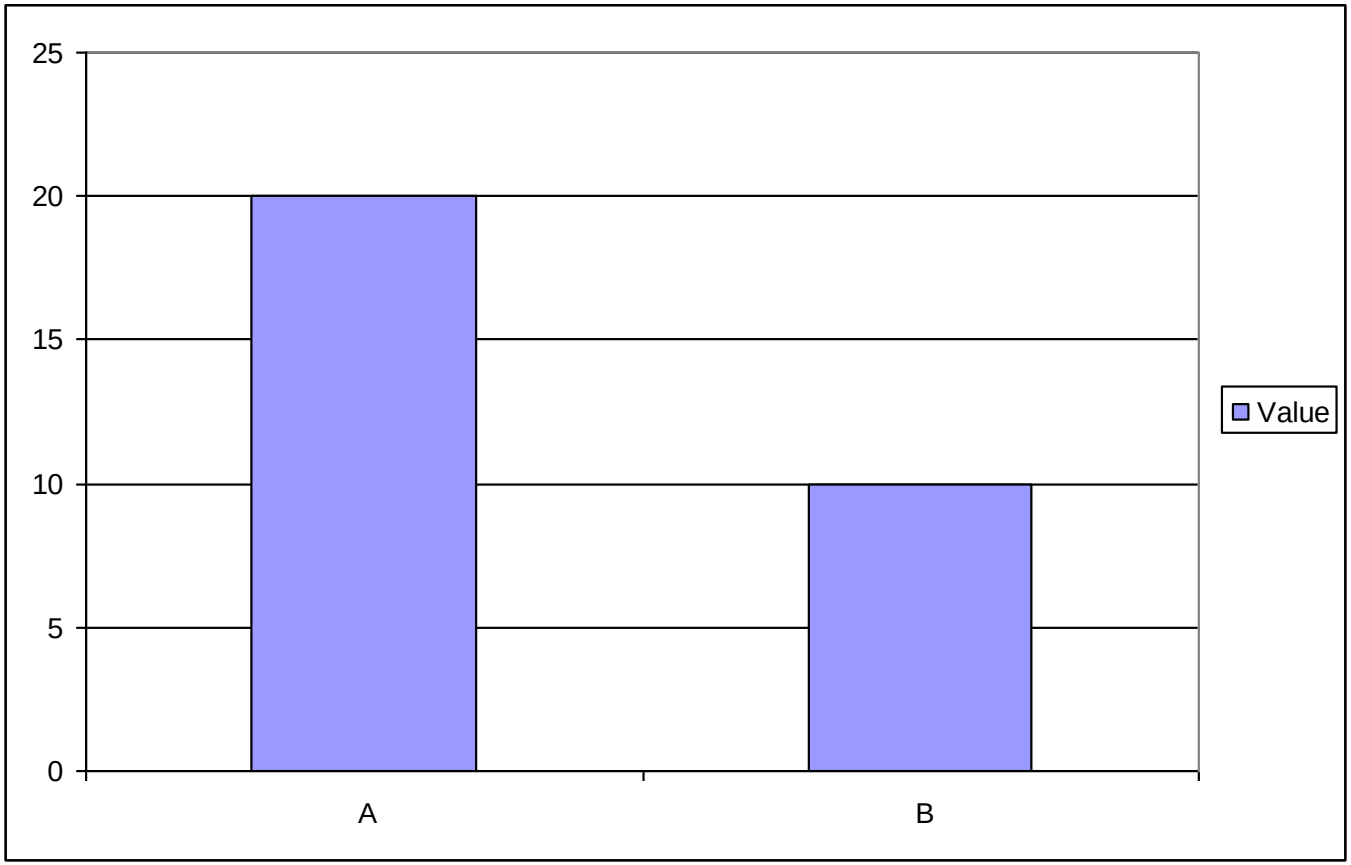


Start Apr 2009
U.C.L. =137.8
Mean =100.2
L.C.L. =62.6

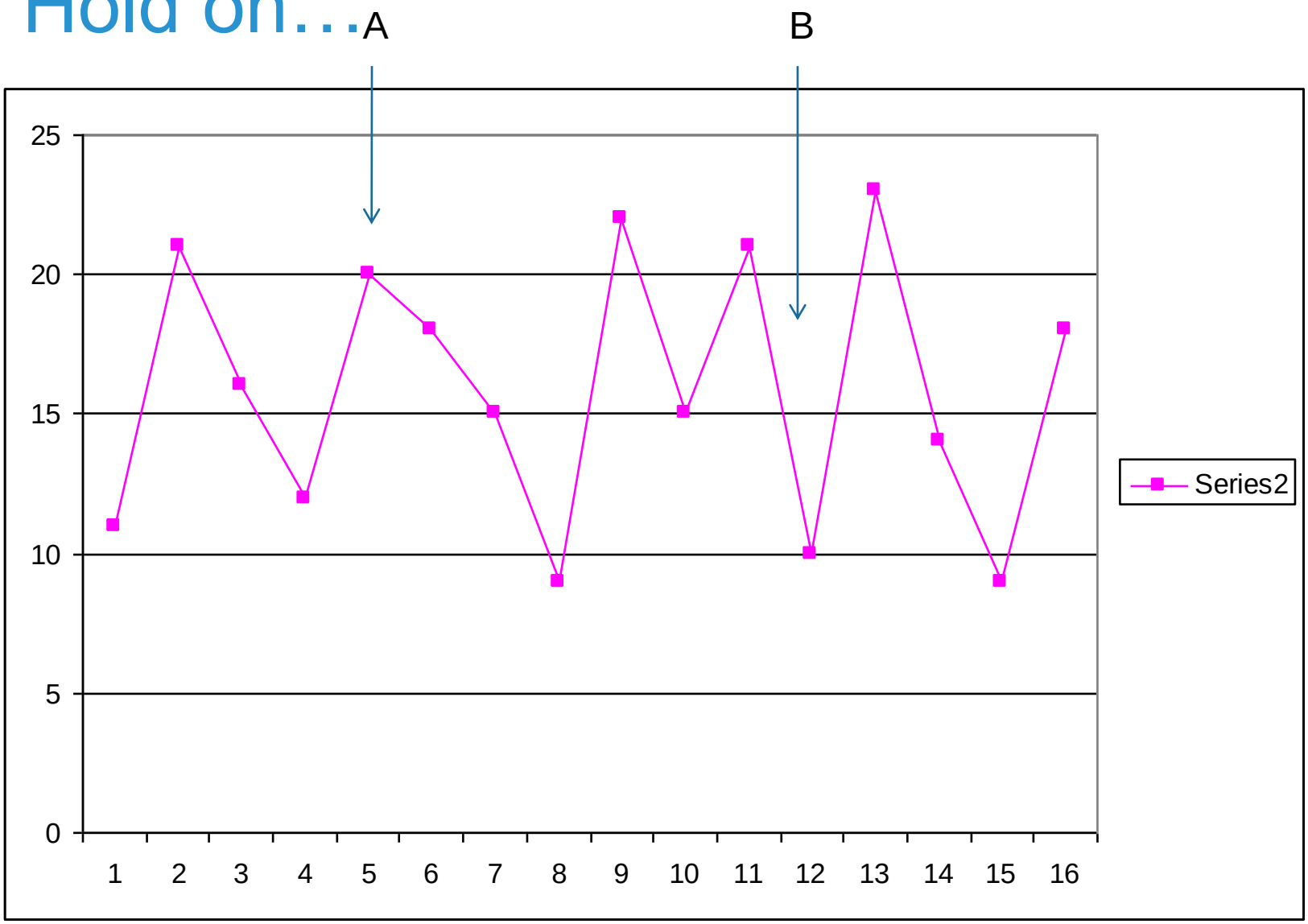
ORGANISATIONAL DEVELOPMENT

Looking at Data

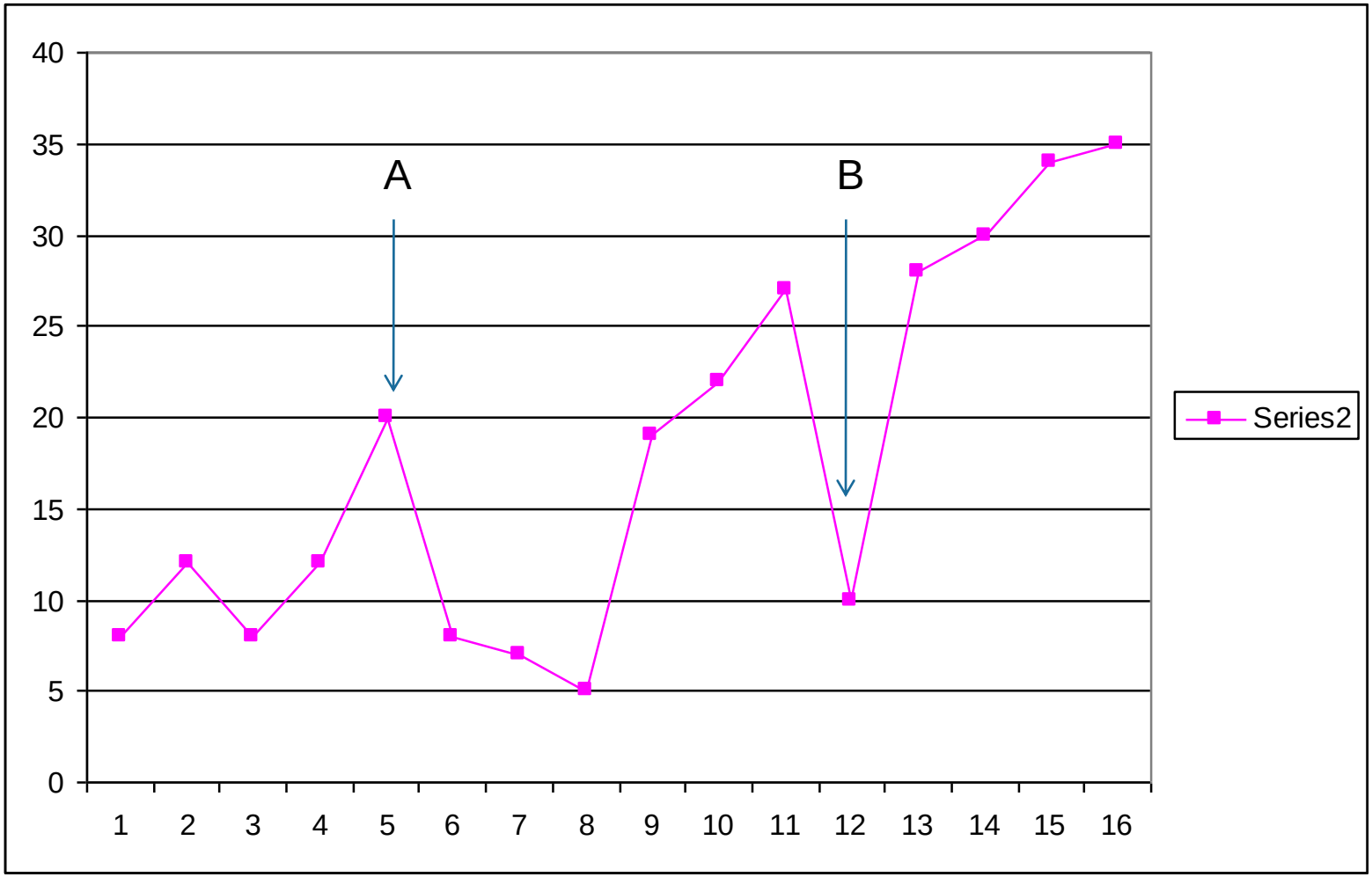
- Here are two numbers…what's going on?



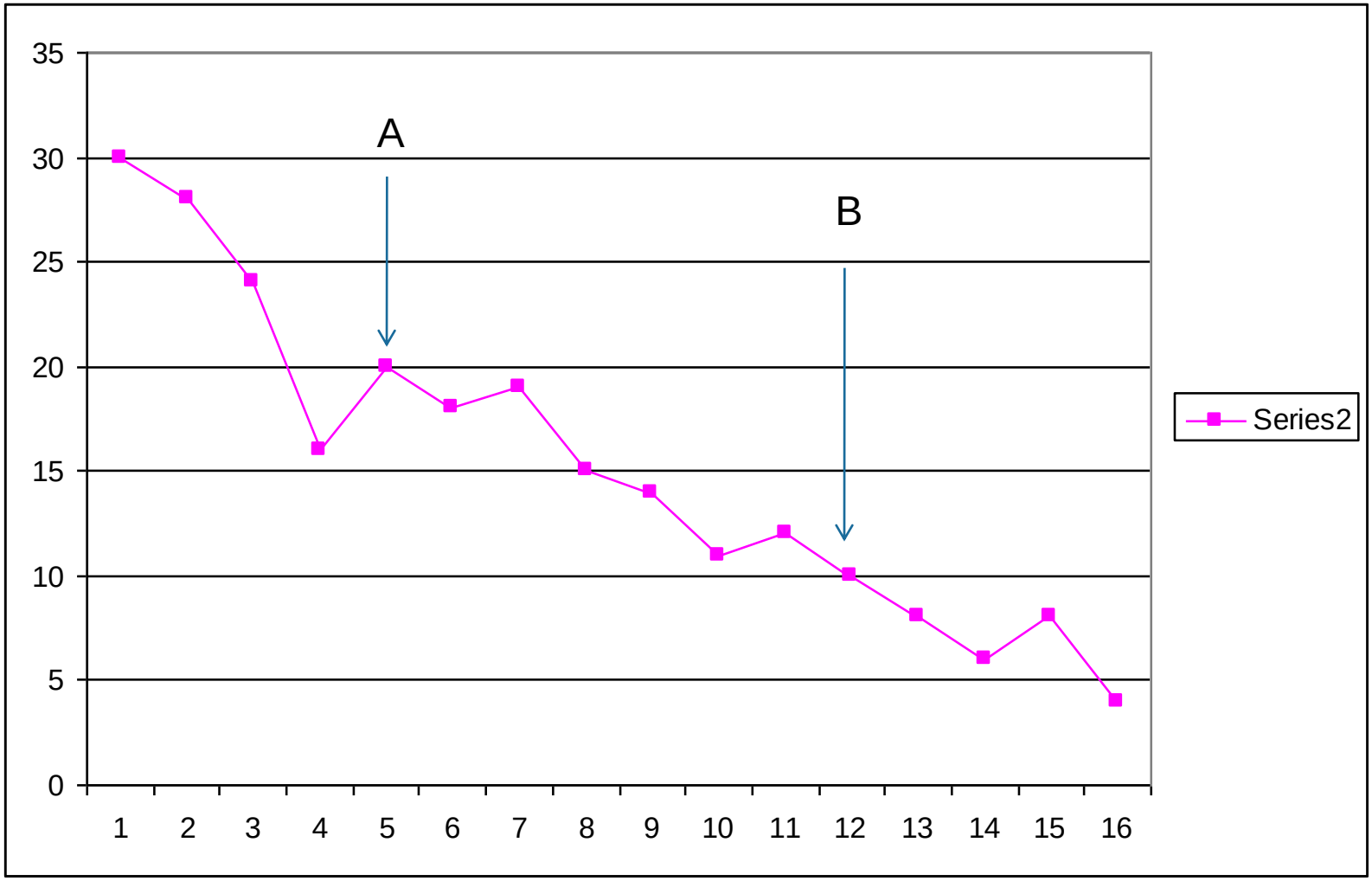
Hold on…



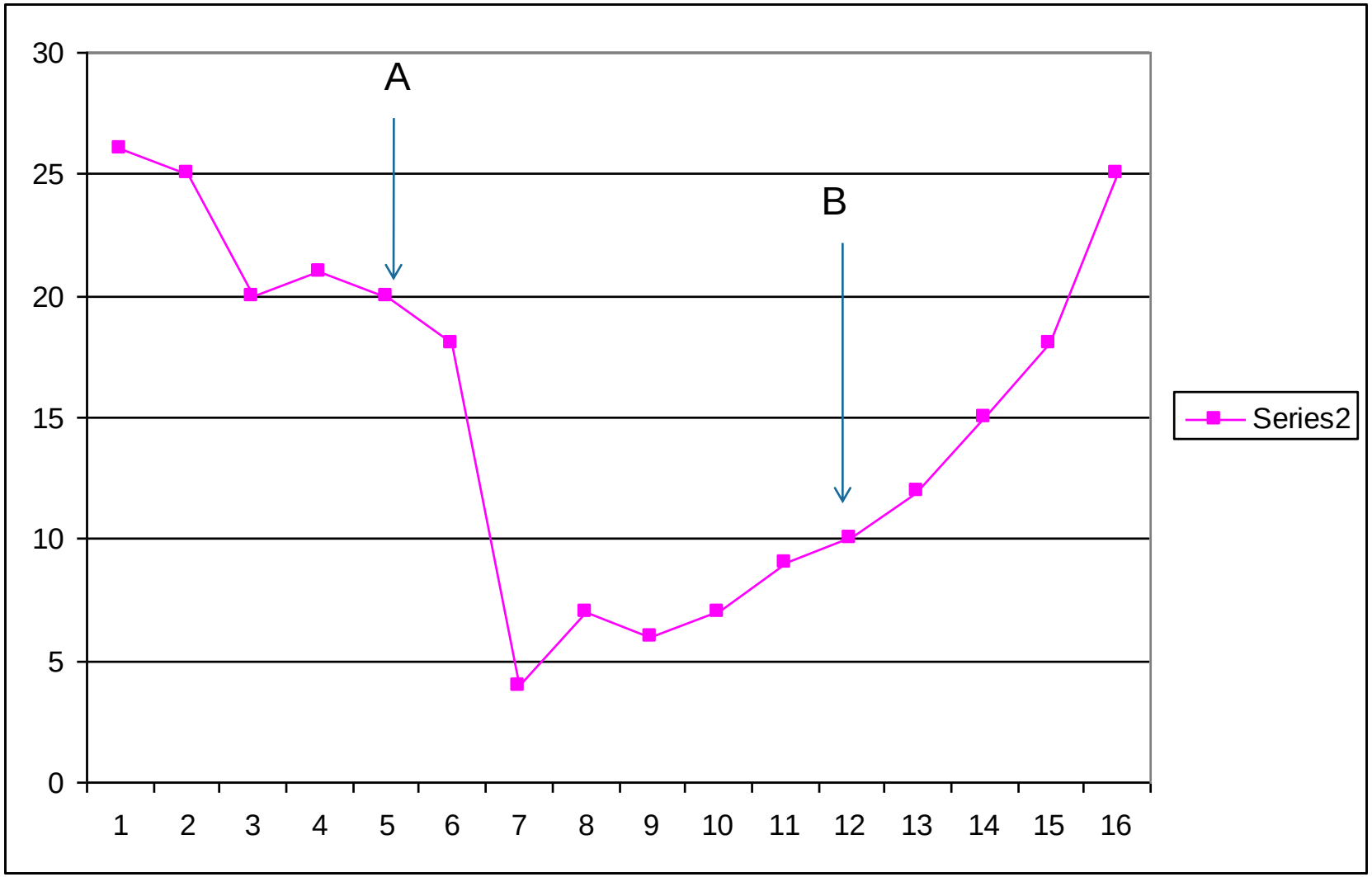
But…



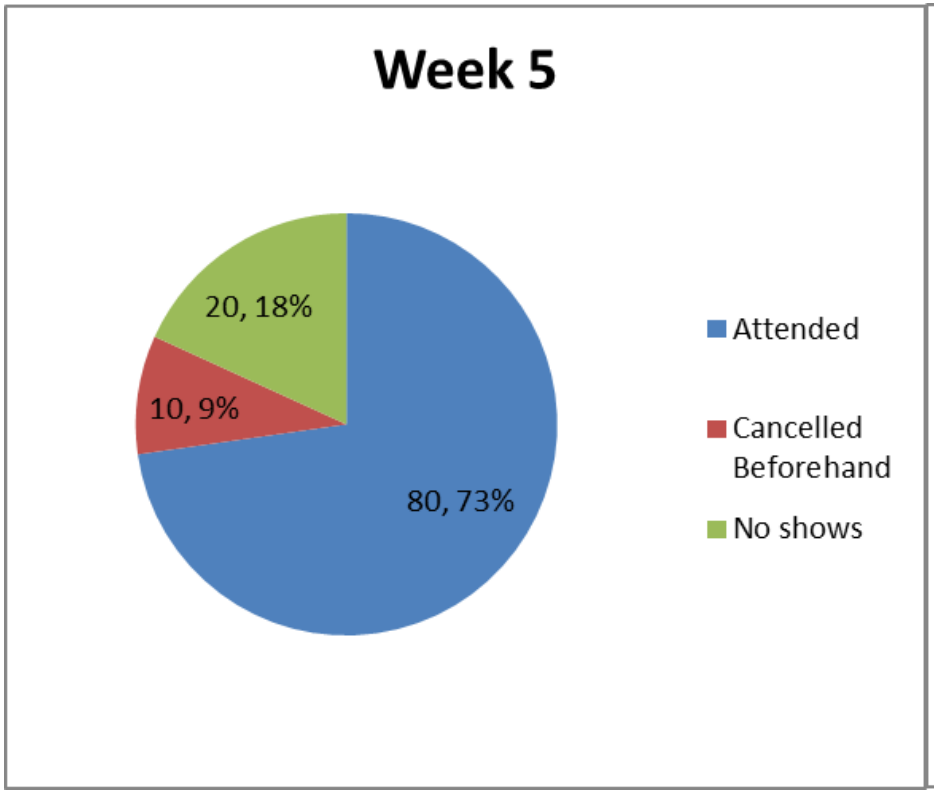
But then again….

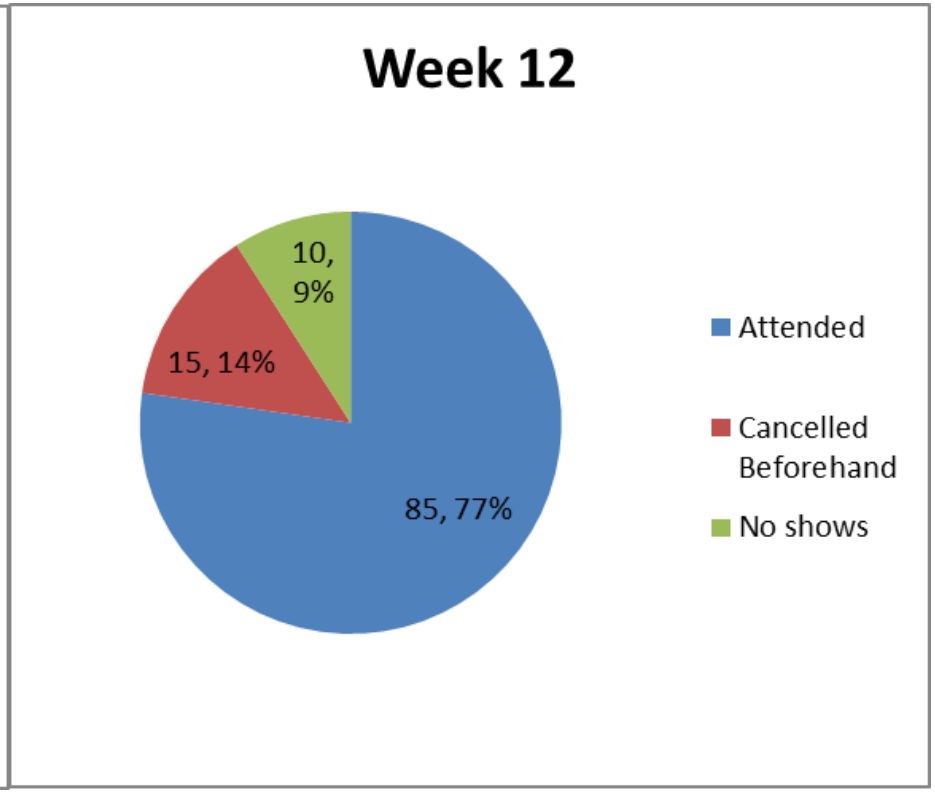


Erm…



Here are two pie charts – we wanted to decrease DNAs (no shows)





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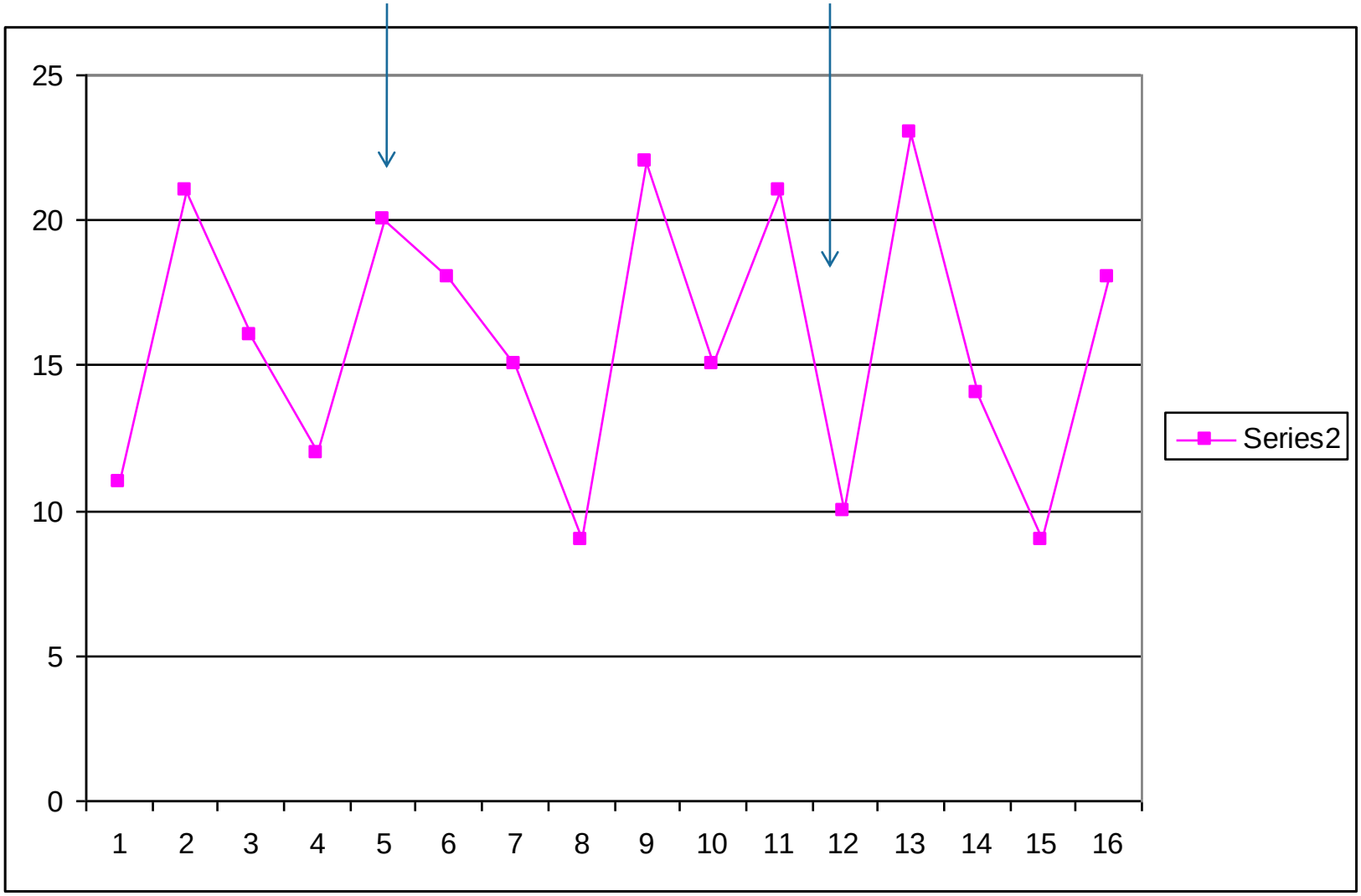
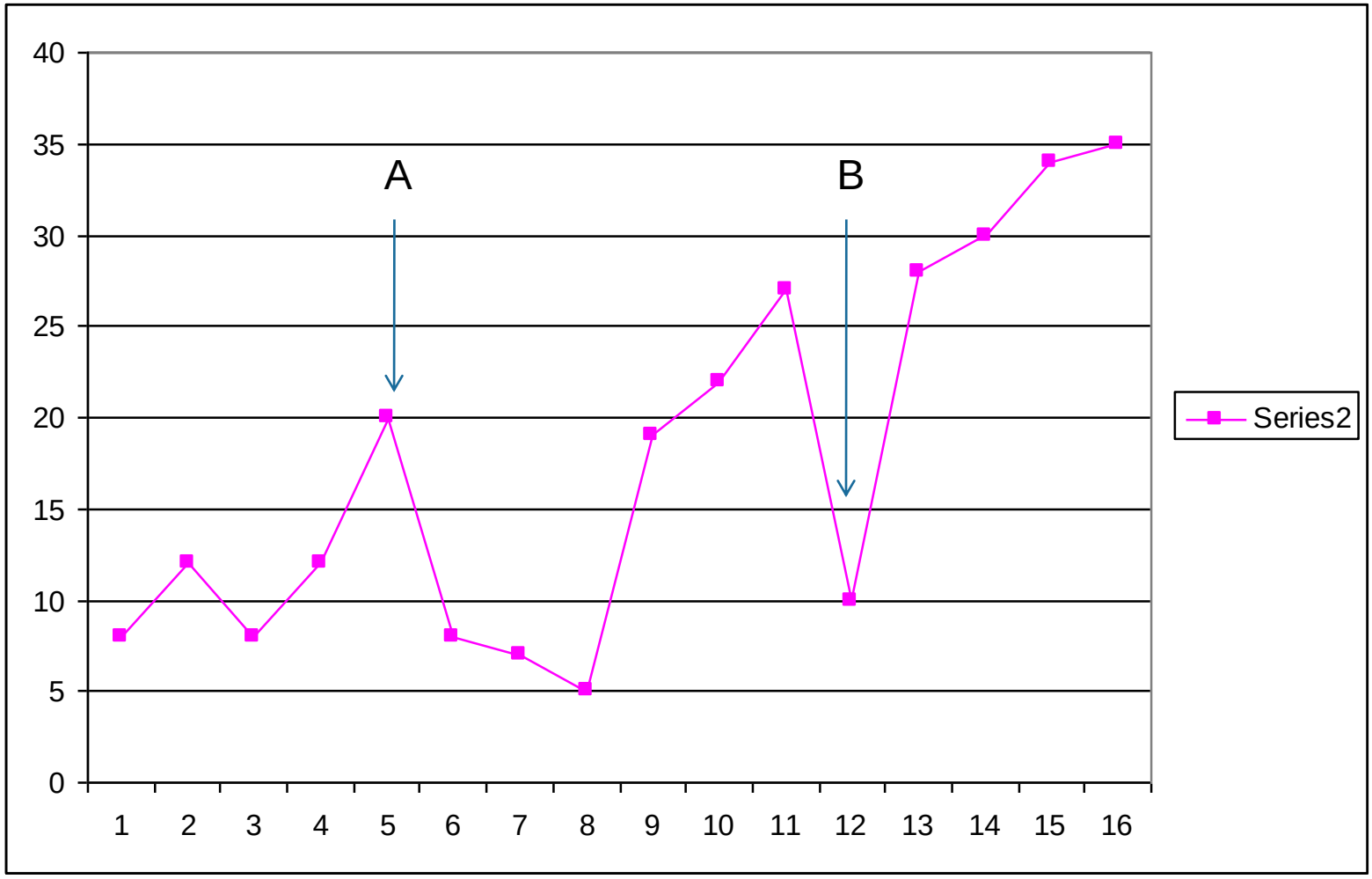
Organisational Development

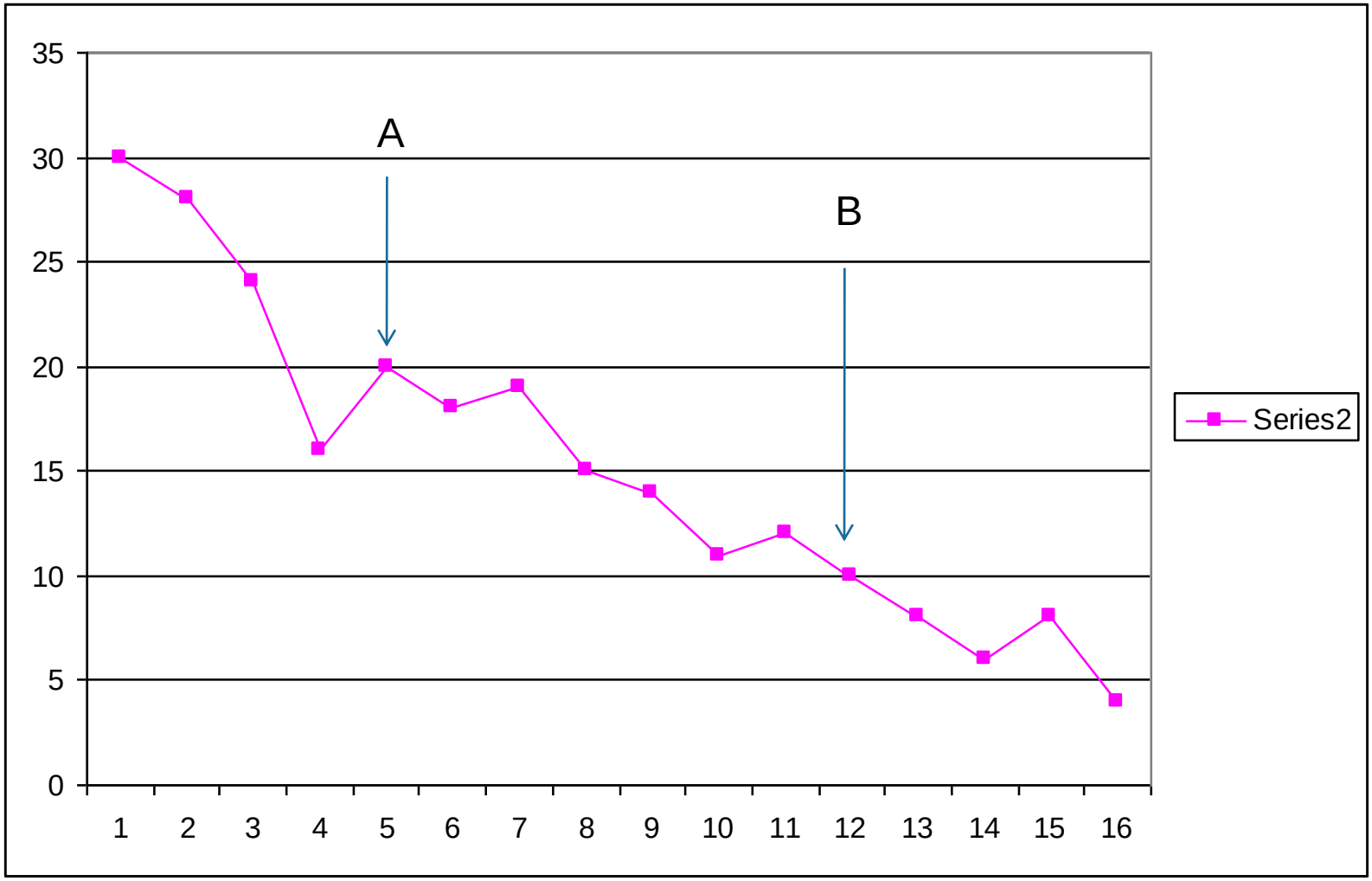
Hold on…


A
B
25
20
15
10
5
0
No Shows
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Weeks
Series2

But…


40
35
30
25
20
15
10
5
0
A
B
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Series2
No Shows
Weeks

But then again….

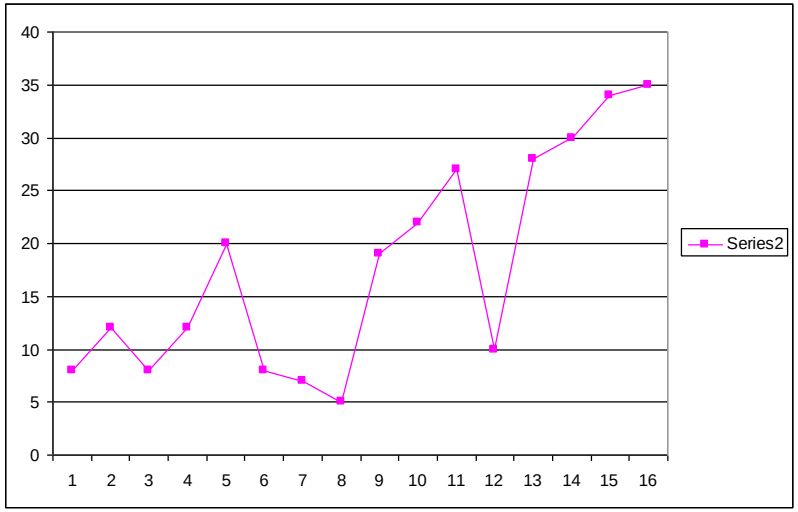


What's going on with this data?

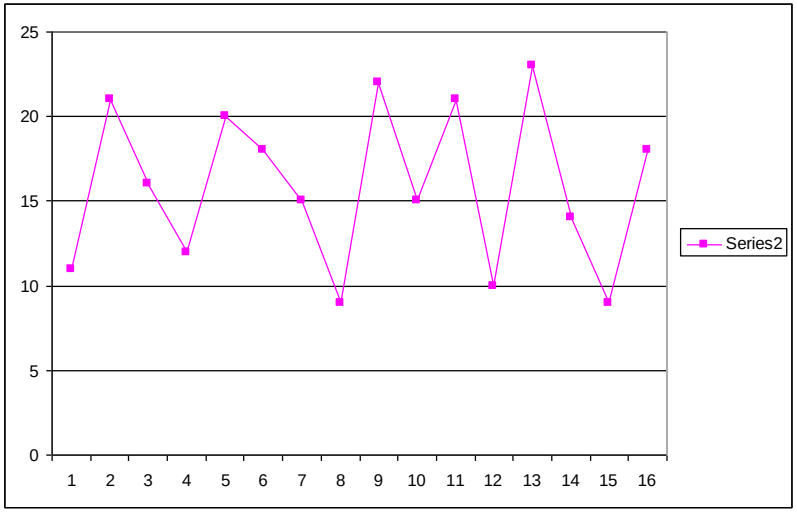
	Test 1	Test 2	Test 3	Test 4
1	8	11	26	30
2	12	21	25	28
3	8	16	20	24
4	12	12	21	16
5	20	20	20	20
6	8	18	18	18
7	7	15	4	19
8	5	9	7	15
9	19	22	6	14
10	22	15	7	11
11	27	21	9	12
12	10	10	10	10
13	28	23	12	8
14	30	14	15	6
15	34	9	18	8
16	35	18	25	4

What's going on with this data?

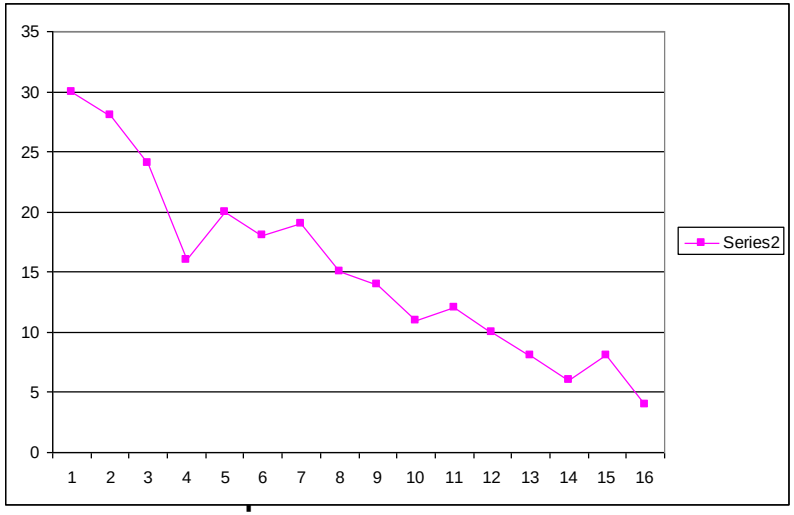
Test 1



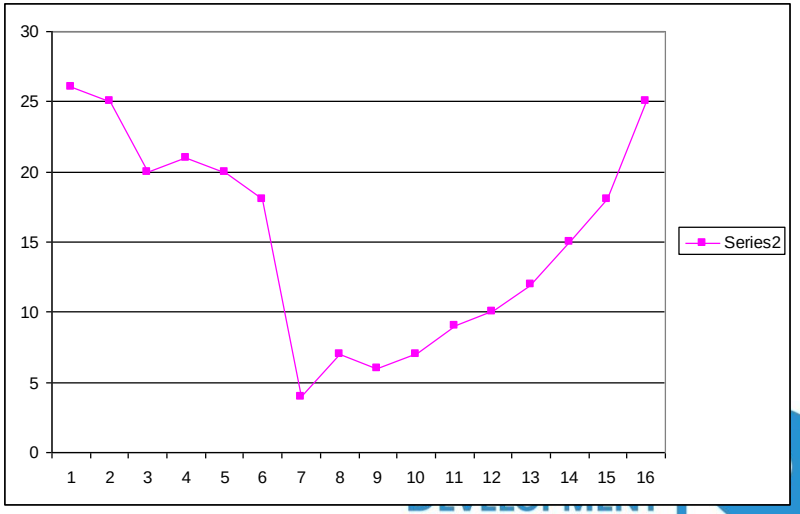
Test 2



Test 3

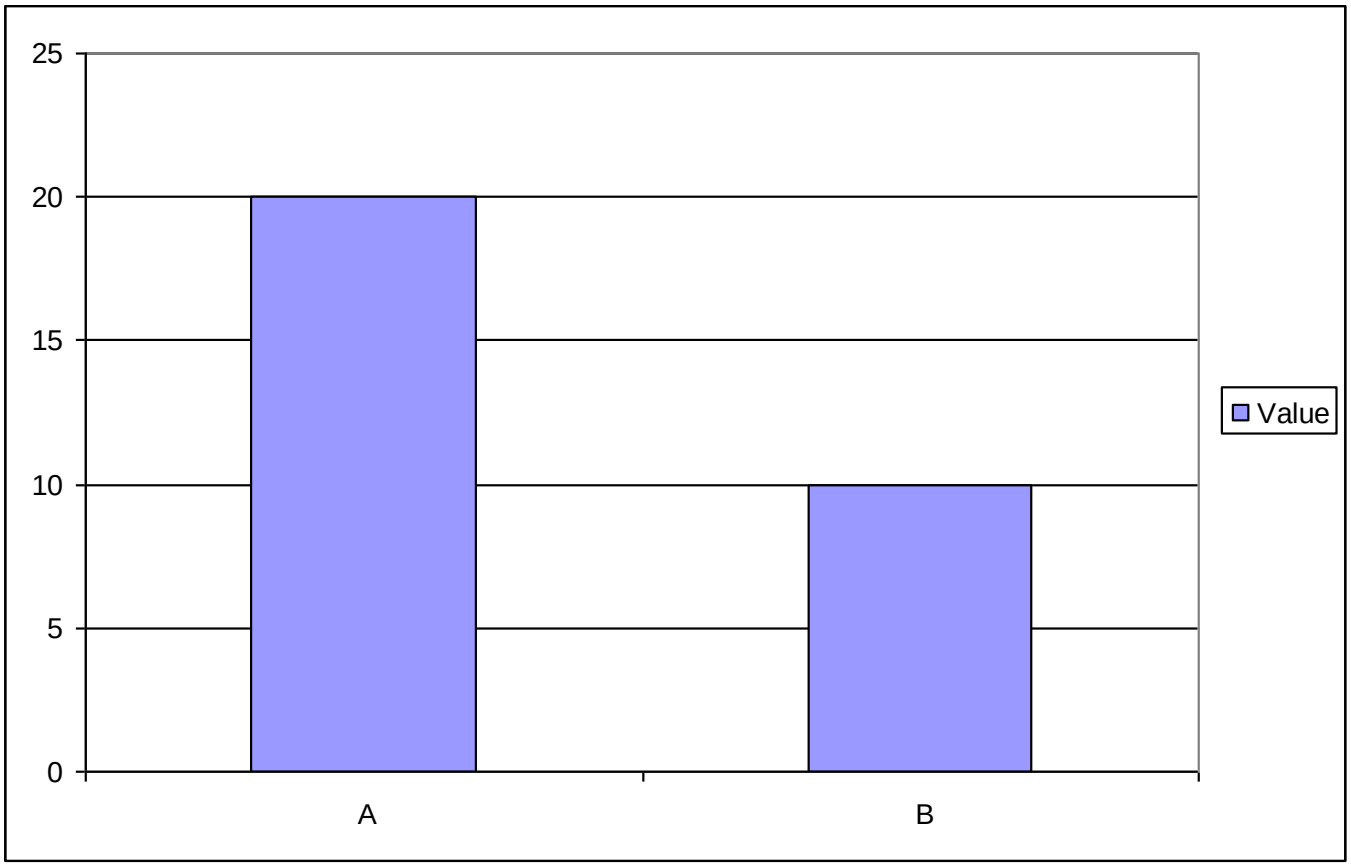


Test 4

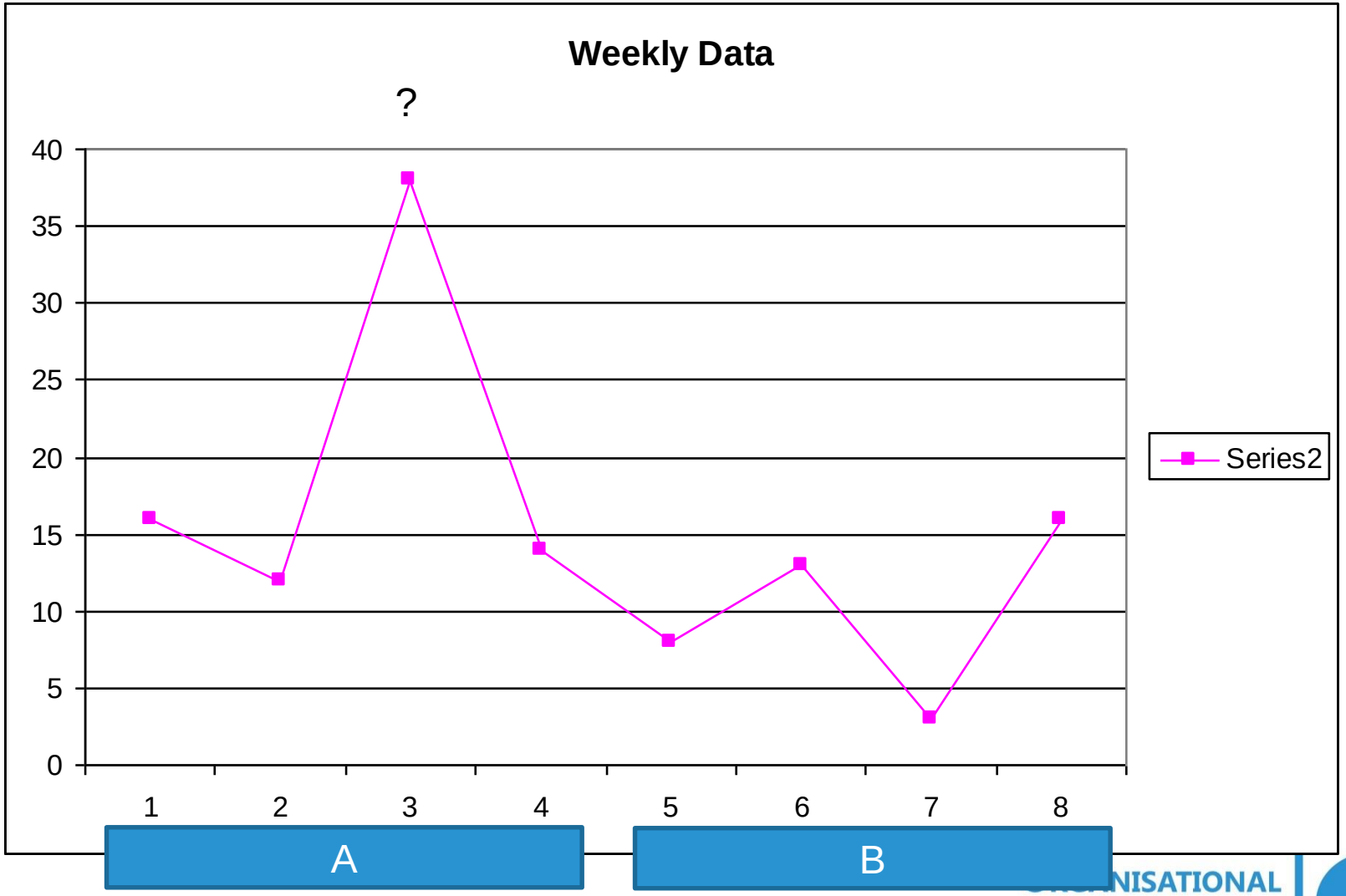


Beware of averages too…

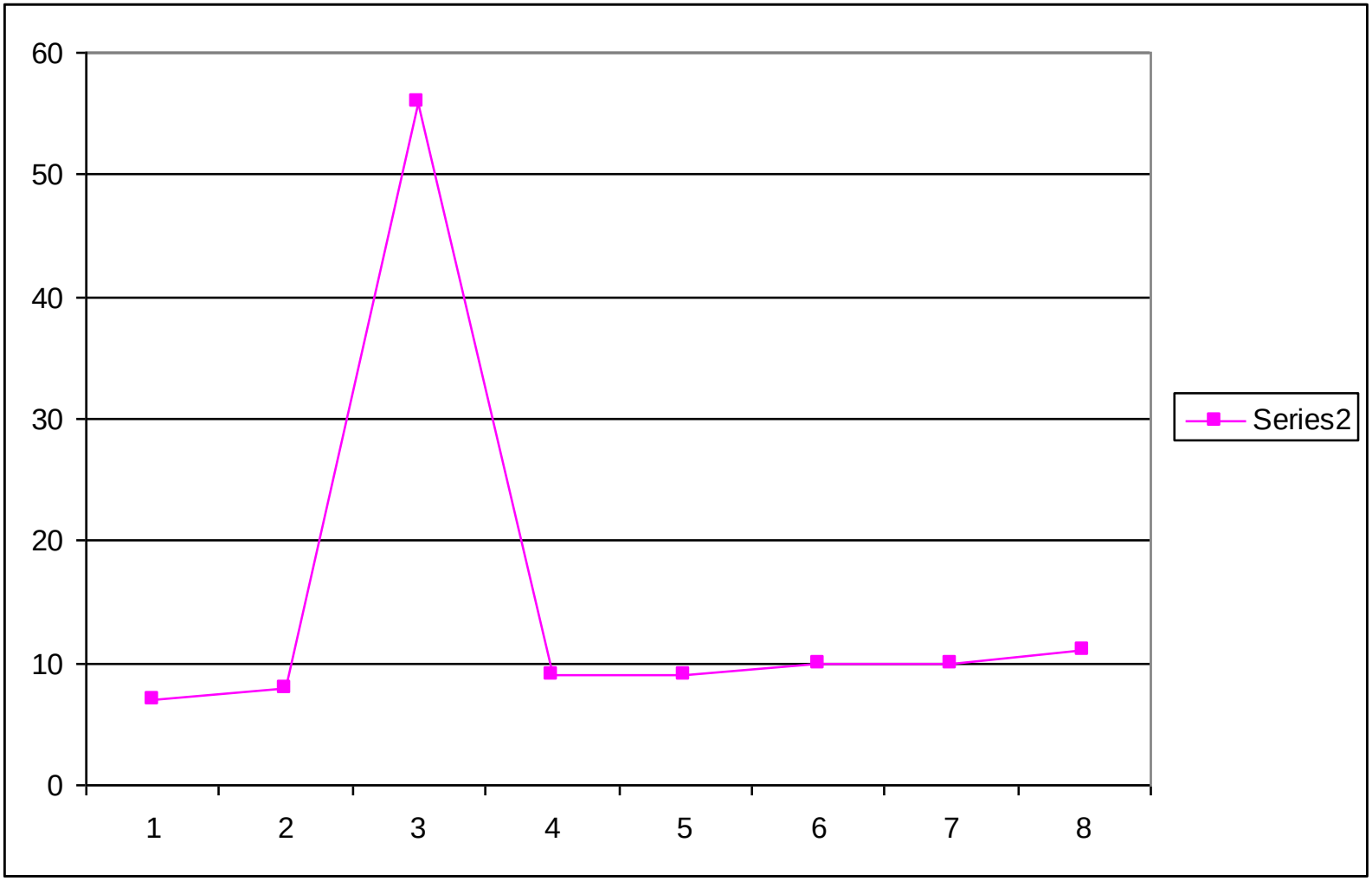
- Here are our two numbers (Monthly data)



Here's what's happening by week…



Or Even…

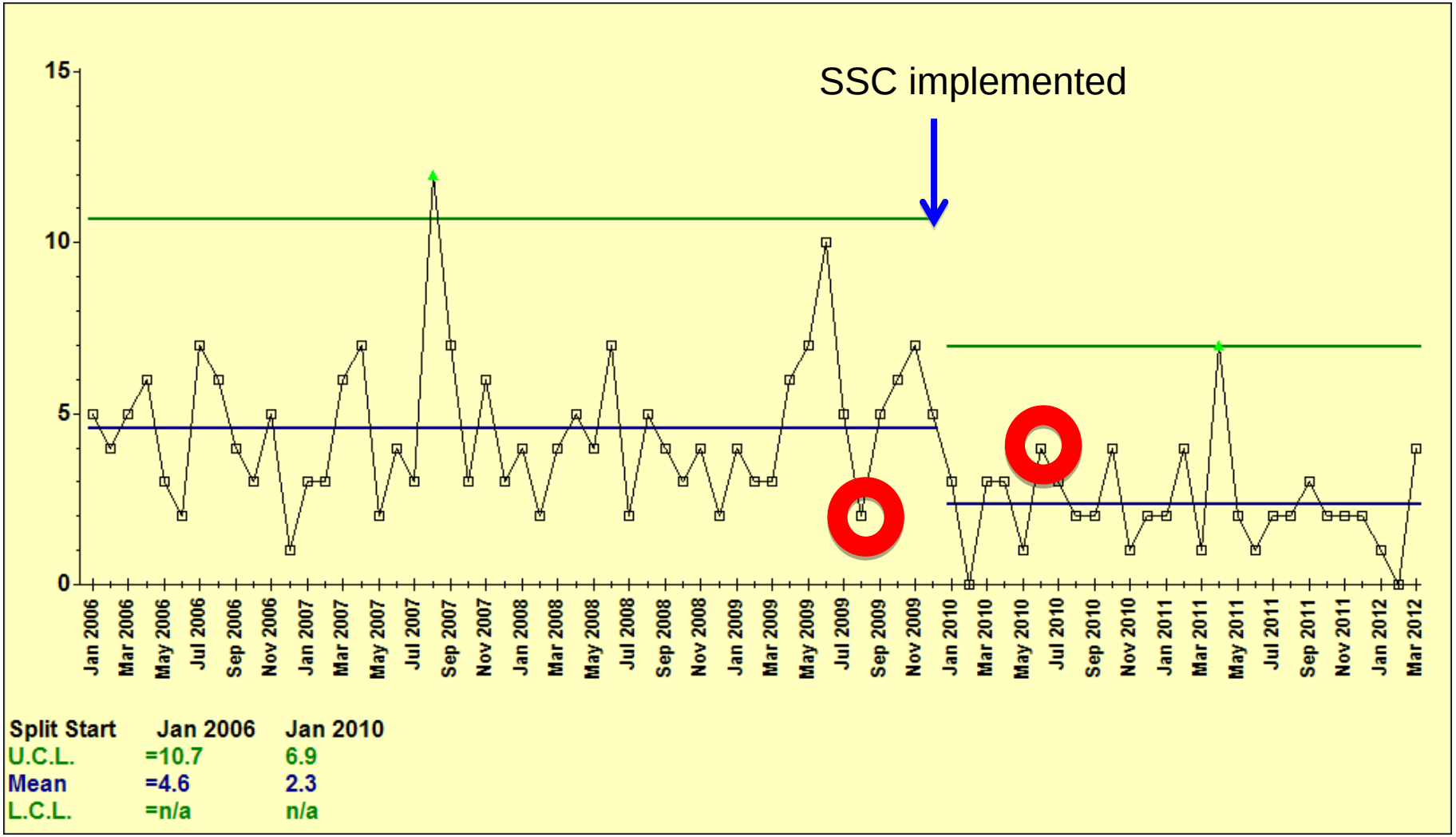


Summary

- One number will always be different to another – plot data over time
- Tables take time to understand
- Chart your data to see what's happening
- Beware of averages they can be misleading

Theatre Incidents

January 2006 - March 2012



Split Start	Jan 2006	Jan 2010
U.C.L.	=10.7	6.9
Mean	=4.6	2.3
L.C.L.	=n/a	n/a

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