Lost in Knowledge Translation? Innovations in Health Human Resources Policy

A summary of the 2010 CHSPR Health Policy Conference

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Preamble

Health human resources has been a (or the) top priority since the inception of the "Listening for Direction" priority-identifying exercises organized by the Canadian Health Services Research Foundation, in partnership with the Canadian Institutes of Health Research and other partners. But policy-makers' preoccupation with the challenges of the efficient and effective deployment of health human resources (HHR) long pre-date such exercises. The vast majority of health care costs are wages, salaries, fees, and other means of paying health care providers. It follows that innovation in the health care system can rarely bypass HHR. Yet the health care system has proven stubbornly resistant to the uptake of potentially innovation-inducing research evidence, and even when innovations do take root, the "green shoots" seldom seem to spread very far or very quickly. This raises the obvious questions of why such innovations in the delivery and organization of health services fail to take broader and deeper root in the Canadian health care system, and how we can get past these roadblocks to widespread innovation in the training, deployment, and retention of current and future HHR. The objectives of this meeting were to address those questions and to surface key current innovations at the system and institutional level through dialogue between researchers, policy-makers, and system managers. Interactions between conference presenters and attendees contributed to: (a) building research capacity, (b) sharing results from research focusing on HHR-related innovation in health services delivery, (c) sharing HHR innovation experiences from the field, and (d) beginning a dialogue aimed at creating a national research agenda and national coordination and collaboration in this area. The event was used as a springboard for a number of related activities during and after the conference itself.

Conference Key Messages

There are pockets of successful HHR and care delivery innovation scattered throughout Canada's health care system, and several powerful examples were presented throughout the conference. Speakers and panelists demonstrated that in health care, to achieve high quality care, we do not necessarily need "more." That is, more services and more providers do not necessarily result in better outcomes and, indeed, in some instances the reverse has been found. We need alignment and balance to ensure that the right services are provided to the right patients, by the right providers, at the right time. Traditional roles deserve some rethinking – task sharing, task shifting, and management in many contexts may help to improve the efficiency and quality of the system. This may often require a redefinition of traditional

professional roles and a re-examination of scopes of responsibility.

Training establishments can and should play a key role in re-thinking the training and mix of "health professionals." The traditional focus on autonomy should be shifted to one of interprofessional care and collaboration and on engagement of physicians as leaders of teams. "Ratio policy" (i.e. we need X numbers of provider A for Y patients) should be discarded in favour of considering how providers can effectively work together to provide integrated and seamless care. A belief in shared aims for our health care system must be fostered among providers. They must have a sense of a commitment to the community at large and a strong sense of purpose and responsibility for delivering high quality care for patients. Clinical leadership will be key in this regard.

We face significant challenges in terms of scaling up the many successful grass-roots innovations to generate widespread impact on policy and delivery at all levels of responsibility. System "dinosaurs" like power imbalances between different health professionals, siloed training programs, and the often secretive nature of the policy process are powerful impediments to change. A strong foundation of primary health care will be critical to any successful HHR innovation. As the population ages, we should expect to see a system that is built upon a strong foundation of primary care and a capacity to address complex comorbidities. The continued appropriate reduced reliance on acute-care hospitals must be accompanied by effective and integrated mixes of institutional and non-institutional supports for those with multiple chronic problems. High quality information on patient outcomes such as health status, quality of life, and patient satisfaction, in particular, can be used to drive change. Critical success factors in implementing innovative change are leadership, engagement with and buy-in from delivery staff, and resources.

Rethinking Health Care – Variations in Health Care and their Workforce Implications

Elliott Fisher (Dartmouth Medical School)

"If not us, who?" – ELLIOTT FISHER

"Houston, we have a problem." Across the United States (US), there are dramatic variations in spending and utilization of health care services, and yet there is no evidence that patient satisfaction, patient outcomes, or physician-perceived quality are any better in higher-spending regions than in lower-spending ones.

Rather than being driven by differing levels of access and use of effective services, these dramatic variations in spending and use are driven largely by differences in the provision of "supply-driven" types of care. The extra care received by patients in the high-use regions does not deliver any gain in survival or improvements in patient or physician satisfaction. Interestingly, physicians in higher-spending regions report a greater sense of resource scarcity than those in the lower-spending ones!

Common themes across many of the high-quality, low-spending regions are a strong foundation of primary health care and engagement of physicians as leaders of teams. Savings at the systems level have been achieved through a reduced reliance on hospitals. Change has been driven through the use of high-quality data. Importantly, there is a shared belief among

providers in the common aims of more accountability to patients and community at large.

Some of the roots of this variation can be found in general attributes of US health care. Fee-for-service (FFS) remains the dominant model of physician remuneration, and yet, under a FFS model, providers are not incentivized to provide high-quality, patient-centred care. Instead, they are rewarded for a fragmented approach, under the dictum of "more is better," within an entrepreneurial and market-driven framework. Additionally, the reliance on individual physician judgment in the face of many clinical "grey areas," within a system that provides no performance feedback, reinforces supply-driven demand. This is vividly portrayed in Atul Gawande's description of McAllen, Texas in the recent article in the *New Yorker*:

> *Here… a medical community came to treat patients the way subprime mortgage lenders treated home buyers: as profit centers.*

This dramatic variation in use and spending implies something quite disturbing about HHR innovation and physician productivity in the U.S. Reducing variation in use and spending would have a dramatic financial impact. Merely slowing the *growth* in spending in high-spending regions could produce savings of $1.4 trillion dollars – enough to pay for the new reforms with little to no negative impact on the health of Americans. So, how can it be done? The keys are to be clear about objectives, to ensure that we have the necessary information at hand to determine whether those objectives are being met, to establish accountable organizations, and to align incentives with objectives ((Table 1).

Table 1: Principles to guide reform

Underlying Problem	Key Principles for Reform
Confusion about aims – what are we trying to produce?	**Clarify aims:** better health and better care at lower cost for patients.
Absent or **poor data** leaves practice unexamined and public assuming more is always better.	**Better information** that engages physicians, supports improvement, and informs consumers.
Flawed conceptual model, in which health is produced only by "good" clinicians, working hard.	**New conceptual model: it's the system!** Establish organizations that are accountable for the aims and capable of redesigning practice and managing capacity.
Wrong incentives reinforce the model, reward fragmentation, and induce more care and more entrepreneurial behaviour.	**Rethink our incentives:** Redesign financial and professional incentives to align with the aims of the system.

There is a widespread consensus that our health care systems should have three overarching aims: better health, better care, and lower costs. There is also a growing consensus on the potential role of performance measurement in the achievement of these aims. The condition of individual patients must be examined over time to determine (1) were their risks reduced, (2) what were their functional outcomes, (3) how did they feel about their care experience, and (4) did we provide care at minimal cost? This requires a paradigm shift from the traditional model of autonomy and individual responsibility to one of shared responsibility and accountability.

In order for a model of shared responsibility to be achievable, new models of care will be essential. Specific models such as the patient-centred medical home or accountable care organizations, which emphasize a shared model of accountability, governance, and

responsibility, offer hope for achieving key system-improving objectives. These represent true HHR innovation; the challenges, in the United States and elsewhere, will be leadership and perseverance.

Confronting the Dinosaurs: Key Enduring Challenges to Innovation in Health Human Resources Policy

Alan Maynard (University of York, England)

Michael Rachlis (Health Policy Consultant, Toronto)

"When will patients and taxpayers demand better value for their health care budgets, and when will they get it?" **– ALAN MAYNARD**

Power Asymmetries (Maynard)

Power relationships have played a key role in the shaping of health care systems and represent an enduring challenge to innovation in HHR policy. Power in health care markets is exercised by those who provide care – physicians, nurses and the like – and by commercial interests. Threats to income and employment of these powerful groups invariably lead to coordinated opposition with the intention of retaining power and income. Importantly, the maintenance of current power imbalances is not aligned with the health care needs and wants of society at large, and this incongruence leads to the issues we are currently facing, including a lack of evidence-based care, an abundance of medical error, little measurement of health outcomes, and an inefficient skill mix.

If power asymmetries are, in fact, a dinosaur, then where is our asteroid? Dr. Maynard proposed three possible paths forward, all of which represent decades-old lessons that have yet to be systemically applied: (1) reforming skill mix, (2) measuring patient outcomes, and (3) improving productivity.

In terms of skill mix, there are many situations where nurse practitioners could substitute for physicians, including nearly 80% of primary care tasks. Similarly, registered practical nurses can substitute for graduate nurses in many circumstances, patient bathing for example. These changes are evidence based; however, the resulting redistribution of income and employment breeds resistance among those who would be less well-off in the face of such change.

Patient reported outcome measures (PROMs) in the UK, instituted in a few key areas such as hip and knee replacements, hernia repair, and varicose vein procedures, represent first-steps in the quest for systematic information on quality of care.

Lastly, finding ways to improve productivity by clarifying and measuring the relationship between the inputs (the number of physicians or nurses), outputs (the process of care), and patient outcomes, may be key to confronting power asymmetries.

To "confront the dinosaurs" we need to recognize that clinicians, primarily physicians, manage change in the health care industry, and that we must strive to secure their leadership and participation, while anticipating strong resistance, if we are to achieve real change. We should promote accountability through naming and shaming (based on reliable and routinely collected

information on outcomes) and provide appropriate financial incentives. Pay-for-performance can be effective in this regard; however, there are several potential risks including crowding out of intrinsic rewards that would affect provider retention and satisfaction.

Reform in the area of HHR has always been resisted by powerful interest groups as it often represents a threat to established providers' income and employment. It is also important to note that the recent and continuing surge in the number of medical graduates may act as an additional barrier to the HHR reform agenda, a situation that has direct relevance to HHR reform in Canada. These issues are not new. Indeed, they have been with us for decades. So, when will patients and taxpayers demand better value for their health care budgets, and when will they get it?

The Policy Process (Rachlis)

Why is Canadian HHR policy resistant to knowledge? Traditionally HHR legislation and policy implementation has been controlled by dominant professions (doctors and dentists), and typically played out behind closed doors. Further, provincial medical associations play a prominent, often hostage-taking like role in HHR-related negotiations with governments.

So then, how can new knowledge influence HHR policy in Canada? Theories of the policy process, such as institutionalism, rational choice, and path dependency, provide insights. Contemporary knowledge translation frameworks should incorporate these theoretical insights to overcome the naiveté that limits the predominantly atheoretical extant knowledge translation models in use today.

The necessary conditions for policy-oriented learning (Sabatier) – the presence of two coalitions that have conflicting opinions, an issue that is at least of moderate importance for both, a public forum for debate, and an audience – are often lacking. There must also be enforceable consequences for losing a debate. HHR policy in Canada is suffering from the lack of key elements in this framework. Typically key discussions take place behind closed doors with no audience, no officials, and no yardsticks. Too much health care policy emerges from raw closed-door politics between the medical associations and governments, and medical associations more often than not have the upper hand.

Where is our asteroid? New ways of crafting health policy must be developed and implemented. HHR negotiations between professional associations and the government should be made public, and should focus on wages and working conditions, not on broad policy. Researchers must ensure that their empirical work is grounded in defined theories about the public policy process and that these are also reflected in the translation of research evidence. They must also work with other groups and coalitions to amplify key messages and promote open policy fora to get the pubic involved and invested in the future of HHR policy in Canada.

Critical HHR Success Factors Underlying Effective System Change

Cathy Ulrich (Northern Health, BC)

Brian Postl (Winnipeg Regional Health Authority)

David Levine (Agence de la Santé et des Services Sociaux de Montréal)

Jack Kitts (Ottawa Hospital)

Robert Reid (Group Health Cooperative, Seattle)

Lauren Donnelly (Saskatchewan Health)

"All reform is based on human resources. All of our successes are based on our ability to get the leadership and the people working effectively together...without which none of our system goals can be achieved." **– DAVID LEVINE**

Health care systems are complex adaptive systems whose components are fluid and reactive to each other and to the external environment. The whole cannot be measured as the sum of its parts. This complexity does not lend itself easily to change. Yet, health care leaders everywhere are faced with this challenge. As David Levine noted, no one is alone – there are many working and making progress on the same problems across Canada and the world.

Leading Change

"We need the professional associations to stand up and call for change." **– JACK KITTS**

All panelists in these two sessions emphasized the need for strong leadership to drive reform. Change needs a champion, someone to carry the vision and nurture the dialogues with employees, the community, and other relevant stakeholders. Cathy Ulrich and David Levine both noted that these leaders should be trusted, credible, and ideally should be secure in their positions during change processes.

Where is the leadership going to come from? Different speakers offered different perspectives on this, from across the spectrum of political, management, and health delivery roles. Many of the speakers underscored the importance of clinical leadership – we need the professions to help create the vision for reform, if there is to be any hope of implementation.

Jack Kitts stressed that leadership needs to come from multiple levels. "Ninety-five percent of change in health services delivery now is created on the local level based on local challenges – this sets up a system that is very reactive, fragmented, and piece meal." He suggested that for

real system change, we need to move away from this ‘pilot-project’ approach to alignment across national, provincial, and regional levels.

Leaders must also recognize that health care is political with multiple levels of power and influence. As Cathy Ulrich noted, leaders need to be aware of the political context and take advantage of those windows of opportunities where the recognized need for change, strong leadership, and politics align.

Laying the Foundations for Change

"Care teams must own the process changes." – **ROBERT REID**

Once strong leadership has been established, all speakers recognized the need to develop a strategic vision and focused direction for change. This vision cannot only exist for leaders and management; it must be shared among all stakeholders, especially professionals at the delivery level. Cathy Ulrich noted that while this process takes consultation and time, it represents the foundational work for successful innovation.

Evaluating the Outcomes That Matter

"Quality improvement requires access to relevant and timely data." – **CATHY ULRICH**

When evaluating our successes and failures in change, we need constant feedback on valued outcomes. Speakers noted how current measures tend to be high-level, out-dated, and focused on health care processes and utilization, rather than on health outcomes. We need to focus on outcomes related to improved individual and community health and to develop validated measures and monitoring systems that track these over time.

Robert Reid, speaking from his experience at Group Health Cooperative, noted that a health care organization’s chances of success in implementing HHR-related innovations may be enhanced if the organization has a local research function and capacity embedded within. The Group Health Research Institute has 32 investigators, nearly all funded by external granting agencies. The institute produces high-quality, original research on a wide array of clinical and health services research questions, including the evaluation of innovative delivery models developed within Group Health. This arrangement is made viable as a result of the extensive data available from Group Health’s electronic medical record system. The research capacity within the organization performs both push and pull functions with respect to the use of high-quality clinical and administrative data.

Such evaluation information needs to be provided in the form of timely, local, visual data that can be used to manage daily work by front line providers. Continual and consistent feedback helps to create a sense of ownership over both successes and failures for staff and management alike. When success does occur, high-quality evaluation data are necessary to strengthen the argument for reform on a greater scale or in other care contexts.

Leveraging Partnerships with Universities

"Strong regions require a strong medical school with a strong relationship to the province."
– BRIAN POSTL

Cathy Ulrich, Brian Postl, and David Levine all spoke about the importance of partnerships with research and training programs at universities within their health systems. Universities can engage in the change process by: (1) assisting in the development of evaluation and information feedback processes and (2) training health professionals.

Partnerships between health care delivery organizations and universities can also encourage training programs to address current and emerging system needs, such as a workforce trained in interdisciplinary teamwork and collaboration. Such partnerships allow for coordination and development of research programs and projects that can evaluate innovative health system delivery processes.

The Challenges

"[From a provincial perspective], we struggle with how you take local pilot projects and spread them province-wide." **– LAUREN DONNELLY**

While creating a shared vision within an organization was identified as a fundamental element of successful innovation, staff engagement can be challenging given high rates of turnover and professional and union issues. Any attempted change to scopes of practice will likely be met with "turf protecting" resistance from professional organizations and unions. As Lauren Donnelly noted, "unions want to be involved and develop agreements when change is coming – they want to ensure jobs are secure, roles and responsibilities are appropriate…talk to them before you begin."

For example, Brian Postl reflected on his efforts to make more efficient use of nurse practitioners. While involving nurse practitioners in long term care was easy to implement (as physicians have little interest in long term care), integrating them into emergency departments for the care of less complex patients was met with extreme resistance from both physicians and the nursing union. There was physician resistance because of fears over another profession entering their "turf," and nurse union resistance because of fears over the differential treatment of nurses (in terms of function and compensation). Cathy Ulrich identified similar tensions between professional and union interests and population health needs as a significant barrier to health care reform efforts at Northern Health in B.C.

Another barrier to health care innovation identified by these speakers is the fact that silos of care still exist even in integrated health networks, especially within professional groups (e.g. home care providers do not work collaboratively with palliative care workers). Electronic medical records were seen as a key innovation to increasing integration and achieving continuity of care goals, though Robert Reid reminded us that EMRs are not simply "plug and play" and carry their own challenges in terms of how they are used to encourage integration and continuity within a care model.

Health care leaders across the country recognize that the keys to meaningful, lasting, and effective health care system innovation are to be found in our health human resources. We need to create a motivated, engaged, and empowered workforce and face the challenges of professional autonomy, political resistance, and fragmentation.

Alberta Health Services: Workforce Issues and Transformation

Stephen Duckett (Alberta Health Services)

"There is no such thing as a shortage of health professionals – just a shortage of capable managers." – **STEPHEN DUCKETT**

One year since his inception as CEO of Alberta Health Services (AHS), Dr. Stephen Duckett shared his experiences as steward of the largest merger of health human resources in Canadian history. In 2009, Alberta's nine health authorities merged into a single organization responsible for health services delivery across the province. The merger is complex and the goal is ambitious: to be the best performing publicly funded health care system in Canada.

But how will AHS get there? The hope is to effectively restructure AHS' 90,000 staff and 10,000 contract physicians to support the strategic vision of the new organization. That vision includes an integrated plan of care for each patient and his or her family within ninety minutes of hospital admission. Role optimization and workforce transformation are seen as key elements in this transformation.

Perhaps not surprisingly, given the magnitude of desired change, the process so far has been challenging. A 2010 survey revealed that workforce morale is currently low across the organization, perhaps as a result of early mistakes – staff participation was low (approximately 10%) in consultations to develop the strategic vision for the organization and fear of budget cuts and lay-offs created an unstable environment for nearly all staff. This experience carries lessons for other organizations. While establishing a strategic direction is an important priority for any leader seeking to drive organizational change, establishing venues for staff communication and engagement is essential because if the workforce does not share in, indeed take some ownership of, the vision for the venture, success will be, at best, much more elusive, at worst, virtually impossible.

In addition to supporting current staff, one of the largest challenges facing AHS is to attract, retain, and support a strong workforce to deliver future health care services. Nurse staffing is a particular current challenge – AHS expects that if intake into nursing programs or the role of nurses does not change, there will be a shortage of 6,000 nurses in 2020. These then become key change strategies on which the AHS must focus. Duckett repeated the sentiments of other speakers that maintaining a flexible health human workforce that is responsive to the health needs of the population is more than a numbers game, "Whether or not there is a shortage is based on assumptions of how care is delivered."

Innovative Models of Service Delivery

Patrick McGowan (University of Victoria)

Linda McGillis-Hall (University of Toronto)

Lynn Stevenson (Vancouver Island Health Authority)

Ivy Bourgeault (University of Ottawa)

Cindy Cruickshank (Nova Scotia Model of Care Initiative) / Katherine Fraser (Acute and Tertiary Care Nova Scotia Department of Health)

Laurie Poole (Ontario Telemedicine Network)

Optimizing the utilization of the heath care workforce

Optimizing the utilization of the health care workforce will help to ensure that patients have access to the right providers and services at the right time. While there is some evidence that suggests a link between higher levels of registered nurse staffing and improved patient outcomes (e.g. less pressure ulcers, lower incidence of urinary tract infections and medication errors, lower mortality) within the acute care sector, the context of care delivery has shifted, especially in urban areas with increased utilization and integration of new technology. There is also a growing body of evidence about the utility of interprofessional health care teams. Some of the panelists in these two sessions suggested that HHR innovations may involve adopting new professional roles, expanding scopes for existing roles, or both. Either of these types of innovation may involve interprofessional practice, task sharing, and task shifting. In order to facilitate task sharing, some professional overlap is a necessity; for task shifting, this is not the case. Task sharing and shifting also have different change prerequisites, with the former focusing on regulation, the latter on training. Moreover, even in cases of overlapping roles, different professions do things differently, reflecting a different philosophy on care or mode of practice.

Example I: Chronic Disease Self-Management, Patrick McGowan (University of Victoria)

The chronic disease self-management program was designed to be delivered by peer leaders and widely disseminated. Participants learn a mix of practical skills (communication; problem-solving; working with health care professionals; dealing with anger, fear, or frustration; dealing with depression, fatigue, shortness of breath; and evaluating treatment options) and cognitive techniques. The program also enhances participant confidence through learning, reinterpreting symptoms, and persuasion.

Chronic disease self-management programs are “minimal interventions.” They yield beneficial therapeutic effects without significant investments being necessary and have

few side effects. They provide ongoing systematic provision of education and supportive intervention to increase patient skills or confidence – self-efficacy – including goal-setting and problem solving support. Participants in these programs come to be viewed as experts, along with their leaders. The relationship between the participant and leader is collaborative, and is based on a two-way information exchange.

There are some ongoing challenges. There is a lack of agreement around a conceptual definition of "self-management." Additionally, there may be difficulty in integrating patient self-management education into patient education in general. The greatest challenge, however, is not at the individual level. Instead, it is one of how best to integrate these programs into the system more broadly, to determine what an optimal mix of clinical, community and informal care strategies may be in different circumstances, and to manage the resulting mix of strategies to elicit the best quality patient care possible.

Example II: Model of Care Initiative in Nova Scotia (MOCINS), Cindy Cruickshank (Nova Scotia Model of Care Initiative), Katherine Fraser (Nova Scotia Department of Health)

The MOCINS initiative of Nova Scotia is a partnership between the Department of Health, the nine District Health Authorities, and the provincial women's hospital, which was developed in response to several population health catalysts and fiscal sustainability and HHR issues. The mandate was to design, implement, and evaluate a viable provincial model of acute care that is patient-centred, high-quality, safe, and cost-effective. Importantly, reflecting a common conference theme about the importance of engaging the health care professionals who will have to deliver on whatever innovative models are designed, the program was designed and implemented by nurses, physicians, and others who are responsible for providing care.

The objectives for MOCINS included the efficient deployment of the health care workforce and ensuring that patients can access the right providers at the right time. It is seen as a building block in meeting these objectives. The program model has four levers for change: people, process, information, and technology.

Ongoing activities include provincial leadership activities; developing province-wide standardized role descriptions; providing education on nursing role optimization and professional team development; and development of a provincial toolkit, support network, and evaluation framework. An interim evaluation addressing the degree to which implementation of the new model has affected patients and providers, and its impact on provincial HHR shortages, has also been completed. To date, the program has been viewed positively by patients and providers and has surfaced potential cost savings to the health care system through reduced lengths of stay, and reduced numbers of ER visits.

The MOCINS program continues to demonstrate improvements in health care system efficiency, improvements in quality of care for patients, and improved satisfaction of patients, families and providers. The partnerships between the department of health, health authorities, and women's hospital have been critical for the successful implementation and evaluation of the program.

Example III: Telemedicine Ontario, Laurie Poole (Ontario Telemedicine Network)

The Ontario Telemedicine Network (OTN) is one of the largest and most active telemedicine networks in the world. It envisages telemedicine as a mainstream channel for delivering both health care and health care education.

OTN currently provides four types of telehealth services: telemedicine, telehomecare, asynchronous/store-forward telemedicine, and education and administration. Programs are delivered at more than 925 sites across Ontario in hospitals, nursing centres, mental health facilities, community facilities, and long-term care and other organizations, and are being expanded to some non-health care sites such as prisons. The majority of users are educational attendees; however, the number of clinical providers who use the service is increasing.

How can we address HHR issues using innovations in telemedicine? The program provides a means for delivering care across long distances, helping to overcome the maldistribution of services across the province, and improving access to rare services. It also facilitates quick access to urgent care, improved chronic disease management, and opportunities for education and mentoring.

Example IV: Care Delivery Model Redesign, Lynn Stevenson, Vancouver Island Health Authority

The Care Delivery Model Redesign (CDMR) study is an approach to addressing challenges related to increased demand for services from a limited supply of health care providers by integrating evidence with local experience to redesign care. The objective is to better predict the staff mix that will be required to best meet the health care needs of a defined and well-understood population.

The CDMR progressed as a series of functional analysis studies that focused on clients in several care settings – home and community, residential, and acute care. Studies involved 16 units, 890 staff members, 700 patents, and over 1.1 million observations. Data are collected by the patients and providers and are entered into a data repository using handheld devices. The collected data are used to assess what care is delivered (content); how it is delivered (processes); and how it is organized (structure). These data are analyzed and interpreted, and reports are fed back to staff, resulting in staff-driven recommendations, actions, and subsequent evaluation.

Results thus far indicate that the dictum of more “face time” or direct care = better care may be faulty. Instead, the focus should be shifted to redesigning care delivery processes. The emerging findings from this program offer potential value to any health care system that is struggling with how to improve quality and optimize HHR.

The Health care Training Establishment: Barrier to HHR Innovation?

John Gilbert (University of BC)

Marlene Raasok (Conestoga College, Kitchener, Ontario)

Robert Evans (University of BC)

"Of the making of health occupations, there is probably no end...[b]ut adding more degrees is not innovation that brings system change" **– JOHN GILBERT**

Human Capital: Our Most Valuable Asset

Health human resources comprise the foundation of all effective health systems. What use is a new MRI without someone to interpret the results or a new hospital with no one to care for patients? While the importance of the health care workforce is not in question, the speakers in this session acknowledged the need to rethink the way roles and approaches to practice have been constructed in our system.

Bob Evans reminded us that when seeking to shape the human capital for our health care system we face a significant and unavoidable hurdle: the "human" part of "human capital" – all of this capital is embodied in people. Every dollar spent on health care is also a dollar of income for someone working in, or serving, the health care system. If you stop using human capital – you take the livelihood of the person who owns that capital – "you can't separate the fate of the object from the fate of the person." What results? We avoid making difficult choices and "end up doing more with more instead of doing more with less."

Training, accreditation and licensing of health professionals act to institutionalize this human capital or "knowing" embodied in our health care system. It is far harder to change the form of foundations that are already laid than it is to build them right the first time. If we hope to encourage HHR innovations for the long haul, we need to start at the beginning: in our training institutions.

The "Wicked Problem" of HHR Education

We have been living with a clear disarticulation in what is needed in/by the system, on the one hand, and what established health professions and the institutions that train them are telling us we need, on the other. John Gilbert identified this disconnect as the "wicked problem" of HHR education.

What we need:

- A flexible health workforce ready to meet the changing needs of the population
- Providers ready to work in collaborative, interprofessional teams

How we train:

- Static health professional roles protected by regulation and accreditation
- Competitive programs that produce autonomous providers used to working in isolation

Innovation in HHR requires innovation in training. This does not mean increasing the number of credentials required to practice, and this does not mean creating more, and more distinct, health professions.

Moving Away From Ratio Policy

The HHR "ratio policy," the idea that we need to increase the supply of X's and Y's as the population grows and ages, to improve health care delivery, is one of the key forces reinforcing current HHR training models. Gilbert and Evans both emphasized that HHR problems cannot be solved if the policy response is simply to add more seats in existing training programs. As Gilbert noted, "[h]oping for serenity is not [rational] policy." We need to promote collaboration and coordination early in training and focus on creating a more dynamic workforce, rather than simply a larger one. We need to try new approaches to training and practice education.

Possibility Thinking

Marlene Raasok demonstrated how "possibility thinking" can be turned into reality. At Conestoga College in Kitchener, Ontario, educators are developing innovative curricula for health education built around practical experience, partnerships, information sharing, and collaboration. She emphasized that students must understand the context of the practical roles that they will be playing, and the teams within which they will be expected to work. It follows that leaders in education need to have an intimate understanding of the challenges and the possibilities of real practice situations, to then be able to move forward with innovative teaching models – there must be continuous feedback between the "system" and the training institution. What is required of health care workers in different roles and teams? What is the context in which these trainees will work in the health care system?

To create effective feedback loops between education and practice, Conestoga has developed relationships with four local hospitals and over fifty community care and long-term care agencies. Collaborative relationships have also been forged with McMaster's Medical School, Waterloo's School of Pharmacy, and Laurier's School of Social Work. The result is a joint and collaborative planning process that brings national, provincial, and regional leaders in education and health care to the same table. Formal program advisory committees promote continuous dialogue about curriculum relevance, practicum strategies, and workforce needs. This shared dialogue has resulted in formalized education-provider connections, for example, the college/site practicum liaison network for respiratory therapy. These programs enrich the trainee experience, and health care providers have received graduates positively.

So Much Innovation, So Little Change: Where Do We Go From Here?

Steven Lewis (Consultant, Access Consulting Ltd.)

"Say we didn't have any health human resources and we knew everything we know about the social determinants of health and the health care system and had all the infrastructure in place, what kind of HHR production system would we design?" – **STEVEN LEWIS**

If there has been one common subtext to the presentations over the course of this conference, it would be the urgent need for innovation. Every speaker highlighted the reality that we cannot keep doing what we are doing, the way we are doing it. While there are pockets of HHR innovation across this country and internationally, there has been little systemic change. We need to rethink the definitions and roles of health professionals in our ever more complex health care system.

Are we lost in knowledge translation? Steven Lewis remarked that it might not be a matter of knowledge, but one of leadership. We already know a lot of what to do and a lot of what not to do, but we constantly struggle with who should do it and whether we have the strategy and courage to get where we need to go. Indeed, "we wouldn't be here if we did."

Where do we go from here? Many speakers emphasized the need for a new socialization of the health workforce to promote sharing knowledge, collaborating, and working in interdisciplinary teams. There is a need to rethink what it means to be a professional. The traditional focus has been on autonomy. One of the key messages from this conference was that changing this focus must begin at the beginning – in education. The HHR training establishment is therefore critically important to HHR innovation. As it exists currently, Lewis remarked, "[y]ou end up bringing together professionals with isolated academic heritages, put them in the health system and say, go work in a team." While universities are excellent at educating, they are not nearly as effective at training. Many speakers emphasized the need for a new health workforce comfortable sharing knowledge, collaborating, and working in interdisciplinary teams. "Autonomy is not a virtue in health care."

Lack of flexibility of the workforce is another key challenge. Lewis proposed we start thinking about accelerated training and multiple entry and upgrading options for established professionals looking to work in new areas, especially if those areas are aligned with population health needs. He suggested that there are, at present, too many different "types" of health care professional, each of which has unnecessarily rigid scopes of practice. Training programs keep getting longer, more isolated and more graduate-focused, which seems to be at odds with the nature of a significant share of health care needs. Trainees tend to graduate knowing little to nothing about the system in which they are going to work, how it is organized, regulated and financed, its historical, philosophical and political roots, and ultimately, what it means to be a steward of resources in such a system. Pockets of collaborative training can be found in Canada, but these initiatives do not proliferate because the institutions in which most training takes place (universities) work to fundamentally opposite incentives.

The concepts of responsiveness and flexibility may be more readily embraced within Colleges, which seem more committed to the training function, use modern pedagogy, and can be more nimble in terms of working closely with those in the health care system. Colleges may become the central educational institution for health care unless universities can adapt and start training for the public interest.

In general, health care employers need to become more engaged in the design of health care training programs. They have both important knowledge and the right incentives.

And then there are the numbers. "Did we blow it again by upping medical and nursing school enrollment?" Canadian schools have begun to set loose a huge number of eager new graduates into a fiscally constrained environment. All those people who were thought to be leaving will not be leaving so imminently because of the downturn in the economy and the financial insecurity that the last five years have visited upon them. So, we are in for some interesting turmoil.

Is further research needed? "We do know a lot of what works." Lewis recommended that we work to clearly define what and how many HHR roles we need in this system. We need to resist the argument that things are too complex or that the barriers to change are insurmountable. We just need to become more creative about, and committed to, ensuring that what works and what we know gets applied more widely, in the service of meeting the changing health needs of our population.