


Saving with quality?

Resources from:
<http://homepage.mac.com/johnovr/FileSharing2.html>



John Øvretveit,
 Director of Research, Professor of Health Innovation and Evaluation, Karolinska Institutet, Stockholm, Sweden

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- 2 weeks in October 2008 \$650,000,000,000 lost
- UK citizen debt \$2,200 per year – on the loan interest!
- Recession not hit healthcare yet

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Economy conscious

- Budget cuts – how to protect quality
- QA/QI diverting time and money from direct clinical care
- Scrutiny of any expenditure on improvement or assurance
 = quality needs to get economy-conscious
 = focus on Value Improvements

Q1 Cost now of poor quality?
 Q2 Spend cost?
 Q3 When do we save? (TTPO) 1yr or 3 yr?

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Review of evidence

- Does improving quality save money?
- What is improving quality?
 - Clinical change – antibiotics before surgery
 - Implementation strategy to get this change
 - Process improvement
 - Systems and structure changes to reduce latent causes
 - Regulatory and large scale programmes (eg indicators)

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Findings from review of evidence

Does improving quality save money?

- Sometimes
- Mostly we don't know
- Often the spender does not save – someone else does
- Saving waste is not releasing cash – 2 steps needed
- Change financing to reward spending – 5 year
- Now – choose improvements which return on the investment
- Do simple costings before, during and after your QI project

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Quality accountability – for the improvers

- Is QI like the bank robbers?
- Complicated schemes we do not understand
- Industry jumping on the bandwagon
- Patchy evidence of effectiveness and none on pay-back?
- Emperor's clothes?
- More evidence less faith – measurement and costing

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Patient: 84 year old female
obstructive airways (COPD) and heart disease

Stable at home on meds, fiercely independent
 Supported with regular visits to GP by son and home cleaner



Health care experience

Friday 10am - fall - breaks hip

- 14.00 admitted
- 17.00 orthopaedic ward
 - Change of medications

Sat & Sun - no ops

Monday - consultant informed late

Tuesday am operation

Friday - isolated due to MRSA developing on on arm in fall wound

1 week later Discharged with no information to PHC

2 weeks later Readmitted with weight loss, pneumonia and open wound

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Your area,
put your hand up for one of these..

- 1) None of this could happen
- 2) One or two problems may happen
- 3) Many happen
- 4) Much more – that’s not half of it – its worse...

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Cost to healthcare system
 = €4470.

- PHC treatment after discharge €870 (income)
 - (avoidable) but could not manage patient acuity (3 nurse visits, GP time, ambulance))
- Emergency readmission €3,600 (income)
 - (avoidable) and aggressive treatment for pneumonia and wound

Other actual or potential costs

- Family travel and time-off work (€2,800)
- After 4 day wait with fractured hip, lucky no complications after surgery (near miss of €2100)
- Death 17 weeks later due to....

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84 year old experience, over 6 weeks



Evidence and experience I will share

- Quality economics research & projects in Sweden and Norway 1999-2009
- 2009: 2 systematic reviews of research and book

Does improving quality save money?

A review of evidence of which improvements to quality reduce costs to health service providers

Dr John Ovreteit
September 2009

Leading Evidence Informed Value Improvement

Leading improvement effectively

Review of research

Dr John Ovreteit

2009
Prepared for the Health Foundation

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What is a “value improvement”

- Examples:
 - “Read back” now used consistently to confirm message received and understood
 - Patient Pathway redesign which uses less clinician time with fewer unwanted delays for the patient
- A change which saves money and suffering
 - ...caused by poor organisation or lack of support to providers
 - (suffering avoidable by better organisation)

Value improvement = higher quality + lower costs
 (“spend costs” pay for themselves)

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Why do it?

- Someone told us to. Looks bad if we don't. Save the government
- Reducing suffering got lost in the complexity
- Organise better, to treat better
- We can take control of our organisation

Improvement re-awakens our values and what is important about our service. But now in a more realistic way for complex and financially pressured healthcare

...where our professional competence with the patient is not enough – we need a competent system and evidence of returns

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Some Ingredients Sustained motivation

- Values concern:** what is important and what we value – reducing suffering – often disappears from everyday work,
- Facts:**
 - from elsewhere about safety and quality problems
 - local data continually showing the problems in our service,
- Belief in a solution**
 - for a better service, achievable and financially realistic,
- Belief in a journey**
 - which we can all share which will get us to the solution, despite unexpected weather, detours and tough terrain.

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Outline

- Problem** poor quality - and costs
- Solutions** – and the “spend costs”
- Business case** - savings or losses
 - The business case is **local** – “context specific”
- Implications** – practical and for research

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The problem – which adverse event is most common in your hospital?

- Pressure ulcers?
- Hospital acquired infection (HAI)?
- Wrong site surgery?
- Adverse drug event (ADE)?
- Patient falls?

Answer 1 – differs between hospitals, but not Wrong site surgery

Answer 2 – we don't know for sure

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Financial Impact of Failing to Prevent Surgical Site Infections

Karen W. Sparling, CPA, MBA; Frederick C. Ryckman, MD; Pamela J. Schoettker, MS; Terri L. Byczkowski, PhD; Alma Helpling, CPA; Keith Mandel, MD; Anitha Rameshmothan, MBA; Umm H. Kotsoel, MBBS, MSc


- 16 pediatric patients with an SSI vs 16 matched control patients, similar operation, no SSI
- LOS 10.6 days longer
- \$27 288 extra cost for each patient with a preventable SSI.

“data analysis strengthened and focused our efforts to prevent future SSIs”

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Evidence of avoidable waste

- 100k hospital acquired infections (5k die) in England/yr. €1.4bn Costs (UK Hoc rpt 2000)
- €330m medicines returned to pharmacies for disposal each year UK (BMJ 2002)
- 40% of medications unnecessary (Rand USA studies)
- 25% of radiological tests not necessary (UK Royal College of Radiologists)
- 25% of hospital days and clinical procedures inappropriate
- €415bn/yr "wasted on outmoded and inefficient medical procedures in the US" Juran study
- the cost of poor quality care will likely exceed \$1 trillion by 2011




Poor quality and safety types

For patients

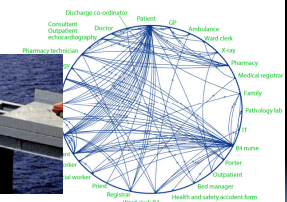

- Over-use** (no medical benefit)
 - Tests and antibiotics
- Under-use** of effective treatments
 - 79% of eligible heart attack survivors fail to receive beta blockers
 - anticoagulant to prevent thrombi
- Miss-use** (esp miss diagnosis 10%-15%)
- Under-coordination**
 - 500 GPs - 70% reported late discharge summaries "often" or "very often", 90% reporting it "compromised clinical care" and 68% "compromised patient safety". One summary arrived 11 years late

For Organisations Under, over, and miss-use of QS interventions



The "in-between" problems


- Communication and transfers** between shifts, professions, services.
 - Bolton hospital: 250 communications hand-off between personnel to discharge one patient with complex care needs.

Solutions – do they work and do they cost more than the problem?

- Effectiveness evidence – AHRQ 2001 "Nike list"
 - Timely antibiotics before surgery
 - Barrier precautions before central line catheters

But
- little evidence of effective **implementation** methods
 - Eg training, computer support, feedback, supervision
- little evidence of spend cost
 - What do we know?




Operation cancellations and delays in Norway (Øvretveit 2000)

- Cost of waste** of 98 cancellations every three months €50,000?, 300,000? or 900,000?

Evidence **Cost** = €320,000 annually

- Spend** 1 year = €98,000.
- Saving** = €62,000 for Yr 1, €160,000 for future if reduction sustained at no cost
- UK study "1.6m € savings" 16 ORs



VHA - reported experience


Falls resulting in fractures av \$30,000 (ECU)

- 30% over 65 with a fall-related fracture die
- "An investment of \$25,000 in a fall prevention program yielded \$115,000 in savings in fracture care"

Nosocomial infections minimum cost \$5,000 per episode.

"An investment of \$1,000 in hand hygiene yielded \$60,000 in avoided care costs"

Calculation details not given
(Source: Bagian reports from VHA (in AHRQ 2008))



Summary so far

- Widespread quality and safety problems
- High financial cost
- Some evidence of effective solutions
- Effectiveness locally depends on implementation
 - And infrastructure supports for quality (previous years of investment)
- Solution “spend cost” – little research, local variation
- Save money – some evidence

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Your experience – hands up

- I have been involved in a quality or safety improvement
- We know how much the improvement cost (spend cost)
- We know we saved money
- We know someone else saved money from our spend

- How do we make or save money from improvement?

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Point 1) Increasing income is faster than getting cash from reducing waste

What we learned from reducing OPs cancellations & delays

- Saving time and materials does not bring cash immediately
- May save on next year’s purchasing or use fewer staff
- Quicker cash from increasing throughput
 - But purchaser ceilings & other bottlenecks

Paper savings are not cash savings: the “show me the money” issue

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Point 2: Payment disincentives for improving

- Glaucoma care reimbursement 300€
- Hospital cost to provide it 1,800€
- But Surgery income 2,270€
- Prevent glaucoma = loose 1500€ Do the surgery= gain 2270€

“The current deficit on glaucoma care in the eye hospitals is internally covered through the profits made with cataract surgery”

Creating patient value in glaucoma care: applying quality costing and care delivery value chain approaches

A five-year case study in the Rotterdam Eye Hospital

Dirk F. de Voorn, Xees J.C.A.J. Sui, Thomas Casters,

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The Mary case: Financing system disincentives

- Discharge early with no information
- Triple incentive for poor quality
 - Save on early discharge (lower LOS, DRG based fixed income)
 - Paid for readmission
 - Save on costs of time to give info to PHC and cost of system for this
 - No finance to invest in improvement
- Paid to treat illness caused by healthcare or poor coordination
 - Eg readmissions due to poor treatment or early discharge
 - BUT DRG based payment does not reward infection or ADEs
 - No quality measures
 - AND P4P never events systems are penalising a few

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Implications - practical

- Choose which improvements by considering the financial case as well
- Choose those clinicians and managers want, and which purchasers and providers can agree on
- Use research to help choose, which gives indication of
 - Problems likely in your service – but you need local data
 - Effective solutions – but it you need to assess your implementation capability for each
 - Possible savings – but it you need to do the business case for your payment system, and increasing income is faster than getting cash from reducing waste

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Implications - Practical

- 5 yr Measure quality and include in financing
- 5 yr Change financing system
- 2 yr Agree cost and savings sharing for improvements
- 1yr Select improvements which save or make money under current system
- Focus on Value improvement = changes which improve quality or save or make money

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What do we know & how certain are we? Map of the literature

- As we move down: less research, and less certain

Decreasing evidence: amount and certainty

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Summary

- We all have personal experience of the cost of poor quality
- Evidence that the problem is widespread
- Some preventable and evidence of effective solutions
- Some evidence of savings
- Your local business case
 - needs to estimate your implementation capability
 - Take account of payment system and time till pay-back
- Focus on Value improvement = quality for the cost
- Unite stakeholders to work with current system and change it

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Implications – for you?

- Any surprises?
- Have you done costings?
- Do you now need to?
- What needs to change?
- What you you need to know more about?

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DETAILS

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The ingredients at different times

Phase of the journey	Evidence (from elsewhere, and our own locally)	+ Environment (internal and external to the organisation)	+ Implementation (actions taken)	= Value Improvement
Selling	What knowledge helps and hinders this phase of the journey?	What environment factors help and hinder this phase of the journey?	The actions taken to plan and put the change into practice every 3m and by whom?	What were the effects by the end of this phase?
Starting	As above for this phase etc	(Elements of an RRS are on the boundary between the RRT and the context)	Features of the change and what was done to set it up	Eg initial data from the monitoring
Spreading				
Sustaining				

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