Redesigning Health Care Service Delivery: Increasing Service Capacity, Clinical Knowledge and System Sustainability by optimizing Human and Social Capital

Background
Health care services within the Canadian landscape are continuously challenged by growing service demands and budget constraints. The current social and economic conditions are placing increasing pressures on the system. For most administrators, the obvious solution is to increase the invested resources, both human assets and capital equipment, in an attempt to relieve the bottlenecks within the system. However, even with the added resources, the Canadian health care system has not been successful in demonstrating that Canadian’s are receiving the value deserved for the level of investment in the system. The only feasible solution to the ongoing health care problem is to deconstruct the current service delivery models and restructure how health services are organized, delivered, and funded. The new structure will enforce greater collaboration, knowledge sharing and accountability among providers resulting in a system that demonstrates value-based outcomes.

In Ontario, a team of orthopedic surgeons have implemented an innovative model of care for shoulder disorders that is demonstrating that system efficiencies and value-based outcomes can be achieved by developing a new service delivery platform. Recently funded for a 2-year demonstration project by the Ministry of Health, The Shoulder Centre (TSC), is designed to address regional health system constraints through building novel partnerships between community providers and TSC’s clinical team, a Patient-Centered Specialty Practice, and by leveraging technology solutions to improve service delivery.

TSC’s model of care will provide a scalable model that demonstrates that there are sufficient resources available within the existing health care system and if appropriately organized these resources can result in the delivery of highly efficient and effective care to the patient population.

Changes Made
Of the many innovative features introduced by TSC the two key drivers in increasing capacity, knowledge and sustainability is the clinical stratification of patients with most appropriate provider and network partnerships among the service providers involved in the patient’s care.

In traditional service delivery models, patients with shoulder pain are managed by Primary Care Providers (PCP) who have limited training in identifying shoulder disorders. PCPs rely heavily on diagnostic imaging and pharmaceuticals before finally (often 6-18 months later) referring patients with unsolved pain to the care of an orthopedic surgeon.

A key issue within the traditional service delivery model for shoulder care is that it limits the patient’s treatment to only two levels of providers, the PCP and the highly specialized orthopedic surgeon. However within the current system various other skilled providers can be involved to provide patients with appropriate care.

The service providers within the existing health system make up the human capital that is needed to manage the clinical needs of the patient population. Appropriate providers within the system can be networked to form a tiered approach for providing evidence based shoulder care. Within and among each tier, the providers can share their knowledge and participate in providing care appropriate to their skill levels. Networks and formalized education among the providers can generate greater social capital, that can facilitate managing the patients appropriately at each level of their care pathway. Appropriate use of existing human capital and social capital can eliminate the challenges within the current health system.

Project Aim
TSC aims to address the many challenges in healthcare due to the inappropriate management of resources, specifically over-utilization of specialized human capital and under-development of social capital networks. The outcome achieved from implementing TSC’s model of care is increased economic value, specialized knowledge growth and proof-of-concept that the current healthcare system has sufficient human and financial resources to provide appropriate and timely access to care.

Outcomes
TSC leverages an intelligent central referral/intake process that allows for early evidence based identification of the patient’s clinical needs, ensuring expedited assessment and treatment from the Centre’s multi-disciplinary team. TSC is designed to build strong collaboration between the PCP and TSC’s team, aligning service provisions and increasing quality of care. TSC creates an efficient resource network aligning and advancing the existing human capital to ensure social capital is sustained and leveraged to provide the best care possible.

Project Design/Strategy
As a solution to the current challenges in providing efficient and effective shoulder care, TSC has introduced the following tools and practices to increase provider knowledge and ensure an increase in capacity and sustainability without any additional investment:

1) Intelligent and standardized e-referral to capture relevant information allowing for the triaging of patients upstream

2) Integration of primary care with specialized services and the use of multi-disciplinary resources to provide appropriate and effective care

The Shoulder Centre model

3) Formalized education programs for PCPs to advance clinical knowledge on assessments and evidence based treatments to allow management of minor/moderate shoulder issues within the local community as recognized “local champions”

4) Educate PCPs on evidence based practices and sign Memorandum of Agreements (MOU) with them to reduce the use of specialized diagnostics that are unnecessary to the patient’s treatment plan

5) Roll-out a hub-and-spoke structure to progressively add PCPs in each sub-region to the Accountable Shoulder Care referral network

Demonstrated Benefits
- Improve patient access to specialty services: Appropriately triage patients using intelligent e-referral and reduce time to assessment/treatment by leveraging appropriately skilled resources from the broader multi-disciplinary team
- Decrease system costs – Utilize the e-referral to identify acuity and urgency to appropriately stratify patients into provider streams most appropriate for their care needs
- Improve quality and satisfaction: Pairing “the right patient with the right provider at the right time” by matching clinical skills with the patient’s needs
- Build system sustainability - Utilize specialized resources for appropriately triaged patients preventing bottlenecks and unnecessary costs

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