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The Health of Countries: What Canada Can Learn From Japanese Hospitals¹

By Charles McMillan and James H. Tiessen

Executive Summary

This commentary begins the process of learning from Japan's healthcare system. Why Japan?

There are several reasons. First, it is well known that Japanese have the longest life expectancy in the world, next to Andorra. Second, Japan's universal healthcare system is well established, as it was implemented by 1961, about 10 years before all the provinces formed part of Canada's Medicare system. Third, Japan's system is relatively inexpensive, accounting for about 8% of GDP, compared to 10% in Canada, despite Japan having a significantly older population. Further, this system is more comprehensive than Canada's, so public financing makes up about 82% of spending, compared to about 70% in Canada.

Despite these facts, Japan's healthcare system has received limited attention from policymakers and researchers who tend to look to the US, Europe, Australia and New Zealand for ideas and policy prescriptions. Despite the exemplary and useful comparisons, it is time to add Japan to this list. Further, it is important to reach beyond the system level and examine hospital management, and the implications of the systems for delivery. This can lead to international management learning analogous to that that occurred as Japanese practices such as kaizen and kanban (just-in-time) delivery systems that were adopted internationally in the 1980s and 1990s.

Japanese hospitals operate in a policy environment much different from that in Canada. First, Japan allows many types of ownership (e.g.. private, public, individual, corporate, prefecture, city, etc) compared to Canada where most hospitals are, in practice, public. Further, hospitals are mainly paid fee-for-service in Japan, not globally as in Canada. This means Japanese hospitals have greater variety of approaches, and they tend to compete for patients.

Our study of six hospitals, three in Japan and three in Ontario, found that the Japanese hospitals tended to vary more in their approach to management than the Ontario

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hospitals. As well, the Japanese hospitals are used much less intensely than their Ontario counterparts. Shorter patient lengths of stay and generally lower professional costs mean that the Japanese hospitals have much lower revenues per bed per year. Another finding was that Japanese hospitals tend to use traditional Japanese practices like kaizen (continuous improvements) consensus decision-making, even within the usual bureaucratic norms of central control systems. There is some blurring. For example, only two of the three Japanese hospitals and one of the Canadian sites, employed kaizen and quality improvement processes.

In sum there is much to be learned from Japanese healthcare, particularly hospital management practices. The exploratory nature of the study and small sample precludes the making of profound claims at this time. Yet, the overall performance of the system, including the range of variety of approaches fostered by it, together with the preliminary findings, is intriguing. It is time to move beyond considering Western practices alone, and national level analysis, if we are to learn new ideas from the apparently efficient healthcare system in Japan.

Introduction

Healthcare is a vital national issue everywhere, and now directly impacts economic and justice issues. As populations' age and the sophistication and cost of health technologies and drugs grow, spending in this sector absorbs greater shares of national and family incomes. These financial strains are compounded by the high expectations of 'consumers,' empowered by high education levels, television, and the Internet.

In advanced societies, healthcare costs are the fastest growing component of national spending. In the United States, the only advanced country without a universal national system, healthcare costs are approaching 16% of annual GNP, the highest in the world. The 2008 US election puts healthcare delivery, and the possibility of a universal system, at the forefront of the presidential campaign. Various films and documentaries, e.g. Michael Moore's polemical *Sicko!* and PBS's *Frontline: Sick Around the World*, illustrate that no one country has all the answers.

Healthcare systems have grown out of national circumstance, history and political orientation. National health systems stem from the Bismarckian welfare schemes of Germany in the nineteenth century, followed decades later by Britain's National Health Insurance Scheme, first proposed in 1941 by William Beveridge. The Canadian medicare system and the Canada Health Act stem from the recommendations of the Hall Royal Commission in the early 1960s.

Developed economies look to other systems as they calibrate the delivery of primary and acute care. Yet, this sector tends to lag other industries in the adoption of best practice management tools. Two immediate examples stand out: the use of information technology and employee training. In areas like investment banking, retailing and auto manufacturing, annual expenditures on IT amount to 4-8%. In healthcare, annual expenditures amount to about 1% or less. Similar differences exist in spending on training, a paradox because on average, health workers – doctors, nurses, paramedics - are highly educated.

In most industries, organizations are compelled by international competition to learn from others in order to survive. In fact, those active in the technological systems of healthcare -- medical devices and instruments, MRIs and scanners, PET equipment -- face these pressures, and this accelerates innovation. By contrast, hospitals rarely face this type of competition, although they may need to compete for public funds. Further, since there are very few multinational hospitals, this type of international learning is not readily facilitated. As a consequence, there is an urgent need for policymakers to understand how hospital management differs by country, and how they face similar organizational problems at strategic and operating levels.

This commentary starts with a look at the structure and performance of Japan's healthcare system. We then turn our attention to the comparative case study of six hospitals, three in Japan and three in Ontario, Canada's largest province, to see how the system features are manifest in practice. We suggest some tentative findings and implications for hospital management.

Why Look at Japanese Healthcare?

Japan's healthcare system warrants international attention. The World Health Organization's 2000 ranking of systems placed it first in the world in terms of the population health (Disability Adjusted Life Expectancy) and "Overall goal achievement," as shown in Table 1. It was also a leader in terms of the "fairness in financial contribution," and ranked tenth in overall system performance.

Table 1
The World Health Report
Country ranking (total 191, 1997 data)

Country	Attainment of goals					Performance		
	Overall Goal Achievement	Health		Responsiveness		Fairness In \$ Contribution	Level of health	Overall system
		Levels (DALE)	Distribution	Level	Distribution			
Japan	1	1	3	6	3-38	8-11	9	10
France	6	3	12	16-17	3-38	26-29	4	1
Canada	7	12	18	7-8	3-38	17-19	35	30
Britain	9	14	2	26-27	3-38	8-11	24	18
Italy	11	6	14	22-23	3-38	8-11	24	18
Australia	12	2	17	12-13	3-38	26-29	39	32
Germany	14	22	20	5	3-38	6-7	41	25
USA	15	24	32	1	3-38	54-55	72	37

Source: World Health Organization, 2000

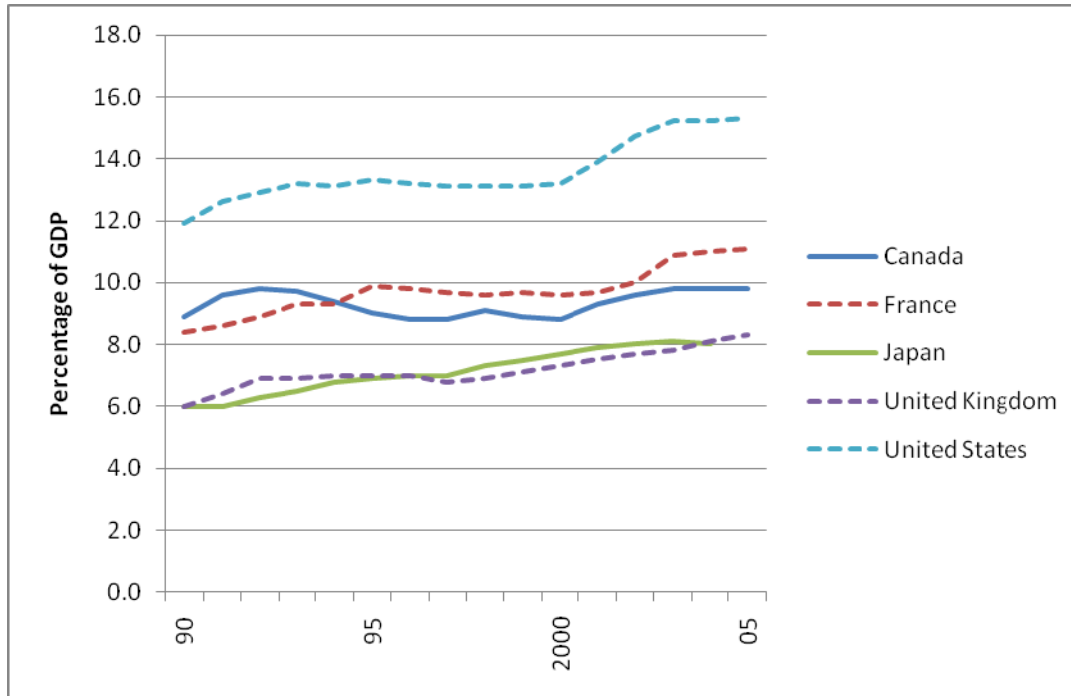
Japan's system performs better than Canada's, measured on several indicators. On average, Japanese can expect to live longer -- 82.8 years in 2005 -- than Canadians -- 80.2 in 2004 (OECD 2007).² Recent OECD data show that in 2004 Japan spent US\$2,901 per person on healthcare, compared with Canadian spending of \$3,430 in 2005 (OECD 2007). Japan has accomplished this with a less privatized system: 81.7% of Japanese healthcare expenditure is publicly funded, compared with 70.2% in Canada.

Annual Japanese cost expenditures, though rising, remain moderate. In 2004, Japan spent 18% less than Canada. When adjusted for purchasing power parity, the difference is more dramatic: Japan spent the equivalent of US\$2,358 in 2004, while Canadian outlays were US\$3,326, or 41% higher.

Figure 1 and Table 2 show that the share of Japan's GDP committed to healthcare (8.0%) is significantly lower than the Canadian ratio (9.8%, in 2004), though Japan's coverage, unlike Canada's, includes drugs and dental care for all, i.e. not only for senior citizens or for the poor. Further, its population is older: more than 20% are 65 years or more, compared with about 13% in Canada. Table 2 also shows that Japan has superior performance in terms of infant mortality.

² The life expectancy of Japanese women was 85.5 years in 2005, and for men it was 78.6. For Canada these numbers were 82.6 and 77.8, respectively in 2004.

Figure 1
Total Health Expenditure as Share of GDP (1990-2005)



Source: OECD 2007

Table 2
The Health of Nations: International Comparisons

	Health spending, % of GDP	Doctors/1,000 population	Hospital beds/1,000 population	Infant mortality, deaths/1,000 live births
Japan	8.0	2.0	14.1	2.8
Canada	9.8	2.2	3.4	5.3
US	15.4	2.4	3.2	6.8
UK	8.1	2.4	3.9	5.1
France	11.1	3.4	7.5	3.6

Source: OECD 2007

Japan has fewer doctors per capita than many other countries, including Canada, though relatively, it has many more hospital beds. A key reason for this is that average lengths of stay are much higher in Japan, and this was shown in our hospital level data discussed below. A related factor is that some hospital patients are, in fact, long-term patients who should be in long-term care facilities. This is a problem that Japanese health bureaucrats have been addressing.

Japan's healthcare system performance can be partially explained by its relatively lean, centralized cost control. Medical fees payable by the government are negotiated with

biannual revisions between leading stakeholders, such as doctors, nurses and hospital employees. Unfortunately, it is difficult to compare fees payable by government to providers between countries. However, Table 3 suggests that Japanese payments for services are not necessarily lower than those in Canada.

Table 3
Fees for selected physician services in Japan and Canada

Medical care activity	Japan cost (C\$)	Ontario cost (C\$)
Physician consultation	26	56
Artificial knee	2,200	1,268
MRI image	120-140	61-142
Cataract removal	150	413

Note: Exchange rate \$1.00=¥102

Sources: OHIP 2008, Social Insurance Research Centre 2007

Japan fosters a shrewd mix of economic and social policies that balance general education and national health outcomes. The net result is the nation's favourable situation in terms of key health determinants: equality of income distribution, diet and urban population. The health system clearly addresses non-health concerns and it is linked to lower levels of "expensive social phenomena such as crime, divorce, teenage births, drug use, high-speed motor vehicle accidents, and incidence of human immunodeficiency virus (HIV)" (Ikegami & Campbell 1999:61). Healthcare, in short, is not isolated from broad demographic, economic trends and resource commitments.

The Operation and Structure of Japanese Healthcare

Japan's healthcare system, briefly summarized in Box 1, is based on social insurance principles and many insurance funds, public and private. A key factor affecting hospitals is that they are generally paid 'fee for service,' not funded globally as in the typical case in Canada. Second, Japanese hospital ownership can be public or private, as long as it is not-for-profit. Together these policies mean hospitals actively compete for patients.

BOX 1: Public Health Insurance in Japan

By 1961, Japan had implemented universal healthcare coverage, though it is a more complicated system than in Canada. There are three main pools, based on employment, residence or age. The employment-based pool, covering about 59% of the population, comprises three groups: the “Government-managed” program for SME employees and dependents (27.7%), about 1,500 “Society-managed” plans run by large firms for their employees (23.4%) and “Mutual Assistance Organizations” (7.5%) for civil servants. “Citizen’s Health Insurance” is the residence-based plan for 37.1% of the population -- for the self-employed (such as farmers), the jobless and the elderly.

People in work-based plans are covered past retirement until they reach a certain age, when they become part of the elderly pool. Citizen’s Health Insurance is run at the municipal level. Municipal mergers have reduced the number of these pools from more than 3,000 at the end of the 1990s, to just over 1,800 in 2006. From 2008 there is a new obligatory plan, run by municipalities, for people 75 and over.

The employment-based insurance pools are financed by premiums totaling 5-10% of wages, shared by employees and employers. For Citizen’s Health Insurance, government subsidies cover 50% of premiums, in lieu of employer contributions. The new elderly plan for those 75 or more is funded by premiums, general government funds and transfers from the other plans. Those aged 65-74 are enrolled in other pools, and transfers between funds aim to balance contributions.

Most Japanese, unlike Canadians, pay co-insurance for healthcare services. The regular rate is 30% of the set medical fees. These fees are set nationally by the central government through negotiations between doctors, the government and insurers.

Sources: Campbell and Ikegami (1998), MHLW (2007), Tiessen (2005)

The difference in the variety of ownership of Japanese and Canadian hospitals is particularly striking. In 2002-03, Canada had 746 hospitals with 115,120 beds (CIHI 2005). Of this total, only six hospitals, with 266 beds, were operated by the federal government. Twelve were grouped as proprietary or private and these had a total of 814 beds. In sum, non-public hospitals comprised less than 1% of total hospital beds in Canada.

The situation in Japan is very different, as it displays a range of hospital ownership types, as seen in Table 4. About 60% of hospitals, accounting for about half of all hospital beds, are owned by private medical care corporations. 20% of hospitals are public, owned by national, prefectural or municipal governments or other public medical organizations; these account for about 30% of beds. The ‘fee for service’ payment schemes, together with the variety of ownership forms, suggest Japan’s hospitals are likely to demonstrate a broader range of structures and approaches to delivery.

To stress again, despite these differences in hospital ownership, Canada's system relies more on private funding than Japan's.

**Table 4:
Japanese Hospitals by Ownership**

	No. of General Hospitals (%)	No. of Beds (%)
National	291 (3.7)	125,295 (7.7)
Prefectures and municipalities	1,013 (12.7)	250,817 (15.4)
Other public medical organizations (Red Cross, Hokkaido Social Service Association, Agricultural Cooperatives, National Health Organizations)	297 (3.7)	100,437 (6.2)
Social insurance organizations (Mutual Aid Associations, Federation of National Social Insurance Associations etc.)	129 (1.6)	37,525 (2.3)
Public welfare corporations	337 (4.2)	94,864 (5.8)
Medical care corporations	4,820 (60.6)	839,354 (51.4)
Social welfare corporations	175 (2.2)	32,453 (2.0)
Schools (private) and other corporation	145 (1.8)	63,266 (3.9)
Health co-operative associations	79 (1.0)	13,216 (0.8)
Companies	55 (0.7)	12,404 (0.7)
Individuals	615 (7.7)	61,842 (3.8)
Total	7,952	1,631,473

Source: Ministry of Internal Affairs and Communication, 2008

“Japanese Management” and Healthcare

The recognition of Japan's economic prowess gave rise to a rich literature on Japanese management that emerged in the 1970s and exploded in the 1980s. This work identified several key features of Japanese management and organization that were linked to national competitive behaviour. This hospital research program starts with a view to understanding whether, and how, “Japanese management” contributes to hospital performance and outcomes.

Key features of “Japanese management” in the private sector include human resources practices such as age-based promotion, lifetime employment, job rotation, training and consensus decision-making. Japanese organizations also are renowned for quality practices such as quality circles and kaizen (continuous improvement).

In terms of organizational culture and design Japanese organizations also tend to demonstrate centralized management structures. Japanese approaches have been widely adopted in the West, particularly in the manufacturing sector.

Despite the economic stresses Japan endured through the 1990s, there is evidence that many archetypical “Japanese management” practices have survived, partially because they are embedded in Japan’s culture and consensus values (Clegg and Kono 2003). However, they suggest that, though the orientation toward centralization remains, it has been relaxed somewhat. That said, the a priori assumption in this study is that Japanese hospitals will tend to remain centralized and incorporate Japanese HR and quality practices.

Hospital findings

Six participating hospitals, three in Japan and three in Ontario, agreed to cooperate in this study. The CEOs and their management team answered a comprehensive survey, provided in both Japanese and English. Items on the questionnaire included general context (age, number of beds, market served and competition), performance (length of stay, number of patients) and financial variables (total revenues, costs). Some items were adapted from the Ontario Hospital Report Card and the “balanced scorecard” used by Chen et al (2006) for their comparison of a Japanese and Chinese hospital.

For comparisons of organizational structural dimensions and design, we adapted the Aston Research Program (Hickson et al 1979; Hickson and McMillan 1981) to the healthcare context. The Aston program considers context variables such as size, operations technology and integration, and dependence on external organizations. The structural variables include centralization of decision-making, the focus set out in this commentary.

The Hospitals

The three Japanese hospitals are in different cities on Japan’s main island, Honshu. J1, based in a mid-sized city, was founded by a religious welfare society that also runs long-term care and educational facilities. This hospital, categorized as private, has been ranked among the best in national surveys.

Hospital J2, also in a mid-sized city, is owned by the prefecture³. Its status as a prefectural hospital has two implications. First, most of its employees are civil servants, that is prefecture employees. This means that several senior non-medical administrators, are rotated into their positions from other prefectural departments. For example, one had previously been posted in the Department of Agriculture, Forestry and Fisheries. Another feature is that the hospital is required to maintain beds for potential tuberculosis patients.

The other Japanese hospital, J3, is a teaching hospital associated with a prominent public university in a major city. The hospital is part of the university, not a separate, associated entity.

³ A prefecture in Japan is analogous to a province or state.

The three Ontario hospitals are also from three different cities. All were involved in mergers or consolidations as the province restructured the hospital system during the 1990s. C1 is a teaching hospital associated with a medical school in a mid-sized city. C2 is a faith-based teaching hospital, based in a large city. C3 is a community hospital in a small city. The three hospitals are located in three different Local Health Integration Networks (LHINs).

Table 5 shows summary statistics describing the age, location, ownership types and sized of the participating institutions. Two of the Japanese hospitals are public, while all three Canadian ones are publicly-owned. Every attempt was made to match the hospitals in terms of size and location. However, the Japanese hospitals tend to have more beds than the Canadian sample from Ontario. The three Canadian hospitals are more than 100 years old. By contrast, only one Japanese hospital, founded in the Meiji era, dates from the 19th century.

**Table 5:
Profile of Six Hospitals – Japan and Ontario (2007)¹**

	J1	J2	J3	C1	C2	C3
General						
Year Established	1962	1983	1871	1878	1892	1998 ²
Location	Medium urban	Medium urban	Large urban	Medium urban	Large urban	Small rural
Ownership	Private/ Faith-based	Public/ Prefectural	Public	Public	Public/ Faith based	Public
Type	Community/ Urban	Community/ Regional	Teaching	Teaching	Community/ Teaching	Community
No. beds	744	620 + 100 TB	1,035	744	543	494

Notes: 1. Participant hospitals requested anonymity.
2. The merger of two hospitals, one founded in 1885 and the other in 1890, was in 1998.

Table 6 summarizes key resource and operating characteristics. The data differ substantially, particularly showing contrasts on financial issues. The Ontario hospitals are used much more intensely in terms of in-patient and out-patient volumes, and thus have higher relative revenues than their Japanese counterparts, although the occupancy rates are roughly comparable. However, the average in-patient length of stay in the Ontario hospitals ranges from 6.5 to 7.4 days, compared to 12.7 to 18.3 in the Japanese sample. The Ontario patients tend to require more care per day during their stays.

**Table 6:
General Operating Characteristics of the Sample (2007)**

	J1	J2	J3	C1	C2	C3
Volume						
No. inpatients, annual, '000	19.4	14.4	16.2	37.8	24.9	15.5
No. outpatient, annual, '000	536.2	390.0	528.3	795.0	731.0	161.9
No. outpatients/No. inpatients	27.6	27.1	32.6	19.8	29.3	10.4
Total revenue, Annual, C\$ '000,000	210	171	256	853	532	176
HR & performance						
Occupancy rate (%)	94.5	92.7 ¹ 26.4 ²	82.6	96.0	88.0	94.8
Average length of stay (days)	13.2	12.7 ¹ 70.8 ²	18.3	7.4	6.5	7.0
No. inpatients/Bed/Year	26.1	19.4	15.6	50.8	46.6	31.3
Employees	1,566	947	1,431	8,500	5,043	2,000
Doctors	218	143	338	718	579	300
Nurses	750	549	643	3,100	1,502	1,325
Nurses/Bed	1.01	0.76	0.62	4.16	2.76	2.68
Doctors/Bed	0.29	0.23	0.32	1.96	1.08	0.61
Information technology						
IT spending as % of total revenues	1.9%	1.6%	2.3%	n.a.	1.6%	1.2%
Electronic records as information source for medical images	Prime source & remote access	Prime source	Prime source	Prime source & remote access	Prime source & remote access	Prime sources & remote access
Electronic records as information source for clinical documentation:						
a. Nurses	Prime source	Prime source	Prime source	Not prime source	Not prime source	Not prime source
b. Doctors	Prime source	Prime source	Prime source	Not prime source	Not prime source	Prime source

Notes: 1. for regular patients
2. for tuberculosis patient

The total revenues of the hospitals in Ontario were overall much higher than their Japanese counterparts. The smallest Canadian hospital, C3, had revenues comparable to the smallest of the Japanese hospitals, J2, despite serving only 8% more inpatients and less than half as many outpatients. Revenues at the Japanese teaching hospital, J3, were less than one third those of the Canadian teaching hospital, C1, though J3 has 33% more beds. This suggests that small hospitals, with a coordinated flow through of patients, can lower overall costs per patient.

The data suggest that the higher Canadian revenues are needed to cover much higher costs. Why are the Canadian costs higher? First, as noted, hospital stays are shorter: patients able to recover outside the hospital are discharged, leaving room for patients requiring more complex care. The Canadian hospitals engage relatively at least twice as many physicians, as the doctor/bed ratios indicate. The data do not allow us to compare the funds allocated to doctors: the Japanese doctors are employed on salary by the hospitals, while the Canadian compensation may be based on fee-for-service, salary and/or blended salary/activity rates.

The number of nurses per bed ranges from 0.6 to 1.0 in Japan, compared to 2.68 to 4.16 in the Ontario group. To some degree, there is a comparability issue: the Ontario numbers include part time and casual nurses, around one-third to four-tenths of this group, while virtually all of the Japanese nurses are full-time. Nonetheless, a conservative estimate of full time equivalents reduces the nurses/bed ratio to a range of 2.1 (C3) to 3.3 (C1), still more than double the Japanese level.⁴ Again this reflects the fact that the Japanese patients require lighter care during the end of their longer stays.

Another cost-related factor is that generally Japan's healthcare system appears to provide somewhat lower compensation for nurses than in Canada. Our interviews suggested nurses in Japan were being paid an average equivalent of around \$40,000 to \$50,000 a year, compared to about \$60,000 or more in Canada. This is supported by a 2007 international survey of nursing associations that showed starting salaries average US\$44.3K in Canada and US\$26.6K in Japan, in purchasing power parity terms (International Council of Nurses 2007).

Doctors also tend to be paid more in Canada than Japan. In Japan, a 2007 Ministry of Health and Welfare survey found that the average hospital physician was paid a salary of about C\$140,000 a year, while those who ran their own clinics earned about \$250,000 a year (Nakamura 2008).⁵ By comparison, in Canada, average fee-for-service billings in 2005-06 were about \$211,000 for full time general practitioners and \$281,000 for specialists (CIHI 2008). Removing an average overhead of about 30% gives estimated net incomes of about \$150,000 and \$200,000, respectively. The hospital doctors in Japan, who are mostly specialists, are probably less expensive than their Canadian counterparts.

⁴ Assume 40% of nurses are part time or casual, working half time. This means that the FTE number of nurses is 80% the reported amount.

⁵ The Japanese figure is ¥1.4 million a year for those on salary, and ¥25.3 million for those who operate their own clinics.

Recent Japanese healthcare policy initiatives attempt to reduce hospitals' reliance on outpatient revenues, which have been high due to the general underdevelopment of physician-based primary care. The data collected show that in general, the Japanese sample had higher, and a narrower range of ratios of the number of inpatients to outpatients, 27.1 to 32.6 to 1. In contrast only one of the Canadian hospitals (C2) had a ratio (28.3) similar to the Japanese, likely due to its urban location and its role as a trauma centre. The other two hospitals served relatively much fewer outpatients.

Overall, the figures do not reveal great differences in the resources committed to and the use of information technology. The five hospitals that reported the data spent from 1.2% to 2.3% of revenues on IT. In many respects the hospitals in both countries tended to use electronic records for patient registration, pharmacy/drug profiles and diagnostic imaging. In the Ontario hospitals, these data were generally accessible off the hospital site; in Japan, most data could only be accessed in the hospital itself. One difference was that the Japanese hospitals tended to use electronic records for clinical documentation by nurses and doctors; in only one Ontario hospital, C3, were such records the main source of information.

In sum, the data suggest that the Japanese hospitals demonstrate economic efficiency, using less labour per patient, producing lower revenues per patient, thereby incurring less cost. Much, but not all of these differences, could be attributable to the longer lengths of stay. The hospitals in both countries in general were moving toward using electronic records as the main sources of patient information, with the exception of clinical documentation. The Ontario hospitals, while appearing to be more expensive in financial terms, use their valuable assets more efficiently. It is an empirical question whether intense hospital use cuts overall system costs.

“Japanese Management”: Centralization and Organizational Practices

The modified Aston Centralization instrument asked respondents at which organizational level 36 different operational, managerial and strategic decisions were made. The responses showed that both Japanese and Ontario hospital management involves consultation between levels of responsibility, e.g. the Ministry, the Board, or senior management.⁶ The Japanese hospitals tend to be more centralized because management reports to their formal owners. By contrast, the Ontario hospitals tend to be more autonomous, where decisions are made within the hospital. On this account, it could not be determined whether the Japanese hospitals exhibited more “Japanese management” in terms of centralization.

One of the Japanese hospitals, the private, faith-based one, and one Ontario teaching hospital, reported that for 15 of the 36 decisions, three levels of the organization were consulted. Another Ontario hospital (rural, community) reported several decisions involved more than one level, reflecting consensus decision-making. Only one Japanese hospital reported a single level for all decisions. The J2 (Public, prefectural) representatives said that, as in the other sites, many decisions are considered over

⁶ The authors can supply the survey results upon request.

several levels; however, they reported the level at which the decision is made. For coding responses, we reported the highest level, which may make the organizations seem somewhat more centralized than they be in practice.

The questionnaire also inquired about the degree ('never', 'sometimes' or 'usually') to which typical "Japanese management" practices were used. The results showed that overall, "Japanese" HR policies such as lifetime employment, job rotation, and seniority promotion were typically applied to nursing, administrative and other staff in Japanese hospitals. The Japanese government hospital was less likely to apply these principals to doctors and administrative staff. In contrast the Ontario hospitals did not have lifetime employment policies. Two of them, the teaching and community hospital, sometimes practiced seniority promotion and job rotation of nurses and administrative staff.

Kaizen, the philosophy of continuous improvement, showed some differences. Two of the Japanese hospitals and the Canadian teaching hospital indicated they practice Kaizen and quality circle management. Curiously, the Japanese teaching hospital, the oldest by far, notably does not conduct these types of activities.

The preliminary study findings suggest that Japanese hospitals are more "Japanese" in their management approaches than the Ontario group. However, the Ontario hospitals did display some "Japanese" characteristics in their practices. The degrees to which this affects hospital performance cannot yet be determined. However, operating data suggest there are general efficiencies in the Japanese hospitals, and these results may be partly attributable to the organizational culture fostered by "Japanese management."

Conclusions & Implications

System level data show that Japan's healthcare system is worth studying so lessons can be applied to the challenges facing Canadian policymakers. Japanese healthcare is relatively inexpensive, despite the large share of seniors in the population, and it delivers good outcomes, as identified by the WHO. Key features of Japan's system include the high level of public financing, the broad range in hospital ownership types, and fee-for-service funding, which fosters competition for patients.

This study begins the process of moving beyond the system level to the realm of hospital management in order to learn how the system works. In Japan, the range of ownership options and competition for patients means that Japanese hospitals are better able to organize people and expenditures according to functional needs, in order to seek operating efficiencies and quality necessary compete for patients and deliver services. In contrast, the global financing system in Ontario institutionalizes similar approaches to the management of delivery.

The operational data highlight several differences. Notably it appears that Japanese hospitals play an important role in achieving the cost efficiencies identified by national aggregate statistics. The labour used per bed in Japan is significantly less than in

Canada, partly because the longer stays in Japan mean many patients receive lighter care. Hospital revenues are relatively lower, which in a non-profit environments, mean costs are lower as well. On the other hand, the Canadian hospitals show an ability to use assets more intensely than their Japanese counterparts. The study also suggests that the hospitals in both countries are all moving toward using more IT, though the Japanese may be moving ahead in using it as a main source of clinical documentation.

Figure 2

Japanese and Ontario Hospital Contrasts	
<p>Japanese Hospitals:</p> <ul style="list-style-type: none"> ⇒ Have diverse ownership ⇒ Compete more for patients ⇒ Have lower revenues per bed ⇒ Are less nurse and doctor intensive ⇒ Are less capital intensive ⇒ Have more diagnostic technology ⇒ Have longer lengths of stay ⇒ Have more centralized human resource strategies ⇒ Are generally more consensus oriented 	<p>Canadian Hospitals...</p> <ul style="list-style-type: none"> ⇒ Are publicly owned ⇒ Demonstrate less variation ⇒ Have less competition ⇒ Have much higher revenues per bed ⇒ Are more nurse and doctor intensive ⇒ Have shorter lengths of stay ⇒ Have more decentralized human resource strategies ⇒ Have less control over service boundaries

While long average lengths of stay may lower individual hospital costs, in practice, longer stays may raise system-wide costs. Yet the national numbers show that Japanese costs per capita are much lower than Canadian costs, as shown in Figure 1. This finding raises an important question: does shortening length of stay lower system wide healthcare costs? If hospitals are inexpensive, shortening stays may not be as critical as high-cost facilities in the Canadian context.

The second finding from the study indicates that more work needs to be done to find evidence of Japanese management in Japanese hospitals. HR decisions tend to be made at lower levels in Canadian than Japanese hospitals. With respect to these matters, the hospitals in Japan were more “Japanese.” However, one Japanese trait stands out: to work hard and efficiently to serve the total organization was tangible. The understanding gained from a program of comparative hospital management research would enable researchers to identify best practices and spread that learning internationally.

This study’s limitations come from the small sample and the complexity of making comparisons when the financing and payment environment differs as much as it does. That said, there is scope to refine the decision processes, increase the sample, include

boardroom responsibilities, and focus on back office-front office similarities and differences that affect health outcomes.

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