

Designing win-win-win solutions for improved healthcare performance?

Simon Dodds
Good Hope Hospital NHS Trust

simon.dodds@goodhope.nhs.uk

Our problem ...

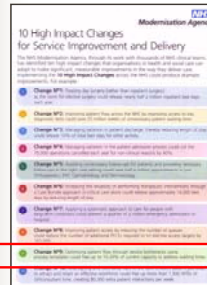
"How to re-design a Vascular Surgery outpatient clinic that sees a variable demand of diverse case mix in order to clear a waiting list but with no extra human resources and without the clinic running late or needing additional clinics?"

Three Views ...

1. Patient Waiting.
2. Staff without Stress.
3. Managers Tears.



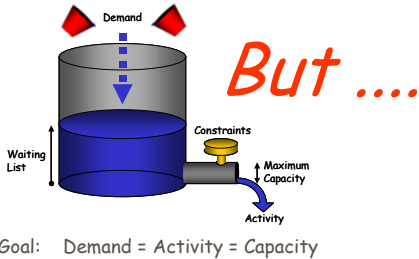
Process - Process - Process



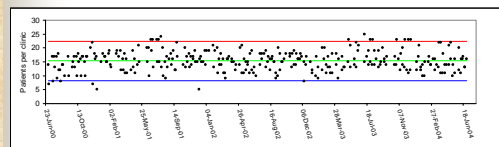
Change #9.
"Optimising patient flow through service bottlenecks using process templates could free up to to 15-20% of current capacity to address waiting times."

But How?

The Water Tank Analogy



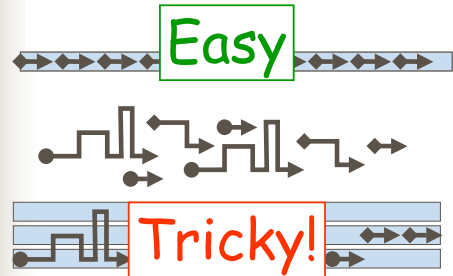
The Demand Varies ...



The Case mix Varies ...

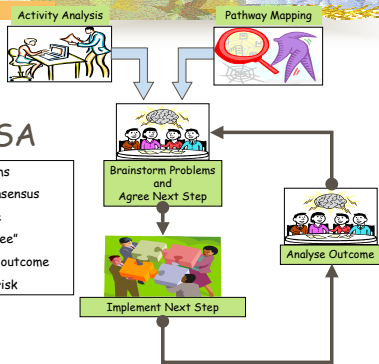


The Clinic Booking Problem

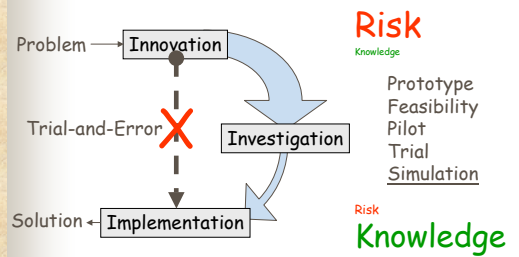


PDSA

- Simple problems
- Subjective consensus
- Little evidence
- "Suck-it-and-see"
- Unpredictable outcome
- High residual risk



What do we need?



Models and Simulations

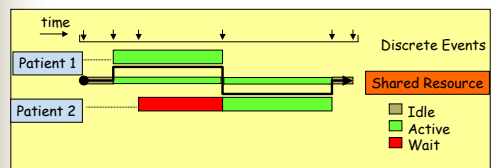


Simplified



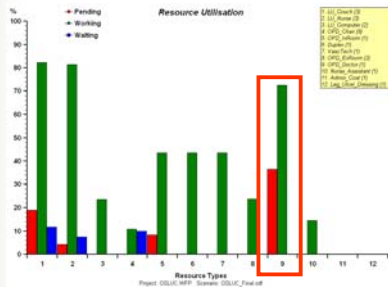
Realistic

Discrete Event Simulation

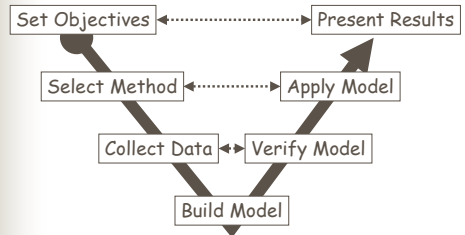


Ideal for patient-centred operational process model

DES = Bottleneck Detector



The Design Process ...



Our problem again ...

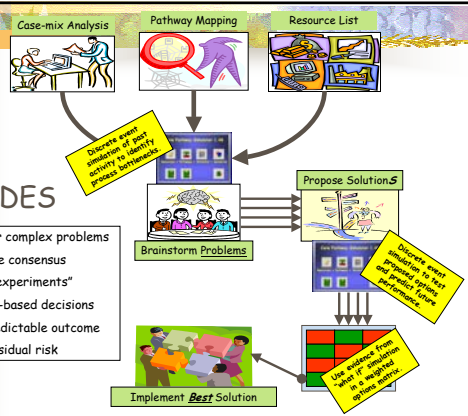
"How to re-design a Vascular Surgery outpatient clinic that sees a variable demand of diverse case mix in order to clear a waiting list but with no extra human resources and without the clinic running late or needing additional clinics?"

Proposed Options ...

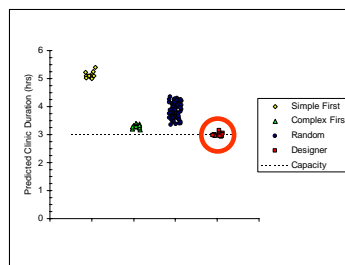
- One Stop Clinic?
- Problem specific clinics?
- Modified clinic scheduling?
 - First come first served
 - Complex first or easiest first
 - Case mix based schedule

DES

- Simple or complex problems
- Objective consensus
- "Virtual experiments"
- Evidence-based decisions
- More predictable outcome
- Lower residual risk



Result 2 of 3. The Staff



Win-Win-Win

Time	Activity Type	Number	Priority	Start	End	Start	End
1	Win	1	1	08:00	09:00	08:00	09:00
2	Win	1	1	09:00	10:00	09:00	10:00
3	Win	1	1	10:00	11:00	10:00	11:00
4	Win	1	1	11:00	12:00	11:00	12:00
5	Win	1	1	12:00	13:00	12:00	13:00
6	Win	1	1	13:00	14:00	13:00	14:00
7	Win	1	1	14:00	15:00	14:00	15:00
8	Win	1	1	15:00	16:00	15:00	16:00
9	Win	1	1	16:00	17:00	16:00	17:00
10	Win	1	1	17:00	18:00	17:00	18:00
11	Win	1	1	18:00	19:00	18:00	19:00
12	Win	1	1	19:00	20:00	19:00	20:00
13	Win	1	1	20:00	21:00	20:00	21:00
14	Win	1	1	21:00	22:00	21:00	22:00
15	Win	1	1	22:00	23:00	22:00	23:00
16	Win	1	1	23:00	00:00	23:00	00:00
17	Win	1	1	00:00	01:00	00:00	01:00
18	Win	1	1	01:00	02:00	01:00	02:00
19	Win	1	1	02:00	03:00	02:00	03:00
20	Win	1	1	03:00	04:00	03:00	04:00
21	Win	1	1	04:00	05:00	04:00	05:00
22	Win	1	1	05:00	06:00	05:00	06:00
23	Win	1	1	06:00	07:00	06:00	07:00
24	Win	1	1	07:00	08:00	07:00	08:00
25	Win	1	1	08:00	09:00	08:00	09:00
26	Win	1	1	09:00	10:00	09:00	10:00
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72	Win	1	1	07:00	08:00	07:00	08:00
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99	Win	1	1	10:00	11:00	10:00	11:00
100	Win	1	1	11:00	12:00	11:00	12:00



- ### Summary
- Win - Win - Win
 - Process - Process - Process
 - Innovate - Investigate - Implement
 - Use the Right tool - and Use it Right

MASHnet, 20th September 2005, Warwick.

It is possible!!

Simon Dodds
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