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On the Radar
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Reports

Variation in Health Care Spending: Target Decision Making, Not Geography
Institute of Medicine
Washington D.C.: The National Academies Press, 2013.

Notes	Variation is emerging as a major theme in health system discussions. This IoM report examines some of the aspects of variation relating to variation in spending in the USA. Among the report's conclusions: • **Geographic variation in spending and utilization is real**, and not an artefact reflecting random noise; it persists across geographic units and health care services and over time. • Variation in spending in the commercial insurance market is **due mainly to differences in price markups** by providers **rather than** to **differences in** the **utilization** of health care services. • After accounting for differences in the age, sex, and health status of beneficiaries, geographic variation in spending in both Medicare and commercial insurance is not further explained by other beneficiary demographic factors, insurance plan factors, or market-level characteristics. In fact, after controlling for all factors measurable within the data used for this analysis, a large amount of variation remains unexplained.

	• **Health care decision making** generally **occurs at the level of the individual practitioner or organization** (e.g., hospital or physician group), not at the level of a geographic region. Therefore, a geographically based value index is unlikely to promote more efficient behaviors among individual providers and thus is unlikely to improve the overall value of health care. • Substantial variation in spending and utilization remains as units of analysis get progressively smaller (hospital referral region, hospital service area, hospital, practice, and individual provider). Variation in spending is one debate and clearly has links to the debates about variation in medical practice. However, the two are not synonymous and to focus on variations in spending may be to the detriment of the safety and quality aspects of variation, such as whether patients are receiving appropriate care for their particular needs.
URL	http://iom.edu/Reports/2013/Variation-in-Health-Care-Spending-Target-Decision-Making-Not-Geography.aspx

By Us, For Us: The power of co-design and co-delivery
Hampson M, Baeck P, Langford K
London: Nesta, 2013.

Notes	The UK charity Nesta has published their latest health system report, *By Us, For Us* drawing together practical learning and evidence on using co-design and co-delivery to create a health system driven by the people within it. The key findings of the report include: • Care planning, pathway planning and wellbeing planning **enable patients to identify their own goals and aspirations**, and to navigate the services that will help to achieve them. • The **challenge is to harness collaborative working culture** and spread and embed it in new settings, including it as standard in primary care and acute services and in service governance. • **Prototyping** is an approach to developing and testing ideas at an early stage before large-scale resources are committed to implementation • It is **much easier to design a service than design a system**. But designing a radically different service often requires redesigning the system – to provide the spaces, opportunities, capabilities and support for new services to be possible
URL	http://www.nesta.org.uk/home1/assets/features/by_us_for_us_the_power_of_co-design_and_co-delivery

Journal articles

Geographic variation in cardiovascular procedure use among Medicare fee-for-service vs Medicare advantage beneficiaries
Matlock DD, Groeneveld PW, Sidney S, Shetterly S, Goodrich G, Glenn K, et al.
Journal of the American Medical Association 2013;310(2):155-162.

Variations in health care, patient preferences, and high-quality decision making
Krumholz HM
Journal of the American Medical Association 2013;310(2):151-152.

Notes	Also on variation is this pair of items (article and editorial) from *JAMA*. Matlock and colleagues examined whether payment model (fee for service or capitation) explained variation in cardiovascular procedures. Their cross-sectional study examined nearly 6 million Medicare beneficiaries older than 65 years between 2003–2007 by comparing rates of coronary angiography, percutaneous coronary intervention (PCI), and coronary artery bypass graft (CABG) surgery across 32 hospital referral regions in 12 states. They found that wide **geographical variations** in cardiovascular procedures were **not directly related to doctor reimbursement**. They did find that Medicare Advantage patients were less likely to undergo the heart procedures, but there were still wide variations between geographic areas under both payment systems. As the authors noted "Although Medicare beneficiaries enrolled in capitated Medicare Advantage programs had lower angiography and PCI procedure rates than those enrolled in Medicare FFS, the degree of geographic variation in procedure rates was substantial among Medicare Advantage beneficiaries and was similar in magnitude to that observed among Medicare FFS beneficiaries." In his editorial, Harlan Krumholz observes "Practice variation in clinical care for preference-sensitive decisions should be a call to action to optimize clinical decision making. … Practice variations, which may be influenced by factors that are extrinsic to the patient, occur among physicians, hospitals, health care organizations, regions, and health care systems. The **variations in practice should disturb physicians** not merely because they may indicate wasteful practices but **because of the possibility that such variations do not optimally serve the best interests of patients**. The health care system should allow variation in practice, provided that variation is based on patient clinical differences and preferences rather than on other factors such as payment method, geography, or system proclivities." For Krumholz variation is also "as a potential indicator of a weakness of the current approach to decision making" He suggests three potential next steps: "First, set standards for high-quality decisions, develop metrics for assessing the quality of decisions, promote performance, and encourage quality improvement activities.… Second, codify the skills in guiding high-quality decisions, teach the science of clinical decision making, and establish it as a competency for those in the medical professions.… Third, develop tools including charts, audio or visual aids, and interactive media to facilitate high-quality, patient-centered decisions."
DOI	Matlock et al http://dx.doi.org/10.1001/jama.2013.7837 Krumholz http://dx.doi.org/10.1001/jama.2013.7835

'Care left undone' during nursing shifts: associations with workload and perceived quality of care
Ball JE, Murrells T, Rafferty AM, Morrow E, Griffiths P
BMJ Quality & Safety 2013 [epub].

Notes	This article reports on a study attempting to examine the nature and prevalence of care left 'undone' by nurses in English National Health Service hospitals and to assess whether the number of 'missed care' episodes is associated with nurse staffing levels and nurse ratings of the quality of nursing care and patient safety environment. 'Missed care' is the omission of necessary nursing care caused by time pressure. The study was a cross-sectional survey of 2917 registered nurses working in 401 general medical/surgical wards in 46 general acute National Health Service hospitals in England. The majority of **nurses (86%) reported that one or more care activity had been left undone due to lack of time on their last shift**. The tasks most frequently left undone were: comforting or talking with patients (66%), educating patients (52%) and developing/updating nursing care plans (47%). The number of patients per registered nurse was significantly associated with the incidence of 'missed care' ($p<0.001$). A mean of 7.8 activities per shift were left undone on wards that are rated as 'failing' on patient safety, compared with 2.4 where patient safety was rated as 'excellent' ($p<0.001$). The authors suggest that "Care not being delivered may be the reason low nurse staffing levels adversely affects quality and safety. Hospitals could use a nurse-rated assessment of 'missed care' as an early warning measure to identify wards with inadequate nurse staffing."
DOI	http://dx.doi.org/10.1136/bmjqs-2012-001767

A Decade of Reversal: An Analysis of 146 Contradicted Medical Practices
Prasad V, Vandross A, Toomey C, Cheung M, Rho J, Quinn S, et al.
Mayo Clinic proceedings. 2013 [epub].

How Many Contemporary Medical Practices Are Worse Than Doing Nothing or Doing Less?
Ioannidis JPA
Mayo Clinic proceedings. 2013 [epub].

Notes	Gathering interest has been this paper on 'medical reversal' (and related item) that are in press with *Mayo Clinic Proceedings*. Prasad and colleagues examined more than 1,300 articles published in the *New England Journal of Medicine* to examine how many of the studies assessed current medical practice, and whether those practices were found to still be valid. The authors report that about ¼ of studies examined current practices while most looked at new approaches. In the 363 articles that did examine current practice, the authors found only 138 (38%), were verified, 146 (40%) ineffective and 79 (22%) were inconclusive. The lack of attention to existing practices may be seen as a potential safety and quality risk. Ioannidis – in a related item – poses the question as to how much is being done that should not be? What are those practices that are persisting that should be stopped, unfunded, divested, etc? In various ways this ties in with the interest in variation and projects such as the *Choosing Wisely* initiative.
DOI	Prasad et al http://dx.doi.org/10.1016/j.mayocp.2013.05.012 Ioannidis http://dx.doi.org/10.1016/j.mayocp.2013.05.010

Inpatient Fall Prevention Programs as a Patient Safety Strategy: A Systematic Review
Miake-Lye IM, Hempel S, Ganz DA, Shekelle PG
Annals of Internal Medicine 2013;158(5 Part 2):390-396.

Notes	A fall is one of the more common adverse events in hospitals. This paper provides a review on the literature on inpatient fall prevention programs. The purpose of this (updated) review was to re-assess the benefits and harms of fall prevention programs in acute care settings and to identify factors associated with successful implementation of these programs by examining the evidence published from 2005 to September 2012. Potential harms identified included increased use of restraints and sedating drugs and decreased efforts to mobilize patients. Eleven studies showed that the following themes were associated with successful implementation: **leadership support**, **engagement of front-line staff** in program design, **guidance** of the prevention program by a multidisciplinary committee, **pilot-testing** interventions, use of information technology systems to provide **data** about falls, staff **education and training**, and changes in nihilistic **attitudes** about fall prevention.
DOI	http://dx.doi.org/10.7326/0003-4819-158-5-201303051-00005

For more information on the Commission's work on falls prevention, see
http://www.safetyandquality.gov.au/our-work/falls-prevention/

Approaches for improving continuity of care in medication management: a systematic review
Spinewine A, Claeys C, Foulon V, Chevalier P
International Journal for Quality in Health Care 2013;25(4):403-417.

Notes	This systematic review sought to synthesize the impact of approaches to optimize the continuity of care in medication management upon hospital admission and/or discharge by examining the literature published from 1995 to December 2010. **Patient education** and counselling provided upon discharge and reinforced after discharge, sometimes together with **improved communication** with healthcare professionals, was shown to **reduce the risk of adverse drug events and hospital re-admissions** in some studies, but not all.
DOI	http://dx.doi.org/10.1093/intqhc/mzt032

For more information on the Commission's work on medication safety, see
http://www.safetyandquality.gov.au/our-work/medication-safety/

Patient safety without the blame game
Svansoe VL, BMJ 2013;347:f4615

Notes	This feature provides a short summary of Denmark's response to the problem of patient safety by establishing a reporting system without sanctions. Interviews with key opinion leaders identified that there is still uncertainty about the effect of the initiatives launched in Denmark, with the aim of improving quality and patient safety. There have been an increase in submissions to the patient safety database, demonstrating a willingness to report mistakes, however there are also indications that learning from these mistakes may be slow. There are many instances of similar experiences around the world. The report recommends that national authorities consider the benefits of a national voluntary confidential reporting system of adverse events and near misses.
DOI	http://www.bmj.com/content/347/bmj.f4615

Surgical technology and operating-room safety failures: a systematic review of quantitative studies
Weerakkody RA, Cheshire NJ, Riga C, Lear R, Hamady MS, Moorthy K, et al
BMJ Quality & Safety 2013 [epub].

Notes	In recent years the focus in surgical safety has largely been on processes and the use of mechanisms such as checklists to enhance safety. This paper looks at the technological or hardware aspects of safety failures by reviewing the quantitative literature. The authors sought to determine the proportion and characteristics of equipment-related error in the operating room (OR) to further improve quality of care by examining the 28 studies culled from their original 19,362 articles/ In these studies **failures of equipment/technology** accounted for a median **23.5%** (IQR 15.0%–34.1%) of **total error**. The median number of equipment problems per procedure was 0.9 (IQR 0.3–3.6). From eight studies, subdivision of equipment failures was possible into: equipment availability (37.3%), configuration and settings (43.4%) and direct malfunctioning (33.5%). Observed error rates varied widely with study design and with type of operation: those with a greater burden of technology/equipment tended to show higher equipment-related error rates. Checklists (or similar interventions) reduced equipment error by mean 48.6% (and 60.7% in three studies using specific equipment checklists). These figures lead the authors to assert that "Equipment-related failures form a substantial proportion of all error occurring in the OR. Those procedures that rely more heavily on technology may bear a higher proportion of equipment-related error. There is **clear benefit in the use of preoperative checklist-based systems**. We propose the adoption of an **equipment check**, which may be incorporated into the current WHO checklist."
DOI	http://dx.doi.org/10.1136/bmjqs-2012-001778

Development and initial validation of the Influences on Patient Safety Behaviours Questionnaire
Taylor N, Parveen S, Robins V, Slater B, Lawton
Implementation Science 2013, 8:81

Notes	This study reports the development and initial validation of the Influences on Patient Safety Behaviours Questionnaire (IPSBQ). 233 healthcare practitioners from three acute Hospital Trusts in the UK completed a 34-item measure focusing on one specific patient safety behaviour. The measure used pH as the first line method for checking the position of a nasogastric tube. The report concludes that the IPSBQ can be used by researchers and practitioners working in areas of healthcare improvement, implementation and patient safety. The findings suggest that the measure can be used to identify barriers to behaviour change among healthcare staff. However the next stage is to identify if the measure can be used as a tool for informing the development of theoretically informed tailored interventions.
URL	http://www.implementationscience.com/content/8/1/81/abstract

The patient is in: patient involvement strategies for diagnostic error mitigation
McDonald KM, Bryce CL, Graber ML
BMJ Quality & Safety 2013 [epub].

Notes	Adding to the recent literature on diagnostic error is this item advocating that as patient-centredness may aid in other safety and quality areas, it may also be the case with diagnostic error. After all, the patient is (usually) the one most aware of and engaged with the case. The authors discuss strategies for patient involvement in reducing diagnostic errors in an individual's own care, in improving the healthcare delivery system's diagnostic safety, and in contributing to research and policy development on diagnosis-related issues.
DOI	http://dx.doi.org/10.1136/bmjqs-2012-001623

A Perinatal Care Quality and Safety Initiative: Are There Financial Rewards for Improved Quality?
Kozhimannil KB, Sommerness SA, Rauk P, Gams R, Hirt C, Davis S, et al
Joint Commission Journal on Quality and Patient Safety 2013;39(8):339-348.

Notes	The AHRQ PSNet (http://psnet.ahrq.gov/resource.aspx?resourceID=26528) synopsis of this paper noted: "An inconvenient truth about the patient safety movement is that in many cases hospitals actually profit when errors occur. A recent study found that hospitals received greater net reimbursements for patients who experienced surgical complications compared with patients whose surgeries were uncomplicated. This study examined the financial impact of an effort to eliminate obstetric complications in a five-hospital health system [In 2008 the Minnesota-based hospital system Fairview Health Services launched the Zero Birth Injury initiative.] The **project led to an 11% reduction in preventable adverse events**, but hospital **reimbursements decreased** considerably as a result—meaning that although **costs were saved, the hospitals' net revenues declined overall**. This finding represents a classic case of misaligned incentives: the outcome was beneficial for payers and patients (who received higher quality care at lower cost) but not directly beneficial for hospitals (who shouldered the cost of implementing the intervention but lost revenue as a result). As the return on investment for safety interventions such as computerized provider order entry is marginal at best, payment system reform to align incentives will be necessary in order to improve the business case for safety." Ultimately, the question of whether there are savings (or income or other benefits) to be made from safety and quality improvements may depend on where one is situated within the health system, one's role and perspective and even the nature of the funding model.
URL	http://www.ingentaconnect.com/content/jcaho/jcjqs/2013/00000039/00000008/art00001

BMJ Quality and Safety online first articles

Notes	*BMJ Quality and Safety* has published a number of 'online first' articles, including: • Allocating scarce resources in real-time to **reduce heart failure readmissions**: a prospective, controlled study (Ruben Amarasingham, Parag C Patel, Kathleen Toto, Lauren L Nelson, T S Swanson, B J Moore, B Xie, S Zhang, K S Alvarez, Y Ma, M H Drazner, U Kollipara, E A Halm) • A system-wide approach to explaining variation in **potentially avoidable emergency admissions**: national ecological study (Alicia O'Cathain, Emma Knowles, Ravi Maheswaran, Tim Pearson, Janette Turner, Enid Hirst, Steve Goodacre, Jon Nicholl)
URL	http://qualitysafety.bmj.com/onlinefirst.dtl

Online resources

System for Australian Recall Actions (SARA)
http://www.tga.gov.au/safety/sara.htm
The System for Australian Recall Actions (SARA) provides consumers, healthcare professionals, sponsors, wholesalers, hospitals and retailers with access to information about recall actions occurring in Australia for therapeutic goods (including prescription medicines, over-the-counter medicines, complementary medicines, medical devices including In-Vitro Diagnostic medical devices (IVDs), and biologicals). The database holds information on recall actions that have been undertaken in Australia since 1 July 2012.
The database is searchable for therapeutic good recall action notifications that include recalls, recalls for product correction and hazard alerts.