Health systems article

Comparative Health Care Systems Canada And Sri Lanka

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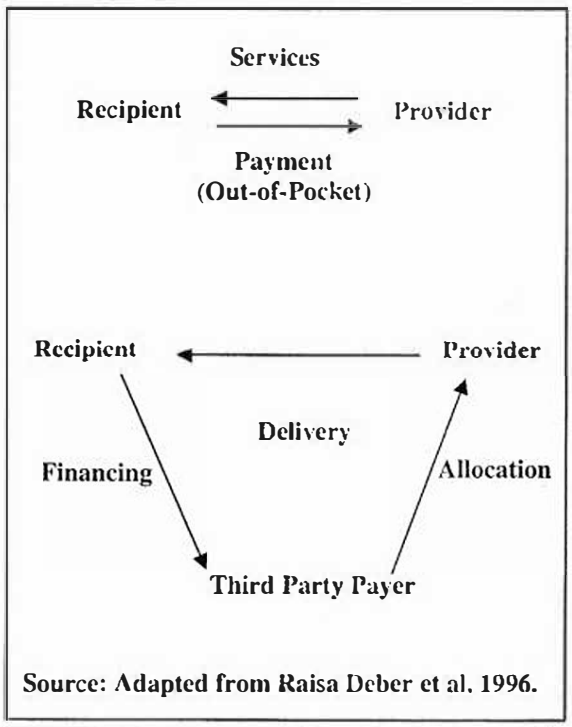
Introduction

Every country has a health care system, however fragmented or unsystematically it may seem to operate. Political culture and availability of resources are two important factors that determine the nature of a country's health care system and the means by which the system is sustained. Today, health care systems represent one of the largest sectors in the world economy. Global spending on health care was about 8% of world gross domestic product (GDP) (1).

The main actors in a health care system are recipients and providers of health care. However, unlike in other markets, for health care, usually there is a third party that offers protection to the population against the financial risk of falling ill by allowing risks to be shared. (2). The relationship among these actors is summarized in Fig. I. Accordingly, if a patient decides to pay out of his pocket to the provider for the services he receives, then there is no third party involvement.

Fig. I: The main actors and the functional components of a health care system



Source: Adapted from Raisa Deber et al. 1996.

For the sustainability of a health care system, there should be mechanisms in place to finance health care, to deliver the services and to ensure the flow of resources from those paying for care, to those delivering it (3). This paper attempts to analyze how the health care systems have been organized in Canada and Sri Lanka based on these mechanisms. It also intends to highlight some lessons that could be learnt from the experiences of two totally different health care systems, which have been acknowledged in policy circles as equitable and efficient for different reasons.

Findings

Canada's health care system is regarded as a major contributor to its number five world ranking on the Human Development Index (HDI) (4,5). Although ranked 93rd according to the HDI, Sri Lanka is far ahead of its Southeast Asian neighbours in the accomplishment of human development goals (5). Some of the key indices of both countries are shown in Table I.

I. Organization of health care systems

The health care system in Canada is predominantly public financed but privately delivered. It provides access to universal, comprehensive coverage for medically necessary hospital, inpatient and outpatient physician services (4). Really speaking, it is a set of provincial / territorial insurance plans that are linked through adherence to the five principles set at the federal level namely public administration, comprehensiveness, universality, accessibility and portability.

In addition to support in financing, the federal (i.e. central) government functions include health protection, disease prevention, and health promotion (4). It is also responsible for direct health care delivery to specific groups including veterans, aboriginal people and military personnel. The management and delivery of health care is the responsibility of each individual province or territory. They plan, finance, and evaluate the provision of hospital care, physician and allied health care services, and some aspects of prescription care (i.e. pharmaceuticals) (4). The responsibility for public health activities such as environmental health, disease surveillance and health education is shared between the three levels of government: federal, provincial/territorial and local or municipal (4).

The system in Sri Lanka is a public and private mix financing and delivery of health care. Since independence, successive governments made it a

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Table 1 – Some key indices and demographic characteristics: Canada and Sri Lanka

Demographic Characteristics	Canada	Sri Lanka
Population '000 (2005)	32,268	20,743
Total area (km^2)	9,976,140	65,610
Population density (person/ km^2) (2005)	3	316
Annual population growth (1994 – 2004)	1.0	1.0
Total fertility rate (2004)	1.5	1.9
Population aged 60+ (%) (2004)	17.5	10.5
Gross National Income Per Capita (US dollar) (2003)	23,930	930
Population living below poverty line (% with < 1dollar per day income) (2003)	Nil	6.6

Source: World Health Statistics & World Health Report 2006

priority to develop an equitable health care system with a focus on primary health care. The national health policy of Sri Lanka has been governed by a commitment to provide comprehensive and free health care to the entire population (6). This policy is applied to both preventive and curative programmes. The key functions of the central government include setting policy guidelines, training of health personnel, management of teaching hospitals and specialized medical institutions, and bulk purchase of medical requisites (7). The Provincial Councils carry the final responsibility for providing health care at provincial level.

II. Financing health care system

In Canada, **medically necessary** services are financed primarily through general tax revenue. Some provinces utilize health care premiums. However, these premiums are not rated by risk and prior payment of a premium is not a pre-condition for treatment (4). Federal funding is transferred to the provinces as a combination of cash contributions and tax points (4).

Supplementary health services are largely privately financed. However, provinces and territories provide coverage to certain people (e.g., seniors, children and welfare recipients) for supplementary health services, which often include prescription drugs, dental care, and vision care (4). Others pay for these services with individual out-of-pocket payments or through private health insurance plans. Private insurers are restricted from offering coverage that duplicates the public funded plans for medically necessary

Table 2 – Distribution of health expenditures in 1999 & 2003: Canada and Sri Lanka

Health Expenditures	Canada		Sri Lanka	
	1999	2003	1999	2003
Total expenditure on health (as % of GDP)	9.0	9.9	3.5	3.5
Govt. expenditure on health (as % of total expenditure on health)	70.3	69.9	48.4	45.0
Private expenditure on health (as % of total expenditure on health)	29.7	30.1	51.6	55.0
External resources for health (as % of total expenditure on health)	0	0	2.7	2.3
Out-of-pocket expenditure as % of private expenditure on health	55.0	49.6	86.6	88.9
Private insurance as % of private expenditure on health	37.9	42.3	3.0	3.2
Govt. expenditure on health (as % of total govt. expenditure)	14.6	16.7	6.8	6.5
Per capita total expenditure on health (International dollar)*	2400	2989	104	121
Per capita govt. expenditure on health (International dollar)*	1687	2090	50	55

Source: World Health Report 2006

* International dollars are derived by dividing local currency units by an estimate of their Purchasing Power Parity (PPP) compared to US dollar i.e. a measure that minimizes the consequences of differences in price levels existing between countries.

services, but they can compete in the supplementary coverage market (4).

In 2003, the total health expenditure in Canada was CAD 122.9 billion, which accounted for 9.9% of the GDP. Public sector funding represented about 70% of total health expenditures (Table 2). Since 1999, this proportion of funding remained almost the same. The balance was financed privately through supplementary insurance, employer-sponsored benefits or directly out-of-pocket. Almost half of the private health expenditures (49.6%) have come from individual out-of-pocket payments (8). However, the proportion of private insurance funding among all private health expenditures has been gradually increasing since 1999 (8). The Canadian Institute for Health Information estimates that approximately 99% of expenditures for physician services, and 90% of expenditure for hospital care, come from public sector sources. However, other services (especially pharmaceuticals, chronic care, and dental care) are heavily funded from the private sector (3).

Sri Lanka spends a relatively low percentage of GDP (3.5% in 2003) on health care under a public and private mix financing (Table 2). The public sector is the main financer through general tax revenue alongside the complementary and competing private sector financers, mainly out-of-pocket payment by individuals. In 2003, general tax revenue covered 45% of the of total health expenditure. The remaining was financed privately through out-of-pocket payment, employer-sponsored benefits, external resources and insurance. The out-of-pocket payments contributed almost 90% of the private health expenditures in the year 2003 (8).

Since 1999, about 7% of the total government expenditure has been spent on health in Sri Lanka (8). In 2002, 61.9% of total expenditure on health in the public sector was on curative care, and the proportions spent on the public (preventive) health services and general administration were 12.0% and 24.7% respectively (7). Information on private sector investment and expenditure is inadequate, as it is not well regulated. It poses some limitation in the assessment of total expenditure on health (7).

The role of private health insurance has been marginal in Sri Lankan health care system, with about 3% of the population covered by such schemes (7). The recent introduction of a social insurance scheme for public sector employees and their dependants may change this picture. The state (i.e. the employer) is the main contributor to this scheme, with a minimal contribution made by employees (7). Foreign aid in the form of multilateral and bilateral donations (i.e. external resources) is also used to finance the health care system to some extent, mainly for infrastructure development.

III. Delivering health care services

The health care delivery in Canada is predominantly private but heavily regulated by the public sector. It relies extensively on primary care physicians (family physicians/general practitioners), who account for about 51% of all active physicians (4). Individual patients have a free choice of these physicians. The family physicians are usually the initial contact with the health care system and control access to most specialties, allied providers, hospital admissions, diagnostic investigations and prescription of drugs (3,4).

Health care delivery in Sri Lanka is organized through both public and private sectors and include the services of those practicing within the allopathic (Western) system of health care which covers more than 85% of the total health requirement, and traditional systems of medicine (7). Consumers are free to choose services from both public and private sectors.

The government is primarily responsible for the provision of comprehensive health services including hospital care, prescription drugs and other services, free at the point of delivery to all end users. The public sector curative services are provided through a wide network of health care institutions, ranging from the central dispensaries to teaching hospitals. It meets more than 95% of the demand for inpatient care (i.e. hospital care) and one half of the demand for outpatient services (i.e. ambulatory care) (9). Sri Lanka's public health care system has an extensive coverage of the population through primary health care facilities. It also provides a strong back-up referral system of secondary and tertiary hospitals. However, in the public sector there is little freedom for patients to select their physicians.

Patients who opt out of public sector health services can seek care from the private sector. Access to private sector care is mainly based on the ability to pay. There are no gatekeepers regulating access to specialists and hospitals and patients have a greater degree of choice. The private sector mainly provides outpatient services. Provision of inpatient services is much more limited as there are only a few private hospitals with inward facilities, located mostly in the urban areas (7). In addition to the practitioners who work full time in the private sector, physicians and specialists employed in the public sector are also

allowed private practice outside public sector working hours (7). The private sector almost solely provides curative care and has no formal links with the public sector.

The preventive health care services are provided by the provincial councils according to the policy guidelines of the central government agencies such as Epidemiological Unit, Family Health Bureau and special disease control programs / campaigns. The Medical Officers of Health (MOH) are responsible for defined geographic areas and they with the help of field health staff focus mainly on health promotion and preventive aspects of health care (i.e. public health).

IV. Allocating resources to providers

Basically, the Canadian health care system provides public payment for private practice and private provision. Physicians are mostly private practitioners, work in independent or group practices, and are generally paid on a fee-for-service basis. Fee-for-service schedules are negotiated between each provincial and territorial government and the medical associations in their respective jurisdictions (4). Physicians in other practice settings, such as hospitals and community health centres are more likely to be paid through an alternative payment scheme, such as salaries or a blended payment (e.g., fee-for-services plus incentives). Nurses and other health professionals are generally paid salaries that are negotiated between their unions and employers (4). Patients do not pay directly to health care providers for **medically necessary** services and there are no deductibles or co-payments.

Over 95% of Canadian hospitals are operated as private non-profit entities run by community boards of trustees, voluntary organizations or municipalities. Hospitals are heavily regulated and receive most of their operating funds from public sources. They are generally paid through annual budgets negotiated with the provincial and territorial ministries of health, or with a regional health authority or board (4). The for-profit hospitals comprise mostly long-term care facilities or specialized services such as addiction centres.
In Sri Lanka in the public sector, government owns and operates health facilities and employs health care staff on monthly salaries. The private sector provides services on a fee-for-service basis. Usually, there are no third party payers and patients are the sole purchasers of services from the private sector. However, an increase in third party involvement in the form of insurance or employer-sponsored benefits has been noticed in the recent past.

V. Human resources for health (HRH)

Health care is a labour-intensive industry, and the health workforce is the backbone of any health care system. Each country has its own specific HRH issues and circumstances. The need for personnel spans the continuum from highly specialized medical and public health professionals to informal caregivers. The numbers of some important categories of health care providers available in Canada and Sri Lanka are shown in Table 3.
Geographic mal-distribution of health care providers has been identified as one of the major challenges facing the health care system in Canada. Urban - rural differences are reported in

Table 3 – Human resources for health: Canada and Sri Lanka

Human resources for health (Per 1,000 population)	Canada (2003)	Sri Lanka (2004)
Physicians	2.14	0.55
Dentists	0.59	0.06
Nurses	9.95	1.58
Midwives	-	0.16
Pharmacists	0.67	0.06

Source: World Health Report 2006

the distribution of health care providers and the range of medical services they offer (10). About 16% of family physicians and 2.4% of specialists were located in rural and small-town Canada, where for instance, 21.1% of the population resided in 2004. In the same year, international medical graduates accounted for 26.3% of all physicians in rural Canada, compared with 21.9% in urban areas. In other words, there is more reliance on foreign-trained physicians in rural Canada (10). There is growing global concern about the issue of international migration of health care workers especially physicians and nurses, as it is crippling the health care systems in many lower income countries including Sri Lanka. The dynamics of this "brain drain" is very complex and beyond the scope of this paper.

In Sri Lanka with the government's decision to absorb all medical graduates into the state health system until year 2009, the number of physicians employed in the public sector is steadily rising. However, in 2002, the number of physicians available for 1,000 population in Sri Lanka was less than that of Southeast Asian regional average (11). The main issues relating to human resources were the shortage of nursing and paramedical staff, geographic mal-distribution and insufficient

facilities for basic and in-service training. The migration of human resources, on the other hand is also a serious problem, especially for physicians. They move to the private sector or overseas to seek better salary and work environment. One of the great concerns in HRH is that there is no comprehensive human resources policy and development plan existing in the country (12).

VI. The health status

A national health care system should be responsive to people's health needs and appropriate for achieving good health outcomes. One of the most important indicators of a system's success is favourable health status of the population.

As of 2004, the average life expectancy at birth for Canadians was 83 years for women and 78 years for men, which is among the highest in the industrialized countries (4). Infant mortality rate is often used as an indicator of a country's state of health and social development. With the exception of Japan, Canada has had the most dramatic decline in infant mortality rates over 35 years. In 1996, the infant mortality rate in Canada was 5.6 per 1,000 live births compared with a rate of 27.3 per 1,000 live births in 1960 (13).

In Sri Lanka, life expectancy has increased and outstanding success has been achieved in overall health status in comparison with other Southeast Asian countries (Table 4). There has been a remarkable decline in the crude birth rate (per 1,000 population) over the years: from 40.4 in 1950 to 18.5 in 2004. Tremendous improvements have occurred in mortality. The crude death rate (per 1,000 population) declined in the same period from 12.6 to 5.8. The infant mortality rate (per 1,000 live births) declined to 11.2 in 2003 as against 140 in 1945 and 82 in 1950. The neonatal mortality rate (per 1,000 live births) was as high as 75.5 in 1945 and 49.2 in 1950. The latest figure was 11 (2003). The maternal mortality rate (per 100,000 live births) was 92 in 2003 as against 1605 in 1945 and 506 in 1950 (6,11,14). Marked improvements have been observed among all these indicators within the past five decades reflecting the tremendous progress achieved in the health status of the population of Sri Lanka.

Issues and challenges

The Canadian health care system has come under stress in recent years due to a number of factors, including disputes between the federal and provincial levels of government in determining how to organize care, fiscal constraints, aging population and the high cost of new technology (3,4). These factors are expected to continue in the future also. There is an ongoing debate on what should be in or out of the basic package of health care (i.e. medically necessary services). The outpatient pharmaceuticals cost has been rising sharply and is becoming a burden on public. In 2005, about 18% of all health care expenses were related to pharmaceutical costs, and measures are needed to discourage over-utilization of unneeded pharmaceutical treatments (4).

Further, there is a problem of long waiting times for some surgical procedures such as joint replacement and cataract surgery. Arguments are made for a private - public mix in the financing for such services as such a mix could improve the access of health care. Proponents claim that a complementary private insurance system for tertiary care could minimize "waiting times" at least among the affluent population. Opponents counter that it would create a two-tiered system, narrowing the range of options available to the lower socioeconomic segments of society and ultimately harming the equitable delivery of quality health care (15).

In Canada, health care spending accounts for as much as around one-third of provincial government expenditures (4). The provincial and territorial governments are compelled to reduce the health expenditure in order to allocate more funds to other important sectors. This will invariably lead to increasing the share of total

Table 4 – Key indices of health status: Canada, Sri Lanka and Southeast Asian Region

Health Status	Canada	Sri Lanka	Southeast Asia
Life expectancy at birth in years (2004) (M - male, F - female)	M 78 F: 83	M: 68 F: 75	M: 61 F: 64
Neonatal Mortality Rate (per 1000 live births) (2003)	4	11	38
Infant Mortality Rate (per 1000 live births)	5.4 (2002)	11.2 (2003)	-
Under 5 years Mortality Rate (per 1000 live births) (2004)	6	14	78
Maternal Mortality Rate (per 100,000 live births) (2003)	5	92	460

Source: World Health Statistics & World Health Report 2006

health expenditures coming from the private sector, particularly employers, and a greater reliance on private insurance. To the extent that private insurance is allowed, costs are likely to be shifted to employers, with negative effects on economic competitiveness.

Despite assurances set out in the Canada Health Act, the national health care system is not always as accessible as it could be, or should be, for newcomers to Canada. Landed immigrants, international students, refugees, asylum seekers, and those with employment authorizations have variable experiences with access to, and the delivery of, the health care services they need (16).

In Sri Lanka, there are a number of issues in the health care system that needs to be addressed. Despite the achievement of universal coverage, there are still striking disparities in the geographic distribution of health resources, including human resources. The government spending in health sector is heavily skewed toward sophisticated high-cost secondary and tertiary hospital services that disproportionately benefits urban populations. Though the average health indices have reached satisfactory levels, significant differences in terms of indicators of health status continue to exist across socio-economic and geographic boundaries.

The epidemiological and demographic transition that is underway in Sri Lanka also has major implications for health care and health expenditures (7). With the increase in life expectancy and the steady decline in fertility, Sri Lanka is aging rapidly. It is projected that by 2020, 20% of population will have reached age 60 or over (17). Infectious diseases such as malaria and tuberculosis are still prevalent, but chronic non-communicable diseases like diabetes, cardiovascular diseases, cerebrovascular diseases, and cancer are becoming more prominent. Generally the treatment and prevention of these ailments are more costly. Changing lifestyles have created a high potential for increase in substance abuse, violence and suicide. In addition, the demand for services is also increasing because of changing expectations of the population as a result of improved education and income, and availability of new technologies and inventions.

The ongoing separatist war has been a major strain on the economy and a set back to social development. Civil conflict requires the health sector to deal with a growing number of disabled and displaced people (7). The recent tsunami caused considerable damage in the North and East Provinces, where the economy, health facilities, and public services had yet to recover from years of conflict.

Meeting these needs and demands is likely to require additional resources, which may, at least partially, have to be provided through alternative mechanisms, although to date the government has emphatically stated that it does not envisage the introduction of user fee in the public sector (7). In 1978, major economic reforms were introduced and the economy was liberalized. The economic reforms have to date done remarkably little to undermine the public financed health care system. In recent years, though the real government spending for health care has fallen, the state continues to provide a major proportion of the resources required for the provision of health services. The main challenge relates to the ability of the government to continue to provide health care to the population free at the point of delivery, while promoting equality of access and the quality of health care services (7).

Due to the decentralization process, management of most of the health care institutions and preventive health services has become the responsibility of inadequately funded provincial councils. The current macro-economic policies and the increasing expenditure on defence are unlikely to favour an increase in the financial resources for the health sector. Reduced public spending will invariably lead to deterioration of public health services, widening of the technological gap between public and private hospital services, and low efficiency and effectiveness of publicly managed and provided health care. Already, there have been complaints about the poor quality of the public sector health care system and the pattern of supply and consumption has been steadily moving towards greater involvement of the private sector in health care delivery. The focus has to be on how to improve the effective and efficient use of available resources in the public sector (7).

Discussion

Sri Lanka is not comparable to Canada in size, ethnic and geographic diversity, wealth, per capita health expenditure, technological investment, or system of governance. Therefore, any attempts to compare their health care systems are in effect, comparing "apples to oranges". However, learning about other, better-designed systems provides a comparative perspective.

In both countries, governments play the major role as financers of health care system. Their involvement is justified on the ground of both equity and efficiency. Limitations of markets in health care are largely accepted by both; in

Canada, at least for the medically necessary services. Any change in this policy will be a highly unpopular one in both countries.

Financing from general tax revenue is mostly prevalent in established market democracies that can afford to sustain and administer a fiscal system to collect and manage tax revenues. Generally in low-income countries, where total public revenues are scarce and institutional capacity in the public sector is weak, the financing and delivery of health services is largely in the hands of the private sector (1). Though Sri Lanka is a low-income country, it is an exception in that large segments of population have access to universal coverage for a higher volume of services in the public sector.

The two systems mainly differ from each other in the way they deliver health care. The Canadian health care system combines the advantages of universality, efficiency and consumer satisfaction by offering universal access to a basic package of care through private delivery. Among the justifications offered for public delivery of health care are public goods, externalities, market failure, and greater accountability and equity (18). However, public delivery of health care in Sri Lanka is often criticized for overuse and wastage (18). Statistics have shown that the use of inpatient services in Sri Lanka is among the highest in the world (19). Public delivery of care is also less likely to be client responsive. Generally, public providers tend to be bureaucratic, less flexible, inefficient in the utilization of resources and time, and lacking in innovation (18). Further, this model mostly denies patients the choice of the provider.

Lessons from the Canadian experience

In Canada, the two functions of financing and delivery of health care are separated because the first is guided by a public principle whereas the second is based on competition.

Single-source financing: The justification for single-source financing is not only on equity grounds, but also on considerations of economic efficiency (3). In Canada, the single-payer attribute of public insurance has enabled to control the growth of health expenditures in the public sector (4). Administrative costs are far lower, costs for financing health care are more evenly distributed through out the economy and single payer retains bargaining power over service providers to achieve greater control over total health care expenditures. It is also good for the interests of high risk / high cost patients as multiple financers tend to shift costs by avoiding this category of clients (18).

Private delivery of health care: In Canada, as the providers are publicly funded, they are politically accountable. Further, they have an incentive to attract and satisfy patients, because their income is determined on the basis of the number of patients they serve. The benefits of private delivery are efficiency, flexibility, innovation, individual choice and liberty, responsiveness, and competition on the basis of quality (18).

Conclusion

Despite relatively low levels of expenditure on health care, Sri Lanka has recorded impressive achievements in the health status of the population. This supports the fact that the health care is just only one component of a much broader set of determinants of health. Successive governments since independence in Sri Lanka have emphasized the importance of broader social development by ensuring the availability of basic food items, health care, education, housing and other essentials.

There is a shift away from discussions of a health care system to a focus on health system, which recognizes the fact that health is more than health care. Funding health as opposed to health care includes allocating resources in other areas such as education, housing and the environment. Sustaining a health system for the future is a balance of actions on non-medical determinants and actions within the health care system itself.

Acknowledgements

I am very grateful to Professor Doug Coyle, University of Ottawa and Dr. Garry Aslanyan, Senior Health Advisor, Canadian International Development Agency for their useful comments on an earlier draft of this manuscript.

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