NORTH EAST REGIONAL HEALTH AUTHORITY

NERHA

HEALTH CARE DELIVERY

Annual report
January—December 2008

PREPARED BY:
THE TECHNICAL DEPARTMENT

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Introduction

The North East Region comprises the parishes, **Portland, St. Mary** and **St. Ann.** The Region's health care delivery system provides for an estimated population of 365,879. The approach to service delivery embraces a family health and or holistic services approach which comprises, **Quality Assurance** which provides the overarching framework for service delivery, **Reproductive Health (*Maternal/Child Health, HIV/AIDS/STI, Family Planning, Cancer screening*), Curative/Secondary, Mental Health/Child Guidance, Environmental Health, and Dental Health.** The strategy of **health promotion/education** facilitates the effective/efficient delivery of the aforementioned services.

Services are offered from a total of two (2) type 4, eight (8) type 3, nineteen (19) type 2, forty four (44) type 1 and nine (9) satellite health centres. As well as, one (1) type "B", three (3) type "C" hospitals and two (2) community hospitals.

Executive Summary

"People are increasingly impatient with the inability of health services to deliver levels of national coverage that meet stated demands and changing needs, and with their failure to provide services in ways that correspond to their expectations. Few would disagree that health systems need to respond better – and faster – to the challenges of a changing world. PHC can do that." (*World Health Report 2008*)

There have been significant improvements in access to water, sanitation and antenatal care across Jamaica over the past three decades. This shows that progress is possible, but it can also be accelerated.

There are a number of trends that are cause for concern among public health sector managers and policymakers. Firstly, we are aware of existing health inequalities within each parish. Access to basic preventive services such as antenatal care, dental care, family planning and child health services, is not equal among the socio-economic groups. Moreover, while chronic non-communicable diseases span both the wealthier and poorer inhabitants, the quality and completeness of care is severely hampered for the latter, particularly because they lack access to pharmaceuticals prescribed as well as self-management care, such as foot care for diabetics. We still lack a comprehensive and integrated approach to case management.

Secondly, the poorer people remain more vulnerable to communicable diseases as they often live and work in conditions that are environmentally unsatisfactory.

Thirdly, our health systems are not shielded from negative changes that affect our society, such as the epidemic of violence. This means that a significant amount of our financial resources are expended for the purpose of the safety of both providers and users of our services. More than a decade ago, this was in no way an expenditure. In the present day the need is escalating and represents funds that are well needed to support direct patient and community health care.

Finally, the lack of a National Health Information System limits our ability to critically analyze Public Health data and hence planning and forecasting is weak and time-consuming.

In the meanwhile, efforts have continued to re-configure hospital services to best suit the needs of the populations served, while being careful to strengthen integration across service levels.
But there is optimism that the policies that are critical to correct these anomalies will be swiftly developed and implemented in the months and years to come.

Gratitude is humbly extended to all members of the regional technical and administrative as well as the parish teams for their dedication and strong stewardship during 2008.

Appreciation is also extended to the Ministry of Health and Environment who provided technical support and guidance throughout 2008.

Michele EA Roofe
Regional Technical Director

PROGRAMME PRIORITIES 2008

Health Service Delivery Broad Programme Priorities

These are in keeping with the National Priorities of the Ministry of Health and the health problems of the North-East Region. Emphasis has also been placed on the indicators highlighted in the Millennium Development Goals.

1. Expanded Programme on Immunization
2. Surveillance of all Class I Notifiable Diseases
3. Comprehensive Reproductive Health Services
    a. HIV/AIDS/STI Prevention and Control – Special attention to Strengthening prevention activities among the more high risk groups as well as the general population, as well as treatment, care and support of Persons Living With HIV/AIDS (PLWHAs).
    b. Other Areas of Reproductive Health
        i. Safe Motherhood
        ii. Family Planning
        iii. Breastfeeding
        iv. Screening for Cervical Cancer
        v. Screening for Breast Cancer
4. The Control of Chronic Non-Communicable Diseases
5. Mental Health – Special emphasis on further strengthening of the Mobile Teams and Psychiatric Nursing Aides recruitment, training and placement.
6. Environmental Health – especially Vector Control, Food Safety, Port Health, Water Quality and Sanitation.
7. Emergency Care – especially Pre-Hospital Care and Emergency Medical Services.
8. Disaster Preparedness

Other Priorities for Development

1. Quality Assurance
    a. Clinical Governance / Clinical Risk Management.
    b. Audits
    c. Selected Sentinel Events Reporting
2. Research, Health Planning and Development.

3. Regional Health Service Planning – Reconfiguration of health services and facilities including the upgrade of the Annotto Bay Hospital to General Type B status.
4. Institutional Strengthening (NHF Institutional benefits, CHASE Fund and other funding sources).

Hospital Utilization and Workload

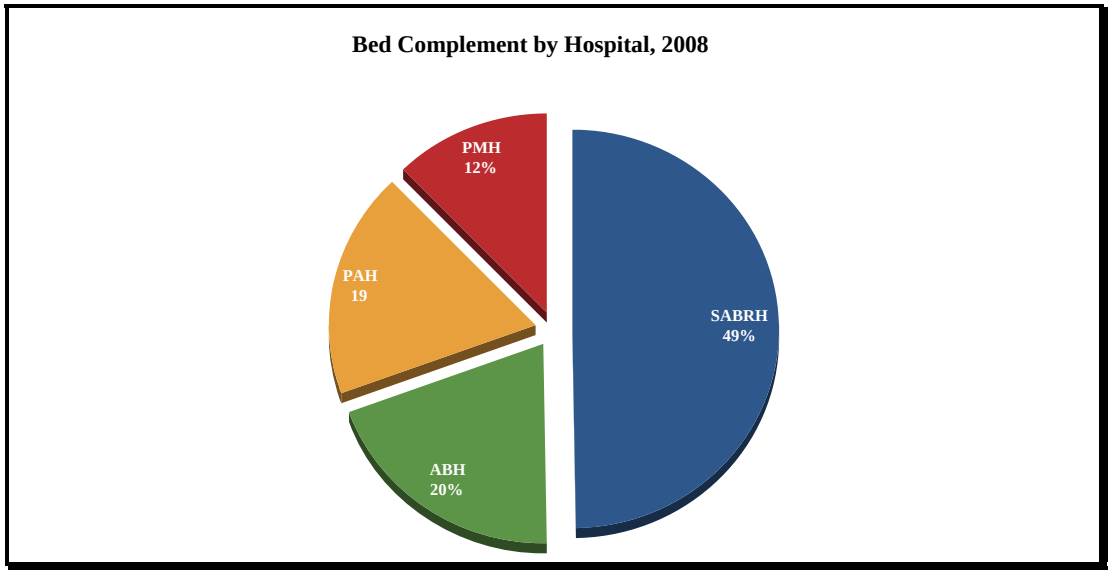
THE HOSPITAL SERVICES

AVERAGE BED COMPLEMENT

There were, on an average, 496 beds across the four hospitals in the NE Region. This represented an addition of 35 beds to the Male Medical Ward of the SABRH, and an overall 7% increase in beds for the region. No significant changes were made to the total number of active beds at the other three hospitals.

AVERAGE BED COMPLEMENT 2008					
Facility	All Specialty	General Medicine	General Surgery	Paediatrics	Obstetric
SABRH	247	66	84	48	46
ABH	97	32	42	12	11
PAH	92	32	34	15	11
PMH	60	24	6	16	14
NERHA	496	154	166	91	82

A half of these beds were located at the SABRH, while approximately 20% were allocated to each of the hospitals at Annotto Bay and Port Antonio. Port Maria Hospital accounted for only 12% of all beds.



PERCENT BED OCCUPANCY

Annual Target Bed Occupancy: 85%
Annual Achievement: 73%

With a targeted efficiency rate of an average of 85%, the average bed occupancy varied widely across hospitals and the specialties. The overall occupancy for the region was increased from 66.7% in 2007, to 73% in 2008.

PERCENT BED OCCUPANCY 2008					
Facility	All Specialty	General Medicine	General Surgery	Paediatrics	Obstetric
SABRH	83.7	95.5	75.1	77.6	88.7
ABH	83.4	90.8	72.8	81.6	105
PAH	47.8	59.9	41.5	45.8	34.7
PMH	53.9	75	75.4	44.3	19.5
NERHA	73.3	83.9	67.7	66.9	71.6

These data are likely to not reflect the true situation because of the variations in the numbers of active beds. This occurs whenever there are extra beds placed on wards or "boarders" are present in the Accident & Emergency Departments while awaiting an available bed on the wards. Generally the occupancies reported are expected to be higher particularly for internal medicine and general surgery where the demand for beds was highest.

While the average occupancy at the SABRH was generally the same as in 2007, for ABH, this statistic of 83% represents a marked increase over a report of 56% in 2007. Significant under-utilization continued at the PAH and PMH where the occupancies ranged from 48-54%.

Among the Specialties, bed occupancies were close enough to the efficient / best practice rate of 85% for General Medicine at SABRH and ABH, Paediatrics at ABH, and Obstetrics at SABRH and ABH.

As stated above, General Medicine and General Surgery continue to experience severe pressure for admission beds throughout the year. This results in patients being "boarded" in the Accident & Emergency Department for a day or more until beds are available on the wards for admission. This has been reported repeatedly especially at the SABRH and represents a significant clinical risk. Longstanding delayed transfers of social cases from the wards contribute to this as well as some level of readmissions for patients diagnosed with Chronic Non-Communicable Diseases.

During the peak season for births (September to December each year), there is an occupancy rate of over 100% on some occasions at the SABRH, PAH and ABH for Obstetrics.

AVERAGE LENGTH OF STAY (ALOS)

Annual Target ALOS: 4.5 days
Annual Achievement: 4.6 days

The overall ALOS for all hospitals ranged from 4.2 to 5.5 days, with an overall regional report of 4.6 days. This has remained constant over the past six years or so. Generally, Psychiatry patients remained in hospital 3.7 days longer than the average length of stay.

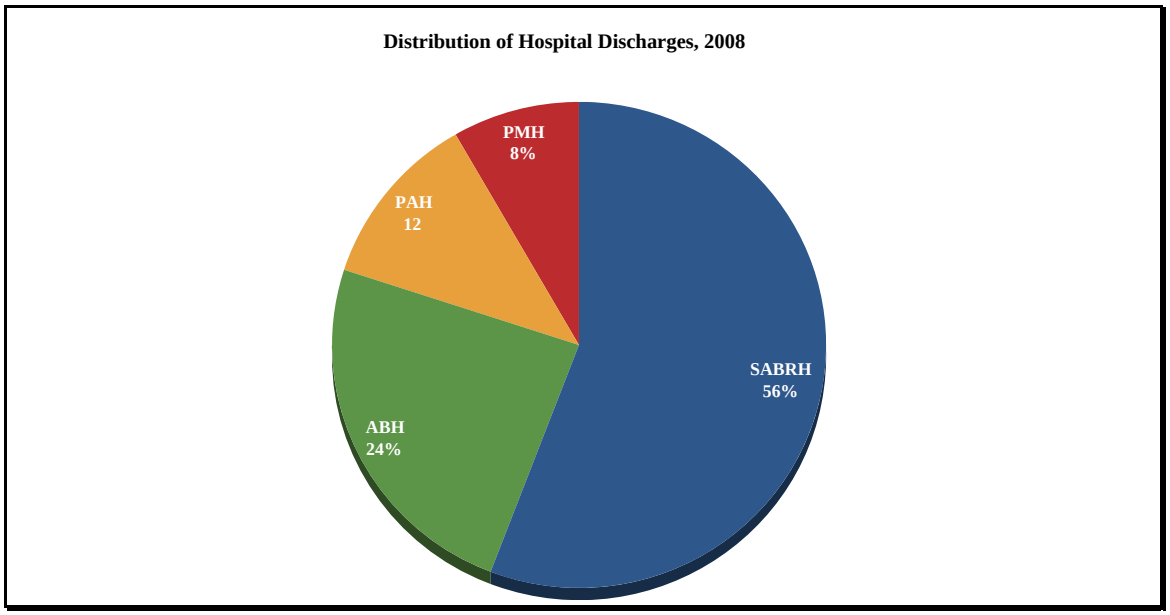
MEAN LENGTH OF STAY 2008						
Facility	All Specialty	General Medicine	General Surgery	Paediatrics	Obstetric	Psychiatry
SABRH	4.5	5.8	5.2	4.5	2.9	8.3
ABH	4.2	4.9	4.6	3.3	2.8	9.2
PAH	4.7	5.8	5.5	5.4	1.6	8
PMH	5.5	8.1	6.8	4.9	1.6	7.4
NERHA	4.6	5.8	5.2	4.5	2.6	8.3

HOSPITAL DISCHARGES

For the year 2008, there was total of 28,471 discharges from all four hospitals across all specialty services, representing a 10% increase when compared with 2007. These include General Medicine, General Surgery (including Orthopaedics and Gynaecology), Paediatrics, Obstetrics and Psychiatry.

TOTAL DISCHARGES (INCLUDING DEATHS) 2008						
Facility	All Specialty	General Medicine	General Surgery	Paediatrics	Obstetric	Psychiatry
SABRH	15883	3583	3973	2955	4919	453
ABH	6859	2092	2249	989	1446	83
PAH	3354	1083	906	491	815	59
PMH	2375	926	197	560	618	74
NERHA	28471	7684	7325	4995	7798	669

The St. Ann's Bay Regional Type B Hospital (SABRH) accounted for 56%, while the Annotto Bay Hospital (ABH) accounted for 24% (20% in 2007). The Type C hospitals at Port Antonio and Port Maria accounted for 12% and 8%, respectively. These data are similar to that seen in 2007. The majority of discharges are Obstetric, followed by General Medicine and General Surgery (including Orthopaedics). Psychiatry discharges remained constant at 2% for the seventh straight year.



THE HOSPITALS' CLINICAL DEPARTMENTS

Maternity Services – Labour and Delivery

Annual Target Caesarean Section Rate: 12-15%
Achievement: 17.4%

During the year 2008, a total of 5,413 mothers delivered across the NE Region's public hospitals. This was associated with 5,662 total births. The total births were similar to that reported in 2007 representing an increase of 3%. The Caesarean Section rate for the region was 17.4%, when compared with 16.1% in 2007. The rate for the regional hospital was 18.6%, comparable with the achievement of the previous year (17.6%).

Of significance, with the addition of a Specialist in Obstetrics and Gynaecology at the ABH in 2003, there was an increase in the C-Section Rate from 22% in 2007 to nearly 28% in 2008, at that institution. The rate for 2006 was 19.5%. By 2008, the service at the ABH became well established with its own definitive form, even in the presence of deficiencies in the Enabling Environment. With the same specialist serving the parish of Portland in terms of High-Risk Antenatal Clinics, the C-Section Rate fell by 4% to 6.4% at the PAH. Far more Portland patients, especially those designated as high-risk, were referred to the ABH for delivery.

OBSTETRIC DATA 2008			
Facility	Mothers delivered	C-Section	C-Section Rate
SABRH	3384	630	18.62
ABH	950	265	27.89
PAH	703	45	6.40
PMH	376	0	0.00
NERHA	5413	940	17.37

Of all births, there were a total of 5,590 or 98.7% livebirths. Of all livebirths, 13.3% were low birth weight newborns (7.5% in 2007 and 11% in 2006). We remain concerned about the relatively high perinatal mortality rate at the PAH (14.1 / 1000 total births) where deliveries are expected to be low risk and all other mothers are referred to a higher centre for management. It is our intention to establish a department of Obstetrics and Gynaecology at that facility as part of an expected upgrade and service expansion as soon as suitable manpower can be identified.

NEWBORN DATA 2008									
Facility	Tot Births	Tot L/Births	Tot >5.5 lbs	Tot < 5.5 lbs	Tot Stillbirths	% Low Birth Wt	Foetal Death Rate/1000	Perinatal Mortality rate/1000 tot births	Early Neonatal Mortality Rate/1000 live births
SABRH	3429	3379	2941	351	50	10.7	15	28.4	13.7
ABH	1090	1080	908	172	10	15.9	9.2	12.8	3.7
PAH	709	700	550	150	9	21.4	12.7	14.1	1.4
PMH	434	431	370	61	3	14.2	6.9	11.5	4.6
NERHA	5662	5590	4769	734	72	13.3	12.9	22.2	9.5

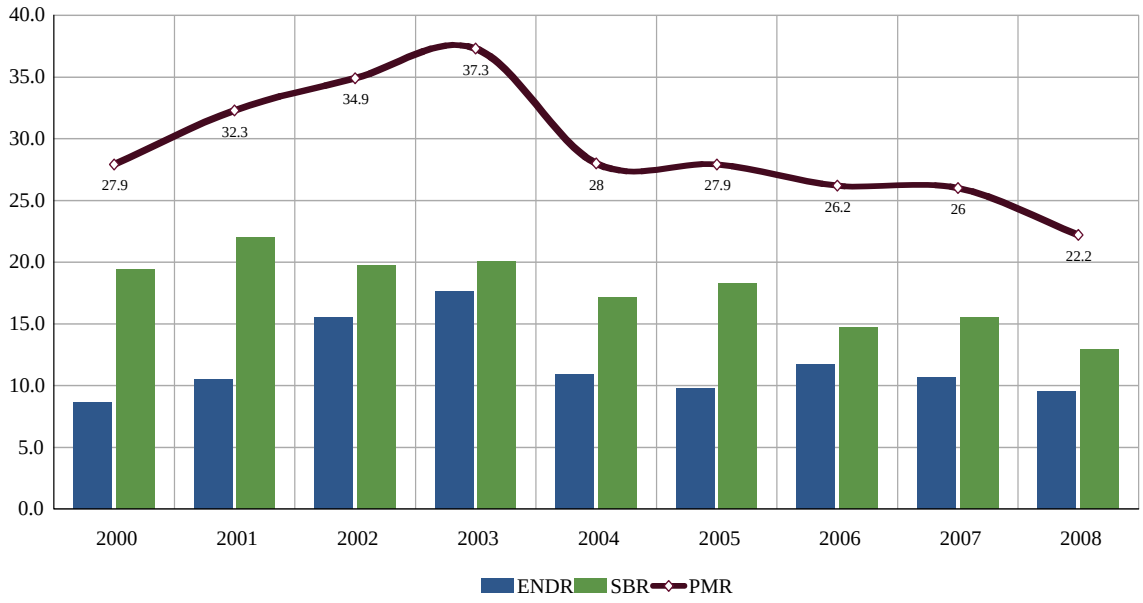
Perinatal Mortality: Trends 2000-2008

Annual Target Perinatal Mortality Rate: 26 per 1,000 total births
Achievement: 22.2 per 1,000 total births

According to the World Health Organization, neonatal deaths and stillbirths are associated with poor maternal health, inadequate antenatal care, inadequate and inappropriate management of complications during pregnancy, labour and delivery, poor hygiene during delivery and the first critical hours after birth, and lack of adequate resources for newborn care. In addition, several factors such as women's socio-economic status, their nutritional status at the time of conception, early childbearing, too many unplanned and closely spaced pregnancies, and harmful practices such as discarding colostrum and feeding other food, are deeply rooted in the cultural fabric of societies and interact in ways that are not always clearly understood [1].

The graph below displays the region's Perinatal Mortality Rate (PMR) and its components: Stillbirth Rate (SBR) and Early Neonatal Death Rate (END). These data, when compared with that for 2007, reveal a reduction in all three indicators. Our achievement surpassed the target for the first time.

Perinatal Mortality, Early Neonatal Death and Stillbirth Rates, 2008



Through perinatal mortality reviews, we continue to seek to determine the factors contributing to stillbirths and early neonatal deaths with a view to correcting and resolving these according to priorities, within the context of regional and national resources and in view of the global importance associated with the United Nations Millennium Development Goals.
(http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm).

When the disaggregated data are examined, we note that the perinatal mortality rate at the ABH has been halved over the period 2006 to 2007, from 23.4 to 11.9, while the 2008 statistic was reported as 12.8. In the meanwhile, at the PAH, the Perinatal Mortality Rate is more than halved from 30 in 2007 to 14 in 2008. This is associated with marked reductions in both the stillbirth and early neonatal deaths components.

It is early yet, but one may begin to conclude that the quality of the service has shown some improvements over the past four years. We are optimistic that we can achieve further reductions with special attention to manpower as well as the many facets of the enabling environment that need to be strengthened. With respect to the latter, of paramount importance are transportation (emergency vehicles), the availability of pharmaceuticals and supplies and bio-medical equipment.

SURGICAL SERVICES

Annual Target Day Surgery: 30%
Achievement: 29.4%

During the year 2008, a total of 4,878 operations were performed. This was 14.4% more than in 2007. Emergency surgeries increased by 16.5% relative to 2007, representing 37.5% of all operations (32% in 2006 and 37% in 2007). The day surgery rate was unchanged at 29.4%. The regional hospital performed 62% of all operations and 62% (66% in 2007) of all emergency surgeries. The OB/GYN services accounted for 52.5% of all operations across the region (57% in 2007).

TOTAL OPERATIONS PERFORMED 2008

Facility	Total Operations	Total Emergency	Total Listed	Total T/Ls	Day Surgery	Day Surgery %	Total Gen Surgery	Obstetrics	Total Other Gynae	Total Orthopaedics
SABRH	3033	1135	1898	149	834	27.50	789	664	1089	341
ABH	1313	601	712	87	474	36.10	491	295	328	0
PAH	532	96	436	22	124	23.31	174	46	138	0
NERHA	4878	1832	3046	258	1432	29.36	1454	1005	1555	341

At the ABH, the increase in Gynaecological and Obstetric surgeries (including tubal ligations) was noted at 30% higher than 2007. This we attribute to the elective and emergency together with increasingly sophisticated endoscopic (laparoscopy) services, as provided by the two Obstetrics and Gynaecology specialists. Orthopaedics was still not offered as no suitable replacement was found for the specialist previously employed, although efforts continue to recruit such an officer.

Specialty Outpatients Services

A total of 48,943 cases were seen at the out-patients specialty clinics across the region, this being nearly 26% more than that for 2007.

OUTPATIENT SPECIALTY CLINICS - TOTAL CASES 2008

Facility	Gen Med	Cardiac	Gen Surgery	Obst	Gynae	Urology	Orthopaedics	Psych	Radiotherapy	Child Guidance	Paed Med	Paed Surgery	Other
SABRH	5178	0	3440	2331	2718	2119	8590	719	0	0	3080	3080	319
ABH	2648	0	2661	0	0	0	0	1199	0	188	744	744	0
PAH	3812	0	1293	0	0	16	0	864	0	160	548	548	489
PMH	0	0	0	0	0	0	0	0	0	0	0	0	1455
NERHA	11638	0	7394	2331	2718	2135	8590	2782	0	348	4372	4372	2263

The Orthopedic team accounted for 18% (21% in 2007), while General Surgery (including Urology and Pediatric Surgery) saw 28% of visits (31% in 2007). Obstetrics and Gynaecology was responsible for 11% of visits, while General Medicine saw 24% of all visits (18% in 2007).

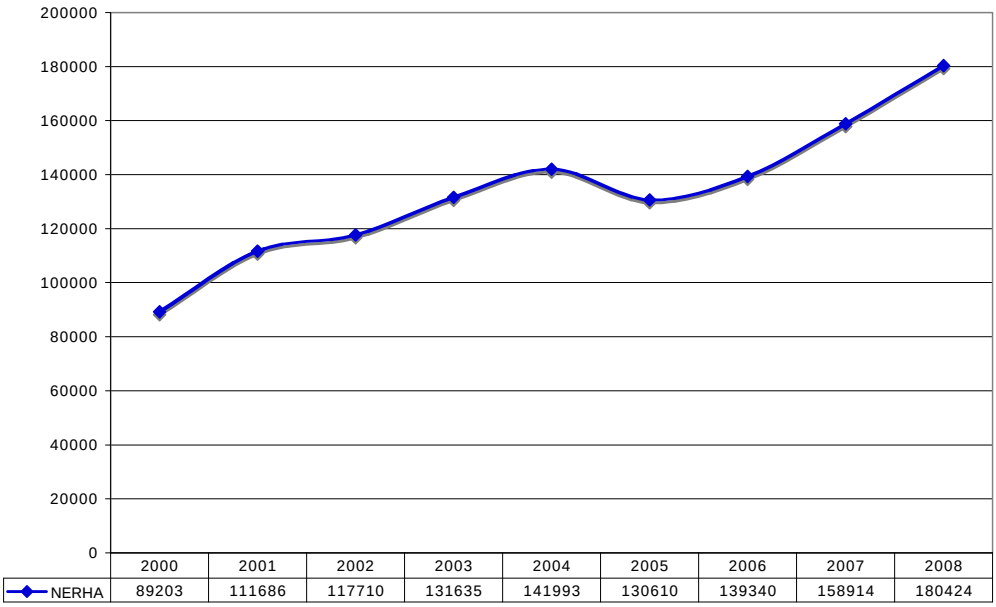
The Accident and Emergency Department

The total attendance to Casualty was 183,663, while the total number of patients actually seen was 180,424 an increase of 13.5% compared with the previous year. Generally, the same level of increase was noted between 2006 and 2007. Of those seen, 9.4% were admitted to hospitals in 2008.

CASUALTY ATTENDANCE 2008			
Facility	Total Attend	Total Seen	Adm to Hosp
SABRH	93593	91962	8448
ABH	27060	25955	4815
PAH	28128	27787	2102
PMH	34882	34720	1620
NERHA	183663	180424	16985

The eight-year trend for patients seen in Casualty Departments appears in the graph below. A higher level of increase was expected, relative to the previous year, in the context of the Abolition of User Fees policy which was implemented with effect from 2008 April 1. Other factors contributing to the increase may include annual changes in the population size served by the hospitals, urban-rural population shifts, and patients self-referring to hospitals which provide access 24 hours per day (versus health centres at 40 hours per week).

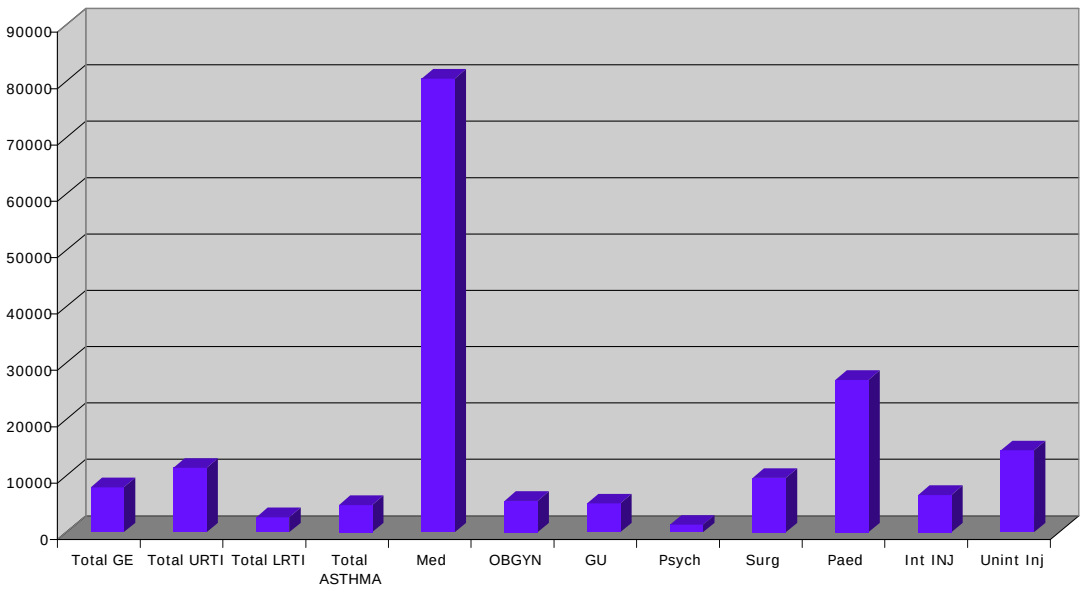
NERHA: Patients Seen at Casualty, 2000-2008



	2000	2001	2002	2003	2004	2005	2006	2007	2008
NERHA	89203	111686	117710	131635	141993	130610	139340	158914	180424

Internal Medicine accounted for 80,515 visits to A&E (an increase of over 21%), while Paediatrics accounted for just over 27,000 as in 2007. Unintentional and intentional injuries saw 14,576 and 6,648 visits, respectively. These data are not remarkably different than that of 2007.

Visits to Accident & Emergency Departments,



THE PARAMEDICAL HOSPITAL SERVICES

PHYSIOTHERAPY

During 2008, the Physiotherapy Department at the SABRH treated 2,164 patients which was comparable to that for 2007. There were 1,018 new patients and a total of 24,291 treatment units were given. This represents a 7% reduction in treatment units relative to 2007. That hospital is the only facility providing this service in NERHA, but is still constrained by staff shortages and inadequate equipment for effective patient treatment and rehabilitation.

The department continued to be plagued by a lack of essential equipment for patient care. Furthermore, the maintenance and repairs for their highly specialized machines has been far less than adequate. Rated (informally) for years as the best department at the regional hospital, the Physiotherapy Team continues to advocate regionally and nationally for the needed machinery. Staffing levels have also been inadequate particularly in the face of the increased demand for services following the abolition of user fees.

Equipment was received by the department during 2008. These included a treadmill and ergometer for cardiac rehabilitation and a magneto pulse that is used for the treatment of a variety of complaints.

LABORATORY SERVICES

With the services of the Clinical Pathologist in place for the fourth consecutive year, a total of 627,537 specimens (an increase of 29.5%) were processed.

PATHOLOGY 2008											
Facility	Cytology	Haematology	Chemistry	Urinalysis	Histology	HIV	Other Immunology	Environmental	Total Microbiology	Other	Total
SABRH	12	40304	233268	4451	1069	3008	1063	0	65356	6044	354575
ABH	2	68274	85376	1075	382	1395	153	0	1286	0	157943
PAH	0	31556	41349	559	0	1595	0	0	849	0	75908
PMH	0	28100	6669	332	0	2535	1475	0	0	0	39111
NERHA	14	168234	366662	6417	1451	8533	2691	0	67491	6044	627537

This increase was attributed mainly to Chemistry, Haematology, Cytology, Microbiology and HIV testing.

The Clinical Pathologist's workload is highlighted below:

Procedures / Tests	2005	2006	2007	2008
Autopsy	183	239	239	284
Histo-Pathology	611	932	888	957
Cytology (Special)	29	50	72	137
Haematology (Special)	69	157	77	22

These data indicate that 66% of all histology specimens requiring processing were examined and reported by the lone Pathologist. Other specimens were sent mainly to the National Public Health Laboratory in Kingston, where the turn-around time remains unacceptably high.

Other special laboratory diagnostics are displayed in the table which appears below:

Investigation	Annual Total (2008)
Malaria	38
Leptospirosis	140
Tuberculosis	245
Hepatitis	595
VDRL/TRUST	2,226
HIV	3,032
BHCG	118
CEA	54
PSA	1,695

During 2008, the following laboratory equipment were received:

a. Elecsys 2010 Immuno-chemistry analyzer.
b. Sysmex XT 2000i haematology analyzer PLUS back up Sysmex XT 1000i analyzer.
c. Cobas Integra 400+ chemistry analyzer PLUS identical back up analyzer.
d. Genesys UV Spectrophotometer.
e. Centrifuge.

This list includes the chemistry and haematology analyzers which were obtained through procurement procedures and opting for a lease agreement rather than purchase arrangement. These machines, together with the others listed, expands the range and scope of laboratory testing at the Regional Hospital for the first time, to a level resembling that of any reputable private laboratory within our island.

The Elecsys 2010 received February 2008 now performs tests such as PSA, CEA, BHCG, Thyroid Profile and Cardiac markers. This has significantly improved our ability to

identify and treat prostate and colorectal cancers, myocardial infarctions and hypo/hyperthyroidism. The BHCG has completely revolutionized the detection and treatment of disorders such as ectopic pregnancy and hydatidiform mole.

The other specialized analysers serve the entire region, while the lease agreement also provides one analyzer each for chemistry and haematology at the other hospitals across NERHA, with the exception being the ABH, where back up analysers are also present. The supplier will relocate any back up analyzer to a Type C Hospital if needed, within 24 hours of the request being made, in the event of machine failure.

As the laboratory services have expanded at the regional hospital, the need for additional space is clear. This infrastructure expansion is a priority for the laboratory department for 2009 and beyond. At the same time, incremental staffing increases occur although staff attrition is a constant challenge.

Radiology Services

The services consisted of plain X-Rays, contrast studies, and Ultrasound. Referrals were made for CT Scans and Echocardiography.

RADIOLOGY 2008			
Facility	Total Inpts	Total OutPts	Total Pts Seen
SABRH	4538	23067	27605
ABH	1033	8767	9800
PAH	473	2728	3201
PMH	335	1281	1616
NERHA	6379	35843	42222

A total of 42,222 patients were seen during 2008, representing a 40% increase in utilization when compared with 2007. Just over 56,600 plain x-ray and contrast studies as well as 3,266 ultrasound examinations were conducted. The regional hospital continued to function without a fulltime Radiologist. On the average, a part-time Radiologist served the hospital twice weekly.

RADIOLOGY 2008					
Facility	# Plain X-Ray	# Contrast X-Ray	# Ultrasound	# Echocard	Total
SABRH	37688	37688	2994	0	78370
ABH	12905	12905	272	0	26082
PAH	4037	4037	0	0	8074
PMH	1986	1986	0	0	3972
NERHA	56616	56616	3266	0	116498

The intention to pursue Public-Private arrangements in order to secure sustainable fulltime and emergency Radiologist coverage for the SABRH remains. This specialty is one of the known scarce skills among health care providers and medical specialists, in particular. This scarce skill is also an obstacle for the private health sector. Significant downtime was noted across the hospitals at different times throughout the year.

Pharmacy

The total number of patients served across the region was over 113,338 or 15% more than that reported for 2007. However, the accuracy and completeness of these data is questionable due to manpower and technology related issues.

PHARMACY 2008						
Facility	# Items Prescribed	# Items Dispensed	% Items Dispensed	Total # In-Pts	Total # Out-Pts	Total # Pts
SABRH	80761	89595	110.9	8488	20501	28989
ABH	93932	144760	154.1	8172	24731	32903
PAH	35813	30421	84.9	1531	9627	11158
PMH	132403	98690	74.5	1885	38403	40288
NERHA	342909	363466	106.0	20076	93262	113338

There is a perception among clinicians that there is an increase in admissions and re-admissions especially to the medical wards as patients have not been able to access medication readily at hospitals across the region. The data above imply that all items prescribed were dispensed, but we do know that these data are not valid.

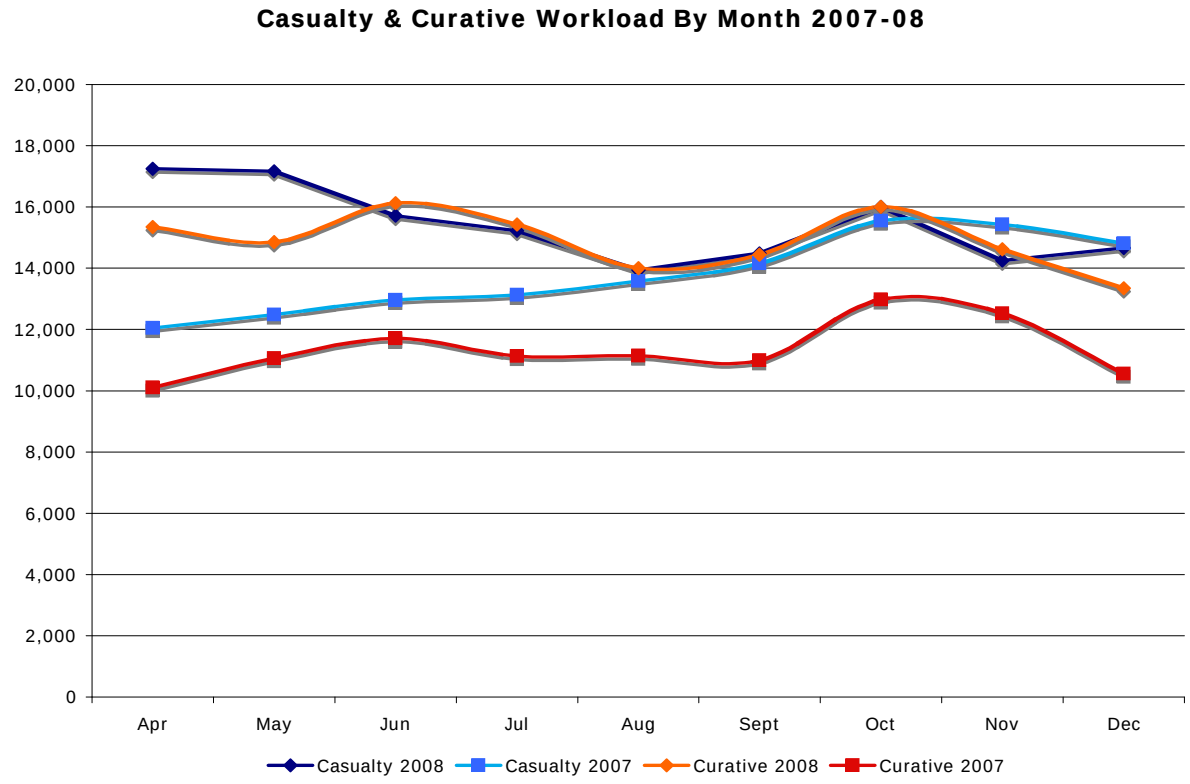
PHARMACY - THERAPEUTIC CATEGORIES 2008													
Facility	Alimentary	Cardio-vascular	Respiratory	CNS	Anaesthetics	Infections	Endocrine	Malignancies	Nutritional	Ear & Eye	Dermatology	Miscellaneous	Special usage
SABRH	28989	7683	23417	4755	12477	210	16996	11734	1882	3833	855	1468	2750
ABH	32903	4106	13122	6212	16211	295	30781	1991	1368	7399	4520	7181	519
PAH	11158	1768	10245	2175	7770	0	4046	3544	20	1393	358	794	242
PMH	40288	4522	19208	4940	24968	0	21299	9146	0	7244	837	4158	4850
NERHA	113338	18079	65992	18082	61426	505	73122	26415	3270	19869	6570	13601	8361

The most widely used therapeutic category of drugs was Alimentary followed by Endocrine, Respiratory, and Anaesthetics.

ABOLITION OF USER FEES POLICY IMPLEMENTATION

The policy was implemented on 2009 April 1. Here is a summary of reported workload changes across the major primary health care and hospital services.

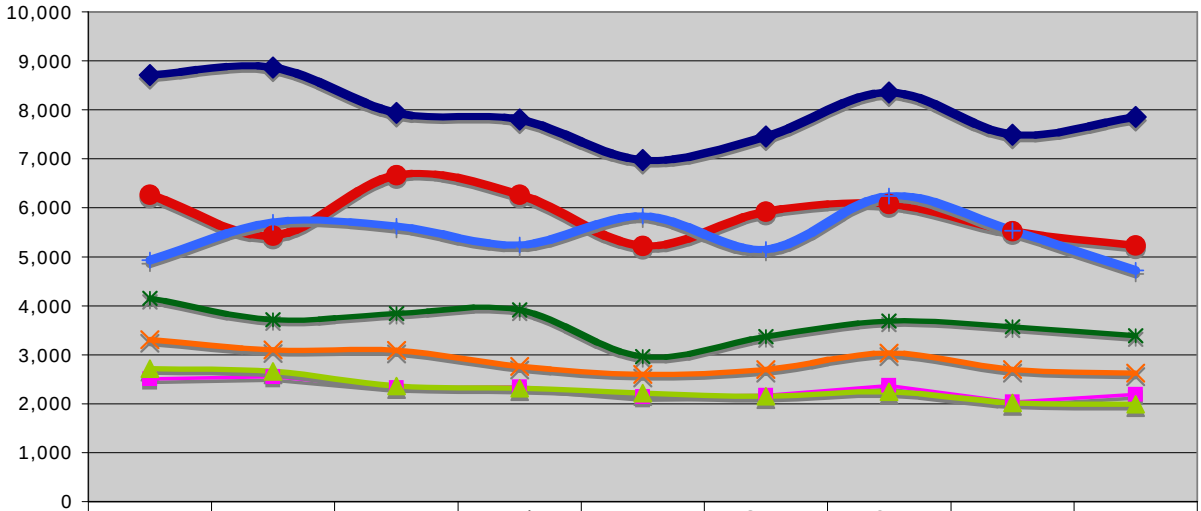
The graph below shows an initial surge in utilization of services at Casualty Departments and for Curative services at health centres. For the former, there was a gradual reduction in visits such that, by the fifth month (August), utilization appeared to mirror that of 2007. A number of factors may have contributed to the reduction in visits. These may include poor customer service, inadequate waiting areas to meet the needs of the larger crowds, longer waiting times and higher doctor-to-patient ratios associated with our inability to identify suitable doctors for employment as added manpower.



For curative services, with the introduction of extended hours clinics at selected health centres in the parishes of St Ann and St Mary only, the increased utilization initially reported, was maintained up to year end although there was a reduction in the magnitude of the gap by November 2008.

From the graph below, it may be noted that the curative visits to the health centres of the St Mary Health Department (SMHD) were far greater than the total sum of the visits to Casualty for both the ABH and the PMH.

Hospital and Curative Visits by Parish, 2008



	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
SABH	8,713	8,862	7,936	7,799	6,972	7,453	8358	7497	7856
ABH	2,506	2,548	2,328	2,339	2,140	2,174	2367	2036	2186
PAH	2,718	2,658	2,363	2,315	2,220	2,156	2246	2017	1993
PMH	3,310	3,096	3,086	2,763	2,602	2,697	3035	2696	2626
PHD	4148	3713	3839	3919	2958	3374	3685	3565	3388
SMHD	6265	5428	6664	6263	5218	5918	6072	5518	5233
SAHD	4930	5707	5618	5245	5828	5147	6240	5532	4725

This we attribute to the increased access to curative services that was afforded by extended hours on weekdays and weekends according to the schedule below:

Health Centres	Schedule	Extended Hours	Services Offered
St. Ann Alexandria Community Hospital	Weekdays	4pm-8pm	Curative & Maternity (low risk deliveries)
St. Ann's Bay Health Centre Type 4	Weekdays Saturdays	7am -3pm 8:30am-12:30pm	Curative, Dental, Family Planning, Immunization, Child Health Curative, Child health & immunization
St. Mary Highgate Health Centre Type 3	Mondays and Wednesdays	4pm- 8pm	Curative
Gayle Health Centre Type 3	Mondays, Tuesdays, Wednesdays Saturdays	4pm- 8pm 10am-2pm	Curative , M.C.H, Immunization, Cancer Screening Immunization
Oracabessa health centre Type 2	Tuesdays , Wednesdays & Thursdays	4pm- 8pm	Curative Immunization , M.C. H

The utilization of extended hours clinics in St Mary and St Ann was encouraging with a sustained 31% increase in total curative visits to the end of December 2008. Over 33% of all health centre visits are due to attendance at extended hours sessions across those two parishes. Especially in St Mary, the volume of patients in the evening at times overwhelms the nursing and medical staff present. Unfortunately, the secondary purpose for extended hours is being fulfilled more than the primary purpose. That is, there is greater use for curative services than for the preventive services. We hope to reverse this trend in the coming year.

The severe staffing shortage among nurses, midwives and medical officers was a barrier to establishing extended hours clinics in the parish of Portland.

Other trends are presented in the tables below:

Service/Dept	% Change Apr-Sept 08	% Change Apr-Dec 08
Curative Visits Health Centres	**+31%**	**+31%**
Dental	+2%	**+12%**
Child Health	-0.4%	+0.8%
Antenatal	+7.3%	**+13%**
Postnatal	-5.4%	-0.4%
Family Planning	+8%	+6.2%

Service/Dept	% Change Apr-Sept 08	% Change Apr-Dec 08
Admissions	+13%	**+7.2%**
Casualty	+20%	**+11.7%;** SABRH = +13% ABH = +24% PMH = +6.4% PAH = +3.5%
Total Surgery	+17%	**+12.4%**
Elective Surgery	+22%	**+17%**
Day Surgery	+22%	+20%
Emergency Surgery	+24%	**+14%**
% Emergency Surgeries of Total Operations	39%	39%

Service	% Change Apr-Sept 08	% Change Apr-Dec 08
X-Ray	??? +72%	+50% (Procedures & Patients seen);
X-Ray - Out-Patients workload		340 more patients seen per month in Dec 08 relative to Jan 08.
Laboratory	+33%	+26%
Pharmacy: # Items prescribed		+24%
Pharmacy: # Items dispensed	+25%	+50%
% drugs dispensed/prescribed	87%	? 78.6% (Incomplete data SABRH)

Monitoring Qualitative Aspects of the Implemented Abolition of User Fees Policy

The assignment of collating information and preparing quarterly and annual reports on the qualitative aspects of the abolition of user fees in the North East Region was given to the Regional Health Promotion Officer (RHPO). Activities undertaken involved the following:

- Conducting interviews with staff and clients at health facilities to determine the effect of abolition on perceptions, attitudes and patterns of behaviour in relationships, with a view towards identifying solutions to problems.
- Reviewing patients complaints reports and analyzing client satisfaction surveys
- Reviewing financial, inventory and work load reports to validate qualitative findings.
- Compiling reports

This was a very challenging and time consuming assignment which cut heavily into the schedule of other previously planned core health promotion activities.

The monitoring and evaluation of the abolition of user fees identified many gaps and short comings in NERHAs customer service structure and validated previous reports of very poor customer service practices. In an effort to redress these systemic deficiencies, a revival of the customer service committee has been undertaken.

A customer service report for 2008 was also compiled by the Regional Health Promotion Officer (RHPO) and sent to the Standards and Monitoring Unit of the Public Sector Reform Unit of the Office of the Cabinet.

DISASTER PREPAREDNESS AND EMERGENCY MANAGEMENT

While we all slept, during the early morning hours of Thursday, April 17, there was a deluge of water, debris and mud into the town of Ocho Rios. The disaster had a moderately severe effect upon the regional office located on the ground floor at the Ocean Village Shopping Centre. There was damage to the physical infrastructure of the building, computer and other electronic equipment and documents including some employee personal files and paperwork from payroll. Overnight, the water and mud levels in the offices exceeded twelve inches in a number of rooms (please see photographs below).







The regional office staff together with employees from the Regional Maintenance Unit came together as a vibrant team and did an admirable job in returning the offices to state that allowed for normal functions.

Within a few days however, at least eighteen employees began to experience upper respiratory and allergy related symptoms requiring treatment. The dampness produced molds, and this together with residual dust on dried paperwork contributed to the illnesses and resulted the diagnosis of Sick Building Syndrome and the decision to employ a professional cleaning company.

The Ocho Rios Health Centre was also significantly affected. Services were suspended for a few days to allow for cleaning, fumigation and repairs.

The event reminded us of the extreme vulnerability of our offices to severe rainfall because of the oceanfront location.

Estimates of the damages are outlined as follows:

- Replacement of damaged IT equipment - $612,000.00
- Repairs to the Ocho Rios Health Centre - $106,500.00

QUALITY ASSURANCE – SENTINEL EVENTS REPORTING

The high media publicity experienced during 2008 has been a source of immense stress. Regretfully, this served as the catalyst for the review of our dormant Sentinel Events Monitoring and Reporting System. This system was engaged to review incidents of absconding at the two Type B Hospitals.

The greatest fear is that an absconded patient becomes the victim of an intentional or unintentional injury that may be serious or even FATAL.

PATIENTS ABSCONDING JAN-DEC 2008

Hospital	Total # of Patients	# with Psychiatric Diagnosis	% with Psychiatric Diagnosis
SABRH	23	20	87
ABH	13	8	61.5
PMH	-	-	-
PAH	Nil reported	Nil reported	Nil reported

SABRH:

There were a total of 29 incidents of absconding reported. These involved 23 separate patients, including 4 repeat absconders. In essence, on the average, 2-3 patients absconded from this health facility each month.

Age range: 10-52 yrs.

Male Medical Ward - 48%

Paediatrics - 1 case

Diagnoses include Suicide Risk - 1; Suicide Attempt - 1.

ABH:

Age range: 18-71 yrs

Gender: 12 males

Male Medical Ward: 77%

One 18 year old male absconded 3 times in 2 days.

Actions:

1. Individual case analyses conducted by the Regional Psychiatrist.
2. Institute routine Sentinel Events Reporting to include Absconding, injuries to staff by patients, injuries to patients by staff, patient falls, etc.
3. Re-evaluate numbers and distribution of Psychiatric Nursing Aides. Request additional posts as needed.
4. Conduct root cause analyses to identify system and other weaknesses so these can be addressed as a priority.

The overall aim is to ensure that the region achieves a reduction and eventually an elimination of incidents of absconding.

QUALITY ASSURANCE

OBJECTIVES

- Improvement in quality of healthcare through staff participation on critical committees.
- Use of Risk Register to identify and respond appropriately to risks
- Develop checklists for monitoring adherence to Policy and Procedures.

ACTIVITIES

Infection Control

- Universal Precautions Sessions held with staff within NERHA (St. Ann and Pt. Antonio Health Department, Pt. Maria Hospital) as well as staff of Daycare Centres in St. Mary. Done in collaboration with Regional Pharmacist and Regional Environmental Health Officer.
- Encourage effectiveness of committees in St. Ann and St. Mary.
- Encourage reactivation of committee in Pt. Antonio Hospital.
- Conducted Environmental Audits in 3 hospitals.
- Streamlining of CSSD activities and analysis of process flow.

Cervical Cancer Programme

- Meetings held to incorporate Workplace Wellness in Cervical Cancer Programme throughout NERHA and in communities.
- Coordination of reports.
- Lobby for relocation of Colposcopy Clinic from St. Ann's Bay Hospital to the Health Centre.

Instrument Procurement

- Continue to formulate procurement lists of surgical instruments for all hospitals in collaboration with surgeons.
- Liaise with procurement department on specifications listed.

Meetings

- Infection Control Committees in St. Ann and St. Mary
- Heads of Department meetings – SABH
- Operating Theatre Management – SABH
- Customer Service Committee- NERHA

General

- Continued to extract data for Perinatal Mortality studies.

- Conducted research on IV Antibiotic Administration in SABH.
- Monitored Health Departments' attention to non-compliance reports from MOHE and responses to reports.

ACHIEVEMENTS

- Units and refills for alcohol hand rub/sanitizers obtained and distributed. All facilities encouraged to reorder refills.
- New colposcope received and installed in new room in St. Ann's Bay Health Centre. Colposcopy Clinic is assisted by Primary Care nurse.
- Environmental audits confirmed anecdotal evidence of need to improve cleaning. Sessions continue with ancillary staff on cleaning techniques and dilution of cleaning agents. SABH not done as Public Health Inspectors had recently conducted a similar audit.
- Arranged for UPS to be placed on CTG machine in Maternity Ward, SABH and on Colposcope in St. Ann's Bay Health Centre.
- Arranged for collection and repair of damaged foetal dopplers in all hospitals.
- New Medical Interns given Orientation to Policies and Procedures within St. Ann's Bay Hospital. Orientation Manual used as well as presentations from Heads of Departments.
- New Female Orderlies given orientation to St. Ann's Bay Hospital.
- Organized the training in cleaning techniques for female attendants in SABH.
- Organized and received 5 boxes of medical sundries from the Jamaica-Florida Nurses Association for SABH.
- Participated in NERHA's Career Exposition held in Ocho Rios.
- Completed data collection for IV Antibiotic Administration and commenced data entry.
- Checklists for Policy and Procedure Manuals have not yet been developed.
- The first set of surgical instruments were received and delivered to OT- SABH.

The year ended on a more positive note than previously as staff within the Region are more receptive to the need for improvements and are willing to work towards specific goals. However, staff members need to be more proactive in the identification of risks and attempting to find their own solutions before blaming management. A better 2009 is anticipated.

Primary Health Care

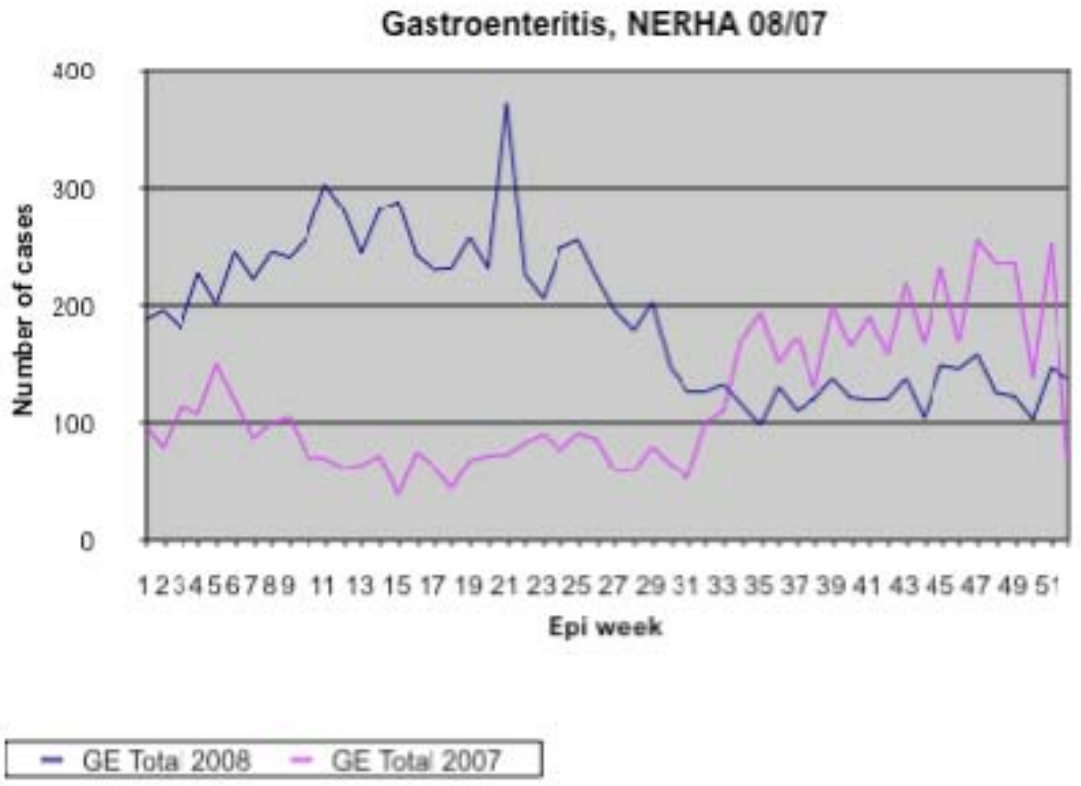
SURVEILLANCE

SENTINEL SURVEILLANCE

Gastroenteritis

A rise in the number of gastroenteritis (GE) cases reported by sentinel surveillance is usually seen at the beginning and/or end of the calendar year. This did not, however, come to pass in 2008. Reported number of GE cases remain below that seen at the beginning of 2008 but above the "low period" in 2007 (figure 1).

Figure 1. Line graph showing number of cases of gastroenteritis reported weekly in NERHA for 2008 and 2007 (all age groups).

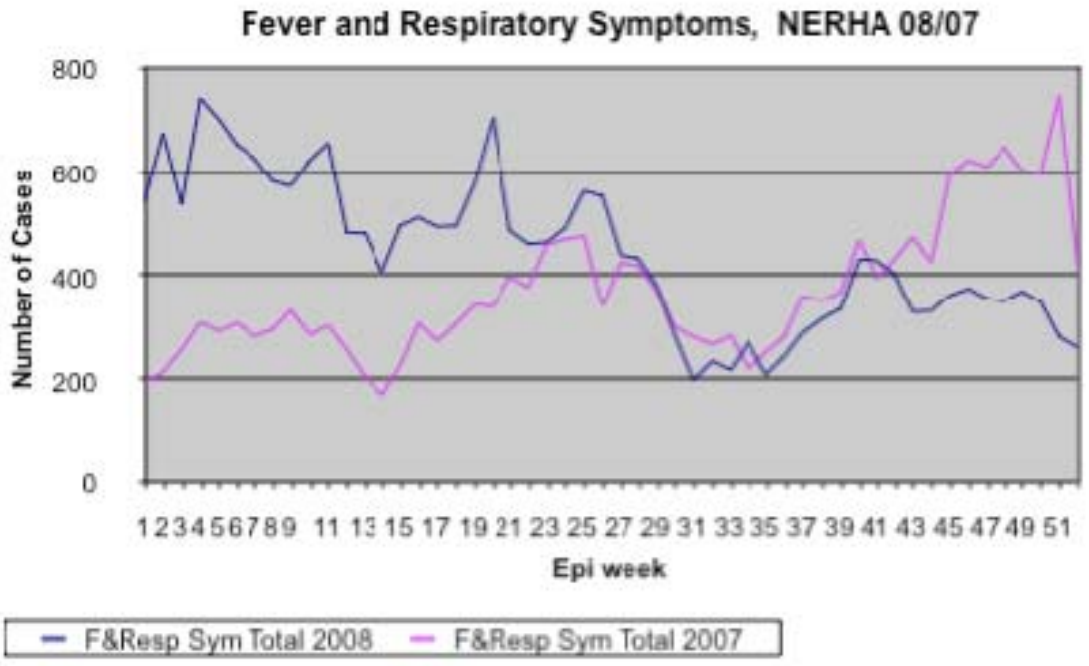


Fever and Respiratory Symptoms

Fever and respiratory symptoms also tend to trend upwards at the beginning and/or end of the calendar year (fig. 2). Figures reported weekly for 2008 were above those reported for 2007 at the beginning of 2008 but fell below those figures reported for the end of 2007 as of October 2008.

When the data was disaggregated into three age groups (as reported on the National Surveillance Unit sentinel reporting form) all age groups exhibited an increase in Mid-May 2008. The 5- 59 age group accounted for the greatest number of cases overall throughout the year as well as the greatest increase in the reported number of cases of fever and respiratory symptoms in mid-May 2008 was seen in individuals 60 years of age and above (52% increase in 60 and over age group compared to 40% and 0% in the 5-59 and under 5 age groups respectively)[1]. The parish of St. Ann reported the greatest number of cases and showed greater percentage increases in all age groups than seen for NERHA overall.

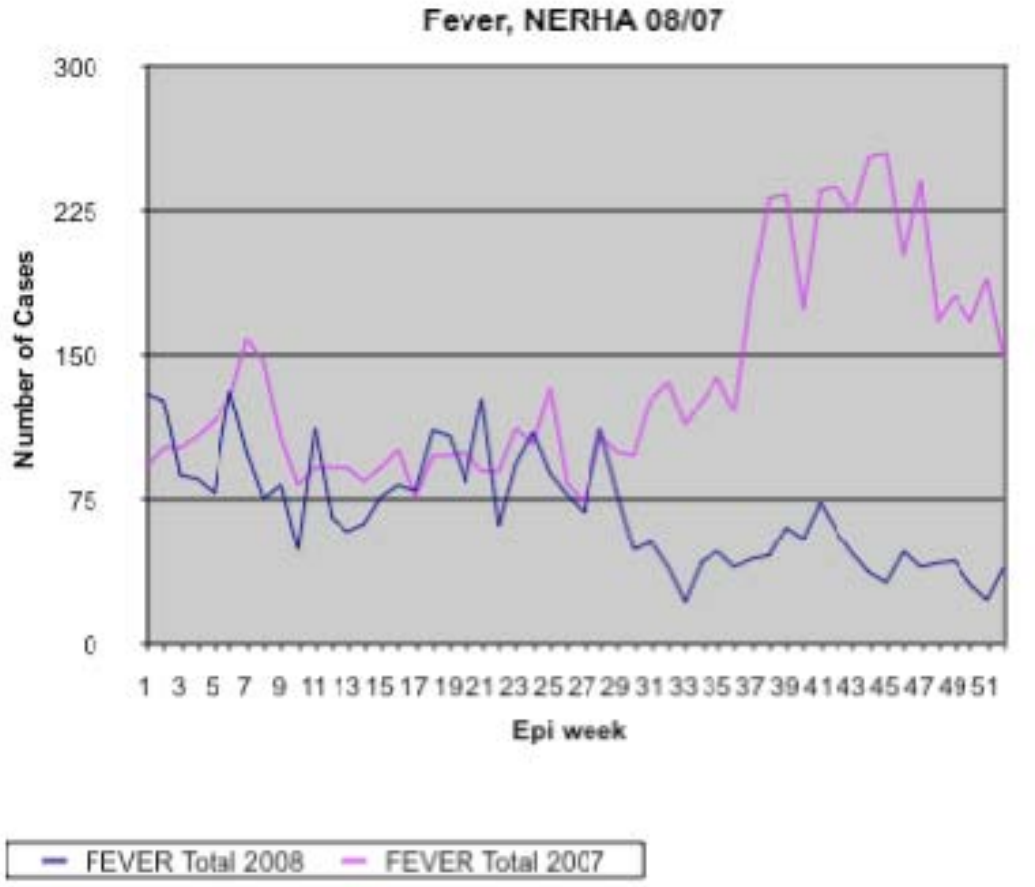
Figure 2. Line graph showing number of cases of fever and respiratory symptoms reported weekly in NERHA for 2008 and 2007 (all age groups).



Fever

The total reported number of fever cases for 2008 remained fairly steady throughout the year with a downward trend noted toward the end of 2008 (fig. 3).

Figure 3. Line graph showing number of cases of fever reported weekly in NERHA for 2008 and 2007.



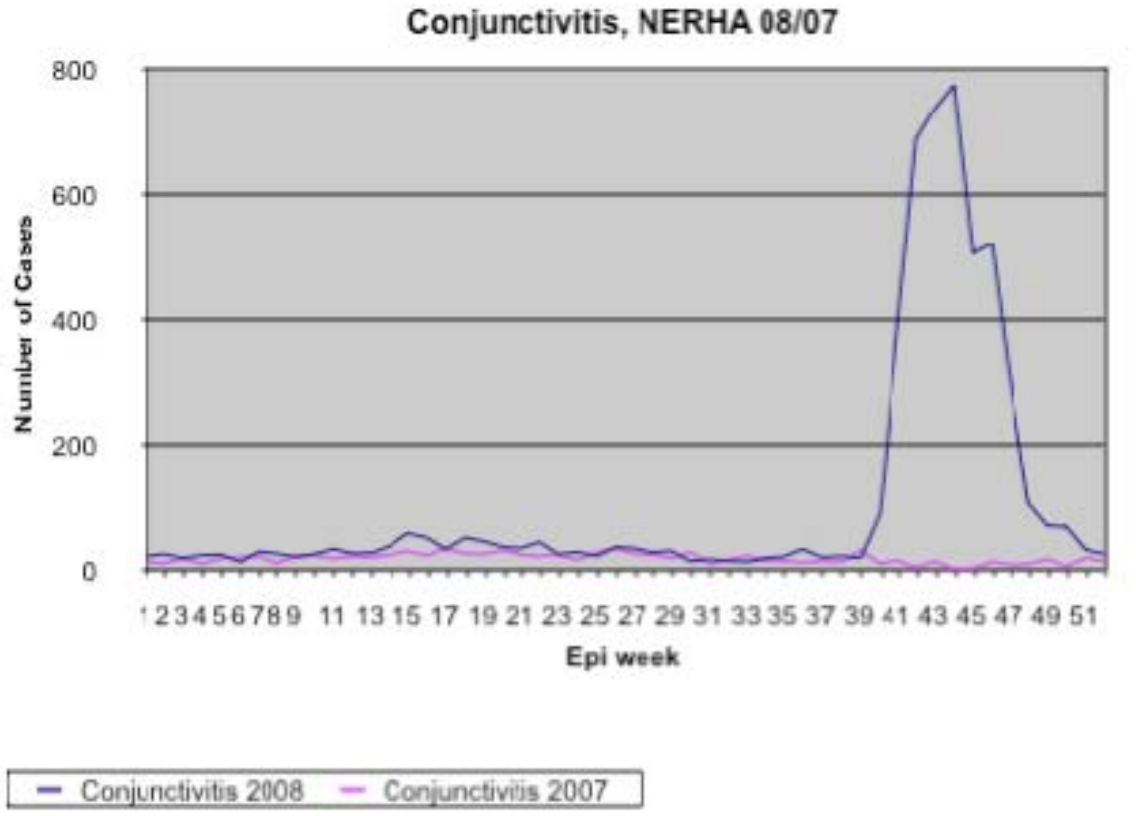
[1] The percentage increase was calculated by dividing the highest reported figure for the year by the average of reported figures to the end of April (Epi. week 18).

Conjunctivitis

There was an outbreak of conjunctivitis in 2008 (fig. 4). The number of reported cases started to increase at the end of September, 2008 and peaked at the end of October 2008 at a total of 776 cases in one week (26 times the average number of cases reported weekly up to the start of the outbreak). A similar trend was noted nationally with the curve shifted to the left or right for individual parishes. The number of cases reported weekly in NERHA subsequently fell over the following 7 weeks to pre-outbreak levels.
A national public education campaign was initiated when the outbreak was recognized and was carried on in all three parishes in NERHA.

Other than during the outbreak period, the weekly figures for 2007 and 2008 were similar.

Figure 4. Line graph showing number of cases of conjunctivitis reported weekly in NERHA for 2008 and 2007.



Skin Conditions

Scabies (fig. 6), chicken pox (fig. 7) and tinea (fig. 5) are skin conditions under surveillance in NERHA. A slight upward trend was noted for tinea and chicken pox at the end of 2008 but not for scabies. All parishes in NERHA exhibited an increase in the number of cases of chickenpox reported weekly over the period March to June, 2008. St Ann reported the largest number of cases in one week in mid-April, 2008 (46 cases).

Figure 5. Line graph showing number of cases of tinea reported weekly in NERHA for 2008 and 2007.

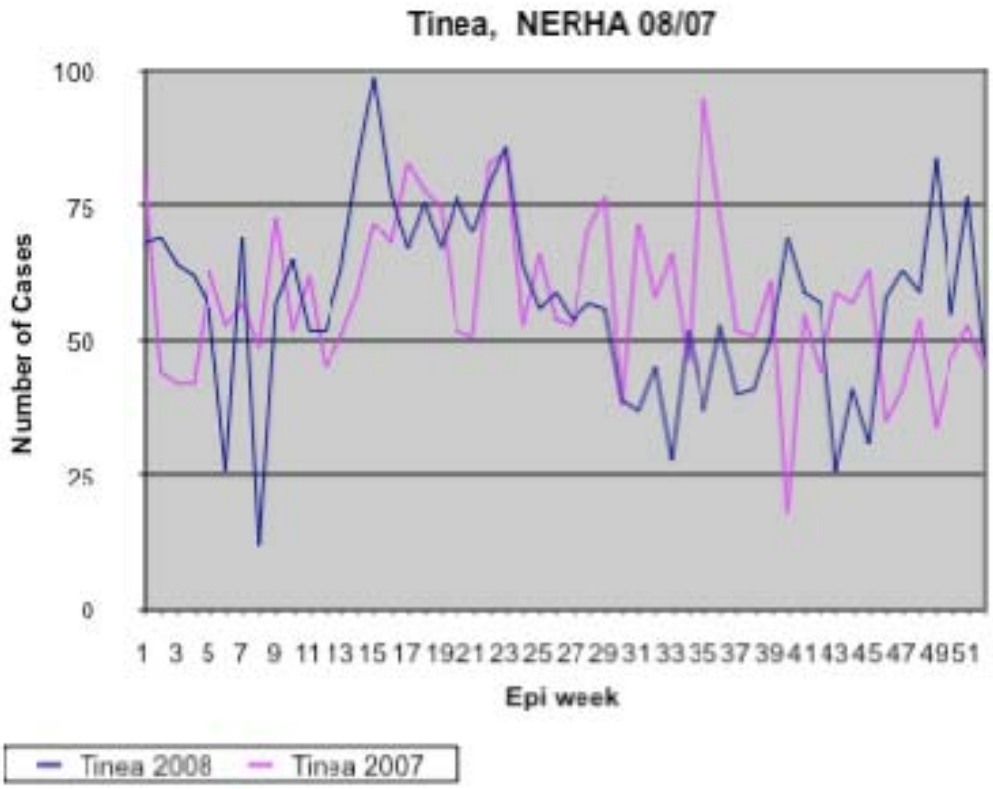


Figure 6. Line graph showing number of cases of scabies reported weekly in NERHA for 2008 and 2007.

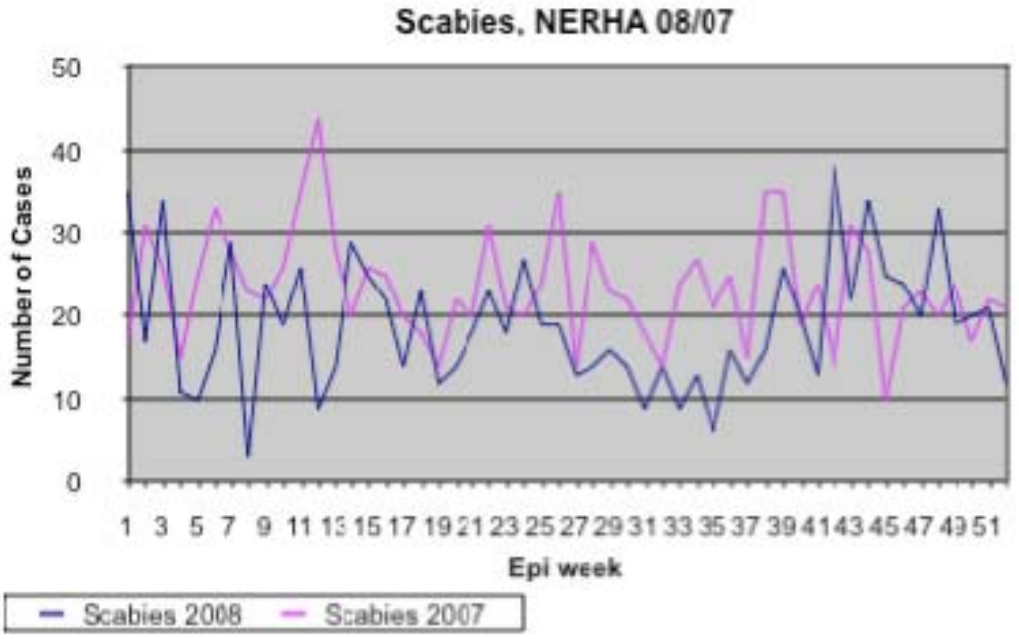
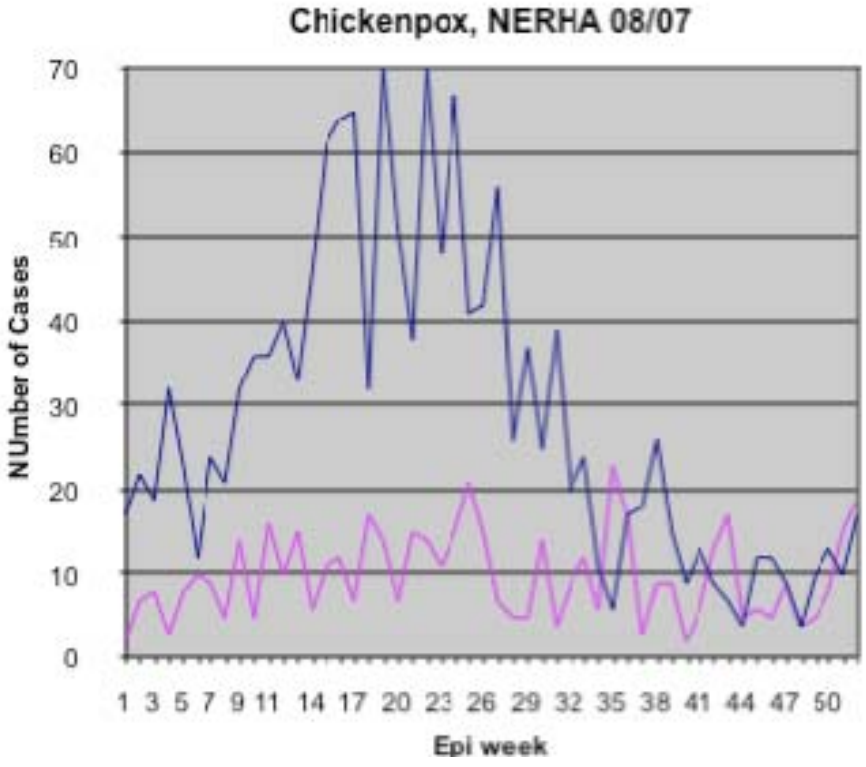


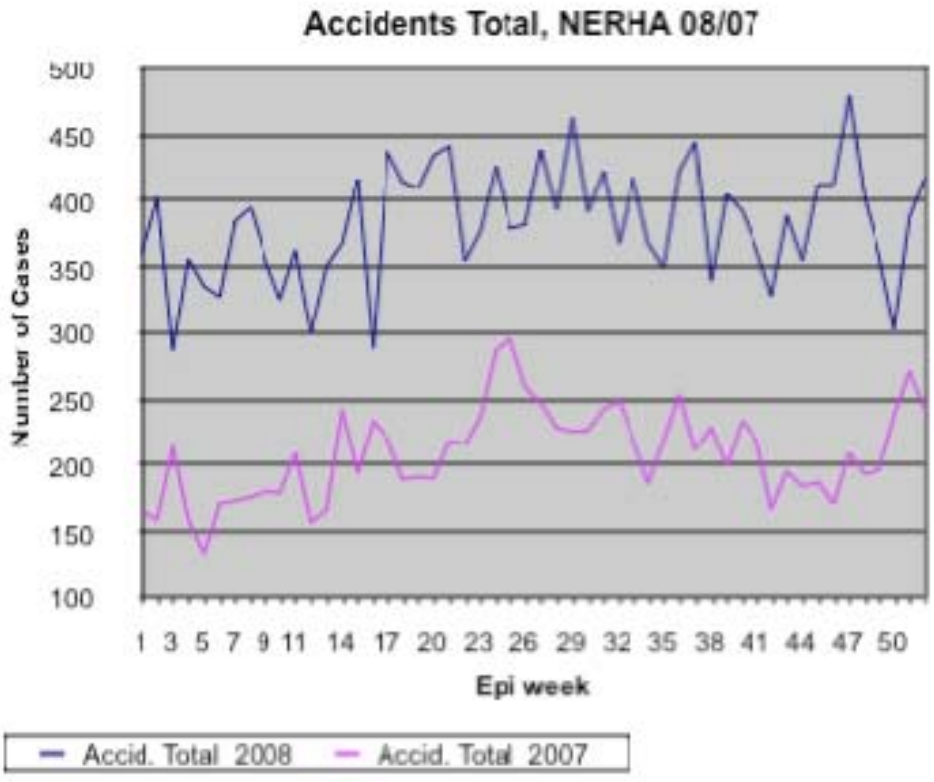
Figure 7. Line graph showing number of cases of chickenpox reported weekly in NERHA for 2008 and 2007.



Accidents

The weekly reported figures for accidents for 2008 were consistently above the reported figures for accidents in 2007 (fig 8). The reasons for this difference are unclear.

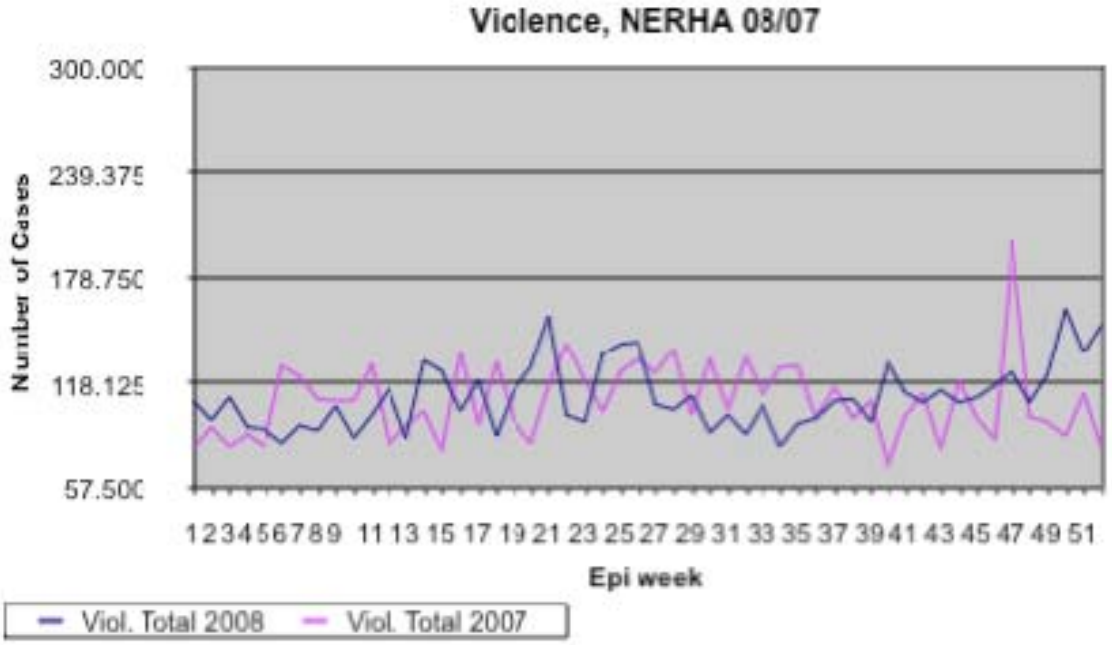
Figure 8. Line graph showing number of accidents reported weekly in NERHA for 2008 and 2007.



Violence

The weekly figures for injuries due to violence (fig. 9) showed an upward trend in the last month of the year, 2008. A similar increase was not seen in 2007. One possible explanation for the 2008 pattern is the increased interaction (positive and negative) over the Yuletide season leading to an increase in interpersonal conflicts.

Figure 9. Line graph showing number of cases of violence reported weekly in NERHA for 2008 and 2007.



Fever Syndrome and Fever and Rash

The number of cases of fever syndrome and fever and rash reported for 2008 were small (6 or less per week) and showed no obvious trends. These syndromes will be examined in closer detail in the section of the report on Class 1 diseases.

CLASS 1 DISEASE SURVEILLANCE

Class 1 diseases/conditions are those conditions that are to be reported **upon suspicion** to the relevant Parish Health Department and subsequently to the Regional Health Authority and the Surveillance Unit of the Ministry of Health within 24 hours.

Acquired Immune Deficiency Syndrome (AIDS) is a class one reportable condition but is usually reported on separately from the other Class 1 conditions and will be discussed in a separate section of this document.

The contents of the column labeled "Suspected" in table 1 may not always be the sum of the number of confirmed discarded and pending/under investigation cases. This is due to the fact that for some suspected cases no sample or an inadequate sample is submitted therefore laboratory confirmation of the condition is not possible.

Selected Class 1 conditions are reviewed in detail below.

Table 1. Table displaying number of suspected, confirmed pending and discarded cases of each Class 1 condition for 2008 for NERHA.

Class 1 Condition/Disease	Suspected	Confirmed - 2008	Discarded	Pending/Under Investigation
Accidental poisoning	150	143	4	3
Acute Flaccid Paralysis/Polio	2	0	2	0
Cholera	0	0	0	0
Congenital Rubella Syndrome	0	0	0	0
Congenital Syphillis	0	0	0	0
Diphtheria	0	0	0	0
Fever and Rash	74	0	58	16

Class 1 Condition/Disease	Suspected	Confirmed - 2008	Discarded	Pending/Under Investigation
Hansen's Disease/Leprosy	0	0	0	0
Hepatitis B	194	38	49	104
Malaria	53	1	48	4
Maternal Death	5	1	4	0
Measles	0	0	0	0
Meningitis	70	8	35	21
Haemophilus Influenzae Meningitis	0	0	0	0
Meningococcal Meningitis	1	0	1	0
Neonatal Tetanus	0	0	0	0
Ophthalmia Neonatorum	43	43	0	0
Pertussis-like Syndrome	1	0	0	1
Plague	0	0	0	0
Rheumatic Fever/Rheumatic Heart Disease	13	5	1	7
Rubella	2	0	0	2
Tetanus	0	0	0	0
Tuberculosis	193	5	95	82
Typhoid Fever	0	0	0	0
Yellow Fever	0	0	0	0

Table 2. Table displaying number of suspected and confirmed cases of each Class 1 condition for 2007 and 2008 for NERHA.

Class 1 Condition/Disease	Suspected 2008	Confirmed 2008	Suspected 2007	Confirmed 2007
Accidental poisoning	150	143	107	105
Acute Flaccid Paralysis/Polio	2	0	6	2
Cholera	0	0	0	0
Congenital Rubella Syndrome	0	0	0	0
Congenital Syphillis	0	0	0	0
Diphtheria	0	0	0	0
Fever and Rash	72	0	50	0
Hansen's Disease/Leprosy	0	0	2	0
Hepatitis B	194	38	213	13
Malaria	52	1	83	3
Maternal Death	5	1	2	2
Measles	0	0	0	0
Meningitis	70	8	53	20

Class 1 Condition/Disease	Suspected 2008	Confirmed 2008	Suspected 2007	Confirmed 2007
Haemophilus Influenzae Meningitis	0	0	0	0
Meningococcal Meningitis	1	0	0	0
Neonatal Tetanus	0	0	0	0
Ophthalmia Neonatorum	41	41	34	34
Pertussis-like Syndrome	1	0	6	0
Plague	0	0	0	0
Rheumatic Fever/Rheumatic Heart Disease	13	5	25	3
Rubella	2	0	1	-
Tetanus	0	0	0	0
Tuberculosis	191	5	83	8
Typhoid Fever	0	0	1	1
Yellow Fever	0	0	0	0

Accidental Poisoning

Similar to prior years, the parish of Portland continues to report the highest ratio of accidental poisoning cases per 100,000 population. It is unclear what the underlying factors are that have led to this disparity, however, an exploratory qualitative study is being proposed and an instrument has been designed for collection of data for the analysis of the association of various socioeconomic factors and accidental poisoning (quantitative study). Both the qualitative study and the quantitative study will be carried out in 2009.

It was found for 2008 that 61% or 92/150 of reported cases of accidental poisoning were noted to be in children 2 years of age or less. In 35% (n=52) of reported cases the suspected agent of poisoning was household bleach.

Hepatitis B

St Ann reported the largest number of confirmed cases of hepatitis B of all three parishes (n=29). There were inconsistencies in the quality of the data, however, that might have interfered with the generation of an epidemiological profile of hepatitis B in NERHA. Of the confirmed cases of hepatitis B, 12 were detected by laboratory surveillance and had not been notified by the clinician requesting the tests, important demographic data such as age, date of birth and address were therefore missing from these case records.

Malaria

The single confirmed case of malaria for 2008 was in an 18 month old child from Runaway Bay St. Ann. The isolated organism was Plasmodium falciparum. The child was successfully treated. Fever surveys carried out in the area surrounding the child and grandmother's residences revealed no other cases. Environmental assessment found potential Anopheles breeding sites but no breeding was noted.

Fever surveillance across the North East region has continued somewhat inconsistently during the year 2008. The proportion of fever cases that are actually sampled and tested for malaria is unknown. The upcoming Burden of Illness (BOI) study will aid in estimating the true proportion of fever cases that are sampled and tested for malaria as well as other conditions. The BOI study is a national population and lab survey to be carried out in 2009 in which data will be collected on the prevalence of various conditions, including undifferentiated fever in the general population, as well as the rate of sampling and testing of undifferentiated fever samples.

Rheumatic Fever/Rheumatic Heart Disease

The number of reported cases of rheumatic fever and rheumatic heart disease remains small; however the consequences of the acquired cardiac disease remain far-reaching.

There have been questions regarding the quality of diagnostic criteria used for rheumatic fever and rheumatic heart disease requiring chemoprophylaxis. To that end cardiologists Dr Doreen Millard (paediatrics) and Dr. Henry Whitelocke (adults) have initiated the categorization of patients on the rheumatic fever registers in St Ann and St Mary regarding the need for follow-up including chemoprophylaxis.

Tuberculosis

Almost 1/2 of the reported cases of tuberculosis (TB) remain unconfirmed. The HIV/AIDS epidemic has lent an urgency to the need for prompt detection and treatment of tuberculosis in the community. Various initiatives have been planned by the Ministry of Health and Environment to improve the efficiency and effectiveness of the TB programme in Jamaica. These include the preparation and launch in October, 2008 of a TB manual to guide diagnosis, treatment and investigation of TB in Jamaica.

Maternal Deaths

Of the 5 maternal deaths notified in 2008, only one was a direct maternal death, the others were co-incidental deaths.

The number of maternal deaths and maternal mortality ratio has declined over the past 5 years in NERHA. However, data and information on maternal morbidity and perinatal morbidity remain sparse.

An 8 member safe motherhood committee was created or recreated to examine issues related to maternal health and perinatal health and to make and follow-through on recommendations based on issues identified.

SEVERE ACUTE RESPIRATORY ILLNESSES (SARI) SURVEILLANCE

At present, St Ann's Bay Regional Hospital is the only hospital that routinely reports the number of cases and deaths from severe acute respiratory illnesses. The collection of nasopharyngeal samples remained non-routine for SARI cases with only 2 samples collected in 2008 for which the results are outstanding.

Leptospirosis

There were 43 confirmed cases of leptospirosis in NERHA in 2008 (22% of 196 suspected), of this number 12%(n=5) were reported from Portland, 28%(n=12) from St Mary and 60%(n=26) from St Ann. The environmental health team is at the time of this report in the process of mapping the confirmed cases of leptospirosis which will assist the surveillance team in determining geographical leptospirosis hot spots.

Of the 26 confirmed cases for St Ann, for only 14 (54%) were investigation forms containing detailed information on occupation and contact history received. The following statements refer only to those cases for which investigation forms were received. Of these confirmed cases 4 were contacts of each other from Old Fort Bay, Mammee Bay, St Ann. The others were distributed throughout the parish. There appeared to be no predominance of a particular occupation or occupational category among the confirmed cases (2 students, 1 gardener, 1 farmer, 1 driver, 1 chef, 1 accountant, 1 handyman, 1 businessman, 1 carpenter, 1 tour guide, 3 with missing data on occupation). There was reported regular contact with dogs in 36% of cases (n=5), other animals including rats in 21% of cases (n=3), contaminated water in 21% of cases (n=3) and contaminated food in 29% of cases.

For all confirmed cases of leptospirosis in the parish of St. Ann (including those without investigation forms) the affected age groups ranged from 13 years to 78 years, with a median age of 35 years.

Of the 12 confirmed cases of leptospirosis reported for the parish of St Mary, 50% were male and 50% female. The median age reported was 43 years. Of the 5 cases with addresses recorded, 2 were from Richmond, 2 from Highgate and 1 from Annotto Bay. There were found no completed leptospirosis case investigation forms to provide further information on the characteristics of confirmed leptospirosis positive individuals from the parish of St. Mary.

For the parish of Portland, of the three individuals with recorded ages, one was 16 years old, one was 20 years old and the other 43 years old. Community of residence was recorded for 3 individuals. The communities were Manchioneal, Hector's River and Fair Prospect. As for St Mary, there were no completed leptospirosis case investigation forms for the confirmed cases of leptospirosis from Portland.

Immunization

Indicator*	Portland -2008	St Mary -2008	St Ann - 2008	NERHA -2008	Portland -2007	St Mary -2007	St Ann - 2007	NERHA -2007
Target	1462	1961	3091	6514	1462	1961	3091	6514
Live Births	710	1490	3408	5608	753	1405	3545	5703
BCG coverage	50.8 % (n=743)	74.2% (n=1456)	114.0% (n=3524)	87.9% (n=5723)	56.4% (n=825)	65.4% (n=1284)	112.9% (n=3492)	86.0% (n=5601)
Polio coverage	70.3% (n=1028)	86.2% (n=1692)	84.4% (n=2606)	81.8% (n=5326)	75.6% (n=1106)	91.0% (n=1786)	91.5% (n=2831)	87.8% (n=5723)
Pentavalent coverage	70.5% (n=1030)	86.2% (n=1691)	83.9% (n=2596)	81.6% (n=5317)	75.6% (n=1106)	91.0% (n=1785)	92.1% n=(2848)	88.1% (n=5739)
MMR coverage	72.7% (n=1064)	84.4% (n=1656)	90.1% (n=2785)	85.5% (n=5505)	72.2% (n=1056)	89.0% (n=1747)	85.6% (n=2647)	83.6% (n=5450)

Coverage is calculated as a percentage of the target.

It was noted that the percentage coverage for BCG was very high for St Ann and low for St Mary and even lower for Portland. This is believed to be due to the number of babies that were born across parish lines especially in St Ann and administered the BCG vaccine at the place of birth. The targets are not believed to accurately reflect the number of live births. It was also noted that the number of live births that occur in St Ann consistently exceeded the target. Pentavalent/Polio coverage remained below 2007 levels for all parishes and for NERHA overall.

An electronic database to allow for tracking of babies across parish lines and for more accurate reporting of coverage has been developed and is being fine-tuned for use in NERHA. Such a system will ultimately, if adopted nationally, provide a valuable tool for projections and reporting.

Further research is needed to delve into the factors that lead to suboptimal immunization coverage. This research will inform interventions aimed at improving the immunization coverage in NERHA.

Hotel Surveillance

As points of contact between foreigners and the native population, the hotels in NERHA routinely submit weekly reports to the parish and regional health departments with the number of cases of particular conditions among staff and guests. These conditions include accidents, injuries, diarrhoeal diseases and acute respiratory infections.

There were 12 reported outbreaks of diarrhoeal illness at properties in St. Ann and St. Mary during 2008. There was one laboratory confirmed Norovirus outbreak to a total of 56 cases at a property in St Mary in March 2008; closure of this property was consequently effected.

Initiation of investigation of all reported outbreaks occurred within 24 hours of notification.

There was an outbreak of a febrile illness in December to January, 2008/2009 among Chinese construction workers from China at a hotel that was closed for refurbishing in St. Mary. The last group of workers to arrive in Jamaica from China had arrived in October, 2008 (date not confirmed) There was a total of 12 cases with symptoms predominantly of fever and joint pains. The symptoms resolved with symptomatic treatment within 48 to 72 hours of onset. The causative agent was not laboratory confirmed but the clinical and epidemiological profile of the disease was that of a flu-like viral illness.

The hotel surveillance reporting form remains inadequate for detection of febrile illnesses and the Class 1 diseases in general.

THE WAY FORWARD...

During the course of the preparation of this document it was noted that there were gaps in the data for class 1 diseases in particular. These gaps included a lack of completed case investigation forms to provide data for analysis including generation of case profiles and possible risk factors. There was also noted a lag in the confirmation of the status of suspected cases partly due to a lack of communication between the parish, region and the relevant laboratories.

In order to address some of the aforementioned issues some changes have been implemented. These changes include the creation of a database for the storage of class 1 disease data and requesting that some blood results be sent directly to the NERHA surveillance unit as well as the parish of origin of the sample. The maintenance of the database was noted to be a challenge, it was therefore recommended that a data entry clerk be hired to assist with database maintenance.

An assessment of the surveillance system in Jamaica was carried out by CAREC in October, 2008. The major findings included that of highly committed field staff. St Ann was commended for having a hospital active surveillance nurse stationed at St Ann's Bay

Regional Hospital. Communication between the labs and parish, regional and national level was found to be lacking. Documentation at all levels was found to be inadequate including at the level of documentation in the patient's docket from which data is extracted to feed in to the surveillance system. The lack of connectivity especially from the field level using technology such as computers and the internet was pointed out as a weakness.

Recommendations included the re-sensitization of clinicians regarding the public health significance of various conditions and the importance of documentation, sample collection and notifications. It was suggested that medical records and other clerical staff involved in the transfer of data from the patients' dockets to the surveillance system be trained in extraction techniques to be standardized to allow for greater reliability and validity of data gathered.

COMPARATIVE ANALYSIS OF PERFORMANCE

FAMILY HEALTH

Table 1 **REPRODUCTIVE HEALTH (Maternal Health)**

SLA Objective: Reduction in Morbidity & mortality of women of child-bearing age

INDICATORS	*ST. ANN*	*ST. MARY*	*PORTLAND*	*NERHA*
% Deliveries attended by trained health professional	3,502 (99.9%)	1333 (100%)	703 (99.8%)	**5541(99.9%)**
1st visits in the 0-15 wks as a % of total 1st visits	30.5	38.8	29.1	**33.0**
1st visits in 16-28 weeks (%)	58.6	56.0	61.6	**58.3**
# of women with Pre-eclampsia Syndrome	29	19	25	**73**
% pregnant women with HB<10mg/dl	18.3	12.0	19.3	**16.2**
Breastfeeding % exclusive at 6 weeks	50.7	46.1	38	**46.7**
% exclusive at 3 months	**36.9**	**34.9**	**24.7**	**33.6**

During the year the region achieved **99.9%** coverage of deliveries attended by trained health professionals, indicating a similar coverage to that achieved (99.9%) in 2007. All three (3) parishes achieved a high coverage ranging from 99.7% to 100%. The overall coverage achieved exceeds the target of **85%**

Thirty three percent **(33.0%)** of antenatal 1st visits were made in the o-15 weeks period, indicating a realization of the **25%** target. Comparatively this figure indicates that the steady increase from 2005 continues. For 2008, an increase of 4.3% was realized. Among the three parishes, for the past three years, since 2005, St. Mary continues to achieve the highest coverage (**38.8%),** indicating an increase of 5.9% over 2007.

First visits in the 16-28 weeks period were **58.3%.** Indicating a decline of **3.4%** comparatively to 2007**.** This decline is **1.6%** more than that of 2006. This consistent decline is indicative of a relationship between the gradual increase in the coverage for antenatal 1st visits in the 0-15 weeks, suggesting that the overall objective of having more women attending in the 0-15 weeks is becoming more achievable. Of the three (3) parishes, Portland maintains the pattern of recording the highest percentage of 1st visits during this period. Similarly, Portland maintained coverage for the lowest percentage of first visits in the 0-15 week's period.

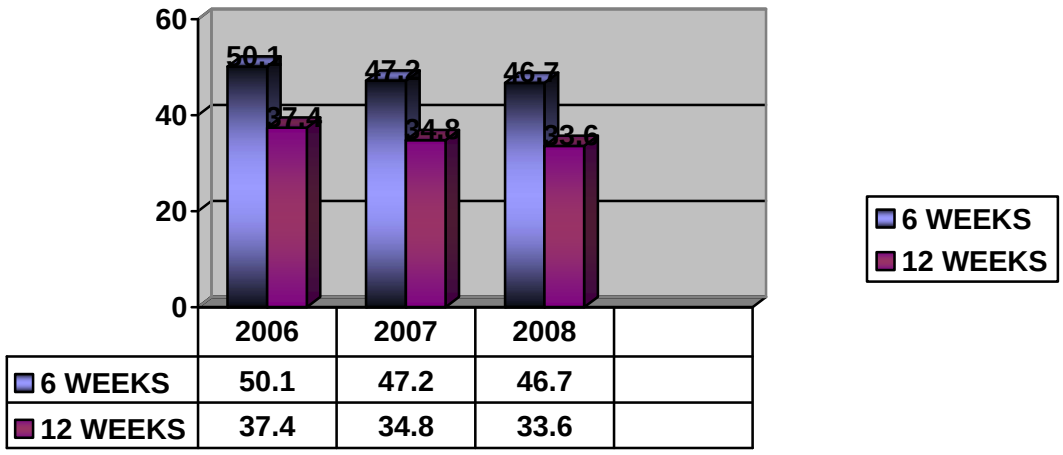
A total of 73 women presented with pre-eclampsia and eclampsia syndrome. This represents an increase of 29 compared to 2007. St. Ann maintains the highest figure with **29** women presenting.

Sixteen point two percent **(16.2%)** of the women presented with Hb<10mg/dl for the period under review**.** This figure indicates a decline of **3.79%** when compared to 2007**.** Of the three parishes, Portland recorded the highest percentage (19.3%**)** of women with Hb<10mg/dl, representing a higher percentage than that of the Regional figure. St. Mary however, has maintained a steady figure of approximately**11-12%** for 2005, 2006 and 2007. Though there has been a decline in the overall percentage, the figure exceeds the target of**10%.**

The percentage achieved for babies exclusively breastfed at 6 weeks is **46.7%,** which falls short of the desired coverage of **70%.** The figure is also indicative of a marginal decline of **0.5%** comparable to 2007.

Thirty three point six percent **(33.6%)** of babies were exclusively breastfed at three (3) months. This indicates a shortfall of the target which is **60%,** as well as a decline of 1.2% comparable to 2007. Of the three parishes St. Ann recorded the highest coverage of **36.9%,** indicating coverage higher than that of the Regional figure.

Figure1. NERHA BREASTFEEDING (Exclusive) TREND- 2006-2007-2008



The figures indicate that for the periods reviewed, the target of 70% and 60% respectively were not achieved.

Of the three years illustrated, for both indicators, figures indicate a gradual decline between 2007 and 2008 respectively.

REPRODUCTIVE HEALTH (Cancer Screening)

SLA Objective: To Achieve improvements in the control of chronic conditions

Table 2

Indicator	St. Ann	St. Mary	Portland	NERHA
No. PAP Smears performed in 25-54 years.	2319	1019	1005	**4337**
No. PAP Smears performed in< 25yrs.	872	339	507	**1718**
No. PAP Smears performed in 55+yrs.	222	43	44	**309**
Tot. No. of Pap Smears done	3432	1743	1570	**6745**
# of cases of :				
LSIL(CN I & or –HPV)	79	27	25	**131**
HSIL (CN II-lll & or –HPV)	24	4	13	**41**
# of cases of Invasive cancer of the cervix.	**5**	**2**	**1**	**8**

Total number of pap smears performed in the 25-54 year target age group is **4,337 or 19.14%** of the target, indicating an increase of 3.6% comparable to coverage for 2007. Of note all three parishes recorded an increase over 2007, with St. Ann recording the highest increase of 485 or 20.9%.

The number of pap smears performed in the <25years age group is 1,718, an increase of 111(6.5%) over 2007.

A total of 309 pap smears, a decline of 71(18.7%) were done in the 55+ years age group. Like 2006 and 2007 St. Ann continues to record the highest coverage for both the < 25 years and 55+.

Total number of pap smears done is **6,745.** This is indicative of an increase of 1,256 (18.6%) over 2007 and is 17.7% more than 2006.

Of this number, St. Ann performed 3,432, indicating and increase of 551(16.05%) over 2007 and an overall increase since 2005.

The total number of women reported to have had a pap smear for the first time was 2,015. Of this number 1,150 (57.07%) were in the 25-54 years age group, indicating achievement of a coverage of 60.9% of the target.

Of the total number of results returned one hundred and thirty one (131) were LSIL (CN I & or –HPV), 41 were HSIL (CN II-lll & or –HPV) and 8 cases of Invasive cancer. All categories recorded an increase in the figures. Increase in the figures reported of results returned could be associated with the improved turnaround time the region is now experiencing as a result of newly acquired cytology services.

The region performed one hundred and forty four (144) colposcopies during the period. They were all performed at the St. Ann's Bay Health Centre. This was as a result of a malfunctioning colposcope in St. Mary and the absence of a resident Gynaecologist/Obstetrician coupled with the absence of a colposcope in Portland.

The Region also received support from the Jamaica Cancer Society and they reported a total of 238 pap smears being conducted, along with 136 mammograms and fifty three (53) PSA tests done.

Figure 2 NERHA PAP SMEAR TREND (25-54) YEARS – Pap Smears done

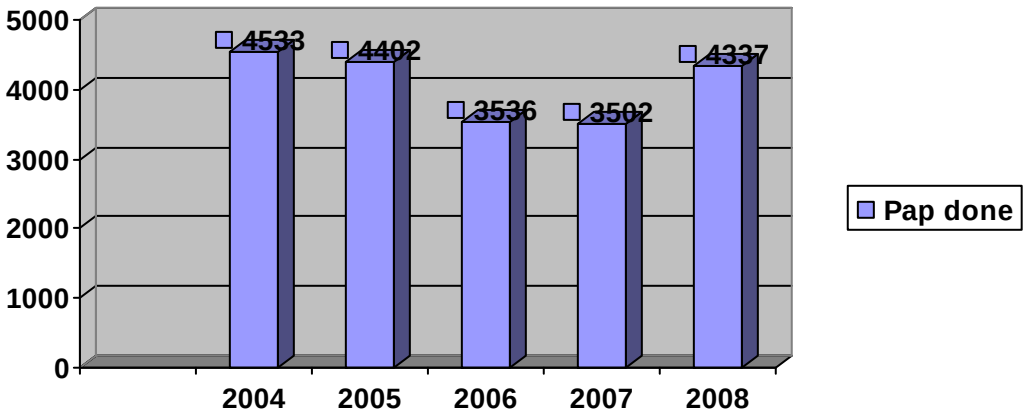


Figure 2 illustrates a peak in pap smears done for 2004, 2005 and again in 2008.

REPRODUCTIVE HEALTH (*FAMILY PLANNING*)

Table 3: SLA Objective: To Achieve improvement in Family Planning

Indicators	St. Ann	St. Mary	Portland	NERHA
% Post Natal women accepting family planning.	80.5	80.8	81.8	80.9
# of Dual Method users	1204	621	472	2297
% of Dual Method users	64.5	46.9	59.9	57.7
# of New Acceptors	2655	2262	938	5755
# of Depo Provera	1185	1025	451	2661
# of IUCD	15	40	0	55
# of Tubal Ligation	149	87	22	258

Eighty point nine (80.9%) Post natal attenders accepted a family planning method. This meets the projected target of 70%, and indicates maintenance of an increase (1.4% and 3.0%) for both 2006 and 2007. For this period Portland indicated the highest of 81.8%.

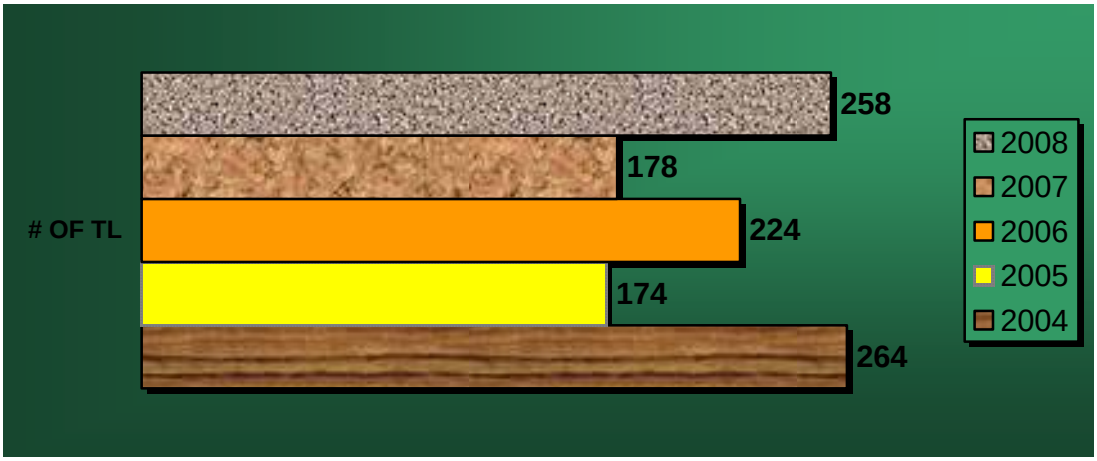
Dual method users recorded coverage of 2,297 or 57.7%.2**.** This is indicative of an increase of 4.5% compared to 2007 and a continuing increase over the past two years. Of the three parishes St. Ann reported the highest coverage **(64.5%)** of dual method users.

Five thousand seven hundred and fifty five (5,755) persons were new acceptors. This is indicative of an increase of 1.8% of new acceptors when compared to 2007.

Among the three parishes, St. Ann again accounts for the highest coverage (2,655 or 46.1%) for new acceptors.

Of the total new acceptors 2,661 or 45.1% were users of Depo Provera. While 55 or 0.9% were acceptors of the Intra Uterine Contraceptive Device (IUCD), and 258 or 4.5% accepted the Tubal ligation. The number of acceptors for those methods described as long term (Depo Provera and Tubal Ligation) indicated an increase. However, for the Intrauterine Device (IUCD) a decline has been noted. St. Ann continues to indicate the highest number of acceptors for Depo Provera and Tubal Ligation. However, St. Mary continues to report the highest number of acceptors for the intrauterine contraceptive device (IUCD).

Figure 3 **NERHA TUBAL LIGATION - 2004-2008**



Figures indicate that over the period 2004 to 2008 there has been inconsistencies in the coverage in the number of tubal ligations performed, with an obvious decline between 2005 and 2007.

CURATIVE SERVICES

ALL CURATIVE VISITS

The proportion of visits to health centres in NERHA for curative services increased by 5% from 2007 to 2008 (Figure 1).

Figure 1. Pie charts of visits to Primary Care health facilities in NERHA by service delivery category 2007 and 2008

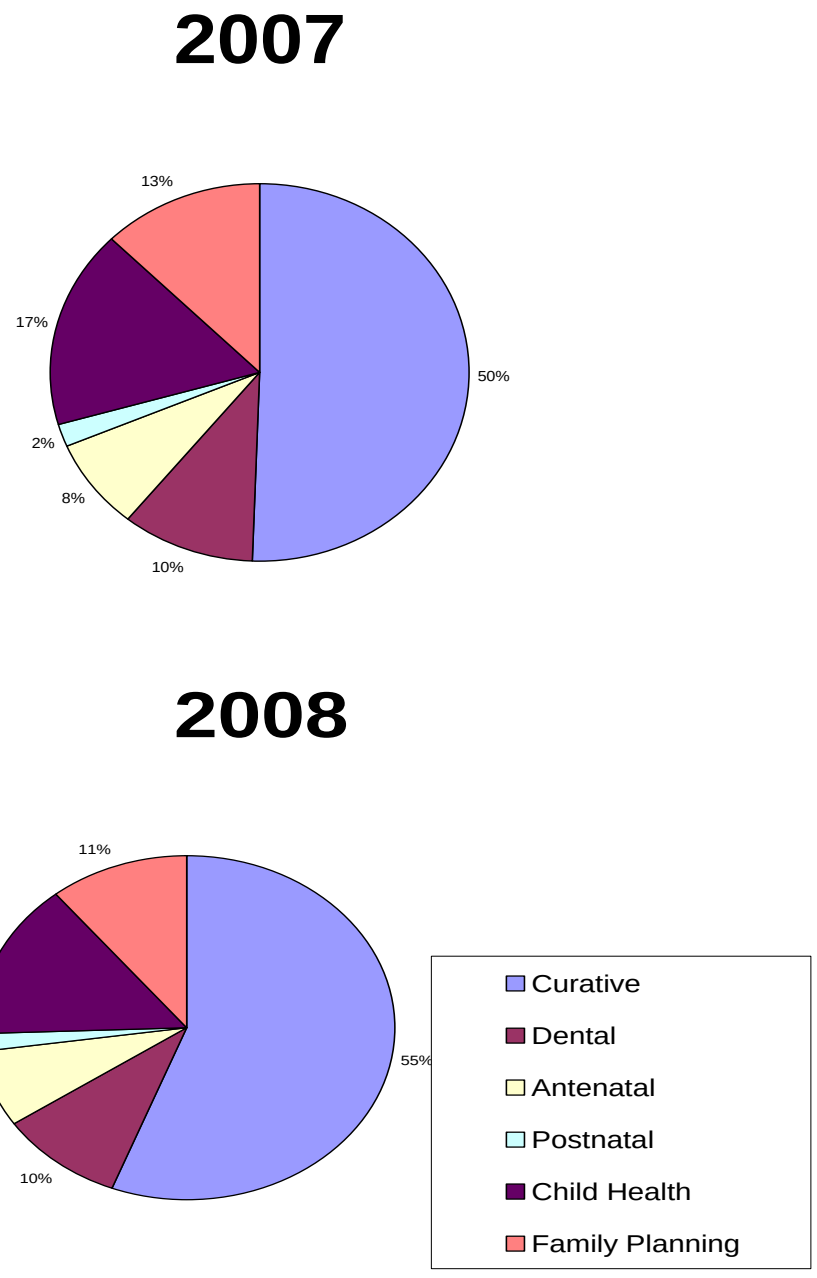


Table 1. Visits to health centres in NERHA for curative services by diagnostic category 2007 & 2008

	2007		2008	
Diagnostic Category	**Number of visits**	**Percentage of total curative visits**	**Number of visits**	**Percentage of total curative visits**
Total Curative Visits	134112	-	171255	-
Diabetes Mellitus and/or Hypertension	40200	**29.97**	48258	**28.18**
Gastroenteritis <5 yrs	818	**0.61**	1048	**0.61**
Gastroenteritis >5 yrs	1043	**0.78**	1215	**0.71**
Other Gastrointestinal disorders	4551	**3.39**	6075	**3.55**
Musculoskeletal disorders	11290	**8.42**	13755	**8.03**
Intentional Injuries	649	**0.48**	764	**0.45**
Unintentional Injuries	4622	**3.45**	5140	**3.00**
Leg Ulcers	1199	**0.89**	1393	**0.81**
Sexually Transmitted Infections (excluding PID)	6677	**4.98**	9170	**5.35**
PID	918	**0.68**	1114	**0.65**
Urinary Tract disorders	2966	**2.21**	4211	**2.46**
Other gynaecological disorders	4801	**3.58**	6244	**3.65**
Psychiatric disorders	6797	**5.07**	7507	**4.38**
Eye Disorders	2311	**1.72**	5936	**3.47**
Upper respiratory tract infections	11286	**8.42**	16601	**9.69**
Lower respiratory tract infections	3093	**2.31**	3739	**2.18**
Asthma	1813	**1.35**	2550	**1.49**
Skin Diseases	19451	**14.50**	23023	**13.44**
Other Cardiovascular disorders	1508	**1.12**	2422	**1.41**
Other Diagnoses	**35167**	**26.22**	**46798**	**27.33**

Table 2. Caseload as a percentage of Workload, Diabetes Hypertensive disorders, NERHA 2007 and 2008, by parish

	2007				2008			
	St Ann	St Mary	Portland	NERHA	St Ann	St Mary	Portland	NERHA
Hypertension	23.87	11.16	31.16	19.83	26.16	11.76	29.30	**21.06**
Diabetes Mellitus	25.25	20.33	32.46	25.66	27.13	15.92	31.76	**24.39**
Diabetes mellitus/ Hypertension (dual diagnosis)	**21.37**	**11.00**	**23.99**	**18.67**	**21.34**	**9.74**	**24.85**	**17.83**

DIABETES AND HYPERTENSIVE DISORDERS

The most common diagnostic category for curative visits was that of diabetic and hypertensive disorders which accounted for approximately 28% of total curative visits. There was a decrease of 1.79 percentage points in the percentage of curative visits accounted for by diabetic and hypertensive conditions from 2007 to 2008. There was, however, an increase in the absolute number of visits for diabetic and hypertensive conditions from 40,200 in 2007 to 48,258 in 2008 (Table 1).

The proportion of total visits to health centres in NERHA (workload) for hypertension accounted for by new and first visits (caseload) increased by approximately one (1) percentage point in 2008 when compared to 2007. Decreases of one percentage point each were noted in the caseload as a proportion of workload for both diabetes mellitus and the dual diagnosis of diabetes mellitus and hypertension (Table 2).

The proportion of total visits for diabetic and hypertensive disorders due to new and first visits has remained over 2007 and 2008 at approximately 20% for the region with the highest proportions reported from the parish of Portland (Table 2.).

Table 3. Curative visits (excl. Diabetes/Hypertension), NERHA, 2008, by parish

Diagnostic Category	Portland	St. Mary	St. Ann	Total
Gastroenteritis <5 yrs	248	372	428	**1048**
Gastroenteritis >5 yrs	310	460	445	**1215**
Other Gastrointestinal disorders	1250	2875	1950	**6075**
Musculoskeletal disorders	2494	6536	4725	**13755**
Intentional Injuries	296	221	247	**764**
Unintentional Injuries	1438	2421	1281	**5140**
Leg Ulcers	78	325	990	**1393**
Sexually Transmitted Infections (excluding PID)	1754	3059	4357	**9170**
PID	291	401	422	**1114**
Urinary Tract disorders	1002	2047	1162	**4211**
Other gynaecological disorders	2060	2437	1747	**6244**
Psychiatric disorders	1246	2621	3640	**7507**
Eye Disorders	1372	2399	2165	**5936**
Upper respiratory tract infections	2988	8396	5217	**16601**
Lower respiratory tract infections	325	2667	747	**3739**
Asthma	835	980	735	**2550**
Skin Diseases	5664	9291	8068	**23023**
Other Cardiovascular disorders	782	424	1216	**2422**
Other Diagnoses	**13572**	**12589**	**20637**	**46798**

OTHER CURATIVE CATEGORIES

There were increases in the number of visits to health centres in NERHA for all diagnostic categories in 2008 over 2007 with the greatest increases seen in the visits for eye disorders (157%), cardiovascular disorders exclusive of diabetes mellitus and hypertension (60%) and upper respiratory tract infections (47%). In addition to increases in numbers, the aforementioned categories also exhibited increases in the proportion of total curative visits in 2008 when compared to 2007 (Table 1). There was a collaborative effort in 2008 between the governments of Jamaica and Cuba to facilitate various ophthalmologic services. The increases in eye disorders were likely due to this programme (Table 1).

While it remained the largest category of disorders for curative visits other than diabetic and hypertensive conditions, in contrast to 2007 figures, the highest number of visits for skin diseases was reported from St Mary with the second highest reported from St Ann (Table 3).

The largest number of visits for gastroenteritis in 2008 was reported from the parish of St Ann; however, St Mary reported the largest number of visits for gastroenteritis in the age group 5 and over (Table 3).

Of note in 2008 the largest number of visits for upper respiratory tract infections was reported from the parish of St Mary, the lowest numbers were reported from Portland (Table 3).

St Mary reported the largest number of visits for gynaecological conditions exclusive of sexually transmitted infections and urinary tract infections, the lowest numbers for 2008 were reported from St. Ann (Table 3).

EXPANDED PROGRAMME ON IMMUNIZATION

The Expanded Programme on Immunization remains one of the priority programmes for the three (3) parishes in the Region.

The Ministry of Health Policy on Immunization is for all children under the age of 7 years to be adequately immunized for age prior to entering schools, day care centres and nurseries.

The aim was to achieve 95% coverage per antigen in the 0 – 11 months for M.M.R. The goal was to prevent childhood mortality and morbidity from vaccine preventable diseases through an effective programme of immunization.

Many strategies were introduced for the success of the programme and for the target of 95% of children within this Region to be achieved. Nurses were employed on contractual basis, part-time, as well as the deployment of nurses across health areas to provide coverage at Child Health clinics.

Immunization activities were offered at the evening clinics as well as on weekends in two (2) parishes, i.e., St. Ann and St. Mary. All three parishes carried out immunization programme in regular child health clinics as well as special interventions by outreach programmes and house to house visits.

Continuous health promotion programme, comfortable environment for service delivery and the necessary support systems are essential elements for the success of the programme. However, there were drawbacks to the success of the immunization programme.

1) Severe shortage in the nursing and support groups
2) Some child health clinics were reduced to maximize the use of available staff.

3) Continuous inclement weather which impacted negatively on the desired outcome. The continuous use of the Tracking Registers was done to identify defaulters. These defaulters were then immunized.

During the year there was adequate supply of vaccines for the programme except for a brief shortage of B.C.G. vaccine in February 2008. The shortage was experienced in St. Ann, however, the shortage had little effect as St. Mary loaned forty (40) ten dose ampoules to St. Ann.

During the month of February there were two hundred and fifty two (252) Live Births in St. Ann. Two hundred and fifty nine (259) babies were immunized in that parish.

During the latter part of the year (December) the parishes of St. Mary and Portland experienced brief shortage of the Pentavalent vaccines; the shortage was at the national level.

St. Ann had adequate supply of the Pentavalent vaccine and aided the parishes of St. Mary and Portland.

The assigned target of 6,514 given to us by the Ministry of Health was used as the denominator for calculating vaccine coverage.

Achievements

During the period January – December 2008, the North East Regional Health Authority (NERHA) recorded 5,608 Live Births which is 86.09% of the assigned target. There was a slight decline over the previous year by 95. In 2007 there was 5,703 Live Births. Most of the births occurred in St. Ann (60.8%) with St. Mary (26.6%) and Portland (13.2%).

The majority of the births (3,161) occurred in the period July – December 2008. The birth pattern was similar to that of 2007.

TABLE 1: LIVE BIRTHS BY PARISH

PARISH	*NO. OF BIRTHS 2008*	*NO. OF BIRTHS 2007*	*DECLINE/ INCREASE*
Portland	710	753	-43
St. Mary	1490	1405	+85
St. Ann	3408	3545	-137
N.E.R.H.A.	5608	5703	-95

TABLE 2: LIVE BIRTHS 2008/2007 - N.E.R.H.A.

YEARS	*Jan. – Mar.*	*Apr. – Jun.*	*Jul. – Sept.*	*Oct. – Dec.*	*TOTAL*
2008	1288 (19.8)	1159 (17.8)	1486 (22.8)	1675 (25.7)	5608 (86.1)
2007	1372 (21.0)	1231 (18.9)	1447 (22.2)	1653 (25.3)	5703 (87.5)

TABLE 3: EPI COVERAGE - N.E.R.H.A.

PARISHES	TARGET	LIVE BIRTHS	B.C.G.	POLIO	PENTA/ DT	M.M.R.
Portland	1462	710	743	1028	1030	1064
		(48.6)	(50.8)	(70.3)	(70.5)	(72.8)
St. Mary	1961	1490	1456	1692	1691	1656
		(76.0)	(74.2)	(86.3)	(86.2)	(84.4)
St. Ann	3091	3408	3524	2606	2596	2785
		(110.2)	(114.5)	(84.3)	(84.0)	(90.1)
N.E.R.H.A.	6514	5608	5723	5326	5317	5505
		(86.09)	(87.9)	(81.8)	(81.6)	(84.5)

TABLE 4: IMMUNIZATION COVERAGE - N.E.R.H.A.

INDICATOR	2008	2007
LIVE BIRTHS	5608 (86.1)	5703 (87.5)
B.C.G.	5723 (87.9)	5601 (86.0)
POLIO	5326 (81.8)	5723 (87.8)
PENTA/DT	5317 (81.6)	5739 (88.1)
M.M.R.	5505 (84.5)	5450 (83.6)

There was an increase in the B.C.G. coverage over the previous year. B.C. G. vaccine in relation to births was slightly high as there were 122 more B.C.G. administered at Regional level.

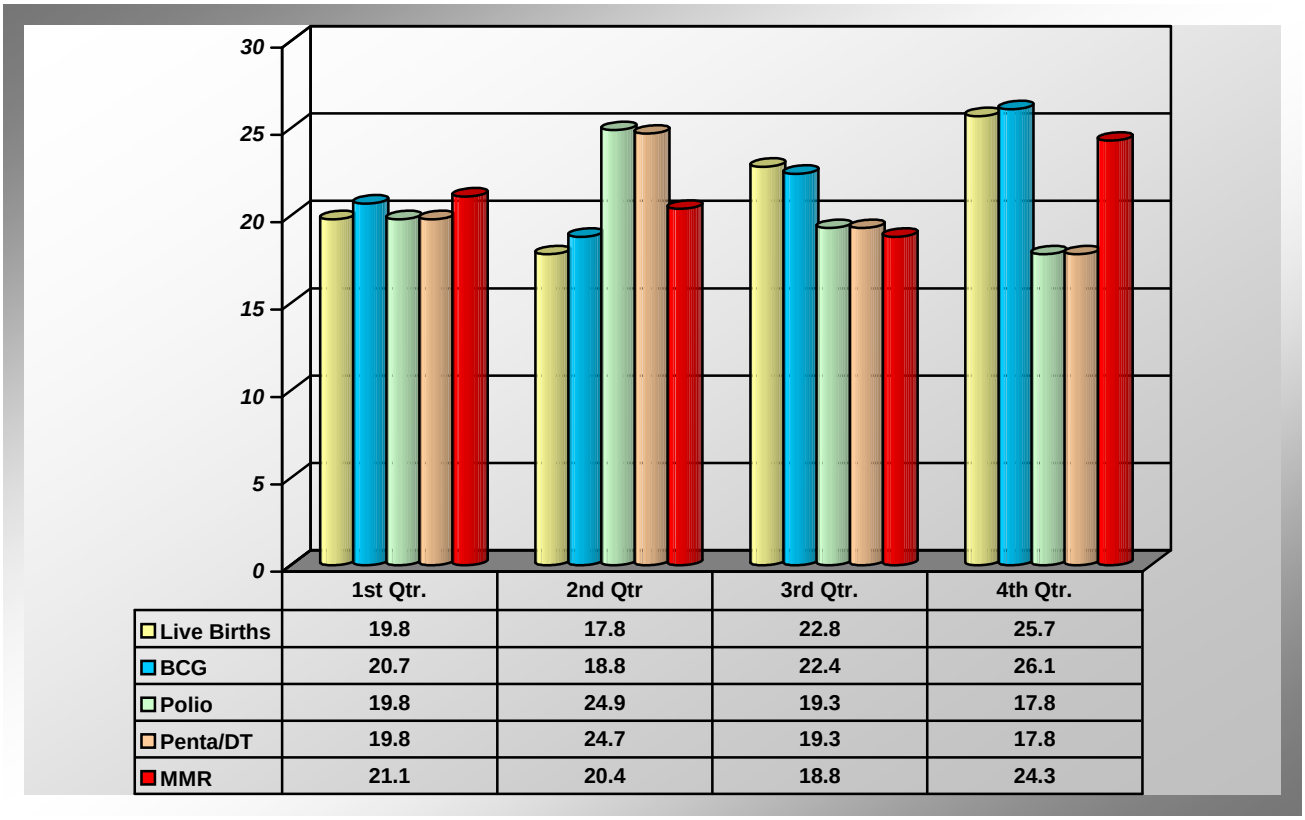
Portland administered more B.C.G. vaccines in relation to Live Births, this included babies born in adjoining parishes of St. Thomas and St. Mary who had missed immunization in hospital.

St. Ann also administered more B.C.G. vaccines in relation to Live Births. This included some of St. Mary babies who were born at St. Ann's Bay Hospital. St. Mary missed 34 babies of the 1490 Live Births (2.3%).

St. Ann achieved over 90% for M.M.R. while St. Mary achieved over 80% for Polio, Penta/DT vaccines. St. Mary achieved 84.4% coverage for M.M.R.

Portland had achieved 70% coverage in all areas except B.C.G.

IMMUNIZATION TREND - N.E.R.H.A.



	1st Qtr.	2nd Qtr	3rd Qtr.	4th Qtr.
Live Births	19.8	17.8	22.8	25.7
BCG	20.7	18.8	22.4	26.1
Polio	19.8	24.9	19.3	17.8
Penta/DT	19.8	24.7	19.3	17.8
MMR	21.1	20.4	18.8	24.3

Despite the critical staff shortage every effort was made to cover child health clinics with a view to ensure that children received vaccination within the scheduled time.

- There was no reported adverse reaction to vaccine and no outbreak of immunizable diseases during the period.

- Some health facilities have no toilet facilities, no running water and poor lighting. These situations adversely affected usage of clinic services by clients.

- Staff members needed to be able to maintain accurate record of the true births within the health area/parish in order to evaluate the true immunization coverage versus the estimated target assigned.

- More efficient use of monitoring tools to identify delinquent/drop out and plan early intervention.

Staff must be commended for the work done under trying circumstances.

QUARTERLY EPI STATISTICS - N.E.R.H.A.

Target Population: 6,514

INDICATOR	*QTR. 1*	*QTR. 2*	*QTR. 3*	*QTR. 4*	*ANNUAL*
LIVE BIRTHS	1288	1159	1486	1675	**5608**
	(19.8)	(17.8)	(22.8)	(25.7)	**(86.1)**
B.C.G.	1351	1222	1453	1697	**5723**
	(20.7)	(18.8)	(22.4)	(26.1)	**(87.9)**
POLIO	1287	1619	1258	1162	**5326**
	(19.8)	(24.9)	(19.3)	(17.8)	**(81.8)**
PENTA/DT	1287	1612	1256	1162	**5317**
	(19.8)	(24.7)	(19.3)	(17.8)	**(81.6)**
M.M.R.	1376	1328	1216	1585	**5505**
	((21.1)	(20.4)	(18.8)	(24.3)	**(84.5)**

QUARTERLY EPI STATISTICS - PORTLAND

Target Population: 1,462

INDICATOR	*QTR. 1*	*QTR. 2*	*QTR. 3*	*QTR. 4*	*ANNUAL*
LIVE BIRTHS	177	139	173	221	**710**
	(12.1)	(9.5)	(11.8)	(15.1	**(48.6)**
B.C.G.	207	168	190	178	**743**
	(14.20	(11.5)	(13.0)	(12.2)	**(50.8)**
POLIO	230	332	246	220	**1028**
	(15.7)	(22.7)	(16.8)	(15.04)	**(70.3)**
PENTA/DT	230	332	246	222	**1030**
	(15.7)	(22.7)	(16.8)	(15.20	**(70.5)**
M.M.R.	268	260	235	301	**1064**
	(18.3)	(17.8)	(16.1)	(20.6)	**(72.8)**

QUARTERLY EPI STATISTICS - ST. MARY

Target Population: 1,961

INDICATOR	*QTR. 1*	*QTR. 2*	*QTR. 3*	*QTR. 4*	*ANNUAL*
LIVE BIRTHS	297	351	386	456	**1490**
	(15.1)	(17.90	(19.7)	(23.2)	**(76.0)**
B.C.G.	28.4	331	362	479	**1456**
	(14.5)	(16.9)	(18.5)	(24.4)	**(74.2)**
POLIO	412	501	386	393	**1692**
	(21.00	(25.5)	(19.7)	(20.0)	**(86.2)**
PENTA/DT	412	500	386	393	**1691**
	(21.0)	(25.5)	(19.7)	(20.0)	**(86.2)**
M.M.R.	417	423	383	433	**1656**
	(21.3)	(21.6)	(19.5)	(22.1)	**(84.4)**

QUARTERLY EPI STATISTICS - ST. ANN

Target Population: 3,091

INDICATOR	*QTR. 1*	*QTR. 2*	*QTR. 3*	*QTR. 4*	*ANNUAL*
LIVE BIRTHS	814	669	927	998	**3408**
	(26.3)	(21.6)	(30.0)	(32.3)	**(110.3)**
B.C.G.	860	723	901	1040	**3524**
	(27.8)	(23.9)	(29.1)	(33.6)	**(114.0)**
POLIO	645	786	626	549	**2606**
	(20.9)	(25.4)	(20.3)	(17.8)	**(84.30**
PENTA/DT	645	780	624	547	**2596**
	(20.9)	(25.2)	(20.1)	(17.7)	**(84.0)**
M.M.R.	691	645	598	851	**2785**
	(22.4)	(20.9)	(19.3)	(27.5)	**(90.1)**

HIV/STI PREVENTION AND CONTROL PROGRAMME

1. **Activities update (goal, target group, etc)**

P.LA.C.E. Sites – St. Ann

Thirteen (13) P.LA.C.E sites were visited for the period January – December 2008 namely: Market Back, Mother's, Turtle River Park, Ocho Rios Jerk Centre, Amnesia Night Club, Alterry Beach, Ocho Rios Clock Tower & Fisherman's Beach, Sammy Jeggie's, Street sites: Graham & Evelyn Street, Kenny's & KC Supermarket. 7 condom outlets located were monitored as follows: Wally's Barber Shop, Juta Bus Park, Turtle River Park, Black Scorpio Club, Amnesia Night Club, Sammy Jeggie's sex site, & CD Vendor.

A total of 896 (523 male & 373 female) socializing patrons were engaged in risk reduction activities.

PATRONS SOCIALISING AT PLACE SITES WHO PARTICIPATED IN RISK CONVERSATIONS, January – December 2008

AGE GROUP	*MALE*	*FEMALE*
10 - 14	6	3
15 – 19	82	67
20 – 24	130	105
25 - 49	286	190
OVER 50	19	8
TOTAL	523	373

Influential Training

An influential training for gatekeepers was conducted on Wednesday, April 30, 2008. A total of 13 persons as follows: TCI representatives, 2 MSM and P.L.A.C.E. sites gatekeepers were engaged in discussions involving the following topics: Why you? Sex & Sexuality, Risk Assessment, Values Clarification and Condom Use and Negotiation. They were all asked to list three activities that they would undertake in their respective spheres of influence. They will be duly assessed by the Community Peer Educators, at the end of June they will be awarded their certificates.

Peer Links Training

Coaches

Thirty seven (37) coaches were trained as follows: St. Ann – 13 males and 1 female; St. Mary 13 males and 1 female; Portland 5 males and 4 females to reach in and out-of-school youth.

Community/youth leaders

Forty six (46) Community/youth leaders were trained as follows: St. Ann – 8 males & 3 females; St. Mary – 11 males & 11 females; Portland: 7 males & 6 females.

Sex Workers

A total of 898 sex workers were reached in the region as follows:

St. Ann
BCC Team interacted with 495 sex workers at the following sites: Kitty Kat Night Club, Runaway Bay, Club Scorpio - Bethel Town & Shelter Rock, Discovery Bay; Reggae Masters Night Club, Salem Runaway Bay, Nu Image Night Club, Main Street, Discovery Bay; Big Apple, Top Road, Brown's Town; & KC Supermarket, Graham & Evelyn Street, Spice Night Club, Claremont, & Blackwin's, Claremont. 24 were tested for HIV and 13 trained to train their peers in condom use skills.

St. Mary
The BCC Team interacted with 229 sex workers at the following sites: at the Connection Night Club, Cribs Exotic Night Club, Port Maria, New Angels Paradise Massage Parlour, Stewart Town, Blue Roses (now closed), Highgate & Spot Night Club in Annotto Bay

Portland
The BCC Team interacted with 174 sex workers at the following sites: East Portland Bunidung Night Club & Bamboo Sashay (now closed), Central Portland: Zilla's Night Club, Top Hat Night Club (now closed) and newly opened Candy Shop; West Portland: Ocean's Night Club and Temptation's Night. The team tested 74 sex workers.

MSM

Seven hundred and forty one (741) MSM were reached, the majority of the interactions were conducted with males in the age group 15 – 39. 2469 condoms and 95 KY jelly were distributed. HIV Risk knowledge survey was administered to 438 MSM and 228 answered all 5 questions correctly. 34 were tested for HIV.

Monthly Skills Building sessions were conducted with 24 MSM, 12 from Portland and St. Ann/St. Mary respectively. Focus group discussions were conducted with 12 MSM

from all three parishes. From October – December, 2008 they were engaged in discussions covering the following topics: Building Self-Esteem, Risk Behaviours and Risk Reduction techniques, Condom use and demonstration and Stigma & discrimination.

Adolescent

Youth Clubs
The team interacted and engaged 755 youth club members in risk assessment and risk reduction activities across the parishes as follows:

YOUTH CLUB MEMBERS REACHED BY SEX

PARISH	YOUTH CLUB MEMBERS REACHED	
	MALE	FEMALE
ST. ANN	119	74
ST. MARY	175	188
PORTLAND	108	91
TOTAL	402	353

Peer Link Training
Irons Mountain, St. Ann 11 (6 male & 5 female) participants age 15 – 29 were trained to deliver prevention services. They were engaged in sex and sexuality, values clarification and condom use. Subsequently, these participants will be assessed interacting with their peers and certified.

Moneague College Intervention
Based on the high levels of risk behaviours and sexual practices noted by the school nurse and Guidance counselors, a decision was taken to conduct a healthy lifestyle intervention at the college. 100 students in the 17 – 24 age groups were surveyed. The data set has been analyzed and has been disseminated to the health team. The data is to be shared with the college administration and thereafter planning of monthly activities with school nurse, guidance counsellors and student representatives from each department as well as the HIV/AIDS Awareness Club will be undertaken. They will also establish a support group for persons living with HIV/AIDS. (See pictures attached.)

Summer Camp

St. Mary
BCC Team participated in the Hibiscus Group Summer Camp held at Tapioca Village, Devon Pen. They interacted with 60 boys and girls in the 10 – 19 age grouping; discussion was centered on abstinence, and the myths about HIV and other STIs.

James Bond Beach – Grade 8 Tacky High School students.
The BCC Team facilitated a two week summer camp for 19 Grade 8 boys from the Tacky High School. They were exposed to the following areas: Building Self-Esteem, STIs, and Facts about Chronic Illness, Conflict Resolution, and Differences among

Carnal/Sexual/Incest/Rape. They were exposed to remedial classes and psychotherapy sessions every evening commencing at 2:00pm – 4:00pm. 11 parents attended the first day of the camp, subsequently five parents were trained using the JA-STYLE developed manual for 'Parents of Adolescents.'

Portland
15 boys at the Muirton Pen Boys' Home were engaged in skills building and self-esteem exercise as well as Mental Wellness, Physical Wellness and discipline.

Incarcerated Youth

St. Ann
Armadale Correctional Institute

The team interacted with a total of 29 wards for the year engaging them in risk reduction activities inclusive of condom use and negotiation skills, sex and sexuality, values clarification, building self-esteem among others.

In observation of World AIDS Day 7 of the 29 wards at the Armadale Correctional Institute participated in Poetry and Essay Competitions. They were very creative and issues such as discrimination, abstinence, condom use and facts about STIs were highlighted. Six of the seven were awarded for their attempts and thereafter two persons were selected for 1st, 2nd and 3rd places and duly awarded for both competitions. Both competitions will be further developed and expanded for Safer Sex Week. – 2009.

Hilltop Correctional Facility

The team interacted with 35 male wards at the Hilltop Correctional Facility. The team shared Basic Facts about HIV/AIDS and discussed accepting attitudes towards persons living with the disease.

St. Mary
Swift Purscell Boys' Home

The team interacted with 31 male wards at the Swift Purscell Boys' Home engaging them in values clarification session.

Richmond Correctional Facility

The team interacted with and tested 21 (16 male & 5 female) warders.

Portland
Muirton Pen Boys' Home

The team interacted with 19 wards at the Muirton Pen Boys' Home and discussed the topic sex am I ready? The responsibilities and consequences of sexual intercourse were thoroughly ventilated. The wards insisted that they were all having sex so they were therefore ready.

Out-of-School Youth
The team interacted with 851 across the region.

St. Ann
The team interacted 834 out-of-school youth mainly in the rural areas such as Gibraltar, Moneague, Bamboo, Retreat, Scotts Hall, Sturge Town, Grierfield, McKenzie, Lime Hall, Aboukir, Cedar Valley, Clarksonville, Clydesdale etc They were referred to various social agencies to access basic services.

St. Mary and Portland interacted with 15 and 10 out-of-school youth respectively.

Workplace Interventions

St. Ann
Team interacted with 424 (274 male & 150 female) employees in the parish at the following workplaces: Faith's Pen Food Court, Moneague Inland Revenue Department, Windalco Bauxite Company, Firefighters, Police Officers, Wassi Art, JPSCo., & Chukka Cove. Employees were engaged in risk assessment, risk reduction conversations, Gender & HIV/AIDS Vulnerability and condom use and negotiations.

They engaged 86 taxi operators across the parish in risk assessment/risk reduction and condom use sessions.

St. Mary
The team interacted with 335 (168 male & 167 female) employees and engaged them in risk assessment and risk reduction activities at the following workplaces: Police Station Port Maria, Beaches Boscobel, Jamaica Producers Farm, Scotia Bank – Port Maria, National Commercial Bank – Port Maria, LP Woodwork Shop, Cool Oasis Gas Station – Rio Nuevo, JCDC & Inland Revenue Department.

Portland
The team interacted with 54 (39 male & 15 female) employees at the following sites: Firefighters – Port Antonio & Portland Cooperative Credit Union and engaged them in risk assessment and risk reduction activities.
They team shared research findings with 20 taxi operators.

Dancehall/Party Intervention
St. Ann
Dancers' Friday

The P.L.A.C.E team engaged 30 (24 males & 6 male) patrons at the popular Friday night event on Graham Street, Ocho Rios where young adults and adolescents meet to showcase new dance moves.

Carnival 2008 Richmond Estate, Priory
The BCC Team interacted with 179 (87 male & 92 female) patrons engaging them in risk reduction conversations and condom demonstrations. 13 male and 15 female patrons participated in condom demonstrations.

St. Mary
Beach Jouvert
209 (92 male & 117 female) patrons were engaged using risk cards and risk knowledge survey. 26 (14 male & 22 female) patrons did condom demonstrations.

Sunday Night Session – Community Centre – Highgate
The BCC team interacted with 58 (27 male & 31 female) patrons using risk cards and promoting correct use of condoms. 25 (14 male & 11 female) patrons did condom demonstrations.

Voluntary Counselling and Testing

A total of 3321 persons were tested with approximately 18 positives (16 female & 2 male) for the period January – December, 2008 as follows: St. Ann – 1784, St. Mary – 628, & Portland – 909.

VCT OUTREACH SESSIONS CONDUCTED January – December, 2008

PARISH	MALE 15 - 24	FEMALE 15 - 24	MALE 25 – 49	FEMALE 25 – 49	MALE OVER 50	FEMALE OVER 50	TOTAL
ST. ANN	265	410	375	641	41	52	**1784**
ST. MARY	94	150	139	201	24	20	**628**
PORTAND	132	248	205	257	40	27	**909**
TOTAL	491	808	719	1099	105	99	**3321**

SAFER SEX WEEK

A total of 533 (189 male & 344 female) persons were tested as follows:

SAFER SEX WEEK – February 8 – 14, 2008

PARISH	15 - 24		24 - 49		Over 50	
	MALE	FEMALE	MALE	FEMALE	MALE	**FEMALE**
ST. ANN	56	99	31	78	6	**2**
ST. MARY	11	13	27	33	7	**7**
PORTLAND	23	65	25	44	4	**3**
TOTAL	**90**	**177**	**83**	**155**	**17**	**12**

World AIDS Week

A total of 1046 (396 male & 650 female) participants were tested as follows:

WORLD AIDS WEEK
November 29 – December 1, 2008

PARISH	# TESTED FOR HIV
ST. ANN	**578**
ST. MARY	**161**
PORTLAND	**307**
TOTAL	**1046**

Condom Outlets Monitored

138 condom outlets were monitored across the region during the year. 53 outlets were established in St. Ann, 8 in St. Mary and 25 in Portland. Condom outlets are distributed as follows: St. Ann – 92, St. Mary – 20 & Portland – 26.

PARISH	HEALTH DISTRICT	NUMBER OF CONDOM OUTLETS	NUMBER OF CONDOM OUTLETS ESTABLISHED Jan. – Dec. 2009
ST. ANN	Alexandria	22	**20**
	Brown's Town	11	**4**
	Claremont	9	**5**
	Moneague	11	**-**
	St. Ann's Bay	20	**13**
	Ocho Rios	19	**11**
TOTAL		**92**	**53**
ST. MARY	Annotto Bay	8	**4**
	Highgate	6	**2**
	Port Maria	8	**2**

PARISH	HEALTH DISTRICT	NUMBER OF CONDOM OUTLETS	NUMBER OF CONDOM OUTLETS ESTABLISHED Jan. – Dec. 2009
	Retreat	-	-
TOTAL		**20**	**8**
PORTLAND	East Portland	14	**2**
	Central Portland	10	**14**
	West Portland	2	**9**
TOTAL		**26**	**25**
GRAND TOTAL		**138**	**86**

MSM Condom Outlets
5 condom outlets were established across the region 2 in Portland and 3 in St. Ann.

Condom Demonstrations

PARISH	# OF CONDOMS DISTRIBUTED	# OF CONDOM DEMONSTRATIONS DONE BY TARGET GROUP	
		MALE	FEMALE
ST. ANN	**22,427**	**505**	**433**
ST. MARY	**18,304**	**611**	**613**
PORTLAND	**29,865**	**168**	**62**
MSM	**2469**	**185**	**-**
TOTAL	**73,065**	**1469**	**1108**

Targetted Community Interventions
St. Ann

The communities are as follows: Greenhill-Alexandria, Middle Buxton-Brown's Town, Middle Street-Ocho Rios, Roaring River-Steer Town, Golden Grove-Claremont, Friendship-Moneague,

Greenhill,
The BCC Team met with the planning committee and planned a health fair which was held on June 25, 2008. The following services were offered:

SERVICE OFFERED	MALE	FEMALE
Blood Sugar	3	7
Blood Pressure	14	24
Dental (children)	5	6
Doctor – general check-up	15	20
TOTAL	**37**	**57**

Interactive sessions were conducted by Mental Health Unit, Health Promotion issues (Pap smear, Immunization, & Family Planning) were also addressed by the Health Education Officer – Mrs. Gordon, pamphlets were distributed by the Public Health Inspector and the gathering were entertained by performances from Bashy Bus.

Middle Buxton
With the help of the SDC Representative the BCC Team was able to mobilize the community. As such over 30 persons attended the Planning Committee meeting. The purpose of the TCI was shared with the community and they were encouraged to attend the next meeting. Hype Session has been planned to garner the community's support.

Golden Grove
The BCC team used the sensitization/community walk-through to garner support for the meeting slated to be held on July 20, 2008. The team conducted a walk through in the community and engaged youth and young adults in discussion about the purpose of the TCI and also administered accepting attitude assessment survey.

Friendship
The BCC Team conducted walk-through and invited community members to the dissemination meeting. The community members in attendance they have committed to support the process by inviting others to subsequent meetings.

Roaring River, Steer Town
At this month's meeting myths about HIV were discussed as well as plans for community development. The health fair held on January 11, 2008 yielded the following:

Pap Smear 30 female were swabbed in the following age group:

AGE GROUP	# OF FEMALE PARTICIPATED
15 - 24	2
25 - 29	2
30 – 39	11
40 – 49	6
Over 50	9
TOTAL	**30**

AGE GROUP	# OF PERSONS DID BLOOD SUGAR TEST
25 - 30	2
30 – 39	1
40 – 49	4
Over 50	4
TOTAL	**11**

A total of 43 persons had their blood pressure checked. 63 (24 males 7 39 female) community members visited the doctor at the Outreach clinic. A member of the group attended the Youth Camp organized by Children's First. At the meeting she gave a report of the camp activities and she also shared that she has been charged with the responsibility to organize an outreach activity for the youth in her community. Other members of the team pledged their support.

Exchange, Ocho Rios
The committee has planned a walk and talk to promote the refurbishing of the Great Faith Basic School. Like Roaring River, adolescents participating in Children's First Youth Camp shared their experience at the committee meeting and indicated that they would be organizing youth activities for their peers.

St. Mary
Frontier, Port Maria,
Data has been analyzed and draft report prepared for dissemination among health staff. The team members are now charged with the responsibility to mobilize the community and identify members to form a planning committee. This exercise will be executed in collaboration with SDC. The data has since been shared with the community and Committee members discussed key issues affecting the community. The team will facilitate this process with the assistance of the social development commission.

Charles Town/Three Hills/Retreat – Gayle,
The data has been analyzed and the report prepared.

Belfield, Highgate,
The research findings were shared with the community members at a Parish Council Citizens & Stakeholders Meeting held on June 19. Over 60 community members were in attendance, a few have volunteered their names to be a part of the Steering Committee.

The Steering Committee assisted in planning Outreach Testing held on August 25, 2008. 131 (73 male & 58 female) persons were utilized various services offered such as blood sugar tests & blood checks, HIV testing, medical check ups. Several organizations established booths such as NIS, Bureau of Women's Affairs etc.

ENVIRONMENTAL HEALTH

Arrangement of Sections

Introduction and Overview

The environmental health programmes are primarily geared at those aspects of Public Health and diseases which are related to the environment and assessing and controlling the factors which are likely to exercise a deleterious effect on health and survival. During the year under review the environmental health team was kept occupied in the thrust toward attaining the various environmental health goals and targets which is linked to improving and maintaining optimal health, standards for the wider population. This was pursued by means of the implementation of a number of projects and programs. There were challenges; however the region had many gains. Chief among these gains were:

- Strengthening of alliances among agencies and organizations in addressing Environmental Health issues
- Capacity building of staff in several areas
- Integration the Nation Youth Services workers within the Vector Control Programme beef up vector management and surveillance
- Implementation of the Meat Hygiene improvement programme to improve the meat hygiene trade
- Training of staff in Geographical information system (GIS) mapping
- Capacity building in Public Health by way of personnel pursuing training in Masters and Bachelors Degrees, including advance training in Health Promotion, Food Safety, Occupational Health and Safety and Environmental Management.

This report entails information on activities in environmental health in the priority areas outlined in the Service Level Agreement (SLA), as well as other Environmental Health programmes of interest, and will be addressed under the following headings:

- Food Safety
- Water Quality Control
- Water management
- Institutional Health
- Vector Control
- Port Health and Quarantine
- Enforcement actions
- General environmental Sanitation and excreta disposal
- Building plans and subdivisions

Food Safety

Food safety activities were geared at preventing, minimizing and controlling the various food safety hazards through education of food handlers, inspections of food handling establishments and tourist establishments and appropriate certification.

Food Handling Establishments

The inspection and certification of food handling establishments was a major activity in the North East Region. To this end, December ended with an over certification status of food handling establishments of 76% (table1). This represented a 10% increase when compared with the previous year. The region was however 14% below the SLA target of 90%.

Table 1. Food Handling Establishments data

INDICATORS:	St. Ann	St. Mary	Portland	NERHA TOTAL
No. FHE	1440	1039	1120	3588
No. Cert.	1129	963	639	2727
% Cert. to Date	78%	92%	57%	76%
Target=90% certification				

The increase in numbers food handling establishments and decline in the number of staff due to retirement, studies and attritions may have accounted for this non attainment of the SLA target. St. Mary attained the highest level of certification (92%) followed by St. Ann (78%) and Portland which was significantly below target (57%). The team approach to target non compliant food establishments and compliance inspection was used in all parishes so as to cushion the impact of staff shortage.

Some main elements the programme geared towards monitoring of food handling programme were:

1. Inspection and certification of high risk establishments
2. Monitor food handling staff at special events

Street food vending continued to pose a major challenge however, it requires a collaborative approach, plans were afoot to improve monitoring of these facilities for 2008.

Tourist Establishments

The North East Region is one of the major tourism hubs in Jamaica; therefore the health team is at task to protect the health of the sector for locals and over seas visitors alike. At the end of December, 08 the certification status within tourist establishments was 89.9% (Table 2).

Table 2. Tourist Establishments data

INDICATORS:	St. Ann	St. Mary	Portland	Total 08
• No. Est.	114	40	52	206
• No. Cert.	89	35	45	169
• % Cert.	78%	87%	86%	83%
# % Cert. to Date	103(90.3%)	34 (85%)	48 (92%)	(89.8%)
Target=90% certification				

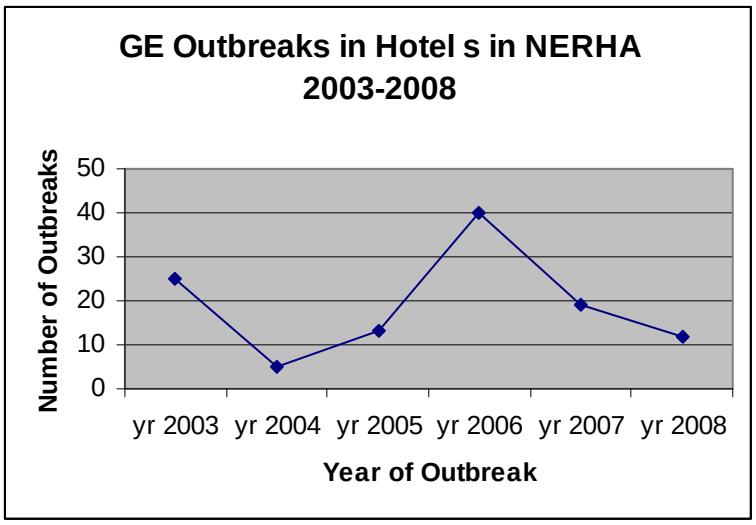
This is compared with 2007 which ended with a certification status of 91% (representing a 1.2 % decline). The Tourist Establishment Team operated on skeleton staff during the period under review and was able to marginally attain the SLA target. The main deficiencies found on inspection were in the areas of; post preparation, time and temperature control, cleaning and sanitization, and solid waste management. With increased collaboration between the Tourism Product Development Company and NERHA the properties were assisting to comply with the health requirements. The rapid turn over in staff at the properties, and cultural communication barriers may have contributed to some on the noncompliance. There are a number of Spanish hotels in the NERHA with management primarily of Spanish origin, which poses its unique difficulty. A number of training sessions were conducted among the key management personnel and staff during the period under review to assist in addressing some of the concerns identified.

The challenge of having the properties apply at least three months prior to expiry of their health certificate was a major one, as such as such properties often operated without valid health certificate while the compliance inspections were being conducted. Once fully compliant the certificates were processed without delay. The Tourist establishments review committee was convened in all cases to review the documents, procedures and decisions for properties being recommended and this allowed for transparency in certification of the processed.

Outbreaks in Tourist Establishments

As indicated by the graph at figure 1 the steady decline in the number of reported GE cases (above endemic levels) in hotels continued since the peak in 2006. Response to out breaks took on a multidisciplinary approach including Public Health Inspectors, Public Health Nurses, Food Safety Coordinators, Epidemiologists, Surveillances Officers and others.

Figure 1. Outbreaks in tourist establishments



There were twelve (12) outbreaks in 2008 as against 2007 which accounted for 19 outbreaks. Eight (8) outbreaks were reported in the parish of St Ann affecting over sixty (60) guests and staff cumulatively. The majority of outbreaks occurred in the month of August. Four (4) outbreaks were reported in the parish of St. Mary affecting over one hundred and fifty (150) guests and staff cumulatively. The March outbreak in St. Mary led to the closure of one hotel. All outbreaks were investigated within 24 hours of reporting.

The increased vigilance of the tourist establishment team, through periodic, routine and compliance inspection, quick response to outbreaks, and improved over all sanitation in the properties may have impacted on this decline. The monitoring activities have been complimented by the functional Health and Safety Committees in most of the properties (which the team has been instrumental in developing). Meetings with environmental staff and hotel nurses in the properties and HACCP training for hospitality workers offered by the region enhanced the staff capacities in the properties to improve sanitation.

Food Handlers Certification

Control of food handlers through certification and monitoring continued to be a major activity. A little over five hundred (500) Food Handlers clinics were conducted during the period under review, with approximately 12,000 persons in attendance at both onsite

and offsite Food Handlers Clinics within all categories of food handlers. This is compared with 2007 which saw 10,409 being processed (table 3).

Table 3. Food Handlers Certification data

Indicators	Jan-March	April-June	July-Sept	Oct-Dec	NERHA Total (08)
# of Clinic Sessions Held	143	131	118	126	**518**
# Applicants Processed	3552	3049	2567	2665	**11,833**
# Permits Renewed	1740	1874	1393	1333	**6340**
# New Permits Issued	**1812**	**1175**	**1174**	**1332**	**5493**

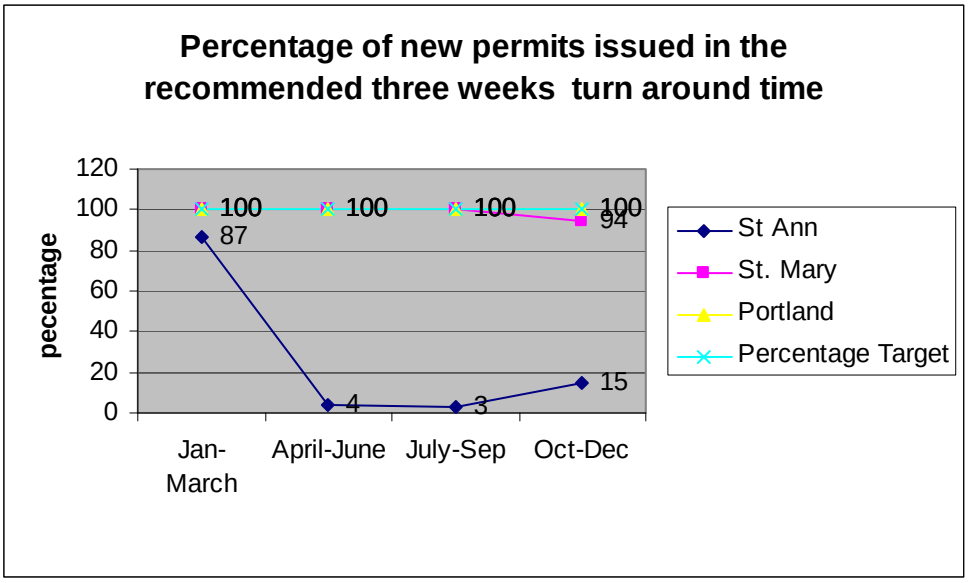
The most frequent categories were: General Food handlers, Restaurant and Catering and tourist Establishments Food Handlers.

A study that was conducted to assess the effectiveness of food handlers training reveled that: there was general attainment of the learning objectives after the sessions, as reflected by the high pass rate and scores, however with increased knowledge the poor food handling practices did not change. There were also issues with; training an appropriate class size, and concerns about the physical environment provided by the Health Departments to conduct training.

As far as the recommended turn around time is concerned for the processing of food handlers permits, based on parish reports St. Ann was outstanding in non-conformity, while Portland and St. Mary reports that they were in conformance (figure 2). There were several factors attributable to this long turn around time which was related to:

- Problems with ID processing equipment
- Data entry errors
- Improper storage of files and data
- Lag time in dispatch of files to the region

Figure 2. Percentage of new permits issued within the recommended turn around time, January – Dec, 2008



Meat Hygiene

A total of 285,000 kilograms of meat were inspected throughout the region of this, almost 10,000 kilograms were condemned (table 4). Of the three parishes, St. Mary accounted for the largest quantity of meats inspected while St. Ann accounted for the largest quantity of condemned meat (3,743 kg). The Ministry of Health (MOH) approved method of disposal was utilized in all cases of condemnation. Positive control of condemned meats due to the lack of holding facilities within the parishes were concerns, as such meat were disposed of almost immediately disregarding the options for appeal. Poultry slaughtering/ inspection appeared to have increased in the parish of St. Ann (104,096 kg slaughtered) or over the years, much of the informal back yard poultry slaughtering has fallen into the inspection net. A collaborative approach which was initiated in 2007 between RADA and the Health Department which sought to sensitize the public to consume inspected meat has reaped results.

Table 4. Meat Hygiene data

Live Stock	Region total		St. Ann			St. Mary			Portland		
	Insp. (kg)	Cond. (kg)	No	Wt.	Cond. (kg)	No	Wt.	Cond. (kg)	No.	Wt.	Cond. (kg)
Oxen	101,026	1706	5458	2764	1472	432	49131	117	396	49,131	**117**
Pigs	28,708	6094	5358	2389	1671	4620	10,063	2617	3602	16,256	**1806**
Goats	40,818	563	1822	21,382	166	796	8,865	200	920	10,571	**197**
Sheep	-	-	-	-	-	-	-	-	-	-	-
Poultry	104,096	1420	-	44,863	434	12,373	5,374	376	-	53,859	**610**
Total	**284,904**	**9,783**	**12,638**	**71,398**	**3,743**	**18,221**	**73,433**	**3,310**	**4,918**	**140,0073**	**2,730**

There was an overall decline in the quantity of animals slaughtered and carcasses inspected; this may have been impacted by the various healthy lifestyle campaigns implemented throughout the region which promoted healthy eating.

The need to improve the meat hygiene trade surfaced as a result of several negative media publicity with respect to inspection, a project was developed with the aim to improve same.

Water Quality Control

Water borne illnesses pose the greatest risks to some of the most vulnerable in the population, the very young and very old. Globally children are most likely to succumb to water related illnesses. It is important that water supplies in the NERHA be monitored, in order to prevent minimize /control any such possibly risks. All National Water Commission (NWC), private and Parish council supplies were inspected. NWC, private and parish council supplies saw inspection and sampling of 84%, 96% and 35.6% respectively (tables 5, 6, and 7). The percentage of bacteriologically safe supplies fluctuated between 80% and 100% among parishes with the exception the parish council supplies which were in the low of 46%.

Most untreated and unsatisfactory supplies in the region are owned by the Parish Council. Major concern with the water supplies is the persistent lack of adequate treatment of the majority of these supplies, especially those belonging to the Parish Council. The rainwater catchments tanks (owned by the parish council) in St. Ann were for the most part unchlorinated. The use of tank keepers to monitor the supplies was an initiative in the past which became dormant; this progromme needs to be revamped. The Health

Departments continued to advocate and agitate at the regular Parish council meetings and different mediums to bring about the necessary changes.

Table 5. NWC Supplies

INDICATORS	St. Ann	St. Mary	Portland	NERHA
No. Supplies	34	16	20	70
No. (%) Inspected	34	16	20	70 (100%)
No. (%) Sampled	33	15	19	67 (95%)
No. (%) Inspected & Sampled	27 (79%)	14 (87.5)	18 (80%)	59 (84%)
No. (%) Satisfactory	27 (80%)	14 (87%)	16 (80%)	57 (81%)
No.(%) of Total Treated	34 (100%)	15 (94%)	20 (100%)	69 (98%)

Target 100% inspected and sampled

Table 6. Private supplies

INDICATORS	St. Ann	St. Mary	Portland S	NERHA
No. Supplies	17	12	3	32
No. (%) Inspected	17 (100%)	12 (100%)	3(100%)	32
No. (%) Sampled	16(94%)	12 (100%)	3(100%)	31(96%)
No. (%) Inspected & Sampled	16 (94%)	12 (100%)	3 (100%)	31(96%)
No. (%) Satisfactory	15 (88%)	10 (83%)	3 (100%)	28(87.5%)
No.(%) of Total Treated	17 (100%)	8 (66%)	3 (100%)	28(87.5%)

Table 7. Parish Council Supplies

INDICATORS	St. Ann	St. Mary	Portland S	NERHA
• No. Supplies	77	47	19	**143**
• No. (%) Inspected	25 (32%)	20(42%)	19 (100%)	**64 (44.7%)**
• No. (%) Sampled	20 (35%)	13 (21%)	19 (100%)	**52 (36%)**
• No. (%) Inspected & Sampled	20 (26%)	12(25%)	19 (100%)	**51 (35.6%)**
• No. (%) Satisfactory	12(15.5%)	35(74%)	19 (100%)	**66 (46%)**
• No.(%) of Total Treated	12 (15.5%)	35(74%)	19 (100%)	**66 (46%)**

The mushrooming of unregulated water bottling plans and increased risks of ware borne illnesses has increased the need for monitoring and treatment of the private supplies. Interventions to address problems related to the inadequate or lack of treatment included meetings with management and staff of the minor supplies, training of the operators in treatment and maintenance and public education on the disinfection of domestic water. There continued to be bi-monthly water providers meeting where concerned were raised. Geo-referencing of water supplies and sampling points was ongoing and this will be used to assist the parish to identify high risk communities prone to water borne illnesses and conduct epidemiological studies and assessment during GE outbreaks.

Swimming Pools

Swimming pools pose a risk to public health, safety and diseases in the absence of the control of the biological, chemical and physical hazards, therefore swimming pools were monitored during the period under review. The number of swimming pools in the region increased from 167 in 2007 to 188 in 2008. However, only 83% of the swimming pools in the region were health certified this represents a 4% decline when compared to 2007(table 8).

Table 8. Swimming Pool Data

INDICATORS Target (80%)	St. Ann	St. Mary	Portland	NERHA
• No. Est.	123	45	20	**188**
• No. Cert.	98	42	17	**157**
• % Cert.	80	94	85	**83.5**

The swimming pools in the facilities with less than or equal to 100 rooms presented the highest level of non compliance both in application and attaining the health standards. The TPDCO will be used as an avenue to increase compliance.

Waste Water Management

In order to minimize the risk of fecal oral diseases and negative impacts of human wastes on the environment the waste water plants were monitored. An overall 96% of the waste water plants were inspected and sampled in NERHA, with 93% having satisfactory effluent quality bacteriologically, physically and chemically.

Table 9. Waste Water plants data

INDICATORS	St. Ann	St. Mary	Portland	NERHA
• No. facilities	19	11	7	**31**
• No. (%) Inspected	19 (100%)	8 (72%)	2(28%)	**29 (93%)**
• No. (%) Sampled	19 (100%)	8 (72%)	5(71%)	**32 (96%)**
• No. (%) Inspected & Sampled	19 (100%)	8 (72%)	5 (71%)	**32 (96%)**
• No. % Satisfactory	18 (94%)	10(90 %)	1(14%)	**29 (93%)**

Institutional/School Health

Two parishes saw an increase in the number of school on record namely St. Ann and St. Mary. The target of 100% inspection among schools has been attained within all parishes (Table 10.) This was partly due to the early childhood commission which required all early child hood educational institutions to be registered.

Table 10. Data on schools

INDICATORS Target 100% inspection	St. Ann	St. Mary	Portland	NERHA Total 2008	NERHA Total 2007
Total No.	250	181	151	582	542
No. Inspected	250	181	151	582	542
% Inspected	100	100	100	100	100
No. Satisfactory	202	124	104	430	427
% Inspected and Satisfactory	81	69	69	74.3	(79%)

The certification of early childhood educational institutions and the inspection of these facilities for the purpose of emergency shelters have also increased the drive for inspecting all these institutions. There was a 5% decline in satisfactory status of schools for the region with St. Ann having the highest satisfactory level. The end of December saw an overall certification status of 74% (for the NERHA). The unsatisfactory conditions at school were mainly due to absence of hand washing facilities, inadequate cleaning and sanitization, poor solid waste management, poor state of sanitary conveniences and damages to infrastructure due to hurricanes. Work plans were given to the management of the institutions to correct the deficiencies as well notices served.

Vector Control

Vector control activities mainly surrounded control of the mosquito and rodent population and the Health Departments were faced with the outbreaks of dengue fever and leptospirosis. The resurgence of malaria also presented great challenges.

Mosquito Control

Based on table 11, there was a significant increase in vector control activities during the year as a result of the Malaria and Dengue threats. There was a sharp rise in the numbers of premises inspected in all parishes the total represented a >200% increase. There were

high vector indices exceeding that of the SLA target of 5% in the three parishes with indices of 21.5% (Portland), 9.8% (St. Ann) and 11.1% (St. Mary) at the end of December. There were higher levels experienced during the year in the high twenty percentages. The involvement of NYS workers to complement the vector control cadre was very instrumental in identifying the new breeding sites which were subsequently disrupted or destroyed. Regular rainfall throughout the year and passing of hurricane Gustav during month of September contributed to the increase indices.

The Vector control team was able to disrupt a number of a number of these vector habitats through oiling and elimination of some of these sites by environmental manipulation activities (support provided by the parish council). The application of adulticidal treatment was also done to reduce the abundance of the adult vectors. The use of Gambusia Affinis, a predator fish for the mosquito larvae was initiated in St. Ann, but discontinued due to need for further technical support.

The data on the some indices are presented at table 11. The ports of Entry for St. Ann had indices of 0.2%, this higher than the target of 0% and this has been so for two consecutive years.

Table 11. The Comparative Index Ratings for 2007 – 2008

	Portland		St. Ann		St. Mary		NERHA	
Indicators	**2007**	**2008**	**2007**	**2008**	**2007**	**2008**	**2007**	**2008**
No. of premises inspected	3,913	9,710	2000	11,000	2500	7003	8,413	27,713
Average Aedes Aegypti Index Rating (%)	21.5%	18.25%	15%	9.8	9%	11.1%		
Port Index %	0%	0.0	0.1	0.2				

Rodent Control

Rodent control programmes were implemented throughout the parishes in the major town centers and infested communities. A multi agency and multidisciplinary approach was used with different agencies such as National Solid Waste Management Authority. A rodent control programme targeting Port Antonio costal areas and commercial areas was implemented in December 2007 and followed through to the second quarter of 2008. Funding was provided by TPDCO under the "Spruce Up" Jamaica programme in response to a project proposal submitted to that organization. The programme included a survey, Public Education, baiting, source reduction and an evaluation at the end. The activity was welcomed and successful, however there is a need for follow up intervention and other areas within the parish to be given attention also.

In St Mary, rodent control programmes were implemented where there were confirmed cases of Leptospirosis. Activities included public education, removal of indiscriminate dump sites and investigations of all suspected cases were also done. For St. Ann the there were rodent control activities and programmes targeting Discovery Bay, St. Ann's Bay and Ocho Rios. The joint efforts of the heath education/ health promotion teams and the Public Health Inspectorate were especially out standing in St. Ann with involvement of schools in poster lyrical and competitions relative to rodent control using the theme "Keep the Rats Out" and educational involvement of the community under the theme "Each One Teach One."

Port Health and Quarantine

The porosity of our borders presents the risk of ingress of exotic diseases; as such the ports of entry were monitored/ placed under surveillance in the NERHA. Monitoring of the Ports and quarantine activities were headed by Quarantine Officer for St. Ann and Public Health Inspector 3 for Portland. There was a marginal reduction in the number of vessels calling at the Ports during 2008. For St. Ann there were mainly Passenger and cargo vessels as against Port Antonio where most vessels calling were smaller type vessels Yachts, fishing boats etc and all were granted pratique.

Summary of Vessels Processed

Number of vessels processed …….……447
Passengers on board …….…….....679032
Passengers landed …….....178
Passengers in transit (leaving) …….....678780
Passengers listed for surveillance ……..... 41
Passengers quarantined …….Nil
Crew on board ……...….... 25, 8295
Crew landed ……..210
Crew in transit (leaving) …… 256905
Crew listed for surveillance ……..… …144
Crew quarantined ……. …Nil
Ship Sanitation Certificate issued …… …Nil
Ship Sanitation Exemption Certificate issued……. 9

Surveillance at Ports of Entry

One and forty-four (144) passengers crew members were placed under surveillance because of their exposure to malaria and other endemic infectious diseases. They were all issued with Health Alert cards.

Two hundred and sixty-four (264) cases of G.I. illnesses were reported during the period under review. This represented a twenty-eight percent (28%) reduction over the same

period last year. This may be attributed to the fact that the vessels have implemented more improved control preventive measures with respect to Norwalk virus.

Inspections of Vessels

During the period under review, a number of detailed inspections were carried on both passengers and cargo vessels at the three major ports. With respect to the cargo vessels, the following were the main findings:

- Dirty and unsatisfactory provisions stores
- Unhygienic galleys
- Poor pest management
- Inadequate reporting of medical conditions on the vessels
- Poor personal hygiene of crew members

Vector Control Activities on Vessels

Eighteen (18) deratting certificates were issued during the period under review, during this period; the issuing of the deratting certificate was discontinued and was replaced with Ship Sanitation Certificate.

General Environmental Health related to Ports

Inspections were carried at all three ports during under review. A number problems were identified at the different ports at varying time during this period, these include:

- overgrown vegetation at Port Rhoades
- Potential mosquito breeding sites identified at all three facilities
- Poor solid waste management
- Over flowing sewage pipes and also blockage of sewage pipes

Discussions were held with management of the ports to have the matter addressed, all the issues were resolved satisfactorily.

Enforcement Actions

During the period under review a total of six hundred (600) enforcement actions were reported taken with respect to notices served, closures affected. Notices served were on non-compliant owners of food handling establishments, swimming pools, hotels and person allowing a public health nuisance. The compliance rate was 71% (462) as against the target of 90%.

General Environmental Sanitation and Excreta Disposal

Community surveys within high risk settlements and major towns were carried out during the period. Total of (35,021) homes were inspected in the NERHA from a total of approximately 67,581, (see below).

Distribution of Residential Premises in the North East Region

St. Ann	Portland	St. Mary	
34,900	21,522	11,159	Total = **67,581**

Note worthy is the fact that seven hundred (700) houses and six hundred and eighty four (684) excreta disposal facilities was inspected in St. Mary, 80% of these facilities were satisfactory and 5.1 % of total number of premises inspected were found without excreta disposal facilities. A reduction in the percentage of premises found without disposal facilities was noted when compared with 8.1 % in 2007.

Of major concern to the health a department is the continuous increase in the number of informal settlements especially in St. Ann, this is may be associated with the hospitality industry. These settlements increase the negative environmental impacts and public health concerns, these settlements include: Parry Town, Cool shade Lewis, Buckfield, Windsor, Salem and others.

Problems of poor solid waste management continue to impact on the health status of the parishes in the region. An inadequate collection system has led to the establishment of indiscriminate dumps at several locations close to urban centers and residential areas. The various vector control initiatives and projects have resulted in the removal of a number of these; however this will not be sustained without the improving of the services provided by the NSWMA and the active participation of communities.

Building Plan and Subdivisions

The Health Departments received plans, inspected building sites and made subsequent recommendations to the Local Board of Health for approval or corrections. A collaborative approach was used when site visits were done. Agencies such as Parish Council, National Environment and Planning Agency and Environmental Health Unit participated in joint site visits. The numbers building plans and subdivisions received collectively were a total of 760 in 2008. This represented decline (approximately 20%) as in 2006 and 2007 (table 12). The numbers were in excess of 900 in both instances for building plans alone. More than 80% of the Plans and subdivisions were recommended. Those that were not recommended were mainly due to inappropriate sewerage systems and due regards by the health departments for the departure from previous absorption pit, to the use of more environmentally sound waste disposal systems such as tile fields, evapo-transpiration bed, reed beds, biodigesters and other appropriate technologies.

Table 12. Data on Building Plan and Subdivisions

Indicators	St. Ann	St. Mary	Portland	NERHA Total 2008
# of plans received	**409**	**201**	**97**	**707**
# of plans processed	409	201	97	707
# of plans recommended	306 (74.8%)	175 (87%)	92 (94%)	573 (81%)
# of plans not recommended	103 (25.2%)	26 (14%)	5 (6%)	134 (19%)
# of subdivision received	**30**	**19**	**14**	**63**
# of subdivision processed	30	19	14	63
# of subdivisions recommended	27 (90%)	16 (84.2%)	12 (85.7%)	55 (87.3%)
# of subdivision not recommended	3 (10%)	3 (13.8%)	2 (14.3%)	8 (12.7%)

Activities surrounding the renovation of a hotel in St. Mary resulted in several site visits and monitoring of construction activities to ensure compliance with health requirements and recommendations were made for effecting necessary changes.

Summary

The following (table 13) summarizes achievements as against targets in environmental health in NERHA, based on the SLA for the period Jan- Dec 2008.

Table 13. SLA targets and achievements

Indicators	Achievements	Targets
Certification of Food Handling Establishments	76%	**90%**
Certification of tourist establishments	89.8%	**90%**
Response to outbreaks within two weeks	100%	**100%**
Water Supplies inspected and sampled		
NWC **Private supplies** **Parish Council supplies**	84% 96% 36%	**100%** **100%** **50%**
Indicators	**Achievements**	**Targets**
Waste water **Waste water supplies inspected and sampled**	93%	**100%**

Indicators	Achievements			Targets
Institutional Health Schools inspected	100%			**100%**
Vector control Vector indices at port of entry	0.2%/			**0%**
	St. Ann	Portland	St. Mary	**5%**
Average index (Aedes Aegypti)	9.8	18.25%	11.1%	
Enforcement actions				
No. of enforcement action taken against Institutions (Notices served, Closure, Prosecution)	600			
No. % compliance obtained (in respect to enforcement	**71% (462)**			**90%**

Barriers/Challenges

During the year, the following challenges were encountered:

1. Staffing
   - Cadre
   - Attrition
   - Staff motivation and morale

2. Majority of Early Childhood Institutions were unprepared for public health certification. Lack of sustained programme for the monitoring of ECIs.
3. Hurricanes and other disasters resulting in increased environmental risk factors for the breeding of vectors and spread of vector borne illnesses.
4. Inadequate buy-in from operators and the public for the enforcement of health certification of food handling establishments

Strategies put in place to overcome barriers

The following strategies were instituted to overcome the stated barriers:

1. Staffing
   - Appealed to the director of EHU for placement of interns in affected parishes. Four interns were placed and will begin in January 2009; as follows: three (3) in St. Ann, and one (1) in St. Mary.
   - Regional office staff made several visits to the parishes to get feed back and to add support to parish programmes and activities; involvement of parish staff –all levels in planning and implementation of Regional programmes and activities;

Staff motivation and morale:

- provision of equipment and training for staff; staff presentation of research papers at the Regional research conference;
- Recognition of staff for outstanding performance both by the RHA and through support of the JAPHI initiatives: PHI of the Year Awards and Food safety Officer of the Year Awards. Parish Managers sponsored a plaque for all officers who were nominated by their peers for these awards.

2. Utilization of GIS technology in the field to identify various public health risks.
3. Increased awareness of PHIs and collaboration with stakeholders in disaster preparedness and emergency management.
4. Continued collaboration with Tourism Product Development Company and other stakeholder to improve on environmental health.

Improvements

1. Timely response to applications made for certification for food establishments and tourists establishments.
2. Exposure of additional staff members to tourist establishment inspection, this will ensure that there is always a full compliment of competent officers to respond to situations.
3. Submission of monthly Malaria surveillance Reports, which are compiled and submitted to the Vector Control Division

New and Ongoing Projects

1. **Training of Hotel and food service workers in HACCP**:

The first training for hotel managers and supervisors was held on March 3- 5th, at the Village Hotel in Ocho Rios. After this training several properties requested training for their staff.

2. **Evaluation of Food handlers training and effectiveness of training in the NERHA**:

The research re the above captioned was conducted and report was presented at the NERHA Research Conference in May and again at the Annual Educational conference of the Jamaica Association of Public Health Inspectors.

3. **Second (2nd) Annual Research Conference**

The objective of the research conference was to promote operational research as a strategy to improve environmental health outcomes and for the advancement in knowledge and awareness of environmental health issues and their impact on the local population. A two-prong approach was utilized to achieve this goal: to

i. Convene an environmental health research conference for all environmental health staff in the region
ii. Provide a medium in which NERHA professionals can share and showcase environmental health research;

iii. Sensitize staff about findings of environmental health research and how they can be incorporated into their everyday work.

Establish and strengthen partnerships with selected teaching/research institutions in Jamaica.

i. To ensure employees undertake programme applicable research while studying;
ii. To provide a cost effective mechanism through which evidenced based information can be made available for decision making Over 80 persons including PHIs and Technical staff from the regional Office, REHOs form the other Regions and Universities and Ministry of Health Head Office were in attendance

4. **Food Handlers Training Guide**: This Training guide was designed to facilitate food handlers who wish to prepare for the formal training as set out by the Ministry of Health's Food Handlers Training, Certification and Monitoring Policy and Procedures Manual. It focuses on the major areas addressed in the food handlers training session, and are based on the Public Health (Food Handling) Regulations 1998 & 2000 and where regulations are absent, on the US Food and Drug Administration (FDA) Food Code 2005. The guide was submitted to the MOHE Food Safety and Protection Specialist for review and is pending approval.

5. **Checklist for Monitoring of High Risk Food Establishments:** Checklist for monitoring of High Risk Food Establishments was completed. The piloting of this checklist has started since early December.

6. International Conferences and Continuing Educational Development for Staff.

i. One staff member was partially sponsored by the Caribbean Hotel Association to attend a Trainer of Trainers workshop and certification training in Barbados, February 2008. The staff member funded all relevant exams and training materials.
ii. Three members of NERHA staff attended the Annual Educational Conference and Exhibition of the National Environmental Health Association in Tucson Arizona., in June 2008. As a result two members participated in the EPI Ready –Food Borne Illness Investigation Workshop and were certified; one member sat the Certified Food Managers Exam and was successful. One member also presented a paper in the Food Safety Section on the "Description of Food Safety System in Jamaica Hotels and how it compares with HACCP."

7. **GIS/GPS Mapping**

i. All parishes in the region completed GIS mapping of Anopheles breeding sites. All Geo-referenced data was submitted to the MOHE and maps were generated.

ii. All water supplies including sampling points have also been geo-referenced. The parishes are in the process of verifying the data.

iii. All waste water facilities have also been geo-referenced. The parishes are in the process of verifying the data. Maps for water supplies and waste water facilities are yet to be generated.

iv. Parishes also commenced mapping of poultry operators – both established and back yard operations.

v. Data related to Leptospirosis cases for 2007-2008 have been submitted to be parishes for mapping as well. This will provide spatial data for evaluating risk factors.

8. Burden of Illness Research

i. The Burden of Illness related to food borne diseases was introduced to Jamaica in 2007, by one NERHA staff member who went to CAREC on attachment as MPH intern, July-August 2007. The study was later endorsed by the MOHE to be done island wide and is being coordinated by the REHO, NERHA. This study is part of a Caribbean Burden of Illness study being coordinated by CAREC/PAHO/WHO in seven countries in response to the WHO mandate and strategy for the prevention and control of FBD. It will benefit Jamaica through capacity building in FBD surveillance as well as determine:

(i) The community prevalence and estimate the burden of acute gastroenteritis (key syndrome related to food borne infections), undifferentiated fever and fever and respiratory illnesses.

(ii) The prevalence and estimate the burden of priority pathogens commonly transmitted by food (*Salmonella, Shigella, Campylobacter, S.aureus, E.coli* 0157:H7*, Vibrio* and *Norovirus).* This information may then be used to explore risk factors for infection, identify gaps in surveillance and provide the basis for guiding appropriate prevention and control measures for FBD as well as guide the allocation of limited resources intended for the health agenda.

This study consists of two core components:

- A population based component (two one-week surveys during high and low gastroenteritis season)
- A laboratory based component (laboratory strengthening and enhanced testing for one year)

9. **Equipment Maintenance and Calibration Policy**: in keeping with the terms and conditions of a NHF grant for improving the capacity of EH staff, an Equipment Maintenance and Calibration Policy was developed which aimed to ensure that all equipment used by Public Health Inspectors/ Environmental Health

Staff to undertake essential public health are properly maintained and calibrated. The policy was circulated to all parishes for implementation.

10. **Meat Hygiene Improvement Project**: this project was developed mainly after much negative publicity in the media re: meat hygiene in Jamaica. The overall objective of the programme was to improve the conditions under which meat is slaughtered, prepared and offered for sale for human consumption, and to improve the capacity of the PHI to conduct effective meat hygiene services as well as to increase consumer confidence in the meat industry. This project was implemented in the last quarter of the year.

Projections and plans for the future.

1. Continued participation in the **MOHE Wastewater Assessment Project** which was introduced to the Region in 2008. The projects main objectives are to assess the effluent water quality and efficiency of Jamaica's Sewage Treatment Plants; to assess the Protocol concerning Pollution from Land-Based sources and Activities in the Wider Caribbean Region; to build the capacity and quality assurance systems of the National Public Health Laboratory, Environmental Health Laboratory and to identify constraints to effective wastewater treatment and recommend measures for improvement in the short, medium and long-term.
2. Continued participation in the development of the **Strategic Plan for the Eradication of Malaria and Vector borne Illnesses in Jamaica**.
3. Continued participation in the development of the **National Occupational Safety and Health Programmes** and the establishment of an Occupational Safety and Health post at the Regional Level, and increased focus on workers health.
4. Complete **mapping of all Leptospirosis cases** for the Region and participate in the study to develop a logistic regression model for predicting Leptospirosis risk factors and outbreaks, being done by the University of Minnesota in collaboration with the MOHE and UWI, Mona.

Conclusion

For the year 2008, the region has experience many health challenges from human resource constraints, the reemergence of infectious diseases and investigation of numerous outbreaks as well as responding to disasters. Not withstanding challenges for the Public Health inspectorate, with prudent management, delegation and job rotation all essential Environmental Health services were maintained. The Region was able to meet a number of the set objectives and targets of the service level agreement, while providing coverage of all other areas of Environmental Health Services. Those which were not met were being managed so as to avoid major public Health threat.

The environment is an important determinant of health, it is critical that the region plays its role in managing the environmental programs so as to influence this health determinant in a positive way. There were many gains and the program of environmental continues to influence the health indicators positively. The PHIs continued to rise to the

various challenges despite the numerous constraints. The challenge is to continue to improve environmental health and allow for these to be sustained improvements for the benefit of this generation and beyond.

HEALTH PROMOTION

The assessment and evaluation of the quality and effectiveness of the health promotion unit's planning and implementation of components of the health promotion strategy during 2008 revealed a continuation of the significant improvement of the overall performance of the unit. Work plans were more concise; activities were implemented in most part, in a timely manner and as planned; there was consistent evaluation of progress through the use of indicators and a comparison with the requirements of job descriptions.

The health education officers delivered what was planned during the year and very importantly, laid a solid foundation for greater improvements in the coming year although they were handicapped by many challenges. These challenges included and still include:

- Lack of basic working tools; lap top computers, multi-media projectors and screens, a computer with the capacity for graphic arts and cameras.

- Absolutely no budgetary support from the region

- Very little access to training opportunities and support and where this was sought, the process was lined with obstacles accompanied by extreme difficulty.

- Misperceptions about health promotion and the role and functions of the health promotion unit.

However, the challenges motivated the strengthening of resilience and coping skills; creative ways (mostly through increased partnerships and the "picking of low hanging fruits") were found to support work activities. The majority of colleagues in other disciplines were very supportive and collaborative as the unit undertook the integration of the health promotion strategy into their programme activities. There is much confidence that the situation will improve as the unit continues to develop professionally. Health promotion units in the other regions which have been or are still at some stage of facing similar challenges are having their needs addressed in meaningful ways. We are confident that with a renewed sense of urgency and advocacy, we will achieve positive results in having these basic needs met.

The content of the health promotion work plans for 2008 and consequently the results were mainly determined by factors from four sources of influence:

1. The service level agreement (SLA) priorities

2. The parish priorities

3. The national healthy lifestyle strategic plan and other MOHE priorities

4. The regional focus

The SLA and the healthy life style plans were prepared at the national level. The parish priorities however, had to be developed from the contents of the work plans of the parish public health departments. This was done through either active participation in parish planning meetings or a detailed review of the parish work plans by the health education officers (HEOs) in consultation with those who prepared them. The regional health promotion and education officer (RHPEO), in addition to the provision of technical guidance, participated in the development of the plans for St. Mary and the review of those for St. Ann and Portland. The regional focus was determined by epidemiology, analyses of reports, inputs and guidance or directives from the technical department, transforming national and regional policy into action and the need to develop an identifiable health promotion strategy in all technical programmes.

In order to ensure a structured, efficient and effective contextual approach to planning and implementation, a rationalization matrix (see appendix) was designed and circulated to HEOs to be used in developing their work plans.

In addition to the strategy of rationalizing and contextualizing priorities, during the period under review, the health promotion unit continued to design and apply approaches to change the perception of health promotion from being seen as a "separate programme area" to one which positions it as "a cross- cutting strategy" with principles which facilitate the achievement of goals and objectives in NERHAs health care delivery as outlined in the SLA. The perception that health promotion is a "stand-alone" programme, often leads to wrong expectations and evaluation of its functions and curtailment of its effectiveness. In order to make the change process more progressive the following strategies were applied:

- The unit's progamme plans were crafted to include strategies to facilitate meaningful collaboration in developing and implementing parish action plans for specific programme areas.

- Health education theories were integrated into action plans which were jointly developed by stakeholders

- Applying standard public health practices such as BCC strategies, HEOs focused on teaming with health care workers from other disciplines to plan and implement actions to achieve common programme objectives

- Efforts were made to align activities to the unit's core job description functions within the framework of the priority areas.

- Activities were undertaken to inform and educate staff about health promotion and communicate to them its principles and how they are applied to programmes

- The scope of reporting was broadened to include health promoting interventions other than those which are usually undertaken by the health promotion unit.

This process of changing perceptions by trying to practice core health promotion functions, though very encouraging, was not without challenge. While the members of the unit wholly support the concept, they were and are still concerned that their individual work-load contribution to team-work might not be readily identified or appreciated in an organizational culture which prioritizes work-load over results. In an effort to deal with this valid concern, focus was placed on a) operating under the general guidance of existing job descriptions and b) designing and using a work load data collection tool (see appendix).

On the positive side, the strategies pursued have not only helped to increase awareness and knowledge levels about health promotion, but have also facilitated important gains in many areas which are subsets of our programme priorities. The following is a listing of some of these gains:

- Increased awareness, knowledge and practices of healthy lifestyle practices to prevent and control chronic diseases in special settings – schools, churches, select communities, workplaces etc.

- Increased awareness, knowledge of prevention and control measles, leptospirosis, malaria and dengue in the general population

- Increase in the number of persons in special settings and the general population who engage in planned physical activity and improved healthy lifestyles practices generally.

- Increased number of persons seeking screening services

- Increase in the numbers of persons and organization who are willing to sponsor or be in partnership for health interventions

- Increased awareness among NERHA staff of the importance of health promotion

This section of the report which deals with a few of these outcomes in greater details has been divided into the following subheads: **Control and Prevention of Chronic Disease, Control and Prevention of Communicable Diseases, Reproductive Health, Mental Health and Environmental Health**

Control and Prevention of Chronic Diseases

Target groups were segmented according to their settings as follows:

- Schools
- Work Places

- Communities: churches, youth clubs, citizens groups, health centre

Chronic Diseases-Schools

Over 2316 students, staff and connected persons in school settings were involved in work plan interventions for chronic diseases as is reflected in the workload statistics for each parish. This includes about 250 adults who were sensitized along with students who participated in the NERHA career day exhibition and sensitization for career choice in health. These statistics do not reflect presentations and sensitization sessions done in response to requests from schools which were not targeted in work plans.

In addition to routine information, education and communication sessions, special collaborative interventions were coordinated by the health promotion unit. Summaries of these, supported by work load statistics for each parish are provided below. The main strategy used entailed collaborating with the health promotion unit at the Ministry of Health to apply the principles of ***health promoting schools*** to achieve common objectives at parish, regional and national levels. Interventions undertaken, include "Camp 4 the healthy way" for overweight and obese children from six schools in the region, Caribbean Wellness Day, Work Place Wellness (focusing on school staff) and Camp Yellow Bird

Portland

Table 1 Portland Work-load: CNCD interventions in schools

School	Population Age Range						Staff		Total Pop.	No. Visits
	< 10		10-14		15-19					
	M	F	M	F	M	F	M	F		
Titchfield High	-	-	31	44	29	37	9	27	177	**5**
Pt. Antonio	-	-	57	72	17	23	5	31	205	**7**
Fair Prospect	-	-	29	36	22	29	-	-	116	**13**
Avocot Jnr.High	31	42	32	48			5	27	185	**2**
Happy Grove	-	-	28	37	21	27	-	-	113	**6**
TOTAL	**31**	**42**	**177**	**237**	**89**	**116**	**19**	**85**	**796**	**33**

Table 1 above outlines the work load distribution among schools in which special focus was placed for prevention activities relating to diabetes, hypertension, cervical cancer, overweight and obesity and sexually transmitted infections. Titchfield, Port Antonio and Fair Prospect have been consistently active and involved in our healthy lifestyle interventions since 2006 when they entered the cheerleading competition and participated in the national finals. Their healthy lifestyle club membership grew an average 20% in 2008 compared to 2007, moving from a combined membership of 108 to presently stand at 131. Interventions at Avocat begun near year end and so far only preliminary meetings and sensitization have been held with staff and grades 5-7 students.

The level of cooperation expected at Happy Grove was not forthcoming as we were unable to organize a structured approach in conducting a situational analysis to determine the validity of anecdotal reports of violence and inappropriate sexual behaviours among students. However, they participated in the national programme "Camp 4 the healthy way" by sending 3 students to the camp. Happy Grove also hosted physical activity and nutrition work shops, organized by the HEOs and nutritionists, for 113 of their students during diabetes week as a post camp segment of "Camp 4 the healthy way". As a result, the approach to engage them will be reviewed as a focus on increased physical activity and proper nutrition seems quite acceptable to them. Ground work has been laid for the strengthening or development of health clubs or for the integration of healthy lifestyles into existing clubs in all these schools.

Interventions were not limited to students; staff members were either involved in coordinating the planning and implementation of interventions or being recipients of information aimed at providing support for their practice of healthy lifestyles.

One hundred and sixty students from Portland were mobilized to attend career day promotional activities at Turtle River Park in Ocho Rios

Over 20 awareness and knowledge level building sessions were conducted in another 13 schools. These sessions were conducted as segments of interventions during commemorative events such as child month, Caribbean wellness day, world diabetes day and world health day.

St. Ann

Due to the focus placed on other segments of the population and only one functioning health education officer during the year, interventions for primary prevention in relation to chronic diseases were limited in schools in St. Ann. Table 2 below gives a summary of the work load division among the main schools and an indication of the response to the healthy lifestyle exhibition hosted by St. Ann on NERHAs "Career Day" in October. Even though the emphasis was on career choices in health, the theme of *a healthy lifestyle* was dominant.

Table 2 St. Ann Work-load: CNCD interventions in schools

School	Students Age Range						Staff/Others		Total Pop	No. Visits
	< 10		10-14		15-19					
	M	F	M	F	M	F	M	F		
Free Hill	15	11	13	9	12	7	20	30	117	**3**
Chalky Hill AA	23	32	18	18	-	-	6	15	112	**1**
G/Grove AA	12	16	22	31	15	21	25	40	182	**1**
Career Day	25	36	90	120	100	120	100	150	741	**1**
Total	**75**	**95**	**143**	**178**	**127**	**128**	**151**	**235**	**1152**	**6**

The Free Hill All Age School was among the sample of schools selected by the Ministry of Health for a longitudinal study of overweight and obese children. As a result it was highlighted as the main focus for intervention during diabetes week in the parish. Sensitization, awareness and knowledge building sessions on healthy lifestyles were conducted with students, parents and teachers by health education and nutrition officers from the health department.

As a part of a collaborative effort for Parent's Month and World Diabetes Week., The Health Promotion Unit conducted an interactive session at the Chalky Hill All Age School on the topic: Diabetes Mellitus. Parents were engaged and educated about the non-communicable diseases among other health issues

The Golden Grove All Age School hosted its annual health fair during the second quarter. Puberty and HIV/AIDS within the context of a total healthy lifestyle was presented to a mixed audience. This was followed by an interactive discussion in which many members participated.

St. Mary

Pre and post natural disasters mitigation activities, measles, dengue and malaria interventions along with the absence of the parish HEO (on study leave) and other staffing issues have allowed for very little substantive interventions relating to chronic

disease in schools in the parish. Although the parish received support from the regional office, the assistant HEO, Mr. Riquel Barclay had his hands full dealing with the demands of other programme areas. The intervention which started at New Orange Hill Primary was intended to be a pilot for other healthy lifestyle interventions in the parish and a practice run for the HEOs in the health promoting school concept. Unfortunately, we were unable to go beyond the collection of baseline data; early next year, we expect to begin collaborative planning. However, the Information, Education and Communication (IEC) component of the plan continued throughout the year (see statistics in table 3).

Sensitizations sessions, including demonstrations of physical activities by health department staff followed by interactive discussions took place at the Oracabessa High School during world health week as a precursor to start stakeholders planning for the formation of a healthy lifestyle club. So far, one planning meeting between has been held with stakeholders. The HEO, who was a counselor at "Camp 4 the healthy way", took two overweight students to the week long camp in Moneague during the first week in January.

Table 3 Work-load St, Mary: CNCD interventions in school

School	Students Age Range						Staff		Total	Visits
	< 10		10-14		15-19					
	M	F	M	F	M	F	M	F		
Orange Hill Prim	32	47	28	32			2	11	152	**7**
Oracabessa High			34	39	31	42	3	13	162	**2**
Devon Pen AA			24	23			1	6	54	**2**
Total	**32**	**47**	**86**	**94**	**31**	**42**	**6**	**30**	**368**	**11**

Chronic Diseases- Workplace (General)

In 2007 the health promotion and protection division of the Ministry of Health released a concept paper on work place wellness. A programme frame work was subsequently developed and workshops and meetings were held to sensitize key stakeholders in the regions, other public institutions and the private sector. In 2008 the regional health promotion unit through the parish HEOs and the RHPO made limited but very encouraging progress with the workplace wellness concept with members of the private sector and middle managers at NERHA. However, the concept calls for the full endorsement of the region's top management through policy initiatives and personal involvement as we seek to interface with corporate executives. In July, the Regional

Quality Assurance Officer led an initiative which formed a multi-sectoral work place wellness committee. The committee drafted a frame work for a work place plan. The frame work and a report on the initiative were sent to management for perusal and comments. One of the main strategies for sustainability, get senior managers and the board to "buy in" by presenting to them, the MOHE concept and a summary of what we have been doing toward making the concept a reality. We have not been successful in getting a response.

Special Work Place Event: Caribbean Wellness Day

St. Mary

We partnered with the St. Mary Chamber of Commerce to plan and implement our own Caribbean Wellness Day activities in St. Mary in October. Events included a walkathon which attracted the participation of staff members from business places and government offices in the parish. There were demonstrations of exercise techniques, exercise competitions, presentations on healthy lifestyles, chronic disease screening services accepted by 110 individuals at health fairs held in Castleton and Three Hills. The event lasted over three days.

Results included an increase of 20 percentage points in post test average over pretest average of 65% correct at session at the civic centre. The work plan activity of identifying and recruiting at least 10 new persons who were either overweight or obese to be participants in a health centre-based (Gayle and Retreat) longitudinal study was achieved.

St. Ann

Caribbean Wellness Day was celebrated on September 27th, 2008 under the theme 'Love Your Body, Get Active, Move it!' at the Ocean Village Shopping Centre in Ocho Rios.
A comprehensive team of approximately fifteen (15) persons led by the HEO planned and executed an event aimed at promoting healthy living for prevention and control of chronic non- communicable diseases (CNCD). Stakeholders who contributed to the event included representatives form the Parish council, Wellness Centers, local gyms and fitness groups.

The foci for the year which were highlighted and emphasized for the preparation leading up to the event and for the event itself were:

- Regular physical activity for minimum of 30 minutes at least 3 times per week
- Good nutrition practices
- Good mental health
- Appropriate sexual behaviour
- No form of drug abuse

Achievements

- Myers Gym reported that seven (7) persons signed up to start an exercise programme, three of which won free admission for a month at the Gym as prizes for participating in wellness day competitions.

- Over two hundred (200) persons actively participated in the event

- Over six hundred (600) persons were exposed to healthy messages and demonstrations of simple healthy exercise and good and nutritious eating practices

- Increased requests for work place interventions.

- Each person left with a book marker promoting exercise 30 minutes a day, 3 times per week (at least).

- Nearly a hundred children participated in the day's activities; toddlers at times displaying banners with healthy slogans

Portland

For this special day the health educators were a part of the national planning committee from the ministry of Health. The health education unit in collaboration with Portland Red Cross observed the day through health education sessions held at the Dover and Zion Hill S.D.A church and Fair Prospect and Manchioneal health centers.

Chronic Diseases work-place (Individual sites)

As stated before, response to onsite workplace interventions was good. Introductory meetings and sensitization sessions held at the credit union in Portland, First Caribbean Bank and the Inland Revenue Department in St. Ann and the SDC in St. Mary along with smaller enterprises in all parishes indicated that these enterprises were ready for well organized interventions. However, the several requests from our own staff at NERHA presented us with the strategic opportunity not only to "practice what we preach" by endeavoring to make NERHA a healthy workplace, but also to increase the number of persons who could become available to help in promoting workplace wellness. As a result, we have been engaging staff members in small group health clubs in health facilities based in Annotto Bay, Castleton, Pt. Maria, Buff Bay, St. Ann's Bay, Brown's Town and Eastern Portland. A variety of group specific methods were employed; a physical trainer was used in Buff Bay, a DMO who specializes in yoga-type exercises led out in Annotto Bay and Castleton, and traditional aerobics were being practiced in Port Maria.

Special note must be taken of staff at facilities in Eastern Portland health district. They have, with the assistance of the HEO and other staff, established their baselines and

determined where on the behaviour change ladder they are, set themselves targets and signed a contract to follow written guidelines to achieve these targets. The appropriate data collection, monitoring and evaluation mechanisms were put in place so by the end of the second quarter next year, we should have some indication of how successful these staff members are in taking responsibility for their own health.

Once NERHA management provides the required policy guidelines, endorses partnership arrangements and supports interventions, we intend to expand these work place wellness activities within and without NERHA in the coming year.

Chronic Disease-In the Community

Health centre based

Exercise clubs in Fair Prospect, Buff Bay, Annotto Bay, Castleton, Gayle, Retreat, St. Ann's Bay and Alexandria are health centre-based and comprise of staff and community members who may or may not be chronic disease patients. Activities planned to begin shortly among health staff in Port Maria will also be based at the health centres. Shortly after Port Maria begins, Annotto Bay Hospital is expected to have the first hospital based club. Baseline and medical records are being kept as club members/participants are registered at the health centres. There are presently over 700 participants in exercise clubs at health centres. Club members comprise mostly hypertensive and diabetic older persons and those who are at risk for chronic diseases and have been referred to the club by doctors, nutritionists, social workers and family nurse practitioners. Fewer than 30 men participate in these clubs.

As result of the reluctance of men to participate in the exercise clubs, the strategy to do "man tings" on clinic days was undertaken in St. Ann to develop men's health clubs at the Bamboo, Exchange and Brown's Town health centres. Domino games and competitions, hula hoop dancing, banana eating competition, engaging the men in community service at the health centres, trips to the southern section of the parish and fun days were some of the "man tings" which attracted men to join the club and consistently participate in adjusting to healthy lifestyle practices. The number of members in the men's health clubs who consistently participate stands as follows: Bamboo 30, Exchange 15 and Brown's Town 25. Sixteen new members have been registered for 2008.

The work plan objective of having the at least 10% of hypertensive patients from the men's clinic classified as controlled over a two year period has been surpassed at Bamboo during this year alone. Three of seven members have been thus classified. There were problems with data collection records at Exchange and Brown's Town, thus the figures could not be used. This problem has been sorted out and the process will be monitored to ensure the collection of reliable data. Nearly all club members have done the prostate examination among other medical checks. One member, whose result showed that he had prostate cancer, had the mass successfully removed. Another has been referred to St. Ann's Bay for biopsy.

Men's health club formation was extended to St. Mary where over 150 men participated in a fun day activities which included approaches mentioned for clubs in St. Ann. The main objective of the event was to sensitize and screen men in the Annotto Bay health district with a view to solicit their participation in men's health club activities at their nearest health centre. Particulars were collected from 43 men from the health district who indicated their desire to be members of a club. These are to be followed up.

The fitness clubs based at the St. Ann's Bay Health centre, which is comprised of almost only chronic disease patients and the elderly, continued to inspire communities all over the parish and the region as they demonstrate their exercise routine and give testimony to the benefits of a healthy lifestyle and how effective it has been in controlling their chronic illnesses, thus allowing them to enjoy a better quality life Their membership now stands over 100. As a result of their activities and other promotional events there has been a very visible increase in the number of individuals and groups exercising in communities along the coast and up into Brown's Town. There has also been a tremendous increase in requests for presentations and leadership to start up clubs. These requests have been accommodated through the assistance of partners in NERHA, the Adventist Health Professional Association, exercise clubs and gym operators and employees.

Faith-based organization, Youth clubs and other citizen groups

There was collaboration in organizing health fairs, conducting sensitization sessions and wellness events with churches. These included a community outreach risk assessment and screening services for obesity and overweight cervical cancer, breast cancer, prostate problems, cardiovascular diseases, high blood pressure, and diabetes at the Ocho Rios and St. Ann's Bay Baptist Churches, the Golden Spring Methodist Church in St. Ann.

The Ministry of Health trained health workers in 2007 in the "Eight Weeks to Wellness" programme by Wellsource as part of a capacity-building effort to implement its healthy lifestyle strategic plan. In 2008 the ministry distributed the manuals and CDs to each region. The North Jamaica (covering St. Ann and sections of St. Mary) and the East Jamaica (covering Portland and sections of St. Mary) Missions of Seventh Day Adventists use the same programme and tools in training its clergy and laity to implement its healthy lifestyle plans among its members and the general population. The health promotion unit in partnership with SDA churches in all three parishes, conducted seminars in simple healthy meal preparations, prevention and control of diabetes, hypertension, overweight and obesity, mental illness and inappropriate sexual behaviours among over 800 church members.

Similar interventions along with screening activities were conducted at 7 tent crusades in which health promotion was allotted 30 minutes for presentations and questions and answers 5 evenings per week for 4 weeks at each crusade. Estimates are that an average of 200 persons was either being sensitized or reinforced each evening. Exercise groups comprising SDA members and community members were formed in Cole Gate, Ocho Rios and Exchange.

A series of 3 training sessions each were conducted with members of the Pimento Walk (St. Ann) and Buff Bay (Portland) Police youth clubs with a view of training members to become community health animators, in order to influence their peers and older community members to practice healthy life styles.

In January, a committee comprising representatives from the Annotto Bay Health and Environment Association, the St. Mary Health Department and the Citizens Association sent an abstract of a proposal to the Ministry of Health, copying the NHF, NERHA and political representatives for the development of a an available site for an exercise park. So far, a response has not been received, but this will be a priority item for health promotion in St. Mary.

PREVENTION AND CONTROL OF COMMUNICABLE DISEASES

Approaches to the prevention and control of communicable diseases included:

- Collaborating with the health departments for the integration of appropriate behaviour change communication activities in their interventions
- Cooperating with Ministry of Health initiatives in prevention and control
- Targeted health promoting activities.

Commemorative events such as health month, child month, safe sex week and world AIDS day were used as mediums for BCC activities. The prompt response to threats or outbreaks by quickly obtaining or developing information, education or communication materials and disseminating them were instrumental in averting outbreaks or reducing their impacts. Promotional activities were enhanced through the strategy of using community contacts who are being trained to become community health animators. One group of 14 community contacts from St. Ann had their first animators training in the last quarter of the year.

Immunization

The main strategies used to reduce the number of immunization defaulters were to:

- Focus on low coverage areas
- Train basic school teachers
- Training health staff

The health promotion unit organized “train the trainer” workshops for key persons such as school nurses, guidance counselors and CPEs, CHAs who in turn trained others in their organizations and share information with the community. In St. Ann 20 staff members, 11 community peer educators, 14 guidance counselors, 1 school nurse and over 200 basic school teachers were trained in basic facts of immunization and its importance in the prevention and control of communicable diseases. Although similar training sessions were conducted in Portland and St. Mary, the figures were not available for this report.

CPEs and HEOs did community walk and talk sessions (especially in informal settlements) and distributed IEC materials to prepare communities for finding and immunizing defaulters.

As a result of the measles threat a majority of NERHA staff were sensitized and immunized.

Malaria

Prevention activities against malaria were scaled up significantly. This took place against the background of the outbreak in the South East Region. Environmental Health Officers integrated behaviour change communication techniques in their activities as they led the drive, in partnership with other agencies, to "clean up" and identify and destroy existing and potential mosquito breeding sites. To complement and reinforce these interventions, the health promotion unit, targeted selected settings for intensive activities through "walk about" where there were one to one and small group face to face interactions. These settings were markets, transportation centres and points of popular commercial activities in Ocho Rios, Brown's Town, Alexandria, and Cave Valley in St. Ann, Buff Bay, Port Antonio and Manchioneal in Portland and Port Maria, Highgate and Annotto Bay in St. Mary.

The health promotion unit obtained and distributed information and educational materials from the Ministry of Health and developed and disseminated power point presentations to the health departments and the regional office. Working in collaboration with the health departments, the unit mobilized community leaders, influential persons and members of community development agencies and provided them with information on basic facts for the prevention and control of malaria. These persons, in turn, assisted in getting the help of other citizens to distribute brochures throughout their communities. They also became part of the communication linkage by sharing information and assisting with arrangements for community sensitization sessions.

JIS collaborated in 3 of 7 sessions held in St. Ann, and 1 of 5 in St. Mary. Reports from Portland indicated that several sessions were done in the parish as part of the continuing heightened surveillance and prevention activities which was already scaled up from the "Haitian crisis". However, numbers for the period under review were not available.

Dengue

Many dengue prevention activities were in progress when the malaria outbreak threat occurred. There was a merging of some BCC activities such as interventions for good sanitation.

Gastroenteritis

From September through the rest of the year, sessions in personal hygiene with special emphasis on interactive demonstrations of hand washing, were increased in basic and

primary schools, churches and other community groups. This was done with the objective of reducing the incidence of gastroenteritis which tends to begin climbing as we approach the rainy and cooler seasons. In Portland where 5 schools were participants in hand washing skills training sessions, one school erected a mural which demonstrates the proper technique.

Conjunctivitis

The outbreak was not as severe in the North East as it was in other regions. This could be as a result of the ongoing personal hygiene interventions, especially in schools and the primary prevention interventions undertaken.

HIV/AIDS

Health Education Officers in Portland and St. Ann were supervisors of community peer educators (CPE) for most of the year. Although the additional activities along with the accompanying operational challenges cut heavily into the schedule of their core health promotion functions, they were able to lead the CPEs to increase the number of persons tested and the number of participants in targeted interventions within the context of a general healthy lifestyle programme.

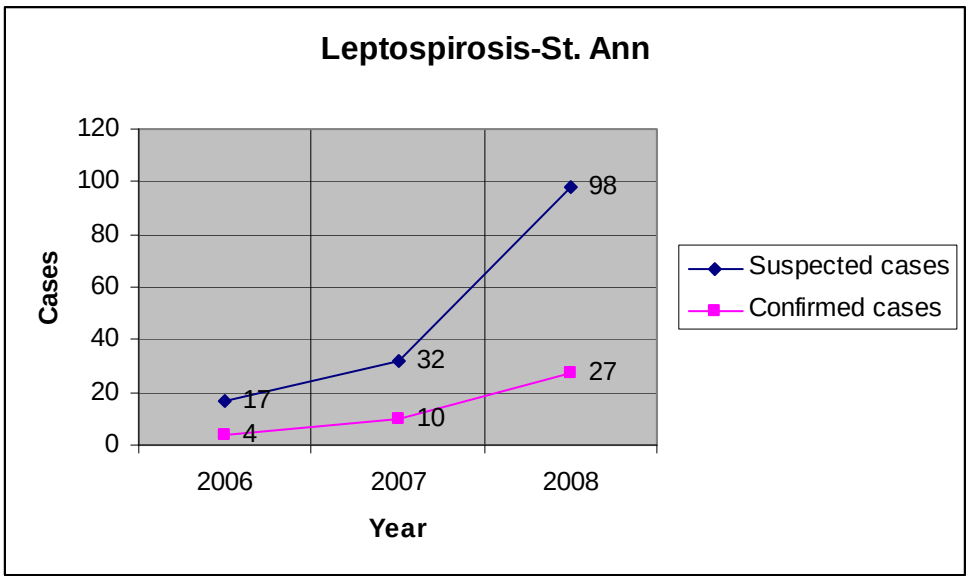
Table 4 Summary of prevention activities undertaken by HEOs in special settings during the year

PARISH	PREVENTION ACTIVITIES: SETTINGS				IEC Mat Dist by HEOs	Subject
	TCIs	Work Sites	FBOs	Schools		
Portland	-	4	7	5	21,000	**Dengue, malaria, personal hygiene, STI, EH, immunization,**
St. Mary	1	6	2	4	15,000	**Dengue, malaria, personal hygiene, STI, food safety, immunization,**
St. Ann	**-**	**4**	**22**	**5**	**40,000**	**Dengue, malaria, personal hygiene, STI, EH, immunization**

Table 4 above gives an indication of how the unit employed the "settings approach" to carry out primary prevention activities among captive audiences. This approach facilitates the evaluation of behaviour modification or change through the application of health education theories. However, because the monitoring and evaluation (which includes proper record keeping) segment of the HEO reorientation was not yet done reliable population data was not available for this report. A fairly accurate record was made of the information, education and communication (IEC) material, notwithstanding the inability to break out the figures to match the disease type.

PRIMARY PREVENTION ACTIVITIES-RODENT CONTROL

Leptospirosis



The graph above highlights the numbers of suspected and confirmed cases of leptospirosis in St. Ann over the past 3 years. Both the numbers of suspected and confirmed cases increased within the region of 300% in 2008 over 2007. Based on the rapidly increasing incidence of cases and the findings from rodent infestation surveys carried out by the environmental health unit and KAPB surveys (guided by the trans-theoretical and other health education theories) by the health education unit, a three phased rodent control programme was developed and documented. The expected outcome of the programme is the reduction of the incidence of leptospirosis through the reduction of rodent infestation to under 10% within two years. Phases 1 and 2 focused on research and baiting respectively and phase 3 on intensified health promotion.

On December 7, although the first two phases were already completed, phase 3 and the whole programme were formally launched at a service at the St. Ann's Bay New Testament Church of God. The function was aired on local cable TV.

The rodent infestation and KAPB surveys were conducted in St. Ann's Bay. Some of the findings from these surveys are given below.

Rodent infestation survey

A total of thirty-seven (37) commercial and seventy (70) residential premises were surveyed, of which fifty-four percent (54%) of the commercial premises and seventy-seven percent (77%) of the residential premises showed signs of rodent infestation. There were several facilitating factors for rodents in the areas. These include derelict buildings, poorly maintained drains, overgrown vegetation and poor solid waste management practices by residents and the authorities.

KAPB Survey

A total of 60 persons were interviewed. Twenty six (26) or forty-three (43 %) of respondents were male and thirty four (34) or 57 % female.

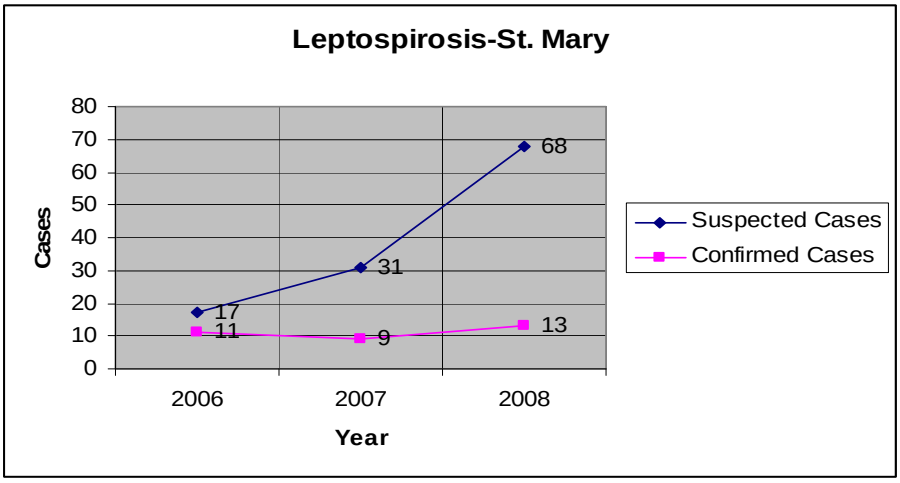
- 39 or 65% of the respondents reported having a problem with rats
- 23 or 38% reported seeing them in bushes
- 18 or 30% saw them in drains and 12 or 20 % saw them in old buildings.
- Only 19 or 32 % mentioned that there was a waste management problem in the community.
- 37 or 61% mentioned that there was no waste management problem in their community.
- 48 or 80% of respondents mentioned that the garbage truck does not come regularly or does not come at all.
- 3 or 5% of respondents were not aware that the poor storage of garbage leads to rat infestation.
- 15 or 25% believed it was NEPM's responsibility to keep their community clean.
- Only 68% agreed it was everyone's responsibility.

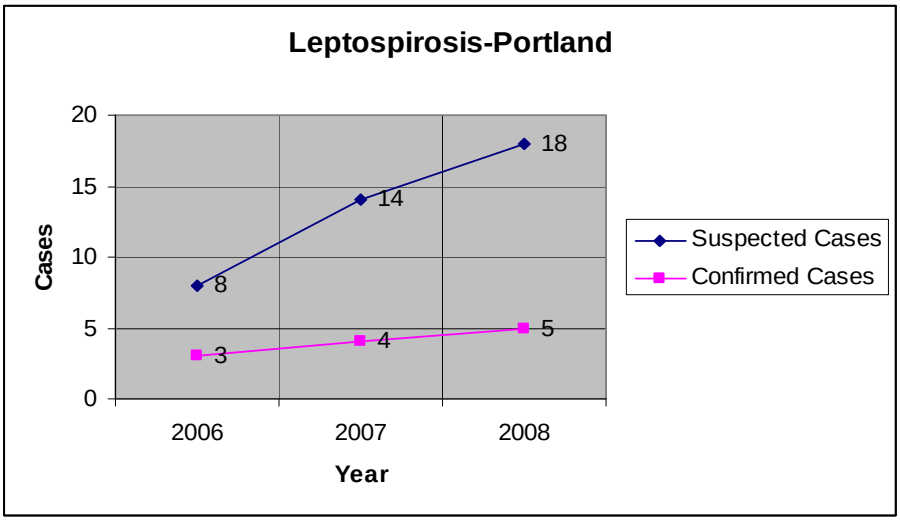
Activities undertaken in so far in the health promotion segment include the following:

- Stakeholders committee for planning and implementation formed and functioning
- "Best kept street" campaign competition being organized
- Criteria for school competition have been developed
- Fliers and posters designed and are being reviewed by committee before testing
- Business enterprises have consented to sponsor competitions
- Drums have been contributed to project.

Leptospirosis (St. Mary and Portland) 18, 5; 68, 13

The health education departments in these parishes continued awareness and knowledge building interventions while working in collaboration with environmental health officers to reduce rodent population. Target areas were selected from epidemiological line listed data and infestation survey data from the inspectors.





The epidemiology reports from the parishes indicate large increases in the number of confirmed cases in St. Ann and St. Mary for 2008. Portland, although moving from 3 cases in 2007 to 4 in 2008, was far behind in comparison to the other two parishes. It is interesting to note that Portland has maintained a strategy of focusing health education and "clean up" activities in communities with suspected or confirmed cases of leptospirosis. The PHIs were also very vigilant in ensuring that proper solid waste management was practiced by both communities and the relevant authorities.

St. Mary in response to the outbreak in 2005 applied a similar strategy and saw reductions in both suspected and confirmed cases up to 2007. In the latter part of 2007

and through 2008 the rodent prevention and control activities in the parish were much less intensive than previous years due to staff factors, resulting in a near 100% increase in leptospirosis cases in 2008 compared to 2007.

St. Ann although consistently identifying infestation sites and treating them, did not begin to intensify the integration of the health promotion strategy until 2007. Poor solid waste management practices in and around towns and the development of two large illegal dumps near Discovery Bay and Salem have aggravated the problem.

The initiative in behaviour change communication strategies being taken by the HEO, coupled with the efficiency and effectiveness of rodent control actions by the PHIs are likely to lead to improvements in 2009.

An exercise to review line listings to find out how effective the health promotion strategy was in communities in which it was used.

SPECIAL HIGHLIGHTS

Abolition of user fee – Monitoring qualitative aspects

The assignment of collating information and preparing quarterly and annual reports on the qualitative aspects of the abolition of user fees in the North East Region was given to the RHPO. Activities undertaken involved the following:

- Conducting interviews with staff and clients at health facilities to determine the effect of abolition on perceptions, attitudes and patterns of behaviour in relationships, with a view towards identifying solutions to problems
- Reviewing patients complaints reports and analyzing client satisfaction surveys
- Reviewing financial, inventory and work load reports to validate qualitative findings
- Compiling reports

This was a very challenging and time consuming assignment which cut heavily into the schedule of other previously planned core health promotion activities.

The monitoring and evaluation of the abolition of user fees identified many gaps and short comings in NERHAs customer service structure and validated previous reports of very poor customer service practices. In an effort to redress these systemic deficiencies, a revival of the customer service committee has been undertaken.

A customer service report for 2008 was also compiled by the RHPO and sent to the Standards and Monitoring Unit of the Public Sector Reform Unit of the Office of the Cabinet.

Targeted Community Intervention – Boscobel: "Scheme", "Views" and "Gulf"

Activities during the year are as listed below:

Impact evaluation of health promotion strategies/activities was done

Outcomes:

Formation and involvement of stakeholders group resulted in:

- The achievement of NERHA's and community's objectives (environmental health impact assessment report)
- Sustainability; project has been progressing under management of community
- Expansion to Stewart Town and Mango Valley being planned

Applications made for special resource persons from Peace Corps to be assigned to projects in Oracabessa/Boscobel and Mango Valley

Outcome:

- Approval given for two PCVs to be assigned to Boscobel/Stewart and one in Mango Valley

Advocacy initiative undertaken to deal with issue of inadequate sewerage treatment

- Community mobilized to petition relevant authorities: based on initiative undertaken by the St. Mary Health Department, the matter is dealt with by the NWC

Senior Citizens: Prevention and control of chronic illnesses

The National Council for Senior Citizens has several active clubs in the region. Apart from the health centre based initiatives, the unit engaged over 600 members in many interventions to increase their awareness and knowledge levels and to help them practice healthy life styles. These interventions include the following:

- Assisting in preparing and mobilizing club members for participation in regional sports day activities at James Bond beach
- Partnering with Riverhead Senior Citizens Centre in St. Ann to host community health fair
- Establishing physical activity component in clubs activities in Retreat and Gayle in St. Mary

- Organizing club members to a) provide testimonials on benefits of exercise and good nutrition and b) to demonstrate exercise techniques at public events such as Caribbean Wellness Day, health month community outreach and healthy life style sensitization sessions.

Comprehensive Resort Upgrading Programme

The objective of this programme being undertaken by TPDCo is to develop an attractive tourism product concept for the Ocho Rios resort area. The RHPO was involved in the research process and was a member of the panel which reviewed the Phase 2 Problems and Opportunities Identification Report. Special area of focus was on the health and sanitation component.

Children of Faith

This is an NGO, formed out of the Roman Catholic Church in Montego Bay, which focuses on improving the social and financial wellbeing of orphans and other vulnerable children affected by HIV/AIDs through the establishment of small income generating projects. The RHPO was a member of the steering committee to establish the project in St. Ann and St. Mary.

Frame work convention for tobacco control

The health promotion unit in collaboration with the Ministry of Health continued interventions to reduce tobacco use under the guidelines set by the convention

THE WAY FORWARD

- Continue the proactive approach to health care in the region by following the strategies of a) integrative initiatives for programmes and b) advocacy and partnership at local and national levels

- Continuing the professional development and competence of the members of the unit through training and coaching and the provision of at least basic working equipment

- Strengthening the relationship between health promotion units at the Ministry of Health and the region

- Streamlining the region's targeted interventions for primary prevention as outlined by the national strategic plan to fit into the concepts and models by the MOH health promotion unit (e.g. The Health Promoting School, Work Place Wellness)

- Focusing on systems and mechanisms to facilitate routine or sporadic evaluation and reporting of behaviour change in specific areas.

MENTAL HEALTH

OVERVIEW OF THE SERVICE

Mental health services are offered to 358,433 residents (Population census –County Report 2001) in the parishes of St Ann -166,762(46.5%), St Mary 111466 (31.1%) and Portland 80,205 (22.4%) through a network of 36 health facilities and community residential facilities (CRF).

Table 1: Treatment Locations in NERHA by Parish and Facility

	Gen Hosp	Comm. Hosp	CRF*	CAMH Clinics	Adult Clinics	Total
St Ann	1	1	2	2	10	16
St Mary	1	1	1	2	6	11
Portland	1	1	1	1	6	10**
Region	3	3	4	5	22	36

* Includes (1) infirmary in @ parish and a church sponsored home (Jacob's Ladder) in St. Ann.

**Services resumed at Bangor Ridge (West Portland) in October 2007 after the facilities were closed for more than five (5) years. The clinic now operates out of the primary school following a health promotional talk by the Senior MHO at a PTA meeting. Subsequently other clinics began to operate from that location. *(Joint cooperation between Portland Health Dept and Min Education).*

Two (2) new clinics were established: Caron Hall (St Mary) in February and Fairy Hill (East Portland) in July. In the case of the latter the building was destroyed by hurricane Gustav therefore that clinic was merged with the one in Fair Prospect.

During the period under review3114 (case load) patients were seen. New patients (1227) accounted for 39.4% of all patients and 7.3% of the total number of visits. Males accounted for just over half in all the respective categories mentioned above. Table 2a

There were16903 patient visits of which 16105(95%) were adults and 798 (5%) were seen in the CAMHS. The male: female ratio was 2:1 for home visits whether these visits were conducted by individual CMHS staff or by the mobile team.

Table 2a: Visits to the Service by Gender

	Males (%)	Females (%)	Total
Case Load (head count)	**1729**	**1385**	**3114**
(%)	(55.5)	(44.5)	
Total Visits	**9601**	**7302**	**16903**
(%)	(57)	(43)	
New Patients	**646**	**581**	**1227**
(%)	(52.5)	(47)	
Home Visits	**2299**	**1082**	**3381**
(%)	(68)	(32)	
Home Visits (mobile team)	1074	539	1613
(%)	(54)	(46)	

By comparison 13% (590) of all patient contacts (4425) in St Mary were by home visits; 21% (1697) for St Ann (8207) and 26% (1094) for Portland (4271). The regional average was 20%. St Mary had a limitation in the absence of a mobile unit which is used to conduct visits to difficult and/ or delinquent patients, especially those with the diagnosis of schizophrenia.

Table 2b: Total Visits by 'Time of Visit'

	New (%)*	First (%)*	Case Load (%)*	Revisits (%)*	Total
Adults	955 (6)	1821 (11)	2776 (17)	13321 (83)	**16105**
CAMHS	272 (34)	6 (8)	388 (42)	460 (58)	**798**
Total	**1227 (7)**	**1887 (11)**	**3114 (18)**	**13781 (82)**	**16903**

- All %ages are calculated from row totals.
- (New +First =Case Load)
- New= Patient was never treated in CMHS anywhere in Jamaica or s/he was treated more than three (3) years ago.
- First= Patient is already in the CMHS (any health region) but is being treated for the first time in this calendar year.

FORENSIC SERVICES

Forty-eight (48) patients were seen, all were new. **(Most of the persons who are seen in this service are usually seen once when they are evaluated for 'Fitness to Plea'. After being convicted in the courts some are sent to serve custodial sentences in correctional facilities outside the region hence the NERHA CMHS is unable to do follow-up care until/if they return after their sentence).** A breakdown by parish

reveals: St Mary with 8, Portland: 16 and St Ann with 24. Patients were predominantly males and they were seen mainly at the following locations: Port Antonio Hospital (PAH), Annatto Bay Hospital (ABH), Oracabessa Health Centre and the St Ann's Bay Hospital (SABH).

*Forensic referrals from Western Portland are sometimes assessed by the psychiatrist at the ABH in the second half of the year.

ADMINISTRATION

The most significant change in this aspect of the service was in the area of staffing. The Regional Psychiatrist's position is occupied by Dr Terrence Bernard after Dr. Arlene McGill demitted office in April. Two other psychiatrists joined in July and are based at the SABH and ABH respectively. One covers St Ann and western St Mary as far as the areas served by the Port Maria Community Hospital (PMH) while the other covers Portland and eastern St Mary as far as the areas covered by the ABH. These two doctors also perform duties in communities. A 4th doctor (psychiatry resident MO1) operates out of the SABH.

Two Clinical Psychologists were also employed in St Ann and St Mary respectively during the year. This addition resulted in one psychologist being in each parish as one was previously assigned to Portland.

Regional staff include one (1) in each of the following four (4) categories: Psychiatrist, Supervisor, Senior Social Worker and Secretary/Office Manager. At the other level one (1) Senior Mental Health Officer is assigned to each parish.

HUMAN RESOURCE

The mental health team comprises of approximately 40 staff who are directly involved in patient care both at community and hospital levels

Table 3: NERHA Mental health team (Human Resource)

Region Admin	Parish	Senior MHO	Zone MHOS	CAMHS	Clinical Psychol	Psy Aides	Driver
Psy 1	St Ann	1	5*	1	1	9 Hosp :3 Comm:6	½ **
Supvsr 1	St Mary	1	2	1	1	3 Comm.	½ **
Senior S.W. 1	Portland	1	1		1 ***	4 Hosp:2 Comm:2	1
Total 3		3	8	2	3	16	2

Based at the Regional Hospital:

- Secretary/Office Manager (1)
- Doctor (MO1) (1)
- Social Worker (1) For Med/Surg, Paeds, O&G and Psych

Legend

* This includes one (1) on study leave and another on post-retirement contract.

** One driver performs duties in both parishes

*** This officer is also attached to the CAMHS in Portland.

A Consultant Clinical Psychologist supervises the parish- based psychologists on a part-time basis.

ACCESSIBILTY

Because of transportation cost many clients were unable to attend clinics. However we were able to address this by our assertive outreach strategies. After each clinic staff members visited the homes of those who did not keep their appointments. Also mobile team visits were conducted routinely for difficult to manage patients. This resulted in higher compliance rates for our clients.

AVAILABILTY

Most clinics operated on a monthly basis; some operated on a twice monthly basis. There are six clinics throughout the region which operate on a weekly basis. Twenty four hour service is offered through the five hospitals in scattered throughout the region.

Crisis response

Crisis response is available on a limited scale in St. Ann and Portland. It is relatively non-existent in St. Mary because of the absence of a bus in this parish.

The plan includes:

- The provision of one vehicle per parish.
- To greatly increase the numbers of psychiatric aides in all parishes.
- To establish a crisis team in St. Ann with one Mental Health officer, five Psychiatric aides and a driver. This will be replicated in the other parishes as resources allow.
- To encourage training of police with emphasis on members of the ISCF. These will be included in the mobile crisis team.

Table 4: Mobile team activities

	St Ann	St Ann	St Mary	St Mary	Port.	Port.	Region	Region
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**
TV (%)	921 (71)	375 (29)	154 (81)	36 (19)	537 (71)	224 (29)	1612 **(72)**	**635 (28)**
EC* (%)	33 (73)	12 (27)	2 (100)	0	15 (62)	9 (38)	**50 (70)**	**21 (30)**
RV* (%)	841 (71)	339 (29)	150 (81)	36 (19)	495 (72)	190 (28)	**1486 (62)**	**565 (38)**
HV (%)	631 (62)	316 (38)	100 (76)	32 (24)	343 (64)	192 (36)	1074 **(67)**	**539 (33)**
Schz (%)	731 (71)	301 (29)	133 (81)	32 (19)	494 (85)	85 (15)	1358 **(76)**	**418 (24)**
A/P	9	2	1	1	5	2	14	**5**
SV (%)	202 (85)	35 (15)	53 (93)	4 (7)	163 (89)	20 (19)	**418 (88)**	**59 (12)**
AD	20	3	1	0	2	1	**23**	**4**

Legend

TV= Total Visits
EV= Emergency Visits
RV= Routine Visits
HV= Home Visits
Schz= Schizophrenia
A/P = Assistance from the Police
SV = Street Visits
AD = Admission

***** TV is greater than the sum of EV & RV because some visits were not classified.

Schizophrenia Compliance

At the end of the reporting period (Dec 2008) there were 1286 persons on the schizophrenia registers; [St Ann =501 (39%); St Mary =390 (30%) and Portland =395

(31%)]. All registers were restarted in January in keeping with the 2-year cycle hence all the patients seen in that month were compliant (100%). In subsequent months the compliance rates fell in all parishes. The lowest compliance levels were:

St Ann 65% (August)
St Mary 54% (December)
Portland 57% (October)

The average compliance by gender throughout the months was 75% (males) and 85% (females).

A breakdown by parish reveals the following compliance rates:

Parish	Male Compliance (%)	Female Compliance (%)
St Ann	84	86
St Mary:	78	89
Portland:	63	78

Depression Surveillance

During the period under review 1995 [m=512 (26 %); =1483(74%)] contacts were made with persons diagnosed with depression.[St Ann=786 (39%), St Mary=693 (35%) ,Portland= 516 (26 %)]
These include 528 patients (case load); [m=140 (27%); f= 388 (73%)].
[St Ann=202 (38%), St Mary 225 (43%), Portland=101, (19%)]
New patients accounted for 263 or 14% of all cases of depression; [m=76 (29%); f=187 (71%)].
Suicide attempt: m=14f=26, total=40 St Ann accounted for 28, St Mary =9 and Portland=3.

Home based care

This is only available on clinic days when clients who do not keep appointments are visited at home. However we do not yet have the resources to use this strategy for the acutely ill client. The implementation of this item will require increase in the numbers of psychiatric aides. They will be trained to assist with follow-up care and case finding. An increase in the numbers of mental health officers may be required for this. Also there is a need to have doctors (especially psychiatrists) available to go into the community.

Inpatient

Attempts are being made to strengthen the links between community and hospital services to facilitate admission when necessary and to ensure a smooth transition on discharge. At this stage the links exist but there is room for improvement.

During the period under review over 688 patients [m=388 (56%), f=300 (46%)] were admitted in 3 general hospitals and 1 community hospital.

Table 5: NERHA Mental health admissions-Jan 2008 -Dec 2008

Hospital	Males (%)	Females (%)	Total
St Ann's Bay	270 (59)	184 (41)	**454**
Port Maria	36 (47)	41 (53)	**77**
Annatto Bay	45 (59)	31 (41)	**76**
Port Antonio	37 (50)	44 (50)	**81**
Total	**388 (56)**	**300 (44)**	**688**

Table 6: Average monthly admission (AVMA) and average length of stay (AVLOS)

Hospital	AVMA (males)	AVLOS* (males)	AVMA (females)	AVLOS* (females)
St Ann's Bay	23	8	15	**9**
Port Maria	3	8	3	**7**
Annatto Bay	4	8	3	**12**
Port Antonio	3	8	4	**10**
Region	**32**	**8**	**29**	**7**

* =Days

For the next year there is no plan to increase the number of inpatient beds or to build a residential facility. The emphasis will be on increasing the numbers of psychiatric aides working in all the hospitals. Also it is expected that increased mobile team service, home based care, health promotion and community rehabilitation will result in fewer admissions and shorter length of stay.

Outpatient

Continuity of care is actively being pursued in the Northeast Region through proper record keeping, maintenance of registers, health promotion activities, family support and seeing to the social needs of our clients. Portland leads the charge in regards to family support and meeting the social needs. St. Ann leads the way in maintenance of registers.
The way forward is to establish community rehabilitation services in every parish. This will require an increase in the number of psychiatric aides who will be further trained by social workers to carry out social support and health education functions. They will be trained by psychologists to facilitate therapeutic groups in the community and to provide basic activity therapy.

Support group

This is an area in which the Northeast Region is very weak. There have been attempts within the recent past to activate support groups but this has not been successful. Also the mental health Management committee has not had a meeting for this reporting period.

Following our successful staging of a stakeholders' meeting in the parishes of St. Ann and St. Mary during mental health week we have been inspired to follow through with more such meetings in the hope of developing advocacy groups and subsequently a Regional Steering Committee.

HEALTH PROMOTION

A total of 142 health promotion/ education sessions were conducted in the region: St Ann=56, St Mary=62, Portland=24.Sessions were conducted among groups such as churches, schools (students, staff, PTA), patients, health workers, police and other social/community groups.

The administration of the CMHS is pleased with the number of sessions however there are concerns regarding the sudden increase in November especially in St Mary. During the first ten (10) months a total of 36 sessions conducted however there were 24 in November alone in that parish whereas St Ann had 6 and Portland did not record any.

A possible explanation is that the St Mary team attempted to compensate for the low numbers, following the negative criticism of the region in terms of our low number of HP/HEd sessions for the period October 2007-September 2008. The occasion was the Annual Review which was held at the Mental Health Unit –Ministry of Health in October 2008.

It was also revealed that staff in the other regions recorded significantly higher numbers of sessions because they considered 'one-to-one' counseling sessions with patients as HP/HEd sessions.

SWOT ANALYSIS OF TECHNICAL PROGRAMMES

STRENGTHS

- Disease profile of NERHA is known:
  - Infectious diseases – Example: Tuberculosis and HIV/AIDS (a deadly duo)
  - Cardiovascular disorders and diabetes mellitus
  - Maternal morbidity and mortality
  - Perinatal morbidity and mortality
  - Mental Health disorders: Neuroses (Depression and Anxiety Disorders) and Psychoses (Schizophrenia, drug and alcohol-induced, and bipolar); Disorders of Children and Adolescents
- Highly trained technical staff
- Committed technical staff
- Definition of the high-risk areas enables us to target most vulnerable populations.
- Embracing Quality approach: Clinical Governance/Clinical Risk Management to analyze risks and approach by priorities.
- Comprehensive and integrated services – community, Primary Health Care and Hospitals continually being strengthened.

WEAKNESSES

- Low staff motivation, apathy, and dissatisfaction levels
- Health and development indicators unsatisfactory

  - Maternal/Perinatal Mortality/Immunization, Lifestyle diseases.
- Response to challenges needs sophistication and science that is currently lacking (e.g. research).
- Rural Health Systems … how best to configure?
- The Enabling Environment is weak – transportation, drugs, referral system, communication
- Callous attitude of some Health Care providers towards patients
- Research (evidence-based) culture lacking
- Health Information Systems are weak / non-existent; hence limited ability to analyze health data
- Use of technology to support health: data flow and communication

OPPORTUNITIES

- Priorities in line with Ministry of Health and United Nations (Millennium Development Goals).
- Support: Ministry of Health and International Agencies/Donors
- Health Promotion approach evolving through Ministry of Health guidance.
- Potential for Community Participation.
- Partnerships (Private Sector, NGOs and Overseas Institutions)
- Availability of knowledge to support Health Information Systems.
- Alternate sustainable financing – National Health Fund and CHASE Funds (to a lesser extent).

THREATS

- Consider rural populations and the difficulties including poor transportation for emergencies, longer travel time, higher poverty/unemployment, lower population density and high rates of infectious diseases outbreaks.
- Competition with urban areas for recruitment and retention of staff
- Health Literacy for the population is likely to be low.
- Service users: survival and health compete for priority in daily living
- Geography of the NERHA
  - We are forced to configure services accordingly
  - Access to Portland time consuming and difficult
- Extreme weather conditions (e.g. flooding)
- The influence of politics
- The NHF operating on a "projects" rather than "people" basis.

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