Analytics & Root Cause (Work Area 2): Part 2
Lower cost delivery of effective and appropriate services

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"So, as you can see, health care is so complicated you may never get well."

The New Yorker, 13 March 2017 Issue

Can we get better care at lower cost?

IOM report > $750B in unnecessary health spending

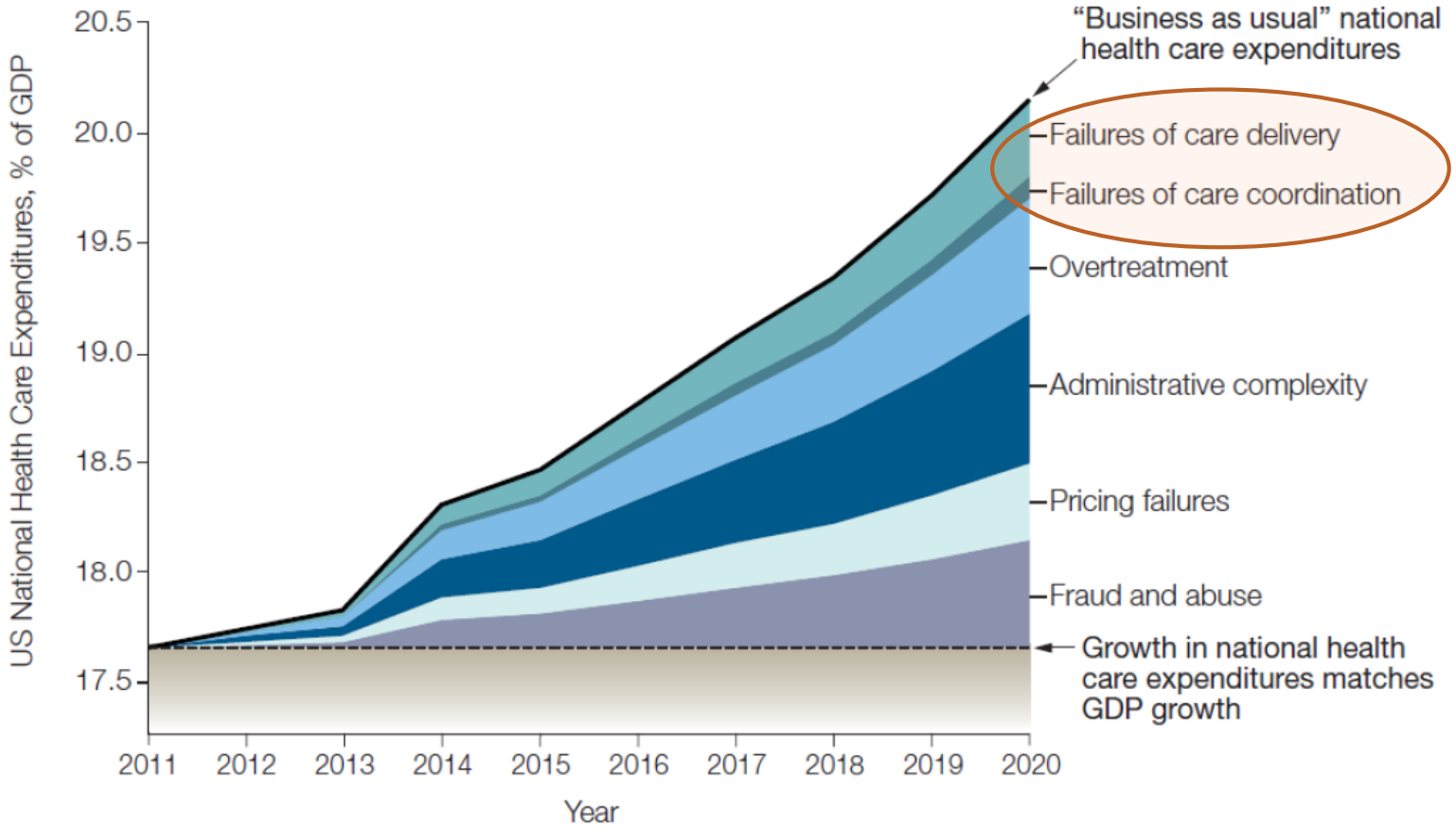
TABLE S-1 Estimated Sources of Excess Costs in Health Care (2009)

Category	Sources	Estimate of Excess Costs
Unnecessary Services	• Overuse—beyond evidence-established levels • Discretionary use beyond benchmarks • Unnecessary choice of higher-cost services	$210 billion
Inefficiently Delivered Services	• Mistakes—errors, preventable complications • Care fragmentation • Unnecessary use of higher-cost providers • Operational inefficiencies at care delivery sites	$130 billion
Excess Administrative Costs	• Insurance paperwork costs beyond benchmarks • Insurers' administrative inefficiencies • Inefficiencies due to care documentation requirements	$190 billion
Prices That Are Too High	• Service prices beyond competitive benchmarks • Product prices beyond competitive benchmarks	$105 billion
Missed Prevention Opportunities	• Primary prevention • Secondary prevention • Tertiary prevention	$55 billion
Fraud	• All sources—payers, clinicians, patients	$75 billion

SOURCE: Adapted with permission from IOM, 2010.

Sustainability by waste containment

Figure 11: Areas of Waste in US Health Care (Berwick and Hackbarth 2012)



Issue (Evidence gap) or research problem

- Which services or tests currently performed in hospitals/ facilities could be safely performed in lower cost locations?

Premise

- Even effective appropriate health care services may not always be delivered in most cost effective way
- Alternative locations, providers, delivery formats may provide same benefits but at lower cost

- ***But*** suggested alternatives may not always be as effective or cost-effective

Focus Questions

- What are the possible lower cost locations or processes, and what do we already know about the evidence?
- What is the current usage of these best-practice models, and what is the potential for system gain?
- What are the promising models but with gaps in evidence?

Year 1 to 2 goals

- Scoping review of all the possible alternatives
- Systematic review of the evidence for equivalent or increased benefits and lower costs
  - Overview of current systematic reviews and economic studies of alternative provision of services
  - Assess if they need updating or supplementing with Australian modelling or costs
- With partners, identify other potential alternative means of service provision to add to reviews
- Workshop to assess and prioritise topics for phase 2

Examples of alternative delivery of health services, evidence for effectiveness and cost

Service alternative	Evidence
Hospital in the home	Based on 10 RCTs 'For selected patients, avoiding admission through provision of hospital care at home yielded similar outcomes to inpatient care, at a similar or lower cost.' (Shepperd et al 2009)
Nurse substitution	Based on 4 trials (low-to moderate quality evidence): fairly consistent across study populations with similar patient outcomes to usual care, some evidence of reduced resource (Martin-Misener et al 2015) Later RCT: equal care with lower costs for diabetes nurse specialists (Arts et al 2011)
Transitional care coordination	13 RCTs clinical nurse specialist (CNS) transitional care • Post-cancer surgery for reducing patient mortality: superior • Heart failure: reduced death, re-hospitalization and its length of stay, costs • Elderly patients and caregiver: improved caregiver depression,

Examples of alternative delivery of health services, evidence for effectiveness and cost

Service alternative	Evidence
Group therapy	Trials in back pain (N=6) and urinary incontinence (N=5) Group format for rehabilitation = individualised treatment (Robertson et al 2014)
Patient self-monitoring	17 systematic reviews across heart failure, hypertension, COPD Systematic review of 26 RCTs of self-monitoring or self-testing of bleeding time for patients on warfarin: effective, reduces hospitalisation and readmissions, cost neutral or cost-saving (Sharma et al 2015)
Triage clinics	• Systematic review of 14 studies (mostly low quality): Extended-scope physiotherapists in musculoskeletal triage clinics effective in terms of diagnostic accuracy, GP and patient satisfaction • Several observational studies, including in Australia: Orthopaedic triage clinics provide effective efficient service, improve patient care pathways, save medical consultant time, reduce surgery

Examples of alternative delivery of health services, evidence for effectiveness and cost

Service alternative	Evidence
Near patient testing	• Large trial of point of care testing for influenza, RSV, and pneumonia showed no advantage (Nicholson et al 2014) • Recent review of 84 studies: Point-of-care testing (POCT) decreased time for making decisions on patient management but clinical outcomes have never been adequately evaluated (Pecaro et al 2014)
Liaison services (missed secondary prevention opportunity; failure of care coordination)	• Fracture liaison services (minimal trauma, >50 years, ambulatory, mainly non-hips): Prospective cohort studies of type 'A' services (identify, investigate and initiate treatment): consistently show less re-fractures, mortality, cost-effective, cost-saving. (Walters et al 2017) • Orthogeriatric services (mainly hips, age >70, inpatients): Reduced mortality, little data for re-fracture, conflicting data re length of stay; limited cost-effectiveness data (Mitchell et al 2017)

Year 2 to 3 goals

- For each type of alternative service provision with clear evidence of equivalent costs and lower costs, undertake a national survey to assess extent of current usage, and barriers to usage
- For most promising options with significant under usage, economic assessment of the value of a national roll out

Year 3 to 5 goals

- With system partners, identify highest priority candidates for switching location or provider of services and undertake pilot roll outs, and potential national roll outs (depending on intervention)
- Might be
  - Hospital based, with our partners such as NSW Health and Monash Partners
  - General practice-based through Primary Health Networks, GP 'clinical laboratory' of 20 practices being set up within the Wiser Healthcare Collaboration

Anticipated outcomes

- List of evidence-based alternative models of care which provide at least equal patient outcomes but at lower cost in the Australian setting
- An estimate of current usage and the potential gains from increased usage
- Testing and national roll outs of selected alternatives
- To be determined if worth the effort versus reducing waste from overdiagnosis and overtreatment