

# CSR

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## COMMUNICABLE DISEASES

### REPORT ON COMMUNICABLE DISEASES FOR WEEKS 1-16, 2010

#### Fever and Respiratory Symptoms and Influenza-like Illness

During weeks 1-16, 2010, compared to the corresponding periods in 2008 and 2009, there was an overall increase in the number of reported cases of fever and respiratory symptoms among those aged both <5 years and those aged  $\geq 5$  years [Figures 1 & 2 and Table 1]. Several countries also reported increased numbers of cases which were widespread throughout the countries, not clustered in any areas [Table 1]. The peak in the reported cases of fever and respiratory illness occurred in week 6.

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**Pan American  
Health  
Organization**

Regional Office of the  
World Health Organization

During weeks 1-16, 2010, pandemic (H1N1) was the predominant circulating respiratory virus, with 19 cases laboratory confirmed for pandemic (H1N1) influenza from 6 countries (Barbados, Bermuda, Cayman Islands, Guyana, Jamaica and St. Vincent & the Grenadines). The age range of the cases was 5-57 years. No other influenza A subtypes were identified. Three specimens were positive for influenza B, one from Dominica and two from Suriname. There was also one hospitalized case of adenovirus confirmed from St. Lucia.

During epidemiologic weeks 1-16, 2010, there were 2 hospitalized pandemic (H1N1) influenza cases, 1 each reported from Barbados and Bermuda. One case was pregnant and the other had an underlying respiratory condition. There were no reported deaths due to pandemic (H1N1) influenza.

The second wave of the pandemic (H1N1) influenza in CAREC Member Countries declined at the end of 2009 and the decrease has continued into 2010.

## **Gastroenteritis, Salmonellosis and Shigellosis**

During weeks 1-16, 2010, compared to the corresponding periods in 2008 and 2009, there was an overall increase in the number of reported cases of gastroenteritis among those aged both <5 years and those aged ≥5 years [Figures 3 & 4 and Table 1]. The overall increase in reported cases began in week 2 and peaked in week 6. However, the peaks in reported cases in each country occurred at various times during weeks 5-11. Rotavirus was identified in cases in Cayman Islands and Guyana; and norovirus GII was identified in cases from Dominica. However, it is possible that both the rotavirus and the norovirus were circulating simultaneously in some countries. None of the countries reported clustering of cases; they were generally widespread in countries. Other countries in the Americas, such as the Dominican Republic, Guatemala, Mexico and El Salvador, have reported outbreaks of diarrhoeal illness caused by rotavirus.

A range of *salmonella* and *shigella* sub-types were identified in different countries as shown in Table 3. However, no outbreaks due to either pathogen were identified.

**Table 3: *Salmonella* and *shigella* sub-types identified in 2010 in CAREC member countries**

| <b>Country</b>           | <b>Pathogen</b>                          | <b>Sub-type</b>   |
|--------------------------|--|---|
| Barbados                 | <i>Salmonella</i>                        | Aberdeen<br>Montevideo<br>Rubislaw<br>Thompson<br>Typhimurium |
| Bermuda                  | <i>Salmonella</i><br><br><i>Shigella</i> | Group G<br>Group C2<br><br>Group D                            |
| Dominica                 | <i>Salmonella</i>                        | Enteritidis   |
| Jamaica                  | <i>Shigella</i>                          | <i>sonnei</i><br><i>dysenteriae</i><br><i>boydii</i>          |
| Turks and Caicos Islands | <i>Shigella</i>                          | <i>Sonnei</i>   |

## Dengue Fever

During weeks 1-16, 2010, compared to the corresponding period in 2009, Belize reported a more than two-fold increase in cases of dengue fever and dengue haemorrhagic fever/shock syndrome; and Trinidad and Tobago reported a more than 10-fold increase in cases of dengue fever [Table 2]. Belize reported an outbreak during this time localized mainly in Belize City. It was also noted that during the first quarter of 2010, Cayman Islands reported three cases of indigenous dengue fever (without history of travel) for the first time in many years; all cases were treated and recovered fully.

As at June 4, 2010, during 2010, dengue virus type 1 was identified in Dominica and St. Kitts & Nevis; dengue virus type 2 was identified in Cayman Islands; and dengue virus type 4 was identified in Suriname. No other virus types were identified in any CAREC member countries during 2010.

During the period under review, while the transmission of dengue fever was not unusually high in the CAREC member countries overall, several Central and South American countries and the French territories in the Caribbean have reported increased numbers of dengue cases. All four dengue virus types are circulating in the Central and South America; and as in CAREC member countries, dengue virus types 1, 2 and 4 have been identified in Puerto Rico, the Dominican Republic and the French territories in the Caribbean.

Figure 1: Fever and Respiratory Symptoms (ARI) < 5 years  
All CAREC Member Countries, Epidemiologic Weeks 1 - 16, 2010

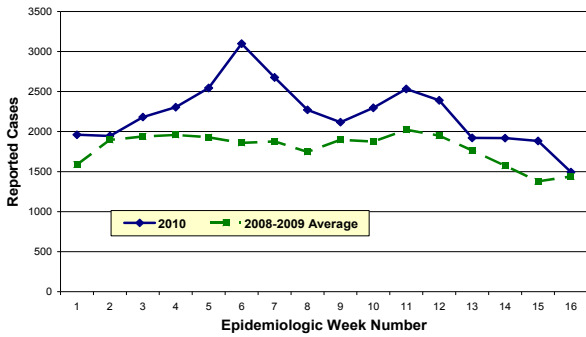


Figure 2: Fever and Respiratory Symptoms (ARI) ≥ 5 years  
All CAREC Member Countries, Epidemiologic Weeks 1 - 16, 2010

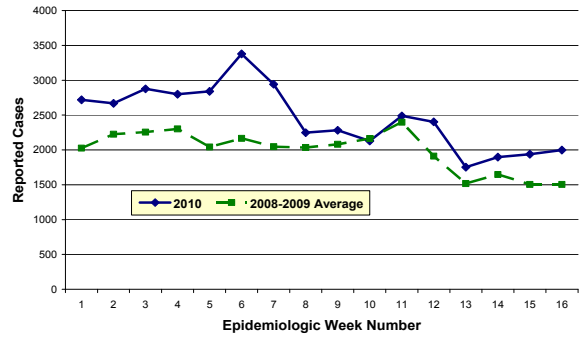


Figure 3: Gastroenteritis < 5 years  
All CAREC Member Countries, Epidemiologic Weeks 1 - 16, 2010

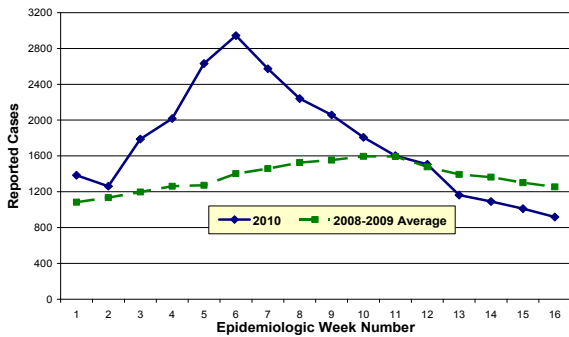


Figure 4: Gastroenteritis ≥ 5 years  
All CAREC Member Countries, Epidemiologic Weeks 1 - 16, 2010

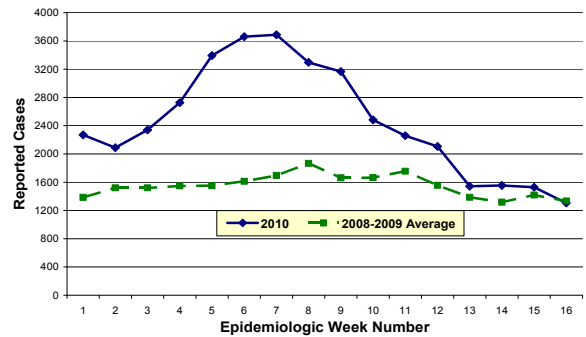


Figure 5: Undifferentiated Fever < 5 years  
All CAREC Member Countries, Epidemiologic Weeks 1 - 16, 2010

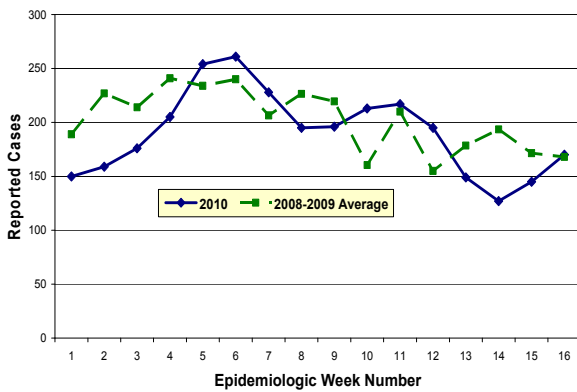
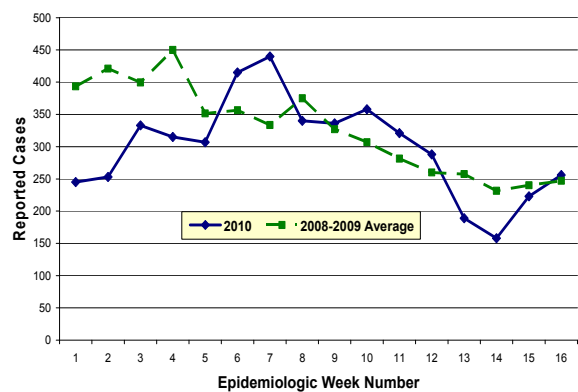


Figure 6: Undifferentiated Fever ≥ 5 years  
All CAREC Member Countries, Epidemiologic Weeks 1 - 16, 2010



Data Source: Weekly Syndromic Surveillance Reports submitted to the CAREC Epidemiology Division by May 21, 2010

Table 1 : Reported Syndromes in CAREC Member Countries (CIMCs): Weeks 1-16, 2010 and 2009

| YEAR              | ALL CIMCs | CAREC MEMBER COUNTRIES (CIMCs) |     |                  |       |     |       |       |     |       |     |       |        |        |     |       |     |     |     |     |     |       |       |   |
|-------------------|-----------|--------------------------------|-----|------------------|-------|-----|-------|-------|-----|-------|-----|-------|--------|--------|-----|-------|-----|-----|-----|-----|-----|-------|-------|---|
|                   |           | ANG                            | ANT | ARU <sup>§</sup> | BAH   | BAR | BER   | BLZ   | BVI | CAY   | DOM | GRE   | GUY    | JAM    | MON | NET   | SKN | STL | SUR | SVG | TCI | TNT   |       |   |
| Last Wk. Rep. '10 |           | 16                             | 16  | 16               | 16    | 16  | 16    | 16    | 16  | 16    | 16  | 16    | 15     | 16     | 16  | 16    | 16  | 16  | 16  | 16  | 16  | 16    | 15    |   |
| <b>Syndromes</b>  |           |                                |     |                  |       |     |       |       |     |       |     |       |        |        |     |       |     |     |     |     |     |       |       |   |
| 2010              | 11        | 0                              | 1   | 0                | 0     | 0   | 0     | 0     | 0   | 0     | 0   | 0     | 4      | 5      | 0   | 0     | 0   | 0   | 0   | 0   | 0   | 0     | 0     | 0 |
| 2009              | 8         | 0                              | 0   | 0                | 0     | 0   | 0     | 0     | 0   | 0     | 0   | 4     | 3      | 0      | 0   | 0     | 0   | 0   | 0   | 0   | 0   | 0     | 0     | 0 |
| 2010              | 18        | 0                              | 0   | -                | 0     | 0   | 0     | 0     | 0   | 0     | 0   | 0     | 0      | 0      | 0   | 0     | 0   | 0   | 0   | 0   | 0   | 0     | 0     | 0 |
| 2009              | 107       | 0                              | 0   | -                | 0     | 0   | 0     | 0     | 0   | 0     | 0   | 0     | 8      | 0      | 0   | 0     | 0   | 0   | 0   | 0   | 0   | 0     | 0     | 0 |
| 2010              | 90        | 0                              | 0   | -                | 1     | 1   | 3     | -     | 0   | 0     | 0   | 0     | 0      | 60     | 0   | 4     | 0   | 7   | 13  | 0   | 0   | 0     | 0     | 0 |
| 2009              | 247       | 0                              | 0   | -                | 0     | 0   | 0     | 0     | 0   | 0     | 0   | 0     | 226    | 0      | 2   | 0     | 6   | 13  | 0   | 0   | 0   | 0     | 0     | 0 |
| 2010              | 132       | 0                              | 0   | 0                | 2     | 0   | 0     | 18    | 0   | 0     | 0   | 23    | 85     | 0      | 0   | 0     | 1   | 1   | 0   | 0   | 0   | 0     | 2     | 2 |
| 2009              | 164       | 0                              | 0   | 0                | 5     | 0   | 20    | 0     | 0   | 0     | 0   | 24    | 107    | 1      | 0   | 0     | 0   | 0   | 0   | 0   | 0   | 0     | 0     | 6 |
| 2010              | 35,535    | 115                            | 795 | -                | 572   | 158 | 51    | 5,390 | 115 | 455   | 173 | 1,562 | 7,555  | 11,353 | 39  | ¥     | 39  | 299 | 168 | 170 | 163 | 6,363 | 6,363 |   |
| 2009              | 29,130    | 150                            | 635 | -                | 728   | 92  | 98    | 2,197 | 196 | 417   | 208 | 1,243 | 7,010  | 9,342  | 79  | ¥     | 111 | 330 | 120 | 122 | 185 | 5,867 | 5,867 |   |
| 2010              | 39,359    | 176                            | 643 | -                | 748   | 136 | 1,007 | 7,820 | 176 | 1,232 | 117 | 1,153 | 12,266 | 12,901 | 22  | ¥     | 39  | 214 | 98  | 83  | 81  | 447   | 447   |   |
| 2009              | 33,015    | 361                            | 738 | -                | 1,650 | 155 | 1,141 | 3,120 | 205 | 1,240 | 157 | 1,294 | 12,878 | 8,687  | 77  | ¥     | 219 | 575 | 65  | 105 | 163 | 185   | 185   |   |
| 2010              | 27,996    | 22                             | 163 | -                | 787   | 264 | 21    | 2,082 | 27  | 182   | 263 | 208   | 7,788  | 9,889  | 25  | 563   | 49  | 389 | 149 | 197 | 161 | 4,767 | 4,767 |   |
| 2009              | 19,879    | 29                             | 124 | -                | 924   | 230 | 93    | 238   | 100 | 156   | 75  | 362   | 4,381  | 9,136  | 6   | 572   | 119 | 366 | 463 | 95  | 102 | 2,308 | 2,308 |   |
| 2010              | 39,401    | 123                            | 374 | -                | 1,479 | 803 | 382   | 2,251 | 115 | 495   | 592 | 340   | 13,258 | 10,463 | 40  | 1,228 | 299 | 587 | 125 | 334 | 563 | 5,560 | 5,560 |   |
| 2009              | 23,973    | 86                             | 153 | -                | 1,602 | 633 | 78    | 447   | 240 | 336   | 200 | 428   | 6,982  | 6,635  | 27  | 1,050 | 358 | 551 | 213 | 202 | 247 | 3,505 | 3,505 |   |
| 2010              | 3,040     | 0                              | 27  | -                | 0     | 25  | 5     | -     | 17  | 15    | 39  | 21    | 730    | 1,681  | 0   | 69    | 51  | 311 | 21  | 0   | 0   | 28    | -     |   |
| 2009              | 3,233     | 0                              | 40  | -                | 0     | 18  | 6     | -     | 35  | 7     | 26  | 31    | 701    | 1,628  | 2   | 159   | 190 | 292 | 63  | 3   | 32  | -     | -     |   |
| 2010              | 4,777     | 0                              | 20  | -                | 0     | 41  | 7     | -     | 80  | 11    | 44  | 19    | 2,747  | 1,115  | 1   | 159   | 95  | 292 | 132 | 0   | 14  | -     | -     |   |
| 2,009             | 5,562     | 0                              | 27  | -                | 1     | 51  | 1     | -     | 77  | 8     | 59  | 42    | 2,506  | 1,190  | 13  | 398   | 356 | 426 | 375 | 5   | 27  | -     | -     |   |

Sources: Weekly Syndromic Surveillance Reports submitted to the CAREC Epidemiology Division by May 21, 2010; <sup>†</sup> Expanded Programme on Immunization (EPI)

Notes:

- = No data received
- § = No Weekly Syndromic Surveillance Reports were received from Aruba for the reporting period.
- ¥ = Data on Fever and Respiratory Symptoms from the Netherlands Antilles (2010, 2009) are not provided in an age-categorized format. These data are as follows:  
Netherlands Antilles - Fever and Respiratory Symptoms: 1,796(2010), 1,971(2009)

Last Wk. Rep. '10 = Last week reported for 2010

Country Codes:

- ANG - Anguilla
- ANT - Antigua and Barbuda
- ARU - Aruba
- BAH - Bahamas
- BAR - Barbados
- BER - Bermuda
- BLZ - Belize
- BVI - British Virgin Islands
- CAY - Cayman Islands
- DOM - Dominica
- GRE - Grenada
- GUY - Guyana
- JAM - Jamaica
- MON - Montserrat
- NET - Netherlands Antilles
- SKN - St Kitts and Nevis
- STL - St Lucia
- SUR - Suriname
- SVG - St Vincent & the Grenadines
- TCI - Turks & Caicos Islands
- TNT - Trinidad & Tobago

Table 2 : Confirmed Cases of Communicable Diseases in CAREC Member Countries (CMCs): Weeks 1 - 16, 2010 and 2009

| YEAR  | ALL CMCs | CAREC MEMBER COUNTRIES (CMCs) |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
|---|----------|-------------------------------|------------------|------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|------------------|-----|-----|-----|-------|-------|---|
|   |          | ANG                           | ANT <sup>‡</sup> | ARU <sup>§</sup> | BAH <sup>§</sup> | BAR | BER | BLZ | BVI | CAY | DOM | GRE | GUY | JAM | MON | NET <sup>‡</sup> | SKN <sup>‡</sup> | STL | SUR | SVG | TCI   | TNT   |   |
| Last Wk. Rep. '10   |          | 16                            |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| <b>Diseases Reportable under the International Health Regulations</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| During the period under review there were zero (0) cases of Cholera, Plague and Yellow Fever reported to the CAREC Epidemiology Division.         |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| <b>Food and Water Borne Diseases</b>  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| <b>Campylobacter</b>  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 18       | 0                             | -                | -                | -                | 9   | 7   | 0   | 0   | 0   | 0   | 0   | 0   | 2   | 0   | -                | -                | 0   | 0   | 0   | 0     | 0     | 0 |
| 2009  | 14       | 0                             | 2                | -                | 6                | 4   | 0   | 0   | 0   | 0   | 0   | 0   | 2   | 0   | -   | -                | -                | 0   | 0   | 0   | 0     | 0     | 0 |
| <b>Ciguatera Poisoning</b>  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 10       | 0                             | -                | -                | 0                | 0   | 0   | 0   | 3   | 0   | 0   | 0   | 0   | 0   | 7   | -                | -                | 0   | 0   | 0   | 0     | 0     | 0 |
| 2009  | 41       | 8                             | 19               | -                | 0                | 0   | 0   | 3   | 5   | 0   | 0   | 0   | 0   | 0   | 6   | -                | -                | 0   | 0   | 0   | 0     | 0     | 0 |
| <b>E. Coli (pathogenic)</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 2        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | -                | -                | 2   | 0   | 0   | 0     | 0     | 0 |
| 2009  | 8        | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | -   | -                | 8                | 0   | 0   | 0   | 0     | 0     | 0 |
| <b>Salmonellosis</b>  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 92       | 1                             | -                | -                | 28               | 6   | 2   | 0   | 1   | 3   | 2   | 41  | 2   | 0   | -   | -                | 1                | 0   | 0   | 0   | 1     | 4     | - |
| 2009  | 143      | 0                             | 0                | -                | 60               | 15  | 5   | 0   | 2   | 0   | 4   | 22  | 30  | 0   | -   | -                | 2                | 2   | 0   | 0   | 1     | -     | - |
| <b>Shigellosis</b>  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 17       | 0                             | -                | -                | 0                | 2   | 5   | 0   | 0   | 0   | 0   | 0   | 4   | 0   | -   | -                | 0                | 0   | 0   | 0   | 2     | 4     | - |
| 2009  | 24       | 0                             | 0                | -                | 0                | 10  | 0   | 0   | 0   | 0   | 0   | 3   | 8   | 0   | -   | -                | 1                | 2   | 0   | 0   | 0     | 0     | - |
| During the period under review there were zero (0) cases of Typhoid and Paratyphoid Fevers reported to the CAREC Epidemiology Division.           |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| <b>Air Borne Diseases</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| <b>Influenza-like disease</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 3,074    | 0                             | -                | -                | 2                | 4   | 170 | 0   | 0   | 1   | 0   | 0   | 7   | 0   | -   | -                | 0                | 17  | 241 | 1   | 3,431 | -     |   |
| 2009  | 7,508    | 1                             | 229              | -                | 0                | 5   | 776 | 236 | 0   | 0   | 0   | 0   | 0   | 0   | -   | -                | 8                | 3   | 0   | 355 | 0     | 5,895 |   |
| <b>Pneumonia [Streptococcus]</b>  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 3        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 1   | -   | -                | 1                | 0   | 0   | 0   | 0     | 0     | - |
| 2009  | 4        | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   | -   | -                | 3                | 0   | 0   | 0   | 0     | 0     | - |
| <b>Tuberculosis - Pulmonary</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 335      | 0                             | -                | -                | 0                | 0   | 24  | 2   | 0   | 1   | 0   | 209 | 28  | 0   | -   | -                | 0                | 44  | 7   | 1   | 19    | -     |   |
| 2009  | 312      | 0                             | 0                | -                | 0                | 0   | 5   | 2   | 0   | 4   | 4   | 254 | 18  | 0   | -   | -                | 0                | 0   | 3   | 0   | 22    | -     |   |
| <b>Tuberculosis - Extra-Pulmonary</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |
| 2010  | 1        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | -   | -                | 0                | 1   | 0   | 0   | 0     | 0     |   |
| 2009  | 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 Severe Acute Respiratory Syndrome (SARS) reported to the CAREC Epidemiology Division. |          |                               |                  |                  |                  |     |     |     |     |     |     |     |     |     |     |                  |                  |     |     |     |       |       |   |

Source: Communicable Disease 4-Weekly Reports submitted to the CAREC Epidemiology Division by May 21, 2010

Notes:

- = No data received

§ = No reports were received for the reporting period from Antigua and Barbuda (2010), Aruba (2010, 2009), Bahamas (2010, 2009), Netherlands Antilles (2010, 2009) and St. Kitts and Nevis (2010)

‡ = The following countries have reported data on select communicable diseases: St. Kitts and Nevis (2009)

Last Wk. Rep. '10 = Last week reported for the reporting period in 2010

Country Codes:

- ANG - Anguilla
- ANT - Antigua and Barbuda
- ARU - Aruba
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- GUY - Guyana
- JAM - Jamaica
- MON - Montserrat
- NET - Netherlands Antilles
- SKN - St. Kitts and Nevis
- STL - St. Lucia
- 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 1 -16, 2010 and 2009

| YEAR   | ALL CMCs | CAREC MEMBER COUNTRIES (CMCs) |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
|--|----------|-------------------------------|------------------|------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-------|-----|------------------|------------------|-----|-----|-----|-----|-----|-------|
|  |          | ANG                           | ANT <sup>§</sup> | ARU <sup>§</sup> | BAR <sup>§</sup> | BER | BLZ | BVI | CAY | DOM | GRE | GUY | JAM   | MON | NET <sup>§</sup> | SKN <sup>§</sup> | STL | SUR | SVG | TCI | TNT |       |
| Last Wk. Rep. '10  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| <b>Sexually Transmitted Infections</b>   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| AIDS/HIV/STIs are now being reported to the CAREC Epidemiology Division on a yearly basis. |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| <b>Vaccine Preventable Diseases under the Caribbean Expanded Programme on Immunization</b> |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| Chicken Pox (Varicella)  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| 2010   | 2,248    | 0                             | -                | -                | 112              | 20  | 355 | 1   | 7   | 12  | 0   | 74  | 1,012 | 33  | -                | -                | 0   | 0   | 0   | 29  | 8   | 585   |
| 2009   | 5,823    | 24                            | 25               | -                | 343              | 9   | 884 | 25  | 67  | 25  | 0   | 352 | 2,767 | 0   | -                | -                | 0   | 0   | 0   | 74  | 88  | 1,190 |
| Mumps  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| 2010   | 14       | 0                             | -                | -                | 0                | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 0     | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   | 4     |
| 2009   | 6        | 0                             | 0                | -                | 0                | 0   | 5   | 0   | 0   | 0   | 0   | 1   | 0     | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   | 0     |
| Rotavirus  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| 2010   | 6        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 2   | 0   | 0   | 0   | 1     | 1   | -                | -                | 2   | 0   | 0   | 0   | 0   | 0     |
| 2009   | 26       | 0                             | 0                | -                | 0                | 4   | 0   | 0   | 9   | 0   | 0   | 0   | 13    | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   | 0     |
| Pneumonia due to Haemophilus influenzae  |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| 2010   | 0        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   | 0     |
| 2009   | 2        | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | -                | -                | 0   | 0   | 0   | 2   | 0   | 0     |
| Tetanus [excluding neonatal]   |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |                  |                  |     |     |     |     |     |       |
| 2010   | 2        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0     | 0   | -                | -                | 0   | 1   | 0   | 0   | 0   | 0     |
| 2009   | 2        | 0                             | 0                | -                | 1                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1     | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   | 0     |

During the period under review there were zero (0) cases of Congenital Rubella Syndrome, Diphtheria, Measles, Meningitis due to Hib, Pertussis (Whooping cough), Poliomyelitis, Rubella (German Measles) and Tetanus Neonatorum.

Source: Communicable Disease 4-Weekly Reports submitted to the CAREC Epidemiology Division by May 21, 2010

- = No data received
- § = No reports were received for the reporting period from Antigua and Barbuda (2010), Aruba (2010, 2009), Bahamas (2010, 2009), Netherlands Antilles (2010, 2009) and St. Kitts and Nevis (2010)
- ‡ = The following countries have reported data on select communicable diseases: St. Kitts and Nevis (2009)
- j = Imported case

Last Wk. Rep. '10 = Last week reported for the reporting period in 2010

- Country Codes:
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  - STL - St. Lucia
  - 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 1 - 16, 2010 and 2009

| YEAR                         | ALL CMCs | CAREC MEMBER COUNTRIES (CMCs) |                  |                  |                  |     |     |     |     |     |     |     |       |     |     |                  |                  |     |     |     |     |     |
|------------------------------|----------|-------------------------------|------------------|------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|------------------|------------------|-----|-----|-----|-----|-----|
|                              |          | ANG                           | ANT <sup>‡</sup> | ARU <sup>§</sup> | BAH <sup>§</sup> | BAR | BER | BLZ | BVI | CAY | DOM | GRE | GUY   | JAM | MON | NET <sup>‡</sup> | SKN <sup>‡</sup> | STL | SUR | SVG | TCI | TNT |
| Last Wk. Rep. '10            |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |     |                  |                  |     |     |     |     |     |
| <b>Vector Borne Diseases</b> |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |     |                  |                  |     |     |     |     |     |
| 2010                         | 606      | 0                             | -                | -                | 1                | 12  | 0   | 106 | 0   | 3   | 2   | 1   | 324   | 35  | 0   | -                | 1                | 1   | 12  | 1   | 0   | 107 |
| 2009                         | 1,617    | 0                             | 0                | 845              | -                | 29  | 0   | 43  | 3   | 0   | 0   | 14  | 614   | 16  | 0   | -                | -                | 10  | 28  | 5   | 0   | 10  |
| 2010                         | 22       | 0                             | -                | -                | 0                | 0   | 19  | 0   | 0   | 0   | 0   | 0   | 0     | 1   | 0   | -                | -                | 0   | 2   | 0   | 0   | 0   |
| 2009                         | 57       | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 57  | 0   | 0   | 0   |
| 2010                         | 58       | 0                             | -                | -                | 1                | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 33    | 8   | 0   | -                | -                | 0   | 0   | 1   | 0   | 14  |
| 2009                         | 273      | 0                             | 0                | -                | 5                | 0   | 0   | 0   | 0   | 0   | 1   | 4   | 145   | 94  | 0   | -                | -                | 1   | 0   | 6   | 0   | 17  |
| 2010                         | 153      | 0                             | -                | -                | 2                | 0   | 8   | 0   | 0   | 0   | 0   | 1   | -     | 5   | 0   | -                | -                | 0   | 133 | 0   | 0   | 4   |
| 2009                         | 3,689    | 0                             | 0                | -                | 0                | 0   | 5   | 0   | 0   | 0   | 0   | 0   | 3,485 | 12  | 0   | -                | -                | 0   | 197 | 0   | 0   | 0   |
| 2010                         | 262      | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 262 | 0   | 0   | 0   |
| 2009                         | 269      | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 265 | 0   | 0   | 4   |
| <b>Other Diseases</b>        |          |                               |                  |                  |                  |     |     |     |     |     |     |     |       |     |     |                  |                  |     |     |     |     |     |
| 2010                         | 0        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   |
| 2009                         | 9        | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 4     | 1   | 0   | -                | -                | 0   | 0   | 0   | 0   | 3   |
| 2010                         | 2        | 0                             | -                | -                | 0                | 2   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   |
| 2009                         | 0        | 0                             | 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   |
| 2009                         | 4        | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   |
| 2010                         | 1        | 0                             | -                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 1   | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   |
| 2009                         | 0        | 0                             | 0                | -                | 0                | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 0   | -                | -                | 0   | 0   | 0   | 0   | 0   |
| 2010                         | 8        | 0                             | -                | -                | 0                | 0   | 4   | 0   | 0   | 0   | 0   | 0   | 0     | 0   | 1   | -                | -                | 0   | 0   | 1   | 0   | 2   |
| 2009                         | 21       | 0                             | 0                | -                | 0                | 0   | 12  | 0   | 0   | 0   | 0   | 0   | 5     | 0   | 0   | -                | -                | 1   | 0   | 3   | 0   | 0   |
| 2010                         | 214      | 0                             | -                | -                | 0                | 1   | 0   | 0   | 0   | 0   | 0   | 14  | 62    | 113 | 3   | -                | -                | 0   | 0   | 7   | 6   | 8   |
| 2009                         | 174      | 0                             | 0                | -                | 2                | 3   | 0   | 0   | 0   | 0   | 11  | 8   | 113   | 2   | -   | -                | 2                | 10  | 19  | 4   | 4   | 0   |

During the period under review there were zero (0) cases of Meningococcal Infection (due to Neisseria meningitidis) and Rabies (in humans).  
 Source: Communicable Disease 4-Weekly Reports submitted to the CAREC Epidemiology Division by May 21, 2010; 0 Communicable Disease 4-Weekly Reports and the CAREC Laboratory

Notes:  
 - = No data received  
 § = No reports were received for the reporting period from Antigua and Barbuda (2010), Aruba (2010, 2009), Bahamas (2010, 2009), Netherlands Antilles (2010, 2009) and St. Kitts and Nevis (2010)  
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- DOM - Dominica
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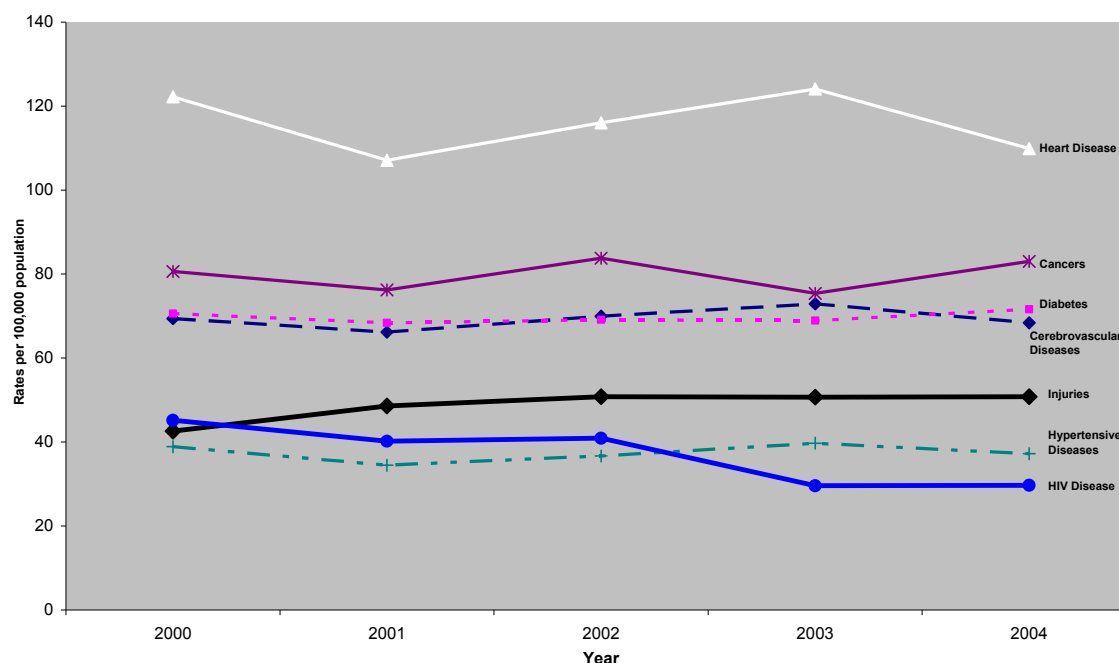
# NON-COMMUNICABLE DISEASES

## Surveillance of Risk Factors for Chronic Diseases

Chronic diseases are the major contributors to mortality and morbidity in the English speaking Caribbean (Figure 1). Such diseases are largely preventable because they are attributed to common modifiable (behavioural and biological) risk factors present in the population.

**FIGURE 1**

Crude Mortality Rates (per 100,000 population ) for Select Diseases: (2000-2004)  
CARICOM Member States



SOURCE: CAREC's Mortality Database

Surveys of risk factors of chronic diseases are being conducted in CAREC Member countries as a means of implementing ongoing risk factor surveillance for the prevention and control of chronic diseases.

## Methodology

In 2006, the World Health Organization STEPwise approach to Surveillance of NCD Risk Factors (WHO STEPS) methodology was accepted for use in conducting risk factor surveys and implementing surveillance of risk factors for chronic diseases in CAREC member countries. This standardized methodology is used internationally and facilitates the collection of data on demographics, as well as behavioural, biological and biochemical risk factors from a random sample of the population. Interviews are conducted at the household level using a standardized questionnaire (Pan American Version of the WHO STEPS Questionnaire). This questionnaire uses a STEPwise approach consisting of 3 levels (STEPS 1, 2 and 3); and includes core, expanded and optional modules. This approach facilitates some flexibility, as countries are able to choose which levels and modules they implement based on factors such as the resources available in country to support survey implementation.

Data collection using handheld electronic devices (eSTEPS) has recently been introduced. This methodology facilitates a more rapid production of survey results than when data is written on questionnaires .

To date, six CAREC member countries have completed risk factor surveys using the WHO STEPS methodology. The results are facilitating the planning of appropriate measures for the prevention and control of chronic diseases in the respective countries. Survey results also provide baseline for the Caribbean planning process for the implementation of the Port of Spain Declaration on Non-Communicable Diseases (NCDs) endorsed by Caribbean Heads of State in 2007.

In this issue of the CAREC Surveillance Report, the results of the risk factor survey conducted in St. Kitts in 2008 are highlighted. Plans are underway for the conduct of the risk factor survey in Nevis.

## The St. Kitts Risk Factor Survey

The St Kitts risk factor survey was a cross-sectional survey of the key chronic diseases and their risk factors in adults aged 25-64 years. The prevalence of risk factors for chronic diseases in the population is shown below in Table 1.

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

**TABLE 1: Risk Factors Examined in the St. Kitts Population**

| <b>Behavioural Risk Factors</b>                      | <b>Biological Risk Factors</b> | <b>Other</b>                       |
|--|--------------------------------|------------------------------------|
| 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 vegetable consumption) | Abdominal obesity              | Health seeking behaviour           |
| Physical inactivity                                  | Raised blood pressure          |                                    |
|  | Raised blood glucose           |                                    |
|  | Abnormal blood lipids          |                                    |

### **Response Rate**

The sample size calculated for the survey was 2177. One thousand, four hundred and forty-three (1,443) interviews were completed, thereby achieving an overall response rate of 66%.

# Key Findings

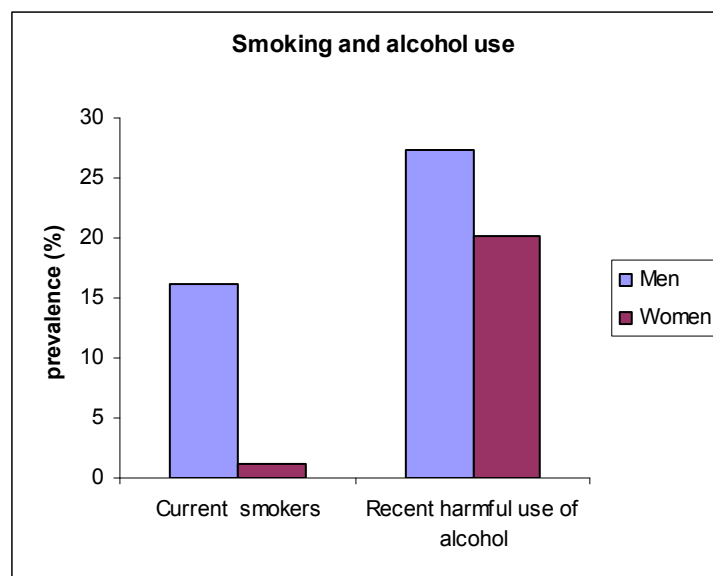
## *Behavioural risk factors*

### 1. Smoking and Alcohol Consumption

Smoking of tobacco was relatively low in the St. Kitts population, with a prevalence of current smoking of 8.7%. As shown in Figure 2, the proportion of smokers is higher among males (16.2%) as compared to females (1.1%).

The rates of alcohol consumption in the population was 29.8%, with 45.1% of men and 14.3% of women being classified as current drinkers. Excessive alcohol use is of concern in St. Kitts, with more than a fifth (23.8%) of all current alcohol drinkers using alcohol at levels which can be harmful to health<sup>1</sup>. It is also noteworthy that this problem seems to be only slightly less prevalent among women (20.1%) as compared to men (27.4%) [Figure 2].

**FIGURE 2: Smoking and Alcohol Use in the St. Kitts Population**

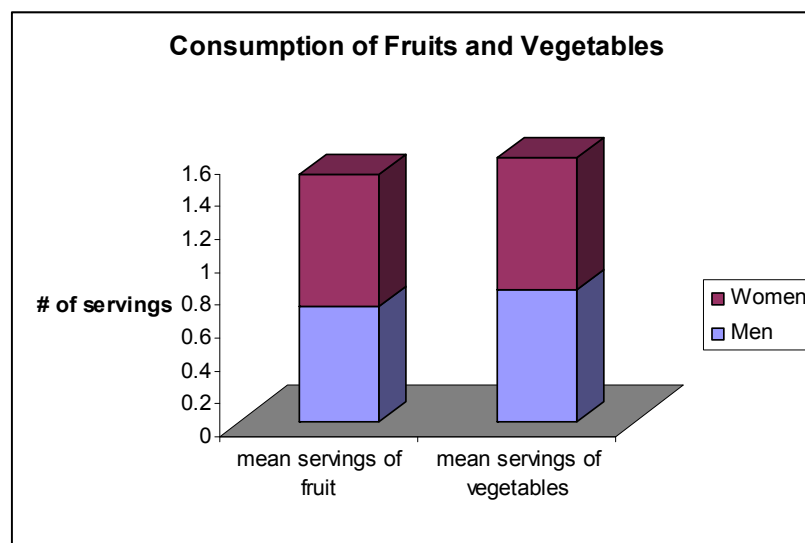


<sup>1</sup> Harmful drinking for males was defined as males having had 5 or more standard drinks on at least one day in the previous week, and for females having had 4 or more standard drinks on at least one day in the previous week.

## 2. Diet and Physical Activity

Consumption of fruits and vegetables in adequate amounts (5 servings per day) is a protective factor against chronic diseases. However, the use of fruits and vegetables in the diets of the Kittian population falls short of this protective target as shown in Figure 3. On average, just over one serving each of fruits and vegetables is consumed on a daily basis in the St. Kitts population.

**FIGURE 3: Consumption of Fruits and Vegetables in the St. Kitts Population**

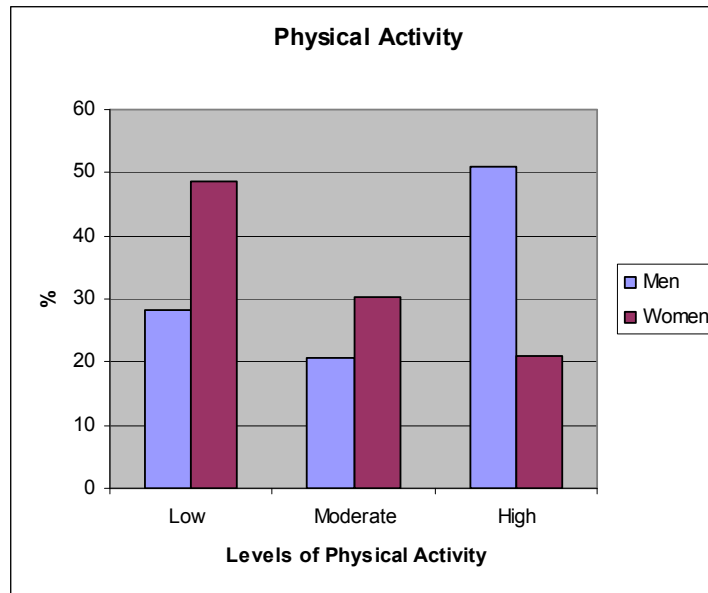


Physical activity is another protective factor for the prevention of chronic diseases. In the St. Kitts population women had lower levels of physical activity when compared to men. Almost a third of males (28.3%) and approximately half of females were classified as having low levels of physical activity, with just over half the males (51%) classified as having high levels of physical activity<sup>2</sup> (Figure 4). The percentage of the population with moderate levels of physical activity was less than a third (25.5%). The results indicate that both males and females undertake most of their physical activity during work. The amount of physical activity undertaken during leisure time was less than that done during work for both males and females.

<sup>2</sup> 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 levels of physical activity is defined as 7 or more days of any combination of walking for 30 minutes, moderate or vigorous-intensity activity (3000 metabolic (MET) minutes per week).

**FIGURE 4: Levels of Physical Activity in the St. Kitts Population**

## ***Biological Risk Factors***

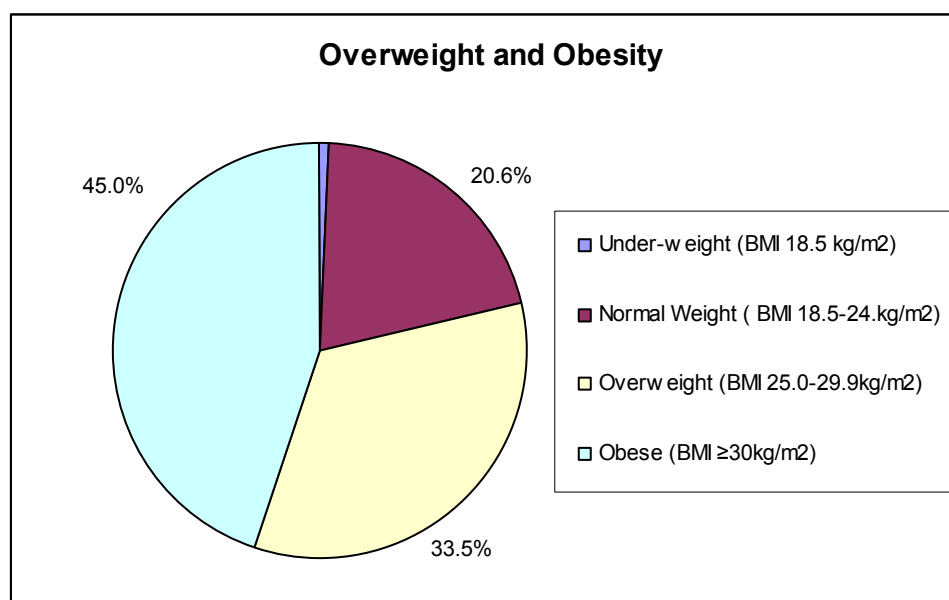
### **1. Raised Blood Pressure**

The mean systolic and diastolic blood pressure in the population was 132.4/78.9 mmHg in males and 123.5/76.7mmHg in females. More than a third of the men (33.2%) and almost a fifth (19.6%) of the women in St. Kitts, who were not taking medication for hypertension at the time of the survey, had raised blood pressures reading  $\geq 140/90$  mmHg; and 8.6% of males and 7% of females had raised blood pressures reading  $\geq 160/90$  mmHg. When persons who were taking medication for hypertension are included, the percentage of persons with raised blood pressures reading  $\geq 140/90$  mmHg was 35% and 8% had blood pressures  $\geq 160/90$  mmHg. This indicates that a proportion of persons who are taking medications for hypertension continue to have raised blood pressures.

## 2. Overweight and Obesity

More than three-quarters (78.5%) of the population were classified as overweight (defined as BMI  $\geq 25$  kg/m<sup>2</sup>)<sup>3</sup> with almost half (45.0%) of the population being classified as obese (BMI  $\geq 30$ kg/m<sup>2</sup>) as shown in Figure 5. Among males, almost three-quarters (74.1%) were classified as overweight, with more than a third (37.9%) of all men being obese. For females, 83.1% were classified as overweight, with more than half of all women (52.5%) being classified as obese.

**FIGURE 5: Overweight and Obesity in the St. Kitts Population**



## 3. Abdominal Obesity

Abdominal obesity is a risk factor for cardiovascular disease. Mean waist circumferences for males and females were 94.0 cm (37 inches) and 95.1cm (37.4 inches) respectively. The mean waist circumference of males (37 inches) was within acceptable levels<sup>4</sup>; but for females it exceeded the acceptable level of  $\leq 35$  inches (88.9cm). Consequently, women in St. Kitts seem to be at increased risk of cardiovascular diseases compared to men.

<sup>3</sup> Overweight and obesity combined

<sup>4</sup> Acceptable waist circumference for men:  $\leq 40$  inches (101.6 cm)



## Increased Risk for Chronic Diseases

There are five common risk factors for chronic non-communicable diseases which include current daily smokers, overweight and obesity ( $BMI \geq 25\text{kg/m}^2$ ), raised blood pressure ( $SBP \geq 140$  and/or  $DBP \geq 90\text{mmHg}$  or currently on medication for raised BP), consumption of less than 5 servings of fruits and vegetables per day and low levels of physical activity ( $<600$  metabolic (MET) minutes per week). Only 0.1 % of the St. Kitts population was classified at low risk for NCDs (that is having none of the 5 risk factors), while almost half (43.4%) of the productive population aged less than 45 years was classified as being at increased risk for NCDs with at least three of the key risk factors (Table 2).

**TABLE 2: Raised Risk for Chronic Diseases in the St. Kitts Population**

| Age Groupings | %<br>0 Risk Factors | %<br>1-2 Risk factors | %<br>3-5 Risk factors |
|---------------|---------------------|-----------------------|-----------------------|
| <b>25-44</b>  | 0.2                 | 56.4                  | 43.4                  |
| <b>45-64</b>  | 0.0                 | 32.6                  | 67.4                  |
| <b>25-64</b>  | <b>0.1</b>          | <b>49.2</b>           | <b>50.7</b>           |

The survey showed that both men and women in St. Kitts were at increased risk of chronic diseases with more than half (55.7%) of the women having 3 or more risk factors for chronic diseases as compared to 45.6% of men.

## **Conclusions and Recommendations**

The St. Kitts risk factor survey identified a very high prevalence of risk factors in the population, which is a predictor of a possible high future burden of chronic diseases. There is therefore an urgent need for policies and interventions to be implemented using a comprehensive and integrated public health approach to facilitate the reduction of risk factors for chronic diseases in the St. Kitts population.

The results of this survey provided important baseline information which will be useful for monitoring future trends regarding risk factors for chronic diseases, as well as for monitoring and evaluation of the impact of interventions and policies implemented for the prevention and control of chronic diseases in St. Kitts. It is recommended that the survey should be repeated within 3-5 years.

St. Kitts authorities are currently in the process of taking action based on the survey results to avert what could be a future catastrophe in terms of the predicted magnitude of chronic diseases in the country.

# NEWS AND ANNOUNCEMENTS

## INFLUENZA A (H1N1) - THE GLOBAL SITUATION

As of 30 May, 2010, worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 18,000 deaths. Active but declining transmission of pandemic influenza virus continued to be detected in parts of the Caribbean and Southeast Asia. In countries of the temperate Southern Hemisphere, there is no evidence to suggest that the winter influenza season has begun; however there has been limited localized pandemic influenza virus transmission in Chile. In the rest of the world, overall pandemic influenza virus transmission remains low. Seasonal influenza B viruses are currently the predominant type of influenza virus circulating globally, although at low levels. Of note, during the later part of May 2010, low but significant levels of predominantly seasonal influenza H3N2 viruses have been detected in several countries of East Africa.

In the tropical zone of the Americas, the most active areas of pandemic influenza virus transmission continue to be in parts of the Caribbean. In Cuba, pandemic influenza virus transmission has begun to decline after plateauing since mid-April 2010. In both Costa Rica and Columbia, there has been persistence of low level circulation of pandemic influenza virus since the beginning of 2010. Sporadic detections of pandemic and other seasonal influenza viruses, particularly type B, have been reported from several countries in the region during May 2010. Other respiratory viruses, for example Respiratory Syncytial Viruses (RSV), are known to be circulating to varying extents in different countries across the region.

Overall, in the temperate regions of the Northern and Southern Hemispheres, pandemic influenza viruses have been detected only sporadically during the past month. In the temperate southern hemisphere, Chile is the only country to recently report small number of pandemic influenza cases in a few areas of the country suggesting that overall transmission is currently limited. Other respiratory viruses, most notably RSV, are known to be circulating in Chile, Paraguay, and Argentina. There have been no recent detections of pandemic influenza virus in South Africa. In New Zealand and Australia, overall levels of ILI remain low; only sporadic detections of seasonal and pandemic influenza viruses have been recently reported in Australia.

The eighth meeting of the WHO Emergency Committee was held on 1 June, 2010. The Committee expressed the unanimous view that from a global perspective, while pandemic activity is continuing, the period of most intense pandemic activity appears likely to have passed for many parts of the world. Committee members stressed that it remains critical for countries to continue to maintain vigilance concerning the pandemic, including all necessary public health measures for disease control as well as influenza virus and disease surveillance. A further meeting of the Emergency Committee to reassess the epidemiological situation would be convened by mid July 2010, when information from the winter influenza season in the Southern Hemisphere will be available.

Source: World Health Organization

## IMPORTED CHIKUNGUNYA IN FRANCE

In May 2010, departments of the south of France reported imported cases of chikungunya from Reunion Island. Chikungunya virus is an arbovirus, with transmission from person to person via *Aedes* mosquitoes. Symptoms of chikungunya virus infection are similar to that of dengue fever and include high fever, arthralgia, myalgia, headache and rash. Treatment is usually symptomatic (analgesic, antipyretic). The prognosis is usually favourable, without sequelae, but it may result in a chronic phase characterized by persistent arthralgia.

During 2005-2007, Reunion and Mayotte reported chikungunya epidemics and imported cases were reported in French territories in the Caribbean. As such, given that the region is at the start of the rainy season and the *Aedes* mosquito is present in many CAREC member countries, an index of suspicion for the introduction of chikungunya should be maintained.

Source: Notre-Planete.info [in French, trans. Corr.SB, edited] <[http://www.notre-planete.info/actualites/actu\\_2430\\_dengue\\_chikungunya\\_France.php](http://www.notre-planete.info/actualites/actu_2430_dengue_chikungunya_France.php)>

*The CAREC Surveillance Report (CSR) is available on CAREC's website:*

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*Correspondence should be sent to the CSR Editor at:*

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