How Can Unnecessary Health Care Utilization be Eliminated? [1]

Executive Summary

Many factors impact utilization including: the health and socio-economic status of a population; engagement in high risk behaviour; government policy; the supply and demand for services, equipment and varied care providers. A helpful bibliography has recently been compiled by the Canadian Institute for Health Information (CIHI) [2] on high users of health care services. Health care spending has reached epic proportions globally. In the United States, for example, estimates are as high as $1 trillion being spent each year on unnecessary care and treatment.

Reasons for this include: misdiagnoses, excessive use of unnecessary (and expensive) tests, high administrative costs, prices that are too high, inefficient use of services and equipment, missed opportunities for prevention and health care fraud. In addition to the high burden of cost on health systems, patients can suffer direct (e.g., medication side effects, radiation exposure, emotional distress) and indirect (e.g., impact on family caregivers) harm from overuse of tests and treatment protocols. Healthcare organizations must collaborate to find effective ways to eliminate wastes and inefficiencies which are within their scope of control while improving clinical outcomes for patients. Strategies include:

- Identify and utilize evidence-based best practice protocols and guidelines for diagnosis, treatment, and care;
- Use quality improvement strategies including lean methodology for identification and removal of waste within healthcare processes;
- Develop collaborative partnerships with other organizations to deliver services more efficiently;
- Develop mechanisms to measure and monitor performance; and
- Engage patients and families to proactively partner in their own care, with an emphasis on health promotion & prevention.

We are interested in generating some discussion on this topic in our Fiscal Efficiency Community. [3] Please visit this space to join the conversation.
**Identify and Utilize Evidence-based Best Practice Protocols and Guidelines for Diagnosis, Treatment and Care**

There are a number of good sources for evidence-based recommendations that can be accessed by healthcare providers around the world. Examples include the U.S. Preventive Services Task Force [4], the Canadian Task Force on Preventive Care (CTFPC) [5] which are independent groups of experts that seek to make recommendations on preventive care, including screenings, based on available evidence. Examples of relevant references include the CTFPC's Red Book [6] which includes recommendations for screening and prevention throughout the lifespan. Other examples of best practice that can be used by healthcare organizations to reduce the use of inappropriate resources include best practice guidelines, such as those published by the Registered Nurses Association of Ontario [7] (click here for an example of an interprofessional collaborative guideline tool [8]). Other rich sources of guideline information include the CPG Infobase [9], the National Institute for Health and Care Excellence (NICE) [10] and the National Guideline Clearinghouse. [11] The rigour of published guidelines and protocols can be assessed using tools such as GLIA [12] and the Appraisal of Guidelines for Research & Evaluation in Europe (AGREE) [13]. Reducing the use of diagnostic imaging in the emergency department [14] is also an important strategy whereby the use of evidence is of paramount importance. Creating an organizational culture whereby individual practitioners are trained to critically appraise the tests and procedures they are performing is another mechanism whereby appropriate utilization can be fostered. Examples of tools that can be used by individual healthcare providers include the Therapy Critical Appraisal Worksheet [15] and the Diagnosis Critical Appraisal Worksheet [16]. Ontario Shores [17], a mental health organization provides a good case study example of how evidence-based guideline adherence can improve patient care and appropriate resource utilization. A recent campaign called Choosing Wisely has a number of excellent resources including a Starter Kit [18] and a searchable site with lists of commonly used tests where there is insufficient evidence to warrant their use and/or they could cause unnecessary harm to patients. [19] By using the interventions outlined in one of these toolkits [20], Sunnybrook Health Sciences Centre in Toronto was able to reduce the use of catheters in their medical wards by 50%, sustained beyond 1-year without any adverse effects on patients. Similarly, by using the interventions in the deprescribing proton pump inhibitor (PPI) toolkit [21], the Toronto Western Family Health Team was able to reduce patients prescribed PPIs by 26%.

**Use Quality Improvement Strategies Including Lean methodology for Identification and Removal of Waste Within Healthcare Processes**

Quality improvement methodologies including the Model for Improvement [22], and various lean techniques can be utilized to assess problems, identify new processes and eliminate waste (such as unnecessary tests and procedures) within healthcare systems. Lean manufacturing [23] tools aim to eliminate waste, simplify systems, and create flow. The first step to solving a problem is diagnosing it. Root Cause Analysis [24] (RCA) is one potential lean tool for use in tackling the problem of reducing unnecessary utilization in healthcare. The RCA template includes a 5-step process to determine: what problem occurred; why it happened; and what to do to reduce the likelihood of it happening again. Using this tool, hospitals can: 1) Define the Problem, 2) Collect Data, 3) Identify Possible Causal Factors, 4) Identify the Root Causes and 5) Recommend and Implement Solutions. Heijunka [25], 5S [26], Standardized work [27], Kanban [28], Jidoka [29], Poka Yoke [30], PICK chart [31], FMEA [32] and Kaizen events [33] are some of many lean process tools that can eliminate waste in healthcare systems and yield gains in financial and clinical outcomes.

**Develop Collaborative Partnerships with Other Organizations to Deliver Services More Efficiently**
Fostering relationships with other organizations, including care providers, suppliers, vendors, academia and private corporations may be worth exploring in order to develop innovative ways to make more efficient use of scarce resources. A useful example of a partnership strategy from Mount Sinai hospital [34] demonstrates the need for organizations to look beyond their walls to identify partners who may further a shared vision. The public/private partnership (P3) [35] model might also be worth considering in bringing additional stakeholders to the discussion.

**Develop Mechanisms to Measure and Monitor Performance**

In order to improve utilization, measurement is a critical starting place. Metrics should be linked to a larger organizational strategy where possible so that there are clear lines of accountability for performance. Tools such as the Balanced Scorecard [36] can be useful in this regard. Possible sources of information to assist organizations with indicator development and use include the AHRQ QI database [37], the Canadian Institute for Health Information (CIHI) Indicator Library [38] and the NHS Clinical Services Quality Measures (CSQMs) [39].

**Engage Patients and Families to Proactively Partner in Their Own Care**

Patients and families are the best source of information when it comes to what is working well and what isn’t. Useful tools for organizations to access in this regard include the Guide to Patient and Family Engagement in Hospital Quality and Safety [40], Working with Patients and Families as Advisors [41] as well as a Gap Analysis [42] to determine organizational readiness for patient and family engagement. Allowing patients to be part of the process can help shed light on inefficiencies and possible areas of over or under-utilization of resources. Additionally, providers need to educate patients about various options for managing their healthcare with the notion that more is not necessarily better. Issues such as polypharmacy for example can put patients at risk of adverse outcomes. A focus on prevention efforts including lifestyle modifications can often impact rates of health care utilization.

References & External Links:

1. [Signs of Overtreatment: How to Avoid Unnecessary Care](https://www.colleaga.org/article/how-can-unnecessary-health-care-utilization-be-eliminated) [43]
2. Hypertension cost Alberta health-care system $1.4B in 2010, says study [44]
3. [Engaging Consumers to Manage Health Care Demand](https://www.colleaga.org/article/how-can-unnecessary-health-care-utilization-be-eliminated) [45]