CSR

CAREC SURVEILLANCE REPORT

Volume 32
Number 1
March 2012

ISSN 0376-8851

Report on Communicable Diseases for Weeks 41-52, 2011

Syndromic Surveillance

During weeks 41-52, 2011, compared to the corresponding period last year, fewer cases of all syndromes under surveillance were reported. In several instances, individual countries reported an increase in cases as discussed below.

Fever and Respiratory Symptoms also defined as Acute Respiratory Infection [ARI]

During weeks 41-52, 2011, 28,441 cases < 5 years and 30,381 cases ≥ 5 years with fever and respiratory symptoms (also defined as acute respiratory infection (ARI)), were reported from CAREC member countries [Table 1, Figures 1 and 2]. This represents an 11% decrease in cases <5 years and a 9% decrease in cases ≥ 5 years, compared to the number of cases reported

Contents

during weeks 41-52, 2010. Four countries reported an increase in cases <5 years and an increase in cases ≥5 years. Bermuda reported a 152% increase in cases <5 years and a 44% increase in cases ≥5 years, during weeks 41-52, 2011 compared to the corresponding weeks in 2010. During weeks 41-52, 2011, Bermuda reported 5 confirmed Respiratory Syncytial Virus RSV cases and 2 influenza A cases compared to zero confirmed cases during weeks 41-52, 2010. St. Lucia reported a 45% increase in cases <5 years and an 87% increase in cases ≥5 years; and 4 influenza A(H1N1)pdm09 cases were reported during weeks 41-52, 2011 compared to zero confirmed cases during weeks 41-52, 2010. Two other countries also reported increased numbers of cases of among those aged ≥5 years during weeks 41-52, 2011 compared to the corresponding period in 2010; Belize had a 31% increase and Trinidad and Tobago had nearly a three-fold increase.

Figures 1 and 2 show that during weeks 41-52 of 2011, a peak in reported cases of ARI occurred in week 41 for persons <5 years and ≥5 years old. Additional information about respiratory disease surveillance data, including enhanced surveillance for severe acute respiratory infection (SARI), will be discussed later in this report.

Gastroenteritis

During weeks 41-52, 2011, 9,262 cases < 5 years and 13,771 cases ≥ 5 years with gastroenteritis (GE) were reported from CAREC member countries [Table 1, Figures 3 and 4]. This represents a 15% decrease in cases <5 years and a 10% decrease in cases ≥ 5 years, compared to the number of cases reported during weeks 41-52, 2010. However, eight countries reported an increase in cases <5 years and 7 countries reported an increase in cases ≥5 years. During weeks 41-52, 2011, compared to the corresponding period in 2010, Montserrat reported 5 times the number of cases <5 years and 9 times the number of cases ≥5 years. In December 2011, a GE outbreak was reported in Montserrat with over 200 cases of diarrhoea and/or vomiting. The presumed cause of the outbreak was norovirus, but due to a lack of specimens this was not confirmed. During weeks 41-52, 2011, Belize reported approximately twice the number of cases <5 years and ≥5 years compared to the corresponding period during 2010. Belize reported 1 confirmed case of shigellosis during this period [Table 2].

Figures 5 and 6 show that during weeks 41-52 of 2011, peaks in reported cases of GE occurred in weeks 41 and 46 for persons <5 years and ≥5 years.

Undifferentiated Fever

During weeks 41-52, 2011, 3,149 cases < 5 years and 4,934 cases ≥ 5 years with undifferentiated were reported from CAREC member countries [Table 1, Figures 5 and 6]. This represents a 13% decrease in cases <5 years and a 9% decrease in cases ≥ 5 years, compared to the number of cases reported during weeks 41-52, 2010. Eight countries reported an increase in cases <5 years and 6 countries reported an increase in cases ≥5 years. The Bahamas reported a 23-fold increase in cases ≥5 years and during EW 41-52, 2011, an increase in confirmed dengue and leptospirosis cases was reported. St. Lucia reported a 100% increase in cases < 5 years and a 178% increase in cases ≥5 years and during EW 41-52, 2011; and an increase in confirmed dengue and leptospirosis cases was also reported. Information about confirmed dengue and leptospirosis cases will be discuss later in this report.

Figures 5 and 6 show that during weeks 41-52, 2011, a peak in reported undifferentiated fever cases occurred in week 41 for persons <5 years and ≥5 years old.

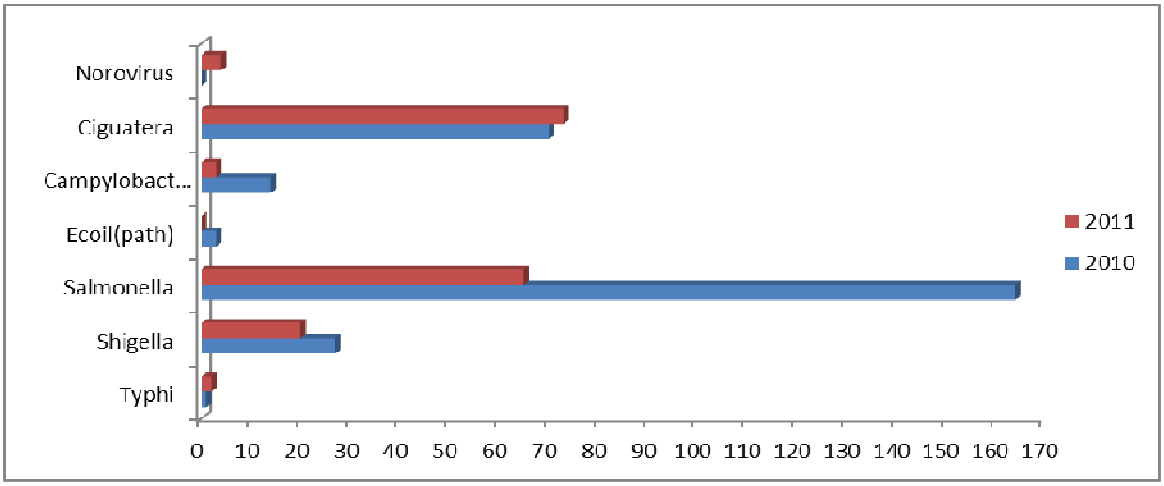
Fever and Neurological

During weeks 41-52, 2011, 104 cases with fever and neurological symptoms were reported from CAREC member countries [Table 1]. This represents a 64% decrease in cases compared to that reported during weeks 41-52, 2010. Three countries reported an increase in cases during weeks 41-52, 2011, compared to the corresponding weeks in 2010. St. Lucia reported 10 cases compared to just 2 cases during the corresponding period in 2010. St. Lucia reported that a majority of these cases were later confirmed with dengue fever.

Food and Water Borne Diseases

During weeks 41-52, 2011, 167 cases of food and water borne diseases were reported by CAREC member countries to CAREC. This represents a 40% decrease in cases compared to the number of cases reported in weeks 41-52, 2010 (Figure 1, Table 2). Ciguatera poisoning was the illness most frequently reported (44% of all cases), followed by salmonellosis (39%) and shigellosis (12%).

Figure 7: Reported food and waterborne case during week 41-52, 2010 and 2011



Ciguatera

During weeks 41-52, 2011, 73 clinically diagnosed cases of ciguatera poisoning were reported from four CAREC member countries. Similarly, 70 cases were reported during weeks 41-52, 2010. Most of the cases reported during weeks 41-52, 2011 (49 cases, 67%) were from Bahamas, followed by Antigua and Barbuda (21%), Cayman Islands (8%) and Montserrat (4%). Whilst the number reported from Bahamas was similar to that reported during weeks 41-52, 2010 (52 cases), there was an increase in the reported cases in Antigua and Barbuda and Montserrat when compared to the corresponding period in 2010. Antigua and Barbuda reported that the reported cases were small clusters of adult cases (8 females and 7 males), most of whom reported consuming cavalie and barracuda fish. All 15 cases were treated at a medical facility and discharged.

Salmonellosis

During weeks 41-52, 2011, 65 cases of salmonellosis were reported from ten CAREC member countries. This represents a 60% decrease in cases compared to the number of cases reported in weeks 41-52, 2010. The majority of cases were from Jamaica (41%), followed by Barbados (15%) and Bermuda (11%). Of the nine reporting countries, Jamaica was the only country that reported an increase in *Salmonella* cases during weeks 41-52, 2011 when compared to the number of cases reported in the corresponding period in 2010. Jamaica reported that 52% of the 27 cases reported for weeks 41-52 2011, were from hotel outbreaks. The remaining cases were sporadic and were not associated with any community outbreaks or clustering of cases. Salmonella subtyping data (serotypes and phage type) reported by member countries during weeks 1-52, 2011 are outlined in Table 3. *Salmonella* Enteritidis was the most frequently reported serotype.

Table 3: Prevalent Salmonella Subtypes in CAREC Member Countries, Weeks 1-52, 2011*

Country	*Salmonella* Serogroup or Serotype	*Salmonella* Enteritidis Phage Type
Anguilla	*Salmonella* Tel-el-Kebir *Salmonella* Weltevreden	
Aruba	*Salmonella* Group E *Salmonella* Group G	
Bahamas	*Salmonella* Enteritidis *Salmonella* Montevideo *Salmonella* Typhimurium	Phage type 55
Barbados	*Salmonella* Archevelata *Salmonella* Braenderup *Salmonella* Derby *Salmonella* Enteritidis *Salmonella* Enterica *Salmonella* Enterica 14,5,12;1:- *Salmonella* Infantis *Salmonella* Javiana *Salmonella* Mbandaka *Salmonella* Panama *Salmonella* Rubislaw *Salmonella* Saintpaul *Salmonella*Typhimurium *Salmonella* Weltevreden *Salmonella* Groups C2-C3	Phage types 8, 8var, 13, 13a, 22

Country	***Salmonella* Serogroup or Serotype**	***Salmonella* Enteritidis Phage Type**
Belize	*Salmonella* Braenderup *Salmonella* Gaminara *Salmonella* Javiana *Salmonella* Saint-Paul *Salmonella* Typhimurium *Salmonella* Weltevreden	
Bermuda	*Salmonella* Javiana *Salmonella* Manhattan *Salmonella* Mississippi *Salmonella* Group C2	
Dominica	*Salmonella* Enteritidis *Salmonella* Rubislaw Salmonella Groups P-U	Phage types 8, 8var, 13a
Jamaica	*Salmonella* Aba *Salmonella* Aberdeen *Salmonella* Agona *Salmonella* Enteritidis *Salmonella* Heidelberg *Salmonella* Mbandaka *Salmonella* Saint-Paul *Salmonella* San-Diego *Salmonella* Typhimurium *Salmonella* Weltevreden	Phage types 6a,8,8var, 13a, 22
St. Lucia	*Salmonella* Enteritidis *Salmonella* Mississippi *Salmonella* Typhimurium *Salmonella* Weltevreden	Phage types 8, 13a, 22

Country	*Salmonella* Serogroup or Serotype	*Salmonella* Enteritidis Phage Type
Trinidad and Tobago	*Salmonella* Aberdeen *Salmonella* Anatum *Salmonella* Braenderup *Salmonella* Caracas *Salmonella* Enteritidis *Salmonella* Enterica subspecies 1 *Salmonella* Javiana *Salmonella* Lagos *Salmonella* Mbandaka *Salmonella* Newport *Salmonella* Panama *Salmonella* Poona *Salmonella* Rubislaw *Salmonella* Schwarzengrund *Salmonella* Typhimurium *Salmonella* Virchow	Phage types1, 8, 8var,13, 13a
Suriname	*Salmonella* Enteritidis	Phage types 8var, 51

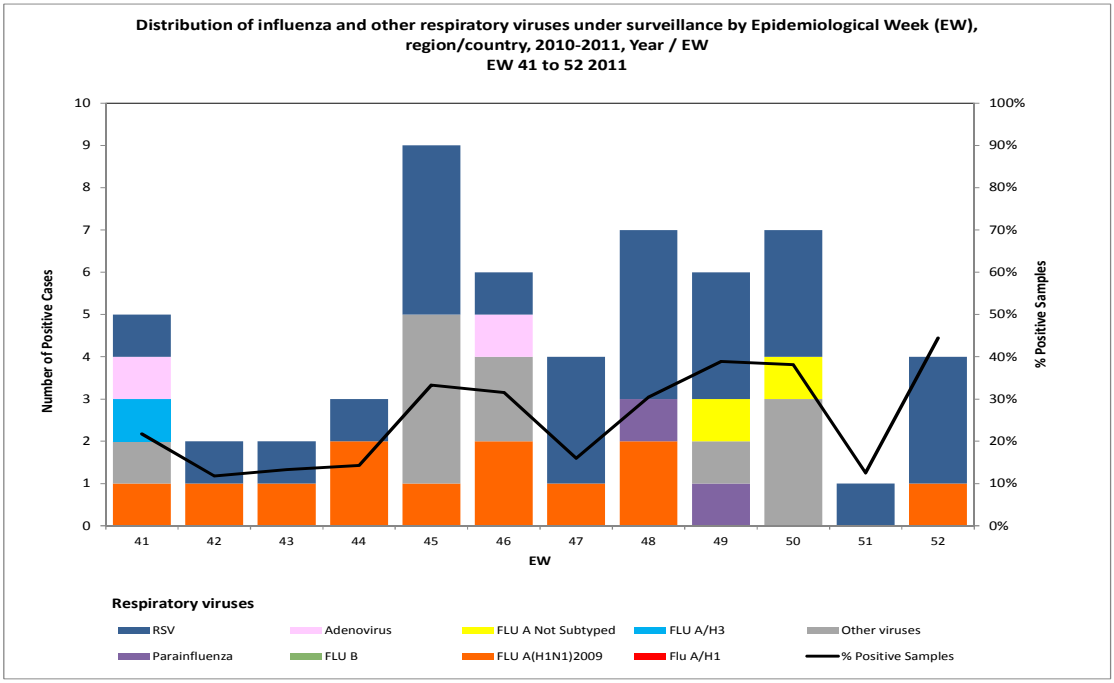
**** Includes data from the CAREC Laboratory and reports from countries as of 25 November 2011***

AIRBORNE DISEASES

Influenza and Other Viral Respiratory Infections

During weeks 41-52, 2011, 58 cases were confirmed with respiratory viruses including respiratory syncytial virus (RSV) (26 cases), influenza A (H1N1) pdm09 (12 cases) and rhinovirus (7 cases). In the Spanish-speaking Caribbean, North and Central America, RSV was also identified, as well as influenza A(H3N2).

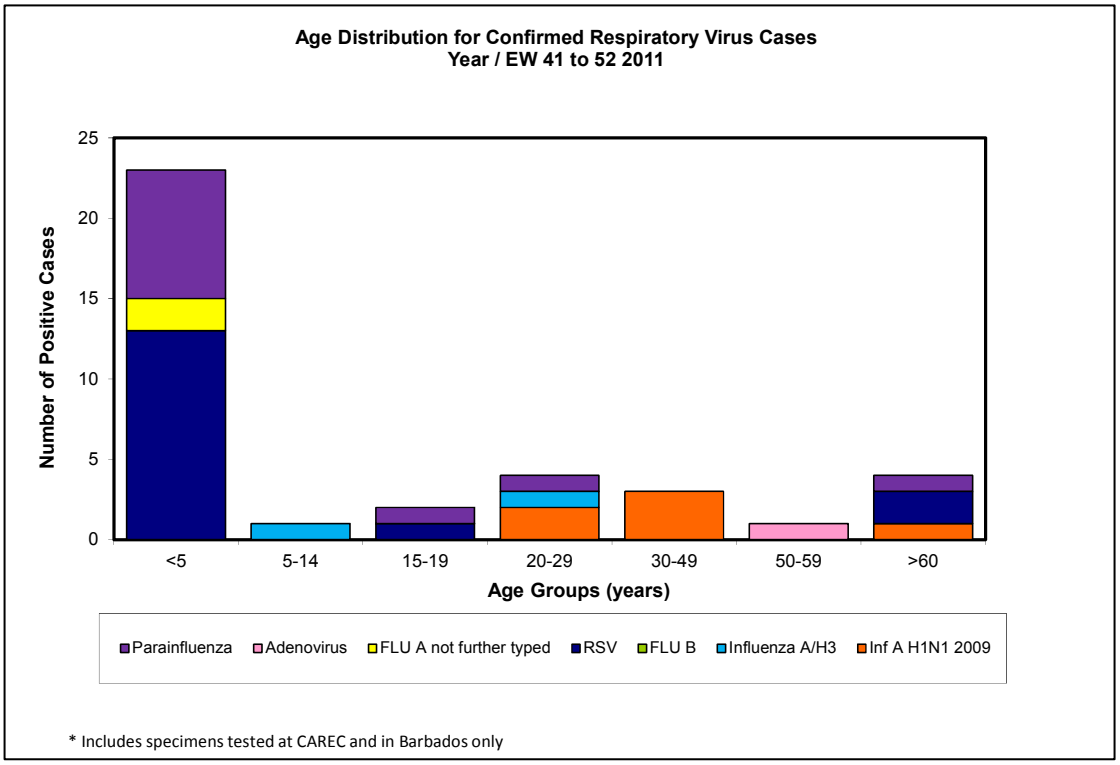
Figure 8: Laboratory Confirmed Influenza and Other Respiratory Viruses, CAREC Member Countries, Weeks 41-52, 2011



During weeks 41-52, 2011, 516 cases of influenza-like illness (ILI) were reported from CAREC member countries, which was a large decrease from the number of cases reported during the corresponding period in 2010 (2,335 cases). The decrease in cases is primarily due to a lack of reporting from Trinidad and Tobago in 2011, who accounted for 54% of the ILI cases during weeks 41-52, 2010. St. Vincent and the Grenadines reported 177 ILI cases during weeks 41-52, 2011 which is a 70% increase in cases compared to the corresponding period in 2010. Overall, more female (52%) cases were reported than males and age group 1-4 years (33%) was the most frequently reported age group followed by 5-14 years (28%).

During weeks 41-52, 2011, influenza and other respiratory viruses were confirmed in 10 countries, namely Anguilla, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Jamaica, St. Lucia, Suriname and Trinidad and Tobago. The age category with the highest number of persons with a laboratory confirmed respiratory virus was age < 5 years (60% of all confirmed cases) followed by 20-29 years (13%) [Figure 9].

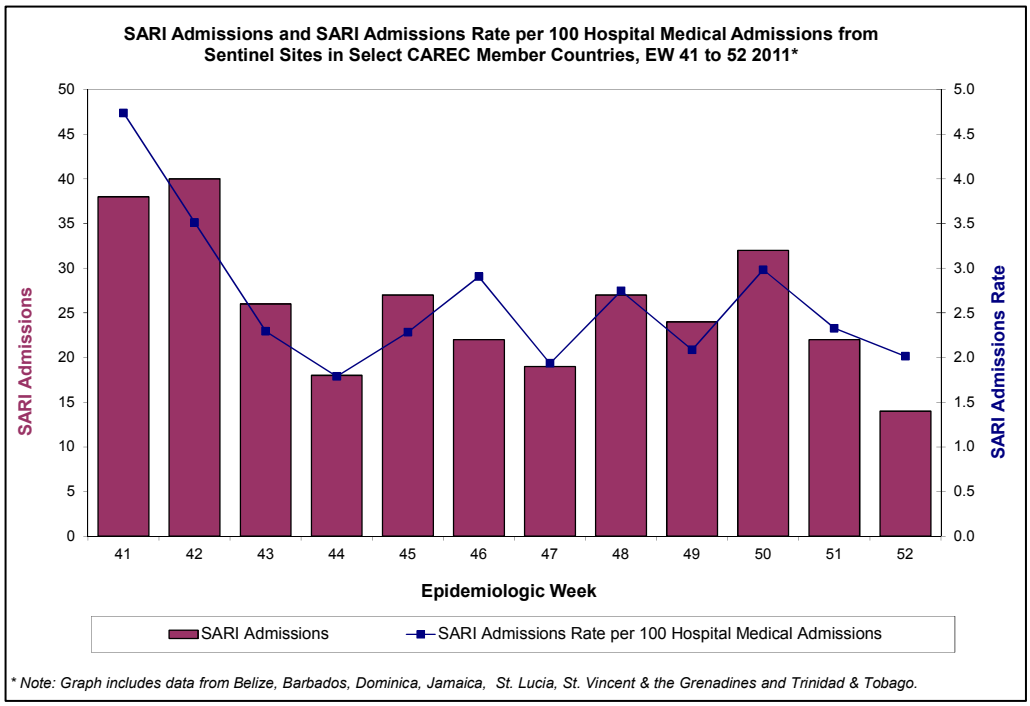
Figure 9: Distribution of Laboratory Confirmed Respiratory Illness Cases by Age Group, CAREC Member Countries, Weeks 41-52, 2011



Severe Acute Respiratory Illness (SARI) Surveillance

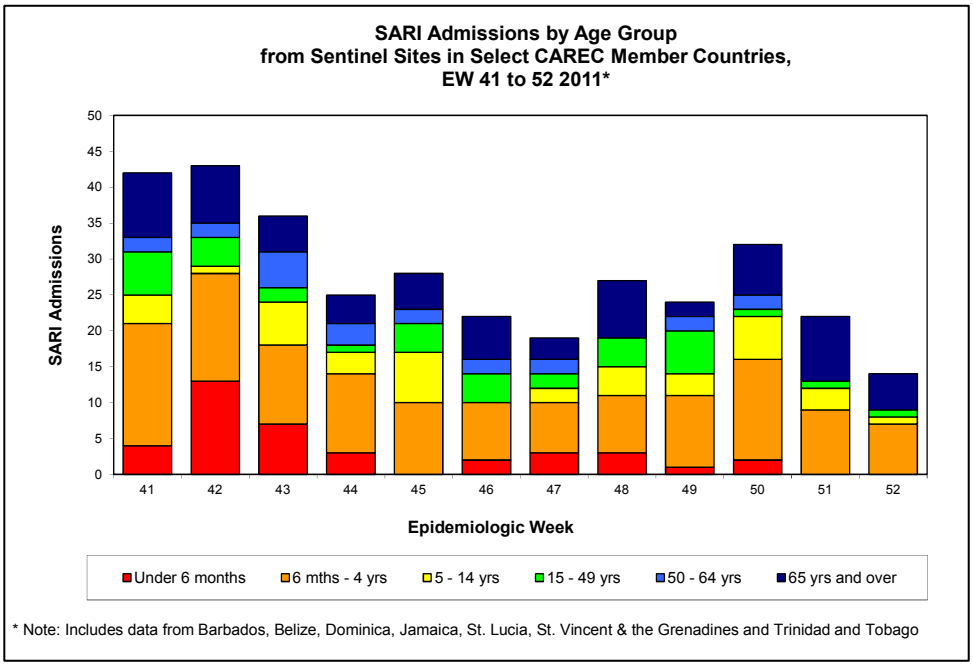
During weeks 41-52, 2011, 309 persons with severe acute respiratory infection (SARI) were reported to CAREC from the 7 countries that participate in enhanced respiratory illness surveillance activities (Barbados, Belize, Jamaica, Dominica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago). The rate of hospital admission due to SARI for this period was 2.6 per 100 hospital admissions [Figure 10]. Persons aged 6 months-4 years were the age group with the highest number of SARI admissions during weeks 41-52, 2011 [Figure 11]. There were 3 SARI-related deaths and the rate of death due to SARI was 0.35 per 100 deaths in medical patients admitted to hospital [Figure 12].

Figure 10: SARI Admissions and SARI Admission Rate per 100 Hospital Admissions from Sentinel Sites in Select CAREC Member Countries, Weeks 41-52, 2011



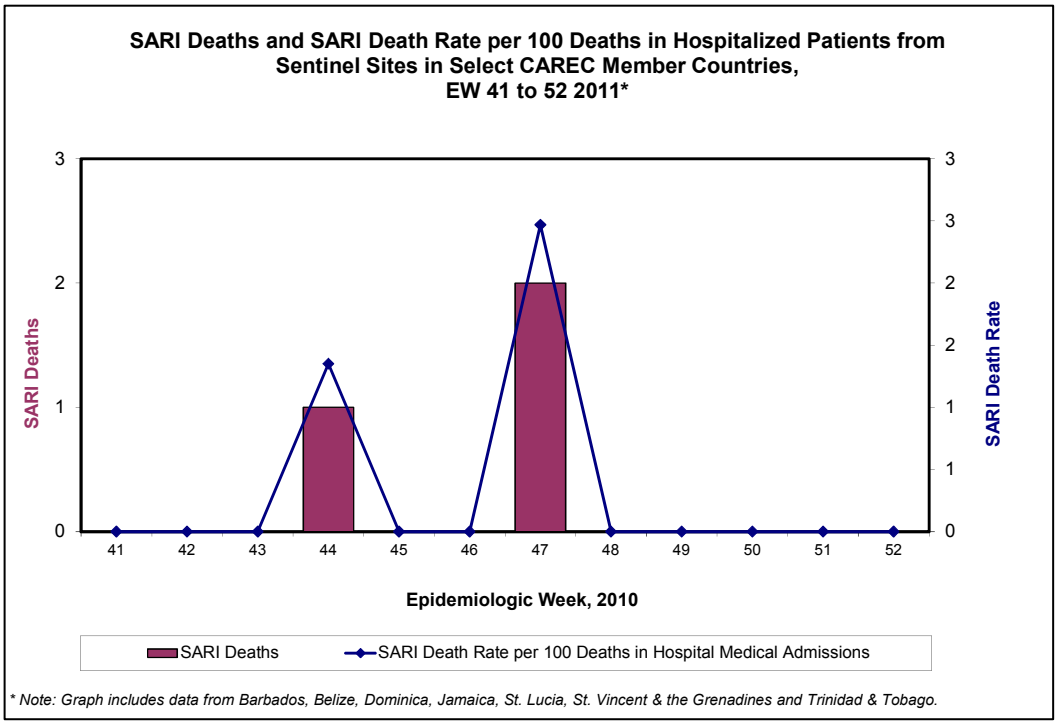
** Note: Graph includes data from Belize, Barbados, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad & Tobago.*

Figure 11: SARI Admissions by Age Group from Sentinel Sites in Select CAREC Member Countries, Weeks 41-52, 2011



* Note: Includes data from Barbados, Belize, Dominica, Jamaica, St. Lucia, St. Vincent & the Grenadines and Trinidad and Tobago

Figure 12: SARI Deaths and SARI Death Rate from Sentinel Sites in Select CAREC Member Countries, Weeks 41-52, 2011



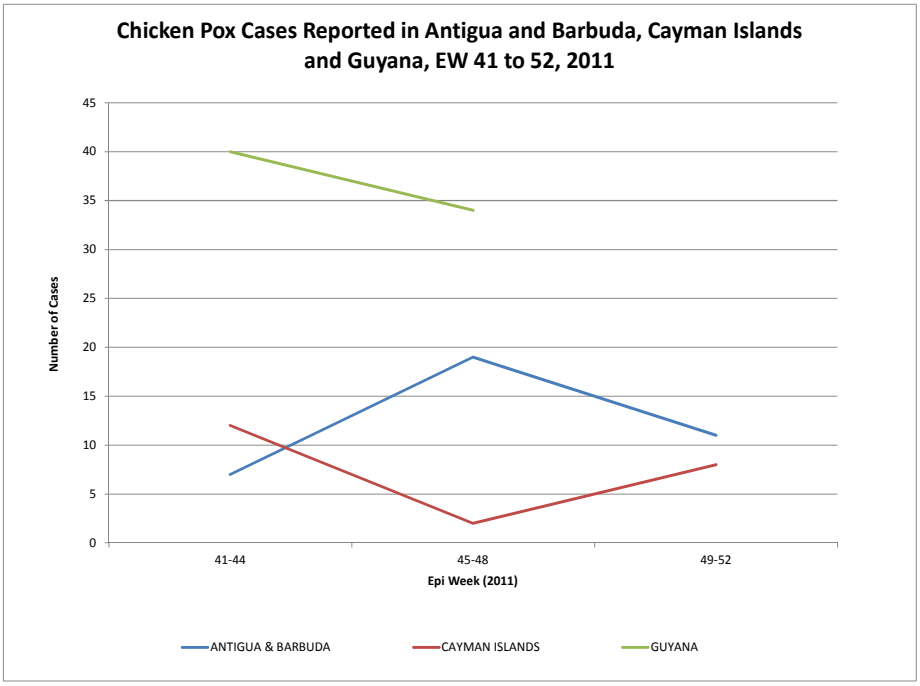
VACCINE PREVENTABLE DISEASES

Chicken Pox (Varicella)

During weeks 41-52, 2011, 393 chicken pox (varicella) cases were reported, which is a 25% decrease in the number of cases reported during the corresponding period in 2010. Age group was reported for 42% of cases and the age group most frequently reported was 5-14 years (36% of cases with known age) followed by 1-4 years (21% of cases with known age). Gender was reported for 73% of cases and more males (56% of cases with known gender) were reported than females (46% of cases with known gender).

Eight countries reported an increase in chicken pox cases, including Antigua and Barbuda (147% increase), Cayman Islands (120% increase) and Guyana (85% increase). Cayman Islands and Guyana reported a peak in cases during weeks 41-44, 2011, while Antigua and Barbuda reported a peak during weeks 45-48, 2011 [Figure 13]. Statistics for chicken pox cases reported during weeks 49-52, 2011 in Guyana were not available for inclusion in this report.

Figure 13: Chicken Pox Cases Reported from Selected CAREC Member Countries, Weeks 41-52, 2011



VECTOR BORNE DISEASES

Dengue Fever and Dengue Haemorrhagic Fever

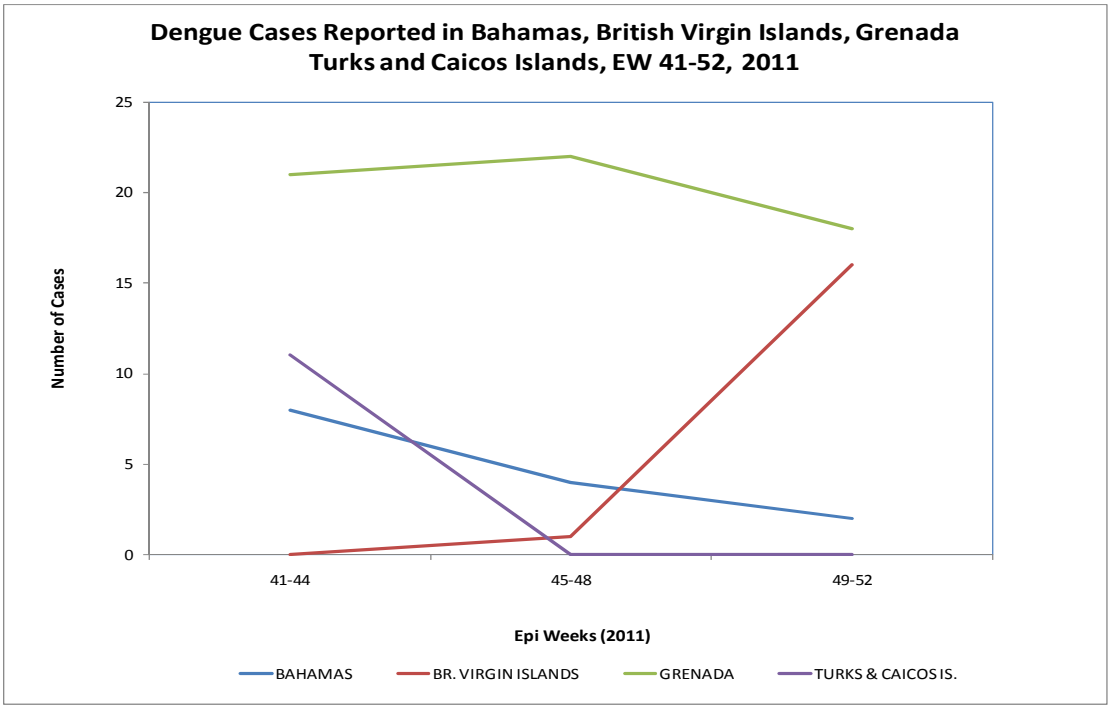
During weeks 41-52, 2011, 881 dengue fever cases were reported, which is a 10% decrease in cases reported compared to the corresponding period in 2010. There was an 87% decrease in dengue fever cases reported from Aruba during weeks 41-52, 2011 compared to the corresponding period in 2010 as Aruba reported an outbreak of dengue fever in late 2010 with a peak in cases noted during weeks 1-4, 2011.

Twelve countries reported an increase in dengue cases during weeks 41-52, 2011 compared to the corresponding period in 2010. This includes the Grenada (greater than 12-fold increase), Bahamas (greater than three-fold increase), British Virgin Islands and Turks and Caicos Islands (17 and 11 cases respectively compared to 0 cases during the corresponding period in 2010). The number of reported dengue cases decreased during each four weekly period between weeks 41 to 52 in the Bahamas, Grenada and Turks and Caicos Islands; and increased over time in British Virgin Islands. Dengue type 1 was

the only dengue serotype identified in Bahamas and Turks and Caicos in 2011, while Dengue types 1 and 4 were confirmed in Grenada in 2011 [Figure 15]. Dengue serotype data is not available for cases confirmed in the British Virgin Islands.

Among all dengue cases reported during weeks 41-52, 2011, age group was reported for 61% of cases. The most frequently reported age group was 25-44 years (26%), followed by those aged 5-14 years (23%) and 45-64 years (14%). Gender was reported for 76% of cases; male gender (53% of cases with known gender) was reported more frequently than female gender (47% of cases with known gender).

Figure 14: Dengue Fever Cases Reported in Selected CAREC Member Countries, EW 41 to 52, 2011



During 2011, serotyping information was available for cases from 14 countries that reported dengue cases. Dengue serotype 1 was identified in 9 countries, dengue serotype 2 in 2 countries and dengue serotype 4 in 9 countries [Figure 15, Table 3]. Dengue type 3 was not detected in CAREC member countries in 2011. Four countries had co-circulation of two dengue types and one country, Barbados, had co-circulation of three serotypes.

Table 4: Dengue Serotypes in CAREC Member Countries, as of February 3, 2012

Serotype	Countries
1	Aruba, Bahamas, Barbados, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, Trinidad and Tobago, Turks and Caicos Islands
2	Barbados, Curacao
3	*None*
4	Anguilla, Antigua and Barbuda, Aruba, Barbados, Dominica, Montserrat, St. Kitts and Nevis, Suriname, Trinidad and Tobago

During weeks 41-52, 2011, 15 cases of dengue haemorrhagic fever (DHF) were reported; 14 from Suriname and one from Grenada. This is compared to 24 DHF cases reported during the corresponding period in 2010, when Jamaica reported 50% of the cases.

Figure 15: Dengue Serotypes Identified in CAREC Member Countries, 2011

Leptospirosis

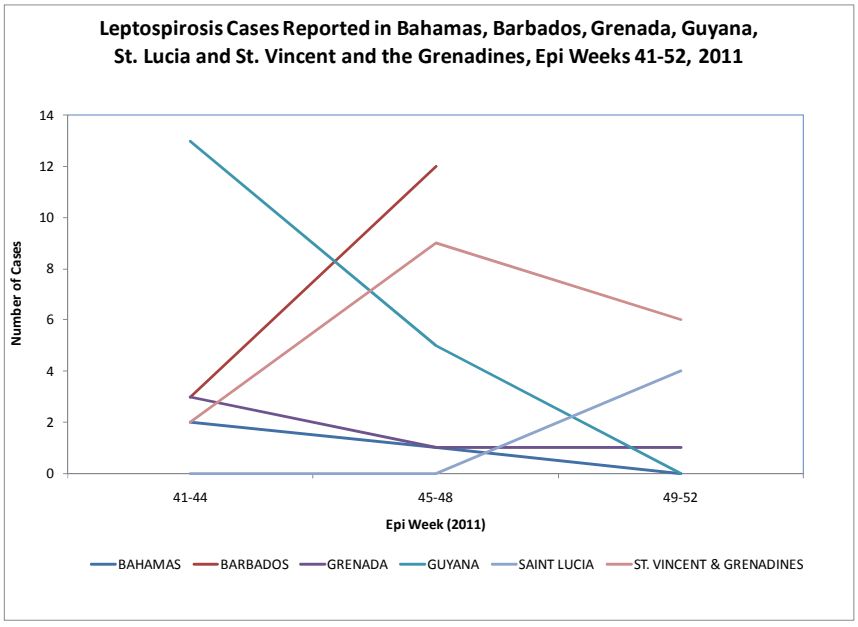
During weeks 41-52, 2011, 77 leptospirosis cases were reported, which is a 26% decrease in cases reported during the corresponding period in 2010. The main reason for the regional decrease in leptospirosis was due to Jamaica's more than 7-fold decrease in reported cases, with 10 cases reported during weeks 41-52, 2011 compared to 74 cases in the corresponding period in 2010.

Among all leptospirosis cases reported during weeks 41-52, 2011, age group was reported for 74% of cases. The most frequently reported age group was 25-44 years (42%), followed by 45-64 years (26%) and 15-24 years (23%). Gender was reported for 97% of cases; male gender (75% of cases with known gender) was reported more frequently than female gender (25% of cases with known gender).

Six countries reported an increase in leptospirosis cases during weeks 41-52, 2011 compared to the corresponding period in 2010. This includes Grenada and St. Lucia (5 and 4 cases respectively compared to 0 cases during the corresponding period in 2010), Barbados (a nearly four-fold increase in cases), Bahamas (200% increase in cases) and Guyana (twice as many cases).

Leptospirosis cases peaked during weeks 45-48 among CAREC member countries overall. Cases peaked during weeks 41-44 in Bahamas, Grenada and Guyana, in weeks 45-48 in Barbados and St. Vincent and the Grenadines and in weeks 49-52 in St. Lucia [Figure 16].

Figure 16: Leptospirosis Fever Cases Reported in Selected CAREC Member Countries, EW 41 to 52, 2011



Malaria

During weeks 41-52, 2011, 288 indigenous malaria cases and 110 imported malaria cases were reported. The main reason for the decrease in indigenous malaria cases was incomplete reporting from Guyana. Belize reported 14 indigenous malaria cases due to Plasmodium vivax during weeks 41-52, 2011 compared to 0 cases during the corresponding weeks in 2010. Plasmodium type information was not available for cases reported from Guyana at the time of publication of this report.

Among all indigenous malaria cases reported during weeks 41-52, 2011, age group was reported for 23% of cases. The most frequently reported age group was 25-44 years (37%), followed by 5-14 years (30%) and 15-24 years (13%). Gender was reported for 100% of cases; male gender (82% of cases with known gender) was reported more frequently than female gender (18% of cases with known gender).

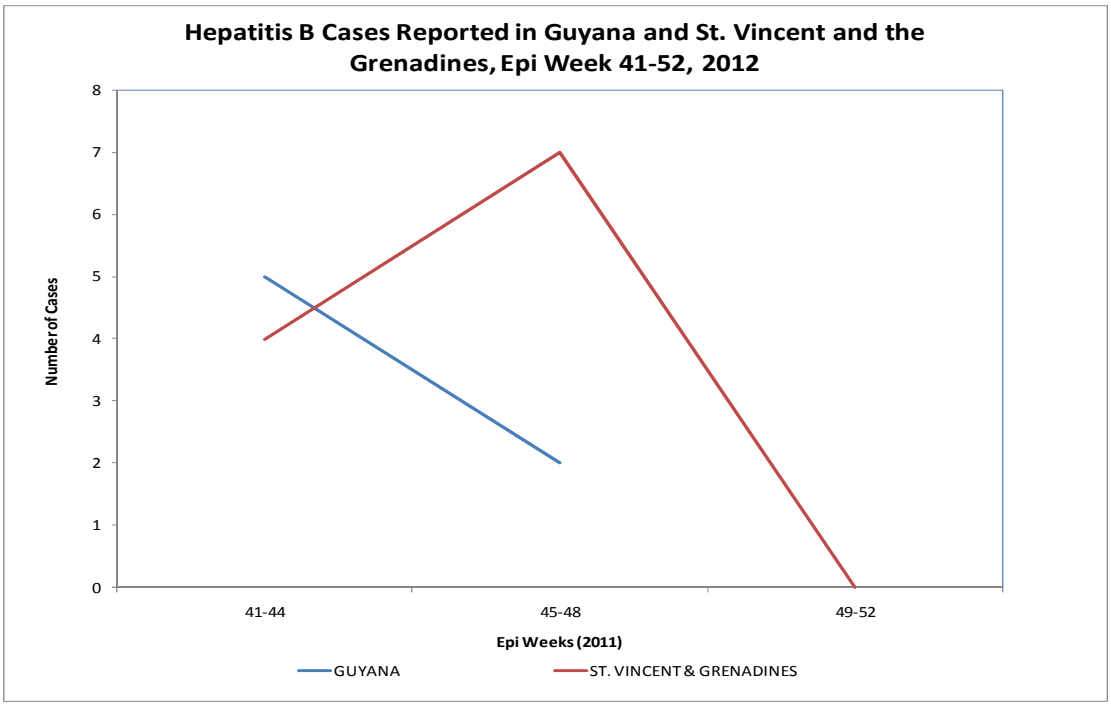
OTHER

Hepatitis B

During weeks 41-52, 2011, 29 hepatitis B cases were reported, which represents a 72% decrease in cases compared to the corresponding period in 2010. Among all hepatitis B cases reported during weeks 41-52, 2011, age group was reported for 72% of cases. The most frequently reported age group was 25-44 years (80%), followed by 15-24 years (10%) and 45-64 years (10%). Gender was reported for 100% of cases; female gender (64% of cases with known gender) was reported more frequently than male gender (34% of cases with known gender).

During weeks 41-51, 2011, compared to the corresponding period in 2010, an increase in hepatitis B was reported by 4 countries, including St. Vincent and the Grenadines (11 cases during weeks 41-52, 2011 compared to 0 cases during the corresponding weeks in 2010) and Guyana (7 cases during weeks 41-52, 2011 compared to 0 cases during the corresponding weeks in 2010). Hepatitis B cases peaked in St. Vincent and the Grenadines during weeks 45-48, while cases peaked in Guyana during weeks 41-44 [Figure 17]. Note that hepatitis B data was not available from Guyana for weeks 48-52 at the time of publication of this report.

Figure 17: Hepatitis B Cases Reported in Selected CAREC Member Countries, EW 41 to 52, 2011



Meningitis/Pneumonia due to *Streptococcus pneumonia*

During weeks 41-52, 2011, two cases of meningitis due to *Streptococcus Pneumonia* were reported from Jamaica. The first case was reported during weeks 41-44 and the second case was reported during weeks 45-48. Age group 45-64 years was reported for one of the two cases. One case was male and gender was not available for the second case. No link between the two cases was reported. Serotyping was not performed for either of these cases.

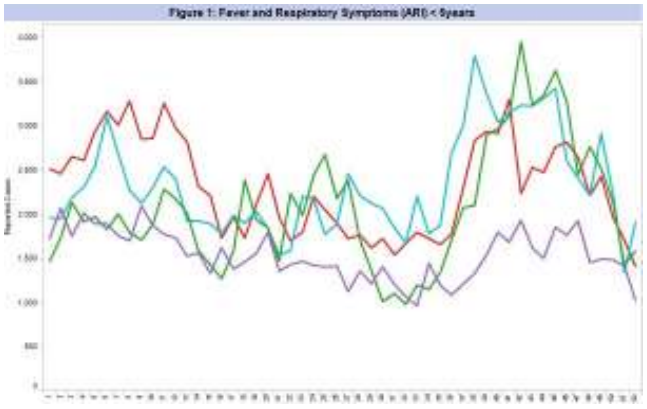


Figure 1: Fever and Respiratory Symptoms (ARI) < 5years

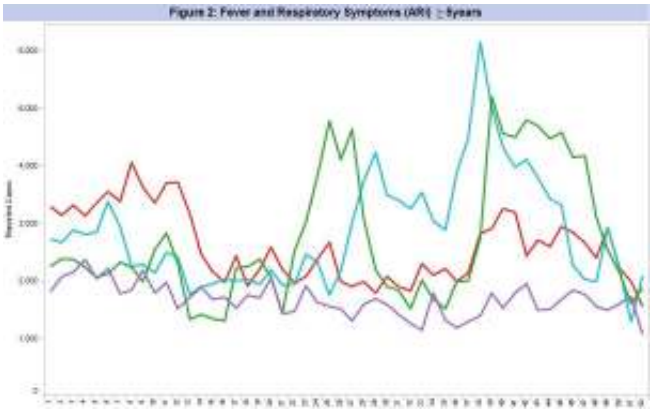


Figure 2: Fever and Respiratory Symptoms (ARI) ≥ 5years

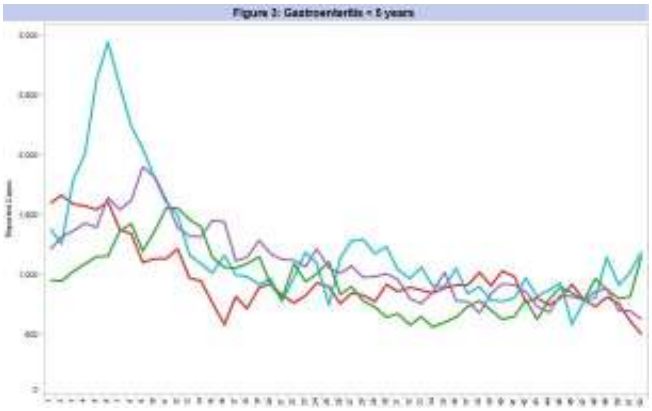


Figure 3: Gastroenteritis < 5 years

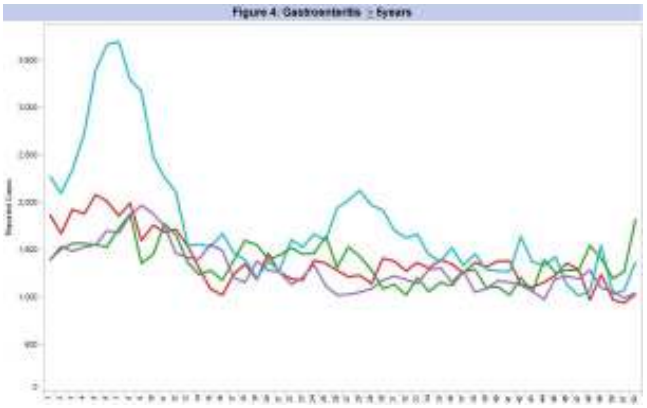


Figure 4: Gastroenteritis ≥ 5years

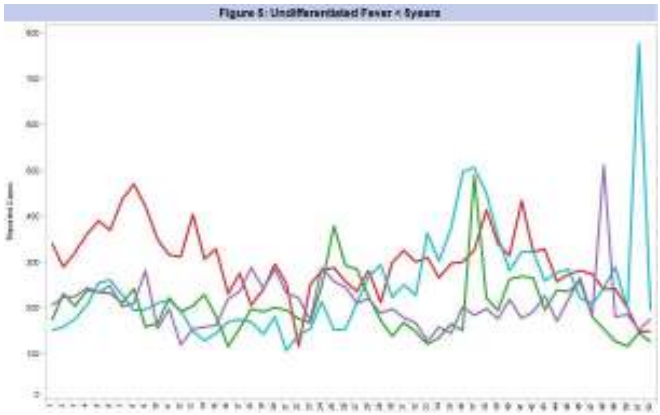


Figure 5: Undifferentiated Fever < 5years

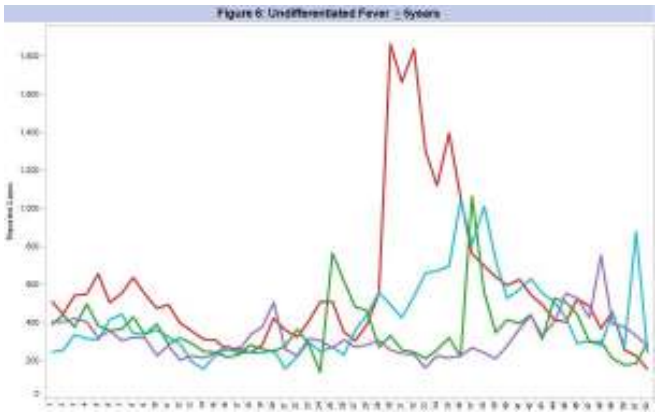


Figure 6: Undifferentiated Fever ≥ 5years

Table 1 : Reported Syndromes in CAREC Member Countries (CMCs): Weeks 41 - 52, 2011 and 2010

	YEAR	ALL CMCs	CAREC MEMBER COUNTRIES (CMCs)																						
			ANG	ANT	ARU[§]	BAH	BAR	BER	BES	BLZ	BVI	CAY	CUR	DOM	GRE	GUY	JAM	MON	SKN	STL	STM	SUR	SVG	TCI	TNT
	Last Wk. Rep. '11		52	52	-	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	48	52	52	52
Syndromes																									
Acute Flaccid Paralysis[‡]	Cum 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011[△]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010[△]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fever and Haemorragic Symptoms	Cum 2011	34	0	0	-	4	0	0	0	0	0	0	7	0	0	0	12	0	1	1	0	9	0	0	0
	2011[△]	7	0	0	-	0	0	0	0		0	0	3	0	0	0	0	0	0	0	0	4	0	0	0
	2010[△]	30	0	0	-	0	2	0	3	0	0	0	10	0	0	0	4	0	0	0	1	4	6	0	0
Fever and Neurological Symptoms	Cum 2011	732	0	0	-	12	0	4	2	0	0	0	1	2	1	0	661	0	0	26	0	23	0	0	0
	2011[△]	104	0	0	-	3	0	1	0		0	0	0	0	0	0	88	0	0	10	0	2	0	0	0
	2010[△]	290	0	0	-	2	0	0	0	0	0	0	0	5	0	0	271	0	0	2	0	10	0	0	0
Fever and Rash[‡]	Cum 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011[△]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010[△]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fever and Respiratory Symptoms (ARI) < 5yrs	Cum 2011	119,797	270	1,704	-	2,193	772	211	¥	22,655	640	1,408	¥	657	4,191	20,364	34,819	50	85	1,523	¥	213	770	1,257	26,015
	2011[△]	28,441	90	456	-	470	167	78	¥	5,702	112	386	¥	176	1,235	3,903	7,322	9	23	318	¥	10	169	265	7,550
	2010[△]	31,912	106	666	-	989	236	31	¥	5,652	138	409	¥	286	1,541	4,375	9,369	10	51	219	¥	85	235	428	7,086
Fever and Respiratory Symptoms (ARI) ≥ 5yrs	Cum 2011	135,147	572	1,919	-	3,310	1,092	2,427	¥	32,275	766	3,293	¥	636	5,862	35,503	40,716	51	125	1,649	¥	222	836	1,961	1,932
	2011[△]	30,381	111	528	-	453	263	521	¥	9,763	68	802	¥	164	1,590	5,962	8,265	9	24	470	¥	24	140	291	933
	2010[△]	33,358	219	708	-	1,225	402	362	¥	7,457	134	834	¥	357	2,060	8,420	9,524	16	45	252	¥	78	443	499	323
Gastroenteritis <5 yrs	Cum 2011	50,351	144	729	-	1,359	664	71	896	3,809	162	219	396	349	606	8,962	19,570	31	76	753	217	246	270	241	10,581
	2011[△]	9,262	6	85	-	195	84	14	224	1,163	17	51	147	68	107	1,577	3,116	25	12	87	43	27	71	26	2,117
	2010[△]	10,049	8	57	-	369	74	10	100	510	19	70	153	75	119	1,274	5,433	5	47	260	69	242	145	93	1,709
Gastroenteritis ≥5 yrs	Cum 2011	71,924	352	1,042	-	3,209	1,528	260	1,029	5,517	372	664	1,386	1,029	1,110	13,928	21,152	135	429	2,076	343	220	436	1,025	14,682
	2011[△]	13,771	36	122	-	521	211	39	237	1,317	47	130	465	243	242	2,451	4,142	99	104	235	74	29	113	158	2,756
	2010[△]	15,236	71	93	-	852	207	54	201	734	113	316	579	167	185	2,548	4,756	11	111	445	119	108	290	272	3,004
Undifferentiated Fever <5yrs	Cum 2011	15,478	0	96	-	337	104	15	1,049	-	31	38	149	227	160	1,898	8,714	2	226	2,314	44	23	43	8	-
	2011[△]	3,149	0	24	-	8	21	6	277	-	1	7	29	38	56	520	1,641	0	48	463	4	3	0	3	-
	2010[△]	3,599	0	21	-	0	79	1	76	-	15	5	133	49	39	365	2,436	0	77	231	35	13	20	4	-
Undifferentiated Fever ≥5yrs	Cum 2011	30,285	0	57	-	7,247	279	8	1,111	-	228	25	338	388	100	6,965	7,145	14	623	5,489	37	162	65	4	-
	2011[△]	4,934	0	17	-	93	74	0	213	-	10	6	45	72	41	1,580	1,373	6	172	1,194	2	34	2	0	-
	2010[△]	5,398	0	34	-	4	356	1	183	-	57	22	308	163	35	1,051	2,349	3	188	430	67	93	53	1	-

Sources: Weekly Syndromic Surveillance Reports submitted to the CAREC Epidemiology Division by February 3, 2012; [‡] Expanded Programme on Immunization (EPI)

Notes:

- = No data received
△ = Epidemiologic Weeks 41-52
Cum 2011 =Cumulative 2011 data
§ = No Weekly Syndromic Surveillance Reports were received from Aruba for the reporting period.
¥ = Data on *Fever and Respiratory Symptoms* from Curacao, St. Maarten, Bonaire, Saba and St. Eustatius (2011, 2010) are not provided in an age-categorized format. These data are as follows:
Bonaire, Saba and St. Eustatius - Fever and Respiratory Symptoms: 2,682 (YTD), 672 (2011), 642 (2010)
Curacao - Fever and Respiratory Symptoms: 2,078 (YTD), 575 (2011), 982 (2010)
St. Maarten - Fever and Respiratory Symptoms: 1,137 (YTD), 230 (2011), 531 (2010)
Last Wk. Rep. '11 = Last week reported for 2011

Country Codes:

ANG	- Anguilla	BAR	– Barbados	CAY	– Cayman Islands	JAM	– Jamaica	SUR	– Suriname
ANT	- Antigua and Barbuda	BER	– Bermuda	CUR	– Curacao	MON	– Montserrat	SVG	– St Vincent and the Grenadines
ARU	- Aruba	BES	– Bonaire, St. Eustatius, Saba	DOM	– Dominica	SKN	– St Kitts and Nevis	TCI	– Turks and Caicos Islands
BAH	- Bahamas	BLZ	– Belize	GRE	– Grenada	STL	– St Lucia	TNT	– Trinidad and Tobago

Table 2 : Confirmed Cases of Communicable Diseases in CAREC Member Countries (CMCs): Weeks 41 - 52, 2011 and 2010

	YEAR	ALL CMCs	CAREC MEMBER COUNTRIES (CMCs)																						
			ANG	ANT	ARU	BAH	BAR	BER	BES§	BLZ	BVI	CAY	CUR§	DOM	GRE	GUY	JAM	MON	SKN*	STL	STM§	SUR	SVG	TCI	TNT
	Last Wk. Rep. '11	52	52	52	12	52	48	52	-	52	52	52	-	52	52	48	52	52	40	52	-	52	52	32	-
Diseases Reportable under the International Health Regulations																									
During the period under review there were zero (0) cases of Cholera, Plague and Yellow Fever reported to the CAREC Epidemiology Division.																									
Food and Water Borne Diseases																									
Campylobacter	Cum 2011	76	0	0	2	2	53	19	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	-
	2011⌂	3	0	0	-	1	0	2	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010⌂	14	0	0	2	0	10	1	-	0	0	0	-	0	0	0	1	0	0	0	-	0	0	0	0
Ciguatera Poisoning	Cum 2011	244	0	53	0	143	0	0	-	0	5	22	-	0	0	0	5	16	0	0	-	0	0	0	-
	2011⌂	73	0	15	-	49	0	0	-	0	0	6	-	0	0	0	0	3	-	0	-	0	0	-	-
	2010⌂	70	0	5	0	52	0	0	-	0	0	12	-	0	0	0	1	0	0	0	-	0	0	0	0
E. Coli (pathogenic)	Cum 2011	5	0	0	2	0	0	0	-	1	0	0	-	2	0	0	0	0	0	0	-	0	0	0	-
	2011⌂	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010⌂	3	1	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	2	-	0	0	0	0
Norovirus*	Cum 2011	10	1	0	0	0	0	0	-	0	0	0	-	0	0	0	9	0	0	0	-	0	0	0	-
	2011⌂	4	1	0	-	0	0	0	-	0	0	0	-	0	0	0	3	0	0	0	-	0	0	0	-
	2010⌂	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Salmonellosis	Cum 2011	580	2	0	4	21	80	49	-	30	0	7	-	6	5	251	104	0	0	3	-	16	2	0	-
	2011⌂	65	0	0	-	3	10	7	-	0	0	2	-	2	1	6	27	0	-	1	-	6	0	-	-
	2010⌂	164	0	0	7	8	25	7	-	4	0	1	-	2	2	89	8	0	0	3	-	8	0	0	0
Shigellosis	Cum 2011	68	4	0	2	6	0	2	-	6	0	1	-	5	4	0	31	0	0	2	-	4	1	0	-
	2011⌂	20	0	0	-	2	0	2	-	1	0	1	-	4	1	0	9	0	-	0	-	0	0	-	-
	2010⌂	27	0	0	2	0	0	1	-	4	0	0	-	1	0	0	13	0	0	1	-	5	0	0	0
Typhoid and Paratyphoid Fevers	Cum 2011	4	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	4	0	0	-
	2011⌂	2	0	0	-	0	0	0	-	0	0	0	-	0	0	0	0	0	-	0	-	2	0	-	-
	2010⌂	1	0	0	0	0	0	0	-	0	0	0	-	1	0	0	0	0	0	0	-	0	0	0	0
Air Borne Diseases																									
Influenza-like disease	Cum 2011	3,438	0	352	1	776	11	24	-	298	931	0	-	1	0	0	44	0	0	0	-	51	949	0	-
	2011⌂	516	0	95	-	60	2	2	-	62	115	0	-	0	0	0	3	0	-	0	-	0	177	-	-
	2010⌂	2,335	0	191	0	379	16	6	-	134	237	0	-	5	0	0	5	0	2	0	-	6	104	0	1,250
Pneumonia [Streptococcus]	YTD	2	0	0	0	0	0	0	-	0	0	0	-	1	0	0	0	0	0	0	-	1	0	0	-
	2011	1	0	0	-	0	0	0	-	0	0	0	-	1	0	0	0	0	-	0	-	0	0	-	-
	2010	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Tuberculosis - Pulmonary	Cum 2011	787	0	0	0	19	0	1	-	97	0	2	-	2	2	387	144	0	0	0	-	114	13	6	-
	2011⌂	131	0	0	-	8	0	0	-	5	0	1	-	1	0	68	20	0	-	0	-	25	3	-	-
	2010⌂	155	0	0	1	4	0	0	-	28	2	1	-	1	1	57	24	0	0	0	-	33	2	1	0
Tuberculosis - Extra-Pulmonary	Cum 2011	24	0	0	0	6	0	0	-	2	0	0	-	0	0	0	0	0	0	0	-	16	0	0	-
	2011⌂	8	0	0	-	1	0	0	-	2	0	0	-	0	0	0	0	0	-	0	-	5	0	-	-
	2010⌂	8	0	0	0	2	0	0	-	0	0	0	-	0	0	0	1	0	0	0	-	5	0	0	0
During the period under review there were zero (0) cases of Typhoid and Paratyphoid Fevers and Severe Acute Respiratory Syndrome (SARS) reported to the CAREC Epidemiology Division.																									

Source: Communicable Disease 4-Weekly Reports submitted to the CAREC Epidemiology Division by February 3, 2012

Notes:

- = No data received
Cum 2011 =Cumulative data for 2011
⌂ = Epidemiologic Weeks 41 - 52
§ = No reports were received for the reporting period from Curacao, St. Maarten, Bonaire, St. Eustatius and Saba (2011, 2010)
* = St. Kitts and Nevis reports confirmed cases on select communicable diseases
# =Reporting of Norovirus began in 2011
Last Wk. Rep. '11 = Last week reported for the reporting period in 2011

Country Codes:

ANG - Anguilla
ANT - Antigua and Barbuda
ARU - Aruba
BAH - Bahamas
BAR – Barbados
BER – Bermuda
BES – Bonaire, St. Eustatius, Saba
BLZ – Belize
BVI – British Virgin Islands
CAY – Cayman Islands
CUR – Curacao
DOM – Dominica
GRE – Grenada
GUY – Guyana
JAM – Jamaica
MON – Montserrat
SKN – St Kitts and Nevis
STL – St Lucia
STM – St. Maarten
SUR – Suriname
SVG – St Vincent and the Grenadines
TCI – Turks and Caicos Islands
TNT – Trinidad and Tobago

Table 2 : Confirmed Cases of Communicable Diseases in CAREC Member Countries (CMCs): Weeks 41 - 52,

Sexually Transmitted Infections																								
AIDS/HIV/STIs are now being reported to the CAREC Epidemiology Division on a yearly basis.																								
Vaccine Preventable Diseases under the Caribbean Expanded Programme on Immunization																								
Chicken Pox (Varicella)	**Cum 2011**	5,152	0	380	4	289	208	18	-	768	89	83	-	65	0	411	2,713	16	71	0	-	0	13	24	-
	2011^	393	0	37	-	8	27	1	-	108	2	22	-	10	0	74	103	0	-	0	-	0	1	-	-
	2010^	523	0	15	0	5	17	5	-	68	1	10	-	7	0	40	280	1	7	0	-	0	59	8	0
Meningitis due to Haemophilus Influenzae	**Cum 2011**	2	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	2	0	0	-
	2011^	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Mumps	**Cum 2011**	23	0	0	0	0	0	1	-	18	0	0	-	0	0	0	4	0	0	0	-	0	0	0	-
	2011^	1	0	0	-	0	0	1	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	7	0	0	0	0	0	0	-	6	0	0	-	0	0	0	1	0	0	0	-	0	0	0	0
Pertussis (Whooping cough)	**Cum 2011**	2	0	0	0	0	0	1	-	0	0	1	-	0	0	0	0	0	0	0	-	0	0	0	-
	2011^	1	0	0	-	0	0	1	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	3	0	0	0	0	0	0	-	2	0	0	-	0	1	0	0	0	0	0	-	0	0	0	0
Pneumonia due to Haemophilus Influenzae	**Cum 2011**	4	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	3	-	1	0	0	-
	2011^	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Rotavirus	**Cum 2011**	146	0	0	1	0	8	14	-	0	0	2	-	0	0	0	90	0	0	3	-	28	0	0	-
	2011^	4	0	0	-	0	0	1	-	0	0	1	-	0	0	0	2	0	-	0	-	0	0	-	-
	2010^	11	0	0	0	0	0	1	-	0	0	0	-	0	0	0	1	0	0	9	-	0	0	0	0
Tetanus [excluding neonatal]	**Cum 2011**	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011^	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	2010^	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetanus Neonatorum	**Cum 2011**	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2011^	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2010^	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0

During the period under review there were zero (0) cases of Congenital Rubella Syndrome, Diphtheria, Measles, Poliomyelitis and Rubella (German Measles).

Source: Communicable Disease 4-Weekly Reports submitted to the CAREC Epidemiology Division by February 3, 2012

Notes:

- = No data received
Cum 2011 =Cumulative data for 2011
^ = Epidemiologic Weeks 41 - 52
§ = No reports were received for the reporting period from Curacao, St. Maarten, Bonaire, St. Eustatius and Saba (2011, 2010)
* = St. Kitts and Nevis reports confirmed cases on select communicable diseases
Last Wk. Rep. '11 = Last week reported for the reporting period in 2011

Country Codes:

ANG	- Anguilla	BAR	– Barbados	CAY	– Cayman Islands	JAM	– Jamaica	SUR	– Suriname
ANT	- Antigua and Barbuda	BER	– Bermuda	CUR	– Curacao	MON	– Montserrat	SVG	– St Vincent and the Grenadines
ARU	- Aruba	BES	– Bonaire, St. Eustatius, Saba	DOM	– Dominica	SKN	– St Kitts and Nevis	TCI	– Turks and Caicos Islands
BAH	- Bahamas	BLZ	– Belize	GRE	– Grenada	STL	– St Lucia	TNT	– Trinidad and Tobago
		BVI	– British Virgin Islands	GUY	– Guyana	STM	– St. Maarten		

Table 2 : Confirmed Cases of Communicable Diseases in CAREC Member Countries (CMCs): Weeks 41 - 52,

Vector Borne Diseases																									
Dengue Fever ¤	Cum 2011	6,189	8	3	1,311	213	179	1	552	578	33	2	852	40	87	1,093	408	3	43	585	15	126	43	14	-
	2011^	881	8	0	58	14	37	0	13	123	17	0	32	11	61	170	186	3	-	30	1	87	19	11	-
	2010^	981	0	0	454	4	96	0	-	103	0	3	-	29	5	99	96	0	0	24	-	18	50	0	0
Dengue Haemorrhagic Fever	Cum 2011	41	0	0	2	0	6	0	0	2	0	0	2	0	5	0	0	0	0	1	0	23	0	0	-
	2011^	15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	-	0	0	14	0	0	-
	2010^	24	0	0	3	0	2	0	-	4	0	0	-	0	0	0	12	0	0	2	-	0	1	0	0
Leptospirosis	Cum 2011	300	0	0	0	3	33	0	-	0	1	0	-	28	11	88	67	0	0	15	-	25	29	0	-
	2011^	77	0	0	-	3	15	0	-	0	0	0	-	5	5	18	10	0	-	4	-	0	17	-	-
	2010^	104	0	0	0	1	4	0	-	0	0	0	-	8	0	9	74	0	0	0	-	1	7	0	0
Malaria (Indigenous)	Cum 2011	15,628	0	0	0	2	0	0	-	28	0	0	-	0	0	15,435	1	0	0	0	-	162	0	0	-
	2011^	288	0	0	-	0	0	0	-	14	0	0	-	0	0	236	0	0	-	0	-	38	0	-	-
	2010^	4,643	0	0	0	0	0	0	-	0	0	0	-	0	0	4,588	0	0	0	0	-	55	0	0	0
Malaria [Imported]	Cum 2011	485	0	0	0	4	5	1	-	1	1	0	-	1	0	0	8	0	0	0	-	463	0	0	1
	2011^	110	0	0	-	1	2	0	-	0	0	0	-	0	0	0	1	0	-	0	-	106	0	-	-
	2010^	138	0	0	0	0	0	0	-	0	0	0	-	0	0	0	3	0	0	0	-	135	0	0	0
Other Diseases																									
Leprosy	Cum 2011	9	0	0	0	0	0	0	-	0	0	0	-	0	0	0	9	0	0	0	-	0	0	0	-
	2011^	1	0	0	-	0	0	0	-	0	0	0	-	0	0	0	1	0	-	0	-	0	0	-	-
	2010^	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Viral Encephalitis/Meningitis	Cum 2011	7	0	0	0	0	2	1	-	0	0	0	-	0	0	0	0	0	0	0	-	4	0	0	-
	2011^	1	0	0	-	0	0	1	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	1	0	0	0	0	1	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Meningococcal Infection (due to *Neisseria meningitidis)*	Cum 2011	2	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	2	0	0	-
	2011^	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	2	0	0	0	0	0	0	-	1	0	0	-	0	0	0	0	0	0	0	-	1	0	0	0
Meningitis/Pneumonia due to *Streptococcus pneumoniae*	Cum 2011	4	0	0	0	0	0	0	-	0	0	0	-	0	0	0	4	0	0	0	-	0	0	0	-
	2011^	2	0	0	-	0	0	0	-	0	0	0	-	0	0	0	2	0	-	0	-	0	0	-	-
	2010^	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Meningitis/Encephalitis not specified	Cum 2011	10	0	0	0	0	0	0	-	0	0	0	-	1	0	9	0	0	0	0	-	0	0	0	-
	2011^	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	0	0	0	0	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Viral Hepatitis A	Cum 2011	32	0	0	0	0	0	0	-	32	0	0	-	0	0	0	0	0	0	0	-	0	0	0	-
	2011^	8	0	0	-	0	0	0	-	8	0	0	-	0	0	0	0	0	-	0	-	0	0	-	-
	2010^	10	0	0	0	0	0	0	-	10	0	0	-	0	0	0	0	0	0	0	-	0	0	0	0
Viral Hepatitis B	Cum 2011	210	1	0	5	5	3	0	-	2	1	0	-	0	50	68	28	9	0	0	-	11	27	0	-
	2011^	29	0	0	-	1	0	0	-	0	1	0	-	0	2	7	6	0	-	0	-	1	11	-	-
	2010^	103	0	0	2	0	0	0	-	4	0	0	-	0	10	0	62	2	0	3	-	18	2	0	0

During the period under review there were zero (0) cases of Rabies (in humans).

Source: Communicable Disease 4-Weekly Reports submitted to the CAREC Epidemiology Division by February 3, 2012; Ω Includes laboratory results from the CAREC Laboratory as at January 17, 2012 and country-submitted Dengue Reports as at February 3, 2012

Notes:

- = No data received
Cum 2011 =Cumulative data for 2011
^ = Epidemiologic Weeks 41 - 52
§ = No reports were received for the reporting period from Curacao, St. Maarten, Bonaire, St. Eustatius and Saba (2011, 2010)
* = St. Kitts and Nevis reports confirmed cases on select communicable diseases
Last Wk. Rep. '11 = Last week reported for the reporting period in 2011

Country Codes:

ANG - Anguilla
ANT - Antigua and Barbuda
ARU - Aruba
BAH - Bahamas
BAR – Barbados
BER – Bermuda
BES – Bonaire, St. Eustatius, Saba
BLZ – Belize
BVI – British Virgin Islands
CAY – Cayman Islands
CUR – Curacao
DOM – Dominica
GRE – Grenada
GUY – Guyana
JAM – Jamaica
MON – Montserrat
SKN – St Kitts and Nevis
STL – St Lucia
STM – St. Maarten
SUR – Suriname
SVG – St Vincent and the Grenadines
TCI – Turks and Caicos Islands
TNT – Trinidad and Tobago

SURVEILLANCE OF RISK FACTORS FOR CHRONIC DISEASES IN BARBADOS

Introduction

In this issue of the CAREC Surveillance Report, we highlight the results of the risk factor survey conducted in Barbados in 2007. The cross sectional survey of key chronic diseases and their risk factors was conducted among persons aged 25 years and older. A stratified random sampling design was used for selection of the survey participants.

The survey was done using the WHO STEPS methodology and the generic Pan American version of the WHO STEPS questionnaire. The questionnaire examined the prevalence of risk factors for chronic diseases in the population as shown below in Table 1.

In terms of the measurement of biological factors, blood pressures were taken using an Automated AMRON Blood Pressure Measuring Device. Three resting blood pressures (BP) measurements were taken and the final BP measurement was included for analysis in the survey. Heights and weights were measured to identify levels of overweight and obesity in the population by calculating the Body Mass Index (BMI). Waist circumference was measured as a means of assessing levels of abdominal obesity in the population.

Table 1: Risk Factors Examined Using Pan American Version of STEPS Questionnaire

Behavioural Risks Factors	Biological Risk Factors	Other
Tobacco use	Raised blood Pressure	History of chronic diseases
Excessive alcohol use	Overweight and obesity	Family history of chronic diseases
Unhealthy diet (low fruit and vege-table consumption)	Abdominal obesity	Health seeking behaviour
Physical inactivity	Raised blood glucose	
	Abnormal blood lipids	

Response Rate

A total of 1282 adults participated in the Barbados Risk Factor Survey, achieving a response rate of 65%.

Key Findings

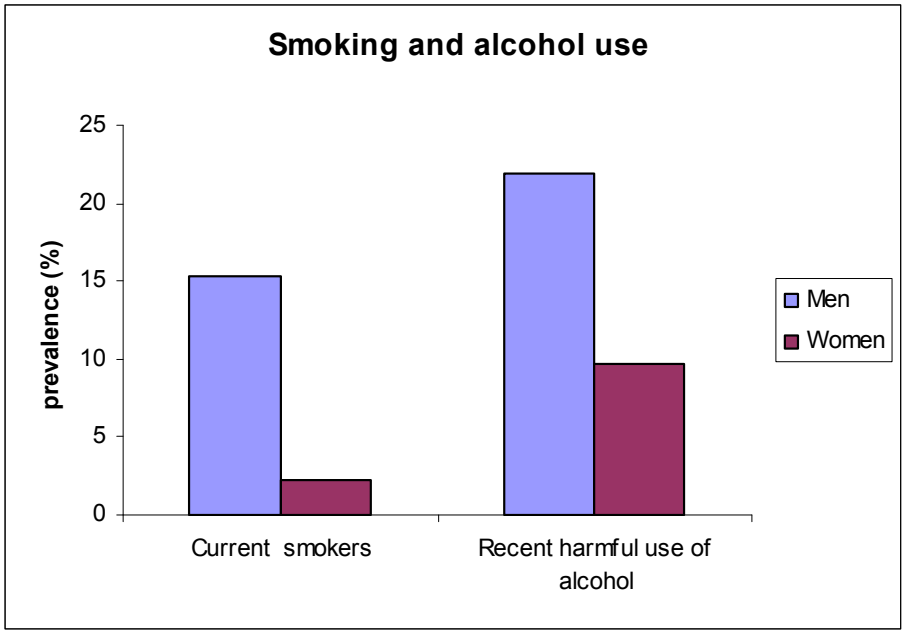
Behavioural Risk Factors

Smoking and Alcohol Consumption

The prevalence of tobacco smoking in the Barbadian population was 8.4% (95% CI 6.2-10.6). The proportion of smokers was significantly higher among males (15.4%; 95% CI 11.1-19.7) as compared to females (2.2%; 95% CI 0.8-3.6) as shown in Figure 1.

The rates of alcohol consumption in the population was 28.7%%, (95% CI 23.7-33.7) with 42.1% (35.2-49.1) of men and 16.9% (95% CI 12.4-21.4) of women being classified as current drinkers, having consumed an alcoholic drink in the last 30 days. Excessive alcohol use is of concern particularly among men, with more than a fifth (21.9%, 95% CI 14.8-29.9%) using alcohol at levels which can be harmful to health[1]. One in ten women in Barbados (9.7%%; 95% CI 3.4-16.0%) also engage in harmful use of alcohol. [Figure 1].

Figure 1 Smoking and Alcohol Use in the Population

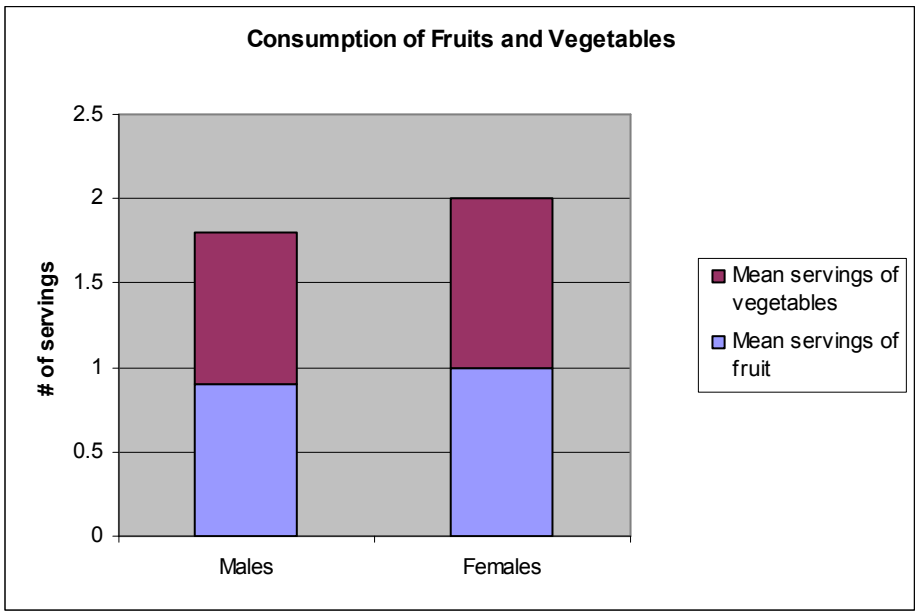


[1] *Harmful drinking for males was defined as males having had 5 or more standard drinks on at least one day in the previous week, and for females having had 4 or more standard drinks on at least one day in the previous week.*

Diet and Physical Activity

Consumption of fruits and vegetables in adequate amounts (5 servings per day) is a protective factor against chronic diseases. Daily use of fruits and vegetables in the diets of the Barbadian population falls very short of this protective target as shown in Figure 2. On average, just one serving each of fruits (mean servings 1.0; 95% CI 0.9 -1.01) and vegetables (mean servings 1.0; 95% CI 0.9-1.1) are consumed by the Barbadian population on a daily basis. A similar proportion of males (96.6%, 95% CI 95.0-98.2)) and females (94.3%; 95% CI 91.2-97.4) ate less than 5 combined servings of fruit and vegetables on average per day.

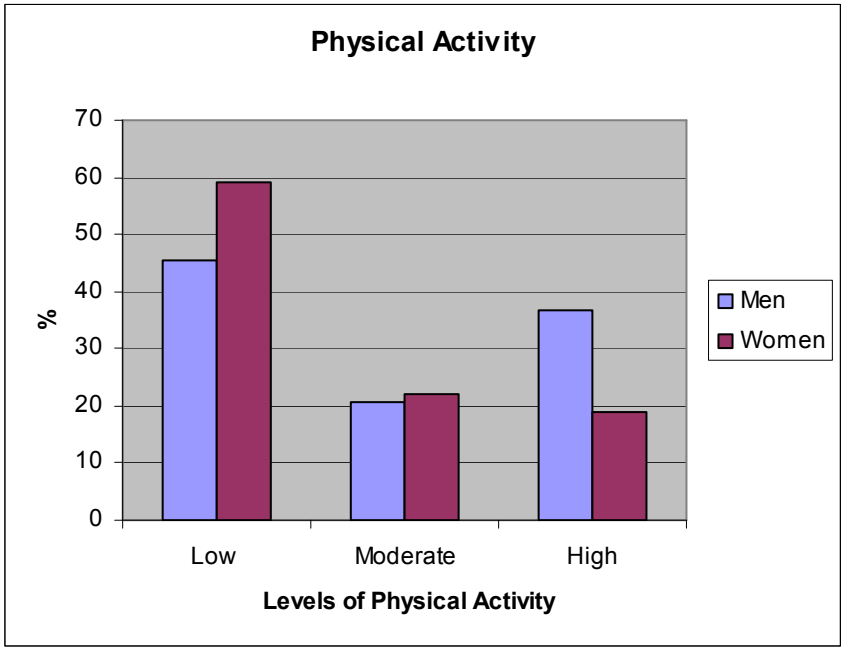
Figure 2: Consumption of Fruits and Vegetables in the Population



Physical activity is another protective factor for the prevention of chronic diseases. In the Barbados population women had significantly lower levels of physical activity as compared to men. More than half of females (59.0%; 95% CI 53.5-64.5) and almost half of males (42.5%; 95% CI 36.9-48.2) were classified as having low levels of physical activity. Just over a third of males (36.6%; 95% CI 31.5-41.8) and nearly a fifth (19.0%; 95% CI 14.1-24.0) of females were classified as having high levels of physical activity (Figure 3). The percentage of the population with moderate levels of physical activity was a fifth (21.4%; 95% CI 18.9-24.0). More than three-quarters (78.9; 95%CI 75.2-82.6) of the population indicated that they do not engage in vigorous physical activity.

The results indicated that significantly more work related physical activity (71.2 mean minutes; 95% CI 52.0-90.4) was done on an average day by the Barbadian population as compared to physical activity done during transport (20.5 mean minutes; 95% CI 15.1-25.9) and recreation (15.4 mean minutes; 95% CI 11.8-19.0). This was true for both males and females.

Figure 3: Levels of Physical Activity in the Barbadian Population



Health Seeking Behaviour for Cancer Prevention and Control

Women's Health

The vast majority of women (99.1%; 95% CI 98.4-99.8) had heard about breast cancer and most (85.5%; 95% CI 82.2-88.2) reported that they had been shown how to examine their breast. However, more than one in ten women (11.0% 95%CI 8.7-15.1) had never had a breast exam with almost a fifth (19%; 95%CI 14.4-23.5) having had a breast exam more than 2 years ago. More than a third of women 45 years and older (36%; 95%CI 29.6-42.4) had never done a mammogram.

---

2 Low levels of physical activity is defined as less than 5 or more days of moderate–intensity activity or 30 minutes walking (<600 metabolic (MET) minutes per week).
Moderate levels of physical activity is defined as 5 or more days of moderate–intensity activity or 30 minutes walking (600 metabolic (MET) minutes per week).
High / Vigorous levels of physical activity is defined as 7or more days of any combination of walking for 30 minutes, moderate or vigorous-intensity activity(3000 metabolic (MET) minutes per week).

Most women (93.7%; 95% CI 91-96.6) had heard of cervical cancer, but almost one in 10 women (9.6%; 95% CI 6.8-12.5) had never had a Pap smear test done, with a quarter (25.7% 95 % CI 21.3-30.1) having done a Pap smear test more than 2 years ago.

Only a fifth (20%; 95% CI15-24.8) of the women 45 years and older had had a fecal occult blood exam and even less 12.8% (95% CI 9.1-16.4) had done a colonoscopy test.

Men's Health

Two thirds of men 45 years and older (67%; 95% CI 61.6-72.4) reported that they had a digital rectal examination done for prostate cancer screening. Just over a quarter (25.4%; 95% CI 19.9-30.9) had done a fecal occult blood exam and less than a fifth (16.8%; 95% CI 11.9-21.7) had done a colonoscopy test.

Biological Risk Factors

In the Barbados Risk Factor survey participants were referred to a specific health centre to have their weights, heights and blood pressures measured. Only a limited number of participants responded to this request, therefore the results could have been influenced by self-selection bias. Although the data were weighted, due to the small number of participants these results should not be generalized to the wider population.

Overweight and Obesity

The mean body mass index of persons who had their weights and heights measured was 27.7 kg/m2 (95%CI 26.7-28.7). The women had a body mass index of 29.1 kg/m2 (95%CI 27.6-30.5) and for men it was 26.2 kg/m2 (95% CI 25.2-27.1).

More than half (65.2%; 95% CI 57.8-72.6) were classified as overweight (defined as BMI≥25 kg/m2) with almost a third (28.5%; 95% CI 22.3-34.7) being classified as obese (BMI ≥30kg/ m2). Among the females, almost three-quarters (74.3%; 95% CI 65.7-82.9) were classified as overweight, with more than a third (35.5%; 95%CI 26.4-44.4)

being obese. Over half of the males (54.6%; 95% CI 44.6-64.6) were classified as overweight, with more than a fifth (20.3%; 95% CI 10.5-30.3) being obese. A small percentage (3.4%; 95% CI 0.3-6.6) was underweight.

Abdominal Obesity

A high waist circumference or level of abdominal fat is associated with an increased risk for type 2 diabetes, high cholesterol, high blood pressure and cardiovascular disease. Mean waist circumferences for the males and females were 91.1cm, 95% CI (88 2-94.1) and 92.0.cm; 95% CI (88.4-95.6) respectively. The mean waist circumference of males (91.1 cm) was within acceptable levels however the mean waist circumference for females was higher than the acceptable level of 88.9cm. This suggests that the women are at increased risk of chronic diseases.

Raised Blood Pressure

The mean systolic and diastolic blood pressure in those who had their blood pressures taken was 124.5/80.6 mmHg in males and 117.4/77.4 mmHg in females. More than a fifth (20.6%; 95%CI 12.9-28.2) of the men and almost a third (31.4%; 95% CI 22.8-39.9) of the women indicated that they were on medication for raised blood pressure at the time of the survey. Almost half of the men (41.2; 95%CI 31.2-51.2) and women (41.8%; 95% CI 33.3-50.3) had raised blood pressures reading ≥140/90 mmHg, including persons on medication and almost a third (31.5%; 95% CI 25.7-37.4) had raised blood pressures ≥160/100 mmHg. This indicates that persons on anti-hypertensive medication continue to have uncontrolled hypertension.

When those on medication for hypertension are excluded, more than a quarter of the men (25.9%; 95% CI 15.7-36.2) and more than one in ten of the women (15.2%; 95% CI 7.1-23.4) had blood pressures reading ≥140/90 mmHg, with 6.9 % (95%CI 3.6-10.3) having blood pressures ≥160/100.

---

3 Overweight and obesity combined
Acceptable waist circumference for men: ≤40 inches (101.6 cm)

Conclusions and Recommendations

The risk factor survey identified a high prevalence of risk factors for chronic diseases in the Barbadian population. Although there was a low response rate for the assessment of biological risk factors, the results suggest that levels of obesity and overweight may be high in the population. These results provide some important baseline information, which have been used for planning and implementing public health strategies for the prevention and control of chronic diseases in Barbados. They will also be useful as baseline measures for monitoring and evaluating the impact of interventions and policies implemented. The survey results are also being used for calculating the sample size for a second chronic disease risk factor survey to be implemented in 2012.

News and Announcements

PAHO Influenza Regional Update EW 11, 2012

In North America, influenza activity increase in Canada and United States; but remained within the expected level for this time of year. Among influenza viruses, influenza B was the predominant virus in Canada, influenza A(H3N2) remained predominant in United States and Influenza A(H1N1)pdm09 was predominant in Mexico.

In Central America and the Caribbean, influenza activity remained low or within expected levels for this period of time, except in Guatemala, where influenza A (H1N1)pdm09 has increased and has been co-circulating with influenza B in the last few weeks.

In South America, influenza activity and acute respiratory illness activity remained low or within expected levels for this period of time.

For more information about influenza activities in the Americas, see the PAHO influenza website: http://www.paho.org/influenzareports

World Health Day (7 April 2012)

Information detailed below was taken from the WHO website: http://www.who.int/mediacentre/events/annual/world_health_day/en/index.html

Over the past century, humanity has been adding years to life. This century, the world will soon have more older people than children. World Health Day 2012 focuses on how good health can add life to years, enabling older men and women to not only live longer, but also to extend their active involvement in all levels of society.

The experience of ageing in the 21st century will be very different from that in the last century. We need to reinvent ageing. On World Health Day, the World Health Organization (WHO) invites you to think about the sort of society we want to create and consider the policies and action we need to put in place to anticipate and respond to population ageing, with health at the core. World Health Day is celebrated on 7 April to mark the founding of the WHO. Each year, the Organization selects a key global health issue and organizes international, regional and local events on the Day and throughout the year to highlight the selected area.

The CAREC Surveillance Report (CSR) is available on CAREC's website:
www.carec.org

Correspondence should be sent to the CSR Editor at:
carec-epidemiology@carec.paho.org

Caribbean Epidemiology Centre (CAREC)
16-18 Jamaica Boulevard
Federation Park, St. Clair
Port of Spain
Trinidad & Tobago
Tel: 1-868-622-4261; Fax: 1-868-622-2792