Challenges for Health and Tourism in Jamaica

David V.M. Ashley,*† Georgiana Gordon-Strachan, Mary Helen Reece, and Deanna E. C. Ashley

Country Profile

Jamaica is an island nation located almost at the center of the Caribbean Sea, approximately 150 km south of Cuba and 160 km west of Haiti, its two nearest neighboring countries. It is the third largest island of the Caribbean and the largest of the English-speaking ones. Its surface area is 11,424 km², and it has a population of approximately 2.7 million. It is dependent on tourism, which contributes 45% of its foreign exchange earnings and 23.5% of gross domestic product annually. This article discusses health risks facing visitors to Jamaica and the challenges posed through tourism growth.

Health Indices

Jamaica has a strong public health tradition with well-trained professionals. Government expenditure on health is approximately 4% of the gross domestic product, and the per capita expenditure on health in 2000 was $45 (US). Using the strategy of primary care, Jamaica has been able to provide a comprehensive health care service. Given the generally good health indices for the relatively limited expenditure, Jamaica has provided good health at low cost.

There have been many significant achievements in health in Jamaica during the past 50 years. Life expectancy at birth is 74 years, with females living longer than males. The infant mortality rate in 1998 was estimated to be 20 deaths per 1,000 live births. The major causes of death and disability in Jamaica have changed from communicable and infectious diseases to the chronic disease conditions. In 1945 the leading cause of death was tuberculosis. Seven of the 10 leading causes of death were infectious diseases. Since 1982 the leading causes of death have been chronic diseases. In children under 5 years of age, the leading causes of death are respiratory distress of the newborn, disorders of fetal growth, and problems associated with childbirth.

The main use of hospital care (excluding obstetric uses) is for unintentional injuries owing to motor vehicle accidents and intentional causes associated with violence. Jamaica has a high rate of crime and violence, despite its decline in recent years. Violence is heavily concentrated in poor inner-city communities, mainly as a result of interpersonal conflicts and gang feuds. Acts of violence and aggression against tourists are infrequent and represent approximately 1% of the cases of illness seen in the sector. Trauma from accidents, however, accounts for 45% of cases requiring medical interventions in tourists. Motor vehicle and water sport accidents account for approximately 50% of the cases seen. Construction of the coastal highway, which began in 2000, has already contributed to safer road conditions for tourists. Road signage improvements and training and certification of taxi and tour operators are part of the ongoing mission of the Tourism Product Development Company Limited (TPDCo. Ltd.) to reduce motor vehicle accidents. In addition, legislation has been enacted for the use of seat belts by drivers and passengers and the wearing of helmets by motorcyclists (legislated in 2000). The Ministry of Health focuses on improving medical emergency services in tourist areas. To reduce accidents from water sports, TPDCo. Ltd. conducts safety training and certification programs for water sports operators.

Health Care and Services

Public health services to the tourism industry are provided on a cost-recovery basis through fees applied for...
health certification of hotels and restaurants and for the training and certification of food handlers. Clinical services for the tourist industry are, to a large extent, provided through a network of hotel nurses and private practitioners on call, supported by the emergency medical and specialist services provided at government hospitals.6

Emerging and Reemerging Diseases

Eosinophilic Meningitis
Infection with Angiostrongylus cantonensis, the most common cause of eosinophilic meningitis, was previously unknown in Jamaica, but larvae may have been introduced with imported food commodities or other goods, or in rats infesting the hulls of boats docking at Jamaican shores. A report of eosinophilic meningitis in an adult Jamaican who had never traveled outside the country raised the question of the endemcity of A. cantonensis in Jamaica.7 Its endemcity was confirmed through an outbreak in 2000 of 11 cases among tourists, apparently resulting from ingestion of contaminated vegetables from a tourist establishment and subsequent identification of the parasite in local rats and land snails.8

Legionnaires’ Disease
There have been no known cases of legionnaires’ disease reported in travelers returning from Jamaica.9

Enterance of the Legionella bacteria to domestic water systems is the most common method of transmission of legionnaires’ disease.10 Routine monitoring of the national water systems is the most common method of transmission of legionnaires’ disease since 1996, and they were reinforced in the Public Health Regulations governing tourist establishments, promulgated in August 2000.11

Communicable Diseases
Communicable diseases such as cholera, yellow fever, yaws, and the plague commonly associated with developing countries have not been reported in Jamaica for several decades. Malaria was eradicated in 1954, and there have been no indigenous cases reported since, although 6 to 10 imported cases are reported annually. The influx of visitors from neighboring Caribbean and Central American destinations puts Jamaica at risk of reintroduction of malaria and cholera. Relevant surveillance strategies have been put in place to monitor travelers from high-risk destinations and the occurrence of suspected cases in the local population.4

Typhoid fever is now far less common than it once was, with fewer than 20 cases reported annually over the past 5 years. Dengue fever is endemic with periodic outbreaks, notably in 1977 and most recently in 1998. Other diseases typically associated with travel to tropical countries are not reported in Jamaica.4

Vaccine-Preventable Diseases
In Jamaica poliomyelitis was eradicated in 1982,12 as was measles in 1992. The last case of diphtheria was reported in 1994, and only two cases of neonatal tetanus have been reported since. Several cases of pertussis-like syndrome are reported annually. In recent years there has been a campaign to eliminate rubella and congenital rubella syndrome. There was only one case of rubella reported in 2000. Approximately 120 cases of tuberculosis were reported annually over the past two decades. The incidence rate for tuberculosis of 4.9 per 100,000 is among the lowest in the world. With an increase in tourist arrivals, the possible reemergence of tuberculosis, especially resistant strains, poses a major threat to the local population. This is especially so because of its association with human immunodeficiency virus (HIV) infections. To date, resistant strains of tuberculosis have not been detected in Jamaica.4

Traveler’s Diarrhea
Until the early 1990s, traveler’s diarrhea was probably the illness of greatest concern to the visitor to Jamaica. A survey by Steffen and colleagues of 29,532 tourists over 16 years old who were departing from the Donald Sangster International Airport, Montego Bay, reported that during the 12-month period between March 1996 and February 1997, 23.6% of tourists suffered from traveler’s diarrhea during their stay.13 Bacterial infection with Escherichia coli was the most common cause of traveler’s diarrhea.14–17

In 1996 the Ministry of Health initiated a program to reduce traveler’s diarrhea by 50% over a 5-year period by improving environmental health and food safety standards of hotels. A surveillance system to monitor illnesses in tourists resident at sentinel hotels was implemented, and a major program of awareness-building, education, and training was developed for the personnel in the industry. By the end of 1998, a repeat airport survey showed that traveler’s diarrhea attack rates had fallen from 23.6 to 18.7%, a reduction of 20.8%. The mean incidence rate of cases reported from sentinel hotels across Jamaica fell from 14.72 cases per 10,000 guests in 1996 to 4.82 cases per 10,000 guests at the end of 2001, a reduction of 67.2% (Figure 1). For the first 5 months of 2002, the incidence rate for traveler’s diarrhea was 4.31 cases per 10,000 guests (D.V.M. Ashley, personal knowledge, 2002).
Sexually Transmitted Diseases and HIV/Acquired Immunodeficiency Syndrome

Many of the traditional sexually transmitted diseases have declined in recent years, but HIV and acquired immunodeficiency syndrome (AIDS) are a growing problem, consistent with worldwide trends. Annually reported cases in Jamaica continue to increase each year. In 2001 it was estimated that 1.2% of the adult population was living with HIV/AIDS. Its highest rates of infection are in urban centers around the city of Kingston and the tourist capital of Montego Bay. Between 1982 and 2001, annual AIDS cases were 367 and 552.6 cases per 100,000 in Kingston and St. James.

Programs targeting hotel staff and commercial sex workers and their customers are part of the strategy to control HIV transmission in tourist areas; these programs include education, promotion of condom use, voluntary counseling, and testing.

Health Challenges

The rapid expansion of the tourist industry has created new demands for a policy and regulatory framework focusing on health and tourism. An intersectoral committee facilitates and guides strategic planning, policy formulation, analysis, and the development of standards for the tourism sector. Quality assurance, training, evaluation, monitoring, and auditing of the sector are the joint responsibilities of TPDCo. Ltd. and Ministry of Health officers in the field.

Preventative, primary health strategies in the tourism sector impact locally on the health of the population in tourist resorts and neighboring regions and on the environment. For example, the risk of outbreaks of food-borne diseases in the tourist sector and indeed locally depends on how food is handled within hotels and restaurants, the health of workers and their families, workers’ knowledge and practice of safe food-handling procedures, and a responsive surveillance system to ensure early detection of problems and prompt intervention; rather than on measures such as immunization of either the visitor or the local population. Regulations governing environmental health and food safety standards in hotels and other tourist establishments were published in The Jamaica Gazette in August 2000. Under these new regulations, the health standards of hotels are subjected annually to rigorous scrutiny. These measures have probably contributed to the decline in the incidence of traveler’s diarrhea in tourists visiting Jamaica.

One of the greatest challenges facing the tourist sector stems from the impact of the industry’s growth on the environment. As the demands for accommodation for visitors have grown, the building of new hotels has preceded the development of the infrastructure for water, sewage, and other forms of waste disposal. Planned and unplanned urbanization and population settlement have resulted in a loss of prime agricultural land and alteration and destruction of coastal and marine ecosystems, jeopardizing biodiversity in these areas and beyond.

In recognition of the environmental and public health impact of this rapid expansion, the National Environment Protection Agency, in collaboration with the Ministry of Health, has implemented an environmental permit system. Environmental impact assessment studies are now mandatory and provide the foundation for a more orderly development of the industry and thereby minimize the negative impacts on the environment. Rehabilitation of watersheds has been assigned a high priority by the government agencies responsible for the environment. Several ecosystem rehabilitation projects are being undertaken to increase the quality and quantity of water for human consumption and disposal of wastes of all types, thus assisting in the conservation of Jamaica’s biodiversity and protection of coastal regions and beaches from pollution.

Balancing the growing demands and expectations of the local population for health care with the health needs of visitors, especially for emergency care, will continue to pose a challenge in the delivery of equitable and quality services with limited resources. Expansion of the tourism sector and diversification of the tourism product challenges the strength and quality of our surveillance systems and our public health education programs in the maintenance of the public health gains of recent years. The threat of emerging diseases and reemerging diseases is imposing new public health challenges to minimize the risk of their spread to locals and visitors to Jamaica.
References