ANALYSIS OF NATIONAL HEALTHCARE SYSTEMS: SEARCHING FOR A MODEL FOR DEVELOPING COUNTRIES - TRINIDAD AND TOBAGO AS A TEST CASE

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ABSTRACT

This is an analysis of some of the common models of healthcare systems including their structure, advantages, shortcomings, and challenges. The various models of healthcare delivery systems worldwide are examined with special focus on the United States and Cuba, another Caribbean country. Particular emphasis is placed on challenges encountered by developing countries in general and Trinidad and Tobago in particular. This twin island state is used as an example of a democratic developing country in transition to a modern economy, and its healthcare system is considered in detail against this background. The study came up with a set of promising proposals to meet the challenges of healthcare provision in this setting.

INTRODUCTION

Healthcare can be considered the provision of all services that prevents illness and maintains health. It includes the provision of illness treatment and management and extends to the maintenance of the mental and physical well being of the person. Healthcare is therefore more than medical care. It encompasses more than the availability or affordability of medical services. In particular, provision of

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healthcare does not begin or end with the availability of health insurance coverage as is commonly believed. Conceptually, healthcare is multifaceted involving medical care, public health care and social services. Social services as primary promoter of health encompass poverty reduction, housing adequacy, and environmental sanitation including the provision of safe and sanitary water, adequate nutrition, employment and education.

By necessity therefore healthcare embraces the factors that empower development: economics, politics, social services, utility infrastructure, agriculture/food, education and individual responsibility. It draws upon all the goods and services available in a country to provide health, including "preventive, curative and palliative interventions, whether directed to individuals or to populations." (WHO, 2000. *Why do health systems matter?)*.

However, healthcare delivery systems are not all created equally. An examination of the structure and variety of healthcare delivery systems is a necessary first step towards understanding the merits and challenges of systems appropriate for developed, as well as developing countries.

MODELS OF HEALTHCARE DELIVERY SYSTEMS

A comparative analysis of healthcare systems can bring out similarities, differences, challenges and lessons in the development of a model.

Healthcare Systems in General

Health systems comprise all the institutions, organizations and resources that are dedicated to generating health action (WHO, 53rd World Health Assembly, A53/9, 2000. Report by the secretariat. "Strengthening Health Systems in developing Countries"). Health action can be

considered an attempt, whether in individual health care, population or community health services or intersectoral programs, with a mission to improve health. Operationally, healthcare systems are the organization and method by which healthcare is provided. Ideally this system comprises dedicated services for health and social services.

As with many other systems, healthcare systems are characterized by interrelated components of input (human, technology, financing and equipment resources), structure (organization of public health infrastructure, hospitals, clinics and extended care facilities), processes (operations, services to patients in all settings by providers including Managed Care Organizations) and outputs (outcomes, quality, access and costs) (Busse and Wismar, 2002).

All healthcare systems share certain common features including components of financing, service delivery and insurer/payer features. Health systems can also be narrowly distinguished in part by their method of financing (government, individuals, employers, etc), payment for services methods (by doctors, hospitals, extended care facilities), or management processes including that of Managed Care Organizations (MCO).

In a national health insurance system like Canada's, there is one insurer and financing is done through general taxation revenues (Canada Health Act, 1984). The insurer makes payments to providers who are privately contracted either through a fee for service arrangement or some form of capitation. Both provincial and federal governments in their own areas of jurisdiction and through inter-governmental liaisons, coordinate the processes.

In a National Health Service system such as the UK's, the government raises 80% of the financing needed through tax revenues and 15% from National Insurance contributions (HM Treasury, Budget 2004). It also directly or indirectly pays providers (physicians and hospitals). The

government also coordinates all functions (National Health Service Act, 1946). This system shares some similarity to that of Trinidad and Tobago but additionally in the UK there is a National Health Service (NHS) system in which primary and community health care is emphasized. Hospital based providers are salaried and work in facilities that are state owned. Private or general practitioners are a central cog in the system of primary care groups that function with other health care professionals in geographically defined umbrella units under a local NHS administrative authority. Under the revised National Health Service (Private Finance) Act, 1997, the authority was granted to negotiate and contract for private services. With the institution of primary care trusts, consumer led boards supplanted the government health authorities.

In the socialized health insurance model as occurs in Germany, insurance contributions are made by employees/employers (WHO. *Health Care Systems in Transition, Germany.*). Delivery of services is carried out by private providers and payments to these providers are facilitated through non-profit agencies with the government coordinating interrelated functions and processes. Public health systems are also coordinated with medical care and other health system functions.

The role of public health systems in many countries is under appreciated. Despite the dominant popular perception of medical care as equivalent to healthcare, public health care is a distinct but essential component of healthcare provision in any population. The historical strides made in population health have been in lock step with the progress of public health action worldwide (Tulchinsky and Varavikova, 2000). Its essential role in developing countries cannot be overstated. Apart from its visible role in catastrophic or disastrous situations (SARS and influenza outbreaks, terrorist attacks), public health systems ideally are mandated to quantitatively and

qualitatively assess and improve national health conditions, risks, and institutional capacity. It is mandated to lead education, training and research efforts in public health and actively advance people's participation in and promotion of quality health. Governments should be able to depend on public health institutions to develop appropriate policies, planning, and management strategies.

Social and economic developments are the engines that drive the provision of healthcare. Healthcare systems can be funded privately, publicly or both. Most systems in both developed and developing countries are mainly publicly funded and organized. For the most part medical care can be funded through individual out of pocket, individual, group or government insurance or state (public) funding especially through taxation.

The World Health Organization (WHO, 2000) has set as one of its strategic directions, the establishment of health systems that impartially improve health outcomes (good health) for people, act on peoples' legitimate needs (responsiveness), and be monetarily fair. The WHO has concluded that success in carrying out these goals depends on their ability to provide services, generate resources, finance and become good stewards of the system (WHO, 2000).

The Role of Health Insurance

Insurance is a pledge of service or compensation for specific potential or future losses by illness or otherwise in exchange for a periodic payment. It follows that insurers also can act as payers, claims processors, or managers of disbursed funds. Insurers can be private indemnity entities, statutory authorities, or managed care organizations. The state can be a participant as the insurer of all (universal) as in Canada or of some (Medicare and Medicaid in the USA). The number of insurers can be governed by market forces (multi-payer) or can be established by some arm of the

government (single payer). Even with a single payer system the state may not be the provider of healthcare but instead can act as the administrator of the system: receiving "premiums or funding" and paying providers of healthcare to grant services. The contributions may be collected as taxes from citizens (specific ear marks or from general revenues) or from individuals, workers, or businesses. The simplicity of the single payer system affords some degree of cost efficiency that can be redirected to the provision of healthcare services.

In Canada the policies that brought their health system into focus began with the landmark Lalonde Report of 1973-74 (Lalonde, 1974). In their model, the Canadian federal government still serves as the administrator of the system receiving tax contributions and paying providers for services. It does set national policy and rules for utilization of transfer payments and follows up by monitoring outcomes. In Canada not only does the federal or national government devolve healthcare provision to private providers but also to the provincial governments', who not only have constitutional authority over health matters but who also negotiate to execute the national policies (Lomas J et al, 1997). It is at the provincial level that the nuts and bolts of the healthcare system operate with formal oversight, infrastructure and service provision.

The combination of parallel public and private systems results in two-tiered systems. Worldwide two-tiered systems are the rule rather than the exception. Cuba is one of the exceptions. Here there is only a one-tier healthcare system that is exclusively publicly funded and managed. In Canada individuals, providers and provincial governments can opt out of the single payer system, and seek and provide health services from the private sector but generally not from both. Provincial governments, providers and individuals can opt out of the federal government's mandated rules by simply refusing to accept funding from

the (federal) government and paying for health services themselves. So Canada has a *de facto* two-tiered system based on "opting out" provisions; however in practice few individuals and no province have yet chosen these options.

Managed Care

A unique concept of healthcare provision was first spawned in the USA as a pre-paid healthcare plan in which individuals or groups paid in advance for an envelope of health services (James R and Miles A (ed.), 2002). These managed care organizations (MCOs) have evolved into a myriad of plans but so have traditional indemnity type insurers. From preferred provider organizations (PPO) to point of service (POS) to closed and open panel health maintenance organizations (HMOs), the MCO plans have morphed into establishments offering diverse product alternatives.

These diverse options were developed as a response to cost control pressures in an environment of escalating healthcare expenditures. MCOs function as third party payers, obtaining payments from employers (with some or no contribution from employees) or governments, but unlike other insurers having a responsibility to deliver and provide healthcare services as well. MCOs share many functions of regular indemnity type insurers. These include financial risk management, control of service and care utilization, measurement of outcome quality and provider network establishment (Kongstvedt R, 2003).

Healthcare models can be private, public, or mixtures of both; and contrary to public perception, pure private healthcare systems are decidedly rare. Public – State – social security systems like the US (Medicare) or that of the Belgians and French have evolved since the early European models of von Bismarck's Germany and even Attlee's Britain (NHS, 1948). State social security systems have funded healthcare either directly or through

state funded health insurance systems and when combined with other public and private funded options are growing increasingly common (EOHCS, 2002).

COMPARATIVE MERITS OF HEALTHCARE SYSTEMS

Comparing performance of healthcare systems across national borders is difficult and involves in part assessing quality of care, access, utilization, and cost of care (Mechanic D and Rochefort DA, 1996 WHO, 1997, OECD, 2004). Life expectancy, infant mortality and other environmental factors can be used as measures of the health status of nations. There are many measures of health care quality that affords reasonable comparisons (Rubin H, et al, 2001). The OECD is currently developing a consensus of possible multi-dimensional measures and health indicators that can be used across countries (OECD, 2006. Kelly E and Hurst J). Even in the absence of such measures, analysis of the popular American and the Cuban healthcare systems can be instructive.

The US Healthcare System

The US system is complex and for the most part fragmented, loosely related or unrelated parts of a whole. There is little overall planning, direction or coordination. As a consequence, there is often overlap, inadequacies, inconsistencies, waste, complexity and inefficiency in service delivery. It consists of multiple players many of who are motivated above all by the pursuit of excessive profit.

In the US, consumption of health services represents a greater proportion of total economic output than most other countries (Barton PL. 1999). Private entities or governments (state or federal), insurers/payers are involved in financing and delivery. Some providers can

even be government employees (US Public Health Service, Veterans Administration, and Indian Health Service). In the Mecca of private healthcare provision, the US government is a major provider of healthcare for the military, prisoners, veterans, elderly, disabled, some children, extremely poor and indigenous natives.

Many including previous HEW cabinet secretary Joseph Califano have trumpeted the US quality of healthcare as "unsurpassed" (Califano, 2001). The US claim to fame is its advances in medical technology, innovation, training and cutting edge research. It possesses some of the best institutions, products and healthcare delivery processes in the world. There is, however, ample evidence that this excellent care may not be equitable across all ages, genders, races or socioeconomic groups. Despite the disproportionately large amount of injected financial resources, the US health system does not live up to national expectations (Deaton AS, 2001). Further, the system is "sick care" rather than "health care." Recently a new score card using indices of health outcomes, quality, access, equity, and efficiency ranked the US fairly low on the quality of healthcare scale - 66 out of 100 overall (Schoen C, et al, 2006). Secretary Joseph Califano's statement can be modified to: "quality of healthcare *for those who can afford it* is unsurpassed in the US" or "the US has the best *emergency* care system in the world, but not necessarily the best healthcare system."

Despite its abundant resources, the US healthcare system faces many challenges the least of which is its inability to pro-actively respond to changes in cost, access, and quality while eliminating system inequity and inefficiency. Consequently, the healthcare system of Cuba may be instructive for other countries in the region.

The Cuban Healthcare system

Cuba has a unique healthcare system in the Caribbean region. The system is planned, one-tiered, publicly funded and managed, and centrally planned and controlled with universal access to all services (Lewis, 2004). Efforts are being made towards decentralization of the operations of the healthcare system so as to promote and develop participatory decision-making through popular councils complementing the legislative arm of government the National Assembly and its commissions.

The Ministry of Public Health, serves as the lead agency and carries out methodological, regulatory, coordination, and control functions at this level. In addition to its own advisory commissions at the Provincial and Municipal levels there are provincial public health offices, under the direct financial and administrative authority of the provincial administrative councils. Municipal public health offices exercise their function through the financial and administrative control of the municipal administrative councils.

The system currently emphasizes the importance of hospital care, high-technology programs and research institutions, and the re-examination of the role of natural and traditional medicine approaches. The government set as priorities maternal and child health, chronic non-communicable diseases, communicable diseases, and care of the elderly. The polyclinics are gatekeepers that serve as the point-of-entry for most patients in the region with a prevention mandate that included educating patients on-site and identifying health risks early. Since the end of financial support from the Soviet Union and with U.S embargo, Cuba focused more on prevention and locally available resources and created the Cuba's Family Doctor Program in 1984 (Nayeri K, 1995). The WHO data (WHO, 2006), confirms that Cuba has made significant improvements in healthcare services across the board.

CHALLENGES OF HEALTHCARE PROVISION IN DEVELOPING COUNTRIES

A country's progress in providing good healthcare to its population can be gauged by measuring certain economic, social and health indicators. The United Nations has amply documented the unique challenges that developing countries face in the provision of healthcare (WHO, World Health Report, 2004). In developing countries, national governments face challenges solving problems of inadequate water supply, sub-par sewer treatment systems, substandard housing, overcrowding and overpopulation, inadequate food, poor nutrition and agricultural systems, unemployment and illiteracy. These lead to non-utilization of available health information and boosts avoidable health risk factors.

In addition, many developing countries find it a daunting task to provide health services given transportation problems: poor distribution systems, impassable or non-existent roads, lack of motor vehicles and public transportation systems and lack of electricity and communication systems, such as telephones. Other problems include inadequacy of: health personnel, infrastructure and storage facilities for pharmaceuticals. The geographic mismatch of facilities, has led to brain drain of human health resources from the "have not" to the "have" countries (WHO, World Health Report, 2006). It is from these backdrops and systems that a model can be developed for Trinidad and Tobago.

ANALYSIS OF THE HEALTHCARE SYSTEM OF TRINIDAD AND TOBAGO

Before embarking on an analysis of the existing healthcare system, to better understand the challenges Trinidad and Tobago faces and to formulate a model

healthcare system suitable for its needs a general overview of its socioeconomic, political and demographic features will be appropriate.

The Organizational Structure of Health Institutions

The Regional Health Authorities (RHA) Act, 1994 devolved control to the five RHAs from the Ministry of Health. These RHA are independent statutory authorities that are accountable to the Minister of Health and in turn to the Parliament of the country. The geographic RHA territories coincide with those of local governments which enhance efforts to effectively deliver to their constituents, a range of health services and the crucial social amenities. This Act transferred ownership of publicly financed health facilities to the RHAs from the State. But power still resides in the Ministry of Health and the Ministry of Planning and Development which retain power of the purse and central responsibility for setting the national agenda and national priorities, and monitoring outcomes.

Economy

Trinidad and Tobago is the leading Caribbean producer of oil and natural gas that accounts for 41.2% of its total GDP. In 2006, it achieved an economic growth of 12.6% largely due to surging prices for oil, LNG and petrochemicals (nitrogenous fertilizers and methanol), and increased production of iron/steel and cement. This fueled a concomitant increase in direct foreign investment that led to expanded capacity. Productivity increased by 9.3% over 2004 levels. Per capita GNP continues to increase from US$ 6,600 in1986, US$ 3,740 in 1994 but most dramatically to US $19,800 in 2006.

In addition to privatization, liberalization and diversification measures, investment was boosted through the Heritage and Stabilization Fund meant to build up a reserve of funds for future generations. Prior to this the

structural reforms pioneered by the IMF and World Bank initially resulted in an economic decline that is now undergoing a resurgence.

Health Sector Financing:

Health sector financing has undergone tumultuous changes ranging from a high of TT$ 677 million (constant 1985 dollars) in 1982 to a low of TT$ 250 million in 1989, and climbing to TT$3.7 billion in 2007-2008. Much of the recurrent health expenditure still is allocated to personnel (73%) and less for goods and services (19%) with most of latter directed to hospitals and laboratories (75%), and only 9% aimed at community or local health services. Overall most of the health care dollars appear to be directed to public sector spending and alarmingly only 10% of the population is covered by private health insurance (PAHO, 1998).

Education

The level of educational attainment in Trinidad and Tobago has steadily and significantly improved since 1970 when approximately 8% of the population had no education. The literacy rate in 2003 had reached 98.6% (99.1% male and 98% female). Secondary educational attainment levels increased from 32.7% to 44.4% and tertiary from 2.2% to 2.9%.

Epidemiological Indices

1994 data (PAHO, 1998) show that the causes of mortality are diseases of circulatory system such as heart disease and strokes (39.7%) followed by tumors (13.4%), diabetes (12.5%), external causes (7.3%), communicable diseases (5.6%), and perinatal related conditions (1.9%). The 1999 data show similar results with heart disease, diabetes mellitus, malignant neoplasm, strokes and HIV in decreasing order. Most distressing is the persistently high

maternal mortality ratio (by developed nations standards) of 44.7 per 100,000 live births (1998) and 38.2 (1999) and 45.0 in 2005 [WHO, World Health Statistics, 2006]. Increases in mortality in the 15 – 40 age group is mainly from motor vehicle accidents, homicides and suicides (external causes) that preferentially affect the younger age groups.

Health Planning and Policies

Successive governments have enunciated and reconfirmed their commitment to the principles of equity and social justice. They have maintained an overall stable Macro-Planning Framework and Medium-Term Policy Framework (1996–1998) since 1989 (PAHO, 2002).

The provision of free public education and health services is part of this commitment. Above all, the establishment of eight Ministries with the responsibility to continue efforts at developing an overall policy structure that establishes priorities to rationalize service delivery and the establishment of a super Ministry of Planning and Development is further evidence of this commitment. The Ministry of Social Development leads the efforts to "operationalize" the established policies and has been given the infrastructure support to perform this role.

In 1996 the Government embarked on the first phase of the comprehensive 1996–2002 Health Sector Reform Program that was structured to support its diverse objectives including its policy-making, planning, and administrative functions. This program charges the Ministry of Health with the role of policy making, health planning, sponsorship, and regulation. Through the RHA, it established novel administrative and human resource structures that supposedly increases accountability, flexibility, and provides incentives to improve output and efficiencies. This freed up the RHA from the bureaucratic constraints inherent in the public service that hindered

innovation and response to changing social needs. These changes supposedly facilitate government's stated goal of reducing preventable morbidity and mortality, and promoting positive social and lifestyle changes (Report of the Commission of Enquiry into the Public Health Services of Trinidad and Tobago. GOTT, 2007).

Key Public Health Programs

In Trinidad and Tobago these include immunization programs, special programs for feeding the nation, caring for the disabled and the mentally ill, cancer screening, dental and environmental health, waste disposal, and individual medical care.

Immunization program: To its credit Trinidad and Tobago continues to experience consistently high rates of immunization success and coverage (>95%) as a result of its Expanded Program on Immunization (EPI). The use of other vaccines (such as HPV, meningococus, pneumococcus, hepatitis B, etc.) is inadequate.

Nutrition and food program: With no international food aid, national public and private initiatives have to supply food to the population. The national school-feeding program is expanded to include some children in both primary and secondary schools. But problems still include inadequate calorie provision, obesity due to inactivity, high fat intake, disproportionately high carbohydrate and low fiber food intake. Volunteer groups like the Coterie of Social Workers provide wholesome food to the needy and also to school children. Public assistance grants administered by the Ministry of Social Development provide old age pensions, food stamps, social assistance ("smart card"), and other temporary grants. The Government has mandated fortification of flour with iron,

and the B-vitamins - thiamin, riboflavin, and niacin. Iodination and fluoridation of salt has also been instituted.

Mental health program: There are few psychiatric practitioners in the country. Services are provided almost exclusively by the Ministry of Health and still are based on outmoded institutionalized care. Moreover, the nation still has the one and only psychiatric hospital (St Ann's Hospital) providing most of this care. Limited decentralized inpatient mental health services based in small psychiatric units (mainly for the acute mentally ill) are being provided at the general and county hospitals. For the care of the elderly with chronic mental illness, there are four extended-care centers understaffed with inadequately trained personnel. Recently selected health centers have provided community psychiatric outpatient services that are organized geographically. A specialized substance abuse unit has been established. Small therapeutic and rehabilitative centers sustained by a few non-governmental organizations (NGOs) provide counseling and preventative care through support groups.

Disability programs: The Ministry of Social Development in alliance with the Ministry of Health has the responsibility for providing care to the disabled. NGOs also provide special care and education for disabled children for which they receive some government subsidies. The responsibility for special education throughout the country lies primarily with the Student Support Services (SSS) Division of the Ministry of Education. These SSS services are mainly posted to a limited number of mainstream primary and secondary schools. Some estimates put the number of children on waiting lists for entry to special institutions at triple the number of places.

Cancer screening program: A coordinated cancer screening program with a centralized tumor registry is still not in place nationally. The Trinidad Cancer Society, the Family Planning Association, and the Eric Williams Medical Sciences Complex offer some screening programs for breast cancer and cervical cancer on an *ad hoc* basis. But this is not coordinated as part of national cancer prevention program. Specialized histology and pathology units needed to accurately diagnose cancer are undermanned and under funded.

Dental care program: Free dental services are provided to only a small proportion of the most vulnerable in the population, in about 50% of the country's health centers. For the rest of the population private dental practitioners and non-licensed individuals provide the bulk of needed care. The services offered are not comprehensive and are more focused on dental extractions rather than restorative or preventative dentistry.

Environmental health program: The Government appointed the Environmental Management Authority (EMA) to coordinate all environment-related agencies and implement provisions in the EMA Act. The Water and Sewerage Authority (WASA) is a monopoly utility corporation given exclusive statutory responsibility to supply potable water to the nation and to collect and dispose liquid waste.

Eighty seven percent of the total population has house water connections in urban areas with the other 13% having access to standpipes. In rural areas, only 87% of the total population has access to safe water supplied by pipes or trucks. Through this patchwork distribution system the water supply to many areas is intermittent and sub-optimal. A 1992 survey found 78.5% of households with running

water. The outbreaks of Dengue fever seem to correlate with the itinerant water use problem.

Waste disposal: While the urban population is well served by having adequate disposal of human wastes: 30% through house sewer connections and 70% through privies, in the rural areas there is still no outlet for treated wastes. Still 97% of the rural population disposes of human wastes through septic systems or privies. The disposition of hazardous and toxic wastes is being made on an *ad hoc* basis or the waste is either buried at the municipal dumps or incinerated. The risk of seepage that may contaminate soil and underground water supplies remains a threat (PAHO, 2002).

Medical care program: The bulk of these services have been provided by public and private sector-entities, NGOs, industrial corporations, and the national security services (police, fire and prison services, defense forces, etc). Care is provided by institutions such as hospitals, health centers and outreach centers throughout the country. The Port of Spain General Hospital and San Fernando General Hospital provide secondary and tertiary care, and both have intensive care units (ICUs). District, regional or county hospitals, medical complexes, smaller health facilities, Health Centers provide care at various levels. Provision for ambulance services are made through Emergency Health Services.

The 33 private hospitals registered with the Private Hospitals Board presumed to provide superior health services have no standard accreditation process that subjects them to regulatory scrutiny. At the same time private inpatient care is costly, and prohibitive for the masses. Moreover the range of emergency services is limited. Corporations, State and large commercial enterprises also contract health services for employees,

through specially contracted services, or private group insurance plans. The referral systems between sectors are not functioning properly. More than 50% of admissions at hospital emergency departments are self-referrals.

Pharmacy dispensaries located in many hospitals have traditionally provided pharmaceuticals for in- and outpatients patients. Now the government has introduced a special drug program, the chronic disease assistance program (CDAP). It is the first government service to be offered using "MY TT CARD" or smart card which allows citizens to receive free prescription drugs from a limited formulary that provides treatment for chronic diseases. Finally, a National Health Services Plan does exist for reinforcing, upgrading and conversion of networks of established facilities

Human resources: Insufficient and inadequately trained, mal-distribution and misallocated human resource personnel continue to plague the system. According to data from the Medical Board, there is currently about 1 physician per 1,200 population. In 1993 there were approximately 150 foreign doctors working in the public sector and more have arrived since. The problem also extends to nursing shortages. The government has quickly established new medical and dental schools to provide the needed personnel. Despite these steps the ratio of health professionals to population is still sub-optimal.

Research and technology: The Ministry of Health's Policy, Planning, and Health Promotion Department, the National Institute for Higher Education, Research, Science and Technology (NIHERST) and the Essential National Health Research Committee have been established to do planning, technology research, and coordinate all health related research efforts. These agencies have been tasked

with developing much of the technical and educational know how that the country needs.

FORMULATING HEALTHCARE POLICY FOR TRINIDAD AND TOBAGO

General Bedrock Principles

First, the nation and citizens should embrace the sentiment of collective social responsibility for the provision of healthcare. Healthcare should be enshrined as fundamental right that society, collectively, owes to its members.

Second, healthcare has to be universal and guarantee that everyone in society has access to quality healthcare. This access while guaranteed does not have to emanate from on high or from a bureaucratic or governmental perch. It should emerge from the collective psyche and will of the people who will then defend and justify its existence. It should embrace principles of quality, result and cost effectiveness. There will be no challenge of rationing health services if the universal system is designed by all stakeholders.

Third, publicly financing access to universal healthcare should be based on need. This may even allow a two tiered system of healthcare whereby a parallel public and private system exists side by side to provide care as needed. Enough resources have to be earmarked and minimum quality of care ensured for all citizens. .

Fourth, awareness that healthcare includes medical care social services like poverty reduction, provision of adequate housing, clean safe water, food and nutrition, sanitation, employment and education. As such the tenets of optimal health are ultimately multi-factorial.

Public Health

In terms of national priorities public health care has taken a back seat to medical care for too long. The payoff from investment in a well equipped, well managed and optimally functioning public health system is not well appreciated. In Trinidad and Tobago, public health services are carried out by a number of vertical divisions scattered across the country. The child and maternal health services (CAMHS) and CAREC have to be integrated into public health system. An agency to be called National Disease Prevention Center (NDPC) should be established, patterned after the Center for Disease Control in Atlanta. This center would house the existing public health vertical divisions at a central campus and should include epidemiological and surveillance units.

Ongoing program evaluation and data management is also a critical requirement to assess the strengths and weaknesses of existing programs. The need for a well-organized unit staffed with the resources to accomplish its analytic task is essential for the healthcare system to achieve its goals and carry out its mandate. More quality research efforts are urgently needed with the modernization of health agencies with the latest information technology tools.

Financing and Payments to Providers

The annual expenditure on health is approximately 3.5% of GNP in Trinidad and Tobago, 10.7% in the USA and 8.2% in Canada (World Bank Report, 2004). Thus the need to dramatically increase healthcare spending in order to achieve its goal of developed country status by 2020.

Funding for a public health system is best accomplished by progressive general taxation rates structured to distribute the financial burden fairly. Attempts at redistribution of these financial resources on a *post hoc* basis through deductibles, co-payments and co-insurance

should be seriously avoided. These latter approaches geared to instilling disincentives for over-utilization, seldom achieve their aims and always hurt the poor most.

Such a shift in the paradigm is needed because many diseases are preventable. Presently health care systems are diverted in their emphasis towards crisis management of acute illnesses and, so too, the available resources to support this process. Only 9% of health expenditures in Trinidad and Tobago are directed to community health centers nationwide (PAHO, 2002). Community health centers must become the hub of the program enunciated here to treat acute illnesses, prevent disease and promote good health.

Government possesses ready infrastructure, national and international resources to fund the system adequately. The Health Planning Councils of Trinidad and Tobago have enunciated a far-reaching plan to tackle the health needs of the nation. It is the transition from the planning to the fulfillment stage that poses the problem which has to be solved.

Healthcare System Organization

The coordination of the entire healthcare system by the Ministry of Health allows responsiveness and monitoring of policy enactment, regulatory control and feed back on the success and limitations of current healthcare programs, plans and policies. In addition to funding limitations, the RHA still needs the enhanced infrastructure, support systems, human and material resources, and up to date research data to adequately carry out its function.

National Health Insurance

While NHI is in the planning stages and not yet a reality, a critical analysis of need should be carried out before thoughts of implementation are actualized.

Healthcare is more than the provision of health insurance. Moreover, health insurance coverage does not guarantee access to healthcare. Even more importantly it does not guarantee *quality care*. Barriers must be removed in order to ensure positive outcomes

The push for a NHI program takes on more import when access to private healthcare is perceived as superior to a well-run, well-financed public health system. NHI is a process of providing national funding for healthcare services that spreads the risk of financing medical services over a larger number of people. It is especially useful to enhance access to healthcare from private medical providers, in situations where some lower income individuals will otherwise be unable to access this avenue of care. Theoretically NHI rids the system of a patchwork of private health insurers, rationalizes the industry, simplifies the bureaucracy as a single payer and satisfies the provider, who is otherwise faced with submitting a multiplicity of claims to a multiplicity of insurers, saves money and provides care to the undeserved. The public healthcare system has to deal with criticisms notably entrenched bureaucracy, laxed cost control processes, inefficiencies, crumbling infrastructure, low quality, rationing and waiting lists.

Citizens have to be sensitized about health promotion and disease prevention measures. Most health systems are still based on strategies geared towards responding to acute, urgent and pressing needs of patients. The Trinidad and Tobago model should be mindful that "preventive health care is inherently different from health care for acute problems, and in this regard, current health care systems worldwide fall remarkably short." (WHO. Integrating prevention into health care. Fact sheet No. 172. Revised October 2002).

Changing Social Aspects of Healthcare

The physical, mental and economic health of a nation is inextricably intertwined with the conditions of the social amenities available which serve as effective tools for disease prevention (Tulchinsky TH and Varavikova EA, 2000). For this reason, this model advocates for better housing, water, sanitation, employment, education, public and medical health care as a major priority in development towards a healthier society. *Housing*

People need obtain adequate, affordable and accessible housing in the process of creating integrated and wholesome communities. The stated goal of housing procurement can only be reached through the provision of incentives that facilitate access to private or publicly funded housing. The government ambitious plan to provide 8,000 housing units in 2007 should be accelerated and expanded. Moreover, since many of the existing homes are dilapidated and substandard, an incentive program geared towards rehabilitation or rebuilding these residences should also be implemented.

Water and Sewage

Far too many people are still without pipe borne water supply especially in the rural areas. Paradoxically, during the rainy season many areas of the country are inundated by floods. There remains the need for flood control and the establishment of watersheds and reservoirs to both control flooding and to act as sources of a ready supply of surface water. Additionally, the crumbling pipe borne infrastructure is in dire need of upgrading.

Education

The twin island State has achieved the desired educational levels to facilitate major improvements in healthcare and national development. The importation of skilled general labor, foreign doctors and nurses, together

with the technical advisory deficit in the health-planning field speaks volumes to this unnecessary state of affairs. Moreover, there is a critical need to educate all the population on disease prevention and maintenance of a healthy lifestyle.

Medical Care

Trinidad and Tobago will be well served by training a large cadre of Nurse Practitioners (NP) and Physician Assistants (PA) as a cost effective way to quickly and optimally manage the shifting need for universal pre-natal care, treatable disease screening programs and chronic disease management. It costs less to train NPs and PAs than physicians, they perform substantial physician functions and they free up physicians to perform tasks that only physicians can provide. It will also lessen the need for imported primary human resources especially physicians.

This model also proposes a mandatory National pre-natal care program by an Act of Parliament that will ensure that *all* pregnant women (100%) are afforded the same high quality prenatal care in either private or public healthcare centers. Uniform evidence based standards must apply to this care across the board. Exactly the same standards should be applied to private or public facilities; city town or village; and primary, secondary or tertiary facilities.

Certain specialties are critically needed, including surgery and its sub-specialties, particularly orthopedic surgeons, as well as perinatologists, diabetologists and obesity specialists. The collection of healthcare data to better evaluate need and success of programs has to be enhanced through the efforts of the proposed National Disease Prevention Center. The major thrust of this new approach is to avoid gaps in the care of individuals in society and to collectively improve the health of the population. Pre-natal care, preventable disease screening

and high mortality/morbidity disease intervention should be emphasized in this new paradigm.

Public versus Private

A well-managed public system can provide all the quality care that a private system can. There already exists a track record and a public infrastructure in place in Trinidad and Tobago to do this. By establishing multiple modern comprehensive primary care clinics in locations based on population needs, the public's interests would be better served. These facilities should be well-equipped and supplied with necessary patient teaching tools, equipment, drug and medical supplies. Well-trained, dedicated human resource teams and support personnel working around common, well understood roles and objectives - and doing so in a pleasant environment - will undoubtedly be inspired to excellence in the national interest.

These primary care doctors, nurses, midwives, NP, PA, health educators, nutritionists and rehabilitation personnel will form the backbone of the country's medical care system. They should be provided back up support from specialists in close proximity or via Tele-medicine hook up. Needless to say these qualified professionals should be well paid and provided adequate benefits that are comparable to what obtains in the private sector. Provision should be made for frequent continuing medical education and the freedom from burdensome administrative responsibilities to these professionals.

In essence, the foregoing arguments tend to favor an adequately funded, supplied and well-managed public healthcare system. In the end it is the quality and comprehensiveness of the delivered health service that matters. Once the decision is made in favor of universal healthcare funded through general revenues, the mechanics of implementation become subordinate to the choice between a NHI program or a direct publicly funded

program. The only reservation that remains is which structure can provide the services best to all citizens and do so cost-effectively. The preponderance of evidence cited in this model suggests that a public healthcare system could better achieve this in both developed and developing countries, including Trinidad and Tobago.

REFERENCES

Andrain CF. 1998. *Public Health Policies and Social Inequality.* New York: New York University Press.

Armstrong P, and Fegan C. 1998. *Universal Healthcare: What the United States Can Learn from the Canadian Experience*. New York: The New Press.

Banting K and Corbett S, 2002. *Health Policy and Federalism*, McGill-Queen's University Press, Montreal and Kingston.

Barton PL. 1999. *Understanding the U.S. Health Services System*. Chicago: Health Administration Press.

Bayle S and Beiras, CH. 2001. The People's Campaign Against Health Care Counter-Reforms in Spain. *Journal of Health Policy*, 22(2), 139-52.

Beveridge W, 1942. Social Insurance and Allied Services. HMSO. London.

Busse R , Wismar M. 2002. Health target programmes and health care services – any link? A conceptual and comparative study. *Health Policy*. 59, 209-221.

Canada Health Act.1984. Government of Canada. Ottawa.

Canadian Institute for Health Information, *Health Indicators, 2000*, Ottawa, www.cihi.ca/. Accessed November 22, 2007.

Cagetti M and De Nardi M. 2005. Wealth Inequality: data and models. Federal Reserve Bank of Chicago. WP 2005-10

Central Intelligence Agency (CIA). 2006. World Fact Book.

Clifford RR. 1975. *Health Care Politics*, Chicago: University of Chicago Press.

Cooper RS, Kennelly JF, Ordunez-Garcia P. 2006. Health in Cuba. *International J. Epidemiology*. 35, (4), 817-824.

Coulter A, and Cleary PD. 2001. Patients Experiences with hospital care in Five Countries. *Health Affairs*, 20(3) 244-252.

Dahlgren G, and Whitehead M. 1992. Policies and strategies to promote social equity in health. *Institute of Future Studies*, Stockholm, 1992.

Deaton AS. 2001. Inequalities in Income and Inequalities in Health, in Welch F, *The Causes and Consequences of Increasing Inequality*, Chicago: University of Chicago Press, 285-313.

EOHCS – European Observatory of Health Care Systems. 2002. Funding Health Care: Options for Europe. Open University Press. Buckingham, UK.

Feinsilver JM. 1993. Healing the masses: Cuban Health Politics at home and abroad. University of California Press.

Field M. 1989. Success and Crisis in National Health Systems: A Comparative Approach. New York: Routledge

Florida Medical Association Survey. 2007. Accessed November 22, 2007. http://www.fmaonline.org/legis/feesstudy07.pdf.

Freeman R. 2001.*The Politics of Health in Europe*, University of Manchester Press.

Graig LA. 1993. Health of Nations: An International Perspective on US Health Care Reform (2ed), Washington, DC: Congressional Quarterly Inc.

Gallagher EB and Subedi J. 1995. Global Perspectives on Health care. Prentice Hall

Harrison A and New B, (eds). 1997. *Health Care UK 1996/97*, King's Fund London.

HM Treasury, Budget 2004

Himmelstein D, and Woolhandler S. 1996. "A national health program for the United States: A physicians' proposal", in Phil Brown, Ed., *Perspectives in Medical Sociology,* Second Edition. Prospect Heights, IL: Waveland Press, pp. 552-565.

James R and Miles A (eds). 2002. *Managed Care Networks: Principles and Practice*, Aesculapius Medical Press.

Joint Commission on the Accreditation of Health Care Oraganisations www.jcaho.org. Accessed November 22, 2007.

Jommi C, Cantu E, and Anessi-Pessina E. 2002. New funding arrangements in the Italian National Health Service. *International Journal of Health Planning and Management*, 16(4): 347-368.

Kongstvedt PR. 2003. *Essentials of Managed Care*. Jones and Bartlett. Sudbury, MA.

Lalonde M. 1974. A new Perspective on the Health of Canadians. Government of Canada. Ottawa.

Lassey ML, Lassey WR, and Jinks MJ. 1997. Health Care Systems around the World: Characteristics, Issues, Reforms. Upper Saddle River, NJ: Prentice-Hall.

Lee P and Estes, CL. (Eds.). 1997. *The Nation's Health*. Fifth Edition, Boston: Jones and Bartlett Publishers.

Lewis S. 2004. Single-payer, universal health insurance: Still sound after all these years. Canadian Medical Association Journal. 171, 600-601.

Lomas J, Veenstra, G and Woods J. 1997. Devolving Authority for Health Care in Canada's Provinces: Motivations, Attitudes, and Approaches of Board Members. *Canadian Medical Association Journal*, 156(5) 669-76

Marmor, T. 1996. *Patterns of fact and fiction in use of the Canadian experience*. in Phil Brown, Ed. *Perspectives in Medical Sociology,* Second Edition. Prospect Heights, IL: Waveland Press, pp. 566-581.

Mechanic D. 1998. The Americanization of the British National Health Service, in William C. Cockerham, Michael Glasser, and Linda S. Heuser, Eds., *Readings in Medical Sociology*. Upper Saddle River, NJ: Prentice Hall, pp. 494-505.

Mechanic, D and Rochefort DA. 1996. Comparative Medical Systems, *Annual Review of Sociology*, 22, 239-270.

Mizrahi T., Gassano, R., and Dooha SM. 1993. *Canadian and American health care: Myths and realities.* Health and Social Work, 18(1), 7-12.

Mulligan J, Appleby J, and Harrison A, 2000. Measuring the Performance of Health Systems. *British Medical Journal.* 321, 191-192

National Health Service Act. UK. 1946. HM. London.

Navarro V. 2000. An Assessment of the World Health. Report. *The Lancet,* 356 (4) 1598-1601.

Nayeri K. 1995. The Cuban Health Care System and factors currently undermining it. *Journal of Community Health,* 20, 4, 321-334.

OECD. Organization for Economic Co-operation and Development, 2001. Accessed November 22, 2007.www.oecd.org/els/health/health_project.htm

OECD. 2004. *Towards High-Performing Health Systems.* Paris.

OECD. 2006. Kelly E and Hurst J. *Healthcare indicators project: Conceptual framework.* Paris.

Orman AR. 1971. The epidemiologic transition: a theory of the epidemiology of population change. Milbank Memorial Fund Quarterly 49, 509-538.

PAHO. Health in the Americas. 1998 (ed). Pan American Health Organization. Updated, 2001. Accessed November 22, 2007.www.paho.org/english/HIA1998/Trinidad.pdf

PAHO. Health in the Americas. 2002 (ed). Pan American Health Organization. Updated 2002.

Pater J. 1981. *The Making of the National Health Service*, King's Fund, London.

Project Hope. 2005. *Assessing Access to Health Care under Medicaid: Evidence for the Nation and thirteen states.*

Report of the Commission of Enquiry into the Public Health Services of Trinidad and Tobago. GOTT, 2007.

Robbins D. 1998. *Integrating Managed Care and Ethics: Transforming Challenges into Positive Outcomes*. New York: McGraw-Hill.

Roemer MI. 1991. National Health Care Systems of the World: Volume 1 - The Countries. New York: oxford University Press.

Rosenthal M and Max H. 1998. *Health Policy: Understanding Our Choices from National Reform to Market Forces.* Boulder: Westview Press.

Rubin HR, Pronovost P and Diette GB. 2001. The advantages and disadvantages of process based measures of health care quality. *International Journal for Quality in Health Care.* 13, 469-474

Schoen C, Davis K, How KH, Schoenbaum SC. 2006. US Health System performance: a national scorecard. *Health Affairs.* 25 (2006): w457-w475

Schrijvers G, (Ed). 1999. *Health and Health Care in the Netherlands*, Elsevier.

Shi L and Singh DA. 2004. Delivering Health Care in America: A systems Approach. Jones and Bartlett. MA.

Subedi J and Gallagher EB. 1996. Society, health, and disease: Transcultural Perspectives. Prentice Hall.

Tountas Y Karnaki, P and Pavi E. 2002. Reforming the reform: the Greek NHS System in Transition. *Health Policy*, 62,1,15-29.

Tesh SN. 1988. *Hidden Arguments: Political Ideology and Disease Prevention Policy.* New Brunswick, NJ: Rutgers University Press.

Tulchinsky TH and Varavikova EA. 2000. The New Public Health. San Diego, CA. AP.

Twaddle AC. 1996. Health system reforms - Toward a framework for international comparisons, *Social Science and Medicine*, 43, 5, 637-654.

Weiss GL. and Lonnquist LE. 1997. "Comparative Health Care Systems" in The Sociology of Health, Healing, and Illness. Upper Saddle River, NJ: Prentice Hall, pp. 359-380.

Whitehead M. 1992. The concepts and principles of equity and health. *International Journal of Health Services*. 22: 429-445.

Woods KJ. 2001, 'Sweden Today: Britain Tomorrow?' British Journal of Health Care Management, Volume 7, 6, 227-230.

Woods KJ. 2001,'The Development of Integrated Health Care Models in Scotland', *International Journal of Integrated Care.*

WHO, World Health Organization. 1997. *Tobacco or Health: A Global Status Report*. Geneva

WHO, World Health Organization. 53rd World Health Assembly, A53/9, 2000. Report by the secretariat. *Strengthening Health Systems in developing Countries*. Geneva

WHO. *Health Care Systems in Transition: Canada*, Accessed November 22, 2007.www.euro.who.int/observatory

WRO. *Health Care Systems in Transition. Denmark.* Accessed November 22, 2007.www.euro.who.int/observatory

WHO. *Health Care Systems in Transition. Germany.* Accessed November 22, 2007.www.euro.who.int/observatory

WHO. *Health Care Systems in Transition. Norway.* Accessed November 22, 2007.www.euro.who.int/observatory

WHO. World Health Organization. 2000. World Health Report 2000. *Health systems: improving performance.* Geneva.

WHO, World Heath Organization Report. 2000. *Why do health systems matter?* Geneva

WHO. 2001. European Regional Consultation on Health Systems Performance Assessment, September. Geneva.

WHO. The World Health Report, 2004. *Changing History*. Geneva.

WHO. The World Health Report, 2006. *Working Together for Health*. Geneva.

WHO, Mortality Country Fact Sheet, 2006 Geneva.