TRINIDAD AND TOBAGO

GENERAL SITUATION AND TRENDS

Socioeconomic, Political, and Demographic Overview

Trinidad and Tobago is a twin-island State situated at the southern end of the Caribbean chain of islands. Having gained its independence in August 1962, the country is a democratic republic within the British Commonwealth. Tobago is administered separately by the Tobago House of Assembly, which was established in 1980. Trinidad is currently organized into 13 administrative areas or Regional Corporations as set up under the 1981 Regional Corporation Act. Most official data, however, continue to be reported by the original eight Counties and three Municipal Corporations because there have been delays in establishing all of the Regional Corporations.

Since the 1960s, the economy has been characterized by heavy dependence on the production and export of petroleum and gas. Per capita GNP peaked in 1982 at US$ 6,600, followed by sharp contractions until 1988, when the Government implemented an economic reform program. The lowest per capita GNP of US$ 3,160 was recorded in 1989. Since then there has been steady improvement—primarily due to measures of trade and currency liberalization; diversification strategies into agriculture, manufacturing (non-oil), and tourism; and restructuring, divestment, and liquidation of a number of State enterprises. In addition, a tax reform program introduced a 15% value-added tax and reduction of personal and corporate taxes, tighter control of public expenditure and reduction of the fiscal deficit, and increases in public utilities tariffs. In 1994 the GNP was US$ 3,740.

The currency value has remained fairly stable since the floating of the dollar in 1993 (from TT$ 5.40 to TT$ 6.30= US$ 1). There has been, however, slippage of about 10% between mid-1996 and mid-1997. Inflation rates, as measured by the change in the index of retail prices, declined to about 3.2% for 1996. In keeping with this economic recovery, there has been a reversal of the unemployment trends because of increases in the non-oil sectors of tourism and other service industries. The labor force is growing (521,000 in 1995 from 467,700 in 1990), with declining unemployment rates (17% in 1995 from 20% in 1990) and growing participation rates (60% in 1995 from 56% in 1990). Among women, unemployment rates are higher (23% compared with 19% for men), and participation rates are lower (45% for women compared with 75% for men), probably due to lower levels of education, sociocultural factors, and a difficult employment situation. Approximately 22% of households have no employed participant.

Over the period of Trinidad's economic recession (1982–1989), the available data indicate an increase in the levels of poverty—from 3.5% of households in 1981 to 14.8% in 1988. While it is difficult to measure the impact of the Government's structural adjustment program on the welfare of the population, it is likely to have resulted in a decline in living standards and an increase in unemployment. Recent estimates indicate that poverty levels continued to increase from 1988 to current levels of 21%–22% of the population, with a further widening in the distribution of income. About half of these are individuals classified as extremely poor—those unable to afford the cost of a minimum food basket.

Poverty is evenly divided between urban and rural areas, although the severity of poverty is worse in urban areas. Almost one-half of the poor live in Saint George County. In urban areas, the economic pressures of the poor, coupled with high youth unemployment, have contributed to growing problems of crime and drug use—the problem is particularly acute among young males.

There has been a steady and significant improvement in the level of educational attainment in the population. In 1970, approximately 8% of the population had no education and by 1990, this had been reduced to about 3%. Between 1980 and 1990 there was a steady increase in the percentage of both men and women achieving secondary (from 32.7% to 44.4%) and tertiary (from 2.2% to 2.9%) education levels. The adult literacy rates also testify to sustained achievement (94% and

96% for 1970 and 1980, respectively). There is, however, growing concern about functional literacy.

The revised 1995 mid-year population estimate is 1,259,971 based on the 1990 census population of 1,238,800 and an average annual growth rate of 1.1% over the period 1990–1994 (down from 1.27% in the 1985–1989 period). The male-to-female ratio is 101:100. The slowing of population growth is partly due to declines in the total fertility rate (2.4) and crude birth rate (from 19.7 in 1990 to 15.8 in 1995), a stable crude death rate (6.7 in 1990 and 7.1 in 1995), and stabilized emigration between 1980 and 1990 (estimated at 131,918).

These trends are also reflected in a more constrictive-shaped population pyramid: 33.5% of the population is under 15 years of age and 6% are over 65. Based on present trends, however, the expectation is that by 2015 the age group under 15 years old will fall to 23.9%, with the group over age 65 increasing to 7.5% of the total population. Nearly 72% of the population is considered urban.

The ethnic composition of Trinidad and Tobago consists of almost equal proportions of persons of African and East Indian descent—approximately 40% each. The remaining 20% is made up mainly of persons of mixed ethnicity (18.5%) and less than 2% of all other groups (Caucasian, Chinese, and "other" or not stated). There are significant differences by county—persons of African descent are most predominant in Tobago (92%) and in Saint George (50%); persons of Indian descent are predominant in Caroni (67%) and Victoria (62%). Between 1980 and 1990, every ethnic group showed a decline in representation except the mixed ethnic group, which increased from 16.3% in 1980 to 18.5% in 1990—an increase of approximately 13%.

Mortality and Morbidity Profile

Life expectancy at birth continues to increase; in 1990, the figure was 72.7 years for females and 69.3 for males. Between 1980 and 1990, much of the gain in life expectancy at birth was, however, in the under-15 age group, with less than a one-year gain at age 65.

A major reason for the improvement in overall life expectancy over the last 30 years has been the drop in infant mortality from 110 per 1,000 live births in the 1940s to 21.7 per 1,000 in the 1980s, and 18 per 1,000 live births in the 1990s. In addition, the mortality rate for the 1–4-year age group remained fairly stable over the 1985–1995 period, at around 4.8 per 100,000 population.

Mortality by the broad groups of causes is ranked as follows (percentages shown are for 1994 data): diseases of the circulatory system (39.7%), tumors (13.4%), diabetes (12.5%), external causes (7.3%), communicable diseases (5.6%), and certain conditions originating in the perinatal period (1.9%).

Treatment for common diseases is readily available from a network of 101 health centers, 7 hospitals, and approximately 400 private general practitioners. At the point of access, government centers are free, including diagnostic and pharmaceutical supplies. However, two major national surveys, the 1992 Survey of Living Conditions and the 1995 National Health Survey, show that persons seek care in the private sector (45% and 43%, respectively, by survey) or public hospitals (36% and 19%, respectively) significantly more than at the government health centers (9% and 22%, respectively).

The 1995 National Health Survey was conducted as part of the pre-implementation work for the health sector reform program. It was principally designed to fill the data gap about the overall health status of adults and therefore focused on those 15 years old and over. The results are intended for use as baseline information on health needs, morbidity, and patterns of service utilization in conjunction with routine information collected by public sector facilities. The survey contacted 3,240 households and interviewed 6,342 adults, with a response rate of 97.7%. Only persons 35 years and over were questioned about diabetes, hypertension, and heart disease. Responses were based on self-reported disease.

The survey showed that whereas acute symptoms were reported by 38% of the population, chronic conditions affected health status and health behavior to a greater extent. Injury, for example, did not emerge as a major problem until it became a long-standing condition. Chronic or long-standing conditions appear to cause the most burdens in terms of health status. The 1995 survey also showed that the variable that most affected the choice of provider and the cost of health care was a chronic medical condition.

SPECIFIC HEALTH PROBLEMS

Analysis by Population Group

Health of Children

The infant mortality rate in 1994 was 13.8 per 1,000 live births. Problems with underreporting of infant deaths, particularly in the neonatal period, have been identified and plans have been implemented to strengthen the reporting system by: (1) agreement on the procedures for reporting stillbirths and births of gestational age greater than or equal to 28 weeks, and (2) improving the completion of death certificates.

The implementation of "baby friendly" initiatives in the hospitals has improved the prevalence of breast-feeding. In 1995, about 43% of infants attending health centers were totally breast-fed for at least 1 month and 25% for at least 3.

Immunization programs are well organized and continue to have consistently high rates of success and coverage. The pro-

grams are also well monitored, and given the high national attendance at primary school level, they benefit from being linked to criteria for admittance to school. Dropouts and missed opportunities are usually picked up at this stage. Polio and DTP immunizations start at 3 months of age, and measles and yellow fever inoculations are given by age 2 years.

Improvements in socioeconomic conditions, environmental conditions, and access to child health services (free in the public sector) have influenced the dramatic fall in both mortality and morbidity in the 1–4-year age group. In 1994, the mortality rate for this age group was 4.8 per 100,000 population. In that year, 16.6% of deaths were due to external causes.

There is low prevalence of satisfactory breast-feeding practices for infants under 1 year old, and areas of malnutrition and poor coverage of routine screening for children between 2 and 5 years old are suspected to be on the rise. Morbidity reports from public sector clinics show no significant change in recent years. Skin complaints (32%) and acute respiratory tract infections (18.8%) are the most common reasons for visits at this age. Diarrhea is reported more often as a recurrent event on the communicable disease surveillance system (15,355 cases in 1994).

First visits to clinics by infants in the first and second years of life amount to about 80% of the target population, but at 2 years of age, coverage is less than 50%. The mean number of visits by infants under 1 year is 4.2, sufficient to produce adequate immunization; 20% of infants are visited at home. On average, each child attends a clinic 1.7 times between the ages of 1 and 4 years.

Deaths from external causes account for approximately 42.8% of male deaths and 22.7% of female deaths in the 5–14-year age group. Neoplasms account for 14.3% of male deaths and 11.4% of female deaths, while communicable diseases account for 6.1% mortality in males and 15.9% in females. Children in this age group make few contacts with the health services, except for illness and immunization.

The school health service has inadequate resources and is currently under review. Programs geared to prevent HIV/STDs and teenage pregnancy, and to promote nutrition and physical activity start at the primary school level. While there are sporadic attempts by the Health Education-Department, Ministry of Health, and some NGOs, these programs are not sustained. The Ministry of Education, through its family life programs and other projects such as the "Youth Self-Esteem Project," is doing more in this area.

Health of Adults

The major contributor to mortality in young adults 15–24 years old is external causes, accounting for 64.1% of deaths in males and 32.9% in females. Mortality rates for motor vehicle accidents, drowning, homicide, and suicide contribute equally to male deaths in this age group. Among females, however, homicides and suicides are responsible for 67.8% of these deaths. Neoplasms account for 10.6% of deaths in males and 6.3% in females.

Morbidity reports for this age group are not available. Incomplete data from HIV/STD services indicate that STD rates have not declined. Teenage pregnancy rates are high in urban areas (13.5% of all live and stillbirth deliveries were to teenagers, with an age-specific fertility rate of 45.9%). Data from the National Drug Abuse Unit indicate increasing rates of marijuana and cocaine use in this age group. These data are based on reports of the police and health services.

In 1994, among adults aged 25 to 44 years old, approximately 31.2% of male deaths were due to external causes (motor vehicle accidents, 18.3%; suicide, 24.8%; and homicide, 31.7%). Circulatory diseases caused 14.2% of deaths from defined causes. The leading causes of female deaths were distributed as follows: circulatory diseases (20.1%), communicable diseases (5.6%), cancer (19.1%), and deaths from external causes (13.2%). The 1995 National Health Survey indicated disability prevalence rates of 12.5% in males and 15.2% in females; prevalence of self-reported diabetes and hypertension of 3% and 11%, respectively (in the 35–44-year age group); 13% prevalence of a history of injury in males and 7% in females; and mental illness reported in 4.5% of males and 6% of females.

Circulatory diseases dominated the mortality profile among older adults (45–64 years old) in 1994, accounting for 39.8% of deaths in males and 39.5% in females. Diabetes ranks second for both males and females (17% in males and 21.2% in females). Cancer is also an important cause of death in this age group (20.5% in females, 12.1% in males). Although deaths due to external causes were proportionally less, these accounted for 9.1% of deaths in males and 2.2% in females.

Health of the Elderly

Although the elderly (age 65 and older) currently represent only 6% of the population, the proportion is growing. The principal causes of death in this age group are circulatory diseases (46.8% in men and 51.2% among females), neoplasms (15.4% in men and 11.8% in females), and diabetes (11.7% in men and 14.9% in women).

In the 1995 National Health Survey, 49% of persons over age 65 reported that they had a chronic condition that limited their usual activities. The data show that 12% reported severe pain, 33% were limited in their social activities, 27% had difficulty carrying parcels, 12% had difficulty walking 10 yards, 5% had a problem dressing, 36% had difficulty reading, 19% had a hearing problem, and 23% had a memory or learning disability.

Family Health

The delivery of family planning services is shared mainly by the Ministry of Health—as an integral part of its maternal and child health program in health centers and in postnatal wards and clinics of hospitals—and by the Family Planning Association of Trinidad and Tobago, an NGO. With the collaboration of the Ministry of Education, both agencies carry out targeted public education programs and family life education programs in schools.

Since 1989, clinics of both the Family Planning Association and the Ministry of Health have recorded a decreasing number of new family planning acceptors. This trend has been most marked with regard to adults, among whom the figure for new attendance at health centers and family planning clinics totaled 29,805 in 1995, a decrease of nearly 30% from 1993. The range of contraceptive methods available is limited. The most popular method remains condoms, followed by oral and injectable hormonal methods; the IUD is not widely used. Sterilizations requested at the Family Planning Association are mostly for women, although a few vasectomies are performed. Consistent supplies of contraceptives are a problem in the health centers.

Health of the Disabled

Based on the 1995 survey, 22% of the population 15 years old and over have some disability. Chronic medical conditions contributed to 40% of this disability for the age group under 65 years and 60% for those older than 65 years. Disability has a significant effect on the reporting of health status and a profound one on employment, income, need for care, utilization and many variations of health status. Specific types of disability were also measured. Visual disability affecting reading was high across the whole population (14% in males and 20% in females). Hearing disability affected 6.3% of females and 4.5% of males. As expected, disability as a whole increased to 50% for those over age 65 and increased markedly for each type of disability.

Analysis by Type of Disease or Health Impairment

Communicable Diseases

Communicable diseases are still an important cause of death and morbidity in Trinidad and Tobago, causing 7% of deaths. They are the second most frequent cause of admission to acute-stay hospitals (8%).

Vector-Borne Diseases. Surveillance of mosquito-borne diseases has been stepped up in 1996–1997, particularly as it applies to the control of dengue and dengue hemorrhagic fever. Emphasis has been on community-based interventions rather than insecticide control.

Although dengue is transmitted by vector, the vector's association with water storage is a factor contributing to its endemic aspect. There is poor coverage in terms of potable water supply and efficient wastewater treatment. The Water and Sewerage Authority continues to work with the other agencies to improve this situation but the solutions are largely determined by the necessity to invest large sums of money in the national infrastructure.

Vaccine-Preventable Diseases. Free routine immunization of infants and children is offered in all health centers. In accordance with PAHO protocol, antigens are administered in the first year of life. Coverage for DTP and polio (three completed doses) was 90% in 1995. Yellow fever, measles, mumps, and rubella (MMR) vaccines are given in the second year. In 1995, 89% of the target population received MMR vaccination, while 83% of 1-year-olds received yellow fever vaccines. Booster shots are given according to schedules at all schools. Pregnant women receive tetanus boosters as needed. BCG is not given routinely. A national measles vaccination campaign in 1997 achieved 95% coverage of the target population (children 1–14 years old).

Hepatitis A is endemic, with occasional epidemic outbreaks.

Cholera and Other Intestinal Diseases. Surveillance of diarrheal disease has been stepped up since 1991, when cholera began to reemerge in the Americas. In 1997, the cholera prevention campaign was reactivated after new cases were identified in nearby coastal areas in Venezuela. Trinidad and Tobago has remained cholera-free.

There are relatively few deaths that can be directly attributed to poor environmental sanitation. Outbreaks of communicable diseases, however, still occur from time to time. Although there has been a reduction in mortality from diarrhea, a steady rate of reported cases continues. Both viral and bacterial diarrheas are prevalent.

Acute Respiratory Infections. Influenza and gastroenteritis are the most frequently reported diseases to the National Surveillance Unit. Influenza reports are not laboratory confirmed and may include other types of acute respiratory infections.

Rabies. Surveillance for bat-transmitted rabies continues and involves the veterinary public health unit of the Ministry of Health.

AIDS and Other STDs. The AIDS epidemic continues to cause premature deaths among young (20–35-year-olds),

sexually active males and females, and the children of HIV-positives (accounting for 71%, 7%, and 7.2%, respectively, of total AIDS deaths from 1983 to 1995). The pattern of this disease in Trinidad and Tobago is that of heterosexual transmission (51.9% of cases in 1983–1995). Incidence rates are still rising (from 14.0 per 100,000 population in 1990 to 27.2 per 100,000 in 1995) as are the laboratory-reported HIV-positives (from 31.4 per 100,000 in 1990 to 53.4 per 100,000 in 1992), and this trend is expected to continue. Hospital costs are difficult to estimate, as only 1,077 patient days were attributed to AIDS in 1990.

It is important to note that other STDs among adolescents may be on the increase along with HIV incidence, making the efficiency of the STD surveillance system an important factor in controlling AIDS. Unpublished data from the Department of Pediatrics, Port-of-Spain General Hospital, indicate that many women discover they are HIV-positive only after their child is diagnosed as such. The possibility of prenatal testing for women is under consideration.

Data on STDs come from government STD clinics, and they are generally underreported. Crude rates for both syphilis and gonorrhea have declined over the past 10 years. Gonorrhea cases have declined from 311 in 1985 to 160 in 1994 for both sexes. When the rates are disaggregated by age and sex, males in the 15–24-year age group have the highest rates. These figures continue to be a source of concern.

In 1991, there were 1,153 admissions due to pelvic inflammatory disease in acute care hospitals. This disease is not reported under the communicable disease surveillance system.

Noncommunicable Diseases and Other Health-Related Problems

A 1990 study on chronic diseases indicated that tobacco, alcohol, exercise, and nutrition were the risk factors needing most attention. Data from the 1995 National Health Survey indicate that chronic diseases cause the greatest impact on the health sector by increasing health service demand, increasing disability, and curtailing the ability to choose a provider.

Nutritional Diseases and Diseases of Metabolism. The best data available on the nutritional status of children came from a national survey of primary school entrants in 1989–1990. Because these are the results of a single survey, they must be interpreted with caution. It appears that severe malnutrition is uncommon in Trinidad and Tobago, but that selected areas have high rates of moderate stunting and wasting.

The food available to the population is sufficient to meet its basic needs with an excess of energy (30%), protein (60%), and fat (50%). Information is insufficient regarding current consumption patterns. Three surveys have shown that a body-mass index >30 is about 40% for females and 20% for males. The 1995 National Health Survey reports that the poor tend to choose more full-cream milk, fewer green vegetables, and more white flour. Iron deficiency is still too high among women of reproductive age and young children.

A national nutrition policy focusing on the prevention of noncommunicable diseases is being formulated. According to the 1995 National Health Survey, 72% of respondents reported that they always added salt during food preparation and 19.6% said they sometimes did, which makes potential excessive salt intake a matter of concern.

Diabetes mellitus is increasing in prevalence (self-reported diabetes was 11% in the adult population 35 years old and older), with mortality rates increasing from 48.6 per 100,000 population in 1977 to 80.5 in 1990. It is the third-ranking cause of death for males and the second-ranking cause of death for females. The St. James Cardiovascular Study found that East Indian males had higher prevalence rates (1 in 6) than East Indian females and other ethnic groups (1 in 10).

Over 90% of diabetics in Trinidad are non-insulin dependent. While there is a strong genetic influence, research indicates that early obesity is the avoidable risk factor needing mitigation if incidence is to be reduced. Case fatality rates were high according to the St. James study. Almost 50% of diabetic deaths take place before age 65. Despite the high prevalence, hospital and community service clinics appear to have low proportions of diabetics among their attendees, but this may be due to the tendency to code only the main condition for which the patient seeks care.

In the 1995 National Health Survey, 80% of self-reported diabetics reported that they were limited in their activities. Disability was three times more common in diabetics than in non-diabetics. Diabetics were also 3.3 times more likely to have used health services than non-diabetics, and 4.2 times more likely to have received a prescription in the last 12 months.

Cardiovascular Diseases. Heart disease is the highest-ranking cause of death in Trinidad and Tobago, causing over 3,000 deaths per year. High prevalence rates of diabetes and hypertension are contributing factors. Smoking prevalence is lower than it is in North America (30% in males and 7% in females, according to the 1995 National Health Survey), but the number of schoolchildren who experiment with smoking is high.

In addition to high prevalence for hypertension and diabetes, the mean body-mass index is high and regular exercise indicators are low (2% in the 1995 National Health Survey).

According to the 1995 survey, only 64% of respondents aged 35 years and older had had a blood-pressure check in the last 12 months and only 16% had ever had a cholesterol

test. There is no coordinated national program aimed at primary prevention, but several NGOs run screening programs aimed at secondary prevention. Except for some funding from international organizations, most of the funding applied to chronic disease goes into treatment.

Malignant Tumors. Cancer has been the second ranking cause of mortality since 1987, with a rate of 94.9 per 100,000 population in 1990. These rates have been increasing since the 1960s. When rates are adjusted for age, the only cancers showing significant increase are prostate, breast, and lung; there is a significant decline in cervical cancer.

Cancer is the leading cause of death before age 65 in females (accounting for 16% of all female deaths under age 65 in 1994) because of the earlier age of onset of cervical and breast cancers. Breast cancer mortality rates have been increasing (17.6 per 100,000 population in 1990 to 19.5 in 1994), while cervical cancer rates have been declining (9.1 in 1990 to 7.3 in 1994). Cervical cancer screening is generally unavailable at government clinics, but NGOs such as the Cancer Society and the Family Planning Association provide services at subsidized rates. According to the 1995 survey, only 43% of female respondents aged 35 and older had ever had a Pap test, one-third in the past year. The National Cancer Registry Report indicates that more breast cancer cases are seen than cervical cancer, although these data are not population-based.

In 1994, the most common cancer sites in males were prostate (34 per 100,000), lung (10 per 100,000), colorectal (7 per 100,000), and stomach (7 per 100,000).

Accidents and Violence. The importance of injury as a cause of death and morbidity cannot be overemphasized. Rates have been increasing since the 1960s, and between 1990 and 1992, all categories of injury showed an increase in rates. Injuries are the major cause of death in all age groups up to 45 years old, but deaths due to injury occur at all ages. Injury is the most important contributor to years of potential life lost (YPLL) in males.

The biggest increase has been in homicide rates, which doubled between 1990 and 1994 for both males and females. In a recent survey of 20 general practices, acute injury was one of the most common reasons given for consultation. Hospital activity statistics indicate that injury is also the most important cause for hospital admissions (20% of discharges and 16.1% of patient days in 1993). Suicide is the second leading cause of injury-related deaths and is a major problem in the 15–24-year age group. Insecticide ingestion is the most common method, and measures to control the availability, storage, and distribution of these toxic chemicals need to be addressed.

Mental Health. A significant proportion of the population of Trinidad and Tobago does not have access to mental health services, despite efforts to distribute the services throughout the country. Problem areas for mental health services include: psychiatric emergencies; long-standing psychiatric conditions; mental health problems of patients attending primary-care providers, ambulatory services at secondary levels, and inpatient services at acute-care hospitals; and psychiatric and emotional problems of high-risk groups.

Tobacco, Alcohol, and Drug Use. In 1995, 13% of males aged 15–24 years old and 30% of all males over 15 years old reported that they had smoked 100 or more cigarettes in their lifetime. Prevalence was highest in the 35–44-year age group (37.6%) and declined in older age groups. Smoking in females appeared to be much lower: 5.1% in all age groups over age 15, and highest (7.1%) in the 45–54-year age group. Smoking prevalence was significantly higher in households reporting low per capita income and among less educated respondents. Smoking was highly correlated with being male and with drinking 21 or more units of alcohol per week.

The Ministry of Health has established a no-smoking policy in all publicly funded health institutions, discourages its organizations from using funds obtained from tobacco companies for sponsoring health events, and informs all new applicants of the Ministry of Health's no-smoking policy. The Ministry has also taken the initiative for the development of a national no-smoking policy.

Eighty percent of males and 54% of females reported that they had consumed 12 or more alcoholic drinks in their lifetime. Persons with low educational attainment reported a higher prevalence of drinking. Heavy drinking (at least 21 units per week) was reported by 10.5% of males; the percentage rose to 13% in the central region of the country where the sugar industry is based.

Alcohol-control regulations are not effectively enforced. Some education and health promotion efforts take place in schools, workplaces, and in the community, but these are far from adequate.

There are no reliable data on psychoactive substance abuse, although there are indications of an increase in drug-related crimes—a possible proxy indicator of increasing abuse of illegal drugs (in particular, marijuana and cocaine). The Ministry of Health has a substance abuse clinic under the management of Saint Ann's Psychiatric Hospital.

Oral Health. Oral health services are mainly geared to the population under 15 years old. A cadre of dental nurses was trained in the 1970s to deliver dental education to this age group in schools and clinics. Dental clinics in the health offices provide screening and simple treatment on demand. There have been no recent population-based studies on oral health.

Several administrations have considered adding fluoride to the water supply, but this has never been implemented mainly

because of the irregularity of the water supply. Instead, the Government has adopted the use of fluoridated salt, but this policy may need to be reviewed when national nutrition policy on noncommunicable disease prevention is being formulated.

Environmental Pollution. Sewerage plants that were built during the oil boom years are now in serious disrepair and are polluting tributaries along the country's northwest corridor, beaches, and inland ecosystems. In addition, the water distribution system is plagued with leakage. In response, the Water and Sewerage Authority has introduced changes in management in preparation for a major infrastructure improvement project. The newly established Environmental Management Authority coordinates the various agencies that play a role in environmental protection.

RESPONSE OF THE HEALTH SYSTEM

National Health Plans and Policies

The Macro-Planning framework and the updated Medium-Term Policy Framework (1996–1998) have remained relatively stable since 1989, despite changes in administration in 1991 and 1995. The Government remains firmly committed to the principles of equity and social solidarity. In keeping with these principles, the Government provides free public education and health services at the point of delivery; carries out social safety net programs targeted at the elderly, female-headed households with children, and persons with disabilities; maintains unemployment relief programs (primarily public works programs); supports the role of the National Insurance System and new programs aimed at helping the "new poor," which include strengthening the capacity of NGOs and the private sectors in poverty alleviation efforts; has developed and implemented housing programs for low- and middle-income groups; has established job training programs for unemployed youths; and provides retraining support for displaced workers and economic support for microenterprise development.

Eight Ministries currently deliver these various components, and efforts are now under way to develop an overall policy framework to establish priorities and streamline service delivery. The Ministry of Social Development has been identified as the lead Government agency, and a program of institutional strengthening has been implemented to support this new role.

Health Sector Reform

The Government has embarked on the first phase of the comprehensive 1996–2002 Health Sector Reform Program designed to strengthen the health sector's policy-making, planning, and management capacity; separate the provision of services from financing and regulatory responsibilities; shift public expenditure and help steer private expenditures toward high-priority problems and cost-effective solutions; establish new administrative and employment structures that encourage accountability, increased autonomy, and incentives to improve productivity and efficiency; and reduce preventable morbidity and mortality by promoting lifestyle changes and other social interventions.

In order to reach those goals, the program envisions reforming the Ministry of Health in order to make it a policy, planning, sponsorship, and regulatory body; devolving service delivery and management to Regional Health Authorities that will contract with the Ministry of Health to provide cost-effective services, using both public and private providers; developing a human resources strategy, including the establishment of a funded pension plan for RHA staff, to foster an adequate skills mix and appropriate staffing levels; rationalizing the health services and infrastructure to focus activities on cost-effective and high-priority interventions that emphasize health prevention and promotion and strengthen primary care; and developing a comprehensive financing strategy for the sector, including the evaluation of user charges and a national health insurance system as potential financing mechanisms.

Organization of the Health Sector

In 1994, the Regional Health Authorities Act was enacted, establishing five Regional Health Authorities (RHAs)—four in Trinidad and one in Tobago—as independent statutory authorities accountable to the Minister of Health. The RHA territories have been drawn to coincide with those of local governments (the Regional Corporations), to ensure that they effectively coordinate with the latter in providing a range of health services to their catchment populations.

Ownership of publicly financed health facilities has been transferred to the RHAs, and the Act includes provisions for the staff working in public facilities to transfer employment to the RHAs. RHAs will operate according to negotiated annual services agreements aimed at linking expenditure levels to services delivery; agreements will be implemented in 1998.

The Ministry of Health retains responsibility for setting the national framework and priorities, ensuring that public funds effectively meet the population's health needs and improve its health status, and establishing standards and monitoring achievement of these standards by RHAs and other service providers. The national policy framework, or purchasing plan, is being developed on the principles of health gain and health needs assessment. Over time, RHA budgets will shift to

a more equitable allocation based on the population's health needs. Health sector reform focuses on the new roles for the Ministry of Health and the RHAs and is consistent with the Government's overall strategy for improving public sector performance, particularly with plans for reorganizing the Ministry of Social Development and strengthening local government initiatives.

Health Services and Resources

Organization of Services for Care of the Population

Food Programs. The Government does not receive food through international food aid programs. Direct and indirect government subsidies for a wide variety of basic food items have been removed. The national school feeding program has been reorganized to include some children in secondary schools and an increased number of primary schools. Voluntary groups also provide food to schoolchildren and the needy. Public assistance grants, old age pensions, and other temporary grants for the destitute and needy provide a minimum cash payment for the purchase of food; these grants are administered by the Ministry of Social Development.

Iodination and fluoridation of salt and the fortification of flour with iron, thiamine, riboflavin, and niacin are carried out to overcome identified deficiencies.

Oral Health. Dental services, which are widely distributed but limited in content, are provided free in about half of the health centers. Dental practitioners (21) provide basic services to schoolchildren and pregnant women, as well as palliative treatment to adults. The service is more focused on extraction than restorative treatment. The dentists are supported by dental nurses, who provide simple dental treatment, restorations, and prophylaxis to children under 12 years old, as well as screening of schoolchildren and dental health education in clinics and schools. Fifty-four health centers, six of them in Tobago, have dental clinics.

Oral and maxillofacial surgery and dental services are available at the two general hospitals. Since it opened in 1991, the Dental Hospital at the Eric Williams Medical Sciences Complex has provided complete dental care on a fee-for-service basis. Two levels of dentistry operate in the private sector: professional dentists and unlicensed dental operatives who practice illegally.

Mental Health Services. The psychiatric services provided by the Ministry of Health are still centered around the only major psychiatric hospital in the country. Decentralized inpatient services for the acutely mentally ill also are provided at the general hospitals, county hospitals, and four extended care centers for the elderly with chronic mental illness. Community psychiatric services are organized by sectors on a geographic basis and are provided free on an outpatient basis at selected health centers.

The community services provide psychiatric, preventive, and therapeutic care for chronic and acutely ill patients, substance abusers, and disturbed children and adolescents; the services also offer follow-up care for persons discharged from hospital. A specialized substance abuse unit is the main center for drug abuse treatment, but there are also several small therapeutic and rehabilitative centers maintained by NGOs. Six or more NGOs organize support groups and offer counseling to prevent acute episodes of mental illness. A child guidance clinic, located at the Eric Williams Medical Sciences Complex, serves the whole country by addressing the needs of children individually and through the education system. Both psychiatrists and psychologists offer private sector care for the mentally ill.

Programs for the Disabled. The Ministry of Social Development has responsibility for the needs of disabled persons. Four major NGOs that provide therapeutic care and education for disabled children receive government subsidies. Services are provided in north and south Trinidad and in Tobago. Special teachers to assist disabled children are posted in very few of the 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.

The blind receive a pension after age 40, and other associated grants are given to disabled adults who have no support. Employment for disabled persons is limited.

Cancer Screening. The Cancer Society, the Family Planning Association, and the Eric Williams Medical Sciences Complex provide screening programs for breast cancer and cervical cancer. Free routine Pap tests are performed in some health centers and in gynecological clinics at government hospitals. The Cancer Society also has a screening program for prostate cancer. In 1996, with the support of the Ministry of Health and the Port-of-Spain Municipal Corporation, the Cancer Society established a national cancer registry.

Environmental Health Services. Environmental services are mainly provided by the Government. The Water and Sewerage Authority, which is heavily subsidized by the Government, has the statutory responsibility to supply potable water to the nation and to collect and dispose of liquid waste. Their services are performed for a fee. Private sector companies play a limited role in the provision of environmental services, and their fees are relatively high.

In urban areas, 87% of the total population has house connections and the remaining 13% have access to standpipes.

All of the water supply in urban areas is chlorinated and meets WHO standards. In rural areas, 87% of the total population has access to safe water, which is either piped or supplied by truck. A 1992 survey found 78.5% of households with running water. Of these, however, 70.6% reported having water from the mains in the last week, and 78.3% reported that they stored water.

The entire urban population has adequate excreta disposal: 30% through house connections and 70% through privies. Almost all (97%) of the rural population has adequate excreta disposal.

Local authorities provide households with free regular collection and disposal services for domestic garbage. This service is unavailable in unauthorized or inaccessible squatter settlements, and garbage is picked up at a collection point. Other forms of refuse are collected by arrangement, for a fee. Private companies remove industrial and commercial waste, but use the local authority's disposal site. Local authorities clean drains and streets.

Arrangements for the disposal of toxic waste are made on an ad hoc basis or the waste is buried at the municipal dump. In both cases, there is risk of seepage that may contaminate soil and underground water supplies.

The insect control division is responsible for insect surveillance, most importantly for *Aedes* and *Anopheles* mosquitoes.

Health Promotion. The Government of Trinidad and Tobago has expressed its support for the strategy of health promotion by endorsing and participating in activities related to the Caribbean Charter of Health Promotion. In 1994, a national meeting on health promotion brought together representatives from the public and private sectors and NGOs, who committed themselves to the goals of the Caribbean Charter and recommended that a National Health Promotion Council be formed to link all the agencies that dealt with health issues. The concept of health promotion and the goals of the Caribbean Charter were presented to a group of community organizations and NGOs. A series of regional workshops followed, where participants chose various projects to work on, such as the Healthy Communities Initiative and a plan for the prevention of noncommunicable diseases. The Healthy Communities Initiative builds on the WHO Healthy Cities Program and will depend on cooperation between the RHA, the Municipal Corporations, and the community. As a part of health reform, the Health Education Division is now linked to health planning in the new Directorate of Policy, Planning, and Health Promotion.

Social and Community Participation. There are ongoing efforts to improve the capacity of NGOs to provide services and to strengthen their relationship with government agencies. It also is hoped that the proposed regionalization will bring about a closer partnership between the community and the health services.

In terms of primary health care, reform proposals being discussed by NGOs and the Ministry of Social Development include the development of a strategy for care of the elderly and the disabled within the community. It is believed that many of those occupying hospital beds have no real need for clinical care and would be better supported by services in community settings. It was agreed that the Government should have one lead agency to set standards and to monitor NGOs, and that the Ministry of Social Development would take on this role, with support of the Ministry of Health.

The RHAs are able to maximize use of community resources since they are free to buy services from outside the public sector. This represents an important tool as the Government pursues a more effective use of existing resources.

The Health Education Division supports the Ministry of Health in the dissemination of information, and there are several activities being carried out in collaboration with the community, such as a cholera awareness program, promotion of breast-feeding, and the "Healthy Communities" initiative. Within the scope of the reform, the Division is considered a key player in health promotion.

Disaster Preparedness. The emergency relief system remains basically unchanged, although certain aspects have been streamlined. The National Emergency Management Agency has a full-time coordinator and committee representing many governmental and nongovernmental agencies and is responsible for the national emergency preparedness and relief plan. Risk maps have been drawn and circulated to many community organizations, and a manual that lists resources that can be accessed during a disaster has been prepared.

The Ministry of Health has its own disaster coordinator, and activities have been undertaken in terms of increasing awareness, training, vulnerability analysis, and preparation of disaster plans for the health sector. Each RHA is being supported in its development of disaster plans. This arrangement has particular significance for the central and southwest RHAs since they include the airport, the Point Lisas Industrial Estate, and petroleum plant sites. Simulation exercises have taken place, and transport and communications were identified as potential problems in the event of a disaster.

Organization and Operation of Personal Health Care Services

Both public and private sectors provide personal health care; NGOs, industrial corporations, and the national security services also provide some services. Public sector care is available at institutions located throughout the country. Sec-

ondary and tertiary care are provided at one general hospital in Port-of-Spain and one in San Fernando (1,245 beds), at two county hospitals in Trinidad (111 beds), and at one hospital in Tobago (96 beds). Specialized hospitals and units also provide women's health, psychiatric, chest disease, substance abuse, geriatric, oncology, and physical therapy services, for a total 1,513 additional beds (the psychiatric hospital is the largest, with 1,060 beds). A comprehensive range of diagnostic services is available at the two general hospitals.

Primary health care is provided at 101 health centers, 19 of which are in Tobago. The number of health centers per RHA in Trinidad varies from 16 in the eastern RHA to 30 in the central RHA. The ratio of population to health center ranges from less than 3,000 per center in Tobago to more than 21,000 per center in Saint George West.

Inpatient and ambulatory care are provided free at the publicly funded institutions now administered by the RHAs. Minimum charges are made for certain diagnostic procedures, but at present there is no formal user-charge system, except at the Eric Williams Medical Sciences Complex, which operates on a fee-for-service basis.

Private general practitioners, specialists, diagnostic laboratories, and hospitals are dispersed throughout the two islands, although they are clustered in the cities and larger towns. Of the 33 private hospitals registered with the Private Hospitals Board, 13 have operating theaters and offer some diagnostic services. It is reported that about 45% of the population uses private sector services as a first choice, particularly for ambulatory services; however, private inpatient care is costly, and the range of emergency services is limited.

NGOs provide diagnostic and screening facilities for the early detection and treatment of specific prevalent diseases and disabilities. Charges for services are modest, but since most NGOs are located in the cities (for example, Pap tests are performed at the Family Planning Association), the cost of transportation may discourage utilization by disadvantaged persons who live in remote areas.

Large commercial enterprises provide health services for employees, either directly, through specially contracted services, or through group insurance plans. Dependents are included in the benefits, and one plan includes retired employees. The national security services provide primary care for their officers and staff, and dependents are included in some programs. Secondary or tertiary care for security service officers is initially sought at RHA hospitals. It is estimated that less than 10% of the employed population is covered by health insurance.

Referral systems within the public sector and between the public and private sectors are not well established, and more than 50% of admissions at hospital emergency departments are self-referrals. The Eric Williams Medical Sciences Complex was the first hospital in the country to be administered by a board responsible to the Minister of Health. Primary (walk-in), secondary, and tertiary health care—both inpatient and ambulatory—are being provided on a limited scale, as the hospital's commissioning is still in progress. Diagnostic services are almost fully operational and the cardiology laboratory, commissioned in 1992, is now in operation. The Ministry of Health provides the hospital with a large subsidy, but the hospital charges the Ministry for patients referred from government institutions. The Complex is now administered by the central RHA. The health sector reform program has projected capital and recurrent resources for its new role as a secondary care hospital for the population of the central RHA and as a national tertiary center. The financing issue will be resolved within the overall financing strategy of the public health sector.

A gradual increase in annual hospital discharges was observed in the 1990–1994 period, peaking in 1994 at both general hospitals: 66,187 at Port-of-Spain and 51,185 at San Fernando. Since then, discharges have decreased, down to 65,580 at Port-of-Spain and 44,767 at San Fernando in 1995, and to 59,350 and 47,873, respectively, in 1996. A similar trend has been seen in Tobago, where discharges averaged 4,822 annually for those years.

The average length of stay at general hospitals is 3–4 days, with average occupancy rates of 63%–70%, except at San Fernando General Hospital, which maintained a bed-occupancy rate above 80% in 1995 and 1996. The occupancy rates for the smaller hospitals varied, but were generally less than 30%, with higher than average lengths of stay (ranging from 7 to 35 days in the medical wards). All of these smaller hospitals, with the exception of Point Fortin Hospital in the southwest RHA, were closed in 1995, pending replacement by new District Health Facilities.

The general hospitals conduct outpatient clinics in major specialties and subspecialties and the three county hospitals provide outpatient clinics in major specialties. In addition, health centers provide general medical consultations on designated days.

Over the 1994–1996 period, the number of first visits and return visits to health centers decreased, with 1996 showing 108,068 for general medical office first visits for the year and 491,681 for total number of visits for all sessions, including child health services. This is consistent with the 1995 National Health Survey data showing that persons prefer the private providers or the hospital emergency department as their first choice in medical care. Figures for private sector outpatient consultations and diagnostic services are not available.

The Eric Williams Medical Sciences Complex, the two general hospitals, the three smaller regional hospitals, and the private sector offer pathology, biochemistry, and hematology laboratory services.

Over 50% of pregnant women attend free prenatal clinics that are provided in the health centers. At each visit a midwife

conducts an examination, and at least twice during the pregnancy, a medical officer conducts an examination. This system facilitates the referral of women with complications (about 19% of clients) to specialist clinics at six hospitals. The established protocol for prenatal care at the health centers includes anemia and VDRL tests, screening for diabetes, and tetanus immunization. Iron and folic acid supplements are recommended to pregnant women but are not generally available free at the health centers or the hospital.

About 90% of all deliveries take place in government institutions, which have facilities for cesarean sections, blood transfusions, and acute neonatal care. The other 10% take place in private hospitals and nursing homes (most of which have facilities for cesarean sections), with minimal numbers taking place in homes and "other places." Almost 90% of all deliveries are supervised by midwives, the other 10% by doctors or "other persons." Only about 10% of mothers use postnatal services at health centers.

Inputs for Health

The deterioration of the physical infrastructure, including equipment, is of particular concern to the Ministry of Health and the new RHAs. The lack of ongoing prevention and routine maintenance systems, skills, and budgets are not confined to the Ministry of Health, but exist throughout the public sector.

To address the issue of sustainability of investment in the physical infrastructure, a National Health Services Plan was developed during the design phase of the health sector reform program. The plan will guide investment in infrastructure and, to a large extent, the human resource development required to achieve the new emphasis on primary and preventive care.

According to the National Health Services Plan, essential components of the health services rationalization effort for primary health care services include: reinforcing the network of existing facilities by upgrading selected health centers, constructing new ambulatory facilities and enhanced health centers with some diagnostic and specialist services, and converting the remaining health centers to outreach centers that will offer preventive services.

Also planned is a reduction in the number of acute-care hospitals (from 13 to 5) and hospital bed capacity (reduction of 800 beds by the year 2002); an increase in the ability of hospitals to offer ambulatory and diagnostic services; and improvements in the inpatient facilities in keeping with the rationalization of tertiary services. When the Eric Williams Medical Sciences Complex is commissioned it will include a national cancer treatment center providing radiotherapy and chemotherapy (following the relocation of the National Radiotherapy Center from St. James Medical Complex in 1999). A shift of inpatient care of the elderly and disabled to a private or NGO community-based setting is under review. Finally, an emergency transport system will be introduced to improve access and integration of the rationalized network of health facilities.

Essential Drugs and Blood Transfusion Services. The Ministry of Health has developed national drug policies addressing the provision of safe and effective drugs to those who require them. Efforts to introduce concepts of rational drug prescribing in the public sector were initiated in 1990. These were intended to build on the use of the vital essential and nonessential drugs list to manage the selection and procurement of drugs for the public sector. There are ongoing attempts to develop alternative methods of estimating drug requirements and standardize treatment protocols, starting with the more common diseases and conditions.

In 1992, the procurement, logistics, and distribution of drugs for the public sector were contracted to a statutory body. The outcome has been generally positive, despite the shrinking budget in real terms due to the devaluation of the Trinidad and Tobago currency. Computerized inventory management and drug dispensing systems have been introduced in all major hospitals and the system will be linked to Central Supply in the near future. In 1994, a National Drug Formulary was produced for use in the public sector; it should significantly contribute to awareness of possible options, treatment costs, and perhaps the need for better rational drug-prescribing practices.

Blood transfusion services are centralized, and a fully operational national unit is responsible for setting the standards for collection and distribution of blood products. All blood donations are done on a voluntary basis, and 100% of blood collected is screened for hepatitis B, HTLV I, and HIV.

Human Resources

Reliable and useful human resource data that could be used for manpower planning and projecting are limited, because the Ministry of Health does not maintain data by category of staff or place of work. No reliable data are available for the health professionals in the private sector, or for traditional medicine or nonmedical providers.

There is currently about 1 physician per 1,200 population in Trinidad and Tobago, a figure deemed acceptable by international standards. There still are, however, shortages in the hospital services with respect to the number of junior staff, house officers, and interns. To cope with the problem, nonnationals have been contracted for these posts. It was estimated that in 1993 there were approximately 150 foreign doctors working in the public sector.

A similar situation exists for dentists as for physicians. Current dentist-to-population ratios are satisfactory by inter-

national standards. There were 20 graduates from the new Dental School at the Medical Sciences Complex in 1994, and 25 in 1995.

Trinidad and Tobago continues to suffer from a nursing shortage, although the availability of nurses has improved. Nursing training recommenced in 1989 and new nurses entered into the system beginning in 1992. Post-basic courses have been strengthened and a significant amount of the training budget has been channeled to specialist nursing training, such as nursing education, administration, intensive care, oncology, and occupational health.

There are many vacancies at the primary care level as a result of constraints in training, recruitment, and qualification. Nursing requirements for the strengthened primary care system call for a significant increase in staffing. Critical shortage areas have been identified in professions allied to medicine, such as dietetics and nutrition, radiology, physiotherapy, occupational therapy, and pharmacology. Each area requires detailed evaluation of current organization and delivery of services to determine what other types of providers can be trained, and to develop and implement training programs.

Training of Health Personnel. Training of health personnel, except for undergraduate and basic nursing training, is centered at the Eric Williams Medical Sciences Complex. There are undergraduate and postgraduate education programs for doctors, dentists, and veterinarians. The newly opened Medical School of the University of the West Indies graduated the first class of doctors in 1994. Most students are Trinidadians, but many are from other Caribbean countries and elsewhere.

The responsibility for nurse training has been transferred from the Ministry of Health to the College of Nursing of the National Institute of Higher Education, Research, Science, and Technology. The College of Health Sciences also offers training programs for radiographers, laboratory technicians, and other allied health professionals, as well as continuing education programs. Training for pharmacists, public health inspectors, and community-based nurses (health visitors and district nurses) is given as part of the University of the West Indies program of continuing studies.

Research and Technology

In accordance with the health sector reform program, the Ministry of Health has undertaken health systems research which has led to an in-depth review of national strategies and policies. Methodologies will be formalized under the Ministry of Health's new Policy, Planning, and Health Promotion Department, which will be responsible for generating the necessary information for identifying priorities and planning services. A research and development function that will include technology assessment also will be developed.

The National Institute for Higher Education, Research, and Technology has the mandate to develop a policy for the introduction of new technology in Trinidad and Tobago. A draft policy was issued in 1996 and a final version is expected by 1997.

The Essential National Health Research Committee was established in 1996 to develop a system for coordinating health research in the country. Its first mandate is to develop an essential national health research policy for ratification. It is integrated by public and private sector professionals and is fully recognized by the Ministry of Health.

Expenditures and Sectoral Financing

There has been a significant reduction in public sector health expenditure over the 1981–1992 period, ranging from a high of TT$ 677 (constant 1985 dollars) in 1982 to a low of TT$ 250 in 1989; it rose to TT$ 256 in 1992. Within the 1981–1986 period, the annual real expenditure per capita, in constant 1985 dollars, was TT$ 528 as compared with TT$ 279 in the 1987–1992 period. It should be noted that structural adjustment measures resulted in the devaluation of the Trinidad and Tobago dollar in 1985, 1988, and 1993.

In terms of recurrent expenditure, whereas approximately TT$ 3.6 billion were spent in the 1981–1986 period, only TT$ 2.3 billion were spent over the 1987–1992 period. The decrease was caused primarily by the overall economic recession, the reduction in public sector compensation packages, and the increase in vacancies within the Ministry of Health, particularly in nursing.

Capital expenditure declined significantly during the 1988–1992 period, with most of the expenditure being directed to the construction of the Eric Williams Medical Sciences Complex (84%). The bulk of the remaining capital expenditure was channeled to other hospitals, with less than 1% directed at community health services.

The pattern of allocation of the recurrent budget shows that the bulk of recurrent expenditure is for personnel (73%) and goods and services (19%). Expenditures on personnel were channeled primarily to hospitals and laboratories (75%), with only 9% going to community or local health services. There are budgetary variations across programs and divisions, with the personnel component accounting for as much as 90% in some areas.

While most of the focus tends to be on public sector spending, National Health Insurance Scheme studies estimate that an almost equal amount is being spent in the private sector. Since less than 10% of the population is covered by health insurance, it is difficult to determine the exact extent of private sector expenditure. These studies, based on a small survey of the insurance claims and extrapolation from qualita-

tive data, indicate that total spending on health care services in Trinidad and Tobago as a percentage of GDP is approximately 4.7%, totaling TT$ 1.1 billion in 1993—2.4% and 2.3% from the public sector and private spending, respectively. Estimates of the private sector outlay were also considered to be conservative.

External Technical and Financial Cooperation

As a middle-income country, Trinidad and Tobago does not qualify for major donor assistance. The major inputs are from PAHO, UNDP, and, in 1993–1995, from the IDB for health sector reform design studies, totaling about US$ 5.2 million. Although the percentage of assistance is small (about 1%–2%), it has significant impact because it is usually provided in a priority area identified by the Government and in the form of technical cooperation or consultant services. The Government of Trinidad and Tobago would be unable to access many of these services because of inflexible national financial regulations. In the future, as this inflexibility is removed by system reform, the Ministry of Health and the RHAs will need to develop new systems of identifying, allocating, and using technical cooperation funds.