

# **WESTERN REGIONAL HEALTH AUTHORITY**

## **ANNUAL REPORT**

**2005**

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A publication of the Western Regional Health Authority

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## TABLE OF CONTENT

	<b>PAGE</b>
<b>Acknowledgement</b>	<b>i</b>
<b>EXECUTIVE SUMMARY</b>	<b>ii</b>
<b>1.0 THE CONTEXT</b>	<b>1</b>
1.1 National	2
1.2 The Western Regional Health Authority	3
1.3 Population Profile	3
<b>2.0 MANAGEMENT AFFAIRS</b>	<b>5</b>
2.1 Organizational Chart	6
2.2 The Management Team	7
2.3 Health Services Management	8
2.3.1 Vision	8
2.3.2 Mission	8
2.3.3 Resources for the Health Sector	8
2.3.3.1 Finance	9
2.3.3.2 Human Resource	11
2.3.3.3 The Infrastructure	12
2.3.3.4 Management Information	13
2.4 The Health Services	14
2.4.1 Provisions of Services / Programmes	14
2.4.1.1 Health Promotion	14
2.4.1.1.1 Health Education	14
2.4.1.1.2 Nutrition	15
2.4.1.1.3 Home Visits	15
2.4.1.2 Services/Facilities	16
2.4.2 Utilization of Services/ Programmes	18
2.4.2.1 Dental / Oral Health	18
2.4.2.2 Primary Health Care Services	20
2.4.2.3 Hospital Services - Accident and Emergency	21
- Inpatient	23
- Surgery	24
- Outpatient Specialty Clinic	25
2.4.2.4 Diagnostic Services – Laboratory	27
- Radiography	29
2.4.2.5 Therapeutic Services- Pharmaceutical	31
- Physiotherapy	33
- Radiation/Oncology	35

<b>3.0</b>	<b>TECHNICAL AFFAIRS</b>	<b>36</b>
3.1	Health Status	37
3.1.1	The Health Indicators	37
3.1.2	Morbidity Profile	37
3.1.2.1	Primary Health Care	38
3.1.2.2	Hospital Inpatient Services	40
3.1.3	National Health Priorities	42
3.1.3.1	Environmental Health	43
3.1.3.2	Control of Communicable Disease	47
3.1.3.3	Chronic Non-Communicable Diseases	49
3.1.3.4	Child and Adolescent Health	57
	- Child Health	57
	- Adolescent Health	62
3.1.3.5	Reproductive Health	64
3.1.3.6	Mental Health	70
3.1.3.7	Emergency Health Services	74
3.2	Mortality	80
<b>4.0</b>	<b>PERFORMANCE TABLES</b>	<b>84</b>
	<b>APPENDICES</b>	<b>95</b>
	<b>GLOSSARY</b>	<b>98</b>
	<b>BIBLIOGRAPHY</b>	<b>100</b>

## **LIST OF TABLES, FIGURES AND APPENDICES**

### **TABLES**

- 1.1 End of Year Population: Jamaica, WRHA and Parishes 2000–2005
- 1.2 End of Year Population by Age Groups: Jamaica, WRHA and Parishes 2005
- 2.1 Health Service Financing \$'000: WRHA 2000–2005
- 2.2 Health Service Delivery Expenditure: \$'000: WRHA 2001–2005
- 2.3 Outstanding Liabilities \$'000: WRHA 2000–2005
- 2.4 Emoluments (J\$) for Senior Managers: WRHA 2005
- 2.5 The Infrastructure, Operations and Maintenance: WRHA and Parishes 2005
- 2.6 Home Visits: Jamaica and WRHA 2000–2005
- 2.7 Home Visits: Jamaica, WHRA and Parishes 2005
- 2.8 Provisions/Availability of Public Health Services: Jamaica, WRHA and Parishes 2005
- 2.9 Utilization of Dental/Oral Health Services: WRHA 2001-2005
- 2.10 Utilization of Dental/Oral Health Services: Jamaica, WRHA and Parishes 2005
- 2.11 Primary Health Care Visits by Year: Jamaica, WRHA and Parishes 2000-2005
- 2.12 Utilization of Accident and Emergency (A&E) Services: Jamaica, WRHA and Parishes 2005
- 2.13 Provision and Utilization of Inpatient Services: WRHA 2000–2005
- 2.14 Provision and Utilization of Inpatient Services: Jamaica, WRHA and Parishes 2005
- 2.15 Utilization of Surgical Services: Jamaica, WRHA and Parishes 2005
- 2.16 Utilization of Outpatient Specialist Clinics: Jamaica WRHA and Parishes 2005
- 2.17 Utilization of Laboratory Services: WRHA 2000–2005
- 2.18 Utilization of Laboratory Services: Jamaica, WRHA and Parishes 2005
- 2.19 Utilization of Radiography Services: Jamaica WRHA and Parishes 2005

- 2.20 Utilization of Pharmacy Services: Jamaica WRHA and Parishes 2005
- 2.21 Utilization of Physiotherapy Services: WRHA 2000–2005
- 2.22 Utilization of Physiotherapy Services: Jamaica, WRHA and Parishes 2000–2005
- 2.23 Utilization of Radiation/Oncology Services: Jamaica and WRHA 2000–2005
- 3.1 Health Indicators: Jamaica 2000–2005
- 3.2 Health Centre Visits by Diagnosis: WRHA 2001-2005
- 3.3 Health Centre Visits by Diagnosis: Jamaica, WRHA and Parishes 2005
- 3.4 Ten Leading Causes of Discharge from Public Hospitals by Diagnosis: WRHA 2000–2005
- 3.5 Ten Leading Causes of Discharge from Public Hospitals by Diagnosis: Jamaica and WRHA 2005
- 3.6 Food Safety: WRHA Parishes 2005
- 3.7 Water Quality: WRHA Parishes 2005
- 3.8 Sanitation: WRHA Parishes 2005
- 3.9 Vector Control: WRHA Parishes 2005
- 3.10 Approval for Development/Commercial Activities: WRHA Parishes 2005
- 3.11 Trends in Immunization Coverage for Vaccine Preventable Disease: Jamaica and WRHA 2000–2005
- 3.12 Trends in Immunization Coverage for Vaccine Preventable Disease: Jamaica, WRHA and Parishes 2005
- 3.13 Class I Diseases Notified in 2005: WRHA Parishes
- 3.14 Morbidity Profile – Asthma: WRHA 2000–2005
- 3.15 Morbidity Profile – Asthma: Jamaica, WRHA and Parishes 2005
- 3.16 Morbidity Profile – Cancer: WRHA 2000-2005
- 3.17 Morbidity Profile – Cancer: Jamaica, WRHA and Parishes 2005
- 3.18 Morbidity Profile – Diseases of the Circulatory System: Jamaica and WRHA 2000–2005
- 3.19 Morbidity Profile – Diseases of the Circulatory System: Jamaica, WRHA and Parishes 2005

- 3.20 Morbidity Profile – Diabetes: Jamaica and WRHA 2000–2005
- 3.21 Morbidity Profile – Diabetes: Jamaica, WRHA and Parishes 2005
- 3.22 Morbidity Profile – Other Monitored Diseases: WRHA 2000–2005
- 3.23 Morbidity Profile – Other Monitored Diseases: Jamaica, WRHA and Parishes 2005
- 3.24 Status of Child Health – Several Variables: WRHA 2000–2005
- 3.25 Status of Child Health – Several Variables: Jamaica, WRHA and Parishes 2005
- 3.26 Provisions and Utilization of Hospital Service (Children): WRHA 2001–2005
- 3.27 Provisions and Utilization of Hospital Service (Children): Jamaica, WRHA and Parishes 2005
- 3.28 Under One Child Mortality: WRHA 2000–2005
- 3.29 Under One Child Mortality: Jamaica, WRHA and Parishes 2005
- 3.30 Status of Adolescent Health – Several Variables: WRHA 2001-2005
- 3.31 Status of Adolescent Health – Several Variables: Jamaica, WRHA and Parishes 2005
- 3.32 Status of Reproductive Health – Several Variables: WRHA 2000–2005
- 3.33 Status of Reproductive Health – Several Variables: Jamaica, WRHA and Parishes 2005
- 3.34 Provision and Utilization of Hospital Services, Reproductive Health: WRHA 2000–2005
- 3.35 Provision and Utilization of Hospital Services, Reproductive Health: Jamaica, WRHA and Parishes 2005
- 3.36 Morbidity Profile – Reproductive Health: WRHA 2000–2005
- 3.37 Morbidity Profile – Reproductive Health: Jamaica, WRHA and Parishes 2005
- 3.38 Status of Mental Health – Several Variables: WRHA 2000–2005
- 3.39 Status of Mental Health – Several Variables: Jamaica, WRHA and Parishes 2005
- 3.40 Morbidity Profile – Community Mental Health: WRHA 2000-2005
- 3.41 Morbidity Profile – Community Mental Health: Jamaica, WRHA and Parishes 2005
- 3.42 Status of Emergency Health Services – Several Variables: WRHA 2000–2005

- 3.43 Status of Emergency Health Services – Several Variables: Jamaica, WRHA and Parishes 2005
- 3.44 Morbidity Profile in Public Hospital A&E Department: WRHA 2000-2005
- 3.45 Morbidity Profile in Public Hospital A&E Department: Jamaica, WRHA and Parishes 2005
- 3.46 Profile of Injuries Treated in Public A&E Departments: WRHA 2000-2005
- 3.47 Cases of Intentional Injuries Treated at Hospital A&E Departments by Type and Gender: Jamaica, WRHA and Parishes 2005
- 3.48 Mortality Profile: Jamaica and WRHA 2000–2005
- 3.49 Mortality Profile: Jamaica, WRHA and Parishes 2005
- 3.50 Inpatient Deaths in Public Hospitals by Five Leading Diagnoses: Jamaica, WRHA and Parishes 2005
- 4.1 Performance/Achievement: WRHA 2000-2005
  - 4.1A Management
  - 4.1B Service Delivery
  - 4.1C Dental Health
  - 4.1D Environmental Health
  - 4.1E Communicable Disease Control
  - 4.1F Chronic Non-Communicable Diseases
  - 4.1G Child and Adolescent Health
  - 4.1H Reproductive Health
  - 4.1I Mental Health

## **FIGURES**

- 1.1 Organizational Chart – Western Regional Health Authority
- 2.1 Utilization of Accident and Emergency (A&E) Services: WRHA 2000-2005
- 2.2 Utilization of Surgical Services: WHRA 2000 – 2005
- 2.3 Utilization of Outpatient Specialist Clinics: WRHA 2000 – 2005
- 2.4 Utilization of Radiography Services: WRHA 2000 – 2005
- 2.5 Utilization of Pharmacy Services: WRHA 2000 – 2005
- 3.1 Inpatient Deaths in Public Hospitals by Five Leading Diagnoses: Jamaica and WRHA 2000-2005



**APPENDICES**

- TABLE A1: Utilization of Accident & Emergency Services: Jamaica, WRHA 2000-2005
- TABLE A2: Utilization of Surgical Services WRHA 2000– 2005
- TABLE A3: Utilization of Outpatient Specialist Clinics WRHA 2000-2005
- TABLE A4: Utilization of Radiography Services: WRHA 2000–2005
- TABLE A5: Utilization of Pharmacy Services: WRHA 2000–2005
- TABLE B1: Inpatient Deaths in Public Hospitals by Five Leading Diagnoses: Jamaica and WRHA 2000-2005

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The report was enhanced by those who diligently reviewed it and provided constructive comments and criticisms. To those persons, I express deep appreciation.

I thank those who provided unfaltering secretarial services and support.

## **EXECUTIVE SUMMARY**

It is a privilege to submit another Annual Report for the Western Regional Health Authority (WRHA) for the year 2005. Since its establishment in 1997, the WRHA's population has grown, especially among those in the 10-19 and 20-49 age groups. The largest growth was in the parishes of St. James and Westmoreland.

Over the years, the activities continued to focus on the core function – the daily provision of health care to clients and their families in order to give relevance to the vision “healthy families living in healthy communities”. In exchange, the health team obtained the rewards of contributing to the achievement of regional and national health goals and the development of human potential.

The progress made in service delivery is attributable to a very important element - the people. Therefore, I thank:

- Our clients and their families for their confidence in the services provided;
- The Board Members for consistent advice and guidance;
- The parish teams for their commitment, strategic management and responsiveness to the health needs of citizens;
- The inhouse management and technical teams and all other team members working singly or collectively to utilize astute management practices and technical expertise to guide the WRHA through the varying challenges during the period of the last five years and especially in year 2005.

The WRHA re-affirms its dedication to the delivery of quality health care to its visitors and people in the future and gratefully acknowledges the responsiveness and participation of several agencies/organizations.

There has been a great spirit of cooperation among the agencies that provide care for the mentally ill:

- The Community for the Upliftment of the Mentally Ill (CUMU);
- Westmoreland Association for Street People (WASP);
- The Refuge of Hope Shelter in Montego Bay.

### **Performance**

The details of performance are covered in each specific area, however, highlights are presented.

Despite the challenges, strategically sound management practices guided achievements in the maintenance of an acceptable standard of care.

- The **Internal Audit** Department continued its thrust to provide the Region's directorate with independent analytical evaluation and recommendation about the management activities.

During year 2005, despite challenges with human resource, computer hardware and software capabilities, the department:

- Reviewed rates and overtime for janitorial staff;
  - Prepared procedure for the handling of counterfeit money;
  - Conducted fuel audit for the transportation system;
  - Investigated June 2005 J\$3 million payroll fraud, resulting in the arrest and charge of ten (10) officers.
- 
- While **Health financing** continued its increasing trend in 2005 with an overall increase of J\$111,950,000, user fees also increased by 9%.

Simultaneously, the Region increased its total expenditure to J\$2,262,307. The operating deficit was approximately J\$120 million and there was a decline in outstanding liabilities.

- Planned preventive maintenance programmes, emergency maintenance and project management activities resulted in effective outputs from the Region's **operations and maintenance** department. The Maximo System needs to be reviewed.
- **Management Information System**  
Upgrades of Windows 98 continued as did controls to limit security threats.
- **Health Promotion** programmes continued to be an integral part of the WRHA's health care strategy.

The health promotion/health education and nutrition programmes continued in all the parishes of the Region at the hospital and primary health care levels of service delivery.

The focus continued to be an healthy lifestyle among school aged children, adolescents and adults.

- Although **Home Visits** have declined annually, the lowest level being in 2005 (34,006), visits for Child Health have remained relatively consistent.

The WRHA's four hospitals and primary health care facilities continued to provide health services to the Region's people and visitors.

Data relating to the **utilization of services** indicated:

- **Dental/Oral health** care though experiencing decline in visits, maintained acceptable level of preventive care.
- The annual decline in **Primary Health Care** visits changed in year 2005 with an increase of 6,500 visits.
- However, **Accident and Emergency** data revealed an opposite situation of annual increase in attendance (2003 and 2004) and a decline of 17,091 in 2005.
- The 578 **inpatients** beds achieved a turnover rate of 55.6% to account for 32,580 discharges.
- Although there was a slight decline in the number of surgeries performed, **day surgery** represented approximately 7% (2,083) of total cases.
- The number of **outpatient specialist clinics** increased by 163 in 2005 with a 512 decline in the number of new cases.
- As in previous years, **Laboratory** utilization increased in both the number of clients and the number of tests. Chemistry achieved a total of 386,699 examinations.
- **Radiography** services though declining and registering a decrease in the number of examinations when compared to 2004, continued to offer most services to outpatients.
- The number of clients using public hospital **pharmacies** peaked to 143,904. Expectedly, the number of items prescribed (409,110) and number of items dispensed (32,624) increased as well.

- There was a slight (209) increase in the number of clients using **Physiotherapy** services. Clients with Orthopaedic conditions continued to be the largest beneficiaries based on treatments.
- **Radiation/Oncology** treatments delivered in WRHA represented 37% (13,373) of all treatments in the public sector in 2005.
- The **Health Indicators** revealed a Life Expectancy of 74.1 years in year 2005.
- The major causes of **health centre visits** in WRHA continued to be for Diseases of the Circulatory System (especially Hypertension); Diseases of the Genito-urinary System and Gynaecological Conditions and Diseases of the Skin. Additionally, the major causes of **hospital discharge** included Accidents and Injuries, Diseases of the Circulatory System and Diseases of the Digestive System.
- **Environmental Health** continued to focus on food safety; water quality and waste water management. Sanitation and the control of vectors in order to ensure the maintenance of good health.
- While the parishes of Trelawny and Hanover recorded **immunization** coverage for vaccine preventable diseases above the national level that of the Region was below the national figures.
- Data on the Region's continued monitoring of the **Chronic Non-Communicable Diseases** revealed that:
  - There was an increase in the number of cases of **Asthma** seen in Accident and Emergency cases as well as outpatient Paediatric cases.

- Year 2005 experienced the largest number of clients screened for cervical cancer and a slight decline in the number of **radiation/oncology** treatments.
- Hypertension continued to be the major **Disease of the Circulatory System** seen in the Region's primary health care facilities.
- The decline in visits for Diabetes since year 2000 continued. However, the relatively steady number of visits for the co-pathology of Hypertension and Diabetes (Other Monitored Diseases) could be a reason for the decline.
- The WRHA's **Child and Adolescent Health** status data showed an additional 259 low birth weight babies in 2005 (total 993) and immunization levels below national levels. While below normal nutritional status recorded 17 children in the 0-35 months age group, 36% of the children received home visits.

Adolescent reproductive health data showed that the bulk of first antenatal clinic visits continued to be in the 16-28 week period. Additionally, the number with Hb<10gms/dcl (267) was highest in 2005.

- In 2005, total antenatal visits were 26,165 with 17.6% having anaemia. Approximately, 99% of the Region's deliveries were done by trained personnel. Service delivery at the primary care level, A&E cases, hospital discharge, surgical interventions, outpatient care continued to be dominated by Obstetrics conditions in the group of priorities – **Reproductive Health**.
- The available data indicated that in year 2005, 2,451 clients received home visits for **Mental Health** problems. Eighty one percent (81%) of the 2,295 psychotic cases on register received consistent care.
- There were 17,090 less attendees at the WRHA's **Accident & Emergency** facilities in 2005. Injuries (21,406); Medical (47,429); Surgical (16,936) and



Paediatric (15,735) conditions continued to be the major conditions managed.

- The 577 **inpatient deaths** were mainly due to Diseases of the Circulatory System (213), Endocrine, Nutritional and Metabolic Diseases (91) and Neoplasms (79).

**1.0 THE CONTEXT**

**1.1 National**

**1.2 Western Regional Health Authority (WRHA)**

**1.3 Population Profile**

## **1.0 THE CONTEXT**

### **1.1 National**

Jamaica is positioned 45 kilometres south of Cuba and 161 kilometres west of Haiti. The island has a total land mass of 10,991 square kilometres. A land of mountains, plateaux and plains, the highest peak is the Blue Mountains at an elevation of 2,256 metres

The island has a maritime tropical climate with temperatures ranging from 26.2 degrees Celsius to 31 degrees. The island lies in the hurricane belt and the rainfall occurs mainly in May and October. There are fourteen parishes and two major urban centres – Kingston in the South East and Montego Bay on the North West coast.

An independent state in the Commonwealth of Nations, since 1962, the Governor General represents the Queen. The executive arm of the parliamentary democracy is headed by the Prime Minister.

The Western Region of the island occupies portions of the northern and southern coasts and the entire western coastline. Included are the parishes of Trelawny (874.6 km); St. James (549.9 km); Hanover (450.4 km); and Westmoreland (867.4 km). The area has mostly calm, clear seas and white sand beaches, backed by flat, raised plains and coral reefs. Home to the island's second airport and teeming with beaches, hotels and guest houses, the area serves as the tourist mecca of Jamaica.

The major economic activities emanate from the tourism product. Agriculture, fishing, manufacturing and information also contribute to the economy. HEART Trust/NTA operates two vocational centres in the region.

## 1.2 The Western Regional Health Authority (WRHA)

The WRHA was established by an Act of Parliament in 1997 to respond to the health needs of clients and visitors to the region. It began operations in 1998.

The management structure consists of a:

- ⇒ Board of Directors nominated by the Honourable Minister of Health
- ⇒ Regional Director (RD) that manages all the related affairs of the Region
- ⇒ Regional Technical Director (RTD)
- ⇒ Director of Finance
- ⇒ Director of Human Resource
- ⇒ Director of Management Information Systems
- ⇒ Director of Operations and Maintenance

The coordination and delivery of all health care services reside at the parish level.

## 1.3 Population Profile

**Table 1.1 End of Year Population: Jamaica, WRHA and Parishes 2000-2005**

Year	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>2000 (Base Year)</b>	2,597,080	452,734	73,074	174,041	67,127	138,492
<b>2001</b>	2,612,396	455,199	73,084	175,729	67,018	139,305
<b>2002</b>	2,621,457	458,548	73,341	177,686	67,329	140,192
<b>2003</b>	2,635,673	461,935	73,972	178,844	67,944	141,126
<b>2004</b>	2,648,224	464,762	74,324	180,036	68,439	141,967
<b>2005</b>	2,660,723	469,057	75,502	181,628	68,945	143,982

*Source: Demographic Statistics 2006*

The island's estimated end of year population was 2,660,723 in 2005 and that of the WRHA 469,057. The year demonstrated a growth that was 12,499 and 4,295 for Jamaica and WRHA respectively (Table 1.1).

By the end of year 2005, the WRHA's population grew by 15,727 persons since the base year (2000) and Trelawny demonstrated the smallest growth (1,639) over the period (Table 1.1).

**Table 1.2 End of Year Population by Age Groups – Jamaica, WRHA and Parishes 2005**

AGE GROUP (IN Years)	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
0-4 years	229,597	42,474 (4)	7,220	15,743	6,567	12,944
5-9 years	270,650	49,074 (3)	8,008	18,998	6,959	15,109
10-19 years	537,393	90,477 (2)	15,125	35,583	13,463	26,306
20-49 years	1,148,605	196,425 (1)	28,692	82,120	27,496	59,115
50-59 years	195,419	37,314	6,891	13,122	5,512	11,789
60-64 years	71,321	25,123	4,367	8,029	3,919	8,808
65 and Over	207,738	28,170 (5)	5,199	8,032	5,029	9,910
Total Population	2,660,723	469,057	75,502	181,628	68,945	142,982

Source: Demographic Statistics 2006

In 2005, the largest portion of the WRHA's population was in the age group 20-49 years (196,425), consistent with the national picture.

The data also indicated that the 10-19 years (90,477) and 60 and over age groups (53,293) had a sizeable portion of the Region's population (Table 1.2).

The parish of Westmoreland had 18,718 persons (35,1%), the largest percentage of the Region's 60 and over age group (Table 1.2).

**2.0 MANAGEMENT AFFAIRS**

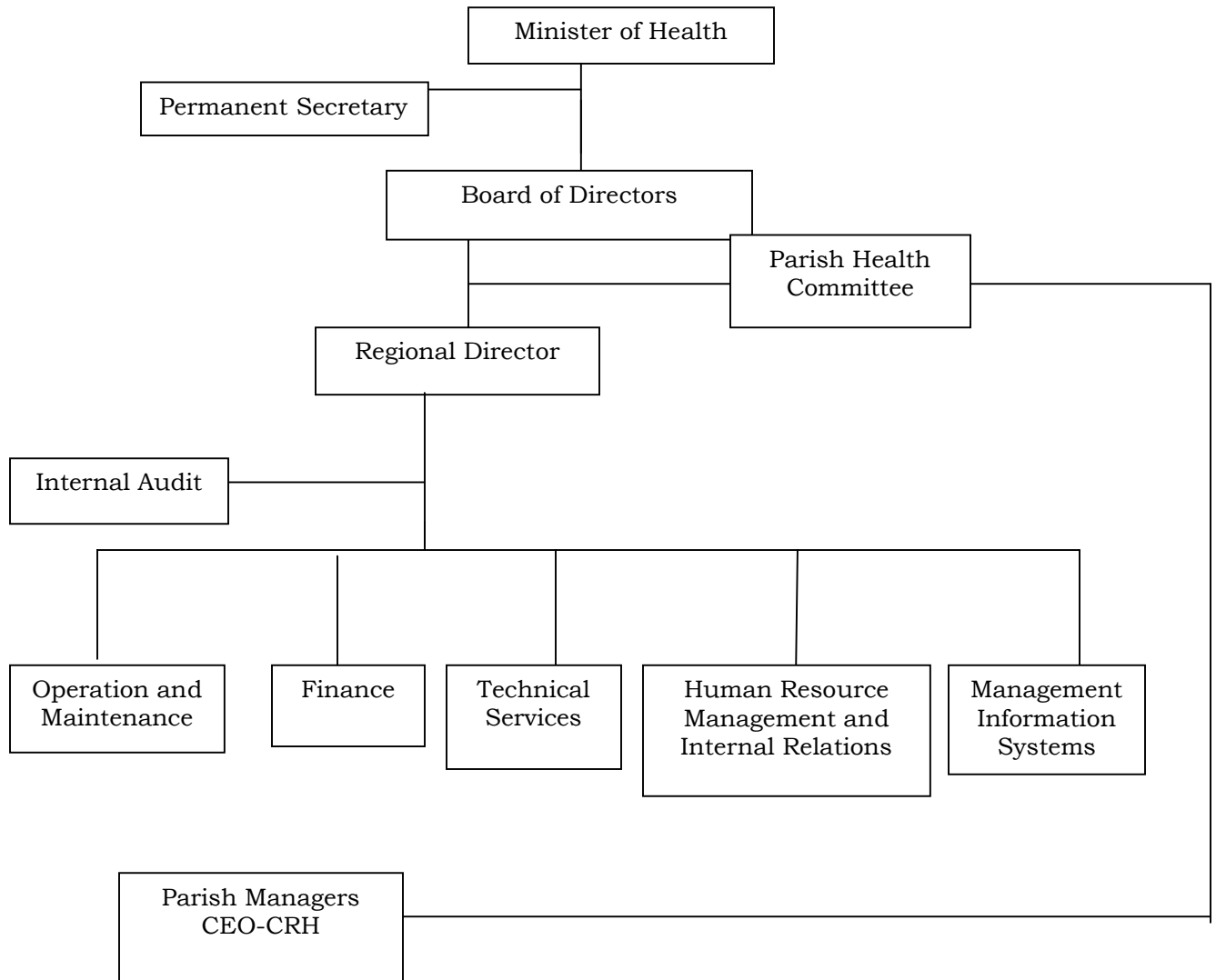
**2.1 Organizational Chart**

**2.2 Management Team**

**2.3 Health Services Management**

**2.4 The Health Services**

**2.1 ORGANIZATIONAL CHART – Western Regional Health Authority**



**Figure 1.1 Organizational Chart – WRHA**

## **2.2 THE MANAGEMENT TEAM**

### **The Board of Directors**

Mr. Gordon Brown	-	Attorney at Law - Board Chairman
Mr. Everton Anderson	-	Chief Executive Officer, CRH
Dr. Sheila Campbell-Forrester	-	Regional Director, WRHA
Miss Evelyn Bloomfield	-	Director of Budget, MOH
Miss Toycia Collins	-	
Mr. Winston Comrie	-	Councillor, Westmoreland Parish Council
Dr. Barrington Dixon	-	Senior Medical Officer, CRH
Mrs. Hyacinth Forde	-	_____, Jamaica Tourist Board
Dr. Alexander Konstantinov	-	Regional Technical Director, WRHA
Mrs. Florence Logan	-	General Manager, NWC
Miss Isiah Madden	-	Architect, c/o Maddens Funeral Home
Miss Erma Ridguard	-	Bankers, Bank of Nova Scotia
Miss Marjorie Thelwell	-	Matron, Noel Holmes Hospital
Mr. Sunil Khatani	-	
Dr. David Stair		
Mr. Fred Hamaty		

### **The In-house Managers**

Dr. Sheila Campbell Forrester	-	Regional Director (RD)
Dr. Alexander Konstantinov	-	Regional Technical Director (RTD)
Mr. Raymond Kitson-Walters	-	Director of Finance
Mr. Arthur Warren	-	Director, Human Resource and Industrial Relations
Mr. Daniel Brown	-	Director, Operations and Maintenance
Mr. Auldrick Brown	-	Director, Management Information System

### **The Senior Members of the Parish Team**

Miss Rochelle Clark	-	Parish Manager, Trelawny
Dr. Maung Aung	-	Medical Officer (Health), Trelawny
Mrs. Valencia Maponya	-	Parish Manager, St. James
Dr. Rao Ponada	-	Medical Officer (Health), St. James
Mrs. Lorene Whinstanley	-	Parish Manager, Hanover
Dr. Ogunnowo Olufeni	-	Medical Officer (Health), Hanover
Mr. Verley James	-	Parish Manager, Westmoreland
Dr. Kyaw Tint	-	Medical Officer (Health), Westmoreland



## **2.3 HEALTH SERVICES MANAGEMENT**

### **2.3.1 Vision**

**Healthy families living in healthy communities**

### **2.3.2 Mission**

The mission of Western Regional Health Authority encompasses the tenets of public health:

- To provide quality preventative, curative and rehabilitative health care that is affordable, accessible and reliable to the population of the region;
- To provide and maintain facilities and conditions conducive to the promotion of health;
- To attract, train, motivate and retain a high calibre of staff and to provide opportunities for the development of our employees to their fullest capabilities.

### **2.3.3 Resources for the Health Sector**

The health sector is resource intensive in all its major operations.

As a statutory body, the WRHA is funded through grants. The Government of Jamaica's FAA Act as well as International Financial Accounting Standards govern the accounting policies of the Region.

**2.3.3.1. Finance**

**Table 2.1 Health Service Financing \$'000: WRHA 2000-2005**

<b>SOIURCES</b>	<b>Base Year 2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Budgets, Grants</b>	948.4*	1,072,745	1,047,153	1,614,965	1,478,788	1,741,249
<b>Actual Fees Collected</b>	156.2*	156,190	196,711	236,167	275,009	303,858
<b>Other income</b>	*	10,678	5,434	8,278	10,753	5,137
<b>TOTAL</b>		1,623,062	1,350,805	1,859,410	1,970,175	2,082,125

Source: WRHA Finance & Accounts Department 2001-2005

\*MOH Jamaica Annual Report 2005

\*DNA

WRHA's total income was J\$2,082,125 in 2005, demonstrating an increasing trend since 2003. Similarly, user fees had risen to J\$303,858,000 in 2005, showing annual increases since year 2002 (Table 2.1).

**Table 2.2 Health Service Delivery Expenditure \$'000: WRHA 2001-2005**

<b>Objects of Expenditure</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Staff Cost</b>	1,366,924	1,302,176	1,683,321	1,753,127	1,680,330
<b>Rental</b>	1,683	2,247	3,457	3,711	4,963
<b>Public Utilities</b>	46,155	65,415	71,646	87,610	154,057
<b>Other Operating Expenditure</b>	206,427	215,515	268,321	251,325	360,704
<b>Capital Items</b>	2,165	4,569	4,954	14,672	2,252
<b>TOTAL</b>	<b>1,623,354</b>	<b>1,589,922</b>	<b>2,031,709</b>	<b>2,110,415</b>	<b>2,202,307</b>

Source: WRHA – Finance and Accounts Department Report 2001-2005

Commencing in 2003, total expenditure increased steadily to reach a high of J\$2,202,307 in 2005. Other objects of expenditure demonstrated inconsistent totals throughout the five years while maintaining dominance in rank – Staff Costs, Other Operating Expenditure, Public Utilities and Rental. The operating deficit was J\$120 million (Table 2.2).

**Table 2.3 Outstanding Liabilities \$'000: WRHA 2000-2005**

<b>Liabilities</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Drugs &amp; Medical Supplies</b>	73,951,541	83,221,087	52,319,259	37,595,506	73,543	49,024,000
<b>Statutory Deductions</b>	45,826,362	21,307,532	215,881,533	249,238,000	385,131,000	202,964,000
<b>Utilities</b>	19,346,397	21,584,028	19,517,345	19,281,000	37,967,000	6,498,000
<b>Other</b>	20,648,137	8,241,093	3,839,749	4,402,000	24,078,000	16,788,000
<b>TOTAL</b>	<b>159,772,437</b>	<b>134,353,740</b>	<b>291,557,886</b>	<b>410,517,000</b>	<b>520,719,000</b>	<b>275,274,000</b>

Source: WRHA – Finance and Accounts Department Report 2001-2005

By year 2005, there was an approximate 42.0% decline in total outstanding liabilities as well as a decline (22.5%) in the outstanding statutory deductions. The amount for public utilities has declined considerably (6,498,000) the lowest ever during the five year period (Table 2.3).

**Table 2.4 Emoluments (J\$) for Senior Managers: WRHA 2005**

<b>Position</b>	<b>Basic Salary</b>	<b>Motor Vehicle provided/ &amp; or upkeep/travelling</b>	<b>Clothing/Uniform</b>	<b>Vacation</b>	<b>Other</b>
Regional Board Member					
Regional Director	2,686,092.96	326,164.00	-		2,480,090.08
Regional Technical Director	2,474,273.34	298,486.74	-		3,172,243.35
Director of Finance	1,996,992.00	421,938.72	-		488,095.22
Director of Human Resource and Industrial Relations	1,996,992.00	417,798.36	-		1,985,333.34
Director of Operations and Maintenance	1,885,312.66	341,220.00	-		10,553.64
Director of MIS	1,024,132.43	109,310.41	-		199,486.58

Source: WRHA - Finance and Accounts Department, 2005

### **2.3.3.2 Human Resource**

Human resource is the cornerstone of the health system inputs due to the skills mix needed to deliver services.

Over the years this cost center utilised the largest portion of the WRHA expenditure. Training and development enhanced the knowledge and skills of varying team members to support service delivery and management practices.

The recruitment of doctors, pharmacists, public health Inspectors and administrative officers ensued during the year and approximately 78 new persons joined the WRHA's team.

Approximately 293 persons were trained in areas such as customer service, disaster preparedness and supplies management, among others.

Regular dialogue with unions and representatives continued, resulting in a relatively calm industrial relations scene during 2005.

There were major human resource challenges related to staffing benchmarks and succession planning. It is hoped that all the Regional Health Authorities and the Ministry of Health will together work out the necessary solutions.

### 2.3.3.3 The Infrastructure

The physical assets, medical equipment and vehicles belonging to the WRHA was maintained at a standard that supported the timely efficient and effective delivery of services. The region benefited from planned, preventive maintenance programmes, emergency maintenance and project management activities that had a positive impact on downtime over the last five years.

**Table 2.5 Infrastructure, Operations and Maintenance: WRHA and Parishes 2005**

VARIABLES	WRHA		Trelawny		St. James		Hanover		Westmoreland	
	Hospital	PHC	Hospital Fal.	PHC	Hospital CRH	PHC	Hospital Noel H.	PHC	Hospital Sav.	PHC
<b>Buildings</b>										
- Maintenance Plan	4		1		1		1		1	
- No. of maintenance activities	3,747	375	426	64	2,443	183	193	56	685	72
<b>- Total Work Order Recorded</b>	<b>4,268</b>									
<b>Equipment</b>										
- % on PPM Programme	60	-	70	-	50	-	60	-	60	-
- No. of PPM activities	778	12	79	-	460	12	18	-	221	-
- % Downtime on										
- Standby Generator	5.0	5.0	-	-	-	5.0	5.0	-	-	-
- Elevators	20.0	-	-	-	10.0	-	-	-	30.0	-
- Boilers	6.5	-	3.0	-	10.0	-	3.0	-	10.0	-
- Laboratory	6.6	10.0	5.0	-	10.0	-	-	10.0	5.0	-
- X-Ray	5.0	-	-	-	5.0	-	-	-	5.0	-
- Anaesthetic	5.0	-	5.0	-	5.0	-	-	-	5.0	-
- Autoclave/Sterilizer	20.0	-	20.0	-	30.0	-	10.0	-	20.0	-
- Operating Table	8.3	-	5.0	-	5.0	-	-	-	15.0	-
- Operating Theatre:										
- light	11.6	-	15.0	-	5.0	-	-	-	15.0	-
- Equipment	8.3	-	10.0	-	5.0	-	-	-	10.0	-
- Laundry Equipment	27.5	-	30.0	-	20.0	-	30.0	-	30.0	-
- Central A C	31.2	-	15.0	-	70.0	-	-	-	40.0	-
- Incinerators	13.3	10.0	-	-	10.0	10.0	15.0	-	15.0	-
<b>Motor Vehicle</b>										
- No. of Vehicles - Ambulances	*	*	*	*	*	*	*	*	*	*
- Other	*	*	*	*	*	*	*	*	*	*
- % on PPM Programme	*	*	*	*	*	*	*	*	*	*
- Average Annual Downtime:										
- Ambulances (Days)	*	*	*	*	*	*	*	*	*	*
- Other	*	*	*	*	*	*	*	*	*	*
<b>Assets Management</b>										
- % Inventorized	*	*	*	*	*	*	*	*	*	*
- % replaced	*	*	*	*	*	*	*	*	*	*
- % on Replacement Plan	*	*	*	*	*	*	*	*	*	*

Source: WRHA Operations and Maintenance

\*DNA

- = none

There were 4,422 maintenance activities including 790 planned preventive maintenance activities in the WRHA in 2005. Central air conditioning and laundry equipment experienced the largest percentage downtime (Table 2.5). The maintenance system (MAXIMO) needs attention.

### **Management Information System (MIS)**

A Systems Administrator was appointed. Upgrades of Windows 98 continued and tighter controls applied to limit security breaches/threats.

The MIS equipment and software procurement installation and deployment policy is 90% complete.

## **2.4 THE HEALTH SERVICES**

### **2.4.1 Provisions of Services/Programmes**

Health services include the public, private and NGO institutions, facilities/departments that are managed, equipped and staffed to deliver promotive, preventive, curative and/or rehabilitative health care to individuals, families or communities.

The WRHA provided public health care services that are in keeping with nationally mandated programmes that address epidemiological, age, gender, diagnostic and medical/surgical concerns/interventions.

#### **2.4.1.1. Health Promotion**

##### **2.4.1.1.1 Health Education**

Health promotion/health education is a strategy that is implemented in all health care services/programmes to encourage the acquisition and use of knowledge/information in order to maintain/improve individual, family and community health. It promotes changes in behaviour/lifestyle and thus the messages are transmitted using varying media and are designed to encourage and support these changes.

Although the majority of health promotion/health education strategies were implemented at the primary health care level, there were activities in hospitals which tend to use the model of face to face interpersonal communication among patients and caregivers.

During the year 2005, there was reproduction, development and distribution of educational materials. Additionally, the following activities were undertaken in schools and communities:

- Training of Peer Counsellors;
- Life Skills activities – 35,000 children were involved;
- Healthy school activities;

- Healthy Zone project in Westmoreland;
- “Well-being as a way of Life” activities in Trelawny, St. James, Hanover and Westmoreland.

#### 2.4.1.1.2 Nutrition

Nutrition is intimately related to the delivery of health care and as a specific strategy is threaded throughout several programmes - Child Health, Reproductive Health, Chronic, Non-communicable and other nutrition related diseases and Communicable Disease Control especially in the area of infants exposed to HIV/AIDS.

#### 2.4.1.1.3 Home Visits

**Table 2.6 Home Visits: WRHA 2000-2005**

HOME VISITS	WRHA					
	2000	2001	2002	2003	2004	2005
<b>Total</b>	50,547	49,387	46,262	44,189	40,390	34,006
<b>Maternal</b>	11.6	11.4	10.7	11.7	11.5	11.2
<b>Child</b>	44.1	44.0	42.1	40.6	39.8	40.1
<b>Other</b>	47.0	44.6	47.3	47.6	48.7	48.7

*Source: MOH: MCSR 2005*

Comparison with the base year data revealed that except in year 2001, the WRHA’s total home visits declined every year up to 2005. However, visits for child health have been consistently higher than those for maternal health. Except in 2001 other home visits have been more than that for maternal or child health in WRHA throughout the five year period (Table 2.6).



**Table 2.7 Home Visits: Jamaica, WRHA and Parishes 2005**

Home Visits	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Total</b>	286,482	34,006	7,533	9,483	9,628	7,362
<b>Maternal (%)</b>	8.5	11.2	9.9	6.3	8.6	20.0
<b>Child (%)</b>	48.3	40.1	46.6	33.3	44.7	36.0
<b>Other (%)</b>	43.2	48.7	43.5	60.4	46.7	44.0

Source: MOH MCSR 2005

In 2005, Home visits in WRHA surpassed those at the national level in the areas of maternal (11.2%) and other visits (48.7%)(Table 2.7). At the parish level, home visits for maternal health were highest in Westmoreland (20.0%) while child health visits were highest in Trelawny (46.6%) (Table 2.7).

#### 2.4.1.2 Services/Facilities

**Table 2.8 Provisions/Availability of Public Health Services: Jamaica, WRHA and Parishes 2005**

Health Facilities	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Health Centres:</b>						
- Type 1	128	42	10	14	8	10
- Type II	87	25	7	6	7	5
- Type III	72	13	2	3	2	6
- Type IV	6	3	1	0	1	1
- Type V	4	1	0	1	0	0
<b>Dental Clinic</b>	8	4	1	1	1	1
<b>Family Planning Clinic</b>	3					
<b>Rural Maternity Centres</b>						
<b>Hospitals:</b>						
- Type A	3	1	0	1	0	0
- Type B	4	1	0	0	0	1
- Type C	11	2	1	0	1	0
- Specialist	6	1	0	0	0	0
<b>Laboratory Services</b>	13	2	1	1	0	1
<b>Radiography Services</b>	16	2	1	1	0	1
<b>Pharmacy: Hospital</b>	20	4	1	1	1	1
<b>Physiotherapy</b>	9	2	0	1	0	1
<b>Blood Banking</b>	11	2	0	1	0	1
<b>Radiation/Oncology</b>	2	1	0	1	0	0

Source: MOH: HMSR, MCSR 2005

In 2005, there were approximately thirty five (35) hospitals on the island – twenty three (23) public, one (1) quasi-public and eleven (11) private.

The WRHA continued to provide one hospital in each of its four parishes. Based on classification there are:

- Two (2) type Cs (Falmouth and Noel Holmes) providing basic, non-specialist inpatient and outpatient care in medicine, surgery, obstetric, gynaecology and paediatric services
- One type B (Savanna-la-mar) delivering specialist medical, surgical, obstetric/gynaecological and paediatric services
- One Type A (Cornwall Regional) providing interdependent, complex diagnostic, curative and emergency services (Table 2.8).

## 2.4.2 UTILIZATION OF SERVICES/PROGRAMMES

The Western Regional Health Authority responds to a variety of individual, family and community health needs at the primary, secondary and tertiary levels of care. The services are integrative, addressing illness prevention, health promotion, diagnosis and interventions of medical or surgical nature.

### 2.4.2.1. Dental/Oral Health Services

**Table 2.9 Utilization of Dental/Oral Health Services: WRHA 2001-2005**

<b>DENTAL HEALTH ACTIVITIES</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Primary Care – Visits (Total)</b>	28,105	22,425	25,349	22,205	19,970
▪ Preventive Procedures (Total)	27,179	24,604	24,935	23,381	20,314
Restoration					
(i) Posterior Filling	9,339	8,268	1,512	6,779	832
(ii) Anterior Filling	1,516	1,080	7,142	995	4,964
Cleaning	13,551	11,444	11,337	10,750	8,949
Orthodontic	5	219	150	106	70
Other					
- Clinic	2,037	2,412	4,134	3,958	5,373
- School	731	1,181	660	793	126
▪ <b>Extractions</b>	13,403	9,320	10,532	9,740	8,725
▪ Dentures	15	3	74	11	28
▪ Other Procedures	17,936	17,706	16,353	12,001	8,771
<b>Hospital Care – Faciomaxillary Surgery (Total)</b>	171	28	33	25	47
- Emergency	33	3	5	-	2
- Elective	118	11	17	21	16
- Day	20	14	11	4	25
Outpatient Clinic					
- Total Cases	2,809	2,516	2,732	*	2,602
- New Cases	0	0	-	*	*

Source: MOH; MCSR; HMSR

\*DNA

- = none

In 2005, other preventive procedures carried out in clinics experienced an increase of 1,415 in 2005 (Table 2.9). The issuance of dentures though not reaching the 2003 level, increased as well (Table 2.9).

Year 2005 data demonstrated the lowest utilization level in the region, over the five year period. Examination of the 2001 through 2005 data revealed that there were also declines in total preventive procedures since 2002 in the WRHA. Although extractions declined over the period, it was not consistent (Table 2.9).

**Table 2.10 Utilization of Dental/Oral Health Services: Jamaica, WRHA and Parishes 2005**

VARIABLES	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Total PHC Visits</b>	171,295	19,970	2,239	6,656	5,888	5,187
Preventive Procedures (Total)	129,971	20,314	1,866	6,530	7,166	4,779
Restoration						
- (Anterior Filling)	5,545	832	92	218	399	123
- Posterior Filling	30,177	4,964	518	2,291	1,604	551
Cleaning	72,601	8,949	1,041	2,994	2,385	2,556
Orthodontic	1,277	70	-	1	69	-
Other Preventive						
- Clinic	18,301	5,373	153	1,004	2,668	1,548
- School	2,070	126	62	22	41	1
Extraction	68,129	8,725	776	2,470	3,400	2,079
Dentures	98	28	-	28	-	-
Other Procedures	138,968	8,771	1,897	884	2,392	3,598
<b>Hospital Care</b>						
Dental/Facio maxillary Surgery						
- Total	490	47	-	47	-	-
- Emergency	35	2	-	2	-	-
- Elective	133	16	-	16	-	-
- Day	91	25	-	25	-	-
Outpatient Clinic						
- Total Cases	5,968	2,602	-	2,602	-	-
- New Cases	914	-	-	-	-	-

Source: MOH MCSR> HMSR 2005

- = none

Year 2005 data demonstrated that 20,314 preventive procedures were done in WRHA dental care facilities at the primary health care level (Table 2.10).

The parish of Hanover performed the largest number of the preventive procedures and paradoxically the largest number of extractions (3,400) (Table 2.10).

Dental health education continued in schools in each of the four parishes in the Region.

**2.4.2.2. Primary Health Care (PHC) Services**

**Table 2.11 Primary Health Care Visits by Year: Jamaica, WRHA and Parishes – 2000-2005**

YEAR	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Base Year 2000</b>	1,684,222	337,446	*	*	*	*
<b>2001</b>	1,610,959	309,753	63,567	112,786	62,559	70,841
<b>2002</b>	1,543,905	289,655	60,795	103,724	54,399	70,735
<b>2003</b>	1,586,630	279,896	56,196	99,984	50,490	73,226
<b>2004</b>	1,535,530	265,969	52,690	96,880	48,816	67,583
<b>2005</b>	1,514,537	272,460	48,535	98,501	52,322	73,102

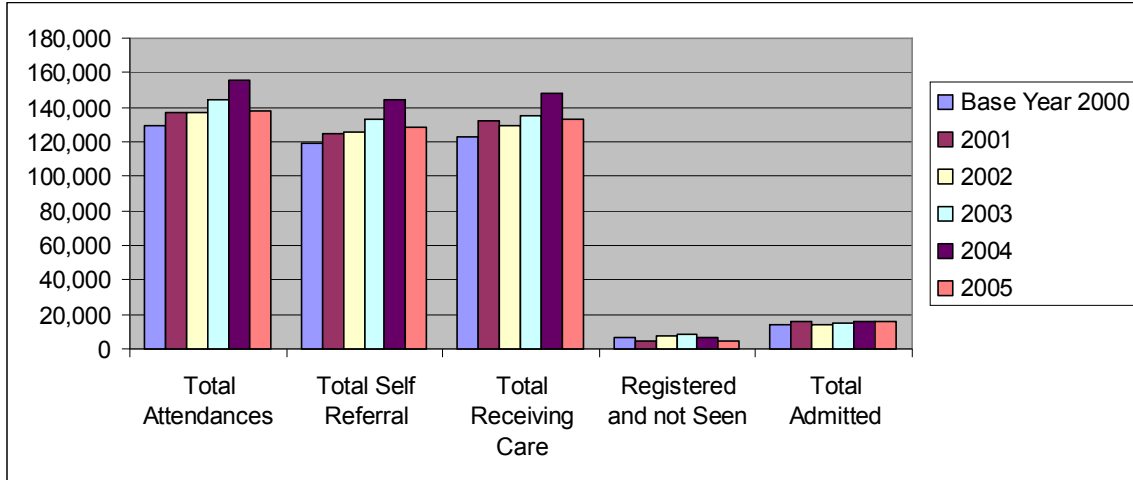
Source: MOH: MCSR 2000-2004, MOH – Jamaica Annual Report 2001-2005

\*DNA

The 2005 data revealed that the number of visits to primary health care facilities have declined annually when compared to the base year (2000) for national as well as WRHA. The parish of Westmoreland (despite its 2004 decline) demonstrated a level of consistency in terms of visits (Table 2.11).

**2.4.2.3. Hospital Accident and Emergency (A&E) Services**

**Figure 2.1 Utilization of Accident and Emergency (A&E) Services: WRHA 2000-2005**



Source: MOH HMSR 2000-2005

The data demonstrated that approximately 96% (133,101) of all those attending public A&E Departments in WRHA facilities received care (Figure 2.1) (TABLE A1).

Self-referrals continued to represent in excess of 90% of total attendance (Figure 2.1) (TABLE A1).

**Table 2.12 Utilization of Accident and Emergency (A&E) Services: Jamaica, WRHA and Parishes 2005**

Accident & Emergency	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Attendance	694,354	138,168	19,026	59,844	22,362	36,936
Total Self-Referral	558,312	128,327	17,451	54,336	21,259	35,281
Total Receiving Care	682,009	133,101	18,461	57,659	21,708	35,273
Registered & Not Seen	12,345	5,067	565	2,185	654	1,663
Total Admitted	95,562	16,304	1,561	9,686	478	4,579

Source: MOH: HMSR 2005

The data revealed that the WRHA recorded 41% (5,067) of all persons who were registered and not seen in public A&E facilities (Table 2.12).

The data demonstrated that the parish of Trelawny had the lowest levels of utilization for all the variables (except admission) (Table 2.12)

**2.4.2.3 Hospital Services – Inpatient**

**Table 2.13 Provision and Utilization of Inpatient Services: WRHA 2000-2005**

<b>VARIABLES</b>	<b>Base Year 2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Bed Complement	596	553	595	592	576	578
Bed Occupancy Rate	78.0	86.1	73.4	79.1	79.6	81.0
Discharges Including Deaths	29,775	31,395	29,952	30,776	31,520	32,580
Average Length of Stay	5 days	5.5 days	5.5 days	5.8 days	5.6 days	5.4 days
Turnover Rate	48.7	56.0	49.8	51.2	53.9	55.6

*Source: MOH: HMSR 2000-2005*

When examined against base year data, the WRHA’s inpatient utilization demonstrated annual differences throughout the period 2000 through 2005 (Table 2.13).

**Table 2.14 Provision and Utilization of Inpatient Services: Jamaica, WRHA and Parishes 2005**

<b>Inpatient Services</b>	<b>JAMAICA</b>	<b>WRHA</b>	<b>PARISHES</b>			
			<b>Trelawny</b>	<b>St. James</b>	<b>Hanover</b>	<b>Westmoreland</b>
Bed Complement	4,728	578	60	342	38	138
Bed Occupancy Rate	65.3	81.0	88.3	79.5	64.1	86.2
Discharges Including Deaths	178,031	32,580	3,411	18,617	1,219	9,333
Average Length of Stay	6.3	5.4	5.9	5.5	7.3	4.7
Turnover Rate	37.6	55.6	56.9	53.3	32.0	67.0

*Source: MOH: HMSR 2005*

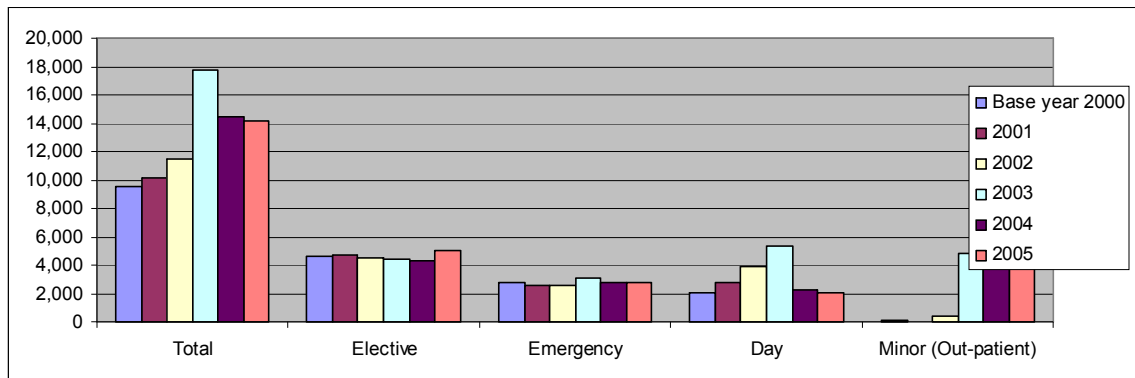
In year 2005, the WRHA and all its parishes except Hanover, surpassed the national bed occupancy levels (Table 2.14).

Westmoreland had the lowest average length of stay (4.7 days) and the highest turnover rate (67.0) (Table 2.14).



### 2.4.2.3 Hospital Services – Surgery

**Figure 2.2 Utilization of Surgical Services: WRHA 2000-2005**



Source: MOH HMSR 2000-2005

Examination of the data revealed that there were inconsistent increases in the total number of surgery as well as day surgeries performed in WRHA since the base year (2001) (Figure 2.2) (TABLE A2). There were 5,032 elective surgeries in 2005 and this figure demonstrated increases of 399 through 681 when compared to the years 2001 through 2004 (Figure 2.2) (TABLE A2).

**Table 2.15 Utilization of Surgical Services: Jamaica, WRHA and Parishes 2005**

Surgery	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Total</b>	62,182	14,186	1,113	10,971	70	2,014
<b>Type</b> - Elective	20,055	5,032	689	3,186	62	1,095
- Emergency	15,099	2,743	336	1,972	0	435
- Day	10,936	2,083	106	1,485	8	484
- Minor (Out-patient)	16,092	4,328	-	4,328	-	-

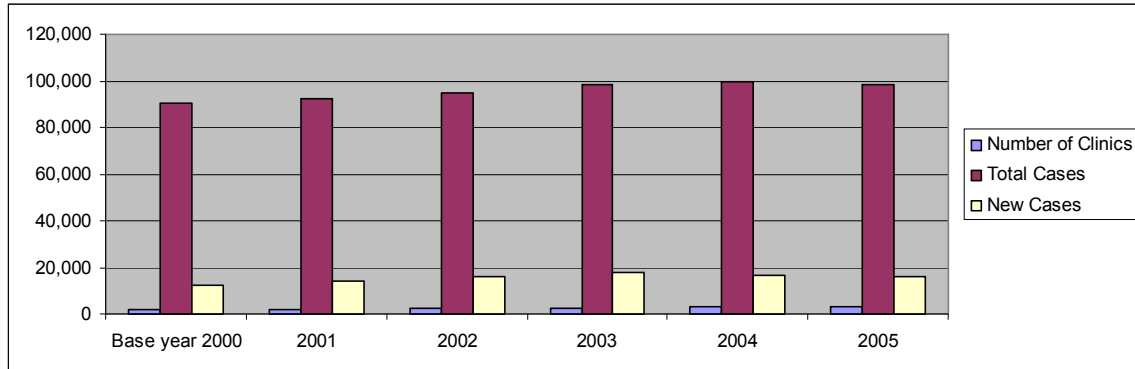
Source: MOH: HMSR 2005

- = none

Just about 22.8% (47,186) of all elective surgeries done in public health facilities were done in the WRHA in 2005 (Table 2.15).

### 2.4.2.3 Hospital Services – Outpatient Specialist Clinics

**Figure 2.3 Utilization of Outpatient Specialist Clinics: WRHA 2000-2005**



Source MOH HMSR 2000-2005

In addition to offering specialist consultation and management of specific illnesses, public outpatient specialist clinics offer follow-up care for discharged patients. Despite the decline (108) in the number of clinics in 2001, the number of clinics increased annually thereafter. The number of cases increased annually except in 2005 (Figure 2.3) (TABLE A3).

New cases presented an average of 16% of the total number of cases seen each year since the base year (Figure 2.3) (TABLE A3).

**Table 2.16 Utilization of Outpatient Specialist Clinics: Jamaica, WRHA and Parishes 2005**

Variables	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Number of Clinics	16,094	2,968	126	2,238	70	534
Number of Cases						
- Total	494,752	98,679	2,598	77,998	908	17,177
- New	94,956	16,110	824	13,470	216	1,600

*Source: MOH HMSR 2005*

Data for the year 2005 revealed that 18% (2,968) of all public outpatient specialist clinics were held in the WRHA. The region saw 20% of all cases seen nationally (Table 2.16).

The parish of St. James with its regional hospital, held 75.4% of all the specialist clinics and cared for 79% of all the cases in the WRHA (Table 2.16).

## 2.4.2.4 Diagnostic Services – Laboratory

### 2.17 Utilization of Laboratory Services: WRHA 2000-2005

Variables	Base Year 2000	2001	2002	2003	2004	2005
<b>Total No. of Clients</b>	<b>106,521</b>	<b>515,460</b>	<b>545,414</b>	<b>556,482</b>	<b>592,276</b>	<b>674,089</b>
<b>Examination/Test Total</b>	<b>386,753</b>	<b>515,354</b>	<b>550,866</b>	<b>576,482</b>	<b>592,276</b>	<b>685,712</b>
- Cytology	2,899	229	333	401	578	509
- Haematology	140,710	162,579	192,505	186,673	216,869	243,078
- Chemistry	202,075	301,151	307,795	334,504	326,921	386,699
- Urinalysis	2,621	3,596	4,286	4,897	4,402	4,331
- Histology	2,269	1,989	1,913	2,792	2,410	3,364
<b>Microbiology</b>						
- Serology	7,095	7,241	4,883	4,427	3,547	5,041
- Tuberculosis (TB)	-	752	943	1,061	1,250	1,010
- Others	418	11,223	12,129	16,082	14,938	14,438
Immunology	11,357	4,787	4,236	6,200	4,578	7,776
Blood Bank	15,578	20,852	21,798	19,290	17,923	19,320
Others	1,731	1,011	46	154	110	146

Source: MOH, HMSR 2000-2005

- = none

The clientele utilizing public laboratory services in WRHA, demonstrated annual increases since the base year, and registered an additional 81,813 clients in 2005 (Table 2.17).

Chemistry and Haematology continued to be the most frequently ordered examinations (Table 2.17).

**Table 2.18 Utilization of Laboratory Services: Jamaica, WRHA and Parishes 2005**

VARIABLES	Jamaica	WRHA	Parishes			
			Trelawny	St. James	Hanover	Westmoreland
<b>Total No. of Clients</b>	<b>1,928,429</b>	<b>674,089</b>	<b>21,093</b>	<b>573,321</b>		<b>79,765</b>
<b>Examination/Test Total</b>	<b>2,004,054</b>	<b>685,712</b>	<b>22,093</b>	<b>573,233</b>		<b>90,386</b>
- Cytology	14,364	509	-	506	N	3
- Haematology	924,253	243,078	13,398	166,538	O	63,142
- Chemistry	925,619	386,699	3,361	358,975		24,363
- Urinalysis	15,456	4,331	120	3,899	S	312
- Histology	6,476	3,364	-	3,295	E	69
<b>Microbiology</b>					R	
- Serology	16,472	5,041	1,873	3,084	V	84
- Tuberculosis (TB)	1,241	1,010	-	1,010	I	-
- Others	23,575	14,438	-	14,088	C	350
Immunology	27,886	7,776	2,880	4,666	E	230
Blood Bank	42,456	19,320	315	17,172		1,833
Others	6,256	146	146	-		-

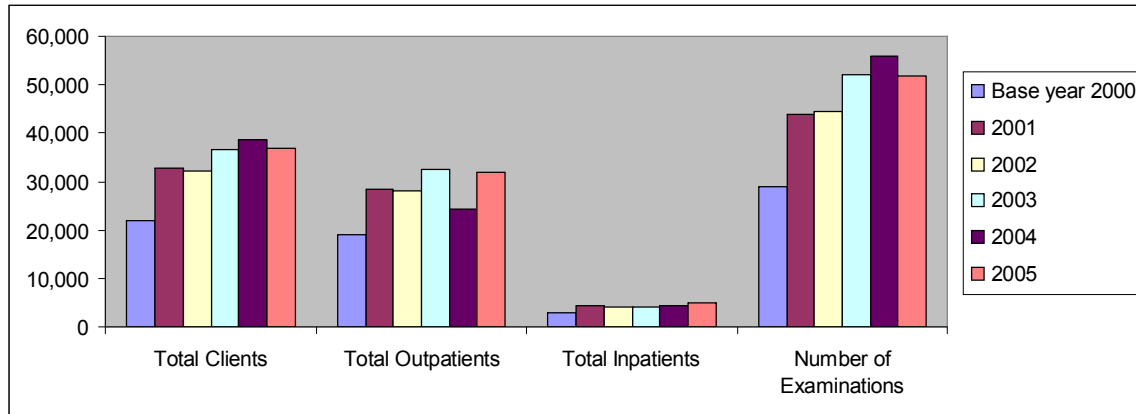
Source: MOH: HMSR 2005  
- = none

Approximately 83% of the public laboratory services in the WRHA were utilised in the parish of St. James, 13.1% was attributable to Westmoreland (Table 2.18).

The most frequently ordered examinations – Chemistry and Haemoglobin represented 56.3% and 35.4% respectively of national figures (Table 2.18).

#### 2.4.2.4 Diagnostic Services – Radiography

**Figure 2.4 Utilization of Radiography Services: WRHA 2000-2005**



Source: MOH HMSR 2000-2005

In year 2005, the number of clients using WRHA’s radiography services declined by 1,585 to a level slightly above that of year 2003 (Figure 2.4) (TABLE A4).

In patient utilization however, achieved the highest level of utilization since the base year (Figure 2.4)(TABLE A4).

**2.19 Utilization of Radiography Services: Jamaica, WRHA and Parishes 2005**

VARIABLES	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>No. of Clients</b>						
- Total	211,405	36,931	<b>NO SERVICE</b>	26,260	<b>NO SERVICE</b>	10,671
- Outpatients	165,018	31,888		23,133		8,756
- Inpatients	46,387	5,043		3,128		1,915
<b>No. of examinations</b>	243,667	51,714		36,648		15,066

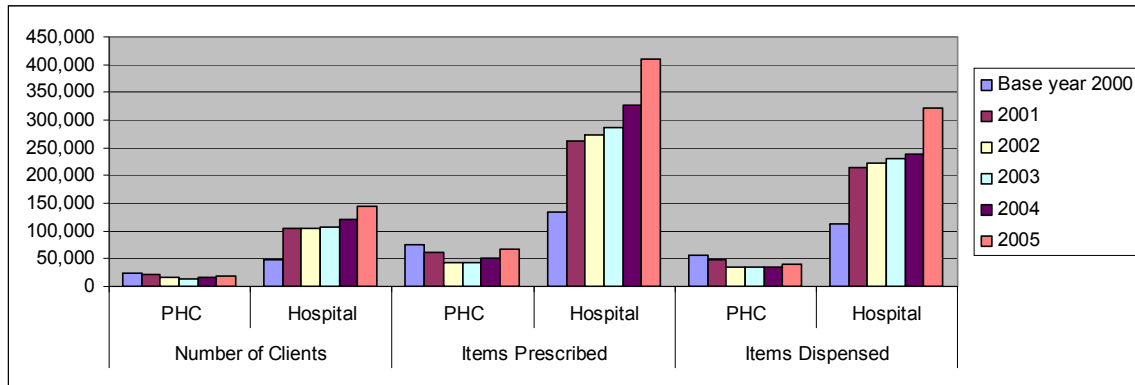
Source: MOH: HMSR 2005

There has been no radiographic service in the parishes of Hanover and Trelawny since the base year (2000) (Table 2.19).

Of the 36,931 clients, 13.6% (5,043) were inpatients at the regional level. Seventeen point nine percent (17.9%) of the clients in the parish of Westmoreland were inpatient users (Table 2.19).

### 2.4.2.5 Therapeutic Services – Pharmaceutical

**Figure 2.5 Utilization of Pharmacy Services: WRHA 2000-2005**



Source: MOH, MCSR & HMSR 2000-2005

The WRHA data identified a pattern of continuing decline at the PHC level among all the variables under review since year 2001 and continuing through year 2003; after which there were continuing annual increases. Hospital pharmaceutical services have, however, demonstrated annual increases among all the variables (Figure 2.5) (TABLE A5).

The items dispensed at the PHC level averaged approximately 70% of items prescribed annually since the base year. Year 2005 however, recorded 51% of items dispensed. Hospital services on the other hand maintained an average of 80% items dispensed from the base up to year 2003, after which it fell to the 70% in the Region (Figure 2.5) (TABLE A5).



**Table 2.20 Utilization of Pharmacy Services: Jamaica, WRHA and Parishes 2005**

VARIABLES (Pharmacy)	LOCATION	JAMAICA	WRHA	PARISHES			
				Trelawny	St. James	Hanover	Westmoreland
Total No. of clients	PHC	153,609	19,220	6,916	12,304	*	*
	Hospital	492,083	143,904	11,658	79,807	19,472	32,967
Items prescribed	PHC	434,367	66,256	22,189	44,067	*	*
	Hospital	1,375,209	409,110	29,682	210,855	62,848	105,725
Items dispensed	PHC	307,603	39,174	13,676	25,498	*	*
	Hospital	1,101,927	321,624	21,301	170,921	45,505	83,897

Source: MOH, MCSR & HMSR 2005

\*DNA

In year 2005, the WRHA pharmacies dispensed 78.6% of all items prescribed in its public hospital pharmacies. At the parish level, it ranged from 72% (Hanover and Trelawny); 79.3% (Westmoreland) and 81% for St. James (Table 2.20).

### 2.4.2.5 Therapeutic Services – Physiotherapy

**Table 2.21 Utilization of Physiotherapy Services: WRHA 2000-2004**

<b>Physiotherapy</b>	<b>Base Year 2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Total Patients</b>	<b>4,047</b>	<b>4,601</b>	<b>4,759</b>	<b>4,774</b>	<b>4,878</b>	<b>5,027</b>
- Inpatients	1,390	1,614	1,612	1,387	1,339	1,315
- Outpatients	2,657	2,987	3,147	3,387	3,539	3,712
<b>No. of Treatments</b>						
- Cardio-thoracic	250	20	19	2	21	40
- Orthopaedic	27,199	27,961	31,772	31,171	35,425	37,640
- Neurology	13,465	12,026	10,941	11,766	11,080	11,755
- Neurosurgery	189	266	89	157	191	220
- Medicine	5,912	7,247	4,954	6,103	4,101	5,153
- General Surgery	3,876	4,903	4,561	3,824	5,804	2,479
- Other	3,281	4,354	4,122	2,571	1,636	2,196

Source: MOH: HMSR 2000-2005

In year 2005, total patient utilization of physiotherapy services in the WRHA increased by 209 with outpatients peaking at 3,712 – the highest since the base year (Table 2.21).

Treatment for orthopaedic conditions continued to be the highest number since the base year (Table 2.21).

**Table 2.22 Utilization of Physiotherapy Services: Jamaica, WRHA and Parishes 2005**

Physiotherapy	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Total Patients</b>	28,045	5,027	<b>N</b>	4,098	<b>N</b>	929
- Inpatients	11,877	1,315	<b>O</b>	1,154	<b>O</b>	161
- Outpatients	16,168	3,712		2,944		768
<b>No. of Treatments</b>						
- Cardio-thoracic	1,571	40	<b>S</b>	40	<b>S</b>	-
- Orthopaedic	87,805	37,640	<b>E</b>	30,584	<b>E</b>	7,056
- Neurology	4,702	11,755	<b>R</b>	10,146	<b>R</b>	1,609
- Neurosurgery	21,597	220	<b>V</b>	220	<b>V</b>	-
- Medicine	19,031	5,153	<b>I</b>	4,777	<b>I</b>	376
- General Surgery	11,044	2,479	<b>C</b>	2,252	<b>C</b>	227
- Other	12,191	2,196	<b>E</b>	1,960	<b>E</b>	118

Source: MOH: HMSR 2004

- = none

Approximately 17.9% of all patients receiving public physiotherapy care were in the WRHA in year 2005. During that year, the inpatient to outpatient ratio of utilization was 1:2:8 (Table 2.22).

Treatments for orthopaedic conditions in WRHA represented 42.8% of similar treatments at the national level (Table 2.22).

### 2.4.2.5 Therapeutic Services – Radiation/Oncology

**Table 2.23 Utilization of Radiation/Oncology Services: Jamaica and WRHA 2000-2005**

Year	Location	Treatment					
		Total	Cobalt	Chemotherapy	Superficial	Radium	Other
2000	Jamaica	39,315	35,788	621	2,472	93	34
	WRHA	3,398	2,905	201	49	9	234
2001	Jamaica	38,811	33,418	621	2,199	112	2,461
	WRHA	6,798	4,273	170	105	11	2,239
2002	Jamaica	39,927	37,671	634	1,385	115	122
	WRHA	9,396	9,158	100	103	10	27
2003	Jamaica	49,434	46,169	687	3,341	98	139
	WRHA	18,162	17,794	207	152	9	-
2004	Jamaica	40,400	38,218	507	1,230	106	39
	WRHA	13,682	13,400	163	99	20	-
2005	Jamaica	36,116	35,631	410	4	71	-
	WRHA	13,373	13,246	123	-	4	-

Source: MOH: HMSR 2000-2005

- = none

The data highlighted fluctuations in the delivery of radiation/oncology treatments over the 2000-2005 period. While the treatments delivered hiked in year 2003 at both national (49,434) and WRHA (18,162) levels, the lowest number of treatments at the WRHA level was 6,798 in 2001 when compared to the base year (Table 2.23).

**3.0 TECHNICAL AFFAIRS**

**3.1 Health Status**

**3.2 Mortality**

### 3.1 HEALTH STATUS

#### 3.1.1 HEALTH INDICATORS

**Table 3.1 Health Indicators: Jamaica 2000-2005**

INDICATORS	2000	2001	2002	2003	2004	2005
Life Expectancy	72.0	74.0	73.0	73.0	71.2	74.1
Contraceptive Prevalence	*	66	66	68.8	69.1	85.3
Total Fertility Rate (per 1,000 women 15-49)	*	2.8	2.8	*	2.5	2.5
Crude Birth Rate (per 1,000 mean population)	20.0	21.2	19.9	19.3	17.6	15.7
Crude Death Rate (per 1,000 mean population)	5.1	6.6	6.4	6.0	6.3	5.8
Infant Mortality Rate (per 1,000 live births)	24.5	24.5	19.9	19.9	19.9	19.9
Maternal Mortality Rate (per 100,000 live births)	111.0	106.2	106.2	106.2	106.2	94.8

Source MOH Annual Reports 2000-2005

\*DNA

Available data indicate that most of the health indicators demonstrated positive changes in 2005 (Table 3.1).

#### 3.1.2 MORBIDITY PROFILE

The morbidity profile presents a synopsis of the illnesses and diseases that have motivated health-seeking behaviour at the public offerings of primary health care and or inpatient hospital services.

### 3.1.2.1 PRIMARY HEALTH CARE

**Table 3.2 Health Centre Visits by Diagnosis: WRHA 2001-2005**

<b>DIAGNOSES</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Diseases of the Circulatory System</b>	<b>28,361</b>	<b>26,432</b>	<b>27,003</b>	<b>24,891</b>	<b>26,235</b>
- Hypertension	25,591	23,436	23,814	22,023	23,524
- Other Cardiovascular Disease	2,770	3,006	3,189	2,868	2,801
<b>Diseases of the Respiratory System</b>	<b>13,495</b>	<b>10,808</b>	<b>10,957</b>	<b>9,992</b>	<b>9,889</b>
- Upper Respiratory Tract Infection	9,931	9,172	8,318	7,784	7,577
- Lower Respiratory Tract Infection	2,021	1,636	1,357	1,276	1,257
- Asthma	1,543	1,289	1,282	932	1,055
<b>Diseases of the Genito-Urinary System and Gynaecological Conditions</b>	<b>18,245</b>	<b>16,141</b>	<b>15,577</b>	<b>16,020</b>	<b>16,043</b>
- Urinary	1,998	1,704	1,510	1,344	1,544
- STI (Except PID)	11,982	10,706	10,526	11,264	11,206
- PID	1,042	854	722	655	655
- Other Gynaecological Conditions	3,223	2,877	2,769	2,757	2,638
<b>Diseases of the Skin</b>	<b>17,293</b>	<b>15,919</b>	<b>14,717</b>	<b>12,930</b>	<b>13,396</b>
<b>Diabetes &amp; Hypertension</b>	<b>12,607</b>	<b>11,977</b>	<b>12,396</b>	<b>11,548</b>	<b>12,174</b>
<b>Diseases of the Musculoskeletal</b>	<b>9,219</b>	<b>7,995</b>	<b>8,801</b>	<b>7,889</b>	<b>7,939</b>
<b>Diabetes</b>	<b>6,902</b>	<b>5,876</b>	<b>5,302</b>	<b>3,941</b>	<b>3,758</b>
- Leg Ulcers due to Diabetes	326	84	86	88	115
<b>Diseases of the Digestive System</b>	<b>4,552</b>	<b>3,839</b>	<b>3,562</b>	<b>2,966</b>	<b>3,278</b>
- Gastroenteritis	1,040	1,051	1,087	1,261	768
- Other Gastro-intestinal Disorders	3,512	2,788	2,475	1,705	2,510
<b>Psychiatry</b>	<b>6,176</b>	<b>6,483</b>	<b>7,458</b>	<b>7,691</b>	<b>7,955</b>
<b>Accidents &amp; Injuries</b>	<b>6,898</b>	<b>6,268</b>	<b>5,985</b>	<b>5,424</b>	<b>4,749</b>
- Intentional	862	668	552	484	390
- Unintentional	6,037	5,600	5,433	4,940	4,359
<b>Eye Disorders</b>	<b>2,115</b>	<b>1,977</b>	<b>3,282</b>	<b>1,540</b>	<b>1,504</b>
<b>Other Diagnoses</b>	<b>29,406</b>	<b>30,953</b>	<b>30,330</b>	<b>28,022</b>	<b>30,722</b>

Source: MOH, MCSR 2001, 2002, 2003, 2004, 2005

In year 2005, the major causes of visits to WRHA health centres continued to include Diseases of the Circulatory System; Diseases of the Genito-urinary System and Gynaecological Conditions; Diseases of the Skin; Diabetes and Hypertension and Diseases of the Respiratory System (Table 3.2).

Among the group Diseases of the Respiratory System, Upper Respiratory Tract Infection continued to be the major cause of visits (Table 3.2).

**Table 3.3 Health Centre Visits by Diagnoses, Jamaica, WRHA and Parishes 2005**

DIAGNOSES	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Diseases of the Circulatory System</b>	<b>134,239</b>	<b>26,235</b>	<b>4,509</b>	<b>9,997</b>	<b>5,593</b>	<b>5,926</b>
- Hypertension	119,740	23,524	4,460	9,252	4,414	5,398
- Other Cardiovascular Diseases	14,499	2,801	349	745	1,179	528
<b>Diseases of the Respiratory System</b>	<b>112,595</b>	<b>9,889</b>	<b>2,296</b>	<b>3,134</b>	<b>1,920</b>	<b>2,539</b>
- Upper Respiratory Tract Infection	84,834	7,577	1,518	2,697	1,227	2,135
- Lower Respiratory Tract Infection	17,834	1,257	477	155	478	147
- Asthma	9,930	1,055	301	282	215	257
<b>Diseases of the Genito-Urinary System and Gynaecological Conditions</b>	<b>105,275</b>	<b>16,043</b>	<b>1,951</b>	<b>10,163</b>	<b>1,000</b>	<b>3,529</b>
- Urinary	16,919	1,544	329	761	156	298
- STI (Except PID)	61,947	11,206	1,042	8,340	226	1,598
- PID	6,488	655	90	288	100	177
- Other Gynaecological Conditions	19,921	2,638	490	774	518	856
<b>Diseases of the Skin</b>	<b>92,961</b>	<b>13,396</b>	<b>3,724</b>	<b>4,583</b>	<b>2,155</b>	<b>2,934</b>
<b>Diabetes and Hypertension</b>	<b>65,327</b>	<b>12,174</b>	<b>2,261</b>	<b>4,385</b>	<b>2,567</b>	<b>2,961</b>
<b>Diseases of the Musculoskeletal System</b>	<b>48,703</b>	<b>7,939</b>	<b>2,233</b>	<b>2,308</b>	<b>1,638</b>	<b>1,760</b>
<b>Diabetes</b>	<b>27,080</b>	<b>3,758</b>	<b>833</b>	<b>1,278</b>	<b>693</b>	<b>954</b>
- Leg Ulcers due to Diabetes	956	115	15	37	21	42
<b>Diseases of the Digestive System</b>	<b>28,059</b>					
- Gastro-enteritis	6,832	768	206	225	93	197
- Other Gastro-intestinal Disorders	21,227	2,510	802	736	403	569
<b>Psychiatry</b>	<b>44,044</b>	<b>7,955</b>	<b>877</b>	<b>2,736</b>	<b>1,705</b>	<b>2,637</b>
<b>Accidents and Injuries</b>	<b>23,271</b>	<b>4,749</b>	<b>752</b>	<b>2,208</b>	<b>976</b>	<b>803</b>
- Intentional	2,622	390	94	178	44	64
- Unintentional	20,655	4,359	658	2,030	932	739
<b>Eye Disorders</b>	<b>11,428</b>	<b>1,504</b>	<b>343</b>	<b>446</b>	<b>476</b>	<b>239</b>
<b>Other Diagnoses</b>	<b>148,250</b>	<b>30,722</b>	<b>5,083</b>	<b>15,155</b>	<b>4,144</b>	<b>6,340</b>

Source: MOH MCSR, 2005

When the WRHA parish data was examined, it revealed that PHC visits in the parishes of Trelawny (4,509), Hanover (5,593) and Westmoreland (5,926) accorded with national number 1 ranked visit – Diseases of the Circulatory System (Table 3.3)

The major cause of PHC visit in the parish of St. James was Diseases of the Genito-Urinary System and Gynaecological Conditions which ranked second in the parish of Westmoreland (3,529) (Table 3.3).



### 3.1.2.2 HOSPITAL INPATIENT SERVICES

**Table 3.4 Ten Leading Causes of Discharge from Public Hospitals by Diagnoses: WRHA 2000-2005**

DIAGNOSIS	Base Year 2000	2001	2002	2003	2004	2005
Obstetric	11,656	10,682	11,656	10,543	8,532	8,161
Accident and Injuries	2,329	2,413	2,329	2,862	2,779	2,192
Diseases of the Respiratory System	1,466	1,481	1,466	1,546	1,469	1,366
Disease of the Circulatory System	1,634	1,811	1,634	2,171	2,145	2,174
Diseases of the Digestive System	1,463	1,568	1,463	1,607	1,612	1,460
Perinatal Conditions	1,025	1,015	1,025	903	1,046	865
Infectious and Parasitic Diseases	948	8,632	947	1,000	1,069	698
Diseases of Genito-Urinary System	1,017	1,132	1,017	1,152	1,223	1,061
Neoplasm	1,037	1,107	946	1,395	1,206	1,132
Endocrine, Nutritional and Metabolic Diseases	934	983	934	1,473	1,317	1,413
Neuropsychiatric	506	419	814	742	710	677
<b>Total Discharge</b>	<b>25,827</b>	<b>25,611</b>	<b>25,846</b>	<b>27,742</b>	<b>29,165</b>	<b>26,762</b>

Source: MOH Jamaica, Annual Report 2000-2005

When Obstetrics is exempted, the WRHA data demonstrated that in 2005 the first, second and third positions relating to morbidity by leading causes of discharges continued to be dominated by Accident and Injuries, Diseases of the Circulatory System and Diseases of the Digestive System respectively. Based on the number of discharges the rank then changed with the fourth position being represented by Endocrine, Nutritional and Metabolic Diseases while in the 5<sup>th</sup> position was Diseases of the Respiratory System (Table 3.4).

**Table 3.5 Ten Leading Causes of Discharge from Public Hospitals by Diagnosis: Jamaica and WRHA: 2005**

<b>DIAGNOSIS</b>	<b>Jamaica</b>	<b>WRHA</b>
Obstetric	48,266	8,161
Accident and Injuries	13,362	2,192
Disease of the Circulatory System	11,706	2,174
Diseases of the Respiratory System	10,910	1,366
Diseases of the Digestive System	8,795	1,460
Perinatal Conditions	6,409	865
Infectious and Parasitic Diseases	4,936	698
Diseases of Genito-Urinary System	6,249	1,061
Neoplasm	6,109	1,132
Endocrine, Nutritional and Metabolic Diseases	7,574	1,413
Neuropsychiatric	4,593	677
<b>Total Discharge</b>	<b>158,109</b>	<b>26,762</b>

Source: MOH 2005

When the national and WRHA 2005 data were compared, there were similarities in the rank order based on the three leading causes of discharge Obstetric (1); Accident and Injuries (2) and Diseases of the Circulatory System (Table 3.5)

### **3.1.3 NATIONAL HEALTH PRIORITIES**

The National Health Priorities address those factors/diagnoses that could impinge on and or have a negative impact on population health and national development. Several variables were used to arrive at the listing, and include demographic, environmental, epidemiologic and sociological concerns.

Among the health priorities are:

- Environmental Health
- Communicable Disease Control
- Chronic Non-Communicable Diseases
- Child and Adolescent Health
- Reproductive Health
- Mental Health and Substance Abuse
- Emergency Health Services

### 3.1.3.1 ENVIRONMENTAL HEALTH

Environmental Health focuses on the monitoring of those activities that could have a deleterious effect on health status.

**Table 3.6 Food Safety: WRHA Parishes 2005**

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
Food Handlers Attending Clinics	2,968	8,101	5,320	4,822
New Cards/Permits Issued	1,964	7,656	5,020	4,066
Food Handling Establishments (Number)	856	755	1,073	912
Percentage Health Certified (%)	85.7	85.0	45.0	50
Meat Inspection – Total	7,172	*	13,935	34,526
Meat and Poultry (Kgms)	17,886	*	842,129	2,008,569
Percentage Meeting National Standard	99.1	*	96.7	99.0
Milk Sampling (# of dairies)				
% Milk Meeting National Standard				
<b>No. of Inspections</b>				
- Hotel	27	132	92	93
- Villa	52	*	*	*
<b>No. Certified Satisfactory</b>				
- Hotel	7	39	90	62
- Villa	42	*	*	*

Source: WRHA Parish Reports 2005  
\*DNA

All the parishes in the region (except Hanover) had 50% and more of Food Handling establishments health certified and three quarters of the Region's parishes recorded above 90% of national standard for inspected meat (Table 3.6).

**Table 3.7 Water Quality: WRHA Parishes 2005**

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmore-Land
<b>Drinking Water: No. of C/2 Tests</b>	*	*	*	3,273
- No. of Visits	*	*	*	*
- No. of Samples	2,135	1,401	1,918	3,562
% of Population Access to Treated Supplies	*	139,660	*	*
<b>Waste Water</b>				
- No. of Plants Inspected	7	15	4	4
- % Satisfactory	85.7	66.6	75.0	40.0
<b>Other Water</b>				
- No. of Swimming Pools Inspected	40	*	63	*
- % Satisfactory	95	*	100	*

Source: WRHA Parish Reports 2005

\*DNA

Thirty waste water plants were inspected in the WRHA. The levels of satisfaction ranged from 40% through 85.7% (Table 3.7).

**Table 3.8 Sanitation: WRHA Parishes 2005**

INDICATORS	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
<b>Household Sanitation</b>				
- Household Inspection (No.)	3,134	2,940	4,265	*
- % Household Satisfactory	94.1	80.0	70.0	*
- Complaints Received	166	380	316	604
- % Complaints Investigated	86.7	90.8	95.0	89.9
- Notices – Served	402	*	79	178
- % Notices – Obeyed	54.0	*	74.6	71.9
- Prosecutions Secured	1	*	*	*
<b>Institutions (No. of Schools)</b>	84	126	120	186
- Schools Inspected (No. of Visits)	120	246	37	*
- % Schools Satisfactory	69.1	76.4	77.0	*
- Children’s Homes Inspections	*	*	*	*
- % Children’s Satisfactory	*	*	*	*
- Places of Safety Inspections	*	*	*	*
- % Places of Safety Satisfactory	*	*	*	*
- Lock-up Inspections	9	*	*	*
- % Lock-up Satisfactory	22.0	*	*	*
- Hospitals Inspections	1	*	1	*
- % Hospitals Satisfactory	0.0	*	100.0	*
- Nursing Homes/Infirmaries Inspections	1	*	*	*
- Nursing Homes/Infirmaries Satisfactory	1	*	*	*
<b>Excreta Disposal</b>	*	*	*	*
- Inspections	3,134	2,940	4,265	*
- % Satisfactory	94.1	80.0	70.0	
Latrines – Built	36	78	84	539
- Repaired	2	*	*	99
<b>Solid Waste</b>	*		*	*
- No. of Disposal Sites Inspected	*	1	*	*
- % Satisfactory	*	0.0	*	*

Source: WRHA Parish Reports 2005

\*DNA

Household sanitation remained at reasonable levels of satisfaction (70% - 94%) in the reporting parishes. Approximately, 90.6% of the 1,466 complaints in the Region were investigated (Table 3.8).

**Table 3.9 Vector Control WRHA Parishes 2005**

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmore-Land
Vector Control – Aedes Indices	*	*	15.3	16.9
Barrier Zone (%)	*	1.8	*	*

Source: WRHA Parish 2005

\*DNA

In order to ensure that there were no indigenous cases of vector-borne illness in the region, the vector indices are constantly monitored (Table 3.9).

**Table 3.10 Approval for Development/Commercial Activities: WRHA Parishes: 2005**

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
No. of Applications Building	114	*	*	229
No. of Approvals Building	103	*	*	205
No. of Applications Quarry	*	*	*	
No. of Approvals Quarry License	*	*	*	*
No. of Applications – Dairies	*	*	*	*
No. of Approvals Dairies	*	*	*	*
No. of Applications Butchers	24	*	*	41
No. of Approvals Butchers	24	*	*	35
No. of Applications Spirit License	134	*	*	389
No. of Approvals Spirit License	128	*	*	363
No. of Applications Barber/Hairdressers	54	*	*	102
No. of Approvals Barbers/Hairdressers	40	*	*	78

Source: WRHA Parish 2005

\*DNA

Environmental Health Services contribute to specific national development activities through an approval process which gives cognisance to the impact of these activities on human health (Table 3.10).

### 3.1.3.2 CONTROL OF COMMUNICABLE DISEASES

#### Immunization Coverage

**Table 3.11 Trends in Immunization Coverage for Vaccine Preventable Diseases: WRHA 2000-2005**

VACCINES	% COVERAGE					
	Base Year 2000	2001	2002	2003	2004	2005
BCG	94.2	98.8	100.0	97.4	91.3	87.6
Polio	92.3	100.0	93.7	91.2	77.8	79.3
DPT/DT	92.7	98.3	95.2	92.1	82.7	85.0
Hepatitis B	0.7	0	8.2	22.9	86.8	84.4
MMR	86.6	85.2	91.9	82.3	91.4	81.4
Hib	0.5	0.1	0	22.0	81.2	82.7

Source: Ministry of Health EPI Report 2000-2005

The percentage of immunization coverage for the vaccine preventable diseases fluctuated since the base year. The greatest gains have been with Hib. in 2005 (Table 3.11).

**Table 3.12 Trends in Immunization Coverage for Vaccine Preventable Diseases: Jamaica, WRHA and Parishes 2005**

VACCINES	JA	WRHA	% COVERAGE			
			Trelawny	St. James	Hanover	Westmoreland
BCG	94.7	87.6	80.8	87.2	82.4	93.7
Polio	88.6	79.3	94.5	77.8	92.2	81.7
DPT/DT	89.9	85.0	93.6	81.0	91.4	83.0
Hepatitis B	89.2	84.4	94.2	78.1	93.3	84.1
MMR	84.0	81.4	94.1	76.2	89.7	78.2
Hib	88.6	82.9	93.0	77.4	90.1	80.9

Source: EPI Report 2005

In year 2005, WRHA data revealed that the region's immunization coverage for vaccine preventable diseases was below those at the national level. The parishes of Trelawny and Hanover surpassed national and regional coverage for all vaccines except BCG (Table 3.12).



### Notifiable Diseases

The WRHA, like other regions carry out surveillance activities for selected Notifiable diseases using eighteen sentinel and hospital active sites from which weekly reports were forwarded in order to control Communicable Diseases. Health events/diseases classified as Class 1 were reported on suspicion to parish health departments within 24 hours. Other relevant strategies were also utilized.

**Table 3.13 Class 1 Diseases Notified in 2005: WRHA Parishes**

NOTIFIABLE DISEASES	PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
Accidental Poisoning	37	55	20	7
Acute Flaccid Paralysis	1	1	0	0
Diphtheria	0	0	0	0
HIV/AIDS	538	54	44	42
Fever and Rash	2	3	3	5
Tuberculosis (Confirmed)	27	13	2	3
Congenital Rubella	0	0	0	0
Congenital Syphilis	32	6	1	6
Typhoid Fever	1	2	0	1
Meningitis	98	85	4	11
Meningitis H – Influenzae	0	0	0	0
- Meningococcal	0	0	0	0
Encephalitis	5	0	0	0
Meningococcal Encephalitis	5	2	0	0
Malaria (Imported)	6	0	0	0
Measles	0	0	0	0
Hepatitis B	41	24	9	12
Ophthalmia Neonatorum	2	15	5	9
Rheumatic Fever (RHD)	33	6	1	4
Perussis-like Syndrome	0	2	0	0
TB + HIV	5	40	4	2
Tetanus (Excluding Neonatal)	0	3	0	0
Hansen's Disease (Leprosy)	1	1	0	1
Maternal Death	2	7	1	0
Yellow Fever	0	1	0	0
<b>Non-Class 1 Disease/Event</b>				
Leptospirosis	20	87	19	13
Hepatitis A	0	1	0	0
Hand Foot and Mouth Disease	0	1	0	0

Source: MOH, WRHA ERU Annual Report 2005

### 3.1.3.2 CHRONIC NON-COMMUNICABLE DISEASES

The chronic non-communicable diseases are influenced by lifestyle practices and tend to manifest with increase in age. The region's monitoring programme seeks to decrease morbidity and mortality.

#### Asthma

**Table 3.14 Morbidity Profile – Asthma: WRHA 2000-2005**

VARIABLES	2000	2001	2002	2003	2004	2005
<b>PHC Visits</b>	*	1,543	1,289	1,282	932	1,055
<b>Cases seen at A&amp;E</b>	6,364	6,119	6,719	6,090	6,628	7,521
<b>Nebulization in A&amp;E</b>	35,383	34,210	36,636	29,764	19,843	21,109
<b>Outpatient Specialists Clinic (Paediatric)</b>						
- Total cases	138	63	51	330	*	446
- New Cases	26	-	6	37	*	38

Source MOH: MCSR, HMSR, MOH Jamaica Annual Report 2000-2005

\*DNA

Although data from the WRHA demonstrate an increase of 123 visits to its PHC facilities for Asthma, when examined against annual visits (2001 to 2003) it reflected a decline. A&E cases have, however shown the highest number of cases (7,521) based on the preceding years (Table 3.14).

The Specialist outpatient clinic saw 446 cases of Asthma (Table 3.14).

**Table 3.15 Morbidity Profile – Asthma: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
PHC Visits	9,930	1,055	301	282	215	257
Cases seen at A&E	35,942	7,521	637	4,308	912	1,664
Nebulization in A&E	135,870	21,109	1,634	4,308	3,808	11,359
Outpatient Specialist Clinic (Paediatric)						
- Total Cases	1,415	446	-	44	-	-
- New Cases	247	38	-	38	-	-

Source: MOH MCSR, HMSR; MOH Jamaica Annual Report 2005

- = none

In 2005, visits for Asthma were 1,055 in WRHA with approximately 28.5% (301) visits emanating from the parish of Trelawny (Table 3.15).

While nebulizations were highest in the parish of Westmoreland (53.8%) (11,359), at 7.7% (1,634) it was lowest in the parish of Trelawny (Table 3.15).

## Cancer

**Table 3.16 Morbidity Profile – Cancer: WRHA 2000-2005**

VARIABLES	2000	2001	2002	2003	2004	2005
<b>No. screened in PHC:</b>						
- Breast	*	10,811	12,470	12,219	11,395	12,090
- Cervix	*	4,353	5,188	5,104	5,438	5,752
- Prostate	*	185	116	100	105	106
<b>No. Referred for Abnormal Smears:</b>		340	518	490	514	274
- <25 years	*	119	193	172	190	109
- 25-54 years	*	214	367	290	299	149
- 55 years and over	*	7	18	28	25	16
<b>Treatments AT CRH</b>	3,398	6,793	9,396	18,162	13,682	13,373
- Chemotherapy	201	170	100	207	163	123
- Cobalt	2,905	4,273	9,156	17,794	13,400	13,246
- Superficial	49	105	103	152	99	-
- Radium/Caesium	9	11	10	9	20	4
- Other	234	2,239	27	-	-	-
<b>Radiotherapy Outpatient Clinic:</b>						
- Total Cases	706	3,368	3,144	3,730	*	2,633
- New Cases	-	-	641	308	*	260

Source: MOH MCSR, HMSR 2000-2005

\*DNA

- = none

Generally, there were increases in the WRHA cancer screening activities in 2005. An additional 314 persons were screened for Cervical Cancer and a total of 274 were referred for abnormal smears (Table 3.16).

There were 28 cases of Cervical Cancer, 3 cases of Breast Cancer and 8 cases of Prostate Cancer (WRHA Chronic Non-Communicable Diseases Annual Report 2005) .

**Table 3.17 Morbidity Profile – Cancer: Jamaica, WRHA and Parishes 2005**

INDICATORS	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>No. screened in PHC:</b>						
- Breast	73,771	12,090	3,364	4,245	1,353	2,128
- Cervix	26,843	5,752	1,416	3,444	380	512
- Prostate	1,043	106	19	61	17	9
<b>No. Referred for Abnormal Smears:</b>	1,869	274	97	128	14	35
- <25 years	574	109	43	52	3	11
- 25-54 years	1,201	149	53	69	8	19
- 55 years and over	94	16	1	7	3	5
<b>Treatments at KPH &amp; CRH:</b>	36,116	13,373	-	13,373	-	-
- Chemotherapy	416	123	-	123	-	-
- Cobalt	35,631	13,246	-	13,246	-	-
- Superficial	4	-	-	-	-	-
- Radium/Caesium	71	4	-	4	-	-
- Other	4	-	-	-	-	-
<b>Radiotherapy Outpatient Clinic:</b>						
- Total Cases	7,486	2,633	-	2,633	-	-
- New Cases	865	260	-	260	-	-

Source: MOH MCSR, HMSR 2005

- = none

The parish of St. James had 46.7% (128) of the regions 274 referrals for abnormal cervical smears (Table 3.17).

Of the two public cancer treatment centres on the island, the WRHA delivered 37% (13,373) of all Cobalt and 29.5% (123) of all chemotherapy treatments (Table 3.17).

### Diseases of the Circulatory System

**Table 3.18 Morbidity Profile – Diseases of the Circulatory System: WRHA 2000-2005**

Variables	2000	2001	2002	2003	2004	2005
<b>PHC Visit</b>						
- Hypertension	25,816	25,591	23,436	23,814	22,023	23,524
- Other C.V. Disease	2,672	2,770	3,006	3,189	2,868	2,801
- Chronic Rheumatic Diseases	1,043	1,100	984	814	754	733

Source: MOH MCSR, 2001; MOH Jamaica Report 2000-2005

WRHA data indicate that PHC visits for Hypertension continued to be the highest among the group Cardiovascular Diseases. The decline in the number of visits for Chronic Rheumatic Heart Disease continued in year 2005 (733) when compared to the base 2000 (Table 3.18).

**Table 3.19 Morbidity Profile – Diseases of the Circulatory System: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>PHC Visit</b>						
Hypertension	119,740	23,524	4,460	9,252	4,414	5,398
Other C.V. Disease	14,499	2,801	349	745	1,179	528
Chronic Rheumatic Diseases	4,217	733	225	189	285	34

Source: MOH MCSR 2001, MOH Jamaica Annual Report 2005

While 2005 visits at the parish level for Hypertension continued to be in excess of 18% of the region's total, Hanover recorded 42% of all visits for other Cardiovascular Diseases (CVD) (Table 3.19).

## Diabetes

**Table 3.20 Morbidity Profile – Diabetes: WRHA 2000-2005**

VARIABLES	2000	2001	2002	2003	2004	2005
Visits to PHC	7,163	6,902	5,876	5,302	3,941	3,758
Leg Ulcer due to	*	326	84	86	88	115

Source: MOH MCSR, HMSR 2000-2005

\*DNA

The 3,758 PHC visits for Diabetes in 2005 demonstrated continuing decline when compared to year 2000. There were 115 cases of Leg Ulcers due to Diabetes (Table 3.20).

**Table 3.21 Morbidity Profile – Diabetes: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Visits to PHC	27,080	3,758	833	1,278	693	954
Leg Ulcer due to diabetes	956	115	15	37	21	42

Source: MOH MCSR, 2000-2005

Approximately twenty five point four percent (25.4%) of PHC visits for Diabetes in WRHA were in the parish of Westmoreland and 36.5% of all Leg Ulcers due to Diabetes were also in that parish (Table 3.21).

**Other Monitored Diseases**

**Table 3.22 Morbidity Profile - Other Monitored Diseases: WRHA 2001-2005**

DISORDERS	VISITS TO PHC				
	2001	2002	2003	2004	2005
Respiratory Tract Infection (Excluding Asthma)	11,952	10,808	9,675	9,060	8,834
Skin Disease	17,293	15,919	14,717	12,930	13,396
Musculo-Skeletal Disorders	9,216	7,985	8,801	7,889	7,939
Other Gastro-Intestinal Disorders	3,512	2,788	2,475	2,240	2,510
Diabetes and Hypertension	12,607	11,977	12,396	11,548	12,174

*Source MOH MCSR; 2001-2005*

WRHA's data relating to Other Monitored Diseases revealed that Skin Diseases continued to be the number one (1) cause of PHC visits in 2005 (Table 3.22).

The co-pathology of Diabetes and Hypertension continued to claim the second place for PHC visits (Table 3.22).



**Table 3.23 Morbidity Profile - Other Monitored Diseases: Jamaica, WRHA and Parishes 2005**

DISORDERS	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Respiratory Tract Infections (Excluding Asthma)	102,672	8,834	1,995	2,852	1,705	2,282
Skin Diseases	92,961	13,396	3,724	4,583	2,155	2,934
Musculo-Skeletal Diseases	48,703	7,939	2,233	2,308	1,638	1,760
Other Gastro-intestinal Disorders	21,227	2,510	802	736	403	569
Diabetes and Hypertension	65,327	12,174	2,261	4,385	2,567	2,961

Source: MOH MCSR, 2005

The data revealed that all the parishes in the WRHA mirrored the region's ranking of visits for Skin Diseases as well as for Diabetes and Hypertension (Table 3.23).

The parish of Trelawny recorded approximately 32% (802) of PHC visits for other Gastro-intestinal Disorders (Table 3.23).

### 3.1.3.4 CHILD AND ADOLESCENT HEALTH

#### Child Health Profile

**Table 3.24 Status of Child Health – Several Variables: WRHA 2000-2005**

VARIABLES	Base Year 2000	2001	2002	2003	2004	2005
<b>No. of Live Births – Community</b>	494	378	101	190	106	115
- Hospital	8,874	8,593	8,103	7,969	7,743	8,077
<b>No. of Still Births – Community</b>	3	2	2	2	1	1
- Hospital	160	144	153	119	121	144
<b>Low Birth Weight – Community</b>	43	28	18	19	9	6
- Hospital	1,038	992	822	695	674	933
<b>Exclusive Breastfeeding – 6 weeks</b>	2,505	4,781	4,513	4,316	3,772	3,664
- 12 weeks	*	3,348	3,244	2,899	2,534	2,582
<b>% Immunization Coverage (&lt; 1)</b>						
- BCG	94.0	98.6	100.0	97.1	91.2	87.4
- Polio	90.6	98.1	90.6	89.4	73.9	78.8
- DPT/DT	91.1	96.0	92.0	89.7	80.5	83.2
- HIB	0.3	0.1	0	21.9	81.2	82.6
- Hepatitis B	0.4	*	8.1	22.5	81.6	82.5
- MMR (12 – 23 months)	86.6	85.2	91.9	82.3	91.4	81.4
<b>Nutrition Status (0-35 months)</b>						
- Above Normal	3,953	3,836	3,780	3,282	3,212	3,043
- Normal	44,771	48,414	45,352	43,825	41,470	43,208
- Moderate	1,616	1,485	1,201	1,051	874	1,019
- Below Normal	68	39	41	27	23	37
<b>% Receiving Home Visits</b>	41.4	44.0	42.0	40.6	39.8	40.1
<b>Child Health Clinic Visits</b>	*	68,943	63,229	62,683	63,507	66,266
<b>Child Guidance Cases – Total</b>	309	375	763	513	*	632
- New	*	140	320	215	*	199
<b>Total Accident &amp; Emergency Cases</b>	18,988	22,775	20,783	19,807	19,108	15,735

Source: MOH MCSR, EPI & HMSR 2000-2005

\* DNA

In 2005, there were 343 additional live births in the WRHA facilities – 334 in hospitals and 9 in community. However, there were 144 still births at the hospital level (Table 3.24).

There were 933 low birth weight babies at the hospital level, an increase of 259 when compared to 2004 and the highest after the year 2001 when it was 992. There was an increase (1,738) in the number of children 0-35 months with normal weights, and just about 37 children were below the norm (Table 3.24).

There were 66,266 visits to child health clinics and a 3,373 decline in the number of A&E paediatric cases (Table 3.24).

**Table 3.25 Status of Child Health – Several Variables: Jamaica, WRHA  
And Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>No. of Live Births – Community</b>	867	115	28	12	2	72
- Hospital	42,281	8,077	792	4,283	454	2,548
<b>No. of Still Births – Community</b>	9	1	1	*	*	*
- Hospital	829	144	15	67	11	51
<b>Low Birth Weight – Community</b>	37	6	3	*	*	3
- Hospital	4,874	933	75	579	36	243
<b>Exclusive Breastfeeding – 6 weeks</b>	15,843	3,664	724	1,187	681	1,072
- 12 weeks	9,894	2,582	494	702	501	885
<b>% Immunization Coverage (&lt;1)</b>						
- BCG	94.5	87.4	80.6	87.1	82.4	93.5
- Polio	83.5	78.8	93.5	70.4	89.5	77.6
- DPT/DT	87.5	83.2	93.0	79.4	90.3	80.2
- HIB	88.6	82.6	93.0	77.4	90.1	81.0
- Hepatitis B	87.1	82.5	93.7	76.9	90.1	80.9
- MMR (12 – 23 months)	84.0	81.4	94.1	76.2	89.7	78.2
<b>Nutrition Status (0-35 months)</b>						
- Above Normal	14,826	3,043	564	1,183	361	935
- Normal	201,882	43,208	7,777	15,534	8,290	11,607
- Moderate	7,078	1,019	213	332	110	364
- Below Normal	167	37	2	10	8	17
<b>% Receiving Home Visits</b>	48.3	40.1	46.6	22.3	44.7	36.0
<b>Child Health Clinic Visits</b>	293,710	66,266	11,232	23,036	13,399	18,599
<b>Child Guidance Cases – Total</b>	2,501	632	*	632	*	*
- New	791	199	*	199	*	*
<b>Total Accident &amp; Emergency Cases</b>	102,586	15,735	2,126	7,543	2,714	3,347

Source: MOH MCSR, EPI, HMSR 2005

\*DNA

In 2005, the parish of St. James had the largest number of live births approximately 53% (4,295) in the Region while Westmoreland performed the largest number of live community deliveries (72)(Table 3.25).

Generally, the region's immunization status for vaccine preventable diseases was below those of national level (Table 3.25).

The region managed 25% (199) of all new child guidance clinic cases on the island (Table 3.25).

### Child Morbidity Profile

**Table 3.26 Provision and Utilization of Hospital Services (Children):  
WRHA 2001-2005**

VARIABLES	2001	2002	2003	2004	2005
<b>Bed Complement</b>	86	103	102	88	88
<b>Bed Occupancy</b>	86.3	59.6	61.9	76.7	73.8
<b>Average Length of Stay</b>	6.2	6.3	5.9	6.1	5.6
<b>Outpatient Cases - Total</b>	5,376	6,504	6,076	6,059	7,323
- New	506	584	661	611	895

Source: MOH HMSR 2001-2005

In 2005, the WRHA's bed occupancy level declined by 2.9% and the length of stay by 0.5 days (Table 3.26).

Total outpatient clinic cases were highest since 2001 (7,323) as was the number of new cases (895) (Table 3.26).

**Table 3.27 Provision and Utilization of Hospital Services (Children): Jamaica,  
WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Bed Complement</b>	743	88	11	47	6	24
<b>Bed Occupancy Rate</b>	57.1	73.8	58.2	82.1	10.6	80.4
<b>Average Length of Stay</b>	5.1	5.6	4.7	6.3	8.4	4.8
<b>Outpatient Cases - Total</b>	60,692	7,323	-	4,846	-	2,477
- New	13,145	895	-	632	-	63

Source: MOH HMSR 2005

- = none

The region's average length of stay was higher than that of the national level. It was surpassed by that of the parish of Hanover by 2.8 days (Table 3.27).

## **Child Morbidity**

There were 46,372 persons in the under one age group in Jamaica's 2005 population. Based on public hospital discharge data for the that year, 27,574 persons were discharged, with the three leading causes being Perinatal Conditions (22.3%); Diseases of the Respiratory System (6.9%); Infectious and Parasitic Diseases (2.3%) (MOH Jamaica, Annual Report 2005 and STATIN, Demographic Statistics, 2007).

The 7,924 public hospital discharges which existed among the 191,050 persons in the 1-4 age group population in 2005, attributed major disease causation to Diseases of the Respiratory System (35.3%), Accidents and Injuries (16.8%), Infectious and Parasitic Diseases (11.6%) and Neuropsychiatric Disorders (4.3%) (MOH Jamaica, Annual Report 2005 and STATIN, Demographic Statistics, 2007)).

In 2005 the five to nine age group in Jamaica consisted of 270,650 persons and 16,548 of them were discharged from public hospitals. The leading causes of hospitalization included Diseases of the Respiratory System (27.6%), Accident and Injuries (21.9%), Infectious and Parasitic Diseases (8.2%) and Diseases of the Digestive System (7.0%) (MOH Jamaica, Annual Report 2005).

## CHILD MORTALITY

**Table 3.28 Under One Child Mortality: WRHA 2000-2005**

<b>Mortality</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Perinatal Mortality Rate/1000 live births</b>	25.8	27.9	25.7	22.6	23.8	27.7
<b>Early Neonatal Mortality Rate/1000 live births</b>	8.2	11.6	7.3	8.0	8.5	10.4
<b>Foetal Death Rate/1000 live births</b>	17.7	16.5	18.5	14.7	15.4	17.5

*Source: MOH HMSR 2000-2005*

In year 2005, WRHA data indicated that all the under one child mortality indicators demonstrated increases when compared to years 2003 and 2004 (Table 3.28).

**Table 3.29 Under One Child Mortality: Jamaica, WRHA and Parishes 2005**

<b>Mortality</b>	<b>JA</b>	<b>WRHA</b>	<b>PARISHES</b>			
			<b>Trelawny</b>	<b>St. James</b>	<b>Hanover</b>	<b>Westmoreland</b>
<b>Perinatal Mortality Rate/1000 live births</b>	31.2	27.7	21.1	31.5	28.0	23.5
<b>Early Neonatal Mortality Rate/1000 live births</b>	12.2	10.4	2.5	16.3	4.4	3.9
<b>Foetal Death Rate/1000 live births</b>	19.2	17.5	18.6	15.5	23.7	19.6

*Source: MOH HMSR 2000-2005*

The Foetal Death rate per 1,000 live births in the parish of Hanover exceeded those of the national and regional levels as well as those of its sister parishes (Table 3.29).

The WRHA's Perinatal Mortality rate per 1,000 live births at 27.7 was less (3.5) than that of the national level. However, the figure for the parish of St. James was almost similar to the national figure (Table 3.29).

## Adolescent Health

**Table 3.30 Status of Adolescent Health – Several Variables  
WRHA 2001-2005**

VARIABLES	2001	2002	2003	2004	2005
<b>Rheumatic Fever</b>					
- No. with Rheumatic Heart Disease	1,100	984	814	754	733
- No. receiving Prophylaxis	2,513	2,290	2,328	2,207	2296
<b>Reproductive Health</b>					
- Total Antenatal Visits	7,391	6,813	6,252	6,271	6,807
- 0 – 15 weeks	502	542	447	533	522
- 16 – 28 weeks	1,093	958	931	944	895
- 29 weeks and over	175	146	138	109	162
<b>No. with Hb&lt;10gms/dcl</b>	201	198	176	218	267
- No. Treated	145	131	95	70	127
- No. SC/SS	17	16	11	17	21
<b>No. Syphilis Positive</b>	24	18	19	9	21
- No. Treated	7	8	11	5	7
<b>No. with Pre-eclampsia (PHC)</b>	33	14	26	11	14
<b>% Postnatal Coverage</b>	21.9	21.2	21.0	21.0	20.5
<b>Post Natal Family Planning Acceptors</b>	1,303	1,180	1,153	1,131	1,095
<b>Contraceptive Accepted</b>					
- Pill	590	518	459	421	415
- Injection	441	394	428	455	425
- IUD	3	6	6	3	3
- Condom	269	262	260	252	252
- Dual Method	428	433	454	435	474

Source: MOH MCS 2001-2005

In year 2005 there were 733 cases of Rheumatic Heart Diseases in the Region (Table 3.30).

Data relating to the reproductive health care for this age group revealed that the largest number of antenatal visits were made in the 16-28 week period of pregnancy and 20.5% of the group received postnatal coverage.

The preferred methods of contraception included the Dual Method, the injection and the pill (Table 3.30).

**Table 3.31 Status of Adolescent Health – Several Variables: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Rheumatic Fever</b>						
- No. with Rheumatic Heart Disease	4,217	733	225	189	285	34
- No. receiving Prophylaxis	9,979	2,296	347	1,220	332	397
<b>Reproductive Health</b>						
- Total Antenatal Visits	32,617	6,807	1,590	1,597	1,186	2,434
- 0 – 15 weeks	2,174	522	113	163	86	160
- 16 – 28 weeks	4,640	895	173	272	125	325
- 29 weeks and over	748	162	21	34	19	88
<b>No. with Hb&lt;10gms/dcl</b>	1,116	267	50	57	41	119
- No. Treated	543	127	37	26	12	52
- No. SC/SS	141	21	3	-	5	13
<b>No. Syphilis Positive</b>	52	21	4	7	3	7
- No. Treated	27	7	3	1	-	3
<b>No. with Pre-eclampsia (PHC)</b>	131	14	1	2	6	5
<b>% Postnatal Coverage</b>	20.2	20.5	22.2	18.1	20.5	22.8
<b>Post Natal Family Planning Acceptors</b>	5,497	1,095	184	423	181	307
<b>Contraceptive Accepted</b>						
- Pill	1,776	415	62	158	85	110
- Injection	2,486	425	85	151	55	134
- IUD	10	3	3	-	*	*
- Condom	1,225	252	34	114	41	63
- Dual Method	2,903	474	92	202	77	103

Source: MOH MCSR 2005

\*DNA

- = none

Approximately 35.7% of the 6,807 adolescent antenatal visits occurred in the parish of Westmoreland. The parish also experienced higher percentage of postnatal coverage than that of the national level, the region as well as its sister parishes (Table 3.31).

### Adolescent Morbidity

Of Jamaica's 2,660,723 persons on the island in 2005, 537,393 were in the 10-19 age group. The 16,538 discharges were due to Obstetric Conditions (55.8%). Accidents and Injuries (13.2%); Diseases of the Digestive System (4.9%) and Diseases of the Respiratory System (4.4%) (MOH Jamaica Annual Report 2005).



### 3.1.3.5 REPRODUCTIVE HEALTH

**Table 3.32 Status of Reproductive Health – Several Variables: WRHA 2000-2005**

SEVERAL VARIABLES	2000	2001	2002	2003	2004	2005
Total Antenatal (ANC) Visits	33,973	30,080	27,492	25,640	24,736	26,165
Total Anaemia (Hb<10gms/dcl)	*	16.1	17.6	18.6	17.6	17.6
% Treated	*	72.6	60.5	46.1	37.8	54.1
No. S.C/SS	*	60	48	42	73	57
% Syphilis Positive	*	3.2	2.5	2.9	1.4	2.4
% Treated	*	45.9	44.4	57.9	33.9	30.8
No. HIV Positive	*	*	*	*	*	*
Eclampsia (Hospital & PHC)	35	167	126	119	79	68
Antepartum Haemorrhage	23	33	41	28	31	28
Postpartum Haemorrhage	287	298	392	426	394	359
Mothers' Delivered - Hospital	8,921	8,643	8,092	7,998	7,784	8,144
- PHC	*	378	162	192	107	116
Deliveries by Trained Persons - Hospital	8,921	8,643	8,092	7,998	7,789	8,144
- PHC	*	354	151	182	94	101
C. Section	986	929	1,072	1,161	932	1,021
Home Visits	*	5,622	4,927	4,859	4,508	3,636
Postnatal Visits (Mothers)	*	8,505	7,973	7,807	7,320	7,540
Postnatal Family Planning Acceptors	5,546	5,499	5,065	5,151	4,885	5,171
Contraceptive Acceptors (Selected)						
- Pill	2,142	2,765	2,286	1,644	1,577	1,604
- Injection	1,847	3,132	2,923	1,904	1,874	1,944
- IUD	12	163	156	27	26	23
- Condom	1,545	1,855	1,657	1,576	1,408	1,599
- Dual Method	1,584	2,078	2,108	1,649	1,676	1,981
Tubal Ligation (Hospital)	672	583	695	689	549	504

Source: MOH MCSR, HMSR. MOH Jamaica Annual Report 2000-2005

\*DNA

Year 2005 data demonstrated an increase of 1,429 in ANC visits and 35 less postpartum haemorrhages when compared to the previous year (Table 3.32).

AT a total of 3,636, home visits registered the lowest number since year 2001 (Table 3.32).

**Table 3.33 Status of Reproductive Health – Several Variables: Jamaica, WRHA and Parishes 2005**

SEVERAL VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Antenatal (ANC) Visits	133,502	26,165	6,082	6,899	4,625	8,559
Total Anaemia (Hb<10gms/dcl)	15.7	17.6	14.6	15.7	17.9	20.5
% Treated	48.2	54.1	91.7	42.9	34.5	52.8
No. SC/SS	533	57	5	4	12	36
% Syphilis Positive	1.3	2.4	1.4	2.4	4.5	1.8
% Treated	46.3	30.8	53.8	29.4	29.0	23.1
No. HIV Positive	*	463	*	*	*	*
Eclampsia (Hospital & PHC)	242	85	5	30	24	26
Antepartum Haemorrhage	163	28	1	17	6	4
Postpartum Haemorrhage	1,190	359	12	230	3	114
Mothers' Delivered - Hospital	41,768	8,744	804	4,035	464	2,571
- PHC	726	116	28	12	2	72
Deliveries by Trained Persons - Hospital	41,768	8,744	804	4,035	464	2,571
- PHC	94	101	19	12	2	68
C. Section	5,800	932	71	651	-	210
Home Visits (Mothers)	24,231	3,636	742	599	824	1,471
Postnatal Visits (Mothers)	35,906	7,540	1,129	3,003	1,222	2,187
Postnatal Family Planning Acceptors	25,532	5,171	842	2,193	873	1,263
Contraceptive Acceptors (Selected)						
- Pill	7,374	1,604	247	653	334	370
- Injection	10,512	1,944	400	727	281	536
- IUD	59	23	18	3	0	2
- Condom	5,781	1,599	177	810	257	355
- Dual Method	12,068	1,981	382	933	340	326
Tubal Ligation (Hospital)	2,167	504	26	348	-	130

Source: MOH MCSR, HMSR, MOH Jamaica Annual Report 2000-2005

\*DNA

- = none

The parish of Westmoreland recorded the largest number of ANC visits (8,559) as well as the highest percentage of clients with anaemia (20.5%) which surpassed that of the national level. However, the parish treated 52.8% which was also higher than that treated at the national level (Table 3.33).

While the parish performed the largest number of community deliveries (72) in the region, 94.4% (68) were delivered by trained personnel (Table 3.33).

**Table 3.34 Provision and Utilisation of Hospital Services – Reproductive Health: WRHA 2000-2005**

<b>VARIABLES</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Bed Complement (Obstetric)	83	86	85	83	99	101
Bed Occupancy (%) (Obstetric)	131.6	123.1	99.8	106.3	87.0	86.7
Average Length of Stay (Obstetric)	2.6	2.7	2.7	2.9	2.8	2.6
<b>Hospital Discharges</b>						
- Obstetric	11,656	10,682	11,656	10,543	8,530	8,161
- Genitourinary System	1,017	1,132	1,017	1,152	1,123	1,061
<b>Outpatient Clinic Cases</b>						
- Obstetric - Total	12,413	13,395	13,656	11,530	12,221	11,588
- New	1,788	2,160	2,147	2,032	1,907	1,521
- Gynaecology - Total	4,893	5,077	6,439	6,511	5,926	5,919
- New	707	805	1,050	1,207	914	1,033
- Urology - Total	2,719	3,114	3,179	3,552	3,747	3,620
- New	491	699	481	675	441	462

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2000-2005

WRHA 2005 data relating to Obstetric services identified 101 beds (14.6%) in the region and a bed occupancy level of 86.7% which indicated a decline when compared to year 2003 (Table 3.34).

Year 2005 Hospital discharges for Obstetric and Conditions of the Genito-Urinary System were 8,161 and 1,061 respectively (Table 3.34).

Among the 11,588 outpatient clinic cases were 3,016 new cases with Obstetrics (1,521), Gynaecological (1,033) and Urology (462) conditions (Table 3.34).

**Table 3.35 Provision and Utilization of Hospital Services – Reproductive Health: Jamaica, WRHA and Parishes 2005**

SERVICES	JA	WHRA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Bed Complement (Obstetric)	689	101	7	64	12	19
Bed Occupancy (%) (Obstetric)	63.5	86.7	82.7	77.6	33.6	155.7
Average Length of Stay (Obstetric)(days)	2.6	2.6	2.5	2.6	2.2	2.8
<b>Hospital Discharges</b>						
- Obstetric	48,266	8,161	*	*	*	*
- Genitourinary System	6,249	1,061	*	*	*	*
<b>Outpatient Clinic Cases</b>						
- Obstetric - Total	60,085	11,588	-	9,528	424	1,636
- New	13,643	1,521	-	1,389	88	44
- Gynaecology - Total	3,065	5,919	-	4,452	-	1,467
- New	5,642	1,033	-	816	-	217
- Urology - Total	19,661	3,620	-	3,298	-	-
- New	3,079	462	-	462	-	-

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2000-2005

\*DNA

- = none

Year 2005 data revealed that the bed occupancy for Obstetrics in the WRHA was 23.2% above that of the national level (Table 3.35).

While the parish of Hanover had the lowest average length of stay (2.2 days), it was Westmoreland that had the highest (2.8 days) which exceeded that of the national level (Table 3.35).

**Table 3.36 Morbidity Profile – Reproductive Health: WRHA 2000-2005**

VARIABLES	2000	2001	2002	2003	2004	2005
<b>PHC Visits for: Diseases of the Genitourinary System &amp; Gynaecological Conditions:</b>						
- Total	*	18,245	16,141	15,577	16,020	16,043
- Urinary	*	1,988	1,704	1,510	1,344	1,544
- STI (Except PID)	*	11,982	10,706	10,526	11,264	11,206
- PID	*	1,042	854	722	655	655
- Other Gynaecological Conditions	*	3,223	2,877	2,769	2,757	2,638
<b>Accident &amp; Emergency Cases:</b>						
- Obstetric/Gynaecology	7,468	9,011	8,764	8,633	6,293	8,457
- Genito-Urinary	2,683	3,000	2,881	3,334	3,517	3,968
<b>Surgical Interventions:</b>						
<b>- Obstetric:</b>						
- Total	2,404	2,091	2,677	2,681	3,062	3,179
- Emergency	1,350	1,092	1,290	1,497	1,239	1,239
- Elective	1,054	999	1,387	1,184	1,060	1,010
<b>- Other Gynaecological:</b>						
- Total	589	717	692	786	749	615
- Emergency	136	164	98	136	108	70
- Elective	453	553	594	650	588	493
<b>- Urology</b>						
- Total	176	191	150	130	1,104	307
- Emergency	15	9	12	13	11	17
- Elective	161	182	138	117	149	176

Source: MOH Jamaica Annual Report 2000-2005

\*DNA

STI (except PID) continued to be the major cause of visits (11,206) to WRHA PHC facilities for Gynaecological conditions (Table 3.36).

Throughout the years under review, the utilization of services for Obstetric/Gynaecological Conditions have outstripped that of Genito-Urinary/Urology Conditions (Table 3.36).

**Table 3.37 Morbidity Profile – Reproductive Health: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>PHC Visits for: Diseases of the Genitourinary System &amp; Gynaecological Conditions:</b>						
- Total	105,275	16,043				
- Urinary	16,919	1,544	329	761	156	298
- STI (Except PID)	61,947	11,206	1,042	8,340	226	1,598
- PID	6,488	655	90	288	100	177
- Other Gynaecological Conditions	19,921	2,638	490	774	518	858
<b>Accident &amp; Emergency Cases:</b>						
- Obstetric/Gynaecology	25,826	8,457	565	4,893	771	2,228
- Genito-Urinary	21,725	3,968	331	1,753	969	915
<b>Surgical Interventions:</b>						
- Obstetric:						
- Total	9,702	3,179	101	2,234	70	774
- Emergency	4,795	1,239				
- Elective	3,517	1,101	22	439	*	487
- Other Gynaecological:						
- Total	6,975	615	44	358	*	213
- Emergency	1,631	70	15	44	*	11
- Elective	3,427	493	29	312	*	152
- Urology:						
- Total	4,257	307	15	286	*	*
- Emergency	140	17	5	17	*	*
- Elective	614	176	15	156	*	*

Source: MOH Jamaica Annual Report 2005

In 2005, except for Other Gynaecological Conditions (which was highest in the parish of Westmoreland), utilization of WRHA PHC services for Diseases of the Genito-Urinary System and Gynaecological Conditions was lowest in Hanover (Table 3.37).

### 3.1.3.6 MENTAL HEALTH

Generally, over the period 2000-2005, Community Mental Health activities continued to focus on monthly clinics at specific health centres and infirmaries throughout each parish in the Region. A range of comprehensive services have been offered including the promotion of mental health, mental health education, inpatient, outpatient and emergency care.

**Table 3.38 Status of Mental Health – Several Variables: WRHA 2000-2005**

VARIABLES	Base Year 2000	2001	2002	2003	2004	2005
<b>Total Visits to PHC</b>	*	6,176	6,483	7,458	7,691	7,955
<b>Total cases seen in A&amp;E</b>	1,535	1,671	1,544	1,581	1,476	1,798
<b>Total Hospital Discharges</b>	506	419	814	742	710	633
<b>Average Length of Stay</b>	9.5	16.7	19.0	20.3	35.9	16.4
<b>Total CMH Clinic Cases</b>	2,863	4,125	*	*	*	*
<b>CMH Admissions to Hospital</b>	*	46	33	258	305	42
<b>Home Visits - Total Cases</b>	*	1,745	1,297	*	1,962	2,451
- Emergency	*	141	102	*	172	145
<b>Outpatient Clinic – Total Cases</b>	5,310	6,756	6,794	7,649	*	7,365
- New Cases	297	232	386	582	*	293
<b>Child Guidance Clinic - Total Cases</b>	309	375	673	513	*	632
- New	0	140	320	215	*	199
<b>Attempted Suicide Seen in A&amp;E:</b>	32	23	14	10	20	15
10 – 19 age group[	5	16	10	4	9	6
20 – 29 -do-	5	4	2	1	4	5
30 – 44 -do-	15	1	2	4	5	1
45 – 64 -do-	4	1	-	1	2	3
65 & over -do-	3	0	-	-	-	-
Age Unknown	0	1	-	-	-	-

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2000-2004, WRHA CMH Reports 2005

\*DNA

- = none

Visits to WRHA PHC clinics for mental health care and A&E cases for similar conditions increased in 2005 when compared to the base year data (Table 3.38).

**Table 3.39 Status of Mental Health – Several Variables: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmore-land
<b>Total Visits to PHC</b>	44,044	7,955	877	2,736	705	2,637
<b>Total cases seen in A&amp;E</b>	4,136	1,798	29	1,079	170	310
<b>Total Hospital Discharges</b>	4,593	633	*	*	*	*
<b>Average Length of Stay</b>	14.7	16.4	*	*	*	*
<b>Total CMH Clinic Cases</b>	*	*	*	*	*	*
<b>CMH Admissions to Hospital</b>	1,187	42	4	30	3	5
<b>Home Visits</b> - Total Cases	*	2,451	*	*	*	*
- Emergency Cases	*	145	21	104	5	15
<b>Outpatient Clinic</b> - Total Cases	23,158	7,365	515	4,888	-	1,982
- New Cases	1,874	293	23	229	-	41
<b>Child Guidance Clinic</b> - Total Cases	2,501	632	-	632	-	-
- New Cases	791	199	-	199	-	-
<b>Attempted Suicide Seen in A&amp;E:</b>	124	15	4	-	4	7
10 – 19	37	6	1	-	2	3
20 – 29	39	5	2	-	-	3
30 – 44	27	1	1	-	-	-
45 – 64	12	3	-	-	2	1
65 & over	6	-	-	-	-	-
Age Unknown	*	-	-	-	-	-

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2005, WRHA CMH 2005 Reports

\*DNA

- = none

Data for WRHA mental health services revealed that just about 18% (7,955) of all PHC visits and approximately 43% (1,798) of all A&E cases were managed in the Region (Table 3.39).

Thirty one point eight percent (31.8%) (7,365) of all outpatient cases were seen in WRHA with the majority of new cases being in St. James (Table 3.39).



**Table 3.40 Morbidity Profile – Community Mental Health: WRHA 2000-2005**

CONDITIONS	2000	2001	2002	2003	2004	2005
<b>Psychotic Disorders</b>						
- On Register	1,500	1,679	1,913	*	2,105	2,295
- % Receiving Consistent Care	*	73.3	84.0	*	78.0	81.0
<b>Mood Disorders</b>	500	525	74	*	112	173
<b>Organic Mental Disorder/Anxiety</b>	*	*	*	*	*	44
<b>Disorders of Childhood &amp; Adolescence</b>	147	866	*	*	*	52
<b>Post Traumatic Disorders</b>	*	*	*	*	*	*
Other Disorders	*	*	*	*	*	136
<b>Substance Abuse Cases</b>	150	150	44	820	69	70
- Rehabilitation						
- <b>No. Screened</b>	*	44	*	*	*	*
- <b>No. Admitted</b>	*	30	*	*	*	*
- <b>No. Drop Out</b>	*	21	*	*	*	*
- <b>No. Graduating</b>	*	3	*	*	*	*
- <b>Recidivism</b>	*	*	*	*	*	*

Source: WRHA CMH Report; MOH Jamaica, Annual Report 2000-2005

\*DNA

There were an additional 190 (8%) cases with Psychotic Disorders on Register and 81% received consistent care in 2005 (Table 3.40).

Community meetings were held in the parish of Westmoreland during Mental Health week. Eighteen Psychiatric Aides were trained in the Region.

**Table 3.41 Morbidity Profile – Community Mental Health: Jamaica, WRHA and Parishes 2005**

CONDITIONS	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Psychotic Disorders</b>						
- On Register	8,048	2,295	326	883	385	701
- % Receiving Consistent Care	*	81	93	71	79	81
<b>Mood Disorders</b>	3,393	173	11	97	32	33
<b>Organic Mental Disorder/Anxiety</b>	510	44	17	16	6	5
<b>Disorders of Childhood &amp; Adolescence</b>	575	52	6	26	2	17
Other Disorders		136	3	65	48	20
<b>Substance Abuse Cases</b>	728	70	5	31	3	31
- Rehabilitation						
- <b>No. Screened</b>	*	*	*	*	*	*
- <b>No. Admitted</b>	*	*	*	*	*	*
- <b>No. Drop Out</b>	*	*	*	*	*	*
- <b>No. Graduating</b>	*	*	*	*	*	*
- <b>Recidivism</b>	*	*	*	*	*	*

Source: WRHA CMH Report; MOH Jamaica, Annual Report 2000-2005

Note: Jamaica Data = preliminary

\*DNA

The largest number of cases of Psychotic Disorder on register were in the parishes of St. James (883) and Westmoreland (701). Trelawny achieved a 93% of patients receiving consistent care (Table 3.41)

**3.1.3.7 EMERGENCY HEALTH SERVICES**

**Table 3.42 Status of Emergency Health Services – Several Variables: WRHA  
2000-2005**

VARIABLES	Base Year 2000	2001	2002	2003	2004	2005
<b>Primary Health Care Visits for Injuries</b>	9,529	6,898	6,268	5,985	5,424	4,749
<b>Casualty/A&amp;E Attendance Total</b>	129,289	137,163	136,649	143,968	155,259	138,169
- % Receiving Care	94.7	96.5	94.6	93.8	95.6	92.8
- Admitted	14,213	15,805	13,948	15,048	16,153	16,304
<b>Treatments Given in Casualty</b>						
- Total	193,957	212,469	220,598	256,271	209,998	203,712
- Sutures	6,726	7,524	6,550	7,105	7,054	5,848
- Dressing	11,393	13,799	11,239	12,127	13,289	12,758
- Injection	59,447	66,566	62,403	64,698	60,831	58,283
- Nebulization	35,383	34,210	36,636	29,764	19,843	21,109
- Other	76,116	84,984	98,784	137,130	103,809	100,146
<b>Leading Emergency Surgeries</b>						
- Total Cases	2,761	2,542	2,533	3,057	2,803	2,743
- General Surgery	907	819	761	919	899	858
- Specialist:						
- Obstetric	1,350	1,092	1,290	1,497	1,239	1,239
- Emergency Tubal Ligation	58	79	3	76	131	445
- Other Gynaecological	136	164	98	136	108	70
- Urology	15	9	12	13	11	17
- Orthopaedic	137	198	193	212	194	165
- Dental	16	33	3	6	106	2
- ENT	99	98	109	120	-	125
- Eye	36	45	51	48	56	24
- Plastic	7	3	2	-	-	131
- Other	-	2	10	23	58	123
<b>Minor Operations (Casualty)</b>	4,892	5,422	4,886	5,547	5,172	5,568

Source: MOH MCSR, HMSR, WRHA CMH 2005 Report

- = none

When compared with the base year (2000), Year 2005 WRHA data pointed to annual decrease in PHC visits for injuries. Simultaneously, there were annual increases in A&E attendance except in 2005 when there were 17,090 less persons (Table 3.42).

**Table 3.43 Status of Emergency Health Services –Several Variables Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Primary Health Care Visits for Injuries</b>	23,277	4,749	752	2,208	976	803
<b>Casualty/A&amp;E Attendance Total</b>	694,354	138,168	19,026	59,844	22,362	36,936
- % Receiving Care	98.2	92.8	97.0	96.3	97.0	95.5
- Admitted	95,562	16,304	1,561	9,686	478	4,579
<b>Treatments Given in Casualty</b>						
- Total	602,282	203,712	12,192	120,127	13,402	57,991
- Sutures	22,518	5,848	629	2,778	763	1,678
- Dressing	69,179	12,758	2,613	2,701	4,649	2,795
- Injection	197,424	58,283	4,533	34,421	3,455	15,874
- Nebulization	135,870	21,109	1,634	4,308	3,808	11,359
- Other	161,319	100,146	2,724	72,612	-	24,810
<b>Leading Emergency Surgeries</b>						
- Total Cases	150,99	2,743	336	1,972	-	435
- General Surgery	4,954	858	143	540	-	175
- Specialist:						
- Obstetric	4,795	1,239	79	915	-	245
- Emergency Tubal Ligation	932	445	1	348	-	96
- Other Gynaecological	1,631	70	15	44	-	11
- Urology	140	17	-	17	-	-
- Orthopaedic	1,449	165	6	159	-	-
- Dental	35	2	-	2	-	-
- ENT	261	125	-	125	-	-
- Eye	153	24	-	24	-	-
- Plastic	601	131	-	13	-	-
- Other	323	123	-	30	-	-
<b>Minor Operations (Casualty)</b>	15,972	5,568	59	3,307	727	1,475

Source: MOH MCSR, HMSR, WRHA CMH Report 2005

- = none

Year 2005 WRHA data indicated that the region had 19.9% (138,168) of total attendance to public A&E departments and delivered care to 92.8% (Table 3.43).

Thirty three point eight percent (33.8%)(203,712) of all treatments delivered in public A&E departments in 2005 were in the WRHA with the parish of Westmoreland delivering 57,991 (28.5%) of the region's treatment (Table 3.43).

**Table 3.44 Morbidity Profile in Public Hospitals A&E Departments:  
WRHA 2000-2005**

<b>CONDITION TREATED BY CASES</b>	<b>Base Year 2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Gastroenteritis	4,202	3,137	4,360	5,743	4,547	5,263
URTI	5,887	6,919	5,579	5,396	7,318	6,017
LRTI	1,606	1,676	1,667	1,313	1,413	2,177
Asthma	6,364	6,119	6,719	6,090	6,628	7,497
Medical Conditions	37,489	42,689	39,850	44,175	50,883	47,429
Surgical Conditions	15,433	16,691	14,762	19,624	20,111	16,936
Ob/Gyn. Conditions	7,468	9,011	8,764	8,633	8,954	8,444
GU Conditions	2,468	3,000	2,881	3,334	3,517	3,968
Paediatric	2,683	22,775	20,783	19,807	19,108	15,735
Psychiatric Conditions	1,535	1,671	1,544	1,587	1,476	1,798
Psychiatric Crisis Intervention	-	141	*	*	*	*
Intentional – PHC	1,299	862	668	552	484	390
Total – Casualty	6,372	6,720	6,808	7,283	7,601	8,422
Unintentional – PHC	8,230	6,036	5,600	5,433	4,940	4,359
Total Casualty	10,275	12,148	10,505	11,489	12,069	12,984

Source: MOH: MCSR, HMSR 2000-2005

\*DNA

- = none

Year 2005 data demonstrated a continuing trend (since the base year) for cases of Medical Conditions (47,429), Surgical Conditions (16,936) and Paediatric Conditions (15,735) to be the largest number of conditions managed (Table 3.44).

The number of A&E cases of Unintentional Injuries (12,984) continued to exceed that of Intentional Injuries (8,422) (Table 3.44).

**Table 3.45 Morbidity Profile in Public Hospitals A&E Departments: Jamaica, WRHA and Parishes 2005**

CONDITION TREATED BY CASES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Gastroenteritis	18,708	5,263	813	2,188	495	1,766
URTI	28,802	6,017	560	1,249	1,756	2,452
LRTI	9,935	2,177	479	513	254	843
Asthma	3,585	7,497	637	4,308	888	1,664
Medical Conditions	245,073	47,429	8,228	15,273	10,309	13,619
Surgical Conditions	51,465	16,936	991	10,369	110	5,466
Ob/Gyn. Conditions	25,828	8,444	552	4,893	771	2,228
GU Conditions	21,727	3,968	331	1,753	969	915
Paediatric	102,586	15,735	2,126	7,548	2,714	3,347
Psychiatric Conditions	4,136	1,798	239	1,073	170	310
Psychiatric Crisis Intervention						
Injuries:						
- Intentional - PHC Visits	2,622	390	94	178	44	64
- Total Casualty Cases	30,821	8,422	2,130	2,851	1,367	2,074
- Unintentional - PHC Cases	20,655	4,359	658	2,030	932	739
- Total Casualty Cases	48,965	12,984	1,471	5,549	1,865	4,099

Source: MOH: MCSR, HMSR 2005

WRHA 2005 data revealed that 28% (5,263) of all cases of Gastroenteritis managed in public A&E were in the WRHA (Table 3.45).

Regionally, while WRHA managed 20.9% (6,017) of all URTI cases seen in all public A&E facilities (28,802); the parish of Westmoreland treated 40.7% (2,452) of the region's cases (Table 3.45).

Just about 43.5% (1,798) of all Psychiatric cases managed in public A&E facilities were in WRHA (Table 3.45).

**Table 3.46 Profile of Injuries Treated in Public Hospitals A&E Departments:  
WRHA 2000-2005**

Injuries by Type	Base Year 2000	2001	2002	2003	2004	2005
<b>Intentional (Total)</b>						
- Stab Wound	480	610	513	559	683	679
- Gunshot	117	135	171	171	206	255
- Blunt Injury	2,639	2,716	2,844	3,300	3,501	3,810
- Sexual Assault	252	283	250	405	412	426
- Laceration	*	2,262	2,044	1,887	1,741	2,055
- Bite (Human)	122	99	93	125	142	182
- Burns	13	14	54	3	5	4
- Attempted Suicide	34	23	17	10	22	16
- Other	369	608	864	823	888	995
<b>Unintentional</b>						
- MVA	2,547	3,002	2,702	2,984	3,128	3,284
- Lacerations	4,713	4,692	2,726	2,865	3,134	3,506
- Bites	680	832	944	938	1,026	1,144
- Burns	332	390	298	327	374	363
- Poisoning	255	285	271	305	384	390
- Falls	*	2,940	3,562	4,067	4,020	4,292
- Near Drowning	*	8	2	3	3	5

Source: MOH: HMSR 2000-2005

\*DNA

Over the period 2000 through 2005, Blunt Injuries, Lacerations and Stab Wounds have been the major causes of Intentional Injuries in WRHA (Table 3.46).

Unintentional Lacerations, Motor Vehicle Accidents, Falls and Bites have also been the motivators for seeking health care. Note must be taken of the increasing number of falls in the Region - moving from 2,940 in 2001 to a high of 4,292 in 2005 (Table 3.46).

**Table 3.47 Profile of Injuries Treated at Public Hospitals A&E Departments: Jamaica, WRHA and Parishes 2005**

Intentional Injuries	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
<b>Intentional</b>						
- Stab Wound	3,184	679	122	377	50	130
- Gunshot	1,827	255	27	175	14	39
- Blunt Injury	12,027	3,810	1,167	1,060	568	1,075
- Sexual Assault	1,461	426	87	154	64	121
- Laceration	7,216	2,055	520	687	272	576
- Bite (Human)	588	182	79	49	30	24
- Burns	23	4	1	-	2	1
- Attempted Suicide	124	16	5	-	4	7
- Other	4,371	995	182	349	363	101
<b>Unintentional</b>						
- MVA	12,687	3,284	316	1,490	326	1,152
- Lacerations	14,875	3,506	655	982	764	1,105
- Bites	4,934	1,144	219	376	193	356
- Burns	1,620	363	77	137	43	106
- Poisoning	1,234	390	28	240	24	98
- Falls	13,588	4,292	176	2,324	513	1,279
- Near Drowning	29	5	-	-	2	3

Source: MOH: HMSR 2005

- = none

Except for Intentional Burns (2), the parish of Hanover recorded the lowest figures for Injuries in the WRHA (Table 3.47).

The 3,810 Blunt Injuries in WRHA represented 31.7% of the national figure (Table 3.47).

Falls, a subset of unintentional injuries registered 4,292 cases (31.6%) of the national figure (Table 3.47).



## 3.2 MORTALITY

### 3.2.1 MORTALITY PROFILE

**Table 3.48 Mortality Profile: WRHA 2000-2005**

VARIABLES	Base Year 2000	2001	2002	2003	2004	2005
Total Inpatient Deaths	858	953	*	1,406	793	577
Casualty Deaths	134	133	164	163	185	198
Anaesthetic Deaths	0	0	0	0	0	0
Still Births - Total	163	146	155	121	122	145
- Hospital	160	144	153	119	121	144
- Community	3	2	2	2	1	1
Foetal Death Rate/1,000 live births	17.7	16.5	18.5	14.7	15.4	17.5
Early Neonatal Death Rate/1,000 live births	8.2	11.6	7.3	8.0	8.5	10.4
Perinatal Death Rate/1,000 live births	25.8	27.9	25.7	22.6	23.8	27.7
Infant Death Rate/1,000 live births	*	*	*	*	*	*
Maternal Deaths (Total)	10	5	8	7	6	6
- in Community	2	0	0	0	2	1
- in Hospital	8	5	8	7	4	5
Maternal Death Rate/100,000 live births	90.0	57.9	98.9	87.5	51.4	61.4

Source: MCSR, HMSR 2005

\*DNA

**Community births and deaths represent those events monitored by public sector health professionals.**

There was little consistency in the data relating to most of the mortality variables throughout the period 2000 to 2005. Still births as well as maternal mortality at the community level remained low and the number of still births peaked (145) in 2005 (Table 3.48).

Year 2005, WRHA data demonstrated zero (0) Anaesthetic deaths since the base year (Table 3.48).

**Table 3.49 Mortality Profile: Jamaica, WRHA and Parishes 2005**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Inpatient Deaths	4,146	577	109	190	85	193
Casualty Deaths	1,089	198	12	131	28	27
Anaesthetic Deaths	2	0	0	0	0	0
Still Births - Total	838	145	16	67	11	51
- Hospital	829	144	15	67	11	51
- Community	9	1	1	-	-	-
Foetal Death Rate/1,000 live births	19.2	17.5	18.6	15.4	23.7	19.6
Early Neonatal Death Rate/1,000 live births	12.2	10.4	2.5	16.3	4.4	3.9
Perinatal Death Rate/1,000 live births	31.2	27.7	21.1	31.5	28.0	23.5
Infant Death Rate/1,000 live births	19.9	*	*	*	*	*
Maternal Deaths (Total)	58	6	1	4	-	1
- in Community	18	1	1	-	-	-
- in Hospital	40	5	-	4	-	1
Maternal Death Rate/100,000 live births	95.8	61.4	*	92.9	-	38.9

Source: MOH: MCSR, HMSR 2005

\*DNA

- = none

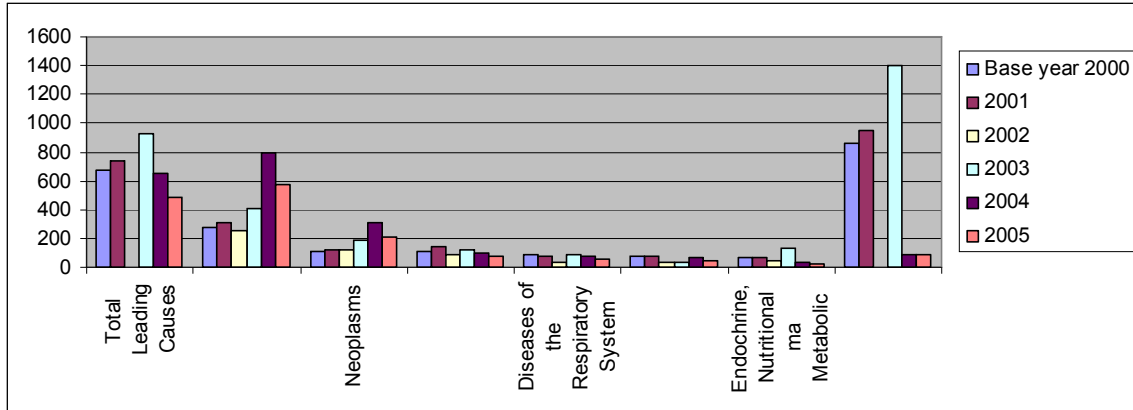
**Community births and deaths represent those events monitored by public sector health professionals.**

Approximately 13.9% (577) of national inpatient deaths were in WRHA in 2005 and 33.4% (193) of the Region's inpatient deaths were in the parish of Westmoreland (Table 3.49).

The lowest number of Casualty deaths (12) was in Trelawny as was the lowest maternal deaths (1) at the community level in the entire Region (Table 3.49).

### 3.2.2 INPATIENT MORTALITY

**Figure 3.1 Inpatient Deaths in Public Hospitals by Five Leading Diagnoses – WRHA 2000-2005**



Source: MOH – HIS 2000-2005

Although Diseases of the Circulatory System has remained number one over the years 2000 to 2005, the other leading diagnoses that caused inpatient deaths have demonstrated an inconsistent pattern in the rank order, except for the years 2003 and 2004 (Figure 3.1) (TABLE B1).

**Table 3.50 Inpatient Deaths in Public Hospitals by Five Leading Diagnoses, WRHA and Parishes 2005**

DIAGNOSES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Inpatient Deaths	4,146	577	109	190	85	193
Total Inpatient Deaths based on 5 Leading Diagnoses	3,040	483	99	153	78	156
Diseases of the Circulatory System	1,293	213	40	65	41	67
Neoplasms	554	79	21	31	12	15
Infectious and Parasitic Diseases	422	54	15	22	9	8
Diseases of the Respiratory System	404	46	8	9	6	23
Perinatal Conditions	323	19	-	6	-	13
Endocrine, Nutritional and Metabolic Diseases	367	91	15	28	10	38

Source: MOH, HIS 2005

- = none

Note must be taken of the movement in rank of Endocrine Nutritional and Metabolic Diseases to second place in 2005 in WRHA. The region and all its parishes mirrored the national number one (1) cause of mortality (Table 3.49).

## **4.0 PERFORMANCE**

#### **4.0 PERFORMANCE/ACHIEVEMENT BASED ON SERVICE LEVEL AGREEMENT (SLA)**

The WRHA signed a Service Level Agreement with the Ministry of Health to achieve the objectives outlined below:

##### **OBJECTIVES**

1. Provide quality preventive, curative, rehabilitative care that is accessible, reliable and affordable through:-
  - Improvements in:-
    - Environmental health
    - Dental health
    - The control of communicable disease
    - The control of sexually transmitted infections
    - The control of chronic non-communicable diseases
    - Reproductive health family planning
    - Mental health care.
  - Decrease in morbidity and mortality among children, adolescents and women.

The accompanying tables represent the performance matrix which is a mix of the specific SLA's and other achievements.

**Table 4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2005**

**4.1A MANAGEMENT**

INDICATORS	Base Year 2000	Target 2005	ACHIEVEMENTS				
			2001	2002	2003	2004	2005
No. of Internal Audits	*	*	*	*	24	*	*
<b>Finance (FAA Act)</b>							
- No. of Audit Queries	*	*	*	12	27	12	14
- No. of Audit Queries satisfactorily resolved	*	*	*	9	21	12	14
- No. of Audit Queries pending/outstanding	*	*	*	7	3	-	-
<b>Cost Containment</b>							
- Administrative cost as a % of budget	*	6.0	5.0	4.0	*	3.0	5.0
- Staff cost as a % of total service delivery cost	*	73.0	85.0	86.0	*	*	75.0
- Annual costs \$'000 (Actual)	*	*	*	*	*	*	*
- Rental	*	*	1,683	2,247	*	3,711	*
- Utilities	*	*	46,156	65,415	*	87,610	*
- Petrol	*	*	*	2,312	*	*	*
- Fee collection as a % of billing (excluding indigent)	*	<55.0	72.0	65.0	*	*	15.0
- Billing as a % of services rendered	*	<95.0	97.0	94.0	*	*	*
- X-Ray films	*	*	8,802	8,395	*	*	*
<b>Human Resource</b>							
- Human Resource Planning Career Path	*	50.0	25.0	*	*	*	*
- Succession Planning	*	*	*	*	*	*	*
- Training Plan	*	*	*	*	*	*	*
- Maintain/improve recruitment, Selection, Promotion, Transfer Standards	100.0	*	100.0	*	*	*	*
- Personnel files to be current on appropriate database	80.0	*	60.0	*	*	*	*
- Health and Safety	80.0 Compliance		50.0	*	*	*	*
- Performance Incentive Scheme	50.0 Compliance		*	*	*	*	*
- Consistent Attendance	100.0	*	60.0	*	*	*	*
- Absenteeism excluding approved leave	3.0	*	*	*	*	*	*
- Ensure compliance for professional registration/re-certification	100.0	*	100.0	*	*	*	*
- Annual performance appraisal	75.0	*	*	81.5	*	*	*
<b>Industrial Relations</b>							
- Management and Supervisory personnel on point with grievance procedures and its implementation	*	100.0	100.0	*	*	*	*
- Maintain harmonious employee relations to minimise disruption of services	*	*	*	*	*	*	*
- Compensation and benefits implemented in accordance with government standards and statutory bodies	*	100.0	100.0	*	*	*	*
Fee Collection as % of Expenses	*	*	*	*	*	*	15.0
PHC Expenditure	*	*	*	*	*	*	25.0

Source: MOH, SLA Data – 2001, 2002; WRHA Reports 2005

\*DNA

**4.1A MANAGEMENT (Cont'd)**

INDICATORS	Base Year 2000	Target 2005	ACHIEVEMENTS				
			2001	2002	2003	2004	2005
<b>The Infrastructure</b>							
Maintenance - Plan	*	*	100.0	32.1	*	*	4
- All activities	*	*	2,486	2,989	2,958	3,744	4,422
PPM Programme - % Vehicles	*	*	100.0	*	*	*	*
- % Critical equipment	*	*	40.0	*	60.0	60.0	60.0
PPM Activities - Critical equipment	*	*	487	*	594	720	778
% Downtime (Annual)							
- Standby Generators	*	*	4.0	10.0	15.0	5.0	5.0
- Elevators	*	*	15.0	17.5	17.5	17.2	20.0
- Boilers	*	*	3.0	6.5	6.5	6.5	6.5
- Laboratory Equipment	*	*	8.0	7.5	6.6	6.6	6.6
- X-ray Equipment	*	*	4.0	5.0	5.0	5.0	5.0
- Anaesthetic Equipment	*	*	5.0	5.0	5.0	5.0	5.0
- Autoclave/Sterilizer	*	*	14.0	18.7	20.0	20.0	20.0
- Operating Table	*	*	9.0	6.6	6.6	6.6	8.3
- Operating Theatre Lights	*	*	9.0	8.3	8.3	10.6	11.6
- Operating Theatre Equipment	*	*	5.0	*	8.3	8.3	8.3
- Laundry Equipment	*	*	23.0	30	27.3	27.5	27.5
- Central Air Conditioning	*	*	21.0	28.3	35.0	38.0	31.2
- Incinerator	*	*	14.0	12.5	10.0	13.3	13.3
Average annual downtime – vehicles (days)	*	*	22.0	32.1	*	*	*
<b>Quality Assurance</b>							
- Clients Charter	*	*	*	*	*	*	*
- Developed	*	*	*	*	*	*	*
- Operational	*	*	*	*	*	*	*
- Development of Benchmarks	*	*	*	*	*	*	*
Average waiting time - Health Centre	*	*	*	*	*	*	*
- Hospital A&E	*	*	*	*	*	*	*
- OPD	*	*	*	*	*	*	*
- For specialist care:	*	*	*	*	*	*	*
- Consultation	*	*	*	*	*	*	*
- Surgery	*	*	*	*	*	*	*
- % satisfied patients	*	*	*	*	*	*	*
<b>Risk Management</b>							
- Total no. of complaints	*	*	98	*	66	*	88
- No. of complaints acknowledged within 7 working days	*	*	*	*	*	*	*
- No. of complaints satisfactorily resolved	*	*	75	*	56	*	56
- No. of complaints pending	*	*	23	*	*	*	*
- No. of complaints resulting in litigation	*	*	*	*	*	*	*
No. of:							
- Falls	*	*	*	*	*	*	*
- Wound Infection (Post operative)	15	*	22	17	*	33	*
- Prescription errors	*	*	*	*	*	*	*
- Dispensing errors	*	*	*	*	*	*	*
- Medication (Administration) errors	*	*	*	*	*	*	*
- Bedsores	*	*	*	*	*	*	*
- Medical record without summaries	*	*	7,341	9,199	8,267	13,578	13,060

Source: MOH, HMSR; WRHA Reports 2000-2005  
\*DNA



#### 4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2005

##### 4.1B SERVICE DELIVERY

INDICATORS	Base Year 2000	Target 2005	YEAR				
			2001	2002	2003	2004	2005
<b>Visits</b>							
- Health Centre Referrals to A&E	92	*	87.0	91.8		52.1	*
- % Self Referral to A&E	*	*	*	*	*	*	*
- Ratio of PHC to A&E	*	*	*	*	*	*	*
- Attendance for - Asthma (All) A&E	6,364	*	6,119	6,719	6,090	6,628	7,521
- Dressing (All) A&E	11,393	*	13,799	11,239	12,127	13,289	12,758
<b>% Availability Critical Drugs – PHC</b>	*	60.0	*	*	*	*	*
- IV Fluids	*	*	*	*	*	*	*
- Antibiotics	*	*	*	*	*	*	*
- % VEN List Drugs Available (PHC)	*	*	*	*	*	*	*
- Average Stock Out Rte (PHC)	*	*	*	*	*	*	*
- For Chronic Diseases	*	*	*	*	*	*	*
- Asthma/RTI	*	*	*	*	*	*	*
- Cancer	*	*	*	*	*	*	*
- Cardiovascular	*	*	*	*	*	*	*
- Diabetes	*	*	*	*	*	*	*
<b>Surgery</b>							
- Total	9,560	*	10,108	11,452	17,698	14,466	14,186
- Elective	4,633	*	4,767	4,555	4,450	4,351	5,032
- Day	2,088	> 5%	2,781	3,910	5,377	2,245	2,082
<b>- No. of eye operations</b>	*	*	514	427	546	501	236
<b>- % Abstract completed in x days</b>							
- Discharge	*	*	*	*	*	*	*
- Deaths	100.0	100.0	*	*	*	*	*

Source: MOH; MCSR; HMSR; MOH Jamaica, Annual Report 2000-2005

\*DNA

##### 4.1C DENTAL HEALTH

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003	2004	2005
DMF Index	*		*	*	*	*	*
- Restorative procedures			27,179	24,604	24,935	23,381	20,314
- Extractions			13,403	9,320	10,532	9,740	8,725

Source: MOH MCSR 2000-2005

\*DNA

#### 4.1 PERFORMANCE/ACHIEVEMENTS – WRHA 2000-2005

##### 4.1D ENVIRONMENTAL HEALTH

INDICATORS	Base Year 2000	Target 2005	ACHIEVEMENTS				
			2001	2002	2003	2004	2005
% Access to potable water	79.0	*	77.0	77.0	82.0	81.0	84.0
% Waste water plants inspected and sampled	*	*		*		100.0	100.0
% Tourist Establishments Health Certified	*	70.0	31.5	*	50.0	66.7	60.1
% Food Handling Establishments Certified	*	70.0	*	68.5	32.4	52.6	66.4
% New Applicants issued with Food Handlers Permit within 3 weeks	*	*	*	*	*	89.2	88.2
% Food Borne illnesses investigated within 2 weeks	*	*	*	*	*	100.0	100.0
% Institution Satisfactory							
- School	*	*	53.8	71.0	69.4	70.6	74.2
- Children's Home	*	*	*	75.0	*	*	*
- Places of Safety	*	*	1.0	*	*	*	*
- Lock-Ups	*	*	14.0	50.0	*	*	*
- Hospital	*	*	12.0	33.0	*	*	*
- Nursing Home	*	*	3.0		*	*	*
% Compliance with Enforcement Actions	*		50.0	68.0	*	53.2	*
Vector Indices (Barrier Zoo)	*	0	1.75	1.8	1.8	1.8	1.8

Source: WRHA Parish Reports 2001-2005

\*DNA

#### 4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2005

##### 4.1E COMMUNICABLE DISEASE CONTROL

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003	2004	2005
Acute Flaccid Paralysis	*	*	*		*	*	2
- No. of Cases investigated within 48 hours	*	100.0	*	4	*	*	*
<b>TUBERCULOSIS</b>							
- Total cases confirmed	*	*	*	40	*	29	47**
- % reported cases investigated within 6 weeks	*	*	*		*	*	*
- % confirmed cases completing DOTS treatment	*	*	*	100	*	*	*
- Tb Death Rate	*	*	*	*	*	*	*
- Number of Cases of Malaria	*	*	*	2	*	4	6
- Malaria Death Rates	*	*	*	*	*	*	*
<b>STI</b>							
- % STI Clients counselled and tested for HIV	*	*	*	*	*	*	*
- Syphilis:	*	*	*	*	*		*
- Confirmed Primary Case						*	
- Confirmed Secondary Case							
<b>HIV</b>							
- No. PLWA on ARV						*	
- % PLWA on ARV							
No. of cases of Fever & Rash investigated within 48 hrs.	*	*	*	*	*	*	*

Source: WRHA Parish Reports 2005

\*DNA

\*\* Notified

#### 4.1 PERFORMANCES/ACHIEVEMENT – WRHA 2000-2005

##### 4.1F CHRONIC NON-COMMUNICABLE DISEASES

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003	2004	2005
<b>ASTHMA</b>							
- Visits to PHC	*	*	1,543	1,289	1,282	932	1,055
- Cases seen in A&E	6,363	*	6,119	6,719	6,090	6,628	7,521
<b>CANCER</b>							
No. of Population							
- Receiving pap Smears	*	*	4,653	5,188	5,104	5,438	5,752
- With Invasive Ca Cervix	*	*	*	14	60	33	28
- Receiving Prostate examination	*	*	185	166	100	105	106
- Breast Examination	*	*	10,811	12,470	12,219	11,395	12,090
<b>CARDIOVASCULAR DISEASE</b>							
- PHC Visits for Hypertension	25,816	*	25,591	23,436	23,814	22,023	23,524
- Other Cardiovascular Diseases	2,672	*	2,770	3,006	3,189	2,868	2,801
- Chronic Rheumatic Heart Disease	1,043	*	1,100	984	814	754	733
- Cases seen in A&E	*	*	34,210	*	*	*	*
<b>DIABETES MELLITUS</b>							
- Visits to PHC	7,163	*	6,902	5,876	5,302	3,941	3,758
- No. of eye operations for cataract	*	*	*	*	*	*	*
- No. of leg ulcers	*	*	326	84	86	88	115
<b>DIABETES &amp; HYPERTENSION</b>							
- PHC Visits	11,952	*	12,607	11,977	12,396	11,548	12,174
<b>OTHER MONITORED DISEASES</b>							
- RTI (Excluding Asthma)	*	*	11,952	10,808	9,675	9,060	8,834
- Other Gastro-intestinal Disorders	*	*	3,512	2,788	2,475	2,240	2,510

Source: MOH: MCSR, HMSR, WRHA-CNCD Report 2000-2005

\*DNA

#### 4.1 PERFORMANCES/ACHIEVEMENT – WRHA 2000-2005

##### 4.1G CHILD & ADOLESCENT HEALTH

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003	2004	2005
Cases of Ophthalmia Neonatorum	*	*	*	31	*	*	31
Cases of Congenital Syphilis	*	<25.0	*	3	*	*	*
% HIV Exposed Infants	*	*	*	*	*	*	*
% HIV Exposed Infants receiving ARV	*	78.0	*	*	*	*	*
% Low Birth Weight (community + hospital) Below Normal	1,081	*	1,020	840	714	683	939
Nutritional Status 0 – 35 months (Below Normal)	68	*	39	41	27	23	37
% Exclusive Breastfeeding at:							
- 6 weeks	2,505	60.0	4,781	4,513	4,316	3,772	3,664
- 12 weeks	*	*	3,348	3,244	2,899	2,534	2,582
<b>Immunization Coverage %</b>							
- BCG	94.0	95.0	98.6	100.0	97.1	91.2	87.4
- DPT	91.1	95.0	98.1	92.0	89.7	80.5	83.2
- OPV	90.6	95.0	96.0	90.6	89.4	73.9	78.9
- MMR	86.6	95.0	85.2	91.9	83.3	91.4	81.4
- Hepatitis B	0.4	85.2	*	8.1	22.5	81.6	82.5
- Haemophiles Influenzae B	0.3	*	*	0	21.9	81.2	82.6
No. of A&E visits for Asthma in the <5 yr. old	1,554	*	1,203	1,421	1,476	1,415	*
Hospital Discharge for GE							
Still Births - Hospital	160	<10.0	144	153	119	121	144
- Community	3	*	2	2	2	1	1
Perinatal Death Rate/1,000 live births	25.8	22	27.9	25.7	22.6	23.8	27.7
Case fatality rate for GE	*	*	*	*	*	*	*
Mortality Rates - Infant Death	*	*	*	*	*	*	*
- under 5 years	*	*	*	*	*	*	*
No. of Children Orphaned by HIV/AIDS	*	*	*	*	*	*	*
No. for Secondary Coverage for Rheumatic Fever	*	*	2,513	2,290	2,328	2,201	2,296

Source: MOH MCSR: HMSR 2000-2005

\*DNA

## 4.1 PERFORMANCES/ACHIEVEMENT – WRHA 2000-2005

### 4.1H Reproductive Health

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003	2004	2005
% Anaemic pregnant women adequately treated	*	*	72.6	60.5	46.1	37.8	54.1
% Syphilis positive pregnant women adequately treated	*	*	45.9	44.4	57.9	33.9	30.8
% Antenatal women tested for HIV	*	<10.0	*	*	*	*	*
- Total	*	*	*	*	*	*	*
- %	*	*	*	*	*	*	*
- 15-25 years	*	*	*	*	*	*	*
% HIV positive pregnant women receiving ARV for pMTCT	*	78.0	*	*	*	*	*
No. of cases of Pre-Eclampsia (Hospital & PHC)	35	*	1,160	126	119	79	68
- Ante partum Haemorrhage (Hospital)	23	*	33	41	28	31	28
- Postpartum Haemorrhage (Hospital)	287	*	298	392	426	394	359
% Deliveries Attended by Trained Personnel (Hospital & PHC)	*	99.7	99.7	99.9	99.9	99.8	99.8
C-Section	986	1,072	1,161	1,072	1,161	932	1,021
No. of Postnatal Women Accepting Family Planning Method	28,136	70.0	5,499	5,065	5,151	4,885	5,177
% increase in Number of:							
- Long Term Method Users - Depo Provera Injection	*	10.0	3,132	2,923	1,904	1,874	1,944
- IUD	*	15.0	163	156	27	26	23
(Hospital) – Tubal Ligation	672	*	583	695	689	549	504
Condom Use	1,545	*	1,855	1,656	1,576	1,408	1,599
Maternal deaths investigated within x weeks	*	100.0	*	*	*	*	*
Maternal Deaths (Hospital (+ Community))	8 (+ 2)	<80.0	5 (+ 0)	8(+0)	7(+0)	4(+2)	5(+1)

Source: MOH MCSR; HMSR; 2000-2005

\*DNA

#### 4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2005

##### 4.1 I MENTAL HEALTH

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003	2004	2005
% of Schizophrenic patients receiving consistent treatment	*	75.0	73.3	84.0		78.0	81.0
Average length of stay for psychotic patients	9.5	14 days	16.7	*		35.9	*
No. of patients with chronic illness screened for depression	*	75.0	*	*		*	*
No. of patients diagnosed and treated for depression	*	*	*	*		*	112
No. of new patients treated for substance abuse	150	*	150	44		69	70

Source: MOH HMSR 2000-2004, WRHA CMH Report 2005

\*DNA

# **APPENDICES**



**TABLE A1: Utilization of Accident and Emergency (A&E) Services:  
WRHA 2000-2005**

Hospital Services Accident & Emergency	Base Year 2000	2001	2002	2003	2004	2005
Total Attendance	129,289	137,163	136,649	143,968	155,259	138,168
Total Self-Referral	118,921	124,622	125,527	132,869	144,494	128,327
Total Receiving Care	122,388	132,426	129,242	135,105	148,389	133,101
Registered & Not Seen	6,900	4,737	7,407	8,863	6,870	5,067
Total Admitted	14,213	15,805	13,948	15,048	16,153	16,304

Source: MOH: HMSR 2000-2005

**TABLE A2: Utilization of Surgical Services WRHA 2000-2005**

Surgery	Base Year 2000	2001	2002	2003	2004	2005
<b>Total</b>	9,560	10,108	11,452	17,698	14,466	14,186
<b>Type</b> - Elective	4,633	4,767	4,555	4,450	4,351	5,032
- Emergency	2,761	2,542	2,533	3,057	2,803	2,743
- Day	2,088	2,781	3,910	5,377	2,245	2,083
- Minor (Out-patient)	78	18	454	4,814	5,067	4,328

Source: MOH: HMSR 2000-2005

**TABLE A3: Utilization of Outpatient Specialist Clinics WRHA 2000-2005**

Variables	Base Year 2000	2001	2002	2003	2004	2005
<b>Number of Clinics</b>	2,076	1,968	2,428	2,715	2,805	2,968
<b>Number of Cases:</b>						
- Total	90,751	92,172	94,492	98,522	99,761	98,679
- New	12,435	14,167	15,753	17,949	16,622	16,110

Source: MOH: HMSR 2000-2005

**TABLE A4: Utilization of Radiography Services: WRHA 2000-2005**

Variables	Base Year 2000	2001	2002	2003	2004	2005
Number of Clients						
- Total	22,076	32,777	32,079	36,687	38,516	36,931
- Outpatients	19,169	28,381	27,980	32,618	24,185	31,888
- Inpatients	2,907	4,396	4,009	4,069	4,331	5,043
Number of examinations	28,837	44,021	44,619	52,008	55,778	51,714

Source: MOH: HMSR

**TABLE A5: Utilization of Pharmacy Services: WRHA 2000-2005**

VARIABLES		Base Year 2000	2001	2002	2003	2004	2005
<b>Pharmacy</b> - Total number of clients	PHC	25,036	21,603	15,287	14,480	16,793	19,220
	Hospital	48,984	103,975	104,744	106,089	121,058	143,904
- Items prescribed	PHC	75,712	61,525	43,632	42,264	51,934	66,256
	Hospital	133,061	261,834	273,347	285,783	325,465	409,110
- Items dispensed	PHC	56,130	48,231	34,510	34,132	34,278	39,174
	Hospital	112,535	215,439	221,878	229,059	237,485	321,624

Source: MOH: MCSR; HMSR 2000-2005

**TABLE B1: Inpatient Deaths in Public Hospitals by Five Leading Diagnoses: Jamaica and WRHA 2000-2005**

DIAGNOSES	Base Year 2000	2001	2002	2003	2004	2005
Total Inpatient Deaths	858	953	*	1,406	793	577
Total inpatient Deaths based on 5 Leading Causes	668	743	*	930	648	483
Diseases of the Circulatory System	278	312	257	405	308	213
Neoplasms	110	126	123	193	102	79
Infectious and Parasitic Diseases	114	146	93	116	77	54
Diseases of the Respiratory System	91	83	60	85	71	46
Perinatal Conditions	75	76	28	30	37	19
Endocrine, Nutritional and Metabolic Diseases	63	69	45	131	89	91

Source: MOH - HIS

\*DNA