

---

# BRITISH VIRGIN ISLANDS

## GENERAL SITUATION AND TRENDS

### Socioeconomic, Political, and Demographic Overview

The British Virgin Islands is a Dependent Territory of the United Kingdom. It has full internal self-government through a democratically elected Legislative Council. The Government is formed by an Executive Council consisting of a Chief Minister and three other Ministers. The Governor exercises reserve powers on behalf of the Crown. There is no local government machinery or town councils. District Officers with administrative functions have been appointed for the smaller inhabited islands—Virgin Gorda, Jost van Dyke, and Anegada.

Offshore financial services and tourism are the two main activities of the economy. The offshore financial sector is characterized by international business company registration; there are approximately 200,000 companies registered in the territory. Recently proposed legislation expanded the offshore sector to cover mutual funds, shipping registration, captive insurance companies, and limited partnerships. There are 100 mutual fund companies registered as international business companies, and they manage more than 1,500 funds with assets exceeding US\$ 55 billion, including offshore trusts. In 1996 the financial services sector accounted for US\$ 55 million, or 49.1% of total government revenue receipts.

The growth of tourism, government infrastructure projects, and house building has fueled activity in the construction industry. Economic activity in these sectors also has led to the importation of labor, mainly from other Eastern Caribbean countries. Unemployment was estimated at approximately 3.6% in 1991.

The Government relies on locally generated revenue and loans for most of its recurrent and capital spending. It also receives grants-in-aid from the British Government, mainly for internal security and foreign affairs, the areas

covered by the Governor's reserve powers, and to support "good governance."

The standard of housing is good, with an average of four occupants per dwelling. There are small pockets of poverty in the two main urban areas, Road Town and East End/Long Look. In 1994, it was estimated that 17.7% of the population was living in poverty. Zoning laws and development controls have not yet been introduced, so residential, commercial, and industrial land use coexist in the same area.

A compulsory social security scheme covers all paid employees, and both employees and employers make contributions. Self-employed workers also are required to enroll in the plan. The social security plan provides a wide range of benefits, including maternity, employment injury, unemployment, old-age pension, sickness, and survivor's benefit, as well as providing a funeral grant.

Literacy rates are approximately 98.7% for females and 97.8% for males. School attendance is compulsory up to age 15. The average school attendance is 9.4 years per person. An increasing number of preschools have been established. The University of the West Indies has an active center in the territory. The British Virgin Islands Community College has been renamed the H. Lavity Stout Community College, and it occupies a new campus at Paraquita Bay. There are plans to extend the College, including relocating the University of the West Indies center to the Paraquita Bay Campus.

Much of the population growth in the territory has been the result of incoming migrant laborers and their families from other parts of the Eastern Caribbean. In 1995, the population was 18,314 (51.5% male), with 287 births.

### Mortality and Morbidity Profile

A medical practitioner certifies all deaths. Those that occur in a hospital are reported directly to the National Registration

Office; deaths that occur at home are reported to the Office by district registrars.

Between 1992 and 1995, an average of 84 deaths were registered annually in the British Virgin Islands. About 6% of them were coded as ill-defined conditions. Diseases of the circulatory system accounted for 36% and malignant neoplasms for 18% of all deaths. External causes accounted for 7%, conditions originating in the perinatal period for 8%, and communicable diseases for less than 5% of the total. There were no maternal deaths in the period under review, and, with 34 infant deaths, the infant mortality rate for 1992–1995 was 28.7 per 1,000 live births.

More than 60% of all primary care contacts occur in the private sector. The remaining 40% occur at district clinics and at the emergency department of Peebles Hospital. An unknown number of persons also seek primary care in the neighboring United States Virgin Islands. The local health information system does not capture routine data from the private sector, apart from that for communicable diseases. As a result, the only general source of reliable morbidity data is that which can be derived from the pattern of hospital admissions.

Between 1992 and 1995, aside from normal births, diabetes mellitus was the first cause of hospitalization in the Islands, with an average of 62 admissions per year. Alcoholism (in males), hypertension (mostly in females), cholelithiasis (in females), abortions, asthma, and injuries were some of the other important causes of hospitalization. In 1992 there were important outbreaks of fish and shellfish food poisoning cases.

## SPECIFIC HEALTH PROBLEMS

### Analysis by Population Group

#### *Health of Children*

There are very few hospital admissions among children under 5 years old. The leading causes in 1994 were tonsillitis (3 cases), respiratory tract infection (3 cases), bronchopneumonia (5 cases), asthma (6 cases), and hernias (3 cases). The leading illnesses in children 12 years old and younger who attended government district clinics were diarrheal diseases, acute respiratory infections, skin conditions, and intestinal parasites. Between 1992 and 1994, immunization coverage for DTP, polio, MMR, and BCG was 100%.

#### *Health of Adolescents and Adults*

There are no specific services for adolescents, although they are recognized as a group with particular needs. Births

to teenagers accounted for about 10% of births between 1992 and 1995; in 1% of births mothers were under 15 years old.

Injuries and accidents primarily affect the adult population, particularly young males. Chronic noncommunicable diseases were the characteristic health problems of adults. The leading causes of hospitalization throughout the period were mental disorders, diabetes, and hypertension. For women, pregnancy complications and gynecological disorders were the main causes of hospitalization. Among older men, alcohol abuse was associated with traffic injuries, domestic violence, and workplace injuries.

#### *Health of the Elderly*

Cardiovascular and cerebrovascular diseases continue to be the main causes of mortality and morbidity among the elderly. Arthritic conditions also are significant problems. District nursing reports show that in the 1993–1995 period the leading reasons for home visits, in descending order, were diabetes, hypertension, arthritis, accidents and injuries, dressings, and respiratory tract infections.

### Analysis by Type of Disease or Health Impairment

In 1995 there were 34 confirmed cases of dengue. There were no cases in 1994 and three confirmed cases in 1993. The recorded increase is probably the result of better reporting as well as an increase in the mosquito population following a very active hurricane season.

Between 1992 and 1995 there were 22 reported HIV cases (13 were males, 7 females, and in 2 cases the sex was not recorded). Over the same period there were 8 cases of AIDS (4 males and 4 females), and 7 deaths as a result of AIDS (4 males and 3 females). Reported cases peaked in 1993 (9 cases), and decreased to 4 cases in 1994 and 5 cases in 1995. Heterosexual contact is the main mode of transmission; those at highest risk for transmission are in the 20–44-year age group.

Among adults alcoholism is a contributing factor to mental disorder. With younger persons the use of illegal drugs is highly correlated with psychiatric problems.

## RESPONSE OF THE HEALTH SYSTEM

### National Health Plans and Policies

The Government's policy ensures that the public and private health sector provide services that are as comprehensive

as possible using available resources. Government services focus on providing care for children, the elderly, the mentally ill, and the disabled. The Government is the main provider of acute medical and surgical services. Health activities and policies emphasize health promotion. The British Virgin Islands has not formulated a health plan; however, Government health priorities are to improve hospital services, strengthen public primary health care services, and enhance all aspects of environmental health, including solid waste management.

In accordance with the 1976 Public Health Act, which provides the statutory framework for protecting and promoting the population's health, government health services are provided free at the point of use to certain groups, including full-time schoolchildren, nursing mothers, the elderly, the mentally ill, health workers, firefighters, the police, prisoners, and prison officers.

### *Health Sector Reform*

The Government of the United Kingdom funded a health sector adjustment project in the 1990s covering four British Dependent Territories in the Caribbean, including the British Virgin Islands. The Project was managed by Keele University in the United Kingdom, which provided two full-time health sector development advisers, based in the Caribbean. In addition, the Project hired consultants to assess issues such as health information, solid waste management plan, mental health services, and services for the terminally and chronically ill. Proposals for restructuring the management in the Ministry and in the Public Health Department were accepted by the Government in 1995 and are in the process of implementation.

## **Organization of the Health Sector**

### *Institutional Organization*

The Ministry of Health and Welfare is responsible for providing public health and social services, as well as for monitoring and regulating private sector providers. Policy decisions are made by the Minister in consultation with the Director of Health Services and the Permanent Secretary. The Director of Health Services is charged with the day-to-day management and planning of health services. The Permanent Secretary is responsible for the administration of the Ministry headquarters and for supporting the Minister in his policy role.

The Public Health Department is responsible for managing government health services. The Department is organized into hospital and primary health care services; each is headed

by a senior manager who reports to the Director of Health Services. Budgetary responsibility is devolved to the heads of the respective units.

The Medical Act, which currently is under revision, provides for the registration of doctors and certain allied professionals. There is a separate Nursing Act that provides for certification of nursing professionals.

The territory has a vigorous private health sector, encompassing both inpatient and ambulatory care. Many residents also go off-island for health care, mainly to the United States Virgin Islands or Puerto Rico, either through choice or because they require specialized care unavailable locally. British Virgin Islands residents also have access to specialist care in the United Kingdom, which is arranged through the International Division of the United Kingdom's Department of Health.

## **Health Services and Resources**

### *Organization of Services for Care of the Population*

**Maternal and Child Health Services.** The Health Department has the following objectives regarding prenatal care: to initiate prenatal care for 90% of pregnant women by the 16th week of pregnancy; attain 90% coverage of all pregnant women, with a minimum of 10 prenatal visits; have 95% of deliveries take place at the hospital; ensure that every woman with complications or known health risks receives the care her condition warrants; and attain 90% tetanus toxoid coverage of all pregnant women.

Pregnant women are encouraged to seek prenatal care from district clinics or private doctors. All pregnant women are referred to the hospital clinic by the 12th week of pregnancy, where an obstetrician conducts comprehensive assessments to identify high-risk cases. Hemoglobin levels are appraised, anemia treated, VDRL tests performed, and tetanus toxoid is administered. All pregnant women are referred to Peebles Hospital for delivery. Between 1992 and 1995 there were 1,208 hospital deliveries, an average of 302 annually.

District clinics provide a full range of child health services, including growth and nutritional monitoring, development assessment, treatment of common illnesses, counseling, school health, vision and hearing screening, and screening for anemia, including sickle cell anemia. All school students undergo a complete physical examination prior to entering high school.

Fort Charlotte School is a 12-slot facility for children with special needs run by the Department of Education. Attendees include children with Down's syndrome, cerebral palsy, physical disability, autism, and attention deficit disorder. The school had an average of 10 attendees during the review period.

**Family Planning.** There have been wide fluctuations in enrollment in family planning services. In 1991, there were 1,764 acceptors, increasing to 3,606 in 1992, falling to 2,542 in 1993, and dropping further to 1,431 in 1994. Condoms are available from many shops and stores in the territory; about 1,500 condoms were dispensed through health clinics. In 1994, 56% of acceptors chose oral contraceptives, 40% chose injections, and 1.5% chose the IUD. The diaphragm and tubal ligations were chosen by fewer than 0.5% of acceptors.

**AIDS Prevention.** The British Virgin Islands has an intersectoral National AIDS Committee. All blood for transfusion is screened for HIV. Community education is a key national strategy for combating AIDS, and there have been numerous campaigns and a consistent media strategy to maintain AIDS awareness.

**Control of Noncommunicable Chronic Diseases.** Diabetes and hypertension rank among the top five causes of death and reasons for hospital admission, district clinic attendance, and home visits by nurses. The Ministry of Health, in conjunction with the Diabetic Association, has undertaken major initiatives to control these diseases, including public education and improved clinical advice for diabetics and their families. There are protocols for the management of persons with diabetes and hypertension, and hypertension and diabetic clinics are conducted on Tortola at Road Town, East End, Capoons, and Carrot Bay. On Virgin Gorda there are hypertension and diabetic clinics at North Sound and the Valley. In 1993 there were some 1,800 clinic visits and 1,978 visits in 1994 for both conditions territory-wide.

**Mental Health.** Mental disorders, including alcoholism, drug-induced psychoses, non-specific psychoses, and schizophrenia have been the leading causes of hospitalization for the past 10 years. The community mental health center located in Road Town provides most of the ambulatory care for the territory. Its approach emphasizes treating individuals in their community, including monitoring and administering medication, providing family counseling, and promoting self-care. Mental health center staff visit the hospital, the prison, and the geriatric home as necessary. In 1991, there were about 1,873 patient contacts, 1,001 in 1993, and 1,566 in 1994. Most were seen at weekly clinics, including drop-in sessions. Since 1993, the male-to-female ratio for mental health services has been 2:1.

Psychiatric patients are admitted to the medical ward of Peebles Hospital, an arrangement that is less than satisfactory from a clinical point of view. There are only two secured rooms on the medical ward and non-disruptive patients are admitted on the general medical ward. There are no psychiatric nurses on staff and quarters are cramped.

In 1995, a drug rehabilitation facility was opened within walking distance of the community mental health center. The drug treatment center saw 90 persons during 500 contacts in 1995–1996. Once it began to operate, the center's mandate was expanded to cover all substance abuse, domestic violence, and child abuse problems.

**Environmental Health.** The Environmental Health Division is part of the Health Department. The Solid Waste Department is directly responsible to the Permanent Secretary of the Ministry of Health and Welfare. Several other ministries and departments also are involved in environmental health matters, including the Conservation and Fisheries Department, the Department of Agriculture under the Ministry of Natural Resources and Labor, and the Water and Sewerage Department under the Ministry of Communications and Works. Consideration is being given to transferring responsibility for water supply to the Electricity Corporation, which now produces a substantial amount of potable water and sells it directly to the public.

The Environmental Health Division is responsible for food hygiene, vector control, water quality surveillance, institutional hygiene, the maintenance of public conveniences on Tortola and Virgin Gorda, and the investigation of nuisance complaints such as septic tank problems, rodents, and abandoned vehicles. The bulk of the Division's non-salary budget is allocated to vector control activities, which mainly involve efforts to reduce the *Aedes aegypti* mosquito population to a level where the risks of transmission of dengue are reduced to a minimum. The usual control measures are fogging, oiling, and the supply of larvivorous fish. During 1995, four cycles of treatment and inspection took place. The house index was 5.4%, which is comparable to the 5% figure seen in 1992. There has been increasing demand for rat baiting, but the Government has not allocated funds for this purpose. An estimated US\$ 6.40 per capita was spent on vector control activities in 1995.

**Food Safety.** The food hygiene program inspects food-handling premises and provides training for staff involved in food handling. All food handlers are required to have physical examinations, laboratory tests, including tests for tuberculosis and VDRL, and stool examinations for ova and parasites. In 1995, 90% of establishments met food hygiene requirements.

**Drinking Water.** All households have access to potable water, which is mainly supplied through rainwater collected in household cisterns. Piped water is supplied by the Water and Sewerage Department, and is obtained from several groundwater sources and from a desalination plant. Tortola's main water supply only reaches Road Town and its environs; pipes are being laid to extend the supply eastward along

Ridge Road, and plans are under way for further expansion of the system.

The Water and Sewerage Department monitors the quality of the water it produces, as does the Environmental Health Division. The Division's water quality and institutional hygiene programs deal with the surveillance of water supplies and ensuring the maintenance of a basic level of sanitation in public institutions such as schools, preschools, day-care centers, and clinics. The bacteriological quality of the public water supply is monitored at least once every two months, cistern water is examined, and employees of water bottling companies are certified. In late 1995, the Division received a portable testing laboratory that enables it to undertake its own fecal coliform testing. The Conservation and Fisheries Department, in association with the Water and Sewerage Department, monitors water in recreational areas.

**Pollution.** Land and sea pollution continues to be a problem. The leading pollution sources are used motor oil, effluent from septic tanks, garbage, surface run-off, old batteries, and household and commercial chemicals. Untreated sewage continues to be discharged into the sea by some yachts, marinas, seafront hotels, businesses, and residences. The increase in the number of cruise ships poses an additional threat of water contamination and added demand for solid waste services.

Only about 7% of households (400) are connected to the sewerage system, and most households rely on septic tanks; some 4% have no approved toilet facilities. Malfunctioning soakaways resulting from poor soil permeability continue to pose serious problems, particularly in communities where large apartment buildings have been constructed.

**Solid Waste Disposal.** The Solid Waste Department is responsible for the collection and disposal of solid waste, operation of the Pockwood Pond incinerator on Tortola, street and road cleaning, roadside trimming, gully cleaning, and beautification. The Department is no longer responsible for liquid waste disposal, but the transfer of this responsibility is still under consideration. The Department now controls an annual budget of US\$ 2 million and has 8 salaried personnel and 55 daily paid personnel.

A combination of landfill and open burning is used on all major inhabited islands, except Tortola. Solid waste is collected by private contractors and by staff directly employed by the Solid Waste Department. The Government covers the cost of solid waste collection and disposal, although some owners contract and pay private collectors. There are no dumping fees or taxes levied. Although services are considered to be good, glass recycling may become necessary in the future to avoid incinerator capacity limitations and to extend landfill life. Hazardous and special waste is disposed of at the incinerator on Tortola.

There is a need for a long-term landfill site for Tortola, and alternative management practices to reduce the bulk of waste and to increase recycling need to be considered. More guidelines must be developed and a better system established for the collection and disposal of hazardous or special waste.

**Health Promotion.** The Health Education Division of the Public Health Department is responsible for most of the formal health promotion undertaken in the British Virgin Islands. It carries out health education, public relations, and communications activities pertaining to health matters, and also provides technical support to other parts of the Health Department and to certain NGOs. It relies on radio programming, advertising, video presentations, printed material, press releases, press contacts, and audiovisual presentations to conduct programs aimed at the public at large and at target groups. A senior health educator, a health educator, a communications specialist, and an audiovisual technician staff the Division. Priorities for the Division are the prevention and control of AIDS and other sexually transmitted diseases, cancer, heart disease, and diabetes. Health promotion activities regarding drug demand reduction are undertaken by the National Drug Advisory Council and its service arm. The Solid Waste Department also undertakes health promotion activities related to its area of responsibility.

#### *Organization and Operation of Personal Health Care Services*

The first level of public health care is the district clinic. District clinics are supported by Road Town Health Center and Peebles Hospital, located in the same compound in Road Town. Catchment populations for district clinics range from 141 persons at the Jost van Dyke Clinic to 9,106 persons at the Road Town Health Center on Tortola, numbers augmented by tourists and temporary residents, such as yacht dwellers. The Road Town Health Center serves as a referral point for the district clinics and includes a family planning service. Public health nurses are being trained to take on family planning duties at the district level. Other primary care facilities available include a drug-treatment center, a community mental health center, and a dental unit, all of which provide services that are not routinely available at district clinics. The drug-treatment center and mental health center are based in Road Town.

The island of Virgin Gorda has two clinics. The clinic in The Valley may expand the scope of its services. The clinic in North Sound has a catchment population of 582; it has one bed and a resident nurse. A full-time physician serves Virgin Gorda, in addition to a public health nurse, midwife, environmental health officer, and several junior nurses. The clinics on Jost van Dyke and Anegada both have resident nurses and a physician who makes weekly and bi-weekly visits, respec-

tively, to the two islands. Private medical practitioners based in Tortola also visit Virgin Gorda, Jost van Dyke, and Anegada.

Doctor clinics are held at all health clinics. In 1994 these accounted for 293 clinic sessions, 3,984 total attendances, or an average of 14 patients per session. Doctor clinics mainly served the elderly and other persons who are exempt from fees. The leading causes of clinic visits by adults, in rank order, were diabetes, hypertension, arthritis, accidents/injuries, dressings, and respiratory tract infections.

The 50-bed Peebles Hospital in Tortola (44 beds in operation) is the main provider of secondary care and is administered by the Government. It offers surgical, obstetric, medical, pediatric, and psychiatric care on an inpatient basis. All service areas are covered by local doctors, except for psychiatry, which is served by a part-time consultant psychiatrist based in Barbados. Hospital ambulatory care includes emergency care and several outpatient clinics, including pediatrics, surgery, medicine, ophthalmology, dermatology, and obstetrics. Clinical support includes physiotherapy, x-ray, and laboratory services. In 1995 there were 1,918 outpatient visits; 17,168 emergency department visits, and 1,423 inpatient admissions. The occupancy rate (based on 44 beds) was 51% and the average length of stay was five days.

The Community Mental Health Center provides psychiatric service on an outpatient basis. The Adina Donovan Home, which is adjacent to Peebles Hospital, is a residential facility for the elderly run by the Ministry of Health and Welfare.

One dentist, two dental nurses, and one dental hygienist staff the Government's three-chair dental unit in Road Town. There is one dental chair in Virgin Gorda and one in Anegada, where services are provided one day per week and one day per month, respectively. Government oral health services mainly treat children; the dental officer treats adults in private clinics part-time on a split-fee basis with the Ministry. In 1994, US\$ 112,000 was spent on public dental services. No index for decayed, filled, or missing teeth (DMFT) is available for the territory.

There is an active and well-established private health sector. An eight-bed clinic performs reconstructive, general, and hand surgery, and had an annual average of 354 patients during the review period. There are two private dental clinics in Road Town. The dental workload in the private sector was an estimated 18,000 courses of treatment per year, compared with the public sector dental workload of 2,182 in 1991, which rose to 5,000 in 1993. The vision center conducted 1,500 consultations in 1992 and 2,500 in 1993. In addition, there are several private medical practices; the two largest are located in Road Town, and one has a branch in Virgin Gorda. Both centers have a pharmacy and mammography, ultrasound, and x-ray diagnostic equipment. They also provide a broad range of family practice services, including extended hours for walk-in treatment. There are at least two private

physicians working in individual practices on a part-time basis. One full-time chiropractor and 8 to 12 traditional practitioners work on a fee-for-service basis.

During the 1991–1993 period it was estimated that between 55% and 60% of primary health care contacts were in the private sector, and for some specialties such as ophthalmology and gastroenterology, around 90% of the care is in the private sector. The distribution of laboratory tests, prescriptions, and imaging also follows this pattern.

Specialized services are provided through referrals to institutions abroad (the U.S. Virgin Islands, Puerto Rico, and the United States mainland). The individual usually pays for this care, but, in some cases, employment-based health insurance, personal health insurance policies, or the industrial injury provision within the social security scheme cover the costs. The Social Security Board has consistently made grants to the Health Department to widen the scope of local services, so that a larger number of those experiencing work-related injuries can receive treatment locally, rather than being sent off-island.

#### *Human Resources*

Nursing assistants are trained locally. In 1994, a degree level program for nursing began at the Community College, in association with Hocking College of Ohio (United States). Further professional training is done in other Caribbean countries, the United States, or the United Kingdom. Health personnel also participate in local staff development programs organized by the Health Department and the Government's Training Division. They also take advantage of programs provided through the University of the West Indies' distance education facilities.

Overall reliance on foreign-born and trained nurses and doctors remains high. Nurses tend to come from within the Caribbean, doctors from further afield. Non-nationals usually receive two-year contracts, and there is high turnover of foreign staff.

#### *Expenditures and Sectoral Financing*

Public health services are almost wholly financed by the Government. User fees generally raise only 5% of the operating costs of hospital, primary health care, and solid waste services. In 1991, expenditures on public health services stood at US\$ 5.96 million with hospital services accounting for 58% of expenses, primary health care for 22%, and solid waste management for 18%. By 1994 the total figure had increased to US\$ 10 million, with hospital services accounting for 64%, primary health care for 18%, and solid waste management for

16.8% of expenditures. Financial analysis of the health sector estimated that in 1993 the public sector accounted for approximately 51% of health care expenditure in the territory. There was no significant capital expenditure in the health sector during the review period.

In the private sector, health insurance premiums paid by employers, including the Government, parastatals, and private sector employers accounted for an estimated 21% of expenditures. Direct payments to practitioners represented 9%; medicines, dental, and optical appliances, 12%; fees paid to traditional practitioners, 1%; and fees paid to government

providers accounted for 2% of private sector health outlays. No estimates were made of the amount spent by the population for health care services purchased off-island.

Health insurance premiums have been a growing area of expenditure in the territory. All government and parastatal employees are now eligible to join group schemes. Many private companies also offer this as a benefit. The premium-to-claim ratio for Government and parastatal schemes are 4:1 or worse. In other words, 25% or less in claims are met from the premiums paid. These payments now represent a large financial outflow, while offering little enhancement of local services.