HEALTH SYSTEMS PROFILE

MONTSERRAT

MONITORING AND ANALIZING HEALTH
SYSTEMS CHANGE/REFORM

2008

Area of Health Systems and Services HSS-SP

Pan American Health Organization/
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Executive Summary

Montserrat, an overseas territory of the United Kingdom, is an active volcanic island in the Leeward Group of islands in the Eastern Caribbean. It has an area of 39.5 square miles (102 sq. km) and lies 27 miles southwest of Antigua and 40 miles northwest of Guadeloupe. The Soufriere Hills volcano became active in 1995 and remains active with occasional gas emissions, ash clouds and dome collapses; the last episode occurred in May, 2006. As a result of this activity, two thirds of the country was declared unsafe in 1997 and the displaced population was forced to relocate to the north of the island because its southern part is quite inhabitable. The volcano's eruption destroyed the Plymouth, the national capital city, including the airport, the hospital, and other fundamental infrastructure. Volcanic research indicates that cyclic activity may continue for another 30 years.

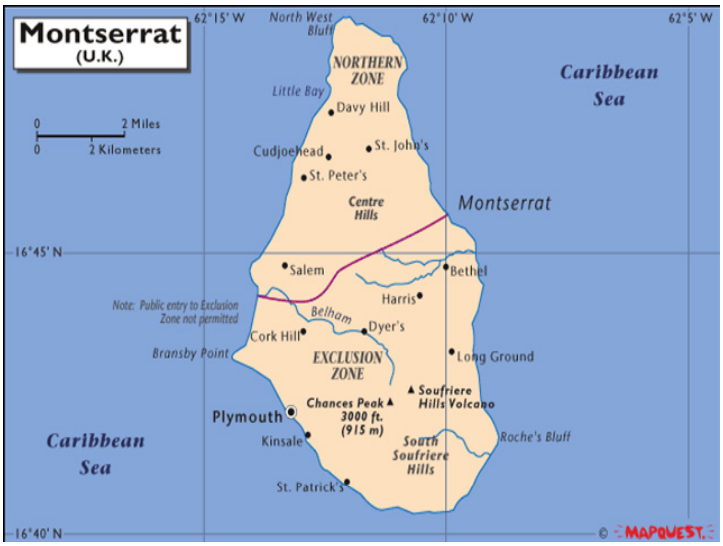
The volcanic activity has caused an outward migration of approximately 70% of the population and a housing shortage in the northern third of the island. The 2001 Population and Housing Census estimated the population at 4,517, representing a 42% decline from the 1991 census. As of 2008, the population is estimated at around 5,000 comprising remaining residents, migrant workers from other Caribbean islands and territories, and a small percentage of returning residents. The net outflow of Montserratians continues to decline.

The population has access to safe drinking water; and a land-filling process is used for the disposal of solid waste. Of the 162 deaths occurring in the period 2004-2006, the five leading causes were diabetes mellitus, cardiac arrest, hypertensive diseases, malignant neoplasms, and ischemic heart disease. There is a shortage of trained health personnel, especially in primary health care which is delivered through four health districts.

Montserrat is a small open economy with few natural resources. After the volcanic crisis, the country became more dependent on budgetary aid from Her Majesty's Government. Montserrat's external debt has declined primarily due to its inability to borrow externally while being financed by special budgetary aid. However, the period 1998-2006 was an important era in the redevelopment of Montserrat. Following the devastation of the south of the island, the government of Montserrat began the immense tasks of rebuilding every aspect of life.

The Public Health Act of 1982 confers on the Ministry of Health the responsibility for public health. The Ministry of Health has the lead role in the health sector reform process. Several initiatives are in place to guide the reform such as the Strategic Health Development Project; the Sustainable Development Plans (SDP); the Millennium Development Goals, and the

Essential Public Health Functions. Several funding agencies provided support for the 2003-2007 SDP such as the Caribbean Development Bank, the government of the United Kingdom, the European Development Fund, and the government of Montserrat. The government has created links with the private sector to facilitate a participatory approach to decision-making and has embraced a number of social partners. External agencies also provided technical support and financial resources for various aspects of the health sector reform.



1. Context of the health system

1.1. Health situation analysis

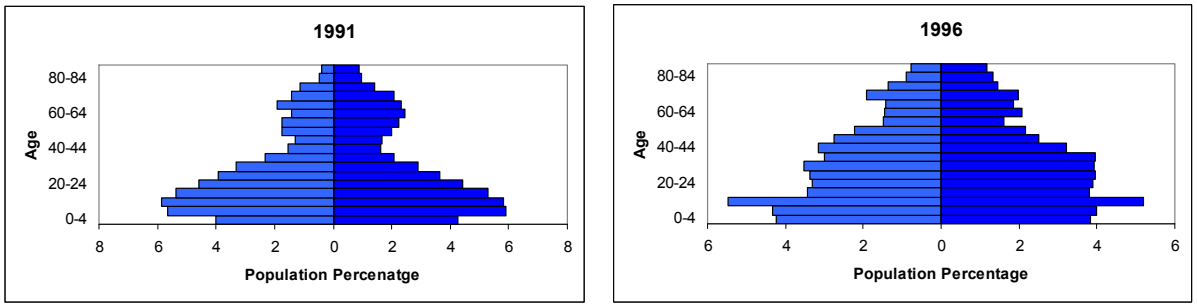
1.1.1. Demographic analysis

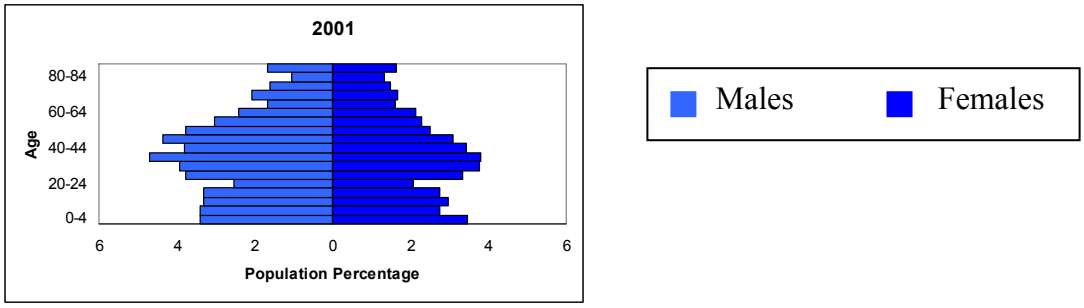
Montserrat, an overseas territory of the United Kingdom, is an active volcanic island in the Leeward Group of islands in the Eastern Caribbean. It has an area of 39.5 square miles (102 sq. km) and lies 27 miles southwest of Antigua and 40 miles northwest of Guadeloupe. The Soufriere Hills volcano became active in 1995 and remains active with occasional gas emissions, ash clouds and dome collapses.

By 1997, volcanic activity had intensified to an extent that the already-displaced population of the south were forced to move further north precipitating a severe housing shortage in the northern areas. The British and local governments responded by implementing an incentive program for the population which resulted in the mass exodus of some 70% of the island's people, mainly women and school aged children. By the end of 1997 the total population had dwindled to 3,338.

The 2001 Population and Housing Census indicated an increase in the population size. The resident population was estimated at 4,517; 2,430 (53.8%) male and 2,087 (46.2%) female. These figures also represented a 42% decline from the 1991 census (total population of 10,639; 50.3% male and 49.7% female). Life expectancy at birth is estimated at 78.0 years; 76.0 for males and 80.2 females. Figure 1 shows Montserrat's population structure for the years 1991, 1996, and 2001.

Figure 1: Montserrat: Population pyramids, 1991, 1996, 2001.





Source: Department of Statistics, Ministry of Finance and Economic Development, Montserrat.

In 2005, the population was estimated at 4,527 and the population growth rate was 34.1%. In that year, total fertility rate was 1.5 children per woman and crude birth rate was 14 births per 1,000 population. Net migration was estimated at 340 migrants per 1,000 population.

Between 1999 and 2005, there was an average of 54 deaths per year. Data for 1999–2003 were not disaggregated by 5-year age groups. Of the 260 deaths occurring in that period, the majority, 172 (66.2%) were in the age group 75 years and older; 40 (15.4%) deaths were in the age group 65-74 years; and 33 (12.7%) deaths in the age group 45-64 years. Of all deaths in the period, 121 were female deaths and 139 were male deaths; and 50% occurred at the island's lone Glendon Hospital. In those same years, 88 deaths occurred among the residents of the three homes for the aged.

Table 1. Montserrat: Selected indicators, 1999-2007

Indicator	1999	2000	2001	2002	2003	2004	2005	2006	2007
Estimated Mid-Year population	3,392	3,894	4,517	4,563	4,482	4,681	4,785	5,027	4,819
Total Live Births	45	48	47	54	41	47	63	49	42
Crude Birth Rate/1000	13.3	12.3	10.4	11.8	8.9	10.04	13.4	9.9	8.9
Total Still Births	0	1	1	1	2	1	1	1	1
Total Infant Deaths	0	0	0	0	0	0	0	0	1
Total Maternal Deaths	0	1	0	0	0	0	0	0	0
Total Deaths	59	52	50	44	55	56	59	47	46

Source: Death Certificate Register - Glendon Hospital.

Since 2004, the Medical Records Department presented mortality data by 5-year age groups. This analysis showed that between 2004 and 2006 there were 162 deaths for an average of 54 deaths per year. Ninety (55.0%) deaths occurred among persons 80 years and older; 22 (14.0%) deaths among persons 75-79 years; and 15 (9.1%) among persons

65–69 years. The remaining deaths were distributed over all other age groups. During the 2004–2006 period, 57% deaths occurred at the Hospital.

1.1.2. Epidemiological analysis

A mortality register was initiated in 2000 which contains demographic information on deaths occurring in the Glendon Hospital. The country has started a process to systematically collect data. Of the 422 deaths occurring in the period 1999 to 2006, a total of 396 (94%) deaths were certified by medical certificates while 26 (6%) were confirmed by post mortem. From 1999-2003, all post mortems were performed in the neighbouring island of Antigua due to a lack of appropriate facilities in Montserrat. Commencing in 2004, post mortems were performed in Montserrat due to the construction of mortuary facilities and the availability of a visiting consultant pathologist.

Of the 260 total deaths registered in the period 1999-2003, 204 were from defined causes. The five leading causes of deaths were determined from a combination of broadly defined cause categories and specific diseases. Diseases of the circulatory system were the leading cause of death (84 or 32.3%); while malignant neoplasms, diabetes mellitus, disease of the respiratory system and mental and behavioural disorders accounted for 42 (16.3%), 41 (15.8%), 22 (8.5%) and 15 (5.8%) deaths, respectively. All causes of death were coded according to the WHO International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).

In the period 2004-2006, the five leading causes of death were diabetes mellitus with 31 (19.1%) deaths; cardiac arrest and hypertensive diseases each accounted for 21 (13.0%) deaths; malignant neoplasms for 16 (10.0%) deaths; and ischemic heart disease for 13 (8.0%) deaths. While diabetes mellitus was the third leading cause of death between1999-2003, it became the first leading cause of death during the period 2004-2006. Data on deaths by gender for the period 1999-2006 showed diabetes as the leading cause of death for both sexes accounting for 32 male and 40 female deaths. Of the 47 deaths from malignant neoplasms in the period 1999-2006, the three leading cancer sites were the prostate (12), breast (9), and colon (6).

Table 2. Total Deaths by Cause and Gender, Montserrat 1999-2006

Cause of Death	Female	Male	Total
Infectious Diseases	3	6	9
Cancer of Prostate	0	12	12
Cancer of Breast	8	1	9
Cancer of Colon	3	3	6
Cancer of Uterus	1	0	1
All other Cancers	9	10	19
Hypertensive Disease	21	19	40
Ischemic Heart Disease	16	17	33
Cerebrovascular Accident	18	18	36
All Other Diseases of the Circulatory System	17	10	27
Diabetes Mellitus	40	32	72
Mental Behavioural Disorders	7	13	20
External Causes	5	11	16
All Other Causes	48	74	122
Total	196	226	422

Source: Statistical Report, Ministry of Health

1.1.3. Millennium Development Goals

The Millennium Declaration, adopted by the United Nations Member States in 2000, is a global development framework premised on poverty elimination. The Millennium Development Goals (MDGs) were developed from the Millennium Declaration. The MDGs are time-bound, to be achieved by 2015, and have measurable targets. The goals are (1) Eradicate Extreme Poverty and Hunger, (2) Achieve Universal Primary Education; (3) Promote Gender Equality and Empowerment of Women; (4) Reduce Child Mortality; (5) Improve Maternal Health; (6) Combat HIV/AIDS, Malaria and Other Diseases; (7) Ensure Environmental Sustainability and (8) Develop a Global Partnership for Development.

The MDGs were adopted by the Government of Montserrat in the Montserrat Sustainable Development Plan 2003-2007. Some of the MDGs are considered crucial in Montserrat's sustainable development, particularly Goals 6 and 7. Montserrat is committed to achieving the MDGs but has adapted them to the local realities to maximize benefits for its population. The achievement of the MDGs is threatened by the presence of social, economic and environmental vulnerabilities caused by the small size of the island and its susceptibility to

natural disasters. Mitigating the risks associated with socio-economic events and natural disasters that exacerbate poverty is crucial in the achievement of the MDGs.[1] However, to comprehensively monitor progress towards achievement of all the targets under the MDG strategy, technical assistance is required for data collection, institutional analysis, and further development of the national health information system. Table 3 presents Montserrat's achievements as of 2006.

Table 3. Millennium Development Goals Assessment of Progress In Montserrat, 2006

Goals	Status	Sources
1. Eradicate Extreme Poverty and Hunger	1. Montserrat conducted a Participatory Poverty and Hardship Assessment in 2000 which defined poverty variables, categories of poverty and coping strategies. 2. A Country Poverty Assessment is being undertaken (2007-2008)	
2. Achieve Universal Primary Education	Achieved	Ministry of Education records
3. Promote Gender Equality and Empowerment of Women	Addressed in the Education Development Plan 2002 – 2007	Ministry of Education records; 2001 Census; Records from Clerk of Councils
4. Reduce child mortality	1. Achieved: Ministry of Health statistics indicate 1 death among 0 – 4 year olds 1999 - 2006. 2. Surveillance system monitors every child's development and makes necessary interventions.	Ministry of Health Records; Registrar of Births & Deaths
5. Reduce maternal mortality	Achieved: Ministry of Health statistics indicates 1 maternal death from 2000 – 2006	Ministry of Health Records; Registrar of Births & Deaths
6.Combat HIV/AIDS, Malaria and Other Diseases	1. The Ministry of Health tests all pregnant women for HIV/AIDS. 2. STI/HIV Aids Coordinator was appointed in 2006 3. Mosquito fogging is carried out when needed by the Environmental Health Department and there is active surveillance for vector borne diseases.	Ministry of Health Records
7. Ensure Environmental Sustainability	1. Environmental sustainability forms one of the strategic objectives in the Sustainable Development Plan 2003-2007. 2. Environmental management strategy developed in 2005. 3. Centre Hills Project was launched in June 2005. It aims to enable the people of Montserrat to conserve the Centre Hills. Since volcanic activity has devastated most of the southern forests and mountains, the Centre Hills have become the last remaining habitat for numerous threatened species 4. The 2001 census recorded 100% access to safe drinking water.	Physical Planning Department
8. Develop a Global Partnership for Development	Montserrat is a British Overseas Territory and does not borrow from the World Bank and IMF. The country receives budgetary aid from the United Kingdom. Montserrat borrows from the CDB (Caribbean Development Bank).	Department of Statistics

Source: Localising the Millennium Development Goals in Montserrat, Development Unit 2006.

[1] Localising the Millennium Development Goals in Montserrat, Development Unit, 2006.

1.2. Determinants of health

1.2.1. Political determinants

As an overseas territory of the United Kingdom, Montserrat's Head of State is Her Majesty Queen Elizabeth II who is represented by a resident Governor. Montserrat has its own system of government with a Chief Minister and Ministers duly appointed by its people. The Executive Council comprises the Governor, the Chief Minister, the Attorney General, the Financial Secretary and three Ministers. The aftermath of the volcanic crisis has resulted in increased dependence on budgetary aid from Her Majesty's Government. The government of Montserrat has designed creative policies to revitalize the economy in an attempt to reduce this dependency.

The volcanic crisis created new levels of vulnerability, dependency, and poverty as were confirmed by the 2000 Participatory Poverty and Hardship Assessment. The government's response is an articulated vision of rebuilding a healthy and wholesome Montserrat founded upon a thriving modern economy with a friendly vibrant community in which all people through enterprise and initiative can fulfil their hopes in a truly democratic and God-fearing society.[2] In the period 1998–2002, the Government of Montserrat and Her Majesty's Government agreed to implement policies, programs, and projects to lay the foundation on which Montserrat could re-establish its socioeconomic structures and restore confidence in its development potential. The 2003–2007 Sustainable Development Plan aimed to accelerate the development of Montserrat in four strategic areas: 1) developing the north of the island; 2) improving efficiency and effectiveness of the public sector; 3) partnership and promotion of the private sector; and 4) protecting the vulnerable and promoting social welfare.

1.2.2. Economic determinants

With the onset of volcanic activity in 1995 the economy contracted by 7.61% and even more sharply in 1996 to 21.45%. Negative economic growth continued from 1997-1999. In 2002, the economy began to show signs of recovery with a positive growth rate of 4.9% and 1.2% in 2003. During this period, the economy was dominated by the government service and construction sectors. The combined contribution of these sectors averaged 55% of GDP

[2] The Montserrat Sustainable Development Plan 2008 – 2010.

from 1997 to 2002. The joint contribution of all other sectors showed minimal but steady growth, reflecting Montserrat's diminished production base and private sector.[3]

Table 4. Gross Domestic Product Indicators, Montserrat 1999 - 2003

GDP Indicators	Years				
	1999	2000	2001	2002	2003
GDP – Constant Price – Basic Prices EC$M	60.32	58.51	56.85	59.66	60.39
GDP - Constant Price – Market Prices EC$M	17.81	69.24	64.49	69.68	68.89
Per Capita-Constant/ Basic Prices EC$	17,653	15,186	12,586	13,075	13,471
Per Capita-Constant/Market Prices EC$	21,016	17,970	14,277	15,271	15,367
GDP – Current Prices-Basic Prices EC$M	80.32	79.34	82.59	88.74	91.62
GDP - Current Prices-Market Prices EC$M	96.52	93.89	93.69	103.65	104.51
Per Capita-Current/Basic Prices EC$	23,506	20,592	18,284	19,448	20,437
Per Capita-Current/Market Prices EC$	27,984	24,368	20,742	22,715	23,313
Gross Capital Formation EC$M	60.56	43.73	39.68	53.04	63.66

Source: Department of Statistics.
Market Price = Basic Price = Taxes – Subsidies
Current Price = Today's Dollar Value
Today's Dollar Value = Today's Dollar Value at a base year (1990) price

Montserrat's external debt has declined since 1996, primarily due to the inability to borrow externally while being financed by special budgetary aid from the United Kingdom. The Government is forced to adopt the priorities of donor agencies as is relies heavily on donor grant funds. The ratio of debt outstanding to GDP was 15.3% in 2003 and 23% in 2000; it was 4.5% in 1990 and 17.7% in 1995. Montserrat's total debt outstanding was owed to multilateral creditors.

Montserrat is ranked as a middle–income country and, as such, does not fit the common criteria for poverty alleviation assistance. In 2000, a qualitative Participatory Poverty Assessment survey provided an assessment of 'who' was facing 'what' level of poverty and hardships in Montserrat. The key findings were that persons could be placed into any of five categories: 1) definitely not making it; 2) possibly not making it; 3) barely making it; 4) coping but stretched; 5) making it/doing okay. The vulnerable population was defined as the mentally challenged, female headed households with several children and the elderly. An analysis of Goal 1 of the MDG (Eradicate extreme poverty and hunger) articulated the following concerns: 1) the international poverty line of US$1 per day does not adequately

[3] The Montserrat Sustainable Development Plan 2003- 2007.

capture poverty in Montserrat; and 2) poverty is not only defined by income but other variables such as human capital, access to services, employment and quality of life.

1.2.3. Environmental determinants

The Environmental Health Department in the Ministry of Health & Community Services has responsibilities for vector and rodent control; solid waste disposal; burial of the dead; and ensuring water and food safety. Effective vector control policies and practices are manifest by only sporadic outbreaks of dengue fever since 2000. Domestic solid waste collection and disposal are executed via private contractors who work in conjunction with the Department. Challenges being experienced to locate a burial site to replace the one closed in 2003 are presently being addressed. The water sources continue to supply good quality water and there were with no reported out breaks of water-borne infections.

The effective management of environmental resources is critical to the sustainability of national development. In 2006, the Government of Montserrat further demonstrated its commitment to sound environmental management by establishing a Department of the Environment (DOE). This department was created primarily to address and give focused attention to current environmental priorities, meet international environmental obligations, and provide a supporting environmental framework to ensure that Montserrat's development is environmentally sustainable. The goal of the DOE is to achieve the long-term protection and sustainable productivity of Montserrat's natural resources and the ecosystem services they provide in order for present and future generations to benefit from them.[4]

Disaster management is an integral part of the development process and efforts continued to mitigate the effects of national disasters. A National Disaster Plan was completed in 1995 and the Disaster Response Act No. 10, in 1999. A Vulnerability and Hazard Study was completed in 2003.

[4] Department of the Environment, 2008. Ministry of Agriculture, Trade Lands, Housing & the Environment, 2008.

2. Functions of the health system

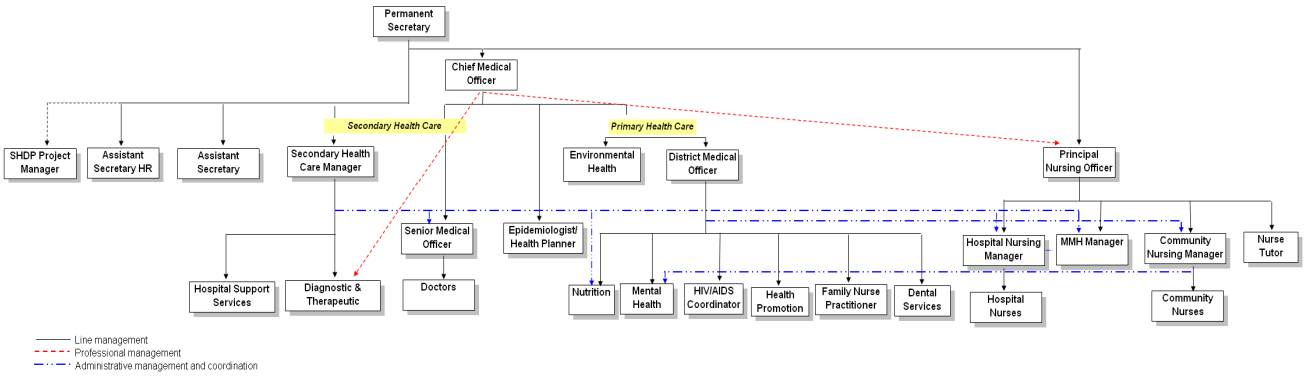
2.1. Steering role

The vision of the Ministry of Health is to be recognized as a health provider that manages an efficient and accountable national health system that enhances personal responsibility for self-care and the quality of life of people living in Montserrat. The mission is to promote the health and well being and to enhance the quality of life of persons on Montserrat by empowering individuals and communities and assuring access to preventive, curative and rehabilitative health care services through the provision of (or access to), affordable, accessible, and acceptable, quality health care in partnership with other stakeholders.[5]

2.1.1. Mapping of the Health Authority

A revised draft of the Ministry of Health's organogram is shown in Figure 2. It reflects the new vision and changing roles and responsibilities assigned to various levels of staff in the health sector. The draft should be finalized and approved by the end of 2008.

Figure 2. Draft organogram, Ministry of Health, Montserrat, 2008



The Minister of Health has dual responsibility for Health, Education, Community Services and Labor. The Permanent Secretary's functions cover the same portfolios. However, in 2006, a Permanent Secretary (PS) was assigned to Health and Community Services and another to Education and Labor.

[5] Corporate Plan, Ministry of Health, 2005.

The Chief Medical Officer is the senior health professional on the island. The incumbent is responsible for directing and managing the delivery of primary care services and providing advice on professional health matters. The Principal Nursing Officer is responsible for the administrative and policy-related decisions in nursing services; the Secondary Care Manager is the Hospital Service Administrator, and the Hospital Nursing Manger is responsible for hospital nursing services.

2.1.2. Conduct/Lead

The vision of the Ministry of Health is to be recognized as a health provider that manages an efficient and accountable national health system that enhances personal responsibility for self-care and the quality of life of people living in Montserrat. The mission is to promote the health and well being and to enhance the quality of life of the population by empowering individuals and communities and assuring access to preventive, curative and rehabilitative health care services through the provision of (or access to), affordable, accessible, and acceptable, quality health care in partnership with other stakeholders[6].

In 1999, the government of Montserrart (GoM) worked in tandem with the Department for International Development (DFID) to execute a Health Development project. The project aimed to improve the effectiveness and quality of health services and improve the health status of the people of Montserrat. At its completion in 2003, the project provided the infrastructure for improvement and expansion of health services.

In July 2005, GoM, with DFID support, conducted a Strategic Health Planning Workshop with wide stakeholder participation. The objectives of the workshop were to update information on the health sector, including infrastructure, services, staffing, management, finance, and resources; review the Vision and Mission Statements for the Ministry of Health, given in its Corporate Plan; agree on strategic objectives for the health sector; and agree on the next steps and a timetable for the development of a Strategic Plan for Health. One important outcome of the workshop was a proposed framework for the development of the Strategic Health Development Project (SHDP).

The goal of the SHDP is to facilitate the provision of an efficient and accountable national health system for Montserrat[7]. The SHDP is intended to lay the foundation for long-term improved health service provision. The key areas to be covered are (1) organisation and

[6] Corporate Plan, Ministry of Health, 2005.
[7] Report – Strategic Health Planning Workshop, July 2005.

management; (2) human resources; (3) infrastructure and equipment; (4) health financing; (5) health service provision; (6) models of care; (7) legislation and policies; and (8) monitoring & quality assurance.

Several broad priority areas were identified under the Project. One was the revision of legislation and policies related to public health. Scheduled activities included a revision of policies and laws; evaluation of the current health system, and development of a policy to guide development of an appropriate health model for Montserrat. Other priority areas were: human resources development; review of infrastructure and equipment; health financing review; revision of services delivery protocols; monitoring and quality assurance; health promotion, legislation and policy.

2.1.3. Regulation

The Public Health Act, revised in March 1982 confers on the Minister of Health the responsibility for the public health of the population of Montserrat and provides for the establishment of a Public Health Advisory Board. The purpose of this board is to advise the Governor in Council, and to make recommendations on any public health related matter and the exercise of any powers delegated to it by the Minister.

The health care delivery system operates within the framework of Chapter 14.01 titled the Medical Act. The Act mandates "the promotion and preservation of the health of the inhabitants of Montserrat and for matters incidental thereto and connected therewith."[8] Deficiencies in the ability to enforce some legislation under the Act have been identified but there are no sanctions for non-compliance.

2.1.4. Development of Essential Public Health Functions

The essential public health functions (EPHF) describe the spectrum of competencies and actions that are required to reach the central goal of public health, improving the health of populations. An assessment was conducted in 2002 which identified several strengths and weaknesses with regard to these functions. Programs were designed to address these documented weaknesses but implementation is still pending.

[8] Cap, 14.01, Laws of Montserrat January 2002.

2.1.5. Orientation of financing

The decrease in population due to outward migration and loss of land led to a dramatic decrease in tax receipts and other revenue sources. The capital cost of implementing priority developmental programs, including health care, is financed primarily by DFID and the European Union (EU). Therefore, the extent and timeliness of developmental activities in health are dependent on the level of resources available amidst competing priorities.

2.1.6. Guarantee of insurance

The Ministry of Health seeks to deliver adequate, affordable and accessible health services for all residents and visitors. The Ministry is in the process of creating a site plan for a purpose-built hospital to replace the current hospital located in a refurbished primary school. A Rationalization of Health Services consultancy was conducted in 2008 to inform the site plan.

The report of this consultancy is expected to include: 1) an assessment of the current system of services offered at the hospital; 2) a clear outline of the basic package of diagnostic and clinical services to be offered at the hospital and a list of services that will not be provided on island; 3) a list of practical and cost effective overseas referral centres for the various specialist services not provided on Montserrat; 4) financial implications of the recommendations with emphasis on infrastructure, human resource and organisational structure; 5) mechanisms for implementing the recommendations; and 6) proposal for accessing services not available on Montserrat.

There is legislative support for the provision of medical care free at the point of access to certain categories of residents such as the indigent; persons over 60 years of age; police officers; fire and rescue officers; prison officers and prisoners, and those with chronic illnesses.

2.2. Financing and assurance

The Ministry of Finance allocates available resources based on the submissions from the various ministries and departments. The priority areas and strategic directions outlined in the Sustainable Development Plan 2003-2007 are also considered in the allocation of resources.

Each department prepares business plans that include the programs and activities it expects to complete in a calendar year.

Expenditure in the health sector was directed primarily to improve primary health care services; introduce new structures of health management; train and retrain staff and ensure a flexible and up-to-date emergency and mass casualty plan. Table 5 shows the trend in budgetary allocation to the health sector in relation to the total recurrent expenditure.

Table 5. Montserrat: Allocation to Ministry of Health and Community Services, recurrent expenditure, 2003 - 2007

Year	Health budget (US$M)	Percentage of total recurrent expenditure (US$M)
2003	3.9	17.1
2004	4.3	12.6
2005	4.6	15.5
2006	5.2	15.8
2007	5.8	16.8

Source: Government of Montserrat Budget Speech & Estimates of Revenue & Expenditure, 2003 – 2007.

The Medical Records Department is responsible for revenue collection in the Ministry of Health. Departmental records show that for the period 1999-2006 the three leading revenue earning services were laboratory; medicines, and materials, accounting for 25%, 24% and 14%, respectively, of total revenue.

2.3. Service provision

2.3.1. Supply of and demand for health services

The Ministry of Health provides primary and secondary health care services. Primary health care services are delivered through the island's four (4) Health Districts namely: Salem; St. Peter's; Cudjoe Head and St. John's. The services offered include maternal and child health; antenatal & postnatal clinics, pap smears, school health; counselling; mental health clinic; visits to housebound clients; Doctor's clinics; Family Nurse Practitioner's clinic; nutrition clinic; eye care and audiology services.

The 30-bed Glendon Hospital provides medical, surgical and obstetric care. These services are augmented by the provision of basic laboratory investigations; pharmacy services; routine diagnostic imaging; basic physiotherapy; nutrition/dietetics services; outpatient clinics; accident and emergency services; ambulance services; surgical operations and

biomedical maintenance. There is a nominal fee to access accident and emergency and related diagnostic services. A review of the general fee structure is contemplated under the SHDP.

Access to tertiary care and/or highly specialized procedures is through overseas referrals. Long-term geriatric services are offered through three homes for senior citizens. The Margetson Memorial and the Hill View Homes, located on the hospital compound, cater for high-dependence care (bathing, feeding and toileting). The Golden Years home offers its clients supported independent dwelling.

In 2001, four doctors on the island operated private practices. The government employed some of these physicians on a part-time basis in addition to visiting consultants who made irregular visits. By 2007, there were no physicians in full-time private practice.

The provision of primary health care is challenged mainly by human resource issues. There is a need for a District Medical Officer (DMO) who is assigned only to primary health care centres. Up to 2008, the DMO also served as anaesthetist requiring the post-holder to work both at the clinics and the hospital. At times, disruptions occur in scheduled doctor's clinic at health centres when there is a surgical emergency. Additionally, 3 of the 4 health centres are staffed by one nurse resulting in closure of the centres during those intervals when the nurse is engaged in routine or emergency home visits. These factors compromise the quality and efficiency of primary health care services.

At the hospital level, the main challenge is the shortage of trained health personnel. There is one general surgeon and when the incumbent is on planned or unplanned leave, it is difficult to secure a replacement. There is a shortage of nurses and other professionals supplemental to medicine with similar challenges in recruitment and retention of these technically trained staff. There is also a lack of diagnostic services such as advanced imaging techniques and specialist services that would facilitate the definitive diagnosis and treatment of many conditions. However, it should be borne in mind that the size of the population does not provide sufficient volume of work to sustain multiple personnel with the same skills.

2.3.2. Human resources development

Human resource training

The training priorities for the Government of Montserrat are approved by the Executive Council of the elected Government based upon training needs submitted by individual Ministries. However, competing priorities between various ministries and dwindling national funding minimize opportunities for requisite training. External sources and funding for training were available for a cross-section of personnel in health-related areas.

Prior to 1995, the school of nursing was responsible for training registered nurses and enrolled nursing assistants and midwives to meet national demands. Since the onset of the volcanic crisis, nurses were trained in neighbouring islands; however, in 2007 a nursing program was established in the Montserrat Community College with an enrolment of 9 students. Other health professionals are all trained regionally and internationally as there are no other training facilities for health personnel in Montserrat.

Management of human resources and employment

The practice of nurses and physicians is regulated by the Montserrat Nursing Council and Montserrat Medical Associations, respectively. A Health Professions Act is being drafted to allow the regulation and registration of all health professions in Montserrat.

The number of human resources in health has remained stable over the period 1999-2005. In this period there were four medical practitioners, three laboratory technicians, two pharmacists, one dentist and one radiographer. The existing cadre of staff in the health sector was scaled down owing to the reduction in the size of the population and the subsequent Resource Allocation Review which was undertaken by the Government of Montserrat in the late 1990s.

2.3.3. Medicines and other health products

There are two pharmacies in Montserrat, one government-owned facility situated on the hospital compound and one privately owned. The presence of a pharmacist is required in all pharmacies. All pharmaceutical items in Montserrat are imported. As a member of the Organisation of Eastern Caribbean States (OECS), the government of Montserrat benefits

from reduced pricing and the regional tendering process of the Pharmaceutical Procurement Service (PPS). The government of Montserrat formulary is adopted from the OECS/PPS formulary. There is no sale of blood or blood products and all blood donations are voluntary.

2.3.4. Equipment and technology

Since 2000, the Ministry of Health has made progress in acquiring several types of medical equipment. Items included a vital signs monitor, infant resuscitaire, defibrillator, mobile ventilator, blood infusion pump and an electro-surgical unit for the operating theatre. The Glendon Laboratory has also acquired a haematology and a biochemistry analyzer.

In 2005, the Ministry of Health procured a Patient Administration System designed to improve the management of patient information; monitor the flow and care of patients throughout the public health care system and enhance surveillance of diseases of public health concern.

2.3.5. Quality assurance

A Clinical Governance Committee was established in 2007 with the responsibility of reviewing and determining guidelines for clinical practice to ensure that patients receive internationally-acceptable care. This multidisciplinary committee reviews reports from other standing committees in the Ministry of Health to identify gaps in service delivery; issues pertaining to patient and staff safety; and propose corrective measures. A methodology for conducting audits in clinical areas of care was implemented in 2007.

2.3.6. Institutional mapping of the health system

Table 6. Institutional mapping of the health system, Montserrat, 2008

Organizations	Conduct/Lead	Regulation & Enforcement	Financing	Assurance	Provision
Ministry of Health	√	√	N/A	√	√
Ministry of Finance	N/A	N/A	√	N/A	N/A
Social Security	N/A	N/A	N/A	√	N/A
Private Insurance	N/A	N/A	√	√	N/A
Private Providers	N/A	N/A	N/A	√	√

√ = Indicates Responsibility
N/A = Not applicable;
Source: Ministry of Health, 2008

3. Monitoring health systems change/reform

3.1. Impact on the health systems functions

The Sustainable Development Plan (SHDP) 1998-2002 is the strategic framework that outlines the Government of Montserrat's development program to fast-forward the recovery process. The four themes of this plan were: developing the north of Montserrat; improve efficiency and effectiveness of the public sector; partnership and promotion of the private sector, and protecting the vulnerable and promoting social welfare. The impact of this plan on the determinants of health included the introduction of an integrated planning approach and the use of business plans to inform expenditure planning; a participatory poverty assessment; reduction in the number of persons living in shelters; strengthened district level delivery of health services with emphasis on primary care, and construction of housing for the elderly.

The planning for the continuation of Montserrat's redevelopment was addressed in the 2003–2007 SDP. The plan underscored the importance of tackling poverty and hardship; reducing marginalisation and social exclusion; promoting social justice and equity; supporting the empowerment of people; and increasing social capital and ensuring sustainability. The construction of a Community College; universal access to all available health and educational services; and increased access of vulnerable persons to social welfare assistance are partial responses to address the plan's defined objectives.

The Ministry Health secured a commitment from DFID to support the implementation of the SHDP which began in 2007. While the project is expected to be completed in 2009, benefits already derived include a more focused approach to health services development and improvements in the health information system.

In the period 2001–2005, other initiatives that impacted the delivery of health care included the securing of funds for the development of a Strategic HIV/AIDS Plan and the acquisition of a philanthropic grant from the WK Kellogg foundation for social sector development.

3.2. Impact on the guiding principles of health sector reforms

3.2.1. Equity

Coverage

There are existing categories of persons who do not have universal access to health services provided in the public sector. Persons who are between the ages of 17 and 59 years; not considered indigent, not employed in certain sectors of the government service nor considered wards of the state cannot access free services except in emergency situations.

Distribution of Resources

Government's fiscal allocation to health continues to show a gradual increase. With regards to human resources for health, while there have been changes in the personnel holding substantive posts, the actual number has remained constant from 2000 to 2005. The number of trained nurses has declined and efforts are being made to address this deficiency. The 30-bed Glendon Hospital is adequate for the current size and needs of the population.

Access

In the primary care setting, patients are required to make appointments to access routine care; however emergencies are dealt with as they occur. Persons deemed to require secondary care are referred to the relevant specialist at the hospital and the waiting time is dependent on the severity of the medical condition.

3.2.2. Effectiveness

Infant and Maternal Mortality

Factors contributing to low mortality among vulnerable groups such as children under 5 years and pregnant women continue to be well managed. For the period 1999–2007, there was 1 infant death (2006) due to blunt force trauma; and 1 maternal death in 2000.

Mortality Due to Malignant Neoplasms

Between 2000–2006, 53 deaths were due to malignant neoplasms and the three leading sites were prostate (12), breast (9), and colon (6).

Table 7. Montserrat: Deaths due to malignant neoplasms, by year of death, 2000-2006

Site	Years							
	2000	2001	2002	2003	2004	2005	2006	Total
Colon	0	0	0	2	2	0	0	6
Pancreas	1	0	2	1	0	1	0	5
Breast	2	1	1	2	1	1	1	9
Larynx	0	1	0	0	0	0	0	1
Esophagus	0	0	0	1	0	0	0	1
Prostate	0	4	2	1	2	3	0	12
Uterus	0	0	0	0	1	0	0	1
Ovaries	0	0	1	0	0	0	0	1
Stomach	1	3	0	1	0	0	0	5
Secondary Neoplasm	0	0	0	1	0	0	0	1
Ill defined	1	2	1	3	2	2	0	11
Total	5	11	7	12	8	7	1	53

Source: Statistical Report, Ministry of Health.

Incidence of Malaria, Tuberculosis and HIV/AIDS

Control of vaccine preventable diseases was demonstrated during the reporting period, with tuberculosis being the only reported disease of this category. There were two cases of pulmonary tuberculosis, one each in 1999 and 2003; the latter being co-morbidity with advanced HIV infection.

The number of reported cases of HIV infection is shown in Table 8. The total number of cases (28) represents persons accessing care and treatment locally irrespective of where they were diagnosed, locally or abroad. Since the commencement of HIV surveillance, risk factor data to assist in determining modes of transmission are not collected. In the area of care and treatment, there is an ad hoc arrangement in which anti-retrovirals (ARVs) are

made available for HIV positive persons who meet the medical criteria with priority given to pregnant women.

Table 8. Montserrat: Reported HIV positive cases, by gender, 1995 - 2007

YEAR	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TOTAL
Male	1	0	0	1	3	0	1	1	1	2	2	1	3	16
Female	0	0	0	1	0	0	1	1	3	2	3	1	0	12
Total	1	0	0	2	3	0	2	2	4	4	5	2	3	**28**

Source: Statistical Report, Ministry of Health 2007

No cases of malaria were reported in Montserrat during the reporting period.

3.2.3. Efficiency

Resource Allocation

According to the 2001 population census, the population had access to safe drinking water. However, the water network needs regular upgrading due to increased demand in the north of the island. Montserrat depends on the land filling process for the disposal of liquid and solid waste. The 60% reduction of the habitable land mass poses challenges in the area of waste disposal.

3.2.4. Sustainability

The available financing from sources such as DFID, the European Union, and the recurrent health budget are managed by the Permanent Secretary in the Ministry of Health. Management of all finances are subject to the rules and regulations of the Statutory Rules and Orders Number 16 of 2002 and the Financial Orders of the Government of Montserrat.

3.2.5. Social participation

In 2000, the GoM began the process of participatory planning by administering the Participatory Poverty Assessment. It continued the process by strengthening linkages with

the private sector to facilitate a participatory approach to decision-making in health. Consequently, since 2002, many projects benefited from the input of social partners. Among these are: faith based organisations in activities related to the development of youth and care of senior citizens; Montserrat branch of the British Red Cross in disaster management and HIV peer counselling; Diabetes Association and the Lions and Rotary Club provide support by educating to persons affected by diabetes and the Montserrat Consumer Association advocates for improved food safety island wide. The Strategic Health Planning Workshop in 2005 benefited from full stakeholder participation. Major contributors were Ministry of Finance, Ministry of Communication and Works, DFID, private sector and members of civil society.

3.3 Analysis of Actors

The Montserrat Sustainable Development Plan 2003 -2007, was supported by several funding agencies such as the Caribbean Development Bank, United Kingdom Government; European Development Fund and the Government of Montserrat.

Table 9. Actors by Type of Involvement in the Health Sector Montserrat

Agency	Type of Involvement
Organization of Eastern Caribbean States / Pharmaceutical Procurement Services (OECS/PPS)	Quality assurance & procurement services
Department for International Development (DFID)	Major provider of funds for health sector programs and projects
Pan American Health Organization / World Health Organization (PAHO/WHO)	Technical assistance and training
Caribbean Food and Nutrition Institute (CFNI)	Technical assistance and training in the area of food & nutrition
Caribbean Health Research Council (CHRC)	Technical assistance in the areas of health research, monitoring and evaluation
Caribbean Epidemiology Centre (CAREC)	Training and technical support in epidemiologic surveillance Laboratory support, quality assurance

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