LIIPS Launch Event

Going further faster together

Mary Dixon-Woods
Going further faster together
What we’ve learned about improving health systems

• Deliberate, collective goals
• Focus on operational fitness
• Go for the small wins
• Define the processes through coordinated action
• Evaluate to replicate
• Do it with sincerity and consistency
Deliberate and collective goal
Culture and behaviour in the English National Health Service: overview of lessons from a large multimethod study

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ABSTRACT

Background Problems of quality and safety. high-quality care. Organisations need to put the patient at the centre of all they do, get smart
Priority thickets

- Too many externally imposed priorities
- Compete, conflict, fail to cohere
- Distraction, frustration, loss of focus and energy
Coherent, cohesive goals

• From blunt end to sharp end of systems and microsystems
• Organised around patients not organisational boundaries
FINE WORDS BUTTER NO PARSNIPS
Operational fitness
Safer Clinical Systems: evaluation findings

Learning from the independent evaluation of the second phase of the Safer Clinical Systems programme

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Evaluation
December 2014

http://www.health.org.uk/
Healthcare systems

• Piecemeal systems – nobody has ever designed them
• How they function in practice is often poorly understood
• Ad hoc improvisations and adaptations are the norm
How do you do things around here?

- Order an x-ray?
- Know when the drugs have arrived on the ward?
- Sign-off the lab result?
- Know this commode is clean?
- Label this blood specimen?
- Determine how long a patient goes NBM?
- Ensure the night shift knows the important things the day shift knows?
Operational defects

• US studies show nurses interrupted every 6 minutes
• Spend 10-12% of their time working around operational failures
We designed the next studies to include a variety of norms in order to address two questions. We wanted to determine whether the cross-norm inhibition effect was restricted to generally accepted social norms or whether, as expected by the goal-framing theory, it also extended to local ordinances by the police or even to normative requests set up by private companies. We also wanted to determine how far the influence would go. In other words, would a norm violation just affect relatively light infractions, such as littering, or would it go so far as to affect the willingness to violate such serious norms as “thou shalt not steal”?

For study 2, we used a police ordinance as a contextual norm and “no trespassing” (as ordered by the police) as the target norm in the setting of a car park. Thus, both contextual and target norms were not general social norms but rules set up by the local police for a particular local situation. A temporary fence (set up by us) closed off the main entrance for people who came to pick up their car, but a gap of about 50 cm was left open in the fence (Fig. 2). We attached two signs to the temporary fence just 60 cm apart and directly next to the gap. The right sign (our contextual norm) indicated that it was prohibited to lock bicycles to the fence. The left sign (our target norm) made clear that it was prohibited to use this entrance and that people had to use an alternative entrance to the car park, which required walking a 200-m detour. In the order condition, four bicycles standing 1 m before the fence were ostensibly not locked to the fence.

In the disorder condition, four bicycles were locked to the fence for everyone to see. The dependent variable was whether pedestrians conformed to the “no throughway” sign (the target
Go for the small wins
Don’t go for the toughest nuts first

"Common-nuts" by Kazvorpal at English Wikipedia.
Many of the issues underlying safety and quality are BIG and HAIRY
Noradrenaline (Norepinephrine) 1 mg/ml Concentrate for Solution for Infusion

Dexamethasone 3.3 mg/ml Solution for Injection
Insights into the Problem of Alarm Fatigue with Physiologic Monitor Devices: A Comprehensive Observational Study of Consecutive Intensive Care Unit Patients

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Figure 2. Hospital infrastructure to automatically store all physiologic monitor waveform and alarm data.
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A small win is a concrete, complete, implemented outcome. By itself, a small win may seem relatively unimportant. But a series of small wins can help reduce the feeling that issues are so complex we are incapable of solving them.

Rhatigan and Shuh, 2003
hello my name is...

be the change you wish to see in the world...

www.hellomynameis.org

https://flic.kr/p/o6udiQ
Where everybody knows your name
Define the processes and smooth the glitches through coordinated action
Administer empiric intravenous antibiotics
Administer empiric intravenous antibiotics

Means fixing at least 10 things first
KEEP CALM AND DO THE SEPSIS
Study finds six hospital interventions significantly reduce door-to-balloon times

Door-to-balloon times reduced by...

- 8.2 minutes: Having ED physician activate the cath lab
- 8.6 minutes: Providing real-time feedback to ED and cath lab staff
- 13.8 minutes: Using a single-call page system
- 14.6 minutes: Staffing a full-time attending cardiologist on site
- 15.4 minutes: Having EMS diagnose STEMI en-route to the hospital and alert the ED
- 19.3 minutes: Requiring cath lab staff to arrive within 20 minutes of being paged
Trend in percentage of patients with door-to-balloon (D2B) time <90 minutes over 6 years.

Risk of local solutions degrading system safety
Red is for Relaxant

Join the campaign to make drug packaging safer
EZDrugID.org

@NicholasChrimes
Mass customisation

• Templates for well-designed operational systems
• Clear about what’s the hard core and what’s the soft periphery
Evaluate to replicate
Avoid magical thinking
Introduce a checklist

Errors go down
Then a miracle occurs

Introduce a checklist

Errors go down
The magic water problem

- Simplistic account of what is causing change
- Usually focused on single “magic” component
- Neglect of context
TWO MONTHS
AT
KILKEE,
A WATERING PLACE IN THE COUNTY CLARE, NEAR
THE MOUTH OF THE SHANNON,
WITH AN ACCOUNT OF
A VOYAGE DOWN THAT RIVER
FROM
LIMERICK TO KILRUSH,
AND SKETCHES OF OBJECTS OF INTEREST IN THE NEIGH-
BOURHOOD, WHICH WILL SERVE AS A GUIDE TO
THE COAST SCENERY.
BY
MARY JOHN KNOTT
WITH ENGRAVINGS, &c.
DUBLIN
WILLIAM CURRY JUN. AND CO.
AND RICHARD M. TIMS,
G. REYNOLDS, CORK; C. O'BRIEN, Z. M. NADEG, G. K'NEN, LIMERICK;
EDMUND FAY AND SON, R. GROSVENOR, AND SIMPSON, MARSHALL
AND COMPANY, LONDON.
GEORGE HAYES, BRITISH; J. DIXON, LIVERPOOL;
AND FRASER AND CO. EDINBURGH.
1836
in and placed under the care of some deserving poor person, who, by a small allowance from visitors, might be able to gain something towards a livelihood: these healing waters could be made both attractive and useful to the invalid visitors of Kilkee.
Contents in parts per million

- Iron(II) carbonate, FeCO$_3$ 25.3
- Manganese(II) carbonate, MnCO$_3$ 4.6
- Calcium sulfate, CaSO$_4$ 60.9
- Magnesium sulfate, MgSO$_4$ 13.4
- Magnesium chloride, MgCl$_2$ 7.8
- Sodium chloride, NaCl 57.2
- Potassium chloride, KCl 7.3

http://en.wikipedia.org/wiki/Chalybeate#Content_of_the_chalybeate_waters_from_Tunbridge_Wells
An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU

Peter Pronovost, M.D., Ph.D., Dale Needham, M.D., Ph.D., Sean Berenholtz, M.D., David Sinopoli, M.P.H., M.B.A., Haitao Chu, M.D., Ph.D., Sara Cosgrove, M.D., Bryan Sexton, Ph.D., Robert Hyzy, M.D., Robert Welsh, M.D., Gary Roth, M.D., Joseph Bander, M.D., John Kepros, M.D., and Christine Goeschel, R.N., M.P.A.
THE CHECKLIST

If something so simple can transform intensive care, what else can it do?

by Atul Gawande

DECEMBER 10, 2007

The damage that the human body can survive these days is as awesome as it is horrible: crushing, burning, bombing, a burst blood vessel in the brain, a ruptured colon, a massive heart attack, rampaging infection. These conditions had once been uniformly fatal.

KEYWORDS

Intensive-Care Units (I.C.U.s); Pronovost, Peter; Checklists; Hospitals; Infections; Johns Hopkins Hospital; Sinai-Greene Hospital

http://www.newyorker.com/reporting/2007/12/10/071210fa_fact_gawande
The art of medicine
Reality check for checklists

Catheter related bloodstream infections in the intensive care unit (ICU) are common, costly, and potentially lethal. The Dec 28, 2004, issue of The New England Journal of Medicine reported that an evidence-based intervention in 104 intensive care units in the Michigan Keystone ICU programme had resulted in a large sustained reduction in rates of these infections. The study was widely reported in the popular media and elsewhere as an example of the "simple checklist" as a solution to patients' safety problems. Yet the widespread interest in this study is a dual-edged sword.

It was a great story. Science often needs to be simplified for the lay public. The problem is that the story may well have been overemphasized. The emphasis on checklists is a misdirection. "McGrath's," a distraction from the plot that inverts attention from how safer care is actually achieved. Safer care is achieved when all three—find one of the following are real—summarizes and simplifies what to do. Measure and provide feedback on outcomes, and improve culture by building expectations of performance standards into work processes. We propose that widespread deployment of checklists without an appreciation of how or why they work is a potential threat to patient safety and to high-quality care.

Attributing the reduction of infection in the Keystone programme solely to the use of checklists is an overly simple and crucial mistake. Checklists are a good way of making certain that tasks get done, as anyone who has taken a shopping list to the supermarket can verify. Irrespective, checklists can help workers perform a task by reducing ambiguity about what to do. Of course, determining the best way of proceeding in a complex health-care setting is not as straightforward as producing a prompt to remember the milk. But figuring out what should form the content of a checklist for a clinical problem is in no way an achievable ambition, there are well-defined processes for identifying and synthesizing research evidence. For the Keystone programme, interventions with a potential to improve outcomes were selected and converted into a standardized checklist.

But checklists, even if based on rigorous evidence, have never penetrated medicine in the way they perhaps ought to have. The reasons for this are primarily social and cultural. In part, the way that physicians are socialized creates resistance and resistance to the use of checklists. Some come to feel that checklists undermine their claims to expertise, are infallingible, and are unnecessary impediments to the swift decision-making and action required for effective care. How to understand and disrupt these deeply entrenched norms is a much greater challenge than identifying the component of a checklist.

The mistake of the "simple checklist" story is in the assumption that a technical solution (checklist) can solve an adaptive (socio-cultural) problem. To improve safety, health-care needs to get the technical and adaptive work right. Without attention to adaptive work, checklists would likely suffer the same fate as guidelines—often left unused, even when very robust. Summarizing evidence is a necessary but not sufficient step for translating evidence into practice. Evidence summaries need to be combined with an understanding of, and a strategy for, mitigating the technical and socio-political and psychological (even emotional) barriers to using the evidence, and with feedback about performance. Emphasizing checklists as the explanatory mechanism for the reduction in catheter-related infections obscures the complex labor necessary to create a collective social trust in checklists. How support was mobilized for coordinating work around infection control is the real story of the Keystone ICU project.

What happened in Michigan involved the creation of social networks with a shared sense of mission, whose members were each able to reinforce the efforts of the other to cooperate with the interventions. Implementing the entire programme occurred over 6 months—it was not simply the case that the units were handed the checklist and immediately fell in line. The work was arduous and often laden with emotions. Before ICU units were allowed to take part in the interventions, each hospital had to assign a senior executive to work with participating units. Each ICU was required to identify a physician and nurse team leader. The executives were required to meet monthly with unit
If you don’t understand what makes the change

- It’s hard to replicate any success or design new, similar programmes
- Risk of reaching the wrong conclusions about what works or doesn’t work
Do it with sincerity and consistency
Tell my wife I had the fruit salad
No sarcasm
If you’re gonna do it, do it right
Getting better together: LIIPS

• Transcends any single NHS organisation
• Introduces, connects
• Focus for energy and expertise in improvement and evaluation
• Enables through capacity-building for the small wins
• Provides collective voice for the big and hairy problems
• Supports efficient sharing of solution and coordination of action
• Focus for funded bids
• Link to national peer-based improvement initiatives
Thanks

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