

Statistics

of

Communicable Diseases and Surveillance Report

2012

Annual
December 2013

Centers for Disease Control,
Ministry of Health and Welfare,
R.O.C. (Taiwan)

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Foreword

Welcome to the 2012 Statistics of Communicable Diseases and Surveillance Report by the Taiwan Centers for Disease Control (Taiwan CDC). A well-functioned communicable disease control system relies on a comprehensive, continuing and well-established communicable disease surveillance system. The statistics and results generated from the surveillance system are the most fundamental and important parameters in battles against communicable diseases. Such data enable health authorities to closely monitor outbreak situations and disease trends in terms of population, time, and location and to formulate relevant disease control and prevention measures that can effectively address each challenge encountered in disease control.

Since the spread of infectious diseases knows no boundaries, emerging and reemerging infectious diseases have become global public health concerns. In 2012, as novel coronavirus cases were reported in Middle Eastern countries, Taiwan CDC has continued to closely monitoring the virus activity and held experts consultation meetings for immediate response and risk assessment. Taiwan CDC consequently listed "Severe Acute Respiratory Infections associated with Novel Coronavirus" as a Category V notifiable disease under the Communicable Disease Control Act on October 3, 2012 and implemented various strategies for monitoring, preventing and controlling the disease.

Among acute infectious diseases in 2012, the first imported rabies case in a decade was confirmed in Taiwan. As for dengue fever, Taiwan CDC and local health authorities worked together in implementing disease control strategies such as container reduction program in the community and removal of vector breeding sources. As a result of implanting those measures, the number of dengue fever cases confirmed in 2012 was lower than that in 2011. In terms of enteroviruses infection with severe complications, the outbreak in 2011 continued into 2012 and the number of confirmed cases in 2012 was the second highest in five years. Most of the enterovirus cases were caused by EV71.

Among chronic infectious diseases such as TB and HIV/AIDS, the number of TB cases remained on a downward trend for the last seven years since the “Mobilization Plan to Halve Tuberculosis Incidence in Ten Years” was launched in 2005. On the other hand, the number of HIV infection cases confirmed in 2012 increased from that in 2011, and all newly infected patients face life-threatening challenges and long-term medical care challenges, and which are also major challenges for disease control. Taiwan CDC urged the public and professionals to cooperate with the government in the efforts on HIV/AIDS control, and declared a slogan of the government’s determination and vision of “a world with zero new HIV infections, zero discrimination, and zero AIDS-related deaths”.

This annual report records all statistics on the epidemiological trends of communicable diseases in Taiwan in 2012. I sincerely hope that this annual report can enhance public awareness and understanding of communicable disease surveillance and control. To further improve the publication, any comments and suggestions from readers and experts in all fields would be greatly appreciated. Our CDC staffs will continue to act on our agency’s core values of “Humanity, Professionalism, Proactivity, Teamwork and Communication” to further improve the existing disease control system that protects the people against potential public health threats.



Feng-Yee Chang, MD, PhD,
Director-General
Centers for Disease Control, Taiwan

Contents 2012

- I Foreword
- III Contents
- VI Explanatory Notes

I. Summary Tables and Graphs for Confirmed Cases

- 2 Table 1 Number of confirmed cases of notifiable diseases – by locality, 2012
- 12 Table 2 Number of confirmed cases and incidence rate of notifiable diseases – by age group, 2012
- 18 Table 3 Number of confirmed cases of notifiable diseases – by month, 2012
- 21 Table 4 Number of confirmed cases and incidence rate of notifiable diseases – by sex, 2012
- 24 Table 5 Number of confirmed cases of notifiable diseases – by year, 2003-2012
- 27 Table 6 Analysis of time intervals between diagnosis and reporting for notifiable diseases – by locality, 2012
- 28 Table 7 Analysis of time intervals between reporting and reports received from local health bureaus for notifiable diseases – by locality, 2012
- 29 Table 8 Analysis of time intervals between reports received from local health bureaus to Taiwan CDC for notifiable diseases – by locality, 2012
- 30 Table 9 Cases of Acute Flaccid Paralysis, Neonatal Tetanus, Congenital Rubella Syndrome and Measles Eradication Program – by locality, 2012
- 32 Table 10 National immunization coverage – by counties/cities
- 36 Figure1 Comparison of 2012 total confirmed cases of notifiable diseases with historical data

II. Specific Surveillance Systems

- 42 Nosocomial Infections Surveillance System
- 49 School-based Surveillance System
- 55 Laboratory Surveillance System
- 61 Quarantine Service
- 65 Mosquito Surveillance
- 69 Symptom Surveillance System
- 76 Real-time Outbreak and Disease Surveillance System
- 81 Disease Surveillance using National Health Insurance Data
- 84 Pneumonia and Influenza Mortality Surveillance

III. Surveillance Reports of Selected Diseases

- 88 Measles
- 91 Pertussis
- 94 Meningococcal Meningitis
- 97 Japanese Encephalitis
- 100 Acute Hepatitis A
- 103 Acute Hepatitis B
- 106 Acute Hepatitis C
- 109 Scrub Typhus
- 112 Legionellosis
- 115 Dengue Fever
- 119 Enteroviruses Infection with Severe Complications
- 122 Malaria
- 125 Shigellosis
- 129 Complicated Influenza
- 136 Syphilis
- 139 Gonorrhoea
- 142 HIV Infection & AIDS
- 149 Tuberculosis

IV. Appendix

- 162 1. List of cases number update
- 163 2. Regulations for notifiable diseases
- 164 3. Report of cases of communicable and emerging infectious diseases, include
suspected cases
- 166 4. 2012 calendar for re-defined months

167 **Acknowledgement**

Explanatory Notes

1. Taiwan in this Report includes Taiwan Island, Penghu, Kinmen and Matsu.
2. The Report includes the notifiable diseases* and other relevant communicable diseases. Individual cases were reported by medical care institutions and physicians through the case reporting system for communicable diseases. Alternatively, medical care institutions and physicians also reported cases by submitting a “Report of cases of communicable and emerging infectious disease, include suspected cases”** by post/fax to the local health authority that then completed the case reporting process online.
3. Definitions of terms used in the Report:
 - (1) Notifiable diseases: Communicable diseases listed in Article 3, Communicable disease Control Act.
 - (2) Reported cases: Cases of communicable disease or suspected cases detected by physicians while diagnosing and treating patients, and statistic of reported cases using the “Report of cases of communicable and emerging infectious disease, include suspected cases” form.
 - (3) Confirmed cases: For most notifiable diseases, reported cases that are diagnosed or found positive by Taiwan CDC’s laboratory or other verified institutions are determined as confirmed cases. For some notifiable diseases, confirmation of infection should meet the clinical symptoms and epidemiological criteria. For a few notifiable diseases, confirmation of infection should be determined by an expert meeting. Please refer to the “Guidelines for Notifiable Communicable Diseases Surveillance” to see the case definition of each disease.
 - (4) SMYF Program (a.k.a the fourth phase of the Poliomyelitis, Neonatal Tetanus, Congenital Rubella Syndrome and Measles Eradication Program): The Executive Yuan approved the implementation of the first phase of the program in 1991. The program was implemented from 1992 through 1996. The second phase of the program was approved in 1996 and implemented from 1997 through 2001. The third phase of the program was approved in 2001 and was implemented since 2002 to 2006. The fourth phase of the program was approved in 2006 and was implemented since 2007 to 2011. The goal of the program is to eradicate measles by 2010 and keep neonatal tetanus, congenital rubella syndrome and poliomyelitis under effective control. In addition, an “Acute Communicable Disease Risk Assessment and Intervention Project” was approved in 2010 and is implemented from 2011 through 2015.
 - (5) Unspecified hepatitis: Cases that are non-A / non-B hepatitis and that can neither be classified as hepatitis C, D or E.
4. Analysis standards:

- (1) By locality: The actual residential locality of the confirmed case.
- (2) By age group: The actual age of the confirmed case. The ages of the syphilis, gonorrhea, HIV infection, AIDS, Hansen's disease and Creutzfeldt-Jacob disease cases were calculated based on the day of diagnosis. The ages of the TB and MDR-TB (multi-drug resistant tuberculosis) cases were calculated based on the day the case was reported and the day the case was registered with Taiwan CDC respectively.
- (3) By month: The actual disease onset month of the confirmed case. The disease onset months of the syphilis, gonorrhea, HIV infection, AIDS, Hansen's disease and Creutzfeldt-Jacob disease cases were calculated based on the month of diagnosis. The disease onset months of the TB and MDR-TB (multi-drug resistant tuberculosis) cases were calculated based on the month the case was reported and the month the case was registered with Taiwan CDC respectively.
- (4) By year: The actual disease onset year of the confirmed case. The disease onset years of the syphilis, gonorrhea, HIV infection, AIDS, Hansen's disease and Creutzfeldt-Jacob disease cases were calculated based on the year of diagnosis. The disease onset years of the TB and MDR-TB cases were calculated based on the year the case was reported and the year the case was registered with Taiwan CDC respectively.
- (5) By week: The epidemiological week calendar established by the World Health Organization's (WHO) is adopted. Please refer to Appendix 4 for further details.
- (6) In the 1999 annual statistics report, the tuberculosis statistics included only confirmed cases of open (active) and non-open (non-active) pulmonary tuberculosis, but not cases of pulmonary tuberculosis complicated with non-pulmonary tuberculosis. In compliance with the amendment made to the Communicable Diseases Control Act in 1999 and the intensified control of open pulmonary tuberculosis, CDC began to include and tabulate open pulmonary tuberculosis (including open pulmonary tuberculosis and open pulmonary tuberculosis with pulmonary and non-pulmonary complications) and other tuberculosis (all tuberculosis cases except the aforementioned open pulmonary tuberculosis) in the tuberculosis statistics. For international comparison, Tuberculosis has been categorized as smear positive and others in 2006.
- (7) Starting from 2002, only Taiwanese HIV infection and AIDS cases are analyzed.
- (8) From 2000 to 2005, Mumps and Varicella had been reported with secondary data; and had been reported with detailed information since January 1, 2006.
- (9) Mid-Year Population: The mid-year population comes from the "2012 Demographic Fact Book, Republic of China" by the Ministry of the Interior and which is used to calculate the incidence rate of diseases.
- (10) Beginning in 2002, the historical information will not be amended. Any correction

made to such information will be listed in the appendix 1. The analysis baseline in 2012 was based on the data before 2013/5/1.

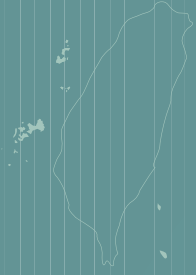
- (11) The statistics of MDR-TB, Chikungunya Fever, Neonatal Tetanus, Herpesvirus B Infection, Leptospirosis, Melioidosis, Botulism, Invasive Pneumococcal Disease, Q Fever, Endemic Typhus Fever, Lyme Disease, Tularemia, Cat-Scratch Disease, Toxoplasmosis and Creutzfeldt-Jakob Disease were collected in accordance with “Categories of Communicable Diseases and Prophylaxis of Category IV and V Notifiable Communicable Diseases” proclaimed on October 9, 2007, and became effective since October 15, 2007.
- (12) The following revision was promulgated on October 24, 2008 and came into effect beginning November 1, 2008. Leprosy was renamed as Hansen's disease, and HIV infection was included in the list of Category III Notifiable Communicable Diseases.
- (13) The following revision was promulgated on April 27, 2009, titled amendment of the “Communicable Disease Classification”, “Influenza A (H1N1)” was added to the list of Category I Notifiable Communicable Diseases. On June 19, 2009, another amendment of the “Communicable Disease Classification” was promulgated to remove “Influenza A (H1N1)” from the list of Category I Notifiable Communicable Diseases. Any cases of influenza A (H1N1) with severe complications should be reported in accordance with the regulations applicable to Category IV Notifiable Communicable Diseases and subject to that category’s corresponding prevention and control measures.
- (14) NDM-1 Enterobacteriaceae has been included in the list of Category IV Notifiable Communicable Diseases since September 9, 2010.
- (15) Category IV Notifiable Communicable Disease “Severe Complicated Influenza” has been changed name to “Complicated Influenza” since September 9, 2011,
- (16) Brucellosis has been included in the list of Category IV Notifiable Communicable Diseases since February 7, 2012.
- (17) "Severe Acute Respiratory Infections associated with Novel Coronavirus" has been included in the list of Category V Notifiable Communicable Diseases since October 3, 2012.

5.Symbols:“-” for no reported cases; “...” for not under surveillance.

6.Figures may not sum up to the total due to rounding.

* Please see Appendix 1 for classification of communicable diseases.

** Please see Appendix 3 for the form of “Report of cases of communicable and emerging infectious disease, include suspected cases”.



I

Summary Tables and Graphs for Confirmed Cases

© Abbreviations and Symbols Used in Table
— No reported cases.
... Not under surveillance.

Table 1 Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Midyear population	Category I					
		Smallpox	Plague	SARS	Rabies ¹	Anthrax	H5N1 Influenza
Total	23,270,367	-	-	-	1	-	-
Taipei Area							
Taipei City	2,662,097	-	-	-	-	-	-
New Taipei City	3,927,878	-	-	-	1	-	-
Keelung City	378,540	-	-	-	-	-	-
Yilan County	458,828	-	-	-	-	-	-
Kinmen County	108,497	-	-	-	-	-	-
Lienchiang County	10,708	-	-	-	-	-	-
Northern Area							
Taoyuan County	2,021,733	-	-	-	-	-	-
Hsinchu City	422,561	-	-	-	-	-	-
Hsinchu County	520,817	-	-	-	-	-	-
Miaoli County	562,993	-	-	-	-	-	-
Central Area							
Taichung City	2,674,644	-	-	-	-	-	-
Changhua County	1,301,454	-	-	-	-	-	-
Nantou County	521,501	-	-	-	-	-	-
Southern Area							
Yunlin County	712,274	-	-	-	-	-	-
Chiayi City	271,373	-	-	-	-	-	-
Chiayi County	535,832	-	-	-	-	-	-
Tainan City	1,879,302	-	-	-	-	-	-
Kao-Ping Area							
Kaohsiung City	2,776,565	-	-	-	-	-	-
Pingtung County	861,485	-	-	-	-	-	-
Penghu County	98,000	-	-	-	-	-	-
Eastern Area							
Hualien County	336,014	-	-	-	-	-	-
Taitung County	227,271	-	-	-	-	-	-
Others		-	-	-	-	-	-

Note: ¹One case of rabies was imported in 2012.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Category II							
	Diphtheria	Typhoid ¹ Fever	Dengue ¹ Fever	Dengue ¹ Hemorrhagic Fever/ Dengue Shock Syndrome	Meningococcal ¹ Meningitis	Paratyphoid ¹ Fever	Poliomyelitis	Acute ² Flaccid Paralysis
Total	-	26	1,478	36	6	8	-	51
Taipei Area								
Taipei City	-	4	40	-	1	3	-	5
New Taipei City	-	7	43	-	2	1	-	8
Keelung City	-	1	1	-	-	-	-	1
Yilan County	-	-	7	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	-	4	30	-	1	1	-	7
Hsinchu City	-	-	2	-	-	-	-	-
Hsinchu County	-	-	6	-	-	1	-	1
Miaoli County	-	-	5	-	-	-	-	2
Central Area								
Taichung City	-	-	26	-	-	-	-	6
Changhua County	-	-	11	-	-	1	-	2
Nantou County	-	-	4	-	-	-	-	1
Southern Area								
Yunlin County	-	-	5	1	-	-	-	-
Chiayi City	-	1	1	-	-	-	-	-
Chiayi County	-	1	1	-	-	-	-	-
Tainan City	-	2	754	4	1	-	-	11
Kao-Ping Area								
Kaohsiung City	-	4	532	31	-	1	-	4
Pingtung County	-	-	5	-	1	-	-	3
Penghu County	-	1	2	-	-	-	-	-
Eastern Area								
Hualien County	-	-	1	-	-	-	-	-
Taitung County	-	1	2	-	-	-	-	-
Others	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including 11 typhoid fever, 207 dengue fever, one dengue hemorrhagic fever /dengue shock syndrome, one meningococcal meningitis, and seven paratyphoid fever.

²No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis (AFP) was used for detecting cases of poliomyelitis after implementing the "Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus" in 1992. AFP cases aged 15 years and above had been excluded since 2005.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Midyear population	Category II						
		Shigellosis ¹	Amoebiasis ¹	Malaria ¹		Measles ¹	Acute ¹ Hepatitis A	Enterohaemorrhagic <i>E. coli</i> Infection
				Indigenous	Imported			
Total	23,270,367	155	258	-	12	9	99	-
Taipei Area								
Taipei City	2,662,097	29	47	-	4	3	17	-
New Taipei City	3,927,878	24	47	-	3	2	26	-
Keelung City	378,540	4	3	-	-	1	3	-
Yilan County	458,828	5	5	-	-	-	2	-
Kinmen County	108,497	1	-	-	-	-	4	-
Lienchiang County	10,708	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	2,021,733	16	24	-	1	1	16	-
Hsinchu City	422,561	3	3	-	-	-	2	-
Hsinchu County	520,817	4	5	-	-	-	5	-
Miaoli County	562,993	5	6	-	-	-	2	-
Central Area								
Taichung City	2,674,644	14	31	-	2	1	7	-
Changhua County	1,301,454	1	10	-	-	-	1	-
Nantou County	521,501	2	5	-	-	-	1	-
Southern Area								
Yunlin County	712,274	-	2	-	1	-	-	-
Chiayi City	271,373	-	2	-	-	-	-	-
Chiayi County	535,832	1	5	-	1	-	1	-
Tainan City	1,879,302	4	30	-	-	1	4	-
Kao-Ping Area								
Kaohsiung City	2,776,565	1	16	-	-	-	6	-
Pingtung County	861,485	5	7	-	-	-	-	-
Penghu County	98,000	1	1	-	-	-	-	-
Eastern Area								
Hualien County	336,014	35	5	-	-	-	2	-
Taitung County	227,271	-	4	-	-	-	-	-
Others		-	-	-	-	-	-	-

Note: ¹The case amount in 2012 contained imported cases, including 106 shigellosis, 172 amoebiasis, 12 malaria, five measles, and 26 acute hepatitis A.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Category II							
	Hantavirus Syndrome		Cholera	Rubella ¹	MDR-TB ³	Chikungunya ¹	West Nile Fever	Epidemic Typhus Fever
	Hemorrhagic Fever with Renal Syndrome	Hantavirus Pulmonary Syndrome						
Total	1	-	5	12	140	5	-	-
Taipei Area								
Taipei City	-	-	1	2	13	-	-	-
New Taipei City	-	-	1	5	20	-	-	-
Keelung City	-	-	-	-	6	-	-	-
Yilan County	-	-	-	-	1	-	-	-
Kinmen County	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	-	-	-	1	11	2	-	-
Hsinchu City	-	-	-	-	-	-	-	-
Hsinchu County	-	-	-	-	4	-	-	-
Miaoli County	-	-	-	-	-	-	-	-
Central Area								
Taichung City	-	-	-	2	16	1	-	-
Changhua County	-	-	2	2	6	-	-	-
Nantou County	-	-	-	-	5	-	-	-
Southern Area								
Yunlin County	-	-	-	-	7	-	-	-
Chiayi City	-	-	-	-	2	-	-	-
Chiayi County	-	-	1	-	1	-	-	-
Tainan City	-	-	-	-	7	-	-	-
Kao-Ping Area								
Kaohsiung City	1	-	-	-	17	2	-	-
Pingtung County	-	-	-	-	9	-	-	-
Penghu County	-	-	-	-	-	-	-	-
Eastern Area								
Hualien County	-	-	-	-	14	-	-	-
Taitung County	-	-	-	-	1	-	-	-
Others	-	-	-	-	-	-	-	-

 Note: ¹The case amount in 2012 contained imported cases, including six rubella and five chikungunya fever.

³The caseload of MDR-TB was calculated based on CDC's registration date.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Midyear population	Category III					
		Pertussis ¹	Tetanus ⁵	Japanese Encephalitis	Tuberculosis ³		Congenital Rubella Syndrome
					Smear-positive	Others	
Total	23,270,367	54	17	32	4,739	7,599	-
Taipei Area							
Taipei City	2,662,097	2	-	-	351	574	-
New Taipei City	3,927,878	17	4	2	701	1,225	-
Keelung City	378,540	-	1	-	92	137	-
Yilan County	458,828	-	-	-	103	150	-
Kinmen County	108,497	-	-	-	7	14	-
Lienchiang County	10,708	-	-	1	2	1	-
Northern Area							
Taoyuan County	2,021,733	10	1	-	292	588	-
Hsinchu City	422,561	-	-	-	29	92	-
Hsinchu County	520,817	-	1	-	74	101	-
Miaoli County	562,993	1	-	1	93	121	-
Central Area							
Taichung City	2,674,644	9	-	2	395	792	-
Changhua County	1,301,454	4	2	3	314	450	-
Nantou County	521,501	2	-	-	171	229	-
Southern Area							
Yunlin County	712,274	2	1	1	213	288	-
Chiayi City	271,373	1	-	2	45	83	-
Chiayi County	535,832	3	1	1	122	214	-
Tainan City	1,879,302	-	3	9	360	566	-
Kao-Ping Area							
Kaohsiung City	2,776,565	1	-	7	819	1,194	-
Pingtung County	861,485	-	2	1	326	493	-
Penghu County	98,000	-	-	-	11	17	-
Eastern Area							
Hualien County	336,014	2	1	2	146	159	-
Taitung County	227,271	-	-	-	73	111	-
Others		-	-	-	-	-	-

Note:¹One case of pertussis was imported in 2012.

³The caseload of tuberculosis was estimated based on notification date.

⁵Calculation for tetanus was based on reported cases only.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Category III							
	Acute Hepatitis					Mumps ⁵	Legionellosis ¹	Invasive Haemophilus Influenzae Type b Infection
	B ¹	C	D	E ¹	Un- specified			
Total	97	34	-	9	10	1,061	88	3
Taipei Area								
Taipei City	15	3	-	2	1	185	14	-
New Taipei City	19	8	-	2	2	219	27	1
Keelung City	2	1	-	-	-	19	-	-
Yilan County	1	-	-	-	-	28	1	-
Kinmen County	-	-	-	-	-	1	-	-
Lienchiang County	-	-	-	-	-	1	-	-
Northern Area								
Taoyuan County	13	1	-	1	-	75	10	-
Hsinchu City	6	1	-	-	-	17	-	-
Hsinchu County	1	-	-	1	-	44	2	-
Miaoli County	4	2	-	-	1	27	-	-
Central Area								
Taichung City	6	2	-	-	-	86	5	-
Changhua County	1	1	-	-	2	43	2	-
Nantou County	2	-	-	-	1	28	3	-
Southern Area								
Yunlin County	2	1	-	-	-	23	2	-
Chiayi City	1	1	-	-	-	6	1	-
Chiayi County	-	-	-	-	1	10	1	-
Tainan City	9	1	-	1	-	32	2	-
Kao-Ping Area								
Kaohsiung City	12	7	-	-	-	138	9	-
Pingtung County	-	2	-	2	1	36	6	1
Penghu County	-	-	-	-	-	14	-	-
Eastern Area								
Hualien County	1	3	-	-	-	12	1	-
Taitung County	2	-	-	-	1	17	2	1
Others	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including four acute hepatitis B, two acute hepatitis E, and five legionellosis.

⁵Calculation for mumps was based on reported cases only.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Midyear population	Category III						
		Syphilis ⁶	Gonorrhea ⁶	Neonatal Tetanus	Enteroviruses ¹ Infection with Severe Complications	HIV ⁷ Infection	AIDS ⁷	Hansen's ^{4,6} Disease
Total	23,270,367	5,896	1,983	-	153	2,224	1,280	13
Taipei Area								
Taipei City	2,662,097	832	444	-	14	377	185	2
New Taipei City	3,927,878	1,209	547	-	25	521	242	4
Keelung City	378,540	131	53	-	-	29	17	-
Yilan County	458,828	170	16	-	1	23	17	-
Kinmen County	108,497	1	7	-	2	1	1	-
Lienchiang County	10,708	1	2	-	-	-	-	-
Northern Area								
Taoyuan County	2,021,733	675	192	-	17	204	130	1
Hsinchu City	422,561	101	43	-	3	33	14	-
Hsinchu County	520,817	77	86	-	3	29	10	-
Miaoli County	562,993	95	50	-	9	21	12	-
Central Area								
Taichung City	2,674,644	679	109	-	23	272	142	2
Changhua County	1,301,454	204	34	-	-	52	54	-
Nantou County	521,501	91	15	-	2	22	17	2
Southern Area								
Yunlin County	712,274	112	37	-	1	29	38	1
Chiayi City	271,373	54	24	-	2	10	6	-
Chiayi County	535,832	76	21	-	1	11	10	-
Tainan City	1,879,302	314	93	-	33	146	89	-
Kao-Ping Area								
Kaohsiung City	2,776,565	676	116	-	9	336	216	-
Pingtung County	861,485	205	21	-	7	71	56	-
Penghu County	98,000	6	1	-	-	2	2	1
Eastern Area								
Hualien County	336,014	113	53	-	1	27	15	-
Taitung County	227,271	74	19	-	-	8	7	-
Others		-	-	-	-	-	-	-

Note:¹One case of enteroviruses infection with severe complications was imported in 2012.

⁴The confirmed cases of Hansen's disease included two Taiwanese, eight Indonesian and three Filipino.

⁶The caseload of syphilis, gonorrhea and Hansen's disease were estimated based on diagnosis date.

⁷The caseload of HIV infection and AIDS were estimated based on diagnosis date, and the cases of foreign nationality were excluded.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Category IV								
	Herpesvirus B Infection	Leptospirosis	Melioidosis	Botulism	Invasive ¹ Pneumococcal Disease	Q Fever ¹	Endemic ¹ Typhus Fever	Lyme ¹ Disease	Tularemia
Total	-	91	29	-	749	53	37	1	-
Taipei Area									
Taipei City	-	7	-	-	67	1	1	1	-
New Taipei City	-	15	-	-	150	1	2	-	-
Keelung City	-	1	-	-	21	-	1	-	-
Yilan County	-	1	-	-	21	1	-	-	-
Kinmen County	-	-	-	-	-	1	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-	-
Northern Area									
Taoyuan County	-	11	-	-	68	-	-	-	-
Hsinchu City	-	4	-	-	10	-	-	-	-
Hsinchu County	-	3	-	-	11	1	-	-	-
Miaoli County	-	2	-	-	15	-	1	-	-
Central Area									
Taichung City	-	10	1	-	66	1	2	-	-
Changhua County	-	2	-	-	60	9	7	-	-
Nantou County	-	4	-	-	20	2	1	-	-
Southern Area									
Yunlin County	-	1	1	-	22	-	2	-	-
Chiayi City	-	-	-	-	6	-	-	-	-
Chiayi County	-	2	1	-	20	1	-	-	-
Tainan City	-	1	-	-	58	11	4	-	-
Kao-Ping Area									
Kaohsiung City	-	13	21	-	69	19	10	-	-
Pingtung County	-	6	4	-	31	4	5	-	-
Penghu County	-	-	1	-	-	-	-	-	-
Eastern Area									
Hualien County	-	3	-	-	16	-	-	-	-
Taitung County	-	5	-	-	18	1	1	-	-
Others	-	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including three invasive pneumococcal disease, five Q fever, five endemic typhus fever, and one Lyme disease.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Midyear population	Category IV					
		Scrub ¹ Typhus	Varicella ⁵	Cat-Scratch Disease	Toxoplasmosis ¹	Complicated Influenza ¹	Creutzfeldt-Jakob Disease ⁶
Total	23,270,367	460	8,373	76	12	1,595	-
Taipei Area							
Taipei City	2,662,097	14	1,757	5	-	144	-
New Taipei City	3,927,878	20	2,066	16	-	440	-
Keelung City	378,540	2	160	3	-	6	-
Yilan County	458,828	3	130	1	2	28	-
Kinmen County	108,497	64	8	-	-	2	-
Lienchiang County	10,708	22	1	-	-	-	-
Northern Area							
Taoyuan County	2,021,733	11	769	13	-	88	-
Hsinchu City	422,561	3	261	1	-	15	-
Hsinchu County	520,817	8	328	3	1	29	-
Miaoli County	562,993	6	237	5	-	20	-
Central Area							
Taichung City	2,674,644	11	707	6	-	67	-
Changhua County	1,301,454	5	407	7	3	82	-
Nantou County	521,501	26	102	2	1	46	-
Southern Area							
Yunlin County	712,274	3	135	-	-	40	-
Chiayi City	271,373	-	47	-	-	9	-
Chiayi County	535,832	-	109	2	1	43	-
Tainan City	1,879,302	3	287	2	2	169	-
Kao-Ping Area							
Kaohsiung City	2,776,565	51	511	5	1	206	-
Pingtung County	861,485	17	120	1	-	59	-
Penghu County	98,000	77	54	-	-	4	-
Eastern Area							
Hualien County	336,014	44	86	3	-	36	-
Taitung County	227,271	70	91	1	1	62	-
Others		-	-	-	-	-	-

Note:¹ The case amount in 2012 contained imported cases, including two scrub typhus, one toxoplasmosis, and two complicated influenza.

⁵ Calculation for varicella was based on reported cases only.

⁶ The caseload of Creutzfeldt-Jakob disease was estimated based on diagnosis date.

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2012

Unit: Person

Area / Locality	Category IV		Category V					
	NDM-1 Enterobacte- riaceae	Brucellosis ¹¹	Rift Valley Fever	Marburg Haemorrhagic Fever	Yellow Fever	Ebola Haemorrhagic Fever	Lassa Fever	Severe ¹² Acute Respiratory Infections associated with Novel Coronavirus
Total	-	-	-	-	-	-	-	-
Taipei Area								
Taipei City	-	-	-	-	-	-	-	-
New Taipei City	-	-	-	-	-	-	-	-
Keelung City	-	-	-	-	-	-	-	-
Yilan County	-	-	-	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	-	-	-	-	-	-	-	-
Hsinchu City	-	-	-	-	-	-	-	-
Hsinchu County	-	-	-	-	-	-	-	-
Miaoli County	-	-	-	-	-	-	-	-
Central Area								
Taichung City	-	-	-	-	-	-	-	-
Changhua County	-	-	-	-	-	-	-	-
Nantou County	-	-	-	-	-	-	-	-
Southern Area								
Yunlin County	-	-	-	-	-	-	-	-
Chiayi City	-	-	-	-	-	-	-	-
Chiayi County	-	-	-	-	-	-	-	-
Tainan City	-	-	-	-	-	-	-	-
Kao-Ping Area								
Kaohsiung City	-	-	-	-	-	-	-	-
Pingtung County	-	-	-	-	-	-	-	-
Penghu County	-	-	-	-	-	-	-	-
Eastern Area								
Hualien County	-	-	-	-	-	-	-	-
Taitung County	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-

 Note:¹¹Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

¹²Severe acute respiratory infections associated with novel coronavirus has belonged to the list of Category V Notifiable Disease since October 3, 2012.

Table 2 Number of confirmed cases and incidence⁸ rate of notifiable diseases — by age group, 2012

Unit: Person

Disease	< 1 yr		1-4 yrs		5-14 yrs		15-24 yrs		25-39 yrs	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I										
Smallpox	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-
Rabies ¹	-	-	-	-	-	-	-	-	1	0.02
Anthrax	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever ¹	-	-	2	0.26	1	0.04	3	0.09	9	0.16
Dengue Fever ¹	-	-	8	1.04	75	3.02	163	5.06	360	6.40
Dengue Hemorrhagic Fever / ¹ Dengue Shock Syndrome	-	-	-	-	1	0.04	1	0.03	3	0.05
Meningococcal Meningitis ¹	1	0.49	1	0.13	-	-	-	-	-	-
Paratyphoid Fever ¹	-	-	-	-	-	-	-	-	6	0.11
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis ²	6	2.95	25	3.26	20	0.80	-	-	-	-
Shigellosis ¹	-	-	-	-	10	0.40	26	0.81	80	1.42
Amoebiasis ¹	-	-	-	-	-	-	29	0.90	165	2.93
Malaria ¹										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	-	-	-	-	-	-	3	0.09	2	0.04
Measles ¹	-	-	1	0.13	-	-	4	0.12	4	0.07
Acute Hepatitis A ¹	-	-	1	0.13	4	0.16	10	0.31	38	0.68
Enterohaemorrhagic <i>E. coli</i> Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including one rabies, 11 typhoid fever, 207 dengue fever, one dengue hemorrhagic fever /dengue shock syndrome, one meningococcal meningitis, seven paratyphoid fever, 106 shigellosis, 172 amoebiasis, 12 malaria, five measles, and 26 acute hepatitis A.

²No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis (AFP) was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992. AFP cases aged 15 years and above had been excluded since 2005.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases — by age group, 2012

Unit: Person

Disease	40-64 yrs		≥ 65 yrs		Age not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I								
Smallpox	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-
Rabies ¹	-	-	-	-	-	-	1	<0.01
Anthrax	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever ¹	4	0.05	7	0.27	-	-	26	0.11
Dengue Fever ¹	672	8.00	200	7.80	-	-	1,478	6.35
Dengue Hemorrhagic Fever / ¹ Dengue Shock Syndrome	18	0.21	13	0.51	-	-	36	0.15
Meningococcal Meningitis ¹	-	-	4	0.16	-	-	6	0.03
Paratyphoid Fever ¹	2	0.02	-	-	-	-	8	0.03
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis ²	-	-	-	-	-	-	51	0.22
Shigellosis ¹	32	0.38	7	0.27	-	-	155	0.67
Amoebiasis ¹	53	0.63	11	0.43	-	-	258	1.11
Malaria ¹								
Indigenous	-	-	-	-	-	-	-	-
Imported	7	0.08	-	-	-	-	12	0.05
Measles ¹	-	-	-	-	-	-	9	0.04
Acute Hepatitis A ¹	39	0.46	7	0.27	-	-	99	0.43
Enterohaemorrhagic <i>E. coli</i> Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome								
Hemorrhagic Fever with Renal Syndrome	1	0.01	-	-	-	-	1	<0.01
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	3	0.04	2	0.08	-	-	5	0.02

Note:¹The case amount in 2012 contained imported cases, including one rabies, 11 typhoid fever, 207 dengue fever, one dengue hemorrhagic fever /dengue shock syndrome, one meningococcal meningitis, seven paratyphoid fever, 106 shigellosis, 172 amoebiasis, 12 malaria, five measles, and 26 acute hepatitis A.

²No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis (AFP) was used for detecting cases of poliomyelitis after implementing the "Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus" in 1992. AFP cases aged 15 years and above had been excluded since 2005.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases — by age group, 2012

Unit: Person

Disease	< 1 yr		1-4 yrs		5-14 yrs		15-24 yrs		25-39 yrs	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category II										
Rubella ¹	-	-	2	0.26	-	-	2	0.06	6	0.11
MDR-TB ³	-	-	-	-	-	-	6	0.19	28	0.50
Chikungunya Fever ¹	-	-	-	-	1	0.04	-	-	3	0.05
West Nile Fever	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis ¹	24	11.81	7	0.91	4	0.16	5	0.16	8	0.14
Tetanus ⁵	1	0.49	-	-	-	-	1	0.03	2	0.04
Japanese Encephalitis	-	-	-	-	-	-	1	0.03	8	0.14
Tuberculosis ³										
Smear-positive	-	-	1	0.13	9	0.36	178	5.52	414	7.36
Others	-	-	13	1.69	42	1.69	378	11.73	768	13.66
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis										
B ¹	1	0.49	-	-	1	0.04	21	0.65	38	0.68
C	-	-	-	-	-	-	3	0.09	10	0.18
D	-	-	-	-	-	-	-	-	-	-
E ¹	-	-	-	-	-	-	-	-	-	-
Unspecified	-	-	-	-	2	0.08	-	-	1	0.02
Mumps ⁵	7	3.45	200	26.07	527	21.20	67	2.08	110	1.96
Legionellosis ¹	-	-	-	-	-	-	-	-	2	0.04
Invasive Haemophilus Influenzae Type b Infection	1	0.49	-	-	1	0.04	-	-	1	0.02
Syphilis ⁶	27	13.29	1	0.13	1	0.04	810	25.13	1,979	35.19
Gonorrhoea ⁶	1	0.49	-	-	5	0.20	572	17.74	1,087	19.33
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with ¹ Severe Complications	42	20.67	85	11.08	25	1.01	1	0.03	-	-
HIV Infection ⁷	-	-	-	-	1	0.04	635	19.70	1,208	21.48
AIDS ⁷	-	-	-	-	-	-	156	4.84	717	12.75

Note:¹The case amount in 2012 contained imported cases, including six rubella, five chikungunya fever, one pertussis, four acute hepatitis B, two acute hepatitis E, five legionellosis, and one enteroviruses infection with severe complications.

³The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

⁵Calculation for tetanus and mumps were based on reported cases only.

⁶The caseload of syphilis and gonorrhoea were estimated based on diagnosis date.

⁷The caseload of HIV infection and AIDS were estimated based on diagnosis date, and the cases of foreign nationality were excluded.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

**Table 2 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases
 — by age group, 2012**

Unit: Person

Disease	40-64 yrs		≥ 65 yrs		Age not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category II								
Rubella ¹	2	0.02	-	-	-	-	12	0.05
MDR-TB ³	63	0.75	43	1.68	-	-	140	0.60
Chikungunya Fever ¹	1	0.01	-	-	-	-	5	0.02
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Category III								
Pertussis ¹	4	0.05	2	0.08	-	-	54	0.23
Tetanus ⁵	3	0.04	10	0.39	-	-	17	0.07
Japanese Encephalitis	21	0.25	2	0.08	-	-	32	0.14
Tuberculosis ³								
Smear-positive	1,745	20.77	2,392	93.28	-	-	4,739	20.36
Others	2,366	28.16	4,032	157.24	-	-	7,599	32.66
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B ¹	30	0.36	6	0.23	-	-	97	0.42
C	9	0.11	12	0.47	-	-	34	0.15
D	-	-	-	-	-	-	-	-
E ¹	6	0.07	3	0.12	-	-	9	0.04
Unspecified	5	0.06	2	0.08	-	-	10	0.04
Mumps ⁵	113	1.34	37	1.44	-	-	1,061	4.56
Legionellosis ¹	47	0.56	39	1.52	-	-	88	0.38
Invasive Haemophilus Influenzae Type b Infection	-	-	-	-	-	-	3	0.01
Syphilis ⁶	1,850	22.02	1,228	47.89	-	-	5,896	25.34
Gonorrhea ⁶	299	3.56	19	0.74	-	-	1,983	8.52
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with ¹ Severe Complications	-	-	-	-	-	-	153	0.66
HIV Infection ⁷	359	4.27	21	0.82	-	-	2,224	9.56
AIDS ⁷	386	4.59	21	0.82	-	-	1,280	5.50

Note:¹The case amount in 2012 contained imported cases, including six rubella, five chikungunya fever, one pertussis, four acute hepatitis B, two acute hepatitis E, five legionellosis, and one enteroviruses infection with severe complications.

³The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

⁵Calculation for tetanus and mumps were based on reported cases only.

⁶The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

⁷The caseload of HIV infection and AIDS were estimated based on diagnosis date, and the cases of foreign nationality were excluded.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases — by age group, 2012

Unit: Person

Disease	< 1 yr		1-4 yrs		5-14 yrs		15-24 yrs		25-39 yrs	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category III										
Hansen's Disease ^{4,6}	-	-	-	-	-	-	3	0.09	8	0.14
Category IV										
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-
Leptospirosis	-	-	-	-	-	-	7	0.22	21	0.37
Melioidosis	-	-	-	-	-	-	-	-	3	0.05
Botulism	-	-	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease ¹	11	5.41	161	20.99	58	2.33	8	0.25	54	0.96
Q Fever ¹	-	-	-	-	-	-	2	0.06	10	0.18
Endemic Typhus Fever ¹	-	-	-	-	-	-	-	-	6	0.11
Lyme Disease ¹	-	-	-	-	-	-	1	0.03	-	-
Tularemia	-	-	-	-	-	-	-	-	-	-
Scrub Typhus ¹	-	-	7	0.91	18	0.72	46	1.43	91	1.62
Varicella ⁵	323	158.96	642	83.69	3,651	146.84	1,636	50.75	1,609	28.61
Cat-Scratch Disease	-	-	5	0.65	10	0.40	22	0.68	25	0.44
Toxoplasmosis ¹	-	-	-	-	-	-	2	0.06	4	0.07
Complicated Influenza ¹	11	5.41	50	6.52	54	2.17	47	1.46	138	2.45
Creutzfeldt-Jakob Disease ⁶	-	-	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae	-	-	-	-	-	-	-	-	-	-
Brucellosis ¹¹	-	-	-	-	-	-	-	-	-	-
Category V										
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-
Severe Acute Respiratory Infections ¹² associated with Novel Coronavirus	-	-	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including three invasive pneumococcal disease, five Q fever, five endemic typhus fever, one Lyme disease, two scrub typhus, one toxoplasmosis, and two complicated influenza.

⁴The confirmed cases of Hansen's disease included two Taiwanese, eight Indonesian and three Filipino.

⁵Calculation for varicella was based on reported cases only.

⁶The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

¹¹Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

¹²Severe acute respiratory infections associated with novel coronavirus has belonged to the list of Category V Notifiable Disease since October 3, 2012.

Table 2 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases — by age group, 2012

Unit: Person

Disease	40-64 yrs		≥ 65 yrs		Age not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category III								
Hansen's Disease ^{4,6}	1	0.01	1	0.04	-	-	13	0.06
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis	48	0.57	15	0.58	-	-	91	0.39
Melioidosis	16	0.19	10	0.39	-	-	29	0.12
Botulism	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease ¹	198	2.36	259	10.10	-	-	749	3.22
Q Fever ¹	34	0.40	7	0.27	-	-	53	0.23
Endemic Typhus Fever ¹	26	0.31	5	0.19	-	-	37	0.16
Lyme Disease ¹	-	-	-	-	-	-	1	<0.01
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus ¹	242	2.88	56	2.18	-	-	460	1.98
Varicella ⁵	465	5.53	47	1.83	-	-	8,373	35.98
Cat-Scratch Disease	13	0.15	1	0.04	-	-	76	0.33
Toxoplasmosis ¹	6	0.07	-	-	-	-	12	0.05
Complicated Influenza ¹	525	6.25	770	30.03	-	-	1,595	6.85
Creutzfeldt-Jakob Disease ⁶	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae	-	-	-	-	-	-	-	-
Brucellosis ¹¹	-	-	-	-	-	-	-	-
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-
Severe Acute Respiratory Infections ¹² associated with Novel Coronavirus	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including three invasive pneumococcal disease, five Q fever, five endemic typhus fever, one Lyme disease, two scrub typhus, one toxoplasmosis, and two complicated influenza.

⁴The confirmed cases of Hansen's disease included two Taiwanese, eight Indonesian and three Filipino.

⁵Calculation for varicella was based on reported cases only.

⁶The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

¹¹Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

¹²Severe acute respiratory infections associated with novel coronavirus has belonged to the list of Category V Notifiable Disease since October 3, 2012.

Table 3 Number of confirmed cases of notifiable diseases — by month, 2012

Unit: Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category I													
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-	-	-	-
Rabies ¹	-	-	-	-	-	-	1	-	-	-	-	-	1
Anthrax	-	-	-	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-	-	-	-	-	-
Category II													
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid Fever ¹	-	3	4	3	1	3	2	-	2	1	4	3	26
Dengue Fever ¹	32	8	14	21	24	22	75	148	424	347	265	98	1,478
Dengue Hemorrhagic Fever / ¹ Dengue Shock Syndrome	-	-	-	-	-	-	1	7	5	8	9	6	36
Meningococcal Meningitis ¹	-	1	1	-	1	-	-	-	-	1	2	-	6
Paratyphoid Fever ¹	-	1	3	1	1	-	1	1	-	-	-	-	8
Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis ²	5	1	10	4	11	7	6	2	2	-	2	1	51
Shigellosis ¹	12	12	10	12	7	15	13	14	8	11	24	17	155
Amoebiasis ¹	15	24	26	19	22	23	21	29	25	19	18	17	258
Malaria¹													
Indigenous	-	-	-	-	-	-	-	-	-	-	-	-	-
Imported	-	1	-	1	3	-	1	1	1	2	2	-	12
Measles ¹	-	1	2	2	2	1	-	1	-	-	-	-	9
Acute Hepatitis A ¹	6	15	8	5	8	5	12	8	10	5	8	9	99
Enterohaemorrhagic <i>E. coli</i> Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome													
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	1	-	-	-	-	-	-	1
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	1	2	2	-	-	5

Note:¹The case amount in 2012 contained imported cases, including one rabies, 11 typhoid fever, 207 dengue fever, one dengue hemorrhagic fever /dengue shock syndrome, one meningococcal meningitis, seven paratyphoid fever, 106 shigellosis, 172 amoebiasis, 12 malaria, five measles, and 26 acute hepatitis A.

²No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis (AFP) was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992. AFP cases aged 15 years and above had been excluded since 2005.

Table 3 (Continued) Number of confirmed cases of notifiable diseases — by month, 2012

Unit: Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category II													
Rubella ¹	1	1	1	2	2	2	1	-	2	-	-	-	12
MDR-TB ³	5	15	12	16	13	16	15	7	9	9	12	11	140
Chikungunya Fever ¹	-	-	-	-	-	-	1	1	1	2	-	-	5
West Nile Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Category III													
Pertussis ¹	5	2	10	3	4	7	4	6	3	1	3	6	54
Tetanus ⁵	2	-	1	-	-	3	3	2	1	2	3	-	17
Japanese Encephalitis	-	-	-	-	10	15	4	-	1	1	1	-	32
Tuberculosis ³													
Smear-positive	335	394	425	407	423	410	400	418	411	381	373	362	4,739
Others	520	576	725	668	703	611	641	685	613	715	614	528	7,599
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis													
B ¹	9	10	10	13	9	8	6	2	4	9	11	6	97
C	4	7	5	3	5	-	4	1	2	1	1	1	34
D	-	-	-	-	-	-	-	-	-	-	-	-	-
E ¹	1	2	-	-	2	-	-	-	3	-	1	-	9
Unspecified	1	1	1	-	-	1	2	2	-	1	-	1	10
Mumps ⁵	55	67	63	95	118	139	98	90	115	76	71	74	1,061
Legionellosis ¹	6	2	3	5	7	11	11	12	6	3	7	15	88
Invasive Haemophilus Influenzae Type b Infection	2	-	-	-	-	-	-	-	-	-	1	-	3
Syphilis ⁶	386	437	546	510	526	471	549	510	498	504	493	466	5,896
Gonorrhea ⁶	147	174	175	158	179	162	174	173	148	171	153	169	1,983
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with ¹ Severe Complications	10	4	11	13	28	36	26	16	3	5	1	-	153
HIV Infection ⁷	131	147	201	193	235	153	197	200	192	208	184	183	2,224
AIDS ⁷	74	87	109	87	117	109	117	121	111	118	127	103	1,280

Note:¹The case amount in 2012 contained imported cases, including six rubella, five chikungunya fever, one pertussis, four acute hepatitis B, two acute hepatitis E, five legionellosis, and one enteroviruses infection with severe complications.

³The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

⁵Calculation for tetanus and mumps were based on reported cases only.

⁶The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

⁷The caseload of HIV infection and AIDS were estimated based on diagnosis date, and the cases of foreign nationality were excluded.

Table 3 (Continued) Number of confirmed cases of notifiable diseases — by month, 2012

Unit: Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category III													
Hansen's Disease ^{4,6}	-	1	2	2	1	1	2	1	2	-	-	1	13
Category IV													
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis	3	-	3	1	9	13	10	18	14	7	7	6	91
Melioidosis	3	1	2	2	2	3	3	5	1	2	3	2	29
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease ¹	111	70	78	76	36	49	49	41	48	55	67	69	749
Q Fever ¹	1	3	6	6	8	7	6	4	2	4	3	3	53
Endemic Typhus Fever ¹	2	1	-	7	4	7	1	3	4	4	3	1	37
Lyme Disease ¹	-	-	-	-	1	-	-	-	-	-	-	-	1
Tularemia	-	-	-	-	-	-	-	-	-	-	-	-	-
Scrub Typhus ¹	29	12	2	20	48	91	59	41	59	43	26	30	460
Varicella ⁵	826	686	650	778	654	528	450	509	532	749	906	1,105	8,373
Cat-Scratch Disease	2	1	6	3	9	2	13	14	3	7	10	6	76
Toxoplasmosis ¹	-	3	2	-	-	1	2	3	-	-	1	-	12
Complicated Influenza ¹	595	257	132	77	93	168	178	64	16	4	5	6	1,595
Creutzfeldt-Jakob Disease ⁶	-	-	-	-	-	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis ¹¹	-	-	-	-	-	-	-	-	-	-	-	-	-
Category V													
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Severe Acute Respiratory Infections ¹² associated with Novel Coronavirus	-	-	-	-	-	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including three invasive pneumococcal disease, five Q fever, five endemic typhus fever, one Lyme disease, two scrub typhus, one toxoplasmosis, and two complicated influenza.

⁴The confirmed cases of Hansen's disease included two Taiwanese, eight Indonesian and three Filipino.

⁵Calculation for varicella was based on reported cases only.

⁶The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date.

¹¹Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

¹²Severe acute respiratory infections associated with novel coronavirus has belonged to the list of Category V Notifiable Disease since October 3, 2012.

Table 4 Number of confirmed cases and incidence⁸ rate of notifiable diseases — by sex, 2012

Unit: Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I								
Smallpox	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-
Rabies ¹	-	-	1	0.01	-	-	1	<0.01
Anthrax	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever ¹	16	0.14	10	0.09	-	-	26	0.11
Dengue Fever ¹	732	6.30	746	6.40	-	-	1,478	6.35
Dengue Hemorrhagic Fever/ ¹ Dengue Shock Syndrome	18	0.16	18	0.15	-	-	36	0.15
Meningococcal Meningitis ¹	3	0.03	3	0.03	-	-	6	0.03
Paratyphoid Fever ¹	3	0.03	5	0.04	-	-	8	0.03
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis ²	19	0.16	32	0.27	-	-	51	0.22
Shigellosis ¹	100	0.86	55	0.47	-	-	155	0.67
Amoebiasis ¹	146	1.26	112	0.96	-	-	258	1.11
Malaria ¹								
Indigenous	-	-	-	-	-	-	-	-
Imported	1	0.01	11	0.09	-	-	12	0.05
Measles ¹	2	0.02	7	0.06	-	-	9	0.04
Acute Hepatitis A ¹	42	0.36	57	0.49	-	-	99	0.43
Enterohaemorrhagic <i>E. coli</i> Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome								
Hemorrhagic Fever with Renal Syndrome	-	-	1	0.01	-	-	1	<0.01
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	2	0.02	3	0.03	-	-	5	0.02

Note:¹ The case amount in 2012 contained imported cases, including one rabies, 11 typhoid fever, 207 dengue fever, one dengue hemorrhagic fever /dengue shock syndrome, one meningococcal meningitis, seven paratyphoid fever, 106 shigellosis, 172 amoebiasis, 12 malaria, five measles, and 26 acute hepatitis A.

²No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis (AFP) was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992. AFP cases aged 15 years and above had been excluded since 2005.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 4 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases — by sex, 2012

Unit: Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category II								
Rubella ¹	2	0.02	10	0.09	-	-	12	0.05
MDR-TB ³	36	0.31	104	0.89	-	-	140	0.60
Chikungunya Fever ¹	4	0.03	1	0.01	-	-	5	0.02
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Category III								
Pertussis ¹	29	0.25	25	0.21	-	-	54	0.23
Tetanus ⁵	7	0.06	10	0.09	-	-	17	0.07
Japanese Encephalitis	15	0.13	17	0.15	-	-	32	0.14
Tuberculosis ³								
Smear-positive	1,242	10.70	3,497	29.99	-	-	4,739	20.36
Others	2,443	21.04	5,156	44.22	-	-	7,599	32.66
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B ¹	41	0.35	56	0.48	-	-	97	0.42
C	10	0.09	24	0.21	-	-	34	0.15
D	-	-	-	-	-	-	-	-
E ¹	3	0.03	6	0.05	-	-	9	0.04
Unspecified	9	0.08	1	0.01	-	-	10	0.04
Mumps ⁵	432	3.72	629	5.39	-	-	1,061	4.56
Legionellosis ¹	14	0.12	74	0.63	-	-	88	0.38
Invasive Haemophilus Influenzae Type b Infection	-	-	3	0.03	-	-	3	0.01
Syphilis ⁶	1,473	12.69	4,423	37.93	-	-	5,896	25.34
Gonorrhoea ⁶	112	0.96	1,871	16.05	-	-	1,983	8.52
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with ¹ Severe Complications	56	0.48	97	0.83	-	-	153	0.66
HIV Infection ⁷	73	0.63	2,151	18.45	-	-	2,224	9.56
AIDS ⁷	70	0.60	1,210	10.38	-	-	1,280	5.50

Note:¹The case amount in 2012 contained imported cases, including six rubella, five chikungunya fever, one pertussis, four acute hepatitis B, two acute hepatitis E, five legionellosis, and one enteroviruses infection with severe complications.

³The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

⁵Calculation for tetanus and mumps were based on reported cases only.

⁶The caseload of syphilis and gonorrhoea were estimated based on diagnosis date.

⁷The caseload of HIV infection and AIDS were estimated based on diagnosis date, and the cases of foreign nationality were excluded.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

**Table 4 (Continued) Number of confirmed cases and incidence⁸ rate of notifiable diseases
— by sex, 2012**

Unit: Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category III								
Hansen's Disease ^{4,6}	7	0.06	6	0.05	-	-	13	0.06
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis	12	0.10	79	0.68	-	-	91	0.39
Melioidosis	6	0.05	23	0.20	-	-	29	0.12
Botulism	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease ¹	278	2.39	471	4.04	-	-	749	3.22
Q Fever ¹	7	0.06	46	0.39	-	-	53	0.23
Endemic Typhus Fever ¹	7	0.06	30	0.26	-	-	37	0.16
Lyme Disease ¹	-	-	1	0.01	-	-	1	<0.01
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus ¹	147	1.27	313	2.68	-	-	460	1.98
Varicella ⁵	3,803	32.75	4,570	39.20	-	-	8,373	35.98
Cat-Scratch Disease	30	0.26	46	0.39	-	-	76	0.33
Toxoplasmosis ¹	7	0.06	5	0.04	-	-	12	0.05
Complicated Influenza ¹	731	6.30	864	7.41	-	-	1,595	6.85
Creutzfeldt-Jakob Disease ⁶	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae	-	-	-	-	-	-	-	-
Brucellosis ¹¹	-	-	-	-	-	-	-	-
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-
Severe Acute Respiratory Infections ¹² associated with Novel Coronavirus	-	-	-	-	-	-	-	-

Note:¹The case amount in 2012 contained imported cases, including three invasive pneumococcal disease, five Q fever, five endemic typhus fever, one Lyme disease, two scrub typhus, one toxoplasmosis, and two complicated influenza.

⁴The confirmed cases of Hansen's disease included two Taiwanese, eight Indonesian and three Filipino.

⁵Calculation for varicella was based on reported cases only.

⁶The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date.

⁸Incidence rate indicates the number of new confirmed cases per 100,000 population.

¹¹Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

¹²Severe acute respiratory infections associated with novel coronavirus has belonged to the list of Category V Notifiable Disease since October 3, 2012.

Table 5 Number of confirmed cases of notifiable diseases — by year, 2003-2012

Unit: Person

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Category I										
Smallpox	...	...	...	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	347	-	-	-	-	-	-	-	-	-
Rabies ¹	-	-	-	-	-	-	-	-	-	1
Anthrax	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza	...	...	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever ¹	40	38	35	43	34	33	80	33	49	26
Dengue Fever ¹	145	427	306	1,074	2,179	714	1,052	1,896	1,702	1,478
Dengue Hemorrhagic Fever/ ¹ Dengue Shock Syndrome	2	7	5	19	12	5	11	21	22	36
Meningococcal Meningitis ¹	26	24	20	13	20	19	2	7	5	6
Paratyphoid Fever ¹	15	19	13	10	6	11	6	12	6	8
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis ²	65	56	61	66	51	74	45	49	45	51
Shigellosis ¹	246	156	174	139	246	90	91	172	203	155
Amoebiasis ¹	121	96	120	125	145	227	190	262	256	258
Malaria ¹										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	34	18	26	26	13	18	11	21	17	12
Measles ¹	6	-	7	4	10	16	48	12	33	9
Acute Hepatitis A ¹	160	204	257	189	203	236	234	110	104	99
Enterohaemorrhagic <i>E. coli</i> Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	-	3	-	3	1	1	-	1	-	1
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	1	1	2	1	-	1	3	5	3	5

Note:¹The case amount in 2012 contained imported cases, including one rabies, 11 typhoid fever, 207 dengue fever, one dengue hemorrhagic fever /dengue shock syndrome, one meningococcal meningitis, seven paratyphoid fever, 106 shigellosis, 172 amoebiasis, 12 malaria, five measles, and 26 acute hepatitis A.

²No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis (AFP) was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992. AFP cases aged 15 years and above had been excluded since 2005.

Table 5 (Continued) Number of confirmed cases of notifiable diseases — by year, 2003-2012

Unit: Person

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Category II										
Rubella ¹	2	4	7	6	54	33	23	21	60	12
MDR-TB ^{3,9}	...	...	...	...	19	159	176	156	154	140
Chikungunya Fever ^{1,9}	...	...	...	...	2	9	9	13	1	5
West Nile Fever	...	...	...	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis ¹	26	21	38	14	41	41	90	61	77	54
Tetanus ⁵	13	16	16	14	10	18	12	12	10	17
Japanese Encephalitis	25	32	35	29	37	17	18	33	22	32
Tuberculosis ³										
Smear-positive	5,203	5,784	5,748	5,542	5,734	5,559	5,210	5,027	4,559	4,739
Others	9,839	11,000	10,724	9,836	8,746	8,706	8,126	8,210	8,075	7,599
Congenital Rubella Syndrome	-	-	-	-	1	1	-	-	-	-
Acute Hepatitis										
B ¹	326*	378	321	245	202	231	152	172	163	97
C	167	195	172	154	153	124	131	41	34	34
D	11	12	4	5	1	4	1	1	-	-
E ¹	10*	18	21	11	12	14	9	7	12	9
Unspecified	-	-	10	9	10	22	18	13	10	10
Mumps ⁵	676	1,081	1,158	971	1,208	1,145	1,068	1,125	1,171	1,061
Legionellosis ¹	109	106	38	56	56	69	84	102	97	88
Invasive Haemophilus Influenzae Type b Infection	22	20	12	16	16	12	14	12	9	3
Syphilis ⁶	3,947	5,209	5,305	5,808	5,798	6,526	6,668	6,482	6,372	5,896
Gonorrhea ⁶	1,626	1,978	1,515	1,437	1,442	1,621	2,137	2,265	1,978	1,983
Neonatal Tetanus ⁹	...	...	...	...	-	-	-	-	-	-
Enteroviruses Infection with ¹ Severe Complications	70	50	142	11	12	373	29	16	59	153
HIV Infection ⁷	857*	1,521*	3,403	2,938	1,935	1,752	1,648	1,796	1,967	2,224
AIDS ⁷	225*	257*	506	579	1,061	849	930	1,087	1,075	1,280

Note:¹The case amount in 2012 contained imported cases, including six rubella, five chikungunya fever, one pertussis, four acute hepatitis B, two acute hepatitis E, five legionellosis, and one enteroviruses infection with severe complications.

³The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

⁵Calculation for tetanus and mumps were based on reported cases only.

⁶The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

⁷The caseload of HIV infection and AIDS were estimated based on diagnosis date, and the cases of foreign nationality were excluded.

⁹The statistics of MDR-TB, chikungunya fever and neonatal tetanus were conducted with the proclamation validated since October 15, 2007.

*The collative case numbers see the appendix 1.

Table 5 (Continued) Number of confirmed cases of notifiable diseases — by year, 2003-2012

Unit: Person

Disease	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Category III										
Hansen's Disease ^{4,6}	2*	5*	9	11	12	8	7	5	5	13
Category IV										
Herpesvirus B Infection ⁹	...	...	...	...	-	-	-	-	-	-
Leptospirosis ⁹	...	...	...	...	10	47	203	77	55	91
Melioidosis ⁹	...	...	...	...	4	45	44	45	45	29
Botulism ⁹	...	...	...	...	4	11	1	11	6	-
Invasive Pneumococcal Disease ^{1,9}	...	...	...	...	169	805	690	737	837	749
Q Fever ^{1,9}	...	...	...	...	17	91	89	89	35	53
Endemic Typhus Fever ^{1,9}	...	...	...	...	6	31	40	42	26	37
Lyme Disease ^{1,9}	...	...	...	...	1	2	-	-	-	1
Tularemia ⁹	...	...	...	...	-	-	-	-	1	-
Scrub Typhus ¹	271	368	462	384	510	492	353	402	322	460
Varicella ⁵	12,270*	13,219	13,600	10,563	11,110	11,877	10,931	9,218	9,867	8,373
Cat-Scratch Disease ⁹	...	...	...	...	1	28	26	65	48	76
Toxoplasmosis ^{1,9}	...	...	...	...	2	3	7	5	5	12
Complicated Influenza ¹	16	19	33	25	26	22	1,134	882	1,481	1,595
Creutzfeldt-Jakob Disease ^{6,9}	...	...	...	...	-	-	3	-	-	-
NDM-1 Enterobacteriaceae ¹⁰	...	...	...	...	...	...	...	1	-	-
Brucellosis ¹¹	...	...	...	...	...	...	...	...	...	-
Category V										
Rift Valley Fever	...	...	...	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	...	...	...	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Lassa Fever	...	...	...	-	-	-	-	-	-	-
Severe Acute Respiratory Infections ¹² associated with Novel Coronavirus	...	...	...	...	...	...	...	...	...	-

Note:¹The case amount in 2012 contained imported cases, including three invasive pneumococcal disease, five Q fever, five endemic typhus fever, one Lyme disease, two scrub typhus, one toxoplasmosis, and two complicated influenza.

⁴The confirmed cases of Hansen's disease included two Taiwanese, eight Indonesian and three Filipino.

⁵Calculation for varicella was based on reported cases only.

⁶The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date.

⁹The statistics of herpesvirus B infection, leptospirosis, melioidosis, botulism, invasive pneumococcal disease, Q fever, endemic typhus fever, Lyme disease, tularemia, cat-scratch disease, toxoplasmosis and Creutzfeldt-Jakob disease were conducted with the proclamation validated since October 15, 2007.

¹⁰NDM-1 enterobacteriaceae has belonged to the list of Category IV Notifiable Disease since September 9, 2010.

¹¹Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

¹²Severe acute respiratory infections associated with novel coronavirus has belonged to the list of Category V Notifiable Disease since October 3, 2012.

* The collative case numbers see the appendix 1.

**Table 6 Analysis of time intervals between diagnosis and reporting for notifiable diseases
— by locality, 2012**

Unit: Day

Locality	2011			2012						
	No.	Average	Median	No.	Average	Median	<=24 hours		>24 hours	
							No.	%	No.	%
Total	7,489	0.3	0	6,750	0.3	0	6,711	99.4	39	0.6
Taipei City	1,001	0.4	0	873	0.4	0	873	100.0	-	-
New Taipei City	504	0.2	0	539	0.7	0	533	98.9	6	1.1
Taichung City	511	0.3	0	424	0.3	0	424	100.0	-	-
Tainan City	609	0.3	0	1,426	0.2	0	1,424	99.9	2	0.1
Kaohsiung City	2,945	0.3	0	2,049	0.4	0	2,047	99.9	2	0.1
Yilan County	67	0.7	0	47	0.1	0	47	100.0	-	-
Taoyuan County	541	0.3	0	504	0.2	0	476	94.4	28	5.6
Hsinchu County	11	0.1	0	9	0.1	0	9	100.0	-	-
Miaoli County	35	0.3	0	32	0.0	0	32	100.0	-	-
Changhua County	221	0.3	0	181	0.2	0	181	100.0	-	-
Nantou County	30	0.1	0	26	0.1	0	26	100.0	-	-
Yunlin County	62	0.1	0	56	0.1	0	56	100.0	-	-
Chiayi County	48	0.1	0	20	0.2	0	20	100.0	-	-
Pingtung County	331	0.2	0	164	0.2	0	164	100.0	-	-
Taitung County	50	0.4	0	55	0.5	0	55	100.0	-	-
Hualien County	183	0.3	0	151	0.2	0	150	99.3	1	0.7
Penghu County	159	0.2	0	30	0.3	0	30	100.0	-	-
Keelung City	35	0.0	0	27	0.1	0	27	100.0	-	-
Hsinchu City	70	0.2	0	75	0.1	0	75	100.0	-	-
Chiayi City	43	0.1	0	55	0.1	0	55	100.0	-	-
Kinmen County	12	0.3	0	7	0.1	0	7	100.0	-	-
Lienchiang County	21	0.4	0	-	-	-	-	-	-	-

Note: Listed infectious diseases should be reported within 24 hours, which was not included MDR-TB, HIV infection and AIDS.

Table 7 Analysis of time intervals between reporting and reports received from local health bureaus for notifiable diseases — by locality, 2012

Unit: Day

Locality	2011			2012							
	No.	Average	Median	No.	Average	Median	<=24 hours		>24 hours		
							No.	%	No.	%	
Total	7,489	0.0	0	6,750	0.0	0	6,750	100.0	-	-	
Taipei City	1,001	0.0	0	873	0.0	0	873	100.0	-	-	
New Taipei City	504	0.0	0	539	0.0	0	539	100.0	-	-	
Taichung City	511	0.0	0	424	0.0	0	424	100.0	-	-	
Tainan City	609	0.0	0	1,426	0.0	0	1,426	100.0	-	-	
Kaohsiung City	2,945	0.0	0	2,049	0.0	0	2,049	100.0	-	-	
Yilan County	67	0.0	0	47	0.0	0	47	100.0	-	-	
Taoyuan County	541	0.0	0	504	0.0	0	504	100.0	-	-	
Hsinchu County	11	0.0	0	9	0.0	0	9	100.0	-	-	
Miaoli County	35	0.0	0	32	0.0	0	32	100.0	-	-	
Changhua County	221	0.0	0	181	0.0	0	181	100.0	-	-	
Nantou County	30	0.0	0	26	0.0	0	26	100.0	-	-	
Yunlin County	62	0.0	0	56	0.0	0	56	100.0	-	-	
Chiayi County	48	0.0	0	20	0.0	0	20	100.0	-	-	
Pingtung County	331	0.0	0	164	0.0	0	164	100.0	-	-	
Taitung County	50	0.0	0	55	0.0	0	55	100.0	-	-	
Hualien County	183	0.0	0	151	0.0	0	151	100.0	-	-	
Penghu County	159	0.0	0	30	0.0	0	30	100.0	-	-	
Keelung City	35	0.0	0	27	0.0	0	27	100.0	-	-	
Hsinchu City	70	0.0	0	75	0.0	0	75	100.0	-	-	
Chiayi City	43	0.0	0	55	0.0	0	55	100.0	-	-	
Kinmen County	12	0.1	0	7	0.1	0	7	100.0	-	-	
Lienchiang County	21	0.0	0	-	-	-	-	-	-	-	

Note: Listed infectious diseases should be reported within 24 hours, which was not included MDR-TB, HIV infection and AIDS.

Table 8 Analysis of time intervals between reports received from local health bureaus to Taiwan CDC for notifiable diseases — by locality, 2012

Unit: Day

Locality	2011			2012							
	No.	Average	Median	No.	Average	Median	<=24 hours		>24 hours		
							No.	%	No.	%	
Total	7,489	0.0	0	6,750	0.0	0	6,750	100.0	-	-	
Taipei City	1,001	0.0	0	873	0.0	0	873	100.0	-	-	
New Taipei City	504	0.0	0	539	0.0	0	539	100.0	-	-	
Taichung City	511	0.0	0	424	0.0	0	424	100.0	-	-	
Tainan City	609	0.0	0	1,426	0.0	0	1,426	100.0	-	-	
Kaohsiung City	2,945	0.0	0	2,049	0.0	0	2,049	100.0	-	-	
Yilan County	67	0.0	0	47	0.0	0	47	100.0	-	-	
Taoyuan County	541	0.0	0	504	0.0	0	504	100.0	-	-	
Hsinchu County	11	0.0	0	9	0.0	0	9	100.0	-	-	
Miaoli County	35	0.0	0	32	0.0	0	32	100.0	-	-	
Changhua County	221	0.0	0	181	0.0	0	181	100.0	-	-	
Nantou County	30	0.0	0	26	0.0	0	26	100.0	-	-	
Yunlin County	62	0.0	0	56	0.0	0	56	100.0	-	-	
Chiayi County	48	0.0	0	20	0.0	0	20	100.0	-	-	
Pingtung County	331	0.0	0	164	0.0	0	164	100.0	-	-	
Taitung County	50	0.0	0	55	0.0	0	55	100.0	-	-	
Hualien County	183	0.0	0	151	0.0	0	151	100.0	-	-	
Penghu County	159	0.0	0	30	0.0	0	30	100.0	-	-	
Keelung City	35	0.0	0	27	0.0	0	27	100.0	-	-	
Hsinchu City	70	0.0	0	75	0.0	0	75	100.0	-	-	
Chiayi City	43	0.0	0	55	0.0	0	55	100.0	-	-	
Kinmen County	12	0.0	0	7	0.0	0	7	100.0	-	-	
Lienchiang County	21	0.0	0	-	-	-	-	-	-	-	

Note: Listed infectious diseases should be reported within 24 hours, which was not included MDR-TB, HIV infection and AIDS.

Table 9 Cases of Acute Flaccid Paralysis, Neonatal Tetanus, Congenital Rubella Syndrome, and Measles Eradication Program — by Locality, 2012

Unit: Person

Locality	Total					Acute flaccid paralysis					Neonatal tetanus				
	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)
Total	133	255	237	92.9	72	41	62	57	91.9	51	1	-	-	-	-
Taipei City	32	57	56	98.2	17	7	8	7	87.5	8	-	-	-	-	-
New Taipei City	6	39	37	94.9	7	1	4	4	100.0	3	-	-	-	-	-
Taichung City	-	27	26	96.3	12	-	11	10	90.9	9	-	-	-	-	-
Tainan City	22	26	26	100.0	13	15	16	16	100.0	12	-	-	-	-	-
Kaohsiung City	25	20	15	75.0	5	8	6	4	66.7	5	1	-	-	-	-
Yilan County	-	1	1	100.0	-	-	1	1	100.0	-	-	-	-	-	-
Taoyuan County	24	32	32	100.0	12	6	11	11	100.0	10	-	-	-	-	-
Hsinchu County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miaoli County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changhua County	7	6	6	100.0	3	2	2	2	100.0	2	-	-	-	-	-
Nantou County	-	7	7	100.0	-	-	-	-	-	-	-	-	-	-	-
Yunlin County	-	4	4	100.0	-	-	-	-	-	-	-	-	-	-	-
Chiayi County	1	1	1	100.0	-	-	-	-	-	-	-	-	-	-	-
Pingtung County	10	9	-	0.0	1	2	1	-	0.0	1	-	-	-	-	-
Taitung County	1	2	2	100.0	-	-	-	-	-	-	-	-	-	-	-
Hualien County	-	4	4	100.0	-	-	1	1	100.0	-	-	-	-	-	-
Penghu County	5	5	5	100.0	-	-	-	-	-	-	-	-	-	-	-
Keelung City	-	2	2	100.0	1	-	-	-	-	-	-	-	-	-	-
Hsinchu City	-	12	12	100.0	1	-	1	1	100.0	1	-	-	-	-	-
Chiayi City	-	1	1	100.0	-	-	-	-	-	-	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: 1. (1) Cases from active surveillance
 (2) Cases from passive surveillance
 (3) Investigated cases
 (3-1) Percentage of cases investigated
 (4) Confirmed Cases (AFP cases were confirmed by neurologists, others by lab and clinical symptoms.)
 2. Analysis unit: reporting jurisdictions.
 3. Acute flaccid paralysis cases aged 15 years and above had been excluded since 2005.

Table 9 (Continued) Cases of Acute Flaccid Paralysis, Neonatal Tetanus, Congenital Rubella Syndrome, and Measles Eradication Program — by Locality, 2012

Unit: Person

Locality	Congenital rubella syndrome					Measles					Rubella				
	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)
Total	2	-	-	-	-	55	127	119	93.7	9	34	66	61	92.4	12
Taipei City	-	-	-	-	-	18	30	30	100.0	4	7	19	19	100.0	5
New Taipei City	-	-	-	-	-	3	25	24	96.0	1	2	10	9	90.0	3
Taichung City	-	-	-	-	-	-	10	10	100.0	1	-	6	6	100.0	2
Tainan City	-	-	-	-	-	4	6	6	100.0	1	3	4	4	100.0	-
Kaohsiung City	1	-	-	-	-	7	7	4	57.1	-	8	7	7	100.0	-
Yilan County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taoyuan County	-	-	-	-	-	10	14	14	100.0	1	8	7	7	100.0	1
Hsinchu County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miaoli County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changhua County	-	-	-	-	-	3	3	3	100.0	-	2	1	1	100.0	1
Nantou County	-	-	-	-	-	-	5	5	100.0	-	-	2	2	100.0	-
Yunlin County	-	-	-	-	-	-	2	2	100.0	-	-	2	2	100.0	-
Chiayi County	-	-	-	-	-	1	1	1	100.0	-	-	-	-	-	-
Pingtung County	1	-	-	-	-	3	4	-	0.0	-	4	4	-	0.0	-
Taitung County	-	-	-	-	-	1	2	2	100.0	-	-	-	-	-	-
Hualien County	-	-	-	-	-	-	3	3	100.0	-	-	-	-	-	-
Penghu County	-	-	-	-	-	5	5	5	100.0	-	-	-	-	-	-
Keelung City	-	-	-	-	-	-	2	2	100.0	1	-	-	-	-	-
Hsinchu City	-	-	-	-	-	-	7	7	100.0	-	-	4	4	100.0	-
Chiayi City	-	-	-	-	-	-	1	1	100.0	-	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: 1. (1) Cases from active surveillance
 (2) Cases from passive surveillance
 (3) Investigated cases
 (3-1) Percentage of cases investigated
 (4) Confirmed Cases (AFP cases were confirmed by neurologists, others by lab and clinical symptoms.)
 2. Analysis unit: reporting jurisdictions.

Table 10 National Immunization coverage — by counties/cities

Unit: %

Vaccines	BCG			5 in1 (including DT, DTaP, 6in1)					
	2011			2011			2010		
Birth cohort	single dose			3rd dose			4th dose		
Dose	single dose			3rd dose			4th dose		
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	203,333	200,012	98.37	203,333	198,462	97.60	178,619	168,916	94.57
Taipei City	28,964	28,424	98.14	28,964	28,364	97.93	24,080	22,809	94.72
Taichung City	25,224	24,792	98.29	25,224	24,641	97.69	21,745	20,637	94.90
Tainan City	14,749	14,572	98.80	14,749	14,461	98.05	12,843	12,328	95.99
Kaohsiung City	21,865	21,575	98.67	21,865	21,375	97.76	19,194	18,020	93.88
New Taipei City	33,854	33,081	97.72	33,854	32,841	97.01	28,831	27,201	94.35
Yilan County	3,495	3,448	98.66	3,495	3,416	97.74	3,378	3,228	95.56
Taoyuan County	18,627	18,299	98.24	18,627	18,089	97.11	16,751	15,802	94.33
Hsinchu County	5,854	5,783	98.79	5,854	5,703	97.42	5,265	4,955	94.11
Miaoli County	5,248	5,175	98.61	5,248	5,136	97.87	4,328	4,047	93.51
Changhua County	11,474	11,336	98.80	11,474	11,311	98.58	10,071	9,603	95.35
Nantou County	3,617	3,558	98.37	3,617	3,512	97.10	3,432	3,245	94.55
Yunlin County	5,363	5,293	98.69	5,363	5,287	98.58	4,960	4,762	96.01
Chiayi County	3,563	3,542	99.41	3,563	3,513	98.60	3,357	3,240	96.51
Pingtung County	5,462	5,381	98.52	5,462	5,315	97.31	5,381	5,003	92.98
Taitung County	1,827	1,803	98.69	1,827	1,755	96.06	1,737	1,599	92.06
Hualien County	2,667	2,644	99.14	2,667	2,565	96.18	2,493	2,287	91.74
Penghu County	815	812	99.63	815	807	99.02	662	641	96.83
Keelung City	1,999	1,979	99.00	1,999	1,955	97.80	2,195	2,079	94.72
Hsinchu City	5,369	5,268	98.12	5,369	5,200	96.85	4,840	4,527	93.53
Chiayi City	1,992	1,968	98.80	1,992	1,958	98.29	1,973	1,880	95.29
Kinmen County	1,161	1,137	97.93	1,161	1,115	96.04	1,012	938	92.69
Lienchiang County	144	142	98.61	144	143	99.31	91	85	93.41

Note 1. Source: National Immunization Information System.

2. Vaccination period: January 2010 to December 2012.

3. Data was calculated in May 2013.

Table 10 (Continued) National Immunization coverage — by counties/cities

Unit: %

Vaccines	Hepatitis B						Varicella			MMR		
	2011			2011			2010			2010		
Birth cohort	2011			2011			2010			2010		
Dose	2nd dose			3rd dose			single dose			first dose		
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	203,333	199,815	98.27	203,333	198,565	97.66	178,619	173,483	97.12	178,619	173,817	97.31
Taipei City	28,964	28,541	98.54	28,964	28,347	97.87	24,080	23,314	96.82	24,080	23,361	97.01
Taichung City	25,224	24,813	98.37	25,224	24,632	97.65	21,745	21,222	97.59	21,745	21,209	97.54
Tainan City	14,749	14,469	98.10	14,749	14,469	98.10	12,843	12,589	98.02	12,843	12,595	98.07
Kaohsiung City	21,865	21,500	98.33	21,865	21,416	97.95	19,194	18,612	96.97	19,194	18,662	97.23
New Taipei City	33,854	33,049	97.62	33,854	32,876	97.11	28,831	27,894	96.75	28,831	27,937	96.90
Yilan County	3,495	3,465	99.14	3,495	3,418	97.80	3,378	3,304	97.81	3,378	3,313	98.08
Taoyuan County	18,627	18,274	98.10	18,627	18,097	97.15	16,751	16,188	96.64	16,751	16,234	96.91
Hsinchu County	5,854	5,773	98.62	5,854	5,710	97.54	5,265	5,116	97.17	5,265	5,127	97.38
Miaoli County	5,248	5,163	98.38	5,248	5,137	97.88	4,328	4,210	97.27	4,328	4,223	97.57
Changhua County	11,474	11,317	98.63	11,474	11,316	98.62	10,071	9,838	97.69	10,071	9,867	97.97
Nantou County	3,617	3,536	97.76	3,617	3,508	96.99	3,432	3,338	97.26	3,432	3,352	97.67
Yunlin County	5,363	5,308	98.97	5,363	5,293	98.69	4,960	4,853	97.84	4,960	4,871	98.21
Chiayi County	3,563	3,541	99.38	3,563	3,511	98.54	3,357	3,295	98.15	3,357	3,305	98.45
Pingtung County	5,462	5,367	98.26	5,462	5,321	97.42	5,381	5,201	96.65	5,381	5,191	96.47
Taitung County	1,827	1,806	98.85	1,827	1,761	96.39	1,737	1,664	95.80	1,737	1,667	95.97
Hualien County	2,667	2,631	98.65	2,667	2,567	96.25	2,493	2,401	96.31	2,493	2,412	96.75
Penghu County	815	809	99.26	815	806	98.90	662	647	97.73	662	652	98.49
Keelung City	1,999	1,981	99.10	1,999	1,960	98.05	2,195	2,135	97.27	2,195	2,139	97.45
Hsinchu City	5,369	5,239	97.58	5,369	5,205	96.95	4,840	4,656	96.20	4,840	4,679	96.67
Chiayi City	1,992	1,955	98.14	1,992	1,947	97.74	1,973	1,936	98.12	1,973	1,945	98.58
Kinmen County	1,161	1,135	97.76	1,161	1,126	96.99	1,012	981	96.94	1,012	987	97.53
Lienchiang County	144	143	99.31	144	142	98.61	91	89	97.80	91	89	97.80

Note 1. Source: National Immunization Information System.

2. Vaccination period: January 2010 to December 2012.

3. Data was calculated in May 2013.

Table 10 (Continued) National Immunization coverage — by counties/cities

Unit: %

Vaccines	JE					
	2010			2009		
Birth cohort	2010			2009		
Dose	2nd dose			3rd dose		
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	178,725	169,713	94.96	198,134	181,586	91.65
Taipei City	24,088	22,695	94.22	25,078	23,048	91.91
Taichung City	21,747	20,751	95.42	24,603	22,697	92.25
Tainan City	12,843	12,332	96.02	15,259	14,219	93.18
Kaohsiung City	19,192	18,197	94.82	21,546	19,747	91.65
New Taipei City	28,847	27,282	94.57	32,437	28,321	87.31
Yilan County	3,410	3,263	95.69	3,564	3,392	95.17
Taoyuan County	16,751	15,887	94.84	19,215	17,638	91.79
Hsinchu County	5,264	4,982	94.64	6,147	5,724	93.12
Miaoli County	4,328	4,091	94.52	4,689	4,256	90.77
Changhua County	10,078	9,647	95.72	11,131	10,543	94.72
Nantou County	3,441	3,280	95.32	3,632	3,361	92.54
Yunlin County	4,962	4,787	96.47	5,417	5,157	95.20
Chiayi County	3,362	3,258	96.91	3,589	3,432	95.63
Pingtung County	5,381	5,064	94.11	5,804	5,285	91.06
Taitung County	1,737	1,614	92.92	1,767	1,568	88.74
Hualien County	2,508	2,350	93.70	2,483	2,265	91.22
Penghu County	671	649	96.72	740	714	96.49
Keelung City	2,195	2,078	94.67	2,505	2,347	93.69
Hsinchu City	4,840	4,567	94.36	5,213	4,784	91.77
Chiayi City	1,973	1,895	96.05	2,158	2,012	93.23
Kinmen County	1,016	960	94.49	1,041	963	92.51
Lienchiang County	91	84	92.31	116	113	97.41

Note 1. Source: National Immunization Information System.
 2. Vaccination period: January 2009 to December 2012.
 3. Data was calculated in May 2013.

Table 10 (Continued) National Immunization coverage — by counties/cities

Unit: %

Vaccines	JE			MMR			Tdap-IPV		
Birth cohort	First grade of primary school								
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	210,568	205,790	97.73	210,527	206,696	98.18	210,582	205,885	97.77
Taipei City	20,132	19,798	98.34	20,132	19,861	98.65	20,132	19,843	98.56
Taichung City	27,778	27,049	97.38	27,814	27,091	97.40	27,819	27,091	97.38
Tainan City	15,741	14,760	93.77	15,722	15,419	98.07	15,727	15,359	97.66
Kaohsiung City	23,555	23,223	98.59	23,705	23,411	98.76	23,697	23,330	98.45
New Taipei City	34,944	33,494	95.85	34,802	33,227	95.47	34,856	32,769	94.01
Yilan County	4,082	4,036	98.87	4,088	4,051	99.09	4,081	4,038	98.95
Taoyuan County	21,927	21,719	99.05	21,934	21,805	99.41	21,913	21,748	99.25
Hsinchu County	5,950	5,858	98.45	5,962	5,906	99.06	5,954	5,869	98.57
Miaoli County	5,259	5,224	99.33	5,268	5,173	98.20	5,257	5,117	97.34
Changhua County	12,196	12,149	99.61	12,196	12,168	99.77	12,196	12,162	99.72
Nantou County	4,559	4,523	99.21	4,498	4,477	99.53	4,561	4,518	99.06
Yunlin County	6,187	6,146	99.34	6,187	6,168	99.69	6,178	6,147	99.50
Chiayi County	4,162	4,121	99.01	4,163	4,142	99.50	4,167	4,148	99.54
Pingtung County	7,174	7,027	97.95	7,172	7,112	99.16	7,164	7,062	98.58
Taitung County	1,953	1,916	98.11	1,953	1,932	98.92	1,950	1,918	98.36
Hualien County	2,895	2,883	99.59	2,877	2,868	99.69	2,877	2,867	99.65
Penghu County	718	715	99.58	697	697	100.00	697	697	100.00
Keelung City	3,062	2,984	97.45	3,063	2,987	97.52	3,062	3,009	98.27
Hsinchu City	4,879	4,759	97.54	4,879	4,791	98.20	4,879	4,783	98.03
Chiayi City	2,783	2,777	99.78	2,783	2,782	99.96	2,783	2,782	99.96
Kinmen County	565	562	99.47	565	561	99.29	565	561	99.29
Lienchiang County	67	67	100.00	67	67	100.00	67	67	100.00

Note 1. Source: National Immunization Information System.

2. Vaccination period: September 2011 to June 2012.

3. Data was calculated in May 2013.

4. Some first grade students get Tdap during September 2011 to June 2012. The above Tdap-IPV coverage includes those who receive Tdap+OPV.

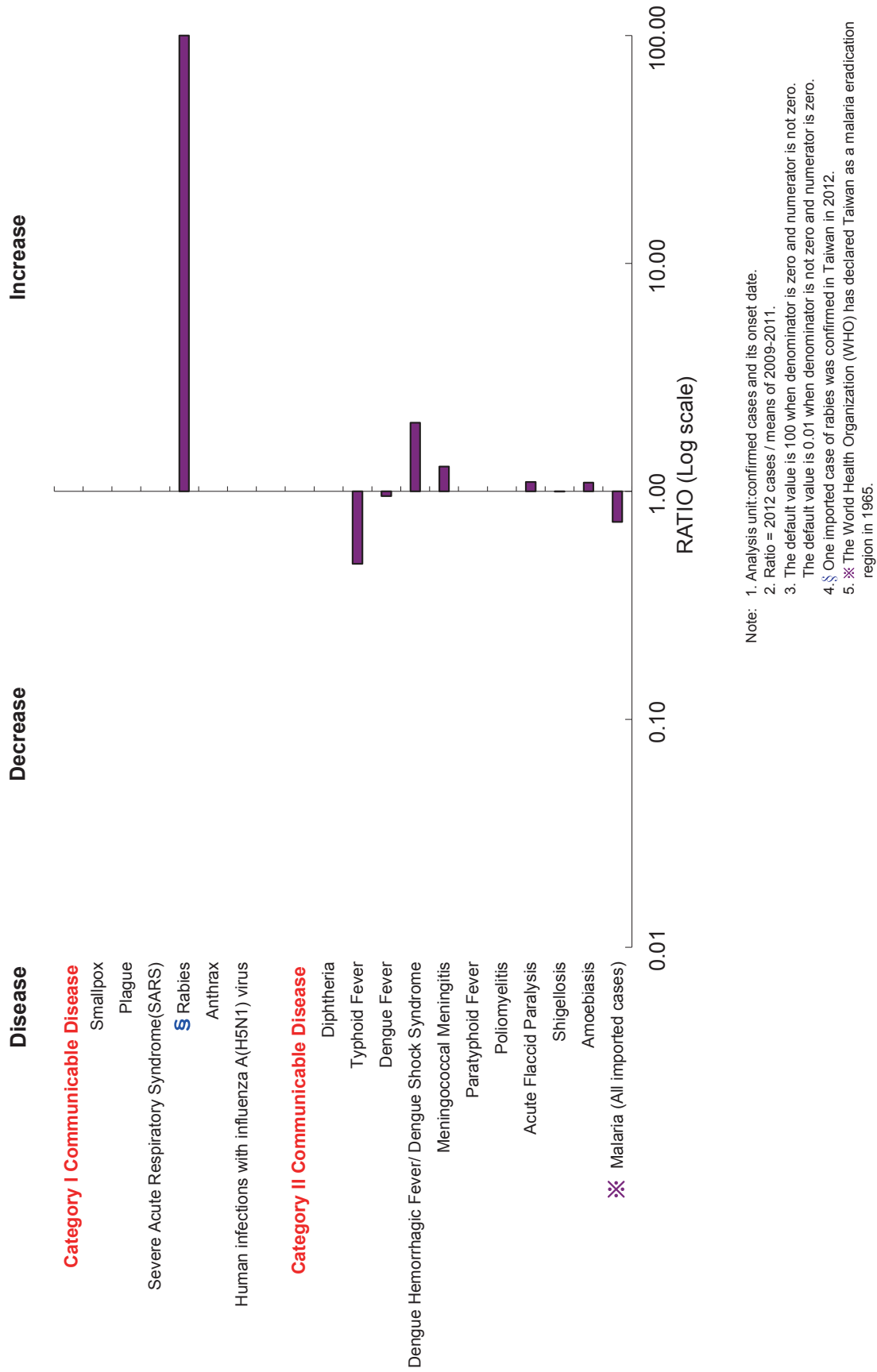
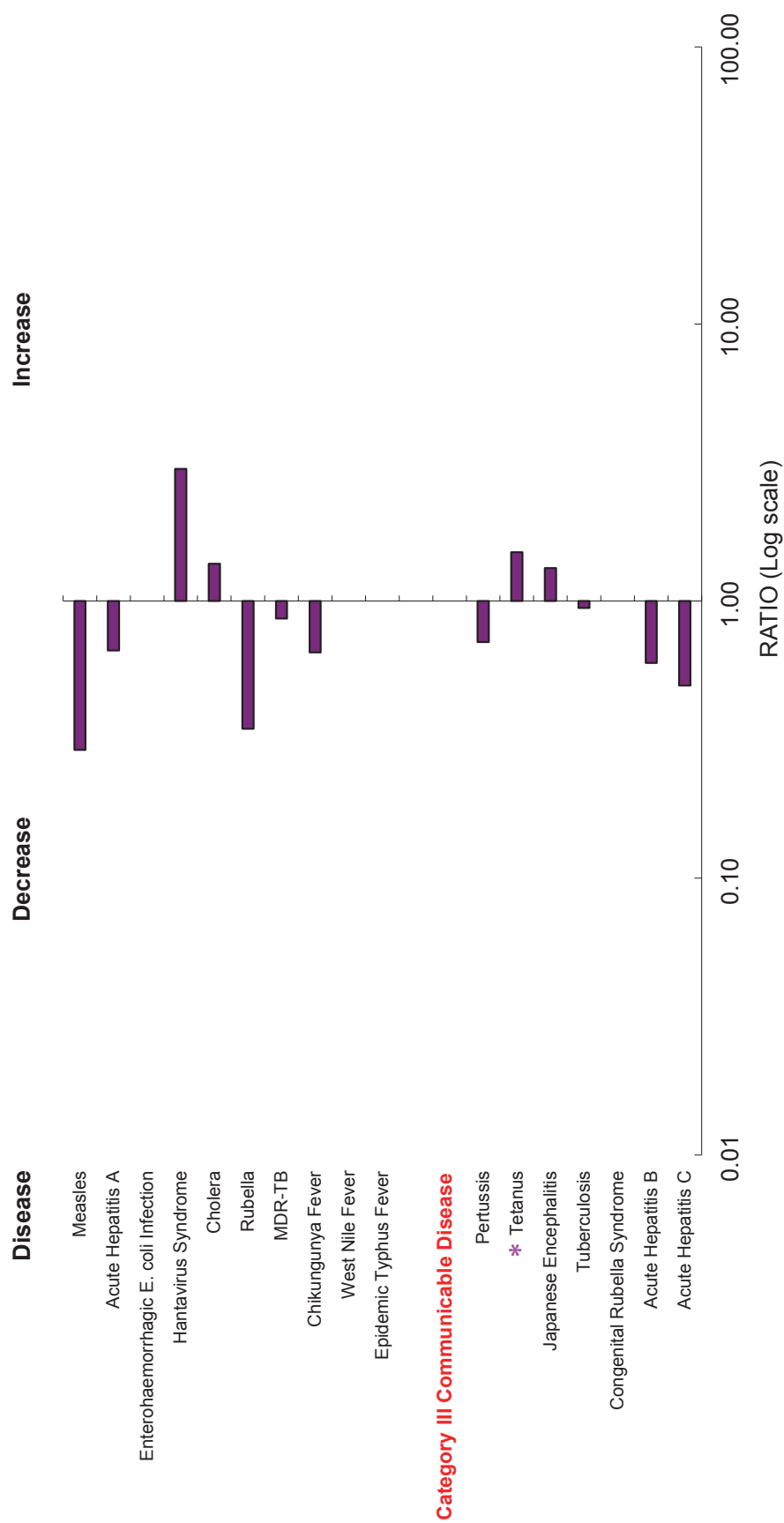


Figure 1 Comparison of 2012 total confirmed cases of notifiable diseases with historical data



Note: 1. Analysis unit: confirmed cases and its onset date.
 2. Ratio = 2012 cases / means of 2009-2011.
 3. The default value is 100 when denominator is zero and numerator is not zero.
 The default value is 0.01 when denominator is not zero and numerator is zero.
 4. * For tetanus, varicella and mumps : based on reported cases.

Figure 1 (Continued) Comparison of 2012 total confirmed cases of notifiable diseases with historical data

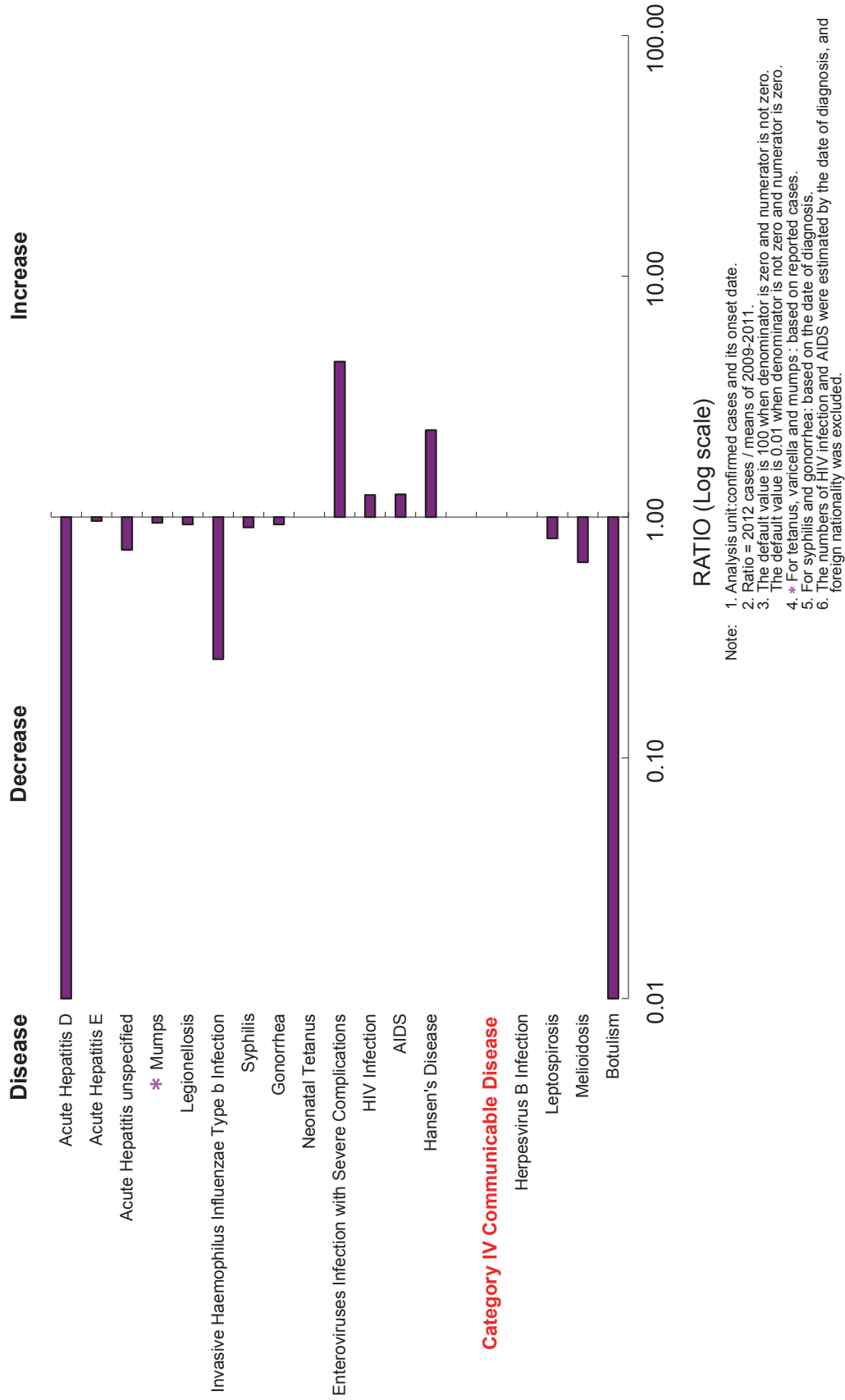


Figure 1 (Continued) Comparison of 2012 total confirmed cases of notifiable diseases with historical data

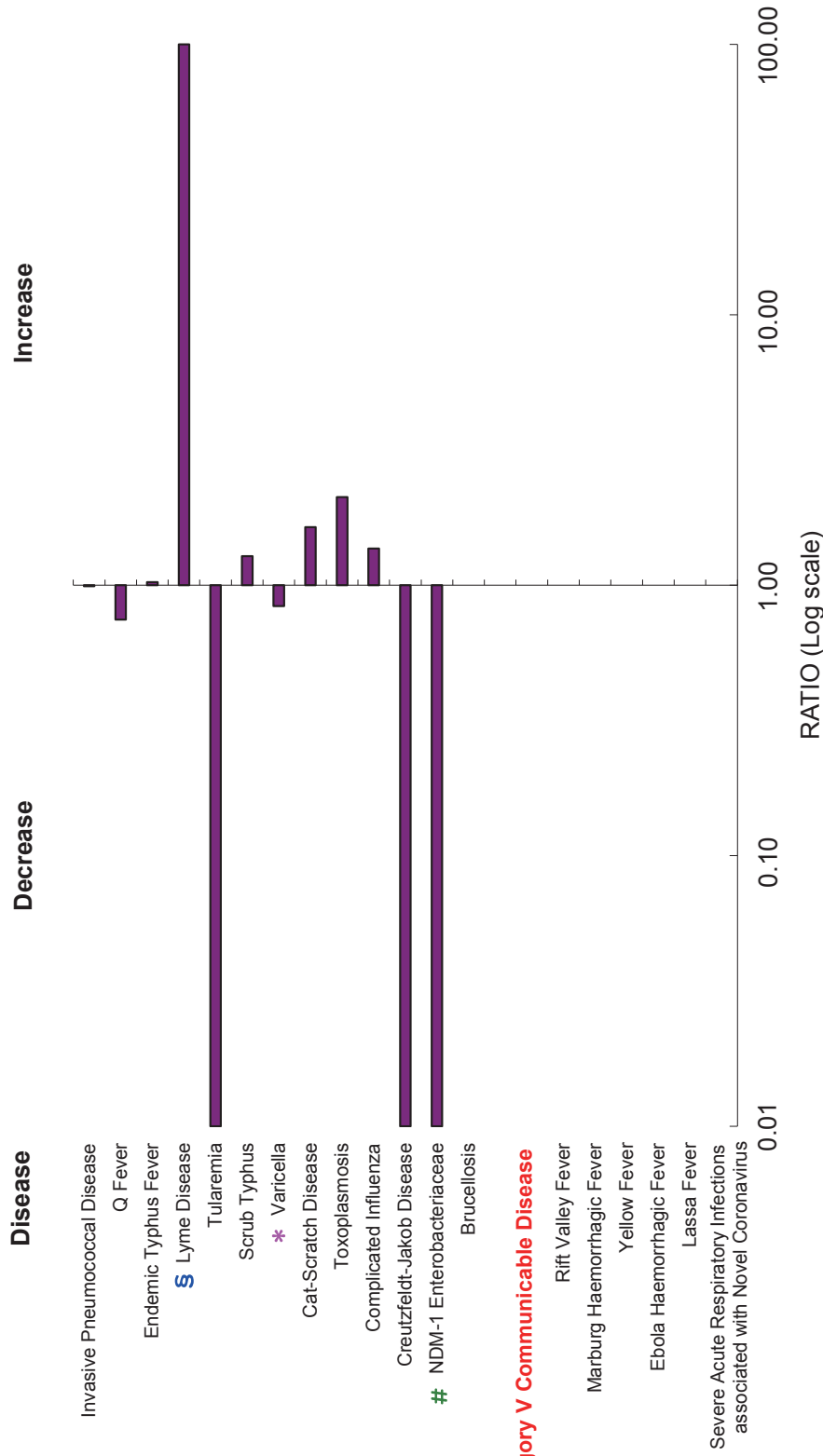
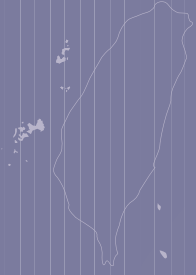


Figure 1 (Continued) Comparison of 2012 total confirmed cases of notifiable diseases with historical data



Specific Surveillance Systems

© Abbreviations and Symbols Used in Table
— No reported cases.
... Not under surveillance.

Nosocomial Infections Surveillance System

I. Preface

The "nosocomial infection" is limited to describing infections that acquired after admission to the hospitals, while the "healthcare-associated infection" (HAI) generally refers to those infections that occur in all settings of care, including hospitals, long-term care facilities, homecare facilities, or outpatient departments. In order to respond to continuous evolving in the contents of medical services and the expansion of surveillance range, "healthcare-associated infection" instead of "nosocomial infection" was commonly used internationally as well as in the definition of infection surveillance in the acute care settings that published by the US CDC in 2008. To monitor the occurrence of HAIs effectively, to evaluate the epidemiologic trend of HAIs in Taiwan, and to set up internationally comparable surveillance indicators, therefore all the information could be made use of collectively to serve as important references for policy making, Taiwan CDC had revised and launched the Taiwan Nosocomial Infections Surveillance System (TNIS) in 2007. Moreover, strengthening in functions and the utility of the surveillance system is continuously going on. TNIS system not only helps to gather demographic data of HAI cases and patient-specific cultures and antimicrobial susceptibility results from reporting hospitals, but also provides a format report function, so that reporting hospitals can analyze their data locally as a reference in developing quality improvement initiatives.

II. Objectives

1. Establish the epidemiological database of HAI in Taiwan
2. Discovery of HAI trends
3. Facilitation of inter- and intra-hospital comparisons that can be used for quality improvement activities
4. Assistance for hospitals in developing the appropriate surveillance mechanism that permits timely recognition of infection control problems.

III. Reporting methods, data analysis, and feedback

TNIS adopts voluntary reporting, and each hospital may provide their data either through web-based entry or convey their data electronically through interchange platform. The web-based report mechanism mainly serves for the hospitals which lack HAI surveillance system of their own. Hospital staff enters the HAI data on the TNIS website directly. The other mechanism, conveying surveillance data electronically through interchange platform, serves for the hospitals which had built their own HAI surveillance system. However, to enable interoperability between

hospital information systems (HIS) and TNIS system, infection control practitioner has to work on vocabularies mapping from local to standard codes and hospital information technology staff has to bridge the connection between the two systems and make the electronic data pack in a standard format according to the working instruction issued by Taiwan CDC. Through this mechanism, surveillance data could be routinely transferred from hospital information systems to the TNIS system automatically. This can save the hospital staff a lot of time because they would not need to repeatedly enter the data to both of hospital surveillance system and TNIS system. At present, more than 400 hospitals are reporting during 2012. Hospitals may use TNIS system to manage HAI cases and generate individual hospital reports. Also, Taiwan CDC periodically feedback hospitals with analysis report as a reference for inter- and intra-hospital comparisons, hope to facilitate hospitals to improve their quality in controlling HAIs and to safeguard the wellbeing of healthcare workers and the general public.

IV. Healthcare-associated infection surveillance data analysis content

1. TNIS hospitals in the intensive care units (ICUs) of medical centers and regional hospitals contributing data used in this report in 2012.
2. Distribution of HAI rates by type of location in the ICUs of medical centers and regional hospitals in 2012.
3. Distribution of device-associated infection rates in the ICUs of medical centers and regional hospitals in 2012.
4. Distribution of major sites of HAI in ICU patients from medical centers and regional hospitals in 2012.
5. Common pathogens of HAI for patients in the ICUs of medical centers in 2012.
6. Common pathogens of HAI for patients in the ICUs of regional hospitals in 2012.
7. Antimicrobial resistance proportions of selected pathogens of HAI in the ICUs of medical centers and regional hospitals in 2012.

V. Surveillance method and main results

Data for analysis were downloaded from the TNIS system on October 17, 2013. There were 21 medical centers and 82 regional hospitals reporting HAI data to TNIS system in 2012, the number of hospitals participated at each quarter was shown in Table 11.

This report should be considered provisional. When more information is available in TNIS system, Taiwan CDC will provide the updated analysis report of comparison and trend of years on its website as a reference for the general public.

The distributions of HAI rate ((number of HAIs/number of patient-days)×1000‰) in ICUs of medical centers and regional hospitals are shown in Table 12. There were 791,133 patient-days

with 6,542 person-times of HAI events occurred in the ICUs of 20 medical centers, the rate of infections was 8.3‰. However, in the ICUs of the 82 regional hospitals, there were 902,112 patient-days with 5,763 person-times of HAI events occurred, the rate of infections was 6.4‰. The HAI rates of ICUs were higher in medical centers than those in regional hospitals by corresponding types of ICU. The infection rate was highest in surgical ICU for medical centers (10.1‰) and highest in surgical ICU for regional hospitals (8.1‰). The distributions of device-associated infection rate in ICUs ((number of device-associated infections/ number of device-days)×1000‰) are shown in Figure 2. The median of catheter-associated urinary tract infection (CAUTI) rates was 3.5‰ in medical centers and 2.0‰ in regional hospitals, and the median of central line-associated bloodstream infection (CLABSI) rates were 4.7‰ and 2.0‰ respectively, the rate of CAUTI and the rate of CLABSI in ICUs of medical centers are higher than those in regional hospitals; the median of ventilator-associated pneumonia (VAP) rates in medical centers is similar with in regional hospitals, which are 0.6‰ and 0.5‰ respectively.

The distribution of site-specific HAIs in ICUs is shown in Table 13, with the bloodstream infections topped the list in medical centers (41.4%), followed by urinary tract (35.4%), and pneumonia (10.4%). In regional hospitals, the urinary tract infections topped the list (34.4%), followed by bloodstream infections (31.5%), and pneumonia (21.9%). The common pathogens for HAIs in ICUs are shown in Table 14 and Table 15, the top three pathogens in the ICUs were *Candida* species, *Acinetobacter baumannii*, and *Escherichia coli* in medical centers and regional hospitals. The proportions of antimicrobial resistance among selected pathogens identified from patients in the ICUs with HAIs are shown in Figure 3. In the ICUs of medical centers, the proportion of *A. baumannii* isolates those were resistant to carbapenem (CRAB) is 71.2%, the proportion of *Klebsiella pneumoniae* isolates those were resistant to carbapenem (CRKP) is 15.7%, the proportion of *P. aeruginosa* isolates those were resistant to carbapenem (CRPA) is 16.1%, the proportion of enterococci isolates those were resistant to vancomycin (VRE) is 24.4%, and the proportion of *S. aureus* isolates those were resistant to oxacillin (MRSA) is 66.9%. Meanwhile, the antimicrobial resistance proportions of selected pathogens isolated from patients acquired HAIs in the ICUs of regional hospitals were 63.0%, 11.1%, 13.9%, 21.5% and 72.6% for CRAB, CRKP, CRPA, VRE and MRSA, respectively.

VI. 2012 Data analysis of HAI in the ICUs of medical centers and regional hospitals

Table 11 TNIS hospitals in the ICUs of medical centers and regional hospitals contributing data used in this report, 2012

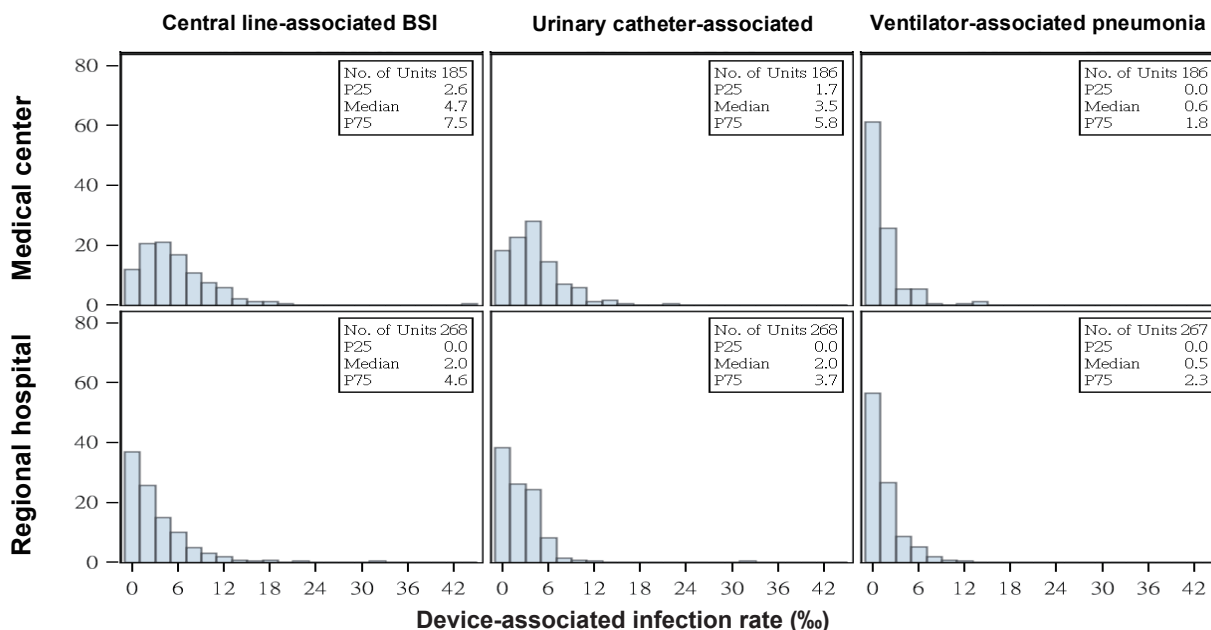
Hospital level	1 st Quarter		2 nd Quarter		3 rd Quarter		4 th Quarter	
	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs
Medical center	21	1,867	20	1,638	20	1,653	19	1,614
Regional hospital	81	1,621	81	1,458	80	1,363	81	1,406

Note: Data updated to 2013/10/17

Table 12 Distribution of healthcare-associated infection rates by type of locations in the ICUs of medical centers and regional hospitals, 2012

Hospital level	Type of locations	No. of units	No. of HAIs	Patient -days	HAI Rate* (‰)	Percentile		
						25th	50th	75th
Medical center	Medical ICU	53	2,268	240,519	9.4	6.0	8.2	12.6
	Surgical ICU	65	2,562	254,707	10.1	7.5	9.4	12.8
	Cardiology ICU	14	485	59,263	8.2	5.9	8.6	9.8
	Pediatric ICU	43	648	172,328	3.8	2.1	4.6	5.7
	Medical/surgical ICU	15	579	64,316	9.0	5.2	8.1	12.8
	Total	190	6,542	791,133	8.3			
Regional hospital	Medical ICU	59	1,514	258,649	5.9	4.3	5.9	7.7
	Surgical ICU	47	1,341	166,520	8.1	5.8	7.6	10.6
	Cardiology ICU	12	150	35,363	4.2	3.6	4.6	5.1
	Pediatric ICU	62	69	57,734	1.2	1.0	1.4	3.1
	Medical/surgical ICU	90	2,689	383,846	7.0	5.0	6.6	8.4
	Total	270	5,763	902,112	6.4			

Note: *HAI rate= (number of HAIs/number of patient-days) ×1000‰



Note:

1. device-associated infection rate= (number of HAIs/number of device-days) ×1000%;
2. each analysis of ICU data excluded rates for units that reported more device-associated HAIs than total HAIs or more device-days than patient-days ;
3. UTI, urinary tract infection; BSI, bloodstream infection

Figure 2. Distribution of device-associated infection rates in the ICUs of medical centers and regional hospitals, 2012

Table13. Distribution of major types of healthcare-associated infection in the ICU patients from medical centers and regional hospitals, 2012

Types of infection	Medical center		Regional hospital	
	No.	%	No.	%
Urinary tract	2,397	35.4	2,014	34.4
Bloodstream	2,801	41.4	1,842	31.5
Pneumonia	706	10.4	1,279	21.9
Surgical site	338	5.0	256	4.4
Other	530	7.8	457	7.8
Total	6,772	100	5,848	100

Note: proportion of specific infection type= (number of specific infection type /number of overall infection)×100%

Table 14. Common pathogens of healthcare-associated infections in the ICUs of medical centers, 2012

Pathogens	Types of Infection											
	Total		Urinary tract		Bloodstream		Pneumonia		Surgical site		Others	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
<i>Candida</i> spp.	1		1		2		9		8		6	
<i>C. albicans</i>		620		405		157		12		14		32
Other <i>Candida</i> spp. or NOS		421		233		169		3		5		11
<i>Acinetobacter baumannii</i>	2	799	6	130	1	440	1	146	7	27	3	56
<i>Escherichia coli</i>	3	692	2	446	9	153	7	22	3	42	8	29
<i>Pseudomonas aeruginosa</i>	4	643	4	198	6	194	2	137	1	55	2	59
<i>Klebsiella pneumoniae</i>	5	608	5	183	3	267	3	91	6	32	7	35
Yeast-like	6	493	3	412	13	54	11	11	16	3	11	13
<i>Staphylococcus aureus</i>	7	391	10	19	4	228	4	62	5	33	4	49
<i>Enterobacter</i> spp.	8		7		5		6		2		9	
<i>E. cloacae</i>		277		48		151		29		32		17
Other <i>Enterobacter</i> spp. or NOS.		90		17		46		8		14		5
Coagulase negative staphylococci	9	313	9	21	7	174	28	1	4	40	1	77
<i>Stenotrophomonas maltophilia</i>	10	251	12	12	8	154	5	61	10	9	10	15
Others		1,918		504		962		116		150		186
Total	-	7,516	-	2,628	-	3,149	-	699	-	456	-	584

Note:

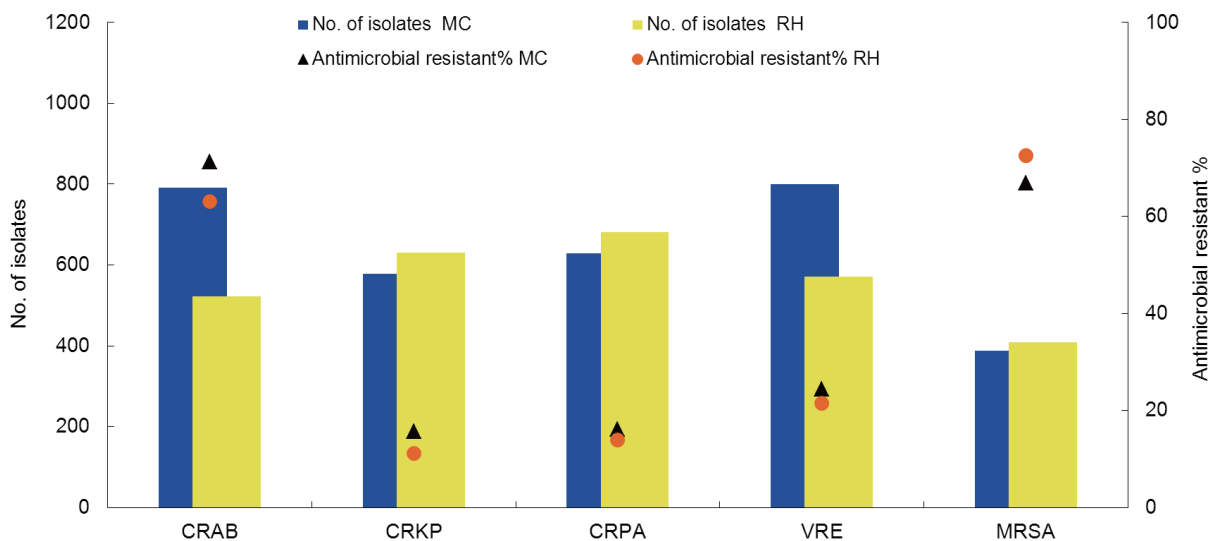
1. isolates of the same species of bacteria, regardless of antimicrobial susceptibility pattern, are counted only once per patient per infection. That is, no duplicate isolates are included;
2. NOS: not otherwise specified

Table 15. Common pathogens of healthcare-associated infections in the ICUs of regional hospitals, 2012

Pathogens	Types of Infection											
	Total		Urinary tract		Bloodstream		Pneumonia		Surgical site		Others	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
<i>Candida</i> spp.	1		1		2		9		4		6	
<i>C. albicans</i>		622		400		123		34		28		37
Other <i>Candida</i> spp. or NOS		244		130		100		4		4		6
<i>Acinetobacter baumannii</i>	2	780	6	112	1	234	1	314	6	21	1	99
<i>Escherichia coli</i>	3	758	2	502	6	132	5	64	2	34	7	26
<i>Pseudomonas aeruginosa</i>	4	735	3	216	7	118	2	286	1	59	3	56
<i>Klebsiella pneumoniae</i>	5	710	4	187	3	222	3	216	3	32	4	53
<i>Staphylococcus aureus</i>	6	449	9	38	5	183	4	183	7	18	5	52
Coagulase negative staphylococci	7	299	11	18	4	191	30	2	8	17	2	71
<i>Enterobacter</i> spp.	8		8		8		7		5		8	
<i>E. cloacae</i>		205		50		86		30		20		19
Other <i>Enterobacter</i> spp. or NOS.		83		19		25		23		9		7
Yeast-like	9	199	5	113	10	57	12	15	10	7	12	7
<i>Serratia marcescens</i>	10	130	14	15	9	75	11	26	14	4	10	10
Others		1,597		507		560		237		129		139
Total	-	6,811	-	2,307	-	2,106	-	1,434	-	382	-	582

Note:

1. isolates of the same species of bacteria, regardless of antimicrobial susceptibility pattern, are counted only once per patient per infection. That is, no duplicate isolates are included;
2. NOS: not otherwise specified



Note:

1. Intermediate and resistant results of antibiotic susceptibility tests were categorized as antimicrobial resistant
2. CRAB: carbapenem (imipenem or meropenem)-resistant *Acinetobacter baumannii*; CRKP: carbapenem (imipenem, meropenem, or ertapenem)-resistant *Klebsiella pneumoniae*; CRPA: carbapenem (imipenem or meropenem)-resistant *Pseudomonas aeruginosa*; VRE: vancomycin-resistant enterococci (*Enterococcus faecalis*, *Enterococcus faecium*...etc.); MRSA: oxacillin-resistant *Staphylococcus aureus*.

Figure 3. Antimicrobial resistances of selected pathogens of healthcare-associated infections in the ICUs of medical centers and regional hospitals, 2012

School-based Surveillance System

I. Introduction

The school-based surveillance system monitors principally common communicable diseases among school children. Elementary schools are places of high population density and school children tend to have lower resistance to diseases. The outbreak of a communicable disease in classrooms can easily turn into an epidemic. For the purpose of effectively detecting and controlling the spread of communicable diseases on school grounds, the Taiwan Centers for Disease Control (Taiwan CDC) launched a pilot program for schools to monitor and report communicable diseases in February 2001. The program started out with 20 reporting schools and now includes 659 elementary schools. By establishing the long-term trends of communicable diseases that school children are susceptible to, the program aims to achieve early detection and prevention of epidemics.

II. Objectives of surveillance system

Through the school-based surveillance system, Taiwan CDC is able to understand the trends in the incidence of infectious diseases in schools. Such information enables Taiwan CDC to predict the possibility of an outbreak, monitor closely an epidemic from the early stage, and take timely control measures to prevent the spread of communicable diseases in schools. Taiwan CDC also collaborates with school sanitation and hygiene education programs for the purposes of disease prevention and safeguarding the health of school children. The school-based surveillance system is a simple, flexible, specific and sensitive communicable disease surveillance and reporting system that can timely and effectively reflect the condition of communicable disease surveillance and reporting. The system also gathers communicable disease data of school children systematically for analysis and interpretation of epidemic situation as reference for evaluation and implementation of control measures. Therefore, the occurrence of communicable diseases in schools should be monitored on a continual basis to prevent the spread of those diseases to families or communities that may result in a serious epidemic.

The database of the school-based surveillance system monitors communicable diseases based on a diversified surveillance and reporting system to render the reporting of diseases more comprehensive.

III. Diseases under surveillance

Diseases reported under the school-based surveillance system include influenza-like illness, hand-foot-mouth disease or herpangina, diarrhea, fever, acute hemorrhagic conjunctivitis, and other communicable diseases.

IV. Reporting method, data analysis and data feedback

Schools participate in the surveillance system on a voluntary basis. The nurses of public primary schools report weekly case data to the system via the Internet before every Monday. Assigned staff at various substations of the Taiwan CDC supervises the upload and watch whether there are the epidemics of other communicable diseases. The weekly data are collected, analyzed, and compiled into a statistical chart that is periodically posted on the CDC’s website, and fed back to the reporting schools, relevant health and education facilities through the weekly “Sentinel Surveillance Weekly Report”.

V. Selective analysis of reportable diseases

1. Influenza-like illness

■ Case definition:

Acute respiratory infection with the following symptoms:

- (1) Sudden onset, with fever (ear temperature $\geq 38^{\circ}\text{C}$) and respiratory infection; and
- (2) Muscular soreness or headache or extreme fatigue.

■ Epidemic analysis:

According to the data from the school-based surveillance system, the morbidity of influenza-like illness in 2012 ranged from 0.07% to 0.71%. A higher morbidity of the disease was observed in week 1, but the overall situation during the rest of the year was generally lower compared with the year 2010 and 2011.

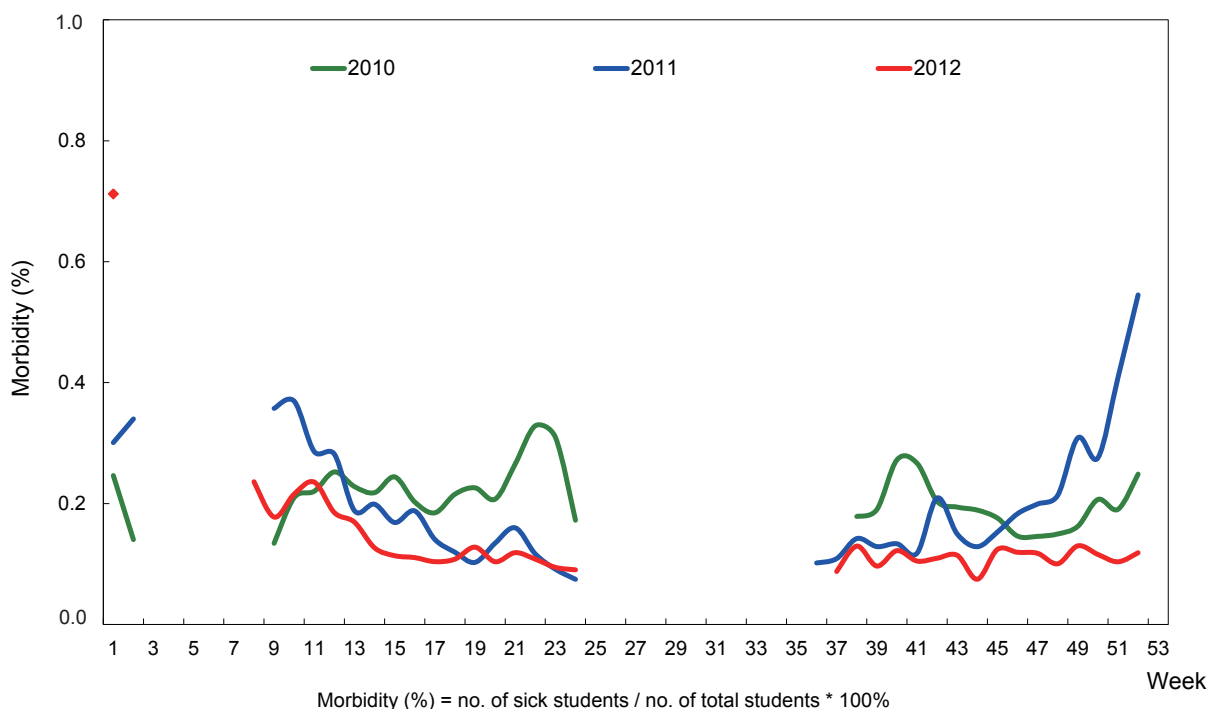


Figure 4 ILI morbidity reported by the School-based Surveillance System, 2010-2012

2. Hand-foot-mouth disease (HFMD) or herpangina

■ Case definition:

- (1) Case definition of hand-foot-mouth disease: Vesicular lesions or rashes appear on mouth, palms, soles, and/or knees and buttocks.
- (2) Case definition of herpangina: Fever and vesicular lesions or ulcer in pharyngeal area.

■ Epidemic analysis:

Data from the aforementioned surveillance system indicates that the morbidity of hand-foot-mouth disease (HFMD) or herpangina, was between 0.009% and 0.200% in 2012. The morbidity was significantly higher in week 1 and from week 8 to 21 compared with the same periods of the previous two years. The overall epidemic situation of the disease in 2012 was higher than that in 2011.



Figure 5 HFMD or herpangina morbidity reported by the School-based Surveillance System, 2010-2012

3. Diarrhea

■ Case definition:

Diarrhea three times or more per day, and accompanied by more than one of following symptoms:

- (1) Vomiting.
- (2) Fever.
- (3) Mucous stool or hematochezia.
- (4) Watery diarrhea.

■ Epidemic analysis:

As shown by the data from the surveillance system, the morbidity of diarrhea in 2012 was between 0.04% and 0.15%. Epidemic peaks in the condition were observed between weeks 39 and 52, and most significantly between weeks 50 and 52. The overall epidemic situation of the disease was higher than that in 2010 and 2011.

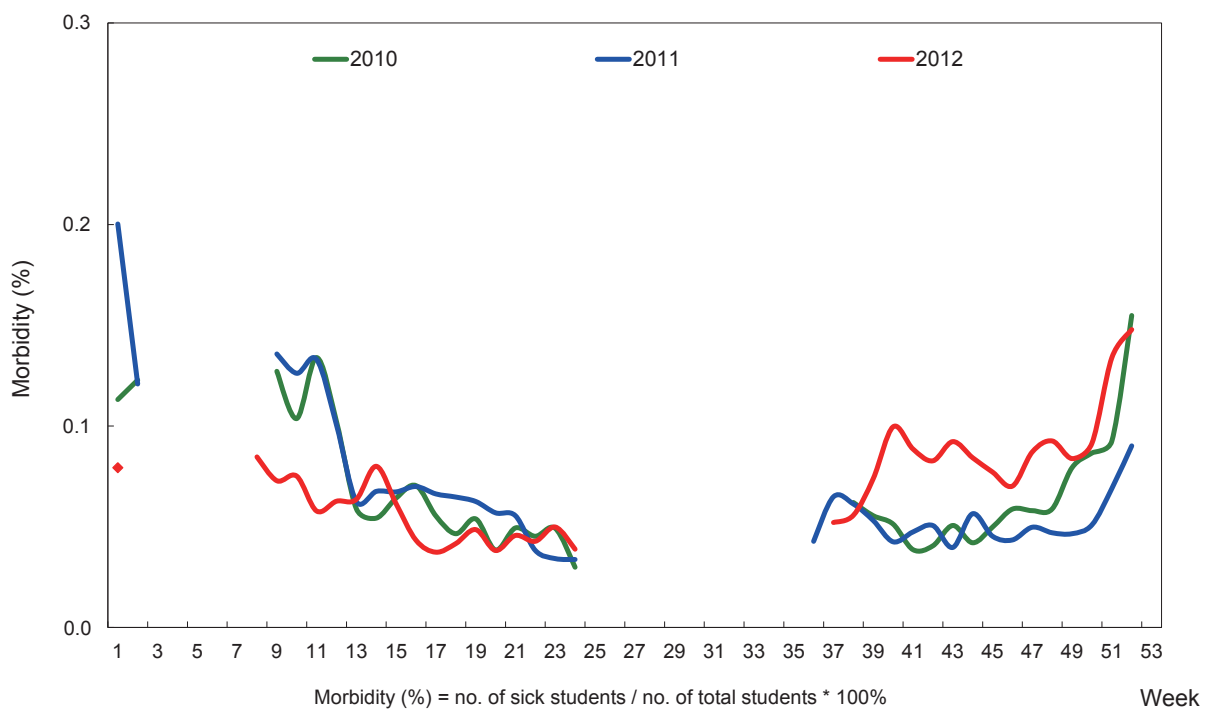


Figure 6 Diarrhea morbidity reported by the School-based Surveillance System, 2010-2012

4. Fever

■ **Case definition:**

Fever (ear temperature $\geq 38^{\circ}\text{C}$) but free of the illness or symptoms of influenza-like illness, diarrhea, hand-foot-mouth disease or herpangina.

■ **Epidemic analysis:**

According to the data from the surveillance system, the morbidity of fever in 2012 ranged from 0.26% to 1.05%. Apart from the higher morbidity of fever in week 1, the epidemic situation during the rest of the year was lower than that in 2011, although slightly higher than the situation in 2010.

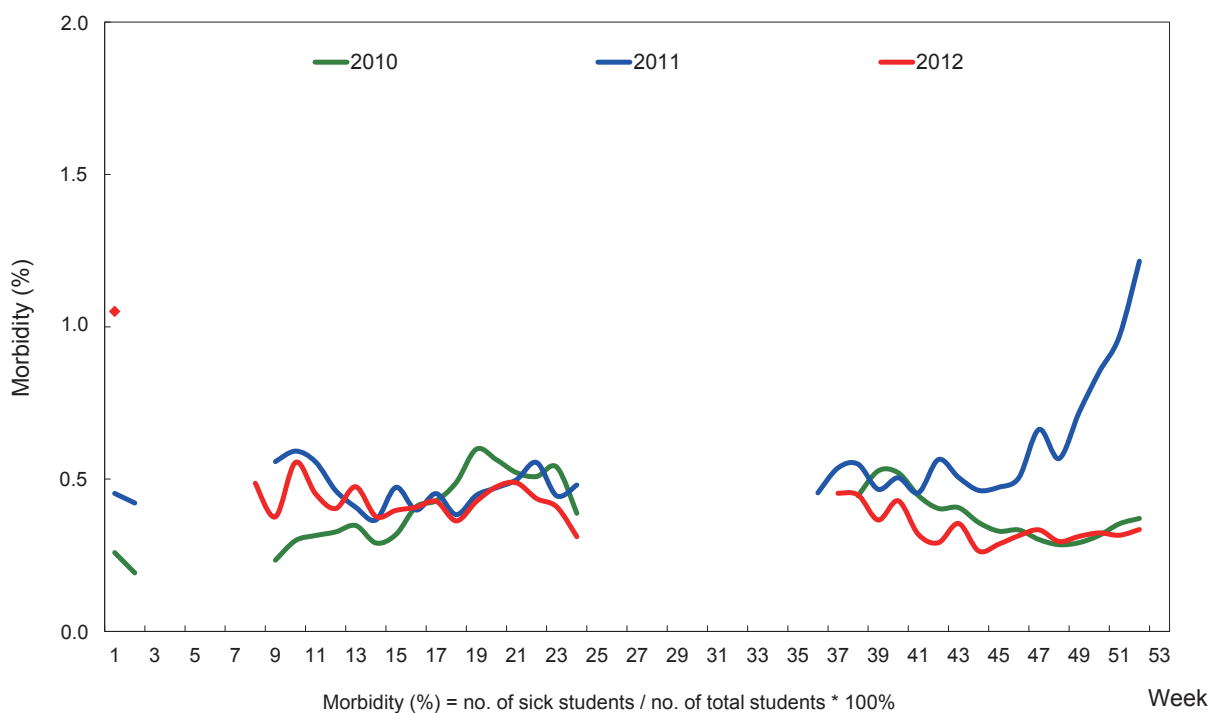


Figure 7 Fever morbidity reported by the School-based Surveillance System, 2010-2012

5. Acute hemorrhagic conjunctivitis (AHC)

■ Case definition:

Prickly, burning sensation of eyes, increased sensitivity to light, increased amount of tears, foreign body sensation, blurred vision; conjunctivas in bright redness, sometimes with subconjunctival hemorrhage; large amount of viscous discharge from the eyes; sometimes preauricular lymph node swelling and tenderness.

■ Epidemic analysis:

According to the data from the surveillance system, the morbidity of acute hemorrhagic conjunctivitis (AHC) in 2012 fluctuated between 0.016‰ and 0.115‰. The overall situation of AHC in 2012 was generally lower than that in 2010 and 2011, however, not significant change in 2012.

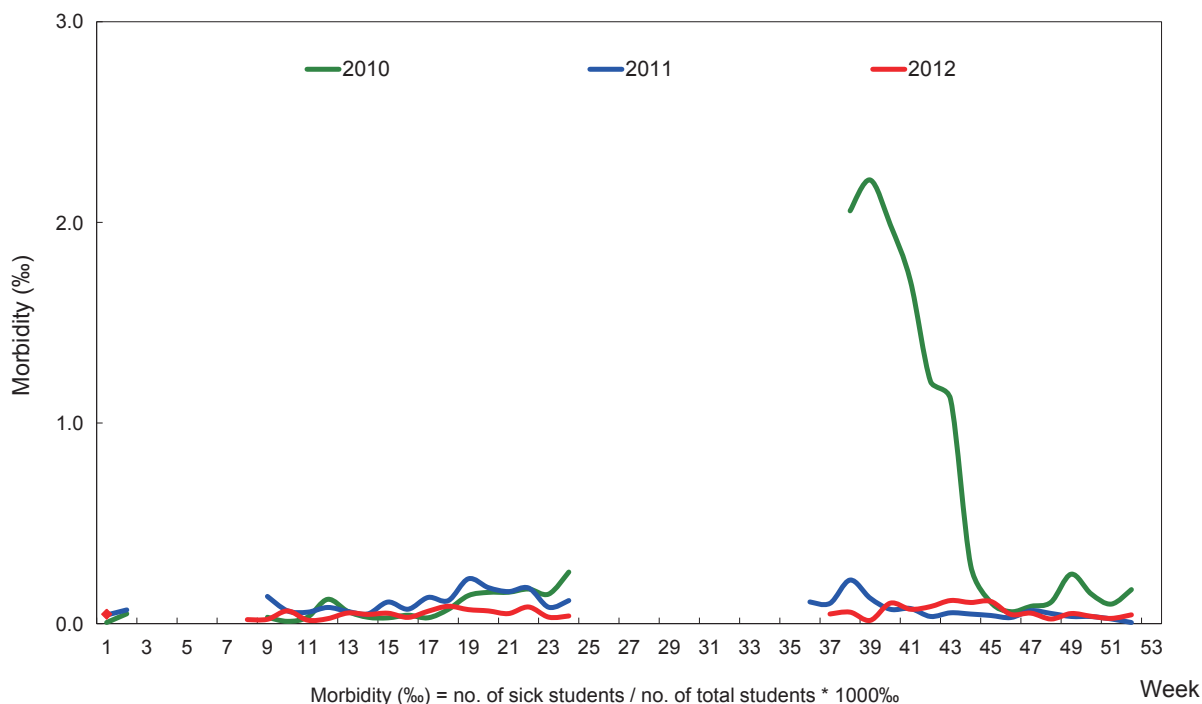


Figure 8 AHC morbidity reported by the School-based Surveillance System, 2010-2012

Laboratory Surveillance System

I. Origin

The outbreak of enteroviral infections in Taiwan in 1998 revealed the country's qualitative and quantitative weakness in viral disease laboratories. The Department of Health (DOH) therefore began to establish contracted viral disease laboratories throughout the country in March 1999. In addition to funding laboratory hardware and software, a particular effort was made to upgrade the laboratories' viral infection testing and staff training capabilities. These contracted laboratories have played an important role in testing for enterovirus and influenza virus in northern, central, southern, and eastern Taiwan. The surveillance system consisting of these contracted laboratories and their specimen-collecting locations have allowed the laboratories to provide prompt, high-quality laboratory testing services. Apart from realizing a testing system with separate central and local levels, increasing the testing rate for highly epidemic diseases, and providing timely testing results, the surveillance system also monitors major epidemic strains of enterovirus and influenza virus, as well as their antigenicity and drug resistance, on an annual basis. Communicable disease prevention policies are drafted based on surveillance information. The surveillance system will further serve to establish viral genome and biomaterial databases for Taiwan.

II. Distribution and responsibility areas of contracted laboratories

In 2012, a total of eight contracted laboratories for viral diseases were established throughout the country. Their locations and coverage areas are as follows: In North Taiwan, National Taiwan University Hospital (coverage area: Taipei City, Kinmen County, and Lienchiang County), Chang Gung Memorial Hospital at Linkou (coverage area: Taoyuan County, Hsinchu County, Hsinchu City and Miaoli County), Tri-Service General Hospital (coverage area: New Taipei City, Keelung City, Yilan County, and specimens from military hospitals); in Central Taiwan, Taichung Veterans General Hospital (coverage area: Taichung metropolitan area), Changhua Christian Hospital (coverage area: Changhua County, Nantou County and Yunlin County); in South Taiwan, National Cheng Kung University Hospital (coverage area: Chiayi County, Chiayi City and Tainan City), Kaohsiung Veterans General Hospital (coverage area: Kaohsiung City, Pingtung County, and Penghu County); and in East Taiwan, Buddhist Tzu Chi General Hospital (coverage area: Hualien County and Taitung County).

III. Sources of specimens and testing process

Specimens testing at the contracted laboratories chiefly come from hospitalized patients, outpatients, and emergency patients at medical centers within the laboratories' coverage areas, as well as from 250 specimen collection stations nationwide. Specimens are collected from patients with suspected influenza or enteroviral infections. The former patients should meet the criteria for influenza-like illness (symptoms including fever above 38°C, cough, sore throat or muscular pain; patients with mild rhinitis, tonsillitis, and bronchitis are excluded). The later should consist of patients with hand-foot-mouth disease or herpangina, and their specimens should be collected within three days after the onset of their illness. Generally, specimen collection stations get two samples per patient for sending to regional contracted laboratories weekly.

Another important task of the contracted laboratories is to test the specimens of reported cases of enteroviruses infection with severe complications and complicated influenza. The specimens are collected by the hospitals reporting the suspected cases, and sent to the contracted laboratories for testing with assistance from health bureaus. The test results provide a reference for clinical diagnosis of the suspected cases.

1. Collection of specimens

In 2012, the total number of specimens received by the contracted laboratories was 13,502, which represents an average of 1,125 per month. The contracted laboratories in central Taiwan received 4,604 specimens, which was the largest number of specimens in any region, whereas the laboratories in eastern Taiwan received 1,470 specimens, which was the lowest number of specimens.

2. Prevalence of enterovirus

In 2012, a total of 1,744 strains of enterovirus were isolated. After identification by immunofluorescence assay (IFA), 923 of them were classified as Enterovirus 71 (52.9%), 605 were found to be Coxsackievirus A (34.7%), and 80 were classified as Coxsackievirus B (4.6%). The remainder included 46 strains of Echovirus (2.6%) and 88 strains of non-polio enterovirus (NPEV) (5.0%).

Among 605 strains of Coxsackievirus A, a majority belonged to type A2 (65.8%) and type A4 (16.5%), whereas a majority of Coxsackievirus B strains constituted type B3 (63.8%). Most of the Echovirus strains (43.5%) were classified as type 4. (Figure 9).

Based on the DNA sequences of the NPEV strains, Coxsackievirus B3 accounted for the majority of NPEV strains, and the remaining strains consisted of Coxsackievirus A8, A21 and A2, Echovirus 25, and Coxsackievirus B2.

In summary, the five most common enteroviral strains were Enterovirus 71 (52.9%), Coxsackievirus A2 (22.8%), Coxsackievirus A4 (5.7%), Coxsackievirus A6 (3.8%) and Coxsackievirus B3 (2.9%). Statistics are shown in Figure 10.

3. Prevalence of influenza virus

A total of 1,872 strains of influenza virus were isolated in 2012. Among these, 875 strains were classified as influenza A with subtype H3 (46.7%), and 855 were classified as influenza B (45.7%). In addition, there were 139 strains of influenza A(H1N1)pdm09 (7.4%). During weeks 1 to 9 in 2012, the major epidemic strain of influenza virus was type B, while influenza A with subtype H3 predominated as the main epidemic strain after week 10. (Figure 11).

Isolated viral strains were subject to DNA sequencing, and the results showed that, among seasonal influenza A virus strains, all A(H1N1)pdm09 viruses were found to be the A/California/07/2009 type. No other seasonal A(H1N1) subtypes were found. The influenza A(H3N2) viruses were found to be the A/Victoria/361/2011 type. Type B influenza virus appeared at the beginning of the year, with B/Wisconsin/01/2010 (B/Yam) as the main type whereas the B/Brisbane/60/2008 (B/Vic) was only found in very few cases.

In summary, the most common influenza viral types in 2012 were, in order of frequency, INFAH3, INFB, and influenza A(H1N1)pdm09. Statistics are shown in Figure 12.

4. Epidemic situations of other respiratory tract viruses

Apart from influenza virus, 892 specimens were found to contain other respiratory tract viruses, including Adenovirus (36.4%), Parainfluenza virus (26.3%), Herpes simplex virus (HSV, 20.9%), Respiratory syncytial virus (RSV, 13.6%), and Cytomegalovirus (CMV, 2.8%). Data is shown in Figure 13.

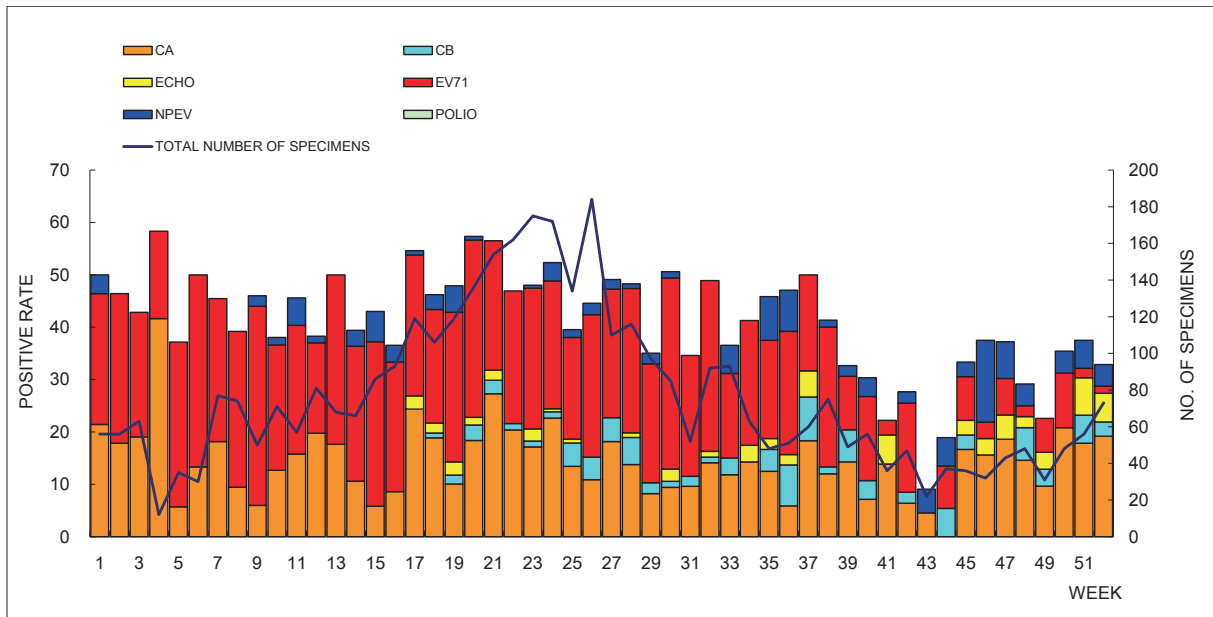


Figure 9 Enterovirus positive isolation rates in specimens collected by the sentinel physicians, 2012

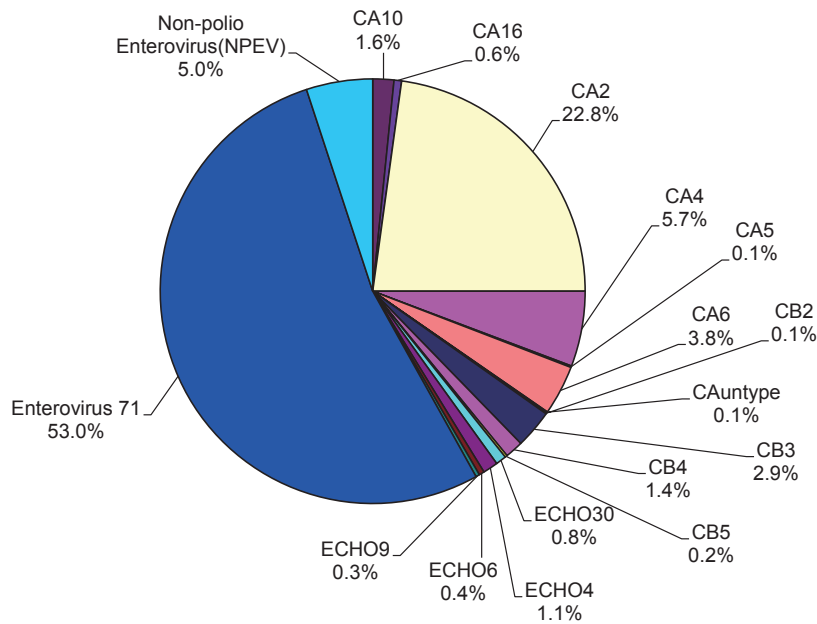


Figure 10 Strain ratios of enterovirus isolates from specimens collected by the sentinel physicians, 2012

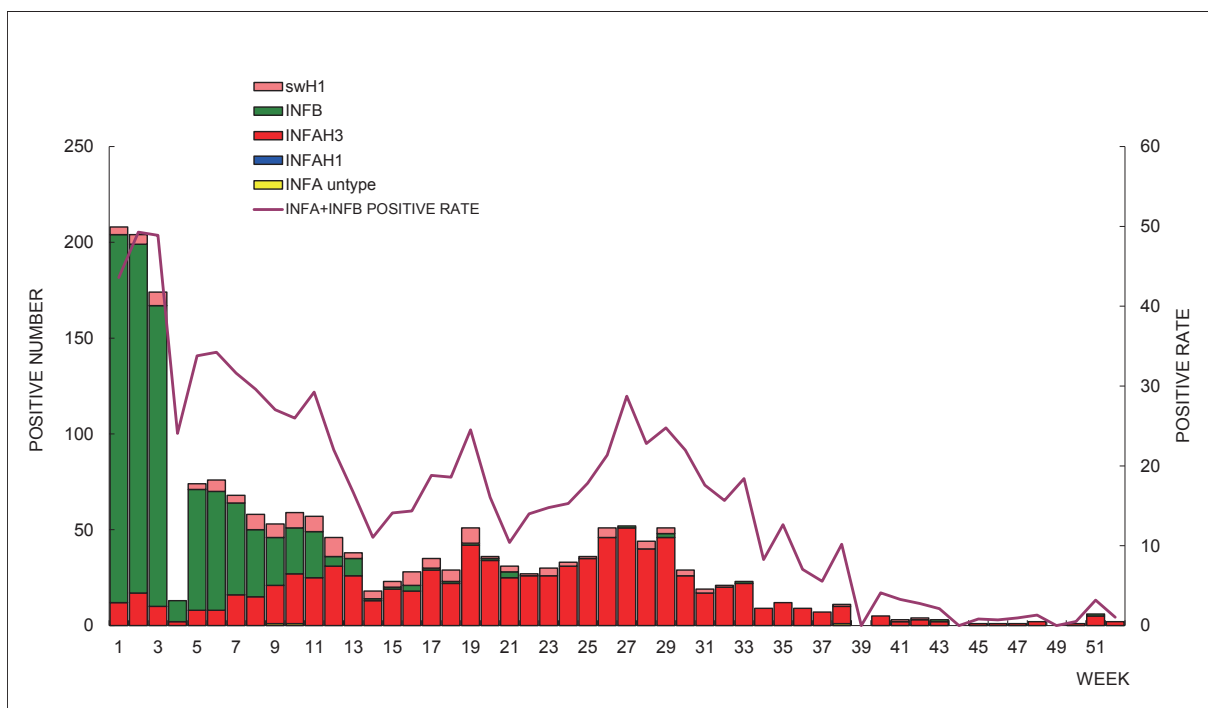


Figure 11 Isolation situations of influenza viruses from specimens collected by the sentinel physicians, 2012

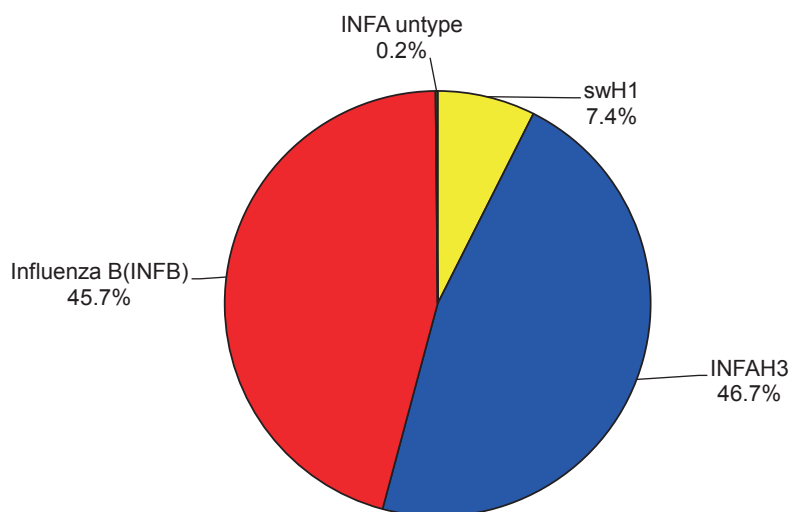


Figure 12 Strain ratios of influenza virus isolates from specimens collected by the sentinel physicians, 2012

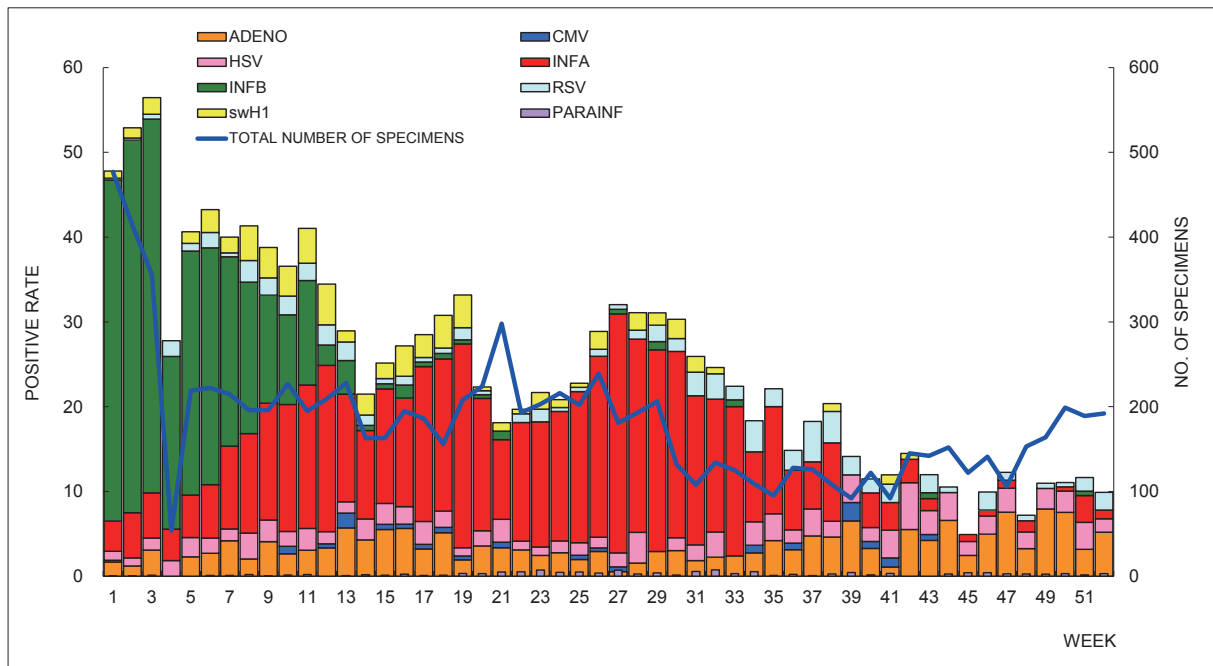


Figure 13 Positive isolation rates for respiratory tract viruses from specimens collected by the sentinel physicians, 2012

Quarantine Service

I. Health examination of foreign workers

To prevent the importation of diseases by foreign workers to the local population, all legally imported workers are required to submit a health certificate issued by an approved foreign hospital before applying for an entry visa. Foreign workers are also required to undergo health examination at a designated hospital in three days after arrival in Taiwan. To monitor the health conditions of foreign workers, employed foreign workers are required to take health examination within 30 days before or after the 6th, 18th and 30th month of employment in Taiwan. Currently designated health examination items required of foreign workers include: chest X-ray screening for tuberculosis, HIV antibody test, syphilis serological test, intestinal parasites test, pregnancy test, general physical examination, Hansen's disease test and antibody-positive report or vaccination certificate for measles and rubella. In addition, only the health examination conducted in the home country needs to include pregnancy test and antibody-positive report or vaccination certificate for measles and rubella.

Foreign workers who are found to have intestinal parasites (excluding amoebiasis) may have a treatment and recheck period of 45 days; those who are detected amoebiasis in periodic health examinations may have a treatment and recheck period of 75 days; those who are tested positive for syphilis should complete the treatment within 30 days; a foreign worker who fails any of the designated health examination items or has acquired any of the four communicable diseases designated by the central health authority shall be repatriated within the prescribed time period so as to ensure the health and safety of the local communities.

To prevent the importation of typhoid fever by foreign workers from Indonesia, starting from October 15, 2009, all Indonesian workers must be asked of symptoms of typhoid fever during health examination in their home country and subject to typhoid fever test (stool culture) and symptoms query during the health examination undertaken in three days after arrival in Taiwan.

In the 517,005 person-times health examinations conducted on foreign workers in Taiwan in 2012, 4,430 person-times were unqualified, representing a unqualified rate of 0.86%, of which, intestinal parasite diseases accounted for the highest unqualified rate with 3,445 person-times (0.67%), followed by chest X-ray tested for tuberculosis where 881 person-times (0.17%) were unqualified. On top of that, 71 person-times were tested positive for HIV antibody. (Table 16)

II. Health declaration of inbound passengers

To prevent the import of communicable diseases through aircrafts and ships into Taiwan, Taiwan CDC in accordance with the “Communicable Diseases Control Act” and “Regulations Governing Quarantine at Ports” implements necessary quarantine measures--in particular, the follow ups and surveillance of passengers with symptoms. Starting from July 1, 2002, inbound passengers with suspected symptoms should fill in the “Symptom Declaration Form”, but the form was replaced with the “SARS and Other Communicable Diseases Control Survey Form” on March 30, 2003 that is now obligatory for all inbound passengers due to the serious SARS epidemics in the world. In January, 2004, another new form, the “Communicable Disease Survey Form”, was adopted. In consideration of beneficial results, manpower and material resources, on December 1, 2004, new regulations took effect that all inbound passengers with suspected symptoms of communicable diseases should fill in the “Communicable Disease Survey Form.”

From January to December of 2012, the number of inbound passengers was 17,491,283, and 14,556 of them showed symptoms were then subject to follow ups and surveillance by local health units. The “Communicable Disease Survey Form” and body temperature screening measures have identified 1 chikungunya fever case, 7 Varicella cases, 89 dengue fever cases, 18 shigellosis cases. In addition, in the section of communicable diseases not included on the list of notifiable communicable diseases, Taiwan CDC found 1 case of *Vibrio parahaemolyticus* and 1 case of salmonella. (Table 17)

Table 16 Physical examinations status of foreign labors, 2012

Unit:person,%

Country	Physical Examinations	Failed	X-ray	HIV	Syphilis	Parasites	Hansen's disease	Mental condition	Others
Thailand	At Entry	23,027 33 0.14%	14 0.06%	- -	1 0.00%	18 0.08%	-	-	-
	Periodic	68,818 606 0.88%	157 0.23%	18 0.03%	2 0.00%	429 0.62%	-	-	-
Indonesia	At Entry	59,744 132 0.22%	34 0.06%	1 0.00%	3 0.01%	94 0.16%	-	-	-
	Periodic	160,530 1,535 0.96%	327 0.20%	21 0.01%	14 0.01%	1,173 0.73%	-	-	-
Philippines	At Entry	25,373 65 0.26%	13 0.05%	1 0.00%	1 0.00%	50 0.20%	-	-	-
	Periodic	79,174 823 1.04%	195 0.25%	16 0.02%	2 0.00%	610 0.77%	-	-	-
Malaysia	At Entry	5 - -	- -	- -	- -	- -	-	-	-
	Periodic	- - -	- -	- -	- -	- -	-	-	-
Vietnam	At Entry	24,465 52 0.21%	10 0.04%	2 0.01%	0 0.00%	40 0.16%	-	-	-
	Periodic	75,868 1,184 1.56%	131 0.17%	12 0.02%	10 0.01%	1,031 1.36%	-	-	-
Mongolia	At Entry	- - -	- -	- -	- -	- -	-	-	-
	Periodic	1 - -	- -	- -	- -	- -	-	-	-
Others	At Entry	- - -	- -	- -	- -	- -	-	-	-
	Periodic	- - -	- -	- -	- -	- -	-	-	-
Total	At Entry	132,614 282 0.21%	71 0.05%	4 0.00%	5 0.00%	202 0.15%	-	-	-
	Periodic	384,391 4,148 1.08%	810 0.21%	67 0.02%	28 0.01%	3,243 0.84%	-	-	-
Total		517,005 4,430 0.86%	881 0.17%	71 0.01%	33 0.01%	3,445 0.67%	-	-	-

Note1: The data of At Entry physical examination provided by the Council of Labor Affairs while the parasites failed persons indicated those who were after treatment. The data of Periodic physical examination provided by health bureaus of local governments while the parasites failed persons include who failed at the first test or re-tests after treatments.

Note2: Beginning on Feb. 28, 2009, the Blastocystis hominis found in the stool examination for intestinal parasites is considered qualified.

Table 17 Statistic of CDC "Communicable Diseases Survey Form " in 2012

Month	Inbound passenger No.	Cases with symptom		Pathogen detected		Note (Traveling country)
		Case No.	Case percentage (%)	Notifiable disease (case No.)	Others (case No.)	
Jan.	1,369,484	1,928	0.14	Dengue fever (10), Shigellosis (1)		Indonesia, Vietnam, Thailand, Malaysia (Dengue fever) / Vietnam(Shigellosis)
Feb.	1,229,414	1,388	0.11	Dengue fever (3)		Indonesia, Philippines (Dengue fever)
Mar.	1,425,899	1,247	0.09	Varicella (1), Dengue fever (3)		Malaysia (Varicella) / Vietnam, Thailand, Malaysia(Dengue fever)
Apr.	1,528,530	1,152	0.08	Dengue fever (8), Shigellosis (1)		Indonesia, Philippines, Malaysia (Dengue fever) / Indonesia (Shigellosis)
May	1,435,298	1,140	0.08	Dengue fever (4), Shigellosis (3)		Indonesia, Thailand, Malaysia (Dengue fever) / Indonesia, Cambodia (Shigellosis)
Jun.	1,472,698	1,408	0.10	Dengue fever (7), Shigellosis (6)		Thailand, Cambodia, Bangladesh, Malaysia (Dengue fever) / Indonesia, Vietnam, Philippines, China (Shigellosis)
Jul.	1,640,018	1,858	0.11	Chikungunya fever (1), Varicella (3), Dengue fever (16), Shigellosis (1)	Salmonella (1)	Indonesia (Chikungunya fever) / Hong Kong, Singapore (Varicella) / Indonesia, Vietnam, Thailand, Philippines, Cambodia (Dengue fever) / Malaysia(Shigellosis) / China (Salmonella)
Aug.	1,576,297	1,264	0.08	Dengue fever (14), Shigellosis (1)		Indonesia, India, Vietnam, Philippines, Bangladesh (Dengue fever) / India (Shigellosis)
Sep.	1,432,729	871	0.06	Varicella (1), Dengue fever (12), Shigellosis (1)		China (Varicella) / Indonesia, Vietnam, Thailand, Philippines, Malaysia, China (Dengue fever) / China (Shigellosis)
Oct.	1,443,983	762	0.05	Dengue fever (7)		Indonesia, India, Thailand, Myanmar, Philippines (Dengue fever)
Nov.	1,459,821	697	0.05	Varicella (1), Dengue fever (2), Shigellosis (1)	Vibrio parahaemolyticus (1)	Malaysia (Varicella) / Myanmar, Philippines (Dengue fever) / Vietnam (Shigellosis) / Vietnam (Vibrio parahaemolyticus)
Dec.	1,477,112	841	0.06	Varicella (1), Dengue fever (3), Shigellosis (3)		Japan (Varicella) / Philippines, Cambodia, Malaysia (Dengue fever) / Indonesia, Macau, Cambodia (Shigellosis)
Total	17,491,283	14,556	0.08	Chikungunya fever (1), Varicella (7), Dengue fever (89), Shigellosis (18)	Vibrio parahaemolyticus (1), Salmonella (1) (not included in the list of notifiable communicable diseases)	

Mosquito Surveillance

Taiwan is located in tropical and subtropical climate zone with hot and humid weather, and hence a fertile ground for mosquito breeding. Major mosquito vectors in Taiwan include *Aedes aegypti* and *Aedes albopictus* that can spread dengue fever and *Anopheles minimus* that can spread malaria.

I. Dengue fever carrying mosquito

The dengue fever carrying mosquito surveillance has been set up since the outbreak of dengue fever in the south of Taiwan in 1988. An analysis of the surveys of mosquito vectors conducted in 2012 finds the following: the health bureaus of all counties and cities conducted 37,392 wards/villages, including 19,265 wards/villages in Level 0, 12,587 wards/villages in Level I, 3,355 wards/villages in Level II, 1,649 wards/villages in Level III, 429 wards/villages in Level IV, 79 wards/villages in Level V, 23 wards/villages in Level VI, 1 ward/village in Level VII, 3 wards/villages in Level VIII, and 1 ward/village in Level IX (Table 18). The number of wards/villages above Level II displayed one peak from May to September, and declined from October. The percentage of wards/villages in 2012 ranged from 5.3% to 26% (Figure 14)

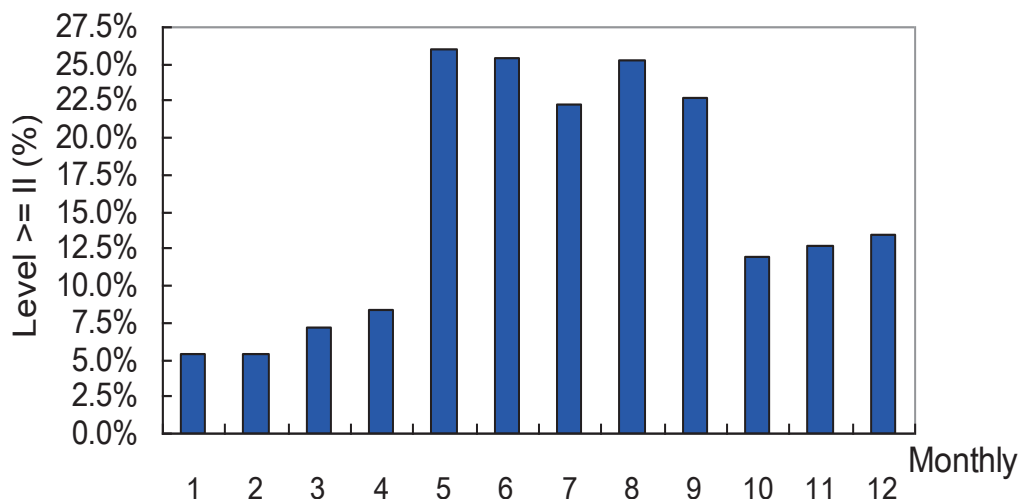


Figure 14 The percentage of wards/villages with Dengue fever vector by month in 2012

Table 18 Distribution of Breteua index, 2012

Locality	Villages (No. of times)	Breteua Index									
		0	1	2	3	4	5	6	7	8	9
Taichung City	1,229	579	618	31	-	1	-	-	-	-	-
Taipei City	1,508	723	644	110	31	-	-	-	-	-	-
Taitung County	1,185	482	542	120	33	5	3	-	-	-	-
Tainan City	7,289	3,578	2,350	801	419	119	19	3	-	-	-
Yilan County	1,180	972	201	7	-	-	-	-	-	-	-
Hualien County	559	528	29	1	1	-	-	-	-	-	-
Kinmen County	76	62	11	2	1	-	-	-	-	-	-
Nantou County	874	595	266	13	-	-	-	-	-	-	-
Pingtung County	1,778	259	774	419	220	72	18	11	1	3	1
Miaoli County	582	78	400	102	2	-	-	-	-	-	-
Taoyuan County	1,530	1,357	152	10	6	4	1	-	-	-	-
Kaohsiung City	9,934	3,312	4,010	1,478	875	214	37	8	-	-	-
Keelung City	369	307	54	8	-	-	-	-	-	-	-
Lienchiang County	31	30	1	-	-	-	-	-	-	-	-
Yunlin County	888	675	213	-	-	-	-	-	-	-	-
New Taipei City	2,423	1,622	713	60	20	6	1	1	-	-	-
Hsinchu City	600	271	317	11	1	-	-	-	-	-	-
Hsinchu County	747	564	172	7	4	-	-	-	-	-	-
Chiayi City	867	471	371	22	3	-	-	-	-	-	-
Chiayi County	1,737	1,688	41	7	1	-	-	-	-	-	-
Changhua County	1,205	720	404	74	6	1	-	-	-	-	-
Penghu County	801	392	304	72	26	7	-	-	-	-	-
Total	37,392	19,265	12,587	3,355	1,649	429	79	23	1	3	1

II. Malaria carrying mosquito

In 2012 mosquito light traps were hanged for collection of adult mosquitoes in 71 townships and 247 villages, including Bali Dist., Jinshan Dist and Wanli Dist. in New Taipei city; Dayuan Township and Fuxing Township in Taoyuan County; Beipu Township and Xinfeng Township in Hsinchu County; Guoxing Township and Shuili Township in Nantou County; Tianzhong Township, and Ershui Township in Changhua County; Erlun Township, Kouhu Township, Tuku Township, Dapi Township, Yuanchang Township, Shuilin Township, Beigang Township, Gukeng Township, Taixi Township, Sihou Township, Xiluo Township, Dongshi Township, Linnei Township, Lunbei Township, Mailiao Township, Huwei Township, Citong Township, Douliu City, Dounan Township and Baozhong Township in Yunlin County; Zuozhen Dist., Nanhua Dist., Xinhua Dist., Nanxi Dist., Longqi Dist., and Guanmiao Dist. in Tainan City; Liugui Dist. and Jiaxian Dist. in Kaohsiung City; Checheng Township, Laiyi Township, Chunri Township, Shizi Township, and Manzhou Township in Pingtung County; Sanxin Township, Wujie Township, Dongshan Township, Zhuangwei Township, Yilan city, Nanao Township, Toucheng Township, Jiaoxi Township, Suao Township, Yuanshan Township, Datong Township and Luodong Township in Yilan County; Dawu Township, Taimali Township, Taitung City, Chenggong Township, Chishang Township, Beinan Township, Donghe Township, Jingfeng Township, Changbing Township, Hairui Township, Luyeh Township, Daren Township, Guanshan Township, Lanyu Township and Ludao Township in Taitung County. The survey result showed that 6 townships and 11 villages had collected adult *An. minimus* (Table 19 and Figure 15). Wenquan Village of Checheng Township in Pingtung County had the highest density with the record of catching 23 *An. minimus* per trap-night in November.

Table 19 The number of adult mosquitoes of *Anopheles minimus* collected in 2012

County / Township		<i>An. minimus</i> (No.)	Villages (No.)	Villages with <i>An. minimus</i>
Taitung County	Chenggong	4	1	Zhongxiao
	Changbin	4	1	Ningpu
	Beinan	2	1	Fushan
Tainan City	Longqi	32	4	Qiding、Tuqi、Shicao、Longchuan
	Zuozhen	1	1	Ronghe
Pingtung County	Checheng	78	3	Fuxing、Tianzhong、Wenquan
Total	6 townships	121	11	



Figure 15 Distribution of *Anopheles minimus*, 2012

Symptom Surveillance System

I. Introduction

The outbreak of severe acute respiratory syndrome (SARS) in March of 2003 that nearly became a global pandemic also hit Taiwan, causing public panic and dealing our economy with an unprecedented blow. In December the same year, avian influenza also broke out in Korea, Japan and Vietnam. Presently Taiwan is the only country in Asia that has not become an avian flu stricken area. In Vietnam, Thailand and Cambodia, there have been fatality cases of humans infected with H5N1 virus, which attracted worldwide attention and concerns and caused considerable panic worldwide. To prevent the invasion of viruses, a symptom surveillance system has been established for early detection of communicable diseases so prompt control measures can be implemented. In 2006, the active surveillance system was consolidated into the symptom surveillance system to boost the capacity for prevention and control of imported diseases and improve the convenience and accessibility of the system so as to achieve the goals of early detection and early prevention. Currently the symptom surveillance system monitors: H5N1 influenza cases under investigation, influenza-like illness, fever of unknown origin, diarrhea, upper respiratory tract infection, patients with coughing lasting for more than three weeks and enterovirus.

II. Objectives of surveillance system

- 1.To step up the surveillance of inbound travelers at airports and ports to achieve the goal of fighting communicable diseases outside the country.
- 2.Effectively control cluster events and activate related prevention programs in a timely manner.

III. Reporting method and data analysis

Medical institutions (reporting H5N1 influenza cases under investigation) or health offices report cases via the Internet directly by inputting data in the communicable disease case reporting system - symptom reporting. Staff of health offices and CDC can download field data such as reports, submission of specimens and test results in the system through BO (Business Objects) for analysis

IV. Description of reportable diseases

■ Person under investigation for H5N1 influenza:

1. Cases under investigation should meet one of the conditions below:

(1) Having the following clinical conditions and epidemiological conditions concurrently:

* Clinical conditions (one of the following conditions):

- Meet the definition of influenza-like illness for reporting purpose (* see definition of influenza-like illness in Point 2, Section 4 of this chapter).
- Chest X-ray indicates pneumonia.
- * Epidemiological conditions (persons with any of following exposure histories within 7 days before the onset of disease):
 - The person had contact with animals (or their excrement) or persons with suspected, probable or confirmed case of H5N1 influenza in Taiwan.
 - The person had been to an offshore area where a confirmed case of H5N1 flu had occurred in the past month or where a case of animal H5N1 flu had occurred in the past month and had contact with animals or livestock related places.
 - The person had been in a laboratory for experiments of influenza virus.

(2) Pneumonia patients with quick exacerbation of unknown origin.

(3) H5 subtype influenza virus patients detected by the central competent authority or its designated local competent authorities, medical service (affair) institutions, academic or research institutions with laboratory capacity.

2. Test results of specimens collected from cases under investigation for H5N1 influenza: In 2011, a total of 2 suspected cases were reported, and the possibility of H5N1 influenza infection in both cases was ruled out (both of the two cases were tested negative for influenza viruses). In 2012, only 1 suspected case was reported, and the possibility of H5N1 influenza infection was ruled out (the case was tested positive for influenza B virus).

■ Influenza-like illness (ILI) clustering

1. Case definition: Cases that meet the definition of ILI for reporting purpose and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.

※ Definition of ILI for reporting purpose: the case should meet simultaneously the following three conditions:

- (1) Sudden onset, with fever (ear temperature $\geq 38^{\circ}\text{C}$) and respiratory tract infection;
- (2) Muscular soreness or headache or extreme fatigue; and
- (3) Simple runny nose, tonsillitis and bronchitis should be excluded.

2. Epidemic analysis of reported ILI clusters: A total of 57 ILI clusters were reported in 2012, including 35 events of influenza A (H3N2) viruses infection, 4 events of influenza A (H1N1) viruses infection, 10 events of influenza B viruses infection, and 4 events of others (2 events with mixed infection of influenza A (H3N2) and B viruses, 1 event of human respiratory syncytial virus (RSV) infection, and 1 event of adenovirus infection). The rest events were either tested negative or had no specimens collected. ILI clusters most commonly occurred in populous institutions, followed by schools, hospitals, military bases, and other places (including workplaces and communities).

Table 20 Test results for ILI clusters reported in 2012

Number of clusters	Test results					
	Influenza A (H3N2) viruses	Influenza A (H1N1) viruses	Influenza B viruses	*Others	Negative	No specimen
57	35	4	10	4	3	1

*Others: Others include 2 events with mixed infection of influenza A (H3N2) and B viruses, 1 event of respiratory syncytial virus (RSV) infection, and 1 event of adenovirus infection.

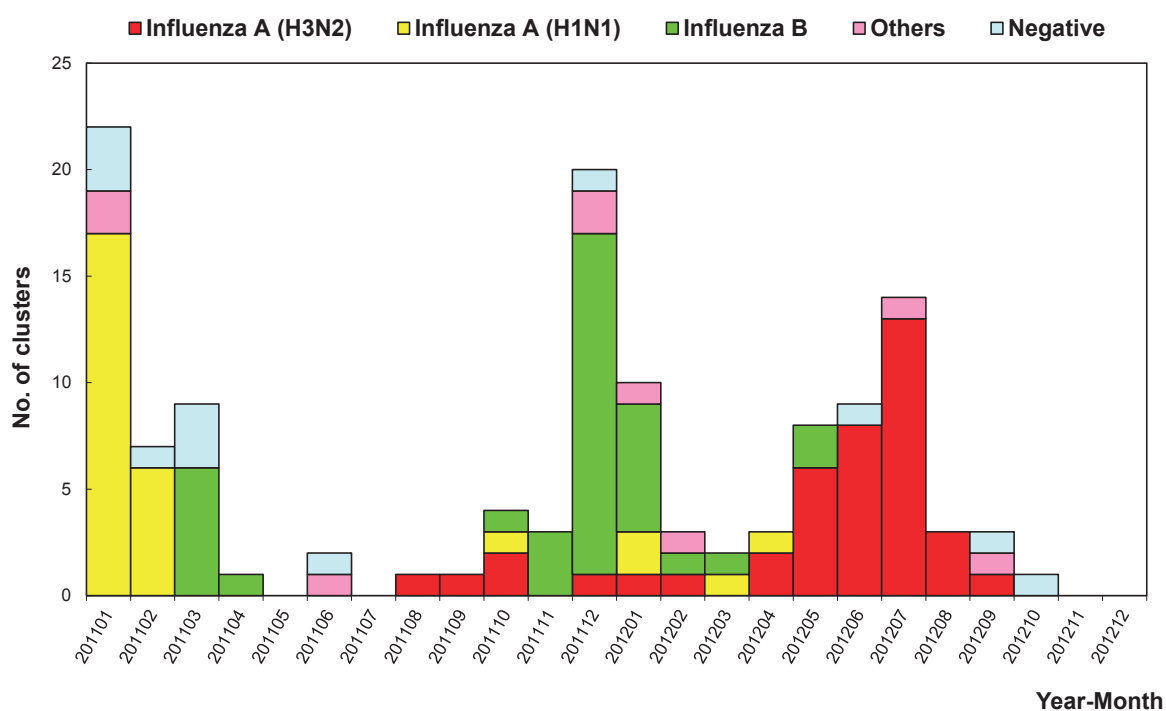


Figure 16 Epidemic trends of ILI clusters reported in 2011-2012

Table 21 Distribution of ILI clusters occurred (by location) in 2012

Institution categories	Cluster No.
populous institutions	27
schools	13
hospitals	12
militaries	3
others	2
total	57

■ Diarrhea clustering

1. Case definition: Excluding intestinal cases with diarrhea associated with notifiable diseases or food poisoning; including cases with intestinal symptoms and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.
2. Epidemic analysis of diarrhea clustering: A total of 145 diarrhea clusters were reported in 2012, including 104 events of norovirus infection, 2 events with mixed infection of norovirus and rotavirus, 3 events of rotavirus infection, and 3 events with other pathogens infection (2 events of *Shigella spp.* infection and 1 event of *Salmonella spp.* infection). The rest events were either tested negative or had no specimens collected. Diarrhea clusters most commonly occurred in schools, followed by populous institutions, hospitals, other places (including workplaces, households, and tourist groups), and military bases.

Table 22 Test results for diarrhea clusters reported in 2012

Number of clusters	Test results					
	Norovirus	Norovirus and Rotavirus mixed infection	Rotavirus	*Others	Negative	No specimen
145	104	2	3	3	32	1

*Others: Others include 2 events of *Shigella spp.* infection and 1 event of *Salmonella spp.* infection.

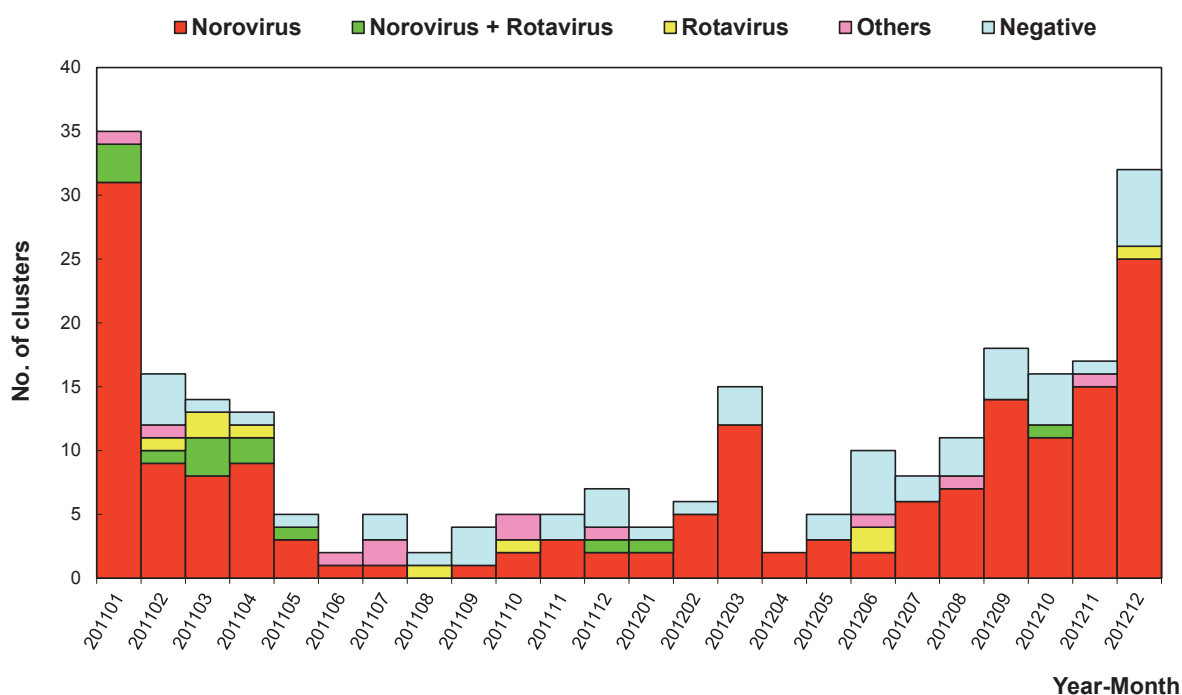


Figure 17 Epidemic trends of diarrhea clusters reported in 2011-2012

Table 23 Distribution of diarrhea clusters occurred (by location) in 2012

Institution categories	Cluster No.
populous institutions	41
schools	74
hospitals	20
militaries	2
others	8
total	145

■ Upper respiratory tract infection (URI) clustering

1. Case definition: Cases with upper respiratory tract symptoms and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.
2. Epidemic analysis of URI clusters: In 2012, a total of 72 URI clusters were reported, including 31 events of influenza A (H3N2) viruses infection, 5 events of influenza A (H1N1) viruses infection, 9 events of influenza B viruses infection, 6 events of others (1 event with mixed infection of influenza A (H3N2) and A (H1N1) viruses, 2 events of adenovirus infection, 2 events of RSV infection, and 1 event with mixed infection of RSV and enterovirus). The rest events were either tested negative or had no specimens collected. URI clusters most commonly occurred in populous institutions, followed by hospitals, schools, military bases, and other places (including workplaces).

Table 24 Test results for URI clusters reported in 2012

Number of clusters	Test results					
	Influenza A (H3N2) viruses	Influenza A (H1N1) viruses	Influenza B viruses	* Others	Negative	No specimen
72	31	5	9	6	14	7

*Others: Others include 1 event with mixed infection of influenza A (H3N2) and A (H1N1) viruses, 2 events of adenovirus infection, 2 events of respiratory syncytial virus (RSV) infection, 1 event with mixed infection of RSV and enterovirus.

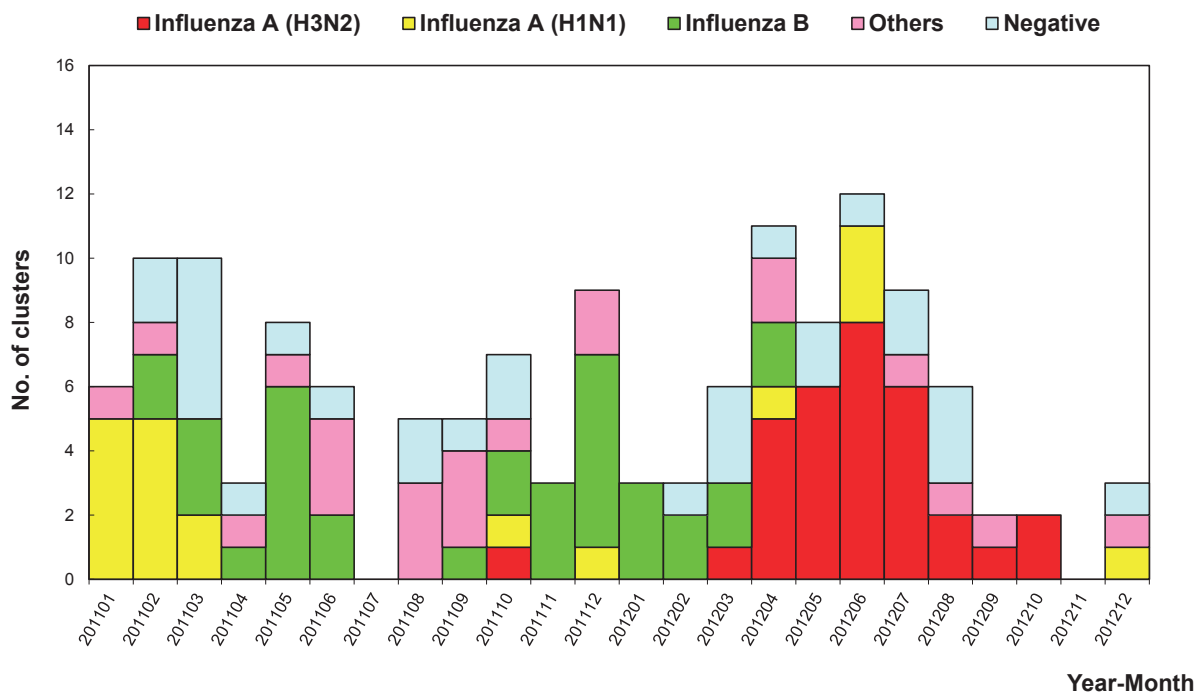


Figure 18 Epidemic trends of URI clusters reported in 2011-2012

Table 25 Distribution of URI clusters occurred (by location) in 2012

Institution categories	Cluster No.
populous institutions	37
schools	11
hospitals	18
militaries	3
others	3
total	72

■ Fever of unknown origin (FUO) clustering

1. Case definition: Cases with fever symptoms of unknown origin and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.
2. Epidemic analysis of fever of unknown origin (FUO) clusters: In 2012, a total of 6 FUO clusters were reported, including 3 events of influenza A (H3N2) viruses infection and 1 event of enterovirus infection. The rest two events were both tested negative. FUO clusters mostly occurred in populous institutions (3 events), as well as hospitals (2 events) and school (1 event).

■ Clustering of patients with coughing lasting more than three weeks

1. Case definition: Cases with coughing lasting more than three weeks and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.
2. Epidemic analysis of clusters of patients with coughing lasting more than three weeks: None of clusters of patients with coughing lasting more than three weeks were reported in 2012.

■ Enterovirus clustering

1. Case definition: Suspected cluster events that occur in places such as nurseries and neonatal wards in hospitals, baby care centers and homes of puerperal care where the individual cases or persons with whom individual cases were in contact with are in high risk groups of enteroviruses infection with severe complications.
2. Epidemic analysis of enterovirus clusters: None of enterovirus clusters were reported in 2012.

Real-time Outbreak and Disease Surveillance System

I. Purpose of surveillance

Through the “Real-time Outbreak and Disease Surveillance System, (RODS)” more than 170 responsibility hospitals nationwide automatically transfer ICD-9-CM (International Classification of Diseases, Clinical Modification, Ninth Revision) coded diagnostic information of patients seen on an emergency basis to Taiwan CDC to help early and rapid analysis of irregularities in the prevalence of diseases or syndromes.

The construction of the RODS system aims to detect early possible outbreak of communicable diseases in the communities, and track the trends and predict the prevalence of diseases. The reportable diseases under RODS included influenza-like illness, enterovirus infection and acute diarrhea in 2007. The reportable diseases in 2008 through 2012 include the routine surveillance of acute hemorrhagic conjunctivitis in addition to the reportable items in 2007.

II. Data analysis methods

More than 170 responsibility hospitals in Taiwan provide daily real-time information of emergency patients via the Internet directly. The format of the report contains the fields of patient’s basic data, ID of reporting hospital, time of admission, chief complaint, and ICD-9-CM medical diagnosis code. Taiwan CDC compiles and analyzes RODS data weekly, determines the trends in the prevalence of diseases, makes statistical charts and posts them on Taiwan CDC’s website.

III. Finding

■ Enterovirus

Epidemic analysis:

The yearly epidemic season for enterovirus in Taiwan generally starts in April and ends in October. More enterovirus cases were reported in 2012 than in 2011, but the number of monthly case numbers did not fluctuate as much as during the previous year, and peaks appeared in June and July of 2012. According to surveillance data for 2012, the permillage of patients with enteroviral infection who sought medical care throughout the whole year was between 0.81‰ and 15.37‰, which was higher than the equivalent range for 2011 (0.07‰~9.21‰). The number of enteroviral infection cases increased in May, and reached a peak in June and July, although this peak was not as evident as during 2011. The epidemiological situation declined after September. [Note: permillage of enterovirus visits= (person-time of emergency room enterovirus cases/ total person-time of emergency room cases)* 1000‰]

■ Influenza-like illness

Epidemic analysis:

In 2012, the percentage of emergency cases with influenza-like illness ranged from 6.73% to 29.00%, which was slightly lower than that in 2011 (from 8.03% to 30.43%). However, apart from the highest peak, there were also more peaks in 2012. According to the seven-day moving average data concerning influenza-like illness emergency cases, the number of cases jumped drastically in January, reached a peak in mid-January, and reached its highest peak in late January, at the time of the Chinese New Year Holiday. This can be attributed to the fact that most hospitals and clinics were closed during the Chinese New Year Holiday, so patients had to seek emergency care. The situation went back to normal after the holiday, which was when the epidemic eased. A small peak was also observed in April, and another in July. [Note: percentage of influenza-like illness visits = (person-time of emergency room influenza-like illness cases / total person-time of emergency room cases)* 100%]

■ Acute diarrhea

Epidemic analysis:

In 2012, the percentage of emergency cases with acute diarrhea ranged from 3.21% to 10.82%. Although this number was lower than that in 2011 (from 2.59% to 11.02%), the epidemic was worse in the latter half of the year. Cases of diarrhea generally reach a peak around the time of the Chinese New Year Holiday. According to seven-day moving average data on emergency cases with acute diarrhea, the percentage of emergency patients with acute diarrhea increased sharply in late January of 2012, and reached its highest peak during the Chinese New Year Holiday. This can be attributed to the fact that hospitals and clinics were closed at that time, so patients had to seek emergency care. The number of cases later decreased slowly, but another peak appeared in early March. The epidemiological situation then did not change much until October, at which time the number of cases rose suddenly and then remained at a high level. Compared with the epidemiological situation in the previous year, this rise came earlier in 2012. [Note: percentage of acute diarrhea visits = (person-time of emergency room acute diarrhea cases / total person-time of emergency room cases)* 100%]

■ Acute Hemorrhagic Conjunctivitis (AHC)

Epidemic analysis:

In 2012, the permillage of emergency cases with conjunctivitis ranged from 0.70‰ to 5.81‰, which was higher than that in 2011 (from 0.49‰ to 5.69‰). According to seven-day moving average data concerning emergency cases with conjunctivitis, the number of emergency patients with conjunctivitis reached a brief peak in late January, and during the Chinese New Year Holiday, which could be attributed to the holiday closure of outpatient clinics. The number of cases then decreased gradually, and remained steady throughout the rest of the year. Apart from the peak around the Chinese New Year Holiday, no evident peaks occurred in 2012, although there were several peaks during the previous year. [Note: permillage of AHC visits = (person-time of emergency room AHC cases / total person-time of emergency room cases)* 1000‰]

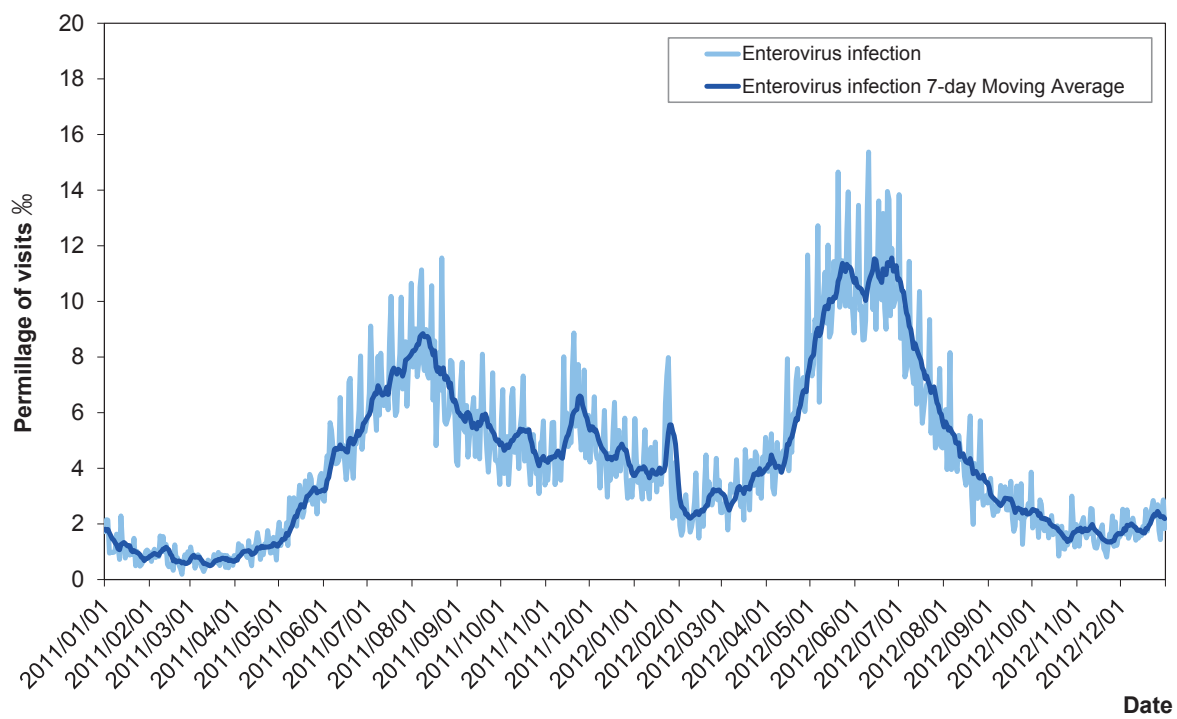


Figure 19 Daily Permillage of Emergency Department of Enterovirus Visits & 7-day Moving Average

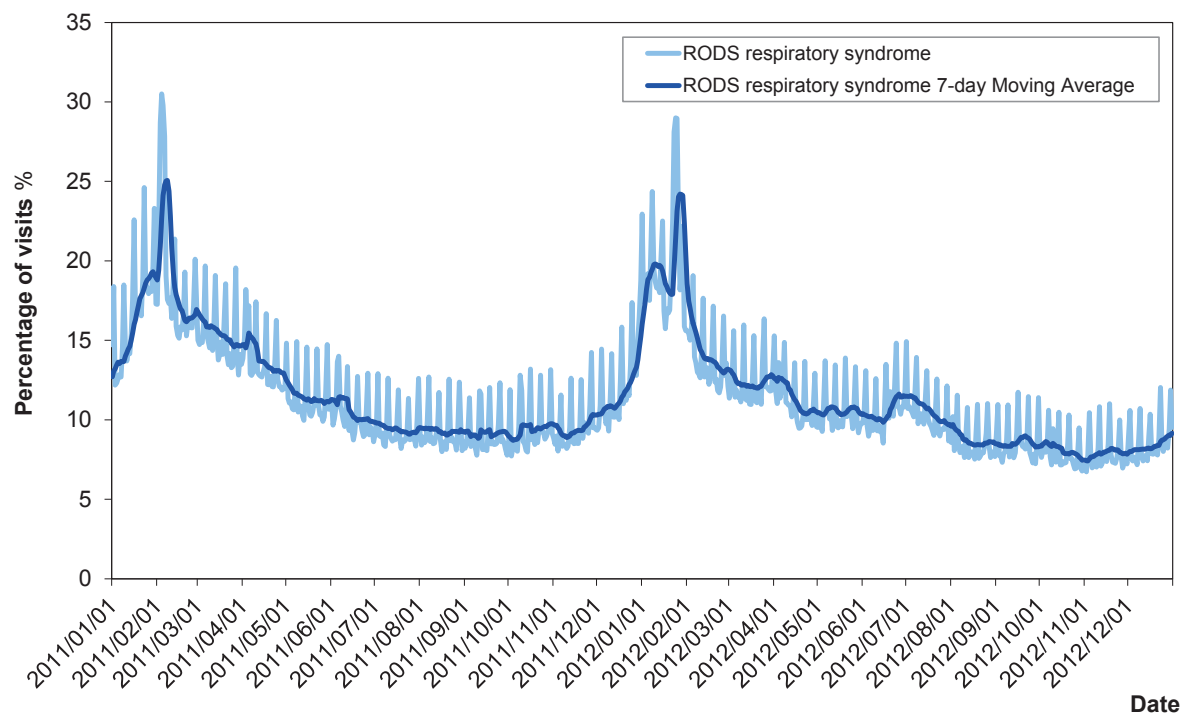


Figure 20 Daily Percentage of Emergency Department of Respiratory Visits & 7-day Moving Average

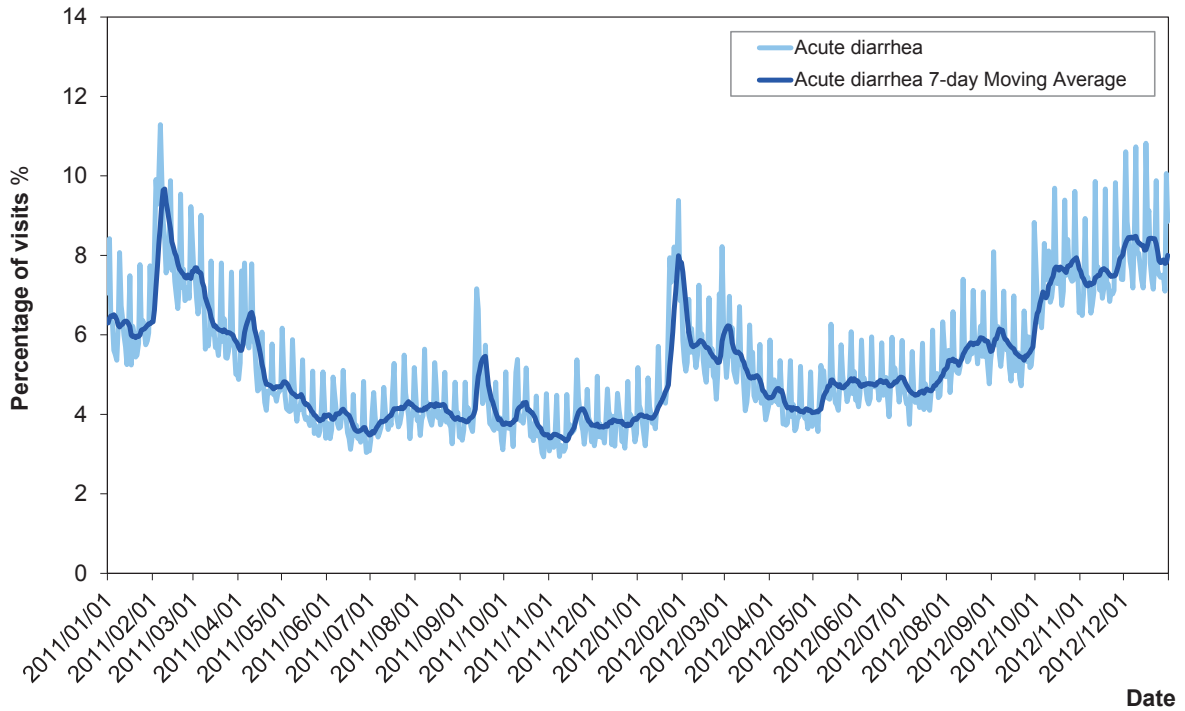


Fig 21 Daily Percentage of Emergency Department of Acute Diarrhea Visits & 7-day Moving Average

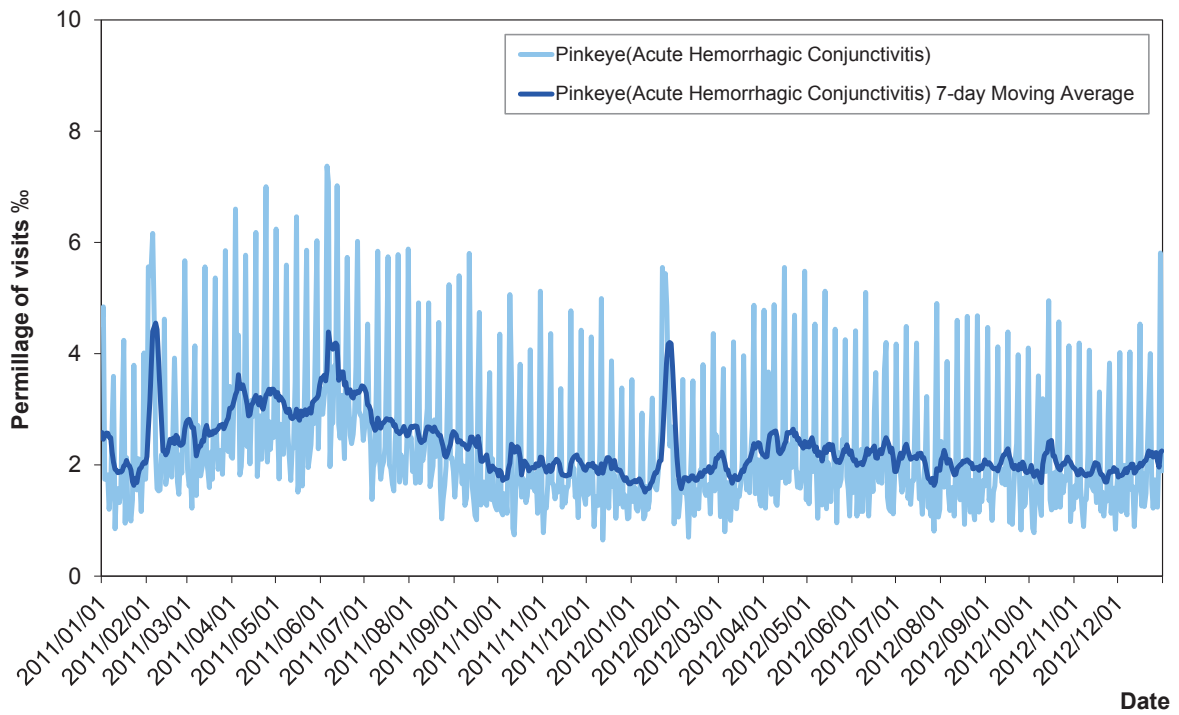


Fig 22 Daily Permillage of Emergency Department of Acute Hemorrhagic Conjunctivitis Visits & 7-day Moving Average

Disease Surveillance using National Health Insurance Data

I. Introduction

To boost Taiwan's surveillance capacity for specific diseases, Taiwan CDC and the National Health Insurance Administration (NHIA) embark on horizontal cooperation, under which, the NHIA compiles the outpatient, inpatient and emergency room data uploaded by hospitals and clinics through the National Health Insurance (NHI) IC cards. Taiwan CDC conducts daily, routine surveillance of specific diseases based on the comprehensive and highly representative secondary statistical data compiled by NHIA to assess the magnitude of an epidemic condition.

II. Purpose of surveillance

The NHI data routine surveillance monitors diseases that are commonly seen in Taiwan every year, including influenza and enterovirus infection. Surveillance and analysis of NHI outpatient information helps grasp readily the state of an epidemic. This routine surveillance, together with the "Real-time Outbreak and Disease Surveillance System,(RODS)" construct and play the role of "mild symptoms surveillance" of influenza-like illness and enterovirus infection to carry out full assessment of epidemics and grasp the trends of prevalence.

III. Data analysis method

From the surveillance data received daily, Taiwan CDC fetchs representative ICD-9-CM (International Classification of Diseases, Clinical Modification, Ninth Revision) coded diagnostic data, include secondary data as admission date, hospital locations, age groups, codes of outpatient/inpatient/emergency department and so on. Due to the bigger fluctuation seen in daily inpatient/outpatient visit data following analysis, the routine disease surveillance is carried out by calculating the 7-day moving average to obtain a relatively smooth prevalence curve.

IV. Findings

■ Influenza-like illness (ILI)

The number of patients with influenza-like illness who sought outpatient medical care in 2012 ranged from 1,700 to 27,000 daily. This number was similar to that in 2011 (approximately from 50 to 30,000 patients). As shown by the seven-day moving average curve for influenza-like illness, an epidemiological peak occurred in mid-January 2012, afterwards the rate dropped in early February during the Chinese New Year Holiday, at which time most hospitals and clinics were closed, so there were many fewer patients at this time. After the holiday, another epidemiological peak occurred, but the curve quickly flattened out. Comparing with the epidemiological situation of influenza-like illness in 2011, the epidemic in January in 2012 was more serious, and even after Chinese New Year Holiday when the curve was flattening out, the number of patients was still higher than during the same period of 2011.

■ Enterovirus infections

The number of patients with enteroviral infection who sought outpatient medical care in 2012 ranged from 100 to 5,100 every day, which was significantly higher than the number in 2011 (from 10 to 3,300). As shown by the seven-day moving average curve for enteroviral infections, the epidemiological situation in 2012 was more serious than that in 2011. Cases increased rapidly in May, remained high until mid-July, and then dropped significantly. Compared with the epidemiological situation in 2011, a significant peak was observed in 2012, while the lowest points in October and November were similar to those in the previous year.

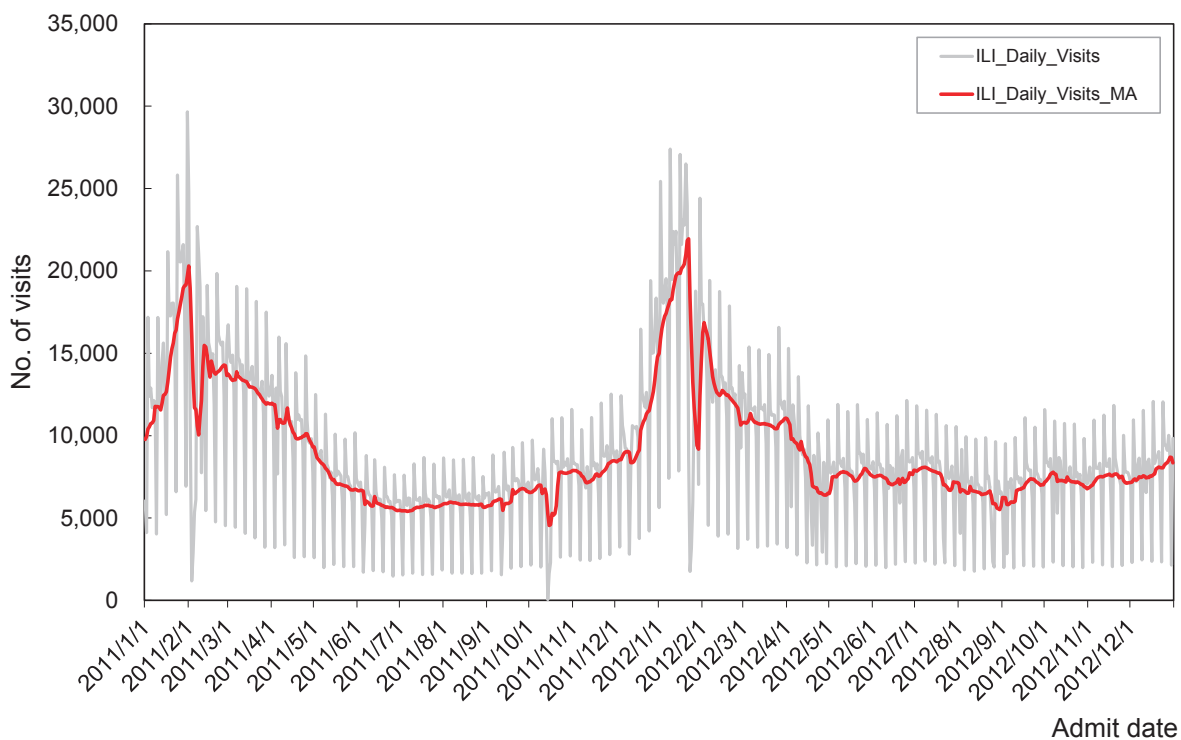


Figure 23 Daily influenza-like illness visits and the 7-day moving average trend, 2011-2012

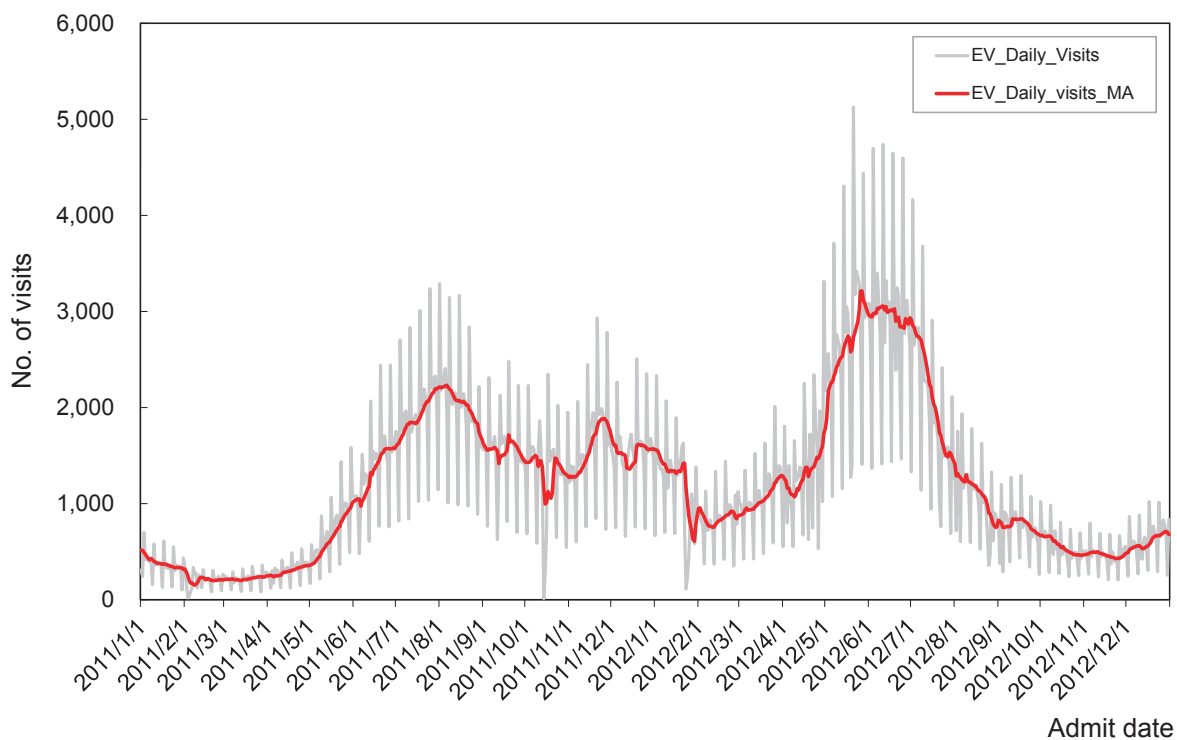


Figure 24 Daily enterovirus visits and the 7-day moving average trend, 2011-2012

Pneumonia and Influenza Mortality Surveillance

I. Introduction

Many parts of the world reported the outbreak of 2009 pandemic influenza A (H1N1) epidemics starting April 2009. Soon after the World Health Organization (WHO) announced the case definition of H1N1 influenza on April 26, 2009, Taiwan categorized H1N1 influenza as a Class 1 notifiable communicable disease on April 27 for epidemic surveillance purpose. Subsequently because the majority of H1N1 influenza cases had only mild symptoms, the WHO branded the flu outbreak as a “gentle pandemic”. Thus Taiwan removed H1N1 influenza from Class 1 notifiable communicable diseases on June 19, 2009. From then on, cases of influenza A (H1N1) with severe complications are handled as a Class 4 notifiable communicable disease in terms of reporting deadline, reporting and relevant control measures.

Influenza surveillance in the United States included five categories: Virological Surveillance, Outpatient Illness Surveillance, Mortality Surveillance, Hospitalization Surveillance, and Summary of the Geographic Spread of Influenza. The US CDC indicates that the Mortality Surveillance - Rapid tracking of influenza-associated deaths is done through two systems: (1) 122 Cities Mortality Reporting System, which each week, the vital statistics offices of 122 cities across the United States report the total number of death certificates processed and the number of those for which pneumonia or influenza was listed as the underlying or contributing cause of death. (2) Influenza-Associated Pediatric Mortality Surveillance System, which Influenza-associated deaths in children (persons less than 18 years) was added as a nationally notifiable condition. Any laboratory-confirmed influenza-associated death in a child is reported through this system. Demographic and clinical information are collected on each case and are transmitted to CDC.

Under the belief and guidance of real-time surveillance and early warning of communicable diseases and in consideration of rapid response to the H1N1 pandemic in 2009, Taiwan CDC embarks on inter-agency collaboration with the Department of Statistics, Ministry of Health and Welfare (MOHW). Taiwan CDC receives daily death certification data reported by hospitals and clinics electronically from the Department of Statistics, MOHW and subsequently analyzes cases where the reported cause of death is pneumonia or influenza (P&I) to carry out P&I mortality surveillance and readily grasp the related mortality trends.

II. Purpose of surveillance

Pneumonia is a common complication of influenza infection. The great majority of influenza mortality is caused by persistent bacterial pneumonia or viral pneumonia. Thus pneumonia should be included in influenza related mortality surveillance for analysis. The P&I surveillance

system established in response to the H1N1 epidemic in 2009 buttresses Taiwan CDC's influenza prevention and control network together with the operating "Real-Time Outbreak and Disease Surveillance System (RODS)", "Disease Surveillance using National Health Insurance Data", "Contracted Laboratory Surveillance System", and "Hospitalization Surveillance" to cover surveillance in four dimensions (mortality, mild symptoms, virus and hospitalization). It is hoped that with routine operations in these four surveillance aspects in place, Taiwan CDC can firmly grasp the trends and variations in influenza epidemic to achieve the objectives and effects of real-time control and early warning.

III. Data analysis method

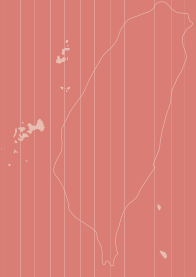
Taiwan CDC conducts weekly surveillance of the trends in P& I mortality by searching the field of "cause of death" with keywords "pneumonia, common cold or flu" in combination with cause of death determination rules. Due to the bigger fluctuation seen in weekly P&I mortality data, routine surveillance is carried out by using the curve graphed with the 4-week moving average values that include the current week and the preceding three weeks to obtain better data stability and remove wide fluctuation

IV. Findings

According to surveillance data concerning deaths from pneumonic and influenza, the number of weekly deaths due to pneumonia and influenza ranged from 220 to 400 people in 2012, and from 200 to 430 people in 2011. Analysis based on age showed that a majority of persons dying from pneumonia and influenza were 65 years old and above in both 2012 and 2011. Persons in this age group accounted for 88.0% and 87.3% of all deaths from these two diseases during the two years. When we look at the four-week moving average curve of pneumonia and influenza deaths, the curve in 2012 began to rise at the end of 2011, reached its highest peak in week 6 of 2012, and then declined. There also seemed to be a small peak in deaths from week 25 to 35 in 2012.



Figure 25 The surveillance trend of pneumonia and influenza mortality



Surveillance Reports of Selected Diseases

© Abbreviations and Symbols Used in Table
— No reported cases.
... Not under surveillance.

Measles

A total of 9 cases of measles were confirmed in 2012 (incidence rate: 0.04 per 100,000 population), lower than 33 confirmed cases in 2011 (incidence rate: 0.14 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 7 male cases (77.8%) and 2 female cases (22.2%) with a male to female ratio of 3.5:1.0.

(2) By age group

There were 4 cases in each of the age groups, 15-24 and 25-39 years old, and 1 case in the age group of 1-4 years old.

(3) By month

There were 2 cases in each of these months, March, April and May, and 1 case each in February, June and August.

(4) By residential region

Among the confirmed cases, 3 cases resided in Taipei City and 2 cases resided in New Taipei City; there was 1 case in each of these cities or counties, Keelung City, Taoyuan County, Taichung City and Tainan City.

Comparing the incidence rates per 100,000 population in the aforementioned cities and counties, the highest rate was 0.26 in Keelung City, and the second was 0.11 in Taipei City. The third was 0.05 in each of the New Taipei City, Taoyuan County and Tainan City.

(5) Imported cases and countries of infection

There were 5 imported cases confirmed that 3 of them were from China, and 1 each from Thailand and India.

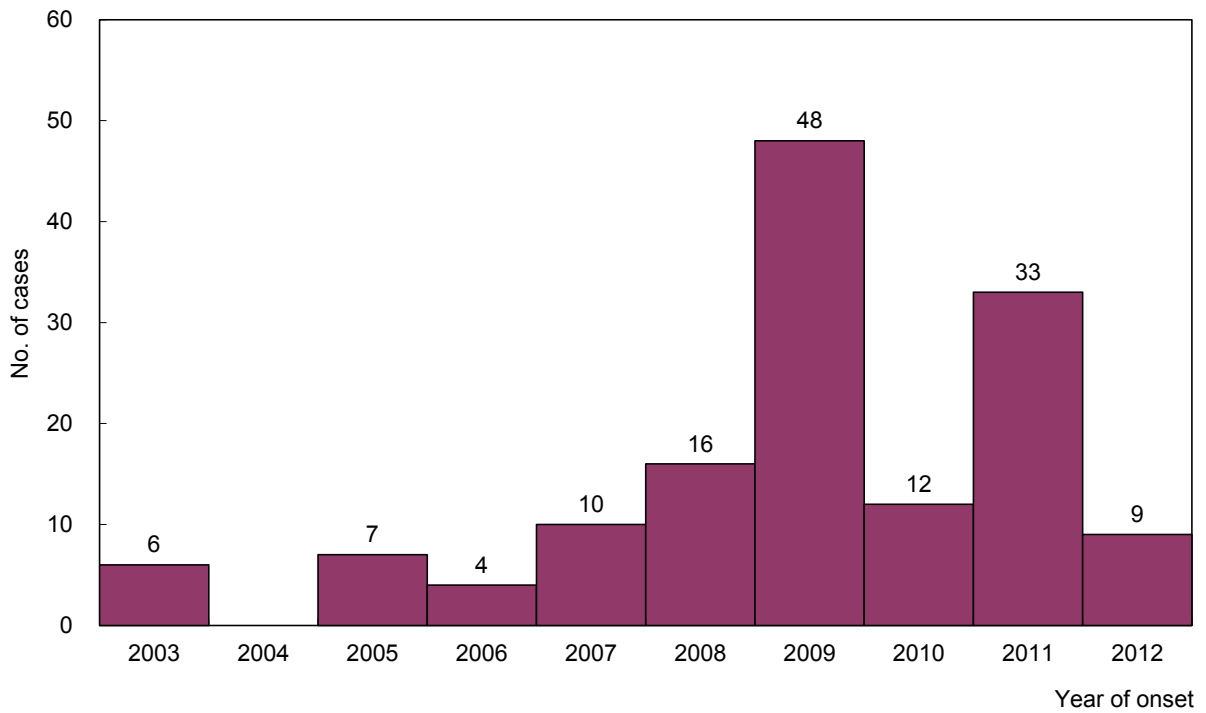


Figure 26 Number of confirmed Measles cases, 2003-2012

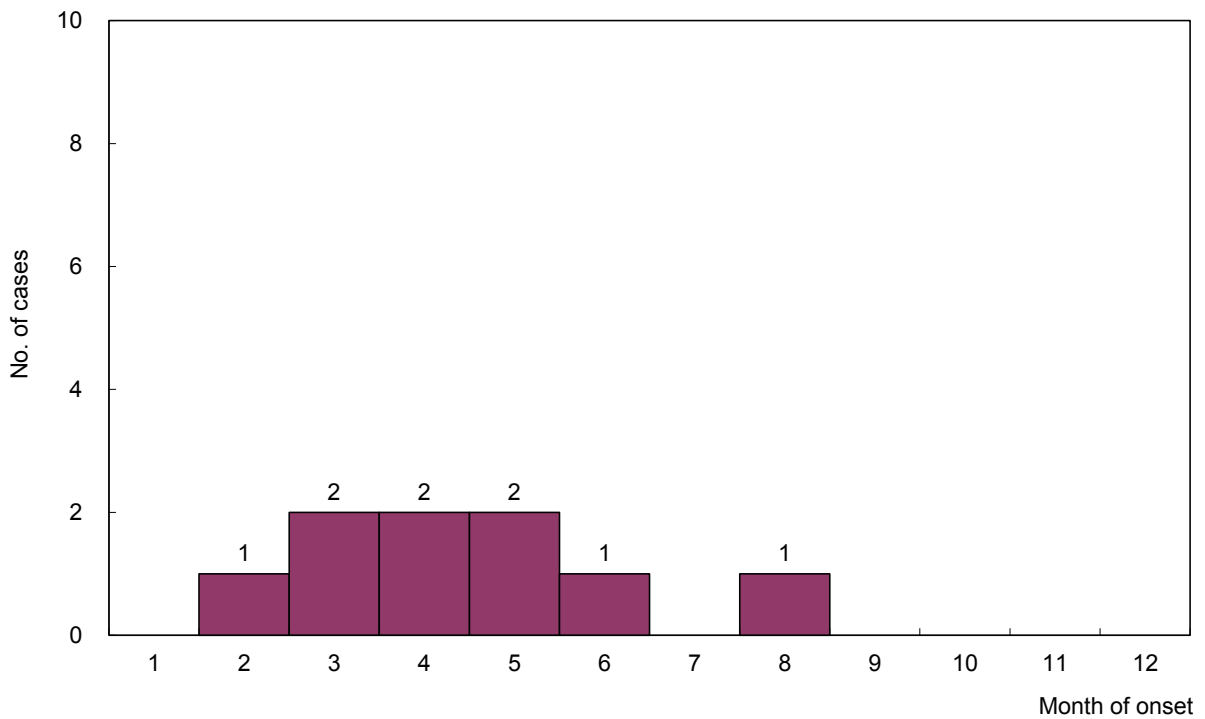


Figure 27 Number of confirmed Measles cases, 2012

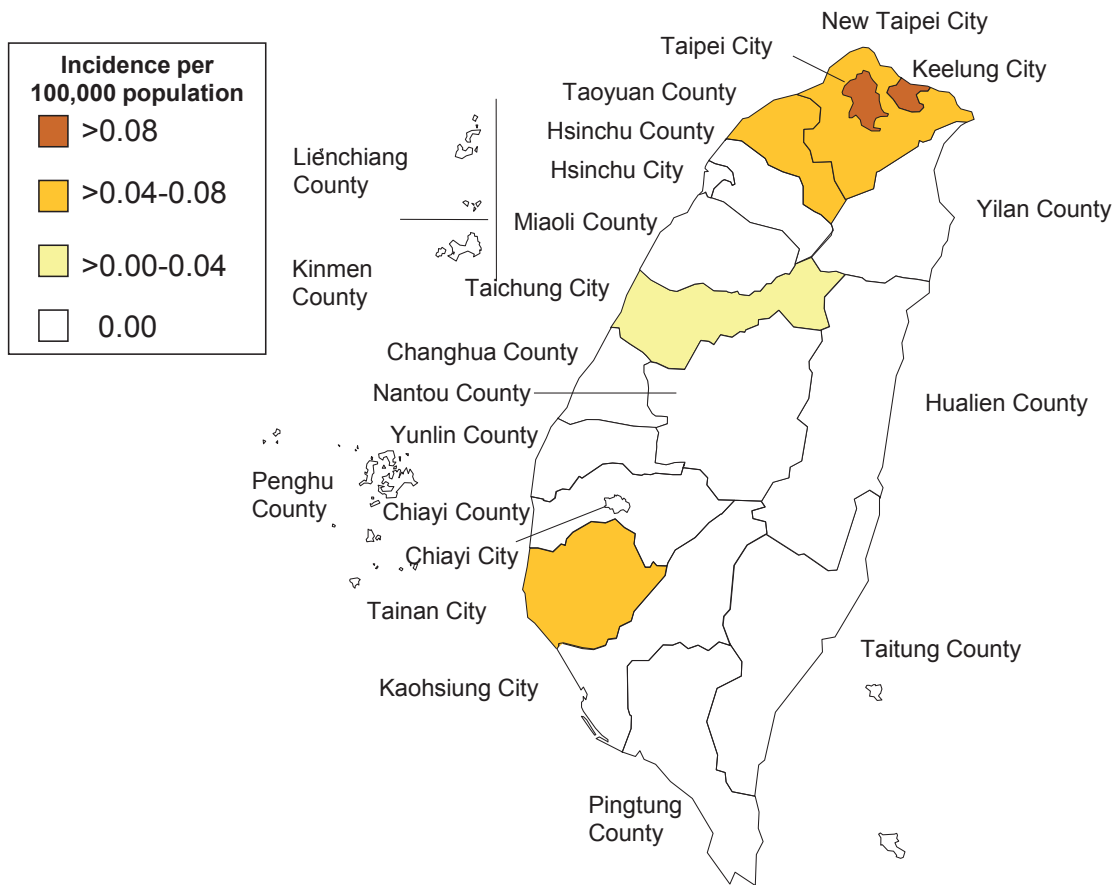


Figure 28 Geographical distribution by incidence of confirmed Measles cases, 2012

Pertussis

In 2012, there were a total of 54 pertussis cases confirmed (incidence rate: 0.23 per 100,000 population) which was lower than 77 cases in 2011 (incidence rate: 0.33 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 25 male cases (46.3%) and 29 female cases (53.7%) with a male to female ratio of 0.9:1.0.

(2) By age group

While a majority of the confirmed cases that is, 24 cases, was below 1 year old, there were 8 cases aged between 25-39 years old, and 7 cases aged between 1-4 years old. In the age groups of 15-24, 5-14 and 40-64 years old, there were respectively 5, 4 and 4 cases. Only 2 cases were 65 or above 65 years old.

Out of the 24 cases described above, there were 10 cases of two-month-old infants, 9 one-month-old cases and 5 three-month-old cases.

(3) By month

Basically there were cases in every month, but most of them were in March that is, 10 cases. The second highest number of cases was 7 in June. There were 6 cases in August, and the same number of cases was in December. In January, a total of 5 cases were confirmed. There were 4 cases reported each in May and July, and 3 cases confirmed in each April, September and November. The number of cases in February and October was 2 and 1 respectively.

(4) By residential region

Most of these cases, 17 cases, resided in New Taipei City, and the second highest number of cases was reported in Taoyuan County that is, 10 cases. In Taichung City, Changhua County and Chiayi County, the number of cases were respectively 9, 4 and 3. There were 2 cases resided in each of the regions, Taipei City, Nantou County, Yunlin County and Hualien County, and 1 confirmed in each of the regions, Miaoli County, Chiayi City and Kaohsiung City. The other cities and counties had no confirmed cases.

In view of the incidence rate per 100,000 population, the highest rate, 0.60, went to Hualien County and the second, 0.56, went to Chiayi County. The third highest incidence rate was 0.49 in Taoyuan County.

(5) Imported cases and countries of infection

Only 1 imported case was confirmed from Malaysia.

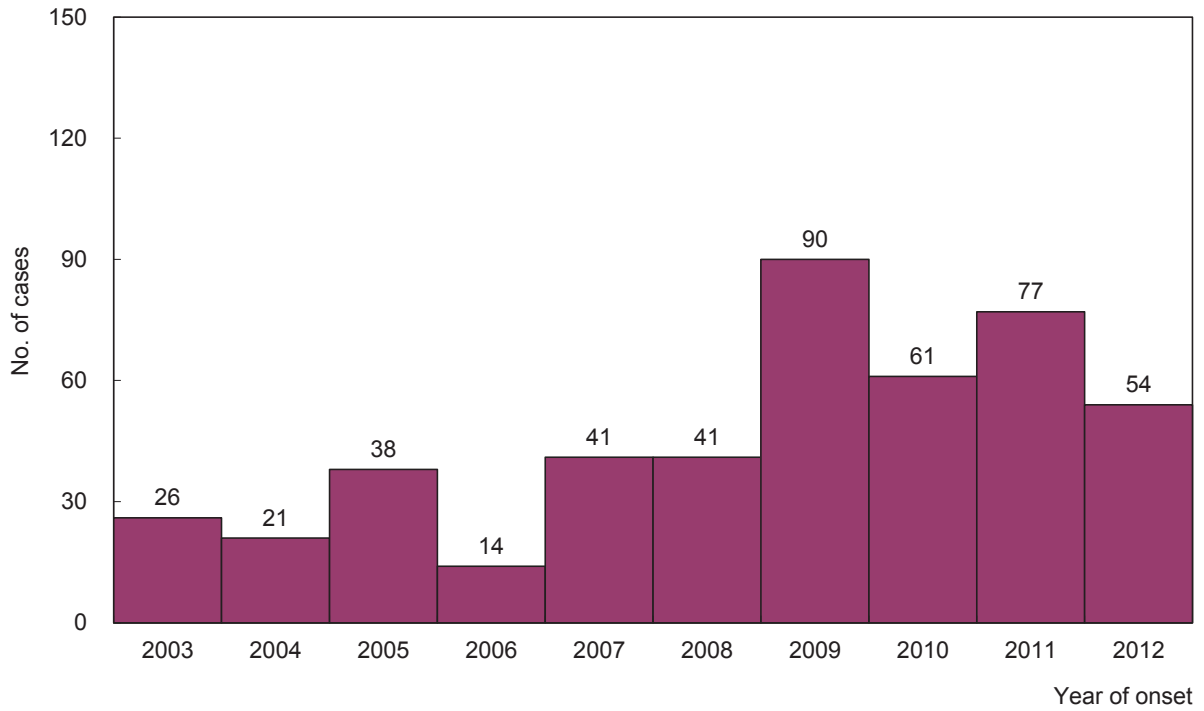


Figure 29 Number of confirmed Pertussis cases, 2003-2012

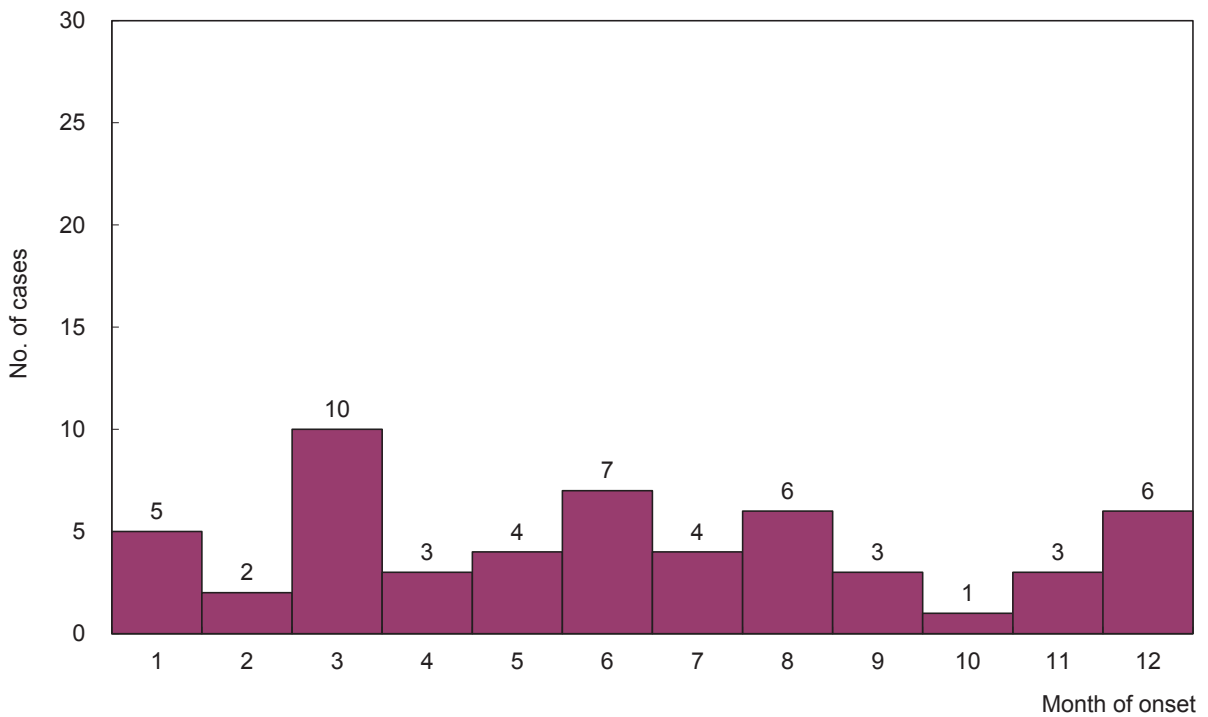


Figure 30 Number of confirmed Pertussis cases, 2012

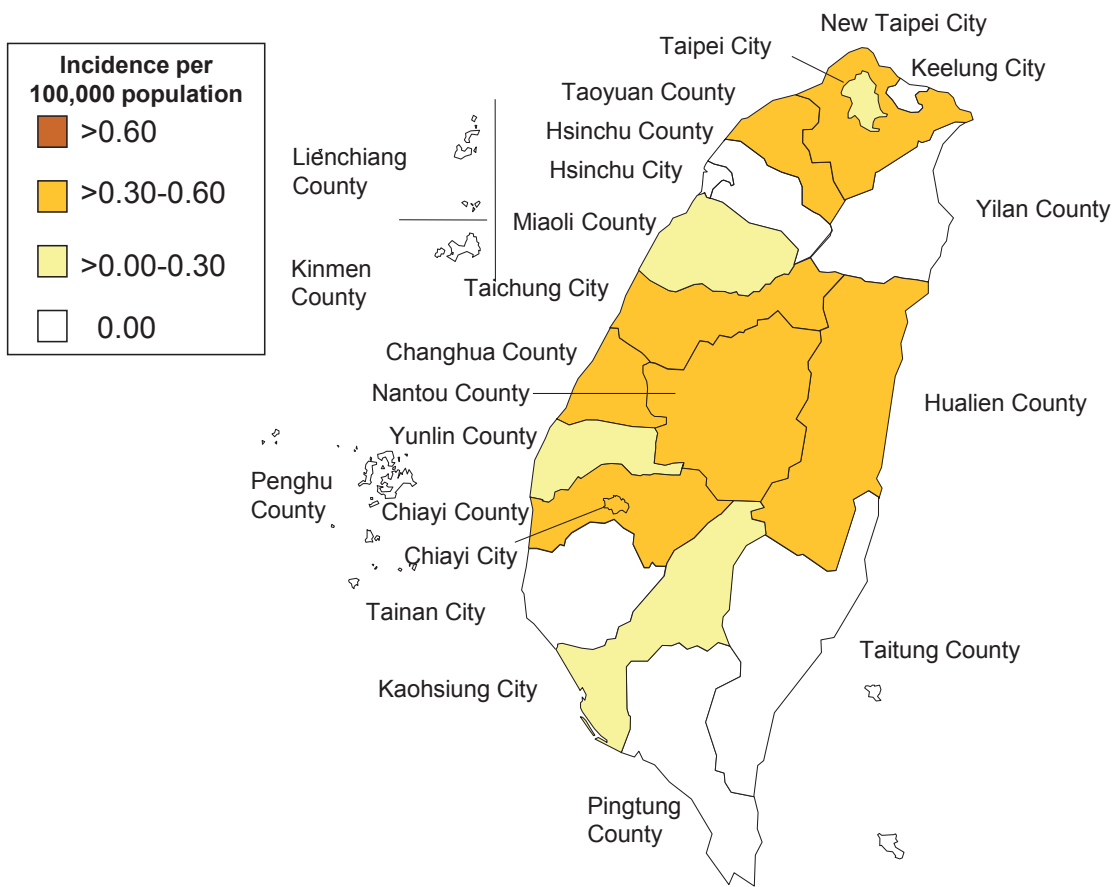


Figure 31 Geographical distribution by incidence of confirmed Pertussis cases, 2012

Meningococcal Meningitis

In 2012, a total of 6 meningococcal meningitis cases were confirmed (incidence rate: 0.03 per 100,000 population). Comparing with 5 confirmed cases in 2011 (incidence rate: 0.02 per 100,000 population), more cases were confirmed in 2012. Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 3 male cases (50.0%) and 3 female cases (50.0%) with a male to female ratio of 1.0:1.0.

(2) By age group

Out of the confirmed cases, 4 were aged 65 and above; 1 was younger than 1 year old; 1 was between 1-4 years of age.

(3) By month

There were 2 cases in November, and 1 case in each of the months, February, March, May and October.

(4) By residential Region

The confirmed cases distributed in 5 cities and counties that 2 of them resided in New Taipei City, and 1 was in each of the cities and counties, Taipei City, Taoyuan County, Tainan City and Pingtung County. The other cities and counties had no confirmed cases.

In terms of the incidence rate per 100,000 population, the highest rate, 0.12, was in Pingtung County whereas the second highest rate, 0.05, was in New Taipei City, Taoyuan County and Tainan City. The incidence rate in Taipei City was 0.04.

(5) Imported cases and countries of infection

Only 1 case was imported from China.

(6) By serogroup

After identified by laboratory testing, 4 cases were found to be infected with *Neisseria meningitidis* serogroup B, and 1 case was infected with serogroup C. However, 1 case could not be subtyped.

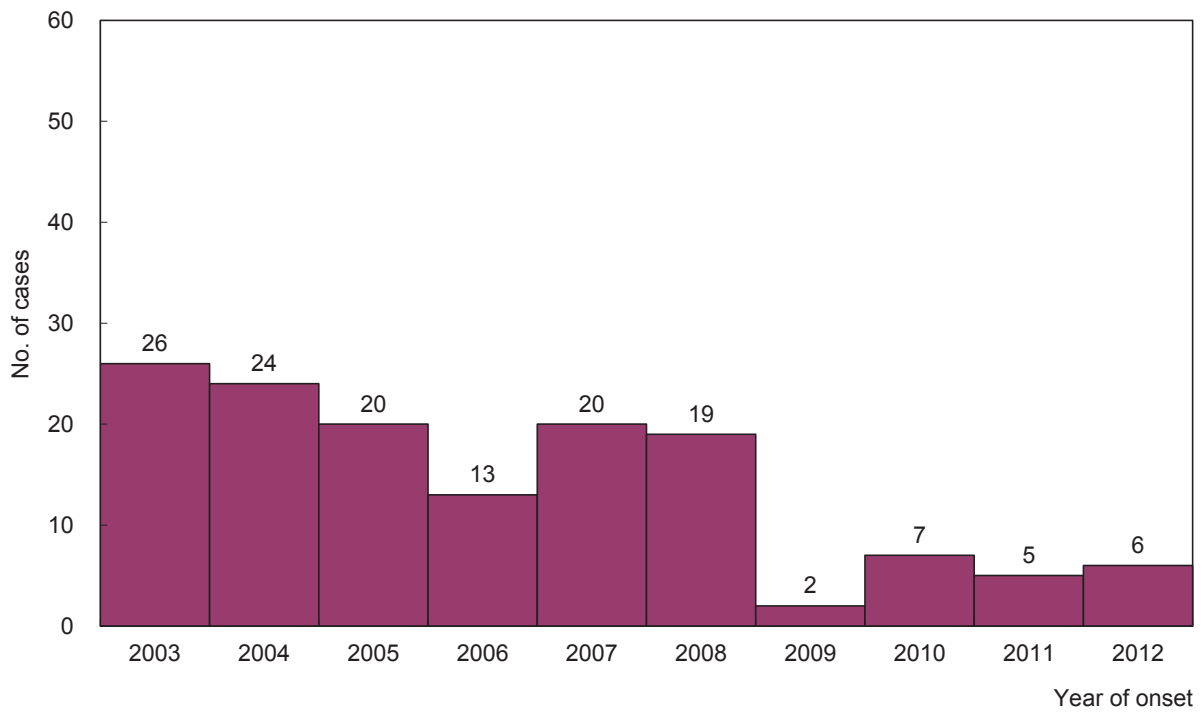


Figure 32 Number of confirmed Meningococcal Meningitis cases, 2003-2012

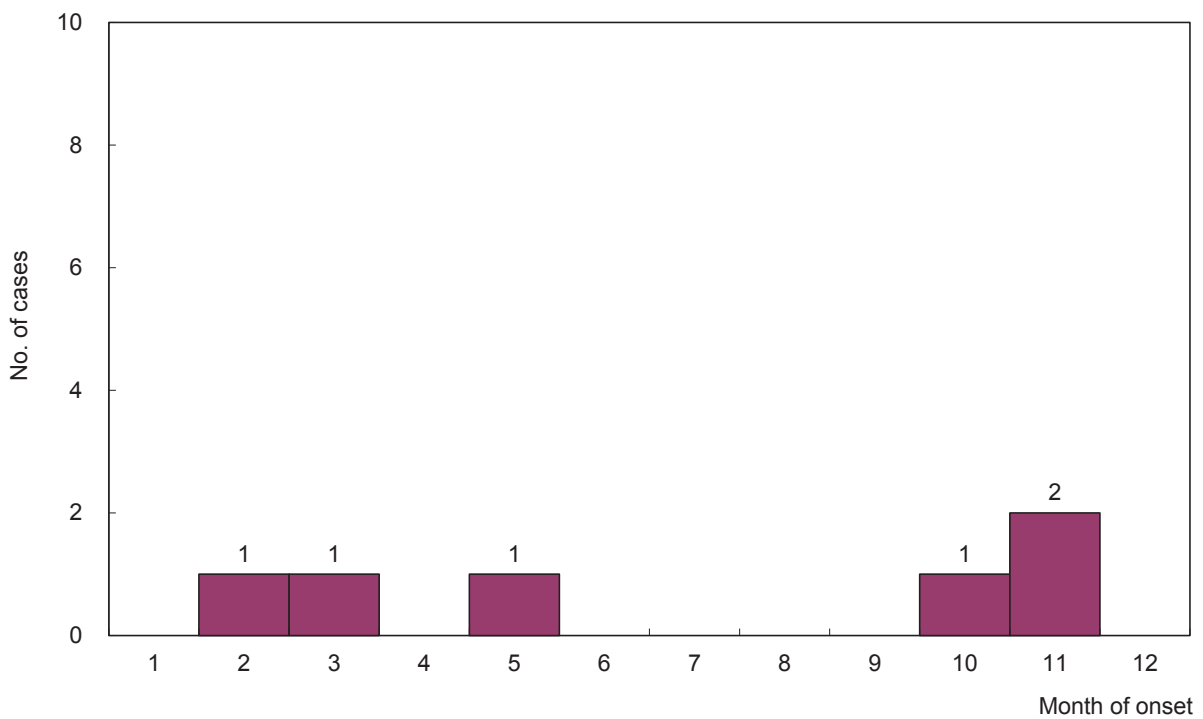


Figure 33 Number of confirmed Meningococcal Meningitis cases, 2012

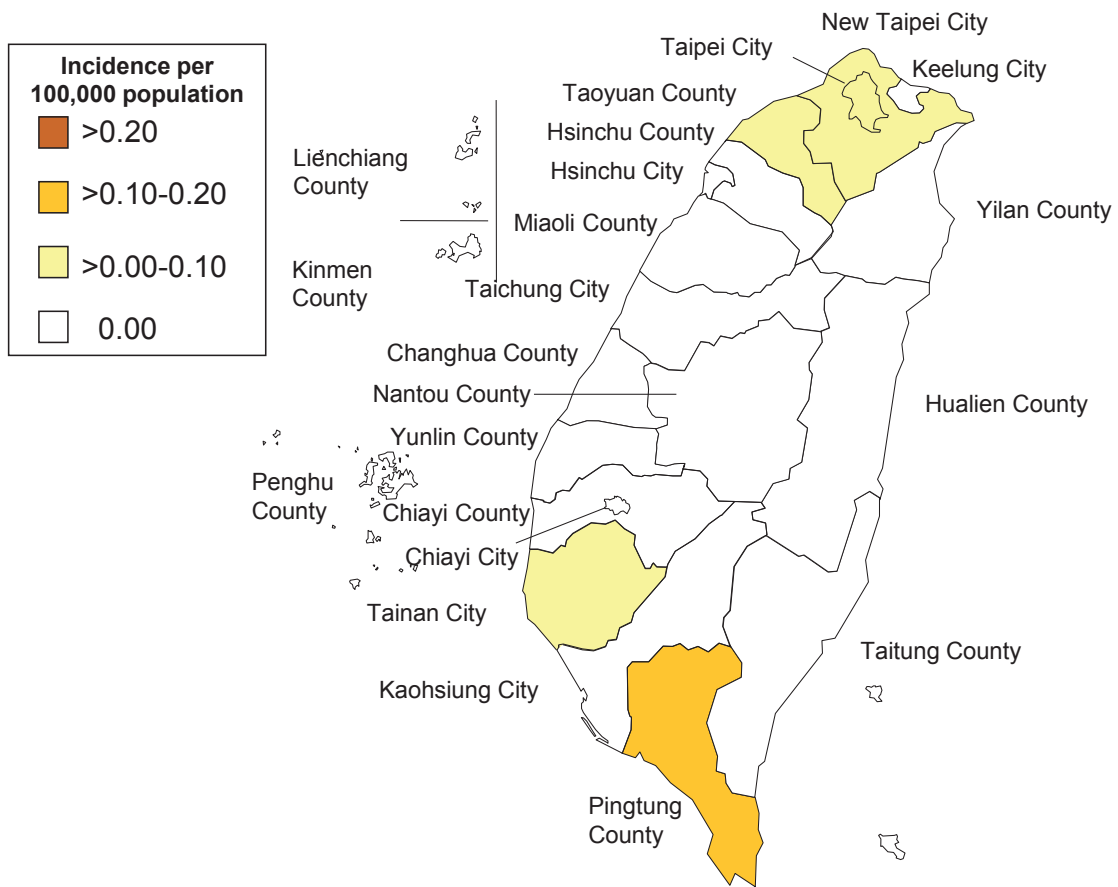


Figure 34 Geographical distribution by incidence of confirmed Meningococcal Meningitis cases, 2012

Japanese Encephalitis

A total of 32 confirmed cases of Japanese encephalitis were recorded in 2012 (incidence rate: 0.14 per 100,000 population), higher than 22 confirmed cases in 2011 (incidence rate: 0.09 per 100,000 population). The confirmed cases in 2012 were analyzed and the results are as follows:

(1) By gender

There were 17 male cases (53.1%) and 15 female cases (46.9%) with a male to female ratio of 1.1:1.0.

(2) By age group

Out of these confirmed cases, 21 were 40-64 years old; 8 were 25-39 years old; 2 were 65 years old or older; 1 was 15-24 years old.

(3) By month

Most of the confirmed cases for a total of 15 were reported in June, and the second highest number of cases that is, 10 cases, were reported in May. In July, 4 cases were confirmed, and 1 case was reported in each of the months, September, October and November.

(4) By residential Region

Out of all confirmed cases, 9 resided in Tainan City, and in Kaohsiung City and Changhua County, there were respectively 7 and 3 cases reported. In New Taipei City, Taichung City, Chiayi City and Hualien County, 2 cases were confirmed in each of these cities and counties. There was 1 case each reported in Miaoli County, Yunlin County, Chiayi County, Pingtung County and Lienchiang County. No cases were confirmed in other cities and counties.

The incidence rate per 100,000 population in Lienchiang County was the highest, 9.34, and the second highest rate was 0.74 in Chiayi City. The third one, 0.60, was in Hualien County.

(5) Imported cases and countries of infection

None of these confirmed cases was imported.

(6) By clinical symptoms

Among all confirmed cases, 26 developed fever; 15 had headache; 9 became unconscious; 9 had disturbance of consciousness or psychological symptoms (delirium, unclear consciousness etc.); 6 had neck stiffness; 5 developed nausea or vomiting; 4 had speaking difficulty; 3 had paralyzed limbs or stiffness; 2 fell into coma; and each 2 had encephalitis; or diarrhea; or muscular ache.

(7) Residential conditions or neighboring environment

Out of these cases, 23, 17 and 16 cases lived closed to pig farms, pigeon farms and paddy fields respectively; 11, 7 and 5 cases lived closed to poultry farms, ponds, orchards or owned pets; 4, 3 and 1 cases lived closed to egret nests, dry farmlands or goat farms.

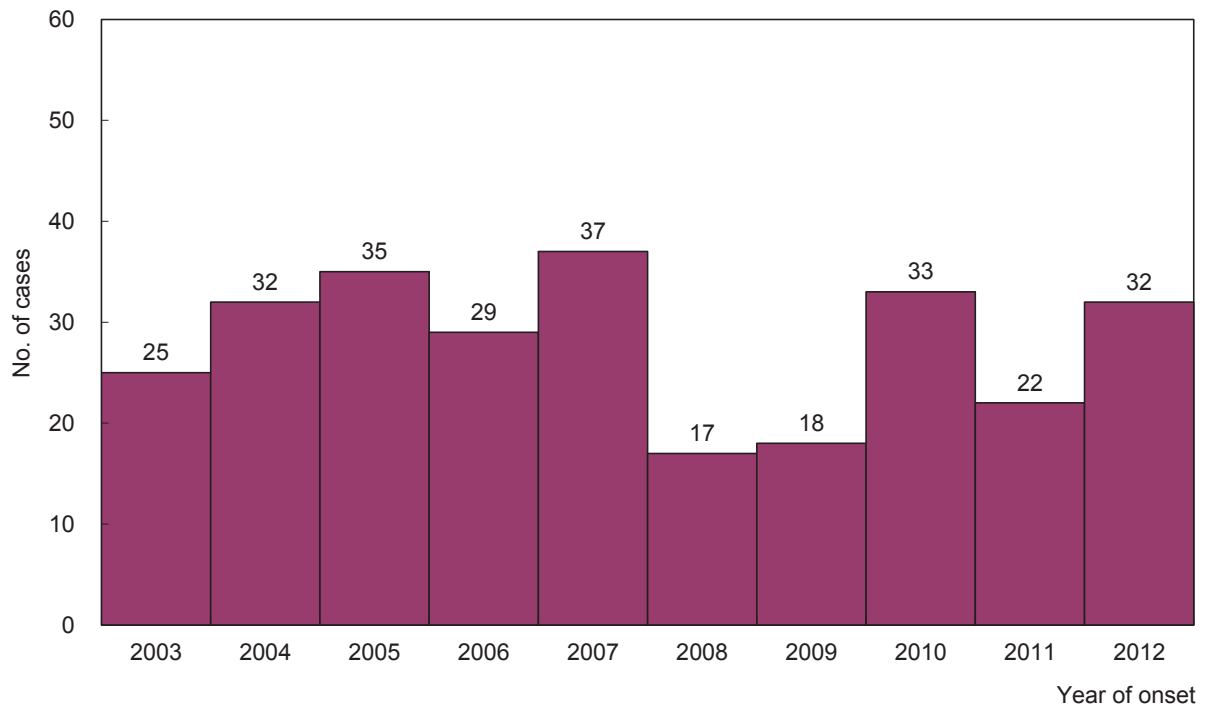


Figure 35 Number of confirmed Japanese Encephalitis cases, 2003-2012

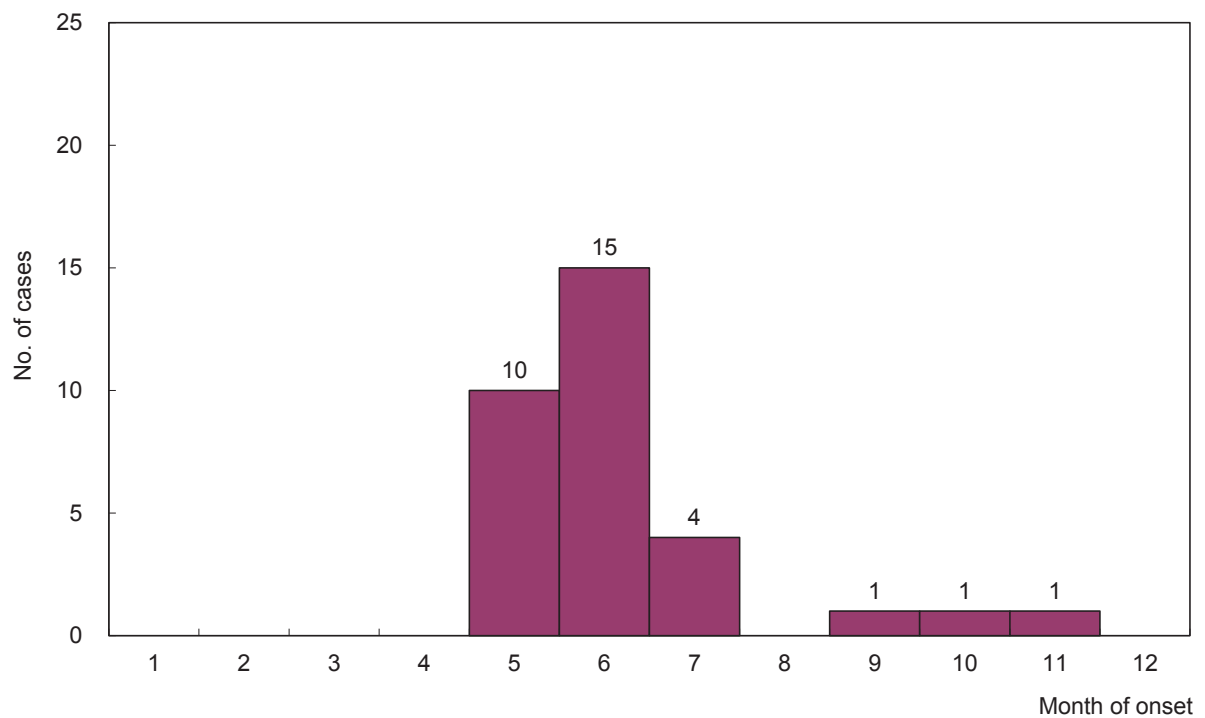


Figure 36 Number of confirmed Japanese Encephalitis cases, 2012

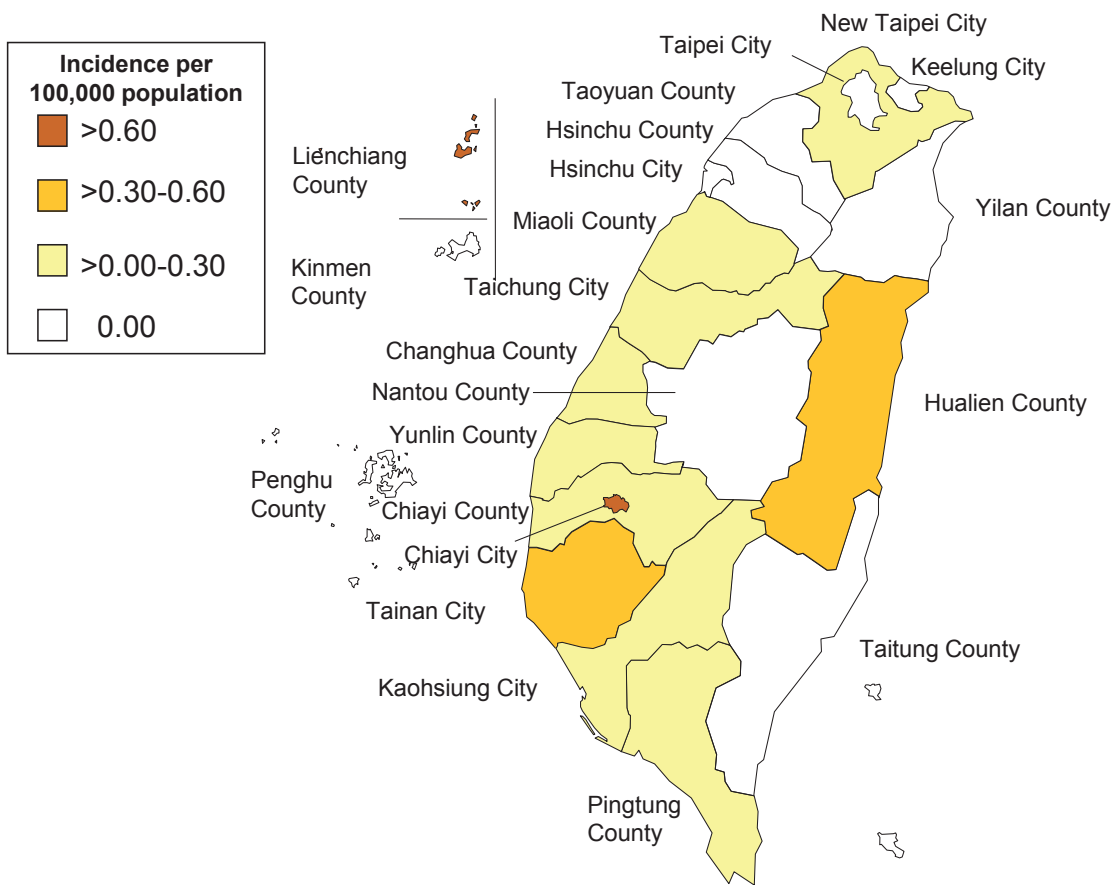


Figure 37 Geographical distribution by incidence of confirmed Japanese Encephalitis cases, 2012

Acute Hepatitis A

In 2012, a total of 99 cases of acute hepatitis A were confirmed (incidence rate: 0.43 per 100,000 population). The number of cases was lower than the 104 cases confirmed in 2011 (incidence rate: 0.45 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 57 male cases (57.6%) and 42 female cases (42.4%) with a male to female ratio of 1.4:1.0

(2) By age group

A majority of the confirmed cases were in the age group of 40-64 years old for 39 cases, and 38 cases were 25-39 years old. In the age group of 15-24 years old, there were 10 cases. There were 7 cases at the age of 65 or above. The number of cases in the age groups of 5-14 and 1-4 years old were 4 and 1 respectively.

(3) By month

There were cases reported every month in 2012 with the highest number of cases reported in February for a total of 15. In July, 12 cases were reported that was the second highest number of cases. The number of cases in September and December were 10 and 9. There were 8 cases reported in each of the months, March, May, August and November, and 6 cases in January. In each of the months, April, June and October, there were 5 cases reported.

(4) By residential region

Most of the confirmed cases resided in New Taipei City for a total of 26. The second highest number of cases for 17 cases was reported in Taipei City. In Taoyuan County, Taichung City, Kaohsiung City and Hsinchu County, there were 16, 7, 6 and 5 cases confirmed respectively. There were fewer than 5 cases reported in other cities and counties with no case reported in Yunlin County, Chiayi City, Pingtung County, Penghu County, Taitung County and Lienchiang County.

The incidence rate per 100,000 population for the disease was the highest in Kinmen County that is, 3.69, and the second highest was 0.96 in Hsinchu County. The incidence rates in Keelung City and Taoyuan County were both 0.79, the third.

(5) Imported cases and countries of infection

There were 26 imported cases, 8 of which were from China, and 4 cases from each of the countries, Indonesia and Thailand. There were 3 cases each from the Philippines and Cambodia. There was 1 case each from Malaysia, India, Nepal and Salvador.

(6) Clinical symptoms

According to the epidemic data of the 99 confirmed cases, among those who developed symptoms (subject to multiple-choice questions), 72.7% (72 cases) felt tired; 61.6% had dark urine (61 cases); 56.6% had nausea (56 cases); 55.6% had fever (55 cases); 54.5% had yellowish eyes and skin (54 cases), 52.5% had stomach discomfort (52 cases); 39.4% had vomiting (39 cases); 38.4% had stomach cramp (38 cases).

(7) Source of drinking water and dietary habits

According to the epidemic data of the 99 confirmed cases, in terms of household drinking water sources (subject to multiple-choice questions), 71.7% (71 cases) drank tap-water; 11.1% (11 cases) drank bottle water; 3% (3 cases) drank spring water; 1% (1 case) drank underground water. In terms of dietary habits (subject to multiple-choice questions), most cases, 39.4% (39 cases), used to eat at food stalls; 29.3% (29 cases) used to dine out; 23.2% (23 cases) used to have lunch at school restaurants or take-out lunch boxes.

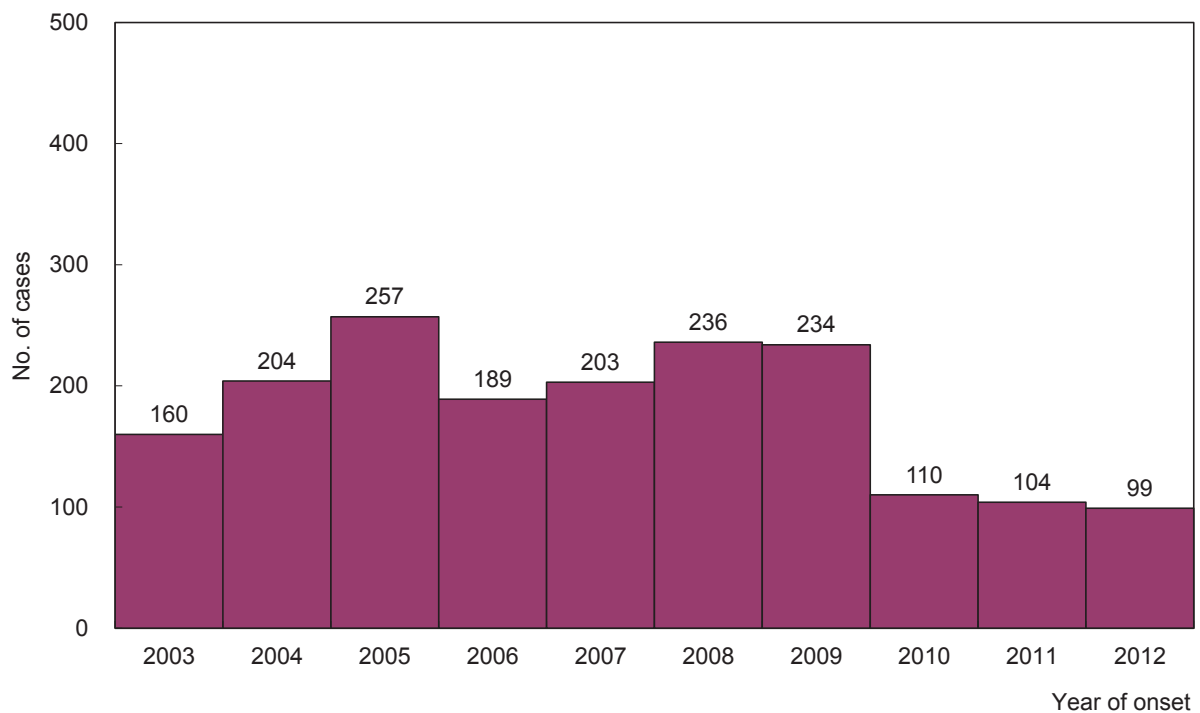


Figure 38 Number of confirmed Acute Hepatitis A cases, 2003-2012

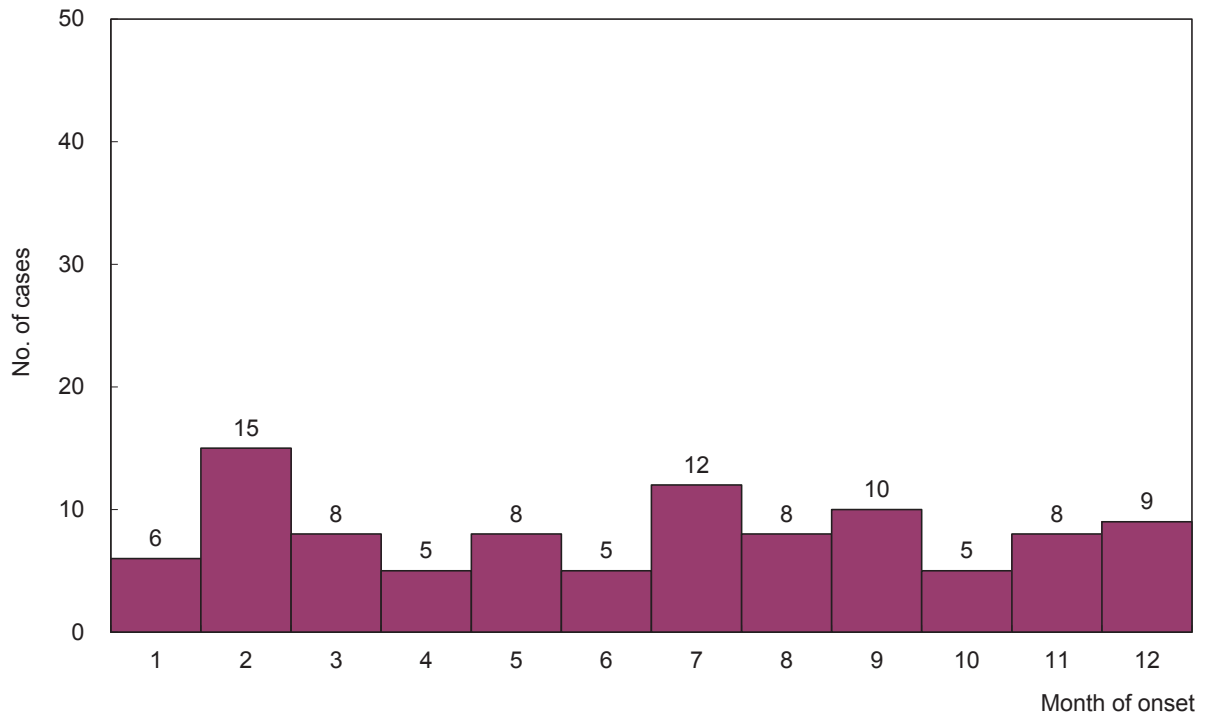


Figure 39 Number of confirmed Acute Hepatitis A cases, 2012

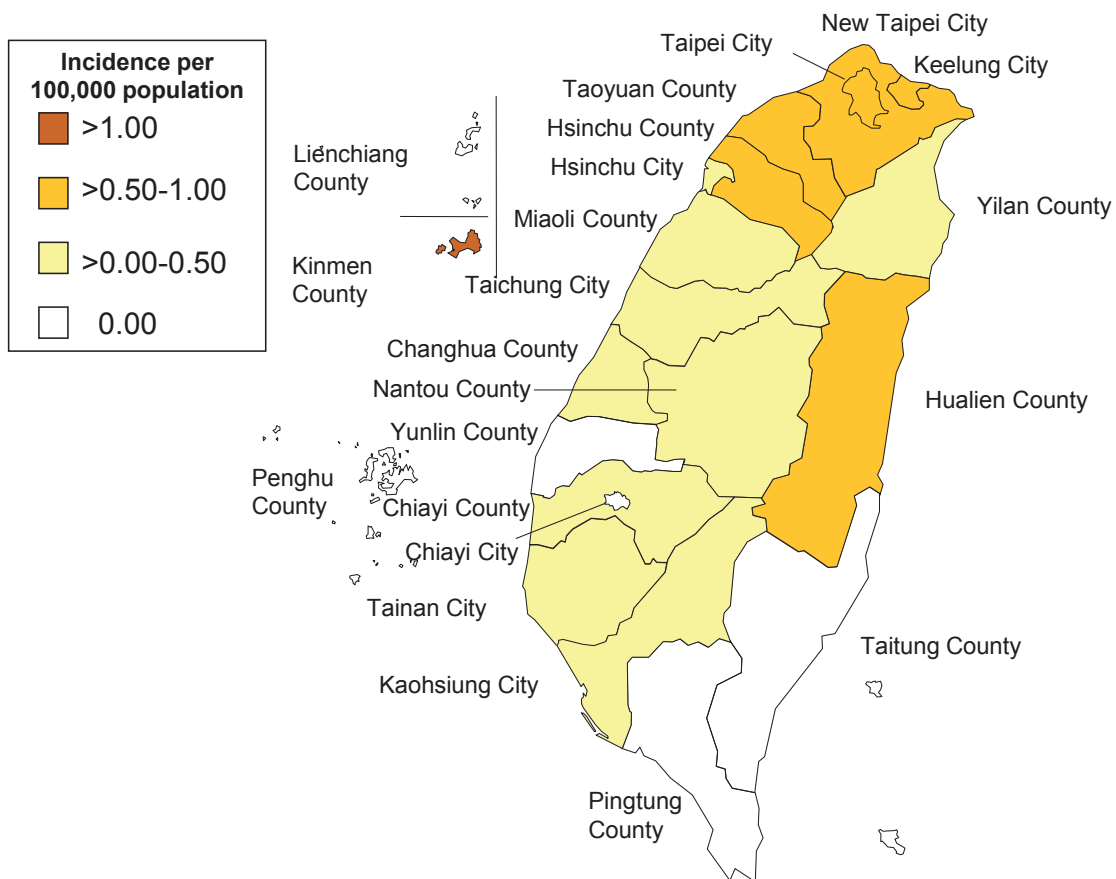


Figure 40 Geographical distribution by incidence of confirmed Acute Hepatitis A cases, 2012

Acute Hepatitis B

In 2012, a total of 97 cases of acute hepatitis B were confirmed (incidence rate: 0.42 per 100,000 population) that was lower than the 163 cases confirmed in 2011 (incidence rate: 0.70 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 56 male cases (57.7%) and 41 female cases (42.3%) with a male to female ratio of 1.4:1.0

(2) By age group

A majority of the confirmed cases were in the age group of 25-39 years old for 38 cases, and 30 cases were 40-64 years old. In the age group of 15-24 years old, there were 21 cases. There were 6 cases at the age of 65 or above. There was 1 case in the age group of 5-14, and 1 case younger than 1 year old.

(3) By month

Confirmed cases occurred in every month of the year without apparent concentration in any of the months. Except 13 and 11 cases reported in April and November respectively, and 10 cases reported in February and another 10 cases reported in March, the number of cases reported in other months was lower than 10.

(4) By residential region

Most of the confirmed cases resided in New Taipei City for a total of 19 cases. The second highest number of cases for a total of 15 was reported in Taipei City. Out of the confirmed cases, 13 and 12 cases lived in Taoyuan County and Kaohsiung City respectively. The numbers of reported cases in other cities and counties were below 10. None of the confirmed cases came from Chiayi County, Pingtung County, Kinmen County, Lienchiang County and Penghu County.

The incidence rate per 100,000 population for the disease was the highest in Hsinchu City that is, 1.42, and the second highest was 0.88 in Taitung County. The incidence rate in Miaoli County was 0.71, the third.

(5) Imported cases and countries of infection

There were 4 imported cases, each of which came from China, Indonesia, Vietnam and South Africa.

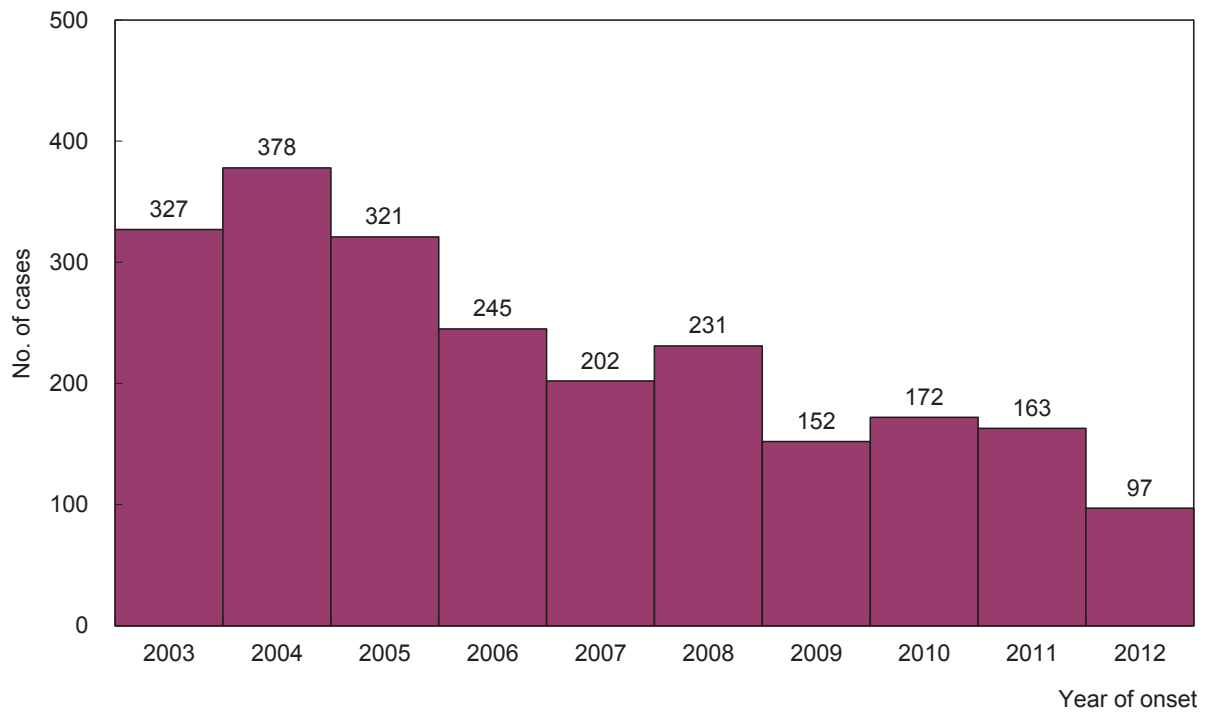


Figure 41 Number of confirmed Acute Hepatitis B cases, 2003-2012

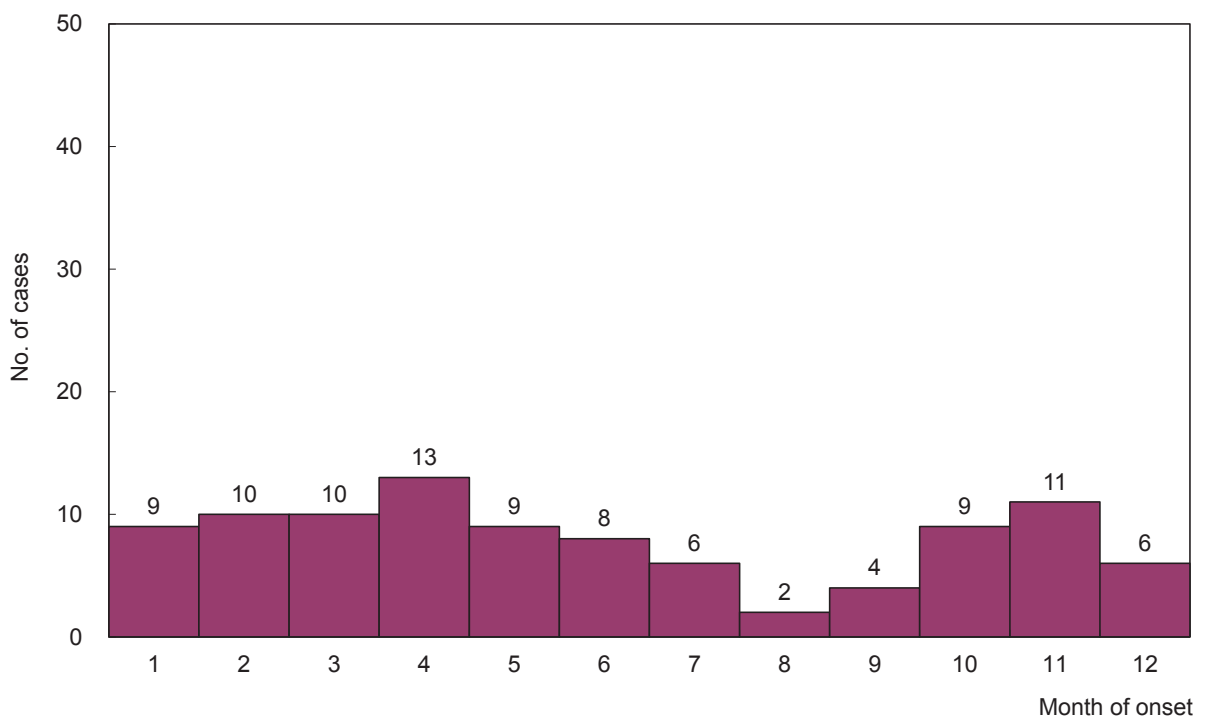


Figure 42 Number of confirmed Acute Hepatitis B cases, 2012

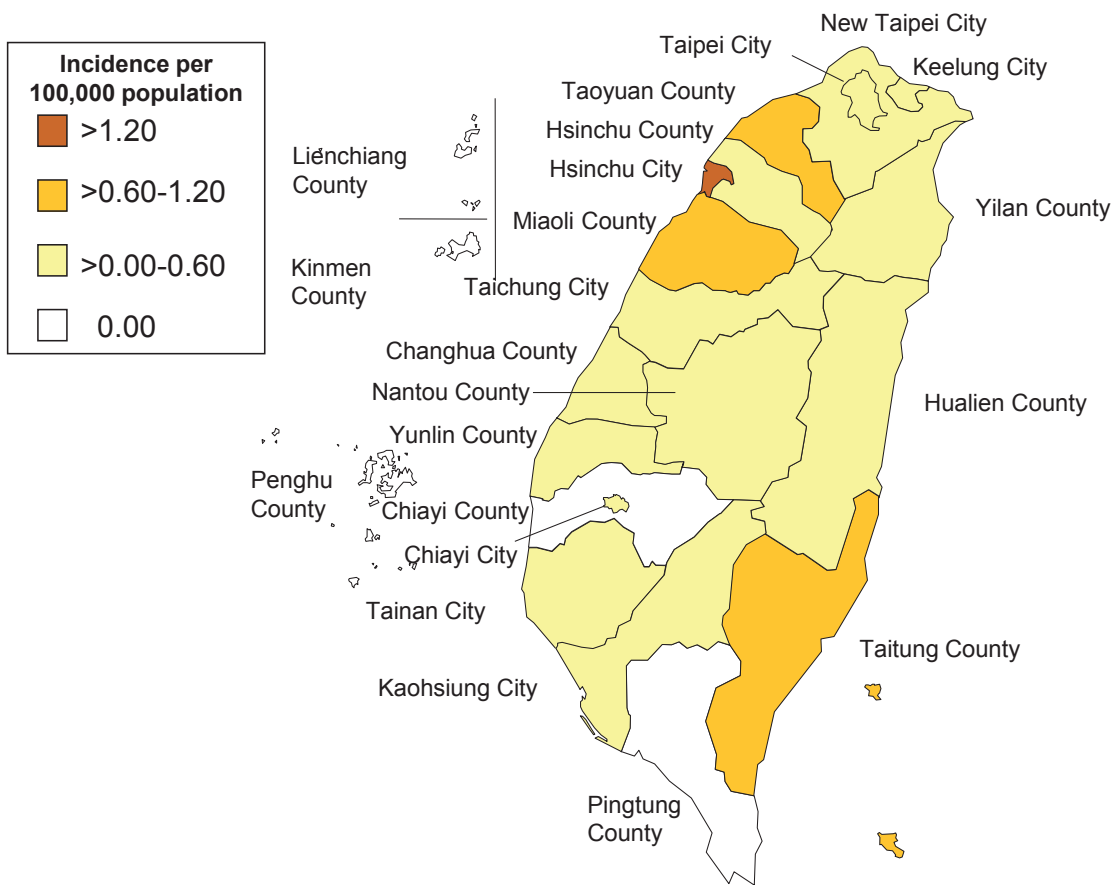


Figure 43 Geographical distribution by incidence of confirmed Acute Hepatitis B cases, 2012

Acute Hepatitis C

In 2012, a total of 34 cases of acute hepatitis C were confirmed (incidence rate: 0.15 per 100,000 population) that was the same as the number of cases confirmed in 2011 (incidence rate: 0.15 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 24 male cases (70.6%) and 10 female cases (29.4%) with a male to female ratio of 2.4:1.0

(2) By age group

Most of the confirmed cases for 12 cases were 65 years old or older. There were 10 cases in the age group of 25-39 years old, 9 cases in the age group of 40-64 years old, and 3 cases in the age group of 15-24 years old.

(3) By month

Except June, there were cases reported every month in 2012. There were 7 cases reported in February, and 5 cases in March and another 5 cases in May. The number of cases reported in other months was lower than 5.

(4) By residential region

Most of the confirmed cases resided in New Taipei City for a total of 8 cases. The second highest and third numbers of cases were 7 and 3 reported in Kaohsiung City and Taipei City, and another 3 cases in Hualien County. Out of the confirmed cases, there were 2 cases reported in each of these cities and counties, Miaoli County, Taichung City and Pingtung County. Each of the cities and counties, Keelung City, Taoyuan County, Hsinchu City, Changhua County, Yunlin County, Chiayi City and Tainan City, had 1 case confirmed. The remaining cities and counties had no cases with the disease confirmed.

The incidence rate per 100,000 population for the disease was the highest in Hualien County that is, 0.89, and the second highest was 0.37 in Chiayi City. The third highest incidence rate was 0.36 in Miaoli County.

(5) Imported cases and countries of infection

None of the confirmed cases were imported.

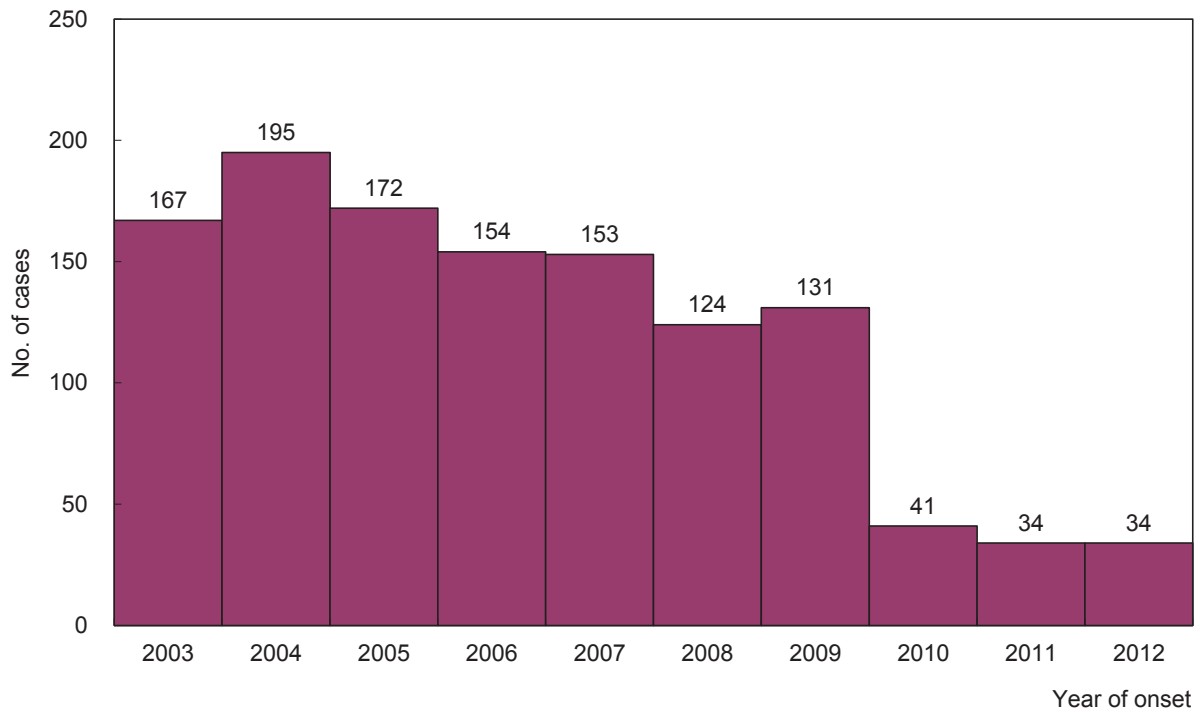


Figure 44 Number of confirmed Acute Hepatitis C cases, 2003-2012

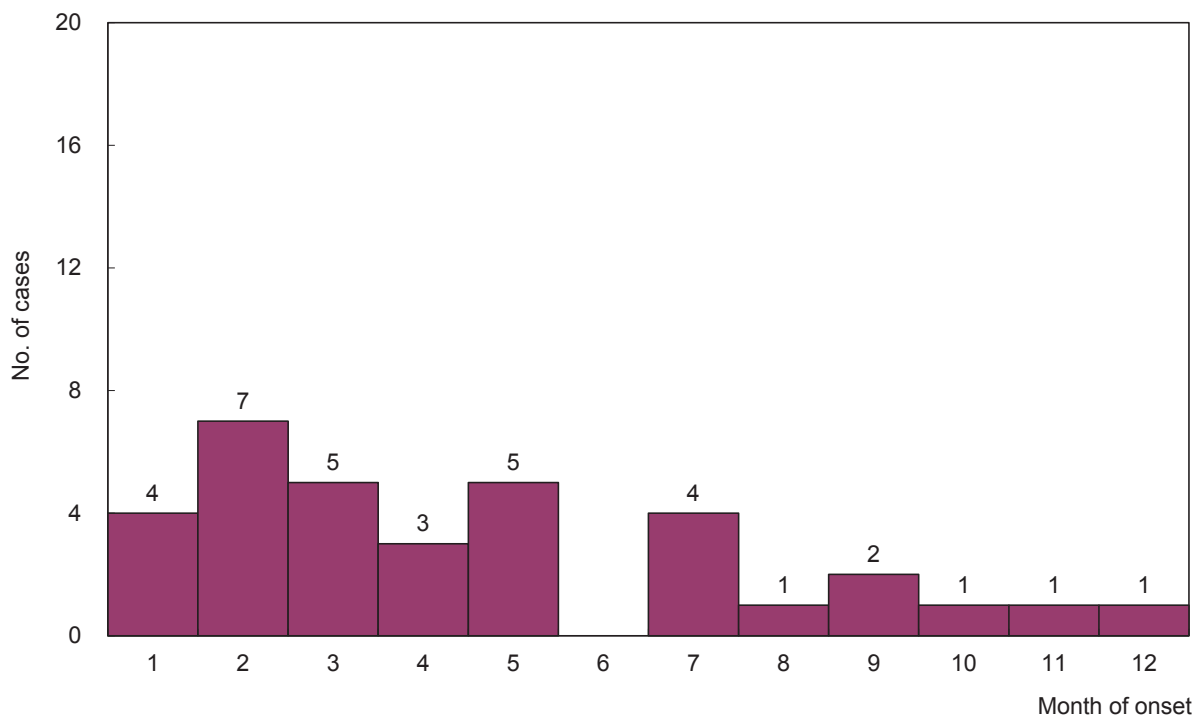


Figure 45 Number of confirmed Acute Hepatitis C cases, 2012

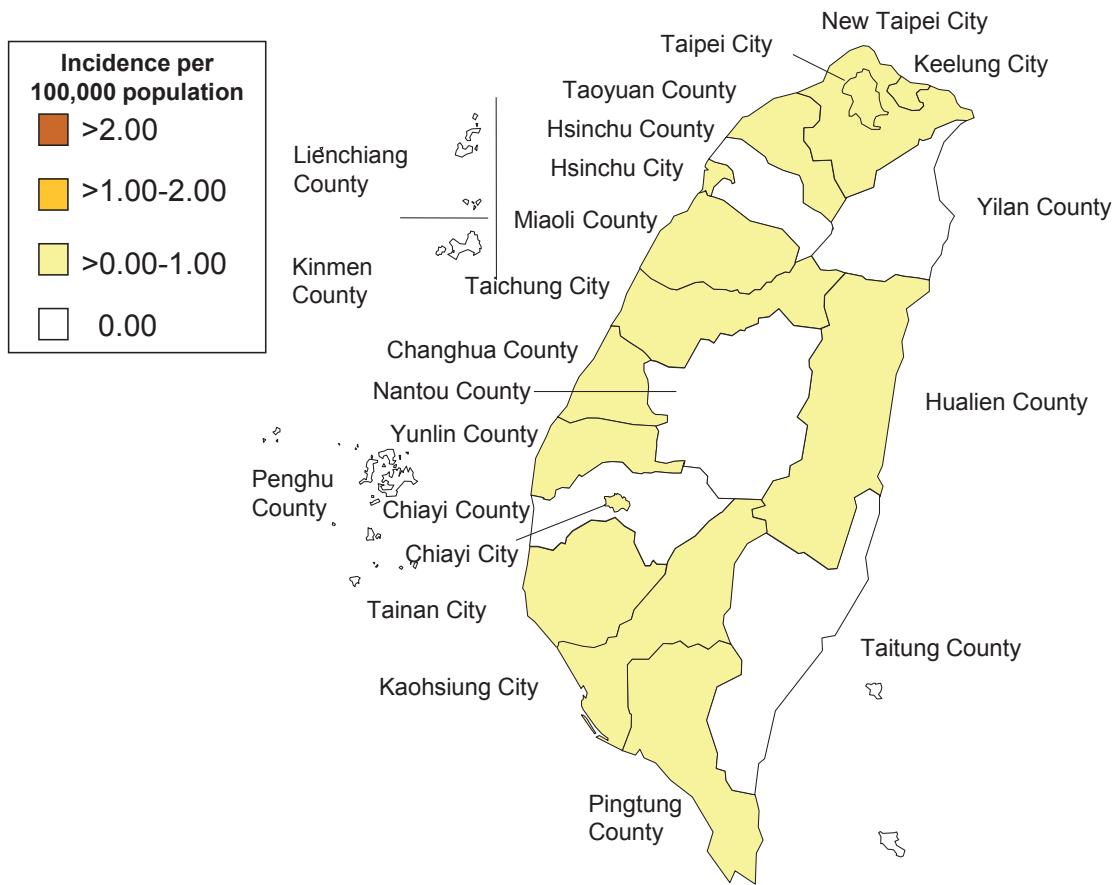


Figure 46 Geographical distribution by incidence of confirmed Acute Hepatitis C cases, 2012

Scrub Typhus

In 2012, a total of 460 cases of scrub typhus were confirmed (incidence rate: 1.98 per 100,000 population) that was more than 322 confirmed cases in 2011 (incidence rate: 1.39 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 313 male cases (68.0%) and 147 female cases (32.0%) with a male to female ratio of 2.1:1.0

(2) By age group

Most of the confirmed cases were older than 25 years old. A total of 242 cases were 40-64 years old; 91 cases were 25-39 years old; 56 cases were 65 years old or older; 46 cases were 15-24 years old; 18 cases were 5-14 years old; 7 cases were 1-4 years old.

(3) By month

There were cases reported every month in 2012 mainly in May to October. There were 91 cases reported in June, and 59 cases in July and also 59 cases in September. In May, October and August, there were respectively 48, 43 and 41 cases reported. The number of cases reported in December, January, November, April, February and March were respectively 30, 29, 26, 20, 12 and 2.

(4) By residential region

None of the confirmed cases resided in Chiayi City and Chiayi County. The confirmed cases lived in the remaining cities and counties, most of them in Penghu County for a total of 77 cases. The second highest number of cases for a total of 70 cases was reported in Taitung County. The number of cases reported in Kinmen County, Kaohsiung City, Hualien County, Nantou County, Lienchiang County and New Taipei City were respectively 64, 51, 44, 26, 22 and 20. The number of cases in the rest of cities and counties were below 20.

The incidence rate per 100,000 population for the disease was the highest in Lienchiang County that is, 205.45, and the second highest was 78.57 in Penghu County. The third highest incidence rate was 58.99 in Kinmen County. The incidence rates in Taitung County and Hualien County were respectively 30.80 and 13.09. In the rest of cities and counties, the incidence rates were below 10.00.

(5) Imported cases and countries of infection

There were 2 imported cases each from China and Vietnam.

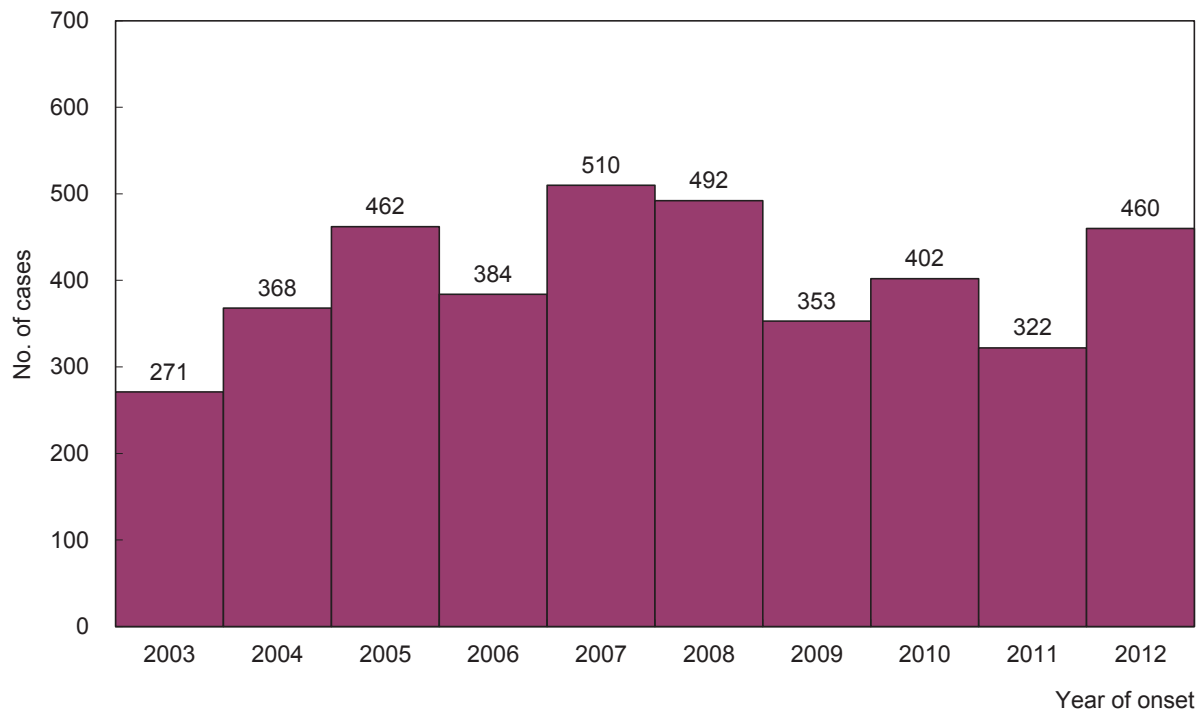


Figure 47 Number of confirmed Scrub Typhus cases, 2003-2012

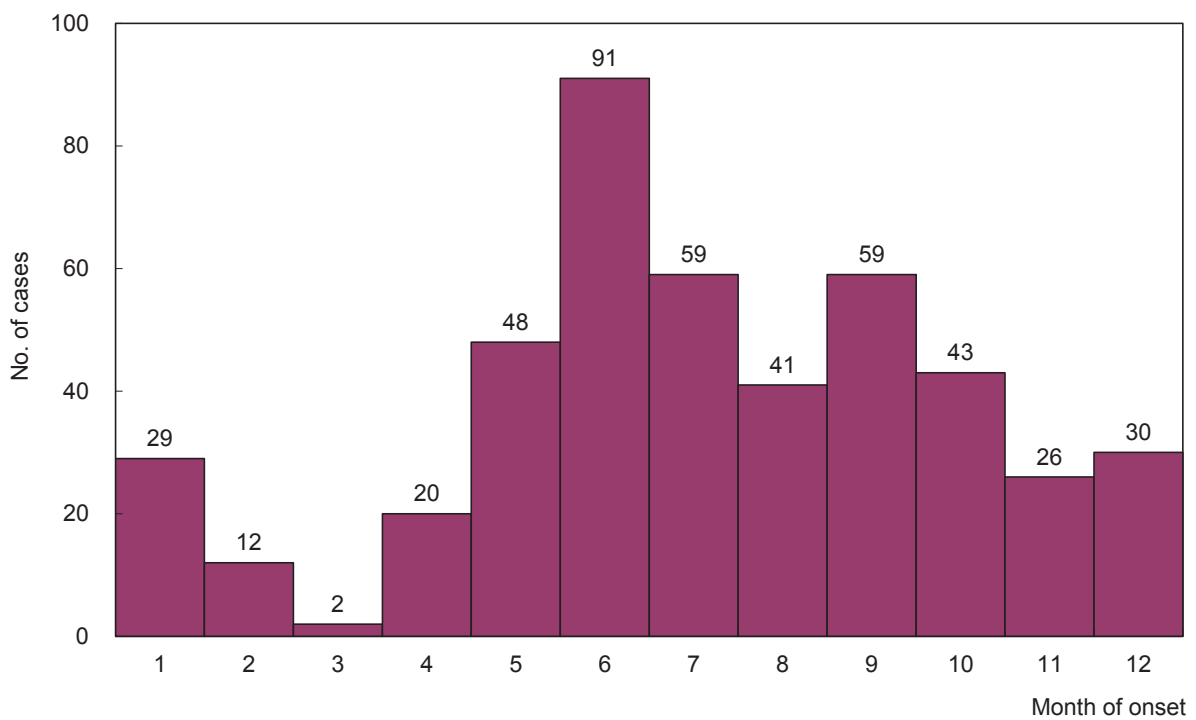


Figure 48 Number of confirmed Scrub Typhus cases, 2012

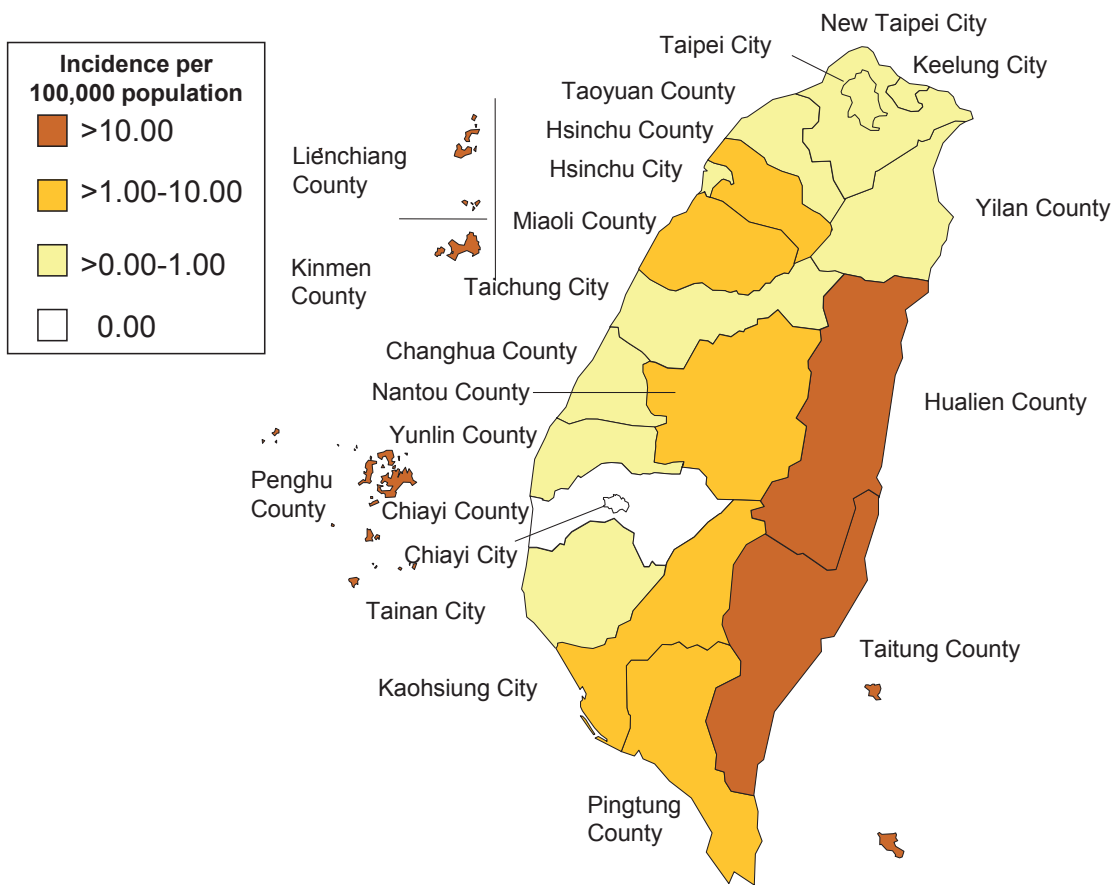


Figure 49 Geographical distribution by incidence of confirmed Scrub Typhus cases, 2012

Legionellosis

In 2012, a total of 88 cases of legionellosis were confirmed (incidence rate: 0.38 per 100,000 population) that was lower than 97 confirmed cases in 2011 (incidence rate: 0.42 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 74 male cases (84.1%) and 14 female cases (15.9%) with a male to female ratio of 5.3:1.0.

(2) By age group

Most of the confirmed cases were in adults aged 25 and over. A total of 47 cases were 40-64 years old; 39 cases were 65 years old or older; 2 cases were 25-39 years old.

(3) By month

There were cases reported every month in 2012 mainly in December for a total of 15 cases. There were 12 cases reported in August, 11 cases in June and also 11 cases in July. There were 7 cases reported in May and another 7 cases in November, and 6 cases in January and another 6 cases in September. In April and March, the number of cases confirmed were 5 and 3. There were 3 and 2 cases confirmed in October and February respectively.

(4) By residential region

Out of the confirmed cases, 27 cases lived in New Taipei City, and 14 cases resided in Taipei City. The number of cases reported in Taoyuan County, Kaohsiung City, Pingtung County and Taichung City were 10, 9, 6 and 5 respectively. The number of cases in the rest of cities and counties were below 5. None of the confirmed cases came from Keelung City, Hsinchu City, Miaoli County, Penghu County, Kinmen County and Lienchiang County.

The incidence rate per 100,000 population for the disease was 0.88, the highest, in Taitung County, and the second highest was 0.70 in Pingtung County. The third highest incidence rate was 0.69 in New Taipei City.

(5) Imported cases and countries of infection

There were 5 imported cases, 4 of which came from China and 1 of which was from Thailand.

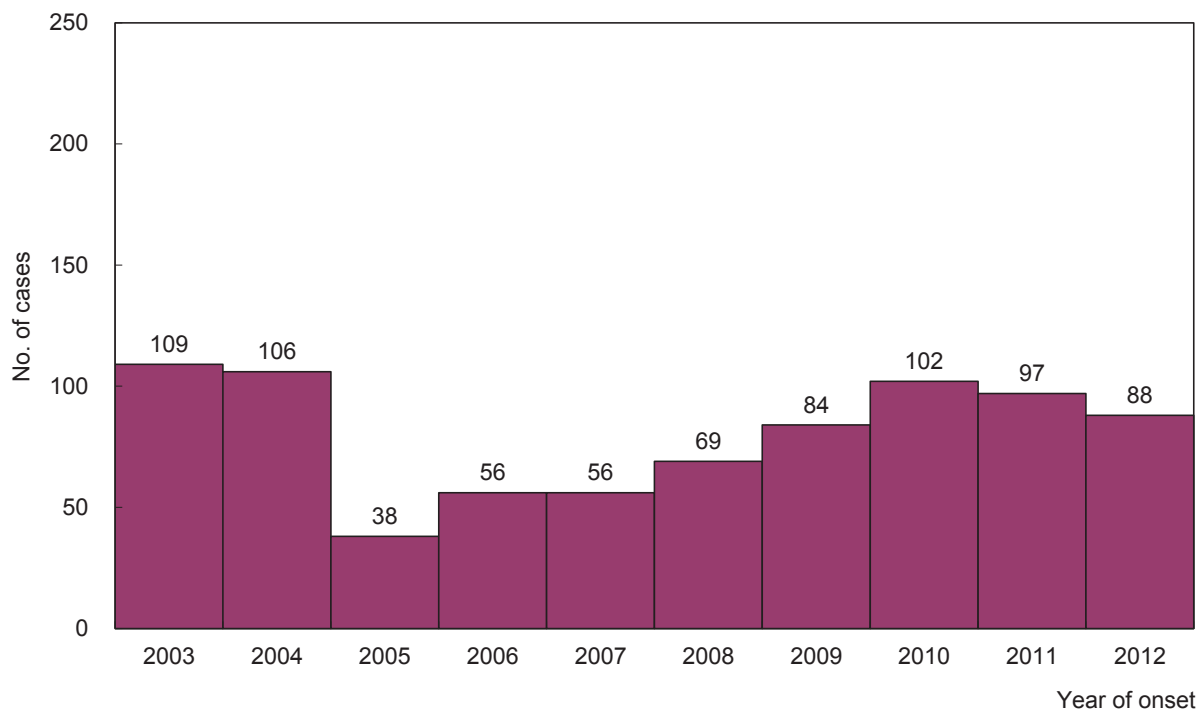


Figure 50 Number of confirmed Legionellosis cases, 2003-2012

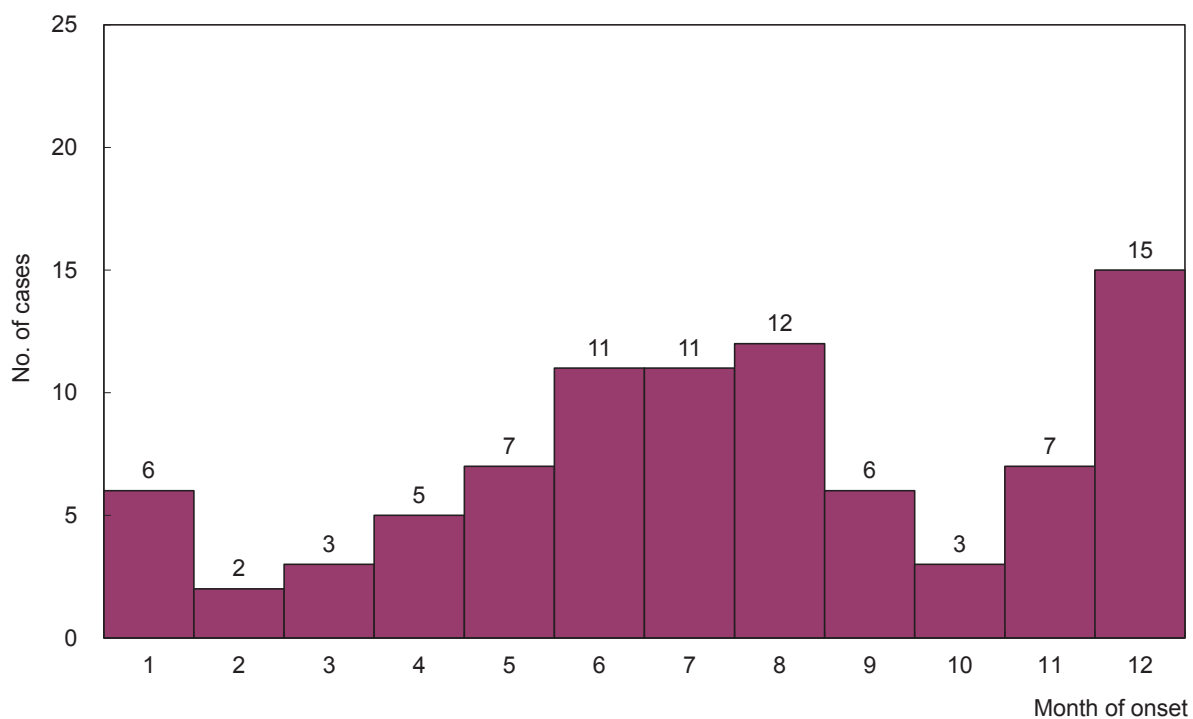


Figure 51 Number of confirmed Legionellosis cases, 2012

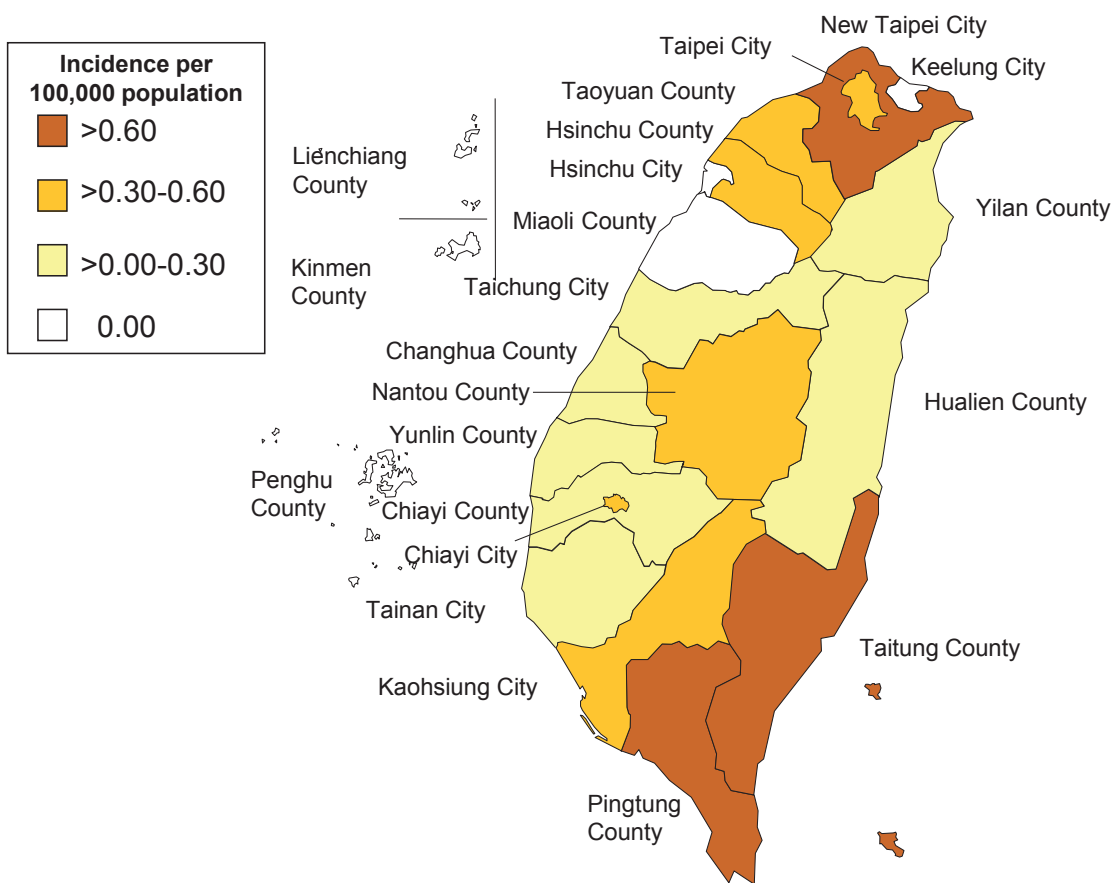


Figure 52 Geographical distribution by incidence of confirmed Legionellosis cases, 2012

Dengue Fever

In 2012, a total of 1,478 cases of dengue fever were confirmed (incidence rate: 6.35 per 100,000 population) that was lower than 1,702 confirmed cases in 2011 (incidence rate 7.34 per 100,000 population).

There were 36 cases of dengue hemorrhagic fever/dengue shock syndrome (incidence rate: 0.15 per 100,000 population) in 2012. The number of cases was higher than 22 cases confirmed in 2011 (incidence rate 0.09 per 100,000 population).

Of the 1,478 confirmed cases, there were 207 imported cases and 1,271 indigenous cases, including 36 confirmed cases of dengue hemorrhagic fever (1 imported and 35 indigenous). The imported dengue hemorrhagic fever case was resident in Kaohsiung City; and indigenous cases were resident in Kaohsiung City (30 cases), Tainan City (4 cases) and Yunlin County (1 case). Analytical results of the confirmed cases of dengue fever in 2012 are as follows:

(1) By gender

The 207 imported cases included 118 male cases (57.0%) and 89 female cases (43.0%) with a male to female ratio of 1.3:1.0.

The 1,271 indigenous cases included 628 male cases (49.4%) and 643 female cases (50.6%) with a male to female ratio of 1.0: 1.0.

(2) By age group

Out of the 207 imported cases, the number of cases in the age groups of 5-14, 15-24, 25-39, 40-64, and 65 years old or older were respectively 14 (6.8%), 41 (19.8%), 78 (37.7%), 69 (33.3%) and 5 (2.4%).

Out of the 1,271 indigenous cases, the number of cases in the age groups of 1-4, 5-14, 15-24, 25-39, 40-64, and 65 years of age or older were respectively 8 (0.6%), 61 (4.8%), 122 (9.6%), 282 (22.2%), 603 (47.4%), and 195 (15.3%).

(3) By month

Imported cases with the disease were reported in every month, giving a total of 207 cases. The highest number of imported cases was reported in July for a total of 37 cases. There were 36 and 21 cases reported in August and January respectively. The number of cases reported in September, April, March, May and June were 21, 17, 14, 13 and 13 respectively. There were 10 imported cases reported in October, and another 10 cases in November. In December and February, 9 and 6 imported cases were reported respectively.

The 1,271 indigenous cases were reported throughout the year except March. Most of the cases were reported in August to November that the number of cases each month was more than 100. The highest number of cases was 403 reported in September, and the second highest was 337 in October. The number of cases in November, August, December, July and January were 255, 112, 89, 38 and 11 respectively. In May, June, April and February, 11, 9, 4 and 2 cases were reported respectively.

(4) By residential region

Out of the 207 imported cases, 39, the highest number of cases, lived in Taipei City, and the second highest number of cases was 38 in New Taipei City. There were 26, 25, 23, 11 and 10 imported cases resided in Taichung City, Kaohsiung City, Taoyuan County, Changhua County and Tainan City respectively. The number of cases in other cities and counties were below 10. None of the imported cases with dengue fever lived in Chiayi County, Penghu County, Kinmen County and Lienchiang County.

The indigenous 1,271 cases distributed throughout 11 cities and counties including 744 cases in Tainan City, 507 cases in Kaohsiung City, 7 cases in Taoyuan County, 5 cases in New Taipei City, 2 cases in Penghu County, and 1 each in Taipei City, Miaoli County, Yunlin County, Chiayi County, Pingtung County and Taitung County.

The incidence rate per 100,000 population for the disease was 40.12, the highest, in Tainan City, and the second highest was 19.16 in Kaohsiung City. The third highest incidence rate was 2.04 in Penghu County.

(5) Imported cases and countries of infection

A majority of the 207 imported cases was from the Philippines for 74 cases (35.7%) and secondly, 45 cases were from Indonesia. There were 30, 20, 14, 10, 5 and 4 cases respectively from Vietnam, Thailand, Malaysia, Cambodia, Myanmar and India. There were 2 cases from Bangladesh, another 2 cases from Papua New Guinea, and 1 case from Singapore.

(6) By virus type

Out of the 207 imported cases, 44 cases were positive to dengue virus type 1; 35 cases were infected with dengue virus type 2; 17 cases infected with dengue virus type 3. The number of cases found positive to type 4 was 22. The viral types of the remaining 89 cases could not be subtyped.

As for the 1,271 indigenous cases, the number of cases infected with types 1, 2, 3, and 4 were respectively 32, 54, 1, and 6. The viral types of the remaining 1,178 cases could not be subtyped.

(7) By clinical symptoms

Among the 1,478 confirmed cases, 1,460 developed clinical symptoms, and 18 cases did not develop any symptoms. Only 6 out of 207 imported cases had no symptoms, and 12 out of the 1,271 indigenous cases were infected without any symptoms.

Table 26 Virus type and infection source of confirmed Dengue Fever cases, 2012

Virus type/ infection source	DEN-1	DEN-2	DEN-3	DEN-4	Undetermined	Total
Philippines	19	3	6	11	35	74
Indonesia	4	17	5	6	13	45
Vietnam	7	10	-	2	11	30
Thailand	5	5	3	-	7	20
Malaysia	4	-	1	3	6	14
Cambodia	1	-	-	-	9	10
Myanmar	-	-	1	-	4	5
India	1	-	1	-	2	4
Bangladesh	2	-	-	-	-	2
Papua New Guinea	1	-	-	-	1	2
Singapore	-	-	-	-	1	1
Taiwan	32	54	1	6	1,178	1,271
Total	76	89	18	28	1,267	1,478

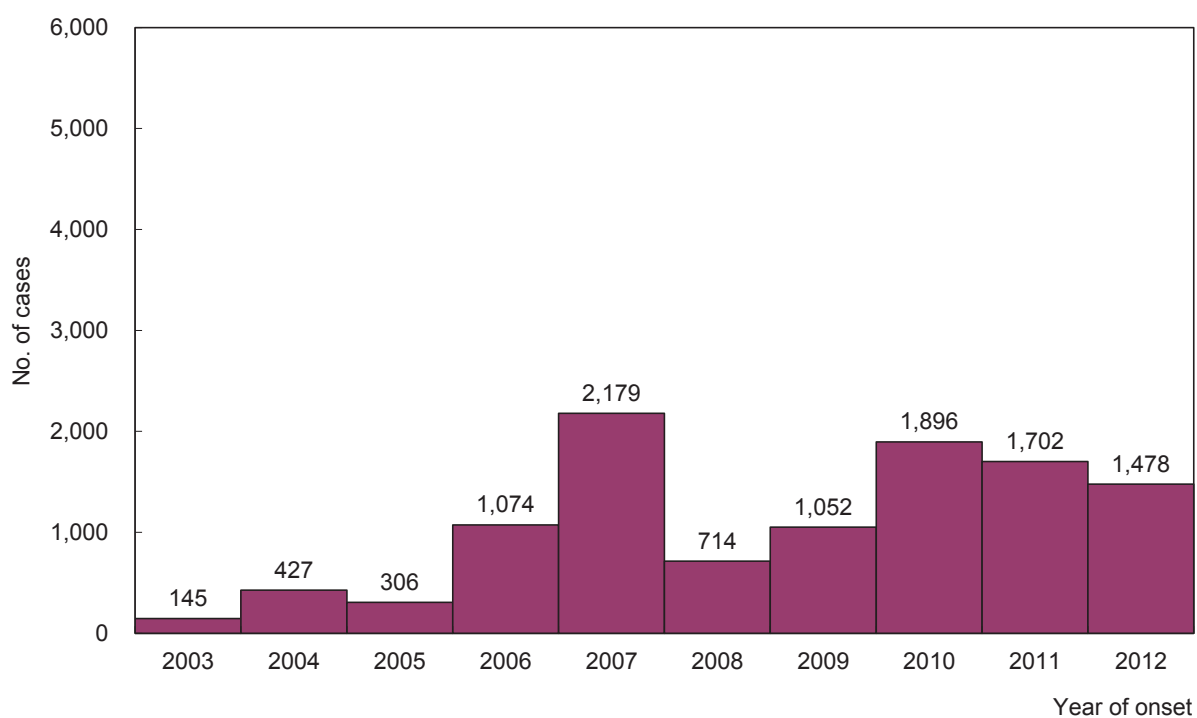


Figure 53 Number of confirmed Dengue Fever cases, 2003-2012

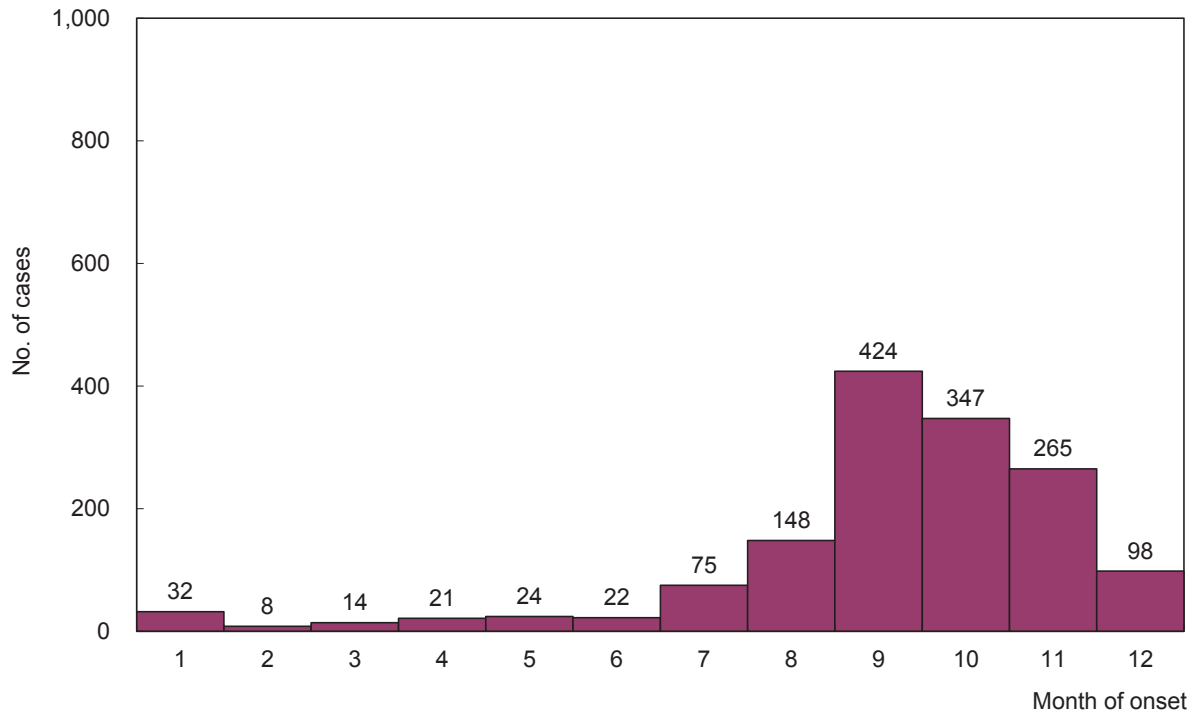


Figure 54 Number of confirmed Dengue Fever cases, 2012

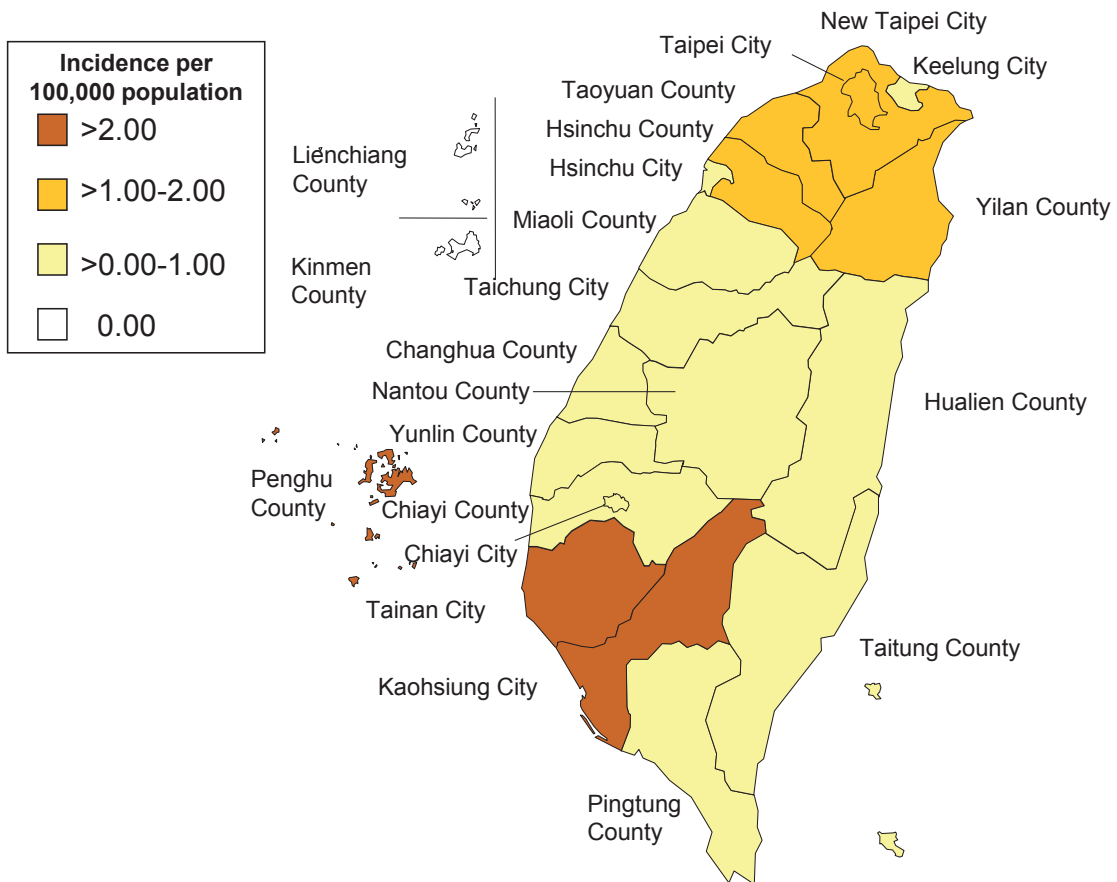


Figure 55 Geographical distribution by incidence of confirmed Dengue Fever cases, 2012

Enteroviruses Infection with Severe Complications

In 2012, a total of 153 cases of enteroviruses infection with severe complications were confirmed (incidence rate: 0.66 per 100,000 population) that was significantly higher than 59 confirmed cases in 2011 (incidence rate: 0.25 per 100,000 population). Analytical results of the cases with the disease in 2012 are as follows:

(1) By gender

There were 97 male cases (63.4%) and 56 female cases (36.6%) with a male to female ratio of 1.7:1.0.

(2) By age group

The cases occurred mainly in children aged 14 and under. Most cases aged between 1-4 for a total of 85 (including 35 one-year old cases, 19 two-year old cases, 21 three-year old cases, and 10 four-year old cases). There were 42 cases at the age below 1 year old and 25 cases in the age group of 5-14 years old. There was only 1 case in the age group of 15-24 years old.

The 42 cases below 1 year old included 6 cases at 6 months of age, 5 cases at 1 month of age, 5 cases at 4 months of age, 5 cases at 10 months of age and 5 cases at 11 months of age, 4 cases at 5 months of age, 4 cases at 7 months of age, 4 cases at 9 months of age, 3 cases at 8 months of age and 1 case at 3 months of age.

(3) By month

The cases were basically reported every month except December with most of them reported in June for a total of 36 cases. The second highest number of cases was 28 reported in May. The number of cases reported in July, August, April, March, January, October, February, September and November were 26, 16, 13, 11, 10, 5, 4, 3 and 1 respectively.

(4) By residential region

The highest case number of the disease, up to 33, resided in Tainan City, followed by 25 cases in New Taipei City, 23 cases in Taichung City, 17 cases in Taoyuan County, 14 cases in Taipei City, 9 cases each in Miaoli County and Kaohsiung City, 7 cases in Pingtung County, 3 cases each in Hsinchu City and Hsinchu County, 2 cases each in Nantou County, Chiayi City and Kinmen County, and 1 case each in Yunlin County, Chiayi County, Yilan County and Hualien County. In the remaining cities and counties other than above, there were no cases confirmed.

The incidence rate of this disease per 100,000 population in Kinmen County was the highest, 1.84, and the second highest was 1.76 in Tainan City. The incidence rate, 1.60, in Miaoli County was the third highest.

(5) Imported cases and countries of infection

Only 1 of these confirmed cases was imported that was infected in China.

(6) Pathogen identification

These confirmed cases were tested by enzyme-linked immunoassay, virus culture and RT-PCR, and identified in a majority to be caused by Enterovirus 71 for a total of 149 cases (146 cases were found due to Enterovirus 71 only, but from the specimens of the remaining 3 cases, Coxsackievirus A2, B3 and B4 were also identified, in addition to Enterovirus 71). There were 4 cases found to be infected with other types of enterovirus including 2 cases of Coxsackievirus A2 and 1 case each of Coxsackievirus B3 and Echovirus 6.

Table 27 Number of confirmed Enteroviruses Infection with Severe Complications cases by age, 2009-2012

	2009		2010		2011		2012	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	
>=0, <7m	2 (6.9)	3 (18.8)	4 (6.8)	21 (13.7)				
>=7m, <1yr	2 (6.9)	3 (18.8)	4 (6.8)	21 (13.7)				
>=1, <4 yrs	19 (65.5)	9 (56.3)	34 (57.6)	75 (49.0)				
>=4, <7 yrs	2 (6.9)	1 (6.3)	14 (23.7)	19 (12.4)				
>=7, <16 yrs	4 (13.8)	- (-)	3 (5.1)	16 (10.5)				
>=16 yrs	- (-)	- (-)	- (-)	1 (0.7)				
Unknown	- (-)	- (-)	- (-)	- (-)				
Total	29 (100.0)	16 (100.0)	59 (100.0)	153 (100.0)				

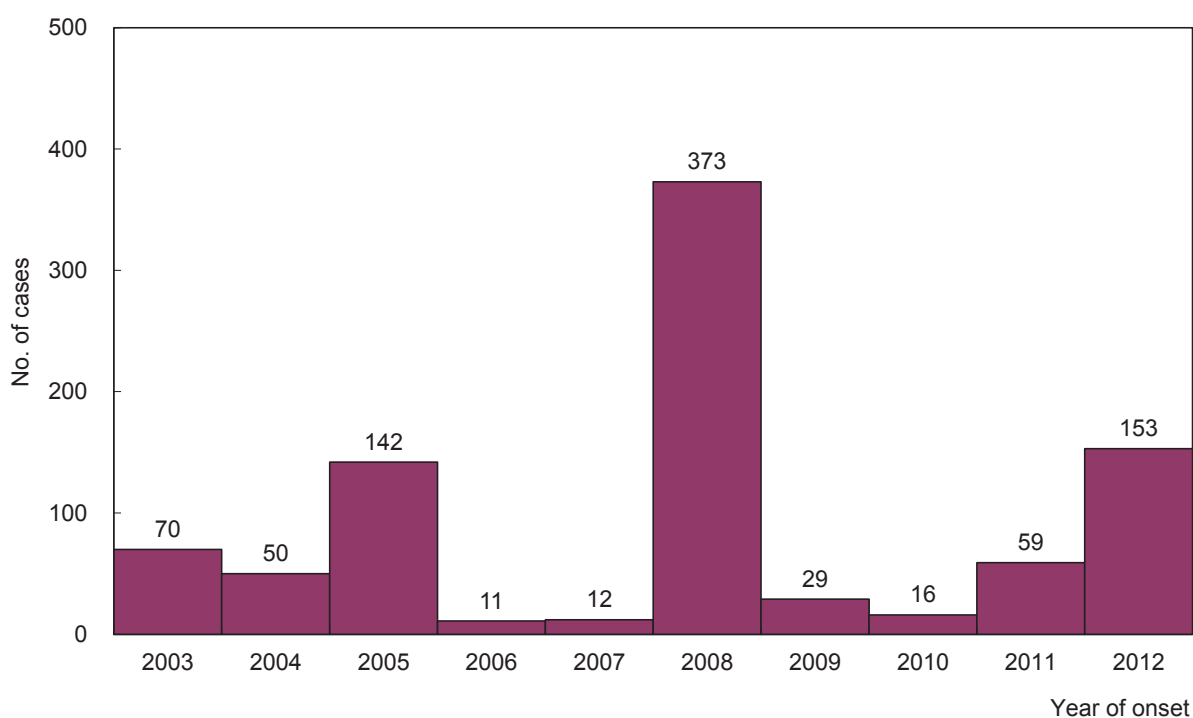


Figure 56 Number of confirmed Enteroviruses Infection with Severe Complications cases, 2003-2012

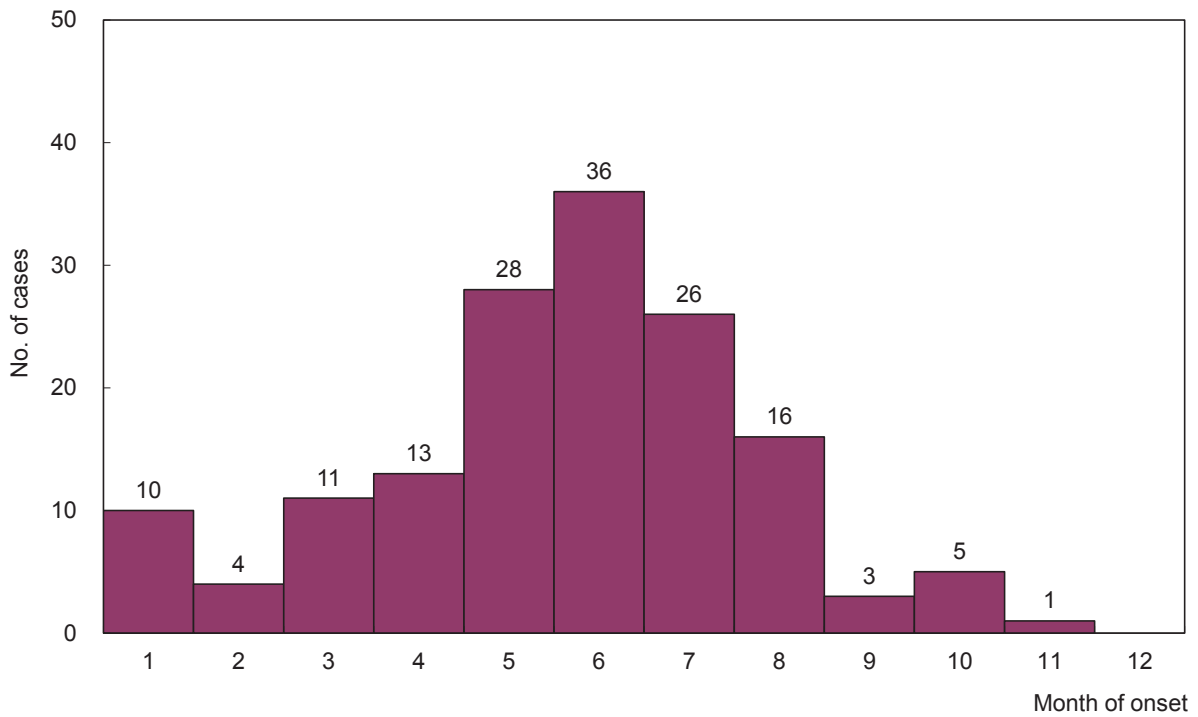


Figure 57 Number of confirmed Enterovirus Infection with Severe Complications cases, 2012

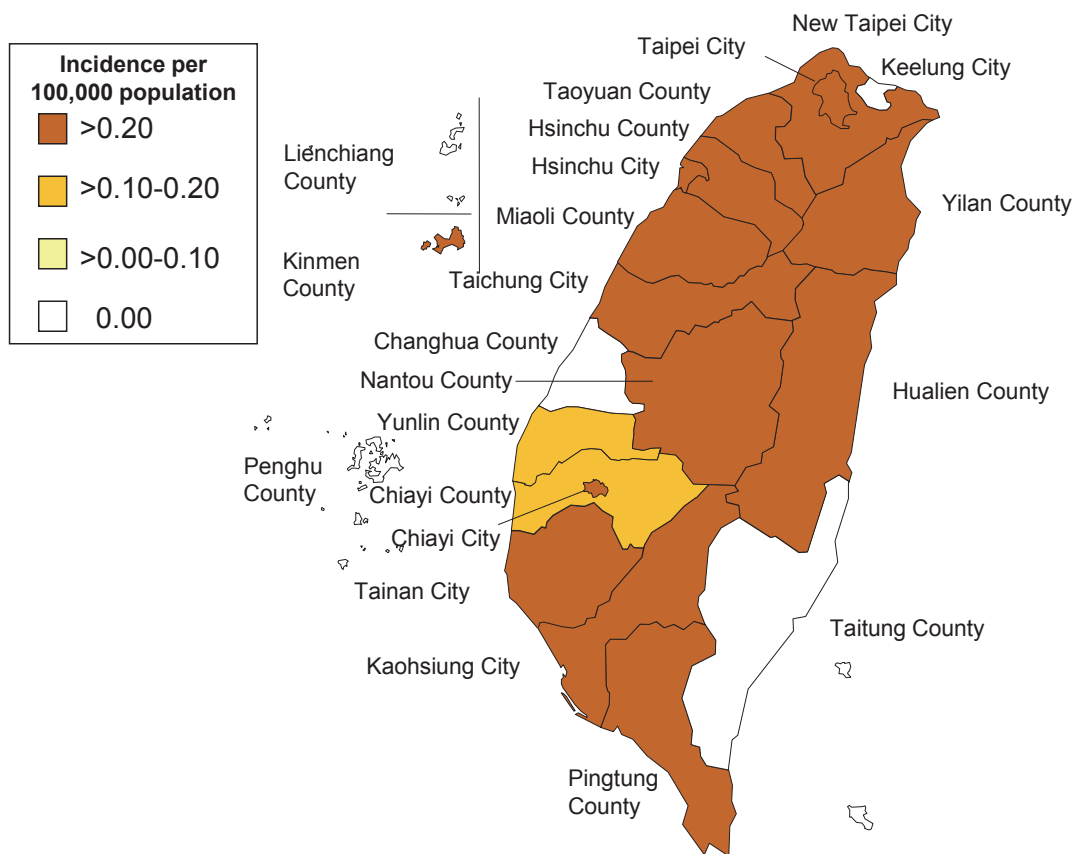


Figure 58 Geographical distribution by incidence of confirmed Enterovirus Infection with Severe Complications cases, 2012

Malaria

In 2012, a total of 12 cases of malaria were confirmed (incidence rate: 0.05 per 100,000 population) that was lower than 17 confirmed cases in 2011 (incidence rate: 0.07 per 100,000 population). These cases were all imported. Analytical results of the confirmed malaria cases in 2012 are as follows:

(1) By gender

There were 11 male cases (91.7%) and 1 female case (8.3%) with a male to female ratio of 11.0:1.0.

(2) By age group

Out of the confirmed cases, 7 were 40-64 years old; 3 were 15-24 years old; 2 were 25-39 years old.

(3) By month

Out of the confirmed cases, 3 cases were reported in May and 2 cases were confirmed in October and another 2 cases reported in November. There was 1 case reported in each of the months, February, April, July, August and September. No cases with malaria were reported in months other than those stated above.

(4) By residential region

The highest number of cases with the disease was reported in Taipei City for 4 cases, and the second highest number of cases was 3 cases reported in New Taipei City. Out of these cases, 2 resided in Taichung City, and there was 1 case in each of the cities and counties, Taoyuan County, Yunlin County and Chiayi County. The remaining cities and counties other than those mentioned above did not have any cases of the disease.

The incidence rate of this disease per 100,000 population in Chiayi County was the highest, 0.19, and the second highest was in Taipei City, 0.15. The incidence rate, 0.14, in Yunlin County was the third.

(5) Imported cases and countries of infection

Out of the 12 imported cases, 9 were from Asia (75.0%) including 3 cases from India, another 3 cases from Myanmar, 1 case from Thailand, 1 case from Vietnam and 1 case from Indonesia. The remaining 3 cases were imported from Africa (25.0%), 2 of which were from Nigeria, and 1 of which was from Gambia.

(6) Types of infectious protozoan

By the types of infectious protozoa, there were 8 cases of *Plasmodium vivax* and 4 cases of *P. falciparum*.

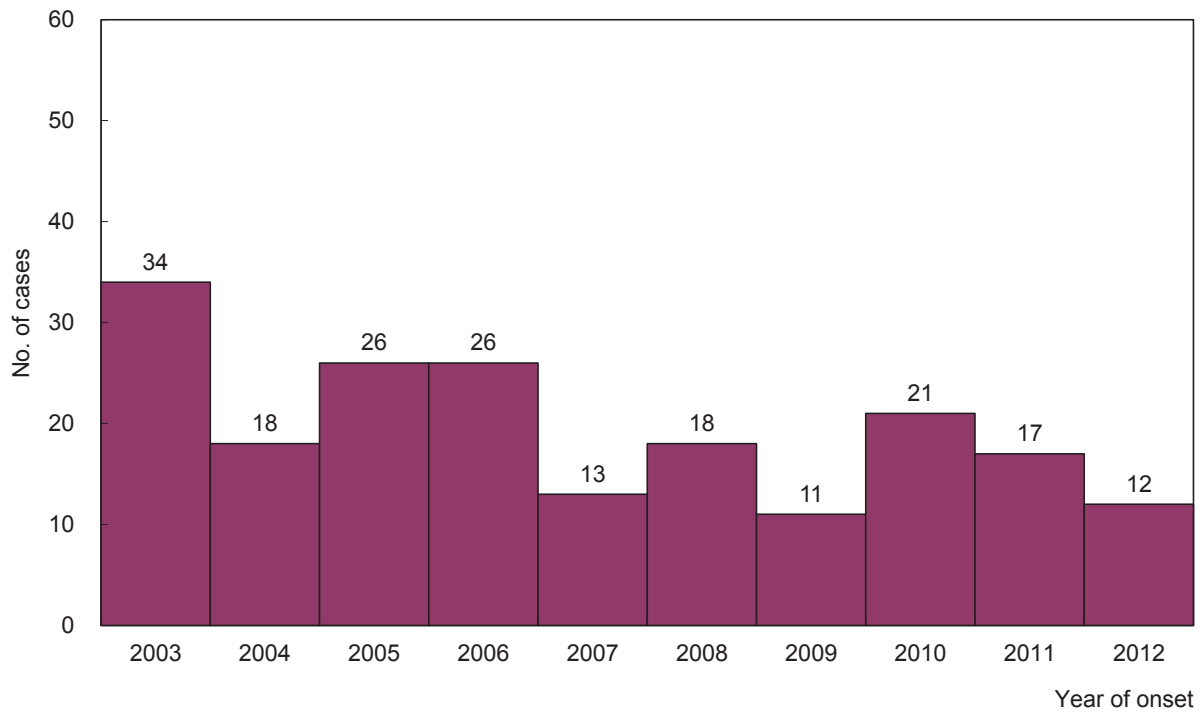


Figure 59 Number of confirmed imported Malaria cases, 2003-2012

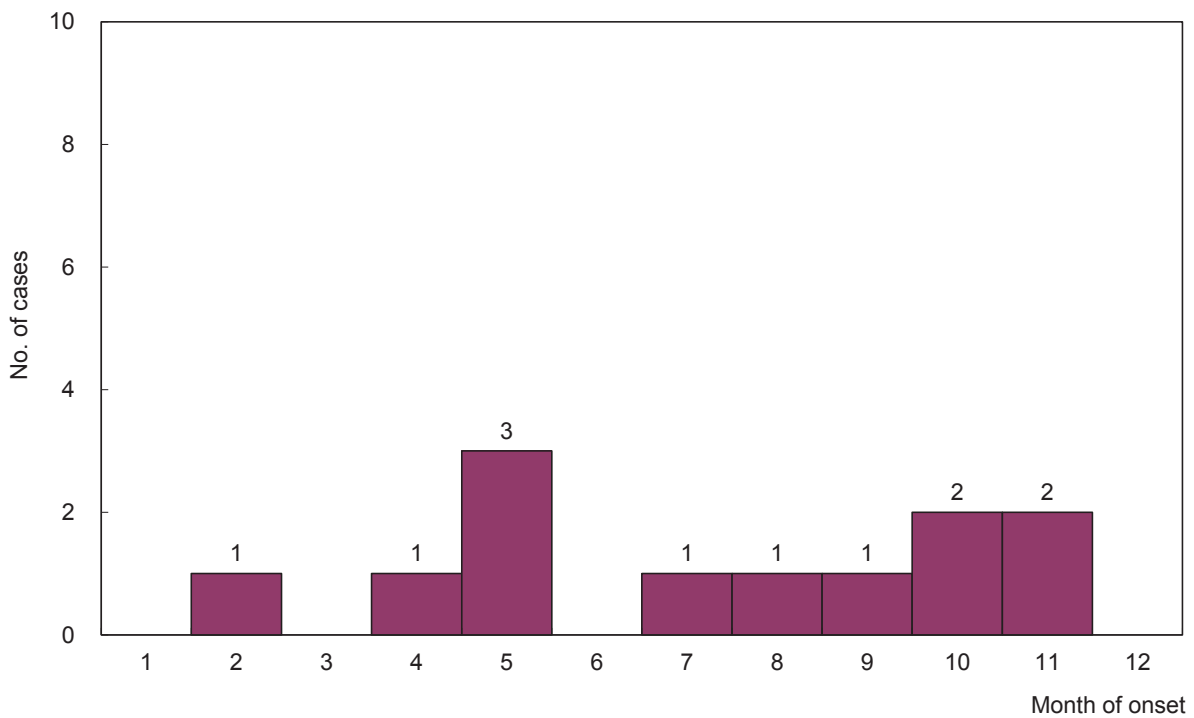


Figure 60 Number of confirmed imported Malaria cases, 2012

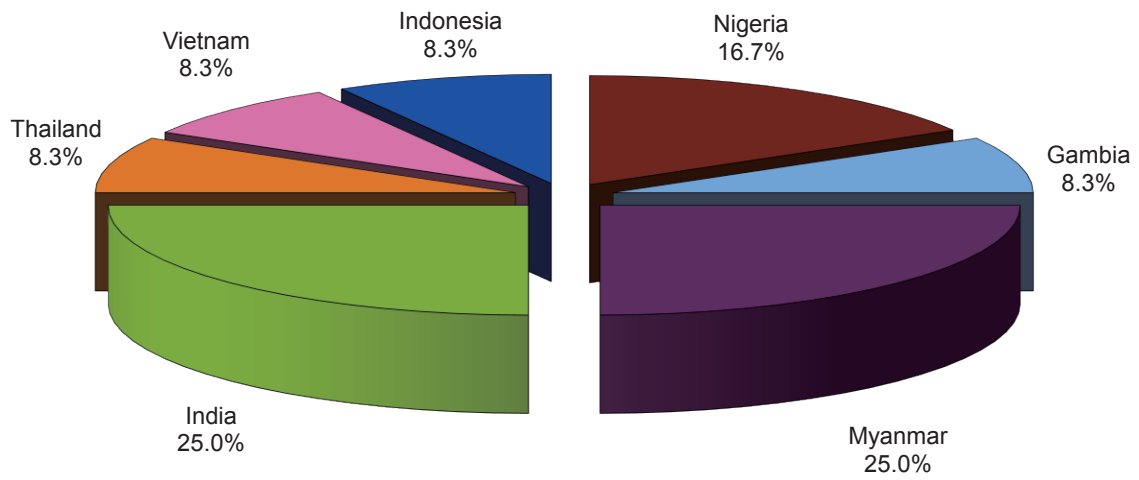


Figure 61 Infections source of confirmed imported Malaria cases, 2012

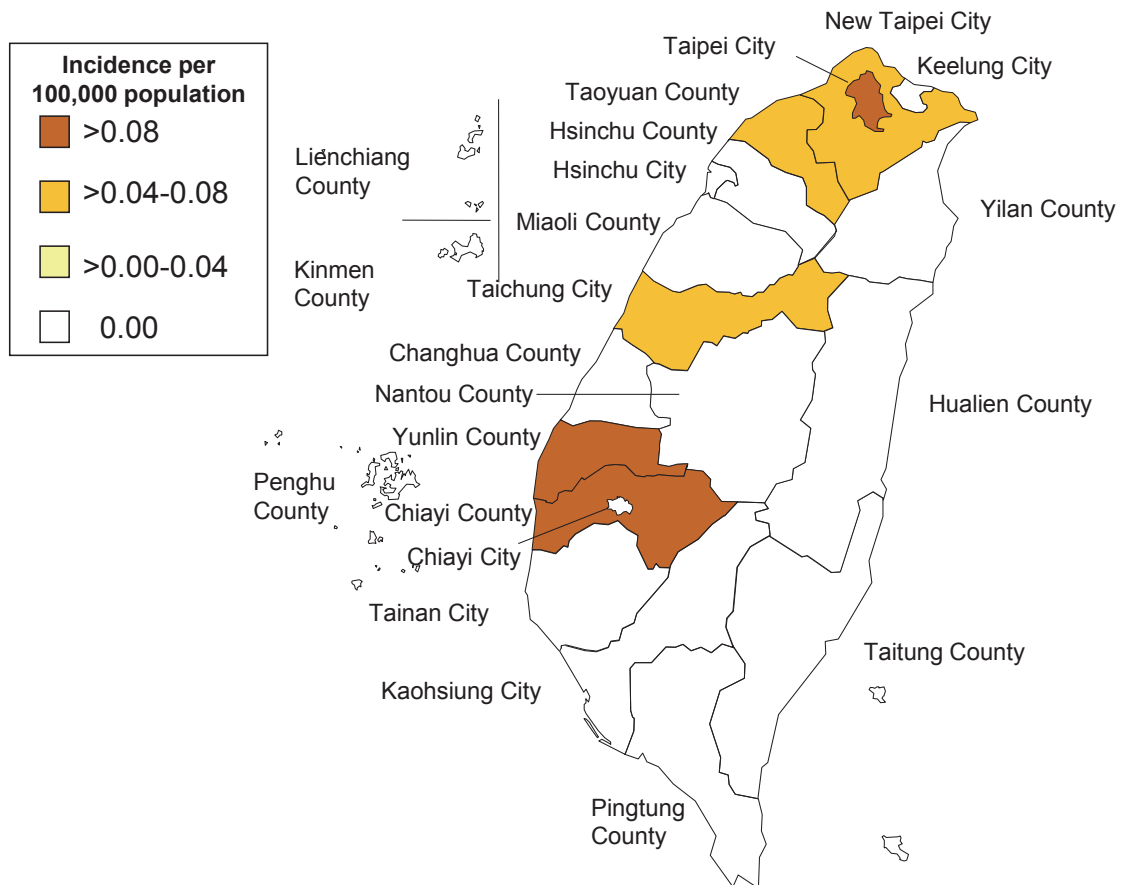


Figure 62 Geographical distribution by incidence of confirmed imported Malaria cases, 2012

Shigellosis

In 2012, a total of 155 cases of shigellosis were confirmed (incidence rate: 0.67 per 100,000 population), 106 of which were imported. The number of confirmed cases was lower than 203 confirmed cases in 2011 with 139 of them imported (incidence rate: 0.88 per 100,000 population). Analytical results of the shigellosis cases in 2012 are as follows:

(1) By gender

Out of the 106 imported cases, 28 were male cases (26.4%) and 78 were female cases (73.6%) with a male to female ratio of 0.4:1.0.

Out of the 49 indigenous cases, 27 were male cases (55.1%) and 22 were female cases (44.9%) with a male to female ratio of 1.2:1.0.

(2) By age group

As for the 106 imported cases, 73 cases were in the age group of 25-39; 20 cases were 15-24 years old; 12 cases were 40-64 years old. There was 1 case at the age of 65 or older.

Most of the 49 indigenous cases for 20 cases were in the age group of 40-64 years old. There were 10, 7 and 6 cases in the age groups of 5-14, 25-39 and 15-24 years old. There were 6 cases at the age of 65 or older.

(3) By month

The 106 imported cases were reported every month, and 13 of them fell ill in June. In April, February and January, the number of cases reported were 12, 11 and 10 respectively. There were 9 cases reported in October, and another 9 cases reported in December. In July, August and September, there were 8 cases confirmed in each of the months. There were 7 cases reported in March, and also 7 cases reported in May. In November, 4 cases were confirmed.

The 49 indigenous cases were reported basically throughout the year except April, May and September. The highest number of cases was reported in November for 20 cases, and the second highest one was 8 cases reported in December. There were 6, 5 and 3 cases confirmed in August, July and March respectively. In January, June and October, there were 2 cases reported in each of the months. There was only 1 case reported in February.

(4) By residential region

There was a majority of the 106 imported cases, 27 cases, living in Taipei City. The second highest number of the imported cases, 24 cases, was reported in New Taipei City. There were 16 cases confirmed in Taoyuan County, 8 in Taichung City, 4 in Keelung City, and another 4 in Yilan County. The number of cases reported in Hsinchu County, Hsinchu City, Miaoli County, Tainan City and Pingtung County was all 3. Reported in Nantou County were 2 cases. There was 1 case reported in each of these cities and counties including Changhua County, Chiayi County, Kaohsiung City, Penghu County, Hualien County and Kinmen County. No imported cases were found in Yunlin County, Chiayi City, Taitung County and Lienchiang County.

There were 34 out of 49 indigenous cases residing in Hualien County, the highest number of cases reported. The second highest number of cases was 6 cases reported in Taichung City. There were 2 cases reported in each of the cities and counties including Taipei City, Miaoli County and Pingtung County. Only 1 case was reported in Yilan County. There was also 1 case in Hsinchu County and another 1 in Tainan City.

Generally, the incidence rate of the disease per 100,000 population in Hualien County was the highest, 10.42, and the incidence rates in Taipei City and Yilan County were both 1.09, the second highest.

(5) Imported cases and countries of infection

Out of the total 106 imported cases, 78 cases came from Indonesia and 7 cases were from the Philippines. There were 7 cases from Vietnam, 6 cases from China, 3 cases from Cambodia, 2 cases from India, and 1 case each from Thailand, Malaysia and Haiti.

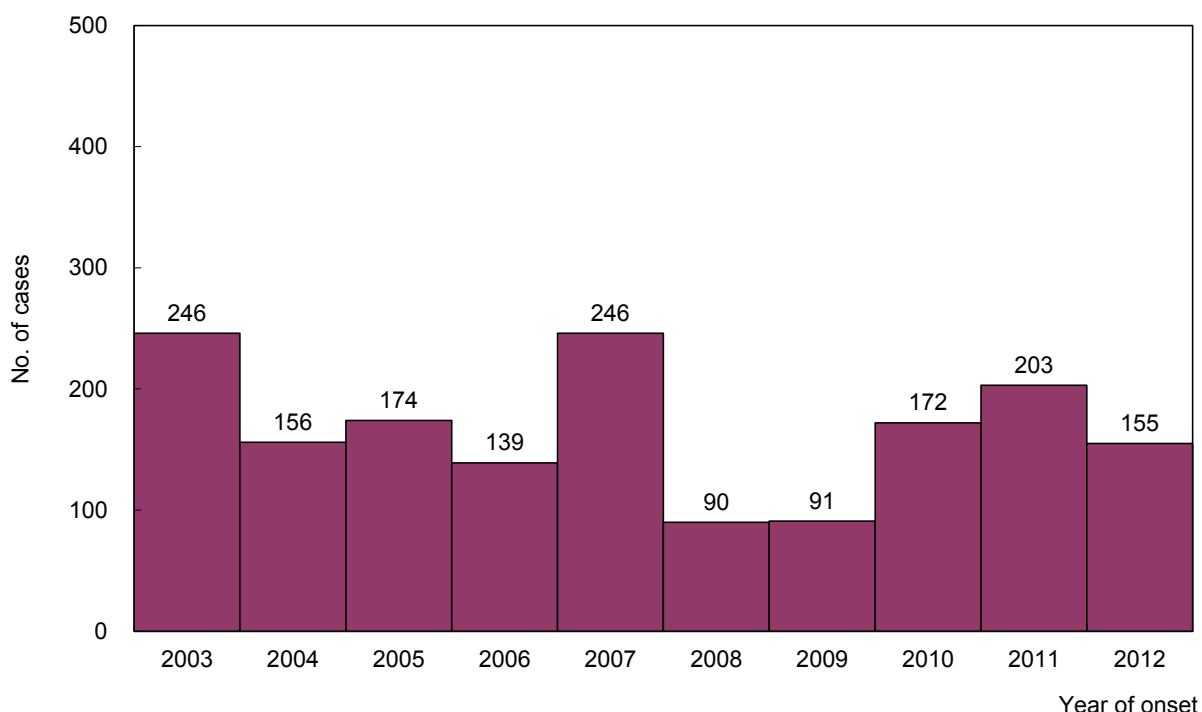


Figure 63 Number of confirmed Shigellosis cases, 2003-2012

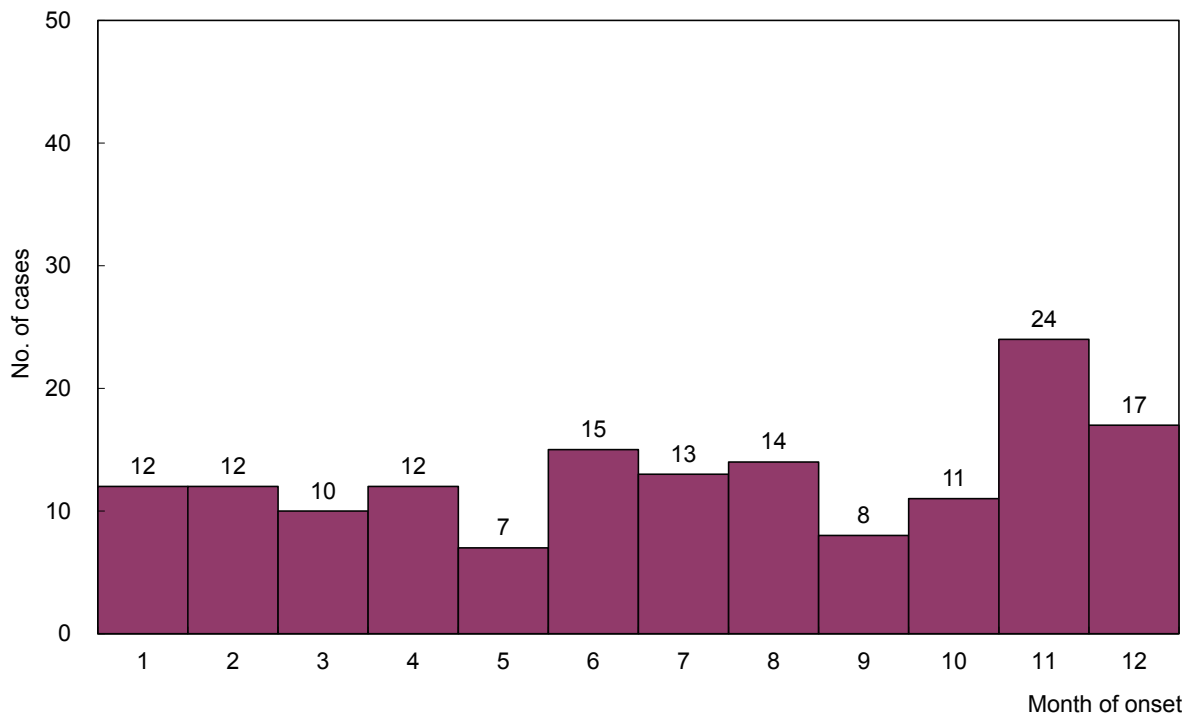


Figure 64 Number of confirmed Shigellosis cases, 2012

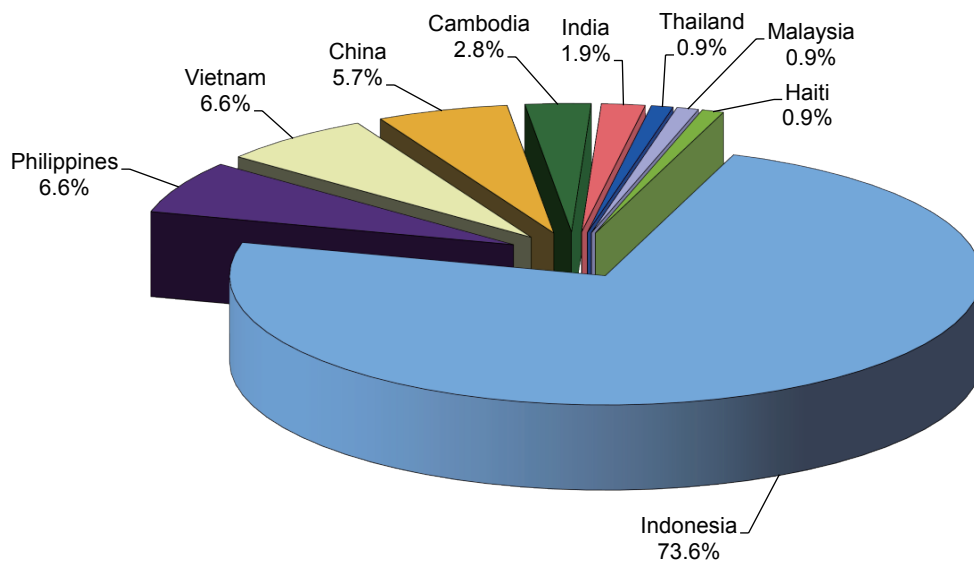


Figure 65 Infections source of confirmed imported Shigellosis cases, 2012

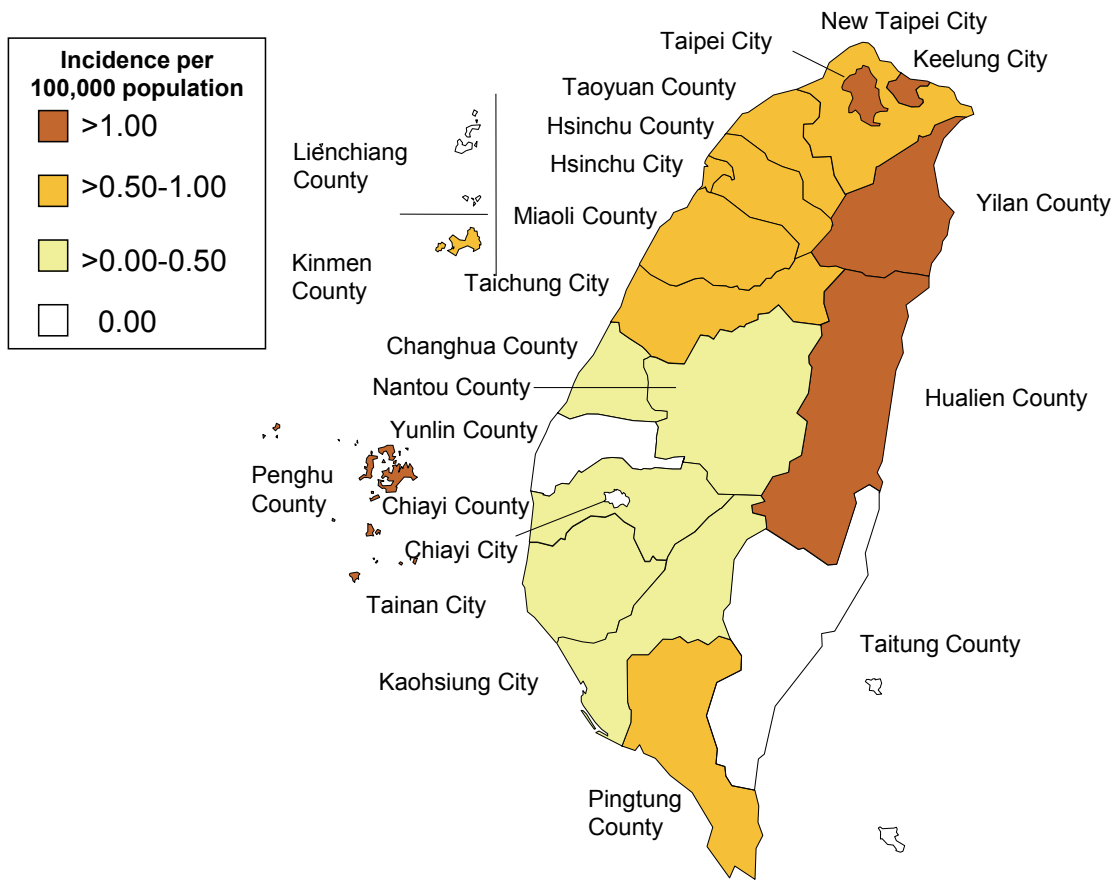


Figure 66 Geographical distribution by incidence of confirmed Shigellosis cases, 2012

Complicated Influenza

In 2012, a total of 1,595 cases of complicated influenza were confirmed (incidence rate: 6.85 per 100,000 population) that was higher than 1,481 confirmed cases in 2011 (incidence rate: 6.39 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 864 male cases (54.2%) and 731 female cases (45.8%) with a male to female ratio of 1.2:1.0.

(2) By age group

Most of the confirmed cases were 65 years old or older for a total of 770 cases. The second highest number was in the age group of 40-64, 525 cases. There were 138, 54, 50, 47 and 11 cases in the age groups of 25-39, 5-14, 1-4, 15-24 years old and under 1 year old respectively.

(3) By month

The cases had spikes from January to March and June to July with more than 100 cases occurring in each of these months. The highest number of cases for 595 cases was reported in January, and the second highest one was 257 cases reported in February. There were 178, 168, 132, 93, 77 and 64 cases reported respectively in July, June, March, May, April and August. The number of cases in each of the months from September to December was below 20.

(4) By residential region

The cases were reported in every city and county except that no case was reported in Lienchiang County. The highest number of cases for 440 cases was reported in New Taipei City, and the second was 206 cases in Kaohsiung City. There were 169, 144, 88, 82, 67, 62, and 59 cases reported in Tainan City, Taipei City, Taoyuan County, Changhua County, Taichung City, Taitung County and Pingtung County respectively. The number of cases in the remaining cities and counties other than those stated above were below 50.

The incidence rate of complicated influenza per 100,000 population in Taitung County was the highest, 27.28, and the second highest was in New Taipei City, 11.20. The incidence rate, 10.71, in Hualien County was the third high.

(5) Imported cases and countries of infection

A total of 2 cases were imported. One was from China, and the other's country of origin was uncertain after epidemiological investigation.

(6) By virus type

There were 843 cases infected with influenza A viruses (including 713 cases of H3, 93 cases of H1N1 and 37 cases unable to be subtyped), 751 cases infected with influenza B viruses, and 1 case of simultaneous infected with AH3 and B.

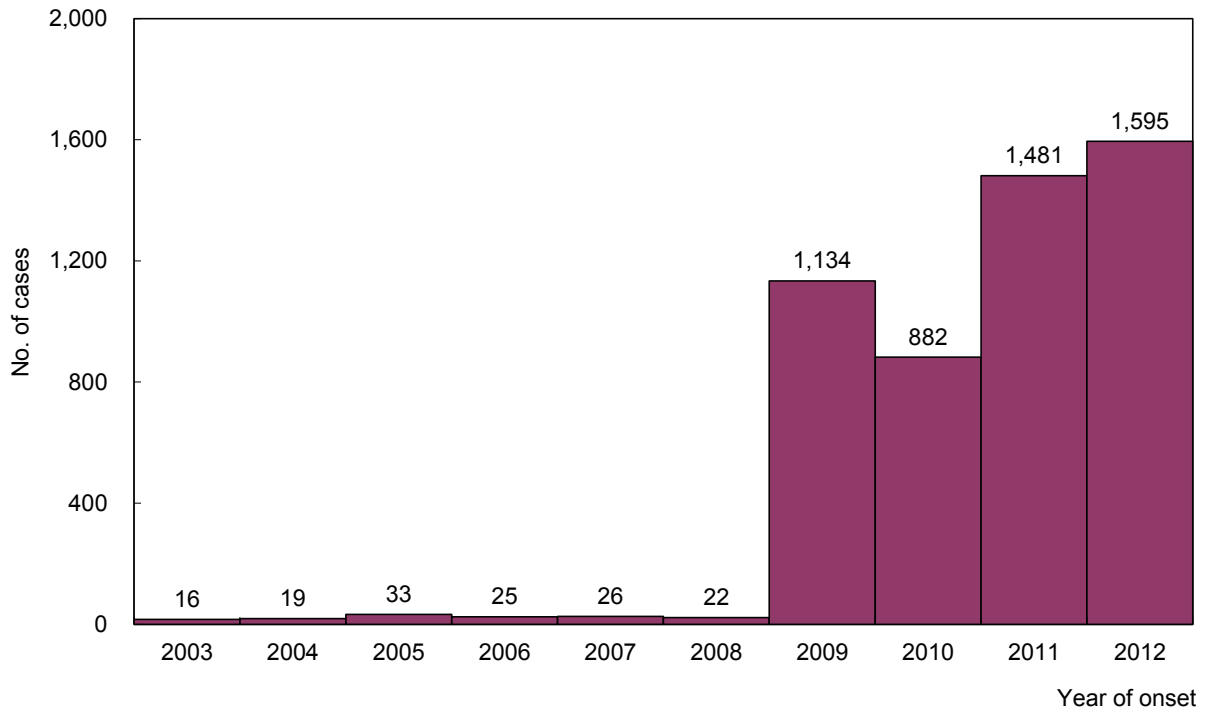


Figure 67 Number of confirmed Complicated Influenza cases, 2003-2012

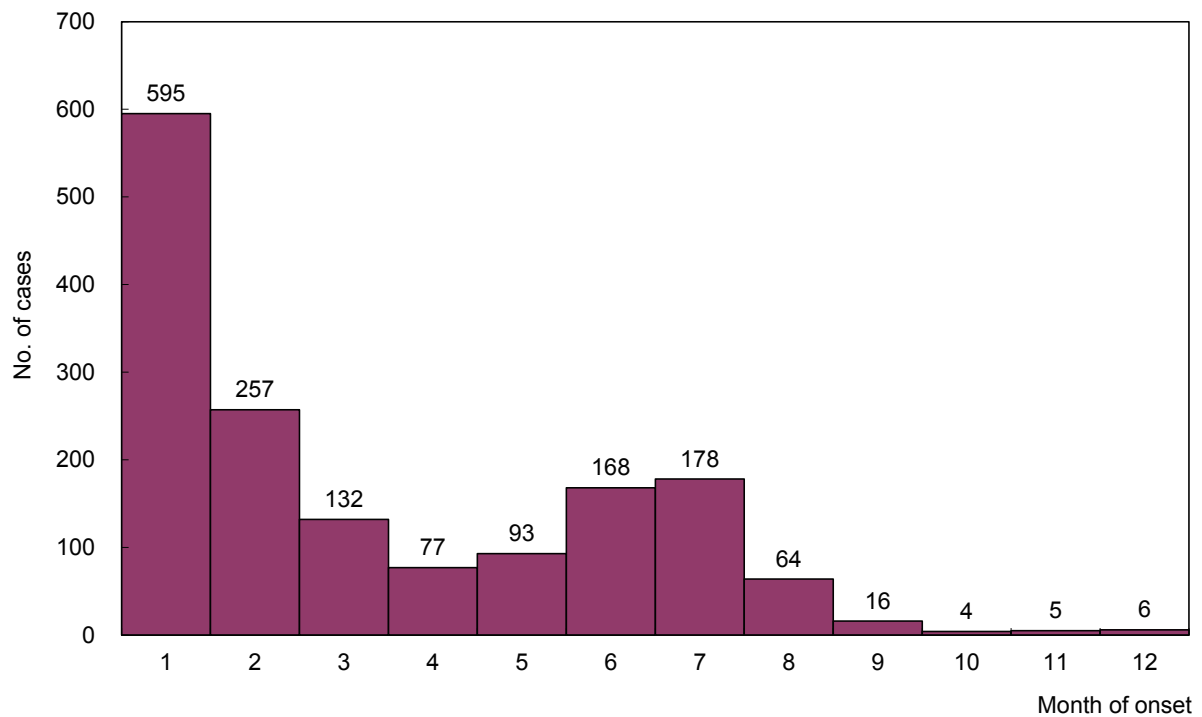


Figure 68 Number of confirmed Complicated Influenza cases, 2012

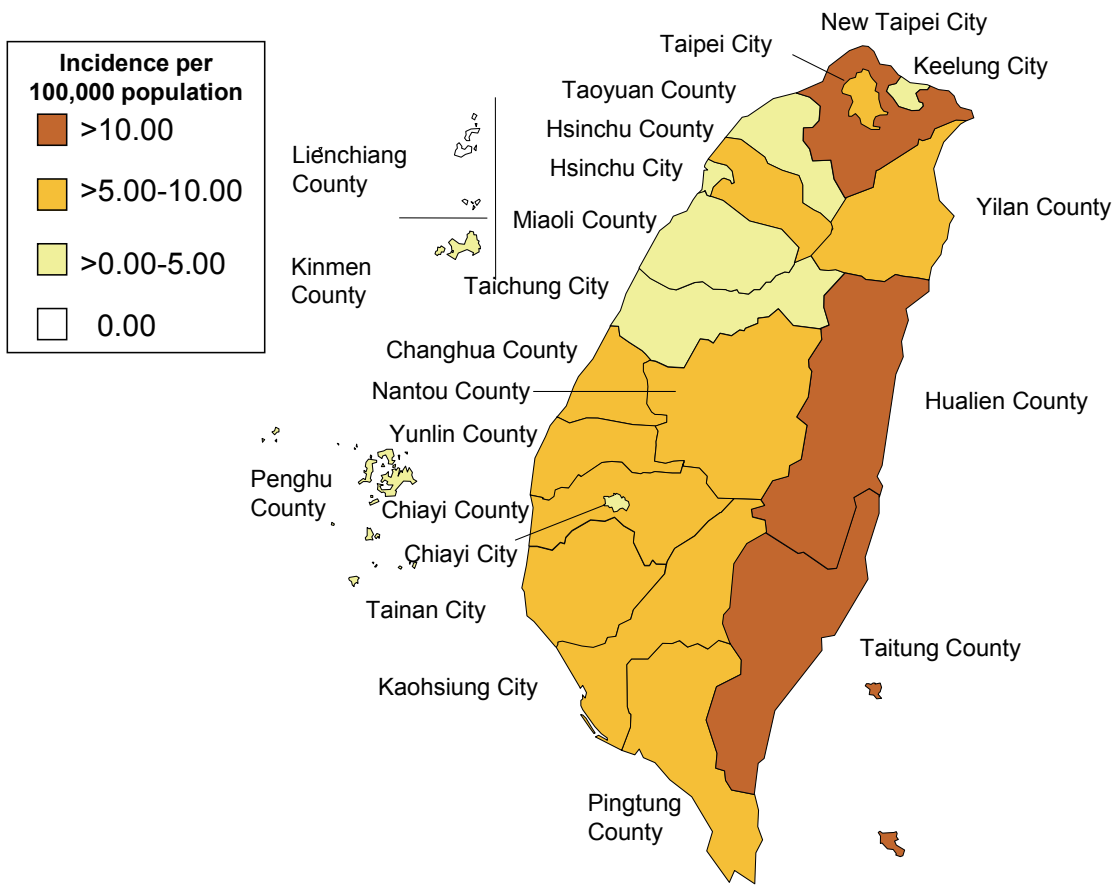


Figure 69 Geographical distributions by incidence of confirmed Complicated Influenza cases, 2012

The coverage rate of government-funded influenza vaccine program

The government-funded influenza vaccination program in 2011-2012 based on the recommendations from the Advisory Committee on Immunization Practices (ACIP) and targeted on improving the coverage rates for high-risk groups. Trivalent inactivated influenza vaccines (TIV) were used those high-risk groups. The high-risk groups included the elders aged more than 65 years, children aged six months through six years and elementary school students from grade one through four, residents and staff in nursing homes and other long-term care facilities, healthcare and public health personnel, poultry or livestock farmers and animal health inspectors, and people with catastrophic illness. Information about the inoculation numbers and coverage during October 1, 2012 to September 30, 2012, described as follows:

(1) Coverage rates by high-risk group (See Table 28 for more details)

The inoculation numbers and coverage rates for each group were as follows: the elders aged more than 65 years: 1,011,008 persons/40.2%; pre-school children aged above six months with at least one dose: 331,846 peoples/31.9%, with complete vaccination: 298,641 peoples/28.7%, with partial vaccination: 33,207 peoples/ 7.2%; elementary school students from grade one through four: 646,496 peoples/72.2%; people with catastrophic illness: 38,691 peoples;staff in nursing homes and other long-term care facilities 27,246 peoples/85.1%; healthcare worker: 243,005 peoples/88.4%;public health personnel: 25,941 peoples/85.4%; poultry or livestock farmers and animal health inspectors: 15,411 people/57.9%.

(2) Cumulative utilization rate of influenza vaccine by month (See Figures 70 and 71 for more details)

Most of the vaccines were be inoculation in the October 1st to November 30. During October 1st 2011 to November 30 2012, the cumulative utilization rate with 0.5 mL dose influenza vaccine was up to 93.5% then increased slowly after November. By end of December, the rate was 95.6%. By the end of January, the rate was 97.4% and after end of February, the rate was kept at 97.7%.

For 0.25mL dose influenza vaccine, the cumulative utilization rate was up to 74.9% during October 1st 2011 to November 30 2012, and then increased slowly after November. By end of December, the rate was 90.8%. By the end of January, the rate was 98.6% and after end of February, the rate was kept at 99.6%.

(3) Coverage rates by residential region (See Table 29 for more details)

The general coverage rate was the highest in Northern region for 52.2%, and 50.0% in Central region. The general coverage rate in Chiayi City was 57.5%, the highest, among all cities and counties. The cities and counties where the general coverage rates were higher than 50% included Lienchiang County, Changhua County, Taoyuan County, Chiayi County, Yilan County and Hualien County. The cities and counties with general coverage rates at 49-45% included Nantou County, Taitung County, Taichung City, Hsinchu City, Miaoli County, Keelung City, Hsinchu County and Tainan City. The general coverage rates in other cities and counties were about 44-41%. The general coverage rate in Kinmen County was 30.9%.

Table 28 The coverage rate of high-risk groups,2011-2012

High-risk groups	No. of inoculations	Coverage rates
the elders aged more than 65 years	1,011,008	40.2%
pre-school children aged above six months	331,846	31.9%
Grades 1-4 elementary school children	646,496	72.2%
persons who have catastrophic illness	38,691	-
Staff in nursing homes and other long-term care facilities	27,246	85.1%
Healthcare workers	243,005	88.4%
Public health workers		
Infection control workers	11,581	91.1%
Emergency medical technicians	5,714	56.5%
Airborne Service Corps.	118	44.2%
Coast guards	6,990	69.4%
Border control workers	1,538	15.8%
Animal farm-related workers		
Poultry or livestock farmers	14,273	59.2%
Animal health inspectors	1,138	45.6%

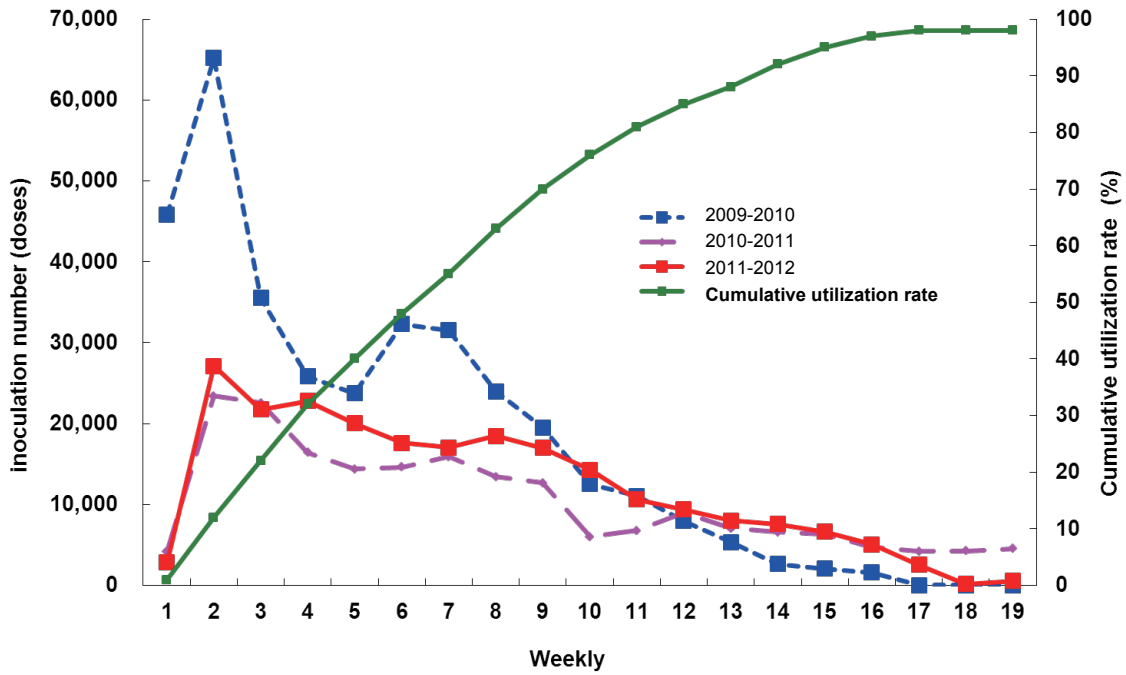


Figure 70 Cumulative utilization rate progress with 0.25ml influenza vaccine,2011-2012

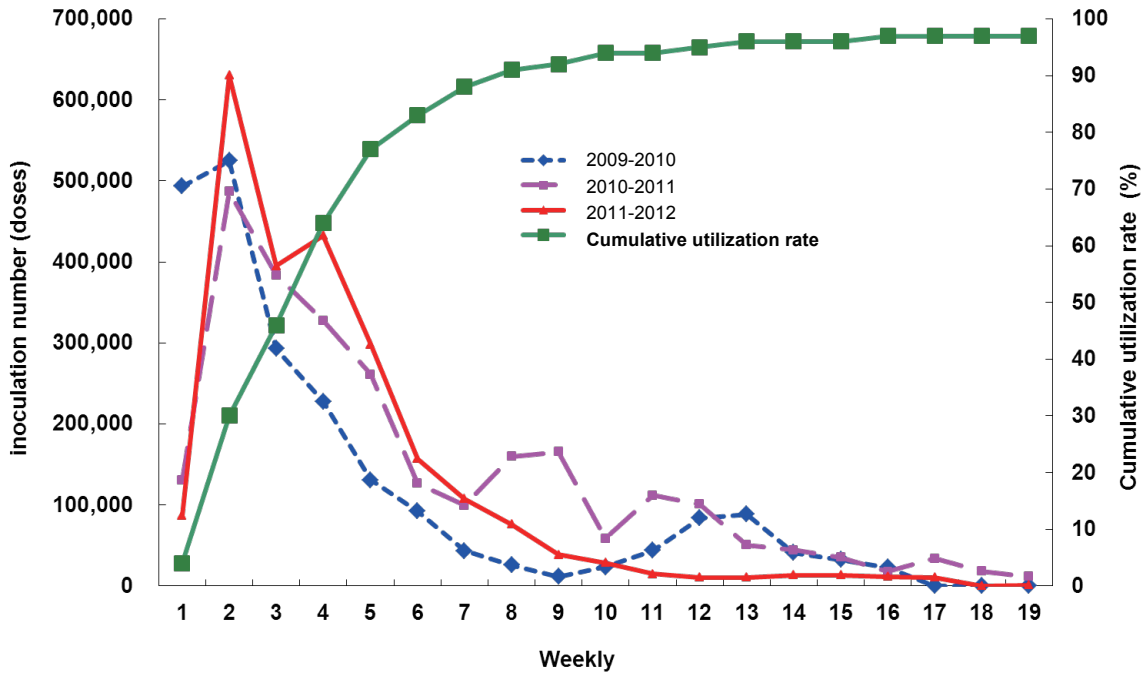


Figure 71 Cumulative utilization rate progress with 0.5ml influenza vaccine,2011-2012

Table 29 The general coverage rate of influenza vaccine- by inoculation location, 2011-2012

Locality	No. of target population	No. of inoculations	coverage rate
Chiayi City	63,182	36,355	57.5%
Lienchiang County	2,499	1,397	55.9%
Changhua County	304,780	166,631	54.7%
Taoyuan County	402,641	219,822	54.6%
Chiayi County	134,264	71,285	53.1%
Yilan County	110,167	56,425	51.2%
Hualien County	86,916	43,956	50.6%
Nantou County	125,060	62,370	49.9%
Taitung County	55,827	27,093	48.5%
Taichung City	92,950	44,964	48.4%
Hsinchu City	524,364	253,067	48.3%
Miaoli County	131,674	62,502	47.5%
Keelung City	80,054	37,172	46.4%
Hsinchu County	122,326	55,678	45.5%
Tainan City	408,763	185,597	45.4%
Kaohsiung City	566,608	250,077	44.1%
Yunlin County	181,746	79,959	44.0%
New Taipei City	688,172	297,261	43.2%
Pingtung County	197,199	84,736	43.0%
Penghu County	23,479	9,754	41.5%
Taipei City	600,970	248,269	41.3%
Kinmen County	21,430	6,612	30.9%
Total	4,925,071	2,300,982	46.7%

Note: 1. Data source: Influenza Vaccine Information System (IVIS)

2. The inoculation locations in which coverage rates were statistically analyzed were the cities and counties reported by the IVIS.
3. People who were not eligible for the government-funded influenza vaccination program and the 2nd dose for children under 6 years old were not taken into account.
4. Persons who have catastrophic illness were not taken into account because Population of this group could not be estimated.

Syphilis

In 2012, a total of 5,896 syphilis cases were confirmed (incidence rate: 25.34 per 100,000 population) that was lower than 6,372 confirmed cases in 2011 (incidence rate: 27.47 per 100,000 population). Analytical results of the confirmed cases in 2012 are as follows:

(1) By gender

There were 4,423 male cases (75.0%) and 1,473 female cases (25.0%) with a male to female ratio of 3.0:1.0.

(2) By age group

Most of the confirmed cases for a total of 1,979 (33.6%) fell into the age group of 25-39 years old, and the second highest number of cases was in the age group of 40-64 years old for a total of 1,850 (31.4%). There were 1,228 cases (20.8%) at the age of 65 years old or older and 810 cases (13.7%) in the age group of 15-24 years old. Only 27 cases (0.5%) were younger than 1 year old, and 1 case (<0.1%) each in the age groups of 1-4 and 5-14 years old.

(3) By month (based on diagnosis date)

There were no specific prevalent months for syphilis incidence in 2012, and there were confirmed cases occurring in each month of the year.

(4) By residential region

A majority of these confirmed cases resided in New Taipei City for a total of 1,209 cases (20.5%), and the second highest number of cases, 832, lived in Taipei City (14.1%). There were 679 cases (11.5%) in Taichung City, 676 cases (11.5%) in Kaohsiung City, 675 cases (11.4%) in Taoyuan County, 314 cases (5.3%) in Tainan City, 205 cases (3.5%) in Pingtung County, 204 cases (3.5%) in Changhua County, 170 cases (2.9%) in Yilan County, 131 cases (2.2%) in Keelung City, 113 cases (1.9%) in Hualien County, 112 cases (1.9%) in Yunlin County and 101 cases (1.7%) in Hsinchu City. The number of cases in the cities and counties other than those stated above were all below 100.

The incidence rate of syphilis per 100,000 population in Yilan County was 37.05, the highest among all cities and counties, and the incidence rate in Keelung City was 34.61, the second high. The third high incidence rate was 33.63 in Hualien County. The incidence rates in Taoyuan County, Taitung County, Taipei City and New Taipei City were respectively 33.39, 32.56, 31.25 and 30.78. The incidence rates in the cities and counties other than those mentioned above were all lower than 30.00.

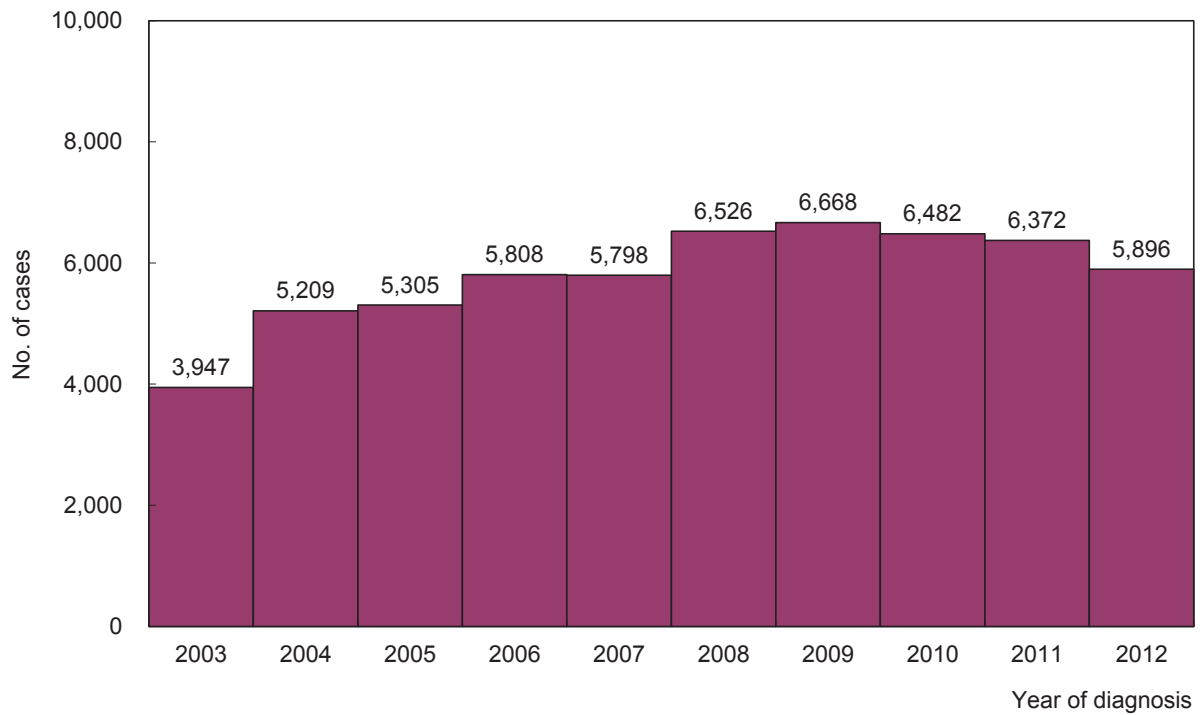


Figure 72 Number of confirmed Syphilis cases, 2003-2012

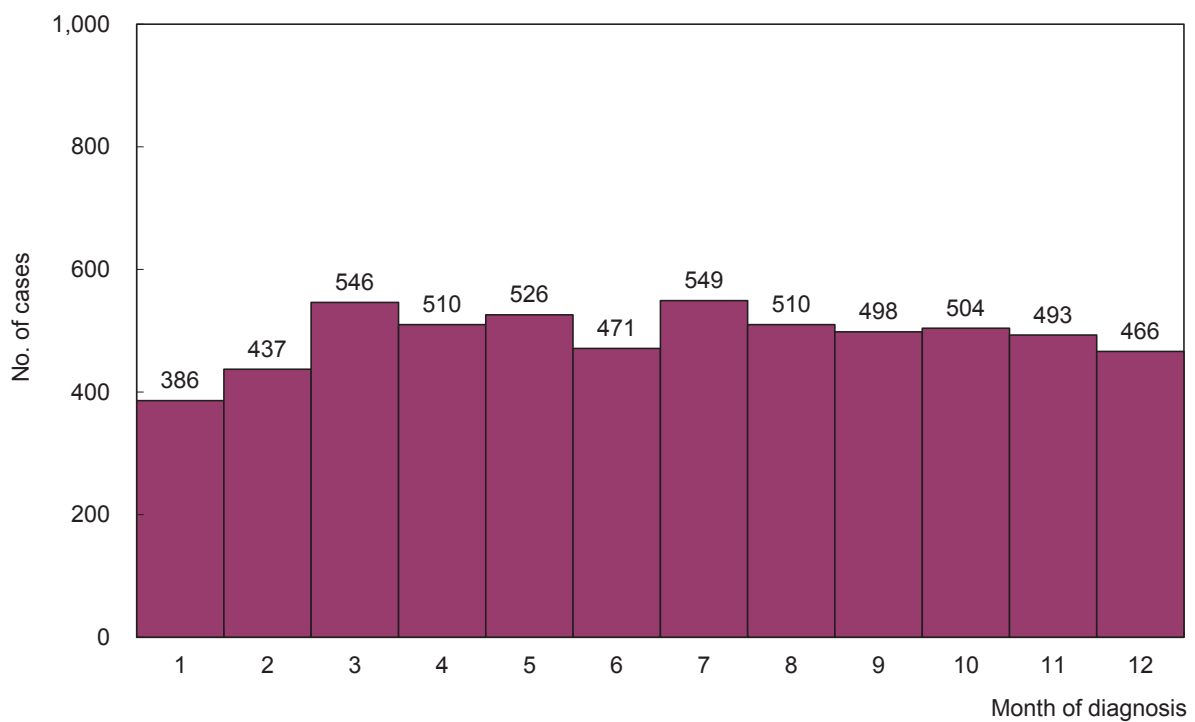


Figure 73 Number of confirmed Syphilis cases, 2012

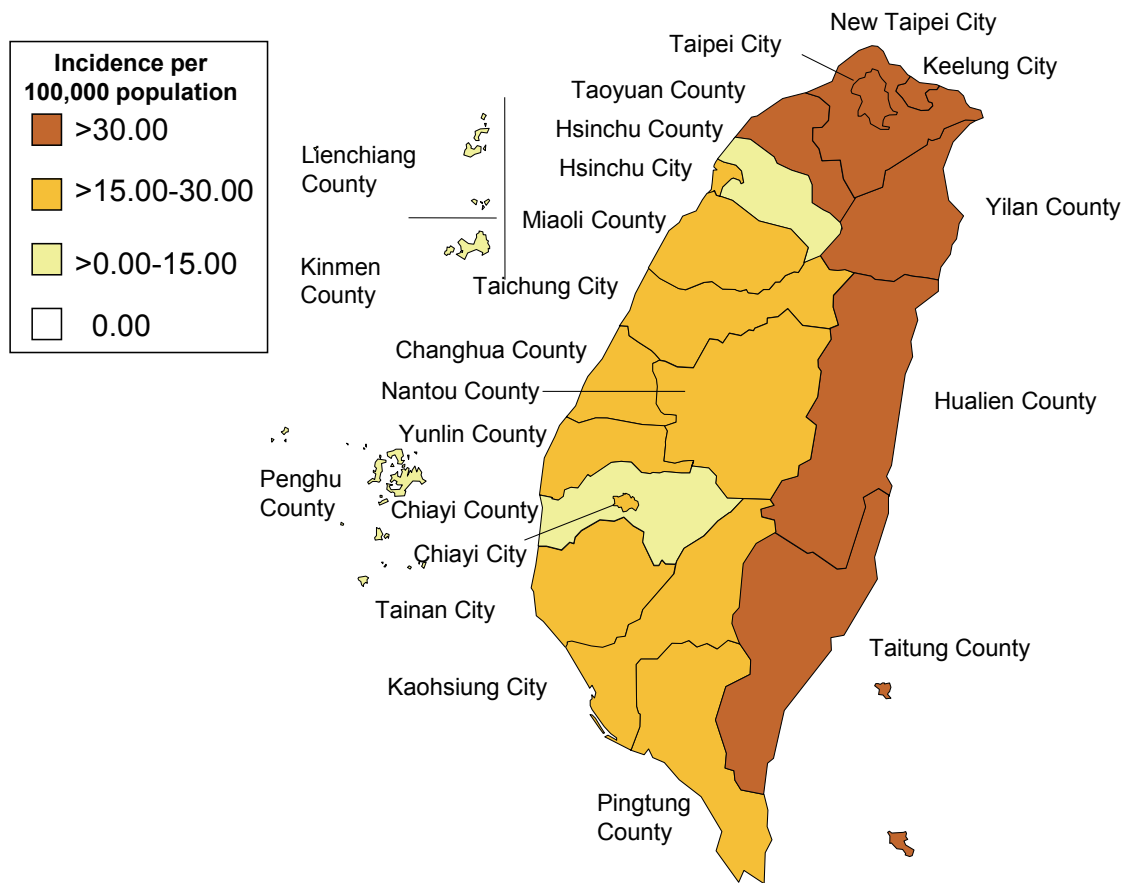


Figure 74 Geographical distribution by incidence of confirmed Syphilis cases, 2012

Gonorrhea

In 2012, a total of 1,983 gonorrhea cases were confirmed (incidence rate: 8.52 per 100,000 population) that was slightly higher than 1,978 confirmed cases in 2011 (incidence rate: 8.53 per 100,000 population). Analytical results of the gonorrhea cases in 2012 are as follows:

(1) By gender

There were 1,871 male cases (94.4%) and 112 female cases (5.6%) with a male to female ratio of 16.7:1.0.

(2) By age group

Most of the confirmed cases fell in the age group of 25-39 years old for a total of 1,087 cases (54.8%). There were 572 cases (28.8%) in the age group of 15-24 years old, and 299 cases (15.1%) in the age group of 40-64 years old. There were 19 cases (1.0%) at the age of 65 years old or older, 5 cases (0.3%) at the age of 5-14 years old. Only 1 case (0.1%) was younger than 1 year old.

(3) By month (based on diagnosis date)

There were no specific prevalent months for gonorrhea incidence in 2012, and there were confirmed cases occurring in each month of the year.

(4) By residential region

Most of the confirmed cases resided in New Taipei City for a total of 547 cases (27.6%), and the second highest number of cases was 444 (22.4%) in Taipei City. In Taoyuan County, Kaohsiung City, Taichung City, Tainan City, Hsinchu County, Keelung City, Hualien County and Miaoli County, the number of cases were 192 (9.7%), 116 (5.8%), 109 (5.5%), 93 (4.7%), 86 (4.3%), 53 (2.7%), 53 (2.7%), and 50 (2.5%) respectively. The confirmed cases in other cities and counties were lower than 50.

The incidence rate of gonorrhea per 100,000 population in Lienchiang County was 18.68, the highest, and the second highest was 16.68 in Taipei City. The incidence rate, 16.51, in Hsinchu County was the third highest. In Hualien County, Keelung City, New Taipei City and Hsinchu City, the incidence rates were 15.77, 14.00, 13.93 and 10.18 respectively. The incidence rates in other cities and counties were lower than 10.00.

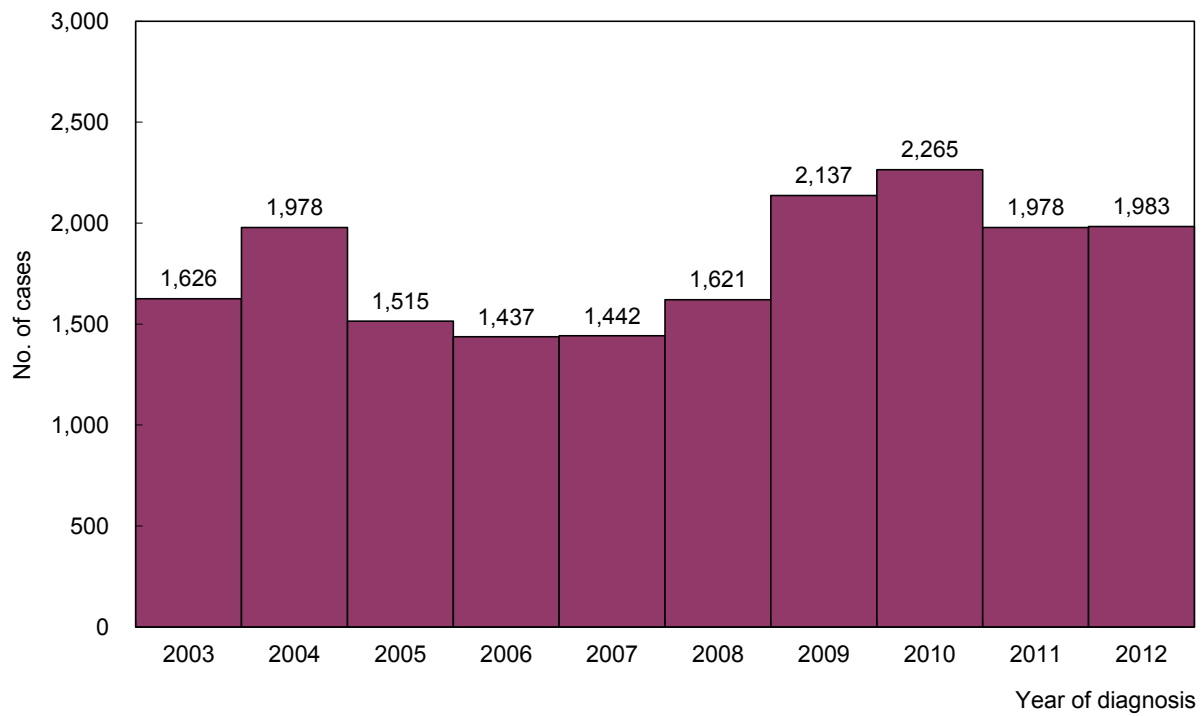


Figure 75 Number of confirmed Gonorrhoea cases, 2003-2012

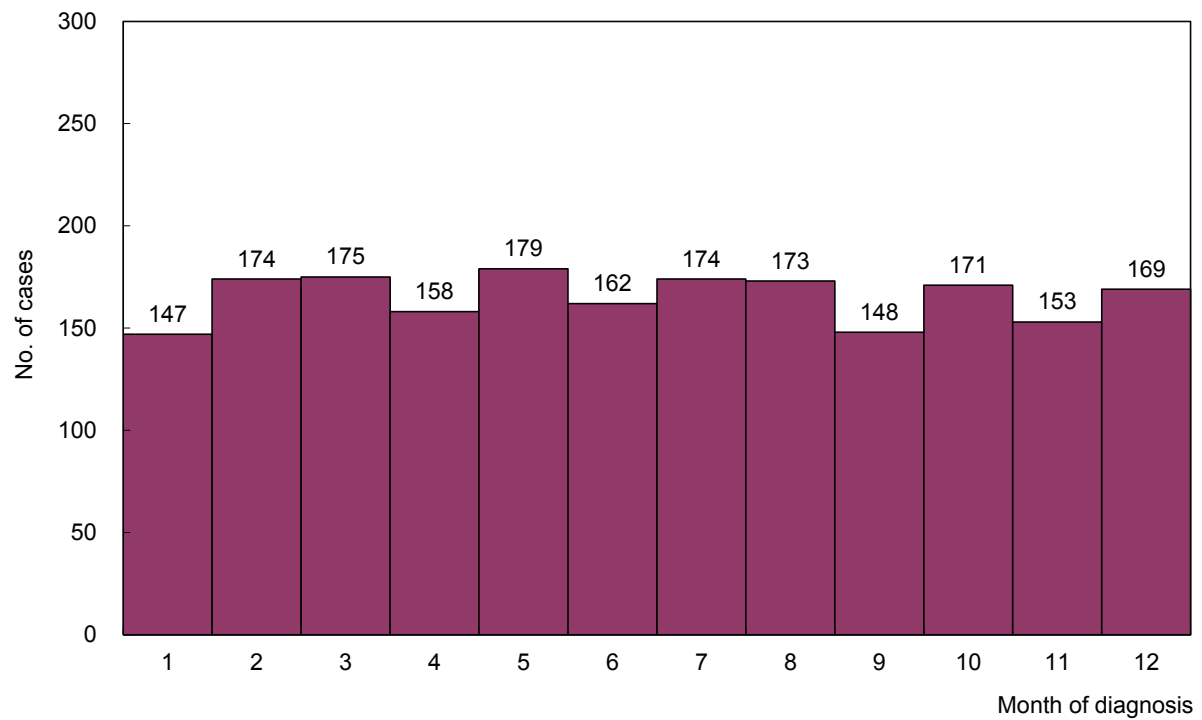


Figure 76 Number of confirmed Gonorrhoea cases, 2012

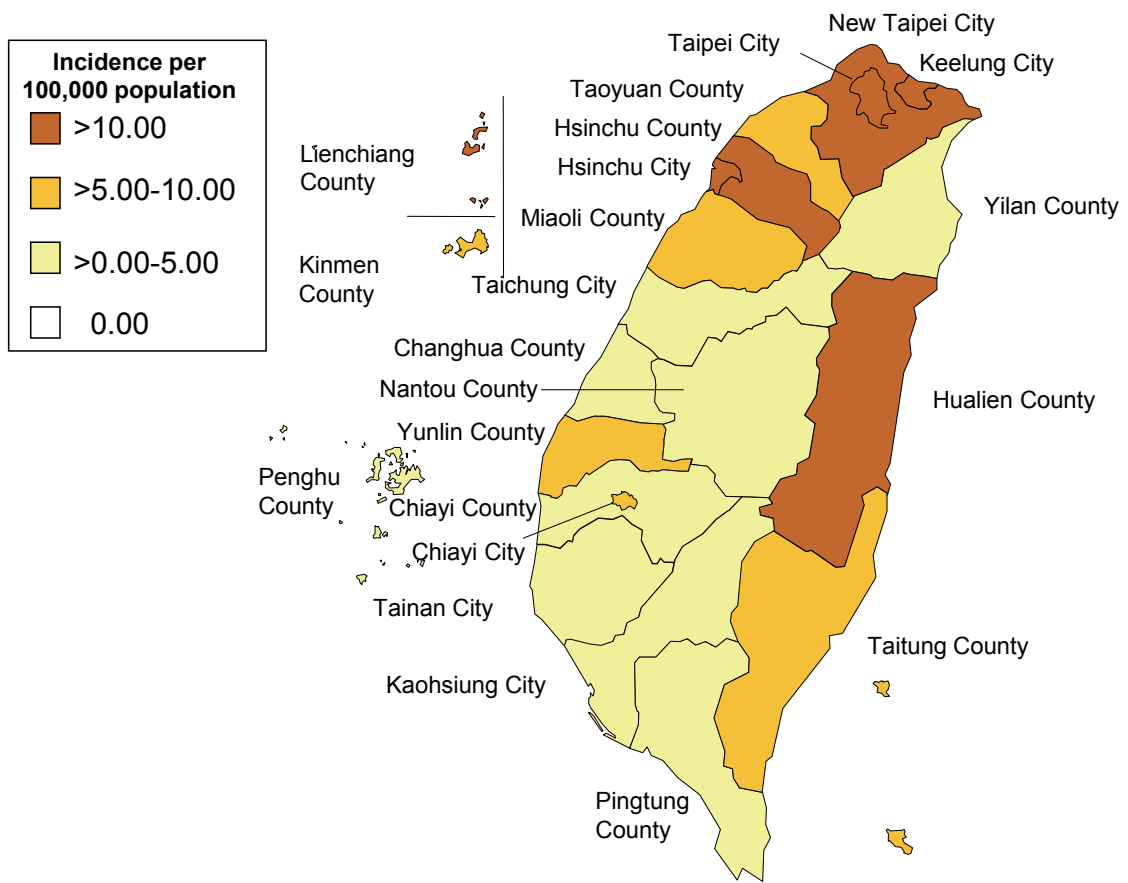


Figure 77 Geographical distribution by incidence of confirmed Gonorrhea cases, 2012

HIV Infection & AIDS

From 1984 to December 2012, a total of 25,081 people infected with human immunodeficiency virus (hereafter referred to as HIV-infected cases) (24,239 native cases and 842 foreign cases) have been confirmed. A total of 9,850 cases (9,746 native cases and 104 foreign cases) had the onset of the acquired immunodeficiency syndrome (hereafter referred to as AIDS).

In 2012, a total of 2,264 HIV-infected cases were diagnosed (2,224 native cases and 40 foreign cases). There were 1,284 AIDS cases (1,280 native cases and 4 foreign cases). Statistical analysis was conducted on confirmed native cases in 2012, and the results are as follows (HIV-infected cases had the onset of the HIV disease upon case reporting):

(1) By gender

HIV: There were 2,151 male cases (96.7%) and 73 female cases (3.3%). The male to female ratio was 29.5:1.0.

AIDS: A total of 1,210 male cases (94.5%) and 70 female cases (5.5%) were confirmed. The male to female ratio was 17.3:1.0.

(2) By age group

HIV: There were 1,208 cases (54.3%) at 25-39 of age; 635 cases (28.6%) at 15-24 of age; 359 cases (16.1%) at 40-64 of age.

AIDS: Most of the AIDS cases for a total of 717 cases (56.0%) were 25-39 years old; 386 cases were 40-64 years old (30.2%); 156 cases were 15-24 years old (12.2%).

(3) By month (based on diagnosis date)

Cases of the disease were reported every month. There were no specific epidemic months or seasons.

(4) By risk factors

HIV (total): A total of 1,718 cases (77.2%) were infected through men who have sex with men; 304 cases (13.7%) were infected through heterosexual activities; 81 cases (3.6%) were injecting drug users; 1 case (0.04%) was due to vertical transmission; 120 cases (5.4%) risk factors unknown.

HIV (male): Most cases, up to 1,718 cases (79.9%), were infected through men who have sex with men; 252 cases (11.7%) were infected through heterosexual activities; 67 cases (3.1%) were injecting drug users; 1 case (0.1%) was due to vertical transmission; 113 cases (5.3%) risk factors unknown.

HIV (female): A total of 52 cases (71.2%) were infected through heterosexual activities; 14 cases (19.2%) were injecting drug users; 7 cases (9.6%) risk factors unknown.

AIDS (total): Most cases, as many as 777 cases (60.7%), were infected through men who have sex with men; 244 cases (19.1%) were injecting drug users; 213 cases (16.6%) were infected through heterosexual activities; 1 case was hemophiliac (0.1%); 1

case was infected through blood transfusion (0.1%); 44 cases (3.4%) risk factors unknown.

AIDS (male): Most cases, up to 777 cases (64.2%), were infected through men who have sex with men; 210 cases (17.4%) were injecting drug users; 179 cases (14.8%) were infected through heterosexual activities; 1 case was hemophiliac (0.1%); 1 case had blood transfusion (0.1%); 42 cases (3.5%) risk factors unknown.

AIDS (female): Most cases, 34 (48.6%) were infected through heterosexual activities; 34 cases (48.6%) were injecting drug users; 2 cases (2.9%) risk factors unknown.

See Tables 30 and 31 for statistics of HIV infected and AIDS by risk factor.

(5) By residential region

HIV: Most cases, 521 (23.4%), resided in New Taipei City, followed by 377 (17.0%) in Taipei City, 336 (15.1%) in Kaohsiung City, 272 (12.2%) in Taichung City, and 204 (9.2%) in Taoyuan County. No HIV cases were reported in Lienchiang County.

The highest incidence rate of HIV infection per 100,000 population was 14.16 in Taipei City; the second highest was 13.26 in New Taipei City; the third highest was 12.10 in Kaohsiung City.

AIDS: Most cases, 242 (18.9%), resided in New Taipei City, followed by 216 cases (16.9%) in Kaohsiung City, 185 cases (14.5%) in Taipei City. In Taichung City and Taoyuan County, there were respectively 142 (11.1%) and 130 (10.2%) reported. No AIDS cases were reported in Lienchiang County.

The incidence rate of AIDS per 100,000 population was 7.78, the highest, in Kaohsiung City, and 6.95, the second highest, in Taipei City. The incidence rate in Pingtung County, 6.50, was the third highest

Table 30 Risk factor of confirmed HIV infection cases (foreigner excluded), 2012

Risk factor	Male	%	Female	%	Total	%
Men who have sex with men	1,718	79.9%	0	0.0%	1,718	77.2%
Heterosexuals	252	11.7%	52	71.2%	304	13.7%
Injecting drug users	67	3.1%	14	19.2%	81	3.6%
Blood recipients	0	0.0%	0	0.0%	0	0.0%
Vertical transmission	1	0.0%	0	0.0%	1	0.0%
Hemophiliacs	0	0.0%	0	0.0%	0	0.0%
Unknown	113	5.3%	7	9.6%	120	5.4%
Total	2,151	100.0%	73	100.0%	2,224	100.0%

Table 31 Risk factor of confirmed AIDS cases (foreigner excluded), 2012

Risk factor	Male	%	Female	%	Total	%
Men who have sex with men	777	64.2%	0	0.0%	777	60.7%
Heterosexuals	179	14.8%	34	48.6%	213	16.6%
Injecting drug users	210	17.4%	34	48.6%	244	19.1%
Blood recipients	1	0.1%	0	0.0%	1	0.1%
Vertical transmission	0	0.0%	0	0.0%	0	0.0%
Hemophiliacs	1	0.1%	0	0.0%	1	0.1%
Unknown	42	3.5%	2	2.9%	44	3.4%
Total	1,210	100.0%	70	100.0%	1,280	100.0%

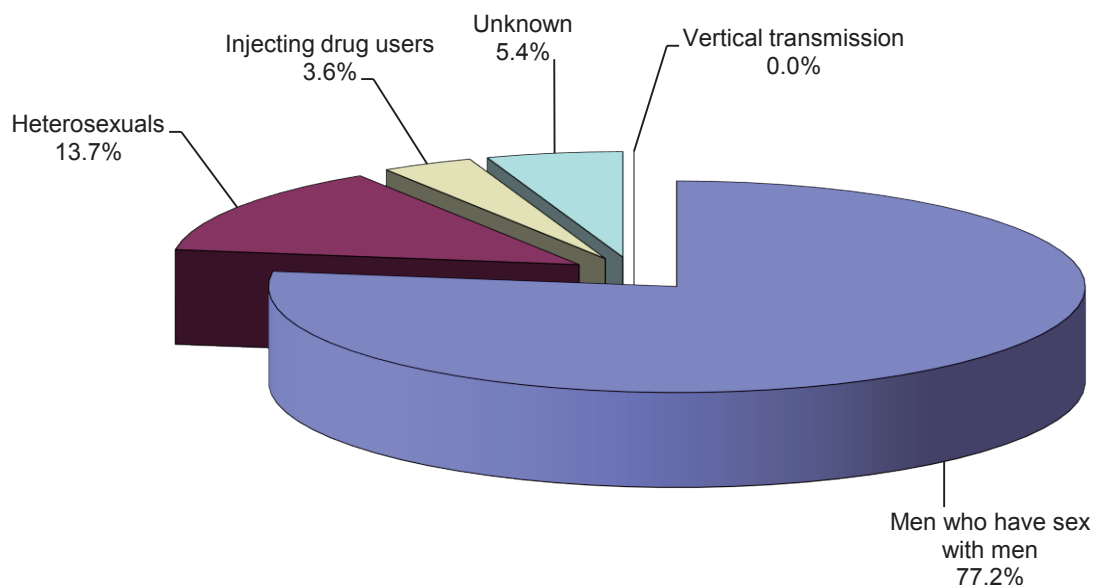


Figure 78 Risk factor of confirmed HIV infection cases (foreigner excluded), 2012

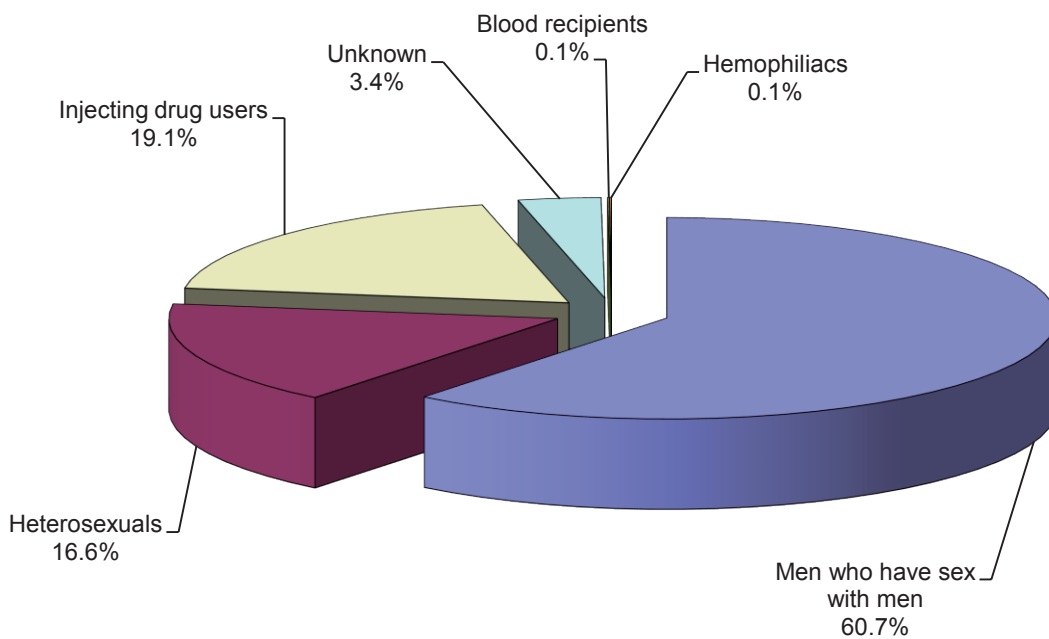


Figure 79 Risk factor of confirmed AIDS cases (foreigner excluded), 2012

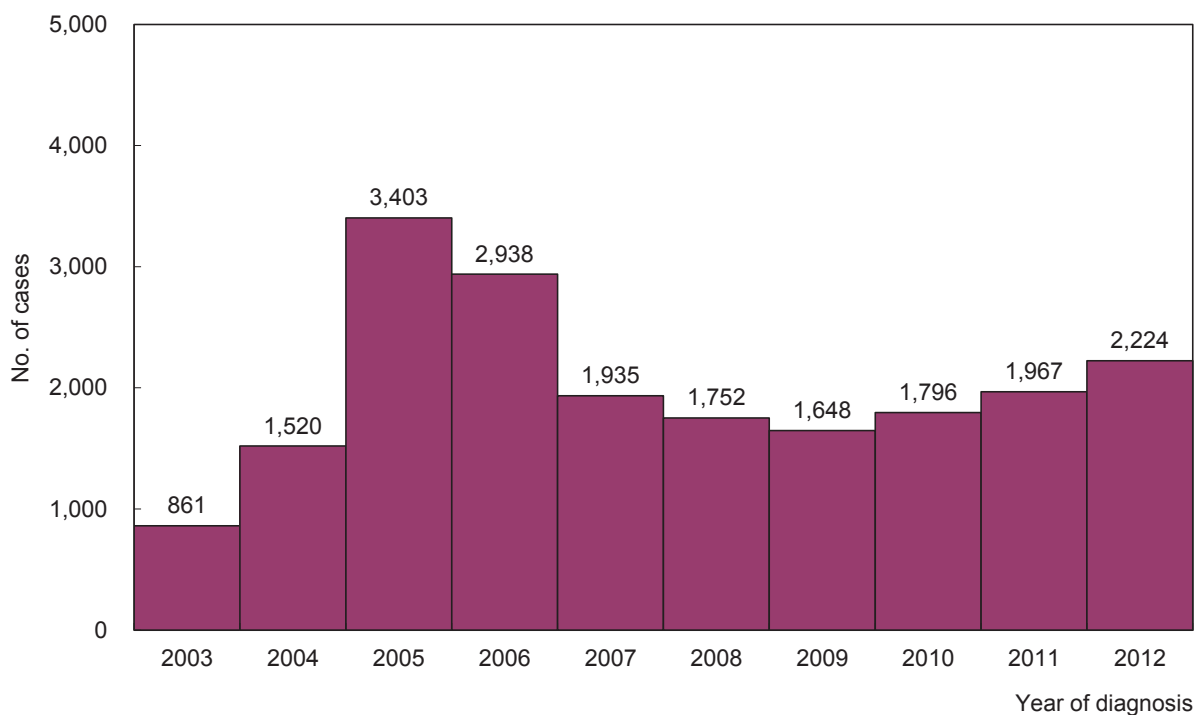


Figure 80 Number of confirmed HIV infection cases (foreigner excluded), 2003-2012

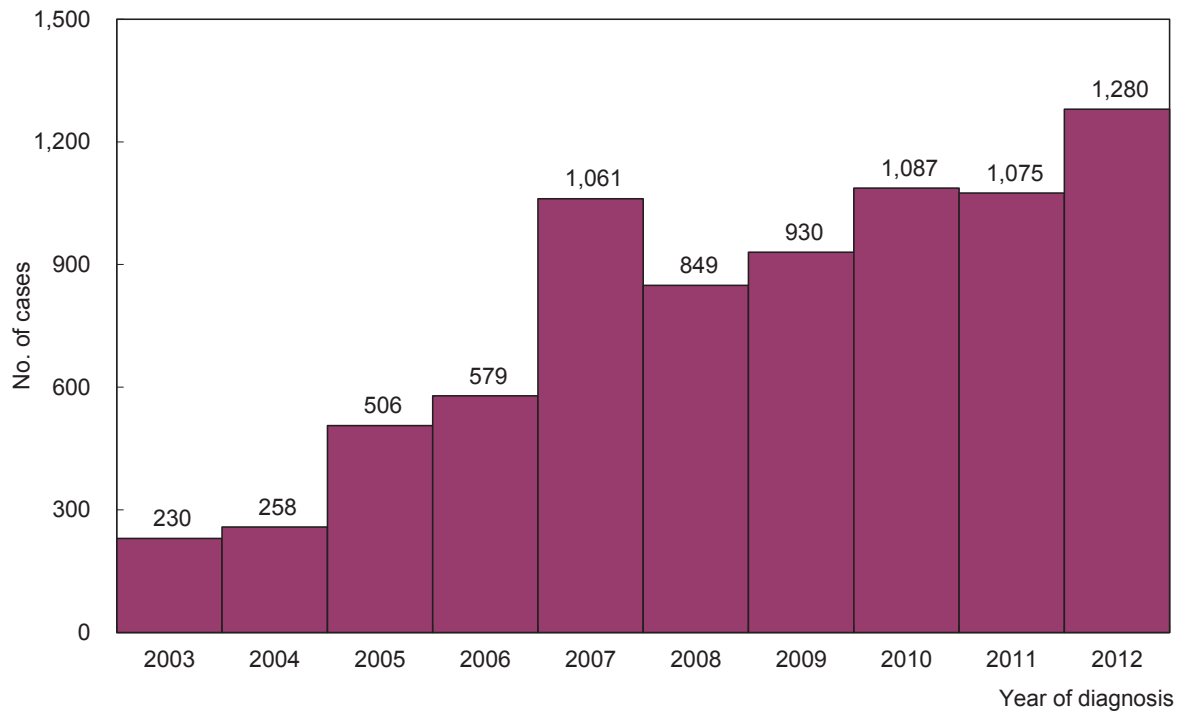


Figure 81 Number of confirmed AIDS cases (foreigner excluded), 2003-2012

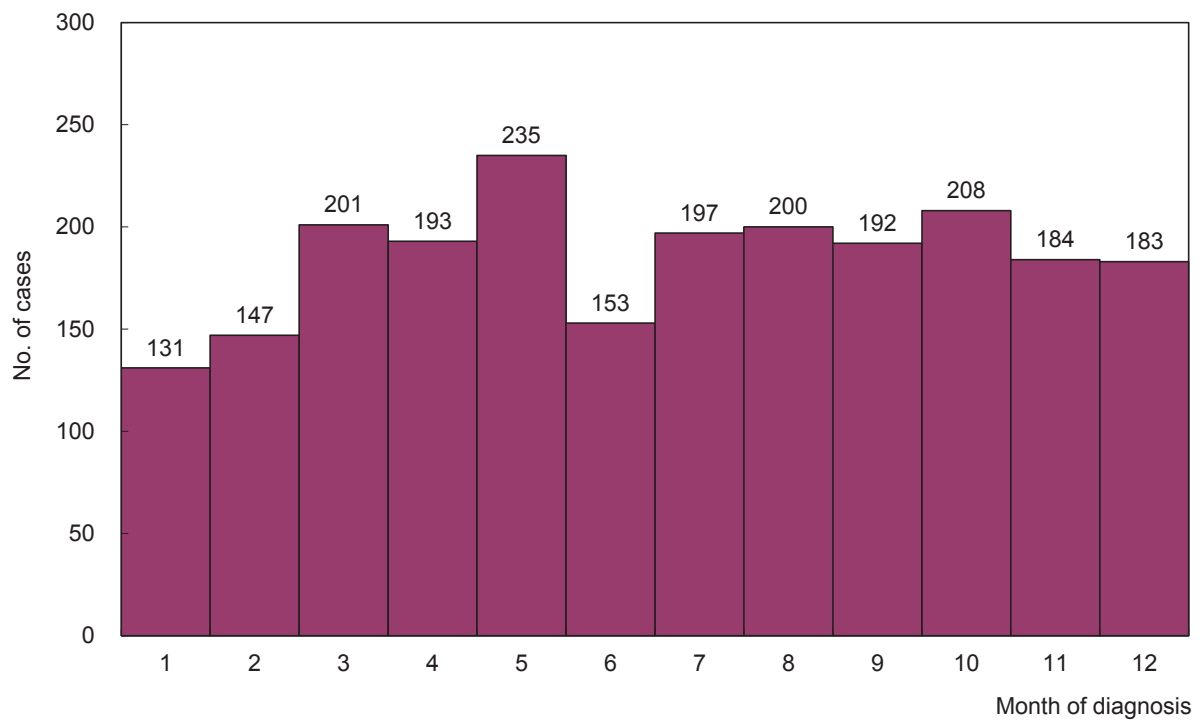


Figure 82 Number of confirmed HIV infection cases (foreigner excluded), 2012

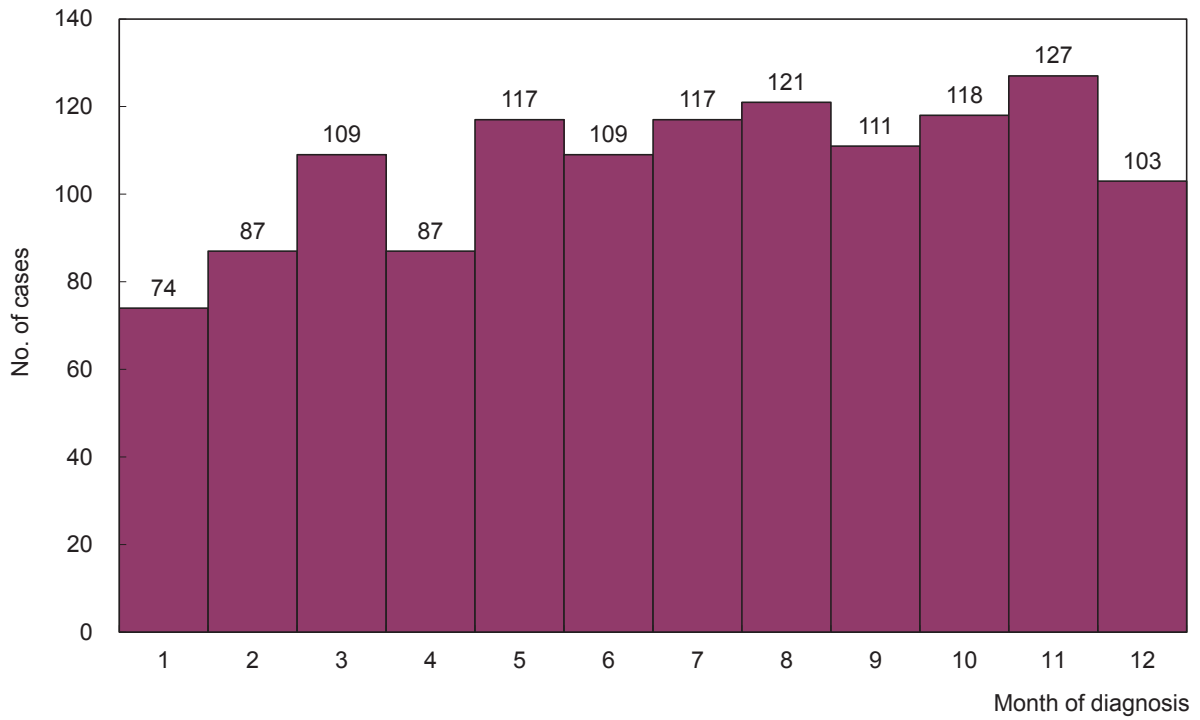


Figure 83 Number of confirmed AIDS cases (foreigner excluded), 2012

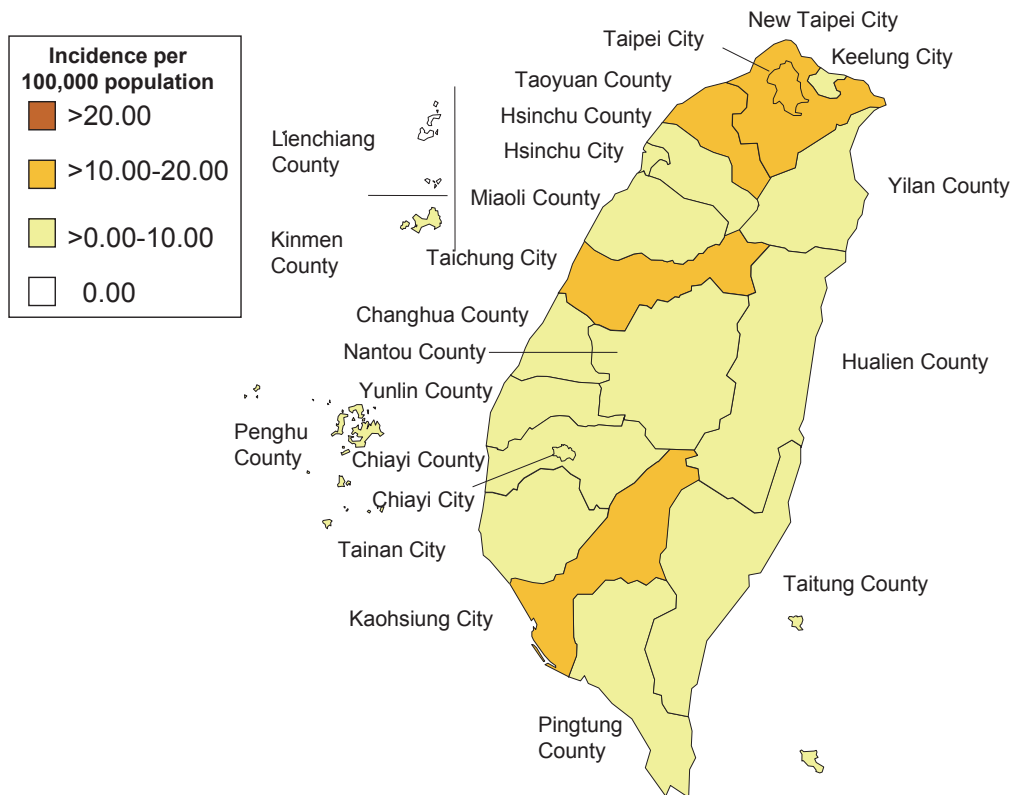


Figure 84 Geographical distribution by incidence of confirmed HIV infection cases (foreigner excluded), 2012

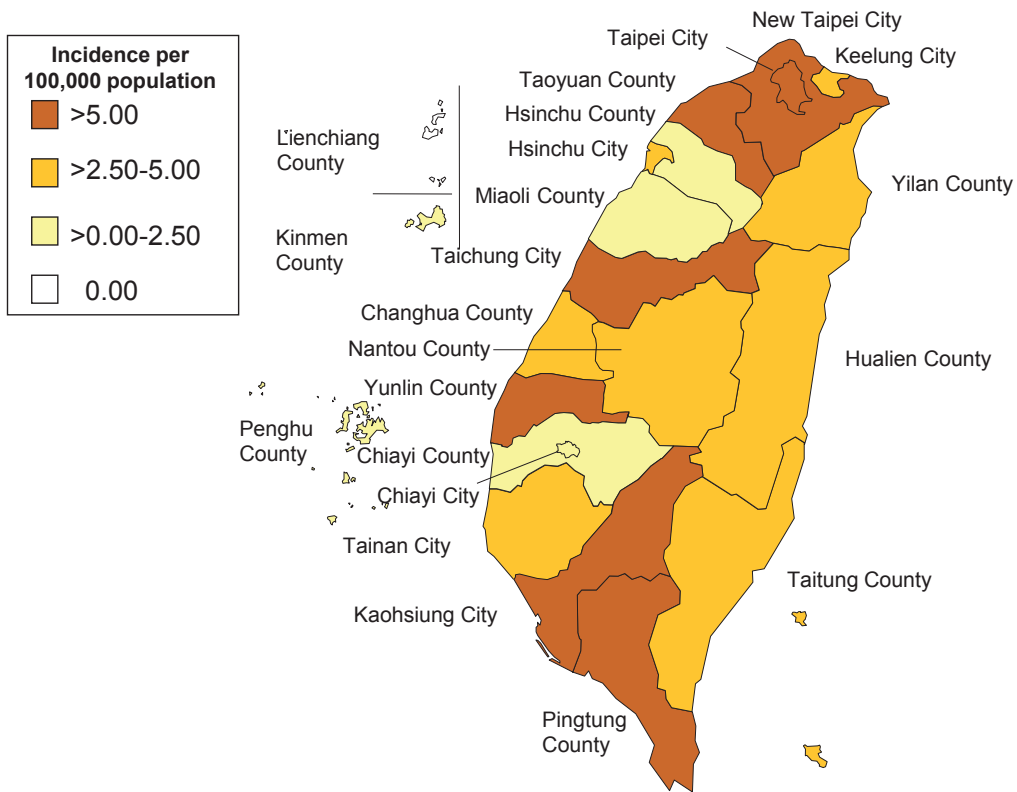


Figure 85 Geographical distribution by incidence of confirmed AIDS cases (foreigner excluded), 2012

Tuberculosis

In 2012, 12,338 cases of tuberculosis (incidence rate: 53.0 per 100,000 population) were confirmed, which went down in both case number and incidence rate with 2.3% and 2.7% declining respectively, as compared with 12,634 confirmed cases (incidence rate: 54.5 per 100,000 population) in 2011. The data of confirmed TB cases in 2012 were analyzed as follows:

(1) By gender

There were 8,653 male cases (70.1%) and 3,685 female cases (29.9%) with a male to female ratio of 2.3:1.0. The incidence rate of tuberculosis in males (74.2 per 100,000 population) was 2.3 times higher than that in females (31.7 per 100,000 population).

(2) By age group

The number of tuberculosis cases and incidence rate per 100,000 population rose significantly with age. Of the new TB cases in 2012, 65 were aged 0-14, 556 were aged 15-24, 739 were aged 25-34, 972 were aged 35-44, 1,574 were aged 45-54, 2,008 were aged 55-64, and 6,424 were elderly over 65 year-old which accounted for 52.3% of total.

(3) By month (based on notification date)

Tuberculosis cases were reported in each month of the year, with the highest notification (1,150 cases) in March and lowest (855 cases) in January.

(4) By residential region

The incidence rate of tuberculosis was higher in eastern region than in western region, and was higher in southern region than in northern region. With regard to incidence rate by city and county, Pingtung County had the highest incidence rate with 95.1 per 100,000 population, followed by Hualien County with 90.8 per 100,000 population. Lienchiang County and Kinmen County had the lowest incidence rate with 28.0 and 19.4 per 100,000 population respectively.

(5) Mortality distribution

In 2012, there were 626 tuberculosis deaths with a mortality rate of 2.7 per 100,000 population. Males accounted for 479 deaths (4.1 deaths per 100,000 population) and the rest of 147 were females (1.3 deaths per 100,000 population) with a male to female death ratio of 3.3:1.0.

The tuberculosis mortality rate in Taiwan increased with age. Of the 626 tuberculosis deaths in 2012, 82.9% (519 cases) were elderly aged 65 years and above.

For the overall geographic distribution, tuberculosis deaths in 2012 showed a pattern of higher in eastern and southern regions and lower in northern region. Taitung County had the highest TB mortality rate (9.2 per 100,000 population), followed by Hualien County (6.8 per 100,000 population) and Yunlin County (5.6 per 100,000 population).

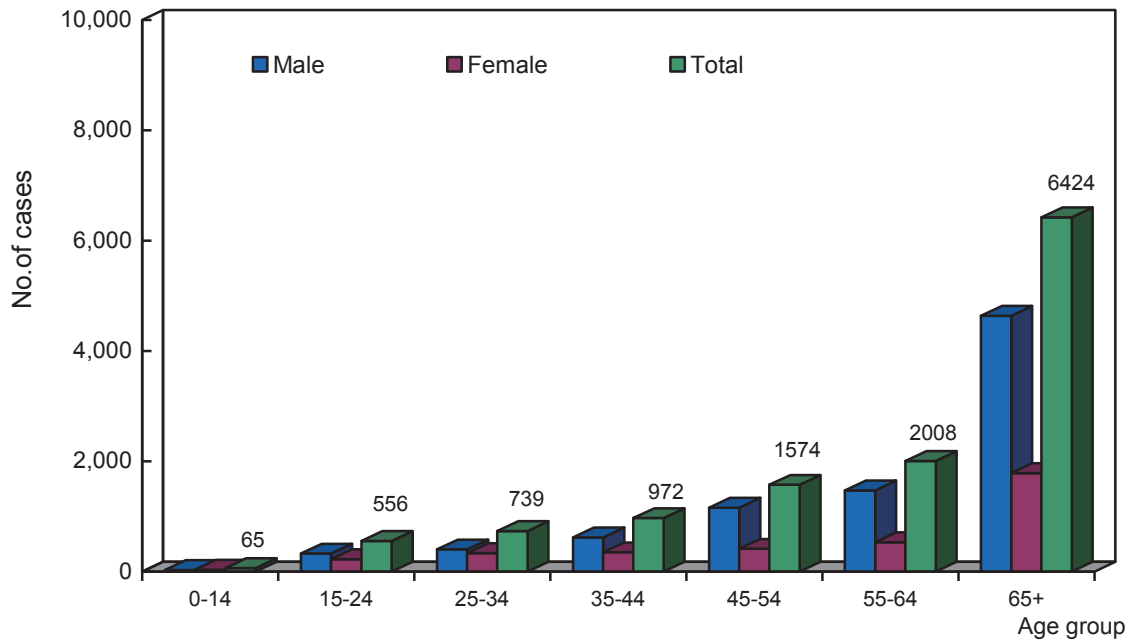


Figure 86 Tuberculosis cases number by age group and sex, 2012

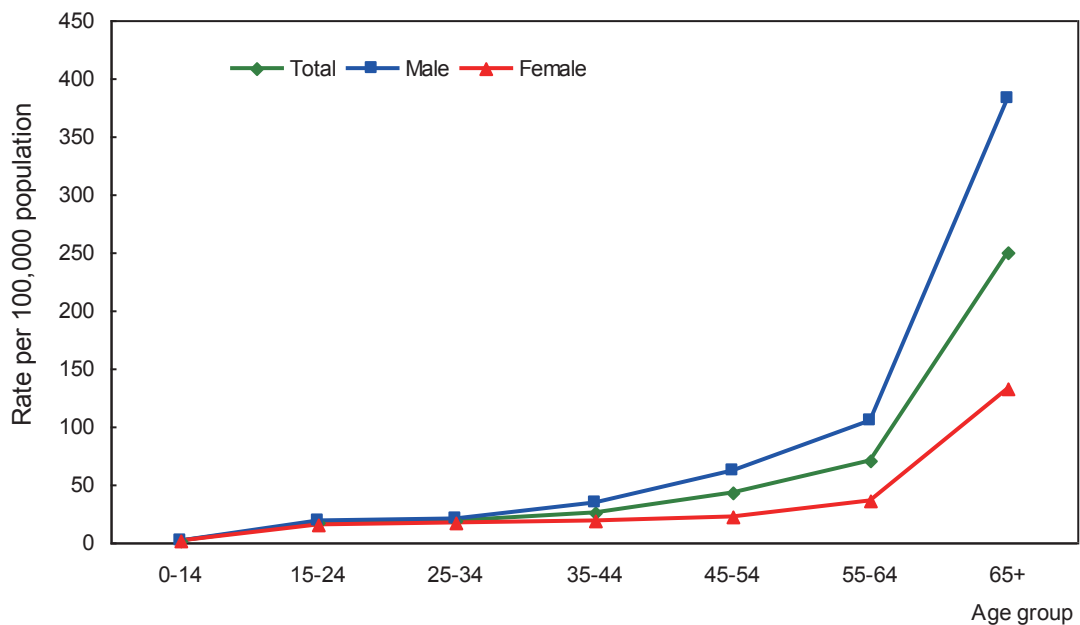


Figure 87 Incidence rate of Tuberculosis by age group and sex, 2012

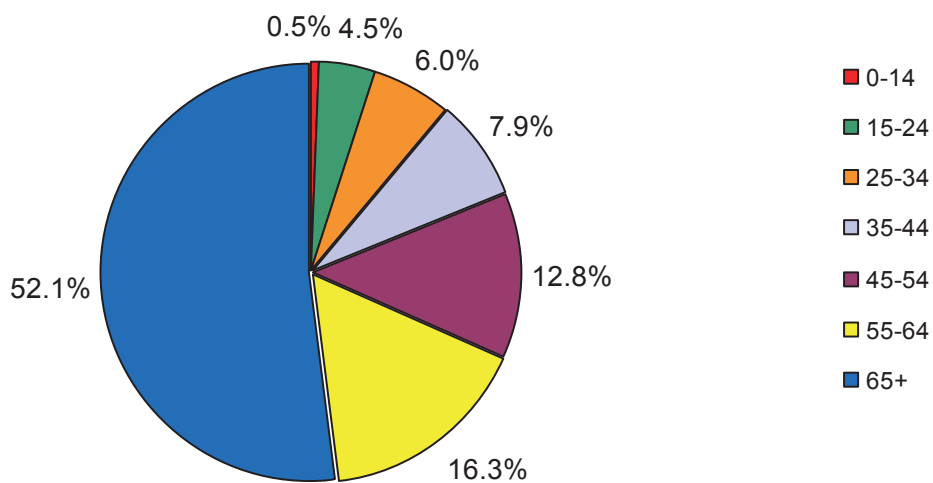


Figure 88 Distribution of Tuberculosis incidence by age group, 2012

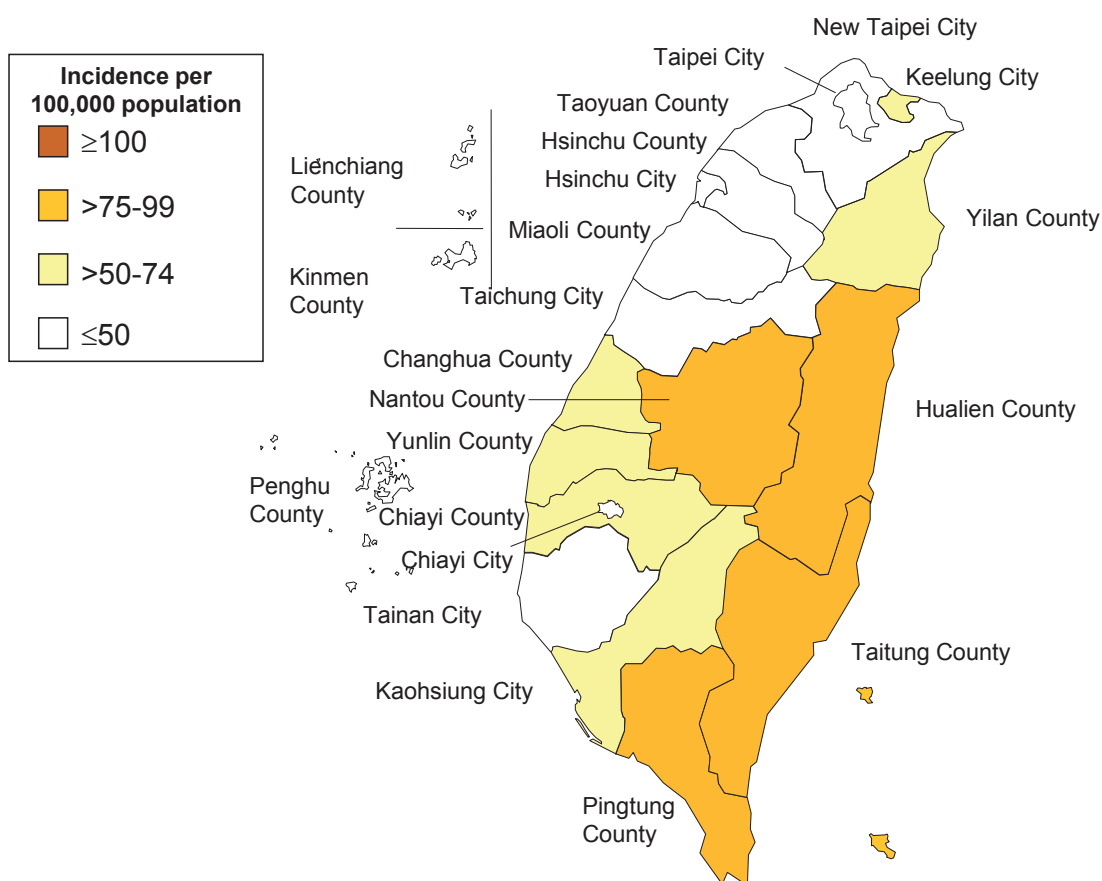


Figure 89 Geographical distribution by incidence of Tuberculosis cases, 2012

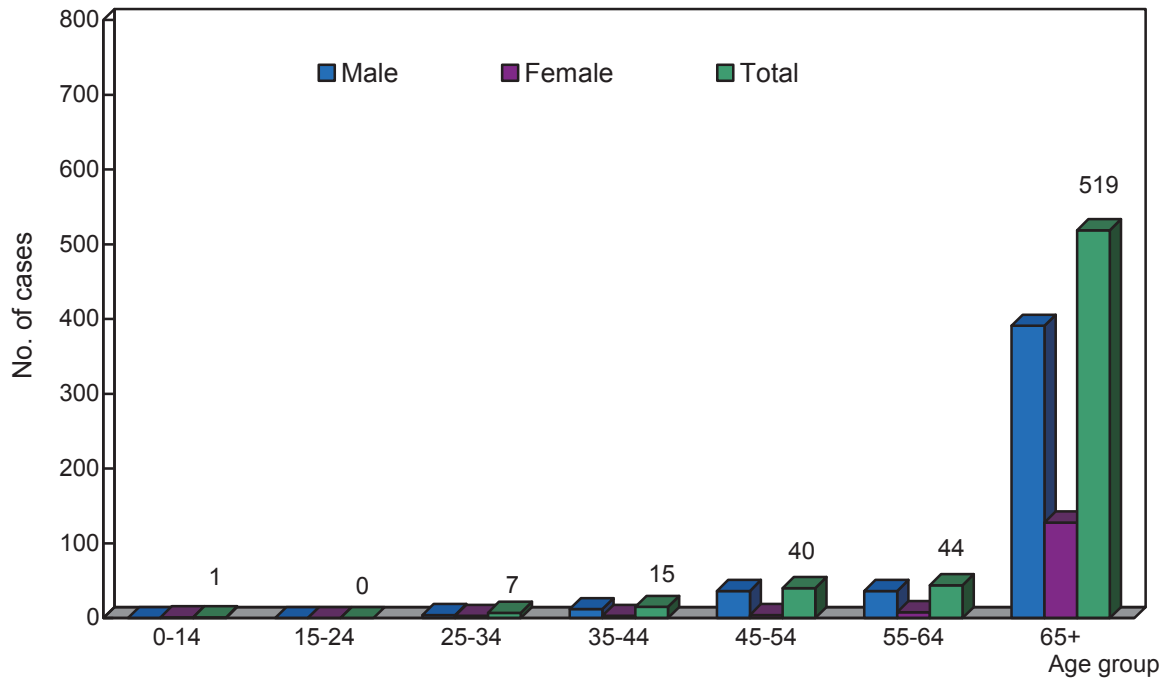


Figure 90 Mortality number of Tuberculosis by age group and sex, 2012

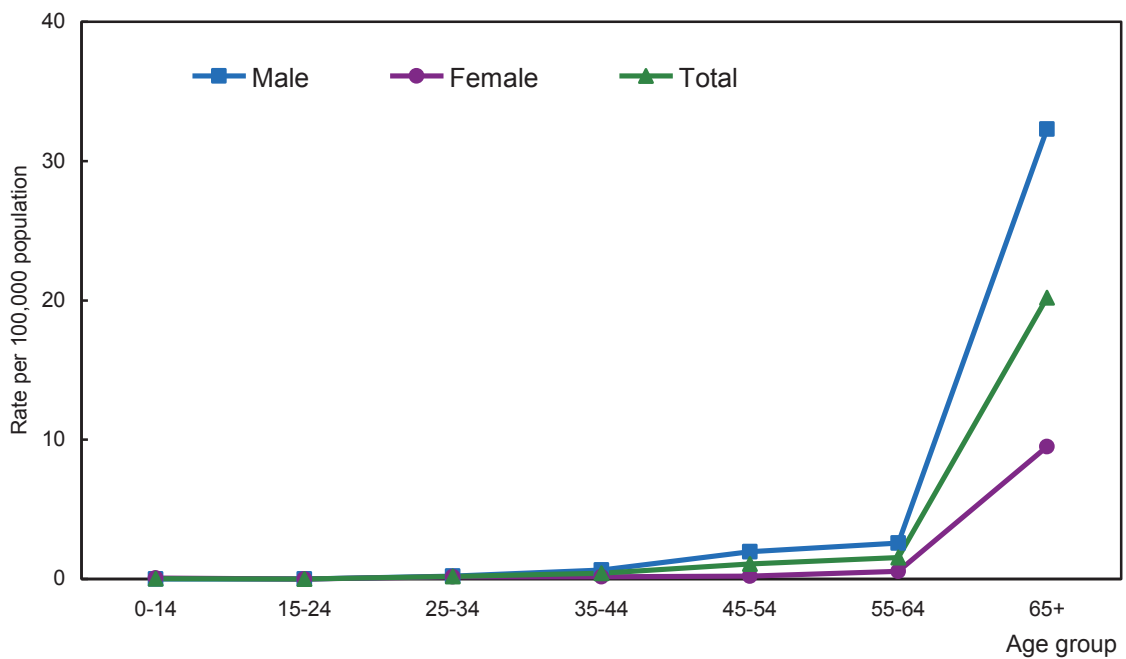


Figure 91 Mortality rate of Tuberculosis by age group and sex, 2012

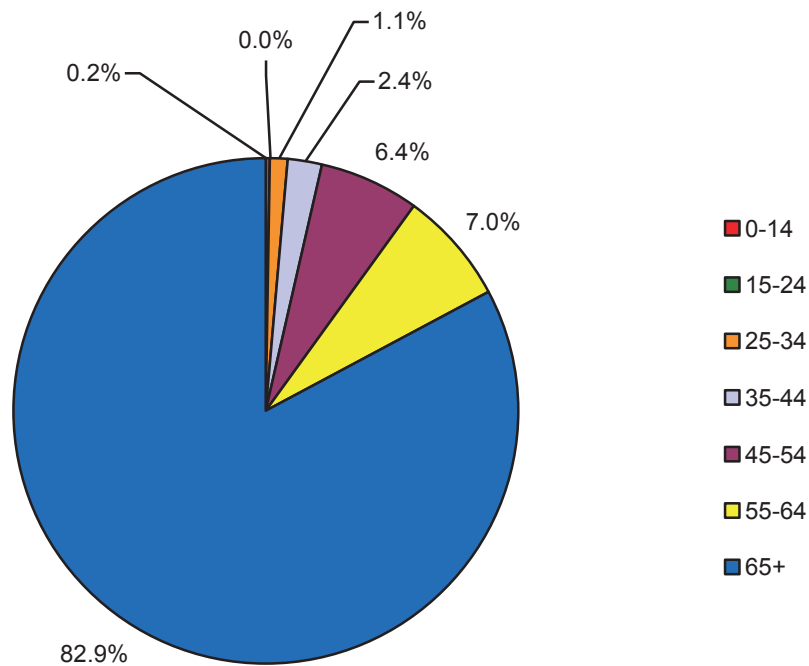


Figure 92 Distribution of Tuberculosis mortality by age group, 2012

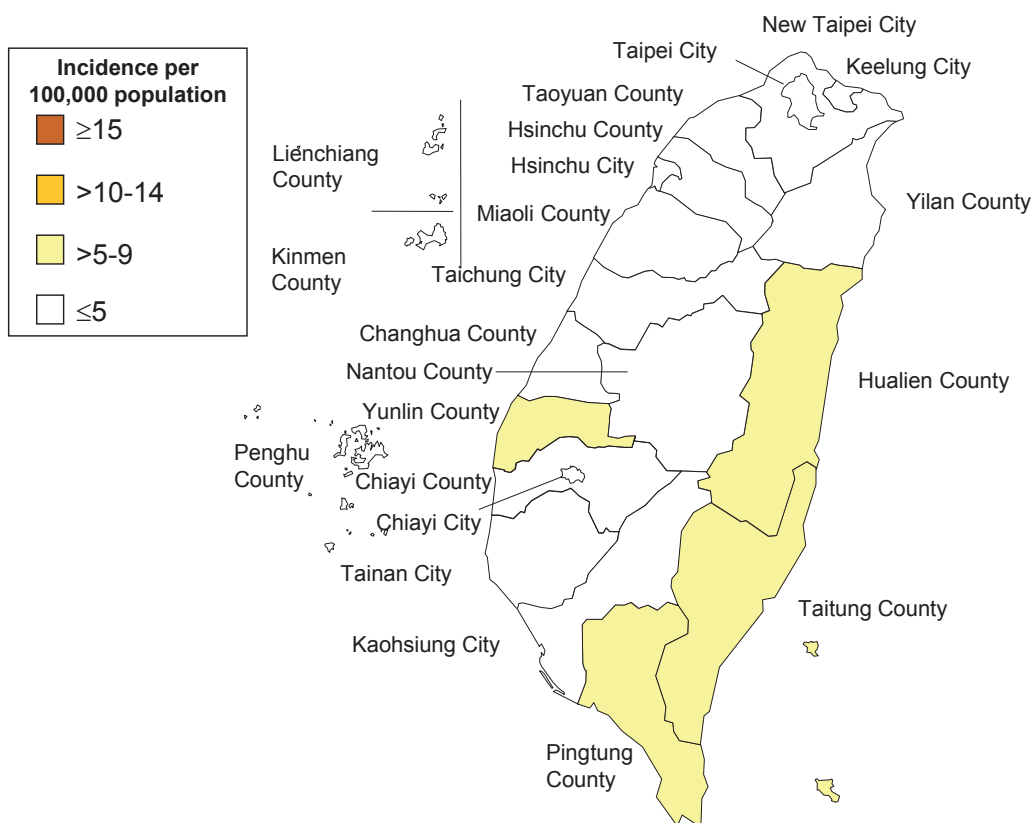


Figure 93 Geographical distribution by mortality of confirmed Tuberculosis cases, 2012

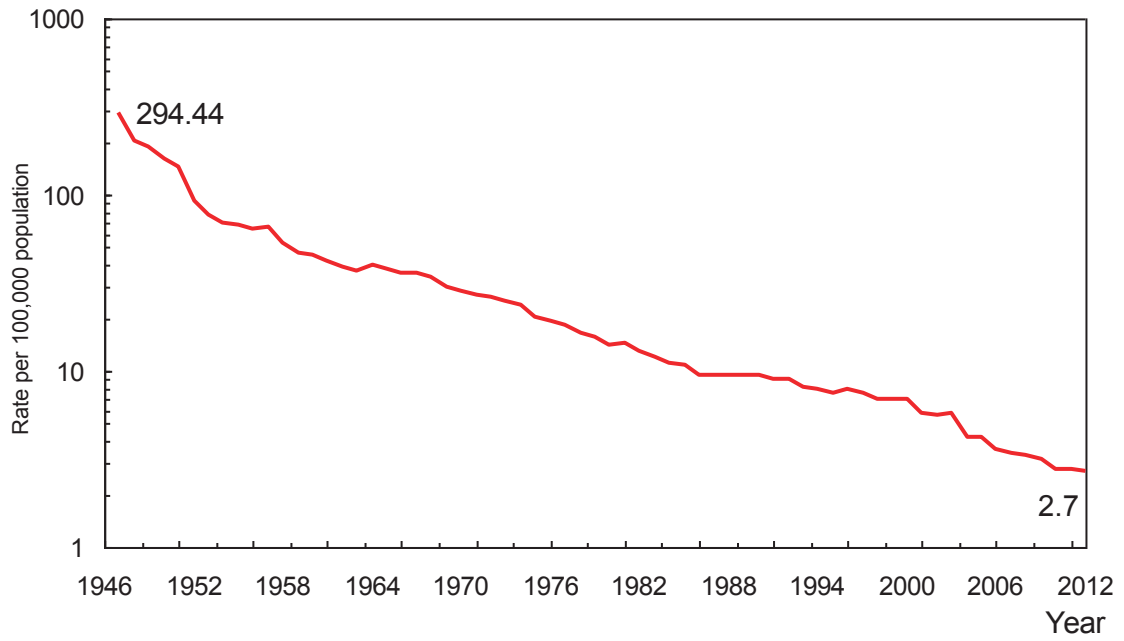


Figure 94 Trend of Tuberculosis mortality rate by year

Table 32 Mortality of Tuberculosis — by administrative area, 2012

Locality	Midyear population	Death number from TB	Per 100,000 population
Taiwan	23,270,367	626	2.7
New Taipei City	3,927,878	78	2.0
Yilan County	485,828	10	2.2
Taoyuan County	2,021,733	56	2.8
Hsinchu County	520,817	9	1.7
Miaoli County	562,993	11	2.0
Changhua County	1,301,454	50	3.8
Nantou County	521,501	24	4.6
Yunlin County	712,274	40	5.6
Chiayi County	535,832	18	3.4
Pingtung County	861,485	47	5.5
Taitung County	227,271	21	9.2
Hualien County	336,014	23	6.8
Penghu County	98,000	3	3.1
Keelung City	378,540	4	1.1
Hsinchu City	422,561	4	0.9
Taichung City	2,674,644	34	1.3
Chiayi City	271,373	7	2.6
Tainan City	1,879,302	33	1.8
Taipei City	2,662,097	59	2.2
Kaohsiung City	2,776,565	94	3.4
Kinmen County	108,497	1	0.9
Lienchiang County	10,708	-	-

Table 33 Mortality of Tuberculosis — by age & sex, 2012

Age	Tuberculosis				Male			Female		
	Midyear population	Death number	Per 100,000 population	Midyear population	Death number	Per 100,000 population	Midyear population	Death number	Per 100,000 population	
Total	23,270,367	626	2.7	11,659,497	479	4.1	11,610,870	147	1.3	
0-4	970,337	1	0.1	505,153	-	-	465,184	1	0.2	
5-9	1,088,330	-	-	569,294	-	-	519,036	-	-	
10-14	1,398,067	-	-	728,887	-	-	669,180	-	-	
15-19	1,613,881	-	-	838,429	-	-	775,452	-	-	
20-24	1,609,790	-	-	836,643	-	-	773,147	-	-	
25-29	1,733,637	3	0.2	878,797	2	0.2	854,840	1	0.1	
30-34	2,031,027	4	0.2	1,011,832	2	0.2	1,019,195	2	0.2	
35-39	1,859,490	5	0.3	921,493	3	0.3	937,997	2	0.2	
40-44	1,839,633	10	0.5	916,209	9	1.0	923,424	1	0.1	
45-49	1,890,345	11	0.6	943,204	11	1.2	947,141	-	-	
50-54	1,819,534	29	1.6	902,857	25	2.8	916,677	4	0.4	
55-59	1,622,276	23	1.4	797,017	19	2.4	825,259	4	0.5	
60-64	1,229,820	21	1.7	598,223	17	2.8	631,597	4	0.6	
65+	2,564,200	519	20.2	1,211,459	391	32.3	1,352,741	128	9.5	

Table 34 Confirmed tuberculosis cases — by administrative area, 2012

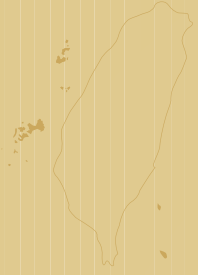
Locality	Total					Male					Female				
	Smear-positive	Others	Total	Midyear population	Per 100,000 population	Smear-positive	Others	Total	Midyear population	Per 100,000 population	Smear-positive	Others	Total	Midyear population	Per 100,000 population
Taiwan	4,739	7,599	12,338	23,270,367	53.0	3,497	5,156	8,653	11,659,497	74.2	1,242	2,443	3,685	11,610,870	31.7
New Taipei City	701	1,225	1,926	3,927,878	49.0	494	794	1,288	1,943,226	66.3	207	431	638	1,984,652	32.1
Yilan County	103	150	253	458,828	55.1	82	109	191	233,469	81.8	21	41	62	225,359	27.5
Taoyuan County	292	588	880	2,021,733	43.5	222	411	633	1,017,218	62.2	70	177	247	1,004,515	24.6
Hsinchu County	74	101	175	520,817	33.6	55	71	126	267,367	47.1	19	30	49	253,450	19.3
Miaoli County	93	121	214	562,993	38.0	70	83	153	291,408	52.5	23	38	61	271,585	22.5
Changhua County	314	450	764	1,301,454	58.7	217	307	524	666,908	78.6	97	143	240	634,546	37.8
Nantou County	171	229	400	521,501	76.7	127	157	284	268,139	105.9	44	72	116	253,362	45.8
Yunlin County	213	288	501	712,274	70.3	160	198	358	371,437	96.4	53	90	143	340,837	42.0
Chiayi County	122	214	336	535,832	62.7	86	154	240	279,317	85.9	36	60	96	256,515	37.4
Pingtung County	326	493	819	861,485	95.1	247	315	562	442,447	127.0	79	178	257	419,038	61.3
Taitung County	73	111	184	227,271	81.0	54	86	140	118,507	118.1	19	25	44	108,764	40.5
Hualien County	146	159	305	336,014	90.8	113	110	223	172,634	129.2	33	49	82	163,380	50.2
Penghu County	11	17	28	98,000	28.6	8	9	17	50,341	33.8	3	8	11	47,659	23.1
Keelung City	92	137	229	378,540	60.5	74	84	158	190,659	82.9	18	53	71	187,881	37.8
Hsinchu City	29	92	121	422,561	28.6	25	65	90	209,583	42.9	4	27	31	212,978	14.6
Taichung City	395	792	1,187	2,674,644	44.4	305	556	861	1,329,044	64.8	90	236	326	1,345,600	24.2
Chiayi City	45	83	128	271,373	47.2	35	51	86	133,272	64.5	10	32	42	138,101	30.4
Tainan City	360	566	926	1,879,302	49.3	263	402	665	944,451	70.4	97	164	261	934,851	27.9
Taipei City	351	574	925	2,662,097	34.7	256	381	637	1,280,852	49.7	95	193	288	1,381,245	20.9
Kaohsiung City	819	1,194	2,013	2,776,565	72.5	596	802	1,398	1,388,231	100.7	223	392	615	1,388,334	44.3
Kinmen County	7	14	21	108,497	19.4	6	10	16	54,847	29.2	1	4	5	53,650	9.3
Lienchiang County	2	1	3	10,708	28.0	2	1	3	6,140	48.9	-	-	-	4,568	-

Table 35 Confirmed tuberculosis cases — by age & sex, 2012

Age	Total						Male						Female					
	Smea- positive	Others	Total	Midyear population	Per 100,000 population	Per 100,000 population	Smea- positive	Others	Total	Midyear population	Per 100,000 population	Per 100,000 population	Smea- positive	Others	Total	Midyear population	Per 100,000 population	
Total	4,739	7,599	12,338	23,270,367	53.0	3,497	5,156	8,653	11,659,497	74.2	1,242	2,443	3,685	11,610,870	31.7			
0-4	1	13	14	970,337	1.4	-	7	7	505,153	1.4	1	6	7	465,184	1.5			
5-9	1	19	20	1,088,330	1.8	1	8	9	569,294	1.6	-	11	11	519,036	2.1			
10-14	8	23	31	1,398,067	2.2	2	12	14	728,887	1.9	6	11	17	669,180	2.5			
15-19	71	165	236	1,613,881	14.6	39	100	139	838,429	16.6	32	65	97	775,452	12.5			
20-24	107	213	320	1,609,790	19.9	54	136	190	836,643	22.7	53	77	130	773,147	16.8			
25-29	100	230	330	1,733,637	19.0	63	117	180	878,797	20.5	37	113	150	854,840	17.5			
30-34	134	275	409	2,031,027	20.1	70	154	224	1,011,832	22.1	64	121	185	1,019,195	18.2			
35-39	180	263	443	1,859,490	23.8	114	144	258	921,493	28.0	66	119	185	937,997	19.7			
40-44	239	290	529	1,839,633	28.8	181	181	362	916,209	39.5	58	109	167	923,424	18.1			
45-49	311	393	704	1,890,345	37.2	243	266	509	943,204	54.0	68	127	195	947,141	20.6			
50-54	402	468	870	1,819,534	47.8	334	316	650	902,857	72.0	68	152	220	916,677	24.0			
55-59	379	564	943	1,622,276	58.1	307	383	690	797,017	86.6	72	181	253	825,259	30.7			
60-64	414	651	1,065	1,229,820	86.6	330	454	784	598,223	131.1	84	197	281	631,597	44.5			
65+	2,392	4,032	6,424	2,564,200	250.5	1,759	2,878	4,637	1,211,459	382.8	633	1,154	1,787	1,352,741	132.1			

Table 36 Confirmed tuberculosis cases—by aboriginal locality / township, 2012

Locality	Township	Smear-positive	Others	Total	Midyear population	Per 100,000 population
Total		178	207	385	199,130	193.3
New Taipei City	Wulai District	1	3	4	5,952	67.2
Taoyuan County	Fusing Township	11	20	31	10,655	290.9
Hsinchu County	Jianshih Township	2	6	8	8,847	90.4
Hsinchu County	Wufong Township	7	3	10	4,571	218.8
Yilan County	Datong Township	5	6	11	5,923	185.7
Yilan County	Nanao Township	5	6	11	5,905	186.3
Miaoli County	Taian Township	6	6	12	5,920	202.7
Taichung City	Heping District	7	2	9	10,620	84.7
Nantou County	Renai Township	29	30	59	15,590	378.4
Nantou County	Sinyi Township	18	15	33	16,930	194.9
Chiayi County	Alishan Township	2	-	2	5,929	33.7
Kaohsiung City	Maolin District	1	-	1	1,836	54.5
Kaohsiung City	Taoyuan District	3	4	7	4,630	151.2
Kaohsiung City	Namasia District	3	1	4	3,211	124.6
Pingtung County	Sandimen Township	6	8	14	7,535	185.8
Pingtung County	Shihzih Township	2	4	6	4,802	124.9
Pingtung County	Majia Township	5	6	11	6,567	167.5
Pingtung County	Laiyi Township	3	8	11	7,669	143.4
Pingtung County	Chunrih Township	6	8	14	4,837	289.4
Pingtung County	Taiwu Township	3	4	7	5,076	137.9
Pingtung County	Mudan Township	4	7	11	4,878	225.5
Pingtung County	Wutai Township	1	1	2	3,036	65.9
Hualien County	Sioulin Township	30	26	56	15,170	369.1
Hualien County	Wanrong Township	7	6	13	6,684	194.5
Hualien County	Jhuosi Township	7	7	14	6,209	225.5
Taitung County	Yanping Township	-	4	4	3,556	112.5
Taitung County	Haiduan Township	1	10	11	4,394	250.3
Taitung County	Jinfong Township	1	3	4	3,519	113.7
Taitung County	Daren Township	2	1	3	3,898	77.0
Taitung County	Lanyu Township	-	2	2	4,781	41.8



IV

Appendix

- © Abbreviations and Symbols Used in Table
- No reported cases.
- ... Not under surveillance.

Appendix 1

List of cases number update

Year	Acute Hapatitis B		Acute Hepatitis E		Hansen's Disease	
	reported	confirmed	reported	confirmed	reported	confirmed
2003	334	327	12	11	9	9
2004	379	378	36	18	9	9

Year	Varicella		HIV Infection		AIDS	
	reported	confirmed	reported	confirmed	reported	confirmed
2003	12,273	-	861	861	230	230
2004	13,219	-	1,520	1,520	258	258

Note : The case numbers marked in red is currently updated.

Appendix 2

Regulations for notifiable disease

Category	Diseases	Reported Within	Mandatory Isolation	Legal Basis*
I	Smallpox, Plague, Severe Acute Respiratory Syndrome, Rabies, Anthrax, Human Infections with Influenza A(H5N1) Virus	24 hours	Isolation care at designated isolation care institution	1、2、6
II	Diphtheria, Typhoid Fever, Dengue Fever / Dengue Haemorrhagic Fever / Dengue Shock Syndrome, Meningococcal Meningitis, Paratyphoid Fever, Poliomyelitis (AFP), Shigellosis, Amoebiasis, Malaria, Measles, Acute Hepatitis A, Enterohaemorrhagic <i>E. coli</i> Infection, Hantavirus Syndrome, Cholera, Rubella, Multidrug-Resistant Tuberculosis, Chikungunya Fever, West Nile Fever, Epidemic Typhus Fever	24 hours	When necessary, patients may be placed in designated isolation care institutions for isolation care.	1、2
III	Pertussis, Tetanus, Neonatal Tetanus, Japanese Encephalitis, Tuberculosis (except MDR-TB), Congenital Rubella Syndrome, Acute Hepatitis B, Acute Hepatitis C, Acute Hepatitis D, Acute Hepatitis E, Acute Hepatitis (unspecified), Mumps, Legionellosis, Invasive Haemophilus Influenzae Type b Infection, Syphilis, Gonorrhea, Enteroviruses Infection with Severe Complications, Hansen's disease	one week	When necessary, patients may be placed in designated isolation care institutions for isolation care.	1、2、4、5
	HIV Infection, AIDS	24 hours		3、5
IV	Herpesvirus B Infection, Leptospirosis, Melioidosis, Botulism, NDM-1 Enterobacteriaceae	24 hours	When necessary, patients may be placed in designated isolation care institutions for isolation care.	1、2、6、7、8、9
	Invasive Pneumococcal Disease, Q Fever, Endemic Typhus Fever, Lyme Disease, Tularemia, Scrub Typhus, Varicella, Cat-Scratch Disease, Toxoplasmosis, Complicated Influenza, Brucellosis	one week		
	Creutzfeldt-Jakob Disease	one month		
V	Rift Valley Fever, Marburg Haemorrhagic Fever, Yellow Fever, Ebola Haemorrhagic Fever, Lassa Fever	24 hours	Isolation care at designated isolation care institution	1、2、10
	Severe Acute Respiratory Infections associated with Novel Coronavirus		When necessary, patients may be placed in designated isolation care institutions for isolation care.	

*Note :

1. "The Communicable Disease Control Act" amended in 77 articles and promulgated on July 18, 2007.
2. "Categories of Communicable Diseases and Prophylaxis of Category IV and V" announced by the Department of Health, the Executive Yuan, on October 9, 2007.
3. "HIV Infection Control and Patient Rights Protection Act" amended in 27 articles and promulgated on July 11, 2007. (original title : AIDS Prevention and Control Act)
4. "Hansen's disease Patients Human Rights Protection and Compensation Act" promulgated on August 13, 2008.
5. "Categories of Communicable Diseases and Prophylaxis of Category IV and V" announced and amended by the Department of Health, the Executive Yuan, on October 24, 2008.
6. "Categories of Communicable Diseases and Prophylaxis of Category IV and V" announced and amended by the Department of Health, the Executive Yuan, on June 19, 2009.
7. "Categories of Communicable Diseases and Prophylaxis of Category IV and V" announced and amended by the Department of Health, the Executive Yuan, on September 9, 2010.
8. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1000100896 dated September 16, 2011, Class 4 Notifiable Communicable Disease "Severe Complicated Influenza" is changed name to "Complicated Influenza."
9. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1010100098 dated February 7, 2012 of the Department of Health, Brucellosis is included in the list of Class 4 Notifiable Communicable Diseases and the reporting deadline, reporting and relevant control measures for the diseases should be handled accordingly.
10. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1010101167 dated October 3, 2012 of the Department of Health, Severe Acute Respiratory Infections associated with Novel Coronavirus is included in the list of Class 5 Notifiable Communicable Diseases.

Appendix 3

Report of cases of communicable and emerging infectious disease, include suspected cases

Please protect patient's privacy

2012/10/3

Hospital	Hospital/Clinic		Code No.														Tel	
	Diagnosed by Physician		Address of Hospital/Clinic															

This form shall be in two copies: one copy is for the Health Bureau.

I. The Patient	Name		Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female	Date of Birth	(Y) (M) (D)	I.D. Number / Passport Number											
	Nationality	<input type="checkbox"/> National <input type="checkbox"/> Other		Tel	Office													
		Residence : <input type="checkbox"/> Alien Labor <input type="checkbox"/> Alien Identity : <input type="checkbox"/> Mainland Chinese <input type="checkbox"/> Alien Bride <input type="checkbox"/> Mainland Bride <input type="checkbox"/> Unknown			Home												Marital Status	<input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separation <input type="checkbox"/> Unknown
Address					Occupation												Animal contact (within 3 months)	<input type="checkbox"/> No <input type="checkbox"/> Yes

II. Medical Record and Date	Medical Record No.		Date of Onset	(Y) (M) (D)	Travel history (within 3 months)			
	Major Symptoms		Date of Diagnosis	(Y) (M) (D)	From : (Y) (M) (D) To : (Y) (M) (D)			
	Hospital Care	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Referred (Date: _____) to _____ Hospital/Clinic	Specimen Collection	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Death	(Y) (M) (D)		
	Date Reported	(Y) (M) (D)	Date Received by Health Bureau	(Y) (M) (D)	Date Received by CDC	(Y) (M) (D)		

*For outbreaks of communicable diseases or important communicable diseases (in red), please notify in advance the local health bureau by telephone or FAX, and then fill in and send this report. Diseases in red must be reported in 24 hours. Diseases in black shall be reported in one week. Diseases in green must be reported in one month. Diseases in blue are non-notifiable diseases, suspected cases must be reported as soon as possible.

III. The Disease	Category I Communicable Diseases <input type="checkbox"/> Smallpox <input type="checkbox"/> Plague <input type="checkbox"/> Severe Acute Respiratory Syndrome <input type="checkbox"/> Rabies <input type="checkbox"/> Anthrax <input type="checkbox"/> H5N1 Influenza Category II Communicable Diseases <input type="checkbox"/> Diphtheria <input type="checkbox"/> Typhoid Fever <input type="checkbox"/> Dengue Fever <input type="checkbox"/> Dengue Hemorrhagic Fever / Dengue Shock Syndrome <input type="checkbox"/> Meningococcal Meningitis <input type="checkbox"/> Paratyphoid Fever <input type="checkbox"/> Poliomyelitis <input type="checkbox"/> Acute Flaccid Paralysis <input type="checkbox"/> Shigellosis <input type="checkbox"/> Amoebiasis <input type="checkbox"/> Malaria <input type="checkbox"/> Measles <input type="checkbox"/> Acute Hepatitis A <input type="checkbox"/> EHEC (Enterohaemorrhagic E. coli) Infection Hantavirus Syndrome <input type="checkbox"/> Hemorrhagic Fever with Renal Syndrome <input type="checkbox"/> Hantavirus Pulmonary Syndrome <input type="checkbox"/> Cholera <input type="checkbox"/> Rubella <input type="checkbox"/> MDR-TB <input type="checkbox"/> Chikungunya Fever <input type="checkbox"/> West Nile Fever <input type="checkbox"/> Epidemic Typhus Fever	Category III Communicable Diseases <input type="checkbox"/> Pertussis <input type="checkbox"/> Tetanus <input type="checkbox"/> Japanese Encephalitis <input type="checkbox"/> Tuberculosis <input type="checkbox"/> Congenital Rubella Syndrome Acute Hepatitis (except Hepatitis A) <input type="checkbox"/> Type B <input type="checkbox"/> Type C <input type="checkbox"/> Type D <input type="checkbox"/> Type E <input type="checkbox"/> Unspecified (070x) <input type="checkbox"/> Mumps <input type="checkbox"/> Legionellosis <input type="checkbox"/> Invasive Haemophilus Influenzae Type b Infection <input type="checkbox"/> Syphilis <input type="checkbox"/> Gonorrhoea <input type="checkbox"/> Neonatal Tetanus <input type="checkbox"/> Enteroviruses Infection with Severe Complications AIDS <input type="checkbox"/> HIV infection <input type="checkbox"/> AIDS Specify risk factors for HIV/AIDS infection : _____ Confirmation Unit of Western Blot : _____ Confirmation Unit of RT-PCR : _____ Confirmation Unit of DNA-PCR : _____ <input type="checkbox"/> Hansen's Disease	Category IV Communicable Diseases <input type="checkbox"/> Herpesvirus B Infection <input type="checkbox"/> Leptospirosis <input type="checkbox"/> Melioidosis <input type="checkbox"/> Botulism <input type="checkbox"/> NDM-1 Enterobacteriaceae <input type="checkbox"/> Invasive Pneumococcal Disease <input type="checkbox"/> Q fever <input type="checkbox"/> Endemic Typhus Fever <input type="checkbox"/> Lyme Disease <input type="checkbox"/> Tularemia <input type="checkbox"/> Scrub Typhus <input type="checkbox"/> Varicella <input type="checkbox"/> Cat-Scratch Disease <input type="checkbox"/> Toxoplasmosis <input type="checkbox"/> Complicated Influenza <input type="checkbox"/> Brucellosis <input type="checkbox"/> Creutzfeldt-Jakob disease Category V Communicable Diseases <input type="checkbox"/> Rift Valley Fever <input type="checkbox"/> Marburg Haemorrhagic Fever <input type="checkbox"/> Yellow Fever <input type="checkbox"/> Ebola Haemorrhagic Fever <input type="checkbox"/> Lassa Fever <input type="checkbox"/> Severe Acute Respiratory Infections associated with Novel Coronavirus <input type="checkbox"/> Others _____
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IV. Remarks	1. Tuberculosis : <input type="checkbox"/> Acid fast stain: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not tested <input type="checkbox"/> Tested but not detected · Date of Testing: _____(y/m/d) <input type="checkbox"/> TB culture: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not tested <input type="checkbox"/> Tested but not detected · Date of Testing: _____(y/m/d) <input type="checkbox"/> PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not tested <input type="checkbox"/> Tested but not detected · Date of Testing: _____(y/m/d) <input type="checkbox"/> Typical tuberculosis pathology report · Date of Testing: _____(y/m/d) · <input type="checkbox"/> pleural effusion <input type="checkbox"/> Chest and other X-ray examination: <input type="checkbox"/> Normal <input type="checkbox"/> No cavity <input type="checkbox"/> With cavity · Date of Examination: _____(y/m/d) ;
	2. Testing result by reported hospital :

For Health Agency

Signed by Person-in-charge		Signed by Section Chief	
----------------------------	--	-------------------------	--

Express Mail

Reply Letter

Floor ___ No ___ Alley ___ Lane ___ Section ___ Road / Street _____
_____ Township / District _____ County / City

To : _____ Health Bureau, Disease Control Section
Floor ___ No ___ Alley ___ Lane ___ Section ___ Road / Street _____
_____ Township / District _____ County / City

Instructions for filling in the report :

- (1) According to Department of Health’s Bulletin No. Shu-Shou-Ji-Zi- 1010101167dated October 3, 2012 of the Department of Health, Severe Acute Respiratory Infections associated with Novel Coronavirus is included in the list of Class 5 Notifiable Communicable Diseases.
- (2) According to Department of Health’s Bulletin No. Shu-Shou-Ji-Zi-1010100098 dated February 7, 2012 of the Department of Health, Brucellosis is included in the list of Class 4 Notifiable Communicable Diseases and the reporting deadline, reporting and relevant control measures for the diseases should be handled accordingly.
- (3) According to Department of Health’s Bulletin No. Shu-Shou-Ji-Zi-1000100896 dated September 16, 2011, Class 4 Notifiable Communicable Disease “Severe Complicated Influenza” is changed name to “Complicated Influenza.”
- (4) According to Department of Health’s Bulletin No. Shu-Shou-Ji-Zi-0990001077 dated September 9, 2010 of the Department of Health, NDM-1 Enterobacteriaceae infection is included in the list of Class 4 Notifiable Communicable Diseases and the reporting deadline, reporting and relevant control measures for the diseases should be handled accordingly.
- (5) According to the announcement of the Department of Health of the Executive Yuan, Shu-So-Ji No. 0980000829 on June 19, 2009, amendment was made to exclude influenza A (H1N1) from Category 1 notifiable communicable diseases. Any influenza A (H1N1) cases with severe complications should be reported in accordance with regulations applicable to Category 4 notifiable communicable diseases, and subject to that category’s corresponding prevention and control measures.
- (6) Leprosy were renamed as Hansen’s Disease and HIV Infection were belong to category 3 of communicable disease Since Nov.1, 2008, announced under Sue-So-Ji No. 0970001187 on October 24, 2008.
- (7) Botulism poisoning, Rabies : On detection of suspected cases, please contact health agencies immediately for anti-toxin, vaccines or immunoglobulin for treatment.
- (8) On detection of acute intestinal tract communicable diseases such as suspected Cholera, Typhoid Fever, dysentery, Pertussis, Meningococcal Meningitis specimens shall be collected for laboratory testing before medication. For specimen collection for cases of other communicable diseases, please refer to the “Manual of Standard Operational Procedures for Specimen Collection for Disease Control” of the Center for Disease Control, or directly contact the local health bureau (station).
- (9) Acute Hepatitis Unspecified- the serological test has been tagged items are negative. The reporting of Acute Hepatitis D,E and Unspecified shall send the specimen to CDC lab. For specimen collection of the rest acute hepatitis, please refer to the “Manual of Standard Operation Procedures for specimen collection of Disease control.
- (10) HIV infection : Cases must be confirmed positive by the Western Blot assay. When reporting, hospitals shall attach laboratory testing report of positive by the Western Blot or indicate agent of confirmation testing. AIDS : Cases must be confirmed positive by the Western Blot assay; cases are considered infected only when they show symptoms of opportunistic infections such as candidiasis or pneumocystis carinii pneumonia (PCP) ;an additional “report of AIDS case” should be filled out.
- (11) This report may be mailed or faxed to the local health agency or internet communications. When necessary, report can be made directly by telephone to the local health agency (report will be filled out by person-in-charge.)
- (12) Website:<https://ida4.cdc.gov.tw/hospital>

For further information, please contact :
_____ Health Bureau, Disease Control Section

Hot Line : _____

appendix 4

2012 calendar for re-defined months

	January								February								March										
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat				
week 1	1	2	3	4	5	6	7	week 5	29	30	31	1	2	3	4						4	5	6	7	8	9	10
week 2	8	9	10	11	12	13	14	week 6	5	6	7	8	9	10	11	week 10	4	5	6	7	8	9	10				
week 3	15	16	17	18	19	20	21	week 7	12	13	14	15	16	17	18	week 11	11	12	13	14	15	16	17				
week 4	22	23	24	25	26	27	28	week 8	19	20	21	22	23	24	25	week 12	18	19	20	21	22	23	24				
	29	30	31					week 9	26	27	28	29	1	2	3	week 13	25	26	27	28	29	30	31				

	April								May								June						
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat
week 14	1	2	3	4	5	6	7	week 18	29	30	1	2	3	4	5							4	5
week 15	8	9	10	11	12	13	14	week 19	6	7	8	9	10	11	12	week 23	3	4	5	6	7	8	9
week 16	15	16	17	18	19	20	21	week 20	13	14	15	16	17	18	19	week 24	10	11	12	13	14	15	16
week 17	22	23	24	25	26	27	28	week 21	20	21	22	23	24	25	26	week 25	17	18	19	20	21	22	23
	29	30						week 22	27	28	29	30	31	1	2	week 26	24	25	26	27	28	29	30

	July								August								September						
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat
week 27	1	2	3	4	5	6	7	week 31	29	30	31	1	2	3	4								4
week 28	8	9	10	11	12	13	14	week 32	5	6	7	8	9	10	11	week 36	2	3	4	5	6	7	8
week 29	15	16	17	18	19	20	21	week 33	12	13	14	15	16	17	18	week 37	9	10	11	12	13	14	15
week 30	22	23	24	25	26	27	28	week 34	19	20	21	22	23	24	25	week 38	16	17	18	19	20	21	22
	29	30	31					week 35	26	27	28	29	30	31	1	week 39	23	24	25	26	27	28	29
																30							

	October								November								December						
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat
week 40	30	1	2	3	4	5	6						4	5	6								4
week 41	7	8	9	10	11	12	13	week 45	4	5	6	7	8	9	10	week 49	2	3	4	5	6	7	8
week 42	14	15	16	17	18	19	20	week 46	11	12	13	14	15	16	17	week 50	9	10	11	12	13	14	15
week 43	21	22	23	24	25	26	27	week 47	18	19	20	21	22	23	24	week 51	16	17	18	19	20	21	22
week 44	28	29	30	31	1	2	3	week 48	25	26	27	28	29	30	1	week 52	23	24	25	26	27	28	29
																30	31						

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List of information providers

Centers for Disease Control, Ministry of Health and Welfare
Lo-Sheng Sanatorium and Hospital, Ministry of Health and Welfare
Center for Disease Control of Taipei City Government Health Department
Public Health Department, New Taipei City Government
Keelung City Health Bureau
Public Health Bureau, Yilan County
Public Health Bureau, Kinmen County
Public Health Bureau, Lienchiang County
Public Health Bureau, Taoyuan County Government
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Unity, professionalism and action are the keys to success
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