

WESTERN REGIONAL HEALTH AUTHORITY

ANNUAL REPORT

2003

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A publication of the Western Regional Health Authority

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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 my privilege to submit the Annual Report for the WRHA for the year 2003. The Board continued to carry out its mandate of ensuring that the WRHA adhered to its core function. There was monitoring of performance and agreement was reached on areas of improvement.

Despite the varying challenges in the region's day to day activities, the focus remained on ensuring the provision of health care for the region's people, as well as persons visiting within the boundaries of the WRHA. Continuing efforts were made to improve operational efficiency and there was unwavering attention to the pursuit of strategies that focused on health maintenance.

The WRHA continued to appreciate the untiring efforts demonstrated by all team members who functioned in unison to maintain the region's health goals and objectives.

Intersectoral collaboration and community participation are basic tenets of health care delivery. In this regard, the WRHA continued to be grateful to the varying individuals, agencies and organizations that have been mindful of the region's operations:

- Ministry of Water and Housing
- Rural Agricultural Authority
- Cancer Society
- Diabetes Association
- Service Clubs
 - Rotary
 - Lions
 - Kiwanis

Performance

- **Internal Auditing** continued to assist the management team through the provision of information concerning the effectiveness with which operational activities were implemented and maintained. In keeping with Government of Jamaica guidelines, the focus was on policies and procedures, operational plans, budget/financing as well as the integrity of the related data. The major achievements included:
 - Completion of the Motor Vehicle Transport Allowance Audit (recoveries were in excess of J\$1,000,000.00);

- Implementation of a system to monitor and document motor vehicle travelling for officers
 - Participation in the procurement and installation of suitable safes for cash throughout the region.
-
- The largest portion of the region's **population** 38.7% lived in St. James and Westmoreland had the largest portion of 60 and over (18,124) age group.
 - The total **financial resources** of the WRHA increased by approximately J\$508,605. There was also a 16.7% increment for user fees. Expenditure was more (J\$441,787) and the end of budget year deficit J\$172,000,000. WRHA's liabilities increased by J\$118,959,114.
 - The region had 165 new employees. Training activities continued in relation to **human resources** policies and the industrial relations climate was stable.
 - **Infrastructure** – The work order system recorded 4,505 orders and 60% of all the clinical equipment was on a planned preventive maintenance programme.
 - **Home visits** continued to be an important component of the primary health care strategy. However, there was a 5% decline in the region and the parish of Hanover had the highest number of home visits.
 - Visits for **dental care** increased and also demonstrated a small increase (331) in preventive procedures.
 - Although visits to **primary health care** facilities have been declining in the region, it delivered 17.6% of all primary health care services on the island. All the variables relating to **A&E** utilization increased in 2003.
 - The region used its 592 **hospital beds** and maintained a 79.1% bed occupancy rate; Westmoreland recorded occupancy rates (86.2) above national and regional levels.

- Based on the 2003 data all **services** demonstrated increases in utilization. Surgical services increased by 6,246 cases generally but especially Day Surgery with 1,461 cases. Outpatient clinic services (4,030 cases); Laboratory services (11,068 clients); Radiography (4,608 clients); Pharmacy (538 clients); Physiotherapy (15 clients) and 9,507 treatments for Radiation/Oncology all had increased clientele.
- In terms of **morbidity**, Hypertension (23,814) continued to be the major cause of **primary health** care visit. Diseases of the Skin (14,717); the co-pathology of Diabetes and Hypertension (12,396); Diseases of the Respiratory System (10,957) and STI except, PID (10,526) complete the five major causes of visits. At the **hospital level** the main causes of discharge included Accident and Injuries (2,862), Diseases of the Circulatory System (2,171); Diseases of the Digestive System 1,607; Diseases of the Respiratory System (1,546) and Metabolic, Nutritional and Endocrine Diseases (1,473).
- Data obtained through the monitoring of the **Chronic Non-Communicable Diseases** revealed declines in Primary health care visits and A&E cases for Asthma; decrease in cancer screening (breast, cervix and prostate) and an increase in radiation/ oncology treatments. The major cases of cancer in the region included Breast (90), Cervix (60) and Prostate (52). There was an increase in visits for Other Cardiovascular Disease; Diabetes, and Diseases of the Skin.
- The focus on **Child and Adolescent Health** revealed that the number of hospital births declined by 136. Immunization coverage for the vaccine-preventable diseases except Hib and Hepatitis B were above 80% among the under one year old. There were 498 less children who were in the above normal nutrition status group. The region maintained a 61.9% bed occupancy level with the 102 paediatric beds and the major causes of discharge ranged from Perinatal Conditions, Diseases of the Respiratory System, Infectious and Parasitic Diseases, to Accidents and Injuries.

Adolescent reproductive health data revealed that the largest number of antenatal visits continued to be made between 16 and 28 weeks and that group preferred the Pill and Dual Method as contraceptives. Obstetric conditions and

Accidents and Injuries were the major causes of hospital discharge for this group.

- **Reproductive health** data showed that total antenatal visits continued to decline in 2003 (1,852) and the data demonstrated a steady increase in postpartum haemorrhage. Obstetric conditions continued to be the major cause of hospital discharge as well as outpatient clinic cases for reproductive health.
- **Mental health** data points to increasing visits to PHC as well as the total and new outpatient clinic cases.
- The WRHA managed 93.8% of all persons attending the region's **A&E** departments and delivered 256,271 treatments including sutures, dressing, injections and nebulization.

Medical, Paediatric and Surgical Conditions were the major cases seen in A&E. While the major intentional injury treated was due to blunt injury (3,300), that for unintentional injury was caused by falls (4,067)

- Of the 1,406 **deaths** in the region the major causes included Diseases of the Circulatory System (405); Neoplasms (193); Endocrine, Nutritional; and Metabolic Diseases (131); Infectious and Parasitic Diseases (116).

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 2000-2003

Year	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
2000 (Base Year)	2,597,080	452,739	73,075	174,043	67,128	138,493
2001	2,612,396	455,199	73,084	175,729	67,018	139,305
2002	2,624,696	457,466	73,346	176,976	67,326	139,956
2003	2,635,673	461,935	73,972	178,844	67,994	141,126

Source: Demographic Statistics 2003

The estimated 2003 end of year population for Jamaica and the WRHA were 2,635,673 and 461,935 respectively. Thus, the WRHA's population represented 17.5% of the island's total population (Table 1.1).

Table 1.2 End of Year Population by Age Groups – Jamaica, WRHA and Parishes 2003

AGE GROUP (IN Years)	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
0-4 years	248,422	45,956	7,812	17,034	7,105	14,005
5-9 years	287,461	51,847	8,486	20,039	7,349	15,973
10-19 years	531,521	89,004	14,928	34,940	13,238	25,898
20-49 years	1,113,348	189,384	27,761	79,053	26,488	56,082
50-59 years	183,908	34,174	5,716	12,259	5,156	11,044
60-64 years	67,950	23,961	4,172	7,647	3,734	8,408
65 and Over	203,066	27,609	5,097	7,872	4,924	9,716
Total Population	2,635,673	461,935	73,972	178,844	67,994	141,126

Source: Demographic Statistics 2003

The parish of St. James with its tourism focus had the largest portion (38.7%)(178,844) of the region's population. The largest number of the ageing population (60 and over) resided in Westmoreland (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

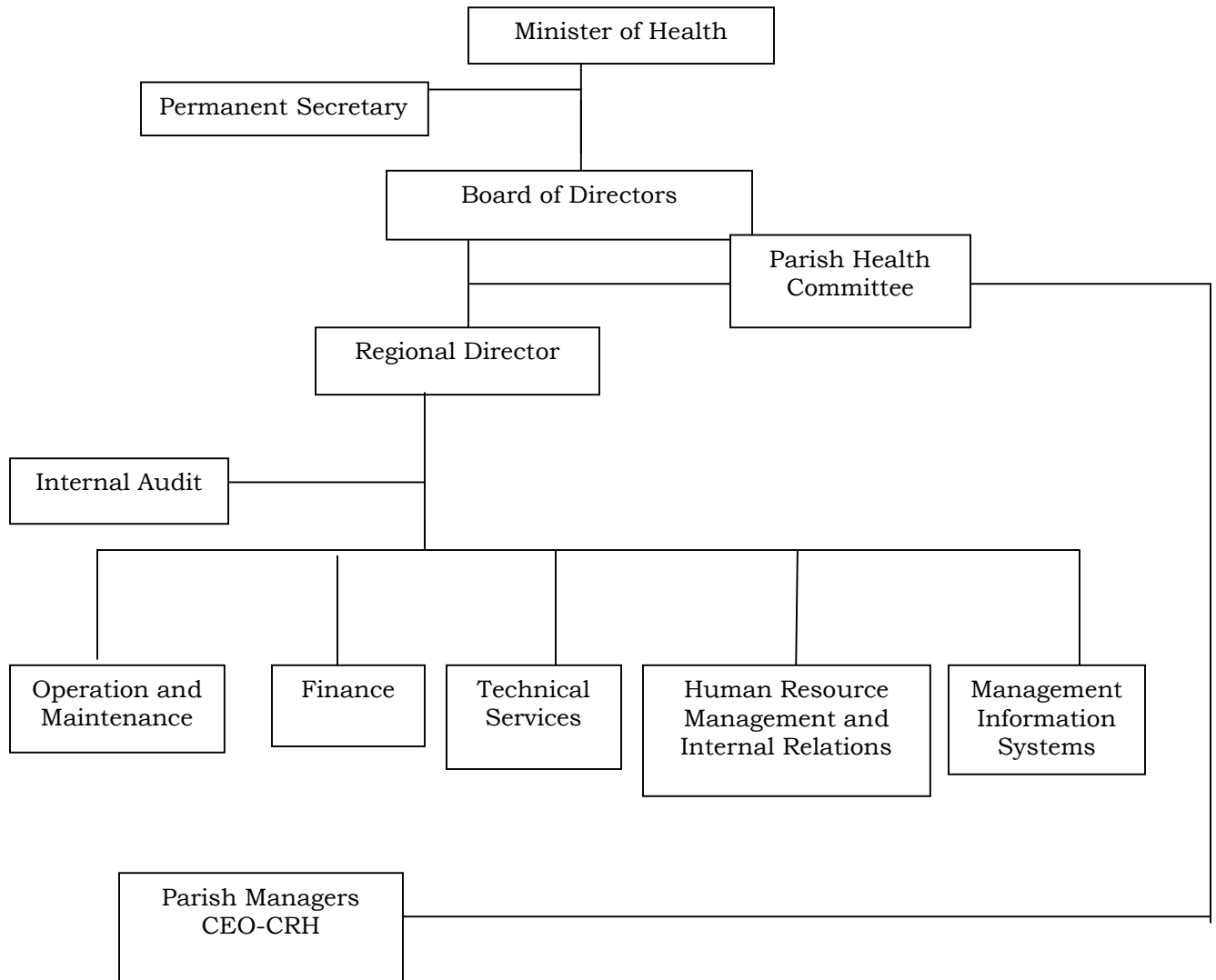


Figure 1.1 Organizational Chart – WRHA

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
Mrs. Anatol Clark Allwood	-	Director of Budget, MOH
Miss Toycia Collins	-	
Mr. Winston Comrie	-	Councillor, Westmoreland Parish Council
Dr. Barrington Dixon	-	Senior Medical Officer, CRH
Mrs. Hyacinth Forde	-	Co-ordinator For Meet the People Programme, Jamaica Tourist Board
Dr. Alexander Konstantinov	-	Regional Technical Director, WRHA
Mrs. Horence 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
Mrs. Mavis Whitter-King	-	Epidemiology Researcher, WRHA

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. N. Thomas	Director, Operations and Maintenance
Mr. A. Brown	Director, Management Information System

The Senior Members of the Parish Team

Mrs. T. Fider	Parish Manager, Trelawny
Dr. Maung Aung	Medical Officer (Health), Trelawny
Mrs. Doreen Bernard	Parish Manager, St. James
Dr. Rae Ponnado	Medical Officer (Health) St. James
Dr. O. Olufemi/Mrs. Whinstanley	Parish Manager/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 governs the accounting policies of the Region.

2.3.3.1. Finance

Table 2.1 Health Service Financing \$'000: WRHA 2000-2003

SOIURCES	Base Year 2000	2001	2002	2003
Budgets, Grants	948.4*	1,072,745	1,047,153	1,614,965
Actual Fees Collected	156.2*	156,190	196,711	236,167
Other income	DNA	10,678	5,434	8,278
TOTAL		1,623,062	1,350,805	1,859,410

Source: WRHA Finance & Accounts Department 2000-2003

*MOH Jamaica Annual Report 2003

DNA = Data not available

In 2003, WRHA's total income increased by approximately J\$508,605. User fees also showed an increase of 16.7% when compared to 2002 (Table 2.1).

Table 2.2 Health Service Delivery Expenditure \$'000: WRHA 2001-2003

Objects of Expenditure	2001	2002	2003
Staff Cost	1,366,924	1,302,176	1,683,321
Rental	1,683	2,247	3,457
Public Utilities	46,155	65,415	71,646
Other Operating Expenditure	206,427	215,515	268,321
Capital Items	2,165	4,569	4,954
TOTAL	1,623,354	1,589,922	2,031,709

Source: WRHA – Finance and Accounts Department Report 2001-2003

The expenditure was J\$2,031,709 in 2003, J\$441,787,000 more than in 2002 and reflecting a deficit of approximately J\$172 million when examined against income. While staff cost continued to use the largest amount, other operating expenditure increased by approximately J\$52,806 in 2003 (Table 2.2).

Table 2.3 Outstanding Liabilities \$'000: WRHA 2000-2003

Liabilities	2000	2001	2002	2003
Drugs & Medical Supplies	73,951,541	83,221,087	52,319,259	37,595,506
Statutory Deductions	45,826,362	21,307,532	215,881,533	249,238,000
Utilities	19,346,397	21,584,028	19,517,345	19,281,000
Other	20,648,137	8,241,093	3,839,749	4,402,000
TOTAL	159,772,437	134,353,740	291,557,886	410,517,000

Source: WRHA – Finance and Accounts Department Report 2000-2003

The WRHA's liabilities were J\$410,517,000 demonstrating an increase of J\$118,959,114 above year 2002. Unpaid statutory deductions (J\$249,238,000) and Drugs and Medical Supplies (J\$37,596,501) represented the highest sums (Table 2.3).

Table 2.4 Emoluments (J\$) for Senior Managers: WRHA 2003

Position	EMOLUMENTS				
	Salary	Motor Vehicle/ Upkeep/ Travelling	Uniform/ Clothing	Other	Vacation
Regional Board Member	AS STIPULATED BY GOVERNMENT SCHEME				
Regional Director	4,205,702	170,610	R O L L E D I N T O S A L A R Y	173,046.73	35 DAYS
Regional Technical Director	5,140,519.74	180,000		10,503	35 DAYS
Director of Finance	1,996,992	341,220		-	35 DAYS
Director of Human Resource and Industrial Relations	1,996,992	341,220		15,010	35 DAYS
Director of Operations and Maintenance	1,568,912.56	-		-	35 DAYS
Director of MIS	1,138,800	221,091		-	35 DAYS
Parish Manager					
Medical Officer (Health)					

Source: WRHA - Finance and Accounts Department Report, 2003

2.3.3.2 Human Resource

Human Resource for Health continued to be the “engine” that propels the health sector. The region welcomed 168 new employees including managerial and technical persons. However, 24 persons retired and there were 26 intra-region transfers.

During the year under review, several training activities were sponsored/undertaken by the region.

Although there were no “lost days” due to industrial dispute, there were intense activities related to issues of inter-union rivalry, discipline and performance appraisal.

2.3.3.3 The Infrastructure

The WRHA's maintenance team continued to execute programmes to maintain the buildings, medical equipment and vehicles owned and operated by the region.

Table 2.5 Infrastructure, Operations and Maintenance: WRHA and Parishes 2003

VARIABLES	WRHA		Trelawny		St. James		Hanover		Westmoreland		
	Hospital	PHC	Hospital Fal.	PHC	Hospital CRH	PHC	Hospital Noel H.	PHC	Hospital Sav.	PHC	
Buildings											
- Maintenance Plan	4	-	1	-	1	-	1	-	1	-	
- No. of maintenance activities	2,958	295	323	48	1,932	144	150	54	553	49	
- Total Work Order Recorded					4,505 for the Region						
Equipment											
- % on PPM Programme	60%	-	70%	-	50%	-	60%	-	60%	-	
- No. of PPM activities	588	6	60	-	349	6	8	-	171	-	
- % Downtime on											
- Standby Generator	15	5	-	-	0	5	5	-	25	-	
- Elevators	17.5	-	-	-	5	-	-	-	30	-	
- Boilers	6.5	-	3	-	10	-	3	-	10	-	
- Laboratory	6.6	10	5	-	10	-	-	10	5	-	
- X-Ray	5	-	-	-	5	-	-	-	5	-	
- Anaesthetic	5	-	5	-	5	-	-	-	5	-	
- Autoclave/Sterilizer	20	-	20	-	30	-	10	-	20	-	
- Operating Table	6.6	-	5	-	5	-	-	-	10	-	
- Operating Theatre:											
- light	8.3	-	10	-	5	-	-	-	10	-	
- Equipment	8.3	-	10	-	5	-	-	-	10	-	
- Laundry Equipment	27.3	-	30	-	20	-	30	-	30	-	
- Central A C	35	-	15	-	50	-	-	-	40	-	
- Incinerators	10	10	-	-	10	10	15	-	15	-	
Motor Vehicle											
- No. of Vehicles - Ambulances	*	*	*	*	*	*	*	*	*	*	
- Other	*	*	*	*	*	*	*	*	*	*	
- % on PPM Programme	*	*	*	*	*	*	*	*	*	*	
- Average Annual Downtime:											
- Ambulances (Days)	*	*	*	*	*	*	*	*	*	*	
- Other	*	*	*	*	*	*	*	*	*	*	
Assets Management											
- % Inventorized	*	*	*	*	*	*	*	*	*	*	
- % replaced	*	*	*	*	*	*	*	*	*	*	
- % on Replacement Plan	*	*	*	*	*	*	*	*	*	*	

Source: WRHA Operations and Maintenance
*DNA

Year 2003 recorded 4,505 work orders for the region and an average of 60% of clinical equipment on the Planned Preventive Maintenance programme. Of the 594 Planned Preventive Maintenance activities, approximately 58.7% was at Cornwall Regional Hospital (Table 2.5).

2.3.3.4 Management Information

Several ongoing projects directed at the development of a Wide Area Network for the region ensued. Additionally, departments implemented systems to improve the level of efficiency:-

- Installation of Pharmacy Software at the Regional Pharmacy;
- Implementation of Accu PAYE Cash Management System (BNS) for the Finance and Accounts Department;

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.

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.

2.4.1.1.3 Home Visits

Table 2.6 Home Visits: WRHA 2000-2003

HOME VISITS	WRHA			
	2000	2001	2002	2003
Total	50,547	49,387	46,262	44,189
Maternal	11.6	11.4	10.7	11.7
Child	41.4	44.0	42.1	40.6
Other	47.0	44.6	47.3	47.6

Source: MOH: MCSR; 2003

While total home visits in the WRHA declined by 5% in 2003, 47.6% of all home visits were made for other purposes. Eleven percent (11.0%) were for maternal health and 40.6% for child health, a small slippage when compared to year 2002 (Table 2.6).

Table 2.7 Home Visits: Jamaica, WRHA and Parishes 2003

Home Visits	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total	359,461	44,189	11,140	11,219	13,158	8,672
Maternal (%)	8.5	11.7	11.2	6.4	8.0	21.4
Child (%)	48.5	40.6	48.0	30.9	46.8	36.9
Other (%)	43.0	47.6	40.8	62.7	45.2	41.7

Source: MOH MCSR, 2003

In 2003, the data revealed that total home visits were highest in Hanover (13,158). In the parish of Westmoreland, home visits for maternal health surpassed those of national and regional levels as well as other parishes. WRHA and its parishes registered home visits for child health that were below national levels (Table 2.7).

2.4.1.2 Services/Facilities

Table 2.8 Provisions/Availability of Public Health Services: Jamaica, WRHA and Parishes 2003

Health Facilities	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Health Centres:						
- 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
Dental Clinic	8	4	1	1	1	1
Family Planning Clinic	3					
Rural Maternity Centres						
Hospitals:						
- 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
Laboratory Services	13	2	1	1	0	1
Radiography Services	16	2	1	1	0	1
Pharmacy: Hospital	20	4	1	1	1	1
Physiotherapy	9	2	0	1	0	1
Blood Banking	11	2	0	1	0	1
Radiation/Oncology	2	1	0	1	0	0

Source: MOH: HMSR, MCSR 2003

In 2003, there were approximately thirty five (35) hospitals on the island – twenty three (23) public, one (1) quasi-public and eleven (11) private.

The WRHA boasts 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).

In year 2003, there were (88) primary health care facilities that met the basic health care needs of the region's population. Diagnostic services were offered through two (2) laboratories and two (2) radiographic units; while pharmaceuticals were dispensed from four (4) hospitals and several primary health care facilities (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 2001-2003

DENTAL HEALTH ACTIVITIES	2001	2002	2003
Primary Care – Visits (Total)	28,105	22,425	25,349
▪ Preventive Procedures (Total)	27,179	24,604	24,935
Restoration			
(i) Posterior Filling	9,339	8,268	1,512
(ii) Anterior Filling	1,516	1,080	7,142
Cleaning	13,551	11,444	11,337
Orthodontic	5	219	150
Other			
- Clinic	2,037	2,412	4,134
- School	731	1,181	660
▪ Extractions	13,403	9,320	10,532
▪ Dentures	15	3	74
▪ Other Procedures	17,936	17,706	16,353
Hospital Care – Faciomaxillary Surgery (Total)	171	28	33
- Emergency	33	3	5
- Elective	118	11	17
- Day	20	14	11
Outpatient Clinic			
- Total Cases	2,809	2,516	2,732
- New Cases	0	0	-

Source: MOH; MCSR; HMSR 2003

In the WRHA, year 2003 data demonstrated an increase of 2,924 visits for dental care. Cleaning, a dental health promotion strategy declined slightly (107) while extractions increased by 1,212 and 74 dentures were supplied (Table 2.9).

Dental cases attending outpatient clinic increased by 7.9% (216) in 2003 (Table 2.9)

Table 2.10 Utilization of Dental/Oral Health Services: Jamaica, WRHA and Parishes 2003

VARIABLES	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total PHC Visits	194,882	24,349	5,085	7,370	5,598	6,296
Preventive Procedures (Total)	123,593	24,935	5,363	7,944	6,354	5,274
Restoration						
- (Anterior Filling)	7,394	1,512	221	530	587	174
- Posterior Filling	3,834	7,142	1,210	3,282	1,690	960
Cleaning	80,952	11,337	2,499	3,457	2,440	2,941
Orthodontic	2,775	150	-	14	136	-
Other Preventive						
- Clinic	23,981	4,134	883	635	1,471	1,145
- School	4,657	660	550	26	30	54
Extraction	80,892	10,532	1,926	2,944	3,046	2,616
Dentures	479	74	8	8	58	-
Other Procedures	159,592	16,353	3,436	2,168	2,602	8,147
Hospital Care - Dental/Facio maxillary Surgery (Total) -	286	33	-	33	-	-
- Emergency	20	5	-	5	-	-
- Elective	137	17	-	17	-	-
- Day	129	11	-	11	-	-
Outpatient Clinic						
- Total Cases	5,957	2,732	-	2,732	-	-
- New Cases	753	-	-	-	-	-

Source: MOH MCSR; HMSR 2003

The 2003 data revealed that at the national level, for every 1.5 preventive procedures undertaken, there was one (1) extraction, while at the regional level for every 2.3 preventive procedure there was (1) extraction. The parish of Hanover registered 3,046 extractions, the highest in the WRHA (Table 2.10)

2.4.2.2. Primary Health Care (PHC) Services

Table 2.11 Primary Health Care Visits by Year: Jamaica, WRHA and Parishes 2000-2003

YEAR	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Base Year 2000	1,684,222	337,446	*	*	*	*
2001	1,610,959	309,753	63,567	112,786	62,559	70,841
2002	1,543,905	289,655	60,795	103,724	54,399	70,735
2003	1,586,630	279,896	56,196	99,984	50,490	73,226

Source: MOH: MCSR 2000-2003, MOH – Jamaica Annual Report 2001-2003

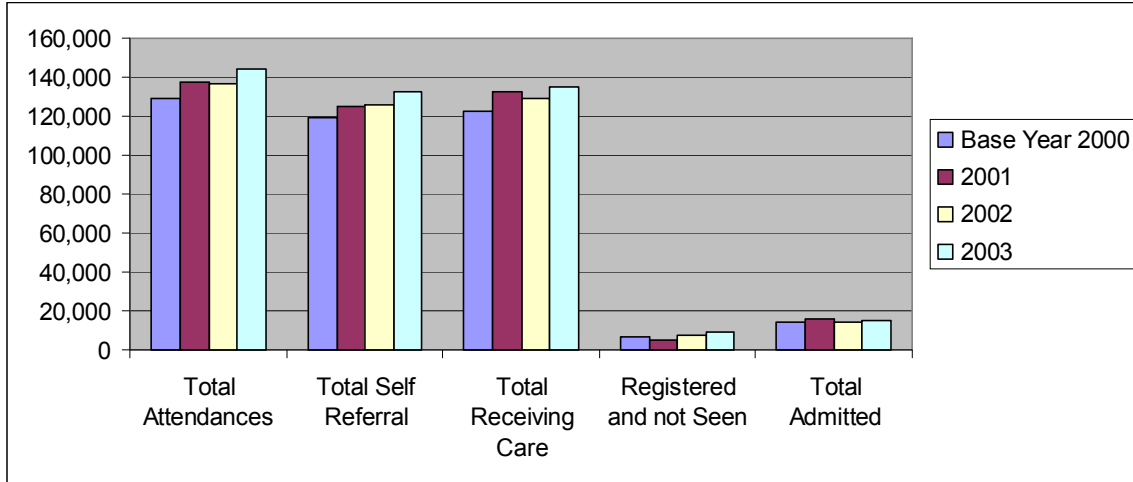
*DNA

The WRHA delivered public primary health care services through the 279,896 visits to its facilities in year 2003. While delivering 17.6% of all primary health care services (based on visits) on the island, the region has demonstrated a 3.4% decline in the previous year's (2002) visits (Table 2.11).

Simultaneously, three parishes in the region demonstrated decline in visits (Trelawny 7.5%, St. James 3.6%, Hanover 7.1%). Westmoreland experienced an increase in visit 2,491 (3.4%) (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 2000-2003



Source: MOH HMSR 2000-2003

For year 2003, the data suggest that total attendance for A&E Services in WRHA increased by 7,319 and the number receiving care by 5,863 (Figure 2.1) (TABLE A1).

Of the total attendance, approximately 15,045 persons were admitted to hospital (Figure 2.1) (TABLE A1).

Total self-referrals continued to be very high – 92.3% (132,869) of total attendance and just about 6.2% of those who were registered were not seen (TABLE A1).

Table 2.12 Utilization of Accident and Emergency (A&E) Services: Jamaica, WRHA and Parishes 2003

Accident & Emergency	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Attendance	746,844	143,968	17,435	69,774	17,056	39,703
Total Self-Referral	611,667	132,869	15,690	64,223	16,086	36,870
Total Receiving Care	727,977	135,105	16,608	67,147	16,515	34,845
Registered & Not Seen	18,868	8,863	827	2,627	541	4,868
Total Admitted	99,068	15,048	2,196	8,094	472	4,286

Source: MOH: HMSR 2003

Year 2003 data demonstrated that consistent with its urban status, St. James had the highest utilization in all the service variables except registered and not seen. For this, Westmoreland recorded 54.9% (4,865) of the WRHA's figure (Table 2.12).

2.4.2.3 Hospital Services – Inpatient

Table 2.13 Provision and Utilization of Inpatient Services: WRHA 2000-2003

VARIABLES	Base Year 2000	2001	2002	2003
Bed Complement	596	553	595	592
Bed Occupancy Rate	78.0	86.1	73.4	79.1
Discharges Including Deaths	29,775	31,395	29,952	30,776
Average Length of Stay	5 days	5.5 days	5.5 days	5.8 days
Turnover Rate	48.7	56.0	49.8	51.2

Source: MOH: HMSR 2000-2003

In year 2003, there were 592 beds in WRHA, three (3) less than in the previous year. Discharges increased (by 824) as did the average length of stay (0.3 days) (Table 2.13).

Table 2.14 Provision and Utilization of Inpatient Services: Jamaica, WRHA and Parishes 2003

Inpatient Services	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Bed Complement	4,602	592	62	355	38	137
Bed Occupancy Rate	65.9	79.1	109.7	73.0	61.2	86.2
Discharges Including Deaths	179,322	30,776	4,356	16,876	1,288	8,256
Average Length of Stay	6.4	5.8	5.9	5.9	7.7	5.1
Turnover Rate	38.7	51.2	69.8	46.7	33.6	59.5

Source: MOH: HMSR 2003

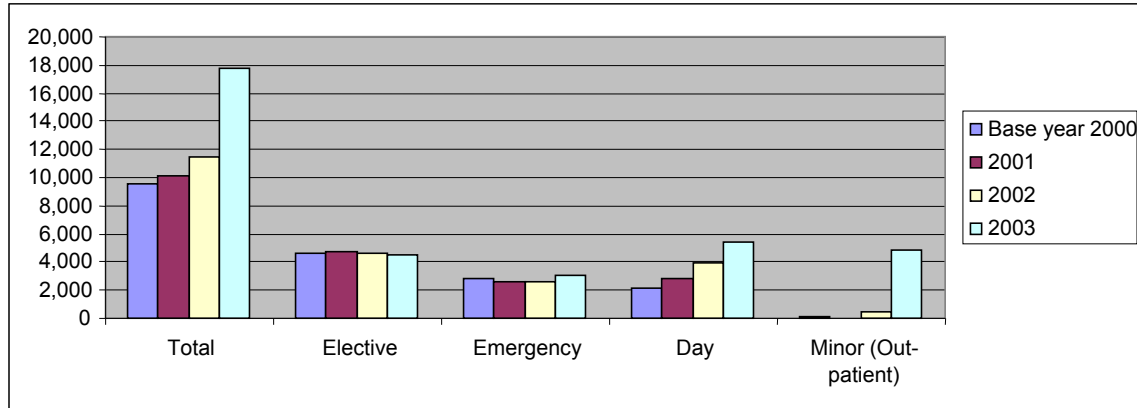
In year 2003, the WRHA's bed occupancy rate was 79.1, surpassing the national rate by 13.2% (Table 2.14).

While each bed was used 38.7 times (turnover rate) at the national level, it was 51.2 at the WRHA.

Hanover recorded the lowest turnover rate (33.6). The parish also had the longest average length of stay (7.7 days), 1.3 days higher than the national level and 1.9 above than the region (Table 2.14).

2.4.2.3 Hospital Services – Surgery

Figure 2.2 Utilization of Surgical Services: WRHA 2000-2003



Source: MOH HMSR 2000-2003

Surgical services increased by 6,246 cases in the year 2003 based on that year's data. While 105 less elective surgeries were done, 524 additional emergency cases were done and 1,467 more Day Surgeries Minor Surgeries increased by 4,360 (Figure 2.2) (TABLE A2).

Table 2.15 Utilization of Surgical Services: Jamaica, WRHA and Parishes 2003

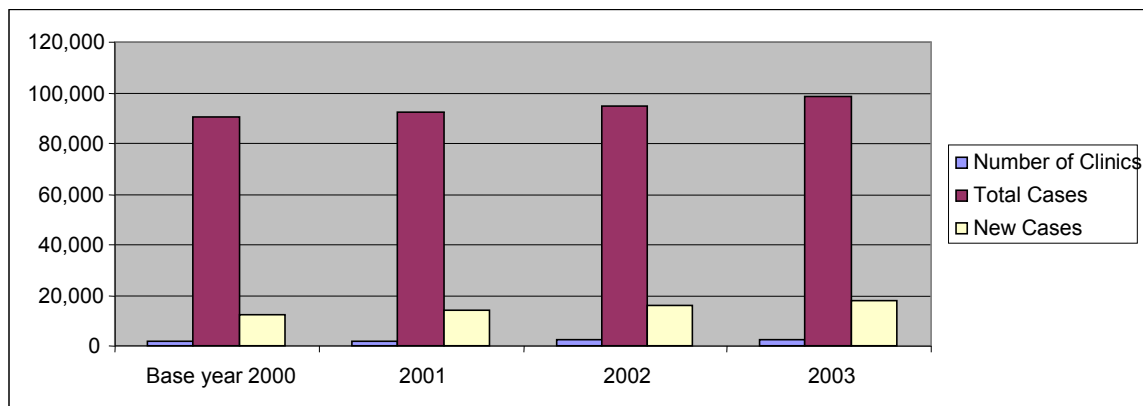
Surgery	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total	64,933	17,698	1,249	13,694	83	2,672
Type - Elective	21,975	4,450	598	2,569	82	1,201
- Emergency	16,555	3,057	266	2,209	-	582
- Day	14,330	5,377	385	4,102	1	889
- Minor (Out-patient)	12,073	4,814	-	4,814	-	-

Source: MOH: HMSR 2003

The 2003 data revealed that just about 37.5% (5,377) of all Day Surgery done in public facilities were done in WRHA, mainly in the parish of ST. James (4,102) (Table 2.15).

2.4.2.3 Hospital Services – Outpatient Specialist Clinics

Figure 2.3 Utilization of Outpatient Specialist Clinics: WRHA 2000-2003



Source MOH HMSR 2000-2003

The 2003 data reflected a continuing increase in utilization of outpatient specialist clinics when compared to the base year (2000) (Figure 2.3) (TABLE A3).

Table 2.16 Utilization of Outpatient Specialist Clinics: Jamaica, WRHA and Parishes 2003

Variables	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Number of Clinics	15,637	2,715	120	1,983	46	566
Number of Cases						
- Total	500,628	98,522	2,744	78,923	468	16,387
- New	91,083	17,949	678	15,429	182	1,660

Source: MOH HMSR 2003

The WRHA held 2,715 outpatient specialist clinics in 2003, just about 17.3% of all publicly held clinics nationally (Table 2.16).

2.4.2.4 Diagnostic Services – Laboratory

Table 2.17 Utilization of Laboratory Services: WRHA 2000-2003

Variables	Base Year 2000	2001	2002	2003
Total No. of Clients	106,521	515,460	545,414	556,482
Examination/Test Total	386,753	515,354	550,866	576,482
- Cytology	2,899	229	333	401
- Haematology	140,710	162,579	192,505	186,673
- Chemistry	202,075	301,151	307,795	334,504
- Urinalysis	2,621	3,596	4,286	4,897
- Histology	2,269	1,989	1,913	2,792
Microbiology				
- Serology	7,095	7,241	4,883	4,427
- Tuberculosis (TB)	-	752	943	1,061
- Others	418	11,223	12,129	16,082
Immunology	11,357	4,787	4,236	6,200
Blood Bank	15,578	20,852	21,798	19,290
Others	1,731	1,011	46	154

Source: MOH, HMSR 2000-2003

The public laboratory services offered by WRHA in 2003, were used by 556,482 clients and 576,482 tests were done (Table 2.17).

Blood Chemistry continued to be the most ordered test – 58% (334,504), followed by haematology (32.4%) (186,673) (Table 2.17).

**Table 2.18 Utilization of Laboratory Services: Jamaica, WRHA
and Parishes 2003**

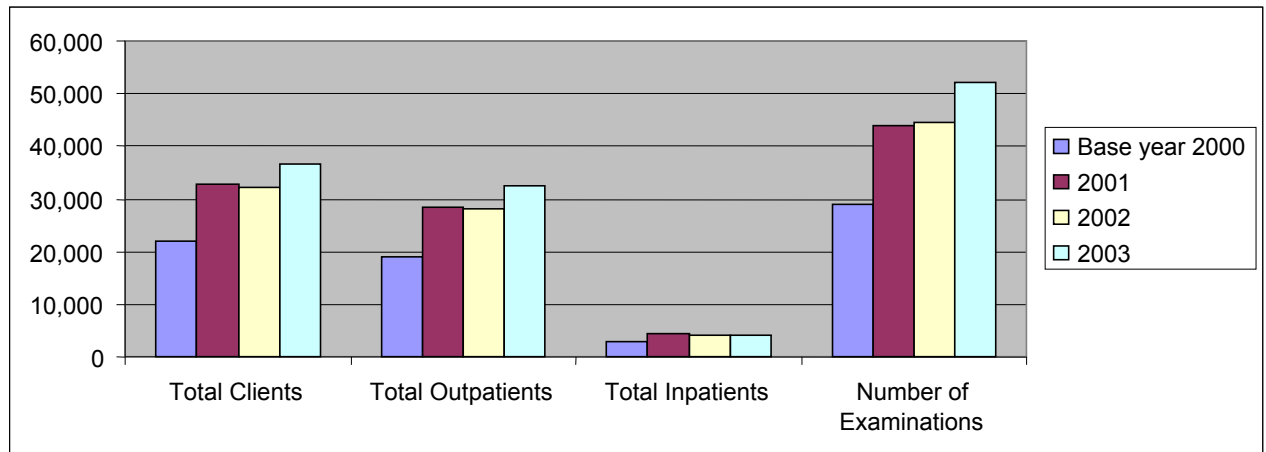
VARIABLES	Jamaica	WRHA	Parishes			
			Trelawny	St. James	Hanover	Westmoreland
Total No. of Clients	1,764,590	556,482	19,863	493,099	-	43,520
Examination/Test Total	1,793,964	576,482	19,863	513,099		43,520
- Cytology	10,741	401	-	401	N	-
- Haematology	854,093	186,673	11,849	148,726	O	26,098
- Chemistry	815,762	334,505	6,154	312,927		15,424
- Urinalysis	17,377	4,897	128	4,310		459
- Histology	5,623	2,792	-	2,792		-
Microbiology					S	
- Serology	11,716	4,427	1,319	3,108	E	-
- Tuberculosis (TB)	1,232	1,016	-	1,016	R	-
- Others	19,898	16,082	-	16,018	V	64
					I	
Immunology	16,876	6,200	7	6,193	C	-
Blood Bank	37,897	19,290	252	17,563		-
Others	2,525	154	154	-	E	-

Source: MOH: HMSR 2003

The data revealed that there were differences in the most ordered tests at the parish level. While being dependent on the clients' needs, blood chemistry (312,927) was the number one (1) for the parish of St. James, Haematology was number one (1) for Westmoreland (26,098) and Trelawny (11,849) (Table 2.18).

2.4.2.4 Diagnostic Services – Radiography

Figure 2.4 Utilization of Radiography Services: WRHA 2000-2003



Source: MOH HMSR 2000-2002

The 2003 data suggests that the total number of clients as well as those using the service as outpatients increased by 14.3% (4,068) and 16.5% (4,638) respectively (Figure 2.4)(TABLE A4).

2.19 Utilization of Radiography Services: Jamaica, WRHA and Parishes 2003

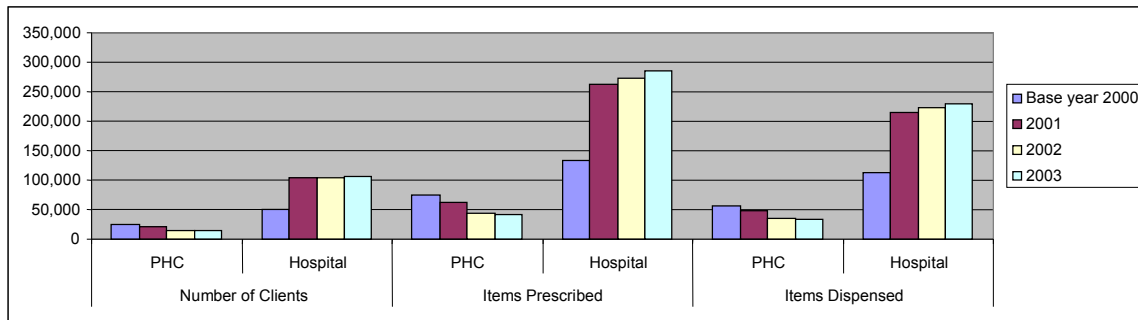
VARIABLES	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
No. of Clients						
- Total	223,898	36,687	NO SERVICE	35,303	NO SERVICE	9,737
- Outpatients	174,700	32,618		32,618		-
- Inpatients	49,198	4,069		2,685		1,384
No. of examinations	245,936	52,008		38,561		13,447

Source: MOH: HMSR 2003

Approximately 21% of all public radiography services were offered in WRHA in 2003. Outpatients' utilization registered 88.9% (32,618) of the region's total service in the parish of St. James (Table 2.19).

2.4.2.5 Therapeutic Services – Pharmaceutical

Figure 2.5 Utilization of Pharmacy Services: WRHA 2000-2003



Source: MOH, MCSR & HMSR 2000-2003

One hundred and twenty thousand, five hundred and sixty nine (120,569) clients utilized the region’s public pharmaceutical services in 2003. For every 1.2 items that was prescribed, 1.0 of those items was dispensed (Figure 2.5) (TABLE A5).

Table 2.20 Utilization of Pharmacy Services: Jamaica, WRHA and Parishes 2003

VARIABLES (Pharmacy)	LOCATION	JAMAICA	WRHA	PARISHES			
				Trelawny	St. James	Hanover	Westmoreland
Total No. of clients	PHC	159,292	14,480	7,755	6,725	-	-
	Hospital	576,700	106,089	8,095	60,709	4,416	32,869
Items prescribed	PHC	459,356	42,264	24,340	17,924	-	-
	Hospital	1,535,998	285,783	18,052	154,630	13,253	99,848
Items dispensed	PHC	366,744	34,132	21,451	12,681	-	-
	Hospital	1,319,245	229,059	14,202	122,083	9,818	82,956

Source: MOH, MCSR & HMSR 2003

- No. data received

The ratio of primary health care clients to hospital clients was 1:7.3 at WRHA in 2003 and 80% of all pharmaceuticals prescribed were dispensed (Table 2.20).

2.4.2.5 Therapeutic Services – Physiotherapy

Table 2.21 Utilization of Physiotherapy Services: WRHA 2000-2003

Physiotherapy	Base Year 2000	2001	2002	2003
Total Patients	4,047	4,601	4,759	4,774
- Inpatients	1,390	1,614	1,612	1,387
- Outpatients	2,657	2,987	3,147	3,387
No. of Treatments				
- Cardio-thoracic	250	20	19	2
- Orthopaedic	27,199	27,961	31,772	31,171
- Neurology	13,465	12,026	10,941	11,766
- Neurosurgery	189	266	89	157
- Medicine	5,912	7,247	4,954	6,103
- General Surgery	3,876	4,903	4,561	3,824
- Other	3,281	4,354	4,122	2,571

Source: MOH: HMSR 2000-2003

In 2003, while the total numbers of patients increased by just 15, treatments in some specialities increased – Neurology (835); Neurosurgery (68) and Medicine (1,149) (Table 2.21).

**Table 2.22 Utilization of Physiotherapy Services: Jamaica, WRHA
and Parishes 2003**

Physiotherapy	JAMAICA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Patients	29,573	4,774	N	3,908	N	866
- Inpatients	11,223	1,387	O	1,249	O	138
- Outpatients	18,350	3,387		2,659		728
No. of Treatments						
- Cardio-thoracic	2,547	2	S	*	S	
- Orthopaedic	*	31,171	E	25,326	E	5,845
- Neurology	40,974	11,766	R	8,738	R	3,026
- Neurosurgery	5,867	157	V	157	V	-
- Medicine	22,471	6,103	I	5,791	I	312
- General Surgery	16,213	3,824	C	3,382	C	442
- Other	19,886	2,571	E	2,240	E	33

Source: MOH: HMSR 2003

A total of 4,774 patients were managed in the WRHA and the largest number of treatments were in the specializations of orthopaedics (31,171) and neurology (11,766) respectively (Table 2.22).

2.4.2.5 Therapeutic Services – Radiation/Oncology

**Table 2.23 Utilization of Radiation/Oncology Services: Jamaica and WRHA
2000-2003**

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	-

Source: MOH: HMSR 2000

There are two public oncology centres on the island. Year 2003 data reflected an increase of 8,766 additional treatments above 2002 in the WRHA, while it was an additional 9,507 at the national level (Table 2.23).

There was an increase in all treatments delivered (except radium/caesium) in the WRHA which delivered 38.5% (17,794) of all the cobalt treatment (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 2000-2003

INDICATORS	2000	2001	2002	2003
Life Expectancy	72	74	73	73
Contraceptive Prevalence	*	66	66	68.8
Total Fertility Rate (per 1,000 women 15-49)	*	2.8	2.8	*
Crude Birth Rate (per 1,000 mean population)	20.0	21.2	19.9	19.3
Crude Death Rate (per 1,000 mean population)	5.1	6.6	6.4	6.0
Infant Mortality Rate (per 1,000 live births)	24.5	24.5	19.9	19.9
Maternal Mortality Rate (per 100,000 live births)	111.0	106.2	106.2	106.2

Source MOH Annual Reports 2000-2003

In year 2003 there were positive changes in the contraceptive prevalence rate (68.8); crude birth rate (19.3) and crude death rate (6.0) when compared to year 2000 (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 2001-2003

DIAGNOSES	2001	2002	2003
Diseases of the Circulatory System	28,361	26,432	27,003
- Hypertension	25,591	23,436	23,814
- Other Cardiovascular Disease	2,770	3,006	3,189
Diseases of the Respiratory System	13,495	10,808	10,957
- Upper Respiratory Tract Infection	9,931	9,172	8,318
- Lower Respiratory Tract Infection	2,021	1,636	1,357
- Asthma	1,543	1,289	1,282
Diseases of the Genito-Urinary System and Gynaecological Conditions	18,245	16,141	15,577
- Urinary	1,998	1,704	1,510
- STI (Except PID)	11,982	10,706	10,526
- PID	1,042	854	722
- Other Gynaecological Conditions	3,223	2,877	2,769
Diseases of the Skin	17,293	15,919	14,717
Diabetes & Hypertension	12,607	11,977	12,396
Diseases of the Musculoskeletal	9,219	7,995	8,801
Diabetes	6,902	5,876	5,302
- Leg Ulcers due to Diabetes	326	84	86
Diseases of the Digestive System	4,552	3,839	3,562
- Gastroenteritis	1,040	1,051	1,087
- Other Gastro-intestinal Disorders	3,512	2,788	2,475
Psychiatry	6,176	6,483	7458
Accidents & Injuries	6,898	6,268	5,985
- Intentional	862	668	552
- Unintentional	6,037	5,600	5,433
Eye Disorders	2,115	1,977	3,282
Other Diagnoses	29,406	30,953	30,330

Source: MOH, MCSR 2003

Based on the conditions treated in Primary Health Care facilities in the WRHA in 2003, the rank order revealed that 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) were the major causes of visits.

Hypertension continued to motivate the largest number of visits among Diseases of the Circulatory (Table 3.2).

**Table 3.3 Health Centre Visits by Diagnoses, Jamaica, WRHA
and Parishes 2003**

DIAGNOSES	Jamaica	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Diseases of the Circulatory System	127,456	27,003	5,279	9,242	5,744	6,738
- Hypertension	114,279	23,814	4,970	8,333	4,436	6,075
- Other Cardiovascular Diseases	13,177	3,189	309	909	1,308	663
Diseases of the Respiratory System	119,778	10,957	2,923	3,053	2,131	2,850
- Upper Respiratory Tract Infection	99,132	8,318	1,987	2,533	1,560	2,238
- Lower Respiratory Tract Infection	20,646	1,357	549	210	315	283
- Asthma	10,213	1,282	387	310	256	329
Diseases of the Genito-Urinary System and Gynaecological Conditions	111,891	15,527	2,655	9,376	1,110	2,429
- Urinary	15,619	1,510	422	558	205	325
- STI (Except PID)	67,936	10,526	1,536	7,440	190	1,356
- PID	7,256	722	154	273	107	236
- Other Gynaecological Conditions	21,080	2,769	543	1,105	608	512
Diseases of the Skin	107,865	14,717	4,102	4,507	2,573	3,535
Diabetes and Hypertension	60,595	12,396	2,408	2,922	2,806	3,260
Diseases of the Musculoskeletal System	52,452	8,801	2,553	2,192	1,936	2,120
Diabetes	30,630	5,302	1,025	1,542	929	1,805
- Leg Ulcers due to Diabetes	678	86	13	23	13	37
Diseases of the Digestive System	33,146	3,562	1,307	774	556	915
- Gastro-enteritis	10,880	1,087	289	247	205	346
- Other Gastro-intestinal Disorders	22,266	2,475	1,018	527	361	569
Psychiatry	35,221	7,458	1,105	2,353	1,786	2,213
Accidents and Injuries	25,550	5,985	1,277	2,732	937	969
- Intentional	2,984	552	198	193	65	96
- Unintentional	22,566	5,433	1,079	2,539	872	873
Eye Disorders	25,540	3,282	805	994	853	63
Other Diagnoses		30,330	5,555	14,166	4,468	6,141

Source: MOH MCSR, 2003

The WRHA managed approximately 20.5% (12,396) of all visits to public facilities for Diabetes and Hypertension in 2003 (Table 3.3).

The parish of St. James experienced the largest number of visits for all the major conditions except Diabetes and Hypertension (which registered the largest number of visits in Westmoreland) and Diseases of the Digestive System (1,307 in Trelawny)(Table 3.3).

3.1.2.2 HOSPITAL INPATIENT SERVICES

**Table 3.4 Ten Leading Causes of Discharge from Public Hospitals by Diagnosis
WRHA 2000-2003**

DIAGNOSIS	Base Year 2000	2001	2002	2003
Obstetric	11,656	10,682	11,656	10,543
Accident and Injuries	2,329	2,413	2,329	2,862
Diseases of the Respiratory System	1,466	1,481	1,466	1,546
Disease of the Circulatory System	1,634	1,811	1,634	2,171
Diseases of the Digestive System	1,463	1,568	1,463	1,607
Perinatal Conditions	1,025	1,015	1,025	903
Infectious and Parasitic Diseases	948	8,632	947	1,000
Diseases of Genito-Urinary System	1,017	1,132	1,017	1,152
Neoplasm	1,037	1,107	946	1,395
Endocrine, Nutritional and Metabolic Diseases	934	983	934	1,473
Neuropsychiatric	506	419	814	742
Total Hospital Discharge	25,827	25,611	25,846	27,742

Source: MOH Jamaica, Annual Report 2000-2003

In year 2003, the WRHA data revealed that when Obstetric is exempted the trend in hospital discharges based on the ten leading causes remained relatively constant for Accident and Injuries (2,862), Diseases of the Circulatory System (2,171), Diseases for the Digestive System (1,607), and Diseases of the Respiratory System (1,546). Endocrine, Nutritional and Metabolic Diseases (1,473) were in the fifth position (Table 3.4).

Table 3.5 Ten Leading Causes of Discharges from Public Hospitals by Diagnosis: Jamaica and WRHA 2003

DIAGNOSIS	Jamaica	WRHA
Obstetric	50,613	10,543
Accident and Injuries	5,495	2,862
Diseases of the Respiratory System	11,529	1,546
Disease of the Circulatory System	11,648	2,171
Diseases of the Digestive System	9,510	1,607
Perinatal Conditions	5,587	903
Infectious and Parasitic Diseases	6,420	1,000
Diseases of Genito-Urinary System	6,625	1,152
Neoplasm	6,680	1,395
Endocrine, Nutritional and Metabolic Diseases	7,560	1,473
Neuropsychiatric	4,222	742
Total Hospital Discharge	150,094	27,742

Source: MOH

*DNA

In 2003, WRHA discharge data mirrored the rank order of the national level with Obstetrics (1), Accident and Injuries (2), Diseases of the Circulatory System being the first three (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 2003

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
Food Handlers Attending Clinics	2,421	6,241	3,019	3,224
New Cards/Permits Issued	2,245	5,415	2,717	2,358
Food Handling Establishments (Number)	856	755	913	1,250
Percentage Health Certified (%)	37%	49%	35.1%	16.7%
Meat Inspection – Total	4,035	*	7,567	*
Meat and Poultry (Kgms)	313,138	*	717,854	1,908,123
Percentage Meeting National Standard	98.8	*	99.4	98.3
Milk Sampling (# of dairies)	*	*	*	*
% Milk Meeting National Standard	*	*	*	*
No. of Inspections				
- Tourist establishments	68	202	109	159
No. Certified Satisfactory				
- Tourist Establishments	28	40	104	95

Source: WRHA Parish Reports 2003

*DNA

Food safety activities focussed on ensuring that the region's population had access to safe food. Activities relating to Food handlers permits, meat certification and the inspection and certification of Tourist establishment continued (Table 3.6).

Water Quality

Although data on the percentage of the population with access to treated supplies of water was not available, sampling continued.

Table 3.7 Sanitation: WRHA Parishes 2003

INDICATORS	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
Household Sanitation				
- Household Inspection (No.)	3,065	*	3,748	10,722
- % Household Satisfactory	65.9%	80%	72.7%	73.2%
- Complaints Received	*	578	1,057	712
- % Complaints Investigated	90%	92%	83%	78.4%
- Notices – Served	115	*	*	436
- % Notices – Obeyed	33.4%	*	*	50.9
- Prosecutions Secured	*	*	*	*
Institutions				
- Schools Inspected (No. of Visits)	123	*	73	*
- % Schools Satisfactory	63%	69%	89.4%	66.1%
- Children’s Homes Inspections	*	*	*	*
- % Children’s Satisfactory	*	*	*	*
- Places of Safety Inspections	*	*	*	*
- % Places of Safety Satisfactory	*	*	*	*
- Lock-up Inspections	*	*	*	*
- % Lock-up Satisfactory	100	*	*	*
- Hospitals Inspections	4	*	1	*
- % Hospitals Satisfactory	0	*	100	*
- Nursing Homes/Infirmaries Inspections	*	*	*	*
- Nursing Homes/Infirmaries Satisfactory	*	*	*	*
Excreta Disposal				
- Inspections	*	*	3,748	*
- % Satisfactory	*	*	72.7%	*
Latrines – Built	80	37	63	470
- Repaired	26	0	0	122
Solid Waste				
- No. of Disposal Sites Inspected	*	*	*	*
- % Satisfactory	*	*	*	*

Source: WRHA 2003

*DNA

Environmental health includes the inspection for standards of satisfaction relating to the sanitation of households and institutions as well as excreta and disposal of solid waste. The activities continued in year 2003 (Table 3.7).

Table 3.8 Vector Control WRHA Parishes 2003

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
Vector Control – Aedes Indices	14.0	3.0	31.4	15.0
Barrier Zone (%)	*	1.8	*	*

Source: WRHA

*DNA

In order to ensure that there were no indigenous cases of vector-borne illness in the region, the vector indices are constantly monitored. The parish of Hanover had the highest indices (Table 3.8).

The Fogging/Larvicidal work and rat baiting were the major interventions to alleviate any reported problem.

Table 3.9 Approval for Development/Commercial Activities WRHA: 2003

VARIABLES	WRHA PARISHES			
	Trelawny	St. James	Hanover	Westmoreland
No. of Applications Building	120	*	*	264
No. of Approvals Building	102	*	*	234
No. of Applications Quarry	*	*	*	*
No. of Approvals Quarry License	*	*	*	*
No. of Applications – Dairies	*	*	*	*
No. of Approvals Dairies	*	*	*	*
No. of Applications Butchers	37	*	*	65
No. of Approvals Butchers	25	*	*	24
No. of Applications Spirit License	143	*	*	419
No. of Approvals Spirit License	138	*	*	241
No. of Applications Barber/ Hairdressers	7	*	*	23
No. of Approvals Barbers/Hairdressers	7	*	*	20

Source: WRHA 2003

*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 3.9).

During year 2003 the parishes of Trelawny and Westmoreland engaged in most of the approvals for the region's development/commercial activities (Table 3.9).

3.1.3.2 CONTROL OF COMMUNICABLE DISEASES

Immunization Coverage

Table 3.10 Trends in Immunization Coverage for Vaccine Preventable Diseases: WRHA 2000-2003

VACCINES	% COVERAGE			
	Base Year 2000	2001	2002	2003
BCG	94.2	98.8	100.0	97.4
Polio	92.3	100.0	93.7	91.2
DPT/DT	92.7	98.3	95.2	92.1
Hepatitis B	0.7	0	8.2	22.9
MMR	86.6	85.2	91.9	82.3
Hib	0.5	0.1	0	22.0

Source: Ministry of Health EPI Report 2000-2003

In 2003, except for Hepatitis B and Hib, the region's immunization coverage fell below the year 2002 level (Table 3.10).

Table 3.11 Trends in Immunization Coverage for Vaccine Preventable Diseases: Jamaica, WRHA and Parishes 2003

VACCINES	JA	WRHA	% COVERAGE			
			Trelawny	St. James	Hanover	Westmoreland
BCG	89.5	97.4	78.9	100.0	70.2	100.0
Polio	83.8	91.2	95.9	87.9	100.0	87.6
DPT/DT	84.9	92.1	96.3	91.1	93.0	87.9
Hepatitis B	24.0	22.9	25.5	20.1	23.1	24.6
MMR	78.6	82.3	90.1	83.1	69.9	83.6
Hib	19.6	22.0	24.5	19.4	23.1	23.2

Source: MOH EPI Report 2003

In 2003 although having higher than national levels for BCG, Polio, DPT/DT, MMR and Hib, the region's immunization coverage fell below the projected 95% level (Table 3.11).

Notifiable Diseases

The WRHA, like other regions continued to implement surveillance activities for selected diseases using sentinel and hospital active sites from which weekly reports were forwarded in order to control Communicable Diseases. Other relevant strategies were also utilized.

3.1.3.3 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 3.12 Morbidity Profile – Asthma: WRHA 2000-2003

VARIABLES	2000	2001	2002	2003
PHC Visits	*	1,543	1,289	1,282
Cases seen at A&E	6,364	6,119	6,719	6,090
Nebulization in A&E	35,383	34,210	36,636	29,764
Outpatient Specialists Clinic (Paediatric)				
- Total cases	138	63	51	330
- New Cases	26	-	6	37

Source MOH: MCSR, HMSR, MOH Jamaica Annual Report 2000-2003

Year 2003 data relating to the care of persons with Asthma revealed that there were 1,282 visits to Primary Health Care facilities and 6,090 cases were seen in public A&E departments in the WRHA. While nebulizations in A&E declined by 13% (4,446), the total number of Asthma cases attending outpatient specialist clinic (paediatric) increased by five times the 2002 figure (Table 3.12).

Table 3.13 Morbidity Profile – Asthma: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
PHC Visits	10,213	1,282	387	310	256	329
Cases seen at A&E	36,867	6,090	484	3,964	723	919
Nebulization in A&E	126,990	29,764	1,829	15,975	2,260	9,700
Outpatient Specialist Clinic (Paediatric)						
- Total Cases	1,090	330	330	330	*	*
- New Cases	126	37	37	37	*	*

Source: MOH MCSR, HMSR; MOH Jamaica Annual Report 2003

*DNA

Twelve point six percent (12.6%) of all visits for Asthma at the PHC level was in WRHA with the parish of Trelawny recording the highest (384) number of visits (Table 3.13).

The Outpatient Specialist Clinic (paediatric) in St. James saw 330 cases, with 37 being new cases (Table 3.13).

Cancer

Table 3.14 Morbidity Profile – Cancer: WRHA 2000-2003

VARIABLES	2000	2001	2002	2003
No. screened in PHC:				
- Breast	*	10,811	12,470	12,219
- Cervix	*	4,353	5,188	5,104
- Prostate	*	185	116	100
No. Referred for Abnormal Smears:		340	518	490
- <25 years	*	119	193	172
- 25-54 years	*	214	367	290
- 55 years and over	*	7	18	28
Treatments AT CRH	3,398	6,793	9,396	18,162
- Chemotherapy	201	170	100	207
- Cobalt	2,905	4,273	9,156	17,794
- Superficial	49	105	103	152
- Radium/Caesium	9	11	10	9
- Other	234	2,239	27	0
Radiotherapy Outpatient Clinic:				
- Total Cases	218	3,368	3,144	3,730
- New Cases	0	0	641	308

Source: MOH MCSR, HMSR 2000-2003

*DNA

Cancer screening at WRHA PHC facilities declined in year 2003 when compared to year 2001 (Table 3.14).

Data from WRHA Cancer Prevention and Control Programme revealed that among new cases of cancer, the affected sites included breast (94) cervix (60) and prostate (52).

The number of treatments increased by 8,766 as did the number of outpatient clinic cases - 586 (Table 3.14).

Table 3.15 Morbidity Profile – Cancer: Jamaica, WRHA and Parishes 2003

INDICATORS	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
No. screened in PHC: - Breast	78,818	12,219	3,602	3,733	1,107	3,777
- Cervix	22,916	5,104	1,501	3,142	161	300
- Prostate	1,218	100	22	49	25	4
No. Referred for Abnormal Smears:	2,604	490	175	265	10	40
- <25 years	760	172	68	96	2	61
- 25-54 years	1,684	290	101	158	6	25
- 55 years and over	160	28	6	11	2	9
Treatments	49,434	18,162	*	18,162	*	*
- Chemotherapy	687	207	*	207	*	*
- Cobalt	46,169	17,794	*	17,794	*	*
- Superficial	2,341	152	*	152	*	*
- Radium/Caesium	981	9	*	9	*	*
- Other	139	*	*	*	*	*
Radiotherapy Outpatient Clinic:						
- Total Cases	9,983	3,730	*	3,730	*	*
- New Cases	1,016	308	*	308	*	*

Source: MOH MCSR, HMSR 2003

*DNA

The 2003 data demonstrated that at WRHA health centres, screening for breast cancer was highest in the parish of Westmoreland while that for the cervix and prostate it was in St. James (Table 3.15).

Approximately 19% (490) of all abnormal smears identified in PHC facilities were in WRHA and 36.7% (18,162) of all cancer treatments were delivered in the region (Table 3.15).

Diseases of the Circulatory System

Table 3.16 Morbidity Profile – Diseases of the Circulatory System: WRHA 2000-2003

Variables	2000	2001	2002	2003
PHC Visit				
- Hypertension	25,816	25,591	23,436	23,814
- Other C.V. Disease	2,672	2,770	3,006	3,189
- Chronic Rheumatic Diseases	1,043	1,100	984	814

Source: MOH MCSR, 2001; MOH Jamaica Report 2000-2003

In 2003 there were 23,814 visits to WRHA PHC facilities for Hypertension. The data also identified a steady increase in visits for other CV diseases since the base year (Table 3.16).

Table 3.17 Morbidity Profile – Diseases of the Circulatory System: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
PHC Visit						
Hypertension	114,279	23,814	4,970	8,333	4,436	6,075
Other C.V. Disease	13,177	3,189	309	909	1,308	663
Chronic Rheumatic Disease	4,163	814	410	161	217	26

Source: MOH MCSR 2001, MOH Jamaica Annual Report 2003

Just about 20.8% (23,814) of all PHC visits for Hypertension were made in WRHA in 2003. The largest number of visits (1,308) for other CV Diseases was in the parish of Hanover (Table 3.17).

Diabetes

Table 3.18 Morbidity Profile – Diabetes: WRHA 2000-2003

VARIABLES	2000	2001	2002	2003
Visits to PHC	7,163	6,902	5,876	5,302
Leg Ulcer due to	*	326	84	86

Source: MOH MCSR, HMSR MOH Jamaica: Annual Report 2000-2003

*DNA

WRHA year 2003 data demonstrated a continuing decline in visits to PHC facilities for Diabetes since 2000 (Table 3.18).

Table 3.19 Morbidity Profile – Diabetes: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Visits to PHC	30,630	5,302	1,025	1,542	929	1,805
Leg Ulcer due to diabetes	678	86	13	23	13	37

Source: MOH MCSR, 2000-2003

Approximately 17.3% (5,300) of all visits to PHC facilities for Diabetes were made in the WRHA. The parish of Westmoreland recorded the largest number of visits (1,805) (Table 3.19).

Other Monitored Diseases

Table 3.20 Morbidity Profile - Other Monitored Diseases: WRHA 2001-2003

DISORDERS	VISITS TO PHC		
	2001	2002	2003
Respiratory Tract Infection (Excluding Asthma)	11,952	10,808	9,675
Skin Disease	17,293	15,919	14,717
Musculo-Skeletal Disorders	9,216	7,985	8,801
Other Gastro-intestinal Disorders	3,512	2,788	2,475
Diabetes and Hypertension	12,607	11,977	12,396

Source MOH MCSR; HMSR; MOH Jamaica Annual Report 2001-2003

*DNA

Skin Diseases continued to be the major condition managed at the PHC in the group “Other Monitored Diseases” in 2003. However, the number of visits registered annual declines (Table 3.20).

Visits for persons with Diabetes and Hypertension have fluctuated registering 12,396 visits in 2003 (Table 3.20).

Table 3.21 Morbidity Profile - Other Monitored Diseases: Jamaica, WRHA and Parishes 2003

DISORDERS	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Respiratory Tract Infections (Excluding Asthma)	119,780	9,675	2,536	2,743	1,875	2,521
Skin Diseases	107,865	14,717	4,102	4,507	2,573	3,535
Musculo-Skeletal Diseases	52,452	8,801	2,553	2,192	1,936	2,120
Other Gastro-intestinal Disorders	22,266	2,475	1,018	527	361	569
Diabetes and Hypertension	60,595	12,396	2,408	2,922	2,806	3,260

Source: MOH MCSR, 2003

When the national data for Other Monitored Diseases is examined against that of WRHA, Respiratory Tract Infection (excluding Asthma) and Skin Diseases were the major causes of visits, while at the region it was Skin Diseases and Diabetes Mellitus and Hypertension (Table 3.21). While all parishes in the region mirrored the regional picture, the parish of Trelawny recorded 29% (2,553) of visits for Musculo-Skeletal Disorders and 41% (1,018) of visits for other Gastro-intestinal Disorders (Table 3.21)

3.1.3.4 CHILD AND ADOLESCENT HEALTH

Child Health Profile

Table 3.22 Status of Child Health – Several Variables: WRHA 2000-2003

VARIABLES	Base Year 2000	2001	2002	2003
No. of Live Births – Community	494	378	101	190
- Hospital	8,874	8,593	8,103	7,969
No. of Still Births – Community	3	2	2	2
- Hospital	160	144	153	119
Low Birth Weight – Community	43	28	18	19
- Hospital	1,038	992	822	695
Exclusive Breastfeeding – 6 weeks	2,505	4,781	4,513	4,316
- 12 weeks	*	3,348	3,244	2,899
% Immunization Coverage (< 1)				
- BCG	94.0	98.6	100.0	97.1
- Polio	90.6	98.1	90.6	89.4
- DPT/DT	91.1	96.0	92.0	89.7
- HIB	0.3	0.1	0	21.9
- Hepatitis B	0.4	*	8.1	22.5
- MMR (12 – 23 months)	86.6	85.2	91.9	82.3
Nutrition Status (0-35 months)				
- Above Normal	3,953	3,836	3,780	3,282
- Normal	44,771	48,414	45,352	43,825
- Moderate	1,616	1,485	1,201	1,051
- Below Normal	68	39	41	27
% Receiving Home Visits	41.4	44.0	42.0	40.6
Child Health Clinic Visits	*	68,943	63,229	62,683
Child Guidance Cases – Total	309	375	763	513
- New	0	140	320	215
Total Accident & Emergency Cases	18,988	22,775	20,783	19,807

Source: MOH MCSR, EPI & HMSR 2000-2003

* DNA

WRHA 2003 data identified a decline in the number of live births (134) and still births (34) in the region's hospital (Table 3.22).

Although 4,316 of the babies in the region were exclusively breastfed up to age six weeks, by twelve weeks that figure declined by 1,417. There were 3,282 children in the 0-35 months age group who had above normal weights and twenty seven (27) were below normal (Table 3.22).

Forty point six percent (40.6%) of all home visits occurring in the region were for child health and 19,807 cases were managed in public A&E departments (Table 3.22).

**Table 3.23 Status of Child Health – Several Variables: Jamaica WRHA
And Parishes 2003**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
No. of Live Births – Community	1,117	190	47	51	7	85
- Hospital	41,343	7,967	679	4,326	498	2,464
No. of Still Births – Community	23	2	1	1	0	0
- Hospital	758	119	5	62	2	50
Low Birth Weight – Community	98	19	13	3	0	0
- Hospital	4,057	695	48	422	26	199
Exclusive Breastfeeding – 6 weeks	17,523	4,316	827	1,415	667	1,411
- 12 weeks	10,814	2,899	524	818	475	1,082
% Immunization Coverage (<1)						
- BCG	89.3	97.1	78.9	100.0	70.2	100.0
- Polio	81.3	89.4	95.0	85.5	100.0	85.7
- DPT/DT	82.2	89.7	95.3	86.9	98.0	86.3
- HIB	19.6	21.9	*	*	*	*
- Hepatitis B	20.2	22.5	.20	.41	.07	.67
- MMR (12 – 23 months)	78.6	82.3	90.1	83.1	69.0	83.6
Nutrition Status (0-35 months)						
- Above Normal	15,380	3,282	724	1,274	295	989
- Normal	201,580	43,825	8,499	16,100	7,794	11,433
- Moderate	8,429	1,051	190	322	91	448
- Below Normal	175	27	5	8	8	6
% Receiving Home Visits	48.5	40.6	48.0	30.9	46.8	36.9
Child Health Clinic Visits	289,243	62,683	11,873	23,134	10,523	17,153
Child Guidance Cases – Total	2,411	513	*	513	*	*
- New	758	215	*	215	*	*
Total Accident & Emergency Cases	127,625	19,807	2,155	10,278	2,184	5,190

Source: MOH MCSR, EPI, HMSR 2003

*DNA

Fifty four point three percent (54.3%) (4,326) of the region's hospital births and 60.7% (422) low birth weight babies were at the hospital in the parish of St. James (Table 3.23). While the largest number of children with above normal nutrition (1,274) in the 0-35 months was in St. James; Trelawny (5) and Westmoreland (6) recorded the smallest number of below normal nutrition (Table 3.23).

Child Morbidity Profile

**Table 3.24 Provision and Utilization of Hospital Services (Children):
WRHA 2001-2003**

VARIABLES	2001	2002	2003
Bed Complement	86	103	102
Bed Occupancy	86.3	59.6	61.9
Average Length of Stay	6.2	6.3	5.9
Outpatient Cases - Total	5,376	6,504	6,076
- New	506	584	661

Source: MOH HMSR 2001-2003

The 102 beds for paediatric care in the WRHA in 2003 recorded a 61.9% occupancy level and a 5.9 days' average length of stay. Of the 6,076 outpatient cases, 661 were new (Table 3.24).

**Table 3.25 Provision and Utilization of Hospital Services (Children): Jamaica,
WRHA and Parishes 2003**

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Bed Complement	747	102	11	62	6	23
Bed Occupancy Rate	60.4	61.9	88.3	55.1	5.1	82.3
Average Length of Stay	4.8	5.9	4.1	6.7	4.9	5.8
Outpatient Cases	61,145	6,076	0	3,753	0	2,323
	12,472	661	0	547	0	114

Source: MOH HMSR 2003

In 2003, the WRHA had 1.5 more children in hospitals above the national figure. Its average length of stay was 1.1 days longer (Table 3.25). The parish of Trelawny had the highest occupancy levels (88.3%) and the lowest length of stay in the region (Table 3.25).

Child Morbidity

Based on data from STATIN, there were 50,221 children in the under one (<1) age group in Jamaica in 2003. Approximately 11,411 persons in this age group were discharged from public hospitals for varying diagnoses. The leading causes, based on discharges per 10,000 population included Perinatal Conditions (1,004.6), Diseases of the Respiratory System (367.2), Infectious and Parasitic Diseases (239.9) and Accidents and Injuries (68.1) (MOH Jamaica Annual Report, 2003).

From among a total population of 208,002 children in the one to four age group in 2003, there were 9,833 discharges from public hospitals. Major causes of discharge included Diseases of the Respiratory System (31.5%), Infectious and Parasitic Diseases (20.7%), Accidents and Injuries (16.1%) and Diseases of the Skin and Subcutaneous Tissue (4.1%) (MOH Jamaica Annual Report, 2003).

In 2003 the estimated population for the five to nine age group was 287,461 persons. Five thousand, one hundred and seventy four (5,174) of these persons were discharged for Diseases of the Respiratory System (44.0), Accidents and Injuries (43.4) and Infectious and Parasitic Diseases (15.5). Discharge rates were based on 10,000 population (MOH Jamaica Annual Report, 2003).

CHILD MORTALITY

Table 3.26 Under One Child Mortality: WRHA 2000-2003

Mortality	2000	2001	2002	2003
Perinatal Mortality Rate/1000 live births	25.8	27.9	25.7	22.6
Early Neonatal Mortality Rate/1000 live births	8.2	11.6	7.3	8.0
Foetal Death Rate/1000 live births	17.7	16.5	18.5	14.7

Source: MOH HMSR 2000-2003

The Perinatal mortality rate per 1,000 live births declined by 3.1 in 2003 while the foetal death rate per 1,000 live births was 14.7 (Table 3.26).

Table 3.27 Under One Child Mortality: Jamaica, WRHA and Parishes 2003

Mortality	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Perinatal Mortality Rate/1000 live births	29.5	22.6	8.8	28.3	6.0	19.9
Early Neonatal Mortality Rate/1000 live births	11.7	8.0	1.5	14.3	2.0	-
Foetal Death Rate/1000 live births	18.0	14.7	7.3	14.1	4.0	19.9

Source: MOH HMSR 2000-2003

When WRHA 2003 under one child mortality data were examined against the national data, all the WRHA variables were less (Table 3.27).

Adolescent Health

**Table 3.28 Status of Adolescent Health – Several Variables
WRHA 2001-2003**

VARIABLES	2001	2002	2003
Rheumatic Fever			
- No. with Rheumatic Heart Disease	1,100	984	814
- No. receiving Prophylaxis	2,513	2,290	2,328
Reproductive Health			
- Total Antenatal Visits	7,391	6,813	6,252
- 0 – 15 weeks	502	542	447
- 16 – 28 weeks	1,093	958	931
- 29 weeks and over	175	146	138
No. with Hb<10gms/dcl	201	198	176
- No. Treated	145	131	95
- No. SC/SS	17	16	11
No. Syphilis Positive	24	18	19
- No. Treated	7	8	11
No. with Pre-eclampsia (PHC)	33	14	26
% Postnatal Coverage	21.9	21.2	21.0
Post Natal Family Planning Acceptors	1,303	1,180	1,153
Contraceptive Accepted			
- Pill	590	518	459
- Injection	441	394	428
- IUD	3	6	6
- Condom	269	262	260
- Dual Method	428	433	454

Source: MOH MCS 2001-2003

Year 2003 WRHA data demonstrated that there were 170 less cases of Rheumatic Heart Disease and a slight increase in the number of prophylactic treatments (Table 3.28).

More than 50% of those with Hb <10gms/dcl and those who were syphilis positive received treatment (Table 3.28).

Table 3.29 Status of Adolescent Health – Several Variables: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Rheumatic Fever						
- No. with Rheumatic Heart Disease	4,163	814	410	161	217	26
- No. receiving Prophylaxis	9,622	2,328	410	1,143	285	490
Reproductive Health						
- Total Antenatal Visits	33,770	6,252	1,436	1,555	1,024	2,237
- 0 – 15 weeks	2,207	447	101	147	64	135
- 16 – 28 weeks	4,917	931	186	275	127	343
- 29 weeks and over	843	138	17	45	17	59
No. with Hb<10gms/dcl	975	176	30	45	35	66
- No. Treated	485	95	11	14	8	62
- No. SC/SS	125	11	*	3	1	7
No. Syphilis Positive	63	19	2	4	1	12
- No. Treated	34	11	2	*	*	9
No. with Pre-eclampsia (PHC)	158	26	5	0	3	18
% Postnatal Coverage	20.7	21.0	21.4	20.6	18.3	22.8
Post Natal Family Planning Acceptors	5,461	1,153	214	466	178	295
Contraceptive Accepted						
- Pill	1,862	459	76	199	67	117
- Injection	2,491	428	88	155	60	125
- IUD	16	6	4	*	*	2
- Condom	1,092	260	46	112	51	51
- Dual Method	2,682	454	109	181	72	92

Source: MOH MCSR 2003

Approximately 50.4% (410) of Rheumatic Heart Disease cases in WRHA were in the parish of Trelawny (Table 3.29).

The parish of Westmoreland had the highest number of adolescent antenatal visits (2,237) in the region as well as the highest number with Hb<10gms/dcl (66) and syphilis positive (12). Ninety four percent (62) and 75% (9) were treated respectively (Table 3.29).

Adolescent Morbidity

There were 530,338 persons in the 10-19 age group in 2003. Discharge data from public hospitals revealed that just about 16,950 adolescents were discharged for conditions such as Obstetric Conditions (55.9%), Accidents and Injuries (14.2%) and Diseases of Digestive System (4.4%). (MOH Jamaica Annual Report 2003).

3.1.3.5 REPRODUCTIVE HEALTH

Table 3.30 Status of Reproductive Health – Several Variables: WRHA 2000-2003

SEVERAL VARIABLES	2000	2001	2002	2003
Total Antenatal (ANC) Visits	33,973	30,080	27,492	25,640
Total Anaemia (Hb<10gms/dcl)	*	16.1	17.6	18.6
% Treated	*	72.6	60.5	46.1
No. S.C/SS	*	60	48	42
% Syphilis Positive	*	3.2	2.5	2.9
% Treated	*	45.9	44.4	57.9
No. HIV Positive	*	*	*	*
Eclampsia (Hospital & PHC)	35	167	126	119
Antepartum Haemorrhage	23	33	41	28
Postpartum Haemorrhage	287	298	392	426
Mothers' Delivered - Hospital	8,921	8,643	8,092	7,998
- PHC	*	378	162	192
Deliveries by Trained Persons - Hospital	8,921	8,643	8,092	7,998
- PHC	*	354	151	182
C. Section	986	929	1,072	1,161
Home Visits	*	5,622	4,927	4,859
Postnatal Visits (Mothers)	*	8,505	7,973	7,807
Postnatal Family Planning Acceptors	5,546	5,499	5,065	5,151
Contraceptive Acceptors (Selected)				
- Pill	2,142	2,765	2,286	1,644
- Injection	1,847	3,132	2,923	1,904
- IUD	12	163	156	27
- Condom	1,545	1,855	1,657	1,576
- Dual Method	1,584	2,078	2,108	1,649
Tubal Ligation (Hospital)	672	583	695	689

Source: MOH MCSR, HMSR. MOH Jamaica Annual Report 2000-2003

*DNA

WRHA 2003 data pointed to the continuing decline in total PHC antenatal visits since the base year. Simultaneously, there was a one percent increase in the number of clients with anaemia and a decline in the number treated (Table 3.30).

Table 3.31 Status of Reproductive Health – Several Variables: Jamaica WRHA and Parishes 2003

SEVERAL VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Antenatal (ANC) Visits	137,723	25,640	5,767	6,779	4,703	8,391
Total Anaemia (Hb<10gms/dcl)	14.2	18.6	14.0	18.5	22.2	20.4
% Treated	47.5	46.1	32.3	34.8	20.3	73.0
No. SC/SS	443	42	4	16	5	17
% Syphilis Positive	1.6	2.9	2.0	2.5	3.9	3.4
% Treated	48.8	57.9	66.6	33.3	72.7	63.6
No. HIV Positive						
Eclampsia (Hospital & PHC)	945	119	12	16	31	60
Antepartum Haemorrhage	181	28	2	15	7	4
Postpartum Haemorrhage	1,080	426	12	238	4	172
Mothers' Delivered - Hospital	41,359	7,998	680	4,339	497	2,482
- PHC	1,140	192	48	52	7	85
Deliveries by Trained Persons - Hospital	41,359	7,998	680	4,339	497	2,482
- PHC	1,050	182	41	49	7	85
C. Section	5,886	1,161	80	844	*	237
Home Visits (Mothers)	30,448	4,859	1,237	714	1,054	1,854
Postnatal Visits (Mothers)	36,538	7,807	1,217	3,109	1,227	2,254
Postnatal Family Planning Acceptors	24,678	5,151	960	2,123	863	1,205
Contraceptive Acceptors (Selected)						
- Pill	7,315	1,644	245	695	279	425
- Injection	10,509	1,904	452	688	258	506
- IUD	84	27	20	*	2	5
- Condom	766	1,576	243	740	324	269
- Dual Method	10,709	1,649	431	654	268	296
Tubal Ligation (Hospital)	2,966	689	106	391	*	192

Source: MOH MCSR, HMSR, MOH Jamaica Annual Report 2000-2003

*DNA

The data revealed that WRHA had higher than national levels of Anaemia (17.6%) and Syphilis positive (2.5%) antenatal attendees (Table 3.31).

The parish of Westmoreland recorded the highest number of antenatal visits (8,391) as well as the second highest percentage (20.4%) of anaemic clients. The parish also had the largest number of PHC deliveries (85) all of whom were delivered by trained personnel (Table 3.31).

Table 3.32 Provision and Utilisation of Hospital Services – Reproductive Health: WRHA 2000-2003

SERVICES	2000	2001	2002	2003
Bed Complement (Obstetric)	83	86	85	83
Bed Occupancy (%) (Obstetric)	131.6	123.1	99.8	106.3
Average Length of Stay (Obstetric)	2.6	2.7	2.7	2.9
Hospital Discharges				
- Obstetric	11,656	10,682	11,656	10,543
- Genitourinary System	1,017	1,132	1,017	1,152
Outpatient Clinic Cases				
- Obstetric - Total	12,413	13,395	13,656	11,530
- New	1,788	2,160	2,147	2,032
- Gynaecology - Total	4,893	5,077	6,439	6,511
- New	707	805	1,050	1,207
- Urology - Total	2,719	3,114	3,179	3,552
- New	491	699	481	675

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2000-2003

In year 2003, there were 83 beds for obstetric care in the WRHA (Table 3.32).

While hospital discharge for Obstetric Conditions declined by 1,113, that for disorders of the Genito-urinary System increased by 135 (Table 3.32).

The new cases managed in outpatient clinics as a percentage of total cases were 17.6% (Obstetrics), 18.5% (Gynaecology) and 19% (Urology) (Table 3.32).

**Table 3.33 Provision and Utilization of Hospital Services – Reproductive Health:
Jamaica, WRHA and Parishes 2003**

SERVICES	JA	WHRA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Bed Complement (Obstetric)	649	83	9	44	12	18
Bed Occupancy (%) (Obstetric)	60.4	106.3	46.1	122.2	38.3	142.5
Average Length of Stay (Obstetric)	2.7	2.9	2.3	3.1	2.1	2.8
Hospital Discharges						
- Obstetric	50,613	10,543	*	*	*	*
- Genitourinary System	6,625	1,152	*	*	*	*
Outpatient Clinic Cases						
- Obstetric - Total	59,363	11,530	0	9,861	81	1,588
- New	12,308	2,032	0	1,913	25	94
- Gynaecology - Total	29,203	6,511	0	4,972	0	1,539
- New	5,367	1,207	0	985	0	222
- Urology - Total	19,765	3,552	0	3,384	0	0
- New	2,587	675	0	675	0	0

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2000-2003

*DNA

There were deficits in parish data relating to hospital discharge. Additionally, some specialist clinics were held only in the parishes of St. James and Westmoreland (Table 3.33).

Table 3.34 Morbidity Profile – Reproductive Health: WRHA 2000-2003

VARIABLES	2000	2001	2002	2003
PHC Visits for:				
Diseases of the Genitourinary System & Gynaecological Conditions:				
- Total	*	18,245	16,141	15,577
- Urinary	*	1,988	1,704	1,510
- STI (Except PID)	*	11,982	10,706	10,526
- PID	*	1,042	854	722
- Other Gynaecological Conditions	*	3,223	2,877	2,769
Accident & Emergency Cases:				
- Obstetric/Gynaecology	7,468	9,011	8,764	8,633
- Genito-Urinary	2,683	3,000	2,881	3,334
Surgical Interventions:				
- Obstetric: - Total	2,404	2,091	2,677	2,681
- Emergency	1,350	1,092	1,290	1,497
- Elective	1,054	999	1,387	1,184
- Other Gynaecological:				
- Total	589	717	692	786
- Emergency	136	164	98	136
- Elective	453	553	594	650
- Urology:				
- Total	176	191	150	130
- Emergency	15	9	12	13
- Elective	161	182	138	117

Source: MOH Jamaica Annual Report 2000-2003

*DNA

WRHA 2003 data revealed that management of Diseases of the Genito-Urinary System and Gynaecological System recorded 15,577 visits (Table 3.34).

Except for elective surgery for Obstetric (1,184) and Urological conditions (117), there were increases in surgical interventions for reproductive health problems (Table 3.34).

Table 3.35 Morbidity Profile – Reproductive Health: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
PHC Visits for:						
- Diseases of the Genitourinary System & Gynaecological Conditions:						
- Total	111,897	15,577	2,655	9,390	1,110	2,429
- Urinary	15,619	1,510	422	558	205	325
- STI (Except PID)	67,936	10,526	1,536	7,444	190	1,356
- PID	7,256	722	154	273	107	236
- Other Gynaecological Conditions	21,080	2,769	543	1,105	608	512
Accident & Emergency Cases:						
- Obstetric/Gynaecology	27,793	8,633	612	4,886	981	2,154
- Genito-Urinary	10,296	3,334	234	2,071	408	621
Surgical Interventions:						
- Obstetric:						
- Total	9,490	2,681	74	1,598	82	827
- Emergency	4,986	1,497	67	1,103	*	297
- Elective	3,651	1,184	7	465	82	630
- Other Gynaecological:						
- Total	6,947	786	94	741	0	228
- Emergency	1,639	136	30	82	0	24
- Elective	38,851	650	64	439	0	147
- Urology:					0	
- Total	4,648	130	15	951	0	*
- Emergency	123	13	0	13	0	*
- Elective	767	117	15	102	0	*

Source: MOH Jamaica Annual Report 2003

*DNA

The major portion of reproductive health activities were in the parish of St. James, with Westmoreland, Trelawny and Hanover in tow (Table 3.35).

Approximately 34.6% of the surgical interventions in public sector hospitals were done in the parish of St. James (Table 3.35).

3.1.3.6 MENTAL HEALTH

Table 3.36 Status of Mental Health – Several Variables: WRHA 2000-2003

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

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2000-2002, WRHA CMH Reports 2003

*DNA

Year 2003 data point to increasing utilization of the region's primary health care and outpatient clinics for mental health services (Table 3.36).

Table 3.37 Status of Mental Health – Several Variables: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Visits to PHC	35,221	7,458	1,105	2,353	1,786	2,213
Total cases seen in A&E	3,473	1,582	103	1,127	139	212
Total Hospital Discharges	4,222	742	*	*	*	*
Average Length of Stay	*	20.3	6.7	2.5	8.5	10.2
Total CMH Clinic Cases	13,254	*	*	*	*	*
CMH Admissions to Hospital	1,665	258	*	*	*	*
Home Visits - Total Cases	*	*	*	*	*	*
- Emergency	*	*	*	*	*	*
Outpatient Clinic - Total	27,242	7,649	536	5,135	*	1,978
- New Cases	2,595	582	20	507	*	55
Child Guidance Clinic - Total Cases	2,411	513	0	513	0	0
- New	758	215	0	215	0	0
Attempted Suicide Seen in A&E:	140	10	4	*	3	3
10 – 19	49	4	1	0	1	2
20 – 29	43	1	*	0	0	1
30 – 44	31	4	3	0	1	0
45 – 64	9	1	0	0	1	0
65 & over	8	0	0	0	0	0
Age Unknown	0	0	0	0	0	0

Source: MOH MCSR, HMSR, MOH Jamaica Annual Reports 2003, WRHA CMH Reports

*DNA

The parish of Trelawny recorded the smallest number of visits to both PHC facilities (1,105) and A&E (103) departments for mental health care in 2003 (Table 3.37).

There were four (4) cases of Attempted Suicides in the parish (Table 3.37).

3.1.3.7 EMERGENCY HEALTH SERVICES

Table 3.38 Status of Emergency Health Services – Several Variables: WRHA 2000-2003

VARIABLES	Base Year 2000	2001	2002	2003
Primary Health Care Visits for Injuries	9,529	6,898	6,268	5,985
Casualty/A&E Attendance Total	129,289	137,163	136,649	143,968
- % Receiving Care	94.7	96.5	94.6	93.8
- Admitted	14,213	15,805	13,948	15,048
Treatments Given in Casualty				
- Total	193,957	212,469	220,598	256,271
- Sutures	6,726	7,524	6,550	7,105
- Dressing	11,393	13,799	11,239	12,127
- Injection	59,447	66,566	62,403	64,698
- Nebulization	35,383	34,210	36,636	29,764
- Other	76,116	84,984	98,784	137,130
Leading Emergency Surgeries				
- Total Cases	2,761	2,542	2,533	3,057
- General Surgery	907	819	761	919
- Specialist:				
- Obstetric	1,350	1,092	1,290	1,497
- Emergency Tubal Ligation	58	79	3	76
- Other Gynaecological	136	164	98	136
- Urology	15	9	12	13
- Orthopaedic	137	198	193	212
- Dental	16	33	3	6
- ENT	99	98	109	120
- Eye	36	45	51	48
- Plastic	7	3	2	*
- Other	-	2	10	23
Minor Operations (Casualty)	4,892	5,422	4,886	5,547

Source: MOH MCSR, HMSR, WRHA CMH Report

*DNA

Approximately 93.8% of the 143,968 A&E attendees received care in 2003 (Table 3.38).

Thirty percent (919) of all emergency surgical cases were general (surgery) and 6.9% (212) for orthopaedic related conditions (Table 3.38).

Table 3.39 Status of Emergency Health Services –Several Variables Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Primary Health Care Visits for Injuries	22,566	5,985	1,679	2,732	937	969
Casualty/A&E Attendance Total	746,844	143,968	17,435	69,774	17,056	39,703
- % Receiving Care	97.5	93.8	95.2	96.2	96.8	87.8
- Admitted	99,068	15,048	2,196	8,094	472	4,286
Treatments Given in Casualty						
- Total	713,740	256,271	10,421	181,756	12,280	51,814
- Sutures	28,485	7,105	685	3,401	1,055	1,964
- Dressing	72,046	12,127	1,835	2,392	4,708	3,192
- Injection	228,710	64,698	2,931	42,926	3,725	15,116
- Nebulization	126,990	29,764	1,829	15,975	2,260	9,700
- Other	241,995	137,030	2,955	113,616	*	20,459
Leading Emergency Surgeries						
- Total Cases	16,555	3,057	286	2,209	*	582
- General Surgery	7,313	919	141	554	*	224
- Specialist:						
- Obstetric	4,986	1,497	67	1,133	*	297
- Emergency Tubal Ligation	744	76	2	74	*	*
- Other Gynaecological	1,639	136	30	82	*	24
- Urology	123	13	*	13	*	*
- Orthopaedic	1,291	212	2	173	*	37
- Dental	20	5	1	4	*	*
- ENT	579	120	*	120	*	*
- Eye	245	48	*	48	*	*
- Plastic	*	*	*	*	*	*
- Other	*	23	22	1	*	*
Minor Operations (Casualty)	155,514	5,547	186	3,446	532	1,383

Source: MOH MCSR, HMSR, WRHA CMH Report

In year 2003, just about 93.8% of all A&E attendees received care in WRHA facilities – 3.7% less than the national figure (Table 3.39).

The parish of Hanover did 4,708 of all dressings done in the region while St. James gave approximately 66.4% (42,926) of all injections given (Table 3.39).

**Table 3.40 Morbidity Profile in Public Hospitals A&E Departments:
WRHA 2000-2003**

CONDITION TREATED BY CASES	Base Year 2000	2001	2002	2003
Gastroenteritis	4,202	3,137	4,360	5,743
URTI	5,887	6,919	5,579	5,396
LRTI	1,606	1,676	1,667	1,313
Asthma	6,364	6,119	6,719	6,090
Medical Conditions	37,489	42,689	39,850	44,175
Surgical Conditions	15,433	16,691	14,762	19,624
Ob/Gyn. Conditions	7,468	9,011	8,764	8,633
GU Conditions	2,468	3,000	2,881	3,334
Paediatric	2,683	22,775	20,783	19,807
Psychiatric Conditions	1,535	1,671	1,544	1,587
Psychiatric Crisis Intervention	-	141	*	*
Intentional - PHC	1,299	862	668	552
Total - Casualty	6,372	6,720	6,808	7,283
Unintentional - PHC	8,230	6,036	5,600	5,433
Total Casualty	10,275	12,148	10,505	11,489

Source: MOH: MCSR, HMSR 2000-2003

The 2003 morbidity profile for emergency conditions revealed that Medical (44,175); Paediatric (19,807) and Surgical (19,624) Conditions were the major cases managed (Table 3.40).

Table 3.41 Morbidity Profile in Public Hospitals A&E Departments: Jamaica, WRHA and Parishes 2003

CONDITION TREATED BY CASES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Gastroenteritis	26,746	5,743	898	2,990	592	1,263
URTI	36,631	5,396	700	2,616	778	1,302
LRTI	8,143	1,313	334	421	74	484
Asthma	36,797	6,090	484	3,964	723	919
Medical Conditions	249,438	44,175	6,554	18,034	7,167	12,418
Surgical Conditions	48,271	19,624	1,401	12,223	229	5,771
Ob/Gyn. Conditions	27,793	8,633	612	4,886	981	2,154
GU Conditions	21,096	3,334	234	2,071	408	621
Paediatric	127,625	19,807	2,155	10,278	2,184	5,190
Psychiatric Conditions	3,473	1,581	103	1,127	139	219
Psychiatric Crisis Intervention	*	*	*	*	*	*
Injuries:						
- Intentional - PHC	2,852	552	201	163	94	86
- Total - Casualty	32,859	7,283	1,691	2,801	1,207	1,584
- Unintentional - PHC	21,572	5,433	912	2,053	1,046	929
- Total Casualty	47,313	11,489	1,426	5,166	2,000	2,897

Source: MOH: MCSR, HMSR 2003

*DNA

All parishes mirrored the WRHA morbidity profile for Emergency conditions for Medicine and Paediatrics (Table 3.41).

The parish of Hanover recorded the lowest number of cases of Gastroenteritis (592), L.R.T.I. (74) and Intentional Injuries (1,207) (Table 3.41).

**Table 3.42 Profile of Injuries Treated in Public A&E Departments:
WRHA 2000-2003**

Injuries by Type	Base Year 2000	2001	2002	2003
Intentional				
- Stab Wound	480	610	513	559
- Gunshot	117	135	171	171
- Blunt Injury	2,639	2,716	2,844	3,300
- Sexual Assault	252	283	250	405
- Laceration	*	2,262	2,044	1,887
- Bite (Human)	122	99	93	125
- Burns	13	14	4	3
- Attempted Suicide	34	23	17	10
- Other	369	608	864	823
Unintentional				
- MVA	2,547	3,002	2,702	2,984
- Lacerations	4,713	4,692	2,726	2,865
- Bites	680	832	944	938
- Burns	332	390	298	327
- Poisoning	255	285	271	305
- Falls	*	2,940	3,562	4,067
- Near Drowning	*	8	2	3

Source: MOH: HMSR 2000-2003

*DNA

Year 2003 data revealed that the main intentional injuries resulted from Blunt Injuries (3,300) and Lacerations (1,887); while unintentional injuries were mainly due to Falls (4,067), Motor Vehicle Accidents (2,984) and Lacerations (2,865) (Table 3.42).

3.43 Profile of Injuries Treated in Public A&E Departments: Jamaica, WRHA and Parishes 2003

Intentional Injuries	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Intentional						
- Stab Wound	2,951	559	95	299	76	89
- Gunshot	1,103	171	11	116	19	25
- Blunt Injury	13,786	3,300	990	1,186	353	771
- Sexual Assault	1,563	405	74	148	52	131
- Laceration	8,654	1,887	354	740	353	440
- Bite (Human)	514	125	30	48	29	18
- Burns	24	3	1	*	*	2
- Attempted Suicide	140	10	4	*	3	3
- Other	4,133	823	132	264	322	105
Unintentional						
- MVA	12,372	2,984	402	1,394	384	804
- Lacerations	15,239	2,865	536	850	749	730
- Burns	1,723	327	85	131	45	57
- Bites	4,507	938	169	385	160	224
- Poisoning	1,127	305	18	134	41	112
- Falls	12,316	4,067	216	2,272	610	969
- Near Drowning	29	3	*	*	2	1

Source: MOH: HMSR 2003

*DNA

The WRHA had 25.9% of all sexual assault/rape cases seen in public A&E as well as 24.3% of all intentional bites (Table 3.43).

The region recorded 33% of all falls seen in public A&E Departments while the parish of St. James registered 55.9% of all falls in the region (Table 3.43).

3.2 MORTALITY

3.2.1 MORTALITY PROFILE

Table 3.44 Mortality Profile: WRHA 2000-2003

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

Source: MCSR, HMSR 2003

*DNA

Community births and deaths represent those births and deaths in communities monitored by government health professionals.

Year 2003 WRHA data reflected a decline of 34 in both total still births occurring in the region as well as those occurring at the hospital level (Table 3.44).

Table 3.45 Mortality Profile: Jamaica, WRHA and Parishes 2003

VARIABLES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Inpatient Deaths	5,984	1,406	129	469	78	730
Casualty Deaths	1,135	163	10	93	24	36
Anaesthetic Deaths	2	0	0	0	0	0
Still Births - Total	781	121	6	63	2	50
- Hospital	758	119	5	62	2	50
- Community	23	2	1	1	0	0
Foetal Death Rate/1,000 live births	18.0	14.7	7.3	14.1	4.0	19.9
Early Neonatal Death Rate/1,000 live births	11.7	8.0	1.5	14.3	2.0	0
Perinatal Death Rate/1,000 live births	29.5	22.6	8.8	28.3	6.0	19.9
Infant Death Rate/1,000 live births	*	*	*	*	*	*
Maternal Deaths (Total)	25	7	0	6	0	1
- in Community	0	0	0	0	0	0
- in Hospital	25	7	0	6	0	1
Maternal Death Rate/100,000 live births	60.5	87.5	0	138.3	0	40.3

Source: MOH: MCSR, HMSR 2003

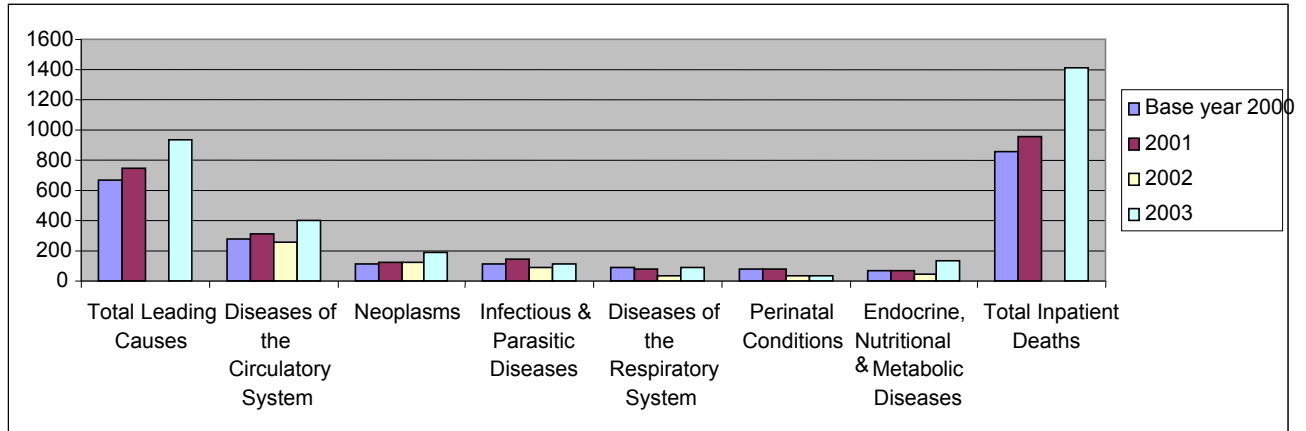
*DNA

Approximately 51.9% (730) of all deaths in WRHA hospitals in 2003 occurred in the parish of Westmoreland (Table 3.45).

Twenty eight percent (7) of all maternal deaths in public facilities in the island occurred in WRHA (Table 3.45).

3.2.2 INPATIENT MORTALITY

Figure 3.1 Inpatient Deaths in Public Hospitals by Five Leading Diagnoses – WRHA 2000-2003



Source: MOH – HIS 2000-2003

In 2003, WRHA’s mortality data demonstrated a change in the ranking of deaths due to the five leading diagnoses when compared to the base year and year 2001 (Figure 3.1) (TABLE B1).

Diseases of the Circulatory System (405), Neoplasms (193), Endocrine, Nutritional and Metabolic Disease (131), Infectious and Parasitic Diseases (116) and Diseases of the Respiratory System (85) reflected the rank order (Figure 3.1) (TABLE B1).

There were an additional 70 deaths from Neoplasms as well as a sharp increase (86) in the number of deaths due to Endocrine, Nutritional and Metabolic Disorders (TABLE B1).

Table 3.46 Inpatient Deaths in Public Hospitals by Five Leading Diagnoses: Jamaica, WRHA and Parishes 2003

DIAGNOSES	JA	WRHA	PARISHES			
			Trelawny	St. James	Hanover	Westmoreland
Total Inpatient Deaths	5,984	1,406	129	469	78	730
Total Inpatient Deaths based on 5 Leading Diagnoses	4,385	930	119	383	65	363
Diseases Circulatory System	1,794	405	63	155	25	162
Neoplasms	847	193	18	100	11	64
Infectious and Parasitic Diseases	687	116	18	65	7	26
Diseases of the Respiratory Diseases	571	85	7	26	6	46
Perinatal Conditions	284	30	0	21	0	9
Endocrine, Nutritional and Metabolic Diseases	486	131	13	37	16	65

Source: MOH, HMSR 2003

WRHA 2003 data revealed that 930 (66.1%) of the 1,406 inpatient deaths were due to the five leading diagnoses (Table 3.46).

Among the parishes, Westmoreland recorded the largest number of deaths due to Diseases of the Circulatory System (162), Diseases of the Respiratory System (46) and Endocrine, Nutritional and Metabolic Diseases (65) (Table 3.46).

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 2000-2003

4.1A MANAGEMENT

INDICATORS	Base Year 2000	Target 2005	ACHIEVEMENTS		
			2001	2002	2003
No. of Internal Audits	*	*	*	*	24
Finance (FAA Act)					
- No. of Audit Queries	*	*	*	12	21
- No. of Audit Queries satisfactorily resolved	*	*	*	9	3
- No. of Audit Queries pending/outstanding	*	*	*	7	*
Cost Containment	*	*	*		*
- Administrative cost as a % of budget	*	6.0	5.0	4.0	*
- Staff cost as a % of total service delivery cost	*	73.0	85.0	86.0	*
- Annual costs \$'000 (Actual)	*	*	*		*
- Rental	*	*	1,683	2,247	*
- Utilities	*	*	46,156	65,415	*
- Petrol	*	*	*	2,312	*
- Fee collection as a % of billing (excluding indigent)	*	<55.0	72.0	65.0	*
- Billing as a % of services rendered	*	<95.0	97.0	94.0	*
- X-Ray films	*	*	8,802	8,395	*
Human Resource (Percentage)					
- 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	*
Industrial Relations (Percentage)					*
- 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	*	*

Source: MOH, SLA Data – 2001, 2002; WRHA Reports 2003

*DNA

4.1A MANAGEMENT (Cont'd)

INDICATORS	Base Year 2000	Target 2005	ACHIEVEMENTS		
			2001	2002	2003
The Infrastructure					
Maintenance - Plan	*	*	*	*	*
- All activities	*	*	2,486	2,989	2958
PPM Programme - % Vehicles	*	*	100.0	*	*
- % Critical equipment	*	*	40.0	*	60%
PPM Activities - Critical equipment	*	*	487	*	594
% Downtime (Annual)	*	*	*	*	*
- Standby Generators	*	*	4.0	10.0	15
- Elevators	*	*	15.0	17.5	17.5
- Boilers	*	*	3.0	6.5	6.5
- Laboratory Equipment	*	*	8.0	7.5	6.6
- X-ray Equipment	*	*	4.0	5.0	5
- Anaesthetic Equipment	*	*	5.0	5.0	5
- Autoclave/Sterilizer	*	*	14.0	18.7	20
- Operating Table	*	*	9.0	6.6	6.6
- Operating Theatre Lights	*	*	9.0	8.3	8.3
- Operating Theatre Lights	*	*	5.0	*	8.3
- Laundry Equipment	*	*	23.0	30	27.3
- Central Air Conditioning	*	*	21.0	28.3	35
- Incinerator	*	*	14.0	12.5	10
Average annual downtime – vehicles (days)	*	*	22.0	32.1	*
Quality Assurance					
- Clients Charter	*	*	*	*	*
- Developed	*	*	*	*	*
- Operational	*	*	*	*	*
- Development of Benchmarks	*	*	*	*	*
- Average waiting time - Health Centre	*	*	*	*	*
- Hospital A&E	*	*	*	*	*
- OPD	*	*	*	*	*
- For specialist care:	*	*	*	*	*
- Consultation	*	*	*	*	*
- Surgery	*	*	*	*	*
- % satisfied patients	*	*	*	*	*
Risk Management					
- Total no. of complaints	*	*	98	*	66
- No. of complaints acknowledged within 7 working days	*	*		*	*
- No. of complaints satisfactorily resolved	*	*	75	*	56
- No. of complaints pending	*	*	23	*	*
- No. of complaints resulting in litigation	*	*	*	*	*
No. of:-					*
- Falls	*	*	*	*	*
- Wound Infection (Post operative)	15	*	22	17	*
- Prescription errors	*	*	*	*	*
- Dispensing errors	*	*	*	*	*
- Medication (Administration) errors	*	*	*	*	*
- Bedsores	*	*	*	*	*
- Medical record without summaries	*	*	7,341	9,199	*

Source: MOH, HMSR; WRHA Reports 2000-2003

*DNA

4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2003

4.1B SERVICE DELIVERY

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

Source: MOH; MCSR; HMSR; MOH Jamaica, Annual Report 2000-2003

*DNA

4.1C DENTAL HEALTH

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003
DMF Index					
- Restorative procedures	*	*	27,179	24,604	24,935
- Extractions	*	*	13,403	9,320	10,532

Source: MOH MCSR 2001-2003

*DNA

4.1 PERFORMANCE/ACHIEVEMENTS – WRHA 2000-2003

4.1D ENVIRONMENTAL HEALTH

INDICATORS	Base Year 2000	Target 2005	ACHIEVEMENTS		
			2001	2002	2003
% Access to potable water	79.0	*	77.0	77.0	82.0
% Waste water plants inspected and sampled	*	*		*	*
% Tourist Establishments Health Certified	*	70.0	31.5	*	5.0
% Food Handling Establishments Certified	*	70.0	*	68.5	32.4
% New Applicants issued with Food Handlers Permit within 3 weeks	*	*	*	*	*
% Food Borne illnesses investigated within 2 weeks	*	*	*	*	*
% Institution Satisfactory					
- School	*	*	53.8	71.0	69.4
- 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	*
Vector Indices (Barrier Zoo)	*	0	1.75	1.8	1.8

Source: WRHA Parish Reports 2001-2003

*DNA

4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2003

4.1E COMMUNICABLE DISEASE CONTROL

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003
Acute Flaccid Paralysis:					
- No. of Cases investigated within 48 hours	*	100.0	*	4	*
TUBERCLOSIS:					
- Total cases confirmed	*	*	*	40	*
- % reported cases investigated within 6 weeks	*	*	*		*
- % confirmed cases completing DOTS treatment	*	*	*	100	*
- Tb Death Rate	*	*	*	*	*
- Number of Cases of Malaria	*	*	*	2	*
- Malaria Death Rates	*	*	*	*	*
STI:					
- % STI Clients counselled and tested for HIV	*	*	*	*	*
- Syphilis: - All Stages	*	*	*	*	*
HIV:					
- No. PLWA on ARV	*	*	*	*	*
- % PLWA on ARV	*	*	*	*	*
No. of cases of Fever & Rash investigated within 48 hrs.	*	*	*	*	*

Source: WRHA Parish Reports 2003

*DNA

4.1 PERFORMANCES/ACHIEVEMENT – WRHA 2000-2003

4.1F CHRONIC NON-COMMUNICABLE DISEASES

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003
ASTHMA					
- Visits to PHC	*	*	1,543	1,289	1,282
- Cases seen in A&E	6,363	*	6,119	6,719	6,090
CANCER					
No. of Population					
- Receiving pap Smears	*	*	4,653	5,188	5,104
- With Invasive Ca Cervix	*	*	*	14	60
- Receiving Prostate examination	*	*	185	166	100
- Breast Examination	*	*	10,811	12,470	12,219
CARDIOVASCULAR DISEASE					
- PHC Visits for Hypertension	25,816	*	25,591	23,436	23,814
- Other Cardiovascular Diseases	2,672	*	2,770	3,006	3,189
- Chronic Rheumatic Heart Disease	1,043	*	1,100	984	814
- Cases seen in A&E	*	*	34,210	*	*
DIABETES MELLITUS					
- Visits to PHC	7,163	*	6,902	5,876	5,302
- No. of eye operations for cataract	*	*	*	*	*
- No. of leg ulcers	*	*	326	84	86
DIABETES & HYPERTENSION					
- PHC Visits	11,952	*	12,607	11,977	12,396
OTHER MONITORED DISEASES					
- RTI (Excluding Asthma)	*	*	11,952	10,808	9,675
- Other Gastro-intestinal Disorders	*	*	3,512	2,788	2,475

Source: MOH: MCSR, HMSR, WRHA-CNCD Report 2001-2003

*DNA

4.1 PERFORMANCES/ACHIEVEMENT – WRHA 2000-2003

4.1G CHILD & ADOLESCENT HEALTH

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003
Cases of Ophthalmia Neonatorum	*	*	*	31	*
Cases of Congenital Syphilis	*	<25.0	*	3	*
% HIV Exposed Infants	*	*	*	*	*
% HIV Exposed Infants receiving ARV	*	78.0	*	*	*
% Low Birth Weight (community + hospital)	1,081	*	1,020	840	714
Nutritional Status 0 – 35 months (Below Normal)	68	*	39	41	27
% Exclusive Breastfeeding at:					
- 6 weeks	2,505	60.0	4,781	4,513	4,316
- 12 weeks	*	*	3,348	3,244	2,899
Immunization Coverage %					
- BCG	94.0	95.0	98.6	100.0	97.1
- DPT	91.1	95.0	98.1	92.0	89.7
- OPV	90.6	95.0	96.0	90.6	89.4
- MMR	86.6	95.0	85.2	91.9	82.3
- Hepatitis B	0.4	85.2	0.1	8.1	22.5
- Haemophiles Influenzae B	0.3	*	*	0	21.9
No. of A&E visits for Asthma in the <5 yr. old	1,554	*	1,203	1,421	1,476
Hospital Discharge for GE					
Still Births - Hospital	160	<10.0	144	153	119
- Community	3	*	2	2	2
Perinatal Death Rate/1,000 live births	25.8	22	27.9	25.7	22.6
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

Source: MOH MCSR: HMSR 2000-2003

*DNA

4.1 PERFORMANCES/ACHIEVEMENT – WRHA 2000-2003

4.1H REPRODUCTIVE HEALTH

INDICATORS	Base Year 2000	Target 2005	2001	2002	2003
% Anaemic pregnant women adequately treated	*	*	72.6	60.5	46.1
% Syphilis positive pregnant women adequately treated	*	*	45.9	44.4	57.9
% Antenatal women tested for HIV	*	<10%	*	*	*
- Total	*	*	*	*	*
- %	*	*	*	*	*
- 15-25 years	*	*	*	*	*
% HIV positive pregnant women receiving ARV for PMTCT	*	78%	*	*	*
No. of cases of Pre-Eclampsia (Hospital & PHC)	35	*	167	126	119
- Ante partum Haemorrhage (Hospital)	23	*	33	41	28
- Postpartum Haemorrhage (Hospital)	287	*	298	392	426
% Deliveries Attended by Trained Personnel (Hospital & PHC)	*	99.7%	99.7	99.9	99.9
C-Section	986	*	929	1,072	1,161
No. of Postnatal Women Accepting Family Planning Method	28,136	70%	5,499	5,065	5,151
% increase in Number of:					
- Long Term Method Users - Depo Provera Injection	*	10%	3,132	2,923	1,904
- IUD	*	15%	163	156	27
(Hospital) – Tubal Ligation	672	*	583	695	689
Condom Use	1,545	*	1,855	1,657	1,576
Maternal deaths investigated within x weeks	*	100%	*	*	*
Maternal Deaths (Hospital (+ Community))	8 (+ 2)	<80%	5 (+ 0)	8(+0)	7(+0)

Source: MOH MCSR; HMSR; 2000-2003

*DNA

4.1 PERFORMANCE/ACHIEVEMENT – WRHA 2000-2003

4.1 I MENTAL HEALTH

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

Source: MOH HMSR 2000-2002, WRHA CMH Report 2003

APPENDICES

**TABLE A1: Utilization of Accident and Emergency (A&E) Services:
WRHA 2000-2003**

Hospital Services Accident & Emergency	Base Year 2000	2001	2002	2003
Total Attendance	129,289	137,163	136,649	143,968
Total Self-Referral	118,921	124,622	125,527	132,869
Total Receiving Care	122,388	132,426	129,242	135,105
Registered & Not Seen	6,900	4,737	7,407	8,863
Total Admitted	14,213	15,805	13,948	15,048

Source: MOH: HMSR 2000-2003

TABLE A2: Utilization of Surgical Services WRHA 2000-2003

Surgery	Base Year 2000	2001	2002	2003
Total	9,560	10,108	11,452	17,698
Type - Elective	4,633	4,767	4,555	4,450
- Emergency	2,761	2,542	2,533	3,057
- Day	2,088	2,781	3,910	5,377
- Minor (Out-patient)	78	18	454	4,814

Source: MOH: HMSR

TABLE A3: Utilization of Outpatient Specialist Clinics WRHA 2000-2003

Variables	Base Year 2000	2001	2002	2003
Number of Clinics	2,076	1,968	2,428	2,715
Number of Cases:				
- Total	90,751	92,172	94,492	98,522
- New	12,435	14,167	15,753	17,949

Source: MOH: HMSR 2000-2003

TABLE A4: Utilization of Radiography Services: WRHA 2000-2003

Variables	Base Year 2000	2001	2002	2003
Number of Clients				
- Total	22,076	32,777	32,079	36,687
- Outpatients	19,169	28,381	27,980	32,618
- Inpatients	2,907	4,396	4,009	4,069
Number of examinations	28,837	44,021	44,619	52,008

Source: MOH: HMSR

TABLE A5: Utilization of Pharmacy Services: WRHA 2000-2003

VARIABLES		Base Year 2000	2001	2002	2003
Pharmacy - Total number of clients	PHC	25,036	21,603	15,287	14,480
	Hospital	48,984	103,975	104,744	106,089
- Items prescribed	PHC	75,712	61,525	43,632	42,264
	Hospital	133,061	261,834	273,347	285,783
- Items dispensed	PHC	56,130	48,231	34,510	34,132
	Hospital	112,535	215,439	221,878	229,059

Source: MOH: MCSR; HMSR 2000-2003

TABLE B1: Inpatient Deaths in Public Hospitals by Five Leading Diagnoses: WRHA 2000-2003

DIAGNOSES	Base Year 2000	2001	2002	2003
Total Inpatient Deaths	858	953	*	1,406
Total inpatient Deaths based on 5 Leading Causes	668	743	*	930
Diseases of the Circulatory System	278	312	257	405
Neoplasm	110	126	123	193
Infectious and Parasitic Diseases	114	146	93	116
Diseases of the Respiratory System	91	83	60	85
Perinatal Conditions	75	76	28	30
Endocrine, Nutritional and Metabolic Diseases	63	69	45	131

Source: MOH – HIS

*DNA

GLOSSARY

A&E	Accident and Emergency
AFP	Acute Flaccid Paralysis
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
ARV	Anti-Retroviral (Drugs)
BCG	Bacille Calmette Guerin
CMH	Community Mental Health
C-Section	Caesarean Section
CVD	Cardiovascular Disease
DMF	Decayed, Missing, Filled (Teeth)
DNA	Data Not Available
DPT/DT	Diphtheria, Pertussis, Tetanus/Diphtheria, Tetanus
EPI	Expanded Programme for Immunization
GU	Genito-urinary
Hib	Haemophilus Influenza Type B
HIV	Human Immuno-deficiency Virus
HMSR	Hospital Monthly Statistical Report
IUD	Inter Uterine Device
JA	Jamaica
MCSR	Monthly Clinical Statistical Report
MMR	Measles, Mumps, Rubella
MOH	Ministry of Health

MO(H)	Medical Officer (Health)
MVA	Motor Vehicle Accident
NGO	Non Governmental Organization
OB/GYN	Obstetrics/Gynaecology
PID	Pelvic Inflammatory Disease
PTA	Parent Teachers Association
RD	Regional Director
RTD	Regional Technical Director
SLA	Service Level Agreement
STI	Sexually Transmitted Infection
Tb	Tuberculosis
WRHA	Western Regional Health Authority

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