

**EH1: NUMBER OF REPORTED CASES AND INCIDENCE
OF ENVIRONMENTALLY RELATED DISEASES****DK****Concept and Definition**

Environmentally related diseases refer to diseases that cause an interruption, cessation or disorder of human bodily functions, systems or organs due to unfavorable environmental factors. According to the Dictionary of Epidemiology, edited for the International Epidemiological Association by John M. Last, a case in epidemiology is a person in the population or study group identified as having the particular disease, health disorder, or condition under investigation. A variety of criteria may be used to identify cases, e.g. individual physician's diagnoses, registries and notifications, abstracts of clinical records, surveys of the general population, and population screening, among others. The epidemiological definition of a case is not necessarily the same as the ordinary clinical definition. (<http://www.paho.org/English/SHA/be991norms.htm>)

A **CASE** refers to a person who has the particular disease, health disorder, or condition which meets the case definition for surveillance and outbreak investigation purposes. The definition of a case for surveillance and outbreak investigation purpose is not necessarily the same as the ordinary clinical definition.

PREVALENCE refers to the number of instances of illness or of persons ill, or of any other event such as accidents, in a specified population, without any distinction between new and old cases. Prevalence may be recorded at a stated moment (point prevalence) or during a given period of time (period prevalence). (*Prevalence and Incidence. WHO Bulletin, 1966; 35:783-784*).

An **INCIDENCE** is the number of instances of illness commencing, or of persons falling ill, during a given period in a specified population. Incidence is usually expressed as a rate, the denominator being the average number of persons in the specified population during the defined period or the estimated number of persons at the mid-point of that period (*Prevalence and Incidence. WHO Bulletin, 1966, 35: 783-784*).

REPORTED CASES refers to the number of cases reported/registered in a specific year, for a given country, territory, or geographic area.

Types of Environmentally Related Diseases

Gastroenteritis is an inflammation of the stomach and intestines with many possible causes, such as: bacteria (responsible for acute food poisoning), parasites, food intolerances, drugs (antibiotics in particular) or most common viral infections. Symptoms can include nausea, vomiting, diarrhea, fever, abdominal cramping and/or pain and a general feeling of tiredness. It is often called the "stomach flu", although it is not caused by the influenza viruses. (*Please refer to the Center for Disease Control website at*

<http://www.cdc.gov/ncidod/dvrd/revb/gastro/faq.htm>.)

Typhoid: Typhoid fever is a bacterial infection caused by ingesting contaminated food or water. Symptoms are characterized by headaches, nausea and loss of appetite.

Malaria is caused by a parasite called *Plasmodium*, which is transmitted via the bites of infected mosquitoes. In the human body, the parasites multiply in the liver, and then infect red blood cells. Symptoms of malaria include fever, headache, and vomiting, and usually appear between 10 and 15 days after the mosquito bite. If not treated, malaria can quickly become life-threatening by disrupting the blood supply to vital organs.

(Please refer to the World Health Organization's website at <http://www.who.int/topics/malaria/en/>)

Cholera is an acute intestinal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*. It has a short incubation period, from less than one day to five days, and produces an enterotoxin that causes a copious, painless, watery diarrhoea that can quickly lead to severe dehydration and death if treatment is not promptly given. Vomiting also occurs in most patients.

(Please refer to the World Health Organization's website at <http://www.who.int/topics/cholera/en/>)

Poisoning: A poison is any substance that causes harm if it gets into the body. Harm can be mild (for example, headache or nausea) or severe (for example, fits or very high fever), and severely poisoned people may die. When people are in contact with a poison they are said to be exposed to it. Exposure may happen only once or many times. *Acute exposure* is a single contact that lasts for seconds, minutes or hours, or several exposures over about a day or less. *Chronic exposure* is contact that lasts for many days, months or years. It may be continuous or broken by periods when there is no contact. Chronic exposure to small amounts of poison may not cause any signs or symptoms of poisoning at first. It may be many days or months before there is enough chemical inside the body to cause poisoning.

Dengue is an acute, febrile illness, caused by one of four types of dengue virus. Viral transmission is through the bite of an infected *Aedes Aegypti* mosquito. The disease occurs in all countries infested with the vector and is prevalent in the Caribbean. Dengue fever is usually seasonal, with an increase in cases occurring after the onset of the rainy season.

Accidental Pesticide Poisoning: A case of *Accidental Pesticide Poisoning* is defined as any person who, after having been exposed to one or more pesticides, presents clinical manifestations of poisoning, or specific laboratory test results compatible with poisoning, in the first 24 hours after contact. Accidental refers to the unintentional and unexpected exposure to pesticides. This includes food poisoning. (PAHO/WHO *Epidemiological Bulletin*, Vol. 22 No. 4, December 2000)

Diarrhoea is the passage of three (3) or more loose or liquid stools per day, or more frequently than is normal for the individual. It is usually a symptom of gastrointestinal infection, which can be caused by a variety of bacterial, viral and parasitic organisms. Infection is spread through contaminated food or drinking-water, or from person to person as a result of poor hygiene. Severe diarrhea leads to fluid loss, and may be life-threatening, particularly in young children and people who are malnourished or have impaired immunity.

(Please refer to the World Health Organization's website at <http://www.who.int/topics/diarrhoea/en/>)

Respiratory tract diseases are diseases that affect the air passages, including the nasal passages, the bronchi and the lungs. They range from acute infections, such as pneumonia and bronchitis, to chronic conditions such as asthma and chronic obstructive pulmonary disease. *(Please refer to the World Health Organization's website at http://www.who.int/topics/respiratory_tract_diseases/en/ [last accessed: June 15th 2009])*

Other: Other refers to any other environmentally related diseases not previously mentioned.

Method of Computation

The number of reported cases and incidence of environmentally related diseases is classified from data obtained from Member States/Associate Members according to the categories: Gastroenteritis, Typhoid, Malaria, Cholera, Accidental Pesticide Poisoning, Dengue, Poisoning, Diarrhoea, Respiratory Diseases and Other as defined above.

Indicator Relevance

Setting priorities for action to reduce hazardous environmental exposures and their health effects, and evaluating the effectiveness of the actions carried out, require reliable information. This indicator, the number of reported cases and incidence of environmentally related diseases, provides the means for that information to be collected to ensure good decision making and the monitoring of potentially deadly exposure to environmental diseases.

Data Assessment

Of the eighteen Member States and Associate Members in the Community who usually submit data, only nine provided data for this indicator. Those nine countries were The Bahamas, Belize, Dominica, Grenada, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Bermuda and The Turks and Caicos Islands. Of those nine countries, only The Bahamas, Belize, Dominica and Bermuda provided detailed data.

The degree of harmonisation for this indicator is difficult to assess since definitions were not provided by reporting Member States and Associate Members.

Data Sources

Please refer to **Appendix 1.3.1 (a)** for the sources of the data on the number of reported cases and incidence of environmentally related diseases of Member States and Associate Members.

Evaluation

Table 3.1 below reveals that *gastroenteritis*, *malaria*, *dengue* and *respiratory diseases* were the most significant environmentally related diseases in the Region during the period. *Gastroenteritis* was found to be prevalent in most Member States but more pronounced in Trinidad and Tobago. *Malaria*, meanwhile, was most prevalent in Suriname whereas in Trinidad and Tobago *dengue* was more common. Belize also reported a significant number of total cases of environmentally related diseases during the period with *Malaria* being the most common. Eight countries also presented data by gender with no significant disparities between men and women. Most notable was the increased cases of *Respiratory diseases*, a significant indicator of pollution, for most Member States from a total of 1,551 cases in 1998¹ to 10,179 cases in 2004². For both Associate Members, *Respiratory disease* was the highest reported environmentally related disease.

During the period 1998 to 2003, *Gastroenteritis* was the most significant environmental related disease in The Bahamas followed by *Other environmental related disease* which includes *Foodborne Illnesses*, *Leptospirosis*, *Salmonellosis*, *Shigellosis*, *Amoebiasis* of which *Foodborne Illnesses* accounted for more than 90 per cent of this value. Cases of *Gastroenteritis* in The Bahamas ranged from 1,493 in 1999 to 4,904 in 2002.

Data for Belize showed that *Gastroenteritis*, *Malaria*, *Diarrhoea* and *Respiratory diseases* were the most significant among reported environmental related diseases for the period 1998 to 2004. Reported cases of environmental related diseases were highest in 1998 (8,797) and 1999 (9,044) where *Diarrhoea* and *Gastroenteritis* accounted for 58 and 68 per cent of total cases, respectively. *Malaria* was the most significant environmental related disease in Belize during the period 1999 to 2003.

Reported cases of environmental related diseases revealed that *Gastroenteritis* was most significant for Dominica during 1998 to 2004. In Grenada, an alarming number of cases of *Respiratory diseases* were reported during 1999 to 2004 ranging from a high of 9,503 cases in 2002 to 6,954 cases in 2001 and representing more than 70 per cent all cases reported. St. Vincent and the Grenadines reported data on *Gastroenteritis* cases only for the period 2000 to 2004 with the highest number of cases 3,787 reported in 2003.

¹ Includes totals for The Bahamas, Belize and Bermuda.

² Excludes The Bahamas for which data is not available.

Suriname reported significant cases of *Malaria* and *Gastroenteritis*; *Malaria* being the highest with 9,936 cases reported in 1999, 16,088 in 2000, 13,206 in 2001 and 14,683 in 2002. In Trinidad and Tobago, for 1998-2004, cases of *Gastroenteritis* were most significant averaging 8,858 during the period.

Table 3.1: Number of Reported Cases and Incidence of Environmentally Related Diseases

| Country | Year | Gastroenteritis | | | Typhoid | | | Malaria | | | Cholera | | |
|---------|------|-----------------|-------|--------------|---------|-----|-----------|---------|-------|------------|---------|-----|-----|
| | | F | M | T | F | M | T | F | M | T | F | M | T |
| BS | 1998 | ... | ... | 1,679 | ... | ... | 9 | ... | ... | 21 | ... | ... | 0 |
| | 1999 | ... | ... | 1,493 | ... | ... | 1 | ... | ... | 30 | ... | ... | 0 |
| | 2000 | ... | ... | 2,544 | ... | ... | 3 | ... | ... | 2 | ... | ... | 0 |
| | 2001 | ... | ... | 2,521 | ... | ... | 1 | ... | ... | 4 | ... | ... | 0 |
| | 2002 | ... | ... | 4,904 | ... | ... | 0 | ... | ... | 1 | ... | ... | 0 |
| | 2003 | ... | ... | 3,759 | ... | ... | 1 | ... | ... | 1 | ... | ... | 0 |
| BZ | 1998 | 1,227 | 1,284 | 2,511 | 0 | 1 | 1 | 816 | 1,170 | 1,986 | 17 | 9 | 26 |
| | 1999 | 411 | 529 | 940 | 0 | 0 | 0 | 835 | 1,018 | 1,853 | 5 | 7 | 12 |
| | 2000 | 406 | 493 | 899 | 0 | 0 | 0 | 655 | 831 | 1,486 | 0 | 0 | 0 |
| | 2001 | 313 | 390 | 703 | 0 | 0 | 0 | 503 | 660 | 1,163 | 0 | 0 | 0 |
| | 2002 | 134 | 159 | 293 | 0 | 0 | 0 | 485 | 628 | 1,113 | 0 | 0 | 0 |
| | 2003 | 236 | 240 | 476 | 0 | 1 | 1 | 550 | 774 | 1,324 | 0 | 0 | 0 |
| | 2004 | 1,550 | 1,455 | 3,005 | 2 | 1 | 3 | 466 | 599 | 1,065 | 0 | 0 | 0 |
| DM | 1998 | 27 | 29 | 56 | 5 | 5 | 10 | 1 | 1 | 2 | ... | ... | ... |
| | 1999 | 33 | 25 | 58 | 1 | 2 | 3 | 0 | 0 | 0 | ... | ... | ... |
| | 2000 | 9 | 7 | 16 | 0 | 0 | 0 | 0 | 1 | 1 | ... | ... | ... |
| | 2001 | 15 | 40 | 55 | 1 | 0 | 1 | 0 | 1 | 1 | ... | ... | ... |
| | 2002 | 120 | 117 | 237 | 0 | 2 | 2 | 0 | 0 | 0 | ... | ... | ... |
| | 2003 | 78 | 57 | 135 | 1 | 1 | 2 | 0 | 0 | 0 | ... | ... | ... |
| | 2004 | 54 | 64 | 118 | 0 | 0 | 0 | 0 | 0 | 0 | ... | ... | ... |
| GD | 1999 | ... | ... | 2,571 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| | 2000 | ... | ... | 1,532 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| | 2001 | ... | ... | 1,513 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| | 2002 | ... | ... | 1,058 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| | 2003 | ... | ... | 1,566 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| | 2004 | ... | ... | 1,376 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| VC | 2000 | 1,312 | 1,179 | 2,491 | ... | ... | ... | ... | ... | 0 | ... | ... | 0 |
| | 2001 | 1,144 | 987 | 2,131 | ... | ... | ... | ... | ... | 0 | ... | ... | 0 |
| | 2002 | 844 | 691 | 1,535 | ... | ... | ... | ... | ... | 0 | ... | ... | 0 |
| | 2003 | 1,974 | 1,813 | 3,787 | ... | ... | ... | ... | ... | 0 | ... | ... | 0 |
| | 2004 | 1,093 | 1,028 | 2,121 | ... | ... | ... | ... | ... | 0 | ... | ... | 0 |
| SR | 1998 | ... | ... | (a) 6,672 | ... | ... | (b) 12 | ... | ... | (d) ... | ... | ... | 0 |
| | 1999 | ... | ... | 5,875 | ... | ... | 2 | ... | ... | ... | ... | ... | 0 |
| | 2000 | ... | ... | 5,871 | ... | ... | 0 | ... | ... | 9,936 | ... | ... | ... |
| | 2001 | ... | ... | 7,557 | ... | ... | 2 | ... | ... | 16,088 | ... | ... | ... |
| | 2002 | ... | ... | 7,645 | ... | ... | 0 | ... | ... | 13,206 | ... | ... | ... |
| | 2003 | ... | ... | 5,246 | ... | ... | ... | ... | ... | 14,683 | ... | ... | ... |
| | 2004 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Table 3.1 Contd. Number of Reported Cases and Incidence of Environmentally Related Diseases

| Country | Year | Poisoning | | | Dengue | | | Accidental pesticide | | | Diarrhea | | |
|---------|------|-----------|-----|------------|--------|-----|-------|----------------------|-----|-----|----------|-------|-------|
| | | F | M | T | F | M | T | F | M | T | F | M | T |
| BS | 1998 | 81 | 45 | 126 | ... | ... | 336 | 5 | 7 | 12 | ... | ... | ... |
| | 1999 | 38 | 39 | 77 | ... | ... | 0 | 3 | 1 | 4 | ... | ... | ... |
| | 2000 | 45 | 40 | 85 | ... | ... | 0 | 2 | 2 | 4 | ... | ... | ... |
| | 2001 | 64 | 51 | 115 | ... | ... | 0 | 3 | 2 | 5 | ... | ... | ... |
| | 2002 | 50 | 28 | 78 | ... | ... | 0 | 1 | 9 | 10 | ... | ... | ... |
| | 2003 | 75 | 32 | 107 | ... | ... | 180 | 3 | 4 | 7 | ... | ... | ... |
| BZ | 1998 | 20 | 2 | 22 | ... | ... | ... | 3 | 3 | 6 | 1,268 | 1,346 | 2,614 |
| | 1999 | 23 | 23 | 46 | 2 | 4 | 6 | 0 | 8 | 8 | 431 | 559 | 990 |
| | 2000 | 14 | 21 | 35 | 2 | 2 | 4 | 1 | 1 | 2 | 428 | 507 | 935 |
| | 2001 | 16 | 30 | 46 | 2 | 2 | 4 | 3 | 3 | 6 | 343 | 426 | 769 |
| | 2002 | 24 | 35 | 59 | 25 | 16 | 41 | 7 | 15 | 22 | 143 | 170 | 313 |
| | 2003 | 19 | 36 | 55 | 5 | 2 | 7 | 2 | 16 | 18 | 293 | 283 | 576 |
| | 2004 | 18 | 39 | 57 | 24 | 17 | 41 | 2 | 9 | 11 | 1,624 | 1,544 | 3,168 |
| DM | 1998 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 15 | 4 | 19 |
| | 1999 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 | 3 | 8 |
| | 2000 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4 | 1 | 5 |
| | 2001 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 2 |
| | 2002 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 12 | 5 | 17 |
| | 2003 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 12 | 7 | 19 |
| | 2004 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6 | 4 | 10 |
| GD | 1999 | ... | ... | 0 | ... | ... | 29 | ... | ... | 0 | ... | ... | 452 |
| | 2000 | ... | ... | 0 | ... | ... | 16 | ... | ... | 0 | ... | ... | 517 |
| | 2001 | ... | ... | 0 | ... | ... | 19 | ... | ... | 0 | ... | ... | 446 |
| | 2002 | ... | ... | 0 | ... | ... | 282 | ... | ... | 0 | ... | ... | 423 |
| | 2003 | ... | ... | 0 | ... | ... | 21 | ... | ... | 0 | ... | ... | 533 |
| | 2004 | ... | ... | 0 | ... | ... | 8 | ... | ... | 0 | ... | ... | 380 |
| VC | 2000 | ... | ... | ... | 2 | 1 | 3 | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | 2 | 1 | 3 | ... | ... | ... | ... | ... | ... |
| | 2002 | ... | ... | ... | 54 | 75 | 129 | ... | ... | ... | ... | ... | ... |
| | 2003 | ... | ... | ... | 1 | 2 | 3 | ... | ... | ... | ... | ... | ... |
| | 2004 | ... | ... | ... | 2 | 2 | 4 | ... | ... | ... | ... | ... | ... |
| SR | 1998 | ... | ... | (c) 198 | ... | ... | (e) | ... | ... | ... | ... | ... | ... |
| | 1999 | ... | ... | 16 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2000 | ... | ... | 8 | ... | ... | 1,093 | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | 8 | ... | ... | 516 | ... | ... | ... | ... | ... | ... |
| | 2002 | ... | ... | 3 | ... | ... | 446 | ... | ... | ... | ... | ... | ... |
| | 2003 | ... | ... | ... | ... | ... | 218 | ... | ... | ... | ... | ... | ... |
| | 2004 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Table 3.1 Contd. Number of Reported Cases and Incidence of Environmentally Related Diseases

| Country | Year | Respiratory diseases | | | Other | | | TOTAL CASES, all causes | | |
|---------|------|----------------------|-----|-------|-------|-----|-------|-------------------------|-------|--------|
| | | F | M | T | F | M | T | F | M | T |
| BS | 1998 | 129 | 134 | 263 | ... | ... | 1,177 | ... | ... | 3,623 |
| | 1999 | 161 | 172 | 333 | ... | ... | 1,153 | ... | ... | 3,091 |
| | 2000 | 156 | 176 | 332 | ... | ... | 999 | ... | ... | 3,969 |
| | 2001 | 124 | 131 | 255 | ... | ... | 1,019 | ... | ... | 3,920 |
| | 2002 | 140 | 191 | 331 | ... | ... | 1,333 | ... | ... | 6,657 |
| | 2003 | 171 | 194 | 365 | ... | ... | 1,213 | ... | ... | 5,633 |
| BZ | 1998 | 375 | 439 | 814 | ... | ... | ... | 4,101 | 4,693 | 8,794 |
| | 1999 | 370 | 430 | 800 | ... | ... | ... | 2,447 | 3,008 | 5,455 |
| | 2000 | 408 | 515 | 923 | ... | ... | ... | 2,322 | 2,885 | 5,207 |
| | 2001 | 392 | 505 | 897 | ... | ... | ... | 1,964 | 2,521 | 4,485 |
| | 2002 | 360 | 442 | 802 | ... | ... | ... | 1,538 | 1,907 | 3,445 |
| | 2003 | 463 | 548 | 1,011 | ... | ... | ... | 2,031 | 2,448 | 4,479 |
| | 2004 | 413 | 434 | 847 | ... | ... | ... | 4,512 | 4,532 | 9,044 |
| DM | 1998 | ... | ... | 0 | ... | ... | ... | 48 | 39 | 87 |
| | 1999 | ... | ... | 0 | ... | ... | ... | 39 | 35 | 74 |
| | 2000 | ... | ... | 0 | ... | ... | ... | 13 | 9 | 22 |
| | 2001 | ... | ... | 0 | ... | ... | ... | 17 | 42 | 59 |
| | 2002 | 12 | 19 | 31 | ... | ... | ... | 132 | 124 | 256 |
| | 2003 | ... | ... | 0 | ... | ... | ... | 91 | 65 | 156 |
| | 2004 | ... | ... | 0 | ... | ... | ... | 60 | 68 | 128 |
| GD | 1999 | ... | ... | 8,560 | ... | ... | ... | ... | ... | 11,612 |
| | 2000 | ... | ... | 9,654 | ... | ... | ... | ... | ... | 11,719 |
| | 2001 | ... | ... | 6,954 | ... | ... | ... | ... | ... | 8,932 |
| | 2002 | ... | ... | 9,503 | ... | ... | ... | ... | ... | 11,266 |
| | 2003 | ... | ... | 9,170 | ... | ... | ... | ... | ... | 11,290 |
| | 2004 | ... | ... | 7,698 | ... | ... | ... | ... | ... | 9,462 |
| VC | 2000 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2002 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2003 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2004 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| SR | 1998 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 1999 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2000 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2002 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2003 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2004 | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Table 3.1 Contd. Number of Reported Cases and Incidence of Environmentally Related Diseases

| Country | Year | Gastroenteritis | | | Typhoid | | | Malaria | | | Cholera | | |
|-------------------|------|-----------------|-----|--------|---------|-----|-----|---------|-----|-----|---------|-----|-----|
| | | F | M | T | F | M | T | F | M | T | F | M | T |
| TT | 1998 | ... | ... | 14,109 | ... | ... | ... | ... | ... | 8 | ... | ... | 0 |
| | 1999 | ... | ... | 19,796 | ... | ... | ... | ... | ... | 8 | ... | ... | 0 |
| | 2000 | ... | ... | 17,356 | ... | ... | 3 | ... | ... | 17 | ... | ... | 0 |
| | 2001 | ... | ... | 22,694 | ... | ... | ... | ... | ... | 11 | ... | ... | 0 |
| | 2002 | ... | ... | 16,897 | ... | ... | ... | ... | ... | 8 | ... | ... | 0 |
| | 2003 | ... | ... | 18,925 | ... | ... | ... | ... | ... | 9 | ... | ... | 0 |
| | 2004 | ... | ... | 22,231 | ... | ... | ... | ... | ... | 11 | ... | ... | 0 |
| ASSOCIATE MEMBERS | | | | | | | | | | | | | |
| BM | 1998 | 36 | 24 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1999 | 22 | 26 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2000 | 30 | 26 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2001 | 20 | 21 | 41 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 |
| | 2002 | 37 | 21 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2003 | 29 | 22 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2004 | 27 | 23 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TC | 1998 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 1999 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2000 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | 158 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |
| | 2002 | ... | ... | 99 | ... | ... | 0 | ... | ... | 2 | ... | ... | 0 |
| | 2003 | ... | ... | 217 | ... | ... | 0 | ... | ... | 1 | ... | ... | 0 |
| | 2004 | ... | ... | 371 | ... | ... | 0 | ... | ... | 0 | ... | ... | 0 |

Table 3.1 Contd. Number of Reported Cases and Incidence of Environmentally Related Diseases

| Country | Year | Poisoning | | | Dengue | | | Accidental pesticide | | | Diarrhoea | | |
|--------------------------|------|-----------|-----|-----|--------|-----|-------|----------------------|-----|-----|-----------|-----|-----|
| | | F | M | T | F | M | T | F | M | T | F | M | T |
| TT | 1998 | ... | ... | ... | ... | ... | 2,984 | ... | .. | ... | ... | ... | ... |
| | 1999 | ... | ... | ... | ... | ... | 1,199 | ... | .. | ... | ... | ... | ... |
| | 2000 | ... | ... | ... | ... | ... | 2,235 | ... | .. | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | ... | ... | 2,417 | ... | .. | ... | ... | ... | ... |
| | 2002 | ... | ... | ... | ... | ... | 6,311 | ... | .. | ... | ... | ... | ... |
| | 2003 | ... | ... | ... | ... | ... | 2,371 | ... | .. | ... | ... | ... | ... |
| | 2004 | ... | ... | ... | ... | ... | 594 | ... | .. | ... | ... | ... | ... |
| ASSOCIATE MEMBERS | | | | | | | | | | | | | |
| BM | 1998 | 14 | 13 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 9 |
| | 1999 | 15 | 11 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 9 |
| | 2000 | 28 | 21 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 | 14 |
| | 2001 | 24 | 13 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| | 2002 | 27 | 16 | 43 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2003 | 13 | 14 | 27 | 0 | 1 | 1 | 0 | 0 | 0 | 4 | 1 | 5 |
| | 2004 | 21 | 11 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| TC | 1998 | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... |
| | 1999 | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... |
| | 2000 | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... |
| | 2002 | ... | ... | 31 | ... | ... | 0 | ... | .. | ... | ... | ... | ... |
| | 2003 | ... | ... | 104 | ... | ... | 0 | ... | .. | ... | ... | ... | ... |
| 2004 | ... | ... | 172 | ... | ... | 0 | ... | .. | ... | ... | ... | ... | |

Table 3.1 Contd. Number of Reported Cases and Incidence of Environmentally Related Diseases

| Country | Year | Respiratory diseases | | | Other | | | TOTAL CASES, all causes | | |
|--------------------------|------|----------------------|-----|-------|-------|-----|-----|-------------------------|-----|-------|
| | | F | M | T | F | M | T | F | M | T |
| TT | 1998 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 1999 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2000 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2002 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2003 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2004 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ASSOCIATE MEMBERS | | | | | | | | | | |
| BM | 1998 | 229 | 245 | 474 | ... | ... | ... | 284 | 286 | 570 |
| | 1999 | 314 | 296 | 610 | ... | ... | ... | 359 | 334 | 693 |
| | 2000 | 262 | 263 | 525 | ... | ... | ... | 325 | 319 | 644 |
| | 2001 | 208 | 265 | 473 | ... | ... | ... | 254 | 301 | 555 |
| | 2002 | 201 | 212 | 413 | ... | ... | ... | 265 | 250 | 515 |
| | 2003 | 239 | 202 | 441 | ... | ... | ... | 285 | 240 | 525 |
| | 2004 | 198 | 228 | 426 | ... | ... | ... | 251 | 262 | 513 |
| TC | 1998 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 1999 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2000 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 2001 | ... | ... | ... | ... | ... | ... | ... | ... | 158 |
| | 2002 | ... | ... | 429 | ... | ... | ... | ... | ... | 561 |
| | 2003 | ... | ... | 1,635 | ... | ... | ... | ... | ... | 1,957 |
| | 2004 | ... | ... | 1,226 | ... | ... | ... | ... | ... | 1,769 |

EH2: MDG 8: ENSURE ENVIRONMENTAL SUSTAINABILITY**Number of Households by Type of Sanitation facilities****Proportion of population with access to improved sanitation, urban and rural**

DK

Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation**Concepts and Definitions**

The household is defined as follows: (a) a one-person household, defined as an arrangement in which one person makes provisions for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household; and (b) a multi-person household, defined as a group of two or more persons living together who make common provisions for food or other essentials for living. The persons in the group may pool their incomes and have a common budget. They may be related or unrelated or a combination of both related and unrelated. (Please refer to the United Nations Principles and Recommendations for Population and Housing Censuses, Revision 1 (1997))

A *sanitary facility* is a unit for disposal of human excreta which isolates faeces from contact with people, animals, crops and water sources.

The number of households by sanitation facilities describes the types of toilet facilities available to households.

Types of Sanitation Facilities

W.C. Linked to Sewer: This is a flush toilet or water closet (W.C.), which fills from a piped water supply and empties into a sewerage disposal system.

W.C. Cesspit/Septic Tank is a waterborne toilet facility and empties into a cesspit or septic tank (a tank in which sewage is decomposed by the action of bacteria).

A *pit latrine* is a type of toilet facility that is available to the household outside of the dwelling. It is not waterborne.

None refers to households that are without sanitary facilities.

Other refers to all other sanitary facilities not so far mentioned.

Method of Computation

The number of households by sanitation facilities is classified from data obtained from Member States/Associate Members according to the categories: W.C. Linked to Sewer, W.C. Cesspit/Septic Tank, Pit latrine, None, Other and Not Stated as defined under the concepts and definition.

Indicator Relevance

The number of households by type of sanitation facilities is a basic indicator useful for assessing human health as it is a measure of the number of households that have access to basic/improved sanitary facilities. Accessibility to adequate excreta disposal facilities is fundamental to decreasing the faecal risk and the frequency of associated environmental diseases.

Data Assessment

Definitions for this indicator were not provided by Member States/Associate Members and therefore the degree of harmonisation is impossible to assess.

Data Sources

Please refer to **Appendix 1.3.2 (a)** for the sources of the data on the number of households by type of sanitation facilities of Member States and Associate Members.

Evaluation

The data presented in *Tables 3.2 (a) and (b)* shows that the *W.C. Cesspit/Septic Tank* was the most commonly used sanitation facility in the Region with 44.6 per cent of all households followed by the *Pit Latrine* with 33.6 per cent. 2.3 per cent of households in the Region reported no sanitation facility. Among Member States, Barbados reported the highest percentage of households using the *W.C. Cesspit/Septic Tank* as the most commonly used sanitation facility at 81.3 per cent followed by St. Kitts and Nevis with 78.1 per cent of households. Bermuda reported 90 per cent of households using the *W.C. Cesspit/Septic Tank* as the most used sanitation facility among Associated Members and this was the highest reported percentage in the Region.

In the Region only 17 per cent of households were linked to a *sewerage disposal system* and this was highest in Anguilla (89.9 per cent) followed by Antigua and Barbuda (72.7 per cent).

The *Pit Latrine* was most common in Guyana where more than 57.6 per cent of households reportedly used this method of sanitation followed by St. Vincent and the Grenadines (44.3 per cent) and Belize (44 per cent).

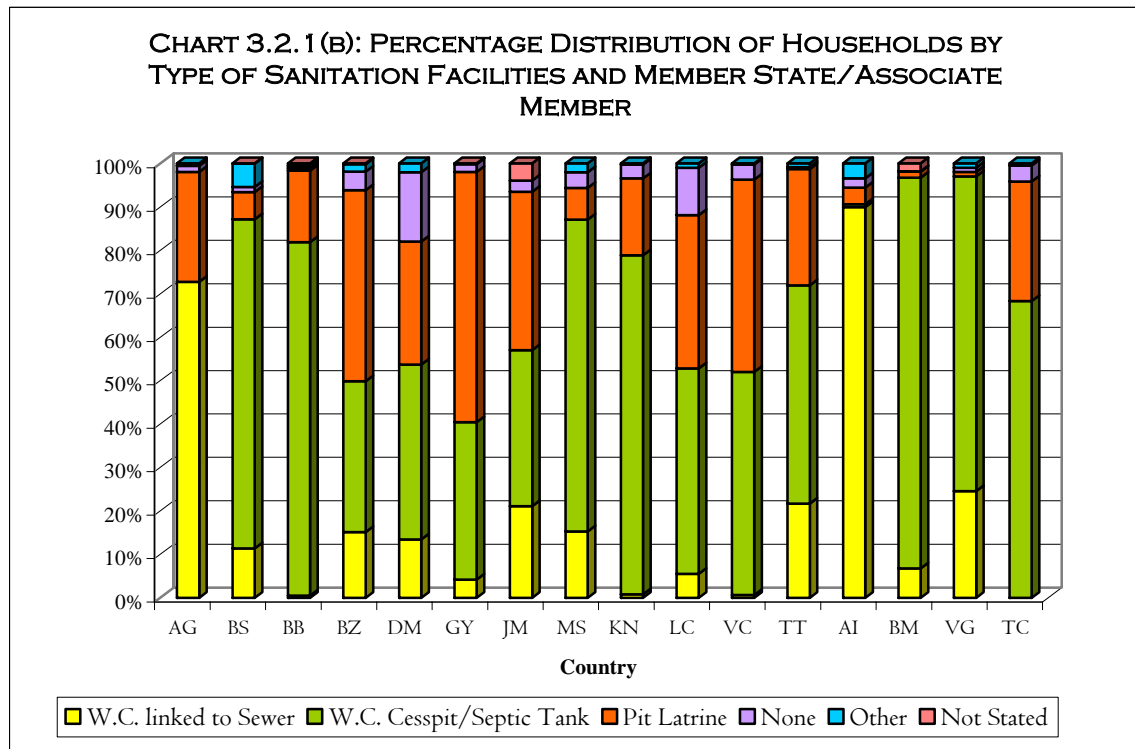
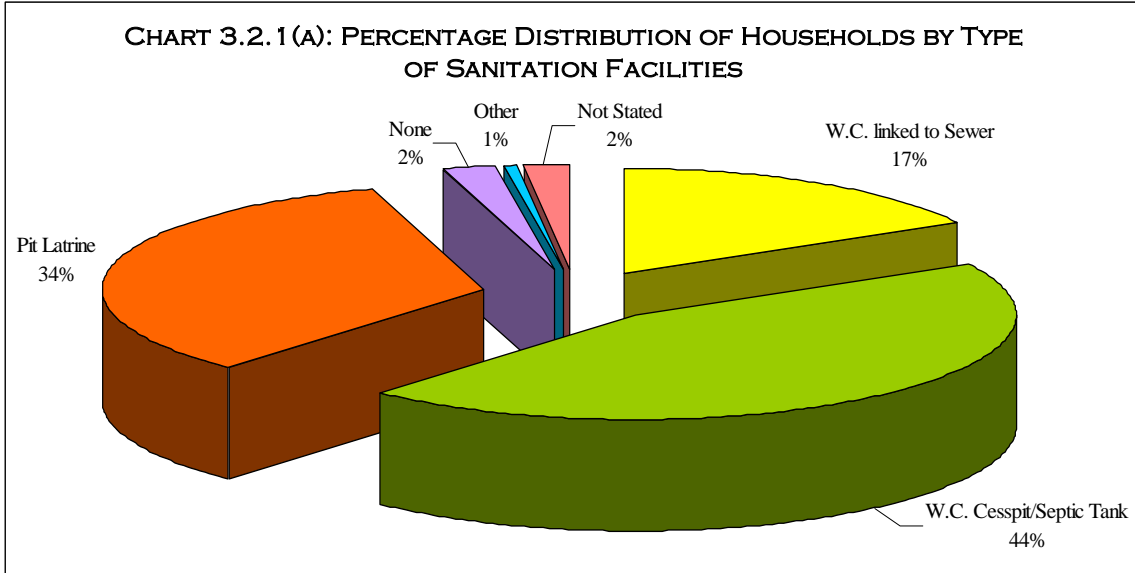
In Dominica, 16 per cent of households reported no sanitation facility followed by Saint Lucia where 10.9 per cent of households reported no sanitation facility.

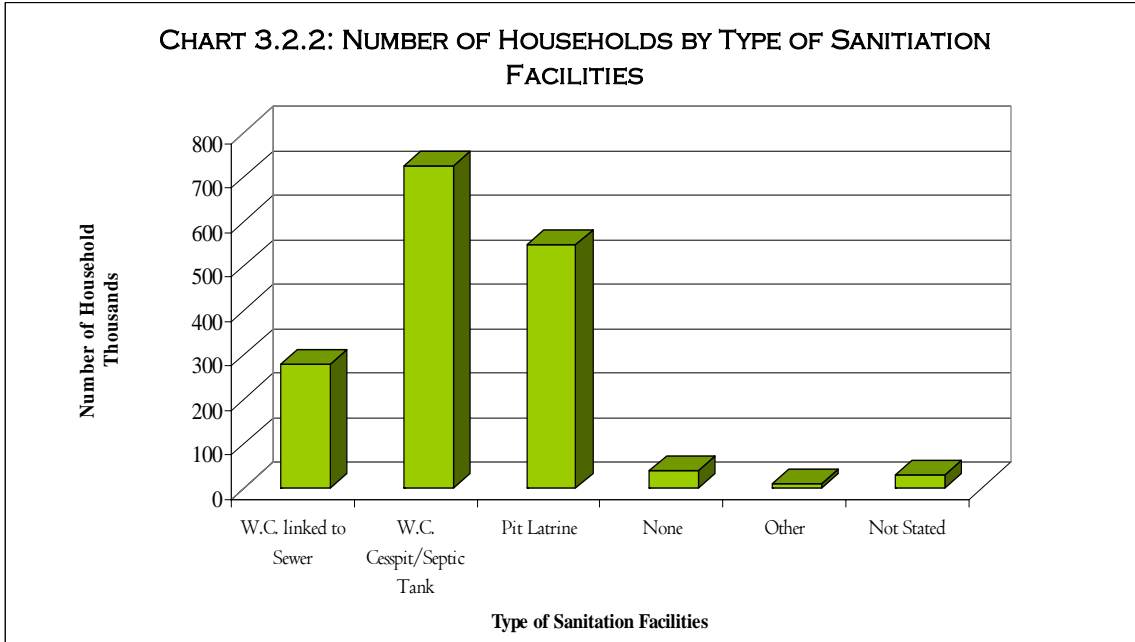
Table 3.2 (a) – Number of Households by Type of Sanitation facilities: 2000 Round of Census

| Country | Year | W.C. Linked to sewer | W.C. Cesspit / Septic Tank | Pit Latrine | None | Other | Not Stated | Total all Households |
|--|------|----------------------|----------------------------|----------------|---------------|---------------|---------------|----------------------|
| AG | 2001 | 14,868 | 0 | 5,176 | 293 | 113 | 0 | 20,450 |
| BS | 2000 | 9,978 | 66,507 | 5,445 | 1,054 | 4,703 | 55 | 87,742 |
| BB | 2000 | 428 | 67,511 | 13,684 | 487 | 453 | 463 | 83,026 |
| BZ | 2000 | 7,851 | 18,049 | 22,864 | 2,222 | 847 | 112 | 51,945 |
| DM | 2001 | 3,010 | 8,991 | 6,332 | 3,572 | 454 | 0 | 22,359 |
| GY | 2002 | 7,630 | 66,182 | 105,223 | 3,292 | 202 | 80 | 182,609 |
| JM | 2001 | 157,851 | 268,783 | 273,086 | 18,978 | 0 | 29,628 | 748,326 |
| MS | 2001 | 355 | 1,673 | 170 | 84 | 47 | 0 | 2,329 |
| KN | 2001 | 124 | 12,239 | 2,774 | 499 | 44 | 0 | 15,680 |
| LC | 2001 | 2,333 | 20,224 | 15,072 | 4,652 | 417 | 0 | 42,698 |
| VC | 2001 | 189 | 15,549 | 13,408 | 1,046 | 70 | 0 | 30,262 |
| TT | 2000 | 65,851 | 152,713 | 81,318 | 1,320 | 2,669 | 0 | 303,871 |
| TOTAL MEMBER STATES | | 270,468 | 698,421 | 544,552 | 37,499 | 10,019 | 30,338 | 1,591,297 |
| ASSOCIATE MEMBERS | | | | | | | | |
| AI | 2001 | 3,354 | 25 | 144 | 78 | 129 | 0 | 3,730 |
| VG | 2001 | 2,056 | 6,079 | 88 | 77 | 86 | 0 | 8,386 |
| TC | 2001 | 0 | 4,954 | 2,000 | 267 | 33 | 0 | 7,254 |
| TOTAL ASSOCIATE MEMBERS | | 6,648 | 27,669 | 2,481 | 422 | 270 | 329 | 37,819 |
| TOTAL MEMBER STATES AND ASSOCIATE MEMBERS | | 277,116 | 726,090 | 547,033 | 37,921 | 10,289 | 30,667 | 1,629,116 |

Table 3.2 (b) – Percentage distribution of Households by Type of Sanitation facilities: 2000 Round of Census

| Country | Year | W.C. Linked to sewer | W.C. Cesspit / Septic Tank | Pit Latrine | None | Other | Not Stated | Total all Households |
|--|------|----------------------|----------------------------|-------------|------|-------|------------|----------------------|
| AG | 2001 | 72.7 | 0.0 | 25.3 | 1.4 | 0.6 | 0.0 | 100.0 |
| BS | 2000 | 11.4 | 75.8 | 6.2 | 1.2 | 5.4 | 0.1 | 100.0 |
| BB | 2000 | 0.5 | 81.3 | 16.5 | 0.6 | 0.5 | 0.6 | 100.0 |
| BZ | 2000 | 15.1 | 34.7 | 44.0 | 4.3 | 1.6 | 0.2 | 100.0 |
| DM | 2001 | 13.5 | 40.2 | 28.3 | 16.0 | 2.0 | 0.0 | 100.0 |
| GY | 2002 | 4.2 | 36.2 | 57.6 | 1.8 | 0.1 | 0.0 | 100.0 |
| JM | 2001 | 21.1 | 35.9 | 36.5 | 2.5 | 0.0 | 4.0 | 100.0 |
| MS | 2001 | 15.2 | 71.8 | 7.3 | 3.6 | 2.0 | 0.0 | 100.0 |
| KN | 2001 | 0.8 | 78.1 | 17.7 | 3.2 | 0.3 | 0.0 | 100.0 |
| LC | 2001 | 5.5 | 47.4 | 35.3 | 10.9 | 1.0 | 0.0 | 100.0 |
| VC | 2001 | 0.6 | 51.4 | 44.3 | 3.5 | 0.2 | 0.0 | 100.0 |
| TT | 2000 | 21.7 | 50.3 | 26.8 | 0.4 | 0.9 | 0.0 | 100.0 |
| TOTAL MEMBER STATES | | 17.0 | 43.9 | 34.2 | 2.4 | 0.6 | 1.9 | 100.0 |
| ASSOCIATE MEMBERS | | | | | | | | |
| AI | 2001 | 89.9 | 0.7 | 3.9 | 2.1 | 3.5 | 0.0 | 100.0 |
| VG | 2001 | 24.5 | 72.5 | 1.0 | 0.9 | 1.0 | 0.0 | 100.0 |
| TC | 2001 | 0.0 | 68.3 | 27.6 | 3.7 | 0.5 | 0.0 | 100.0 |
| TOTAL ASSOCIATE MEMBERS | | 17.6 | 73.2 | 6.6 | 1.1 | 0.7 | 0.9 | 100.0 |
| TOTAL MEMBER STATES AND ASSOCIATE MEMBERS | | 17.0 | 44.6 | 33.6 | 2.3 | 0.6 | 1.9 | 100.0 |





EH3: MDG 8: ENSURE ENVIRONMENTAL SUSTAINABILITY

Number of Households by Type of Water Supply
Proportion of population with sustainable access to an improved water source, urban and rural

H

Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Concept and Definition

The household is defined as follows: (a) a one-person household, defined as an arrangement in which one person makes provisions for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household; and (b) a multi-person household, defined as a group of two or more persons living together who make common provisions for food or other essentials for living. The persons in the group may pool their incomes and have a common budget. They may be related or unrelated or a combination of both related and unrelated. (Please refer to the United Nations Principles and Recommendations for Population and Housing Censuses, Revision 1 (1998))

Water Supply refers to the water available to a community or region and the source and delivery system of that water.

The number of households by type of water supply describes the main source of water available to households.

Types of Water Supply

Piped into dwelling refers to the water supply received by a household from a private source that is piped into the dwelling unit through water pipes within the walls that constitute a dwelling.

Piped into yard describes a situation where the household receives running water from a public source through a pipe in the yard or compound on which the dwelling stands.

Public piped into dwelling describes a situation where running water from a public source is piped directly into the dwelling unit.

Private catchments: not piped occurs where the water supply to the household is from a private source within the premises and is not piped into the dwelling.

Private catchments: piped occurs where the water supply to the household is from a private source piped into the dwelling unit.

Public standpipe: This describes a situation where water is available to the household from a standpipe in the street or elsewhere, but not in the compound on which the dwelling stands.

Public well or tank applies when the water available to the dwelling unit is from a protected well or tank built by the public authorities or community-based, non-governmental organizations.

Other refers to any source other than those listed above (e.g. river, stream, spring, creek, etc).

Method of Computation

The number of households by type of water supply is classified from data obtained from Member States/Associate Members according to the categories: Piped into dwelling, Piped into yard, Public piped into dwelling, Private catchments: not piped, Private catchments: piped, Public catchments: piped, Public standpipe, Public well or tank and Other as defined above.

Indicator Relevance

The number of households by type of water supply provides a measure of the number of households that have access to safe water. Accessibility to safe water is of fundamental significance to reducing the risk and frequency of the spread of environmental diseases, especially in infants and the elderly who are more prone to picking up these diseases.

Data Assessment

It was assumed that the concepts of a household and of water supply are in accordance with the international definition and is harmonized across the region since no definitions were provided by the reporting Member States/Associate Members.

The degree of harmonisation for this indicator is difficult to assess since definitions were not provided by reporting Member States and Associate Members.

Data Sources

Please refer to **Appendix 1.3.3 (a)** for the sources of the data on the number of households by type of water supply of Member States and Associate Members.

Evaluation

Table 3.3 (a) indicated that 607,530 households (37.3 per cent) of the total 1,629,116 households in the Region had public water supply which was *pipied into dwelling*. When added to households with private water

supply *piped into dwelling* (303,913 households) this represented a combined percentage of 56 per cent. Among Member States, St. Kitts and Nevis and Barbados reported the highest number of households at 91.7 per cent and 90.9 per cent with water supply *piped into dwelling*. Among Associate Members, Bermuda recorded 95.9 per cent of households which had water supply *piped into dwelling*.

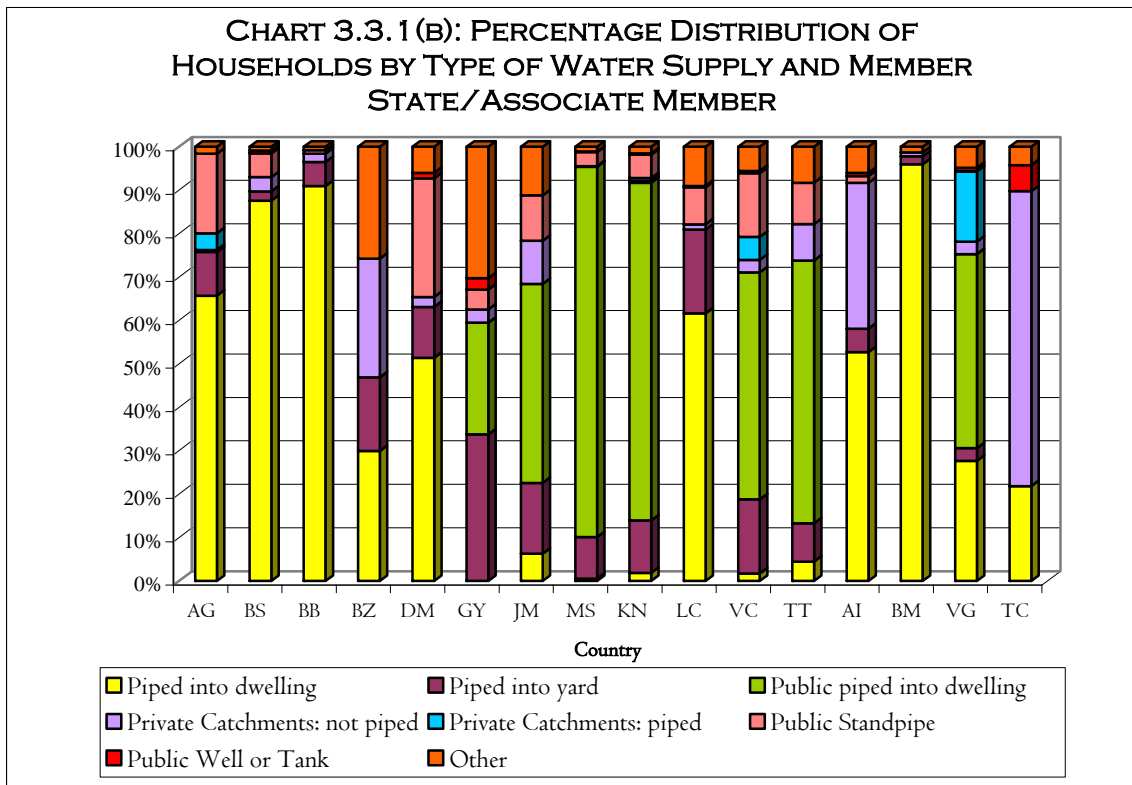
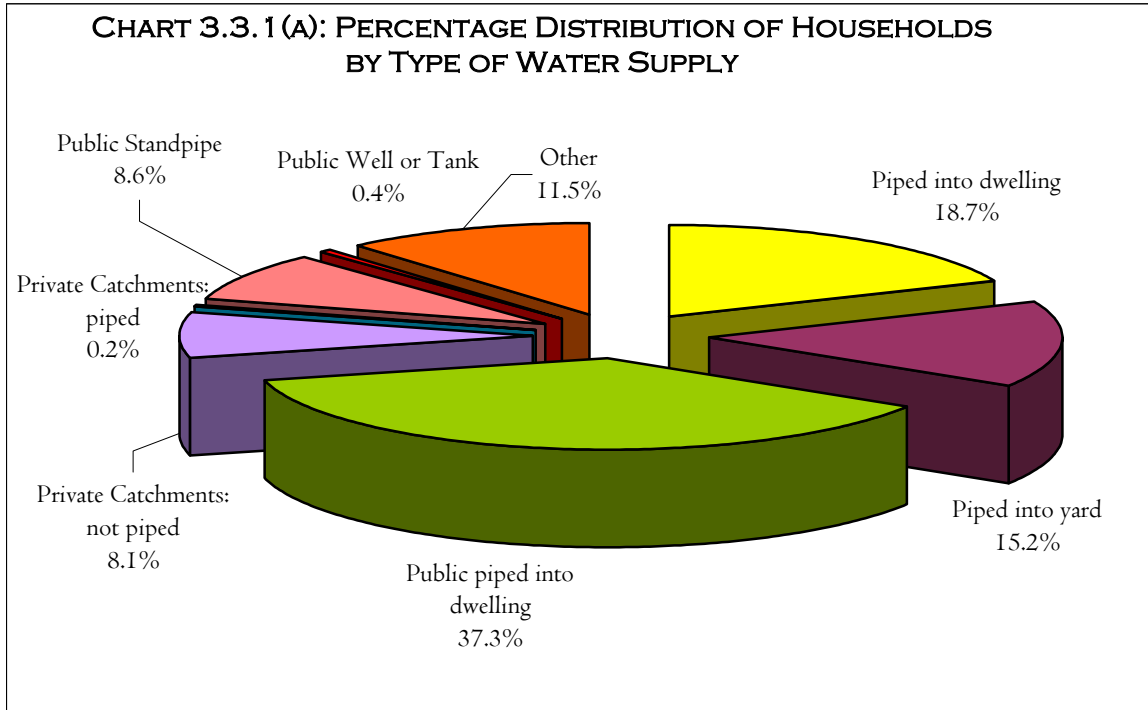
Improved drinking water sources as defined by the United Nations include household connection, public standpipe, borehole, protected dug well, protected spring and rainwater collection. Unimproved drinking water sources include unprotected well, unprotected spring, rivers or ponds, vendor-provided water, bottled water and tanker/truck water. Guyana and Belize recorded percentages of unimproved drinking water sources above 25 per cent.

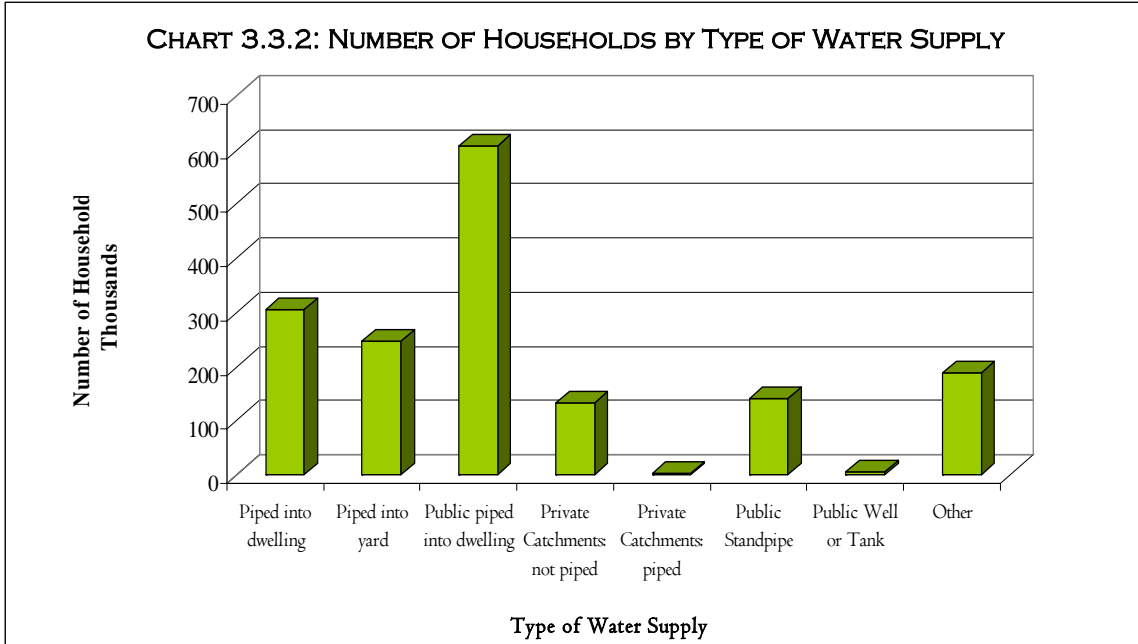
Table 3.3(a) Number of Households by Type of Water Supply: 2000 Round of Census

| Country | Year | Piped into dwelling | Piped into yard | Public Piped into dwelling | Private catchments | | Public standpipe | Public well or tank | Other | Total |
|--|------|---------------------|-----------------|----------------------------|--------------------|--------------|------------------|---------------------|----------------|------------------|
| | | | | | Not piped | Piped | | | | |
| AG | 2001 | 13,438 | 2,054 | 98 | 0 | 780 | 3,750 | 0 | 330 | 20,450 |
| BS | 2000 | 76,841 | 1,866 | 0 | 2,877 | 0 | 4,794 | 589 | 775 | 87,742 |
| BB | 2000 | 75,494 | 4,636 | 0 | 1,592 | 0 | 614 | 8 | 682 | 83,026 |
| BZ | 2000 | 15,548 | 8,828 | 0 | 14,190 | 0 | 0 | 0 | 13,379 | 51,945 |
| DM | 2001 | 11,495 | 2,615 | 0 | 516 | 0 | 6,109 | 277 | 1,347 | 22,359 |
| GY | 2000 | 0 | 61,638 | 46,984 | 5,549 | 0 | 8,331 | 4,792 | 55,315 | 182,609 |
| JM | 2001 | 46,830 | 122,133 | 342,723 | 74,445 | 0 | 78,467 | 0 | 83,728 | 748,326 |
| MS | 2001 | 13 | 222 | 1,987 | 1 | 2 | 75 | 3 | 26 | 2,329 |
| KN | 2001 | 295 | 1,887 | 12,196 | 70 | 98 | 843 | 48 | 243 | 15,680 |
| LC | 2001 | 26,308 | 8,259 | 0 | 508 | 0 | 3,636 | 140 | 3,847 | 42,698 |
| VC | 2001 | 521 | 5,167 | 15,826 | 864 | 1,599 | 4,438 | 158 | 1,689 | 30,262 |
| TT | 2000 | 13,561 | 26,777 | 183,966 | 25,341 | 0 | 29,057 | 0 | 25,169 | 303,871 |
| TOTAL MEMBER STATES | | 280,344 | 246,082 | 603,780 | 125,953 | 2,479 | 140,114 | 6,015 | 186,530 | 1,591,297 |
| ASSOCIATE MEMBERS | | | | | | | | | | |
| AI | 2001 | 1,965 | 203 | 0 | 1,251 | 0 | 59 | 26 | 226 | 3,730 |
| VG | 2001 | 2,320 | 244 | 3,750 | 241 | 1,356 | 8 | 60 | 407 | 8,386 |
| TC | 2001 | 1,584 | n.a. | 0 | 4,927 | 0 | ... | 434 | 309 | 7,254 |
| TOTAL ASSOCIATE MEMBERS | | 23,568 | 790 | 3,750 | 6,578 | 1,356 | 67 | 520 | 1,190 | 37,819 |
| TOTAL MEMBER STATES AND ASSOCIATE MEMBERS | | 303,912 | 246,872 | 607,530 | 132,531 | 3,835 | 140,181 | 6,535 | 187,720 | 1,629,116 |

Table 3.3 (b) Percentage distribution of Households by Type of Water Supply: 2000 Round of Census

| Country | Year | Piped into dwelling | Piped into yard | Public Piped into dwelling | Private catchments | | Public standpipe | Public well or tank | Other | Total |
|--|------|---------------------|-----------------|----------------------------|--------------------|-------|------------------|---------------------|-------|-------|
| | | | | | Not piped | Piped | | | | |
| AG | 2001 | 65.7 | 10.0 | 0.5 | 0.0 | 3.8 | 18.3 | 0.0 | 1.6 | 100.0 |
| BS | 2000 | 87.6 | 2.1 | 0.0 | 3.3 | 0.0 | 5.5 | 0.7 | 0.9 | 100.0 |
| BB | 2000 | 90.9 | 5.6 | 0.0 | 1.9 | 0.0 | 0.7 | 0.0 | 0.8 | 100.0 |
| BZ | 2000 | 29.9 | 17.0 | 0.0 | 27.3 | 0.0 | 0.0 | 0.0 | 25.8 | 100.0 |
| DM | 2001 | 51.4 | 11.7 | 0.0 | 2.3 | 0.0 | 27.3 | 1.2 | 6.0 | 100.0 |
| GY | 2000 | 0.0 | 33.8 | 25.7 | 3.0 | 0.0 | 4.6 | 2.6 | 30.3 | 100.0 |
| JM | 2001 | 6.3 | 16.3 | 45.8 | 9.9 | 0.0 | 10.5 | 0.0 | 11.2 | 100.0 |
| MS | 2001 | 0.6 | 9.5 | 85.3 | 0.0 | 0.1 | 3.2 | 0.1 | 1.1 | 100.0 |
| KN | 2001 | 1.9 | 12.0 | 77.8 | 0.4 | 0.6 | 5.4 | 0.3 | 1.5 | 100.0 |
| LC | 2001 | 61.6 | 19.3 | 0.0 | 1.2 | 0.0 | 8.5 | 0.3 | 9.0 | 100.0 |
| VC | 2001 | 1.7 | 17.1 | 52.3 | 2.9 | 5.3 | 14.7 | 0.5 | 5.6 | 100.0 |
| TT | 2000 | 4.5 | 8.8 | 60.5 | 8.3 | 0.0 | 9.6 | 0.0 | 8.3 | 100.0 |
| TOTAL MEMBER STATES | | 17.6 | 15.5 | 37.9 | 7.9 | 0.2 | 8.8 | 0.4 | 11.7 | 100.0 |
| ASSOCIATE MEMBERS | | | | | | | | | | |
| AI | 2001 | 52.7 | 5.4 | 0.0 | 33.5 | 0.0 | 1.6 | 0.7 | 6.1 | 100.0 |
| VG | 2001 | 27.7 | 2.9 | 44.7 | 2.9 | 16.2 | 0.1 | 0.7 | 4.9 | 100.0 |
| TC | 2001 | 21.8 | n.a. | 0.0 | 67.9 | 0.0 | ... | 6.0 | 4.3 | 100.0 |
| TOTAL ASSOCIATE MEMBERS | | 62.3 | 2.1 | 9.9 | 17.4 | 3.6 | 0.2 | 1.4 | 3.1 | 100.0 |
| TOTAL MEMBER STATES AND ASSOCIATE MEMBERS | | 18.7 | 15.2 | 37.3 | 8.1 | 0.2 | 8.6 | 0.4 | 11.5 | 100.0 |





Appendix 1.3

1.3.1 (a): Sources of Data for Table 3.1 - Number of Reported Cases and Incidence of Environmentally Related Diseases: 1998 - 2004

| Country | Data Source |
|-------------------------------|---|
| THE BAHAMAS | Items 1-5, 10: Department of Public Health; Items 6-9: Public Hospitals Authority- Kean Information System (Princess Margaret Hospital and Rand Memorial Hospital discharge data) |
| BELIZE | The Epidemiology Unit, Ministry of Health |
| DOMINICA | Ministry of Health |
| GRENADA | Central Statistical Office |
| ST VINCENT AND THE GRENADINES | Statistical Office |
| SURINAME | Bureau of Public Health |
| TRINIDAD AND TOBAGO | Central Statistics Office |
| BERMUDA | Inpatient discharges |
| THE TURKS AND CAICOS ISLANDS | Primary Health Care Department and Medical Department, Ministry of Health |

1.3.1 (b): Notes for Table 3.1 - Number of Reported Cases and Incidence of Environmentally Related Diseases: 1998 - 2004

| Country | Notes |
|------------------------------|---|
| GRENADA | Total: Total amount of cases for that given year |
| BERMUDA | ICN-9-CM classification was used. In order to provide accurate data, a detailed description of the diagnosis must be provided. |
| SURINAME | (a) Telephone calls. (b) Hospital surveillance (confirmed). (c) Hospital. (d) Confirmed cases. (e) Suspected cases. |
| THE TURKS AND CAICOS ISLANDS | Malaria refers to imported cases of malaria. Poisoning refers to cases of poisoning from food borne diseases. Diarrhoea is included in gastroenteritis. Respiratory diseases refers to acute infections <5 yrs. Data not collected at the source by sex. |

1.3.2 (a): Source of Data for Table 3.2 - Number of Households by Type of Sanitation: 2000 Round of Census

| Country | Data Source |
|-------------------------------|---|
| ANTIGUA AND BARBUDA | Basic Table Volumes |
| THE BAHAMAS | Population and Housing Census, 2000 Round |
| BARBADOS | 2000 Population and Housing Census, Volume1, Barbados Statistical Service |
| BELIZE | Population and Housing Census, 2000 Round |
| DOMINICA | Central Statistical Office and 2001 Population and Housing Census |
| GUYANA | Basic Table Volumes |
| JAMAICA | Population Census Country Report 2001. Volume 1. Statistical Institute of Jamaica |
| MONTSERRAT | Basic Table Volumes |
| ST. KITTS AND NEVIS | Basic Table Volumes |
| SAINT LUCIA | Population and Housing Census 2001 |
| ST VINCENT AND THE GRENADINES | Basic Table Volumes |
| TRINIDAD AND TOBAGO | Population and Housing Census 2000 Round |
| ANGUILLA | Population and Housing Census 2000 Round |
| BRITISH VIRGIN ISLANDS | Basic Table Volumes |
| THE TURKS AND CAICOS ISLANDS | TCI Standard of Living Assessment Report, 1999; Preliminary Population and Housing Census Report 2001 |

1.3.2 (b): Notes for Table 3.2 - Number of Households by Type of Sanitation: 2000 Round of Census

| Country | Notes |
|---------------------|---|
| BELIZE | Don't Know is included in Not Stated |
| JAMAICA | Not Stated includes "availability and type not reported". For each category of sanitation facility, "shared" and "not shared" were combined |
| TRINIDAD AND TOBAGO | Other includes not stated |

1.3.3 (a): Sources of Data for Table 3.3 - Number of Households by Type of Water Supply: 2000 Round of Census

| Country | Data Source |
|-------------------------------|---|
| ANTIGUA AND BARBUDA | Basic Table Volumes |
| THE BAHAMAS | Population and Housing Census, 2000 Round |
| BARBADOS | 2000 Population and Housing Census, Volume1, Barbados Statistical Service |
| BELIZE | Central Statistical Office |
| DOMINICA | Central Statistical Office and 2001 Population and Housing Census |
| GUYANA | Basic Table Volumes |
| JAMAICA | Population Census Country Report. Volume 1. Statistical Institute of Jamaica |
| MONTSERRAT | Basic Table Volumes |
| ST. KITTS AND NEVIS | Basic Table Volumes |
| SAINT LUCIA | Population and Housing Census 2001 |
| ST VINCENT AND THE GRENADINES | Basic Table Volumes |
| TRINIDAD AND TOBAGO | Population and Housing Census, 2000 Round |
| ANGUILLA | Population and Housing Census, 2000 Round |
| BRITISH VIRGIN ISLANDS | Basic Table Volumes |
| THE TURKS AND CAICOS ISLANDS | TCI Standard of Living Assessment Report, 1999; Preliminary Population and Housing Census Report 2001 |

1.3.3 (b): Notes for Table 3.3 - Number of Households by Type of Water Supply: 2000 Round of Census

| Country | Notes |
|-------------------------------|---|
| THE BAHAMAS | Other includes not stated. Rain water is included in piped into dwelling, but can be either piped into dwelling or into yard. |
| BARBADOS | Other includes not stated. Private catchments, not piped refer to friend/relative's pipe. Piped into dwelling is disaggregated by Public or Private Piped into dwelling. Public piped is the government water system and private piped is the individual household private water system. Public Piped = 48962 and private piped = 26796. The cumulative is given. |
| BELIZE | Other includes not stated |
| DOMINICA | Other includes not stated. Urban connections (Roseau + Environs) = 8977 |
| GUYANA | Public Piped into Dwelling = public piped into dwelling + private piped into dwelling |
| SAINT LUCIA | Other includes not stated |
| ST VINCENT AND THE GRENADINES | Other includes private catchment piped |
| TRINIDAD AND TOBAGO | Other includes truck borne and not stated |
| ANGUILLA | Other includes not stated |
| BERMUDA | This question was discontinued after the 1980 Population and Housing Census as 96% of private dwelling units had piped water. Other includes not stated. |
| THE TURKS AND CAICOS ISLANDS | Other includes not stated. |