

International exchange

The health of a nation: perspectives from Cuba's national health system

Maxine Offredy BA(Hons) PhD

Reader in Primary Health Care, University of Hertfordshire, Hatfield, UK

ABSTRACT

This paper focuses on the current healthcare system in Cuba and provides a description of an alternative healthcare provision. The information is based on a visit to the country in 2007 as a member of a health study tour. The purpose of the visit was to explore the functioning of a population-based health service and to interview key people. The data are compared

with the literature on Cuba. The effects of the economic crisis, the US embargo and the absence of international debate about Cuba's health achievements are discussed.

Keywords: community-based healthcare, healthcare achievements, population-based healthcare

How this fits in with quality in primary care

What do we know?

Relatively little is known about the organisation and achievements of Cuba's healthcare system due to the absence of debate on the topic in many global scientific discourses. We also know that public policy makers have not emulated some of these achievements for poor countries. This contrasts with the dialogue of world leaders whose vision is to eradicate some diseases common in third world countries but have yet to evaluate the sustained success of Cuba's developed-world health outcomes in the face of stringent economic conditions.

What does this paper add?

This paper makes a contribution to the exposition of Cuba's healthcare achievements whilst highlighting views of its critics.

Introduction

This paper focuses on the current healthcare system in Cuba and provides a description of an alternative healthcare provision. The information is based on a visit to the country in 2007 as a member of a healthcare study tour. The purpose of the visit was to explore the workings of a population-based health service through interviews of key informants. The paper begins by outlining a brief background of Cuba to contextualise the description and discussion of their healthcare system.

Background

Prior to the Cuban Revolution in 1959, Cuba's healthcare provision followed a market-led model of health

care,¹ with healthcare services that were representative of third world health provision. There was suboptimal distribution of its doctors, the majority of whom were in cities such as Havana and Santiago de Cuba, which left significant numbers of people without access to health care. The idea of a national health system to reduce disparity and introduce universal care for Cuba began in 1960 by the revolutionary and physician Che Guevara. In his famous speech *On Revolutionary Medicine*, he said that the work of the Ministry of Health and other similar organisations was threefold: (i) to provide public health services for the greatest possible number of persons; (ii) to institute a programme of preventive medicine; (iii) to orient the public to the performance of hygienic practices.² Thus, the goal was to establish a unified national health service that would be available to the population of the 14

provinces. By 1961 the government had introduced measures which included a reduction in the cost of medicines, nationalisation of pharmaceutical companies, mutual aid co-operatives and private hospitals, as well as widening the network of hospitals so that the Cuban healthcare system was a totally socialist one.³

However, the nationalisation of private hospitals and mutual co-operatives provided the catalyst for the emigration to the United States (US) of approximately half of the doctors, leaving only 3000 doctors in Cuba.⁴ Volunteer doctors from Latin America, and Cuban medical students in training, who were sent to towns and villages ameliorated the chasm where no doctor had been previously seen.⁵ Cuba's healthcare programme was enshrined in its constitution of 1976, which made clear that the state guaranteed the right of everyone to have health protection and care, by providing free medical and hospital care throughout the country. Less than a decade later, in 1984, Cuba initiated the Family Doctor Programme, whose main goal was preventative medicine, teaching and research. At the same time as these health initiatives evolved, the US, in 1961, imposed its economic, commercial and financial embargo on Cuba – which is still in place today – with the aim of destroying the Castro regime and introducing democracy to the Cuban people. The embargo includes an outright ban on the sale of food and denies the availability of life-saving medicines to ordinary citizens.⁶ Since 1992 the United Nations General Assembly has voted to end US sanctions, but the US has consistently ignored this. In response, Cuba turned to the Soviet Union and western and eastern European countries for economic co-operation, which has provided the country with significant subsidised trade and aid.⁷

The collapse of the Soviet Union and socialist bloc countries in 1989 and the end of Soviet economic subsidies in January 1991 severely impacted on Cuba's economy, resulting in a 60% decline in the country's gross domestic product, one of the steepest recorded.⁸ A 'Special Period in Time of Peace' (referred to as 'Special Period' by Cubans) began; this was a euphemism for an emergency crisis programme.⁹ The economic crisis in the 1990s was augmented by the US trade embargo, which became increasingly restrictive losing Cuba \$4–6 billion annually in subsidised trade.¹⁰ The most controversial part of the embargo drew international condemnation when the US introduced further restrictions in 1996 under the Helms–Burton law, which involved sanctions against third party countries, corporations, or individuals that trade with Cuba. Barry posits that several public health disasters can be directly attributed to the US embargo.⁷ These include an epidemic of optic and peripheral neuropathy, which was attributed to malnutrition caused by food shortages; an outbreak of a neurological syndrome

caused by lack of chlorination chemicals; and shortages of insulin and other medications, which affected the health of both adults and children. The embargo meant that Cuba was unable to purchase medicines on the open market – a situation that still exists today.¹¹ This period saw an increase in mortality from infectious diseases, an increase in low-birthweight babies and a rise in infant mortality.¹² However, economic conditions in Cuba have been improving since 1994 due, in part, to joint planned investment partnerships with western Europe and Canadian companies as well as a planned strategy to increase tourism.

Today, Cuba has a population of 11.3 million people in 14 provinces. Each province has 10–15 municipalities, 169 in total. Each municipality has six or seven polyclinics with integrated teams of professors of paediatrics, internal medicine, obstetrics and gynaecology, and psychiatry, as well as nurses and social workers.¹³ There are approximately 71 000 doctors; the doctor–patient ratio in 2006 was 1:158.¹⁴ Box 1 illustrates some of Cuba's health achievements since the revolution and Table 1 provides a comparative view of Cuba's key health statistics. Healthcare spending in 2005 was \$260 per capita, compared with the UK's \$3065 and the US's \$6543.¹⁵

Box 1 Examples of Cuba's health achievements

- Comprehensive free health care
- Total number of physicians: 70 594¹⁶
- Number of family physicians: 33 769¹⁶
- Elimination of polio: 1962¹⁷
- Elimination of diphtheria: 1979¹⁷
- Elimination of measles: 1993¹⁷
- Elimination of rubella and mumps: 1995¹⁷
- Life expectancy at birth (both sexes) 77.6 years¹⁸
- Infant mortality: 5.3%¹⁸
- Percentage of surviving children at 5 years of age: 99.2%¹⁶
- Percentage of children fully immunised from measles and TB: 99%¹⁸
- Production of the world's first meningitis B vaccine¹⁹
- Production of own antiviral drugs¹⁹
- One of the world's lowest national rates of AIDS²⁰
- Highest treatment and control of hypertension in the world²¹
- Free medical education for Cuban students as well as for students from Africa and Latin America²²
- Creation of national biomedical internet: INFOMED²³

Table 1 Selected indicators of Cuba and the region

Region	Infant mortality per 1000 live births	Under 5 mortality per 1000 live births	Life expectancy		
			Male	Female	Both sexes
Caribbean	22	33.4	66.9	71.7	69.3
Latin America	22	27.7	70.3	76.4	73.3
United States	7	8	75	80.4	77.7
Cuba	5.3	8	75.8	79.5	77.6

Source: United Nations Population, Annual Fund State of World Population, 2006, except for Cuba: United Nations Development Programme: Human Development Index 2006 and Ministry of Health Statistics, 2005 and 2006

Approach

Before the trip was embarked on, the Cuban Ministry of Health was contacted to inform them of the purpose of the visit and to arrange interviews with key people. A literature search, reading, and discussions with individuals and organisations with an interest in Cuban health care, such as Medical Education Cooperation with Cuba (MEDICC) were carried out, and some of these provided contact details of people in Cuba. Contact and arrangements with Cubans were made by electronic mail. At this stage, a decision regarding sample size had not been made, but correspondence suggested a snowball approach.²⁴ Ethics approval was obtained to tape record interviews and make observations prior to undertaking the study.

In Cuba, visits were made to five different types of healthcare facilities: family doctor practices, polyclinics, hospitals (including those for tourists), the Latin American Medical School and home visits accompanying a community doctor. Meetings were arranged with health officials, doctors, nurses, nursing assistants and allied health professionals. Meetings with members of the public were opportunistic. Each of these individuals was invited to take part in an interview and all agreed, giving a total of 23 participants. The visits and meetings took place in cities, towns and villages including Havana, Trinidad, Cienfuegos, Camaguey, Holguin, Santiago de Cuba and Bayamo. Visits to the first family doctor premises, polyclinic and hospital were treated as observation visits, following which observations and semi-structured interview schedules were made. Field notes and tape recordings generated by the 23 participants were transcribed verbatim. A summary of the content of the interviews and observations form the basis of this paper.

The next section provides participants’ perspectives of the current structure based on observation and

interviews, and is divided into four subsections: family doctor clinics, polyclinics, hospitals and health tourism.

Findings

The current structure of Cuban health care

The structure of Cuba’s healthcare service is arranged into three main hierarchical levels, interlocking with each other: *consultorios* (family doctor clinics); *políclínicos* (specialty clinics) providing secondary care; and *hospitales* and *institutos* (hospitals and medical institutions) providing tertiary care. Each is explained below.

Consultorios: family doctor clinics

Established in 1984, consultorios or family doctor clinics/surgeries are the core of primary-level healthcare provision. They provide 24-hour primary care and preventative services to the community in which they are located. Discussions with health professionals revealed that generally family doctors, of which there are 33 769,¹⁶ serve a population of between 600 and 900 patients (150–180 families) and live in the vicinity of the practice. Observation showed that typically the surgeries are two-storey buildings; the lower level is used as the surgery and the upper level as the residence of the doctor. The nurse also lives in the same vicinity, with nurses and doctors working together as a team. The consultorios also provide community based learning experiences for nursing and medical students.

Responsibilities of the family doctor include identifying, prioritising and solving the health problems of the individual, family and community. Screening pro-

cedures include pre- and postnatal care, immunisations, smear tests and mammography. Screening procedures are also undertaken at the two other levels of health-care. Health education observed during visits included smoking cessation and nutrition, discussed in relation to hypertension. The data also showed that family doctors dealt with psychosocial problems, and work- and family-related stress. Observations showed that records were completed manually at the time of consultation and that records for their patients were kept in a locked cabinet on the premises. The family doctor's record showed assessment of the home environment, immunisation record and psychosocial information. A family doctor explained that health statistics of each neighbourhood are reviewed on a regular basis by Ministry of Health officials. The data are used for audit purposes – the equivalent of clinical governance in the British National Health Service.

A typical day for the nurse–doctor team includes consulting with patients in the surgery in the morning and undertaking home visits in the afternoon. It was explained by a nurse that specific time is allocated for hospital inpatient visits to those from the family doctor's neighbourhood. Often, the family doctor has lived in the area for a considerable period of time and knows the entire family. Thus continuity, accessibility, health promotion and prevention are key issues at this level of health care. It was reported by one family doctor that they are required to see every patient in their catchment area at least twice per year, even if they are healthy. The ethos of the family doctor is prevention, health promotion and rehabilitation. Doctors often visit unannounced because home telephones are not widely installed. The reason offered by Ministry of Health officials as well as health professionals for this activity is that health can be assessed within a family and home context by looking at the wider lifestyle and home environment. A family physician explained the rationale thus:

'I see a lot of work-related stress, lack of exercise, whether people are eating the right sort of food if they are hypertensive. I get to see the grandparents and I can assess how they are coping. I encourage them to go to the exercise classes we have for that age group. We have a lot of health-promotion activities for different groups; we have some for teenagers as well. Community organisations run them and we have an overseeing role. We look for any environmental hazards, poor hygiene habits or other health risks and we can talk to the family members about the effects of their action and what they should do to correct it.' (family physician, urban consultorio)

The physical facilities in the polyclinics, as judged by the author's western standards, varied from modern and well-equipped to modest, in terms of limited equipment and sparse furnishings. Health-promotion posters, such as those for HIV/AIDS, healthy eating and exercise were evident in all the healthcare facilities

visited. Protocols for the diagnosis and treatment of conditions such as cardiac conditions, meningitis, and preterm labour were displayed on walls and trolleys. Observation of procedures and discussions with family doctors and nurses showed that family doctor teams are supported by a well-organised diagnostic and referral system. A nurse explained the procedure thus:

'When the doctor makes a referral, we have transportation to take the patient to polyclinic or hospital. Sometimes the doctor will go to the hospital with the patient and will see the consultant who will take charge of the patient's care. If it is a pregnant woman nearing time for her delivery and she lives in the mountains, we have places where they can stay before the birth of the baby so that they can be transferred to hospital before the birth.' (nurse, rural consultorio)

However,

'If it is an emergency, the patients can go straight to the emergency department without referral by their doctor, but the doctor at the polyclinic or hospital will always contact the patient's family doctor so that we know what treatment the patient is having and we can go and visit them.' (medical director, urban polyclinic)

Interestingly, Cuba does not have midwives; overall, health care is medically dominated. A doctor explained that 99% of births take place in hospital under the care of a medical practitioner. The remaining 1% of births take place on the way to hospital (family physician, urban hospital). Health professionals describe the key strategy at this level of care to be early identification of problems such as infectious diseases, in an effort to treat promptly and contain appropriately.

Polyclinics

The central feature of the polyclinic is the provision of community based integrated curative-preventive, social and environmental services to people in a specified area.²⁵ There are approximately 470 polyclinics distributed throughout Cuba, each serving a geographical region of approximately 25 000–35 000 people. The region served by a polyclinic is further divided into health sectors. Within these sectors, all people are seen by the same medical teams, comprising physician–nurse teams trained in the same specialty.

A range of services was observed in the polyclinics, some of which are outlined in Box 2. It was reported by the director of a polyclinic that consultants in other specialties visit polyclinics on a weekly basis to provide care and advice to patients and staff. Nurses were observed delivering lectures on self-administered medication, with emphasis being placed on taking the exact prescribed dose; drug interactions and reactions; nutrition, exercise and aspects of health promotion. These lectures were observed taking place in the waiting rooms of clinics. On visits to some clinics,

televised health-promotion messages were noted. Observation showed that clinical tests were undertaken in the laboratories of the polyclinic, thus reducing the need for a hospital visit.

Box 2 Services provided by polyclinics

- Child health
- School health services
- Psychology
- Ophthalmology
- X-rays
- Ultrasound diagnostics
- Obstetrics and gynaecology
- Dentistry
- Women's health
- Social work
- Optometry
- Rehabilitation
- Endoscopy
- Cardiac emergencies

This model of 'medicine-in-the-community' aims to treat patients as biopsychosocial beings in their respective unique environments. The model focuses on disease prevention by identifying risks present in the environment before they become health problems, as well as prioritising those who are deemed high-risk categories such as the elderly, adolescents and people with long-term conditions. Thus practitioners have skills in primary care, epidemiology, prevention, ethics and social sciences.²⁶ As with the family doctor clinics, polyclinics also provide community based learning experiences for nursing and medical students.

Tertiary care and specialised care

Cuba has 256 hospitals and 13 medical research centres. Health care is delivered in regional and specialty hospitals throughout the country, although there is a higher concentration of hospitals in the capital, Havana. Health care is also delivered at clinical/research institutes. Cuba's world-renowned Finlay Institute is dedicated to vaccine research and production. Its biotechnology research and development is among the best in the world, for example, the institute was the world's first manufacturer and producer of the meningitis B vaccine.¹⁹ The institute also produces vaccines for hepatitis B; haemophilus influenza type B; the combined diphtheria, whooping cough and tetanus vaccines; vaccine against typhoid; and the full schedule of HIV antiretroviral medication which is provided to all HIV patients that require it, free of charge. It also produces vitamins, antibiotics and anaesthetics, which are marketed abroad. Research areas include

infectious diseases, immunology, microbiology epidemiology and vaccinology (advisor, Finlay Institute).

Some specialist hospitals undertake advanced surgical procedures such as heart-lung, kidney, liver and bone marrow transplants, and complex orthopaedic procedures. Inpatients receive free medication but other patients purchase medicines at a subsidised price (hospital director, urban hospital). However, people with long-term conditions such as insulin-dependent diabetes and hypertension, do not pay for their medication. The leading causes of death are those characteristic of advanced industrial societies: diseases of the heart; malignant neoplasms; cerebrovascular diseases; influenza and pneumonia; accidents and chronic respiratory diseases.¹⁶

Treatment of AIDS

Cuba has the lowest HIV prevalence in the world.²⁷ The strategy for treating AIDS is controversial, but was based on existing laws to protect the health of the community.²⁸ In 1986, a policy for caring for people infected with AIDS in sanatoria was introduced. The three-pronged policy aimed to: (i) provide medical care for those infected; (ii) understand the natural history of the Cuban epidemic; and (iii) contain the spread of the disease.²⁰ HIV-positive patients are temporarily segregated from their community and live in one of several national sanatoria while they are re-educated on their new health status. Patients are paid their full wages and receive a high-calorie diet, which is rationed in the general population.⁷ Although interviews were conducted with patients with HIV-AIDS, their responses do not form part of this paper.

Professionals involved in the care and treatment of these patients include public health officials, epidemiologists, psychologists and physicians, who each employ different strategies to improve care for people living with AIDS. Since 1994 patients with AIDS are no longer required to be removed from their communities. The current programme has been adjusted to reflect experiential learning and a better understanding of the problem. Nonetheless, all new positive cases of HIV must attend a sanatorium for eight weeks to undergo a thorough education about their condition, counselling, living with HIV, and how to prevent the risk of transmitting the virus.²⁰ After this period individuals may return to their communities and work life, but are required to consult their physicians at specified times for health checks. An interview with a medical director highlighted that although patients are free to return to their families, many choose to stay at the sanatorium, possibly because of the free services and good care available there. All HIV-positive patients are treated free of charge with Cuba's own manufactured antiretroviral drugs (physiotherapist, urban hospital). Patients who are discharged from the sanatorium and who engage in unsafe sex, thereby placing

others at risk, are liable to be quarantined permanently (member of the public). In addition to screening for HIV, imported blood products are restricted, and mandatory tests are undertaken for a range of groups and persons: pregnant women, prisoners, patients diagnosed with other sexually transmitted diseases and their partners (contact tracing), Cubans travelling abroad, employees of the tourist industry, merchant sailors and patients admitted to hospitals or those undergoing outpatient surgery (nurse, rural hospital).²⁰

Health tourism and health export

Health tourism (also known as medical tourism and medical travel) is the practice of travelling to another country to obtain health care. Observation and discussion with hospital doctors in both urban and rural settings revealed that Cuba has a two-tier healthcare system with separate hospitals for ordinary Cubans and another for foreigners and diplomats. The Cuban government has focused its attention on developing medical tourism as a means of generating income, particularly since the collapse of the Soviet Union. The health centres seen offer treatments for retinosis pigmentosa, neurological conditions, hypertension, bone tumours, rheumatic diseases, drug addiction and cancer as well as eye surgery, cosmetic surgery, and complex orthopaedic procedures. The standard of comfort offered was good and the technical equipment seen was up to date. Cuba has a state tourism company, Cubanacan Tourism and Health, which supports tourism services by providing physicians at hotels and international clinics.²⁹ It provided care for approximately 20 000 tourist patients in 2006.³⁰

In addition to encouraging health tourism, interestingly, Cuba also educates and trains medical students – Cubans as well as foreign nationals – free of charge,²² as a contribution to global health care (Ministry of Health official). During a visit to the Latin American Medical School which currently trains approximately 22 000 medical students (2007 figures) – mainly from Latin American countries, the Caribbean and Africa – one of the school's directors explained that they currently had 90 medical students from the US undertaking their medical training with them. Established in 1999, intake of students has been increasing. The primary aim of the school is to train eligible poor students from poor countries in medical practice, so that they can return to their respective countries with the intention of practising medicine, particularly in deprived areas. Discussions with a variety of healthcare professionals in different areas of the country showed that they would not be drawn into a wider debate about the reasons why Cuba is providing this expensive training free of charge. Some pointed out that they were doctors and not politicians! Nonetheless,

all agreed that there was no guarantee that students, once trained, would return to their respective countries to 'serve the cause' by practising in deprived areas of their country. In the summer of 2007, it was reported in the international media that among the graduates from the school were the first set of eight US citizens to complete the six-year programme.^{31,32} All were from ethnic minority backgrounds.

Cuba currently has more than 22 000 medical doctors serving abroad,³³ and some citizens pointed out that they had to wait 'up to two weeks to see a doctor' (members of the public). The issue of waiting time was explored with both nurses and doctors in urban settings. Their response was almost uniform: they accepted that Cuba has medical personnel abroad,²² but stated that the ratio of doctors in the population is still high and point to their low infant mortality rate, 5.3%,¹⁸ as evidence of high-quality health care. One doctor pointed out that patients were used to walking two blocks to see a doctor, but now they have to walk five or six blocks, and for some patients this was unacceptable. He refuted the claim of a two-week waiting list and pointed out that family doctors are available 24 hours a day.

Cuba has developed a disaster-management policy to deal with problems at home as well as abroad. The United Nations International Centre Secretariat for Disaster Reduction has cited Cuba as a model for hurricane disaster management.³⁴ Thus the country's medical expertise of working in difficult conditions abroad lends itself to providing assistance nearer to home, if necessary. The devastation of Hurricane Katrina in the southern section of the US overwhelmed the authorities there, and the Governor of Louisiana made an appeal to the international community for medical assistance. Cuba offered to send more than 1500 doctors to assist victims in the aftermath of the hurricane in 2005, but the offer was rejected by the Bush administration.³⁵ The administration also rejected a Cuban offer of help after the attack on the US after 11 September 2001. Similarly, Cuba has also rejected assistance from the US in the wake of hurricanes in 2004/2005.³⁶

Discussion

The findings show that Cuba has sustained and improved upon its healthcare achievements in the face of stringent economic conditions, yet these are not widely known. These achievements have been due to a combination of political and collective will, but discussion and debate about them is absent in many global scientific discourses. The adoption of polyclinics for the NHS in England is under discussion. However,

there is little mention of Cuba's example. Observers of Cuba's health economy have put forward reasons for this. Chomsky suggests that the threat of a good example is an ideological factor in explaining why US policy is uncompromisingly hostile to Cuba.³⁷ Spiegel and Yassi point out a contradiction between Cuba's and western economic philosophy: a key assumption of the World Bank and the International Monetary Fund is the 'wealth-health' association, in other words, 'that generating wealth is *the* fundamental precondition for improving health', which is not the case with Cuba.³⁸ Cooper *et al* assert that Cuba's achievements 'pose a challenge to the authority of the biomedical community in countries that define the scientific agenda'.¹² They argue that the public health experience of Cuba should be subjected to objective debate by the rules of science and not by the goal of winning a political argument, the validity of the data or unrelated broader social issues. While a key strategy of global public health is to eradicate some diseases from the developing world, there is a stark absence of discussion of how Cuba has managed to achieve their developed-world health outcomes. Although Cuba has its critics (discussed below), Cooper *et al* opine that global understanding of health has changed over time, putting the 'wealth-health' association in a broader context.¹² Thus an analysis of the 'Cuban paradox'³⁸ may contribute to understanding of the relationship between the two concepts. Data show that the growth that increases disparity is likely to generate more poor health.³⁸ In a speech given by Castro at The Group of 77 South Summit conference in Havana, 2000, he stated that:

'If Cuba has successfully carried out education, healthcare, culture, science, sports and other programs, which nobody in the world would question, despite four decades of economic blockade, and revalued its currency seven times in the last five years in relation to the US dollar, it has been thanks to its privileged position as a non member of the International Monetary Fund.'³⁹

This view is supported by a World Bank assessment of Cuba which identifies that the characteristics of the country's social services are in direct contrast to the advice that the Bank would normally give:

- the public sector is dominant and health is a government priority
- Cuba's social policy objectives have remained unchanged since 1960
- government spends a relatively large part of the gross domestic product (GDP) on health, and this spending remained high even during the mid-1990s crisis, at the expense of defence
- Cuba has demonstrated a remarkable capacity to mobilise the population, and community participation is rather well ensured

- policies are based on comprehensive monitoring and evaluation, backed up with quality data.⁴⁰

Critics of the Cuban regime highlight that the economy is in chaos because of the government's economic model, which has directly affected the health of ordinary citizens (Cuban American National Foundation (CANF)).⁴¹ However, although acknowledgement is given to the significant subsidies provided by the former Soviet bloc which contributed to improved quality of care offered to ordinary citizens, they point out that some of the funds were devoted to maintaining an 'out-sized military machine and a massive internal security apparatus'.⁴¹ CANF argues that the Cuban government has developed a two-tier 'medical apartheid' system, whereby monies are spent on services for a privileged few who can pay in hard currency or are members of the Cuban Communist Party elite, military high command and members and staff of diplomatic missions.⁴¹ The organisation points out that instead of subsidising the biomedical research programme, the money could have been better used for primary care facilities.

Cuba's response to their AIDS problem, by instituting the world's only mandatory quarantine policy for these individuals, has been criticised for ignoring individual human rights, which was seen as an impediment to its public health measures.⁴² Supporters, however, have commended Cuba's commitment to HIV control.³⁷ The Cuban government defends the policy by stating that HIV screening and quarantine were necessary to control the disease. The policy illustrates the trade-offs between individual rights and freedoms and the good of the country. However, Hansen and Groce argue that no systematic epidemiological studies of HIV infection in Cuba have been published to warrant the effects of quarantine, socio-political isolation, living standards or testing and tracing on HIV rates.⁴³

Hirschfeld outlines arguments for suggesting that the unequivocally positive descriptions of the Cuban healthcare system in the social science literature are misleading.⁴⁴ She justifies this assertion by her nine months of ethnographic study and archival research in Cuba. The goal of her study was to find out the extent to which the favourable international image of the Cuban healthcare system was maintained by the Cuban government's practice of suppressing dissent and covertly intimidating or imprisoning would-be critics. She found that informal discussions with Cubans revealed negative comments about their health experiences, which are not articulated in the social science or public health literature on the Cuban healthcare system. As a result of this omission, Hirschfeld argues that scholarly literature on Cuba validates the view that shortages are caused by the US embargo. She points out that her data are intended to be a critique,

not an attack, to illustrate some of the human costs of Cuba's socialist healthcare system.

Conclusions

The establishment and development of Cuba's healthcare system is one of the country's public health achievements and raises interesting questions for public health in general. Cubans have developed a national healthcare system, which has its roots in the *provision* rather than the *purchasing* of health care. Its system is vertically integrated, with each consultorio linked to a specific polyclinic in the neighbourhood. England is currently discussing the implementation of polyclinics, but the scientific merit of Cuba's achievement does not appear to form part of the English debate, possibly due to the complex socio-political and economic framework within which the former healthcare system is provided. Cuba's focus has been on prioritising the health needs of its population in the face of one of the longest and most severe embargos and the collapse of its principal supporter. Despite these setbacks, in 1988, the World Health Organization (WHO) presented Fidel Castro with its Health for All award in recognition of Cuba reaching all the WHO health goals set for developing countries to achieve by 2000.³⁵

REFERENCES

- Demers RY, Kemble S, Orris M and Orris P. Family practice in Cuba: evolution in the 1990s. *Family Practice* 1993;10:164–8.
- Guevara C. On revolutionary medicine. In: Gerassi J (ed) *Venceremos! The Speeches and Writings of Che Guevara*. New York: Macmillan, 1968.
- Mesa-Lago C. *Market, Socialist and Mixed Economies: comparative policy and performance, Chile, Cuba and Costa Rica*. Baltimore, Maryland: The Johns Hopkins University Press, 2000.
- Baker EL. *The Cuban Healthcare System and its Achievement. Cuba's health system: an alternative approach to health delivery*. Houston Texas: University of Texas Health Science Center at Houston, 1975.
- MacDonald TH. *A Developmental Analysis of Cuba's Healthcare System Since 1959*. Lewiston: Edwin Mellen Press, 1999.
- American Association of World Health Report. *Denial of Food and Medicine: the impact of the US embargo on the health and nutrition in Cuba*. Washington DC: American Association of World Health, 1997.
- Barry M. The effect of the US embargo and economic decline on health in Cuba. *American Society of Internal Medicine* 2000;132:151–4.
- Farag E. Cuban healthcare: an analysis of a community-based model. *The Ambassadors Selected Studies* 2000; 3(2) http://ambassadors.net/archives/issue8/cuba_select.htm.
- Sixto FE. An evaluation of four decades of Cuban healthcare. *Association for the Study of the Cuban Economy* 2002;12:325–43.
- Garfield R and Santana S. The impact of the economic crisis and the US embargo on health in Cuba. *American Journal of Public Health* 1997;336:1248–50.
- Rojas Ochoa F. Economy, politics and health status in Cuba. *International Journal of Health Service* 1997;27: 791–807.
- Cooper RS, Kennelly JF and Ordunez-Garcia P. Health in Cuba. *International Journal of Epidemiology* 2006;35: 817–24.
- Carceller CO. Making a difference. *Education for Health* 2006;19:390–7.
- Allad-IW AL. Cuba and Philippines: common colonial history, different government systems. *Bulatlat* 2008; 7:13–19.
- Carroll R. First world results on a third world budget. *Guardian Unlimited Special Report: Cuba*, 2007. www.guardian.co.uk/cuba/0,,711289,00.html (accessed 23 May 2008).
- National Statistics Bureau of the Ministry of Public Health. *Annual Health Statistics Report*. Havana: Ministry of Public Health, 2005.
- Medical Education Cooperation with Cuba (MEDICC). *Cuba's National Immunization Program* (review). Georgia: MEDICC, 2004.
- National Statistics Bureau of the Ministry of Public Health. *Annual Health Statistics Report*. Havana: Ministry of Public Health, 2006.
- Finlay Institute. *Centre for Vaccines Research and Production*. Havana: Finlay Institute, 2007.
- Perez J, Perez D, Gonzalez I et al. *Approaches to the Management of HIV in Cuba: perspective and management in antiviral treatment*. Geneva: World Health Organization, 2004.
- Ordunez P, Munoz JLB, Espinosa-Brito A, Silva LC and Cooper RS. Ethnicity, education and blood pressure in Cuba. *American Journal of Epidemiology* 2005;162:49–56.
- Kirwan D and Baguley D. *Medical Education in Cuba*. 2007. <http://student.bmj.com/issues/07/11/news/386.php> (accessed 23 May 2008).
- Seror AC and Arteaga JMF. A case analysis of INFOMED: the Cuban national healthcare telecommunications network and portal. *Journal of Medical Internet Research* 2006;8(1). www.jmir.org/2006/1/e1/ (accessed 23 May 2008).
- Vogt WP. *Dictionary of Statistics and Methodology: a nontechnical guide for the social sciences*. London: Sage, 1999.
- Zacca Penna E. *The 28th Publication of the Annual Health Statistics Report*. Havana: Ministry of Public Health, 2000.
- Wright RA. Community-oriented primary care: the cornerstone of health reform. *Journal of the American Medical Association* 2000;269:2544–7.
- Castro A and Merrill S (eds). *Unhealthy Health Policy: a critical anthropological examination*. Walnut Creek, California: Atlanta Press, 2003.
- Perez E, Cobiella M and Acosta M. Cuban medical research: legal and ethical aspects of HIV/AIDS in Cuba.

- Medical Education Cooperation with Cuba (MEDICC) 2001;II:2.
- 29 Collinson SR and Truner TH. Not just salsa and cigars: mental healthcare in Cuba. *Psychiatric Bulletin* 2002; 26:185–8.
 - 30 Garraway J. Commentary: the greater Caribbean this week: a novel tourism concept. *Caribbean Net News*, 18 August 2007. www.caribbeanetnews.com/index.php (accessed 23 May 2008).
 - 31 Cuba-trained US doctors graduate. *BBC News* 24, 25 July 2007. <http://news.bbc.co.uk/2/hi/americas/6914265.stm> (accessed 23 May 2008).
 - 32 Americans graduate from Cuban medical school. *International Herald Tribune*, 25 July 2007. www.iht.com/articles/2007/07/25/news/cuba.php (accessed 23 May 2008).
 - 33 Medical Education Cooperation with Cuba (MEDICC). *Cuba and the Global Health Workforce: health professionals abroad*. 2007 www.saludthefilm.net/ns/cuba-and-global-health.html (accessed 23 May 2008).
 - 34 Cherian J. The Cuban difference. *Frontline* 2005;22. www.frontline.in/fl2220/stories/20051007004301800.htm (accessed 23 May 2008).
 - 35 Newman L. *Castro: US hasn't responded to Katrina offer*. 2005. www.cnn.com/2005/WORLD/americas/09/05/katrina.cuba/index.html (accessed 23 May 2008).
 - 36 Cuban doctors on standby to help US hurricane victims. *Caribbean Net News*, 6 September 2005. www.caribbeanetnews.com/cgi-bin/GPrint2002.pl?file=2005/09/06/standby.shtml (accessed 23 May 2008).
 - 37 Chomsky A. The threat of a good example: health and revolution in Cuba. In: Kim JY, Millen JV, Irwin A and Gersham J (eds) *Dying for Growth: global inequality and the health of the poor*. Monroe, Me: Common Courage Press, 2000, pp. 331–57.
 - 38 Spiegel JM and Yassi A. Lessons from the margins of globalization: appreciating the Cuban health paradox. *Journal of Public Health* 2004;25:85–110.
 - 39 Castro Ruz F. Address by Dr Fidel Castro Ruz, President of the Council of State and the Council of Minister of the Republic of Cuba. Opening session of the Group of 77 South Summit Conference, Havana, 12 April 2000. Granma International. www.g77.org/summit/ceniai.inf.cu/fl20400i.html
 - 40 De Vos P, De Ceukelaire W and Van der Stuyft P. Colombia and Cuba, contrasting models in Latin America's health sector reform. *Tropical Medicine and International Health* 2006;11:1604–12.
 - 41 Cuban American National Foundation. *Healthcare in Cuba: myth versus reality*. www.canf.org/Issues/medicalapartheid.htm (accessed 23 May 2008).
 - 42 Sheper-Hughes N. AIDS and the social body. *Social Science and Medicine* 1994;39:991–1003.
 - 43 Hansen H and Groce N. Human immunodeficiency virus and quarantine in Cuba. *Journal of the American Medical Association* 2003;290:2875.
 - 44 Hirschfeld K. Re-examining the Cuban healthcare system: towards a qualitative critique. *Cuban Affairs* 2007; 2(3). www.miscelaneasdecuba.net/media/pdf/Article-Hirschfeld-Press.pdf

CONFLICTS OF INTEREST

None.

FUNDING BODY

University of Hertfordshire.

PEER REVIEW

Commissioned, not externally peer reviewed.

ETHICS COMMITTEE

Ethical approval was gained for interviews.

ADDRESS FOR CORRESPONDENCE

Maxine Offredy, Reader in Primary Health Care, University of Hertfordshire, College Lane, Hatfield AL10 9AB, UK. Tel: +44 (0)1707 28 44 39; email: m.v.offredy@herts.ac.uk

Received 8 March 2008

Accepted 20 May 2008